Metalworking and Industrial Supplies

NO.18

mhc®
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Cutting Tools 

Carbide Tooling 

Abrasives, Files & Deburring Tools 

Toolholding Workholding 

Measuring Tools & Equipments 

Hand & Power Tools 

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Machinery 

A-Z Product Index 

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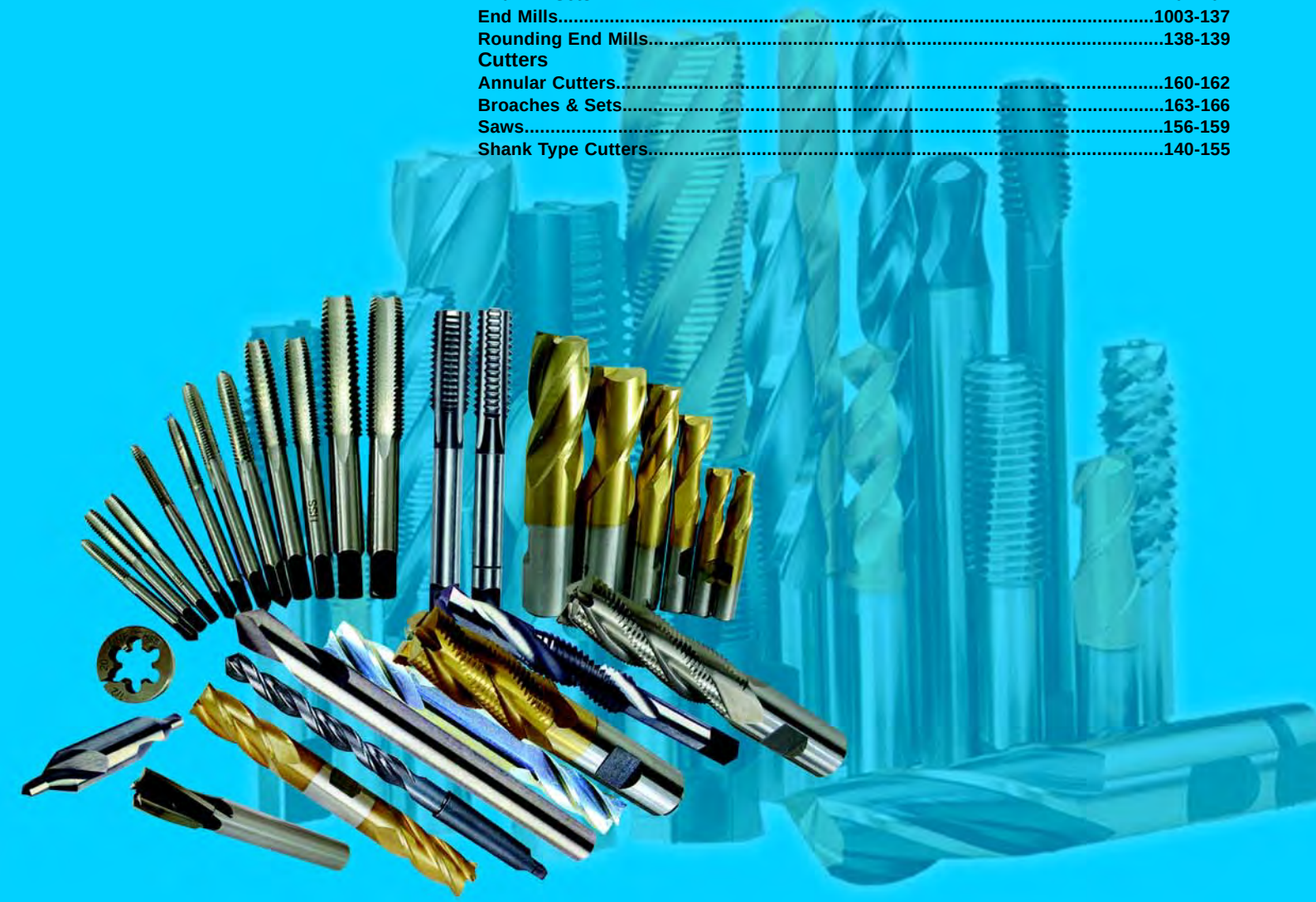
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Jobber Length Drill Sets

套装直柄麻花钻


13 PCS


15 PCS


114 PCS


115PCS

Inch 13 PCS

"*"Metal Box, "**"Plastic Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
*13pcs 1/16-1/4" by 64ths	201-0004	208-0004	206-0004	207-0004
**13pcs 1/16-1/4" by 64ths	201-0003	208-0003	206-0003	207-0003

Inch 15 PCS, Metal Box

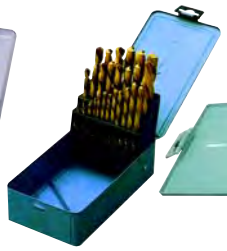
Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
15pcs 1/16-1/2"by 32nds	201-0015	208-0015	206-0015	207-0015

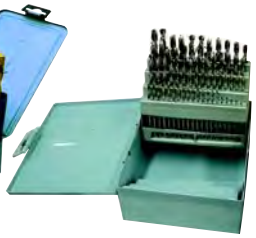
Inch 20 PCS,Plastic Box

Specification	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
20pcs #61-80 HSS	208-0019	206-0019	207-0019


21 PCS


26 PCS


29 PCS


60 PCS

Inch 21 PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
1/16" to 3/8" by 64ths	201-0006	208-0021	206-0006	207-0006

Inch 26 PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
26pcs A-Z	201-0026	208-0026	206-0026	207-0026

Inch 29 PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
29pcs 1/16-1/2" by 64ths	201-0008	208-0008	206-0008	207-0008

Inch 60 PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
60pcs #1-60 HSS	201-0018	208-0018	206-0018	207-0018

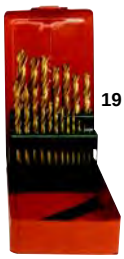
Inch & Metric 114 PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
114pcs 1/16-1/2" by 64ths, #1-60,1-13mm by .5mm	201-0009	208-0009	206-0009	207-0009

Inch 115 PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
115pcs 1/16-1/2" by 64ths A-Z, #1-60	201-0010	208-0010	206-0010	207-0010


13 PCS


19 PCS


25 PCS

Metric 13 PCS

"*"Metal Box, "**"Plastic Box

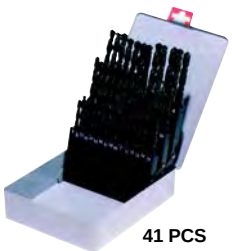
Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
*1.5-6.5mm by .5mm	201-0002	208-0002	206-0002	207-0002
**1.5-6.5mm by .5mm	201-0001	208-0001	206-0001	207-0001

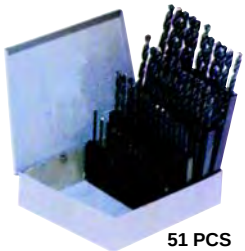
Metric 19PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
1 to 10mm by .5mm	201-0005	208-0005	206-0005	207-0005

Metric 25PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
25pcs 1-13mm by .5mm	201-0007	208-0007	206-0007	207-0007


41 PCS


51 PCS

Metric 41PCS, Metal Box

Specification	Rolled Black Oxide Order No.	Ground Black Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
41pcs 6-10mm by .1mm	201-0016	208-0041	206-0016	207-0016
51pcs 1-6mm by .1mm	201-0017	208-0017	206-0016	207-0017

M35 Jobber Length Drill Sets

135° Split Point, Fully Ground

M35 含钴钻高速钢套钻



Metal Box

Pieces of Drills	Specification	Order No.
13	1/16-1/4'' by 1/64''	209-5004
21	1/16-3/8"x1/64"	209-5006
25	1-13.0x0.5mm	209-5007
26	A-Z	209-5026
29	1/16-1/2" by 1/64"	209-5008
60	1#-60#	209-5018
115	1/16-1/2", A-Z, 1#-60#	209-5010

HSS Screw Machine Drill Sets

135° Split Point, Fully Ground, Right Hand, Black Finished

高速钢套装全磨美标短钻



Metal Box

Pieces of Drills	Specification	Order No.
26	A-Z	208-1026
29	1/16-1/2'' by 1/64''	208-1029
60	#1-60	208-1060
115	A-Z, 1/16-1/2" by1/64", #1-60	208-1010

Left Hand Jobber Length Drill Sets

118° Point, HSS Fully Ground, Bright Finished

高速钢左旋磨制麻花钻



Metal Box

Pieces of Drills	Specification	Order No.
26	A-Z	206-2127
29	1/16-1/2'' by 1/64''	206-2129
60	#1-60	206-2130
115	A-Z, 1/16-1/2" by1/64", #1-60	206-2135

M35 Screw Machine Drill Sets

135° Split Point, Fully Ground, Right Hand, Black Finished

高速钢套装全磨美标短钻



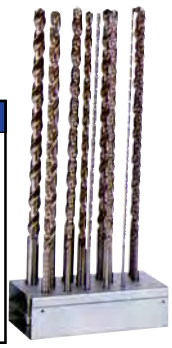
Metal Box

Pieces of Drills	Specification	Order No.
26	A-Z	208-1089
29	1/16-1/2'' by 1/64''	208-1088
60	#1-60	208-1080
115	A-Z, 1/16-1/2" by1/64", #1-60	208-1085

Long Boy Drill Sets

118° Point, High Speed Steel

高速钢美标套装加长钻



Pieces	Specification	Order No.
13	1/8" - 1/2" by 32nds, 8" Length	434-0305
13	1/8" - 1/2" by 32nds, 10" Length	434-0306
13	1/8" - 1/2" by 32nds, 12" Length	434-0307
11	3/16" - 1/2" by 32nds, 18" Length	434-0308
25	1/8-1/2" by 1/64",8" Length	201-8005
25	1/8-1/2" by 1/64,10" Length	201-8010
25	1/8-1/2" by 1/64,12" Length	201-8015

Aircraft Extension Drill Sets

HSS, 118° Point, Right Hand

套装美标超长白钻航空钻



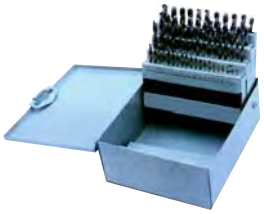
Pieces	Specification	Order No.
13	1/16" to 1/4" by 64ths, 6" length	434-0301
29	1/16 to 1/2" by 64ths, 12"length	434-0302
60	No.1 to 60, 6" length	434-0303
60	No.1 to 60, 12"length	434-0304

Fast Spiral Jobber Drill Sets

118° Point, HSS, Ground, Bright Finished

全磨美标快旋麻花钻白钻

NEW



Metal Box

Pieces	Specification	Order No.
26	26pcs/set letter size blanks A to Z	334-3596
29	29pcs/set blanks 1/16'' to 1/2'' by 64ths	334-3599
60	60pcs/set wire size blanks 1 to 60	334-3590
115	115pcs/set (1/16-1/2" by 1/64ths,A-Z,# 1-#60)	334-3595

Taper Length Drill Sets

High Speed Steel, For Deep Hole Drilling, Complete with Metal Box

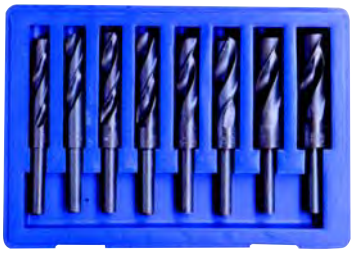
高速钢全磨美标锥长度套钻



Pieces of Drills	Specification	Order No.
16	33/64" to 3/4" by 64ths	310-6916
16	49/64" to 1" by 64ths	310-6917
26	A through Z	310-6926
29	1/16" to 1/2" by 64ths	310-6929
60	No.1 to No. 60	310-6960

Silver & Deming Drill Sets 套装等柄钻头





HSS

Pieces of Drills	Shank	Specification	Wooden Stand Order No.	Plastic Case Order No.
5	1/2”	17/32”, 9/16”, 5/8”, 3/4”, 1”	301-0204	
5	1/2	9/16”,5/8”,3/4”,7/8”, 1”	301-0215	301-0205
6	1/2	1-1/8” to 1-1/2” by 16ths ,exclude 7/16”	301-0206	
8	1/2	9/16-1” by 16ths	301-0218	301-0208
8	1/2	1-1/16 to 1-1/2” by 16ths	301-0288	301-0298
10	1/2	9/16 to 1”by 16ths ,1-1/8”,1-1/4”	301-0210	
12	1/2	9/16 to 1-1/4” by 16ths	301-0212	
13	1/2	17/32 to 1” by 16ths & 32nds	301-0213	
16	1/2	17/32 to 1” by 32nds	301-0216	
17	1/2	17/32 to 1-1/32” by 32nds	301-0217	
32	1/2	33/64 to 1” by 64ths	301-0232	
40	1/2	33/64” to 1” by 64ths & 1-1/16” to 1-1/2” by16ths	301-0240	
5	3/4	1,1-1/8,1-1/4,1-3/8,1-1/2”	301-0225	301-0235
6	3/4	7/8,1,1-1/8,1-1/4,1-3/8,1-1/2”	301-0224	
16	1/4	17/64 to 1/2" by 64ths	301-0096	
8	3/8	25/64 to 1/2" by 64ths	301-0398	

Cobalt

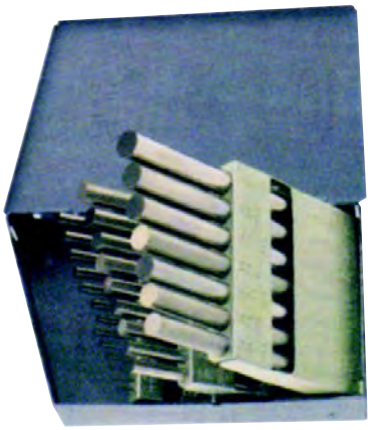
Pieces of Drills	Shank	Specification	Wooden Stand Order No.	Plastic Case Order No.
32	1/2	9/16" to 1" by 164ths.	301-0990	
13	1/2	17/32"-3/4" by 32nds,13/16-1" by16ths,	301-0993	
5	1/2	9/16 - 1" by 8ths	301-0995	
8	1/2	9/16" to 1" by 16ths	301-0998	301-1000
6	1/2	7/8 to 1-1/2" by 8ths		301-1002
16	1/2	9/16 to 1-1/2"by 16th		301-1004

Drill Blank Sets 套装钻胚

High Speed Steel, Ground

Pieces	Specification	Order No.
13	with metal box 1.5-6.5mmx0.5mm,3.2mm,4.8mm	305-8302
19	with metal box,1.0-10.0mmx0.5mm	305-8305
25	with metal box,1.0-13.0mmx0.5mm	305-8307
41	6-10mm by 0.1mm with metal box	305-8341
51	1-6mm by 0.1mm with metal box	305-8351

Pieces	Specification	Order No.
115	(1/16-1/2" by 1/64ths,A-Z,# 1-#60) with metal index	305-8315
20	wire size blanks #61-80	305-8320
26	letter size blanks A to Z	305-8326
29	blanks 1/16'' to 1/2'' by 64ths	305-8329
60	wire size blanks #1 to #60	305-8360



Jobber Length Drills 美标麻花钻

High Speed Steel, 118° Point

- Right hand cutting direction.
- Suited for a wide range of materials.
- Features a standard helix.
- Heavy duty operations in stainless steel, titanium, inconel, and other hard metals.





Fractional Sizes

Size	Flute Length	OAL	Rolled Black Oxide Order No.	Ground Black Oxide Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.	TiCN-Coated Order No.	TiALN-Coated Order No.
1/64”	3/16”	3/4”	234-4001	334-4001	334-3001	334-5001	335-3001	335-4001
1/32	1/2	1-3/8	234-4002	334-4002	334-3002	334-5002	335-3002	335-4002
3/64	3/4	1-3/4	234-4003	334-4003	334-3003	334-5003	335-3003	335-4003
1/16	7/8	1-7/8	234-4004	334-4004	334-3004	334-5004	335-3004	335-4004
5/64	1	2	234-4005	334-4005	334-3005	334-5005	335-3005	335-4005
3/32	1-1/4	2-1/4	234-4006	334-4006	334-3006	334-5006	335-3006	335-4006
7/64	1-1/2	2-5/8	234-4007	334-4007	334-3007	334-5007	335-3007	335-4007
1/8	1-5/8	2-3/4	234-4008	334-4008	334-3008	334-5008	335-3008	335-4008
9/64	1-3/4	2-7/8	234-4009	334-4009	334-3009	334-5009	335-3009	335-4009
5/32	2	3-1/8	234-4010	334-4010	334-3010	334-5010	335-3010	335-4010
11/64	2-1/8	3-1/4	234-4011	334-4011	334-3011	334-5011	335-3011	335-4011
3/16	2-5/16	3-1/2	234-4012	334-4012	334-3012	334-5012	335-3012	335-4012
13/64	2-7/16	3-5/8	234-4013	334-4013	334-3013	334-5013	335-3013	335-4013
7/32	2-1/2	3-3/4	234-4014	334-4014	334-3014	334-5014	335-3014	335-4014
15/64	2-5/8	3-7/8	234-4015	334-4015	334-3015	334-5015	335-3015	335-4015
1/4	2-3/4	4	234-4016	334-4016	334-3016	334-5016	335-3016	335-4016
17/64	2-7/8	4-1/8	234-4017	334-4017	334-3017	334-5017	335-3017	335-4017
9/32	2-15/16	4-1/4	234-4018	334-4018	334-3018	334-5018	335-3018	335-4018
19/64	3-1/16	4-3/8	234-4019	334-4019	334-3019	334-5019	335-3019	335-4019
5/16	3-3/16	4-1/2	234-4020	334-4020	334-3020	334-5020	335-3020	335-4020
21/64	3-5/16	4-5/8	234-4021	334-4021	334-3021	334-5021	335-3021	335-4021
11/32	3-7/16	4-3/4	234-4022	334-4022	334-3022	334-5022	335-3022	335-4022
23/64	3-1/2	4-7/8	234-4023	334-4023	334-3023	334-5023	335-3023	335-4023
3/8	3-5/8	5	234-4024	334-4024	334-3024	334-5024	335-3024	335-4024
25/64	3-3/4	5-1/8	234-4025	334-4025	334-3025	334-5025	335-3025	335-4025
13/32	3-7/8	5-1/4	234-4026	334-4026	334-3026	334-5026	335-3026	335-4026
27/64	3-15/16	5-3/8	234-4027	334-4027	334-3027	334-5027	335-3027	335-4027
7/16	4-1/16	5-1/2	234-4028	334-4028	334-3028	334-5028	335-3028	335-4028
29/64	4-3/16	5-5/8	234-4029	334-4029	334-3029	334-5029	335-3029	335-4029
15/32	4-5/16	5-3/4	234-4030	334-4030	334-3030	334-5030	335-3030	335-4030
31/64	4-3/8	5-7/8	234-4031	334-4031	334-3031	334-5031	335-3031	335-4031
1/2	4-1/2	6	234-4032	334-4032	334-3032	334-5032	335-3032	335-4032
33/64	4-13/16	6-5/8	234-4033	334-4033	334-3033	334-5033	335-3033	335-4033
17/32	4-13/16	6-5/8	234-4034	334-4034	334-3034	334-5034	335-3034	335-4034
35/64	4-13/16	6-5/8	234-4035	334-4035	334-3035	334-5035	335-3035	335-4035
9/16	4-13/16	6-5/8	234-4036	334-4036	334-3036	334-5036	335-3036	335-4036
37/64	4-13/16	6-5/8	234-4037	334-4037	334-3037	334-5037	335-3037	335-4037
19/32	5-3/16	7-1/8	234-4038	334-4038	334-3038	334-5038	335-3038	335-4038
39/64	5-3/16	7-1/8	234-4039	334-4039	334-3039	334-5039	335-3039	335-4039
5/8	5-3/16	7-1/8	234-4040	334-4040	334-3040	334-5040	335-3040	335-4040
41/64	5-3/16	7-1/8	234-4041	334-4041	334-3041	334-5041	335-3041	335-4041
21/32	5-3/16	7-1/8	234-4042	334-4042	334-3042	334-5042	335-3042	335-4042
43/64	5-5/8	7-5/8	234-4043	334-4043	334-3043	334-5043	335-3043	335-4043
11/16	5-5/8	7-5/8	234-4044	334-4044	334-3044	334-5044	335-3044	335-4044
3/4	5-5/8	7-5/8	234-4048	334-4048	334-3048	334-5048	335-3048	335-4048

Letter Sizes

Size	Flute Length	OAL	Rolled Black Oxide Order No.	Ground Black Oxide Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.	TiCN-Coated Order No.	TiALN-Coated Order No.
A	2-5/8"	3-7/8”	234-4201	334-4201	334-3201	334-5201	335-3201	335-4201
B	2-3/4	4	234-4202	334-4202	334-3202	334-5202	335-3202	335-4202
C	2-3/4	4	234-4203	334-4203	334-3203	334-5203	335-3203	335-4203
D	2-3/4	4	234-4204	334-4204	334-3204	334-5204	335-3204	335-4204
E	2-3/4	4	234-4205	334-4205	334-3205	334-5205	335-3205	335-4205
F	2-7/8	4-1/8	234-4206	334-4206	334-3206	334-5206	335-3206	335-4206
G	2-7/8	4-1/8	234-4207	334-4207	334-3207	334-5207	335-3207	335-4207
H	2-7/8	4-1/8	234-4208	334-4208	334-3208	334-5208	335-3208	335-4208
I	2-7/8	4-1/8	234-4209	334-4209	334-3209	334-5209	335-3209	335-4209
J	2-7/8	4-1/8	234-4210	334-4210	334-3210	334-5210	335-3210	335-4210
K	2-15/16	4-1/4	234-4211	334-4211	334-3211	334-5211	335-3211	335-4211
L	2-15/16	4-1/4	234-4212	334-4212	334-3212	334-5212	335-3212	335-4212
M	3-1/16	4-3/8	234-4213	334-4213	334-3213	334-5213	335-3213	335-4213
N	3-1/16	4-3/8	234-4214	334-4214	334-3214	334-5214	335-3214	335-4214
O	3-3/16	4-1/2	234-4215	334-4215	334-3215	334-5215	335-3215	335-4215
P	3-5/16	4-5/8	234-4216	334-4216	334-3216	334-5216	335-3216	335-4216
Q	3-7/16	4-3/4	234-4217	334-4217	334-3217	334-5217	335-3217	335-4217
R	3-7/16	4-3/4	234-4218	334-4218	334-3218	334-5218	335-3218	335-4218
S	3-1/2	4-7/8	234-4219	334-4219	334-3219	334-5219	335-3219	335-4219
T	3-1/2	4-7/8	234-4220	334-4220	334-3220	334-5220	335-3220	335-4220
U	3-5/8	5	234-4221	334-4221	334-3221	334-5221	335-3221	335-4221
V	3-5/8	5	234-4222	334-4222	334-3222	334-5222	335-3222	335-4222
W	3-3/4	5-1/8	234-4223	334-4223	334-3223	334-5223	335-3223	335-4223
X	3-3/4	5-1/8	234-4224	334-4224	334-3224	334-5224	335-3224	335-4224
Y	3-7/8	5-1/4	234-4225	334-4225	334-3225	334-5225	335-3225	335-4225
Z	3-7/8	5-1/4	234-4226	334-4226	334-3226	334-5226	335-3226	335-4226

Jobber Length Drills

美标麻花钻

- Right hand cutting direction.
- Suited for a wide range of materials.
- Features a standard helix.

Number Sizes

High Speed Steel, 118° Point



118° , Ground

- Heavy duty operations in stainless steel, titanium, inconel, and other hard metals.



Size	Flute Length	OAL	Rolled Black Oxide	Black Oxide Order No.	Bright Order No.	TiN-Coated Order No.	TiCN-Coated Order No.	TiALN-Coated Order No.
#1	2-5/8"	3-7/8"	234-4101	334-4101	334-3101	334-5101	335-3101	335-4101
#2	2-5/8	3-7/8	234-4102	334-4102	334-3102	334-5102	335-3102	335-4102
#3	2-1/2	3-3/4	234-4103	334-4103	334-3103	334-5103	335-3103	335-4103
#4	2-1/2	3-3/4	234-4104	334-4104	334-3104	334-5104	335-3104	335-4104
#5	2-1/2	3-3/4	234-4105	334-4105	334-3105	334-5105	335-3105	335-4105
#6	2-1/2	3-3/4	234-4106	334-4106	334-3106	334-5106	335-3106	335-4106
#7	2-7/16	3-5/8	234-4107	334-4107	334-3107	334-5107	335-3107	335-4107
#8	2-7/16	3-5/8	234-4108	334-4108	334-3108	334-5108	335-3108	335-4108
#9	2-7/16	3-5/8	234-4109	334-4109	334-3109	334-5109	335-3109	335-4109
#10	2-7/16	3-5/8	234-4110	334-4110	334-3110	334-5110	335-3110	335-4110
#11	2-5/16	3-1/2	234-4111	334-4111	334-3111	334-5111	335-3111	335-4111
#12	2-5/16	3-1/2	234-4112	334-4112	334-3112	334-5112	335-3112	335-4112
#13	2-5/16	3-1/2	234-4113	334-4113	334-3113	334-5113	335-3113	335-4113
#14	2-3/16	3-3/8	234-4114	334-4114	334-3114	334-5114	335-3114	335-4114
#15	2-3/16	3-3/8	234-4115	334-4115	334-3115	334-5115	335-3115	335-4115
#16	2-3/16	3-3/8	234-4116	334-4116	334-3116	334-5116	335-3116	335-4116
#17	2-3/16	3-3/8	234-4117	334-4117	334-3117	334-5117	335-3117	335-4117
#18	2-1/8	3-1/4	234-4118	334-4118	334-3118	334-5118	335-3118	335-4118
#19	2-1/8	3-1/4	234-4119	334-4119	334-3119	334-5119	335-3119	335-4119
#20	2-1/8	3-1/4	234-4120	334-4120	334-3120	334-5120	335-3120	335-4120
#21	2-1/8	3-1/4	234-4121	334-4121	334-3121	334-5121	335-3121	335-4120
#22	2	3-1/8	234-4122	334-4122	334-3122	334-5122	335-3122	335-4122
#23	2	3-1/8	234-4123	334-4123	334-3123	334-5123	335-3123	335-4123
#24	2	3-1/8	234-4124	334-4124	334-3124	334-5124	335-3124	335-4124
#25	1-7/8	3	234-4125	334-4125	334-3125	334-5125	335-3125	335-4125
#26	1-7/8	3	234-4126	334-4126	334-3126	334-5126	335-3126	335-4126
#27	1-7/8	3	234-4127	334-4127	334-3127	334-5127	335-3127	335-4127
#28	1-3/4	2-7/8	234-4128	334-4128	334-3128	334-5128	335-3128	335-4128
#29	1-3/4	2-7/8	234-4129	334-4129	334-3129	334-5129	335-3129	335-4129
#30	1-5/8	2-3/4	234-4130	334-4130	334-3130	334-5130	335-3130	335-4130
#31	1-5/8	2-3/4	234-4131	334-4131	334-3131	334-5131	335-3131	335-4131
#32	1-5/8	2-3/4	234-4132	334-4132	334-3132	334-5132	335-3132	335-4132
#33	1-1/2	2-5/8	234-4133	334-4133	334-3133	334-5133	335-3133	335-4133
#34	1-1/2	2-5/8	234-4134	334-4134	334-3134	334-5134	335-3134	335-4134
#35	1-1/2	2-5/8	234-4135	334-4135	334-3135	334-5135	335-3135	335-4135
#36	1-7/16	2-1/2	234-4136	334-4136	334-3136	334-5136	335-3136	335-4136
#37	1-7/16	2-1/2	234-4137	334-4137	334-3137	334-5137	335-3137	335-4137
#38	1-7/16	2-1/2	234-4138	334-4138	334-3138	334-5138	335-3138	335-4138
#39	1-3/8	2-3/8	234-4139	334-4139	334-3139	334-5139	335-3139	335-4139
#40	1-3/8	2-3/8	234-4140	334-4140	334-3140	334-5140	335-3140	335-4140
#41	1-3/8	2-3/8	234-4141	334-4141	334-3141	334-5141	335-3141	335-4141
#42	1-1/4	2-1/4	234-4142	334-4142	334-3142	334-5142	335-3142	335-4142
#43	1-1/4	2-1/4	234-4143	334-4143	334-3143	334-5143	335-3143	335-4143
#44	1-1/8	2-1/8	234-4144	334-4144	334-3144	334-5144	335-3144	335-4144
#45	1-1/8	2-1/8	234-4145	334-4145	334-3145	334-5145	335-3145	335-4145
#46	1-1/8	2-1/8	234-4146	334-4146	334-3146	334-5146	335-3146	335-4146
#47	1	2	234-4147	334-4147	334-3147	334-5147	335-3147	335-4147
#48	1	2	234-4148	334-4148	334-3148	334-5148	335-3147	335-4148
#49	1	2	234-4149	334-4149	334-3149	334-5149	335-3149	335-4149
#50	1	2	234-4150	334-4150	334-3150	334-5150	335-3150	335-4150
#51	1	2	234-4151	334-4151	334-3151	334-5151	335-3151	335-4151
#52	7/8	1-7/8	234-4152	334-4152	334-3152	334-5152	335-3152	335-4152
#53	7/8	1-7/8	234-4153	334-4153	334-3153	334-5153	335-3153	335-4153
#54	7/8	1-7/8	234-4154	334-4154	334-3154	334-5154	335-3154	335-4154
#55	7/8	1-7/8	234-4155	334-4155	334-3155	334-5155	335-3155	335-4155
#56	3/4	1-3/4	234-4156	334-4156	334-3156	334-5156	335-3156	331-4156
#57	3/4	1-3/4	234-4157	334-4157	334-3157	334-5157	335-3157	331-4157
#58	11/16	1-5/8	234-4158	334-4158	334-3158	334-5158	335-3158	331-4158
#59	11/16	1-5/8	234-4159	334-4159	334-3159	334-5159	335-3159	331-4159
#60	11/16	1-5/8	234-4160	334-4160	334-3160	334-5160	335-3160	331-4160
#61	11/16	1-5/8	234-4161	334-4161	334-3161	334-5161	335-3161	335-4161
#62	5/8	1-1/2	234-4162	334-4162	334-3162	334-5162	335-3162	335-4162
#63	5/8	1-1/2	234-4163	334-4163	334-3163	334-5163	335-3163	335-4163
#64	5/8	1-1/2	234-4164	334-4164	334-3164	334-5164	335-3164	335-4164
#65	5/8	1-1/2	234-4165	334-4165	334-3165	334-5165	335-3165	335-4165
#66	1/2	1-3/8	234-4166	334-4166	334-3166	334-5166	335-3166	335-4166
#67	1/2	1-3/8	234-4167	334-4167	334-3167	334-5167	335-3167	335-4167
#68	1/2	1-3/8	234-4168	334-4168	334-3168	334-5168	335-3168	335-4168
#69	1/2	1-3/8	234-4169	334-4169	334-3169	334-5169	335-3169	335-4169
#70	3/8	1-1/4	234-4170	334-4170	334-3170	334-5170	335-3170	335-4170
#71	3/8	1-1/4	234-4171	334-4171	334-3171	334-5171	335-3171	335-4171
#72	5/16	1-1/8	234-4172	334-4172	334-3172	334-5172	335-3172	335-4172
#73	5/16	1-1/8	234-4173	334-4173	334-3173	334-5173	335-3173	335-4173
#74	1/4	1-1/8	234-4174	334-4174	334-3174	334-5174	335-3174	335-4174
#75	1/4	1-1/8	234-4175	334-4175	334-3175	334-5175	335-3175	335-4175
#76	3/16	7/8	234-4176	334-4176	334-3176	334-5176	335-3176	335-4176
#77	3/16	7/8	234-4177	334-4177	334-3177	334-5177	335-3177	335-4177
#78	3/16	7/8	234-4178	334-4178	334-3178	334-5178	335-3178	335-4178
#79	1/8	3/4	234-4179	334-4179	334-3179	334-5179	335-3179	335-4179
#80	1/8	3/4	234-4180	334-4180	334-3180	334-5180	335-3180	335-4180

Split Point Jobber Length Drills

135° Split Point, Fully Ground

双后角美标麻花钻



- Right hand cutting direction.
- 135° Split point is self-centering and reduces thrust.
- Heavy duty operations in stainless steel, titanium, inconel, and other hard metals.

Fractional Sizes

Size	Flute Length	OAL	HSS Black Oxide Order No.	HSS TiN-Coated Order No.	M35 Cobalt Order No.
1/64"	3/16"	3/4"	134-2001	134-1001	330-4001
1/32	1/2	1-3/8	134-2002	134-1002	330-4002
3/64	3/4	1-3/4	134-2003	134-1003	330-4003
1/16	7/8	1-7/8	134-2004	134-1004	330-4004
5/64	1	2	134-2005	134-1005	330-4005
3/32	1-1/4	2-1/4	134-2006	134-1006	330-4006
7/64	1-1/2	2-5/8	134-2007	134-1007	330-4007
1/8	1-5/8	2-3/4	134-2008	134-1008	330-4008
9/64	1-3/4	2-7/8	134-2009	134-1009	330-4009
5/32	2	3-1/8	134-2010	134-1010	330-4010
11/64	2-1/8	3-1/4	134-2011	134-1011	330-4011
3/16	2-5/16	3-1/2	134-2012	134-1012	330-4012
13/64	2-7/16	3-5/8	134-2013	134-1013	330-4013
7/32	2-1/2	3-3/4	134-2014	134-1014	330-4014
15/64	2-5/8	3-7/8	134-2015	134-1015	330-4015
1/4	2-3/4	4	134-2016	134-1016	330-4016
17/64	2-7/8	4-1/8	134-2017	134-1017	330-4017
9/32	2-15/16	4-1/4	134-2018	134-1018	330-4018
19/64	3-1/16	4-3/8	134-2019	134-1019	330-4019
5/16	3-3/16	4-1/2	134-2020	134-1020	330-4020
21/64	3-5/16	4-5/8	134-2021	134-1021	330-4021
11/32	3-7/16	4-3/4	134-2022	134-1022	330-4022
23/64	3-1/2	4-7/8	134-2023	134-1023	330-4023
3/8	3-5/8	5	134-2024	134-1024	330-4024
25/64	3-3/4	5-1/8	134-2025	134-1025	330-4025
13/32	3-7/8	5-1/4	134-2026	134-1026	330-4026
27/64	3-15/16	5-3/8	134-2027	134-1027	330-4027
7/16	4-1/16	5-1/2	134-2028	134-1028	330-4028
29/64	4-3/16	5-5/8	134-2029	134-1029	330-4029
15/32	4-5/16	5-3/4	134-2030	134-1030	330-4030
31/64	4-3/8	5-7/8	134-2031	134-1031	330-4031
1/2	4-1/2	6	134-2032	134-1032	330-4032
33/64	4-13/16	6-5/8	134-2033	134-1033	330-4033
17/32	4-13/16	6-5/8	134-2034	134-1034	330-4034
35/64	4-13/16	6-5/8	134-2035	134-1035	330-4035
9/16	4-13/16	6-5/8	134-2036	134-1036	330-4036
37/64	4-13/16	6-5/8	134-2037	134-1037	330-4037
19/32	5-3/16	7-1/8	134-2038	134-1038	330-4038
39/64	5-3/16	7-1/8	134-2039	134-1039	330-4039
5/8	5-3/16	7-1/8	134-2040	134-1040	330-4040
41/64	5-3/16	7-1/8	134-2041	134-1041	330-4041
21/32	5-3/16	7-1/8	134-2042	134-1042	330-4042
43/64	5-5/8	7-5/8	134-2043	134-1043	330-4043
11/16	5-5/8	7-5/8	134-2044	134-1044	330-4044
3/4	5-5/8	7-5/8	134-2048	134-1048	330-4048

Letter Sizes

Size	Flute Length	OAL	HSS Black Oxide Order No.	HSS TiN-Coated Order No.	M35 Cobalt Order No.
A	2-5/8"	3-7/8"	134-2201	134-1201	330-4201
B	2-3/4	4	134-2202	134-1202	330-4202
C	2-3/4	4	134-2203	134-1203	330-4203
D	2-3/4	4	134-2204	134-1204	330-4204
E	2-3/4	4	134-2205	134-1205	330-4205
F	2-7/8	4-1/8	134-2206	134-1206	330-4206
G	2-7/8	4-1/8	134-2207	134-1207	330-4207
H	2-7/8	4-1/8	134-2208	134-1208	330-4208
I	2-7/8	4-1/8	134-2209	134-1209	330-4209
J	2-7/8	4-1/8	134-2210	134-1210	330-4210
K	2-15/16	4-1/4	134-2211	134-1211	330-4211
L	2-15/16	4-1/4	134-2212	134-1212	330-4212
M	3-1/16	4-3/8	134-2213	134-1213	330-4213
N	3-1/16	4-3/8	134-2214	134-1214	330-4214
O	3-3/16	4-1/2	134-2215	134-1215	330-4215
P	3-3/16	4-5/8	134-2216	134-1216	330-4216
Q	3-7/16	4-3/4	134-2217	134-1217	330-4217
R	3-7/16	4-3/4	134-2218	134-1218	330-4218
S	3-1/2	4-7/8	134-2219	134-1219	330-4219
T	3-1/2	4-7/8	134-2220	134-1220	330-4220
U	3-5/8	5	134-2221	134-1221	330-4221
V	3-5/8	5	134-2222	134-1222	330-4222
W	3-3/4	5-1/8	134-2223	134-1223	330-4223
X	3-3/4	5-1/8	134-2224	134-1224	330-4224
Y	3-7/8	5-1/4	134-2225	134-1225	330-4225
Z	3-7/8	5-1/4	134-2226	134-1226	330-4226

Number Sizes

Size	Flute Length	OAL	HSS Black Oxide Order No.	HSS TiN-Coated Order No.	M35 Cobalt Order No.
#1	2-5/8"	3-7/8"	134-2101	134-1101	330-4101
#2	2-5/8	3-7/8	134-2102	134-1102	330-4102
#3	2-1/2	3-3/4	134-2103	134-1103	330-4103
#4	2-1/2	3-3/4	134-2104	134-1104	330-4104
#5	2-1/2	3-3/4	134-2105	134-1105	330-4105
#6	2-1/2	3-3/4	134-2106	134-1106	330-4106
#7	2-7/16	3-5/8	134-2107	134-1107	330-4107
#8	2-7/16	3-5/8	134-2108	134-1108	330-4108
#9	2-7/16	3-5/8	134-2109	134-1109	330-4109
#10	2-7/16	3-5/8	134-2110	134-1110	330-4110
#11	2-5/16	3-1/2	134-2111	134-1111	330-4111
#12	2-5/16	3-1/2	134-2112	134-1112	330-4112
#13	2-5/16	3-1/2	134-2113	134-1113	330-4113
#14	2-3/16	3-3/8	134-2114	134-1114	330-4114
#15	2-3/16	3-3/8	134-2115	134-1115	330-4115
#16	2-3/16	3-3/8	134-2116	134-1116	330-4116
#17	2-3/16	3-3/8	134-2117	134-1117	330-4117
#18	2-1/8	3-1/4	134-2118	134-1118	330-4118
#19	2-1/8	3-1/4	134-2119	134-1119	330-4119
#20	2-1/8	3-1/4	134-2120	134-1120	330-4120
#21	2-1/8	3-1/4	134-2121	134-1121	330-4121
#22	2	3-1/8	134-2122	134-1122	330-4122
#23	2	3-1/8	134-2123	134-1123	330-4123
#24	2	3-1/8	134-2124	134-1124	330-4124
#25	1-7/8	3	134-2125	134-1125	330-4125
#26	1-7/8	3	134-2126	134-1126	330-4126
#27	1-7/8	3	134-2127	134-1127	330-4127
#28	1-3/4	2-7/8	134-2128	134-1128	330-4128
#29	1-3/4	2-7/8	134-2129	134-1129	330-4129
#30	1-5/8	2-3/4	134-2130	134-1130	330-4130
#31	1-5/8	2-3/4	134-2131	134-1131	330-4131
#32	1-5/8	2-3/4	134-2132	134-1132	330-4132
#33	1-1/2	2-5/8	134-2133	134-1133	330-4133
#34	1-1/2	2-5/8	134-2134	134-1134	330-4134
#35	1-1/2	2-5/8	134-2135	134-1135	330-4135
#36	1-7/16	2-1/2	134-2136	134-1136	330-4136
#37	1-7/16	2-1/2	134-2137	134-1137	330-4137
#38	1-7/16	2-1/2	134-2138	134-1138	330-4138
#39	1-3/8	2-3/8	134-2139	134-1139	330-4139
#40	1-3/8	2-3/8	134-2140	134-1140	330-4140
#41	1-3/8	2-3/8	134-2141	134-1141	330-4141
#42	1-1/4	2-1/4	134-2142	134-1142	330-4142
#43	1-1/4	2-1/4	134-2143	134-1143	330-4143
#44	1-1/8	2-1/8	134-2144	134-1144	330-4144
#45	1-1/8	2-1/8	134-2145	134-1145	330-4145
#46	1-1/8	2-1/8	134-2146	134-1146	330-4146
#47	1	2	134-2147	134-1147	330-4147
#48	1	2	134-2148	134-1148	330-4148
#49	1	2	134-2149	134-1149	330-4149
#50	1	2	134-2150	134-1150	330-4150
#51	1	2	134-2151	134-1151	330-4151
#52	7/8	1-7/8	134-2152	134-1152	330-4152
#53	7/8	1-7/8	134-2153	134-1153	330-4153
#54	7/8	1-7/8	134-2154	134-1154	330-4154
#55	7/8	1-7/8	134-2155	134-1155	330-4155
#56	3/4	1-3/4	134-2156	134-1156	330-4156
#57	3/4	1-3/4	134-2157	134-1157	330-4157
#58	11/16	1-5/8	134-2158	134-1158	330-4158
#59	11/16	1-5/8	134-2159	134-1159	330-4159
#60	11/16	1-5/8	134-2160	134-1160	330-4160
#61	11/16	1-5/8	134-2161	134-1161	330-4161
#62	5/8	1-1/2	134-2162	134-1162	330-4162
#63	5/8	1-1/2	134-2163	134-1163	330-4163
#64	5/8	1-1/2	134-2164	134-1164	330-4164
#65	5/8	1-1/2	134-2165	134-1165	330-4165
#66	1/2	1-3/8	134-2166	134-1166	330-4166
#67	1/2	1-3/8	134-2167	134-1167	330-4167
#68	1/2	1-3/8	134-2168	134-1168	330-4168
#69	1/2	1-3/8	134-2169	134-1169	330-4169
#70	3/8	1-1/4	134-2170	134-1170	330-4170
#71	3/8	1-1/4	134-2171	134-1171	330-4171
#72	5/16	1-1/8	134-2172	134-1172	330-4172
#73	5/16	1-1/8	134-2173	134-1173	330-4173
#74	1/4	1-1/8	134-2174	134-1174	330-4174
#75	1/4	1-1/8	134-2175	134-1175	330-4175
#76	3/16	7/8	134-2176	134-1176	330-4176
#77	3/16	7/8	134-2177	134-1177	330-4177
#78	3/16	7/8	134-2178	134-1178	330-4178
#79	1/8	3/4	134-2179	134-1179	330-4179
#80	1/8	3/4	134-2180	134-1180	330-4180

Special Jobber Length Drills

全磨美标快旋 / 慢旋麻花钻 / 左旋麻花钻

Fast Spiral HSS Ground, 118° Point, Bright Finish, Helix angle 35°- 40°

Slow Spiral HSS Ground, 118° Point, Bright Finish, Helix angle 10°-12°

Left Hand Ground,118° Point, Bright Finish, Standard Helix angle



Fast Spiral

Slow Spiral

Left Hand

Letter Sizes

Size	Flute Length	OAL	Fast Order No.	Slow Order No.	Left Hand Order No.
A	2-5/8"	3-7/8"	334-3701	334-4701	234-9601
B	2-3/4	4	334-3702	334-4702	234-9602
C	2-3/4	4	334-3703	334-4703	234-9603
D	2-3/4	4	334-3704	334-4704	234-9604
E	2-3/4	4	334-3705	334-4705	234-9605
F	2-7/8	4-1/8	334-3706	334-4706	234-9606
G	2-7/8	4-1/8	334-3707	334-4707	234-9607
H	2-7/8	4-1/8	334-3708	334-4708	234-9608
I	2-7/8	4-1/8	334-3709	334-4709	234-9609
J	2-7/8	4-1/8	334-3710	334-4710	234-9610
K	2-15/16	4-1/4	334-3711	334-4711	234-9611
L	2-15/16	4-1/4	334-3712	334-4712	234-9612
M	3-1/16	4-3/8	334-3713	334-4713	234-9613
N	3-1/16	4-3/8	334-3714	334-4714	234-9614
O	3-3/16	4-1/2	334-3715	334-4715	234-9615
P	3-5/16	4-5/8	334-3716	334-4716	234-9616
Q	3-7/16	4-3/4	334-3717	334-4717	234-9617
R	3-7/16	4-3/4	334-3718	334-4718	234-9618
S	3-1/2	4-7/8	334-3719	334-4719	234-9619
T	3-1/2	4-7/8	334-3720	334-4720	234-9620
U	3-5/8	5	334-3721	334-4721	234-9621
V	3-5/8	5	334-3722	334-4722	234-9622
W	3-3/4	5-1/8	334-3723	334-4723	234-9623
X	3-3/4	5-1/8	334-3724	334-4724	234-9624
Y	3-7/8	5-1/4	334-3725	334-4725	234-9625
Z	3-7/8	5-1/4	334-3726	334-4726	234-9626

Fractional Sizes

Size	Flute Length	OAL	Fast Order No.	Slow Order No.	Left Hand Order No.
1/64"	3/16"	3/4"	334-3501	334-4501	234-9301
1/32	1/2	1-3/8	334-3502	334-4502	234-9302
3/64	3/4	1-3/4	334-3503	334-4503	234-9303
1/16	7/8	1-7/8	334-3504	334-4504	234-9304
5/64	1	2	334-3505	334-4505	234-9305
3/32	1-1/4	2-1/4	334-3506	334-4506	234-9306
7/64	1-1/2	2-5/8	334-3507	334-4507	234-9307
1/8	1-5/8	2-3/4	334-3508	334-4508	234-9308
9/64	1-3/4	2-7/8	334-3509	334-4509	234-9309
5/32	2	3-1/8	334-3510	334-4510	234-9310
11/64	2-1/8	3-1/4	334-3511	334-4511	234-9311
3/16	2-5/16	3-1/2	334-3512	334-4512	234-9312
13/64	2-7/16	3-5/8	334-3513	334-4513	234-9313
7/32	2-1/2	3-3/4	334-3514	334-4514	234-9314
15/64	2-5/8	3-7/8	334-3515	334-4515	234-9315
1/4	2-3/4	4	334-3516	334-4516	234-9316
17/64	2-7/8	4-1/8	334-3517	334-4517	234-9317
9/32	2-15/16	4-1/4	334-3518	334-4518	234-9318
19/64	3-1/16	4-3/8	334-3519	334-4519	234-9319
5/16	3-3/16	4-1/2	334-3520	334-4520	234-9320
21/64	3-5/16	4-5/8	334-3521	334-4521	234-9321
11/32	3-7/16	4-3/4	334-3522	334-4522	234-9322
23/64	3-1/2	4-7/8	334-3523	334-4523	234-9323
3/8	3-5/8	5	334-3524	334-4524	234-9324
25/64	3-3/4	5-1/8	334-3525	334-4525	234-9325
13/32	3-7/8	5-1/4	334-3526	334-4526	234-9326
27/64	3-15/16	5-3/8	334-3527	334-4527	234-9327
7/16	4-1/16	5-1/2	334-3528	334-4528	234-9328
29/64	4-3/16	5-5/8	334-3529	334-4529	234-9329
15/32	4-5/16	5-3/4	334-3530	334-4530	234-9330
31/64	4-3/8	5-7/8	334-3531	334-4531	234-9331
1/2	4-1/2	6	334-3532	334-4532	234-9332
33/64	4-13/16	6-5/8	334-3533	334-4533	234-9333
17/32	4-13/16	6-5/8	334-3534	334-4534	234-9334
35/64	4-13/16	6-5/8	334-3535	334-4535	234-9335
9/16	4-13/16	6-5/8	334-3536	334-4536	234-9336
37/64	4-13/16	6-5/8	334-3537	334-4537	234-9337
19/32	5-3/16	7-1/8	334-3538	334-4538	234-9338
39/64	5-3/16	7-1/8	334-3539	334-4539	234-9339
5/8	5-3/16	7-1/8	334-3540	334-4540	234-9340
41/64	5-3/16	7-1/8	334-3541	334-4541	234-9341
21/32	5-3/16	7-1/8	334-3542	334-4542	234-9342
43/64	5-5/8	7-5/8	334-3543	334-4543	234-9343
11/16	5-5/8	7-5/8	334-3544	334-4544	234-9344
3/4	5-5/8	7-5/8	334-3548	334-4548	234-9348

Number Sizes

Size	Flute Length	OAL	Fast Order No.	Slow Order No.	Left Hand Order No.
#1	2-5/8"	3-7/8"	334-3601	334-4601	234-9501
#2	2-5/8	3-7/8	334-3602	334-4602	234-9502
#3	2-1/2	3-3/4	334-3603	334-4603	234-9503
#4	2-1/2	3-3/4	334-3604	334-4604	234-9504
#5	2-1/2	3-3/4	334-3605	334-4605	234-9505
#6	2-1/2	3-3/4	334-3606	334-4606	234-9506
#7	2-7/16	3-5/8	334-3607	334-4607	234-9507
#8	2-7/16	3-5/8	334-3608	334-4608	234-9508
#9	2-7/16	3-5/8	334-3609	334-4609	234-9509
#10	2-7/16	3-5/8	334-3610	334-4610	234-9510
#11	2-5/16	3-1/2	334-3611	334-4611	234-9511
#12	2-5/16	3-1/2	334-3612	334-4612	234-9512
#13	2-5/16	3-1/2	334-3613	334-4613	234-9513
#14	2-3/16	3-3/8	334-3614	334-4614	234-9514
#15	2-3/16	3-3/8	334-3615	334-4615	234-9515
#16	2-3/16	3-3/8	334-3616	334-4616	234-9516
#17	2-3/16	3-3/8	334-3617	334-4617	234-9517
#18	2-1/8	3-1/4	334-3618	334-4618	234-9518
#9	2-1/8	3-1/4	334-3619	334-4619	234-9519
#20	2-1/8	3-1/4	334-3620	334-4620	234-9520
#21	2-1/8	3-1/4	334-3621	334-4621	234-9521
#22	2	3-1/8	334-3622	334-4622	234-9522
#23	2	3-1/8	334-3623	334-4623	234-9523
#24	2	3-1/8	334-3624	334-4624	234-9524
#25	1-7/8	3	334-3625	334-4625	234-9525
#26	1-7/8	3	334-3626	334-4626	234-9526
#27	1-7/8	3	334-3627	334-4627	234-9527
#28	1-3/4	2-7/8	334-3628	334-4628	234-9528
#29	1-3/4	2-7/8	334-3629	334-4629	234-9529
#30	1-5/8	2-3/4	334-3630	334-4630	234-9530
#31	1-5/8	2-3/4	334-3631	334-4631	234-9531
#32	1-5/8	2-3/4	334-3632	334-4632	234-9532
#33	1-1/2	2-5/8	334-3633	334-4633	234-9533
#34	1-1/2	2-5/8	334-3634	334-4634	234-9534
#35	1-1/2	2-5/8	334-3635	334-4635	234-9535
#36	1-7/16	2-1/2	334-3636	334-4636	234-9536
#37	1-7/16	2-1/2	334-3637	334-4637	234-9537
#38	1-7/16	2-1/2	334-3638	334-4638	234-9538
#39	1-3/8	2-3/8	334-3639	334-4639	234-9539
#40	1-3/8	2-3/8	334-3640	334-4640	234-9540
#41	1-3/8	2-3/8	334-3641	334-4641	234-9541
#42	1-1/4	2-1/4	334-3642	334-4642	234-9542
#43	1-1/4	2-1/4	334-3643	334-4643	234-9543
#44	1-1/8	2-1/8	334-3644	334-4644	234-9544
#45	1-1/8	2-1/8	334-3645	334-4645	234-9545
#46	1-1/8	2-1/8	334-3646	334-4646	234-9546
#47	1	2	334-3647	334-4647	234-9547
#48	1	2	334-3648	334-4648	234-9548
#49	1	2	334-3649	334-4649	234-9549
#50	1	2	334-3650	334-4650	234-9550
#51	1	2	334-3651	334-4651	234-9551
#52	7/8	1-7/8	334-3652	334-4652	234-9552
#53	7/8	1-7/8	334-3653	334-4653	234-9553
#54	7/8	1-7/8	334-3654	334-4654	234-9554
#55	7/8	1-7/8	334-3655	334-4655	234-9555
#56	3/4	1-3/4	334-3656	334-4656	234-9556
#57	3/4	1-3/4	334-3657	334-4657	234-9557
#58	11/16	1-5/8	334-3658	334-4658	234-9558
#59	11/16	1-5/8	334-3659	334-4659	234-9559
#60	11/16	1-5/8	334-3660	334-4660	234-9560
#61	11/16	1-5/8	334-3661	334-4661	234-9561
#62	5/8	1-1/2	334-3662	334-4662	234-9562
#63	5/8	1-1/2	334-3663	334-4663	234-9563
#64	5/8	1-1/2	334-3664	334-4664	234-9564
#65	5/8	1-1/2	334-3665	334-4665	234-9565
#66	1/2	1-3/8	334-3666	334-4666	234-9566
#67	1/2	1-3/8	334-3667	334-4667	234-9567
#68	1/2	1-3/8	334-3668	334-4668	234-9568
#69	1/2	1-3/8	334-3669	334-4669	234-9569
#70	3/8	1-1/4	334-3670	334-4670	234-9570
#71	3/8	1-1/4	334-3671	334-4671	234-9571
#72	5/16	1-1/8	334-3672	334-4672	234-9572
#73	5/16	1-1/8	334-3673	334-4673	234-9573
#74	1/4	1	334-3674	334-4674	234-9574
#75	1/4	1	334-3675	334-4675	234-9575
#76	3/16	7/8	334-3676	334-4676	234-9576
#77	3/16	7/8	334-3677	334-4677	234-9577
#78	3/16	7/8	334-3678	334-4678	234-9578
#79	1/8	3/4	334-3679	334-4679	234-9579
#80	1/8	3/4	334-3680	334-4680	234-9580

Screw Machine Drills 磨制美标短型麻花钻



Ground, 135° Split Point, Right Hand

- Primarily for use in screw machines.
- Ideal medium duty portable or machine drilling of low tensile strength materials.
- 135 deg split point drills are self-centering and reduce “walking” at the drill point.
- Heavy-duty-short length provides increased rigidity.

Fractional Sizes

Size	Flute Length	OAL	HSS Black Oxide Order No.	M35 Cobalt Ground Order No.
3/64	1/2”	1-3/8	334-1003	330-1003
1/16	5/8	1-5/8	334-1004	330-1004
5/64	11/16	1-11/16	334-1005	330-1005
3/32	3/4	1-3/4	334-1006	330-1006
7/64	13/16	1-13/16	334-1007	330-1007
1/8	7/8	1-7/8	334-1008	330-1008
9/64	15/16	1-15/16	334-1009	330-1009
5/32	1	2-1/16	334-1010	330-1010
11/64	1-1/16	2-1/8	334-1011	330-1011
3/16	1-1/8	2-3/16	334-1012	330-1012
13/64	1-3/16	2-1/4	334-1013	330-1013
7/32	1-1/4	2-3/8	334-1014	330-1014
15/64	1-5/16	2-7/16	334-1015	330-1015
1/4	1-3/8	2-1/2	334-1016	330-1016
17/64	1-7/16	2-5/8	334-1017	330-1017
9/32	1-1/2	2-11/16	334-1018	330-1018
19/64	1-9/16	2-3/4	334-1019	330-1019
5/16	1-5/8	2-13/16	334-1020	330-1020
21/64	1-11/16	2-15/16	334-1021	330-1021
11/32	1-11/16	3	334-1022	330-1022
23/64	1-3/4	3-1/16	334-1023	330-1023
3/8	1-13/16	3-1/8	334-1024	330-1024
25/64	1-7/8	3-1/4	334-1025	330-1025
13/32	1-15/16	3-5/16	334-1026	330-1026
27/64	2	3-3/8	334-1027	330-1027
7/16	2-1/16	3-7/16	334-1028	330-1028
29/64	2-1/8	3-9/16	334-1029	330-1029
15/32	2-1/8	3-5/8	334-1030	330-1030
31/64	2-3/16	3-11/16	334-1031	330-1031
1/2	2-1/4	3-3/4	334-1032	330-1032
33/64	2-3/8	3-7/8	334-1033	330-1033
17/32	2-3/8	3-7/8	334-1034	330-1034
35/64	2-1/2	4	334-1035	330-1035
9/16	2-1/2	4	334-1036	330-1036
37/64	2-5/8	4-1/8	334-1037	330-1037
19/32	2-5/8	4-1/8	334-1038	330-1038
39/64	2-3/4	4-1/4	334-1039	330-1039
5/8	2-3/4	4-1/4	334-1040	330-1040
41/64	2-7/8	4-1/2	334-1041	330-1041
21/32	2-7/8	4-1/2	334-1042	330-1042
43/64	2-7/8	4-5/8	334-1043	330-1043
11/16	2-7/8	4-5/8	334-1044	330-1044
45/64	3	4-3/4	334-1045	330-1045
23/32	3	4-3/4	334-1046	330-1046
47/64	3-1/8	5	334-1047	330-1047
3/4	3-1/8	5	334-1048	330-1048
49/64	3-1/4	5-1/8	334-1049	330-1049
25/32	3-1/4	5-1/8	334-1050	330-1050
51/64	3-3/8	5-1/4	334-1051	330-1051
13/16	3-3/8	5-1/4	334-1052	330-1052
53/64	3-1/2	5-3/8	334-1053	330-1053
27/32	3-1/2	5-3/8	334-1054	330-1054
55/64	3-1/2	5-1/2	334-1055	330-1055
7/8	3-1/2	5-1/2	334-1056	330-1056
57/64	3-5/8	5-5/8	334-1057	330-1057
29/32	3-5/8	5-5/8	334-1058	330-1058

Fractional Sizes

Size	Flute Length	OAL	HSS Black Oxide Order No.	M35 Cobalt Ground Order No.
59/64”	3-3/4”	5-3/4”	334-1059	330-1059
15/16	3-3/4	5-3/4	334-1060	330-1060
61/64	3-7/8	5-7/8	334-1061	330-1061
31/32	3-7/8	5-7/8	334-1062	330-1062
63/64	4	6	334-1063	330-1063
1	4	6	334-1100	330-1064
1-1/16	4	6-1/4	334-1104	330-1104
1-1/8	4	6-3/8	334-1108	330-1108
1-3/16	4-1/4	6-5/8	334-1112	330-1112
1-1/4	4-3/8	6-3/4	334-1116	330-1116
1-5/16	4-3/8	7	334-1120	330-1120
1-3/8	4-1/2	7-1/8	334-1124	330-1124
1-7/16	4-3/4	7-3/8	334-1128	330-1128
1-1/2	4-7/8	7-1/2	334-1132	330-1132
1-9/16	4-7/8	7-3/4	334-1136	330-1136
1-5/8	4-7/8	7-3/4	334-1140	330-1140
1-11/16	5-1/8	8	334-1144	330-1144
1-3/4	5-1/8	8	334-1148	330-1148
1-13/16	5-3/8	8-1/4	334-1152	330-1152
1-7/8	5-3/8	8-1/4	334-1156	330-1156
1-15/16	5-5/8	8-1/2	334-1160	330-1160
2	5-5/8	8-1/2	334-1164	330-1164

Letter Sizes

Size	Flute Length	OAL	HSS Black Oxide Order No.	M35 Cobalt Order No.
A	1-5/16"	2-7/16”	334-1301	330-1301
B	1-3/8	2-1/2	334-1302	330-1302
C	1-3/8	2-1/2	334-1303	330-1303
D	1-3/8	2-1/2	334-1304	330-1304
E	1-3/8	2-1/2	334-1305	330-1305
F	1-7/16	2-5/8	334-1306	330-1306
G	1-7/16	2-5/8	334-1307	330-1307
H	1-1/2	2-11/16	334-1308	330-1308
I	1-1/2	2-11/16	334-1309	330-1309
J	1-1/2	2-11/16	334-1310	330-1310
K	1-1/2	2-11/16	334-1311	330-1311
L	1-9/16	2-3/4	334-1312	330-1312
M	1-9/16	2-3/4	334-1313	330-1313
N	1-5/8	2-13/16	334-1314	330-1314
O	1-11/16	2-15/16	334-1315	330-1315
P	1-11/16	2-15/16	334-1316	330-1316
Q	1-11/16	3	334-1317	330-1317
R	1-11/16	3	334-1318	330-1318
S	1-3/4	3-1/16	334-1319	330-1319
T	1-3/4	3-1/16	334-1320	330-1320
U	1-13/16	3-1/8	334-1321	330-1321
V	1-7/8	3-1/4	334-1322	330-1322
W	1-7/8	3-1/4	334-1323	330-1323
X	1-15/16	3-5/16	334-1324	330-1324
Y	1-15/16	3-5/16	334-1325	330-1325
Z	2	3-3/8	334-1326	330-1326

Screw Machine Drills Continued

Ground, 135° Split Point, Right Hand 磨制美标短型麻花钻



Number Sizes

Size	Flute Length	OAL	Ground Black Oxide Order No.	M35 Cobalt Ground Order No.
#1	1-5/16"	2-7/16"	334-1201	330-1201
#2	1-5/16	2-7/16	334-1202	330-1202
#3	1-1/4	2-3/8	334-1203	330-1203
#4	1-1/4	2-3/8	334-1204	330-1204
#5	1-1/4	2-3/8	334-1205	330-1205
#6	1-1/4	2-3/8	334-1206	330-1206
#7	1-3/16	2-1/4	334-1207	330-1207
#8	1-3/16	2-1/4	334-1208	330-1208
#9	1-3/16	2-1/4	334-1209	330-1209
#10	1-3/16	2-1/4	334-1210	330-1210
#11	1-3/16	2-1/4	334-1211	330-1211
#12	1-3/16	2-1/4	334-1212	330-1212
#13	1-1/8	-3/16	334-1213	330-1213
#14	1-1/8	2-3/16	334-1214	330-1214
#15	1-1/8	2-3/16	334-1215	330-1215
#16	1-1/8	2-3/16	334-1216	330-1216
#17	1-1/8	2-3/16	334-1217	330-1217
#18	1-1/16	2-1/8	334-1218	330-1218
#19	1-1/16	2-1/8	334-1219	330-1219
#20	1-1/16	2-1/8	334-1220	330-1220
#21	1-1/16	2-1/8	334-1221	330-1221
#22	1-1/16	2-1/8	334-1222	330-1222
#23	1	2-1/16	334-1223	330-1223
#24	1	2-1/16	334-1224	330-1224
#25	1	2-1/16	334-1225	330-1225
#26	1	2-1/16	334-1226	330-1226
#27	1	2-1/16	334-1227	330-1227
#28	15/16	1-15/16	334-1228	330-1228
#29	15/16	1-15/16	334-1229	330-1229
#30	15/16	1-15/16	334-1230	330-1230
#31	7/8	1-7/8	334-1231	330-1231
#32	7/8	1-7/8	334-1232	330-1232
#33	7/8	1-7/8	334-1233	330-1233
#34	7/8	1-7/8	334-1234	330-1234
#35	7/8	1-7/8	334-1235	330-1235
#36	13/16	1-13/16	334-1236	330-1236
#37	13/16	1-13/16	334-1237	330-1237
#38	13/16	1-13/16	334-1238	330-1238
#39	13/16	1-13/16	334-1239	330-1239
#40	13/16	1-13/16	334-1240	330-1240
#41	13/16	1-13/16	334-1241	330-1241
#42	3/4	1-3/4	334-1242	330-1242
#43	3/4	1-3/4	334-1243	330-1243
#44	3/4	1-3/4	334-1244	330-1244
#45	3/4	1-3/4	334-1245	330-1245
#46	3/4	1-3/4	334-1246	330-1246
#47	3/4	1-3/4	334-1247	330-1247
#48	11/16	1-11/16	334-1248	330-1248
#49	11/16	1-11/16	334-1249	330-1249
#50	11/16	1-11/16	334-1250	330-1250
#51	11/16	1-11/16	334-1251	330-1251
#52	11/16	1-11/16	334-1252	330-1252
#53	5/8	1-5/8	334-1253	330-1253
#54	5/8	1-5/8	334-1254	330-1254
#55	5/8	1-5/8	334-1255	330-1255
#56	1/2	1-3/8	334-1256	330-1256
#57	1/2	1-3/8	334-1257	330-1257
#58	1/2	1-3/8	334-1258	330-1258
#59	1/2	1-3/8	334-1259	330-1259
#60	1/2	1-3/8	334-1260	330-1260

Taper Length Drills 全磨美标锥长度钻

High Speed Steel, Right Hand,Black Oxide

- Designed for general purpose drilling where a length longer than jobber drill length is required.
- Performs very well in a wide range of materials.
- Shank diameter is the same as drill diameter.



M35, Right Hand

- Taper length is a longer straight shank general purpose drill used where a deeper hole is required. Shank size is the same as the diameter of the drill
- Cobalt drills are more durable than HSS. When used in applications that generate higher temperatures, cobalt retains its strength and hardness while offering more abrasion resistance then HSS.
- Fore use in high-tensile alloys, titanium, Inconel and highnickel stainless steels.



Fractional Sizes

Size	Flute Length	OAL	HSS 118° Order No.	M35-135° Order No.
1/64”	5/16"	1-1/2”	**310-2001**	**310-8001**
1/32	3/4	2	**310-2002**	**310-8002**
3/64	1-1/8	2-1/4	**310-2003**	**310-8003**
1/16	1-3/4	3	**310-2004**	**310-8004**
5/64	2	3-3/4	**310-2005**	**310-8005**
3/32	2-1/4	4-1/4	**310-2006**	**310-8006**
7/64	2-1/2	4-5/8	**310-2007**	**310-8007**
1/8	2-3/4	5-1/8	**310-2008**	**310-8008**
9/64	3	5-3/8	**310-2009**	**310-8009**
5/32	3	5-3/8	**310-2010**	**310-8010**
11/64	3-3/8	5-3/4	**310-2011**	**310-8011**
3/16	3-3/8	5-3/4	**310-2012**	**310-8012**
13/64	3-5/8	6	**310-2013**	**310-8013**
7/32	3-5/8	6	**310-2014**	**310-8014**
15/64	3-3/4	6-1/8	**310-2015**	**310-8015**
1/4	3-3/4	6-1/8	**310-2016**	**310-8016**
17/64	3-7/8	6-1/4	**310-2017**	**310-8017**
9/32	3-7/8	6-1/4	**310-2018**	**310-8018**
19/64	4	6-3/8	**310-2019**	**310-8019**
5/16	4	6-3/8	**310-2020**	**310-8020**
21/64	4-1/8	6-1/2	**310-2021**	**310-8021**
11/32	4-1/8	6-1/2	**310-2022**	**310-8022**
23/64	4-1/4	6-3/4	**310-2023**	**310-8023**
3/8	4-1/4	6-3/4	**310-2024**	**310-8024**
25/64	4-3/8	7	**310-2025**	**310-8025**
13/32	4-3/8	7	**310-2026**	**310-8026**
27/64	4-5/8	7-1/4	**310-2027**	**310-8027**
7/16	4-5/8	7-1/4	**310-2028**	**310-8028**
29/64	4-3/4	7-1/2	**310-2029**	**310-8029**
15/32	4-3/4	7-1/2	**310-2030**	**310-8030**
31/64	4-3/4	7-3/4	**310-2031**	**310-8031**
1/2”	4-3/4	7-3/4	**310-2032**	**310-8032**
33/64	4-3/4	8	**310-2033**	**310-8033**
17/32	4-3/4	8	**310-2034**	**310-8034**
35/64	4-7/8	8-1/4	**310-2035**	**310-8035**
9/16	4-7/8	8-1/4	**310-2036**	**310-8036**
37/6	4-7/8	8-3/4	**310-2037**	**310-8037**
19/32	4-7/8	8-3/4	**310-2038**	**310-8038**
39/64	4-7/8	8-3/4	**310-2039**	**310-8039**
5/8	4-7/8	8-3/4	**310-2040**	**310-8040**
41/64	5-1/8	9	**310-2041**	**310-8041**
21/32	5-1/8	9	**310-2042**	**310-8042**
43/64	5-3/8	9-1/4	**310-2043**	**310-8043**
11/16	5-3/8	9-1/4	**310-2044**	**310-8044**
45/64	5-5/8	9-1/2	**310-2045**	**310-8045**
23/32	5-5/8	9-1/2	**310-2046**	**310-8046**
47/64	5-7/8	9-3/4	**310-2047**	**310-8047**
3/4	5-7/8	9-3/4	**310-2048**	**310-8048**
49/64	6	9-7/8	**310-2049**	

Size	Flute Length	OAL	HSS 118° Order No.
25/32	6	9-7/8	**310-2050**
51/64	6-1/8"	10	**310-2051**
13/16	6-1/8	10	**310-2052**
53/64	6-1/8	10	**310-2053**
27/32	6-1/8	10	**310-2054**
55/64	6-1/8	10	**310-2055**
7/8	6-1/8	10	**310-2056**
57/64	6-1/8	10	**310-2057**
29/32	6-1/8	10	**310-2058**
59/64	6-1/8	10-3/4	**310-2059**
15/16	6-1/8	10-3/4	**310-2060**
61/64	6-3/8	11	**310-2061**
31/32	6-3/8	11	**310-2062**
63/64”	6-3/8	11	**310-2063**
1	6-3/8	11	**310-2064**
1-1/64	6-1/2	11-1/8	**310-2101**
1-1/32	6-1/2	11-1/8	**310-2102**
1-3/64	6-5/8	11-1/4	**310-2103**
1-1/16	6-5/8	11-1/4	**310-2104**
1-5/64	6-7/8	11-1/2	**310-2105**
1-3/32	6-7/8	11-1/2	**310-2106**
1-7/64	7-1/8	11-3/4	**310-2107**
1-1/8	7-1/8	11-3/4	**310-2108**
1-9/64	7-1/4	11-7/8	**310-2109**
1-5/32	7-1/4	11-7/8	**310-2110**
1-11/64	7-3/8	12	**310-2111**
1-3/16	7-3/8	12	**310-2112**
1-13/64	7-1/2	12-1/8	**310-2113**
1-7/32	7-1/2	12-1/8	**310-2114**
1-15/64	7-7/8	12-1/2	**310-2115**
1-1/4	7-7/8	12-1/2	**310-2116**
1-9/32	8-1/2	14-1/8	**310-2118**
1-5/16	8-5/8	14-1/4	**310-2120**
1-11/32	8-3/4	14-3/8	**310-2122**
1-3/8	8-7/8	14-1/2	**310-2124**
1-13/32	9	14-5/8	**310-2126**
1-7/16	9-1/8	14-3/4	**310-2128**
1-15/32	9-1/4	14-7/8	**310-2130**
1-1/2	9-3/8	15	**310-2132**
1-9/16	9-5/8	15-1/4	**310-2136**
1-5/8	9-7/8	15-5/8	**310-2140**
1-21/32	9-7/8	15-5/8	**310-2142**
1-11/16	10	15-3/4	**310-2144**
1-3/4	10-1/2	16-1/4	**310-2148**
1-13/16	10-1/2	16-1/4	**310-2152**
1-7/8	10-3/4	16-1/2	**310-2156**
1-15/16	10-3/4	16-5/8	**310-2160**
2	10-3/4	16-5/8	**310-2164**

Taper Length Drills Continued

全磨美标锥长度钻

High Speed Steel, Right Hand,Black Oxide

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M35, Right Hand

- Taper length is a longer straight shank general purpose drill used where a deeper hole is required. Shank size is the same as the diameter of the drill
- Cobalt drills are more durable than HSS. When used in applications that generate higher temperatures, cobalt retains its strength and hardness while offering more abrasion resistance then HSS.
- Fore use in high-tensile alloys, titanium, Inconel and highnickel stainless steels.



Number Sizes

Size	Flute Length	OAL	HSS 118° Order No.	M35-135° Order No.
#1	3-3/4"	6-1/8"	310-2401	310-8401
#2	3-3/4	6-1/8	310-2402	310-8402
#3	3-5/8	6	310-2403	310-8403
#4	3-5/8	6	310-2404	310-8404
#5	3-5/8	6	310-2405	310-8405
#6	3-5/8	6	310-2406	310-8406
#7	3-5/8	6	310-2407	310-8407
#8	3-5/8	6	310-2408	310-8408
#9	3-5/8	6	310-2409	310-8409
#10	3-5/8	6	310-2410	310-8410
#11	3-5/8	6	310-2411	310-8411
#12	3-5/8	6	310-2412	310-8412
#13	3-3/8	5-3/4	310-2413	310-8413
#14	3-3/8	5-3/4	310-2414	310-8414
#15	3-3/8	5-3/4	310-2415	310-8415
#16	3-3/8	5-3/4	310-2416	310-8416
#17	3-3/8	5-3/4	310-2417	310-8417
#18	3-3/8	5-3/4	310-2418	310-8418
#19	3-3/8	5-3/4	310-2419	310-8419
#20	3-3/8	5-3/4	310-2420	310-8420
#21	3-3/8	5-3/4	310-2421	310-8421
#22	3-3/8	5-3/4	310-2422	310-8422
#23	3	5-3/8	310-2423	310-8423
#24	3	5-3/8	310-2424	310-8424
#25	3	5-3/8	310-2425	310-8425
#26	3	5-3/8	310-2426	310-8426
#27	3	5-3/8	310-2427	310-8427
#28	3	5-3/8	310-2428	310-8428
#29	3	5-3/8	310-2429	310-8429
#30	3	5-3/8	310-2430	310-8430
#31	2-3/4	5-1/8	310-2431	310-8431
#32	2-3/4	5-1/8	310-2432	310-8432
#33	2-3/4	5-1/8	310-2433	310-8433
#34	2-3/4	5-1/8	310-2434	310-8434
#35	2-3/4	5-1/8	310-2435	310-8435
#36	2-1/2	4-5/8	310-2436	310-8436
#37	2-1/2	4-5/8	310-2437	310-8437
#38	2-1/2	4-5/8	310-2438	310-8438
#39	2-1/2	4-5/8	310-2439	310-8439
#40	2-1/2	4-5/8	310-2440	310-8440
#41	2-1/2	4-5/8	310-2441	310-8441
#42	2-1/4	4-1/4	310-2442	310-8442
#43	2-1/4	4-1/4	310-2443	310-8443
#44	2-1/4	4-1/4	310-2444	310-8444
#45	2-1/4	4-1/4	310-2445	310-8445
#46	2-1/4	4-1/4	310-2446	310-8446
#47	2-1/4	4-1/4	310-2447	310-8447
#48	2	3-3/4	310-2448	310-8448
#49	2	3-3/4	310-2449	310-8449
#50	2	3-3/4	310-2450	310-8450
#51	2	3-3/4	310-2451	310-8451
#52	2	3-3/4	310-2452	310-8452
#53	1-3/4	3	310-2453	310-8453
#54	1-3/4	3	310-2454	310-8454
#55	1-3/4	3	310-2455	310-8455
#56	1-1/8	2-1/4	310-2456	310-8456
#57	1-1/8	2-1/4	310-2457	310-8457
#58	1-1/8	2-1/4	310-2458	310-8458
#59	1-1/8	2-1/4	310-2459	310-8459
#60	1-1/8	2-1/4	310-2460	310-8460

Letter Sizes

Size	Flute Length	OAL	HSS 118° Order No.	M35-135° Order No.
A	3-3/4"	6-1/8"	310-2301	310-8301
B	3-3/4	6-1/8	310-2302	310-8302
C	3-3/4	6-1/8	310-2303	310-8303
D	3-3/4	6-1/8	310-2304	310-8304
E	3-3/4	6-1/8	310-2305	310-8305
F	3-7/8	6-1/4	310-2306	310-8306
G	3-7/8	6-1/4	310-2307	310-8307
H	3-7/8	6-1/4	310-2308	310-8308
I	3-7/8	6-1/4	310-2309	310-8309
J	3-7/8	6-1/4	310-2310	310-8310
K	3-7/8	6-1/4	310-2311	310-8311
L	4	6-3/8	310-2312	310-8312
M	4	6-3/8	310-2313	310-8313
N	4	6-3/8	310-2314	310-8314
O	4-1/8	6-1/2	310-2315	310-8315
P	4-1/8	6-1/2	310-2316	310-8316
Q	4-1/8	6-1/2	310-2317	310-8317
R	4-1/8	6-1/2	310-2318	310-8318
S	4-1/4	6-3/4	310-2319	310-8319
T	4-1/4	6-3/4	310-2320	310-8320
U	4-1/4	6-3/4	310-2321	310-8321
V	4-3/8	7	310-2322	310-8322
W	4-3/8	7	310-2323	310-8323
X	4-3/8	7	310-2324	310-8324
Y	4-3/8	7	310-2325	310-8325
Z	4-5/8	7-1/4	310-2326	310-8326

Metric Jobber Drills 公制麻花钻

HSS Ground, 118° Point, Black Oxide

Metric jobber drills are designed for general purpose use in a wide range of materials.



Size (mm)	Flute Length	OAL (mm)	Order No.	Size (mm)	Flute Length	OAL (mm)	Order No.	Size (mm)	Flute Length	OAL (mm)	Order No.	Size mm	Flute Length	OAL (mm)	Order No.
0.20	2.5	19	**309-0020**	2.90	41	70	**309-0290**	6.90	73	105	**309-0690**	11.30	106	143	**309-1130**
0.30	3	19	**309-0030**	2.95	41	70	**309-0295**	7.00	73	105	**309-0700**	11.40	106	143	**309-1140**
0.35	3	19	**309-0035**	3.00	41	70	**309-0300**	7.10	75	108	**309-0710**	11.50	106	143	**309-1150**
0.40	5	19	**309-0040**	3.05	41	70	**309-0305**	7.20	75	108	**309-0720**	11.60	106	143	**309-1160**
0.45	5	22	**309-0045**	3.10	41	70	**309-0310**	7.25	75	108	**309-0725**	11.70	106	143	**309-1170**
0.50	5	22	**309-0050**	3.15	41	70	**309-0315**	7.30	75	108	**309-0730**	11.75	106	143	**309-1175**
0.55	6	25	**309-0055**	3.20	41	70	**309-0320**	7.40	78	111	**309-0740**	11.80	110	146	**309-1180**
0.60	8	29	**309-0060**	3.25	41	70	**309-0325**	7.50	78	111	**309-0750**	11.90	110	146	**309-1190**
0.65	10	32	**309-0065**	3.30	44	73	**309-0330**	7.60	78	111	**309-0760**	12.00	111	149	**309-1200**
0.68	13	35	**309-0068**	3.40	44	73	**309-0340**	7.70	81	114	**309-0770**	12.10	111	149	**309-1210**
0.70	10	32	**309-0070**	3.50	44	73	**309-0350**	7.75	81	114	**309-0775**	12.20	111	149	**309-1220**
0.75	13	35	**309-0075**	3.55	44	73	**309-0355**	7.80	81	114	**309-0780**	12.25	111	149	**309-1225**
0.80	13	35	**309-0080**	3.60	48	76	**309-0360**	7.90	81	114	**309-0790**	12.30	111	149	**309-1230**
0.85	16	38	**309-0085**	3.70	48	76	**309-0370**	8.00	81	114	**309-0800**	12.40	111	149	**309-1240**
0.90	16	38	**309-0090**	3.75	48	76	**309-0375**	8.10	84	117	**309-0810**	12.50	114	152	**309-1250**
0.95	16	38	**309-0095**	3.80	48	76	**309-0380**	8.20	84	117	**309-0820**	12.60	114	152	**309-1260**
1.00	17	41	**309-0100**	3.90	51	79	**309-0390**	8.25	84	117	**309-0825**	12.70	114	152	**309-1270**
1.05	17	41	**309-0105**	4.00	54	83	**309-0400**	8.30	84	117	**309-0830**	12.75	114	152	**309-1275**
1.10	19	44	**309-0110**	4.05	54	83	**309-0405**	8.40	87	121	**309-0840**	12.80	114	152	**309-1280**
1.15	19	44	**309-0115**	4.10	54	83	**309-0410**	8.50	87	121	**309-0850**	12.90	114	152	**309-1290**
1.20	22	48	**309-0120**	4.20	54	83	**309-0420**	8.60	87	121	**309-0860**	13.00	114	152	**309-1300**
1.25	22	48	**309-0125**	4.25	54	83	**309-0425**	8.70	87	121	**309-0870**	13.10	114	152	**309-1310**
1.30	22	48	**309-0130**	4.30	54	83	**309-0430**	8.75	89	124	**309-0875**	13.20	122	168	**309-1320**
1.35	22	48	**309-0135**	4.40	56	86	**309-0440**	8.80	89	124	**309-0880**	13.25	122	168	**309-1325**
1.40	22	48	**309-0140**	4.50	56	86	**309-0450**	8.90	89	124	**309-0890**	13.30	122	168	**309-1330**
1.45	22	48	**309-0145**	4.60	56	86	**309-0460**	9.00	89	124	**309-0900**	13.40	122	168	**309-1340**
1.50	22	48	**309-0150**	4.70	59	89	**309-0470**	9.10	89	124	**309-0910**	13.50	122	168	**309-1350**
1.55	22	48	**309-0155**	4.75	59	89	**309-0475**	9.20	92	127	**309-0920**	13.60	122	168	**309-1360**
1.60	22	48	**309-0160**	4.80	59	89	**309-0480**	9.25	92	127	**309-0925**	13.70	122	168	**309-1370**
1.65	25	51	**309-0165**	4.90	62	92	**309-0490**	9.30	92	127	**309-0930**	13.75	122	168	**309-1375**
1.70	25	51	**309-0170**	5.00	62	92	**309-0500**	9.40	92	127	**309-0940**	13.80	122	168	**309-1380**
1.75	25	51	**309-0175**	5.10	62	92	**309-0510**	9.50	92	127	**309-0950**	13.90	122	168	**309-1390**
1.80	25	51	**309-0180**	5.20	64	95	**309-0520**	9.60	95	130	**309-0960**	14.00	122	168	**309-1400**
1.85	25	51	**309-0185**	5.25	64	95	**309-0525**	9.70	95	130	**309-0970**	14.25	122	168	**309-1425**
1.90	25	51	**309-0190**	5.30	64	95	**309-0530**	9.75	95	130	**309-0975**	14.50	122	168	**309-1450**
1.95	25	51	**309-0195**	5.40	64	95	**309-0540**	9.80	95	130	**309-0980**	14.75	132	181	**309-1475**
2.00	25	51	**309-0200**	5.50	64	95	**309-0550**	9.90	95	130	**309-0990**	15.00	132	181	**309-1500**
2.05	29	54	**309-0205**	5.60	67	98	**309-0560**	10.00	95	130	**309-1000**	15.25	132	181	**309-1525**
2.10	29	54	**309-0210**	5.70	67	98	**309-0570**	10.10	95	130	**309-1010**	15.50	132	181	**309-1550**
2.15	29	54	**309-0215**	5.75	67	98	**309-0575**	10.20	98	133	**309-1020**	15.75	132	181	**309-1575**
2.20	32	57	**309-0220**	5.80	67	98	**309-0580**	10.25	98	133	**309-1025**	16.00	132	181	**309-1600**
2.25	32	57	**309-0225**	5.90	67	98	**309-0590**	10.30	98	133	**309-1030**	16.25	132	181	**309-1625**
2.30	32	57	**309-0230**	6.00	70	102	**309-0600**	10.40	98	133	**309-1040**	16.50	132	181	**309-1650**
2.35	32	57	**309-0235**	6.10	70	102	**309-0610**	10.50	98	133	**309-1050**	17.00	143	194	**309-1700**
2.40	35	60	**309-0240**	6.20	70	102	**309-0620**	10.60	98	133	**309-1060**	17.50	143	194	**309-1750**
2.45	35	60	**309-0245**	6.25	70	102	**309-0625**	10.70	98	133	**309-1070**	17.75	143	194	**309-1775**
2.50	35	60	**309-0250**	6.30	70	102	**309-0630**	10.75	98	133	**309-1075**	17.80	143	194	**309-1780**
2.55	35	60	**309-0255**	6.40	73	105	**309-0640**	10.80	103	140	**309-1080**	18.00	143	194	**309-1800**
2.60	37	64	**309-0260**	6.50	73	105	**309-0650**	10.90	103	140	**309-1090**	18.50	145	205	**309-1850**
2.65	37	64	**309-0265**	6.60	73	105	**309-0660**	11.00	103	140	**309-1100**	19.00	145	205	**309-1900**
2.70	37	64	**309-0270**	6.70	73	105	**309-0670**	11.10	103	140	**309-1110**	19.25	145	215	**309-1925**
2.75	37	64	**309-0275**	6.75	73	105	**309-0675**	11.20	106	143	**309-1120**	19.50	145	215	**309-1950**
2.80	38	67	**309-0280**	6.80	73	105	**309-0680**	11.25	106	143	**309-1125**	20.00	145	215	**309-2000**
2.85	38	67	**309-0285**												

DIN338 HSS Twist Drills

德标 338 全磨麻花钻



Size (mm)	Flute Length (mm)	OAL (mm)	Rolled Black Oxide Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.	Size (mm)	Flute Length (mm)	OAL (mm)	Rolled Black Oxide Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
0.20	2.5	19	201-0020	206-0020	207-0020	3.90	43	75	201-0390	206-0390	207-0390
0.25	3	19	201-0025	206-0025	207-0025	3.95	43	75	201-0395	206-0395	207-0395
0.30	3	19	201-0030	206-0030	207-0030	4.00	43	75	201-0400	206-0400	207-0400
0.35	4	19	201-0035	206-0035	207-0035	4.05	43	75	201-0405	206-0405	207-0405
0.40	5	20	201-0040	206-0040	207-0040	4.10	43	75	201-0410	206-0410	207-0410
0.45	5	20	201-0045	206-0045	207-0045	4.15	43	75	201-0415	206-0415	207-0415
0.50	6	22	201-0050	206-0050	207-0050	4.20	43	75	201-0420	206-0420	207-0420
0.55	7	24	201-0055	206-0055	207-0055	4.25	43	75	201-0425	206-0425	207-0425
0.60	7	24	201-0060	206-0060	207-0060	4.30	47	80	201-0430	206-0430	207-0430
0.65	8	26	201-0065	206-0065	207-0065	4.35	47	80	201-0435	206-0435	207-0435
0.70	9	28	201-0070	206-0070	207-0070	4.40	47	80	201-0440	206-0440	207-0440
0.75	9	28	201-0075	206-0075	207-0075	4.45	47	80	201-0445	206-0445	207-0445
0.80	10	30	201-0080	206-0080	207-0080	4.50	47	80	201-0450	206-0450	207-0450
0.85	11	32	201-0085	206-0085	207-0085	4.55	47	80	201-0455	206-0455	207-0455
0.90	11	32	201-0090	206-0090	207-0090	4.60	47	80	201-0460	206-0460	207-0460
0.95	11	32	201-0095	206-0095	207-0095	4.65	47	80	201-0465	206-0465	207-0465
0.98	12	34	201-0098	206-0098	207-0098	4.70	47	80	201-0470	206-0470	207-0470
1.00	12	34	201-0100	206-0100	207-0100	4.75	47	80	201-0475	206-0475	207-0475
1.05	12	34	201-0105	206-0105	207-0105	4.80	52	86	201-0480	206-0480	207-0480
1.10	14	36	201-0110	206-0110	207-0110	4.85	52	86	201-0485	206-0485	207-0485
1.15	14	36	201-0115	206-0115	207-0115	4.90	52	86	201-0490	206-0490	207-0490
1.20	16	38	201-0120	206-0120	207-0120	4.95	52	86	201-0495	206-0495	207-0495
1.25	16	38	201-0125	206-0125	207-0125	5.00	52	86	201-0500	206-0500	207-0500
1.30	16	38	201-0130	206-0130	207-0130	5.10	52	86	201-0510	206-0510	207-0510
1.35	18	40	201-0135	206-0135	207-0135	5.20	52	86	201-0520	206-0520	207-0520
1.40	18	40	201-0140	206-0140	207-0140	5.25	52	86	201-0525	206-0525	207-0525
1.45	18	40	201-0145	206-0145	207-0145	5.30	52	86	201-0530	206-0530	207-0530
1.50	18	40	201-0150	206-0150	207-0150	5.40	57	93	201-0540	206-0540	207-0540
1.55	20	43	201-0155	206-0155	207-0155	5.50	57	93	201-0550	206-0550	207-0550
1.60	20	43	201-0160	206-0160	207-0160	5.60	57	93	201-0560	206-0560	207-0560
1.65	20	43	201-0165	206-0165	207-0165	5.70	57	93	201-0570	206-0570	207-0570
1.70	20	43	201-0170	206-0170	207-0170	5.75	57	93	201-0575	206-0575	207-0575
1.75	22	48	201-0175	206-0175	207-0175	5.80	57	93	201-0580	206-0580	207-0580
1.80	22	48	201-0180	206-0180	207-0180	5.90	57	93	201-0590	206-0590	207-0590
1.85	22	48	201-0185	206-0185	207-0185	6.00	57	93	201-0600	206-0600	207-0600
1.90	22	48	201-0190	206-0190	207-0190	6.10	63	101	201-0610	206-0610	207-0610
1.95	24	49	201-0195	206-0195	207-0195	6.20	63	101	201-0620	206-0620	207-0620
2.00	24	49	201-0200	206-0200	207-0200	6.25	63	101	201-0625	206-0625	207-0625
2.05	24	49	201-0205	206-0205	207-0205	6.30	63	101	201-0630	206-0630	207-0630
2.10	24	49	201-0210	206-0210	207-0210	6.35	63	101	201-0635	206-0635	207-0635
2.15	27	53	201-0215	206-0215	207-0215	6.40	63	101	201-0640	206-0640	207-0640
2.20	27	53	201-0220	206-0220	207-0220	6.50	63	101	201-0650	206-0650	207-0650
2.25	27	53	201-0225	206-0225	207-0225	6.60	63	101	201-0660	206-0660	207-0660
2.30	27	53	201-0230	206-0230	207-0230	6.70	63	101	201-0670	206-0670	207-0670
2.35	27	53	201-0235	206-0235	207-0235	6.75	69	109	201-0675	206-0675	207-0675
2.40	30	57	201-0240	206-0240	207-0240	6.80	69	109	201-0680	206-0680	207-0680
2.45	30	57	201-0245	206-0245	207-0245	6.90	69	109	201-0690	206-0690	207-0690
2.50	30	57	201-0250	206-0250	207-0250	7.00	69	109	201-0700	206-0700	207-0700
2.55	30	57	201-0255	206-0255	207-0255	7.10	69	109	201-0710	206-0710	207-0710
2.60	30	57	201-0260	206-0260	207-0260	7.20	69	109	201-0720	206-0720	207-0720
2.65	30	57	201-0265	206-0265	207-0265	7.25	69	109	201-0725	206-0725	207-0725
2.70	33	61	201-0270	206-0270	207-0270	7.30	69	109	201-0730	206-0730	207-0730
2.75	33	61	201-0275	206-0275	207-0275	7.40	69	109	201-0740	206-0740	207-0740
2.80	33	61	201-0280	206-0280	207-0280	7.50	69	109	201-0750	206-0750	207-0750
2.85	33	61	201-0285	206-0285	207-0285	7.60	75	117	201-0760	206-0760	207-0760
2.90	33	61	201-0290	206-0290	207-0290	7.70	75	117	201-0770	206-0770	207-0770
2.95	33	61	201-0295	206-0295	207-0295	7.75	75	117	201-0775	206-0775	207-0775
3.00	33	61	201-0300	206-0300	207-0300	7.80	75	117	201-0780	206-0780	207-0780
3.05	36	65	201-0305	206-0305	207-0305	7.90	75	117	201-0790	206-0790	207-0790
3.10	36	65	201-0310	206-0310	207-0310	8.00	75	117	201-0800	206-0800	207-0800
3.15	36	65	201-0315	206-0315	207-0315	8.10	75	117	201-0810	206-0810	207-0810
3.20	36	65	201-0320	206-0320	207-0320	8.20	75	117	201-0820	206-0820	207-0820
3.25	36	65	201-0325	206-0325	207-0325	8.25	75	117	201-0825	206-0825	207-0825
3.30	36	65	201-0330	206-0330	207-0330	8.30	75	117	201-0830	206-0830	207-0830
3.35	36	65	201-0335	206-0335	207-0335	8.40	75	117	201-0840	206-0840	207-0840
3.40	39	70	201-0340	206-0340	207-0340	8.50	75	117	201-0850	206-0850	207-0850
3.45	39	70	201-0345	206-0345	207-0345	8.60	81	125	201-0860	206-0860	207-0860
3.50	39	70	201-0350	206-0350	207-0350	8.70	81	125	201-0870	206-0870	207-0870
3.55	39	70	201-0355	206-0355	207-0355	8.75	81	125	201-0875	206-0875	207-0875
3.60	39	70	201-0360	206-0360	207-0360	8.80	81	125	201-0880	206-0880	207-0880
3.65	39	70	201-0365	206-0365	207-0365	8.90	81	125	201-0890	206-0890	207-0890
3.70	39	70	201-0370	206-0370	207-0370	9.00	81	125	201-0900	206-0900	207-0900
3.75	39	70	201-0375	206-0375	207-0375	9.10	81	125	201-0910	206-0910	207-0910
3.80	43	75	201-0380	206-0380	207-0380	9.20	81	125	201-0920	206-0920	207-0920
3.85	43	75	201-0385	206-0385	207-0385	9.25	81	125	201-0925	206-0925	207-0925

DIN338 HSS Twist Drills Continued

德标 338 全磨麻花钻



Size (mm)	Flute Length (mm)	OAL (mm)	Rolled Black Oxide Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.	Size (mm)	Flute Length (mm)	OAL (mm)	Rolled Black Oxide Order No.	Ground Bright Order No.	Ground TiN-Coated Order No.
9.30	81	125	**201-0930**	**206-0930**	**207-0930**	12.40	101	151	**201-1240**	**206-1240**	**207-1240**
9.40	81	125	**201-0940**	**206-0940**	**207-0940**	12.50	101	151	**201-1250**	**206-1250**	**207-1250**
9.50	81	125	**201-0950**	**206-0950**	**207-0950**	12.60	101	151	**201-1260**	**206-1260**	**207-1260**
9.60	87	133	**201-0960**	**206-0960**	**207-0960**	12.70	101	151	**201-1270**	**206-1270**	**207-1270**
9.70	87	133	**201-0970**	**206-0970**	**207-0970**	12.75	101	151	**201-1275**	**206-1275**	**207-1275**
9.75	87	133	**201-0975**	**206-0975**	**207-0975**	12.80	101	151	**201-1280**	**206-1280**	**207-1280**
9.80	87	133	**201-0980**	**206-0980**	**207-0980**	12.90	101	151	**201-1290**	**206-1290**	**207-1290**
9.90	87	133	**201-0990**	**206-0990**	**207-0990**	13.00	101	151	**201-1300**	**206-1300**	**207-1300**
10.00	87	133	**201-1000**	**206-1000**	**207-1000**	13.10	101	151	**201-1310**	**206-1310**	**207-1310**
10.10	87	133	**201-1010**	**206-1010**	**207-1010**	13.20	101	151	**201-1320**	**206-1320**	**207-1320**
10.20	87	133	**201-1020**	**206-1020**	**207-1020**	13.25	108	160	**201-1325**	**206-1325**	**207-1325**
10.25	87	133	**201-1025**	**206-1025**	**207-1025**	13.30	108	160	**201-1330**	**206-1330**	**207-1330**
10.30	87	133	**201-1030**	**206-1030**	**207-1030**	13.40	108	160	**201-1340**	**206-1340**	**207-1340**
10.40	87	133	**201-1040**	**206-1040**	**207-1040**	13.50	108	160	**201-1350**	**206-1350**	**207-1350**
10.50	87	133	**201-1050**	**206-1050**	**207-1050**	13.60	108	160	**201-1360**	**206-1360**	**207-1360**
10.60	94	142	**201-1060**	**206-1060**	**207-1060**	13.70	108	160	**201-1370**	**206-1370**	**207-1370**
10.70	94	142	**201-1070**	**206-1070**	**207-1070**	13.75	108	160	**201-1375**	**206-1375**	**207-1375**
10.75	94	142	**201-1075**	**206-1075**	**207-1075**	13.80	108	160	**201-1380**	**206-1380**	**207-1380**
10.80	94	142	**201-1080**	**206-1080**	**207-1080**	13.90	108	160	**201-1390**	**206-1390**	**207-1390**
10.90	94	142	**201-1090**	**206-1090**	**207-1090**	14.00	108	160	**201-1400**	**206-1400**	**207-1400**
11.00	94	142	**201-1100**	**206-1100**	**207-1100**	14.25	114	169	**201-1425**	**206-1425**	**207-1425**
11.10	94	142	**201-1110**	**206-1110**	**207-1110**	14.50	114	169	**201-1450**	**206-1450**	**207-1450**
11.20	94	142	**201-1120**	**206-1120**	**207-1120**	14.75	114	169	**201-1475**	**206-1475**	**207-1475**
11.25	94	142	**201-1125**	**206-1125**	**207-1125**	15.00	114	169	**201-1500**	**206-1500**	**207-1500**
11.30	94	142	**201-1130**	**206-1130**	**207-1130**	15.25	120	178	**201-1525**	**206-1525**	**207-1525**
11.40	94	142	**201-1140**	**206-1140**	**207-1140**	15.50	120	178	**201-1550**	**206-1550**	**207-1550**
11.50	94	142	**201-1150**	**206-1150**	**207-1150**	15.75	120	178	**201-1575**	**206-1575**	**207-1575**
11.60	94	142	**201-1160**	**206-1160**	**207-1160**	16.00	120	178	**201-1600**	**206-1600**	**207-1600**
11.70	94	142	**201-1170**	**206-1170**	**207-1170**	16.50	125	187	**201-1650**	**206-1650**	**207-1650**
11.75	94	142	**201-1175**	**206-1175**	**207-1175**	17.00	125	187	**201-1700**	**206-1700**	**207-1700**
11.80	94	142	**201-1180**	**206-1180**	**207-1180**	17.50	130	191	**201-1750**	**206-1750**	**207-1750**
11.90	101	151	**201-1190**	**206-1190**	**207-1190**	18.00	130	191	**201-1800**	**206-1800**	**207-1800**
12.00	101	151	**201-1200**	**206-1200**	**207-1200**	18.50	135	198	**201-1850**	**206-1850**	**207-1850**
12.10	101	151	**201-1210**	**206-1210**	**207-1210**	19.00	135	198	**201-1900**	**206-1900**	**207-1900**
12.20	101	151	**201-1220**	**206-1220**	**207-1220**	19.50	140	205	**201-1950**	**206-1950**	**207-1950**
12.25	101	151	**201-1225**	**206-1225**	**207-1225**	20.00	140	205	**201-2000**	**206-2000**	**207-2000**
12.30	101	151	**201-1230**	**206-1230**	**207-1230**						

Drill Guide

For drilling perfact pocket holes in face frames quickly and easily.

Order No. 830-2020



Drill Stop Sets

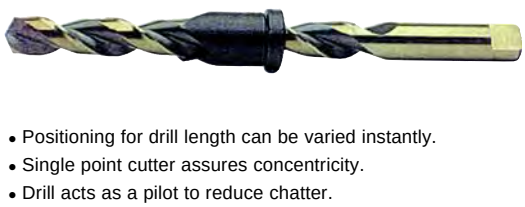
Allows drilling to exact depth. Locks onto the bit for drill press depth precision.

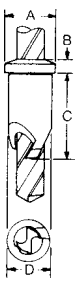


Pieces	Specification	Order No.
7	1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2".	**300-0007**
4	5/8", 3/4", 7/8", 1"	**300-0004**

Chamfer Bit

Drill and chamfer and deburr in one operation.





- Positioning for drill length can be varied instantly.
- Single point cutter assures concentricity.
- Drill acts as a pilot to reduce chatter.
- Easily resharpened on any drill grinder without damage to the drill.
- Can provide an additional chamfer diameter to a multi-diameter drill.
- 90° Included angle.
- Drill bit not included.

Drill Size	Dimensions A	B	C	D	Order No.
1/8"	7/16"	1/4"	5/8	5/16"	**830-2030**

DIN338 Cobalt Jobber Length Drills 德标 338 钻高速钢全磨麻花钻



DIN Length, High Speed Steel, 135° Point, Fully Ground

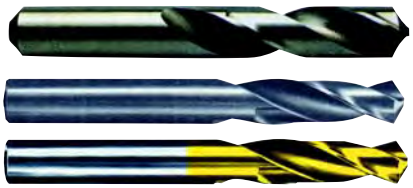
- For general purpose portable and production drilling.
- Right hand cutting direction.
- Manufactured to DIN length.



Size (mm)	Flute Length mm(in.)	OAL mm(in.)	Order No.	Size (mm)	Flute Length mm(in.)	OAL mm(in.)	Order No.	Size (mm)	Flute Length mm(in.)	OAL mm(in.)	Order No.
.15	1.50(1/16)	19(3/4)	**332-0015**	3.00	33.00(1-5/16)	61(2-13/32)	**332-0300**	9.10	81.00(3-3/16)	125(4-29/32)	**332-0910**
.16	1.50(1/16)	19(3/4)	**332-0016**	3.05	33.00(1-5/16)	61(2-13/32)	**332-0305**	9.20	81.00(3-3/16)	125(4-29/32)	**332-0920**
.17	1.50(1/16)	19(3/4)	**332-0017**	3.10	36.00(1-7/16)	65(2-9/16)	**332-0310**	9.25	81.00(3-3/16)	125(4-29/32)	**332-0925**
.18	1.50(1/16)	19(3/4)	**332-0018**	3.15	36.00(1-7/16)	65(2-9/16)	**332-0315**	9.30	81.00(3-3/16)	125(4-29/32)	**332-0930**
.19	1.50(1/16)	19(3/4)	**332-0019**	3.20	36.00(1-7/16)	65(2-9/16)	**332-0320**	9.40	81.00(3-3/16)	125(4-29/32)	**332-0940**
.20	2.50(3/32)	19(3/4)	**332-0020**	3.25	36.00(1-7/16)	65(2-9/16)	**332-0325**	9.50	81.00(3-3/16)	125(4-29/32)	**332-0950**
.21	2.50(3/32)	19(3/4)	**332-0021**	3.30	36.00(1-7/16)	65(2-9/16)	**332-0330**	9.60	87.00(3-7/16)	133(5-1/4)	**332-0960**
.22	2.50(3/32)	19(3/4)	**332-0022**	3.40	39.00(1-17/32)	70(2-3/4)	**332-0340**	9.70	87.00(3-7/16)	133(5-1/4)	**332-0970**
.23	2.50(3/32)	19(3/4)	**332-0023**	3.50	39.00(1-17/32)	70(2-3/4)	**332-0350**	9.75	87.00(3-7/16)	133(5-1/4)	**332-0975**
.24	2.50(3/32)	19(3/4)	**332-0024**	3.60	39.00(1-17/32)	70(2-3/4)	**332-0360**	9.80	87.00(3-7/16)	133(5-1/4)	**332-0980**
.25	3.00(1/8)	19(3/4)	**332-0025**	3.70	39.00(1-17/32)	70(2-3/4)	**332-0370**	9.90	87.00(3-7/16)	133(5-1/4)	**332-0990**
.26	3.00(1/8)	19(3/4)	**332-0026**	3.75	39.00(1-17/32)	70(2-3/4)	**332-0375**	10.00	87.00(3-7/16)	133(5-1/4)	**332-1000**
.27	3.00(1/8)	19(3/4)	**332-0027**	3.80	43.00(1-11/16)	75(2-15/16)	**332-0380**	10.10	87.00(3-7/16)	133(5-1/4)	**332-1010**
.28	3.00(1/8)	19(3/4)	**332-0028**	3.90	43.00(1-11/16)	75(2-15/16)	**332-0390**	10.20	87.00(3-7/16)	133(5-1/4)	**332-1020**
.29	3.00(1/8)	19(3/4)	**332-0029**	4.00	43.00(1-11/16)	75(2-15/16)	**332-0400**	10.25	87.00(3-7/16)	133(5-1/4)	**332-1025**
.30	3.00(1/8)	19(3/4)	**332-0030**	4.10	43.00(1-11/16)	75(2-15/16)	**332-0410**	10.30	87.00(3-7/16)	133(5-1/4)	**332-1030**
.32	4.00(5/32)	19(3/4)	**332-0032**	4.20	43.00(1-11/16)	75(2-15/16)	**332-0420**	10.40	87.00(3-7/16)	133(5-1/4)	**332-1040**
.34	4.00(5/32)	19(3/4)	**332-0034**	4.25	43.00(1-11/16)	75(2-15/16)	**332-0425**	10.50	87.00(3-7/16)	133(5-1/4)	**332-1050**
.35	4.00(5/32)	19(3/4)	**332-0035**	4.30	47.00(1-27/32)	80(3-5/32)	**332-0430**	10.60	87.00(3-7/16)	133(5-1/4)	**332-1060**
.36	4.00(5/32)	19(3/4)	**332-0036**	4.40	47.00(1-27/32)	80(3-5/32)	**332-0440**	10.70	94.00(3-11/16)	142(5-19/32)	**332-1070**
.38	4.00(5/32)	19(3/4)	**332-0038**	4.50	47.00(1-27/32)	80(3-5/32)	**332-0450**	10.80	94.00(3-11/16)	142(5-19/32)	**332-1080**
.40	5.00(3/16)	20(25/32)	**332-0040**	4.60	47.00(1-27/32)	80(3-5/32)	**332-0460**	10.90	94.00(3-11/16)	142(5-19/32)	**332-1090**
.42	5.00(3/16)	20(25/32)	**332-0042**	4.70	47.00(1-27/32)	80(3-5/32)	**332-0470**	11.00	94.00(3-11/16)	142(5-19/32)	**332-1100**
.44	5.00(3/16)	20(25/32)	**332-0044**	4.75	47.00(1-27/32)	80(3-5/32)	**332-0475**	11.10	94.00(3-11/16)	142(5-19/32)	**332-1110**
.45	5.00(3/16)	20(25/32)	**332-0045**	4.80	52.00(2-1/16)	86(3-3/8)	**332-0480**	11.20	94.00(3-11/16)	142(5-19/32)	**332-1120**
.46	5.00(3/16)	20(25/32)	**332-0046**	4.90	52.00(2-1/16)	86(3-3/8)	**332-0490**	11.25	94.00(3-11/16)	142(5-19/32)	**332-1125**
.48	5.00(3/16)	20(25/32)	**332-0048**	5.00	52.00(2-1/16)	86(3-3/8)	**332-0500**	11.30	94.00(3-11/16)	142(5-19/32)	**332-1130**
.50	6.00(1/4)	22(7/8)	**332-0050**	5.10	52.00(2-1/16)	86(3-3/8)	**332-0510**	11.40	94.00(3-11/16)	142(5-19/32)	**332-1140**
.55	7.00(9/32)	24(15/16)	**332-0055**	5.20	52.00(2-1/16)	86(3-3/8)	**332-0520**	11.50	94.00(3-11/16)	142(5-19/32)	**332-1150**
.60	7.00(9/32)	24(15/16)	**332-0060**	5.25	52.00(2-1/16)	86(3-3/8)	**332-0525**	11.60	94.00(3-11/16)	142(5-19/32)	**332-1160**
.65	8.00(5/16)	26(1-1/32)	**332-0065**	5.30	52.00(2-1/16)	86(3-3/8)	**332-0530**	11.70	94.00(3-11/16)	142(5-19/32)	**332-1170**
.70	9.00(11/32)	28(1-3/32)	**332-0070**	5.40	57.00(2-1/4)	93(3-21/32)	**332-0540**	11.75	94.00(3-11/16)	142(5-19/32)	**332-1175**
.75	9.00(11/32)	28(1-3/32)	**332-0075**	5.50	57.00(2-1/4)	93(3-21/32)	**332-0550**	11.80	94.00(3-11/16)	142(5-19/32)	**332-1180**
.80	10.00(13/32)	30(1-3/16)	**332-0080**	5.60	57.00(2-1/4)	93(3-21/32)	**332-0560**	11.90	101.00(3-31/32)	151(5-15/16)	**332-1190**
.85	10.00(13/32)	30(1-3/16)	**332-0085**	5.70	57.00(2-1/4)	93(3-21/32)	**332-0570**	12.00	101.00(3-31/32)	151(5-15/16)	**332-1200**
.90	11.00(27/64)	32(1-1/4)	**332-0090**	5.75	57.00(2-1/4)	93(3-21/32)	**332-0575**	12.10	101.00(3-31/32)	151(5-15/16)	**332-1210**
.95	11.00(27/64)	32(1-1/4)	**332-0095**	5.80	57.00(2-1/4)	93(3-21/32)	**332-0580**	12.20	101.00(3-31/32)	151(5-15/16)	**332-1220**
1.00	12.00(15/32)	34(1-11/32)	**332-0100**	5.90	57.00(2-1/4)	93(3-21/32)	**332-0590**	12.25	101.00(3-31/32)	151(5-15/16)	**332-1225**
1.05	12.00(15/32)	34(1-11/32)	**332-0105**	6.00	57.00(2-1/4)	93(3-21/32)	**332-0600**	12.30	101.00(3-31/32)	151(5-15/16)	**332-1230**
1.10	14.00(9/16)	36(1-7/16)	**332-0110**	6.10	63.00(2-15/32)	101(3-21/32)	**332-0610**	12.40	101.00(3-31/32)	151(5-15/16)	**332-1240**
1.15	14.00(9/16)	36(1-7/16)	**332-0115**	6.20	63.00(2-15/32)	101(3-21/32)	**332-0620**	12.50	101.00(3-31/32)	151(5-15/16)	**332-1250**
1.20	16.00(5/8)	38(1-1/2)	**332-0120**	6.25	63.00(2-15/32)	101(3-21/32)	**332-0625**	12.60	101.00(3-31/32)	151(5-15/16)	**332-1260**
1.25	16.00(5/8)	38(1-1/2)	**332-0125**	6.30	63.00(2-15/32)	101(3-21/32)	**332-0630**	12.70	101.00(3-31/32)	151(5-15/16)	**332-1270**
1.30	16.00(5/8)	38(1-1/2)	**332-0130**	6.40	63.00(2-15/32)	101(3-21/32)	**332-0640**	12.80	101.00(3-31/32)	151(5-15/16)	**332-1280**
1.35	18.00(23/32)	40(1-9/16)	**332-0135**	6.50	63.00(2-15/32)	101(3-21/32)	**332-0650**	12.90	101.00(3-31/32)	151(5-15/16)	**332-1290**
1.40	18.00(23/32)	40(1-9/16)	**332-0140**	6.60	63.00(2-15/32)	101(3-21/32)	**332-0660**	13.00	101.00(3-31/32)	151(5-15/16)	**332-1300**
1.45	18.00(23/32)	40(1-9/16)	**332-0145**	6.70	63.00(2-15/32)	101(3-21/32)	**332-0670**	13.10	101.00(3-31/32)	151(5-15/16)	**332-1310**
1.50	18.00(23/32)	40(1-9/16)	**332-0150**	6.75	63.00(2-15/32)	101(3-21/32)	**332-0675**	13.20	101.00(3-31/32)	151(5-15/16)	**332-1320**
1.55	20.00(25/32)	43(1-11/16)	**332-0155**	6.80	63.00(2-15/32)	101(3-21/32)	**332-0680**	13.30	108.00(4-1/4)	160(6-5/16)	**332-1330**
1.60	20.00(25/32)	43(1-11/16)	**332-0160**	6.90	69.00(2-23/32)	109(4-9/32)	**332-0690**	13.40	108.00(4-1/4)	160(6-5/16)	**332-1340**
1.65	20.00(25/32)	43(1-11/16)	**332-0165**	7.00	69.00(2-23/32)	109(4-9/32)	**332-0700**	13.50	108.00(4-1/4)	160(6-5/16)	**332-1350**
1.70	20.00(25/32)	43(1-11/16)	**332-0170**	7.10	69.00(2-23/32)	109(4-9/32)	**332-0710**	13.60	108.00(4-1/4)	160(6-5/16)	**332-1360**
1.75	22.00(7/8)	46(1-13/16)	**332-0175**	7.20	69.00(2-23/32)	109(4-9/32)	**332-0720**	13.70	108.00(4-1/4)	160(6-5/16)	**332-1370**
1.80	22.00(7/8)	46(1-13/16)	**332-0180**	7.25	69.00(2-23/32)	109(4-9/32)	**332-0725**	13.75	108.00(4-1/4)	160(6-5/16)	**332-1375**
1.85	22.00(7/8)	46(1-13/16)	**332-0185**	7.30	69.00(2-23/32)	109(4-9/32)	**332-0730**	13.80	108.00(4-1/4)	160(6-5/16)	**332-1380**
1.90	22.00(7/8)	46(1-13/16)	**332-0190**	7.40	69.00(2-23/32)	109(4-9/32)	**332-0740**	13.90	108.00(4-1/4)	160(6-5/16)	**332-1390**
1.95	24.00(15/16)	49(1-15/16)	**332-0195**	7.50	69.00(2-23/32)	109(4-9/32)	**332-0750**	14.00	108.00(4-1/4)	160(6-5/16)	**332-1400**
2.00	24.00(15/16)	49(1-15/16)	**332-0200**	7.60	75.00(2-15/16)	117(4-19/32)	**332-0760**	14.25	114.00(4-1/2)	169(6-5/8)	**332-1425**
2.05	24.00(15/16)	49(1-15/16)	**332-0205**	7.70	75.00(2-15/16)	117(4-19/32)	**332-0770**	14.50	114.00(4-1/2)	169(6-5/8)	**332-1450**
2.10	24.00(15/16)	49(1-15/16)	**332-0210**	7.75	75.00(2-15/16)	117(4-19/32)	**332-0775**	14.75	114.00(4-1/2)	169(6-5/8)	**332-1475**
2.15	27.00(1-1/16)	53(2-3/32)	**332-0215**	7.80	75.00(2-15/16)	117(4-19/32)	**332-0780**	15.00	114.00(4-1/2)	169(6-5/8)	**332-1500**
2.20	27.00(1-1/16)	53(2-3/32)	**332-0220**	7.85	75.00(2-15/16)	117(4-19/32)	**332-0785**	15.25	120.00(4-3/4)	178(7)	**332-1525**
2.25	27.00(1-1/16)	53(2-3/32)	**332-0225**	7.90	75.00(2-15/16)	117(4-19/32)	**332-0790**	15.50	120.00(4-3/4)	178(7)	**332-1550**
2.30	27.00(1-1/16)	53(2-3/32)	**332-0230**	8.00	75.00(2-15/16)	117(4-19/32)	**332-0800**	15.75	120.00(4-3/4)	178(7)	**332-1575**
2.35	27.00(1-1/16)	53(2-3/32)	**332-0235**	8.10	75.00(2-15/16)	117(4-19/32)	**332-0810**	16.00	120.00(4-3/4)	178(7)	**332-1600**
2.40	30.00(1-3/16)	57(2-1/4)	**332-0240**	8.20	75.00(2-15/16)	117(4-19/32)	**332-0820**	16.25	125.00(4-29/32)	184(7-1/4)	**332-1625**
2.45	30.00(1-3/16)	57(2-1/4)	**332-0245**	8.25	75.00(2-15/16)	117(4-19/32)	**332-0825**	16.50	125.00(4-29/32)	184(7-1/4)	**332-1650**
2.50	30.00(1-3/16)	57(2-1/4)	**332-0250**	8.30	75.00(2-15/16)	117(4-19/32)	**332-0830**	16.75	125.00(4-29/32)	184(7-1/4)	**332-1675**
2.55	30.00(1-3/16)	57(2-1/4)	**332-0255**	8.40	75.00(2-15/16)	117(4-19/32)	**332-0840**	17.00	125.00(4-29/32)	184(7-1/4)	**332-1700**
2.60	30.00(1-3/16)	57(2-1/4)	**332-0260**	8.50	75.00(2-15/16)	117(4-19/32)	**332-0850**	17.25	130.00(5-3/32)	191(7-17/32)	**332-1725**
2.65	33.00(1-5/16)	61(2-13/32)	**332-0265**	8.60	81.00(3-3/16)	125(4-29/32)	**332-0860**	17.50	130.00(5-3/32)	191(7-17/32)	**332-1750**
2.70	33.00(1-5/16)	61(2-13/32)	**332-0270**	8.70	81.00(3-3/16)	125(4-29/32)	**332-0870**	18.00	130.00(5-3/32)	191(7-17/32)	**332-1800**
2.75	33.00(1-5/16)	61(2-13/32)	**332-0275**	8.75	81.00(3-3/16)	125(4-29/32)	**332-0875**	18.50	130.00(5-3/32)	196(7-17/32)	**332-1850**
2.80	33.00(1-5/16)	61(2-13/32)	**332-0280**	8.80	81.00(3-3/16)	125(4-29/32)	**332-0880**	19.00	130.00(5-3/32)	196(7-17/32)	**332-1900**
2.85	33.00(1-5/16)	61(2-13/32)	**332-0285**	8.90	81.00(3-3/16)	125(4-29/32)	**332-0890**	19.50	130.00(5-3/32)	214(7-17/32)	**332-1950**
2.90	33.00(1-5/16)	61(2-13/32)	**332-0290**	9.00	81.00(3-3/16)	125(4-29/32)	**332-0900**	20.00	140.00(5-16/32)	205(8-2/32)	**332-2000**
2.95	33.00(1-5/16)	61(2-13/32)	**332-0295**								

DIN1897 Twist/Screw Drills

High Speed Steel, Ground 德标 1897 全磨短钻



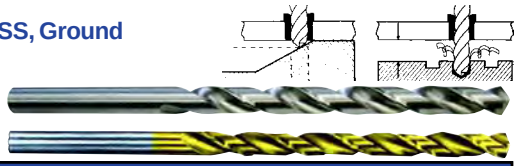
- Primarily for use in screw machines.
- Ideal medium duty portable or machine drilling of low tensile strength materials.
- Heavy-duty-short length provides increased rigidity.

Size (mm)	Flute Length (mm)	OAL (mm)	Bright Order No.	Black Oxide Order No.	TiN-Coated Order No.	Size (mm)	Flute Length (mm)	OAL (mm)	Bright Order No.	Black Oxide Order No.	TiN-Coated Order No.
0.80	5	24	202-4008	334-9008	202-5008	8.6	37	79	202-4086	334-9086	202-5086
0.90	6	25	202-4009	334-9009	202-5009	8.7	40	84	202-4087	334-9087	202-5087
1.00	6	26	202-4010	334-9010	202-5010	8.8	40	84	202-4088	334-9088	202-5088
1.10	7	28	202-4011	334-9011	202-5011	8.9	40	84	202-4089	334-9089	202-5089
1.20	8	30	202-4012	334-9012	202-5012	9.0	40	84	202-4090	334-9090	202-5090
1.30	8	30	202-4013	334-9013	202-5013	9.2	40	84	202-4092	334-9092	202-5092
1.40	9	32	202-4014	334-9014	202-5014	9.3	40	84	202-4093	334-9093	202-5093
1.50	9	32	202-4015	334-9015	202-5015	9.4	40	84	202-4094	334-9094	202-5094
1.60	10	34	202-4016	334-9016	202-5016	9.5	43	89	202-4095	334-9095	202-5095
1.70	10	34	202-4017	334-9017	202-5017	9.6	43	89	202-4096	334-9096	202-5096
1.80	11	36	202-4018	334-9018	202-5018	9.7	43	89	202-4097	334-9097	202-5097
1.90	11	36	202-4019	334-9019	202-5019	9.8	43	89	202-4098	334-9098	202-5098
2.0	12	38	202-4020	334-9020	202-5020	9.9	43	89	202-4099	334-9099	202-5099
2.1	12	38	202-4021	334-9021	202-5021	10.0	43	89	202-4100	334-9100	202-5100
2.2	13	40	202-4022	334-9022	202-5022	10.10	43	89	202-4101	334-9101	202-5101
2.3	13	40	202-4023	334-9023	202-5023	10.20	43	89	202-4102	334-9102	202-5102
2.4	14	43	202-4024	334-9024	202-5024	10.30	43	89	202-4103	334-9103	202-5103
2.5	14	43	202-4025	334-9025	202-5025	10.40	43	89	202-4104	334-9104	202-5104
2.6	14	43	202-4026	334-9026	202-5026	10.50	43	89	202-4105	334-9105	202-5105
2.7	16	46	202-4027	334-9027	202-5027	10.60	43	89	202-4106	334-9106	202-5106
2.8	16	46	202-4028	334-9028	202-5028	10.70	47	95	202-4107	334-9107	202-5107
2.9	16	46	202-4029	334-9029	202-5029	10.80	47	95	202-4108	334-9108	202-5108
3.0	16	46	202-4030	334-9030	202-5030	10.90	47	95	202-4109	334-9109	202-5109
3.1	18	49	202-4031	334-9031	202-5031	11.00	47	95	202-4110	334-9110	202-5110
3.2	18	49	202-4032	334-9032	202-5032	11.10	47	95	202-4111	334-9111	202-5111
3.3	18	49	202-4033	334-9033	202-5033	11.20	47	95	202-4112	334-9112	202-5112
3.4	20	52	202-4034	334-9034	202-5034	11.30	47	95	202-4113	334-9113	202-5113
3.5	20	52	202-4035	334-9035	202-5035	11.40	47	95	202-4114	334-9114	202-5114
3.6	20	52	202-4036	334-9036	202-5036	11.50	47	95	202-4115	334-9115	202-5115
3.7	20	52	202-4037	334-9037	202-5037	11.60	47	95	202-4116	334-9116	202-5116
3.8	22	55	202-4038	334-9038	202-5038	11.70	47	95	202-4117	334-9117	202-5117
3.9	22	55	202-4039	334-9039	202-5039	11.80	47	95	202-4118	334-9118	202-5118
4.0	22	55	202-4040	334-9040	202-5040	11.90	51	102	202-4119	334-9119	202-5119
4.1	22	55	202-4041	334-9041	202-5041	12.00	51	102	202-4120	334-9120	202-5120
4.2	22	55	202-4042	334-9042	202-5042	12.10	51	102	202-4121	334-9121	202-5121
4.3	24	58	202-4043	334-9043	202-5043	12.20	51	102	202-4122	334-9122	202-5122
4.4	24	58	202-4044	334-9044	202-5044	12.30	51	102	202-4123	334-9123	202-5123
4.5	24	58	202-4045	334-9045	202-5045	12.40	51	102	202-4124	334-9124	202-5124
4.6	24	58	202-4046	334-9046	202-5046	12.50	51	102	202-4125	334-9125	202-5125
4.7	24	58	202-4047	334-9047	202-5047	12.60	51	102	202-4126	334-9126	202-5126
4.8	26	62	202-4048	334-9048	202-5048	12.70	51	102	202-4127	334-9127	202-5127
4.9	26	62	202-4049	334-9049	202-5049	12.80	51	102	202-4128	334-9128	202-5128
5.0	26	62	202-4050	334-9050	202-5050	12.90	51	102	202-4129	334-9129	202-5129
5.1	26	62	202-4051	334-9051	202-5051	13.00	51	102	202-4130	334-9130	202-5130
5.2	26	62	202-4052	334-9052	202-5052	13.10	51	102	202-4131	334-9131	202-5131
5.3	28	66	202-4053	334-9053	202-5053	13.20	51	102	202-4132	334-9132	202-5132
5.4	28	66	202-4054	334-9054	202-5054	13.30	54	107	202-4133	334-9133	202-5133
5.5	28	66	202-4055	334-9055	202-5055	13.40	54	107	202-4134	334-9134	202-5134
5.6	28	66	202-4056	334-9056	202-5056	13.50	54	107	202-4135	334-9135	202-5135
5.7	28	66	202-4057	334-9057	202-5057	13.60	54	107	202-4136	334-9136	202-5136
5.8	28	66	202-4058	334-9058	202-5058	13.70	54	107	202-4137	334-9137	202-5137
5.9	28	66	202-4059	334-9059	202-5059	13.80	54	107	202-4138	334-9138	202-5138
6.0	28	66	202-4060	334-9060	202-5060	13.90	54	107	202-4139	334-9139	202-5139
6.1	31	70	202-4061	334-9061	202-5061	14.00	54	107	202-4140	334-9140	202-5140
6.2	31	70	202-4062	334-9062	202-5062	14.25	56	111	202-4142	334-9142	202-5142
6.3	31	70	202-4063	334-9063	202-5063	14.50	56	111	202-4145	334-9145	202-5145
6.4	31	70	202-4064	334-9064	202-5064	14.75	56	111	202-4147	334-9147	202-5147
6.5	31	70	202-4065	334-9065	202-5065	15.00	56	111	202-4150	334-9150	202-5150
6.6	31	70	202-4066	334-9066	202-5066	15.25	58	115	202-4152	334-9152	202-5152
6.7	31	70	202-4067	334-9067	202-5067	15.50	58	115	202-4155	334-9155	202-5155
6.8	34	74	202-4068	334-9068	202-5068	15.75	58	115	202-4157	334-9157	202-5157
6.9	34	74	202-4069	334-9069	202-5069	16.00	58	115	202-4160	334-9160	202-5160
7.0	34	74	202-4070	334-9070	202-5070	16.25	60	119	202-4162	334-9162	202-5162
7.1	34	74	202-4071	334-9071	202-5071	16.50	60	119	202-4165	334-9165	202-5165
7.2	34	74	202-4072	334-9072	202-5072	16.75	60	119	202-4167	334-9167	202-5167
7.3	34	74	202-4073	334-9073	202-5073	17.00	60	119	202-4170	334-9170	202-5170
7.4	34	74	202-4074	334-9074	202-5074	17.25	62	123	202-4172	334-9172	202-5172
7.5	34	74	202-4075	334-9075	202-5075	17.50	62	123	202-4175	334-9175	202-5175
7.6	37	79	202-4076	334-9076	202-5076	17.75	62	123	202-4177	334-9177	202-5177
7.7	37	79	202-4077	334-9077	202-5077	18.00	62	123	202-4180	334-9180	202-5180
7.8	37	79	202-4078	334-9078	202-5078	18.25	64	127	202-4182	334-9182	202-5182
7.9	37	79	202-4079	334-9079	202-5079	18.50	64	127	202-4185	334-9185	202-5185
8.0	37	79	202-4080	334-9080	202-5080	18.75	64	127	202-4187	334-9187	202-5187
8.1	37	79	202-4081	334-9081	202-5081	19.00	64	127	202-4190	334-9190	202-5190
8.3	37	79	202-4083	334-9083	202-5083	19.25	66	131	202-4192	334-9192	202-5192
8.4	37	79	202-4084	334-9084	202-5084	19.50	66	131	202-4195	334-9195	202-5195
8.5	37	79	202-4085	334-9085	202-5085	19.75	66	131	202-4197	334-9197	202-5197
						20.00	66	131	202-4200	334-9200	202-5200

mhc® Industrial Supply

DIN340 Twist Drills 德标 340 全磨加长钻

HSS, Ground



- Taper length is a longer, straight shank, general purpose drill used where a deeper holes is required.
- Shank diameter is the same as the drill diameter.

Size (mm)	Flute Length	OAL (mm)	Bright Order No.	Black Order No.	Ground TiN-Coated	Size (mm)	Flute Length	OAL	Bright Order No.	Black Order No.	Ground TiN-Coated
3	66	100	305-0300	310-2530	203-4030	9.9	121	184	305-0990	310-2599	203-4099
3.1	69	106	305-0310	310-2531	203-4031	10.0	121	184	305-1000	310-2600	203-4100
3.2	69	106	305-0320	310-2532	203-4032	10.1	121	184	305-1010	310-2601	203-4101
3.25	69	106	305-0325	310-2802		10.2	121	184	305-1020	310-2602	203-4102
3.3	69	106	305-0330	310-2533	203-4033	10.25	121	184	305-1025	310-2830	
3.4	73	112	305-0340	310-2534	203-4034	10.3	121	184	305-1030	310-2603	203-4103
3.5	73	112	305-0350	310-2535	203-4035	10.4	121	184	305-1040	310-2604	203-4104
3.6	73	112	305-0360	310-2536	203-4036	10.5	121	184	305-1050	310-2605	203-4105
3.7	73	112	305-0370	310-2537	203-4037	10.6	121	184	305-1060	310-2606	203-4106
3.75	73	112	305-0375	310-2804		10.7	128	195	305-1070	310-2607	203-4107
3.8	78	119	305-0380	310-2538	203-4038	10.75	128	195	305-1075	310-2832	
3.9	78	119	305-0390	310-2539	203-4039	10.8	128	195	305-1080	310-2608	203-4108
4.0	78	119	305-0400	310-3540	203-4040	10.9	128	195	305-1090	310-2609	203-4108
4.1	78	119	305-0410	310-2541	203-4041	11.0	128	195	305-1100	310-2610	203-4110
4.2	78	119	305-0420	310-2542	203-4042	11.1	128	195	305-1110	310-2611	203-4111
4.25	78	119	305-0425	310-2806		11.2	128	195	305-1120	310-2612	203-4112
4.3	82	126	305-0430	310-2543	203-4043	11.25	128	195	305-1125	310-2834	
4.4	82	126	305-0440	310-2544	203-4044	11.3	128	195	305-1130	310-2613	203-4113
4.5	82	126	305-0450	310-2545	203-4045	11.4	128	195	305-1140	310-2614	203-4114
4.6	82	126	305-0460	310-2546	203-4046	11.5	128	195	305-1150	310-2615	203-4115
4.7	82	126	305-0470	310-2547	203-4047	11.6	128	195	305-1160	310-2616	203-4116
4.75	82	126	305-0475	310-2808		11.7	128	195	305-1170	310-2617	203-4117
4.8	87	132	305-0480	310-2548	203-4048	11.75	128	195	305-1175	310-2836	
4.9	87	132	305-0490	310-2549	203-4049	11.8	128	195	305-1180	310-2618	203-4118
5.0	87	132	305-0500	310-2550	203-4050	11.9	134	205	305-1190	310-2619	203-4119
5.1	87	132	305-0510	310-2551	203-4051	12.0	134	205	305-1200	310-2620	203-4120
5.2	87	132	305-0520	310-2552	203-4052	12.1	134	205	305-1210	310-2621	203-4121
5.25	87	132	305-0525	310-2810		12.2	134	205	305-1220	310-2622	203-4122
5.3	87	132	305-0530	310-2553	203-4053	12.25	134	205	305-1225	310-2838	
5.4	91	139	305-0540	310-2554	203-4054	12.3	134	205	305-1230	310-2623	203-4123
5.5	91	139	305-0550	310-2555	203-4055	12.4	134	205	305-1240	310-2624	203-4124
5.6	91	139	305-0560	310-2556	203-4056	12.5	134	205	305-1250	310-2625	203-4125
5.7	91	139	305-0570	310-2557	203-4057	12.6	134	205	305-1260	310-2626	203-4126
5.75	91	139	305-0575	310-2812		12.7	134	205	305-1270	310-2627	203-4127
5.8	91	139	305-0580	310-2558	203-4058	12.75	134	205	305-1275	310-2840	
5.9	91	139	305-0590	310-2559	203-4059	12.8	134	205	305-1280	310-2628	203-4128
6.0	91	139	305-0600	310-2560	203-4060	12.9	134	205	305-1290	310-2629	203-4129
6.1	97	148	305-0610	310-2561	203-4061	13.0	134	205	305-1300	310-2630	203-4130
6.2	97	148	305-0620	310-2562	203-4062	13.1	134	205	305-1310	310-2631	203-4131
6.25	97	148	305-0625	310-2814		13.2	134	205	305-1320	310-2632	203-4132
6.3	97	148	305-0630	310-2563	203-4063	13.25	134	205	305-1325	310-2842	
6.4	97	148	305-0640	310-2564	203-4064	13.3	140	214	305-1330	310-2633	203-4133
6.5	97	148	305-0650	310-2565	203-4065	13.4	140	214	305-1340	310-2634	203-4133
6.6	97	148	305-0660	310-2566	203-4066	13.5	140	214	305-1350	310-2635	203-4134
6.7	97	148	305-0670	310-2567	203-4067	13.6	140	214	305-1360	310-2636	203-4136
6.75	102	156	305-0675	310-2816		13.7	140	214	305-1370	310-2637	203-4137
6.8	102	156	305-0680	310-2568	203-4068	13.75	140	214	305-1375	310-2844	
6.9	102	156	305-0690	310-2569	203-4069	13.8	140	214	305-1380	310-2638	203-4138
7.0	102	156	305-0700	310-2570	203-4070	13.9	140	214	305-1390	310-2639	203-4139
7.1	102	156	305-0710	310-2571	203-4071	14.0	140	214	305-1400	310-2640	203-4140
7.2	102	156	305-0720	310-2572	203-7072	14.25	144	220	305-1425	310-2846	203-4142
7.25	102	156	305-0725	310-2818		14.5	144	220	305-1450	310-2641	203-4145
7.3	102	156	305-0730	310-2573	203-4073	14.75	144	220	305-1475	310-2848	203-4147
7.4	102	156	305-0740	310-2574	203-4074	15.0	144	220	305-1500	310-2620	203-4150
7.5	102	156	305-0750	310-2575	203-4075	15.25	149	227	305-1525	310-2850	203-4152
7.6	109	165	305-0760	310-2576	203-4076	15.5	149	227	305-1550	310-2655	203-4155
7.7	109	165	305-0770	310-2577	203-4077	15.75	149	227	305-1575	310-2852	203-4157
7.75	109	165	305-0775	310-2820		16.0	149	227	305-1600	310-2660	203-4160
7.8	109	165	305-0780	310-2578	203-4078	16.25	154	235	305-1625	310-2854	203-4162
7.9	109	165	305-0790	310-2579	203-4079	16.5	154	235	305-1650	310-2665	203-4165
8.0	109	165	305-0800	310-2580	203-4080	16.75	154	235	305-1675	310-2856	203-4167
8.1	109	165	305-0810	310-2581	203-4081	17.0	154	235	305-1700	310-2670	203-4170
8.2	109	165	305-0820	310-2582	203-4082	17.25	158	241	305-1725	310-2858	203-4172
8.25	109	165	305-0825	310-2822		17.5	158	241	305-1750	310-2675	203-4175
8.3	109	165	305-0830	310-2583	203-4083	17.75	158	241	305-1775	310-2860	203-4177
8.4	109	165	305-0840	310-2584	203-4084	18.0	158	241	305-1800	310-2680	203-4180
8.5	109	165	305-0850	310-2585	203-4085	18.25	162	247		310-2862	203-4182
8.6	115	175	305-0860	310-2586	203-4086	18.5	162	247	305-1850	310-2685	203-4185
8.7	115	175	305-0870	310-2587	203-4087	18.75	162	247		310-2864	203-4187
8.75	115	175	305-0875	310-2824		19.0	162	247	305-1900	310-2690	203-4190
8.8	115	175	305-0880	310-2588	203-4088	19.25	166	254		310-2866	203-4192
8.9	115	175	305-0890	310-2589	203-4089	19.5	166	254	305-1950	310-2695	203-4195
9.0	115	175	305-0900	310-2590	203-4090	20.0	166	254	305-2000	310-2700	203-4197
9.1	115	175	305-0910	310-2591	203-4091	20.5	171	261	305-2050	310-2705	203-4200
9.2	115	175	305-0920	310-2592	203-4092	21.0	171	261	305-2100	310-2710	
9.25	115	175	305-0925	310-2826		21.5	171	261	305-2150	310-2715	
9.3	115	175	305-0930	310-2593	203-4093	22.0	176	268	305-2200	310-2720	
9.4	115	175	305-0940	310-2594	203-4094	22.5	176	268	305-2250	310-2725	
9.5	115	175	305-0950	310-2595	203-4095	23.0	180	275	305-2300	310-2730	
9.6	121	184	305-0960	310-2596	203-4096	23.5	180	275	305-2350	310-2735	
9.7	121	184	305-0970	310-2597	203-4097	24.0	180	275	305-2400	310-2740	
9.75	121	184	305-0975	310-2828		24.5	185	282	305-2450	310-2745	
9.8	121	184	305-0980	310-2598	203-4098	25.0	185	282	305-2500	310-2750	

Split Point Parabolic Jobber Drills

HSS, 135° Point, Ground

高速钢全磨美标抛物线 135 度分割刃钻头

- Eliminate peck feeding
- Rapid chip disposal
- Increased coolant flow



Fractional Sizes

Size	Flute Length	OAL	Bright Order No.	Black Order No.	TiN-Coated Order No.
1/64"	3/16"	3/4"	134-8301	134-8001	134-9001
1/32	1/2	1-3/8	134-8302	134-8002	134-9002
3/64	3/4	1-3/4	134-8303	134-8003	134-9003
1/16	7/8	1-7/8	134-8304	134-8004	134-9004
5/64	1	2	134-8305	134-8005	134-9005
3/32	1-1/4	2-1/4	134-8306	134-8006	134-9006
7/64	1-1/2	2-5/8	134-8307	134-8007	134-9007
1/8	1-5/8	2-3/4	134-8308	134-8008	134-9008
9/64	1-3/4	2-7/8	134-8309	134-8009	134-9009
5/32	2	3-1/8	134-8310	134-8010	134-9010
11/64	2-1/8	3-1/4	134-8311	134-8011	134-9011
3/16	2-5/16	3-1/2	134-8312	134-8012	134-9012
13/64	2-7/16	3-5/8	134-8313	134-8013	134-9013
7/32	2-1/2	3-3/4	134-8314	134-8014	134-9014
15/64	2-5/8	3-7/8	134-8315	134-8015	134-9015
1/4	2-3/4	4	134-8316	134-8016	134-9016
17/64	2-7/8	4-1/8	134-8317	134-8017	134-9017
9/32	2-15/16	4-1/4	134-8318	134-8018	134-9018
19/64	3-1/16	4-3/8	134-8319	134-8019	134-9019
5/16	3-3/16	4-1/2	134-8320	134-8020	134-9020
21/64	3-5/16	4-5/8	134-8321	134-8021	134-9021
11/32	3-7/16	4-3/4	134-8322	134-8022	134-9022
23/64	3-1/2	4-7/8	134-8323	134-8023	134-9023
3/8	3-5/8	5	134-8324	134-8024	134-9024
25/64	3-3/4	5-1/8	134-8325	134-8025	134-9025
13/32	3-7/8	5-1/4	134-8326	134-8026	134-9026
27/64	3-15/16	5-3/8	134-8327	134-8027	134-9027
7/16	4-1/16	5-1/2	134-8328	134-8028	134-9028
29/64	4-3/16	5-5/8	134-8329	134-8029	134-9029
15/32	4-5/16	5-3/4	134-8330	134-8030	134-9030
31/64	4-3/8	5-7/8	134-8331	134-8031	134-9031
1/2	4-1/2	6	134-8332	134-8032	134-9032
33/64	4-13/16	6-5/8	134-8333	134-8033	134-9033
17/32	4-13/16	6-5/8	134-8334	134-8034	134-9034
35/64	4-13/16	6-5/8	134-8335	134-8035	134-9035
9/16	4-13/16	6-5/8	134-8336	134-8036	134-9036
37/64	4-13/16	6-5/8	134-8337	134-8037	134-9037
19/32	5-3/16	7-1/8	134-8338	134-8038	134-9038
39/64	5-3/16	7-1/8	134-8339	134-8039	134-9039
5/8	5-3/16	7-1/8	134-8340	134-8040	134-9040
41/64	5-3/16	7-1/8	134-8341	134-8041	134-9041
21/32	5-3/16	7-1/8	134-8342	134-8042	134-9042
43/64	5-5/8	7-5/8	134-8343	134-8043	134-9043
11/16	5-5/8	7-5/8	134-8344	134-8044	134-9044

Letter Sizes

Size	Flute Length	OAL	Bright Order No.	Black Oxide Order No.	TiN-Coated Order No.
A	2-5/8"	3-7/8"	134-8801	134-8201	134-9201
B	2-3/4	4	134-8802	134-8202	134-9202
C	2-3/4	4	134-8803	134-8203	134-9203
D	2-3/4	4	134-8804	134-8204	134-9204
E	2-3/4	4	134-8805	134-8205	134-9205
F	2-7/8	4-1/8	134-8806	134-8206	134-9206
G	2-7/8	4-1/8	134-8807	134-8207	134-9207
H	2-7/8	4-1/8	134-8808	134-8208	134-9208
I	2-7/8	4-1/8	134-8809	134-8209	134-9209
J	2-7/8	4-1/8	134-8810	134-8210	134-9210
K	2-15/16	4-1/4	134-8811	134-8211	134-9211
L	2-15/16	4-1/4	134-8812	134-8212	134-9212
M	3-1/16	4-3/8	134-8813	134-8213	134-9213
N	3-1/16	4-3/8	134-8814	134-8214	134-9214
O	3-3/16	4-1/2	134-8815	134-8215	134-9215
P	3-5/16	4-5/8	134-8816	134-8216	134-9216
Q	3-7/16	4-3/4	134-8817	134-8217	134-9217
R	3-7/16	4-3/4	134-8818	134-8218	134-9218
S	3-1/2	4-7/8	134-8819	134-8219	134-9219
T	3-1/2	4-7/8	134-8820	134-8220	134-9220
U	3-5/8	5	134-8821	134-8221	134-9221
V	3-5/8	5	134-8822	134-8222	134-9222
W	3-3/4	5-1/8	134-8823	134-8223	134-9223
X	3-3/4	5-1/8	134-8824	134-8224	134-9224
Y	3-7/8	5-1/4	134-8825	134-8225	134-9225
Z	3-7/8	5-1/4	134-8826	134-8226	134-9226

Number Sizes

Size	Flute Length	OAL	Bright Order No.	Black Oxide Order No.	TiN-Coated Order No.
#1	2-5/8"	3-7/8"	134-8401	134-8101	134-9101
#2	2-5/8	3-7/8	134-8402	134-8102	134-9102
#3	2-1/2	3-3/4	134-8403	134-8103	134-9103
#4	2-1/2	3-3/4	134-8404	134-8104	134-9104
#5	2-1/2	3-3/4	134-8405	134-8105	134-9105
#6	2-1/2	3-3/4	134-8406	134-8106	134-9106
#7	2-7/16	3-5/8	134-8407	134-8107	134-9107
#8	2-7/16	3-5/8	134-8408	134-8108	134-9108
#9	2-7/16	3-5/8	134-8409	134-8109	134-9109
#10	2-7/16	3-5/8	134-8410	134-8110	134-9110
#11	2-5/16	3-1/2	134-8411	134-8111	134-8111
#12	2-5/16	3-1/2	134-8412	134-8112	134-9112
#13	2-5/16	3-1/2	134-8413	134-8113	134-9113
#14	2-3/16	3-3/8	134-8414	134-8114	134-9114
#15	2-3/16	3-3/8	134-8415	134-8115	134-9115
#16	2-3/16	3-3/8	134-8416	134-8116	134-9116
#17	2-3/16	3-3/8	134-8417	134-8117	134-9117
#18	2-1/8	3-1/4	134-8418	134-8118	134-9118
#19	2-1/8	3-1/4	134-8419	134-8119	134-9119
#20	2-1/8	3-1/4	134-8420	134-8120	134-9120
#21	2-1/8	3-1/4	134-8421	134-8121	134-9121
#22	2	3-1/8	134-8422	134-8122	134-9122
#23	2	3-1/8	134-8423	134-8123	134-9123
#24	2	3-1/8	134-8424	134-8124	134-9124
#25	1-7/8	3	134-8425	134-8125	134-9125
#26	1-7/8	3	134-8426	134-8126	134-9126
#27	1-7/8	3	134-8427	134-8127	134-9127
#28	1-3/4	2-7/8	134-8428	134-8128	134-9128
#29	1-3/4	2-7/8	134-8429	134-8129	134-9129
#30	1-5/8	2-3/4	134-8430	134-8130	134-9130
#31	1-5/8	2-3/4	134-8431	134-8131	134-9131
#32	1-5/8	2-3/4	134-8432	134-8132	134-9132
#33	1-1/2	2-5/8	134-8433	134-8133	134-9133
#34	1-1/2	2-5/8	134-8434	134-8134	134-9134
#35	1-1/2	2-5/8	134-8435	134-8135	134-9135
#36	1-7/16	2-1/2	134-8436	134-8136	134-9136
#37	1-7/16	2-1/2	134-8437	134-8137	134-8137
#38	1-7/16	2-1/2	134-8438	134-8138	134-8138
#39	1-3/8	2-3/8	134-8439	134-8139	134-9139
#40	1-3/8	2-3/8	134-8440	134-8140	134-9140
#41	1-3/8	2-3/8	134-8441	134-8141	134-9141
#42	1-1/4	2-1/4	134-8442	134-8142	134-9142
#43	1-1/4	2-1/4	134-8443	134-8143	134-9143
#44	1-1/8	2-1/8	134-8444	134-8144	134-9144
#45	1-1/8	2-1/8	134-8445	134-8145	134-9145
#46	1-1/8	2-1/8	134-8446	134-8146	134-9146
#47	1	2	134-8447	134-8147	134-9147
#48	1	2	134-8448	134-8148	134-9148
#49	1	2	134-8449	134-8149	134-9149
#50	1	2	134-8450	134-8150	134-9150
#51	1	2	134-8451	134-8151	134-9151
#52	7/8	1-7/8	134-8452	134-8152	134-9152
#53	7/8	1-7/8	134-8453	134-8153	134-9153
#54	7/8	1-7/8	134-8454	134-8154	134-9154
#55	7/8	1-7/8	134-8455	134-8155	134-9155
#56	3/4	1-3/4	134-8456	134-8156	134-9156
#57	3/4	1-3/4	134-8457	134-8157	134-9157
#58	11/16	1-5/8	134-8458	134-8158	134-9158
#59	11/16	1-5/8	134-8459	134-8159	134-9159
#60	11/16	1-5/8	134-8460	134-8160	134-9160

Split Point Parabolic Taper Length Drills

HSS, 135° Point, Ground

全磨美标抛物线锥长度 135 度分割刃白钻

- The wide land parabolic flute design provides superior performance in a greater range of materials and applications
- Unique flute form produces closer tolerances due to improved chip and coolant flow, and higher torsional rigidity 135° Self-centering split point reduces thrust
- Taper length(longer flute and overall length) improves reach and deep hole drilling capability



Fractional Sizes

Size	Flute Length	OAL	Bright Order No.	Black Oxide Order No.	TiN-Coated Order No.
1/64”	5/16"	1-1/2”	134-8901	134-8501	134-9501
1/32	3/4	2	134-8902	134-8502	134-9502
3/64	1-1/8"	2-1/4	134-8903	134-8503	134-9503
1/16	1-3/4	3	134-8904	134-8504	134-9504
5/64	2	3-3/4	134-8905	134-8505	134-9505
3/32	2-1/4	4-1/4	134-8906	134-8506	134-9506
7/64	2-1/2	4-5/8	134-8907	134-8507	134-9507
1/8	2-3/4	5-/18	134-8908	134-8508	134-9508
9/64	3	5-3/8	134-8909	134-8509	134-9509
5/32	3	5-3/8	134-8910	134-8510	134-9510
11/64	3-3/8	5-3/4	134-8911	134-8511	134-9511
3/16	3-3/8	5-3/4	134-8912	134-8512	134-9512
13/64	3-5/8	6	134-8913	134-8513	134-9513
7/32	3-5/8	6	134-8914	134-8514	134-9514
15/64	3-3/4	6-1/8	134-8915	134-8515	134-9515
1/4	3-3/4	6-1/8	134-8916	134-8516	134-9516
17/16	3-7/8	6-1/4	134-8917	134-8517	134-9517
9/32	3-7/8	6-1/4	134-8918	134-8518	134-9518
19/64	4	6-3/8	134-8919	134-8519	134-9519
5/16	4	6-3/8	134-8920	134-8520	134-9520
21/64	4-1/8	6-1/2	134-8921	134-8521	134-9521
11/32	4-1/8	6-1/2	134-8922	134-8522	134-9522
23/64	4-1/4	6-3/4	134-8923	134-8523	134-9523
3/8	4-1/4	6-3/4	134-8924	134-8524	134-9524
25/64	4-3/8	7	134-8925	134-8525	134-9525
13/32	4-3/8	7	134-8926	134-8526	134-9526
27/64	4-5/8	7-1/4	134-8927	134-8527	134-9527
7/16	4-5/8	7-1/4	134-8928	134-8528	134-9528
29/64	4-3/4	7-1/2	134-8929	134-8529	134-9529
15/32	4-3/4	7-1/2	134-8930	134-8530	134-9530
31/64	4-3/4	7-3/4	134-8931	134-8531	134-9531
1/2	4-3/4	7-3/4	134-8932	134-8532	134-9532
33/64	4-3/4	8	134-8933	134-8533	134-9533
17/32	4-3/4	8	134-8934	134-8534	134-9534
35/64	4-7/8	8-1/4	134-8935	134-8535	134-9535
9/16	4-7/8	8-1/4	134-8936	134-8536	134-9536
37/64	4-7/8	8-3/4	134-8937	134-8537	134-9537
19/32	4-7/8	8-3/4	134-8938	134-8538	134-9538
39/64	4-7/8	8-3/4	134-8939	134-8539	134-9539
5/8	4-7/8	8-3/4	134-8940	134-8540	134-9540
41/64	5-1/8	9	134-8941	134-8541	134-9541
21/32	5-1/8	9	134-8942	134-8542	134-9542
43/64	5-3/8	9-1/4	134-8943	134-8543	134-9543
11/16	5-3/8	9-1/4	134-8944	134-8544	134-9544
45/64	5-5/8	9-1/2	134-8945	134-8545	134-9545
23/32	5-5/8	9-1/2	134-8946	134-8546	134-9546
47/64	5-7/8	9-3/4	134-8947	134-8547	134-9547
3/4	5-7/8	9-3/4	134-8948	134-8548	134-9548
49/64	6	9-7/8	134-8949	134-8549	134-9549
25/32	6	9-7/8	134-8950	134-8550	134-9550
51/64	6-1/8"	10	134-8951	134-8551	134-9551
13/16	6-1/8	10	134-8952	134-8552	134-9552
53/64	6-1/8	10	134-8953	134-8553	134-9553
27/32	6-1/8	10	134-8954	134-8554	134-9554
55/64	6-1/8	10	134-8955	134-8555	134-9555
7/8	6-1/8	10	134-8956	134-8556	134-9556
57/64	6-1/8	10	134-8957	134-8557	134-9557
29/32	6-1/8	10	134-8958	134-8558	134-9558
59/64	6-1/8	10-3/4	134-8959	134-8559	134-9559
15/16	6-1/8	10-3/4	134-8960	134-8560	134-9560
61/64	6-3/8	11	134-8961	134-8561	134-9561
31/32	6-3/8	11	134-8962	134-8562	134-9562
63/64	6-3/8	11	134-8963	134-8563	134-9563
1	6-3/8	11	134-8964	134-8564	134-9564

Number Sizes

Size	Flute Length	OAL	Bright Order No.	Black Oxide Order No.	TiN-Coated Order No.
#1	3-3/4"	6-1/8”	134-9301	134-8601	134-9601
#2	3-3/4	6-1/8	134-9302	134-8602	134-9602
#3	3-5/8	6	134-9303	134-8603	134-9603
#4	3-5/8	6	134-9304	134-8604	134-9604
#5	3-5/8	6	134-9305	134-8605	134-9605
#6	3-5/8	6	134-9306	134-8606	134-9606
#7	3-5/8	6	134-9307	134-8607	134-9607
#8	3-5/8	6	134-9308	134-8608	134-9608
#9	3-5/8	6	134-9309	134-8609	134-9609
#10	3-5/8	6	134-9310	134-8610	134-9610
#11	3-5/8	6	134-9311	134-8611	134-9611
#12	3-5/8	6	134-9312	134-8612	134-9612
#13	3-3/8	5-3/4	134-9313	134-8613	134-9613
#14	3-3/8	5-3/4	134-9314	134-8614	134-9614
#15	3-3/8	5-3/4	134-9315	134-8615	134-9615
#16	3-3/8	5-3/4	134-9316	134-8616	134-9616
#17	3-3/8	5-3/4	134-9317	134-8617	134-9617
#18	3-3/8	5-3/4	134-9318	134-8618	134-9618
#19	3-3/8	5-3/4	134-9319	134-8619	134-9619
#20	3-3/8	5-3/4	134-9320	134-8620	134-9620
#21	3-3/8	5-3/4	134-9321	134-8621	134-9621
#22	3-3/8	5-3/4	134-9322	134-8622	134-9622
#23	3	5-3/8	134-9323	134-8623	134-9623
#24	3	5-3/8	134-9324	134-8624	134-9624
#25	3	5-3/8	134-9325	134-8625	134-9625
#26	3	5-3/8	134-9326	134-8626	134-9626
#27	3	5-3/8	134-9327	134-8627	134-9627
#28	3	5-3/8	134-9328	134-8628	134-9628
#29	3	5-3/8	134-9329	134-8629	134-9629
#30	3	5-3/8	134-9330	134-8630	134-9630
#31	2-3/4	5-1/8	134-9331	134-8631	134-9631
#32	2-3/4	5-1/8	134-9332	134-8632	134-9632
#33	2-3/4	5-1/8	134-9333	134-8633	134-9633
#34	2-3/4	5-1/8	134-9334	134-8634	134-9634
#35	2-3/4	5-1/8	134-9335	134-8635	134-9635
#36	2-1/2	4-5/8	134-9336	134-8636	134-9636
#37	2-1/2	4-5/8	134-9337	134-8637	134-9637
#38	2-1/2	4-5/8	134-9338	134-8638	134-9638
#39	2-1/2	4-5/8	134-9339	134-8639	134-9639
#40	2-1/2	4-5/8	134-9340	134-8640	134-9640
#41	2-1/2	4-5/8	134-9341	134-8641	134-9641
#42	2-1/4	4-1/4	134-9342	134-8642	134-9642
#43	2-1/4	4-1/4	134-9343	134-8643	134-9643
#44	2-1/4	4-1/4	134-9344	134-8644	134-9644
#45	2-1/4	4-1/4	134-9345	134-8645	134-9645
#46	2-1/4	4-1/4	134-9346	134-8646	134-9646
#47	2-1/4	4-1/4	134-9347	134-8647	134-9647
#48	2	3-3/4	134-9348	134-8648	134-9648
#49	2	3-3/4	134-9349	134-8649	134-9649
#50	2	3-3/4	134-9350	134-8650	134-9650
#51	2	3-3/4	134-9351	134-8651	134-9651
#52	2	3-3/4	134-9352	134-8652	134-9652
#53	1-3/4	3	134-9353	134-8653	134-9653
#54	1-3/4	3	134-9354	134-8654	134-9654
#55	1-3/4	3	134-9355	134-8655	134-9655
#56	1-1/8	2-1/4	134-9356	134-8656	134-9656
#57	1-1/8	2-1/4	134-9357	134-8657	134-8657
#58	1-1/8	2-1/4	134-9358	134-8658	134-9658
#59	1-1/8	2-1/4	134-9359	134-8659	134-9659
#60	1-1/8	2-1/4	134-9360	134-8660	134-9660

Letter Sizes

Size	Flute Length	OAL	Bright Order No.	Black Oxide Order No.	TiN-Coated Order No.
A	3-3/4"	6-1/8”	134-8831	134-8701	134-9701
B	3-3/4	6-1/8	134-8832	134-8702	134-9702
C	3-3/4	6-1/8	134-8833	134-8703	134-9703
D	3-3/4	6-1/8	134-8834	134-8704	134-9704
E	3-3/4	6-1/8	134-8835	134-8705	134-9705
F	3-7/8	6-1/4	134-8836	134-8706	134-9706
G	3-7/8	6-1/4	134-8837	134-8707	134-9707
H	3-7/8	6-1/4	134-8838	134-8708	134-9708
I	3-7/8	6-1/4	134-8839	134-8709	134-9709
J	3-7/8	6-1/4	134-8840	134-8710	134-9710
K	3-7/8	6-1/4	134-8841	134-8711	134-9711
L	4	6-3/8	134-8842	134-8712	134-9712
M	4	6-3/8	134-8843	134-8713	134-9713
N	4	6-3/8	134-8844	134-8714	134-9714
O	4-1/8	6-1/2	134-8845	134-8715	134-9715
P	4-1/8	6-1/2	134-8846	134-8716	134-9716
Q	4-1/8	6-1/2	134-8847	134-8717	134-9717
R	4-1/8	6-1/2	134-8848	134-8718	134-9718
S	4-1/4	6-3/4	134-8849	134-8719	134-9719
T	4-1/4	6-3/4	134-8830	134-8720	134-9720
U	4-1/4	6-3/4	134-8831	134-8721	134-9721
V	4-3/8	7	134-8832	134-8722	134-9722
W	4-3/8	7	134-8833	134-8723	134-9723
X	4-3/8	7	134-8834	134-8724	134-9724
Y	4-3/8	7	134-8835	134-8725	134-9725
Z	4-5/8	7-1/4	134-8836	134-8726	134-9726

HSS Ground Drill Blanks 全磨高速钢钻胚

- Used for punches, gages, pins or special tools.
- Made of hardened high speed steel and ground.
- Fully hardened to HRC 63-65.



Tolerance limits

0" - .2500"	+ .0000" - .0005"
.251"- .3906"	+ .0000" - .0009"
.391" - 1.0000"	+ .0000" - .0010"

Fractional Sizes

Size	OAL	Order No.	Size	OAL	Order No.	Size	OAL	Order No.
1/64"	3/4"	**305-8101**	23/64	4-7/8	**305-8123**	45/64	6	**305-8145**
1/32	1-3/8	**305-8102**	3/8	5	**305-8124**	23/32	6	**305-8146**
3/64	1-3/4	**305-8103**	25/64	5-1/8	**305-8125**	47/64	6	**305-8147**
1/16	1-7/8	**305-8104**	13/32	5-1/4	**305-8126**	3/4	6	**305-8148**
5/64	2	**305-8105**	27/64	5-3/8	**305-8127**	49/64	6	**305-8149**
3/32	2-1/4	**305-8106**	7/16	5-1/2	**305-8128**	25/32	6	**305-8150**
7/64	2-5/8	**305-8107**	29/64	5-5/8	**305-8129**	51/64	6	**305-8151**
1/8	2-3/4	**305-8108**	15/32	5-3/4	**305-8130**	13/16	6	**305-8152**
9/64	2-7/8	**305-8109**	31/64	5-7/8	**305-8131**	53/64	6	**305-8153**
5/32	3-1/8	**305-8110**	1/2	6	**305-8132**	27/32	6	**305-8154**
11/64	3-1/4	**305-8111**	3/64	6	**305-8133**	55/64	6	**305-8155**
3/16	3-1/2	**305-8112**	17/32	6	**305-8134**	7/8	6	**305-8156**
13/64	3-5/8	**305-8113**	35/64	6	**305-8135**	57/64	6	**305-8157**
7/32	3-3/4	**305-8114**	9/16	6	**305-8136**	29/32	6	**305-8158**
15/64	3-7/8	**305-8115**	37/64	6	**305-8137**	59/64	6	**305-8159**
1/4	4	**305-8116**	19/32	6	**305-8138**	15/16	6	**305-8160**
17/64	4-1/8	**305-8117**	39/64	6	**305-8139**	61/64	6	**305-8161**
9/32	4-1/4	**305-8118**	5/8	6	**305-8140**	31/32	6	**305-8162**
19/64	4-3/8	**305-8119**	41/64	6	**305-8141**	63/64	6	**305-8163**
5/16	4-1/2	**305-8120**	21/32	6	**305-8142**	1	6	**305-8164**
21/64	4-5/8	**305-8121**	43/ 64	6	**305-8143**			
11/32	4-3/4	**305-8122**	11/16	6	**305-8144**			

Number Sizes

Size	OAL	Order No.	Size	OAL	Order No.	Size	OAL	Order No.
#1	3-7/8"	**305-8001**	#28	2-7/8	**305-8028**	#55	1-7/8	**305-8055**
#2	3-7/8	**305-8002**	#29	2-7/8	**305-8029**	#56	1-3/4	**305-8056**
#3	3-3/4	**305-8003**	#30	2-3/4	**305-8030**	#57	1-3/4	**305-8057**
#4	3-3/4	**305-8004**	#31	2-3/4	**305-8031**	#58	1-5/8	**305-8058**
#5	3-3/4	**305-8005**	#32	2-3/4	**305-8032**	#59	1-5/8	**305-8059**
#6	3-3/4	**305-8006**	#33	2-5/8	**305-8033**	#60	1-5/8	**305-8060**
#7	3-5/8	**305-8007**	#34	2-5/8	**305-8034**	#61	1-5/8	**305-8061**
#8	3-5/8	**305-8008**	#35	2-5/8	**305-8035**	#62	1-1/2	**305-8062**
#9	3-5/8	**305-8009**	#36	2-1/2	**305-8036**	#63	1-1/2	**305-8063**
#10	3-5/8	**305-8010**	#37	2-1/2	**305-8037**	#64	1-1/2	**305-8064**
#11	3-1/2	**305-8011**	#38	2-1/2	**305-8038**	#65	1-1/2	**305-8065**
#12	3-1/2	**305-8012**	#39	2-3/8	**305-8039**	#66	1-3/8	**305-8066**
#13	3-1/2	**305-8013**	#40	2-3/8	**305-8040**	#67	1-3/8	**305-8067**
#14	3-3/8	**305-8014**	#41	2-3/8"	**305-8041**	#68	1-3/8	**305-8068**
#15	3-3/8	**305-8015**	#42	2-1/4	**305-8042**	#69	1-3/8	**305-8069**
#16	3-3/8	**305-8016**	#43	2-1/4	**305-8043**	#70	1-1/4	**305-8070**
#17	3-3/8	**305-8017**	#44	2-1/8	**305-8044**	#71	1-1/4	**305-8071**
#18	3-1/4	**305-8018**	#45	2-1/8	**305-8045**	#72	1-1/8	**305-8072**
#19	3-1/4	**305-8019**	#46	2-1/8	**305-8046**	#73	1-1/8	**305-8073**
#20	3-1/4	**305-8020**	#47	2	**305-8047**	#74	1	**305-8074**
#21	3-1/4	**305-8021**	#48	2	**305-8048**	#75	1	**305-8075**
#22	3-1/8	**305-8022**	#49	2	**305-8049**	#76	7/8	**305-8076**
#23	3-1/8	**305-8023**	#50	2	**305-8050**	#77	7/8	**305-8077**
#24	3-1/8	**305-8024**	#51	2	**305-8051**	#78	7/8	**305-8078**
#25	3	**305-8025**	#52	1-7/8	**305-8052**	#79	3/4	**305-8079**
#26	3	**305-8026**	#53	1-7/8	**305-8053**	#80	3/4	**305-8080**
#27	3	**305-8027**	#54	1-7/8	**305-8054**			

Letter Sizes

Size	OAL	Order No.	Size	OAL	Order No.	Size	OAL	Order No.
A	3-7/8"	**305-8201**	J	4-1/8	**305-8210**	S	4-7/8	**305-8219**
B	4	**305-8202**	K	4-1/4	**305-8211**	T	4-7/8	**305-8220**
C	4	**305-8203**	L	4-1/4	**305-8212**	U	5	**305-8221**
D	4	**305-8204**	M	4-3/8	**305-8213**	V	5	**305-8222**
E	4	**305-8205**	N	4-3/8	**305-8214**	W	5-1/8	**305-8223**
F	4-1/8	**305-8206**	O	4-1/2	**305-8215**	X	5-1/8	**305-8224**
G	4-1/8	**305-8207**	P	4-5/8	**305-8216**	Y	5-1/4	**305-8225**
H	4-1/8	**305-8208**	Q	4-3/4	**305-8217**	Z	5-1/4	**305-8226**
I	4-1/8	**305-8209**	R	4-3/4	**305-8218**			

Drill Blank Sets 套装全磨高速钢钻胚

High Speed Steel, Ground

Pieces	Specification	Order No.
115	(1/16-1/2" by 1/64ths,A-Z,# 1-#60) with metal index	**305-8315**
20	wire size blanks #61-80	**305-8320**
26	letter size blanks A to Z	**305-8326**
29	blanks 1/16'' to 1/2'' by 64ths	**305-8329**
60	wire size blanks #1 to #60	**305-8360**

Pieces	Specification	Order No.
13	with metal box 1.5-6.5mmx0.5mm,3.2mm,4.8mm	**305-8302**
19	with metal box,1.0-10.0mmx0.5mm	**305-8305**
25	with metal box,1.0-13.0mmx0.5mm	**305-8307**
41	6-10mm by 0.1mm with metal box	**305-8341**
51	1-6mm by 0.1mm with metal box	**305-8351**



Metric Ground HSS Drill Blanks

全磨公制尺寸钻胚

- Used for punches, gages, pins or special tools.
- Made of hardened high speed steel and ground.
- Fully hardened to HRC63-65.

Tolerance limits

0" - .2500"	+ .0000" - .0005"
.251"- .3906"	+ .0000" - .0009"
.391" - 1.0000"	+ .0000" - .0010"



Metric

Size	Decimal Equivalent	OAL	Order No.	Size	Decimal Equivalent	OAL	Order No.	Size	Decimal Equivalent	OAL	Order No.
0.35mm	0.0138(in)	19mm	**305-6035**	3.25	0.1280	65	**305-6325**	7.60	0.2992	117	**305-6760**
0.40	0.0157	20	**305-6040**	3.30	0.1299	65	**305-6330**	7.70	0.3031	117	**305-6770**
0.45	0.0177	20	**305-6045**	3.40	0.1339	70	**305-6340**	7.75	0.3051	117	**305-6775**
0.50	0.0197	22	**305-6050**	3.50	0.1378	70	**305-6350**	7.80	0.3071	117	**305-6780**
0.55	0.0217	24	**305-6055**	3.60	0.1417	70	**305-6360**	7.90	0.3110	117	**305-6790**
0.60	0.0236	24	**305-6060**	3.70	0.1457	70	**305-6370**	8.00	0.3150	117	**305-6800**
0.65	0.0256	26	**305-6065**	3.75	0.1476	70	**305-6375**	8.10	0.3189	117	**305-6810**
0.70	0.0276	28	**305-6070**	3.80	0.1496	75	**305-6380**	8.20	0.3228	117	**305-6820**
0.75	0.0295	28	**305-6075**	3.90	0.1535	75	**305-6390**	8.25	0.3248	117	**305-6825**
0.80	0.0315	30	**305-6080**	4.00	0.1575	75	**305-6400**	8.30	0.3268	117	**305-6830**
0.85	0.0335	30	**305-6085**	4.10	0.1614	75	**305-6410**	8.40	0.3307	117	**305-6840**
0.90	0.0354	32	**305-6090**	4.20	0.1654	75	**305-6420**	8.50	0.3346	117	**305-6850**
0.95	0.0374	32	**305-6095**	4.25	0.1673	75	**305-6425**	8.60	0.3386	125	**305-6860**
1.00	0.0394	34	**305-6100**	4.30	0.1693	80	**305-6430**	8.70	0.3425	125	**305-6870**
1.05	0.0413	34	**305-6105**	4.40	0.1732	80	**305-6440**	8.75	0.3445	125	**305-6875**
1.10	0.0433	36	**305-6110**	4.50	0.1772	80	**305-6450**	8.80	0.3465	125	**305-6880**
1.15	0.0453	36	**305-6115**	4.60	0.1811	80	**305-6460**	8.90	0.3504	125	**305-6890**
1.20	0.0472	38	**305-6120**	4.70	0.1850	80	**305-6470**	9.00	0.3543	125	**305-6900**
1.25	0.0492	38	**305-6125**	4.75	0.1870	80	**305-6475**	9.10	0.3583	125	**305-6910**
1.30	0.0512	38	**305-6130**	4.80	0.1890	86	**305-6480**	9.20	0.3622	125	**305-6920**
1.35	0.0531	40	**305-6135**	4.90	0.1929	86	**305-6490**	9.25	0.3642	125	**305-6925**
1.40	0.0551	40	**305-6140**	5.00	0.1969	86	**305-6500**	9.30	0.3661	125	**305-6930**
1.45	0.0571	40	**305-6145**	5.10	0.2008	86	**305-6510**	9.40	0.3701	125	**305-6940**
1.50	0.0591	40	**305-6150**	5.20	0.2047	86	**305-6520**	9.50	0.3740	125	**305-6950**
1.55	0.0610	43	**305-6155**	5.25	0.2067	86	**305-6525**	9.60	0.3780	133	**305-6960**
1.60	0.0630	43	**305-6160**	5.30	0.2087	86	**305-6530**	9.70	0.3819	133	**305-6970**
1.65	0.0650	43	**305-6165**	5.40	0.2126	93	**305-6540**	9.75	0.3839	133	**305-6975**
1.70	0.0669	43	**305-6170**	5.50	0.2165	93	**305-6555**	9.80	0.3858	133	**305-6980**
1.75	0.0689	46	**305-6175**	5.60	0.2205	93	**305-6560**	9.90	0.3898	133	**305-6990**
1.80	0.0709	46	**305-6180**	5.70	0.2244	93	**305-6570**	10.00	0.3937	133	**305-7010**
1.85	0.0728	46	**305-6185**	5.75	0.2264	93	**305-6575**	10.00	0.3937	133	**305-7000**
1.90	0.0748	46	**305-6190**	5.80	0.2283	93	**305-6580**	10.50	0.4134	136	**305-7050**
1.95	0.0768	49	**305-6195**	5.90	0.2323	93	**305-6590**	10.80	0.4134	136	**305-7080**
2.00	0.0787	49	**305-6200**	6.00	0.2362	93	**305-6600**	10.90	0.4252	140	**305-7090**
2.05	0.0807	49	**305-6205**	6.10	0.2402	101	**305-6610**	11.00	0.4331	140	**305-7100**
2.10	0.0827	49	**305-6210**	6.20	0.2441	101	**305-6620**	11.50	0.4528	142	**305-7150**
2.15	0.0846	53	**305-6215**	6.25	0.2461	101	**305-6625**	12.00	0.4724	149	**305-7200**
2.20	0.0866	53	**305-6220**	6.30	0.2480	101	**305-6630**	12.20	0.4842	150	**305-7220**
2.25	0.0886	53	**305-6225**	6.40	0.2520	101	**305-6640**	12.30	0.4921	152	**305-7230**
2.30	0.0906	53	**305-6230**	6.50	0.2559	101	**305-6650**	12.50	0.4921	152	**305-7250**
2.35	0.0925	53	**305-6235**	6.60	0.2598	101	**305-6660**	12.60	0.4921	152	**305-7260**
2.40	0.0945	57	**305-6240**	6.70	0.2638	101	**305-6670**	13.00		152	**305-7300**
2.45	0.0965	57	**305-6245**	6.75	0.2657	109	**305-6675**	13.50		168	**305-7350**
2.50	0.0984	57	**305-6250**	6.80	0.2677	109	**305-6680**	14.00		168	**305-7400**
2.60	0.1024	57	**305-6260**	6.90	0.2717	109	**305-6690**	14.50		168	**305-7450**
2.70	0.1063	61	**305-6270**	7.00	0.2756	109	**305-6700**	15.00		181	**305-7500**
2.75	0.1083	61	**305-6275**	7.10	0.2795	109	**305-6710**	15.50		181	**305-7550**
2.80	0.1102	61	**305-6280**	7.20	0.2835	109	**305-6720**	16.00		181	**305-7600**
2.90	0.1142	61	**305-6290**	7.25	0.2854	109	**305-6725**	16.50		181	**305-7650**
3.00	0.1181	61	**305-6300**	7.30	0.2874	109	**305-6730**	17.00		194	**305-7700**
3.10	0.1220	65	**305-6310**	7.40	0.2913	109	**305-6740**	17.50		194	**305-7750**
3.20	0.1260	65	**305-6320**	7.50	0.2953	109	**305-6750**				

Aircraft Extension Drills

美标航空钻

Ground,135° Split point, 6" & 12" Length



- Standard two flute design.
- Straight shanks correspond to the drill diameter.

Used to drill normal depth holes in hard to reach places,such as in airframe work, pulley hubs, etc.

Fractional Sizes

		HSS Black		HSS Bright		M35 Cobalt	
	Flute	6"	12"	6"	12"	6"	12"
Size	Length	Order No.	Order No.	Order No.	Order No.	Order No.	Order No.
3/64"	3/4"	434-5003	434-9003	434-0003	434-1003	434-7003	434-8003
1/16	7/8	434-5004	434-9004	434-0004	434-1004	434-7004	434-8004
5/64	1	434-5005	434-9005	434-0005	434-1005	434-7005	434-8005
3/32	1-1/4	434-5006	434-9006	434-0006	434-1006	434-7006	434-8006
7/64	1-1/2	434-5007	434-9007	434-0007	434-1007	434-7007	434-8007
1/8	1-5/8	434-5008	434-9008	434-0008	434-1008	434-7008	434-8008
9/64	1-3/4	434-5009	434-9009	434-0009	434-1009	434-7009	434-8009
5/32	2	434-5010	434-9010	434-0010	434-1010	434-7010	434-8010
11/64	2-1/8	434-5011	434-9011	434-0011	434-1011	434-7011	434-8011
3/16	2-5/16	434-5012	434-9012	434-0012	434-1012	434-7012	434-8012
13/64	2-7/16	434-5013	434-9013	434-0013	434-1013	434-7013	434-8013
7/32	2-1/2	434-5014	434-9014	434-0014	434-1014	434-7014	434-8014
15/34	2-5/8	434-5015	434-9015	434-0015	434-1015	434-7015	434-8015
1/4	2-3/4	434-5016	434-9016	434-0016	434-1016	434-7016	434-8016
17/64	2-7/8	434-5017	434-9017	434-0017	434-1017	434-7017	434-8017
9/32	2-15/16	434-5018	434-9018	434-0018	434-1018	434-7018	434-8018
19/64	3-1/16	434-5019	434-9019	434-0019	434-1019	434-7019	434-8019
5/16	3-3/16	434-5020	434-9020	434-0020	434-1020	434-7020	434-8020
21/64	3-5/16	434-5021	434-9021	434-0021	434-1021	434-7021	434-8021
11/32	3-7/16	434-5022	434-9022	434-0022	434-1022	434-7022	434-8022
23/64	3-1/2	434-5023	434-9023	434-0023	434-1023	434-7023	434-8023
3/8	3-5/8	434-5024	434-9024	434-0024	434-1024	434-7024	434-8024
25/64	3-3/4	434-5025	434-9025	434-0025	434-1025	434-7025	434-8025
13/32	3-7/8	434-5026	434-9026	434-0026	434-1026	434-7026	434-8026
27/64	3-15/16	434-5027	434-9027	434-0027	434-1027	434-7027	434-8027
7/16	4-1/16	434-5028	434-9028	434-0028	434-1028	434-7028	434-8028
29/64	4-3/16	434-5029	434-9029	434-0029	434-1029	434-7029	434-8029
15/62	4-5/16	434-5030	434-9030	434-0030	434-1030	434-7030	434-8030
31/64	4-3/8	434-5031	434-9031	434-0031	434-1031	434-7031	434-8031
1/2	4-1/2	434-5032	434-9032	434-0032	434-1032	434-7032	434-8032

Letter Sizes

		HSS Black		HSS Bright		M35 Cobalt	
	Flute	6"	12"	6"	12"	6"	12"
Size	Length	Order No.	Order No.	Order No.	Order No.	Order No.	Order No.
A	2-5/8"	434-5201	434-9201	434-0201	434-1201	434-7201	434-8201
B	2-3/4	434-5202	434-9202	434-0202	434-1202	434-7202	434-8202
C	2-3/4	434-5203	434-9203	434-0203	434-1203	434-7203	434-8203
D	2-3/4	434-5204	434-9204	434-0204	434-1204	434-7204	434-8204
E	2-3/4	434-5205	434-9205	434-0205	434-1205	434-7205	434-8205
F	2-3/4	434-5206	434-9206	434-0206	434-1206	434-7206	434-8206
G	2-7/8	434-5207	434-9207	434-0207	434-1207	434-7207	434-8207
H	2-7/8	434-5208	434-9208	434-0208	434-1208	434-7208	434-8208
I	2-7/8	434-5209	434-9209	434-0209	434-1209	434-7209	434-8209
J	2-7/8	434-5210	434-9210	434-0210	434-1210	434-7210	434-8210
K	2-15/16	434-5211	434-9211	434-0211	434-1211	434-7211	434-8211
L	2-15/16	434-5212	434-9212	434-0212	434-1212	434-7212	434-8212
M	3-1/16	434-5213	434-9213	434-0213	434-1213	434-7213	434-8213
N	3-1/16	434-5214	434-9214	434-0214	434-1214	434-7214	434-8214
O	3-3/16	434-5215	434-9215	434-0215	434-1215	434-7215	434-8215
P	3-5/16	434-5216	434-9216	434-0216	434-1216	434-7216	434-8216
Q	3-7/16	434-5217	434-9217	434-0217	434-1217	434-7217	434-8217
R	3-7/16	434-5218	434-9218	434-0218	434-1218	434-7218	434-8218
S	3-1/2	434-5219	434-9219	434-0219	434-1219	434-7219	434-8219
T	3-1/2	434-5220	434-9220	434-0220	434-1220	434-7220	434-8220
U	3-5/8	434-5221	434-9221	434-0221	434-1221	434-7221	434-8221
V	3-5/8	434-5222	434-9222	434-0222	434-1222	434-7222	434-8222
W	3-3/4	434-5223	434-9223	434-0223	434-1223	434-7223	434-8223
X	3-3/4	434-5224	434-9224	434-0224	434-1224	434-7224	434-8224
Y	3-7/8	434-5225	434-9225	434-0225	434-1225	434-7225	434-8225
Z	3-7/8	434-5226	434-9226	434-0226	434-1226	434-7226	434-8226

Number Sizes

		HSS Black		HSS Bright		M35 Cobalt	
	Flute	6"	12"	6"	12"	6"	12"
Size	Length	Order No.	Order No.	Order No.	Order No.	Order No.	Order No.
#1	2-5/8	434-5101	434-9101	434-0101	434-1101	434-7101	434-8101
#2	2-5/8	434-5102	434-9102	434-0102	434-1102	434-7102	434-8102
#3	2-1/2	434-5103	434-9103	434-0103	434-1103	434-7103	434-8103
#4	2-1/2	434-5104	434-9104	434-0104	434-1104	434-7104	434-8104
#5	2-1/2	434-5105	434-9105	434-0105	434-1105	434-7105	434-8105
#6	2-1/2	434-5106	434-9106	434-0106	434-1106	434-7105	434-8105
#7	2-7/16	434-5107	434-9107	434-0107	434-1107	434-7106	434-8106
#8	2-7/16	434-5108	434-9108	434-0108	434-1108	434-7107	434-8107
#9	2-7/16	434-5109	434-9109	434-0109	434-1109	434-7108	434-8108
#10	2-7/16	434-5110	434-5110	434-0110	434-1110	434-7109	434-8109
#11	2-5/16	434-5111	434-9111	434-0111	434-1111	434-7111	434-8111
#12	2-5/16	434-5112	434-9112	434-0112	434-1112	434-7112	434-8112
#13	2-5/16	434-5113	434-9113	434-0113	434-1113	434-7113	434-8113
#14	2-3/16	434-5114	434-9114	434-0114	434-1114	434-7114	434-8114
#15	2-3/16	434-5115	434-9115	434-0115	434-1115	434-7115	434-8115
#16	2-3/16	434-5116	434-9116	434-0116	434-1116	434-7116	434-8116
#17	2-3/16	434-5117	434-9117	434-0117	434-1117	434-7117	434-8117
#18	2-1/8	434-5118	434-9118	434-0118	434-1118	434-7118	434-8118
#19	2-1/8	434-5119	434-9119	434-0119	434-1119	434-7119	434-8119
#20	2-1/8	434-5120	434-9120	434-0120	434-1120	434-7120	434-8120
#21	2-1/8	434-5121	434-9121	434-0121	434-1121	434-7121	434-8121
#22	2	434-5122	434-9122	434-0122	434-1122	434-7122	434-8122
#23	2	434-5123	434-9123	434-0123	434-1123	434-7123	434-8123
#24	2	434-5124	434-9124	434-0124	434-1124	434-7124	434-8124
#25	1-7/8	434-5125	434-9125	434-0125	434-1125	434-7125	434-8125
#26	1-7/8	434-5126	434-9126	434-0126	434-1126	434-7126	434-8126
#27	1-7/8	434-5127	434-9127	434-0127	434-1127	434-7127	434-8127
#28	1-3/4	434-5128	434-9128	434-0128	434-1128	434-7128	434-8128
#29	1-3/4	434-5129	434-9129	434-0129	434-1129	434-7129	434-8129
#30	1-5/8	434-5130	434-9130	434-0130	434-1130	434-7130	434-8130
#31	1-5/8	434-5131	434-9131	434-0131	434-1131	434-7131	434-8131
#32	1-5/8	434-5132	434-9132	434-0132	434-1132	434-7132	434-8132
#33	1-1/2	434-5133	434-9133	434-0133	434-1133	434-7133	434-8133
#34	1-1/2	434-5134	434-9134	434-0134	434-1134	434-7134	434-8134
#35	1-1/2	434-5135	434-9135	434-0135	434-1135	434-7135	434-8135
#36	1-7/16	434-5136	434-9136	434-0136	434-1136	434-7136	434-8136
#37	1-7/16	434-5137	434-9137	434-0137	434-1137	434-7137	434-8137
#38	1-7/16	434-5138	434-9138	434-0138	434-1138	434-7138	434-8138
#39	1-3/8	434-5139	434-9139	434-0139	434-1139	434-7139	434-8139
#40	1-3/8	434-5140	434-9140	434-0140	434-1140	434-7140	434-8140
#41	1-3/8	434-5141	434-9141	434-0141	434-1141	434-7141	434-8141
#42	1-1/4	434-5142	434-9142	434-0142	434-1142	434-7142	434-8142
#43	1-1/4	434-5143	434-9143	434-0143	434-1143	434-7143	434-8143
#44	1-1/8	434-5144	434-9144	434-0144	434-1144	434-7144	434-8144
#45	1-1/8	434-5145	434-9145	434-0145	434-1145	434-7145	434-8145
#46	1-1/8	434-5146	434-9146	434-0146	434-1146	434-7146	434-8146
#47	1	434-5147	434-9147	434-0147	434-1147	434-7147	434-8147
#48	1	434-5148	434-9148	434-0148	434-1148	434-7148	434-8148
#49	1	434-5149	434-9149	434-0149	434-1149	434-7149	434-8149
#50	1	434-5150	434-9150	434-0150	434-1150	434-7150	434-8150
#51	1	434-5151	434-9151	434-0151	434-1151	434-7151	434-8151
#52	7/8	434-5152	434-9152	434-0152	434-1152	434-7152	434-8152
#53	7/8	434-5153	434-9153	434-0153	434-1153	434-7153	434-8153
#54	7/8	434-5154	434-9154	434-0154	434-1154	434-7154	434-8154
#55	7/8	434-5155	434-9155	434-0155	434-1155	434-7155	434-8155
#56	3/4	434-5156	434-9156	434-0156	434-1156	434-7156	434-8156
#57	3/4	434-5157	434-9157	434-0157	434-1157	434-7157	434-8157
#58	11/16	434-5158	434-9158	434-0158	434-1158	434-7158	434-8158
#59	11/16	434-5159	434-9159	434-0159	434-1159	434-7159	434-8159
#60	11/16	434-5160	434-9160	434-0160	434-1160	434-7160	434-8160

mhc Industrial Supply

Extra Long Drills

高速钢直柄加长发黑钻头

High Speed Steel, 118° Point



Dia.	Flute Length	OAL	Order No.	Dia.	Flute Length	OAL	Order No.	Dia.	Flute Length	OAL	Order No.
1/8"	5"	8"	**300-1008**	15/64	9	12	**300-1215**	29/64	14	18	**300-1829**
9/64	5	8	**300-1009**	1/4	9	12	**300-1216**	15/32	14	18	**300-1830**
5/32	5	8	**300-1010**	17/64	9	12	**300-1217**	31/64	14	18	**300-1831**
11/64	5	8	**300-1011**	9/32	9	12	**300-1218**	1/2	14	18	**300-1832**
3/16	5	8	**300-1012**	19/64	9	12	**300-1219**	33/64	14	18	**300-1833**
13/64	5	8	**300-1013**	5/16	9	12	**300-1220**	17/32	14	18	**300-1834**
7/32	5	8	**300-1014**	21/64	9	12	**300-1221**	35/64	14	18	**300-1835**
15/64	5	8	**300-1015**	11/32	9	12	**300-1222**	9/16	14	18	**300-1836**
1/4	5	8	**300-1016**	23/64	9	12	**300-1223**	37/64	14	18	**300-1837**
17/64	5	8	**300-1017**	3/8	9	12	**300-1224**	19/32	14	18	**300-1838**
9/32	5	8	**300-1018**	25/64	9	12	**300-1225**	39/64	14	18	**300-1839**
19/64	5	8	**300-1019**	13/32	9	12	**300-1226**	5/8	14	18	**300-1840**
5/16	5	8	**300-1020**	27/64	9	12	**300-1227**	21/32	14	18	**300-1842**
21/64	5	8	**300-1021**	7/16	9	12	**300-1228**	43/64	14	18	**300-1843**
11/32	5	8	**300-1022**	29/64	9	12	**300-1229**	11/16	14	18	**300-1844**
23/64	5	8	**300-1023**	15/32	9	12	**300-1230**	45/64	14	18	**300-1845**
3/8	5	8	**300-1024**	31/64	9	12	**300-1231**	23/32	14	18	**300-1846**
25/64	5	8	**300-1025**	1/2	9	12	**300-1232**	47/64	14	18	**300-1847**
13/32	5	8	**300-1026**	33/64	9	12	**300-1233**	3/4	14	18	**300-1848**
27/64	5	8	**300-1027**	17/32	9	12	**300-1234**	49/64	14	18	**300-1849**
7/16	5	8	**300-1028**	35/64	9	12	**300-1235**	25/32	14	18	**300-1850**
29/64	5	8	**300-1029**	9/16	9	12	**300-1236**	51/64	14	18	**300-1851**
15/32	5	8	**300-1030**	37/64	9	12	**300-1237**	13/16	14	18	**300-1852**
31/64	5	8	**300-1031**	19/32	9	12	**300-1238**	53/64	14	18	**300-1853**
1/2	5	8	**300-1032**	39/64	9	12	**300-1239**	27/32	14	18	**300-1854**
9/16	8	10	**300-1136**	5/8	9	12	**300-1240**	55/64	14	18	**300-1855**
1/8	8	10	**300-1138**	41/64	9	12	**300-1241**	7/8	14	18	**300-1856**
9/64	8	10	**300-1139**	21/32	9	12	**300-1242**	57/64	14	18	**300-1857**
5/32	8	10	**300-1140**	43/64	9	12	**300-1243**	29/32	14	18	**300-1858**
11/64	8	10	**300-1141**	11/16	9	12	**300-1244**	59/64	14	18	**300-1859**
3/16	8	10	**300-1142**	23/32	9	12	**300-1246**	15/16	14	18	**300-1860**
13/64	8	10	**300-1143**	3/4	9	12	**300-1248**	61/64	14	18	**300-1861**
7/32	8	10	**300-1144**	49/64	9	12	**300-1249**	31/32	14	18	**300-1862**
15/64	8	10	**300-1145**	25/32	9	12	**300-1250**	63/64	14	18	**300-1863**
1/4	8	10	**300-1146**	13/16	9	12	**300-1252**	1	14	18	**300-1864**
17/64	8	10	**300-1147**	27/32	9	12	**300-1254**	1-1/8	14	18	**300-1872**
9/32	8	10	**300-1148**	7/8	9	12	**300-1256**	1-3/16	14	18	**300-1876**
19/64	8	10	**300-1149**	29/32	9	12	**300-1258**	1-1/4	14	18	**300-1880**
5/16	8	10	**300-1150**	15/16	9	12	**300-1260**	3/8	18	24	**300-2424**
21/64	8	10	**300-1151**	31/32	9	12	**300-1262**	7/16	18	24	**300-2428**
11/32	8	10	**300-1152**	63/64	9	12	**300-1263**	1/2	18	24	**300-2432**
23/64	8	10	**300-1153**	1	9	12	**300-1264**	5/8	18	24	**300-2440**
3/8	8	10	**300-1154**	3/16	14	18	**300-1812**	11/16	18	24	**300-2444**
25/64	8	10	**300-1155**	13/64	14	18	**300-1813**	3/4	18	24	**300-2448**
13/32	8	10	**300-1156**	7/32	14	18	**300-1814**	13/16	18	24	**300-2452**
27/64	8	10	**300-1157**	15/64	14	18	**300-1815**	7/8	18	24	**300-2456**
7/16	8	10	**300-1158**	1/4	14	18	**300-1816**	15/16	18	24	**300-2460**
29/64	8	10	**300-1159**	17/64	14	18	**300-1817**	1	18	24	**300-2464**
15/32	8	10	**300-1160**	9/32	14	18	**300-1818**	1-1/8	18	24	**300-2472**
31/64	8	10	**300-1161**	19/64	14	18	**300-1819**	1-3/16	18	24	**300-2476**
1/2	8	10	**300-1162**	5/16	14	18	**300-1820**	1-1/4	18	24	**300-2480**
3/64	9	12	**300-1203**	21/64	14	18	**300-1821**	7/16	24	30	**300-3028**
1/8	9	12	**300-1208**	11/32	14	18	**300-1822**	1/2	24	30	**300-3032**
9/64	9	12	**300-1209**	23/64	14	18	**300-1823**	9/16	24	30	**300-3036**
5/32	9	12	**300-1210**	3/8	14	18	**300-1824**	11/16	24	30	**300-3044**
11/64	9	12	**300-1211**	25/64	14	18	**300-1825**	1/2	28	36	**300-3232**
3/16	9	12	**300-1212**	13/32	14	18	**300-1826**	11/16	28	36	**300-3244**
13/64	9	12	**300-1213**	27/64	14	18	**300-1827**				
7/32	9	12	**300-1214**	7/16	14	18	**300-1828**				

Solid Carbide Jobber Length Twist Drills 整体硬质合金美标钻

118° Point, Right Hand

- Precision ground to close diameter tolerances.
- Recommended for general purpose drilling in Cast Iron, Aluminum, Magnesium, Bronze, Masonite and Resin-Fiberglass Laminates.



Fractional Sizes

Size	Flute Length	OAL	Order No.	Size	Flute Length	OAL	Order No.	Size	Flute Length	OAL	Order No.
1/32"	3/8"	1-1/8"	**342-0002**	13/64"	1-3/4"	3"	**342-0013**	23/64"	2-1/2"	4"	**342-0023**
3/64	3/4	1-1/2	**342-0003**	7/32	1-3/4	3	**342-0014**	3/8	2-3/4	4-1/4	**342-0024**
1/16	3/4	1-1/2	**342-0004**	15/64	2	3-1/4	**342-0015**	25/64	2-7/8	4-1/2	**342-0025**
5/64	7/8	1-3/4	**342-0005**	1/4	2	3-1/4	**342-0016**	13/32	2-7/8	4-1/2	**342-0026**
3/32	1	2	**342-0006**	17/64	2-1/8	3-1/2	**342-0017**	27/64	2-7/8	4-1/2	**342-0027**
7/64	1-1/4	2-1/4	**342-0007**	9/32	2-1/8	3-1/2	**342-0018**	7/16	2-7/8	4-1/2	**342-0028**
1/8	1-1/4	2-1/4	**342-0008**	19/64	2-3/8	3-3/4	**342-0019**	29/64	3	4-3/4	**342-0029**
9/64	1-3/8	2-1/2	**342-0009**	5/16	2-3/8	3-3/4	**342-0020**	15/32	3	4-3/4	**342-0030**
5/32	1-3/8	2-1/2	**342-0010**	21/64	2-1/2	4	**342-0021**	31/64	3	4-3/4	**342-0031**
11/64	1-5/8	2-3/4	**342-0011**	11/32	2-1/2	4	**342-0022**	1/2	3	4-3/4	**342-0032**
3/16	1-5/8	2-3/4	**342-0012**								

Number Sizes

Size	Flute Length	OAL	Order No.	Size	Flute Length	OAL	Order No.	Size	Flute Length	OAL	Order No.
#1	1-3/4"	3"	**342-0101**	#28	1-3/8"	2-1/2"	**342-0128**	#55	3/4"	1-1/2"	**342-0155**
#2	1-3/4	3	**342-0102**	#29	1-3/8	2-1/2	**342-0129**	#56	3/4	1-1/2	**342-0156**
#3	1-3/4	3	**342-0103**	#30	1-1/4	2-1/4	**342-0130**	#57	3/4	1-1/2	**342-0157**
#4	1-3/4	3	**342-0104**	#31	1-1/4	2-1/4	**342-0131**	#58	3/4	1-1/2	**342-0158**
#5	1-3/4	3	**342-0105**	#32	1-1/4	2-1/4	**342-0132**	#59	3/4	1-1/2	**342-0159**
#6	1-3/4	3	**342-0106**	#33	1-1/4	2-1/4	**342-0133**	#60	3/4	1-1/2	**342-0160**
#7	1-3/4	3	**342-0107**	#34	1-1/4	2-1/4	**342-0134**	#61	1/2	1-1/4	**342-0161**
#8	1-3/4	3	**342-0108**	#35	1-1/4	2-1/4	**342-0135**	#62	1/2	1-1/4	**342-0162**
#9	1-3/4	3	**342-0109**	#36	1-1/4	2-1/4	**342-0136**	#63	1/2	1-1/4	**342-0163**
#10	1-5/8	2-3/4	**342-0110**	#37	1-1/4	2-1/4	**342-0137**	#64	1/2	1-1/4	**342-0164**
#11	1-5/8	2-3/4	**342-0111**	#38	1-1/4	2-1/4	**342-0138**	#65	3/8	1-1/8	**342-0165**
#12	1-5/8	2-3/4	**342-0112**	#39	1-1/4	2-1/4	**342-0139**	#66	3/8	1-1/8	**342-0166**
#13	1-5/8	2-3/4	**342-0113**	#40	1	2	**342-0140**	#67	3/8	1-1/8	**342-0167**
#14	1-5/8	2-3/4	**342-0114**	#41	1	2	**342-0141**	#68	3/8	1-1/8	**342-0168**
#15	1-5/8	2-3/4	**342-0115**	#42	1	2	**342-0142**	#69	5/16	1	**342-0169**
#16	1-5/8	2-3/4	**342-0116**	#43	1	2	**342-0143**	#70	5/16	1	**342-0170**
#17	1-5/8	2-3/4	**342-0117**	#44	1	2	**342-0144**	#71	5/16	1	**342-0171**
#18	1-5/8	2-3/4	**342-0118**	#45	7/8	1-3/4	**342-0145**	#72	5/16	1	**342-0172**
#19	1-5/8	2-3/4	**342-0119**	#46	7/8	1-3/4	**342-0146**	#73	1/4	7/8	**342-0173**
#20	1-3/8	2-1/2	**342-0120**	#47	7/8	1-3/4	**342-0147**	#74	1/4	7/8	**342-0174**
#21	1-3/8	2-1/2	**342-0121**	#48	7/8	1-3/4	**342-0148**	#75	1/4	7/8	**342-0175**
#22	1-3/8	2-1/2	**342-0122**	#49	7/8	1-3/4	**342-0149**	#76	1/4	7/8	**342-0176**
#23	1-3/8	2-1/2	**342-0123**	#50	7/8	1-3/4	**342-0150**	#77	3/16	3/4	**342-0177**
#24	1-3/8	2-1/2	**342-0124**	#51	3/4	1-1/2	**342-0151**	#78	3/16	3/4	**342-0178**
#25	1-3/8	2-1/2	**342-0125**	#52	3/4	1-1/2	**342-0152**	#79	3/16	3/4	**342-0179**
#26	1-3/8	2-1/2	**342-0126**	#53	3/4	1-1/2	**342-0153**	#80	3/16	3/4	**342-0180**
#27	1-3/8	2-1/2	**342-0127**	#54	3/4	1-1/2	**342-0154**				

Letter Sizes

Size	Flute Length	OAL	Order No.	Size	Flute Length	OAL	Order No.	Size	Flute Length	OAL	Order No.
A	2 "	3-1/4"	**342-0201**	J	2-1/8"	3-1/2"	**342-0210**	S	2-1/2"	4"	**342-0219**
B	2	3-1/4	**342-0202**	K	2-1/8	3-1/2	**342-0211**	T	2-1/2	4	**342-0220**
C	2	3-1/4	**342-0203**	L	2-1/8	3-1/2	**342-0212**	U	2-3/4	4-1/4	**342-0221**
D	2	3-1/4	**342-0204**	M	2-3/8	3-3/4	**342-0213**	V	2-3/4	4-1/4	**342-0222**
E	2	3-1/4	**342-0205**	N	2-3/8	3-3/4	**342-0214**	W	2-7/8	4-1/2	**342-0223**
F	2	3-1/4	**342-0206**	O	2-3/8	3-3/4	**342-0215**	X	2-7/8	4-1/2	**342-0224**
G	2-1/8	3-1/2	**342-0207**	P	2-3/8	3-3/4	**342-0216**	Y	2-7/8	4-1/2	**342-0225**
H	2-1/8	3-1/2	**342-0208**	Q	2-1/2	4	**342-0217**	Z	2-7/8	4-1/2	**342-0226**
I	2-1/8	3-1/2	**342-0209**	R	2-1/2	4	**342-0218**				

Metric Sizes

Size (mm)	Flute Length (mm)	OAL (mm)	Order No.	Size (mm)	Flute Length (mm)	OAL (mm)	Order No.	Size (mm)	Flute Length (mm)	OAL (mm)	Order No.
2	22	44	**342-0301**	5.5	44	75	**342-0308**	9	70	100	**342-0315**
2.5	25	50	**342-0302**	6	50	82	**342-0309**	9.5	70	108	**342-0316**
3	32	57	**342-0303**	6.5	50	82	**342-0310**	10	73	114	**342-0317**
3.5	35	63	**342-0304**	7	54	89	**342-0311**	10.5	73	114	**342-0318**
4	35	63	**342-0305**	7.5	60	95	**342-0312**	11	73	114	**342-0319**
4.5	41	70	**342-0306**	8	60	95	**342-0313**	11.5	76	120	**342-0320**
5	44	75	**342-0307**	8.5	63	100	**342-0314**	12	76	120	**342-0321**

Inch Masonry Drills

Carbide Tipped

镀锌建工钻头（带合金头）



Inch

Size	Shank	Overall Length	Order No.	Size	Shank	Overall Length	Order No.
1/8”	1/8	3”	340-3080	1/2	3/8	13	340-3326
5/32	5/32	3	340-3100	9/16	3/8	6	340-3358
11/64	1/8	3-1/4	340-3105	9/16	1/2	6	340-3360
3/16	3/6	3	340-3118	9/16	1/2	8	340-3361
3/16	3/16	3.5	340-3120	9/16	1/2	12	340-3362
3/16	3/16	6	340-3121	9/16	1/2	16	340-3363
3/16	3/16	4	340-3124	9/16	1/2	18	340-3364
3/16	5/32	6	340-3126	9/16	3/8	12	380-3465
7/32	7/32	3.5	340-3140	9/16	1/2	13	380-3467
7/32	7/32	4	340-3142	19/32	1/2	6	340-3380
15/64	3/16	4	340-3150	5/8	3/8	6	340-3495
1/4	1/4	4	340-3160	5/8	3/8	13	340-3497
1/4	1/4	6	340-3161	5/8	1/2	6	340-3400
1/4	1/4	8	340-3162	5/8	1/2	8	340-3401
1/4	1/4	12	340-3163	5/8	1/2	12	340-3402
1/4	1/4	16	340-3164	5/8	1/2	16	340-3403
1/4	1/4	18	340-3465	5/8	1/2	18	340-3404
17/64	1/4	4	340-3170	21/32	1/2	6	340-3420
9/32	1/4	4	340-3180	11/16	1/2	6	340-3430
9/32	9/32	4	340-3182	23/32	1/2	6	340-3460
5/16	1/4	4	340-3195	23/32	1/2	8	340-3461
5/16	1/4	6	340-3197	23/32	1/2	12	340-3462
5/16	5/16	4	340-3198	23/32	1/2	16	340-3463
5/16	5/16	5	340-3200	23/32	1/2	18	340-3464
5/16	5/16	6	340-3201	3/4	1/2	6	340-3480
5/16	5/16	8	340-3202	3/4	1/2	8	340-3481
5/16	5/16	12	340-3203	3/4	1/2	12	340-3482
5/16	5/16	16	340-3204	3/4	1/2	16	340-3483
5/16	5/16	18	340-3205	3/4	1/2	18	340-3484
11/32	5/16	5	340-3220	3/4	1/2	13	340-3488
3/8	3/8	3	340-3234	25/32	1/2	6	340-3500
3/8	1/4	4	340-3236	25/32	1/2	8	340-3501
3/8	1/4	13	340-3237	25/32	1/2	12	340-3502
3/8	1/4	6	340-3238	25/32	1/2	16	340-3503
3/8	3/8	4	340-3239	25/32	1/2	18	340-3504
3/8	3/8	5	340-3240	27/32	1/2	6	340-3540
3/8	3/8	6	340-3241	7/8	1/2	6	340-3560
3/8	3/8	8	340-3242	1	1/2	12	340-3561
3/8”	3/8	12	340-3243	1	1/2	18	340-3562
3/8	3/8	16	340-3244	7/8	1/2	16	340-3563
3/8	3/8	18	340-3245	7/8	1/2	18	340-3564
7/16	1/4	4	340-3276	7/8	1/2	12	340-3565
7/16	3/8	6	340-3280	29/32	1/2	6	340-3580
7/16	3/8	12	340-3282	15/16	1/2	6	340-3600
7/16	3/8	18	340-3284	15/16	1/2	8	340-3601
15/32	3/8	6	340-3300	15/16	1/2	12	340-3602
15/32	3/8	8	340-3301	15/16	1/2	16	340-3603
15/32	3/8	12	340-3302	15/16	1/2	18	340-3604
15/32	3/8	16	340-3303	1	1/2	6	340-3640
15/32	3/8	18	340-3304	1	1/2	8	340-3641
1/2	1/4	4	340-3318	1	1/2	12	340-3642
1/2	1/4	6	340-3319	1	1/2	16	340-3643
1/2	1/2	6	340-3320	1	1/2	18	340-3644
1/2	1/2	8	340-3321	1-1/32	1/2	6	340-3660
1/2	1/2	12	340-3322	1-1/32	1/2	8	340-3661
1/2	1/2	16	340-3323	1-1/32	1/2	12	340-3662
1/2	1/2	18	340-3324	1-1/32	1/2	16	340-3663
1/2	1/2	13	340-3325	1-1/32	1/2	18	340-3664

Metric

Size (mm)	OAL (mm)	Order No.	Size (mm)	OAL (mm)	Order No.
3.0	60	340-0030	14.0	150	340-0150
3.0	65	340-0031	15.0	150	340-0160
4.0	75	340-0040	16.0	200	340-0161
4.5	85	340-0045	16.0	300	340-0162
5.0	85	340-0050	16.0	400	340-0163
5.5	85	340-0055	16.0	600	340-0164
5.5	150	340-0056	17.0	160	340-0170
6.0	100	340-0060	18.0	160	340-0180
6.0	150	340-0061	18.0	200	340-0181
6.0	200	340-0062	18.0	300	340-0182
6.0	300	340-0063	18.0	400	340-0183
6.0	400	340-0064	18.0	600	340-0184
6.5	100	340-0065	19.0	160	340-0190
7.0	100	340-0070	19.0	200	340-0191
7.0	300	340-0073	19.0	300	340-0192
8.0	120	340-0080	19.0	400	340-0193
8.0	150	340-0081	19.0	600	340-0194
8.0	200	340-0082	20.0	160	340-0200
8.0	300	340-0083	20.0	200	340-0201
8.0	400	340-0084	20.0	300	340-0202
8.0	600	340-0085	20.0	400	340-0203
9.0	120	340-0090	20.0	600	340-0204
10.0	120	340-0100	21.0	600	340-0210
10.0	150	340-0101	22.0	160	340-0220
10.0	200	340-0102	22.0	200	340-0221
10.0	300	340-0103	22.0	300	340-0222
10.0	400	340-0104	22.0	400	340-0223
10.0	600	340-0105	22.0	600	340-0224
11.0	150	340-0110	23.0	160	340-0230
12.0	150	340-0120	24.0	160	340-0240
12.0	200	340-0121	24.0	200	340-0241
12.0	300	340-0122	24.0	300	340-0242
12.0	400	340-0123	24.0	400	340-0243
12.0	600	340-0124	24.0	600	340-0244
13.0	150	340-0130	25.0	160	340-0250
13.0	200	340-0131	25.0	200	340-0251
13.0	300	340-0132	25.0	300	340-0252
13.0	400	340-0133	25.0	400	340-0253
13.0	600	340-0134	25.0	600	340-0254
14.0	150	340-0140	26.0	160	340-0260
14.0	200	340-0141	26.0	200	340-0261
14.0	300	340-0142	26.0	300	340-0262
14.0	400	340-0143	26.0	400	340-0263
14.0	600	340-0144	26.0	600	340-0264

Saw Drills

HSS, 135° Split Point, Spiral Point

- Used with your power drill to saw, ream, drill and cut through wood, metal and plastic.



Size	Flute Length	OAL	Order No.	Tin coated Order No.
1/8”	1-1/4”	2-1/2”	334-0008	334-0108
3/16	2	3-1/4	334-0012	334-0112
1/4	2-1/2	3-11/16	334-0016	334-0116

HSS Taper Shank Core Drills 锥柄扩孔钻

- Designed for both portable and stationary machines.
- Shank sizes correspond to the drill size.
- For use in both ferrous and non-ferrous metal, enlarging punched or drilled holes.



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
13/32	3-5/8	7	MT1	**218-1026**	61/64	6-3/8	11	MT3	**218-1061**	1-39/64	10	17	MT5	**218-1103**
7/16	3-7/8	7-1/4	MT1	**218-1028**	31/32	6-3/8	11	MT3	**218-1062**	1-5/8	10	17	MT5	**218-1104**
15/32	4-1/8	7-1/2	MT1	**218-1030**	63/64	6-3/8	11	MT3	**218-1063**	1-21/32	10-1/8	17-1/8	MT5	**218-1106**
31/64	4-3/8	8-1/4	MT2	**218-1031**	1	6-3/8	11	MT3	**218-1064**	1-11/16	10-1/8	17-1/8	MT5	**218-1108**
1/2	4-3/8	8-1/4	MT2	**218-1032**	1-1/32	6-1/2	11-1/8	MT3	**218-1066**	1-23/32	10-1/8	17-1/8	MT5	**218-1110**
33/64	4-5/8	8-1/2	MT2	**218-1033**	1-3/64	6-5/8	11-1/4	MT3	**218-1067**	1-3/4	10-1/8	17-1/8	MT5	**218-1112**
17/32	4-5/8	8-1/2	MT2	**218-1034**	1-1/16	6-5/8	11-1/4	MT3	**218-1068**	1-25/32	10-1/8	17-1/8	MT5	**218-1114**
9/16	4-7/8	8-3/4	MT2	**218-1036**	1-5/64	6-7/8	12-1/2	MT4	**218-1069**	1-13/16	10-1/8	17-1/8	MT5	**218-1116**
37/64	4-7/8	8-3/4	MT2	**218-1037**	1-3/32	6-7/8	12-1/2	MT4	**218-1070**	1-27/32	10-1/8	17-1/8	MT5	**218-1118**
19/32	4-7/8	8-3/4	MT2	**218-1038**	1-1/8	7-1/8	12-3/4	MT4	**218-1072**	1-7/8	10-3/8	17-3/8	MT5	**218-1120**
39/64	4-7/8	8-3/4	MT2	**218-1039**	1-5/32	7-1/4	12-7/8	MT4	**218-1074**	1-29/32	10-3/8	17-3/8	MT5	**218-1122**
5/8	4-7/8	8-3/4	MT2	**218-1040**	1-11/64	7-3/8	13	MT4	**218-1075**	1-15/16	10-3/8	17-3/8	MT5	**218-1124**
41/64	5-1/8	9	MT2	**218-1041**	1-3/16	7-3/8	13	MT4	**218-1076**	1-31/32	10-3/8	17-3/8	MT5	**218-1126**
21/32	5-1/8	9	MT2	**218-1042**	1-13/64	7-1/2	13-1/8	MT4	**218-1077**	2	10-3/8	17-3/8	MT5	**218-1128**
43/64	5-1/8	9	MT2	**218-1043**	1-7/32	7-1/2	13-1/8	MT4	**218-1078**	2-1/32	10-3/8	17-3/8	MT5	**218-1130**
11/16	5-3/8	9-1/4	MT2	**218-1044**	1-15/64	7-7/8	13-1/2	MT4	**218-1079**	2-1/16	10-1/4	17-3/8	MT5	**218-1132**
45/64	5-5/8	9-1/2	MT2	**218-1045**	1-1/4	7-7/8	13-1/2	MT4	**218-1080**	2-1/8	10-1/4	17-3/8	MT5	**218-1136**
23/32	5-5/8	9-1/2	MT2	**218-1046**	1-17/64	8-1/2	14-1/8	MT4	**218-1081**	2-3/16	10-1/4	17-3/8	MT5	**218-1140**
47/64	5-5/8	9-1/2	MT2	**218-1047**	1-9/32	8-1/2	14-1/8	MT4	**218-1082**	2-1/4	10-1/8	17-3/8	MT5	**218-1144**
3/4	5-7/8	9-3/4	MT2	**218-1048**	1-5/16	8-5/8	14-1/4	MT4	**218-1084**	2-5/16	10-1/8	17-3/8	MT5	**218-1148**
49/64	6	9-7/8	MT2	**218-1049**	1-11/32	8-3/4	14-3/8	MT4	**218-1086**	2-3/8	10-1/8	17-3/8	MT5	**218-1152**
25/32	6	9-7/8	MT2	**218-1050**	1-3/8	8-7/8	14-1/2	MT4	**218-1088**	2-7/16	10-1/8	17-3/8	MT5	**218-1156**
51/64	6-1/8	10-3/4	MT3	**218-1051**	1-13/32	9	14-5/8	MT4	**218-1090**	2-1/2	11-1/4	18-3/4	MT5	**218-1160**
13/16	6-1/8	10-3/4	MT3	**218-1052**	1-7/16	9-1/8	14-3/4	MT4	**218-1092**	2-9/16	11-7/8	19-1/2	MT5	**218-1164**
27/32	6-1/8	10-3/4	MT3	**218-1054**	1-15/32	9-1/4	14-7/8	MT4	**218-1094**	2-5/8	11-7/8	19-1/2	MT5	**218-1168**
55/64	6-1/8	10-3/4	MT3	**218-1055**	1-1/2	9-3/8	15	MT4	**218-1096**	2-11/16	12-3/4	20-3/8	MT5	**218-1172**
7/8	6-1/8	10-3/4	MT3	**218-1056**	1-17/32	9-3/8	16-3/8	MT5	**218-1098**	2-3/4	12-3/4	20-3/8	MT5	**218-1176**
57/64	6-1/8	10-3/4	MT3	**218-1057**	1-35/64	9-5/8	16-5/8	MT5	**218-1099**	2-13/16	13-3/8	21-1/8	MT5	**218-1180**
29/32	6-1/8	10-3/4	MT3	**218-1058**	1-9/16	9-5/8	16-5/8	MT5	**218-1100**	2-7/8	13-3/8	21-1/8	MT5	**218-1184**
59/64	6-1/8	10-3/4	MT3	**218-1059**	1-37/64	9-7/8	16-7/8	MT5	**218-1101**	2-15/16	14	21-3/4	MT5	**218-1188**
15/16	6-1/8	10-3/4	MT3	**218-1060**	1-19/32	9-7/8	16-7/8	MT5	**218-1102**	3	14	21-3/4	MT5	**218-1192**

Core Drills 直柄扩孔钻

Straight Shank, 4 Flute, High Speed Steel



Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.
1/4"	3-1/2"	6-1/8"	**218-5016**	15/16"	6-1/8"	10-3/4"	**218-5060**
17/64	3-3/4	6-1/8	**218-5017**	31/32	6-3/8	11	**218-5062**
9/32	3-7/8	6-1/4	**218-5018**	1	6-3/8	11	**218-5064**
5/16	4	6-3/8	**218-5020**	1-1/32	6-1/2	11-1/8	**218-5066**
21/64	4-1/8	6-1/2	**218-5021**	1-1/16	6-5/8	11-1/4	**218-5068**
11/32	4-1/8	6-1/2	**218-5022**	1-3/32	6-7/8	11-1/2	**218-5070**
3/8	4-1/4	6-3/4	**218-5024**	1-1/8	7-1/8	11-3/4	**218-5072**
13/32	4-3/8	7	**218-5026**	1-5/32	7-1/4	11-7/8	**218-5074**
27/64	4-5/8	7-1/4	**218-5027**	1-3/16	7-3/8	12	**218-5076**
7/16	4-5/8	7-1/4	**218-5028**	1-7/32	7-1/2	12-1/8	**218-5078**
15/32	4-3/4	7-1/2	**218-5030**	1-1/4	7-7/8	12-1/2	**218-5080**
1/2	4-3/4	7-3/4	**218-5032**	1-9/32	8-1/2	14-1/8	**218-5082**
33/64	4-3/4	8	**218-5033**	1-5/16	8-5/8	14-1/4	**218-5084**
17/32	4-3/4	8	**218-5034**	1-11/32	8-3/4	14-3/8	**218-5086**
9/16	4-7/8	8-1/4	**218-5036**	1-3/8	8-7/8	14-1/2	**218-5088**
9/32	4-7/8	8-3/4	**218-5038**	1-13/32	9	14-5/8	**218-5090**
5/8	4-7/8	8-3/4	**218-5040**	1-7/16	9-1/8	14-3/4	**218-5092**
41/64	5	9	**218-5041**	1-15/32	9-1/4	14-7/8	**218-5094**
21/32	5-1/8	9	**218-5042**	1-1/2	9-3/8	15	**218-5096**
11/16	5-3/8	9-1/4	**218-5044**	1-9/16	9-5/8	15-1/4	**218-5100**
23/32	5-5/8	9-1/2	**218-5046**	1-5/8	9-7/8	15-5/8	**218-5104**
3/4	5-7/8	9-3/4	**218-5048**	1-11/16	10	15-3/4	**218-5108**
49/64	6	9-7/8	**218-5049**	1-3/4	10-1/2	16-1/4	**218-5112**
25/32	6	9-7/8	**218-5050**	1-13/16	10-1/2	16-1/4	**218-5116**
13/16	6-1/8	10	**218-5052**	1-7/8	10-3/4	16-1/2	**218-5120**
27/32	6-1/8	10	**218-5054**	1-15/16	10-3/4	16-5/8	**218-5124**
7/8	6-1/8	10	**218-5056**	2	10-3/4	16-5/8	**218-5128**
29/32	6-1/8	10	**218-5058**				

Spade Wood Bit Set

套装扁钻

Spade Wood Bits in Plastic Pouch.



Pieces	Specification	Order No.
6	3/8", 1/2", 5/8", 3/4",7/8", 1"	**331-2060**

Spade Wood Bits 木工扁钻



Size (mm)	Order No.
6.0	**331-3060**
8.0	**331-3080**
10.0	**331-3100**
12.0	**331-3120**
14.0	**331-3140**
16.0	**331-3160**
18.0	**331-3180**
20.0	**331-3200**
22.0	**331-3220**
24.0	**331-3240**

Size	Order No.
3/8"	**331-3002**
1/2	**331-3004**
5/8	**331-3006**
3/4	**331-3008**
7/8	**331-3012**
1	**331-3014**
1-3/32	**331-3016**
1-3/16	**331-3018**
1-1/4	**331-3020**
1-3/8	**331-3022**

Forstner Wood Bit Set

木工平翼钻

Pieces	Specification	Order No.
7	1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1"	**331-2070**



mhc Industrial Supply

2"-4" Stub Length Taper Shank Drills

High Speed Steel, 118° Point

NEW

2–4″ 美标锥柄短钻 118 度



Size	Flute Len.	OAL	Shank	Order No.	Size	Flute Len.	OAL	Shank	Order No.	Size	Flute Len.	OAL	Shank	Order No.	Size	Flute Len.	OAL	Shank	Order No.
2”	5”	11”	MT4	**302-0501**	2-1/4	5	12	MT5	**302-0519**	2-9/16	5	11	MT4	**302-0536**	3	5	12	MT5	**302-0553**
2	5	12	MT5	**302-0503**	2-5/16	5	11	MT4	**302-0521**	2-9/16	5	12	MT5	**302-0537**	3-1/8	5	12	MT5	**302-0555**
2-1/16	5	11	MT4	**302-0505**	2-5/16	5	12	MT5	**302-0523**	2-5/8	5	11	MT4	**302-0539**	3-1/4	5	12	MT5	**302-0557**
2-1/16	5	12	MT5	**302-0507**	2-3/8	5	11	MT4	**302-0525**	2-5/8	5	12	MT5	**302-0541**	3-3/8	5	12	MT5	**302-0559**
2-1/8	5	11	MT4	**302-0509**	2-3/8	5	12	MT5	**302-0527**	2-3/4	5	11	MT4	**302-0543**	3-1/2	5	12	MT5	**302-0561**
2-1/8	5	12	MT5	**302-0511**	2-7/16	5	11	MT4	**302-0529**	2-3/4	5	12	MT5	**302-0545**	3-5/8	5	12	MT5	**302-0563**
2-3/16	5	11	MT4	**302-0513**	2-7/16	5	12	MT5	**302-0531**	2-7/8	5	11	MT4	**302-0547**	3-3/4	5	12	MT5	**302-0565**
2-3/16	5	12	MT5	**302-0515**	2-1/2	5	11	MT4	**302-0533**	2-7/8	5	12	MT5	**302-0549**	3-7/8	5	12	MT5	**302-0567**
2-1/4	5	11	MT4	**302-0517**	2-1/2	5	12	MT5	**302-0535**	3	5	11	MT4	**302-0551**	4	5	12	MT5	**302-0569**

Cobalt Inch Taper Shank Drills

M35 美标锥柄麻花钻, 135 度分割刃

Cobalt



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
1/4”		6-1/8”	MT1	**300-1615**	3/4”	5-7/8”	9-3/4”	MT2	**300-2648**	1-1/8”	7-1/8”	12-7/8”	MT4	**300-4708**
1/4	2-7/8”	5-3/8	MT1	**300-1616**	25/32	6	9-7/8	MT2	**300-2650**	1-9/64	7-1/4	12-7/8	MT4	**300-4709**
17/64	3	5-7/8	MT1	**300-1617**	13/16	6-1/8	10	MT2	**300-2652**	1-5/32	7-1/4	12-7/8	MT4	**300-4710**
9/32	3	5-7/8	MT1	**300-1618**	41/64	5-1/8	9-3/4	MT3	**300-3641**	1-11/64	7-3/8	13	MT4	**300-4711**
19/64	3-1/8	6-3/8	MT1	**300-1619**	21/32	5-1/8	9-3/4	MT3	**300-3642**	1-3/16	7-3/8	13	MT4	**300-4712**
5/16	3-1/8	6-3/8	MT1	**300-1620**	43/64	5-3/8	10	MT3	**300-3643**	1-13/64	7-1/2	13-1/8	MT4	**300-4713**
21/64	3-1/4	6-1/2	MT1	**300-1621**	11/16	5-3/8	10	MT3	**300-3644**	1-7/32	7-1/2	13-1/8	MT4	**300-4714**
11/32	3-1/4	6-1/2	MT1	**300-1622**	45/64	5-5/8	10-1/4	MT3	**300-3645**	1-15/64	7-7/8	13-1/2	MT4	**300-4715**
23/64	3-1/2	6-3/4	MT1	**300-1623**	23/64	5-5/8	10-1/4	MT3	**300-3646**	1-1/4	7-7/8	13-1/2	MT4	**300-4716**
3/8	3-1/2	6-3/8	MT1	**300-1624**	47/64	5-7/8	10-1/2	MT3	**300-3647**	1-17/64	8-1/2	14-1/8	MT4	**300-4717**
3/8		7		**300-1625**	3/4	5-7/8	10-1/2	MT3	**300-3648**	1-9/32	8-1/2	14-1/8	MT4	**300-4718**
13/32	3-5/8	6-5/8	MT1	**300-1626**	49/64	6	10-5/8	MT3	**300-3649**	1-19/64	8-5/8	14-1/4	MT4	**300-4719**
7/16	3-7/8	6-5/8	MT1	**300-1628**	25/32	6	10-7/8	MT3	**300-3650**	1-5/6	8-5/8	14-1/4	MT4	**300-4720**
15/32	4-1/8	6-7/8	MT1	**300-1630**	51/64	6-1/8	10-3/4	MT3	**300-3651**	1-21/64	8-3/4	14-3/8	MT4	**300-4721**
3/8	3-1/2	7-3/8	MT2	**300-2624**	13/16	6-1/8	10-3/4	MT3	**300-3652**	1-11/32	8-3/4	14-3/8	MT4	**300-4722**
25/64	3-5/8	7-1/2	MT2	**300-2625**	53/64	6-1/8	10-3/4	MT3	**300-3653**	1-23/64	8-7/8	14-1/2	MT4	**300-4723**
13/32	3-5/8	7-1/2	MT2	**300-2626**	27/32	6-1/8	10-3/4	MT3	**300-3654**	1-3/8	8-7/8	14-1/2	MT4	**300-4724**
27/64	3-7/8	7-3/4	MT2	**300-2627**	55/64	6-1/8	10-3/4	MT3	**300-3655**	1-25/64	9	14-5/8	MT4	**300-4725**
7/16	3-5/8	7-3/4	MT2	**300-2628**	7/8	6-1/8	10-3/4	MT3	**300-3656**	1-13/32	9	14-5/8	MT4	**300-4726**
29/64	4-1/8	8	MT2	**300-2629**	57/64	6-1/8	10-3/4	MT3	**300-3657**	1-27/64	9-1/8	14-3/4	MT4	**300-4727**
15/32	4-1/8	8	MT2	**300-2630**	29/32	6-1/8	10-3/4	MT3	**300-3658**	1-7/16	9-1/8	14-3/4	MT4	**300-4728**
31/64	4-3/8	8-1/4	MT2	**300-2631**	59/64	6-1/8	10-3/4	MT3	**300-3659**	1-29/64	9-1/4	14-7/8	MT4	**300-4729**
1/2	4-3/8	8-1/4	MT2	**300-2632**	15/16	6-1/8	10-3/4	MT3	**300-3660**	1-15/32	9-1/4	14-7/8	MT4	**300-4730**
33/64	4-5/8	8-1/2	MT2	**300-2633**	61/64	6-3/8	11	MT3	**300-3661**	1-31/64	9-3/8	15	MT4	**300-4731**
17/32	4-5/8	8-1/2	MT2	**300-2634**	31/32	6-3/8	11	MT3	**300-3662**	1-1/2	9-3/8	15	MT4	**300-4732**
35/64	4-7/8	8-3/4	MT2	**300-2635**	63/64	6-3/8	11	MT3	**300-3663**	1-5/16	8-5/8	15-7/8	MT5	**300-5720**
9/16”	4-7/8”	8-3/4”	MT2	**300-2636**	1	6-3/8	11	MT3	**300-3664**	1-3/8	8-7/8	14-1/2	MT5	**300-5724**
37/64	4-7/8	8-3/4	MT2	**300-2637**	1-1/64	6-1/2	12-1/8	MT4	**300-4701**	1-7/16	9-1/8	14-1/8	MT5	**300-5728**
19/32	4-7/8	8-3/4	MT2	**300-2638**	1-1/32	6-1/2	12-1/8	MT4	**300-4702**	1-1/2	9-3/8	16-3/8	MT5	**300-5732**
39/64	4-7/8	8-3/4	MT2	**300-2639**	1-3/64	6-5/8	12-1/4	MT4	**300-4703**	1-5/8	10	17	MT5	**300-5740**
5/8	4-7/8	8-3/4	MT2	**300-2640**	1-1/16	6-5/8	12-1/4	MT4	**300-4704**	1-3/4	10-1/8	17-1/8	MT5	**300-5748**
21/32	5-1/8	9-3/4	MT2	**300-2642**	1-5/64	6-7/8	12-1/2	MT4	**300-4705**	1-13/16	10-1/8	17-1/8	MT5	**300-5752**
11/16	5-3/8	9-1/4	MT2	**300-2644**	1-3/32	6-7/8	12-1/2	MT4	**300-4706**	1-7/8	10-3/4	17-3/8	MT5	**300-5756**
23/32	5-5/8	9-1/2	MT2	**300-2646**	1-7/64	7-1/8	12-3/4	MT4	**300-4707**	2	10-3/8	17-3/8	MT5	**300-5764**

Cobalt Metric Taper Shank Drills

M35 公制锥柄钻

DIN 345

Cobalt

Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.	Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.	Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.
10.00	MT1	87	168	**345-1000**	19.00	MT2	135	223	**345-1900**	28.00	MT3	170	291	**345-2800**
10.50	MT1	87	168	**345-1050**	19.50	MT2	140	238	**345-1950**	28.50	MT3	175	296	**345-2850**
11.00	MT1	94	175	**345-1100**	20.00	MT2	140	238	**345-2000**	29.00	MT3	175	296	**345-2900**
12.00	MT1	101	182	**345-1200**	20.50	MT2	145	243	**345-2050**	30.00	MT3	175	296	**345-3000**
12.50	MT1	101	182	**345-1250**	21.00	MT2	145	243	**345-2100**	30.50	MT3	180	301	**345-3050**
12.75	MT1	101	182	**345-1275**	21.50	MT2	150	248	**345-2150**	31.00	MT3	180	301	**345-3100**
13.00	MT1	101	182	**345-1300**	22.00	MT2	150	248	**345-2200**	31.50	MT3	180	301	**345-3150**
13.50	MT1	108	189	**345-1350**	22.50	MT2	155	253	**345-2250**	32.00	MT4	185	334	**345-3200**
14.00	MT2	108	189	**345-1400**	23.00	MT2	155	253	**345-2300**	33.00	MT4	185	334	**345-3300**
14.50	MT2	114	212	**345-1450**	23.50	MT3	155	276	**345-2350**	33.50	MT4	185	334	**345-3350**
15.00	MT2	114	212	**345-1500**	24.00	MT3	160	281	**345-2400**	34.00	MT4	190	339	**345-3400**
15.50	MT2	120	218	**345-1550**	24.50	MT3	160	281	**345-2450**	34.50	MT4	190	339	**345-3450**
16.00	MT2	120	218	**345-1600**	25.00	MT3	160	281	**345-2500**	35.00	MT4	190	339	**345-3500**
16.50	MT2	125	223	**345-1650**	25.50	MT3	165	286	**345-2550**	38.00	MT4	200	349	**345-3800**
17.00	MT2	125	223	**345-1700**	26.00	MT3	165	286	**345-2600**	43.00	MT4	210	359	**345-4300**
17.50	MT2	130	228	**345-1750**	26.50	MT3	165	286	**345-2650**	44.50	MT4	210	359	**345-4450**
18.00	MT2	130	228	**345-1800**	27.00	MT3	170	291	**345-2700**	45.00	MT4	210	359	**345-4500**
18.50	MT2	135	223	**345-1850**	27.50	MT3	170	291	**345-2750**	50.00	MT4	220	369	**345-5000**

Taper Shank Drills

Designed to perform in a wide range of steel, ferrous and non-ferrous materials.

High Speed Steel, Right Hand,118°, Black Oxide 美标锥柄麻花钻



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
1/16"	1-1/4"	4-5/8"	MT1	**302-1004**	57/64"	6-1/8"	10-3/4"	MT3	**302-3057**
5/64	1-3/8	4-3/4	MT1	**302-1005**	29/32	6-1/8	10	MT2*	**302-2058**
3/32	1-1/2	4-7/8	MT1	**302-1006**	29/32	6-1/8	10-3/4	MT3	**302-3058**
7/64	1-5/8	5	MT1	**302-1007**	59/64	6-1/8	10-1/4	MT2	**302-2059**
1/8	1-7/8	5-1/8	MT1	**302-1008**	59/64	6-1/8	10-3/4	MT3	**302-3059**
9/64	2-1/8	5-3/8	MT1	**302-1009**	15/16	6-1/8	10-1/4	MT2	**302-2060**
5/32	2-1/8	5-3/8	MT1	**302-1010**	15/16	6-1/8	10-3/4	MT3	**302-3060**
11/64	2-1/2	5-3/4	MT1	**302-1011**	61/64	6-3/8	11	MT3	**302-3061**
3/16	2-1/2	5-3/4	MT1	**302-1012**	31/32	6-3/8	11	MT3	**302-3062**
13/64	2-3/4	6	MT1	**302-1013**	63/64	6-3/8	11	MT3	**302-3063**
7/32	2-3/4	6	MT1	**302-1014**	1	6	10-3/4	MT2	**302-2100**
15/64	2-7/8	6-1/8	MT1	**302-1015**	1	6-3/8	11	MT3	**302-3100**
1/4	2-7/8	6-1/8	MT1	**302-1016**	1	6-3/8	12	MT4*	**302-4100**
17/64	3	6-1/4	MT1	**302-1017**	1-1/64	6-1/2	11-1/8	MT3	**302-3101**
9/32	3	6-1/4	MT1	**302-1018**	1-1/32	6-1/2	11-1/8	MT3	**302-3102**
19/64	3-1/8	6-3/8	MT1	**302-1019**	1-1/32	6-1/2	12-1/8	MT4	**302-4102**
5/16	3-1/8	6-3/8	MT1	**302-1020**	1-3/64	6-5/8	11-1/4	MT3	**302-3103**
21/64	3-1/4	6-1/2	MT1	**302-1021**	1-3/64	6	11"	MT4	**302-4103**
11/32	3-1/4	6-1/2	MT1	**302-1022**	1-1/16	6-5/8	11-1/4	MT3	**302-3104**
23/64	3-1/2	6-3/4	MT1	**302-1023**	1-1/16	6-5/8	12-1/4	MT4*	**302-4104**
3/8	3-1/2	6-3/4	MT1	**302-1024**	1-5/64	6-7/8	11-1/2	MT3*	**302-3105**
3/8	3-1/2	7-3/8	MT2*	**302-2024**	1-5/64	6-7/8	12-1/2	MT4	**302-4105**
25/64	3-5/8	7	MT1	**302-1025**	1-3/32	6-7/8	11-1/2	MT3*	**302-3106**
25/64	3-5/8	7-1/2	MT2*	**302-2025**	1-3/32	6-7/8	12-1/2	MT4	**302-4106**
13/32	3-5/8	7	MT1	**302-1026**	1-7/64	7-1/8	11-3/4	MT3*	**302-3107**
13/32	3-5/8	7-1/2	MT2*	**302-2026**	1-7/64	7-1/8	12-3/4	MT4	**302-4107**
27/64	3-7/8	7-1/4	MT1	**302-1027**	1-1/8	7-1/8	11-3/4	MT3*	**302-3108**
27/64	3-7/8	7-3/4	MT2*	**302-2027**	1-1/8	7-1/8	12-3/4	MT4	**302-4108**
7/16	3-7/8	7-1/4	MT1	**302-1028**	1-9/64	7-1/4	11-7/8	MT3*	**302-3109**
7/16	3-7/8	7-3/4	MT2*	**302-2028**	1-9/64	7-1/4	12-7/8	MT4	**302-4109**
29/64	4-1/8	7-1/2	MT1	**302-1029**	1-5/32	7-1/4	11-7/8	MT3	**302-3110**
29/64	4-1/8	8	MT2	**302-2029**	1-5/32	7-1/4	12-7/8	MT4	**302-4110**
15/32	4-1/8	7-1/2	MT1	**302-1030**	1-11/64	7-3/8	12	MT3*	**302-3111**
15/32	4-1/8	8	MT2*	**302-2030**	1-11/64	7-3/8	13	MT4	**302-4111**
31/64	4-3/8	7-3/4	MT1	**302-1031**	1-3/16	7-3/8	12	MT3*	**302-3112**
31/64	4-3/8	8-1/4	MT2	**302-2031**	1-3/16	7-3/8	13	MT4	**302-4112**
1/2	4-3/8	7-3/4	MT1*	**302-1032**	1-13/64	7-1/2	12-1/8	MT3	**302-3113**
1/2	4-3/8	8-1/4	MT2	**302-2032**	1-13/64	7-1/2	13-1/8	MT4	**302-4113**
33/64	4-5/8	8	MT1*	**302-1033**	1-7/32	7-1/2	12-1/8	MT3*	**302-3114**
33/64	4-5/8	8-1/2	MT2	**302-2033**	1-7/32	7-1/2	13-1/8	MT4	**302-4114**
17/32	4-5/8	8	MT1*	**302-1034**	1-15/64	7-7/8	12-1/2	MT3*	**302-3115**
17/32	4-5/8	8-1/2	MT2	**302-2034**	1-15/64	7-7/8	13-1/2	MT4	**302-4115**
35/64	4-7/8	8-1/4	MT1*	**302-1035**	1-1/4	7-7/8	12-1/2	MT3*	**302-3116**
35/64	4-7/8	8-3/4	MT2	**302-2035**	1-1/4	7-7/8	13-1/2	MT4	**302-4116**
9/16	4-7/8	8-1/2	MT1*	**302-1036**	1-17/64	8-1/2	14-1/8	MT4	**302-4117**
9/16	4-7/8	8-3/4	MT2	**302-2036**	1-9/32	8-1/2	14-1/8	MT4	**302-4118**
37/64	4-7/8	8-3/4	MT2	**302-2037**	1-19/64	8-5/8	14-1/4	MT4	**302-4119**
19/32	4-7/8	8-3/4	MT2	**302-2038**	1-5/16	8-5/8	14	MT3	**302-3120**
39/64	4-7/8	8-3/4	MT2	**302-2039**	1-5/16	8-5/8	14-1/2	MT4	**302-4120**
5/8	4-7/8	8-3/4	MT2	**302-2040**	1-21/64	8-3/4	14-3/8	MT4	**302-4121**
41/64	5-1/8	9	MT2	**302-2041**	1-11/32	8-3/4	13-3/8	MT4	**302-4122**
41/64	5-1/8	9-3/4	MT3*	**302-3041**	1-11/32	8-3/4	14-1/2	MT4	**302-4122**
21/32	5-1/8	9	MT2	**302-2042**	1-23/64	8-7/8	14-1/2	MT4	**302-4123**
21/32	5-1/8	9-3/4	MT3*	**302-3042**	1-3/8	8-7/8	14	MT3	**302-3124**
43/64	5-3/8	9-1/4	MT2	**302-2043**	1-3/8	8-7/8	14-1/2	MT4	**302-4124**
43/64	5-3/8	10	MT3*	**302-3043**	1-25/64	9	14-5/8	MT4	**302-4125**
11/16	5-3/8	9-1/4	MT2	**302-2044**	1-13/32	9	14-5/8	MT4	**302-4126**
11/16	5-3/8	10	MT3*	**302-3044**	1-27/64	9-1/8	14-3/4	MT4	**302-4127**
45/64	5-5/8	9-1/2	MT2	**302-2045**	1-7/16	9-1/8	14-1/4	MT3	**302-3128**
45/64	5-5/8	10-1/4	MT3*	**302-3045**	1-7/16	9-1/8	14-1/2	MT4	**302-4128**
23/32	5-5/8	9-1/2	MT2	**302-2046**	1-7/16	9-1/8	14-3/4	MT4	**302-4168**
23/32	5-5/8	10-1/4	MT3*	**302-3046**	1-29/64	9-1/4	14-7/8	MT4	**302-4129**
47/64	5-7/8	9-3/4	MT2	**302-2047**	1-15/32	9-1/4	14-7/8	MT4	**302-4130**
47/64	5-7/8	10-1/2	MT3*	**302-3047**	1-31/64	9-3/8	15	MT4	**302-4131**
3/4	5-7/8	9-3/4	MT2	**302-2048**	1-1/2	9-3/8	15-3/8	MT2	**302-2132**
3/4	5-7/8	10-1/2	MT3*	**302-3048**	1-1/2	9-3/8	14-3/8	MT3	**302-3132**
49/64	6	9-7/8	MT2	**302-2049**	1-1/2	9-3/8	15	MT4	**302-4132**
49/64	6	10-5/8	MT3*	**302-3049**	1-33/64	9-3/8	15	MT4*	**302-4133**
25/32	6	9-7/8	MT2	**302-2050**	1-33/64	9-3/8	16-3/8	MT5	**302-5133**
25/32	6	10-7/8	MT3*	**302-3050**	1-17/32	9-3/8	15	MT4	**302-4134**
51/64	6-1/8	10	MT2*	**302-2051**	1-17/32	9-3/8	16-3/8	MT5	**302-5134**
51/64	6-1/8	10-3/4	MT3	**302-3051**	1-35/64	9-5/8	15-1/4	MT4*	**302-4135**
13/16	6-1/8	10	MT2*	**302-2052**	1-35/64	9-5/8	16-5/8	MT5	**302-5135**
13/16	6-1/8	10-3/4	MT3	**302-3052**	1-9/16	9-5/8	15-1/4	MT4*	**302-4136**
53/64	6-1/8	10	MT2	**302-2053**	1-9/16	9-5/8	16-5/8	MT5	**302-5136**
53/64	6-1/8	10-3/4	MT3	**302-3053**	1-37/64	9-7/8	15-1/2	MT4*	**302-4137**
27/32	6-1/8	10	MT2*	**302-2054**	1-37/64	9-7/8	16-7/8	MT5	**302-5137**
27/32	6-1/8	10-3/4	MT3	**302-3054**	1-19/32	9-7/8	15-1/2	MT4*	**302-4138**
55/64	6-1/8	10	MT2*	**302-2055**	1-19/32	9-7/8	16-7/8	MT5	**302-5138**
55/64	6-1/8	10-3/4	MT3	**302-3055**	1-39/64	10	15-5/8	MT4*	**302-4139**
7/8	6-1/8	10	MT2*	**302-2056**	1-39/64	10	17	MT5	**302-5139**
7/8	6-1/8	10-3/4	MT3	**302-3056**	1-5/8	10	15-5/8	MT4	**302-4140**
57/64	6-1/8	10	MT2*	**302-2057**					

*Indicates smaller or larger shank than standard.

Taper Shank Drills Continued

Designed to perform in a wide range of steel, ferrous and non-ferrous materials.

High Speed Steel, Right Hand,118°, Black Oxide 美标锥柄麻花钻



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
1-5/8"	10"	17"	MT5	**302-5140**	2-19/64"	9-1/4"	16-5/8"	MT4	**302-4219**
1-41/64	10-1/8	15-3/4	MT4*	**302-4141**	2-5/16	10-1/8	16-5/8	MT4	**302-4220**
1-41/64	10-1/8	17-1/8	MT5	**302-5141**	2-5/16	10-1/8	17-3/8	MT5	**302-5220**
1-21/32	10-1/8	15-3/4	MT4	**302-4142**	2-11/32	10-1/8	16-5/8	MT4	**302-4222**
1-21/32	10-1/8	17-1/8	MT5	**302-5142**	2-11/32	10-1/8	17-3/8	MT5	**302-5222**
1-43/64	10-1/8	15-3/4	MT4*	**302-4143**	2-3/8	10-1/8	16-5/8	MT4	**302-4224**
1-43/64	10-1/8	17-1/8	MT5	**302-5143**	2-3/8	10-1/8	17-3/8	MT5	**302-5224**
1-11/16	10-1/8	15-3/4	MT4*	**302-4144**	2-25/64	10-1/8	17-3/8	MT5	**302-5215**
1-11/16	10-1/8	17-1/8	MT5	**302-5144**	2-13/32	11-1/4	18-3/4	MT5	**302-5226**
1-45/64	10-1/8	15-3/4	MT4*	**302-4145**	2-7/16	11-1/4	17-3/8	MT4	**302-4228**
1-45/64	10-1/8	17-1/8	MT5	**302-5145**	2-7/16	10-1/4	18-1/4	MT4	**302-4229**
1-23/32	10-1/8	15-3/4	MT4*	**302-4146**	2-7/16	11-1/4	18-3/4	MT5	**302-5228**
1-23/32	10-1/8	17-1/8	MT5	**302-5146**	2-15/32	11-1/4	18-3/4	MT5	**302-5230**
1-47/64	10-3/8	16-1/4	MT4*	**302-4147**	2-1/2	11-1/4	17-3/8	MT4	**302-4232**
1-47/64	10-1/8	17-1/8	MT5	**302-5147**	2-1/2	10-1/4	18-1/4	MT4	**302-4233**
1-3/4	10-3/8	16-1/4	MT4*	**302-4148**	2-1/2	11-1/4	18-3/4	MT5	**302-5232**
1-3/4	10-1/8	17-1/8	MT5	**302-5148**	2-17/32	11-7/8	19-1/4	MT5	**302-5234**
1-49/64	10-3/8	16-1/4	MT4	**302-4149**	2-9/16	11-1/2	17-1/2	MT4	**302-4236**
1-49/64	10-1/8	17-1/8	MT5	**302-5149**	2-9/16	11-7/8	19-1/2	MT5	**302-5236**
1-25/32	10-3/8	16-1/4	MT4*	**302-4150**	2-19/32	11-7/8	19-1/2	MT5	**302-5238**
1-25/32	10-1/8	17-1/8	MT5	**302-5150**	2-5/8	11-7/8	18	MT4	**302-4240**
1-51/64	10-3/8	16-1/4	MT4	**302-4151**	2-5/8	11-7/8	19-1/2	MT5	**302-5240**
1-51/64	10-1/8	17-1/8	MT5	**302-5151**	2-21/32	12-1/2	20	MT5	**302-5242**
1-13/16	10-3/8	16-1/4	MT4	**302-4152**	2-11/16	12-1/4	18-1/2	MT4	**302-4244**
1-13/16	10-1/8	17-1/8	MT5	**302-5152**	2-11/16	12-3/4	20-3/8	MT5	**302-5244**
1-53/64	10-3/8	16-1/4	MT4	**302-4153**	2-23/32	13	20-1/2	MT5	**302-5246**
1-53/64	10-1/8	16-1/2	MT4	**302-4173**	2-47/64	13	20-1/4	MT5	**302-5247**
1-53/64	10-1/8	17-1/8	MT5	**302-5153**	2-3/4	12-3/4	20-3/8	MT5	**302-5248**
1-27/32	10-3/8	16-1/4	MT4*	**302-4154**	2-3/4	12-1/4	18-1/2	MT4	**302-4248**
1-27/32	10-1/8	17-1/8	MT5	**302-5154**	2-3/4	12-3/4	20-3/8	MT5	**302-5248**
1-55/64	10-3/8	16-1/2	MT4	**302-4155**	2-3/4	10-1/2	20	MT6	**302-6301**
1-55/64	10-1/8	17-3/8	MT5	**302-5155**	2-25/32	13	20-1/2	MT5	**302-5250**
1-7/8	10-1/2	16-1/2	MT4*	**302-4156**	2-13/16	12-3/4	19-1/8	MT4	**302-4252**
1-7/8	10-3/4	17-3/8	MT5	**302-5156**	2-13/16	13-3/8	21-1/8	MT5	**302-5252**
1-57/64	10-1/2	16-1/2	MT4	**302-4157**	2-27/32	13-1/2	21	MT5	**302-5254**
1-57/64	10-3/8	17-3/8	MT5	**302-5157**	2-55/64	13-1/2	21	MT5	**302-5255**
1-29/32	10-1/2	16-1/2	MT4*	**302-4158**	2-7/8	13-3/8	21-1/8	MT5	**302-5256**
1-29/32	10-3/8	17-3/8	MT5	**302-5158**	2-57/64	9	16-1/2	MT5	**302-5257**
1-59/64	10-1/2	16-1/2	MT4	**302-4159**	2-29/32	13-1/2	21	MT5	**302-5258**
1-59/64	10-3/8	16-5/8	MT4	**302-4179**	2-29/32	13-1/2	21-1/8	MT5	**302-5259**
1-59/64	10-3/8	17-3/8	MT5	**302-5159**	2-15/16	14	21-3/4	MT5	**302-5260**
1-15/16	10-5/8	16-5/8	MT4	**302-4160**	2-31/32	14-1/2	22	MT5	**302-5262**
1-15/16	10-3/8	17-3/8	MT5	**302-5160**	3	14	20-1/4	MT4	**302-4300**
1-61/64	10-5/8	16-5/8	MT4	**302-4161**	3	14	21-3/4	MT5	**302-5300**
1-61/64	10-3/8	16-3/4	MT4	**302-4181**	3-1/32	14-1/8	21-3/4	MT5	**302-5302**
1-61/64	10-3/8	17-3/8	MT5	**302-5161**	3-1/16	14-1/8	22	MT5	**302-5304**
1-31/32	10-5/8	16-5/8	MT4	**302-4162**	3-1/16	14-1/2	24-1/2	MT6	**302-6304**
1-31/32	10-3/8	17-3/8	MT5	**302-5162**	3-1/16	14-5/8	24-1/2	MT6	**302-6305**
1-63/64	10-5/8	16-5/8	MT4	**302-4163**	3-1/8	14-1/4	22	MT5	**302-5308**
1-63/64	10-3/8	17-3/8	MT5	**302-5163**	3-1/8	14-5/8	22-1/2	MT5	**302-5309**
2	10-5/8	16-5/8	MT4*	**302-4200**	3-1/8	14-5/8	24-1/2	MT6	**302-6308**
2	10-3/8	17-3/8	MT5	**302-5200**	3-3/16	14-1/4	23	MT5	**302-5312**
2-1/64	9-3/4	17-3/8	MT4	**302-4201**	3-3/16	14-5/8	23	MT5	**302-5313**
2-1/64	10-3/8	17-3/8	MT5	**302-5201**	3-3/16	14-5/8	25-1/2	MT6	**302-6312**
2-1/32	10-3/8	17-3/8	MT5	**302-5202**	3-1/4	14-1/4	23	MT5	**302-5316**
2-3/64	10-1/4	17-3/8	MT5	**302-5203**	3-1/4	15-1/2	25-1/2	MT6	**302-6316**
2-1/16	9	16-5/8	MT4	**302-4204**	3-5/16	15-1/4	23	MT5	**302-5320**
2-1/16	10-3/8	16-5/8	MT4	**302-4205**	3-5/16	15-1/2	23-1/2	MT5	**302-5321**
2-1/16	10-1/4	17-3/8	MT5	**302-5204**	3-5/16	15-1/2	25-1/2	MT6	**302-6320**
2-1/16	10-3/8	17-3/8	MT5	**302-5474**	3-3/8	15-1/4	23	MT5	**302-5324**
2-3/32	10-1/4	16-1/4	MT4	**302-4206**	3-3/8	15-1/2	23	MT5	**302-5325**
2-5/64	10-1/4	17-3/8	MT5	**302-5205**	3-3/8	15-1/2	25-1/2	MT6	**302-6324**
2-3/32	10-1/4	17-3/8	MT5	**302-5206**	3-13/32	15-1/4	23	MT6	**302-6326**
2-7/64	10-1/4	17-3/8	MT5	**302-5207**	3-7/16	15-1/4	23	MT5	**302-5328**
2-1/8	9	16-5/8	MT4	**302-4208**	3-7/16	15-1/2	25-1/2	MT6	**302-6328**
2-1/8	10-1/4	16-5/8	MT4	**302-4209**	3-1/2	16-1/4	24	MT5	**302-5332**
2-1/8	10-1/4	17-3/8	MT5	**302-5208**	3-1/2	16-1/4	26-1/2	MT6	**302-6332**
2-9/64	10-1/4	17-3/8	MT5	**302-5209**	3-9/16	16-1/4	25-7/8	MT5	**302-5336**
2-5/32	9-1/4	16-5/8	MT4	**302-4210**	3-5/8	16-1/4	25-7/8	MT6	**302-6340**
2-5/32	10-1/4	17-3/8	MT5	**302-5210**	3-11/16	16-1/4	26	MT6	**302-6344**
2-11/64	10-1/4	17-3/8	MT5	**302-5211**	3-3/4	16-1/4	25-7/8	MT5	**302-5348**
2-3/16	10-1/4	16-5/8	MT4	**302-4212**	3-3/4	16-1/2	29	MT6	**302-6348**
2-3/16	10-1/4	17-3/8	MT5	**302-5212**	3-3/4	16-1/2	25-7/8	MT6	**302-6349**
2-13/64	10-3/4	17-1/4	MT4	**302-4213**	3-13/16	16-1/4	26	MT6	**302-6352**
2-13/64	10-1/8	17-3/8	MT5	**302-5213**	3-7/8	16-1/2	29	MT5	**302-5356**
2-7/32	10-1/4	16-5/8	MT4	**302-4214**	3-7/8	16-1/2	23-1/2	MT5	**302-5357**
2-7/32	10-1/8	17-3/8	MT5	**302-5214**	3-7/8	16-1/2	23-1/2	MT5	**302-5359**
2-1/4	10-1/8	16-5/8	MT4	**302-4216**	3-7/8	16-1/2	29	MT6	**302-6356**
2-1/4	10-1/8	17-3/8	MT5	**302-5216**	3-7/8	16-1/2	25-7/8	MT6	**302-6357**
2-17/64	9-1/4	17-1/4	MT4	**302-4217**	3-15/16	16	27	MT5	**302-5360**
2-9/32	9-1/4	16-5/8	MT4	**302-4218**	4	16-1/2	29	MT5	**302-5400**
2-9/32	10-1/8	17-3/8	MT5	**302-5218**	4	16-1/2	29	MT6	**302-6400**

*Indicates smaller or larger shank than standard.

Extra Long Taper Shank Drills 超长锥柄钻

High Speed Steel, Right Hand,118°, Black Oxide

Designed to perform in a wide range of steel, ferrous and non-ferrous materials, where extra length is required.



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
1/8”	7”	10”	MT1	**502-1008**	3/4”	8”	12”	MT2	**502-1268**	1-1/32”	10”	15”	MT3	**502-1552**
9/64	7	10	MT1	**502-1009**	49/64	8	12	MT2	**502-1270**	1-3/64	10	15	MT3	**502-1553**
5/32	7	10	MT1	**502-1010**	25/32	8	12	MT2	**502-1272**	1-1/16	10	15	MT3	**502-1554**
11/64	7	10	MT1	**502-1011**	51/64	8	12	MT2	**502-1251**	1-5/64	10	15	MT3	**502-1555**
3/16	7	10	MT1	**502-1012**	13/16	8	12	MT3	**502-1274**	1-3/32	10	15	MT4	**502-1556**
13/64	7	10	MT1	**502-1013**	53/64	8	12	MT3	**502-1276**	1-7/64	10	15	MT4	**502-1557**
7/32	7	10	MT1	**502-1014**	27/32	8	12	MT3	**502-1278**	1-1/8	10	15	MT4	**502-1558**
15/64	7	10	MT1	**502-1015**	55/64	8	12	MT3	**502-1255**	1-9/64	10	15	MT4	**502-1560**
1/4	7	10	MT1	**502-1016**	7/8	8	12	MT3	**502-1280**	1-5/32	10	15	MT4	**502-1561**
17/64	7	10	MT1	**502-1017**	57/64	8	12	MT1	**502-1257**	1-11/64	10	15	MT4	**502-1562**
9/32	7	10	MT1	**502-1018**	29/32	8	12	MT1	**502-1259**	1-3/16	10	15	MT4	**502-1563**
19/64	7	10	MT1	**502-1019**	59/64	8	12	MT1	**502-1261**	1-13/64	10	15	MT4	**502-1564**
5/16	7	10	MT1	**502-1020**	15/16	8	12	MT3	**502-1282**	1-7/32	10	15	MT4	**502-1565**
21/64	7	10	MT1	**502-1021**	31/32	8	12	MT1	**502-1263**	1-15/64	10	15	MT4	**502-1566**
11/32	7	10	MT1	**502-1022**	13/64	10	15	MT1	**502-1573**	1-1/4	10	15	MT4	**502-1567**
23/64	7	10	MT1	**502-1023**	7/32	10	15	MT1	**502-1499**	1-1/4	10	15	MT3	**502-1568**
3/8	7	10	MT1	**502-1024**	3/16	10	15	MT1	**502-1500**	1-9/32	10	15	MT3	**502-1578**
25/64	7	10	MT1	**502-1025**	15/64	10	15	MT1	**502-1501**	3/16	12	18	MT1	**502-1892**
13/32	7	10	MT1	**502-1026**	1/4	10	15	MT1	**502-1502**	13/64	12	18	MT1	**502-1890**
27/64	7	10	MT1	**502-1027**	17/64	10	15	MT1	**502-1503**	7/32	12	18	MT1	**502-1894**
7/16	7	10	MT1	**502-1028**	9/32	10	15	MT1	**502-1504**	15/64	12	18	MT1	**502-1888**
29/64	7	10	MT1	**502-1029**	19/64	10	15	MT1	**502-1505**	1/4	12	18	MT1	**502-1800**
15/32	7	10	MT1	**502-1030**	5/16	10	15	MT1	**502-1506**	17/64	12	18	MT1	**502-1801**
31/64	7	10	MT1	**502-1031**	21/64	10	15	MT1	**502-1507**	9/32	12	18	MT1	**502-1802**
1/2	7	10	MT1	**502-1032**	11/32	10	15	MT1	**502-1508**	19/64	12	18	MT1	**502-1803**
33/64	7	10	MT2	**502-1033**	23/64	10	15	MT1	**502-1509**	5/16	12	18	MT1	**502-1804**
17/32	7	10	MT2	**502-1034**	3/8	10	15	MT1	**502-1510**	21/64	12	18	MT1	**502-1886**
35/64	7	10	MT2	**502-1035**	25/64	10	15	MT1	**502-1511**	11/32	12	18	MT1	**502-1805**
21/32	7	10	MT1	**502-1042**	13/32	10	15	MT1	**502-1512**	23/64	12	18	MT1	**502-1806**
1/8	8	12	MT1	**502-1200**	27/64	10	15	MT1	**502-1513**	3/8	12	18	MT1	**502-1807**
9/64	8	12	MT1	**502-1209**	7/16	10	15	MT1	**502-1514**	25/64	12	18	MT1	**502-1808**
5/32	8	12	MT1	**502-1211**	29/64	10	15	MT1	**502-1515**	13/32	12	18	MT1	**502-1809**
11/64	8	12	MT1	**502-1207**	15/32	10	15	MT1	**502-1516**	27/64	12	18	MT1	**502-1810**
3/16	8	12	MT1	**502-1202**	31/64	10	15	MT1	**502-1517**	7/16	12	18	MT1	**502-1811**
13/64	8	12	MT1	**502-1213**	31/64	10	15	MT2	**502-1590**	7/16	12	18	MT2	**502-1900**
7/32	8	12	MT1	**502-1203**	1/2	10	15	MT2	**502-1518**	29/64	12	18	MT1	**502-1812**
15/64	8	12	MT1	**502-1215**	33/64	10	15	MT2	**502-1519**	15/32	12	18	MT1	**502-1813**
1/4	8	12	MT1	**502-1204**	17/32	10	15	MT2	**502-1520**	31/64	12	18	MT1	**502-1814**
17/64	8	12	MT1	**502-1206**	35/64	10	15	MT2	**502-1521**	1/2	12	18	MT2	**502-1815**
9/32	8	12	MT1	**502-1208**	9/16	10	15	MT2	**502-1522**	33/64	12	18	MT2	**502-1816**
19/64	8	12	MT1	**502-1210**	37/64	10	15	MT2	**502-1523**	17/32	12	18	MT2	**502-1817**
5/16	8	12	MT1	**502-1212**	19/32	10	15	MT2	**502-1524**	35/64	12	18	MT2	**502-1818**
21/64	8	12	MT1	**502-1214**	39/64”	10"	15"	MT2	**502-1525**	9/16	12	18	MT2	**502-1819**
11/32	8	12	MT1	**502-1216**	5/8	10	15	MT2	**502-1526**	37/64	12	18	MT2	**502-1820**
23/64	8	12	MT1	**502-1218**	41/64	10	15	MT2	**502-1527**	19/32	12	18	MT2	**502-1821**
3/8	8	12	MT1	**502-1220**	21/32	10	15	MT2	**502-1528**	39/64	12	18	MT2	**502-1822**
25/64	8	12	MT1	**502-1222**	43/64	10	15	MT2	**502-1529**	5/8	12	18	MT2	**502-1823**
13/32	8	12	MT1	**502-1224**	11/16	10	15	MT2	**502-1530**	41/64	12	18	MT2	**502-1824**
27/64	8	12	MT1	**502-1226**	45/64	10	15	MT2	**502-1531**	21/32	12	18	MT2	**502-1825**
7/16	8	12	MT1	**502-1228**	23/32	10	15	MT2	**502-1532**	43/64	12	18	MT2	**502-1826**
29/64	8	12	MT1	**502-1230**	47/64	10	15	MT2	**502-1533**	11/16	12	18	MT2	**502-1827**
15/32	8	12	MT1	**502-1232**	3/4	10	15	MT2	**502-1534**	45/64	12	18	MT2	**502-1828**
31/64	8	12	MT2	**502-1234**	49/64	10	15	MT2	**502-1535**	23/32	12	18	MT2	**502-1829**
1/2	8	12	MT1	**502-1235**	25/32	10	15	MT2	**502-1536**	47/64	12	18	MT2	**502-1830**
1/2	8	12	MT2	**502-1236**	51/64	10	15	MT2	**502-1537**	3/4	12	18	MT2	**502-1831**
33/64	8	12	MT2	**502-1238**	13/16	10	15	MT3	**502-1538**	49/64	12	18	MT2	**502-1832**
17/32	8	12	MT2	**502-1240**	53/64	10	15	MT3	**502-1539**	25/32	12	18	MT2	**502-1833**
35/64	8	12	MT2	**502-1242**	53/64	10	15	MT2	**502-1596**	51/64	12	18	MT2	**502-1834**
9/16	8	12	MT2	**502-1244**	27/32	10	15	MT3	**502-1540**	13/16	12	18	MT3	**502-1835**
37/64	8	12	MT2	**502-1246**	55/64	10	15	MT3	**502-1541**	53/64	12	18	MT2	**502-1896**
19/32	8	12	MT2	**502-1248**	7/8	10	15	MT3	**502-1542**	53/64	12	18	MT3	**502-1836**
39/64	8	12	MT2	**502-1250**	57/64	10	15	MT3	**502-1543**	27/32	12	18	MT3	**502-1837**
5/8	8	12	MT2	**502-1252**	29/32	10	15	MT3	**502-1544**	55/64	12	18	MT3	**502-1838**
41/64	8	12	MT2	**502-1254**	59/64	10	15	MT3	**502-1545**	7/8	12	18	MT3	**502-1839**
21/32	8	12	MT2	**502-1256**	15/16	10	15	MT3	**502-1546**	7/8	12	18	MT2	**502-1902**
43/64	8	12	MT2	**502-1258**	61/64	10	15	MT3	**502-1547**	57/64	12	18	MT3	**502-1840**
11/16	8	12	MT2	**502-1260**	31/32	10	15	MT3	**502-1548**	29/32	12	18	MT3	**502-1841**
45/64	8	12	MT2	**502-1262**	63/64	10	15	MT3	**502-1549**	59/64	12	18	MT3	**502-1842**
23/32	8	12	MT2	**502-1264**	1	10	15	MT3	**502-1550**	15/16	12	18	MT3	**502-1843**
47/64	8	12	MT2	**502-1266**	1-1/64	10	15	MT3	**502-1551**					

Extra Long Taper Shank Drills Continued 超长锥柄钻

High Speed Steel, Right Hand,118°, Black Oxide



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
61/64	12	18	MT3	**502-1844**	39/64	17	24	MT2	**502-2314**	3/4	24	30	MT2	**502-3010**
31/32	12	18	MT3	**502-1845**	5/8	17	24	MT2	**502-2315**	13/16	24	30	MT3	**502-3012**
63/64	12	18	MT3	**502-1846**	41/64	17	24	MT2	**502-2416**	7/8	24	30	MT3	**502-3015**
1	12	18	MT3	**502-1847**	21/32	17	24	MT2	**502-2317**	15/16	24	30	MT3	**502-3017**
1-1/64	12	18	MT3	**502-1848**	43/64	17	24	MT2	**502-2318**	1	24	30	MT3	**502-3020**
1-1/32	12	18	MT3	**502-1849**	11/16	17	24	MT2	**502-2319**	1-1/16	24	30	MT3	**502-3021**
1-3/64	12	18	MT3	**502-1850**	45/64	17	24	MT2	**502-2320**	1-1/8	24	30	MT4	**502-3022**
1-1/16	12	18	MT3	**502-1851**	23/32	17	24	MT2	**502-2321**	1-5/16	24	30	MT4	**502-3023**
1-5/64	12	18	MT3	**502-1852**	47/64	17	24	MT2	**502-2322**	1-3/16	24	30	MT4	**502-3024**
1-3/32	12	18	MT4	**502-1853**	3/4	17	24	MT2	**502-2323**	1-1/4	24	30	MT4	**502-3025**
1-7/64	12	18	MT4	**502-1854**	49/64	17	24	MT3	**502-2324**	1-3/8	24	30	MT4	**502-3026**
1-1/8	12	18	MT4	**502-1855**	25/32	17	24	MT3	**502-2325**	1-7/16	24	30	MT4	**502-3027**
1-9/64	12	18	MT4	**502-1856**	51/64	17	24	MT3	**502-2326**	1-1/2	24	30	MT4	**502-3030**
1-5/32	12	18	MT4	**502-1857**	13/16	17	24	MT3	**502-2327**	1-9/16	24	30	MT5	**502-3031**
1-11/64	12	18	MT4	**502-1858**	53/64	17	24	MT3	**502-2328**	1-5/8	24	30	MT5	**502-3032**
1-3/16	12	18	MT4	**502-1859**	27/32	17	24	MT3	**502-2329**	1-11/16	24	30	MT5	**502-3033**
1-13/64	12	18	MT4	**502-1860**	55/64	17	24	MT3	**502-2330**	1-3/4	24	30	MT5	**502-3034**
1-7/32	12	18	MT4	**502-1861**	7/8	17	24	MT3	**502-2331**	1-7/8	24	30	MT5	**502-3036**
1-15/54	12	18	MT4	**502-1862**	57/64	17	24	MT3	**502-2332**	2	24	30	MT4	**502-3040**
1-1/4	12	18	MT4	**502-1863**	29/32	17	24	MT3	**502-2333**	2-1/16	24	30	MT5	**502-3041**
1-17/64	12	18	MT4	**502-1864**	59/64	17	24	MT3	**502-2334**	2-1/8	24	30	MT5	**502-3042**
1-9/32	12	18	MT4	**502-1865**	15/16	17	24	MT3	**502-2335**	2-1/4	24	30	MT5	**502-3043**
1-19/64	12	18	MT4	**502-1866**	61/64	17	24	MT3	**502-2336**	2-3/8	24	30	MT5	**502-3045**
1-5/16	12	18	MT4	**502-1867**	31/32	17	24	MT3	**502-2337**	2-7/16	24	30	MT5	**502-3046**
1-21/64	12	18	MT4	**502-1868**	63/64	17	24	MT3	**502-2338**	2-1/2	24	30	MT5	**502-3047**
1-11/32	12	18	MT4	**502-1869**	1	17	24	MT3	**502-2339**	2-5/8	24	30	MT5	**502-3048**
1-23/64	12	18	MT4	**502-1870**	1-1/64	17	24	MT3	**502-2340**	2-3/4	24	30	MT5	**502-3049**
1-3/8	12	18	MT4	**502-1871**	1-1/32	17	24	MT3	**502-2341**	3	24	30	MT5	**502-3050**
1-25/64	12	18	MT4	**502-1872**	1-3/64	17	24	MT3	**502-2342**	3-1/8	24	30	MT5	**502-3051**
1-13/32	12	18	MT4	**502-1873**	1-1/16	17	24	MT3	**502-2343**	3-1/4	24	30	MT5	**502-3052**
1-27/64	12	18	MT4	**502-1874**	1-5/64	17	24	MT3	**502-2344**	3-3/8	24	30	MT5	**502-3053**
1-7/16	12	18	MT4	**502-1875**	1-3/32	17	24	MT3	**502-2345**	3-1/2	24	30	MT5	**502-3054**
1-29/64	12	18	MT4	**502-1876**	1-7/64	17	24	MT3	**502-2346**	1-1/2	24	36	MT4	**502-3130**
1-15/32	12	18	MT4	**502-1877**	1-1/8	17	24	MT4	**502-2347**	17/32	24	36	MT2	**502-3134**
1-31/64	12	18	MT4	**502-1878**	1-9/64	17	24	MT4	**502-2348**	5/8	24	36	MT2	**502-3140**
1-1/2	12	18	MT4	**502-1879**	1-5/32	17	24	MT4	**502-2349**	21/32	24	36	MT2	**502-3142**
1-9/16	12	18	MT5	**502-1880**	1-11/64	17	24	MT4	**502-2350**	11/16	24	36	MT2	**502-3144**
1-5/8	12	18	MT4	**502-1897**	1-3/16	17	24	MT4	**502-2351**	3/4	24	36	MT2	**502-3148**
1-5/8	12	18	MT5	**502-1881**	1-13/64	17	24	MT4	**502-2352**	13/16	24	36	MT3	**502-3152**
1-11/16	12	18	MT4	**502-1898**	1-7/32	17	24	MT4	**502-2353**	7/8	24	36	MT3	**502-3156**
1-11/16	12	18	MT5	**502-1882**	1-15/64	17	24	MT4	**502-2354**	15/16	24	36	MT3	**502-3160**
1-3/4	12	18	MT5	**502-1883**	1-1/4	17	24	MT4	**502-2355**	1	24	36	MT3	**502-3164**
1-19/32	12	18	MT5	**502-1885**	1-17/64	17	24	MT4	**502-2356**	1-1/16	24	36	MT3	**502-3204**
1-25/32	12	18	MT4	**502-1884**	1-9/32	17	24	MT4	**502-2357**	1-1/8	24	36	MT4	**502-3208**
1-25/32	12	18	MT5	**502-1887**	1-19/64	17	24	MT4	**502-2358**	1-3/16	24	36	MT4	**502-3212**
1-13/16	12	18	MT5	**502-1889**	1-5/16	17	24	MT4	**502-2359**	1-1/4	24	36	MT4	**502-3216**
1-7/8	12	18	MT5	**502-1891**	1-21/64	17	24	MT4	**502-2360**	1-5/16	24	36	MT4	**502-3220**
1-15/16	12	18	MT5	**502-1893**	1-11/32	17	24	MT4	**502-2361**	1-3/8	24	36	MT4	**502-3224**
2	12	18	MT5	**502-1895**	1-23/64	17	24	MT4	**502-2362**	1-7/16	24	36	MT4	**502-3228**
2-1/4	12	18	MT4	**502-1910**	1-3/8	17	24	MT4	**502-2363**	1-9/16	24	36	MT5	**502-3236**
2-5/16	12	18	MT4	**502-1912**	1-25/64	17	24	MT4	**502-2364**	1-5/8	24	36	MT5	**502-3240**
2-3/8	12	18	MT4	**502-1914**	1-13/32	17	24	MT4	**502-2365**	1-11/16	24	36	MT5	**502-3244**
2-1/2	12	18	MT4	**502-1920**	1-27/64	17	24	MT4	**502-2366**	1-3/4	24	36	MT5	**502-3248**
3/8	17	24	MT1	**502-2300**	1-7/16	17	24	MT4	**502-2367**	1-7/8	24	36	MT5	**502-3256**
25/64	17	24	MT1	**502-2301**	1-29/64	17	24	MT4	**502-2368**	2	24	36	MT5	**502-3264**
13/32	17	24	MT1	**502-2302**	1-15/32	17	24	MT4	**502-2369**	2-1/8	24	36	MT5	**502-3308**
27/64	17	24	MT1	**502-2303**	1-31/64	17	24	MT4	**502-2370**	2-1/4	24	36	MT5	**502-3316**
7/16	17	24	MT1	**502-2304**	1-1/2	17	24	MT4	**502-2371**	2-3/8	24	36	MT5	**502-3324**
15/32	17	24	MT1	**502-2305**	1-9/16	17	24	MT5	**502-2372**	2-1/2	24	36	MT5	**502-3332**
31/64	17	24	MT1	**502-2306**	1-11/16	17	24	MT5	**502-2373**	2-5/8	24	36	MT5	**502-3340**
1/2	17	24	MT2	**502-2307**	1-3/4	17	24	MT5	**502-2374**	2-3/4	24	36	MT5	**502-3348**
33/64	17	24	MT2	**502-2308**	1-13/16	17	24	MT5	**502-2375**	3	24	36	MT5	**502-3400**
17/32	17	24	MT2	**502-2309**	1-7/8	17	24	MT5	**502-2376**	3-1/8	24	36	MT5	**502-3408**
35/64	17	24	MT2	**502-2310**	2	17	24	MT5	**502-2377**	3-1/4	24	36	MT5	**502-3416**
9/16	17	24	MT2	**502-2311**	5/8	24	30	MT2	**502-3006**	3-3/8	24	36	MT5	**502-3424**
37/64	17	24	MT2	**502-2312**	21/32	24	30	MT2	**502-3007**	3-1/2	24	36	MT5	**502-3432**
19/32	17	24	MT2	**502-2313**	11/16	24	30	MT2	**502-3008**					

Metric Taper Shank Drills

公制锥柄钻，DIN345

DIN 345, High Speed Steel,
Right Hand, Black Oxide



Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.	Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.	Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.
5.00	MT1	52	133	**308-0500**	18.50	MT2	135	233	**308-1850**	34.00	MT4	190	339	**308-3400**
5.25	MT1	52	133	**308-0525**	18.75	MT2	135	233	**308-1875**	34.50	MT4	190	339	**308-3450**
5.50	MT1	57	138	**308-0550**	19.00	MT2	135	233	**308-1900**	35.00	MT4	190	339	**308-3500**
5.75	MT1	57	138	**308-0575**	19.25	MT2	140	238	**303-1925**	35.50	MT4	190	339	**308-3550**
6.00	MT1	57	138	**308-0600**	19.50	MT2	140	238	**308-1950**	36.00	MT4	195	344	**308-3600**
6.25	MT1	63	144	**308-0625**	19.75	MT2	140	238	**308-1975**	36.50	MT4	195	344	**308-3650**
6.50	MT1	63	144	**308-0650**	20.00	MT2	140	238	**308-2000**	37.00	MT4	195	344	**308-3700**
6.75	MT1	69	150	**308-0675**	20.25	MT2	145	243	**308-2025**	37.50	MT4	195	344	**308-3750**
7.00	MT1	69	150	**308-0700**	20.50	MT2	145	243	**308-2050**	38.00	MT4	200	349	**308-3800**
7.25	MT1	69	150	**308-0725**	20.75	MT2	145	243	**308-2075**	38.50	MT4	200	349	**308-3850**
7.50	MT1	69	150	**308-0750**	21.00	MT2	145	243	**308-2100**	39.00	MT4	200	349	**308-3900**
7.75	MT1	75	156	**308-0775**	21.25	MT2	150	248	**308-2125**	39.50	MT4	200	349	**308-3950**
8.00	MT1	75	156	**308-0800**	21.50	MT2	150	248	**308-2150**	40.00	MT4	200	349	**308-4000**
8.20		75	156	**308-0820**	21.75	MT2	150	248	**308-2175**	40.50	MT4	205	354	**308-4050**
8.25	MT1	75	156	**308-0825**	22.00	MT2	150	248	**308-2200**	41.00	MT4	205	354	**308-4100**
8.50	MT1	75	156	**308-0850**	22.00	MT3	150	248	**308-2201**	41.50	MT4	205	354	**308-4150**
8.75	MT1	81	162	**308-0875**	22.25	MT2	150	248	**308-2225**	42.00	MT4	205	354	**308-4200**
8.80				**308-0880**	22.50	MT2	155	253	**308-2250**	42.50	MT4	205	354	**308-4250**
9.00	MT1	81	162	**308-0900**	22.50	MT3	155	253	**308-2251**	43.00	MT4	210	359	**308-4300**
9.25	MT1	81	162	**308-0925**	22.75	MT2	155	253	**308-2275**	43.50	MT4	210	359	**308-4350**
9.50	MT1	81	162	**308-0950**	23.00	MT2	155	253	**308-2300**	44.00	MT4	210	359	**308-4400**
9.75	MT1	87	168	**308-0975**	23.00	MT3	155	253	**308-2301**	44.50	MT4	210	359	**308-4450**
10.00	MT1	87	168	**308-1000**	23.25	MT3	155	276	**308-2325**	45.00	MT4	210	359	**308-4500**
10.20	MT1	87	168	**308-1020**	23.50	MT3	155	276	**308-2350**	45.50	MT4	215	364	**308-4550**
10.25	MT1	87	168	**308-1025**	23.75	MT3	160	281	**308-2375**	46.00	MT4	215	364	**308-4600**
10.50	MT1	87	168	**308-1050**	24.00	MT3	160	281	**308-2400**	46.50	MT4	215	364	**308-4650**
10.75	MT1	94	175	**308-1075**	24.25	MT3	160	281	**308-2425**	47.00	MT4	215	364	**308-4700**
11.00	MT1	94	175	**308-1100**	24.50	MT3	160	281	**308-2450**	47.50	MT4	215	364	**308-4750**
11.25	MT1	94	175	**308-1125**	24.75	MT3	160	281	**308-2475**	48.00	MT4	220	369	**308-4800**
11.50	MT1	94	175	**308-1150**	25.00	MT3	160	281	**308-2500**	48.50	MT4	220	369	**308-4850**
11.75	MT1	94	175	**308-1175**	25.25	MT3	165	286	**308-2525**	49.00	MT4	220	369	**308-4900**
12.00	MT1	101	182	**308-1200**	25.50	MT3	165	286	**308-2550**	49.50	MT4	220	369	**308-4950**
12.25	MT1	101	182	**308-1225**	25.75	MT3	165	286	**308-2575**	50.00	MT4	220	369	**308-5000**
12.50	MT1	101	182	**308-1250**	26.00	MT3	165	286	**308-2600**	50.50	MT4	225	374	**308-5050**
12.75	MT1	101	182	**308-1275**	26.25	MT3	165	286	**308-2625**	51.00	MT5	225	412	**308-5100**
12.80	MT1	101	182	**308-1280**	26.50	MT3	165	286	**308-2650**	52.00	MT5	225	412	**308-5200**
12.90	MT1	101	182	**308-1290**	26.75	MT3	170	291	**308-2675**	53.00	MT5	225	412	**308-5300**
13.00	MT1	101	182	**308-1300**	27.00	MT3	170	291	**308-2700**	54.00	MT5	230	417	**308-5400**
13.25	MT1	101	182	**308-1325**	27.25	MT3	170	291	**308-2725**	55.00	MT5	230	417	**308-5500**
13.50	MT1	108	189	**308-1350**	27.50	MT3	170	291	**308-2750**	56.00	MT5	230	417	**308-5600**
13.75	MT1	108	189	**308-1375**	27.75	MT3	170	291	**308-2775**	57.00	MT5	235	422	**308-5700**
14.00	MT2	108	189	**308-1400**	28.00	MT3	170	291	**308-2800**	58.00	MT5	235	422	**308-5800**
14.00	MT1	108	189	**308-1401**	28.25	MT3	175	296	**308-2825**	59.00	MT5	235	422	**308-5900**
14.25	MT2	114	212	**308-1425**	28.50	MT3	175	296	**308-2850**	60.00	MT5	235	422	**308-6000**
14.50	MT2	114	212	**308-1450**	28.75	MT3	175	296	**308-2875**	61.00	MT5	240	427	**308-6100**
14.75	MT2	114	212	**308-1475**	29.00	MT3	175	296	**308-2900**	62.00	MT5	240	427	**308-6200**
15.00	MT2	114	212	**308-1500**	29.25	MT3	175	296	**308-2925**	63.00	MT5	240	427	**308-6300**
15.25	MT2	120	218	**308-1525**	29.50	MT3	175	296	**308-2950**	64.00	MT5	245	432	**308-6400**
15.50	MT2	120	218	**308-1550**	29.75	MT3	175	296	**308-2975**	65.00	MT5	245	432	**308-6500**
15.75	MT2	120	218	**308-1575**	30.00	MT3	175	296	**308-3000**	66.00	MT5	245	432	**308-6600**
16.00	MT2	120	218	**308-1600**	30.25	MT3	180	301	**308-3025**	67.00	MT5	245	432	**308-6700**
16.25	MT2	125	223	**308-1625**	30.50	MT3	180	301	**308-3050**	68.00	MT5	250	437	**308-6800**
16.50	MT2	125	223	**308-1650**	30.75	MT3	180	301	**308-3075**	69.00	MT5	250	437	**308-6900**
16.75	MT2	125	223	**308-1675**	31.00	MT3	180	301	**308-3100**	70.00	MT5	250	437	**308-7000**
17.00	MT2	125	223	**308-1700**	31.25	MT3	180	301	**308-3125**	71.00	MT5	250	437	**308-7100**
17.25	MT2	130	228	**308-1725**	31.50	MT3	180	301	**308-3150**	72.00	MT5	255	442	**308-7200**
17.40	MT2	130	228	**308-1740**	31.75	MT3	185	306	**308-3175**	73.00	MT5	255	442	**308-7300**
17.50	MT2	130	228	**308-1750**	32.00	MT4	185	334	**308-3200**	74.00	MT5	255	442	**308-7400**
17.75	MT2	130	228	**308-1775**	32.50	MT4	185	334	**308-3250**	75.00	MT5	255	442	**308-7500**
18.00	MT2	130	228	**308-1800**	33.00	MT4	185	334	**308-3300**	76.00	MT5	260	447	**308-7600**
18.25	MT2	135	233	**308-1825**	33.50	MT4	185	334	**308-3350**					

Metric Taper Shank Drills 公制锥柄钻, DIN346

DIN 346, High Speed Steel, Right Hand, Black Oxide



Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.	Size (mm)	Shank Taper	Flute Length (mm)	Overall Length (mm)	Order No.
12.00	MT2	101	199	**346-1200**	28.50	MT4	175	324	**346-2850**
12.25	MT2	101	199	**346-1225**	28.75	MT4	175	324	**346-2875**
12.50	MT2	101	199	**346-1250**	29.00	MT4	175	324	**346-2900**
12.75	MT2	101	199	**346-1275**	29.25	MT4	175	324	**346-2925**
13.00	MT2	101	199	**346-1300**	29.50	MT4	175	324	**346-2950**
13.25	MT2	101	199	**346-1325**	29.75	MT4	175	324	**346-2975**
13.50	MT2	108	206	**346-1350**	30.00	MT4	175	324	**346-3000**
13.75	MT2	108	206	**346-1375**	30.25	MT4	180	329	**346-3025**
14.00	MT2	108	206	**346-1400**	30.50	MT4	180	329	**346-3050**
18.25	MT3	135	256	**346-1825**	30.75	MT4	180	329	**346-3075**
18.50	MT3	135	256	**346-1850**	31.00	MT4	180	329	**346-3100**
18.75	MT3	135	256	**346-1875**	31.25	MT4	180	329	**346-3125**
19.00	MT3	135	256	**346-1900**	31.50	MT4	180	329	**346-3150**
19.25	MT3	140	261	**346-1925**	31.75	MT4	185	334	**346-3175**
19.50	MT3	140	261	**346-1950**	40.50	MT5	205	392	**346-4050**
20.00	MT3	140	261	**346-2000**	41.00	MT5	205	392	**346-4100**
20.25	MT3	145	266	**346-2025**	41.50	MT5	205	392	**346-4150**
20.50	MT3	145	266	**346-2050**	42.00	MT5	205	392	**346-4200**
20.75	MT3	145	266	**346-2075**	42.50	MT5	205	392	**346-4250**
21.00	MT3	145	266	**346-2100**	43.00	MT5	210	397	**346-4300**
21.25	MT3	150	271	**346-2125**	43.50	MT5	210	397	**346-4350**
21.50	MT3	150	271	**346-2150**	44.00	MT5	210	397	**346-4400**
21.75	MT3	150	271	**346-2175**	44.50	MT5	210	397	**346-4450**
22.00	MT3	150	271	**346-2200**	45.00	MT5	210	397	**346-4500**
22.25	MT3	150	271	**346-2225**	45.50	MT5	215	402	**346-4550**
22.50	MT3	155	276	**346-2250**	46.00	MT5	215	402	**346-4600**
22.75	MT3	155	276	**346-2275**	46.50	MT5	215	402	**346-4650**
23.00	MT3	155	276	**346-2300**	47.00	MT5	215	402	**346-4700**
26.75	MT4	170	319	**346-2675**	47.50	MT5	215	402	**346-4750**
27.00	MT4	170	319	**346-2700**	48.00	MT5	220	407	**346-4800**
27.25	MT4	170	319	**346-2725**	48.50	MT5	220	407	**346-4850**
27.50	MT4	170	319	**346-2750**	49.00	MT5	220	407	**346-4900**
27.75	MT4	170	319	**346-2775**	49.50	MT5	220	407	**346-4950**
28.00	MT4	170	319	**346-2800**	50.00	MT5	220	407	**346-5000**
28.25	MT4	175	324	**346-2825**	50.50	MT5	225	412	**346-5050**

NAS 965 Threaded Shank Drill 螺纹柄钻



Fully Ground .Black finished 135degree Split Point Thread: 1/4-28UNF HSS product with thread Hexagonal shank. M35 product with thread Square shank

	HSS			M35				HSS			M35		
Size	Stub	Short	Long	Stub	Short	Long	Size	Stub	Short	Long	Stub	Short	Long
1/16	**218-2004**	**218-2304**	**218-2604**	**218-3004**	**218-3304**	**218-3604**	#22	**218-2122**	**218-2422**	**218-2722**	**218-3122**	**218-3422**	**218-3722**
5/16	**218-2005**	**218-2305**	**218-2605**	**218-3005**	**218-3305**	**218-3605**	#23	**218-2123**	**218-2423**	**218-2723**	**218-3123**	**218-3423**	**218-3723**
3/32	**218-2006**	**218-2306**	**218-2606**	**218-3006**	**218-3306**	**218-3606**	#24	**218-2124**	**218-2424**	**218-2724**	**218-3124**	**218-3424**	**218-3724**
7/64	**218-2007**	**218-2307**	**218-2607**	**218-3007**	**218-3307**	**218-3607**	#25	**218-2125**	**218-2425**	**218-2725**	**218-3125**	**218-3425**	**218-3725**
1/8	**218-2008**	**218-2308**	**218-2608**	**218-3008**	**218-3308**	**218-3608**	#26	**218-2126**	**218-2426**	**218-2726**	**218-3126**	**218-3426**	**218-3726**
9/64	**218-2009**	**218-2309**	**218-2609**	**218-3009**	**218-3309**	**218-3609**	#27	**218-2127**	**218-2427**	**218-2727**	**218-3127**	**218-3427**	**218-3727**
5/32	**218-2010**	**218-2310**	**218-2610**	**218-3010**	**218-3310**	**218-3610**	#28	**218-2128**	**218-2428**	**218-2728**	**218-3128**	**218-3428**	**218-3728**
11/64	**218-2011**	**218-2311**	**218-2611**	**218-3011**	**218-3311**	**218-3611**	#29	**218-2129**	**218-2429**	**218-2729**	**218-3129**	**218-3429**	**218-3729**
3/16	**218-2012**	**218-2312**	**218-2612**	**218-3012**	**218-3312**	**218-3612**	#30	**218-2130**	**218-2430**	**218-2730**	**218-3130**	**218-3430**	**218-3730**
13/64	**218-2013**	**218-2313**	**218-2613**	**218-3013**	**218-3313**	**218-3613**	#31	**218-2131**	**218-2431**	**218-2731**	**218-3131**	**218-3431**	**218-3731**
7/32	**218-2014**	**218-2314**	**218-2614**	**218-3014**	**218-3314**	**218-3614**	#32	**218-2132**	**218-2432**	**218-2732**	**218-3132**	**218-3432**	**218-3732**
15/64	**218-2015**	**218-2315**	**218-2615**	**218-3015**	**218-3315**	**218-3615**	#33	**218-2133**	**218-2433**	**218-2733**	**218-3133**	**218-3433**	**218-3733**
1/4	**218-2016**	**218-2316**	**218-2616**	**218-3016**	**218-3316**	**218-3616**	#34	**218-2134**	**218-2434**	**218-2734**	**218-3134**	**218-3434**	**218-3734**
5/16	**218-2020**	**218-2320**	**218-2620**	**218-3020**	**218-3320**	**218-3620**	#35	**218-2135**	**218-2435**	**218-2735**	**218-3135**	**218-3435**	**218-3735**
3/8	**218-2024**	**218-2324**	**218-2624**	**218-3024**	**218-3324**	**218-3624**	#36	**218-2136**	**218-2436**	**218-2736**	**218-3136**	**218-3436**	**218-3736**
#1	**218-2101**	**218-2401**	**218-2701**	**218-3101**	**218-3401**	**218-3701**	#37	**218-2137**	**218-2437**	**218-2737**	**218-3137**	**218-3437**	**218-3737**
#2	**218-2102**	**218-2402**	**218-2702**	**218-3102**	**218-3402**	**218-3702**	#38	**218-2138**	**218-2438**	**218-2738**	**218-3138**	**218-3438**	**218-3738**
#3	**218-2103**	**218-2403**	**218-2703**	**218-3103**	**218-3403**	**218-3703**	#39	**218-2139**	**218-2439**	**218-2739**	**218-3139**	**218-3439**	**218-3739**
#4	**218-2104**	**218-2404**	**218-2704**	**218-3104**	**218-3404**	**218-3704**	#40	**218-2140**	**218-2440**	**218-2740**	**218-3140**	**218-3440**	**218-3740**
#5	**218-2105**	**218-2405**	**218-2705**	**218-3105**	**218-3405**	**218-3705**	#41	**218-2141**	**218-2441**	**218-2741**	**218-3141**	**218-3441**	**218-3741**
#6	**218-2106**	**218-2406**	**218-2706**	**218-3106**	**218-3406**	**218-3706**	#42	**218-2142**	**218-2442**	**218-2742**	**218-3142**	**218-3442**	**218-3742**
#7	**218-2107**	**218-2407**	**218-2707**	**218-3107**	**218-3407**	**218-3707**	#43	**218-2143**	**218-2443**	**218-2743**	**218-3143**	**218-3443**	**218-3743**
#8	**218-2108**	**218-2408**	**218-2708**	**218-3108**	**218-3408**	**218-3708**	#44	**218-2144**	**218-2444**	**218-2744**	**218-3144**	**218-3444**	**218-3744**
#9	**218-2109**	**218-2409**	**218-2709**	**218-3109**	**218-3409**	**218-3709**	#45	**218-2145**	**218-2445**	**218-2745**	**218-3145**	**218-3445**	**218-3745**
#10	**218-2110**	**218-2410**	**218-2710**	**218-3110**	**218-3410**	**218-3710**	#46	**218-2146**	**218-2446**	**218-2746**	**218-3146**	**218-3446**	**218-3746**
#11	**218-2111**	**218-2411**	**218-2711**	**218-3111**	**218-3411**	**218-3711**	#47	**218-2147**	**218-2447**	**218-2747**	**218-3147**	**218-3447**	**218-3747**
#12	**218-2112**	**218-2412**	**218-2712**	**218-3112**	**218-3412**	**218-3712**	#48	**218-2148**	**218-2448**	**218-2748**	**218-3148**	**218-3448**	**218-3748**
#13	**218-2113**	**218-2413**	**218-2713**	**218-3113**	**218-3413**	**218-3713**	#49	**218-2149**	**218-2449**	**218-2749**	**218-3149**	**218-3449**	**218-3749**
#14	**218-2114**	**218-2414**	**218-2714**	**218-3114**	**218-3414**	**218-3714**	#50	**218-2150**	**218-2450**	**218-2750**	**218-3150**	**218-3450**	**218-3750**
#15	**218-2115**	**218-2415**	**218-2715**	**218-3115**	**218-3415**	**218-3715**	#51	**218-2151**	**218-2451**	**218-2751**	**218-3151**	**218-3451**	**218-3751**
#16	**218-2116**	**218-2416**	**218-2716**	**218-3116**	**218-3416**	**218-3716**	#52	**218-2152**	**218-2452**	**218-2752**	**218-3152**	**218-3452**	**218-3752**
#17	**218-2117**	**218-2417**	**218-2717**	**218-3117**	**218-3417**	**218-3717**	A	**218-2201**	**218-2501**	**218-2801**	**218-3201**	**218-3501**	**218-3801**
#18	**218-2118**	**218-2418**	**218-2718**	**218-3118**	**218-3418**	**218-3718**	B	**218-2202**	**218-2502**	**218-2802**	**218-3202**	**218-3502**	**218-3802**
#19	**218-2119**	**218-2419**	**218-2719**	**218-3119**	**218-3419**	**218-3719**	C	**218-2203**	**218-2503**	**218-2803**	**218-3203**	**218-3503**	**218-3803**
#20	**218-2120**	**218-2420**	**218-2720**	**218-3120**	**218-3420**	**218-3720**	D	**218-2204**	**218-2504**	**218-2804**	**218-3204**	**218-3504**	**218-3804**
#21	**218-2121**	**218-2421**	**218-2721**	**218-3121**	**218-3421**	**218-3721**	F	**218-2206**	**218-2506**	**218-2806**	**218-3206**	**218-3506**	**218-3806**

Silver & Deming Drills 等柄钻头 HSS

High Speed Steel, Black Oxide

Also called reduced shank drills,with 3/8", 1/4" shank, drilling large hole sizes than each drill chuck capacity

6" Overall Length, 3" Flute Length

3/8" shank



Size	Order No.	Size	Order No.	Size	Order No.
25/64"	**301-0325**	1/2"	**301-0332**	11/16"	**301-0344**
13/32	**301-0326**	17/32	**301-0334**	23/32	**301-0346**
27/64	**301-0327**	9/16	**301-0336**	3/4	**301-0348**
7/16	**301-0328**	19/32	**301-0338**	13/16	**301-0350**
29/64	**301-0329**	5/8	**301-0340**	7/8	**301-0352**
15/32	**301-0330**	21/32	**301-0342**	15/32	**301-0354**
31/64	**301-0331**				

1/4" Shank



Size	Order No.	Size	Order No.	Size	Order No.
17/64"	**301-0017**	23/64"	**301-0023**	7/16"	**301-0028**
9/32	**301-0018**	3/8	**301-0024**	29/64	**301-0029**
19/64	**301-0019**	25/64	**301-0025**	15/32	**301-0030**
5/16	**301-0020**	13/32	**301-0026**	31/64	**301-0031**
21/64	**301-0021**	27/64	**301-0027**	1/2	**301-0032**
11/32	**301-0022**				

Silver & Deming Drills 等柄钻头

Also called reduced shank drills,with 1/2", 3/4", 1/4", 3/8" shank, drilling large hole sizes than each drill chuck capacity

High Speed Steel, Black Oxide **6" Overall Length, 3" Flute Length**



1/2" Shank

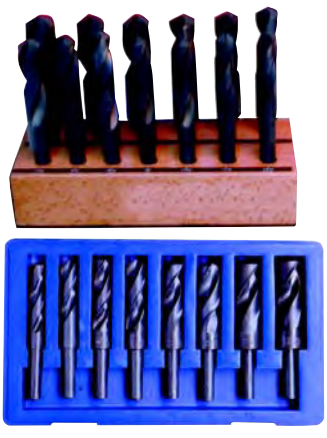
Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.
1/2"	**301-1032**	25/32"	**301-1050**	1-1/16"	**301-1104**	1-21/64"	**301-1121**
33/64	**301-1033**	51/64	**301-1051**	1-5/64	**301-1105**	1-11/32	**301-1122**
17/32	**301-1034**	13/16	**301-1052**	1-3/32	**301-1106**	1-23/64	**301-1123**
35/64	**301-1035**	53/64	**301-1053**	1-7/64	**301-1107**	1-3/8	**301-1124**
9/16	**301-1036**	27/32	**301-1054**	1-1/8	**301-1108**	1-25/64	**301-1125**
37/64	**301-1037**	55/64	**301-1055**	1-9/64	**301-1109**	1-13/32	**301-1126**
19/32	**301-1038**	7/8	**301-1056**	1-5/32	**301-1110**	1-27/64	**301-1127**
39/64	**301-1039**	57/64	**301-1057**	1-11/64	**301-1111**	1-7/16	**301-1128**
5/8	**301-1040**	29/32	**301-1058**	1-3/16	**301-1112**	1-29/64	**301-1129**
41/64	**301-1041**	59/64	**301-1059**	1-13/64	**301-1113**	1-15/32	**301-1130**
21/32	**301-1042**	15/16	**301-1060**	1-7/32	**301-1114**	1-31/64	**301-1131**
43/64	**301-1043**	61/64	**301-1061**	1-15/64	**301-1115**	1-1/2	**301-1132**
11/16	**301-1044**	31/32	**301-1062**	1-1/4	**301-1116**	1-9/16	**301-1133**
45/64	**301-1045**	63/64	**301-1063**	1-17/64	**301-1117**	1-5/8	**301-1134**
23/32	**301-1046**	1	**301-1064**	1-9/32	**301-1118**	1-3/4	**301-1137**
47/64	**301-1047**	1-1/64	**301-1101**	1-19/64	**301-1119**	1-25/32	**301-1151**
3/4	**301-1048**	1-1/32	**301-1102**	1-5/16	**301-1120**	1-15/16	**301-1161**
49/64	**301-1049**	1-3/64	**301-1103**				

Size (mm)	Order No.	Size (mm)	Order No.	Size (mm)	Order No.	Size (mm)	Order No.
12.50	**301-1025**	17.10	**301-1171**	23.50	**301-1235**	31.00	**301-1310**
13.00	**301-1030**	17.50	**301-1175**	23.75	**301-1237**	31.25	**301-1312**
13.30	**301-1136**	17.75	**301-1177**	24.00	**301-1240**	31.50	**301-1315**
13.50	**301-1135**	17.80	**301-1178**	24.50	**301-1245**	32.00	**301-1320**
13.80	**301-1138**	18.00	**301-1180**	25.00	**301-1250**	32.50	**301-1325**
13.90	**301-1139**	18.50	**301-1185**	25.50	**301-1255**	33.00	**301-1330**
14.00	**301-1140**	18.75	**301-1187**	26.00	**301-1260**	33.50	**301-1335**
14.25	**301-1142**	19.00	**301-1190**	26.50	**301-1265**	34.00	**301-1340**
14.40	**301-1144**	19.50	**301-1195**	26.75	**301-1267**	34.50	**301-1345**
14.50	**301-1145**	19.75	**301-1197**	27.00	**301-1270**	35.00	**301-1350**
14.70	**301-1147**	20.00	**301-1200**	27.50	**301-1275**	35.50	**301-1355**
15.00	**301-1150**	20.50	**301-1205**	28.00	**301-1280**	36.00	**301-1360**
15.50	**301-1155**	21.00	**301-1210**	28.50	**301-1285**	36.50	**301-1365**
16.00	**301-1160**	21.50	**301-1215**	29.00	**301-1290**	37.00	**301-1370**
16.50	**301-1165**	22.00	**301-1220**	29.50	**301-1295**	37.50	**301-1375**
16.75	**301-1167**	22.50	**301-1225**	30.00	**301-1300**	38.00	**301-1380**
16.80	**301-1168**	23.00	**301-1230**	30.50	**301-1305**	41.00	**301-1410**
17.00	**301-1170**						



3/4" Shank

Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.
25/32"	**301-1950**	1	**301-2000**	1-5/32	**301-2010**	1-11/32	**301-2022**	1-1/2	**301-2032**	1-21/32	**301-2042**	1-27/32	**301-2054**
13/16	**301-1952**	1-1/64	**301-2001**	1-3/16	**301-2012**	1-23/64	**301-2023**	1-17/32	**301-2034**	1-11/16	**301-2044**	1-7/8	**301-2056**
27/32	**301-1954**	1-1/32	**301-2002**	1-7/32	**301-2014**	1-3/8	**301-2024**	1-9/16	**301-2036**	1-23/32"	**301-2046**	1-29/32	**301-2058**
7/8	**301-1956**	1-1/16	**301-2004**	1-1/4	**301-2016**	1-13/32"	**301-2026**	1-19/32	**301-2038**	1-3/4	**301-2048**	1-15/16	**301-2060**
29/32	**301-1958**	1-3/32"	**301-2006**	1-9/32	**301-2018**	1-7/16	**301-2028**	1-39/64	**301-2039**	1-25/32	**301-2050**	1-31/32	**301-2062**
15/16	**301-1960**	1-1/8	**301-2008**	1-5/16	**301-2020**	1-15/32	**301-2030**	1-5/8	**301-2040**	1-13/16	**301-2052**	2	**301-2064**
31/32	**301-1962**	1-9/64	**301-2009**	1-21/64	**301-2021**	1-31/64	**301-2031**						



Silver & Deming Drill Sets

Shank	Pieces of Drills	Specification	Wooden Stand Order No.	Plastic Case Order No.
1/4"	16	17/64 to 1/2" by 64ths	**301-0096**	
3/8	8	25/64 to 1/2" by 64ths	**301-0398**	
1/2	5	17/32", 9/16", 5/8", 3/4", 1"	**301-0204**	
1/2	5	9/16",5/8",3/4",7/8", 1"	**301-0215**	**301-0205**
1/2	6	1-1/8" to 1-3/8" by 16ths and 1-1/2"	**301-0206**	
1/2	8	9/16-1" by 16ths	**301-0218**	**301-0208**
1/2	8	1-1/16 to 1-1/2" by 16ths	**301-0288**	**301-0298**
1/2	10	9/16 to 1"by 16ths ,1-1/8",1-1/4"	**301-0210**	
1/2	12	9/16 to 1-1/4" by 16ths	**301-0212**	
1/2	13	17/32 to 1" by 16ths & 32nds	**301-0213**	
1/2	16	17/32 to 1" by 32nds	**301-0216**	
1/2	17	17/32 to 1-1/32" by 32nds	**301-0217**	
1/2	32	33/64 to 1" by 64ths	**301-0232**	
1/2	40	33/64" to 1" by 64ths & 1-1/16" to 1-1/2" by16ths	**301-0240**	
3/4	5	1,1-1/8,1-1/4,1-3/8,1-1/2"	**301-0225**	**301-0235**

Fully Ground Silver & Deming Drills 1/2″ 等柄钻头

HSS, 1/2" Shank



Inch

Size (In.)	Order No.	Size (In.)	Order No.	Size (In.)	Order No.
33/64	**301-1833**	11/16	**301-1844**	55/64	**301-1855**
17/32	**301-1834**	45/64	**301-1845**	7/8	**301-1856**
35/64	**301-1835**	23/32	**301-1846**	57/64	**301-1857**
9/16	**301-1836**	47/64	**301-1847**	29/32	**301-1858**
37/64	**301-1837**	3/4	**301-1848**	59/64	**301-1859**
19/32	**301-1838**	49/64	**301-1849**	15/16	**301-1560**
39/64	**301-1839**	25/32	**301-1850**	61/64	**301-1861**
5/8	**301-1840**	51/64	**301-1851**	31/32	**301-1862**
41/64	**301-1841**	13/16	**301-1852**	63/64	**301-1863**
21/32	**301-1842**	53/64	**301-1853**	1	**301-1864**
43/64	**301-1843**	27/32	**301-1854**		

Metric

Size (mm)	Order No.	Size (mm)	Order No.	Size (mm)	Order No.
14	**301-1814**	18	**301-1818**	22	**301-1822**
15	**301-1815**	19	**301-1819**	23	**301-1823**
16	**301-1816**	20	**301-1820**	24	**301-1824**
17	**301-1817**	21	**301-1821**	25	**301-1825**

M35 Cobalt Silver & Deming Drills



1/2" Shank, 135° Split Point 钻高速钢 1/2″ 柄钻头 135 度



Size	Order No.	Size	Order No.	Size	Order No.
33/64"	**301-0833**	55/64"	**301-0855**	1-3/16"	**301-0912**
17/32"	**301-0834**	7/8"	**301-0856**	1-13/64"	**301-0913**
35/64"	**301-0835**	57/64"	**301-0857**	1-7/32"	**301-0914**
9/16"	**301-0836**	29/32"	**301-0858**	1-15/64"	**301-0915**
37/64"	**301-0837**	59/64"	**301-0859**	1-1/4"	**301-0916**
19/32"	**301-0838**	15/16"	**301-0860**	1-17/64"	**301-0917**
39/64"	**301-0839**	61/64"	**301-0861**	1-9/32"	**301-0918**
5/8"	**301-0840**	31/32"	**301-0862**	1-19/64"	**301-0919**
41/64"	**301-0841**	63/64"	**301-0863**	1-5/16"	**301-0920**
21/32"	**301-0842**	1"	**301-0864**	1-21/64"	**301-0921**
43/64"	**301-0843**	1-1/64"	**301-0901**	1-11/32"	**301-0922**
11/16"	**301-0844**	1-1/32"	**301-0902**	1-23/64"	**301-0923**
45/64"	**301-0845**	1-3/64"	**301-0903**	1-3/8"	**301-0924**
23/32"	**301-0846**	1-1/16"	**301-0904**	1-25/64"	**301-0925**
47/64"	**301-0847**	1-5/64"	**301-0905**	1-13/32"	**301-0926**
3/4"	**301-0848**	1-3/32"	**301-0906**	1-27/64"	**301-0927**
49/64"	**301-0849**	1-7/64"	**301-0907**	1-7/16"	**301-0928**
25/32"	**301-0850**	1-1/8"	**301-0908**	1-29/64"	**301-0929**
51/64"	**301-0851**	1-9/64"	**301-0909**	1-15/32	**301-0930**
13/16"	**301-0852**	1-5/32"	**301-0910**	1-31/64"	**301-0931**
53/64"	**301-0853**	1-11/64	**301-0911**	1-1/2"	**301-0932**
27/32"	**301-0854**				

Cobalt Set

Pieces of Drills	Shank	Specification	Wooden Stand Order No.	Plastic Case Order No.
32	1/2	9/16" to 1" by 164ths.	**301-0990**	
13	1/2	17/32"-3/4" by 32nds,13/16-1" by16ths,	**301-0993**	
5	1/2	9/16 - 1" by 8ths	**301-0995**	
8	1/2	9/16" to 1" by 16ths	**301-0998**	**301-1000**
6	1/2	7/8 to 1-1/2" by 8ths		**301-1002**
16	1/2	9/16 to 1-1/2"by 16th		**301-1004**

Center Drills

60°Angle, Plain Style, Ground

美标磨制中心钻



Size	Body Dia.	Drill Dia.	Overall Length	HSS Ground Order No.	M42 Ground Order No.
1	1/8”	3/64”	1-1/4“	217-9001	217-9201
2	3/16	5/64	1-7/8	217-9002	217-9202
3	1/4	7/64	2	217-9003	217-9203
4	5/16	1/8	2-1/8	217-9004	217-9204
5	7/16	3/16	2-3/4	217-9005	217-9205
6	1/2	7/32	3	217-9006	217-9206
7	5/8	1/4	3-1/4	217-9007	217-9207
8	3/4	5/16	3-1/2	217-9008	217-9208
9	7/8	11/32	3-5/8	217-9009	
10	1	3/8	3-3/4	217-9010	

Bell Type Center Drills

60/120° Angle, HSS, Ground

复合带护锥中心钻



Size	Body Dia.	Drill Dia.	Bell Dia.	Overall Length	Order No.
#11	1/8”	3/64”	.1”	1-1/4”	217-2011
#12	3/16	1/16	.15	1-7/8	217-2012
#13	1/4	3/32	.2	2	217-2013
#14	5/16	7/64	.25	2-1/8	217-2014
#15	7/16	5/32	.35	2-3/4	217-2015
#16	1/2	3/16	.4	3	217-2016
#17	5/8	7/32	.5	3-1/4	217-2017
#18	3/4	1/4	.6	3-1/2	217-2018
#19	7/8	5/16	.7	3-5/8	217-2019
#20	1	3/8	.8	3-3/4	217-2020

Missile & Aircraft Mini Center Drills

60° Angle, HSS Ground

高速钢航空中心钻



Size	Body Dia.	Drill Dia.	Overall Length	HSS Order No.	M42 Order No.
000	1/8”	.020”	1-1/4”	217-5000	217-9100
00	1/8	.025	1-1/4	217-5001	217-9101
0	1/8	1/32	1-1/4	217-5002	217-9102

Plain Center Drills

82° & 90° Angle, HSS Ground

美标磨制复合中心钻



Size	Body Dia.	Drill Dia.	Overall Length	82° Order No.	90° Order No.
1	1/8	3/64	1-1/4	217-2001	217-0001
2	3/16	5/64	1-7/8	217-2002	217-0002
3	1/4	7/64	2	217-2003	217-0003
4	5/16	1/8	2-1/8	217-2004	217-0004
5	7/16	3/16	2-3/4	217-2005	217-0005
6	1/2	7/32	3	217-2006	217-0006
7	5/8	1/4	3-1/4	217-2007	217-0007
8	3/4	5/16	3-1/2	217-2008	217-0008

5Pcs,Plain Center Drill Sets

套装中心钻



	60° Order No.	82° Order No.	90° Order No.	M42 Order No.
5pcs: 1-5#	217-9012	217-9082	217-0015	217-9212

Long Series Center Drills

加长复合中心钻



Size	Body Dia.	Drill Dia.	Overall Length	Ground Order No.
1#	1/8”	3/64”	3 ”	217-7103
1#	1/8	3/64	4	217-7104
1#	1/8	3/64	5	217-7105
1#	1/8	3/64	6	217-7106
2#	3/16	5/64	3	217-7203
2#	3/16	5/64	4	217-7204
2#	3/16	5/64	5	217-7205
2#	3/16	5/64	6	217-7206
3#	1/4	7/64	4	217-7304
3#	1/4	7/64	5	217-7305
3#	1/4	7/64	6	217-7306
4#	5/16	1/8	4	217-7404
4#	5/16	1/8	5	217-7405
4#	5/16	1/8	6	217-7406
5#	7/16	3/16	4	217-7504
5#	7/16	3/16	5	217-7505
5#	7/16	3/16	6	217-7506
6#	1/2	7/32	4	217-7604
6#	1/2	7/32	5	217-7605
6#	1/2	7/32	6	217-7606
7#	5/8	1/4	6	217-7706
8#	3/4	5/16	6	217-7806
5pc set #1x4",#2x4",#3x4",#4x5",#5x6" 8pc set #1 though 8# 60deg.				217-7905 217-9015

Metric Center Drills

DIN333A, Right Hand, HSS

公制右旋中心钻



Size	Shank Dia.	OAL	Order No.
.5mm	3.15mm	20mm	212-0050
.63	3.15	31.5	212-0063
.8	3.15	20	212-0080
1	3.15	31.5	212-0100
1.25	3.15	31.5	212-0125
1.6	4	35.5	212-0160
2	5	40	212-0200
2.5	6.3	45	212-0250
3	8	50	212-0300
3.15	8	50	212-0315
3.5	10	56	212-0350
4	10	59	212-0400
5	12.5	63	212-0500
6.3	16	71	212-0630
8	20	80	212-0800
10	25	100	212-1000
12.5	31.5	125	212-1500

Metric Center Drills

DIN333B, 120° Bell Type, HSS

中心钻带 120° 护锥



Dia	Shank Dia	Overall Length	Ground Order No.
1.0mm	4mm	35.5mm	217-4010
1.25	5	40	217-4013
1.6	6.3	45	217-4016
2.0	8	50	217-4020
2.5	10	56	217-4025
3.15	11.2	60	217-4032
4.0	14	67	217-4040
5.0	18	75	217-4050
6.3	20	80	217-4060
8	25	100	217-4080
10	31.5	125	217-4100

Spotting & Centering Drills 高速钢定心 / 中心钻, 右旋

High Speed Steel , Right Hand & Left Hand

Prevent misalignment frequently caused by using regular drills for centering.
These short drills can be chucked close to the point ensuring accuracy and true starts.



Size	Flute Length	OAL	90° Right Hand Order No.	90° Left Hand Order No.
1/8”	3/8”	1-1/4”	216-1108	216-1308
3/16	1/2	1-3/8	216-1112	216-1312
1/4	5/8	1-1/2	216-1116	216-1316
5/16	5/8	1-1/2	216-1120	216-1320
3/8	1	2	216-1124	216-1324
7/16	1	2	216-1128	216-1328
1/2	1	2	216-1132	216-1332
9/16	1	2	216-1136	216-1336
5/8	1-1/8	2-1/4	216-1140	216-1340
3/4	1-1/8	2-1/4	216-1148	216-1348
7/8	1-1/4	2-1/2	216-1156	216-1356
1	1-1/4	2-1/2	216-1164	216-1364
1-1/4	2	4	216-1178	216-1378
1-1/2	1-1/2	5	216-1194	216-1394
1-3/4	2-3/4	5-1/2	216-1210	216-1410

Size	Flute Length	OAL	118° Right Hand Order No.	118° Left Hand Order No.
1/8”	3/8”	1-1/4”	216-1508	216-1708
3/16	1/2	1-3/8	216-1512	216-1712
1/4	5/8	1-1/2	216-1516	216-1716
5/16	5/8	1-1/2	216-1520	216-1720
3/8	1	2	216-1524	216-1724
7/16	1	2	216-1528	216-1728
1/2	1	2	216-1532	216-1732
9/16	1	2	216-1536	216-1736
5/8	1-1/8	2-1/4	216-1540	216-1740
3/4	1-1/8	2-1/4	216-1548	216-1748
7/8	1-1/4	2-1/2	216-1556	216-1756
1	1-1/4	2-1/2	216-1564	216-1764
1-1/4	2	4	216-1578	216-1778
1-1/2	1-1/2	5	216-1594	216-1794
1-3/4	2-3/4	5-1/2	216-1610	216-1810

M35 Cobalt Spotting Drills M35 定心钻



NEW



Size	Flute Length	OAL	90° Order No.	120° Order No.
0.118"	0.47"	2"	216-4101	216-4151
0.157	0.47	2-3/16	216-4102	216-4152
0.197	0.55	2-3/8	216-4104	216-4154
0.236	0.63	2-3/4	216-4106	216-4156
1/4	0.67	2-3/4	216-4108	216-4158
0.315	0.83	3-1/8	216-4110	216-4160
3/8	0.98	3-1/2	216-4112	216-4162
0.394	1.1	3-1/2	216-4114	216-4164
0.472	1.18	4	216-4116	216-4166
1/2	1.18	4	216-4118	216-4168
5/8	1.48	4-1/2	216-4120	216-4170
0.63	1.48	4-1/2	216-4122	216-4172
3/4	1.77	5-1/8	216-4124	216-4174
0.787	1.77	5-1/8	216-4126	216-4176
0.984	2.09	6	216-4128	216-4178
1	2.09	6-1/8	216-4130	216-4180

NC Spotting Drills 数控机床用定心钻

90° & 120° ,High Speed Steel

Designed with a narrow chisel edge for quick starting and a constant web to allow for resharpening without the need for web thinning.



Size	Flute Length	OAL	HSS 90° Order No.	HSS 120° Order No.	Tin Coated 90° Order No.	Tin Coated 120° Order No.
		2-1/2”	216-2163	216-3163	216-6163	216-5163
1/4”	3/4”	4	216-2164	216-3164	216-6164	216-5164
		6	216-2166	216-3166	216-6166	216-5166
		3-1/8	216-2244	216-3244	216-6244	216-5244
3/8	1-1/8	5	216-2245	216-3245	216-6245	216-5245
		7	216-2247	216-3247	216-6247	216-5247
		3-3/4	216-2324	216-3324	216-6324	216-5324
1/2	1-3/8	6	216-2326	216-3326	216-6326	216-5326
		8	216-2328	216-3328	216-6328	216-5328
		4-3/8”	216-2405	216-3405	216-6405	216-5405
5/8”	1-5/8”	7	216-2407	216-3407	216-6407	216-5407
		9	216-2409	216-3409	216-6409	216-5409
		5	216-2485	216-3485	216-6485	216-5485
3/4	1-7/8	8	216-2488	216-3488	216-6488	216-5488
		10	216-2489	216-3489	216-6489	216-5489
		6	216-2646	216-3646	216-6646	216-5646
1	2-1/4	8	216-2648	216-3648	216-6648	216-5648
		10	216-2649	216-3649	216-6649	216-5649

HSS Double End Sheet Metal Drills

135° Split Point

高速钢双头短钻



Size (in)	Flute Length (in)	Overall Length (in)	Order No.	Size	Flute Length	Overall Length	Order No.
7/64”	1/2”	1-7/8”	216-4407	3/16”	5/8”	2-5/16”	216-4412
1/8	1/2	2	216-4408	7/32	5/8	2-5/8	216-4414
5/32	5/8	2-3/16	216-4410	1/4	3/4	2-7/8	216-4416
#30	21/32	2	216-4630				

Saw Drills



HSS, 135° Split Point, Spiral Point

- Used with your power drill to saw, ream, drill and cut through wood, metal and plastic.

Size	Flute Length	OAL	Order No.	Tin coated Order No.
1/8”	1-1/4”	2-1/2”	334-0008	334-0108
3/16	2	3-1/4	334-0012	334-0112
1/4	2-1/2	3-11/16	334-0016	334-0116

Double Spiral Fluters Step Drills 高速钢螺旋刃台阶钻

DIN Standard Step Drill

Point cut: split point DIN1412C
Point angle: 118 Degree
Step angle: 90 Degree
Surface: bright/titanium-nitride coated/black finished
Cutting Direction: right-hand cutting

NEW





Drilling range mm	Steps	Shank Dia.	Straight Shank HSS Order No.	Straight Shank TiN Coated Order No.	Hexagon Shank HSS Order No.	Hexagon Shank TiN Coated Order No.
4-12	5	6	331-3301	331-3331	331-3801	331-3831
4-12	9	6	331-3302	331-3332	331-3802	331-3832
3-12	10	6	331-3303	331-3333	331-3803	331-3833
3-14	13	6	331-3304	331-3334	331-3804	331-3834
4-20	9	8	331-3305	331-3335	331-3805	331-3835
4-22	10	8	331-3306	331-3336	331-3806	331-3836
4-24	11	8	331-3307	331-3337	331-3807	331-3837
4-30	14	10	331-3308	331-3338	331-3808	331-3838
4-32	15	10	331-3309	331-3339	331-3809	331-3839
4-39	13	12	331-3310	331-3340	331-3810	331-3840
5-28	7	10	331-3311	331-3341	331-3811	331-3841
5-35	13	12	331-3312	331-3342	331-3812	331-3842
6-18	7	8	331-3313	331-3343	331-3813	331-3843
6-20	8	8	331-3314	331-3344	331-3814	331-3844
6-30	13	10	331-3315	331-3345	331-3815	331-3845
6-35	13	12	331-3316	331-3346	331-3816	331-3846
6-37	11	12	331-3317	331-3347	331-3817	331-3847
6-38	12	12	331-3318	331-3348	331-3818	331-3848
9-36	10	12	331-3319	331-3349	331-3819	331-3849
10-20	11	8	331-3320	331-3350	331-3820	331-3850
14-24	6	8	331-3321	331-3351	331-3821	331-3851
20-30	11	10	331-3322	331-3352	331-3822	331-3852
20-34	14	10	331-3323	331-3353	331-3823	331-3853

Metal Case Sets

Specification	HSS Order No.	TiN Coated Order No.
4-12, 4-20, 6-30	331-3325	331-3355
4-12, 6-20, 6-30	331-3326	331-3356
4-12, 4-20, 4-32	331-3327	331-3357
4-12, 4-20, 4-30	331-3328	331-3358
1/8-1/2", 1/4-3/4", 3/16-7/8"	331-3652	331-3752



Plastic Case Sets

Specification	HSS Order No.	TiN Coated Order No.
4-12, 4-20, 6-30	331-3361	331-3365
4-12, 6-20, 6-30	331-3362	331-3366
4-12, 4-20, 4-32	331-3363	331-3367
4-12, 4-20, 4-30	331-3364	331-3368
1/8-1/2", 1/4-3/4", 3/16-7/8"	331-3653	331-3753



ANSI Standard

Drilling range	Steps	Shank Dia.	Straight Shank HSS Order No.	Straight Shank TiN Coated Order No.	Hexagon Shank HSS Order No.	Hexagon Shank TiN Coated Order No.
1/8-1/2”	7	1/4	331-3641	331-3661	331-3741	331-3761
1/8-1/2	13	1/4	331-3642	331-3662	331-3742	331-3762
1/8-3/8	5	1/4	331-3643	331-3663	331-3743	331-3763
1/4-3/4	9	3/8	331-3644	331-3664	331-3744	331-3764
1/4-7/8	11	3/8	331-3645	331-3665	331-3745	331-3765
1/4-1-3/8	10	3/8	331-3646	331-3666	331-3746	331-3766
3/16-1/2	6	1/4	331-3647	331-3667	331-3747	331-3767
3/16-9/16	7	1/4	331-3648	331-3668	331-3748	331-3768
3/16-7/8	12	3/8	331-3649	331-3669	331-3749	331-3769
9/16-1	8	3/8	331-3650	331-3670	331-3750	331-3770
13/16-1-3/8	10	1/2	331-3651	331-3671	331-3751	331-3771



Wooden Case Sets

Specification	HSS Order No.	TiN Coated Order No.
3-12, 4-12, 6-20	331-3371	331-3381
4-12, 4-20, 4-30	331-3372	331-3382
4-12, 4-20, 6-30	331-3373	331-3383
4-12, 4-20, 4-32	331-3374	331-3384
4-12, 4-22, 4-32	331-3375	331-3385
4-12, 6-20, 4-30	331-3376	331-3386
4-12, 6-20, 6-30	331-3377	331-3387
1/8-1/2",1/4-3/4", 3/16-7/8"	331-3654	331-3754
1/8-1/2",3/16-1/2",1/4-3/4"	331-3655	331-3755

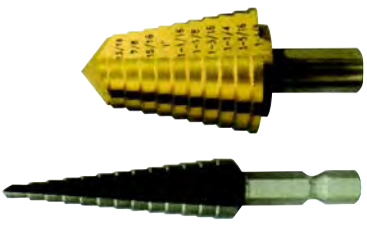
Double Straight Fluters Step Drills 高速钢直刃台阶钻

DIN Standard Step Drill



Point cut: split point DIN1412C
Point angle: 118 Degree
Step angle: 90 Degree
Surface: bright/titanium-nitride coated/black finished
Cutting Direction: right-hand cutting

Drilling range mm	Steps	Shank Dia.	Round Shank HSS Order No.	Round Shank TiN Coated Order No.	Hexagon Shank HSS Order No.	Hexagon Shank TiN Coated Order No.
4-12	5	6	331-3404	331-3444	331-3504	331-3544
4-12	9	6	331-3401	331-3441	331-3501	331-3541
4-12	9	6.5	331-3402	331-3442		
3-12	10	6	331-3403	331-3443		
4-12	5	6.5	331-3405	331-3445		
3-14	13	6	331-3406	331-3446		
6-18	7	10	331-3407	331-3447		
4-20	9	8	331-3408	331-3448		
4-22	10	8	331-3409	331-3449		
4-24	11	8	331-3412	331-3452		
6-30	12	10	331-3413	331-3453		
4-30	14	10	331-3414	331-3454		
4-32	15	10	331-3415	331-3455		
4-20	9	10	331-3416	331-3456		
4-39	13	12	331-3417	331-3457		
5-28	7	10	331-3418	331-3458		
4-22	10	10	331-3419	331-3459		
5-35	13	12	331-3422	331-3462	331-3522	331-3562
6-18	7	8	331-3420	331-3460		
6-20	8	8	331-3410	331-3450	331-3510	331-3550
6-30	13	10	331-3421	331-3461		
6-35	13	12	331-3423	331-3463		
6-37	11	12	331-3424	331-3464		
6-38	12	12	331-3425	331-3465		
9-36	10	12	331-3426	331-3466		
10-20	11	8	331-3427	331-3467		
14-24	6	8	331-3428	331-3468		
20-30	11	10	331-3429	331-3469		
20-34	14	10	331-3430	331-3470		



ANSI Standard

Drilling range	Steps	Shank Dia.	Round Shank HSS Order No.	Round Shank TiN Coated Order No.	Hexagon Shank HSS Order No.	Hexagon Shank TiN Coated Order No.
1/8-1/2”	7	1/4	331-3600	331-3620		
1/8-1/2	13	1/4	331-3601	331-3621	331-3701	331-3721
1/8-3/8	5	1/4	331-3602	331-3622		
1/4-3/4	9	3/8	331-3607	331-3627	331-3707	331-3727
1/4-7/8	11	3/8	331-3603	331-3623		
1/4-1-3/8	10	3/8	331-3613	331-3625		
3/16-1/2	6	1/4	331-3604	331-3624	331-3704	331-3724
3/16-9/16	7	1/4	331-3606	331-3626		
3/16-7/8	12	3/8	331-3610	331-3630	331-3710	331-3730
9/16-1	8	3/8	331-3608	331-3628		
13/16-1-3/8	10	1/2	331-3609	331-3629		
1/4-1-3/8	10	1/8				331-3733

NEW



Metal Case Sets

Specification	HSS Order No.	TiN Coated Order No.
4-12, 4-20, 6-30	331-3471	331-3472
4-12, 6-20, 6-30	331-3481	331-3483
4-12, 4-20, 4-32	331-3473	331-3474
4-12, 4-20, 4-30	331-3475	331-3476
1/8-1/2", 1/4-3/4", 3/16-7/8"	331-3688	331-3689



Plastic Case Sets

Specification	HSS Order No.	TiN Coated Order No.
4-12, 4-20, 6-30	331-3477	331-3478
4-12, 6-20, 6-30	331-3479	331-3484
4-12, 4-20, 4-32	331-3485	331-3486
4-12, 4-20, 4-30	331-3487	331-3488
1/8-1/2", 1/4-3/4", 3/16-7/8"	331-3686	331-3687
1/8-1/2", 1/4-3/4", 3/16-7/8" Blistar Card	331-3681	331-3682



Wooden Case Sets

Specification	HSS Order No.	TiN Coated Order No.
3-12, 4-12, 6-20	331-3489	331-3490
4-12, 4-20, 4-30	331-3491	331-3492
4-12, 6-20, 6-30	331-3480	331-3482
4-12, 4-20, 4-32	331-3493	331-3494
4-12, 4-22, 4-32	331-3495	331-3496
4-12, 6-20, 4-30	331-3497	331-3498
4-12, 6-20, 6-30	331-3499	331-3500
1/8-1/2",1/4-3/4", 3/16-7/8"	331-3684	331-3685
1/8-1/2",3/16-1/2",1/4-3/4"	331-3680	331-3683

Single Flute Countersinks

High Speed Steel 单刃锪钻





Size	Shank Dia.	Shank Length	OAL	60° Order No.	82° Order No.	90° Order No.	100° Order No.	120° Order No.
3/16	3/16			380-5601	380-5801	380-5901	380-5101	380-5001
1/4	3/16	1-1/2	3/4	380-5600	380-5800	380-5900	380-5100	
1/4	1/4	1-1/2	3/4	380-5602	380-5802	380-5902	380-5102	380-5002
5/16	1/4	1-3/4	7/8	380-5603	380-5803	380-5903	380-5103	380-5003
3/8	1/4	1-3/4	7/8	380-5604	380-5804	380-5904	380-5104	380-5004
1/2	1/4	2	1	380-5606	380-5806	380-5906	380-5106	380-5006
1/2	3/8	2	1	380-5607	380-5807	380-5907	380-5107	380-5007
5/8	3/8	2-1/4	1	380-5608	380-5808	380-5908	380-5108	380-5008
5/8	1/2	2-1/4	1	380-5610	380-5810	380-5910	380-5110	380-5010
3/4	3/8	2-1/4	1	380-5612	380-5812	380-5912	380-5112	380-5012
3/4	1/2	2-1/2	1-1/4	380-5614	380-5814	380-5914	380-5114	380-5014
7/8	1/2	2-1/2	1-1/4	380-5615	380-5815	380-5915	380-5115	380-5015
1	1/2	2-3/4	1-1/2	380-5616	380-5816	380-5916	380-5116	380-5016
1-1/4	1/2	3-3/8	1-5/8	380-5618	380-5818	380-5918	380-5118	380-5018
1-1/4	3/4			380-5620	380-5820	380-5920	380-5120	380-5020
1-1/2	1/2	3-1/2	1-3/4	380-5622	380-5822	380-5922	380-5122	380-5022
1-1/2	3/4	3-1/2	1-3/4	380-5624	380-5824	380-5924	380-5124	380-5024
1-3/4	3/4			380-5626	380-5826	380-5926	380-5126	380-5026
2	3/4	4	2	380-5628	380-5828	380-5928	380-5128	380-5028
2	1/2	4	2	380-5627	380-5827	380-5927	380-5127	380-5027
5pcs/set: 1/4,3/8,1/2". with 1/4" Shk, 3/4,1" with1/2" Shk				380-5695	380-5895	380-5995	380-5195	
9pcs/set 3/16, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1"				380-5699	380-5899	380-5999	380-5199	
10pcs/set .1/4,5/16,3/8,1/2,5/8,3/4,1,1-1/4,1-1/2,2"				380-5698	380-5898	380-5998		
12pcs/set .3/16-2",				380-5692	380-5892	380-5992		

3 Flute Countersinks

High Speed Steel 3 刃锪钻

Use for countersinking holes for centers or for enlarging existing holes.





Size	Shank Dia.	Shank Length	Overall Length	60° Order No.	82° Order No.	90° Order No.	100° Order No.	110° Order No.	120° Order No.
1/4"	3/16"	3/4"	1-1/2"	380-8116	380-8316	380-8516	380-8716	380-7516	380-7716
1/4	3/16		2	380-8118	380-8318	380-8518			
5/16	1/4		2	380-8119	380-8319	380-8519			
3/8	1/4	7/8	1-3/4	380-8124	380-8324	380-8524	380-8724	380-7524	380-7724
3/8	1/4		2	380-8125	380-8325	380-8525			
1/2	1/4	1	2	380-8130	380-8330	380-8530			
1/2	3/8	1	2	380-8132	380-8332	380-8532	380-8732	380-7532	380-7732
5/8	3/8	1	2-1/4	380-8140	380-8340	380-8540	380-8740	380-7540	380-7740
5/8	3/8	1	2	380-8142	380-8342	380-8542			
3/4	3/8	1	2	380-8146	380-8346	380-8546	380-8746		
3/4	1/2	1-1/4	2-5/8	380-8148	380-8348	380-8548	380-8748	380-7548	380-7748
3/4	1/2		2-3/4	380-8150	380-8350	380-8550			
7/8	1/2	1-1/2	2-1/2	380-8156	380-8356	380-8556	380-8756	380-7556	380-7756
7/8	1/2		2-3/4	380-8158	380-8358	380-8558			
1	1/2	1-1/4	2-3/4	380-8164	380-8364	380-8564	380-8764	380-7564	380-7764
1	1/2	1-1/2	2-3/4	380-8166	380-8366	380-8566	380-8766		
1-1/4	3/4	1-1/4	3	380-8180	380-8380	380-8580	380-8780	380-7580	380-7780
1-1/2	1/2	1-3/4	3-1/2	380-8190	380-8390	380-8590	380-8790		
1-1/2	3/4	1-1/4	3	380-8196	380-8396	380-8596	380-8796	380-7596	380-7796
1-1/2	3/4	1-3/4	3-1/2	380-8198	380-8398	380-8598	380-8798		
2	3/4	1-1/4	3-1/4	380-8228	380-8428	380-8628	380-8828	380-7628	380-7828
2	1/2	2	4	380-8230	380-8430	380-8630	380-8830		
2	3/4	2	4	380-8232	380-8432	380-8632	380-8832		
5pcs/set: 1/4, 3/8, 1/2, 3/4, 1"				380-8285	380-8485	380-8685	380-8885	380-7685	380-7885
6pcs/set: 1/4, 3/8, 1/2, 5/8, 3/4, 1"				380-8286	380-8486	380-8686	380-8886	380-7686	380-7886
9pcs:1/4, 3/8, 1/2, 5/8, 3/4, 1,1-1/4,1-1/2,2"				380-8289	380-8489	380-8689	380-8889	380-7689	380-7889

4 Flute Machine Countersinks

4 槽机用锥形沉头孔锪钻

High Speed Steel



Size	Shank Dia.	Shank Length	Overall Length	60° Order No.	82° Order No.	90° Order No.	100° Order No.	120° Order No.
1/4	3/16	3/4	1-1/2	380-1216	380-1416	380-1616	380-1316	380-1716
5-16	1/4	7/8	1-3/4	380-1220	380-1420	380-1620	380-1320	380-1720
3/8	1/4	7/8	1-3/4	380-1224	380-1424	380-1624	380-1324	
1/2	3/8	1-1/8	2-1/8	380-1231	380-1431	380-1631	380-1331	380-1731
1/2"	1/2"	2-1/4"	3-7/8"	380-1232	380-1432	380-1632	380-1332	380-1732
5/8	3/8	1-1/8	2-3/8	380-1239	380-1439	380-1639	380-1339	
5/8	1/2	2-1/4	4	380-1240	380-1440	380-1640	380-1340	380-1740
3/4	1/2	1-5/16	2-11/16	380-1247	380-1447	380-1647	380-1347	380-1747
3/4	1/2	2-1/4	4-1/8	380-1248	380-1448	380-1648	380-1348	380-1748
7/8	1/2	1-5/16	2-13/16		380-1455	380-1655	380-1355	
7/8	1/2	2-1/4	4-1/4	380-1256	380-1456	380-1656	380-1356	380-1756
1	1/2	1-5/16	2-13/16	380-1263	380-1463	380-1663	380-1363	380-1763
1	1/2	2-1/4	4-3/8	380-1264	380-1464	380-1664	380-1364	380-1764
1-1/4	1/2	1-5/8	3-3/8	380-1279		380-1679	380-1379	380-1779
1-1/4	1/2	2-1/4	5	380-1280	380-1480	380-1680	380-1380	380-1780
1-1/2	3/4	1-5/8	3-1/2		380-1495	380-1695	380-1395	
1-1/2	1/2	2-1/4	5-3/8	380-1296	380-1496	380-1696	380-1396	380-1796
2	3/4	2-1/8	4-3/8	380-1297	380-1497	380-1697	380-1397	380-1797
5pcs/set: 1/2,5/8,3/4,7/8,1"				380-1205	380-1405	380-1605	380-1305	
7pcs/set: 1/2,5/8,3/4,7/8,1,1-1/4,1-1/2"				380-1207	380-1407	380-1607	380-1307	

6 Flute Chatterless Countersinks 6 刃导角刀





High Speed Steel

Size	Shank Diameter	Overall Length	60° Order No.	82° Order No.	90° Order No.	100° Order No.	110° Order No.	120° Order No.
3/16"	3/16"	1-1/2"	380-6005	380-6105	380-6205	380-6405	380-6505	380-6305
1/4	1/4	2	380-6010	380-6110	380-6210	380-6410	380-6510	380-6310
5/16	1/4	2	380-6015	380-6115	380-6215	380-6415	380-6515	380-6315
3/8	1/4	2	380-6020	380-6120	380-6220	380-6420	380-6520	380-6320
1/2	1/4	2	380-6025	380-6125	380-6225	380-6425	380-6525	380-6325
5/8	1/2	2-3/4	380-6030	380-6130	380-6230	380-6430	380-6530	380-6330
3/4	1/2	2-3/4	380-6035	380-6135	380-6235	380-6435	380-6535	380-6335
7/8	1/2	2-3/4	380-6040	380-6140	380-6240	380-6440	380-6540	380-6340
1	1/2	2-3/4	380-6045	380-6145	380-6245	380-6445	380-6545	380-6345
1-1/4	3/4	3-3/8	380-6050	380-6150	380-6250	380-6450	380-6550	380-6350
1-1/2	3/4	3-1/2	380-6055	380-6155	380-6255	380-6455	380-6555	380-6355
1-3/4	1	4-1/4	380-6060	380-6160	380-6260	380-6460	380-6560	380-6360
2	1	4-3/8	380-6065	380-6165	380-6265	380-6465	380-6565	380-6365
8pcs /set wooden stand (1/4-1")			380-6080	380-6180	380-6280	380-6480	380-6580	380-6380
5pcs/set wooden Stand(1/4,3/8,1/2,3/4,1")			380-6085	380-6185	380-6285	380-6485	380-6585	380-6385
10pcs/set wooden stand(3/16--1-1/4")			380-6090	380-6190	380-6290	380-6490	380-6590	380-6390
11pcs/set wooden Stand(3/16-1-1/2")			380-6091	380-6191	380-6291	380-6491	380-6591	380-6391
10pcs/set wooden Stand(1/4-1-1/2")			380-6092	380-6192	380-6292	380-6492	380-6592	380-6392

Cobalt M35

Cobalt

Size	Shank Diameter	Overall Length	60° Order No.	82° Order No.	90° Order No.	100° Order No.	110° Order No.	120° Order No.
3/16"	3/16"	1-1/2"	380-7005	380-7105	380-7205	380-6705	380-7605	380-7805
1/4	1/4	2	380-7010	380-7110	380-7210	380-6710	380-7610	380-7810
5/16	1/4	2	380-7015	380-7115	380-7215	380-6715	380-7615	380-7815
3/8	1/4	2	380-7020	380-7120	380-7220	380-6720	380-7620	380-7820
1/2	1/4	2	380-7025	380-7125	380-7225	380-6725	380-7625	380-7825
5/8	1/2	2-3/4	380-7030	380-7130	380-7230	380-6730	380-7630	380-7830
3/4	1/2	2-3/4	380-7035	380-7135	380-7235	380-6735	380-7635	380-7835
7/8	1/2	2-3/4	380-7040	380-7140	380-7240	380-6740	380-7640	380-7840
1	1/2	2-3/4	380-7045	380-7145	380-7245	380-6745	380-7645	380-7845
1-1/4	3/4	3-3/8	380-7050	380-7150	380-7250	380-6750	380-7650	380-7850
1-1/2	3/4	3-1/2	380-7055	380-7155	380-7255	380-6755	380-7655	380-7855
1-3/4	1	4-1/4	380-7060	380-7160	380-7260	380-6760	380-7660	380-7860
2	1	4-3/8	380-7065	380-7165	380-7265	380-6765	380-7665	380-7865
8pcs /set wooden stand (1/4-1")			380-7080	380-7180	380-7280	380-6780	380-7680	380-7880
10pcs/set wooden stand(3/16--1-1/4")			380-7090	380-7190	380-7290	380-6790	380-7690	380-7890

DIN335C 90° 3 Flute Countersinks DIN335C 高速 90 度 3 刃锪钻

Individuals

Cobalt





Size	Shank Dia.	Overall Length	HSS Order No.	HSS TiN Order No.	Cobalt Order No.
4.3mm	4	40	381-6043	381-7043	381-8043
5mm	4	40	381-6050	381-7050	381-8050
5.3mm	4	40	381-6053	381-7053	381-8053
5.8mm	5	45	381-6058	381-7058	381-8058
6mm	5	45	381-6060	381-7060	381-8060
6.3mm	5	45	381-6063	381-7063	381-8063
7mm	6	50	381-6070	381-7070	381-8070
7.3mm	6	50	381-6073	381-7073	381-8073
8mm	6	50	381-6080	381-7080	381-8080
8.3mm	6	50	381-6083	381-7083	381-8083
9.4mm	6	50	381-6094	381-7094	381-8094
10mm	6	50	381-6100	381-7100	381-8100
10.4mm	6	50	381-6104	381-7104	381-8104
11.5mm	8	56	381-6115	381-7115	381-8115
12.4mm	8	56	381-6124	381-7124	381-8124
13.4mm	8	56	381-6134	381-7134	381-8134
15mm	10	60	381-6150	381-7150	381-8150
16.5mm	10	60	381-6165	381-7165	381-8165
19mm	10	63	381-6190	381-7190	381-8190
20.5mm	10	63	381-6205	381-7205	381-8205
23mm	10	67	381-6230	381-7230	381-8230
25mm	10	67	381-6250	381-7250	381-8250
26mm	10	67	381-6260	381-7260	381-8260
28mm	12	71	381-6280	381-7280	381-8280
30mm	12	71	381-6300	381-7300	381-8300
31mm	12	71	381-6310	381-7310	381-8310
6 Pcs/set:: 6.3, 8.3, 10.4, 12.4, 16.5, 20.5mm			381-6906	381-7906	381-8906
12 Pcs/set: 5.3, 5.8, 6.3, 7.3, 8.3, 9.4, 10.4, 12.4, 13.4, 16.5, 20.5, 25mm			381-6912	381-7912	381-8912





Inch Countersinks & Deburring Tools

High Speed Steel Individuals 无槽锪钻

Range	Shank Dia.	Description	60° Order No.	82° Order No.	90° Order No.
1/16" - 15/64"	1/4"	0 double end	380-0815	380-1815	380-2815
5/32 - 13/32	1/4	1 single end	380-0816	380-1816	380-2816
3/16 - 17/32	1/4	2 single end	380-0817	380-1817	380-2817
3/16 - 25/32	1/2	3 single end	380-0818	380-1818	380-2818
9/16 - 1-1/16	1/2	4 single end	380-0819	380-1819	380-2819
5/8 - 1-15/32	1/2	5 single end	380-0822	380-1822	380-2822
3/4 - 1-3/4	5/8	6 single end	380-0823	380-1823	380-2823
1 - 2	5/8	7 single end	380-0824	380-1824	380-2824
1-1/4 - 2-1/2	3/4	8 single end	380-0825	380-1825	380-2825

Sets

Pieces	Description	Plastic Stand Order No.	Wooden stand Order No.
8Pcs	60° 1 each of: 1/16"-1"		380-0808
5Pcs	60° 1 each of: 1/16" to 9/16"	380-0811	380-0810
8Pcs	82° 1 each of: 1/16"-1"		380-1808
5Pcs	82° 1 each of: 1/16 to 9/16	380-1811	380-1810
5Pcs	82° 1 each of: 5/32" to 1-15/32"		380-1813
5Pcs	90° 1 each of: 1/16 to 9/16	380-2811	380-2810
8Pcs	90° 1 each of: 1/16"-1"		380-2808

Metric Countersinks & Deburring Tools

High Speed Steel Individuals 公制无槽锪钻

Range	Head Dia.	Shank Dia.	Length	60° Order No.	82° Order No.	90° Order No.
2-5mm	10	6	45	380-3002	380-3102	380-3202
5-10mm	14	8	48	380-3005	380-3105	380-3205
10-15mm	21	10	65	380-3010	380-3110	380-3210
15-20mm	28	12	85	380-3015	380-3115	380-3215
20-25mm	35	15	102	380-3020	380-3120	380-3220
25-30mm	44	15	115	380-3025	380-3125	380-3225
30-35mm	48	15	127	380-3030	380-3130	380-3230
35-40mm	53	15	136	380-3035	380-3135	380-3235
40-50mm	64	18	166	380-3040	380-3140	380-3240

Sets

Pieces	Description	Order No.
4Pcs/set	60° 1 each of 2/5mm - 15/20mm	380-3402
4Pcs/set	82° 1 each of 2/5mm - 15/20mm	380-3404
4Pcs/set	90° 1 each of 2/5mm - 15/20mm	380-3406
5Pcs/set	60° 1 each of 2/5mm - 20/25mm	380-3602
5Pcs/set	82° 1 each of 2/5mm - 20/25mm	380-3604
5Pcs/set	90° 1 each of 2/5mm - 20/25mm	380-3606

2 Flute Solid Pilot Counterbores

High Speed Steel, Straight Shank 2槽圆柱头平底锪钻



Screw Size	Pilot Dia.	Cutting Size	Shank Dia.	Overall Length	Order No.
2#	.085"	.155"		2-1/2"	381-5102
3#	.098	.176		3-1/2	381-5103
4#	.111	.198		2-5/8	381-5104
5#	.124	.220		2-5/8	381-5105
6#	.137	.241		2-5/8	381-5106
8#	.163	.285		2-3/4	381-5108
10#	.189	.328		2-7/8	381-5110
12#	.215	.372		3	381-5112
	1/4"	13/32"	5/16"	3-5/8"	381-5316
	5/16	15/32	3/8	4	381-5320
	3/8	19/32	7/16	4-3/8	381-5324
	7/16	21/32	1/2	4-3/4	381-5328
	1/2	25/32	9/16	5-1/4	381-5332

Interchangeable Pilots Counterbores

高速钢可换导向柱锪钻

High Speed Steel, Straight Shank, Right Hand

Use for counter boring holes for socket heads of cap screws



Size	Overall Length	No. of Flutes	Pilot Hole Dia.	Shank Dia.	Shank Length	Straight Shank Order No.	Shank Taper	Taper Shank Order No.	Size	Overall Length	No. of Flutes	Pilot Hole Dia.	Shank Dia.	Shank Length	Straight Shank Order No.	Shank Taper	Taper Shank Order No.
3/16"	3"	3	3/32"	15/64	2-3/8"	**381-2012**	MT1	**381-4012**	53/64"	5-3/8"	3	1/4"	3/4"	3-7/8"	**381-2053**	MT2	**381-4053**
13/64	3	3	3/32	15/64	2-3/8	**381-2013**	MT1	**381-4013**	27/32	5-3/8	3	1/4	3/4	3-7/8	**381-2054**	MT2	**381-4054**
7/32	3	3	3/32	15/64	2-3/8	**381-2014**	MT1	**381-4014**	55/64	5-3/8	3	1/4	3/4	3-7/8	**381-2055**	MT2	**381-4055**
15/64	3-13/16	3	3/32	15/64	3-1/16	**381-2015**	MT1	**381-4015**	7/8	5-3/8	3	1/4	3/4	3-7/8	**381-2056**	MT2	**381-4056**
1/4	3-13/16	3	3/32	15/64	3-1/16	**381-2016**	MT1	**381-4016**	57/64	6-1/8	3	1/4	3/4	4-5/8	**381-2057**	MT2	**381-4057**
17/64	3-13/16	3	3/32	17/64	3-1/16	**381-2017**	MT1	**381-4017**	29/32	6-1/8	3	1/4	3/4	4-5/8	**381-2058**	MT2	**381-4058**
9/32	3-13/16	3	3/32	17/64	3-1/16	**381-2018**	MT1	**381-4018**	59/64	6-1/8	3	1/4	3/4	4-5/8	**381-2059**	MT2	**381-4059**
19/64	3-13/16	3	3/32	17/64	3-1/16	**381-2019**	MT1	**381-4019**	15/16	6-1/8	3	1/4	3/4	4-5/8	**381-2060**	MT3	**381-4060**
5/16	3-13/16	3	3/32	19/64	3-1/16	**381-2020**	MT1	**381-4020**	61/64	6-3/8	3	1/4	3/4	4-5/8	**381-2061**	MT3	**381-4061**
21/64	3-13/16	3	3/32	5/16	3-1/16	**381-2021**	MT1	**381-4021**	31/32	6-3/8	3	5/16	3/4	4-5/8	**381-2062**	MT3	**381-4062**
11/32	3-13/16	3	3/32	5/16	3-1/16	**381-2022**	MT1	**381-4022**	63/64	6-3/8	3	5/16	3/4	4-5/8	**381-2063**	MT3	**381-4063**
23/64	4-1/16	3	5/32	5/16	3-1/16	**381-2023**	MT1	**381-4023**	1	6-3/8	3	5/16	3/4	4-5/8	**381-2064**	MT3	**381-4064**
3/8	4-1/16	3	5/32	5/16	3-1/16	**381-2024**	MT1	**381-4024**	1-1/16	6-3/8	3	5/16	3/4	4-5/8	**381-2068**	MT3	**381-4068**
25/64	4-1/16	3	5/32	3/8	3-1/16	**381-2025**	MT1	**381-4025**	1-1/8	6-3/8	3	5/16	1	4-5/8	**381-2072**	MT3	**381-4072**
13/32	4-1/16	3	5/32	3/8	3-1/16	**381-2026**	MT1	**381-4026**	1-3/16	6-3/8	3	5/16	1	4-5/8	**381-2076**	MT3	**381-4076**
27/64	4-1/16	3	5/32	3/8	3-1/16	**381-2027**	MT1	**381-4027**	1-1/4	6-5/8	5	3/8	1	4-5/8	**381-2080**	MT3	**381-4080**
7/16	4-1/16	3	5/32	3/8	3-1/16	**381-2028**	MT1	**381-4028**	1-5/16	6-5/8	5	3/8	1	4-5/8	**381-2084**	MT3	**381-4084**
29/64	4-5/16	3	3/16	7/16	3-1/16	**381-2029**	MT1	**381-4029**	1-3/8	6-5/8	5	3/8	1	4-5/8	**381-2088**	MT3	**381-4088**
15/32	4-5/16	3	3/16	7/16	3-1/16	**381-2030**	MT1	**381-4030**	1-7/16	7-7/8	5	3/8	1-1/4	5-7/8	**381-2090**	MT4	**381-4090**
31/64	4-5/16	3	3/16	7/16	3-1/16	**381-2031**	MT1	**381-4031**	1-1/2	7-7/8	5	3/8	1-1/4	5-7/8	**381-2096**	MT4	**381-4096**
1/2	4-5/16	3	3/16	7/16	3-1/16	**381-2032**	MT1	**381-4032**	1-9/16	8-1/8	5	7/16	1-1/4	5-7/8	**381-2100**	MT4	**381-4100**
33/64	4-5/16	3	3/16	1/2	3-1/16	**381-2033**	MT1	**381-4033**	1-5/8	8-1/8	5	7/16	1-1/4	5-7/8	**381-2104**	MT4	**381-4104**
17/32	4-5/16	3	3/16	1/2	3-1/16	**381-2034**	MT1	**381-4034**	1-11/16	8-1/8	5	7/16	1-1/4	5-7/8	**381-2108**	MT4	**381-4108**
35/64	4-5/16	3	3/16	1/2	3-1/16	**381-2035**	MT1	**381-4035**	1-3/4	8-1/8	5	7/16	1-1/4	5-7/8	**381-2112**	MT4	**381-4112**
9/16	4-5/16	3	3/16	1/2	3-1/16	**381-2036**	MT1	**381-4036**	1-13/16	8-1/8	5	7/16	1-1/2	5-7/8	**381-2116**	MT4	**381-4116**
37/64	5-1/8	3	3/16	1/2	3-7/8	**381-2037**	MT2	**381-4037**	1-7/8	8-1/8	5	7/16	1-1/2	5-7/8	**381-2120**	MT4	**381-4120**
19/32	5-1/8	3	3/16	1/2	3-7/8	**381-2038**	MT2	**381-4038**	1-15/16	8-1/8	5	7/16	1-1/2	5-7/8	**381-2124**	MT4	**381-4124**
39/64	5-1/8	3	3/16	1/2	3-7/8	**381-2039**	MT2	**381-4039**	2	8-3/8	5	1/2	1-1/2	5-7/8	**381-2128**	MT4	**381-4128**
5/8	5-1/8	3	3/16	1/2	3-7/8	**381-2040**	MT2	**381-4040**	2-1/16	9-7/8	5	1/2	1-1/2	7-3/8	**381-2136**	MT5	**381-4136**
41/64	5-1/8	3	3/16	1/2	3-7/8	**381-2041**	MT2	**381-4041**	2-1/8	9-7/8	5	1/2	1-1/2	7-3/8	**381-2144**	MT5	**381-4144**
21/32	5-1/8	3	3/16	1/2	3-7/8	**381-2042**	MT2	**381-4042**	2-3/16	9-7/8	5	1/2	1-1/2	7-3/8	**381-2152**	MT5	**381-4152**
43/64	5-1/8	3	3/16	1/2	3-7/8	**381-2043**	MT2	**381-4043**	2-1/4	9-7/8	5	1/2	1-1/2	7-3/8	**381-2160**	MT5	**381-4160**
11/16	5-1/8	3	3/16	1/2	3-7/8	**381-2044**	MT2	**381-4044**	2-5/16	9-7/8	5	1/2	1-1/2	7-3/8	**381-2168**	MT5	**381-4168**
45/64	5-3/8	3	1/4	1/2	3-7/8	**381-2045**	MT2	**381-4045**	2-3/8	9-7/8	5	1/2	1-3/4	7-3/8	**381-2176**	MT5	**381-4176**
23/32	5-3/8	3	1/4	1/2	3-7/8	**381-2046**	MT2	**381-4046**	2-7/16	9-7/8	5	1/2	1-3/4	7-3/8	**381-2184**	MT5	**381-4184**
47/64	5-3/8	3	1/4	1/2	3-7/8	**381-2047**	MT2	**381-4047**	2-1/2	9-7/8	5	1/2	1-3/4	7-3/8	**381-2192**	MT5	**381-4192**
3/4	5-3/8	3	1/4	1/2	3-7/8	**381-2048**	MT2	**381-4048**	2-9/16	9-7/8	5	1/2	1-3/4	7-3/8	**381-2200**	MT5	**381-4200**
49/64	5-3/8	3	1/4	5/8	3-7/8	**381-2049**	MT2	**381-4049**	2-5/8	9-7/8	5	1/2	1-3/4	7-3/8	**381-2208**	MT5	**381-4208**
25/32	5-3/8	3	1/4	5/8	3-7/8	**381-2050**	MT2	**381-4050**	2-3/4	9-7/8	5	1/2	1-3/4	7-3/8	**381-2216**	MT5	**381-4216**
51/64	5-3/8	3	1/4	5/8	3-7/8	**381-2051**	MT2	**381-4051**	2-7/8	9-7/8	5	1/2	1-3/4	7-3/8	**381-2224**	MT5	**381-4224**
13/16	5-3/8	3	1/4	5/8	3-7/8	**381-2052**	MT2	**381-4052**	3	9-7/8	5	1/2	1-3/4	7-3/8	**381-2232**	MT5	**381-4232**

Interchangeable Pilots Counterbore Sets

可换导向柱套装划钻

39 Piece Inch 3 Flute Counterbore Set

Each Set Included: 13 Counterbores: 1/4-1" by 16ths
26 Pilots: 1/8", 5/32", 3/16", 1/4" with 3/32" shank
3/16", 7/32", 1/4", 9/32", 5/16" with 5/32" shank ,1/4", 5/16", 3/8", 7/16", 1/2" with 3/16" shank
5/16", 3/8", 7/16", 1/2", 9/16", 5/8" with 1/4" shank,3/8", 7/16", 1/2", 9/16", 5/8", 3/4" with 5/16" shank

Order No. 381-2939

Packed in wooden fitted case





Metric, High Speed Steel, Straight Shank

21 Piece Set

Set Included one each of following:
Pilots: 4,4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5mm
Counterbores: 8.5, 9.5, l0.5, 11.5, 13.5, 16.5mm
1 Piece Straight Shank Holder



Order No.381-2921

22 Piece Set

Set Included one each of following:
Pilots: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25mm
Counterbores :26, 28, 30, 32, 33, 34, 36mm
1 Piece of MT2 Taper Shank Holder



Order No.381-2922

Interchange Pilots for Counterbores

锪钻导向柱



- Shank Diameters of interchangeable pilots must be same with the pilot holes of counterbore when choosing pilots.

	Pilot Shank Diameter								
Pilot Dia.	3/32" Order No.	1/8" Order No.	5/32" Order No.	3/16" . Order No.	1/4" Order No.	5/16" Order No.	3/8" Order No.	7/16" Order No.	1/2" Order No.
3/32"	381-3003								
1/8	381-3005	381-3105							
5/32	381-3009	381-3109	381-3203						
3/16	381-3013	381-3113	381-3205	381-3303					
7/32	381-3017	381-3117	381-3209	381-3305					
1/4	381-3021	381-3121	381-3213	381-3309	381-3405				
9/32	381-3025	381-3125	381-3217	381-3313	381-3409				
5/16	381-3029	381-3129	381-3221	381-3317	381-3413	381-3502			
11/32	381-3033	381-3133	381-3225	381-3321	381-3417	381-3503			
3/8	381-3037	381-3137	381-3229	381-3325	381-3421	381-3505	381-3602		
13/32		381-3141	381-3233	381-3329	381-3425	381-3509	381-3603		
7/16	381-3041	381-3145	381-3237	381-3333	381-3429	381-3513	381-3605	381-3705	381-3805
15/32		381-3149	381-3241	381-3337	381-3433	381-3517	381-3609	381-3707	381-3807
1/2	381-3045	381-3153	381-3245	381-3341	381-3437	381-3521	381-3613	381-3709	381-3809
17/32		381-3155		381-3345	381-3441	381-3525	381-3617	381-3713	381-3813
9/16		381-3157		381-3349	381-3445	381-3529	381-3621	381-3715	381-3817
19/32				381-3353	381-3449	381-3533	381-3625	381-3716	381-3819
5/8		381-3161		381-3357	381-3453	381-3537	381-3629	381-3717	381-3821
21/32				381-3359	381-3457	381-3541	381-3633	381-3719	381-3823
11/16				381-3361	381-3461	381-3545	381-3637	381-3721	381-3825
23/32				381-3365	381-3465	381-3549	381-3641	381-3723	381-3827
3/4				381-3369	381-3469	381-3553	381-3645	381-3725	381-3829
25/32				381-3373	381-3473	381-3557	381-3649	381-3729	381-3833
13/16				381-3377	381-3477	381-3561	381-3653	381-3733	381-3837
27/32				381-3381	381-3481	381-3565	381-3657	381-3735	381-3839
7/8				381-3385	381-3485	381-3569	381-3661	381-3737	381-3841
29/32					381-3487	381-3573	381-3665	381-3739	381-3843
15/16						381-3577	381-3669	381-3741	381-3845
31/32						381-3578	381-3670	381-3743	381-3847
1						381-3581	381-3673	381-3745	381-3849
1-1/32							381-3675	381-3747	381-3851
1-1/16						381-3585	381-3677	381-3749	381-3853
1-3/32						381-3587	381-3679	381-3751	381-3855
1-1/8						381-3589	381-3681	381-3753	381-3857
1-5/32						381-3591	381-3683	381-3755	381-3859
1-3/16						381-3593	381-3685	381-3757	381-3861
1-7/32							381-3687	381-3759	381-3863
1-1/4							381-3689	381-3761	381-3865
1-5/16							381-3693	381-3765	381-3869
1-3/8							381-3697	381-3769	381-3873
1-13/32							381-3699		
1-7/16							381-3696	381-3773	381-3877
1-1/2							381-3698	381-3777	381-3881
1-9/16							381-3703	381-3779	381-3885
1-5/8								381-3781	381-3889
1-11/16								381-3783	381-3893
1-3/4								381-3785	381-3897
1-13/16								381-3787	381-3901
1-7/8								381-3789	381-3905
1-15/16								381-3791	381-3909
2								381-3793	381-3913
2-1/16									381-3914
2-1/8									381-3915
2-3/16									381-3916
2-1/4									381-3917
2-5/16									381-3918
2-3/8									381-3919
2-7/16									381-3920
2-1/2									381-3921
2-9/16									381-3925
2-5/8									381-3929
2-11/16									381-3933
2-3/4									381-3937
2-13/16									381-3948
2-7/8									381-3956
2-15/16									381-3960
3									381-3996

Capscrew Counterbore Sets 套装固定导柱锪钻

Pieces	Descriptions	Set Order No.
4pcs	2Fl Frac Set for Fillister Head Screws:1/4-1/2-Str shk	381-9040
4pcs	1/2,5/8,3/4 ,1" 3flt, straight shank	381-9042
4pcs	1/4,5/16,3/8,1/2" 3flt, Taper shank	381-9044
4pcs	2Fl M/Screw Set for Fillister Head Screws:2-10-Str shk	381-9050
5pcs	#10, 1/4,3 /8, 1/2, 5/8 "	381-9055
6pcs	1/4,5/16,3/8,1/2,5/8 and 3/4"	381-9060
6pcs	Metric 3,4,5,6,8,10mm	381-9061
6pcs	#6,#8,#10,1/4,5/16,3/8	381-9062
7pcs	#6,#8,#10,1/4,5/16,3/8 and 1/2"	381-9070
7pcs	Metric 3,4,5,6,8,10,12mm	381-9079
8pcs	Metric 3,4,5,6,8,10,12,14mm	381-9080





HSS 4 Flute Interchangeable Pilot Aircraft Counterbores 4齿可换导柱航空锪钻

Long Series - 1/2" or smaller Straight Shank

Can be used in any 1/2" capacity tool or machine.



Size	Shank Dia.	Hole Dia.	Overall Length	Order No.	Size	Shank Dia.	Hole Dia.	Overall Length	Order No.
1/4"	15/16"	3/32"	4"	**381-0301**	23/32"	1/2"	3/16"	5-3/8"	**381-0316**
9/32	17/64	3/32	4	**381-0302**	3/4	1/2	3/16	5-3/8	**381-0317**
5/16	119/64	3/32	4	**381-0303**	25/32	1/2	3/16	5-3/8	**381-0318**
11/32	5/16x	3/32	4	**381-0304**	13/16	1/2	3/16	5-3/8	**381-0319**
3/8	15/16	3/32	4	**381-0305**	7/8	1/2	3/16	5-3/8	**381-0320**
13/32	3/8	1/8	4	**381-0306**	15/16	1/2	3/16	5-3/8	**381-0321**
7/16	3/8	1/8	4	**381-0307**	1	1/2	3/16	5-3/8	**381-0322**
15/32	7/16	1/8	4-1/4	**381-0308**	1-1/16	1/2	3/16	5-1/2	**381-0323**
1/2	7/16	1/8	4-1/4	**381-0309**	1-1/8	1/2	3/16	5-1/2	**381-0324**
17/32	1/2	1/8	4-1/4	**381-0310**	1-3/16	1/2	3/16	5-1/2	**381-0325**
9/16	1/2	1/8	4-1/4	**381-0311**	1-1/4	1/2	3/16	5-1/2	**381-0326**
19/32	1/2	1/8	4-1/4	**381-0312**	1-5/16	1/2	1/4	5-1/2	**381-0327**
5/8	1/2	1/8	4-1/4	**381-0313**	1-3/8	1/2	1/4	5-1/2	**381-0328**
21/32	1/2	3/16	5-3/8	**381-0314**	1-7/16	1/2	1/4	5-1/2	**381-0329**
11/16	1/2	3/16	5-3/8	**381-0315**	1-1/2	1/2	1/4	5-1/2	**381-0330**

Short Series - 1/4" Straight Shank

Can be used in 1/4" electric or pneumatic drills especially in aircraft work



Size	Hole Dia.	Overall Length	Order No.	Size	Hole Dia.	Overall Length	Order No.
1/4"	3/32"	2-3/8"	**381-0401**	21/32"	3/16"	3-1/8"	**381-0414**
9/32	3/32	2-3/8	**381-0402**	11/16	3/16	3-1/8	**381-0415**
5/16	3/32	2-3/8	**381-0403**	23/32	3/16	3-1/8	**381-0416**
11/32	3/32	2-3/8	**381-0404**	3/4	3/16	3-1/8	**381-0417**
3/8	3/32	2-3/8	**381-0405**	25/32	3/16	3-1/8	**381-0418**
13/32	1/8	2-13/16	**381-0406**	13/16	3/16	3-1/8	**381-0419**
7/16	1/8	2-13/16	**381-0407**	27/32	3/16	3-1/8	**381-0420**
15/32	1/8	2-13/16	**381-0408**	7/8	3/16	3-1/8	**381-0421**
1/2	1/8	2-13/16	**381-0409**	29/32	3/16	3-1/8	**381-0422**
17/32	1/8	2-13/16	**381-0410**	15/16	3/16	3-1/8	**381-0423**
9/16	1/8	2-13/16	**381-0411**	31/32	3/16	3-1/8	**381-0424**
19/32	1/8	2-13/16	**381-0412**	1	3/16	3-1/8	**381-0425**
5/8	1/8	2-13/16	**381-0413**				

Taper Shank Counterbores 3槽圆柱沉头孔用锥柄锪钻

3 Flute, High Speed Steel



Cap Screw Size	Cutter Dia.	Pilot Dia.	Overall Length	Shank Taper	Order No.	Cap Screw Size	Cutter Dia.	Pilot Dia.	Overall Length	Shank Taper	Order No.
1/4"	13/32"	9/32"	5-3/4"	MT2	**381-1025**	5/8"	31/32"	21/32"	7-1/2"	MT2	**381-1050**
5/16	1/2	11/32	6	MT2	**381-1030**	5/8	11/16	1	7-1/2	MT2	**381-1053**
3/8	19/32	13/32	6-1/2	MT2	**381-1035**	3/4	1-3/16	13/16	9	MT3	**381-1055**
7/16	11/16	15/32	7	MT2	**381-1040**	7/8	1-3/8	15/16	9	MT3	**381-1060**
1/2	25/32	17/32	7-1/4	MT2	**381-1045**	1	1-9/16	1-1/16	10	MT3	**381-1065**

Cap Screw Counterbores 直柄平底固定导柱锪钻

3 Flute, High Speed Steel, Straight Shank



Screw Size	Pilot Dia.	Cutting Dia.	Shank Dia.	Overall Length	Order No.	Screw Size	Pilot Dia.	Cutting Dia.	Shank Dia.	Overall Length	Order No.
5#	0.1410"	0.2210"	3/16"	3"	**381-0005**	1/2"	17/32"	25/32"	5/8"	7-1/2"	**381-0043**
6#	0.1500	0.2420	7/32	3	**381-0010**	1/2	17/32	25/32	3/4	7-1/2	**381-0045**
8#	11/64	19/64	1/4	3	**381-0015**	1/2	9/16	13/16	3/4	7-1/2	**381-0047**
10#	13/64	21/64	5/16	3-1/2	**381-0020**	5/8	21/32	31/32	3/4	7-1/2	**381-0050**
1/4	9/32	13/32	3/8	5	**381-0025**	5/8	1	11/16	3/4	7-1/2	**381-0053**
5/16	11/32	1/2	7/16	5	**381-0030**	3/4	13/16	1-3/16	1	8	**381-0055**
3/8	13/32	19/32	1/2	6	**381-0035**	7/8	15/16	1-3/8	1	8	**381-0060**
7/16	15/32	11/16	1/2	7	**381-0040**	1	1-1/16	1-9/16	1	10	**381-0065**

Cap Screw Counterbores 直柄平底固定导柱锪钻



High Speed Steel, Straight Shank

Screw Size	Pilot Dia.	Cutting Dia.	Flute Length	Shank Dia.	Overall Length	Order No.	Screw Size	Pilot Dia.	Cutting Dia.	Flute Length	Shank Dia.	Overall Length	Order No.
4-40	0.1120	0.1860	11/16	5/32	3-7/8	**381-0070**	3/8	0.3750	0.5720	1-5/8	1/2	6-1/2	**381-0110**
4-40	0.1270	0.2020	11/16	5/32	3-7/8	**381-0071**	3/8	0.3900	0.5880	1-5/8	1/2	6-1/2	**381-0115**
4-40	0.1430	0.180	11/16	5/32	3-7/8	**381-0072**	3/8	0.4060	0.6040	1-5/8	1/2	6-1/2	**381-0120**
5-40	0.1250	0.2050	11/16	3/16	4-1/8	**381-0074**	7/16	.4370	0.6630	1-11/16	1/2	7	**381-0125**
5-40	0.1400	0.2210	11/16	3/16	4-1/8	**381-0075**	7/16	.4520	0.6790	1-11/16	1/2	7	**381-0130**
5-40	0.1560	0.2370	11/16	3/16	4-1/8	**381-0076**	7/16	.4680	0.6950	1-11/16	1/2	7	**381-0135**
6-32	0.1380	0.2280	7/8	7/32	4-5/8	**381-0078**	1/2	0.5000	0.7570	2	1/2	7-1/2	**381-0140**
6-32	0.1530	0.2440	7/8	7/32	4-5/8	**381-0079**	1/2	0.5150	0.7730	2	1/2	7-1/2	**381-0145**
6-32	0.1690	0.2600	7/8	7/32	4-5/8	**381-0080**	1/2	0.5310	0.7890	2	1/2	7-1/2	**381-0150**
8-32	0.1640	0.2720	15/16	1/4	5	**381-0083**	5/8	0.6250	0.9450	2	5/8	7-5/8	**381-0155**
8-32	0.1790	0.2880	15/16	1/4	5	**381-0084**	5/8	0.6400	0.9610	2	5/8	7-5/8	**381-0160**
8-32	0.1950	0.3040	15/16	1/4	5	**381-0085**	5/8	0.6560	0.9770	2	5/8	7-5/8	**381-0165**
10-32	0.1900	0.3140	1-1/8	9/32	5-1/4	**381-0087**	3/4	0.7500	1.1330	2-1/8	3/4	7-3/4	**381-0170**
10-32	0.2050	0.3300	1-1/8	9/32	5-1/4	**381-0088**	3/4	0.7650	1.1490	2-1/8	3/4	7-3/4	**381-0175**
10-32	0.2210	0.3460	1-1/8	9/32	5-1/4	**381-0089**	3/4	0.7810	1.1650	2-1/8	3/4	7-3/4	**381-0180**
1/4	0.2810	0.4140	1-5/16	5/16	5-5/8	**381-0094**	7/8	0.8750	1.3220	2-1/8	7/8	8-1/8	**381-0185**
1/4	0.2650	0.3980	1-5/16	5/16	5-5/8	**381-0095**	7/8	0.8910	1.3380	2-1/8	7/8	8-1/8	**381-0190**
1/4	0.2500	0.3820	1-5/16	5/16	5-5/8	**381-0096**	7/8	0.9060	1.3540	2-1/8	7/8	8-1/8	**381-0195**
5/16	0.3120	0.4750	1-5/16	3/8	6-1/8	**381-0098**	1	1.0000	1.5100	2-1/4	1	8-1/2	**381-0200**
5/16	0.3280	0.4910	1-5/16	3/8	6-1/8	**381-0100**	1	1.0150	1.5260	2-1/4	1	8-1/2	**381-0205**
5/16	0.3430	0.5070	1-5/16	3/8	6-1/8	**381-0105**	1	1.0310	1.5420	2-1/4	1	8-1/2	**381-0210**

Sets

Pieces	Descriptions	Order No.	Pieces	Descriptions	Order No.
6pcs	6pcs/set,Size:1/4,5/16,3/8,1/2,5/8 & 3/4"	**381-0260**	6pcs	1/4,5/16,3/8,1/2,5/8 and 3/4"	**381-9060**
7pcs	7pcs /set,Size:6,8,10,1/4,5/16,3/8 & 1/2"	**381-0270**	7pcs	6#,8#,10#,1/4,5/16,3/8 and 1/2"	**381-9070**
4pcs	4Pcs/set, Size:#6,#8,#10,1/4".	**381-9301**	10pcs	4-40 through 1/2", 1/32" Oversized Pilots	**381-9101**
4pcs	4Pcs/set,Size:1/4,5/16,3/8&1/2"	**381-9302**	10pcs	4-40 through 1/2", 1/64" Oversized Pilots	**381-9102**
4pcs	4Pcs/set,Size:1/2,5/8,3/4&1"	**381-9303**	10pcs	4-40 through 1/2", Standard Size Pilots	**381-9103**
4pcs	4Pcs/set,Size:1/4,5/16,3/8&1/2"	**381-9304**			



Metric Capscrew Counterbores 公制 3 槽固定导柱锪钻



High Speed Steel
3Flute, Straight Shank

Screw Size	Pilot Dia	Cutter Dia.	Shank Dia.	OAL	Order No.	Screw Size	Pilot Dia	Cutter Dia.	Shank Dia.	OAL	Order No.
M2	2.2	4.3	4.3	56	**381-1502**	M3	3.4	6	5.0	71	**381-1553**
M3	3.2	6	5	71	**381-1503**	M4	4.5	8	5.0	71	**381-1554**
M4	4.3	8	5	71	**381-1504**	M5	5.5	10	8.0	80	**381-1555**
M5	5.3	10	8	80	**381-1505**	M6	6.6	11	8.0	80	**381-1556**
M6	6.4	11	8	80	**381-1506**	M8	9.0	15	12.5	100	**381-1558**
M8	8.4	15	12.5	100	**381-1508**	M10	11	18	12.5	100	**381-1560**
M10	10.5	18	12.5	100	**381-1510**	M12	14	20	12.5	100	**381-1562**
M12	13	20	12.5	100	**381-1512**						



3Flute, Taper Shank

Screw Size	Pilot Dia.	Cutter Dia.	Cutter Length	Shank Taper	OAL	Order No.	Screw Size	Pilot Dia.	Cutter Dia.	Cutter Length	Shank Taper	OAL	Order No.
M14	15	24	60.325	MT2	228.6	**381-1614**	M20	21	33	79.375	MT2	254	**381-1620**
M16	17	26	79.375	MT2	228.6	**381-1616**	M24	25.4	40	79.375	MT3	254	**381-1624**

Capscrew Counterbore Sets 套装固定导柱锪钻

Pieces	Descriptions	Set Order No.
4pcs	2Fl Frac Set for Fillister Head Screws:1/4-1/2-Str shk	**381-9040**
4pcs	1/2,5/8,3/4 ,1" 3flt, straight shank	**381-9042**
4pcs	1/4,5/16,3/8,1/2" 3flt, Taper shank	**381-9044**
4pcs	2Fl M/Screw Set for Fillister Head Screws:2-10-Str shk	**381-9050**
5pcs	#10, 1/4,3 /8, 1/2, 5/8 "	**381-9055**
6pcs	1/4,5/16,3/8,1/2,5/8 and 3/4"	**381-9060**
6pcs	Metric 3,4,5,6,8,10mm	**381-9061**
6pcs	#6,#8,#10,1/4,5/16,3/8	**381-9062**
7pcs	#6,#8,#10,1/4,5/16,3/8 and 1/2"	**381-9070**
7pcs	Metric 3,4,5,6,8,10,12mm	**381-9079**
8pcs	Metric 3,4,5,6,8,10,12,14mm	**381-9080**





Straight Shank Chucking Reamers 直柄直槽铰刀

Straight Flute, HSS & M35 Cobalt

- Right hand cutting direction,
- Designed for general purpose machine reaming in most materials, using screw machines, turret lathes, drill presses and machining centers.
- Precision engineered design for exceptional quality and accuracy.
- Ground with a 45 deg. Chamfer, suitable for reaming most materials.



Fractional Sizes

Cobalt

Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.	Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.	Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.
3/64”	1/2”	2-1/2”	331-1003	331-1303	15/32”	1-3/4”	7”	331-1030	331-1330	57/64”	2-5/8”	10”	331-1057	331-1357
1/16	1/2	2-1/2	331-1004	331-1304	31/64	2	8	331-1031	331-1331	29/32	2-5/8	10	331-1058	331-1358
5/64	3/4	3	331-1005	331-1305	1/2	2	8	331-1032	331-1332	59/64	2-5/8	10	331-1059	331-1359
3/32	3/4	3	331-1006	331-1306	33/64	2	8	331-1033	331-1333	15/16	2-5/8	10	331-1060	331-1360
7/64	7/8	3-1/2	331-1007	331-1307	17/32	2	8	331-1034	331-1334	61/64	2-5/8	10	331-1061	331-1361
1/8	7/8	3-1/2	331-1008	331-1308	35/64	2	8	331-1035	331-1335	31/32	2-5/8	10	331-1062	331-1362
9/64	1	4	331-1009	331-1309	9/16	2	8	331-1036	331-1336	63/64	2-3/4	10	331-1063	331-1363
5/32	1	4	331-1010	331-1310	37/64	2	8	331-1037	331-1337	1	2-3/4	10-1/2	331-1100	331-1364
11/64	1-1/8	4-1/2	331-1011	331-1311	19/32	2	8	331-1038	331-1338	1-1/32	2-3/4	10-1/2	331-1102	331-1366
3/16	1-1/8	4-1/2	331-1012	331-1312	39/64	2-1/4	9	331-1039	331-1339	1-1/16	2-3/4	10-1/2	331-1104	331-1368
13/64	1-1/4	5	331-1013	331-1313	5/8	2-1/4	9	331-1040	331-1340	1-3/32	2-7/8	10-1/2	331-1106	331-1370
7/32	1-1/4	5	331-1014	331-1314	41/64	2-1/4	9	331-1041	331-1341	1-1/8	2-7/8	11	331-1108	331-1372
15/64	1-1/2	6	331-1015	331-1315	21/32	2-1/4	9	331-1042	331-1342	1-5/32	2-7/8	11	331-1110	331-1374
1/4	1-1/2	6	331-1016	331-1316	43/64	2-1/4	9	331-1043	331-1343	1-3/16	2-7/8	11	331-1112	331-1376
17/64	1-1/2	6	331-1017	331-1317	11/16	2-1/4	9	331-1044	331-1344	1-7/32	2-7/8	11	331-1114	331-1378
9/32	1-1/2	6	331-1018	331-1318	45/64	2-1/4	9	331-1045	331-1345	1-1/4	3	11-1/2	331-1116	331-1380
19/64	1-1/2	6	331-1019	331-1319	23/32	2-1/4	9	331-1046	331-1346	1-9/32	3	11-1/2	331-1118	331-1382
5/16	1-1/2	6	331-1020	331-1320	47/64	2-1/2	9-1/2	331-1047	331-1347	1-5/16	3	11-1/2	331-1120	331-1384
21/64	1-1/2	6	331-1021	331-1321	3/4	2-1/2	9-1/2	331-1048	331-1348	1-3/8	3-1/4	12	331-1124	331-1386
11/32	1-1/2	6	331-1022	331-1322	49/64	2-1/2	9-1/2	331-1049	331-1349	1-7/16	3-1/2	12-1/2	331-1128	331-1388
23/64	1-3/4	7	331-1023	331-1323	25/32	2-1/2	9-1/2	331-1050	331-1350	1-1/2	3-1/2	12-1/2	331-1132	331-1390
3/8	1-3/4	7	331-1024	331-1324	51/64	2-1/2	9-1/2	331-1051	331-1351	1-9/16	3-1/2	12-1/2	331-1136	331-1392
25/64	1-3/4	7	331-1025	331-1325	13/16	2-1/2	9-1/2	331-1052	331-1352	1-5/8	3-1/2	13	331-1140	331-1394
13/32	1-3/4	7	331-1026	331-1326	53/64	2-1/2	9-1/2	331-1053	331-1353	1-11/16	3-1/2	13	331-1144	331-1396
27/64	1-3/4	7	331-1027	331-1327	27/32	2-1/2	9-1/2	331-1054	331-1354	1-3/4	4	13-1/2	331-1148	331-1398
7/16	1-3/4	7	331-1028	331-1328	55/64	2-5/8	9-1/2	331-1055	331-1355	1-7/8	4	14	331-1156	331-1199
29/64	1-3/4	7	331-1029	331-1329	7/8	2-5/8	10	331-1056	331-1356	2	4	14	331-1200	331-1400

Number Sizes

Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.	Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.	Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.
No.1	1-1/2”	6”	331-0201	331-1401	No.21	1-1/8”	4-1/2”	331-0221	331-1421	No.41	7/8”	3-1/2”	331-0241	331-1441
No.2	1-1/2	6	331-0202	331-1402	No.22	1	4	331-0222	331-1422	No.42	3/4	3	331-0242	331-1442
No.3	1-1/4	5	331-0203	331-1403	No.23	1	4	331-0223	331-1423	No.43	3/4	3	331-0243	331-1443
No.4	1-1/4	5	331-0204	331-1404	No.24	1	4	331-0224	331-1424	No.44	3/4	3	331-0244	331-1444
No.5	1-1/4	5	331-0205	331-1405	No.25	1	4	331-0225	331-1425	No.45	3/4	3	331-0245	331-1445
No.6	1-1/4	5	331-0206	331-1406	No.26	1	4	331-0226	331-1426	No.46	3/4”	3”	331-0246	331-1446
No.7	1-1/4	5	331-0207	331-1407	No.27	1	4	331-0227	331-1427	No.47	3/4	3	331-0247	331-1447
No.8	1-1/4	5	331-0208	331-1408	No.28	1	4	331-0228	331-1428	No.48	3/4	3	331-0248	331-1448
No.9	1-1/4	5	331-0209	331-1409	No.29	1	4	331-0229	331-1429	No.49	3/4	3	331-0249	331-1449
No.10	1-1/4	5	331-0210	331-1410	No.30	7/8	3-1/2	331-0230	331-1430	No.50	3/4	3	331-0250	331-1450
No.11	1-1/4	5	331-0211	331-1411	No.31	7/8	3-1/2	331-0231	331-1431	No.51	3/4	3	331-0251	331-1451
No.12	1-1/8	4-1/2	331-0212	331-1412	No.32	7/8	3-1/2	331-0232	331-1432	No.52	1/2	2-1/2	331-0252	331-1452
No.13	1-1/8	4-1/2	331-0213	331-1413	No.33	7/8	3-1/2	331-0233	331-1433	No.53	1/2	2-1/2	331-0253	331-1453
No.14	1-1/8	4-1/2	331-0214	331-1414	No.34	7/8	3-1/2	331-0234	331-1434	No.54	1/2	2-1/2	331-0254	331-1454
No.15	1-1/8	4-1/2	331-0215	331-1415	No.35	7/8	3-1/2	331-0235	331-1435	No.55	1/2	2-1/2	331-0255	331-1455
No.16	1-1/8	4-1/2	331-0216	331-1416	No.36	7/8	3-1/2	331-0236	331-1436	No.56	1/2	2-1/2	331-0256	331-1456
No.17	1-1/8	4-1/2	331-0217	331-1417	No.37	7/8	3-1/2	331-0237	331-1437	No.57	1/2	2-1/2	331-0257	331-1457
No.18	1-1/8	4-1/2	331-0218	331-1418	No.38	7/8	3-1/2	331-0238	331-1438	No.58	1/2	2-1/2	331-0258	331-1458
No.19	1-1/8	4-1/2	331-0219	331-1419	No.39	7/8	3-1/2	331-0239	331-1439	No.59	1/2	2-1/2	331-0259	331-1459
No.20	1-1/8	4-1/2	331-0220	331-1420	No.40	7/8	3-1/2	331-0240	331-1440	No.60	1/2	2-1/2	331-0260	331-1460

Straight Shank Chucking Reamers Continued 直柄直槽铰刀

Straight Flute, HSS & M35 Cobalt



- Right hand cutting direction,
- Designed for general purpose machine reaming in most materials, using screw machines, turret lathes, drill presses and machining centers.
- Precision engineered design for exceptional quality and accuracy.
- Ground with a 45 deg. Chamfer, suitable for reaming most materials.

Cobalt

Letter Sizes

Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.	Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.	Size	Flute Length	Overall Length	HSS Order No.	M35 Order No.
A	1-1/2	6”	**331-1501**	**331-0001**	J	1-1/2	6”	**331-1510**	**331-0010**	S	1-3/4	7”	**331-1519**	**331-0019**
B	1-1/2	6	**331-1502**	**331-0002**	K	1-1/2	6	**331-1511**	**331-0011**	T	1-3/4	7	**331-1520**	**331-0020**
C	1-1/2	6	**331-1503**	**331-0003**	L	1-1/2	6	**331-1512**	**331-0012**	U	1-3/4	7	**331-1521**	**331-0021**
D	1-1/2	6	**331-1504**	**331-0004**	M	1-1/2	6	**331-1513**	**331-0013**	V	1-3/4	7	**331-1522**	**331-0022**
E	1-1/2	6	**331-1505**	**331-0005**	N	1-1/2	6	**331-1514**	**331-0014**	W	1-3/4	7	**331-1523**	**331-0023**
F	1-1/2	6	**331-1506**	**331-0006**	O	1-1/2	6	**331-1515**	**331-0015**	X	1-3/4	7	**331-1524**	**331-0024**
G	1-1/2	6	**331-1507**	**331-0007**	P	1-1/2	6	**331-1516**	**331-0016**	Y	1-3/4	7	**331-1525**	**331-0025**
H	1-1/2	6	**331-1508**	**331-0008**	Q	1-1/2	6	**331-1517**	**331-0017**	Z	1-3/4	7	**331-1526**	**331-0026**
I	1-1/2	6	**331-1509**	**331-0009**	R	1-1/2	6	**331-1518**	**331-0018**					

Spiral Flute Chucking Reamers 直柄螺旋槽绞刀

High Speed Steel, Straight Shank, Right Hand



- Provides better surface finish than straight flute reamers.
- Spiral flutes pull chips away from part, providing excellent chip removal, especially in blind holes.
- Right hand spiral – right hand cut.
- Use for difficult-to-ream materials.
- Best choice for interrupted cuts such as keyways or cross holes.

Fractional Sizes

Size	Decimal Size	Flute Length	Overall Length	No. of Flute	HSS Order No.	Size	Decimal Size	Flute Length	Overall Length	No. of Flute	HSS Order No.
3/64	.0469	1/2	2	4	**241-2011**	15/32	.4688	1-3/4	8	6	**241-2111**
1/16	.0625	1/2	2-1/2	4	**241-2001**	31/64	.4844	2	8	6	**241-2115**
1/16	.0625	1/2	2	4	**241-2012**	1/2	.5000	2	8	6	**241-2120**
5/64	.0781	3/4	3	4	**241-2002**	33/64	.5156	2	8	6	**241-2121**
5/64	.0781	1/2	2	4	**241-2013**	17/32	.5312	2	8	6	**241-2125**
3/32	.0938	3/4	3	4	**241-2003**	35/64”	.5469	2”	8”	6	**241-2126**
3/32	.0938	5/8	2-1/4	4	**241-2014**	9/16	.5625	2	8	6	**241-2130**
7/64	.1094	7/8	3-1/2	4	**241-2004**	37/64	.5781	2	8	6	**241-2131**
7/64	.1094	3/4	3	4	**241-2016**	19/32	.5938	2	8	6	**241-2135**
1/8”	.1250”	7/8”	3-1/2”	4	**241-2005**	39/64	.6094	2-1/4	9	8	**241-2139**
9/64	.1406	1	4	4	**241-2010**	5/8	.6250	2-1/4	9	8	**241-2140**
5/32	.1562	1	4	4	**241-2015**	41/64	.6406	2-1/4	9	8	**241-2144**
11/64	.1719	1-1/8	4-1/2	6	**241-2020**	21/32	.6562	2-1/4	9	8	**241-2145**
3/16	.1875	1-1/8	4-1/2	6	**241-2025**	11/16	.6875	2-1/4	9	8	**241-2150**
13/64	.2031	1-1/4	5	6	**241-2030**	23/32	.7188	2-1/4	9	8	**241-2155**
7/32	.2188	1-1/4	5	6	**241-2035**	3/4	.7500	2-1/2	9-1/2	8	**241-2160**
15/64	.2344	1-1/2	6	6	**241-2040**	25/32	.7812	2-1/2	9-1/2	8	**241-2165**
1/4	.2500	1-1/2	6	6	**241-2045**	13/16	.8125	2-1/2	9-1/2	8	**241-2170**
17/64	.2656	1-1/2	6	6	**241-2050**	27/32	.8438	2-1/2	9-1/2	8	**241-2175**
9/32	.2812	1-1/2	6	6	**241-2055**	7/8	.8750	2-5/8	10	8	**241-2180**
19/64	.2969	1-1/2	6	6	**241-2060**	29/32	.9062	2-5/8	10	8	**241-2185**
5/16	.3125	1-1/2	6	6	**241-2065**	15/16	.9375	2-5/8	10	8	**241-2190**
21/64	.3281	1-1/2	6	6	**241-2070**	31/32	.9688	2-5/8	10	8	**241-2195**
21/64	.3281	1-1/2	7	6	**241-2071**	1	1.0000	2-3/4	10-1/2	8	**241-2200**
11/32	.3438	1-1/2	6	6	**241-2075**	1-1/16	1.0625	2-3/4	10-1/2	10	**241-2205**
11/32	.3438	1-1/2	7	6	**241-2076**	1-1/8	1.1250	2-7/8	11	10	**241-2210**
23/64	.3594	1-3/4	7	6	**241-2080**	1-3/16	1.1875	2-7/8	11	10	**241-2215**
3/8	.3750	1-3/4	7	6	**241-2085**	1-1/4	1.2500	3	11-1/2	10	**241-2220**
25/64	.3906	1-3/4	7	6	**241-2090**	1-5/16	1.3125	3-1/4	12	10	**241-2225**
13/32	.4062	1-3/4	7	6	**241-2095**	1-3/8	1.3750	3-1/4	12	12	**241-2230**
27/64	.4219	1-3/4	7	6	**241-2100**	1-7/16	1.4375	3-1/2	12-1/2	12	**241-2235**
7/16	.3745	1-3/4	7	6	**241-2101**	1-1/2	1.5000	3-1/2	12-1/2	12	**241-2240**
29/64	.4531	1-3/4	7	6	**241-2105**	1-11/16	1.6875	3-5/8	13	12	**241-2244**
15/32	.4688	1-3/4	7	6	**241-2110**	2	2.0000	4	14	12	**241-2264**

Metric HSS Straight Shank Chucking Reamers

高速钢直柄直槽铰刀

High Speed Steel
Straight Shank, Straight Flute



Fractional Sizes

Size	Flute Length	Overall Length	HSS Order No.	Size	Flute Length	Overall Length	HSS Order No.
2.50mm	7/8”	3-1/2”	**331-5725**	12.00mm	2”	7”	**331-5820**
3.00	7/8	3-1/2	**331-5730**	12.50	2	8	**331-5825**
3.50	1	4	**331-5735**	13.00	2	8	**331-5830**
4.00	1-1/8	4-1/2	**331-5740**	13.50	2	8	**331-5835**
4.50	1-1/8	4-1/2	**331-5745**	14.00	2	8	**331-5840**
5.00	1-1/4	5	**331-5750**	14.20	2	8	**331-5845**
5.50	1-1/4	5	**331-5755**	15.00	2	8	**331-5850**
6.00	1-1/2	6	**331-5760**	16.00	2-1/4	8	**331-5860**
6.50	1-1/2	6	**331-5765**	17.00	2-1/4	9	**331-5870**
7.00	1-1/2	6	**331-5770**	18.00	2-1/4	9	**331-5880**
7.50	1-1/2	6	**331-5775**	19.00	2-1/4	9	**331-5890**
8.00	1-1/2	6	**331-5780**	19.50	2-1/4	9-1/2	**331-5595**
8.50	1-1/2	6	**331-5785**	20.00	2-1/2	9-1/2	**331-5900**
9.00	1-3/4	7	**331-5790**	21.00	2-1/2	9-1/2	**331-5910**
9.50	1-3/4	7	**331-5795**	22.00	2-1/2	9-1/2	**331-5920**
10.00	1-3/4	7	**331-5800**	23.00	2-5/8	10	**331-5930**
10.50	1-3/4	7	**331-5805**	24.00	2-5/8	10	**331-5940**
11.00	1-3/4	7	**331-5810**	25.00	2-5/8	10	**331-5950**
11.50	1-3/4	7	**331-5815**				

Metric Chucking Reamers DIN212 直柄铰刀

DIN212, High Speed Steel,
Straight Shank, Straight Flute



Size (mm)	Flute Length (mm)	Overall Length (mm)	Shank Dia. (mm)	No. of Flute	Order No.	Size (mm)	Flute Length (mm)	Overall Length (mm)	Shank Dia. (mm)	No. of Flute	Order No.	Size (mm)	Flute Length (mm)	Overall Length (mm)	Shank Dia. (mm)	No. of Flute	Order No.
1.0	6	34	2	4	**331-5010**	13.5	44	151	10	6	**331-5135**	4.0	19	75	4.0	6	**331-4040**
1.5	8	40	2	4	**331-5015**	14.0	47	160	12.5	6	**331-5140**	4.1	19	75	4.0	6	**331-4041**
2.0	11	49	2	4	**331-5020**	14.5	50	162	12.5	6	**331-5145**	4.2	19	75	4.0	6	**331-4042**
2.5	14	57	2.5	4	**331-5025**	15.0	50	162	12.5	6	**331-5150**	4.5	21	80	4.5	6	**331-4045**
3.0	15	61	3	6	**331-5030**	15.5	52	170	12.5	8	**331-5155**	5.0	23	86	5.0	6	**331-4050**
3.5	18	70	3.5	6	**331-5035**	16.0	52	170	12.5	8	**331-5160**	5.1	2	86	5.0	6	**331-4051**
4.0	19	75	4	6	**331-5040**	16.5	54	175	14	8	**331-5165**	6.0	26	93	5.6	6	**331-4060**
4.5	21	80	4.5	6	**331-5045**	17.0	54	175	14	8	**331-5170**	6.1	26	93	5.6	6	**331-4061**
5.0	23	86	5	6	**331-5050**	17.5	56	182	14	8	**331-5175**	6.2	28	101	6.3	6	**331-4062**
5.5	26	93	5.6	6	**331-5055**	18.0	56	182	14	8	**331-5180**	6.4	28	101	6.3	6	**331-4064**
6.0	26	93	5.6	6	**331-5060**	18.5	58	189	16	8	**331-5185**	6.5	28	101	6.3	6	**331-4065**
6.5	28	101	6.3	6	**331-5065**	19.0	58	189	16	8	**331-5190**	6.6	28	101	6.3	6	**331-4066**
7.0	31	109	7.1	6	**331-5070**	19.5	60	195	16	8	**331-5195**	7.0	31	109	7.1	6	**331-4070**
7.5	31	109	7.1	6	**331-5075**	20.0	60	195	16	8	**331-5200**	7.5	31	109	7.1	6	**331-4075**
8.0	33	117	8	6	**331-5080**	20.5	60	215	18	8	**331-5205**	7.8	33	117	8.0	6	**331-4078**
8.5	33	117	8	6	**331-5085**	21.0	60	215	18	8	**331-5210**	8.0	33	117	8.0	6	**331-4080**
9.0	36	125	9	6	**331-5090**	21.5	60	225	18	8	**331-5215**	8.1	33	117	8.0	6	**331-4081**
9.5	36	125	9	6	**331-5095**	22.0	60	225	18	8	**331-5220**	8.2	33	117	8.0	6	**331-4082**
10.0	38	133	10	6	**331-5100**	22.5	60	230	18	8	**331-5225**	8.5	33	117	8.0	6	**331-4085**
10.5	38	133	10	6	**331-5105**	23.0	60	230	18	8	**331-5230**	8.7	36	125	9.0	6	**331-4087**
11.0	41	142	10	6	**331-5110**	23.5	60	240	20	8	**331-5235**						
11.5	41	142	10	6	**331-5115**	24.0	60	240	20	8	**331-5240**						
12.0	44	151	10	6	**331-5120**	24.5	60	245	20	8	**331-5245**						
12.5	44	151	10	6	**331-5125**	25.0	60	245	20	8	**331-5250**						
13.0	44	151	10	6	**331-5130**												

Special Decimal Chucking Reamers 特殊绞刀－小数位尺寸直槽直柄

High Speed Steel, Straight Shank, Straight Flute



Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.
.0415"	1/2"	2-1/2"	**339-0415**	.0845	3/4	3	**339-0845**	.1260	7/8	3-1/2	**339-1260**	.1635	1-1/8	4-1/2	**339-1635**
.0425	1/2	2-1/2	**339-0425**	.0850	3/4	3	**339-0850**	.1265	7/8	3-1/2	**339-1265**	.1640	1-1/8	4-1/2	**339-1640**
.0435	1/2	2-1/2	**339-0435**	.0855	3/4	3	**339-0855**	.1270	7/8	3-1/2	**339-1270**	.1645	1-1/8	4-1/2	**339-1645**
.0440	1/2	2-1/2	**339-0440**	.0865	3/4	3	**339-0865**	.1275	7/8	3-1/2	**339-1275**	.1650	1-1/8	4-1/2	**339-1650**
.0445	1/2	2-1/2	**339-0445**	.0870	3/4	3	**339-0870**	.1280	7/8	3-1/2	**339-1280**	.1655	1-1/8	4-1/2	**339-1655**
.0450	1/2	2-1/2	**339-0450**	.0875	3/4	3	**339-0875**	.1285	7/8	3-1/2	**339-1285**	.1665	1-1/8	4-1/2	**339-1665**
.0455	1/2	2-1/2	**339-0455**	.0880	3/4	3	**339-0880**	.1290	7/8	3-1/2	**339-1290**	.1670	1-1/8	4-1/2	**339-1670**
.0460	1/2	2-1/2	**339-0460**	.0885	3/4	3	**339-0885**	.1295	7/8	3-1/2	**339-1295**	.1675	1-1/8	4-1/2	**339-1675**
.0470	1/2	2-1/2	**339-0470**	.0895	3/4	3	**339-0895**	.1300	7/8	3-1/2	**339-1300**	.1680	1-1/8	4-1/2	**339-1680**
.0475	1/2	2-1/2	**339-0475**	.0900	3/4	3	**339-0900**	.1305	7/8	3-1/2	**339-1305**	.1685	1-1/8	4-1/2	**339-1685**
.0480	1/2	2-1/2	**339-0480**	.0905	3/4	3	**339-0905**	.1310	7/8	3-1/2	**339-1310**	.1690	1-1/8	4-1/2	**339-1690**
.0485	1/2	2-1/2	**339-0485**	.0910	3/4	3	**339-0910**	.1315	7/8	3-1/2	**339-1315**	.1700	1-1/8	4-1/2	**339-1700**
.0490	1/2	2-1/2	**339-0490**	.0915	3/4	3	**339-0915**	.1320	7/8	3-1/2	**339-1320**	.1705	1-1/8	4-1/2	**339-1705**
.0495	1/2	2-1/2	**339-0495**	.0920	3/4	3	**339-0920**	.1325	7/8	3-1/2	**339-1325**	.1710	1-1/8	4-1/2	**339-1710**
.0500	1/2	2-1/2	**339-0500**	.0925	3/4	3	**339-0925**	.1330	7/8	3-1/2	**339-1330**	.1715	1-1/8	4-1/2	**339-1715**
.0505	1/2	2-1/2	**339-0505**	.0930	3/4	3	**339-0930**	.1335	7/8	3-1/2	**339-1335**	.1719	1-1/8	4-1/2	**339-1719**
.0510	1/2	2-1/2	**339-0510**	.0938	3/4	3	**339-0938**	.1340	7/8	3-1/2	**339-1340**	.1720	1-1/8	4-1/2	**339-1720**
.0515	1/2	2-1/2	**339-0515**	.0940	3/4	3	**339-0940**	.1345	7/8	3-1/2	**339-1345**	.1724	1-1/8	4-1/2	**339-1724**
.0525	1/2	2-1/2	**339-0525**	.0945	3/4	3	**339-0945**	.1350	7/8	3-1/2	**339-1350**	.1725	1-1/8	4-1/2	**339-1725**
.0530	1/2	2-1/2	**339-0530**	.0950	3/4	3	**339-0950**	.1355	7/8	3-1/2	**339-1355**	.1735	1-1/8	4-1/2	**339-1735**
.0535	1/2	2-1/2	**339-0535**	.0955	3/4	3	**339-0955**	.1365	1	4	**339-1365**	.1740	1-1/8	4-1/2	**339-1740**
.0540	1/2	2-1/2	**339-0540**	.0965	7/8	3-1/2	**339-0965**	.1370	1	4	**339-1370**	.1745	1-1/8	4-1/2	**339-1745**
.0545	1/2	2-1/2	**339-0545**	.0970	7/8	3-1/2	**339-0970**	.1375	1	4	**339-1375**	.1750	1-1/8	4-1/2	**339-1750**
.0555	1/2	2-1/2	**339-0555**	.0975	7/8	3-1/2	**339-0975**	.1380	1	4	**339-1380**	.1755	1-1/8	4-1/2	**339-1755**
.0560	1/2	2-1/2	**339-0560**	.0985	7/8	3-1/2	**339-0985**	.1385	1	4	**339-1385**	.1760	1-1/8	4-1/2	**339-1760**
.0565	1/2	2-1/2	**339-0565**	.0990	7/8	3-1/2	**339-0990**	.1390	1	4	**339-1390**	.1765	1-1/8	4-1/2	**339-1765**
.0570	1/2	2-1/2	**339-0570**	.1000	7/8	3-1/2	**339-1000**	.1395	1	4	**339-1395**	.1770	1-1/8	4-1/2	**339-1770**
.0575	1/2	2-1/2	**339-0575**	.1005	7/8	3-1/2	**339-1005**	.1400	1	4	**339-1400**	.1775	1-1/8	4-1/2	**339-1775**
.0580	1/2	2-1/2	**339-0580**	.1010"	7/8"	3-1/2"	**339-1010**	.1410	1	4	**339-1410**	.1780	1-1/8	4-1/2	**339-1780**
.0585	1/2	2-1/2	**339-0585**	.1020	7/8	3-1/2	**339-1020**	.1415	1	4	**339-1415**	.1785	1-1/8	4-1/2	**339-1785**
.0590	1/2	2-1/2	**339-0590**	.1025	7/8	3-1/2	**339-1025**	.1420	1	4	**339-1420**	.1790	1-1/8	4-1/2	**339-1790**
.0600	1/2	2-1/2	**339-0600**	.1030	7/8	3-1/2	**339-1030**	.1425	1	4	**339-1425**	.1795	1-1/8	4-1/2	**339-1795**
.0605	1/2	2-1/2	**339-0605**	.1035	7/8	3-1/2	**339-1035**	.1430	1	4	**339-1430**	.1800	1-1/8	4-1/2	**339-1800**
.0610	1/2	2-1/2	**339-0610**	.1045	7/8	3-1/2	**339-1045**	.1435	1	4	**339-1435**	.1805	1-1/8	4-1/2	**339-1805**
.0615	1/2	2-1/2	**339-0615**	.1050	7/8	3-1/2	**339-1050**	.1440	1	4	**339-1440**	.1810	1-1/8	4-1/2	**339-1810**
.0620	1/2	2-1/2	**339-0620**	.1055	7/8	3-1/2	**339-1055**	.1445	1	4	**339-1445**	.1815	1-1/8	4-1/2	**339-1815**
.0630	1/2	2-1/2	**339-0630**	.1060	7/8	3-1/2	**339-1060**	.1450	1	4	**339-1450**	.1820	1-1/8	4-1/2	**339-1820**
.0640	1/2	2-1/2	**339-0640**	.1070	7/8	3-1/2	**339-1070**	.1455	1	4	**339-1455**	.1825	1-1/8	4-1/2	**339-1825**
.0645	1/2	2-1/2	**339-0645**	.1075	7/8	3-1/2	**339-1075**	.1460	1	4	**339-1460**	.1830	1-1/8	4-1/2	**339-1830**
.0650	1/2	2-1/2	**339-0650**	.1080	7/8	3-1/2	**339-1080**	.1465	1	4	**339-1465**	.1832	1-1/8	4-1/2	**339-1832**
.0655	1/2	2-1/2	**339-0655**	.1085	7/8	3-1/2	**339-1085**	.1470	1	4	**339-1470**	.1835	1-1/8	4-1/2	**339-1835**
.0660	1/2	2-1/2	**339-0660**	.1090	7/8	3-1/2	**339-1090**	.1475	1	4	**339-1475**	.1840	1-1/8	4-1/2	**339-1840**
.0665	1/2	2-1/2	**339-0665**	.1095	7/8	3-1/2	**339-1095**	.1480	1	4	**339-1480**	.1845	1-1/8	4-1/2	**339-1845**
.0675	3/4	3	**339-0675**	.1105	7/8	3-1/2	**339-1105**	.1485	1	4	**339-1485**	.1850	1-1/8	4-1/2	**339-1850**
.0680	3/4	3	**339-0680**	.1115	7/8	3-1/2	**339-1115**	.1490	1	4	**339-1490**	.1855	1-1/8	4-1/2	**339-1855**
.0685	3/4	3	**339-0685**	.1120	7/8	3-1/2	**339-1120**	.1500	1	4	**339-1500**	.1860	1-1/8	4-1/2	**339-1860**
.0690	3/4	3	**339-0690**	.1125	7/8	3-1/2	**339-1125**	.1505	1	4	**339-1505**	.1865	1-1/8	4-1/2	**339-1865**
.0695	3/4	3	**339-0695**	.1135	7/8	3-1/2	**339-1135**	.1510	1	4	**339-1510**	.1867	1-1/8	4-1/2	**339-1867**
.0705	3/4	3	**339-0705**	.1140	7/8	3-1/2	**339-1140**	.1515	1	4	**339-1515**	.1870	1-1/8	4-1/2	**339-1870**
.0710	3/4	3	**339-0710**	.1145	7/8	3-1/2	**339-1145**	.1520	1	4	**339-1520**	.1875	1-1/8	4-1/2	**339-1875**
.0715	3/4	3	**339-0715**	.1150	7/8	3-1/2	**339-1150**	.1525	1	4	**339-1525**	.1880	1-1/8	4-1/2	**339-1880**
.0720	3/4	3	**339-0720**	.1155	7/8	3-1/2	**339-1155**	.1530	1	4	**339-1530**	.1885	1-1/8	4-1/2	**339-1885**
.0725	3/4	3	**339-0725**	.1165	7/8	3-1/2	**339-1165**	.1535	1"	4"	**339-1535**	.1890	1-1/8	4-1/2	**339-1890**
.0735	3/4	3	**339-0735**	.1170	7/8	3-1/2	**339-1170**	.1545	1	4	**339-1545**	.1892	1-1/8	4-1/2	**339-1892**
.0740	3/4	3	**339-0740**	.1175	7/8	3-1/2	**339-1175**	.1550	1	4	**339-1550**	.1895	1-1/8	4-1/2	**339-1895**
.0745	3/4	3	**339-0745**	.1180	7/8	3-1/2	**339-1180**	.1555	1	4	**339-1555**	.1900	1-1/8	4-1/2	**339-1900**
.0750	3/4	3	**339-0750**	.1185	7/8	3-1/2	**339-1185**	.1557	1	4	**339-1557**	.1905	1-1/8	4-1/2	**339-1905**
.0755	3/4	3	**339-0755**	.1190	7/8	3-1/2	**339-1190**	.1558	1	4	**339-1558**	.1910	1-1/4	5	**339-1910**
.0765	3/4	3	**339-0765**	.1195	7/8	3-1/2	**339-1195**	.1560	1	4	**339-1560**	.1915	1-1/4	5	**339-1915**
.0770"	3/4"	3"	**339-0770**	.1205	7/8	3-1/2	**339-1205**	.1565	1	4	**339-1565**	.1920	1-1/4	5	**339-1920**
.0775	3/4	3	**339-0775**	.1210	7/8	3-1/2	**339-1210**	.1575	1	4	**339-1575**	.1925	1-1/4	5	**339-1925**
.0780	3/4	3	**339-0780**	.1211	7/8	3-1/2	**339-1211**	.1580	1	4	**339-1580**	.1930	1-1/4	5	**339-1930**
.0790	3/4	3	**339-0790**	.1215	7/8	3-1/2	**339-1215**	.1585	1-1/8	4-1/2	**339-1585**	.1940	1-1/4	5	**339-1940**
.0795	3/4	3	**339-0795**	.1220"	7/8"	3-1/2"	**339-1220**	.1595	1-1/8	4-1/2	**339-1595**	.1945	1-1/4	5	**339-1945**
.0800	3/4	3	**339-0800**	.1223	7/8	3-1/2	**339-1223**	.1600	1-1/8	4-1/2	**339-1600**	.1950	1-1/4	5	**339-1950**
.0805	3/4	3	**339-0805**	.1225	7/8	3-1/2	**339-1225**	.1605	1-1/8	4-1/2	**339-1605**	.1955	1-1/4	5	**339-1955**
.0815	3/4	3	**339-0815**	.1230	7/8	3-1/2	**339-1230**	.1615"	1-1/8"	4-1/2"	**339-1615**	.1965	1-1/4	5	**339-1965**
.0825	3/4	3	**339-0825**	.1235	7/8	3-1/2	**339-1235**	.1620	1-1/8	4-1/2	**339-1620**	.1970	1-1/4	5	**339-1970**
.0830	3/4	3	**339-0830**	.1240	7/8	3-1/2	**339-1240**	.1625	1-1/8	4-1/2	**339-1625**	.1975	1-1/4	5	**339-1975**
.0835	3/4	3	**339-0835**	.1245	7/8	3-1/2	**339-1245**	.1630	1-1/8	4-1/2	**339-1630**	.1980	1-1/4	5	**339-1980**
.0840	3/4	3	**339-0840**	.1255	7/8	3-1/2	**339-1255**								

mhc® Industrial Supply

Special Decimal Chucking Reamers Continued 特殊绞刀－小数位尺寸直槽直柄

High Speed Steel, Straight Shank, Straight Flute



Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.
.1985"	1-1/4"	5"	**339-1985**	.2370"	1-1/2"	6"	**339-2370**	.2760"	1-1/2"	6"	**339-2760**	.3130"	1-1/2"	6"	**339-3130**
.1995	1-1/4	5	**339-1995**	.2375	1-1/2	6	**339-2375**	.2765	1-1/2	6	**339-2765**	.3133	1-1/2	6	**339-3133**
.2000	1-1/4	5	**339-2000**	.2380	1-1/2	6	**339-2380**	.2775	1-1/2	6	**339-2775**	.3135	1-1/2	6	**339-3135**
.2005	1-1/4	5	**339-2005**	.2385	1-1/2	6	**339-2385**	.2785	1-1/2	6	**339-2785**	.3140	1-1/2	6	**339-3140**
.2015	1-1/4	5	**339-2015**	.2390	1-1/2	6	**339-2390**	.2790	1-1/2	6	**339-2790**	.3145	1-1/2	6	**339-3145**
.2020	1-1/4	5	**339-2020**	.2395	1-1/2	6	**339-2395**	.2795	1-1/2	6	**339-2795**	.3150	1-1/2	6	**339-3150**
.2025	1-1/4	5	**339-2025**	.2400	1-1/2	6	**339-2400**	.2800	1-1/2	6	**339-2800**	.3155	1-1/2	6	**339-3155**
.2030	1-1/4	5	**339-2030**	.2405	1-1/2	6	**339-2405**	.2805	1-1/2	6	**339-2805**	.3165	1-1/2	6	**339-3165**
.2035	1-1/4	5	**339-2035**	.2410	1-1/2	6	**339-2410**	.2814	1-1/2	6	**339-2814**	.3170	1-1/2	6	**339-3170**
.2045	1-1/4	5	**339-2045**	.2415	1-1/2	6	**339-2415**	.2815	1-1/2	6	**339-2815**	.3180	1-1/2	6	**339-3180**
.2050	1-1/4	5	**339-2050**	.2425	1-1/2	6	**339-2425**	.2818	1-1/2	6	**339-2818**	.3190	1-1/2	6	**339-3190**
.2060	1-1/4	5	**339-2060**	.2430	1-1/2	6	**339-2430**	.2820	1-1/2	6	**339-2820**	.3200	1-1/2	6	**339-3200**
.2065	1-1/4	5	**339-2065**	.2435	1-1/2	6	**339-2435**	.2825	1-1/2	6	**339-2825**	.3205	1-1/2	6	**339-3205**
.2070	1-1/4	5	**339-2070**	.2440	1-1/2	6	**339-2440**	.2830	1-1/2	6	**339-2830**	.3210	1-1/2	6	**339-3210**
.2075	1-1/4	5	**339-2075**	.2445	1-1/2	6	**339-2445**	.2835	1-1/2	6	**339-2835**	.3220	1-1/2	6	**339-3220**
.2080	1-1/4	5	**339-2080**	.2450	1-1/2"	6"	**339-2450**	.2840	1-1/2	6	**339-2840**	.3225	1-1/2	6	**339-3225**
.2085	1-1/4	5	**339-2085**	.2455	1-1/2	6	**339-2455**	.2845	1-1/2	6	**339-2845**	.3235	1-1/2	6	**339-3235**
.2090	1-1/4	5	**339-2090**	.2465	1-1/2	6	**339-2465**	.2850	1-1/2	6	**339-2850**	.3240	1-1/2	6	**339-3240**
.2095	1-1/4	5	**339-2095**	.2470	1-1/2	6	**339-2470**	.2855	1-1/2	6	**339-2855**	.3250	1-1/2	6	**339-3250**
.2100	1-1/4	5	**339-2100**	.2475	1-1/2	6	**339-2475**	.2860	1-1/2	6	**339-2860**	.3255	1-1/2	6	**339-3255**
.2105	1-1/4	5	**339-2105**	.2480	1-1/2	6	**339-2480**	.2865	1-1/2	6	**339-2865**	.3260	1-1/2	6	**339-3260**
.2110	1-1/4	5	**339-2110**	.2485	1-1/2	6	**339-2485**	.2870	1-1/2	6	**339-2870**	.3270	1-1/2	6	**339-3270**
.2115	1-1/4	5	**339-2115**	.2490	1-1/2	6	**339-2490**	.2875	1-1/2	6	**339-2875**	.3280	1-1/2	6	**339-3280**
.2120	1-1/4	5	**339-2120**	.2495	1-1/2	6	**339-2495**	.2880	1-1/2	6	**339-2880**	.3290	1-1/2	6	**339-3290**
.2125	1-1/4	5	**339-2125**	.2501	1-1/2	6	**339-2501**	.2885	1-1/2	6	**339-2885**	.3300	1-1/2	6	**339-3300**
.2126	1-1/4	5	**339-2126**	.2505	1-1/2	6	**339-2505**	.2890	1-1/2	6	**339-2890**	.3310	1-1/2	6	**339-3310**
.2135	1-1/4	5	**339-2135**	.2510	1-1/2	6	**339-2510**	.2895	1-1/2	6	**339-2895**	.3330	1-1/2	6	**339-3330**
.2140	1-1/4	5	**339-2140**	.2515	1-1/2	6	**339-2515**	.2898	1-1/2	6	**339-2898**	.3340	1-1/2	6	**339-3340**
.2145	1-1/4	5	**339-2145**	.2520	1-1/2	6	**339-2520**	.2900	1-1/2	6	**339-2900**	.3350	1-1/2	6	**339-3350**
.2150	1-1/4	5	**339-2150**	.2525	1-1/2	6	**339-2525**	.2905	1-1/2	6	**339-2905**	.3360	1-1/2	6	**339-3360**
.2155	1-1/4	5	**339-2155**	.2530	1-1/2	6	**339-2530**	.2910	1-1/2	6	**339-2910**	.3370	1-1/2	6	**339-3370**
.2157	1-1/4	5	**339-2157**	.2535	1-1/2	6	**339-2535**	.2915	1-1/2	6	**339-2915**	.3380	1-1/2	6	**339-3380**
.2160	1-1/4	5	**339-2160**	.2540	1-1/2	6	**339-2540**	.2920	1-1/2	6	**339-2920**	.3400	1-1/2	6	**339-3400**
.2165	1-1/4	5	**339-2165**	.2545	1-1/2	6	**339-2545**	.2925	1-1/2	6	**339-2925**	.3410	1-1/2	6	**339-3410**
.2170	1-1/4	5	**339-2170**	.2550	1-1/2	6	**339-2550**	.2930	1-1/2	6	**339-2930**	.3420	1-1/2	6	**339-3420**
.2175	1-1/4	5	**339-2175**	.2555	1-1/2	6	**339-2555**	.2935	1-1/2	6	**339-2935**	.3425	1-1/2	6	**339-3425**
.2180	1-1/4	5	**339-2180**	.2560	1-1/2	6	**339-2560**	.2940	1-1/2	6	**339-2940**	.3430	1-1/2	6	**339-3430**
.2185	1-1/4	5	**339-2185**	.2565	1-1/2	6	**339-2565**	.2945	1-1/2	6	**339-2945**	.3434	1-1/2	6	**339-3434**
.2190	1-1/4	5	**339-2190**	.2570	1-1/2	6	**339-2570**	.2950	1-1/2	6	**339-2950**	.3435	1-1/2	6	**339-3435**
.2195	1-1/4	5	**339-2195**	.2575	1-1/2	6	**339-2575**	.2955	1-1/2	6	**339-2955**	.3440	1-1/2	6	**339-3440**
.2200	1-1/4	5	**339-2200**	.2580	1-1/2	6	**339-2580**	.2960	1-1/2	6	**339-2960**	.3443	1-1/2	6	**339-3443**
.2205	1-1/4	5	**339-2205**	.2585	1-1/2	6	**339-2585**	.2961	1-1/2	6	**339-2961**	.3445	1-1/2	6	**339-3445**
.2210	1-1/2	6	**339-2210**	.2590	1-1/2	6	**339-2590**	.2965	1-1/2	6	**339-2965**	.3450	1-1/2	6	**339-3450**
.2215	1-1/2	6	**339-2215**	.2595	1-1/2	6	**339-2595**	.2969	1-1/2	6	**339-2969**	.3455	1-1/2	6	**339-3455**
.2220	1-1/2	6	**339-2220**	.2600	1-1/2	6	**339-2600**	.2970	1-1/2	6	**339-2970**	.3460	1-1/2	6	**339-3460**
.2225	1-1/2	6	**339-2225**	.2605	1-1/2	6	**339-2605**	.2975	1-1/2	6	**339-2975**	.3470	1-1/2	6	**339-3470**
.2230	1-1/2	6	**339-2230**	.2615	1-1/2	6	**339-2615**	.2980	1-1/2	6	**339-2980**	.3474	1-1/2	6	**339-3474**
.2235	1-1/2	6	**339-2235**	.2620	1-1/2	6	**339-2620**	.2985	1-1/2	6	**339-2985**	.3475	1-1/2	6	**339-3475**
.2240	1-1/2	6	**339-2240**	.2625	1-1/2	6	**339-2625**	.2995	1-1/2	6	**339-2995**	.3490	1-3/4	7	**339-3490**
.2245	1-1/2	6	**339-2245**	.2630	1-1/2	6	**339-2630**	.2999	1-1/2	6	**339-2999**	.3500	1-3/4	7	**339-3500**
.2250	1-1/2	6	**339-2250**	.2635	1-1/2	6	**339-2635**	.3000	1-1/2	6	**339-3000**	.3510	1-3/4	7	**339-3510**
.2255	1-1/2	6	**339-2255**	.2640	1-1/2	6	**339-2640**	.3005	1-1/2	6	**339-3005**	.3520	1-3/4	7	**339-3520**
.2260	1-1/2	6	**339-2260**	.2645	1-1/2	6	**339-2645**	.3010	1-1/2	6	**339-3010**	.3530	1-3/4	7	**339-3530**
.2265	1-1/2	6	**339-2265**	.2650	1-1/2	6	**339-2650**	.3015	1-1/2	6	**339-3015**	.3535	1-3/4	7	**339-3535**
.2270	1-1/2	6	**339-2270**	.2655	1-1/2	6	**339-2655**	.3025	1-1/2	6	**339-3025**	.3540	1-3/4	7	**339-3540**
.2275	1-1/2	6	**339-2275**	.2660	1-1/2	6	**339-2660**	.3030	1-1/2	6	**339-3030**	.3550	1-3/4	7	**339-3550**
.2280	1-1/2	6	**339-2280**	.2665	1-1/2	6	**339-2665**	.3035	1-1/2	6	**339-3035**	.3555	1-3/4	7	**339-3555**
.2285	1-1/2	6	**339-2285**	.2670	1-1/2	6	**339-2670**	.3040	1-1/2	6	**339-3040**	.3560	1-3/4	7	**339-3560**
.2290	1-1/2	6	**339-2290**	.2675	1-1/2	6	**339-2675**	.3045	1-1/2	6	**339-3045**	.3570	1-3/4	7	**339-3570**
.2295	1-1/2	6	**339-2295**	.2680	1-1/2	6	**339-2680**	.3050	1-1/2	6	**339-3050**	.3590	1-3/4	7	**339-3590**
.2300	1-1/2	6	**339-2300**	.2685	1-1/2	6	**339-2685**	.3055	1-1/2	6	**339-3055**	.3600	1-3/4	7	**339-3600**
.2305	1-1/2	6	**339-2305**	.2690	1-1/2	6	**339-2690**	.3060	1-1/2	6	**339-3060**	.3610	1-3/4	7	**339-3610**
.2310	1-1/2	6	**339-2310**	.2695	1-1/2	6	**339-2695**	.3065	1-1/2	6	**339-3065**	.3615	1-3/4	7	**339-3615**
.2315	1-1/2	6	**339-2315**	.2700	1-1/2	6	**339-2700**	.3070	1-1/2	6	**339-3070**	.3620	1-3/4	7	**339-3620**
.2320	1-1/2	6	**339-2320**	.2705	1-1/2	6	**339-2705**	.3075	1-1/2"	6"	**339-3075**	.3630	1-3/4	7	**339-3630**
.2325	1-1/2	6	**339-2325**	.2710	1-1/2	6	**339-2710**	.3080	1-1/2	6	**339-3080**	.3640	1-3/4	7	**339-3640**
.2330	1-1/2	6	**339-2330**	.2715	1-1/2	6	**339-2715**	.3085	1-1/2	6	**339-3085**	.3650	1-3/4	7	**339-3650**
.2335	1-1/2	6	**339-2335**	.2725	1-1/2	6	**339-2725**	.3090	1-1/2	6	**339-3090**	.3660	1-3/4	7	**339-3660**
.2340	1-1/2	6	**339-2340**	.2730	1-1/2	6	**339-2730**	.3095	1-1/2	6	**339-3095**	.3670	1-3/4	7	**339-3670**
.2345	1-1/2	6	**339-2345**	.2735	1-1/2	6	**339-2735**	.3100	1-1/2	6	**339-3100**	.3690	1-3/4	7	**339-3690**
.2350	1-1/2	6	**339-2350**	.2740	1-1/2	6	**339-2740**	.3105	1-1/2	6	**339-3105**	.3700	1-3/4	7	**339-3700**
.2355	1-1/2	6	**339-2355**	.2745	1-1/2	6	**339-2745**	.3110	1-1/2	6	**339-3110**	.3710	1-3/4	7	**339-3710**
.2360	1-1/2	6	**339-2360**	.2750	1-1/2	6	**339-2750**	.3115	1-1/2	6	**339-3115**	.3715	1-3/4	7	**339-3715**
.2365	1-1/2	6	**339-2365**	.2755	1-1/2	6	**339-2755**	.3120	1-1/2	6	**339-3120**	.3720	1-3/4	7	**339-3720**

Special Decimal Chucking Reamers continued 特殊绞刀－小数位尺寸直槽直柄

High Speed Steel, Straight Shank, Straight Flute



Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.
.3725"	1-3/4"	7"	339-3725	.4373"	1-3/4"	7"	339-4373	.5070"	2"	8"	339-5070	.7270"	2-1/2"	9-1/2"	339-7270
.3730	1-3/4	7	339-3730	.4374	1-3/4	7	339-4374	.5080	2	8	339-5080	.7300	2-1/2	9-1/2	339-7300
.3735	1-3/4	7	339-3735	.4380	1-3/4	7	339-4380	.5090	2	8	339-5090	.7330	2-1/2	9-1/2	339-7330
.3740	1-3/4	7	339-3740	.4385	1-3/4	7	339-4385	.5100	2	8	339-5100	.7360	2-1/2	9-1/2	339-7360
.3745	1-3/4	7	339-3745	.4390	1-3/4	7	339-4390	.5110	2	8	339-5110	.7470	2-1/2	9-1/2	339-7470
.3752	1-3/4	7	339-3752	.4400	1-3/4	7	339-4400	.5120	2	8	339-5120	.7490	2-1/2	9-1/2	339-7490
.3755	1-3/4	7	339-3755	.4410	1-3/4"	7"	339-4410	.5130	2"	8"	339-5130	.7495	2-1/2	9-1/2	339-7495
.3760	1-3/4	7	339-3760	.4420	1-3/4	7	339-4420	.5140	2	8	339-5140	.7500	2-1/2	9-1/2	339-7500
.3765	1-3/4	7	339-3765	.4425	1-3/4	7	339-4425	.5150	2	8	339-5150	.7505	2-1/2	9-1/2	339-7505
.3770	1-3/4	7	339-3770	.4430	1-3/4	7	339-4430	.5160	2	8	339-5160	.7510	2-1/2	9-1/2	339-7510
.3780	1-3/4	7	339-3780	.4440	1-3/4	7	339-4440	.5170	2	8	339-5170	.7520	2-1/2	9-1/2	339-7520
.3790	1-3/4	7	339-3790	.4450	1-3/4	7	339-4450	.5180	2	8	339-5180	.7530	2-1/2	9-1/2	339-7530
.3800	1-3/4	7	339-3800	.4460	1-3/4	7	339-4460	.5200	2	8	339-5200	.7550	2-1/2	9-1/2	339-7550
.3805	1-3/4	7	339-3805	.4470	1-3/4	7	339-4470	.5210	2	8	339-5210	.7640	2-1/2	9-1/2	339-7640
.3810	1-3/4	7	339-3810	.4480	1-3/4	7	339-4480	.5250	2	8	339-5250	.7670	2-1/2	9-1/2	339-7670
.3820	1-3/4	7	339-3820	.4490	1-3/4	7	339-4490	.5300	2	8	339-5300	.7680	2-1/2	9-1/2	339-7680
.3830	1-3/4	7	339-3830	.4500	1-3/4	7	339-4500	.5320	2	8	339-5320	.7800	2-1/2	9-1/2	339-7800
.3835	1-3/4	7	339-3835	.4510	1-3/4	7	339-4510	.5450	2	8	339-5450	.7820	2-1/2	9-1/2	339-7820
.3840	1-3/4	7	339-3840	.4520	1-3/4	7	339-4520	.5480	2	8	339-5480	.7860	2-1/2	9-1/2	339-7860
.3850	1-3/4	7	339-3850	.4530	1-3/4	7	339-4530	.5500	2	8	339-5500	.7880	2-1/2	9-1/2	339-7880
.3860	1-3/4	7	339-3860	.4540	1-3/4	7	339-4540	.5510	2	8	339-5510	.7950	2-1/2	9-1/2	339-7950
.3870	1-3/4	7	339-3870	.4550	1-3/4	7	339-4550	.5520	2	8	339-5520	.7980	2-1/2	9-1/2	339-7980
.3880	1-3/4	7	339-3880	.4560	1-3/4	7	339-4560	.5610	2	8	339-5610	.8060	2-1/2	9-1/2	339-8060
.3885	1-3/4	7	339-3885	.4570	1-3/4	7	339-4570	.5615	2	8	339-5615	.8080	2-1/2	9-1/2	339-8080
.3890	1-3/4	7	339-3890	.4580	1-3/4	7	339-4580	.5635	2	8	339-5635	.8110	2-5/8	10	339-8110
.3900	1-3/4	7	339-3900	.4590	1-3/4	7	339-4590	.5640	2	8	339-5640	.8115	2-5/8	10	339-8115
.3910	1-3/4	7	339-3910	.4600	1-3/4	7	339-4600	.5690	2	8	339-5690	.8130	2-5/8	10	339-8130
.3920	1-3/4	7	339-3920	.4610	1-3/4	7	339-4610	.5720	2	8	339-5720	.8140	2-5/8	10	339-8140
.3925	1-3/4	7	339-3925	.4620	1-3/4	7	339-4620	.5770	2	8	339-5770	.8250	2-5/8	10	339-8250
.3930	1-3/4	7	339-3930	.4630	1-3/4	7	339-4630	.5790	2	8	339-5790	.8275	2-5/8	10	339-8275
.3940	1-3/4	7	339-3940	.4640	1-3/4	7	339-4640	.5890	2	8	339-5890	.8290	2-5/8	10	339-8290
.3950	1-3/4	7	339-3950	.4650	1-3/4	7	339-4650	.5910	2	8	339-5910	.8420	2-5/8	10	339-8420
.3955	1-3/4	7	339-3955	.4660	1-3/4	7	339-4660	.5920	2	8	339-5920	.8450	2-5/8	10	339-8450
.3960	1-3/4	7	339-3960	.4670	1-3/4	7	339-4670	.5950	2	8	339-5950	.8470	2-5/8	10	339-8470
.3980	1-3/4	7	339-3980	.4680	1-3/4	7	339-4680	.6005	2	8	339-6005	.8530	2-5/8	10	339-8530
.3990	1-3/4	7	339-3990	.4690	1-3/4	7	339-4690	.6080	2-1/4	9	339-6080	.8580	2-5/8	10	339-8580
.4000	1-3/4	7	339-4000	.4700	1-3/4	7	339-4700	.6110	2-1/4	9	339-6110	.8610	2-5/8	10	339-8610
.4010	1-3/4	7	339-4010	.4710	1-3/4	7	339-4710	.6125	2-1/4	9	339-6125	.8670	2-5/8	10	339-8670
.4020	1-3/4	7	339-4020	.4720	1-3/4	7	339-4720	.6160	2-1/4	9	339-6160	.8740	2-5/8	10	339-8740
.4030	1-3/4	7	339-4030	.4725	2	8	339-4725	.6200	2-1/4	9	339-6200	.8745	2-5/8	10	339-8745
.4050	1-3/4	7	339-4050	.4730	2	8	339-4730	.6220	2-1/4	9	339-6220	.8760	2-5/8	10	339-8760
.4060	1-3/4	7	339-4060	.4735	2	8	339-4735	.6230	2-1/4	9	339-6230	.8780	2-5/8	10	339-8780
.4070	1-3/4	7	339-4070	.4740	2	8	339-4740	.6240	2-1/4	9	339-6240	.8840	2-5/8	10	339-8840
.4080	1-3/4	7	339-4080	.4750	2	8	339-4750	.6245	2-1/4	9	339-6245	.8870	2-5/8	10	339-8870
.4090	1-3/4	7	339-4090	.4760	2	8	339-4760	.6255	2-1/4	9	339-6255	.8890	2-5/8	10	339-8890
.4100	1-3/4	7	339-4100	.4770	2	8	339-4770	.6260	2-1/4	9	339-6260	.8920	2-5/8	10	339-8920
.4110	1-3/4	7	339-4110	.4780	2	8	339-4780	.6270	2-1/4	9	339-6270	.8950	2-5/8	10	339-8950
.4120	1-3/4	7	339-4120	.4800	2	8	339-4800	.6280	2-1/4	9	339-6280	.9040	2-3/4	10-1/2	339-9040
.4140	1-3/4	7	339-4140	.4810	2	8	339-4810	.6290	2-1/4	9	339-6290	.9070	2-3/4	10-1/2	339-9070
.4150	1-3/4	7	339-4150	.4820	2	8	339-4820	.6300	2-1/4	9	339-6300	.9200	2-3/4	10-1/2	339-9200
.4160	1-3/4	7	339-4160	.4830	2	8	339-4830	.6310	2-1/4	9	339-6310	.9220	2-3/4	10-1/2	339-9220
.4170	1-3/4	7	339-4170	.4840	2	8	339-4840	.6330	2-1/4	9	339-6330	.9240	2-3/4	10-1/2	339-9240
.4180	1-3/4	7	339-4180	.4850	2	8	339-4850	.6350	2-1/4	9	339-6350	.9260	2-3/4	10-1/2	339-9260
.4190	1-3/4	7	339-4190	.4860	2	8	339-4860	.6390	2-1/4	9	339-6390	.9360	2-3/4	10-1/2	339-9360
.4200	1-3/4	7	339-4200	.4870	2	8	339-4870	.6420	2-1/4	9	339-6420	.9390	2-3/4	10-1/2	339-9390
.4210	1-3/4	7	339-4210	.4880	2	8	339-4880	.6480	2-1/4	9	339-6480	.9430	2-3/4	10-1/2	339-9430
.4220	1-3/4	7	339-4220	.4890	2	8	339-4890	.6510	2-1/4	9	339-6510	.9460	2-3/4	10-1/2	339-9460
.4230	1-3/4	7	339-4230	.4900	2	8	339-4900	.6550	2-1/4	9	339-6550	.9520	2-3/4	10-1/2	339-9520
.4240	1-3/4	7	339-4240	.4910	2	8	339-4910	.6570	2-1/4	9	339-6570	.9540	2-3/4	10-1/2	339-9540
.4250	1-3/4	7	339-4250	.4920	2	8	339-4920	.6680	2-1/4	9	339-6680	.9595	2-3/4	10-1/2	339-9595
.4260	1-3/4	7	339-4260	.4930	2	8	339-4930	.6710	2-1/4	9	339-6710	.9630	2-3/4	10-1/2	339-9630
.4270	1-3/4	7	339-4270	.4940	2	8	339-4940	.6730	2-1/4	9	339-6730	.9660	2-3/4	10-1/2	339-9660
.4280	1-3/4	7	339-4280	.4950	2	8	339-4950	.6860	2-1/4	9	339-6860	.9670	2-3/4	10-1/2	339-9670
.4285	1-3/4	7	339-4285	.4960	2	8	339-4960	.6865	2-1/4	9	339-6865	.9700	2-3/4	10-1/2	339-9700
.4290	1-3/4	7	339-4290	.4970	2	8	339-4970	.6870	2-1/4	9	339-6870	.9830	2-3/4	10-1/2	339-9830
.4295	1-3/4	7	339-4295	.4980	2	8	339-4980	.6880	2-1/4	9	339-6880	.9850	2-3/4	10-1/2	339-9850
.4300	1-3/4	7	339-4300	.4990	2	8	339-4990	.6885	2-1/4	9	339-6885	.9915	2-3/4	10-1/2	339-9915
.4310	1-3/4	7	339-4310	.4991	2	8	339-4991	.6900	2-1/4	9	339-6900	.9950	2-3/4	10-1/2	339-9950
.4320	1-3/4	7	339-4320	.4995	2	8	339-4995	.6905	2-1/4	9	339-6905	.9960	2-3/4	10-1/2	339-9960
.4330	1-3/4	7	339-4330	.5005	2	8	339-5005	.7020	2-1/4	9	339-7020	.9970	2-3/4	10-1/2	339-9970
.4340	1-3/4	7	339-4340	.5010	2	8	339-5010	.7040	2-1/4	9	339-7040	.9980	2-3/4	10-1/2	339-9980
.4350	1-3/4	7	339-4350	.5015	2	8	339-5015	.7070	2-1/4	9	339-7070	.9990	2-3/4	10-1/2	339-9990
.4355	1-3/4	7	339-4355	.5020	2	8	339-5020	.7100	2-1/4	9	339-7100	.9995	2-3/4	10-1/2	339-9995
.4360	1-3/4	7	339-4360	.5030	2	8	339-5030	.7120	2-1/4	9	339-7120	1.0010	2-3/4	10-1/2	339-0010
.4365	1-3/4	7	339-4365	.5040	2	8	339-5040	.7170	2-1/2	9-1/2	339-7170	1.0020	2-3/4	10-1/2	339-0020
.4370	1-3/4	7	339-4370	.5050	2	8	339-5050	.7200	2-1/2	9-1/2	339-7200	1.0030	2-3/4	10-1/2	339-0030
.4371	1-3/4	7	339-4371	.5060	2	8	339-5060	.7235	2-1/2	9-1/2	339-7235	1.0100	2-3/4	10-1/2	339-0100

Straight Shank Chucking Reamer Sets

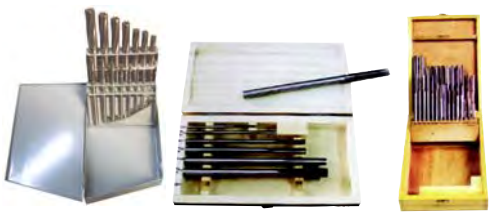
套装高速钢直柄直槽铰刀

Pcs	Description	Order No.
14	0.124-0.501" pouch	331-1002
25	1/8-1/2"x1/64" Metal Case	331-1001
26	A to Z Metal Case	331-0000
29	1/16" -1/2" x 64ths Metal Case	331-1000
60	No. 1-60 Metal Case	331-0200

Jobber Length

NEW

Pcs	Description	Order No.
13	1/16"-1/4"x64ths,straight flute	331-1160
15	1/16"-1/2"x32nds,spiral flute	331-1161
29	1/16"-1/2"x64ths,straight flute	331-1163
26	A-Z,straight flute,metal case	331-1166
60	NO.1-60,straight flute,metal case	331-1167



Carbide Tipped Chucking Reamers 硬质合金直槽铰刀

C2 Grade, Straight Flute, Right Hand Cutting

- Special steel cutting tool geometry: positive radial rake (behind center).



Straight Shank

Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.	Size	Flute Length	Overall Length	Order No.
3/16"	1-1/18"	4-1/2"	**241-1012**	15/32"	1-3/4"	7"	**241-1030**	3/4"	2-1/2"	9-1/2"	**241-1048**	1-1/16"	2-3/4"	10-1/2"	**241-1068**
7/32	1-1/4	5	**241-1014**	1/2	2	8	**241-1032**	25/32	2-1/2	9-1/2	**241-1050**	1-1/8	2-7/8	11	**241-1072**
1/4	1-1/2	6	**241-1016**	17/32	2	8	**241-1034**	13/16	2-1/2	9-1/2	**241-1052**	1-3/16	2-7/8	11	**241-1076**
9/32	1-1/2	6	**241-1018**	9/16	2	8	**241-1036**	27/32	2-1/2	9-1/2	**241-1054**	1-1/4	3	11-1/2	**241-1080**
5/16	1-1/2	6	**241-1020**	19/32	2	8	**241-1038**	7/8	2-5/8	10	**241-1056**	1-5/16	3	11-1/2	**241-1084**
11/32	1-1/2	6	**241-1022**	5/8	2-1/4	9	**241-1040**	29/32	2-5/8	10	**241-1058**	1-3/8	3-1/4	12	**241-1088**
3/8	1-3/4	7	**241-1024**	21/32	2-1/4	9	**241-1042**	15/16	2-5/8	10	**241-1060**	1-7/16	3-1/4	12	**241-1092**
13/32	1-3/4	7	**241-1026**	11/16	2-1/4	9	**241-1044**	31/32	2-5/8	10	**241-1062**	1-1/2	3-1/2	12-1/2	**241-1096**
7/16	1-3/4	7	**241-1028**	23/32	2-1/4	9	**241-1046**	1	2-3/4	10-1/2	**241-1064**				

Taper Shank



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
1/2"	2"	8"	MT1	**241-1132**	3/4	2-1/2	9-1/2	MT2	**241-1148**	1	2-3/4	10-1/2	MT3	**241-1164**
9/16	2	8	MT1	**241-1136**	13/16	2-1/2	9-1/2	MT2	**241-1152**	1-1/16	2-3/4	10-1/2	MT3	**241-1168**
5/8	2-1/4	9	MT2	**241-1140**	7/8	2-5/8	10	MT2	**241-1156**	1-1/8	2-7/8	11	MT3	**241-1172**
11/16	2-1/4	9	MT2	**241-1144**	15/16	2-5/8	10	MT3	**241-1160**	1-3/16	2-7/8	11	MT3	**241-1176**

Taper Pin & Die Maker Reamers



High Speed Steel 方柄锥度销子铰刀

Size	Small End Dia.	Large End Dia.	Flute Length	Overall Length	Straight Flute Order No.	Spiral Flute Order No.	Size	Small End Dia.	Large End Dia.	Flute Length	Overall Length	Straight Flute Order No.	Spiral Flute Order No.
7/0#	.0497"	.0666"	13/16"	1-13/16"	**331-8200**	**331-8300**	5#	.2409"	.2994"	2-13/16"	4-5/16"	**331-8222**	**331-8322**
6/0#	.0611	.0806	15/16	1-15/16	**331-8202**	**331-8302**	6#	.2773	.354	3-11/16	5-7/16	**331-8224**	**331-8324**
5/0#	.0719	.0966	1-3/16	2-3/16	**331-8204**	**331-8304**	7#	.3297	.422	4-7/16	6-5/16	**331-8226**	**331-8326**
4/0#	.0869	.1142	1-5/16	2-5/16	**331-8206**	**331-8306**	8#	.3971	.505	5-3/16	7-3/16	**331-8228**	**331-8328**
3/0#	.1029	.1302	1-5/16	2-5/16	**331-8208**	**331-8308**	9#	.4805	.6066	6-1/16	8-5/16	**331-8230**	**331-8330**
2/0#	.1137	.1462	1-9/16	2-9/16	**331-8210**	**331-8310**	10#	.5799	.7216	6-13/16	9-5/16	**331-8232**	**331-8332**
0#	.1287	.1638	1-11/16	2-15/16	**331-8212**	**331-8312**	11#	.7060	.8780	8-1/4	11-1/4	**331-8234**	**331-8334**
1#	.1447	.1798	1-11/16	2-15/16	**331-8214**	**331-8314**	12#	.8420	1.0500	10	13-5/8	**331-8236**	**331-8336**
2#	.1605	.2008	1-15/16	3-3/16	**331-8216**	**331-8316**	13#	1.0090	1.2590	12	16	**331-8238**	**331-8338**
3#	.1813	.2294	2-5/16	3-11/16	**331-8218**	**331-8318**	14#	1.2500	1.5420	14	18-1/4	**331-8240**	**331-8340**
4#	.2071	.2604	2-9/16	4-1/16	**331-8220**	**331-8320**							

HSS Taper Pin Reamet Sets

Pieces	Description	Straight Flute Order No.	Spiral Flute Order No.
6	0-5#	**331-8250**	**331-8350**
11	0-10#	**331-8255**	**331-8355**

Brown & Sharpe Taper Finishing Reamers B&S 锥度铰刀

High Speed Steel

- Right hand(clockwise rotation) Cutting Direction.
- Available as hand style reamers.
- Hand reamers have straight shanks and square sriving area.



B & S Taper	Small End Diameter	Large End Diameter	Flute Length	Overall Length	HSS Order No.	B & S Taper	Small End Diameter	Large End Diameter	Flute Length	Overall Length	HSS Order No.
1#	0.200"	0.320"	2-7/8"	4-3/4"	**337-6801**	7#	0.600"	0.803"	4-7/8"	7-1/2"	**337-6807**
2#	0.250	0.380	3-1/8	5-1/8	**337-6802**	8#	0.750	0.979	5-1/2	8-1/8	**337-6808**
3#	0.312	0.453	3-3/8	5-1/2	**337-6803**	9#	0.900	1.155	6-1/8	8-7/8	**337-6809**
4#	0.350	0.504	3-11/16	5-7/8	**337-6804**	10#	1.045	1.340	6-7/8	9-3/4	**337-6810**
5#	0.450	0.617	4	6-3/8	**337-6805**	11#	1.250	1.568	7-5/8	10-5/8	**337-6811**
6#	0.500	0.682	4-3/8	6-7/8	**337-6806**	12#	1.500	1.844	8-1/4	11-3/8	**337-6812**

Taper Shank Chucking Reamers 锥柄直槽铰刀

High Speed Steel, Right Hand,Spiral & Straight Flute



Fractional Sizes

Size	Flute Length	Overall Length	Shank Taper	Straight Flute Order No.	Spiral Flute Order No.	Size	Flute Length	Overall Length	Shank Taper	Straight Flute Order No.	Spiral Flute Order No.
7/32”	1-1/2”	6”	MT1	**241-3004**		15/16”	2-5/8”	10”	MT3	**241-3115**	**241-4115**
1/4	1-1/2	6	MT1	**241-3005**	**241-4005**	31/32	2-5/8	10	MT3	**241-3120**	**241-4120**
9/32	1-1/2	6	MT1	**241-3010**	**241-4010**	1	2-3/4	10-1/2	MT3	**241-3125**	**241-4125**
5/16	1-1/2	6	MT1	**241-3015**	**241-4015**	1-1/32	2-3/4	10-1/2	MT3	**241-3127**	**241-4127**
11/32	1-1/2	6	MT1	**241-3020**	**241-4020**	1-1/16	2-3/4	10-1/2	MT3	**241-3130**	**241-4130**
3/8	1-3/4	7	MT1	**241-3025**	**241-4025**	1-3/32	2-3/4	10-1/2	MT3	**241-3132**	**241-4132**
13/32	1-3/4	7	MT1	**241-3030**	**241-4030**	1-1/8	2-7/8	11	MT3	**241-3135**	**241-4135**
7/16	1-3/4	7	MT1	**241-3035**	**241-4035**	1-5/32	2-7/8	11	MT3	**241-3137**	**241-4137**
15/32	1-3/4	7	MT1	**241-3040**	**241-4040**	1-3/16	2-7/8	11	MT3	**241-3140**	**241-4140**
1/2	2	8	MT1	**241-3045**	**241-4045**	1-7/32	2-7/8	11-1/2	MT3	**241-3144**	
33/64	2	8	MT1	**241-3046**		1-1/4	3	11-1/2	MT4	**241-3145**	**241-4145**
17/32	2	8	MT1	**241-3050**	**241-4050**	1-9/32	3	11-1/2	MT4	**241-3147**	**241-4147**
9/16	2	8	MT1	**241-3055**	**241-4055**	1-5/16	3	11-1/2	MT4	**241-3150**	**241-4150**
19/32	2	8	MT1	**241-3060**	**241-4060**	1-3/8	3-1/4	12	MT4	**241-3155**	**241-4155**
5/8	2-1/4	9	MT2	**241-3065**	**241-4065**	1-7/16	3-1/4	12	MT4	**241-3160**	**241-4160**
21/32	2-1/4	9	MT2	**241-3070**	**241-4070**	1-1/2	3-1/2	12-1/2	MT4	**241-3165**	**241-4165**
11/16	2-1/4	9	MT2	**241-3075**	**241-4075**	1-9/16	3-1/2	12-1/2	MT4	**241-3170**	**241-4170**
23/32	2-1/4	9	MT2	**241-3080**	**241-4080**	1-5/8	3-1/2	13	MT4	**241-3175**	**241-4175**
3/4	2-1/2	9-1/2	MT2	**241-3085**	**241-4085**	1-11/16	4	13-1/2	MT4	**241-3180**	**241-4180**
25/32	2-1/2	9-1/2	MT2	**241-3090**	**241-4090**	1-3/4	4	13-1/2	MT4	**241-3185**	**241-4185**
13/16	2-1/2	9-1/2	MT2	**241-3095**	**241-4095**	1-7/8	4	14	MT4	**241-3190**	**241-4190**
27/32	2-1/2	9-1/2	MT2	**241-3100**	**241-4100**	2	4	14-1/2	MT4	**241-3195**	**241-4195**
7/8	2-5/8	10	MT2	**241-3105**	**241-4105**	2-1/4	4-1/2	15-1/2	MT5	**241-3216**	
29/32	2-5/8	10	MT2	**241-3110**	**241-4110**	2-5/16	4-1/2	15-1/2	MT5	**241-3220**	

Metric Taper Shank Chucking Reamers 公制锥柄直槽铰刀

DIN208/A, High Speed Steel, Straight Flute



Size (mm)	Flute Length (mm)	Overall Length (mm)	Shank Taper	Order No.	Size (mm)	Flute Length (mm)	Overall Length (mm)	Shank Taper	Order No.
5	23	133	MT1	**337-1050**	24	68	268	MT3	**337-1240**
6	26	138	MT1	**337-1060**	25	68	268	MT3	**337-1250**
7	31	150	MT1	**337-1070**	26	70	273	MT3	**337-1260**
8	33	156	MT1	**337-1080**	27	71	277	MT3	**337-1270**
9	36	162	MT1	**337-1090**	28	71	277	MT3	**337-1280**
10	38	168	MT1	**337-1100**	29	73	281	MT3	**337-1290**
11	41	175	MT1	**337-1110**	30	73	281	MT3	**337-1300**
12	44	185	MT1	**337-1120**	31	75	285	MT3	**337-1310**
13	44	182	MT1	**337-1130**	32	77	317	MT4	**337-1320**
14	47	189	MT1	**337-1140**	33	77	317	MT4	**337-1330**
15	50	204	MT2	**337-1150**	34	78	321	MT4	**337-1340**
16	52	210	MT2	**337-1160**	35	78	321	MT4	**337-1350**
17	54	214	MT2	**337-1170**	36	79	325	MT4	**337-1360**
18	56	219	MT2	**337-1180**	37	79	325	MT4	**337-1370**
19	58	223	MT2	**337-1190**	38	81	329	MT4	**337-1380**
20	60	228	MT2	**337-1200**	40	81	329	MT4	**337-1400**
21	62	232	MT2	**337-1210**	45	83	336	MT4	**337-1450**
22	64	237	MT2	**337-1220**	50	86	344	MT4	**337-1500**
23	66	241	MT2	**337-1230**					

Expansion Chucking Reamers

High Speed Steel, Straight Flute 直柄可涨铰刀

- An economical, general purpose high production reamer designed to maintain initial size by compensating for wear on the cutting edge.
- Expansion feature allows resharpening with retaining the original size.
- Expand by tightening the end adjusting screw and regrind to original size.





Straight Shank

Size	Shank Dia.	Flute Length	Overall Length	Straight Shank Order No.
3/8"	5/16"	3/4"	7"	**331-9202**
13/32	5/16	3/4	7	**331-9204**
7/16	3/8	7/8	7	**331-9206**
15/32	3/8	7/8	7	**331-9208**
1/2	7/16	1	8	**331-9210**
17/32	7/16	1	8	**331-9212**
9/16	7/16	1-1/8	8	**331-9214**
19/32	7/16	1-1/8	8	**331-9216**
5/8	9/16	1-1/4	9	**331-9218**
21/32	9/16	1-1/4	9	**331-9220**
11/16	9/16	1-1/4	9	**331-9222**
23/32	9/16	1-1/4	9	**331-9224**
3/4	5/8	1-3/8	9-1/2	**331-9226**
25/32	5/8	1-3/8	9-1/2	**331-9228**
13/16	5/8	1-3/8	9-1/2	**331-9230**
27/32	5/8	1-3/8	9-1/2	**331-9232**
7/8	3/4	1-1/2	10	**331-9234**
29/32	3/4	1-1/2	10	**331-9236**
15/16	3/4	1-1/2	10	**331-9238**
31/32	3/4	1-1/2	10	**331-9240**
1	7/8	1-5/8	10-1/2	**331-9242**
1-1/32	7/8	1-5/8	10-1/2	**331-9244**
1-1/16	7/8	1-5/8	10-1/2	**331-9246**
1-3/32	7/8	1-5/8	10-1/2	**331-9248**
1-1/8	7/8	1-3/4	11	**331-9250**
1-5/32	7/8	1-3/4	11	**331-9252**
1-3/16	1	1-3/4	11	**331-9254**
1-7/32	1	1-3/4	11	**331-9256**
1-1/4	1	1-7/8	11-1/2	**331-9258**
1-5/16	1	1-7/8	11-1/2	**331-9260**
1-3/8	1	2	12	**331-9262**
1-7/16	1-1/4	2	12	**331-9264**
1-1/2	1-1/4	2-1/8	12-1/2	**331-9266**
1-9/16	1-1/4	2-1/8	12-1/2	**331-9268**
1-5/8	1-1/4	2-1/4	13	**331-9270**
1-11/16	1-1/4	2-1/4	13	**331-9272**
1-3/4	1-1/4	2-3/8	13-1/2	**331-9274**
1-13/16	1-1/2	2-3/8	13-1/2	**331-9276**
1-7/8	1-1/2	2-1/2	14	**331-9278**
1-15/16	1-1/2	2-1/2	14	**331-9280**
2	1-1/2	2-1/2	14	**331-9282**
2-1/8	1-1/2	2-3/4	14-1/2	**331-9284**
2-1/4	1-3/4	2-3/4	14-1/2	**331-9286**
2-1/2	1-3/4	3	15	**331-9288**

Taper Shank

Size	Flue Length	Overall Length	Shank Taper	Taper Shank Order No.
3/8"	3/4"	7"	MT1	**331-9302**
13/32	3/4	7	MT1	**331-9304**
7/16	7/8	7	MT1	**331-9306**
15/32	7/8	7	MT1	**331-9308**
1/2	1	8	MT1	**331-9310**
17/32	1	8	MT1	**331-9312**
9/16	1-1/8	8	MT1	**331-9314**
19/32	1-1/8	8	MT1	**331-9316**
5/8	1-1/4	9	MT2	**331-9318**
21/32	1-1/4	9	MT2	**331-9320**
11/16	1-1/4	9	MT2	**331-9322**
23/32	1-1/4	9	MT2	**331-9324**
3/4	1-3/8	9-1/2	MT2	**331-9326**
25/32	1-3/8	9-1/2	MT2	**331-9328**
13/16	1-3/8	9-1/2	MT2	**331-9330**
27/32	1-3/8	9-1/2	MT2	**331-9332**
7/8	1-1/2	10	MT2	**331-9334**
29/32	1-1/2	10	MT2	**331-9336**
15/16	1-1/2	10	MT3	**331-9338**
31/32	1-1/2	10	MT3	**331-9340**
1	1-5/8	10-1/2	MT3	**331-9342**
1-1/32	1-5/8	10-1/2	MT3	**331-9344**
1-1/16	1-5/8	10-1/2	MT3	**331-9346**
1-3/32	1-5/8	10-1/2	MT3	**331-9348**
1-1/8	1-3/4	11	MT3	**331-9350**
1-5/32	1-3/4	11	MT3	**331-9352**
1-3/16	1-3/4	11	MT3	**331-9354**
1-7/32	1-3/4	11	MT3	**331-9356**
1-1/4	1-7/8	11-1/2	MT4	**331-9358**
1-5/16	1-7/8	11-1/2	MT4	**331-9360**
1-3/8	2	12	MT4	**331-9362**
1-7/16	2	12	MT4	**331-9364**
1-1/2	2-1/8	12-1/2	MT4	**331-9366**
1-9/16	2-1/8	12-1/2	MT4	**331-9368**
1-5/8	2-1/4	13	MT4	**331-9370**
1-11/16	2-1/4	13	MT4	**331-9372**
1-3/4	2-3/8	13-1/2	MT5	**331-9374**
1-13/16	2-3/8	13-1/2	MT5	**331-9376**
1-7/8	2-1/2	14	MT5	**331-9378**
1-15/16	2-1/2	14	MT5	**331-9380**
2-1/16	2-3/4	14-1/2	MT5	**331-9381**
2	2-1/2	14	MT5	**331-9382**
2-3/16	2-3/4	14-1/2	MT5	**331-9383**
2-1/8	2-3/4	14-1/2	MT5	**331-9384**
2-1/4	2-3/4	14-1/2	MT5	**331-9385**
2-3/8	3	15	MT5	**331-9386**
2-5/16	3	15	MT5	**331-9387**
2-1/2	3	15	MT5	**331-9388**
2-7/16	3	15	MT5	**331-9389**
2-3/4	3	15-1/2	MT5	**331-9390**
3	3	16	MT5	**331-9394**

Morse Taper Reamers

High Speed Steel 莫式锥度直柄手用铰刀

- Each morse taper reamer set consists of one finishing and one roughing reamer.





Hand Use , Straight Shank

Size	Dia. of Small End	Dia. of Large End	Flute Length	Overall Length	Roughing Reamer Order No.	Finishing Reamer Order No.	2 Pcs/set Order No.
MT0	.2503"	.3674"	2-1/4"	3-3/4"	**337-6100**	**337-6200**	**337-6500**
MT1	.3674	.5170	3	5	**337-6110**	**337-6210**	**337-6510**
MT2	.5696	.7441	3-1/2	6	**337-6120**	**337-6220**	**337-6520**
MT3	.7448	.9881	4-1/4	7-1/4	**337-6130**	**337-6230**	**337-6530**
MT4	1.0167	1.2893	5-1/4	8-1/2	**337-6140**	**337-6240**	**337-6540**
MT5	1.4717	1.8005	6-1/4	9-3/4	**337-6150**	**337-6250**	**337-6550**
MT6	2.1119	2.5550	8-1/2	12-1/4	**337-6160**	**337-6260**	**337-6560**

Machine Use, Taper Shank

Size	Dia. of Small End	Dia. of Large End	Flute Length	Overall Length	Roughing Reamer Order No.	Finishing Reamer Order No.	2 Pcs/set Order No.
MT0	.2503"	.3674"	2-1/4"	3-3/4"	**337-6300**	**337-6400**	**337-6600**
MT1	.3674	.5170	3	5	**337-6310**	**337-6410**	**337-6610**
MT2	.5696	.7441	3-1/2	6	**337-6320**	**337-6420**	**337-6620**
MT3	.7448	.9881	4-1/4	7-1/4	**337-6330**	**337-6430**	**337-6630**
MT4	1.0167	1.2893	5-1/4	8-1/2	**337-6340**	**337-6440**	**337-6640**
MT5	1.4717	1.8005	6-1/4	9-3/4	**337-6350**	**337-6450**	**337-6650**
MT6	2.1119	2.5550	8-1/2	12-1/4	**337-6360**	**337-6460**	**337-6660**

Taper Shank Bridge Reamers 锥柄桥梁铰刀

High Speed Steel

- Featured two flute type: straight flute and spiral flute.
- Spiral flute reamers with left hand spiral flute and right hand cut.



Size	Flute Length	Overall Length	Shank Taper	Straight Flute Order No.	Spiral Flute Order No.	Size	Flute Length	Overall Length	Shank Taper	Straight Flute Order No.	Spiral Flute Order No.
17/64"	2-3/4"	5-1/2"	MT1	**331-9002**	**331-9102**	15/16"	7-3/8"	12"	MT3	**331-9046**	**331-9146**
19/64	2	5-1/4	MT1	**331-9004**	**331-9104**	1	7-3/8	12	MT3	**331-9048**	**331-9148**
5/16	4-3/8	8-1/4	MT1	**331-9006**	**331-9106**	1-1/32	7-1/2	12-1/4	MT3	**331-9050**	**331-9150**
11/32	4	7-1/4	MT1	**331-9008**	**331-9108**	1-1/16	7-3/8	12	MT3	**331-9052**	**331-9152**
3/8	4-3/8	8-1/4	MT2	**331-9010**	**331-9110**	1-3/32	6-13/16	11-1/2	MT3	**331-9054**	**331-9154**
13/32	4-3/8	8-1/4	MT2	**331-9012**	**331-9112**	1-1/8	7-3/8	12	MT3	**331-9056**	**331-9156**
27/64	4-3/8	8-1/4	MT2	**331-9014**	**331-9114**	1-5/32	7-1/2	11-1/2	MT3	**331-9058**	**331-9158**
7/16	4-3/8	8-1/4	MT2	**331-9016**	**331-9116**	1-3/16	7-3/8	12	MT3	**331-9060**	**331-9160**
15/32	5-1/8	9	MT2	**331-9018**	**331-9118**	1-1/4	7-3/8	13	MT4	**331-9062**	**331-9162**
1/2	5-1/8	9	MT2	**331-9020**	**331-9120**	1-5/16	7-3/8	13	MT4	**331-9064**	**331-9164**
17/32	5-1/8	9	MT2	**331-9022**	**331-9122**	1-3/8	7-3/8	13	MT4	**331-9066**	**331-9166**
9/16	5-1/8	9	MT2	**331-9024**	**331-9124**	1-7/16	7-3/8	13	MT4	**331-9068**	**331-9168**
19/32	6-1/8	10-7/8	MT2	**331-9026**	**331-9126**	1-15/32	6-7/8	13	MT4	**331-9070**	**331-9170**
5/8	6-1/8	10	MT2	**331-9028**	**331-9128**	1-1/2	7-3/8	13	MT4	**331-9072**	**331-9172**
21/32	7	12	MT2	**331-9030**	**331-9130**	1-9/16	7-3/8	13	MT4	**331-9074**	**331-9174**
11/16	7-1/8	11-3/4	MT2	**331-9032**	**331-9132**	1-5/8	7-3/8	13	MT4	**331-9076**	**331-9176**
11/16	7-1/8	11-3/4	MT3	**331-9034**	**331-9134**	1-11/16	7-3/8	13	MT4	**331-9078**	**331-9178**
23/32	7-1/8	11-3/4	MT3	**331-9036**	**331-9136**	1-3/4	7-3/8	13	MT4	**331-9080**	**331-9180**
3/4	7-3/8	12	MT3	**331-9038**	**331-9138**	1-13/16	7-3/8	13	MT4	**331-9082**	**331-9182**
25/32	7-3/8	12	MT3	**331-9040**	**331-9140**	1-7/8	7-3/8	13	MT4	**331-9084**	**331-9184**
13/16	7-3/8	12	MT3	**331-9042**	**331-9142**	1-15/16	7-3/8	13	MT4	**331-9086**	**331-9186**
7/8	7-3/8	12	MT3	**331-9044**	**331-9144**	2	7-3/8	13	MT4	**331-9088**	**331-9188**

Metric Taper Shank Bridge Reamers 公制锥柄桥梁铰刀

High Speed Steel

DIN 311



Size (mm)	Flute Length (mm)	Overall Length (mm)	Shank Taper	Straight Flute Order No.	Spiral Flute Order No.	Size (mm)	Flute Length (mm)	Overall Length (mm)	Shank Taper	Straight Flute Order No.	Spiral Flute Order No.
6.4	75	151	MT1	**331-9431**	**331-9631**	23	165	281	MT3	**331-9488**	**331-9688**
7.4	80	156	MT1	**331-9434**	**331-9634**	24	180	296	MT3	**331-9491**	**331-9691**
8	85	161	MT1	**331-9437**	**331-9637**	25	180	296	MT3	**331-9494**	**331-9694**
8.4	85	161	MT1	**331-9440**	**331-9640**	26	180	296	MT3	**331-9497**	**331-9697**
9	90	166	MT1	**331-9443**	**331-9643**	27	195	311	MT3	**331-9500**	**331-9700**
9.5	90	166	MT1	**331-9446**	**331-9646**	28	195	311	MT3	**331-9503**	**331-9703**
10	95	171	MT1	**331-9449**	**331-9649**	29	195	311	MT3	**331-9506**	**331-9706**
11	100	176	MT1	**331-9452**	**331-9652**	30	195	311	MT3	**331-9509**	**331-9709**
12	105	199	MT2	**331-9455**	**331-9655**	31	210	326	MT3	**331-9512**	**331-9712**
13	105	199	MT2	**331-9458**	**331-9658**	32	210	354	MT4	**331-9515**	**331-9715**
14	115	209	MT2	**331-9461**	**331-9661**	33	210	354	MT4	**331-9518**	**331-9718**
15	125	219	MT2	**331-9464**	**331-9664**	34	220	364	MT4	**331-9521**	**331-9721**
16	135	229	MT2	**331-9467**	**331-9667**	35	220	364	MT4	**331-9524**	**331-9724**
17	135	251	MT3	**331-9470**	**331-9670**	36	220	364	MT4	**331-9527**	**331-9727**
18	145	261	MT3	**331-9473**	**331-9673**	37	220	364	MT4	**331-9530**	**331-9730**
19	145	261	MT3	**331-9476**	**331-9676**	38	230	374	MT4	**331-9533**	**331-9733**
20	155	271	MT3	**331-9479**	**331-9679**	39	230	374	MT4	**331-9536**	**331-9736**
21	155	271	MT3	**331-9482**	**331-9682**	40	230	374	MT4	**331-9539**	**331-9739**
22	165	281	MT3	**331-9485**	**331-9685**						

Inch Hand Reamers 高速钢手用铰刀

High Speed Steel

- Straight flute for most jobs.
- Spiral flute for holes with keyways or other interruptions.


Spiral Flute


Straight Flute

Left Hand Spiral with Right Hand Cut , Straight Flute, Staight Shank

Size	Flute Length	Overall Length	Straight Flute Order No.	Spiral Flute Order No.	Size	Flute Length	Overall Length	Straight Flute Order No.	Spiral Flute Order No.
1/8"	1-1/2"	3"	**337-0108**	**337-0308**	21/32"	3-11/16"	7-3/8"	**337-0142**	**337-0342**
9/64	1-5/8	3-1/4	**337-0109**	**337-0309**	43/64	3-7/8	7-3/4	**337-0143**	
5/32	1-5/8	3-1/4	**337-0110**	**337-0310**	11/16	3-7/8	7-3/4	**337-0144**	**337-0344**
11/64	1-3/4	3-1/2	**337-0111**	**337-0311**	23/32	4-1/16	8-1/8	**337-0146**	**337-0346**
3/16	1-3/4	3-1/2	**337-0112**	**337-0312**	3/4	4-3/16	8-3/8	**337-0148**	**337-0348**
7/32	1-7/8	3-3/4	**337-0114**	**337-0314**	25/32	4-3/8	8-3/4	**337-0150**	**337-0350**
1/4	2	4	**337-0116**	**337-0316**	13/16	4-9/16	9-1/8	**337-0152**	**337-0352**
9/32	2-1/8	4-1/4	**337-0118**	**337-0318**	27/32	4-11/16	9-3/8	**337-0154**	**337-0354**
5/16	2-1/4	4-1/2	**337-0120**	**337-0320**	7/8	4-7/8	9-3/4	**337-0156**	**337-0356**
11/32	2-3/8	4-3/4	**337-0122**	**337-0322**	29/32	5	10	**337-0158**	**337-0358**
3/8	2-1/2	5	**337-0124**	**337-0324**	15/16	5-1/8	10-1/4	**337-0160**	**337-0360**
25/64	2-1/2	4-3/4	**337-0125**	**337-0325**	31/32	5-5/16	10-5/8	**337-0162**	**337-0362**
13/32	2-5/8	5-1/4	**337-0126**	**337-0326**	1	5-7/16	10-7/8	**337-0164**	**337-0364**
7/16	2-3/4	5-1/2	**337-0128**	**337-0328**	1-1/16	5-5/8	11-1/4	**337-0168**	**337-0368**
15/32	2-7/8	5-3/4	**337-0130**	**337-0330**	1-1/8	5-13/16	11-5/8	**337-0172**	**337-0372**
31/64	3	6	**337-0131**	**337-0331**	1-3/16	6	12	**337-0176**	**337-0376**
1/2	3	6	**337-0132**	**337-0332**	1-1/4	6-1/8	12-1/4	**337-0180**	**337-0380**
17/32	3-1/8	6-1/4	**337-0134**	**337-0334**	1-5/16	6-1/4	12-1/2	**337-0184**	**337-0384**
9/16	3-1/4	6-1/2	**337-0136**	**337-0336**	1-3/8	6-5/16	12-5/8	**337-0188**	**337-0388**
19/32	3-3/8	6-3/4	**337-0138**	**337-0338**	1-7/16	6-7/16	12-7/8	**337-0192**	**337-0392**
5/8	3-1/2	7	**337-0140**	**337-0340**	1-1/2	6-1/2	13	**337-0196**	**337-0396**

Metric Hand Reamers 公制高速手用铰刀

DIN 206/A & 206/B


Spiral


Straight

High Speed Steel, Left Hand, Spiral & Straight Flute, Straight Shank

Size (mm)	Flute Length (mm)	Overall Length (mm)	Straight Flute DIN206/A Order No.	Spiral Flute DIN206/B Order No.	Size (mm)	Flute Length (mm)	Overall Length (mm)	Straight Flute DIN206/A Order No.	Spiral Flute DIN206/B	Size (mm)	Flute Length (mm)	Overall Length (mm)	Straight Flute DIN206/A Order No.	Spiral Flute DIN206/B
1.5	20	41	**337-2015**	**337-3015**	9.5	62	124	**337-2095**	**337-3095**	18.0	93	188	**337-2180**	**337-3180**
2	25	50	**337-2020**	**337-3020**	10.0	66	133	**337-2100**	**337-3100**	18.5	93	188	**337-2185**	**337-3185**
2.5	29	58	**337-2025**	**337-3025**	10.5	66	133	**337-2105**	**337-3105**	19.0	93	188	**337-2190**	**337-3190**
3.0	31	62	**337-2030**	**337-3030**	11.0	71	142	**337-2110**	**337-3110**	19.5	100	201	**337-2195**	**337-3195**
3.2	33	66	**337-2032**	**337-3032**	11.5	71	142	**337-2115**	**337-3115**	20.0	100	201	**337-2200**	**337-3200**
3.5	35	71	**337-2035**	**337-3035**	12.0	76	152	**337-2120**	**337-3120**	21.0	100	201		**337-3210**
4.0	38	76	**337-2040**	**337-3040**	12.5	76	152	**337-2125**	**337-3125**	22.0	107	215	**337-2220**	**337-3220**
4.5	41	81	**337-2045**	**337-3045**	13.0	76	152	**337-2130**	**337-3130**	24.0	115	231		**337-3240**
5.0	44	87	**337-2050**	**337-3050**	13.5	81	163	**337-2135**	**337-3135**	25.0	115	231	**337-2250**	**337-3250**
5.5	47	93	**337-2055**	**337-3055**	14.0	81	163	**337-2140**	**337-3140**	28.0	124	247	**337-2280**	**337-3280**
6.0	47	93	**337-2060**	**337-3060**	14.5	81	163	**337-2145**	**337-3145**	30.0	124	247	**337-2300**	**337-3300**
6.5	50	100	**337-2065**	**337-3065**	15.0	81	163	**337-2150**	**337-3150**	32.0	133	265	**337-2320**	**337-3320**
7.0	54	107	**337-2070**	**337-3070**	15.5	87	175	**337-2155**	**337-3155**	36.0	142	284	**337-2360**	**337-3360**
7.5	54	107	**337-2075**	**337-3075**	16.0	87	175	**337-2160**	**337-3160**	40.0	152	305	**337-2400**	**337-3400**
8.0	58	115	**337-2080**	**337-3080**	16.5	87	175	**337-2165**	**337-3165**	45.0	163	326	**337-2450**	**337-3450**
8.5	58	115	**337-2085**	**337-3085**	17.0	87	175	**337-2170**	**337-3170**	50.0	174	347	**337-2500**	**337-3500**
9.0	62	124	**337-2090**	**337-3090**	17.5	93	188	**337-2175**	**337-3175**					

Hex Haed Taper Car Reamers 高速 5 槽锥度车铰刀, 六角头柄

High Speed Stee, 5 Flute, Left Hand Spiral, Right Hand Cut



Size	Flute Length	Overall Length	Hex Shank Size	Order No.
11/16"	4-1/2"	6-1/2"	1-1/16"	**337-5444**
13/16	5	7	1-1/4	**337-5452**
15/16	5	7	1-7/16	**337-5460**
1-1/16	5	7	1-5/8	**337-5468**

Taper Car Reamers

高速钢5槽锥度车铰刀

Taper Shank



Size	Flute Length	Overall Length	Shank Taper	Order No.
5/16”	2-3/4”	5-11/16”	MT1	337-5020
3/8	2-3/4	5-11/16	MT1	337-5024
7/16	3-1/2	6-15/16	MT2	337-5028
1/2	4	7-9/16	MT2	337-5032
9/16	4	7-9/16	MT2	337-5036
5/8	4-1/2	8-1/16	MT2	337-5040
11/16	4-1/2	8-13/16	MT3	337-5044
3/4	5	9-1/2	MT3	337-5048
13/16	5	9-1/2	MT3	337-5052
15/16	5	9-1/2	MT3	337-5056
1	5	9-1/2	MT3	337-5064
1-1/16	5	9-1/2	MT3	337-5068

HSS Straight ShankWith Safety Collar



Size	Overall Length	Shank Dia.	Order No.
5/16	4-5/8	5/16	337-5120
3/8	5-7/8	3/8	337-5124
7/16	5-3/8	7/16	337-5128
1/2	5-7/8	1/2	337-5132
9/16	5-7/8	1/2	337-5136
5/8	6-3/8	1/2	337-5140
21/32	6-3/8	1/2	337-5142
11/16	6-3/8	1/2	337-5144
3/4	6-7/8	1/2	337-5148
25/32	6-7/8	1/2	337-5150
13/16	6-7/8	1/2	337-5152
7/8	6-7/8	1/2	337-5156
15/16	6-7/8	1/2	337-5160
1	6-7/8	1/2	337-5164
1-1/16	6-7/8	1/2	337-5168

3 Equal-Flat Straight Shank



Size	Flute Length	Overall Length	Shank Dia.	Shank Length	Order No.
5/16”	2-3/4”	4-5/8”	5/16”	1-1/2”	337-5220
3/8	2-3/4	4-5/8	3/8	1-1/2	337-5224
7/16	3-1/2	5-3/8	7/16	1-1/2	337-5228
1/2	4	5-7/8	1/2	1-1/2	337-5232
9/16	4	5-7/8	1/2	1-1/2	337-5236
5/8	4-1/2	6-3/8	1/2	1-1/2	337-5240
11/16	4-1/2	6-3/8	1/2	1-1/2	337-5244
3/4	5	6-7/8	1/2	1-1/2	337-5248
13/16	5	6-7/8	1/2	1-1/2	337-5252
7/8	5	6-7/8	1/2	1-1/2	337-5256
15/16	5	6-7/8	1/2	1-1/2	337-5260
1	5	6-7/8	1/2	1-1/2	337-5264
1-1/16	5	6-7/8	1/2	1-1/2	337-5268
1-1/8	5	6-7/8	1/2	1-1/2	337-5272

Expansion Hand Reamers

High Speed Steel, Right Hand

可涨式手用铰刀

- Straight flute for most jobs.
- Spiral flute for holes with keyways or other interruptions.

Expansion limits:

1/4” -15/32”	.006"
1/2” - 31/32”	.010"
1” - 1-1/2”	.012"
1-1/2”-2”	.015"



Straight



Spiral

Size	Flute Length	Overall Length	No. of Flute	Straight Flute Order No.	Spiral Flute Order No.	Size	Flute Length	Overall Length	No. of Flute	Straight Flute Order No.	Spiral Flute Order No.
1/4”	1-7/16”	3-7/8”	6”	349-1016	349-3016	27/32”	3-1/2”	8”	8”	349-1054	349-3054
9/32	1-3/4	4	6	349-1018	349-3018	7/8	4	9	8	349-1056	349-3056
5/16	1-3/4	4	6	349-1020	349-3020	29/32	4	9	8	349-1058	349-3058
11/32	1-3/4	4	6	349-1022		15/16	4	9	8	349-1060	349-3060
3/8	2	5	6	349-1024	349-3024	31/32	4	9	8	349-1062	349-3062
13/32	2	5	6	349-1026	349-3026	1	4-1/2	10	8	349-1064	349-3064
7/16	2	5	6	349-1028	349-3028	1-1/16	4-1/2	10	8	349-1068	349-3068
15/32	2	5	6	349-1030	349-3030	1-1/8	4-3/4	10-1/2	8	349-1072	349-3072
1/2	2	5-1/2	6	349-1032	349-3032	1-3/16	4-3/4	10-1/2	8	349-1076	349-3076
17/32	2	5-1/2	6	349-1034	349-3034	1-1/4	5	11	8	349-1080	349-3080
9/16	2-1/2	6	6	349-1036	349-3036	1-5/16	5	11	10	349-1084	349-3084
19/32	2-1/2	6	6	349-1038	349-3038	1-3/8	5-1/4	11-1/2	10	349-1088	349-3088
5/8	3	7	6	349-1040	349-3040	1-7/16	5-1/4	11-1/2	10	349-1092	349-3092
21/32	3	7	6	349-1042	349-3042	1-1/2	5-1/2	12	10	349-1096	349-3096
11/16	3	7	6	349-1044	349-3044	1-1/2	4-13/16	11-5/8	10		349-3097
23/32	3	7	6	349-1046	349-3046	1-3/4	5-1/2	12-3/8	12	349-1112	349-3112
3/4	3-1/2	8	8	349-1048	349-3048	1-7/8	5-1/2	12-3/8	12	349-1120	349-3120
25/32	3-1/2	8	8	349-1050	349-3050	2	5-1/2	13-1/8	12	349-1128	349-3128
13/16	3-1/2	8	8	349-1052	349-3052						

Metric Expansion Hand Reamers

公制可涨手用铰刀

DIN859, High Speed Steel, Spiral Flute



Size (mm)	Flute Length (mm)	Total Length (mm)	Square Size (mm)	No. of Flute	Order No.	Size (mm)	Flute Length (mm)	Total Length (mm)	Square Size (mm)	No. of Flute	Order No.
6	47	93	7	6	349-5006	17	87	175	16	9	349-5017
7	54	107	8	9	349-5007	18	93	188	18	9	349-5018
8	58	115	9	9	349-5008	19	93	188	18	9	349-5019
9	62	124	10	9	349-5009	20	100	201	20	12	349-5020
10	66	133	11	9	349-5010	21	100	201	20	12	349-5021
11	71	142	12	9	349-5011	22	107	201	22	12	349-5022
12	76	152	13	9	349-5012	23	107	201	22	12	349-5023
13	76	152	13	9	349-5013	24	115	231	24	12	349-5024
14	81	163	14	9	349-5014	25	115	231	24	12	349-5025
15	81	163	14	9	349-5015	30	124	247	26	12	349-5030
16	87	175	16	9	349-5016						

Jobber Reamers 锥柄长刃铰刀

High Speed Steel, Taper Shank, Straight Flute

Longer flute length than regular chucking reamer for using on jobs where a long er flute machine reamer needed



Size	Flute Length	Overall Length	Shank Taper	Order No.	Size	Flute Length	Overall Length	Shank Taper	Order No.
1/4”	2”	5-3/16”	1	**337-4016**	3/4”	4-3/16”	8-3/8”	2	**337-4048**
9/32	2	5-3/16	1	**337-4018**	25/32	4-3/16	8-3/8	2	**337-4050**
5/16	2-1/4	5-1/2	1	**337-4020**	13/16	4-9/16	8-13/16	2	**337-4052**
11/32	2-1/4	5-1/2	1	**337-4022**	27/32	4-7/8	9-3/16	2	**337-4054**
3/8	2-1/2	5-13/16	1	**337-4024**	7/8	4-7/8	9-3/16	2	**337-4056**
13/32	2-1/2	5-13/16	1	**337-4026**	15/16	5-1/8	10	3	**337-4060**
7/16	2-3/4	6-1/8	1	**337-4028**	1	5-7/16	10-3/8	3	**337-4064**
15/32	2-3/4	6-1/8	1	**337-4030**	1-1/16	5-5/8	10-5/8	3	**337-4068**
1/2	3	6-7/16	1	**337-4032**	1-1/8	5-13/16	10-7/8	3	**337-4072**
17/32	3	6-7/16	1	**337-4034**	1-3/16	6	11-1/8	3	**337-4076**
9/16	3-1/4	6-3/4	1	**337-4036**	1-1/4	6-1/8	12-9/16	4	**337-4080**
19/32	3-1/4	6-3/4	1	**337-4038**	1-5/16	6-1/4	12-11/16	4	**337-4084**
5/8	3-1/2	7-9/16	2	**337-4040**	1-3/8	6-5/16	12-13/16	4	**337-4088**
21/32	3-1/2	7-9/16	2	**337-4042**	1-7/16	6-7/16	13	4	**337-4092**
11/16	3-7/8	8	2	**337-4044**	1-1/2	6-1/2	13-1/8	4	**337-4096**
23/32	3-7/8	8	2	**337-4046**					

Adjustable Blade Reamers 可调刃铰刀

High Speed Steel

- Reamer sizes can be achieved by loosening or tightening two adjustable nuts.
- Featured replaceable and regroundable reamer blades.



Size Range	Size	Overall Length	Order No.	Size Range	Size	Overall Length	Order No.
1/4 to 9/32"	8/A	3-1/2"	**337-1601**	21/32 to 23/32	D	6-3/4	**337-1611**
9/32 to 5/16	7/A	3-3/4	**337-1602**	23/32 to 25/32"	E	7-1/4"	**337-1612**
5/16 to 11/32	6/A	4	**337-1603**	25/32 to 27/32	F	7-3/4	**337-1613**
11/32 to 3/8	5/A	4-1/4	**337-1604**	27/32 to 15/16	G	8-1/4	**337-1614**
3/8 to 13/32	4/A	4-1/2	**337-1605**	15/16 to 1-1/16	H	8-3/4	**337-1615**
13/32 to 7/16	3/A	4-3/4	**337-1606**	1-1/16 to 1-3/16	I	10	**337-1616**
7/16 to 15/32	2/A	5	**337-1607**	1-3/16 to 1-11/32	J	11	**337-1617**
15/32 to 17/32	A	5-1/4	**337-1608**	1-11/32 to 1-1/2	K	12	**337-1618**
17/32 to 19/32	B	5-3/4	**337-1609**	1-1/2 to 1-13/16	L	13	**337-1619**
19/32 to 21/32	C	6-1/4	**337-1610**	1-13/16to 2-7/32	M	15	**337-1620**

Metric Adjustable Blade Reamers 公制可调刃铰刀

High Speed Steel



Size Range (mm)	Flute Length (mm)	Overall Length (mm)	Order No.	Size Range (mm)	Flute Length (mm)	Overall Length (mm)	Order No.
6.50 to 7. 00	35	85	**337-1510**	19. 00 to 21. 00	60	180	**337-1543**
7. 00 to 7.75	35	90	**337-1513**	21. 00 to 23. 00	65	195	**337-1546**
7.75 to 8.50	38	100	**337-1516**	23. 00 to 26. 00	72	215	**337-1549**
8.50 to 9.25	38	100	**337-1518**	26. 00 to 29.50	80	240	**337-1552**
9.25 to 10. 00	38	115	**337-1519**	29.50 to 33.50	85	270	**337-1555**
10. 00 to 10.75	38	125	**337-1522**	33.50 to 38. 00	95	310	**337-1558**
10.75 to 11.75	38	130	**337-1525**	38. 00 to 44. 00	105	350	**337-1561**
11.75 to 12.75	44	135	**337-1528**	44. 00 to 54. 00	120	400	**337-1564**
12.75 to 13.75	48	145	**337-1531**	54. 00 to 64. 00	120	460	**337-1567**
13.75 to 15.25	52	150	**337-1534**	64. 00 to 74. 00	135	510	**337-1570**
15.25 to 17. 00	55	165	**337-1537**	74. 00 to 84. 00	135	510	**337-1573**
17. 00 to 19. 00	60	170	**337-1540**				

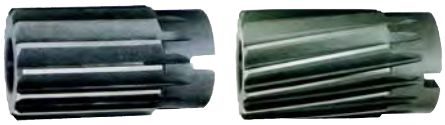
Shell Reamers 套式铰刀

High Speed Steel, Right Hand

Designed as a sizing or finishing reamer , can be held on an arbor which complete with driving lugs

O.D.Tolerance:

3/4" - 1"	+ .0005"	- .0001"
Over 1"	+ .0006"	- .0002"

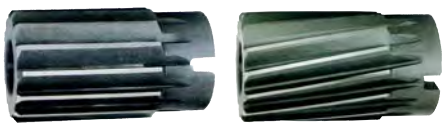


Size	Overall Length	Hole Diameter	No. of Flutes	Fitting Arbor No.	Straight Flute Order No.	Spiral Flute Order No.	Size	Overall Length	Hole Diameter	No. of Flutes	Fitting Arbor No.	Straight Flute Order No.	Spiral Flute Order No.
3/4"	2-1/4"	3/8"	10	4	**337-7048**	**337-8048**	2-1/4	3-3/4	1-1/4	14	9	**337-7144**	**337-8144**
13/16	2-1/2	1/2	10	5	**337-7052**	**337-8052**	2-5/16	3-3/4	1-1/4	14	9	**337-7148**	**337-8148**
7/8	2-1/2	1/2	10	5	**337-7056**	**337-8056**	2-3/8	3-3/4	1-1/4	14	9	**337-7152**	**337-8152**
15/16	2-1/2	1/2	10	5	**337-7060**	**337-8060**	2-7/16"	3-3/4"	1-1/4"	14	9	**337-7156**	**337-8156**
1	2-1/2	1/2	10	5	**337-7064**	**337-8064**	2-1/2	3-3/4	1-1/4	14	9	**337-7160**	**337-8160**
1-1/16	2-3/4	5/8	10	6	**337-7068**	**337-8068**	2-9/16	4	1-1/2	16	10	**337-7164**	**337-8164**
1-1/8	2-3/4	5/8	10	6	**337-7072**	**337-8072**	2-5/8	4	1-1/2	16	10	**337-7168**	**337-8168**
1-3/16	2-3/4	5/8	10	6	**337-7076**	**337-8076**	2-11/16	4	1-1/2	16	10	**337-7172**	**337-8172**
1-1/4	2-3/4	5/8	12	6	**337-7080**	**337-8080**	2-3/4	4	1-1/2	16	10	**337-7176**	**337-8176**
1-5/16	3	3/4	12	7	**337-7084**	**337-8084**	2-13/16	4	1-1/2	16	10	**337-7180**	**337-8180**
1-3/8	3	3/4	12	7	**337-7088**	**337-8088**	2-7/8	4	1-1/2	16	10	**337-7184**	**337-8184**
1-7/16	3	3/4	12	7	**337-7092**	**337-8092**	2-15/16	4	1-1/2	16	10	**337-7188**	**337-8188**
1-1/2	3	3/4	12	7	**337-7096**	**337-8096**	3	4	1-1/2	16	10	**337-7192**	**337-8192**
1-9/16	3	3/4	12	7	**337-7100**	**337-8100**	3-1/16	4-1/2	1-3/4	18	11	**337-7196**	**337-8196**
1-5/8	3	3/4	12	7	**337-7104**	**337-8104**	3-1/8	4-1/2	1-3/4	18	11	**337-7200**	**337-8200**
1-11/16	3-1/2	1	12	8	**337-7108**	**337-8108**	3-3/16	4-1/2	1-3/4	18	11	**337-7204**	**337-8204**
1-23/32	3-1/2	1	12	8	**337-7109**		3-1/4	4-1/2	1-3/4	18	11	**337-7208**	**337-8208**
1-3/4	3-1/2	1	12	8	**337-7112**	**337-8112**	3-5/16	4-1/2	1-3/4	18	11	**337-7212**	**337-8212**
1-25/32	3-1/2	1	12	8	**337-7113**		3-3/8	4-1/2	1-3/4	18	11	**337-7216**	**337-8216**
1-13/16	3-1/2	1	12	8	**337-7116**	**337-8116**	3-7/16	4-1/2	1-3/4	18	11	**337-7220**	**337-8220**
1-27/32	3-1/2	1	12	8	**337-7117**		3-1/2	4-1/2	1-3/4	18	11	**337-7224**	**337-8224**
1-7/8	3-1/2	1	12	8	**337-7120**	**337-8120**	3-9/16	5	2	20	12	**337-7228**	**337-8228**
1-29/32	3-1/2	1	12	8	**337-7121**		3-5/8	5	2	20	12	**337-7232**	**337-8232**
1-15/16	3-1/2	1	12	8	**337-7124**	**337-8124**	3-11/16	5	2	20	12	**337-7236**	**337-8236**
1-31/32	3-1/2	1	12	8	**337-7125**		3-3/4	5	2	20	12	**337-7240**	**337-8240**
2	3-1/2	1	14	8	**337-7128**	**337-8128**	3-13/16	5	2	20	12	**337-7244**	**337-8244**
2-1/16	3-3/4	1-1/4	14	9	**337-7132**	**337-8132**	3-7/8	5	2	20	12	**337-7248**	**337-8248**
2-1/8	3-3/4	1-1/4	14	9	**337-7136**	**337-8136**	3-15/16	5	2	20	12	**337-7252**	**337-8252**
2-3/16	3-3/4	1-1/4	14	9	**337-7140**	**337-8140**	4	5	2	20	12	**337-7256**	**337-8256**

Metric Shell Reamers 公制套式铰刀

High Speed Steel

- Featured two flute types:
  Straight Flute(DIN219A) and Spiral Flute(DIN219B).

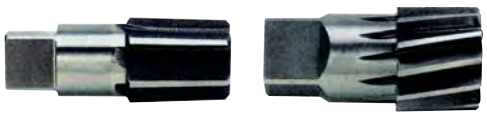


Size (mm)	Hole Dia. (mm)	Overall Length (mm)	DIN219A Straight Flute Order No.	DIN219B Spiral Flute Order No.	Size (mm)	Hole Dia. (mm)	Overall Length (mm)	DIN219A Straight Flute Order No.	DIN219B Spiral Flute Order No.
20	10	40	**337-9120**	**337-9320**	35	16	50	**337-9135**	**337-9335**
21	10	40	**337-9121**	**337-9321**	36	19	56	**337-9136**	**337-9336**
22	10	40	**337-9122**	**337-9322**	38	19	56	**337-9138**	**337-9338**
23	10	40	**337-9123**	**337-9323**	40	19	56	**337-9140**	**337-9340**
24	13	45	**337-9124**	**337-9324**	42	19	56	**337-9142**	**337-9342**
25	13	45	**337-9125**	**337-9325**	45	22	63	**337-9145**	**337-9345**
26	13	45	**337-9126**	**337-9326**	48	22	63	**337-9148**	**337-9348**
27	13	45	**337-9127**	**337-9327**	50	22	63	**337-9150**	**337-9350**
28	13	45	**337-9128**	**337-9328**	52	27	71	**337-9152**	**337-9352**
29	13	45	**337-9129**	**337-9329**	55	27	71	**337-9155**	**337-9355**
30	13	45	**337-9130**	**337-9330**	60	27	71	**337-9160**	**337-9360**
32	16	50	**337-9132**	**337-9332**					

Taper Pipe Reamers 高速钢锥度管子铰刀

High Speed Steel,
Right Hand Cut Taper 3/4 inch per foot

Designed for reaming holes to be tapped with American Standard Taper Pipe Taps(NPT)



Size	Large End Dia.	Small End Dia.	Flute Length	Overall Length	Straight Flute Order No.	Spiral Flute Order No.
1/16"	.291"	.245"	3/4"	2"	**337-1704**	**337-0704**
1/8	.362	.316	3/4	2-1/8	**337-1708**	**337-0708**
1/4	.472	.406	1-1/16	2-7/16	**337-1716**	**337-0716**
3/8	.606	.540	1-1/16	2-9/16	**337-1724**	**337-0724**
1/2	.751	.665	1-3/8	3-1/8	**337-1732**	**337-0732**
3/4	.962	.876	1-3/8	3-1/4	**337-1748**	**337-0748**
1	1.212	1.103	1-3/4	3-3/4	**337-1764**	**337-0764**
1-1/4	1.553	1.444	1-3/4	4	**337-1780**	**337-0780**
1-1/2	1.793	1.684	1-3/4	4-1/4	**337-1796**	**337-0796**
2	2.268	2.159	1-3/4	4-1/2	**337-1828**	**337-0828**
2-1/2	2.772	2.561	2-5/8	5-1/2	**337-1860**	**337-0860**
3	3.380	3.202	2-3/4	6	**337-1892**	**337-0892**

Shell Reamer Arbors 套式铰刀接杆

Straight Shank



Size	Shank Dia.	Fits Shell Reamer	Order No.
#4	1/2"	21/32"-25/32"	**331-2204**
#5	5/8	13/16"-1-1/32"	**331-2205**
#6	3/4	1-1/16"-1-9/32"	**331-2206**
#7	7/8	1-5/16"-1-5/8"	**331-2207**
#8	1-1/8	1-11/16"-2"	**331-2208**
#9	1-3/8	2-1/16"-2-1/2"	**331-2209**
#10	1-5/8	2-9/16"-3"	**331-2210**
#11	2	3-1/16"-3-1/2"	**331-2211**
#12	2-1/8	3-9/16"-4"	**331-2212**

Taper Shank



Size	Shank Taper	Fits Shell Reamer	Order No.
#4	MT2	21/32"-25/32"	**331-2304**
#5	MT2	13/16"-1-1/32"	**331-2305**
#6	MT3	1-1/16"-1-9/32"	**331-2306**
#7	MT3	1-5/16"-1-5/8"	**331-2307**
#8	MT4	1-11/16"-2"	**331-2308**
#9	MT4	2-1/16"-2-1/2"	**331-2309**
#10	MT5	2-9/16"-3"	**331-2310**
#11	MT5	3-1/16"-3-1/2"	**331-2311**
#12	MT5	3-9/16"-4"	**331-2312**

E-Z Eject Shell Reamer Arbors 弹出套式铰刀接杆 HRC55

Straight Shank



Size	Shank Dia.	Fits Shell Reamer	Overall Length	Order No.
#4	1/2"	21/32"-25/32"	9"	**331-2002**
#5	5/8	13/16"-1-1/32"	9-1/2	**331-2004**
#6	3/4	1-1/16"-1-9/32"	10	**331-2006**
#7	7/8	1-5/16"-1-5/8"	11	**331-2008**
#8	1-1/8	1-11/16"-2"	12	**331-2010**
#9	1-3/8	2-1/16"-2-1/2"	13	**331-2012**
#10	1-5/8	2-9/16"-3"	14	**331-2014**
#11	2	3-1/16"-3-1/2"	15	**331-2016**
#12	2-1/8	3-9/16"-4"	16	**331-2018**

Taper Shank



Size	Shank Taper	Arbor Dia.	Fits Shell Reamer	Overall Length	Order No.
#4	MT2	3/8"	21/32"-25/32"	9"	**331-2102**
#5	MT2	1/2	13/16"-1-1/32"	9-1/2	**331-2104**
#6	MT3	5/8	1-1/16"-1-9/32"	10	**331-2106**
#7	MT3	3/4	1-5/16"-1-5/8"	11	**331-2108**
#8	MT4	1	1-11/16"	12	**331-2110**
#9	MT4	1-1/4	2-1/16"-2-1/2"	13	**331-2112**
#10	MT5	1-1/2	2-9/16"-3"	14	**331-2114**
#11	MT5	1-3/4	3-1/16"-3-1/2"	15	**331-2116**
#12	MT5	2	3-9/16"-4"	16	**331-2118**

DIN217 Taper Shank Shell Reamer Arbors

DIN217 套式铰刀接杆

Taper Shank



Fitting Range (mm)	Shank Taper	Arbor Size (mm)	OAL (mm)	Order No.
20-23	MT3	10	250	**331-2511**
23.6-30	MT3	13	250	**331-2514**
30-35.5	MT3	16	261	**331-2517**
35.5-42.5	MT4	19	298	**331-2520**
42.5-50.8	MT4	22	312	**331-2523**

Fitting Range (mm)	Shank Taper	Arbor Size (mm)	OAL (mm)	Order No.
50.8-60	MT5	27	358	**331-2526**
60-71	MT5	32	379	**331-2529**
71-85	MT5	40	396	**331-2532**
85-101.6	MT5	50	416	**331-2535**

NPT Taper Pipe Tap Sets 美标NPT圆锥管丝锥套装

Ground Thread



3 Piece Tap Sets

Set includes one each: Taps (3 Sizes).

Sets

Descriptions	Wooden Case Order No.
H.S.S.	314-9503
Carbon Steel	314-9603

Thread Size & Pitch
1-1/4"-11-1/2
1-1/2"-11-1/2
2"-11-1/2



4 Piece Tap Sets

Set includes one each: Taps (4 Sizes).

Sets

Descriptions	Wooden Case Order No.
Carbon Steel	314-9604

Thread Size
1
1-1/4
1-1/2
2"



6 Piece Tap Sets

Set includes one each: Taps (6 Sizes).

Sets

Descriptions	Wooden Case Order No.
H.S.S.	314-9506
Carbon Steel	314-9606

Thread Size & Pitch
1/4"-18
3/8-18
1/2-14

Thread Size & Pitch
3/4-14
1"-11-1/2
1-1/4"-11-1/2



6 Piece Tap Sets

Set includes one each: Taps (6 Sizes).1/8,1/4,3/8,1/2,3/4,&1"

Sets

Descriptions	Wooden Case Order No.
Carbon Steel	314-9605

Thread Size
1/8"
1/4"
3/8"

Thread Size
1/2"
3/4"
1"

Tap & Die Sets 套装丝锥板牙

Ground Thread



Plastic Case



Polyethylene Case

12 Piece Tap & Die Sets

Set includes one each of:
Taps and1" O.D. Round Dies(5 Sizes).
Adjustable Die Stock 1".
Straight Handle Tap Wrench1/16"-1/2".

Sets

Descriptions	Polyethylene Case Order No.	Plastic Case Order No.
H.S.S	314-9512	314-9513
Carbon Steel	314-9612	314-9613

Thread Size & Pitch
1/4"-20NC
5/16-18 NC
3/8-16 NC

Thread Size & Pitch
7/16-14 NC
1/2-13NC

Tap & Die Sets 套装丝锥板牙

Ground Thread



12 Piece Tap & Die Sets

Set includes one each of:
Taps and1” O.D. Round Dies(5 Sizes).
Adjustable Die Stock 1”.
Straight Handle Tap Wrench1/16”-1/2”.

Descriptions	Plastic Case Order No.
H.S.S	**314-9514**
Carbon Steel	**314-9614**

Thread Size & Pitch
1/4”-28 NF
5/16-24NF
3/8-24 NF

Thread Size & Pitch
7/16-20 NF
1/2-20NF



16 Piece Tap & Die Sets

Set includes one each of:
Taps and1-1/2” O.D. Round Dies (7 Sizes).
Adjustable Die Stock 1-1/2”.
Straight Handle Tap Wrench1/4”-3/4”.

Descriptions	Plastic Case Order No.
H.S.S	**314-9516**
Carbon Steel	**314-9616**

Thread Size & Pitch
1/4”-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF

Thread Size & Pitch
1/2-20NF
5/8-18 NF
3/4-16 NF



16 Piece Tap & Die Sets

Set includes one each of:
Taps and1-1/2” O.D. Round Dies(7Sizes).
Adjustable Die Stock 1-1/2”.
Straight Handle Tap Wrench1/4”-3/4”.

Descriptions	Plastic Case Order No.
H.S.S	**314-9517**
Carbon Steel	**314-9617**

Thread Size & Pitch
1/4”-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC

Thread Size & Pitch
1/2-13NC
5/8-11NC
3/4-10 NC



20 Piece Tap & Die Sets

Set includes one each of:
Taps and 1” O.D. Round Dies(9 Sizes).
Adjustable Die Stock.
Straight Handle Tap Wrench.

Descriptions	Polyethylene Case Order No.
H.S.S	**314-9520**
Carbon Steel	**314-9620**

Thread Size & Pitch
6-32NC
8-32NC
10-24NC
12-24NC
1/4-20NC

Thread Size & Pitch
5/16-18NC
3/8-16NC
7/16-14NC
1/2-13NC



21 Piece Tap & Die Sets

Set includes one each of:
Taps and1-1/2” O.D. Round dies.(8 Sizes)
Die Stock 1-1/2”.
Straight Handle Tap Wrench1/4”-3/4”.
T-Tap Wrench 1/4”-1/2”
Screw Driver
Screw Pitch Gage 12-40 Pitch

Descriptions	Plastic Case Order No.
H.S.S	**314-9523**
Carbon Steel	**314-9623**

Thread Size & Pitch
1/4”-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC

Thread Size & Pitch
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10 NC

Tap & Die Sets 套装丝锥板牙

Ground Thread



21 Piece Tap & Die Sets

NEW

Set includes one each of:
Taps & 1" Adj. Dies. (18 Size)
Die Holder 1".
Tap Wrench 1/16"-1/2".
T-Tap Wrench.

Descriptions	Metal Case Order No.
H.S.S	**314-9521**
Carbon Steel	**314-9621**

Thread Size & Pitch	Thread Size & Pitch
M2X0.4,	M4.5X0.75,
M2.5X0.45,	M5X0.9,
M3X0.6,	M5.5X0.9,
M3.5X0.6,	M6X1.0.
M4X0.75,	



21 Piece Die Sets

NEW

Set includes one each of:
NC,NF, 1/4 to 1" carbon-Hex, rethreading die set

Descriptions	Wooden Case Order No.
Carbon Steel	**314-9820**

Thread Size & Pitch	Thread Size & Pitch
1/4-20	9/16-12
1/4-28	9/16-18
5/16-18	5/8-11
5/16-24	5/8-18
3/8-16	3/4-10
3/8-24	3/4-16
7/16-14	7/8-9
7/16-20	7/8-14
1/2-13	1-8
1/2-20	1-14



22 Piece Tap & Die Sets

NEW

Set includes one each of:
10sizes each1/4-20 to 1/2-20,Tap & 1" OD Adjust.
DIE,T- Handle Tap Wrench & Die Stock

Descriptions	Wooden Case Order No.
H.S.S	**314-9526**
Left Hand HSS	**314-9527**

Thread Size & Pitch	Thread Size & Pitch
1/4-20	3/8-24
1/4-28	7/16-14
5/16-18	7/16-20
5/16-24	1/2-13
3/8-16	1/2-20



22 Piece Tap & Die Sets

Set includes one each of:
Taps and1" O.D. round dies. (10Sizes)
Die Stock 1".
Straight Handle Tap Wrench1/16"-1/2".

Descriptions	Plastic Case Order No.
H.S.S	**314-9522**
Carbon Steel	**314-9622**

Thread Size & Pitch	Thread Size & Pitch
1/4"-20NC	1/4"-28 NF
5/16-18 NC	5/16-24NF
3/8-16 NC	3/8-24 NF
7/16-14 NC	7/16-20 NF
1/2-13NC	1/2-20NF



22 Piece Tap & Die Sets

Set includes one each of:
Taps and 1" & 1-1/2" O.D. ADJ. Round Dies(9 Sizes).
Adjustable Die Stock 1" & 1-1/2".
Straight Handle Tap Wrench 1/2-3/4".
T-Tap Wrench.

Descriptions	Wooden Case Order No.
H.S.S	**314-9519**
Carbon Steel	**314-9619**

Thread Size & Pitch	Thread Size & Pitch
M6x1.0,	M11x1.5,
M7x1.0,	M12x1.75,
M8x1.25,	M14x2.0,
M9x1.25,	M16x2.0
M10x1.5,	

Tap & Die Sets 套装丝锥板牙

Ground Thread

23 Piece Tap & Die Sets



Set includes one each of:
Taps and Dies.(20Sizes)
Tap wrench,
T-Tap wrench,
Die Stocks.

Descriptions	Metal Case Order No.
Carbon Steel	**314-9823**

Thread Size & Pitch
0-80NC
1-64NC
2-56NC
3-48NC
4-40NC

Thread Size & Pitch
5-40NC
6-32NC
8-32NC
10-24NC
12-24NC

24 Piece Tap & Die Sets



Set includes one each of:
M3-M12,1/8NPT,
Hex Die, (11sizes),
Tap wrench,
Die Stock

Descriptions	Metal Case Order No.
H.S.S	**314-9525**

Thread Size & Pitch
M3x0.50,
M4x0.70,
M5x0.80,
M6x1.00,
M7x1.00,
M8x1.25,

Thread Size & Pitch
M9x1.25,
M10x1.50,
M12x1.50,
M12x1.75,
1/8"NPT

30 Piece Tap & Die Sets



Set includes one each of:
Taps and1-1/2" O.D. Round Dies.(14 Sizes)
Die Stock 1-1/2".
Straight Handle Tap wrench1/4"-3/4".

Descriptions	Plastic Case Order No.
H.S.S	**314-9530**
Carbon Steel	**314-9630**

Thread Size & Pitch
1/4"-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC
5/8-11NC
3/4-10 NC

Thread Size & Pitch
1/4"-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
5/8-18 NF
3/4-16 NF

32 Piece Metric Tap and Die Set DIN 352 Taps & DIN 223 Dies



Set includes one each:
Taps (21 metric thread sizes)
Dies (7 metric thread sizes)
Adjustable die stock.
Adjustable handle tap wrench.
Screw pitch gage.
Screw driver.
Remark: V= Coarse Tap, M= Middle Tap, F= Fine Tap.

Descriptions	Plastic Case Order No.	Metal Case Order No.
H.S.S	**314-9532**	**314-9533**
Carbon Steel	**314-9632**	**314-9633**

Size of Dies
M3x0.5
M4x0.7
M5x0.8
M6x1.0
M8x1.25
M10x1.5
M12x1.75

Thread Size & Pitch		
M3(V)	M3(M)	M3(F)
M4(V)	M4(M)	M4(F)
M5(V)	M5(M)	M5(F)
M6(V)	M6(M)	M6(F)
M8(V)	M8(M)	M8(F)
M10(V)	M10(M)	M10(F)
M12(V)	M12(M)	M12(F)

39 Piece Metric Tap & Die Sets 3mm-12mm



Set includes one each:
Taps and1" round dies.
(17 metric thread sizes)
Adjustable die stock.
Adjustable handle tap wrench.
T-Tap wrench
Screw pitch gage.
Screw driver.

Dsecriptions	Plastic Case Order No.
H.S.S	**314-9535**
Carbon Steel	**314-9635**

Thread Size & Pitch
3mmx0.5
3mmx0.6
4mmx0.7
4mmx0.75
5mmx0.8
5mmx0.9
6mmx0.75
6mmx1.0

Thread Size & Pitch
7mmx0.75
7mmx1.0
8mmx1.0
8mmx1.25
10mmx1.25
10mmx1.5
12mmx1.5
12mmx1.75
1/8-27 NPT

Tap & Die Sets 套装丝锥板牙

Ground Thread



39 Piece Tap & Die Sets

Set includes one each of:

Taps and1" O.D. Round Dies.(17Sizes)
Die Stock 1".
Straight Handle Tap Wrench 1/16"-1/2"
T handle Tap Wrench0-1/4".
Screw Driver
Screw Pitch Gage

Descriptions	Plastic Case Order No.
H.S.S	**314-9540**
Carbon Steel	**314-9640**

Thread Size & Pitch
4-40NC
6-32NC
8-32NC
10-24NC
12-24NC
1/4-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC

Thread Size & Pitch
10-32NF
1/4-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
1/8-27 NPT



39 Piece Tap & Die Sets

Set includes one each of:

17sizes plug taps & 1"OD Dies.
Adj. Die stock,
Straight handle Tap wrench,
T-tap wrench,
Screw pitch gage,
Screwdriver.

Descriptions	Plastic Case Order No.
H.S.S	**314-9539**

Thread Size & Pitch
4-40,
6-32,
8-32,
10-24,
10-32,
12-24,
1/4-20,
1/4-28,
5/16-18,

Thread Size & Pitch
5/16-24,
3/8-16,
3/8-24,
7/16-14,
7/16-20,
1/2-13,
1/2-20 ,
1/8-27NPT



39 Piece Tap & Die Sets

Set includes one each of:

Taps and1" Hex Dies.(17 Sizes)
Hex Die Stock.
Straight Handle Tap Wrench
1/16"-1/2"
T handle Tap Wrench0-1/4".
Screw Driver
Screw Pitch Gage

Descriptions	Plastic Case Order No.
Carbon Steel	**314-9639**

Thread Size & Pitch
4-40NC
6-32NC
8-32NC
10-24NC
12-24NC
1/4-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC

Thread Size & Pitch
10-32NF
1/4-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
1/8-27 NPT



40 Piece Tap & Die Sets

Set includes one each of:

#4 to 1/2", 1 of each Plug Tap and Round Adj. Die
Tap Wrenches
Die Stocks Screwdriver
Pitch Gage

Descriptions	Plastic Case Order No.
H.S.S	**314-9537**
Carbon Steel	**314-9637**

Thread Size & Pitch
4-40NC,
6-32NC,
8-32NC,
10-24NC,
12-24NC,
1/4-20NC,
5/16-18NC,
3/8-16NC,
7/16-14NC,
1/2-13NC

Thread Size & Pitch
#10-32NF,
1/4-28NF,
5/16-24NF,
3/8-24NF,
7/16-20NF,
1/2-20NF
1/8-27 NPT

Tap & Die Sets 套装丝锥板牙

Ground Thread



40 Piece Tap & Die Sets

Set includes one each of:
Taps and1" Hex Dies.(17Sizes)
Adj. Die stock,
Straight handle Tap wrench,
2 pcs of T-tap wrenchs,
Screw pitch gage,
Screwdriver.

Descriptions	Plastic Case Order No.
H.S.S	**314-9538**
Carbon Steel	**314-9638**

Thread Size & Pitch
4-40,
6-32,
8-32,
10-24,
10-32,
12-24,
1/4-20,
1/4-28,
5/16-18,

Thread Size & Pitch
5/16-24,
3/8-16,
3/8-24,
7/16-14,
7/16-20,
1/2-13,
1/2-20,
1/8NPT.



41 Piece Tap & Die Sets

Set includes one each of:
Taps and1" HEX Dies.(17Sizes)
Die stock,
Straight handle tap wrehcn,
3/8" & 1/2" T-tap wrench,
Metric screw pitch gage, screwdriver

Descriptions	Plastic Case Order No.
H.S.S	**314-9543**
Carbon Steel	**314-9643**

Thread Size & Pitch
3X.5
3X.6
4X.7
4X.75
5X.8
5X.9
6X.75
6X1.0
7X.75

Thread Size & Pitch
17X1.0
8X1.0
8X1.25
10X1.25
10X1.5
12X1.5
12X1.75
1/8-27NPT



41Piece Tap & Die Sets

Set includes one each of:
18 Size(Plug Tap & 1-1/2". Solid Round Die NC NF NPT)
Adj. Handle Tap Wrench
Die Stock;
T-Handle Tap Wrench;
Screw Pitch Gage;
Screwdriver,
With plastic case

Descriptions	Plastic Case Order No.
H.S.S	**314-9542**
Carbon Steel	**314-9642**

Thread Size & Pitch
1/4-20NC
5/16-18NC
3/8-16NC
7/16-14NC
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10NC

Thread Size & Pitch
1/4-28NF
5/16-24NF
3/8-24NF
7/16-20NF
1/2-20NF
9/16-18NF
5/8-18NF
3/4-16NF
1/8-27NPT
1/4-18NPT



41 Piece Tap & Die Sets

Set includes one each of:
Taps and1-1/2" O.D. Round Dies.
(18 Sizes)
Die Stock 1-1/2".
Straight Handle Tap Wrench1/4"-3/4".
T-Tap Wrench 0-1/4"
Screw Driver
Screw Pitch Gage 12-40 Pitch

Descriptions	Plastic Case Order No.
H.S.S	**314-9541**
Carbon Steel	**314-9641**

Thread Size & Pitch
1/4"-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10 NC

Thread Size & Pitch
1/4"-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
9/16-18NF
5/8-18 NF
3/4-16 NF
1/8-27 NPT
1/4-18NPT

Tap & Die Sets 套装丝锥板牙

Ground Thread



44 Piece Tap & Die Sets

Set includes one each of:
20sizes each,M2-M18, 1" & 1-1/2"OD Adjust die,
2each of Tap wrench and Die Stock

Descriptions	Wooden Case Order No.
H.S.S	**314-9566**

48 Piece Tap & Die Sets

Set includes one each of:
22sizes each,#6-3/4", 1" & 1-1/2"OD Adjust die,
2each of Tap wrench and Die Stock

Descriptions	Wooden Case Order No.
Carbon Steel	**314-9567**
Left Hand HSS	**314-9568**



44 Piece Tap & Die Sets

Set includes one each:
Taps and Round Dies.(20 Sizes)
2" Adjustable Die Stock with Adapter.
Straight Handle Tap Wrench
T-Handle Tap Wrench.
Screw Driver

Descriptions	Plastic Case Order No.
H.S.S	**314-9551**
Carbon Steel	**314-9651**

Thread Size & Pitch
1/4"-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10 NC
7/8-9NC
1-8 NC

Thread Size & Pitch
1/4"-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
9/16-18NF
5/8-18 NF
3/4-16 NF
7/8-14 NF
1-14NS



44 Piece Metric Tap & Die Sets 6mm-24mm

Set includes one each:
Taps and adjustable dies.
(20 metric thread sizes)
Adjustable die stock.
Adjustable handle tap wrench.
T-Tap wrench
Screw driver.

Descriptions	Plastic Case Order No.	Metal Case Order No.
H.S.S	**314-9547**	**314-9548**
Carbon Steel	**314-9647**	**314-9648**

Thread Size & Pitch
6mmx0.75
6mmx1.0
8mmx1.0
8mmx1.25
10mmx1.25
10mmx1.5
12mmx1.5
12mmx1.75
14mmx1.5
14mmx2.0

Thread Size & Pitch
16mmx1.5
16mmx2.0
18mmx1.5
18mmx2.5
20mmx1.5
20mmx2.5
22mmx1.5
22mmx2.5
24mmx1.5
24mmx3.0



44 Piece Tap & Die Sets

Set includes one each:
Plug Taps and Adjustable Dies
for the 20 thread sizes.
Die Stock with Adapter.
Straight Handle Tap Wrench.
T-Handle Tap Wrench.
Screw Driver.

Descriptions	Plastic Case Order No.	Metal Case Order No.
H.S.S	**314-9545**	**314-9546**
Carbon Steel	**314-9645**	**314-9646**

Thread Size & Pitch
1/4" -20NC
5/16-18 NC
3/8-16NC
7/16-14NC
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10NC
7/8-9NC
1-8NC
1-14NF

Thread Size & Pitch
1/4"-18NF
5/16-24NF
3/8-24NF
7/16-20NF
1/2-20NF
9/16-18NF
5/8-18NF
3/4-16NF
7/8-14NF

Tap & Die Sets 套装丝锥板牙

Ground Thread



45 Piece Tap & Die Sets

Set includes one each:
Taps and Round Dies.(20 Sizes)
Die Stock 1-1/2".
Adjustable Die Stock 2".
Straight Handle Tap Wrench1/4"-3/4".
Straight Handle Tap Wrench3/8"-1".
Screw Driver

Descriptions	Plastic Case Order No.
H.S.S	**314-9544**
Carbon Steel	**314-9644**

Thread Size & Pitch
1/4"-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10 NC
7/8-9NC
1-8 NC

Thread Size & Pitch
1/4"-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
9/16-18NF
5/8-18 NF
3/4-16 NF
7/8-14 NF
1-14NS



59 Piece Tap & Die Sets

Set includes one each of:
Taps and Hex Dies.(44Sizes)
Tap wrenchs,
Die Stock,
Screwdriver,
Pitch gage & Screw Extractors

Descriptions	Plastic Case Order No.
H.S.S	**314-9558**
Carbon Steel	**314-9658**

Thread Size & Pitch
#6-32
#8-32
#10-24
#10-32
#12-24
1/4-20
5/16-18
3/8-16
7/16-14
1/2-13
1/4-28

Thread Size & Pitch
5/16-24
3/8-24
7/16-20
1/2-20
1/8-27NPT
1/4-18NPT
9/16-12
9/16-18
5/8-11
3/4-10
3/4-16



59 Piece Tap & Die Sets

Set includes one each of:
Taps and Round Dies.(44Sizes)
Tap wrenchs,
Die Stocks,
Screwdriver,
Pitch gage & Screw Extractors

Descriptions	Plastic Case Order No.
H.S.S	**314-9559**
Carbon Steel	**314-9659**

Thread Size & Pitch
#6-32
#8-32
#10-24
#10-32
#12-24
1/4-20
5/16-18
3/8-16
7/16-14
1/2-13
1/4-28

Thread Size & Pitch
5/16-24
3/8-24
7/16-20
1/2-20
1/8-27NPT
1/4-18NPT
9/16-12
9/16-18
5/8-11
3/4-10
3/4-16



60 Piece Metric, Inch Tap & Die Sets

Set includes one each:
Plug taps and 1" round dies.(27 sizes)
Adjustable die stock.
Adjustable handle tap wrench.
T-Handle tap wrench.
Screw driver.
2 Screw pitch gage.

Descriptions	Plastic Case Order No.	Metal Case Order No.
H.S.S	**314-9560**	**314-9561**
Carbon Steel	**314-9660**	**314-9661**

Thread Size & Pitch
1/4"-20NC
5/16-18NC
3/8-16NC
7/16-14NC
1/2-13NC
4-40NC
6-32NC
8-32NC
10-24NC
12-24NC

Thread Size & Pitch
1/4"-28NF
5/16-24NF
3/8-24NF
7/16-20NF
1/2-20NF
10-32NF
1/8-27 NPT

Thread Size & Pitch
3mmx.5
4mmx.7
5mmx.8
6mmx1.0
7mmx1.0
8mmx1.25
9mmx1.25
10mmx1.5
10mmx1.0
12mmx1.75

Tap & Die Sets 套装丝锥板牙

Ground Thread



64 Piece Tap & Die Sets

Set includes one each:
Taps and Round Dies.(28 Sizes)
Die Stock 1" O.D.
Die Stock 1-1/2" O.D.
Die Stock 2" O.D.
Straight Handle Tap Wrench 1/16"-1/2"
Straight Handle Tap Wrench 3/8"-1"
T-Handle Tap Wrench 0-1/4".
Screw Driver
Screw Pitch Gage 12-40 Pitch

Descriptions	Plastic Case Order No.
H.S.S	**314-9564**
Carbon Steel	**314-9664**

Thread Size & Pitch
4-40NC
6-32NC
8-32NC
10-24NC
12-24NC
1/4-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10 NC
7/8-9NC
1-8 NC

Thread Size & Pitch
10-32NF
1/4-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
9/16-18NF
5/8-18 NF
3/4-16 NF
7/8-14 NF
1/8-27 NPT
1/4-18NPT
1-14NS



110 Piece Tap & Die Sets

Set includes one each:
Taper Taps, Bottom Taps and Round Dies.
(35 Sizes)
Die Stock 1" O.D.
Die Stock 1-1/2" O.D.
Straight Handle Tap Wrench 1/4"-3/4"
Straight Handle Tap Wrench 1/16"-1/2"
T-Handle Tap Wrench 0-1/4".

Descriptions	Plastic Case Order No.
H.S.S	**314-9596**
Carbon Steel	**314-9696**

Thread Size & Pitch
4-40NC
6-32NC
8-32NC
10-24NC
12-24NC
1/4-20NC
5/16-18 NC
3/8-16 NC
7/16-14 NC
1/2-13NC
9/16-12NC
5/8-11NC
3/4-10 NC

Thread Size & Pitch
10-32NF
1/4-28 NF
5/16-24NF
3/8-24 NF
7/16-20 NF
1/2-20NF
9/16-18NF
5/8-18 NF
3/4-16 NF
1/4-24NS
1/4-32NS
1/8-27 NPT
1/4-18NPT

Thread Size & Pitch
M6X1.0
M8X1.25
M10X1.0
M10X1.5
M11X1.5
M12X1.5
M12X1.75
M14X1.25
M18X1.5

Drill & Tap Sets 丝锥钻头套装

HSS, Ground



Description	Sizes	Order No.
Inch	Tap(NC):6-32,8-32,10-24,10-32,1/4-20,5/16-18,3/8-16,7/16-14,1/2-13 Drill:36#,29#,25#,21#,7#,F,5/16,U,27/64"	**314-9581**
Inch	Tap(NF),6-40,8-36,10-24,10-32,1/4-28,5/16-24,3/8-24,7/16-20,1/2-20 Drill:33#,29#,25#,21#,3#,I,Q,25/64",29/64"	**314-9582**
Metric	Tap:M2.5x0.45,3.0x0.5,3.5x0.6,4.0x0.7,5.0x0.8,6.0x1.0,8.0x1.25, 10.0x1.50,12.0x1.75 Drill:2.05,2.5,2.9,3.3,4.2,5.0,6.7,8.5,10.20mm.	**314-9583**
18pcs	HSS Ground,18pcs.Sprial Point Tap(NC):6-32,8-32,10-24,10-32,1/4-20, 5/16-18,3/8-16,7/16-14,1/2-13; Drill:36#,29#,25#,21#,7#,F,5/16,U,27/64"	**314-9586**
18pcs	HSS Ground,18pcs.Sprial Point Tap(NF),6-40,8-36,10-24,10-32,1/4-28, 5/16-24,3/8-24,7/16-20,1/2-20, Drill:33#,29#,25#,21#,3#,I,Q,25/64",29/64"	**314-9587**
18pcs	HSS Ground,18pcs.Sprial Point Tap:M2.5x0.45,3.0x0.5,3.5x0.6,4.0x0.7,5.0x0.8, 6.0x1.0,8.0x1.25,10.0x1.50,12.0x1.75, Drill:2.05,2.5,2.9,3.3,4.2,5.0,6.7,8.5,10.20.	**314-9588**



29 Piece Metric Tap and Drill Set
DIN 352

Set includes one each:
Taps (21 metric thread sizes)
Drills (7 metric sizes)
Adjustable handle tap wrench.

Dsecriptions	Metal Case Order No.
H.S.S	**314-9529**

Remark: V= Coarse Tap, M= Middle Tap, F= Fine Tap.

Size of Drills	Thread Size & Pitch		
M3	M3(V)	M3(M)	M3(F)
M4	M4(V)	M4(M)	M4(F)
M5	M5(V)	M5(M)	M5(F)
M6	M6(V)	M6(M)	M6(F)
M8	M8(V)	M8(M)	M8(F)
M10	M10(V)	M10(M)	M10(F)
M12	M12(V)	M12(M)	M12(F)

mhc® Industrial Supply

Hand Taps-Taper Style

高速钢美标手用丝锥(头攻)磨制

High Speed Steel, Ground Thread



- Use for hand or machine tapping in a wide variety of materials.
- Ensures easy starting.
- Higher volume of working teeth reduces tapping torque.
- Seven to ten thread chamfer.

Size	Thread Limit	No.of Flute	Thread Length	Overall Length	Order No.	Size	Thread Limit	No.of Flute	Thread Length	Overall Length	Order No.	Size	Thread Limit	No.of Flute	Thread Length	Overall Length	Order No.
0-80NF	H-1	2	5/16"	1-5/8"	**440-1000**	10-32NF	H-1	4	7/8	2-3/8	**440-1083**	1/2-13NC	H-1	4	1-21-32	3-3/8	**440-1266**
0-80NF	H-2	2	5/16	1-5/8	**440-1002**	10-32NF	H-2	4	7/8	2-3/8	**440-1084**	1/2-13NC	H-2	4	1-21-32	3-3/8	**440-1268**
1-64NC	H-1	2	3/8	1-11/16	**440-1004**	10-32NF	H-3	4	7/8	2-3/8	**440-1085**	1/2-13NC	H-3	4	1-21-32	3-3/8	**440-1270**
1-64NC	H-2	2	3/8	1-11/16	**440-1006**	12-24NC	H-3	4	15/16	2-3/8	**440-1090**	1/2-13NC	H-5	4	1-21-32	3-3/8	**440-1272**
1-72NF	H-1	2	3/8	1-11/16	**440-1008**	12-28NF	H-1	4	15/16	2-3/8	**440-1091**	1/2-20NF	H-3	3	1-21-32	3-3/8	**440-1276**
1-72NF	H-2	2	3/8	1-11/16	**440-1009**	12-28NF	H-3	4	15/16	2-3/8	**440-1092**	1/2-20NF	H-5	3	1-21-32	3-3/8	**440-1278**
2-56NC	H-1	2	7/16	1-3/4	**440-1010**	12-28NF	H-2	4	15/16	2-3/8	**440-1093**	1/2-20NF	H-1	4	1-21-32	3-3/8	**440-1280**
2-56NC	H-2	2	7/16	1-3/4	**440-1011**	14-20NF	H-1	4	1	2-1/2	**440-1095**	1/2-20NF	H-2	4	1-21-32	3-3/8	**440-1282**
2-56NC	H-1	3	7/16	1-3/4	**440-1012**	14-20NF	H-3	4	1	2-1/2	**440-1096**	1/2-20NF	H-3	4	1-21-32	3-3/8	**440-1284**
2-56NC	H-2	3	7/16	1-3/4	**440-1013**	14-24NF	H-1	4	1	2-1/2	**440-1097**	1/2-20NF	H-5	4	1-21-32	3-3/8	**440-1286**
2-64NF	H-1	3	7/16	1-3/4	**440-1014**	14-24NF	H-3	4	1	2-1/2	**440-1098**	9/16-12NC	H-1	4	1-21-32	3-19/32	**440-1312**
2-64NF	H-2	3	7/16	1-3/4	**440-1015**	1/4-20NC	H-3	2	1	2-1/2	**440-1102**	9/16-12NC	H-2	4	1-21-32	3-19/32	**440-1314**
3-48NC	H-1	3	1/2	1-3/4	**440-1016**	1/4-20NC	H-3	3	1	2-1/2	**440-1108**	9/16-12NC	H-3	4	1-21-32	3-19/32	**440-1316**
3-48NC	H-2	3	1/2	1-3/4	**440-1018**	1/4-20NC	H-5	3	1	2-1/2	**440-1110**	9/16-12NC	H-5	4	1-21-32	3-19/32	**440-1318**
3-56NF	H-1	3	1/2	1-3/4	**440-1019**	1/4-20NC	H-1	4	1	2-1/2	**440-1112**	9/16-18NF	H-1	4	1-21-32	3-19/32	**440-1321**
3-56NF	H-2	3	1/2	1-3/4	**440-1020**	1/4-20NC	H-2	4	1	2-1/2	**440-1114**	9/16-18NF	H-2	4	1-21-32	3-19/32	**440-1322**
4-36	H-2	3	9/16	1-7/8	**440-1022**	1/4-20NC	H-3	4	1	2-1/2	**440-1116**	9/16-18NF	H-3	4	1-21-32	3-19/32	**440-1324**
4-40NC	H-1	3	9/16	1-7/8	**440-1025**	1/4-20NC	H-5	4	1	2-1/2	**440-1118**	9/16-18NF	H-5	4	1-21-32	3-19/32	**440-1326**
4-40NC	H-2	3	9/16	1-7/8	**440-1026**	1/4-28NF	H-3	2	1	2-1/2	**440-1132**	5/8-11NC	H-2	4	1-13/16	3-13/16	**440-1330**
4-48NF	H-2	2	9/16	1-7/8	**440-1030**	1/4-28NF	H-3	3	1	2-1/2	**440-1134**	5/8-11NC	H-1	4	1-13/16	3-13/16	**440-1331**
4-48NF	H-1	3	9/16	1-7/8	**440-1031**	1/4-28NF	H-1	4	1	2-1/2	**440-1136**	5/8-11NC	H-3	4	1-13/16	3-13/16	**440-1332**
4-48NF	H-2	3	9/16	1-7/8	**440-1032**	1/4-28NF	H-2	4	1	2-1/2	**440-1138**	5/8-11NC	H-5	4	1-13/16	3-13/16	**440-1334**
5-40NC	H-2	2	5/8	1-15/16	**440-1033**	1/4-28NF	H-3	4	1	2-1/2	**440-1140**	5/8-18NF	H-1	4	1-13/16	3-13/16	**440-1338**
5-40NC	H-1	3	5/8	1-15/16	**440-1034**	1/4-28NF	H-4	4	1	2-1/2	**440-1142**	5/8-18NF	H-2	4	1-13/16	3-13/16	**440-1340**
5-40NC	H-2	3	5/8	1-15/16	**440-1035**	5/16-18NC	H-3	2	1-1/8	2-23/32	**440-1144**	5/8-18NF	H-3	4	1-13/16	3-13/16	**440-1342**
5-44NF	H-1	3	5/8	1-15/16	**440-1036**	5/16-18NC	H-3	3	1-1/8	2-23/32	**440-1148**	5/8-18NF	H-5	4	1-13/16	3-13/16	**440-1343**
5-44NF	H-2	3	5/8	1-15/16	**440-1037**	5/16-18NC	H-1	4	1-1/8	2-23/32	**440-1152**	3/4-10NC	H-3	4	2	4-1/4	**440-1350**
6-32NC	H-2	2	11/16	2	**440-1039**	5/16-18NC	H-2	4	1-1/8	2-23/32	**440-1154**	3/4-10NC	H-5	4	2	4-1/4	**440-1352**
6-32NC	H-3	2	11/16	2	**440-1040**	5/16-18NC	H-3	4	1-1/8"	2-23/32"	**440-1156**	3/4-16NF	H-1	4	2	4-1/4	**440-1354**
6-32NC	H-1	3	11/16	2	**440-1041**	5/16-18NC	H-5	4	1-1/8	2-23/32	**440-1158**	3/4-16NF	H-2	4	2	4-1/4	**440-1356**
6-32NC	H-2	3	11/16	2	**440-1042**	5/16-24NF	H-3	2	1-1/8	2-23/32	**440-1165**	3/4-16NF	H-3	4	2	4-1/4	**440-1358**
6-32NC	H-3	3	11/16	2	**440-1043**	5/16-24NF	H-3	3	1-1/8	2-23/32	**440-1168**	3/4-16NF	H-4	4	2	4-1/4	**440-1359**
6-40NF	H-2	2	11/16	2	**440-1047**	5/16-24NF	H-1	4	1-1/8	2-23/32	**440-1170**	3/4-16NF	H-5	4	2	4-1/4	**440-1360**
6-40NF	H-1	3	11/16	2	**440-1048**	5/16-24NF	H-2	4	1-1/8	2-23/32	**440-1172**	7/8-9NC	H-3	4	2-7/32	4-11/16	**440-1364**
6-40NF	H-2	3	11/16	2	**440-1049**	5/16-24NF	H-3	4	1-1/8	2-23/32	**440-1174**	7/8-9NC	H-4	4	2-7/32	4-11/16	**440-1366**
6-40NF	H-3	3	11/16	2	**440-1050**	5/16-24NF	H-4	4	1-1/8	2-23/32	**440-1176**	7/8-14NF	H-4	4	2-7/32	4-11/16	**440-1374**
8-32NC	H-2	2	3/4	2-1/8	**440-1051**	3/8-16NC	H-3	3	1-1/4	2-15/16	**440-1182**	1-8NC	H-4	4	2-1/2	5-1/8	**440-1380**
8-32NC	H-3	2	3/4	2-1/8	**440-1052**	3/8-16NC	H-5	3	1-1/4	2-15/16	**440-1183**	1-12NF	H-4	4	2-1/2	5-1/8	**440-1388**
8-32NC	H-2	3	3/4	2-1/8	**440-1054**	3/8-16NC	H-1	4	1-1/4	2-15/16	**440-1184**	1-14NS	H-4	4	2-1/2	5-1/8	**440-1394**
8-32NC	H-3	3	3/4	2-1/8	**440-1055**	3/8-16NC	H-2	4	1-1/4	2-15/16	**440-1186**	1-1/8-7NC	H-4	4	2-9/16	5-7/16	**440-1398**
8-32NC	H-1	4	3/4	2-1/8	**440-1057**	3/8-16NC	H-3	4	1-1/4	2-15/16	**440-1188**	1-1/8-12NF	H-4	4	2-9/16	5-7/16	**440-1400**
8-32NC	H-2	4	3/4	2-1/8	**440-1058**	3/8-16NC	H-5	4	1-1/4	2-15/16	**440-1190**	1-1/8-12NF	H-5	4	2-9/16	5-7/16	**440-1401**
8-32NC	H-3	4	3/4	2-1/8	**440-1059**	3/8-24NF	H-3	3	1-1/4	2-15/16	**440-1224**	1-1/4-7NC	H-4	4	2-9/16	5-3/4	**440-1402**
8-36NF	H-1	4	3/4	2-1/8	**440-1062**	3/8-24NF	H-1	4	1-1/4	2-15/16	**440-1226**	1-1/4-12NF	H-4	4	2-9/16	5-3/4	**440-1403**
8-36NF	H-2	2	3/4	2-1/8	**440-1063**	3/8-24NF	H-2	4	1-1/4	2-15/16	**440-1228**	1-1/4-12NF	H-4	6	2-9/16	5-3/4	**440-1404**
8-36NF	H-3	4	3/4	2-1/8	**440-1064**	3/8-24NF	H-3	4	1-1/4	2-15/16	**440-1230**	1-3/8-6NC	H-4	4	3	6-1/16	**440-1406**
8-36NF	H-2	4	3/4	2-1/8	**440-1065**	3/8-24NF	H-4	4	1-1/4	2-15/16	**440-1232**	1-3/8-12NF	H-4	6	3	6-1/16	**440-1408**
10-24NC	H-2	2	7/8	2-3/8	**440-1066**	7/16-14NC	H-3	3	1-7/16	3-5/32	**440-1234**	1-1/2-6NC	H-4	4	3	6-3/8	**440-1410**
10-24NC	H-3	2	7/8	2-3/8	**440-1067**	7/16-14NC	H-5	3	1-7/16	3-5/32	**440-1236**	1-1/2-12NF	H-4	6	3	6-3/8	**440-1412**
10-24NC	H-2	3	7/8	2-3/8	**440-1068**	7/16-14NC	H-2	4	1-7/16	3-5/32	**440-1240**	1-5/8-6-1/2	H-6	6			**440-1414**
10-24NC	H-3	3	7/8	2-3/8	**440-1069**	7/16-14NC	H-3	4	1-7/16	3-5/32	**440-1242**	1-5/8-12	H-4	6			**440-1416**
10-24NC	H-1	4	7/8'	2-3/8	**440-1071**	7/16-14NC	H-5	4	1-7/16	3-5/32	**440-1244**	1-3/4-5	H-6	6			**440-1418**
10-24NC	H-2	4	7/8	2-3/8	**440-1072**	7/16-20NF	H-3	3	1-7/16	3-5/32	**440-1246**	1-3/4-12	H-4	6			**440-1420**
10-24NC	H-3	4	7/8	2-3/8	**440-1073**	7/16-20NF	H-2	4	1-7/16	3-5/32	**440-1256**	1-7/8-8	H-6	6			**440-1422**
10-32NF	H-2	2	7/8	2-3/8	**440-1078**	7/16-20NF	H-3	4	1-7/16	3-5/32	**440-1258**	1-7/8-12	H-6	6			**440-1424**
10-32NF	H-3	2	7/8	2-3/8	**440-1079**	7/16-20NF	H-5	4	1-7/16	3-5/32	**440-1260**	2-4-1/2	H-7	6			**440-1426**
10-32NF	H-2	3	7/8	2-3/8	**440-1080**	1/2-13NC	H-3	3	1-21-32	3-3/8	**440-1262**	2-12	H-7	6			**440-1428**
10-32NF	H-3	3	7/8	2-3/8	**440-1081**	1/2-13NC	H-5	3	1-21-32	3-3/8	**440-1264**						

Hand Taps-Plug Style 高速钢美标手用丝锥(二攻)磨制

High Speed Steel, Ground Thread

- Used for hand tapping or general machine and CNC tapping in wide variety of materials.
- The most versatile choice for through and semi-blind holes.
- Three to five thread chamfer.



Size	Thread Limit	No.osf Flute	Thread Length	OAL		Size	Thread Limit	No.of Flute	Thread Length	OAL	Order No.	Size	Thread Limit	No.of Flute	Thread Length	OAL	Order No.
0-80NF	H-1	2	5/16"	1-5/8"	440-2000	10-32NF	H-1	4	7/8	2-3/8	440-2083	7/16-20NF	H-11	4	1-7/16	3-5/32	440-2261
0-80NF	H-2	2	5/16	1-5/8	440-2002	10-32NF	H-2	4	7/8	2-3/8	440-2084	1/2-13NC	H-3	3	1-21/32	3-3/8	440-2262
1-64NC	H-1	2	3/8	1-11/16	440-2004	10-32NF	H-3	4	7/8	2-3/8	440-2085	1/2-13NC	H-5	3	1-21/32	3-3/8	440-2264
1-64NC	H-2	2	3/8	1-11/16	440-2006	10-32NF	H-4	4	7/8	2-3/8	440-2086	1/2-13NC	H-1	4	1-21/32	3-3/8	440-2266
1-72NF	H-1	2	3/8	1-11/16	440-2008	10-32NF	H-5	4	7/8	2-3/8	440-2087	1/2-13NC	H-2	4	1-21/32	3-3/8	440-2268
1-72NF	H-2	2	3/8	1-11/16	440-2009	10-32NF	H-7	4	7/8	2-3/8	440-2088	1/2-13NC	H-3	4	1-21/32	3-3/8	440-2270
2-56NC	H-1	2	7/16	1-3/4	440-2010	12-24NC	H-1	4	15/16	2-3/8	440-2089	1/2-13NC	H-5	4	1-21/32	3-3/8	440-2272
2-56NC	H-2	2	7/16	1-3/4	440-2011	12-24NC	H-3	4	15/16	2-3/8	440-2090	1/2-13NC	H-11	4	1-21/32	3-3/8	440-2274
2-56NC	H-1	3	7/16	1-3/4	440-2012	12-28NF	H-1	4	15/16	2-3/8	440-2091	1/2-20NF	H-3	3	1-21/32	3-3/8	440-2276
2-56NC	H-2	3	7/16	1-3/4	440-2013	12-28NF	H-2	2	15/16	2-3/8	440-2100	1/2-20NF	H-5	3	1-21/32	3-3/8	440-2278
2-64NF	H-1	3	7/16	1-3/4	440-2014	12-28NF	H-3	4	15/16	2-3/8	440-2092	1/2-20NF	H-1	4	1-21/32	3-3/8	440-2280
2-64NF	H-2	3	7/16	1-3/4	440-2015	14-20	H-3	4	1-1/4	2-5/8	440-2093	1/2-20NF	H-2	4	1-21/32	3-3/8	440-2282
3-48NC	H-2	2	1/2	1-13/16	440-2016	14-24	H-3	4	1-1/4	2-5/8	440-2094	1/2-20NF	H-3	4	1-21/32	3-3/8	440-2284
3-48NC	H-1	3	1/2	1-13/16	440-2017	14-24	H-1	4	1-1/4	2-5/8	440-2095	1/2-20NF	H-5	4	1-21/32	3-3/8	440-2286
3-48NC	H-2	3	1/2	1-13/16	440-2018	1/4-20NC	H-3	2	1	2-1/2	440-2102	9/16-12NC	H-2	4	1-21/32	3-19/32	440-2314
3-56NF	H-1	3	1/2	1-13/16	440-2019	1/4-20NC	H-1	3	1	2-1/2	440-2104	9/16-12NC	H-3	4	1-21/32	3-19/32	440-2316
3-56NF	H-2	3	1/2	1-13/16	440-2020	1/4-20NC	H-2	3	1	2-1/2	440-2106	9/16-12NC	H-5	4	1-21/32	3-19/32	440-2318
4-36	H-1	3	1/2	1-13/16	440-2021	1/4-20NC	H-3	3	1	2-1/2	440-2108	9/16-18NF	H-1	4	1-21/32	3-19/32	440-2320
4-36	H-2	3	1/2	1-13/16	440-2022	1/4-20NC	H-5	3	1	2-1/2	440-2110	9/16-18NF	H-2	4	1-21/32	3-19/32	440-2322
4-40NC	H-1	2	9/16	1-7/8	440-2023	1/4-20NC	H-1	4	1	2-1/2	440-2112	9/16-18NF	H-3	4	1-21/32	3-19/32	440-2324
4-40NC	H-2	2	9/16	1-7/8	440-2024	1/4-20NC	H-2	4	1	2-1/2	440-2114	9/16-18NF	H-5	4	1-21/32	3-19/32	440-2326
4-40NC	H-1	3	9/16	1-7/8	440-2025	1/4-20NC	H-3	4	1	2-1/2	440-2116	5/8-11NC	H-1	4	1-13/16	3-13/16	440-2328
4-40NC	H-2	3	9/16	1-7/8	440-2026	1/4-20NC	H-5	4	1	2-1/2	440-2118	5/8-11NC	H-2	4	1-13/16	3-13/16	440-2330
4-40NC	H-3	3	9/16	1-7/8	440-2027	1/4-20NC	H-6	4	1	2-1/2	440-2120	5/8-11NC	H-3	4	1-13/16	3-13/16	440-2332
4-40NC	H-4	4	9/16	1-7/8	440-2028	1/4-20NC	H-7	4	1	2-1/2	440-2122	5/8-11NC	H-5	4	1-13/16	3-13/16	440-2334
4-40NC	H-5	5	9/16	1-7/8	440-2029	1/4-20NC	H-11	4	1	2-1/2	440-2124	5/8-11NC	H-11	4	1-13/16	3-13/16	440-2336
4-48NF	H-2	2	9/16	1-7/8	440-2030	1/4-28NF	H-3	2	1	2-1/2	440-2132	5/8-18NF	H-1	4	1-13/16	3-13/16	440-2338
4-48NF	H-1	3	9/16	1-7/8	440-2031	1/4-28NF	H-3	3	1	2-1/2	440-2133	5/8-18NF	H-2	4	1-13/16	3-13/16	440-2340
4-48NF	H-2	3	9/16	1-7/8	440-2032	1/4-28NF	H-3	3	1	2-1/2	440-2134	5/8-18NF	H-3	4	1-13/16	3-13/16	440-2342
5-40NC	H-2	2	5/8	1-15/16	440-2033	1/4-28NF	H-1	4	1	2-1/2	440-2136	5/8-18NF	H-5	4	1-13/16	3-13/16	440-2343
5-40NC	H-1	3	5/8	1-15/16	440-2034	1/4-28NF	H-2	4	1	2-1/2	440-2138	11/16-11NS	H-3	4	1-13/16	4-1/32	440-2344
5-40NC	H-2	3	5/8	1-15/16	440-2035	1/4-28NF	H-3	4	1	2-1/2	440-2140	11/16-16NS	H-3	4	1-13/16	4-1/32	440-2345
5-44NF	H-1	3	5/8	1-15/16	440-2036	1/4-28NF	H-4	4	1	2-1/2	440-2142	3/4-10NC	H-1	4	2	4-1/4	440-2346
5-44NF	H-2	3	5/8	1-15/16	440-2037	5/16-18NC	H-3	2	1-1/8	2-23/32	440-2144	3/4-10NC	H-2	4	2	4-1/4	440-2348
6-32NC	H-1	2	11/16	2	440-2038	5/16-18NC	H-1	3	1-1/8	2-23/32	440-2146	3/4-10NC	H-3	4	2	4-1/4	440-2350
6-32NC	H-2	2	11/16	2	440-2039	5/16-18NC	H-3	3	1-1/8	2-23/32	440-2148	3/4-10NC	H-5	4	2	4-1/4	440-2352
6-32NC	H-3	2	11/16	2	440-2040	5/16-18NC	H-5	3	1-1/8	2-23/32	440-2150	3/4-16NF	H-1	4	2	4-1/4	440-2354
6-32NC	H-1	3	11/16	2	440-2041	5/16-18NC	H-1	4	1-1/8	2-23/32	440-2152	3/4-16NF	H-2	4	2	4-1/4	440-2356
6-32NC	H-2	3	11/16	2	440-2042	5/16-18NC	H-2	4	1-1/8	2-23/32	440-2154	3/4-16NF	H-3	4	2	4-1/4	440-2358
6-32NC	H-3	3	11/16	2	440-2043	5/16-18NC	H-3	4	1-1/8	2-23/32	440-2156	3/4-16NF	H-4	4	2	4-1/4	440-2359
6-32NC	H-7	3	11/16	2	440-2044	5/16-18NC	H-4	4	1-1/8	2-23/32	440-2157	3/4-16NF	H-5	4	2	4-1/4	440-2360
6-32NC	H-4	4	11/16	2	440-2045	5/16-18NC	H-5	4	1-1/8	2-23/32	440-2158	7/8-9NC	H-2	4	2-7/32	4-11/16	440-2362
6-32NC	H-5	5	11/16	2	440-2046	5/16-18NC	H-6	4	1-1/8	2-23/32	440-2160	7/8-9NC	H-3	4	2-7/32	4-11/16	440-2364
6-40NF	H-2	2	11/16	2	440-2047	5/16-18NC	H-7	4	1-1/8	2-23/32	440-2162	7/8-9NC	H-4	4	2-7/32	4-11/16	440-2366
6-40NF	H-1	3	11/16	2	440-2048	5/16-18NC	H-11	4	1-1/8	2-23/32	440-2164	7/8-9NC	H-6	4	2-7/32	4-11/16	440-2367
6-40NF	H-2	3	11/16	2	440-2049	5/16-24NF	H-3	2	1-1/8	2-23/32	440-2165	7/8-14NF	H-1	4	2-7/32	4-11/16	440-2368
8-32NC	H-1	2	3/4	2-1/8	440-2050	5/16-24NF	H-1	3	1-1/8	2-23/32	440-2166	7/8-14NF	H-2	4	2-7/32	4-11/16	440-2370
8-32NC	H-2	2	3/4	2-1/8	440-2051	5/16-24NF	H-3	3	1-1/8	2-23/32	440-2168	7/8-14NF	H-3	4	2-7/32	4-11/16	440-2372
8-32NC	H-3	2	3/4	2-1/8	440-2052	5/16-24NF	H-1	4	1-1/8	2-23/32	440-2170	7/8-14NF	H-4	4	2-7/32	4-11/16	440-2374
8-32NC	H-1	3	3/4	2-1/8	440-2053	5/16-24NF	H-2	4	1-1/8	2-23/32	440-2172	7/8-14NF	H-6	4	2-7/32	4-11/16	440-2375
8-32NC	H-2	3	3/4	2-1/8	440-2054	5/16-24NF	H-3	4	1-1/8	2-23/32	440-2174	1-8NC	H-1	4	2-1/2	5-1/8	440-2376
8-32NC	H-3	3	3/4	2-1/8	440-2055	5/16-24NF	H-4	4	1-1/8	2-23/32	440-2176	1-8NC	H-2	4	2-1/2	5-1/8	440-2378
8-32NC	H-7	3	3/4	2-1/8	440-2056	5/16-24NF	H-5	4	1-1/8	2-23/32	440-2177	1-8NC	H-4	4	2-1/2	5-1/8	440-2380
8-32NC	H-1	4	3/4	2-1/8	440-2057	3/8-16NC	H-1	3	1-1/4	2-15/16	440-2180	1-8NC	H-6	4	2-1/2	5-1/8	440-2382
8-32NC	H-2	4	3/4	2-1/8	440-2058	3/8-16NC	H-3	3	1-1/4	2-15/16	440-2182	1-12NF	H-1	4	2-1/2	5-1/8	440-2384
8-32NC	H-3	4	3/4	2-1/8	440-2059	3/8-16NC	H-5	3	1-1/4	2-15/16	440-2183	1-12NF	H-2	4	2-1/2	5-1/8	440-2386
8-32NC	H-4	4	3/4	2-1/8	440-2060	3/8-16NC	H-1	4	1-1/4	2-15/16	440-2184	1-12NF	H-3	4	2-1/2	5-1/8	440-2387
8-32NC	H-5	4	3/4	2-1/8	440-2061	3/8-16NC	H-2	4	1-1/4	2-15/16	440-2186	1-12NF	H-4	4	2-1/2	5-1/8	440-2388
8-32NC	H-7	4	3/4	2-1/8	440-2062	3/8-16NC	H-3	4	1-1/4	2-15/16	440-2188	1-12NF	H-6	4	2-1/2	5-1/8	440-2390
8-36NF	H-2	2	3/4	2-1/8	440-2063	3/8-16NC	H-4	4	1-1/4	2-15/16	440-2189	1-14NS	H-2	4	2-1/2	5-1/8	440-2392
8-36NF	H-1	4	3/4	2-1/8	440-2064	3/8-16NC	H-5	4	1-1/4	2-15/16	440-2190	1-14NS	H-4	4	2-1/2	5-1/8	440-2394
8-36NF	H-2	4	3/4	2-1/8	440-2065	3/8-16NC	H-7	4	1-1/4	2-15/16	440-2192	1-14NS	H-6	4	2-1/2	5-1/8	440-2396
8-36NF	H-3	4	3/4	2-1/8	440-2096	3/8-16NC	H-11	4	1-1/4	2-15/16	440-2194	1-1/8-7NC	H-4	4	2-9/16	5-3/4	440-2398
10-24NC	H-2	2	7/8	2-3/8	440-2066	3/8-24NF	H-3	3	1-1/4	2-15/16	440-2224	1-1/8-12NC	H-3	4	2-9/16	5-3/4	440-2399
10-24NC	H-3	2	7/8	2-3/8	440-2067	3/8-24NF	H-1	4	1-1/4	2-15/16	440-2226	1-1/8-12NF	H-4	4	2-9/16	5-3/4	440-2400
10-24NC	H-2	3	7/8	2-3/8	440-2068	3/8-24NF	H-2	4	1-1/4	2-15/16	440-2228	1-1/8-12NF	H-5	4	2-9/16	5-3/4	440-2401
10-24NC	H-3	3	7/8	2-3/8	440-2069	3/8-24NF	H-3	4	1-1/4	2-15/16	440-2230	1-1/4-7NC	H-4	4	2-9/16	5-3/4	440-2402
10-24NC	H-7	3	7/8	2-3/8	440-2070	3/8-24NF	H-4	4	1-1/4	2-15/16	440-2232	1-1/4-12NF	H-4	6	2-9/16	5-3/4	440-2404
10-24NC	H-1	4	7/8	2-3/8	440-2071	7/16-14NC	H-3	3	1-7/16	3-5/32	440-2234	1-3/8-6NC	H-4	4	3	6-1/16	440-2406
10-24NC	H-2	4	7/8	2-3/8	440-2072	7/16-14NC	H-5	3	1-7/16	3-5/32	440-2236	1-3/8-12NF	H-4	6	3	6-1/16	440-2408
10-24NC	H-3	4	7/8	2-3/8	440-2073	7/16-14NC	H-1	4	1-7/16	3-5/32	440-2238	1-1/2-6NC	H-4	4	3	6-3/8	440-2410
10-24NC	H-4	4	7/8	2-3/8	440-2074	7/16-14NC	H-2	4	1-7/16	3-5/32	440-2240	1-1/2-12NF	H-4	6	3	6-3/8	440-2412
10-24NC	H-5	4	7/8	2-3/8	440-2075	7/16-14NC	H-3	4	1-7/16	3-5/32	440-2242	1-5/8-6-1/2	H-6	6	3-3/16	6-11/16	440-2414
10-24NC	H-7	4	7/8	2-3/8	440-2076	7/16-14NC	H-5	4	1-7/16	3-5/32	440-2244	1-5/8-12	H-4	6	3-3/16	6-11/16	440-2416
10-32NF	H-1	3	7/8	2-3/8	440-2077	7/16-20NF	H-3	3	1-7/16	3-5/32	440-2246	1-3/4-5	H-6	6	3-3/16	7	440-2418
10-32NF	H-2	2	7/8"	2-3/8"	440-2078	7/16"-20NF	H-5	3	1-7/16"	3-5/32"	440-2254	1-3/4-12	H-4	6	3-3/16	7	440-2420
10-32NF	H-3	2	7/8	2-3/8	440-2079	7/16"-20NF	H-1	4	1-7/16	3-5/32	440-2255	1-7/8-8	H-6	6	3-9/16	7-5/16	440-2422
10-32NF	H-2	3	7/8	2-3/8	440-2080	7/16-20NF	H-2	4	1-7/16	3-5/32	440-2256	1-7/8-12	H-6	6	3-9/16	7-5/16	440-2424
10-32NF	H-3	3	7/8	2-3/8	440-2081	7/16-20NF	H-3	4	1-7/16	3-5/32	440-2258	2- 4-1/2	H-7	6	3-9/16	7-5/8	440-2426
10-32NF	H-7	3	7/8	2-3/8	440-2082	7/16-20NF	H-5	4	1-7/16	3-5/32	440-2260	2-12	H-7	6	3-9/16	7-5/8	440-2428

mhc® Industrial Supply

Hand Taps-Bottoming Style 高速钢美标手用丝锥(三攻)磨制

High Speed Steel, Ground Thread

- Used for tapping blind holes requiring full threads near the bottom of the hole.
- Featured for hand tapping general machine or CNC tapping in a wide variety of materials.
- One to two thread chamfer.



Size	Thread Limit	No.of Flute	Thread Length	Overall Length	Order No.	Size	Thread Limit	No.of Flute	Thread Length	Overall Length	Order No.	Size	Thread Limit	No.of Flute	Thread Length	Overall Length	Order No.
0-80NF	H-1	2”	5/16”	1-5/8“	440-3000	10-32NF	H-1	4	7/8	2-3/8	440-3083	7/16-20NF	H-2	4	1-7/16	3-5/32	440-3256
0-80NF	H-2	2	5/16	1-5/8	440-3002	10-32NF	H-2	4	7/8	2-3/8	440-3084	7/16-20NF	H-3	4	1-7/16	3-5/32	440-3258
1-64NC	H-1	2	3/8	1-11/16	440-3004	10-32NF	H-3	4	7/8	2-3/8	440-3085	7/16-20NF	H-5	4	1-7/16	3-5/32	440-3260
1-64NC	H-2	2	3/8	1-11/16	440-3006	10-32NF	H-7	4	7/8	2-3/8	440-3087	1/2-13NC	H-3	3	1-21/32	3-3/8	440-3262
1-72NF	H-1	2	3/8	1-11/16	440-3008	10-32NF	H-7	4	7/8	2-3/8	440-3088	1/2-13NC	H-5	3	1-21/32	3-3/8	440-3264
1-72NF	H-2	2	3/8	1-11/16	440-3009	12-24NC	H-2	4	15/16	2-3/8	440-3089	1/2-13NC	H-1	4	1-21/32	3-3/8	440-3266
2-56NC	H-2	2	7/16	1-3/4	440-3011	12-24NC	H-3	4	15/16	2-3/8	440-3090	1/2-13NC	H-2	4	1-21/32	3-3/8	440-3268
2-56NC	H-1	3	7/16	1-3/4	440-3012	12-28NF	H-1	4	15/16	2-3/8	440-3091	1/2-13NC	H-3	4	1-21/32	3-3/8	440-3270
2-56NC	H-2	3	7/16	1-3/4	440-3013	12-28NF	H-3	4	15/16	2-3/8	440-3092	1/2-13NC	H-5	4	1-21/32	3-3/8	440-3272
2-64NF	H-1	3	7/16	1-3/4	440-3014	12-28NF	H-2	4	15/16	2-3/8	440-3092	1/2-20NF	H-3	3	1-21/32	3-3/8	440-3276
2-64NF	H-2	3	7/16	1-3/4	440-3015	14-24	H-3	4	1-1/4	2-5/8	440-3094	1/2-20NF	H-5	3	1-21/32	3-3/8	440-3278
3-48NC	H-2	2	1/2	1-13/16	440-3016	14-24	H-1	4	1-1/4	2-5/8	440-3096	1/2-20NF	H-1	4	1-21/32	3-3/8	440-3280
3-48NC	H-1	3	1/2	1-13/16	440-3017	14-24	H-3	4	1-1/4	2-5/8	440-3097	1/2-20NF	H-2	4	1-21/32	3-3/8	440-3282
3-48NC	H-2	3	1/2	1-13/16	440-3018	1/4-20NC	H-3	2	1	2-1/2	440-3102	1/2-20NF	H-3	4	1-21/32	3-3/8	440-3284
3-56NF	H-1	3	1/2	1-13/16	440-3019	1/4-20NC	H-5	2	1	2-1/2	440-3103	1/2-20NF	H-5	4	1-21/32	3-3/8	440-3286
3-56NF	H-2	3	1/2	1-13/16	440-3020	1/4-20NC	H-2	3	1	2-1/2	440-3106	9/16-12NC	H-2	4	1-21/32	3-19/16	440-3314
4-36	H-2	3	9/16	1-7/8	440-3022	1/4-20NC	H-3	3	1	2-1/2	440-3108	9/16-12NC	H-3	4	1-21/32	3-19/16	440-3316
4-40NC	H-1	2	9/16	1-7/8	440-3023	1/4-20NC	H-5	3	1	2-1/2	440-3110	9/16-12NC	H-5	4	1-21/32	3-19/16	440-3318
4-40NC	H-2	2	9/16	1-7/8	440-3024	1/4-20NC	H-1	4	1	2-1/2	440-3112	9/16-18NF	H-2	4	1-21/32	3-19/16	440-3322
4-40NC	H-1	3	9/16	1-7/8	440-3025	1/4-20NC	H-2	4	1	2-1/2	440-3114	9/16-18NF	H-3	4	1-21/32	3-19/16	440-3324
4-40NC	H-2	3	9/16	1-7/8	440-3026	1/4-20NC	H-3	4	1	2-1/2	440-3116	9/16-18NF	H-5	4	1-21/32	3-19/16	440-3326
4-48NF	H-2	2	9/16	1-7/8	440-3030	1/4-20NC	H-5	4	1	2-1/2	440-3118	5/8-11NC	H-1	4	1-13/16	3-13/16	440-3328
4-48NF	H-1	3	9/16	1-7/8	440-3031	1/4-28NF	H-3	2	1	2-1/2	440-3132	5/8-11NC	H-2	4	1-13/16	3-13/16	440-3330
4-48NF	H-2	3	9/16	1-7/8	440-3032	1/4-28NF	H-3	3	1	2-1/2	440-3134	5/8-11NC	H-3	4	1-13/16	3-13/16	440-3332
5-40NC	H-2	2	5/8	1-15/16	440-3033	1/4-28NF	H-1	4	1	2-1/2	440-3136	5/8-11NC	H-5	4	1-13/16	3-13/16	440-3334
5-40NC	H-7	3	5/8	1-15/16	440-3034	1/4-28NF	H-2	4	1	2-1/2	440-3138	5/8-18NF	H-1	4	1-13/16	3-13/16	440-3338
5-40NC	H-2	3	5/8	1-15/16	440-3035	1/4-28NF	H-3	4	1	2-1/2	440-3140	5/8-18NF	H-2	4	1-13/16	3-13/16	440-3340
5-44NF	H-1	3	5/8	1-15/16	440-3036	1/4-28NF	H-4	4	1	2-1/2	440-3142	5/8-18NF	H-3	4	1-13/16	3-13/16	440-3342
5-44NF	H-2	3	5/8	1-15/16	440-3037	5/16-18NC	H-3	2	1-1/8	2-23/32	440-3144	5/8-18NF	H-5	4	1-13/16	3-13/16	440-3343
6-32NC	H-1	2	11/16	2	440-3038	5/16-18NC	H-5	2	1-1/8	2-23/32	440-3145	3/4-10NC	H-1	4	2	4-1/4	440-3346
6-32NC	H-2	2	11/16	2	440-3039	5/16-18NC	H-3	3	1-1/8	2-23/32	440-3148	3/4-10NC	H-3	4	2	4-1/4	440-3350
6-32NC	H-3	2	11/16	2	440-3040	5/16-18NC	H-5	3	1-1/8	2-23/32	440-3150	3/4-10NC	H-5	4	2	4-1/4	440-3352
6-32NC	H-1	3	11/16	2	440-3041	5/16-18NC	H-1	4	1-1/8	2-23/32	440-3152	3/4-16NF	H-1	4	2	4-1/4	440-3354
6-32NC	H-2	3	11/16	2	440-3042	5/16-18NC	H-2	4	1-1/8	2-23/32	440-3154	3/4-16NF	H-2	4	2	4-1/4	440-3356
6-32NC	H-3	3	11/16	2	440-3043	5/16-18NC	H-3	4	1-1/8	2-23/32	440-3156	3/4-16NF	H-3	4	2	4-1/4	440-3358
6-32NC	H-7	3	11/16	2	440-3044	5/16-18NC	H-4	4	1-1/8	2-23/32	440-3157	3/4-16NC	H-5	4	2	4-1/4	440-3360
6-40NF	H-2	2	11/16	2	440-3047	5/16-18NC	H-5	4	1-1/8	2-23/32	440-3158	7/8-9NC	H-1	4	2-7/32	4-11/16	440-3361
6-40NF	H-1	3	11/16	2	440-3048	5/16-24NF	H-3	3	1-1/8	2-23/32	440-3168	7/8-9NC	H-2	4	2-7/32	4-11/16	440-3362
6-40NF	H-2	3	11/16	2	440-3049	5/16-24NF	H-1	4	1-1/8	2-23/32	440-3170	7/8-9NC	H-3	4	2-7/32	4-11/16	440-3364
6-40NF	H-3	3	11/16	2	440-3050	5/16-24NF	H-2	4	1-1/8	2-23/32	440-3172	7/8-9NC	H-4	4	2-7/32	4-11/16	440-3366
8-32NC	H-2	2	3/4	2-1/8	440-3051	5/16-24NF	H-3	4	1-1/8	2-23/32	440-3174	7/8-9NC	H-6	4	2-7/32	4-11/16	440-3367
8-32NC	H-3	2	3/4	2-1/8	440-3052	5/16-24NF	H-4	4	1-1/8	2-23/32	440-3176	7/8-14NF	H-2	4	2-7/32	4-11/16	440-3372
8-32NC	H-2	3	3/4	2-1/8	440-3054	5/16-24NF	H-5	4	1-1/8	2-23/32	440-3177	7/8-14NF	H-3	4	2-7/32	4-11/16	440-3373
8-32NC	H-3	3	3/4	2-1/8	440-3055	3/8-16NC	H-1	3	1-1/4	2-15/16	440-3180	7/8-14NF	H-4	4	2-7/32	4-11/16	440-3374
8-32NC	H-7	3	3/4	2-1/8	440-3056	3/8-16NC	H-3	3	1-1/4	2-15/16	440-3182	7/8-14NF	H-6	4	2-7/32	4-11/16	440-3375
8-32NC	H-1	4	3/4	2-1/8	440-3057	3/8-16NC	H-5	3	1-1/4	2-15/16	440-3183	1-8NC	H-1	4	2-1/2	5-1/8	440-3376
8-32NC	H-2	4	3/4	2-1/8	440-3058	3/8-16NC	H-1	4	1-1/4	2-15/16	440-3184	1-8NC	H-4	4	2-1/2	5-1/8	440-3380
8-32NC	H-3	4	3/4	2-1/8	440-3059	3/8-16NC	H-2	4	1-1/4	2-15/16	440-3186	1-12NF	H-3	4	2-1/2	5-1/8	440-3386
8-32NC	H-7	4	3/4	2-1/8	440-3062	3/8-16NC	H-3	4	1-1/4	2-15/16	440-3188	1-12NF	H-4	4	2-1/2	5-1/8	440-3388
8-36NF	H-2	2	3/4	2-1/8	440-3063	3/8-16NC	H-4	4	1-1/4	2-15/16	440-3189	1-14NS	H-4	4	2-1/2	5-1/8	440-3394
8-36NF	H-1	4	3/4	2-1/8	440-3064	3/8-16NC	H-5	4	1-1/4	2-15/16	440-3190	1-1/8-7NC	H-4	4	2-9/16	5-3/4	440-3398
8-36NF	H-2	4	3/4	2-1/8	440-3065	3/8-24NF	H-3	3	1-1/4	2-15/16	440-3224	1-1/8-12NF	H-4	4	2-9/16	5-3/4	440-3400
10-24NC	H-2	2	7/8	2-3/8	440-3066	3/8-24NF	H-1	4	1-1/4	2-15/16	440-3226	1-1/4-7NC	H-4	4	2-9/16	5-3/4	440-3402
10-24NC	H-3	2	7/8	2-3/8	440-3067	3/8-24NF	H-2	4	1-1/4	2-15/16	440-3228	1-1/4-12NF	H-4	6	2-9/16	5-3/4	440-3404
8-36NF	H-3	4	3/4	2-1/8	440-3068	3/8-24NF	H-3	4	1-1/4	2-15/16	440-3230	1-3/8-6NC	H-4	4	3	6-1/16	440-3406
10-24NC	H-3	3	7/8	2-3/8	440-3069	3/8-24NF	H-4	4	1-1/4	2-15/16	440-3232	1-3/8-12NF	H-4	6	3	6-1/16	440-3408
10-24NC	H-7	3	7/8	2-3/8	440-3070	3/8-24NF	H-5	4	1-1/4	2-15/16	440-3233	1-1/2-6NC	H-4	4	3	6-3/8	440-3410
10-24NC	H-1	4	7/8	2-3/8	440-3071	7/16-14NC	H-3	3	1-7/16	3-5/32	440-3234	1-1/2-12NF	H-4	6	3	6-3/8	440-3412
10-24NC	H-2	4	7/8	2-3/8	440-3072	7/16-14NC	H-5	3	1-7/16	3-5/32	440-3236	1-5/8-6-1/2	H-6	6	3-3/16	6-11/16	440-3414
10-24NC	H-3	4	7/8	2-3/8	440-3073	7/16-14NC	H-1	4	1-7/16	3-5/32	440-3238	1-5/8-12	H-4	6	3-3/16	6-11/16	440-3416
10-24NC	H-7	4	7/8	2-3/8	440-3076	7/16-14NC	H-2	4	1-7/16	3-5/32	440-3240	1-3/4-5	H-6	6	3-3/16	7	440-3418
10-32NF	H-1	2	7/8	2-3/8	440-3077	7/16-14NC	H-3	4	1-7/16	3-5/32	440-3242	1-3/4-12	H-4	6	3-3/16	7	440-3420
10-32NF	H-2	2	7/8”	2-3/8”	440-3078	7/16”-14NC	H-5	4	1-7/16”	3-5/32”	440-3244	1-7/8-8	H-6	6	3-9/16	7-5/16	440-3422
10-32NF	H-3	2	7/8	2-3/8	440-3079	7/16-20NF	H-3	3	1-7/16	3-5/32	440-3246	1-7/8-12	H-6	6	3-9/16	7-5/16	440-3424
10-32NF	H-2	3	7/8	2-3/8	440-3080	7/16-20NF	H-5	3	1-7/16	3-5/32	440-3254	2-4-1/2	H-7	6	3-9/16	7-5/8	440-3426
10-32NF	H-3	3	7/8	2-3/8	440-3081	7/16-20NF	H-1	4	1-7/16	3-5/32	440-3255	2-12	H-7	6	3-9/16	7-5/8	440-3428
10-32NF	H-7	3	7/8	2-3/8	440-3082												

Carbon Steel Hand Taps NEW

磨制美标碳钢手用丝锥



Ground Thread

Tap Size	Taper Order No.	Plug Order No.	Bottoming Order No.
0-80NF	312-1002	312-2002	312-3002
1-64NC	312-1012	312-2012	312-3012
1-72NF	312-1022	312-2022	312-3022
2-56NC	312-1030	312-2030	312-3030
2-64NF	312-1032	312-2032	312-3032
3-48NC	312-1042	312-2042	312-3042
3-56NF	312-1052	312-2052	312-3052
4-36	312-1062	312-2062	312-3062
4-40NC	312-1065	312-2065	312-3065
4-48NF	312-1072	312-2072	312-3072
5-40NC	312-1082	312-2082	312-3082
5-44NF	312-1092	312-2092	312-3092
5-56	312-1102	312-2102	312-3102
6-32NC	312-1112	312-2112	312-3112
6-36NF	312-1115	312-2115	312-3115
6-40	312-1122	312-2122	312-3122
8-32NC	312-1125	312-2125	312-3125
8-36NF	312-1132	312-2132	312-3132
10-24NC	312-1142	312-2142	312-3142
10-32NF	312-1152	312-2152	312-3152
12-24NC	312-1155	312-2155	312-3155
12-28NF	312-1162	312-2162	312-3162
1/4”-20 NC	312-1183	312-2183	312-3183
1/4”-24	312-1184	312-2184	312-3184
1/4”-28NF	312-1185	312-2185	312-3185
1/4”-32	312-1187	312-2187	312-3187
5/16”-18NC	312-1192	312-2192	312-3192
5/16”-24NF	312-1202	312-2202	312-3202
5/16”-32	312-1205	312-2205	312-3205
3/8”-16NC	312-1212	312-2212	312-3212
3/8”-24NF	312-1222	312-2222	312-3222
7/16”-14NC	312-1232	312-2232	312-3232
7/16”-20NF	312-1235	312-2235	312-3235
1/2”-12	312-1238	312-2238	312-3238
1/2”-13NC	312-1242	312-2242	312-3242
1/2”-20NF	312-1252	312-2252	312-3252
9/16”-12NC	312-1262	312-2262	312-3262
9/16”-18NF	312-1272	312-2272	312-3272
5/8”-11NC	312-1282	312-2282	312-3282
5/8”-18NF	312-1292	312-2292	312-3292
11/16”-11NS	312-1293	312-2293	312-3293
11/16”-16NS	312-1294	312-2294	312-3294
3/4”-10NC	312-1295	312-2295	312-3295
3/4”-16NF	312-1296	312-2296	312-3296
3/4”-19	312-1297	312-2297	312-3297
7/8”-9NC	312-1298	312-2298	312-3298
7/8”-14	312-1299	312-2299	312-3299
1”-8NC	312-1300	312-2300	312-3300
1”-12NF	312-1301	312-2301	312-3301
1”-14	312-1302	312-2302	312-3302
1-1/8”-7 NC	312-1305	312-2305	312-3305
1-1/8”-12NF	312-1312	312-2312	312-3312
1-1/4”-7NC	312-1315	312-2315	312-3315
1-1/4”-12NF	312-1322	312-2322	312-3322
1-3/8”-6 NC	312-1332	312-2332	312-3332
1-3/8”-12NF	312-1342	312-2342	312-3342
1-1/2”-6 NC	312-1352	312-2352	312-3352
1-1/2-12NF	312-1353	312-2353	312-3353

Left Hand Taps & Sets 左旋丝锥

HSS, Ground Thread NEW

- Use in wide variety of materials to create left hand threaded holes
- Set Includes: 1 Each of same available tap size:taper, plug and bottoming



Size	Taper Order No.	Plug Order No.	Bottoming Order No.	3pc Set Order No.
0-80NF	313-1002	311-5002	313-2002	313-5002
1-64NC	313-1012	311-5012	313-2012	313-5012
1-72NF	313-1022	311-5022	313-2022	313-5022
2-56NC	313-1032	311-5032	313-2032	313-5032
2-64NF	313-1042	311-5042	313-2042	313-5042
3-48NC	313-1052	311-5052	313-2052	313-5052
3-56NF	313-1062	311-5062	313-2062	313-5062
4-40NC	313-1072	311-5072	313-2072	313-5072
4-48NF	313-1082	311-5082	313-2082	313-5082
5-40NC	313-1092	311-5092	313-2092	313-5092
5-44NF	313-1102	311-5102	313-2102	313-5102
6-32NC	313-1112	311-5112	313-2112	313-5112
6-40NF	313-1122	311-5122	313-2122	313-5122
8-32NC	313-1132	311-5132	313-2132	313-5132
8-36NF	313-1142	311-5142	313-2142	313-5142
10-24NC	313-1152	311-5152	313-2152	313-5152
10-32NF	313-1162	311-5162	313-2162	313-5162
12-24NC	313-1172	311-5172	313-2172	313-5172
12-28NF	313-1182	311-5182	313-2182	313-5182
14-24	313-1192	311-5192	313-2192	313-5192
1/4-20NC	313-1202	311-5202	313-2202	313-5202
1/4-28NF	313-1212	311-5212	313-2212	313-5212
5/16-18NC	313-1222	311-5222	313-2222	313-5222
5/16-24NF	313-1232	311-5232	313-2232	313-5232
3/8-16NC	313-1242	311-5242	313-2242	313-5242
3/8-24NF	313-1252	311-5252	313-2252	313-5252
7/16-14NC	313-1262	311-5262	313-2262	313-5262
7/16-20NF	313-1272	311-5272	313-2272	313-5272
7/16-28	313-1274	311-5274	313-2274	313-5274
1/2-13NC	313-1282	311-5282	313-2282	313-5282
1/2”-20NF	313-1292	311-5292	313-2292	313-5292
9/16-12NC	313-1302	311-5302	313-2302	313-5302
9/16-18NF	313-1312	311-5312	313-2312	313-5312
5/8-11NC	313-1322	311-5322	313-2322	313-5322
5/8-18NF	313-1332	311-5332	313-2332	313-5332
11/16-11NS	313-1336	311-5336		
11/16-16NS	313-1338	311-5338		
3/4-10NC	313-1342	311-5342	313-2342	313-5342
3/4-16NF	313-1352	311-5352	313-2352	313-5352
7/8-9NC	313-1362	311-5362	313-2362	313-5362
7/8-14NF	313-1372	311-5372	313-2372	313-5372
7/8-20	313-1375	311-5375		
1-8NC	313-1382	311-5382	313-2382	313-5382
1-12NF	313-1392	311-5392	313-2392	313-5392
1-14NS	313-1402	311-5402	313-2402	313-5402
1-1/8-7NC	313-1412	311-5412	313-2412	313-5412
1-1/8-12NF	313-1422	311-5422	313-2422	313-5422
1-1/4-7NC	313-1432	311-5432	313-2432	313-5432
1-1/4-10	313-1442	311-5442	313-2442	313-5442
1-1/4-12NF	313-1452	311-5452	313-2452	313-5452
1-3/8-6NC	313-1462	311-5462	313-2462	313-5462
1-3/8-12NF	313-1472	311-5472	313-2472	313-5472
1-1/2-6NC	313-1482	311-5482	313-2482	313-5482
1-1/2-12NF	313-1492	311-5492	313-2492	313-5492

mhc® Industrial Supply

Metric Hand Taps

公制美标丝锥

High Speed Steel, Ground Thread



Size	Thread Limits	No.of Flute	Taper Order No.	Bottoming Order No.	3pc Set Order No.
2.00x0.20			311-4001	311-4003	311-4004
2.00x0.25			311-4011	311-4013	311-4014
2.00x0.40	D-3	3	311-4021	311-4023	311-4024
2.00x0.45	D-3	3	311-4031	311-4033	311-4034
2.20x0.45	D-2	3	311-4041	311-4043	311-4044
2.50x0.45	D-3	3	311-4051	311-4053	311-4054
3.00x0.35	D-3	3	311-4061	311-4063	311-4064
3.00x0.50	D-3	3	311-4071	311-4073	311-4074
3.50x0.35	D-3	3	311-4081	311-4083	311-4084
3.50x0.60	D-3	3	311-4091	311-4093	311-4094
4.00x0.50	D-4	4	311-4101	311-4103	311-4104
4.00x0.70	D-4	4	311-4111	311-4113	311-4114
4.00x0.75	D-4	4	311-4121	311-4123	311-4124
4.50x0.75	D-4	4	311-4131	311-4133	311-4134
5.00x0.50	D-4	4	311-4141	311-4143	311-4144
5.00x0.80	D-4	4	311-4161	311-4163	311-4164
5.00x0.90	D-3	4	311-4151	311-4153	311-4154
5.50x0.90		4	311-4171	311-4173	311-4174
6.00x0.50	D-4	4	311-4181	311-4183	311-4184
6.00x0.75	D-5	4	311-4191	311-4193	311-4194
6.00x1.00	D-5	4	311-4201	311-4203	311-4204
7.00x0.75	D-4	4	311-4211	311-4213	311-4214
7.00x1.00	D-5	4	311-4221	311-4223	311-4224
8.00x1.00	D-5	4	311-4231	311-4233	311-4234
8.00x1.25	D-5	4	311-4241	311-4243	311-4244
9.00X1.00	D-6	4	311-4251	311-4253	311-4254
9.00X0.25	D-6	4	311-4261	311-4263	311-4264
10.00x1.00	D-6	4	311-4271	311-4273	311-4274
10.00x1.25	D-6	4	311-4281	311-4283	311-4284
10.00x1.50	D-6	4	311-4291	311-4293	311-4294
10.00X1.75	D-6	4	311-4301	311-4303	311-4304
11.00x1.00	D-3	4	311-4311	311-4313	311-4314
11.00x1.50	D-6	4	311-4321	311-4323	311-4324
12.00X1.25	D-6	4	311-4331	311-4333	311-4334
12.00x1.50	D-6	4	311-4341	311-4343	311-4344
12.00x1.75	D-6	4	311-4351	311-4353	311-4354
14.00x1.25	D-7	4	311-4361	311-4363	311-4364
14.00x1.50	D-7	4	311-4371	311-4373	311-4374
14.00x2.00	D-7	4	311-4381	311-4383	311-4384
16.00x1.00	D-6	4	311-4391	311-4393	311-4394
16.00x1.50	D-7	4	311-4401	311-4403	311-4404
16.00x2.00	D-7	4	311-4411	311-4413	311-4414
18.00x1.50	D-7	4	311-4421	311-4423	311-4424
8.00x2.00	D-7	4	311-4431	311-4433	311-4434
18.00x2.50	D-7	4	311-4441	311-4443	311-4444
20.00x2.00	D-6	4	311-4451	311-4453	311-4454
20.00x2.50	D-7	4	311-4461	311-4463	311-4464
22.00x2.00	D-6	4	311-4471	311-4473	311-4474
22.00x2.50	D-7	4	311-4481	311-4483	311-4484
24.00x2.00	D-8	4	311-4491	311-4493	311-4494
24.00x3.00	D-8	4	311-4501	311-4503	311-4504
26.00x1.50	D-8	4	311-4511	311-4513	311-4514
28.00x2.00	D-8	4	311-4521	311-4523	311-4524
30.00x2.00	D-9	4	311-4531	311-4533	311-4534
30.00x3.50	D-9	4	311-4541	311-4543	311-4544
33.00x2.00	D-9		311-4551	311-4553	311-4554
39.00x3.00	D-8	6	311-4561	311-4563	311-4564
42.00x2.00			311-4571	311-4573	311-4574
48.00x2.00			311-4581	311-4583	311-4584
48.00x4.50	D-1	6	311-4585	311-4587	311-4588

Size(mm)	Thread Limits	Flute	Plug Order No.	Size(mm)	Thread Limits	Flute	Plug Order No.
1.50x0.35	D-1	2	411-2004	14.00x2.00	D-7	4	411-2190
1.60x0.35	D-1	2	411-2006	16.00x1.00	D-6	4	411-2198
1.60x0.35	D-3	2	411-2008	16.00x1.00	D-7	4	411-2199
1.80x0.35	D-1	2	411-2010	16.00x1.50	D-3	4	411-2202
1.80x0.35	D-2	2	411-2012	16.00x1.50	D-6	4	411-2204
1.80x0.35	D-3	2	411-2016	16.00x1.50	D-7	4	411-2205
2.00x0.40	D-1	3	411-2018	16.00x2.00	D-4	4	411-2206
2.00x0.40	D-3	3	411-2020	16.00x2.00	D-7	4	411-2208
2.00x0.45	D-2	3	411-2022	18.00x1.00	D-6	4	411-2214
2.20x0.45	D-1	3	411-2024	18.00x1.00	D-7	4	411-2215
2.20x0.45	D-2	3	411-2026	18.00x1.25	D-6	4	411-2216
2.20x0.45	D-3	3	411-2027	18.00x1.50	D-3	4	411-2218
2.20x0.45	D-3	3	411-2028	18.00x1.50	H-4	4	411-2220
2.30x0.40	D-3	3	411-2030	18.00x1.50	D-7	4	411-2221
2.50x0.45	D-1	3	411-2032	18.00x1.50	D-7	4	411-2222
2.50x0.45	D-3	3	411-2034	8.00x2.00	D-7	4	411-2223
2.60x0.45	D-2	3	411-2036	18.00x2.50	D-4	4	411-2224
2.60x0.45	D-3	3	411-2037	8.00x2.00	D-7	4	411-2225
3.00x0.35	D-3	3	411-2038	18.00x2.50	D-7	4	411-2226
3.00x0.35	D-6	3	411-2039	20.00x2.00	D-7	4	411-2229
3.00x0.50	D-1	3	411-2040	20.00x1.00	D-7	4	411-2230
3.00x0.50	D-3	3	411-2042	20.00x1.25	D-6	4	411-2232
3.00x0.60	D-2	3	411-2044	20.00x1.50	D-3	4	411-2234
3.00x0.60	D-3	3	411-2046	20.00x1.50	D-6	4	411-2236
3.50x0.35	D-3	3	411-2048	20.00x1.50	D-7	4	411-2237
3.50x0.60	D-1	3	411-2050	20.00x2.00	D-6	4	411-2238
3.50x0.60	D-4	3	411-2052	20.00x2.50	D-4	4	411-2240
4.00x0.50	D-4	4	411-2054	20.00x2.50	D-7	4	411-2242
4.00x0.70	D-1	4	411-2056	22.00x1.25	D-6	4	411-2243
4.00x0.70	D-4	4	411-2058	22.00x1.00	D-7	4	411-2244
4.00x0.75	D-4	4	411-2060	22.00x1.00	D-7	4	411-2245
4.50x0.75	D-2	4	411-2066	22.00x1.50	D-3	4	411-2246
4.50x0.75	D-4	4	411-2068	22.00x1.50	D-7	4	411-2247
5.00x0.50	D-4	4	411-2070	22.00x1.50	D-6	4	411-2248
5.00x0.75	D-6	4	411-2074	22.00x2.00	D-6	4	411-2249
5.00x0.80	D-2	4	411-2076	22.00x2.50	D-4	4	411-2250
5.00x0.80	D-4	4	411-2078	22.00x2.00	D-7	4	411-2251
5.00x0.90	D-4		411-2079	22.00x2.50	D-6	4	411-2252
5.00x0.90	D-3	4	411-2080	22.00x2.50	D-7	4	411-2254
6.00x0.50	D-5	4	411-2083	24.00x1.00	D-7	4	411-2256
6.00x0.50	D-4	4	411-2084	24.00x1.50	D-7	4	411-2258
6.00x0.75	D-5	4	411-2085	24.00x1.50	D-8	4	411-2259
6.00x0.75	D-3	4	411-2086	24.00x2.00	D-4	4	411-2260
6.00x0.75	D-4	4	411-2087	24.00x2.00	D-7	4	411-2262
6.00x1.00	D-3	4	411-2088	24.00x2.00	D-8	4	411-2263
6.00x1.00	D-5	4	411-2090	24.00x3.00	D-4	4	411-2264
6.30x1.00	D-5	4	411-2094	24.00x3.00	D-8	4	411-2266
7.00x0.50	D-6	4	411-2096	26.00x1.50	D-8	4	411-2271
7.00x0.75	D-4	4	411-2098	27.00x1.50	D-7	4	411-2272
7.00x0.75	D-6	4	411-2099	27.00x2.00	D-5	4	411-2274
7.00x1.00	D-3	4	411-2100	27.00x2.00	D-7	4	411-2276
7.00x1.00	D-5	4	411-2102	27.00x2.00	D-8	4	411-2277
8.00x0.75	D-4	4	411-2108	27.00x3.00	D-8	4	411-2278
8.00x0.80	D-4	4	411-2109	27.00x3.00	D-9	4	411-2279
8.00x1.00	D-3	4	411-2110	27.00x3.00	D-9	4	411-2280
8.00x1.00	D-5	4	411-2112	28.00x1.50	D-8	4	411-2282
8.00x1.25	D-3	4	411-2114	28.00x2.00	D-8	4	411-2283
8.00x1.25	D-5	4	411-2116	30.00x1.50	D-7	4	411-2284
9.00X1.00	D-6	4	411-2120	30.00x1.50	D-9	4	411-2285
9.00x1.25	D-4	4	411-2122	30.00x2.00	D-5	4	411-2286
9.00X1.25	D-5	4	411-2123	30.00x2.00	D-7	4	411-2288
10.00x0.75	D-5	4	411-2128	30.00x2.00	D-9	4	411-2289
10.00x0.75	D-6	4	411-2129	30.00x3.50	D-5	4	411-2292
10.00x1.00	D-5	4	411-2130	32.00x3.50	D-6	4	411-2293
10.00x1.00	D-6	4	411-2131	30.00x3.50	D-9	4	411-2294
10.00x1.25	D-3	4	411-2132	32.00x2.00	D-7	4	411-2296
10.00x1.25	D-5	4	411-2134	32.00x2.00	D-9	4	411-2297
10.00x1.25	D-6	4	411-2135	32.00x2.00	D-7	6	411-2298
10.00x1.50	D-3	4	411-2136	32.00x3.50	D-9	4	411-2299
10.00x1.50	D-6	4	411-2138	33.00x2.00	D-5	4	411-2300
11.00x1.00	D-3	4	411-2142	33.00x2.00	D-7	6	411-2301
11.00x1.00	D-6	4	411-2143	33.00x2.00	D-9		411-2302
11.00x1.50	D-5	4	411-2146	33.00x3.00	D-5	4	411-2303
11.00x1.50	D-6	4	411-2147	33.00x3.50	D-5	4	411-2304
12.00x1.00	D-5	4	411-2150	33.00x3.50	D-9	4	411-2306
12.00x1.00	D-6	4	411-2151	36.00x3.00	D-5	4	411-2308
12.00x1.25	D-3	4	411-2152	36.00x3.00	D-8	4	411-2310
12.00x1.25	D-5	4	411-2154	36.00x3.00	D-9	4	411-2311
12.00X1.25	D-6	4	411-2155	36.00x3.60	D-9	4	411-2312
12.00x1.50	D-5	4	411-2156	36.00x4.00	D-5	4	411-2314
12.00x1.50	D-6	4	411-2157	36.00x4.00	D-9	4	411-2316
12.00x1.75	D-3	4	411-2158	38.00x4.00	D-9	4	411-2317
12.00x1.75	D-6	4	411-2160	39.00x3.00	D-6	4	411-2318
14.00x1.00	D-6	4	411-2178	39.00x3.00	D-8	6	411-2320
14.00x1.00	D-7		411-2179	39.00x4.00	D-6	4	411-2322
14.00x1.25	H-4	4	411-2180	42.00x3.00	D-10	6	411-2325
14.00x1.25	D-6	4	411-2181	42.00x4.50	D-9	6	411-2326
14.00x1.50	D-3	4	411-2182	45.00X4.50	D-9	6	411-2328
14.00x1.50	D-6	4	411-2184	48.00x3.00	D-10	6	411-2329
14.00x1.50	D-7	4	411-2185	48.00x4.50	D-9	6	411-2330
14.00x2.00	D-3	4	411-2188	48.00x5.00	D-9	6	411-2332

Spiral Point Taps 美标螺尖丝锥

High Speed Steel, Ground Thread



- Designed for greater strength which enableshigher speeds and faster production.
- Shearing action of the point pushes chips ahead of the cutting action to reduce loading of the flutes.

Size	No.of Flute	Thread Limit	Plug Order No.	Bottoming Order No.	Size	No.of Flute	Thread Limit	Plug Order No.	Bottoming Order No.	Size	No.of Flute	Thread Limit	Plug Order No.	Bottoming Order No.
0-80NF	2	H-1	**311-9002**	**311-9402**	12-24NC	2	H-1	**311-9059**		1/2-13NC	3	H-1	**311-9195**	
0-80NF	2	H-2	**311-9004**	**311-9404**	12-24NC	2	H-3	**311-9062**	**311-9462**	1/2-20NF	3	H-3	**311-9112**	
1-64NC	2	H-1	**311-9006**	**311-9406**	12-24NC	2	H-2	**311-9063**		3/8-24NF	3	H-1	**311-9198**	
1-64NC	2	H-2	**311-9008**	**311-9408**	12-28NF	2	H-3	**311-9064**	**311-9464**	3/8-24NF	3	H-3	**311-9113**	
1-72NF	2	H-1	**311-9010**	**311-9410**	12-28NF	2	H-1	**311-9185**		3/8-32	3	H-3	**311-9114**	
1-72NF	2	H-2	**311-9012**	**311-9412**	12-28NF	2	H-2	**311-9187**		7/16-14NC	3	H-2	**311-9115**	
2-56NC	2	H-1	**311-9013**		12-32	2	H-3	**311-9065**		7/16-14NC	3	H-5	**311-9116**	
2-56NC	2	H-2	**311-9014**	**311-9414**	14-20NS	2	H-2	**311-9188**		7/16-14NC	3	H-4	**311-9117**	
2-64NF	2	H-1	**311-9015**		14-20NS	2	H-3	**311-9189**		7/16-14NC	3	H-1	**311-9178**	
2-64NF	2	H-2	**311-9016**	**311-9416**	14-24NS	2	H-2	**311-9190**		7/16-14NC	3	H-1	**311-9179**	
3-48NC	2	H-1	**311-9017**		14-24NS	2	H-3	**311-9191**		7/16-20NF	3	H-3	**311-9118**	**311-9495**
3-48NC	2	H-2	**311-9018**	**311-9418**	1/4-28NF	2	H-4	**311-9192**		7/16-20NF	3	H-2	**311-9119**	
3-56NF	2	H-1	**311-9019**		1/4-20NC	2	H-2	**311-9066**	**311-9466**	7/16-20NF	3	H-5	**311-9120**	
3-56NF	2	H-2	**311-9020**	**311-9420**	1/4-20NC	2	H-1	**311-9067**		7/16-20NF	3	H-4	**311-9121**	
4-36	2	H-2	**311-9021**		1/4-20NC	2	H-3	**311-9068**	**311-9468**	7/16-20NF	3	H-3	**311-9122**	
4-40NC	2	H-2	**311-9022**	**311-9422**	1/4-20NC	3	H-7	**311-9069**		1/2-13NC	3	H-2	**311-9123**	
4-40NC	2	H-1	**311-9023**		1/4-20NC	2	H-5	**311-9070**	**311-9470**	1/2-13NC	3	H-5	**311-9124**	
4-40NC	2	H-7	**311-9024**	**311-9424**	1/4-20NC	3	H-2	**311-9072**	**311-9472**	1/2-13NC	3	H-3	**311-9126**	**311-9496**
4-48NF	2	H-1	**311-9025**		1/4-20NC	3	H-3	**311-9074**	**311-9474**	1/2-20NF	3	H-1	**311-9193**	
4-48NF	2	H-2	**311-9026**	**311-9426**	1/4-20NC	3	H-5	**311-9076**	**311-9476**	1/2-20NF	3	H-2	**311-9194**	
5-40NC	2	H-1	**311-9027**		1/4-24	2	H-3	**311-9077**		1/2-20NF	3	H-5	**311-9128**	
5-40NC	2	H-2	**311-9028**	**311-9428**	1/4-32	2	H-3	**311-9079**		1/2-24	3	H-3	**311-9127**	
5-40NC	2	H-3	**311-9029**		1/4-28NF	2	H-3	**311-9080**	**311-9480**	1/2-28	3	H-3	**311-9129**	
5-40NC	2	H-7	**311-9030**	**311-9430**	1/4-28NF	2	H-2	**311-9078**	**311-9478**	9/16-12NC	3	H-3	**311-9130**	
5-44NF	2	H-1	**311-9031**		1/4-28NF	2	H-1	**311-9081**		9/16-12NC	3	H-5	**311-9132**	
5-44NF	2	H-2	**311-9032**	**311-9433**	1/4-28NF	3	H-2	**311-9082**	**311-9482**	9/16-18NF	3	H-3	**311-9134**	
5-44NF	2	H-3	**311-9033**		1/4-28NF	3	H-4	**311-9083**		9/16-18NF	3	H-5	**311-9136**	
6-32NC	2	H-2	**311-9034**	**311-9435**	1/4-28NF	3	H-3	**311-9084**	**311-9484**	5/8-11NC	3	H-3	**311-9138**	
6-32NC	2	H-1	**311-9035**		1/4-40	2	H-3	**311-9085**		5/8-11NC	3	H-5	**311-9140**	
6-32NC	2	H-3	**311-9036**	**311-9436**	5/16-18NC	2	H-2	**311-9086**	**311-9486**	5/8-18NF	3	H-3	**311-9142**	
6-32NC	2	H-7	**311-9038**	**311-9438**	5/16-18NF	2	H-1	**311-9087**		5/8-18NF	3	H-5	**311-9144**	
6-40NF	2	H-3	**311-9039**		5/16-18NC	2	H-3	**311-9088**	**311-9488**	11/16-11NS	3	H-3	**311-9146**	
6-40NF	2	H-2	**311-9040**	**311-9440**	5/16-18NC	2	H-5	**311-9090**		11/16-16NS	3	H-3	**311-9148**	
6-40NF	2	H-1	**311-9182**		5/16-18NC	2	H-7	**311-9091**		3/4-10NC	3	H-3	**311-9150**	
6-48	2	H-3	**311-9041**		5/16-18NC	3	H-2	**311-9092**		3/4-10NC	3	H-5	**311-9152**	
8-32NC	2	H-2	**311-9042**	**311-9442**	5/16-18NC	3	H-3	**311-9094**		3/4-16NF	3	H-3	**311-9154**	
8-32NC	2	H-1	**311-9043**		5/16-18NC	3	H-5	**311-9096**		3/4-16NF	3	H-5	**311-9156**	
8-32NC	2	H-3	**311-9044**	**311-9444**	5/16-24NF	2	H-2	**311-9098**		7/8-9NC	3	H-2	**311-9157**	
8-32NC	2	H-7	**311-9046**	**311-9446**	5/16-24NF	2	H-1	**311-9099**		7/8-9NC	3	H-4	**311-9158**	
8-36NF	2	H-3	**311-9047**		5/16-24NF	2	H-3	**311-9100**	**311-9489**	7/8-9NC	4	H-4	**311-9160**	
8-36NF	2	H-2	**311-9048**	**311-9448**	5/16-24NF	2	H-4	**311-9101**		7/8-14NF	3	H-2	**311-9161**	
8-36NF	2	H-1	**311-9184**		5/16-24NF	3	H-3	**311-9102**		7/8-14NF	3	H-4	**311-9162**	
8-40	2	H-3	**311-9049**		5/16-24NF	3	H-4	**311-9196**		7/8-14NF	3	H-3	**311-9163**	
10-24NC	2	H-2	**311-9050**	**311-9450**	5/16-24NF	3	H-1	**311-9197**		7/8-14NF	4	H-4	**311-9164**	
10-24NC	2	H-1	**311-9051**		5/16-32	2	H-3	**311-9103**		1-8NC	3	H-3	**311-9165**	
10-24NC	2	H-3	**311-9052**	**311-9452**	3/8-16NC	3	H-2	**311-9104**		1-8NC	3	H-4	**311-9166**	
10-24NC	2	H-7	**311-9054**	**311-9454**	3/8-16NC	3	H-1	**311-9105**		1-8NC	4	H-4	**311-9168**	
10-32NF	2	H-2	**311-9056**	**311-9456**	3/8-16NC	3	H-3	**311-9106**		1-12NF	4	H-4	**311-9170**	
10-32NF	2	H-1	**311-9057**		3/8-16NC	3	H-7	**311-9107**		1-12NF	3	H-4	**311-9174**	
10-32NF	2	H-3	**311-9058**	**311-9458**	3/8-16NC	3	H-5	**311-9108**		1-12NF	3	H-5	**311-9175**	
10-32NF	2	H-7	**311-9060**	**311-9460**	3/8-24NF	3	H-4	**311-9109**		1-14NS	4	H-4	**311-9172**	
10-40	2	H-3	**311-9061**		3/8-24NF	3	H-2	**311-9110**		1-14NS	3	H-4	**311-9176**	
					3/8-24NF	3	H-5	**311-9111**		1-14NS	3	H-3	**311-9177**	

Long Spiral Point Taps 长柄螺尖丝锥

High Speed Steel,Regular Shank

Size	Thread Limits	OAL	Order No.	Size	Thread Limits	OAL	Order No.	Size	Thread Limits	OAL	Order No.
4-40	GH3	6”	**311-2160**	1/4-20	GH3	6	**311-2170**	3/8-24	GH3	6	**311-2170**
6-32	GH3	6	**311-2162**	1/4-28	GH3	6	**311-2172**	7/16-14	GH3	6	**311-2172**
8-32	GH3	6	**311-2164**	5/16-16	GH3	6	**311-2174**	7/16-20	GH3	6	**311-2174**
10-24	GH3	6	**311-2166**	5/16-24	GH3	6	**311-2176**	1/2-13	GH3	6	**311-2176**
10-32	GH3	6	**311-2168**	3/8-16	GH3	6	**311-2178**	1/2-20	GH3	6	**311-2178**

HSS Long Spiral Point Taps-Plug

长柄螺尖丝锥(二攻)

NEW

Reduced Shank



Size	No. of Flutes	Thread Limits	OAL	Order No.
4-40	2	H-2	4”	311-2301
4-48	2	H-2	4	311-2302
5-40	2	H-2	4	311-2303
6-32	2	H-3	4	311-2305
6-32	2	H-3	5	311-2306
6-32	2	H-3	6	311-2307
6-40	2	H-3	4	311-2308
8-32	2	H-3	4	311-2309
8-32	2	H-3	5	311-2310
8-32	2	H-3	6	311-2311
10-24	2	H-3	4	311-2313
10-24	2	H-3	5	311-2314
10-24	2	H-3	6	311-2315
12-24	2	H-3	6	311-2316
10-32	2	H-3	4	311-2317
10-32	2	H-3	5	311-2318
10-32	2	H-3	6	311-2319
1/4-20	2	H-3	4	311-2320
1/4-20	2	H-3	6	311-2321
1/4-28	2	H-3	6	311-2323
5/16-18	2	H-3	4	311-2324
5/16-18	2	H-3	6	311-2325
5/16-24	2	H-3	6	311-2327
3/8-16	3	H-3	4	311-2328
3/8-16	3	H-3	6	311-2329
3/8-24	3	H-3	6	311-2331
7/16-14	3	H-3	6	311-2333
7/16-20	3	H-3	6	311-2335
1/2-13	3	H-3	6	311-2337
1/2-20	3	H-3	6	311-2339
5/8-11	3	H-3	6	311-2340

Regular Shank

Size	No. of Flutes	Thread Limits	OAL	Order No.
4-40	2	H-2	4”	311-2341
4-48	2	H-2	4	311-2342
5-40	2	H-2	4	311-2343
6-32	2	H-3	4	311-2345
6-32	2	H-3	5	311-2346
6-32	2	H-3	6	311-2347
6-40	2	H-3	4	311-2348
8-32	2	H-3	4	311-2349
8-32	2	H-3	5	311-2350
8-32	2	H-3	6	311-2351
10-24	2	H-3	4	311-2353
10-24	2	H-3	5	311-2354
10-24	2	H-3	6	311-2355
10-32	2	H-3	4	311-2357
10-32	2	H-3	5	311-2358
10-32	2	H-3	6	311-2359
1/4-20	2	H-3	4	311-2360
1/4-20	2	H-3	6	311-2361
1/4-28	2	H-3	6	311-2363
5/16-18	2	H-3	4	311-2364
5/16-18	2	H-3	6	311-2365
5/16-24	2	H-3	6	311-2367
3/8-16	3	H-3	4	311-2368
3/8-16	3	H-3	6	311-2369
3/8-24	3	H-3	6	311-2371
7/16-14	3	H-3	6	311-2373
7/16-20	3	H-3	6	311-2375
1/2-13	3	H-3	6	311-2377
1/2-20	3	H-3	6	311-2379

Left Hand Spiral Point Taps

HSS, Ground Thread

美标 HSS 磨制左旋螺尖枪式丝锥

Spiral point is designed to push the chips ahead of the cutting action, helping to recduce loading in the flutes



Tap Size	No. of Flutes	Thread Limits	Order No.	Tap Size	No. of Flutes	Thread Limits	Order No.
0-80NF	2	H-1	440-7002	5/16"-18NC	2	H-2	440-7086
0-80NF	2	H-2	440-7004	5/16"-18NC	2	H-3	440-7088
1-64NC	2	H-1	440-7006	5/16"-18NC	2	H-5	440-7090
1-64NC	2	H-2	440-7008	5/16"-18NC	3	H-2	440-7092
1-72NF	2	H-1	440-7010	5/16"-18NC	3	H-3	440-7094
1-72NF	2	H-2	440-7012	5/16"-18NC	3	H-5	440-7096
2-56NC	2	H-2	440-7014	5/16"-18NC	3	H-5	440-7097
2-64NF	2	H-2	440-7016	5/16"-24NF	2	H-2	440-7098
3-48NC	2	H-2	440-7018	5/16"-24NF	2	H-3	440-7100
3-56NF	2	H-2	413-7020	5/16"-24NF	3	H-3	440-7102
4-36	2	H-1	413-7021	5/16"-32	2	H-3	440-7103
4-40NC	2	H-2	440-7022	3/8"-16NC	3	H-2	440-7104
4-40NC	2	H-7	440-7024	3/8"-16NC	3	H-3	440-7106
4-48NF	2	H-2	440-7026	3/8"-16NC	3	H-5	440-7108
5-40NC	2	H-2	440-7028	3/8"-24NF	3	H-2	440-7110
5-40NC	2	H-7	440-7030	3/8"-24NF	3	H-3	440-7112
5-44NF	2	H-2	440-7032	3/8"-32	3	H-3	440-7113
6-32NC	2	H-2	440-7034	7/16"-14NC	3	H-3	440-7114
6-32NC	2	H-3	440-7036	7/16"-14NC	3	H-5	440-7116
6-32NC	2	H-7	440-7038	7/16"-20NF	3	H-3	440-7118
6-40NF	2	H-3	440-7039	7/16"-20NF	3	H-5	440-7120
6-40NF	2	H-2	440-7040	1/2"-13NC	3	H-3	440-7122
6-48	2	H-3	440-7041	1/2"-13NC	3	H-5	440-7124
8-32NC	2	H-2	440-7042	1/2"-20NF	3	H-3	440-7126
8-32NC	2	H-3	440-7044	1/2"-24	3	H-3	440-7127
8-32NC	3	H-3	440-7046	1/2"-20NF	3	H-5	440-7128
8-36NF	2	H-2	440-7047	1/2"-28	3	H-3	440-7129
8-36NF	3	H-3	440-7048	9/16"-12NC	3	H-3	440-7130
8-40	2	H-3	440-7049	9/16"-12NC	3	H-5	440-7132
10-24NC	2	H-2	440-7050	9/16"-18NF	3	H-3	440-7134
10-24NC	3	H-3	440-7052	9/16"-18NF	3	H-5	440-7136
10-24NC	2	H-7	440-7054	5/8"-11NC	3	H-3	440-7138
10-32NF	2	H-2	440-7056	5/8"-11NC	3	H-5	440-7140
10-32NF	3	H-2	440-7058	5/8"-18NF	3	H-3	440-7142
10-32NF	2	H-7	440-7060	5/8"-18NF	3	H-5	440-7144
10-40	2	H-3	440-7061	11/16"-11NS	3	H-3	440-7146
12-24NC	3	H-3	440-7062	11/16"-16NS	3	H-3	440-7148
12-28NF	3	H-3	440-7064	3/4"-10NC	3	H-3	440-7150
12-32	2	H-3	440-7065	3/4"-10NC	3	H-5	440-7152
1/4"-20NC	2	H-2	440-7066	3/4"-16NF	3	H-3	440-7154
1/4"-20NC	2	H-3	440-7068	3/4"-16NF	3	H-5	440-7156
1/4"-20NC	2	H-5	440-7070	7/8"-9NC	3	H-4	440-7158
1/4"-20NC	3	H-2	440-7072	7/8"-9NC	4	H-4	440-7160
1/4"-20NC	3	H-3	440-7074	7/8"-14NF	3	H-4	440-7162
1/4"-20NC	3	H-5	440-7076	7/8"-14NF	4	H-4	440-7164
1/4"-24	2	H-3	440-7077	1"-8NC	3	H-3	440-7165
1/4"-28NF	2	H-2	440-7078	1"-8NC	3	H-4	440-7166
1/4"-32	2	H-3	440-7079	1"-8NC	4	H-4	440-7168
1/4"-28NF	2	H-3	440-7080	1"-12NF	4	H-4	440-7170
1/4"-28NF	2	H-2	440-7082	1"-14NS	4	H-4	440-7172
1/4"-28NF	3	H-3	440-7084	1"-12NF	3	H-4	440-7174
1/4"-40	2	H-3	440-7085	1"-14NS	3	H-4	440-7176

Cobalt (M35) Spiral Point Taps

HSS, Ground Thread M35 全磨制螺尖丝锥



Tap Size	No. of Flutes	Thread Limits	Order No.	Tap Size	No. of Flutes	Thread Limits	Order No.
0-80NF	2	H-1	**413-9002**	1/4"-28NF	2	H-3	**413-9080**
0-80NF	2	H-2	**413-9004**	1/4"-28NF	2	H-3	**413-9084**
1-64NC	2	H-1	**413-9006**	1/4"-28NF	2	H-4	**413-9192**
1-64NC	2	H-2	**413-9008**	1/4"-32	2	H-3	**413-9079**
1-72NF	2	H-1	**413-9010**	1/4"-40	2	H-3	**413-9085**
1-72NF	2	H-2	**413-9012**	5/16"-18NC	2	H-2	**413-9086**
2-56NC	2	H-1	**413-9013**	5/16"-18NC	2	H-3	**413-9088**
2-56NC	2	H-2	**413-9014**	5/16"-18NC	2	H-5	**413-9090**
2-64NF	2	H-1	**413-9015**	5/16"-18NC	3	H-2	**413-9092**
2-64NF	2	H-2	**413-9016**	5/16"-18NC	3	H-3	**413-9094**
3-48NC	2	H-1	**413-9017**	5/16"-18NC	3	H-5	**413-9096**
3-48NC	2	H-2	**413-9018**	5/16"-18NC	3	H-5	**413-9097**
3-56NF	2	H-1	**413-9019**	5/16"-24NF	2	H-2	**413-9098**
3-56NF	2	H-2	**413-9020**	5/16"-24NF	2	H-3	**413-9100**
4-36	2	H-1	**413-9021**	5/16"-24NF	2	H-4	**413-9101**
4-36	2	H-2	**413-9180**	5/16"-24NF	3	H-3	**413-9102**
4-40NC	2	H-1	**413-9023**	5/16"-32	2	H-3	**413-9103**
4-40NC	2	H-2	**413-9022**	3/8"-16NC	3	H-2	**413-9104**
4-40NC	2	H-7	**413-9024**	3/8"-16NC	3	H-3	**413-9106**
4-48NF	2	H-1	**413-9025**	3/8"-16NC	3	H-5	**413-9108**
4-48NF	2	H-2	**413-9026**	3/8"-24NF	3	H-2	**413-9110**
5-40NC	2	H-1	**413-9027**	3/8"-24NF	3	H-3	**413-9112**
5-40NC	2	H-2	**413-9028**	3/8"-24NF	3	H-4	**413-9109**
5-40NC	2	H-3	**413-9029**	3/8"-24NF	3	H-5	**413-9111**
5-40NC	2	H-7	**413-9030**	3/8"-32	3	H-3	**413-9113**
5-44NF	2	H-1	**413-9031**	7/16"-14NC	3	H-2	**413-9115**
5-44NF	2	H-2	**413-9032**	7/16"-14NC	3	H-3	**413-9114**
5-44NF	2	H-3	**413-9033**	7/16"-14NC	3	H-4	**413-9117**
6-32NC	2	H-1	**413-9035**	7/16"-14NC	3	H-5	**413-9116**
6-32NC	2	H-2	**413-9034**	7/16"-20NF	3	H-2	**413-9119**
6-32NC	2	H-3	**413-9036**	7/16"-20NF	3	H-3	**413-9118**
6-32NC	2	H-7	**413-9038**	7/16"-20NF	3	H-4	**413-9121**
6-40NF	2	H-1	**413-9182**	7/16"-20NF	3	H-5	**413-9120**
6-40NF	2	H-2	**413-9040**	1/2"-13NC	3	H-2	**413-9123**
6-40NF	2	H-3	**413-9039**	1/2"-13NC	3	H-3	**413-9122**
6-48	2	H-3	**413-9041**	1/2"-13NC	3	H-4	**413-9125**
8-32NC	2	H-1	**413-9043**	1/2"-13NC	3	H-5	**413-9124**
8-32NC	2	H-2	**413-9042**	1/2"-13NC	3	H-5	**413-9195**
8-32NC	2	H-3	**413-9044**	1/2"-20NF	3	H-1	**413-9193**
8-32NC	2	H-7	**413-9046**	1/2"-20NF	3	H-2	**413-9194**
8-36NF	2	H-1	**413-9184**	1/2"-20NF	3	H-3	**413-9126**
8-36NF	2	H-2	**413-9048**	1/2"-20NF	3	H-5	**413-9128**
8-36NF	2	H-3	**413-9047**	1/2"-24	3	H-3	**413-9127**
8-40	2	H-3	**413-9049**	1/2"-28	3	H-3	**413-9129**
10-24NC	2	H-1	**413-9051**	9/16"-12NC	3	H-3	**413-9130**
10-24NC	2	H-2	**413-9050**	9/16"-12NC	3	H-5	**413-9132**
10-24NC	2	H-3	**413-9052**	9/16"-18NF	3	H-3	**413-9134**
10-24NC	2	H-7	**413-9054**	9/16"-18NF	3	H-5	**413-9136**
10-32NF	2	H-1	**413-9057**	5/8"-11NC	3	H-3	**413-9138**
10-32NF	2	H-2	**413-9056**	5/8"-11NC	3	H-5	**413-9140**
10-32NF	2	H-3	**413-9058**	5/8"-18NF	3	H-3	**413-9142**
10-32NF	2	H-7	**413-9060**	5/8"-18NF	3	H-5	**413-9144**
10-40	2	H-3	**413-9061**	11/16"-11NS	3	H-3	**413-9146**
12-24NC	2	H-1	**413-9186**	3/4"-10NC	3	H-3	**413-9150**
12-24NC	2	H-2	**413-9063**	3/4"-10NC	3	H-5	**413-9152**
12-24NC	2	H-3	**413-9062**	3/4"-16NF	3	H-3	**413-9154**
12-28NF	2	H-2	**413-9187**	3/4"-16NF	3	H-5	**413-9156**
12-28NF	2	H-3	**413-9064**	7/8"-14NF	3	H-2	**413-9161**
12-32	2	H-3	**413-9065**	7/8"-14NF	3	H-3	**413-9163**
14-20NS	2	H-2	**413-9188**	7/8"-14NF	3	H-4	**413-9162**
14-20NS	2	H-3	**413-9189**	7/8"-14NF	4	H-4	**413-9164**
14-24NS	2	H-2	**413-9190**	7/8"-9NC	3	H-2	**413-9157**
14-24NS	2	H-3	**413-9191**	7/8"-9NC	3	H-4	**413-9158**
1/4"-20NC	2	H-1	**413-9067**	7/8"-9NC	4	H-4	**413-9160**
1/4"-20NC	2	H-2	**413-9066**	1"-8NC	3	H-3	**413-9165**
1/4"-20NC	2	H-3	**413-9068**	1"-8NC	3	H-4	**413-9166**
1/4"-20NC	2	H-5	**413-9070**	1"-8NC	4	H-4	**413-9168**
1/4"-20NC	3	H-2	**413-9072**	1"-12NF	3	H-3	**413-9173**
1/4"-20NC	3	H-3	**413-9074**	1"-12NF	3	H-4	**413-9174**
1/4"-20NC	3	H-5	**413-9076**	1"-12NF	3	H-5	**413-9175**
1/4"-24	2	H-3	**413-9077**	1"-12NF	4	H-4	**413-9170**
1/4"-28NF	2	H-1	**413-9081**	1"-14NS	3	H-3	**413-9177**
1/4"-28NF	2	H-2	**413-9078**	1"-14NS	3	H-4	**413-9176**
1/4"-28NF	2	H-2	**413-9082**	1"-14NS	4	H-4	**413-9172**

Metric Spiral Point Taps-Plug Style

HSS, Ground Thread

公制 HSS 螺尖丝锥（二攻）

Spiral point is designed to push the chips ahead of the cutting action, helping to recduce loading in the flutes



Size	Pitch	No.of Flute	Thread Limit	Order No.	Size	Pitch	No.of Flute	Thread Limit	Order No.
1.6	.35	**2**	**D-2**	**311-8009**	9.0	1.00	**3**	**D-5**	**311-8192**
1.6	.35	**2**	**D-3**	**311-8010**	9.0	1.25	**2**	**D-5**	**311-8193**
1.8	.35	**2**	**D-2**	**311-8020**	9.0	1.25	**3**	**D-5**	**311-8194**
2.0	.40	**2**	**D-3**	**311-8030**	9.0	.75	**4**	**D-3**	**311-8195**
2.0	.45	**2**	**D-2**	**311-8034**	9.0	1.00	**4**	**D-3**	**311-8196**
2.2	.45	**2**	**D-2**	**311-8040**	10.0	1.00	**3**	**D-5**	**311-8200**
2.2	.45	**3**	**D-2**	**311-8041**	10.0	1.00	**3**	**D-6**	**311-8202**
2.5	.45	**2**	**D-2**	**311-8049**	10.0	1.25	**3**	**D-3**	**311-8209**
2.5	.45	**2**	**D-3**	**311-8050**	10.0	1.25	**3**	**D-5**	**311-8210**
2.6	.45	**2**	**D-2**	**311-8052**	10.0	1.50	**3**	**D-6**	**311-8220**
3.0	.35	**2**	**D-3**	**311-8055**	11.0	1.50	**3**	**D-5**	**311-8222**
3.0	.50	**2**	**D-3**	**311-8060**	11.0	1.50	**4**	**D-3**	**311-8223**
3.0	.60	**2**	**D-2**	**311-8064**	12.0	11.25	**3**	**D-5**	**311-8230**
3.5	.50	**2**	**D-4**	**311-8069**	12.0	11.50	**3**	**D-6**	**311-8240**
3.5	.60	**2**	**D-4**	**311-8070**	12.0	11.75	**3**	**D-6**	**311-8250**
4.0	.50	**2**	**D-4**	**311-8080**	12.5	11.75	**3**	**D-6**	**311-8252**
4.0	.70	**2**	**D-4**	**311-8090**	14.0	1.00	**3**	**D-6**	**311-8260**
4.0	.75	**2**	**D-4**	**311-8094**	14.0	1.00	**4**	**D-3**	**311-8262**
4.0	.80	**2**	**D-4**	**311-8096**	14.0	1.25	**3**	**D-5**	**311-8270**
4.5	.75	**2**	**D-4**	**311-8100**	14.0	1.25	**3**	**D-7**	**311-8272**
5.0	.50	**2**	**D-4**	**311-8110**	14.0	1.50	**3**	**D-3**	**311-8278**
5.0	.80	**2**	**D-2**	**311-8118**	14.0	1.50	**3**	**D-6**	**311-8280**
5.0	.80	**2**	**D-4**	**311-8120**	14.0	1.50	**3**	**D-7**	**311-8282**
5.0	.90	**2**	**D-3**	**311-8122**	14.0	2.00	**3**	**D-7**	**311-8290**
5.0	.90	**4**	**D-3**	**311-8123**	16.0	1.50	**3**	**D-6**	**311-8300**
5.0	1.00	**2**	**D-4**	**311-8125**	16.0	1.00	**4**	**D-4**	**311-8301**
6.0	.50	**4**	**D-3**	**311-8128**	16.0	1.50	**3**	**D-7**	**311-8302**
6.0	.75	**2**	**D-3**	**311-8129**	16.0	2.00	**3**	**D-7**	**311-8310**
6.0	.75	**2**	**D-4**	**311-8130**	18.0	1.00	**4**	**D-4**	**311-8317**
6.0	1.00	**2**	**D-5**	**311-8140**	18.0	2.00	**4**	**D-4**	**311-8319**
6.3	1.00	**2**	**D-5**	**311-8150**	18.0	2.50	**3**	**D-7**	**311-8320**
7.0	.75	**2**	**D-5**	**311-8152**	20.0	2.00		**D-4**	**311-8329**
7.0	1.00	**2**	**D-5**	**311-8155**	20.0	2.50	**3**	**D-7**	**311-8330**
8.0	.75	**2**	**D-5**	**311-8170**	22.0	1.25	**4**	**D-4**	**311-8333**
8.0	.75	**4**	**D-3**	**311-8172**	24.0	1.50	**4**	**D-4**	**311-8341**
8.0	1.00	**2**	**D-3**	**311-8178**	26.0	1.50	**4**	**D-4**	**311-8346**
8.0	1.00	**2**	**D-5**	**311-8180**	27.0	3.00	**4**	**D-5**	**311-8349**
8.0	1.00	**3**	**D-5**	**311-8182**	30.0	1.50	**4**	**D-5**	**311-8351**
8.0	1.25	**2**	**D-3**	**311-8188**	30.0	2.00	**4**	**D-5**	**311-8352**
8.0	1.25	**2**	**D-5**	**311-8190**	30.0	3.50	**4**	**D-5**	**311-8353**

Fluteless X-PressTaps

High Speed Steel 无刃美标挤压丝锥

These taps have no flutes or cuting edges. The X-Press Tap cold forms internal threads in ductile metals such as copper, zinc, lead, leaded steels, magnesium, die castings and aluminum. Used where chip removal is a problem.



Size	Thread Length	OAL	Order No.
1-64NC	3/8”	1-11/16”	**311-7104**
1-72NF	3/8	1-11/16	**311-7106**
2-64NF	7/16	1-3/4	**311-7108**
3-48NC	1/2	1-13/16	**311-7112**
3-56NF	1/2	1-13/16	**311-7114**
4-40NC	9/16	1-7/8	**311-7116**
4-48NF	9/16	1-7/8	**311-7118**
5-40NC	5/8	1-15/16	**311-7120**
5-44NF	5/8	1-15/16	**311-7122**
6-32NC	11/16	2	**311-7124**
6-40NF	11/16	2	**311-7126**
8-32NC	3/4	2-1/8	**311-7128**
8-36NF	3/4	2-1/8	**311-7130**
10-24NC	7/8	2-3/8	**311-7132**
10-32NF	7/8	2-3/8	**311-7134**
12-24NC	15/16	2-3/8	**311-7136**
12-28NF	15/16	2-3/8	**311-7138**
1/4-20NC	1	2-1/2	**311-7148**
1/4-28NF	1	2-1/2	**311-7150**
5/16-18NC	1-1/8	2-23/32	**311-7156**
5/16-24NF	1-1/8	2-23/32	**311-7158**
3/8-16NC	1-1/4	2-15/16	**311-7160**
3/8-24NF	1-1/4	2-15/16	**311-7162**
7/1614NC	1-7/16	3-5/32	**311-7166**
7/16-20NF	1-7/16	3-5/32	**311-7168**
1/2-13NC	1-21/32	3-3/8	**311-7170**
1/2-20NF	1-21/32	3-3/8	**311-7172**
9/16-12NC	1-21/32	3-19/32	**311-7176**
5/8-11NC	1-13/16	3-13/16	**311-7180**
5/8-18NF	1-13/16	3-13/16	**311-7182**
3/4-10NC	2	4-1/4	**311-7184**
3/4-16NF	2	4-1/4	**311-7186**

Fluteless Spiral Point Assembly Taps

High Speed Steel 无刃美标螺尖丝锥

Reccommended for High Speed Steel Taping Thin Materials Available while supplies Last.



Size	Thread Length	OAL	Order No.
3-48NC	1/2”	1-13/16”	**311-7006**
3-56NF	1/2	1-13/16	**311-7008**
4-40NC	9/16	1-7/8	**311-7010**
4-48NF	9/16	1-7/8	**311-7012**
5-40NC	5/8	1-15/16	**311-7016**
5-44NF	5/8	1-15/16	**311-7018**
6-32NF	11/16	2	**311-7022**
6-40NF	11/16	2	**311-7024**
8-32NC	3/4	2-1/8	**311-7028**
8-36NF	3/4	2-1/8	**311-7030**
10-24NC	7/8	2-3/8	**311-7034**
10-32NF	7/8	2-3/8	**311-7036**
12-28NF	15/16	2-3/8	**311-7040**
5/16-24NF	1-1/8	2-23/32	**311-7044**
3/8-16NC	1-1/4	2-15/16	**311-7050**
3/8-24NF	1-1/4	2-15/16	**311-7052**
7/16-14NC	1-7/16	3-5/32	**311-7056**
7/16-20NF	1-7/16	3-5/32	**311-7058**
1/2-13NC	1-21/32	3-3/8	**311-7062**

+ .005" Oversized Taps

High Speed Steel, Ground Thread 高速钢+. 005 丝锥

Plug Type



Size	No.of Flute	Order No.	Size	No.of Flute	Order No.
1-8	4	**312-7023**	5/16-18	4	**312-7007**
1-12	4	**312-7024**	5/16-24	4	**312-7008**
1-14	4	**312-7025**	3/8-16	4	**312-7009**
4-40	3	**312-7030**	3/8-24	4	**312-7010**
5-40	3	**312-7035**	7/16-14	4	**312-7011**
6-32	3	**312-7001**	7/16-20	4	**312-7012**
6-32	3	**312-7037**	1/2”-13	4	**312-7013**
6-40	3	**312-7038**	1/2-20	4	**312-7014**
8-32	4	**312-7002**	9/16-12	4	**312-7015**
8-36	4	**312-7040**	9/16-18	4	**312-7016**
10-24	4	**312-7003**	5/8-11	4	**312-7017**
10-32	4	**312-7004**	5/8-18	4	**312-7018**
12-24	4	**312-7042**	3/4-10	4	**312-7019**
12-28	4	**312-7044**	3/4-16	4	**312-7020**
1/4-20	4	**312-7005**	7/8-9	4	**312-7021**
1/4-28	4	**312-7006**	7/8-14	4	**312-7022**

Spiral Point Plug Type



Size	No.of Flute	Order No.	Size	No.of Flute	Order No.
1-8	3	**312-7150**	5/16-24	2	**312-7120**
1-12	3	**312-7152**	3/8-16	3	**312-7122**
1-24	3	**312-7154**	3/8-24	3	**312-7124**
4-40	2	**312-7102**	7/16-14	3	**312-7126**
5-40	2	**312-7104**	7/16”-20	3	**312-7128**
6-32	2	**312-7106**	1/2-13	3	**312-7130**
6-40	2	**312-7107**	1/2-20	3	**312-7132**
8-32	2	**312-7108**	9/16-12	3	**312-7134**
8-36	2	**312-7109**	9/16-18	3	**312-7136**
10-24	2	**312-7110**	5/8-11	3	**312-7138**
12-24	2	**312-7111**	5/8-18	3	**312-7140**
10-32	2	**312-7112**	3/4-10	3	**312-7142**
12-28	2	**312-7113**	3/4-16	3	**312-7144**
1/4-20	2	**312-7114**	7/8-9	3	**312-7146**
1/4-28	2	**312-7116**	7/8-14	3	**312-7148**
5/16-18	2	**312-7118**			

TiN Coated Hand Taps-Plug Style

美标涂钛丝锥(二攻)

Machine Screw Sizes



Size	No.of Flute	Thread Length	Order No.	Size	No.of Flute	Thread Legth	Order No.
0-80	2	5/16”	**311-1979**	5-40	3	5/8”	**311-2009**
1-64	2	3/8	**311-1982**	5-44	3	5/8	**311-2012**
1-72	2	3/8	**311-1985**	6-32	3	11/16	**311-2015**
2-56	3	7/16	**311-1988**	6-40	3	11/16	**311-2018**
2-64	3	7/16	**311-1993**	8-32	4	3/4	**311-2023**
3-48	3	1/2	**311-1994**	8-36	4	3/4	**311-2024**
3-56	3	1/2	**311-1997**	10-24	4	7/8	**311-2027**
4-36	3	9/16	**311-2001**	10-32	4	7/8	**311-2030**
4-40	3	5/8	**311-2003**	12-24	4	15/16	**311-2033**
4-48	3	9/16	**311-2006**	12-28	4	15/16	**311-2036**

Fractional Sizes

Size	No.of Flute	Thread Length	Order No.	Size	No.of Flute	Thread Length	Order No.
1/4”-20	4	1”	**311-2039**	3/4”-16	4	2	**311-2078**
1/4-28	4	1	**311-2042**	7/8-9	4	2-7/32	**311-2083**
5/16-18	4	1-1/8	**311-2045**	7/8-14	4	2-7/32	**311-2084**
5/16-24	4	1-1/8	**311-2048**	1-8	4	2-1/2	**311-2087**
3/8-16	4	1-1/4	**311-2053**	1-12	4	2-1/2	**311-2090**
3/8-24	4	1-1/4	**311-2054**	1”-14	4		**311-2091**
7/16-14	4	1-7/16	**311-2057**	1-1/8-7	4	2-9/16	**311-2093**
7/16-20	4	1-7/16	**311-2060**	1-1/8-12	4	2-9/16	**311-2096**
1/2-13	4	1-21/32	**311-2063**	1-1/4-7	4	2-9/16	**311-2099**
1/2-20	4	1-21/32	**311-2066**	1-1/4-12	4	2-9/16	**311-2102**
9/16-12	4	1-21/32	**311-2067**	1-1/4”-12	6	2-9/16	**311-2103**
9/16-18	4	1-21/32	**311-2068**	1-3/8”-6	4	3	**311-2104**
5/8-11	4	1-13/16	**311-2069**	1-3/8-6	6	3	**311-2105**
5/8-18	4	1-13/16	**311-2072**	1-3/8-12	6	3	**311-2108**
3/4”-10	4	2”	**311-2074**	1-1/2-6	4	3	**311-2113**
11/16-16	4		**311-2075**	1-1/2-12	6	3	**311-2114**
3/4”-10	4	2	**311-2077**				

Special Thread Hand Taps 美标手用高速钢特细牙丝锥磨制

High Speed Steel, Ground Thread



Size	Taper Order No.	Plug Order No.	Bottoming Order No.
#000-120	312-6402	311-3402	
#00-90	312-6404	311-3404	
#00-96	312-6403	311-3403	
#0-72	312-6405	311-3405	313-3405
#1-56	312-6410	311-3410	313-3847
#1-80	312-6415	311-3415	
#2-48	312-6420	311-3420	
#2-72	312-6425	311-3425	
#2-80	312-6430	311-3430	
#3-64	312-6435	311-3435	
#3-80	312-6440	311-3440	
#4-32	312-6500	311-3500	313-3500
#4-36	312-6501	311-3501	313-3501
#4-44	312-6503	311-3503	313-3503
#4-56	312-6506	311-3506	313-3506
#4-60	312-6509	311-3509	313-3509
#4-64	312-6510	311-3510	313-3510
#4-72	312-6508	311-3508	
#4-80	312-6511	311-3511	313-3511
#5-32	312-6512	311-3512	313-3512
#5-36	312-6515	311-3515	313-3515
#5-48	312-6518	311-3518	313-3518
#5-50	312-6517	311-3517	
#5-56	312-6519	311-3519	
#5-60	312-6521	311-3521	313-3521
#5-80	312-6523	311-3523	313-3523
#5-100	312-6522	311-3522	
#6-36	312-6524	311-3524	313-3524
#6-48	312-6527	311-3527	313-3527
#6-56	312-6530	311-3530	313-3530
#6-60	312-6533	311-3533	313-3533
#6-64	312-6534	311-3534	313-3534
#6-72	312-6532	311-3532	
#6-80	312-6535	311-3535	313-3535
#7-30		311-4591	
#7-32		311-4592	
#7-36		311-4593	
#7-40		311-4594	
#8-24	312-6536	311-3536	313-3536
#8-30	312-6539	311-3539	313-3539
#8-40	312-6542	311-3542	313-3542
#8-48	312-6545	311-3545	313-3545
#8-56	312-6548	311-3548	313-3548
#8-60	312-6551	311-3551	313-3551
#8-64	312-6552	311-3552	313-3552
#8-72	312-6550	311-3550	
#8-80	312-6553	311-3553	313-3553
#9-30		311-3555	
#9-36		311-3556	
#10-20	312-6558	311-3558	313-3558
#10-28	312-6554	311-3554	313-3554
#10-30	312-6557	311-3557	313-3557
#10-36	312-6560	311-3560	313-3560
#10-40	312-6563	311-3563	313-3563
#10-44	312-6564	311-3564	
#10-46	312-6566	311-3566	313-3566
#10-48	312-6569	311-3569	313-3569
#10-56	312-6572	311-3572	313-3572
#10-60	312-6575	311-3575	313-3575
#10-64	312-6576	311-3576	313-3576
#10-72	312-6574	311-3574	
#10-80	312-6577	311-3577	313-3577
#11-24	312-6582		313-3582
#11-32	312-6583		313-3583
#12-20	312-6579	311-3579	
#12-30	312-6578	311-3578	313-3578
#12-32	312-6581	311-3581	313-3581
#12-36	312-6584	311-3584	313-3584
#12-40	312-6587	311-3587	313-3587
#12-48	312-6590	311-3590	313-3590
#12-56	312-6593	311-3593	313-3593
#12-64	312-6594	311-3594	
#14-26			313-3597
#14-28	312-6595	311-3595	
1/16-72	312-6596	311-3596	313-3596
3/32-36	312-6599	311-3599	313-3599
3/32-42	312-6601	311-3601	
3/32-48	312-6602	311-3602	313-3602
3/32-50	312-6605	311-3605	313-3605
3/32-56	312-6608	311-3608	313-3608
1/8-36	312-6611	311-3611	313-3611
1/8-40	312-6614	311-3614	313-3614
1/8-48		311-3615	
5/32-24	312-6617	311-3617	313-3617
5/32-26	312-6620	311-3620	313-3620
5/32-32	312-6623	311-3623	313-3623
5/32-36	312-6626	311-3626	313-3626
5/32-38	312-6629	311-3629	313-3629
5/32-40	312-6632	311-3632	313-3632
5/32-56	312-6633	311-3633	313-3633
5/32-64	312-6635	311-3635	313-3635
3/16-20	312-6638	311-3638	313-3638
3/16-24	312-6641	311-3641	313-3641
3/16-28	312-6644	311-3644	313-3644
3/16-32	312-6647	311-3647	313-3647
3/16-36	312-6650	311-3650	313-3650
3/16-48		311-3651	
7/32-18	312-6652	311-3652	
7/32-24	312-6653	311-3653	313-3653
7/32-28	312-6656	311-3656	313-3656
7/32-32	312-6659	311-3659	313-3659
7/32-40	312-6662	311-3662	313-3662
7/32-48	312-6665	311-3665	313-3665
1/4-8			313-3805
1/4-14	312-6668	311-3668	313-3668
1/4-16	312-6671	311-3671	313-3671
1/4-18	312-6674	311-3674	313-3674
1/4-22	312-7601	311-4601	313-4601
1/4-24	312-7600	311-4600	313-4600
1/4-26	312-6675	311-3675	313-3675
1/4-27	312-6700	311-3700	313-3700
1/4-30	312-6702	311-3702	313-3702
1/4-32	312-7602	311-4602	313-4602
1/4-36	312-6704	311-3704	313-3704
1/4-38	312-6705	311-3705	
1/4-40	312-7604	311-4604	313-4604
1/4-46	312-6707	311-3707	313-3707
1/4-48	312-6706	311-3706	313-3706
1/4-50	312-6703	311-3703	
1/4-54		311-4599	313-4599
1/4-56	312-6708	311-3708	313-3708
1/4-60	312-6709	311-3709	313-3710
1/4-64	312-6710	311-3710	313-3709
1/4-72	312-7605	311-4605	
1/4-80	312-6711	311-3711	313-3711
9/32-18	312-6712	311-3712	313-3712
9/32-20	312-6713	311-3713	313-3713
9/32-24	312-6714	311-3714	313-3714
9/32-26		311-4598	313-4598
9/32-32	312-6716	311-3716	313-3716
9/32-40	312-6717	311-3717	313-3717
9/32-48		311-3715	
5/16-12	312-6718	311-3718	313-3718
5/16-14	312-6719	311-3719	313-3719
5/16-16	312-6720	311-3720	313-3720
5/16-20	312-7606	311-4606	313-4606
5/16-22	312-7607	311-4607	313-4607
5/16-26	312-6721	311-3721	313-3721
5/16-27	312-6722	311-3722	313-3722
5/16-28	312-6724	311-3724	313-3724
5/16-30	312-6726	311-3726	313-3726
5/16-32	312-7608	311-4608	313-4608
5/16-36	312-6728	311-3728	313-3728
5/16-40	312-7610	311-4610	313-4610
5/16-48	312-6730	311-3730	313-3730
5/16-56	312-6732	311-3732	313-3732
5/16-64	312-7611	311-4611	313-4611
5/16-72		311-3731	
5/16-80	312-6733	311-3733	313-3733
11/32-18	312-7613	311-4613	
11/32-20	312-7609	311-4609	313-4609
11/32-32	312-7615	311-4615	313-4615
11/32-36	312-7617	311-4617	
3/8-14	312-7612	311-4612	313-4612
3/8-18	312-7614	311-4614	313-4614
3/8-20	312-7616	311-4616	313-4616
3/8-26	312-6734	311-3734	313-3734
3/8-27	312-6736	311-3736	313-3736
3/8-28	312-6738	311-3738	313-3738
3/8-30	312-6739	311-3739	313-3739
3/8-32	312-7618	311-4618	313-4618
3/8-36	312-6740	311-3740	313-3740
3/8-40	312-6742	311-3742	313-3742
3/8-48	312-6744	311-3744	313-3744
3/8-56	312-6746	311-3746	313-3746
3/8-60	312-6445	311-3745	
3/8-64	312-6743	311-3743	313-3743
3/8-72	312-6747	311-3747	313-3747
3/8-80	312-6748	311-3748	313-3748
13/32-20	312-7623	311-4623	313-4623
13/32-24		311-4619	
13/32-32	312-7621	311-4621	313-4621
7/16-12	312-6749	311-3749	313-3749
7/16-16	312-6750	311-3750	313-3750
7/16-18	312-6752	311-3752	313-3752
7/16-24	312-7620	311-4620	313-4620
7/16-26	312-6753	311-3753	313-3753
7/16-27	312-7622	311-4622	313-4622
7/16-28	312-6754	311-3754	313-3754
7/16-32	312-6756	311-3756	313-3756
7/16-36	312-6758	311-3758	313-3758
7/16-40	312-6760	311-3760	313-3760
7/16-48	312-6762	311-3762	313-3762
7/16-56	312-6761	311-3761	
7/16-64		311-3759	313-3759
15/32-24		311-3757	
15/32-32	312-7624	311-4624	313-4624
15/32-36	312-6763	311-3763	
1/2-10	312-6767	311-3767	313-3767
1/2-11	312-7627	311-4627	313-4627
1/2-12	312-7626	311-4626	313-4626
1/2-14	312-7628	311-4628	313-4628
1/2-16	312-7630	311-4630	313-4630
1/2-18	312-7632	311-4632	313-4632
1/2-24	312-7634	311-4634	313-4634
1/2-26	312-6765	311-3765	313-3765
1/2-27	312-6764	311-3764	313-3764
1/2-28	312-7633	311-4633	313-4633
1/2-30	312-6766	311-3766	313-3766
1/2-32	312-7636	311-4636	313-4636
1/2-36	312-6768	311-3768	313-3768
1/2-40	312-6770	311-3770	313-3770
1/2-48	312-6772	311-3772	313-3772
1/2-56	312-6773	311-3773	313-3773
1/2-60	312-7635	311-4635	313-4635
1/2-64	312-7637	311-4637	313-4637
1/2-80	312-6769	311-3769	313-3769
9/16-10	312-7638	311-4638	313-4638
9/16-14	312-6774	311-3774	313-3774
9/16-16	312-7640	311-4640	313-4640
9/16-20	312-7642	311-4642	313-4642
9/16-24	312-7644	311-4644	313-4644
9/16-26	312-6775	311-3775	313-3775
9/16-27	312-6776	311-3776	313-3776
9/16-28	312-6778	311-3778	313-3778
9/16-30	312-6779	311-3779	313-3779
9/16-32	312-6780	311-3780	313-3780
9/16-36	312-6782	311-3782	313-3782
9/16-40	312-6784	311-3784	313-3784
5/8-10	312-6786	311-3786	313-3786
5/8-12	312-7646	311-4646	313-4646
5/8-14	312-6788	311-3788	313-3788
5/8-16	312-7648	311-4648	313-4648
5/8-20	312-7650	311-4650	313-4650
5/8-26	312-6789	311-3789	313-3789
5/8-27	312-6790	311-3790	313-3790
5/8-28	312-6791	311-3791	313-3791
5/8-30	312-7653	311-4653	313-4653
5/8-24	312-7652	311-4652	313-4652
5/8-32	312-7654	311-4654	313-4654
5/8-36	312-7656	311-4656	313-4656
5/8-40	312-6792	311-3792	313-3792
5/8-48	312-6794	311-3794	313-3794
5/8-64	312-6795	311-3795	
11/16-11	312-7658	311-4658	313-4658
11/16-12	312-6796	311-3796	313-3796
11/16-14		311-3797	

mhc® Industrial Supply

Special Thread Hand Taps continued

High Speed Steel, Ground Thread

美标手用高速钢特细牙丝锥磨制



Size	Taper Order No.	Plug Order No.	Bottoming Order No.
11/16-16	312-7660	311-4660	313-4660
11/16-18	312-7662	311-4662	313-4662
11/16-20	312-7664	311-4664	313-4664
11/16-24	312-7666	311-4666	313-4666
11/16-27	312-6798	311-3798	313-3798
11/16-28	312-6800	311-3800	313-3800
11/16-32	312-7668	311-4668	313-4668
11/16-36	312-6802	311-3802	313-3802
11/16-40	312-6804	311-3804	313-3804
11/16-48	312-6803	311-3803	313-3803
3/4-8	312-6805	311-3805	313-3807
3/4-11	312-6807	311-3807	
3/4-12	312-7670	311-4670	313-4670
3/4-14	312-6806	311-3806	313-3806
3/4-18	312-7672	311-4672	313-4672
3/4-20	312-7674	311-4674	313-4674
3/4-24	312-7676	311-4676	313-4676
3/4-26	312-6808	311-3808	313-3808
3/4-27	312-7678	311-4678	313-4678
3/4-28	312-7679	311-4679	313-4679
3/4-32	312-7680	311-4680	313-4680
3/4-36	312-6810	311-3810	313-3810
3/4-40	312-6812	311-3812	313-3812
3/4-48	312-6813	311-3813	313-3813
3/4-56	312-7681	311-4681	
13/16-10	312-6814	311-3814	313-3814
13/16-12	312-6816	311-3816	313-3816
13/16-14	312-6817	311-3817	313-3817
13/16-16	312-7682	311-4682	313-4682
13/16-18	312-6818	311-3818	313-3818
13/16-20	312-7684	311-4684	313-4684
13/16-24	312-6820	311-3820	313-3820
13/16-26	312-6819	311-3819	313-3819
13/16-27	312-7685	311-4685	313-3823
13/16-28	312-6821	311-3821	313-3821
13/16-30	312-6822	311-3822	313-3822
13/16-32	312-7686	311-4686	313-4686
13/16-36	312-7687	311-4687	313-4687
7/8-10	312-6824	311-3824	313-3824
7/8-12	312-7688	311-4688	313-4688
7/8-16	312-7690	311-4690	313-4690
7/8-18	312-7692	311-4692	313-4692
7/8-20	312-7694	311-4694	313-4694
7/8-24	312-6826	311-3826	313-3826
7/8-27	312-6827	311-3827	313-3827
7/8-28	312-6829	311-3829	313-3829
7/8-30	312-6828	311-3828	313-3828
7/8-32	312-6830	311-3830	313-3830
7/8-36	312-6832	311-3832	313-3832
7/8-40	312-6834	311-3834	313-3834
7/8-48	312-6835	311-3835	313-3835
29/32-24	312-7695	311-4695	
15/16-8	312-6836	311-3836	313-3836
15/16-10		311-3837	
15/16-12	312-7696	311-4696	313-4696
15/16-14		311-4697	313-4697
15/16-16	312-7698	311-4698	313-4698
15/16-18	312-7699	311-4699	313-4699
15/16-20	312-7700	311-4700	313-4700
15/16-24	312-6838	311-3838	313-3838
15/16-27	312-7702	311-4702	313-4702
15/16-30	312-6840	311-3840	313-3840
15/16-32	312-7704	311-4704	313-4704
31/32-32		311-4705	
1"-10	312-7706	311-4706	313-4706
1"-16	312-7708	311-4708	313-4708
1"-18	312-7710	311-4710	313-4710
1"-20	312-7712	311-4712	313-4712
1"-24	312-6842	311-3842	313-3842
1"-26	312-6841	311-3841	313-3841
1"-27	312-6843	311-3843	313-3843
1"-28	312-6845	311-3845	313-3845
1"-30	312-7713	311-4713	313-4713
1"-32	312-7714	311-4714	313-4714
1"-36	312-6844	311-3844	313-3844
1"-40	312-6846	311-3846	313-3846
1"-48	312-6848	311-3848	313-3848
1-1/32-20	312-7715	311-4715	

Size	Taper Order No.	Plug Order No.	Bottoming Order No.
1-1/16-8	312-7716	311-4716	313-4716
1-1/16-10	312-7718	311-4718	313-4718
1-1/16-12	312-7720	311-4720	313-4720
1-1/16-14	312-7722	311-4722	313-4722
1-1/16-16	312-7724	311-4724	313-4724
1-1/16-18	312-7726	311-4726	313-4726
1-1/16-20	312-7728	311-4728	313-4728
1-1/16-24	312-7730	311-4730	313-4730
1-1/16-28	312-7731	311-4731	313-4731
1-1/16-32	312-7732	311-4732	313-4732
1-1/16-40	312-7733	311-4733	313-4733
1-1/16-48	312-6849		313-3849
1-1/8-8	312-7734	311-4734	313-4734
1-1/8-10	312-7736	311-4736	313-4736
1-1/8-14	312-6850	311-3850	313-3850
1-1/8-16	312-7738	311-4738	313-4738
1-1/8-18	312-7740	311-4740	313-4740
1-1/8-20	312-6852	311-3852	313-3852
1-1/8-24	312-6854	311-3854	313-3854
1-1/8-27	312-6856	311-3856	313-3856
1-1/8-30	312-6853		313-3853
1-1/8-32	312-7742	311-4742	313-4742
1-3/16-8	312-7744	311-4744	313-4744
1-3/16-10	312-7746	311-4746	313-4746
1-3/16-12	312-7748	311-4748	313-4748
1-3/16-14	312-7750	311-4750	313-4750
1-3/16-16	312-7752	311-4752	313-4752
1-3/16-18	312-7754	311-4754	313-4754
1-3/16-20	312-7756	311-4756	313-4756
1-3/16-24	312-7758	311-4758	313-4758
1-3/16-32	312-7760	311-4760	313-4760
1-1/4-8	312-7762	311-4762	313-4762
1-1/4-10	312-7764	311-4764	313-4764
1-1/4-14	312-7766	311-4766	313-4766
1-1/4-16	312-7768	311-4768	313-4768
1-1/4-18	312-7770	311-4770	313-4770
1-1/4-20	312-7772	311-4772	313-4772
1-1/4-24	312-7773	311-4773	313-4773
1-1/4-26	312-6857	311-3857	313-3857
1-1/4-27	312-6858	311-3858	313-3858
1-1/4-28	312-6860	311-3860	313-3860
1-1/4-32	312-7774	311-4774	313-4774
1-1/4-36	312-6861	311-3861	313-3861
1-1/4-40	312-7775	311-4775	313-4775
1-5/16-8	312-7776	311-4776	313-4776
1-5/16-12	312-7778	311-4778	313-4778
1-5/16-14	312-7779	311-4779	313-4779
1-5/16-16	312-7780	311-4780	313-4780
1-5/16-18	312-7782	311-4782	313-4782
1-5/16-20	312-7783	311-4783	313-4783
1-5/16-24	312-6862	311-3862	313-3862
1-5/16-32	312-6864	311-3864	313-3864
1-3/8-5		311-4785	
1-3/8-8	312-7784	311-4784	313-4784
1-3/8-10	312-7786	311-4786	313-4786
1-3/8-14	312-7788	311-4788	313-4788
1-3/8-16	312-7790	311-4790	313-4790
1-3/8-18	312-7792	311-4792	313-4792
1-3/8-20	312-7794	311-4794	313-4794
1-3/8-24	312-7795	311-4795	313-4795
1-3/8-27	312-6863	311-3863	313-3863
1-3/8-32	312-6866	311-3866	313-3866
1-3/8-40	312-6868	311-3868	313-3868
1-7/16-8	312-7796	311-4796	313-4796
1-7/16-12	312-7797	311-4797	313-4797
1-7/16-14		311-4799	
1-7/16-16	312-7798	311-4798	313-4798
1-7/16-18	312-7800	311-4800	313-4800
1-7/16-20	312-6869	311-3869	313-3869
1-7/16-24	312-7801	311-4801	
1-7/16-27	312-6871		313-3871
1-7/16-36	312-6870	311-3870	313-3870
1-15/32-40	312-6865		313-3865
1-1/2-8	312-7802	311-4802	313-4802
1-1/2-10	312-7804	311-4804	313-4804
1-1/2-14	312-7805	311-4805	313-4805
1-1/2-16	312-7806	311-4806	313-4806
1-1/2-18	312-7808	311-4808	313-4808

Size	Taper Order No.	Plug Order No.	Bottoming Order No.
1-1/2-20	312-7810	311-4810	313-4810
1-1/2-24	312-7811	311-4811	313-4811
1-1/2-28	312-6872	311-3872	313-3872
1-1/2-32	312-6874	311-3874	313-3874
1-1/2-40	312-6873	311-3873	
1-9/16-8	312-6876	311-3876	313-3876
1-9/16-10	312-6875	311-3875	
1-9/16-12	312-7812	311-4812	313-4812
1-9/16-16	312-7813	311-4813	313-4813
1-9/16-18	312-7814	311-4814	313-4814
1-9/16-20	312-7816	311-4816	313-4816
1-9/16-24	312-7815	311-4815	313-4815
1-9/16-32	312-6877	311-3877	313-3877
1-5/8-5	312-6878	311-3878	313-3878
1-5/8-5-1/2	312-7818	311-4818	313-4818
1-5/8-8	312-7820	311-4820	313-4820
1-5/8-10	312-7822	311-4822	313-4822
1-5/8-12	312-7824	311-4824	313-4824
1-5/8-14	312-7826	311-4826	313-4826
1-5/8-16	312-7828	311-4828	313-4828
1-5/8-18	312-7830	311-4830	313-4830
1-5/8-20	312-7832	311-4832	313-4832
1-5/8-24	312-7834	311-4834	313-4834
1-21/32-24	312-6881		313-3881
1-21/32-32	312-6882		313-3882
1-11/16-12	312-7836	311-4836	313-4836
1-11/16-16	312-7837	311-4837	313-4837
1-11/16-18	312-7838	311-4838	313-4838
1-11/16-20	312-7839	311-4839	313-4839
1-11/16-24	312-7835	311-4835	
1-11/16-32	312-6879		313-4879
1-11/16-36	312-6880	311-3880	313-3880
1-3/4-5	312-7840	311-4840	313-4840
1-3/4-6	312-7842	311-4842	313-4842
1-3/4-7	312-7843	311-4843	
1-3/4-8	312-7844	311-4844	313-4844
1-3/4-10	312-7846	311-4846	313-4846
1-3/4-12	312-7848	311-4848	313-4848
1-3/4-14	312-6884	311-3884	313-3884
1-3/4-16	312-7850	311-4850	313-4850
1-3/4-18	312-7852	311-4852	313-4852
1-3/4-20	312-7854	311-4854	313-4854
1-3/4-24	312-7856	311-4856	313-4856
1-3/4-32	312-6885		313-3885
1-13/16-8	312-7858	311-4858	313-4858
1-13/16-12	312-7859	311-4859	313-4859
1-13/16-16	312-7860	311-4860	313-4860
1-13/16-18	312-7862	311-4862	313-4862
1-13/16-20	312-7863	311-4863	313-4863
1-13/16-28	312-6890	311-3890	313-3890
1-13/16-32	312-6889		313-3889
1-27/32-32	312-6891	311-3891	
1-7/8-5	312-7864	311-4864	313-4864
1-7/8-7	312-7866	311-4866	313-4866
1-7/8-8	312-7868	311-4868	313-4868
1-7/8-10	312-7870	311-4870	313-4870
1-7/8-12	312-7872	311-4872	313-4872
1-7/8-16	312-7874	311-4874	313-4874
1-7/8-18	312-7876	311-4876	313-4876
1-7/8-20	312-7878	311-4878	313-4878
1-29/32-32	312-7879	311-4879	
1-15/16-12	312-7880	311-4880	313-4880
1-15/16-16	312-7882	311-4882	313-4882
1-15/16-18	312-6892	311-3892	313-3892
1-15/16-20	312-6894	311-3894	313-3894
1-15/16-32	312-6893		313-3893
2"-4-1/2	312-7884	311-4884	313-4884
2"-6	312-7886	311-4886	313-4886
2"-8	312-7888	311-4888	313-4888
2"-10	312-7890	311-4890	313-4890
2"-12	312-7892	311-4892	313-4892
2"-14	312-7894	311-4894	313-4894
2"-16	312-7896	311-4896	313-4896
2"-18	312-6896	311-3896	313-3896
2"-20	312-7898	311-4898	313-4898
2"-24		311-4895	
2"-32		311-4899	
2-1/16-12	312-6897	311-3897	313-3897

Special Thread Hand Taps continued

美标手用高速钢特细牙丝锥磨制

Size	Taper Order No.	Plug Order No.	Bottoming Order No.
2-1/16-32	312-6899	311-4897	
2-1/8-6		311-4909	
2-1/8-8	312-7900	311-4900	313-4900
2-1/8-10	312-7901	311-4901	313-4901
2-1/8-12	312-7902	311-4902	313-4902
2-1/8-14	312-7907	311-4907	
2-1/8-16	312-7903	311-4903	313-4903
2-1/8-18	312-7904	311-4904	313-4904
2-1/8-20	312-7905	311-4905	313-4905
2-3/16-12		311-4911	
2-3/16-20	312-7906	311-4906	313-4906
2-1/4-4-1/2	312-7908	311-4908	313-4908
2-1/4-6	312-6898	311-3898	313-3898
2-1/4-8	312-7910	311-4910	313-4910
2-1/4-10	312-6900	311-3900	313-3900
2-1/4-12	312-7912	311-4912	313-4912
2-1/4-14	312-7914	311-4914	313-4914
2-1/4-16	312-7915	311-4915	313-4915
2-1/4-18	312-7916	311-4916	313-4916
2-1/4-20	312-7917	311-4917	313-4917
2-5/16-12		311-3903	313-3903
2-5/16-14		311-3904	313-3904
2-5/16-18	312-6901	311-3901	
2-3/8-10	312-6902	311-3902	313-3902
2-3/8-12	312-7922	311-4922	313-4922
2-3/8-14	312-7924	311-4924	313-4924
2-3/8-16	312-6906	311-3906	313-3906
2-3/8-18	312-6908	311-3908	313-3908
2-3/8-20	312-6910	311-3910	313-3910
2-3/8-4-1/2	312-7918	311-4918	313-4918
2-3/8-8	312-7920	311-4920	313-4920
2-1/2-10		311-4931	
2-1/2-12	312-7932	311-4932	313-4932
2-1/2-16	312-7934	311-4934	313-4934
2-1/2-18	312-7936	311-4936	313-4936
2-1/2-20	312-6914	311-3914	313-3914
2-1/2-4	312-7926	311-4926	313-4926
2-1/2-6	312-7928	311-4928	313-4928
2-1/2-8	312-7930	311-4930	313-4930
2-5/8-8	312-7938	311-4938	313-4938
2-5/8-12	312-7940	311-4940	313-4940
2-5/8-14		311-3915	
2-5/8-16	312-7942	311-4942	313-4942
2-5/8-18	312-7944	311-4944	313-4944
2-3/4-4	312-7946	311-4946	313-4946
2-3/4-8	312-7948	311-4948	313-4948
2-3/4-12	312-7950	311-4950	313-4950
2-3/4-16	312-7952	311-4952	313-4952
2-3/4-18	312-7954	311-4954	313-4954
2-7/8-8	312-7956	311-4956	313-4956
2-7/8-12	312-7958	311-4958	313-4958
2-7/8-14	312-6916	311-3916	313-3916
2-7/8-16	312-7960	311-4960	313-4960
2-7/8-18	312-6918	311-3918	313-3918
3"-4	312-7962	311-4962	313-4962
3"-8	312-7964	311-4964	313-4964
3"-12	312-7966	311-4966	313-4966
3"-14	312-6919	311-3919	
3"-16	312-6920	311-3920	313-3920
3"-18	312-6922	311-3922	313-3922
3-1/8-12	312-6923	311-3923	
3-3/16'-12	312-7967	311-4967	
3-1/4-4	312-7968	311-4968	313-4968
3-1/4-8	312-7970	311-4970	313-4970
3-1/4-12	312-7972	311-4972	313-4972
3-1/2-4	312-7974	311-4974	313-4974
3-1/2-8	312-7976	311-4976	313-4976
3-1/2-12	312-7978	311-4978	313-4978
3-5/8-12	312-7979	311-4979	
3-3/4-4	312-7980	311-4980	313-4980
3-3/4-8	312-7981	311-3924	313-3924
3-3/4-12	312-7982	311-4982	313-4982
4"-4	312-6926	311-3926	313-3926
4"-8	312-7984	311-4984	313-4984
4"-12	312-7986	311-4986	313-4986
4"-16	312-6928	311-3928	313-3928
4-1/2-16	312-6929	311-3929	

Metric Special Hand Taps

NEW

HSS, Ground Thread

公制手用特细牙丝锥



Size	Plug Order No.	Bottoming Order No.	Size	Plug Order No.	Bottoming Order No.
1.4x0.30	411-6014	411-7014	18x1.25	411-6183	411-7183
1.7x0.20	411-6017	411-7017	18x1.75	411-6184	411-7184
1.7x0.35	411-6018	411-7018	19x0.50	411-6191	411-7191
2.0x0.25	411-6020	411-7020	19x1.00	411-6192	411-7192
2.0x0.45	411-6022	411-7022	19x1.50	411-6193	411-7193
2.3x0.40	411-6023	411-7023	19x2.00	411-6194	411-7194
2.5x0.20	411-6025	411-7025	20x1.00	411-6201	411-7201
2.6x0.35	411-6026	411-7026	20x1.25	411-6202	411-7202
2.6x0.45	411-6027	411-7027	20x2.00	411-6203	411-7203
3.0x0.35	411-6030	411-7030	21x1.00	411-6211	411-7211
3.0x0.60	411-6031	411-7031	21x1.25	411-6212	411-7212
3.5x0.50	411-6035	411-7035	21x1.50	411-6213	411-7213
4.0x0.50	411-6040	411-7040	21x2.00	411-6214	411-7214
4.5x0.50	411-6045	411-7045	21x2.50	411-6215	411-7215
5.0x0.50	411-6050	411-7050	22x1.00	411-6221	411-7221
5x0.75	411-6051	411-7051	22x2.00	411-6222	411-7222
5x0.90	411-6052	411-7052	23x1.00	411-6231	411-7231
5.5x0.70	411-6055	411-7055	23x1.50	411-6232	411-7232
5.5x0.90	411-6056	411-7056	23x2.00	411-6233	411-7233
6.0x0.50	411-6060	411-7060	23x2.50	411-6234	411-7234
6.0x0.75	411-6061	411-7061	23x3.00	411-6235	411-7235
7x0.50	411-6071	411-7071	24x1.00	411-6241	411-7241
7x0.75	411-6072	411-7072	25x1.00	411-6251	411-7251
7x1.25	411-6073	411-7073	25x1.50	411-6252	411-7252
8x0.50	411-6080	411-7080	25x2.00	411-6253	411-7253
8x0.75	411-6081	411-7081	25x3.00	411-6254	411-7254
8x1.50	411-6083	411-7083	26x1.50	411-6261	411-7261
9.0x0.50	411-6090	411-7090	26x2.00	411-6262	411-7262
9x0.75	411-6091	411-7091	27x1.00	411-6271	411-7271
9x1.00	411-6092	411-7092	27x2.50	411-6272	411-7272
9x1.25	411-6093	411-7093	28x1.50	411-6281	411-7281
10x0.50	411-6101	411-7101	28x2.00	411-6282	411-7282
10x0.75	411-6102	411-7102	30x1.00	411-6301	411-7301
10x1.00	411-6103	411-7103	30x2.50	411-6302	411-7302
11x0.50	411-6111	411-7111	30x3.00	411-6303	411-7303
11x0.75	411-6112	411-7112	32x1.50	411-6321	411-7321
11x1.00	411-6113	411-7113	32x2.00	411-6322	411-7322
11x1.25	411-6114	411-7114	33x1.50	411-6331	411-7331
11x1.50	411-6115	411-7115	33x2.00	411-6332	411-7332
12x0.50	411-6121	411-7121	34x1.50	411-6341	411-7341
12x0.75	411-6122	411-7122	35x1.50	411-6351	411-7351
12x1.00	411-6123	411-7123	38x1.50	411-6381	411-7381
12x1.50	411-6124	411-7124	39x1.50	411-6391	411-7391
13x0.50	411-6131	411-7131	40x1.50	411-6401	411-7401
13x0.75	411-6132	411-7132	42x1.50	411-6421	411-7421
13x1.00	411-6133	411-7133	42x3.00	411-6422	411-7422
13x1.25	411-6136	411-7136	42x4.50	411-6423	411-7423
13x1.50	411-6134	411-7134	45x1.50	411-6451	411-7451
13x2.00	411-6135	411-7135	45x3.00	411-6452	411-7452
14x0.50	411-6141	411-7141	45x4.50	411-6454	411-7454
14x0.75	411-6142	411-7142	46x4.50	411-6461	411-7461
14x1.00	411-6143	411-7143	48x1.50	411-6481	411-7481
14x1.50	411-6144	411-7144	48x3.00	411-6483	411-7483
14x1.75	411-6145	411-7145	48x4.50	411-6484	411-7484
15x0.50	411-6151	411-7151	48x5.00	411-6485	411-7485
15x1.00	411-6152	411-7152	50x1.50	411-6501	411-7501
15x1.50	411-6153	411-7153	50x3.00	411-6503	411-7503
15x2.00	411-6154	411-7154	52x1.50	411-6521	411-7521
16x0.50	411-6161	411-7161	52x3.00	411-6523	411-7523
16x0.75	411-6162	411-7162	52x5.00	411-6525	411-7525
16x1.00	411-6163	411-7163	56x3.00	411-6563	411-7563
16x1.25	411-6164	411-7164	56x4.00	411-6564	411-7564
16x1.75	411-6165	411-7165	56x5.50	411-6565	411-7565
17x0.50	411-6171	411-7171	64x1.50	411-6641	411-7641
17x1.00	411-6172	411-7172	64x3.00	411-6643	411-7643
17x1.50	411-6173	411-7173	64x6.00	411-6646	411-7646
17x0.20	411-6174	411-7174	72x3.00	411-6723	411-7723
18x0.50	411-6181	411-7181	72x6.00	411-6726	411-7726
18x1.00	411-6182	411-7182			

Screw Thread Insert Taps (S.T.I)

High Speed Steel, Ground Thread, Straight Flute

STI 直槽丝锥



Tap Size	Plug Order No.	Bottom Order No.	Tap Size	Plug Order No.	Bottom Order No.
2-56 NC	311-9200	311-9300	1-8 NC	311-9234	311-9334
3-48 NC	311-9202	311-9302	3-56 NF	311-9250	311-9350
4-40NC	311-9204	311-9304	4-48 NF	311-9252	311-9352
5-40 NC	311-9206	311-9306	6-40 NF	311-9254	311-9354
6-32 NC	311-9208	311-9308	8-36 NF	311-9256	311-9356
8-32 NC	311-9210	311-9310	10-32 NF	311-9258	311-9358
10-24 NC	311-9212	311-9312	1/4-28 NF	311-9260	311-9360
12-24 NC	311-9214	311-9314	5/16-24 NF	311-9262	311-9362
1/4-20 NC	311-9216	311-9316	3/8-24 NF	311-9264	311-9364
5/16-18 NC	311-9218	311-9318	7/16-20 NF	311-9266	311-9366
3/8-16 NC	311-9220	311-9320	1/2-20 NF	311-9268	311-9368
7/16-14 NC	311-9222	311-9322	9/16-18 NF	311-9270	311-9370
1/2-13 NC	311-9224	311-9324	5/8-18 NF	311-9272	311-9372
9/16-12 NC	311-9226	311-9326	3/4-16 NF	311-9274	311-9374
5/8-11 NC	311-9228	311-9328	7/8-14 NF	311-9276	311-9376
3/4-10 NC	311-9230	311-9330	1-12 NF	311-9278	311-9378
7/8-9 NC	311-9232	311-9332	1-14 NF	311-9280	311-9380

Acme TandemTaps 梯形丝锥

High Speed Steel,
Chamfer: 3-5 Threads
Ground Thread,
Class 2G



Size	Thread Length	Overall length	Max. Depth of Bronze or Steel Nut	Max. Depth of Brass or Cast Iron Nut	Order No.
3/8"-12	2-9/16"	5"			312-0302
7/16-12	2-9/16	5			312-0304
1/2-10	2-9/16	2-9/16	1"	1-1/2"	312-0306
5/8-8	3-3/16	6-1/4	1-1/4	1-7/8	312-0308
3/4-6	4-5/16	7-15/16	1-1/2	2-1/4	312-0310
7/8-6	4-3/8	8-5/8	1-3/4	2-5/8	312-0312
1-5	5-1/4	10-1/8	2	3	312-0314
1-1/8-5	5-1/4	10-3/4	2-1/4	3-3/8	312-0316
1-1/4-5	5-1/4	11-1/8	2-1/2	3-3/4	312-0318
1-3/8-4	5-7/8	12-1/4	2-3/4	4-1/8	312-0320
1-1/2-4	5-7/8	12-5/8	3	4-1/2	312-0322
2"-4	6-1/2	14-7/8			312-0328

Left Hand

Size	Thread Length	Overall length	Max. Depth of Bronze or Steel Nut	Max. Depth of Brass or Cast Iron Nut	Order No.
3/8"-12	2-9/16"	5"			312-9017
7/16-12	2-9/16	5			312-9018
1/2-10	2-9/16	2-9/16	1"	1-1/2"	312-9019
5/8"-8	3-3/16	6-1/4	1-1/4	1-7/8	312-9020
3/4-6	4-5/16	7-15/16	1-1/2	2-1/4	312-9021
7/8-6	4-3/8	8-5/8	1-3/4	2-5/8	312-9022
1-5	5-1/4	10-1/8	2	3	312-9023
1-1/8-5	5-1/4	10-3/4	2-1/4	3-3/8	312-9024
1-1/4-5	5-1/4	11-1/8	2-1/2	3-3/4	312-9025

HSS Ground Pulley Taps

高速钢磨牙皮带轮丝锥



Size	No.of Flute	H limit	OAL	Order No.	Size	No.of Flute	H limit	OAL	Order No.
1/4"-20NC	4	H-3	4	312-0402	1/2-13NC	4	H-3	8	312-0618
5/16-18NC	4	H-3	4	312-0404	1/2-20NF	4	H-3	8	312-0620
3/8-16NC	4	H-3	4	312-0406	5/8-11NC	4	H-3	8	312-0622
4-40NC	3	H-3	6	312-0500	9/16-12	4	H-3	8	312-0623
6-32NC	4	H-3	6	312-0502	5/8-18NF	4	H-3	8	312-0624
6-40NC	4	H-2	6	312-0504	3/4-10NC	4	H-3	8	312-0626
8-32NC	4	H-3	6	312-0506	3/4-16	4	H-3	8	312-0627
8-32NC	4	H-3	6	312-0507	7/8-9NC	4	H-4	8	312-0628
8-36NF	4	H-3	6	312-0508	1-8NC	4	H-4	8	312-0630
10-24NC	4	H-3	6	312-0510	1-1/8-7NC			8	312-0631
10-32NC	4	H-3	6	312-0512	1-1/4-7NC			8	312-0632
12-24NC	4	H-3	6	312-0513	1/4-28	4	H-3	10	312-0700
1/4-20NC	4	H-3	6	312-0514	5/16-18	4	H-3	10	312-0701
1/4-28NF	4	H-3	6	312-0516	3/8-16NC	4	H-3	10	312-0702
5/16-18NC	4	H-3	6	312-0518	5/16-24	4	H-3	10	312-0703
5/16-24NF	4	H-3	6	312-0520	3/8-24NF	4	H-3	10	312-0704
3/8-16NC	4	H-3	6	312-0522	7/16-14NC	4	H-3	10	312-0706
3/8-24NF	4	H-3	6	312-0524	1/2-20	4	H-3	10	312-0707
7/16-14NC	4	H-3	6	312-0526	7/16-20NF	4	H-3	10	312-0708
7/16-20NF	4	H-3	6	312-0528	1/2-13NC	4	H-3	10	312-0709
1/2-13NC	4	H-3	6	312-0530	5/8-11NC	4	H-3	10	312-0710
1/2-20NF	4	H-3	6	312-0532	5/8-18	4	H-3	10	312-0711
5/8-11NC	4	H-3	6	312-0534	3/4-10NC	4	H-3	10	312-0712
5/8-18NF	4	H-3	6	312-0536	3/4-16	4	H-3	10	312-0713
3/4-10NC	4	H-3	6	312-0538	7/8-9NC	4	H-4	10	312-0714
3/4-16	4	H-3	6	312-0539	1-8NC	4	H-3	10	312-0716
7/8-9NC	4	H-4	6	312-0540	1/4-20	4	H-3	12	312-0800
1-1/4-7NC	4	H-3	6	312-0542	3/8-16NC	4	H-3	12	312-0802
10-24	4		8	312-0600	7/16-14NC	4	H-3	12	312-0804
10-32	4		8	312-0601	1/2-13NC	4	H-3	12	312-0806
1/4-20NC	4	H-3	8	312-0602	1/2-20NF	4	H-3	12	312-0807
1/4-28NF	4	H-3	8	312-0604	5/8-11NC	4	H-3	12	312-0808
5/16-18NC	4	H-3	8	312-0606	5/8-18NF	4	H-3	12	312-0810
5/16-24NF	4	H-3	8	312-0608	7/8-9	4	H-3	12	312-0811
3/8-16NC	4	H-3	8	312-0610	3/4-10NC	4	H-3	12	312-0812
3/8-24NF	4	H-3	8	312-0612	3/4-16NF	4	H-3	12	312-0813
7/16-14NC	4	H-3	8	312-0614	1-8NC	4	H-4	12	312-0814
7/16-20NF	4	H-3	8	312-0616					

HSS Ground Pulley Taps ,Spiral point

高速钢磨牙皮带轮螺尖丝锥



Size	No.of Flute	H limit	OAL	Order No.	Size	No.of Flute	H limit	OAL	Order No.
4-40NC	2	H-2	4	**312-4402**	5/16"-24NF	2	H-3	8	**312-4608**
6-32NC	2	H-3	4	**312-4404**	3/8-16NC	3	H-3	8"	**312-4610**
8-32NC	2	H-3	4	**312-4406**	3/8-24NF	3	H-3	8	**312-4612**
10-24NC	2	H-3	4	**312-4408**	7/16-14NC	3	H-3	8	**312-4614**
10-32NF	2	H-3	4	**312-4409**	7/16-20NF	3	H-3	8	**312-4616**
1/4-20NC	2	H-3	4	**312-4410**	1/2-13NC	3	H-3	8	**312-4618**
5/16-18NC	2	H-3	4	**312-4412**	1/2-20NF	3	H-3	8	**312-4620**
3/8-16NC	3	H-3	4	**312-4414**	5/8-11NC	3	H-3	8	**312-4622**
8-32NC	2	H-3	6	**312-4506**	5/8-18NF	3	H-3	8	**312-4624**
8-36NF	2	H-3	6	**312-4508**	3/4-10NC	3	H-3	8	**312-4626**
10-24NC	2	H-3	6	**312-4510**	7/8-9NC	3	H-4	8	**312-4628**
10-32NF	2	H-3	6	**312-4512**	1-8NC	3	H-4	8	**312-4630**
1/4-20NC	2	H-3	6	**312-4514**	3/8-16NC	3	H-3	10	**312-4702**
1/4-28NF	2	H-3	6	**312-4516**	3/8-24NF	3	H-3	10	**312-4704**
5/16-18NC	2	H-3	6	**312-4518**	7/16-14NC	3	H-3	10	**312-4706**
5/16-24NF	2	H-3	6	**312-4520**	7/16-20NF	3	H-3	10	**312-4708**
3/8-16NC	3	H-3	6	**312-4522**	1/2-13NC	3	H-3	10	**312-4709**
3/8-24NF	3	H-3	6	**312-4524**	5/8-11NC	3	H-3	10	**312-4710**
7/16-14NC	3	H-3	6	**312-4526**	3/4-10NC	3	H-3	10	**312-4712**
7/16-20NF	3	H-3	6	**312-4528**	7/8-9NC	3	H-4	10	**312-4714**
1/2-13NC	3	H-3	6	**312-4530**	3/8-16NC	3	H-3	12	**312-4802**
1/2-20NF	3	H-3	6	**312-4532**	7/16-14NC	3	H-3	12	**312-4804**
5/8-11NC	3	H-3	6	**312-4534**	1/2-13NC	3	H-3	12	**312-4806**
5/8-18NF	3	H-3	6	**312-4536**	5/8-11NC	3	H-3	12	**312-4808**
3/4-10NC	3	H-3	6	**312-4538**	5/8-18NF	3	H-3	12	**312-4810**
7/8-9NC	3	H-4	6	**312-4540**	3/4-10NC	3	H-3	12	**312-4812**
1/4-20NC	2	H-3	8	**312-4602**	3/4"-16NF	3	H-3	12	**312-4813**
1/4-28NF	2	H-3	8	**312-4604**	1-8NC	4	H-4	12	**312-4814**
5/16-18NC	2	H-3	8	**312-4606**					

Single Pass Combination Drill Taps

HSS, Ground Thread

美式复合丝锥钻

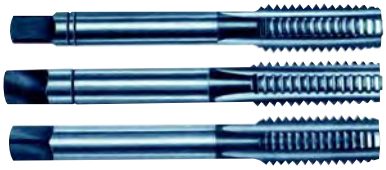


Size	Thread Limit	Thread Length	Drill Length	Drill Size	Overall Length	H.S.S Order No.	TiN-Coated Order No.
4-40NC	H-2	9/16"	1/4"	.0890"	1-7/8"	312-0102	312-0202
4-48NF	H-2	9/16	1/4	.0930	1-7/8	312-0104	312-0204
5-40NC	H-2	5/8	9/32	.1015	1-15/16	312-0106	312-0206
5-44NF	H-2	5/8	9/32	.1040	1-15/16	312-0108	312-0208
6-32NC	H-3	11/16	5/16	.1095	2	312-0110	312-0210
6-40NF	H-2	11/16	5/16	.1150	2	312-0112	312-0212
8-32NC	H-3	3/4	3/8	.1360	2-1/8	312-0114	312-0214
8-36NF	H-3	3/4	3/8	.1385	2-1/8	312-0116	312-0216
10-24NC	H-3	7/8	13/32	.1520	2-3/8	312-0118	312-0218
10-32NF	H-3	7/8	13/32	.1610	2-3/8	312-0120	312-0220
12-24NC	H-3	7/8	15/32	.1770	2-3/8	312-0122	312-0222
12-28NF	H-3	7/8	15/32	.1835	2-3/8	312-0124	312-0224
1/4-20NC	H-3	15/16	17/32	.2010	2-1/2	312-0126	312-0226
1/4-28NF	H-3	15/16	17/32	.2175	2-1/2	312-0128	312-0228
5/16-18NC	H-3	1-1/8	11/16	.2570	3	312-0130	312-0230
5/16-24NF	H-3	1-1/8	11/16	.2720	3	312-0132	312-0232
3/8-16NC	H-3	1-1/4	13/16	.3125	3-1/2	312-0134	312-0234
3/8-24NF	H-3	1-1/4	13/16	.3345	3-1/2	312-0136	312-0236
7/16-14NC	H-3	1-7/16	1	.3680	3-7/8	312-0138	312-0238
7/16-20NF	H-3	1-7/16	1	.3890	3-7/8	312-0140	312-0240
1/2-13NC	H-3	1-21/32	1-1/8	.4250	4-1/4	312-0142	312-0242
1/2-20N	H-3	1-21/32	1-1/8	.4510	4-1/4	312-0144	312-0244

Size	Limit	Thread Length	Drill Length	Drill Size	Overall Length	H.S.S Order No.	TiN-Coated Order No.
3x.5mm	D-3	13/32"	9/32"	.1015"	1-15/16"	312-0162	312-0262
3.5x.6mm	D-4	7/16	5/16	.1180	2	312-0164	312-0264
4x.7mm	D-4	1/2	3/8	.1340	2-1/8	312-0166	312-0266
4.5x.75mm	D-4	5/8	13/32	.1520	2-3/8	312-0168	312-0268
5x.8mm	D-4	5/8	13/32	.1700	2-3/8	312-0170	312-0270
6x1.00mm	D-5	25/32	17/32	.2030	2-1/2	312-0172	312-0272
7x1.00mm	D-5	15/16	11/16	.2420	2-27/32	312-0174	312-0274
8x1.25mm	D-5	15/16	11/16	.2735	2-27/32	312-0176	312-0276
10x1.5mm	D-6	1-1/16	13/16	.3440	3-3/8	312-0178	312-0278
12x1.75mm	D-6	1-3/8	1-1/8	.4140	4-1/16	312-0180	312-0280

Metric Hand Taps 德标 352 丝锥

DIN 352
3 Piece
High Speed Steel

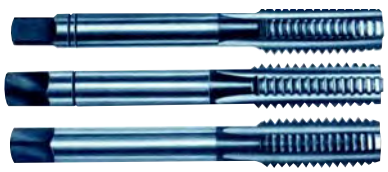


Size	Taper Order No.	Plug Order No.	Bottoming Order No.	Set Orde No.
M1.6-.35mm			324-3016	
M2-.4mm	324-1020	324-2020	324-3020	311-1219
M2.5-.45mm	324-1025	324-2025	324-3025	311-1221
M2.6-.45mm	324-1026	324-2026	324-3026	311-1226
M3-.5mm	324-1030	324-2030	324-3030	311-1203
M3.5-.6mm	324-1035	324-2035	324-3035	311-1235
M4-.7mm	324-1040	324-2040	324-3040	311-1204
M5-.8mm	324-1050	324-2050	324-3050	311-1205
M6-1.0mm	324-1060	324-2060	324-3060	311-1206
M7-1.0mm	324-1070	324-2070	324-3070	311-1207
M8-1.25mm	324-1080	324-2080	324-3080	311-1208
M9-1.25mm	324-1090	324-2090	324-3090	311-1209
M10-1.50mm	324-1100	324-2100	324-3100	311-1210
M12-1.75mm	324-1120	324-2120	324-3120	311-1212
M14-2.0mm	324-1140	324-2140	324-3140	311-1214
M16-2.0mm	324-1160	324-2160	324-3160	311-1216
M18-2.5mm	324-1180	324-2180	324-3180	311-1218
M20-2.5mm	324-1200	324-2200	324-3200	311-1220
M22-2.5mm	324-1220	324-2220	324-3220	311-1222
M24-3.0mm	324-1240	324-2240	324-3240	311-1224
M27-3.0mm	324-1270	324-2270	324-3270	311-1227
M30-3.5mm	324-1300	324-2300	324-3300	311-1230
M33-3.5mm	324-1330	324-2330	324-3330	311-1233
M36-4.0mm	324-1360	324-2360	324-3360	311-1236
M39-4.0mm	324-1390	324-2390	324-3390	311-1239
M42-4.5mm	324-1420	324-2420	324-3420	311-1242
M45-4.5mm	324-1450	324-2450	324-3450	311-1245
M48-5.0mm	324-1480	324-2480	324-3480	311-1248
M52-5.0mm	324-1520	324-2520	324-3520	311-1252
M56-5.5mm	324-1560	324-2560	324-3560	311-1256
M60-5.5mm	324-1600	324-2600	324-3600	311-1260
M64-6.0mm	324-1640	324-2640	324-3640	311-1264
M68-6.0mm	324-1680	324-2680	324-3680	311-1268

Metric Hand Tap Sets

英制三支套丝锥

DIN 351
3 Piece
High Speed Steel
Right Hand



Size	Overall Length	Order No.	Size	Overall Length	Order No.
1/16"-60	32mm	311-3004	5/8"-11	90mm	311-3040
3/32-48	36mm	311-3006	3/8-10	105mm	311-3048
1/8-40	40mm	311-3008	7/8-9	110mm	311-3056
5/32-32	45mm	311-3010	1-8	110mm	311-3100
3/16-24	50mm	311-3012	1-1/8-7	132mm	311-3108
7/32-24	50mm	311-3014	1-1/4-7	132mm	311-3116
1/4-20	56mm	311-3016	1-3/8-6	150mm	311-3124
5/16-18	63mm	311-3020	1-1/2-6	150mm	311-3132
3/8-16	70mm	311-3024	1-5/8-5	160mm	311-3140
7/16-14	75mm	311-3028	1-3/4-5	160mm	311-3148
1/2-12	80mm	311-3032	1-7/8-4-1/2	190mm	311-3156
9/16-12	80mm	311-3036	2-4-1/2	190mm	311-3200

Metric Hand Tap Sets

德标 2181 两支套丝锥

MF DIN 2181
2 Piece
High Speed Steel



Size	Order No.	Size	Order No.	Size	Order No.
M3x.35mm	311-1302	M12x1.5mm	311-1324	M27x1.5mm	311-1344
M4x.35mm	311-1304	M14x1.0mm	311-1326	M27x2.5mm	311-1345
M4x.5mm	311-1306	M14x1.25mm	311-1328	M30x1.5mm	311-1346
M5x.5mm	311-1308	M14x1.5mm	311-1330	M30x2mm	311-1347
M6x.5mm	311-1309	M16x1.0mm	311-1332	M32x1.5mm	311-1348
M6x.75mm	311-1310	M16x1.5mm	311-1334	M32x2mm	311-1349
M8x.5mm	311-1311	M18x1.0mm	311-1335	M35x1.5mm	311-1356
M8x.75mm	311-1312	M18x1.5mm	311-1336	M36x2mm	311-1360
M8x1.0mm	311-1314	M20x1.0mm	311-1337	M39x2mm	311-1366
M10x.75mm	311-1315	M20x1.5mm	311-1338	M42x2mm	311-1370
M10x1.0mm	311-1316	M22x1.0mm	311-1339	M45x2mm	311-1376
M10x1.25mm	311-1318	M22x1.5mm	311-1340	M45x3mm	311-1377
M12x1.0mm	311-1320	M24x1.5mm	311-1342		
M12x1.25mm	311-1322	M24x2mm	311-1343		

Metric Hand Tap Sets

DIN 5157
2 Piece, High Speed Steel,
Right Hand

德标 5157 两支套管丝锥



Size	Overall Length	Order No.	Size	Overall Length	Order No.
1/8"-28	63mm	311-1008	5/8"-14	90mm	311-1040
1/4-19	70mm	311-1016	3/4-14	100mm	311-1048
3/8-19	70mm	311-1024	7/8-14	100mm	311-1056
1/2-14	80mm	311-1032	1-11	110mm	311-1064

Metric Single Pass Drill Taps

High Speed Steel,
Ground Thread,
German Pattern

复合丝锥钻, 德式



Size	Drill Length	Thread Length	Overall Length	H.S.S Order No.	TiN-Coated Order No.
M3	5mm	6	36	312-8003	312-8103
M4	6mm	8	39	312-8004	312-8104
M5	7mm	9	41	312-8005	312-8105
M6	8mm	11	44	312-8006	312-8106
M8	11mm	14	51	312-8008	312-8108
M10	15mm	17	59	312-8010	312-8110

Metric Machine Taps 德标 371 磨制丝锥

DIN 371
High Speed Steel
Thread Ground
Right Hand



High Speed Steel

Size	Straight Flute Taper "A" Order No.	Straight Flute Bottom "C" Order No.	Spiral Flute 15° Flute Order No.	Spiral Flute 35° Flute Order No.	Spiral Point Order No.
M2-.4mm	311-1602	311-1702	311-1622	311-1722	311-1612
M3-.5mm	311-1603	311-1703	311-1623	311-1723	311-1613
M3.5-.6mm					311-1611
M4-.7mm	311-1604	311-1704	311-1624	311-1724	311-1614
M5-.8mm	311-1605	311-1705	311-1625	311-1725	311-1615
M6-1.0mm	311-1606	311-1706	311-1626	311-1726	311-1616
M8-1.25mm	311-1608	311-1708	311-1628	311-1728	311-1618
M10-1.5mm	311-1610	311-1710	311-1630	311-1730	311-1620

HSS, TiN Coated

Size	Straight Flute Taper"A" Order No.	Straight Flute Bottom"C" Order No.	Spiral Flute 15° Flute Order No.	Spiral Flute 35° Flute Order No.	Spiral Point Order No.
M1.4-.3mm					311-1641
M2-.4mm	311-1632	311-1732	311-1652	311-1752	311-1642
M2.5-.45mm					311-1649
M3-.5mm	311-1633	311-1733	311-1653	311-1753	311-1643
M4-.7mm	311-1634	311-1734	311-1654	311-1754	311-1644
M5-.8mm	311-1635	311-1735	311-1655	311-1755	311-1645
M6-1.0mm	311-1636	311-1736	311-1656	311-1756	311-1646
M8-1.25mm	311-1638	311-1738	311-1658	311-1758	311-1648
M10-1.5mm	311-1640	311-1740	311-1660	311-1760	311-1650

Metric Nut Taps 德标 357 锣母丝锥

DIN 357
High Speed Steel
Right Hand



Size	Order No.	Size	Order No.
M3x.5mm	311-1503	M8x1.25mm	311-1508
M4x.7mm	311-1504	M10x1.50mm	311-1510
M5x.8mm	311-1505	M12x1.75mm	311-1512
M6x1.0mm	311-1506		

Metric Machine Taps

德标 376 磨制丝锥

DIN 376
High Speed Steel
Thread Ground
Right Hand



High Speed Steel

Size	Straight Flute Taper "A" Order No.	Straight Flute Bottom "C" Order No.	Spiral Flute 15° Flute Order No.	Spiral Flute 35° Flute Order No.	Spiral Point Order No.
M3-0.5mm	311-1403	311-2403	311-1463	311-2463	311-1433
M4-0.7mm	311-1404	311-2404	311-1464	311-2464	311-1434
M5-0.8mm	311-1405	311-2405	311-1465	311-2465	311-1435
M6-1.0mm	311-1406	311-2406	311-1466	311-2466	311-1436
M8-1.25mm	311-1408	311-2408	311-1468	311-2468	311-1438
M10-1.5mm	311-1410	311-2410	311-1470	311-2470	311-1440
M12-1.75mm	311-1412	311-2412	311-1472	311-2472	311-1442
M14-2.0mm	311-1414	311-2414	311-1474	311-2474	311-1444
M16-2.0mm	311-1416	311-2416	311-1476	311-2476	311-1446
M18-2.5mm	311-1418	311-2418	311-1478	311-2478	311-1448
M20-2.5mm	311-1420	311-2420	311-1480	311-2480	311-1450
M22-2.5mm	311-1422	311-2422	311-1482	311-2482	311-1452
M24-3.0mm	311-1424	311-2424	311-1484	311-2484	311-1454
M27-3.0mm	311-1427	311-2427	311-1487	311-2487	311-1457
M30-3.5mm	311-1430	311-2430	311-1490	311-2490	311-1460

HSS, TiN Coated

Size	Straight Flute Taper "A" Order No.	Straight Flute Bottom "C" Order No.	Spiral Flute 15° Flute Order No.	Spiral Flute 35° Flute Order No.	Spiral Point Order No.
M3-0.5mm	311-2503	311-2603	311-2563	311-2663	311-2633
M4-0.7mm	311-2504	311-2604	311-2564	311-2664	311-2634
M5-0.8mm	311-2505	311-2605	311-2565	311-2665	311-2635
M6-1.0mm	311-2506	311-2606	311-2566	311-2666	311-2636
M8-1.25mm	311-2508	311-2608	311-2568	311-2668	311-2638
M10-1.5mm	311-2510	311-2610	311-2570	311-2670	311-2640
M12-1.75mm	311-2512	311-2612	311-2572	311-2672	311-2642
M14-2.0mm	311-2514	311-2614	311-2574	311-2674	311-2644
M16-2.0mm	311-2516	311-2616	311-2576	311-2676	311-2646
M18-2.5mm	311-2518	311-2618	311-2578	311-2678	311-2648
M20-2.5mm	311-2520	311-2620	311-2580	311-2680	311-2650
M22-2.5mm	311-2522	311-2622	311-2582	311-2682	311-2652
M24-3.0mm	311-2524	311-2624	311-2584	311-2684	311-2654
M27-3.0mm	311-2527	311-2627	311-2587	311-2687	311-2657
M30-3.5mm	311-2530	311-2630	311-2590	311-2690	311-2660

NPT Taper Pipe Taps

Carbon Steel, Ground Thread

美标 NPT 碳钢圆锥管丝锥

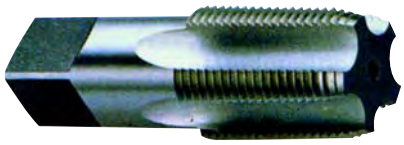


Size	Order No.	Size	Order No.	Size	Order No.
1/16"-27	**312-6008**	3/4-14	**312-6030**	2-1/2"-8	**312-6055**
1/8"-27	**312-6010**	1-11-1/2	**312-6035**	3-8	**312-6060**
1/4-18	**312-6015**	1-1/4"-11-1/2	**312-6040**	3-1/2"-8	**312-6065**
3/8-18	**312-6020**	1-1/2-11-1/2	**312-6045**	4"-8	**312-6070**
1/2"-14	**312-6025**	2-11-1/2	**312-6050**		

NPT & NPTF Taper Pipe Taps

HSS, Ground Thread

美标圆锥管丝锥



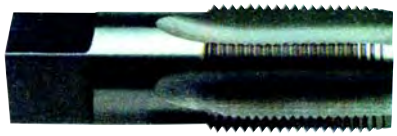
Size	No.of Flute	Flute Length	Overall Length	NPT Order No.	NPTF Order No.
1/16"-27	4	11/16"	2-1/8"	**311-6005**	**311-6205**
*1/8-27	4	3/4	2-1/8	**311-6010**	**311-6208**
1/8-27	4	3/4	2-1/8	**311-6011**	**311-6210**
1/4-18	4	1-1/16	2-7/16	**311-6015**	**311-6215**
3/8-18	4	1-1/16	2-9/16	**311-6020**	**311-6220**
3/8-18	5	1-1/16	2-9/16	**311-6021**	
1/2-14	4	1-3/8	3-1/8	**311-6025**	**311-6225**
1/2-14	5	1-3/8	3-1/8	**311-6026**	
3/4-14	5	1-3/8	3-1/4	**311-6030**	**311-6230**
1-11-1/2	5	1-3/4"	3-1/4"	**311-6035**	**311-6235**
1-1/4-11-1/2	5	1-3/4	4	**311-6040**	**311-6240**
1-1/2-11-1/2	7	1-3/4	4-1/4	**311-6045**	**311-6245**
2-11-1/2	7	1-3/4	4-1/2	**311-6050**	**311-6250**
2-1/2-8	8	2-9/16	5-1/2	**311-6055**	**311-6255**
2-1/2-8	8	2-3/4	5-1/2	**311-6056**	
3-8	8	2-5/8	6	**311-6060**	**311-6260**
3-8	8	2-3/4	6	**311-6061**	
3-1/2-8	8	2-11/16	6-1/2	**311-6065**	**311-6265**
4-8	8	2-7/8	7		**311-6270**

* Small Shank

NPS Straight Pipe Taps

美标 NPS 圆柱管丝锥

High Speed Steel, Ground Thread



Size	Order No.	Size	Order No.	Size	Order No.
1/16-27	**311-6305**	3/4-14	**311-6330**	2-1/2"-8	**311-6356**
1/8-27	**311-6308**	1"-11-1/2	**311-6335**	3"-8	**311-6360**
1/8-27	**311-6310**	1-1/4-11-1/2	**311-6340**	3"-8	**311-6361**
1/4-18	**311-6315**	1-1/2-11-1/2	**311-6345**	3-1/2"-8	**311-6365**
3/8-18	**311-6320**	2"-11-1/2	**311-6350**	4"-8	**311-6370**
1/2-14	**311-6325**	2-1/2"-8	**311-6355**		

HSS NPT Long Taper Pipe Taps

美标 NPT 加长高速钢圆锥管丝锥



Size	Threads Per Inch	Thread Length	OAL	Order No.	Size	Threads Per Inch	Thread Length	OAL	Order No.
1/16"	27		4	311-6700	1/4	18	1-1/16	8	311-6764
1/16	27		6	311-6701	3/8	18	1-1/16	8	311-6765
1/8	27	3/4	4	311-6702	1/2	14	1-3/8	8	311-6766
1/4	18	1-1/16	4	311-6707	1-1/2	11-1/2	1-3/4	8	311-6767
3/8	18	1-1/16	4	311-6712	3/4	14	1-3/8	8	311-6768
1/2	14	1-3/8	4	311-6717	1	11-1/2	1-3/4	8	311-6769
3/4	14	1-3/8	4	311-6722	1-1/4	11-1/2	2	8	311-6770
1	11-1/2	1-3/4	4	311-6727	1-1/2	11-1/2	2-1/2	8	311-6771
1/8	27	3/4	6	311-6732	1/2	14	1-3/8	10	311-6772
1/4	18	1-1/16	6	311-6737	3/4	14	1-3/8	10	311-6773
3/8	18	1-1/16	6	311-6742	1	11-1/2	1-3/4	10	311-6774
1/2	14	1-3/8	6	311-6747	1-1/4	11-1/2	2	10	311-6775
3/4	14	1-3/8	6	311-6752	1-1/2	11-1/2	2-1/2	10	311-6776
1	11-1/2	1-3/4	6	311-6757	1/4	18	1-1/16	12	311-6780
1-1/4	11-1/2	2	6	311-6758	3/8	18	1-1/16	12	311-6782
1-1/2	11-1/2	2-1/2	6	311-6759	1/2	14	1-3/8	12	311-6784
1-1/4	11-1/2	1-3/4	6	311-6762	3/4	14	1-3/8	12	311-6786
1/8	27	3/4	8	311-6763	1	11-1/2	1-3/4	12	311-6788

NPSF Straight Pipe Taps

美标 NPSF 圆柱管丝锥

High Speed Steel, Ground Thread

- Use for tapping holes to be used with tapered * 0.4375"Shank, **0.3125"Shank threading pipe and fittings in low pressure applications when a sealer is used
- Adheres to be same specifcations as taper pipe taps except the thread is straight



Size	Threads Per Inch	No.of Flutes	Thread Length	Overall Length	NPSF Order No.
1/16	27	4	11/16	2-1/8	**311-6805**
*1/8	27	4	3/4	2-1/8	**311-6808**
**1/8	27	4	3/4	2-1/8	**311-6810**
1/4	18	4	1-1/16	2-7/16	**311-6815**
3/8	18	4	1-1/16	2-9/16	**311-6820**
1/2	14	4	1-3/8	3-1/8	**311-6825**
3/4	14	5	1-3/8	3-1/4	**311-6830**
1	11-1/2	5	1-3/4	3-3/4	**311-6835**
1-1/4	11-1/2	5	1-3/4	4	**311-6840**
1-1/2	11-1/2	7	1-3/4	4-1/4	**311-6845**
2	11-1/2	7	1-3/4	4-1/2	**311-6850**
2-1/2	8	8	2-9/16	5-1/2	**311-6855**
3	8	8	2-5/8	6	**311-6860**
3-1/2	8	8	2-11/16	6-1/2	**311-6865**
4	8	8	2-3/4	6-3/4	**311-6870**

*0.4375"Shank, **0.3125"Shank

Interrupted NPS Straight Pipe Taps

High Speed Steel, Ground Thread

美标 NPS 跳牙圆柱管丝锥

- Use for tapping holes to be used with tapered * 0.4375"Shank, **0.3125"Shank threading pipe and fittings in low pressure applications when a sealer is used
- Adheres to be same specifcations as taper pipe taps except the threads straight



Size	Threads Per Inch	No.of Flutes	Thread Length	Overall Length	Interrupted NPS Order No.
1/16	27	4	11/16	2-1/8	**311-6905**
*1/8	27	4	3/4	2-1/8	**311-6908**
**1/8	27	4	3/4	2-1/8	**311-6910**
1/4	18	4	1-1/16	2-7/16	**311-6915**
3/8	18	4	1-1/16	2-9/16	**311-6920**
1/2	14	4	1-3/8	3-1/8	**311-6925**
3/4	14	5	1-3/8	3-1/4	**311-6930**
1	11-1/2	5	1-3/4	3-3/4	**311-6935**
1-1/4	11-1/2	5	1-3/4	4	**311-6940**
1-1/2	11-1/2	7	1-3/4	4-1/4	**311-6945**
2	11-1/2	7	1-3/4	4-1/2	**311-6950**
2-1/2	8	8	2-9/16	5-1/2	**311-6955**
3	8	8	2-5/8	6	**311-6960**
3-1/2	8	8	2-11/16	6-1/2	**311-6965**
4	8	8	2-3/4	6-3/4	**311-6970**

*0.3125"Shank,**0.4375"Shank

NPT Taper Pipe Taps -Interrupted Thread

美标 NPT 跳牙丝锥

High Speed Steel, Ground Thread



Size	No.of Flute	Thread Length	Overall Length	Order No.
1/16"-27	5	3/4"	2-1/8"	**311-6105**
*1/8-27	5	3/4	2-1/8	**311-6110**
**1/8-27	5	3/4	2-1/8	**311-6111**
1/4-18	5	1-1/16	2-7/16	**311-6115**
3/8-18	5	1-1/16	2-9/16	**311-6120**
1/2-14	5	1-3/8	3-1/8	**311-6125**
3/4"-14	5	1-3/8	3-1/4	**311-6130**
1-11-1/2	5	1-3/4	3-3/4	**311-6135**
1-1/4-11-1/2	5	1-3/4	4	**311-6140**
1-1/2-11-1/2	7	1-3/4	4-1/4	**311-6145**
2-11-1/2	7	1-3/4	4-1/2	**311-6150**

*0.3125"Shank,**0.4375"Shank

TiN Coated Taper Pipe Taps

涂钛锥管丝锥



Tap Size	No.of Flute	Thread Length	Overall Length	Order No.
1/16"-27	5	11/16"	2-1/8"	**318-3305**
1/8-27	5	3/4	2-1/8	**318-3310**
1/4-18	5	1-1/16	2-7/8	**318-3315**
3/8-18	5	1-1/16	2-9/16	**318-3320**
1/2"-14	5	1-3/8"	3-1/8"	**318-3325**
3/4-14	5	1-3/8	3-1/4	**318-3330**
1-11-1/2	5	1-3/4	3-3/4	**318-3335**

55° Whitworth Thread British Pipe Taps

英制 55 度全磨锥管螺纹丝锥

HSS,
Right Hand,
Ground Thread,
Bottoming



- 55° Whitworth thread form.
- BSPP: British standard parallel straight pipe.
- BSPT: British standard taper pipe.

Tap Size	BSPP Order No.	BSPT Order No.
1/8"-28	**311-6530**	**311-6560**
1/4-19	**311-6531**	**311-6561**
3/8-19	**311-6532**	**311-6562**
1/2-14	**311-6533**	**311-6563**
5/8-14	**311-6534**	**311-6564**
3/4-14	**311-6535**	**311-6565**
7/8-14	**311-6536**	**311-6566**
1-11	**311-6537**	**311-6567**
1-1/4-11	**311-6538**	**311-6568**
1-1/2-11	**311-6539**	**311-6569**
1-3/4-11	**311-6540**	**311-6570**
2-11	**311-6541**	**311-6571**
2-1/2-11	**311-6542**	**311-6572**
3-11	**311-6543**	**311-6573**

Interrupted NPTF Taper Pipe Taps

美标 NPTF 跳牙锥管丝锥

High Speed Steel



Thread Size	Thread length	OAL	No. of Flutes	Order No.
1/16"-27	11/16"	2-1/8"	4	**312-6105**
*1/8"-27	3/4"	2-1/8"	4	**312-6108***
**1/8"-27	3/4"	2-1/8"	4	**312-6110****
1/4"-18	1-1/16"	2-7/16"	4	**312-6115**
3/8"-18	1-1/16"	2-9/16"	4	**312-6120**
1/2"-14	1-3/8"	3-1/8"	4	**312-6125**
3/4"-14	1-3/8"	3-1/4"	5	**312-6130**
1"-11-1/2	1-3/4"	3-1/4"	5	**312-4135**
1-1/4"-11-1/2	1-3/4"	4"	5	**312-6140**
1-1/2"-11-1/2	1-3/4"	4-1/4"	7	**312-6145**
2"-11-1/2	1-3/4"	4-1/2"	7	**312-6150**
2-1/2"-8	2-9/16"	5-1/2"	8	**312-6155**
3"-8	2-5/8"	6"	8	**312-6160**
3-1/2"	2-11/16"	6-1/2"	8	**312-6165**

*0.3125"Shank,**0.4375"shank

TiN Coated Straight Pipe Taps

涂钛直管丝锥



Tap Size	No.of Flute	Thread Length	Overall Length	Order No.
1/8"-27	4	3/4"	2-1/8"	**318-3403**
1/4-18	4	1-1/16	2-1/8	**318-3406**
1/4-18	4	1-1/16	2-9/16	**318-3409**
3/8-18	4	1-1/16	2-9/16	**318-3412**
1/2-14	4	1-3/8	3-1/8	**318-3415**

30° Slow Spiral Flute Taps HSS 磨制 30 度螺旋槽丝锥



HSS, Ground, Plug

Size	Threads Per Inch	Thread Type	Flutes Limits	No. of Flutes	Order No.	Size	Threads Per Inch	Thread Type	Flutes Limits	No. of Flutes	Order No.
3	48	NC	H2	2	**311-8710**	3/8	16	NC	H3	3	**311-8746**
3	56	NF	H2	2	**311-8712**	3/8	24	NF	H3	3	**311-8748**
4	48	NC	H2	2	**311-8714**	7/16	14	NC	H3	3	**311-8750**
4	40	NF	H2	2	**311-8716**	7/16	20	NF	H3	3	**311-8752**
5	48	NC	H2	2	**311-8718**	1/2	13	NC	H3	3	**311-8754**
5	44	NF	H2	2	**311-8720**	1/2	20	NF	H3	4	**311-8756**
6	32	NC	H3	2	**311-8722**	9/16	12	NC	H3	3	**311-8758**
6	40	NF	H3	2	**311-8724**	9/16	18	NF	H3	3	**311-8760**
8	32	NC	H3	3	**311-8726**	5/8	11	NC	H3	4	**311-8762**
8	36	NF	H3	3	**311-8728**	5/8	18	NF	H3	4	**311-8764**
10	24	NC	H3	3	**311-8730**	3/4	10	NC	H3	4	**311-8766**
10	32	NF	H3	3	**311-8732**	3/4	16	NF	H3	4	**311-8768**
12	24	NC	H3	3	**311-8734**	7/8	9	NC	H3	3	**311-8770**
12	28	NF	H3	3	**311-8736**	7/8	14	NF	H3	3	**311-8772**
1/4	20	NC	H3	3	**311-8738**	1	8	NC	H3	3	**311-8774**
1/4	28	NF	H3	3	**311-8740**	1	12	NF	H3	3	**311-8776**
5/16	18	NC	H3	3	**311-8742**	1	14	NS	H3	3	**311-8778**
5/16	24	NF	H3	3	**311-8744**						

45° Fast Spiral Flute Taps HSS 磨制 45 度螺旋槽丝锥



- Fast spiral improves chip drawing action in relatively deep blind hols
- Suited for tapping aluminum, magnesium, brass, copper and zinc die cast materials
- Surface treated to resist loading and galling

HSS , Ground



Bottoming

Size	Threads Per Inch	Thread Type	Flutes Limits	No. of Flutes	Order No.
3	48	NC	H2	2	**311-8510**
3	56	NF	H2	2	**311-8512**
4	40	NC	H2	2	**311-8514**
4	48	NF	H2	2	**311-8516**
5	40	NC	H2	2	**311-8518**
5	44	NF	H2	2	**311-8520**
6	32	NC	H3	2	**311-8522**
6	40	NF	H3	2	**311-8524**
8	32	NC	H3	3	**311-8526**
8	36	NF	H3	3	**311-8528**
10	24	NC	H3	3	**311-8530**
10	24	NC	H3	2	**311-8531**
10	32	NF	H3	3	**311-8532**
10	32	NF	H3	2	**311-8533**
12	24	NC	H3	3	**311-8534**
12	28	NF	H3	3	**311-8536**
1/4	20	NC	H3	3	**311-8538**
1/4	28	NF	H3	3	**311-8540**
5/16	18	NC	H3	3	**311-8542**
5/16	24	NF	H3	3	**311-8544**
3/8	16	NC	H3	3	**311-8546**
3/8	24	NF	H3	3	**311-8548**
7/16	14	NC	H3	3	**311-8550**
7/16	20	NF	H3	3	**311-8552**
1/2	13	NC	H3	3	**311-8554**
1/2	20	NF	H3	4	**311-8556**
9/16	12	NC	H3	3	**311-8558**
9/16	18	NF	H3	3	**311-8560**
5/8	11	NC	H3	4	**311-8562**
5/8	18	NF	H3	4	**311-8564**
3/4	10	NC	H3	4	**311-8566**
3/4	16	NF	H3	4	**311-8568**

Plug

Size	Threads Per Inch	Thread Type	Flutes Limits	No. of Flutes	Order No.
3	48	NC	H2	2	**311-8410**
3	56	NF	H2	2	**311-8412**
4	40	NC	H2	2	**311-8414**
4	48	NF	H2	2	**311-8416**
5	40	NC	H2	2	**311-8418**
5	44	NF	H2	2	**311-8420**
6	32	NC	H3	2	**311-8422**
6	40	NF	H2	2	**311-8423**
6	40	NF	H3	2	**311-8424**
8	32	NC	H3	3	**311-8426**
8	32	NC	H3	2	**311-8427**
8	36	NF	H3	3	**311-8428**
10	24	NC	H3	3	**311-8430**
10	32	NF	H3	3	**311-8432**
10	32	NF	H3	2	**311-8433**
12	24	NC	H3	3	**311-8434**
12	28	NF	H3	3	**311-8436**
1/4	20	NC	H3	3	**311-8438**
1/4	28	NF	H3	3	**311-8440**
5/16	18	NC	H3	3	**311-8442**
5/16	24	NF	H3	3	**311-8444**
3/8	16	NC	H3	3	**311-8446**
3/8	24	NF	H3	3	**311-8448**
7/16	14	NC	H3	3	**311-8450**
7/16	20	NF	H3	3	**311-8452**
1/2	13	NC	H3	3	**311-8454**
1/2	20	NF	H3	3	**311-8456**
9/16	12	NC	H3	3	**311-8458**
9/16	18	NF	H3	3	**311-8460**
5/8	11	NC	H3	4	**311-8462**
5/8	18	NF	H3	3	**311-8464**
3/4	10	NC	H3	4	**311-8466**
3/4	16	NF	H3	3	**311-8468**
7/8	9	NC	H3	3	**311-8470**
7/8	14	NF	H3	3	**311-8472**
1	8	NC	H4	3	**311-8474**
1-1/2	12	NF	H4	3	**311-8476**
1-1/24	14	NS	H4	3	**311-8478**

Adjustable Round Dies 碳钢标准螺纹右旋可调圆扳牙

Carbon Steel, Standard Thread, Right Hand Cutting

13/16" O.D.

Size	Order No.
2-56	314-3000
5-40	314-3001
2-64	314-3002
8-32	314-3003
6-40	314-3004
8-36	314-3005
10-32	314-3006
10-24	314-3007
12-24	314-3008
12-28	314-3010
14-20	314-3012
14-24	314-3014
1/4-20	314-3016
1/4-28	314-3018
5/16-18	314-3019
5/16-24	314-3020
0-80	314-3030
1-64	314-3032
1-72	314-3034
3-48	314-3036
3-56	314-3038
4-36	314-3040
4-40	314-3042
4-48	314-3044
5-44	314-3046
6-32	314-3048



1" O.D.

Size	Order No.	Size	Order No.
5-40	314-3102	3/16-24	314-3120
5-44	314-3104	3/16"-18	314-3121
6-32	314-3106	1/4-20	314-3122
6-40	314-3107	1/4-28	314-3123
8-32	314-3108	5/16-18	314-3124
10-24	314-3109	5/16-24	314-3126
8-36	314-3110	3/8-16	314-3127
10-32	314-3111	3/8-24	314-3128
12-24	314-3112	7/16-14	314-3130
12-28	314-3114	7/16-20	314-3132
14-20	314-3116	1/2-13	314-3134
14-24	314-3118	1/2-20	314-3136

1-1/2" O.D.

Size	Order No.
12-24	314-3208
12-28	314-3210
14-20	314-3212
14-24	314-3214
1/4-20	314-3216
1/4-28	314-3218
5/16-18	314-3220
5/16-24	314-3222
3/8-16	314-3223
3/8-24	314-3224
7/16-14	314-3225
7/16-20	314-3226
1/2-13	314-3227
9/16-18	314-3228
5/8-11	314-3229
5/8-18	314-3230
3/4-10	314-3231
3/4-16	314-3232
1/2-20	314-3236
9/16-12	314-3240

2" O.D.

Size	Order No.
1/4"-20	314-3308
1/4-28	314-3310
14-20	314-3312
14-28	314-3314
5/16-24	314-3315
5/16-18	314-3316
3/8-24	314-3318
3/8-16	314-3319
7/16-20	314-3320
7/16-14	314-3321
7/16-28	314-3322
1/2-13	314-3324
1/2-20	314-3326
3/4-10	314-3328
3/4-16	314-3330
7/8-9	314-3331
7/8-14	314-3332
1-8	314-3334
1-12	314-3336
1-14	314-3338
9/16-12	314-3340
9/16-18	314-3342
5/8-11	314-3344
5/8-18	314-3346
11/16-11	314-3348
11/16-16	314-3350

2-1/2" O.D.

Size	Order No.
9/16-12	314-3428
9/16-18	314-3430
5/8-11	314-3432
5/8-18	314-3434
1-8	314-3435
1-12	314-3436
1-1/4-7	314-3438
1-1/4-12	314-3440
1-1/2-6	314-3441
1-1/2-12	314-3442
3/4-10	314-3446
3/4-16	314-3448
7/8-9	314-3450
7/8-14	314-3452

3" O.D.

Size	Order No.
1-1/4-12	314-3538
1-1/4-7	314-3539
1-1/8-7	314-3540
1-1/8-12	314-3541
1-3/8-6	314-3542
1-3/8-12	314-3544
1-1/2-6	314-3545
1-5/8-5	314-3546
1-1/2-12	314-3548

Adjustable Round Dies 高速钢标准螺纹右旋可调圆扳牙

High Speed Steel, Standard Thread, Right Hand Cutting



13/16" O.D.

Size	Order No.
0-80	314-1000
1-64	314-1002
1-72	314-1004
2-56	314-1006
2-64	314-1008
3-48	314-1010
3-56	314-1012
4-36	314-1025
4-40	314-1014
4-48	314-1016
5-40	314-1018
5-44	314-1020
6-32	314-1022
6-40	314-1024
8-32	314-1026
8-36	314-1028
10-24	314-1030
10-28	314-1029
10-32	314-1032
12-24	314-1034
12-28	314-1036
14-20	314-1037
14-24	314-1038
1/4-20	314-1040
1/4-28	314-1042
5/16-18	314-1044
5/16-24	314-1046

1" O.D.

Size	Order No.
0-80	314-1100
1-64	314-1102
1-72	314-1104
2-56	314-1106
2-64	314-1108
3-48	314-1110
3-56	314-1112
4-36	314-1151
4-40	314-1114
4-48	314-1116
5-40	314-1118
5-44	314-1120
6-32	314-1122
6-40	314-1124
6-80	314-1153
8-32	314-1126
8-36	314-1128
10-24	314-1130
10-32	314-1132
12-24	314-1134
12-28	314-1136
14-20	314-1166
14-24	314-1138
1/4-20	314-1140
1/4-28	314-1142
1/4-36	314-1149
1/4-80	314-1155
5/16-18	314-1144
5/16-24	314-1146
3/8-16	314-1148
3/8-24	314-1150
3/8-26	314-1157
7/16-14	314-1152
7/16-20	314-1154
7/16-24	314-1159
1/2-13	314-1156
1/2-20	314-1158

1-1/2" O.D.

Size	Order No.
1/4-20	314-1240
1/4-28	314-1242
5/16-18	314-1244
5/16-24	314-1246
3/8-16	314-1248
3/8-24	314-1250
7/16-14	314-1252
7/16-20	314-1256
1/2-13	314-1258
1/2-20	314-1260
1/2-28	314-1261
9/16-12	314-1262
9/16-18	314-1264
5/8-24	314-1265
5/8-11	314-1266
5/8-27	314-1267
5/8-18	314-1268
5/8-28	314-1269
3/4-10	314-1270
3/4-16	314-1272
11/16"-11	314-1274
11/16"-16	314-1276
11/16"-24	314-1277
3/4"-18	314-1278
3/4"-20	314-1279
3/4"-27	314-1280
13/16"-24	314-1281

2" O.D.

Size	Order No.
1/4-20	314-1340
1/4-28	314-1342
5/16-18	314-1344
5/16-24	314-1346
3/8-16	314-1348
3/8-24	314-1350
7/16-14	314-1352
7/16-20	314-1354
1/2-13	314-1356
1/2-20	314-1358
9/16-12	314-1360
9/16-18	314-1362
5/8-11	314-1364
5/8-18	314-1366
3/4-10	314-1368
3/4-16	314-1370
7/8-9	314-1372
7/8-14	314-1374
7/8-24	314-1375
7/8-27	314-1376
1-8	314-1378
1-12	314-1380
1-14	314-1384
1-24	314-1385
11/16"-11	314-1386
11/16"-16	314-1388
1-3/4"-24	314-1395

2-1/2" O.D.

Size	Order No.
3/4-10	314-1468
3/4-16	314-1470
5/8-11	314-1471
7/8-9	314-1472
1-3/16-12	314-1473
7/8-14	314-1474
1-3/16-20	314-1475
1-8	314-1476
1"-12	314-1477
1-14	314-1478
1-1/8-7	314-1480
1-1/8-12	314-1482
1-1/4-7	314-1484
1-1/4-8	314-1485
1-1/4-12	314-1486
1-1/4-16	314-1487
1-3/8-6	314-1488
1-5/16-18	314-1489
1-3/8-12	314-1490
1-3/8"-24	314-1491
1-1/2-6	314-1492
1-1/2"-8	314-1493
1-1/2-12	314-1494
1-3/4"-24	314-1495

3" O.D.

Size	Order No.
1"-8	314-1500
1-12	314-1501
1-14	314-1502
1-1/8-7	314-1503
1-1/8-12	314-1504
1-1/4-12	314-1505
1-1/4-7.	314-1507
1-1/2-6.	314-1509
1-1/2-12	314-1511
1-3/8-6	314-1513
1-3/8-12	314-1515
1-3/4-5	314-1517
1-3/4-12	314-1519
1-7/8-8	314-1520
2-4-1/2	314-1521
2-12	314-1523
2-18	314-1524

Left Hand Adjustable Round Dies

NC&NF Thread, High Speed Steel

高速钢标准螺纹左旋可调圆扳牙



13/16" O.D.

Size	Order No.
0-80	314-4000
1-64	314-4002
1-72	314-4004
2-56	314-4006
2-64	314-4008
3-48	314-4010
3-56	314-4012
4-40	314-4014
4-48	314-4016
5-40	314-4018
5-44	314-4020
6-32	314-4022
6-40	314-4024
8-32	314-4026
8-36	314-4028
10-24	314-4030
10-32	314-4032
12-24	314-4034
12-28	314-4036
1/4-20	314-4040
1/4-28	314-4042

1" O.D.

Size	Order No.
4-40	314-4115
4-48	314-4116
5-40	314-4119
5-44	314-4120
6-32	314-4122
6-40	314-4124
8-32	314-4126
8-36	314-4128
10-24	314-4130
10-32	314-4132
12-24	314-4134
12-28	314-4136
14-24	314-4138
1/4-20	314-4140
1/4-28	314-4142
5/16-18	314-4144
5/16-24	314-4146
3/8-16	314-4148
3/8-24	314-4150
7/16-14	314-4152
7/16-20	314-4154
1/2-13	314-4156
1/2-20	314-4158

1-1/2" O.D.

Size	Order No.
1/4"-20	314-4240
1/4-28	314-4242
5/16-18	314-4244
5/16-24	314-4246
3/8-16	314-4248
3/8-24	314-4252
3/8-32	314-4254
7/16-14	314-4256
7/16-20	314-4258
1/2-13	314-4260
1/2-20	314-4262
9/16-12	314-4264
9/16-18	314-4266
9/16-24	314-4267
5/8-11	314-4268
5/8-18	314-4270
3/4-10	314-4272
3/4-16	314-4274
11/16-11	314-4276
11/16-16	314-4278
11/16-18	314-4280

2" O.D.

Size	Order No.
5/8-11	314-4360
5/8-18	314-4362
3/4"-10	314-4370
3/4-16	314-4372
7/8-9	314-4374
7/8-14	314-4376
1-8	314-4378
1-12	314-4379
1-14	314-4380

2-1/2" O.D.

Size	Order No.
1-1/8"-7	314-4480
1-1/8-12	314-4482
1-3/16-12	314-4483
1-1/4-7	314-4484
1-1/4-12	314-4486
1-3/8-6	314-4488
1-3/8-12	314-4490
1-1/2-6	314-4492
1-1/2-12	314-4494
1-3/4-18	314-4496

NPT & NPS Adjustable Round Pipe Dies

High Speed Steel

高速钢可调管圆扳牙



Outside Dia.	Size	NPT Order No.	NPS Order No.
1"	1/16"-27	315-2110	315-2210
1	1/8-27	315-2115	315-2215
1-1/2	1/8-27	315-2120	315-2220
1-1/2	1/4-18	315-2122	315-2222
1-1/2	3/8-18	315-2124	315-2224
1-1/2	1/2-14	315-2126	315-2226
2	1/4-18	315-2130	315-2230
2	3/8-18	315-2132	315-2232
2	1/2-14	315-2134	315-2234
2	3/4-14	315-2136	315-2236
2-1/2	1-11-1/2	315-2140	315-2240
3	1-1/4-11-1/2	315-2150	315-2250
3	1-1/2-11-1/2	315-2152	315-2252
3-1/2	1-1/2-11-1/2	315-2156	315-2256
4	1-1/2-11-1/2	315-2162	315-2262
4	2-11-1/2	315-2160	315-2260
5	2-1/2-8	315-2170	315-2270
5	3-8	315-2171	315-2271
5	3-1/2-8	315-2172	315-2272

Left Hand Adjustable Round Dies 碳钢标准螺纹左旋可调圆扳牙

Carbon Steel,
NC&NF Threads



13/16"O.D. Size	Order No.	13/16"O.D. Size	Order No.
1-72	314-5002	8-32	314-5022
2-64	314-5004	8-36	314-5024
3-48	314-5006	10-24	314-5026
3-56	314-5008	10-32	314-5028
4-40	314-5010	12-24	314-5030
4-48	314-5012	12-28	314-5032
5-40	314-5014	1/4-20	314-5034
5-44	314-5016	1/4-28	314-5036
6-32	314-5018	5/16-18	314-5038
6-40	314-5020	5/16-24	314-5040

1-1/2"O.D. Size	Order No.	1-1/2"O.D. Size	Order No.
1/4-20	314-5140	1/2-13	314-5147
1/4-28	314-5141	1/2-20	314-5149
5/16-18	314-5142	9/16-12	314-5150
5/16-24	314-5144	9/16-16	314-5152
3/8-16	314-5143	5/8-11	314-5154
3/8-24	314-5145	5/8-18	314-5156
7/16-14	314-5146	3/4-10	314-5158
7/16-20	314-5148	3/4-16	314-5160

2"O.D. Size	Order No.	2"O.D. Size	Order No.
1/4"-20	314-5240	9/16-18	314-5260
1/4-24	314-5242	5/8-11	314-5262
3/8-16	314-5248	5/8-18	314-5264
3/8-24	314-5250	3/4-10	314-5266
7/16-14	314-5252	3/4-16	314-5268
7/16-20	314-5253	7/8-9	314-5270
1/2-13	314-5254	7/8-14	314-5272
1/2-20	314-5256	1-8	314-5274
9/16"-12	314-5258	1-12	314-5276

Metric Adjustable Round Dies 高速钢公制右旋可调圆扳牙

High Speed Steel
Right Hand



Outside Dia.	Size x Pitch(mm)	Order No.	Outside Dia.	Size x Pitch(mm)	Order No.	Outside Dia.	Size x Pitch(mm)	Order No.	Outside Dia.	Size x Pitch(mm)	Order No.
1	1.2x0.20	314-1602	1	8x1.0	314-1644	1-1/2	14x2.0	314-1734	2-1/2	24x2.0	314-1858
1	1.4x0.20	314-1603	1-1/2	8x1.0	314-1703	1-1/2	15x1.0	314-1739	2	24x3.0	314-1844
1	1.6x0.35	314-1604	1	8x1.25	314-1646	1-1/2	16x1.0	314-1736	2-1/2	24x3.0	314-1859
1	1.8x0.35	314-1606	1-1/2	8x1.25	314-1704	1-1/2	16x1.5	314-1738	2	25x1.5	314-1841
1	2x0.2	314-1608	1	9x0.75	314-1649	2	16x1.5	314-1808	2	25x2.0	314-1843
1	2x0.25	314-1609	1	9x1.0	314-1647	1-1/2	16x2.0	314-1740	2	26x1.5	314-1845
1	2x0.4	314-1610	1	9x1.25	314-1648	2	16x2.00	314-1809	2	26x3.0	314-1839
1	2x0.45	314-1611	1	10x0.75	314-1650	1-1/2	17x1.5	314-1741	2	27x1.5	314-1846
1	2.2x0.45	314-1612	1	10x1.0	314-1652	1-1/2	18x1.0	314-1742	2	27x2.0	314-1848
1	2.3x0.4	314-1614	1-1/2	10x1.0	314-1705	1-1/2	18x1.25	314-1743	2-1/2	27x2.0	314-1847
1	2.5x0.45	314-1616	1	10x1.25	314-1654	1-1/2	18x1.5	314-1744	2	27x3.0	314-1850
1	2.6x0.45	314-1618	1-1/2	10x1.25	314-1706	2	18x1.50	314-1810	2-1/2	27x3.0	314-1849
13/16	3x0.35	314-1619	1	10x1.5	314-1656	1-1/2	18x2.0	314-1746	2	28x1.5	314-1851
1	3x0.5	314-1620	1-1/2	10x1.5	314-1708	1-1/2	18x2.5	314-1748	2-1/2	28x2.0	314-1853
1	3x0.6	314-1622	1-1/2	11x1.0	314-1716	2	19x1.5	314-1813	2-1/2	28x3.0	314-1870
1	3.5x0.35	314-1623	1	11x1.25	314-1657	1-1/2	20x1.0	314-1750	2	30x1.5	314-1852
1	3.5x0.6	314-1624	1	11x1.5	314-1658	2	20x1.0	314-1811	2-1/2	30x1.5	314-1871
1	4x0.5	314-1626	1-1/2	11x1.5	314-1718	2	20x1.25	314-1812	2	30x2.0	314-1854
1	4x0.7	314-1628	1	12x0.5	314-1659	1-1/2	20x1.5	314-1752	2-1/2	30x2.0	314-1855
1	4.5x0.75	314-1629	1-1/2	12x0.75	314-1721	2	20x1.5	314-1815	2-1/2	30x3.0	314-1857
1	5x0.5	314-1630	1	12x1.0	314-1661	1-1/2	20x2.0	314-1754	2	30x3.5	314-1856
1	5x0.8	314-1632	1-1/2	12x1.0	314-1720	2	20x2.0	314-1816	2-1/2	30x3.5	314-1860
13/16	5x0.9	314-1631	1	12x1.25	314-1660	1-1/2	20x2.5	314-1756	2-1/2	32x2.0	314-1861
1	6x0.5	314-1634	1-1/2	12x1.25	314-1722	2	20x2.5	314-1817	2-1/2	33x2.0	314-1862
1	6x0.75	314-1636	1	12x1.5	314-1662	2	22x1.0	314-1830	2-1/2	33x3.0	314-1868
1	6x1.0	314-1638	1-1/2	12x1.50	314-1724	2	22x1.25	314-1831	2-1/2	33x3.5	314-1863
1-1/2	6x1.0	314-1701	1	12x1.75	314-1663	2	22x1.5	314-1832	2-1/2	34x3.5	314-1864
1	6.3x1.0	314-1637	1-1/2	12x1.75	314-1726	2	22x2.0	314-1834	2-1/2	35x1.5	314-1869
1	7x0.75	314-1639	1-1/2	13x1.0	314-1729	2	22x2.5	314-1836	2-1/2	36x2.0	314-1865
1	7x1.0	314-1640	1-1/2	13x1.25	314-1727	2	23x1.5	314-1837	2-1/2	36x3.0	314-1867
1-1/2	7x1.0	314-1702	1-1/2	14x1.0	314-1728	2	24x1.0	314-1838	2-1/2	36x4.0	314-1866
1	8x0.5	314-1641	1-1/2	14x1.25	314-1730	2	24x1.5	314-1840	2-1/2	38x4.0	314-1873
1	8x0.75	314-1642	1-1/2	14x1.5	314-1732	2	24x2.0	314-1842			

mhc® Industrial Supply

Special Pitch Adjustable Dies 高速钢特细牙右旋可调圆扳牙

High Speed Steel, Right Hand



Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.
2-56	13/16	**315-1004**	12-27	1	**315-3070**	3/8-40	1	**315-1147**	3/8-14	1-1/2	**315-1217**	11/16-14	1-1/2	**315-1292**
2-64	13/16	**315-1005**	12-30	1	**315-1095**	3/8-48	1	**315-1148**	3/8-18	1-1/2	**315-3158**	11/16-16	1-1/2	**315-1262**
3-48	13/16	**315-3005**	12-32	1	**315-1096**	3/8-56	1	**315-1149**	3/8-20	1-1/2	**315-1218**	11/16-18	1-1/2	**315-1263**
3-56	13/16	**315-3006**	12-36	1	**315-1097**	3/8-60	1	**315-3103**	3/8-22	1-1/2	**315-3159**	11/16-20	1-1/2	**315-1264**
4-32	13/16	**315-1010**	12-40	1	**315-1098**	3/8-64	1	**315-3107**	3/8-26	1-1/2	**315-3160**	11/16-24	1-1/2	**315-1265**
4-36	13/16	**315-1012**	12-48	1	**315-1099**	3/8-72	1	**315-3111**	3/8-27	1-1/2	**315-3161**	11/16-26	1-1/2	**315-1270**
4-40	13/16	**315-1011**	12-56	1	**315-3046**	3/8-80	1	**315-1150**	3/8-28	1-1/2	**315-3162**	11/16-27	1-1/2	**315-1266**
4-44	13/16	**315-3013**	14-24	1	**315-1100**	13/32-32	1	**315-1184**	3/8-30	1-1/2	**315-1219**	11/16-28	1-1/2	**315-1267**
4-48	13/16	**315-3014**	14-27	1	**315-3047**	7/16-12	1	**315-1185**	3/8-32	1-1/2	**315-1220**	11/16-30	1-1/2	**315-3169**
4-56	13/16	**315-1014**	14-28	1	**315-3048**	7/16-16	1	**315-1151**	3/8-36	1-1/2	**315-1221**	11/16-32	1-1/2	**315-1268**
4-60	13/16	**315-1015**	14-30	1	**315-3049**	7/16-18	1	**315-1152**	3/8-40	1-1/2	**315-1227**	11/16-36	1-1/2	**315-1293**
4-64	13/16	**315-1013**	14-32	1	**315-3050**	7/16-24	1	**315-1153**	3/8-48	1-1/2	**315-3163**	11/16-40	1-1/2	**315-1269**
4-72	13/16	**315-3015**	1/16-72	1	**315-3069**	7/16-26	1	**315-3116**	7/16-12	1-1/2	**315-3142**	3/4-11	1-1/2	**315-3174**
4-80	13/16	**315-1016**	3/32-36	1	**315-3071**	7/16-27	1	**315-1154**	7/16-16	1-1/2	**315-3151**	3/4-11-1/2	1-1/2	**315-3175**
5-32	13/16	**315-1018**	3/32-50	1	**315-3072**	7/16-28	1	**315-1155**	7/16-18	1-1/2	**315-1222**	3/4-12	1-1/2	**315-1271**
5-36	13/16	**315-1019**	1/8-36	1	**315-3074**	7/16-30	1	**315-3119**	7/16-22	1-1/2	**315-3152**	3/4-14	1-1/2	**315-1272**
5-48	13/16	**315-1020**	5/32-24	1	**315-3076**	7/16-32	1	**315-1156**	7/16-24	1-1/2	**315-3153**	3/4-18	1-1/2	**315-1273**
5-60	13/16	**315-1021**	5/32-26	1	**315-1103**	7/16-36	1	**315-1157**	7/16-27	1-1/2	**315-1223**	3/4-20	1-1/2	**315-1274**
5-56	13/16	**315-3023**	5/32-38	1	**315-1101**	7/16-40	1	**315-1158**	7/16-28	1-1/2	**315-1224**	3/4-24	1-1/2	**315-1275**
5-60	13/16	**315-3027**	5/32-36	1	**315-1104**	7/16-48	1	**315-1159**	7/16-30	1-1/2	**315-3154**	3/4-26	1-1/2	**315-1282**
5-64	13/16	**315-3031**	5/32-40	1	**315-1102**	7/16-56	1	**315-1186**	7/16-32	1-1/2	**315-1225**	3/4-27	1-1/2	**315-1276**
5-72	13/16	**315-3035**	5/32-64	1	**315-1105**	7/16-64	1	**315-3127**	7/16-36	1-1/2	**315-1226**	3/4-28	1-1/2	**315-1277**
5-80	13/16	**315-1017**	3/16-20	1	**315-3080**	15/32-32	1	**315-1188**	7/16-40	1-1/2	**315-3143**	3/4-30	1-1/2	**315-1278**
6-30	13/16	**315-1022**	3/16-28	1	**315-3081**	1/2-12	1	**315-1160**	7/16-48	1-1/2	**315-3164**	3/4-32	1-1/2	**315-1279**
6-36	13/16	**315-1024**	3/16-36	1	**315-3082**	1/2-14	1	**315-1161**	15/32-32	1-1/2	**315-1228**	3/4-36	1-1/2	**315-1280**
6-48	13/16	**315-1026**	7/32-24	1	**315-1106**	1/2-16	1	**315-1162**	15/32-40	1-1/2	**315-3150**	3/4-40	1-1/2	**315-1281**
6-56	13/16	**315-1028**	7/32-28	1	**315-1107**	1/2-18	1	**315-1163**	1/2-12	1-1/2	**315-1205**	3/4-48	1-1/2	**315-3179**
6-60	13/16	**315-1030**	7/32-32	1	**315-1108**	1/2-22	1	**315-3130**	1/2-14	1-1/2	**315-1204**	3/4-56	1-1/2	**315-3183**
6-64	13/16	**315-3043**	7/32-40	1	**315-1109**	1/2-24	1	**315-1164**	1/2-16	1-1/2	**315-1206**	3/4-64	1-1/2	**315-3187**
6-72	13/16	**315-3044**	7/32-48	1	**315-1110**	1/2-26	1	**315-3131**	1/2-18	1-1/2	**315-1207**	13/16-10	1-1/2	**315-3188**
6-80	13/16	**315-1032**	1/4-14	1	**315-1112**	1/2-27	1	**315-1165**	1/2-22	1-1/2	**315-3168**	13/16-12	1-1/2	**315-1283**
8-24	13/16	**315-1034**	1/4-16	1	**315-1113**	1/2-28	1	**315-1166**	1/2-24	1-1/2	**315-1231**	13/16-16	1-1/2	**315-1285**
8-30	13/16	**315-1036**	1/4-18	1	**315-1120**	1/2-30	1	**315-1167**	1/2-27	1-1/2	**315-1229**	13/16-20	1-1/2	**315-1286**
8-40	13/16	**315-1038**	1/4-22	1	**315-3077**	1/2-32	1	**315-1168**	1/2-28	1-1/2	**315-1232**	13/16-24	1-1/2	**315-1284**
8-48	13/16	**315-1040**	1/4-24	1	**315-1121**	1/2-36	1	**315-1169**	1/2-30	1-1/2	**315-1233**	13/16-28	1-1/2	**315-1287**
8-56	13/16	**315-1042**	1/4-26	1	**315-3078**	1/2-40	1	**315-1170**	1/2-32	1-1/2	**315-1230**	13/16-32	1-1/2	**315-1288**
8-60	13/16	**315-1043**	1/4-27	1	**315-1122**	1/2-48	1	**315-1171**	1/2-36	1-1/2	**315-1234**	7/16-18	2	**315-1360**
8-72	13/16	**315-1044**	1/4-30	1	**315-1114**	1/2-56	1	**315-1172**	1/2-40	1-1/2	**315-1235**	7/16-24	2	**315-1361**
8-64	13/16	**315-1045**	1/4-32	1	**315-1123**	1/2-60	1	**315-3135**	1/2-48	1-1/2	**315-1236**	1/2-12	2	**315-1362**
8-80	13/16	**315-1046**	1/4-36	1	**315-1124**	1/2-64	1	**315-3139**	1/2-56	1-1/2	**315-1237**	1/2-16	2	**315-1363**
10-28	13/16	**315-1048**	1/4-40	1	**315-1125**	1/2-72	1	**315-3147**	1/2-64	1-1/2	**315-3155**	1/2-18	2	**315-1364**
10-30	13/16	**315-1050**	1/4-48	1	**315-1126**	1/2-80	1	**315-1173**	1/2-72	1-1/2	**315-3156**	1/2-24	2	**315-1365**
10-36	13/16	**315-1052**	1/4-56	1	**315-1127**	4-32	1	**315-3054**	1/2-80	1-1/2	**315-3157**	1/2-27	2	**315-1366**
10-40	13/16	**315-1054**	1/4-60	1	**315-1119**	4-36	1	**315-3055**	9/16-10	1-1/2	**315-1239**	1/2-28	2	**315-1367**
10-46	13/16	**315-1055**	1/4-64	1	**315-1128**	4-40	1	**315-3056**	9/16-14	1-1/2	**315-1238**	1/2-30	2	**315-1368**
10-48	13/16	**315-1056**	1/4-72	1	**315-3079**	4-48	1	**315-3057**	9/16-16	1-1/2	**315-1240**	1/2-32	2	**315-1369**
10-56	13/16	**315-1058**	1/4-80	1	**315-1129**	4-56	1	**315-3053**	9/16-20	1-1/2	**315-1241**	9/16-14	2	**315-1370**
10-58	13/16	**315-1057**	9/32-18	1	**315-1115**	4-60	1	**315-3058**	9/16-22	1-1/2	**315-3172**	9/16-20	2	**315-1371**
10-60	13/16	**315-1059**	9/32-24	1	**315-1116**	4-64	1	**315-3059**	9/16-24	1-1/2	**315-1242**	9/16-24	2	**315-1372**
10-64	13/16	**315-1060**	9/32-32	1	**315-1118**	5-48	1	**315-3061**	9/16-26	1-1/2	**315-3060**	9/16-27	2	**315-1373**
10-80	13/16	**315-1062**	5/16-12	1	**315-1130**	5-56	1	**315-3062**	9/16-27	1-1/2	**315-1243**	9/16-28	2	**315-1374**
12-24	13/16	**315-1063**	5/16-16	1	**315-1131**	5-64	1	**315-3063**	9/16-28	1-1/2	**315-1244**	9/16-30	2	**315-1375**
12-28	13/16	**315-1065**	5/16-20	1	**315-1132**	6-30	1	**315-3064**	9/16-30	1-1/2	**315-3176**	9/16-32	2	**315-1295**
12-30	13/16	**315-1064**	5/16-22	1	**315-3083**	6-56	1	**315-3065**	9/16-32	1-1/2	**315-1245**	9/16-36	2	**315-1376**
12-32	13/16	**315-1066**	5/16-26	1	**315-3084**	10-26	1	**315-3066**	9/16-36	1-1/2	**315-1246**	5/8-10	2	**315-1377**
12-36	13/16	**315-1068**	5/16-27	1	**315-1133**	10-56	1	**315-3067**	9/16-40	1-1/2	**315-1247**	5/8-12	2	**315-1378**
12-40	13/16	**315-1070**	5/16-28	1	**315-1134**	12-26	1	**315-3068**	9/16-48	1-1/2	**315-1248**	5/8-14	2	**315-1379**
12-48	13/16	**315-1072**	5/16-30	1	**315-3087**	14-48	1	**315-3052**	5/8-10	1-1/2	**315-1249**	5/8-16	2	**315-1380**
12-56	13/16	**315-1074**	5/16-32	1	**315-1135**	1/4-22	1-1/2	**315-1196**	5/8-12	1-1/2	**315-1250**	5/8-20	2	**315-1381**
12-64	13/16	**315-3045**	5/16-36	1	**315-1136**	1/4-24	1-1/2	**315-1197**	5/8-14	1-1/2	**315-1251**	5/8-24	2	**315-1382**
14-24	13/16	**315-1078**	5/16-40	1	**315-1137**	1/4-27	1-1/2	**315-1198**	5/8-16	1-1/2	**315-1252**	5/8-27	2	**315-1383**
1/4-32	13/16	**315-1080**	5/16-48	1	**315-1138**	1/4-30	1-1/2	**315-1199**	5/8-20	1-1/2	**315-1253**	5/8-28	2	**315-1384**
2-64	1	**315-3051**	5/16-56	1	**315-1139**	1/4-32	1-1/2	**315-1200**	5/8-22	1-1/2	**315-3165**	5/8-30	2	**315-1385**
6-36	1	**315-1082**	5/16-64	1	**315-3091**	1/4-36	1-1/2	**315-1201**	5/8-24	1-1/2	**315-1254**	5/8-32	2	**315-1386**
6-48	1	**315-1083**	5/16-72	1	**315-3095**	1/4-48	1-1/2	**315-1202**	5/8-26	1-1/2	**315-3166**	5/8-40	2	**315-1387**
8-24	1	**315-1085**	5/16-80	1	**315-3096**	1/4-40	1-1/2	**315-1203**	5/8-27	1-1/2	**315-1255**	11/16-12	2	**315-1390**
8-30	1	**315-1086**	3/8-14	1	**315-1140**	5/16-16	1-1/2	**315-1208**	5/8-28	1-1/2	**315-1256**	11/16-14	2	**315-1391**
8-40	1	**315-1087**	3/8-18	1	**315-1141**	5/16-20	1-1/2	**315-1209**	5/8-30	1-1/2	**315-1289**	11/16-18	2	**315-1297**
8-48	1	**315-1088**	3/8-20	1	**315-1142**	5/16-22	1-1/2	**315-1216**	5/8-32	1-1/2	**315-1257**	11/16-20	2	**315-1392**
8-56	1	**315-1084**	3/8-22	1	**315-3100**	5/16-27	1-1/2	**315-1211**	5/8-36	1-1/2	**315-1258**	11/16-24	2	**315-1393**
10-27	1	**315-1089**	3/8-26	1	**315-1180**	5/16-28	1-1/2	**315-1212**	5/8-40	1-1/2	**315-1259**	11/16-27	2	**315-1298**
10-28	1	**315-1090**	3/8-27	1	**315-1143**	5/16-30	1-1/2	**315-1213**	5/8-48	1-1/2	**315-1290**	11/16-32	2	**315-1299**
10-30	1	**315-1091**	3/8-28	1	**315-1144**	5/16-32	1-1/2	**315-1210**	5/8-56	1-1/2	**315-1260**	11/16-36	2	**315-1394**
10-36	1	**315-1092**	3/8-30	1	**315-1183**	5/16-36	1-1/2	**315-1214**	5/8-64	1-1/2	**315-3167**	11/16-40	2	**315-1395**
10-40	1	**315-1093**	3/8-32	1	**315-1145**	5/16-40	1-1/2	**315-3140**	11/16-11	1-1/2	**315-1261**	3/4-12	2	**315-1300**
10-48	1	**315-1094**	3/8-36	1	**315-1146**	5/16-48	1-1/2	**315-1215**	11/16-12	1-1/2	**315-3171**	3/4-14	2	**315-3190**

Special Pitch Adjustable Dies Continued 高速钢特细牙右旋可调圆扳牙

High Speed Steel, Right Hand



Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.	Size	Outside Diameter	Order No.
3/4-18	2	**315-1301**	1-27	2-1/2	**315-1407**	1-7/16-12	2-1/2	**315-1571**	1-1/2-20	3	**315-3330**	2-18	3	**315-1676**
3/4-20	2	**315-1302**	1-28	2-1/2	**315-1408**	1-7/16-14	2-1/2	**315-1576**	1-1/2-24	3	**315-3332**	2-20	3	**315-1679**
3/4-24	2	**315-1303**	1-32	2-1/2	**315-1409**	1-7/16-16	2-1/2	**315-1572**	1-1/2-27	3	**315-3323**	2-24	3	**315-1680**
3/4-27	2	**315-1304**	1-1/16-7	2-1/2	**315-3238**	1-7/16-18	2-1/2	**315-1573**	1-1/2-28	3	**315-3327**	2-32	3	**315-3387**
3/4-28	2	**315-3189**	1-1/16-8	2-1/2	**315-1410**	1-7/16-20	2-1/2	**315-1574**	1-1/2-32	3	**315-3331**	2-1/16-14	3-1/2	**315-1690**
3/4-32	2	**315-1306**	1-1/16-10	2-1/2	**315-3239**	1-7/16-24	2-1/2	**315-1575**	1-9/16-6	3	**315-1606**	2-1/8-14	3-1/2	**315-1699**
3/4-36	2	**315-3191**	1-1/16-12	2-1/2	**315-1411**	1-7/16-32	2-1/2	**315-1577**	1-9/16-8	3	**315-1607**	2-1/8-16	3-1/2	**315-1700**
3/4-40	2	**315-3192**	1-1/16-14	2-1/2	**315-1412**	1-7/16-36	2-1/2	**315-1578**	1-9/16-10	3	**315-1608**	2-1/8-18	3-1/2	**315-1702**
3/4-48	2	**315-1307**	1-1/16-16	2-1/2	**315-1413**	1-1/2-7	2-1/2	**315-1579**	1-9/16-12	3	**315-1610**	2-1/8-8	4	**315-1710**
13/16-10	2	**315-1309**	1-1/16-18	2-1/2	**315-1414**	1-1/2-8	2-1/2	**315-1580**	1-9/16-14	3	**315-1609**	2-1/8-10	4	**315-1711**
13/16-12	2	**315-1310**	1-1/16-20	2-1/2	**315-1415**	1-1/2-10	2-1/2	**315-1587**	1-9/16-16	3	**315-1611**	2-1/8-12	4	**315-1712**
13/16-14	2	**315-1311**	1-1/16-24	2-1/2	**315-1416**	1-1/2-14	2-1/2	**315-1581**	1-9/16-18	3	**315-1612**	2-1/8-16	4	**315-1714**
13/16-16	2	**315-1312**	1-1/16-27	2-1/2	**315-3243**	1-1/2-16	2-1/2	**315-1582**	1-9/16-20	3	**315-1613**	2-1/8-18	4	**315-1716**
13/16-18	2	**315-1313**	1-1/16-28	2-1/2	**315-1418**	1-1/2-18	2-1/2	**315-1583**	1-9/1624	3	**315-1614**	2-1/8-20	4	**315-1718**
13/16-20	2	**315-1314**	1-1/16-32	2-1/2	**315-1417**	1-1/2-20	2-1/2	**315-1584**	1-5/8-4	3	**315-1618**	2-1/4-4-1/2	4	**315-1719**
13/16-24	2	**315-1315**	1-1/8-8	2-1/2	**315-1520**	1-1/2-24	2-1/2	**315-1585**	1-5/8-5	3	**315-1619**	2-1/4-6	4	**315-1725**
13/16-27	2	**315-3195**	1-1/8-10	2-1/2	**315-1527**	1-1/2-27	2-1/2	**315-3281**	1-5/8-5-1/2	3	**315-1620**	2-1/4-8	4	**315-1726**
13/16-28	2	**315-3199**	1-1/8-14	2-1/2	**315-1521**	1-1/2-28	2-1/2	**315-1588**	1-5/8-6	3	**315-1617**	2-1/4-10	4	**315-1727**
13/16-30	2	**315-1317**	1-1/8-16	2-1/2	**315-1522**	1-1/2-30	2-1/2	**315-3282**	1-5/8-8	3	**315-1621**	2-1/4-12	4	**315-1720**
13/16-32	2	**315-1316**	1-1/8-18	2-1/2	**315-1523**	1-1/2-32	2-1/2	**315-1589**	1-5/8-10	3	**315-1622**	2-1/4-16	4	**315-1722**
13/16-36	2	**315-3193**	1-1/8-20	2-1/2	**315-1524**	1-1/2-40	2-1/2	**315-1586**	1-5/8-12	3	**315-1623**	2-1/4-18	4	**315-1724**
13/16-40	2	**315-3194**	1-1/8-24	2-1/2	**315-1525**	1-10	3	**315-3285**	1-5/8-14	3	**315-1624**	2-1/4-20	4	**315-1728**
7/8-10	2	**315-1319**	1-1/8-26	2-1/2	**315-1517**	1-16	3	**315-3286**	1-5/8-16	3	**315-1625**	2-5/16-14	4	**315-3415**
7/8-12	2	**315-1320**	1-1/8-27	2-1/2	**315-1528**	1-18	3	**315-3287**	1-5/8-18	3	**315-1626**	2-5/16-16	4	**315-3419**
7/8-16	2	**315-1321**	1-1/8-28	2-1/2	**315-1518**	1-20	3	**315-3288**	1-5/8-20	3	**315-1627**	2-3/8-8	4	**315-1730**
7/8-18	2	**315-1322**	1-1/8-30	2-1/2	**315-1519**	1-24	3	**315-3289**	1-5/8-24	3	**315-1628**	2-3/8-10	4	**315-1731**
7/8-20	2	**315-1323**	1-1/8-32	2-1/2	**315-1526**	1-1/16-8	3	**315-1590**	1-11/16-6	3	**315-1629**	2-3/8-12	4	**315-1732**
7/8-24	2	**315-1324**	1-3/16-7	2-1/2	**315-1538**	1-1/16-10	3	**315-1591**	1-11/16-8	3	**315-1637**	2-3/8-14	4	**315-1733**
7/8-27	2	**315-1325**	1-3/16-8	2-1/2	**315-1535**	1-1/16-12	3	**315-1592**	1-11/16-12	3	**315-1633**	2-3/8-16	4	**315-1734**
7/8-28	2	**315-1326**	1-3/16-10	2-1/2	**315-1529**	1-1/16-14	3	**315-1593**	1-11/16-14	3	**315-1635**	2-3/8-18	4	**315-1736**
7/8-30	2	**315-1318**	1-3/16-12	2-1/2	**315-1530**	1-1/16-16	3	**315-1594**	1-11/16-16	3	**315-1630**	2-3/8-20	4	**315-1738**
7/8-32	2	**315-1327**	1-3/16-14	2-1/2	**315-1536**	1-1/16-18	3	**315-1595**	1-11/16-18	3	**315-1631**	2-1/2-4	4	**315-1740**
7/8-36	2	**315-1328**	1-3/16-16	2-1/2	**315-1531**	1-1/16-20	3	**315-1596**	1-11/16-20	3	**315-1632**	2-1/2-8	4	**315-1742**
7/8-40	2	**315-1329**	1-3/16-18	2-1/2	**315-1532**	1-1/16-24	3	**315-1597**	1-11/16-24	3	**315-1634**	2-1/2-10	4	**315-1743**
7/8-48	2	**315-3210**	1-3/16-20	2-1/2	**315-1533**	1-1/8-8	3	**315-1598**	1-11/16-36	3	**315-1636**	2-1/2- 12	4	**315-1744**
7/8-56	2	**315-3211**	1-3/16-24	2-1/2	**315-1534**	1-1/8-10	3	**315-1599**	1-3/4-5	3	**315-1640**	2-1/2-14	4	**315-1745**
7/8-64	2	**315-3212**	1-3/16-27	2-1/2	**315-1539**	1-1/8-14	3	**315-1601**	1-3/4-5-1/2	3	**315-1639**	2-1/2-16	4	**315-1746**
15/16-8	2	**315-1339**	1-3/16-28	2-1/2	**315-3252**	1-1/8-16	3	**315-1602**	1-3/4-6	3	**315-3359**	2-1/2-18	4	**315-1748**
15/16-9	2	**315-1337**	1-3/16-32	2-1/2	**315-1537**	1-1/8-18	3	**315-1603**	1-3/4-8	3	**315-1641**	2-1/2-20	4	**315-1750**
15/16-10	2	**315-3219**	1-1/4-8	2-1/2	**315-1540**	1-1/8-20	3	**315-1600**	1-3/4-10	3	**315-1642**	2-5/8-12	4	**315-1755**
15/16-12	2	**315-1330**	1-1/4-10	2-1/2	**315-1541**	1-1/8-24	3	**315-1604**	1-3/4-12	3	**315-1643**	2-3/4-16	4	**315-1759**
15/16-14	2	**315-1338**	1-1/4-14	2-1/2	**315-1542**	1-3/16-8	3	**315-3290**	1-3/4-14	3	**315-1644**	3-12	4	**315-1768**
15/16-16	2	**315-1331**	1-1/4-16	2-1/2	**315-1543**	1-3/16-12	3	**315-3291**	1-3/4-16	3	**315-1645**	2-5/8-8	5	**315-1820**
15/16-18	2	**315-1332**	1-1/4-18	2-1/2	**315-1544**	1-3/16-16	3	**315-3292**	1-3/4-18	3	**315-1646**	2-5/8-10	5	**315-1821**
15/16-20	2	**315-1333**	1-1/4-20	2-1/2	**315-1545**	1-1/4-6	3	**315-3293**	1-3/4-20	3	**315-1647**	2-5/8-12	5	**315-1822**
15/16-24	2	**315-1334**	1-1/4-24	2-1/2	**315-1546**	1-1/4-8	3	**315-3294**	1-3/4- 24	3	**315-1648**	2-5/8-16	5	**315-1824**
15/16-27	2	**315-1335**	1-1/4-26	2-1/2	**315-3274**	1-1/4-10	3	**315-3295**	1-3/4-32	3	**315-3363**	2-5/8-18	5	**315-1826**
15/16-28	2	**315-3218**	1-1/4-27	2-1/2	**315-1547**	1-1/4-14	3	**315-3296**	1-13/16-8	3	**315-1649**	2-3/4- 8	5	**315-1830**
15/16-30	2	**315-3220**	1-1/4-28	2-1/2	**315-1548**	1-1/4-16	3	**315-3297**	1-13/16-12	3	**315-1650**	2-3/4-10	5	**315-1831**
15/16-32	2	**315-1336**	1-1/4-30	2-1/2	**315-1549**	1-1/4-18	3	**315-3298**	1-13/16-16	3	**315-1651**	2-3/4-12	5	**315-1832**
1-10	2	**315-1340**	1-1/4-32	2-1/2	**315-3275**	1-1/4-20	3	**315-3299**	1-13/16-18	3	**315-1652**	2-3/4-14	5	**315-1833**
1-16	2	**315-1341**	1-1/4-36	2-1/2	**315-3276**	1-1/4-24	3	**315-3300**	1-13/16-20	3	**315-1653**	2-3/4-16	5	**315-1834**
1-18	2	**315-1342**	1-1/4-40	2-1/2	**315-3279**	1-5/16-8	3	**315-3301**	1-13/16-28	3	**315-1655**	2-3/4-18	5	**315-1836**
1-20	2	**315-1343**	1-5/16-8	2-1/2	**315-1554**	1-5/16-10	3	**315-3302**	1-7/8-5	3	**315-1660**	2-7/8-8	5	**315-1840**
1-24	2	**315-1344**	1-5/16-10	2-1/2	**315-1555**	1-5/16-12	3	**315-3303**	1-7/8-5-1/2	3	**315-1659**	2-7/8-10	5	**315-1841**
1-27	2	**315-1345**	1-5/16-12	2-1/2	**315-1550**	1-5/16-14	3	**315-3304**	1-7/8-6	3	**315-1668**	2-7/8-12	5	**315-1842**
1-28	2	**315-1346**	1-5/16-14	2-1/2	**315-3284**	1-5/16-16	3	**315-3305**	1-7/8-8	3	**315-1667**	2-7/8-14	5	**315-1843**
1-30	2	**315-1351**	1-5/16-16	2-1/2	**315-1551**	1-5/16-18	3	**315-3306**	1-7/8-10	3	**315-1661**	2-7/8-16	5	**315-1844**
1- 32	2	**315-1347**	1-5/16-18	2-1/2	**315-1552**	1-5/16-20	3	**315-3307**	1-7/8-12	3	**315-1662**	2-7/8-18	5	**315-1846**
1-36	2	**315-1349**	1-5/16-20	2-1/2	**315-1553**	1-3/8-8	3	**315-3308**	1-7/8-14	3	**315-1663**	3-4	5	**315-1849**
1-40	2	**315-1348**	1-5/16-24	2-1/2	**315-1557**	1-3/8-10	3	**315-3309**	1-7/8-16	3	**315-1664**	3-8	5	**315-1850**
1-48	2	**315-3227**	1-5/16-27	2-1/2	**315-3283**	1-3/8-14	3	**315-3310**	1-7/8-18	3	**315-1665**	3-12	5	**315-1852**
1-56	2	**315-1350**	1-5/16-32	2-1/2	**315-1558**	1-3/8-16	3	**315-3311**	1-7/8-20	3	**315-1666**	3-16	5	**315-1854**
1-64	2	**315-3235**	1-3/8-7	2-1/2	**315-1559**	1-3/8-18	3	**315-3312**	1-7/8-24	3	**315-3319**	3-18	5	**315-1856**
1-1/16-12	2	**315-1353**	1-3/8-8	2-1/2	**315-1560**	1-3/8-20	3	**315-3313**	1-15/16-12	3	**315-1681**	3-1/4-8	5	**315-1860**
1-1/16-14	2	**315-1354**	1-3/8-10	2-1/2	**315-1561**	1-3/8-24	3	**315-3314**	1-15/16-16	3	**315-1682**	3-1/4-12	5	**315-1862**
1-1/16-16	2	**315-1356**	1-3/8-14	2-1/2	**315-1566**	1-7/16-6	3	**315-3315**	1-15/16-18	3	**315-1684**	3-1/2-4	5	**315-1869**
1-1/16-18	2	**315-1357**	1-3/8-16	2-1/2	**315-1562**	1-7/16-8	3	**315-3316**	1-15/16-20	3	**315-1686**	3-1/2-4-1/2	5	**315-1874**
3/4-20	2-1/2	**315-1399**	1-3/8-18	2-1/2	**315-1563**	1-7/16-12	3	**315-3317**	2-4	3	**315-1669**	3-1/2-8	5	**315-1870**
1-10	2-1/2	**315-1400**	1-3/8-20	2-1/2	**315-1564**	1-7/16-16	3	**315-3318**	2-4-1/2	3	**315-1670**	3-1/2-12	5	**315-1872**
1-12	2-1/2	**315-1401**	1-3/8-24	2-1/2	**315-1565**	1-7/16-18	3	**315-1605**	2-6	3	**315-1677**	3-3/4-8	6	**315-1876**
1-16	2-1/2	**315-1402**	1-3/8-27	2-1/2	**315-1568**	1-1/2-8	3	**315-3324**	2-8	3	**315-1671**	3-3/4-12	6	**315-1880**
1-18	2-1/2	**315-1403**	1-3/8-32	2-1/2	**315-1567**	1-1/2-10	3	**315-3325**	2-10	3	**315-1672**	4-8	6	**315-1884**
1-20	2-1/2	**315-1404**	1-3/8-40	2-1/2	**315-3280**	1-1/2-14	3	**315-3326**	2-12	3	**315-1673**	4-12	6	**315-1888**
1-24	2-1/2	**315-1405**	1-7/16-6	2-1/2	**315-1569**	1-1/2-16	3	**315-3328**	2-14	3	**315-1674**	4-16	6	**315-1892**
1-26	2-1/2	**315-1406**	1-7/16-8	2-1/2	**315-1570**	1-1/2-18	3	**315-3329**	2-16	3	**315-1675**			

Round Solid Dies 高速钢/碳钢圆板牙

High Speed Steel & Carbon Steel

NEW



13/16"OD

Size	HSS Order No.	Carbon Steel Order No.
0-80	314-6000	314-7000
1-64	314-6005	314-7005
1-72	314-6010	314-7010
2-56	314-6015	314-7015
2-64	314-6020	314-7020
3-48	314-6025	314-7025
3-56	314-6030	314-7030
4-40	314-6035	314-7035
4-48	314-6040	314-7040
5-40	314-6045	314-7045
5-44	314-6050	314-7050
6-32	314-6055	314-7055
6-40	314-6060	314-7060
8-32	314-6065	314-7065
8-36	314-6070	314-7070
10-24	314-6075	314-7075
10-32	314-6080	314-7080
12-24	314-6085	314-7085
12-28	314-6090	314-7090

1"OD

Size	HSS Order No.	Carbon Steel Order No.
4-40	314-6100	314-7100
4-48	314-6105	314-7105
6-32	314-6110	314-7110
6-40	314-6115	314-7115
8-32	314-6120	314-7120
8-36	314-6125	314-7125
10-24	314-6130	314-7130
10-32	314-6135	314-7135
12-24	314-6140	314-7140
12-28	314-6145	314-7145
1/8-27	314-6102	314-7196
1/4-20	314-6150	314-7150
1/4-24	314-6152	314-7152
1/4-28	314-6155	314-7155
1/4-32	314-6157	314-7157
5/16-18	314-6160	314-7160
5/16-24	314-6165	314-7165
3/8-16	314-6170	314-7170
3/8-24	314-6175	314-7175
7/16-14	314-6180	314-7180
7/16-20	314-6185	314-7185
1/2-13	314-6190	314-7190
1/2-20	314-6195	314-7195

1-1/2"OD

Size	HSS Order No.	Carbon Steel Order No.
1/8-27	314-6200	314-7296
1/4-18	314-6201	314-7297
1/4-20	314-6210	314-7210
1/4-28	314-6215	314-7215
5/16-18	314-6220	314-7220
5/16-24	314-6225	314-7225
3/8-16	314-6230	314-7230
3/8-24	314-6235	314-7235
7/16-14	314-6240	314-7240
7/16-20	314-6245	314-7245
1/2-13	314-6250	314-7250
1/2-20	314-6255	314-7255
9/16-12	314-6260	314-7260
9/16-18	314-6265	314-7265
5/8-11	314-6270	314-7270
5/8-18	314-6275	314-7275
3/4-10	314-6280	314-7280
3/4-16	314-6285	314-7285

2"OD

Size	HSS Order No.	Carbon Steel Order No.
9/16-12	314-6310	314-7310
9/16-18	314-6315	314-7315
5/8-11	314-6320	314-7320
5/8-18	314-6325	314-7325
3/4-10	314-6330	314-7330
3/4-16	314-6335	314-7335
7/8-9	314-6340	314-7340
7/8-14	314-6345	314-7345
1-8	314-6350	314-7350
1-12	314-6355	314-7355
1-14	314-6360	314-7360

Metric Round Solid Dies 公制高速钢圆板牙

1"OD

Size	HSS Order No.
M2X0.4	314-6500
M2.5X0.45	314-6505
M3X0.5	314-6510
M4X0.7	314-6515
M5X0.8	314-6520
M6X1.0	314-6525
M7X1.0	314-6530
M8X1.25	314-6535
M10X1.5	314-6540
M12X1.75	314-6545

1-1/2"OD

Size	HSS Order No.
M10X1.0	314-6610
M10X1.25	314-6612
M10X1.5	314-6614
M11X1.5	314-6616
M12X1.0	314-6618
M12X1.25	314-6620
M12X1.5	314-6622
M12X1.75	314-6624
M14X1.0	314-6626
M14X1.25	314-6628

1-1/2"OD

Size	HSS Order No.
M14X1.5	314-6630
M14X2.0	314-6632
M16X1.0	314-6634
M16X1.5	314-6636
M16X2.0	314-6638
M18X1.0	314-6640
M18X1.5	314-6642
M18X2.0	314-6644
M18X2.5	314-6646
M20X1.0	314-6648

1-1/2"OD

Size	HSS Order No.
M20X1.5	314-6650
M20X2.0	314-6652
M20X2.5	314-6654

British Stand Whitworth (B.S.W.) Round Adjustable Dies

55° Thread Angle carbon Steel

英标碳钢可调板牙 55 度 (BSW)

NEW



3/16"OD

Size	Order No.
3/16-24	365-0102

1"OD

Size	Order No.
1/8"-28	365-0100
1/4-20	365-0104
5/16-18	365-0106
3/8-16	365-0108

1-1/2"OD

Size	Order No.
1/4"-19	365-0101
7/16-14	365-0110
1/2-12	365-0112
9/16-12	365-0114
5/8-11	365-0116

2"OD

Size	Order No.
3/4-10 2"OD	365-0120
7/8-9 2"OD	365-0122
1-8 2"OD	365-0124

3"OD

Size	Order No.
1-1/4"-7	365-0130
1-3/8-6	365-0132
1-1/2-6	365-0134

Round Dies 德标公制圆扳牙



DIN 223 B
High Speed Steel
For ISO metric thread as per DIN 13

Thread	Pitch	Outside	Order No.	Thread	Pitch	Outside	Order No.	Thread	Pitch	Outside	Order No.
M2	.4	16x5mm	**314-9001**	M10	1.5	30x11mm	**314-9019**	M30	3.5	65x25mm	**314-9037**
M2.5	.45	16x5mm	**314-9003**	M12	1.75	38x14mm	**314-9021**	M33	2.0	65x25mm	**314-9038**
M3	.5	20x5mm	**314-9005**	M14	2.0	38x14mm	**314-9023**	M33	3.5	65x25mm	**314-9039**
M3.5	.6	20x5mm	**314-9007**	M16	2.0	45x14mm	**314-9025**	M36	4.0	65x25mm	**314-9041**
M4	.7	20x5mm	**314-9009**	M18	2.5	45x18mm	**314-9027**	M39	4.0	75x30mm	**314-9043**
M5	.8	20x7mm	**314-9011**	M20	2.5	45x18mm	**314-9029**	M42	4.5	75x30mm	**314-9045**
M6	1.0	20x7mm	**314-9013**	M22	2.5	55x22mm	**314-9031**	M45	4.5	90x36mm	**314-9047**
M7	1.0	25x9mm	**314-9015**	M24	3.0	55x22mm	**314-9033**	M48	5.0	90x36mm	**314-9049**
M8	1.25	25x9mm	**314-9017**	M27	3.0	65x25mm	**314-9035**	M52	5.0	90x36mm	**314-9051**

DIN 223 B
High Speed Steel

Thread	Pitch	Outside	Order No.	Thread	Pitch	Outside	Order No.
M3	0.5	25 x 9**mm**	**314-9103**	M8	1.25	25 x 9**mm**	**314-9108**
M4	0.7	25 x 9**mm**	**314-9104**	M10	1.5	25 x 9**mm**	**314-9110**
M5	0.8	25 x 9**mm**	**314-9105**	M12	1.75	25 x 9**mm**	**314-9112**
M6	1.0	25 x 9**mm**	**314-9106**				

DIN 223
High Speed Steel For B.S.W Thread as per DIN 11

Thread	Threads Per inch	Outside	Order No.	Thread	Threads Per inch	Outside	Order No.	Thread	Threads Per inch	Outside	Order No.
1/16"	60	16mm	**314-1101**	3/8"	16	30mm	**314-1117**	1-1/8"	7	65mm	**314-1133**
3/32	48	16mm	**314-1103**	7/16	14	30mm	**314-1119**	1-1/4	7	65mm	**314-1135**
1/8	40	20mm	**314-1105**	1/2	12	38mm	**314-1121**	1-3/8	6	65mm	**314-1137**
5/32	32	20mm	**314-1107**	9/16	12	38mm	**314-1123**	1-1/2	6	75mm	**314-1139**
3/16	24	20mm	**314-1109**	5/8	11	45mm	**314-1125**	1-5/8	5	75mm	**314-1141**
7/32	24	20mm	**314-1111**	3/4	10	45mm	**314-1127**	1-3/4	5	90mm	**314-1143**
1/4	20	20mm	**314-1113**	7/8	9	55mm	**314-1129**	1-7/8	4-1/2	90mm	**314-1145**
5/16	18	25mm	**314-1115**	1	8	55mm	**314-1131**	2	4-1/2	90mm	**314-1147**

DIN 5158
High Speed Steel For B.S.P. thread as per DIN 228

Thread	Threads Per Inch	Outside	Order No.	Thread	Threads Per Inch	Outside	Order No.	Thread	Threads Per Inch	Outside	Order No.
G1/16	28	25mm	**314-1023**	G1/2	14	45mm	**314-1007**	G1	11	65mm	**314-1015**
G1/8	28	30mm	**314-1001**	G5/8	14	55mm	**314-1009**	G1-1/8	11	75mm	**314-1017**
G1/4	19	38mm	**314-1003**	G3/4	14	55mm	**314-1011**	G1-1/4	11	75mm	**314-1019**
G3/8	19	45mm	**314-1005**	G7/8	14	65mm	**314-1013**	G1-1/2	11	90mm	**314-1021**

DIN 223 B
For ISO metric fine thread as per DIN 13
High Speed Steel

Thread (mm)	Pitch (mm)	Outside	Order No.	Thread (mm)	Pitch (mm)	Outside	Order No.	Thread (mm)	Pitch (mm)	Outside	Order No.
M3	.35	20x5mm	**314-9201**	M10	1.25	30x11mm	**314-9215**	M20	1.0	45x14mm	**314-9234**
M4	.35	20x5mm	**314-9203**	M12	1.0	30x11mm	**314-9217**	M20	1.5	45x14mm	**314-9235**
M4	.50	20x5mm	**314-9205**	M12	1.25	38x11mm	**314-9219**	M22	1.0	55x16mm	**314-9236**
M5	.50	20x5mm	**314-9207**	M12	1.5	38x10mm	**314-9221**	M22	1.5	55x16mm	**314-9237**
M6	.50	20x5mm	**314-9208**	M14	1.0	38x10mm	**314-9223**	M22	2.0	55x16mm	**314-9238**
M6	.75	25x7mm	**314-9209**	M14	1.25	38x10mm	**314-9225**	M24	1.5	55x16mm	**314-9239**
M8	.50	25x9mm	**314-9210**	M14	1.5	38x10mm	**314-9227**	M24	2.0	55x16mm	**314-9241**
M8	.75	25x9mm	**314-9211**	M16	1.0	45x14mm	**314-9229**	M27	1.5	65x18mm	**314-9243**
M8	1.0	25x9mm	**314-9212**	M16	1.5	45x14mm	**314-9231**	M27	2.0	65x18mm	**314-9245**
M10	1.0	30x11mm	**314-9213**	M18	1.0	45x14mm	**314-9232**	M30	1.5	65x18mm	**314-9247**
M10	.75	30x11mm	**314-9214**	M18	1.5	45x14mm	**314-9233**	M30	2.0	65x18mm	**314-9249**

Hexagon Rethreading Dies 六方板牙（右旋）



High Speed Steel and Carbon Steel, Right Hand

- Used for repairing damaging or rusting threads.

Pipe Thread

Size	Across Flats	Thickness	Carbon Steel Order No.	HSS Order No.	Size	Across Flats	Thickness	Carbon Steel Order No.	HSS Order No.
1/8"-27 NPT	25/32"	3/8"	**365-0005**	**367-0005**	1/2"-14NPT	1-7/16"	3/4"	**365-0020**	**367-0020**
1/4"-18NPT	1-1/16	1/2	**365-0010**	**367-0010**	3/4"-14NPT	1-13/16	1	**365-0025**	**367-0025**
3/8"-18NPT	1-1/4	5/8	**365-0015**	**367-0015**	1"-11-1/2NPT	2-3/16	1	**365-0030**	**367-0030**

Standard Thread

Size	Across Flats	Thickness	Carbon Steel Order No.	HSS Order No.	Size	Across Flats	Thickness	CarbonSteel Order No.	HSS Order No.
1/4"-20NC	19/32"	1/4"	**365-0161**	**367-0161**	3/4"-10NC	1-7/16"	3/4"	**365-0481**	**367-0481**
1/4"-28NF	19/32	1/4	**365-0162**	**367-0162**	3/4"-16NF	1-7/16	3/4	**365-0482**	**367-0482**
5/16"-18NC	11/16	5/16	**365-0201**	**367-0201**	7/8"-9NC	1-5/8	7/8	**365-0561**	**367-0561**
5/16"-24NF	11/16	5/16	**365-0202**	**367-0202**	7/8"-14NF	1-5/8	7/8	**365-0562**	**367-0562**
3/8"-16NC	25/32	3/8	**365-0241**	**367-0241**	1"-8NC	1-13/16	1	**365-0641**	**367-0641**
3/8"-24NF	25/32	3/8	**365-0242**	**367-0242**	1"-12NF	1-13/16	1	**365-0642**	**367-0642**
7/16"-14NC	7/8	7/16	**365-0281**	**367-0281**	1"-14NS	1-13/16	1	**365-0643**	**367-0643**
7/16"-20NF	7/8	7/16	**365-0282**	**367-0282**	1-1/8"-7NC	2	1	**365-1081**	**367-1081**
1/2"-13NC	1-1/16	1/2	**365-0321**	**367-0321**	1-1/8"-12NF	2	1	**365-1082**	**367-1082**
1/2"-20NF	1-1/16	1/2	**365-0322**	**367-0322**	1-1/4"-7NC	2-3/16	1	**365-1161**	**367-1161**
9/16"-12NC	1-1/16	1/2	**365-0361**	**367-0361**	1-1/4"-12NF	2-3/16	1	**365-1162**	**367-1162**
9/16"-18NF	1-1/16	1/2	**365-0362**	**367-0362**	1-3/8"-6NC	2-3/8	1	**365-1241**	**367-1241**
5/8"-11NC	1-1/4	5/8	**365-0401**	**367-0401**	1-3/8"-12NF	2-3/8	1	**365-1242**	**367-1242**
5/8"-18NF	1-1/4	5/8	**365-0402**	**367-0402**	1-1/2"-6NC	2-9/16	1	**365-1321**	**367-1321**
11/16"-11NS	1-7/16	3/4	**365-0441**	**367-0441**	1-1/2"-12NF	2-9/16	1	**365-1322**	**367-1322**
11/16"-16NS	1-7/16	3/4	**365-0442**	**367-0442**					

Metric Hexagon Rethreading Dies 公制六方板牙（右旋）



High Speed Steel and Carbon Steel, Right Hand

Ues for repairing damaging or rusting threads.

Size(mm)	Across Flats	Thick-ness	Carbon Steel Order No.	HSS Order No.	Size(mm)	Across Flats	Thick-ness	Carbon Steel Order No.	HSS Order No.	Size(mm)	Across Flats	Thick-ness	Carbon Steel Order No.	HSS Order No.
3.0x0.50	19/32	1/4	**364-0032**		11.0x1.0	25/32	7/16	**364-0111**		24.0x3.0	1-13/16	1	**364-0243**	**367-6243**
3.0x0.60	19/32	1/4	**364-0034**		11.0x1.5	25/32	7/16	**364-0112**		24.0x1.0	1-13/16	1	**364-0240**	
3.5x0.60	19/32	1/4	**364-0036**		11.0x1.5	7/8	7/16		**367-6112**	24.0x1.25	1-13/16	1	**364-0244**	
4.0x0.70	19/32	1/4	**364-0001**		11.0x1.25	25/32	7/16	**364-0113**		25.0x1.5	1-13/16	1	**364-0251**	
4.0x0.70	19/32	1/4	**364-0042**		12.0x1.0	1-1/16	1/2	**364-0121**		26.0x1.5	2	1	**364-0261**	**367-6261**
4.0x0.75	19/32	1/4	**364-0044**		12.0x1.25	1-1/16	1/2	**364-0122**		26.0x3.0	2	1	**364-0263**	
4.5x0.75	19/32	1/4	**364-0046**	**367-6044**	12.0x1.5	1-1/16	1/2	**364-0123**		27.0x1.5	2	1	**364-0271**	
5.0x0.80	19/32	1/4	**364-0002**	**367-6053**	12.0x1.75	1-1/16	1/2	**364-0124**	**367-6124**	27.0x2.0	2	1	**364-0272**	
5.0x0.50	19/32	1/4	**364-0051**		12.0x.75	1-1/16	1/2	**364-0120**		27.0x3.0	2	1	**364-0273**	
5.0x0.75	19/32	1/4	**364-0052**		12.0x1.25	1-1/16	1/2	**364-0012**		28.0x1.5	2	1	**364-0281**	
5.0x0.8	19/32	1/4	**364-0053**		12.0x1.50	1-1/16	1/2	**364-0013**		30x1.5	2-3/16	1	**364-0301**	
5.0x0.9	19/32	1/4	**364-0054**	**367-6054**	12.0x1.75	1-1/16	1/2	**364-0014**		30x2.0	2-3/16	1	**364-0302**	
5.5x0.9	19/32	1/4	**364-0055**	**367-6055**	14.0x1.0	1-1/16	1/2	**364-0141**		30x3.5	2-3/16	1	**364-0304**	**367-6304**
6.0x0.5	19/32	1/4	**364-0061**		14.0x1.25	1-1/16	1/2	**364-0142**		32x2.0	2-3/16	1	**364-0321**	**367-6321**
6.0x0.75	19/32	1/4	**364-0062**		14.0x1.5	1-1/16	1/2	**364-0143**		32x3.5	2-3/16	1	**364-0322**	**367-6322**
6.0x1.0	19/32	1/4	**364-0063**	**367-6063**	14.0x2.0	1-1/16	1/2	**364-0144**	**367-6144**	33x2.0	2-3/16	1	**364-0331**	**367-6331**
6.0x1.00	19/32	1/4	**364-0003**		15.0x1.0	1-1/4	5/8	**364-0151**		33x3.5	2-3/16	1	**364-0332**	**367-6332**
6.3x1.00			**364-0065**		16.0x1.0	1-1/4	5/8	**364-0161**		33x1.5	2-3/16	1	**364-0330**	
7.0x0.75	11/16	5/16	**364-0072**		16.0x1.5	1-1/4	5/8	**364-0162**	**367-6162**	36x3.0	2-3/8	1	**364-0361**	**367-6361**
7.0x1.0	11/16	5/16	**364-0073**		16.0x2.0	1-1/4	5/8	**364-0163**	**367-6163**	36x4.0	2-3/8	1	**364-0362**	**367-6362**
7.0x1.00	11/16	5/16	**364-0004**	**367-6073**	17.0x1.5	1-7/16	3/4	**364-0172**		36x1.5	2-3/8	1	**364-0360**	
8.0x0.75	11/16	5/16	**364-0081**		18.0x1.00	1-7/16	3/4	**364-0181**		36x2.0	2-3/8	1	**364-0363**	
8.0x1.0	11/16	5/16	**364-0082**		18.0x1.5	1-7/16	3/4	**364-0183**		38x2.0	2-9/16	1	**364-0382**	
8.0x1.25	11/16	5/16	**364-0083**	**367-6083**	18.0x2.0	1-7/16	3/4	**364-0184**		39x2.0	3-1/8	1	**364-0391**	
8.0x1.00	11/16	5/16	**364-0008**		18.0x2.5	1-7/16	3/4	**364-0185**		39x3.0	3-1/8	1	**364-0393**	
8.0x1.25	25/32	3/8	**364-0009**		20.0x1.0	1-7/16	3/4	**364-0201**	**367-6201**	39x4.0	2-9/16	1	**364-0392**	**367-6392**
9.0x0.75	25/32	3/8	**364-0091**		20.0x1.25	1-7/16	3/4	**364-0202**		39x1.5	3-1/8	1	**364-0390**	
9.0x1.0	25/32	3/8	**364-0092**		20.0x1.5	1-7/16	3/4	**364-0203**	**367-6203**	40x1.5	2-9/16	1	**364-0401**	
9.0x1.25	25/32	3/8	**364-0093**		20.0x2.0	1-7/16	3/4	**364-0204**		40x4.0	3-1/8	1	**364-0411**	
10.0x1.50	25/32	7/16	**364-0104**		20.0x2.5	1-5/8	7/8	**364-0206**		42x4.5	3-1/8	1	**364-0421**	**367-6421**
10.0x1.50	7/8	7/16	**364-0105**		20.0x2.5	1-7/16	3/4	**364-0205**	**367-6205**	45x4.5	3-1/8	1	**364-0451**	
10.0x0.75	25/32	7/16	**364-0101**		22.0x1.25	1-5/8	7/8	**364-0221**		48x5.0	3-1/8	1-1/4	**364-0481**	
10.0x1.0	25/32	7/16	**364-0102**		22.0x1.5	1-5/8	7/8	**364-0222**		48x1.5	3-1/8	1-1/4	**364-0482**	
10.0x1.25	25/32	7/16	**364-0103**		22.0x2.5	1-5/8	7/8	**364-0223**	**367-6223**	48x3.0	3-1/8	1-1/4	**364-0483**	
10.0x1.25	25/32	3/8	**364-0010**		22.0x2.0	1-5/8	7/8	**364-0224**		52x5.0	3-1/2	1-1/4	**364-0521**	
10.0x1.50	25/32	3/8	**364-0011**		24.0x1.5	1-13/16	1	**364-0241**		52x1.5	3-1/2	1-1/4	**364-0520**	
10.0x1.50	25/32	5/16		**367-6104**	24.0x2.0	1-13/16	1	**364-0242**	**367-6242**	52x3.0	3-1/2	1-1/4	**364-0523**	

Left Hand Hexagon Rethreading Dies 碳刚六方板牙（左旋）



Carbon Steel

Size	Across Flat	Thickness	Order No.	Size	Across Flat	Thickness	Order No.
1/4"-20NC	19/32 "	1/4"	**366-0161**	3/4"-10NC	1-7/16"	3/4"	**366-0481**
1/4"-28NF	19/32	1/4	**366-0162**	3/4"-16NF	1-7/16	3/4	**366-0482**
5/16"-18NC	11/16	5/16	**366-0201**	7/8"-9NC	1-5/8	7/8	**366-0561**
5/16"-24NF	11/16	5/16	**366-0202**	7/8"-14NF	1-5/8	7/8	**366-0562**
3/8"-16NC	25/32	3/8	**366-0241**	1"-8NC	1-13/16	1	**366-0641**
3/8"-24NF	25/32	3/8	**366-0242**	1"-12NF	1-13/16	1	**366-0642**
7/16"-14NC	7/8	7/16	**366-0281**	1"-14NS	1-13/16	1	**366-0643**
7/16"-20NF	7/8	7/16	**366-0282**	1-1/8"-7NC	2	1	**366-1081**
1/2"-13NC	1-1/16	1/2	**366-0321**	1-1/8"-12NF	2	1	**366-1082**
1/2"-20NF	1-1/16	1/2	**366-0322**	1-1/4"-7NC	2-3/16	1	**366-1161**
9/16"-12NC	1-1/16	1/2	**366-0361**	1-1/4"-12NF	2-3/16	1	**366-1162**
9/16"-18NF	1-1/16	1/2	**366-0362**	1-3/8"-6NC	2-3/8	1	**366-1241**
5/8"-11NC	1-1/4	5/8	**366-0401**	1-3/8"-12NF	2-3/8	1	**366-1242**
5/8"-18NF	1-1/4	5/8	**366-0402**	1-1/2"-6NC	2-9/16	1	**366-1321**
11/16"-11NS	1-7/16	3/4	**366-0441**	1-1/2"-12NF	2-9/16	1	**366-1322**
11/16"-16NS	1-7/16	3/4	**366-0442**				

Special Thread Hexagon Rethreading Dies 六方特殊牙板牙（右旋）



High Speed Steel &Carbon Steel, Right Hand

Size	Across Flat	Thickness	Carbon Steel Order No.	HSS Order No.	Size	Across Flat	Thickness	Carbon Steel Order No.	HSS Order No.
1-1/8"-8	2"	1"	**365-1084**	**367-1084**	2-1/4"-8	3-1/2"	1-1/4"	**365-2165**	**367-2165**
1-1/8"-16	2	1	**365-1085**	**367-1085**	2-1/4"-12	3-1/2	1-1/4	**365-2166**	**367-2166**
1-1/8"-18	2	1	**365-1086**	**367-1086**	2-1/4"-16	3-1/2	1-1/4	**365-2167**	**367-2167**
1-1/4"-8	2-3/16	1	**365-1164**	**367-1164**	2-1/4"-18	3-1/2	1-1/4	**365-2168**	**367-2168**
1-1/4"-16	2-3/16	1	**365-1165**	**367-1165**	2-3/8"-8	4-1/2	1-1/2	**365-2244**	**367-2244**
1-1/4"-18	2-3/16	1	**365-1166**	**367-1166**	2-3/8"-12	4-1/2	1-1/2	**365-2245**	**367-2245**
1-3/8"-8	2-3/8	1	**365-1244**	**367-1244**	2-1/2"-4	4-1/2	1-1/2	**365-2324**	**367-2324**
1-3/8"-16	2-3/8	1	**365-1245**	**367-1245**	2-1/2"-8	4-1/2	1-1/2	**365-2325**	**367-2325**
1-3/8"-18	2-3/8	1	**365-1246**	**367-1246**	2-1/2"-12	4-1/2	1-1/2	**365-2326**	**367-2326**
1-1/2"-8	2-9/16	1	**365-1324**	**367-1324**	2-5/8"-8	4-1/2	1-1/2	**365-2404**	**367-2404**
1-1/2"-16	2-9/16	1	**365-1325**	**367-1325**	2-5/8"-12	4-1/2	1-5/8	**365-2405**	**367-2405**
1-1/2"-18	2-9/16	1	**365-1326**	**367-1326**	2-3/4"-4	4-1/2	1-5/8	**365-2484**	**367-2484**
1-5/8"-5-1/2	3-1/8	1	**365-1404**	**367-1404**	2-3/4"-8	4-1/2	1-5/8	**365-2485**	**367-2485**
1-5/8"-8	3-1/8	1	**365-1405**	**367-1405**	2-3/4"-12	4-1/2	1-5/8	**365-2486**	**367-2486**
1-5/8"-12	3-1/8	1	**365-1406**	**367-1406**	2-7/8"-8			**365-2564**	**367-2564**
1-5/8"-16	3-1/8	1	**365-1407**	**367-1407**	2-7/8"-12			**365-2565**	**367-2565**
1-5/8"-18	3-1/8	1	**365-1408**	**367-1408**	3"-4			**365-3004**	**367-3004**
1-3/4"-5	3-1/8	1	**365-1484**	**367-1484**	3"-8			**365-3005**	**367-3005**
1-3/4"-8	3-1/8	1	**365-1485**	**367-1485**	3"-12			**365-3006**	**367-3006**
1-3/4"-12	3-1/8	1	**365-1486**	**367-1486**	3-1/4"-4			**365-3164**	**367-3164**
1-3/4"-16	3-1/8	1	**365-1487**	**367-1487**	3-1/4"-8			**365-3165**	**367-3165**
1-3/4"-18	3-1/8	1	**365-1488**	**367-1488**	3-1/4"-12			**365-3166**	**367-3166**
1-7/8"-5	3-1/8	1-1/4	**365-1564**	**367-1564**	3-1/2"-4			**365-3324**	**367-3324**
1-7/8"-8	3-1/8	1-1/4	**365-1565**	**367-1565**	3-1/2"-8			**365-3325**	**367-3325**
1-7/8"-12	3-1/8	1-1/4	**365-1566**	**367-1566**	3-1/2"-12			**365-3326**	**367-3326**
1-7/8"-16	3-1/8	1-1/4	**365-1567**	**367-1567**	3-3/4"-4			**365-3484**	**367-3484**
1-7/8"-18	3-1/8	1-1/4	**365-1568**	**367-1568**	3-3/4"-8			**365-3485**	**367-3485**
2"-4-1/2.	3-1/2	1-1/4	**365-2004**	**367-2004**	3-3/4"-12			**365-3486**	**367-3486**
2"-8	3-1/2	1-1/4	**365-2005**	**367-2005**	4"-8			**365-4004**	**367-4004**
2"-12	3-1/2	1-1/4	**365-2006**	**367-2006**	4"-12			**365-4005**	**367-4005**
2"-16	3-1/2	1-1/4	**365-2007**	**367-2007**	4-1/2"-8			**365-4324**	**367-4324**
2"-18	3-1/2	1-1/4	**365-2008**	**367-2008**	4-1/2"-12			**365-4325**	**367-4325**
2-1/8"-8	3-1/2	1-1/4	**365-2084**	**367-2084**	5"-8			**365-5004**	**367-5004**
2-1/8"-12	3-1/2	1-1/4	**365-2085**	**367-2085**	5"-12			**365-5005**	**367-5005**
2-1/4"-4-1/2	3-1/2	1-1/4	**365-2164**	**367-2164**					

British Standard Hexagon Rethreading Dies

55° Thread Angle carbon Steel

英标碳钢六方板牙 55 度

Use for rethreading applications.



Straight Pipe-BSP

Size	Order No.
1/8"-28	365-2708
1/4"-19	365-2716
3/8"-19	365-2724
1/2"-14	365-2732
5/8"-14	365-2740
3/4"-14	365-2748
7/8"-14	365-2756
1"-11	365-2800
1-1/4"-11	365-2816
1-1/2"-11	365-2832
1-3/4"-11	365-2848
2"-11	365-2900

Taper Pipe-BSPT

Size	Order No.
1/8"-28	365-3708
1/4"-19	365-3716
3/8"-19	365-3724
1/2"-14	365-3732
5/8"-14	365-3740
3/4"-14	365-3748
7/8"-14	365-3756
1"-11	365-3800
1-1/4"-11	365-3816
1-1/2"-11	365-3832
1-3/4"-11	365-3848
2"-11	365-3900

British Stand Whitworth (B.S.W.) Rethreading Hexagon Dies

55° Thread Angle carbon Steel

英标碳钢六方板牙 55 度 (BSW)

Use for rethreading applications.



Size	Order No.
3/16"-24	365-4712
1/4"-20	365-4716
5/16"-18	365-4720
7/16"-14	365-4728
1/2"-12	365-4732
9/16"-12	365-4736
5/8"-11	365-4740

Size	Order No.
3/4"-10	365-4748
7/8"-9	365-4756
1"-8	365-4800
1-1/4"-7	365-4816
1-3/8"-6	365-4820
1-1/2"-6	365-4832

Die Holders 板牙扳手

- Ideal for short or medium run threading at shafts.
- Used safely on lathes, milling machines and tapping heads.



Body	Shank	Die Dia.	Order No.
1- 1/2" D x 1"	1/2"D	13/16"	318-2031
1- 1/2D x1	1/2D x 2	1	318-2032
2D x1	3/4D x 2	1-1/2	318-2033
3Pcs/set, one each of above size			318-2333

Hand Tappers

手动攻丝机（带卡头）

- Assures straight perpendicular tapped holes.
- Can be used vertical, horizontal or inverted.
- Equipped with tap guide, precision ground work table, tap spindle, wrench & nine steel tap adapters: 6, 8, 10, 1/4", 5/16", 3/8", 7/16", 1/2" & 5/8".



Adaptors & Set

Adaptor Sizes	Order No.
#6	318-0101
#8	318-0102
#10	318-0103
1/4"	318-0104
5/16"	318-0105
3/8"	318-0106
7/16"	318-0107
1/2"	318-0108
5/8"	318-0109
9Pcs/set	318-0119

Order No. 318-0001

Specifications

Descriptions	
Table Length	12-1/2"
Table Width	6-1/2
Table Area	6-1/2 x 10
Height	13
Clearance Height	7
Depth of Throat	7-1/2
Weight (Approx.)	37 lbs.

Die Adaptors 圆板牙转换架

- Easily converts rond dies to hex dies.
- Great tool to use where conventional die stocks cannot swing due to lack of space.

4pcs/set includes: 13/16"-2"

Order No.318-2290



Die Dia.	Across Flats	Order No.
13/16"	1-1/16"	318-2250
1	1-1/4	318-2255
1-1/2	1-31/32	318-2260

Die Dia.	Across Flats	Order No.
2"	2-9/16"	318-2265
2-1/2	2-3/4	318-2270
3	3.63	318-2275

E-Z Hand Tappers

Mini Tapper

手动攻丝机（带卡头）



Specifications

Descriptions	Order No.318-0003
Table Size	8-1/2x6"
Height	9"
Clearance Height	3-3/4"
Depth of Throat	4-1/2"
Approx. Weight	12 lbs
Tap Adapters (318-0013)	7 (#0-5/16")

3 Screw Type Die Stocks

Die stocks for those dies with 1" outside diameter or under are single screw tightened design.

3 螺钉板牙架



Die Dia.	OAL	Order No.
5/8"	5"	318-2302
13/16	6-1/4	318-2304
*1	9	318-2306
*1-1/2"	12"	318-2308
*2	19-1/2	318-2310
2-1/2	20	318-2312
3"	22"	318-2314
3-1/2	24	318-2315
4	29	318-2316
5	33	318-2318

* use with round adjustable dies.

4pcs/set

includes 13/16,1,1-1/2,2"

Order No.318-2320

5pcs/set

includes 13/16,1,1-1/2,2, 2-1/2"

Order No.318-2321

DIN 225 Die Stocks 电镀杆板牙架

zinc die casting made



Size	Length	For Dies	Order No.
16 x 5mm	160	M 1-2.6	318-2025
20 x 5mm	200	M 3-4	318-2030
20 x 7mm	200	M 4.5-6	318-2035
25 x 9mm	224	M 7-9	318-2040
30 x 11mm	280	M 10-11	318-2045
38x10mm			318-2047
38x14mm	315	M 12-14	318-2050
45x14mm			318-2052
45x18mm	450	M 16-20	318-2055
55x22mm	560	M 22-24	318-2060
65x25mm	630	M 27-36	318-2065
75mm			318-2070
105mm			318-2080
120mm			318-2085

Tap Wrenches 电镀杆丝锥铰把

Adjustable zinc die casting made

DIN 1814



Size	Length	For Taps	Order No.
0	125mm	M 1-8	318-0200
1	188mm	M 1-10	318-0215
1-1/2	215mm	M 1-12	318-0220
2	280mm	M 3.5-12	318-0225
3	375mm	M 5-20	318-0230
4	500mm	M 11-27	318-0235
5	700mm	M 13-32	318-0240
6		M20-40	318-2046
7		M25-50	318-2047

Plain Die Stocks

简易板牙架

Hold both hex and round dies



Die Diameter	Order No.
5/8" for Hex Dies	318-2210
13/16 for Round Dies	318-2220
1 for Hex or Round Dies	318-2230
1-7/16" for Hex Dies	318-2240

Tap Wrenches 丝锥扳手

Extension Tap Wrenches

- Attractive finish.
- Made of steel.
- Precision tap extension.
- 4 jaw chuck.



Tap Capacity	Order No.
# 0-1/4"(1.5-6mm)	318-0140
# 12-1/2"(6-12mm)	318-0145

DIN377 Socket Extension Tap Wrenches

德标 377 镀铬套筒式丝锥扳手

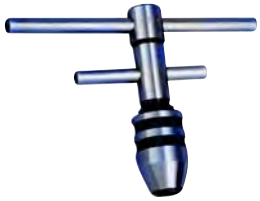


Size	Description	Order No.
2.1x60mm	for tap DIN352 M1-2.6	318-5021
2.4x70mm		318-5024
2.7x80mm	for tap DIN352 M3	318-5027
3.0x90mm	for tap DIN352 M3.5	318-5030
3.4x95mm	for tap DIN352 M4	318-5034
3.8x100mm		318-5038
4.3x105mm	for tap DIN351NO.10UNC	318-5043
4.9x110mm	for tap DIN352 M4.5-8	318-5049
5.5x115mm	for tap DIN352 M9-10	318-5055
6.2x120mm	for tap DIN352 M11	318-5062
7.0x125mm	for tap DIN352 M12	318-5070
8.0x125mm		318-5080
9.0x130mm	for tap DIN352 M13-16	318-5090
10.0x140mm		318-5100
11.0x150mm	for tap DIN352 M18	318-5110
12.0x155mm	for tap DIN352 M20	318-5120
13.0x160mm		318-5130
14.5x175mm	for tap DIN352 M22-24	318-5145
16.0x180mm	for tap DIN352 M27	318-5160
18.0x200mm	for tap DIN352 M30	318-5180
20.0x220mm	for tap DIN352 M32	318-5200
22.0x230mm	for tap DIN352 M36	318-5220

Tap Wrenches 丝锥扳手

Piloted Spindle Tap Wrenches

Used for threading a drilled hole manually at one machine location without moving the workpiece.



Tap Capacity	Order No.
#0-1/4"(1.5mm-6mm)	318-0180
#12-1/2"(6mm-12mm)	318-0182

Extra Long Tap Wrenches

- 13" long.
- Shiny ground finish.
- Jaws are hardened and tempered.
- Jaws are replaceable.



Tap Capacity	Plain Type Order No.	Ratchet Type Order No.
5/32-1/4" (4-6mm)	318-0131	318-0136
1/4-1/2" (6-12mm)	318-0132	318-0137
2 piece set	318-0130	318-0135

T-Handle Tap Wrenches

1/16 to 1/2"

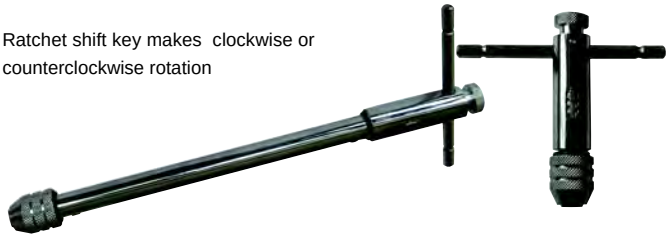
T-Handle tap wrenches are used for holding taps, reamers and other small tools to be turned by hand



Tap Capacity	Plain Order No.	Ratchet Order No.
(0-8#) 1/16-5/32" (1.5-4mm)	318-0010	318-0050
(0-14#) 5/32-1/4" (4-6mm)	318-0015	318-0055
(12-14#) 1/4-1/2" (6-12mm)	318-0020	318-0060
3 piece set	318-0030	318-0070

T-Handle Tap Wrenches European Style

Ratchet shift key makes clockwise or counterclockwise rotation



Description	Plain Order No.	Ratchet Order No.
Length 85mm, for tap DIN M3-10	318-5305	318-5315
Length 110mm, for tap DIN M5-12	318-5310	318-5320
length 117mm, for tap DIN M13-20	318-5307	
Length 250mm, for tap DINM3-10	318-5306	318-5335
Length 300mm, for tap DIN M5-12	318-5311	318-5340

Tapping Fixture 丝锥定位器

Tap Holes up to 1/2" Diameter

- Eliminate tap Breakage.
- Perfect alignment for Tapping and Reaming.
- Including: 1 Tapping Gudie, 1Tap Wrench, and a Set of Jaws.



Order No. 318-0000

Tap Guide 丝锥导引手把

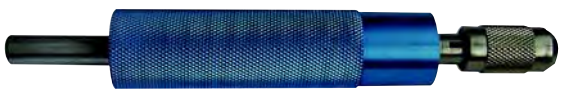
- 1/2" Dia. hardened shank
- 3/16" Dia. hardened tension Pin
- Adjustable tension spring
- Reversible tension pin for male and female hole centering
- With this tool you start every tap straight



Order No. 318-0090

Machine Taping Guide 丝锥导引手把

- Provide sensitive feel for hand tapping small holes on milling machines, drilling presses, and lathes.
- Starts every hole straight and prevents tap breakage
- Shank dia. 3/8" handle dia. 1"
- 0 to 12 tap capacity



Order No. 318-0095

Single End Mill Sets

Center Cutting, Ground
M2 HSS
单头中心切削套装立铣刀





Pieces	Flute	Description	Wooden Case M2 Order No.	Wooden Case TiN-Coated Order No.	Plastic Case M2 Order No.	Plastic Case TiN-Coated Order No.	End Mill Only M2 Order No.	End Mill Only TiN-Coated Order No.
20	2&4	1 each of 3/16" to 3/4" by 16ths	320-1000	320-0000	329-1000	329-0000	320-1100	320-0100
10	2	1 each of 3/16" to 3/4" by 16ths	320-1001	320-0001	329-1001	329-0001	320-1101	320-0101
10	4	1 each of 3/16"to 3/4"by 16ths	320-1002	320-0002	329-1002	329-0002	320-1102	320-0102
10	2&4	1 each of 1/4",3/8",1/2",5/8",3/4"	320-1003	320-0003	329-1003	329-0003	320-1103	320-0103
3	2	1 each of 1/8, 1/4, 3/8"	320-1008	320-0008			320-1108	320-0108
3	4	1 each of 1/8, 1/4, 3/8"	320-1009	320-0009			320-1109	320-0109
20	4	2 each of 3/16" to 3/4"by 16ths	320-4001	320-3001	329-4001	329-3001	320-4101	320-3101
20	2&4	1 each of 3,4,5,6,8,10,12,14,18,20mm	320-1004	320-0004	329-1004	329-0004	320-1104	320-0104
20	2&4	1 each of 3,4,5,6,8,10,12,14,16,20mm	320-1005	320-0005	329-1005	329-0005	320-1105	320-0105
10	2	1 each of 3,4,5,6,8,10,12,14,18,20mm	320-1006	320-0006	329-1006	329-0006	320-1106	320-0106
10	4	1 each of 3,4,5,6,8,10,12,14,18,20mm	320-1007	320-0007	329-1007	329-0007	320-1107	320-0107
9	4	1 each of 4,5,6,8,10,12,14,16,18mm	320-1010					
20	2&4	1 each of 3/16-3/4" by 16ths		320-0010				
20	2&4	1 each of 3,4,5,6,8,10,12,14,18,20mm		320-0014				

Double End Mill Sets

Center Cutting, Ground
M2 HSS
双头中心切削套装立铣刀





Pieces	Flute	Description	Wooden Case M2 Order No.	Wooden Case TiN-Coated Order No.	Plastic Case M2 Order No.	Plastic Case TiN-Coated Order No.	End Mill Only M2 Order No.	End Mill Only TiN-Coated Order No.
20	2&4	1 each of 3/16"to 3/4"by 16ths	320-9001	320-8001	329-9001	329-8001	320-9101	320-8101
10	4	1 each of 3/16"to 3/4"by 16ths	320-9002	320-8002	329-9002	329-8002	320-9102	320-8102
10	2	1 each of 3/16"to 3/4" by 16ths	320-9003	320-8003	329-9003	329-8003	320-9103	320-8103
10	2&4	1 each of 1/4",3/8",1/2",5/8",3/4"	320-9004	320-8004	329-9004	329-8004	320-9104	320-8104

M42 8% Cobalt Single End Mill Sets

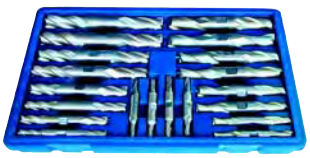
含钴高速钢单头套装立铣刀



Pieces	Flute	Description	Wooden Case Order No.	Plastic Case Order No.	End Mill Only Order No.
20	2&4	1 each of 3/16" to 3/4" by 16ths	723-0000	723-0010	723-0110
10	2	1 each of 3/16" to 3/4" by 16ths	723-0001	723-0011	723-0111
10	4	1 each of 3/16"to 3/4"by 16ths	723-0002	723-0012	723-0112
10	2&4	1 each of 1/4",3/8",1/2",5/8",3/4"	723-0003	723-0013	723-0113

M42 8% Cobalt Double End Mill Sets

含钴高速钢双头套装立铣刀



Pieces	Flute	Description	Wooden Case Order No.	Plastic Case Order No.	End Mill Only Order No.
20	2&4	1 each of 3/16" to 3/4" by 16ths	723-9000	723-9010	723-9020
10	2	1 each of 3/16" to 3/4" by 16ths	723-9001	723-9011	723-9021
10	4	1 each of 3/16"to 3/4"by 16ths	723-9002	723-9012	723-9022
10	2&4	1 each of 1/4",3/8",1/2",5/8",3/4"	723-9003	723-9013	723-9023

Single End Mill Sets

Center Cutting, Ground,
Wooden stand

单头中心切削套装立铣刀



M2

No.of Piece	No.of Flute	Shank Dia.	Descriptions	M2 Order No.	TiN-Coated Order No.
6	2	3/8”	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	320-2006	320-5006
6	4	3/8”	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	320-2016	320-5016
6	2	3/4”	1”, 3/4, 7/8, 1-1/8, 1-1/4, 1-1/2”	320-2066	320-5066
6	4	3/4”	1”, 3/4, 7/8, 1-1/8, 1-1/4, 1-1/2”	320-2076	320-5076
6	4	3/4”	3/4, 7/8,1”	320-2086	320-5086
	6	3/4”	1-1/8, 1-1/4, 1-1/2"		
12	2&4	3/8”	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	320-2026	320-5026
14	2	3/8 1/2 5/8 3/4	1/8,5/32,3/16,1/4,5/16,3/8” 1/2,9/16” 5/8,11/16,3/4” 13/16,7/8,1”	320-2014	320-5014

M42

Cobalt

No.of Piece	No.of Flute	Shank Dia.	Descriptions	M42 Order No.	TiN Coated Order No.
4	4	3/8” 1/2"	1/4, 5/16, 3/8" 1/2"	723-2544	
6	2	3/8”	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	723-2406	
6	4	3/8”	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	723-2416	
8	2&4	3/8” 1/2"	1/4, 5/16, 3/8 & 1/2" 1/2"	723-2548	
12	2&4	3/8”	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	723-2512	
6	2	3/8” 1/2”	1/8, 3/16, 1/4, 5/16, 3/8” 1/2”	723-2526	723-2626
6	4	3/8” 1/2”	1/8, 3/16, 1/4, 5/16, 3/8” 1/2”	723-2546	723-2646

Double End Mill Sets

Center Cutting, Ground,
Wooden stand

双头中心切削套装立铣刀



M2

No.of Piece	No.of Flute	Shank Dia.	Descriptions	M2 Order No.	TiN Coated Order No.
6	2	3/ 8”	1/8,5/32,3/16,1/4,5/16,3/8”	320-2106	320-5106
6	4	3/ 8	1/8,5/32,3/16,1/4,5/16,3/8”	320-2116	320-5116
6	2	3/8 1/2	1/8, 3/16, 1/4, 5/16, 3/8” 1/2”	320-2226	320-5226
6	4	3/8 1/2	1/8, 3/16, 1/4, 5/16, 3/8” 1/2”	320-2246	320-5246
12	2&4	3/8	1/8,5/32,3/16,1/4,5/16,3/8”	320-2036	320-5036
14	2	3/8 1/2 5/8 3/4 7/8 1	1/8,5/32,3/16,1/4,5/16,3/8” 1/2” 9/16,5/8” 11/16,3/4” 13/16,7/8” 1”	320-2114	320-5114
14	4	3/8 1/2 5/8 3/4 7/8 1	1/8,5/32,3/16,1/4,5/16,3/8” 1/2” 9/16,5/8” 11/16,3/4” 13/16,7/8” 1”	320-2214	320-5214

M42

Cobalt

No.of Piece	No.of Flute	Shank Dia.	Descriptions	Order No.	Center Cutting Order No.
6	2	3/8” 1/2	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	723-2226	723-2426
6	4	3/8” 1/2	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	723-2246	723-2446
12	2&4	3/8” 1/2	1/8, 3/16, 1/4, 5/16, 3/8, 1/2”	723-4456	723-2256

Ball Nose Single End Mill Sets

Center Cutting, Ground, Wooden Stand

单头中心切削套装球头立铣刀

Pieces	No.of Flute	Shank Dia.	Descriptions	M2 Order No.	TiN Coated Order No.
4	2		7/8,1,1-1/4,1-1/2"	320-2004	320-5004
9	2	3/8” 1/2” 3/4”	1/8,3/16,1/4,5/16,3/8” 7/16,1/2,5/8” 3/4"	320-2009	320-5009
6	2	3/8” 1/2”	1/8,3/16,1/4,5/16,3/8” 1/2”	320-2007	320-5007
6	4	3/8” 1/2	1/8,3/16,1/4,5/16,3/8” 1/2”	320-2046	



Miniature Double End Mill Sets

3/16” 柄双头套装立铣刀

3/16” Shank, Wooden Stand

Cobalt

Pieces	No. of Flute	Descriptions	HSS Order No.	TiN Coated Order No.	Cobalt Order No.
5	2	1/16,3/32,1/8,5/32,3/16"	320-2305	320-5305	
5	4	1/16,3/32,1/8,5/32,3/16"	320-2405	320-5405	
9	4	Stub Length, 1each of 1/16 to 3/16” by 64ths	320-2409	320-5409	723-2409
9	4	Regular Length, 1each of 1/16-3/16” by 64ths	320-2419	320-5419	723-2419
11	2	Stub Length, 1each of 1/32-3/16" by 64ths	320-2411	320-5411	723-2411
11	2	Regular Length, 1each of 1/32-3/16" by 64ths	320-2421	320-5421	723-2421
10	2 & 4	1/16,3/32,1/8,5/32,3/16"	320-2610	320-5610	



3/16" Shank End Mills

High Speed Steel 3/16″ 柄双头立铣刀

Used for small diameter milling, slotting, engraving, pocketing and similar applications.

2 Flute Double End Mills



Regular Length

Size	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/32"	3/32"	2-1/4"	720-1630	721-1630	722-1630
3/64	9/64	2-1/4	720-1632	721-1632	722-1632
1/16	3/16	2-1/4	720-1634	721-1634	722-1634
5/64	15/64	2-1/4	720-1636	721-1636	722-1636
3/32	9/32	2-1/4	720-1638	721-1638	722-1638
7/64	21/64	2-1/4	720-1640	721-1640	722-1640
1/8	3/8	2-1/4	720-1642	721-1642	722-1642
9/64	13/32	2-1/4	720-1644	721-1644	722-1644
5/32	7/16	2-1/4	720-1646	721-1646	722-1646
11/64	1/2	2-1/4	720-1648	721-1648	722-1648
3/16	1/2	2-1/4	720-1650	721-1650	722-1650

Stub Length

Size	Flute Length	Overall Length	TiN-Coated Order No.	M2Al Order No.	M2 Order No.
1/32"	3/64"	2"	722-1600	721-1600	720-1600
3/64	1/16	2	722-1602	721-1602	720-1602
1/16	3/32	2	722-1604	721-1604	720-1604
5/64	1/8	2	722-1606	721-1606	720-1606
3/32	9/64	2	722-1608	721-1608	720-1608
7/64	5/32	2	722-1610	721-1610	720-1610
1/8	3/16	2	722-1612	721-1612	720-1612
9/64	7/32	2	722-1614	721-1614	720-1614
5/32	15/64	2	722-1616	721-1616	720-1616
11/64	1/4	2	722-1618	721-1618	720-1618
3/16	9/32	2	722-1620	721-1620	720-1620

Long Length

Size	Length Below Shank	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/16"	3/8"	7/32"	2-1/2"	720-1652	721-1652	722-1652
5/64	3/8	1/4	2-1/2	720-1654	721-1654	722-1654
3/32	1/2	9/32	2-5/8	720-1656	721-1656	722-1656
7/64	1/2	9/32	2-5/8	720-1658	721-1658	722-1658
1/8	3/4	3/4	3-1/8	720-1660	721-1660	722-1660
9/64	3/4	3/4	3-1/8	720-1662	721-1662	722-1662
5/32	7/8	7/8	3-1/4	720-1664	721-1664	722-1664
11/64	7/8	7/8	3-1/4	720-1666	721-1666	722-1666
3/16	1	1	3-3/8	720-1668	721-1668	722-1668

2 Flute Ball Nose Double End Mills



Regular Length

Size	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/32"	3/32"	2-1/4"	720-1730	721-1730	722-1730
3/64	9/64	2-1/4	720-1732	721-1732	722-1732
1/16	3/16	2-1/4	720-1734	721-1734	722-1734
5/64	15/64	2-1/4	720-1736	721-1736	722-1736
3/32	9/32	2-1/4	720-1738	721-1738	722-1738
7/64	21/64	2-1/4	720-1740	721-1740	722-1740
1/8	3/8	2-1/4	720-1742	721-1742	722-1742
9/64	27/64	2-1/4	720-1744	721-1744	722-1744
5/32	7/16	2-1/4	720-1746	721-1746	722-1746
11/64	1/2	2-1/4	720-1748	721-1748	722-1748
3/16	1/2	2-1/4	720-1750	721-1750	722-1750

Stub Length

Size	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/32"	3/64"	2"	720-1700	721-1700	722-1700
3/64	1/16	2	720-1702	721-1702	722-1702
1/16	3/32	2	720-1704	721-1704	722-1704
5/64	1/8	2	720-1706	721-1706	722-1706
3/32	9/64	2	720-1708	721-1708	722-1708
7/64	5/32	2	720-1710	721-1710	722-1710
1/8	3/16	2	720-1712	721-1712	722-1712
9/64	7/32	2	720-1714	721-1714	722-1714
5/32	15/64	2	720-1716	721-1716	722-1716
11/64	1/4	2	720-1718	721-1718	722-1718
3/16	9/32	2	720-1720	721-1720	722-1720

Long Length

Size	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/16"	7/32"	2-1/2"	720-1752	721-1752	722-1752
5/64	1/4	2-1/2	720-1754	721-1754	722-1754
3/32	9/32	2-5/8	720-1756	721-1756	722-1756
7/64	9/32	2-5/8	720-1758	721-1758	722-1758
1/8	3/4	3-1/8	720-1760	721-1760	722-1760
9/64	3/4	3-1/8	720-1762	721-1762	722-1762
5/32	7/8	3-1/4	720-1764	721-1764	722-1764
11/64	7/8	3-1/4	720-1766	721-1766	722-1766
3/16	1	3-3/8	720-1768	721-1768	722-1768

4 Flute Center Cutting Double End Mills



Regular Length

Size	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/16"	3/16"	2-1/4"	720-4318	721-4318	722-4318
5/64	15/64	2-1/4	720-4320	721-4320	722-4320
3/32	9/32	2-1/4	720-4322	721-4322	722-4322
7/64	21/64	2-1/4	720-4324	721-4324	722-4324
1/8	3/8	2-1/4	720-4326	721-4326	722-4326
9/64	13/32	2-1/4	720-4328	721-4328	722-4328
5/32	7/16	2-1/4	720-4330	721-4330	722-4330
11/64	1/2	2-1/4	720-4332	721-4332	722-4332
3/16	1/2	2-1/4	720-4334	721-4334	722-4334

Stub Length

Size	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/16"	3/32"	2"	720-4300	721-4300	722-4300
5/64	5/32	2	720-4302	721-4302	722-4302
3/32	9/64	2	720-4303	721-4303	722-4303
3/32	5/32	2	720-4304	721-4304	722-4304
7/64	5/32	2	720-4306	721-4306	722-4306
1/8	3/16	2	720-4308	721-4308	722-4308
9/64	7/32	2	720-4310	721-4310	722-4310
5/32	15/64	2	720-4311	721-4311	722-4311
5/32	1/4	2	720-4312	721-4312	722-4312
11/64	9/32	2	720-4314	721-4314	722-4314
3/16	9/32	2	720-4316	721-4316	722-4316

Long Length

Size	Length Below Shank	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/16"	3/8"	7/32"	2-1/2"	720-4336	721-4336	722-4336
5/64	3/8	1/4	2-1/2	720-4338	721-4338	722-4338
3/32	1/2	9/32	2-5/8	720-4340	721-4340	722-4340
7/64	1/2	9/32	2-5/8	720-4342	721-4342	722-4342
1/8	3/4	3/4	3-1/8	720-4344	721-4344	722-4344
9/64	3/4	3/4	3-1/8	720-4346	721-4346	722-4346
5/32	7/8	7/8	3-1/4	720-4348	721-4348	722-4348
11/64	7/8	7/8	3-1/4	720-4350	721-4350	722-4350
3/16	1	1	3-3/8	720-4352	721-4352	722-4352

3/16" Shank Single Miniature End Mills 3/16″柄单头立铣刀

High Speed Steel

Used for small diameter milling, slotting, engraving, pocketing and similar applications.

2 Flute Single End Mill



Dia.	Flute Length	Overall Length	Order No.
11/32"	3/32"	1-11/16"	720-1902
3/64	5/32	1-11/16	720-1903
1/16	7/32	1-11/16	720-1904
5/64	1/4	1-1/8	720-1905
3/32	5/16	1-1/8	720-1906
7/64	11/32	1-5/16	720-1907
1/8"	3/8"	1-5/16"	720-1908
9/64	13/32	1-7/16	720-1909
5/32	7/16	1-7/16	720-1910
11/64	15/32	1-11/16	720-1911
3/16	1/2	1-11/16	720-1912

4 Flute Single End Mill



Dia.	Flute Length	Overall Length	Order No.
5/64"	1/4"	1-11/16"	720-2900
3/32	5/16	1-11/16	720-2902
7/64	11/32	1-11/16	720-2904
1/8	3/8	1-11/16	720-2906
9/64	13/32	1-11/16	720-2908
5/32	7/16	1-11/16	720-2910
11/64	15/32	1-11/16	720-2912
3/16	1/2	1-11/16	720-2914

M42 8% Cobalt 3/16" Shank End Mills M42, 3/16″柄双头立铣刀

use for small diameter milling, slotting, engraving, pocketing and similar applications.

2 Flute Double End Mills



Regular Length

Size	Flute Length	Overall Length	Order No.
1/32"	3/32"	2-1/4"	723-1630
3/64	9/64	2-1/4	723-1632
1/16	3/16	2-1/4	723-1634
5/64	15/64	2-1/4	723-1636
3/32	9/32	2-1/4	723-1638
7/64	21/64	2-1/4	723-1640
1/8	3/8	2-1/4	723-1642
9/64	13/32	2-1/4	723-1644
5/32	7/16	2-1/4	723-1646
11/64	1/2	2-1/4	723-1648
3/16	1/2	2-1/4	723-1650

Long Length

Size	Length Below Shank	Flute Length	Overall Length	Order No.
1/16"	3/8"	7/32"	2-1/2"	723-1652
5/64	3/8	1/4	2-1/2	723-1654
3/32	1/2	9/32	2-5/8	723-1656
7/64	1/2	9/32	2-5/8	723-1658
1/8	3/4	3/4	3-1/8	723-1660
9/64	3/4	3/4	3-1/8	723-1662
5/32	7/8	7/8	3-1/4	723-1664
11/64	7/8	7/8	3-1/4	723-1666
3/16	1	1	3-3/8	723-1668

Stub Length

Size	Flute Length	Overall Length	Order No.
1/32"	3/64"	2"	723-1600
3/64	1/16	2	723-1602
1/16	3/32	2	723-1604
5/64	1/8	2	723-1606
3/32	9/64	2	723-1608
7/64	5/32	2	723-1610
1/8	3/16	2	723-1612
9/64	7/32	2	723-1614
5/32	15/64	2	723-1616
11/64	1/4	2	723-1618
3/16	9/32	2	723-1620

2 Flute Ball Nose Double End Mills



Regular Length

Size	Flute Length	Overall Length	Order No.
1/32"	3/32"	2-1/4"	723-1730
3/64	9/64	2-1/4	723-1732
1/16	3/16	2-1/4	723-1734
5/64	15/64	2-1/4	723-1736
3/32	9/32	2-1/4	723-1738
7/64	21/64	2-1/4	723-1740
1/8	3/8	2-1/4	723-1742
9/64	27/64	2-1/4	723-1744
5/32	7/16	2-1/4	723-1746
11/64	1/2	2-1/4	723-1748
3/16	1/2	2-1/4	723-1750

Long Length

Size	Flute Length	Overall Length	Order No.
1/16"	7/32"	2-1/2"	723-1752
5/64	1/4	2-1/2	723-1754
3/32	9/32	2-5/8	723-1756
7/64	9/32	2-5/8	723-1758
1/8	3/4	3-1/8	723-1760
9/64	3/4	3-1/8	723-1762
5/32	7/8	3-1/4	723-1764
11/64	7/8	3-1/4	723-1766
3/16	1	3-3/8	723-1768

Stub Length

Size	Flute Length	Overall Length	Order No.
1/32"	3/64"	2"	723-1700
3/64	1/16	2	723-1702
1/16	3/32	2	723-1704
5/64	1/8	2	723-1706
3/32	9/64	2	723-1708
7/64	5/32	2	723-1710
1/8	3/16	2	723-1712
9/64	7/32	2	723-1714
5/32	15/64	2	723-1716
11/64	1/4	2	723-1718
3/16	9/32	2	723-1720

4 Flute Center Cutting Double End Mills



Regular Length

Size	Flute Length	Overall Length	Order No.
1/16"	3/16"	2-1/4"	723-4318
5/64	15/64	2-1/4	723-4320
3/32	9/32	2-1/4	723-4322
7/64	21/64	2-1/4	723-4324
1/8	3/8	2-1/4	723-4326
9/64	13/32	2-1/4	723-4328
5/32	7/16	2-1/4	723-4330
11/64	1/2	2-1/4	723-4332
3/16	1/2	2-1/4	723-4334

Long Length

Size	Length Below Shank	Flute Length	Overall Length	Order No.
1/16"	3/8"	7/32"	2-1/2"	723-4336
5/64	3/8	1/4	2-1/2	723-4338
3/32	1/2	9/32	2-5/8	723-4340
7/64	1/2	9/32	2-5/8	723-4342
1/8	3/4	3/4	3-1/8	723-4344
9/64	3/4	3/4	3-1/8	723-4346
5/32	7/8	7/8	3-1/4	723-4348
11/64	7/8	7/8	3-1/4	723-4350
3/16	1	1	3-3/8	723-4352

Stub Length

Size	Flute Length	Overall Length	Order No.
1/16"	3/32"	2"	723-4300
3/64	1/16	2	723-4301
5/64	5/32	2	723-4302
3/32	9/64	2	723-4303
3/32	5/32	2	723-4304
7/64	5/32	2	723-4306
1/8	3/16	2	723-4308
9/64	7/32	2	723-4310
5/32	15/64	2	723-4311
5/32	1/4	2	723-4312
11/64	9/32	2	723-4314
3/16	9/32	2	723-4316

2 Flute Single End Mills

2 齿单头立铣刀

High Speed Steel

- Use for milling slots, pockets and plunge cuts.
- 2 Flutes allows maximum space for chip ejection.
- Suitable for use in a wide range of ferrous and non-ferrous materials.
- TiN coating improves tool life and allows elevated speeds and feeds.



Regular Length

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/8"	3/8"	3/8"	2-5/16"	**720-1001**	**721-1001**	**722-1001**	7/8	7/8	1-1/2	3-3/4	**720-1087**	**721-1087**	**722-1087**
9/64	3/8	3/8	2-5/16	**720-1003**	**721-1003**	**722-1003**	29/32	1/2	1-1/2	3-1/2	**720-1089**	**721-1089**	**722-1089**
5/32	3/8	7/16	2-5/16	**720-1005**	**721-1005**	**722-1005**	15/16	1/2	1-1/2	3-5/8	**720-1090**	**721-1090**	**722-1090**
11/64	3/8	7/16	2-5/16	**720-1007**	**721-1007**	**722-1007**	15/16"	5/8"	1-1/2"	3-5/8"	**720-1091**	**721-1091**	**722-1091**
3/16	3/8	7/16	2-5/16	**720-1009**	**721-1009**	**722-1009**	15/16	3/4	1-1/2	3-3/4	**720-1093**	**721-1093**	**722-1093**
13/64	3/8	7/16	2-5/16	**720-1011**	**721-1011**	**722-1011**	15/16	7/8	1-1/2	3-3/4	**720-1095**	**721-1095**	**722-1095**
7/32	3/8	1/2	2-3/8	**720-1013**	**721-1013**	**722-1013**	31/32	1/2	1-1/2	3-1/2	**720-1097**	**721-1097**	**722-1097**
15/64	3/8	1/2	2-3/8	**720-1015**	**721-1015**	**722-1015**	1	1/2	1-1/2	3-1/2	**720-1099**	**721-1099**	**722-1099**
1/4	3/8	3/8	2-1/4	**720-1016**	**721-1016**	**722-1016**	1	1/2	1-1/2	3-5/8	**720-1102**	**721-1102**	**722-1102**
1/4	3/8	1/2	2-5/16	**720-1017**	**721-1017**	**722-1017**	1	5/8	1-1/2	3-5/8	**720-1101**	**721-1101**	**722-1101**
17/64	3/8	9/16	2-3/8	**720-1019**	**721-1019**	**722-1019**	1	3/4	1-1/2	3-3/4	**720-1103**	**721-1103**	**722-1103**
9/32	3/8	1/2	2-5/16	**720-1020**	**721-1020**	**722-1020**	1	7/8	1-1/2	3-3/4	**720-1105**	**721-1105**	**722-1105**
9/32	3/8	9/16	2-3/8	**720-1021**	**721-1021**	**722-1021**	1	1	1-5/8	4-1/8	**720-1107**	**721-1107**	**722-1107**
19/64	3/8	9/16	2-3/8	**720-1023**	**721-1023**	**722-1023**	1-1/16	3/4	1-5/8	3-3/4	**720-1109**	**721-1109**	**722-1109**
5/16	3/8	9/16	2-5/16	**720-1025**	**721-1025**	**722-1025**	1-1/16	5/8	1-5/8	3-7/8	**720-1100**	**721-1100**	**722-1100**
21/64	3/8	9/16	2-3/8	**720-1027**	**721-1027**	**722-1027**	1-1/16	3/4	1-5/8	3-7/8	**720-1108**	**721-1108**	**722-1108**
11/32	3/8	9/16	2-5/16	**720-1028**	**721-1028**	**722-1028**	1-1/16	7/8	1-5/8	3-7/8	**720-1110**	**721-1110**	**722-1110**
11/32	3/8	9/16	2-3/8	**720-1029**	**721-1029**	**722-1029**	1-1/8	3/4	1-1/2	3-3/4	**720-1112**	**721-1112**	**722-1112**
23/64	3/8	9/16	2-3/8	**720-1031**	**721-1031**	**722-1031**	1-1/8	3/4	1-5/8	3-7/8	**720-1111**	**721-1111**	**722-1111**
3/8	3/8	9/16	2-5/16	**720-1033**	**721-1033**	**722-1033**	1-1/8	7/8	1-5/8	3-7/8	**720-1113**	**721-1113**	**722-1113**
13/32	3/8	13/16	2-1/2	**720-1035**	**721-1035**	**722-1035**	1-1/8	1	1-5/8	4-1/8	**720-1115**	**721-1115**	**722-1115**
7/16	3/8	13/16	2-1/2	**720-1037**	**721-1037**	**722-1037**	1-3/16	3/4	1-5/8	3-7/8	**720-1117**	**721-1117**	**722-1117**
15/32	3/8	13/16	2-1/2	**720-1036**	**721-1036**	**722-1036**	1-3/16	1	1-5/8	4-1/8	**720-1118**	**721-1118**	**722-1118**
15/32	1/2	7/8	2-1/2	**720-1038**	**721-1038**	**722-1038**	1-1/4	3/4	1-5/8	3-7/8	**720-1119**	**721-1119**	**722-1119**
15/32	1/2	1	3	**720-1039**	**721-1039**	**722-1039**	1-1/4	7/8	1-5/8	3-7/8	**720-1121**	**721-1121**	**722-1121**
1/2	3/8	13/16	2-1/2	**720-1041**	**721-1041**	**722-1041**	1-1/4	1	1-5/8	4-1/8	**720-1123**	**721-1123**	**722-1123**
1/2	3/8	1	3	**720-1042**	**721-1042**	**722-1042**	1-1/4	1-1/4	1-5/8	4-1/8	**720-1125**	**721-1125**	**722-1125**
1/2	1/2	1	3	**720-1043**	**721-1043**	**722-1043**	1-5/16	3/4	1-5/8	3-7/8	**720-1127**	**721-1127**	**722-1127**
1/2	1/2	1-1/8	3-1/8	**720-1044**	**721-1044**	**722-1044**	1-3/8	3/4	1-5/8	3-7/8	**720-1129**	**721-1129**	**722-1129**
17/32	1/2	1-1/8	3-1/8	**720-1045**	**721-1045**	**722-1045**	1-3/8	3/4	1-5/8	4	**720-1130**	**721-1130**	**722-1130**
9/16	1/2	1-1/8	3-1/8	**720-1047**	**721-1047**	**722-1047**	1-3/8	1	1-5/8	4-1/8	**720-1131**	**721-1131**	**722-1131**
19/32	1/2	1-1/8	3-1/8	**720-1049**	**721-1049**	**722-1049**	1-3/8	1-1/4	1-5/8	4-1/8	**720-1132**		**722-1132**
5/8	1/2	1-1/8	3-1/8	**720-1051**	**721-1051**	**722-1051**	1-7/16	3/4	1-5/8	3-7/8	**720-1133**	**721-1133**	**722-1133**
5/8	5/8	1-5/16	3-7/16	**720-1053**	**721-1053**	**722-1053**	1-1/2	3/4	1-5/8	3-7/8	**720-1135**	**721-1135**	**722-1135**
21/32	1/2	1-5/16	3-5/16	**720-1055**	**721-1055**	**722-1055**	1-1/2	3/4	1-5/8	4-1/8	**720-1136**	**721-1136**	**722-1136**
11/16	1/2	1-5/16	3-5/16	**720-1057**	**721-1057**	**722-1057**	1-1/2	1	1-5/8	4-1/8	**720-1137**	**721-1137**	**722-1137**
11/16	5/8	1-5/16	3-7/16	**720-1059**	**721-1059**	**722-1059**	1-1/2	1-1/4	1-5/8	4-1/8	**720-1139**	**721-1139**	**722-1139**
23/32	1/2	1-5/16	3-5/16	**720-1061**	**721-1061**	**722-1061**	1-5/8	3/4	1-5/8	3-7/8	**720-1141**	**721-1141**	**722-1141**
3/4	1/2	1-5/16	3-5/16	**720-1063**	**721-1063**	**722-1063**	1-5/8	3/4	1-5/8	4-1/8	**720-1142**	**721-1142**	**722-1142**
3/4	5/8	1-5/16	3-7/16	**720-1065**	**721-1065**	**722-1065**	1-5/8	1-1/4	1-5/8	4-1/8	**720-1143**	**721-1143**	**722-1143**
3/4	3/4	1-5/16	3-7/16	**720-1066**	**721-1066**	**722-1066**	1-3/4	3/4	1-5/8	3-7/8	**720-1145**	**721-1145**	**722-1145**
3/4	3/4	1-5/16	3-9/16	**720-1067**	**721-1067**	**722-1067**	1-3/4	3/4	1-5/8	4-1/8	**720-1146**	**721-1146**	**722-1146**
3/4	3/4	1-3/4	4	**720-1069**	**721-1069**	**722-1069**	1-3/4	1-1/4	1-5/8	4-1/8	**720-1147**	**721-1147**	**722-1147**
25/32	1/2	1-1/2	3-1/2	**720-1071**	**721-1071**	**722-1071**	1-7/8	3/4	1-5/8	3-7/8	**720-1149**	**721-1149**	**722-1149**
13/16	1/2	1-1/2	3-5/16	**720-1077**	**721-1077**	**722-1077**	1-7/8	3/4	1-5/8	4-1/8	**720-1150**	**721-1150**	**722-1150**
13/16	1/2	1-1/2	3-5/8	**720-1072**	**721-1072**	**722-1072**	1-7/8	1-1/4	1-5/8	4-1/8	**720-1151**	**721-1151**	**722-1151**
13/16	5/8	1-1/2	3-5/8	**720-1073**	**721-1073**	**722-1073**	2	3/4	1-5/8	3-7/8	**720-1153**	**721-1153**	**722-1153**
13/16	3/4	1-1/2	3-3/4	**720-1075**	**721-1075**	**722-1075**	2	3/4	1-5/8	4-1/8	**720-1154**	**721-1154**	**722-1154**
27/32	1/2	1-1/2	3-1/2	**720-1079**	**721-1079**	**722-1079**	2	1-1/4	1-5/8	4-1/8	**720-1155**	**721-1155**	**722-1155**
7/8	1/2	1-1/2	3-1/2	**720-1081**	**721-1081**	**722-1081**	2	1-1/4	2-1/2	5	**720-1156**	**721-1156**	**722-1156**
7/8	1/2	1-1/2	3-5/8	**720-1082**	**721-1082**	**722-1082**	2-1/4	1-1/4	1-5/8	4-1/8	**720-1161**	**721-1161**	**722-1161**
7/8	5/8	1-1/2	3-5/8	**720-1083**	**721-1083**	**722-1083**	2-1/2	1-1/4	2	4-1/2	**720-1166**		
7/8	3/4	1-1/2	3-3/4	**720-1085**	**721-1085**	**722-1085**							

2 Flute Single End Mills 2 齿单头长柄立铣刀

High Speed Steel, Extend Shank

- Use for milling slots, pockets and plunge cuts.
- 2 Flutes allows maximum space for chip ejection.
- Suitable for use in a wide range of ferrous and non-ferrous materials.
- TiN coating improves tool life and allows elevated speeds and feeds.





Size	Shank Dia.	Length Below shank	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/8"	3/8"	13/16"	3/8"	2-3/8"	**720-1171**	**721-1171**	**722-1171**
3/16	3/8	1-1/8	1/2	2-11/16	**720-1173**	**721-1173**	**722-1173**
3/16	3/8	1-1/2	5/8	3-1/16	**720-1172**	**721-1172**	**722-1172**
1/4	3/8	1	5/8	3-1/16	**720-1174**	**721-1174**	**722-1174**
1/4	3/8	1-1/2	5/8	3-1/16	**720-1175**	**721-1175**	**722-1175**
5/16	3/8	1-3/4	3/4	3-5/16	**720-1177**	**721-1177**	**722-1177**
5/16	3/8	1-1/2	3/4	3-1/4	**720-1178**	**721-1178**	**722-1178**
3/8	3/8	1-3/4	3/4	3-5/16	**720-1179**	**721-1179**	**722-1179**
3/8	3/8	1-3/4	7/8	3-5/16	**720-1180**	**721-1180**	**722-1180**
1/2	1/2	2-1/4	1	4	**720-1181**	**721-1181**	**722-1181**
1/2	1/2	2-1/4	1-7/8	4	**720-1182**	**721-1182**	**722-1182**
5/8	1/2	2-3/4	1-3/8	4-5/8	**720-1184**	**721-1184**	**722-1184**
5/8	5/8	2-3/4	1-3/8	4-5/8	**720-1183**	**721-1183**	**722-1183**
5/8	5/8	2-3/4	2	4-5/8	**720-1188**	**721-1188**	**722-1188**
3/4	1/2	3-3/8	1-5/8	5-3/8	**720-1186**	**721-1186**	**722-1186**
3/4	3/4	3-3/8	1-5/8	5-3/8	**720-1185**	**721-1185**	**722-1185**
7/8	7/8	4	2	6	**720-1187**	**721-1187**	**722-1187**
1	1	5	2-1/2	7-1/4	**720-1189**	**721-1189**	**722-1189**
1-1/4	1-1/4	5	3	7-1/4	**720-1191**	**721-1191**	**722-1191**

Medium Length & Long Length

- Use for milling slots, pockets and plunge cuts.
- TiN coating facilitates chip flow and allows elevated feeds.



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
3/16"	3/8"	3/4"	2-5/8"	**720-1201**	**721-1201**	**722-1201**	1"	1"	2"	4-1/2"	**720-1249**	**721-1249**	**722-1249**
7/32	3/8	1-1/4	3-1/8	**720-1203**	**721-1203**	**722-1203**	1	1	2-1/4	4-3/4	**720-1251**	**721-1251**	**722-1251**
1/4	3/8	1	2-3/4	**720-1204**	**721-1204**	**722-1204**	1	1	2-1/2	5	**720-1253**	**721-1253**	**722-1253**
1/4	3/8	1	3-1/16	**720-1205**	**721-1205**	**722-1205**	1	1	3	5-1/2	**720-1255**	**721-1255**	**722-1255**
1/4	3/8	1-1/4	3-1/8	**720-1207**	**721-1207**	**722-1207**	1	1	3-1/2	6	**720-1257**	**721-1257**	**722-1257**
9/32	3/8	1-3/8	3-1/8	**720-1209**	**721-1209**	**722-1209**	1	1	4	6-1/2	**720-1259**	**721-1259**	**722-1259**
5/16	3/8	1-1/4	3	**720-1210**	**721-1210**	**722-1210**	1	1	4-5/8	7	**720-1261**	**721-1261**	**722-1261**
5/16	3/8	1-1/4	3-5/16	**720-1211**	**721-1211**	**722-1211**	1-1/8	1	2-1/4	4-3/4	**720-1263**	**721-1263**	**722-1263**
5/16	3/8	1-3/8	3-1/8	**720-1213**	**721-1213**	**722-1213**	1-1/8	1	3	4-3/4	**720-1265**	**721-1265**	**722-1265**
11/32	3/8	1-1/2	3-1/4	**720-1215**	**721-1215**	**722-1215**	1-1/8	1	3	5-1/2"	**720-1266**	**721-1266**	**722-1266**
3/8	3/8	1	2-3/4	**720-1217**	**721-1217**	**722-1217**	1-1/4	1	2-1/4	4-3/4	**720-1267**	**721-1267**	**722-1267**
3/8	3/8	1-1/2	3-1/4	**720-1219**	**721-1219**	**722-1219**	1-1/4	1-1/4	2-1/4	5-1/2	**720-1269**	**721-1269**	**722-1269**
7/16	1/2	1-3/4	3-3/4	**720-1221**	**721-1221**	**722-1221**	1-1/4	1	3	5-1/2	**720-1271**	**721-1271**	**722-1271**
1/2	1/2	1-1/2	3-1/2	**720-1223**	**721-1223**	**722-1223**	1-1/4	1-1/4	3	5-1/2	**720-1273**	**721-1273**	**722-1273**
1/2	1/2	2	4	**720-1225**	**721-1225**	**722-1225**	1-1/4	1-1/4	3-1/2	6	**720-1274**	**721-1274**	**722-1274**
1/2	1/2	3	5	**720-1226**	**721-1226**	**722-1226**	1-1/4	1-1/4	4-3/4	7-1/4	**720-1275**	**721-1275**	**722-1275**
5/8	5/8	1-5/8	3-3/4	**720-1227**	**721-1227**	**722-1227**	1-3/8	1	2-1/4	4-3/4	**720-1277**	**721-1277**	**722-1277**
5/8	5/8	2	4-1/8	**720-1229**	**721-1229**	**722-1229**	1-3/8	1	3	5-1/2	**720-1279**	**721-1279**	**722-1279**
5/8	5/8	2-3/8	4-1/2	**720-1230**	**721-1230**	**722-1230**	1-1/2	1-1/4	6	8-1/2	**720-1280**	**721-1280**	**722-1280**
5/8	5/8	2-1/2	4-5/8	**720-1231**	**721-1231**	**722-1231**	1-1/2	1-1/4	2-1/4	4-3/4	**720-1281**	**721-1281**	**722-1281**
5/8	5/8	3	5-1/8	**720-1233**	**721-1233**	**722-1233**	1-1/2	1-1/4	3	5-1/2	**720-1283**	**721-1283**	**722-1283**
5/8	5/8	4	6-1/8	**720-1234**	**721-1234**	**722-1234**	1-1/2	1-1/4	4	6-1/2	**720-1284**	**721-1284**	**722-1284**
3/4	3/4	1-3/4	4	**720-1235**	**721-1235**	**722-1235**	1-5/8	1-1/4	2-1/4	4-3/4	**720-1285**	**721-1285**	**722-1285**
3/4	3/4	2-1/4	4-1/2	**720-1237**	**721-1237**	**722-1237**	1-5/8	1-1/4	3	5-1/2	**720-1287**	**721-1287**	**722-1287**
3/4	3/4	2-1/2	4-3/4	**720-1239**	**721-1239**	**722-1239**	1-3/4	1-1/4	2-1/4	4-3/4	**720-1289**	**721-1289**	**722-1289**
3/4	3/4	3	5-1/4	**720-1241**	**721-1241**	**722-1241**	1-3/4	1-1/4	3	5-1/2	**720-1291**	**721-1291**	**722-1291**
3/4	3/4	3-1/2	5-3/4	**720-1243**	**721-1243**	**722-1243**	1-7/8	1-1/4	2-1/4	4-3/4	**720-1293**	**721-1293**	**722-1293**
3/4	3/4	4	6-1/4	**720-1244**	**721-1244**	**722-1244**	1-7/8	1-1/4	3	5-1/2	**720-1295**	**721-1295**	**722-1295**
7/8	7/8	2	4-1/4	**720-1245**	**721-1245**	**722-1245**	2	1-1/4	2-1/4	4-3/4	**720-1297**	**721-1297**	**722-1297**
7/8	7/8	2-1/2	4-3/4	**720-1247**	**721-1247**	**722-1247**	2	1-1/4	3	5-1/2	**720-1299**	**721-1299**	**722-1299**
7/8	7/8	3-1/2	5-3/4	**720-1248**	**721-1248**	**722-1248**	2	1-1/4	4	6-1/2	**720-1300**	**721-1300**	**722-1300**

2 Flute Single End Mills For Aluminum 2齿单头铝用立铣刀

Regular Long & Extra long Flute Length

- Recommended for milling aluminum and other non-ferrous materials.
- The helix angle sheers the material cleanly and helps eliminate chatter.
- Tin coating adds lubricity to minimize chip packing in the flutes.



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/4”	3/8”	5/8”	2-1/2”	**720-1501**	**721-1501**	**722-1501**
1/4	3/8	1-1/4	3-1/8	**720-1503**	**721-1503**	**722-1503**
1/4	3/8	1-3/4	3-1/2	**720-1505**	**721-1505**	**722-1505**
5/16	3/8	3/4	2-1/2	**720-1507**	**721-1507**	**722-1507**
5/16	3/8	1-3/8	3-1/8	**720-1509**	**721-1509**	**722-1509**
5/16	3/8	2	3-3/4	**720-1511**	**721-1511**	**722-1511**
3/8	3/8	3/4	2-1/2	**720-1513**	**721-1513**	**722-1513**
3/8	3/8	1-1/2	3-1/4	**720-1515**	**721-1515**	**722-1515**
3/8	3/8	2-1/2	4-1/4	**720-1517**	**721-1517**	**722-1517**
7/16	1/2	1	2-11/16	**720-1518**	**721-1518**	**722-1518**
7/16	3/8	1	2-11/16	**720-1519**	**721-1519**	**722-1519**
7/16	1/2	1-3/4	3-3/4	**720-1521**	**721-1521**	**722-1521**
7/16	1/2	2-3/4	4-3/4	**720-1523**	**721-1523**	**722-1523**
1/2	1/2	1	3-1/4	**720-1525**	**721-1525**	**722-1525**
1/2	1/2	1-1/4	3-1/4	**720-1526**	**721-1526**	**722-1526**
1/2	1/2	2	4	**720-1527**	**721-1527**	**722-1527**
1/2	1/2	3	5	**720-1529**	**721-1529**	**722-1529**
5/8	1/2	1-3/8	3-3/8	**720-1530**	**721-1530**	**722-1530**
5/8	5/8	1-5/8	3-3/4	**720-1531**	**721-1531**	**722-1531**
5/8	5/8	2-1/2	4-5/8	**720-1533**	**721-1533**	**722-1533**
5/8	5/8	4	6-1/8	**720-1535**	**721-1535**	**722-1535**
3/4	1/2	1-5/8	3-5/8	**720-1536**	**721-1536**	**722-1536**

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
3/4	3/4	1-5/8	3-7/8”	**720-1537**	**721-1537**	**722-1537**
3/4	3/4	3	5-1/4	**720-1539**	**721-1539**	**722-1539**
3/4	3/4	4	6-1/4	**720-1541**	**721-1541**	**722-1541**
7/8	7/8	1-7/8	4-1/8	**720-1543**	**721-1543**	**722-1543**
7/8	7/8	3-1/2	5-3/4	**720-1545**	**721-1545**	**722-1545**
7/8	7/8	5	7-1/4	**720-1547**	**721-1547**	**722-1547**
1	3/4	1-7/8	4-1/8	**720-1551**	**721-1551**	**722-1551**
1	1	2	4-1/2	**720-1553**	**721-1553**	**722-1553**
1	1	4	6-1/2	**720-1555**	**721-1555**	**722-1555**
1	1	6	8-1/2	**720-1557**	**721-1557**	**722-1557**
1-1/4	1-1/4	2	4-1/2	**720-1559**	**721-1559**	**722-1559**
1-1/4	1-1/4	4	6-1/2	**720-1561**	**721-1561**	**722-1561**
1-1/4	1-1/4	6	8-1/2	**720-1563**	**721-1563**	**722-1563**
1-1/2	1-1/4	2	4-1/2	**720-1565**	**721-1565**	**722-1565**
1-1/2	1-1/4	4	6-1/2	**720-1567**	**721-1567**	**722-1567**
1-1/2	1-1/4	6	6-1/2	**720-1568**		
1-1/2	1-1/4	8	10-1/2	**720-1569**	**721-1569**	**722-1569**
1-3/4	1-1/4	2	4-1/2	**720-1571**	**721-1571**	**722-1571**
1-3/4	1-1/4	4	6-1/2	**720-1573**	**721-1573**	**722-1573**
2	1-1/4	2	4-1/2	**720-1575**	**721-1575**	**722-1575**
2	1-1/4	4	6-1/2	**720-1577**	**721-1577**	**722-1577**

2 Flute Keyway Single End Mills 单头2刃直齿立铣刀

High Speed Steel

Straight Flute



Available -0.001” -0.002” -0.003”
Under Nominal

Keyway W(In.)	Mill Dia.(In.)	Shank Dia.(In.)	LOC (In.)	OAL (In.)	Order No.
1/8	0.1220	3/8	3/8	2-5/16	**720-0001**
1/8	0.1230	3/8	3/8	2-5/16	**720-0003**
1/8	0.1240	3/8	3/8	2-5/16	**720-0005**
3/16	0.1845	3/8	3/8	2-5/16	**720-0007**
3/16	0.1855	3/8	3/8	2-5/16	**720-0009**
3/16	0.1865	3/8	3/8	2-5/16	**720-0011**
1/4	0.2470	3/8	1/2	2-5/16	**720-0013**
1/4	0.2480	3/8	1/2	2-5/16	**720-0015**
1/4	0.2490	3/8	1/2	2-5/16	**720-0017**
5/16	0.3095	3/8	9/16	2-5/16	**720-0019**
5/16	0.3105	3/8	9/16	2-5/16	**720-0021**
5/16	0.3115	3/8	9/16	2-5/16	**720-0023**
3/8	0.3720	3/8	9/16	2-5/16	**720-0025**
3/8	0.3730	3/8	9/16	2-5/16	**720-0027**
3/8	0.3740	3/8	9/16	2-5/16	**720-0029**
1/2	0.4970	1/2	1	3	**720-0031**
1/2	0.4980	1/2	1	3	**720-0033**
1/2	0.4990	1/2	1	3	**720-0035**

Keyway W(In.)	Mill Dia.(In.)	Shank Dia.(In.)	LOC (In.)	OAL (In.)	Order No.
5/8	0.6220	5/8	1-5/16	3-7/16	**720-0037**
5/8	0.6230	5/8	1-5/16	3-7/16	**720-0039**
5/8	0.6240	5/8	1-5/16	3-7/16	**720-0041**
3/4	0.7470	3/4	1-5/16	3-9/16	**720-0043**
3/4	0.7480	3/4	1-5/16	3-9/16	**720-0045**
3/4	0.7490	3/4	1-5/16	3-9/16	**720-0047**
7/8	0.8720	7/8	1-1/2	3-3/4	**720-0049**
7/8	0.8730	7/8	1-1/2	3-3/4	**720-0051**
7/8	0.8740	7/8	1-1/2	3-3/4	**720-0053**
1	0.9970	1	1-5/8	4-1/8	**720-0055**
1	0.9980	1	1-5/8	4-1/8	**720-0057**
1	0.9990	1	1-5/8	4-1/8	**720-0059**
1-1/4	1.2470	1-1/4	1-5/8	4-1/8	**720-0061**
1-1/4	1.2480	1-1/4	1-5/8	4-1/8	**720-0063**
1-1/4	1.2490	1-1/4	1-5/8	4-1/8	**720-0065**
1	1.4970	1-1/4	1-5/8	4-1/8	**720-0067**
1	1.4980	1-1/4	1-5/8	4-1/8	**720-0069**
1	1.4990	1-1/4	1-5/8	4-1/8	**720-0071**

mhc® Industrial Supply

M42 8% Cobalt 2 Flute Single End Mills 含钴2齿单头立铣刀

- Premium 8% cobalt is especially effective for machining high strength, heat-resistant, exotic and difficult-to-machine materials,





Regular Length

Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.
1/8”	3/8”	3/8”	2-5/16”	**723-1001**	15/16”	5/8”	1-1/2”	3-5/8”	**723-1091**
9/64	3/8	3/8	2-5/16	**723-1003**	15/16	3/4	1-1/2	3-5/8	**723-1094**
5/32	3/8	7/16	2-5/16	**723-1005**	15/16	3/4	1-1/2	3-3/4	**723-1093**
11/64	3/8	7/16	2-5/16	**723-1007**	15/16	7/8	1-1/2	3-3/4	**723-1095**
3/16	3/8	7/16	2-5/16	**723-1009**	31/32	1/2	1-1/2	3-1/2	**723-1097**
13/64	3/8	7/16	2-5/16	**723-1011**	1	1/2	1-1/2	3-1/2	**723-1099**
7/32	3/8	1/2	2-5/16	**723-1012**	1	5/8	1-1/2	3-5/8	**723-1101**
7/32	3/8	1/2	2-3/8	**723-1013**	1	1/2	1-1/2	3-5/8	**723-1102**
15/64	3/8	1/2	2-3/8	**723-1015**	1	3/4	1-1/2	3-3/4	**723-1103**
1/4	3/8	3/8	2-1/4	**723-1016**	1	7/8	1-1/2	3-3/4	**723-1105**
1/4	3/8	1/2	2-5/16	**723-1017**	1	5/8	1-5/8	4-1/8	**723-1104**
17/64	3/8	9/16	2-3/8	**723-1019**	1	1	1-5/8	4-1/8	**723-1107**
9/32	3/8	1/2	2-5/16	**723-1020**	1-1/16	3/4	1-5/8	3-3/4	**723-1109**
9/32	3/8	9/16	2-3/8	**723-1021**	1-1/16	5/8	1-5/8	3-7/8	**723-1100**
19/64	3/8	9/16	2-3/8	**723-1023**	1-1/16	3/4	1-5/8	3-7/8	**723-1108**
5/16	3/8	9/16	2-5/16	**723-1025**	1-1/16	7/8	1-5/8	3-7/8	**723-1110**
21/64	3/8	9/16	2-3/8	**723-1027**	1-1/8	3/4	1-1/2	3-3/4	**723-1112**
11/32	3/8	9/16	2-5/16	**723-1028**	1-1/8	3/4	1-5/8	3-7/8	**723-1111**
11/32	3/8	9/16	2-3/8	**723-1029**	1-1/8	7/8	1-5/8	3-7/8	**723-1113**
23/64	3/8	9/16	2-3/8	**723-1031**	1-1/8	1	1-5/8	3-7/8	**723-1114**
3/8	3/8	9/16	2-5/16	**723-1033**	1-1/8	1	1-5/8	4-1/8	**723-1115**
13/32	3/8	13/16	2-1/2	**723-1035**	1-3/16	3/4	1-5/8	3-7/8	**723-1117**
7/16	3/8	13/16	2-1/2	**723-1037**	1-3/16	1	1-5/8	4-1/8	**723-1098**
15/32	3/8	13/16	2-1/2	**723-1036**	1-3/16	1	1-5/8	4-1/8	**723-1118**
15/32	1/2	7/8	2-1/2	**723-1038**	1-1/4	3/4	1-5/8	3-7/8	**723-1119**
15/32	1/2	1	3	**723-1039**	1-1/4	7/8	1-5/8	3-7/8	**723-1121**
1/2	3/8	13/16	2-1/2	**723-1041**	1-1/4	1	1-5/8	4-1/8	**723-1123**
1/2	3/8	1	3	**723-1042**	1-1/4	1-1/4	1-5/8	4-1/8	**723-1125**
1/2	1/2	1	3	**723-1043**	1-3/8	1-1/4	1-5/8	4-1/8	**723-1126**
1/2	1/2	1-1/8	3-1/8	**723-1044**	1-5/16	3/4	1-5/8	3-7/8	**723-1127**
17/32	1/2	1-1/8	3-1/8	**723-1045**	1-3/8	3/4	1-5/8	3-7/8	**723-1129**
9/16	1/2	1-1/8	3-1/8	**723-1047**	1-3/8	1	1-5/8	3-7/8	**723-1132**
19/32	1/2	1-1/8	3-1/8	**723-1049**	1-3/8	3/4	1-5/8	4	**723-1130**
5/8	1/2	1-1/8	3-1/8	**723-1051**	1-3/8	3/4	1-5/8	4-1/8	**723-1128**
5/8	5/8	1-5/16	3-7/16	**723-1053**	1-3/8	1	1-5/8	4-1/8	**723-1131**
5/8	5/8	2	4-1/8	**723-1054**	1-7/16	3/4	1-5/8	3-7/8	**723-1133**
21/32	1/2	1-5/16	3-5/16	**723-1055**	1-1/2	3/4	1-5/8	3-7/8	**723-1135**
11/16	1/2	1-5/16	3-5/16	**723-1057**	1-1/2	3/4	1-5/8	4	**723-1134**
11/16	5/8	1-5/16	3-7/16	**723-1059**	1-1/2	3/4	1-5/8	4-1/8	**723-1136**
23/32	1/2	1-5/16	3-5/16	**723-1061**	1-1/2	1	1-5/8	4-1/8	**723-1137**
3/4	1/2	1-5/16	3-5/16	**723-1063**	1-1/2	1-1/4	1-5/8	4-1/8	**723-1139**
3/4	5/8	1-5/16	3-7/16	**723-1065**	1-5/8	3/4	1-5/8	3-7/8	**723-1141**
3/4	3/4	1-5/16	3-7/16	**723-1066**	1-5/8	3/4	1-5/8	4-1/8	**723-1142**
3/4	3/4	1-5/16	3-9/16	**723-1067**	1-5/8	1-1/4	1-5/8	4-1/8	**723-1143**
3/4	3/4	1-3/4	4	**723-1069**	1-3/4	3/4	1-5/8	3-7/8	**723-1145**
3/4	3/4	2-1/4	4-1/2	**723-1070**	1-3/4	3/4	1-5/8	4-1/8	**723-1146**
25/32	1/2	1-1/2	3-1/2	**723-1071**	1-3/4	1-1/4	1-5/8	4-1/8	**723-1147**
13/16	1/2	1-1/2	3-5/16	**723-1077**	1-7/8	3/4	1-5/8	3-7/8	**723-1149**
13/16	1/2	1-1/2	3-5/8	**723-1072**	1-7/8	3/4	1-5/8	4-1/8	**723-1150**
13/16	5/8	1-1/2	3-5/8	**723-1073**	1-7/8	1-1/4	1-5/8	4-1/8	**723-1151**
13/16	3/4	1-1/2	3-3/4	**723-1075**	2	3/4	1-5/8	3-7/8	**723-1153**
27/32	1/2	1-1/2	3-1/2	**723-1079**	2	3/4	1-5/8	4-1/8	**723-1154**
7/8	1/2	1-1/2	3-1/2	**723-1081**	2	1-1/4	1-5/8	4-1/8	**723-1155**
7/8	1/2	1-1/2	3-5/8	**723-1082**	2	1-1/4	2-1/2	5	**723-1156**
7/8	5/8	1-1/2	3-5/8	**723-1083**	2	2	2	5-3/4	**723-1157**
7/8	3/4	1-1/2	3-5/8	**723-1086**	2	2	3	6-3/4	**723-1159**
7/8	7/8	1-1/2	3-5/8	**723-1088**	2	2	4	7-3/4	**723-1160**
7/8	5/8	1-1/2	3-3/4	**723-1084**	2-1/4	1-1/4	1-5/8	4-1/8	**723-1161**
7/8	3/4	1-1/2	3-3/4	**723-1085**	2-1/2	2	4	7-5/8	**723-1162**
7/8	7/8	1-1/2	3-3/4	**723-1087**	2-1/2	2	4	7-3/4	**723-1163**
29/32	1/2	1-1/2	3-1/2	**723-1089**	2-1/2	2	6	9-5/8	**723-1164**
15/16	1/2	1-1/2	3-5/8	**723-1090**	2-1/2	2	6	9-3/4	**723-1165**
					3	2-1/2	4	7-3/4	**723-1167**

M42 8% Cobalt 2 Flute Single End Mills 含钴 2 齿单头立铣刀

- Use for milling slots, pockets and plunge cuts.

F.Y.I

M-42 cobalt end mills are more economocal than high speed steel end mills. They stay sharper longer to alow more cuts between grinds and reduce downtime to give you lower cost per machined workpiece!

Cobalt



Medium Length & Long Length

Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.
3/16”	3/8”	3/4”	2-5/8”	**723-1201**	1”	1”	2”	4-1/2”	**723-1249**
7/32	3/8	1-1/4	3-1/8	**723-1203**	1	1	2-1/4	4-3/4	**723-1251**
1/4	3/8	1	2-3/4	**723-1204**	1	1	2-1/2	5	**723-1253**
1/4	3/8	1	3-1/16	**723-1205**	1	1	3	5-1/2	**723-1255**
1/4	3/8	1-1/4	3-1/8	**723-1207**	1	1	3-1/2	6	**723-1257**
9/32	3/8	1-3/8	3-1/8	**723-1209**	1	1	4	6-1/2	**723-1259**
5/16	3/8	1-1/4	3	**723-1210**	1	1	4-5/8	7	**723-1261**
5/16	3/8	1-1/4	3-5/16	**723-1211**	1-1/8	1	2-1/4	4-3/4	**723-1263**
5/16	3/8	1-3/8	3-1/8	**723-1213**	1-1/8	1	3	4-3/4	**723-1265**
11/32	3/8	1-1/2	3-1/4	**723-1215**	1-1/8	1	3	5-1/2"	**723-1266**
3/8	3/8	1	2-3/4	**723-1217**	1-1/4	1	2-1/4	4-3/4	**723-1267**
3/8	3/8	1-1/2	3-1/4	**723-1219**	1-1/4	1-1/4	2-1/4	5-1/2	**723-1269**
7/16	1/2	1-3/4	3-3/4	**723-1221**	1-1/4	1	3	5-1/2	**723-1271**
1/2	1/2	1-1/2	3-1/2	**723-1223**	1-1/4	1-1/4	3	5-1/2	**723-1273**
1/2	1/2	2	4	**723-1225**	1-1/4	1-1/4	3-1/2	6	**723-1274**
1/2	1/2	3	5	**723-1226**	1-1/4	1-1/4	4-3/4	7-1/4	**723-1275**
5/8	5/8	1-5/8	3-3/4	**723-1227**	1-3/8	1	2-1/4	4-3/4	**723-1277**
5/8	5/8	2	4-1/8	**723-1229**	1-3/8	1	3	5-1/2	**723-1279**
5/8	5/8	2-3/8	4-1/2	**723-1230**	1-1/2	1-1/4	6	8-1/2	**723-1280**
5/8	5/8	2-1/2	4-5/8	**723-1231**	1-1/2	1-1/4	2-1/4	4-3/4	**723-1281**
5/8	5/8	3	5-1/8	**723-1233**	1-1/2	1-1/4	3	5-1/2	**723-1283**
5/8	5/8	4	6-1/8	**723-1234**	1-1/2	1-1/4	4	6-1/2	**723-1284**
3/4	3/4	1-3/4	4	**723-1235**	1-5/8	1-1/4	2-1/4	4-3/4	**723-1285**
3/4	3/4	2-1/4	4-1/2	**723-1237**	1-5/8	1-1/4	3	5-1/2	**723-1287**
3/4	3/4	2-1/2	4-3/4	**723-1239**	1-3/4	1-1/4	2-1/4	4-3/4	**723-1289**
3/4	3/4	3	5-1/4	**723-1241**	1-3/4	1-1/4	3	5-1/2	**723-1291**
3/4	3/4	3-1/2	5-3/4	**723-1243**	1-7/8	1-1/4	2-1/4	4-3/4	**723-1293**
3/4	3/4	4	6-1/4	**723-1244**	1-7/8	1-1/4	3	5-1/2	**723-1295**
7/8	7/8	2	4-1/4	**723-1245**	2	1-1/4	2-1/4	4-3/4	**723-1297**
7/8	3/4	2-1/2	4-3/4	**723-1246**	2	1-1/4	3	5-1/2	**723-1299**
7/8	7/8	2-1/2	4-3/4	**723-1247**	2	1-1/4	4	6-1/2	**723-1300**
7/8	7/8	3-1/2	5-3/4	**723-1248**					

Cobalt





Extend Shank

Size	Shank Dia.	Length Below shank	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Length Below shank	Flute Length	Overall Length	Order No.
1/8”	3/8”	13/16”	3/8”	2-3/8”	**723-1171**	1/2”	1/2”	2-1/4”	1-7/8”	4”	**723-1182**
3/16	3/8	1-1/8	1/2	2-11/16	**723-1173**	5/8	1/2	2-3/4	1-3/8	4-5/8	**723-1184**
3/16	3/8	1-1/2	5/8	3-1/16	**723-1172**	5/8	5/8	2-3/4	1-3/8	4-5/8	**723-1183**
1/4	3/8	1	5/8	3-1/16	**723-1174**	5/8	5/8	2-3/4	2	4-5/8	**723-1188**
1/4	3/8	1-1/2	5/8	3-1/16	**723-1175**	3/4	1/2	3-3/8	1-5/8	5-3/8	**723-1186**
5/16	3/8	1-3/4	3/4	3-5/16	**723-1177**	3/4	3/4	3-3/8	1-5/8	5-3/8	**723-1185**
5/16	3/8	1-1/2	3/4	3-1/4"	**723-1178**	7/8	7/8	4	2	6	**723-1187**
3/8	3/8	1-3/4	3/4	3-5/16	**723-1179**	1	1	5	2-1/2	7-1/4	**723-1189**
3/8	3/8	1-3/4	7/8	3-5/16	**723-1180**	1-1/4	1-1/4	5	3	7-1/4	**723-1191**
1/2	1/2	2-1/4	1	4	**723-1181**						

2 Flute Double End Mills 2齿双头立铣刀

High Speed Steel **Regular Length**

- Use for milling slots, pockets and for plunge cutting in a wide variety of materials.
- More economical in production milling than single end end mills.



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
5/64”	3/8”	5/16”	3-1/16”	**720-2000**	**721-2000**	**722-2000**
3/32	3/8	5/16	3-1/16	**720-2002**	**721-2002**	**722-2002**
7/64	3/8	5/16	3-1/16	**720-2004**	**721-2004**	**722-2004**
1/8	3/8	3/8	3-1/16	**720-2008**	**721-2008**	**722-2008**
9/64	3/8	7/16	3-1/8	**720-2010**	**721-2010**	**722-2010**
5/32	3/8	7/16	3-1/8	**720-2012**	**721-2012**	**722-2012**
11/64	3/8	7/16	3-1/8	**720-2014**	**721-2014**	**722-2014**
3/16	3/8	7/16	3-1/8	**720-2016**	**721-2016**	**722-2016**
13/64	3/8	1/2	3-1/8	**720-2018**	**721-2018**	**722-2018**
7/32	3/8	1/2	3-1/8	**720-2020**	**721-2020**	**722-2020**
15/64	3/8	1/2	3-1/8	**720-2022**	**721-2022**	**722-2022**
1/4	3/8	1/2	3-1/8	**720-2024**	**721-2024**	**722-2024**
17/64	3/8	9/16	3-1/8	**720-2026**	**721-2026**	**722-2026**
9/32	3/8	9/16	3-1/8	**720-2028**	**721-2028**	**722-2028**
19/64	3/8	9/16	3-1/8	**720-2030**	**721-2030**	**722-2030**
5/16	3/8	9/16	3-1/8	**720-2032**	**721-2032**	**722-2032**
21/64	3/8	9/16	3-1/8	**720-2034**	**721-2034**	**722-2034**
11/32	3/8	9/16	3-1/8	**720-2036**	**721-2036**	**722-2036**
23/64	3/8	9/16	3-1/8	**720-2038**	**721-2038**	**722-2038**
3/8	3/8	9/16	3-1/8	**720-2040**	**721-2040**	**722-2040**
25/64	1/2	13/16	3-3/4	**720-2042**	**721-2042**	**722-2042**
13/32	1/2	13/16	3-3/4	**720-2044**	**721-2044**	**722-2044**
27/64”	1/2”	13/16”	3-3/4”	**720-2046**	**721-2046**	**722-2046**
7/16	1/2	13/16	3-3/4	**720-2048**	**721-2048**	**722-2048**
29/64	1/2	13/16	3-3/4	**720-2050**	**721-2050**	**722-2050**
15/32	1/2	13/16	3-3/4	**720-2052**	**721-2052**	**722-2052**
31/64	1/2	13/16	3-3/4	**720-2054**	**721-2054**	**722-2054**
1/2	1/2	13/16	3-3/4	**720-2056**	**721-2056**	**722-2056**
17/32	5/8	1-1/8	4-1/2	**720-2058**	**721-2058**	**722-2058**
9/16	5/8	1-1/8	4-1/2	**720-2060**	**721-2060**	**722-2060**
19/32	5/8	1-1/8	4-1/2	**720-2062**	**721-2062**	**722-2062**
5/8	5/8	1-1/8	4-1/2	**720-2064**	**721-2064**	**722-2064**
5/8	1/2	1-1/8	4-1/2	**720-2065**	**721-2065**	**722-2065**
21/32	3/4	1-5/16	5	**720-2066**	**721-2066**	**722-2066**
11/16	3/4	1-5/16	5	**720-2068**	**721-2068**	**722-2068**
23/32	3/4	1-5/16	5	**720-2070**	**721-2070**	**722-2070**
3/4	3/4	1-5/16	5	**720-2072**	**721-2072**	**722-2072**
25/32	7/8	1-9/16	5-1/2	**720-2074**	**721-2074**	**722-2074**
13/16	7/8	1-9/16	5-1/2	**720-2076**	**721-2076**	**722-2076**
27/32	7/8	1-9/16	5-1/2	**720-2078**	**721-2078**	**722-2078**
7/8	7/8	1-9/16	5-1/2	**720-2080**	**721-2080**	**722-2080**
7/8	3/4	1-9/16	5-1/2	**720-2081**	**721-2081**	**722-2081**
29/32	1	1-5/8	5-7/8	**720-2082**	**721-2082**	**722-2082**
15/16	1	1-5/8	5-7/8	**720-2084**	**721-2084**	**722-2084**
31/32	1	1-5/8	5-7/8	**720-2086**	**721-2086**	**722-2086**
1	1	1-5/8	5-7/8	**720-2088**	**721-2088**	**722-2088**

M42 8% Cobalt 2 Flute Double End Mills 含钴2齿双头立铣刀

- Use for milling slots, pockets and for plunge cutting in a wide variety of materials.
- More economical in production milling than single end end mills.

Cobalt



Size	Shank Dia.	Flute Length	Overall Length	Order No.
5/64”	3/8”	5/16”	3-1/16”	**723-2000**
3/32	3/8	5/16	3-1/16	**723-2002**
7/64	3/8	5/16	3-1/16	**723-2004**
1/8	3/8	3/8	3-1/16	**723-2008**
9/64	3/8	7/16	3-1/8	**723-2010**
5/32	3/8	7/16	3-1/8	**723-2012**
11/64	3/8	7/16	3-1/8	**723-2014**
3/16	3/8	7/16	3-1/8	**723-2016**
13/64	3/8	1/2	3-1/8	**723-2018**
7/32	3/8	1/2	3-1/8	**723-2020**
15/64	3/8	1/2	3-1/8	**723-2022**
1/4	3/8	1/2	3-1/8	**723-2024**
17/64	3/8	9/16	3-1/8	**723-2026**
9/32	3/8	9/16	3-1/8	**723-2028**
19/64	3/8	9/16	3-1/8	**723-2030**
5/16	3/8	9/16	3-1/8	**723-2032**
21/64	3/8	9/16	3-1/8	**723-2034**
11/32	3/8	9/16	3-1/8	**723-2036**
23/64	3/8	9/16	3-1/8	**723-2038**
3/8	3/8	9/16	3-1/8	**723-2040**
25/64	1/2	13/16	3-3/4	**723-2042**
13/32	1/2	13/16	3-3/4	**723-2044**
27/64”	1/2”	13/16”	3-3/4”	**723-2046**
7/16	1/2	13/16	3-3/4	**723-2048**
29/64	1/2	13/16	3-3/4	**723-2050**
15/32	1/2	13/16	3-3/4	**723-2052**
31/64	1/2	13/16	3-3/4	**723-2054**
1/2	1/2	13/16	3-3/4	**723-2056**
17/32	5/8	1-1/8	4-1/2	**723-2058**
9/16	5/8	1-1/8	4-1/2	**723-2060**
19/32	5/8	1-1/8	4-1/2	**723-2062**
5/8	5/8	1-1/8	4-1/2	**723-2064**
5/8	1/2	1-1/8	4-1/2	**723-2065**
21/32	3/4	1-5/16	5	**723-2066**
11/16	3/4	1-5/16	5	**723-2068**
23/32	3/4	1-5/16	5	**723-2070**
3/4	3/4	1-5/16	5	**723-2072**
25/32	7/8	1-9/16	5-1/2	**723-2074**
13/16	7/8	1-9/16	5-1/2	**723-2076**
27/32	7/8	1-9/16	5-1/2	**723-2078**
7/8	7/8	1-9/16	5-1/2	**723-2080**
7/8	3/4	1-9/16	5-1/2	**723-2081**
29/32	1	1-5/8	5-7/8	**723-2082**
15/16	1	1-5/8	5-7/8	**723-2084**
31/32	1	1-5/8	5-7/8	**723-2086**
1	1	1-5/8	5-7/8	**723-2088**

1/4" Shank 3 Flute Single End Mills 1/4″柄3齿中心切削单头立铣刀

High Speed Steel

Stud Length

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/16”	1/4”	3/32”	31/32”	**720-3700**	**721-3700**	**722-3700**
3/32	1/4	5/32	1-1/64	**720-3702**	**721-3702**	**722-3702**
1/8	1/4	3/16	1-3/32	**720-3704**	**721-3704**	**722-3704**
5/32	1/4	1/4	1-9/32	**720-3706**	**721-3706**	**722-3706**
3/16	1/4	9/32	1-11/32	**720-3708**	**721-3708**	**722-3708**
7/32	1/4	5/16	1-13/32	**720-3710**	**721-3710**	**722-3710**
1/4	1/4	3/8	1-13/32	**720-3712**	**721-3712**	**722-3712**

Long Length



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/16”	1/4”	5/32”	1-3/32”	**720-3714**	**721-3714**	**722-3714**
3/32	1/4	1/4	1-1/4	**720-3716**	**721-3716**	**722-3716**
1/8	1/4	5/16	1-11/32	**720-3718**	**721-3718**	**722-3718**
5/32	1/4	3/8	1-17/32	**720-3720**	**721-3720**	**722-3720**
3/16	1/4	7/16	1-21/32	**720-3722**	**721-3722**	**722-3722**
7/32	1/4	1/2	1-3/4	**720-3724**	**721-3724**	**722-3724**
1/4	1/4	5/8	1-3/4	**720-3726**	**721-3726**	**722-3726**

3 Flute Single End Mills 3齿中心切单头立铣刀

Center Cutting, High Speed Steel

- Center cutting allows for plunge milling.
- Use in awide range of ferrous and non-ferrous materials.
- TiN coating improves tool life and allows elevated speeds and feeds.
- Combines the chip carrying ability of 2 flute end mills and the excellent finish produced by 4flute end mills.



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	TiN-Coated Order No.
3/32"	3/8"	5/16"	2-5/16"	720-3801	722-3801
1/8	3/8	3/8	2-5/16	720-3803	722-3803
3/16	3/8	1/2	2-3/8	720-3805	722-3805
1/4	3/8	5/8	2-7/16	720-3807	722-3807
5/16	3/8	3/4	2-1/2	720-3809	722-3809
5/16	3/8	1-3/8	3-3/8	720-3810	
3/8	3/8	3/4	2-1/2	720-3811	722-3811
7/16	3/8	1	2-11/16	720-3813	722-3813
7/16	1/2	1	2-15/16	720-3815	722-3815
1/2	3/8	1	2-11/16	720-3817	722-3817
1/2	1/2	1	2-3/4	720-3818	
1/2	1/2	1-1/4	3-1/4	720-3819	722-3819
9/16	1/2	1-3/8	3-3/8	720-3821	722-3821
5/8	1/2	1-3/8	3-3/8	720-3823	722-3823
5/8	5/8	1-5/8	3-3/4	720-3825	722-3825
11/16	1/2	1-5/8	3-5/8	720-3827	722-3827
11/16	5/8	1-5/8	3-3/4	720-3829	722-3829
3/4	5/8	1-5/8	3-3/4	720-3831	722-3831
3/4	1/2	1-5/8	3-5/8	720-3833	722-3833
3/4	3/4	1-5/8	3-7/8	720-3835	722-3835
13/16	5/8	1-5/8	3-3/4	720-3837	722-3837
13/16	3/4	1-5/8	3-7/8	720-3839	722-3839
7/8	5/8	1-7/8	4	720-3841	722-3841

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	TiN-Coated Order No.
7/8"	3/4"	1-7/8"	4-1/8"	720-3843	722-3843
7/8	7/8	1-7/8	4-1/8	720-3844	
7/8	1/2	1-5/8	3-5/8	720-3847	722-3847
15/16	7/8	1-7/8	4-1/8	720-3849	722-3849
15/16	5/8	1-7/8	4	720-3851	722-3851
1	5/8	1-7/8	4	720-3853	722-3853
1	3/4	1-7/8	4-1/8	720-3855	722-3855
1	7/8	1-7/8	4-1/8	720-3857	722-3857
1	1	2	4-1/2	720-3859	722-3859
1-1/8	1	2	4-1/2	720-3861	722-3861
1-1/4	1	2	4-1/2	720-3863	722-3863
1-1/4	1-1/4	2	4-1/2	720-3865	722-3865
1-3/8	1	2	4-1/2	720-3867	722-3867
1-3/8	1-1/4	2	4-1/2	720-3869	722-3869
1-1/2	1	2	4-1/2	720-3871	722-3871
1-1/2	1-1/4	2	4-1/2	720-3873	722-3873
1-3/4	1-1/4	2	4-1/2	720-3875	722-3875
1-3/4	1-1/4	4	6-1/2	720-3876	
2	1-1/4	2	4-1/2	720-3877	722-3877

Long Length

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/4	3/8	1-1/4	3-1/8	720-6105	721-6105	722-6105
5/16	3/8	1-3/8	3-1/8	720-6110	721-6110	722-6110
3/8	3/8	1-1/2	3-1/4	720-6115	721-6115	722-6115
7/16	1/2	1-3/4	3-3/4	720-6120	721-6120	722-6120
1/2	1/2	2	4	720-6125	721-6125	722-6125

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
5/8	5/8	2-1/2	4-5/8	720-6130	721-6130	722-6130
3/4	3/4	3	5-1/4	720-6135	721-6135	722-6135
7/8	7/8	3-1/2	5-3/4	720-6140	721-6140	722-6140
1	1	4	6-1/2	720-6145	721-6145	722-6145
1-1/4	1-1/4	4	6-1/2	720-6150	721-6150	722-6150
1-1/2	1-1/4	4	6-1/2	720-6155	721-6155	722-6155

3 Flute Double End Mills 3齿双头立铣刀

Center Cutting, High Speed Steel

- Use in awide range of ferrous and non-ferrous materials.
- TiN coating improves tool life and allows elevated speeds and feeds.



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
3/32"	3/8"	5/16"	3-1/16"	720-3002	721-3002	722-3002
1/8	3/8	3/8	3-1/16	720-3004	721-3004	722-3004
5/32	3/8	7/16	3-1/8	720-3006	721-3006	722-3006
3/16	3/8	1/2	3-1/4	720-3008	721-3008	722-3008
7/32	3/8	9/16	3-1/4	720-3010	721-3010	722-3010
1/4	3/8	5/8	3-3/8	720-3012	721-3012	722-3012
9/32	3/8	11/16	3-3/8	720-3014	721-3014	722-3014
5/16	3/8	3/4	3-1/2	720-3016	721-3016	722-3016
11/32	3/8	3/4	3-1/2	720-3018	721-3018	722-3018
3/8	3/8	3/4	3-1/2	720-3020	721-3020	722-3020

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
7/16"	1/2"	1"	4-1/8"	720-3022	721-3022	722-3022
1/2	1/2	1	4-1/8	720-3024	721-3024	722-3024
9/16	5/8	1-3/8	5	720-3026	721-3026	722-3026
5/8	5/8	1-3/8	5	720-3028	721-3028	722-3028
11/16	3/4	1-1/2	5-3/8	720-3030	721-3030	722-3030
3/4	3/4	1-1/2	5-3/8	720-3032	721-3032	722-3032
13/16	7/8	1-3/4	5-7/8	720-3034	721-3034	722-3034
7/8	7/8	1-3/4	5-7/8	720-3036	721-3036	722-3036
15/16	1	1-3/4	6-1/8	720-3038	721-3038	722-3038
1	1	1-3/4	6-1/8	720-3040	721-3040	722-3040

M42 8% Cobalt 3 Flute Single End Mills 3 齿含钴中心切削铣刀

Center Cutting

***Three-Flute End Mills*—**Have smoother cutting action with less chatter and flutter than two-flute tools and may eliminate the need for a second finishing cut.

- Center cutting allows for plunge milling.
- Combines the chip carrying ability of 2 flute end mills and the excellent finish produced by 4flute end mills.
- Use in awide range of ferrous and non-ferrous materials.
- T iN coating improves tool life and allows elevated speeds and feeds.





Regular Length

Size	Shank Dia.	Flute Length	Overall Length	M42 Order No.	Size	Shank Dia.	Flute Length	Overall Length	M42 Order No.
3/32”	3/8”	5/16”	2-5/16”	**723-3801**	7/8”	3/4”	1-7/8”	4-1/8”	**723-3843**
1/8	3/8	3/8	2-5/16	**723-3803**	7/8	7/8	1-7/8	4-7/8	**723-3845**
3/16	3/8	1/2	2-3/8	**723-3805**	7/8	1/2	1-5/8	3-5/8	**723-3847**
1/4	3/8	5/8	2-7/16	**723-3807**	15/16	7/8	1-7/8	4-1/8	**723-3849**
5/16	3/8	3/4	2-1/2	**723-3809**	15/16	5/8	1-7/8	4	**723-3851**
3/8	3/8	3/4	2-1/2	**723-3811**	1	5/8	1-7/8	4	**723-3853**
7/16	3/8	1	2-11/16	**723-3813**	1	3/4	1-7/8	4-1/8	**723-3855**
7/16	1/2	1	2-15/16	**723-3815**	1	7/8	1-7/8	4-1/8	**723-3857**
1/2	3/8	1	2-11/16	**723-3817**	1	1	2	4-1/2	**723-3859**
1/2	1/2	1-1/4	3-1/4	**723-3819**	1-1/8	1	2	4-1/2	**723-3861**
9/16	1/2	1-3/8	3-3/8	**723-3821**	1-1/4	1	2	4-1/2	**723-3863**
5/8	1/2	1-3/8	3-3/8	**723-3823**	1-1/4	1-1/4	2	4-1/2	**723-3865**
5/8	5/8	1-5/8	3-3/4	**723-3825**	1-3/8	1	2	4-1/2	**723-3867**
11/16	1/2	1-5/8	3-5/8	**723-3827**	1-3/8	1-1/4	2	4-1/2	**723-3869**
11/16	5/8	1-5/8	3-3/4	**723-3829**	1-1/2	1	2	4-1/2	**723-3871**
3/4	5/8	1-5/8	3-3/4	**723-3831**	1-1/2	1-1/4	2	4-1/2	**723-3873**
3/4	1/2	1-5/8	3-5/8	**723-3833**	1-3/4	1-1/4	2	4-1/2	**723-3875**
3/4	3/4	1-5/8	3-7/8	**723-3835**	2	1-1/4	2	4-1/2	**723-3877**
13/16	5/8	1-5/8	3-3/4	**723-3837**	2	2	3	5-3/4	**723-3879**
13/16	3/4	1-5/8	3-7/8	**723-3839**	2-1/2	2	4	7-5/8	**723-3881**
7/8	5/8	1-7/8	4	**723-3841**	2-1/2	2-1/2	4	8	**723-3883**

Long Length

Size	Shank Dia.	Flute Length	Overall Length	M42 Order No.	Size	Shank Dia.	Flute Length	Overall Length	M42 Order No.
1/4”	3/8”	1-1/4”	3-1/8”	**723-6105**	3/4”	3/4”	3”	5-1/4”	**723-6135**
5/16	3/8	1-3/8	3-1/8	**723-6110**	7/8	7/8	3-1/2	5-3/4	**723-6140**
3/8	3/8	1-1/2	3-1/4	**723-6115**	1	1	4	6-1/2	**723-6145**
7/16	1/2	1-3/4	3-3/4	**723-6120**	1-1/4	1-1/4	4	6-1/2	**723-6150**
1/2	1/2	2	4	**723-6125**	1-1/2	1-1/4	4	6-1/2	**723-6155**
5/8	5/8	2-1/2	4-5/8	**723-6130**					

M42 8% Cobalt 3 Flute 45° Helical Semi-Roughing & Finishing End Mills

Center Cutting

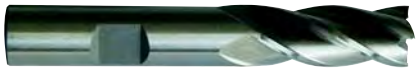
含钴 3 齿 45 度螺纹角中心切削立铣刀





Size	Shank Dia.	Flute Length	Overall Length	Order No.	Tin-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	Tin-Coated Order No.	Order No.
1/4”	3/8”	5/8”	2-7/16”	**723-9708**	**722-9708**	1	1	4	6-1/2	**723-9778**	**722-9778**
5/16	3/8	3/4	2-1/2	**723-9713**	**722-9713**	1-1/8	3/4	2	4-1/2	**723-9781**	**722-9781**
3/8	3/8	3/4	2-1/2	**723-9718**	**722-9718**	1-1/8	1	2	4-1/2	**723-9783**	**722-9783**
7/16	3/8	1	2-11/16	**723-9723**	**722-9723**	1-1/4	3/4	2	4-1/2	**723-9788**	**722-9788**
1/2	1/2	1-1/4	3-1/4	**723-9728**	**722-9728**	1-1/4	3/4	4	6-1/2	**723-9791**	**722-9791**
1/2	1/2	2	4	**723-9733**	**722-9733**	1-1/4	1	2	4-1/2	**723-9793**	**722-9793**
5/8	5/8	1-5/8	3-3/4	**723-9738**	**722-9738**	1-1/4	1-1/4	2	4-1/2	**723-9798**	**722-9798**
5/8	5/8	2-1/2	4-5/8	**723-9743**	**722-9743**	1-1/4	1-1/4	4	6-1/2	**723-9803**	**722-9803**
3/4	5/8	1-5/8	3-7/8	**723-9745**	**722-9745**	1-1/2	3/4	2	4-1/2	**723-9808**	**722-9808**
3/4	3/4	1-5/8	3-7/8	**723-9748**	**722-9748**	1-1/2	3/4	4	6-1/2	**723-9811**	**722-9811**
3/4	3/4	3	5-1/4	**723-9753**	**722-9753**	1-1/2	1-1/4	2	4-1/2	**723-9813**	**722-9813**
7/8	3/4	1-7/8	4-1/8	**723-9758**	**722-9758**	1-1/2	1-1/4	4	6-1/2	**723-9818**	**722-9818**
7/8	3/4	3-1/2	5-5/8	**723-9761**	**722-9761**	1-3/4	3/4	2	4-1/2	**723-9821**	**722-9821**
7/8	7/8	1-7/8	4-1/8	**723-9763**	**722-9763**	1-3/4	1-1/4	2	4-1/2	**723-9823**	**722-9823**
1	3/4	2	4-1/2	**723-9768**	**722-9768**	2	3/4	2	4-1/2	**723-9725**	**722-9725**
1	1	2	4-1/2	**723-9773**	**722-9773**	2	1-1/4	2	4-1/2	**723-9828**	**722-9828**

Multiple Flute Single End Mills 单头多齿立铣刀



- Designed for general purpose work including cam milling, die sinking and slot milling.
- Suitable for use in a wide range of ferrous and non-ferrous materials.
- Excellent for use in finishing operations.
- Multi-flute design allows for higher feed rates.

Regular Length

Size	Shank Dia.	Flute Length	Overall Length	No.of Flute	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
7/64"	3/8"	3/8"	2-5/16"	4	720-3001	721-3001	722-3001
1/8	3/8	3/8	2-5/16	4	720-3003	721-3003	722-3003
9/64	3/8	3/8	2-5/16	4	720-3005	721-3005	722-3005
5/32	3/8	7/16	2-3/8	4	720-3007	721-3007	722-3007
11/64	3/8	7/16	2-3/8	4	720-3009	721-3009	722-3009
3/16	3/8	1/2	2-3/8	4	720-3011	721-3011	722-3011
13/64	3/8	1/2	2-3/8	4	720-3013	721-3013	722-3013
7/32	3/8	9/16	2-1/2	4	720-3015	721-3015	722-3015
7/32	3/8	5/8	2-1/4	4	720-3423	721-3423	722-3423
15/64	3/8	9/16	2-1/2	4	720-3017	721-3017	722-3017
1/4	3/8	5/8	2-1/4	4	720-3427	721-3427	722-3425
1/4	3/8	5/8	2-7/16	4	720-3428	721-3428	722-3428
1/4	3/8	5/8	2-1/2	4	720-3019	721-3019	722-3019
17/64	3/8	5/8	2-1/2	4	720-3021	721-3021	722-3021
9/32	3/8	5/8	2-1/4	4	720-3429	721-3429	722-3427
9/32	3/8	11/16	2-1/2	4	720-3023	721-3023	722-3023
19/64	3/8	11/16	2-1/2	4	720-3025	721-3025	722-3025
5/16	3/8	3/4	2-1/4	4	720-3431	721-3436	722-3436
5/16	3/8	3/4	2-1/2	4	720-3027	721-3027	722-3027
21/64	3/8	3/4	2-1/2	4	720-3029	721-3029	722-3029
11/32	3/8	3/4	2-1/2	4	720-3031	721-3031	722-3031
23/64	3/8	3/4	2-1/2	4	720-3033	721-3033	722-3033
3/8	3/8	3/4	2-1/2	4	720-3035	721-3035	722-3035
13/32	3/8	1	2-11/16	4	720-3037	721-3037	722-3037
7/16	3/8	1	2-11/16	4	720-3039	721-3039	722-3039
15/32	3/8	1	2-11/16	4	720-3042	721-3042	722-3042
15/32	1/2	1-1/4	3-1/4	4	720-3041	721-3041	722-3041
1/2	3/8	1	2-11/16	4	720-3043	721-3043	722-3043
1/2	1/2	1-1/4	3-1/4	4	720-3045	721-3045	722-3045
1/2	1/2	1-1/4	3-1/4	6	720-3046	721-3046	722-3046
17/32	1/2	1-3/8	3-3/8	4	720-3047	721-3047	722-3047
9/16	1/2	1-3/8	3-3/8	4	720-3049	721-3049	722-3049
19/32	1/2	1-3/8	3-3/8	4	720-3051	721-3051	722-3051
5/8	1/2	1-3/8	3-3/8	4	720-3053	721-3053	722-3053
5/8	5/8	1-5/8	3-1/4	6	720-3056	721-3056	722-3056
5/8	5/8	1-5/8	3-3/4	4	720-3055	721-3055	722-3055
21/32	1/2	1-5/8	3-5/8	4	720-3057	721-3057	722-3057
11/16	1/2	1-5/8	3-5/8	4	720-3059	721-3059	722-3059
11/16	5/8	1-5/8	3-3/4	4	720-3061	721-3061	722-3061
23/32	1/2	1-5/8	3-5/8	4	720-3063	721-3063	722-3063
3/4	1/2	1-5/8	3-5/8	4	720-3065	721-3065	722-3065
3/4	5/8	1-5/8	3-5/8	4	720-3066	721-3066	722-3066
3/4	5/8	1-5/8	3-3/4	4	720-3067	721-3067	722-3067
3/4	3/4	1-5/8	3-7/8	4	720-3068	721-3068	722-3068
3/4	3/4	1-5/8	3-3/4	4	720-3069	721-3069	722-3069
3/4	3/4	1-5/8	3-3/4	6	720-3070	721-3070	722-3070
25/32	1/2	1-5/8	3-5/8	4	720-3071	721-3071	722-3071
13/16	1/2	1-3/4	3-3/4	4	720-3072	721-3072	722-3072
13/16	5/8	1-7/8	4	4	720-3074	721-3074	722-3074
13/16	5/8	1-7/8	4	6	720-3073	721-3073	722-3073
13/16	3/4	1-7/8	4-1/8	4	720-3075	721-3075	722-3075
27/32	1/2	1-5/8	3-5/8	4	720-3077	721-3077	722-3077
7/8	1/2	1-7/8	3-5/8	4	720-3078		
7/8	1/2	1-5/8	3-5/8	4	720-3079	721-3079	722-3079
7/8	1/2	1-5/8	3-5/8	6	720-3081	721-3081	722-3081
7/8	1/2	1-7/8	4	4	720-3080	721-3080	722-3080
7/8	1/2	1-7/8	4	6	720-3082	721-3082	722-3082
7/8	5/8	1-7/8	4	6	720-3083	721-3083	722-3083
7/8	3/4	1-7/8	4-1/8	4	720-3085	721-3085	722-3085
7/8	7/8	1-7/8	4-1/8	4	720-3087	721-3087	722-3087
7/8	3/4	1-7/8	4-1/8	6	720-3086	721-3086	722-3086
29/32	1/2	1-7/8	3-7/8	4	720-3089	721-3089	722-3089
15/16	1/2	1-7/8	4	4	720-3090	721-3090	722-3090
15/16	5/8	1-7/8	4	6	720-3091	721-3091	722-3091
15/16	3/4	1-7/8	4-1/8	4	720-3093	721-3093	722-3093
15/16	3/4	1-7/8	4-1/8	6	720-3170	721-3170	722-3170
15/16	5/8	1-7/8	4-1/8	6	720-3092	721-3092	722-3440
15/16	7/8	1-7/8	4-1/8	4	720-3095	721-3095	722-3095
15/16	7/8	1-7/8	4-1/8	6	720-3096	721-3096	722-3096
31/32	1/2	1-7/8	3-7/8	4	720-3097	721-3097	722-3097
1	1/2	1-7/8	3-7/8	4	720-3098	721-3098	722-3098

Size	Shank Dia.	Flute Length	Overall Length	No.of Flute	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1"	1/2"	1-7/8"	4"	4	720-3099	721-3099	722-3099
1	1/2	1-7/8	4	6	720-3100	721-3100	722-3100
1	5/8	1-7/8	4	4	720-3102	721-3102	722-3102
1	5/8	1-7/8	4	6	720-3101	721-3101	722-3101
1	3/4	1-7/8	4	6	720-3106	721-3106	722-3106
1	3/4	1-7/8	4-1/8	4	720-3103	721-3103	722-3103
1	7/8	1-7/8	4-1/8	4	720-3105	721-3105	722-3105
1	3/4	2	4-1/2	4	720-3104	721-3445	722-3445
1	1	2	4-1/2	4	720-3107	721-3107	722-3107
1	1	2	4-1/2	6	720-3108	721-3108	722-3108
1-1/16	3/4	2	4-1/4	4	720-3433	721-3433	722-3429
1-1/16	3/4	2	4-1/4	6	720-3109	721-3109	722-3109
1-1/8	3/4	1-1/2	3-7/8	6	720-3171	721-3181	722-3171
1-1/8	3/4	2	4-1/4	4	720-3112	721-3112	722-3112
1-1/8	3/4	2	4-1/4	6	720-3111	721-3111	722-3111
1-1/8	1	2	4-1/4	4	720-3114	721-3114	722-3114
1-1/8	7/8	2	4-1/4	6	720-3113	721-3113	722-3113
1-1/8	3/4	2	4-1/2	6	720-3173	721-3173	722-3173
1-1/8	1	2	4-1/2	6	720-3115	721-3115	722-3115
1-1/8	1	2-5/8	4-1/2	4	720-3116	721-3116	722-3116
1-3/16	3/4	2	4-1/4	6	720-3117	721-3117	722-3117
1-3/16	1	2	4-1/4	6	720-3118	721-3118	722-3118
1-1/4	3/4	2	4-1/4	6	720-3119	721-3119	722-3119
1-1/4	7/8	2	4-1/4	4	720-3120	721-3120	722-3120
1-1/4	7/8	2	4-1/4	6	720-3121	721-3121	722-3121
1-1/4	1	2	4-1/2	6	720-3123	721-3123	722-3123
1-1/4	1-1/4	2	4-1/2	4	720-3124	721-3171	722-3124
1-1/4	1-1/4	2	4-1/2	6	720-3125	721-3125	722-3125
1-5/16	3/4	1-5/8	3-7/8	6	720-3435	721-3435	722-3431
1-5/16	3/4	2	4-1/2	6	720-3127	721-3127	722-3127
1-3/8	3/4	2	4-1/4	4	720-3442	721-3442	722-3433
1-3/8	3/4	2	4-1/4	6	720-3128	721-3128	722-3128
1-3/8	3/4	2	4-1/2	6	720-3129	721-3129	722-3129
1-3/8	1	2	4-1/2	6	720-3131	721-3131	722-3131
1-3/8	1-1/4	2	4-1/2	6	720-3130	721-3130	722-3130
1-7/16	3/4	1-5/8	3-7/8	6	720-3132	721-3132	722-3132
1-7/16	3/4	2	4-1/2	6	720-3133	721-3133	722-3133
1-1/2	3/4	2	4-1/4	4	720-3134	721-3134	722-3447
1-1/2	3/4	2	4-1/2	6	720-3135	721-3135	722-3135
1-1/2	1	2	4-1/2	4	720-3136	721-3136	722-3136
1-1/2	1	2	4-1/2	6	720-3137	721-3137	722-3137
1-1/2	1-1/4	2	4-1/2	4	720-3141	721-3141	722-3141
1-1/2	1-1/4	2	4-1/2	6	720-3139	721-3139	722-3139
1-5/8	3/4	1-5/8	3-7/8	6	720-3142	721-3142	722-3142
1-5/8	3/4	1-5/8	4-1/8	6	720-3140	721-3140	722-3140
1-5/8	3/4	2	4-1/2	6	720-3143	721-3143	722-3143
1-5/8	1-1/4	2	4-1/2	4	720-3144	721-3144	722-3144
1-5/8	1-1/4	2	4-1/2	6	720-3145	721-3145	722-3145
1-3/4	3/4	1-1/2	3-7/8	6	720-3172	721-3183	722-3172
1-3/4	3/4	2	4-1/4	4	720-3148	721-3148	722-3438
1-3/4	3/4	2	4-1/2	4	720-3146	721-3146	722-3148
1-3/4	3/4	2	4-1/2	6	720-3147	721-3147	722-3147
1-3/4	1-1/4	2	4-1/2	4	720-3151	721-3151	722-3151
1-3/4	1-1/4	2	4-1/2	6	720-3149	721-3149	722-3149
1-13/16	3/4	2	4-1/4	4	720-3152	721-3152	722-3152
1-7/8	3/4	2	4-3/8	4	720-3150	721-3150	722-3150
1-7/8	3/4	2	4-1/2	6	720-3153	721-3153	722-3153
1-7/8	1-1/4	2	4-1/2	6	720-3154	721-3154	722-3154
1-7/8	1-1/4	2	4-1/2	8	720-3155	721-3155	722-3155
2	3/4	1-1/2	3-7/8	8	720-3183		
2	3/4	1-1/2	3-7/8	6	720-3185	721-3185	722-3185
2	3/4	2	4-1/4	4	720-3156	721-3156	722-3156
2	3/4	2	4-1/2	6	720-3157	721-3157	722-3157
2	3/4	2	4-1/2	8	720-3158	721-3158	722-3158
2	1-1/4	2	4-1/2	4	720-3161	721-3161	722-3161
2	1-1/4	2	4-1/2	6	720-3163	721-3163	722-3163
2	1-1/4	2	4-1/2	8	720-3159	721-3159	722-3159
2	1-1/4	2	5-1/2	6	720-3165	721-3165	722-3165
2	2	2	5-3/4	6	720-3166	721-3166	722-3166
2-1/4	1-1/4	2	4-1/2	6	720-3167	721-3167	722-3167
2-1/4	1-1/4	3	5-1/2	8	720-3169	721-3169	722-3169

mhc® Industrial Supply

Multiple Flute Single End Mills 单头多齿立铣刀



Long Flute

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/4”	3/8”	1-1/4”	3-1/16”	4	**720-3501**	**721-3501**	**722-3501**	1-1/4”	3/4”	4”	6-1/2”	6	**720-3520**	**721-3520**	**722-3520**
5/16	3/8	1-3/8	3-1/8	4	**720-3503**	**721-3503**	**722-3503**	1-1/4	1	4	6-1/2	6	**720-3521**	**721-3521**	**722-3521**
3/8	3/8	1-1/2	3-1/4	4	**720-3505**	**721-3505**	**722-3505**	1-1/4	1-1/4	4	6-1/2	4	**720-3523**	**721-3523**	**722-3523**
7/16	1/2	1-3/4	3-3/4	4	**720-3507**	**721-3507**	**722-3507**	1-1/4	1-1/4	4	6-1/2	6	**720-3525**	**721-3525**	**722-3525**
1/2	1/2	2	4	4	**720-3509**	**721-3509**	**722-3509**	1-3/8	1	4	6-1/2	6	**720-3527**	**721-3527**	**722-3527**
5/8	5/8	2-1/2	4-5/8	4	**720-3511**	**721-3511**	**722-3511**	1-1/2	1	4	6-1/2	6	**720-3529**	**721-3529**	**722-3529**
5/8	1/2	2-1/2	4-5/8	4	**720-3512**	**721-3512**	**722-3512**	1-1/2	1-1/4	4	6-1/2	4	**720-3531**	**721-3531**	**722-3531**
3/4	3/4	3	5-1/4	4	**720-3513**	**721-3513**	**722-3513**	1-1/2	1-1/4	4	6-1/2	6	**720-3533**	**721-3533**	**722-3533**
3/4	1/2	3	5-1/4	4	**720-3514**	**721-3514**	**722-3514**	1-3/4	1-1/4	4	6-1/2	4	**720-3534**	**721-3534**	**722-3534**
7/8	7/8	3-1/2	5-3/4	4	**720-3515**	**721-3515**	**722-3515**	1-3/4	1-1/4	4	6-1/2	6	**720-3535**	**721-3535**	**722-3535**
7/8	3/4	3-1/2	5-3/4	4	**720-3516**	**721-3516**	**722-3516**	2	1-1/4	4	6-1/2	4	**720-3537**	**721-3537**	**722-3537**
1	1	4	6-1/2	4	**720-3517**	**721-3517**	**722-3517**	2	1-1/4	4	6-1/2	6	**720-3539**	**721-3539**	**722-3539**
1	3/4	4	6-1/2	4	**720-3518**			2	1-1/4	4	6-1/2	8	**720-3541**	**721-3541**	**722-3541**
1-1/8	1	4	6-1/2	6	**720-3519**	**721-3519**	**722-3519**								
1-1/8	3/4	4	6-1/2	6	**720-3522**										



Extra Long Flute

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.	Size		Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/4”	3/8”	1-3/4”	3-9/16”	4	**720-3601**	**721-3601**	**722-3601**	7/8”	7/8”	5”	7-1/4”	4	**720-3613**	**721-3613**	**722-3613**
5/16	3/8	2	3-3/4	4	**720-3603**	**721-3603**	**722-3603**	1	1	6	8-1/2	4	**720-3615**	**721-3615**	**722-3615**
3/8	3/8	2-1/2	4-1/4	4	**720-3605**	**721-3605**	**722-3605**	1-1/4	1-1/4	6	8-1/2	6	**720-3617**	**721-3617**	**722-3617**
1/2	1/2	3	5	4	**720-3607**	**721-3607**	**722-3607**	1-1/4	1-1/4	6	8-1/2	4	**720-3618**	**721-3618**	**722-3618**
5/8	5/8	4	6-1/8	4	**720-3609**	**721-3609**	**722-3609**	1-1/2	1-1/4	6	8-1/2	6	**720-3619**	**721-3619**	**722-3619**
5/8	1/2	4	6-1/8	4	**720-3610**	**721-3610**	**722-3610**	1-1/2	1-1/4	6	8-1/2	4	**720-3620**	**721-3620**	**722-3620**
3/4	3/4	4	6-1/4	4	**720-3611**	**721-3611**	**722-3611**	1-1/2	1-1/4	8	10-1/2	6	**720-3622**		
3/4	1/2	4	6-1/4	4	**720-3612**	**721-3612**	**722-3612**	1-1/2	1-1/4	8	10-9/16	6	**720-3621**	**721-3621**	**722-3621**

Multiple Flute Heavy Duty End Mills 英制重型立铣刀

- Designed for rough cutting applications in a wide range of materials.
- Positive lock shank provides th grip needed to withstand the high torque generated.



Large Diameter, Positive Lock

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.
2”	2”	2”	5-3/4”	4	**720-3910**	2-1/2”	2-1/2”	6”	9-3/4”	4	**720-3929**
2	2	3	6-3/4	4	**720-3912**	2-1/2	2-1/2	6	9-3/4	6	**720-3930**
2	2	4	7-3/4	4	**720-3914**	2-1/2	2-1/2	8	11-3/4	4	**720-3931**
2	2	4	7-3/4	6	**720-3916**	2-1/2	2-1/2	8	11-3/4	6	**720-3932**
2	2	6	9-3/4	4	**720-3918**	2-1/2	2-1/2	10	13-3/4	4	**720-3933**
2	2	6	9-3/4	6	**720-3920**	2-1/2	2-1/2	10	13-3/4	6	**720-3934**
2	2	8	11-3/4	4	**720-3921**	3	2-1/2	4	8	4	**720-3935**
2	2	8	11-3/4	6	**720-3922**	3	2-1/2	4	8	6	**720-3936**
2	2	10	13-3/4	4	**720-3923**	3	2-1/2	6	10	4	**720-3937**
2	2	10	13-3/4	6	**720-3924**	3	2-1/2	6	10	6	**720-3938**
2	2	12	15-3/4	4	**720-3925**	3	2-1/2	8	12	4	**720-3939**
2	2	12	15-3/4	6	**720-3926**	3	2-1/2	8	12	6	**720-3940**
2-1/2	2-1/2	4	7-3/4	4	**720-3927**	3	2-1/2	10	14	4	**720-3941**
2-1/2	2-1/2	4	7-3/4	6	**720-3928**	3	2-1/2	10	14	6	**720-3942**

Multiple Flute Single End Mills 多齿单头中心切削立铣刀

Center Cutting, High Speed Steel

- Recommended for finishing operations in a wide range of ferrous and non-ferrous materials.
- Center cutting design allows for plunge milling into solid material at the beginning of a slotting operation.
- TiN coating increases surface hardness and resists abrasive wear.

Four/Multiple-Flute End Mills-Produce finer finishes and last longer than two or three-flute tools. Compared to two-flute tools, *four-flute end mills* remove metal faster and can be fed two to three times faster; *six-flute end mills* can be fed three times faster.



Regular Length

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/8"	3/8"	3/8"	2-5/16"	4	720-3201	721-3201	722-3201
3/16	3/8	1/2	2-3/8	4	720-3203	721-3203	722-3203
1/4	3/8	5/8	2-7/16	4	720-3204	721-3204	722-3204
1/4	3/8	5/8	2-1/2	4	720-3205	721-3205	722-3205
9/32	3/8	3/4	2-1/2	4	720-3206		722-3206
5/16	3/8	3/4	2-1/2	4	720-3207	721-3207	722-3207
3/8	3/8	3/4	2-1/2	4	720-3209	721-3209	722-3209
7/16	3/8	1	2-11/16	4	720-3206	721-3206	722-3206
1/2	3/8	13/16	2-1/2	4	720-3210	721-3210	722-3210
1/2	1/2	1-1/4	3-1/4	4	720-3211	721-3211	722-3211
1/2	3/8	1	2-11/16	4	720-3212		722-3212
5/8	5/8	1-5/8	3-3/4	4	720-3213	721-3213	722-3213
9/16	1/2	1-3/8	3-3/8	4	720-3214	721-3214	722-3214
11/16	5/8	1-5/8	3-3/4	4	720-3215	721-3215	722-3215
3/4	5/8	1-5/8	3-3/4	4	720-3216	721-3216	722-3216
3/4	3/4	1-5/8	3-7/8	4	720-3217	721-3217	722-3217
7/8	3/4	1-7/8	4-1/8	4	720-3218	721-3218	722-3218
7/8	7/8	1-7/8	4-1/8	4	720-3219	721-3219	722-3219
1	3/4	1-7/8	4-1/8	4	720-3220	721-3220	722-3220
1	1	2	4-1/2	4	720-3221	721-3221	722-3221
1	1	2	4-1/2	6	720-3222		
1-1/8	1	2	4-1/2	4	720-3223	721-3223	722-3223
1-1/8	1	2	4-1/2	6	720-3225	721-3225	722-3225
1-1/4	1-1/4	2	4-1/2	4	720-3227	721-3227	722-3227
1-1/4	1-1/4	3	5-1/2	4	720-3226	721-3226	722-3226
1-1/4	1-1/4	2	4-1/2	6	720-3228	721-3228	722-3228
1-1/2	1-1/4	2	4-1/2	4	720-3229	721-3229	722-3229
1-1/2	1-1/4	2	4-1/2	6	720-3230	721-3230	722-3230



Long Length

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/4"	3/8"	1-1/4"	3-1/16"	4	720-3301	721-3301	722-3301	1-1/4"	1-1/4"	3"	5-1/2"	4	720-3327	721-3327	722-3327
5/16	3/8	1-3/8	3-1/8	4	720-3303	721-3303	722-3303	1-1/4	1-1/4	4	6-1/2	4	720-3331	721-3331	722-3331
3/8	3/8	1-1/2	3-1/4	4	720-3305	721-3305	722-3305	1-1/4	1-1/4	3	5-1/2	6	720-3329	721-3329	722-3329
7/16	1/2	1-3/4	3-3/4	4	720-3306	721-3306	722-3306	1-1/4	1	4	6-1/2	6	720-3328	721-3328	722-3328
1/2	1/2	2	4	4	720-3307	721-3307	722-3307	1-1/4	3/4	4	6-1/2	6	720-3330	721-3330	722-3330
5/8	1/2	2-1/2	4-5/8	4	720-3308	721-3308	722-3308	1-1/4	1-1/4	4	6-1/2	6	720-3332	721-3332	722-3332
5/8	5/8	2-1/2	4-5/8	4	720-3309	721-3309	722-3309	1-3/8	1	4	6-1/2	6	720-3334	721-3334	722-3334
5/8	5/8	3	5-1/8	4	720-3311	721-3311	722-3311	1-1/2	1-1/4	3	5-1/2	4	720-3333	721-3333	722-3333
3/4	3/4	2	4-1/4	4	720-3315	721-3315	722-3315	1-1/2	1-1/4	4	6-1/2	4	720-3338	721-3338	722-3338
3/4	3/4	3	5-1/4	4	720-3313	721-3313	722-3313	1-1/2	1-1/4	3	5-1/2	6	720-3335	721-3335	722-3335
3/4	1/2	3	5-1/4	4	720-3318	721-3318	722-3318	1-1/2	1-1/4	4	6-1/2	6	720-3336	721-3336	722-3336
3/4	3/4	2	4-1/4	6	720-3317	721-3317	722-3317	1-1/2	1	4	6-1/2	6	720-3339	721-3339	722-3339
7/8	7/8	3-1/2	5-3/4	4	720-3319	721-3319	722-3319	1-3/4	1-1/4	3	5-1/2	4	720-3337	721-3337	722-3337
1	1	3	5-1/2	4	720-3321	721-3321	722-3321	1-3/4	1-1/4	4	6-1/2	6	720-3340	721-3340	722-3340
1	3/4	4	6-1/2	4	720-3322	721-3322	722-3322	2	1-1/4	4	6-1/2	4	720-3342	721-3342	722-3342
1	1	4	6-1/2	4	720-3325	721-3325	722-3325	2	1-1/4	4	6-1/2	6	720-3344	721-3344	722-3344
1	1	3	5-1/2	6	720-3323	721-3323	722-3323	2	1-1/4	4	6-1/2	8	720-3346	721-3346	722-3346
1-1/8	1	4	6-1/2	6	720-3324	721-3324	722-3324								
1-1/8	3/4	4	6-1/2	6	720-3326	721-3326	722-3326								



Extra Long Length

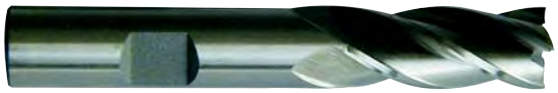
Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/4"	3/8"	1-3/4"	3-1/2"	4	720-3401	721-3401	722-3401	3/4"	1/2"	4"	6-1/4"	4	720-3412	721-3412	722-3412
1/4	3/8	1-3/4	3-9/16	4	720-3402	721-3402	722-3402	7/8	7/8	5	7-1/4	4	720-3413	721-3413	722-3413
5/16	3/8	2	3-3/4	4	720-3403	721-3403	722-3403	1	1	6	8-1/2	4	720-3415	721-3415	722-3415
3/8	3/8	2-1/2	4-1/4	4	720-3405	721-3405	722-3405	1-1/4	1-1/4	6	8-1/2	4	720-3417	721-3417	722-3417
1/2	1/2	3	5"	4	720-3407	721-3407	722-3407	1-1/4	1-1/4	6	8-1/2	6	720-3418	721-3418	722-3418
5/8	1/2	4	6-1/8	4	720-3410	721-3410	722-3410	1-1/2	1-1/4	6	8-1/2	4	720-3419	721-3419	722-3419
5/8	5/8	4	6-1/8	4	720-3409	721-3409	722-3409	1-1/2	1-1/4	6	8-1/2	6	720-3416	721-3416	722-3416
3/4	3/4	4	6-1/4	4	720-3411	721-3411	722-3411	1-1/2	1-1/4	8	10-9/16	6	720-3400	721-3400	722-3400

M42 8% Cobalt Multiple Flute Single End Mills M42 单头多齿立铣刀

- Designed for general purpose work including cam milling, die sinking and slot milling.
- Suitable for use in a wide range of ferrous and non-ferrous materials.
- Excellent for use in finishing operations.
- Multi-flute design allows for higher feed rates.

Four/Multiple-Flute End Mills—Produce finer finishes and last longer than two or three-flute tools. Compared to two-flute tools, *four-flute end mills* remove metal faster and can be fed two to three times faster; *six-flute end mills* can be fed three times faster.





Regular Length

Size	Shank Dia.	Flute Length	Overall Length	No.of Flute	Order No.
7/64”	3/8”	3/8”	2-5/16”	4	**723-3001**
1/8	3/8	3/8	2-5/16	4	**723-3003**
9/64	3/8	3/8	2-5/16	4	**723-3005**
5/32	3/8	7/16	2-3/8	4	**723-3007**
11/64	3/8	7/16	2-3/8	4	**723-3009**
11/64	3/8	1/2	2-5/16	4	**723-3422**
3/16	3/8	1/2	2-3/8	4	**723-3011**
13/64	3/8	1/2	2-3/8	4	**723-3013**
7/32	3/8	9/16	2-1/2	4	**723-3015**
15/64	3/8	9/16	2-1/2	4	**723-3017**
1/4	3/8	5/8	2-1/2	4	**723-3019**
17/64	3/8	5/8	2-1/2	4	**723-3021**
9/32	3/8	11/16	2-1/2	4	**723-3023**
19/64	3/8	11/16	2-1/2	4	**723-3025**
5/16	3/8	3/4	2-1/2	4	**723-3027**
21/64	3/8	3/4	2-1/2	4	**723-3029**
11/32	3/8	3/4	2-1/2	4	**723-3031**
23/64	3/8	3/4	2-1/2	4	**723-3033**
3/8	3/8	3/4	2-1/2	4	**723-3035**
13/32	3/8	1	2-11/16	4	**723-3037**
7/16	3/8	1	2-11/16	4	**723-3039**
15/32	3/8	1	2-11/16	4	**723-3042**
15/32	1/2	1-1/4	3-1/4	4	**723-3041**
1/2	3/8	1	2-11/16	4	**723-3043**
1/2	1/2	1-1/4	3-1/4	4	**723-3045**
1/2	1/2	1-1/4	3-1/4	6	**723-3046**
17/32	1/2	1-3/8	3-3/8	4	**723-3047**
9/16	1/2	1-3/8	3-3/8	4	**723-3049**
19/32	1/2	1-3/8	3-3/8	4	**723-3051**
5/8	1/2	1-3/8	3-3/8	4	**723-3053**
5/8	5/8	1-5/8	3-3/4	6	**723-3056**
5/8	5/8	1-5/8	3-3/4	4	**723-3055**
21/32	1/2	1-5/8	3-5/8	4	**723-3057**
11/16	1/2	1-5/8	3-5/8	4	**723-3059**
11/16	5/8	1-5/8	3-3/4	4	**723-3061**
23/32	1/2	1-5/8	3-5/8	4	**723-3063**
3/4	1/2	1-5/8	3-5/8	4	**723-3065**
3/4	5/8	1-5/8	3-3/4	4	**723-3067**
3/4	3/4	1-5/8	3-3/4	4	**723-3069**
3/4	3/4	1-5/8	3-3/4	6	**723-3070**
25/32	1/2	1-5/8	3-5/8	4	**723-3071**
13/16	5/8	1-7/8	4	4	**723-3074**
13/16	5/8	1-7/8	4	6	**723-3073**
13/16	3/4	1-7/8	4-1/8	4	**723-3075**
27/32	1/2	1-5/8	3-5/8	4	**723-3077**
7/8	1/2	1-5/8	3-5/8	4	**723-3079**
7/8	1/2	1-5/8	3-5/8	6	**723-3081**
7/8	1/2	1-7/8	4	4	**723-3080**
7/8	1/2	1-7/8	4	6	**723-3082**
7/8	5/8	1-7/8	4	6	**723-3083**
7/8	3/4	1-7/8	4-1/8	4	**723-3085**
7/8	3/4	1-7/8	4-1/8	6	**723-3086**
7/8	7/8	1-7/8	4-1/8	4	**723-3087**
29/32	1/2	1-7/8	3-7/8	4	**723-3089**
15/16	1/2	1-7/8	4	4	**723-3090**
15/16	5/8	1-7/8	4-1/8	6	**723-3092**
15/16	3/4	1-7/8	4-1/8	4	**723-3093**
15/16	3/4	1-7/8	4-1/8	6	**723-3170**
15/16	7/8	1-7/8	4-1/8	4	**723-3095**
15/16	7/8	1-7/8	4-1/8	6	**723-3096**
31/32	1/2	1-7/8	3-7/8	4	**723-3097**

Size	Shank Dia.	Flute Length	Overall Length	No.of Flute	Order No.
1	1/2	1-7/8	4	4	**723-3099**
1	1/2	1-7/8	4	6	**723-3100**
1	5/8	1-7/8	4	6	**723-3101**
1	5/8	1-7/8	4	4	**723-3102**
1	3/4	1-7/8	4	6	**723-3106**
1	3/4	1-7/8	4-1/8	4	**723-3103**
1	7/8	1-7/8	4-1/8	4	**723-3105**
1	3/4	2	4-1/2	4	**723-3104**
1	1	2	4-1/2	4	**723-3107**
1	1	2	4-1/2	6	**723-3108**
1-1/16	3/4	2	4-1/4	6	**723-3109**
1-1/8	3/4	1-1/2	3-7/8	6	**723-3171**
1-1/8	3/4	2	4-1/4	4	**723-3112**
1-1/8	3/4	2	4-1/4	6	**723-3111**
1-1/8	7/8	2	4-1/4	6	**723-3113**
1-1/8	1	2	4-1/4	4	**723-3114**
1-1/8	1	2	4-1/2	6	**723-3115**
1-1/8	3/4	2	4-1/2	6	**723-3173**
1-1/8	1	2-5/8	4-1/2	4	**723-3116**
1-3/16	3/4	2	4-1/4	6	**723-3117**
1-3/16	1	2	4-1/4	6	**723-3118**
1-1/4	3/4	2	4-1/4	6	**723-3119**
1-1/4	7/8	2	4-1/4	4	**723-3120**
1-1/4	7/8	2	4-1/4	6	**723-3121**
1-1/4	1	2	4-1/2	6	**723-3123**
1-1/4	1-1/4	2	4-1/2	4	**723-3124**
1-1/4	1-1/4	2	4-1/2	6	**723-3125**
1-1/4	1-1/4	2	4-1/2	4	**723-3126**
1-5/16	3/4	2	4-1/2	6	**723-3127**
1-3/8	3/4	2	4-1/4	6	**723-3128**
1-3/8	3/4	2	4-1/2	6	**723-3129**
1-3/8	1	2	4-1/2	6	**723-3131**
1-3/8	1-1/4	2	4-1/2	6	**723-3130**
1-7/16	3/4	2	4-1/2	6	**723-3133**
1-1/2	3/4	2	4-1/2	6	**723-3135**
1-1/2	1	2	4-1/2	4	**723-3136**
1-1/2	1	2	4-1/2	6	**723-3137**
1-1/2	1-1/4	2	4-1/2	4	**723-3141**
1-1/2	1-1/4	2	4-1/2	6	**723-3139**
1-5/8	3/4	1-5/8	3-7/8	6	**723-3142**
1-5/8	3/4	2	4-1/2	6	**723-3143**
1-5/8	1-1/4	2	4-1/2	4	**723-3144**
1-5/8	1-1/4	2	4-1/2	6	**723-3145**
1-3/4	3/4	1-1/2	3-7/8	6	**723-3172**
1-3/4	3/4	2	4-1/2	4	**723-3146**
1-3/4	3/4	2	4-1/2	6	**723-3147**
1-3/4	1-1/4	2	4-1/2	4	**723-3151**
1-3/4	1-1/4	2	4-1/2	6	**723-3149**
1-13/16	3/4	2	4-1/4	4	**723-3152**
1-7/8	3/4	2	4-1/2	6	**723-3153**
1-7/8	1-1/4	2	4-1/2	6	**723-3154**
1-7/8	1-1/4	2	4-1/2	8	**723-3155**
2	3/4	2	4-1/2	6	**723-3157**
2	3/4	2	4-1/2	8	**723-3158**
2	1-1/4	2	4-1/2	4	**723-3161**
2	1-1/4	2	4-1/2	6	**723-3163**
2	1-1/4	2	4-1/2	8	**723-3159**
2	1-1/4	2	5-1/2	6	**723-3165**
2	2	2	5-3/4	6	**723-3166**
2-1/4	1-1/4	2	4-1/2	6	**723-3167**
2-1/4	1-1/4	3	5-1/2	8	**723-3169**
2-1/2	2	4	7-5/8	6	**723-3168**

M42 8% Cobalt Multiple Flute Single End Mills continued

M42 单头多齿立铣刀

Four/Multiple-Flute End Mills— Produce finer finishes and last longer than two or three-flute tools. Compared to two-flute tools, *four-flute end mills* remove metal faster and can be fed two to three times faster; *six-flute end mills* can be fed three times faster.

F.Y.I

M-42 cobalt end mills are more economocal than high speed steel end mills. They stay sharper longer to alow more cuts between grinds and reduce downtime to give you lower cost per machined workpiece!



Cobalt

Long Flute

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
1/4”	3/8”	1-1/4”	3-1/16”	4	723-3501
5/16	3/8	1-3/8	3-1/8	4	723-3503
3/8	3/8	1-1/2	3-1/4	4	723-3505
7/16	1/2	1-3/4	3-3/4	4	723-3507
1/2	1/2	2	4	4	723-3509
5/8	5/8	2-1/2	4-5/8	4	723-3511
5/8	1/2	2-1/2	4-5/8	4	723-3512
3/4	3/4	3	5-1/4	4	723-3513
3/4	1/2	3	5-1/4	4	723-3514
7/8	7/8	3-1/2	5-3/4	4	723-3515
7/8	3/4	3-1/2	5-3/4	4	723-3516
1	1	4	6-1/2	4	723-3517
1-1/8	1	4	6-1/2	6	723-3519
1-1/4	3/4	4	6-1/2	6	723-3520

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
1-1/4”	1”	4”	6-1/2”	6	723-3521
1-1/4	1-1/4	4	6-1/2	4	723-3523
1-1/4	1-1/4	4	6-1/2	6	723-3525
1-3/8	1	4	6-1/2	6	723-3527
1-1/2	1	4	6-1/2	6	723-3529
1-1/2	1-1/4	4	6-1/2	4	723-3531
1-1/2	1-1/4	4	6-1/2	6	723-3533
1-3/4	1-1/4	4	6-1/2	4	723-3534
1-3/4	1-1/4	4	6-1/2	6	723-3535
2	1-1/4	4	6-1/2	4	723-3537
2	1-1/4	4	6-1/2	6	723-3539
2	1-1/4	4	6-1/2	8	723-3541
2-1/2	2	4	7-5/8	6	723-3542



Cobalt

Extra Long Flute

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
1/4”	3/8”	1-3/4”	3-9/16”	4	723-3601
5/16	3/8	2	3-3/4	4	723-3603
3/8	3/8	2-1/2	4-1/4	4	723-3605
1/2	1/2	3	5	4	723-3607
5/8	5/8	4	6-1/8	4	723-3609
5/8	1/2	4	6-1/8	4	723-3610
3/4	3/4	4	6-1/4	4	723-3611
3/4	1/2	4	6-1/4	4	723-3612

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
7/8”	7/8”	5”	7-1/4”	4	723-3613
1	1	6	8-1/2	4	723-3615
1-1/4	1-1/4	6	8-1/2	6	723-3617
1-1/4	1-1/4	6	8-1/2	4	723-3618
1-1/2	1-1/4	6	8-1/2	6	723-3619
1-1/2	1-1/4	6	8-1/2	4	723-3620
1-1/2	1-1/4	8	10-9/16	6	723-3621

M42 8% Cobalt Multiple Flute Single End Mills M42 单头多齿中心切削立铣刀

Center Cutting

- Suitable for use in a wide range of ferrous and non-ferrous materials.
- Excellent for use in finishing operations.
- Multi-flute design allows for higher feed rates.
- Center cutting is perfect for jobs that require drilling or plunge cutting to start a slot and for spot facing and counterboring.



Regular Length

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1/8”	3/8”	3/8”	2-5/16”	4	**723-3201**
5/32	3/8	1/2	2-3/8	4	**723-3202**
3/16	3/8	1/2	2-3/8	4	**723-3203**
7/32	3/8	9/16	2-7/16	4	**723-3900**
1/4	3/8	5/8	2-7/16	4	**723-3204**
1/4	3/8	5/8	2-1/2	4	**723-3205**
9/32	3/8	3/4	2-1/2	4	**723-3206**
5/16	3/8	3/4	2-1/2	4	**723-3207**
3/8	3/8	3/4	2-1/2	4	**723-3209**
7/16	3/8	13/16	2-1/2	4	**723-3208**
7/16	3/8	1	2-11/16	4	**723-3901**
15/32	3/8	1	2-11/16	4	**723-3902**
1/2	3/8	13/16	2-1/2	4	**723-3210**
1/2	3/8	1	2-11/16	4	**723-3903**
1/2	1/2	1-1/4	3-1/4	4	**723-3211**
1/2	3/8	1	2-11/16	4	**723-3212**
9/16	1/2	1-1/8	3-3/8	4	**723-3214**
5/8	1/2	1-3/8	3-3/8	4	**723-3905**
5/8	5/8	1-5/8	3-3/4	4	**723-3213**
11/16	5/8	1-5/8	3-3/4	4	**723-3215**
3/4	1/2	1-5/8	3-5/8	4	**723-3907**
3/4	5/8	1-5/8	3-3/4	4	**723-3216**
3/4	3/4	1-5/8	3-7/8	4	**723-3217**
13/16	3/4	1-7/8	4-1/8	4	**723-3909**
7/8	5/8	1-1/2	3-5/8	4	**723-3911**
7/8	1/2	1-5/8	3-5/8	4	**723-3913**
7/8	1/2	1-7/8	4	4	**723-3914**
7/8	5/8	1-7/8	4	4	**723-3912**
7/8	3/4	1-7/8	4-1/8	4	**723-3218**
7/8	7/8	1-7/8	4-1/8	4	**723-3219**
15/16	3/4	1-7/8	4-1/8	4	**723-3916**
15/16	7/8	1-7/8	4-1/8	4	**723-3915**
1	1/2	1-7/8	3-7/8	4	**723-3917**
1	5/8	1-7/8	4	4	**723-3920**
1	5/8	1-7/8	4	6	**723-3919**
1	1/2	1-7/8	4-1/8	4	**723-3918**
1	3/4	1-7/8	4-1/8	4	**723-3220**
1	1	2	4-1/2	4	**723-3221**
1	1	3	5-1/2	4	**723-3222**
1-1/16	3/4	1-5/8	3-7/8	4	**723-3921**

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1-1/16”	3/4”	1-5/8”	3-7/8”	6	**723-3922**
1-1/8	3/4	1-1/2	3-7/8	6	**723-3924**
1-1/8	3/4	2	4-1/8	6	**723-3950**
1-1/8	7/8	2	4-1/4	6	**723-3923**
1-1/8	1	2	4-1/2	4	**723-3223**
1-1/8	1	2	4-1/2	6	**723-3225**
1-3/16	3/4	1-1/2	3-7/8	6	**723-3926**
1-3/16	3/4	1-5/8	3-7/8	4	**723-3925**
1-1/4	3/4	1-1/2	3-7/8	6	**723-3928**
1-1/4	3/4	2	4-1/2	6	**723-3975**
1-1/4	1-1/4	2	4-1/2	4	**723-3227**
1-1/4	1	2	4-1/2	6	**723-3927**
1-1/4	1-1/4	2	4-1/2	6	**723-3228**
1-1/4	1-1/4	3	5-1/2	4	**723-3226**
1-5/16	3/4	1-5/8	3-7/8	4	**723-3929**
1-5/16	3/4	2	4-3/8	6	**723-3930**
1-3/8	3/4	2	4-3/8	6	**723-3932**
1-3/8	1	2	4-1/2	6	**723-3931**
1-3/8	1-1/4	2	4-1/2	4	**723-3933**
1-7/16	3/4	1-5/8	3-7/8	4	**723-3935**
1-7/16	3/4	2	4-3/8	6	**723-3936**
1-1/2	3/4	2	4-3/8	6	**723-3938**
1-1/2	1-1/4	2	4-1/2	4	**723-3229**
1-1/2	1	2	4-1/2	6	**723-3937**
1-1/2	1-1/4	2	4-1/2	6	**723-3230**
1-5/8	3/4	1-5/8	4-1/8	4	**723-3939**
1-5/8	3/4	1-5/8	4-1/8	6	**723-3942**
1-5/8	3/4	2	4-1/2	6	**723-3940**
1-5/8	1-1/4	2	4-1/2	6	**723-3941**
1-3/4	1-1/4	2	4-1/2	4	**723-3943**
1-3/4	3/4	2	4-1/2	6	**723-3944**
1-3/4	1-1/4	2	4-1/2	6	**723-3231**
1-7/8	3/4	2	4-3/8	6	**723-3951**
1-7/8	1-1/4	2	4-3/8	6	**723-3953**
2	3/4	2	4-1/2	6	**723-3955**
2	1-1/4	2	4-1/2	4	**723-3947**
2	1-1/4	2	4-1/2	6	**723-3239**
2	1-1/4	2	4-1/2	8	**723-3945**

Long Length



Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
1/4”	3/8”	1-1/4”	3-1/16”	4	**723-3301**
1/4	3/8	1-3/4	3-9/16	4	**723-3302**
5/16	3/8	1-3/8	3-1/8	4	**723-3303**
3/8	3/8	1-1/2	3-1/4	4	**723-3305**
7/16	1/2	1-3/4	3-3/4	4	**723-3306**
1/2	1/2	2	4	4	**723-3307**
5/8	1/2	2-1/2	4-5/8	4	**723-3308**
5/8	5/8	2-1/2	4-5/8	4	**723-3309**
5/8	5/8	3	5-1/8	4	**723-3311**
3/4	3/4	2	4-1/4	4	**723-3315**
3/4	3/4	3	5-1/4	4	**723-3313**
3/4	1/2	3	5-1/4	4	**723-3318**
3/4	3/4	2	4-1/4	6	**723-3317**
7/8	7/8	3-1/2	5-3/4	4	**723-3319**
1	1	3	5-1/2	4	**723-3321**
1	3/4	4	6-1/2	4	**723-3322**
1	1	4	6-1/2	4	**723-3325**
1	1	3	5-1/2	6	**723-3323**
1-1/8	1	4	6-1/2	6	**723-3324**

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
1-1/8	3/4	4	6-1/2	6	**723-3326**
1-1/4”	1-1/4”	3”	5-1/2”	4	**723-3327**
1-1/4	1-1/4	4	6-1/2	4	**723-3331**
1-1/4	1-1/4	3	5-1/2	6	**723-3329**
1-1/4	1	4	6-1/2	6	**723-3328**
1-1/4	3/4	4	6-1/2	6	**723-3330**
1-1/4	1-1/4	4	6-1/2	6	**723-3332**
1-3/8	1	4	6-1/2	6	**723-3334**
1-1/2	1-1/4	3	5-1/2	4	**723-3333**
1-1/2	1-1/4	4	6-1/2	4	**723-3338**
1-1/2	1-1/4	3	5-1/2	6	**723-3335**
1-1/2	1-1/4	4	6-1/2	6	**723-3336**
1-1/2	1	4	6-1/2	6	**723-3339**
1-3/4	1-1/4	3	5-1/2	4	**723-3337**
1-3/4	1-1/4	4	6-1/2	6	**723-3340**
2	1-1/4	4	6-1/2	4	**723-3342**
2	1-1/4	4	6-1/2	6	**723-3344**
2	1-1/4	4	6-1/2	8	**723-3346**
2-1/2	2	4	7-5/8	6	**723-3348**

M42 8% Cobalt Multiple Flute Single End Mills M42 单头中心切削超长刃立铣刀

Center Cutting

Extra Long Length



Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
1/4”	3/8”	1-3/4”	3-1/2”	4	**723-3401**	3/4”	1/2”	4”	6-1/4”	4	**723-3412**
1/4	3/8	1-3/4	3-9/16	4	**723-3402**	7/8	7/8	5	7-1/4	4	**723-3413**
5/16	3/8	2	3-3/4	4	**723-3403**	1	1	6	8-1/2	4	**723-3415**
3/8	3/8	2-1/2	4-1/4	4	**723-3405**	1-1/4	1-1/4	6	8-1/2	4	**723-3417**
1/2	1/2	3	5”	4	**723-3407**	1-1/4	1-1/4	6	8-1/2	6	**723-3418**
5/8	1/2	4	6-1/8	4	**723-3410**	1-1/2	1-1/4	6	8-1/2	4	**723-3419**
5/8	5/8	4	6-1/8	4	**723-3409**	1-1/2	1-1/4	6	8-1/2	6	**723-3416**
3/4	3/4	4	6-1/4	4	**723-3411**	1-1/2	1-1/4	8	10-9/16	6	**723-3400**

4 Flute Double End Mills 4 齿双头中心切削立铣刀

High Speed Steel, Center Cutting



- Center cutting design allows for plunge milling into solid material at the beginning of a slotting operation.

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2AI Order No.	TiN-Coated Order No.
1/8	3/8	3/8	3-1/16	**720-4102**	**721-4102**	**722-4102**
5/32	3/8	7/16	3-1/8	**720-4103**	**721-4103**	**722-4103**
3/16	3/8	1/2	3-1/4	**720-4104**	**721-4104**	**722-4104**
1/4	3/8	5/8	3-3/8	**720-4106**	**721-4106**	**722-4106**
5/16	3/8	3/4	3-1/2	**720-4108**	**721-4108**	**722-4108**
11/32	3/8	3/4	3-1/2	**720-4109**		**722-4109**
3/8	3/8	3/4	3-1/2	**720-4110**	**721-4110**	**722-4110**
7/16	1/2	1	4-1/8	**720-4111**		
1/2	1/2	1	4-1/8	**720-4112**	**721-4112**	**722-4112**
5/8	5/8	1-3/8	5	**720-4114**	**721-4114**	**722-4114**
3/4	3/4	1-5/8	5-5/8	**720-4116**	**721-4116**	**722-4116**
7/8	7/8	1-7/8	6-1/8	**720-4118**	**721-4118**	**722-4118**
1	1	1-7/8	6-3/8	**720-4120**	**721-4120**	**722-4120**

4 Flute Double End Mills 4 齿双头立铣刀

High Speed Steel



- Recommended for finishing operations in a wide range of ferrous and non-ferrous materials.
- Multiple flutes generate higher surface finish than 2 flute end mills.
- More economical in production milling than single end mills.

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2AI Order No.	TiN-Coated Order No.
7/64”	3/8”	3/8”	3-1/16”	**720-4002**	**721-4002**	**722-4002**
1/8	3/8	3/8	3-1/16	**720-4004**	**721-4004**	**722-4004**
9/64	3/8	7/16	3-1/8	**720-4006**	**721-4006**	**722-4006**
5/32	3/8	7/16	3-1/8	**720-4008**	**721-4008**	**722-4008**
11/64	3/8	7/16	3-1/8	**720-4011**	**721-4011**	**722-4011**
11/64	3/8	1/2	3-1/4	**720-4010**	**721-4010**	**722-4010**
3/16	3/8	1/2	3-1/4	**720-4012**	**721-4012**	**722-4012**
13/64	3/8	1/2	3-1/4	**720-4013**	**721-4013**	**722-4013**
13/64	3/8	9/16	3-1/4	**720-4014**	**721-4014**	**722-4014**
7/32	3/8	9/16	3-1/4	**720-4016**	**721-4016**	**722-4016**
15/64	3/8	9/16	3-1/4	**720-4017**	**721-4017**	**722-4017**
15/64	3/8	5/8	3-3/8	**720-4018**	**721-4018**	**722-4018**
1/4	3/8	5/8	3-3/8	**720-4020**	**721-4020**	**722-4020**
17/64	3/8	11/16	3-3/8	**720-4022**	**721-4022**	**722-4022**
9/32	3/8	11/16	3-3/8	**720-4024**	**721-4024**	**722-4024**
19/64	3/8	11/16	3-3/8	**720-4025**	**721-4025**	**722-4025**
19/64	3/8	3/4	3-1/2	**720-4026**	**721-4026**	**722-4026**
5/16	3/8	3/4	3-1/2	**720-4028**	**721-4028**	**722-4028**
21/64	3/8	3/4	3-1/2	**720-4030**	**721-4030**	**722-4030**
11/32	3/8	3/4	3-1/2	**720-4032**	**721-4032**	**722-4032**
23/64	3/8	3/4	3-1/2	**720-4034**	**721-4034**	**722-4034**
3/8	3/8	3/4	3-1/2	**720-4036**	**721-4036**	**722-4036**
25/64	1/2	1	4-1/8	**720-4038**	**721-4038**	**722-4038**
13/32	1/2	1	4-1/8	**720-4040**	**721-4040**	**722-4040**

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2AI Order No.	TiN-Coated Order No.
13/32	1/2	1	4-3/16	**720-4039**	**721-4039**	**722-4039**
27/64	1/2	1	4-1/8	**720-4042**	**721-4042**	**722-4042**
7/16	1/2	1	4-1/8	**720-4044**	**721-4044**	**722-4044**
29/64	1/2	1	4-1/8	**720-4046**	**721-4046**	**722-4046**
15/32	1/2	1	4-1/8	**720-4048**	**721-4048**	**722-4048**
31/64	1/2	1	4-1/8	**720-4050**	**721-4050**	**722-4050**
1/2	1/2	1	4-1/8	**720-4052**	**721-4052**	**722-4052**
17/32	5/8	1-3/8	5	**720-4054**	**721-4054**	**722-4054**
9/16	5/8	1-3/8	5	**720-4056**	**721-4056**	**722-4056**
19/32	5/8	1-3/8	5	**720-4058**	**721-4058**	**722-4058**
5/8	5/8	1-3/8	5	**720-4060**	**721-4060**	**722-4060**
21/32	3/4	1-5/8	5-5/8	**720-4062**	**721-4062**	**722-4062**
11/16	3/4	1-5/8	5-5/8	**720-4064**	**721-4064**	**722-4064**
23/32	3/4	1-5/8	5-5/8	**720-4066**	**721-4066**	**722-4066**
3/4	3/4	1-5/8	5-5/8	**720-4068**	**721-4068**	**722-4068**
25/32	7/8	1-7/8	6-1/8	**720-4070**	**721-4070**	**722-4070**
13/16	7/8	1-7/8	6-1/8	**720-4072**	**721-4072**	**722-4072**
27/32	7/8	1-7/8	6-1/8	**720-4074**	**721-4074**	**722-4074**
7/8	7/8	1-7/8	6-1/8	**720-4076**	**721-4076**	**722-4076**
29/32	1	1-7/8	6-3/8	**720-4078**	**721-4078**	**722-4078**
15/16	1	1-7/8	6-3/8	**720-4080**	**721-4080**	**722-4080**
31/32	1	1-7/8	6-3/8	**720-4082**	**721-4082**	**722-4082**
1	1	1-7/8	6-3/8	**720-4084**	**721-4084**	**722-4084**

M42 8% Cobalt 4 Flute Double End Mills M42 4齿双头立铣刀

- Recommended for finishing operations in a wide range of ferrous and non-ferrous materials.
- Multiple flutes generate higher surface finish than 2 flute end mills.
- More economical in production milling than single end mills.



Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.
7/64"	3/8"	3/8"	3-1/16"	**723-4002**	27/64	1/2	1	4-1/8	**723-4042**
1/8	3/8	3/8	3-1/16	**723-4004**	7/16	1/2	1	4-1/8	**723-4044**
9/64	3/8	7/16	3-1/8	**723-4006**	29/64	1/2	1	4-1/8	**723-4046**
5/32	3/8	7/16	3-1/8	**723-4008**	15/32	1/2	1	4-1/8	**723-4048**
11/64	3/8	1/2	3-1/4	**723-4010**	31/64	1/2	1	4-1/8	**723-4050**
3/16	3/8	1/2	3-1/4	**723-4012**	1/2	1/2	1	4-1/8	**723-4052**
13/64	3/8	1/2	3-1/4	**723-4013**	17/32	5/8	1-3/8	5	**723-4054**
13/64	3/8	9/16	3-1/4	**723-4014**	9/16	5/8	1-3/8	5	**723-4056**
7/32	3/8	9/16	3-1/4	**723-4016**	19/32	5/8	1-3/8	5	**723-4058**
15/64	3/8	5/8	3-3/8	**723-4018**	5/8	5/8	1-3/8	5	**723-4060**
1/4	3/8	5/8	3-3/8	**723-4020**	21/32	3/4	1-5/8	5-5/8	**723-4062**
17/64	3/8	11/16	3-3/8	**723-4022**	11/16	3/4	1-5/8	5-5/8	**723-4064**
9/32	3/8	11/16	3-3/8	**723-4024**	23/32	3/4	1-5/8	5-5/8	**723-4066**
19/64	3/8	11/16	3-3/8	**723-4025**	3/4	3/4	1-5/8	5-5/8	**723-4068**
19/64	3/8	3/4	3-1/2	**723-4026**	25/32	7/8	1-7/8	6-1/8	**723-4070**
5/16	3/8	3/4	3-1/2	**723-4028**	13/16	7/8	1-7/8	6	**723-4072**
21/64	3/8	3/4	3-1/2	**723-4030**	27/32	7/8	1-7/8	6-1/8	**723-4074**
11/32	3/8	3/4	3-1/2	**723-4032**	7/8	7/8	1-7/8	6-1/8	**723-4076**
23/64	3/8	3/4	3-1/2	**723-4034**	29/32	1	1-7/8	6-3/8	**723-4078**
3/8	3/8	3/4	3-1/2	**723-4036**	15/16	1	1-7/8	6-3/8	**723-4080**
25/64	1/2	1	4-1/8	**723-4038**	31/32	1	1-7/8	6-3/8	**723-4082**
13/32	1/2	1	4-1/8	**723-4040**	1	1	1-7/8	6-3/8	**723-4084**

M42 8% Cobalt 4 Flute Double End Mills

Center Cutting

M42 4齿双头中心切削立铣刀



Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.
1/8"	3/8"	3/8"	3-1/16"	**723-4102**	1/2	1/2	1	4-1/8	**723-4112**
5/32	3/8	7/16	3-1/8	**723-4103**	9/16"	5/8"	1-3/8"	5	**723-4113**
3/16	3/8	1/2	3-1/4	**723-4104**	5/8	5/8	1-3/8	5	**723-4114**
7/32	3/8	9/16	3-1/4	**723-4105**	11/16	3/4	1-5/8	5-5/8	**723-4119**
1/4	3/8	5/8	3-3/8	**723-4106**	13/32	1/2	1	4-1/8	**723-4115**
9/32	3/8	11/16	3-3/8	**723-4107**	3/4	3/4	1-5/8	5-5/8	**723-4116**
5/16	3/8	3/4	3-1/2	**723-4108**	15/32	1/2	1	4-1/8	**723-4117**
11/32	3/8	3/4	3-1/2	**723-4109**	7/8	7/8	1-7/8	6-1/8	**723-4118**
3/8	3/8	3/4	3-1/2	**723-4110**	1	1	1-7/8	6-3/8	**723-4120**
7/16	1/2	1	4-1/8	**723-4111**					

M42 8% Cobalt 60° Helical Profiling End Mills

Center Cutting

M42 60度大螺旋角立铣刀



Size	Shank Dia.	Flute Length	Overall Length	Flute No.	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Flute No.	Order No.
1/4"	3/8"	5/8"	2-7/16"	3	**723-9500**	3/4	3/4	1-5/8	3-7/8	3	**723-9530**
5/16	3/8	3/4	2-1/2	3	**723-9505**	7/8	7/8	1-7/8	4-1/8	4	**723-9535**
3/8	3/8	3/4	2-1/2	3	**723-9510**	1	1	2	4-1/2	4	**723-9540**
7/16	3/8	1	2-11/16	3	**723-9515**	1-1/4	1-1/4	2	4-1/2	4	**723-9545**
1/2	1/2	1-1/4	3-1/4	3	**723-9520**	1-1/2	1-1/4	2	4-1/2	4	**723-9550**
5/8	5/8	1-5/8	3-3/4	3	**723-9525**	2	1-1/4	2	4-1/2	4	**723-9555**

ASP-30(Powdered Cobalt) Single End Mills

Center Cutting

含钴粉末冶金高速钢60度大螺旋角立铣刀



Size	Shank Dia.	Flute Length	Overall Length	Flute No.	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Flute No.	Order No.
1/4"	3/8"	5/8"	2-7/16"	3	**723-9408**	5/8	5/8	1-5/8	3-3/4	3	**723-9420**
5/16	3/8	3/4	2-1/2	3	**723-9410**	3/4	3/4	1-5/8	3-7/8	3	**723-9424**
3/8	3/8	3/4	2-1/2	3	**723-9412**	1	1	2	4-1/2	4	**723-9432**
1/2	1/2	1-1/4	3-1/4	3	**723-9416**						

Roughing End Mills 单头波刃立铣刀



High Speed Steel

Regular Length

Size	Shank Dia.	Flute Length	Overall Length	No. Of Flutes	M2 Order No.	M2Al Order No.
1/4"	3/8"	3/4"	2-1/2"	4	720-5001	721-5001
1/4	3/8	5/8	2-7/16	4	720-5002	721-5002
1/4	3/8	1-1/4	3-1/16	4	720-5003	721-5003
5/16	3/8	3/4	2-1/2	4	720-5005	721-5005
5/16	3/8	1-3/8	3-1/8	4	720-5007	721-5007
3/8	3/8	3/4	2-1/2	4	720-5008	721-5008
3/8	3/8	7/8	2-5/8	4	720-5009	721-5009
3/8	3/8	1-1/2	3-1/4	4	720-5011	721-5011
7/16	3/8	1	2-11/16	4	720-5012	721-5012
1/2	1/2	1-1/4	3-1/4	4	720-5013	721-5013
5/8	5/8	1-5/8	3-3/4	4	720-5017	721-5017
11/16	5/8	1-5/8	3-3/4	4	720-5019	721-5019
3/4	5/8	1-5/8	3-3/4	4	720-5020	721-5020
3/4	5/8	1-5/8	3-7/8	4	720-5021	721-5021
3/4	3/4	1-5/8	3-3/4	4	720-5025	721-5025
7/8	3/4	1-5/8	4-1/8	4	720-5027	721-5027
7/8	7/8	1-7/8	4-1/8	4	720-5029	721-5029
15/16	3/4	1-7/8	4-1/8	4	720-5031	721-5031
1	3/4	2	4-1/2	4		721-5066
1	3/4	2	4-1/2	6	720-5033	721-5033
1	1	2	4-1/2	6	720-5035	721-5035
1-1/8"	3/4"	2"	4-1/2"	6	720-5037	721-5037
1-1/8	1	2	4-1/2	6	720-5039	721-5039
1-1/4	3/4	1-1/8	3-5/8	6	720-5040	
1-1/4	3/4	3	5-1/2	6		721-5040
1-1/4	3/4	2	4-1/2	6	720-5041	721-5041
1-1/4	1-1/4	2	4-1/2	6	720-5043	721-5043
1-1/2	3/4	2	4-1/2	6	720-5045	721-5045
1-1/2	1-1/4	2	4-1/2	6	720-5047	721-5047
1-1/2	3/4	1-1/8	3-5/8	6	720-5048	
1-3/4	3/4	2	4-1/2	6	720-5049	721-5049
1-3/4	1-1/4	2	5-3/4	6	720-5050	721-5050
1-3/4	1-1/4	2	4-1/2	6	720-5051	721-5051
2	3/4	2	4-1/2	8	720-5053	721-5053
2	1-1/4	2	4-1/2	6	720-5054	721-5054
2	1-1/4	2	4-1/2	8	720-5055	721-5055
2	1-1/4	2	6-1/2	8	720-5056	721-5056
2	2	2	5-3/4	8	720-5057	721-5057
2	2	3	6-3/4	6	720-5058	721-5058
2	2	4	7-3/4	8	720-5059	721-5059
2	2	4	7-3/4	6	720-5060	721-5060
2-1/2	2	4	7-3/4	8	720-5061	721-5061
2-1/2	2-1/2	4	7-3/4	8	720-5063	721-5063
2	2	3	6-3/4	8	720-5065	721-5065

Medium Length

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	M2 Order No.	M2Al Order No.
2"	2"	5"	8-3/4"	8	720-5101	721-5101
2	2	6	9-3/4	8	720-5103	721-5103
2-1/2	2	6	9-3/4	8	720-5105	721-5105
2-1/2	2-1/2	6	9-3/4	8	720-5107	721-5107

Long Length

Size	Shank Dia.	Flute Length	Overall Length	No. of flutes	M2 Order No.	M2Al Order No.
1/2"	1/2"	2"	4"	4	720-5201	721-5201
5/8	5/8	2-1/2	4-5/8	4	720-5203	721-5203
3/4	5/8	3	5-1/4	4	720-5205	721-5205
3/4	5/8	3	5-1/8	4	720-5207	721-5207
3/4	3/4	3	5-1/4	4	720-5209	721-5209
7/8	3/4	3-1/2	5-5/8	4	720-5211	721-5211
7/8	7/8	3-1/2	5-3/4	4	720-5213	721-5213
1	3/4	6	6-1/2	6		721-5214
1	1	4	6-1/2	6	720-5215	721-5215
1	1	6	8-1/2	6	720-5217	721-5217
1-1/4	1-1/4	3	5-1/2	6	720-5218	721-5218
1-1/4	3/4	4	6-1/4	6	720-5219	721-5219
1-1/4	1-1/4	4	6-1/2	6	720-5221	721-5221
1-1/4	1-1/4	6	8-1/2	6	720-5223	721-5223
1-1/2	1-1/4	3	5-1/2	6	720-5224	721-5224
1-1/2	3/4	4	6-1/4	6	720-5225	721-5225
1-1/2	1-1/4	4	6-1/2"	6	720-5227	721-5227
1-1/2	1-1/4	5	7-1/2	6	720-5228	721-5228
1-1/2	1-1/4	6	8-1/2	6	720-5229	721-5229
1-3/4	1-1/4	4	6-1/2	6	720-5231	721-5231
2	1-1/4	4	6-1/2	6	720-5232	721-5232
2	1-1/4	4	6-1/2	8	720-5233	721-5233
2	2	6	9-3/4	6	720-5234	721-5234
2	2	7	10-3/4	8	720-5235	721-5235
2	2	8	11-3/4	6	720-5236	721-5236
2	2	8	11-3/4	8	720-5237	721-5237
2	2	10	13-3/4	8	720-5239	721-5239
2	2	12	15-3/4	8	720-5241	721-5241
2-1/2	2	8	11-3/4	8	720-5243	721-5243
2-1/2	2-1/2	8	11-3/4	8	720-5245	721-5245
2-1/2	2-1/2	10	13-3/4	8	720-5247	721-5247
2-1/2	2-1/2	12	15-3/4	8	720-5249	721-5249

5 Flute Roughing End Mills



High Speed Steel 5 齿单头波刃立铣刀

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.
7/8"	3/4"	1-7/8"	4-1/8"	720-5701	721-5701	1"	3/4"	2"	4-1/2"	720-5709	721-5709
7/8	3/8	3-1/2	5-3/4	720-5703	721-5703	1	1	2	4-1/2	720-5711	721-5711
7/8	7/8	1-7/8	4-1/8	720-5705	721-5705	1	1	4	6-1/2	720-5713	721-5713
7/8	7/8	3-1/2	5-3/4	720-5707	721-5707	1-1/8	1	2	4-1/2	720-5715	721-5715

M42 8% Cobalt Coarse Pitch Roughing End Mills 粗齿波刃立铣刀(8%钴)

Non Center Cutting

Cobalt

- Remove more metal in less time.
- Need less horsepower.
- Have excellent performance on heavy duty machining.
- Tooth form provides excellent heat dissipation during heavy cutting jobs, is effective for cuts on high tensile steels.



Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
3/16"	3/8"	1/2"	2-3/8"	4	723-5703	723-6703
1/4	3/8	1/4	2-1/16	3	723-5706	723-6706
1/4	3/8	5/16	2-1/8	3	723-5705	723-6705
1/4	3/8	5/8	2-7/16	3	723-5708	723-6708
1/4	3/8	7/8	2-11/16	3	723-5701	723-6701
1/4	3/8	1-1/8	2-15/16	3	723-5702	723-6702
1/4	3/8	1-3/8	3-1/8	3	723-5707	723-6707
1/4	3/8	5/8	2-7/16	4	723-5930	723-6930
1/4	3/8	3/4	2-1/2	4	723-5709	723-6709
1/4	3/8	1-1/8	2-15/16	4	723-5710	723-6710
1/4	3/8	1-1/4	3-1/16	4	723-5711	723-6711
1/4	3/8	1-1/4	3-1/8	4	723-5936	723-6936
9/32	3/8	3/4	2-1/2	3	723-5712	723-6712
5/16	3/8	7/16	2-3/16	3	723-5714	723-6714
5/16	3/8	3/4	2-1/2	3	723-5715	723-6715
5/16	3/8	1-1/8	2-15/16	3	723-5717	723-6717
5/16	3/8	3/4	2-1/2	4	723-5716	723-6716
5/16	3/8	1-3/8	3-3/16	4	723-5942	723-6942
5/16	3/8	1-3/8	3-3/8	4	723-5713	723-6713
11/32	3/8	3/4	2-1/2	3	723-5725	723-6725
3/8	3/8	3/8	2-5/32	3	723-5718	723-6718
3/8	3/8	1/2	2-5/16	3	723-5946	723-6946
3/8	3/8	7/8	2-7/8	3	723-5949	723-6949
3/8	3/8	3/8	2-5/32	4	723-5719	723-6719
3/8	3/8	7/16	2-3/16	4	723-5720	723-6720
3/8	3/8	3/4	2-1/2	4	723-5721	723-6721
3/8	3/8	7/8	2-5/8	4	723-5722	723-6722
3/8	3/8	1-1/8	2-15/16	4	723-5726	723-6726
3/8	3/8	1-1/2	3-1/4	4	723-5723	723-6723
3/8	3/8	1-5/8	3-3/16	4	723-5724	723-6724
13/32	3/8	1	2-11/16	4	723-5735	723-6735
7/16	3/8	1	2-11/16	4	723-5727	723-6727
7/16	1/2	7/8	3	4	723-5729	
15/32	1/2	1-1/4	3-1/4	4	723-5728	723-6728
1/2	1/2	1/2	2-1/2	3	723-5730	723-6730
1/2	1/2	1/2	2-1/2	4	723-5952	723-6952
1/2	1/2	5/8	2-5/8	4	723-5731	723-6731
1/2	1/2	1	3	4	723-5732	723-6732
1/2	1/2	1-1/4	3-1/4	4	723-5733	723-6733
1/2	1/2	1-5/8	3-5/8	4	723-5734	723-6734
1/2	1/2	2	4	4	723-5736	723-6736
1/2	1/2	2-1/2	4-1/2	4	723-5738	723-6738
1/2	1/2	3	5	4	723-5739	723-6739
9/16	1/2	1-3/8	3-3/8	4	723-5742	723-6742
5/8	5/8	5/8	2-3/4	3	723-5745	723-6745
5/8	5/8	5/8	2-3/4	4	723-5746	723-6746
5/8	5/8	3/4	2-7/8	4	723-5747	723-6747
5/8	5/8	1-1/4	3-3/8	4	723-5743	723-6743
5/8	5/8	1-5/8	3-3/4	4	723-5748	723-6748
5/8	5/8	2	4-1/8	4	723-5749	723-6749
5/8	5/8	2-1/8	4-1/4	4	723-5750	723-6750
5/8	5/8	2-1/2	4-5/8	4	723-5751	723-6751
5/8	5/8	3-1/8	5-1/4	4	723-5757	723-6757
11/16	5/8	1-5/8	3-3/4	4	723-5760	723-6760
3/4	5/8	1-5/8	3-3/4	4	723-5766	723-6766
3/4	5/8	1-5/8	3-7/8	4	723-5761	723-6761
3/4	3/4	3/4	2-7/8	3	723-5763	723-6763
3/4	3/4	7/8	3-1/8	3	723-5765	723-6765
3/4	3/4	1-1/2	3-3/4	3	723-5768	723-6768
3/4	3/4	3/4	2-7/8	4	723-5764	723-6764
3/4	3/4	3/4	3	4	723-5762	723-6762
3/4	3/4	1-1/4	3-1/2	4	723-5767	723-6767
3/4	3/4	1-5/8	3-3/4	4	723-5769	723-6769
3/4	3/4	1-5/8	3-7/8	4	723-5770	723-6770
3/4	3/4	2-1/4	4-1/2	4	723-5771	723-6771
3/4	3/4	2-1/2	4-3/4	4	723-5773	723-6773
3/4	3/4	3	5-1/4	4	723-5775	723-6775
3/4	3/4	4-1/8	6-3/8	4	723-5776	723-6776
13/16	3/4	1-7/8	4-1/8	4	723-5777	723-6777
7/8	3/4	7/8	3-1/8	3	723-5778	723-6778
7/8	3/4	1	3-1/4	3	723-5779	723-6779

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
7/8"	3/4"	1-1/8"	3-3/8"	5	723-5780	723-6780
7/8	3/4	1-7/8	4-1/8	5	723-5781	723-6781
7/8	3/4	3-1/2	5-3/4	5	723-5782	723-6782
7/8	3/4	3-1/2	5-5/8	5	723-5784	723-6784
7/8	7/8	1-1/8	3-3/8	5	723-5786	723-6786
7/8	7/8	1-7/8	4-1/8	5	723-5787	723-6787
7/8	7/8	3-1/2	5-3/4	5	723-5789	723-6789
7/8	1	1-3/4	5	3	723-5955	723-6955
1	3/4	1-1/8	3-3/8	5	723-5792	723-6792
1	3/4	1-1/2	3-3/8	5	723-5791	723-6791
1	3/4	1-1/2	3-3/4	5	723-5794	723-6794
1	3/4	1-7/8	4-1/8	5	723-5793	723-6793
1	3/4	2	4-1/4	5	723-5795	723-6795
1	3/4	3	5-1/4	5	723-5796	723-6796
1	3/4	4	6-1/4	5	723-5797	723-6797
1	3/4	1-1/8	3-3/8	6	723-5790	723-6790
1	1	1	3-1/2	3	723-5799	723-6799
1	1	1-3/4	5	3	723-5958	723-6958
1	1	1	3-1/2	5	723-5800	723-6800
1	1	1-1/8	3-5/8	5	723-5801	723-6801
1	1	1-5/8	4-1/8	5	723-5798	723-6798
1	1	2	4-1/2	5	723-5802	723-6802
1	1	3	5-1/2	5	723-5805	723-6805
1	1	4	6-1/2	5	723-5808	723-6808
1	1	6	8-1/2	5	723-5811	723-6811
1-1/8	3/4	1-1/8	3-3/8	6	723-5814	723-6814
1-1/8	3/4	2	4-1/4	6	723-5817	723-6817
1-1/8	1	2	4-1/2	6	723-5820	723-6820
1-1/8	1	3-1/2	6	6	723-5823	723-6823
1-1/4	3/4	1-1/8	3-3/8	6	723-5826	723-6826
1-1/4	3/4	2	4-1/4	6	723-5829	723-6829
1-1/4	1-1/4	2	5-1/4	3	723-5836	723-6836
1-1/4	1-1/4	1-1/4	4	4	723-5833	723-6833
1-1/4	1-1/4	1-3/8	3-7/8	6	723-5834	723-6834
1-1/4	1-1/4	2	4-1/2	6	723-5835	723-6835
1-1/4	1-1/4	3	5-1/2	6	723-5838	723-6838
1-1/4	1-1/4	4	6-1/2	6	723-5841	723-6841
1-1/4	1-1/4	6	8-1/2	6	723-5844	723-6844
1-3/8	3/4	1-1/8	3-3/8	6	723-5847	723-6847
1-3/8	3/4	2	4-1/4	6	723-5850	723-6850
1-1/2	3/4	1-1/8	3-3/8	6	723-5853	723-6853
1-1/2	3/4	1-1/2	3-3/4	6	723-5854	723-6854
1-1/2	3/4	2	4-1/4	6	723-5856	723-6856
1-1/2	3/4	4	6-1/4	6	723-5858	723-6858
1-1/2	1-1/4	2	4-1/2	6	723-5859	723-6859
1-1/2	1-1/4	3	5-1/2	6	723-5862	723-6862
1-1/2	1-1/4	4	6-1/2	6	723-5865	723-6865
1-1/2	1-1/4	5	7-1/2	6	723-5868	723-6868
1-1/2	1-1/4	6	8-1/2	6	723-5871	723-6871
1-1/2	1-1/4	6-1/8	8-5/8	6	723-5869	723-6869
1-3/4	3/4	1-1/8	3-3/8	6	723-5874	723-6874
1-3/4	3/4	2	4-1/4	6	723-5877	723-6877
1-3/4	1-1/4	2	4-1/2	6	723-5880	723-6880
1-3/4	1-1/4	4	6-1/2	8	723-5883	723-6883
2	3/4	1-1/8	3-3/8	8	723-5886	723-6886
2	3/4	2	4-1/2	8	723-5889	723-6889
2	1-1/4	2	4-1/2	8	723-5892	723-6892
2	1-1/4	3-1/8	5-5/8	8	723-5893	723-6893
2	1-1/4	4	6-1/2	8	723-5895	723-6895
2	1-1/4	4	7-3/4	8	723-5897	
2	1-1/4	6-1/8	8-5/8	8	723-5896	723-6896
2	2	3	6-3/4	6	723-5899	723-6899
2	2	4	7-3/4	6	723-5902	723-6902
2	2	6	9-3/4	6	723-5908	723-6908
2	2	2	5-3/4	8	723-5898	723-6898
2	2	3	6-3/4	8	723-5901	723-6901
2	2	4	7-3/4	8	723-5904	723-6904
2	2	5	8-3/4	8	723-5907	723-6907
2	2	6	9-3/4	8	723-5910	723-6910
2	2	7	10-3/4	8	723-5911	723-6911
2	2	8	11-3/4	8	723-5913	723-6913
2	2	10	13-3/4	8	723-5916	723-6916
2	2	12	15-3/4	8	723-5919	723-6919

M42 8% Cobalt Coarse Pitch Roughing End Mills 粗齿波刃中心切削立铣刀(8%钴)

Center Cutting





Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
3/16"	3/8"	1/2"	2-3/8"	4	724-0008	724-1008
1/4	3/8	1/4	2-1/16	3	724-0011	724-1011
1/4	3/8	5/16	2-1/8	3	724-0014	724-1014
1/4	3/8	1/4	2-1/16	3	724-0017	724-1017
1/4	3/8	5/8	2-7/16	3	724-0020	724-1020
1/4	3/8	5/8	2-7/16	4	724-0023	724-1023
1/4	3/8	7/8	2-11/16	3	724-0026	724-1026
1/4	3/8	3/4	2-1/2	4	724-0029	724-1029
1/4	3/8	1-1/8	2-15/16	4	724-0032	724-1032
1/4	3/8	1-1/4	3-1/16	4	724-0035	724-1035
1/4	3/8	1-1/4	3-1/8	4	724-0038	724-1038
1/4	3/8	1-3/8	3-1/8	3	724-0041	724-1041
9/32	3/8	3/4	2-1/2	3	724-0044	724-1044
5/16	3/8	7/16	2-3/16	3	724-0047	724-1047
5/16	3/8	3/4	2-1/2	3	724-0050	724-1050
5/16	3/8	3/4	2-1/2	4	724-0053	724-1053
5/16	3/8	1-1/8	2-15/16	3	724-0056	724-1056
5/16	3/8	1-3/8	3-1/8	4	724-0059	724-1059
11/32	3/8	3/4	2-1/2	3	724-0062	724-1062
3/8	3/8	3/8	2-5/32	3	724-0065	724-1065
3/8	3/8	3/8	2-5/32	4	724-0068	724-1068
3/8	3/8	7/16	2-3/16	4	724-0071	724-1071
3/8	3/8	1/2	2-5/16	3	724-0074	724-1074
3/8	3/8	3/4	2-1/2	4	724-0077	724-1077
3/8	3/8	7/8	2-5/8	4	724-0080	724-1080
3/8	3/8	7/8	2-7/8	3	724-0083	724-1083
3/8	3/8	1-1/8	2-15/16	4	724-0086	724-1086
3/8	3/8	1-1/2	3-1/4	4	724-0089	724-1089
3/8	3/8	1-5/8	3-3/16	4	724-0092	724-1092
7/16	3/8	1	2-11/16	4	724-0095	724-1095
15/32	1/2	1-1/4	3-1/4	4	724-0098	724-1098
1/2	1/2	1/2	2-1/2	3	724-0101	724-1101
1/2	1/2	1/2	2-1/2	4	724-0104	724-1104
1/2	1/2	5/8	2-5/8	4	724-0110	724-1110
1/2	1/2	1	3	4	724-0113	724-1113
1/2	1/2	1-1/4	3-1/4	4	724-0116	724-1116
1/2	1/2	1-5/8	3-5/8	4	724-0119	724-1119
1/2	1/2	2	4	4	724-0122	724-1122
1/2	1/2	2-1/2	4-1/2	4	724-0125	724-1125
1/2	1/2	3	5	4	724-0128	724-1128
9/16	1/2	1-3/8	3-3/8	4	724-0131	724-1131
5/8	5/8	5/8	2-3/4	3	724-0134	724-1134
5/8	5/8	5/8	2-3/4	4	724-0137	724-1137
5/8	5/8	3/4	2-7/8	4	724-0140	724-1140
5/8	5/8	1-1/4	3-3/8	4	724-0143	724-1143
5/8	5/8	1-5/8	3-3/4	4	724-0146	724-1146
5/8	5/8	2	4-1/8	4	724-0149	724-1149
5/8	5/8	2-1/8	4-1/4	4	724-0152	724-1152
5/8	5/8	2-1/2	4-5/8	4	724-0155	724-1155
5/8	5/8	3	5-1/4	4	724-0158	724-1158
5/8	5/8	3-1/8	5-1/4	4	724-0161	724-1161
11/16	5/8	1-5/8	3-3/4	4	724-0164	724-1164
3/4	5/8	1-5/8	3-3/4	4	724-0167	724-1167
3/4	3/4	3/4	2-7/8	3	724-0170	724-1170
3/4	3/4	3/4	3	4	724-0173	724-1173
3/4	3/4	7/8	3-1/8	3	724-0176	724-1176
3/4	3/4	1-1/4	3-1/2	4	724-0179	724-1179
3/4	3/4	1-1/2	3-3/4	3	724-0182	724-1182
3/4	3/4	1-5/8	3-3/4	4	724-0185	724-1185
3/4	3/4	1-5/8	3-7/8	4	724-0187	724-1187
3/4	3/4	2-1/4	4-1/2	4	724-0188	724-1188
3/4	3/4	2-1/2	4-5/8	4	724-0191	724-1191
3/4	3/4	3	5-1/4	4	724-0194	724-1194
3/4	3/4	4-1/8	6-3/8	4	724-0197	724-1197
13/16	3/4	1-7/8	4-1/8	4	724-0200	724-1200
7/8	3/4	7/8	3-1/8	3	724-0203	724-1203
7/8	3/4	1	3-1/4	3	724-0206	724-1206

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
7/8"	3/4"	1-1/8"	3-3/8"	5	724-0209	724-1209
7/8	3/4	1-7/8	4-1/8	5	724-0212	724-1212
7/8	3/4	3-1/2	5-5/8	5	724-0215	724-1215
7/8	7/8	1-1/8	3-3/8	5	724-0218	724-1218
7/8	7/8	1-7/8	4-1/8	5	724-0221	724-1221
7/8	7/8	3-1/2	5-3/4	5	724-0224	724-1224
7/8	1	1-3/4	5	3	724-0227	724-1227
1	3/4	1-1/8	3-3/8	6	724-0230	724-1230
1	3/4	1-1/2	3-3/8	5	724-0233	724-1233
1	3/4	1-7/8	4-1/8	5	724-0236	724-1236
1	3/4	2	4-1/4	5	724-0239	724-1239
1	3/4	3	5-1/4	5	724-0242	724-1242
1	3/4	4	6-1/4	5	724-0245	724-1245
1	1	1	3-1/2	3	724-0248	724-1248
1	1	1	3-1/2	5	724-0251	724-1251
1	1	1-1/8	3-5/8	5	724-0254	724-1254
1	1	1-5/8	4-1/8	5	724-0257	724-1257
1	1	1-3/4	5	3	724-0260	724-1260
1	1	2	4-1/2	5	724-0263	724-1263
1	1	3	5-1/2	5	724-0266	724-1266
1	1	4	6-1/2	5	724-0269	724-1269
1	1	6	8-1/2	5	724-0272	724-1272
1-1/8	3/4	1-1/8	3-3/8	6	724-0275	724-1275
1-1/8	3/4	2	4-1/4	6	724-0278	724-1278
1-1/8	1	2	4-1/2	6	724-0281	724-1281
1-1/8	1	3-1/2	6	6	724-0284	724-1284
1-1/4	3/4	1-1/8	3-3/8	6	724-0287	724-1287
1-1/4	3/4	2	4-1/4	6	724-0290	724-1290
1-1/4	1-1/4	1-1/4	4	4	724-0296	724-1296
1-1/4	1-1/4	1-3/8	3-7/8	6	724-0299	724-1299
1-1/4	1-1/4	2	4-1/2	6	724-0302	724-1302
1-1/4	1-1/4	2	5-1/4	3	724-0305	724-1305
1-1/4	1-1/4	3	5-1/2	6	724-0308	724-1308
1-1/4	1-1/4	4	6-1/2	6	724-0311	724-1311
1-1/4	1-1/4	6	8-1/2	6	724-0314	724-1314
1-3/8	3/4	1-1/8	3-3/8	6	724-0317	724-1317
1-3/8	3/4	2	4-1/4	6	724-0320	724-1320
1-1/2	3/4	1-1/8	3-3/8	6	724-0323	724-1323
1-1/2	3/4	1-1/2	3-3/4	6	724-0326	724-1326
1-1/2	3/4	2	4-1/4	6	724-0329	724-1329
1-1/2	3/4	4	6-1/4	6	724-0332	724-1332
1-1/2	1-1/4	2	4-1/2	6	724-0335	724-1335
1-1/2	1-1/4	3	5-1/2	6	724-0338	724-1338
1-1/2	1-1/4	4	6-1/2	6	724-0341	724-1341
1-1/2	1-1/4	5	7-1/2	6	724-0344	724-1344
1-1/2	1-1/4	6	8-1/2	6	724-0347	724-1347
1-3/4	3/4	1-1/8	3-3/8	6	724-0350	724-1350
1-3/4	3/4	2	4-1/4	6	724-0353	724-1353
1-3/4	1-1/4	2	4-1/2	6	724-0356	724-1356
1-3/4	1-1/4	4	6-1/2	6	724-0359	724-1359
2	3/4	1-1/8	3-3/8	8	724-0362	724-1362
2	3/4	2	4-1/2	8	724-0365	724-1365
2	1-1/4	2	4-1/2	8	724-0368	724-1368
2	1-1/4	4	6-1/2	8	724-0371	724-1371
2	1-1/4	6-1/8	8-5/8	8	724-0374	724-1374
2	2	2	5-3/4	8	724-0377	724-1377
2	2	3	6-3/4	6	724-0380	724-1380
2	2	3	6-3/4	8	724-0383	724-1383
2	2	4	7-3/4	6	724-0386	724-1386
2	2	4	7-3/4	8	724-0389	724-1389
2	2	5	8-3/4	8	724-0392	724-1392
2	2	6	9-3/4	6	724-0395	724-1395
2	2	6	9-3/4	8	724-0398	724-1398
2	2	7	10-3/4	8	724-0401	724-1401
2	2	8	11-3/4	8	724-0404	724-1404
2	2	10	13-3/4	8	724-0407	724-1407
2	2	12	15-3/4	8	724-0410	724-1410

M42 8% Cobalt Fine Pitch Roughing End Mills

Non Center Cutting

细齿波刃立铣刀(8%钴)

Cobalt

- For use in high production milling in variety of exotic materials.
- Coating improves tool life and allows for higher speeds and feeds.
- Fine pitch design provides a better finish than coarse pitch end mills and eliminates chipping in harder materials.



Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
3/16"	3/8"	1/2"	2-3/8"	4	724-2008	724-3008
1/4	3/8	1/4	2-1/16	3	724-2011	724-3011
1/4	3/8	5/16	2-1/8	3	724-2014	724-3014
1/4	3/8	1/4	2-1/16	3	724-2017	724-3017
1/4	3/8	5/8	2-7/16	3	724-2020	724-3020
1/4	3/8	5/8	2-7/16	4	724-2023	724-3023
1/4	3/8	7/8	2-11/16	3	724-2026	724-3026
1/4	3/8	3/4	2-1/2	4	724-2029	724-3029
1/4	3/8	1-1/	2-15/16	4	724-2032	724-3032
1/4	3/8	1-1/8	3-1/8	4	724-2033	724-3033
1/4	3/8	1-1/4	3-1/16	4	724-2035	724-3035
1/4	3/8	1-1/4	3-1/8	4	724-2038	724-3038
1/4	3/8	1-3/8	3-1/8	3	724-2041	724-3041
9/32	3/8	3/4	2-1/2	3	724-2044	724-3044
5/16	3/8	7/16	2-3/16	3	724-2047	724-3047
5/16	3/8	3/4	2-1/2	3	724-2050	724-3050
5/16	3/8	3/4	2-1/2	4	724-2053	724-3053
5/16	3/8	1-1/8	2-15/16	3	724-2056	724-3056
5/16	3/8	1-3/8	3-1/8	4	724-2059	724-3059
11/32	3/8	3/4	2-1/2	3	724-2062	724-3062
3/8	3/8	3/8	2-5/32	3	724-2065	724-3065
3/8	3/8	3/8	2-5/32	4	724-2068	724-3068
3/8	3/8	7/16	2-3/16	4	724-2071	724-3071
3/8	3/8	1/2	2-5/16	3	724-2074	724-3074
3/8	3/8	3/4	2-1/2	4	724-2077	724-3077
3/8	3/8	7/8	2-5/8	4	724-2080	724-3080
3/8	3/8	7/8	2-7/8	3	724-2083	724-3083
3/8	3/8	1-1/8	2-15/16	4	724-2086	724-3086
3/8	3/8	1-1/2	3-1/4	4	724-2089	724-3089
3/8	3/8	1-5/8	3-3/16	4	724-2092	724-3092
7/16	3/8	1	2-5/16	3	724-2093	724-3093
7/16	3/8	1	2-5/16	4	724-2094	724-3094
7/16	3/8	1	2-11/16	4	724-2095	724-3095
15/32	1/2	1-1/4	3-1/4	4	724-2098	724-3098
1/2	1/2	1/2	2-1/2	3	724-2101	724-3101
1/2	1/2	1/2	2-1/2	4	724-2107	724-3107
1/2	1/2	5/8	2-5/8	4	724-2110	724-3110
1/2	1/2	1	3	4	724-2113	724-3113
1/2	1/2	1-1/4	3-1/4	4	724-2116	724-3116
1/2	1/2	1-5/8	3-5/8	4	724-2119	724-3119
1/2	1/2	2	4	4	724-2122	724-3122
1/2	1/2	2-1/2	4-1/2	4	724-2125	724-3125
1/2	1/2	3	5	4	724-2128	724-3128
9/16	1/2	1-3/8	3-3/8	4	724-2131	724-3131
5/8	5/8	5/8	2-3/4	3	724-2134	724-3134
5/8	5/8	5/8	2-3/4	4	724-2137	724-3137
5/8	5/8	3/4	2-7/8	4	724-2140	724-3140
5/8	5/8	1-1/4	3-3/8	4	724-2143	724-3143
5/8	5/8	1-5/8	3-3/4	4	724-2146	724-3146
5/8	5/8	2	4-1/8	4	724-2149	724-3149
5/8	5/8	2-1/8	4-1/4	4	724-2152	724-3152
5/8	5/8	2-1/2	4-5/8	4	724-2155	724-3155
5/8	5/8	3	5-1/4	4	724-2158	724-3158
5/8	5/8	3-1/8	5-1/4	4	724-2161	724-3161
11/16	5/8	1-5/8	3-3/4	4	724-2164	724-3164
3/4	5/8	1-5/8	3-3/4	4	724-2167	724-3167
3/4	5/8	3	5-1/8	4	724-2168	
3/4	3/4	3/4	2-7/8	3	724-2170	724-3170
3/4	3/4	3/4	3	4	724-2173	724-3173
3/4	3/4	7/8	3-1/8	3	724-2176	724-3176
3/4	3/4	1-1/4	3-1/2	4	724-2179	724-3179
3/4	3/4	1-1/2	3-3/4	3	724-2182	724-3182
3/4	3/4	1-5/8	3-3/4	4	724-2185	724-3185
3/4	3/4	2-1/4	4-1/2	4	724-2188	724-3188
3/4	3/4	2-1/2	4-5/8	4	724-2191	724-3191
3/4	3/4	3	5-1/4	4	724-2194	724-3194
3/4	3/4	4-1/8	6-3/8	4	724-2197	724-3197
13/16	3/4	1-7/8	4-1/8	4	724-2200	724-3200
7/8	3/4	7/8	3-1/8	3	724-2203	724-3203
7/8	3/4	1	3-1/4	3	724-2206	724-3206

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
7/8"	3/4"	1-1/8"	3-3/8"	5	724-2209	724-3209
7/8	3/4	1-7/8	4-1/8	5	724-2212	724-3212
7/8	3/4	3-1/2	5-5/8	5	724-2215	724-3215
7/8	7/8	1-1/8	3-3/8	5	724-2218	724-3218
7/8	7/8	1-7/8	4-1/8	5	724-2221	724-3221
7/8	7/8	3-1/2	5-3/4	5	724-2224	724-3224
7/8	1	1-3/4	5	3	724-2227	724-3227
1	3/4	1-1/8	3-3/8	5	724-2229	724-3229
1	3/4	1-1/8	3-3/8	6	724-2230	724-3230
1	3/4	1-1/2	3-3/8	5	724-2233	724-3233
1	3/4	1-7/8	4-1/8	5	724-2236	724-3236
1	3/4	2	4-1/4	5	724-2239	724-3239
1	3/4	3	5-1/4	5	724-2242	724-3242
1	3/4	4	6-1/4	5	724-2245	724-3245
1	1	1	3-1/2	3	724-2248	724-3248
1	1	1	3-1/2	5	724-2251	724-3251
1	1	1-1/8	3-5/8	5	724-2254	724-3254
1	1	1-5/8	4-1/8	5	724-2257	724-3257
1	1	1-3/4	5	3	724-2260	724-3260
1	1	2	4-1/2	5	724-2263	724-3263
1	1	3	5-1/2	5	724-2266	724-3266
1	1	4	6-1/2	5	724-2269	724-3269
1	1	6	8-1/2	5	724-2272	724-3272
1-1/8	3/4	1-1/8	3-3/8	6	724-2275	724-3275
1-1/8	3/4	2	4-1/4	6	724-2278	724-3278
1-1/8	1	2	4-1/2	6	724-2281	724-3281
1-1/8	1	3-1/2	6	6	724-2284	724-3284
1-1/4	3/4	1-1/8	3-3/8	6	724-2287	724-3287
1-1/4	3/4	2	4-1/4	6	724-2290	724-3290
1-1/4	3/4	4	6-1/4	6	724-2294	
1-1/4	1-1/4	1-1/4	4	4	724-2296	724-3296
1-1/4	1-1/4	1-3/8	3-7/8	6	724-2299	724-3299
1-1/4	1-1/4	2	4-1/2	6	724-2302	724-3302
1-1/4	1-1/4	2	5-1/4	3	724-2305	724-3305
1-1/4	1-1/4	3	5-1/2	6	724-2308	724-3308
1-1/4	1-1/4	4	6-1/2	6	724-2311	724-3311
1-1/4	1-1/4	6	8-1/2	6	724-2314	724-3314
1-3/8	3/4	1-1/8	3-3/8	6	724-2317	724-3317
1-3/8	3/4	2	4-1/4	6	724-2320	724-3320
1-1/2	3/4	1-1/8	3-3/8	6	724-2323	724-3323
1-1/2	3/4	1-1/2	3-3/4	6	724-2326	724-3326
1-1/2	3/4	2	4-1/4	6	724-2329	724-3329
1-1/2	3/4	4	6-1/4	6	724-2332	724-3332
1-1/2	1-1/4	2	4-1/2	6	724-2335	724-3335
1-1/2	1-1/4	3	5-1/2	6	724-2338	724-3338
1-1/2	1-1/4	4	6-1/2	6	724-2341	724-3341
1-1/2	1-1/4	5	7-1/2	6	724-2344	724-3344
1-1/2	1-1/4	6	8-1/2	6	724-2347	724-3347
1-3/4	3/4	1-1/8	3-3/8	6	724-2350	724-3350
1-3/4	3/4	2	4-1/4	6	724-2353	724-3353
1-3/4	1-1/4	2	4-1/2	6	724-2356	724-3356
1-3/4	1-1/4	4	6-1/2	6	724-2359	724-3359
2	3/4	1-1/8	3-3/8	8	724-2362	724-3362
2	3/4	2	4-1/2	8	724-2365	724-3365
2	1-1/4	2	4-1/2	8	724-2368	724-3368
2	1-1/4	4	6-1/2	8	724-2371	724-3371
2	1-1/4	6-1/8	8-5/8	8	724-2374	724-3374
2	2	2	5-3/4	8	724-2377	724-3377
2	2	3	6-3/4	6	724-2380	724-3380
2	2	3	6-3/4	8	724-2383	724-3383
2	2	4	7-3/4	6	724-2386	724-3386
2	2	4	7-3/4	8	724-2389	724-3389
2	2	5	8-3/4	8	724-2392	724-3392
2	2	6	9-3/4	6	724-2395	724-3395
2	2	6	9-3/4	8	724-2398	724-3398
2	2	7	10-3/4	8	724-2401	724-3401
2	2	8	11-3/4	8	724-2404	724-3404
2	2	10	13-3/4	8	724-2407	724-3407
2	2	12	15-3/4	8	724-2410	724-3410

M42 8% Cobalt Fine Pitch Roughing End Mills 细齿中心切削波刃立铣刀 8% 钴)

Center Cutting



- Fine pitch design provides a better finish than coarse pitch end mills and eliminates chipping in harder materials.
- For use in high production milling in variety of exotic materials.
- Coating improves tool life and allows for higher speeds and feeds.

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoate Order No.	TiN Coated Order No.
3/16"	3/8"	1/2"	2-3/8"	4	724-0508	724-1508
1/4	3/8	1/4	2-1/16	3	724-0511	724-1511
1/4	3/8	5/16	2-1/8	3	724-0514	724-1514
1/4	3/8	5/8	2-7/16	3	724-0520	724-1520
1/4	3/8	5/8	2-7/16	4	724-0523	724-1523
1/4	3/8	7/8	2-11/16	3	724-0526	724-1526
1/4	3/8	3/4	2-1/2	4	724-0529	724-1529
1/4	3/8	1-1/8	2-15/16	4	724-0532	724-1532
1/4	3/8	1-1/4	3-1/16	4	724-0535	724-1535
1/4	3/8	1-1/4	3-1/8	4	724-0538	724-1538
1/4	3/8	1-3/8	3-1/8	3	724-0541	724-1541
9/32	3/8	3/4	2-1/2	3	724-0544	724-1544
5/16	3/8	7/16	2-3/16	3	724-0547	724-1547
5/16	3/8	3/4	2-1/2	3	724-0550	724-1550
5/16	3/8	3/4	2-1/2	4	724-0553	724-1553
5/16	3/8	1-1/8	2-15/16	3	724-0556	724-1556
5/16	3/8	1-3/8	3-1/8	4	724-0559	724-1559
11/32	3/8	3/4	2-1/2	3	724-0562	724-1562
3/8	3/8	3/8	2-5/32	3	724-0565	724-1565
3/8	3/8	3/8	2-5/32	4	724-0568	724-1568
3/8	3/8	7/16	2-3/16	4	724-0571	724-1571
3/8	3/8	1/2	2-5/16	3	724-0574	724-1574
3/8	3/8	3/4	2-1/2	4	724-0577	724-1577
3/8	3/8	7/8	2-5/8	4	724-0580	724-1580
3/8	3/8	7/8	2-7/8	3	724-0583	724-1583
3/8	3/8	1-1/8	2-15/16	4	724-0586	724-1586
3/8	3/8	1-1/2	3-1/4	4	724-0589	724-1589
3/8	3/8	1-5/8	3-3/16	4	724-0592	724-1592
7/16	3/8	1	2-11/16	4	724-0595	724-1595
15/32	1/2	1-1/4	3-1/4	4	724-0598	724-1598
1/2	1/2	1/2	2-1/2	3	724-0601	724-1601
1/2	1/2	1/2	2-1/2	4	724-0607	724-1607
1/2	1/2	5/8	2-5/8	4	724-0610	724-1610
1/2	1/2	1	3	4	724-0613	724-1613
1/2	1/2	1-1/4	3-1/4	4	724-0616	724-1616
1/2	1/2	1-5/8	3-5/8	4	724-0619	724-1619
1/2	1/2	2	4	4	724-0622	724-1622
1/2	1/2	2-1/2	4-1/2	4	724-0625	724-1625
1/2	1/2	3	5	4	724-0628	724-1628
9/16	1/2	1-3/8	3-3/8	4	724-0631	724-1631
5/8	5/8	5/8	2-3/4	3	724-0634	724-1634
5/8	5/8	5/8	2-3/4	4	724-0637	724-1637
5/8	5/8	3/4	2-7/8	4	724-0640	724-1640
5/8	5/8	1-1/4	3-3/8	4	724-0643	724-1643
5/8	5/8	1-5/8	3-3/4	4	724-0646	724-1646
5/8	5/8	2	4-1/8	4	724-0649	724-1649
5/8	5/8	2-1/8	4-1/4	4	724-0652	724-1652
5/8	5/8	2-1/2	4-5/8	4	724-0655	724-1655
5/8	5/8	3	5-1/4	4	724-0658	724-1658
5/8	5/8	3-1/8	5-1/4	4	724-0661	724-1661
11/16	5/8	1-5/8	3-3/4	4	724-0664	724-1664
3/4	5/8	1-5/8	3-3/4	4	724-0667	724-1667
3/4	5/8	3	5-1/8	4	724-0668	
3/4	3/4	3/4	2-7/8	3	724-0670	724-1670
3/4	3/4	3/4	2-7/8	4	724-0673	724-1673
3/4	3/4	7/8	3-1/8	3	724-0676	724-1676
3/4	3/4	1-1/4	3-1/2	4	724-0679	724-1679
3/4	3/4	1-1/2	3-3/4	3	724-0682	724-1682
3/4	3/4	1-5/8	3-3/4	4	724-0685	724-1685
3/4	3/4	2-1/4	4-1/2	4	724-0688	724-1688
3/4	3/4	2-1/2	4-5/8	4	724-0691	724-1691
3/4	3/4	3	5-1/4	4	724-0694	724-1694
3/4	3/4	4-1/8	6-3/8	4	724-0697	724-1697
13/16	3/4	1-7/8	4-1/8	4	724-0700	724-1700
7/8	3/4	7/8	3-1/8	3	724-0703	724-1703
7/8	3/4	1	3-1/4	3	724-0706	724-1706
7/8	3/8	1-7/8	3-3/8	5	724-0709	724-1709

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
7/8"	3/4"	1-7/8"	4-1/8"	5	724-0712	724-1712
7/8	3/4	3-1/2	5-5/8	5	724-0715	724-1715
7/8	7/8	1-1/8	3-3/8	5	724-0718	724-1718
7/8	7/8	1-7/8	4-1/8	5	724-0721	724-1721
7/8	7/8	3-1/2	5-3/4	5	724-0724	724-1724
7/8	1	1-3/4	5	3	724-0727	724-1727
1	3/4	1-1/8	3-3/8	6	724-0730	724-1730
1	3/4	1-1/2	3-3/8	5	724-0733	724-1733
1	3/4	1-7/8	4-1/8	5	724-0736	724-1736
1	3/4	2	4-1/4	5	724-0739	724-1739
1	3/4	3	5-1/4	5	724-0742	724-1742
1	3/4	4	6-1/4	5	724-0745	724-1745
1	1	1	3-1/2	3	724-0748	724-1748
1	1	1	3-1/2	5	724-0751	724-1751
1	1	1-1/8	3-5/8	5	724-0754	724-1754
1	1	1-5/8	4-1/8	5	724-0757	724-1757
1	1	1-3/4	5	3	724-0760	724-1760
1	1	2	4-1/2	5	724-0763	724-1763
1	1	3	5-1/2	5	724-0766	724-1766
1	1	4	6-1/2	5	724-0769	724-1769
1	1	6	8-1/2	5	724-0772	724-1772
1-1/8	3/4	1-1/8	3-3/8	6	724-0775	724-1775
1-1/8	3/4	2	4-1/4	6	724-0778	724-1778
1-1/8	1	2	4-1/2	6	724-0781	724-1781
1-1/8	1	3-1/2	6	6	724-0784	724-1784
1-1/4	3/4	1-1/8	3-3/8	6	724-0787	724-1787
1-1/4	3/4	2	4-1/4	6	724-0790	724-1790
1-1/4	1-1/4	1-1/4	4	4	724-0796	724-1796
1-1/4	3/4	1-1/8	3-3/8	6	724-0793	724-1793
1-1/4	3/4	4	6-1/4	6	724-0794	
1-1/4	1-1/4	1-3/8	3-7/8	6	724-0799	724-1799
1-1/4	1-1/4	2	4-1/2	6	724-0802	724-1802
1-1/4	1-1/4	2	5-1/4	3	724-0805	724-1805
1-1/4	1-1/4	3	5-1/2	6	724-0808	724-1808
1-1/4	1-1/4	4	6-1/2	6	724-0811	724-1811
1-1/4	1-1/4	6	8-1/2	6	724-0814	724-1814
1-3/8	3/4	1-1/8	3-3/8	6	724-0817	724-1817
1-3/8	3/4	2	4-1/4	6	724-0820	724-1820
1-1/2	3/4	1-1/8	3-3/8	6	724-0823	724-1823
1-1/2	3/4	1-1/2	3-3/4	6	724-0826	724-1826
1-1/2	3/4	2	4-1/4	6	724-0829	724-1829
1-1/2	3/4	4	6-1/4	6	724-0832	724-1832
1-1/2	1-1/4	2	4-1/2	6	724-0835	724-1835
1-1/2	1-1/4	3	5-1/2	6	724-0838	724-1838
1-1/2	1-1/4	4	6-1/2	6	724-0841	724-1841
1-1/2	1-1/4	5	7-1/2	6	724-0844	724-1844
1-1/2	1-1/4	6	8-1/2	6	724-0847	724-1847
1-3/4	3/4	1-1/8	3-3/8	6	724-0850	724-1850
1-3/4	3/4	2	4-1/4	6	724-0853	724-1853
1-3/4	1-1/4	2	4-1/2	6	724-0856	724-1856
1-3/4	1-1/4	4	6-1/2	6	724-0859	724-1859
2	3/4	1-1/8	3-3/8	8	724-0862	724-1862
2	3/4	2	4-1/2	8	724-0865	724-1865
2	1-1/4	2	4-1/2	8	724-0868	724-1868
2	1-1/4	4	6-1/2	8	724-0871	724-1871
2	1-1/4	6-1/8	8-5/8	8	724-0874	724-1874
2	2	2	5-3/4	8	724-0877	724-1877
2	2	3	6-3/4	6	724-0880	724-1880
2	2	3	6-3/4	8	724-0883	724-1883
2	2	4	7-3/4	6	724-0886	724-1886
2	2	4	7-3/4	8	724-0889	724-1889
2	2	5	8-3/4	8	724-0892	724-1892
2	2	6	9-3/4	6	724-0895	724-1895
2	2	6	9-3/4	8	724-0898	724-1898
2	2	7	10-3/4	8	724-0901	724-1901
2	2	8	11-3/4	8	724-0904	724-1904
2	2	10	13-3/4	8	724-0907	724-1907
2	2	12	15-3/4	8	724-0910	724-1910

M42 8% Cobalt Roughing & Finishing End Mills 波刃半精整立铣刀(8% 钴)

Non Center Cutting





Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
3/16"	3/8"	1/2"	2-3/8"	3	724-4008	724-5008
1/4	3/8	1/4	2-1/16	3	724-4011	724-5011
1/4	3/8	5/16	2-1/8	4	724-4014	724-5014
1/4	3/8	1/4	2-1/16	3	724-4017	724-5017
1/4	3/8	5/8	2-7/16	3	724-4020	724-5020
1/4	3/8	5/8	2-7/16	4	724-4023	724-5023
1/4	3/8	7/8	2-11/16	4	724-4026	724-5026
1/4	3/8	3/4	2-1/2	4	724-4029	724-5029
1/4	3/8	1-1/8	2-15/16	4	724-4032	724-5032
1/4	3/8	1-1/4	3-1/16	4	724-4035	724-5035
1/4	3/8	1-1/4	3-1/8	4	724-4038	724-5038
1/4	3/8	1-3/8	3-1/8	3	724-4041	724-5041
9/32	3/8	3/4	2-1/2	3	724-4044	724-5044
5/16	3/8	7/16	2-3/16	4	724-4047	724-5047
5/16	3/8	3/4	2-1/2	3	724-4050	724-5050
5/16	3/8	3/4	2-1/2	4	724-4053	724-5053
5/16	3/8	1-1/8	2-15/16	4	724-4056	724-5056
5/16	3/8	1-3/8	3-1/8	3	724-4058	724-5058
5/16	3/8	1-3/8	3-1/8	4	724-4059	724-5059
11/32	3/8	3/4	2-1/2	3	724-4062	724-5062
3/8	3/8	3/8	2-5/32	3	724-4065	724-5065
3/8	3/8	3/8	2-5/32	4	724-4068	724-5068
3/8	3/8	7/16	2-3/16	4	724-4071	724-5071
3/8	3/8	1/2	2-5/16	3	724-4074	724-5074
3/8	3/8	3/4	2-1/2	3	724-4076	724-5076
3/8	3/8	3/4	2-1/2	4	724-4077	724-5077
3/8	3/8	7/8	2-5/8	4	724-4080	724-5080
3/8	3/8	7/8	2-7/8	3	724-4083	724-5083
3/8	3/8	1-1/8	2-15/16	4	724-4086	724-5086
3/8	3/8	1-3/8	3-3/16	4	724-4088	724-5088
3/8	3/8	1-1/2	3-1/4	4	724-4089	724-5089
3/8	3/8	1-5/8	3-3/16	4	724-4092	724-5092
7/16	3/8	1	2-11/16	4	724-4095	724-5095
15/32	1/2	1-1/4	3-1/4	4	724-4098	724-5098
1/2	1/2	1/2	2-1/2	3	724-4104	724-5104
1/2	1/2	1/2	2-1/2	4	724-4107	724-5107
1/2	1/2	5/8	2-5/8	4	724-4110	724-5110
1/2	1/2	1	3	4	724-4113	724-5113
1/2	1/2	1-1/4	3-1/4	3	724-4115	724-5115
1/2	1/2	1-1/4	3-1/4	4	724-4116	724-5116
1/2	1/2	1-5/8	3-5/8	4	724-4119	724-5119
1/2	1/2	2	4	3	724-4121	724-5121
1/2	1/2	2	4	4	724-4122	724-5122
1/2	1/2	2-1/2	4-1/2	4	724-4125	724-5125
1/2	1/2	3	5	4	724-4128	724-5128
9/16	1/2	1-3/8	3-3/8	4	724-4131	724-5131
5/8	5/8	5/8	2-3/4	3	724-4134	724-5134
5/8	5/8	5/8	2-3/4	4	724-4137	724-5137
5/8	5/8	3/4	2-7/8	4	724-4140	724-5140
5/8	5/8	1-1/4	3-3/8	4	724-4143	724-5143
5/8	5/8	1-5/8	3-3/4	3	724-4145	724-5145
5/8	5/8	1-5/8	3-3/4	4	724-4146	724-5146
5/8	5/8	2	4-1/8	4	724-4149	724-5149
5/8	5/8	2-1/8	4-1/4	4	724-4152	724-5152
5/8	5/8	2-1/2	4-5/8	3	724-4154	724-5154
5/8	5/8	2-1/2	4-5/8	4	724-4155	724-5155
5/8	5/8	3	5-1/4	4	724-4158	724-5158
5/8	5/8	3-1/8	5-1/4	4	724-4161	724-5161
11/16	5/8	1-5/8	3-3/4	4	724-4164	724-5164
3/4	5/8	1-5/8	3-3/4	4	724-4167	724-5167

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
3/4	3/4	3/4	2-7/8	3	724-4170	724-5170
3/4	3/4	3/4	3	4	724-4173	724-5173
3/4	3/4	7/8	3-1/8	3	724-4176	724-5176
3/4	3/4	1-1/4	3-1/2	4	724-4179	724-5179
3/4	3/4	1-1/2	3-3/4	3	724-4182	724-5182
3/4	3/4	1-5/8	3-3/4	4	724-4185	724-5185
3/4	3/4	1-5/8	3-7/8	3	724-4186	724-5186
3/4	3/4	2-1/4	4-1/2	4	724-4188	724-5188
3/4	3/4	2-1/2	4-5/8	4	724-4191	724-5191
3/4	3/4	3	5-1/4	3	724-4193	724-5193
3/4	3/4	3	5-1/4	4	724-4194	724-5194
3/4"	3/4"	4-1/8"	6-3/8"	4	724-4197	724-5197
13/16	3/4	1-7/8	4-1/8	5	724-4200	724-5200
7/8	3/4	7/8	3-1/8	3	724-4203	724-5203
7/8	3/4	1	3-1/4	3	724-4206	724-5206
7/8	3/4	1-1/8	3-3/8	5	724-4209	724-5209
7/8	3/4	1-3/4	4	3	724-4211	724-5211
7/8	3/4	1-7/8	4-1/8	5	724-4212	724-5212
7/8	3/4	3-1/2	5-5/8	5	724-4215	724-5215
7/8	7/8	1-1/8	3-3/8	5	724-4218	724-5218
7/8	7/8	1-7/8	4-1/8	5	724-4221	724-5221
7/8	7/8	3-1/2	5-3/4	5	724-4224	724-5224
7/8	1	1-3/4	5	3	724-4227	724-5227
1	3/4	1-1/8	3-3/8	6	724-4230	724-5230
1	3/4	1-1/2	3-3/8	5	724-4233	724-5233
1	3/4	1-1/2	3-3/4	3	724-4234	724-5234
1	3/4	1-7/8	4-1/8	5	724-4236	724-5236
1	3/4	2	4-1/4	5	724-4239	724-5239
1	3/4	3	5-1/4	5	724-4242	724-5242
1	3/4	4	6-1/4	4	724-4245	724-5245
1	1	1	3-1/2	3	724-4248	724-5248
1	1	1	3-1/2	5	724-4251	724-5251
1	1	1-1/8	3-5/8	6	724-4254	724-5254
1	1	1-5/8	4-1/8	6	724-4257	724-5257
1	1	1-3/4	5	3	724-4260	724-5260
1	1	2	4-1/2	3	724-4262	724-5262
1	1	2	4-1/2	6	724-4263	724-5263
1	1	3	5-1/2	5	724-4266	724-5266
1	1	4	6-1/2	3	724-4268	724-5268
1	1	4	6-1/2	5	724-4269	724-5269
1	1	6	8-1/2	5	724-4272	724-5272
1-1/8	3/4	1-1/8	3-3/8	6	724-4275	724-5275
1-1/8	3/4	2	4-1/4	6	724-4278	724-5278
1-1/8	1	2	4-1/2	6	724-4281	724-5281
1-1/8	1	3-1/2	6	6	724-4284	724-5284
1-1/4	3/4	1-1/8	3-3/8	6	724-4287	724-5287
1-1/4	3/4	1-1/2	3-3/4	3	724-4289	724-5289
1-1/4	3/4	2	4-1/4	6	724-4290	724-5290
1-1/4	3/4	2	4-1/2	6	724-4293	724-5293
1-1/4	1-1/4	1-1/4	4	4	724-4296	724-5296
1-1/4	1-1/4	1-3/8	3-7/8	6	724-4299	724-5299
1-1/4	1-1/4	2	4-1/2	3	724-4301	724-5301
1-1/4	1-1/4	2	4-1/2	6	724-4302	724-5302
1-1/4	1-1/4	2	5-1/4	3	724-4305	724-5305
1-1/4	1-1/4	3	5-1/2	6	724-4308	724-5308

M42 8% Cobalt Roughing & Finishing End Mills Continued

波刃半精整立铣刀(8% 钴)

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Uncoated Order No.	TiN Coated Order No.
1-1/4	1-1/4	4	6-1/2	3	724-4310	724-5310
1-1/4	1-1/4	4	6-1/2	6	724-4311	724-5311
1-1/4	1-1/4	6	8-1/2	6	724-4314	724-5314
1-3/8	3/4	1-1/8	3-3/8	6	724-4317	724-5317
1-3/8	3/4	2	4-1/4	6	724-4320	724-5320
1-1/2	3/4	1-1/8	3-3/8	6	724-4323	724-5323
1-1/2	3/4	1-1/2	3-3/4	6	724-4326	724-5326
1-1/2	3/4	2	4-1/2	6	724-4329	724-5329
1-1/2	3/4	4	6-1/4	6	724-4332	724-5332
1-1/2	1-1/4	2	4-1/2	3	724-4334	724-5334
1-1/2	1-1/4	2	4-1/2	6	724-4335	724-5335
1-1/2	1-1/4	3	5-1/2	6	724-4338	724-5338
1-1/2	1-1/4	4	6-1/2	3	724-4340	724-5340
1-1/2	1-1/4	4	6-1/2	6	724-4341	724-5341
1-1/2	1-1/4	5	7-1/2	6	724-4344	724-5344
1-1/2	1-1/4	6	8-1/2	6	724-4347	724-5347
1-3/4	3/4	1-1/8	3-3/8	6	724-4350	724-5350
1-3/4	3/4	2	4-1/4	6	724-4353	724-5353
1-3/4	1-1/4	2	4-1/2	6	724-4356	724-5356
1-3/4	1-1/4	4	6-1/2	6	724-4359	724-5359
2	3/4	1-1/8	3-3/8	8	724-4362	724-5362
2	3/4	2	4-1/2	8	724-4365	724-5365
2	1-1/4	2	4-1/2	3	724-4367	724-5367
2	1-1/4	2	4-1/2	8	724-4368	724-5368
2	1-1/4	4	6-1/2	3	724-4370	724-5370
2	1-1/4	4	6-1/2	8	724-4371	724-5371
2	1-1/4	6-1/8	8-5/8	8	724-4374	724-5374
2	2	2	5-3/4	8	724-4377	724-5377
2	2	3	6-3/4	6	724-4380	724-5380
2	2	3	6-3/4	8	724-4383	724-5383
2	2	4	7-3/4	6	724-4386	724-5386
2	2	4	7-3/4	8	724-4389	724-5389
2	2	5	8-3/4	8	724-4392	724-5392
2	2	6	9-3/4	6	724-4395	724-5395
2	2	6	9-3/4	8	724-4398	724-5398
2	2	7	10-3/4	8	724-4401	724-5401
2	2	8	11-3/4	8	724-4404	724-5404
2	2	10	13-3/4	8	724-4407	724-5407
2	2	12	15-3/4	8	724-4410	724-5410

M42 8% Cobalt 3 Flute Roughing End Mills For Aluminum

3齿波刃加工铝用立铣刀(8%钴), 中心切削

Coarse Pitch, Center Cutting



Size	Shank Dia.	Flute Length	Overall Length	Uncoated Order No.	TiN-Coated Order No.
3/16"	3/8"	1/2"	2-3/8"	723-4403	724-6403
1/4	3/8	5/8	2-7/16	723-4406	724-6406
1/4	3/8	1-1/8	2-15/16	723-4409	724-6409
1/4	3/8	1-3/8	3-1/8	723-4412	724-6412
9/32	3/8	3/4	2-1/2	723-4415	724-6415
5/16	3/8	3/4	2-1/2	723-4418	724-6418
5/16	3/8	1-1/8	2-15/16	723-4421	724-6421
5/16	3/8	1-3/8	3-1/8	723-4424	724-6424
11/32	3/8	3/4	2-1/2	723-4427	724-6427
3/8	3/8	7/16	2-3/16	723-4430	724-6430
3/8	3/8	3/4	2-1/2	723-4433	724-6433
3/8	3/8	1-1/8	2-13/16	723-4436	724-6436
3/8	3/8	1-1/2	3-1/4	723-4439	724-6439
3/8	3/8	1-5/8	3-3/16	723-4442	724-6442
7/16	3/8	1	2-11/16	723-4445	724-6445
15/32	1/2	1-1/4	3-1/4	723-4448	724-6448
1/2	1/2	5/8	2-5/8	723-4451	724-6451
1/2	1/2	1	3	723-4454	724-6454
1/2	1/2	1-1/4	3-1/4	723-4457	724-6457
1/2	1/2	1-5/8	3-5/8	723-4460	724-6460
1/2	1/2	2	4	723-4463	724-6463
1/2	1/2	2-1/2	4-1/2	723-4466	724-6466
1/2	1/2	3	5	723-4469	724-6469
9/16	1/2	1-3/8	3-3/8	723-4472	724-6472
5/8	5/8	3/4	2-7/8	723-4475	724-6475
5/8	5/8	1-1/4	3-3/8	723-4478	724-6478
5/8	5/8	1-5/8	3-3/4	723-4481	724-6481
5/8	5/8	1-5/8	3-7/8	723-4482	
5/8	5/8	2	4-1/8	723-4484	724-6484
5/8	5/8	2-1/8	4-1/4	723-4487	724-6487
5/8	5/8	2-1/2	4-5/8	723-4490	724-6490
5/8	5/8	3	5-1/8	723-4493	724-6493
5/8	5/8	3-1/8	5-1/4	723-4496	724-6496
11/16	5/8	1-5/8	3-3/4	723-4499	724-6499
3/4	5/8	1-5/8	3-3/4	723-4502	724-6502
3/4	3/4	3/4	3	723-4505	724-6505
3/4	3/4	1-1/4	3-1/2	723-4508	724-6508
3/4	3/4	1-5/8	3-3/4	723-4511	724-6511
3/4	3/4	1-5/8	3-7/8	723-4514	724-6514
3/4	3/4	2	4-1/4	723-4517	724-6517
3/4	3/4	2-1/4	4-1/2	723-4520	724-6520
3/4	3/4	2-1/2	4-3/4	723-4523	724-6523
3/4	3/4	3	5-1/4	723-4526	724-6526
3/4	3/4	4	6-1/4	723-4529	724-6529
3/4	3/4	4-1/8	6-3/8	723-4532	724-6532
7/8	3/4	1-1/8	3-3/8	723-4535	724-6535
7/8	3/4	1-1/2	3-3/4	723-4538	724-6538
7/8	3/4	1-7/8	4-1/8	723-4541	724-6541
7/8"	3/4"	3-1/2"	5-5/8"	723-4544	724-6544
7/8	7/8	1-1/8	3-3/8	723-4547	724-6547
7/8	7/8	1-7/8	4-1/8	723-4550	724-6550
1	3/4	1-1/8	3-3/8	723-4553	724-6553
1	3/4	1-1/2	3-3/4	723-4556	724-6556
1	3/4	2	4-1/4	723-4559	724-6559
1	3/4	3	5-1/4	723-4562	724-6562
1	3/4	4	6-1/4	723-4565	724-6565
1	1	1-1/8	3-5/8	723-4568	724-6568
1	1	1-5/8	4-1/8	723-4571	724-6571
1	1	2	4-1/2	723-4574	724-6574
1	1	3	5-1/2	723-4577	724-6577
1	1	4	6-1/2	723-4580	724-6580
1	1	6	8-1/2	723-4583	724-6583
1-1/8	3/4	1-1/8	3-3/8	723-4586	724-6586
1-1/4	3/4	1-1/2	3-3/4	723-4589	724-6589
1-1/4	3/4	2	4-1/4	723-4592	724-6592
1-1/4	1-1/4	2	4-1/2	723-4595	724-6595
1-1/4	1-1/4	3	5-1/2	723-4598	724-6598
1-1/4	1-1/4	4	6-1/2	723-4601	724-6601
1-1/4	1-1/4	6	8-1/2	723-4604	724-6604
1-3/8	3/4	2	4-1/4	723-4607	724-6607
1-1/2	3/4	1-1/2	3-3/4	723-4610	724-6610
1-1/2	3/4	2	4-1/4	723-4613	724-6613
1-1/2	1-1/4	2	4-1/2	723-4616	724-6616
1-1/2	1-1/4	3	5-1/2	723-4619	724-6619
1-1/2	1-1/4	4	6-1/2	723-4622	724-6622
1-1/2	1-1/4	5	7-1/2	723-4625	724-6625
1-1/2	1-1/4	6	8-1/2	723-4628	724-6628
1-1/2	1-1/4	8	10-1/2	723-4631	724-6631
1-3/4	1-1/4	2	4-1/2	723-4634	724-6634
1-3/4	1-1/4	4	6-1/2	723-4637	724-6637
2	3/4	3/4	3	723-4640	724-6640
2	3/4	1-1/8	3-1/2	723-4643	724-6643
2	3/4	2	4-1/2	723-4646	724-6646
2	1-1/4	2	4-1/2	723-4649	724-6649
2	1-1/4	4	6-1/2	723-4652	724-6652
2	2	2	5-3/4	723-4655	724-6655
2	2	2	6-3/4	723-4658	724-6658
2	2	3	6-3/4	723-4661	724-6661
2	2	4	7-3/4	723-4664	724-6664
2	2	5	7-3/4	723-4667	724-6667
2	2	6	8-3/4	723-4670	724-6670
2	2	6	9-3/4	723-4673	724-6673
2	2	7	9-3/4	723-4676	724-6676
2	2	8	11-3/4	723-4679	724-6679

M42 8% Cobalt 3 Flute Fine Pitch 45° Roughing End Mills For Aluminum

Center Cutting

Cobalt

细齿 45 度 3 齿波刃立铣刀 (8% 钴) 中心切削



Size	Shank Dia.	Flute Length	Overall Length	Uncoated Order No.	TiN-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	Uncoated Order No.	TiN-Coated Order No.
1/4"	3/8"	5/8"	2-7/16"	723-5304	723-6304	1"	3/4"	2"	4-1/2"	723-5348	723-6348
5/16	3/8	3/4	2-1/2	723-5308	723-6308	1	1	2	4-1/2	723-5352	723-6352
3/8	3/8	3/4	2-1/2	723-5312	723-6312	1	1	4	6-1/2	723-5356	723-6356
1/2	1/2	1-1/4	3-1/4	723-5316	723-6316	1-1/8	3/4	2	4-1/2	723-5360	723-6360
1/2	1/2	2	4	723-5320	723-6320	1-1/4	1-1/4	2	4-1/2	723-5364	723-6364
5/8	5/8	1-5/8	3-3/4	723-5324	723-6324	1-1/4	1-1/4	4	6-1/2	723-5368	723-6368
5/8	5/8	2-1/2	4-5/8	723-5328	723-6328	1-1/2	1-1/4	2	4-1/2	723-5372	723-6372
3/4	3/4	1-5/8	3-3/4	723-5332	723-6332	1-3/4	1-1/4	2	4-1/2	723-5376	723-6376
3/4	3/4	3	5-1/4	723-5336	723-6336	2	1-1/4	2	4-1/2	723-5380	723-6380
7/8	3/4	1-7/8	4-1/8	723-5340	723-6340	2	1-1/4	4	6-1/2	723-5384	723-6384
7/8	3/4	3-1/2	5-3/4	723-5344	723-6344						

M42 8% Cobalt 3 Flute Coarse Pitch Roughing End Mills For Aluminum

Non Center Cutting

Cobalt

3齿粗齿波刃立铣刀 (8% 钴) 铝用



Size	Shank Dia.	Flute Length	Overall Length	Uncoated Order No.	TiN-Coated Order No.	Size	Shank Dia.	Flute Length	Overall Length	Uncoated Order No.	TiN-Coated Order No.
3/8"	3/8"	3/4"	2-1/2"	723-7304	723-8304	1-1/4"	3/4"	1-1/2"	3-3/4"	723-7364	723-8364
3/8	3/8	7/8	2-5/8	723-7308	723-8308	1-1/4	3/4	2	4-1/4	723-7368	723-8368
1/2	1/2	1-1/4	3-1/4	723-7312	723-8312	1-1/4	1-1/4	2	4-1/2	723-7372	723-8372
1/2	1/2	2	4	723-7316	723-8316	1-1/4	1-1/4	3	5-1/2	723-7376	723-8376
5/8	5/8	1-5/8	3-3/4	723-7320	723-8320	1-1/4	1-1/4	4	6-1/2	723-7380	723-8380
5/8	5/8	2-1/2	4-5/8	723-7324	723-8324	1-1/2	3/4	1-1/2	3-3/4	723-7384	723-8384
3/4	3/4	1-5/8	3-7/8	723-7328	723-8328	1-1/2	3/4	2	4-1/2	723-7388	723-8388
3/4	3/4	2	4-1/4	723-7332	723-8332	1-1/2	1-1/4	2	4-1/2	723-7392	723-8392
3/4	3/4	3	5-1/4	723-7336	723-8336	1-1/2	1-1/4	3	5-1/2	723-7396	723-8396
7/8	3/4	1-7/8	4-1/8	723-7340	723-8340	1-1/2	1-1/4	4	6-1/2	723-7397	
1	3/4	1-1/2	3-3/4	723-7344	723-8344	2	3/4	3/4	3	723-7400	723-8400
1	3/4	2	4-1/4	723-7348	723-8348	2	1-1/4	2	4-1/2	723-7404	723-8404
1	1	2	4-1/2	723-7352	723-8352	2	1-1/4	4	6-1/2	723-7408	723-8408
1	1	3	5-1/2	723-7356	723-8356	2	2	2	5-3/4	723-7412	723-8412
1	1	4	6-1/2	723-7360	723-8360	2	2	4	7-3/4	723-7416	723-8416

M42 8% Cobalt Ball Nose Roughing End Mills

球头波刃立铣刀 (8% 钴)



- Designed for heavy cuts and high stock removal in radius bottom slots, fillets and special contours.
- Coarse pitch profile can remove metal at the same rate as conventional end mills with considerably less defection.

Fine Pitch

Cobalt

Size	Shank Dia.	Flute Length	Overall Length	No.of Flute	Uncoated Order No.	TiN-Coated Order No.
3/8"	3/8"	3/4"	2-1/2"	4	724-2502	724-2702
1/2	1/2	1-1/4	3-1/4	4	724-2511	724-2711
1/2	1/2	2	4	4	724-2520	724-2720
5/8	5/8	1-5/8	3-3/4	4	724-2529	724-2729
5/8	5/8	2	4-1/8	4	724-2538	724-2738
5/8	5/8	2-1/2	4-5/8	4	724-2547	724-2747
3/4	3/4	1-5/8	3-7/8	4	724-2556	724-2756
3/4	3/4	1-3/4	4	4	724-2565	724-2765
3/4	3/4	2-1/4	4-1/2	4	724-2574	724-2774
3/4	3/4	3	5-1/4	4	724-2583	724-2783
7/8	7/8	1-7/8	4-1/8	5	724-2592	724-2792
1	1	2	4-1/2	5	724-2601	724-2801
1	1	3	5-1/2	5	724-2610	724-2810
1	1	4	6-1/2	5	724-2619	724-2819
1-1/4	1-1/4	2	4-1/2	6	724-2628	724-2828
1-1/4	1-1/4	3	5-1/2	6	724-2637	724-2837
1-1/4	1-1/4	4	6-1/2	6	724-2646	724-2846
1-1/2	1-1/4	2	4-1/2	6	724-2655	724-2855
2	2	2	5-3/4	6	724-2664	724-2864
2	2	4	6-3/4	6	724-2673	724-2873
2	2	4	9-3/4	6	724-2682	724-2882

Coarse Pitch

Size	Shank Dia.	Flute Length	Overall Length	No. Of Flute	Uncoated Order No.	TiN-Coated Order No.
1/4"	3/8"	5/8"	2-7/16"	3	723-5503	723-5603
1/4	3/8	5/8	2-1/2	3	723-5505	723-5605
5/16	3/8	3/4	2-1/2	3	723-5510	723-5610
3/8	3/8	3/4	2-1/2	4	723-5515	723-5615
1/2	1/2	1-1/4	3-1/4	4	723-5520	723-5620
1/2	1/2	2-1/2	4-1/2	4	723-5522	723-5622
5/8	5/8	1-5/8	3-3/4	4	723-5525	723-5625
5/8	5/8	2-1/2	4-5/8	4	723-5527	723-5627
3/4	3/4	1-5/8	3-7/8	4	723-5530	723-5630
3/4	3/4	1-3/4	4	4	723-5531	723-5631
3/4	3/4	3	5-1/4	4	723-5532	723-5632
1	3/4	2	4-1/2	5	723-5533	723-5633
1	1	2	4-1/2	5	723-5534	723-5634
1	1	2	4-1/2	6	723-5535	723-5635
1	1	4	6-1/2	5	723-5537	723-5637
1-1/4	3/4	2	4-1/2	6	723-5538	723-5638
1-1/4	1-1/4	2	4-1/2	6	723-5540	723-5640
1-1/4	1-1/4	4	6-1/2	6	723-5542	723-5642
1-1/2	3/4	2	4-1/2	6	723-5544	723-5644
1-1/2	1-1/4	2	4-1/2	6	723-5545	723-5645
1-1/2	1-1/2	2	4-1/2	6	723-5546	723-5646
1-1/2	1-1/2	4	6-1/2	6	723-5547	723-5647
2	2	4	7-3/4	6	723-5550	723-5650
2	1-1/4	4	7-3/4	8	723-5555	723-5655
2	2	4	7-3/4	8	723-5556	723-5656

2 Flute Ball Nose Single End Mills

High Speed Steel 2齿单头球头立铣刀

- Designed for milling radius bottom slots, fillets and special contours.
- Center cutting design is used to plunge into solid material at the beginning of a slotting cut.
- 2 Flute design provides excellent chip evacuation.

Regular Length



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2AI Order No.	TiN-Coated Order No.
1/8"	3/8"	3/8"	2-5/16"	720-1401	721-1401	722-1401
5/32	3/8	7/16	2-5/16	720-1402	721-1402	722-1402
3/16	3/8	1/2	2-3/8	720-1403	721-1403	722-1403
7/32	3/8	1/2	2-3/8	720-1404	721-1404	722-1404
1/4	3/8	5/8	2-7/16	720-1405	721-1405	722-1405
9/32	3/8	9/16	2-3/8	720-1406	721-1406	722-1406
5/16	3/8	3/4	2-1/2	720-1407	721-1407	722-1407
11/32	3/8	3/4	2-1/2	720-1408	721-1408	722-1408
3/8	3/8	3/4	2-1/2	720-1409	721-1409	722-1409
7/16	1/2	1	3	720-1411	721-1411	722-1411
1/2	1/2	1	3	720-1413	721-1413	722-1413
9/16	1/2	1	3	720-1415	721-1415	722-1415
5/8	1/2	1-1/8	3-1/8	720-1417	721-1417	722-1417
5/8	1/2	1-3/8	3-3/8	720-1418		
5/8	5/8	1-3/8	3-3/8	720-1419	721-1419	722-1419
3/4	1/2	1-5/16	3-5/8	720-1420		
3/4"	1/2"	1-5/8"	3-5/8"	720-1421	721-1421	722-1421
3/4	3/4	1-5/8	3-7/8	720-1423	721-1423	722-1423
13/16	3/4	2	4-1/4	720-1425	721-1425	722-1425
7/8	3/4	2	4-1/4	720-1427	721-1427	722-1427
7/8	7/8	2	4-1/4	720-1429	721-1429	722-1429
15/16	3/4	2-1/4	4-1/2	720-1431	721-1431	722-1431
1	3/4	2-1/4	4-9/16	720-1433	721-1433	722-1433
1	1	2-1/4	4-3/4	720-1435	721-1435	722-1435
1-1/8	1	2-1/4	4-3/4	720-1437	721-1437	722-1437
1-1/4	1-1/4	2-1/2	5	720-1439	721-1439	722-1439
1-3/8	1-1/4	2-1/2	5	720-1441	721-1441	722-1441
1-1/2	1-1/4	2-1/2	5	720-1443	721-1443	722-1443
2	1-1/4	2-1/2	5	720-1445	721-1445	722-1445

2 Flute Ball Nose Single End Mills For Aluminum 2齿单头球头铝用立铣刀

Regular long & Extra Long Flute Length

- Recommended for mill radius bottom slots and special contours in aluminum and other non-ferrous materials.
- The high helix angle shears the material cleanly and helps eliminate chatter.
- TiN coating add lubricity to minimize chip packing in th flutes.



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2AI Order No.	TiN-Coated Order No.
1/4"	3/8"	5/8"	2-1/2"	720-1601	721-1601	722-1601
1/4	3/8	1-1/4	3-1/8	720-1603	721-1603	722-1603
1/4	3/8	1-3/4	3-1/2	720-1605	721-1605	722-1605
5/16	3/8	3/4	2-1/2	720-1607	721-1607	722-1607
5/16	3/8	1-3/8	3-1/8	720-1609	721-1609	722-1609
5/16	3/8	2	3-3/4	720-1611	721-1611	722-1611
3/8	3/8	3/4	2-1/2	720-1613	721-1613	722-1613
3/8	3/8	1-1/2	3-1/4	720-1615	721-1615	722-1615
3/8	3/8	2-1/2	4-1/4	720-1617	721-1617	722-1617
7/16	3/8	1	2-11/16	720-1619	721-1619	722-1619
7/16	1/2	1-3/4	3-3/4	720-1621	721-1621	722-1621
7/16	1/2	2-3/4	4-3/4	720-1623	721-1623	722-1623
1/2	1/2	1	3-1/4	720-1625	721-1625	722-1625
1/2	1/2	2	4	720-1627	721-1627	722-1627
1/2"	1/2"	3"	5"	720-1629	721-1629	722-1629
5/8	5/8	1-5/8	3-3/4	720-1631	721-1631	722-1631
5/8	5/8	2-1/2	4-5/8	720-1633	721-1633	722-1633
5/8	5/8	4	6-1/8	720-1635	721-1635	722-1635
3/4	3/4	1-5/8	3-7/8	720-1637	721-1637	722-1637
3/4	3/4	3	5-1/4	720-1639	721-1639	722-1639
3/4	3/4	4	6-1/4	720-1641	721-1641	722-1641
7/8	1-7/8	1-7/8	4-1/8	720-1643	721-1643	722-1643
7/8	7/8	3-1/2	5-3/4	720-1645	721-1645	722-1645
7/8	7/8	5	7-1/4	720-1647	721-1647	722-1647
1	3/4	1-7/8	4-1/8	720-1651	721-1651	722-1651
1	1	2	4-1/2	720-1653	721-1653	722-1653
1	1	4	6-1/2	720-1655	721-1655	722-1655
1	1	6	8-1/2	720-1657	721-1657	722-1657

2 Flute Ball Nose Single End Mills

Extended Shank 2 齿单头球头加长柄立铣刀



Size	Shank Dia	Length Below Shank	Flute Length	OAL	M2 Order No.	M2AI Order No.	TiN-Coated Order No.
1/8"	3/8"	13/16"	3/8"	2-3/8"	720-1451	721-1451	722-1451
3/16	3/8	1-1/8	1/2	2-11/16	720-1453	721-1453	722-1453
1/4	3/8	1-1/2	5/8	3-1/16	720-1455	721-1455	722-1455
5/16	3/8	1-3/4	3/4	3-5/16	720-1457	721-1457	722-1457
3/8	3/8	1-3/4	3/4	3-5/16	720-1459	721-1459	722-1459
7/16	1/2	1-7/8	1	3-11/16	720-1461	721-1461	722-1461
1/2	1/2	2-1/4	1	4	720-1463	721-1463	722-1463
5/8	5/8	2-3/4	1-3/8	4-5/8	720-1465	721-1465	722-1465
3/4	3/4	3-3/8	1-5/8	5-3/8	720-1467	721-1467	722-1467
1	1	5	2-1/2	7-1/4	720-1469	721-1469	722-1469

4 Flute Ball Nose Single End Mills

High Speed Steel 4齿单头球头中心切削立铣刀



Size	Shank Dia.	Flute Length	OAL	Order No.	Size	Shank Dia.	Flute Length	OAL	Order No.
1/4"	3/8"	3/4"	2-9/16"	320-3700	7/8"	7/8"	1-7/8"	4-1/2"	320-3766
1/4	3/8	5/8	2-1/2	320-3705	3/4	3/4	3	5-1/4	320-3768
1/4	3/8	1-1/4	3-1/16	320-3708	1	1	2-1/4	4-3/4	320-3770
5/16	3/8	3/4	2-1/2	320-3715	1	1	2	4-1/2	320-3775
5/16	3/8	1	2-3/4	320-3710	1	1	4	6-1/2	320-3778
5/16	3/8	1-1/2	3-1/4	320-3718	1	1	6	7-1/2	320-3779
3/8	3/8	3/4	2-1/2	320-3725	1-1/4	1-1/4	2-1/2	5	320-3780
3/8	3/8	1	2-3/4	320-3720	1-1/4	1-1/4	3	5-1/2	320-3782
3/8	3/8	1-1/2	3-1/4	320-3728	1-1/4	1-1/4	4	6-1/2	320-3783
1/2	1/2	1	2-3/4	320-3730	1-1/4	1-1/4	6	8-1/2	320-3784
1/2	1/2	1-1/4	3-1/4	320-3735	1-1/4	1-1/4	2	4-1/2	320-3785
1/2	1/2	1-1/2	3-1/4	320-3740	1-1/4	1-1/4	2	6-1/2	320-3786
1/2	1/2	2	4	320-3748	1-1/2	1-1/4	2-1/2	5	320-3790
5/8	5/8	1-5/8	3-3/4	320-3750	1-1/2	1-1/4	4	6-1/2	320-3792
5/8	5/8	2-1/2	4-5/8	320-3758	1-1/2	1-1/4	6	8-1/2	320-3793
3/4	3/4	1-5/8	3-7/8	320-3760	1-1/2	1-1/4	2	4-1/2	320-3795

2 Flute Ball Nose Double End Mills

2齿双头球头立铣刀

High Speed Steel



- Designed for milling radius bottom slots, fillets and special contours.
- Center cutting design is used to plunge into solid material ath the beginning of a slotting cut.
- 2 Flute design provides excellent chip evacuation.

Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/8"	3/8"	3/8"	3-3/16"	**720-2100**	**721-2100**	**722-2100**
9/64	3/8	7/16	3-1/8	**720-2105**	**721-2105**	**722-2105**
5/32	3/8	1/2	3-1/8	**720-2110**	**721-2110**	**722-2110**
11/64	3/8	7/16	3-1/8	**720-2115**	**721-2115**	**722-2115**
3/16	3/8	7/16	3-1/8	**720-2120**	**721-2120**	**722-2120**
13/64	3/8	1/2	3-1/8	**720-2125**	**721-2125**	**722-2125**
7/32	3/8	1/2	3-1/8	**720-2130**	**721-2130**	**722-2130**
15/64	3/8	1/2	3-1/8	**720-2135**	**721-2135**	**722-2135**
1/4	3/8	1/2	3-1/8	**720-2140**	**721-2140**	**722-2140**
17/64	3/8	9/16	3-1/8	**720-2145**	**721-2145**	**722-2145**
9/32	3/8	9/16	3-1/8	**720-2150**	**721-2150**	**722-2150**
19/64	3/8	9/16	3-1/8	**720-2155**	**721-2155**	**722-2155**
5/16	3/8	9/16	3-1/8	**720-2160**	**721-2160**	**722-2160**
21/64	3/8	9/16	3-1/8	**720-2161**	**721-2161**	**722-2161**
11/32	3/8	9/16	3-1/8	**720-2162**	**721-2162**	**722-2162**
23/64	1/2	9/16	3-1/8	**720-2163**	**721-2163**	**722-2163**
3/8	3/8	9/16	3-1/8	**720-2165**	**721-2165**	**722-2165**
13/32	1/2	13/16	3-3/4	**720-2168**	**721-2168**	**722-2168**
7/16	1/2	13/16	3-3/4	**720-2170**	**721-2170**	**722-2170**
1/2	1/2	13/16	3-3/4	**720-2174**	**721-2174**	**722-2174**
5/8	5/8	1-1/8	4-1/2	**720-2185**	**721-2185**	**722-2185**
3/4	3/4	1-5/16	5	**720-2188**	**721-2188**	**722-2188**
7/8	7/8	1-9/16	5-1/2	**720-2190**	**721-2190**	**722-2190**
1	1	1-5/8	5-7/8	**720-2192**	**721-2192**	**722-2192**

2 Flute High Helix Ball Nose Double End Mills for Aluminum

2 齿双头球头高螺旋立铣刀

High Speed Steel



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
1/8"	3/8"	3/8"	3-1/16"	**720-2202**	**721-2202**	**722-2202**
3/16	3/8	7/16	3-1/4	**720-2204**	**721-2204**	**722-2204**
1/4	3/8	1/2	3-3/8	**720-2206**	**721-2206**	**722-2206**
5/16	3/8	9/16	3-1/2	**720-2208**	**721-2208**	**722-2208**
3/8	3/8	9/16	3-1/2	**720-2210**	**721-2210**	**722-2210**
7/16	1/2	13/16	4-1/8	**720-2212**	**721-2212**	**722-2212**
1/2	1/2	13/16	4-1/8	**720-2214**	**721-2214**	**722-2214**
9/16	5/8	1-1/8	5	**720-2216**	**721-2216**	**722-2216**
5/8	5/8	1-1/8	5	**720-2218**	**721-2218**	**722-2218**
11/16	3/4	1-5/16	5-5/8	**720-2220**	**721-2220**	**722-2220**
3/4	3/4	1-5/16	5-5/8	**720-2222**	**721-2222**	**722-2222**
13/16	7/8	1-9/16	6-1/8	**720-2224**	**721-2224**	**722-2224**
7/8	7/8	1-9/16	6-1/8	**720-2226**	**721-2226**	**722-2226**
15/16	1	1-5/8	6-3/8	**720-2228**	**721-2228**	**722-2228**
1	1	1-5/8	6-3/8	**720-2230**	**721-2230**	**722-2230**

M42 8% Cobalt 2 Flute Ball Nose Single End Mills

M42 2齿单头球头加长柄立铣刀

Extended Shank

Cobalt



Size	Shank Dia	Length Below Shank	Flute Length	Overall Length	Order No.
1/8"	3/8"	13/16"	3/8"	2-3/8"	**723-1451**
3/16	3/8	1-1/8	1/2	2-11/16	**723-1453**
1/4	3/8	1-1/2	5/8	3-1/16	**723-1455**
5/16	3/8	1-3/4	3/4	3-5/16	**723-1457**
3/8	3/8	1-3/4	3/4	3-5/16	**723-1459**
7/16	1/2	1-7/8	1	3-11/16	**723-1461**
1/2	1/2	2-1/4	1	4	**723-1463**
5/8	5/8	2-3/4	1-3/8	4-5/8	**723-1465**
3/4	3/4	3-3/8	1-5/8	5-3/8	**723-1467**
1	1	5	2-1/2	7-1/4	**723-1469**

M42 8% Cobalt 2 Flute Ball Nose Single End Mills

M42 2齿单头球头立铣刀

- Designed for milling radius bottom slots, fillets and special contours.
- Center cutting design is used to plunge into solid material at the beginning of a slotting cut.
- 2 Flute design provides excellent chip evacuation.



Regular Length

Cobalt

Size	Shank Dia.	Flute Length	Overall Length	Order No.
1/8"	3/8"	3/8"	2-5/16"	**723-1401**
5/32	3/8	7/16	2-5/16	**723-1402**
3/16	3/8	1/2	2-3/8	**723-1403**
7/32	3/8	1/2	2-3/8	**723-1404**
1/4	3/8	5/8	2-7/16	**723-1405**
9/32	3/8	9/16	2-3/8	**723-1406**
5/16	3/8	3/4	2-1/2	**723-1407**
11/32	3/8	3/4	2-1/2	**723-1408**
3/8	3/8	3/4	2-1/2	**723-1409**
7/16	1/2	1	3	**723-1411**
1/2	1/2	1	3	**723-1413**
9/16	1/2	1	3	**723-1415**
5/8	1/2	1-1/8	3-1/8	**723-1417**
5/8	5/8	1-3/8	3-3/8	**723-1419**
3/4	1/2	1-5/8	3-5/8	**723-1421**
3/4	3/4	1-5/8	3-7/8	**723-1423**
13/16	3/4	2	4-1/4	**723-1425**
7/8	3/4	2	4-1/4	**723-1427**
7/8	7/8	2	4-1/4	**723-1429**
15/16	3/4	2-1/4	4-1/2	**723-1431**
1	3/4	2-1/4	4-9/16	**723-1433**
1	1	2-1/4	4-3/4	**723-1435**
1-1/8	1	2-1/4	4-3/4	**723-1437**
1-1/4	1-1/4	2-1/2	5	**723-1439**
1-3/8	1-1/4	2-1/2	5	**723-1441**
1-1/2	1-1/4	2-1/2	5	**723-1443**
2	1-1/4	2-1/2	5	**723-1445**

M42 8% Cobalt 4 Flute Ball Nose Single End Mills

M42 多齿单头球头中心切削立铣刀

Cobalt



Size	Shank Dia.	Flute Length	Overall Length	Order No.
1/8"	3/8"	3/8"	2-5/16"	**723-3700**
3/16	3/8	1/2	2-3/8	**723-3702**
1/4	3/8	5/8	2-1/2	**723-3705**
1/4	3/8	1-1/4	3-1/16	**723-3708**
5/16	3/8	3/4	2-1/2	**723-3715**
5/16	3/8	1	2-3/4	**723-3710**
5/16	3/8	1-1/2	3-1/4	**723-3718**
3/8	3/8	3/4	2-1/2	**723-3725**
3/8	3/8	1	2-3/4	**723-3720**
3/8	3/8	1-1/2	3-1/4	**723-3728**
7/16	1/2	1-1/4	3-1/4	**723-3729**
1/2	1/2	1	2-3/4	**723-3730**
1/2	1/2	1-1/4	3-1/4	**723-3735**
1/2	1/2	1-1/2	3-1/4	**723-3740**
1/2	1/2	2	4	**723-3748**
5/8	5/8	1-5/8	3-3/4	**723-3750**
5/8	5/8	2-1/2	4-5/8	**723-3758**
3/4	3/4	1-5/8	3-7/8	**723-3760**
3/4	3/4	3	5-1/4	**723-3768**
7/8	7/8	1-7/8	4-1/8	**723-3765**
1	1	2	4-1/2	**723-3775**
1	1	2-1/4	4-3/4	**723-3770**
1	1	4	6-1/2	**723-3778**
1-1/4	1-1/4	2	4-1/2	**723-3785**
1-1/4	1-1/4	2-1/2	5	**723-3780**
1-1/2	1-1/4	2	4-1/2	**723-3795**
1-1/2	1-1/4	2-1/2	5	**723-3790**

M42 8% Cobalt 2 Flute Ball Nose Double End Mills

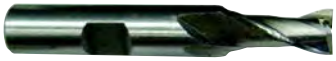
M42 2齿双头球头立铣刀



Size	Shank Dia.	Flute Length	Overall Length	Order No.
1/8"	3/8"	3/8"	3-3/16"	723-2100
9/64	3/8	7/16	3-1/8	723-2105
5/32	3/8	1/2	3-1/8	723-2110
11/64	3/8	7/16	3-1/8	723-2115
3/16	3/8	7/16	3-1/8	723-2120
13/64	3/8	1/2	3-1/8	723-2125
7/32	3/8	1/2	3-1/8	723-2130
15/64	3/8	1/2	3-1/8	723-2135
1/4	3/8	1/2	3-1/8	723-2140
17/64	3/8	9/16	3-1/8	723-2145
9/32	3/8	9/16	3-1/8	723-2150
19/64	3/8	9/16	3-1/8	723-2155
5/16	3/8	9/16	3-1/8	723-2160
21/64	3/8	9/16	3-1/8	723-2161
11/32	3/8	9/16	3-1/8	723-2162
23/64	1/2	9/16	3-1/8	723-2163
3/8	3/8	9/16	3-1/8	723-2165
13/32	1/2	13/16	3-3/4	723-2168
7/16	1/2	13/16	3-3/4	723-2170
1/2	1/2	13/16	3-3/4	723-2174
5/8	5/8	1-1/8	4-1/2	723-2185
3/4	3/4	1-5/16	5	723-2188
7/8	7/8	1-9/16	5-1/2	723-2190
1	1	1-5/8	5-7/8	723-2192

2 Flute Inch Shank Metric Size Single End Mills

英制柄公制2齿单头立铣刀



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
5mm	3/8"	1/2"	2-5/16"	720-9050	721-9050	723-9050
6mm	3/8	1/2	2-5/16	720-9060	721-9060	723-9060
7mm	3/8	9/16	2-5/16	720-9070	721-9070	723-9070
8mm	3/8	9/16	2-5/16	720-9080	721-9080	723-9080
9mm	3/8	9/16	2-5/16	720-9090	721-9090	723-9090
10mm	3/8	13/16	2-1/2	720-9100	721-9100	723-9100
11mm	3/8	13/16	2-1/2	720-9110	721-9110	723-9110
12mm	1/2	1	3	720-9120	721-9120	723-9120
13mm	1/2	1-1/8	3-1/8	720-9130	721-9130	723-9130
14mm	1/2	1-1/8	3-1/8	720-9140	721-9140	723-9140
15mm	1/2	1-1/8	3-1/8	720-9150	721-9150	723-9150
16mm	1/2	1-5/16	3-5/16	720-9160	721-9160	723-9160
18mm	1/2	1-5/16	3-5/16	720-9180	721-9180	723-9180
20mm	3/4	1-1/2	3-3/4	720-9200	721-9200	723-9200
22mm	3/4	1-1/2	3-3/4	720-9222	721-9222	723-9222
24mm	3/4	1-1/2	3-3/4	720-9240	721-9240	723-9240
25mm	1	1-5/8	4-1/8	720-9250	721-9250	723-9250

4 Flute Inch Shank Metric Size Single End Mills

英制柄公制4齿单头立铣刀

Center Cutting

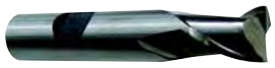


Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
5mm	3/8"	9/16"	2-7/16"	720-8050	721-8050	722-8050
6mm	3/8	5/8	2-1/2	720-8060	721-8060	722-8060
7mm	3/8	5/8	2-1/2	720-8070	721-8070	722-8070
8mm	3/8	3/4	2-1/2	720-8080	721-8080	722-8080
9mm	3/8	3/4	2-1/2	720-8090	721-8090	722-8090
10mm	3/8	3/4	2-1/2	720-8100	721-8100	722-8100
11mm	3/8	1	2-11/16	720-8110	721-8110	722-8110
12mm	3/8	1	2-11/16	720-8120	721-8120	722-8120
13mm	1/2	1-1/4	3-1/4	720-8130	721-8130	722-8130
14mm	1/2	1-3/8	3-3/8	720-8140	721-8140	722-8140
15mm	1/2	1-3/8	3-3/8	720-8150	721-8150	722-8150
16mm	5/8	1-5/8	3-3/4	720-8160	721-8160	722-8160
18mm	3/4	1-5/8	3-3/4	720-8180	721-8180	722-8180
20mm	3/4	1-7/8	4-1/8	720-8200	721-8200	722-8200
22mm	7/8	1-7/8	4-1/8	720-8220	721-8220	722-8220
24mm	7/8	1-7/8	4-1/8	720-8240	721-8240	722-8240
25mm	1	2	4-1/2	720-8250	721-8250	722-8250

Metric 2 Flute Single End Mills

2齿单头立铣刀

DIN327, High Speed Steel



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
3mm	6	6	50	720-2303	721-2303	722-2303
4mm	6	7	51	720-2304	721-2304	722-2304
5mm	6	8	52	720-2305	721-2305	722-2305
6mm	6	8	52	720-2306	721-2306	722-2306
7mm	10	10	60	720-2307	721-2307	722-2307
8mm	10	11	61	720-2308	721-2308	722-2308
10mm	10	13	63	720-2310	721-2310	722-2310
12mm	12	16	73	720-2312	721-2312	722-2312
14mm	12	16	73	720-2314	721-2314	722-2314
16mm	16	19	79	720-2316	721-2316	722-2316
18mm	16	19	79	720-2318	721-2318	722-2318
20mm	20	22	88	720-2320	721-2320	722-2320
22mm	20	22	88	720-2322	721-2322	722-2322
24mm	25	26	102	720-2324	721-2324	722-2324
25mm	25	26	102	720-2325	721-2325	722-2325

Metric 4 Flute Single End Mills

DIN844B, High Speed Steel

4齿单头立铣刀



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
3mm	6	8	52	720-4903	721-4903	722-4903
4mm	6	11	55	720-4904	721-4904	722-4904
5mm	6	13	57	720-4905	721-4905	722-4905
6mm	6	13	57	720-4906	721-4906	722-4906
7mm	10	16	66	720-4907	721-4907	722-4907
8mm	10	19	63	720-4908	721-4908	722-4908
10mm	10	22	72	720-4910	721-4910	722-4910
12mm	12	26	83	720-4912	721-4912	722-4912
14mm	12	26	83	720-4914	721-4914	722-4914
16mm	16	32	92	720-4916	721-4916	722-4916
18mm	16	32	92	720-4918	721-4918	722-4918
20mm	20	38	104	720-4920	721-4920	722-4920
22mm	20	38	104	720-4922	721-4922	722-4922
25mm	25	45	121	720-4925	721-4925	722-4925
28mm	25	45	121	720-4928	721-4928	722-4928
30mm	25	45	121	720-4930	721-4930	722-4930

Metric 4 Flute Single End Mills

DIN844B, High Speed Steel, Long Length

DIN844B加长刃四齿单头立铣刀



Size	Shank Dia.	Flute Length	Overall Length	M2 Order No.	M2Al Order No.	TiN-Coated Order No.
3mm	6	12	56	720-4503	721-4503	722-4503
4mm	6	19	63	720-4504	721-4504	722-4504
5mm	6	24	68	720-4505	721-4505	722-4505
6mm	6	24	68	720-4506	721-4506	722-4506
7mm	10	30	80	720-4507	721-4507	722-4507
8mm	10	38	88	720-4508	721-4508	722-4508
10mm	10	45	95	720-4510	721-4510	722-4510
12mm	12	53	110	720-4512	721-4512	722-4512
14mm	12	53	110	720-4514	721-4514	722-4514
16mm	16	63	123	720-4516	721-4516	722-4516
18mm	16	63	123	720-4518	721-4518	722-4518
20mm	20	75	141	720-4520	721-4520	722-4520
22mm	20	75	141	720-4522	721-4522	722-4522
25mm	25	90	166	720-4525	721-4525	722-4525

M42 8% Cobalt 2 Flute Inch Shank Metric Size Single End Mills

2 齿英制柄公制尺寸铣刀(M42 8% 钴)

F.Y.I

M-42 cobalt end mills are more economocal than high speed steel end mills. They stay sharper longer to alow more cuts between grinds and reduce downtime to give you lower cost per machined workpiece!



Cobalt

Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.
3mm	3/8	3/8"	2-5/16	**723-9030**	10.5mm	3/8	13/16	2-1/2	**723-9105**	19mm	3/4	1-5/8	3-7/8	**723-9190**
3.5mm	3/8	7/16	2-5/16	**723-9035**	11mm	3/8	13/16	2-1/2	**723-9110**	20mm	3/4	1-1/2	3-3/4	**723-9200**
4.0mm	3/8	7/16	2-5/16	**723-9040**	11.5mm	3/8	13/16	2-1/2	**723-9115**	20mm	5/8	1-1/2	3-3/4	**723-9201**
4.5mm	3/8	7/16	2-5/16	**723-9045**	11.5MM	3/8	13/16	2-1/2	**723-9119**	21mm	3/4	1-1/2	3-3/4	**723-9210**
5mm	3/8	1/2	2-5/16	**723-9050**	12mm	1/2	1	3	**723-9120**	22mm	3/4	1-1/2	3-3/4	**723-9219**
5.5mm	3/8	1/2	2-3/8	**723-9055**	12.5mm	1/2	1	3	**723-9125**	22mm	7/8	1-1/2	3-3/4	**723-9220**
6mm	3/8	1/2	2-5/16	**723-9060**	13mm	1/2	1-1/8	3-1/8	**723-9130**	23mm	7/8	1-7/8	4-1/8	**723-9230**
6.5mm	3/8	9/16	2-3/8	**723-9065**	13.5mm	1/2	1-1/8	3-1/8	**723-9135**	24mm	1/2	1-1/2	3-1/2	**723-9240**
7mm	3/8	9/16	2-5/16	**723-9070**	14mm	1/2	1-1/8	3-1/8	**723-9140**	25mm	1	1-5/8	4-1/8	**723-9250**
7.5mm	3/8	9/16	2-5/16	**723-9075**	14.5mm	1/2	1-1/8	3-1/8	**723-9145**	28mm	1	2	4-1/2	**723-9280**
8mm	3/8	9/16	2-5/16	**723-9080**	15mm	1/2	1-1/8	3-1/8	**723-9150**	32mm	1	2	4-1/2	**723-9320**
8.5mm	3/8	9/16	2-5/16	**723-9085**	16mm	1/2	1-5/16	3-5/16	**723-9160**	35mm	1	2	4-1/2	**723-9350**
9mm	3/8	9/16	2-5/16	**723-9090**	16mm	5/8	1-5/16	3-5/16	**723-9162**	36mm	1	2	4-1/2	**723-9360**
9.5mm	3/8	9/16	2-5/16	**723-9095**	17mm	5/8	1-5/16	3-7/16	**723-9170**	40mm	1-1/4	2	4-1/2	**723-9400**
10mm	3/8	13/16	2-1/2	**723-9100**	18mm	5/8	1-5/16	3-5/16	**723-9180**	45mm	1-1/4	2	4-1/2	**723-9450**

M42 8% Cobalt 4 Flute Inch Shank Metric Size Single End Mills

Center Cutting

4 齿英制柄公制尺寸铣刀(M42 8% 钴), 中心切削



Cobalt

Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.	Size	Shank Dia.	Flute Length	Overall Length	Order No.
3mm	3/8"	3/8"	2-5/16"	**723-8610**	10mm	3/8	1	2-1/2	**723-8654**	19mm	3/4	1-5/8	3-7/8	**723-8695**
3.5mm	3/8	7/16	2-5/16	**723-8613**	10.5mm	3/8	1	2-11/16	**723-8656**	20mm	5/8	1-7/8	4-1/8	**723-8697**
4mm	3/8	1/2	2-3/8	**723-8616**	11mm	3/8	1	2-11/16	**723-8659**	20mm	3/4	1-7/8	4-1/8	**723-8698**
4.5mm	3/8	7/16	2-5/16	**723-8619**	11.5mm	3/8	1	2-11/16	**723-8662**	21mm	3/4	1-7/8	4-1/8	**723-8701**
5mm	3/8	9/16	2-7/16	**723-8622**	12mm	3/8	1	2-11/16	**723-8665**	22mm	3/4	1-7/8	4-1/8	**723-8703**
5.5mm	3/8	5/8	2-1/2	**723-8625**	12.5mm	1/2	1-1/4	3-1/4	**723-8668**	22mm	7/8	1-7/8	4-1/8	**723-8704**
6mm	3/8	5/8	2-1/2	**723-8628**	13mm	1/2	1-1/4	3-1/4	**723-8671**	23mm	7/8	1-7/8	4-1/8	**723-8707**
6.5mm	3/8	11/16	2-1/2	**723-8631**	13.5mm	1/2"	1-3/8"	3-3/8"	**723-8674**	24mm	7/8	1-7/8	4-1/8	**723-8710**
7mm	3/8	5/8	2-1/2	**723-8634**	14mm	1/2	1-3/8	3-3/8	**723-8677**	25mm	1	2	4-1/2	**723-8713**
7.5mm	3/8	3/4	2-1/2	**723-8637**	14.5mm	1/2	1-3/8	3-3/8	**723-8680**	28mm	1	2	4-1/2	**723-8718**
8mm	3/8	3/4	2-1/2	**723-8641**	15mm	1/2	1-3/8	3-3/8	**723-8683**	32mm	1	2	4-1/2	**723-8725**
8.5mm	3/8	3/4	2-1/2	**723-8644**	16mm	5/8	1-5/8	3-3/4	**723-8686**	35mm	1	2	4-1/2	**723-8729**
9mm	3/8	3/4	2-1/2	**723-8647**	17mm	5/8	1-5/8	3-3/4	**723-8689**	36mm	1	2	4-1/2	**723-8732**
9.5mm	3/8	3/4	2-1/2	**723-8650**	18mm	5/8	1-5/8	3-3/4	**723-8691**	40mm	1-1/4	2	4-1/2	**723-8739**
10mm	3/8	3/4	2-1/2	**723-8653**	18mm	3/4	1-5/8	3-3/4	**723-8692**	45mm	1-1/4	2	4-1/2	**723-8747**

M42 8% Cobalt Metric 2 Flute Single End Mills

DIN327

M42 公制 2 齿单头立铣刀



Cobalt

Size	Shank Dia.	Flute Length	OAL	Order No.	Size	Shank Dia.	Flute Length	OAL	Order No.	Size	Shank Dia.	Flute Length	OAL	Order No.
2mm	6	4	48	**723-2302**	11mm	12	16	73	**723-2311**	20mm	20	22	88	**723-2320**
3mm	6	5	49	**723-2303**	12mm	12	16	73	**723-2312**	21mm	20	22	88	**723-2321**
4mm	6	7	51	**723-2304**	13mm	12	16	73	**723-2313**	22mm	20	22	88	**723-2322**
5mm	6	8	52	**723-2305**	14mm	12	16	73	**723-2314**	23mm	20	22	88	**723-2323**
6mm	6	8	52	**723-2306**	15mm	12	16	73	**723-2315**	24mm	25	26	102	**723-2324**
7mm	10	10	60	**723-2307**	16mm	16	19	79	**723-2316**	25mm	25	26	102	**723-2325**
8mm	10	11	61	**723-2308**	17mm	16	19	79	**723-2317**	26mm	25	26	102	**723-2326**
9mm	10	13	63	**723-2309**	18mm	16	19	79	**723-2318**	28mm	25	26	102	**723-2328**
10mm	10	13	63	**723-2310**	19mm	16	19	79	**723-2319**					

M42 8% Cobalt Metric 4 Flute Single End Mills

DIN844 M42 4齿单头立铣刀



Size	Shank Dia.	Flute Length	OAL	Order No.	Size	Shank Dia.	Flute Length	OAL	Order No.	Size	Shank Dia.	Flute Length	OAL	Order No.
2mm	6	7	51	**723-4902**	12mm	12	26	83	**723-4912**	21mm	20	38	104	**723-4921**
3mm	6	8	52	**723-4903**	13mm	12	26	83	**723-4913**	22mm	20	38	104	**723-4922**
4mm	6	11	55	**723-4904**	14mm	12	26	83	**723-4914**	23mm	20	38	104	**723-4923**
5mm	6	13	57	**723-4905**	15mm	12	2	83	**723-4915**	24mm	25	45	121	**723-4924**
6mm	6	13	57	**723-4906**	16mm	16	32	92	**723-4916**	25mm	25	45	121	**723-4925**
7mm	10	16	66	**723-4907**	17mm	16	32	92	**723-4917**	26mm	25	45	121	**723-4926**
8mm	10	19	63	**723-4908**	18mm	16	32	92	**723-4918**	28mm	25	45	121	**723-4928**
9mm	10	19	69	**723-4909**	19mm	16	32	92	**723-4919**	30mm	25	45	121	**723-4930**
10mm	10	22	72	**723-4910**	20mm	20	38	104	**723-4920**	32mm	32	53	133	**723-4932**
11mm	12	26	83	**723-4911**										

Metric Roughing End Mills

单头波刃立铣刀

High Speed Steel



Size (mm)	Shank Dia.	Flute L	OAL	No. of Flute	Order No.	Tin-coated Order No.	Size (mm)	Shank Dia.	Flute L	OAL	No. of Flute	Order No.	Tin-coated Order No.	Size (mm)	Shank Dia.	Flute L	OAL	No. of Flute	Order No.	Tin-coated Order No.
6	6	13	57	4	**720-5806**	**722-5806**	20	20	38	104	4	**720-5820**	**722-5820**	38	32	53	133	6	**720-5838**	**722-5838**
8	10	19	69	4	**720-5808**	**722-5808**	22	20	38	104	4	**720-5822**	**722-5822**	40	40	63	155	6	**720-5840**	**722-5840**
10	10	22	72	4	**720-5810**	**722-5810**	22	20	38	104	5	**720-5823**	**722-5823**	40	40	63	155	8	**720-5841**	**722-5841**
11	12	22	79	4	**720-5811**	**722-5811**	24	25	45	121	4	**720-5824**	**722-5824**	45	40	63	155	6	**720-5845**	**722-5845**
12	12	26	83	4	**720-5812**	**722-5812**	25	25	45	121	4	**720-5825**	**722-5825**	45	40	63	155	8	**720-5846**	**722-5846**
13	12	26	83	4	**720-5813**	**722-5813**	25	25	45	121	5	**720-5826**	**722-5826**	50	50	75	177	6	**720-5850**	**722-5850**
14	12	26	83	4	**720-5814**	**722-5814**	26	25	45	121	6	**720-5827**	**722-5827**	50	50	75	177	8	**720-5851**	**722-5851**
15	12	26	83	4	**720-5815**	**722-5815**	28	25	45	121	6	**720-5828**	**722-5828**	55	50	75	177	6	**720-5855**	**722-5855**
16	16	32	92	4	**720-5816**	**722-5816**	30	25	45	121	5	**720-5830**	**722-5830**	55	50	75	177	8	**720-5856**	**722-5856**
17	16	32	92	4	**720-5817**	**722-5817**	30	25	45	121	6	**720-5831**	**722-5831**	63	63	90	202	6	**720-5863**	**722-5863**
18	16	32	92	4	**720-5818**	**722-5818**	32	32	53	133	5	**720-5832**	**722-5832**	63	63	90	202	8	**720-5864**	**722-5864**
19	16	32	92	4	**720-5819**	**722-5819**	32	32	53	133	6	**720-5833**	**722-5833**	71	63	90	202	8	**720-5871**	**722-5871**

Solid Carbide End Mills

硬制合金立铣刀(中心切削)

Four Flute End Mills: Produce finer finishes, recommend for finishing operation.

***Two Flute End Mills*:** Allow maximum chip ejection compare to four flute, recommend for roughing operation.

- Made of micro-grain tungsten carbide material.
- Suitable for general purpose of machining cast Iron, alloy steel, stainless steel, non-ferrous and non-metals material.
- Center cutting allows for three axis profile milling and plunge cutting.
- 30° Helix Flutes for both nonferrous and ferrous materials.
- Better surface finish on work piece.
- Higher feed rates and long tool life.

Tolerance

Shank Diameter :..... -0.0000"/-0.0005"

Cutter Diameter:

1/32" thru 1/4".....+0.000"/-0.002"

9/32" thru 1" .....+0.000"/-0.003"

2 Flute Single End Mills



4 Flute Single End Mills



Size	Shank Dia.	Flute Length	Overall Length	2 Flute Order No.	4Flute Order No.
1/16"	1/8"	3/16"	1-1/2"	**244-2204**	**244-2404**
3/32	1/8	3/8	1-1/2	**244-2210**	**244-2410**
1/8	1/8	1/2	1-1/2	**244-2216**	**244-2416**
5/32	3/16	9/16	2	**244-2222**	**244-2422**
3/16	3/16	5/8	2	**244-2228**	**244-2428**
7/32	1/4	5/8	2-1/2	**244-2234**	**244-2434**
1/4	1/4	3/4	2-1/2	**244-2240**	**244-2440**
9/32	5/16	7/8	2-1/2	**244-2246**	**244-2446**
5/16	5/16	3/4	2-1/2	**244-2252**	**244-2452**
3/8	3/8	7/8	2-1/2	**244-2258**	**244-2458**
7/16	7/16	7/8	2-1/2	**244-2264**	**244-2464**
1/2	1/2	1	3	**244-2270**	**244-2470**
9/16	9/16	1-3/8	3	**244-2276**	**244-2476**
5/8	5/8	1-3/8	3-1/2	**244-2282**	**244-2482**
11/16	3/4	1-1/2	4	**244-2288**	**244-2488**
3/4	3/4	1-1/2	4	**244-2294**	**244-2494**
7/8	7/8	1-1/2	4	**244-2300**	**244-2500**
1	1	1-1/2	4	**244-2306**	**244-2506**
1	1	3	6		**244-2512**

2 Flute Double End Mills



4 Flute Double End Mills



Size	Shank Dia.	Flute Length	Overall Length	2 Flute Order No.	4 Flute Order No.
1/16"	1/8"	1/8"	1-1/2"	**244-2604**	**244-2804**
3/32	1/8	3/16	1-1/2	**244-2610**	**244-2810**
1/8	1/8	1/4	1-1/2	**244-2616**	**244-2816**
5/32	3/16	5/16	2	**244-2622**	**244-2822**
3/16	3/16	3/8	2	**244-2628**	**244-2828**
7/32	1/4	1/2	2-1/2	**244-2634**	**244-2834**
1/4	1/4	1/2	2-1/2	**244-2640**	**244-2840**
5/16	5/16	1/2	2-1/2	**244-2652**	**244-2852**
3/8	3/8	9/16	2-1/2	**244-2658**	**244-2858**
7/16	7/16	5/8	3	**244-2664**	**244-2864**
1/2	1/2	5/8	3	**244-2670**	**244-2870**

Carbide Tipped Single End Mills For Mild Steel

Spiral Flute, Right Hand, Straight Shank 单头镶齿硬质合金立铣刀



Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
1/4”	3/8”	1/2”	2-1/2”	2	**243-0020**	1”	1”	1-3/4”	4-3/4”	4	**243-0205**
5/16	3/8	5/8	2-1/2	2	**243-0040**	1-1/8	1	1-1/4	4-1/4	4	**243-0220**
3/8	3/8	5/8	2-1/2	2	**243-0060**	1-1/8	1	1-3/4	4-3/4	4	**243-0225**
7/16	3/8	1	2-11/16	2	**243-0080**	1-1/4	1	1-1/4	4-1/4	4	**243-0240**
1/2	1/2	1	3-1/4	2	**243-0100**	1-1/4	1-1/4	2-1/8	5-1/4	4	**243-0245**
9/16	1/2	1	3-3/8	2	**243-0120**	1-3/8	1-1/4	2-1/8	5-1/4	4	**243-0250**
5/8	1/2	1	3-3/8	4	**243-0140**	1-1/2	1-1/4	1-1/2	4-1/2	4	**243-0260**
5/8	5/8	1-1/4	3-5/8	3	**243-0145**	1-1/2	1-1/2	2-1/2	6-1/8	4	**243-0265**
3/4	5/8	1	3-5/8	4	**243-0160**	1-3/4	1-1/2	2-1/2	6-1/8	4	**243-0270**
3/4	3/4	1-1/2	4-1/8	3	**243-0165**	2	1-1/4	1-1/2	4-1/2	6	**243-0300**
7/8	5/8	1-1/4	4	4	**243-0180**	2	2	3	7	6	**243-0305**
1	7/8	1-1/4	4	4	**243-0200**						

Carbide Tipped Single End Mills For Cast Iron

Spiral Flute, Right Hand, Straight Shank 单头镶齿硬质合金立铣刀



Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Spiral Flute Order No.	Straight Flute Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Spiral Flute Order No.	Straight Flute Order No.
1/4”	3/8”	1/2”	2-1/2”	4	**243-1020**	**243-1316**	3/4”	1/2”	1”	3-5/8”	4		**243-1349**
5/16	3/8	5/8	2-1/2	4	**243-1040**	**243-1320**	7/8”	5/8”	1-1/4”	4”	4	**243-1180**	**243-1356**
3/8	3/8	5/8	2-1/2	4	**243-1060**	**243-1324**	1	7/8	1-1/4	4	4	**243-1200**	**243-1364**
7/16	3/8	1	2-11/16	4	**243-1080**	**243-1328**	1-1/8	1	1-1/4	4-1/4	4	**243-1220**	**243-1368**
1/2	1/2	1	3-1/4	4	**243-1100**	**243-1332**	1-1/4	1	1-1/4	4-1/4	4	**243-1240**	**243-1380**
9/16	1/2	1	3-3/8	4	**243-1120**	**243-1336**	1-1/2	1-1/4	1-1/2	4-1/2	4	**243-1260**	**243-1396**
5/8	1/2	1	3-3/8	4	**243-1140**	**243-1340**	1-3/4	1-1/4	1-1/2	4-1/2	6	**243-1280**	**243-1412**
3/4	5/8	1	3-5/8	4	**243-1160**	**243-1348**	2	1-1/4	1-1/2	4-1/2	6	**243-1300**	**243-1428**

Carbide Tipped 2 Flute Single End Mills 方柄单头镶齿硬质合金立铣刀

Straight Flute, Positive Rake, 90° Square Shoulder



- Used for N.C. machines and standard millers.
- Ideal for use in key-way slotting, slab milling, 90° shoulder milling.

Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flutes	Order No.
5/16”	3/8”	1/2”	2-3/8”	2	**243-0312**	9/16”	5/8”	3/4”	2-7/8”	2	**243-0562**
3/8	3/8	5/8	2-5/8	2	**243-0375**	5/8	5/8	3/4	2-7/8	2	**243-0625**
1/2	1/2	5/8	2-3/4	2	**243-0500**	3/4	3/4	1	3-5/32	2	**243-0750**

Carbide Tipped Heavy Duty End Mills 单头镶齿硬质合金立铣刀

- All material can be machined with these ultra micrograin end mills at high or low cutting speeds, and feeds with increased wear resistance.
- Specially designed with a 25° right hand helix.
- Tough carbide grade allows high speed milling operations.
- Ultra Fine. For General Purpose.

Two Flute Center Cutting



- Suited for the rough machining, heavy cutting and grooving machining as this allows larger chip pocket and increased feeding.

Three Flute Center Cutting



- Especially three flutes type vibrates less when entering and as result can increase feed rate over two flutes type.

Four Flute Center Cutting



- Allows better balance for machining.
- Suited for finish and side surface machining as this is less likely to tilt.

Size	Shank Dia.	Flute Length	Overall Length	Two Flute Order No.	Three Flute Order No.	Four Flute Order No.
5/8”	5/8”	1-3/16”	3-1/2”	**243-2040**	**243-2240**	
3/4	3/4	1-27/64	3-3/4	**243-2048**	**243-2248**	**243-2448**
7/8	3/4	1-27/64	3-3/4	**243-2056**	**243-2256**	**243-2456**
1	1	1-29/64	4-1/8	**243-2064**	**243-2264**	**243-2464**
1-1/8	1	1-9/16	4-1/2	**243-2072**	**243-2272**	
1-1/4	1-1/4	1-27/32	5-1/8	**243-2080**	**243-2280**	**243-2480**
1-1/2	1-1/4	2-1/4	5-1/2	**243-2096**	**243-2296**	**243-2496**
1-3/4	1-1/4	2-5/8	6-1/8	**243-2112**	**243-2312**	**243-2512**
2	1-1/4	2-5/8	6-1/8	**243-2128**	**243-2328**	**243-2528**

2 Flute Carbide Tipped End Mills 2 槽镶硬质合金立铣刀

with Weldon Shank



- 2 flutes are used for machining aluminum alloys, magnesium alloys etc.
- Center Cutting suitable for plunge cutting.
- Carbide tipped cutting edge can be resharped with diamond grinding wheel.

Center Cutting

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
5/8"	5/8"	1-5/16"	3-11/16"	2	**244-1109**
5/8	5/8	1-3/8	4-5/8	2	**244-1112**
11/16	5/8	1-5/16	3-11/16	2	**244-1115**
3/4	5/8	1-5/16	3-27/32	2	**244-1118**
3/4	3/4	1-5/8	5-3/8	2	**244-1121**
13/16	5/8	1-1/2	4-1/32	2	**244-1124**
7/8	7/8	1-1/2	4-5/16	2	**244-1127**
1	7/8	1-1/2	4-5/16	2	**244-1130**
1	1	1-5/8	4-11/16	2	**244-1133**
1	1	2-1/2	7-1/4	2	**244-1136**
1-1/8	1	1-5/8	4-11/16	2	**244-1139**
1-1/4	1-1/4	1-5/8	4-11/16	2	**244-1142**
1-1/4	1-1/4	3	7-1/4	2	**244-1145**
1-3/8	1	1-5/8	4-11/16	2	**244-1148**
1-1/2	1-1/4	1-5/8	4-25/32	2	**244-1151**
1-3/4	1-1/4	1-5/8	4-25/32	2	**244-1154**
2	1-1/4	1-5/8	4-25/32	2	**244-1157**

Non Center Cutting

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1/2"	1/2"	1"	3-1/4"	2	**244-1003**
9/16	1/2	1-1/8	3-3/8	2	**244-1006**
5/8	5/8	1-5/16	3-11/16	2	**244-1009**
5/8	5/8	1-3/8	4-5/8	2	**244-1012**
11/16	5/8	1-5/16	3-11/16	2	**244-1015**
3/4	5/8	1-5/16	3-27/32	2	**244-1018**
3/4	3/4	1-5/8	5-3/8	2	**244-1021**
13/16	5/8	1-1/2	4-1/32	2	**244-1024**
7/8	7/8	1-1/2	4-5/16	2	**244-1027**
1	7/8	1-1/2	4-5/16	2	**244-1030**
1	1	1-5/8	4-11/16	2	**244-1033**
1	1	2-1/2	7-1/4	2	**244-1036**
1-1/8	1	1-5/8	4-11/16	2	**244-1039**
1-1/4	1-1/4	1-5/8	4-11/16	2	**244-1042**
1-1/4	1-1/4	3	7-1/4	2	**244-1045**
1-3/8	1	1-5/8	4-11/16	2	**244-1048**
1-1/2	1-1/4	1-5/8	4-25/32	2	**244-1051**
1-3/4	1-1/4	1-5/8	4-25/32	2	**244-1054**
2	1-1/4	1-5/8	4-25/32	2	**244-1057**

3 Flute Carbide Tipped End Mills with Weldon Shank

3槽镶硬质合金立铣刀



- Use in finishing operation.
- Three flute's vibration is less than two flute when milling.

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1/2"	1/2"	1-1/4"	3-1/2"	3	**244-1203**	13/16"	5/8"	1-7/8"	4-27/64"	3	**244-1236**
1/2	1/2	2	4-1/4	3	**244-1206**	7/8	7/8	1-7/8	4-17/32	3	**244-1239**
1/2	1/2	3	5-1/4	3	**244-1209**	7/8	7/8	3-1/2	6-5/32	3	**244-1242**
9/16	1/2	1-3/8	3-5/8	3	**244-1212**	7/8	7/8	5	7-21/32	3	**244-1245**
5/8	5/8	1-5/8	4	3	**244-1215**	1	7/8	1-7/8	4-11/16	3	**244-1248**
5/8	5/8	2-1/2	4-7/8	3	**244-1218**	1	1	2	5-1/16	3	**244-1251**
5/8	5/8	4	6-3/8	3	**244-1221**	1	1	4	7-1/16	3	**244-1254**
11/16	5/8	1-5/8	4	3	**244-1224**	1	1	6	9-1/16	3	**244-1257**
3/4	5/8	1-5/8	4-5/32	3	**244-1227**	1-1/8	1	2	5-1/16	3	**244-1260**
3/4	3/4	3	5-21/32	3	**244-1230**	1-1/8	1	4	7-1/16	3	**244-1263**
3/4	3/4	4	6-21/32	3	**244-1233**						

Multiple Flute Carbide Tipped End Mills 4, 6 槽镶硬质合金立铣刀－复合柄



- Use in finishing operation
- multi-flute can efficiently mill a wide range of materials: non ferrous materials and ferrous materials, including titanium alloy, cast iron, alloy steel, stainless steel, plastic and magnetic material etc.
- Heavy duty machining.

Combination Shank

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1-1/2"	1-1/2"	2-1/2"	6-1/8"	4	**244-1406**	2"	2"	6"	10"	4"	**244-1424**
2	2	3	7	6	**244-1409**	2	2	6	10	6	**244-1427**
2	2	4	8	4	**244-1412**	2	2	8	12	4	**244-1430**
2	2	4	8	6	**244-1415**	2	2	8	12	6	**244-1433**
2	2	5	9	4	**244-1418**	2	2	10	14	6	**244-1436**
2	2	5	9	6	**244-1421**						

Multiple Flute Carbide Tipped End Mills 4, 6 槽镶硬质合金立铣刀

Weldon Shank



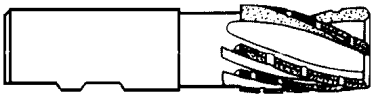
- Use in finishing operation
- multi-flute can efficiently mill a wide range of materials: non ferrous materials and ferrous materials, including titanium alloy, cast iron, alloy steel, stainless steel, plastic and magnetic material etc.
- Heavy duty machining.

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1"	7/8"	1-7/8"	4-11/16"	4	**244-1303**	1-1/2"	1-1/4"	4"	7-5/32"	4	**244-1336**
1	1	2	5-1/16	4	**244-1306**	1-1/2	1-1/4	8	11-5/32	4	**244-1339**
1	1	4	7-1/16	4	**244-1309**	1-3/4	1-1/4	2	5-5/32	4	**244-1342**
1	1	6	9-1/16	4	**244-1312**	1-3/4	1-1/4	2	5-5/32	6	**244-1345**
1-1/8	1	2	5-1/16	4	**244-1315**	1-3/4	1-1/4	4	7-5/32	4	**244-1348**
1-1/8	1	4	7-1/16	4	**244-1318**	1-3/4	1-1/4	4	7-5/32	6	**244-1351**
1-1/4	1-1/4	2	5-1/16	4	**244-1321**	2	1-1/4	2	5-5/32	4	**244-1354**
1-1/4	1-1/4	4	7-1/16	4	**244-1324**	2	1-1/4	2	5-5/32	6	**244-1357**
1-1/4	1-1/4	6	9-1/16	4	**244-1327**	2	1-1/4	4	7-5/32	4	**244-1360**
1-3/8	1	2	5-1/16	4	**244-1330**	2	1-1/4	4	7-5/32	6	**244-1363**
1-1/2	1-1/4	2	5-5/32	4	**244-1333**						

"CHIPBREAKER" Cutting Edge Carbide Tipped End Mills

4&6 Flute with Weldon Shank

4, 6槽断屑刃镶硬质合金立铣刀



- Use in semi-finishing operation.
- multi-flute can efficiently mill a wide range of materials: non ferrous materials and ferrous materials, including titanium alloy, cast iron, alloy steel, stainless steel, plastic and magnetic material etc.
- Heavy duty machining.

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1"	7/8"	1-7/8"	4-11/16"	4	**244-1803**	1-1/2"	1-1/4"	4"	7-5/32"	4	**244-1836**
1	1	2	5-1/16	4	**244-1806**	1-1/2	1-1/4	8	11-5/32	4	**244-1839**
1	1	4	7-1/16	4	**244-1809**	1-3/4	1-1/4	2	5-5/32	4	**244-1842**
1	1	6	9-1/16	4	**244-1812**	1-3/4	1-1/4	2	5-5/32	6	**244-1845**
1-1/8	1	2	5-1/16	4	**244-1815**	1-3/4	1-1/4	4	7-5/32	4	**244-1848**
1-1/8	1	4	7-1/16	4	**244-1818**	1-3/4	1-1/4	4	7-5/32	6	**244-1851**
1-1/4	1-1/4	2	5-1/16	4	**244-1821**	2	1-1/4	2	5-5/32	4	**244-1854**
1-1/4	1-1/4	4	7-1/16	4	**244-1824**	2	1-1/4	2	5-5/32	6	**244-1857**
1-1/4	1-1/4	6	9-1/16	4	**244-1827**	2	1-1/4	4	7-5/32	4	**244-1860**
1-3/8	1	2	5-1/16	4	**244-1830**	2	1-1/4	4	7-5/32	6	**244-1863**
1-1/2	1-1/4	2	5-5/32	4	**244-1833**						

"CREST" Cutting Edge Carbide Tipped End Mills 3槽前波刃镶硬质合金立铣刀

3 Flute with Weldon Shank



- Use in roughing milling operation.
- Machining carbon steel, cast iron, alloy steel.
- Heavy duty machining.
- Crest cutting edges compensate cutting forces, minimum vibration and chatter ,and offer maximum end mills life.

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.	Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
5/8"	5/8"	1-5/8"	4"	3	**244-1515**	7/8"	7/8"	3-1/2"	6-5/32"	3	**244-1542**
5/8	5/8	2-1/2	4-7/8	3	**244-1518**	7/8	7/8	5	7-21/32	3	**244-1545**
5/8	5/8	4	6-3/8	3	**244-1521**	1	7/8	1-7/8	4-11/16	3	**244-1548**
11/16	5/8	1-5/8	4	3	**244-1524**	1	1	2	5-1/16	3	**244-1551**
3/4	5/8	1-5/8	4-5/32	3	**244-1527**	1	1	4	7-1/16	3	**244-1554**
3/4	3/4	3	5-21/32	3	**244-1530**	1	1	6	9-1/16	3	**244-1557**
3/4	3/4	4	6-21/32	3	**244-1533**	1-1/8	1	2	5-1/16	3	**244-1560**
13/16	5/8	1-7/8	4-27/64	3	**244-1536**	1-1/8	1	4	7-1/16	3	**244-1563**
7/8	7/8	1-7/8	4-17/32	3	**244-1539**						

"CREST" Cutting Edge Carbide Tipped End Mills

4, 6槽前波刃镶硬质合金立铣刀－复合柄

- Use in roughing milling operation.
- Machining carbon steel, cast iron, alloy steel.
- Heavy duty machining.
- Crest cutting edges compensate cutting forces, minimum vibration and chatter ,and offer maximum end mills life.



4 & 6 Flute with Combination Shank

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1-1/2"	1-1/2"	2-1/2"	6-1/8"	4	**244-1706**
2	2	3	7	6	**244-1709**
2	2	4	8	4	**244-1712**
2	2	4	8	6	**244-1715**
2	2	5	9	4	**244-1718**
2	2	5	9	6	**244-1721**
2	2	6	10	4	**244-1724**
2	2	6	10	6	**244-1727**
2	2	8	12	4	**244-1730**
2	2	8	12	6	**244-1733**
2	2	10	14	6	**244-1736**

4 & 6 Flute with Weldon Shank

Size	Shank Dia.	Flute Length	Overall Length	No. of Flute	Order No.
1"	7/8"	1-7/8"	4-11/16"	4	**244-1603**
1	1	2	5-1/16	4	**244-1606**
1	1	4	7-1/16	4	**244-1609**
1	1	6	9-1/16	4	**244-1612**
1-1/8	1	2	5-1/16	4	**244-1615**
1-1/8	1	4	7-1/16	4	**244-1618**
1-1/4	1-1/4	2	5-1/16	4	**244-1621**
1-1/4	1-1/4	4	7-1/16	4	**244-1624**
1-1/4	1-1/4	6	9-1/16	4	**244-1627**
1-3/8	1	2	5-1/16	4	**244-1630**
1-1/2	1-1/4	2	5-5/32	4	**244-1633**
1-1/2	1-1/4	4	7-5/32	4	**244-1636**
1-1/2	1-1/4	8	11-5/32	4	**244-1639**
1-3/4	1-1/4	2	5-5/32	4	**244-1642**
1-3/4	1-1/4	2	5-5/32	6	**244-1645**
1-3/4	1-1/4	4	7-5/32	4	**244-1648**
1-3/4	1-1/4	4	7-5/32	6	**244-1651**
2	1-1/4	2	5-5/32	4	**244-1654**
2	1-1/4	2	5-5/32	6	**244-1657**
2	1-1/4	4	7-5/32	4	**244-1660**
2	1-1/4	4	7-5/32	6	**244-1663**

Corner Rounding End Mill Sets

内R径立铣刀套装

- Used to mill rounded cormers.
- From reieved for longer tool life.
- May be resharpened repeatedly without changing form.
- Ideal for your Bridgeport type machines.



4Pcs/set, Wooden Stand

Pieces	Size	Materials	Order No.
4	1/2,9/16,5/8,3/4 have 3/4"shank	M2	**182-6908**
4	1/2,9/16,5/8,3/4 have 3/4"shank	M2AL	**181-6908**
4	1/2,9/16,5/8,3/4 have 3/4"shank	Tin-Coated	**183-6908**



8Pcs/set, Wooden Stand

Pieces	Size	Shank Dia.	M2 Order No.	M2 TiN Order No.	M2 Al Orderl No.
8	1/16,3/32"	3/8	**182-6006**		
	1/8,5/32,3/16,1/4,5/16,3/8	1/2			
8	1/16,3/321/8"	3/8	**182-6007**	**183-6007**	**181-6007**
	5/32,3/16,1/4,5/16,3/8	1/2			
8	3/16,1/4,5/16,3/8,7/16,1/2,5/8,3/4	3/4	**182-6008**	**183-6008**	**181-6008**

M42 8% Cobalt
Corner Rounding End Mill Sets

Pieces	Size	Shank Dia.	Order No.
4	1/2,9/16,5/8,3/4"	3/4	**723-6684**
8	1/16,3/32	3/8	**723-6686**
	1/8,5/32,3/16,1/4,5/16,3/8	1/2	
8	1/16,3/32,1/8	3/8	**723-6687**
	5/32,3/16,1/4,5/16,3/8	1/2	
8	3/16,1/4,5/16,3/8,7/16,1/2,5/8,3/4	3/4	**723-6688**

4 Flute Corner Rounding End Mills 内R径4齿立铣刀

- Used to mill rounded cormers.
- From reieved for longer tool lifee.
- May be resharpened repeatedly without changing form.
- Ideal for your Bridgeport type machines.





Radius Size	Shank Dia.	Cutter Dia.	Overall Length	M2 OrderNo.	M2AL Order No.	TiN-Coated Order No.	Radius Size	Shank Dia.	Cutter Dia.	Overall Length	M2 Order No.	M2AL Order No.	TiN-Coated Order No.
1/32”	3/8”	3/8”	2-1/2”	**182-6023**	**181-6023**	**183-6023**	3/8"	3/4"	1-1/4"	3-1/2"	**182-6783**	**181-6783**	**183-6783**
3/64	3/8	7/16	2-1/2	**182-6031**	**181-6031**	**183-6031**	3/8	7/8	1-1/4	3-3/4	**182-6254**	**181-6254**	**183-6254**
1/16	3/8	7/16	2-1/2	**182-6049**	**181-6049**	**183-6049**	13/32	3/4	1-1/4	3-1/2	**182-6262**	**181-6262**	**183-6262**
5/64	3/8	1/2	2-1/2	**182-6056**	**181-6056**	**183-6056**	7/16	3/4	1-3/8	3-3/4	**182-6825**	**181-6825**	**183-6825**
3/32	3/8	1/2	2-1/2	**182-6064**	**181-6064**	**183-6064**	7/16	3/4	1-3/8	4	**182-6280**	**181-6280**	**183-6280**
3/32	1/2	1/2	2-1/2	**182-6809**	**181-6809**	**183-6809**	7/16	1	1-3/8	4	**182-6288**	**181-6288**	**183-6288**
7/64	3/8	5/8	2-1/2	**182-6072**	**181-6072**	**183-6072**	15/32	3/4	1-3/8	3-3/4	**182-6304**	**181-6304**	**183-6304**
1/8	1/2	5/8	3	**182-6080**	**181-6080**	**183-6080**	1/2	1/2	1-1/2	3-7/8	**182-6833**	**181-6833**	**183-6833**
1/8	3/8	5/8	3	**182-6668**	**181-6668**	**183-6668**	1/2	3/4	1-1/2	3-7/8	**182-6791**	**181-6791**	**183-6791**
1/8	3/4	5/8	3	**182-6817**	**181-6817**	**183-6817**	1/2	1	1-1/2	4-1/8	**182-6320**	**181-6320**	**183-6320**
9/64	1/2	3/4	3	**182-6098**	**181-6098**	**183-6098**	17/32	3/4	1-1/2	3-7/8	**182-6338**	**181-6338**	**183-6338**
5/32	1/2	3/4	3	**182-6106**	**181-6106**	**183-6106**	17/32	1	1-1/2	4-1/8	**182-6346**	**181-6346**	**183-6346**
11/64	1/2	3/4	3	**182-6114**	**181-6114**	**183-6114**	9/16	3/4	1-15/16	4	**182-6353**	**181-6353**	**183-6353**
3/16	1/2	7/8	3	**182-6122**	**181-6122**	**183-6122**	9/16	1	1-15/16	4-1/4	**182-6361**	**181-6361**	**183-6361**
3/16	3/4	7/8	3-1/8	**182-6130**	**181-6130**	**183-6130**	19/32	3/4	1-15/16	4	**182-6379**	**181-6379**	**183-6379**
13/64	1/2	7/8	3-1/8	**182-6676**	**181-6676**	**183-6676**	19/32	1	1-15/16	4-1/4	**182-6387**	**181-6387**	**183-6387**
13/64	3/4	7/8	3-1/8	**182-6684**	**181-6684**	**183-6684**	5/8	3/4	1-15/16	4	**182-6403**	**181-6403**	**183-6403**
7/32	3/4	7/8	3-1/4	**182-6692**	**181-6692**	**183-6692**	5/8	1	1-15/16	4-1/4	**182-6395**	**181-6395**	**183-6395**
7/32	1/2	7/8	3-1/4	**182-6148**	**181-6148**	**183-6148**	21/32	3/4	1-15/16	4	**182-6411**	**181-6411**	**183-6411**
15/64	1/2	7/8	3-1/8	**182-6155**	**181-6155**	**183-6155**	21/32	1	1-15/16	4-1/4	**182-6429**	**181-6429**	**183-6429**
1/4	1/2	1	3	**182-6162**	**181-6162**	**183-6162**	11/16	3/4	2-1/4	4-1/8	**182-6437**	**181-6437**	**183-6437**
1/4	1/2	1	3-1/8	**182-6163**	**181-6163**	**183-6163**	11/16	1	2-1/4	4-5/16	**182-6445**	**181-6445**	**183-6445**
1/4	3/4	1	3-1/4	**182-6171**	**181-6171**	**183-6171**	23/32	3/4	2-1/4	4-1/8	**182-6452**	**181-6452**	**183-6452**
17/64	1/2	1	3-1/8	**182-6700**	**181-6700**	**183-6700**	23/32	1	2-1/4	4-5/16	**182-6460**	**181-6460**	**183-6460**
17/64	3/4	1	3-1/8	**182-6718**	**181-6718**	**183-6718**	3/4	3/4	1-7/8	4	**182-6486**	**181-6486**	**183-6486**
9/32	1/2	1-1/8	3-1/4	**182-6189**	**181-6189**	**183-6189**	3/4	3/4	2-1/4	4-1/8	**182-6481**	**181-6481**	**183-6481**
9/32	5/8	1	3	**182-6190**	**181-6190**	**183-6190**	3/4	1	2-1/4	4-5/16	**182-6478**	**181-6478**	**183-6478**
9/32	3/4	1-1/8	3-1/4	**182-6197**	**181-6197**	**183-6197**	25/32	3/4	2-1/4	4-1/8	**182-6494**	**181-6494**	**183-6494**
19/64	1/2	1-1/8	3-1/4	**182-6726**	**181-6726**	**183-6726**	25/32	1	2-1/4	4-5/16	**182-6502**	**181-6502**	**183-6502**
19/64	3/4	1-1/8	3-1/4	**182-6734**	**181-6734**	**183-6734**	13/16	3/4	2-1/4	4-1/8	**182-6510**	**181-6510**	**183-6510**
5/16	1/2	1-1/8	3-1/4	**182-6205**	**181-6205**	**183-6205**	13/16	1	2-1/4	4-5/16	**182-6528**	**181-6528**	**183-6528**
5/16	3/4	1-1/8	3-1/4	**182-6742**	**181-6742**	**183-6742**	27/32	3/4	2-1/2	4-1/2	**182-6536**	**181-6536**	**183-6536**
5/16	5/8	1-1/8	3-1/2	**182-6215**	**181-6215**	**183-6215**	27/32	1	2-1/2	4-1/2	**182-6544**	**181-6544**	**183-6544**
5/16	7/8	1-1/8	3-1/2	**182-6213**	**181-6213**	**183-6213**	7/8	3/4	2-1/2	4-1/2	**182-6551**	**181-6551**	**183-6551**
21/64	1/2	1-1/8	3-1/4	**182-6759**	**181-6759**	**183-6759**	7/8	1	2-1/2	4-1/2	**182-6569**	**181-6569**	**183-6569**
21/64	3/4	1-1/8	3-1/4	**182-6767**	**181-6767**	**183-6767**	15/16	3/4	2-5/8	4-1/2	**182-6593**	**181-6593**	**183-6593**
11/32	1/2	1-1/8	3-1/2	**182-6221**	**181-6221**	**183-6221**	15/16	1	2-5/8	4-3/4	**182-6601**	**181-6601**	**183-6601**
11/32	3/4	1-1/8	3-1/2	**182-6775**	**181-6775**	**183-6775**	1	3/4	2-5/8	4-1/2	**182-6635**	**181-6635**	**183-6635**
3/8	1/2	1-1/4	3-1/2	**182-6247**	**181-6247**	**183-6247**	1	1	2-5/8	4-3/4	**182-6643**	**181-6643**	**183-6643**

Corner Rounding End Mill Sets 4件套内R径立铣刀

4Pcs/set, Wooden Stand

Pieces	Size	Materials	Order No.
4	1/2,9/16,5/8,3/4 have 3/4”shank	M2	**182-6908**
4	1/2,9/16,5/8,3/4 have 3/4”shank	M2AL	**181-6908**
4	1/2,9/16,5/8,3/4 have 3/4”shank	Tin-Coated	**183-6908**



M42 8% Cobalt 4 Flute Corner Rounding End Mills

内R径4齿立铣刀(M42 8%钴)

- M-42 8% cobalt end mills are designed to cut difficult to machine materials.



Radius Size	Shank Dia.	Cutter Dia.	Overall Length	Order No.
1/32"	3/8"	3/8"	2-1/2"	**723-6405**
3/64	3/8	7/16	2-1/2	**723-6408**
1/16	3/8	7/16	2-1/2	**723-6411**
5/64	3/8	1/2	2-1/2	**723-6414**
3/32	3/8	1/2	2-1/2	**723-6417**
3/32	1/2	1/2	2-1/2	**723-6420**
7/64	3/8	5/8	2-1/2	**723-6423**
1/8	3/8	5/8	3	**723-6426**
1/8	1/2	5/8	3	**723-6429**
1/8	3/4	5/8	3	**723-6432**
9/64	1/2	3/4	3	**723-6435**
5/32	1/2	3/4	3	**723-6438**
11/64	1/2	3/4	3	**723-6441**
3/16	1/2	7/8	3	**723-6444**
3/16	1/2	7/8	3-1/8	**723-6445**
3/16	3/4	7/8	3-1/8	**723-6447**
13/64	1/2	7/8	3-1/8	**723-6450**
13/64	3/4	7/8	3-1/8	**723-6453**
7/32	1/2	7/8	3-1/4	**723-6456**
7/32	3/4	7/8	3-1/4	**723-6459**
15/64	1/2	7/8	3-1/8	**723-6462**
1/4	1/2	1	3-1/8	**723-6465**
1/4	3/4	1	3-1/4	**723-6468**
17/64	1/2	1	3-1/8	**723-6471**
17/64	3/4	1	3-1/8	**723-6474**
9/32	1/2	1-1/8	3-1/4	**723-6477**
9/32	3/4	1-1/8	3-1/4	**723-6480**
9/32	5/8	1	3	**723-6481**
19/64	1/2	1-1/8	3-1/4	**723-6483**
19/64	3/4	1-1/8	3-1/4	**723-6486**
5/16	1/2	1-1/8	3-1/4	**723-6489**
5/16	3/4	1-1/8	3-1/4	**723-6492**
5/16	7/8	1-1/8	3-1/2	**723-6495**
21/64	1/2	1-1/8	3-1/4	**723-6498**
21/64	3/4	1-1/8	3-1/4	**723-6501**
11/32	1/2	1-1/8	3-1/2	**723-6504**
11/32	3/4	1-1/8	3-1/2	**723-6507**

Radius Size	Shank Dia.	Cutter Dia.	Overall	Order No.
3/8"	1/2"	1-1/4"		**723-6510**
3/8"	3/4"	1-1/4"	3-1/2"	**723-6513**
3/8	7/8	1-1/4	3-1/2"	**723-6516**
13/32	3/4	1-1/4	3-1/4	**723-6519**
7/16	3/4	1-3/8	3-1/2	**723-6522**
7/16	1	1-3/8	4-3/4	**723-6525**
15/32	3/4	1-3/8	4	**723-6528**
1/2	1/2	1-1/2	3-3/4	**723-6531**
1/2	3/4	1-1/2	3-7/8	**723-6534**
1/2	1	1-1/2	3-7/8	**723-6537**
17/32	3/4	1-1/2	4-1/8	**723-6540**
17/32	1	1-1/2	3-7/8	**723-6543**
9/16	3/4	1-15/16	4-1/8	**723-6546**
9/16	1	1-15/16	4	**723-6549**
19/32	3/4	1-15/16	4-1/4	**723-6552**
5/8	3/4	1-15/16	4	**723-6555**
5/8	1	1-15/16	4	**723-6558**
21/32	3/4	1-15/16	4-1/4	**723-6561**
21/32	1	1-15/16	4	**723-6564**
11/16	3/4	2-1/4	4-1/4	**723-6567**
11/16	1	2-1/4	4-1/8	**723-6570**
23/32	3/4	2-1/4	4-5/16	**723-6573**
23/32	1	2-1/4	4-1/8	**723-6576**
3/4	3/4	2-1/4	4-5/16	**723-6579**
3/4	1	2-1/4	4-1/8	**723-6582**
25/32	3/4	2-1/4	4-5/16	**723-6585**
25/32	1	2-1/4	4-1/8	**723-6588**
13/16	3/4	2-1/4	4-5/16	**723-6591**
13/16	1	2-1/4	4-1/8	**723-6594**
27/32	3/4	2-1/2	4-5/16	**723-6597**
7/8	3/4	2-1/2	4-1/2	**723-6603**
7/8	1	2-1/2	4-1/2	**723-6606**
15/16	3/4	2-5/8	4-1/2	**723-6609**
15/16	1	2-5/8	4-1/2	**723-6612**
1	3/4	2-5/8	4-3/4	**723-6615**
1	1	2-5/8	4-1/2	**723-6618**
			4-3/4	

M42 8% Cobalt Corner Rounding End Mill Sets

套装内R径4齿立铣刀(M42 8%钴)



Pieces	Size	Shank Dia.	Order No.
4	1/2,9/16,5/8,3/4"	3/4	**723-6684**
8	1/16, 3/32	3/8	**723-6686**
	1/8",5/32"-3/8	1/2	
8	1/16,3/32,1/8	3/8	**723-6687**
	5/32,3/16,1/4,5/16,3/8	1/2	
8	3/16,1/4,5/16,3/8,7/16,1/2,5/8,3/4	3/4	**723-6688**

Corner Rounding Milling Cutters

套式R角铣刀

High Speed Steel

Use for radius milling

Radius of Circle	Diameter	Hole Size	Right Hand Order No.	Left Hand Order No.	Radius of Circle	Diameter	Hole Size	Right Hand Order No.	Left Hand Order No.
1/8"	2"	7/8"	**317-5080**	**317-6088**	7/16"	3-1/4"	1"	**317-5288**	**317-6286**
1/8	2-1/2	1	**317-5098**	**317-6096**	1/2	3-1/4	1	**317-5320**	**317-6328**
3/16	2-1/2	1	**317-5122**	**317-6120**	1/2	4-1/4	1-1/4	**317-5338**	**317-6336**
1/4	2-1/4	7/8	**317-5163**	**317-6161**	9/16	3-1/2	1	**317-5361**	**317-6369**
1/4	3	1	**317-5171**	**317-6179**	5/8	3-1/2	1	**317-5403**	**317-6401**
5/16	2-3/4	1	**317-5205**	**317-6203**	5/8	4-1/4	1-1/4	**317-5411**	**317-6419**
5/16	3	1	**317-5209**	**317-6209**	3/4	3-3/4	1	**317-5486**	**317-6484**
3/8	3	1	**317-5247**	**317-6245**	7/8	4-1/2	1-1/4	**317-5569**	**317-6567**
3/8	3-3/4	1-1/4	**317-5254**	**317-6252**	1	4-1/2	1-1/4	**317-5643**	**317-6641**



Straight Tooth Side Milling Cutters 轻型直齿三面刃铣刀

High Speed Steel

- Used in slotting, light-duty side milling and straddle milling for where deep cutting is required.



Dia.	Face Width	Hole Size	Order No.
2”	3/16”	1/2”	301-2127
2	1/4	1/2	301-2168
2	5/16	1/2	301-2200
2	3/8	1/2	301-2242
2	3/16	5/8	301-2135
2	1/4	5/8	301-2176
2	5/16	5/8	301-2218
2	3/8	5/8	301-2259
2	1/4	7/8	301-2182
2	5/16	7/8	301-2268
2	3/8	7/8	301-2262
2	7/16	7/8	301-2285
2-1/2	3/16	7/8	301-2506
2-1/2	1/4	7/8	301-2515
2-1/2	5/16	7/8	301-2523
2-1/2	3/8	7/8	301-2531
2-1/2	7/16	7/8	301-2538
2-1/2	1/2	7/8	301-2556
2-1/2	3/16	1	301-2614
2-1/2	1/4	1	301-2622
2-1/2	5/16	1	301-2630
2-1/2	3/8	1	301-2648
2-1/2	7/16	1	301-2655
2-1/2	1/2	1	301-2663
2-1/2	5/8	1	301-2671
3	3/16	1	301-3125
3	7/32	1	301-3141
3	1/4	1	301-3166
3	9/32	1	301-3182
3	5/16	1	301-3208
3	11/32	1	301-3224
3	3/8	1	301-3240
3	13/32	1	301-3259
3	13/32	1	301-3265
3	7/16	1	301-3281
3	1/2	1	301-3323
3	9/16	1	301-3335
3	5/8	1	301-3336
3	11/16	1	301-3341
3	3/4	1	301-3343
3	13/16	1	301-3347
3	7/8	1	301-3348
3	15/16	1	301-3604
3	1	1	301-3646
3	1/4	1-1/4	301-3174
3	5/16	1-1/4	301-3216
3	3/8	1-1/4	301-3257
3	7/16	1-1/4	301-3263
3	1/2	1-1/4	301-3331
3	5/8	1-1/4	301-3339
3	3/4	1-1/4	301-3346
3	7/8	1-1/4	301-3349
3	1	1-1/4	301-3356
3-1/2	3/16	1	301-3506
3-1/2	1/4	1	301-3513
3-1/2	5/16	1	301-3521
3-1/2	3/8	1	301-3539
3-1/2	7/16	1	301-3547
3-1/2	1/2	1	301-3554

Dia.	Face Width	Hole Size	Order No.
3-1/2”	5/8”	1”	301-3570
3-1/2	3/4	1	301-3580
3-1/2	1	1	301-3590
3-1/2	3/8	1-1/4	301-3540
3-1/2	7/16	1-1/4	301-3544
3-1/2	1/2	1-1/4	301-3559
3-1/2	5/8	1-1/4	301-3575
4	3/16	1	301-4123
4	7/32	1	301-4149
4	1/4	1	301-4164
4	9/32	1	301-4180
4	5/16	1	301-4206
4	11/32	1	301-4222
4	3/8	1	301-4248
4	13/32	1	301-4263
4	7/16	1	301-4289
4	1/2	1	301-4321
4	9/16	1	301-4340
4	5/8	1	301-4404
4	11/16	1	301-4446
4	3/4	1	301-4487
4	13/16	1	301-4529
4	7/8	1	301-4560
4	15/16	1	301-4602
4	1	1	301-4644
4	3/16	1-1/4	301-4131
4	7/32	1-1/4	301-4152
4	1/4	1-1/4	301-4172
4	9/32	1-1/4	301-4198
4	5/16	1-1/4	301-4214
4	11/32	1-1/4	301-4235
4	3/8	1-1/4	301-4255
4	13/32	1-1/4	301-4269
4	7/16	1-1/4	301-4262
4	1/2	1-1/4	301-4339
4	9/16	1-1/4	301-4342
4	5/8	1-1/4	301-4412
4	11/16	1-1/4	301-4423
4	3/4	1-1/4	301-4495
4	13/16	1-1/4	301-4503
4	7/8	1-1/4	301-4578
4	15/16	1-1/4	301-4605
4	1	1-1/4	301-4586
4	1-1/8	1-1/4	301-4701
4	1-1/4	1-1/4	301-4743
4	1-1/2	1-1/4	301-4749
4-1/2	3/8	1	301-4840
4-1/2	1/2	1	301-4865
4-1/2	3/8	1-1/4	301-4842
4-1/2	1/2	1-1/4	301-4867
5	1/4	1	301-5161
5	9/32	1	301-5187
5	5/16	1	301-5203
5	11/32	1	301-5229
5	3/8	1	301-5245
5	13/32	1	301-5260
5	7/16	1	301-5286
5	1/2	1	301-5228
5	9/16	1	301-5269

Dia.	Face Width	Hole Size	Order No.
5	5/8	1	301-5401
5	11/16	1	301-5443
5	3/4	1	301-5484
5	13/16	1	301-5526
5	7/8	1	301-5513
5	15/16	1	301-5609
5	1	1	301-5616
5	1/4	1-1/4	301-5179
5	9/32	1-1/4	301-5195
5	5/16	1-1/4	301-5211
5	11/32	1-1/4	301-5231
5	3/8	1-1/4	301-5252
5	13/32	1-1/4	301-5259
5	7/16	1-1/4	301-5263
5	1/2	1-1/4	301-5336
5	9/16	1-1/4	301-5342
5	5/8	1-1/4	301-5419
5	11/16	1-1/4	301-5426
5	3/4	1-1/4	301-5492
5	13/16	1-1/4	301-5501
5	7/8	1-1/4	301-5516
5	15/16	1-1/4	301-5522
5	1	1-1/4	301-5641
5	1-1/4	1-1/4	301-5656
6	1/4	1	301-6169
6	5/16	1	301-6201
6	3/8	1	301-6243
6	7/16	1	301-6251
6	1/2	1	301-6326
6	9/16	1	301-6332
6	5/8	1	301-6345
6	11/16	1	301-6352
6	3/4	1	301-6482
6	13/16	1	301-6486
6	7/8	1	301-6492
6	15/16	1	301-6494
6	1	1	301-6496
6	1	1-1/4	301-6649
6	1-1/4	1	301-6654
6	1/4	1-1/4	301-6177
6	9/32	1-1/4	301-6193
6	5/16	1-1/4	301-6219
6	11/32	1-1/4	301-6222
6	3/8	1-1/4	301-6250
6	13/32	1-1/4	301-6256
6	7/16	1-1/4	301-6253
6	1/2	1-1/4	301-6328
6	9/16	1-1/4	301-6334
6	5/8	1-1/4	301-6347
6	11/16	1-1/4	301-6441
6	3/4	1-1/4	301-6490
6	13/16	1-1/4	301-6488
6	7/8	1-1/4	301-6565
6	15/16	1-1/4	301-6495
6	1	1-1/4	301-6497
6	1-1/8	1-1/4	301-6652
6	1-1/4	1-1/4	301-6659

Dia.	Face Width	Hole Size	Order No.
7	1/4	1-1/4	301-7167
7	5/16	1-1/4	301-7209
7	3/8	1-1/4	301-7241
7	7/16	1-1/4	301-7282
7	1/2	1-1/4	301-7324
7	9/16	1-1/4	301-7328
7	5/8	1-1/4	301-7407
7	11/16	1-1/4	301-7415
7	3/4	1-1/4	301-7480
7	13/16	1-1/4	301-7482
7	7/8	1-1/4	301-7486
7	15/16	1-1/4	301-7489
7	1	1-1/4	301-7647
8	1/4	1	301-8165
8	5/16	1	301-8207
8	3/8	1	301-8249
8	7/16	1	301-8260
8	7/16	1	301-8280
8	1/2	1	301-8322
8	1/4	1-1/4	301-8173
8	5/16	1-1/4	301-8215
8	3/8	1-1/4	301-8256
8	7/16	1-1/4	301-8262
8	1/2	1-1/4	301-8330
8	9/16	1-1/4	301-8363
8	5/8	1-1/4	301-8405
8	11/16	1-1/4	301-8447
8	3/4	1-1/4	301-8488
8	13/16	1-1/4	301-8520
8	7/8	1-1/4	301-8561
8	15/16	1-1/4	301-8603
8	1	1-1/4	301-8645
8	1/4	1-1/2	301-8175
9	1/4	1-1/4	301-9002
9	3/8	1-1/4	301-9004
9	1/2	1-1/4	301-9006
9	5/8	1-1/4	301-9008
9	3/4	1-1/4	301-9012
9	1	1-1/4	301-9014
10	5/8	1-1/4	301-9160
10	3/4	1-1/4	301-9162
10	1/4	1-1/2	301-9163
10	5/16	1-1/2	301-9205
10	3/8	1-1/2	301-9247
10	7/16	1-1/2	301-9249
10	1/2	1-1/2	301-9320
10	9/16	1-1/2	301-9326
10	5/8	1-1/2	301-9403
10	11/16	1-1/2	301-9416
10	3/4	1-1/2	301-9486
10	13/16	1-1/2	301-9492
10	7/8	1-1/2	301-9569
10	15/16	1-1/2	301-9573
10	1	1-1/2	301-9643
10	1-1/4	1-1/2	301-9651
10	1-1/2	1-1/2	301-9660

Straight Tooth Side Milling Cutters M35钴直齿三面刃铣刀



Cobalt, M35

- Used in slotting, light-duty side milling and straddle milling

Cobalt

Dia. (In.)	Face W.(In.)	Hole Size(In.)	Order No.
2”	3/16”	1/2”	321-2127
2	3/16	5/8	321-2135
2	1/4	1/2	321-2168
2	1/4	5/8	321-2176
2	5/16	1/2	321-2200
2	5/16	5/8	321-2218
2	3/8	1/2	321-2242
2	3/8	5/8	321-2259
2-1/2	3/16	7/8	321-2506
2-1/2	1/4	7/8	321-2515
2-1/2	5/16	7/8	321-2523
2-1/2	3/8	7/8	321-2531
2-1/2	1/2	7/8	321-2556
2-1/2	3/16	1	321-2614
2-1/2	1/4	1	321-2622
2-1/2	5/16	1	321-2630
2-1/2	3/8	1	321-2648
2-1/2	7/16	1	321-2655
2-1/2	1/2	1	321-2663
2-1/2	5/8	1	321-2671
3	3/16	1	321-3125
3	7/32	1	321-3141
3	1/4	1	321-3166
3	1/4	1-1/4	321-3174
3	9/32	1	321-3182
3	5/16	1	321-3208
3	5/16	1-1/4	321-3216
3	11/32	1	321-3224
3	3/8	1	321-3240
3	3/8	1-1/4	321-3257
3	13/32	1	321-3265
3	7/16	1	321-3281
3	1/2	1	321-3323
3	1/2	1-1/4	321-3331
3	5/8	1	321-3406
3	3/4	1	321-3489
3	13/16	1	321-3497
3	7/8	1	321-3498
3	15/16	1	321-3352
3	1	1	321-3354
3-1/2	1/4	1	321-3513
3-1/2	5/16	1	321-3521
3-1/2	3/8	1	321-3539
3-1/2	7/16	1	321-3547
3-1/2	1/2	1	321-3554
3-1/2	5/8	1	321-3570
4	3/16	1	321-4123
4	3/16	1-1/4	321-4131
4	7/32	1	321-4149
4	1/4	1	321-4164
4	1/4	1-1/4	321-4172
4	9/32	1	321-4180
4	9/32	1-1/4	321-4198
4	5/16	1	321-4206
4	5/16	1-1/4	321-4214
4	11/32	1	321-4222
4	3/8	1	321-4248

Dia. (In.)	Face W.(In.)	Hole Size(In.)	Order No.
4	3/8	1-1/4	321-4255
4	13/32	1	321-4263
4	7/16	1	321-4289
4	1/2	1	321-4321
4	1/2	1-1/4	321-4339
4	9/16	1	321-4362
4	5/8	1	321-4404
4	5/8	1-1/4	321-4412
4	11/16	1	321-4446
4	3/4	1	321-4487
4	3/4	1-1/4	321-4495
4	13/16	1	321-4529
4	7/8	1	321-4560
4	7/8	1-1/4	321-4578
4	15/16	1	321-4602
4	1	1	321-4644
4	1-1/8	1-1/4	321-4701
4	1-1/4	1-1/4	321-4743
4-1/2	3/8	1-1/4	321-4842
4-1/2	1/2	1-1/4	321-4867
5	1/4	1	321-5161
5	1/4	1-1/4	321-5179
5	9/32	1	321-5187
5	9/32	1-1/4	321-5195
5	5/16	1	321-5203
5	5/16	1-1/4	321-5211
5	11/32	1	321-5229
5	3/8	1	321-5245
5	3/8	1-1/4	321-5252
5	13/32	1	321-5260
5	7/16	1	321-5286
5	1/2	1	321-5328
5	1/2	1-1/4	321-5336
5	9/16	1	321-5369
5	5/8	1	321-5401
5	5/8	1-1/4	321-5419
5	11/16	1	321-5443
5	3/4	1	321-5484
5	3/4	1-1/4	321-5492
5	13/16	1	321-5526
5	7/8	1	321-5567
5	15/16	1	321-5609
5	1	1-1/4	321-5641
6	1/4	1	321-6169
6	1/4	1-1/4	321-6177
6	9/32	1-1/4	321-6193
6	5/16	1	321-6201
6	5/16	1-1/4	321-6219
6	3/8	1	321-6243
6	3/8	1-1/4	321-6250
6	7/16	1-1/4	321-6284
6	1/2	1	321-6326
6	1/2	1-1/4	321-6328
6	9/16	1-1/4	321-6334
6	5/8	1-1/4	321-6409
6	11/16	1-1/4	321-6441
6	3/4	1	321-6482

Dia. (In.)	Face W.(In.)	Hole Size(In.)	Order No.
6	3/4	1-1/4	321-6490
6	13/16	1-1/4	321-6524
6	7/8	1-1/4	321-6565
6	15/16	1-1/4	321-6607
6	1	1-1/4	321-6649
7	1/4	1-1/4	321-7167
7	5/16	1-1/4	321-7209
7	3/8	1-1/4	321-7241
7	7/16	1-1/4	321-7282
7	1/2	1-1/4	321-7324
7	5/8	1-1/4	321-7407
7	3/4	1-1/4	321-7480
7	1	1-1/4	321-7647
8	1/4	1	321-8165
8	1/4	1-1/4	321-8173
8	5/16	1	321-8207
8	5/16	1-1/4	321-8215
8	3/8	1	321-8249
8	3/8	1-1/4	321-8256
8	7/16	1	321-8280
8	1/2	1	321-8322
8	1/2	1-1/4	321-8330
8	9/16	1-1/4	321-8363
8	5/8	1-1/4	321-8405
8	11/16	1-1/4	321-8447
8	3/4	1-1/4	321-8488
8	13/16	1-1/4	321-8520
8	7/8	1-1/4	321-8561
8	15/16	1-1/4	321-8603
8	1	1-1/4	321-8645
10	1/4	1-1/2	321-9163
10	5/16	1-1/2	321-9205
10	3/8	1-1/2	321-9247
10	1/2	1-1/2	321-9320
10	5/8	1-1/2	321-9403
10	3/4	1-1/2	321-9486
10	7/8	1-1/2	321-9569
10	1	1-1/2	321-9643

Staggered Tooth Side Milling Cutters M35钴错齿三面刃铣刀

Cobalt, M35

- Used in deep slotting, and heavy-duty side milling





Dia. (In.)	Face W.(In.)	Hole Size(In.)	Order No.
2"	3/16"	1/2"	326-2125
2	3/16	5/8	326-2133
2	1/4	1/2	326-2166
2	1/4	5/8	326-2174
2	5/16	1/2	326-2198
2	5/16	5/8	326-2216
2	3/8	1/2	326-2240
2	3/8	5/8	326-2257
2-1/8	3/16	3/4	326-2290
2-1/8	3/8	3/4	326-2294
2-1/2	3/16	7/8	326-2504
2-1/2	1/4	7/8	326-2513
2-1/2	5/16	7/8	326-2521
2-1/2	3/8	7/8	326-2539
2-1/2	1/2	7/8	326-2554
2-1/2	3/16	1	326-2612
2-1/2	1/4	1	326-2620
2-1/2	5/16	1	326-2628
2-1/2	3/8	1	326-2646
2-1/2	7/16	1	326-2653
2-1/2	1/2	1	326-2661
2-1/2	5/8	1	326-2669
2-3/4	1/4	1	326-2711
2-3/4	5/16	1	326-2729
2-3/4	3/8	1	326-2737
2-3/4	7/16	1	326-2745
2-3/4	1/2	1	326-2752
3	1/8	1	326-2900
3	5/32	1	326-3107
3	3/16	1	326-3123
3	7/32	1	326-3149
3	1/4	1	326-3164
3	1/4	1-1/4	326-3172
3	9/32	1	326-3180
3	5/16	1	326-3208
3	5/16	1-1/4	326-3214
3	11/32	1	326-3222
3	3/8	1	326-3248
3	3/8	1-1/4	326-3255
3	13/32	1	326-3263
3	7/16	1	326-3289
3	1/2	1	326-3313
3	1/2	1-1/4	326-3321
3	9/16	1	326-3336
3	5/8	1	326-3393
3	5/8	1-1/4	326-3404
3	3/4	1	326-3485
3	3/4	1-1/4	326-3487
3	13/16	1	326-3495
3	7/8	1	326-3496
3	15/16	1	326-3350
3	1	1	326-3352
3-1/2	1/4	1	326-3511
3-1/2	5/16	1	326-3519
3-1/2	3/8	1	326-3537
3-1/2	7/16	1	326-3545
3-1/2	1/2	1	326-3552
3-1/2	5/8	1	326-3568
4	1/8	1	326-4100
4	5/32	1	326-4102
4	3/16	1	326-4121

Dia. (In.)	Face W.(In.)	Hole Size(In.)	Order No.
4	3/16	1-1/4	326-4139
4	7/32	1	326-4147
4	1/4	1	326-4154
4	1/4	1-1/4	326-4162
4	9/32	1	326-4178
4	9/32	1-1/4	326-4188
4	5/16	1	326-4196
4	5/16	1-1/4	326-4204
4	11/32	1	326-4220
4	3/8	1	326-4238
4	3/8	1-1/4	326-4246
4	13/32	1	326-4261
4	7/16	1-1/4	326-4287
4	7/16	1	326-4295
4	1/2	1	326-4311
4	1/2	1-1/4	326-4329
4	9/16	1	326-4352
4	9/16	1-1/4	326-4360
4	5/8	1	326-4378
4	5/8	1-1/4	326-4402
4	11/16	1	326-4444
4	3/4	1	326-4477
4	3/4	1-1/4	326-4485
4	13/16	1	326-4527
4	7/8	1	326-4558
4	7/8	1-1/4	326-4576
4	15/16	1	326-4600
4	1	1	326-4640
4	1	1	326-4642
4	1-1/8	1-1/4	326-4699
4	1-1/4	1-1/4	326-4741
4-1/2	3/8	1-1/4	326-4840
4-1/2	1/2	1-1/4	326-4865
5	1/8	1-1/4	326-5036
5	5/32	1-1/4	326-5089
5	3/16	1-1/4	326-5118
5	7/32	1-1/4	326-5134
5	1/4	1	326-5159
5	1/4	1-1/4	326-5169
5	9/32	1	326-5174
5	9/32	1-1/4	326-5176
5	5/16	1	326-5193
5	5/16	1-1/4	326-5201
5	11/32	1	326-5227
5	3/8	1	326-5243
5	3/8	1-1/4	326-5244
5	13/32	1	326-5258
5	7/16	1	326-5284
5	1/2	1	326-5318
5	1/2	1-1/4	326-5326
5	9/16	1	326-5367
5	5/8	1	326-5391
5	5/8	1-1/4	326-5409
5	11/16	1	326-5442
5	3/4	1	326-5474
5	3/4	1-1/4	326-5482
5	13/16	1	326-5516
5	7/8	1	326-5557
5	15/16	1	326-5599
5	1	1-1/4	326-5631
5	1	1-1/4	326-5649

Dia. (In.)	Face W.(In.)	Hole Size(In.)	Order No.
6	1/8	1-1/4	326-6016
6	5/32	1-1/4	326-6087
6	3/16	1-1/4	326-6136
6	1/4	1	326-6159
6	1/4	1-1/4	326-6167
6	9/32	1-1/4	326-6191
6	5/16	1	326-6199
6	5/16	1-1/4	326-6209
6	3/8	1	326-6233
6	3/8	1-1/4	326-6241
6	7/16	1-1/4	326-6282
6	1/2	1	326-6316
6	1/2	1-1/4	326-6324
6	9/16	1-1/4	326-6332
6	5/8	1-1/4	326-6407
6	11/16	1-1/4	326-6431
6	3/4	1	326-6472
6	3/4	1-1/4	326-6480
6	13/16	1-1/4	326-6522
6	7/8	1-1/4	326-6563
6	15/16	1-1/4	326-6605
6	1	1-1/4	326-6647
7	1/4	1-1/4	326-7165
7	5/16	1-1/4	326-7207
7	3/8	1-1/4	326-7231
7	7/16	1-1/4	326-7280
7	1/2	1-1/4	326-7322
7	5/8	1-1/4	326-7405
7	3/4	1-1/4	326-7478
7	1	1-1/4	326-7645
8	1/4	1	326-8155
8	1/4	1-1/4	326-8163
8	5/16	1	326-8197
8	5/16	1-1/4	326-8205
8	3/8	1	326-8237
8	3/8	1-1/2	326-8247
8	3/8	1-1/4	326-8254
8	7/16	1	326-8278
8	1/2	1	326-8312
8	1/2	1-1/4	326-8318
8	1/2	1-1/2	326-8320
8	9/16	1-1/4	326-8361
8	5/8	1-1/4	326-8395
8	5/8	1-1/2	326-8403
8	11/16	1-1/4	326-8445
8	3/4	1-1/4	326-8478
8	3/4	1-1/2	326-8486
8	13/16	1-1/4	326-8518
8	7/8	1-1/4	326-8559
8	15/16	1-1/4	326-8601
8	1	1-1/4	326-8643
10	1/4	1-1/2	326-9161
10	5/16	1-1/2	326-9203
10	3/8	1-1/2	326-9245
10	1/2	1-1/2	326-9318
10	5/8	1-1/2	326-9401
10	3/4	1-1/2	326-9484
10	7/8	1-1/2	326-9567
10	1	1-1/2	326-9641

Staggered Tooth Side Milling Cutters 重型错齿三面刃铣刀

High Speed Steel



- For milling deep slots, grooves and the other operations where either or both the peripheral or side cuttingedges are used for machining.
- Arbor mounted with mounting holes having standardized size and made to suit a variety of machine arbors.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- Ground from solid.
- Bright and black finish.

Dia.	Width of Face	Hole Size	Order No.
2-1/8	3/16	3/4	306-1127
2-1/8	1/4	3/4	306-1168
2-1/8	5/16	3/4	306-1200
2-1/8	3/8	3/4	306-1242
2-1/2	3/16	7/8	306-2505
2-1/2	1/4	7/8	306-2513
2-1/2	1/4	1	306-2515
2-1/2	5/16	7/8	306-2521
2-1/2	5/16	1	306-2523
2-1/2	3/8	7/8	306-2539
2-1/2	7/16	7/8	306-2542
2-1/2	7/16	1	306-2546
2-1/2	1/2	7/8	306-2554
2-1/2	1/2	1	306-2556
2-3/4	1/4	1	306-2711
2-3/4	5/16	1	306-2729
2-3/4	3/8	1	306-2737
2-3/4	7/16	1	306-2745
2-3/4	1/2	1	306-2752
3	1/8	1	306-2900
3	5/32	1	306-3107
3	3/16	1	306-3123
3	3/16	1-1/4	306-3131
3	7/32	1	306-3149
3	1/4	1	306-3164
3	1/4	1-1/4	306-3172
3	9/32	1	306-3180
3	5/16	1	306-3206
3	5/16	1-1/4	306-3214
3	1 1/32	1	306-3222
3	3/8	1	306-3248
3	3/8	1-1/4	306-3255
3	13/32	1	306-3263
3	7/16	1	306-3289
3	7/16	1-1/4	306-3292
3	1/2	1	306-3313
3	1/2	1-1/4	306-3321
3	9/16	1	306-3336
3	9/16	1-1/4	306-3362
3	5/8	1	306-3378
3	5/8	1-1/4	306-3404
3	11/16	1	306-3408
3	11/16	1-1/4	306-3412
3	3/4	1	306-3485
3	3/4	1-1/4	306-3487
3	13/16	1	306-3488
3	13/16	1-1/4	306-3489
3	7/8	1	306-3558
3	7/8	1-1/4	306-3560
3	15/16	1	306-3562
3	15/16	1-1/4	306-3566
3	1	1	306-3642
3	1	1-1/4	306-3644
3-1/2	7/32	1	306-3670
3-1/2	1/4	1	306-3685
3-1/2	9/32	1	306-3701
3-1/2	5/16	1	306-3727
3-1/2	3/8	1	306-3735
3-1/2	7/16	1	306-3743
3-1/2	1/2	1	306-3750
3-1/2	9/16	1	306-3768
3-1/2	5/8	1	306-3776
3-1/2	11/16	1	306-3784

Dia.	Width of Face	Hole Size	Order No.
3-1/2	3/4	1	306-3792
4	1/8	1	306-3856
4	3/16	1	306-4121
4	3/16	1-1/4	306-4139
4	7/32	1	306-4143
4	1/4	1	306-4145
4	7/32	1-1/4	306-4147
4	1/4	1	306-4154
4	1/4	1-1/4	306-4162
4	9/32	1	306-4186
4	9/32	1-1/4	306-4188
4	5/16	1	306-4196
4	5/16	1-1/4	306-4204
4	11/32	1	306-4218
4	11/32	1-1/4	306-4220
4	3/8	1	306-4238
4	3/8	1-1/4	306-4246
4	13/32	1-1/4	306-4261
4	7/16	1	306-4285
4	7/16	1-1/4	306-4287
4	7/16	1	306-4295
4	1/2	1	306-4311
4	1/2	1-1/4	306-4329
4	9/16	1	306-4358
4	9/16	1-1/4	306-4360
4	5/8	1	306-4378
4	5/8	1-1/4	306-4402
4	11/16	1	306-4406
4	11/16	1-1/4	306-4408
4	3/4	1	306-4477
4	3/4	1-1/4	306-4485
4	13/16	1	306-4487
4	13/16	1-1/4	306-4489
4	7/8	1	306-4566
4	7/8	1-1/4	306-4568
4	1/8	1	306-4579
4	5/32	1	306-4586
4	15/16	1	306-4632
4	15/16	1-1/4	306-4636
4	1	1	306-4640
4	1	1-1/4	306-4642
4	1-1/8	1-1/4	306-4709
4	1-3/16	1-1/4	306-4738
4	1-1/4	1-1/4	306-4741
4	1-1/2	1-1/4	306-4824
4-1/2	1/2	1	306-4826
4-1/2	1/2	1-1/4	306-4828
5	1/8	1-1/4	306-5036
5	5/32	1-1/4	306-5089
5	3/16	1-1/4	306-5118
5	7/32	1-1/4	306-5134
5	1/4	1	306-5151
5	1/4	1-1/4	306-5169
5	9/32	1-1/4	306-5176
5	5/16	1	306-5193
5	5/16	1-1/4	306-5201
5	3/8	1	306-5241
5	3/8	1-1/4	306-5243
5	3/8	1	306-5250
5	7/16	1	306-5281
5	7/16	1-1/4	306-5284
5	1/2	1	306-5318
5	1/2	1-1/4	306-5326

Dia.	Width of Face	Hole Size	Order No.
5	9/16	1	306-5330
5	9/16	1-1/4	306-5332
5	5/8	1	306-5336
5	5/8	1-1/4	306-5409
5	11/16	1	306-5412
5	11/16	1-1/4	306-5416
5	3/4	1	306-5480
5	3/4	1-1/4	306-5482
5	13/16	1	306-5486
5	13/16	1-1/4	306-5488
5	7/8	1	306-5492
5	7/8	1-1/4	306-5496
5	15/16	1-1/4	306-5498
5	1	1-1/4	306-5649
6	1/8	1-1/4	306-6016
6	5/32	1-1/4	306-6087
6	3/16	1-1/4	306-6136
6	7/32	1-1/4	306-6151
6	1/4	1	306-6159
6	1/4	1-1/4	306-6167
6	9/32	1-1/4	306-6183
6	5/16	1	306-6191
6	5/16	1-1/4	306-6209
6	3/8	1	306-6233
6	3/8	1-1/4	306-6241
6	7/16	1	306-6280
6	7/16	1-1/4	306-6282
6	1/2	1	306-6316
6	1/2	1-1/4	306-6324
6	9/16	1	306-6363
6	9/16	1-1/4	306-6365
6	5/8	1	306-6402
6	5/8	1-1/4	306-6407
6	11/16	1	306-6446
6	11/16	1-1/4	306-6449
6	3/4	1	306-6476
6	3/4	1-1/4	306-6480
6	13/16	1	306-6520
6	13/16	1-1/4	306-6522
6	7/8	1	306-6561
6	7/8	1-1/4	306-6563
6	15/16	1-1/4	306-6605
6	1	1	306-6642
6	1	1-1/4	306-6647
6	1	1-1/2	306-6649
6	1-1/8	1-1/4	306-6704
6	1-3/16	1-1/4	306-6706
6	1-1/4	1-1/4	306-6746
6	1-1/2	1-1/4	306-6829
7	1/4	1-1/4	306-7165
7	5/16	1-1/4	306-7207
7	3/8	1-1/4	306-7249
7	3/8	1-1/2	306-7252
7	7/16	1-1/4	306-7280
7	7/16	1-1/2	306-7282
7	1/2	1-1/4	306-7322
7	1/2	1-1/2	306-7326
7	9/16	1-1/4	306-7363
7	5/8	1-1/4	306-7405
7	5/8	1-1/2	306-7407
7	11/16	1-1/4	306-7447
7	3/4	1-1/4	306-7488
7	3/4	1-1/2	306-7489

Dia.	Width of Face	Hole Size	Order No.
7	13/16	1-1/4	306-7558
7	7/8	1-1/4	306-7561
7	7/8	1-1/2	306-7563
7	15/16	1-1/4	306-7566
7	1	1-1/4	306-7645
7	1	1-1/2	306-7648
8	1/4	1	306-8161
8	1/4	1-1/4	306-8163
8	1/4	1-1/2	306-8165
8	5/16	1-1/4	306-8205
8	5/16	1-1/2	306-8207
8	3/8	1	306-8243
8	3/8	1-1/4	306-8245
8	3/8	1-1/2	306-8247
8	7/16	1-1/4	306-8286
8	7/16	1-1/2	306-8288
8	1/2	1	306-8316
8	1/2	1-1/4	306-8318
8	1/2	1-1/2	306-8320
8	9/16	1-1/4	306-8359
8	9/16	1-1/2	306-8361
8	5/8	1-1/4	306-8401
8	5/8	1-1/2	306-8403
8	11/16	1-1/4	306-8443
8	11/16	1-1/2	306-8445
8	3/4	1-1/4	306-8483
8	3/4	1-1/2	306-8486
8	13/16	1-1/4	306-8526
8	13/16	1-1/2	306-8528
8	7/8	1-1/4	306-8567
8	7/8	1-1/2	306-8569
8	15/16	1-1/4	306-8636
8	15/16	1-1/2	306-8638
8	1	1-1/4	306-8641
8	1	1-1/2	306-8643
8	1-1/8	1-1/2	306-8700
8	1-1/4	1-1/2	306-8742
8	1-1/2	1-1/2	306-8825
9	3/8	1-1/4	306-8900
9	1/2	1-1/4	306-8902
9	5/8	1-1/4	306-8904
9	3/4	1-1/4	306-8906
9	1	1-1/4	306-8908
10	3/8	1-1/4	306-9156
10	13/16	1-1/4	306-9158
10	1/4	1-1/2	306-9161
10	5/16	1-1/2	306-9203
10	3/8	1-1/2	306-9245
10	7/16	1-1/2	306-9286
10	1/2	1-1/2	306-9328
10	9/16	1-1/2	306-9369
10	5/8	1-1/2	306-9401
10	11/16	1-1/2	306-9481
10	3/4	1-1/2	306-9484
10	13/16	1-1/2	306-9565
10	7/8	1-1/2	306-9567
10	15/16	1-1/2	306-9639
10	1	1-1/2	306-9641
10	1-1/8	1-1/2	306-9708
10	1-1/4	1-1/2	306-9740
10	1-1/2	1-1/2	306-9823

Metric Side Milling Cutters 德标 885 三面刃铣刀

DIN 885, High Speed Steel

- For milling deep slots, grooves and the other opeerations where either or both the peripheral or side cutting edges are used for machining.
- Arbor mounted with mounting holes having standardized size and made to suit a variety of machine arbors.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- Ground from solid.
- Bright and black finish.

Straight Tooth

- Used in slotting, light-duty side milling and straddle milling for where deep cutting is required.



Cutter Dia.	Hole Size	Face Width	Straight Tooth Order No.	Staggered Tooth Order No.
50mm	16	4	**364-0504**	**364-3504**
50 mm	16	5	**364-0505**	**364-3505**
50 mm	16	6	**364-0506**	**364-3506**
50 mm	16	8	**364-0508**	**364-3508**
50 mm	16	10	**364-0510**	**364-3510**
63 mm	22	4	**364-0604**	**364-3604**
63 mm	22	5	**364-0605**	**364-3605**
63 mm	22	6	**364-0606**	**364-3606**
63 mm	22	8	**364-0608**	**364-3608**
63 mm	22	10	**364-0610**	**364-3610**
63 mm	22	12	**364-0612**	**364-3612**
63 mm	22	14	**364-0614**	**364-3614**
63 mm	22	16	**364-0616**	**364-3616**
80 mm	27	5	**364-0805**	**364-3805**
80 mm	27	6	**364-0806**	**364-3806**
80 mm	27	8	**364-0808**	**364-3808**
80 mm	27	10	**364-0810**	**364-3810**
80 mm	27	12	**364-0812**	**364-3812**
80 mm	27	14	**364-0814**	**364-3814**
80 mm	27	16	**364-0816**	**364-3816**
80 mm	27	18	**364-0818**	**364-3818**
80 mm	27	20	**364-0820**	**364-3820**
100 mm	32	5	**364-1005**	**364-4005**
100 mm	32	6	**364-1006**	**364-4006**
100 mm	32	8	**364-1008**	**364-4008**
100 mm	32	10	**364-1010**	**364-4010**
100 mm	32	12	**364-1012**	**364-4012**
100 mm	32	14	**364-1014**	**364-4014**
100 mm	32	16	**364-1016**	**364-4016**
100 mm	32	18	**364-1018**	**364-4018**
100mm	32	20	**364-1020**	**364-4020**
100 mm	32	22	**364-1022**	**364-4022**
100 mm	32	25	**364-1025**	**364-4025**
125 mm	32	8	**364-1208**	**364-4208**
125 mm	32	10	**364-1210**	**364-4210**
125 mm	32	12	**364-1212**	**364-4212**
125 mm	32	14	**364-1214**	**364-4214**
125 mm	32	16	**364-1216**	**364-4216**

Staggered Tooth

- Used for heavy duty side cutting and straddle milling operations.



Cutter Dia.	Hole Size	Face Width	Straight Tooth Order No.	Staggered Tooth Order No.
125 mm	32	18	**364-1218**	**364-4218**
125 mm	32	20	**364-1220**	**364-4220**
125 mm	32	22	**364-1222**	**364-4222**
125 mm	32	25	**364-1225**	**364-4225**
125 mm	32	28	**364-1228**	**364-4228**
160 mm	40	8	**364-1608**	**364-4608**
160 mm	40	10	**364-1610**	**364-4610**
160 mm	40	12	**364-1612**	**364-4612**
160 mm	40	14	**364-1614**	**364-4614**
160 mm	40	16	**364-1616**	**364-4616**
160 mm	40	18	**364-1618**	**364-4618**
160 mm	40	20	**364-1620**	**364-4620**
160 mm	40	22	**364-1622**	**364-4622**
160 mm	40	25	**364-1625**	**364-4625**
160 mm	40	28	**364-1628**	**364-4628**
160 mm	40	32	**364-1632**	**364-4632**
200 mm	40	8	**364-2008**	**364-5008**
200 mm	40	10	**364-2010**	**364-5010**
200 mm	40	12	**364-2012**	**364-5012**
200 mm	40	14	**364-2014**	**364-5014**
200 mm	40	16	**364-2016**	**364-5016**
200 mm	40	18	**364-2018**	**364-5018**
200 mm	40	20	**364-2020**	**364-5020**
200 mm	40	22	**364-2022**	**364-5022**
200 mm	40	25	**364-2025**	**364-5025**
200 mm	40	28	**364-2028**	**364-5028**
200 mm	40	32	**364-2032**	**364-5032**
250 mm	40	10	**364-2510**	**364-5510**
250 mm	40	12	**364-2512**	**364-5512**
250 mm	40	14	**364-2514**	**364-5514**
250 mm	40	16	**364-2516**	**364-5516**
250 mm	40	18	**364-2518**	**364-5518**
250 mm	40	20	**364-2520**	**364-5520**
250 mm	40	22	**364-2522**	**364-5522**
250 mm	40	25	**364-2525**	**364-5525**
250 mm	40	28	**364-2528**	**364-5528**
250 mm	40	32	**364-2532**	**364-5532**

Carbide Tipped Side Milling Cutters

镶齿硬质合金圆盘铣刀–键槽



For Steel



For Non-Ferrous Materials



For Cast Iron



For Stainless Steel

Cutter Dia.	Face Width	Arbor Hole	For Steel No. of Teeth	For Steel Order No.	For Non-Ferrous No. of Teeth	For Non-Ferrous Order No.	For Stainless Steel No. of Teeth	For Stainless Steel Order No.
3”	3/32”	1”					8	245-6671
3	1/8	1					8	245-6672
3	3/16	1					8	245-6673
4	3/32	1			6	245-6501	10	245-6674
4	1/8	1	8	245-6546	6	245-6502	10	245-6675
4	3/16	1	8	245-6547	6	245-6503	10	245-6676
5	3/32	1					12	245-6677
5	3/16	1					12	245-6678
6	1/8	1-1/4	12	245-6548	8	245-6504		245-6680
6	3/16	1-1/4	12	245-6549			14	245-6681
6	1/4	1-1/4	12	245-6550			14	245-6682
8	1/8	1-1/4			10	245-6505	14	

Straight Tooth

Cutter Dia.	Face Width	Arbor Hole	For Steel No.of Teeth	For Steel Order No.	For Non-Ferrous No.of Teeth	For Non-Ferrous Order No.	For Cast Iron No.of Teeth	For Cast Iron Order No.	For Stainless Steel No.of Teeth	For Stainless Steel Order No.
3”	1/4”	1”a	6	245-7001	4	245-6801	6	245-6901	8	245-6601
3	5/16	1	6	245-7002	4	245-6802	6	245-6902	8	245-6602
3	3/8	1	6	245-7003	4	245-6803	6	245-6903	8	245-6603
3	7/16	1	6	245-7004	4	245-6804	6	245-6904		
3	1/2	1	6	245-7005	4	245-6805	6	245-6905	8	245-6604
4	1/4	1	8	245-7006	4	245-6806	8	245-6906	10	245-6605
4	5/16	1	8	245-7007	4	245-6807	8	245-6907	10	245-6606
4	3/8	1	8	245-7008	4	245-6808	8	245-6908	10	245-6607
4	3/8	1-1/4	8	245-7009	4	245-6809	8	245-6909	10	245-6608
4	1/2	1	8	245-7011	4	245-6811	8	245-6911	10	245-6609
4	1/2	1-1/4	8	245-7012	4	245-6812	8	245-6912	10	245-6610
4	5/8	1	8	245-7014	4	245-6814	8	245-6914	10	245-6611
4	5/8	1-1/4			4	245-6815	8	245-6915	10	245-6612
4	3/4	1			4	245-6816	8	245-6916	10	245-6613
4	3/4	1-1/4			4	245-6817	8	245-6917	10	245-6614
5	1/2	1	10	245-7017	6	245-6819	10	245-6919	12	245-6615
5	1/2	1-1/4	10	245-7018	6	245-6820	10	245-6920	12	245-6616
5	5/8	1-1/4	10	245-7020	6	245-6822	10	245-6922	12	245-6617
5	3/4	1			6	245-6823	10	245-6923	12	245-6618
5	3/4	1-1/4			6	245-6824	10	245-6924	12	245-6619
6	1/2	1			6	245-6825	12	245-6925	14	245-6620
6	1/2	1-1/4			6	245-6826	12	245-6926	14	245-6621
6	5/8	1-1/4			6	245-6827	12	245-6927	14	245-6622
6	3/4	1			6	245-6828	12	245-6928	14	245-6623
6	3/4	1-1/4			6	245-6829	12	245-6929	14	245-6624
7	3/4	1-1/4			8	245-6830	12	245-6930		
8	3/4	1-1/4			8	245-6831	12	245-6931		
8	3/4	1-1/2			8	245-6832	12	245-6932		

Staggered Tooth for Steel

Cutter Dia.	Face Width	Arbor Hole	No. Of Teeth	Order No.
4”	3/4”	1”	8	245-7044
4	3/4	1-1/4	8	245-7045
5	3/4	1	10	245-7046
6	3/4	1	12	245-7049
6	1	1-1/4	12	245-7051

Staggered Tooth for Non- Ferrous and Cast Iron

Cutter Dia.	Face Width	Arbor Hole	For Non-Ferrous No. Of Teeth	For Non-Ferrous Order No.	For Cast Iron No.Of Teeth	For Cast Iron Order No.
5”	1”	1-1/4”	8	245-6855	10	245-6955
6	1	1-1/4	8	245-6856	12	245-6956

Carbide Tipped Shell End Mills

镶齿硬质合金套式铣刀



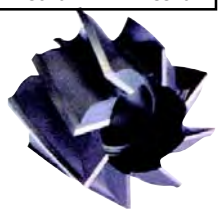
- Used for end milling applicationa requiring larger diameter cutters.
- Suit for non-ferrous materals, cast iron and steel.
- Must be used with shell mill holder.
- Bright and black finish.

Mill Dia	Hole Dia	Overall Length	No. of Teeth	Straight Flute Cast Iron Order No.	Right hand Helix Non-Ferrous Order No.	Left Hand Helix Steel Order No.
1-1/4"	1"	1/2"	4	244-8701	244-8601	244-8801
1-1/2	1-1/8	1/2	4	244-8702	244-8602	244-8802
1-3/4	1-1/4	3/4	4	244-8703	244-8603	244-8803
2	1-3/8	3/4	4	244-8704	244-8604	244-8804
2-1/4	1-1/2	1	6	244-8705	244-8605	244-8805
2-1/2	1-5/8	1	6	244-8706	244-8606	244-8806
2-3/4	1-5/8	1	6	244-8707	244-8607	244-8807
3	1-3/4	1-1/4	6	244-8708	244-8608	244-8808
3-1/2	1-7/8	1-1/4	6	244-8709	244-8609	244-8809
4	2-1/4	1-1/2	6	244-8710	244-8610	244-8810

HSS Shell End Mills

Right Hand & Left Hand

右旋套式铣刀



For use with standard shell end mill arbors

Mill Dia.(In.)	Hole Dia.(In.)	LOC (In.)	Right Hand Order No.	Left Hand Order No.
1-1/4	1/2	1	306-0005	306-0205
1-1/2	1/2	1-1/8	306-0010	306-0210
1-3/4	3/4	1-1/4	306-0015	306-0215
2	3/4	1-3/8	306-0020	306-0220
2-1/4	1	1-1/2	306-0025	306-0225
2-1/2	1	1-5/8	306-0030	306-0230
2-3/4	1	1-5/8	306-0035	306-0235
3	1-1/4	1-3/4	306-0040	306-0240
3-1/2	1-1/4	1-7/8	306-0045	306-0245
4	1-1/2	2-1/4	306-0050	306-0250
4-1/2	1-1/2	2-1/4	306-0055	306-0255
5	1-1/2	2-1/4	306-0060	306-0260
5-1/2	2	2-1/4	306-0065	306-0265
6	2	2-1/4	306-0070	306-0270

HSS Shell End Mill for Aluminum

25 Deg Helix

HSS 铝用套式铣刀 （25 度螺旋）



For use with standard shell end mill arbors

Mill Dia.	Hole Dia.(In.)	LOC (In.)	Order No.
1-1/4"	1/2"	1"	306-0105
1-1/2	1/2	1-1/8	306-0110
1-3/4	3/4	1-1/4	306-0115
2	3/4	1-3/8	306-0120
2-1/4	1	1-1/2	306-0125
2-1/2	1	1-5/8	306-0130
2-3/4	1	1-5/8	306-0135
3	1-1/4	1-3/4	306-0140
3-1/2	1-1/4	1-7/8	306-0145
4	1-1/2	2-1/4	306-0150
4-1/2	1-1/2	2-1/4	306-0155
5	1-1/2	2-1/4	306-0160
5-1/2	2	2-1/4	306-0165
6	2	2-1/4	306-0170

M42 Cobalt Heavy-Duty Shell End Mills

Right Hand M42右旋重型含钴套式铣刀



For use with standard shell end mill arbors

Cobalt

Mill Dia.	Hole Dia.	LOC (In.)	Order No.	Mill Dia.	Hole Dia.	LOC (In.)	Order No.
1-1/4"	1/2"	1	326-0001	3	1-1/4	1-3/4	326-0013
1-1/2	1/2	1-1/8	326-0002	3-1/2	1-1/4	1-7/8	326-0015
1-3/4	3/4	1-1/4	326-0003	4	1-1/2	2-1/4	326-0016
2	3/4	1-3/8	326-0005	4-1/2	1-1/2	2-1/4	326-0017
2-1/4	1	1-1/2	326-0007	5	1-1/2	2-1/4	326-0018
2-1/2	1	1-5/8	326-0009	5-1/2	2	2-1/4	326-0010
2-3/4	1	1-5/8	326-0011	6	2	2-1/4	326-0019

M42 Cobalt Mutiple Flute Rough Shell End MIls

M42右旋重型波刃套式铣刀



Cobalt

Mill Dia.	Hole Dia.	OAL (In.)	No.of Flutes	Order No.	Mill Dia.	Hole Dia.	OAL (In.)	No.of Flutes	Order No.
2"	3/4"	2	8	326-0020	4	1-1/2	2-1/4	10	326-0032
2-1/4	1	2	8	326-0022	4-1/2	1-1/2	2-1/4	12	326-0034
2-1/2	1	1-5/8	8	326-0024	5	1-1/2	2-1/4	12	326-0036
2-3/4	1	2	10	326-0026	5-1/2	2	2-1/4	14	326-0038
3	1-1/4	2	10	326-0028	6	2	2-1/4	14	326-0040
3-1/2	1-1/4	2	10	326-0030					

High Helical Plain Milling Cutters

High Speed Steel 重型圆柱平面铣刀



- Cutters have high 45° helix left hand spiral and right hand cut.
- All cutters feature 10° radial rake.

Size	Face Width	Hole Size	Ordr No.	Size	Face Width	Hole Size	Ordr No.
3"	4"	1-1/4"	304-7347	4	6	1-1/2	304-7467
3	6	1-1/4	304-7362	4	8	1-1/2	304-7487
4	3	1-1/2	304-7437	4-1/2	6	2	304-7560
4	4	1-1/2	304-7447				

Plain Milling Cutters-Heavy Duty

High Speed Steel 重型圆柱平面铣刀



- Cutters have 45° helix left hand spiral and right hand cut.
- All cutters feature 10° radial rake.

Size	Face Width	Hole Size	Ordr No.	Size	Face Width	Hole Size	Ordr No.
2-1/4"	1/4"	7/8"	304-2325	3	1-1/2	1-1/4	304-3815
2-1/2	3/4	1	304-2950	3	2	1-1/4	304-3940
2-1/2	1	1	304-2953	3	2-1/2	1-1/4	304-3957
2-1/2	1-1/2	1	304-2957	3	3	1-1/4	304-3973
2-1/2	2	1	304-2967	3	4	1-1/4	304-3981
2-1/2"	2"	1"	304-2967	3	6	1-1/4	304-3999
2-1/2	3	1	304-2978	4	2	1-1/2	304-4963
2-1/2	4	1	304-2983	4	3	1-1/2	304-4971
3	1/2	1	304-3325	4	4	1-1/2	304-4989
3	3/4	1	304-3475	4	6	1-1/2	304-4997
3	1	1	304-3645	4-1/2	6	2	304-5994
3	1-1/4	1-1/4	304-3805				

Plain Milling Cutters-Light Duty

High Speed Steel 轻型圆柱平面铣刀



- Cutters less than 3/4" width have straight teeth, 3/4" or wider have an 18° left hand helix and right hand cut.
- All cutters feature 10° radial rake.

Size	Width of Face	Hole Size	Order No.	Size	Width of Face	Hole Size	Order No.
2-1/4"	1/4"	7/8"	**304-1223**	3"	1/2"	1-1/4"	**304-3329**
2-1/4	1/2	7/8	**304-1323**	3	5/8	1-1/4	**304-3402**
2-1/4	1	7/8	**304-1646**	3"	3/4"	1-1/4"	**304-3485**
2-1/2	3/16	1	**304-2123**	3	7/8	1-1/4	**304-3568**
2-1/2	1/4	1	**304-2164**	3	1	1	**304-3588**
2-1/2	5/16	1	**304-2206**	3	1	1-1/4	**304-3642**
2-1/2	3/8	1	**304-2248**	3	1-1/4	1-1/4	**304-3741**
2-1/2	7/16	1	**304-2289**	3	1-1/2	1-1/4	**304-3824**
2-1/2	1/2	1	**304-2321**	3	2	1-1/4	**304-3964**
2-1/2	5/8	1	**304-2404**	3	2-1/2	1-1/4	**304-3968**
2-1/2	3/4	1	**304-2487**	3	3	1-1/4	**304-3972**
2-1/2	1	1	**304-2644**	4	1/4	1	**304-4160**
2-1/2	1-1/2	1	**304-2826**	4	1/4	1-1/4	**304-4178**
2-1/2	2	1	**304-2909**	4	5/16	1	**304-4202**
2-1/2	2-1/2	1	**304-2958**	4	3/8	1	**304-4244**
2-1/2	3	1	**304-2974**	4	1	1	**304-4247**
2-1/2	2-1/2	1	**304-2958**	4	3/8	1-1/4	**304-4251**
3	1/2	1	**304-3328**	4	1/2	1-1/4	**304-4327**
3	5/8	1	**304-3401**	4	5/8	1-1/4	**304-4400**
3	3/16	1	**304-3121**	4	3/4	1-1/4	**304-4483**
3	1/4	1	**304-3162**	4	1	1-1/4	**304-4640**
3	5/16	1	**304-3204**	4	1-1/2	1-1/4	**304-4822**
3	3/8	1	**304-3246**	4	2	1-1/4	**304-4962**
3	3/8	1-1/4	**304-3253**	4	3	1-1/4	**304-4970**
3	7/16	1-1/4	**304-3287**	4	4	1-1/4	**304-4988**

Concave Milling Cutters

High Speed Steel 孔式凹半圆铣刀



Use for milling male half circle

- Teeth are from relieved and straight gashed.
- Cutting sufsces may be resharperened on face without changing contour or from for increased tool life.

Circle Dia.	Cutter Dia.	Hole Size	Order No.	Circle Dia.	Cutter Dia.	Hole Size	Order No.
1/16"	2-1/4"	1"	**316-0041**	9/16	2-3/4	1	**316-0358**
3/32	2-1/4	1	**316-0066**	9/16	3	1	**316-0363**
1/8	2	7/8	**316-0090**	5/8	2-3/4	1	**316-0378**
1/8	2-1/4	1	**316-0098**	5/8	3	1	**316-0405**
5/32	2-1/4	1	**316-0108**	5/8	3-1/2	1-1/4	**316-0413**
3/16	2	7/8	**316-0116**	11/16	3	1	**316-0447**
3/16	2-1/4	1	**316-0132**	3/4	3	1	**316-0488**
7/32	2-1/4	1	**316-0140**	3/4	3-3/4	1-1/4	**316-0496**
1/4	2	7/8	**316-0165**	13/16	3-1/4	1-1/4	**316-0539**
1/4	2-1/2	1	**316-0173**	7/8	3-1/4	1	**316-0561**
9/32	2-1/2	1	**316-0181**	7/8	4	1-1/4'	**316-0579**
5/16	2-1/2	7/8	**316-0195**	15/16	3-1/2	1	**316-0603**
5/16	2-3/4	1	**316-0215**	1	3-1/4	1	**316-0645**
11/32	2-3/4	1	**316-0223**	1	4-1/4	1-1/4	**316-0652**
3/8	2-1/4	7/8	**316-0249**	1-1/8	4	1-1/4	**316-1080**
3/8	2-3/4	1	**316-0256**	1-1/4	4	1-1/4	**316-1163**
13/32	2-3/4	1	**316-0264**	1-3/8	4-1/4	1-1/4	**316-1247**
7/16	2-1/4	7/8	**316-0280**	1-1/2	4-1/4	1-1/4	**316-1320**
7/16	3	1	**316-0298**	1-5/8	5-1/2	1-1/4	**316-1403**
1/2	2-1/4	7/8	**316-0322**	1-3/4	5-1/2	1-1/4	**316-1486**
1/2	3	1	**316-0330**	1-7/8	6	1-1/2	**316-1569**
				2	6	1-1/2	**316-2005**

Single Angle Milling Cutters

High Speed Steel, 45° or 60° Angle

单角右旋孔式铣刀



Use for dovetails cutting

Size	Width of Face	Hole Dia.	45° Right Hand Order No.	45° Left hand Order No.	60° Right Hand Order No.	60° Left Hand Order No.
2-1/2	1/2	7/8	**328-0110**	**328-1110**	**328-2110**	**328-3110**
2-3/4	1/2	1	**328-0219**	**328-1219**	**328-2219**	**328-3219**
3	1/2	1	**328-0316**	**328-1316**	**328-2316**	**328-3316**
3	1/2	1-1/4	**328-0318**	**328-1318**	**328-2318**	**328-3318**
3	5/8	1	**328-0326**	**328-1326**	**328-2326**	**328-3326**
3	3/4	1	**328-0334**	**328-1334**	**328-2334**	**328-3334**
4	1/2	1	**328-0417**	**328-1417**	**328-2417**	**328-3417**
4	1/2	1-1/4	**328-0419**	**328-1419**	**328-2419**	**328-3419**
4	3/4	1	**328-0433**	**328-1433**	**328-2433**	**328-3433**
4	3/4	1-1/4	**328-0436**	**328-1436**	**328-2436**	**328-3436**
4	1	1-1/4	**328-0441**	**328-1441**	**328-2441**	**328-3441**
5	3/4	1-1/4	**328-0532**	**328-1532**	**328-2532**	**328-3532**
5	1	1-1/4	**328-0540**	**328-1540**	**328-2540**	**328-3540**
6	3/4	1-1/4	**328-0631**	**328-1631**	**328-2631**	**328-3631**
6	1	1-1/4	**328-0649**	**328-1649**	**328-2649**	**328-3649**

Convex Milling Cutters

High Speed Steel 孔式凸半圆铣刀

Use for milling female half circle



- Teeth are from relieved and straight gashed.
- Cutting sufsces may be resharperened on face without changing contour or from for increased tool life.

Circle Dia.	Cutter Dia.	Hole Size	Order No.	Circle Dia.	Cutter Dia.	Hole Size	Order No.
1/16"	2-1/4"	1"	**317-0041**	1/2	5	1-1/4	**317-0350**
3/32	2-1/4	1	**317-0065**	9/16	2-3/4	1	**317-0362**
1/8	2	7/8	**317-0081**	9/16	3	1	**317-0389**
1/8	2-1/4	1	**317-0099**	5/8	2-3/4	1	**317-0404**
5/32	2-1/4	1	**317-0107**	5/8	3-1/2	1-1/4	**317-0412**
3/16	2	7/8	**317-0123**	11/16	3	1	**317-0446**
3/16	2-1/4	1	**317-0131**	3/4	3	1	**317-0487**
7/32	2-1/4	1	**317-0149**	3/4	3-3/4	1-1/4	**317-0495**
1/4	2	7/8	**317-0164**	13/16	3-1/4	1	**317-0529**
1/4	2-1/4	1	**317-0170**	13/16	3-1/4	1-1/4	**317-0536**
1/4	2-1/2	1	**317-0172**	7/8	3-1/4	1	**317-0569**
1/4	4	1-1/4	**317-0176**	7/8	4	1-1/4	**317-0578**
9/32	2-1/2	1	**317-0180**	15/16	3-1/2	1	**317-0602**
5/16	2-1/4	7/8	**317-0206**	1	3-1/4	1	**317-0644**
5/16	2-3/4	1	**317-0214**	1	4-1/4	1-1/4	**317-0651**
11/32	2-3/4	1	**317-0222**	1	6	1-1/4	**317-0670**
3/8	2-1/4	7/8	**317-0248**	1-1/8	4	1-1/4	**317-1089**
3/8	2-3/4	1	**317-0255**	1-1/4	4	1-1/4	**317-1162**
3/8	5	1-1/4	**317-0260**	1-3/8	4-1/4	1-1/4'	**317-1246**
13/32	2-3/4	1	**317-0263**	1-1/2	4-1/4	1-1/4'	**317-1329**
7/16	2-1/4	7/8	**317-0278**	1-5/8	5-1/2	1-1/4'	**317-1402**
7/16	3	1	**317-0297**	1-3/4	5-1/2	1-1/4'	**317-1485**
1/2	2-1/4	7/8	**317-0321**	1-7/8	6	1-1/2	**317-1568**
1/2	3	1	**317-0339**	2	6	1-1/2	**317-2004**

1/2” Shank Woodruff Keyseat Cutters 1/2″柄直齿键槽铣刀

High Speed Steel or M42 Cobalt, Staggered & Straight Tooth

Designed for using together with normal end mills for milling standard woodruff keyseat, slots.



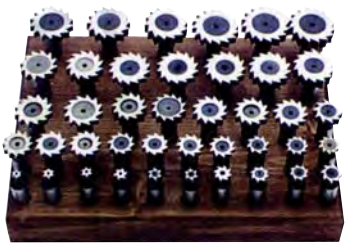
American Standard	Cutter Dia.	Face Width	Overall Length	High Speed Steel Straight Tooth Order No.	High Speed Steel Staggered Tooth Order No.	M42 Cobalt Straight Tooth Order No.	M42 Cobalt Staggered Tooth Order No.
202	1/4”	1/16”	2-1/16”	296-2016	297-2016	295-2016	299-2016
202-1/2	5/16	1/16	2-1/16	296-2065	297-2065	295-2065	299-2065
302-1/2	5/16	3/32	2-3/32	296-2073	297-2073	295-2073	299-2073
203	3/8	1/16	2-1/16	296-2115	297-2115	295-2115	299-2115
303	3/8	3/32	2-3/32	296-2123	297-2123	295-2123	299-2123
403	3/8	1/8	2-1/8	296-2131	297-2131	295-2131	299-2131
204	1/2	1/16	2-1/16	296-0010	297-0010	295-0010	299-0010
304	1/2	3/32	2-3/32	296-0028	297-0028	295-0028	299-0028
404	1/2	1/8	2-1/8	296-0036	297-0036	295-0036	299-0036
305	5/8	3/32	2-3/32	296-0044	297-0044	295-0044	299-0044
405	5/8	1/8	2-1/8	296-0051	297-0051	295-0051	299-0051
505	5/8	5/32	2-5/32	296-0069	297-0069	295-0069	299-0069
605	5/8	3/16	2-3/16	296-0614	297-0614	295-0614	299-0614
406	3/4	1/8	2-1/8	296-0077	297-0077	295-0077	299-0077
506	3/4	5/32	2-5/32	296-0085	297-0085	295-0085	299-0085
606	3/4	3/16	2-3/16	296-0093	297-0093	295-0093	299-0093
806	3/4	1/4	2-1/4	296-0911	297-0911	295-0911	299-0911
507	7/8	5/32	2-5/32	296-0101	297-0101	295-0101	299-0101
607	7/8	3/16	2-3/16	296-0119	297-0119	295-0119	299-0119
707	7/8	7/32	2-7/32	296-0127	297-0127	295-0127	299-0127
807	7/8	1/4	2-1/4	296-9011	297-9011	295-9011	299-9011
608	1	3/16	2-3/16	296-0135	297-0135	295-0135	299-0135
708	1	7/32	2-7/32	296-0143	297-0143	295-0143	299-0143
808	1	1/4	2-1/4	296-0150	297-0150	295-0150	299-0150
1008	1	5/16	2-5/16	296-9029	297-9029	295-9029	299-9029
1208	1	3/8	2-3/8	296-1521	297-1521	295-1521	299-1521
609	1-1/8	3/16	2-3/16	296-0168	297-0168	295-0168	299-0168
709	1-1/8	7/32	2-7/32	296-0176	297-0176	295-0176	299-0176
809	1-1/8	1/4	2-1/4	296-0184	297-0184	295-0184	299-0184
1009	1-1/8	5/16	2-5/16	296-9037	297-9037	295-9037	299-9037
610	1-1/4	3/16	2-3/16	296-0192	297-0192	295-0192	299-0192
710	1-1/4	7/32	2-7/32	296-0200	297-0200	295-0200	299-0200
810	1-1/4	1/4	2-1/4	296-0218	297-0218	295-0218	299-0218
1010	1-1/4	5/16	2-5/16	296-9045	297-9045	295-9045	299-9045
1210	1-1/4	3/8	2-3/8	296-9052	297-9052	295-9052	299-9052
811	1-3/8	1/4	2-1/4	296-0226	297-0226	295-0226	299-0226
1011	1-3/8	5/16	2-5/16	296-0234	297-0234	295-0234	299-0234
1211	1-3/8	3/8	2-3/8	296-9060	297-9060	295-9060	299-9060
812	1-1/2	1/4	2-1/4	296-0242	297-0242	295-0242	299-0242
1012	1-1/2	5/16	2-5/16	296-0259	297-0259	295-0259	299-0259
1212	1-1/2	3/8	2-3/8	296-9078	297-9078	295-9078	299-9078

1/2” Shank Woodruff Keyseat Cutter Sets 1/2″柄直齿键槽铣刀套装

High Speed Steel or M42 Cobalt, Staggered & Straight Tooth



Pieces	American Standard	High Speed Steel Straight Tooth Order No.	High Speed Steel Staggered Tooth Order No.	M42 Cobalt Straight Tooth Order No.	M42 Cobalt Staggered Tooth Order No.
10	403,204,404,305,505,406,606,806, 608,808	296-9810	296-9910	296-9811	296-9911
41	202 thru 1212	296-9841	297-9941	296-9842	297-9942
8	204,304,305,406,605,606,608,806	296-9808	297-9908		



T-Slot Cutters 高速钢T型槽铣刀



High Speed Steel, M35 or M42 Cobalt

- H.S.S. and M35/M42 cobalt T-slot cutters are a rugged design with free cutting features.
- Cutters have positive radial rake, right and left hand sprial,with alternate side cutting teeth for maximum chip clearance.

Bolt Size	Cutter Dia.	Cutter Width	Neck Dia.	Shank Dia.	Undercut Length	Overall Length	Tooth	HSS Order No.	M35 Order No.	M42 Order No.	Tin Coated Order No.
1/4"	9/16"	15/64"	17/64"	1/2"	35/64"	2-19/32"	6	**298-6016**	**298-7016**	**298-7316**	**298-7516**
5/16	21/32	17/64	21/64	1/2	39/64	2-11/16	6	**298-6020**	**298-7020**	**298-7320**	**298-7520**
3/8	25/32	21/64	13/32	3/4	3/4	3-1/4	8	**298-6024**	**298-7024**	**298-7324**	**298-7524**
1/2	31/32	25/64	17/32	3/4	3/4	3-7/16	8	**298-6032**	**298-7032**	**298-7332**	**298-7532**
5/8	1-1/4	31/64	21/32	1	1-9/64	3-15/16	8	**298-6040**	**298-7040**	**298-7340**	**298-7540**
3/4	1-15/32	5/8	25/32	1	1-1/2	4-7/16	10	**298-6048**	**298-7048**	**298-7348**	**298-7548**
1	1-27/32	53/64	1-1/32	1-1/4	1-43/64	4-13/16	10	**298-6064**	**298-7064**	**298-7364**	**298-7564**
1-1/4	2-7/32	1-3/32	1-9/32	1-1/4	1-31/32	5-3/8	10	**298-6080**	**298-7080**	**298-7380**	**298-7580**
1-1/2	2-21/32	1-11/32	1-17/32	1-1/4	2-1/8	5-29/32	10	**298-6096**	**298-7096**	**298-7396**	**298-7596**

Cobalt Roughing T-Slot Cutters 波刃T型槽铣刀–M35



M35 or M42 Cobalt

- Faster Machining than regular T-Slot cutters,
- Roughing tooth design than permits faster cutting and minimizes vibration and chatter

Bolt Size	Cutter Dia.	Cutter Width	Neck Diameter	Shank Diameter	Overall Length	M35 Order No.	M42 Order No.
1/2"	31/32"	25/64"	17/32"	3/4"	3-7/16"	**298-8032**	**298-8332**
5/8	1-1/4	31/64	21/32	1	3-15/16	**298-8040**	**298-8340**
3/4	1-15/32	5/8	25/32	1	4-7/16	**298-8048**	**298-8348**
1	1-27/32	53/64	1-1/32	1-1/4	4-13/16	**298-8064**	**298-8364**
1-1/4	2-7/32	1-3/32	1-9/32	1-1/4	5-3/8	**298-8080**	**298-8380**
1-1/2	2-21/32	1-11/32	1-17/32	1-1/4	5-29/32	**298-8096**	**298-8396**

Long Shank T-Slot Milling Cutters 错齿长柄T型铣刀



High Speed Steel & M42, Staggered Tooth

- Used for milling when greater depth is required.

Cutter Dia.	Cutter Width	Shank Dia.	Overall Length	Tooth	HSS Order No.	M42 Order No.	Cutter Dia.	Cutter Width	Shank Dia.	Overall Length	Tooth	HSS Order No.	M42 Order No.
1"	1/8"	5/8"	4-15/16"	8	**298-4100**	**298-4500**	2	1/4	1	5-11/16	10	**298-4166**	**298-4566**
1	3/16	5/8	4-15/16	8	**298-4103**	**298-4503**	2	5/16	1	5-11/16	10	**298-4169**	**298-4569**
1	1/4	5/8	4-15/16	8	**298-4106**	**298-4506**	2	3/8	1	5-11/16	10	**298-4172**	**298-4572**
1	5/16	5/8	4-15/16	8	**298-4109**	**298-4509**	2	1/2	1	5-11/16	10	**298-4175**	**298-4575**
1	3/8	5/8	4-15/16	8	**298-4112**	**298-4512**	2	5/8	1	5-11/16	10	**298-4178**	**298-4578**
1	1/2	5/8	4-15/16	8	**298-4115**	**298-4515**	2	3/4	1	5-11/16	10	**298-4181**	**298-4581**
1	5/8	5/8	4-15/16	8	**298-4118**	**298-4518**	2-1/2	1/4	1		12		**298-4583**
1-1/4	1/8	3/4	5-1/8	8	**298-4121**	**298-4521**	2-1/2	5/16	1		12		**298-4584**
1-1/4	3/16	3/4	5-1/8	8	**298-4124**	**298-4524**	2-1/2	3/8	1		12		**298-4585**
1-1/4	1/4	3/4	5-1/8	8	**298-4127**	**298-4527**	2-1/2	1/2	1		12		**298-4586**
1-1/4	5/16	3/4	5-1/8	8	**298-4130**	**298-4530**	2-1/2	5/8	1		12		**298-4587**
1-1/4	3/8	3/4	5-1/8	8	**298-4133**	**298-4533**	2-1/2	3/4	1		12		**298-4588**
1-1/4	1/2	3/4	5-1/8	8	**298-4136**	**298-4536**	2-1/2	7/8	1		12		**298-4589**
1-1/4	5/8	3/4	5-1/8	8	**298-4139**	**298-4539**	2-1/2	1	1		12		**298-4590**
1-1/2	1/8	1	5-5/16	8	**298-4142**	**298-4542**	3	1/4	1-1/4		16		**298-4591**
1-1/2	3/16	1	5-5/16	8	**298-4145**	**298-4545**	3	5/16	1-1/4		16		**298-4592**
1-1/2	1/4	1	5-5/16	8	**298-4148**	**298-4548**	3	3/8	1-1/4		16		**298-4593**
1-1/2	5/16	1	5-5/16	8	**298-4151**	**298-4551**	3	1/2	1-1/4		16		**298-4594**
1-1/2	3/8	1	5-5/16	8	**298-4154**	**298-4554**	3	5/8	1-1/4		16		**298-4595**
1-1/2	1/2	1	5-5/16	8	**298-4157**	**298-4557**	3	3/4	1-1/4		16		**298-4596**
1-1/2	5/8	1	5-5/16	8	**298-4160**	**298-4560**	3	7/8	1-1/4		16		**298-4597**
2	3/16	1	5-11/16	10	**298-4163**	**298-4563**	3	1	1-1/4		16		**298-4598**

Concave Milling Cutters -Shank Type 柄式凹半圆铣刀

High Speed Steel



Use for milling male half circle

- Teeth are from relieved and straight gashed.
- Cutting sufsces may be resharperened on face without changing contour or from for increased tool life.

Radius	Cutter Dia.	Shank Dia.	OAL	Order No.	Radius	Cutter Dia.	Shank Dia.	OAL	Order No.
1/32"	3/4"	1/2"	3"	**316-3028**	3/16	1	3/4	3-1/2	**316-3127**
1/16	3/4	1/2	3	**316-3044**	1/4	1-1/4	3/4	4	**316-3168**
3/32	3/4	1/2	3	**316-3069**	5/16	1-1/4	3/4	4	**316-3200**
1/8	1	3/4	3-1/2	**316-3085**	3/8	1-1/2	3/4	4-3/16	**316-3242**
5/32	1	3/4	3-1/2	**316-3101**					

Convex Milling Cutters -Shank Type 柄式凸半圆铣刀

High Speed Steel



Use for milling female half circle

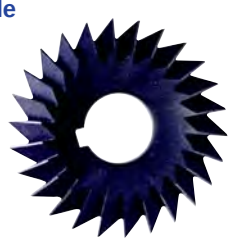
- Teeth are from relieved and straight gashed.
- Cutting sufsces may be resharperened on face without changing contour or from for increased tool life.

Radius	Cutter Dia.	Shank Dia.	OAL	Order No.	Radius	Cutter Dia.	Shank Dia.	OAL	Order No.
1/32"	3/4"	1/2"	3"	**317-4026**	3/16	1-3/8	3/4	3-1/2	**317-4125**
1/16	3/4	1/2	3	**317-4042**	1/4	1-1/2	3/4	4	**317-4166**
3/32	7/8	1/2	3	**317-4067**	5/16	1-5/8	3/4	4	**317-4208**
1/8	1-1/4	3/4	3-1/2	**317-4083**	3/8	1-3/4	3/4	4	**317-4240**
5/32	1-5/16	3/4	3-1/2	**317-4109**					

Double Angle Milling Cutters

High Speed Steel, 45° , 60° or 90° Angle

双角孔式铣刀



Use for milling threads, notches, V-grooves, angles, serrations and chamfers

Size	Width of Face	Hole Dia.	45° Angle Order No.	60° Angle Order No.	90° Angle Order No.
2-3/4"	1/2"	1"	**328-4211**	**328-5211**	**328-6211**
3	5/8	1	**328-4328**	**328-5328**	**328-6328**
3	3/4	1	**328-4366**	**328-5366**	**328-6366**
4	1/2	1-1/4	**328-4427**	**328-5427**	**328-6427**
4	3/4	1	**328-4435**	**328-5435**	**328-6435**
4	3/4	1-1/4	**328-4446**	**328-5446**	**328-6446**
4	1	1-1/4	**328-4468**	**328-5468**	**328-6468**
5	3/4	1-1/4	**328-4534**	**328-5534**	**328-6534**
5	1	1-1/4	**328-4542**	**328-5542**	**328-6542**
6	3/4	1-1/4	**328-4633**	**328-5633**	**328-6633**
6	1	1-1/4	**328-4641**	**328-5641**	**328-6641**
6	1-1/4	1-1/4	**328-4649**	**328-5649**	**328-6649**
6	1-1/2	1-1/4	**328-4658**	**328-5658**	**328-6658**

Face Angle Milling Cutters-Shank Type

High Speed Steel or M35 Cobalt, Right Hand

带端齿柄式单角铣刀

Use for angular machine operations



60° Angle

Large Cutting Diameter	Small Cutting Diameter	Face Width	Shank Diameter	Overall Length	No. of Teeth	HSS Order No.
3/4"	5/16"	17/32"	3/8"	2-3/32"	8	**316-8048**
1	3/8	11/16	1/2	2-13/32	8	**316-8064**
1-1/4	1/2	25/32	5/8	2-21/32	10	**316-8080**
1-5/8	5/8	1-1/16	3/4	3-1/16	10	**316-8104**

Cobalt

Large Cutting Diameter	Small Cutting Diameter	Face Width	Shank Diameter	Overall Length	No. of Teeth	M35 Order No.
3/4"	5/16"	17/32"	3/8"	2-3/32"	8	**327-4048**
1	3/8	11/16	1/2	2-13/32	8	**327-4064**
1-1/4	1/2	25/32	5/8	2-21/32	10	**327-4080**
1-5/8	5/8	1-1/16	3/4	3-1/16	10	**327-4104**

90° Angle

Large Cutting Diameter	Small Cutting Diameter	Face Width	Shank Diameter	Overall Length	No. of Teeth	HSS Order No.
3/4"	5/16"	17/32"	3/8"	1-15/16"	8	**317-8048**
1	3/8	11/16	1/2	2-3/16	8	**317-8064**
1-1/4	1/2	25/32	5/8	2-13/32	10	**317-8080**
1-5/8	5/8	1-1/16	3/4	2-11/16	10	**317-8104**

Cobalt

Large Cutting Diameter	Small Cutting Diameter	Face Width	Shank Diameter	Overall Length	No. of Teeth	M35 Order No.
3/4"	5/16"	17/32"	3/8"	1-15/16"	8	**327-6048**
1	3/8	11/16	1/2	2-3/16	8	**327-6064**
1-1/4	1/2	25/32	5/8	2-13/32	10	**327-6080**
1-5/8	5/8	1-1/16	3/4	2-11/16	10	**327-6104**

Single Angle Chamfering Cutters

High Speed Steel, Right Hand 柄式单角铣刀

Use for chamfering and angle milling operations.



45° Chamfer Angle

Cutter Diameter	Face Width	Shank Diameter	Overall Length	Order No.
1/2"	1/8"	3/8"	2-1/8"	**328-7321**
3/4	3/16	3/8	2-1/8	**328-7487**
1	5/16	1/2	2-1/2	**328-7644**
1-1/2	1/2	3/4	2-3/4	**328-7826**

60° Chamfer Angle

Cutter Diameter	Face Width	Shank Diameter	Overall Length	Order No.
1/2"	7/32"	3/8"	2-1/8"	**328-8329**
3/4	5/16	3/8	2-1/8	**328-8485**
1	7/16	1/2	2-1/2	**328-8642**
1-1/2	5/8	3/4	2-3/4	**328-8824**

Double Angle Shank Type Cutters

柄式双角铣刀



M42 Cobalt

- General purpose use
- Extends tools life
- Used for aggressive machining of steels

Cobalt

Cut. Dia.	Cut. Thick.	Shank Dia.	Overall Length	60° Order No.	90° Order No.
3/4"	3/16"	3/8"	2-3/8"	327-7052	327-0050
3/4	3/16	1/2	2-3/8	327-7053	
1	5/16	1/2	2-27/32	327-7102	327-0100
1-3/8	7/16	5/8	3-7/32	327-7151	327-0159
1-1/2	1/2	5/8	3-3/8	327-7201	327-0209
1-7/8	5/8	3/4	3-25/32	327-7250	327-0258
2-1/4	3/4	7/8	4-5/32	327-7300	327-0308

High Speed Steel & M35 Cobalt



60° Double

Cutter Dia.	Face Width	Shank Dia.	Overall Length	HSS Order No.	M35 Order No.
3/4"	3/16"	3/8"	2-3/8"	328-8052	327-8052
1	5/16	1/2	2-27/32"	328-8102	327-8102
1-3/8	7/16	5/8	3-7/32"	328-8151	327-8151
1-1/2	1/2	5/8	3-3/8"	328-8201	327-8201
1-7/8	5/8	3/4	3-25/32"	328-8250	327-8250
2-1/4	3/4	7/8	4-5/32"	328-8300	327-8300
2-1/4	1/2	3/4	3-1/8"	328-8302	327-8302

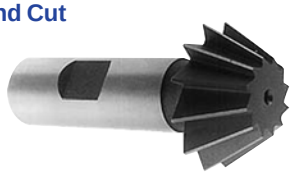
90° Double

Cutter Dia.	Face Width	Shank Dia.	Overall Length	HSS Order No.	M35 Order No.
3/4"	1/4"	3/8"	2-7/16"	328-9050	327-9050
1	3/8	1/2	2-29/32	328-9100	327-9100
1-3/8	1/2	5/8	3-9/32	328-9159	327-9159
1-1/2	9/16	5/8	3-7/16	328-9209	327-9209
1-7/8	5/8	3/4	3-25/32	328-9258	327-9258
2-1/4	3/4	7/8	4-5/32	328-9308	327-9308
2-1/4	1/2	3/4	3-1/8	328-9310	327-9310

Single Angle Chamfering Cutters

M42 柄式单角铣刀

M42, High Speed Steel, Right Hand Cut



- General purpose use
- Extends tools life
- Used for aggressive machining of steels

45° Chamfer Angle

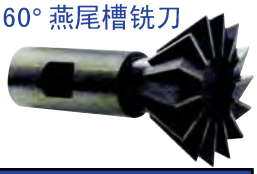
Cut. Dia.	Cut. Width	Shank Dia.	Overall Length	Order No.
1/2"	1/8"	3/8"	2-1/8"	327-1321
3/4	3/16	3/8	2-1/8	327-1487
1	5/16	1/2	2-1/2	327-1644
1-1/2	1/2	3/4	2-3/4	327-1826

60° Chamfer Angle

Cut. Dia.	Cut. Width	Shank Dia.	Overall Length	Order No.
1/2"	7/32"	3/8"	2-1/8"	327-2329
3/4	5/16	3/8	2-1/8	327-2485
1	7/16	1/2	2-1/2	327-2642
1-1/2	5/8	3/4	2-3/4	327-2824

60° Dovetail Cutters 60° 燕尾槽铣刀

High Speed Steel &Cobalt



Cut Dia.(In.)	Cut W.(In.)	Shank Dia.(In.)	OAL (In.)	HSS Order No.	Cobalt Order No.
3/8	3/16	3/8	2-1/8	243-6005	243-8005
1/2	1/4	3/8	2-1/8	243-6010	243-8010
3/4	5/16	3/8	2-1/8	243-6015	243-8015
1	7/16	1/2	2-1/2	243-6020	243-8020
1-3/8	9/16	5/8	2-7/8	243-6025	243-8025
1-7/8	13/16	7/8	3-1/4	243-6030	243-8030
2-1/4	1-1/16	1	3-1/4	243-6035	243-8035
2-1/2	1-1/8	1	3-3/4	243-6040	243-8040
3/8,1/2,3/4,1-3/8, 4pcs/set HSS 60deg w/stand.				243-6001	243-8001
3/8,3/4,1-3/8,1-7/8,2-1/4 5pcs/set 60deg w/stand				243-6003	

45° Dovetail Cutters

High Speed Steel & M42 Cobalt

60° 燕尾槽铣刀



Cut Dia.(In.)	Cut W.(In.)	Shank Dia.(In.)	Shank L(In.)	OAL (In.)	HSS Order No.
3/8	1/8	3/8	1-15/16	2-1/8	243-4005
1/2	5/32	3/8	1-7/8	2-1/8	243-4010
3/4	1/4	3/8	1-13/16	2-1/8	243-4015
1	1/4	1/2		2-1/2	243-4020
1-3/8	7/16	5/8	2-5/16	2-7/8	243-4025
1-7/8	9/16	7/8	2-7/16	3-1/4	243-4030
2-1/4	5/8	1	2-11/16	3-1/4	243-4035
2-1/2	3/4	1		3-3/4	243-4040
3/8,1/2,3/4,1-3/8, 4pcs/set HSS 45deg w/stand.					243-4001
3/8,1/2,3/4,1-3/8,1-7/8.5pcs/set HSS 45deg w/stand.					243-4000

Cobalt

Cut Dia.(In.)	Cut W.(In.)	Shank Dia.(In.)	Shank L(In.)	OAL (In.)	M42 Order No.
3/8	1/8	3/8	1-15/16	2-1/8	243-7005
1/2	5/32	3/8	1-7/8	2-1/8	243-7010
3/4	1/4	3/8	1-13/16	2-1/8	243-7015
1	1/4	1/2		2-1/2	243-7020
1-3/8	7/16	5/8	2-5/16	2-7/8	243-7025
1-7/8	9/16	7/8	2-7/16	3-1/4	243-7030
2-1/4	5/8	1	2-11/16	3-1/4	243-7035
2-1/2	3/4	1		3-3/4	243-7040
3/8,1/2,3/4,1-3/8, 4pcs/set HSS 45deg w/stand.					243-7001

Carbide Tipped Dovetail Cutters

Straight Shank

镶硬质合金燕尾槽铣刀



- Used for all dovetail work.
- Convenient for production and tool room work.

Cutter Dia.	Shank Dia.	Overall Length	No. of Teeth	Cutter Width	45° Order No.	60° Order No.
3/4"	3/8"	2-1/4"	3	1/4	243-5048	243-5248
1	1/2	2-1/2	4	5/16	243-5064	243-5264
1-1/4	5/8	2-3/4	4	3/8	243-5080	243-5280
1-1/2	3/4	3-1/4	4	1/2	243-5096	243-5296
2	1	4-1/4	6	5/8	243-5128	243-5328
2-1/2	1-1/4	4-3/8	6	3/4	243-5160	243-5360
3	1-1/4	4-1/2	6	1	243-5192	243-5392

Inverted Dovetail Cutters

M2 HSS, Screwed Shank 螺纹柄反燕尾槽铣刀

NEW



Inch

Cutter Dia.	Cutter Angle	Cutter Width	Overall Length	Shank Dia.	No. of Teeth	M2 Order No.
1”	45°	5/16”	2-3/4”	1/2”	6	243-4364
1-1/2	45°	13/32	3-5/32	1	8	243-4396
1	60°	15/32	2-3/4	1/2	6	243-4464
1-1/2	60°	5/8	3-3/8	1	8	243-4496

Metric

Cutter Dia.	Cutter Angle	Cutter Width	Overall Length	Shank Dia.	No. of Teeth	M2 Order No.
16mm	45°	4.0mm	66.5mm	12mm	6	243-4116
19	45°	5.5	66.5	12	6	243-4119
22	45°	6.5	68.5	12	6	243-4122
25	45°	7.5	70.0	12	6	243-4125
28	45°	8.5	71.5	16	6	243-4128
32	45°	8.5	74.5	16	8	243-4132
19	60°	7.0	66.5	12	6	243-4219
22	60°	9.5	68.5	12	6	243-4222
25	60°	12.0	70.0	12	6	243-4225
28	60°	12.5	71.5	16	6	243-4228
32	60°	13.5	74.5	16	8	243-4232

Metric Module Involute Gear Cutters 公制模数齿轮铣刀

High Speed Steel, 20° Pressure Angle



Cutter Number	Range of Teeth Cut
# 1	12-13
# 2	14-16
# 3	17-20
# 4	21-25
# 5	26-34
# 6	35-54
# 7	55-134
# 8	135 to rack

Applications:

- Specialty cutting tools designed or milling gears.
- For cutting the teech to suit a special gear shape called an involute form
- Designed as arbor mounted cutters for machine tools.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- For optimal performance and the best tools life the correct cutting speeds and feeds must be used and suitable lubricating/cutting oils or appropriate coolant fluids are recommended.

Features:

- For finishing with a 20° pressure angle
- 8 Cutters are made for each module.
- Form relieved to allow resharpening many times without changing the form.

Technical Data:

- Manufactured from high speed steel.
- Ground from solid
- Straight teech on periphery of cutters.
- Bright finish.
- Cutter sets can accommodate gears form 12 teeeh to a rack gear.

Module	Cutter Diameter	Arbor Hole	#1 Order No.	#2 Order No.	#3 Order No.	#4 Order No.	#5 Order No.	#6 Order No.	#7 Order No.	#8 Order No.
0.3	40	16	317-1601	317-1602	317-1603	317-1604	317-1605	317-1606	317-1607	317-1608
0.35	40	16	317-1611	317-1612	317-1613	317-1614	317-1615	317-1616	317-1617	317-1618
0.4	40	16	317-1621	317-1622	317-1623	317-1624	317-1625	317-1626	317-1627	317-1628
0.5	40	16	317-1631	317-1632	317-1633	317-1634	317-1635	317-1636	317-1637	317-1638
0.6	40	16	317-1641	317-1642	317-1643	317-1644	317-1645	317-1646	317-1647	317-1648
0.7	40	16	317-1651	317-1652	317-1653	317-1654	317-1655	317-1656	317-1657	317-1658
0.8	40	16	317-1661	317-1662	317-1663	317-1664	317-1665	317-1666	317-1667	317-1668
0.9	40	16	317-1671	317-1672	317-1673	317-1674	317-1675	317-1676	317-1677	317-1678
1	50	22	317-1681	317-1682	317-1683	317-1684	317-1885	317-1686	317-1687	317-1688
1.25	50	22	317-1691	317-1692	317-1693	317-1694	317-1695	317-1696	317-1697	317-1698
1.5	55	22	317-1701	317-1702	317-1703	317-1704	317-1705	317-1706	317-1707	317-1708
1.75	60	22	317-1711	317-1712	317-1713	317-1714	317-1715	317-1716	317-1717	317-1718
2	60	22	317-1721	317-1722	317-1723	317-1724	317-1725	317-1726	317-1727	317-1728
2.25	60	22	317-1731	317-1732	317-1733	317-1734	317-1735	317-1736	317-1737	317-1738
2.5	65	22	317-1741	317-1742	317-1743	317-1744	317-1745	317-1746	317-1747	317-1748
2.75	70	27	317-1751	317-1752	317-1753	317-1754	317-1755	317-1756	317-1757	317-1758
3	70	27	317-1761	317-1762	317-1763	317-1764	317-1765	317-1766	317-1767	317-1768
3.25	75	27	317-1771	317-1772	317-1773	317-1774	317-1775	317-1776	317-1777	317-1778
3.5	75	27	317-1781	317-1782	317-1783	317-1784	317-1785	317-1786	317-1787	317-1788
3.75	75	27	317-1791	317-1792	317-1793	317-1794	317-1795	317-1796	317-1797	317-1798
4	80	27	317-1801	317-1802	317-1803	317-1804	317-1805	317-1806	317-1807	317-1808
4.5	80	27	317-1811	317-1812	317-1813	317-1814	317-1815	317-1816	317-1817	317-1818
5	90	32	317-1821	317-1822	317-1823	317-1824	317-1825	317-1826	317-1827	317-1828
5.5	95	32	317-1831	317-1832	317-1833	317-1834	317-1835	317-1836	317-1837	317-1838
6	100	32	317-1841	317-1842	317-1843	317-1844	317-1845	317-1846	317-1847	317-1848
6.5	105	32	317-1851	317-1852	317-1853	317-1854	317-1855	317-1856	317-1857	317-1858
7	105	32	317-1861	317-1862	317-1863	317-1864	317-1865	317-1866	317-1867	317-1868
8	110	32	317-1871	317-1872	317-1873	317-1874	317-1875	317-1876	317-1877	317-1878
9	115	32	317-1881	317-1882	317-1883	317-1884	317-1885	317-1886	317-1887	317-1888
10	120	32	317-1891	317-1892	317-1893	317-1894	317-1895	317-1896	317-1897	317-1898
11	135	40	317-1901	317-1902	317-1903	317-1904	317-1905	317-1906	317-1907	317-1908
12	145	40	317-1911	317-1912	317-1913	317-1914	317-1915	317-1916	317-1917	317-1918
14	160	40	317-1921	317-1922	317-1923	317-1924	317-1925	317-1926	317-1927	317-1928
16	170	40	317-1931	317-1932	317-1933	317-1934	317-1935	317-1936	317-1937	317-1938

Module Involute Gear Cutters 英制模数齿轮铣刀

High Speed Steel



Cutter Number	Range of Teeth Cut
# 1	135 to rack
# 2	55-134
# 3	35-54
# 4	26-34
# 5	21-25
# 6	17-20
# 7	14-16
# 8	12-13

Applications:

- Specialty cutting tools designed or milling gears.
- For cutting the teech to suit a special gear shape called an involute form
- Designed as arbor mounted cutters for machine tools.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- For optimal performance and the best tools life the correct cutting speeds and feeds must be used and suitable lubricating/cutting oils or appropriate coolant fluids are recommended.

Features:

- For finishing with a 14-1/2° or 20° pressure angle
- 8 Cutters are made for each module.
- Form relieved to allow resharpening many times without changing the form.

Technical Data:

- Manufactured from high speed steel.
- Ground from solid
- Straight teech on periphery of cutters.
- Made to suit pitch diameters of 2" to 48" for either 14-1/2° or 20° pressure angle gears.
- Cutter sets can accommodate gears form 12 teeeh to a rack gear.
- Bright finish.

14-1/2° Pressure Angle Module Involute Gear Cutters

Module	Cutter Diameter	Arbor Hole	#1 Order No.	#2 Order No.	#3 Order No.	#4 Order No.	#5 Order No.	#6 Order No.	#7 Order No.	#8 Order No.
1"	2"	1"	318-1701	318-1702	318-1703	318-1704	318-1705	318-1706	318-1707	318-1708
1-1/4	2	1	318-1711	318-1712	318-1713	318-1714	318-1715	318-1716	318-1717	318-1718
1-1/2	2	1	318-1721	318-1722	318-1723	318-1724	318-1725	318-1726	318-1727	318-1728
1-3/4	2-1/4	1	318-1731	318-1732	318-1733	318-1734	318-1735	318-1736	318-1737	318-1738
2	2-1/2	1	318-1741	318-1742	318-1743	318-1744	318-1745	318-1746	318-1747	318-1748
2-1/4	2-1/2	1	318-1751	318-1752	318-1753	318-1754	318-1755	318-1756	318-1757	318-1758
2-1/2	2-1/2	1	318-1761	318-1762	318-1763	318-1764	318-1765	318-1766	318-1767	318-1768
2-3/4	2-1/2	1	318-1771	318-1772	318-1773	318-1774	318-1775	318-1776	318-1777	318-1778
3	2-1/2	1	318-1781	318-1782	318-1783	318-1784	318-1785	318-1786	318-1787	318-1788
3-1/4	2-1/2	1-1/4	318-1791	318-1792	318-1793	318-1794	318-1795	318-1796	318-1797	318-1798
3-1/2	2-1/2	1-1/4	318-1801	318-1802	318-1803	318-1804	318-1805	318-1806	318-1807	318-1808
4	3	1	318-1891	318-1892	318-1893	318-1894	318-1895	318-1896	318-1897	318-1898

20° Pressure Angle Module Involute Gear Cutters

Module	Cutter Diameter	Arbor Hole	#1 Order No.	#2 Order No.	#3 Order No.	#4 Order No.	#5 Order No.	#6 Order No.	#7 Order No.	#8 Order No.
1"	2"	1"	318-1291	318-1292	318-1293	318-1294	318-1295	318-1296	318-1297	318-1298
1-1/4	2	1	318-1301	318-1302	318-1303	318-1304	318-1305	318-1306	318-1307	318-1308
1-1/2	2-1/4	1	318-1311	318-1312	318-1313	318-1314	318-1315	318-1316	318-1317	318-1318
1-3/4	2-1/4	1	318-1321	318-1322	318-1323	318-1324	318-1325	318-1326	318-1327	318-1328
2	2-1/2	1	318-1331	318-1332	318-1333	318-1334	318-1335	318-1336	318-1337	318-1338
2-1/4	2-5/8	1	318-1341	318-1342	318-1343	318-1344	318-1345	318-1346	318-1347	318-1348
2-1/2	2-3/4	1	318-1351	318-1352	318-1353	318-1354	318-1355	318-1356	318-1357	318-1358
2-3/4	2-7/8	1	318-1361	318-1362	318-1363	318-1364	318-1365	318-1366	318-1367	318-1368
3	2-7/8	1	318-1371	318-1372	318-1373	318-1374	318-1375	318-1376	318-1377	318-1378
3-1/4	3	1	318-1381	318-1382	318-1383	318-1384	318-1385	318-1386	318-1387	318-1388
3-1/2	3	1	318-1391	318-1392	318-1393	318-1394	318-1395	318-1396	318-1397	318-1398
3-3/4	3-1/4	1	318-1401	318-1402	318-1403	318-1404	318-1405	318-1406	318-1407	318-1408
4	3-1/4	1	318-1501	318-1502	318-1503	318-1504	318-1505	318-1506	318-1507	318-1508
4-1/4	4	1	318-1511	318-1512	318-1513	318-1514	318-1515	318-1516	318-1517	318-1518
4-1/2	4	1	318-1521	318-1522	318-1523	318-1524	318-1525	318-1526	318-1527	318-1528
5	4	1	318-1531	318-1532	318-1533	318-1534	318-1535	318-1536	318-1537	318-1538
5-1/2	4	1	318-1541	318-1542	318-1543	318-1544	318-1545	318-1546	318-1547	318-1548
6	4	1	318-1551	318-1552	318-1553	318-1554	318-1555	318-1556	318-1557	318-1558
7	4-3/4	1-1/4	318-1561	318-1562	318-1563	318-1564	318-1565	318-1566	318-1567	318-1568
8	4-3/4	1-1/4	318-1571	318-1572	318-1573	318-1574	318-1575	318-1576	318-1577	318-1578
8-1/2	5-1/4	1-1/2	318-1581	318-1582	318-1583	318-1584	318-1585	318-1586	318-1587	318-1588
9	5-1/4	1-1/2	318-1591	318-1592	318-1593	318-1594	318-1595	318-1596	318-1597	318-1598
9-1/2	5-1/2	1-1/2	318-1601	318-1602	318-1603	318-1604	318-1605	318-1606	318-1607	318-1608
10	5-1/2	1-1/2	318-1691	318-1692	318-1693	318-1694	318-1695	318-1696	318-1697	318-1698

14-1/2° Pressure Angle Involute Gear Cutters

High Speed Steel 14.5度角齿轮铣刀

- For spur gears with 14-1/2°.
- 8 Cutters are made for each pitch.
- Form relieved to allow resharpening many times without changing the form.



Cutter Number	Range of Teeth Cut
# 1	135 to rack
# 2	55-134
# 3	35-54
# 4	26-34

Cutter Number	Range of Teeth Cut
# 5	21-25
# 6	17-20
# 7	14-16
# 8	12-13

Pitch	Cutter Diameter	Arbor Hole	#1 Order No.	#2 Order No.	#3 Order No.	#4 Order No.	#5 Order No.	#6 Order No.	#7 Order No.	#8 Order No.
2	5-3/4”	1-1/2”	319-0014	319-0022	319-0030	319-0048	319-0055	319-0063	319-0071	319-0089
2-1/2	5-3/4	1-1/2	319-0113	319-0121	319-0139	319-0147	319-0154	319-0162	319-0170	319-0188
2-1/2	5-3/4	1	319-0115	319-0125	319-0135	319-0145	319-0155	319-0165	319-0175	319-0185
3	5-3/4	1-1/2	319-0310	319-0320	319-0330	319-0340	319-0350	319-0363	319-0370	319-0380
3	5-1/4	1-1/2	319-0314	319-0324	319-0334	319-0344	319-0354	319-0364	319-0374	319-0384
3	5-1/4	1-1/4	319-0311	319-0329	319-0337	319-0345	319-0352	319-0360	319-0378	319-0386
3	4-3/4	1-1/4	319-0319	319-0328	319-0339	319-0349	319-0359	319-0369	319-0379	319-0389
4	4-1/2	1-1/2	319-0413	319-0423	319-0433	319-0443	319-0453	319-0463	319-0473	319-0483
4	4-1/4	1-1/4	319-0410	319-0428	319-0436	319-0444	319-0451	319-0469	319-0477	319-0485
4	3-5/8	1	319-0412	319-0422	319-0432	319-0442	319-0452	319-0462	319-0472	319-0482
4	3-3/8	1	319-0414	319-0394	319-0402	319-0445	319-0454	319-0464	319-0474	319-0484
5	3-3/4	1-1/4	319-0511	319-0521	319-0531	319-0541	319-0551	319-0561	319-0571	319-0581
5	3-5/8	1	319-0519	319-0527	319-0535	319-0543	319-0550	319-0568	319-0576	319-0584
5	3-5/8	1-1/4	319-0512	319-0522	319-0532	319-0542	319-0552	319-0562	319-0572	319-0582
5	3-3/8	1	319-0516	319-0526	319-0536	319-0546	319-0556	319-0566	319-0577	319-0586
6	3-1/2	1-1/4	319-0610	319-0620	319-0630	319-0640	319-0650	319-0660	319-0670	319-0680
6	3-1/8	1-1/4	319-0611	319-0621	319-0631	319-0641	319-0651	319-0661	319-0671	319-0681
6	3-1/8	1	319-0618	319-0626	319-0634	319-0642	319-0659	319-0667	319-0675	319-0683
7	3-3/8	1-1/4	319-0719	319-0729	319-0739	319-0749	319-0759	319-0769	319-0779	319-0789
7	2-7/8	1	319-0717	319-0725	319-0733	319-0741	319-0758	319-0766	319-0774	319-0782
8	3-1/4	1-1/4	319-0818	319-0828	319-0838	319-0848	319-0858	319-0868	319-0878	319-0888
8	2-7/8	1	319-0816	319-0824	319-0832	319-0840	319-0857	319-0865	319-0873	319-0881
9	3-1/8	1-1/4	319-0917	319-0927	319-0937	319-0947	319-0957	319-0967	319-0977	319-0987
9	2-3/4	1	319-0915	319-0923	319-0931	319-0949	319-0956	319-0964	319-0972	319-0980
10	2-3/4	1	319-1012	319-1020	319-1038	319-1046	319-1053	319-1061	319-1079	319-1087
10	2-3/8	7/8	319-1014	319-1024	319-1034	319-1044	319-1054	319-1064	319-1074	319-1084
11	2-5/8	1	319-1114	319-1124	319-1134	319-1144	319-1154	319-1164	319-1174	319-1184
11	2-3/8	7/8	319-1111	319-1129	319-1137	319-1145	319-1152	319-1160	319-1178	319-1186
12	2-5/8	1	319-1210	319-1228	319-1236	319-1244	319-1251	319-1269	319-1277	319-1285
12	2-1/4	7/8	319-1213	319-1223	319-1233	319-1243	319-1253	319-1263	319-1273	319-1283
13	2-5/8	1	319-1310	319-1320	319-1330	319-1340	319-1350	319-1360	319-1370	319-1380
13	2-1/4	7/8	319-1317	319-1327	319-1337	319-1347	319-1357	319-1367	319-1377	319-1387
14	2-1/2	1	319-1418	319-1426	319-1434	319-1442	319-1459	319-1467	319-1475	319-1483
14	2-1/8	7/8	319-1411	319-1421	319-1431	319-1441	319-1451	319-1461	319-1471	319-1481
14-1/2	2-3/8	1	319-1113	319-1123	319-1133	319-1143	319-1153	319-1163	319-1173	319-1183
16	2-1/2	1	319-1618	319-1628	319-1638	319-1648	319-1658	319-1668	319-1678	319-1688
16	2-1/8	1	319-1615	319-1626	319-1636	319-1646	319-1656	319-1666	319-1676	319-1686
16	2-1/8	7/8	319-1619	319-1629	319-1639	319-1649	319-1659	319-1669	319-1679	319-1689
16	2-3/8	1	319-1616	319-1624	319-1632	319-1640	319-1657	319-1665	319-1673	319-1681
18	2-3/8	1	319-1814	319-1822	319-1830	319-1848	319-1855	319-1863	319-1871	319-1889
18	2	7/8	319-1816	319-1826	319-1836	319-1846	319-1856	319-1866	319-1876	319-1886
20	2-3/8	1	319-2010	319-2028	319-2036	319-2044	319-2051	319-2069	319-2077	319-2085
20	2	7/8	319-2012	319-2022	319-2032	319-2042	319-2052	319-2062	319-2072	319-2082
22	2-1/4	1	319-2211	319-2221	319-2231	319-2241	319-2251	319-2261	319-2271	319-2281
22	2	7/8	319-2218	319-2226	319-2234	319-2242	319-2259	319-2267	319-2275	319-2283
24	2-1/4	1	319-2418	319-2428	319-2438	319-2448	319-2458	319-2468	319-2478	319-2488
24	1-3/4	7/8	319-2416	319-2424	319-2432	319-2440	319-2457	319-2465	319-2473	319-2481
26	2-1/2	1	319-2616	319-2626	319-2636	319-2646	319-2656	319-2666	319-2676	319-2686
26	2-1/4	1	319-2613	319-2623	319-2633	319-2643	319-2653	319-2663	319-2673	319-2683
26	1-3/4	7/8	319-2614	319-2622	319-2630	319-2648	319-2655	319-2661	319-2671	319-2689
28	2-1/4	1	319-2815	319-2825	319-2835	319-2845	319-2855	319-2865	319-2875	319-2885
28	1-3/4	7/8	319-2812	319-2820	319-2836	319-2846	319-2853	319-2861	319-2879	319-2887
30	2-1/4	1	319-3011	319-3021	319-3031	319-3041	319-3051	319-3061	319-3071	319-3081
30	1-3/4	7/8	319-3018	319-3026	319-3034	319-3042	319-3059	319-3067	319-3075	319-3083
32	2-1/4	1	319-3218	319-3228	319-3238	319-3248	319-3258	319-3268	319-3278	319-3288
32	2-1/4	7/8	319-3219	319-3229	319-3239	319-3249	319-3259	319-3269	319-3279	319-3289
32	1-3/4	7/8	319-3216	319-3224	319-3232	319-3240	319-3257	319-3265	319-3273	319-3281
34	2-1/4	1	319-3411	319-3421	319-3431	319-3441	319-3451	319-3461	319-3471	319-3481
34	1-3/4	7/8	319-3415	319-3425	319-3435	319-3445	319-3455	319-3465	319-3475	319-3485
36	2-1/4	1	319-3615	319-3625	319-3635	319-3645	319-3655	319-3665	319-3675	319-3685
36	1-3/4	7/8	319-3612	319-3620	319-3638	319-3646	319-3653	319-3661	319-3679	319-3687
40	2-1/4	1	319-4018	319-4028	319-4038	319-4048	319-4058	319-4068	319-4078	319-4088
40	1-3/4	7/8	319-4016	319-4024	319-4032	319-4040	319-4057	319-4065	319-4073	319-4081
48	2-1/4	1	319-4810	319-4820	319-4830	319-4840	319-4850	319-4860	319-4870	319-4880
48	1-3/4	7/8	319-4818	319-4826	319-4834	319-4842	319-4859	319-4867	319-4875	319-4883

20° Pressure Angle Involute Gear Cutters 20度角齿轮铣刀

High Speed Steel

Applications:

- Specialty cutting tools designed or milling gears.
- For cutting the teech to suit a special gear shape called an involute form
- Designed as arbor mounted cutters for machine tools.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- For optimal performance and the best tools life the correct cutting speeds and feeds must be used and suitable lubricating/cutting oils or appropriate coolant fluids are recommended.



Cutter Number	Range of Teeth Cut
# 1	135 to rack
# 2	55-134
# 3	35-54
# 4	26-34
# 5	21-25
# 6	17-20
# 7	14-16
# 8	12-13

- For spur gears with 20°.
- 8 Cutters are made for each pitch.
- Form relieved to allow resharpening many times without changing the form.

Technical Data:

- Manufactured from high speed steel.
- Ground from solid
- Straight teech on periphery of cutters.
- Made to suit pitch diameters of 2” to 48” for either 14-1/2° or 20° pressure angle gears.
- Cutter sets can accommodate gears form 12 teeeh to a rack gear.
- Bright finish.

Pitch	Cutter Diameter	Arbor Hole	#1 Order No.	#2 Order No.	#3 Order No.	#4 Order No.	#5 Order No.	#6 Order No.	#7 Order No.	#8 Order No.
4”	4-1/4”	1-1/4”	318-0414	318-0424	318-0434	318-0444	318-0454	318-0464	318-0474	318-0484
4	3-5/8	1-1/4	318-0416	318-0426	318-0436	318-0446	318-0456	318-0466	318-0476	318-0486
4	3-5/8	1	318-0415	318-0425	318-0435	318-0449	318-0455	318-0465	318-0475	318-0485
4	3-1/2	1-1/4”	318-0413	318-0423	318-0433	318-0443	318-0453	318-0463	318-0473	318-0483
4	3-1/2	1	318-0411	318-0429	318-0437	318-0445	318-0452	318-0460	318-0478	318-0486
5	3-3/4	1-1/4	318-0513	318-0523	318-0533	318-0543	318-0553	318-0563	318-0573	318-0583
5	3-3/8	1	318-0510	318-0528	318-0536	318-0544	318-0551	318-0569	318-0577	318-0585
6	3-1/2	1-1/4	318-0612	318-0622	318-0632	318-0642	318-0652	318-0662	318-0672	318-0682
6	3-1/8	1	318-0619	318-0627	318-0635	318-0643	318-0650	318-0668	318-0676	318-0684
7	2-7/8	1	318-0718	318-0726	318-0734	318-0742	318-0759	318-0767	318-0775	318-0783
8	3-1/4	1-1/4	318-0819	318-0829	318-0839	318-0849	318-0859	318-0869	318-0879	318-0889
8	2-7/8	1	318-0817	318-0825	318-0833	318-0841	318-0858	318-0866	318-0874	318-0882
9	2-3/4	1	318-0916	318-0924	318-0932	318-0940	318-0957	318-0965	318-0973	318-0981
10	2-3/4	1	318-1013	318-1021	318-1039	318-1047	318-1054	318-1062	318-1070	318-1088
10	2-3/8	7/8	318-1015	318-1025	318-1035	318-1045	318-1055	318-1065	318-1075	318-1085
11	2-5/8	1	318-1111	318-1121	318-1131	318-1141	318-1151	318-1161	318-1171	318-1181
12	2-5/8	1	318-1211	318-1229	318-1237	318-1245	318-1252	318-1260	318-1278	318-1286
12	2-1/4	7/8	318-1213	318-1223	318-1233	318-1243	318-1253	318-1263	318-1273	318-1283
14	2-1/2	1	318-1419	318-1427	318-1435	318-1443	318-1450	318-1468	318-1476	318-1484
14	2-1/8	7/8	318-1412	318-1422	318-1432	318-1442	318-1452	318-1462	318-1472	318-1482
16	2-1/2	1	318-1617	318-1625	318-1633	318-1641	318-1658	318-1666	318-1674	318-1682
16	2-1/8	7/8	318-1619	318-1629	318-1639	318-1649	318-1659	318-1669	318-1679	318-1689
18	2-3/8	1	318-1815	318-1823	318-1831	318-1849	318-1856	318-1864	318-1872	318-1880
18	2	7/8	318-1817	318-1827	318-1837	318-1847	318-1857	318-1867	318-1877	318-1887
20	2-3/8	1	318-2111	318-2129	318-2137	318-2145	318-2152	318-2160	318-2178	318-2186
20	2	7/8	318-2113	318-2123	318-2133	318-2143	318-2153	318-2163	318-2173	318-2183
22	2-1/4	1	318-2212	318-2222	318-2232	318-2242	318-2252	318-2262	318-2272	318-2212
22	2	1	318-2213	318-2223	318-2233	318-2243	318-2253	318-2263	318-2273	318-2283
22	2	7/8	318-2214	318-2224	318-2234	318-2244	318-2254	318-2264	318-2274	318-2284
24	2-1/4	1	318-2417	318-2425	318-2433	318-2441	318-2458	318-2466	318-2474	318-2482
24	1-3/4	7/8	318-2419	318-2429	318-2439	318-2449	318-2459	318-2469	318-2479	318-2489
26	2-1/4	1	318-2611	318-2621	318-2631	318-2641	318-2651	318-2661	318-2671	318-2681
26	1-3/4	7/8	318-2617	318-2627	318-2637	318-2647	318-2657	318-2667	318-2677	318-2687
28	2-1/4	1	318-2812	318-2822	318-2832	318-2842	318-2852	318-2862	318-2872	318-2882
28	1-3/4	7/8	318-2817	318-2827	318-2837	318-2847	318-2857	318-2867	318-2877	318-2887
30	2-1/4	1	318-3112	318-3122	318-3132	318-3142	318-3152	318-3162	318-3172	318-3182
30	1-3/4	7/8	318-3117	318-3127	318-3137	318-3147	318-3157	318-3167	318-3177	318-3187
32	2-1/4	1	318-3118	318-3128	318-3138	318-3148	318-3158	318-3168	318-3178	318-3188
32	1-3/4	7/8	318-3217	318-3225	318-3233	318-3241	318-3258	318-3266	318-3274	318-3282
36	2-1/4	1	318-3611	318-3621	318-3631	318-3641	318-3651	318-3661	318-3671	318-3681
36	1-3/4	7/8	318-3617	318-3627	318-3637	318-3647	318-3657	318-3667	318-3677	318-3687
40	2-1/4	1	318-4019	318-4029	318-4039	318-4049	318-4059	318-4069	318-4079	318-4089
40	1-3/4	7/8	318-4017	318-4025	318-4033	318-4041	318-4058	318-4066	318-4074	318-4082
44	1-3/4	7/8	318-4417	318-4427	318-4437	318-4447	318-4457	318-4467	318-4477	318-4487
48	2-1/4	1	318-4811	318-4821	318-4831	318-4841	318-4851	318-4861	318-4871	318-4881
48	1-3/4	7/8	318-4819	318-4827	318-4835	318-4843	318-4850	318-4868	318-4876	318-4884

Plain Metal Slitting Saws



High Speed Steel 带键槽锯片铣刀

- Used in slitting and slotting.
- Sides are concave for clearance.
- Supplied with Keyway.

Cut Dia.	Face Width	Hole Size	No. of Teeth	Order No.	Cut Dia.	Face Width	Hole Size	No. of Teeth	Order No.
2”	1/16”	1/2”	28	**370-4004**	4-1/2”	3/32”	1”	36	**370-4506**
2	1/8	1/2	28	**370-4008**	4-1/2	1/8	1	36	**370-4508**
2-1/2	3/64	3/8	28	**370-4013**	5	3/64	1	40	**370-4603**
2-1/2	1/32	7/8	28	**370-4102**	5	1/16	1	40	**370-4604**
2-1/2	3/ 64	7/8	28	**370-4103**	5	5/64	1	40	**370-4605**
2-1/2	1/16	7/8	28	**370-4104**	5	3/32	1	40	**370-4606**
2-1/2	3/32	7/8	28	**370-4106**	5	7/64	1	40	**370-4607**
2-1/2	1/8	7/8	28	**370-4108**	5	1/8	1	40	**370-4608**
3	1/64	1	30	**370-4201**	5	9/64	1	40	**370-4609**
3	1/32	1	30	**370-4202**	5	5/32	1	40	**370-4610**
3	3/64	1	30	**370-4203**	5	3/16	1	40	**370-4612**
3	1/16	1	30	**370-4204**	5	1/16	1-1/4	40	**370-4704**
3	5/64	1	30	**370-4205**	5	3/32	1-1/4	40	**370-4706**
3	3/32	1	30	**370-4206**	5	1/8	1-1/4	40	**370-4708**
3	7/64	1	30	**370-4207**	5	5/32	1-1/4	40	**370-4710**
3	1/8	1	30	**370-4208**	5	3/16	1-1/4	40	**370-4712**
3	9/64	1	30	**370-4209**	6	3/64	1	42	**370-4803**
3	5/32	1	30	**370-4210**	6	1/16	1	42	**370-4804**
3-1/2	1/32	1	30	**370-4302**	6	5/64	1	42	**370-4805**
3-1/2	3/64	1	30	**370-4303**	6	3/32	1	42	**370-4806**
3-1/2	1/16	1	30	**370-4304**	6	7/64	1	42	**370-4807**
3-1/2	5/64	1	30	**370-4305**	6	1/8	1	42	**370-4808**
3-1/2	3/32	1	30	**370-4306**	6	9/64	1	42	**370-4809**
3-1/2	1/8	1	30	**370-4308**	6	5/32	1	42	**370-4810**
4	1/64	1	36	**370-4401**	6	3/16	1	42	**370-4812**
4	1/32	1	36	**370-4402**	6	1/16	1-1/4	42	**370-4904**
4	3/64	1	36	**370-4403**	6	3/32	1-1/4	42	**370-4906**
4	1/16	1	36	**370-4404**	6	1/8	1-1/4	42	**370-4908**
4	5/64	1	36	**370-4405**	6	5/32	1-1/4	42	**370-4910**
4	3/32	1	36	**370-4406**	6	3/16	1-1/4	42	**370-4912**
4	7/64	1	36	**370-4407**	8	1/8	1	48	**370-5008**
4	1/8	1	36	**370-4408**	8	3/16	1	48	**370-5012**
4	9/64	1	36	**370-4409**	8	3/32	1-1/4	48	**370-5106**
4	5/32	1	36	**370-4410**	8	1/8	1-1/4	48	**370-5108**
4	3/16	1	36	**370-4412**	8	3/16	1-1/4	48	**370-5112**
4-1/2	1/32	1	36	**370-4502**	10	1/8	1-1/4	56	**370-5208**
4-1/2	3/64	1	36	**370-4503**	10	3/16	1-1/4	56	**370-5212**
4-1/2	1/16	1	36	**370-4504**					

Circular Saw Arbors & Sets

Use with saw blades .001” to 3/16” thick. black oxide finish

直柄小头锯片接杆

Circular Saw Arbor Set

3pcs /set:
1/2",5/8",3/4"
in wooden stand
Order No.712-0300



Individuals

Flange Size	Shank Dia.	Inside Hole Dia.	Order No.
1/2”	1/2”	1/4"	**712-0205**
5/8	1/2	3/8	**712-0210**
3/4	1/2	1/2	**712-0215**
1	5/8	5/8	**712-0220**

Screw Slotting Saws



High Speed Steel 带键槽锯片铣刀

- Used in slotting sheets and tubing.
- Good for shallow cuts and screw heads.
- Supplied with key-way.

Cut Dia.	Thick-ness	Hole Size	No. of Teeth	Order No.	Cut Dia.	Thick-ness	Hole Size	No. of Teeth	Order No.
1-3/4”	.006”	5/8”	90	**370-7006**	2-3/4	.032	3/4	72	**370-8032**
1-3/4	.008	5/8	90	**370-7008**	2-3/4	.036	3/4	72	**370-8036**
1-3/4	.010	5/8	90	**370-7010**	2-3/4	.040	3/4	72	**370-8040**
1-3/4	.012	5/8	90	**370-7012**	2-3/4	.045	3/4	72	**370-8045**
1-3/4	.014	5/8	90	**370-7014**	2-3/4	.051	3/4	72	**370-8051**
1-3/4	.016	5/8	90	**370-7016**	2-3/4	.057	3/4	72	**370-8057**
1-3/4	.018	5/8	90	**370-7018**	2-3/4	.064	3/4	72	**370-8064**
1-3/4	.020	5/8	90	**370-7020**	2-3/4	.072	3/4	72	**370-8072**
1-3/4	.023	5/8	90	**370-7023**	2-3/4	.081	3/4	72	**370-8081**
1-3/4	.025	5/8	90	**370-7025**	2-3/4	.091	3/4	72	**370-8091**
1-3/4	.028	5/8	90	**370-7028**	2-3/4	.102	3/4	72	**370-8102**
1-3/4	.032	5/8	90	**370-7032**	2-3/4	.114	3/4	72	**370-8114**
1-3/4	.036	5/8	90	**370-7036**	2-3/4	.128	3/4	72	**370-8128**
1-3/4	.040	5/8	90	**370-7040**	2-3/4	.010	1	72	**370-8210**
1-3/4	.045	5/8	90	**370-7045**	2-3/4	.012	1	72	**370-8212**
1-3/4	.051	5/8	90	**370-7051**	2-3/4	.014	1	72	**370-8214**
1-3/4	.057	5/8	90	**370-7057**	2-3/4	.016	1	72	**370-8216**
1-3/4	.064	5/8	90	**370-7064**	2-3/4	.018	1	72	**370-8218**
2-1/4	.010	5/8	60	**370-7110**	2-3/4	.020	1	72	**370-8220**
2-1/4	.012	5/8	60	**370-7112**	2-3/4	.023	1	72	**370-8223**
2-1/4	.014	5/8	60	**370-7114**	2-3/4	.025	1	72	**370-8225**
2-1/4	.016	5/8	60	**370-7116**	2-3/4	.028	1	72	**370-8228**
2-1/4	.018	5/8	60	**370-7118**	2-3/4	.032	1	72	**370-8232**
2-1/4	.020	5/8	60	**370-7120**	2-3/4	.036	1	72	**370-8236**
2-1/4	.023	5/8	60	**370-7123**	2-3/4	.040	1	72	**370-8240**
2-1/4	.025	5/8	60	**370-7125**	2-3/4	.045	1	72	**370-8245**
2-1/4	.028	5/8	60	**370-7128**	2-3/4	.051	1	72	**370-8251**
2-1/4	.032	5/8	60	**370-7132**	2-3/4	.057	1	72	**370-8257**
2-1/4	.036	5/8	60	**370-7136**	2-3/4	.064	1	72	**370-8264**
2-1/4	.040	5/8	60	**370-7140**	2-3/4	.072	1	72	**370-8272**
2-1/4	.045	5/8	60	**370-7145**	2-3/4	.081	1	72	**370-8281**
2-1/4	.051	5/8	60	**370-7151**	2-3/4	.091	1	72	**370-8291**
2-1/4	.057	5/8	60	**370-7157**	2-3/4	.102	1	72	**370-8302**
2-1/4	.064	5/8	60	**370-7164**	2-3/4	.114	1	72	**370-8314**
2-1/4	.072	5/8	60	**370-7172**	2-3/4	.128	1	72	**370-8328**
2-1/4	.081	5/8	60	**370-7181**	2-3/4	.144	1	72	**370-8344**
2-1/4	.091	5/8	60	**370-7191**	2-3/4	.162	1	72	**370-8362**
2-1/4	.102	5/8	60	**370-7202**	2-3/4	.182	1	72	**370-8382**
2-3/4	.010	3/4	72	**370-8010**	2-3/4	.0250	1	56	**370-8525**
2-3/4	.012	3/4	72	**370-8012**	2-3/4	.0280	1	56	**370-8528**
2-3/4	.014	3/4	72	**370-8014**	2-3/4	.0320	1	56	**370-8532**
2-3/4	.016	3/4	72	**370-8016**	2-3/4	.0360	1	56	**370-8536**
2-3/4	.018	3/4	72	**370-8018**	2-3/4	.0400	1	56	**370-8540**
2-3/4”	.020	3/4”	72	**370-8020**	2-3/4	.0450	1	56	**370-8545**
2-3/4	.023	3/4	72	**370-8023**	2-3/4	.0510	1	56	**370-8551**
2-3/4	.025	3/4	72	**370-8025**	2-3/4	.0570	1	56	**370-8557**
2-3/4	.028	3/4	72	**370-8028**	2-3/4	.0640	1	56	**370-8564**

Slitting & Slotting Saw Arbors

套式片铣刀接杆

- Spring loaded mechanism readily accepts saw blades with hole diameters from 1/2” to 1”.
- Black oxide finish.
- A hex head screw makes saws firmly in position.



Shank Dia.	Overall Length	Inside Hole Dia.	Order No.
1/2''	2-9/16''	1/2, 5/8, 3/4, 7/8, 1''	**712-0005**
1/2	4-3/4	3/8''	**712-1010**
R8	5-3/32	1/2, 5/8, 3/4, 7/8, 1''	**712-0010**

Jewelers Saws 高速钢珠宝切割锯片铣刀

High Speed Steel

For using in slotting, sheeting and tubing operations.



Dia.	Thickness	Hole	No. of Teeth	Order No.
1”	.010”	1/4”	98	**370-0110**
1	.012	1/4	98	**370-0112**
1	.014	1/4	76	**370-0114**
1	.016	1/4	76	**370-0116**
1	.018	1/4	76	**370-0118**
1	.020	1/4	76	**370-0120**
1	.023	1/4	76	**370-0123**
1	.025	1/4	76	**370-0125**
1	.028	1/4	76	**370-0128**
1	.032	1/4	76	**370-0132**
1	.008	3/8	98	**370-0208**
1	.010	3/8	98	**370-0210**
1	.012	3/8	98	**370-0212**
1	.014	3/8	76	**370-0214**
1	.016	3/8	76	**370-0216**
1	.018	3/8	76	**370-0218**
1	.020	3/8	76	**370-0220**
1	.023	3/8	76	**370-0223**
1	.025	3/8	76	**370-0225**
1	.028	3/8	76	**370-0228**
1	.032	3/8	76	**370-0232**
1-1/4	.008	3/8	114	**370-0408**
1-1/4	.010	3/8	114	**370-0410**
1-1/4	.012	3/8	114	**370-0412**
1-1/4	.014	3/8	98	**370-0414**
1-1/4	.016	3/8	98	**370-0416**
1-1/4	.018	3/8	98	**370-0418**
1-1/4	.020	3/8	98	**370-0420**
1-1/4	.023	3/8	98	**370-0423**
1-1/4	.025	3/8	98	**370-0425**
1-1/4	.028	3/8	98	**370-0428**
1-1/4	.032	3/8	98	**370-0432**
1-1/2	.008	3/8	140	**370-0608**
1-1/2	.010	3/8	140	**370-0610**
1-1/2	.012	3/8	140	**370-0612**
1-1/2	.014	3/8	110	**370-0614**
1-1/2	.016	3/8	110	**370-0616**
1-1/2	.018	3/8	110	**370-0618**
1-1/2	.020	3/8	110	**370-0620**
1-1/2	.023	3/8	110	**370-0623**
1-1/2	.025	3/8	110	**370-0625**
1-1/2	.028	3/8	110	**370-0628**
1-1/2	.032	3/8	110	**370-0632**
1-1/2	.008	1/2	140	**370-0708**
1-1/2	.010	1/2	140	**370-0710**
1-1/2	.012	1/2	140	**370-0712**
1-1/2	.014	1/2	110	**370-0714**
1-1/2	.016	1/2	110	**370-0716**
1-1/2	.018	1/2	110	**370-0718**
1-1/2	.020	1/2	110	**370-0720**
1-1/2	.023	1/2	110	**370-0723**
1-1/2	.025	1/2	110	**370-0725**
1-1/2	.028	1/2	110	**370-0728**
1-1/2	.032	1/2	110	**370-0732**
1-3/4	.008	1/2	160	**370-0908**
1-3/4	.010	1/2	160	**370-0910**
1-3/4	.012	1/2	160	**370-0912**
1-3/4	.014	1/2	132	**370-0914**
1-3/4	.016	1/2	132	**370-0916**
1-3/4	.018	1/2	132	**370-0918**
1-3/4	.020	1/2	132	**370-0920**
1-3/4	.023	1/2	132	**370-0923**
1-3/4	.025	1/2	132	**370-0925**
1-3/4	.028	1/2	132	**370-0928**
1-3/4	.032	1/2	132	**370-0932**
2	.008	3/8	190	**370-1108**
2	.010	3/8	190	**370-1110**
2	.012	3/8	190	**370-1112**
2	.014	3/8	152	**370-1114**

Dia.	Thickness	Hole	No. of Teeth	Order No.
2”	.016”	3/8”	152	**370-1116**
2	.018	3/8	152	**370-1118**
2	.020	3/8	152	**370-1120**
2	.023	3/8	152	**370-1123**
2	.025	3/8	152	**370-1125**
2	.028	3/8	152	**370-1128**
2	.032	3/8	110	**370-1132**
2	.035	3/8	110	**370-1135**
2	.040	3/8	110	**370-1140**
2	.045	3/8	110	**370-1145**
2	.051	3/8	110	**370-1151**
2	.057	3/8	110	**370-1157**
2	.010	1/2	190	**370-1210**
2	.012	1/2	190	**370-1212**
2	.014	1/2	152	**370-1214**
2	.016	1/2	152	**370-1216**
2	.018	1/2	152	**370-1218**
2	.020	1/2	152	**370-1220**
2	.023	1/2	152	**370-1223**
2	.025	1/2	152	**370-1225**
2	.028	1/2	152	**370-1228**
2	.032	1/2	110	**370-1232**
2	.035	1/2	110	**370-1235**
2	.040	1/2	110	**370-1240**
2	.045	1/2	110	**370-1245**
2	.051	1/2	110	**370-1251**
2	.057	1/2	110	**370-1257**
2-1/4	.010	1/2	210	**370-1310**
2-1/4	.012	1/2	210	**370-1312**
2-1/2	.010	1/2	240	**370-1410**
2-1/2	.012	1/2	240	**370-1412**
2-1/2	.014	1/2	190	**370-1414**
2-1/2	.016	1/2	190	**370-1416**
2-1/2	.018	1/2	190	**370-1418**
2-1/2	.020	1/2	190	**370-1420**
2-1/2	.023	1/2	190	**370-1423**
2-1/2	.025	1/2	190	**370-1425**
2-1/2	.028	1/2	190	**370-1428**
2-1/2	.032	1/2	140	**370-1432**
2-1/2	.035	1/2	140	**370-1435**
2-1/2	.040	1/2	140	**370-1440**
2-1/2	.045	1/2	140	**370-1445**
2-1/2	.051	1/2	140	**370-1451**
2-1/2	.057	1/2	140	**370-1457**
3	.010	1/2	280	**370-1610**
3	.012	1/2	280	**370-1612**
3	.014	1/2	230	**370-1614**
3	.016	1/2	230	**370-1616**
3	.018	1/2	230	**370-1618**
3	.020	1/2	230	**370-1620**
3	.023	1/2	230	**370-1623**
3	.025	1/2	230	**370-1625**
3	.028	1/2	230	**370-1628**
3	.032	1/2	168	**370-1632**
3	.035	1/2	168	**370-1635**
3	.040	1/2	168	**370-1640**
3	.045	1/2	168	**370-1645**
3	.051	1/2	168	**370-1651**
3	.057	1/2	168	**370-1657**
3	.010	1	280	**370-1710**
3	.012	1	280	**370-1712**
3	.014	1	230	**370-1714**
3	.016	1	230	**370-1716**
3	.018	1	230	**370-1718**
3	.020	1	230	**370-1720**
3	.023	1	230	**370-1723**
3	.025	1	230	**370-1725**
3	.028	1	230	**370-1728**

Dia.	Thickness	Hole	No. of Teeth	Order No.
3”	.032”	1”	168	**370-1732**
3	.035	1	168	**370-1735**
3	.040	1	168	**370-1740**
3	.045	1	168	**370-1745**
3	.051	1	168	**370-1751**
4	.057	1	168	**370-1757**
4	.016	1/2	310	**370-1816**
4	.018	1/2	310	**370-1818**
4	.020	1/2	310	**370-1820**
4	.023	1/2	310	**370-1823**
4	.025	1/2	310	**370-1825**
4	.028	1/2	310	**370-1828**
4	.032	1/2	220	**370-1832**
4	.035	1/2	220	**370-1835**
4	.040	1/2	220	**370-1840**
4	.045	1/2	220	**370-1845**
4	.051	1/2	220	**370-1851**
4	.057	1/2	220	**370-1857**
4	.064	1/2	220	**370-1864**
4	.016	1	310	**370-1916**
4	.018	1	310	**370-1918**
4	.020	1	310	**370-1920**
4	.023	1	310	**370-1923**
4	.025	1	310	**370-1925**
4	.028	1	310	**370-1928**
4	.032	1	220	**370-1932**
4	.035	1	220	**370-1935**
4	.040	1	220	**370-1940**
4	.045	1	220	**370-1945**
4	.051	1	220	**370-1951**
4	.057	1	220	**370-1957**
4	.064	1	220	**370-1964**
5	.018	1/2	380	**370-2118**
5	.025	1/2	380	**370-2125**
5	.028	1/2	280	**370-2128**
5	.032	1/2	280	**370-2132**
5	.035	1/2	280	**370-2135**
5	.040	1/2	280	**370-2140**
5	.045	1/2	280	**370-2145**
5	.051	1/2	280	**370-2151**
5	.057	1/2	280	**370-2157**
5	.064	1/2	280	**370-2164**
5	.025	1	380	**370-2225**
5	.028	1	280	**370-2228**
5	.032	1	280	**370-2232**
5	.035	1	280	**370-2235**
5	.040	1	280	**370-2240**
5	.045	1	280	**370-2245**
5	.051	1	280	**370-2251**
5	.057	1	280	**370-2257**
5	.064	1	280	**370-2264**
6	.035	1/2	340	**370-2435**
6	.040	1/2	340	**370-2440**
6	.045	1/2	340	**370-2445**
6	.051	1/2	232	**370-2451**
6	.057	1/2	232	**370-2457**
6	.064	1/2	232	**370-2464**
6	.035	1	340	**370-2535**
6	.040	1	340	**370-2540**
6	.045	1	340	**370-2545**
6	.051	1	232	**370-2551**
6	.057	1	232	**370-2557**
6	.064	1	232	**370-2564**
6	.072	1	232	**370-2572**
6	.081	1	232	**370-2581**
6	.091	1	232	**370-2591**
6	.102	1	232	**370-2602**
6	.114	1	232	**370-2614**
6	.128	1	232	**370-2628**

Metric Plain Metal Slotting Saws 公制锯片铣刀

DIN 1837 A

High Speed Steel

- For general purpose slotting and cut-off operations.
- The number of teeth given is the standard number which is supplied for general purpose work.



Cutter Dia	Arbor Dia	Width of Face	No. of Teeth	Order No.
20mm	5	0.2	80	373-1201
20mm	5	0.25	64	373-1202
20mm	5	0.3	64	373-1203
20mm	5	0.4	64	373-1204
20mm	5	0.5	48	373-1205
20mm	5	0.6	48	373-1206
20mm	5	0.8	48	373-1208
20mm	5	1.0	40	373-1210
20mm	5	1.2	40	373-1212
20mm	5	1.6	40	373-1216
20mm	5	2.0	32	373-1220
20mm	5	2.5	32	373-1225
20mm	5	3.0	32	373-1230
20mm	5	4.0	24	373-1240
20mm	5	5.0	24	373-1250
20mm	5	6.0	24	373-1260
25mm	8	0.2	80	373-1301
25mm	8	0.25	80	373-1302
25mm	8	0.3	80	373-1303
25mm	8	0.4	64	373-1304
25mm	8	0.5	64	373-1305
25mm	8	0.6	64	373-1306
25mm	8	0.8	48	373-1308
25mm	8	1.0	48	373-1310
25mm	8	1.2	48	373-1312
25mm	8	1.6	40	373-1316
25mm	8	2.0	40	373-1320
25mm	8	2.5	40	373-1325
25mm	8	3.0	32	373-1330
25mm	8	4.0	32	373-1340
25mm	8	5.0	32	373-1350
25mm	8	6.0	24	373-1360
32mm	8	0.2	100	373-1401
32mm	8	0.25	100	373-1402
32mm	8	0.3	80	373-1403
32mm	8	0.4	80	373-1404
32mm	8	0.5	80	373-1405
32mm	8	0.6	64	373-1406
32mm	8	0.8	64	373-1408
32mm	8	1.0	64	373-1410
32mm	8	1.2	48	373-1412
32mm	8	1.6	48	373-1416
32mm	8	2.0	48	373-1420
32mm	8	2.5	40	373-1425
32mm	8	3.0	40	373-1430
32mm	8	4.0	40	373-1440
32mm	8	5.0	32	373-1450
32mm	8	6.0	32	373-1460
40mm	10	0.2	128	373-1501
40mm	10	0.25	100	373-1502
40mm	10	0.3	100	373-1503
40mm	10	0.4	100	373-1504
40mm	10	0.5	80	373-1505
40mm	10	0.6	80	373-1506
40mm	10	0.8	80	373-1508
40mm	10	1.0	64	373-1510
40mm	10	1.2	64	373-1512
40mm	10	1.6	64	373-1516
40mm	10	2.0	48	373-1520
40mm	10	2.5	48	373-1525
40mm	10	3.0	48	373-1530
40mm	10	4.0	40	373-1540
40mm	10	5.0	40	373-1550
40mm	10	6.0	40	373-1560
50mm	13	0.2	128	373-1601

Cutter Dia	Arbor Dia	Width Of Face	No. of Teeth	Order No.
50mm	13	0.25	128	373-1602
50mm	13	0.3	128	373-1603
50mm	13	0.4	100	373-1604
50mm	13	0.5	100	373-1605
50mm	13	0.6	100	373-1606
50mm	13	0.8	80	373-1608
50mm	13	1.0	80	373-1610
50mm	13	1.2	80	373-1612
50mm	13	1.6	64	373-1616
50mm	13	2.0	64	373-1620
50mm	13	2.5	64	373-1625
50mm	13	3.0	48	373-1630
50mm	13	4.0	48	373-1640
50mm	13	5.0	48	373-1650
50mm	13	6.0	40	373-1660
63mm	16	0.25	160	373-1702
63mm	16	0.3	128	373-1703
63mm	16	0.4	128	373-1704
63mm	16	0.5	128	373-1705
63mm	16	0.6	100	373-1706
63mm	16	0.8	100	373-1708
63mm	16	1.0	100	373-1710
63mm	16	1.2	80	373-1712
63mm	16	1.6	80	373-1716
63mm	16	1.7	80	373-1717
63mm	16	2.0	80	373-1720
63mm	16	2.5	64	373-1725
63mm	16	3.0	64	373-1730
63mm	16	4.0	64	373-1740
63mm	16	5.0	48	373-1750
63mm	16	6.0	48	373-1760
80mm	22	0.3	160	373-1803
80mm	22	0.4	160	373-1804
80mm	22	0.5	128	373-1805
80mm	22	0.6	128	373-1806
80mm	22	0.8	128	373-1808
80mm	22	1.0	100	373-1810
80mm	22	1.2	100	373-1812
80mm	22	1.6	100	373-1816
80mm	22	2.0	80	373-1820
80mm	22	2.5	80	373-1825
80mm	22	3.0	80	373-1830
80mm	22	4.0	64	373-1840
80mm	22	5.0	64	373-1850
80mm	22	6.0	64	373-1860
80mm	27	0.5	128	373-1905
80mm	27	0.6	128	373-1906
80mm	27	0.8	128	373-1908
80mm	27	1.0	100	373-1910
80mm	27	1.2	100	373-1912
80mm	27	1.6	100	373-1916
80mm	27	2.0	80	373-1920
80mm	27	2.5	80	373-1925
80mm	27	3.0	80	373-1930
80mm	27	4.0	64	373-1940
100mm	22	0.5	160	373-2005
100mm	22	0.6	160	373-2006
100mm	22	0.8	128	373-2008
100mm	22	1.0	128	373-2010
100mm	22	1.2	128	373-2012
100mm	22	1.6	100	373-2016
100mm	22	2.0	100	373-2020
100mm	22	2.5	100	373-2025
100mm	22	3.0	80	373-2030

Cutter Dia	Arbor Dia	Width Of Face	No. of Teeth	Order No.
100mm	22	4.0	80	373-2040
100mm	22	5.0	80	373-2050
100mm	22	6.0	64	373-2060
100mm	27	0.5	160	373-2105
100mm	27	0.6	160	373-2106
100mm	27	0.8	128	373-2108
100mm	27	1.0	128	373-2110
100mm	27	1.2	128	373-2112
100mm	27	1.6	100	373-2116
100mm	27	2.0	100	373-2120
100mm	27	2.5	100	373-2125
100mm	27	3.0	80	373-2130
100mm	27	4.0	80	373-2140
100mm	27	5.0	80	373-2150
125mm	22	0.6	160	373-2206
125mm	22	0.8	160	373-2208
125mm	22	1.0	160	373-2210
125mm	22	1.2	128	373-2212
125mm	22	1.6	128	373-2216
125mm	22	2.0	128	373-2220
125mm	22	2.5	100	373-2225
125mm	22	3.0	100	373-2230
125mm	22	4.0	100	373-2240
125mm	22	5.0	80	373-2250
125mm	22	6.0	80	373-2260
125mm	27	0.8	80	373-2308
125mm	27	1.0	80	373-2310
125mm	27	1.2	64	373-2312
125mm	27	1.6	64	373-2316
125mm	27	2.0	64	373-2320
125mm	27	2.5	48	373-2325
125mm	27	3.0	48	373-2330
125mm	27	4.0	48	373-2340
125mm	27	5.0	40	373-2350
160mm	32	1.0	160	373-2410
160mm	32	1.2	160	373-2412
160mm	32	1.6	160	373-2416
160mm	32	2.0	128	373-2420
160mm	32	2.5	128	373-2425
160mm	32	3.0	128	373-2430
160mm	32	4.0	100	373-2440
160mm	32	5.0	100	373-2450
160mm	32	6.0	100	373-2460
200mm	32	1.0	200	373-2510
200mm	32	1.2	200	373-2512
200mm	32	1.6	160	373-2516
200mm	32	2.0	160	373-2520
200mm	32	2.5	160	373-2525
200mm	32	3.0	128	373-2530
200mm	32	4.0	128	373-2540
200mm	32	5.0	128	373-2550
200mm	32	6.0	100	373-2560
250mm	32	1.6	200	373-2616
250mm	32	2.0	200	373-2620
250mm	32	2.5	160	373-2625
250mm	32	3.0	160	373-2630
250mm	32	4.0	160	373-2640
250mm	32	5.0	128	373-2650
250mm	32	6.0	128	373-2660
315mm	40	2.0	200	373-2720
315mm	40	3.0	200	373-2730
315mm	40	4.0	160	373-2740
315mm	40	5.0	160	373-2750
315mm	40	6.0	160	373-2760

Metric Plain Metal Slotting Saws

DIN 1838B 公制锯片铣刀

High Speed Steel

- For general purpose slotting and cut-off operations.
- The number of teeth given is the standard number which is supplied for general purpose work.



Cutter Dia.	Arbor Dia	Face Width	No. of Teeth	Order No.	Cutter Dia.	Arbor Dia	Face Width	No. of Teeth	Order No.
50mm	13	0.3	48	**373-0003**	100	22	6.0	32	**373-0460**
50mm	13	0.4	48	**373-0004**	100	27	0.8	64	**373-0508**
50mm	13	0.5	48	**373-0005**	100	27	1.0	64	**373-0510**
50mm	13	0.6	48	**373-0006**	100	27	1.2	64	**373-0512**
50mm	13	0.8	40	**373-0008**	100	27	1.6	48	**373-0516**
50mm	13	1.0	40	**373-0010**	100	27	2.0	48	**373-0520**
50mm	13	1.2	40	**373-0012**	100	27	2.5	48	**373-0525**
50mm	13	1.6	32	**373-0016**	100	27	3.0	40	**373-0530**
50mm	13	2.0	32	**373-0020**	100	27	4.0	40	**373-0540**
50mm	13	2.5	32	**373-0025**	100	27	5.0	40	**373-0550**
50mm	13	3.0	24	**373-0030**	125	22	0.8	80	**373-0608**
50mm	13	4.0	24	**373-0040**	125	22	1.0	80	**373-0610**
50mm	13	5.0	24	**373-0050**	125	22	1.2	64	**373-0612**
50mm	13	6.0	20	**373-0060**	125	22	1.6	64	**373-0616**
63mm	16	0.5	64	**373-0105**	125	22	2.0	64	**373-0620**
63mm	16	0.6	48	**373-0106**	125	22	2.5	48	**373-0625**
63mm	16	0.8	48	**373-0108**	125	22	3.0	48	**373-0630**
63mm	16	1.0	48	**373-0110**	125	22	4.0	48	**373-0640**
63mm	16	1.2	40	**373-0112**	125	22	5.0	40	**373-0650**
63mm	16	1.6	40	**373-0116**	125	22	6.0	40	**373-0660**
63mm	16	1.7	40	**373-0117**	125	27	0.8	80	**373-0708**
63mm	16	2.0	40	**373-0120**	125	27	1.0	80	**373-0710**
63mm	16	2.5	32	**373-0125**	125	27	1.2	64	**373-0712**
63mm	16	3.0	32	**373-0130**	125	27	1.6	64	**373-0716**
63mm	16	4.0	32	**373-0140**	125	27	2.0	64	**373-0720**
63mm	16	5.0	24	**373-0150**	125	27	2.5	48	**373-0725**
63mm	16	6.0	24	**373-0160**	125	27	3.0	48	**373-0730**
80mm	22	0.5	64	**373-0205**	125	27	4.0	48	**373-0740**
80mm	22	0.6	64	**373-0206**	125	27	5.0	40	**373-0750**
80mm	22	0.8	64	**373-0208**	160	32	1.0	80	**373-0810**
80mm	22	1.0	48	**373-0210**	160	32	1.2	80	**373-0812**
80mm	22	1.2	48	**373-0212**	160	32	1.6	80	**373-0816**
80mm	22	1.6	48	**373-0216**	160	32	2.0	64	**373-0820**
80mm	22	2.0	40	**373-0220**	160	32	2.5	64	**373-0825**
80mm	22	2.5	40	**373-0225**	160	32	3.0	64	**373-0830**
80mm	22	3.0	40	**373-0230**	160	32	4.0	48	**373-0840**
80mm	22	4.0	32	**373-0240**	160	32	5.0	48	**373-0850**
80mm	22	5.0	32	**373-0250**	160	32	6.0	48	**373-0860**
80mm	22	6.0	32	**373-0260**	200	32	1.2	100	**373-0912**
80mm	27	0.6	64	**373-0306**	200	32	1.6	80	**373-0916**
80mm	27	0.8	64	**373-0308**	200	32	2.0	80	**373-0920**
80mm	27	1.0	48	**373-0310**	200	32	2.5	80	**373-0925**
80mm	27	1.2	48	**373-0312**	200	32	3.0	64	**373-0930**
80mm	27	1.6	48	**373-0316**	200	32	4.0	64	**373-0940**
80mm	27	2.0	40	**373-0320**	200	32	5.0	64	**373-0950**
80mm	27	2.5	40	**373-0325**	200	32	6.0	48	**373-0960**
80mm	27	3.0	40	**373-0330**	250	32	1.6	100	**373-1016**
80mm	27	4.0	32	**373-0340**	250	32	2.0	100	**373-1020**
100mm	22	0.6	80	**373-0406**	250	32	2.5	80	**373-1025**
100mm	22	0.8	64	**373-0408**	250	32	3.0	80	**373-1030**
100mm	22	1.0	64	**373-0410**	250	32	4.0	80	**373-1040**
100mm	22	1.2	64	**373-0412**	250	32	5.0	64	**373-1050**
100mm	22	1.6	48	**373-0416**	250	32	6.0	64	**373-1060**
100mm	22	2.0	48	**373-0420**	315	40	2.5	100	**373-1125**
100mm	22	2.5	48	**373-0425**	315	40	3.0	100	**373-1130**
100mm	22	3.0	40	**373-0430**	315	40	4.0	80	**373-1140**
100mm	22	4.0	40	**373-0440**	315	40	5.0	80	**373-1150**
100mm	22	5.0	40	**373-0450**	315	40	6.0	80	**373-1160**

Bi-metal Hole Saw Kits 双金属孔锯

Designed for professional trades



Pieces	Specification	Order No.
7pcs	3/4,7/8,1,1-3/8,1-1/2", drill 1/4",Arbor	**402-0295**
12pcs	3/4,7/8,1-1/8,1-3/8,1-1/2,1-3/4,2,2-1/4,2-1/2", drill 1/4",2pcs Arbor	**402-0296**
15pcs	3/4,7/8,1,1-1/8,1-3/8,1-1/2,1-3/4,2,2-1/4,2-1/2,3", drill 1/4",2pcs Arbor	**402-0297**

Bi-metal Hole Saws 双金属孔锯

Patented tooth design. Results in sharp teeth, fast cutting and long blade life in a wide variety of applications, ranging from wood to stainless steel.



Saw Dia. (In/mm)	Order No.	M42 Order No.	Saw Dia. (In/mm)	Order No.	M42 Order No.
9/16(14)	**402-0302**	**402-0402**	2-1/4(57)	**402-0352**	**402-0452**
5/8(16)	**402-0304**	**402-0404**	2-5/16(59)	**402-0354**	**402-0454**
11/16(17)	**402-0306**	**402-0406**	2-3/8(60)	**402-0356**	**402-0456**
3/4(19)	**402-0308**	**402-0408**	2-1/2(64)	**402-0358**	**402-0458**
25/32(20)	**402-0309**	**402-0409**	2-9/16(65)	**402-0360**	**402-0460**
13/16(21)	**402-0310**	**402-0410**	2-5/8(67)	**402-0362**	**402-0462**
7/8(22)	**402-0312**	**402-0412**	2-11/16(68)	**402-0364**	**402-0464**
15/16(24)	**402-0314**	**402-0414**	2-3/4(70)	**402-0366**	**402-0466**
1(25)	**402-0316**	**402-0416**	2-7/8(73)	**402-0368**	**402-0468**
1-1/16(27)	**402-0318**	**402-0418**	3(76)	**402-0370**	**402-0470**
1-1/8(28)	**402-0320**	**402-0420**	3-1/8(79)	**402-0372**	**402-0472**
1-9/64(29)	**402-0321**	**402-0421**	3-1/4(83)	**402-0374**	**402-0474**
1-3/16(30)	**402-0322**	**402-0422**	3-3/8(86)	**402-0376**	**402-0476**
1-1/4(32)	**402-0324**	**402-0424**	3-1/2(89)	**402-0378**	**402-0478**
1-5/16(33)	**402-0326**	**402-0426**	3-5/8(92)	**402-0380**	**402-0480**
1-3/8(35)	**402-0328**	**402-0428**	3-3/4(95)	**402-0382**	**402-0482**
1-7/16(37)	**402-0330**	**402-0430**	3-7/8(98)	**402-0384**	**402-0484**
1-1/2(38)	**402-0332**	**402-0432**	4(102)	**402-0386**	**402-0486**
1-9/16(40)	**402-0334**	**402-0434**	4-1/8(105)	**402-0388**	**402-0488**
1-5/8(41)	**402-0336**	**402-0436**	4-1/4(108)	**402-0390**	**402-0490**
1-11/16(43)	**402-0338**	**402-0438**	4-3/8(111)	**402-0391**	**402-0491**
1-3/4(44)	**402-0340**	**402-0440**	4-1/2(114)	**402-0392**	**402-0492**
1-13/16(46)	**402-0342**	**402-0442**	4-3/4(121)	**402-0394**	**402-0494**
1-7/8(48)	**402-0344**	**402-0444**	5(127)	**402-0395**	**402-0495**
2(51)	**402-0346**	**402-0446**	5-1/2(140)	**402-0396**	**402-0496**
2-1/16(52)	**402-0348**	**402-0448**	6(152)	**402-0398**	**402-0498**
2-1/8(54)	**402-0350**	**402-0450**			

Annular Cutters 钢板钻

- Cut clean, burr free periphery holes
- Pilot pin eject the center as a plug of steel
- Suitable for drilling in hard-cutting materisls



		M35			M2		
Size	Shank Diameter	1" Depth of Cut Order No.	2" Depth of Cut Order No.	3" Depth of Cut Order No.	1" Depth of Cut Order No.	2" Depth of Cut Order No.	3" Depth of Cut Order No.
7/16"	3/4"	402-1028	402-1328	402-1628	402-2028	402-2328	402-2628
1/2"	3/4"	402-1032	402-1332	402-1632	402-2032	402-2332	402-2632
9/16"	3/4"	402-1036	402-1336	402-1636	402-2036	402-2336	402-2636
19/32"	3/4"	402-1038	402-1338	402-1638	402-2038	402-2338	402-2638
5/8"	3/4"	402-1040	402-1340	402-1640	402-2040	402-2340	402-2640
11/16"	3/4"	402-1044	402-1344	402-1644	402-2044	402-2344	402-2644
23/32"	3/4"	402-1046	402-1346	402-1646	402-2046	402-2346	402-2646
3/4"	3/4"	402-1048	402-1348	402-1648	402-2048	402-2348	402-2648
25/32"	3/4"	402-1050	402-1350	402-1650	402-2050	402-2350	402-2650
13/16"	3/4"	402-1052	402-1352	402-1652	402-2052	402-2352	402-2652
7/8"	3/4"	402-1056	402-1356	402-1656	402-2056	402-2356	402-2656
29/32"	3/4"	402-1058	402-1358	402-1658	402-2058	402-2358	402-2658
15/16"	3/4"	402-1060	402-1360	402-1660	402-2060	402-2360	402-2660
1"	3/4"	402-1064	402-1364	402-1664	402-2064	402-2364	402-2664
1-1/32"	3/4"	402-1102	402-1402	402-1702	402-2102	402-2402	402-2702
1-1/16"	3/4"	402-1104	402-1404	402-1704	402-2104	402-2404	402-2704
1-3/32"	3/4"	402-1106	402-1406	402-1706	402-2106	402-2406	402-2706
1-1/8"	3/4"	402-1108	402-1408	402-1708	402-2108	402-2408	402-2708
1-3/16"	3/4"	402-1112	402-1412	402-1712	402-2112	402-2412	402-2712
1-7/32"	3/4"	402-1114	402-1414	402-1714	402-2114	402-2414	402-2714
1-1/4"	3/4"	402-1116	402-1416	402-1716	402-2116	402-2416	402-2716
1-9/32"	3/4"	402-1118	402-1418	402-1718	402-2118	402-2418	402-2718
1-5/16"	3/4"	402-1120	402-1420	402-1720	402-2120	402-2420	402-2720
1-3/8"	3/4"	402-1124	402-1424	402-1724	402-2124	402-2424	402-2724
1-13/32"	3/4"	402-1126	402-1426	402-1726	402-2126	402-2426	402-2726
1-7/16"	3/4"	402-1128	402-1428	402-1728	402-2128	402-2428	402-2728
1-1/2"	3/4"	402-1132	402-1432	402-1732	402-2132	402-2432	402-2732
1-17/32"	3/4"	402-1134	402-1434	402-1734	402-2134	402-2434	402-2734
1-9/16"	3/4"	402-1136	402-1436	402-1736	402-2136	402-2436	402-2736
1-5/8"	3/4"	402-1140	402-1440	402-1740	402-2140	402-2440	402-2740
1-21/32"	3/4"	402-1142	402-1442	402-1742	402-2142	402-2442	402-2742
1-11/16"	3/4"	402-1144	402-1444	402-1744	402-2144	402-2444	402-2744
1-23/32"	3/4"	402-1146	402-1446	402-1746	402-2146	402-2446	402-2746
1-3/4"	3/4"	402-1148	402-1448	402-1748	402-2148	402-2448	402-2748
1-13/16"	3/4"	402-1152	402-1452	402-1752	402-2152	402-2452	402-2752
1-27/32"	3/4"	402-1154	402-1454	402-1754	402-2154	402-2454	402-2754
1-7/8"	3/4"	402-1156	402-1456	402-1756	402-2156	402-2456	402-2756
1-15/16"	3/4"	402-1160	402-1460	402-1760	402-2160	402-2460	402-2760
1-31/32"	3/4"	402-1162	402-1462	402-1762	402-2162	402-2462	402-2762
2"	3/4"	402-1164	402-1464	402-1764	402-2164	402-2464	402-2764
2-1/32"	3/4"	402-1202	402-1502	402-1802	402-2202	402-2502	402-2802
2-1/16"	3/4"	402-1204	402-1504	402-1804	402-2204	402-2504	402-2804
2-1/8"	3/4"	402-1208	402-1508	402-1808	402-2208	402-2508	402-2808
2-5/32"	3/4"	402-1210	402-1510	402-1810	402-2210	402-2510	402-2810
2-3/16"	3/4"	402-1212	402-1512	402-1812	402-2212	402-2512	402-2812
2-7/32"	3/4"	402-1214	402-1514	402-1814	402-2214	402-2514	402-2814
2-1/4"	3/4"	402-1216	402-1516	402-1816	402-2216	402-2516	402-2816
2-5/16"	3/4"	402-1220	402-1520	402-1820	402-2220	402-2520	402-2820
2-11/32"	3/4"	402-1222	402-1522	402-1822	402-2222	402-2522	402-2822

Metric Annular Cutters 公制钢板钻

- Cut clean, burr free Periphery holes
- Pilot pin eject the center as a plug of steel
- Suitable for drilling in hard-cutting materisls



		M35			M2		
Size	Shank Diameter	1" Depth of Cut Order No.	2" Depth of Cut Order No.	3" Depth of Cut Order No.	1" Depth of Cut Order No.	2" Depth of Cut Order No.	3" Depth of Cut Order No.
12mm	19.05mm	402-3028	402-3328	402-3628	402-6028	402-6328	402-6628
13	19.05mm	402-3032	402-3332	402-3632	402-6032	402-6332	402-6632
14	19.05mm	402-3036	402-3336	402-3636	402-6036	402-6336	402-6636
15	19.05mm	402-3038	402-3338	402-3638	402-6038	402-6338	402-6638
16	19.05mm	402-3040	402-3340	402-3640	402-6040	402-6340	402-6640
17	19.05mm	402-3044	402-3344	402-3644	402-6044	402-6344	402-6644
18	19.05mm	402-3046	402-3346	402-3646	402-6046	402-6346	402-6646
19	19.05mm	402-3048	402-3348	402-3648	402-6048	402-6348	402-6648
20	19.05mm	402-3050	402-3350	402-3650	402-6050	402-6350	402-6650
21	19.05mm	402-3052	402-3352	402-3652	402-6052	402-6352	402-6652
22	19.05mm	402-3056	402-3356	402-3656	402-6056	402-6356	402-6656
23	19.05mm	402-3058	402-3358	402-3658	402-6058	402-6358	402-6658
24	19.05mm	402-3060	402-3360	402-3660	402-6060	402-6360	402-6660
25	19.05mm	402-3064	402-3364	402-3664	402-6064	402-6364	402-6664
26	19.05mm	402-3102	402-3402	402-3702	402-6102	402-6402	402-6702
27	19.05mm	402-3104	402-3404	402-3704	402-6104	402-6404	402-6704
28	19.05mm	402-3106	402-3406	402-3706	402-6106	402-6406	402-6706
29	19.05mm	402-3108	402-3408	402-3708	402-6108	402-6408	402-6708
30	19.05mm	402-3112	402-3412	402-3712	402-6112	402-6412	402-6712
31	19.05mm	402-3114	402-3414	402-3714	402-6114	402-6414	402-6714
32	19.05mm	402-3116	402-3416	402-3716	402-6116	402-6416	402-6716
33	19.05mm	402-3118	402-3418	402-3718	402-6118	402-6418	402-6718
34	19.05mm	402-3120	402-3420	402-3720	402-6120	402-6420	402-6720
35	19.05mm	402-3124	402-3424	402-3724	402-6124	402-6424	402-6724
36	19.05mm	402-3126	402-3426	402-3726	402-6126	402-6426	402-6726
37	19.05mm	402-3128	402-3428	402-3728	402-6128	402-6428	402-6728
38	19.05mm	402-3132	402-3432	402-3732	402-6132	402-6432	402-6732
39	19.05mm	402-3134	402-3434	402-3734	402-6134	402-6434	402-6734
40	19.05mm	402-3136	402-3436	402-3736	402-6136	402-6436	402-6736
41	19.05mm	402-3140	402-3440	402-3740	402-6140	402-6440	402-6740
42	19.05mm	402-3142	402-3442	402-3742	402-6142	402-6442	402-6742
43	19.05mm	402-3144	402-3444	402-3744	402-6144	402-6444	402-6744
44	19.05mm	402-3146	402-3446	402-3746	402-6146	402-6446	402-6746
45	19.05mm	402-3148	402-3448	402-3748	402-6148	402-6448	402-6748
46	19.05mm	402-3152	402-3452	402-3752	402-6152	402-6452	402-6752
47	19.05mm	402-3154	402-3454	402-3754	402-6154	402-6454	402-6754
48	19.05mm	402-3156	402-3456	402-3756	402-6156	402-6456	402-6756
49	19.05mm	402-3160	402-3460	402-3760	402-6160	402-6460	402-6760
50	19.05mm	402-3162	402-3462	402-3762	402-6162	402-6462	402-6762
51	19.05mm	402-3164	402-3464	402-3764	402-6164	402-6464	402-6764
52	19.05mm	402-3202	402-3502	402-3802	402-6202	402-6502	402-6802
53	19.05mm	402-3204	402-3504	402-3804	402-6204	402-6504	402-6804
54	19.05mm	402-3208	402-3508	402-3808	402-6208	402-6508	402-6808
55	19.05mm	402-3210	402-3510	402-3810	402-6210	402-6510	402-6810
56	19.05mm	402-3212	402-3512	402-3812	402-6212	402-6512	402-6812
57	19.05mm	402-3214	402-3514	402-3814	402-6214	402-6514	402-6814
58	19.05mm	402-3216	402-3516	402-3816	402-6216	402-6516	402-6816
59	19.05mm	402-3220	402-3520	402-3820	402-6220	402-6520	402-6820
60	19.05mm	402-3222	402-3522	402-3822	402-6222	402-6522	402-6822

Carbide Tip Annular Cutters 硬质合金头钢板钻



- Cut clean, burr free Periphery holes
- Pilot pin eject the center as a plug of steel
- Suitable for drilling in hard-cutting materisls

Shank Diameter: Metric 19.05mm/Inch 3/4".

Inch 3/4" Shank Dia.				Metric 19.05mm Shank Dia.			
Size	1" Depth of Cut Order No.	2" Depth of Cut Order No.	3" Depth of Cut Order No.	Size	1" Depth of Cut Order No.	2" Depth of Cut Order No.	3" Depth of Cut Order No.
7/16"	402-9028	402-9328	402-9628	12mm	402-5028	402-5328	402-5628
1/2"	402-9032	402-9332	402-9632	13	402-5032	402-5332	402-5632
9/16"	402-9036	402-9336	402-9636	14	402-5036	402-5336	402-5636
19/32"	402-9038	402-9338	402-9638	15	402-5038	402-5338	402-5638
5/8"	402-9040	402-9340	402-9640	16	402-5040	402-5340	402-5640
11/16"	402-9044	402-9344	402-9644	17	402-5044	402-5344	402-5644
23/32"	402-9046	402-9346	402-9646	18	402-5046	402-5346	402-5646
3/4"	402-9048	402-9348	402-9648	19	402-5048	402-5348	402-5648
25/32"	402-9050	402-9350	402-9650	20	402-5050	402-5350	402-5650
13/16"	402-9052	402-9352	402-9652	21	402-5052	402-5352	402-5652
7/8"	402-9056	402-9356	402-9656	22	402-5056	402-5356	402-5656
29/32"	402-9058	402-8358	402-9658	23	402-5058	402-5358	402-5658
15/16"	402-9060	402-9360	402-9660	24	402-5060	402-5360	402-5660
1"	402-9064	402-9364	402-9664	25	402-5064	402-5364	402-5664
1-1/32"	402-9102	402-9402	402-9702	26	402-5102	402-5402	402-5702
1-1/16"	402-9104	402-9404	402-9704	27	402-5104	402-5404	402-5704
1-3/32"	402-9106	402-9406	402-9706	28	402-5106	402-5406	402-5706
1-1/8"	402-9108	402-9408	402-9708	29	402-5108	402-5408	402-5708
1-3/16"	402-9112	402-9412	402-9712	30	402-5112	402-5412	402-5712
1-7/32"	402-9114	402-9414	402-9714	31	402-5114	402-5414	402-5714
1-1/4"	402-9116	402-9416	402-9716	32	402-5116	402-5416	402-5716
1-9/32"	402-9118	402-9418	402-9718	33	402-5118	402-5418	402-5718
1-5/16"	402-9120	402-9420	402-9720	34	402-5120	402-5420	402-5720
1-3/8"	402-9124	402-9424	402-9724	35	402-5124	402-5424	402-5724
1-13/32"	402-9126	402-9426	402-9726	36	402-5126	402-5426	402-5726
1-7/16"	402-9128	402-9428	402-9728	37	402-5128	402-5428	402-5728
1-1/2"	402-9132	402-9432	402-9732	38	402-5132	402-5432	402-5732
1-17/32"	402-9134	402-9434	402-9734	39	402-5134	402-5434	402-5734
1-9/16"	402-9136	402-9436	402-9736	40	402-5136	402-5436	402-5736
1-5/8"	402-9140	402-9440	402-9740	41	402-5140	402-5440	402-5740
1-21/32"	402-9142	402-9442	402-9742	42	402-5142	402-5442	402-5742
1-11/16"	402-9144	402-9444	402-9744	43	402-5144	402-5444	402-5744
1-23/32"	402-9146	402-9446	402-9746	44	402-5146	402-5446	402-5746
1-3/4"	402-9148	402-9448	402-9748	45	402-5148	402-5448	402-5748
1-13/16"	402-9152	402-9452	402-9752	46	402-5152	402-5452	402-5752
1-27/32"	402-9154	402-9454	402-9754	47	402-5154	402-5454	402-5754
1-7/8"	402-9156	402-9456	402-9756	48	402-5156	402-5456	402-5756
1-15/16"	402-9160	402-9460	402-9760	49	402-5160	402-5460	402-5760
1-31/32"	402-9162	402-9462	402-9762	50	402-5162	402-5462	402-5762
2"	402-9164	402-9464	402-9764	51	402-5164	402-5464	402-5764
2-1/32"	402-9202	402-9502	402-9802	52	402-5202	402-5502	402-5802
2-1/16"	402-9204	402-9504	402-9804	53	402-5204	402-5504	402-5804
2-1/8"	402-9208	402-9508	402-9808	54	402-5208	402-5508	402-5808
2-5/32"	402-9210	402-9510	402-9810	55	402-5210	402-5510	402-5810
2-3/16"	402-9212	402-9512	402-9812	56	402-5212	402-5512	402-5812
2-7/32"	402-9214	402-9514	402-9814	57	402-5214	402-5514	402-5814
2-1/4"	402-9216	402-9516	402-9816	58	402-5216	402-5516	402-5816
2-5/16"	402-9220	402-9520	402-9820	59	402-5220	402-5520	402-5820
2-11/32"	402-9222	402-9522	402-9822	60	402-9522	402-5522	402-5822

Keyway Broach Sets

套装美制高速钢键槽拉刀(含垫片和衬套)

9pc No.00 Precision Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
1/16, 3/32, 1/8	A	1/4,5/16,3/8,7/16,1/2"	1	15	395-0109

18pc No.10 Standard Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
1/8,3/16	B	1/2,5/8,3/4,7/8"	5	18	395-0718
1/4, 3/8	C	1,1-1/8,1-1/4,1-3/8,1-1/2"			

18pc No.10A Standard Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
1/8,3/16	B	9/16,11/16,13/16"	5	18	395-0719
1/4, 3/8	C	15/16,1-1/16,1-3/16, 1-5/16,1-7/16,1-9/16"			

27pc No.10-10A Standard Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
1/8	B	1/2,9/16,5/8,11/16"	5	36	395-0727
3/16	B	3/4,13/16,7/8"			
1/4	C	15/16,1,1-1/16,1-1/8,1-3/16,1-1/4"			
3/8	C	1-5/16,1-3/8,1-7/16,1-1/2,1-9/16"			

30pc No.20 Combination Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
1/8	B	1/2,9/16,5/8,11/16"	7	47	395-0730
3/16	B	3/4,13/16,7/8"			
1/4	C	15/16,1,1-1/16,1-1/8"			
5/16	C	1-3/16,1-1/4,1-5/16,1-3/8"			
3/8	C	1-7/16,1-1/2,1-9/16"			

15pc No.30 Standard Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
1/8	B	1/2,5/8,3/4"	3	15	395-0717
3/16, 1/4"	C	7/8, 1,1-1/8,1-1/4,1-3/8,1-1/2"			

22pc No.40 Set

Keyway Sizes	Broach Style	Plain Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
5/16,3/8	D	1-7/16,1-9/16,1-11/16,1-13/16"	10	32	395-0322
7/16,1/2	D	1-15/16,2-3/16,2-7/16,2-15/16"			

22pc No.40A Set

Keyway Sizes	Broach Style	Plain Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
5/16,3/8	D	1-1/2,1-5/8,1-3/4,1-7/8"	10	32	395-0323
7/16,1/2	D	2, 2-1/8,2-1/4,2-1/2"			

17pc No.40-1/2 Heavy Duty Set

Keyway Sizes	Broach Style	Plain Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
5/8	E	2-5/16,2-7/16,2-9/16"	9	12	395-0217
3/4	E	2-11/16,2-13/16,2-15/16"			

17pc No.40-1/2A Heavy Duty Set

Keyway Sizes	Broach Style	Plain Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
5/8	E	2-3/8,2-1/2,2-5/8"	9	12	395-0218
3/4	E	2-3/4,2-7/8,3"			





Large Size Wooden Case

32pc No.50 Heavy Duty Set

Keyway Sizes	Broach Style	Plain Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
1/2	D	2, 2-1/16, 2-1/8, 2-3/16, 2-1/4"	12	29	395-0432
5/8	E	2-5/16,2-3/8, 2-7/16,2-1/2, 2-9/16, 2-5/8"			
3/4	E	2-11/16,2-3/4, 2-13/16, 2-7/8, 2-15/16, 3"			

6pc No.60 Metric Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
2mm, 3mm	A	6,8,10mm	1	6	395-0806

22pc No.70 Metric Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
4, 5mm	B1	12,14,15,16mm	5	26	395-0822
6mm	C1	18,19,20,22mm			
8mm	C1	24,25,26,28,30mm			

21pc No.80 Metric Set

Keyway Sizes	Broach Style	Plain Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
10mm	D1	32,34,35,36mm	6	36	395-0821
12mm	D1	38,40,42,44mm			
14mm	D1	45,46,48,50mm			

16pc No.90 Metric Set

Keyway Sizes	Broach Style	Plain Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
16mm	E1	52,54,55,56mm	6	16	395-0816
18mm	E1	58,60,62,65mm			

18pc Metric Set

Keyway Sizes	Broach Style	Collared Bushing Diameters	No.of Shim	Keyway Comb.	Order No.
4, 5mm	B1	12,14,16mm	5	18	395-0818
6, 8mm	C1	18,20,22,24,26,28mm			

75pc No.100 Heavy Duty Combination Set

Keyway Sizes	Broach Style	B-C Collared/D-E Plain Bushing Dia.	No.of Shim	Keyway Comb.	Order No.
1/8"	B	1/2,9/16,5/8,11/16"	22	102	395-0575
3/16	B	3/4,13/16,7/8"			
1/4	C	15/16,1,1-1/16,1-1/8,1-3/16,1-1/4"			
5/16	C	1-5/16,1-3/8,1-7/16,1-1/2,1-9/16"			
3/8	D	1-7/16,1-1/2,1-9/16,1-5/8,1-11/16"			
7/16	D	1-3/4,1-13/16,1-7/8,1-15/16,2"			
1/2	D	2-1/16,2-1/8,2-3/16,2-1/4"			
5/8	E	2-5/16,2-3/8,2-7/16,2-1/2,2-9/16,2-5/8"			
3/4	E	2-11/16,2-3/4,2-13/16,2-7/8,2-15/16,3"			

Keyway Broaches with Shims 高速钢键槽拉刀（含垫片）

High Speed Steel

- Specialty tools designed for cutting keyways in machined holes.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- Hardened and ground bars with cutting teeth on one side.
- Size and proportioned to afford a good cutting range and ample rinidity.
- Replacement shima are also available.
- Broach is tapered, allowing teeth to cut keyway toproper depth.
- Made to cut either inch or millimer size keyways.
- Bright finish.



Inch Size

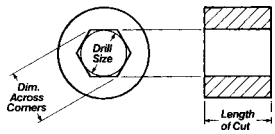
Broach Size	Type	Broach Dimensions	Shims Required	Length of Cut Min.	Length of Cut Max.	Tolerances	Order No.	TIN-Coated Order No.
1/16”	A	1/8x5”	0	13/64”	1-1/8”	.0625-.0635	**395-1004**	**396-1004**
3/32	A	1/8x5	0	13/64	1-1/8	.0938-.0948	**395-1006**	**396-1006**
1/8	A	1/8x5	1	13/64	1-1/8	.1252-.1262	**395-1008**	**396-1008**
3/32	B	3/16x6-3/4	0	19/64	1-11/16	.0937-.0947	**395-1106**	**396-1106**
1/8	B	3/16x6-3/4	1	19/64	1-11/16	.1252-.1262	**395-1108**	**396-1108**
5/32	B	3/16x6-3/4	1	19/64	1-11/16	.1564-.1574	**395-1110**	**396-1110**
3/16	B	3/16x6-3/4	1	19/64	1-11/16	.1877-.1887	**395-1112**	**396-1112**
3/16	C	3/8x11-3/4	1	25/64	2-1/2	.1877-.1887	**395-1212**	**396-1212**
1/4	C	3/8x11-3/4	1	25/64	2-1/2	.2502-.2512	**395-1216**	**396-1216**
5/16	C	3/8x11-3/4	2	25/64	2-1/2	.3127-.3137	**395-1220**	**396-1220**
3/8	C	3/8x11-3/4	2	25/64	2-1/2	.3755-.3765	**395-1224**	**396-1224**
5/16	D	9/16x13-7/8	2	1	6	.3127-.3137	**395-1324**	**396-1324**
3/8	D	9/16x13-7/8	2	1	6	.3755-.3765	**395-1328**	**396-1328**
7/16	D	9/16x13-7/8	3	1	6	.4380-.4390	**395-1332**	**396-1332**
1/2	D	9/16x13-7/8	3	1	6	.5006-.5016	**395-1336**	**396-1336**
5/8	E	3/4x15-1/2	4	1	6	.6260-.6270	**395-1440**	**396-1440**
3/4	E	3/4x15-1/2	5	1	6	.7515-.7525	**395-1448**	**396-1448**
7/8	F	1x20-1/4	6	1	6	.8765-.8775	**395-1556**	**396-1556**
1	F	1x20-1/4	7	1	6	1.0015-1.0025	**395-1564**	**396-1564**
1-1/8		1-1/8x20-1/4	8	1	6	1.1265-1.1275	**395-1570**	**396-1570**
1-1/4		1-1/4x20-1/4	9	1-1/2	8	1.2520-1.2530	**395-1572**	**396-1572**
1-3/8		1-3/8x20-1/4	10	1-1/2	8	1.3770-1.3780	**395-1574**	**396-1574**
1-1/2		1-1/2x20-1/4	11	1-1/2	8	1.5020-1.5030	**395-1576**	**396-1576**

Metric Size

Size	S.Keys	Piece of Shim	Dimension	Tooth Pitch	Teeth	Length of Cut Min.	Length of cut Max.	Tolerance	Order No.	TIN-Coated Order No.
2mm-A	2x2		1/8x5”	3/16”	18	13/64”	1-1/8”	.0782-.0791	**395-2006**	**396-2006**
3mm-A	3x3	1	1/8x5	3/16	18	13/64	1-1/8	.1176-.1185	**395-2008**	**396-2008**
4mm-B-1	4x4	1	1/4x6-3/4	9/32	16	19/64	1-11/16	.1569-.1579	**395-2110**	**396-2110**
5mm-B-1	5x5	1	1/4x6-3/4	9/32	16	19/64	1-11/16	.1963-.1972	**395-2112**	**396-2112**
5mm-C	5x5	1	3/8x11-3/4	3/8	22	25/64	2-1/2	.1963-.1972	**395-2212**	**396-2212**
6mm-C-1	6x6	1	3/8x11-3/4	3/8	22	25/64	2-1/2	.2356-.2366	**395-2216**	**396-2216**
8mm-C-1	8x7	2	3/8x11-3/4	3/8	22	25/64	2-1/2	.3143-.3155	**395-2220**	**396-2220**
10mm-D-1	10x8	2	9/16x13-7/8	5/8	17	1	6	.3930-.3942	**395-2224**	**396-2224**
12mm-D-1	12x8	2	9/16x13-7/8	5/8	17	1	6	.4716-.4730	**395-2324**	**396-2324**
14mm-D-1	14x9	2	9/16x13-7/8	5/8	17	1	6	.5503-.5517	**395-2328**	**396-2328**
16mm-E-1	16x10	3	3/4x15-1/2	5/8	20	1	6	.6290-.6304	**395-2332**	**396-2332**
18mm-E-1	18x11	3	3/4x15-1/2	5/8	20	1	6	.7078-.7092	**395-2336**	**396-2336**
20mm-F-1	20x12	3	1x20-1/4	5/8	26	1	6	.7864-.7880	**395-2440**	**396-2440**
22mm-F-1	22x14	4	1x20-1/4	5/8	26	1	6	.8651-.8667	**395-2448**	**396-2448**
24mm-F	24x14	5	1x20-1/4	5/8	26	1	6	.9439-.9455	**395-2556**	**396-2556**
25mm-F-1	25x14	4	1x20-1/4	5/8	26	1	6	.9832-.9848	**395-2564**	**396-2564**

Hexagon Push Broaches 六方孔英制高速钢推刀

- For cutting hexagonal shaped hole in round machined holes.
- Used to re-cut a round hole into a hole having a hexagonal shape in a single pass through the workpiece.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- Broach is tapered, allowing teeth to cut hole to proper depth and width.
- Bright finish.

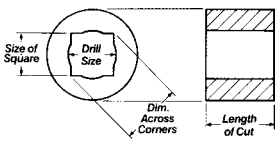




Broach Size	Broach Length	Pilot Dia.	Drill Size	Length of Cut Min.	Length of Cut Max.	Tolerance	Order No.
1/8”	4-1/8”	1/8”	1/8”	3/16”	3/8”	.1255-.1260	**395-5996**
5/32	4-15/16	5/32	5/32	1/4	1/2	.1565-.1570	**395-5998**
3/16	5-1/16	3/16	3/16	1/4	5/8	.1880-.1890	**395-6002**
7/32	5-3/8	7/32	7/32	1/4	3/4	.2190-.2200	**395-6004**
1/4	6	1/4	1/4	1/4	3/4	.2505-.2515	**395-6006**
9/32	7-1/4	9/32	9/32	5/16	1	.2815-.2825	**395-6008**
5/16	7-3/4	5/16	5/16	3/8	1	.3130-.3140	**395-6010**
11/32	7-3/4	11/32	11/32	3/8	1-1/4	.3440-.3450	**395-6012**
3/8	8-1/2	3/8	3/8	3/8	1-1/4	.3755-.3765	**395-6014**
13/32	9-5/8	13/32	13/32	1/2	1-3/8	.4065-.4075	**395-6016**
7/16	10-5/8	7/16	7/16	1/2	1-3/8	.4385-.4395	**395-6018**
15/32	11-7/8	15/32	15/32	1/2	1-3/8	.4690-.4700	**395-6020**
1/2	11-7/8	1/2	1/2	1/2	1-3/8	.5005-.5015	**395-6022**
9/16	13-3/4	9/16	9/16	1/2	1-5/8	.5630-.5640	**395-6024**
5/8	16-1/4	5/8	5/8	5/8	2	.6260-.6270	**395-6026**
11/16	16-3/4	11/16	11/16	5/8	2	.6880-.6890	**395-6030**
3/4	17-1/4	3/4	3/4	5/8	2	.7510-.7520	**395-6032**
7/8	18-1/2	7/8	7/8	5/8	2	.8765-.8775	**395-6034**
1	19-3/4	1	1	5/8	2	1.002-1.003	**395-6038**

Square Push Broaches 四方孔英制高速钢推刀

- For cutting hexagonal shaped hole in round pilot holes.
- Used to re-cut a round hole into a hole having a square shape in a single pass through the workpiece.
- Well suited for use in a variety of ferrous and non-ferrous materials.
- Broach is tapered, allowing teeth to cut hole to proper depth and width.
- Bright finish.





Broach Size	Broach Length	Pilot Dia.	Drill Size	Length of Cut Min.	Length of Cut Max.	Tolerance	Order No.
1/8”	4-1/8 ”	.1285”	#30	3/16”	1/2”	.1250-.1260	**395-4002**
5/32	5-1/8	.1590	#21	1/4	1/2	.1565-.1575	**395-4004**
3/16	5-9/16	.1935	#10	1/4	5/8	.1880-.1890	**395-4006**
7/32	6-3/8	.2280	#1	1/4	3/4	.2190-.2200	**395-4010**
1/4	6-1/2	17/64	17/64	1/4	3/4	.2505-.2515	**395-4014**
9/32	7-3/4	19/64	19/64	5/16	1	.2815-.2825	**395-4016**
5/16	7-7/8	21/64	21/64	5/16	1	.3130-.3140	**395-4018**
11/32	9-3/8	23/64	23/64	3/8	1-1/4	.3440-.3450	**395-4020**
3/8	9-3/8	25/64	25/64	3/8	1-1/4	.3755-.3765	**395-4022**
13/32	10-5/8	27/64	27/64	1/2	1-3/8	.4065-.4075	**395-4023**
7/16	10-7/8	29/64	29/64	1/2	1-3/8	.4385-.4395	**395-4024**
15/32	12	1/2	1/2	1/2	1-3/8	.4690-.4700	**395-4025**
1/2	12	17/32	17/32	1/2	1-3/8	.5005-.5015	**395-4026**
9/16	14-3/4	19/32	19/32	1/2	1-1/2	.5630-.5640	**395-4028**
5/8	16-5/16	21/32	21/32	5/8	1-5/8	.6260-.6270	**395-4030**
11/16	17-3/4	3/4	3/4	5/8	1-5/8	.6885-.6895	**395-4034**
3/4	17-3/4	13/16	13/16	5/8	1-5/8	.7510-.7520	**395-4038**
7/8	22-3/4	15/16	15/16	1/2	2	.8765-.8775	**395-4056**
1	24-1/8	1-3/32	1-3/32	1/2	2	1.0020-1.0030	**395-4064**

Standard Keyway Bushings 拉刀导套

Different size bushings enable the individual keyway broaches to be used in a variety of bore sizes.

Broaches and bushings with the same letter signify same size of broache width and bushing opening, please use bushings with the same letter designated broaches,

D,E Style: Plain
A,B,C Style: Collared



Inch Bushings

Bushing Type	Diameter	Order No.	Bushing Type	Diameter	Order No.
A	1/4"	395-3102	D	1-13/16"	395-3212
A	5/16	395-3104	D	1-7/8	395-3214
A	3/8	395-3106	D	1-15/16	395-3216
A	7/16	395-3108	D	2	395-3218
A	1/2	395-3110	D	2-1/16	395-3220
B	1/2	395-3120	D	2-1/8	395-3222
B	9/16	395-3122	D	2-3/16	395-3224
B	5/8	395-3124	D	2-1/4	395-3226
B	11/16	395-3126	D	2-5/16	395-3228
B	3/4	395-3128	D	2-3/8	395-3230
B	13/16	395-3130	D	2-7/16	395-3232
B	7/8	395-3132	D	2-1/2	395-3234
C	3/4	395-3140	D	2-9/16	395-3236
C	13/16	395-3142	D	2-5/8	395-3238
C	7/8	395-3144	D	2-11/16	395-3240
C	15/16	395-3146	D	2-3/4	395-3242
C	1	395-3148	D	2-13/16	395-3244
C	1-1/16	395-3150	D	2-7/8	395-3246
C	1-1/8	395-3152	D	2-15/16	395-3248
C	1-3/16	395-3154	E	2-5/16	395-3270
C	1-1/4	395-3156	E	2-3/8	395-3272
C	1-5/16	395-3158	E	2-7/16	395-3274
C	1-3/8	395-3160	E	2-1/2	395-3276
C	1-7/16	395-3162	E	2-9/16	395-3278
C	1-1/2	395-3164	E	2-5/8	395-3280
C	1-9/16	395-3166	E	2-11/16	395-3282
D	1-7/16	395-3200	E	2-3/4	395-3284
D	1-1/2	395-3202	E	2-13/16	395-3286
D	1-9/16	395-3204	E	2-7/8	395-3288
D	1-5/8	395-3206	E	2-15/16	395-3290
D	1-11/16	395-3208	E	3	395-3292
D	1-3/4	395-3210			

Metric Bushings

Bushing Type	Diameter	Order No.	Bushing Type	Diameter	OrderNo.
A	6mm	395-3300	D	35mm	395-3404
A	8mm	395-3302	D	36mm	395-3406
A	10mm	395-3304	D	38mm	395-3408
A	12mm	395-3306	D	40mm	395-3410
A	15mm	395-3308	D	42mm	395-3412
B-1	12mm	395-3320	D	44mm	395-3414
B-1	14mm	395-3322	D	45mm	395-3416
B-1	15mm	395-3324	D	46mm	395-3418
B-1	16mm	395-3326	D	48mm	395-3420
B-1	17mm	395-3328	D	50mm	395-3422
B-1	18mm	395-3330	D	52mm	395-3424
B-1	19mm	395-3332	D	54mm	395-3426
C	18mm	395-3340	D	56mm	395-3428
C	19mm	395-3342	E	52mm	395-3470
C	20mm	395-3344	E	54mm	395-3472
C	22mm	395-3346	E	55mm	395-3474
C	24mm	395-3348	E	56mm	395-3476
C	25mm	395-3350	E	58mm	395-3478
C	26mm	395-3352	E	60mm	395-3480
C	28mm	395-3354	E	62mm	395-3482
C	30mm	395-3356	E	63mm	395-3484
C	32mm	395-3358	E	64mm	395-3486
C	34mm	395-3360	E	65mm	395-3488
C	35mm	395-3362	E	66mm	395-3490
C	36mm	395-3364	E	68mm	395-3492
D	32mm	395-3400	E	70mm	395-3494
D	34mm	395-3402	E	72mm	395-3496

Shims For Keyway Broaches

拉刀垫片

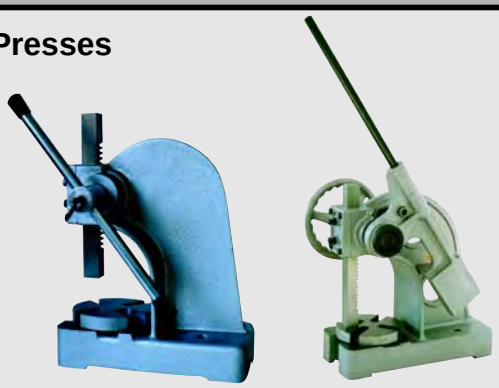


Inch & Metric

Size	Order No.
A 1/8"&A 3mm	395-4208
B 1/8"	395-4212
B 5/32"	395-4216
B-1 4mm	395-4220
B 3/16"	395-4224
B-1 5mm	395-4228
C 3/16"	395-4232
C 5mm	395-4236
C 1/4 & 3/8", C-1 6mm	395-4240
C 5/16 & C-1 8mm	395-4244
D 5/16"	395-4248
D 3/8 & 1/2", D-1 14mm	395-4252
D-1 10 & 12mm	395-4256
D 7/16"	395-4260
E 5/8,3/4" E-1 16&18mm	395-4264
F 7/8&1" F-1 20-25mm	395-4268

For Arbor Presses Turn to Page422

Arbor Presses
压力机



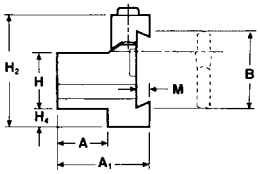
Carbide Tools

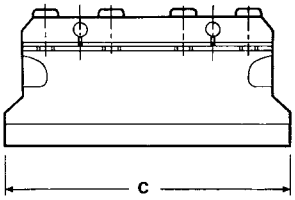
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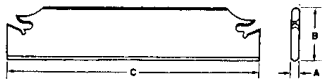


Inch Indexable Cut-Off Tool Kits

英制套装切断刀







Individual Blade

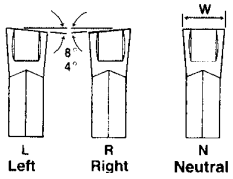
Blade Style	Blade Length	Order No.
26-3	4-5/16"	250-3103
26-4	4-5/16"	250-3104
26-5	4-5/16"	250-3105
32-3	5-7/8"	250-3113
32-4	5-7/8"	250-3114
32-5	5-7/8"	250-3115

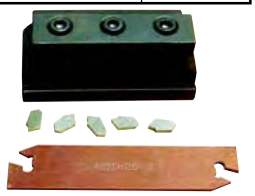
Individual Tool Blocks

Clamping Height H	Blade Height B	Clamping Depth A	Overall Block Width A1	Overall Block Height H2	Shoulder Height H4	Blade Pocket Depth M	Block OAL C	Blade	Order No.
0.75"	1.02"	0.790"	1.45"	1.70"	.39"	.16"	3.400"	26-3,26-4,26-5	250-3003
0.75	1.25	0.790	1.50	1.94	.55	.21	3.950	32-3,32-4,32-5	250-3009
1.00	1.25	1.030	1.75	1.95	.30	.21	4.330	32-3,32-4,32-5	250-3015
1.25	1.25	1.140	1.90	2.10	.20	.21	4.330	32-3,32-4,32-5	250-3021

Individual Inserts

Insert Size w	Blade Style	C2 Order No.	C6 Order No.
0.120"	GTN-3	250-3430	250-3530
0.160"	GTN-4	250-3440	250-3540
0.200"	GTN-5	250-3450	250-3550





Cut-Off Tool Sets

Tool Block Clamping Ht xBlade Ht	Blade	Insert	C2 Order No.	C6 Order No.
1pc 0.75"x1.02"	1pc/26-3	10pcs 0.120"/GTN-3	250-3203	250-3253
1pc 0.75x1.25	1pc/32-3	10pcs 0.120"/GTN-3	250-3206	250-3256
1pc 1.00x1.25	1pc/32-3	10pcs 0.120"/GTN-3	250-3209	250-3259
1pc 1.25x1.25	1pc/32-3	10pcs 0.120"/GTN-3	250-3212	250-3262

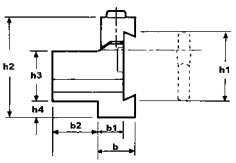
16 Piece 3/4" Shank Cut-Off Tool Kit

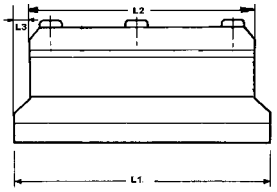
1pc .75x1.02" Tool Block
1pc 26-3 Blade
1pc 26-4 Blade
5pcs C6 0.120" GTN-3 Carbide Inserts
5pcs C6 0.160" GTN-4 Carbide Inserts
2pcs Insert Holders
1pc Allen Wrench

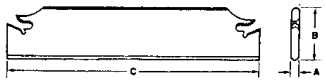
Order No. 250-3291

Metric Indexable Cut-Off Tool Kits

公制套装切断刀





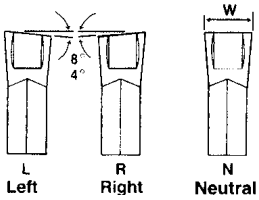


Individual Blades

Blade Style	Blade Length	Order No.
26-3	109mm	250-3153
26-4	109mm	250-3154
26-5	109mm	250-3155
32-3	149mm	250-3163
32-4	149mm	250-3164
32-5	149mm	250-3165

Individual Tool Blocks

Clamping Height h3	Blade Height h1	Overall Block Height h2	Shoulder Height h4	Shoulder Width b	Shoulder Width b1	Clamping Depth b2	Block OAL Ll	Beveled Side Length L2	Top Clamping Length L3	Blade	Order No.
20mm	20	45.5	10	18	13.4	20	80	70	5	26-3,26-4,26-5	250-3053
25mm	25	52.5	10	18	13.4	20	120	110	5	26-3,26-4,26-5	250-3059
32mm	32	54. 5	5	18	13.4	32	120	110	5	32-3,32-4,32-5	250-3065
32mm	32	82.5	29.7	20.4	13.4	31.6	160	150	5	32-3,32-4,32-5	250-3071





Individual Inserts

Insert Size w	Blade Style	C2 Order No.	C6 Order No.
3mm	GTN-3	250-3730	250-3830
4mm	GTN-4	250-3740	250-3840
5mm	GTN-5	250-3750	250-3850

Cut-Off Tool Sets

Tool Block Clamping HtxBlade Ht	Blade	Insert	C2 Order No.	C6 Order No.
1pc 20x20mm	1pc 26-3	10pcs 3mm/GTN-3	250-3223	250-3273
1pc 25x25mm	1pc 26-3	10pcs 3mm/GTN-3	250-3226	250-3276
1pc 32x32mm	1pc 32-3	10pcs 3mm/GTN-3	250-3229	250-3279
1pc 32x32mm	1pc 32-3	10pcs 3mm/GTN-3	250-3232	250-3282

Indexable Countersink & Chamfering Tools

可转位锪钻



- Overall Length 2-3/8”
- Positive rake for smooth cutting without chatter.
- Uses standard inserts.

Individuals & Sets

Cutter body	Shank	Insert	60° Order No.	82° Order No.	90° Order No.
1/4 - 3/4”	1/2”	TPGH321	380-4010	380-4110	380-4210
1/2 - 1-3/4	1/2	SPGH433	380-4015	380-4115	380-4215
1-1/4 - 2-1/2	3/4	SPGH433	380-4020	380-4120	380-4220
3 Pcs/set with wooden stand			380-4000	380-4100	380-4200

Inserts & Screw

Insert	Radius	I.C.	Thickness	Order No.
TPGH321	1/64”	3/8”	1/8”	380-4310
SPGH433	3/16	1/2	1/8	380-4320
Locking Screw				380-4300

Indexable Carbide Insert End Mills

R8 Shank

硬质合金可转位立铣刀



3 Piece Set

Size including 1-3/4 ,2 ,2-1/2"

Order No. 242-3202

3 Piece Set

Size including 1 ,1-1/4 ,1-1/2"

Order No. 242-3201

Cutter Dia.	Inserts	Order No.
1"	2 inserts TP-22	242-3205
1-1/4	2 inserts TP-32	242-3210
1-3/8	3 inserts TP-32	242-3215
1-1/2	3 inserts TP-32	242-3220
1-5/8	3 inserts TP-32	242-3225
1-3/4	3 inserts TP-32	242-3230
2	3 inserts TP-43	242-3235
2-1/2	3 inserts TP-43	242-3240
3	3 inserts TP-43	242-3245

Indexable Carbide Insert End Mills

Straight Shank

硬质合金可转位立铣刀



Cutter Dia.	Insert	Shank Dia.	Order No.
3/4”	1 insert TP-21	3/4”	242-3005
7/8	2 inserts TP-21	3/4	242-3010
1	2 inserts TP-32	3/4	242-3015
1-1/4	2 inserts TP-32	3/4	242-3020
1-3/8	2 inserts TP-32	3/4	242-3025
1-1/2	3 inserts TP-32	3/4	242-3030
1-5/8	3 inserts TP-32	3/4	242-3035
1-3/4	3 inserts TP-32	3/4	242-3040
2	3 inserts TP-43	3/4	242-3045
1	2 inserts TP-22	1	242-3105
1-1/4	2 inserts TP-32	1	242-3110
1-3/8	2 inserts TP-32	1	242-3115
1-1/2	3 inserts TP-32	1	242-3120
1-5/8	3 inserts TP-32	1	242-3125
1-3/4	3 inserts TP-32	1	242-3130
2	3 inserts TP-43	1	242-3135

1/2" Shank Mini Indexable End Mills

1/2″柄可转位立铣刀



Cutter Dia.	Overall Length	Body Length	Insert	Order No.
1/2"	3"	1"	TPG22	320-0820
9/16	3	1	TPG22	320-0825
5/8	3	1	TPG22	320-0830

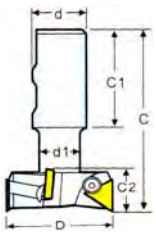
Set

No. of Pieces	Include	Order No.
3 Pcs/set	1/2",9/16,5/8"	320-0835

Indexable T-slot Cutter 夹可转位刀片 T 型槽铣刀（含刀片）

Weldon shank

Bolt Size	Cutter Dia.	Cutter Width	Shank Dia.	Undercut Length	Overall Length	Tooth	Right Order No.	Left Order No.
3/4	1-15/32	5/8	1	1-1/2	4-7/16	2	298-6148	298-6248
1	1-27/32	53/64	1-1/4	1-43/64	4-13/16	4	298-6164	298-6264
1-1/4	2-7/32	1-3/32	1-1/4	1-31/32	5-3/8	4	298-6180	298-6280
1-1/2	2-21/32	1-11/32	1-1/4	2-1/8	5-29/32	4	298-6196	298-6296



NEW



Heavy-Duty Turning Toolholders

重型车刀刀夹–HSS 割刀用



NEW

Holder	Blade	Straigh Order No.	Left Order No.	Right Order No.
5/16x3/4x4-1/2	3/32x1/1x4-1/2	950-6720	950-6820	950-6920
3/8x7/8x5	3/32x5/8x5	950-6724	950-6824	950-6924
1/2x1-1/8x6	1/8x3/4x5	950-6732	950-6832	950-6932
5/8x1-3/8x7	1/8x7/8x6	950-6740	950-6840	950-6940
3/4x1-5/8x8	3/16x1x6-1/2	950-6748	950-6848	950-6948
7/8x1-3/4x9	3/16x1-1/8x7	950-6756	950-6856	950-6956

Turning Toolholders

for Standard HSS Tool Bits

车刀刀夹－白钢刀用

NEW



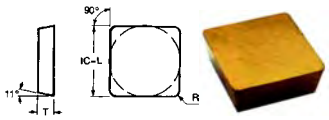
Holder	Tool Bit	Height from Bottom of Shank to Blade Pt.	Straigh Order No.	Left Order No.	Right Order No.
5/16x3/4x4-1/2	3/16	3/16	950-6120	950-6220	950-6320
3/8x7/8x5	1/4	13/16	950-6124	950-6224	950-6324
1/2x1-1/8x6	5/16	1-1/16	950-6132	950-6232	950-6332
5/8x1-3/8x7	3/8	1-1/4	950-6140	950-6240	950-6340
3/4x1-5/8x8	7/16	1-15/32	950-6148	950-6248	950-6348
7/8x1-3/4x9	1/2	1-1/2	950-6156	950-6256	950-6356
1x2x11	5/5	2	950-6164	950-6264	960-6364

Carbide Inserts

硬质合金刀片

SPU

Triangle/positive. Ground top & bottom. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating for extra strength.

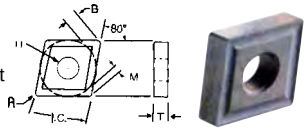


Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
322	3/8	1/8	1/32	431-1811	431-1812	431-1813*
422	1/2	1/8	1/32	431-1815	431-1816	431-1817
423	1/2	1/8	3/64	431-1821	431-1822	431-1823
633	3/4	3/16	3/64	431-1831	431-1832	431-1833
634	3/4	3/16	1/16	431-1835	431-1836	431-1837

*WSL CLOSE-OUT

CNMG

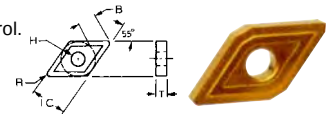
- 80° Diamond Lapped with holes and cast chipbreaker.
- Use for turning, facing, profiling and boring.



Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
431	1/2	3/16	1/32	431-1011	431-1012	431-1013
432	1/2	3/16	3/64	431-1015	431-1016	431-1017
433	1/2	3/16	1/16	431-1021	431-1022	431-1023
434				431-1024	431-1025	431-1026

DNMG

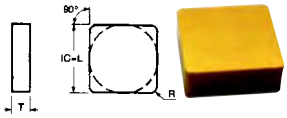
- 55° Diamond - negative with chip control.
- Use for turning, facing, profiling and boring.



Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
432	1/2	3/16	1/32	431-1031	431-1032	431-1033
442	1/2	1/4	1/32	431-1035	431-1036	431-1037
431	182	3/16	1/16	431-1041	431-4042	431-1043

SNG

Triangle/negative. Ground all over. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating for extra strength.

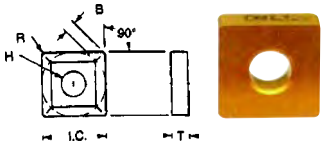


Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
321	3/8	1/8	1/64	431-1711	431-1712	431-1713*
322	3/8	1/8	1/32	431-1715	431-1716	431-1717*
323	3/8	1/8	3/64	431-1721	431-1722	431-1723*
422	1/2	1/8	1/32	431-1725	431-1726	431-1727
423	1/2	1/8	3/64	431-1731	431-1732	431-1733*
432	1/2	3/16	1/32	431-1735	431-1736	431-1737*
433	1/2	3/16	3/64	431-1741	431-1742	431-1743*
434	1/2	3/16	1/16	431-1745	431-1746	431-1747*
632	3/4	3/16	1/32	431-1751	431-1752	431-1753*
633	3/4	3/16	3/64	431-1755	431-1756	431-1757*
634	3/4	3/16	1/16	431-1761	431-1762	431-1763*

*WSL CLOSE-OUT

SNMA

Triangle/positive. Ground top & bottom. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating for extra strength.

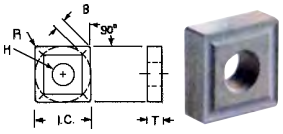


Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
322	3/8	1/8	1/32	431-1911	431-1912	431-1913*
432	1/2	3/16	1/32	431-1915	431-1916	431-1917
433	1/2	3/16	3/64	431-1921	431-1922	431-1923
543	5/8	1/4	3/64	431-1925	431-1926	431-1927
644	3/4	1/4	1/16	431-1931	431-1932	431-1933
866	1	3/8	3/32	431-1935	431-1936	431-1937

*WSL CLOSE-OUT

SNMG

Square/negative. Precision ground with chip control. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating.

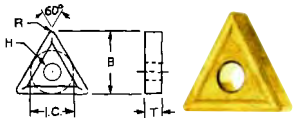


Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
322	3/8	1/8	1/32	431-1211	431-1212	431-1213*
323	3/8	1/8	3/64	431-1215	431-1216	431-1217*
432	1/2	3/16	1/32	431-1221	431-1222	431-1223
433	1/2	3/16	3/64	431-1225	431-1226	431-1227
434	1/2	3/16	1/16	431-1231	431-1232	431-1233
543	5/8	1/4	3/64	431-1235	431-1236	431-1237
642	3/4	1/4	1/32	431-1241	431-1242	431-1243*
643	3/4	1/4	3/64	431-1245	431-1246	431-1247*
644	3/4	1/4	1/16	431-1251	431-1252	431-1253*
866	1	3/8	3/32	431-1255	431-1256	431-1257*

*WSL CLOSE-OUT

TNMG

Triangle/negative. Precision ground with chip control. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating.

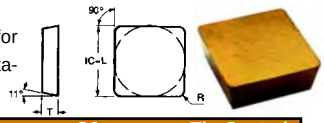


Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
222	1/4	1/8	1/32	431-1111	431-1112	431-1113
321	3/8	1/8	1/64	431-1115	431-1116	431-1117
322	3/8	1/8	1/32	431-1121	431-1122	431-1123
323	3/8	1/8	3/64	431-1125	431-1126	431-1127
324	3/8	1/8	1/16	431-1131	431-1132	431-1133
332	3/8	3/16	1/32	431-1135	431-1136	431-1137
333	3/8	3/16	3/64	431-1141	431-1142	431-1143
431	1/2	3/16	1/64	431-1145	431-1146	431-1147
432	1/2	3/16	1/32	431-1151	431-1152	431-1153
433	1/2	3/16	3/64	431-1155	431-1156	431-1157
434	1/2	3/16	1/16	431-1161	431-1162	431-1163
438	1/2	3/16	1/8	431-1165	431-1166	431-1167
542	5/8	1/4	1/32	431-1171	431-1172	431-1173
543	5/8	1/4	3/64	431-1175	431-1176	431-1177
544	5/8	1/4	1/16	431-1181	431-1182	431-1183
666	3/4	3/8	3/32	431-1185	431-1186	431-1187

Carbide Inserts
硬质合金刀片

SPG

Triangle/positive. Ground all over. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating for extra strength.



Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
321	3/8	1/8	1/64	431-1501	431-1502	431-1503*
322	3/8	1/8	1/32	431-1505	431-1506	431-1507*
323	3/8	1/8	3/64	431-1511	431-1512	431-1513*
422	1/2	1/8	1/32	431-1515	431-1516	431-1517
423	1/2	1/8	3/64	431-1521	431-1522	431-1523
424	1/2	1/8	1/16	431-1525	431-1526	431-1527
432	1/2	3/16	1/32	431-1531	431-1532	431-1533
433	1/2	3/16	3/64	431-1535	431-1536	431-1537
632	3/4	3/16	1/32	431-1541	431-1542	431-1543
633	3/4	3/16	3/64	431-1545	431-1546	431-1547
634	3/4	3/16	1/16	431-1551	431-1552	431-1553

* WSL CLOSE-OUT

SDKN,TCMT

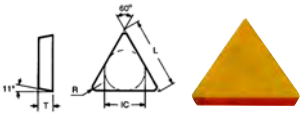


TCMT

Style	Insert No.	Grade	Order No.
	42	C5	431-1401
SDKN	42	C5	431-1402
	42	C5 + Gold Tin Coated	431-1403
	21.51	C5	431-1451
TCMT	32.51	C5	431-1457
	32.52	C5	431-1461

TPG

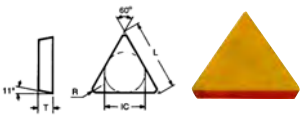
Triangle/positive. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating for extra strength.



Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
221	1/4	1/8	1/64	431-1311	431-1312	431-1313
222	1/4	1/8	1/32	431-1315	431-1316	431-1317
223	1/4	1/8	3/64	431-1321	431-1322	431-1323
321	3/8	1/8	1/64	431-1325	431-1326	431-1327
322	3/8	1/8	1/32	431-1331	431-1332	431-1333
323	3/8	1/8	3/64	431-1335	431-1336	431-1337
324	3/8	1/8	1/16	431-1341	431-1342	431-1343
431	1/2	3/16	1/64	431-1345	431-1346	431-1347

TPU

Triangle/positive. Gound top & bottom. C-2 for cast iron cutting, C-6 for steel cutting. Titanium Nitride coating for extra strength.



Insert No.	I.C.	T	R	C2 Order No.	C6 Order No.	Tin Coated Order No.
212	1/4	1/16	1/32	431-1601	431-1602	431-1603
222	1/4	1/8	1/32	431-1605	431-1606	431-1607
322	3/8	1/8	1/32	431-1611	431-1612	431-1613
323	3/8	1/8	3/64	431-1615	431-1616	431-1617
432	1/2	3/16	1/32	431-1621	431-1622	431-1623
433	1/2	3/16	3/64	431-1625	431-1626	431-1627
434	1/2	3/16	1/16	431-1631	431-1632	431-1633
544	5/8	1/4	1/16	431-1635	431-1636	431-1637

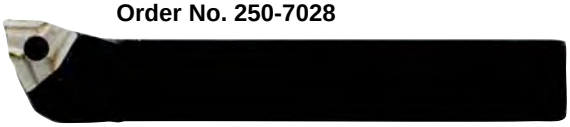
Carbide Insert Tool Holders
硬质合金切刀

Lathe Toolholders

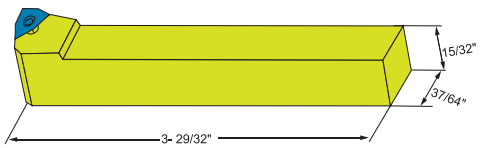
For turning or facing with trigon chip breaker inserts



Right Hand
Order No. 250-7028



Left Hand
Order No. 250-7029



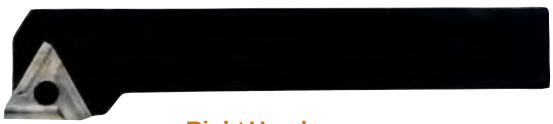
Inserts



Description	Inserts of Right Hand Order No.	Inserts of Left Hand Order No.
For Steel	250-7039	250-7040
For Cast Iron	250-7047	250-7048

Turning Toolholders

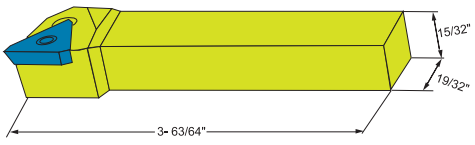
For turning or facing with triangle chip breaker inserts



Right Hand
Order No. 250-7034



Left Hand
Order No. 250-7035



Inserts



Description	Inserts of Right Hand Order No.	Inserts of Left Hand Order No.
For Steel	250-7043	250-7044
For Cast Iron	250-7051	250-7052

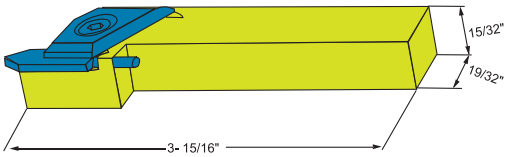
Carbide Insert Tool Holders continued
硬质合金切刀

Threading Toolholders

For all external threading, with adjustable insert



Order No. 250-7030



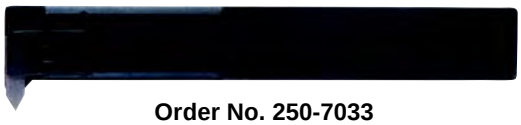
Inserts



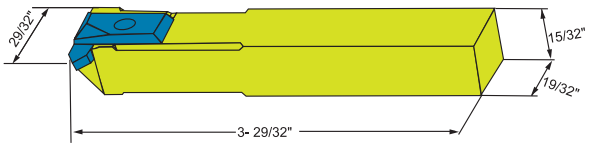
Description	Inserts Order No.
For Steel	250-7041
For Cast Iron	250-7049

Internal Threading Toolholders

For internal threading, with adjustable insert



Order No. 250-7033



Inserts



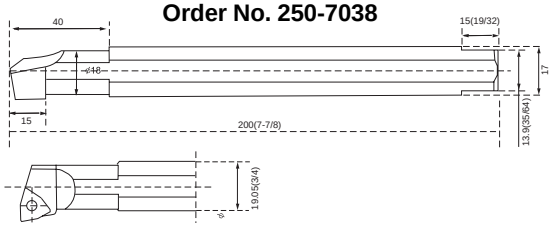
Description	Inserts Order No.
For Steel	250-7042
For Cast Iron	250-7050

Boring Bar

For all your boring bar works, with triangle inserts



Order No. 250-7038



Inserts



Description	Inserts Order No.
For Steel	250-7055
For Cast Iron	250-7056

Turning Toolholders

For facing end of tubing and front and back flanges, with square inserts



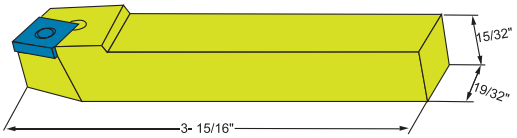
Right Hand

Order No. 250-7036



Left Hand

Order No. 250-7037



Inserts



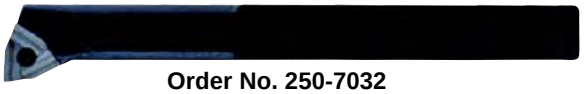
Description	Inserts of Right Hand Order No.	Inserts of Left Hand Order No.
For Steel	250-7045	250-7046
For Cast Iron	250-7053	250-7054

Boring Tool Holders

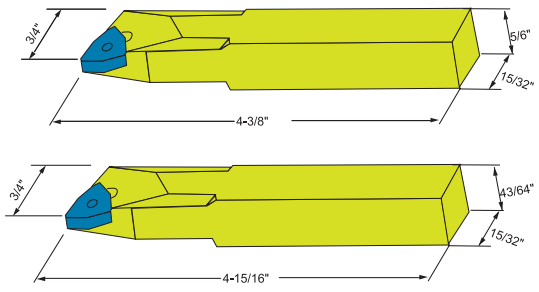
For boring bar works, with trigon chip breaker inserts



Order No. 250-7031



Order No. 250-7032



Inserts



Description	Inserts Order No.
For Steel	250-7040
For Cast Iron	250-7048

Indexable Carbide Turning Tools

可转位切刀

- An inexpensive way to replace carbide tipped tool bits.
- Versatile and economical.
- Available in 5 shank size and styles.
- Each tool cuts right, left or plunges.
- Positive rake cutting and built in chip breaker groove.
- Available with 3 different radio.

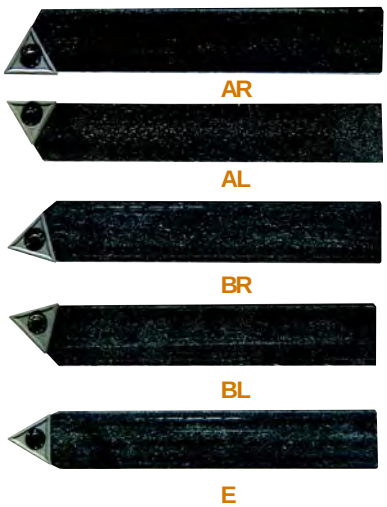


5 Piece Sets

- Set includes: 5 tools in styles-AR, AL, BR, BL and E insert, with 5 extra screws and 2 wrenches, set also comes in 1/4", 3/8", 1/2", 5/8",3/4" and 1" sets.

No.of Pieces	Shank (Square)	Set No.	Descriptions.	C-2 Order No.	C-6 Order No.
5Pcs/set	1/4"	ST-4	AR-4, AL-4, BR-4, BL-4, E-4	250-1399	251-1399
5Pcs/set	3/8	ST-6	AR-6, AL-6, BR-6, BL-6, E-6	250-1400	251-1400
5Pcs/set	1/2	ST-8	AR-8, AL-8, BR-8, BL-8, E-8	250-1401	251-1401
5Pcs/set	5/8	ST-10	AR-10, AL-10, BR-10, BL-10, E-10	250-1402	251-1402
5Pcs/set	3/4	ST-12	AR-12, AL-12, BR-12, BL-12, E-12	250-1404	251-1404
5Pcs/set	1	ST-16	AR-16, AL-16, BR-16, BL-16,E-16	250-1406	251-1406

Individual Indexable Carbide Turning Tools 可转位切刀



1/4" Shank, 3/16" I.C. Insert

Type	Order No.
AR 4	250-1391
AL 4	250-1392
BR 4	250-1393
BL 4	250-1394
E 4	250-1395

3/8" Shank, 1/4" I.C. Insert

Type	Order No.
AR 6	250-1411
AL 6	250-1412
BR 6	250-1413
BL 6	250-1414
E 6	250-1415

1/2" Shank, 3/8" I.C. Insert

Type	Order No.
AR 8	250-1421
AL 8	250-1422
BR 8	250-1423
BL 8	250-1424
E 8	250-1425

5/8" Shank, 3/8" I.C. Insert.

Type	Order No.
AR 10	250-1431
AL 10	250-1432
BR 10	250-1433
BL 10	250-1434
E 10	250-1435

3/4" Shank, 3/8" I.C. Insert

Type	Order No.
AR 12	250-1441
AL 12	250-1442
BR 12	250-1443
BL 12	250-1444
E 12	250-1445

1" Shank, 1/2" I.C. Insert

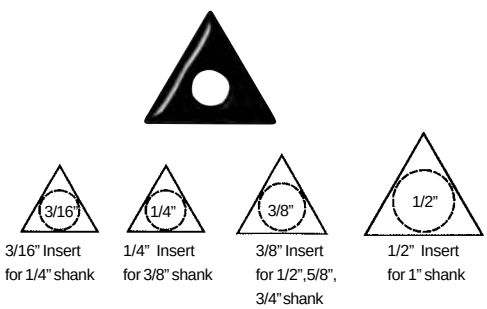
Type	Order No.
AR 16	250-1451
AL 16	250-1452
BR 16	250-1453
BL 16	250-1454
E 16	250-1455

Replacement Screws 可转位刀杆紧固螺钉



Descriptions	Order No.
M2.5 screw for 1/4",3/8" shank	250-1297
M4 screw for 1/2, 5/8, 3/4" shank	250-1298
M5 screw for 1" shank	250-1299

Carbide Inserts 硬质合金刀片



3/16" Insert for 1/4" shank
1/4" Insert for 3/8" shank
3/8" Insert for 1/2",5/8", 3/4" shank
1/2" Insert for 1" shank

Insert I.C.	Radius	Insert No.	C2 Order No.	C6 Order No.	Tin Coated Order No.
3/16"			340-0097	340-0098	340-0099
1/4	.015	TT-221	340-1000	340-1002	340-1003
1/4	.032	TT-222	340-1004	340-1006	340-1007
3/8	.015	TT-321	340-1008	340-1010	340-1011
3/8	.032	TT-322	340-1012	340-1014	340-1015
3/8	.046	TT-323	340-1016	340-1018	340-1019
1/2	.015	TT-431	340-1020	340-1022	340-1023
1/2	.032	TT-432	340-1024	340-1026	340-1027
1/2	.046	TT-433	340-1028	340-1030	340-1031

Metric Indexable Carbide Turning Tools

公制套装可转位切刀

5 Piece Sets



- Set includes: 5 tools in styles-AR, AL, BR, BL and E insert, with 5 extra screws and 2 wrenches, set also comes in 6mm, 8mm, 10mm, 12mm, 14mm, 16mm, 18mm, 20mm, and 25mm sets.

Shank (Square)	Length	Description	ISO K20 Order No.	ISO P20 Order No.
6mm		AR, AL, BR, BL, E	250-5398	251-5398
8mm		AR, AL, BR, BL, E	250-5399	251-5399
10mm	63	AR, AL, BR, BL, E	250-5400	251-5400
12mm	76	AR, AL, BR, BL, E	250-5401	251-5401
16mm	102	AR, AL, BR, BL, E	250-5402	251-5402
14mm	76	AR, AL, BR, BL, E	250-5403	251-5403
20mm	120	AR, AL, BR, BL, E	250-5404	251-5404
18mm	115	AR, AL, BR, BL, E	250-5405	251-5405
25mm	150	AR, AL, BR, BL, E	250-5406	251-5406

Individual Indexable Carbide Turning Tools 可转位切刀


AR


AL


BR


BL


E

10mm Shank 6.5mm I.C. Insert

Type	Order No.
AR	250-1591
AL	250-1592
BR	250-1593
BL	250-1594
E	250-1595

12mm Shank 9.5mm I.C. Insert

Type	Order No.
AR	250-1611
AL	250-1612
BR	250-1613
BL	250-1614
E	250-1615

14mm Shank 9.5mm I.C. Insert

Type	Order No.
AR	250-1621
AL	250-1622
BR	250-1623
BL	250-1624
E	250-1625

16mm Shank 9.5mm I.C. Insert

Type	Order No.
AR	250-1631
AL	250-1632
BR	250-1633
BL	250-1634
E	250-1635

20mm Shank 9.5mm I.C. Insert

Type	Order No.
AR	250-1651
AL	250-1652
BR	250-1653
BL	250-1654
E	250-1655

25mm shank 12.5mm I.C. Insert

Type	Order No.
AR	250-1661
AL	250-1662
BR	250-1663
BL	250-1664
E	250-1665

18mm Shank 9.5mm I.C. Insert

Type	Order No.
AR	250-1641
AL	250-1642
BR	250-1643
BL	250-1644
E	250-1645

Replacement Screws 可转位刀杆紧固螺钉



Descriptions	Order No.
6.5mm I.C. for10mm shank	250-1287
9.5mm I.C. for 12, 14, 16, 18, 20 mm square shank	250-1288
12.5mm I.C. for 25mm shank only	250-1289









6.5mm Insert for 10mm shank

9.5mm Insert for 12,14, 16,18,20mmshank

12.5mmInsert for 25mm shank

Carbide Inserts 硬质合金刀片

Insert I.C.	Radius	ISO K20 Order No.	ISO P20 Order No.
6.5mm	0.8mm	340-1102	340-1100
9.5mm	0.8mm	340-1108	340-1106
12.5mm	0.8mm	340-1112	340-1110

Turning Tool Holders & Sets

with TCMT Carbide Insert 硬制合金可转位套装车刀



STACR STNCR STECN STDCR STCCR

Sets

Pieces	Shank	Order No.
5 Piece Set	3/8" Square	**250-2091**
5 Piece Set	1/2" Square	**250-2092**
5 Piece Set	5/8" Square	**250-2093**
5 Piece Set	3/4" Square	**250-2094**
5 Piece Set	1x3/4" Rectangle	**250-2095**

Individual

Type	Shank Size	Tool Length	Insert No. ISO	Order No.
STACR	3/8 Sq.	2-1/2	110204	**250-2007**
STACR	1/2 Sq.	3-1/2	110204	**250-2010**
STACR	5/8 Sq.	4	110204	**250-2013**
STACR	3/4 Sq.	4-1/2	16T308	**250-2016**
STACR	1x3/4	6	16T308	**250-2019**
STNCR	3/8 Sq.	2-1/2	110204	**250-2022**
STNCR	1/2 Sq.	3-1/2	110204	**250-2025**
STNCR	5/8 Sq.	4	110204	**250-2028**
STNCR	3/4 Sq.	4-1/2	16T308	**250-2031**
STNCR	1x3/4	6	16T308	**250-2034**
STECN	3/8 Sq.	2-1/2	110204	**250-2037**
STECN	1/2 Sq.	3-1/2	110204	**250-2040**
STECN	5/8 Sq.	4	110204	**250-2043**
STECN	3/4 Sq.	4-1/2	16T308	**250-2046**
STECN	1x3/4	6	16T308	**250-2049**
STDCR	3/8 Sq.	2-1/2	110204	**250-2052**
STDCR	1/2 Sq.	3-1/2	110204	**250-2055**
STDCR	5/8 Sq.	4	110204	**250-2058**
STDCR	3/4 Sq.	4-1/2	16T308	**250-2061**
STDCR	1x3/4	6	16T308	**250-2064**
STCCR	3/8 Sq.	2-1/2	110204	**250-2067**
STCCR	1/2 Sq.	3-1/2	110204	**250-2070**
STCCR	5/8 Sq.	4	110204	**250-2073**
STCCR	3/4 Sq.	4-1/2	16T308	**250-2076**
STCCR	1x3/4	6	16T308	**250-2079**

Inch Multi-Purpose Indexable Tool Sets

with Carbide Insert 硬制合金可转位套装车刀

7 Piece Set

Set Include:
one each of
Right Hand 90°,95°,93°,62.5° External Turning
Left Hand 95° External Turning
External Threading
Cut-Off Tool Holder
Wooden Case



Piece	Shank Size	Order No.
7	1/4”	**250-8170**
7	5/16”	**250-8171**
7	3/8”	**250-8172**
7	1/2”	**250-8173**
7	5/8”	**250-8174**
7	3/4	**250-8175**

7 Piece Set

Set Include:
one each of
Right Hand 90°,95°,93°,62.5° External Turning
Left Hand 95° External Turning
External Threading
Cut-Off Tool Holder
Wooden Case



Piece	Shank Size	Order No.
7	6mm	**250-8070**
7	8mm	**250-8071**
7	10mm	**250-8072**
7	12mm	**250-8073**
7	16mm	**250-8074**
7	20mm	**250-8075**

9 Piece Set

Set Include:
one each of
Right Hand 45°,75°,90° External Turning
45° Facing
75°, 93° Internal Turning(Boring Bar)
External Threading
Internal Threading
Cut-Off Tool Holder
Plastic Case/Wooden Case



Piece	Shank Size	Order No.
9	5/8”	**250-8191**
9	3/4”	**250-8192**
9	1”	**250-8193**
9	1-1/4”	**250-8194**

9 Piece Set

Set Include:
one each of
Right Hand 45°,75°,90° External Turning
45° Facing
75°, 93° Internal Turning(Boring Bar)
External Threading
Internal Threading
Cut-Off Tool Holder
Plastic Case/Wooden Case



Piece	Shank Size	Order No.
9	16mm	**250-8091**
9	20mm	**250-8092**
9	25mm	**250-8093**
9	32mm	**250-8094**

7 Piece Set

Set Include:
one each of
Right Hand 45°,75°,90°,Turning,
Left Hand 90° Turning,
93° Internal Turning(Boring Bar),
External Threading,
Cut-Off Tool Holder
Wooden Case



Piece	Shank Size	Order No.
7	5/8”	**250-8177**

7 Piece Set

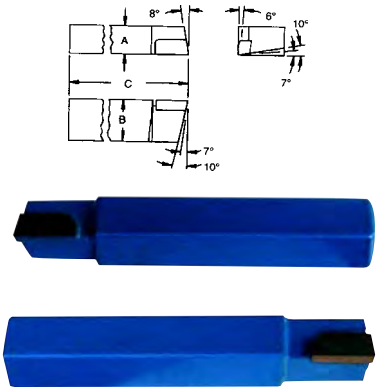
Set Include:
one each of
Right Hand 45°,75°,90°,Turning,
Left Hand 90° Turning,
93° Internal Turning(Boring Bar),
External Threading,
Cut-Off Tool Holder
Wooden Case



Piece	Shank Size	Order No.
7	16mm	**250-8077**

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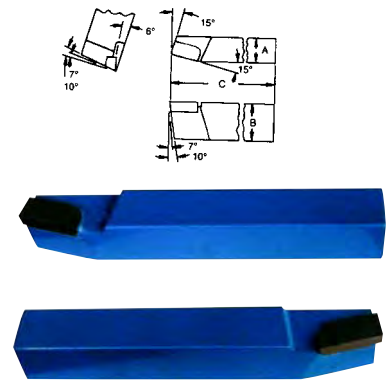
Grade C-2 for Cast Iron and Non-Ferrous Materials, Grade C-6 for Steel and Steel Alloys Premium Carbide



Style AR & AL

Straight Turning-for general machining applications such as turning, boring, facing and chamfering. Suitable for machining to a 90° shoulder.

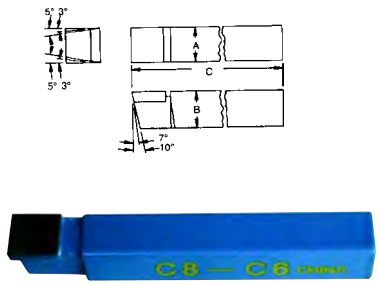
Square	Length	Industry Number	Right Hand C-2 Order No.	Right Hand C- 6 Order No.	Industry Number	Left Hand C-2 Order No.	Left Hand C-6 Order No.
1/4"	2"	AR-4	**383-0012**	**383-0016**	AL-4	**383-0112**	**383-0116**
5/16	2-1/4	AR-5	**383-0022**	**383-0026**	AL-5	**383-0122**	**383-0126**
3/8	2-1/2	AR-6	**383-0032**	**383-0036**	AL-6	**383-0132**	**383-0136**
7/16	3	AR-7	**383-0042**	**383-0046**	AL-7	**383-0142**	**383-0146**
1/2	3-1/2	AR-8	**383-0052**	**383-0056**	AL-8	**383-0152**	**383-0156**
5/8	4	AR-10	**383-0062**	**383-0066**	AL-10	**383-0162**	**383-0166**
3/4	4-1/2	AR-12	**383-0072**	**383-0076**	AL-12	**383-0172**	**383-0176**
1	6	AR-16	**383-0082**	**383-0086**	AL-16	**383-0182**	**383-0186**



Style BR & BL

Lead Angle turning - for general applications on turning, boring, and facing where a lead angle is either required or acceptable.

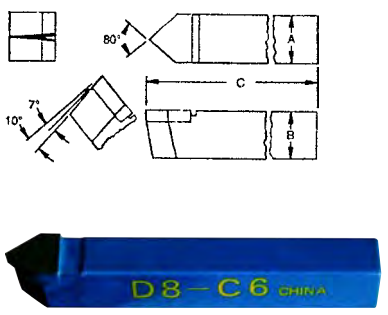
Square	Length	Industry Number	Right Hand C- 2 Order No.	Right Hand C- 6 Order No.	Industry Number	Left Hand C- 2 Order No.	Left Hand C- 6 Order No.
1/4"	2"	BR-4	**383-1012**	**383-1016**	BL-4	**383-1112**	**383-1116**
5/16	2-1/4	BR-5	**383-1022**	**383-1026**	BL-5	**383-1122**	**383-1126**
3/8	2-1/2	BR-6	**383-1032**	**383-1036**	BL-6	**383-1132**	**383-1136**
7/16	3	BR-7	**383-1042**	**383-1046**	BL-7	**383-1142**	**383-1146**
1/2	3-1/2	BR-8	**383-1052**	**383-1056**	BL-8	**383-1152**	**383-1156**
5/8	4	BR-10	**383-1062**	**383-1066**	BL-10	**383-1162**	**383-1166**
3/4	4-1/2	BR-12	**383-1072**	**383-1076**	BL-12	**383-1172**	**383-1176**
1	6	BR-16	**383-1082**	**383-1086**	BL-16	**383-1182**	**383-1186**



Style C

Broad nose - a general purpose tool of great utility for facing, chamfering, and turning. This tool is generally used for making special form tools.

Square	Length	Industry No.	C-2 Order No.	C-6 Order No.
1/4"	2 "	C-4	**383-2002**	**383-2006**
5/16	2-1/4	C-5	**383-2012**	**383-2016**
3/8	2-1/2	C-6	**383-2022**	**383-2026**
7/16	3	C-7	**383-2032**	**383-2036**
1/2	3-1/2	C-8	**383-2042**	**383-2046**
5/8	4	C-10	**383-2052**	**383-2056**
3/4	4-1/2	C-12	**383-2062**	**383-2066**
1	6	C-16	**383-2072**	**383-2076**

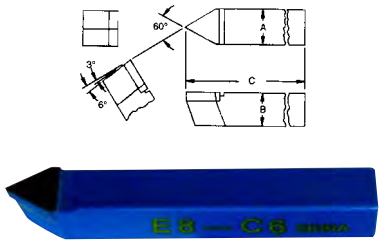


Style D

80° Round nose - an 80° included angle round nose tool for turning, boring, facing, chamfering and other miscellaneous machining operations.

Square	Length	Industry No.	C-2 Order No.	C-6 Order No.
1/4"	2 "	D-4	**383-3012**	**383-3016**
5/16	2-1/4	D-5	**383-3022**	**383-3026**
3/8	2-1/2	D-6	**383-3032**	**383-3036**
7/16	3	D-7	**383-3042**	**383-3046**
1/2	3-1/2	D-8	**383-3052**	**383-3056**
5/8	4	D-10	**383-3062**	**383-3066**
3/4	4-1/2	D-12	**383-3072**	**383-3076**
1	6	D-16	**383-3082**	**383-3086**

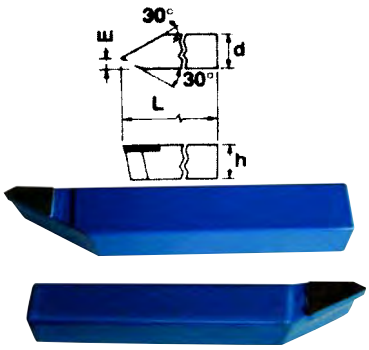
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Style E

Threading - conforms with the U.S. Standard 60° included angle thread, also used for V-grooving chamfering, turning, boring and facing.

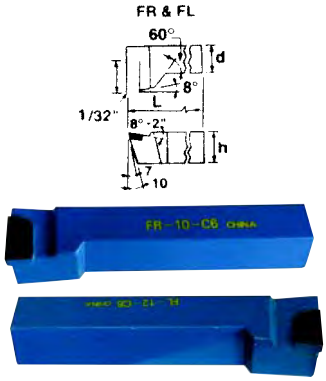
Square	Length	Industry No.	C-2 Order No.	C-6 Order No.
1/4"	2"	E-4	383-4002	383-4006
5/16	2-1/4	E-5	383-4012	383-4016
3/8	2-1/2	E-6	383-4022	383-4026
7/16	3	E-7	383-4032	383-4036
1/2	3-1/2	E-8	383-4042	383-4046
5/8	4	E-10	383-4052	383-4056
3/4	4-1/2	E-12	383-4062	383-4066
1	7	E-16	383-4072	383-4076



Style ER-Right AND EL-Left

60° Offset Tool, Right hand for facing to square shoulder. Used mainly for turret lathe operations. Right and left hand tools are used together for straddle facing. Left hand for turning.

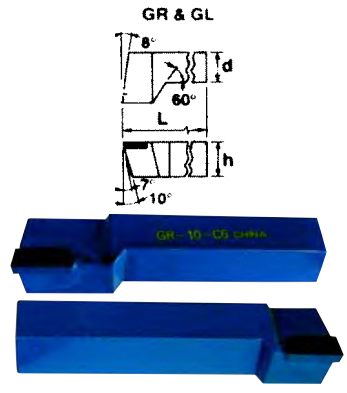
E	D	H	L	R.H. Industry No.	ER.R.H C-2 Order No.	ER.R.H. C-6 Order No.	L. H. Industry No.	EL.L.H. C-2 Order No.	EL.L.H. C-6 Order No.
1/16"	1/4"	1/4"	2"	ER-4	383-6202	383-6206	EL-4	383-6302	383-6306
1/16	5/16	5/16	2-1/4	ER-5	383-6232	383-6236	EL-5	383-6332	383-6336
1/16	3/8	3/8	2-1/2	ER-6	383-6212	383-6216	EL-6	383-6312	383-6316
3/32	1/2	1/2	3-1/2	ER-8	383-6222	383-6226	EL-8	383-6322	383-6326
3/32	5/8	5/8	4	ER-10	383-6242	383-6246	EL-10	383-6342	383-6346



Style FR-Right and FL-Left

End Cutting Offset Tool, right hand for facing to square shoulder. Used mainly for turret lathe operations. Right and left hand tools are used together for straddle facing. Left hand for turning.

E	D	H	L	R. H. Industry No.	FR.R.H C-2 Order No.	FR.R.H. C-6 Order No.	L. H. Industry No.	FL.L.H. C-2 Order No.	FL.L.H. C-6 Order No.
1/32"	1/2"	1/2"	3-1/2"	FR-8	383-8002	383-8006	FL-8	383-8102	383-8106
1/32	5/8	5/8	4	FR-10	383-8012	383-8016	FL-10	383-8112	383-8116
1/32	3/4	3/4	4-1/2	FR-12	383-8022	383-8026	FL-12	383-8122	383-8126
1/32	1	1	7	FR-16	383-8032	383-8036	FL-16	383-8132	383-8136



Style GR-Right and GL-Left

Right, left hand for facing to square shoulder.
Side cutting offset tools.
Ideal for facing work close to chuck jaws on engine lathes, turret lathes, boring mills and vertical turret lathes.

E	D	H	L	R. H. Industry No.	GR.R.H C-2 OrderNo.	GR.R.H. C-6 Order No.	L. H. Industry No.	GL.L.H. C-2 Order No.	GL.L.H. C-6 Order No.
1/32"	1/2"	1/2"	3-1/2"	GR-8	383-8202	383-8206	GL-8	383-8302	383-8306
1/32	5/8	5/8	4	GR-10	383-8212	383-8216	GL-10	383-8312	383-8316
1/32	3/4	3/4	4-1/2	GR-12	383-8232	383-8236	GL-12	383-8332	383-8336
1/32	1	1	7	GR-16	383-8222	383-8226	GL-16	383-8322	383-8326

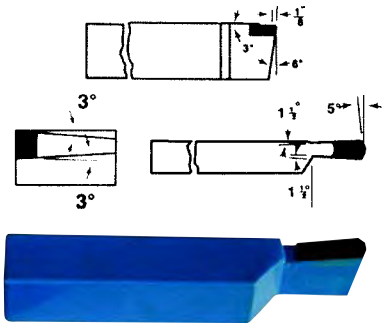
Style TSA

Square Shank Boring Tools for boring to a square shoulder in 90° boring bars.



Size	Radius	Industry No.	Style TSA C-2 Order No.	Style TSA C-6 Order No.
5/16"	1/64"	TSA5	383-8402	383-8406
3/8	1/64	TSA6	383-8412	383-8416
1/2	1/32	TSA8	383-8422	383-8426
5/8	1/32	TSA10	383-8432	383-8436
3/4	1/32	TSA12	383-8442	383-8446

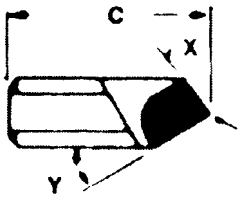
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Styles CTR & CTL

Cut-off-designed for cut-off or grooving solid bars and tube parting.

Shank Size	Tip Dia.	Overall Length	R. H.	R. H. C-2 Order No.	R. H. C-6 Order No.	L. H.	L. H. C-2 Order No.	L. H. C-6 Order No.
1/2 x 1"	1/8"	5"	CTR-111	383-4602	383-4606	CTL-111	383-4702	383-4706
1/2 x 1	3/16	5	CTR-122	383-4612	383-4616	CTL-122	383-4712	383-4716
1/2 x 1	5/16	5	CTR-120	383-4622	383-4626	CTL-120	383-4722	383-4726
1/2 x 1	1/4	5	CTR-121	383-4632	383-4636	CTL-121	383-4732	383-4736
5/8 x 1-1/4	3/8	5	CTR-130	383-4642	383-4646	CTL-130	383-4742	383-4746
3/4 x 1-1/2	3/8	6	CTR-140	383-4652	383-4656	CTL-140	383-4752	383-4756



Style TRC & TRE

Round Boring Tools. For boring to a square shoulder in 45° boring bars or with 15° lead angle in 30° boring bars. For recessing and internal chamfering in 90° boring bar.

Type	Description
TRC	For Boring to Square Shoulder in 30° Bars
TRE	For Boring to a Square Shoulder in 45° Bars or with 15° Lead in 30° Bars.



Size	Radius	Dia.	Length	Industry Number	C - 2 Order No.	C - 6 Order No.	Industry Number	C - 2 Order No.	C - 6 Order No.
.3120"	1/64"	5/16"	1-1/2"	TRC 5	383-8702	383-8706	TRE 5	383-8802	383-8806
.3745	1/64	3/8	1-3/4	TRC 6	383-8712	383-8716	TRE 6	383-8812	383-8816
.4995	1/64	1/2	2-1/2	TRC 8	383-8722	383-8726	TRE 8	383-8822	383-8826

Style TSC

For boring to a square shoulder in a 30° boring bar, or internal Chamfering (30°) in a 0°.



Size	Radius	Industry No.	Style TSC C-2 Order No.	Style TSC C-6 Order No.
5/1"	1/64"	TSC5	383-8502	383-8506
3/8	1/64	TSC6	383-8512	383-8516
1/2	1/32	TSC8	383-8522	383-8526
5/8	1/32	TSC10	383-8532	383-8536
3/4	1/32	TSC12	383-8542	383-8546

Style TSE

For boring to square shoulder in a 45° boring bar, or boring with a 15° lead angle in a 30° boring bar.



Size	Radius	Industry No.	Style TSE C-2 Order No.	Style TSE C-6 Order No.
5/16"	1/64"	TSE5	383-8602	383-8606
3/8	1/64	TSE6	383-8612	383-8616
1/2	1/32	TSE8	383-8622	383-8626
5/8	1/32	TSE10	383-8632	383-8636
3/4	1/32	TSE12	383-8642	383-8646

38 Piece Carbide Tipped Tool Bit Sets

NEW

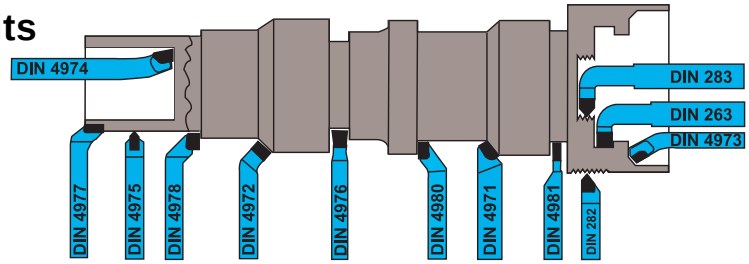
C6 Style



Description	Shank Size	Order No.	Ground Shank Order No.
8 Piece AR, 8 Piece AL,	1/4"	383-4200	383-4201
4Piece BR, 4Piece BL,	5/16	383-4300	383-4301
4Piece C, 4Piece D , 4Piece E	3/8	383-4400	383-4401
	1/2	383-4500	383-4501

DIN & ISO Carbide Tipped Tool Bits

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Carbide Tipped Tool Bits, DIN4971-ISO1



Size	K10/20 right Order No.	K10/20 left Order No.	P25/30 right Order No.	P25/30 left Order No.
10x10x90mm	4971-0001	4971-1001	4971-2001	4971-3001
12x12x100mm	4971-0003	4971-1003	4971-2003	4971-3003
16x16x110mm	4971-0005	4971-1005	4971-2005	4971-3005
20x20x125mm	4971-0007	4971-1007	4971-2007	4971-3007
25x25x140mm	4971-0009	4971-1009	4971-2009	4971-3009
32x32x170mm	4971-0011	4971-1011	4971-2011	4971-3011

Carbide Tipped Tool Bits, DIN4972-ISO2



Size	K10/20 right Order No.	K10/20 left Order No.	P25/30 right Order No.	P25/30 left Order No.
10x10x90mm	4972-0001	4972-1001	4972-2001	4972-3001
12x12x100mm	4972-0003	4972-1003	4972-2003	4972-3003
16x16x110mm	4972-0005	4972-1005	4972-2005	4972-3005
20x20x125mm	4972-0007	4972-1007	4972-2007	4972-3007
25x25x140mm	4972-0009	4972-1009	4972-2009	4972-3009
32x32x170mm	4972-0011	4972-1011	4972-2011	4972-3011

Carbide Tipped Tool Bits, DIN4973-ISO8



Size	K10/20 Order No.	P25/30 Order No.
8x8x14x125mm	4973-0001	4973-2001
10x10x18x150mm	4973-0003	4973-2003
12x12x21x180mm	4973-0005	4973-2005
16x16x27x210mm	4973-0007	4973-2007
20x20x34x250mm	4973-0009	4973-2009
25x25x43x300mm	4973-0011	4973-2011
32x32x52x355mm	4973-0013	4973-2013

Carbide Tipped Tool Bits DIN4974-ISO9



Size	K10/20 Order No.	P25/30 Order No.
8x8x14x125mm	4974-0001	4974-2001
10x10x18x150mm	4974-0003	4974-2003
12x12x21x180mm	4974-0005	4974-2005
16x16x27x210mm	4974-0007	4974-2007
20x20x34x250mm	4974-0009	4974-2009
25x25x43x300mm	4974-0011	4974-2011
32x32x52x355mm	4974-0013	4974-2013

Carbide Tipped Tool Bits. DIN 4975-ISO10



Size	K10/20 Order No.	P25/30 Order No.
26x10x110mm	4975-0001	4975-2001
20x12x125mm	4975-0003	4975-2003
25x16x140mm	4975-0005	4975-2005
32x20x170mm	4975-0007	4975-2007

Carbide Tipped Tool Bits. DIN 4976-ISO4



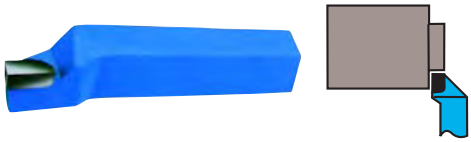
Size	K10/20 Order No.	P25/30 Order No.
10x10x90mm	4976-0001	4976-2001
12x12x100mm	4976-0003	4976-2003
16x16x110mm	4976-0005	4976-2005
20x20x125mm	4976-0007	4976-2007
25x25x140mm	4976-0009	4976-2009
32x32x170mm	4976-0011	4976-2011

Carbide Tipped Tool Bits. DIN 4977-ISO5



Size	K10/20 right Order No.	K10/20 left Order No.	P25/30 right Order No.	P25/30 left Order No.
16x16x110mm	4977-0001	4977-1001	4977-2001	4977-3001
20x20x125mm	4977-0003	4977-1003	4977-2003	4977-3003
25x25x140mm	4977-0005	4977-1005	4977-2005	4977-3005
32x32x170mm	4977-0007	4977-1007	4977-2007	4977-3007

Carbide Tipped Tool Bits. DIN 4978-ISO3



Size	K10/20 right Order No.	K10/20 left Order No.	P25/30 right Order No.	P25/30 left Order No.
16x10x110mm	4978-0001	4978-1001	4978-2001	4978-3001
20x12x125mm	4978-0003	4978-1003	4978-2003	4978-3003
25x16x140mm	4978-0005	4978-1005	4978-2005	4978-3005
32x20x170mm	4978-0007	4978-1007	4978-2007	4978-3007

DIN & ISO Carbide Tipped Tool Bits contiuned

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Carbide Tipped Tool Bits. DIN 4980-ISO6



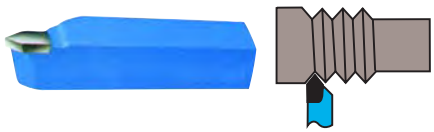
Size	K10/20 right Order No.	K10/20 left Order No.	P25/30 right Order No.	P25/30 left Order No.
10x10x90mm	4980-0001	4980-1001	4980-2001	4980-3001
12x12x100mm	4980-0003	4980-1003	4980-2003	4980-3003
16x16x110mm	4980-0005	4980-1005	4980-2005	4980-3005
20x20x125mm	4980-0007	4980-1007	4980-2007	4980-3007
25x25x140mm	4980-0009	4980-1009	4980-2009	4980-3009
32x32x170mm	4980-0011	4980-1011	4980-2011	4980-3011

Carbide Tipped Tool Bits. DIN 4981-ISO7



Size	K10/20 right Order No.	K10/20 left Order No.	P25/30 right Order No.	P25/30 left Order No.
12x8x100mm	4981-0001	4981-1001	4981-2001	4981-3001
16x10x110mm	4981-0003	4981-1003	4981-2003	4981-3003
20x12x125mm	4981-0005	4981-1005	4981-2005	4981-3005
25x16x140mm	4981-0007	4981-1007	4981-2007	4981-3007
32x20x170mm	4981-0009	4981-1009	4981-2009	4981-3009

Carbide Tipped Tool Bits. DIN 282-60 Degree



Size	K10/20 Order No.	P25/30 Order No.
10x10x100mm	2820-0001	2820-2001
12x12x110mm	2820-0003	2820-2003
16x16x125mm	2820-0005	2820-2005
20x20x140mm	2820-0007	2820-2007
25x25x160mm	2820-0009	2820-2009
32x32x180mm	2820-0011	2820-2011

Carbide Tipped Tool Bits. DIN 263



Size	K10/20 Order No.	P25/30 Order No.
10x10x25x140mm	2821-0001	2821-2001
12x12x30x160mm	2821-0003	2821-2003
16x16x40x180mm	2821-0005	2821-2005
20x20x50x210mm	2821-0007	2821-2007
25x25x60x250mm	2821-0009	2821-2009
32x32x85x300mm	2821-0011	2821-2011

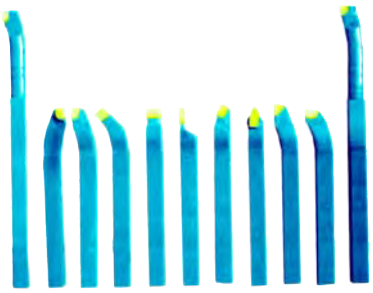
Carbide Tipped Tool Bits. DIN 283-60 degree



Size	K10/20 Order No.	P25/30 Order No.
10x10x24x140mm	2830-0001	2830-2001
12x12x30x160mm	2830-0003	2830-2003
16x16x36x180mm	2830-0005	2830-2005
20x20x45x210mm	2830-0007	2830-2007
25x25x55x250mm	2830-0009	2830-2009
32x32x70x300mm	2830-0011	2830-2011

11 Piece Carbide Tipped Tool Bit Sets

11 件套硬质合金焊接刀



Shank Size	Description	Order No.
8x8mm	one each of DIN4971R, DIN4972R, DIN4973R, DIN4974R, DIN4975, DIN4976, DIN4977R, DIN4978R, DIN4980L, DIN4980R, DIIN4981R	387-1811

6Piece Carbide Tipped Tool Bit Sets

6 件套硬质合金焊接刀



3/8” Shank

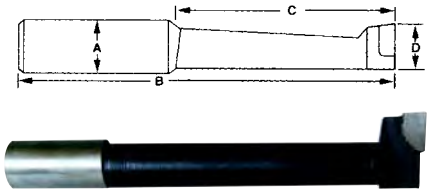
Description	Shank Size	OAL	Order No.
45° Left Angle	3/8x3/8”	3-1/2”	383-4261
45° Right Angle	3/8x3/8	3-1/2	
30° Angle	3/8x3/8	3-1/2	
3/16 Wide, 60° Point	3/8x3/8	3-3/4	
1/8x5/16 Straight Point	3/8x1/2	4	
15° Angle	3/8x3/8	5-3/4	

1/2” Shank

Description	Shank Size	OAL	Order No.
45° Left Angle	1/2x1/2”	4”	383-4262
45° Right Angle	1/2x1/2	4	
30° Angle	1/2x1/2	4	
1/4 Wide, 60° Point	1/2x1/2	4-3/8	
5/32x3/8 Straight Point	3/8x5/8	4-1/2	
15° Angle	1/2x1/2	7-1/4	

Carbide Tipped Boring Bars 硬质合金镗刀杆

- Tool life is extended because each bar has far more steel behind the cutting edge for heavier chatter free cut. Deeper bore and more precise work.
- The same bar can bore flat bottom hole or face. Grind bar on cutting end for special tools such as grooving, threading, or automatic operations.
- Up to 100% longer tool life.
- All shanks are ground to +0/-0.0005".
- All 1/2", 3/4" and 1" shanks fit most boring and facing heads.





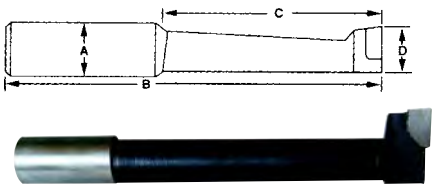
C2-Cast Iron **C6-Steel**

"A" Shank Dia.	"B" Length	"C" Bore Depth	"D" Min. Bore	Tool No.	C2 Individual Order No.	C6 Individual Order No.		C2 Set Order No.	C6 Set Order No.
3/8"	2"	3/4"	5/16"	A5S	**375-1012**	**375-1016**			
3/8	2-3/8	1-1/8	5/16	A5M	**375-1022**	**375-1026**			
3/8	2-3/4	1-1/2	5/16	A5L	**375-1032**	**375-1036**	9Pcs/set,		
3/8	2-3/16	15/16	3/8	A3S	**375-1042**	**375-1046**	Wooden Stand	**375-1002**	**375-1006**
3/8	2-21/32	1-13/32	3/8	A3M	**375-1052**	**375-1056**			
3/8	3-1/8	1-7/8	3/8	A3L	**375-1062**	**375-1066**	9Pcs/set,		
3/8	2-3/8	1-1/8	7/16	A7S	**375-1072**	**375-1076**	Plastic Stand	**375-1102**	**375-1106**
3/8	3-15/16	1-11/16	7/16	A7M	**375-1082**	**375-1086**			
3/8	3-1/2	2-1/4	7/16	A7L	**375-1092**	**375-1096**			
1/2	2-1/4	3/4	5/16	B5S	**375-1212**	**375-1216**			
1/2	2-5/8	1-1/8	5/16	B5M	**375-1222**	**375-1226**			
1/2	3	1-1/2'	5/16	B5L	**375-1232**	**375-1236**	9Pcs/set,		
1/2	2-5/8	1-1/8	7/16	B7S	**375-1242**	**375-1246**	Wooden Stand		
1/2	3-3/16	1-11/16	7/16	B7M	**375-1252**	**375-1256**		**375-1202**	**375-1206**
1/2	3-3/4	2-1/4	7/16	B7L	**375-1262**	**375-1266**	9Pcs/set,		
1/2	3	1-1/2	9/16	B9S	**375-1272**	**375-1276**	Plastic Stand		
1/2	3-3/4	2-1/4	9/16	B9M	**375-1282**	**375-1286**		**375-1302**	**375-1306**
1/2	4-1/2	3	9/16	B9L	**375-1292**	**375-1296**			
5/8	2-1/4	3/4	5/16	D5S	**375-1412**	**375-1416**			
5/8	2-5/8	1-1/8	5/16	D5M	**375-1422**	**375-1426**			
5/8	3	1-1/2	5/16	D5L	**375-1432**	**375-1436**	12Pcs/set,		
5/8	2-5/8	1-1/8	7/16	D7S	**375-1442**	**375-1446**	Wooden Stand		
5/8	3-3/16	1-11/16	7/16	D7M	**375-1452**	**375-1456**		**375-1402**	**375-1406**
5/8	3-3/4	2-1/4	7/16	D7L	**375-1462**	**375-1466**	12Pcs/set,		
5/8	3	1-1/2	9/16	D9S	**375-1472**	**375-1476**	Plastic Stand		
5/8	3-3/4	2-1/4	9/16	D9M	**375-1482**	**375-1486**		**375-1532**	**375-1536**
5/8	4-1/2	3	9/16	D9L	**375-1492**	**375-1496**			
5/8	3-3/8	1-7/8	11/16	D11S	**375-1502**	**375-1506**			
5/8	4-5/16	2-13/16	11/16	D11M	**375-1512**	**375-1516**			
5/8	5-1/4	3-3/4	11/16	D11L	**375-1522**	**375-1526**			
3/4	3-1/8	1-1/8	7/16	C7S	**375-1612**	**375-1616**			
3/4	3-11/16	1-11/16	7/16	C7M	**375-1622**	**375-1626**			
3/4	4-1/4	2-1/4	7/16	C7L	**375-1632**	**375-1636**	12Pcs/set,		
3/4	3-1/2	1-1/2	9/16	C9S	**375-1642**	**375-1646**	Wooden Stand	**375-1602**	**375-1606**
3/4	4-1/4	2-1/4	9/16	C9M	**375-1652**	**375-1656**			
3/4	5	3	9/16	C9L	**375-1662**	**375-1666**	12Pcs/set,		
3/4	3-7/8	1-7/8	11/16	C11S	**375-1672**	**375-1676**	Plastic Stand	**375-1732**	**375-1736**
3/4	4-13/16	2-13/16	11/16	C11M	**375-1682**	**375-1686**			
3/4	5-3/4	3-3/4	11/16	C11L	**375-1692**	**375-1696**			
3/4	4-1/4	2-1/4	13/16	C13S	**375-1702**	**375-1706**			
3/4	5-3/8	3-3/8	13/16	C13M	**375-1712**	**375-1716**			
3/4	6-1/2	4-1/2	13/16	C13L	**375-1722**	**375-1726**			
1	5.0	3.0	9/16	E9L	**375-1812**	**375-1816**			
1	5-3/4	3-3/4	11/16	E11L	**375-1822**	**375-1826**			
1	6-1/2	4-1/2	7/8	E14L	**375-1832**	**375-1836**	7Pcs/set,		
1	6-1/2	4-1/2	1-1/16	E18L	**375-1842**	**375-1846**	Wooden Stand	**375-1802**	**375-1806**
1	7-3/4	5-3/4	1-1/4	E20L	**375-1852**	**375-1856**			
1	8-1/4	6-1/4	1-1/2	E24L	**375-1862**	**375-1866**			
1	9-1/2	7-1/2	1-5/8	E26L	**375-1872**	**375-1876**			

Metric Carbide Tipped Boring Bars 公制硬质合金镗刀杆

- Up to 100% longer tool life.
- All shanks are ground to +0/-0.01mm.
- Tool life is extended because each bar has far more steel behind the cutting edge for heavier chatter free cut. Deeper bore and more precise work.
- The same bar can bore flat bottom hole or face. Grind bar on cutting end for special tools such as grooving, threading. or automatic operations.

ISOK20-For Cast iron
ISOP20-For Steel





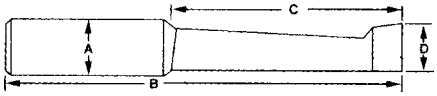


"A" Shank Dia.	"B" Length	"C" Bore Depth	"D" Min. Bore	ISOK20 Order No	ISOP20 Order No		ISOK20 Order No.	ISOP20 Order No.
10mm	50.8	19	7.9	**375-3012**	**375-3016**			
10mm	60.3	28.5	7.9	**375-3022**	**375-3026**			
10mm	69.8	38.1	7.9	**375-3032**	**375-3036**	9Pcs/set,		
10mm	55.5	23.8	9.5	**375-3042**	**375-3046**	Wooden Stand	**375-3002**	**375-3006**
10mm	67.46	35.71	9.5	**375-3052**	**375-3056**			
10mm	79.3	47.6	9.5	**375-3062**	**375-3066**	9Pcs/set,		
10mm	60.3	28.5	11.1	**375-3072**	**375-3076**	Plastic Stand	**375-3102**	**375-3106**
10mm	100	42.8	11.1	**375-3082**	**375-3086**			
10mm	88.9	57.1	11.1	**375-3092**	**375-3096**			
12mm	57.1	19	7.9	**375-3212**	**375-3216**			
12mm	66.6	28.5	7.9	**375-3222**	**375-3226**			
12mm	76.2	38.1	7.9	**375-3232**	**375-3236**	9Pcs/set,		
12mm	66.6	28.5	11.1	**375-3242**	**375-3246**	Wooden Stand	**375-3202**	**375-3206**
12mm	80.9	42.8	11.1	**375-3252**	**375-3256**			
12mm	95.2	57.15	11.1	**375-3262**	**375-3266**	9Pcs/set,		
12mm	76.2	38.1	13	**375-3272**	**375-3276**	Plastic Stand	**375-3302**	**375-3306**
12mm	95.2	57.1	13	**375-3282**	**375-3286**			
12mm	114.3	76.2	13	**375-3292**	**375-3296**			
16mm	57.1	19	7.9	**375-3412**	**375-3416**			
16mm	66.6	28.5	7.9	**375-3422**	**375-3426**			
16mm	76.2	38.1	7.9	**375-3432**	**375-3436**	12Pcs/set,		
16mm	66.6	28.5	11.1	**375-3442**	**375-3446**	Wooden Stand	**375-3402**	**375-3406**
16mm	80.9	42.8	11.1	**375-3452**	**375-3456**			
16mm	95.2	57.1	11.1	**375-3462**	**375-3466**	12Pcs/set,		
16mm	76.2	38.1	14.2	**375-3472**	**375-3476**	Plastic Stand	**375-3532**	**375-3536**
16mm	95.2	57.1	14.2	**375-3482**	**375-3486**			
16mm	114.3	76.2	14.2	**375-3492**	**375-3496**			
16mm	85.7	47.6	17	**375-3502**	**375-3506**			
16mm	109.5	71.4	17	**375-3512**	**375-3516**			
16mm	133.3	95.2	17	**375-3522**	**375-3526**			
20mm	79.3	28.5	11.1	**375-3612**	**375-3616**			
20mm	93.6	42.8	11.1	**375-3622**	**375-3626**			
20mm	107.9	57.1	11.1	**375-3632**	**375-3636**	12Pcs/set,		
20mm	88.9	38.1	14.2	**375-3642**	**375-3646**	Wooden Stand	**375-3602**	**375-3606**
20mm	107.9	57.1	14.2	**375-3652**	**375-3656**			
20mm	127	76.2	14.2	**375-3662**	**375-3666**	12Pcs/set,		
20mm	98.4	47.6	17.4	**375-3672**	**375-3676**	Plastic Stand	**375-3732**	**375-3736**
20mm	122.2	71.4	17.4	**375-3682**	**375-3686**			
20mm	146	95.2	17.4	**375-3692**	**375-3696**			
20mm	107.9	57.1	20.6	**375-3702**	**375-3706**			
20mm	136.5	85.7	20.6	**375-3712**	**375-3716**			
20mm	165.1	114.3	20.6	**375-3722**	**375-3726**			

Cobalt HSS Boring Bars 含钴高速钢镗刀杆

- M-35 High Speed Coblat Steel-PC60.
- The massive head behind the cutting edge promotes rigidity and long life by reducing vibration.
- Supplied in wooden stand.









Metric Sets

Shank Dia.	Order No.
6mm shank,8pcs/set,Wooden stand	**375-1005**
8mm shank, 8pcs/set,Wooden stand	**375-1105**
10mm shank, 8pcs/set,Wooden stand	**375-1205**
12mm shank,10pcs/set,Wooden stand	**375-1305**
16mm shank,10pcs/set,Wooden stand	**375-1405**
18mm shank,14pcs/set,Wooden stand	**375-1505**
20mm shank,14pcs/set,Wooden stand	**375-1605**
25mm shank,6pcs/set,Wooden stand	**375-1805**

3/8" Shank

Shank Dia. A	Length B	Bore Depth C	Min. Bore D	M35 Cobalt Order No.	M42 Cobalt Order No.
3/8	1-13/16	9/16	3/16	**375-5008**	**375-4008**
3/8	2-3/16	15/16	3/16	**375-5012**	**375-4012**
3/8	2	3/4	1/4	**375-5016**	**375-4016**
3/8	2-1/2	1-1/4	1/4	**375-5020**	**375-4020**
3/8	2-3/16	15/16	5/16	**375-5024**	**375-4024**
3/8	2-13/16	1-9/16	5/16	**375-5028**	**375-4028**
3/8	2-3/8	1-1/8	3/8	**375-5032**	**375-4032**
3/8	3-1/8	1-7/8	3/8	**375-5036**	**375-4036**
8 Piece Set of Above				**375-1007**	**375-1009**

1/2" Shank

Shank Dia. A	Length B	Bore Depth C	Min. Bore D	M35 Cobalt Order No.	M42 Cobalt Order No.
1/2	2-1/8	3/4	1/4	**375-5040**	**375-4040**
1/2	2-5/8	1-1/4	1/4	**375-5044**	**375-4044**
1/2	2-5/16	15/16	5/16	**375-5048**	**375-4048**
1/2	2-15/16	1-9/16	5/16	**375-5052**	**375-4052**
1/2	2-1/2	1-1/8	3/8	**375-5056**	**375-4056**
1/2	3-1/4	1-7/8	3/8	**375-5060**	**375-4060**
1/2	2-11/16	1-5/16	7/16	**375-5064**	**375-4064**
1/2	3-9/16	2-3/16	7/16	**375-5068**	**375-4068**
1/2	2-7/8	1-1/2	1/2	**375-5072**	**375-4072**
1/2	3-7/8	2-1/2	1/2	**375-5076**	**375-4076**
10 Piece Set of Above				**375-1207**	**375-1209**

5/8" Shank

Shank Dia. A	Length B	Bore Depth C	Min. Bore D	M35 Cobalt Order No.	M42 Cobalt Order No.
5/8	2-5/8	1-1/8	3/8	**375-5080**	**375-4080**
5/8	3-3/8	1-7/8	3/8	**375-5084**	**375-4084**
5/8	2-13/16	1-5/16	7/16	**375-5088**	**375-4088**
5/8	3-11/16	2-3/16	7/16	**375-5092**	**375-4092**
5/8	3	1-1/2	1/2	**375-5096**	**375-4096**
5/8	4	2-1/2	1/2	**375-5100**	**375-4100**
5/8	3-3/16	1-11/16	9/16	**375-5104**	**375-4104**
5/8	4-5/16	2-13/16	9/16	**375-5108**	**375-4108**
5/8	3-3/8	1-7/8	5/8	**375-5112**	**375-4112**
5/8	4-5/8	3-1/8	5/8	**375-5116**	**375-4116**
10 Piece Set of Above				**375-1407**	**375-1409**

3/4" Shank

Shank Dia. A	Length B	Bore Depth C	Min. Bore D	M35 Cobalt Order No.	M42 Cobalt Order No.
3/4	2-7/8	1-1/8	3/8	**375-5120**	**375-4120**
3/4	3-5/8	1-7/8	3/8	**375-5124**	**375-4124**
3/4	3-1/16	1-5/16	7/16	**375-5128**	**375-4128**
3/4	3-15/16	2-3/16	7/16	**375-5132**	**375-4132**
3/4	3-1/4	1-1/2	1/2	**375-5136**	**375-4136**
3/4	4-1/4	2-1/2	1/2	**375-5140**	**375-4140**
3/4	3-7/16	1-11/16	9/16	**375-5144**	**375-4144**
3/4	4-9/16	2-13/16	9/16	**375-5148**	**375-4148**
3/4	3-5/8	1-7/8	5/8	**375-5152**	**375-4152**
3/4	4-7/8	3-1/8	5/8	**375-5156**	**375-4156**
3/4	3-13/16	2-1/16	11/16	**375-5160**	**375-4160**
3/4	5-3/16	3-7/16	11/16	**375-5164**	**375-4164**
3/4	4	2-1/4	3/4	**375-5168**	**375-4168**
3/4	5-1/2	3-3/4	3/4	**375-5172**	**375-4172**
14 Piece Set of Above				**375-1607**	**375-1609**

Single End Boring Bars

45 & 90° 单头光刀杆





Individual

Diameter of Bar	Overall Length	Bit Size	45 Degree Order No.	90 Degree Order No.
1/4"	2-1/2"	5/32" round tool bits	378-4102	378-4202
5/16	2-1/2	3/16 round tool bits	378-4104	378-4204
3/8	3	3/16 round tool bits	378-4106	378-4206
1/2	3	3/16 square tool bits	378-4108	378-4208
9/16	4-1/2	3/16 square tool bits	378-4110	378-4210
5/8	5	1/4 square tool bits	378-4112	378-4212
3/4	6	1/4 square tool bits	378-4114	378-4214
1	6	5/16 square tool bits	378-4116	378-4216
1	6	3/8 square tool bits	378-4118	378-4218
1-1/8	7	7/16 square tool bits	378-4120	378-4220
1-1/4	8	1/2 square tool bits	378-4122	378-4222
1-1/2	9	1/2 square tool bits	378-4124	378-4224

Sets

No. of Pieces	Angle	Sizes	Order No.
4	45°	1/4,3/8,1/2,5/8"	378-4140
4	90°	1/4,3/8,1/2,5/8"	378-4240

Double End Boring Bars

双头光刀杆





Individual

Size	Tool Bit Size	Order No.
1/4x5"	5/32" round tollbits	378-4002
5/16x5	3/16 round toolbits	378-4004
3/8x6	3/16 round toolbits	378-4006
1/2x6	3/16 square toolbits	378-4008
1/2x6	1/4 square toolbits	378-4009
1/2x9	1/4 square toolbits	378-4010
5/8x10	1/4 square toolbits	378-4012
3/4x12	1/4 square toolbits	378-4014
1x12	1/4 square toolbits	378-4015
1x12	5/16 square toolbits	378-4016
1-1/4x16	1/2 square toolbits	378-4018
1-1/2x18	1/2 square toolbits	378-4020
9/16x6-1/2	1/4 square toolbits	378-4021

Sets

No. of Pieces	Sizes	Order No.
4	1/2,9/16,5/8,3/4"	378-4030
4	1/4,5/16,3/8,1/2"	378-4031
5	1/4, 3/8, 1/2, 5/8, 3/4"	378-4000
5	3/8, 1/2, 5/8, 3/4, 1"	378-4001

Double End Calibrated Boring Bars

双头带刻线光刀杆



Individual

Diameter Of Bar	Overall Length	Tool Bit Size	Order No.
3/8"	6"	3/16" round tool bits	378-4302
1/2	6	3/16" square tool bits	378-4304
1/2	9	3/16" square tool bits	378-4306
5/8	10	3/16" square tool bits	378-4308
3/4	12	1/4" square tool bits	378-4310
1	12	1/4" square tool bits	378-4312
1-1/4	16	3/8" square tool bits	378-4314
1-1/2	18	3/8" square tool bits	378-4316

Fly-Tool Cutter Holders & Sets

Straight Shank 铣刀盘

Counter balanced tap get smoother finished.Hardened steel, machines up to 6" wide surface with stand tool bit. Tool bit replaces end mill and resharpening. Sets come complete with wooden stand.



No.of Piece	Head Diameter	Shank Size	Tool Bit Size	Individuals Order No.	Sets Order No.
	3/4"	1/2"	3/16"	225-3031	
3	1-1/8	1/2	1/4	225-3032	225-3030
	1-1/2	1/2	5/16	225-3033	
	1-1/2	3/4	5/16	225-3041	
3	2	3/4	5/16	225-3042	225-3040
	2-1/2	3/4	5/16	225-3043	
	7/8	1/2	3/16	225-3044	
	1-1/4	1/2	1/4	225-3045	
5	1-5/8	1/2	5/16	225-3046	225-3038
	2	1/2	3/8	225-3035	
	2-1/2	5/8	1/2	225-3036	
	3/4	1/2	3/16	225-3031	
	1-1/8	1/2	1/4	225-3032	
5	1-3/8	1/2	5/16	225-3034	225-3039
	2	1/2	3/8	225-3035	
	2-1/2	5/8	1/2	255-3036	

R8 Individual

Body Size	Tool Bit Size	Order No.
2-1/2"	5/16"	225-3022
2-1/2	3/8	225-3020

Tool Bits 白钢车刀

Hight Speed Steel, Precision Ground



Rectangular

Size	Inch Rectangular Order No.
1/8x1/2x4”	361-0000
3/16x1/2x4	361-0001
1/4x3/8x2-1/2	361-0002
1/4x3/8x3	361-0003
1/4x3/8x4	361-0005
1/4x3/8x6	361-0010
1/4x1/2x3	361-0015
1/4x1/2x4	361-0020
1/4x1/2x6	361-0025
1/4x5/8x4-1/2	361-0028
1/4x3/4x4	361-0030
1/4x3/4x5	361-0035
1/4x3/4x6	361-0040
1/4x1x6	361-0045
5/16x3/8x4	361-0050
5/16x7/16x3	361-0055
5/16x1/2x3	361-0057
5/16x1/2x4	361-0060
5/16x5/8x4	361-0062
5/16X3/4X3"	361-0064
5/16x3/4x4	361-0065
5/16x3/4x5	361-0066
5/16x1x6	361-0070
3/8x1/2x3	361-0075
3/8x1/2x4	361-0080
3/8x1/2x6"	361-0082
3/8x5/8x4	361-0085
3/8x5/8x4-1/2	361-0087
3/8x5/8x5	361-0090
3/8x5/8x6	361-0095
3/8x3/4x4	361-0100
3/8x3/4x5	361-0103
3/8x3/4x6	361-0105
3/8x1x6	361-0110
3/8x1-1/4x6-1/2	361-0112
1/2x3/4x4	361-0115
1/2x3/4x5	361-0117
1/2x3/4x6	361-0120
1/2x1x6	361-0124
1/2x1x7	361-0125
1/2x1x8	361-0126
1/2x1-1/4x7	361-0130
1/2x1-1/2x7	361-0135
5/8x3/4x5	361-0140
5/8x7/8x6	361-0145
5/8x1x6	361-0150
5/8x1x7	361-0155
5/8x1-1/4x6	361-0160
5/8x1-1/4x7	361-0165
5/8x1-1/2x7	361-0170
3/4x1x6	361-0175
3/4x1x7	361-0180
3/4x1-1/4x6	361-0185
3/4x1-1/4x7	361-0190
3/4x1-1/2x7	361-0195
1x1-1/4x6	361-0200
1x1-1/4x7	361-0205
1x1-1/2x7	361-0210

Size	Metric Rectangular Order No.
3x13x100mm	361-1000
4x6x80mm	361-1001
5x8x80mm	361-1002
6x8x100mm	361-1003
6x10x100mm	361-1005
6x10x160mm	361-1010
6x13x75mm	361-1015
6x13x100mm	361-1020
6x13x150mm	361-1025
6x20x100mm	361-1030
6x20x125mm	361-1035
6x20x150mm	361-1040
6x25x150mm	361-1045
8x10x100mm	361-1050
8x11x75mm	361-1055
8x13x100mm	361-1060
8x16x160mm	361-1063
8x20x100mm	361-1065
8x25x150mm	361-1070
10x13x75mm	361-1075
10x13x100mm	361-1080
10X13X150mm	361-1081
10x16x100mm	361-1085
10x16x125mm	361-1090
10x16x150mm	361-1095
10x16x175mm	361-1096
10x20x100mm	361-1100
10x20x150mm	361-1105
10x25x150mm	361-1110
13x20x100mm	361-1115
13x20x150mm	361-1120
13x25x175mm	361-1125
13x32x175mm	361-1130
13x38x175mm	361-1135
16x20x125mm	361-1140
16x22x150mm	361-1145
16x25x150mm	361-1150
16x25x175mm	361-1155
16x32x150mm	361-1160
16x32x175mm	361-1165
16x38x175mm	361-1170
22x25x150mm	361-1175
22x25x175mm	361-1180
22x32x150mm	361-1185
22x32x175mm	361-1190
22x38x175mm	361-1195
25x32x150mm	361-1200
25x32x175mm	361-1205
25x38x175mm	361-1210



Square

Size	Inch Square Order No.
1/8x2-1/2”	360-0010
1/8x4	360-0014
1/8x6	360-0016
1/8x8	360-0018
3/16x2	360-0020
3/16x2-1/2	360-0021
3/16x3	360-0022
3/16x4	360-0023
3/16x5	360-0024
3/16x6	360-0026
3/16x8	360-0028
1/4x2-1/2	360-0033
1/4x3	360-0034
1/4x4	360-0035
1/4x6	360-0037
1/4x8	360-0039
5/16x2-1/2	360-0049
5/16x3	360-0050
5/16x3-1/2	360-0051
5/16x4	360-0052
5/16x6	360-0054
5/16x8	360-0057
3/8x3	360-0067
3/8x4	360-0069
3/8x6	360-0071
3/8x8	360-0073
7/16x3-1/2	360-0090
7/16x4	360-0091
7/16x6	360-0095
7/16x8	360-0097
1/2x3	360-0109
1/2x4	360-0111
1/2x6	360-0113
1/2x8	360-0115
5/8x4	360-0127
5/8x4-1/2	360-0128
5/8x6	360-0131
5/8x8	360-0135
3/4x4	360-0147
3/4X5	360-0148
3/4x6	360-0149
3/4x8	360-0163
7/8x6	360-0165
1x4	360-0175
1x6	360-0177
1X7	360-0179
1x8	360-0180
1-1/8X8	360-0185
1-1/4x6	360-0200
1-1/4x8	360-0202
1-1/2x8	360-0204
1-1/2x10	360-0208
2x8	360-0210

Size	Metric Square Order No.
3x100mm	360-1014
3x150mm	360-1016
3x200mm	360-1018
4x60mm	360-1020
4x63mm	360-1021
4x80mm	360-1022
5x100mm	360-1025
5x150mm	360-1026
5x200mm	360-1028
6x60mm	360-1029
6x80mm	360-1030
6x100mm	360-1031
6x150mm	360-1032
6x200mm	360-1033
6x63mm	360-1035
7x150mm	360-1038
7x120mm	360-1039
8x60mm	360-1041
8x100mm	360-1042
8x125mm	360-1043
8x150mm	360-1044
8x200mm	360-1045
8x80mm	360-1046
8x160mm	360-1047
10x100mm	360-1048
10x125mm	360-1049
10x150mm	360-1050
10x200mm	360-1051
10x80mm	360-1052
10x160mm	360-1053
12x100mm	360-1055
12x125mm	360-1056
12x150mm	360-1057
12x200mm	360-1058
14x150mm	360-1061
14x200mm	360-1063
15x200mm	360-1068
16x100mm	360-1070
16x150mm	360-1072
16x200mm	360-1073
18x150mm	360-1075
18x200mm	360-1076
20x100mm	360-1078
20x150mm	360-1079
20x200mm	360-1080
20x160mm	360-1081
25x100mm	360-1090
25x150mm	360-1092
25x200mm	360-1095
25x250mm	360-1098
32x200mm	360-1110
38x200mm	360-1120
50x200mm	360-1130

Tool Bits 白钢车刀

Hight Speed Steel, Precision Ground

Round



Size	Inch Round Order No.
1/8x2-1/2"	362-0030
1/8x2-3/4	362-0031
1/8x4	362-0034
1/8x6	362-0036
1/8x8	362-0038
5/32x2-1/2	362-0040
3/16x2	362-0050
3/16x2-1/2	362-0051
3/16x3	362-0052
3/16x3-1/2	362-0053
3/16x4	362-0054
3/16x6	362-0056
3/16x8	362-0058
7/32x3-1/2	362-0064
1/4x2-1/2	362-0074
1/4x3	362-0075
1/4x4	362-0077
1/4x6	362-0078
1/4x8	362-0079
9/32x4	362-0090
5/16x2-1/2	362-0100
5/16x3	362-0101
5/16x4	362-0102
5/16x4-1/2	362-0103
5/16x6	362-0104
5/16x8	362-0107
3/8x3	362-0117
3/8x4	362-0119
3/8x5	362-0121
3/8x6	362-0123
3/8x8	362-0124
7/16x4	362-0133
7/16x5-1/2	362-0135
1/2x3	362-0143
1/2x4	362-0145
1/2x6	362-0147
1/2x8	362-0149
9/16x6	362-0153
5/8x4	362-0160
5/8x6	362-0163
5/8x8	362-0168
3/4x4	362-0173
3/4x6	362-0175
3/4x8	362-0178
1x4	362-0191
1x6	362-0193
1x8	362-0198

Size	Metric Round Order No.
2x50mm	362-1030
2.5x50mm	362-1040
3x60mm	362-1050
3x100mm	362-1051
3x150mm	362-1052
3x200mm	362-1053
3.5x60mm	362-1055
4x80mm	362-1060
4x100mm	362-1065
4.5x80mm	362-1070
5x80mm	362-1080
5x100mm	362-1085
5x150mm	362-1086
5x200mm	362-1087
5.5x90mm	362-1095
6x80mm	362-1105
6x100mm	362-1107
6x150mm	362-1109
6x200mm	362-1111
6.5x100mm	362-1115
7x100mm	362-1120
7.5x100mm	362-1130
8x60mm	362-1140
8x100mm	362-1142
8x150mm	362-1144
8x200mm	362-1146
9x125mm	362-1152
10x100mm	362-1160
10x150mm	362-1162
10x200mm	362-1164
12x100mm	362-1170
12x150mm	362-1172
12x200mm	362-1174
14x150mm	362-1180
14x200mm	362-1182
16x100mm	362-1189
16x150mm	362-1190
16x200mm	362-1192
18x200mm	362-1202
20x100mm	362-1209
20x150mm	362-1210
20x200mm	362-1212
18x150mm	362-1219
25x100mm	362-1220
25x150mm	362-1221
25x200mm	362-1222

Cobalt Tool Bits 5% 钴(M35)高速钢白钢刀

- Can be used on forgings, castings and heavy materials cuts.
- Suitable in applications of heat environment.





M35 5% Rectangular

Size	5% Cobalt Order No.	Size	5% Cobalt Order No.	Size	5% Cobalt Order No.
3/16x5/16x4"	461-0000	5/16x1/2x6	461-0060	1/2x1x8	461-0127
1/8x1/2x4	461-0001	5/16x3/4x4	461-0063	1/2x1-1/4x7	461-0130
1/4x3/8x2-1/2	461-0002	5/16x3/4x5	461-0065	1/2x1-1/2x7	461-0135
1/4x3/8x4	461-0005	5/16x1x6	461-0070	5/8x3/4x5	461-0140
1/4x3/8x6	461-0007	3/8x1/2x4	461-0080	5/8x7/8x6	461-0145
1/4x1/2x3	461-0015	3/8x5/8x4	461-0088	5/8x1x6	461-0148
1/4x1/2x4	461-0020	3/8x5/8x5	461-0090	5/8x1x7	461-0150
1/4x1/2x6	461-0021	3/8X5/8X6	461-0092	5/8x1-1/4x6	461-0151
1/4x3/4x4	461-0033	3/8x3/4x4"	461-0100	5/8x1-1/4x7	461-0152
1/4x3/4x5	461-0035	3/8x3/4x5	461-0103	5/8x1-1/2x7	461-0153
1/4x3/4x6	461-0037	3/8x3/4x6	461-0105	3/4x1x7	461-0155
1/4x1x6	461-0040	3/8x1x6	461-0110	3/4x1-1/4x7	461-0157
5/16x3/8x4	461-0045	1/2x3/4x4	461-0115	3/4x1-1/2x7	461-0159
5/16x7/16x3	461-0048	1/2x3/4x5	461-0117	1x1-1/4x7	461-0162
5/16x7/16x4	461-0050	1/2x3/4x6	461-0120	1x1/1/2x7	461-0166
5/16x1/2x4	461-0055	1/2x1x7	461-0125		

Extra Length Square

Size (Square x L)	M35 5% Order No.
1/4x4"	460-2158
1/4x6	460-2160
1/4x8	460-2200
5/16x4	460-2228
5/16x6	460-2230
5/16x8	460-2260
3/8x4	460-2298
3/8x6	460-2300
3/8x8	460-2330
7/16x6	460-2335
1/2x6	460-2400
1/2x8	460-2500
5/8x6	460-2600
5/8x8	460-2602
3/4x6	460-2606
3/4x8	460-2608



Square

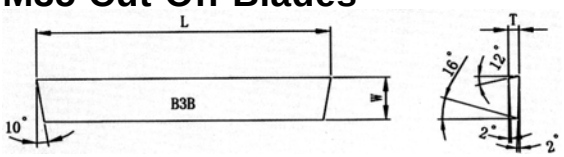
Size (Square x L)	M35 5% Order No.	10% Order No.
1/8x2-1/2"	460-0010	460-1010
3/16x2-1/2	460-0021	460-1021
1/4x2-1/2	460-0033	460-1033
5/16x2-1/2	460-0049	460-1049
3/8x3	460-0067	460-1067
7/16x3-1/2	460-0090	460-1090
1/2x4	460-0111	460-1111
5/8x4-1/2	460-0128	460-1128
3/4x5	460-0148	460-1148
7/8x6	460-0165	460-1152
1x7	460-0179	460-1155
1-1/8x8	460-0185	460-1160
1-1/4x7	460-0201	
1-1/4x9	460-0205	460-1165
1-1/2x10	460-0220	

M35 5% Round Tool Bits



Size	Order No.	Size	Order No.	Size	Order No.
1/8x2-3/4"	461-1031	3/8x3	461-1117	9/16x6	461-1153
3/16x3-1/2	461-1053	3/8x4	461-1119	5/8x3	461-1156
1/4x2-1/2	461-1074	3/8x5	461-1121	5/8x6	461-1163
1/4x2	461-1077	7/16x3-1/2	461-1132	3/4x6	461-1175
5/16x2-1/2	461-1100	7/16x4	461-1133	7/8x6	461-1181
5/16x3	461-1101	7/16x5-1/2	461-1135	1x6	461-1193
5/16x4	461-1102	1/2x4	461-1145		
5/16x4-1/2	461-1103	1/2x6	461-1147		

10Deg Double Beveled M35 Cut-Off Blades



Thick.	Ht.	L	Order No.	Thick.	Ht.	L	Order No.
1/16	1/2	4-1/2	397-7002	1/8	7/8	7	397-7013
1/16	11/16	5	397-7004	3/16	3/4	6	397-7014
3/32	1/2	4-1/2	397-7026	3/16	13/16	6	397-7015
3/32	5/8	5	397-7006	3/16	1	6-1/2	397-7016
3/32	11/16	5	397-7007	3/16	1	8	397-7018
1/8	1/2	4-1/2	397-7008	3/16	1-1/8	7	397-7020
1/8	3/4	5	397-7010	1/4	1-1/4	7	397-7022
1/8	3/4	6	397-7011	1/4	1-1/8	7	397-7024
1/8	7/8	6	397-7012	1/4	1-1/8	9	397-7025

M42 Cobalt Square Tool Bits

8% 钴 (M42) 高速钢方型白钢刀



Inch

Cobalt

Size	Order No.	Size	Order No.
1/8x2-1/2"	460-6010	3/4x5"	460-6148
3/16x2-1/2	460-6021	7/8x6	460-6165
1/4x2-1/2	460-6033	1x7	460-6179
5/16x2-1/2	460-6049	1x8	460-6180
3/8x3	460-6067	1-1/8x8	460-6185
7/16x3-1/2	460-6090	1-1/4x7	460-6201
1/2x4	460-6111	1-1/4x9	460-6205
5/8x4-1/2	460-6128	1-1/2x10	460-6220

M42 Cobalt Square Tool Bits-Long Length

8% 钴 (M42) 方型加长白刚刀



Inch

Cobalt

Size	Order No.	Size	Order No.
3/16x8"	460-6123	3/8x8"	460-6330
1/4x4	460-6158	7/16x6	460-6335
1/4x6	460-6160	1/2x6	460-6400
1/4x8	460-6200	1/2x8	460-6500
5/16x4	460-6228	5/8x6	460-6600
5/16x6	460-6230	5/8x8	460-6602
5/16x8	460-6260	3/4x6	460-6606
3/8x4	460-6298	3/4x8	460-6608
3/8x6	460-6300		

Metric

Size	Order No.	Size	Order No.
6x63mm	460-6715	10x100	460-6735
6x100	460-6720	10x200	460-6740
8x100	460-6725	12x100	460-6745
8x150	460-6730	20x200	460-6755

M2 & M35 Cut Off Blades

M2 & M35 割刀片



Cobalt

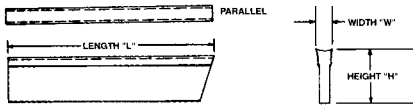
Wide	Height	Length	M2 HSS Order No.	M35 Cobalt Order No.
1/16"	1/2"	4-1/2"	363-0016	461-2016
1/16	11/16	5	363-0001	461-2000
5/64	1/2	4-1/2	363-0017	461-2017
3/32	1/2	4-1/2	363-0002	461-2002
3/32	5/8	5	363-0003	461-2003
3/32	11/16	5	363-0014	461-2001
1/8	11/16	5	363-0015	461-2015
1/8	3/4	5	363-0004	461-2004
1/8	3/4	6	363-0011	461-2008
1/8	7/8	6	363-0005	461-2005
1/8	7/8	7	363-0012	461-2014
3/16	3/4	6	363-0018	461-2018
3/16	1	6-1/2	363-0006	461-2006
3/16	1	8	363-0013	461-2013
3/16	1-1/8	7	363-0007	461-2007
1/4	1-1/8	7	363-0008	461-2011
1/4	1-1/4	7	363-0009	461-2009
1/4	1-3/8	7	363-0010	461-2010

T-Type Cut Off Blades

Parallel Type 平行割刀片



Parallel Type

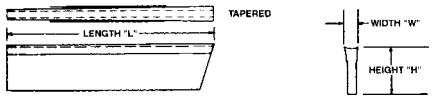


Tool No.	W	H	L	HSS Order No.	Cobalt Order No.
P1N	.040"	1/2"	3-1/2"	363-6005	363-7005
P1	1/16	1/2	4-1/2	363-6010	363-7010
P2N	5/64	1/2	4-1/2	363-6015	363-7015
P2	3/32	1/2	4-1/2	363-6020	363-7020
P3S	1/8	1/2	4-1/2	363-6025	363-7025
P3N	3/32	11/16	5	363-6030	363-7030
P3	1/8	11/16	5	363-6035	363-7035
P4	5/32	11/16	5	363-6040	363-7040
P5S	3/16	11/16	5	363-6045	363-7045
P3W	1/8	3/4	5	363-6050	363-7050
P4W	5/32	3/4	5	363-6055	363-7055
P5W	3/16	3/4	5	363-6060	363-7060
P5X	1/8	7/8	6	363-6065	363-7065
P5N	5/32	7/8	6	363-6070	363-7070
P5	3/16	7/8	6	363-6075	363-7075
P6	1/4	7/8	6	363-6080	363-7080
P8x	1/8	1-1/8	6-1/2	363-6085	363-7085
P8N	5/32	1-1/8	6-1/2	363-6090	363-7090
P8	3/16	1-1/8	6-1/2	363-6095	363-7095
P9	1/4	1-1/8	6-1/2	363-6100	363-7100
P10	5/16	1-1/8	6-1/2	363-6105	

Tapered Type 锥度割刀片



Tapered Type



Tool No.	W	H	L	HSS Order No.	Cobalt Order No.
T1-N	.040"	1/2"	3-1/2"	363-5005	363-5205
T-1	1/16	1/2	4-1/4	363-5010	363-5210
T-2-N	5/64	1/2	4-1/4	363-5015	363-5215
T-2	3/32	1/2	4-1/4	363-5020	363-5220
T3-S	1/8	1/2	4-1/4	363-5025	363-5225
T3-N	3/32	11/16	4-1/4	363-5030	363-5230
T3	1/8	11/16	4-1/4	363-5035	363-5235
T4	5/32	11/16	4-1/4	363-5040	363-5240
T5-S	3/16	11/16	5	363-5045	363-5245
T3-W	1/8	3/4	5	363-5050	363-5250
T4-W	5/32	3/4	5	363-5055	363-5255
T5-W	3/16	3/4	5	363-5060	363-5260
T5-X	1/8	7/8	5	363-5065	363-5265
T5-N	5/32	7/8	5	363-5070	363-5270
T5	3/16	7/8	5	363-5075	363-5275
T6	1/4	7/8	5	363-5080	363-5280
T8-X	1/8	1-1/8	5-1/2	363-5085	363-5285
T8-N	5/32	1-1/8	5-1/2	363-5090	363-5290
T8	3/16	1-1/8	5-1/2	363-5095	363-5295
T9	1/4	1-1/8	5-1/2	363-5100	363-5300
T10	5/16	1-1/8	5-1/2	363-5105	363-5305

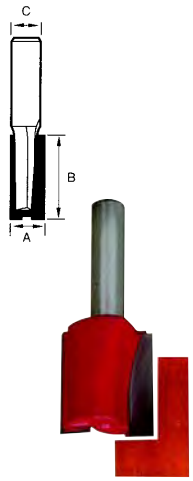
Carbide Tipped Router Bit Sets 套装硬质合金木工铣刀

6 Piece Set	12 Piece Set	12 Piece Set	12 Piece Set
			
6pcs,1/4"Shank 1 Each: 1/4,1/2 Straight Bit 1/2x90° V Grooving Bit 1/2Core Box Bit 1xR5/32 Roman Ogee Bit 1-1/4xR3/8 Rounding Over Bit	**12pcs,1/4"Shank** Round Nose Bit R1/8x1/2” 90° V Grooving Bit 3/8x7/16” Straight Bit 1/4”x3/4” Mortising Bit 1/2x1/2” Straight Bit 1/2x1” Straight Bit 3/4”x3/4” Dovetail Bit 1/2x1/2” Slot Cutter Bit 1-1/4x3/8” 45°Chamfer Bit 1-5/8x3/4” Rounding Over Bit R3/8x5/8” Cove Bit R1/2x5/8” Roman ogee Bit R1/4x21/32”	**12pcs,1/4"Shank** 1 Each: Cove Box Bit R6.3x9.5mm Cove Bit R6.3x10mm Dovetail Bit 12.7x13mm 45° Chamfer Bit 32.0x13mm Flush Trim Bit 12.7x13mm Straight Bit 16.0x20mm Rounding Over Bit R6.3x11mm Straight Bit 12.0x20mm Straight Bit 6.0x19mm Rounding Over Bit R9.5x16 90° V Grooving Bit 12.7x10mm Roman ogee Bit R4.0x12mm	**12pcs,1/2"Shank** 1 Each: Cove Box Bit R6.3x9.5mm Cove Bit R6.3x10mm Dovetail Bit 12.7x13mm 45° Chamfer Bit 32.0x13mm Flush Trim Bit 12.7x13mm Straight Bit 16.0x20mm Rounding Over Bit R6.3x11mm Straight Bit 12.0x20mm Straight Bit 6.0x19mm Rounding Over Bit R9.5x16 90° V Grooving Bit 12.7x10mm Roman ogee Bit R4.0x12mm
Order No.738-0613	**Order No. 738-1203**	**Order No. 738-1210**	**Order No. 738-1219**

15 Piece Set	24 Piece Set	24 Piece Set
		
15pcs,1/4"Shank 1 Each: Straight Bit(1F) 3/16x3/8” Cove Box Bit R1/8x1/4” Panel Pilot Bit 1/4x3/4” 90°V Grooving Bit 3/8x7/16” Straight Bit 1/4x3/4” Mortising Bit 1/2x1/2” Straight Bit 1/2x1” Straight Bit 3/4x3/4” Dovetail Bit 1/2x1/2” Flush Trim Bit 1/2x1/2” Slot Cutter Bit 1-1/4x3/8” 45° Chamfer Bit 1-3/16x1/2” Rounding Over Bit R3/8”x5/8” Cove Bit R1/2x15/32” Roman Ogee Bit R5/32x15/32	**24pcs,1/4"Shank** 1 Each: (1) 1/2”x1/2” Mortising Bit (1) 1/2”x5/8” Combination Bevel Bit (1)Each of 3/8”x14°, 1/2”x8°Dovetail Bit (1) 1/2”x1/2” x90°VGrooving Bit (1) Each of R3/16”, R1/4” Round Nose Bit (1) 3/8”x5/8” Trimming Bit (1) 1/4x3/4” Panel Pilot Bit (1) Each of 1/4”,3/8”,1/2”,3/4x3/4” Straight Bit (1) 1/2x1” Flush Trim Bit (1) Each of R1/8x1/4”,R3/16x3/8”,R1/4x7/16”, R3/8x5/8” Rounding Over Bit (1) Each of R3/8x1/2”,R1/4x3/8” Cove Bit (1) 1-3/16”x1/2”x45° Chamfer Bit (1) R5/32x15/32” Roman Ogee Bit (1) 1-1/4”x1/4” Slot Cutter Bit (1) 1-1/4’x1/2” Rabbeting Bit	**24pcs,1/2"Shank** 1 Each: (1) 1/2”x1/2” Mortising Bit (1) 1/2”x5/8” Combination Bevel Bit (1) Each of 3/8”x3/8”x14°, 1/2”x1/2”x8°Dovetail Bit (1) 1/2”x1/2” x90°VGrooving Bit (1) Each of R3/16”, R1/4” Round Nose Bit (1) 3/8”x5/8” Trimming Bit (1) 1/4x3/4” Panel Pilot Bit (1) Each of 1/4”,3/8”,1/2”,3/4” Straight Bit (1) 1/2x1” Flush Trim Bit (1) Each of R1/8x1/4”,R3/16x3/8”,R1/4x7/16”, R3/8x5/8” Rounding Over Bit (1) Each of R3/8x1/2”,R1/4x3/8” Cove Bit (1) 1-3/16”x1/2”x45° Chamfer Bit (1) R5/32x15/32” Roman Ogee Bit (1) 1-1/4”x1/4” Slot Cutter Bit (1) 1-1/4’x1/2” Rabbeting Bit
Order No. 738-1502	**OrderNo. 738-2401**	**OrderNo. 738-2402**

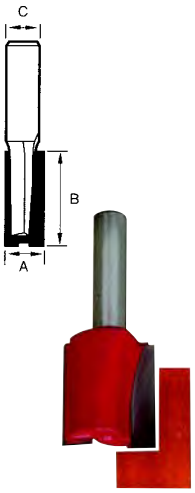
Carbide Tipped Router Bits 硬质合金木工铣刀

Straight Bits, 1/4" Shank



Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
	3/4”	1/4”	730-0163
1/4”	1	1/4	730-0165
	1	1/4	730-0205
1/4	1	1/4	730-0245
	1	1/4	730-0285
5/16	1	1/4	730-0325
	1	1/4	730-0365
3/8	1	1/4	730-0405
	3/4	1/4	730-0445
7/16	3/4	1/4	730-0485
	3/4	1/4	730-0525
1/2	3/4	1/4	730-0565
	3/4	1/4	730-0605
9/16	3/4	1/4	730-0645

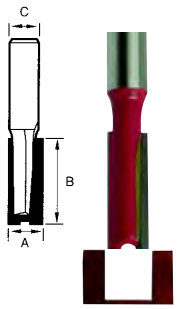
Metric Straight Bits, 1/4" Shank



Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
6mm	3/4	1/4	730-4006
8mm	3/4	1/4	730-4008
11mm	3/4	1/4	730-4011
14mm	3/4	1/4	730-4014
16mm	3/4	1/4	730-4016
17mm	3/4	1/4	730-4017
18mm	3/4	1/4	730-4018
19mm	3/4	1/4	730-4019

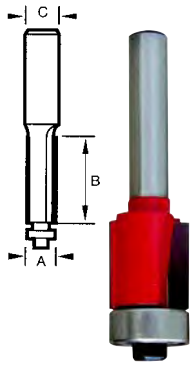
Cutter Dia. A	Cutter Length B	Shank C	Order No.
6mm	45	6mm	730-0802
8mm	45	6mm	730-0804
10mm	50	6mm	730-0806
13mm	50	6mm	730-0808
16mm	50	6mm	730-0810
19mm	50	6mm	730-0812
22mm	55	12mm	730-0814
25mm	55	12mm	730-0816

Straight Plunge Bits, 1/2" Shank



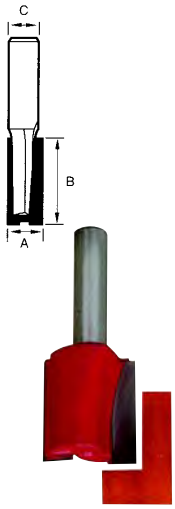
Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
3/8”	1-1/4”	1/2”	730-6324
1/2	1-1/2	1/2	730-6332
3/4	1-1/2	1/2	730-6348
1	1-1/2	1/2	730-6364

Flush Trimming Bits with Bearing



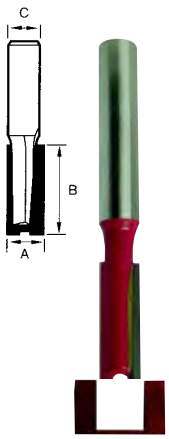
Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1/4”	3/4”	1/4”	730-7165
3/8	7/16	1/4	730-7242
3/8	1/2	1/4	730-7243
3/8	1	1/4	730-7244
3/8	1-3/16	1/4	730-7246
1/2	1/2	1/4	730-7320
1/2	1	1/4	730-7322
1/2	1-1/4	1/4	730-7324
5/8	1-3/16	1/4	730-7405
1/2	1/2	1/2	730-7325
1/2	1	1/2	730-7326
1/2	1-1/2	1/2	730-7327
1/2	2	1/2	730-7328
5/8	1-3/16	1/2	730-7406

Straight Cutters, 1/2" Shank



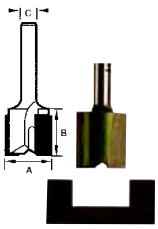
Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1/4”	3/4”	1/2”	730-2165
5/16	1	1/2	730-2205
3/8	1	1/2	730-2245
7/16	1	1/2	730-2285
1/2	1-1/4	1/2	730-2325
9/16	1	1/2	730-2365
5/8	1-1/4	1/2	730-2405
11/16	1-1/4	1/2	730-2445
3/4	1-1/4	1/2	730-2485
13/16	1-1/4	1/2	730-2525
7/8	1-1/4	1/2	730-2565
15/16	1-1/4	1/2	730-2605
1	1-1/4	1/2	730-2645
1-1/4	1-1/4	1/2	730-2805
1-1/2	1-1/4	1/2	730-2965

Straight Plunge Bits, 1/4" Shank



Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1/4”	3/4”	1/4”	734-0163
1/4	1	1/4	734-0165
5/16	1	1/4	734-0205
3/8	1	1/4	734-0245
7/16	1	1/4	734-0285
1/2	1	1/4	734-0325
9/16	1	1/4	734-0365
5/8	1	1/4	734-0405
11/16	3/4	1/4	734-0445
3/4	3/4	1/4	734-0485
13/16	3/4	1/4	734-0525
7/8	3/4	1/4	734-0565
15/16	3/4	1/4	734-0605
1	3/4	1/4	734-0645

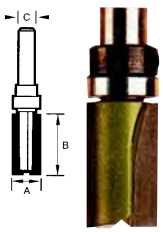
Hinge Mortising Bits, Double Flute



- For Making mortise pockets to accept hinges, stringers and edge boards.

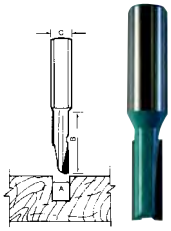
Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1/2”	1/2”	1/4”	730-6632
3/4	3/4	1/4	730-6648

Template Bits, Double Flute



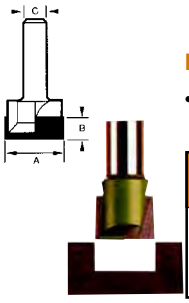
Cutter Dia. A	Cutter Length B	Shank Dia. C	OrderNo.
5/16”	3/4”	1/4”	731-0205
1/2	1	1/4	731-0325
5/8	1	1/4	731-0405
3/4	1	1/4	731-0485
3/4	1-1/4	1/2	731-0486
1-1/8	1-1/2	1/2	731-0725

Staggered Tooth Plunge Cutting with Dril Point



Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
3/8”	1/2”	1/2”	733-8224
1/2	3/4	1/2	733-8232

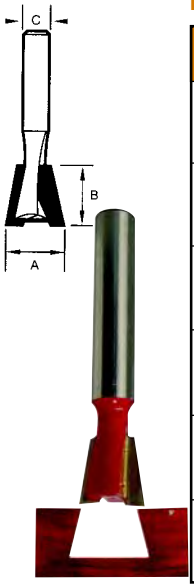
Carbide Tipped Router Bits 硬质合金木工铣刀



Bottom Cleaning Bits

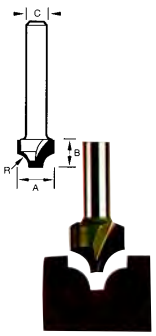
- Used to clean out and smooth pre-cut dadoes, inlays and shallow mortises.

Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
3/4”	15/32”	1/4”	731-9148
3/4	15/32	1/2	731-9248
1	15/32	1/2	731-9264



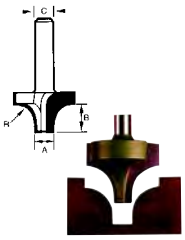
Dovetail Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Angle	Order No.
1/4”	5/16”	1/4”	7-1/2°	731-6165
5/16	3/8	1/4	9	731-6205
3/8	3/8	1/4	9	731-6245
3/8	7/16	1/4	9	731-6247
1/2	1/2	1/4	14	731-6325
5/8	7/8	1/4	7	731-6400
5/8	5/8	1/4	14	731-6401
3/4	7/8	1/4	7	731-6480
3/4	3/4	1/4	14	731-6481
3/8	3/8	1/2	9	731-6246
1/2	1/2	1/2	14	731-6326
17/32	1/2	1/2	14	731-6346
5/8	7/8	1/2	7	731-6406
5/8	5/8	1/2	14	731-6407
3/4	7/8	1/2	7	731-6486
3/4	3/4	1/2	14	731-6487
7/8	7/8	1/2	14	731-6566
1	7/8	1/2	14	731-6646



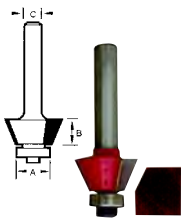
Plunge Beading/Roundover Bits

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
3/8”	7/16”	1/4”	1/8”	731-9424
1/2	7/16	1/4	3/16	731-9432
5/8	1/2	1/4	1/8	731-9440
7/8	9/16	1/4	3/16	731-9456
1	5/8	1/4	1/4	731-9464
1-1/4	5/8	1/4	3/8	731-9466
1-1/2	3/4	1/4	1/2	731-9468
3/8	7/16	1/2	1/8	731-9524
5/8	7/16	1/2	1/8	731-9540
7/8	1/2	1/2	3/16	731-9556



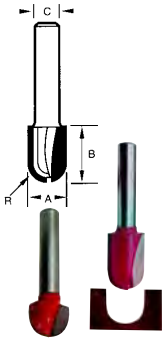
Plunge Round Bits

Cutter Dia. A	Cutting Length B	Shank Dia. C	Radius R	Order No.
1/4”	1/2”	1/4”	1/4”	732-1160
1/4	5/8	1/4	3/8	732-1162
1/4	1/2	1/2	1/4	732-1164
1/4	5/8	1/2	3/8	732-1166



Chamfer Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Chamfer Angle	Order No.
1/2”	3/8”	1/4”	15°	731-2322
1/2	3/8	1/4	25°	731-2324



Cove/Core Box Bits

- For veining or fluting with upshear angle lifts chips up to give a smooth cut with no burning .

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
1/4”	1/4”	1/4”	1/8”	732-8416
3/8	3/8	1/4	3/16	732-8424
1/2	1/2	1/4	1/4	732-8432
5/8	5/8	1/4	5/16	732-8440
3/4	5/8	1/4	3/8	732-8448
3/4	5/8	1/2	3/8	732-8648
1	3/4	1/2	1/2	732-8664



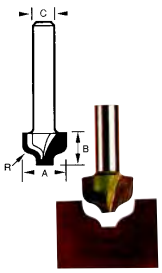
90° Groove Bits

- For grooving in varioous widths and depths.

Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
3/8”	7/16”	1/4”	731-8224
1/2	1/2	1/4	731-8232
3/4	5/8	1/4	731-8248
1	3/4	1/4	731-8264
3/4	5/8	1/2	731-8348
1	3/4	1/2	731-8364
1-1/4	5/16	1/2	731-8380

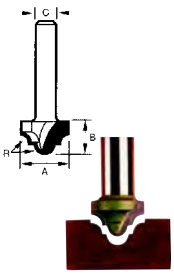
60° Groove Bits

Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1/2”	5/8”	1/4”	731-8532



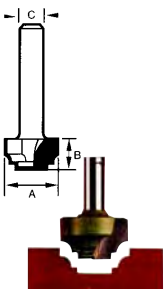
Plunge Ogee Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
3/8”	3/8”	1/4”	1/8”	731-9624
1/2	3/8	1/4	1/8	731-9632
3/8	3/8	1/2	1/8	731-9724
1/2	3/8	1/2	1/8	731-9732



Plunge Classic Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
1/2”	3/8”	1/4”	3/32”	732-0032
3/4	1/2	1/4	5/32	732-0048
1/2	3/8	1/2	3/32	732-0132
3/4	1/2	1/2	5/32	732-0148

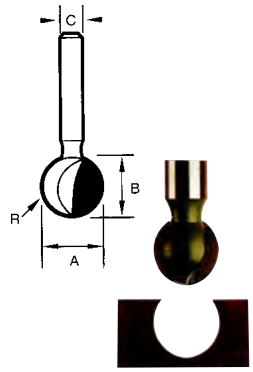


Plunge Traditional Bits, Double Flute

- Use to profile the face of a workpiece where a decorative look is needed.

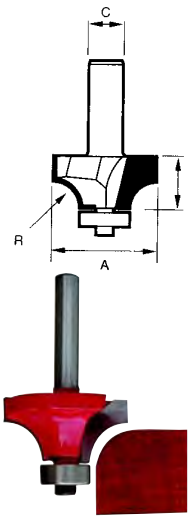
Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1/2”	3/8”	1/4”	732-0332
3/4	7/16	1/4	732-0348

Carbide Tipped Router Bits 硬质合金木工铣刀



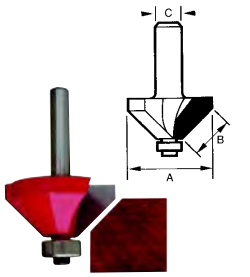
Plunge Ball/Radius Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
3/8"	3/8"	1/4"	3/16"	731-9824
1/2	1/2	1/4	1/4	731-9832
5/8	5/8	1/4	5/16	731-9840
3/4	3/4	1/4	3/8	731-9848
3/8	3/8	1/2	3/16	731-9924
1/2	1/2	1/2	1/4	731-9932
3/4	3/4	1/2	3/8	731-9948
1	1	1/2	1/2	731-9964



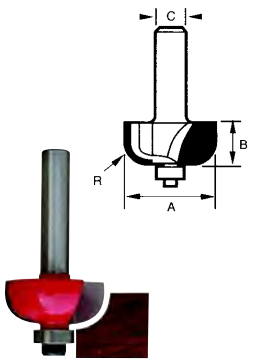
Radius Round Over Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
5/8"	3/8"	1/4"	1/16"	732-0540
3/4	3/8	1/4	1/8	732-0548
7/8	3/8	1/4	3/16	732-0556
1	7/16	1/4	1/4	732-0564
1-1/8	1/2	1/4	5/16	732-0572
1-1/4	5/8	1/4	3/8	732-0580
1-1/2	3/4	1/4	1/2	732-0596
1	7/16	1/2	1/4	732-0764
1-1/8	1/2	1/2	5/16	732-0772
1-1/4	5/8	1/2	3/8	732-0780
1-1/2	3/4	1/2	1/2	732-0796
2	1	1/2	3/4	732-0828
2-1/2	1-1/4	1/2	1	732-0860
3	1-1/2	1/2	1-1/4	732-0892



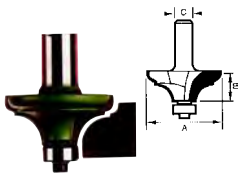
45° Chamfer Bits

Cutter Dia. A	Bevel Length B	Shank Dia. C	Order No.
1-3/16"	1/2"	1/4"	731-5112
1-3/16	1/2	1/2	731-5312
1-5/8	3/4	1/2	731-5340
2-1/4	1-1/4	1/2	731-5416



Cover Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
5/8"	3/8"	1/4"	1/8"	732-2340
7/8	3/8	1/4	1/4	732-2356
1-1/8	1/2	1/4	3/8	732-2372
1-3/8	5/8	1/4	1/2	732-2388
5/8	3/8	1/2	1/8	732-2640
7/8	3/8	1/2	1/4	732-2656
1-1/8	1/2	1/2	3/8	732-2672
1-3/8	5/8	1/2	1/2	732-2688
1-7/8	7/8	1/2	3/4	732-2720



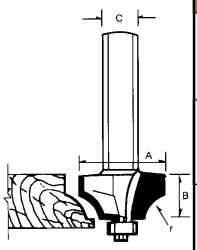
French Table Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1-1/2"	5/8"	1/4"	732-3496
1-1/2	5/8	1/2	732-3596



"V" Grooving 45°

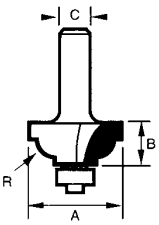
Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
3/8"	1/2"	1/4"	731-8624
3/4	5/8	1/2	731-8648



Radius Beading Bits with Bearing

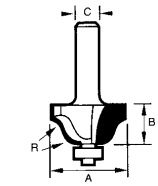
Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
3/4"	7/16"	1/4"	1/16"	732-7048
7/8	3/8	1/4	1/8	732-7056
1	3/8	1/4	3/16	732-7064
1-1/8	7/16	1/4	1/4	732-7072
1-1/4	5/8	1/4	3/8	732-7080
1-3/8	5/8	1/4	5/16	732-7088
1-1/2	3/4	1/4	1/2	732-7096
1-5/8	3/4	1/4	1/2	732-7104
3/4	3/8	1/2	1/8	732-7348
7/8	3/8	1/2	3/16	732-7356
1	7/16	1/2	1/4	732-7364
1-1/8	1/2	1/2	1/4	732-7372
1-1/4	1/2	1/2	5/16	732-7380
1-3/8	5/8	1/2	3/8	732-7388
1-1/2	3/4	1/2	1/2	732-7396
1-5/8	3/4	1/2	1/2	732-7404
1-3/4	7/8	1/2	5/8	732-7412
2	1	1/2	3/4	732-7428
2-1/2	1-1/4	1/2	1	732-7460
2-3/4	1-3/8	1/2	1-1/8	732-7476
3	1-1/2	1/2	1-1/4	732-7492





Classic Cover Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
1-1/16"	1/2"	1/4"	3/16"	732-2004
1-5/16	5/8	1/4	5/16	732-2020
1-1/16	1/2	1/2	3/16	732-2104
1-5/16	5/8	1/2	5/16	732-2120

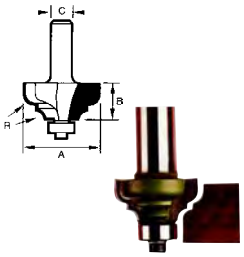


Roman Ogee Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
1-1/16"	15/32"	1/4"	5/32"	732-2868
1-3/8	21/32	1/4	1/4	732-2888
1-1/16	15/32	1/2	5/32	732-2968
1-3/8	21/32	1/2	1/4	732-2988

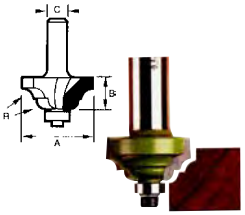


Carbide Tipped Router Bits 硬质合金木工铣刀



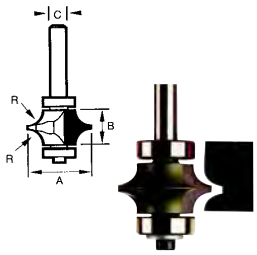
Classic Panel Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
1”	1/2”	1/4”	1/8”	732-3264
1-1/4	9/16	1/4	3/16	732-3280
1	1/2	1/2	1/8	732-3364
1-1/4	9/16	1/2	3/16	732-3380



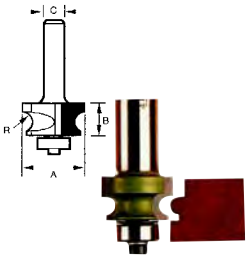
Classic Roman Ogee Bits, Double Flute

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
1”	1/2”	1/4”	1/8”	732-3064
1-1/4	5/8	1/4	3/16	732-3080
1	1/2	1/2	1/8	732-3164
1-1/4	5/8	1/2	3/16	732-3180



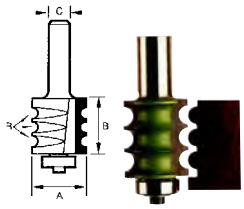
Beading Bits

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
7/8”	3/8”	1/4”	1/8”	732-3656
1	1/2	1/4	3/16	732-3664
1-1/8	5/8	1/4	1/4	732-3672



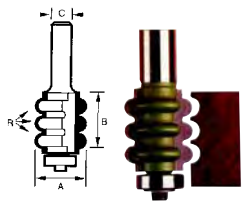
Edge Beading Bits

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
13/16”	1/2”	1/4”	3/32”	732-3752
7/8	9/16	1/4	1/8	732-3756
13/16	1/2	1/2	3/32	732-3852
7/8	9/16	1/2	1/8	732-3856



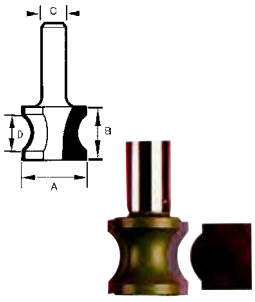
Triple Bead Bits

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
7/8”	1-3/32”	1/4”	1/8”	732-4156
7/8	1-3/32	1/2	1/8	732-4256



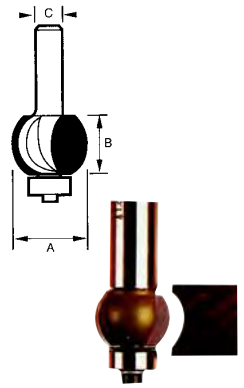
Triple Flute Bits

Cutter Dia. A	Cutter Length B	Shank Dia. C	Radius R	Order No.
7/8”	1”	1/4”	1/8”	732-4356
7/8	1	1/2	1/8	732-4456



External Bull Nose Bits-Half Radius

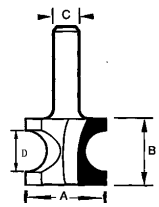
Cutter Dia. A	Cutter Length B	Shank Dia. C	Distance D	Order No.
3/4”	5/8”	1/4”	3/8”	732-4548
3/4	3/4	1/4	1/2	732-4549
7/8	1	1/4	3/4	732-4556
7/8	9/16	1/2	3/8	732-4656
7/8	3/4	1/2	1/2	732-4657
1	1	1/2	3/4	732-4664
1	1-3/8	1/2	1	732-4665
1-1/8	1-3/4	1/2	1-1/2	732-4672



Internal Bull Nose Bits-Half Radius

- Used for fluting, grooving and irregular pieces.

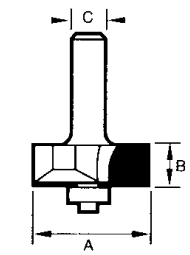
Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
3/4”	3/8”	1/4”	732-4748
3/4	1/2	1/4	732-4749
13/16	5/8	1/4	732-4752
7/8	3/4	1/4	732-4756
3/4	1/2	1/2	732-4848
13/16	5/8	1/2	732-4852
7/8	3/4	1/2	732-4856
7/8	1	1/2	732-4857
1	1-1/4	1/2	732-4864



External Bull Nose Bits-Full Radius

- For Making mortise pockets to accept hinges, stringers and edge boards.

Cutter Dia. A	Cutter Length B	Shank Dia. C	Diameter D	Order No.
3/4”	1/2”	1/4”	1/4”	732-5048
7/8	11/16	1/4	3/8	732-5056
1	13/16	1/4	1/2	732-5064
1-1/8	13/16	1/4	5/8	732-5072
1-1/4	1-1/16	1/4	3/4	732-5080
7/8	1/2	1/2	1/4	732-5156
1	5/8	1/2	3/8	732-5164
1-1/8	13/16	1/2	1/2	732-5172
1-1/4	13/16	1/2	5/8	732-5180
1-3/8	1-1/16	1/2	3/4	732-5190
1-5/8	1-3/8	1/2	1	732-5204
1-3/4	1-3/8	1/2	1-1/8	732-5212
1-7/8	1-5/8	1/2	1-1/4	732-5220
2	1-3/4	1/2	1-3/8	732-5228
2-1/8	1-3/4	1/2	1-1/2	732-5236



Rabbeting Bits,With Bearing

- Used for rabbeting and slotting and grooving.

Cutter Dia. A	Cutter Length B	Shank Dia. C	Order No.
1-1/4”	1/16”	1/4”	732-8004
1-1/4	1/8	1/4	732-8008
1-1/4	5/32	1/4	732-8010
1-1/4	3/16	1/4	732-8012
1-1/4	1/4	1/4	732-8016
1-1/4	3/8	1/4	732-8024
1-1/4	1/2	1/4	732-8032
1-1/4	1/8	1/2	732-8208
1-1/4	1/4	1/2	732-8216
1-1/4	3/8	1/2	732-8224
1-1/4	1/2	1/2	732-8232
1-1/4	5/8	1/2	732-8240
1-1/4	3/4	1/2	732-8248

Abrasives, Files & Deburring Tools

Files

American Pattern Files....199-200
Awiss Pattern Files....198,200
File Sets....201-202

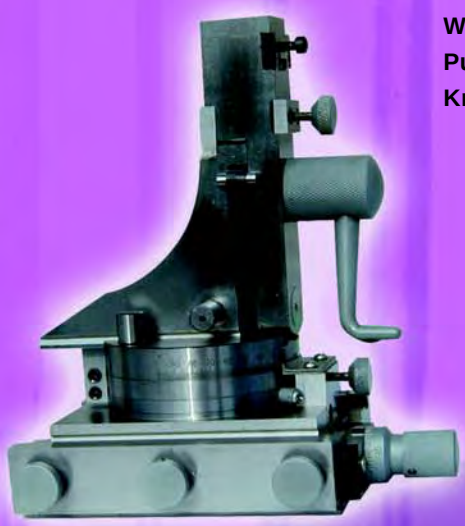
Burrs

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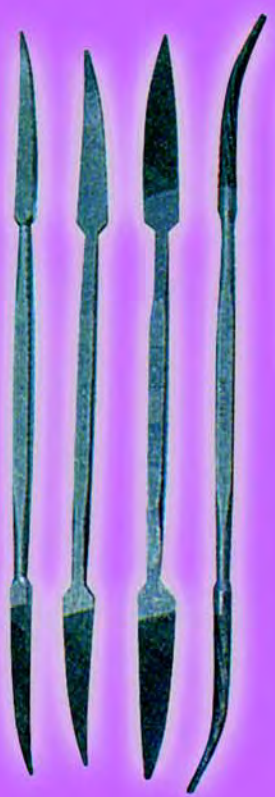
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Sticks....203
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Punch Former & Grinder....205
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Deburring Tools

mhc® Industrial Supply

倒角器刀片

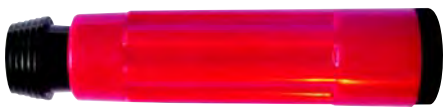
Specification	Applications									Materials								Blade	Picture	Order No.
	Straight Edge	Hole Edge	Cross -Hole Both Edge	Hole Back-Edge	Hole Inner Surface	Flat Surface	Slot Keyway	Inner Straight	Sheet	Steel	Aluminium	Copper	Brass	Cast Iron	Stainless Steel	Polyacetal & Poliam	Plastics			
The mostly used blade for inner and outer Deburring	●	●								■	■	■					●	B10		380-0012
HSS blade for brass and cast iron, can be used on both directions	●	●											■	■			●	B20		380-0014
HSS blade for deburring thin gauge materials inner and outer.			●							■	■	■					■	B30		380-0015
Heavy-duty HSS. Deburrs materials with spiral chips	●	●								■	■	■					●	E100		380-0026
HSS for materials with powdery chips. Rotates clockwise & counterclockwise	●	●											■	■			●	E200		380-0027
HSS for materials with spiral chips. Simultaneously deburrs the inside and outside of holes up to 6mm/.24" thick			●							■	■	■					●	E300		380-0028
HSS Blades for deburring holes as small as 7/64" Diameter	●	●													●	■	●	E101		380-0033
HSS Blades for deburring small holes in brass and cast	●	●														■	■	E102		380-0032
iron For straight edge on all materials	●	●											■	■			●	E350		380-0035
Countersink for hole-edges with up to 12mm/0.47" Diameter, M7		●								■	■	■	●	●	●		●	C12		380-0045
Countersink for hole-edges with up to 20mm/0.79" Diameter, M7		●								■	■	■	●	●	●		●	C20		380-0046
Countersink for hole-edges with up to 30mm/1.18" Diameter, M7		●								■	■	■	●	●	●		●	C30		380-0049
ø .6x20mm, triangular HSS scraper for precision work, M5				●	●	●				■	■	■	●	●	●		■	D20		380-0070
ø 4.0x25mm, triangular HSS scraper for precision work, M5				●	●	●				■	■	■	●	●	●		■	D25		380-0071
ø 5.6x30mm, triangular HSS scraper for precision work, M5				●	●	●				■	■	■	●	●	●		■	D30		380-0072
ø 6.5x33mm, triangular HSS scraper for precision work, M5				●	●	●				■	■	■	●	●	●		■	D40		380-0073
ø 3.2x50mm,D1 Bladeholder with UN handle				●	●	●				■	■	■	●	●	●		■	D50		380-0047
ø 3.2x48mm,D1 Bladeholder with UN handle			●	●						■	■	■	●	●	●		■	D66		380-0075
For sheet metal. Range 1-8 mm. Hand-Guard available upon request.									●	■	●	●	●	●	●		■	L3		380-0076
Used for deburring small ridges in difficult to reach places. Range of 0-2.5 mm.	●								●	■	●	●	●	●	●		■	L4		380-0077
To relieve corners of narrow slots from 3.5 mm. Double ended blade L7 for cutting in two directions also available.								●	●	■	■	■	●	●	●		■	L5		380-0078
Effective corner relief. Wide range of applications.								●	●	■	■	■	●	●	●		■	L6		380-0079
Double-edged, round HSS blace for massive deburring tasks on materials with spiral chips.	●								●	■	■	■	■	■	■		■	N80	 (Used in pairs)	380-0061
Standard blade for keyways							●			■	■	■			■		●	N80K		380-0062

■ Excellent ● Good

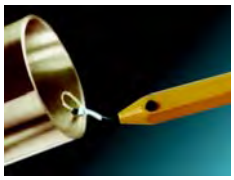
倒角器刀杆

Specification	Holder	Picture	Order No.
Holds all B blades, M5 thread	**Holder B**		**380-0011**
Holds D20,D25,D30,D40 blades	**Holder C**		**380-0019**
Made to hold the Mini Scraper and Internal Scraper. An M3 setscrew is holding the Blades. Allen key included.	**Holder D**		**380-0022**
Holds all E blades.	**Holder E**		**380-0025**
Holds all F blades, M7 thread	**Holder F**		**380-0031**
Made to hold the Mini scraper and D50, D66 internal scraper.An M3 setscrew is holding the Blades. Allen key included.	**Holder D1**		**380-0013**
Has an hexagonal cross section and M3 internal threads at both ends. Holds N80K Blade. Marked point should always point upwards during operation.	**Holder K**		**380-0017**
Blades are held in a 3mm square hole and tightened with 4mm set screw. Holds L,L4,L5 & L6 blades.	**Holder LD**		**380-0018**
Holds all B blades	**Holder BH**		**380-0020**
Holds all E blades.	**Holder EH**		**380-0021**
Has an hexagonal cross section to prevent rotating inside Handle. External M7 thread to accept the countersinks:C12,C20,C30	**Holder F7**		**380-0023**
Has an hexagonal cross section to prevent rotating inside Handle. External M5 thread to accept the Adapter:E,B,C & L.	**Holder F5**		**380-0024**
Has an hexagonal cross section to prevent rotating inside Handle. Inner M5 thread to accept D20,D25,D30,D40 blades.	**Holder DH**		**380-0034**
A double headed telescoping blade holder, External M5 thread on one end, and M7 thread on the other end.	**Holder BEC**		**380-0042**
Inner M5 thread to holds all B blades	**Adapter B**		**380-0037**
Inner M5 thread to holds all E blades	**Adapter E**		**380-0038**
Inner M5 thread to holds Holds D20, D25,D30 & D40 blades	**Adapter D**		**380-0063**
Inner M5 thread to holds Holds L3, L4,L5 & L6 blades	**Adapter L**		**380-0064**

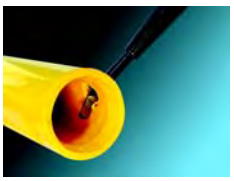
倒角器手把

Specification	Handle	Picture	Order No.
Ergonomically held handle with soft grip. Accepts both heavy and light duty “B” & “E” blades due to 2 holes.	**Handle SG**		**380-0043**
Plastic Replacement Handle Fit all E blades	**Handle NE**		**380-0016**
A unique handle with large storage space for spare blades. Better grip. Saftey button for quick change of blades.	**Handle NB**		**380-0044**
A unique Handle which can hold the total range of Blade holders: hexagonal cross section.	**Handle UNI**		**380-0090**
Hexagonal aluminium painted Handle. Accept all E blades all E blades	**Handle RB**		**380-0091**
Rapid deburring tool Handle. Accept 100 E blade. Which is replacable.	**Handle B**		**380-0092**
Hexagonal plastic handle. Holds all “E” (ø 3.2 mm) Blades.	**Handle EO**		**380-0093**
Classic universal handle. Accepts all Shaviv blade holders. To store spare blades inside handle, simply unscrew the back cap.	**Handle UN**		**380-0010**
Non-telescopic handle, excellent for heavy-duty deburring tasks. All E-series blades fit directly into handle. To store spare blades inside handle, simply unscrew the back cap	**Handle 1**		**380-0009**

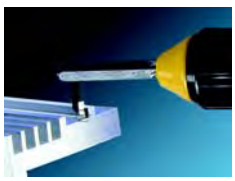
整体倒角器

Specification		Picture	Order No.
EDGEOFF Includes: E100 Blade mounted in an 8 mm Hexagonal painted Aluminium Handle. The blade is not replaceable. Handy pocket clip.			380-0052
PLASTIC EDGE OFF Includes: E100 Blade, Plastic Handle. Holds all “E” (ø 3.2 mm) Blades. The Blade is replaceable.			380-0050
PUSH SLEEVE Includes: E100 Blade, 12 mm Hexagonal painted Aluminium Handle. Holds all “E” (ø 3.2 mm) Blades. To replace blades, push black sleeve back into handle and pull blade out.			380-0039
PUSH BUTTON Rapid deburring tool Handle. Accept 100 E blade. Which is replacable.			380-0054
NE BURR 1, 3, 5 Blades can be stored in plastic handle.Accepts “E” series Blade.Blades can be easily changed by depressing locking button. 1: E100. 3: E100, E200, E350. 5: E100, E200, E350, E101, E102			380-0074 380-0095 380-0055
NB BURR 1, 3, 5 Includes: NB-handle and “E” series Blade. 1: E100. 3: E100, E200, E350. 5: E100, E200, E350, E101, E102			380-0051 380-0096 380-0097
SOFT GRIP Includes: SG handle, E100 and B10 Blades. Ergonomically held handle. Accepts both heavy and light duty “E” & “B” Blades due to 2 holes.		 ø 3.2 mm ø 2.6 mm 	380-0053

整体倒角器

Specification		Picture	Order No.
SLOT EDGE CLEANER The original deburring set with the non-telescopic blade holder. Great for heavy duty deburring of holes edges. Features a strong, built-in steel blade holder that holds the blade close to the handle. Takes all E-sries blade			380-0029
B UN BURR Includes: Un-handle, B-holder, one B10 Blade. Includes: Un-handle, B-holder, one B20 Blade.			380-0057 380-0098
E UN BURR Includes: Un-handle, E-holder, one E100 blade Includes: Un-handle, E-holder, one E200 blade Includes: Un-handle, E-holder, one E300 blade			380-0058 380-0099 380-0100
B UNI BURR Includes: Uni-handle, B-holder, one B10 Blade. Includes: Uni-handle, B-holder, one B20 Blade.			380-0059 380-0105
E UNI BURR Includes: Uni-handle, E-holder, one E100 blade Includes: Uni-handle, E-holder, one E200 blade Includes: Uni-handle, E-holder, one E300 blade			380-0065 380-0106 380-0107
MINI-SCRAPER Includes: UN-handle, D1-holder, Triangular Mini-Scraper D50. Hollow ground.			380-0066
INTERNAL SCRAPER Includes: UN-handle, D1-holder, Internal Scraper D66. For deburring of cross holes.			380-0067
SCRAPER Designed for hight quality finishing & scraping. Includes: UNI-handle, telescoping blade holder, D20 blade & key			380-0068
Includes: UNI-handle, DH-holder,D25 blade & key			380-0069
Includes: UNI-handle, DH-holder, D30 blade & key			380-0080
Includes: UNI-handle, tDH-holder, D40 blade & key			380-0081

整体倒角器

Specification		Picture	Order No.
COUNTERSINK Can be locked in any position. Most useful for chamfering deep holes. Includes: Uni-handle, F7-holder, 12 mm Countersink.			380-0082
Includes: Uni-handle, F7-holder, 20 mm Countersink.			380-0083
Includes: Uni-handle, F7-holder, 30 mm Countersink.			380-0084
"V" CUT Includes: UNI-handle, LD Blade-holder, L3 Blade. For sheet metal. Range 1-8 mm. Hand-Guard available upon request.			380-0085
MINI-CUT Includes: UNI-handle, LD Blade-holder, L4 Blade. Used for deburring small ridges in difficult to reach places. Range of 0-2.5 mm.			380-0086
SLOT CLEANER Includes: UNI-handle, LD Blade-holder, L5 Blade. To relieve corners of narrow slots from 3.5 mm. Double ended blade L7 for cutting in two directions also available.			380-0087
CORNER CLEANER Includes: UNI-handle, LD blade-holder, L6 blade. Effective corner relief. Wide range of applications.			380-0088
KEYWAY BURR Includes: UNI-handle, K blade-holder, N80K blade. Effectively removes burrs from internal and external keyways. Range 2.4-11mm.			380-0089
DOUBLE-BURR Includes: Double burr, hand guard, 2 x N80 Blades. Simultaneously removes burrs from both sides of sheet metal.			380-0060

Universal Deburring Set 套装倒角器



Each set features the UNI handle,engineered for unparalleled comfort, safety and high performance. This tools is extremely powerful yet lightweight, Comes with the special asapter for an extra- close grip.

Includes:
UNI handle,
M5 holder, Adapter B, Adapter E,
Baldes: B10, B20, B30, E100, E200, E300,
Wrench

Order No. 380-0271

Countersink Set



Each set with 3 powerful countersink tools, most useful for chamfering and countersinking.

Includes:
UNI handle,
M7 holder,
Countersink: C12, C20, C30,
Wrench

Order No. 380-0272

Scraper Set



Features triangular blades with 3 cutting edges and a telescopic blade holder that lets you reach hard to access areas. Provides maximum grip comfort when used with UNI handle. Suggestion: Use the key supplied to safely releade and remove blades.

Includes:
UNI handle,
Hex inner thread Holder,
Scrapers: D20, D25, D30, D40,
D Wrench

Order No. 380-0273

Edge Cleaner and Scraper Set



Features blades with Adapters and a telescopic blade holder that lets you reach hard to access areas. Provides maximum grip comfort when used with UNI handle. Suggestion: Use the key supplied to safely releade and remove blades.

Includes:
UNI handle,
M5 holder,
Adapter D, Adapter L, Scraper D30,
Cleaner: L3, L4, L5, L6,
Hex Wrench,
D Wrench

Order No. 380-0274

Universal Extra Set 1



The complete uni kit for professional machinists.

Includes:
UNI handle, M5 & M7 holder,
Adapter L, Adapter E,
Cleaners: L3, L4, L5, L6,
Baldes: E100, E200,
Countersink: C12, C20,
Hex Wrench, D Wrench

Order No. 380-0275

Universal Extra Set 2



The most complete uni kit for professional machinists. With extra scraper.

Includes:
UNI handle,
M5 & M7 holder,
Adapter: B, D, E, L,
Cleaners: L3, L4, L5, L6,
Baldes: B10, B20, E100, E200,
Countersink: C12, C20,
Scraper: D30,
Hex Wrench,
D Wrench

Order No. 380-0276

3 Pc. Rapid Deburring Tool Set 套装倒角器

Rapid deburring tool with blade E100,
Which is not replaceable.



Includes: 3 Pcs 380-0052

Order No. 380-0352

4 Pc. Deburring Tool Set



4 Pcs/Set "B" includes:
one plastic handle,one B holder
one each of B10, B20 blades

Order No. 380-0003

5 Pc. Deburring Tool Set



5 Pcs/Set "E" includes:
one plastic handle,one E holder
one each of E100, E200,E300 blades

Order No. 380-0006

9 Pc. Deburring Tool Set

- Blades can be stored in plastic handle.
- Blades can be easily changed by pressing collar of holder.
- Packed in fitted case.



9 Pcs/Set includes:
one plastic handle
one each of E100, E200, E300, B10,
B20, B30 blades
one each of E holder and B holder

Order No. 380-0007

Scraper Set

Includes:
Uni-handle,
D1 Blade-holder + D50 Scraper
D1 Blade-holder + D66 Scraper,
Wrench

Order No. 380-0103



Soft Grip Set



Includes:
SG handle.
B10 Blade (1 Pcs)
E100 Blade (20 Pcs)

Order No. 380-0102

Includes:
SG handle.
B10 Blade (10 Pcs)
E100 Blade (10 Pcs)

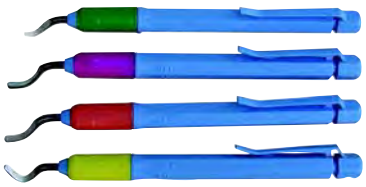
Order No. 380-0101

Universal Set

The Plastic EDGE OFF Set

Includes:
EO handle + E100
EO handle + E102
EO handle + E200
EO handle + E300

Order No. 380-0104



18 Pc. Deburring Tool set

High Speed Steel Blades, Plastic Case



Set include:
one double burr
one zip/burr handle
one zip/burr "B" holder
one B-10 blade
one B-20 blade
one zip/burr "E" holder
one E-100 blade
one E-200 blade
one E-300 blade
one zip/burr "K" holder
one keyway blade for 1/8-1/4" wide slots
one zip/burr "c" holder
one c-12 1/2"countersink
one c-20 3/4" countersink
two zip/burr "D" holders
one D-50 HSS mini scraper
one D-66 HSS internal scraper

Order No. 380-0156

6 Pc. Deburring Tool Set 套装倒角器

Set Includes:
Flat diamond coated file, triangular scraper, flat Scraper, round scraper, swivel blade tool, rotational deburing tool with minimum hole diameter 0.08".

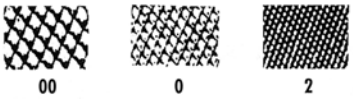


6 Pcs/set

Order No.380-0160

Swiss Pattern Files 瑞士锉刀

Industrial grade



Pillar Files 平锉

- Similar in shape to hand files but only two-thirds as wide.
- Double cut on two sides only.



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
4”	3/8 x 7/64”	**511-0004**	**511-0104**	**511-0204**
6”	1/2 x 9/64”	**511-0006**	**511-0106**	**511-0206**
8”	39/64 x 13/64”	**511-0008**	**511-0108**	**511-0208**

Pillar Narrow & Extra Narrow Files 窄平锉

- Similar in shape to hand files but only two-thirds as wide.
- Double cut on two sides only.
- Edges are safe.



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
6”	23/64 x 9/64”	**511-1006**	**511-1106**	**511-1206**
8”	29/64 x 13/64”	**511-1008**	**511-1108**	**511-1208**
8”	1/4 x 5/32”	**511-1018**	**511-1118**	**511-1218**

Half Round Files 半圆锉

- Taper in thickness and width to a point.
- Double cut on both flat and half round sides



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
4”	11/32 x 1/8”	**511-2004**	**511-2104**	**511-2204**
6”	17/32 x 9/64”	**511-2006**	**511-2106**	**511-2206**
8”	45/64 x 3/16”	**511-2008**	**511-2108**	**511-2208**

Round Files 圆锉

- Taper throughout length to a fine point.
- Double cut .



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
4”	1/8”	**511-3004**	**511-3104**	**511-3204**
6”	3/16”	**511-3006**	**511-3106**	**511-3206**
8”	1/4”	**511-3008**	**511-3108**	**511-3208**

Hand Files 平板锉

- Parallel in width but taper in thickness
- Sides are double cut.
- Single cut on one edge, safe cut on other edge.



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
4”	17/32 x 1/8”	**511-4004**	**511-4104**	**511-4204**
6”	3/4 x 5/32”	**511-4006**	**511-4106**	**511-4206**

Warding Files 尖头平锉

- Rectangular in cross section.
- Taper slightly in thickness and to a point in width.
- Double cut on flat sides & single on edges.



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
4”	17/32 x 3/64”	**511-5004**	**511-5104**	**511-5204**
6”	5/16 x 5/64”	**511-5006**	**511-5106**	**511-5206**

Three square Files 三角锉

- A triangular section with 60° angles.
- Gradually tapered on all sides to fine point.
- Ideal for filing corners and edges in extrusion dies where sharp edges must be held.



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
4”	9/32”	**511-6004**	**511-6104**	**511-6204**
6”	3/8”	**511-6006**	**511-6106**	**511-6206**

Knife Files 刀锉

- Tapered in width and thickness .
- Same thickness from point to shoulder at the knife edge.
- Approx 10° included angle of sharp edge.
- Ideal for filing in a slot, wedge shape opening, or restricted area.



Length	Approx. Width	Cut No. 00 Order No.	Cut No. 0 Order No.	Cut No. 2 Order No.
4”	15/32x1/8”	**511-7004**	**511-7104**	**511-7204**
6”	23/32x5/32”	**511-7006**	**511-7106**	**511-7206**

American Pattern Files

Industrial Grade 美式锉刀



Three square files 三角锉

- Machinist's files.
- Triangular in cross-section, double-cut, have fairly sharp corners.
- For filing internal angles.
- More acute than the right angle for clearing out square corners.



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No	Smooth Cut Order No.
4”	11/32”	510-6004	510-6104	510-6204
6”	15/32”	510-6006	510-6106	510-6206
8”	5/8”	510-6008	510-6108	510-6208
10”	3/4”	510-6010	510-6110	510-6210
12”	27/32”	510-6012	510-6112	510-6212
14”	15/156”	510-6014	510-6114	510-6214
16”		510-6016		

Mill files 铣平锉

- For sharpening mill or circular Saws, and finishing metals.
- All sizes tapered slightly in width.
- 12”,14” and 16” tapered slightly in thickness for about one-third of length.
- Two square edges.
- Single cut on sides and edges.



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No	Smooth Cut Order No.
4”	7/16 x 5/64”	510-7004	510-7104	510-7204
6’	19/32 x 7/64”	510-7006	510-7106	510-7206
8”	25/32 x 9/64”	510-7008	510-7108	510-7208
10”	31/32 x 11/64”	510-7010	510-7110	510-7210
12”	1-5/32 x 7/32”	510-7012	510-7112	510-7212
14”	1-5/16 x 1/4”	510-7014	510-7114	510-7214
16”	1-1/2 x 9/32”	510-7016	510-7116	510-7216

Warding files 齐头平锉

- Rectangular in section and used principally by locksmiths in repairing or in filing ward notches in keys.
- Also suitable for use in narrow spaces where other files will not fit. All double cut on sides, single cut on edges.



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No	Smooth Cut Order No.
4”	15/32 x 3/64”	510-8004	510-8104	510-8204
5”		510-8005	510-8105	510-8205
6”	5/8 x 5/64”	510-8006	510-8106	510-8206
8”	25/32 x 3/32”	510-8008	510-8108	510-8208
10”	15/16 x 1/8”	510-8010	510-8110	510-8210
12”	1-3/32 x 5/32”	510-8012	510-8112	510-8212
14”	1-1/4 x 3/16”	510-8014	510-8114	510-8214

Knife files 刀口锉

- Double cut.
- Used in getting through very small.
- Crevices, slots, keyways, etc.
- Generally used by tool and die makers on work having acute angles



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No	Smooth Cut Order No.
4”	15/32 x 7/64”	510-0004	510-0104	510-0204
6”	21/32 x 5/32”	510-0006	510-0106	510-0206
8”	27/32 x 3/16”	510-0008	510-0108	510-0208
10”	1-1/32 x 1/4”	510-0010	510-0110	510-0210
12”		510-0012		

Flat files 平锉

- Rectangular cross-section.
- Double cut teeth.
- Slight taper.
- Cut on both sides.
- Used wherever metal must be removed rapidly.



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No	Smooth Cut Order No.
4”	7/16 x 1/8”	510-1004	510-1104	510-1204
6”	19/32 x 5/32”	510-1006	510-1106	510-1206
8”	3/4 x 7/32”	510-1008	510-1108	510-1208
10”	15/16 x 9/32”	510-1010	510-1110	510-1210
12”	1-1/8 x 11/32”	510-1012	510-1112	510-1212
14”	1-9/32 x 13/32”	510-1014	510-1114	510-1214
16”	1-15/32 x15/32”	510-1016	510-1116	510-1216

Half round files 半圆锉

- The cross-section is rounded on one side and flat on the other.
- Allows the file to be used effectively on convex and concave surfaces.
- Tapered towards the points in width and thickness.



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No	Smooth Cut Order No.
4”	7/16 x 1/8”	510-2004	510-2104	510-2204
6”	19/32 x 5/32”	510-2006	510-2106	510-2206
8”	3/4 x 7/32”	510-2008	510-2108	510-2208
10”	15/16 x 9/32”	510-2010	510-2110	510-2210
12”	1-1/8 x 11/32”	510-2012	510-2112	510-2212
14”	1-9/32 x 13/32”	510-2014	510-2114	510-2214
16”	1-15/32 x 15/32”	510-2016	510-2116	510-2216

American Pattern Files continued

Industrial Grade 美式锉刀



Round files 园锉

- Machinist's file.
- Circular in cross-section.
- Use to file circular openings or concave surfaces.
- Bastard cut 6" and longer, second cut files 12" and longer are double cut. All others are single cut.



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No.	Smooth Cut Order No.
4"	5/32"	510-4004	510-4104	510-4204
6"	1/4"	510-4006	510-4106	510-4206
8"	5/16"	510-4008	510-4108	510-4208
10"	3/8"	510-4010	510-4110	510-4210
12"	1/2"	510-4012	510-4112	510-4212
14"	5/8"	510-4014	510-4114	510-4214

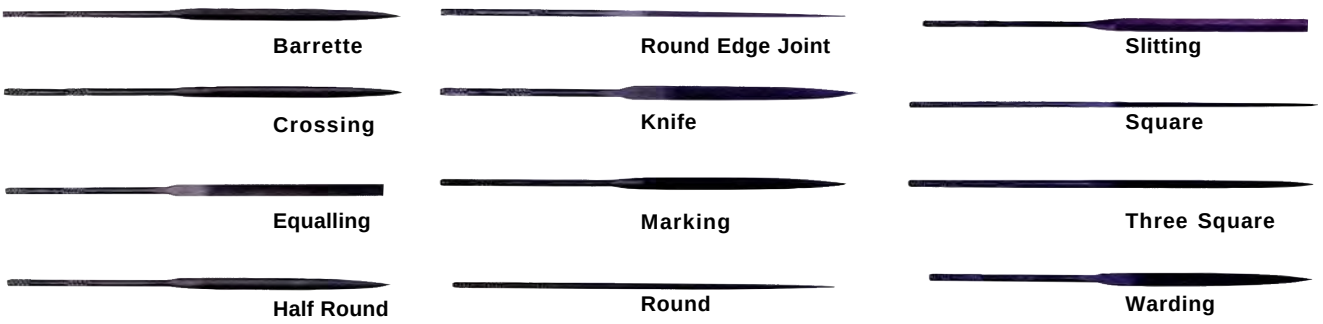
Square files 方锉

- Square in cross-section.
- Used principally for filing slots, keyways.
- General surface filing.
- Double cut.



Length	Approx. Width	Bastard Cut Order No.	Second Cut Order No	Smooth Cut Order No.
4"	5/32"	510-5004	510-5104	510-5204
6"	1/4"	510-5006	510-5106	510-5206
8"	5/16"	510-5008	510-5108	510-5208
10"	3/8"	510-5010	510-5110	510-5210
12"	1/2"	510-5012	510-5112	510-5212
14"	5/8"	510-5014	510-5114	510-5214

Swiss Pattern Knurled Round Handle Needle Files & Sets 瑞士圆柄什锦锉



Individual Files

Type	Overall Length	Length Of Cut	Cut No. 0 Order No.	Cut No.2 Order No.	Cut No.3 Order No.
Round	4"	2"	382-0401	382-0421	382-0431
Round	5-1/2"	2-1/2"	382-0501	382-0521	382-0531
Round	6-1/4"	3"	382-0601	382-0621	382-0631
Half Round	4"	2"	382-0402	382-0422	382-0432
Half Round	5-1/2"	2-1/2"	382-0502	382-0522	382-0532
Half Round	6-1/4"	3"	382-0602	382-0622	382-0632
Square	4"	2"	382-0403	382-0423	382-0433
Square	5-1/2"	2-1/2"	382-0503	382-0523	382-0533
Square	6-1/4"	3"	382-0603	382-0623	382-0633
Three Square	4"	2"	382-0404	382-0424	382-0434
Three Square	5-1/2"	2-1/2"	382-0504	382-0524	382-0534
Three Square	6-1/4"	3"	382-0604	382-0624	382-0634
Knife	4"	2"	382-0405	382-0425	382-0435
Knife	5-1/2"	2-1/2"	382-0505	382-0525	382-0535
Knife	6-1/4"	3"	382-0605	382-0625	382-0635
Flat	4"	2"	382-0406	382-0426	382-0436
Flat	5-1/2"	2-1/2"	382-0506	382-0526	382-0536
Flat	6-1/4"	3"	382-0606	382-0626	382-0636

Type	Overall Length	Length Of Cut	Cut No. 0 Order No.	Cut No.2 Order No.	Cut No.3 Order No.
Equaling	4"	2"	382-0407	382-0427	382-0437
Equaling	5-1/2"	2-1/2"	382-0507	382-0527	382-0537
Equaling	6-1/4"	3"	382-0607	382-0627	382-0637
Barrette	4"	2"	382-0408	382-0428	382-0438
Barrette	5-1/2"	2-1/2"	382-0508	382-0528	382-0538
Barrette	6-1/4"	3"	382-0608	382-0628	382-0638
Crossing	4"	2"	382-0409	382-0429	382-0439
Crossing	5-1/2"	2-1/2"	382-0509	382-0529	382-0539
Crossing	6-1/4"	3"	382-0609	382-0629	382-0639
Joint	4"	2"	382-0410	382-0420	382-0430
Joint	5-1/2"	2-1/2"	382-0510	382-0520	382-0530
Joint	6-1/4"	3"	382-0610	382-0620	382-0630
Marking	4"	2"	382-1411	382-1421	382-1431
Marking	5-1/2"	2-1/2"	382-1511	382-1521	382-1531
Marking	6-1/4"	3"	382-1611	382-1621	382-1631
Slitting	4"	2"	382-1412	382-1422	382-1432
Slitting	5-1/2"	2-1/2"	382-1512	382-1522	382-1532
Slitting	6-1/4"	3"	382-1612	382-1622	382-1632

No. of Piece	Size	Cut No. 0 Order No.	Cut No. 2 Order No.	Cut No. 3 Order No.
5	4"	382-0840	382-0842	382-0843
5	5-1/2"	382-0850	382-0852	382-0853
5	6-1/4"	382-0860	382-0862	382-0863
5	7"	382-0870	382-0872	382-0873

No. of Piece	Size	Cut No. 0 Order No.	Cut No. 2 Order No.	Cut No. 3 Order No.
6	4"	382-0640	382-0642	382-0643
6	5-1/2"	382-0650	382-0652	382-0653
6	6-1/4"	382-0660	382-0662	382-0663
6	7"	382-0740	382-0742	382-0743



No. of Piece	Size	Cut No. 0 Order No.	Cut No. 2 OrderNo.	Cut No. 3 Order No.
10	4"	382-0140	382-0142	382-0143
10	5-1/2"	382-0150	382-0152	382-0153
10	6-1/4"	382-0160	382-0162	382-0163
10	7"	382-0170	382-0172	382-0173

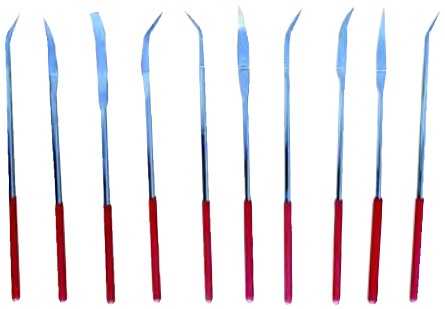
No. of Piece	Size	Cut No. 0 Order No.	Cut No. 2 Order No.	Cut No. 3 Order No.
12	4"	382-0040	382-0042	382-0043
12	5-1/2"	382-0050	382-0052	382-0053
12	6-1/4"	382-0060	382-0062	382-0063
12	7"	382-0064	382-0065	382-0066

Diamond Die Maker's Riffler File Sets

套装金刚石异形锉

Single Head

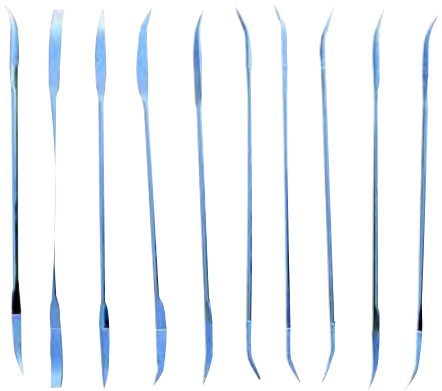
- Can be used on cleaning odd and difficult places.
- Total file length is 140mm/5-1/2".
- Diamond cutting length is 30mm/1-1/5".
- Completes with soft plastic handle provide enough friction.
- Supplied in fitted pouch.



No.of Piece	Grit	Order No.
10Pcs/set	Fine	**382-1010**
10Pcs/set	Coarse	**382-1011**

Double Head

- Can be used on cleaning odd and difficult places.
- Total file length is 180mm/7".
- Diamond cutting length is 30mm/1-1/5".
- Supplied in fitted pouch.

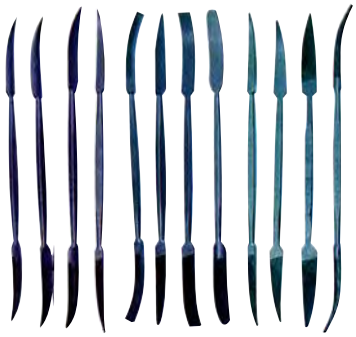


No.of Piece	Grit	Order No.
10Pcs/set	Fine	**382-1012**
10Pcs/set	Coarse	**382-1013**

Die Makers Riffler File Sets

套装异形锉

Riffler files are used by tool and die makers to clean odd and difficult places. A hobbyist's dream. Available in 6-3/4". No.0 and No.2 cut.



No.of Piece	Cut No.	Order No.
12Pcs/set	No.0	**382-0032**
12Pcs/set	No.2	**382-0034**

8 Pc. Die Maker Riffler File Set

Extra Rough Cut, Heavy Duty

套装异形锉

8" Long, 3/16" square handle,
16 different file shapes.
Complete with plastic pouch.



No.of Piece	Long	Handle	Order No.
8Pcs/set	8"	3/16"	**382-0039**

Die Sinker Riffler File Sets

套装异形锉

5 & 10 Pcs/set

5 Pcs/set
Double end No. 2 Cut
Complete with plastic wallet



No.of Piece	Type	Body Dia.	OAL	Order No.
5Pcs/set	Heavy duty	3/16"	7"	**382-0035**
5Pcs/set	Standard	1/8	7	**382-0038**
10Pcs/set	Heavy duty	3/16	6-1/2	**382-0044**
10Pcs/set	Standard	1/8	6-1/2	**382-0041**

Diamond Files & Sets

金刚石锉刀

Individuals



File Shape	Diamond Length	Overall length	Coarse/D181 Order No.	Medium/D126 Order No.	Fine/D19 Order No.
Flat	4-3/8	8-11/16"	**399-6731**	**399-6741**	**399-6751**
Triangle	4-3/8	8-11/16"	**399-6732**	**399-6742**	**399-6752**
Round	4-3/8	8-11/16"	**399-6733**	**399-6743**	**399-6753**
Half Round	4-3/8	8-11/16"	**399-6734**	**399-6744**	**399-6754**
Square	4-3/8	8-11/16"	**399-6735**	**399-6745**	**399-6755**
5 Piece Set			**399-6781**	**399-6782**	**399-6783**



Can be used on carbide, hardened steel, and ceramics, made with a hard chrome bond that gives a long life and wears extremely well.

Sets

Pieces	Description	Size	Order No.
5	Medium/D126	2-7/8x7"	**399-6784**

Pieces	Diamond Length	Overall length	Coarse/D181 Order No.	Medium/D126 Order No.	Fine/D19 Order No.
5	4-3/8	8-11/16"	**399-6781**	**399-6782**	**399-6783**

5 Pc. General Purpose File Sets

With rectanguar plastic handle

5件套通用什锦锉刀－带方塑料柄



- Overall length: 6-1/2".
- For home or professional use.
- Supplied in fitted pouch.

5Pcs/set, includes 1 each:
Round,flat,square,thriangle,half round.

No.of Piece	OAL	Dial Dia.	Order No.
5	6-1/2"	Coarse	**382-0736**
5	6-1/2"	Medium	**382-0737**
5	6-1/2"	Fine	**382-0738**

Diamond Needle File Sets

With round plastic handle

金刚石什锦锉

5 Pcs/set

Set include one each of:
Round, Half Round, Square, Equaling, Triangle





No. of Pieces	Length	Approx. Width	Coarse Order No.	Medium Order No.	Fine Order No.
5	7-1/4"	2"	**382-0707**	**382-0708**	**382-0709**
5	5-1/2"	2-3/4"	**382-0711**	**382-0715**	**382-0720**
5	5-3/4"	1-5/8"	**382-0701**	**382-0705**	**382-0710**

10 Pcs/set

Sets include one each of:
Round, Half Round, Square, Three Square, Flat, Crossing, Equaling, Barrette, Marking, Slitting.

Medium Type

No. of Pieces	OAL	Length of Cut	Order No.
10	5-1/2"	2-3/4"	**382-0724**
10	6-1/4"	3"	**382-0725**

Wood Handle Diamond Flat Files

木柄金刚石锉刀



Size	Description	Handle	Order No.
6x3/4"	Fine/Coarse	Wood	**399-6770**
8x1"	Fine/Coarse	Wood	**399-6771**

Flexible Thin Equalling Diamond Files

弹性薄型平锉

- Completes with soft plastic handle providing enough friction.
- Diamond cutting length is 30mm/1-1/5".
- Supplied in fitted pouch.



Total Length	Cutting Length	Approx. Thickness	Fine Order No.	Coarse Order No.
140mm/5-1/2"	50mm/2"	0.85mm/0.033"	**382-1081**	**382-1091**
160mm/6-1/3"	50mm/2"	0.92mm/0.036"	**382-1083**	**382-1093**
180mm/7"	70mm/2-4/5"	0.92mm/0.036"	**382-1085**	**382-1095**

Diamond Mounted Point Sets

套装金刚石磨头



No. of Pieces	Shank Size	Overall Length	Order No.
10	3/32"	1-3/4"	**389-9100**
20	3/32"	1-3/4"	**389-9200**
25	3/32"	1-3/4"	**389-9250**
10	1/8"	1-3/4"	**389-9101**
20	1/8"	1-3/4"	**389-9201**
25	1/8"	1-3/4"	**389-9251**
30	1/8"	1-3/4"	**389-9300**
10	1/4"	2-3/8"	**389-9102**
20	1/4"	2-3/8"	**389-9202**

No. of Pieces	Shank Size	Overall Length	Order No.
20	3mm	45mm	**389-9204**
25	3mm	45mm	**389-9254**
30	3mm	45mm	**389-9304**
10	6mm	45mm	**389-9104**
10	6mm	60mm	**389-9106**
20	6mm	60mm	**389-9206**

Single Cut Carbide Bur Sets Turn to Page 215



Knife Hone and Holder 磨刀器

Durable wooden body holds two square hones and provides a guide for perfect edges. After a few light. Short strikes your jointer or planer will be up and running.
180 and 400 grit.



Order No. 318-0006

Rubber Sanding Block

橡胶磨砂塞

NEW

- 4-3/4x2-5/8 Rubber



Order No. 810-6220

Sharpening Stones

磨刀石

Coarse and fine grit vitrified into one stone.



Size	Aluminum Oxide 120/240 Grit Order No.	Aluminum Oxide 120/320 Grit Order No.	Silicon Carbide 100/180Grit Order No.	Silicon Carbide 120/240 Grit Order No.	Silicon Carbide 120/320Grit Order No.
1 x 2 x 6”	399-6790	399-6798	399-6792	399-6796	399-6794
1 x 2 x 8”	399-6791	399-6799	399-6793	399-6797	399-6795

Single Grit Bench Stones

氧化铝长方形油石

NEW



Aluminum Oxide

Size	Medium Grit Order No.	Fine Grit Order No.
4x1x1/4"	399-6842	399-6843
4x1x1/2	399-6845	399-6846
6x2x1	399-6862	399-6863
8x2x1	399-6865	399-6866

Round Edge Slip Stones

氧化铝双圆形油石

NEW



Aluminum Oxide

Size	Coarse Order No.	Medium Order No.	Fine Order No.
4-1/2x1-3/4x1/2&3/16”	399-3101	399-3102	399-3103
4-1/2x1-3/4x3/8&1/8	399-3104	399-3105	399-3106

Silicon Carbide

Size	Coarse Order No.	Medium Order No.	Fine Order No.
4-1/2x1-3/4x1/2&3/16”	399-3001	399-3002	399-3003
4-1/2x1-3/4x3/8&1/8	399-3004	399-3005	399-3006

Machine Knife Stone

碳化硅机械磨刀石

NEW

4"dia.x1-1/2", silicon carbide

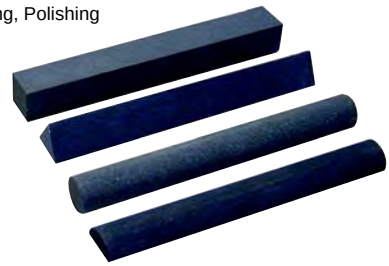
Order No.399-6821



Toolroom Finishing Sticks

氧化铝磨石棒，灰色

- 4” Length, for Lapping, Honing, Polishing



Aluminum Oxide

Size	Shape	Coarse Grit Order No.	Medium Grit Order No.	Fine Grit Order No.
1/4”	Square	399-0003	399-0103	399-0203
3/8	Square	399-0006	399-0106	399-0206
1/2	Square	399-0009	399-0109	399-0209
1/4	Half Round	399-0013	399-0113	399-0213
3/8	Half Round	399-0016	399-0116	399-0216
1/2	Half Round	399-0019	399-0119	399-0219
1/4	Round	399-0023	399-0123	399-0223
3/8	Round	399-0026	399-0126	399-0226
1/2	Round	399-0029	399-0129	399-0229
1/4	Three Square	399-0033	399-0133	399-0233
3/8	Three Square	399-0036	399-0136	399-0236
1/2	Three Square	399-0039	399-0139	399-0239

Silicon Carbide

Size	Shape	Coarse Grit Order No.	Medium Grit Order No.	Fine Grit Order No.
1/4”	Square	399-1003	399-1103	399-1203
3/8	Square	399-1006	399-1106	399-1206
1/2	Square	399-1009	399-1109	399-1209
1/4	Half Round	399-1013	399-1113	399-1213
3/8	Half Round	399-1016	399-1116	399-1216
1/2	Half Round	399-1019	399-1119	399-1219
1/4	Round	399-1023	399-1123	399-1223
3/8	Round	399-1026	399-1126	399-1226
1/2	Round	399-1029	399-1129	399-1229
1/4	Three Square	399-1033	399-1133	399-1233
3/8	Three Square	399-1036	399-1136	399-1236
1/2	Three Square	399-1039	399-1139	399-1239

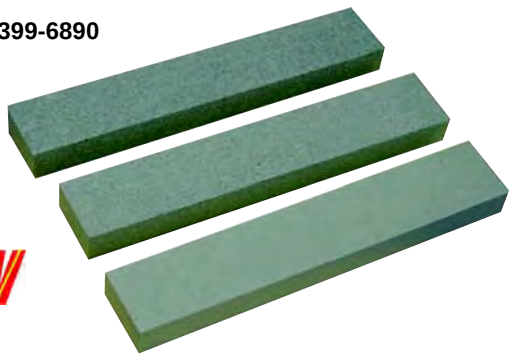
Green Silicon Carbide Slip Tools

绿碳化硅长方油石

3-pc set 4-1/2x3/4x3/8", each of Coarse ,Medium & Fine Grit

Order No.399-6890

NEW

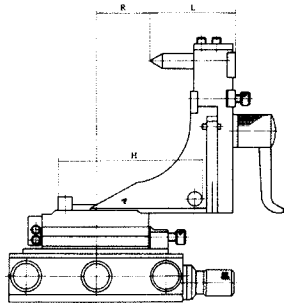


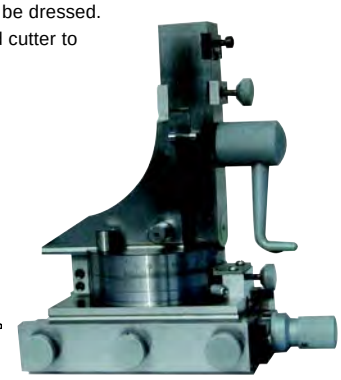
Size	Coarse Grit Order No.	Medium Grit Order No.	Fine Grit Order No.
4-1/2x3/4x3/8”	399-6891	399-6892	399-6893

Universal Wheel Dresser

万能砂轮修整器

- Universal Wheel Dresser Adaptable on surface grinder and universal tool grinder for dressing grinding wheels into various cross sections of flat or curved shapes.
- To dress convex arc surface: **H= L+R**
- To dress concave arc surface: **H= L-R**
- **H.—**Distance between outer generation lines of two location pins.
- **R.—** Radius of the arc surface to be dressed.
- **L. —**Distance from tip of diamond cutter to base plate.





Specifications	Order No.287-6070
Center Height	165mm (6-2/5”)
Measuring quasi-pin dia	10mm (0.4”)
Max. Swing Distance of diamond cutter	+/-20mm (+/-0.8”)
Max. Wheel Diameter	200mm (8”)
Reading Accuracy or Turret Index	5”
Max. Translation of Feed	20mm (0.8”)
Feed per division of handle scale	0.02mm
Weight	5kg

Radius and Angle Dresser

砂轮修整器（带联接轴）

- No height gage or set-up aids required.
- Radius is set on the grinder by measuring over the two pins or by inserting a gage block, for direct reading.
- Inside or outside radius is determined by using either the left hand or right hand pins.
- Uses 3/8” shank diamond.



Rat Tail Adapter Only

Order No. 225-1030 **Order No. 225-1020**

Accuracy:

Squareness of Face Plate to Dresser Arm, per 2”	.0005”
Squareness of Face Plate to Base	.0006”
Center Run out of Dovetail Groove to Wheel Center	.0006”

Specifications	Order No. 225-1020
Maximum Diameter of Wheel	12”
Convex Radii	0-1-5/8”
Concave Radii	0-4”
Tangent Travel Either Side of Center	2”
Center Line of Tool	3.4”
Over Length	16.61”30lbs
Weight	
Rat Tail Adapter	

Punch Former & Radius Dresser

冲子成型器

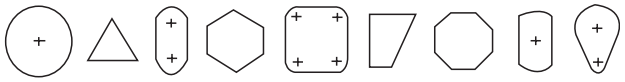
A precision Grinding Machine Accessory for dressing grinding wheel, also adaptable to Grinding Machine and Electrical Discharge Machine (EDM) for precision punch forming.

- Use for concave and convex radius.
- Hardened tool steel construction.
- Radius dresser standard with both models.
- With oscillating Vee Block for tangent dressing.
- Compare to units costing 2 or 3 times as much.
- Complete with fitted case.



Order No.287-6801

Punch Forming



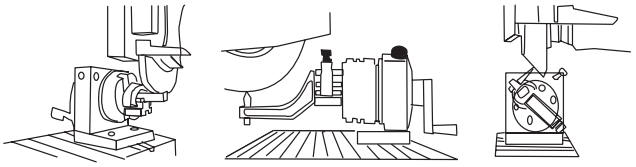


Order No.287-6803

Wheel Dresser



Punch Forming **Radius Dressing** **Angle Dressing**



Specifications

Center height.....3-1/2”(80mm)
Indexing Div.....24 every 15 degree +/- 10 seconds
Tangential travel either side of center.....25/32”(19.8mm)
Dia. Workpiece of V-block.....0.16”-1.18”(4-30mm)
V-block adjusting system.....Rack and Pinon
Max. Size Grinding Wheel.....7.87”(200mm)
Max. Outside Radius (on wheel).....1.89”(48mm)
Max.inside Radius(on wheel).....3.9”(100mm)
Dimension.....14.2x4.6x5.7”(360x116x145mm)

Descriptions	Order No.
Standard(two way)	**287-6801**
With Thru Hole(one way) (for Long Working Piece)	**287-6803**

3-Jaws Punch Former

三爪冲子成型器

This Punch Former is attached with 3 jaws which can hold workpieces quickly and conveniently. It can also adjust center of 3 jaws.

Main Parameters:
3 jaws hole diameter 16mm
Min clamping diameter 2mm
Max clamping diameter 70mm



Order No.287-6807

Big Type Punch Former

Two-Way 大型单向冲子成型器

- This Punch Former is applicable on surface grinder or universal grinder to clamp puncher within ϕ70mm for grinding various shapes.
- It can shape quickly and precisely, with the moving function and fixing block for oval grinding.
- The fine truning funtion can adjust center accurately. Using the fixing block and folding down the screw when mouse much, can grind oval workpiece conveniently.

Main Parameters:
Center height: 150mm
Clamping diameter in V-slot: 70mm
Travel of V-block: 35mm
Transveral travel of slide: +/-35mm
Quantity of teeth: 24



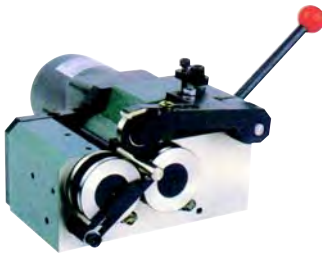
Order No.287-6813

Motor Punch Grinder

电动冲子研磨机

Put the work on the rollers to realize non-centering grinding by motor, no need to set center before working. Available for long pin or punch. Equipped with magnetic sine plate, it can grinding various angle. With profile wheel to grind punch in different shapes.

Main Parameters:
Length of workpiece: 20-120mm
Outside grinding length :5-35mm
Grinding diameter: 1.5-25mm
Accuracy: 0.005mm
Roller driving motor:
110V/60Hz 129rpm or 220V/50Hz 108rpm



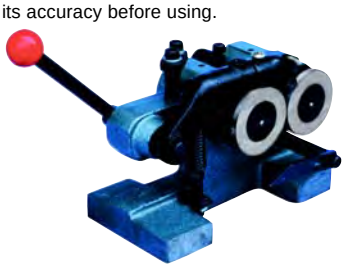
Order No.287-6806

Punch Grinder

冲子研磨机

Punch grinder is a precision product which installed on a plane plate, and grind the top surface of round punch simply and accurately. The operation can be stable handled due to use the depressed roller to fix the handle. Heavy grinding can be done also. Ascertain the surface of the turning roller and depressed bearing without scratch and rust to keep its accuracy before using.

Accuracy of roller is within 0.005mm. It can grind punches of outside diameter from 1.5~30mm, extended grinding length is within 5~35mm.



Order No. 287-6802

Collet Punch Former

ER夹头冲子成型器

- Clamping diameter: ϕ2-ϕ20 mm
- Supply ER32 collete size: 4, 6, 8, 10, 12, 16, 20, 7Pcs in total
- For workpiece diamete smaller than 4mm, use shank 20mm/ER16 collet chuck
- It clamps workpiece quickly and steadily when processing without checking the center



Order No.287-6808

Big Type Punch Former

One-Way 大型单向冲子成型器

- This Punch Former is applicable on surface grinder or universal grinder to clamp puncher within ϕ70mm for grinding various shapes.

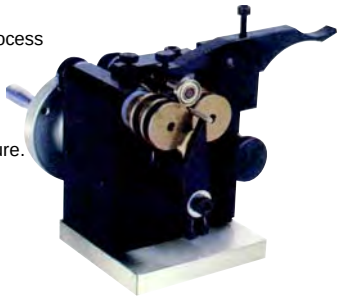
Main Parameters:
Center height: 150mm
Clamping diameter in V-slot: 70mm
Travel of V-block: 25mm
Quantity of teeth: 24



Order No.287-6812

Punch Grinder 冲子研磨机

- The small punch grinder can process from diameter 0.5mm to10mm.
- Grinding diameter: 0.5-6mm
- Right pressure must be put on the screw to avoid over pressure.

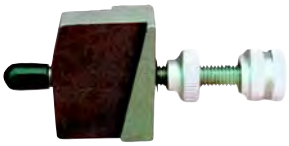


Order No.287-6804

"Geiger" Wheel Dresser

盖氏修整器

- Features a shank 3/8" diamond.
- Restores your grinding wheels back to perfection.
- Complete with an extremely hard 1/2 carat industrial diamond tip.
- Accurate and simple to use tool that accomodates most any bench or pedestal type grinder.



Order No. 225-6812

Adjustable Dresser

可调修整器

- Use on all grinding machines.
- Dress OD and face of wheels.
- Adjustable to 7" height.
- Dress any width.



Order No. 225-2016

Hi-Lo Wheel Dresser HI-LO 修整器



- Minimum Height.....2”
- Maximum Height.....9”
- Cast iron construction.
- 1/4 Carat and 3/8” shank diamond included.

Order No. 225-1213

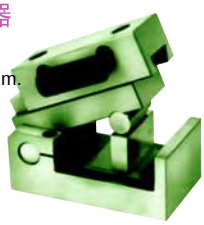
Brake Truing Unit 制动修整器



- Used for dressing diamond and CBN wheels.
- Surface is treated with blaze-dried lacquer.
- Axis part is fixed with shaft bearing and can be rotated at high speed and with great precision.

Order No. 225-3000

Sine Dresser 正弦砂轮修整器



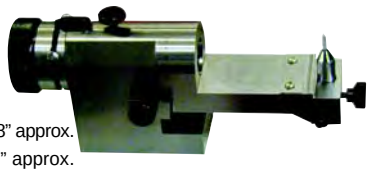
- Range of angles: 0-60°.
- Cross feed up to 50mm, center distance 0.01mm.
- Combination sine system and crossfeed for dressing grinding wheel precise angles.

Order No. 225-1009

Optical Radius & Angle Dresser

光学万能砂轮修整器

Magnification through the lens in the spindle, makes it possible for the operator to see how to dress the form on the grinding wheel.

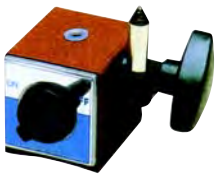


Overall Height.....4”
Length.....8-1/4”
Swing Arm.....180°
Max. Size Grinding Wheel.....8”
Max. Outside Radius(on Wheel)...5/8” approx.
Max. Inside Radius(on Wheel)....1” approx.
Spindle.....1”OD

Order No. 287-6060

Magnetic Diamond Dressers Holder

磁性底座砂轮修整器



- Magnetic Base with On/Off switch.
- Magnetic Power: 60kgs(130lbs)
- Hold 3/8" or 10mm shank Diamond Dresser.
- Working angle adjustable.

Descriptions	Order No.
without Diamond Dresser	225-1300
with 10mm shank Diamond Dresser	225-1301

Cut-Off Wheel Mandrels

切割砂轮夹持杆



- 2 Piece safety tested
- No washer needed
- Head is slotted on locking screw for fast change

Arbor Size	Shank Size	Wheel Thickness	OAL	Order No.
1/8"	1/8"	.025-1/8"	1-13/16"	262-0161
1/4	1/4	.035-1/4	2-13/16	262-0162
3/8	1/4	.035-1/4	2-13/16	262-0163

Angle Dresser 角度修整器



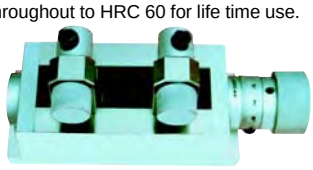
- Features a shank 3/8” diamond.
- Heavy precision ground base plate.
- All 6 sides square to .0002”
  Side block pivots on shoulder hardened screws.

Order No. 225-2017

Precision Duplex Dresser

Dress any custom width up to 1-9/16” 精密复合修整器

- Designed to simultaneously dress both sides of a grinding wheel, precisely and without deformation.
- Useful for thinning grinding wheels or dressing thin wheels.
- Tool steel construction and hardened throughout to HRC 60 for life time use.



Max. Width of Wheel.....1-9/16”
Max. Dressing Depth.....1-9/16”
Min. Dressing Width.....0.0079”
Graduation.....0.001”
Weight..... 71lbs

Order No. 225-1005

Grinding Wheel Dresser & Cutters

手用砂轮修整器



- Fulfill most general dressing needs where fast dressing is the primary requirement.
- Hunting on type cutters will quickly remove the load form grinding wheels and present a new and fase grinding surface.



No. size	For (Dia)	Dresser with one cutter Order No.	Replacement Cutters Order No.
#0	UP to 10”	287-6300	287-6350
#1	10” to 16”	287-6301	287-6351
#2	16” to 26”	287-6302	287-6352



Dresser with one cutter

No. size	For (Dia)	Face	Order No.
#0	UP to 10”	2”	287-6310
#1	10” to 16”	3”	287-6311
#2	16” to 26”	3-1/2”	287-6312

Knurling Tools

滚花刀

Single Knurling Tool



- Complete with medium cut high speed steel knurl best sutied for shorter work
- Holder size: 4” x 1/2 x 1/2
- Diameter: 3/4”
- Width: 1/4”
- Hole size: 1/4”
- 2 Knurls

Orser No. 250-1740

Self-Adjusting Pivot Head



- For precise alignment to the working part.
- Holder size: 4” x 1/2 x 1/2
- Diameter: 3/4”
- Width: 3/8”
- Hole size: 1/4”
- 2 Knurls

Orser No. 250-1732

Carbide Burrs

硬质合金旋转锉

Shape A- Cylindrical



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SA-41	1/16”	1/2”	1/8”	**389-0002**	**389-0102**
SA-42	3/32	7/16	1/8	**389-0004**	**389-0104**
SA-43	1/8	9/16	1/8	**389-0006**	**389-0106**
SA-13	5/32	5/8	1/4	**389-0010**	**389-0110**
SA-14	3/16	5/8	1/4	**389-0012**	**389-0112**
SA-51	1/4	1/2	1/8	**389-0011**	**389-0111**
SA-1	1/4	5/8	1/4	**389-0014**	**389-0114**
SA-2	5/16	3/4	1/4	**389-0016**	**389-0116**
SA-3	3/8	3/4	1/4	**389-0018**	**389-0118**
SA-4	7/16	1	1/4	**389-0020**	**389-0120**
SA-5	1/2	1	1/4	**389-0022**	**389-0122**
SA-7	3/4	1	1/4	**389-0024**	**389-0124**
SA-9	1	1	1/4	**389-0026**	**389-0126**

Shape B- Cylindrical End Cut



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SB-42	3/32”	7/16”	1/8”	**389-0504**	**389-0604**
SB-43	1/8	9/16	1/8	**389-0506**	**389-0606**
SB-41	1/16	1/4	1/8	**389-0510**	**389-0610**
SB-13	5/32	5/8	1/4	**389-0512**	**389-0612**
SB-14	3/16	5/8	1/4	**389-0514**	**389-0614**
SB-1	1/4	5/8	1/4	**389-0516**	**389-0616**
SB-2	5/16	3/4	1/4	**389-0518**	**389-0618**
SB-3	3/8	3/4	1/4	**389-0520**	**389-0620**
SB-4	7/16	1	1/4	**389-0522**	**389-0622**
SB-5	1/2	1	1/4	**389-0524**	**389-0624**
SB-7	3/4	1	1/4	**389-0526**	**389-0626**
SB-9	1	1	1/4	**389-0528**	**389-0628**

Shape C- Cylindrical Radius End



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SC-41	3/32”	7/16”	1/8”	**389-1004**	**389-1104**
SC-42	1/8	9/16	1/8	**389-1006**	**389-1106**
SC-11	1/8	1/2	1/4	**389-1010**	**389-1110**
SC-13	5/32	5/8	1/4	**389-1012**	**389-1112**
SC-14	3/16	5/8	1/4	**389-1014**	**389-1114**
SC1L6	1/4	5/8	1/4	**389-1015**	**389-1115**
SC-1	1/4	5/8	1/4	**389-1016**	**389-1116**
SC-2	5/16	3/4	1/4	**389-1018**	**389-1118**
SC-3	3/8	3/4	1/4	**389-1020**	**389-1120**
SC3L6	3/8	3/4	1/4	**389-1019**	**389-1119**
SC-4	7/16	1	1/4	**389-1022**	**389-1122**
SC-5	1/2	1	1/4	**389-1024**	**389-1124**
SC-7	3/4	1	1/4	**389-1026**	**389-1126**
SC-9	1	1	1/4	**389-1028**	**389-1128**

Shape D- Ball



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SD-41	3/32”	3/32”	1/8”	**389-1504**	**389-1604**
SD-42	1/8	1/8	1/8	**389-1506**	**389-1606**
SD-14	3/16	1/8	1/4	**389-1510**	**389-1610**
SD-53	3/16	5/32	1/8	**389-1509**	**389-1609**
SD-51	1/4	7/32	1/8	**389-1513**	**389-1613**
SD-11	1/8	1/8	1/4	**389-1512**	**389-1612**
SD-1	1/4	7/32	1/4	**389-1514**	**389-1614**
SD-2	5/16	1/4	1/4	**389-1516**	**389-1616**
SD-3	3/8	5/16	1/4	**389-1518**	**389-1618**
SD-5	1/2	7/16	1/4	**389-1520**	**389-1620**
SD5L6	1/2	7/16	1/4	**389-1519**	**389-1619**
SD-6	5/8	9/16	1/4	**389-1522**	**389-1622**
SD-7	3/4	11/16	1/4	**389-1524**	**389-1624**
SD-9	1	15/16	1/4	**389-1526**	**389-1626**

Shape E- Oval



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SE-53	3/16”	9/32”	1/8”	**389-2004**	**389-2104**
SE-41	1/8	7/32	1/8	**389-2006**	**389-2106**
SE-51	1/4	3/8	1/8	**389-2007**	**389-2107**
SE-1	1/4	3/8	1/4	**389-2010**	**389-2110**
SE1L6	1/4	3/8	1/4	**389-2009**	**389-2109**
SE-3	3/8	5/8	1/4	**389-2012**	**389-2112**
SE3L6	3/8	5/8	1/4	**389-2011**	**389-2111**
SE-5	1/2	7/8	1/4	**389-2014**	**389-2114**
SE-6	5/8	1	1/4	**389-2016**	**389-2116**
SE-7	3/4	1	1/4	**389-2018**	**389-2118**

Shape F- Tree Radius End



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SF-53	3/16”	1/2”	1/8”	**389-3002**	**389-3102**
SF-41	1/8	1/4	1/8	**389-3004**	**389-3104**
SF-42	1/8	1/2	1/8	**389-3006**	**389-3106**
SF-11	1/8	1/2	1/4	**389-3010**	**389-3110**
SF-1	1/4	5/8	1/4	**389-3012**	**389-3112**
SF-3	3/8	3/4	1/4	**389-3014**	**389-3114**
SF-5	1/2	1	1/4	**389-3016**	**389-3116**
SF-6	5/8	1	1/4	**389-3018**	**389-3118**
SF-7	3/4	1	1/4	**389-3020**	**389-3120**

Carbide Burrs

硬质合金旋转锉

Shape G- Tree Pointed End



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SG-43	1/8”	3/8”	1/8”	**389-3502**	**389-3602**
SG-44	1/8	1/2	1/8	**389-3501**	**389-3601**
SG-42	1/8	5/16	1/8	**389-3504**	**389-3604**
SG-41	1/8	1/4	1/8	**389-3506**	**389-3606**
SG-1	1/4	5/8	1/4	**389-3510**	**389-3610**
SG-3	3/8	3/4	1/4	**389-3512**	**389-3612**
SG-13	1/2	3/4	1/4	**389-3514**	**389-3614**
SG-5	1/2	1	1/4	**389-3516**	**389-3616**
SG-6	5/8	1	1/4	**389-3518**	**389-3618**
SG-7	3/4	1	1/4	**389-3520**	**389-3620**

Shape H- Flame



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SH-53	3/16”	3/8”	1/8”	**389-2504**	**389-2604**
SH41	1/8	1/4	1/8	**389-2506**	**389-2606**
SH-1	1/4	5/8	1/4	**389-2510**	**389-2610**
SH-2	5/16	3/4	1/4	**389-2512**	**389-2612**
SH-5	1/2	1-1/4	1/4	**389-2514**	**389-2614**
SH-6	5/8	1-7/16	1/4	**389-2516**	**389-2616**
SH-7	3/4	1-5/8	1/4	**389-2518**	**389-2618**

Shape J- 60° Cone



Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SJ-42	1/8”	3/32”	1/8”	**389-4006**	**389-4106**
SJ-1	1/4	3/16	1/4	**389-4010**	**389-4110**
SJ-2	5/16	3/16	1/4	**389-4012**	**389-4112**
SJ-3	3/8	5/16	1/4	**389-4014**	**389-4114**
SJ-5	1/2	7/16	1/4	**389-4016**	**389-4116**
SJ-6	5/8	9/16	1/4	**389-4018**	**389-4118**
SJ-7	3/4	11/16	1/4	**389-4020**	**389-4120**
SJ-9	1	15/16	1/4	**389-4022**	**389-4122**

Shape K- 90° Cone



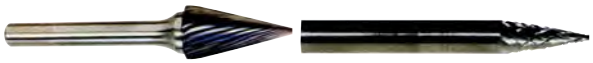
Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
SK-42	1/8”	1/16”	1/8”	**389-4506**	**389-4606**
SK-1	1/4	1/8	1/4	**389-4510**	**389-4610**
SK-2	5/16	3/16	1/4	**389-4512**	**389-4612**
SK-3	3/8	3/16	1/4	**389-4514**	**389-4614**
SK-5	1/2	1/4	1/4	**389-4516**	**389-4616**
SK-6	5/8	5/16	1/4	**389-4518**	**389-4618**
SK-7	3/4	3/8	1/4	**389-4520**	**389-4620**
SK-9	1	1/2	1/4	**389-4522**	**389-4622**

Shape L- Taper or Cone Radius End



Shape	Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
8° Taper	SL-53	3/16”	1/2”	1/8”	**389-5002**	**389-5102**
8° Taper	SL-42	1/8	1/2	1/8	**389-5004**	**389-5104**
8° Taper	SL-41	1/8	3/8	1/8	**389-5006**	**389-5106**
14° Taper	SL-1	1/4	5/8	1/4	**389-5010**	**389-5110**
14° Taper	SL-2	5/16	7/8	1/4	**389-5012**	**389-5112**
14° Taper	SL-3	3/8	1-1/16	1/4	**389-5014**	**389-5114**
14° Taper	SL-4	1/2	1-1/8	1/4	**389-5016**	**389-5116**
14° Taper	SL-5	5/8	1-3/16	1/4	**389-5018**	**389-5118**
14° Taper	SL-6	5/8	1-5/16	1/4	**389-5020**	**389-5120**
14° Taper	SL-7	3/4	1-1/2	1/4	**389-5022**	**389-5122**

Shape M- Taper or Cone Flat End



Shape	Style	Dia.	Cutting Length	Shank Diameter	Single Cut Order No.	Double Cut Order No.
16° Taper	SM-53	3/16”	1/2”	1/8”	**389-5502**	**389-5602**
7° Taper	SM-43	1/8	5/8	1/8	**389-5504**	**389-5604**
14° Taper	SM-42	1/8	7/16	1/8	**389-5506**	**389-5606**
12° Taper	SM-41	1/8	11/32	1/8	**389-5508**	**389-5608**
22° Taper	SM-51	1/4	1/2	1/8	**389-5509**	**389-5609**
22° Taper	SM-1	1/4	1/2	1/4	**389-5510**	**389-5610**
14° Taper	SM-2	1/4	3/4	1/4	**389-5512**	**389-5612**
10° Taper	SM-3	1/4	1	1/4	**389-5514**	**389-5614**
28° Taper	SM-4	3/8	5/8	1/4	**389-5516**	**389-5616**
28° Taper	SM-5	1/2	7/8	1/4	**389-5518**	**389-5618**
30° Taper	SM-6	5/8	1	1/4	**389-5520**	**389-5620**

Shape N- Inverted Cone



Shape	Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
10° Taper	SN-41	3/32”	1/8”	1/8”	**389-6002**	**389-6102**
10° Taper	SN-42	1/8	3/16	1/8	**389-6004**	**389-6104**
10° Taper	SN-53	3/16	1/4	1/8	**389-6006**	**389-6106**
10° Taper	SN-51	1/4	1/4	1/8	**389-6009**	**389-6109**
10° Taper	SN-1	1/4	5/16	1/4	**389-6010**	**389-6110**

Shape	Style	Cutting Dia.	Cutting Length	Shank Dia.	Single Cut Order No.	Double Cut Order No.
13° Taper	SN-2	3/8”	3/8”	1/4”	**389-6012**	**389-6112**
28° Taper	SN-4	1/2	1/2	1/4	**389-6014**	**389-6114**
18° Taper	SN-6	5/8	3/4	1/4	**389-6016**	**389-6116**
30° Taper	SN-7	3/4	5/8	1/4	**389-6018**	**389-6118**

Single Cut Carbide Bur Sets

单刃硬质合金旋转锉(木盒套装)

NEW

5 pc set, 1/8" Shank Diameter



Order No. 389-0972

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-51	1/8"	1/4"	1/2"	1-29/32"	Cylindrical
SC-51	1/8"	1/4"	1/2"	1-29/32"	Cylindrical Radius End
SF-51	1/8"	1/4"	1/2"	1-29/32"	Tree
SD-51	1/8"	1/4"	7/32"	1-29/32"	Ball
SM-51	1/8"	1/4"	1/2"	1-29/32"	Cone,22deg

5 pc set, 1/4" Shank Diameter



Order No. 389-0971

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical
SC-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical Radius End
SF-1	1/4"	1/4"	5/8"	1-9/16"	Tree
SD-1	1/4"	1/4"	3/16"	1-9/16"	Ball
SM-1	1/4"	1/4"	1/2"	1-9/16"	Cone,22deg

12 pc set, 1/4" Shank Diameter



Order No. 389-0974

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical
SC-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical Radius End
SD-1	1/4"	1/4"	1/4"	1-9/16"	Ball
SE-1	1/4"	1/4"	3/8"	1-9/16"	Oval
SF-1	1/4"	1/4"	5/8"	1-9/16"	Tree
SG-1	1/4"	1/4"	5/8"	1-9/16"	Tree Point End
SH-1	1/4"	1/4"	5/8"	1-9/16"	Flame
SJ-1	1/4"	1/4"	3/16"	1-11/64"	Cone,60Deg
SK-1	1/4"	1/4"	1/8"	1-11/64"	Cone,60Deg
SL-1	1/4"	1/4"	5/8"	1-9/16"	Taper radius End,14deg
SM-1	1/4"	1/4"	1/2"	1-9/16"	Cone,22deg
SN-1	1/4"	1/4"	5/16"	1-9/16"	Inverted Cone,10deg

12 pc set, 1/8" Shank Diameter



Order No. 389-0976

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-42	1/8"	3/32"	7/16"	1-1/2"	Cylindrical
SA-43	1/8"	1/8"	9/16"	1-1/2"	Cylindrical Radius End
SC-41	1/8"	3/32"	7/16"	1-1/2"	Ball
SC-42	1/8"	1/8"	9/16"	1-1/2"	Oval
SD-42	1/8"	1/8"	1/8"	1-1/2"	Tree
SE-41	1/8"	1/8"	7/32"	1-1/2"	Tree Point End
SF-42	1/8"	1/8"	1/2"	1-1/2"	Flame
SG-43	1/8"	1/8"	3/8"	1-1/2"	Cone,60Deg
SH-41	1/8"	1/8"	1/4"	1-1/2"	Cone,60Deg
SL-42	1/8"	1/8"	1/2"	1-1/2"	Taper radius End,14deg
SM-42	1/8"	1/8"	7/16"	1-1/2"	Cone,22deg
SN-42	1/8"	1/8"	3/16"	1-1/2"	Inverted Cone,10deg

9 pc set, 1/8" Shank Diameter



Order No. 389-0951

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-51	1/8"	1/4"	1/2"	1-29/32"	Cylindrical
SB-51	1/8"	1/4"	1/2"	1-29/32"	Cylindrical End Cut
SC-51	1/8"	1/4"	1/2"	1-29/32"	Cylindrical Radius End
SD-51	1/8"	1/4"	7/32"	1-29/32"	Ball
SE-51	1/8"	1/4"	3/8"	1-29/32"	Oval
SF-51	1/8"	1/4"	1/2"	1-29/32"	Tree
SG-51	1/8"	1/4"	1/2"	1-29/32"	Tree Point End
SM-51	1/8"	1/4"	1/2"	1-29/32"	Cone,22deg
SN-51	1/8"	1/4"	1/4"	1-29/32"	Inverted Cone,10deg

16 pc set, 1/4" Shank Diameter



Order No. 389-0978

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical
SA-3	1/4"	3/8"	3/4"	1-9/16"	Cylindrical
SA-5	1/4"	1/2"	1"	1-9/16"	Cylindrical
SC-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical Radius End
SC-3	1/4"	3/8"	3/4"	1-9/16"	Cylindrical Radius End
SC-5	1/4"	1/2"	1"	1-9/16"	Cylindrical Radius End
SD-3	1/4"	3/8"	5/16"	1-9/16"	Ball
SD-5	1/4"	1/2"	7/16"	1-9/16"	Ball
SE-3	1/4"	3/8"	5/8"	1-9/16"	Oval
SF-1	1/4"	1/4"	5/8"	1-9/16"	Tree
SF-3	1/4"	3/8"	3/4"	1-9/16"	Tree
SF-5	1/4"	1/2"	1"	1-9/16"	Tree
SG-1	1/4"	1/4"	5/8"	1-9/16"	Tree Point End
SG-3	1/4"	3/8"	3/4"	1-9/16"	Tree Point End
SL-3	1/4"	3/8"	1-1/16"	1-9/16"	Taper radius End,14deg
SL-4	1/4"	1/2"	1-1/8"	1-9/16"	Taper radius End,14deg

Double Cut Carbide Bur Sets

双刃硬质合金旋转锉(木盒套装)

NEW

5 pc set, 1/8" Shank Diameter



Order No. 389-0982

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-51	1/8"	1/4"	1/2"	2"	Cylindrical
SC-51	1/8"	1/4"	1/2"	2"	Cylindrical Radius End
SF-51	1/8"	1/4"	1/2"	2"	Tree
SD-51	1/8"	1/4"	7/32"	2"	Ball
SM-51	1/8"	1/4"	1/2"	2"	Cone,22deg

5 pc set, 1/4" Shank Diameter

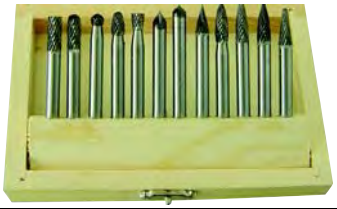


Order No. 389-0981

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical
SC-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical Radius End
SF-1	1/4"	1/4"	5/8"	1-9/16"	Tree
SD-1	1/4"	1/4"	3/16"	1-9/16"	Ball
SM-1	1/4"	1/4"	1/2"	1-9/16"	Cone,22deg

12 pc set, 1/4" Shank Diameter



Order No. 389-0984

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical
SC-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical Radius End
SD-1	1/4"	1/4"	1/4"	1-9/16"	Ball
SE-1	1/4"	1/4"	3/8"	1-9/16"	Oval
SF-1	1/4"	1/4"	5/8"	1-9/16"	Tree
SG-1	1/4"	1/4"	5/8"	1-9/16"	Tree Point End
SH-1	1/4"	1/4"	5/8"	1-9/16"	Flame
SJ-1	1/4"	1/4"	3/16"	1-11/64"	Cone,60Deg
SK-1	1/4"	1/4"	1/8"	1-11/64"	Cone,60Deg
SL-1	1/4"	1/4"	5/8"	1-9/16"	Taper radius End,14deg
SM-1	1/4"	1/4"	1/2"	1-9/16"	Cone,22deg
SN-1	1/4"	1/4"	5/16"	1-9/16"	Inverted Cone,10deg

9 pc set, 1/8" Shank Diameter



Order No. 389-0961

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-51	1/8"	1/4"	1/2"	1-9/16"	Cylindrical
SB-51	1/8"	1/4"	1/2"	1-9/16"	Cylindrical End Cut
SC-51	1/8"	1/4"	1/2"	1-9/16"	Cylindrical Radius End
SD-51	1/8"	1/4"	7/32"	1-9/16"	Ball
SE-51	1/8"	1/4"	3/8"	1-9/16"	Oval
SF-51	1/8"	1/4"	1/2"	1-9/16"	Tree
SG-51	1/8"	1/4"	1/2"	1-9/16"	Tree Point End
SM-51	1/8"	1/4"	1/2"	1-9/16"	Cone,22deg
SN-51	1/8"	1/4"	1/4"	1-9/16"	Inverted Cone,10deg

12 pc set, 1/8" Shank Diameter



Order No. 389-0986

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-42	1/8"	3/32"	7/16"	1-1/2"	Cylindrical
SA-43	1/8"	1/8"	9/16"	1-1/2"	Cylindrical Radius End
SC-41	1/8"	3/32"	7/16"	1-1/2"	Ball
SC-42	1/8"	1/8"	9/16"	1-1/2"	Oval
SD-42	1/8"	1/8"	1/8"	1-1/2"	Tree
SE-41	1/8"	1/8"	7/32"	1-1/2"	Tree Point End
SF-42	1/8"	1/8"	1/2"	1-1/2"	Flame
SG-43	1/8"	1/8"	3/8"	1-1/2"	Cone,60Deg
SH-41	1/8"	1/8"	1/4"	1-1/2"	Cone,60Deg
SL-42	1/8"	1/8"	1/2"	1-1/2"	Taper radius End,14deg
SM-42	1/8"	1/8"	7/16"	1-1/2"	Cone,22deg
SN-42	1/8"	1/8"	3/16"	1-1/2"	Inverted Cone,10deg

16 pc set, 1/4" Shank Diameter



Order No. 389-0988

Specifications

Style	Shank Dia.	Cutting Dia.	Cutting Length	OAL	Sharp
SA-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical
SA-3	1/4"	3/8"	3/4"	1-9/16"	Cylindrical
SA-5	1/4"	1/2"	1"	1-9/16"	Cylindrical
SC-1	1/4"	1/4"	5/8"	1-9/16"	Cylindrical Radius End
SC-3	1/4"	3/8"	3/4"	1-9/16"	Cylindrical Radius End
SC-5	1/4"	1/2"	1"	1-9/16"	Cylindrical Radius End
SD-3	1/4"	3/8"	5/16"	1-9/16"	Ball
SD-5	1/4"	1/2"	7/16"	1-9/16"	Ball
SE-3	1/4"	3/8"	5/8"	1-9/16"	Oval
SF-1	1/4"	1/4"	5/8"	1-9/16"	Tree
SF-3	1/4"	3/8"	3/4"	1-9/16"	Tree
SF-5	1/4"	1/2"	1"	1-9/16"	Tree
SG-1	1/4"	1/4"	5/8"	1-9/16"	Tree Point End
SG-3	1/4"	3/8"	3/4"	1-9/16"	Tree Point End
SL-3	1/4"	3/8"	1-1/16"	1-9/16"	Taper radius End,14deg
SL-4	1/4"	1/2"	1-1/8"	1-9/16"	Taper radius End,14deg

DIN8032 Carbide Burrs 德标硬质合金旋转锉

6mm Shank Dia.

Carbide burs feature a chisel type cutting edge. Machine ground and tool built to exacting tolerances of concentricity, size,and shape. Results in smooth running, fast metal removal and fine finishes when used with precision grinders.

Carbide Burrs-ZYA (Cylindrical)



Style	Cutting Dia.	Cutting Length	Order No.
ZYA0414	4mm	13	**489-0004**
ZYA0616	6mm	16	**489-0006**
ZYA0820	8mm	20	**489-0008**
ZYA1013	10mm	13	**489-0010**
ZYA1020	10mm	20	**489-0011**
ZYA1225	12mm	25	**489-0012**
ZYA1625	16mm	25	**489-0016**

Carbide Burrs-ZYAS (Cylindrical End Cut)



Style	Cutting Dia.	Cutting Length	Order No.
ZYAS 0414	4mm	13	**489-0104**
ZYAS 0616	6mm	16	**489-0106**
ZYAS 0820	8mm	20	**489-0108**
ZYAS 1013	10mm	13	**489-0110**
ZYAS 1020	10mm	20	**489-0111**
ZYAS 1225	12mm	25	**489-0112**
ZYAS 1625	16mm	25	**489-0116**

Carbide Burrs-WRC(Cylindrical Radius End)



Style	Cutting Dia.	Cutting Length	Order No.
WRC0413	4mm	13	**489-0204**
WRC0616	6mm	16	**489-0206**
WRC0820	8mm	20	**489-0208**
WRC1020	10mm	20	**489-0210**
WRC1225	12mm	25	**489-0212**
WRC1625	16mm	25	**489-0216**

Carbide Burrs-KUD(Ball)



Style	Cutting Dia.	Cutting Length	Order No.
KUD 0403	4mm	3.6	**489-0304**
KUD 0605	6mm	5.4	**489-0306**
KUD 0807	8mm	7.0	**489-0308**
KUD 1009	10mm	9.0	**489-0310**
KUD 1210	12mm	10.8	**489-0312**
KUD 1614	16mm	14.3	**489-0316**
KUD 2018	20mm	18.0	**489-0320**

Carbide Burrs-SPG(Three Pointed End)



Style	Cutting Dia.	Cutting Length	Order No.
SPG 0618	6mm	18	**489-0406**
SPG 1020	10mm	20	**489-0410**
SPG 1225	12mm	25	**489-0412**
SPG 1230	12mm	30	**489-0413**
SPG 1625	16mm	30	**489-0416**

Carbide Burrs-Tre(Oval)



Style	Cutting Dia.	Cutting Length	Order No.
TRE0610	6mm	10	**489-0506**
TRE0813	8mm	13	**489-0508**
TRE1016	10mm	16	**489-0510**
TRE1220	12mm	20	**489-0512**
TRE1625	16mm	25	**489-0516**

Carbide Burrs-SKM(Taper or Cone Flat End)



Style	Shape	Cutting Dia.	Cutting Length	Order No.
SKM0618	18°	6mm	18	**489-0606**
SKM1020	28°	10mm	20	**489-0610**
SKM1225	26°	12mm	25	**489-0612**

Carbide Burrs-KEL(Taper or Cone Radius End)



Style	Shape	Cutting Dia.	Cutting Length	Order No.
KEL1020	14°	10mm	20	**489-0710**
KEL1225	14°	12mm	25	**489-0712**
KEL1230	14°	12mm	30	**489-0713**
KEL1630	14°	16mm	30	**489-0716**

Carbide Burrs-RBF(Three Radius End)



Style	Cutting Dia.	Cutting Length	Order No.
RBF0618	6mm	18	**489-0806**
RBF0820	8mm	20	**489-0808**
RBF1020	10mm	20	**489-0810**
RBF1225	12mm	25	**489-0812**
RBF1625	16mm	30	**489-0816**

Carbide Burrs-B(Flame)



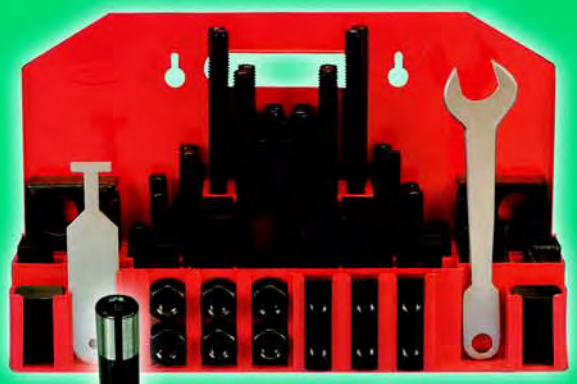
Style	Cutting Dia.	Cutting Length	Order No.
B 0820	8mm	20	**489-0908**
B 1232	12mm	30	**489-0912**
B 1636	16mm	35	**489-0916**

Toolholding/Workholding

Angle Plates....276-277
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Quick Change Tool Posts & Tool Holders

美式快换刀架

Piston Type Tool Post Sets

Each set consists of one piston type tool post and one of each of 5 tool holders:

- #1: Boring & Facing.
- #2: Boring, Turing & Facing.
- #4: Boring, Heavy duty.
- #7: Universal Parting Blade.
- #10: Knurling, Facing & Turning.

Tool Post Series	Swing	Set Order No.
100(AXA)	Up To 12”	**951-1100**
200(BXA)	10-15”	**951-1200**
300(CXA)	13-18”	**951-1300**
400(CA)	14-20”	**951-1400**



Wedge Type Tool Post Sets

Each set consists of one piston type tool post and one of each of 5 tool holders:

- #1: Boring & Facing.
- #2: Boring, Turing & Facing.
- #4: Boring, Heavy duty.
- #7: Universal Parting Blade.
- #10: Knurling, Facing & Turning.

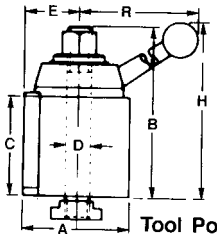
Tool Post Series	Swing	Set Order No.
100(AXA)	Up To 2”	**951-1111**
200(BXA)	10-15”	**951-1222**
300(CXA)	13-18”	**951-1333**
400(CA)	14-20”	**951-1444**



Quick Change Lathe Tool Posts

Features:

- All working parts hardened & ground.
- Maximum rigidity for chatter-free performance.
- No time wasted with shims.
- Holders fit “ALORRIS” & ”YUASA” tool posts.
- Increases productivity of all lathe operations.
- Completely sealed for maintenance free operation.
- Change tools in seconds.



Tool Post



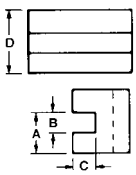
Tool Post Series	Width A	B	C	Overall D	Height E	Fits Lathe H	R	Size	Piston Type Order No.	Wedge Type Order No.
100	2-1/2”	3-7/8”	2-1/4”	9/16”	1-3/8”	4-11/16”	5-3/4”	12”	**950-1100**	**950-1111**
200	3	4-5/8	2-3/4	5/8	1-5/8	5-9/16	7-5/16	10-1	**950-1200**	**950-1222**
300	3-1/2	5-1/8	3	3/4	1-7/8	6-1/8	7-7/8	13-18	**950-1300**	**950-1333**
400	4	6-1/4	3-5/8	7/8	2-1/8	7	9	14-20	**950-1400**	**950-1444**

#1, Turning & Facing Holders

Features:

- Takes various sizes of bits.
- Turning and facing tools can be locked in together.
- Save time and labor when changing operations.

Series	A	B	C	D	Tool Bit	Order No.
100(AXA)	15/16”	1/2”	7/16”	1-1/2”	3/16-1/2”	**950-1101**
200(BXA)	1-1/8	5/8	1/2	1-3/4	1/4-5/8	**950-1201**
300(CXA)	1-7/16	3/4	5/8	2-1/8	1/2-3/4	**950-1301**
400(CA)	1-11/16	1	3/4	2-1/2	1/2-1	**950-1401**



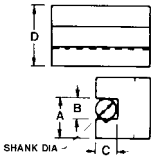


#2, Boring, Turning & Facing Holders

Features:

- “V ” groove holds round shank boring bars and tools as well as square tool bits.

Series	A	B	C	D	Tool Bit	Shank	Order No.
100(AXA)	15/16"	1/2"	7/16"	1-1/2"	3/16-1/2"	7/16"	**950-1102**
200(BXA)	1-1/8	5/8	1/2	1-3/4	1/4-5/8	1/2	**950-1202**
300(CXA)	1-7/16	3/4	5/8	2-1/8	1/2-3/4	3/4	**950-1302**
400(CA)	1-11/16	1	3/4	2-1/2	1/2-1	13/16	**950-1402**



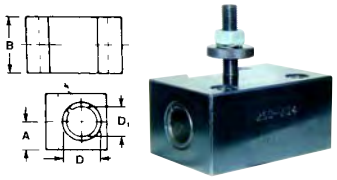


#4, Heavy Duty Boring Holders

Features:

- Equipped with a split bushing to accommodate a boring bar of smaller dia.
- It grips with extreme rigidity, cuts smoothly without chatter.
- Holders supplied with split bushing.

Series	A	B	Inside D	D1	Order No.
100(AXA)	3/4	1-1/2	3/4	5/8	**950-1104**
200(BXA)	3/4	1-3/4	1	3/4	**950-1204**
300(CXA)	1	2	1	3/4	**950-1304**
400(CA)	1-3/8	2-3/4	1-1/4	1	**950-1404**

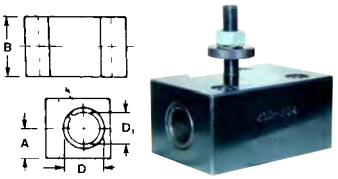


#41, Heavy Duty Boring Holders

Features:

- Equipped with a split bushing to accommodate a boring bar of smaller dia.
- It grips with extreme rigidity, cuts smoothly without chatter.
- Holders supplied with split bushing.

Series	A	B	Inside D	D1	Order No.
100(AXA)	7/8	1-3/4	1	3/4	**950-1141**
200(BXA)	1	2	1-1/4	1	**950-1241**
300(CXA)	1-1/8	2-1/4	1-1/4	1	**950-1341**
400(CA)	1-3/8	2-3/4	1-1/2	1-1/4	**950-1441**

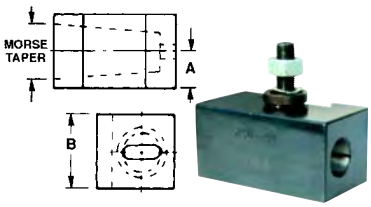


#5, Morse Taper Holders

Features:

- Drills with carriage by using power feed instead of tail stock
- Easily centered.
- For 2,3 and 4 Morse Taper drills.

Series	A	B	Taper Hole Size	Order No.
100(AXA)	3/4	1-1/2	MT2	**950-1105**
200(BXA)	7/8	1-3/4	MT2	**950-1205**
300(CXA)	1	2	MT3	**950-1305**
400(CA)	1-1/4	2-1/2	MT3	**950-1405**

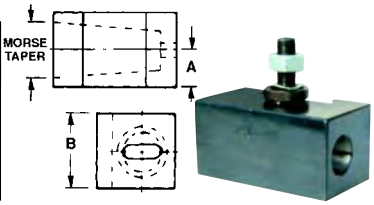


#53, Morse Taper Holders

Features:

- Drills with carriage by using power feed instead of tail stock
- Easily centered.
- For 2,3 and 4 Morse Taper drills.

Series	A	B	Taper Hole Size	Order No.
100(AXA)	3/4	1-1/2	MT3	**950-1153**
200(BXA)	7/8	1-3/4	MT3	**950-1253**
300(CXA)	1-1/16	2-1/8	MT4	**950-1353**
400(CA)	1-1/4	2-1/2	MT4	**950-1453**

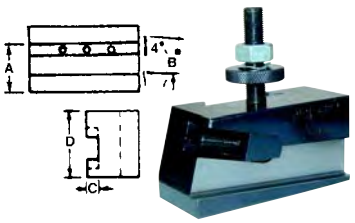


#7, Universal Parting Blade Holders

Features:

- For bevel as well as T-cut blades.
- Absence of vibration prevents breaking blades.

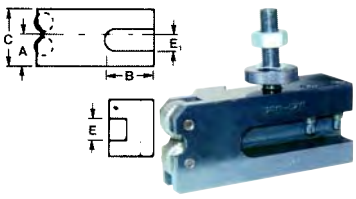
Series	A	B	C	D	Height	Order No.
100(AXA)	13/16	1/2	13/16	1-1/2	1/2	**950-1107**
200(BXA)	1	11/16	13/16	1-3/4	11/16	**950-1207**
300(CXA)	1-3/16	3/4	13/16	2	3/4	**950-1307**
400(CA)	1-7/16	7/8	1/4	2-1/2	7/8	**950-1407**



#10, Knurling, Facing & Turning Holders

- For turning and facing as knurling.
- Supplied with a set of high speed precision round lapped medium diamond knurls.
- Dimensions 3/4x3/8x1/4"

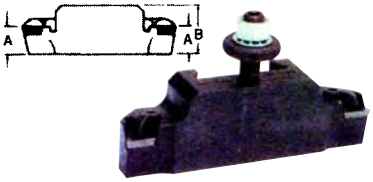
Series	A	B	C	E	E1	Tool Bit	Order No.
100(AXA)	7/8"	2-1/2"	1-6/19"	1/2"	3/8"	3/16-1/2"	**950-1110**
200(BXA)	1	2-5/8	1-3/4	5/8	1/2	1/4-5/8	**950-1210**
300(CXA)	1-3/16	3-1/8	2	3/4	5/8	1/2-3/4	**950-1310**
400(CA)	1-7/16	3-3/4	2-1/2	1	3/4	1/2-1	**950-1410**



#16, Combination Facing & Turning HoldersFor Carbide Triangular Inserts

Accommodates standard triangular positive rack inserts. Unique design permits both right hand and left hand turning and facing. Supplied with carbide shims to protect the holder. Inserts not included.

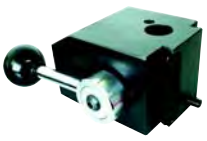
Series	A	B	Inserts I.C.	Thick	Rake	Order No.
100(AXA)	7/8"	1-3/8"	3/8"	1/8	Pos.	**950-1116**
200(BXA)	1	1-3/4	3/8	1/8	Pos.	**950-1216**
300(CXA)	1-3/16	2	3/8	1/8	Pos.	**950-1316**
400(CA)	1-1/2	2-1/4	1/2	3/16	Pos.	**950-1416**



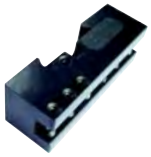
KDK Quick Change Tool Posts & Holders

KDK 快换刀架

- The rigidity increases the life of your tools.
- Camlock-poisitive of tool setting.
- One turn of carriage or cross feed dial will permit changing of tools, allowing substantial saving of valuable time.
- Handle is broached for different position on cam-holders are made of steel, hardened and ground.
- Five holders will hold nine tools with 24 combinations allowing operator to handle most any job.
- Has adjustment screw allowing the use of tool bits upside down.



Body Only



Parting/Turning Bar Tool Holder



Master Boring Bar Holde

Quick Change Tool Holder Sets

Series	Recommended Lathe Swing(In.)	Center Ht.(In.)	Order No.
100	12 to 16	1.000 & Up	**951-3300**
150	15 to 18	1.250 & Up	**951-3200**

Set Include:

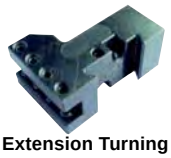
- Body
- Parting/Turning Bar Tool Holder
- Threading & Facing Tool Holder
- Turning & Facing Tool Holde
- Extension Turning Tool Holder
- Master Boring Bar Holde



Threading & Facing Tool Holder



Turning & Facing Tool Holde



Extension Turning Tool Holder

Quick Change Tool Posts & Holders

Part name	1.000" & Up 12 to 16" Swing Mfr's#	Bit Cap. (In.)	Order No.	1.250" & Up 15 to 18" Swing Mfr's#	Bit Cap. (In.)	Order No.
Body Only	100		**950-3300**	150		**950-3200**
Turning & Facing Tool Holde	101	1/2	**950-3301**	151	5/8	**950-3201**
Threading & Facing Tool Holder	102	1/2	**950-3302**	152	5/8	**950-3202**
Extension Turning Tool Holder	103	1/2	**950-3303**	153	5/8	**950-3203**
Parting/Turning Bar Tool Holder	104	1/8W x 11/16H	**950-3304**	154	1/8W x 7/8H	**950-3204**
Master Boring Bar Holde	105	1"hole	**950-3305**	155	1-1/4	**950-3205**
5C Collet Holder	119	5C	**950-3306**			

NEW



5C Collet Bar

Capacity: 1-1/8" down

40-Position Quick Change Tool Posts & Holders

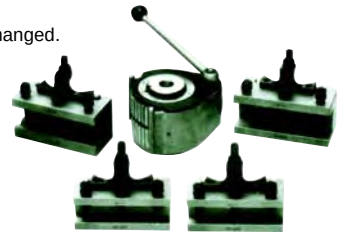
40 工位 套装快换刀架

The best designed Quick Change Tool Post & Holder system in the industry for its accuracy, rigidity and productivity now at affordable price!

- Wear-free, tear-free, and maintenance-free.
- Adjust tool to 40 different positions indicated by a marked position dial (index every 9")
- Fully interchangeable with other brand 40-position quick change tool post & holder.
- Heat-treated and precision-ground for very accurate repeatability.
- Change tools in seconds.
- Adjust height of cutting edge easily and accurately.
- Reground tools without removal from holder-setting unchanged.

40-Position Quick Change Tool Post Sets

Tool Post Series	Lathe Swing	Sets Order No.
A0	Up to 10" (120-220mm)	**950-2705**
A1	6-13" (150-300mm)	**950-2710**
E5	10-18" (200-400mm)	**950-2715**
B2	13-20" (300-500mm)	**950-2722**
C3	18-30" (400-700mm)	**950-2725**
D1	30" up (600-1000mm)	**950-2730**

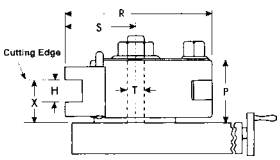


Each set includes:
1 Tool Post
3 "D" Holders
1 "B" Holder

40-Position Quick Change Tool Posts

Size of Too Post	Lathe Swing	Max. Driving Power (HP)	R Max.	S Max.	P	T	H	XMin.	X Max.	Post Only Order No.
A0	Up to 10" (120-220mm)	1.5"	2.99"	1.36"	1.26"	0.51"	0.51"	0.79"	1.18"	**950-2100**
A1	6-13" (150-300mm)	3	4.13	2.07	1.83	0.79	0.83	1.18	1.61	**950-2200**
E5	10-18" (200-400mm)	6	5.14	2.57	2.30	0.79	0.94	1.37	2.04	**950-2300**
B2	13-20" (300-500mm)	9	6.00	2.95	2.68	1.26	1.00	1.46	2.25	**950-2400**
C3	18-30" (400-700mm)	18	7.90	3.62	3.90	1.57	1.26	1.86	3.43	**950-2500**
D1	30" up (600-1000mm)	27	9.49	4.80	4.53	1.57	1.61	2.44	4.56	**950-2600**





"A" Cut- Off Tool Holder

Series	Blade Width	Holder Length	Order No.
A1	13/32"	3-5/32"	**950-2401**
E5	5/8"	4"	**950-2402**
B2	5/8"	4-3/4"	**950-2403**
D1	3/4"	6"	**950-2404**

Series	Blade Width (mm)	Holder Length (mm)	Order No.
A0	10	50	**540-0040**
A1	10	75	**540-0140**
E5	10	100	**540-0240**
B2	16	120	**540-0340**
C2	18.5	150	**540-0440**



"B" Boring, Turning & Facing Holders

Series	Facing Height	Holder Length	Order No.
A0	15/32"	2"	950-2201
A1	3/4"	3-5/32"	950-2202
E5	1-3/16"	4"	950-2203
B2	1-1/4"	5-1/8"	950-2204
C3	1-1/4"	6-5/16"	950-2205
C3	1-5/8"	6-5/16"	950-2206
D1	2"	7-3/32"	950-2207

Series	Facing Height (mm)	Holder Length (mm)	Order No.
A0	12	50	540-0020
A1	18	80	540-0120
A1	16	80	540-0121
A1	20	90	540-0122
E5	30	100	540-0220

Series	Facing Height (mm)	Holder Length (mm)	Order No.
B2	32	130	540-0320
C3	32	160	540-0421
C3	40	160	540-0422
D1	50	180	540-0520
D1	63	180	540-0521



"D" Turning and Facing Holders



Series	Facing Height	Holder Length	Order No.
A0	15/32"	2"	950-2101
A1	3/4"	3-5/32"	950-2102
E5	3/4"	4"	950-2103
E5	1"	4"	950-2104
B2	1"	4-3/4"	950-2105

Series	Facing Height	Holder Length	Order No.
B2	1"	5-1/2"	950-2106
B2	1-1/4"	4-3/4"	950-2107
B2	1-1/4"	5-1/2"	950-2108
C3	1-1/4"	6"	950-2109
C3	1-1/4"	6-11/16"	950-2110
C3	1-5/8"	6"	950-2111
C3	1-5/8"	6-11/16"	950-2112
C3	1-3/4"	6-11/16"	950-2113
D1	1-5/8"	7-3/32"	950-2114
D1	2"	7-3/32"	950-2115
D1	2-1/2"	7-3/32"	950-2116

Series	Facing Height (mm)	Holder Length (mm)	Order No.
A0	12	50	540-0010
A1	20	80	540-0110
A1	16	75	540-0111
A1	16	80	540-0112
A1	16	90	540-0113
A1	20	75	540-0114
A1	20	90	540-0115
E5	20	100	540-0211
E5	25	100	540-0212
B2	25	120	540-0311
B2	25	140	540-0312

Series	Facing Height (mm)	Holder Length (mm)	Order No.
B2	32	120	540-0313
B2	32	140	540-0314
C3	32	150	540-0411
C3	32	170	540-0412
C3	40	150	540-0413
C3	40	170	540-0414
C3	45	170	540-0415
D1	40	180	540-0511
D1	50	180	540-0512
D1	63	180	540-0513

"L" Bushings for Drill & Boring Bar Holders



Series	Bushings Diameters	Hole Taper	Order No.
A1	1-3/16 "	MT1	950-2501
A1	1-3/16 "	MT2	950-2502
E5	1-3/16 "	MT2	950-2503
E5	1-5/8	MT3	950-2504
B2	1-5/8 "	MT3	950-2505
B2	1-5/8 "	MT4	950-2506
C3	1-5/8 "	MT3	950-2507
C3	1-5/8 "	MT4	950-2508
C3	2 "	MT4	950-2509
D1	2-1/2 "	MT5	950-2510

Series	Bushing Dia. (mm)	Hole Ta per	Order No.
A1	30	MT1	540-0151
A1	30	MT2	540-0152
E5	30	MT2	540-0251
E5	40	MT3	540-0252
B2	40	MT3	540-0351
B2	40	MT4	540-0352
C3	40	MT3	540-0451
C3	40	MT4	540-0452
C3	50	MT4	540-0453
D1	63	MT5	540-0550

"S" Drill & Boring Bar Holders



Series	Facing Height	Holder Length	Order No.
A0	19/32"	2"	950-2301
A1	1-3/16"	3-5/32"	950-2302
E5	1-3/16"	4"	950-2303
E5	1-5/8"	4"	950-2304
B2	1-5/8"	4-3/4"	950-2305
C3	1-5/8"	6"	950-2306
C3	2"	6"	950-2307
D1	2-1/2"	7-3/32"	950-2308

Series	Facing Height (mm)	Holder Length (mm)	Order No.
A0	15	50	540-0030
A1	30	80	540-0130
A1	20	90	540-0131
E5	30	100	540-0231
E5	40	100	540-0232
B2	40	120	540-0330
C3	40	150	540-0431
C3	50	150	540-0432
D1	63	180	540-0530

Quick Change Tool Posts & Sets

意大利式快换刀架

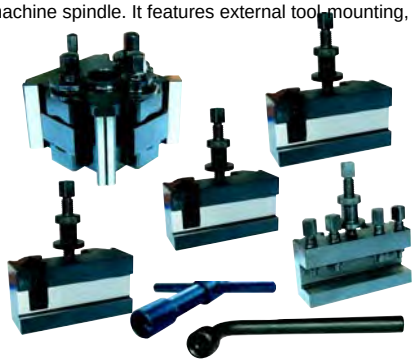
It is composed of the cutter-cartridge body and the tool-holder for various cutting tools for processing works like cylindrical facing, end facing, cutting, knurling, drilling, enlarging boring and reaming, etc. The height of tools can be regulated and positioned relative to the centerline of machine spindle. It features external tool mounting, tool-matching, quick tool-changing, great precision in positing and great hardness etc.

Size	Lathe Swing	Sets Order No.
MK	Up to 7"	951-5100
M	7-10"	951-5200
A	10-14"	951-5300
B	14-18"	951-5400
C	18-24"	951-5500
D	Over	951-5600
E	Over	951-5700
F	Over	951-5800

Quick Change Tool Post Sets

Each set Includes:

1 Tool Post
3 Tool-holders of flat section
1 Tool-holder with V-seat for round tools
2 Standard spanners



Quick Change Tool Posts & Sets continued

意大利式快换刀架

The quick change tool post is a major spare part of the ordinary lathes . It is composed of the cutter-cartridge body and the tool-holder for various cutting tools for processing works like cylindrical facing, end facing, cutting, knurling, drilling, enlarging boring and reaming, etc. The height of tools can be regulated and positioned relative to the centerline of machine spindle. It features external tool-mounting, too-matching, quick tool-changing, great precision in positing and great hardness etc.



Tool Post



502(201) Flat-seat Tool Holder



503(202) V-Shaped seat Tool Holder



504(203) Morse Taper Tool Holder



540(216) Boring Bar Tool Holder



550(217) Parting-Off Blade Tool Holder



505(204) Eccentric Pin



506(205) Tenon



513(207) Extractor



218 Boring Bar Loking Screw



219Parting-Off Blade Loking Prong



515(215) Cross-Pin Spanner



512(208) Long Screw



511(209) Short Screw



510(206) Height Audj. Reel



509(210) Screw Stud



211 Extractor Screw



220 Prong Locking Screw



212 Spring



508(213) Pin



516(214) Elbowed Wrench

Quick Change Tool Posts

Post Series	Lathe Swing	Dimensions of Turret Body	Max. Height Square and Rec. Tools	Max. Dia. of Round Tool	Taper Shank	Max. Adjusting Tool Holder	Order No.
M	7-10”	2-3/4x2-3/4x1-3/4	5/8	1/2	1	1/2	950-5200
501-AR-AP	10-12”						950-5250
A	10-14”	3-7/8x3-7/8x2-3/8	3/4	5/8	2	9/16	950-5300
501-BR-BP	12-15”						950-5350
B	14-18”	5x5x3-3/8	1-1/8	13/16	3	15/16	950-5400
C	18-24”	5-5/8x5-5/8x3-3/4	1-1/4	15/16	4	1	950-5500
D	Over	6-7/8x6-7/8x4-3/4	1-1/2	1-1/4	4	1-1/2	950-5600

Quick Change Tool Holders & Accessories

Series	Description	M Order No.	AR-AP Order No.	A Order No.	BR-BP Order No.	B Order No.	C Order No.	D Order No.
502 (201)	Flat-Seat Tool Holder	950-5221	950-5271	950-5321	950-5371	950-5421	950-5521	950-5621
503 (202)	V-Tool Holder	950-5222	950-5272	950-5322	950-5372	950-5422	950-5522	950-5622
504 (203)	Morse Taper Tool Holder	950-5223	950-5273	950-5323	950-5373	950-5423	950-5523	950-5623
550 (217)	Parting-off Blade Holder	950-5217	950-5267	950-5317	950-5367	950-5417	950-5517	950-5617
540 (216)	Boring Bar Tool Holder	950-5216	950-5266	950-5316	950-5366	950-5416	950-5516	950-5616
505 (204)	Eccentric Clamp Pin	950-5224	950-5274	950-5324	950-5374	950-5424	950-5524	950-5624
506 (205)	Tenon	950-5225	950-5275	950-5325	950-5375	950-5425	950-5525	950-5625
(212)	Clamping Block Spring		950-5262	950-5312	950-5362	950-5412	950-5512	
508 (213)	Dowel Pin	950-5213	950-5263	950-5313	950-5363	950-5413	950-5513	950-5613
509 (210)	Screw Stud	950-5210	950-5260	950-5310	950-5360	950-5410	950-5510	950-5610
510 (206)	Height Adj. Screw	950-5206	950-5256	950-5306	950-5356	950-5406	950-5506	950-5606
(218)	Boring Bar Locking Screw	950-5218	950-5268	950-5318	950-5368	950-5418	950-5518	950-5618
(220)	Prong Locking Screw	950-5220	950-5270	950-5320	950-5370	950-5420	950-5520	950-5620
(219)	Parting-off Blade Locking Prong	950-5219	950-5269	950-5319	950-5369	950-5419	950-5519	950-5619
511 (209)	Short Screw	950-5209	950-5259	950-5309	950-5359	950-5409	950-5509	950-5609
515 (215)	T-Key For Set Screws	950-5215	950-5265	950-5315	950-5365	950-5415	950-5515	950-5615
516 (214)	Hexagon Wrench	950-5214	950-5264	950-5314	950-5364	950-5414	950-5514	950-5614
513 (207)	Extractor	950-5207	950-5257	950-5307	950-5357	950-5407	950-5507	950-5607
512 (208)	Long Screw	950-5208	950-5258	950-5308	950-5358	950-5408	950-5508	950-5608
(211)	Extractor Screw	950-5211	950-5261	950-5311	950-5361	950-5411	950-5511	950-5611

5C Collet Stops 5C 卡头可调定位器

Fits any 5C collet. Supplied with threaded rod. Hardened for long life. Black oxide



Order No. 239-9051

Converts standard 1" capacity lathe collets into solid stop or spring ejector stop collets without alteration of the standard collets.



Order No. 239-9052

5C & 16C Collet Stops 5C&16C 卡头定位器

- 5C collet stop include one each of 1/8,1/2, 3/4 & 1" Stop rod, and one Collet Rod.
- 16C collet stop include one 1" Stop Rod and one Collet Rod.

Description	Order No.
5C Collet Stop	209-2799
16C Collet Stop	209-2807



Collet Wrenches 卡头扳手

- Simplifies installing and removing acollet in your CNC lathe.
- Made with a steel head and fins for strength.



Collet Type	Fins	Order No.
3J	4	239-0003
5C	3	239-0005
R8	3	239-0008
16C	3	239-0016

Sets with Rack

NEW



Specifications	Economy Order No.	Premium Order No.
12pcs 1/8 to 3/4' by 16th plus 7/8"	231-1112	
12pcs 1/16-3/4" by 16th	231-2111	
12pcs 1/8 to 3/4" by 16ths plus 7/8"	231-2112	
13pcs 1/8 to 7/8" by 16ths	231-2113	
14pcs 1/16 to 7/8" by 16ths	231-2114	
19pcs 2mm to 20mm by 1mm	231-2119	
23pcs 1/16-3/4" by 32nd	231-2123	
25pc.1/8 to 7/8" by 32nds	231-2125	
27pcs 1/16 to 7/8" by 32nds	231-2127	
6pcs collet 1/8 to 3/4" by 8ths		231-2206
14pcs collet 1/16 to 7/8" by 16ths		231-2214
15pcs collet 1/16 to 7/8" by 16ths,and 1"		231-2215
19pcs collet 2.0-20.0mm by 1.0mm		231-2219

R8 Round Collets R8 英制圆卡头

- Made of high grade steel.
- Hardened and precision ground.
- Internal thread 7/16"-20.



Size	Economy Order No.	Premium .0005" T.I.R Order No.
1/16"	231-4704	231-4904
3/32"	231-4706	231-4906
1/8"	231-4708	231-4908
5/32"	231-4710	231-4910
3/16"	231-4712	231-4912
7/32"	231-4714	231-4914
1/4"	231-4716	231-4916
9/32"	231-4718	231-4918
5/16"	231-4720	231-4920
11/32"	231-4722	231-4922
3/8"	231-4724	231-4924
13/32"	231-4726	231-4926
7/16"	231-4728	231-4928
15/32"	231-4730	231-4930
1/2"	231-4732	231-4932
17/32"	231-4734	231-4934
9/16"	231-4736	231-4936
19/32"	231-4738	231-4938
5/8"	231-4740	231-4940
21/32"	231-4742	231-4942
11/16"	231-4744	231-4944
23/32"	231-4746	231-4946
3/4"	231-4748	231-4948
25/32"	231-4750	231-4950
13/16"	231-4752	231-4952
27/32"	231-4754	231-4954
7/8"	231-4756	231-4956
1"	231-4764	231-4964

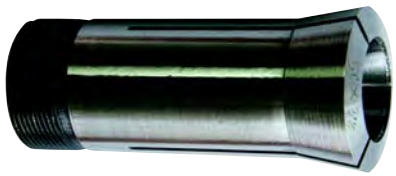
Size	Economy Order No.	Premium 0.015mm T.I.R Order No.
2mm	231-4802	231-4602
3mm	231-4803	231-4603
4mm	231-4804	231-4604
5mm	231-4805	231-4605
6mm	231-4806	231-4606
7mm	231-4807	231-4607
8mm	231-4808	231-4608
9mm	231-4809	231-4609
10mm	231-4810	231-4610
11mm	231-4811	231-4611
12mm	231-4812	231-4612
13mm	231-4813	231-4613
14mm	231-4814	231-4614
15mm	231-4815	231-4615
16mm	231-4816	231-4616
17mm	231-4817	231-4617
18mm	231-4818	231-4618
19mm	231-4819	231-4619
20mm	231-4820	231-4620
21mm	231-4821	231-4621
22mm	231-4822	231-4622
23mm	231-4823	231-4623
24mm	231-4824	231-4624

Sets

Range	No. Of Pieces	Economy Order No.	Premium Order No.
1/8-3/4" by 8ths	6	231-0006	231-5006
1/8" to 7/8" by 8ths	7	231-0007	231-5007
1/8-3/4" by 16ths	11	231-0011	231-5011
1/16" to 3/4" by 16ths	12	231-0012	231-5012
1/8" to 7/8" by 16ths	13	231-0013	231-5013
1/16" to 7/8" by 16ths	14	231-0014	231-5014
1/8 to 3/4" by 32nds	21	231-0021	231-5021
1/16-3/4" by 32ths	23	231-0023	231-5023
1/8" to 7/8" by 32nds	25	231-0025	231-5025
1/16" to 7/8" by 32nds	27	231-0027	231-5027
1/8" to 3/4" by 16ths plus 7/8"	12	231-0112	231-5112
1/16" to 1" by 1/32"	28	231-0128	231-5128
2mm to 20mm by 1mm	19	231-0019	231-5019

5C Round Collets 5C英制圆卡头

- Made of high grade steel.
- Hardened and precision ground.
- Internal thread 1.041"-24, external thread 1.242"-20.
- The economy grade collet complies with cardboard case, premium grade complies with plastic case.



Size	Economy Order No.	Premium .0005" T.I.R Order No.	Size	Economy Order No.	Premium .0005" T.I.R Order No.
1/32"	230-4102	230-4902	37/64"	230-4137	230-4937
3/64"	230-4103	230-4903	19/32"	230-4138	230-4938
1/16"	230-4104	230-4904	39/64"	230-4139	230-4939
5/64"	230-4105	230-4905	5/8"	230-4140	230-4940
3/32"	230-4106	230-4906	41/64"	230-4141	230-4941
7/64"	230-4107	230-4907	21/32"	230-4142	230-4942
1/8"	230-4108	230-4908	43/64"	230-4143	230-4943
9/64"	230-4109	230-4909	11/16"	230-4144	230-4944
5/32"	230-4110	230-4910	45/64"	230-4145	230-4945
11/64"	230-4111	230-4911	23/32"	230-4146	230-4946
3/16"	230-4112	230-4912	47/64"	230-4147	230-4947
13/64"	230-4113	230-4913	3/4"	230-4148	230-4948
7/32"	230-4114	230-4914	49/64"	230-4149	230-4949
15/64"	230-4115	230-4915	25/32"	230-4150	230-4950
1/4"	230-4116	230-4916	51/64"	230-4151	230-4951
17/64"	230-4117	230-4917	13/16"	230-4152	230-4952
9/32"	230-4118	230-4918	53/64"	230-4153	230-4953
19/64"	230-4119	230-4919	27/32"	230-4154	230-4954
5/16"	230-4120	230-4920	55/64"	230-4155	230-4955
21/64"	230-4121	230-4921	7/8"	230-4156	230-4956
11/32"	230-4122	230-4922	57/64"	230-4157	230-4957
23/64"	230-4123	230-4923	29/32"	230-4158	230-4958
3/8"	230-4124	230-4924	59/64"	230-4159	230-4959
25/64"	230-4125	230-4925	15/16"	230-4160	230-4960
13/32"	230-4126	230-4926	61/64"	230-4161	230-4961
27/64"	230-4127	230-4927	31/32"	230-4162	230-4962
7/16"	230-4128	230-4928	63/64"	230-4163	230-4963
29/64"	230-4129	230-4929	1"	230-4164	230-4964
15/32"	230-4130	230-4930	1-1/64"	230-4301	230-4971
31/64"	230-4131	230-4931	1-1/32"	230-4302	230-4972
1/2"	230-4132	230-4932	1-3/64"	230-4303	230-4973
33/64"	230-4133	230-4933	1-1/16"	230-4304	230-4974
17/32"	230-4134	230-4934	1-5/64"	230-4305	230-4975
35/64"	230-4135	230-4935	1-3/32"	230-4306	230-4976
9/16"	230-4136	230-4936	1-7/64"	230-4307	230-4977
			1-1/8"	230-4308	230-4978

Size	Economy Order No.	Premium 0.015mm T.I.R. Order No.
2mm	230-4202	230-9202
3mm	230-4203	230-9203
4mm	230-4204	230-9204
5mm	230-4205	230-9205
6mm	230-4206	230-9206
7mm	230-4207	230-9207
8mm	230-4208	230-9208
9mm	230-4209	230-9209
10mm	230-4210	230-9210
11mm	230-4211	230-9211
12mm	230-4212	230-9212
13mm	230-4213	230-9213
14mm	230-4214	230-9214
15mm	230-4215	230-9215
16mm	230-4216	230-9216
17mm	230-4217	230-9217
18mm	230-4218	230-9218
19mm	230-4219	230-9219
20mm	230-4220	230-9220
21mm	230-4221	230-9221
22mm	230-4222	230-9222
23mm	230-4223	230-9223
24mm	230-4224	230-9224
25mm	230-4225	230-9225
26mm	230-4226	230-9226
27mm	230-4227	230-9227
28mm	230-4228	230-9228
29mm	230-4229	230-9229
30mm	230-4230	230-9230

Size	Economy Order No.	Premium 0.015mm T.I.R Order No.
1.5mm	230-3015	229-3015
2.5mm	230-3025	229-3025
3.5mm	230-3035	229-3035
4.5mm	230-3045	229-3045
5.5mm	230-3055	229-3055
6.5mm	230-3065	229-3065
7.5mm	230-3075	229-3075
8.5mm	230-3085	229-3085
9.5mm	230-3095	229-3095
10.5mm	230-3105	229-3105
11.5mm	230-3115	229-3115
12.5mm	230-3125	229-3125
13.5mm	230-3135	229-3135
14.5mm	230-3145	229-3145
15.5mm	230-3155	229-3155
16.5mm	230-3165	229-3165
17.5mm	230-3175	229-3175
18.5mm	230-3185	229-3185
19.5mm	230-3195	229-3195
20.5mm	230-3205	229-3205
21.5mm	230-3215	229-3215
22.5mm	230-3225	229-3225
23.5mm	230-3235	229-3235
24.5mm	230-3245	229-3245
25.5mm	230-3255	229-3255
26.5mm	230-3265	229-3265
27.5mm	230-3275	229-3275
28.5mm	230-3285	229-3285
29.5mm	230-3295	229-3295

5C Collet Sets

No. of Pieces	Descriptions	Economy Order No.	No. of Pieces	Descriptions	Premium Order No.
6	1/8" to 3/4" by 8ths	230-4006	6	1/8"to 3/4"by 8ths	230-5006
8	1/8" to 1" by 8ths	230-4008	8	1/8" to 1" by 8ths	230-5008
9	4mm to 20mm by 2mm	230-4009	9	4mm to 20mm by 2mm	230-5009
17	3-25mm	230-4013	17	3-25mm	230-5013
14	12mm to 25mm by 1mm	230-4014	14	12mm to 25mm by 1mm	230-5014
15	1/8" to 1" by 16ths	230-4015	15	1/8" to 1" by 16ths	230-5015
16	1/8" to 1-1/16" by 16ths	230-4016	16	1/8" to 1-1/16" by 16ths	230-5016
17	1/16" to 1-1/16" by 16ths	230-4017	17	1/16" to 1-1/16" by 16ths	230-5017
18	1/16" to 1-1/8" by 16ths	230-4018	18	1/16" to 1-1/8" by 16ths	230-5018
29	1/8" to 1" by 32nds	230-4029	29	1/8" to 1" by 32nds	230-5029
30	1/8" to 1-1/32" by 32nds	230-4030	30	1/8" to 1-1/32" by 32nds	230-5030
31	1/8" to 1-1/6" by 32nds	230-4031	31	1/8" to 1-1/6" by 32nds	230-5031
32	2mm to 25mm	230-4032	32	2mm to 25mm	230-5032
33	1/16" to 1-1/16" by 32nds	230-4033	33	1/16" to 1-1/16" by 32nds	230-5033
35	1/16" to 1-1/8" by 32nds	230-4035	35	1/16" to 1-1/8" by 32nds	230-5035
57	1/8" to 1" by 64ths	230-4057	57	1/8" to 1" by 64ths	230-5057
64	1/16" to 1-3/64" by 64ths	230-4064	64	1/16" to 1-3/64" by 64ths	230-5064
65	1/16" to 1-1/16" by 64ths	230-4065	65	1/16" to 1-1/16" by 64ths	230-5065
69	1/16" to 1-1/8" by 64ths	230-4069	69	1/16" to 1-1/8" by 64ths	230-5069

Sets with Rack



Specifications	Economy Order No.	Premium Order No.
14pc (3-25mm)	230-8013	
14pc 12mm to 25mm by 1mm	230-8014	
15pc 1/8"to 1" by 1/16" +A 5C Spin index fixture	230-8015	
18pc 1/16"to 1-1/8" by 16ths	230-8018	230-8218
30pc 1/8" to 1-1/32" by 1/32"	230-8030	
30pc1/8" to 1-1/32" by 1/32" + 5C index fixture	230-8031	
15pc 1/8" to 1" by 1/16"	230-8032	
35pc 1/16"to 1-1/8" by 32nds	230-8035	230-8235
69pcs,1/16" to 1-1/8" by 64ths	230-8069	

R8 Square Collets R8 四方孔卡头

- Internal thread 7/16"-20.



Size	Economy Order No.	Premium Order No.
1/8”	530-7208	530-8208
5/32”	530-7210	530-8210
3/16”	530-7212	530-8212
1/4”	530-7216	530-8216
9/32”	530-7218	530-8218
5/16”	530-7220	530-8220
11/32”	530-7222	530-8222
3/8”	530-7224	530-8224
13/32”	530-7226	530-8226
7/16”	530-7228	530-8228
15/32”	530-7230	530-8230
1/2	530-7232	530-8232
17/32”	530-7234	530-8234
9/16”	530-7236	530-8236

Size	Economy Order No.	Premium Order No.
3mm	530-7030	530-8030
4mm	530-7040	530-8040
5mm	530-7050	530-8050
5.5mm	530-7055	530-8055
6mm	530-7060	530-8060
7mm	530-7070	530-8070
8mm	530-7080	530-8080
9mm	530-7090	530-8090
9.5mm	530-7095	530-8095
10mm	530-7100	530-8100
11mm	530-7110	530-8110
12mm	530-7120	530-8120
13mm	530-7130	530-8130
13.5mm	530-7135	530-8135
14mm	530-7140	530-8140

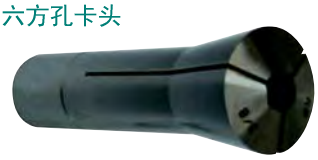
R8 Square Collet Set

4pcs 1/8” to 1/2” by 8ths

Order No.530-7004

R8 Hex Collets R8 六方孔卡头

- Internal thread 7/16"-20.



Size	Order No.
1/8”	530-6208
5/32”	530-6210
3/16”	530-6212
1/4”	530-6216
9/32”	530-6218
5/16”	530-6220
11/32”	530-6222
3/8”	530-6224
13/32”	530-6226
7/16”	530-6228
15/32”	530-6230
1/2”	530-6232
17/32”	530-6234
9/16”	530-6236
19/32”	530-6238
5/8”	530-6240
21/32”	530-6242
11/16”	530-6244
23/32”	530-6246
3/4”	530-6248
25/32”	530-6250

Size	Order No.
3mm	530-6030
4mm	530-6040
5mm	530-6050
6mm	530-6060
7mm	530-6070
8mm	530-6080
9mm	530-6090
10mm	530-6100
11mm	530-6110
12mm	530-6120
13mm	530-6130
13.5mm	530-6135
14mm	530-6140
15mm	530-6150
16mm	530-6160
17mm	530-6170
17.5mm	530-6175
18mm	530-6180
19mm	530-6190
20mm	530-6200

R8 Hex Collet Set

6pcs 1/8” to 3/4” by 8ths

Order No.530-6006

R8 Emergency Collets R8 强力弹簧卡头

- Can be drilled, bored or machined with a H.S.S Tool Bit.
- Face & Pilot Hole are soft to Permit machining to your requirement.
- Internal thread 7/16"-20.



Type	Order No.
R8 steel	231-4395
R8 brass	231-4396
R8 nylon	231-4397

5C Emergency Collets 5C 强力弹簧卡头

- Face & pilot hole are soft to permit machining to your requirements.
- Can be drilled, bored or machined with a HSS tool bit.
- Internal thread 1.041"-24, external thread 1.242"-20.



Type	Order No.
5c steel	230-4395
5c brass	230-4396
5c nylon	230-4397

5C Square Collets 5C 四方孔卡头

- Made of high grade steel.
- Hardened and precision ground.
- Internal thread 1.041"-24, external thread 1.242"-20.

6Pcs/set

1/8-3/4" by 8ths

Order No.530-4252

11Pcs/set

1/8-3/4 by 16ths

Order No.530-4256

17Pcs/set

3mm to 19mm by 1mm

Order No.530-4917



Size	Economy Order No.	Premium .0005" T.I.R Order No.
1/8"	530-4208	530-3208
5/32"	530-4210	530-3210
3/16"	530-4212	530-3212
7/32"	530-4214	530-3214
1/4"	530-4216	530-3216
9/32"	530-4218	530-3218
5/16"	530-4220	530-3220
11/32"	530-4222	530-3222
3/8"	530-4224	530-3224
13/32"	530-4226	530-3226
7/16"	530-4228	530-3228
15/32"	530-4230	530-3230
1/2"	530-4232	530-3232
17/32"	530-4234	530-3234
9/16"	530-4236	530-3236
19/32"	530-4238	530-3238
5/8"	530-4240	530-3240
21/32"	530-4242	530-3242
11/16"	530-4244	530-3244
23/32"	530-4246	530-3246
3/4"	530-4248	530-3248

Size	Economy Order No.	Premium 0.015mm T.I.R Order No.
3mm	530-4030	530-3030
4mm	530-4040	530-3040
5mm	530-4050	530-3050
5.5mm	530-4055	530-3055
6mm	530-4060	530-3060
7mm	530-4070	530-3070
8mm	530-4080	530-3080
9mm	530-4090	530-3090
9.5mm	530-4095	530-3095
10mm	530-4100	530-3100
11mm	530-4110	530-3110
12mm	530-4120	530-3120
13mm	530-4130	530-3130
13.5mm	530-4135	530-3135
14mm	530-4140	530-3140
15mm	530-4150	530-3150
16mm	530-4160	530-3160
17mm	530-4170	530-3170
17.5mm	530-4175	530-3175
18mm	530-4180	530-3180
19mm	530-4190	530-3190

5C Hex Collets 5C 六方孔卡头

- Made of high grade steel.
- Hardened and precision ground.
- Internal thread 1.041"-24, external thread 1.242"-20.

7 Pcs/set

1/8" to 7/8" by 8ths

Order No.530-4360

13 Pcs/set

1/8" to 7/8" by 16ths

Order No.530-4364

20 Pcs/set

3mm to 22mm by 1mm

Order No.530-5920



Size	Economy Order No.	Premium .0005" T.I.R Order No.
1/8"	530-4308	530-4408
5/32"	530-4310	530-4410
3/16"	530-4312	530-4412
7/32"	530-4314	530-4414
1/4"	530-4316	530-4416
9/32"	530-4318	530-4418
5/16"	530-4320	530-4420
11/32"	530-4322	530-4422
3/8"	530-4324	530-4424
13/32"	530-4326	530-4426
7/16"	530-4328	530-4428
15/32"	530-4330	530-4430
1/2"	530-4332	530-4432
17/32"	530-4334	530-4434
9/16"	530-4336	530-4436
19/32"	530-4338	530-4438
5/8"	530-4340	530-4440
21/32"	530-4342	530-4442
11/16"	530-4344	530-4444
23/32"	530-4346	530-4446
3/4"	530-4348	530-4448
25/32"	530-4350	530-4450
13/16"	530-4352	530-4452
27/32"	530-4354	530-4454
7/8"	530-4356	530-4456

Size	Order No.	Premium 0.015mm T.I.R Order No.
3mm	530-5030	530-2030
4mm	530-5040	530-2040
5mm	530-5050	530-2050
6mm	530-5060	530-2060
7mm	530-5070	530-2070
8mm	530-5080	530-2080
9mm	530-5090	530-2090
10mm	530-5100	530-2100
11mm	530-5110	530-2110
12mm	530-5120	530-2120
13mm	530-5130	530-2130
13.5mm	530-5135	530-2135
14mm	530-5140	530-2140
15mm	530-5150	530-2150
16mm	530-5160	530-2160
17mm	530-5170	530-2170
17.5mm	530-5175	530-2175
18mm	530-5180	530-2180
19mm	530-5190	530-2190
20mm	530-5200	530-2200
20.5mm	530-5205	530-2205
21mm	530-5210	530-2210
22mm	530-5220	530-2220

5C Expanding Collets 5C 涨力弹簧夹头

Descriptions	Order No.
..750-1.43", 1.5x1.5(head dia.x thickness)	230-4421
.750-1.437", 1.5x2"(head dia.x thickness)	230-4422
.750-1.437", 1.5x2.5"(head dia.x thickness)	230-4423
.750-1.437", 1.5x3"(head dia.x thickness)	230-4424
.750 to 1.937",2x1.5"(head dia.x thickness)	230-4426
.750 to 1.937",2x2.0"(head dia.x thickness)	230-4427
.750 to 1.937",2x2.5"(head dia.x thickness)	230-4428
.750 to 1.937",2x3.0"(head dia.x thickness)	230-4429
.750 to 2.437", 2.5x1.0"(head dia.x thickness)	230-4431
.750 to 2.437", 2.5x1.5"(head dia.x thickness)	230-4432
.750 to 2.437", 2.5x2.0"(head dia.x thickness)	230-4433
.750 to 2.437", 2.5x2.5"(head dia.x thickness)	230-4434
.750 to 2.437", 2.5x3.0"(head dia.x thickness)	230-4435
.750 to 2.937", 3X1"(head dia.x thickness)	230-4437
.750 to 2.937", 3X1.5"(head dia.x thickness)	230-4438
.750 to 2.937", 3X2"(head dia.x thickness)	230-4439
.750 to 2.937", 3X2.5"(head dia.x thickness)	230-4440
.750 to 2.937", 3X3"(head dia.x thickness)	230-4441
.750 to 3.937", 4X1"(head dia.x thickness)	230-4444
.750 to 3.937", 4X1.5"(head dia.x thickness)	230-4445
.750 to 3.937", 4X2"(head dia.x thickness)	230-4446
.750 to 3.937", 4X2.5"(head dia.x thickness)	230-4447
.750 to 3.937", 4X3"(head dia.x thickness)	230-4448

- Fit any standard 5C Spindle.
- Precision ground.
- Head Length: 1".
- Overall Length: 114mm.
- Soft head for easy machining.
- Internal thread 1.041"-24, external thread 1.242"-20.



Descriptions	Order No.
.25" to .468"x1" (#1)	230-4451
.437" to .800"x1" (#2)	230-4452
.750 to .1.437"x1" (#3)	230-4453
.750 to .1.935"x1"(#4)	230-4454
4Pcs/set 1/4" to 1-15/16" with wooden stand	230-4450

5C Fixture Mounts 5C 大头卡头

- A lathe tool for use in place of face plate fixture.
- External thread 1.242"-20.
- Quick mounting and dismounting.
- Repeat accuracy.
- Soft head for easy machining.
- Heat treated tool shank.
- Precision ground all over.
- Black oxide finish.



Head Dia.	Head Length	Order No.
2”	1”	230-4460
2”	2”	230-4461
2”	3”	230-4462
3”	1”	230-4463
3”	2”	230-4464
3”	3”	230-4465
4”	1”	230-4466
4”	3”	230-4467
5”	1”	230-4468
6”	1”	230-4469
4”	2”	230-4470

5C Step Collets 5C 台阶卡头

- Applied for machining to specific requirements.
- Soft head type featured 3 thickness.
- Internal thread 1.041"-24, external thread 1.242"-20.



Head Dia.	1” Thickness Order No.	1-1/8” Thickness Order No.	1-3/16” Thickness Order No.
2”	230-4362	230-4372	230-4382
3”	230-4363	230-4373	230-4383
4”	230-4364	230-4374	230-4384
5”	230-4365	230-4375	230-4385
6”	230-4366	230-4376	230-4386

5C Collet Block Sets 5C 四六方套卡头垫

- A simple and effective short jig, for machinist parallel, square of hex shapes as well as for cross hole drilling at 60°, 90° or 120°.
- Made of hardened tool steel.
- Overall dimensions: 1-3/4” x1-3/4” x3”.
- Ground to .0005” flatness, squareness and parallelism +/- 0.0005".
- Capacity: 1/6” through 1-1/8”.
- Standard nut closer and cam operated, quick- acting closer can be used on both square and hex blocks.



4Pcs/set

Order No. 235-7050

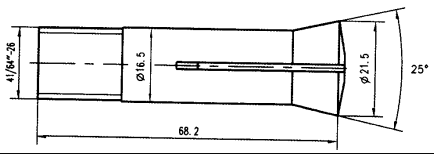
Individuals

Descriptions	Order No.
lever operated closer	235-7051
nut closer	235-7052
square block	235-7054
hex block	235-7056

3C Round Collets 3C 圆卡头

- 41/64”-26 External Thread.





Size	Order No.	Size	Order No.	Size	Order No.
3/64”	232-4703	7/32”	232-4714	25/64”	232-4725
1/16”	232-4704	15/64”	232-4715	13/32”	232-4726
5/64”	232-4705	1/4”	232-4716	27/64”	232-4727
3/32”	232-4706	17/64”	232-4717	7/16”	232-4728
7/64”	232-4707	9/32”	232-4718	29/64”	232-4729
1/8”	232-4708	19/64”	232-4719	15/32”	232-4730
9/64”	232-4709	5/16”	232-4720	31/64”	232-4731
5/32”	232-4710	21/64”	232-4721	1/2”	232-4732
11/64”	232-4711	11/32”	232-4722	33/64”	232-4733
3/16”	232-4712	23/64”	232-4723	17/32”	232-4734
13/64”	232-4713	3/8 “	232-4724	35/64”	232-4735
				9/16”	232-4736

Cutter Grinder Collets 磨刀机卡头



- M20x2.0 Thread.

Size	Order No.	Size	Order No.
1/8”	230-5308	3mm	230-5403
3/16”	230-5312	5mm	230-5405
1/4”	230-5316	6mm	230-5406
5/16”	230-5320	8mm	230-5408
3/8”	230-5324	10mm	230-5410
7/16”	230-5328	11mm	230-5411
1/2”	230-5332	13mm	230-5413
9/16”	230-5336	14mm	230-5414
5/8”	230-5340	16mm	230-5416

Size	Order No.	Size	Order No.
1mm	232-6010	7.5mm	232-6075
1.5mm	232-6015	8mm	232-6080
2mm	232-6020	8.5mm	232-6085
2.5mm	232-6025	9mm	232-6090
3mm	232-6030	9.5mm	232-6095
3.5mm	232-6035	10mm	232-6100
4mm	232-6040	10.5mm	232-6105
4.5mm	232-6045	11mm	232-6110
5mm	232-6050	11.5mm	232-6115
5.5mm	232-6055	12mm	232-6120
6mm	232-6060	12.5mm	232-6125
6.5mm	232-6065	13mm	232-6130
7mm	232-6070		

3C Square Collets

- 41/64”-26 External Thread.

3C 四方孔卡头



Size	Order No.
1/8”	232-6208
5/32”	232-6210
3/16”	232-6212
7/32”	232-6214
1/4”	232-6216
9/32”	232-6218
5/16”	232-6220
11/32”	232-6222
3/8”	232-6224

Size	Order No.
3mm	232-6230
4mm	232-6240
5mm	232-6250
5.5mm	232-6255
6mm	232-6260
7mm	232-6270
8mm	232-6280
9mm	232-6290

3C Hex Collets

- 41/64”-26 External Thread.

3C 六方孔卡头



Size	Order No.
1/8”	232-7008
5/32”	232-7010
3/16”	232-7012
7/32”	232-7014
1/4”	232-7016
9/32”	232-7018
5/16”	232-7020
11/32”	232-7022
3/8”	232-7024
13/32”	232-7026
7/16”	232-7028

Size	Order No.
3mm	232-7030
4mm	232-7040
5mm	232-7050
5.5mm	232-7055
6mm	232-7060
7mm	232-7070
8mm	232-7080
9mm	232-7090
10mm	232-7100
11mm	232-7110
12mm	232-7120

3C Step Collets

- Soft head for machining to specific requirements.
- 41/64”-26 External Thread.

3C 台阶卡头



Head Dia.	Thickness	Order No.
2”	1“	230-5521
2”	1-1/8”	230-5522
2”	1-1/4”	230-5523
3”	1”	230-5531
3”	1-1/8”	230-5532
3”	1-1/4”	230-5533

3AT Square Collets

- .637"-26 External Thread.

3AT 四方孔卡头



Size	Order No.
1/8”	232-4208
5/32”	232-4210
3/16”	232-4212
7/32”	232-4214
1/4”	232-4216
9/32”	232-4218
5/16”	232-4220
11/32”	232-4222
3/8”	232-4224

Size	Order No.
3mm	232-4230
4mm	232-4240
5mm	232-4250
5.5mm	232-4255
6mm	232-4260
7mm	232-4270
8mm	232-4280
9mm	232-4290

3AT Hex Collets

- .637"-26 External Thread.

3AT 六方孔卡头



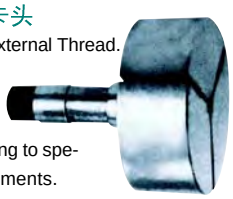
Size	Order No.
1/8”	232-5008
5/32”	232-5010
3/16”	232-5012
7/32”	232-5014
1/4”	232-5016
9/32”	232-5018
5/16”	232-5020
11/32”	232-5022
3/8”	232-5024
13/32”	232-5026
7/16”	232-5028

Size	Order No.
3mm	232-5030
4mm	232-5040
5mm	232-5050
5.5mm	232-5055
6mm	232-5060
7mm	232-5070
8mm	232-5080
9mm	232-5090
10mm	232-5100
11mm	232-5110
12mm	232-5120

3AT Step Collets

3AT 台阶卡头

- .637"-26 External Thread.



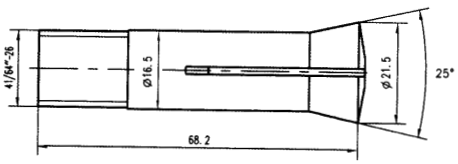
Soft head
For machining to specific requirements.

Head Dia.	Thickness	Order No.
2”	1”	230-5621
2”	1-1/8”	230-5622
2”	1-1/4”	230-5623
3”	1”	230-5631
3”	1-1/8”	230-5632
3”	1-1/4”	230-5633

3AT Round Collets

- .637"-26 External Thread.

3AT 圆卡头



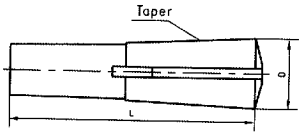


Size	Order No.	Size	Order No.	Size	Order No.
3/64”	232-4803	13/64”	232-4813	23/64”	232-4823
1/16”	232-4804	7/32”	232-4814	3/8”	232-4824
5/64”	232-4805	15/64”	232-4815	25/64”	232-4825
3/32”	232-4806	1/4”	232-4816	13/32”	232-4826
7/64”	232-4807	17/64”	232-4817	27/64”	232-4827
1/8”	232-4808	9/32”	232-4818	7/16”	232-4828
9/64”	232-4809	19/64”	232-4819	29/64”	232-4829
5/32”	232-4810	5/16”	232-4820	15/32”	232-4830
11/64”	232-4811	21/64”	232-4821	31/64”	232-4831
3/16”	232-4812	11/32”	232-4822	1/2“	232-4832

Size	Order No.	Size	Order No.	Size	Order No.
1mm	232-4010	5.5mm	232-4055	10mm	232-4100
1.5mm	232-4015	6mm	232-4060	10.5mm	232-4105
2mm	232-4020	6.5mm	232-4065	11mm	232-4110
2.5mm	232-4025	7mm	232-4070	11.5mm	232-4115
3mm	232-4030	7.5mm	232-4075	12mm	232-4120
3.5mm	232-4035	8mm	232-4080	12.5mm	232-4125
4mm	232-4040	8.5mm	232-4085	13mm	232-4130
4.5mm	232-4045	9mm	232-4090		
5mm	232-4050	9.5mm	232-4095		

Morse Taper Round Collets

莫氏卡头





Morse Taper	D(mm)	L(mm)
MT1	12.2	57
MT2	18	68
MT3	24.1	86
MT4	31.5	108

Morse Taper 1, 1/4”-20 Internal Thread

Size	Order No.
1/16”	230-4401
1/8“	230-4402
3/16”	230-4403
1/4”	230-4404
5/16”	230-4405

Size	Order No.
2mm	230-4412
3mm	230-4413
4mm	230-4414
6mm	230-4416
8mm	230-4418

Morse Taper 2, 3/8”-16 Internal Thread

Size	Order No.
1/8”	230-4508
3/16”	230-4512
1/4”	230-4516
5/16”	230-4520
3/8”	230-4524
7/16”	230-4528
1/2”	230-4532

Size	Order No.
2mm	230-5202
3mm	230-5203
5mm	230-5205
6mm	230-5206
10mm	230-5210
11mm	230-5211
12mm	230-5212

Morse Taper 3, 1/2”-13 Internal Thread

Size	Order No.
1/8”	230-4608
3/16”	230-4612
1/4”	230-4616
5/16”	230-4620
3/8”	230-4624
7/16”	230-4628
1/2”	230-4632
9/16”	230-4636
5/8”	230-4640
11/16”	230-4644
3/4”	230-4648

Size	Order No.
3mm	230-5103
5mm	230-5105
6mm	230-5106
8mm	230-5108
10mm	230-5110
11mm	230-5111
13mm	230-5113
14mm	230-5114
16mm	230-5116
17mm	230-5117
18mm	230-5118

Morse Taper 4, 5/8”-11 Internal Thread

Size	Order No.
1/8”	230-4708
3/16”	230-4712
1/4”	230-4716
5/16”	230-4720
3/8”	230-4724
7/16”	230-4728
1/2”	230-4732
9/16”	230-4736
5/8”	230-4740
11/16”	230-4744
3/4”	230-4748
13/16”	230-4752
7/8”	230-4756
15/16”	230-4760
1”	230-4764

Size	Order No.
3mm	230-4803
5mm	230-4805
6mm	230-4806
8mm	230-4808
10mm	230-4810
11mm	230-4811
13mm	230-4813
14mm	230-4814
16mm	230-4816
17mm	230-4817
18mm	230-4818
20mm	230-4820
22mm	230-4822
24mm	230-4824
25mm	230-4825

7#, 9#, B&S Taper Round Collets

B-S 卡头



7#, 3/8”-16 Internal Thread

Siz	Order No.
1/8”	230-1508
3/16”	230-1512
1/4”	230-1516
5/16”	230-1520
3/8”	230-1524
7/16”	230-1528
1/2”	230-1532

Size	Order No.
3mm	230-1573
5mm	230-1575
6mm	230-1576
8mm	230-1578
10mm	230-1580
11mm	230-1581
13mm	230-1583

9#, 1/2”-13 Internal Thread

Size	Order No.
1/8”	230-1608
3/16”	230-1612
1/4”	230-1616
5/16”	230-1620
3/8”	230-1624
7/16”	230-1628
1/2”	230-1632
9/16”	230-1636
5/8”	230-1640
11/16”	230-1644
3/4”	230-1648

Size	Order No.
3mm	230-1673
5mm	230-1675
6mm	230-1676
8mm	230-1678
10mm	230-1680
11mm	230-1681
13mm	230-1683
14mm	230-1684
16mm	230-1686
17mm	230-1687
18mm	230-1688
20mm	230-1690

21# B&S Taper Round Collets

B-S 卡头



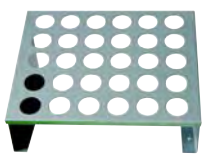
21#

Size	Order No.
1/8”	230-1108
3/16”	230-1112
1/4”	230-1116
5/16”	230-1120
3/8”	230-1124
7/16”	230-1128
1/2”	230-1132
9/16”	230-1136
5/8”	230-1140
11/64”	230-1144
3/4”	230-1148
13/64”	230-1152
7/8”	230-1156
15/16”	230-1160
1”	230-1164

Size	Order No.
3mm	230-1173
5mm	230-1175
6mm	230-1176
8mm	230-1178
10mm	230-1180
11mm	230-1181
13mm	230-1183
14mm	230-1184
16mm	230-1186
17mm	230-1187
18mm	230-1188
20mm	230-1190
22mm	230-1192
24mm	230-1194
25mm	230-1195

5C Collet Stand

5C 弹簧卡头架



Hold 30 pcs 5C collets

Order No. 239-9530



Hold 72 pcs 5C collets

Order No. 239-9572

R8 Collet Rack

R8 卡头架



R8 Collet Rack,
hold 12 collets

Order No. 239-9812



R8 Collet Rack,
hold 15 collets and tools

Order No. 239-9815



R8 Vertical Collet Rack,
hold 48 collets

Order No. 239-9848



R8 collet Wooden Rack
Hold 14 piece

Order No. 239-9814

R8 Rotating Collet Holder

R8 旋转卡头架

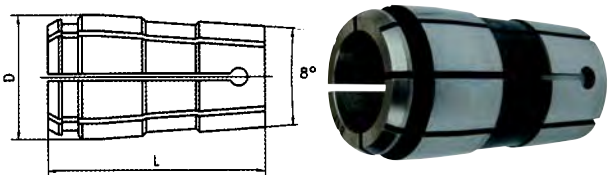
- Easily mounted for out of the way storage with quick accessibility.
- Holds 11 R8 collets
- Mounided of long lasting A.B.S.
- Collets are easily removed by lifting frome angle and pulling to side.
- Holder rotates for easy selection of sizes
- Collers seated firmly when holder is rotated.

NEW



Order No. 239-9808

TG Series Single Angle Collets TG系列铣卡头



TG Collet Dimensions

TG Series	Dia. D	Length L
75	1.062” /27mm	1.844”/46.9mm
100	1.379”/35mm	2.375”/60.5mm
150	2.001”/50.8mm	3.000”/76.2mm
200	2.671”/67.8mm	3.250”/ 82.55mm

TG75 Collets, Inch

Size	Order No.	Size	Order No.	Size	Order No.
1/16”	204-8101	5/16”	204-8121	9/16”	204-8141
5/64”	204-8102	21/64”	204-8122	37/64”	204-8142
3/32”	204-8103	11/32”	204-8123	19/32”	204-8143
7/64”	204-8104	23/64”	204-8124	39/64”	204-8144
1/8”	204-8106	3/8”	204-8126	5/8”	204-8146
9/64”	204-8107	25/64”	204-8127	41/64”	204-8147
5/32”	204-8108	13/32”	204-8128	21/32”	204-8148
11/64”	204-8109	27/64”	204-8129	43/64”	204-8149
3/16”	204-8111	7/16”	204-8131	11/16”	204-8151
13/64”	204-8112	29/64”	204-8132	45/64”	204-8152
7/32”	204-8113	15/32”	204-8133	23/32”	204-8153
15/64”	204-8114	31/64”	204-8134	47/464”	204-8154
1/4”	204-8116	1/2”	204-8136	3/4”	204-8156
17/64”	204-8117	33/64”	204-8137	49/64”	204-8157
9/32”	204-8118	17/32”	204-8138	25/32”	204-8158
19/64”	204-8119	35/64”	204-8139		

TG100 Collets, Inch

Size	Order No.	Size	Order No.
1/64”	204-9901	33/64”	204-9933
1/32”	204-9902	17/32”	204-9934
3/64”	204-9903	35/64”	204-9935
1/16”	204-9904	9/16”	204-9936
5/64”	204-9905	37/64”	204-9937
3/32”	204-9906	19/32”	204-9938
7/64”	204-9907	39/64“	204-9939
1/8”	204-9908	5/8”	204-9940
9/64”	204-9909	41/64”	204-9941
5/32”	204-9910	21/32”	204-9942
11/64”	204-9911	43/64”	204-9943
3/16”	204-9912	11/16”	204-9944
13/64”	204-9913	45/64”	204-9945
7/32”	204-9914	23/32”	204-9946
15/64”	204-9915	47/64”	204-9947
1/4”	204-9916	3/4”	204-9948
17/64”	204-9917	49/64”	204-9949
9/32”	204-9918	25/32”	204-9950
19/64”	204-9919	51/64”	204-9951
5/16”	204-9920	13/16”	204-9952
21/64”	204-9921	53/64”	204-9953
11/32”	204-9922	27/32”	204-9954
23/64”	204-9923	55/64”	204-9955
3/8”	204-9924	7/8”	204-9956
25/64”	204-9925	57/64”	204-9957
13/32”	204-9926	29/32”	204-9958
27/64”	204-9927	59/64”	204-9959
7/16”	204-9928	15/16”	204-9960
29/64”	204-9929	61/64”	204-9961
15/32”	204-9930	31/32”	204-9962
31/64”	204-9931	63/64”	204-9963
1/2”	204-9932	1”	204-9964

TG100, Metric

Size	Order No.
1mm	204-0301
2mm	204-0302
3mm	204-0303
4mm	204-0304
5mm	204-0305
6mm	204-0306
7mm	204-0307
8mm	204-0308
9mm	204-0309
10mm	204-0310
11mm	204-0311
12mm	204-0312
13mm	204-0313
14mm	204-0314
15mm	204-0315
16mm	204-0316
17mm	204-0317
18mm	204-0318
19mm	204-0319
20mm	204-0320
21mm	204-0321
22mm	204-0322
23mm	204-0323
24mm	204-0324
25mm	204-0325

TG200

Size	Order No.
1”	204-0564
1-1/4”	204-0516
1-1/2”	204-0532
1-3/4”	204-0543
2”	204-0550

TG75 Collets, Metric

Size	Order No.	Size	Order No.	Size	Order No.
1mm	204-8001	8mm	204-8016	14.5mm	204-8032
1.5mm	204-8002	8.5mm	204-8017	15mm	204-8033
2mm	204-8003	9mm	204-8018	15.5mm	204-8034
2.5mm	204-8004	9.5mm	204-8019	16mm	204-8036
3mm	204-8005	10mm	204-8021	16.5mm	204-8037
3.5mm	204-8006	10.5mm	204-8022	17mm	204-8038
4mm	204-8007	11mm	204-8023	17.5mm	204-8039
4.5mm	204-8008	11.5mm	204-8024	18mm	204-8041
5mm	204-8009	12mm	204-8026	18.5mm	204-8042
5.5mm	204-8011	12.5mm	204-8027	19mm	204-8043
6mm	204-8012	13mm	204-8028	19.5mm	204-8044
6.5mm	204-8013	13.5mm	204-8029	20mm	204-8046
7mm	204-8014	14mm	204-8031		

TG150 Collets, Inch

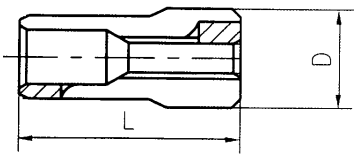
Size	Order No.	Size	Order No.
3/32”	204-0003	27/32”	204-0054
7/64”	204-0004	55/64”	204-0055
1/8”	204-0005	7/8”	204-0056
9/64”	204-0006	57/64”	204-0057
5/32”	204-0007	29/32”	204-0058
11/64”	204-0008	59/64”	204-0059
3/16”	204-0009	15/16”	204-0060
13/64”	204-0010	61/64”	204-0061
7/32”	204-0011	31/32”	204-0062
15/64”	204-0015	63/64”	204-0063
1/4”	204-0016	1”	204-0064
17/64”	204-0017	1-1/64”	204-0101
9/32”	204-0018	1-1/32”	204-0102
19/64”	204-0019	1-3/64”	204-0103
5/16”	204-0020	1-1/16”	204-0104
21/64”	204-0021	1-5/64”	204-0105
11/32”	204-0022	1-3/32”	204-0106
23/64”	204-0023	1-7/64”	204-0107
3/8”	204-0024	1-1/8”	204-0108
25/64”	204-0025	1-9/64”	204-0109
13/32”	204-0026	1-5/32”	204-0110
27/64”	204-0027	1-11/64”	204-0111
7/16”	204-0028	1-3/16”	204-0112
29/64”	204-0029	1-13/64”	204-0113
15/32”	204-0030	1-7/32”	204-0114
31/64”	204-0031	1-15/64”	204-0115
1/2”	204-0032	1-1/4”	204-0116
33/64”	204-0033	1-17/64”	204-0117
17/32”	204-0034	1-9/32”	204-0118
35/64”	204-0035	1-19/64”	204-0119
9/16”	204-0036	1-5/16”	204-0120
37/64”	204-0037	1-21/64”	204-0121
19/32”	204-0038	1-11/32”	204-0122
39/64”	204-0039	1-23/64”	204-0123
5/8”`	204-0040	1-3/8”	204-0124
41/64”	204-0041	1-25/64”	204-0125
21/32”	204-0042	1-13/32”	204-0126
43/64”	204-0043	1-27/64”	204-0127
11/16”	204-0044	1-7/16”	204-0128
45/64”	204-0045	1-29/64”	204-0129
23/32”	204-0046	1-15/32”	204-0130
47/64”	204-0047	1-31/64”	204-0131
3/4”	204-0048	1-1/2”	204-0132
49/64”	204-0049	1-33/64”	204-0133
25/32”	204-0050	1-17/32”	204-0134
51/64”	204-0051	1-35/64”	204-0135
13/16”	204-0052	1-9/16”	204-0136
53/64	204-0053		

TG150 Collets, Metric

Size	Order No.
2mm	204-0202
3mm	204-0203
4mm	204-0204
5mm	204-0205
6mm	204-0206
7mm	204-0207
8mm	204-0208
9mm	204-0209
10mm	204-0210
11mm	204-0211
12mm	204-0212
13mm	204-0213
14mm	204-0214
15mm	204-0215
16mm	204-0216
17mm	204-0217
18mm	204-0218
19mm	204-0219
20mm	204-0220
21mm	204-0221
22mm	204-0222
23mm	204-0223
24mm	204-0224
25mm	204-0225
26mm	204-0226
27mm	204-0227
28mm	204-0228
29mm	204-0229
30mm	204-0230
31mm	204-0231
32mm	204-0232
33mm	204-0233
34mm	204-0234
35mm	204-0235
36mm	204-0236
37mm	204-0237
38mm	204-0238
39mm	204-0239
40mm	204-0240

DA Series-Double Angle Collets DA系列弹簧卡头

- oncentric within 0.0005 TIR at collet nose assembled with chuck
- Self release for rapid, easy operation.





DA Series	D	L	Capacity Range
300	.375”	1.00”	1/32-1/4
200	.539”	1.18”	3/64-25/64
100	.769”	1.44”	3/64-9/16
180	1.035”	1.64”	3/64-3/4

Size	100DA Order No.	180DA Order No.	200DA Order No.	300DA Order No.
1/32”		159-0680		159-3020
3/64”	159-0000	159-0700	159-1140	159-3040
1/16”	159-0020	159-0720	159-1160	159-3060
5/64”	159-0040	159-0740	159-1180	159-3080
3/32”	159-0060	159-0760	159-1200	159-3100
7/64”	159-0080	159-0780	159-1220	159-3120
1/8”	159-0100	159-0800	159-1240	159-3140
9/64”	159-0120	159-0820	159-1260	159-3160
5/32”	159-0140	159-0840	159-1280	159-3180
11/64”	159-0160	159-0860	159-1300	159-3200
3/16”	159-0180	159-0880	159-1320	159-3220
13/64”	159-0200	159-0900	159-1340	159-3240
7/32”	159-0220	159-0920	159-1360	159-3260
15/64”	159-0240	159-0940	159-1380	159-3280
1/4”	159-0260	159-0960	159-1400	159-3300
17/64”	159-0280	159-0980	159-1420	
9/32”	159-0300	159-1000	159-1440	
19/64”	159-0320	159-1020	159-1460	
5/16”	159-0340	159-1040	159-1480	
21/64”	159-0360	159-1060	159-1500	
11/32”	159-0380	159-1080	159-1520	
23/64”	159-0400	159-1100	159-1540	
3/8”	159-0420	159-1120	159-1560	
25/64”	159-0440	159-1121	159-1580	
13/32”	159-0460	159-1122	159-1600	
27/64”	159-0480	159-1123	159-1620	
7/16”	159-0500	159-1124	159-1640	
29/64”	159-0520	159-1125	159-1660	
15/32”	159-0540	159-1126	159-1680	
31/64”	159-0560	159-1127	159-1700	
1/2”	159-0580	159-1128	159-1720	
33/64”	159-0600	159-1129	159-1740	
17/32”	159-0620	159-1130	159-1760	
35/64”	159-0640	159-1131	159-1780	
9/16”	159-0660	159-1132	159-1800	
37/64”		159-1133	159-1820	
19/32”		159-1134	159-1840	
39/64”		159-1135	159-1860	
5/8”		159-1136	159-1880	
41/64”		159-1137	159-1900	
21/32”		159-1138	159-1920	
43/64”		159-1139	159-1940	
11/16”		159-1141	159-1960	
45/64”		159-1142	159-1980	
23/32”		159-1143	159-2000	
47/64”		159-1144	159-2020	
3/4”		159-1145	159-2040	
49/64”		159-1146	159-2060	

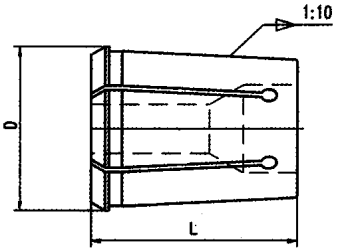
Size	100DA Order No.	180DA Order No.	200DA Order No.
1.5mm	159-5000	159-5560	159-5918
2.0mm	159-5020	159-5580	159-5920
2.5mm	159-5040	159-5600	159-5940
3.0mm	159-5060	159-5620	159-5960
3.5mm	159-5080	159-5640	159-5980
4.0mm	159-5100	159-5660	159-6000
4.5mm	159-5120	159-5680	159-6020
5.0mm	159-5140	159-5700	159-6040
5.5mm	159-5160	159-5720	159-6060
6.0mm	159-5180	159-5740	159-6080
6.5mm	159-5200	159-5760	159-6100
7.0mm	159-5220	159-5780	159-6120
7.5mm	159-5240	159-5800	159-6140
8.0mm	159-5260	159-5820	159-6160
8.5mm	159-5280	159-5840	159-6180
9.0mm	159-5300	159-5860	159-6200
9.5mm	159-5320	159-5880	159-6220
10.0mm	159-5340	159-5900	159-6240
10.5mm	159-5360		159-6260
11.0mm	159-5380		159-6280
11.5mm	159-5400		159-6300
12.0mm	159-5420		159-6320
12.5mm	159-5440		159-6340
13.0mm	159-5460		159-6360
13.5mm	159-5480		159-6380
14.0mm	159-5500		159-6400
14.5mm	159-5520		159-6420
15.0mm			159-6440
15.5mm			159-6460
16.0mm			159-6480
16.5mm			159-6500
17.0mm			159-6520
17.5mm			159-6540
18.0mm			159-6560
18.5mm			159-6580
19.0mm			159-6600
19.5mm			159-6620
20.0mm			159-6640

Collet Sets

Collet Series	No. of Pieces	Range	Order No.
100	29	1/8-9/16 by 64ths	159-1029
100	15	1/8-9/16 by 32ths	159-1015
180	41	1/8-3/4 by 64ths	159-1841
180	21	1/8-9/16 by 32ths	159-1821
200	17	1/8-3/8 by 64ths	159-2017
200	9	1/8-3/8 by 32ths	159-2009
300	9	1/8-1/4 by 64ths	159-3009
300	5	1/8-1/4 by 32ths	159-3005

EOC Collets EOC卡簧夹头

Type	D	L
16A/B	25.5	40
20A/B	29.8	45
25A/B	35.05	52
32A/B	43.7	60
40A/B	52.2	68
50A/B	63.8	80





A Type

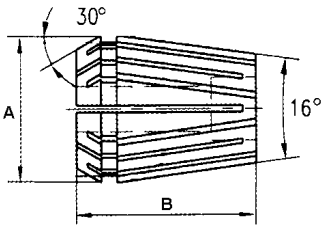


B Type

Size	16B Order No.	20B Order No.	25B Order No.	32B Order No.	40B Order No.	50B Order No.	Size	25A Order No.	32A Order No.	40A Order No.	50A Order No.
2mm	122-0502	122-1502	122-2502				2mm	204-5202			
3mm	122-0504	122-1504	122-2504				3mm	204-5203			
4mm	122-0506	122-1506	122-2506	122-3506			4mm	204-5204	204-5354		
5mm	122-0508	122-1508	122-2508	122-3508			5mm	204-5205	204-5355		
6mm	122-0510	122-1510	122-2510	122-3510	122-4510		6mm	204-5206	204-5356	204-5406	204-9456
7mm	122-0512	122-1512	122-2512	122-3512	122-4512		7mm	204-5207	204-5357	204-5407	204-9457
8mm	122-0514	122-1514	122-2514	122-3514	122-4514	122-5514	8mm	204-5208	204-5358	204-5408	204-9458
9mm	122-0516	122-1516	122-2516	122-3516	122-4516	122-5516	9mm	204-5209	204-5359	204-5409	204-9459
10mm	122-0518	122-1518	122-2518	122-3518	122-4518	122-5518	10mm	204-5210	204-5360	204-5410	204-9460
11mm	122-0520	122-1520	122-2520	122-3520	122-4520	122-5520	11mm	204-5211	204-5361	204-5411	204-9461
12mm	122-0522	122-1522	122-2522	122-3522	122-4522	122-5522	12mm	204-5212	204-5362	204-5412	204-9462
13mm	122-0524	122-1524	122-2524	122-3524	122-4524	122-5524	13mm	204-5213	204-5363	204-5413	204-9463
14mm	122-0526	122-1526	122-2526	122-3526	122-4526	122-5526	14mm	204-5214	204-5364	204-5414	204-9464
15mm	122-0528	122-1528	122-2528	122-3528	122-4528	122-5528	15mm	204-5215	204-5365	204-5415	204-9465
16mm	122-0530	122-1530	122-2530	122-3530	122-4530	122-5530	16mm	204-5216	204-5366	204-5416	204-9466
17mm		122-1532	122-2532	122-3532	122-4532	122-5532	17mm	204-5217	204-5367	204-5417	204-9467
18mm		122-1534	122-2534	122-3534	122-4534	122-5534	18mm	204-5218	204-5368	204-5418	204-9468
19mm		122-1536	122-2536	122-3536	122-4536	122-5536	19mm	204-5219	204-5369	204-5419	204-9469
20mm		122-1538	122-2538	122-3538	122-4538	122-5538	20mm	204-5220	204-5370	204-5420	204-9470
21mm			122-2540	122-3540	122-4540	122-5540	21mm	204-5221	204-5371	204-5421	204-9471
22mm			122-2542	122-3542	122-4542	122-5542	22mm	204-5222	204-5372	204-5422	204-9472
23mm			122-2544	122-3544	122-4544	122-5544	23mm	204-5223	204-5373	204-5423	204-9473
24mm			122-2546	122-3546	122-4546	122-5546	24mm	204-5224	204-5374	204-5424	204-9474
25mm			122-2548	122-3548	122-4548	122-5548	25mm	204-5225	204-5375	204-5425	204-9475
26mm				122-3550	122-4550	122-5550	26mm		204-5376	204-5426	204-9476
27mm				122-3552	122-4552	122-5552	27mm		204-5377	204-5427	204-9477
28mm				122-3554	122-4554	122-5554	28mm		204-5378	204-5428	204-9478
29mm				122-3556	122-4556	122-5556	29mm		204-5379	204-5429	204-9479
30mm				122-3558	122-4558	122-5558	30mm		204-5380	204-5430	204-9480
31mm				122-3560	122-4560	122-5560	31mm		204-5381	204-5431	204-9481
32mm				122-3562	122-4562	122-5562	32mm		204-5382	204-5432	204-9482
33mm					122-4564	122-5564	33mm			204-5433	204-9483
34mm					122-4566	122-5566	34mm			204-5434	204-9484
35mm					122-4568	122-5568	35mm			204-5435	204-9485
36mm					122-4570	122-5570	36mm				204-9486
37mm					122-4572	122-5572	37mm				204-9487
38mm					122-4574	122-5574	38mm				204-9488
39mm					122-4576	122-5576	39mm				204-9489
40mm					122-4578	122-5578	40mm				204-9490
41mm						122-5580	41mm				204-9491
42mm						122-5582	42mm				204-9492
43mm						122-5584	43mm				204-9493
44mm						122-5586	44mm				204-9494
45mm						122-5588	45mm				204-9495
46mm						122-5590	46mm				204-9496
47mm						122-5592	47mm				204-9497
48mm						122-5594	48mm				204-9498
49mm						122-5596	49mm				204-9499
50mm						122-5598	50mm				204-9500

ER Collets ER铣卡头

- Unique 8° taper design affords highest gripping power.
- True double angle, for extreme concentricity.
- 16 Jaws giving powerful gripping and parallel clamping.
- A unique self-releasing system is built into the collet and clamping nut to eliminate cutting tools sticking in collets.











Type	A	B
ER11	11.5mm	18mm
ER16	17mm	27mm
ER20	21mm	31mm
ER25	26mm	35mm
ER32	33mm	40mm
ER40	41mm	46mm

Size	ER11 Order No.	ER16 Order No.	ER20 Order No.	ER25 Order No.	ER 32 Order No.	ER40 Order No.
1/32”	204-1102	204-1602				
3/64”	204-1103	204-1603	204-2003			
1/16”	204-1104	204-1604	204-2004	204-2504		
5/64”	204-1105	204-1605	204-2005	204-2505		
3/32”	204-1106	204-1606	204-2006	204-2506	204-3206	
7/64”	204-1107	204-1607	204-2007	204-2507	204-3207	
1/8”	204-1108	204-1608	204-2008	204-2508	204-3208	204-4008
9/64”	204-1109	204-1609	204-2009	204-2509	204-3209	204-4009
5/32”	204-1110	204-1610	204-2010	204-2510	204-3210	204-4010
11/64”	204-1111	204-1611	204-2011	204-2511	204-3211	204-4011
3/16”	204-1112	204-1612	204-2012	204-2512	204-3212	204-4012
13/64”	204-1113	204-1613	204-2013	204-2513	204-3213	204-4013
7/32”	204-1114	204-1614	204-2014	204-2514	204-3214	204-4014
15/64”	204-1115	204-1615	204-2015	204-2515	204-3215	204-4015
1/4”	204-1116	204-1616	204-2016	204-2516	204-3216	204-4016
17/64”	204-1117	204-1617	204-2017	204-2517	204-3217	204-4017
9/32”	204-1118	204-1618	204-2018	204-2518	204-3218	204-4018
19/64”		204-1619	204-2019	204-2519	204-3219	204-4019
5/16”		204-1620	204-2020	204-2520	204-3220	204-4020
21/64”		204-1621	204-2021	204-2521	204-3221	204-4021
11/32”		204-1622	204-2022	204-2522	204-3222	204-4022
23/64”		204-1623	204-2023	204-2523	204-3223	204-4023
3/8”		204-1624	204-2024	204-2524	204-3224	204-4024
25/64”			204-2025	204-2525	204-3225	204-4025
13/32”			204-2026	204-2526	204-3226	204-4026
27/64”			204-2027	204-2527	204-3227	204-4027
7/16”			204-2028	204-2528	204-3228	204-4028
29/64”			204-2029	204-2529	204-3229	204-4029
15/32”			204-2030	204-2530	204-3230	204-4030
31/64”			204-2031	204-2531	204-3231	204-4031
1/2”			204-2032	204-2532	204-3232	204-4032
33/64”				204-2533	204-3233	204-4033
17/32”				204-2534	204-3234	204-4034
35/64”				204-2535	204-3235	204-4035
9/16”				204-2536	204-3236	204-4036
37/64”				204-2537	204-3237	204-4037
19/32”				204-2538	204-3238	204-4038
39/64”				204-2539	204-3239	204-4039
5/8”				204-2540	204-3240	204-4040
41/64”					204-3241	204-4041
21/32“					204-3242	204-4042
43/64”					204-3243	204-4043
11/16”					204-3244	204-4044
45/64”					204-3245	204-4045
23/32”					204-3246	204-4046
47/64”					204-3247	204-4047
3/4”					204-3248	204-4048
49/64”					204-3249	204-4049
25/32”					204-3250	204-4050
51/64”					204-3251	204-4051
13/16”					204-3252	204-4052
53/64”						204-4053
27/32”						204-4054
55/64”						204-4055
7/8”						204-4056
57/64”						204-4057
29/32”						204-4058
59/64”						204-4059
15/16”						204-4060
61/64”						204-4061
31/32”						204-4062
63/64”						204-4063
1”						204-4064
1-1/64”						204-4065

Sets

Type	Descriptions	Order No.
ER11	7pcs with Stand.1/32,1/16,3/32,1/8,3/16,7/32 & 1/4"	204-1120
ER16	10pcs set includes 1/32”, 1/16”, 3/32”, 1/8”, 3/16”, 7/32”, 1/4”, 5/16”, 11/32”, 3/8”	204-1630
ER20	12pcs set includes 1/16”,3/32”, 1/8”,3/16”, 7/32”, 1/4”,5/16”, 11/32”, 3/8”,13/32”,7/16”, 1/2”	204-2040
ER25	15pcs set includes 1/16”,3/32”,1/8”, 3/16”, 7/32”, 1/4”,5/16”, 11/32”,3/8”, 13/32”,7/16”, 1/2”, 17/32”,9/16”,5/8”	204-2550
ER32	18pcs set includes 3/32”,1/8”,3/16”,7/32”, 1/4”,5/16”, 11/32”,3/8”,13/32”, 7/16”,1/2”, 17/32”, 9/16”,5/8”,21/32”, 11/16”,23/32”, 3/4”	204-3260
ER40	23pcs/set with wooden stand, includes 1/8”, 3/16”, 7/32”, 1/4”, 5/16”,11/32”, 3/8”, 13/32”,7/16”,1/2”,17/32”,9/16”,5/8”, 21/32”,11/16” ,3/4”, 25/32”, 13/16”, 27/32”, 7/8”, 15/16”, 31/32”, 1”	204-4000

Metric Sets

Type	Descriptions	Order No.
ER32	12pcs, 3, 4, 5, 6, 8, 10, 12, 14, 15, 16, 18, 20mm	204-3512
ER25	10pcs, 3, 4, 5, 6, 8, 10, 12, 14, 15, 16mm	204-7391
ER40	15pcs,3,4,5,6,8,10,12,14,15,16,18,20,22,24,26mm	204-4195

Collet Punch Former

ER夹头冲子成型器

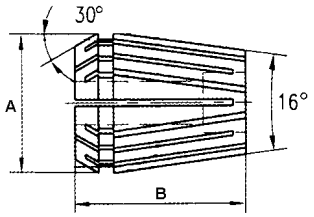
- Clamping diameter: Φ2-Φ20 mm
- Supply ER32 collete size: 4, 6, 8, 10, 12, 16, 20, 7Pcs in total
- For workpiece diamete smaller than 4mm, use shank 20mm/ER16 collet chuck
- It clamps workpiece quickly and steadily when processing without checking the center



OrderNo.287-6808

Metric ER Collets 公制ER铣卡头





Type	A	B
ER11	11.5mm	18mm
ER16	17mm	27mm
ER20	21mm	31mm
ER25	26mm	35mm
ER32	33mm	40mm
ER40	41mm	46mm

Size	ER 8 Order No.	ER 9 Order No.	ER11 Order No.	ER 12 Order No.	ER 16 Orderl No.	ER-20 Order No.	ER-25 Order No.	ER 32 Order No.	ER 40 Order No.	ER-50 Order No.	ER 60 Order No.	ER 90 Order No.
1mm	204-0810	204-0910	204-1010	204-1210	204-6010	204-7010	204-7210					
1.5mm	204-0815	204-0915	204-1015	204-1215	204-6015	204-7015	204-7215					
2mm	204-0820	204-0920	204-1020	204-1220	204-6020	204-7020	204-7220	204-3320				
2.5mm	204-0825	204-0925	204-1025	204-1225	204-6025	204-7025	204-7225	204-3325				
3mm	204-0830	204-0930	204-1030	204-1230	204-6030	204-7030	204-7230	204-3330	204-4130			
3.5mm	204-0835	204-0935	204-1035	204-1235	204-6035	204-7035	204-7235	204-3335				
4mm		204-0940	204-1040	204-1240	204-6040	204-7040	204-7240	204-3340	204-4134			
4.5mm		204-0945	204-1045	204-1245	204-6045	204-7045	204-7245	204-3345				
5mm		204-0950	204-1050	204-1250	204-6050	204-7050	204-7250	204-3350	204-4135			
5.5mm			204-1055	204-1255	204-6055	204-7055	204-7255	204-3355				
6mm			204-1060	204-1260	204-6060	204-7060	204-7260	204-3360	204-4136	204-9060		
7mm			204-1070	204-1270	204-6070	204-7070	204-7270	204-3370	204-4137	204-9070		
8mm					204-6080	204-7080	204-7280	204-3380	204-4138	204-9080		
9mm					204-6090	204-7090	204-7290	204-3390	204-4139	204-9090		
10mm					204-6100	204-7100	204-7300	204-3400	204-4140	204-9100	204-6210	
11mm						204-7110	204-7310	204-3410	204-4141	204-9110	204-6211	
12mm						204-7120	204-7320	204-3420	204-4142	204-9120	204-6212	
13mm						204-7130	204-7330	204-3430	204-4143	204-9130	204-6213	
14mm							204-7340	204-3440	204-4144	204-9140	204-6214	
15mm							204-7350	204-3450	204-4145	204-9150	204-6215	
16mm							204-7360	204-3460	204-4146	204-9160	204-6216	
17mm								204-3470	204-4147	204-9170	204-6217	
18mm								204-3480	204-4148	204-9180	204-6218	
19mm								204-3490	204-4149	204-9190	204-6219	
20mm								204-3500	204-4150	204-9200	204-6220	204-6320
21mm									204-4151	204-9210	204-6221	
22mm									204-4152	204-9220	204-6222	204-6322
23mm									204-4153	204-9230	204-6223	
24mm									204-4154	204-9240	204-6224	204-6324
25mm									204-4155	204-9250	204-6225	
26mm									204-4156	204-9260	204-6226	204-6326
27mm									204-4157	204-9270	204-6227	
28mm									204-4158	204-9280	204-6228	204-6328
29mm									204-4159	204-9290	204-6229	
30mm									204-4160	204-9300	204-6230	204-6330
31mm										204-9310	204-6231	
32mm										204-9320	204-6232	204-6332
33mm										204-9330	204-6233	
34mm										204-9340	204-6234	204-6334
35mm											204-6235	
36mm											204-6236	204-6336
37mm											204-6237	
38mm											204-6238	204-6338
39mm											204-6239	
40mm											204-6240	204-6340
42mm												204-6342
44mm												204-6344
46mm												204-6346
48mm												204-6348
50mm												204-6350
52mm												204-6352
54mm												204-6354
56mm												204-6356
58mm												204-6358
60mm												204-6360

ER Collet Chucks

莫式锥度 ER 卡头柄



Morse Taper Shank

Shank Type	Collet Type	Drawbar End Thread	Capacity	Order No.
MT2	ER-20	3/8"-16	.04-.511	230-7051
MT2	ER-25	3/8"-16	.04-.629	230-7053
MT3	ER-32	1/2"-13	.06-.787	230-7055
MT3	ER-40	1/2"-13	.12-.102	230-7057
MT4	ER-40	5/8"-11	.12-1.02	230-7062
MT4	ER-50	5/8"-11	.393-1.33	230-7063
MT5	ER-40	3/4"-10	.12-.102	230-7061
MT5	ER-50	3/4"-10	.393-1.33	230-7065
MT6	ER-50	1"-8	.393-1.33	230-7067

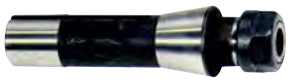
30–40–50 ER 卡头柄



30, 40 and 50 Taper Shank

Shank Type	Collet Type	Drawbar End Thread	Capacity	Order No.
30	ER-16	1/2"-13	.02-.393	230-7071
30	ER-32	1/2"-13	.08-.787	230-7073
30	ER-40	1/2"-13	.12-.1.02	230-7075
40	ER-16	5/8"-11	.02-.393	230-7077
40	ER-20	5/8"-11	.04-.511	230-7079
40	ER-32	5/8"-11	.08-.787	230-7081
40	ER-40	5/8"-11	.12-1.02	230-7083
40	ER-50	5/8"-11	.393-1.33	230-7085
50	ER-16	1"-8	.02-.393	230-7087
50	ER-20	1"-8	.04-.511	230-7089
50	ER-40	1"-8	.12-1.02	230-7091
50	ER-50	1"-8	.393-1.33	230-7093

R8 柄 ER 卡头柄



R8 Shank

Shank Type	Collet Type	Gage Length	Capacity	Order No.
R8	ER-16	1-1/2"	.02-.393	230-7041
R8	ER-16	3	.02-.393	230-7043
R8	ER-32	1-5/8	.06-.787	230-7045
R8	ER-40	2-27/32	.12-1.02	230-7047



Shank Type	Collet Type	Drawbar End Thread	OAL	Order No.
R8	ER-16A	7/16"-20	5.31	230-7044
R8	ER32	7/16"-20	5.98	230-7046
R8	ER-40	7/16"-20	6.37	230-7048

直柄 ER 卡头柄



Straight Shank

Shank Diameter	Collet Type	Drawbar End Thread	Capacity	Order No.
5/8x2-1/2	ER-11	3/8"-16	.02-.275	230-7001
3/4x2-1/2	ER-11	3/8"-16	.02-.275	230-7003
3/4x4"	ER-11	3/8"-16	.02-.275	230-7005
3/4x6"	ER-11	3/8"-16	.02-.275	230-7007
3/4x2-1/2	ER-16	3/8"-16	.02-.393	230-7009
3/4x4"	ER-16	3/8"-16	.02-.393	230-7011
3/4x6"	ER-16	3/8"-16	.02-.393	230-7013
3/4x2-1/2	ER-20	3/8"-16	.04-.511	230-7015
3/4x4"	ER-20	3/8"-16	.04-.511	230-7017
3/4x6"	ER-20	3/8"-16	.04-.511	230-7019
3/4x2"	ER-25	3/8"-16	.04-.629	230-7021
3/4x4"	ER-25	3/8"-16	.04-.629	230-7023
3/4x1-31/32	ER-32	3/8"-16	.08-.787	230-7025
1"x1-31/32	ER-32	1/2"-13	.08-.787	230-7027
1"x2-3/8	ER-40	1/2"-13	.12-1.02	230-7033
1-1/4x2-3/8	ER-32	5/8"-11	.08-.787	230-7029
1-1/4x5-29/32	ER-32	5/8"-11	.08-.787	230-7031
1-1/4x2-3/8	ER-40	5/8"-11	.12-1.02	230-7035

ER Collet Chuck Sets

ER 套装铣卡头



ER11

7Pc. Collets in Set: 1/32,1/16, 3/32, 1/8, 3/16, 7/32, 1/4

Shank Size	Order No.
R8	230-0718
30	230-0733
40	230-0734
50	230-0735
MT2	230-0772
MT3	230-0773
MT4	230-0774
3/4x2-1/2	230-0741
3/4x4"	230-0743
3/4x6"	230-0744

ER16

10Pc. Collets in Set: 1/32,1/16, 3/32, 1/8, 3/16,7/32, 1/4, 5/16, 11/32, 3/8

Shank Size	Order No.
R8	230-0608
30	230-0630
40	230-0640
50	230-0650
MT2	230-0662
MT3	230-0663
MT4	230-0664
3/4x2-1/2	230-0672
3/4x4"	230-0674
3/4x6"	230-0676

ER 25

6Pc. Collets in Set: 3/16, 1/4, 5/16, 3/8, 1/2, 5/8

Shank Size	Order No.
R8	230-0508
30	230-0530
40	230-0540
50	230-0550
MT2	230-0562
MT3	230-0563
MT4	230-0564
3/4x2-1/2	230-0574
1x2-3/8	230-0576

ER 25

10Pc. Collets in Set: 3/32,1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8

Shank Size	Order No.
R8	230-0408
30	230-0430
40	230-0440
50	230-0450
MT2	230-0462
MT3	230-0463
MT4	230-0464
3/4"	230-0474
1"	230-0476

ER 32

12Pc. Collets in Set: 1/16, 3/32, 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 13/16

Shank Size	Order No.
R8	230-0208
30	230-0230
40	230-0240
50	230-0250
MT3	230-0263
MT4	230-0264
MT5	230-0265
3/4x2-1/2	230-0274
1"x2-3/8	230-0276

ER 32

6Pc. Collets in Set: 1/4, 5/16, 3/8, 1/2, 5/8, 3/4

Shank Size	Order No.
R8	230-0308
30	230-0330
40	230-0340
50	230-0350
MT3	230-0363
MT4	230-0364
MT5	230-0365
3/4x2-1/2	230-0374
1"x2-3/8	230-0376

ER 40

8Pc. Collets in Set: 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1

Shank Size	Order No.
R8	230-0108
30	230-0130
40	230-0140
50	230-0150
MT 3	230-0163
MT 4	230-0164
MT 5	230-0165
1x2-3/8	230-0176
1-1/4x2-3/8	230-0178

ER 40

15Pc. Collets in Set: 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 11/16, 3/4, 13/16, 7/8, 15/16, 1"

Shank Size	Order No.
R8	230-0008
ISO 30	230-0030
ISO 40	230-0040
ISO 50	230-0050
MT 3	230-0063
MT 4	230-0064
MT 5	230-0065
1x2-3/8	230-0076
1-1/4x2-3/8	230-0078



Metric ER Collet Chuck Sets

公制ER套装铣卡头

ER16
8 collets in set:
2, 3, 4, 5, 6, 7, 8, 10mm

Shank Size	Order No.
R8	230-2608
30	230-2630
40	230-2640
50	230-2650
MT2	230-2662
MT3	230-2663
MT4	230-2664
1/2"	230-2672
3/4"	230-2674

ER25
6 collets in set:
4, 6, 8,10, 12, 16mm

Shank Size	Order No.
R8	230-2508
30	230-2530
40	230-2540
50	230-2550
MT2	230-2562
MT3	230-2563
MT4	230-2564
3/4"	230-2574
1"	230-2576

ER25
10 collets in set:
3, 4, 5, 6, 8, 10, 12, 14, 15, 16mm

Shank Size	Order No.
R8	230-2408
30	230-2430
40	230-2440
50	230-2450
MT2	230-2462
MT3	230-2463
MT4	230-2464
3/4"	230-2474
1"	230-2476

ER32
6 collets in set:
6, 8, 10, 12, 16, 20mm

Shank Size	Order No.
R8	230-2308
30	230-2330
40	230-2340
50	230-2350
MT3	230-2363
MT4	230-2364
MT5	230-2365
3/4"	230-2374
1"	230-2376

ER32
12 collets in set:
3, 4, 5, 6, 8, 10, 12, 14, 15, 16, 18, 20mm

Shank Size	Order No.
R8	230-2208
30	230-2230
40	230-2240
50	230-2250
MT3	230-2263
MT4	230-2264
MT5	230-2265
3/4"	230-2274
1"	230-2276

ER40
8 collets in set:
3, 5, 8, 12, 15,18, 22, 26mm

Shank Size	Order No.
R8	230-2108
30	230-2130
40	230-2140
45	230-2145
50	230-2150
MT3	230-2163
MT4	230-2164
MT5	230-2165
1"	230-2176
1-1/4"	230-2178

ER40
15 collets in set:
3, 4, 5, 6, 8, 10, 12, 14, 15, 16, 18, 20, 22, 24,26mm

Shank Size	Order No.
R8	230-2008
30	230-2030
40	230-2040
45	230-2045
50	230-2050
MT3	230-2063
MT4	230-2064
MT5	230-2065
1"	230-2076
1-1/4"	230-2078

Milling Collet Chuck Sets

Type J7616 J7616 套装铣卡头

Inch Set: Each set complete with 4 collets of 1/4, 3/8, 1/2, 5/8"
Metric Set: Each set complete with 8 collets of 4, 5, 6, 8, 10, 12, 14, 16mm



Chuck Type	Inch Set Order No.	Metric Set Order No.
R8	230-1008	230-1208
30	230-1030	230-1230
40	230-1040	230-1240
50	230-1050	230-1250
3MT	230-1063	230-1263
4MT	230-1064	230-1264
5MT	230-1065	230-1265

Milling Collet Chuck Sets

Type Q24-16 Q24-16 套装铣卡头

Inch Set: Each set complete with 8 collets of 1/8, 3/16, 1/4,5/16, 3/8, 1/2, 9/16, 5/8"
Metric Set: Each set complete with 8 collets of 4, 5, 6, 8, 10, 12, 14, 16mm

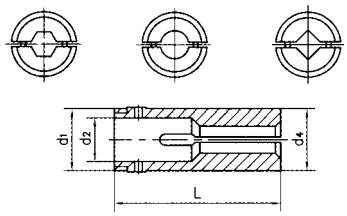


Chuck Type	Inch Set Order No.	Metric Set Order No.
R8	230-0908	230-1908
30	230-0930	230-1930
40	230-0940	230-1940
MT2	230-0962	230-1962
MT3	230-0963	230-1963
MT4	230-0964	230-1964
Straight 1"	230-0976	230-1976
Straight 1-1/4"	230-0978	230-1978

Feeding Collets

DIN6344 DIN6344 进料卡头





Hex Size	Order No.
8mm	530-1208
10mm	530-1210
16mm	530-1216
20mm	530-1220
30mm	530-1230
45mm	530-1245

Square Size	Order No.
7mm	530-1107
8mm	530-1108
13mm	530-1113
17mm	530-1117
25mm	530-1125
36mm	530-1136

Round Size	Order No.
10mm	530-1010
12mm	530-1012
18mm	530-1018
24mm	530-1024
36mm	530-1036
52mm	530-1052

Replacement Wrenches for ER Collet Chuck

ER卡头扳手

Spanner Type

Collet Chuck	Order No.
ER11	230-7090
ER16	230-7092
ER20	230-7094



Collet Chuck	Order No.
ER25	230-7096
ER32	230-7098
ER40	230-7099



Pin Spanner Wrench

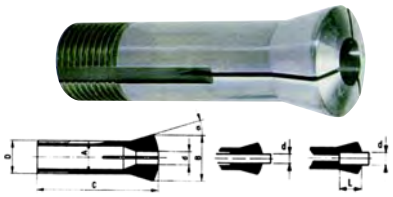
Collet Chuck	Order No.
ER25	230-7196
ER32	230-7198
ER40	230-7199



Collet W12-318E

弹簧夹头W12

NEW



A	B	C	D	a	Hole
12	16	46	11.75x1.25	15°	8

Size	Round Order No.
1.00mm	230-3302
1.50	230-3304
2.00	230-3306
2.50	230-3308
3.00	230-3310
3.50	230-3312
4.00	230-3314
4.50	230-3316
5.00	230-3318
5.50	230-3320
6.00	230-3322
6.50	230-3324
7.00	230-3326
7.50	230-3328
8.00	230-3330
8.50	230-3332
9.00	230-3334
9.50	230-3336
10.00	230-3338
10.50	230-3340
11.00	230-3342
11.50	230-3344
12.00	230-3346

W20&W25 Collet, Fixture Mounts

W20/W25 大头夹头

NEW



Head Dia.	Long	Round Order No.
26.5	50	230-3805
30.5	50	230-3810
35.0	50	230-3815
40.0	50	230-3820



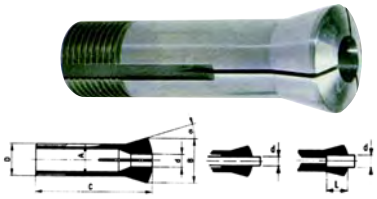
230-3855

Head Dia.	Long	Round Order No.
33.9	50	230-3855
44.0	50	230-3860
50.0	50	230-3865
60.0	50	230-3870

Collet W20-349E

弹簧夹头W20-349E

NEW



A	B	C	D	a	Hole
20	26.3	73	19.7x1.666	15°	14.5

Round

A	B	C	D	a	Hole
20	26.3	73	19.7x1.666	15°	14

Square

A	B	C	D	a	Hole
20	26.3	73	19.7x1.666	15°	16

Hex

Size	Round Order No.	Square Order No.	Hex Order No.
1.00mm	230-3402		
1.50	230-3404		
2.00	230-3406		
2.50	230-3408		
3.00	230-3410		
3.50	230-3412		
4.00	230-3414	230-3505	230-3605
4.50	230-3416		
5.00	230-3418	230-3510	230-3610
5.50	230-3420		
6.00	230-3422	230-3515	230-3615
6.50	230-3424		
7.00	230-3426	230-3520	230-3620
7.50	230-3428		
8.00	230-3430	230-3525	230-3625
8.50	230-3432		
9.00	230-3434	230-3530	230-3630
9.50	230-3436		
10.00	230-3438	230-3535	230-3635
10.50	230-3440		
11.00	230-3442	230-3540	230-3640
11.50	230-3444		
12.00	230-3446	230-3545	230-3645
12.5	230-3448		
13.00	230-3450	230-3550	230-3650
13.50	230-3452		
14.00	230-3454	235-3555	235-3655
14.50	230-3456		
15.00	230-3458		230-3660
16.00	230-3462		230-3665
18.00	230-3470		
20.00	230-3478		

W25 Expanding Collets

W25 涨力夹头

NEW

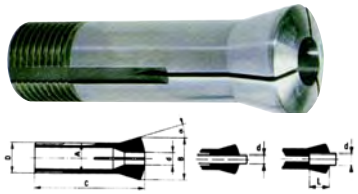


Head Dia.	Long	Capacity	Order No.
60.5	35	60	230-3885
90.5	55	90	230-3890

Collet W25-364E

弹簧夹头W25-364E

NEW

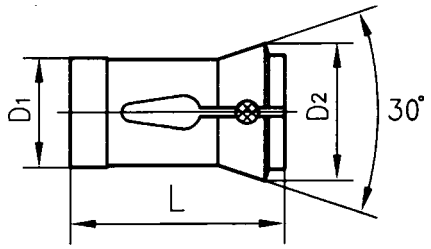


A	B	C	D	a	Hole
25	33.7	97.6	24.7x15	15°	19

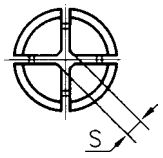
Size	Round Order No.
0.50mm	230-3702
1.00	230-3704
1.50	230-3706
2.00	230-3708
2.50	230-3710
3.00	230-3712
3.50	230-3714
4.00	230-3716
4.50	230-3718
5.00	230-3720
5.50	230-3722
6.00	230-3724
6.50	230-3726
7.00	230-3728
7.50	230-3730
8.00	230-3732
8.50	230-3734
9.00	230-3736
9.50	230-3738
10.00	230-3740
10.50	230-3742
11.00	230-3744
11.50	230-3746
12.00	230-3748
12.50	230-3750
13.00	230-3752
13.50	230-3754
14.00	230-3756
14.50	230-3758
15.00	230-3760
15.50	230-3762
16.00	230-3764
16.50	230-3766
17.00	230-3768
17.50	230-3770
18.00	230-3772
18.50	230-3774
19.00	230-3776
19.50	230-3778
20.00	230-3780
20.50	230-3782
21.00	230-3784

DIN 6343 Clamping Collets D6343 夹紧夹头

- Plastic
- Hardness: clamping part HRC55~60
  Body HRC40~45
- This unit is applicable to all sorts of automatic lathes, turet lathes



Model	D1 (mm)	D2 (mm)	L (mm)	Hole Size(mm) Roumd	Square	Hex	Wt(kg)
DIN6343-F17.5	17.5	22	51	13	8	10	0.05
DIN6343-F22	22	30	55	16	11	13	0.09
DIN6343-F27	27	38	72.7	22	15	19	0.10
DIN6343-F28	28	38	70	22	15	19	0.12
DIN6343-F32	32	45	75	26	18	22	0.27
DIN6343-F35	35	48	80	30	21	26	0.35
DIN6343-F42	42	55	94	36	25	30	0.49
DIN6343-F48	48	60	94	42	29	6	0.57
DIN6343-F56	56	68	94	50	35	42	0.65
DIN6343-F66	66	84	110	60	42	52	1.06



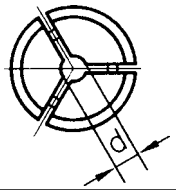


Square Hole

Size:S (mm)	F17.5 Order No.	F22 Order No.	F28 Order No.	F32 Order No.	F35 Order No.	F42 Order No.	F48 Order No.	F56 Order No.	F66 Order No.
2	543-1002	543-1102	543-1202						
3	543-1003	543-1103	543-1203						
4	543-1004	543-1104	543-1204	543-1304	543-1404	543-1504	543-1604		
5	543-1005	543-1105	543-1205	543-1305	543-1405	543-1505	543-1605		
6	543-1006	543-1106	543-1206	543-1306	543-1406	543-1506	543-1606		
7	543-1007	543-1107	543-1207	543-1307	543-1407	543-1507	543-1607		
8	543-1008	543-1108	543-1208	543-1308	543-1408	543-1508	543-1608	543-1708	
9		543-1109	543-1209	543-1309	543-1409	543-1509	543-1609	543-1709	
10		543-1110	543-1210	543-1310	543-1410	543-1510	543-1610	543-1710	543-1810
11		543-1111	543-1211	543-1311	543-1411	543-1511	543-1611	543-1711	543-1811
12			543-1212	543-1312	543-1412	543-1512	543-1612	543-1712	543-1812
13			543-1213	543-1313	543-1413	543-1513	543-1613	543-1713	543-1813
14			543-1214	543-1314	543-1414	543-1514	543-1614	543-1714	543-1814
15			543-1215	543-1315	543-1415	543-1515	543-1615	543-1715	543-1815
16				543-1316	543-1416	543-1516	543-1616	543-1716	543-1816
17				543-1317	543-1417	543-1517	543-1617	543-1717	543-1817
18				543-1318	543-1418	543-1518	543-1618	543-1718	543-1818
19					543-1419	543-1519	543-1619	543-1719	543-1819
20					543-1420	543-1520	543-1620	543-1720	543-1820
21					543-1421	543-1521	543-1621	543-1721	543-1821
22						543-1522	543-1622	543-1722	543-1822
23						543-1523	543-1623	543-1723	543-1823
24						543-1524	543-1624	543-1724	543-1824
25						543-1525	543-1625	543-1725	543-1825
26							543-1626	543-1726	543-1826
27							543-1627	543-1727	543-1827
28							543-1628	543-1728	543-1828
29							543-1629	543-1729	543-1829
30								543-1730	543-1830
31								543-1731	543-1831
32								543-1732	543-1832
33								543-1733	543-1833
34								543-1734	543-1834
35								543-1735	543-1835
36									543-1836
37									543-1837
38									543-1838
39									543-1839
40									543-1840
41									543-1841
42									543-1842

DIN 6343 Clamping collets Continued

Round Hole D6343 夹紧夹头





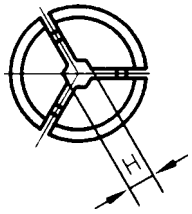
Size:d (mm)	F17.5 Order No.	F22 Order No.	F28 Order No.	F32 Order No.	F35 Order No.	F42 Order No.	F48 Order No.	F56 Order No.	F66 Order No.
2	543-0002	543-0102							
3	543-0003	543-0103	543-0203						
4	543-0004	543-0104	543-0204	543-0304	543-0404	543-0504	543-0604		
5	543-0005	543-0105	543-0205	543-0305	543-0405	543-0505	543-0605		
6	543-0006	543-0106	543-0206	543-0306	543-0406	543-0506	543-0606		
7	543-0007	543-0107	543-0207	543-0307	543-0407	543-0507	543-0607		
8	543-0008	543-0108	543-0208	543-0308	543-0408	543-0508	543-0608	543-0708	
9	543-0009	543-0109	543-0209	543-0309	543-0409	543-0509	543-0609	543-0709	
10	543-0010	543-0110	543-0210	543-0310	543-0410	543-0510	543-0610	543-0710	543-0810
11	543-0011	543-0111	543-0211	543-0311	543-0411	543-0511	543-0611	543-0711	543-0811
12	543-0012	543-0112	543-0212	543-0312	543-0412	543-0512	543-0612	543-0712	543-0812
13	543-0013	543-0113	543-0213	543-0313	543-0413	543-0513	543-0613	543-0713	543-0813
14		543-0114	543-0214	543-0314	543-0414	543-0514	543-0614	543-0714	543-0814
15		543-0115	543-0215	543-0315	543-0415	543-0515	543-0615	543-0715	543-0815
16		543-0116	543-0216	543-0316	543-0416	543-0516	543-0616	543-0716	543-0816
17			543-0217	543-0317	543-0417	543-0517	543-0617	543-0717	543-0817
18			543-0218	543-0318	543-0418	543-0518	543-0618	543-0718	543-0818
19			543-0219	543-0319	543-0419	543-0519	543-0619	543-0719	543-0819
20			543-0220	543-0320	543-0420	543-0520	543-0620	543-0720	543-0820
21			543-0221	543-0321	543-0421	543-0521	543-0621	543-0721	543-0821
22			543-0222	543-0322	543-0422	543-0522	543-0622	543-0722	543-0822
23				543-0323	543-0423	543-0523	543-0623	543-0723	543-0823
24				543-0324	543-0424	543-0524	543-0624	543-0724	543-0824
25				543-0325	543-0425	543-0525	543-0625	543-0725	543-0825
26				543-0326	543-0426	543-0526	543-0626	543-0726	543-0826
27					543-0427	543-0527	543-0627	543-0727	543-0827
28					543-0428	543-0528	543-0628	543-0728	543-0828
29					543-0429	543-0529	543-0629	543-0729	543-0829
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32						543-0532	543-0632	543-0732	543-0832
33						543-0533	543-0633	543-0733	543-0833
34						543-0534	543-0634	543-0734	543-0834
35						543-0535	543-0635	543-0735	543-0835
36						543-0536	543-0636	543-0736	543-0836
37							543-0637	543-0737	543-0837
38							543-0638	543-0738	543-0838
39							543-0639	543-0739	543-0839
40							543-0640	543-0740	543-0840
41							543-0641	543-0741	543-0841
42							543-0642	543-0742	543-0842
43								543-0743	543-0843
44								543-0744	543-0844
45								543-0745	543-0845
16								543-0746	543-0846
47								543-0747	543-0847
48								543-0748	543-0848
49								543-0749	543-0849
50								543-0750	543-0850
51									543-0851
52									543-0852
53									543-0853
54									543-0854
55									543-0855
56									543-0856
57									543-0857
58									543-0858
59									543-0859
60									543-0860

mhc Industrial Supply

DIN 6343 Clamping collets Continued

Hex Hole D6343 夹紧夹头

- Hardness: clamping part HRC55~60
  Body part HRC40~45
- This unit is applicable to all sorts of automatic lathes, turet lathes





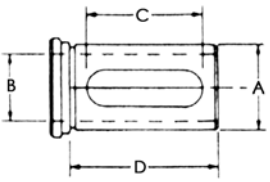
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2	543-2002	543-2102	543-2202						
3	543-2003	543-2103	543-2203						
4	543-2004	543-2104	543-2204	543-2304	543-2404	543-2504	543-2604		
5	543-2005	543-2105	543-2205	543-2305	543-2405	543-2505	543-2605		
6	543-2006	543-2106	543-2206	543-2306	543-2406	543-2506	543-2606		
7	543-2007	543-2107	543-2207	543-2307	543-2407	543-2507	543-2607		
8	543-2008	543-2108	543-2208	543-2308	543-2408	543-2508	543-2608	543-2708	
9	543-2009	543-2109	543-2209	543-2309	543-2409	543-2509	543-2609	543-2709	
10	543-2010	543-2110	543-2210	543-2310	543-2410	543-2510	543-2610	543-2710	543-2810
11		543-2111	543-2211	543-2311	543-2411	543-2511	543-2611	543-2711	543-2811
12		543-2112	543-2212	543-2312	543-2412	543-2512	543-2612	543-2712	543-2812
13		543-2113	543-2213	543-2313	543-2413	543-2513	543-2613	543-2713	543-2813
14			543-2214	543-2314	543-2414	543-2514	543-2614	543-2714	543-2814
15			543-2215	543-2315	543-2415	543-2515	543-2615	543-2715	543-2815
16			543-2216	543-2316	543-2416	543-2516	543-2616	543-2716	543-2816
17			543-2217	543-2317	543-2417	543-2517	543-2617	543-2717	543-2817
18			543-2218	543-2318	543-2418	543-2518	543-2618	543-2718	543-2818
19			543-2219	543-2319	543-2419	543-2519	543-2619	543-2719	543-2819
20				543-2320	543-2420	543-2520	543-2620	543-2720	543-2820
21				543-2321	543-2421	543-2521	543-2621	543-2721	543-2821
22				543-2322	543-2422	543-2522	543-2622	543-2722	543-2822
23					543-2423	543-2523	543-2623	543-2723	243-2823
24					543-2424	543-2524	543-2624	543-2724	243-2824
25					543-2425	543-2525	543-2625	543-2725	543-2825
26					543-2426	543-2526	543-2626	543-2726	543-2826
27						543-2527	543-2627	543-2727	543-2827
28						543-2528	543-2628	543-2728	543-2828
29						543-2529	543-2629	543-2729	543-2829
30						543-2530	543-2630	543-2730	543-2830
31							543-2631	543-2731	543-2831
32							543-2632	543-2732	543-2832
33							543-2633	543-2733	543-2833
34							543-2634	543-2734	543-2834
35							543-2635	543-2735	543-2835
36							543-2636	543-2736	543-2836
37								543-2737	543-2837
38								543-2738	543-2838
39								543-2739	543-2839
40								543-2740	543-2840
41								543-2741	543-2841
42								543-2742	543-2842
43									543-2843
44									543-2844
45									543-2845
16									543-2846
47									543-2847
48									543-2848
49									543-2849
50									543-2850
51									543-2851
52									543-2852

Tool Holder Bushings 导套

Type C C 型导套

- Simplicity.
- Reliability.
- Precision.
- Superior design.
- Available for all sizes of CNC Lathes.





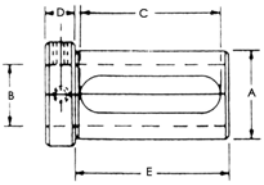
A O.D.	C Slot Length	D Length Under Head	Head Thick	B I.D.	Order No.
3/4”	1-7/8”	2-1/4”	3/16”	1/4”	210-6001
				5/16”	210-6002
				3/8”	210-6003
				1/2”	210-6004
1”	2-3/8”	2-3/4”	3/16	1/4”	210-6005
				5/16”	210-6006
				3/8”	210-6007
				1/2”	210-6008
				5/8”	210-6009
				3/4”	210-6010
1-1/4”	2-7/8”	3-1/4”	3/16	3/8”	210-6011
				1/2”	210-6012
				5/8”	210-6013
				3/4”	210-6014
				7/8”	210-6015
				1”	210-6016

A O.D.	C Slot Length	D Length Under Head	Head Thick	B I.D.	Order No.
1-1/2”	3”	3-3/8”	3/16”	3/8”	210-6017
				1/2”	210-6018
				5/8”	210-6019
				3/4”	210-6020
				7/8”	210-6021
				1”	210-6022
				1-1/4”	210-6023
1-3/4”	3-1/8”	3-1/2”	3/16	1/2”	210-6024
				5/8”	210-6025
				3/4”	210-6026
				7/8”	210-6027
				1”	210-6028
				1-1/4”	210-6029
				1-1/2”	210-6030
2”	3-5/8”	4”	3/16	1/2”	210-6031
				5/8”	210-6032
				3/4”	210-6033
				1”	210-6034
				1-1/4”	210-6035
				1-1/2”	210-6036
				1-3/4”	210-6037

Type Z Z 型导套

- Simplicity.
- Reliability.
- Precision.
- Superior design.
- Available for all sizes of CNC Lathes.





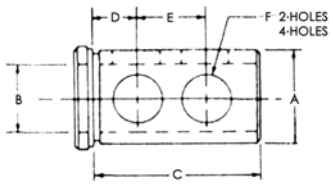
A O.D.	E Length Under Head	D Head Thickness	C Slot Length	B I.D.	Order No.
1”	2-3/4”	1/2”	2-3/8”	1/4”	210-6040
				5/16”	210-6041
				3/8”	210-6042
				1/2”	210-6043
				5/8”	210-6044
				3/4”	210-6045
1-1/4”	3”	5/8”	2-5/8”	3/8”	210-6046
				1/2”	210-6047
				5/8”	210-6048
				3/4”	210-6049
				7/8”	210-6050
				1”	210-6051
1-1/2”	3-1/4”	3/4”	2-7/8”	3/8”	210-6052
				1/2”	210-6053
				5/8”	210-6054
				3/4”	210-6055
				7/8”	210-6056
				1”	210-6057
				1-1/4”	210-6058

A O.D.	C Length Under Head	D Head Thickness	C Slot Length	B I.D.	Order No.
1-3/4”	3-1/2”	3/4”	3-1/8”	1/2”	210-6059
				5/8”	210-6060
				3/4”	210-6061
				7/8”	210-6062
				1”	210-6063
				1-1/4”	210-6064
				1-1/2”	210-6065
2”	3-3/4”	3/4”	3-3/8”	1/2”	210-6066
				5/8”	210-6067
				3/4’	210-6068
				7/8”	210-6069
				1”	210-6070
				1-1/4’	210-6071
				1-1/2’	210-6072
				1-3/4”	210-6073

Type J J 型导套

- Vallue
- Simplicity.
- Reliability.
- Precision.
- Superior design.
- Available for all sizes of CNC Lathes.





A O.D.	C	E	D	F	Head Thick	B I.D.	Order No.
3/4”	1-1/2”	13/16”	3/8”	3/8”	3/16”	1/4”	210-6080
						5/16”	210-6081
						3/8”	210-6082
						1/2”	210-6083
1”	1-3/4”	7/8”	7/16”	5/8”	3/16	3/8”	210-6084
						1/2”	210-6085
						5/8”	210-6086
						3/4”	210-6087
1-1/4”	2-1/8”	1”	5/8”	5/8”	3/16	3/8”	210-6088
						1/2”	210-6089
						5/8”	210-6090
						3/4”	210-6091
						7/8”	210-6092
						1”	210-6093

A O.D.	C	E	D	F	Head Thick	B I.D.	Order No.
1-1/2”	2-1/2”	1-1/8”	11/16”	7/8”	3/16”	3/8”	210-6094
						1/2”	210-6095
						5/8”	210-6096
						3/4”	210-6097
						7/8”	210-6098
						1”	210-6099
						1-1/4”	210-6100
1-3/4”	3”	1-1/4”	3/4”	7/8”	3/16	1/2”	210-6101
						5/8”	210-6102
						3/4”	210-6103
						7/8”	210-6104
						1”	210-6105
						1-1/4”	210-6106
						1-1/2”	210-6107
2”	3-1/2”	1-1/2”	3/4”	1”	3/16	1/2”	210-6108
						5/8”	210-6109
						3/4”	210-6110
						7/8”	210-6111
						1”	210-6112
						1-1/4”	210-6113
						1-1/2”	210-6114
						1-3/4”	210-6115

R8 End Mill Holders R8 端面铣刀杆

For single and double end mills (* for single end mills only).

- Internal thread 7/16"-20.

Hole Dia.	Order No.
3/16”	210-0102
1/4”	210-0103
5/16”	210-0104
3/8”	210-0105
7/16”	210-0106
1/2”	210-0107
5/8”	210-0108
3/4”	210-0110*
7/8”	210-0112*
1”	210-0114*
1-1/8”	210-0115*
1-1/4”	210-0116*
1-1/2”	210-0118*
2”	210-0120*

Hole Dia.	Order No.
4mm	210-1104
5mm	210-1105
6mm	210-1106
7mm	210-1107
8mm	210-1108
10mm	210-1110
12mm	210-1112
14mm	210-1114
16mm	210-1116
18mm	210-1118
20mm	210-1120
22mm	210-1122
25mm	210-1125*
27mm	210-1127*





Sets

No. of Pieces	Specifications	Order No.
4	3/8, 1/2, 3/4, 1"	210-0304
5	3/16, 3/8, 1/2, 5/8, 3/4”	210-0305
6	3/16, 3/8, 1/2, 5/8, 3/4, 7/8"	210-0306
8	3/16, 1/4, 3/8, 1/2, 5/8, 3/4, 1, 1-1/4"	210-0307
8	3/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/4”	210-0308
9	3/16, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/4, 1-1/2”	210-0309

30-40-50 End Mill Holders

锥度端面铣刀杆

For holding single and double end mills (* for holding single end mills only).

- Drawbar end thread: 30#: 1/2”-13, 40#: 5/8”-11, 50#: 1”-8. Metric: 30#: M12, 40#: M16, 50#: M24.
- 30,40 & 50 shanks.



Hole Dia.	30# Order No.	40# Order No.	50# Order No.
3/16”	210-3012	210-4012	
5/16”	210-3015	210-4015	
3/8”	210-3024	210-4024	210-5024
1/2”	210-3032	210-4032	210-5032
5/8”	210-3040	210-4040	210-5040
3/4”	210-3048	210-4048	210-5048
7/8”	210-3056*	210-4056	210-5056
1”	210-3064*	210-4064*	210-5064
1-1/4”	210-3066*	210-4066*	210-5066*
1-1/2”		210-4068*	210-5068*
2”		210-4070*	210-5070*
2-1/2”			210-5072*

Hole Dia.	30# Order No.	40# Order No.	50# Order No.
6mm	210-3306		
8mm	210-3308	210-4308	210-5308
10 mm	210-3310	210-4310	210-5310
12mm	210-3312	210-4312	210-5312
13mm	210-3313	210-4313	210-5313
14mm	210-3314	210-4314	210-5314
16mm	210-3316	210-4316	210-5316
18mm	210-3318	210-4318	210-5318
19mm	210-3319	210-4319	210-5319
20mm	210-3320	210-4320	210-5320
22mm	210-3322*	210-4322	210-5322
25mm	210-3325*	210-4325*	210-5325
32mm	210-3332*	210-4332*	210-5332*
40mm		210-4340*	210-5340*
50mm			210-5350*
63mm			210-5363*

Morse Taper End Mill Holders

Tang Type 扁尾型莫氏铣刀杆

For Single & Double End Mills

(* For Single End Mills Only)



Shank Taper	Hole Dia.	Order No.	Shank Taper	Hole Dia.	Order No.
MT2	3/16”	219-2012	MT4	7/8”	219-4019*
MT2	1/4”	219-2013	MT4	1“	219-4020*
MT2	5/16”	219-2014	MT4	1-1/4”	219-4021*
MT2	3/8”	219-2015	MT4	1-1/2”	219-4022*
MT2	1/2”	219-2016*	MT5	3/16”	219-5012
MT 2	5/8”	219-2017*	MT5	1/4”	219-5013
MT2	3/4”	219-2018*	MT5	5/16”	219-5014
MT3	3/16”	219-3012	MT5	3/8”	219-5015
MT3	1/4”	219-3013	MT5	1/2”	219-5016
MT3	5/16	219-3014	MT5	5/8”	219-5017
MT3	3/8”	219-3015	MT5	3/4”	219-5018
MT3	1/2”	219-3016	MT5	7/8”	219-5019
MT3	5/8”	219-3017*	MT5	1”	219-5020
MT3	3/4”	219-3018*	MT5	1-1/4”	219-5021*
MT3	7/8”	219-3019*	MT5	1-1/2”	219-5022*
MT3	1”	219-3020*	MT5	2”	219-5024*
MT4	3/16”	219-4012	MT5	2-1/2”	219-5025*
MT4	1/4”	219-4013	MT6	7/8”	219-6019
MT4	5/16”	219-4014	MT6	1”	219-6020
MT4	3/8”	219-4015	MT6	1-1/4”	219-6021*
MT4	1/2”	219-4016	MT6	1-1/2”	219-6022*
MT4	5/8”	219-4017	MT6	2”	219-6024*
MT4	3/4”	219-4018	MT6	2-1/2”	219-6025*

Morse Taper End Mill Holders

Drawbar End Type 拉杆型莫氏铣刀杆

For Single & Double End Mills(* For Single End Mills Only)

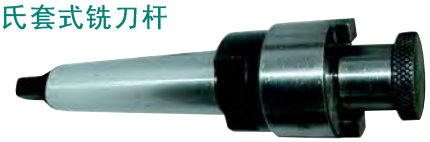
- Drawbar end thread: MT2:3/8”-16, MT3: 1/2”-13, MT4:5/8”-11, MT5: 3/4”-10, MT6: 1”-8.



Shank Taper	Hole Dia.	Order No.	Shank Taper	Hole Dia.	Order No.
MT2	3/16”	219-2112	MT4	1-1/4”	219-4121*
MT2	1/4”	219-2113	MT4	1-1/2”	219-4122*
MT2	5/16”	219-2114	MT5	3/8”	219-5115
MT2	3/8”	219-2115	MT5	1/2”	219-5116
MT2	1/2”	219-2116*	MT5	5/8”	219-5117
MT2	5/8”	219-2117*	MT5	3/4”	219-5118
MT2	3/4”	219-2118*	MT5	7/8”	219-5119
MT3	3/16”	219-3112	MT5	1”	219-5120
MT3	1/4”	219-3113	MT5	1-1/4”	219-5121*
MT3	5/16”	219-3114	MT5	1-1/2”	219-5122*
MT3	3/8”	219-3115	MT5	2”	219-5124*
MT3	1/2”	219-3116	MT6	3/8”	219-6115
MT3	5/8”	219-3117*	MT6	1/2”	219-6116
MT3	3/4”	219-3118*	MT6	5/8”	219-6117
MT3	7/8”	219-3119*	MT6	3/4”	219-6118
MT3	1”	219-3120*	MT6	7/8”	219-6119*
MT4	3/8”	219-4115	MT6	1”	219-6120*
MT4	1/2”	219-4116	MT6	1-1/4”	219-6121*
MT4	5/8”	219-4117	MT6	1-1/2”	219-6122*
MT4	3/4”	219-4118	MT6	2”	219-6124*
MT4	7/8”	219-4119*	MT6	2-1/2”	219-6126*
MT4	1”	219-4120*			

Morse Taper Shell End Mill Holders

Tang End 莫氏套式铣刀杆



Shank Taper	Hole Size	Order No.	Shank Taper	Hole Size	Order No.
MT2	1/2”	219-2032	MT4	7/8”	219-4056
MT2	5/8”	219-2040	MT4	1”	219-4100
MT2	3/4”	219-2048	MT4	1-1/4”	219-4106
MT3	1/2”	219-3032	MT4	1-1/2”	219-4132
MT3	5/8”	219-3040	MT5	1/2”	219-5032
MT3	3/4”	219-3048	MT5	5/8”	219-5040
MT3	7/8’	219-3056	MT5	3/4”	219-5048
MT3	1”	219-3064	MT5	7/8”	219-5056
MT3	1-1/4”	219-3066	MT5	1”	219-5100
MT4	1/2”	219-4032	MT5	1-1/4”	219-5106
MT4	5/8”	219-4040	MT5	1-1/2”	219-5132
MT4	3/4”	219-4048	MT5	2”	219-5200

Shank Taper	Hole Size	Order No.	Shank Taper	Hole Size	Order No.
MT2	13mm	219-1213	MT4	27mm	219-1427
MT2	16mm	219-1216	MT4	32mm	219-1432
MT2	22mm	219-1222	MT4	40mm	219-1440
MT3	16mm	219-1316	MT5	16mm	219-1516
MT3	22mm	219-1322	MT5	22mm	219-1522
MT3	27mm	219-1327	MT5	27mm	219-1525
MT3	32mm	219-1332	MT5	32mm	219-1532
MT4	16mm	219-1416	MT5	40mm	219-1540
MT4	22mm	219-1422	MT5	50mm	219-1550

Draw Bar Thread End

- Drawbar end thread: MT2:3/8”-16, MT3: 1/2”-13, MT4:5/8”-11, MT5: 3/4”-10.
  Metric: MT2:M10, MT3: M12
  MT4: M16,MT5: M20.



Shank Taper	Hole Size	Order No.	Shank Taper	Hole Size	Order No.
MT2	1/2”	219-2232	MT4	7/8”	219-4456
MT2	5/8”	219-2240	MT4	1”	219-4464
MT2	3/4”	219-2248	MT4	1-1/4”	219-4466
MT3	1/2”	219-3432	MT4	1-1/2”	219-4468
MT3	5/8”	219-3440	MT5	1/2”	219-5532
MT3	3/4”	219-3448	MT5	5/8”	219-5540
MT3	7/8”	219-3456	MT5	3/4”	219-5548
MT3	1 ”	219-3464	MT5	7/8”	219-5556
MT3	1-1/4”	219-3466	MT5	1 ”	219-5564
MT4	1/2”	219-4432	MT5	1-1/4”	219-5566
MT4	5/8”	219-4440	MT5	1-1/2”	219-5568
MT4	3/4”	219-4448	MT5	2 ”	219-5570

Shank Taper	Hole Size	Order No.	Shank Taper	Hole Size	Order No.
MT2	13mm	219-2213	MT4	27mm	219-4327
MT2	16mm	219-2216	MT4	32mm	219-4332
MT2	22mm	219-2222	MT4	40mm	219-4340
MT3	16mm	219-3316	MT5	16mm	219-5316
MT3	22mm	219-3322	MT5	22mm	219-5322
MT3	27mm	219-3327	MT5	27mm	219-5327
MT3	32mm	219-3332	MT5	32mm	219-5332
MT4	16mm	219-4316	MT5	40mm	219-5340
MT4	22mm	219-4322	MT5	50mm	219-5350

Straight Shank Shell End Mill Holders

直柄套式铣刀杆



Dia. Of Shank	Arbor Dia.	Order No.
1/2”	1/2”	210-5501
1/2”	3/4”	210-5502
1/2”	1”	210-5503
1/2”	1-1/4”	210-5504
1/2”	1-1/2”	210-5505

Dia. Of Shank	Arbor Dia.	Order No.
3/4”	1/2”	210-5506
3/4”	3/4”	210-5507
3/4”	1”	210-5508
3/4”	1-1/4”	210-5509
3/4”	1-1/2”	210-5510

R8 Shell End Mill Holders

R8 套式铣刀杆

- Internal thread 7/16"-20.



Arbor	Order No.
1/2”	210-0401
3/4”	210-0402
1”	210-0403
1-1/4”	210-0404
1-1/2	210-0405

Arbor Dia.	Order No.
16mm	210-0416
19mm	210-0419
22mm	210-0422
27mm	210-0427
32mm	210-0432
40mm	210-0440

30-40-50 Shell End Mill Holders

7 : 24 套式端面铣刀杆

- Drawbar end thread: Inch 30#: 1/2”-13, 40#: 5/8”-11, 50#: 1”-8.
  Metric: 30#: M12,40#: M16, 50#: M24.



ISO

Hole Size	ISO 30 Order No.	ISO 40 Order No.	ISO 50 Order No.
16mm	210-7316	210-7416	210-7516
19mm	210-7319	210-7419	210-7519
22mm	210-7322	210-7422	210-7522
25mm	210-7325	210-7425	210-7525
27mm	210-7327	210-7427	210-7527
32mm	210-7332	210-7432	210-7532
40mm	210-7340	210-7440	210-7540
50mm	210-7350	210-7450	210-7550
63mm	210-7363	210-7463	210-7563

Inch

Hole Size	30 Taper Order No.	40 Taper Order No.	50 Taper Order No.
1/2”	210-6332	210-6431	210-6531
3/4”	210-6348	210-6448	210-6548
1”	210-6364	210-6464	210-6564
1-1/4”	210-6366	210-6466	210-6566
1-1/2”	210-6368	210-6468	210-6568
2”	210-6370	210-6470	210-6570
2-1/2”			210-6572

DIN 2080

Hole Size	SK50 Order No.	SK40 Order No.	SK 30 Order No.
16	210-9516	210-9416	210-9316
22	210-9522	210-9422	210-9322
27	210-9527	210-9427	210-9327
32	210-9532	210-9432	210-9332
40	210-9540	210-9440	
50	210-9550	210-9450	

Morse Taper Comb Shell End Mill Arbors 莫氏混合套式铣刀杆

- Drawbar end thread: MT3: 1/2”-13, MT4:5/8”-11, MT5: 3/4”-10. Metric: MT3: M12, MT4: M16, MT5: M20.



Shank Taper	Arbor Dia.	Order No.	Shank Taper	Arbor Dia.	Order No.
MT3	1/2”	210-3532	MT4	1-1/4”	210-4566
MT3	5/8”	210-3540	MT4	1-1/2”	210-4568
MT3	3/4”	210-3548	MT4	2 ”	210-4570
MT3	7/8”	210-3556	MT5	5/8”	210-5540
MT3	1 ”	210-3564	MT5	3/4”	210-5548
MT3	1-1/4”	210-3566	MT5	7/8”	210-5556
MT4	1/2”	210-4532	MT5	1 ”	210-5564
MT4	5 /8”	210-4540	MT5	1-1/4”	210-5566
MT4	3/4”	210-4548	MT5	1-1/2”	210-5568
MT4	7/8”	210-4556	MT5	2 ”	210-5570
MT4	1”	210-4564			

Shank Taper	Arbor Dia.	Order No.	Shank Taper	Arbor Dia.	Order No.
MT3	13mm	210-3613	MT4	27mm	210-4627
MT3	16mm	210-3616	MT4	32mm	210-4632
MT3	22mm	210-3622	MT4	40mm	210-4640
MT3	27mm	210-3627	MT5	22mm	210-5622
MT3	32mm	210-3632	MT5	27mm	210-5627
MT4	13mm	210-4613	MT5	32mm	210-5632
MT4	16mm	210-4616	MT5	40mm	210-5640
MT4	22mm	210-4622	MT5	50mm	210-5650

30-40-50 Comb Shell End Mill Arbors

7:24 混合套式铣刀杆

- Drawbar end thread: Inch 30#: 1/2”-13, 40#: 5/8”-11, 50#: 1”-8. Metric: 30#: M12,40#: M16, 50#: M24.



Arbor Dia.	30 Order No.	40 Order No.	50 Order No.
1/2”	210-3132		
5/8”	210-3140	210-4140	210-5140
3/4”	210-3148	210-4148	210-5148
7/8”	210-3156	210-4156	210-5156
1”	210-3164	210-4164	210-5164
1-1/4”	210-3166	210-4166	210-5166
1-1/2”		210-4168	210-5168
2 ”		210-4170	210-5170

Arbor Dia.	30 Order No.	40 Order No.	50 Order No.
13mm	210-3213		
16mm	210-3216	210-4216	210-5216
22mm	210-3222	210-4222	210-5222
27mm	210-3227	210-4227	210-5227
32mm	210-3232	210-4232	210-5232
40mm		210-4240	210-5240
50mm		210-4250	210-5250

R8 Comb Shell End Mill Arbors

R8 混合套式铣刀杆

It could be used clutch drive ring cross screw, cross spanner to help to clamp various end mills.

- Internal thread 7/16"-20.



Arbor Dia.	Order No.
1/2”	210-1332
5/8”	210-1340
3/4”	210-1348
1”	210-1364
1-1/4”	210-1366
1-1/2”	210-1368

Arbor Dia.	Order No.
13mm	210-1413
16mm	210-1416
22mm	210-1422
27mm	210-1427
32mm	210-1432
40mm	210-1440

Accessories For Comb Shell End Mill Arbors

混合套式铣刀杆零件



Screws 螺丝

Arbor Dia.	Thread	Order No.
1/2”	1/4-28	210-5840
3/4”	3/8-24	210-5841
1 ”	1/2-20	210-5842
1-1/4”	5/8-18	210-5843
1-1/2”	3/4-16	210-5844
2 “	1-14	210-5845

Arbor Dia.	Thread	Order No.
13mm	M6	210-5830
16mm	M8	210-5831
22mm	M10	210-5832
27mm	M12	210-5833
32mm	M16	210-5834
40mm	M20	210-5835
50mm	M24	210-5836
60mm	M30	210-5837

Spanners 扳手



Arbor Dia.	Order No.
1/2”	210-5860
5/8”	210-5861
3/4”	210-5862
1 ”	210-5863
1-1/4”	210-5864
1-1/2”	210-5865
2 ”	210-5866

Arbor Dia.	Order No.
13mm	210-5850
16mm	210-5851
22mm	210-5852
27mm	210-5853
32mm	210-5854
40mm	210-5855
50mm	210-5856
60mm	210-5857

Driver Rings 拨环



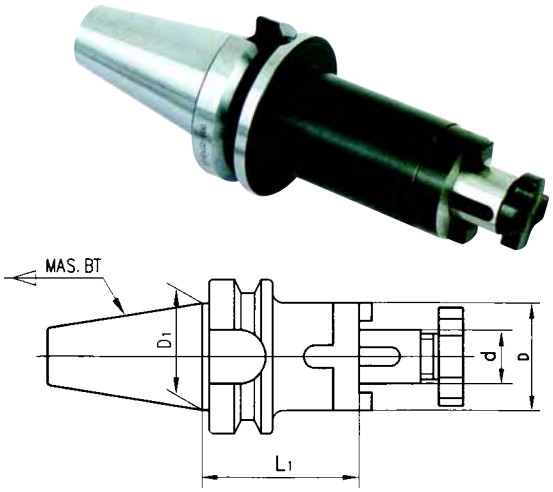
Size	Order No.
1/2”	210-5810
5/8”	210-5811
3/4”	210-5822
7/8”	210-5823
1 ”	210-5824
1-1/4”	210-5825
1-1/2”	210-5826
2 ”	210-5827
1/2”	210-5880

Size	Order No.
13mm	210-5800
16mm	210-5801
22mm	210-5802
27mm	210-5803
32mm	210-5804
40mm	210-5805
50mm	210-5806
60mm	210-5807

Combination Shell End Mill Abors 数控混合插入式铣刀杆

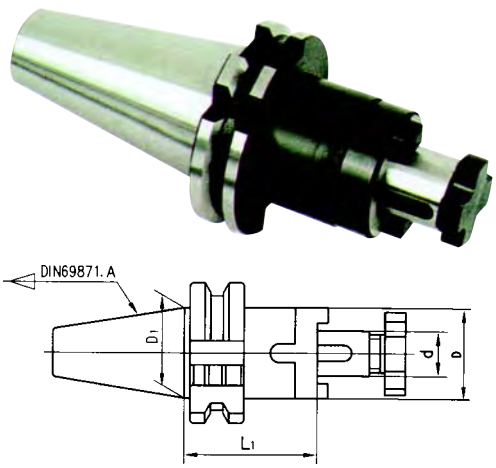
- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM ⩾ 20000 balance toolholders available, if you need, please contact.

BT



BT x d - L1	D mm	D1 mm	Weight kg	Order No.
BT30 x13-55	28	31.75	1.00	**210-8201**
BT30 x16-55	32	31.75	1.00	**210-8202**
BT30 x16-100	32	31.75	1.20	**210-8203**
BT30 x22-55	40	31.75	1.20	**210-8204**
BT30 x22-100	40	31.75	1.40	**210-8205**
BT30 x27-55	48	31.75	1.20	**210-8206**
BT30 x27-100	48	31.75	2.00	**210-8207**
BT30 x32-60	58	31.75	1.50	**210-8208**
BT30 x32-100	58	31.75	2.60	**210-8209**
BT30 x40-60	70	31.75	2.30	**210-8210**
BT30 x40-100	70	31.75	3.50	**210-8211**
BT40 x13-55	28	44.45	1.00	**210-8212**
BT40 x16-55	32	44.45	1.20	**210-8213**
BT40 x16-100	32	44.45	1.50	**210-8214**
BT40 x22-55	40	44.45	1.25	**210-8215**
BT40 x22-100	40	44.45	1.85	**210-8216**
BT40 x27-55	48	44.45	1.50	**210-8217**
BT40 x27-100	48	44.45	2.00	**210-8218**
BT40 x32-60	58	44.45	1.50	**210-8219**
BT40 x32-100	58	44.45	2.30	**210-8220**
BT40 x40-60	70	44.45	2.00	**210-8221**
BT40 x40-100	70	44.45	3.00	**210-8222**
BT50 x13-63	28	69.85	3.50	**210-8223**
BT50 x16-63	32	69.85	3.60	**210-8224**
BT50 x16-100	32	69.85	4.00	**210-8225**
BT50 x22-70	40	69.85	3.70	**210-8226**
BT50 x22-100	40	69.85	4.00	**210-8227**
BT50 x27-70	48	69.85	4.00	**210-8228**
BT50 x27-100	48	69.85	4.40	**210-8229**
BT50 x32-70	58	69.85	4.20	**210-8230**
BT50 x32-100	58	69.85	4.70	**210-8231**
BT50 x40-75	70	69.85	4.50	**210-8232**
BT50 x40-100	70	69.85	5.50	**210-8233**
BT50 x50-75	90	69.85	4.60	**210-8234**
BT50 x50-125	90	69.85	7.20	**210-8235**

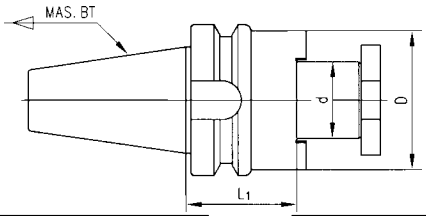
DIN69871.A



DIN69871.A x d - L1	D mm	D1 mm	Weight kg	Order No.
DIN69871.A30 x 13-55	28	31.75	1.00	**210-8601**
DIN69871.A30 x 16-55	32	31.75	1.00	**210-8602**
DIN69871.A30 x 16-100	32	31.75	1.20	**210-8603**
DIN69871.A30 x 22-55	40	31.75	2.00	**210-8604**
DIN69871.A30 x 22-100	40	31.75	3.50	**210-8605**
DIN69871.A30 x 27-55	48	31.75	2.10	**210-8606**
DIN69871.A30 x 27-100	48	31.75	4.30	**210-8607**
DIN69871.A30 x 32-60	58	31.75	1.80	**210-8608**
DIN69871.A30 x 32-100	58	31.75	2.60	**210-8609**
DIN69871.A30 x 40-60	70	31.75	7.30	**210-8610**
DIN69871.A30 x 40-100	70	31.75	3.50	**210-8611**
DIN69871.A40 x 13-55	28	44.45	1.10	**210-8612**
DIN69871.A40 x 16-55	32	44.45	1.20	**210-8613**
DIN69871.A40 x 16-100	32	44.45	1.50	**210-8614**
DIN69871.A40 x 22-55	40	44.45	1.23	**210-8615**
DIN69871.A40 x 22-100	40	44.45	1.83	**210-8616**
DIN69871.A40 x 27-55	48	44.45	1.30	**210-8617**
DIN69871.A40 x 27-100	48	44.45	2.20	**210-8618**
DIN69871.A40 x 32-60	58	44.45	1.50	**210-8619**
DIN69871.A40 x 32-100	58	44.45	2.30	**210-8620**
DIN69871.A40 x 40-60	70	44.45	1.80	**210-8621**
DIN69871.A40 x 40-100	70	44.45	3.00	**210-8622**
DIN69871.A50 x 13-63	28	69.85	3.50	**210-8623**
DIN69871.A50 x 16-63	32	69.85	3.50	**210-8624**
DIN69871.A50 x 16-100	32	69.85	3.80	**210-8625**
DIN69871.A50 x 22-70	40	69.85	3.60	**210-8626**
DIN69871.A50 x 22-100	40	69.85	4.00	**210-8627**
DIN69871.A50 x 27-70	48	69.85	3.70	**210-8628**
DIN69871.A50 x 27-100	48	69.85	4.40	**210-8629**
DIN69871.A50 x 32-70	58	69.85	3.80	**210-8630**
DIN69871.A50 x 32-100	58	69.85	4.70	**210-8631**
DIN69871.A50 x 40-75	70	69.85	3.90	**210-8632**
DIN69871.A50 x 40-100	70	69.85	5.30	**210-8633**
DIN69871.A50 x 50-75	90	69.85	4.50	**210-8634**
DIN69871.A50 x 50-125	90	69.85	7.20	**210-8635**

BT Shell Mill Arbors 数控套式铣刀杆

- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM ⩾ 20000 balance toolholders available, if you need, please contact.



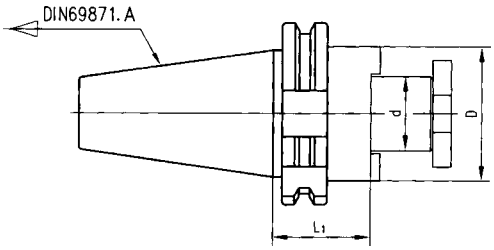


BT x d - L1	D mm	Weight kg	Order No.
BT30 x16-60	32	1.0	**210-8701**
BT30 x22-60	40	1.3	**210-8702**
BT30 x27-60	48	1.5	**210-8703**
BT30 x32-60	58	1.8	**210-8704**
BT30 x40-60	70	2.2	**210-8705**
BT30 x50-60	90	4.5	**210-8706**
BT40 x16-45	32	1.0	**210-8707**
BT40 x16-60	32	1.3	**210-8708**
BT40 x16-120	32	1.7	**210-8709**
BT40 x22-45	40	1.5	**210-8710**
BT40 x22-60	40	1.7	**210-8711**
BT40 x22-100	40	3.0	**210-8712**
BT40 x22-120	40	3.6	**210-8713**
BT40 x27-45	48	1.5	**210-8714**
BT40 x27-60	48	1.6	**210-8715**
BT40 x27-75	48	1.8	**210-8716**
BT40 x27-105	48	2.1	**210-8717**
BT40 x27-120	48	2.3	**210-8718**
BT40 x32-45	58	1.2	**210-8719**
BT40 x32-60	58	1.5	**210-8720**
BT40 x32-75	58	1.8	**210-8721**
BT40 x32-120	58	2.8	**210-8722**
BT40 x40-60	70	2.0	**210-8723**
BT40 x40-75	70	2.2	**210-8724**
BT40 x50-70	90	2.5	**210-8725**

BT x d - L1	D mm	Weight kg	Order No.
BT45 x22-60	40	2.6	**210-8726**
BT45 x27-60	48	2.8	**210-8727**
BT45 x27-100	48	3.1	**210-8728**
BT45 x40-100	70	3.4	**210-8729**
BT45 x40-105	70	3.5	**210-8730**
BT50 x16-60	32	3.6	**210-8731**
BT50 x16-75	32	3.9	**210-8732**
BT50 x16-120	32	4.3	**210-8733**
BT50 x22-60	40	5.0	**210-8734**
BT50 x22-75	40	4.0	**210-8735**
BT50 x22-100	40	4.5	**210-8736**
BT50 x22-120	48	5.5	**210-8737**
BT50 x27-60	48	5.5	**210-8738**
BT50 x27-105	48	4.0	**210-8739**
BT50 x32-60	58	4.5	**210-8740**
BT50 x32-75	58	1.6	**210-8741**
BT50 x32-105	58	1.8	**210-8742**
BT50 x40-60	70	2.2	**210-8743**
BT50 x40-75	70	3.6	**210-8744**
BT50 x40-90	70	3.7	**210-8745**
BT50 x40-100	70	3.75	**210-8746**
BT50 x40-105	70	3.8	**210-8747**
BT50 x50-60	90	4.0	**210-8748**
BT50 x50-70	90	4.2	**210-8749**
BT50 x50-120	90	4.4	**210-8750**

DIN Shell Mill Arbors 数控套式铣刀杆

- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM ⩾ 20000 balance toolholders available, if you need, please contact.



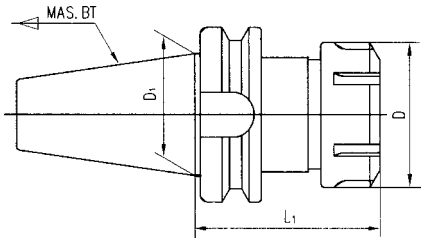


DIN69871.A x d-L1	D mm	Weight kg	Order No.
DIN69871.A30 x16-60	32	1.0	**210-8801**
DIN69871.A30 x22-60	40	1.3	**210-8802**
DIN69871.A30 x27-60	48	1.5	**210-8803**
DIN69871.A30 x32-60	58	1.8	**210-8804**
DIN69871.A30 x40-60	70	2.2	**210-8805**
DIN69871.A30 x50-70	90	3.2	**210-8806**
DIN69871.A40 x16-60	32	1.2	**210-8807**
DIN69871.A40 x22-60	40	1.3	**210-8808**
DIN69871.A40 x27-60	48	1.4	**210-8809**
DIN69871.A40 x27-75	48	1.6	**210-8810**

DIN69871.A x d-L1	D mm	Weight kg	Order No.
DIN69871.A40 x32-60	58	4.5	**210-8811**
DIN69871.A40 x40-60	70	4.8	**210-8812**
DIN69871.A40 x50-70	90	3.7	**210-8813**
DIN69871.A50 x16-60	32	3.8	**210-8814**
DIN69871.A50 x22-60	40	4.0	**210-8815**
DIN69871.A50 x27-60	48	4.2	**210-8816**
DIN69871.A50 x32-60	58	4.5	**210-8817**
DIN69871.A50 x40-60	70	4.8	**210-8818**
DIN69871.A50 x50-70	90	5.0	**210-8819**
DIN69871.A50 x50-80	90	5.1	**210-8820**

BT Milling Chuck Arbors BT 数控铣夹头刀柄

- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM ⩾ 20000 balance toolholders available, if you need, please contact.





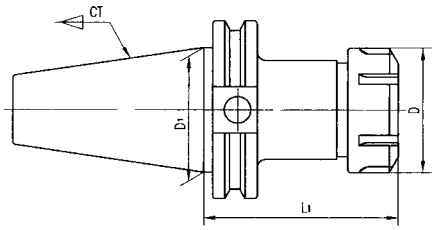
Metric

BT x ER x L1	D Nose Dia.	D1	Order No.
BT30 x ER16 x70	28	31.75	**210-7101**
BT30 x ER16 x100	28	31.75	**210-7102**
BT30 x ER16 x120	28	31.75	**210-7103**
BT30 x ER20 x70	35	31.75	**210-7104**
BT30 x ER20 x135	35	31.75	**210-7105**
BT30 x ER25 x70	42	31.75	**210-7106**
BT30 x ER25 x135	42	31.75	**210-7107**
BT30 x ER32 x70	50	31.75	**210-7108**
BT30 x ER40 x80	63	31.75	**210-7109**
BT40 x ER16 x50	28	44.45	**210-7110**
BT40 x ER16 x63	28	44.45	**210-7111**
BT40 x ER16 x70	28	44.45	**210-7112**
BT40 x ER16 x100	28	44.45	**210-7113**
BT40 x ER16 x125	28	44.45	**210-7114**
BT40 x ER16 x150	28	44.45	**210-7115**
BT40 x ER20 x70	35	44.45	**210-7116**
BT40 x ER20 x90	35	44.45	**210-7117**
BT40 x ER20 x100	35	44.45	**210-7118**
BT40 x ER20 x105	35	44.45	**210-7119**
BT40 x ER20 x135	35	44.45	**210-7120**
BT40 x ER20 x150	35	44.45	**210-7121**
BT40 x ER25 x60	42	44.45	**210-7122**
BT40 x ER25 x70	42	44.45	**210-7123**
BT40 x ER25 x90	42	44.45	**210-7124**
BT40 x ER25 x100	42	44.45	**210-7125**
BT40 x ER25 x125	42	44.45	**210-7126**
BT40 x ER25 x150	42	44.45	**210-7127**
BT40 x ER32 x70	50	44.45	**210-7128**
BT40 x ER32 x100	50	44.45	**210-7129**
BT40 x ER32 x150	50	44.45	**210-7130**
BT40 x ER40 x70	63	44.45	**210-7131**
BT40 x ER40 x80	63	44.45	**210-7132**
BT40 x ER40 x100	63	44.45	**210-7133**
BT40 x ER40 x120	63	44.45	**210-7134**
BT40 x ER40 x150	63	44.45	**210-7135**
BT45 x ER16 x70	28	57.15	**210-7136**
BT45 x ER16 x100	28	57.15	**210-7137**
BT45 x ER16 x125	28	57.15	**210-7138**
BT45 x ER20 x70	35	57.15	**210-7139**
BT45 x ER20 x90	35	57.15	**210-7140**
BT45 x ER20 x100	35	57.15	**210-7141**
BT45 x ER20 x105	35	57.15	**210-7142**
BT45 x ER20 x135	35	57.15	**210-7143**

BT x ER x L1	D Nose Dia.	D1	Order No.
BT45 x ER25 x70	42	57.15	**210-7144**
BT45 x ER25 x90	42	57.15	**210-7145**
BT45 x ER25 x100	42	57.15	**210-7146**
BT45 x ER25 x125	42	57.15	**210-7147**
BT45 x ER32 x70	50	57.15	**210-7148**
BT45 x ER32 x100	50	57.15	**210-7149**
BT45 x ER32 x120	50	57.15	**210-7150**
BT45 x ER32 x150	50	57.15	**210-7151**
BT45 x ER40 x80	63	57.15	**210-7152**
BT45 x ER40 x100	63	57.15	**210-7153**
BT45 x ER40 x120	63	57.15	**210-7154**
BT45 x ER40 x150	63	57.15	**210-7155**
BT45 x ER50 x80	78	57.15	**210-7156**
BT45 x ER50 x100	78	57.15	**210-7157**
BT50 x ER16 x70	28	69.85	**210-7158**
BT50 x ER16 x90	28	69.85	**210-7159**
BT50 x ER16 x105	28	69.85	**210-7160**
BT50 x ER16 x135	28	69.85	**210-7161**
BT50 x ER16 x165	28	69.85	**210-7162**
BT50 x ER20 x70	35	69.85	**210-7163**
BT50 x ER20 x90	35	69.85	**210-7164**
BT50 x ER20 x105	35	69.85	**210-7165**
BT50 x ER20 x135	35	69.85	**210-7166**
BT50 x ER20 x150	35	69.85	**210-7167**
BT50 x ER20 x165	35	69.85	**210-7168**
BT50 x ER25 x70	42	69.85	**210-7169**
BT50 x ER25 x105	42	69.85	**210-7170**
BT50 x ER25 x135	42	69.85	**210-7171**
BT50 x ER25 x165	42	69.85	**210-7172**
BT50 x ER32 x70	50	69.85	**210-7173**
BT50 x ER32 x80	50	69.85	**210-7174**
BT50 x ER32 x100	50	69.85	**210-7175**
BT50 x ER32 x120	50	69.85	**210-7176**
BT50 x ER40 x80	63	69.85	**210-7177**
BT50 x ER40 x100	63	69.85	**210-7178**
BT50 x ER40 x120	63	69.85	**210-7179**
BT50 x ER40 x135	63	69.85	**210-7180**
BT50 x ER50 x90	78	69.85	**210-7181**
BT50 x ER50 x120	78	69.85	**210-7182**

CAT Milling Chuck Arbors CAT 数控铣夹头刀柄

- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.





Metric

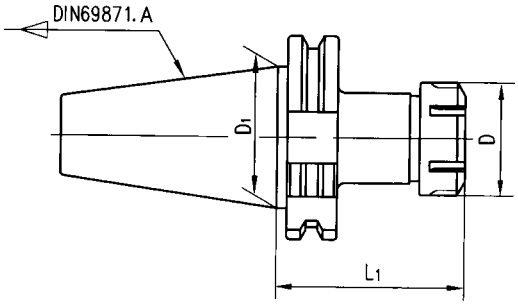
CT x ER x L1	D Nose Dia.	D1	Order No.
CT40 x ER16 x63mm	28mm	44.45mm	**210-7201**
CT40 x ER16 x70	28	44.45	**210-7202**
CT40 x ER16 x100	28	44.45	**210-7203**
CT40 x ER16 x125	28	44.45	**210-7204**
CT40 x ER16 x150	28	44.45	**210-7205**
CT40 x ER20 x70	35	44.45	**210-7206**
CT40 x ER20 x90	35	44.45	**210-7207**
CT40 x ER20 x100	35	44.45	**210-7208**
CT40 x ER20 x105	35	44.45	**210-7209**
CT40 x ER20 x135	35	44.45	**210-7210**
CT40 x ER20 x150	35	44.45	**210-7211**
CT40 x ER25 x70	42	44.45	**210-7212**
CT40 x ER25 x90	42	44.45	**210-7213**
CT40 x ER25 x100	42	44.45	**210-7214**
CT40 x ER25 x125	42	44.45	**210-7215**
CT40 x ER25 x150	42	44.45	**210-7216**
CT40 x ER32 x70	50	44.45	**210-7217**
CT40 x ER32 x100	50	44.45	**210-7218**
CT40 x ER32 x120	50	44.45	**210-7219**
CT40 x ER32 x150	50	44.45	**210-7220**
CT40 x ER40x70	63	44.45	**210-7221**
CT40 x ER40x80	63	44.45	**210-7222**
CT40 x ER40x100	63	44.45	**210-7223**
CT40 x ER40x120	63	44.45	**210-7224**
CT40 x ER40x150	63	44.45	**210-7225**
CT40 x ER50x80	78	44.45	**210-7226**
CT40 x ER50x100	78	44.45	**210-7227**
CT50 x ER16x70	28	69.85	**210-7228**
CT50 x ER16x90	28	69.85	**210-7229**
CT50 x ER16x105	28	69.85	**210-7230**
CT50 x ER16x135	28	69.85	**210-7231**
CT50 x ER16x165	28	69.85	**210-7232**
CT50 x ER20x70	35	69.85	**210-7233**
CT50 x ER20x90	35	69.85	**210-7234**
CT50 x ER20x105	35	69.85	**210-7235**
CT50 x ER20x135	35	69.85	**210-7236**
CT50 x ER20x150	35	69.85	**210-7237**
CT50 x ER20x165	35	69.85	**210-7238**
CT50 x ER25x70	42	69.85	**210-7239**
CT50 x ER25x105	42	69.85	**210-7240**
CT50 x ER25x135	42	69.85	**210-7241**
CT50 x ER25x165	42	69.85	**210-7242**
CT50 x ER32x70	50	69.85	**210-7243**
CT50 x ER32x80	50	69.85	**210-7244**
CT50 x ER32x100	50	69.85	**210-7245**

Metric

CT x ER x L1	D Nose Dia.	D1	Order No.
CT50 x ER32x120mm	50mm	69.85mm	**210-7246**
CT50 x ER40x80	63	69.85	**210-7247**
CT50 x ER40x100	63	69.85	**210-7248**
CT50 x ER40x120	63	69.85	**210-7249**
CT50 x ER40x135	63	69.85	**210-7250**
CT50 x ER50x90	78	69.85	**210-7251**
CT50 x ER50x120	78	69.85	**210-7252**
CT50 x EOC16x100	43	69.85	**210-7253**
CT50 x EOC25x80	60	69.85	**210-7254**
CT50 x EOC25x100	60	69.85	**210-7255**
CT50 x EOC25x120	60	69.85	**210-7256**
CT50 x EOC32x70	72	69.85	**210-7257**
CT50 x EOC32x90	72	69.85	**210-7258**
CT50 x EOC32x105	72	69.85	**210-7259**
CT50 x EOC32x120	72	69.85	**210-7260**
CT50 x EOC32x150	72	69.85	**210-7261**

DIN Milling Chuck Arbors DIN数控铣夹头刀柄

- Suitable for CNC RPM⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.





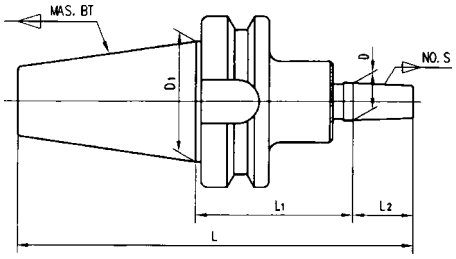
Metric

DIN69871.A x ER x L1	D Nose Dia.	D1	Order No.
DIN69871.A30xER11x80mm	19mm	31.75mm	**210-7601**
DIN69871.A30xER16x63	28	31.75	**210-7602**
DIN69871.A30xER16x100	28	31.75	**210-7603**
DIN69871.A30xER16x120	28	31.75	**210-7604**
DIN69871.A30xER16x135	28	31.75	**210-7605**
DIN69871.A30xER20x63	35	31.75	**210-7606**
DIN69871.A30xER20x120	35	31.75	**210-7607**
DIN69871.A30xER25x63	42	31.75	**210-7608**
DIN69871.A40xER11x80	19	44.45	**210-7609**
DIN69871.A40xER11x125	19	44.45	**210-7610**
DIN69871.A40xER11x150	19	44.45	**210-7611**
DIN69871.A40xER16x63	28	44.45	**210-7612**
DIN69871.A40xER16x70	28	44.45	**210-7613**
DIN69871.A40xER16x100	28	44.45	**210-7614**
DIN69871.A40xER16x120	28	44.45	**210-7615**
DIN69871.A40xER16x125	28	44.45	**210-7616**
DIN69871.A40xER16x160	28	44.45	**210-7617**
DIN69871.A40xER16x180	28	44.45	**210-7618**
DIN69871.A40xER20x70	35	44.45	**210-7619**
DIN69871.A40xER20x100	35	44.45	**210-7620**
DIN69871.A40xER20x135	35	44.45	**210-7621**
DIN69871.A40xER20x160	35	44.45	**210-7622**
DIN69871.A40xER25x60	42	44.45	**210-7623**
DIN69871.A40xER25x70	42	44.45	**210-7624**
DIN69871.A40xER25x100	42	44.45	**210-7625**
DIN69871.A40xER25x150	42	44.45	**210-7626**
DIN69871.A40xER25x180	42	44.45	**210-7627**
DIN69871.A40xER25x200	42	44.45	**210-7628**
DIN69871.A40xER32x70	50	44.45	**210-7629**
DIN69871.A40xER32x80	50	44.45	**210-7630**
DIN69871.A40xER32x100	50	44.45	**210-7631**
DIN69871.A40xER32x150	50	44.45	**210-7632**
DIN69871.A40xER40x80	63	44.45	**210-7633**
DIN69871.A40xER40x100	63	44.45	**210-7634**
DIN69871.A40xER40x150	63	44.45	**210-7635**
DIN69871.A40xER50x100	78	44.45	**210-7636**
DIN69871.A40xEOC16x70	43	44.45	**210-7637**
DIN69871.A40xEOC16x100	43	44.45	**210-7638**
DIN69871.A40xEOC25x70	60	44.45	**210-7639**
DIN69871.A40xEOC25x100	60	44.45	**210-7640**
DIN69871.A40xEOC25x120	60	44.45	**210-7641**
DIN69871.A40xEOC32x90	72	44.45	**210-7642**

DIN69871.A x ER x L1	D Nose Dia.	D1	Order No.
DIN69871.A40xEOC32x120mm	72mm	44.45mm	**210-7643**
DIN69871.A40xEOC32x150	72	44.45	**210-7644**
DIN69871.A50xER16x100	28	69.85	**210-7645**
DIN69871.A50xER16x160	28	69.85	**210-7646**
DIN69871.A50xER16x180	28	69.85	**210-7647**
DIN69871.A50xER20x100	35	69.85	**210-7648**
DIN69871.A50xER20x135	35	69.85	**210-7649**
DIN69871.A50xER20x160	35	69.85	**210-7650**
DIN69871.A50xER25x70	42	69.85	**210-7651**
DIN69871.A50xER25x100	42	69.85	**210-7652**
DIN69871.A50xER25x150	42	69.85	**210-7653**
DIN69871.A50xER25x200	42	69.85	**210-7654**
DIN69871.A50xER32x70	50	69.85	**210-7655**
DIN69871.A50xER32x80	50	69.85	**210-7656**
DIN69871.A50xER32x120	50	69.85	**210-7657**
DIN69871.A50xER32x160	50	69.85	**210-7658**
DIN69871.A50xER32x200	50	69.85	**210-7659**
DIN69871.A50xER40x80	63	69.85	**210-7660**
DIN69871.A50xER40x120	63	69.85	**210-7661**
DIN69871.A50xER40x160	63	69.85	**210-7662**
DIN69871.A50xER40x200	63	69.85	**210-7663**
DIN69871.A50xER50x80	78	69.85	**210-7664**
DIN69871.A50xER50x90	78	69.85	**210-7665**
DIN69871.A50xER50x120	78	69.85	**210-7666**
DIN69871.A50xER50x160	78	69.85	**210-7667**
DIN69871.A50xER50x200	78	69.85	**210-7668**
DIN69871.A50xEOC16x100	43	69.85	**210-7669**
DIN69871.A50xEOC25x70	60	69.85	**210-7670**
DIN69871.A50xEOC25x100	60	69.85	**210-7671**
DIN69871.A50xEOC25x140	60	69.85	**210-7672**
DIN69871.A50xEOC32x70	72	69.85	**210-7673**
DIN69871.A50xEOC32x80	72	69.85	**210-7674**
DIN69871.A50xEOC32x140	72	69.85	**210-7675**
DIN69871.A50xEOC40x90	85	89.85	**210-7676**

BT Taper Drill Chuck Arbors BT 数控钻接杆

- Suitable for CNC RPM≥12000.
- Checked by balance.
- RPM≥ 20000 balance toolholders available, if you need, please contact.



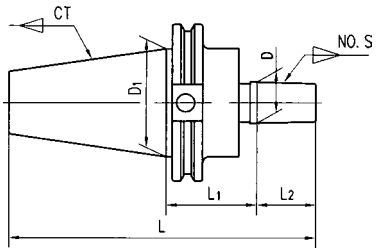


Metric

BT - NO.S - L1	L2 mm	L mm	D mm	D1 mm	Drawber Thread	Weight kg	Order No.
BT30-J1-45	16.669	110	9.754	31.75	M12	.60	210-7801
BT30-J2-45	22.225	115.6	14.199	31.75	M12	.70	210-7802
BT30-J2S-45	19.05	112.4	13.940	31.75	M12	.70	210-7803
BT30-J3-45	30.956	124.4	20.599	31.75	M12	.80	210-7804
BT30-J4-45	42.069	135.4	28.550	31.75	M12	.85	210-7805
BT30-J5-45	47.625	141	35.890	31.75	M12	.90	210-7806
BT30-J6-45	25.4	118.8	17.170	31.75	M12	.75	210-7807
BT30-J33-40	25.4	113.8	15.850	31.75	M12	.75	210-7808
BT30-J33-45	25.4	118.8	15.850	31.75	M12	.75	210-7809
BT30-B10-45	14.5	107.9	10.094	31.75	M12	.60	210-7810
BT30-B12-45	18.5	111.9	12.065	31.75	M12	.60	210-7811
BT30-B16-45	24	117.4	15.733	31.75	M12	.70	210-7812
BT30-B18-45	32	125.4	17.780	31.75	M12	.82	210-7813
BT40-J1-45	16.669	127.1	9.754	44.45	M16	1.16	210-7814
BT40-J2-45	22.225	132.6	14.199	44.45	M16	1.25	210-7815
BT40-J2S-45	19.05	129.4	13.940	44.45	M16	1.20	210-7816
BT40-J3-45	30.956	141.4	20.599	44.45	M16	1.45	210-7817
BT40-J4-45	42.069	152.5	28.550	44.45	M16	1.55	210-7818
BT40-J5-45	47.625	158	35.890	44.45	M16	1.60	210-7819
BT40-J6-45	25.4	135.8	17.170	44.45	M16	1.30	210-7820
BT40-J33-45	25.4	135.8	15.850	44.45	M16	1.30	210-7821
BT40-B10-45	14.5	124.9	10.094	44.45	M16	1.40	210-7822
BT40-B10-120	14.5	199.9	10.094	44.45	M16	1.76	210-7823
BT40-B12-45	18.5	128.9	12.065	44.45	M16	1.34	210-7824
BT40-B16-32	24	121.4	15.733	44.45	M16	1.40	210-7825
BT40-B16-45	24	134.4	15.733	44.45	M16	1.45	210-7826
BT40-B16-75	24	164.4	15.733	44.45	M16	1.55	210-7827
BT40-B16-90	24	179.4	15.733	44.45	M16	1.40	210-7828
BT40-B18-45	32	142.4	17.780	44.45	M16	1.70	210-7829
BT40-B18-75	32	172.4	17.780	44.45	M16	1.76	210-7830
BT45-B16-90	24	196.8	15.733	51.75	M20	2.30	210-7831
BT45-B16-100	24	206.8	15.733	51.75	M20	2.40	210-7832
BT50-J1-45	16.669	163.5	9.754	69.85	M24	3.60	210-7833
BT50-J2-45	22.225	169	14.199	69.85	M24	3.95	210-7834
BT50-J2S-45	19.05	165.9	13.940	69.85	M24	3.90	210-7835
BT50-J3-45	30.956	177.8	20.599	69.85	M24	3.70	210-7836
BT50-J4-45	42.069	188.9	28.550	69.85	M24	3.75	210-7837
BT50-J5-45	47.625	194.4	35.890	69.85	M24	3.80	210-7838
BT50-J6-45	25.4	172.2	17.170	69.85	M24	4.00	210-7839
BT50-J33-45	25.4	172.2	15.850	69.85	M24	4.00	210-7840
BT50-B10-45	14.5	161.3	10.094	69.85	M24	3.60	210-7841
BT50-B10-100	14.5	216.3	10.094	69.85	M24	3.80	210-7842
BT50-B12-45	18.5	165.3	12.065	69.85	M24	3.60	210-7843
BT50-B16-45	24	170.8	15.733	69.85	M24	3.65	210-7844
BT50-B16-60	24	185.8	15.733	69.85	M24	3.70	210-7845
BT50-B16-75	24	200.8	15.733	69.85	M24	3.74	210-7846
BT50-B16-90	24	215.8	15.733	69.85	M24	3.78	210-7847
BT50-B18-45	32	178.8	17.780	69.85	M24	3.70	210-7848

CAT Taper Drill Chuck Arbors CAT 数控钻接杆

- Suitable for CNC RPM ⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.



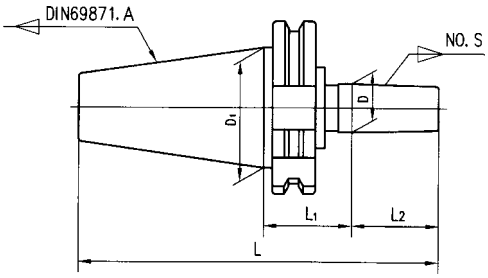


Metric

CT- NO.S - L1	L2 mm	L mm	D mm	D1 mm	Drawber Thread	Weight kg	Order No.
CT40-J2-45	22.225	135.5	14.199	44.45	5/8"-11	1.55	**210-8001**
CT40-J3-45	30.956	144.2	20.599	44.45	5/8"-11	1.55	**210-8002**
CT40-J4-45	42.069	155.3	28.55	44.45	5/8"-11	1.60	**210-8003**
CT40-J6-45	25.4	138.65	17.17	44.45	5/8"-11	1.60	**210-8004**
CT40-J33-45	24.5	138.65	15.85	44.45	5/8"-11	1.62	**210-8005**
CT45-J1-45	16.669	144.2	9.754	57.15	3/4"-10	1.65	**210-8006**
CT45-J2-45	22.225	150	14.199	57.15	3/4"-10	1.70	**210-8007**
CT45-J3-45	30.956	158.5	20.599	57.15	3/4"-10	1.60	**210-8008**
CT45-J4-45	42.069	196.6	38.55	57.15	3/4"-10	1.60	**210-8009**
CT45-J5-45	47.625	175.2	35.89	57.15	3/4"-10	1.62	**210-8010**
CT45-J6-45	25.4	153	17.17	57.15	3/4"-10	1.65	**210-8011**
CT45-J33-45	25.4	153	15.85	57.15	3/4"-10	1.67	**210-8012**
CT50-J2-45	22.225	168.85	14.199	69.85	1"-8	1.70	**210-8013**
CT50-J3-45	30.956	177.56	20.599	69.85	1"-8	1.74	**210-8014**
CT50-J4-45	42.069	188.67	28.55	69.85	1"-8	1.55	**210-8015**
CT50-J5-45	47.625	194.23	35.89	69.85	1"-8	1.60	**210-8016**
CT50-J6-45	25.4	172	17.17	69.85	1"-8	1.65	**210-8017**
CT50-J33-45	25.4	172	15.85	69.85	1"-8	1.62	**210-8018**
CT45-B10-45	14.5	142	10.094	57.15	3/4"-10	1.67	**210-8019**
CT45-B12-45	18.5	146	12.065	57.15	3/4"-10	1.65	**210-8020**
CT45-B16-32	24	138.6	15.733	57.15	3/4"-10	1.67	**210-8021**
CT45-B16-45	24	151.6	15.733	57.15	3/4"-10	2.40	**210-8022**
CT45-B18-32	32	159.6	17.780	57.15	3/4"-10	2.45	**210-8023**

DIN Taper Drill Chuck Arbors DIN 数控钻接杆

- Suitable for CNC RPM ⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.





Metric

DIN69871.A - NO.S - L1	L2 mm	L mm	D mm	D1 mm	Drawber Thread	Weight kg	Order No.
DIN69871.A40-J0-32	11.112	111.5	6.35	44.45	M16	1.55	**210-7900**
DIN69871.A40-J1-32	16.669	117	9.754	44.45	M16	1.55	**210-7901**
DIN69871.A40-J2-32	22.225	122.6	14.199	44.45	M16	1.60	**210-7902**
DIN69871.A40-J2S-32	19.05	119.5	13.940	44.45	M16	1.60	**210-7903**
DIN69871.A40-J3-32	30.956	131.4	20.599	44.45	M16	1.62	**210-7904**
DIN69871.A40-J4-32	42.069	142.5	28.550	44.45	M16	1.65	**210-7905**
DIN69871.A40-J5-32	47.625	148	35.890	44.45	M16	1.70	**210-7906**
DIN69871.A40-J6-32	25.4	125.8	17.170	44.45	M16	1.60	**210-7907**
DIN69871.A40-J33-32	25.4	125.8	15.850	44.45	M16	1.60	**210-7908**
DIN69871.A40-B6-32	10	110.4	6.35	44.45	M16	1.62	**210-7909**
DIN69871.A40-B10-32	14.5	114.9	10.094	44.45	M16	1.65	**210-7910**
DIN69871.A40-B10-45	14.5	127.9	10.094	44.45	M16	1.67	**210-7911**
DIN69871.A40-B12-32	18.5	118.9	12.065	44.45	M16	1.70	**210-7912**
DIN69871.A40-B12-80	18.5	166.9	12.065	44.45	M16	1.74	**210-7913**
DIN69871.A40-B16-26	24	118.4	15.733	44.45	M16	1.55	**210-7914**

DIN Taper Drill Chuck Arbors Continued DIN 数控钻接杆

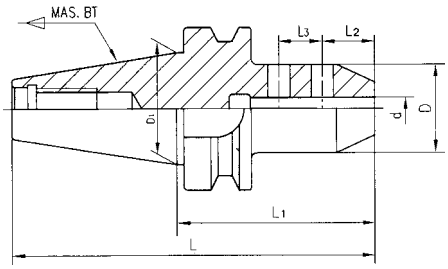
Metric

DIN69871.A - NO.S - L1	L2 mm	L mm	D mm	D1 mm	Drawber Thread	Weight kg	Order No.
DIN69871.A40-B16-32	24	124.4	15.733	44.45	M16	1.60	**210-7915**
DIN69871.A40-B16-45	24	137.4	15.733	44.45	M16	1.65	**210-7916**
DIN69871.A40-B18-32	32	132.4	17.780	44.45	M16	1.62	**210-7917**
DIN69871.A40-B18-45	32	145.4	17.780	44.45	M16	1.67	**210-7918**
DIN69871.A40-B22-32	40.5	140.9	21.793	44.45	M16	1.65	**210-7919**
DIN69871.A40-B24-32	50.5	150.9	23.825	44.45	M16	1.67	**210-7920**
DIN69871.A50-B16-45	24	170.74	15.733	69.85	M24	2.40	**210-7921**

BT Flange End Mill Holders BT 数控立铣刀杆

- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM ⩾ 20000 balance toolholders available, if you need, please contact.





Inch

Taper	d In.	L1 mm	L mm	D mm	D1 mm	L2 mm	L3 mm	Order No.
	1/4"	60	108.4	27	31.75	12		**210-0516**
	5/16"	60	108.4	30	31.75	16		**210-0520**
	3/8"	60	108.4	32	31.75	19		**210-0524**
BT30	1/2"	60	108.4	35	31.75	22		**210-0532**
	5/8"	75	123.4	41	31.75	23		**210-0540**
	3/4"	75	123.4	44.5	31.75	25		**210-0548**
	1"	90	138.4	55	31.75	28	25.4	**210-0564**
	1/4"	50	115.4	27	44.45	12		**210-0616**
	5/16"	50	115.4	30	44.45	16		**210-0620**
	3/8"	63	128.4	32	44.45	19		**210-0624**
BT40	1/2"	63	128.4	35	44.45	22		**210-0632**
	5/8"	63	128.4	41	44.45	23		**210-0640**
	3/4"	63	128.4	44.5	44.45	25		**210-0648**
	1"	100	165.4	55	44.45	28	25.4	**210-0664**
	1-1/4"	100	165.4	62	44.45	28	25.4	**210-0666**
	1/4"	63	164.8	27	69.85	12		**210-0716**
	5/16"	63	164.8	30	69.85	16		**210-0720**
	3/8"	63	164.8	32	69.85	19		**210-0724**
	1/2"	80	181.8	35	69.85	22		**210-0732**
BT50	5/8"	80	181.8	41	69.85	23		**210-0740**
	3/4"	80	181.8	44.5	69.85	25		**210-0748**
	1"	100	201.8	55	69.85	28	25.4	**210-0764**
	1-1/4"	105	206.8	62	69.85	28	25.4	**210-0766**
	1-1/2"	105	216.8	38	69.85	28	25.4	**210-0768**

Metric

Taper	d mm	L1 mm	L mm	D mm	D1 mm	L2 mm	L3 mm	Order No.
	6	50	98.4	25	31.75	18		**210-0906**
	6	60	108.4	25	31.75	18		**210-0907**
	8	60	108.4	28	31.75	18		**210-0908**
	10	60	108.4	35	31.75	20		**210-0910**
	10	80	128.4	35	31.75	20		**210-0911**
BT30	12	60	108.4	42	31.75	22.5		**210-0912**
	14	60	108.4	42	31.75	22.5		**210-0914**
	16	75	123.4	48	31.75	24		**210-0916**
	18	75	123.4	50	31.75	24		**210-0918**
	20	75	123.4	52	31.75	25		**210-0920**
	25	90	138.4	65	31.75	24	25	**210-0925**
	6	50	115.4	25	44.45	18		**210-1206**
	6	60	125.4	25	44.45	18		**210-1207**
	8	50	115.4	28	44.45	18		**210-1208**
	10	63	128.4	35	44.45	20		**210-1210**
	12	63	128.4	42	44.45	22.5		**210-1212**
	14	63	128.4	44	44.45	22.5		**210-1214**
	16	63	128.4	48	44.45	24		**210-1216**
	16	70	135.4	48	44.45	24		**210-1217**
BT40	18	63	128.4	50	44.45	24		**210-1218**
	20	63	128.4	52	44.45	25		**210-1220**
	20	70	135.4	52	44.45	25		**210-1221**
	25	90	155.4	65	44.45	24	25	**210-1225**
	25	100	165.4	65	44.45	24	25	**210-1226**
	32	100	165.4	72	44.45	24	28	**210-1232**
	32	110	175.4	72	44.45	24	28	**210-1233**
	40	120	185.4	90	44.45	30	32	**210-1240**
	40	140	205.4	90	44.45	30	32	**210-1241**
	6	63	164.4	25	69.85	18		**210-1506**
	8	63	164.4	28	69.85	18		**210-1508**
	10	63	164.4	35	69.85	20		**210-1510**
	12	80	181.8	42	69.85	22.5		**210-1512**
	16	80	181.8	48	69.85	24		**210-1516**
	20	80	181.8	52	69.85	25		**210-1520**
	25	100	201.8	65	69.85	24	25	**210-1525**
BT50	25	105	206.8	65	69.85	24	25	**210-1526**
	25	150	251.8	65	69.85	24	25	**210-1527**
	25	200	301.8	65	69.85	24	25	**210-1528**
	32	100	201.8	72	69.85	24	28	**210-1532**
	32	105	206.8	72	69.85	24	28	**210-1533**
	40	115	216.8	90	69.85	30	32	**210-1540**
	40	120	221.8	90	69.85	30	32	**210-1541**
	42	120	221.8	90	69.85	30	32	**210-1542**
	50	150	251.8	100	69.85	35	35	**210-1550**

DIN Flange End Mill Holders DIN69871 数控立铣刀杆

DIN69871.A

- Suitable for CNC RPM⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.





Taper	d In.	L1 mm	L mm	D mm	D1 mm	L2 mm	L3 mm	Order No.	Taper	d In.	L1 mm	L mm	D mm	D1 mm	L2 mm	L3 mm	Order No.
A30	1/4"	50	97.8	27	31.75	12		**210-3416**	A40	1-1/4"	100	168.4	62	44.45	28	25.4	**210-3766**
A30	5/16	50	97.8	30	31.75	16		**210-3420**	A50	1/4	63	164.75	27	69.85	12		**210-4416**
A30	3/8	50	97.8	32	31.75	19		**210-3424**	A50	5/16	63	164.75	30	69.85	16		**210-4420**
A30	1/2	50	97.8	35	31.75	23		**210-3432**	A50	3/8	63	164.75	32	69.85	19		**210-4424**
A30	5/8	63	110.8	41	31.75	23		**210-3440**	A50	1/2	63	164.75	35	69.85	22		**210-4432**
A40	1/4	50	118.4	27	44.45	12		**210-3716**	A50	5/8	63	164.75	41	69.85	23		**210-4440**
A40	5/16	50	118.4	30	44.45	16		**210-3720**	A50	3/4	63	164.75	44.5	69.85	28	25.4	**210-4448**
A40	3/8	50	118.4	32	44.45	19		**210-3724**	A50	1	80	181.75	55	69.85	28	25.4	**210-4464**
A40	1/2	50	118.4	35	44.45	22		**210-3732**	A50	1-1/4	100	201.75	62	69.85	28	25.4	**210-4466**
A40	5/8	63	131.4	41	44.45	23		**210-3740**	A50	1-1/2	100	201.75	68	69.85	28	36.5	**210-4468**
A40	3/4	63	431.4	44.5	44.45	25		**210-3748**	A50	2	125	226.75	97	69.85	30	36.5	**210-4470**
A40	1	100	168.4	55	44.45	28		**210-3764**	A50	2-1/2	150	250.75	125	69.85	30	36.5	**210-4472**

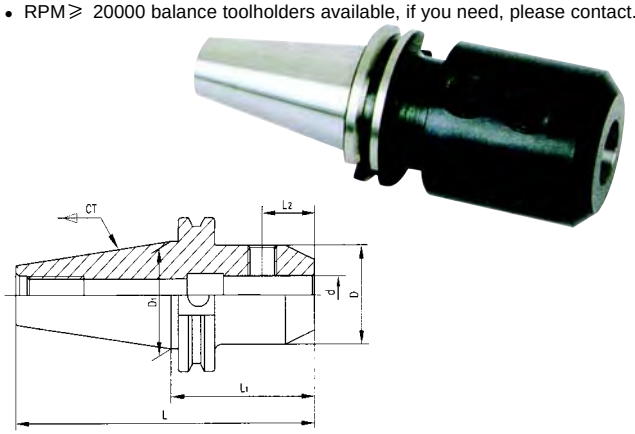
Metric

Taper	d mm	L1 mm	L mm	D mm	D1 mm	L2 mm	L3 mm	Order No.
A30	6	50	97.8	25	31.75	18		**210-4706**
A30	8	50	97.8	28	31.75	18		**210-4708**
A30	10	50	97.8	35	31.75	20		**210-4710**
A30	12	50	97.8	42	31.75	22.5		**210-4712**
A30	16	50	97.8	48	31.75	24		**210-4716**
A40	6	50	118.4	25	44.45	18		**210-4806**
A40	6	100	168.4	25	44.45	18		**210-4807**
A40	8	50	118.4	28	44.45	18		**210-4808**
A40	8	100	168.4	28	44.45	18		**210-4809**
A40	10	50	118.4	35	44.45	20		**210-4810**
A40	10	100	168.4	35	44.45	20		**210-4811**
A40	12	50	118.4	42	44.45	22.5		**210-4812**
A40	14	50	118.4	44	44.45	22.5		**210-4814**
A40	16	63	131.4	48	44.45	24		**210-4816**
A40	18	63	131.4	50	44.45	24		**210-4818**
A40	20	63	131.4	52	44.45	25		**210-4820**
A40	25	100	168.4	65	44.45	24	25	**210-4825**
A40	32	100	168.4	72	44.45	24	28	**210-4832**
A40	40	120	188.4	90	44.45	30	32	**210-4840**
A50	6	63	164.75	25	39.85	18		**210-4906**
A50	8	63	164.75	28	39.85	18		**210-4908**
A50	10	63	164.75	35	39.85	20		**210-4910**
A50	12	63	164.75	42	39.85	22.5		**210-4912**
A50	14	63	164.75	44	39.85	22.5		**210-4914**
A50	16	63	164.75	48	39.85	24		**210-4916**
A50	18	63	164.75	50	39.85	24		**210-4918**
A50	20	63	164.75	52	39.85	25		**210-4920**
A50	25	80	181.75	65	39.85	24	25	**210-4925**
A50	32	100	201.75	72	39.85	24	25	**210-4932**
A50	40	100	201.75	90	39.85	30	32	**210-4940**
A50	40	120	221.75	90	39.85	30	32	**210-4941**
A50	40	125	226.75	100	39.85	35	35	**210-4942**
A50	63	150	251.75	125	39.85	40	40	**210-4963**

CAT V-Flange End Mill Holders

CAT 数控立铣刀杆

- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.

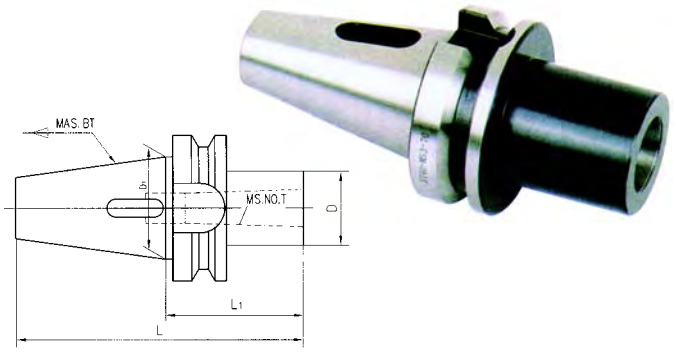


CT x d-L1	L mm	D mm	D1 mm	L2 mm	L3 mm	Order No.
CT40x3/16" - 2-1/2"	131.8	19.05	44.45	14.3		**210-5412**
CT40x1/4" - 2-1/2"	131.8	20.26	44.45	19.8		**210-5416**
CT40x5/16" - 2-1/2"	131.8	22.52	44.45	19.8		**210-5420**
CT40x3/8" - 2-1/2"	131.8	32	44.45	19.8		**210-5424**
CT40x7/16" - 2-1/2"	131.8	31.75	44.45	22.2		**210-5428**
CT40x1/2" - 2-5/8"	134.9	44.45	44.45	22.2		**210-5432**
CT40x5/8" - 3-3/4"	163.5	44.45	44.45	23.8		**210-5440**
CT40x3/4" - 3-3/4"	163.5	44.45	44.45	25.4		**210-5448**
CT40x7/8" - 4"	169.9	52	44.45	27	22.2	**210-5456**
CT40x1" - 4"	169.9	63	44.45	28.6	25.4	**210-5464**
CT40x1-1/4" - 4-1/8"	173	69.85	44.45	28.6	25.4	**210-5466**
CT50x3/8" - 4-1/2"	215.9	31.75	69.85	19.8		**210-5724**
CT50x3/8" - 6-1/2"	266.7	31.75	69.85	19.8		**210-5726**
CT50x1/2" - 2-5/8"	168.3	44.45	69.85	22.2		**210-5732**
CT50x1/2" - 4-5/8"	219.2	44.45	69.85	22.2		**210-5733**
CT50x5/8" - 3-3/4"	196.85	44.45	69.85	23.8		**210-5740**
CT50x5/8" - 5-3/4"	247.7	44.45	69.85	23.8		**210-5741**
CT50x3/4" - 3-3/4"	196.85	44.45	69.85	25.4		**210-5748**
CT50x3/4" - 5-3/4"	247.7	44.45	69.85	25.4		**210-5749**
CT50x7/8" - 3-3/4"	196.85	52	69.85	27	22.2	**210-5756**
CT50x7/8" - 5-3/4"	247.7	52	69.85	27	22.2	**210-5757**
CT50x1" - 4"	203.2	63	69.85	28.6	25.4	**210-5764**
CT50x1" - 6"	254	63	69.85	28.6	25.4	**210-5766**
CT50x1" - 8"	304.8	63	69.85	28.6	25.4	**210-5768**
CT50x1-1/4" - 4"	203.2	69.85	69.85	28.6	25.4	**210-5774**
CT50x1-1/4" - 6"	254	69.85	69.85	28.6	25.4	**210-5776**
CT50x1-1/4" - 8"	304.8	69.85	69.85	28.6	25.4	**210-5778**
CT50x1-1/2" - 4"	203.2	69.85	69.85	28.6	25.4	**210-5784**
CT50x1-1/2" - 6"	254	69.85	69.85	28.6	25.4	**210-5786**
CT50x1-1/2" - 8"	304.8	69.85	69.85	28.6	25.4	**210-5788**
CT50x2" - 5-5/8"	244.5	69.85	69.85	30.2	36.5	**210-5794**
CT50x2" - 7-5/8"	295.3	69.85	69.85	30.2	36.5	**210-5796**
CT50x2-1/2" - 6"	254	69.85	69.85	30.2	36.5	**210-5798**

BT Shank to Morse Taper Adaptors (with Tang)

BT 数控莫氏变径套（扁尾型）

- Suitable for CNC RPM ⩾ 12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.



Metric

Taper	Morse Taper Hole	L1 Gage	L	D Nose Dia.	Order No.
BT30	MT1	45mm	93.4mm	25mm	**210-5901**
BT30	MT1	50	98.4	25	**210-5902**
BT30	MT2	60	108.4	32	**210-5903**
BT30	MT3	80	128.4	40	**210-5904**
BT40	MT1	45	110.4	25	**210-6201**
BT40	MT1	50	115.4	25	**210-6202**
BT40	MT1	120	185.4	25	**210-6203**
BT40	MT2	50	115.4	32	**210-6204**
BT40	MT2	60	125.4	32	**210-6205**
BT40	MT2	120	185.4	32	**210-6206**
BT40	MT3	70	135.4	40	**210-6207**
BT40	MT3	75	140.4	40	**210-6208**
BT40	MT4	90	155.4	48	**210-6209**
BT40	MT4	95	160.4	48	**210-6210**
BT40	MT4	135	200.4	48	**210-6211**
BT40	MT4	165	230.4	48	**210-6212**
BT45	MT1	120	202.8	25	**210-6223**
BT45	MT2	120	202.8	32	**210-6224**
BT45	MT3	120	202.8	40	**210-6225**
BT45	MT3	140	222.8	40	**210-6226**
BT45	MT4	98	180.8	48	**210-6227**
BT50	MT1	45	146.8	25	**210-6601**
BT50	MT2	50	151.8	32	**210-6602**
BT50	MT2	60	161.8	32	**210-6603**
BT50	MT2	120	221.8	32	**210-6604**
BT50	MT2	135	236.8	32	**210-6605**
BT50	MT3	65	166.8	40	**210-6606**
BT50	MT3	75	176.8	40	**210-6607**
BT50	MT3	120	221.8	40	**210-6608**
BT50	MT3	135	236.8	40	**210-6609**
BT50	MT3	150	251.8	40	**210-6610**
BT50	MT4	85	186.8	48	**210-6611**
BT50	MT4	95	196.8	48	**210-6612**
BT50	MT4	180	281.8	48	**210-6613**
BT50	MT5	105	206.8	63	**210-6614**
BT50	MT5	108	209.8	63	**210-6615**

BT Shank to Morse Taper Adaptors (with Tang)

BT 数控莫氏变径套（扁尾型）

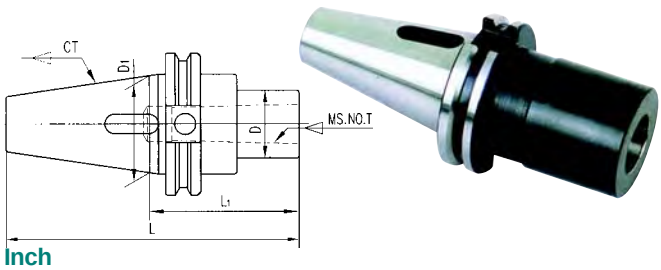
Inch

Taper	Morse Taper Hole	L1 Gage	D Nose Dia.	Order No.
BT40	MT2	2.375”	1.25”	**210-6701**
BT40	MT3	3.00	1.562	**210-6702**
BT40	MT4	2.562	2.00	**210-6703**
BT50	MT2	1.75	1.25	**210-6731**
BT50	MT3	1.75	1.562	**210-6732**
BT50	MT4	3.00	2.00	**210-6733**
BT50	MT5	1.125	2.75	**210-6734**

CAT Morse Taper Adaptors (with Tang)

CAT 数控莫氏变径套（扁尾型）

- Suitable for CNC RPM⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.



Inch

Taper	Morse Taper Hole	L1 Gage	D Nose Dia.	Order No.
CT40	MT2	2.375”	1.25”	**210-6942**
CT40	MT3	3.00	1.562	**210-6943**
CT40	MT4	2.562	2.00	**210-6944**
CT50	MT2	1.75	1.25	**210-6952**
CT50	MT3	1.75	1.562	**210-6953**
CT50	MT4	3.00	2.00	**210-6954**
CT50	MT5	4.125	2.75	**210-6955**

Metric

Taper	Morse Taper Hole	L1 Gage	L	D Nose Dia.	Order No.
CT40	MT1	45mm	113.25mm	25mm	**210-6801**
CT40	MT2	63	131.25	32	**210-6802**
CT40	MT3	75	143.25	40	**210-6803**
CT40	MT4	100	168.25	48	**210-6804**
CT45	MT1	40	122.55	25	**210-6831**
CT45	MT2	50	132.55	32	**210-6832**
CT45	MT3	73	155.55	40	**210-6833**
CT45	MT4	95	177.55	48	**210-6834**
CT45	MT5	125	207.55	61	**210-6835**
CT50	MT1	40	141.6	25	**210-6851**
CT50	MT2	50	151.6	32	**210-6852**
CT50	MT2	135	236.6	32	**210-6853**
CT50	MT3	63	164.6	40	**210-6854**
CT50	MT3	150	251.6	40	**210-6855**
CT50	MT4	65	166.6	48	**210-6856**
CT50	MT4	85	186.6	48	**210-6857**
CT50	MT5	105	206.6	61	**210-6858**

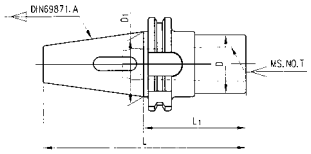
DIN Morse Taper Adaptors (with Tang)

DIN69871.A

DIN 数控莫氏变径套（扁尾型）

- Suitable for CNC RPM⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.



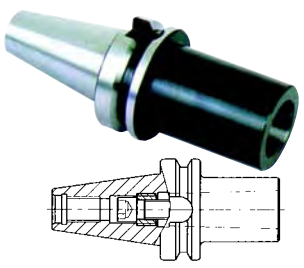


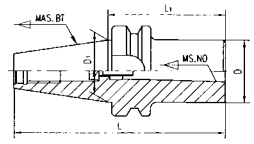
Taper	Morse Taper Hole	L1 Gage	L	D Nose Dia.	Order No.
A30	MT1	50mm	97.8mm	25mm	**210-7031**
A30	MT2	60	107.8	32	**210-7032**
A30	MT3	75	122.8	40	**210-7033**
A40	MT1	45	113.4	25	**210-7041**
A40	MT1	50	118.4	25	**210-7042**
A40	MT2	50	118.4	32	**210-7043**
A40	MT2	60	128.4	32	**210-7044**
A40	MT3	70	138.4	40	**210-7045**
A40	MT4	95	163.4	48	**210-7046**
A40	MT5	125	193.4	63	**210-7047**
A50	MT1	45	146.75	25	**210-7051**
A50	MT2	60	161.75	32	**210-7052**
A50	MT3	65	166.75	40	**210-7053**
A50	MT4	95	196.75	48	**210-7054**
A50	MT5	100	201.75	61	**210-7055**
A50	MT5	105	206.75	61	**210-7056**

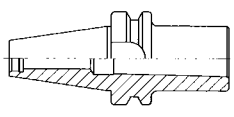
BT Morse Taper Adaptors (Drawbar)

数控莫氏变径套（后拉型）

- Suitable for CNC RPM⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.





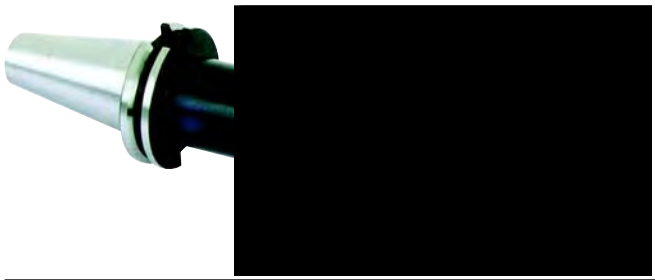


BTx MW.NO.T- L1	L mm	D mm	D1 mm	Figure	Order No.
BT40 x MW1-45	110.4	25	44.45	1	**210-8101**
BT40 x MW2-60	125.4	32	44.45	1	**210-8102**
BT40 x MW3-75	140.4	40	44.45	2	**210-8103**
BT40 x MW3-90	155.4	40	44.45	2	**210-8104**
BT40 x MW4-95	160.4	48	44.45	3	**210-8105**
BT40 x MW4-100	165.4	48	44.45	2	**210-8106**
BT50 x MW1-45	146.8	25	69.85	1	**210-8107**
BT50 x MW2-45	146.8	32	69.85	1	**210-8108**
BT50 x MW2-60	168.1	40	69.85	1	**210-8109**
BT50 x MW3-60	161.8	40	69.85	1	**210-8110**
BT50 x MW3-75	176.8	48	69.85	1	**210-8111**
BT50 x MW4-80	181.8	48	69.85	3	**210-8112**
BT50 x MW4-100	201.8	48	69.85	2	**210-8113**
BT50 x MW5-100	201.8	63	69.85	3	**210-8114**
BT50 x MW5-120	221.8	63	69.85	2	**210-8115**

CAT Morse Taper Adaptors (with Drawbar)

数控莫氏变径套（后拉型）

- Suitable for CNC RPM⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.

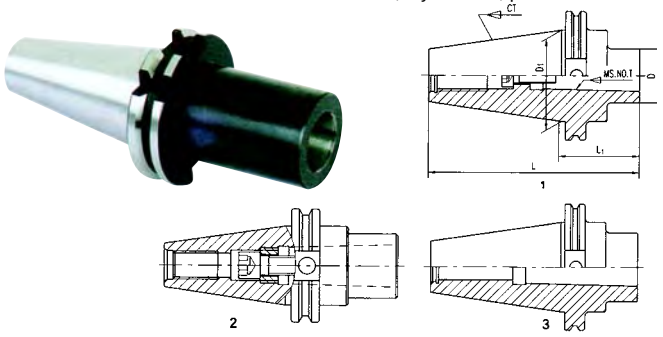


CTx MW.NO.T- L1	L mm	D mm	D1 mm	Figure	Order No.
CT40 x MW1-45	113.25	25	44.45	1	**210-8131**
CT40 x MW2-60	128.25	32	44.45	1	**210-8132**
CT40 x MW3-75	143.25	40	44.45	2	**210-8133**
CT40 x MW3-90	158.25	40	44.45	2	**210-8134**
CT40 x MW4-100	168.25	48	44.45	2	**210-8135**
CT40 x MW4-120	168.25	48	44.45	2	**210-8136**
CT50 x MW2-60	161.6	31.75	69.85	1	**210-8137**
CT50 x MW3-60	161.6	41.28	69.85	1	**210-8138**
CT50 x MW4-90	161.6	50.8	69.85	1	**210-8139**
CT50 x MW5-100	201.6	69.85	69.85	3	**210-8140**

DIN Morse Taper Adaptors (with Drawbar)

数控莫氏变径套（后拉型）

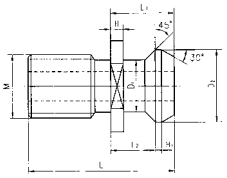
- Suitable for CNC RPM⩾12000.
- Checked by balance.
- RPM⩾ 20000 balance toolholders available, if you need, please contact.



DIN69871.A x MW.NO.T- L1	L mm	D mm	D1 mm	Figure	Order No.
DIN69871.A40 x MW1-45	113.4	25	44.45	1	**210-8161**
DIN69871.A40 x MW2-60	128.4	32	44.45	1	**210-8162**
DIN69871.A40 x MW3-70	138.4	40	44.45	3	**210-8163**
DIN69871.A40 x MW3-80	148.4	40	44.45	2	**210-8164**
DIN69871.A40 x MW3-100	168.4	40	44.45	2	**210-8165**
DIN69871.A40 x MW4-90	158.4	48	44.45	3	**210-8166**
DIN69871.A40 x MW4-100	168.4	48	69.85	2	**210-8167**
DIN69871.A40 x MW4-120	188.4	48	69.85	2	**210-8168**
DIN69871.A50 x MW1-45	146.8	25	69.85	1	**210-8169**
DIN69871.A50 x MW2-45	146.8	32	69.85	1	**210-8170**
DIN69871.A50 x MW2-60	161.8	32	69.85	1	**210-8171**
DIN69871.A50 x MW3-60	161.8	40	69.85	1	**210-8172**
DIN69871.A50 x MW3-80	181.8	40	69.85	1	**210-8173**
DIN69871.A50 x MW4-80	181.8	48	69.85	3	**210-8174**
DIN69871.A50 x MW4-90	191.8	48	69.85	2	**210-8175**
DIN69871.A50 x MW4-120	221.8	48	69.85	2	**210-8176**
DIN69871.A50 x MW5-100	201.8	61	69.85	3	**210-8177**
DIN69871.A50 x MW5-120	221.8	61	69.85	2	**210-8178**

Retention Knobs 拉钉

ANSI/ASME B5.50-1985

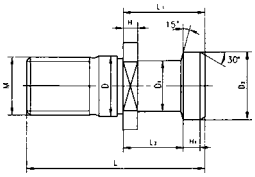


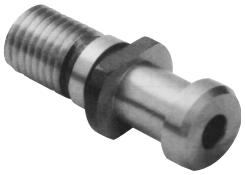


mm

Type	D1	D2	M	L	L1	L2	H	H1	Order No.
30	9.78	13.21	1/2”-13	27.94	11.68	8.13	2.54	1.01	**210-7701**
40	12.45	18.80	5/8”-11	38.10	16.26	11.18	3.05	1.52	**210-7702**
45	15.37	23.88	3/4-10	45.72	20.83	14.73	4.06	2.03	**210-7703**
50	20.83	28.96	1”-8	58.42	25.4	17.78	5.08	2.54	**210-7704**

ISO7388/2-1984A

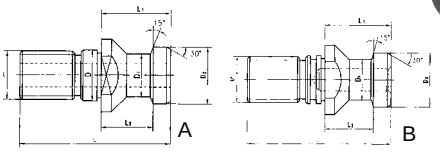


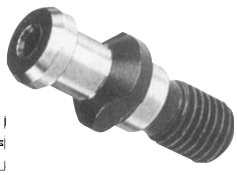


mm

Type	D	D1	D2	M	L	L1	L2	H	H1	Order No.
30A	13	8	12	M12	44	24	19	4	3	**210-7711**
40A	17	14	19	M16	54	26	20	4	4	**210-7712**
45A	21	17	23	M20	65	30	23	5	5	**210-7713**
50A	25	21	28	M24	74	34	25	6	7	**210-7714**

DIN69872-1988

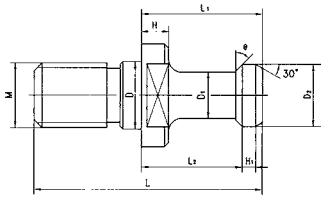


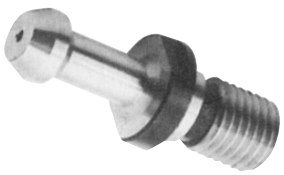


mm

Type	D	D1	D2	M	L	L1	L2	Order No.
30A	13	8	12	M12	44	24	19	**210-7721**
40A	17	14	19	M16	54	26	20	**210-7722**
45A	21	17	23	M20	65	30	23	**210-7723**
50A	25	21	28	M24	74	34	25	**210-7724**
30B		8	12	M12	44	24	19	**210-7725**
40B		14	19	M16	54	26	20	**210-7726**
45B		17	23	M20	65	30	23	**210-7727**
50B		21	28	M24	74	34	25	**210-7728**

MAS403-1982





mm

Type	D	D1	D2	M	L	L1	L2	H	H1	θ	Order No.
P30T(θ)	12.5	7	11	M12	43	23	18	5	2.5	30°	**210-7731**
P40T(θ)	17	10	15	M16	60	35	28	6	3	30°	**210-7732**
P45T(θ)	21	14	19	M20	70	40	31	8	4	30°	**210-7733**
P50T(θ)	25	17	23	M24	85	45	35	10	5	30°	**210-7734**
P30T(θ)	12.5	7	11	M12	43	23	18	5	2.5	45°	**210-7741**
P40T(θ)	17	10	15	M16	60	35	28	6	3	45°	**210-7742**
P45T(θ)	21	14	19	M20	70	40	31	8	4	45°	**210-7743**
P50T(θ)	25	17	23	M24	85	45	35	10	5	45°	**210-7744**

Milling Machine Arbors 7:24 卧铣刀杆

Style A

- Style A with 23/32" x 1-1/2" pilots.
- Machined from high grade forging; have standard key ways and include arbor spacers and running bushings.



Arbor No.	Taper	Arbor Dia.	Length of Shoulder To nut	Dia. of Running Bushings	Bushings Furnished	Order No.
30-7/8—A10-2	30	7/8"	10	1-5/8"	1	**219-8332**
31-A10-2	30	1 "	10	1-5/8"	1	**219-8336**
31-1/4-A10-2	30	1-1/4"	10	1-7/8"	1	**219-8338**
40-7/8-A10	40	7/8"	10		None	**219-8432**
40-7/8-A16-3	40	7/8"	16	1-7/8"	1	**219-8434**
41-A8	40	1 "	8		None	**219-8436**
41-A10	40	1 "	10		None	**219-8438**
41-A12	40	1 "		12"	None	**219-8440**
41-A16-3	40	1 "	16	1-7/8"	1	**219-8442**
41-1/4-A8	40	1-1/4"	8		None	**219-8444**
41-1/4-A10	40	1-1/4"	10		None	**219-8446**
41-1/4-A12	40	1-1/4"	12		None	**219-8448**
41-1/4-A-16-3	40	1-1/4"	16	1-7/8"	1	**219-8450**
50-7/8-A10	50	7/8"	10		None	**219-8532**
50-7/8-A18-4	50	7/8"	18	2-1/8"	1	**219-8534**
51-A8	50	1	8		None	**219-8536**
51-A12	50	1"	12	2-1/8"	None	**219-8538**
51-A18-4	50	1 "	18		1	**219-8540**
51-1/4-A8	50	1-1/4"	8		None	**219-8542**
51-1/4-A12	50	1-1/4	12		None	**219-8544**
51-1/4-A18-4	50	1-1/4"	18	2-1/8"	1	**219-8546**

Style B

- Style B without pilots.
- Machined from high grade forging; have standard key ways and include arbor spacers and running bushings.



Arbor No.	Taper	Aorber Dia.	Length of Shoulder To nut	Dia. of Running Bushings	Bushings Fur-nished	Order No.
31-B2	30	1"	2 "	None	None	**219-9334**
40-7/8-B14-3	40	7/8"	14	1-7/8"	1	**219-9432**
40-7/8-B16-3	40	7/8	16	1-7/8	1	**219-9434**
41-B3	40	1"	3 "	None	None	**219-9436**
41-B14-3	40	1	14	1-7/8	1	**219-9438**
41-B20-3	40	1	20	1-7/8"	1	**219-9440**
41-1/4-B3	40	1-1/4"	3 "	None	None	**219-9442**
41-1/4-B14-3	40	1-1/4	14	1-7/8	1	**219-9444**
41-1/4-B20-3	40	1-1/4	20	1-7/8	1	**219-9446**
41-1/2-B10	40	1-1/2	10	2-1/8	None	**219-9448**
41-1/2-B20-4	40	1-1/2	20	2-1/8	1	**219-9450**
51-B3-1/2	50	1	3-1/2	None	None	**219-9532**
51-B15-4	50	1	15	2-1/8	1	**219-9534**
51-B18-4	50	1	18	2-1/8	2	**219-9536**
51-B24-4	50	1	24	2-1/8	2	**219-9538**
51-1/4-B3-1/2	50	1-1/4	3-1/2	None	None	**219-9540**
51-1/4-B15-4	50	1-1/4	15	2-1/8	1	**219-9542**
51-1/4-B18-4	50	1-1/4	18	2-1/8	2	**219-9544**
51-1/4-B24-4	50	1-1/4	24	2-1/8	2	**219-9546**
51-1/4-B30-4	50	1-1/4	30	2-1/8	2	**219-9548**
51-1/2-B3-1/2	50	1-1/2	3-1/2	None	None	**219-9550**
51-1/2-B18-4	50	1-1/2	18	2-1/8	2	**219-9552**
51-1/2-B24-5	50	1-1/2	24	2-3/4	2	**219-9554**
51-1/2-B30-5	50	1-1/2	30	2-3/4	2	**219-9556**
51-1/2-B36-5	50	1-1/2	36	2-3/4	2	**219-9558**
52-B24-5	50	2	24	2-3/4	2	**219-9560**
52-B30-5	50	2	30	2-3/4	2	**219-9562**
52-B36-5	50	2	36	2-3/4	2	**219-9564**
52-1/2-B36-6	50	2-1/2	36	3-3/8	2	**219-9566**

Arbor Spacers with Keyways

刀杆垫圈



Spacer Width	7/8"Hole and 1-3/8" Outside Dia. Order No.	1"Hole and 1-1/2" Outside Dia. Order No.	1-1/4" Hole and 1-3/4" Outside Dia. Order No.	1-1/2 Hole and 2-1/8" Outside Dia. Order No.	2" Hole and 2-3/4" Outside Dia. Order No.
1/16"	**219-8110**	**219-8210**	**219-8710**	**219-8810**	**219-8910**
3/32"	**219-8112**	**219-8212**	**219-8712**	**219-8812**	**219-8912**
1/8"	**219-8114**	**219-8214**	**219-8714**	**219-8814**	**219-8914**
3/16"	**219-8116**	**219-8216**	**219-8716**	**219-8816**	**219-8916**
1/4"	**219-8118**	**219-8218**	**219-8718**	**219-8818**	**219-8918**
5/16"	**219-8120**	**219-8220**	**219-8720**	**219-8820**	**219-8920**
3/8"	**219-8122**	**219-8222**	**219-8722**	**219-8822**	**219-8922**
7/16"	**219-8124**	**219-8224**	**219-8724**	**219-8824**	**219-8924**
1/2"	**219-8126**	**219-8226**	**219-8726**	**219-8826**	**219-8926**
5/8"	**219-8128**	**219-8228**	**219-8728**	**219-8828**	**219-8928**
3/4"	**219-8130**	**219-8230**	**219-8730**	**219-8830**	**219-8930**
7/8"	**219-8132**	**219-8232**	**219-8732**	**219-8832**	**219-8932**
1 "	**219-8134**	**219-8234**	**219-8734**	**219-8834**	**219-8934**
1-1/4"	**219-8136**	**219-8236**	**219-8736**	**219-8836**	**219-8936**
1-1/2"	**219-8138**	**219-8238**	**219-8738**	**219-8838**	**219-8938**
2 "	**219-8140**	**219-8240**	**219-8740**	**219-8840**	**219-8940**
3 "	**219-8142**	**219-8242**	**219-8742**	**219-8842**	**219-8942**

Arbor Running Bushings with Keyways 刀杆轴套

For StyleA and Style B milling machine arbors



Arbor Dia.	Outside Dia.	Length	Order No.	Arbor Dia.	Outside Dia.	Length	Order No.
7/8"	1-5/8"	2-5/8"	**219-8652**	1-1/4"	2-1/8"	3-3/4"	**219-8668**
1 "	1-5/8"	2-5/8"	**219-8654**	1-1/2"	2-1/8"	3-3/4"	**219-8670**
1-1/4"	1-7/8"	2-5/8"	**219-8656**	7/8"	2-3/4"	4-1/4"	**219-8672**
7/8"	1-7/8"	3-1/8"	**219-8658**	1 "	2-3/4"	4-1/4"	**219-8674**
1 "	1-7/8"	3-1/8	**219-8660**	1-1/4"	2-3/4"	4-1/4"	**219-8676**
1-1/4"	1-7/8"	3-1/8"	**219-8662**	1-1/2"	2-3/4"	4-1/4"	**219-8678**
7/8"	2-1/8"	3-3/4"	**219-8664**	2 "	2-3/4"	4-1/4"	**219-8680**
1 "	2-1/8"	3-3/4"	**219-8666**	2-1/2"	3-3/8"	4-1/4"	**219-8682**

Nuts 刀杆螺母

For milling machine arbors



Arbor Dia.	Thread	Right Hand Order No.	Left Hand Order No.
7/8 "	7/8-14RH	**219-8632**	**219-8602**
1 "	1-14RH	**219-8634**	**219-8604**
1-1/4"	1-1/4-12RH	**219-8636**	**219-8606**
1-1/2"	1-1/2-12 RH	**219-8638**	**219-8608**
2 "	2-12RH	**219-8640**	**219-8610**
2-1/2"	2-1/2-12RH	**219-8642**	**219-8612**

Micrometer Adjustable Spacing Collars

可调精密垫圈



- Provides you with quick, accurate and positive adjustment.
- Features precise calibration of 1/1000".

Range	Hole Dia.	Outside Dia.	Thickness	Order No.
7/16-5/8"	3/4	1-1/2	7/16	**712-0400**
9/16-3/4"	7/8	1-1/2	9/16	**712-0410**
5/8-7/8"	1	1-3/4	5/8	**712-0420**
3/4-1"	1-1/4	2-1/8	3/4	**712-0430**
7/8-1-1/4"	1-1/2	2-5/8	7/8	**712-0440**
15/16-1/-1/2"	2	3-5/8	15/16	**712-0450**

Straight Shank Stub Milling Machine Arbors

直柄卧铣刀杆

- For holding saws or small cutters.
- These arbors are designed and made to fit directly into standard End Mill Adapters.Sets include spacers and nut.
- Arbors furnished with standard key ways and L.H. arbor nut.
- Lengths of shoulder to nut are 1"
- Hardened and ground.



Dia. Of Straight Shank	Arbor Dia.	Length of Shoulder toNut	Order No.
1/2"	1/2"	1"	**210-3800**
1/2"	5/8"	1"	**210-3801**
1/2"	3/4"	1"	**210-3802**
3/4"	1/2"	1"	**210-3803**
3/4"	5/8"	1"	**210-3804**
3/4"	3/4"	1"	**210-3805**
3/4"	7/8"	1"	**210-3806**
3/4"	1"	1"	**210-3807**
3/4"	1-1/4"	1"	**210-3808**

Stub Milling Machine Arbors

卧铣刀杆

- Adjust the washer to hold the end mills according to your various needs.



Shank	End Mill Dia.	Order No.
R8	22mm	**210-2208**
MT2	22mm	**210-2212**
MT3	22mm	**210-2213**
MT4	22mm	**210-2214**
MT5	22mm	**210-2215**
R8	27mm	**210-2218**
MT2	27mm	**210-2222**
MT3	27mm	**210-2223**
MT4	27mm	**210-2224**
MT5	27mm	**210-2225**

Shank	Arbor Dia.	Length of Shoulder to Nut	Order No.
R8	1 "	2 "	**210-2108**
MT2	1 "	2 "	**210-2112**
MT3	1 "	2 "	**210-2113**
MT4	1 "	2 "	**210-2114**
MT5	1 "	2 "	**210-2115**
R8	1-1/4"	2 "	**210-2118**
MT2	1-1/4"	2 "	**210-2122**
MT3	1-1/4"	2 "	**210-2123**
MT4	1-1/4"	2 "	**210-2124**
MT5	1-1/4"	2 "	**210-2125**
30	1 "	1-1/2"	**210-2130**
30	1-1/4"	1-3/4"	**210-2133**
40	1 "	1-1/2"	**210-2140**
40	1-1/4"	1-3/4"	**210-2144**
50	1 "	1-1/2"	**210-2150**
50	1-1/4"	1-3/4"	**210-2155**

R8 to Morse Taper Sleeves

R8/MT 变径套

- Internal thread 7/16"-20.



Outside Taper	Morse Taper	Order No.
R8	MT1	**214-9001**
R8	MT2	**214-9002**
R8	MT3	**214-9003**
R8	MT4	**214-9004**

30-40-50 to Morse Taper Adaptors

7:24/MS 变径套

ANSI, BS & Metric

Outside Taper	Inside Taper	Overall Length	Drawbar Thread	Order No.	Drawbar Thread	Metric Order No.	Drawbar Thread	BS Order No.
30	MT1	118mm	1/2"-13	**214-7300**	M12	**214-7700**		
30	MT2	118mm	1/2"-13	**214-7305**	M12	**214-7705**	1/2 BSW	**214-7605**
30	MT3	138mm	1/2"-13	**214-7310**	M12	**214-7710**	1/2 BSW	**214-7610**
30	MT4	212mm	1/2"-13	**214-7315**	M12	**214-7715**		
40	MT1	143mm	5/8"-11	**214-7320**	M16	**214-7720**		
40	MT2	143mm	5/8"-11	**214-7325**	M16	**214-7725**	5/8 BSW	**214-7625**
40	MT3	158mm	5/8"-11	**214-7330**	M16	**214-7730**	5/8 BSW	**214-7630**
40	MT4	188mm	5/8"-11	**214-7335**	M16	**214-7735**	5/8 BSW	**214-7635**
40	MT5	273mm	5/8"-11	**214-7340**	M16	**214-7740**		
50	MT1	172mm	1"-8	**214-7345**	M24	**214-7745**		
50	MT2	187mm	1"-8	**214-7350**	M24	**214-7750**		
50	MT3	192mm	1"-8	**214-7355**	M24	**214-7755**		
50	MT4	197mm	1"-8	**214-7360**	M24	**214-7760**		
50	MT5	232mm	1"-8	**214-7365**	M24	**214-7765**		

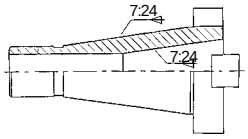


30-40-50 to 30-40-50 Adaptors

7:24 变径套

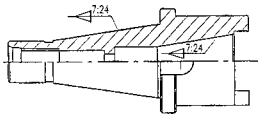
Inside Taper Draw Key Type

Outside Taper	Inside Taper	Overall Length	Order No.
40	30	110mm	214-7270
50	30	145mm	214-7275
50	40	145mm	214-7280



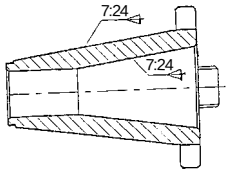
Outside Taper Draw Type

Outside Taper	Inside Taper	Overall Length	Order No.
40	30	152.4mm	214-7220
50	30	185.8mm	214-7225
50	40	207.8mm	214-7230



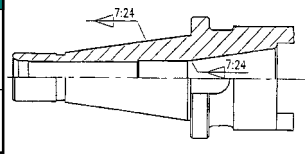
End Open Type

Outside Taper	Inside Taper	Overall Length	Order No.
40	30	86mm	214-7200
50	30	129.5mm	214-7205
50	40	129.5mm	214-7210



Inside Taper Draw Type

Outside Taper	Inside Taper	Overall Length	Order No.
40	30	152.4mm	214-7240
40	40	204.4mm	214-7245
50	30	185.8mm	214-7250
50	40	207.8mm	214-7255
50	50	260.8mm	214-7260



Morse Taper Sleeves

莫氏扁尾变径套



Hardened Tang Only

Morse Taper Outside	Morse Taper Inside	Order No.	Morse Taper Inside	Morse Taper Outside	Order No.
MT1	MT0	214-8001	MT2	MT5	214-8025
MT2	MT1	214-8012	MT2	MT6	214-8026
MT3	MT1	214-8013	MT3	MT4	214-8034
MT4	MT1	214-8014	MT3	MT5	214-8035
MT5	MT1	214-8015	MT3	MT6	214-8036
MT6	MT1	214-8016	MT4	MT5	214-8045
MT3	MT2	214-8023	MT4	MT6	214-8046
MT4	MT2	214-8024	MT5	MT6	214-8056

Hardened & Ground Throughout

Morse Taper Outside	Morse Taper Inside	Order No.	Morse Taper Inside	Morse Taper Outside	Order No.
MT1	MT0	214-8101	MT2	MT5	214-8125
MT2	MT1	214-8112	MT2	MT6	214-8126
MT3	MT1	214-8113	MT3	MT4	214-8134
MT4	MT1	214-8114	MT3	MT5	214-8135
MT5	MT1	214-8115	MT3	MT6	214-8136
MT6	MT1	214-8116	MT4	MT5	214-8145
MT3	MT2	214-8123	MT4	MT6	214-8146
MT4	MT2	214-8124	MT5	MT6	214-8156

Drift Keys 钻套楔铁

Drop Forged

Removes taper shank drills or reamers
From sleeves or sockets quickly



Size	Fits Mt. Sleeves and Sockets	Overall Length	ThickNess	Width at Hole	Order No.
1	MT1	4-1/2”	13/64”	11/16”	292-6220
2	MT2	4-1/8”	1/4”	13/16”	292-6225
3	MT3	6-3/4”	5/16”	1-1/16”	292-6230
4	MT4,MT5,MT6	7-1/8”	15/32”	1-1/8”	292-6235
4pcs/set includes: #1, #2, #3 & #4MT					392-6240

Half Automatic Mores Shank Pullers

DIN 318 半自动楔铁

The morse shank can easy to be pulled off by the half-automatic morse shank puller operation quickly, saving time and pressure.



MS. NO	Order No.
MS1, MS2, MS3	292-6211
MS4, MS5, MS6	292-6212

Morse Taper Extension Sockets

莫氏加长变径套



Hardened Tang Only

Shank Taper to Hole Taper	Order No.	Shank Taper to Hole Taper	Order No.
MT1 to MT1	214-8511	MT5 to MT2	214-8525
MT2 to MT1	214-8512	MT6 to MT2	214-8526
MT3 to MT1	214-8513	MT2 to MT3	214-8532
MT4 to MT1	214-8514	MT3 to MT3	214-8533
MT5 to MT1	214-8515	MT4 to MT3	214-8534
MT6 to MT1	214-8516	MT5 to MT3	214-8535
MT 1to MT2	214-8521	MT6 to MT3	214-8536
MT2 to MT2	214-8522	MT2 to MT4	214-8542
MT3 to MT2	214-8523	MT3 to MT4	214-8543
MT4 to MT2	214-8524	MT4 to MT4	214-8544
MT5 to MT5	214-8555	MT5 to MT4	214-8545
MT6 to MT5	214-8556	MT6 to MT4	214-8546
MT4 to MT6	214-8564	MT3 to MT5	214-8553
MT5 to MT6	214-8565	MT4 to MT5	214-8554
MT6 to MT6	214-8566		

Hardened & Ground Throughout

Shank Taper to Hole Taper	Order No.	Shank Taper to Hole Taper	Order No.
MT2 to MT1	214-8612	MT2 to MT4	214-8642
MT3 to MT1	214-8613	MT3 to MT4	214-8643
MT4 to MT1	214-8614	MT4 to MT4	214-8644
MT1 to MT2	214-8621	MT5 to MT4	214-8645
MT2 to MT2	214-8622	MT6 to MT4	214-8646
MT3 to MT2	214-8623	MT3 to MT5	214-8653
MT4 to MT2	214-8624	MT4 to MT5	214-8654
MT2 to MT3	214-8632	MT5 to MT5	214-8655
MT3 to MT3	214-8633	MT6 to MT5	214-8656
MT4 to MT3	214-8634	MT5 to MT6	214-8665
MT5 to MT3	214-8635	MT6 to MT6	214-8666

Solid Sockets 直柄变径套

MORSE TAPER I.D., STRAIGHT SHANK O.D, GROUND & ACCURATE.

Used to convert spindles to larger or smaller tapers and to extend the spindles of drill presses, radial drills, boring mills, turret lathes and similar machines.



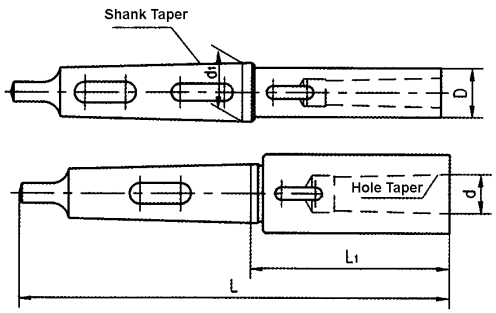
Solid Socket Number	Morse Taper I.D.	Shank Diameter	Overall Length	Order No.
1	1	1”	3-1/2	**214-8701**
2	1	1-1/4”	3-1/2	**214-8702**
3	1	1-1/2”	3-1/2	**214-8703**
4	2	1”	4	**214-8704**
5	2	1-1/4”	4	**214-8705**
6	2	1-1/2”	4	**214-8706**
7	2	1-3/4”	4	**214-8707**
8	2	2”	4	**214-8708**
9	3	1-1/4”	4-3/4	**214-8709**

Solid Socket Number	Morse Taper I.D.	Shank Diameter	Overall Length	Order No.
10	3	1-1/2”	4-3/4	**214-8710**
11	3	1-3/4”	4-3/4	**214-8711**
12	3	2”	4-3/4	**214-8712**
13	4	1-1/2”	6	**214-8713**
14	4	1-3/4”	6	**214-8714**
15	4	2”	6	**214-8715**
16	5	2-1/4”	7-3/8	**214-8716**
17	5	2-1/2”	7-3/8	**214-8717**
18	6	3-1/4”	10-1/8	**214-8718**
19	6	3-1/2”	10-1/8	**214-8719**

Morse Taper Sleeves DIN1806 莫式变径套

DIN1806

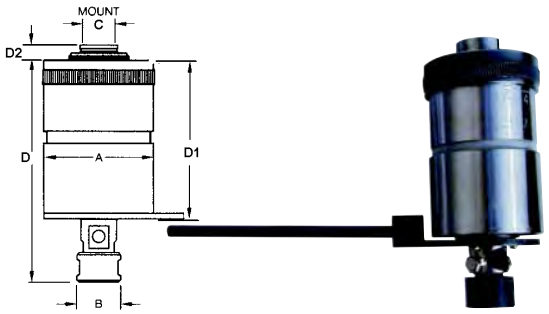




Shank Taper to Hole Taper	Overall Length (mm)	L1 (mm)	D (mm)	d (mm)	d1 (mm)	Accuracy (mm)	Order No.
MT3 to MT1	175	81	20	12. 065	23.825	0.03	**214-6105**
MT3 to MT2	194	l00	30	17. 780	23.825	0.03	**214-6110**
MT3 to MT2	500	406	30	17. 780	23.825	0.04	**214-6115**
MT3 to MT3	215	121	36	23. 825	23.825	0.03	**214-6120**
MT3 to MT3	300	206	36	23. 825	23.825	0.04	**214-6125**
MT4 to MT2	215	97.5	30	17. 780	31.267	0.03	**214-6130**
MT4 to MT3	240	122.5	36	23. 825	31.267	0.03	**214-6135**
MT4 to MT4	265	147.5	48	31. 267	31.267	0.03	**214-6140**
MT5 to MT2	247	97.5	30	17. 780	44.399	0.04	**214-6145**
MT5 to MT3	268	118.5	36	23. 825	44.399	0.04	**214-6150**
MT5 to MT4	300	150,5	48	31. 267	44.399	0.04	**214-6155**
MT5 to MT5	335	185.5	63	44. 399	44.399	0.04	**214-6160**
MT5 to MT6	396	246.5	85	63. 348	44.399	0.05	**214-6165**
MT6 to MT4	355	145	48	31.267	63,348	0.04	**214-6170**
MT6 to MT5	390	180	63	44. 399	63,348	0.04	**214-6175**
MT6 to MT6	460	250	85	63. 348	63,348	0.05	**214-6180**

Reversing Type Tapping Heads 可逆攻丝夹头

- Use with Jacobs or threaded mounts adapters on manual operated drilling and milling machine.
- The Adjustable torque prevents damage and tap breakage.
- High ratio of reaverse turing speed improves productivity.
- Easy operation design.
- Rubber flexible collets.



Capacity of Metric Thread (In Steel)	Capacity of Inch Thread (In Steel)	Mounts	Dimensions(mm) D	D1	D2	A	B	C	Order No.
M1.4-M7	#0-1/4"	JT6	124	88	11	52	23	22.5	**210-0210**
M1.4-M7	#0-1/4"	JT33	124	88	11	52	23	22.5	**210-0211**
M1.4-M7	#0-1/4"	5/16"-24	124	88	11	52	23	22.5	**210-0212**
M1.4-M7	#0-1/4"	3/8"-24	124	88	11	52	23	22.5	**210-0213**
M1.4-M7	#0-1/4"	1/2"-20	124	88	11	52	23	22.5	**210-0214**
M1.4-M7	#0-1/4"	5/8"-16	124	88	11	52	23	22.5	**210-0215**
M3-M12	#6-1/2"	JT6	155	110	9	74	28	28	**210-0220**
M3-M12	#6-1/2"	JT33	155	110	9	74	28	28	**210-0221**
M3-M12	#6-1/2"	1/2"-20	155	110	9	74	28	28	**210-0222**
M3-M12	#6-1/2"	5/8"-16	155	110	9	74	28	28	**210-0223**
M3-M12	#6-1/2"	3/4"-16	155	110	9	74	28	28	**210-0224**
M5-M20	#10-3/4"	JT3	195	132	10	91	38	35.5	**210-0230**
M5-M20	#10-3/4"	1/2"-20	195	132	10	91	38	35.5	**210-0231**
M5-M20	#10-3/4"	5/8'-16	195	132	10	91	38	35.5	**210-0232**
M5-M20	#10-3/4"	3/4"-16	195	132	10	91	38	35.5	**210-0233**

Rubberflex Collets
橡胶攻丝夹头



	Order No.
4.2mm (2.0-4.2mm/.079-.165")	**210-0280**
6.5mm (4.2-6.5mm/.165-.256")	**210-0282**
7.0mm (3.5-7.0mm/,137-.275")	**210-0284**
9.0mm (5.0-9.0mm/.196-.354")	**210-0286**
10.0mm (7.0-10.0mm/.275-.393")	**210-0288**
14.0mm (9.0-14.0mm/.354-.551")	**210-0290**

Expanding Arbors 可涨接杆

Chuck these expanding arbors to hold special parts in lathes, milling machine, grinders, chucks, collets, fixtures etc.

3 Pc in Set

Set includes one each of:
1-1/2, 1-3/4 &2" w/1pc wrench

Supplied with wooden stand

Order No. 262-0103

8 Pc in Set

Set includes one each of:
1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1, 1-1/4"

Supplied with wooden stand

Order No. 262-0108



Size	Length of Arbor	Accuracy	Order No.
1/4"	3"	.005"	262-4016
3/8	3	.005	262-4024
1/2	3	.005	262-4032
5/8	3	.005	262-4040
3/4	4	.005	262-4048
7/8	4	.005	262-4056
1	4	.005	262-4100
1-1/4	4	.005	262-4116
1-1/2	4	.005	262-4120
1-3/4	4	.005	262-4126
2	4	.005	262-4127
2-1/2	4	.005	262-4128
3	4	.005	262-4129

Precision Expanding Mandrels

膨胀芯轴

Hardened & precision ground for maximum concentricity and holding power

- Center holes are ground and lapped.
- Automatic expansion feature can be used on any bore within the range of the mandrel standard or non-standard.
- Sizes up to 1" are furnished with 1 sleeve larger sizes have 2 sleeve, 1 large and 1 small.



Individuals

Range	Length of Arbor	Length of Sleeve	Order No.
1/2" ~ 9/16"	5"	2-1/2"	262-3050
9/16" ~ 21/32"	6"	2-3/4"	262-3052
21/32" ~ 3/4"	7"	2-3/4"	262-3054
3/4" ~ 7/8"	7"	3-1/4"	262-3056
7/8" ~ 1"	7"	3-1/2"	262-3058
1" ~ 1-1/4"	9"	4"	262-3060
1-1/4" ~ 1-1/2"	9"	4"	262-3062
1-1/2" ~ 2"	11-1/2"	5"	262-3064
2" ~ 2-3/4"	14"	6"	262-3066
2-3/4" ~ 3-3/4"	17"	7"	262-3068

Sets

No. of Mandrels	Range	Order No.
5	1/2" ~ 1"	262-3010
3	1" ~2"	262-3020
8	1/2" ~2"	262-3030

Lathe Mandrels 实芯膨胀芯轴

Made of hardened tool steel which is accurately ground to size. Slightly tapered with marked in the large end Standard taper .0005" per inch. Sizes under 1" are .0005" undersize on small end. Sizes 1-1/16" to 3" are .001" under size on small end.



Inch

Diameter	Overall Length	Order No.
1/8"	2-1/2"	262-2008
5/32	3	262-2010
3/16	3	262-2012
7/32	3-3/4	262-2014
1/4	3-3/4	262-2016
9/32	4	262-2018
5/16	4	262-2020
11/32	4-1/4	262-2022
3/8	4-1/4	262-2024
13/32	4-1/2	262-2026
7/16	4-1/2	262-2028
15/32	5	262-2030
1/2	5	262-2032
17/32	5-1/4	262-2034
9/16	5-1/4	262-2036
19/32	5-1/2	262-2038
5/8	5-1/2	262-2040
21/32	5-3/4	262-2042
11/16	5-3/4	262-2044
23/32	6	262-2046
3/4	6	262-2048
25/32	6-1/4	262-2050
13/16	6-1/4	262-2052
27/32	6-1/2	262-2054
7/8	6-1/2	262-2056
29/32	6-3/4	262-2058
15/16	6-3/4	262-2060
31/32	7	262-2062
1	7	262-2100
1-1/32	7-1/4	262-2102
1-1/16	7-1/4	262-2104
1-3/32	7-1/2	262-2106
1-1/8	7-1/2	262-2108
1-5/32	7-3/4	262-2110
1-3/16	7-3/4	262-2112
1-7/32	8	262-2114
1-1/4	8	262-2116
1-9/32	8-1/4	262-2118
1-5/16	8-1/4	262-2120
1-11/32	8-3/4	262-2122
1-3/8	8-1/2	262-2124
1-7/16	8-3/4	262-2128
1-15/32	9	262-2130
1-1/2	9	262-2132
1-9/16	9-1/4	262-2136
1-5/8	9-1/2	262-2140
1-11/16	9-3/4	262-2144
1-3/4	10	262-2148
1-13/16	10-1/4	262-2152
1-7/8	10-1/2	262-2156
1-15/16	10-3/4	262-2160
2	11	262-2200
2-1/8	11-1/2	262-2208
2-1/4	12	262-2216
2-3/8	12	262-2224
2-1/2	12-1/2	262-2232
2-5/8	12-1/2	262-2240
2-3/4	13	262-2248
2-7/8	13	262-2256
3	13	262-2300

Metric

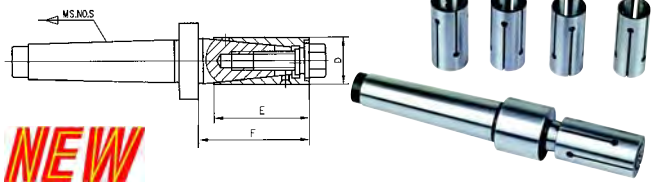
- Standard Taper; 1:2000
- Small end 3mm to 25mm, tolerance is -0.0125mm
- Small end 26mm to 72mm, tolerance is -0.025mm

NEW

Diameter	OAL	Order No.
3mm	63.5mm	262-2401
4	76	262-2402
5	95	262-2403
6	95	262-2405
7	102	262-2407
8	102	262-2409
9	108	262-2411
10	114	262-2413
11	114	262-2415
12	127	262-2417
13	127	262-2419
14	133	262-2421
15	140	262-2423
16	140	262-2425
17	146	262-2427
18	152	262-2429
19	152	262-2431
20	159	262-2433
21	165	262-2435
22	165	262-2437
23	171.5	262-2439
25	178	262-2443
26	184	262-2445
27	184	262-2447
28	190.5	262-2449
30	197	262-2453
32	203	262-2455
34	210	262-2457
35	216	262-2461
36	222	262-2463
38	229	262-2465
40	235	262-2467
42	241	262-2469
44	254	262-2471
45	254	262-2473
46	260	262-2475
48	267	262-2477
50	273	262-2479
51	279	262-2481
55	292	262-2483
58	305	262-2485
60	305	262-2487
62	317.5	262-2489
65	317.5	262-2491
70	330	262-2493
72	330	262-2495

Morse Taper Expanding Mandrels

莫氏膨胀芯轴



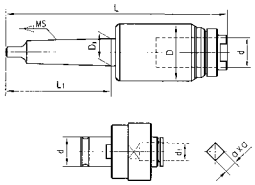
NEW

Model#	Tapper	Diameter D(mm)	Sleeve Length E(mm)	Overal Gripping F(mm)	Sleeves	Exten-sibility	Order No.
No. 00	MT2	14.7-18.7	35	41.5	5	1	**262-1002**
No. 00	MT3	14.7-18.7	35	41.5	5	1	**262-1003**
No. 00	MT4	14.7-18.7	35	41.5	5	1	**262-1004**
No. 01	MT2	19.7-23.7	40	46.5	5	1	**262-1012**
No. 01	MT3	19.7-23.7	40	46.5	5	1	**262-1013**
No. 01	MT4	19.7-23.7	40	46.5	5	1	**262-1014**
No. 02	MT2	24.7-28.7	46	52.5	5	1	**262-1022**
No. 02	MT3	24.7-28.7	46	52.5	5	1	**262-1023**
No. 02	MT4	24.7-28.7	46	52.5	5	1	**262-1024**
No. 02	MT5	24.7-28.7	46	52.5	5	1	**262-1025**
No. 03	MT3	29.7-33.7	50	56.5	5	1	**262-1033**
No. 03	MT4	29.7-33.7	50	56.5	5	1	**262-1034**
No. 03	MT5	29.7-33.7	50	56.5	5	1	**262-1035**
No. 04	MT3	34.7-38.7	60	66.5	5	1	**262-1043**
No. 04	MT4	34.7-38.7	60	66.5	5	1	**262-1044**
No. 04	MT5	34.7-38.7	60	66.5	5	1	**262-1045**
No. 05	MT3	39.7-43.7	60	66.5	5	1	**262-1053**
No. 05	MT4	39.7-43.7	60	66.5	5	1	**262-1054**
No. 05	MT5	39.7-43.7	60	66.5	5	1	**262-1055**
No. 06	MT3	44.7-52.7	80	92	5	2	**262-1063**
No. 06	MT4	44.7-52.7	80	92	5	2	**262-1064**
No. 06	MT5	44.7-52.7	80	92	5	2	**262-1065**
No. 07	MT3	54.7-62.7	90	102	5	2	**262-1073**
No. 07	MT4	54.7-62.7	90	102	5	2	**262-1074**
No. 07	MT5	54.7-62.7	90	102	5	2	**262-1075**
No. 08	MT4	64.7-80.7	100	112	9	2	**262-1084**
No. 08	MT5	64.7-80.7	100	112	9	2	**262-1085**
No. 09	MT4	81.7-99.7	122	134	10	2	**262-1094**
No. 09	MT5	81.7-99.7	122	134	10	2	**262-1095**
No. 10	MT5	100.7-118.7	140	152	10	2	**262-1005**
No. 11	MT5	119.7-139.7	180	192	11	2	**262-1115**

J41 Tapping Chucks

J41 MT 攻丝夹头

NEW





Shank Taper	Tapping Range	Body Dia. D (mm)	Body L L (mm)	d1	L1	Order No.
MT2	M3-M12	46	171.5	19	75	**230-2902**
MT3	M3-M12	46	191	19	94	**230-2903**
MT4	M3-M12	46	216	19	117.5	**230-2904**
R8	M3-M12	46	193.6	19	101.6	**230-2908**
MT2	M3-M12	46	171.5	19	75	**230-2912**
MT3	M3-M16	46	191	19	94	**230-2913**
MT4	M3-M16	46	216	19	117.5	**230-2914**
MT3	M3-M16	66	227	30	94	**230-2923**
MT4	M3-M16	66	252	30	117.5	**230-2924**
MT5	M12-M24	66	284	30	149.5	**230-2925**

Revolving Tailstock Turrets

六攻位镗头

These turrets, available in 2 sizes, have 6 holes each for holding 6 tools. A trigger type handle is conveniently located which enables instant changing.



Shank	Diameter of Turret	Size of Hole	Order No.
MT1	2-1/2	5/8”	**220-0900**
MT2	2-1/2”	5/8”	**220-0901**
MT3	2-1/2”	5/8”	**220-0902**
MT4	2-1/2”	5/8”	**220-0903**
1/2” Dia. Straight Shank	2-1/2”	5/8”	**220-0904**
5/8” Dia. Straight Shank	2-1/2”	5/8”	**220-0905**
3/4” Dia. Straight Shank	2-1/2”	5/8”	**220-0906**
7/8” Dia. Straight Shank	2-1/2”	5/8”	**220-0907**
1” Dia. Straight Shank	2-1/2”	5/8”	**220-0908**
MT2	5”	1”	**220-0911**
MT3	5”	1”	**220-0912**
MT4	5”	1”	**220-0913**
7/8” Dia. Straight Shank	5”	1”	**220-0915**
1” Dia. Straight Shank	5”	1”	**220-0916**
1-1/4” Dia. Straight Shank	5”	1”	**220-0917**
1-1/2” Dia. Straight Shank	5”	1”	**220-0918**

Accessories for Tailstock Turrets

NEW



No. of Pieces	Specification	Individual Order No.	Set Order No.
6Pcs/set	for 2-1/2" Dia. (5/8"Hole)Turret • 2pcs Drilling chuck(Dia.1-13mm) • Tapping Collet (M3-M12) • Die Holder (M3-M12), • Reamming Chuck(ER16 Dia.1-10mm) • live center (MT1)	**220-09091** **220-09092** **220-09093** **220-09094** **220-09095**	**220-0909**
6Pcs/set	for 5" Dia.(1"Hole) Turret • 2pcs Drilling chuck(Dia.1-16mm) • Tapping Collet (M3-M16) • Die Holder (M3-M16), • Reamming Chuck(ER20 Dia.1-13mm) • live center (MT2)	**220-09191** **220-09192** **220-09193** **220-09194** **220-09195**	**220-0919**

Precision Boring Heads-F1

精密镗头

- High quality, excellent performance, practical design at affordable price.
- Maximum rigidity is assured evenwhen boring bar holder is used in an offset position.
- Hardened and ground adjusting screwalong with outside base design guarantees long life and trouble free use.



Adjusting Screws

Range	OrderNo.
for 2”	**220-1201**
for 3”	**220-1302**
For 4”	**220-1401**

Boring Head Dia.	Boring Bar Hole Size	Max. Offset	Grad.	1-1/2”-18 Order No.	7/8”-20 Order No.
2	1/2	5/8	.0005”	**220-1200**	**220-1210**
3	3/4	1	.0005”	**220-1300**	**220-1310**
4	1	1-5/8	.0005”	**220-1400**	**220-1410**

Boring Head Dia.	Boring Bar Hole Size	Max. Offset	Grad.	1-1/2”-18 Order No.	7/8”-20 Order No.
50	12	16	.01mm	**220-1050**	**220-1060**
75	18	25	.01mm	**220-1075**	**220-1085**
100	25	41	.01mm	**220-1100**	**220-1110**

Precision Boring Head Shanks

镗头接杆

- All of the shank is suitable for F1.
- R8, MT2, MT3 and MT4 are suitable for F2.



Morse Taper Shank	Thread	Draw Bar Thread	Draw Bar End Order No.	Tang End Order No.
1	7/8”-20	1/4”-20	**220-1511**	**220-1512**
1	1-1/2”-18	1/4”-20	**220-1513**	**220-1514**
2	3/4”-20	3/8”-16	**220-1519**	**220-1520**
2	7/8”-20	3/8”-16	**220-1521**	**220-1522**
2	1-1/2”-18	3/8”-16	**220-1523**	**220-1524**
3	7/8”-20	3/8”-16	**220-1531**	**220-1532**
3	1-1/2”-18	3/8”-16	**220-1533**	**220-1534**
4	7/8”-20	5/8”-11	**220-1541**	**220-1542**
4	1-1/2”-18	5/8”-11	**220-1543**	**220-1544**
5	7/8”-20	1”-8	**220-1551**	**220-1552**
5	1-1/2”-18	1”-8	**220-1553**	**220-1554**

Shank Types	7/8”-20 Thread Order No.	1-1/2”-18 Thread Order No.
R8	**220-1560**	**220-1561**
1/2” Dia. Straight Shank	**220-1563**	**220-1564**
5/8” Dia. Straight Shank	**220-1566**	**220-1567**
3/4” Dia. Straight Shank	**220-1569**	**220-1570**
7/8’ Dia. Straight Shank	**220-1572**	**220-1573**
1” Dia. Straight Shank	**220-1575**	**220-1576**
1-1/4” Dia. Straight Shank	**220-1578**	**220-1579**
1-1/2” Dia. Straight Shank	**220-1581**	**220-1582**
2” Dia. Straight Shank	**220-1584**	**220-1585**
30 Taper	**220-1590**	**220-1591**
40 Taper	**220-1593**	**220-1594**
50 Taper	**220-1596**	**220-1597**

Precision Boring Heads-F2

精密镗头



Boring Head Diameter	Boring Bar Hole Size	Max. Offset	Grad.	Type	Thread	Order No.
2-1/8	1/2	5/16	.001”	F2	1-5/8”-16	**220-1208**
54	12	8	.01mm	F2	1-5/8”-16	**220-1054**

Boring Combo Sets

成套镗头







2” Boring Combo Set

- 2” Boring head Order No. **220-1210**.
- R8 shank (7/8”-20 TPI) Order No. **220-1560**.
- 1/2” Boring bar set Order No. **375-1202(C2)** or **375-1206(C6)**.

Order No. 220-1600

3” Boring Combo Set

- 3” Boring head Order No. **220-1300**.
- R8 shank (1-1/2”-18 TPI) Order No. **220-1561**.
- 3/4” Boring bar set Order No. **375-1602(C2)** or **375-1606(C6)**.

Order No. 220-1800

Economy Spindle Taper Wipers

主轴清洁棒

- All purpose plastic handle
- Maintains spindle accuracy and improves contact
- Taper type: NT, MAS, BT, CAT, DIN69 871-A DAT

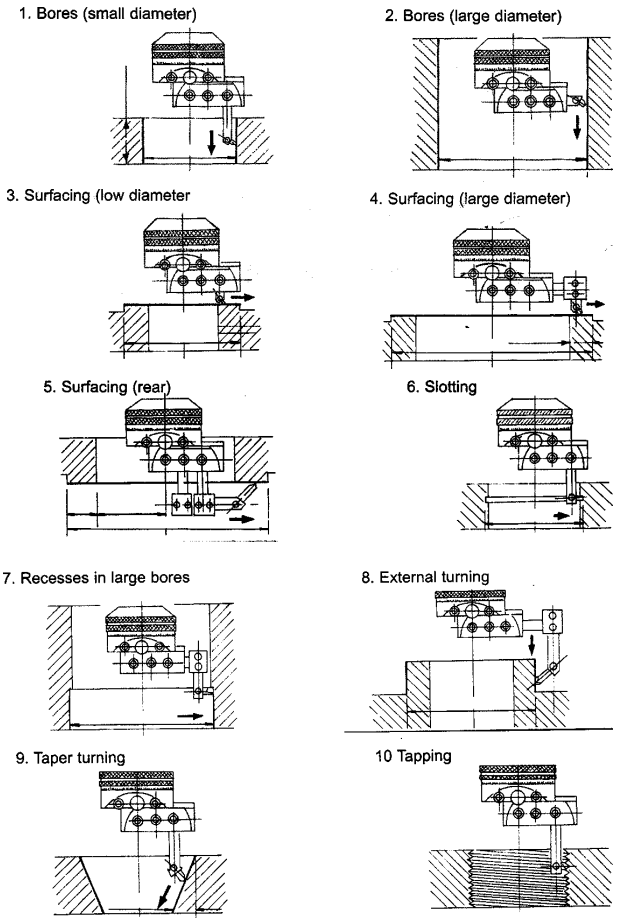


Desc.	Order No.
30# Taper Cotton	**292-6330**
40# Taper Cotton	**292-6340**
50# Taper Cotton	**292-6350**

NEW

Universal Facing And Boring Head Sets

万能精密镗头



The facing and boring head is a major accessory of Boring Machine, Milling Machine, CNC Machine etc. It also can carry out such operations as facing, outside & inside boring, boring step and inner and outside groove cutting featuring manual fine feed, rapid adjustment, various velocities for radial automatic fee and overload protection.



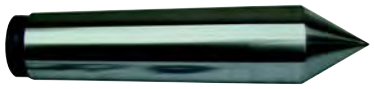
Type of taper shanks available for the boring heads are as following: R8,MT3-MT6,MW3-MW6,TZlO,ISO30,40,45,50,etc.

Descriptions	Order No. 220-1701	Order No. 220-1801	Order No. 220-1901
Max. facing and boring dia (mm)	150	350	450
Dia. of tool post holes in slide (mm)	18	22	22
Fine feed per graduation (mm)	0.005	0.005	0.005
Weight of head without shank (kgs)	2.9	6.1	7.8
Max. stroke of slide (mm)	+/-15	+/-25	+/- 50
Self-acting feed per revolution (mm)	0.02, 0.04, 0.06, 0.08, 0.10, 0.12	0.03, 0.06, 0.09, 0.12, 0.15, 0.18	0.03, 0.06, 0.09, 0.12, 0.15, 0.18
Max. dia. of slide (mm)	90	120	168
Height of head without shank	87.5	118	118
The length of sliding block (mm)	75	105	160
The width of sliding block (mm)	70	90	90

Solid Lathe Centers

死顶尖

- Hardened and ground to the closest tolerance.
- There are three type to meet your need carbon steel, high speed steel tipped, carbide tipped



Carbon Steel and High Speed Steel

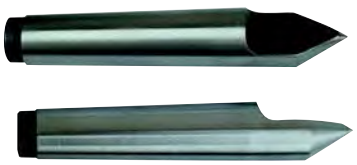


Carbide Tipped

Morse Taper	Overall Length	Carbon Steel Order No.	H.S.S. Order No.	Carbide Tipped Order No.
MT1	3-3/16”	251-3011	251-3071	251-3051
MT2	3-15/16”	251-3012	251-3072	251-3052
MT3	4-15/16”	251-3013	251-3073	251-3053
MT4	6-5/16”	251-3014	251-3074	251-3054
MT5	7-7/8”	251-3015	251-3075	251-3055
MT6	11”	251-3016	251-3076	251-3056
MT7	14”	251-3017	251-3077	251-3057

Half-Notched Lathe Centers

半缺顶尖



Morse Taper	Order No.
MT1	251-3801
MT2	251-3802
MT3	251-3803
MT4	251-3804
MT5	251-3805
MT6	251-3806
MT7	251-3807

Bull Nose Live Centers

伞型活顶尖



Morse Taper	Small End Dia.	Large End Dia.	Order No.
MT2	1/2”	2-7/16”	251-3702
MT3	3/4”	3”	251-3703
MT3	1-1/4”	4”	251-3704
MT3	1-1/2”	5”	251-3705
MT4	1-3/8”	5”	251-3706
MT4	2”	6”	251-3707
MT5	1-3/8”	6”	251-3708
MT5	2-1/8”	8”	251-3709

Precision Live Centers 精密活顶尖

Light Duty



Morse Taper	Accuracy	Order No.
MT1	.0004”	251-3031
MT2	.0004”	251-3032
MT3	.0004”	251-3033
MT4	.0004”	251-3034
MT5	.0004”	251-3035
MT6	.0004”	251-3036
MT7	.0004”	251-3037

Heavy Duty



Morse Taper	Accuracy	Order No.
MT1	.0003”	251-3001
MT2	.0003”	251-3002
MT3	.0003”	251-3003
MT4	.0003”	251-3004
MT5	.0004”	251-3005
MT6	.0004”	251-3006

Medium Duty



Morse Taper	Accuracy	Order No.
MT1	.0008”	251-3021
MT2	.0008”	251-3022
MT3	.0008”	251-3023
MT4	.0008”	251-3024
MT5	.001	251-3025
MT6		251-3026

Carbide Tipped Live Centers

Medium Duty 硬质合金中型活顶尖



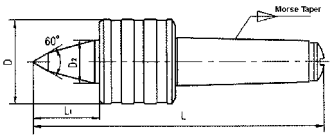
Morse Taper	Accuracy	Order No.
MT1	0.010mm	251-3091
MT2	0.010mm	251-3092
MT3	0.010mm	251-3093
MT4	0.010mm	251-3094
MT5	0.015mm	251-3095
MT6	0.015mm	251-3096

Long Nose Live Center Sets

Head-Driving Type for N/C & Copying Lathes

加长头活顶尖

- Usable at high speeds-3,000 RPM on MT3, MT4. 2,000 RPM on MT5 and 1500RPM on MT6.
- Run out with in .0002”.
- Unique head-driving mechanism ensures that no dust, chips, or foreign oils can enter and destroy bearings.





Morse Taper	L1	D	D2	L	Order No.
MT3	1.42”	1.77”	.87”	6.50”	251-3043
MT4	1.42”	1.77”	.87”	7.40”	251-3044
MT5	2.44”	3.07”	1.57”	10.55”	251-3045
MT6	2.95”	4.02”	1.97”	13.62”	251-3046

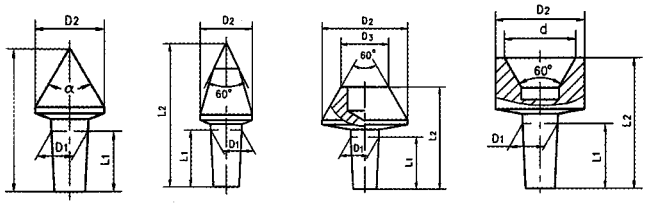
Medium Duty Multi-Purpose Live Center Sets 中型多用活顶尖

- The body of these sets is constructed similar to medium live centers.
- The sets consists of 3 large male centers, 1 female center, 4 smaller, different sized male center.

Morse Taper	Head A Order No.	Head B Order No.	Head C Order No.	Head D Order No.	Head E Order No.	Head F Order No.	Head G Order No.	SETS Order No.
MT2	251-3201	251-3202	251-3203	251-3204	251-3205	251-3206	251-3207	251-3082
MT3	251-3301	251-3302	251-3303	251-3304	251-3305	251-3306	251-3307	251-3083
MT4	251-3401	251-3402	251-3403	251-3404	251-3405	251-3406	251-3407	251-3084
MT5	251-3501	251-3502	251-3503	251-3504	251-3505	251-3506	251-3507	251-3085
MT6	251-3601	251-3602	251-3603	251-3604	251-3605	251-3606	251-3607	251-3086



A: α =60°
B: α =75°
C: α =90°



A B C D E F G

Dimensions (mm)

Morse Taper	D1	L1	Head A D2	Head A L2	Head B D2	Head B L2	Head C D2	Head C L2	Head D D2	Head D L2	Head E D2	Head E D3	Head E L2	Head F D2	Head F L2	Head F d	Head G D2	Head G L2	Head G d
2	10	20	16	39	16	35.5	16	33	16	46	25	10	40	16	36	10	20	39	16
3	12	24	20	48	20	43.5	20	40.5	18	56	35	15	50	22	42	18	35	48	30
4	15	30	28	61.5	28	55.5	28	51.5	26	73	55	30	61.5	40	55	35	55	60	48
5	20	40	36	80	36	72.45	36	66.87	36	101	70	41	78	60	81	50	70	85	61
6	30	55	55	117	55	113	55	108	50	138	90	50	107.5	75	110	60	90	116	75

Key Type Drill Chucks 钻卡头－扳手锁紧

Light Duty

- The light duty is suitable for general electric drill, pneumatic, impact electric drill and light duty bench drill press.



Taper Mounted

Capacity	Taper Mount	Order No.
1/64-1/4"	JT1	290-0605
1/16-3/8"	JT2	290-0615
1/16-1/2"	JT33	290-0625

Taper Mounted

Capacity	Taper Mount	Order No.
1/64-1/4"(0.6-6mm)	B10	290-0405
1/16-3/8"(1.5-10mm)	B12	290-0409
1/16-1/2"(1.5-13mm)	B16	290-0412
1/8-5/8"(3.0-16mm)	B16	290-0416
1/8-5/8"(3.0-16mm)	B18	290-0420

Thread Mounted

Capacity	Thread Mount	Order No.
1/64-1/4"(0.6-6mm)	3/8-24UNF	290-0505
1/16-3/8"(1.5-10mm)	3/8-24UNF	290-0509
1/16-3/8"(1.5-10mm)	1/2-20UNF	290-0513
1/16-1/2"(1.5-13mm)	3/8-24UNF	290-0525
1/16-1/2"(1.5-13mm)	1/2-20UNF	290-0529
1/8-5/8"(3.0-16mm)	3/8-24UNF	290-0545
1/8-5/8"(3.0-16mm)	1/2-20UNF	290-0549
1/8-5/8"(3.0-16mm)	5/8-16UNF	290-0553
1/16-3/8"(1.5-10mm)	M10x1.0	290-0517
1/16-3/8"(1.5-10mm)	M12x1.25	290-0521
1/16-1/2"(1.5-13mm)	M12x1.0	290-0533
1/16-1/2"(1.5-13mm)	M12x1.25	290-0537
1/16-1/2"(1.5-13mm)	M14x1.0	290-0541
1/8-5/8"(3.0-16mm)	M12x1.25	290-0557

Heavy Duty

- The heavy duty is suitable for using on heavy duty drill machine, lathe, and millingmachine.



Taper Mounted

Capacity	Taper Mount	Order No.
0-1/4"	JT1	290-0001
0-3/8"	JT2	290-0002
0-1/2"	JT2	290-0007
0-1/2"	JT33	290-0003
0-1/2"	JT6	290-0004
1/8-5/8"	JT3	290-0008
1/8-5/8"	JT33	290-0011
1/8-5/8"	JT6	290-0012
1/32- 5/8"	JT3	290-0005
3/16-3/4"	JT3	290-0009
3/64-3/4"	JT3	290-0006
1/32-3/4"	JT4	290-0014
3/16"-1-1/32"	JT4	290-0010

Thread Mounted

Capacity	Thread Mount	Order No.
0-1/4"	3/8"-24UNF	290-0021
1/16"-3/8"	3/8"-24UNF	290-0022
0-3/8"	3/8"-24 UNF	290-0023
5/16-1/2"	3/8"-24 UNF	290-0024
5/16-1/2"	1/2"-20 UNF	290-0025
1/8-5/8"	1/2"-20 UNF	290-0026
1/8-5/8"	5/8"-16 UNF	290-0027
6mm	M10x1	290-0030
6mm	M12x1.25	290-0031
10mm	M10x1	290-0032
10mm	M12x1.25	290-0033
1.5-13mm	M12x1.25	290-0034
3-16mm	M12x1.25	290-0035
3-16mm	M16x1.5	290-0036

Keyless Drill Chucks

Precision

精密级自紧式钻夹头

NEW



Capacity	Taper Mount	Order No.
0-3/16"	JT0	290-0100
031/4	JT1	290-0101
0-5/16	JT2	290-0102
0-3/8	JT2	290-0103
0-3/8	JT33	290-0104
1/32-1/2	JT33	290-0105
1/32-1/2	JT2	290-0106
1/32-1/2	JT6	290-0107
1/8-5/8	JT6	290-0108
0.5-6mm	B10	290-0120
0.5-8	B12	290-0121
1-10	B12	290-0122
1-13	B16	290-0123
3-16	B18	290-0124

Capacity	Thread Mount	Order No.
0-1/4"	3/8"-24	290-0210
0-5/16"	3/8"-24	290-0211
1/32-3/8"	3/8"-24	290-0212
1/32-3/8"	1/2"-20	290-0213
1/32-1/2"	3/8"-24	290-0214
1/32-1/2"	1/2":-20	290-0215
1/8-5/8"	5/8"-16	290-0216
1/8-5/8"	1/2"-20	290-0217
0.5-6mm	M10x1	290-0220
0.5-8mm	M10x1	290-0221
1-10mm	M10x1	290-0222
1-10mm	M12x1.25	290-0223
1-13mm	M10x1	290-0224
1-13mm	M12x1.25	290-0225
3-16mm	M12x1.25	290-0226
3-16mm	M16x1.5	290-0227

Keyless Drill Chucks 自紧式螺纹孔钻夹头

Light Duty Keyless Drill chuck



Thread Mounted

Capacity	Thread Mount	Dimension DxLxl	Accuracy	Order No.	Accuracy	Order No.	Accuracy	Order No.
1-10mm	M10x1	42x86x78mm	0.14mm	290-7021	0.25mm	290-7121	0.35mm	290-7221
1-13mm	M12x1.25	44x90x81mm	0.14mm	290-7025	0.25mm	290-7125	0.35mm	290-7225
3-16mm	M16x1.5mm	48x102x92mm	0.20mm	290-7029	0.25mm	290-7129	0.35mm	290-7229
1/32"-3/8"	3/8"-24UNF	42x86x78mm	0.14mm	290-7049	0.25mm	290-7149	0.35mm	290-7249
1/32"-3/8"	1/2"-20UNF	42x86x78mm	0.14mm	290-7051	0.25mm	290-7151	0.35mm	290-7251
1/32"-1/2"	1/2"-20UNF	44x90x81mm	0.14mm	290-7053	0.25mm	290-7153	0.35mm	290-7253
1/8"-5/8"	5/8"-16UNF	48x102x92mm	0.20mm	290-7059	0.25mm	290-7159	0.35mm	290-7259

Keyless Drill Chucks 自紧式螺纹孔钻夹头

Light Duty Keyless Drill chuck

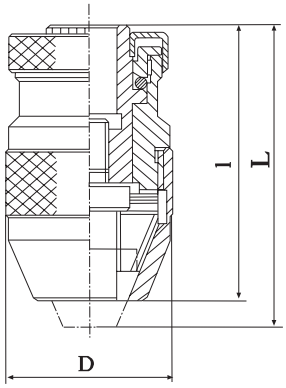


Taper Mounted

Capacity	Taper Mount	Dimension DxLxl	Accuracy	Order No.	Accuracy	Order No.	Accuracy	Order No.
1-10mm	B12	42x86x78mm	0.14mm	**290-6021**	0.25mm	**290-6121**	0.35mm	**290-6221**
1-13mm	B16	44x97x88mm	0.14mm	**290-6025**	0.25mm	**290-6125**	0.35mm	**290-6225**
3-16mm	B16	48x102x92mm	0.20mm	**290-6029**	0.25mm	**290-6129**	0.35mm	**290-6229**
3-16mm	B18	48x108x98mm	0.20mm	**290-6031**	0.25mm	**290-6131**	0.35mm	**290-6231**
1/32"-3/8"	JT2	42x86x78mm	0.14mm	**290-6049**	0.25mm	**290-6149**	0.35mm	**290-6249**
1/32"-1/2"	JT6	44x97x88mm	0.14mm	**290-6051**	0.25mm	**290-6151**	0.35mm	**290-6251**
1/32"-1/2"	JT33	44x97x88mm	0.14mm	**290-6053**	0.25mm	**290-6153**	0.35mm	**290-6253**
1/8"-5/8"	JT6	48x102x92mm	0.20mm	**290-6055**	0.25mm	**290-6155**	0.35mm	**290-6255**
1/8"-5/8"	JT3	48x108x98mm	0.20mm	**290-6057**	0.25mm	**290-6157**	0.35mm	**290-6257**

Heavy duty Keyless Drill chuck

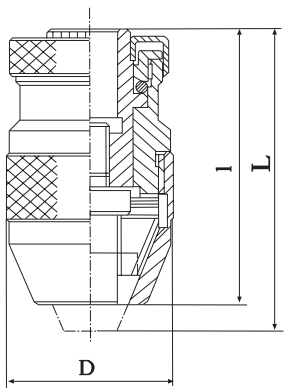
Thread Mounted



Capacity	Thread Mount	Dimension DxLxl	Accuracy	Order No.	Accuracy	Order No.	Accuracy	Order No.
0.5-8mm	M10x1	42x91x84mm	0.06mm	**290-5401**	0.12mm	**290-5501**	0.20mm	**290-5601**
1-10mm	M10x1	42x91x84mm	0.06mm	**290-5403**	0.12mm	**290-5503**	0.20mm	**290-5603**
1-13mm	M12x1.25	48x106x97mm	0.06mm	**290-5405**	0.12mm	**290-5505**	0.20mm	**290-5605**
1-16mm	M16x1.5	53x109x101mm	0.07mm	**290-5407**	0.14mm	**290-5507**	0.20mm	**290-5607**
3-16mm	M16x1.5	53x109x101mm	0.07mm	**290-5409**	0.14mm	**290-5509**	0.20mm	**290-5609**
1/64"-5/16"	3/8"-24UNF	42x91x84mm	0.06mm	**290-5415**	0.12mm	**290-5515**	0.20mm	**290-5615**
1/32"-3/8"	3/8"-24UNF	42x91x84mm	0.06mm	**290-5417**	0.12mm	**290-5517**	0.20mm	**290-5617**
1/32"-3/8"	1/2"-20UNF	42x91x84mm	0.06mm	**290-5419**	0.12mm	**290-5519**	0.20mm	**290-5619**
1/32"-1/2"	1/2"-20UNF	48x106x97mm	0.06mm	**290-5421**	0.12mm	**290-5521**	0.20mm	**290-5621**
1/32"-5/8"	1/2"-20UNF	53x109x101mm	0.07mm	**290-5423**	0.14mm	**290-5523**	0.20mm	**290-5623**
1/8"-5/8"	1/2"-20UNF	53x109x101mm	0.07mm	**290-5425**	0.14mm	**290-5525**	0.20mm	**290-5625**

Heavy Duty Keyless Drill Chuck

Taper mounted





Capacity	Taper Mount	Dimension DxLxl	Accuracy	Order No.	Accuracy	Order No.	Accuracy	Order No.
0.5-8mm	B12	42x91x84mm	0.06mm	**290-5001**	0.12mm	**290-5101**	0.20mm	**290-5201**
0.5-8mm	B16	42x91x84mm	0.06mm	**290-5003**	0.12mm	**290-5103**	0.20mm	**290-5203**
1-10mm	B12	42x91x84mm	0.06mm	**290-5005**	0.12mm	**290-5105**	0.20mm	**290-5205**
1-10mm	B16	42x91x84mm	0.06mm	**290-5007**	0.12mm	**290-5107**	0.20mm	**290-5207**
1-13mm	B12	48x106x97mm	0.06mm	**290-5009**	0.12mm	**290-5109**	0.20mm	**290-5209**
1-13mm	B16	48x106x97mm	0.06mm	**290-5011**	0.12mm	**290-5111**	0.20mm	**290-5211**
1-16mm	B16	53x109x101mm	0.07mm	**290-5013**	0.14mm	**290-5113**	0.20mm	**290-5213**
1-16mm	B18	53x109x101mm	0.07mm	**290-5015**	0.14mm	**290-5115**	0.20mm	**290-5215**
3-16mm	B16	53x109x101mm	0.07mm	**290-5017**	0.14mm	**290-5117**	0.20mm	**290-5217**
3-16mm	B18	53x109x101mm	0.07mm	**290-5019**	0.14mm	**290-5119**	0.20mm	**290-5219**
5-20mm	B22	62x129x119mm	0.09mm	**290-5021**	0.18mm	**290-5121**	0.20mm	**290-5221**
0.5-6mm	B10	35x67x61mm	0.06mm	**290-5023**	0.12mm	**290-5123**	0.20mm	**290-5223**
0.5-6mm	B12	35x67x61mm	0.06mm	**290-5025**	0.12mm	**290-5125**	0.20mm	**290-5225**
1/64"-5/16"	JT2	42x91x84mm	0.06mm	**290-5029**	0.12mm	**290-5129**	0.20mm	**290-5229**
1/64"-5/16"	JT33	42x91x84mm	0.06mm	**290-5031**	0.12mm	**290-5131**	0.20mm	**290-5231**
1/32"-3/8"	JT2	42x91x84mm	0.06mm	**290-5033**	0.12mm	**290-5133**	0.20mm	**290-5233**
1/32"-3/8"	JT33	42x91x84mm	0.06mm	**290-5035**	0.12mm	**290-5135**	0.20mm	**290-5235**
1/32"-1/2"	JT2	48x106x97mm	0.06mm	**290-5037**	0.12mm	**290-5137**	0.20mm	**290-5237**
1/32"-1/2"	JT33	48x106x97mm	0.06mm	**290-5039**	0.12mm	**290-5139**	0.20mm	**290-5239**
1/32"-1/2"	JT6	48x106x97mm	0.06mm	**290-5041**	0.12mm	**290-5141**	0.20mm	**290-5241**
1/32"-5/8"	JT3	53x109x101mm	0.07mm	**290-5043**	0.14mm	**290-5143**	0.20mm	**290-5243**
1/32"-5/8"	JT6	53x109x101mm	0.07mm	**290-5045**	0.14mm	**290-5145**	0.20mm	**290-5245**
1/8"-5/8"	JT3	53x109x101mm	0.07mm	**290-5047**	0.14mm	**290-5147**	0.20mm	**290-5247**
1/8"-5/8"	JT6	53x109x101mm	0.07mm	**290-5049**	0.14mm	**290-5149**	0.20mm	**290-5249**
3/16"-3/4"	JT3	62x129x119mm	0.09mm	**290-5051**	0.18mm	**290-5151**	0.20mm	**290-5251**
1/64"-1/4"	JT1	35x67x61mm	0.06mm	**290-5053**	0.12mm	**290-5153**	0.20mm	**290-5253**

Drill Chuck Arbors 钻接杆

R8 to Jacobs Taper



Jacobs Taper	R8 Shank Order No.
JT 0	290-0800
JT 1	290-0801
JT 2	290-0802
JT 3	290-0803
JT 4	290-0804
JT 5	290-0805
JT 6	290-0806
JT 33	290-0833

MT Shank to Jacobs Taper



Jacobs Taper	MT0 Order No.	MT1 Order No.	MT2 Order No.	MT3 Order No.	MT4 Order No.	MT 5 Order No.	MT6 Order No.
JT 0	290-1000	290-1100	290-1200	290-1300	290-1400	290-1500	290-2700
JT 1	290-1001	290-1101	290-1201	290-1301	290-1401	290-1501	290-2701
JT 2	290-1002	290-1102	290-1202	290-1302	290-1402	290-1502	290-2702
JT 3	290-1003	290-1103	290-1203	290-1303	290-1403	290-1503	290-2703
JT 4	290-1004	290-1104	290-1204	290-1304	290-1404	290-1504	290-2704
JT 5	290-1005	290-1105	290-1205	290-1305	290-1405	290-1505	290-2705
JT 6	290-1006	290-1106	290-1206	290-1306	290-1406	290-1506	290-2706
JT 33	290-1033	290-1133	290-1233	290-1333	290-1433	290-1533	290-2733

30, 40, 50 Shank to Jacobs Taper



Jacobs Taper	ISO 30 Order No.	ISO 40 Order No.	ISO 45 Order No.	ISO 50 Order No.
JT 0	290-2300	290-2400	290-2600	290-2500
JT 1	290-2301	290-2401	290-2601	290-2501
JT 2	290-2302	290-2402	290-2602	290-2502
JT 3	290-2303	290-2403	290-2603	290-2503
JT 4	290-2304	290-2404	290-2604	290-2504
JT 5	290-2305	290-2405	290-2605	290-2505
JT 6	290-2306	290-2406	290-2606	290-2506
JT 33	290-2333	290-2433	290-2633	290-2533

Straight Shank to Jacobs Taper



Jacobs Taper	1/2" Straight Shank Order No.	5/8" Straight Shank Order No.	3/4" Straight Shank Order No.	7/8" Straight Shank Order No.	1" Straight Shank Order No.	1-1/2" Straight Shank Order No.	1-3/4" Straight Shank Order No.
JT 0	290-1600	290-1700	290-1800	290-1900	290-2000	290-2100	290-2200
JT 1	290-1601	290-1701	290-1801	290-1901	290-2001	290-2101	290-2201
JT 2	290-1602	290-1702	290-1802	290-1902	290-2002	290-2102	290-2202
JT 3	290-1603	290-1703	290-1803	290-1903	290-2003	290-2103	290-2203
JT 4	290-1604	290-1704	290-1804	290-1904	290-2004	290-2104	290-2204
JT 5	290-1605	290-1705	290-1805	290-1905	290-2005	290-2105	290-2205
JT 6	290-1606	290-1706	290-1806	290-1906	290-2006	290-2106	290-2206
JT 33	290-1633	290-1733	290-1833	290-1933	290-2033	290-2133	290-2233

Straight Shank to Threaded Shank



Size	Order No.
straight shank 1/2" to 3/8"-24	290-2902
straight shank 1/2" to 1/2"-20	290-2904

MT to Threaded Shank



Size	Order No.
MT2 to 3/8"-24	290-2910
MT2 to 1/2"-20	290-2912
MT2 to 5/8"-16	290-2914
MT3 to 1/2"-13	290-2916
MT3 to 5/8"-16	290-2918

Vertical 5C Angle Collet Fixture

5C 卡头座 A 型

Model A



Base Size: 2-1/2"x7-3/4"

Height: 4"

Order No. 235-6090

H/V 5C Angle Collet Fixture

5C 卡头座 B 型

Model B



Base Size: 4-1/4"x4-1/4"

Height: 4"-1/4"

Order No. 235-6095

H/V 5C Angle Collet Fixture

5C 夹具

Model C



Base In Horizontal	Height In Horizontal	Base In Vertical	Height In Vertical	Order No.
5x4”	3-5/8”	5x3-5/8”	4”	**235-6080**

H/V 5C Angle Collet Fixture

5C 夹具

Model D



Base	Height	Order No.
5x3-5/8”	3-3/4”	**235-6085**

5C Collet Index Fixture

5C 立卧弹簧分度 100B

- Threaded spindle is hardened and ground (2-1/4”-8TPI).
- Single lever action activates the indexing mechanism.
- Precision ground index plate has 24 indexing locations in fifteen degree.
- 15¡ãincrements, any of which can be masked for greater versatility.



Order No. 235-6200

Specifications	Maximum Variation
Dividing spindle concentricity	.004”
Cylinder center bore (per 1”) concentricity	.008”
Lateral offset of center slot of dividing spindle	.008”
Center slot to dividing spindle concentric	.008”
Spindle center line parallelism	.008”

5C Collet Index Fixture

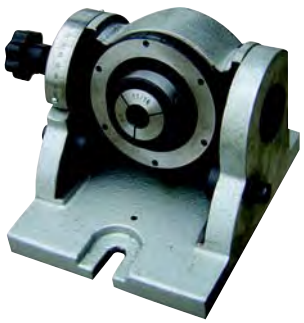
5C 简易分度

Great for drilling, milling, grinding and locating angles.
Precision ground spindle
Plate can be bolted to top of drill bushing
Use in vertical position with angle plate
Model 5C complete with 24 space ring and 5C draw nut.

NEW



Order No. 235-6081



Order No. 235-6082

5C Spin Index Fixtures

5C 简易分度带尾座

- Hardened and precision ground spindle.
- Direct indexing in ten steps, graduated in 5° increments.
- Applicable to all milling machines, surface grinders and inspection equipment.
- Precision ground 36 position index plate.
- .0004” T.I.R spindle accuracy.
- Super time saver.



Descriptions	Order No.
5C Spin Index Fixture Only	**235-6011**
5C Spin Index Fixture(**235-6011**) & Tailstock(**200-1104**)	**235-6012**

End Mill Grinding Fixture

5C 立卧弹簧分度 100B

- The fixture uses 5C collects (no more bushings to lose) which means any shank-size end mill from 1/16” to 1-1/8” can be ground.Shell mills can easily be held with straight shank arbors.
- Grinds 2,3,4,6,8 & 12 fluted end mills and shell mills. Faces only!
- Clearance and relief angles are built into base.
- Solid 2-1/2” x 4-1/2” base ground on bottom for sure contact with magnet.
- Black oxide finish.



Order No. 287-6000

Blade Resharpening Fixture

刀片修整器(磨刀座)

This fixture accommodates all APT MULTI-TOOL blade diameters and thicknesses.The correct end tooth relief angle is built into the fixture marking resharpening simple,accurate and inexpensive on any surface grider.



Order No. 209-9012

End Mill Cutters/Sharpener

Type 287 287 型磨刀器

- Designed to accomplish all sharpening need.
- Diameter of shank of end mill is 3/8, 1/2”, 5/8”.
- It may be equally divided to 2,3,4,6,8.



Order No. 231-0287

Universal Sharpener

万向磨刀器

NEW

This unit be used for precision grinding of square tools with any direction, easy to operate.



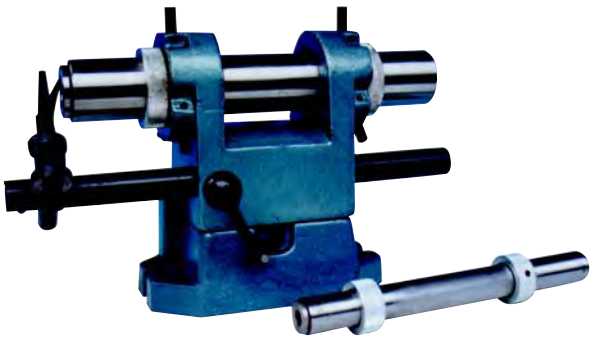


Order No. 287-6520

End Mill Sharpener

磨刀器

- Designed to accomplish all sharpening needs. No need to send out tools. Specials as standards ban be sharpened.
- Spindles and bushings to cover the full range of 3/16” up to 1-1/4”
- Shank end-mills are supplied. Will accept cutters with diameters up to 12”, and even larger with the use of “riser blocks”.
- Quickly sharpens cutters and end-mills right on your tool or surface grinder.
- Two spindles and four bushings cover the full range of 3/16”, 3/8”, 1/2”, 5/8”, 3/4”, 7/8’, 1” and 1-1/4” shank end-mills.
- Accept double end, end-mills



Order No. 287-6530

Specifications	Maximum Variation
Spindle center line to base parallelism (per 12”	0.0024”
Body to stand concentricity	0.0012”
Repeat accuracy	0.0012”

Vertical Horizontal Tool Holder Device

刀柄锁刀座



Taper of Tool	Outsize	Ordr No.
BT30	205x98.5x128	**287-6021**
BT40	205x98.5x128	**287-6022**
BT50	275x150x198	**287-6023**
DIN69871.30	205x98.5x128	**287-6024**
DIN69871.40	205x98.5x128	**287-6025**
DIN69871.50	275x150x198	**287-6026**
CAT30	205x98.5x128	**287-6027**
CAT40	205x98.5x128	**287-6028**
CAT50	275x150x198	**287-6029**

Universal Dividing Heads 分度头

The dividing head is designed as an accessory for milling machine and other machine tools which help the machinating on dividing the workpieces into any desired angles. Moreover, with the help of the dividing head, grooves, slots, gears, helical gears, Archimedes cams and helical curves can be achieved on the machines .



Accessories: Tailstock, Gear Bracket, Change Gear Jack, Center, Carrier, Dividing Plate, Flange, Vernier Dial, 3 Jaw Chuck

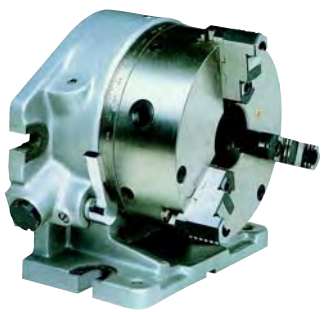
Specifications	Order No. 235-6008	Order No. 235-6100	Order No. 235-6125	Order No. 235-6160
Center Height	80mm/3.15”	100mm/3.94”	125mm/4.92”	160mm/6.30”
Tilting Angle of The Spindle	>=95°; >=5°	>=95°; >=5°	>=95°; >=5°	>=95°; >=5°
Rotating Angle of the Spindle for One Complete Revolution of the Dividing Handle	9°	9°	9°	9°
Graduation	10 Second	10 Second	10 Second	10 Second
Worm Gear Ratio	1:40	1:40	1:40	1:40
Diameter of Spindle Register Taper	36.541mm/1.441”	41.275mm/1.63”	53.975mm/2.13”	53.975mm/2.13”
Spindle Taper	MT3	MT3	MT4	MT4
Width of The Locating Key	14mm/.55”	14mm/.55”	18mm/.71”	18mm/.71”
Module of Change Gears	1.5mm/0.06”	1.5mm/0.06”	2mm/0.08”	2mm/0.08”
Hole Number of Dividing Plate for All (First Face)	24,25,28,30,34,37,38,39,41,42,43			
Hole Number of Dividing Plate for All (Second Face)	46,47,49,51,53,54,57,58,59,62,66			
Teeth Number of Change Gears for All	25,25,30,35,40,50,55,60,70,80,90,100			
Individual Indexing Error of the spindle for one complete revolution of dividing handle	60 Second	+/-45 Second	+/-45 Second	+/-45 Second

Horizontal/Vertical Indexing Fixtures

立卧等分分度头(带花盘和卡盘)

- Designed for milling, drilling, jig boring, and many other shop applications.
- Hardened and ground 24 position index plate (15 degree increments).
- 360 degree satin chrome grauated ring with 5 minute adjustable vernier plate insures accurate readings.
- Fast and simple indexing of 2,3,4,6,8,12 divisions.

Specifications
Indexing unit complete with 3 jaw Chuck and 6 masking plate.
Squareness (table base to chuck)...0.0008”
Parallelism (face to face)……..0.0006”
Concentricity(mounting flange).....0.0008”
Concentricity (chuck)……..0.0012”



Indexing Fixtures

Size of Chuck	Thru Hole Dia.	Order No.
6”	1-23/32”	**200-2006**
8	2-15/32	**200-2008**

Optional Face Plates

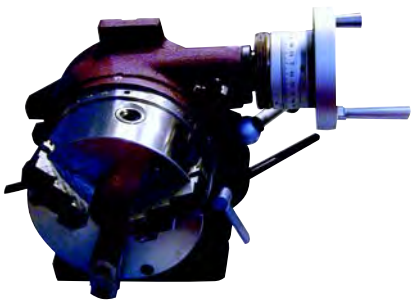
Description	Order No.
For 6” Indexing Fixture	**200-2016**
For 8” Indexing Fixture	**200-2018**

Super Horizontal/Vertical Indexing Fixtures

立卧等分分度头(带花盘和卡盘)

- Designed for milling, drilling, jig boring, and many other shop applications.
- Hardened and ground 24 position index plate (15 degree increments).
- 360 degree satin chrome grauated ring with **10 SECOND** adjustable vernier plate insures accurate readings.
- Fast and simple indexing of 2,3,4,6,8,12 divisions.

Specifications
Indexing unit complete with 3 jaw Chuck and 6 masking plate and face plate
Vernier Reading……..10 seconds
Squareness (table base to chuck).....0.0008”
Parallelism (face to face)……..0.0004”
Concentricity(mounting flange)…….....0.0008”
Concentricity (chuck)……..0.0012”



Indexing Fixtures

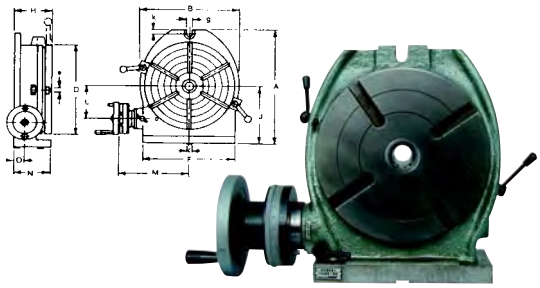
Size of Chuck	Thru Hole Dia.	Order No.
6”	1-23/32”	**200-2106**
8	2-15/32	**200-2108**

Optional Face Plates

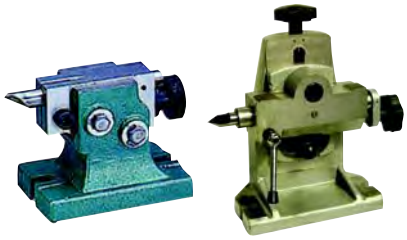
Description	Order No.
For 6” Indexing Fixture	**200-2016**
For 8” Indexing Fixture	**200-2018**

High Precision Horizontal/Vertical Rotary Tables 回转工作台

- Extra deep coolant channel.
- Dual positive action locks.







200-1098

Optional Dividing Plates

- Graduated 360°
- Low profile.
- 10 second vernier reading.

Optional Tailstock

- Gear drive immersed in oil.
- Optional dividing plates and tailstock.
- Gear Ratio 90:1.

Specification

Specifications	Maximum Variation (inches/second)
Clamping surface flatness(concave)	.0006”
Cylindrical center bore concentricity	.0008”
Taper center bore concentricity	.0008”
Surface to base parallelism	.0008”
Surface to angle face squareness	.0004
Surface to center slot squareness	.0008”

Optional Accessories

Descriptions	Order No.
Dividing Plate (fits all except 6”)	**200-1096**
Adjustable Tailstock for 8” & 10”	**200-1098**
Adjustable Tailstock for 12”	**200-1100**

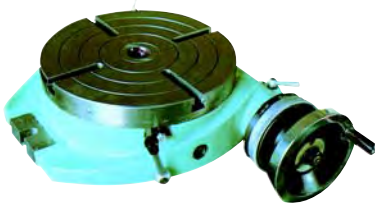
H/V Rotary Tables

Descriptions	Order No.
8” Horizontal & Vertical Table (YUASA TYPE)	**200-1143**
10” Horizontal & Vertical Table (YUASA TYPE)	**200-1153**
12” Horizontal & Vertical Table (YUASA TYPE)	**200-1163**
4" Horizontal & Vertical Table	**200-1089**
6" Horizontal & Vertical Table	**200-1090**
8" Horizontal & Vertical Table	**200-1091**
10” Horizontal & Vertical Table	**200-1093**
12” Horizontal & Vertical Table	**200-1095**
16” Horizontal & Vertical Table	**200-1097**

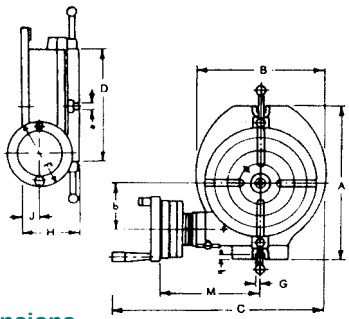
Dimensions

Table Dia.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	T-Slot Widtth	Net Weight	Shipping Weight	Order No.
8”	11.200	9.400	0.650	7.827	3MT	8.203	0.570	3.944	5.985	0.610	3.700	7.830	3.880	1.900	0.465	64lbs	95lbs	**200-1143**
10	12.900	11.300	0.552	9.800	3MT	9.960	0.562	4.330	6.750	0.562	4.100	8.625	4.175	1.900	0.465	94lbs	135lbs	**200-1153**
12	16.125	14.250	0.710	15-5/8	4MT	12.625	0.725	4.750	8.250	0.725	5.250	10.250	4.640	1.900	0.545	209lbs	250lbs	**200-1163**

High Precision Horizontal Rotary Tables 回转工作台



- Extra deep coolant channel.
- Dual positive action locks.
- Gear ratio 90:1.



Special design features include:

- Graduated 360°
- Low profile.
- Satin chrome dials.



Optional Dividing Plate(**Order No. 200-1096**)

- Gear drive immersed in oil.
- 10 second vernier reading.
- Fits all tables except 6”.

Specification

Specifications	Maximum Variation (inches/second)
Clamping surface flatness(concave)	.0006”
Cylindrical center bore concentricity	.0008”
Taper center bore concentricity	.0008”
Surface to base parallelism	.0008”
Surface to angle face squareness	.0004”
Surface to center slot squareness	.0008”

Rotary Tables

Descriptions	Order No.
6” Horizontal	**200-1076**
8” Horizontal	**200-1078**
10” Horizontal	**200-1080**
12” Horizontal	**200-1082**

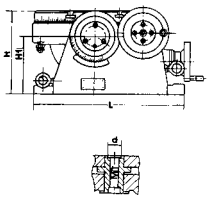
Dimensions

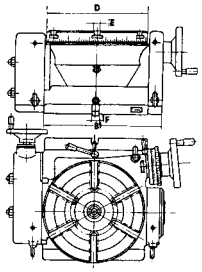
Table Dia.	A	B	C	D	E	F	G	H	J	K	L	M	T-Slot Widtth	Net Weight	Shipping Weight	Order No.
6”	10-1/4	7-3/4	13-1/16	6-19/64	2MT	4-15/16	0.224	3-5/64	1	45/64	3	5	0.39	36lbs	48lbs	**200-1076**
8	11-7/6	9-5/16	14-1/4	7-7/8	3MT	4-15/16	9/32	3-7/32	1	13/16	3-1/2	5-11/16	0.456	50lbs	61lbs	**200-1078**
10	13	11-1/4	16-5/8	9-15/16	3MT	4-15/16	9/32	3-11/16	1	13/16	3-7/8	9-1/2	0.465	82lbs	93lbs	**200-1080**
12	16-1/8	14-3/16	19-9/16	12-5/8	4MT	4-15/16	0.354	4-1/16	1-3/8	1	4-1/4	12-5/16	0.545	153lbs	167lbs	**200-1082**

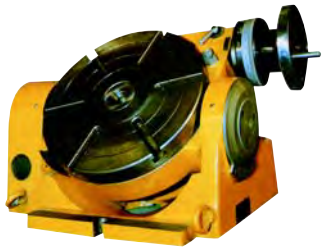
Precision Inclineable Rotary Tables 回转工作台











- Satin chrome dials.
- Gear ratio 90:1.
- Low profile.
- Gear drive immersed in oil.
- 10 second vernier reading.
- Optional dividing plates and tailstock.
- Dual positive action locks.
- Extra deep coolant channel.

Rotary Tables

Descriptions	Order No.
10” inclineable rotary table	**200-1915**
12” inclineable rotary table	**200-1917**

Specification

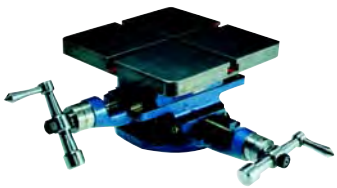
Specifications	Maximum Variation (inches/econd)
Clamping surface flatness(concave)	.0006”
Cylindrical center bore concentricity	.0008”
Taper center bore concentricity	.0008”
Surface to base parallelism	.0008”
Surface to angle face squareness	.0004”
Surface to center slot squareness	.0008”

Dimensions

Table OuterDia. D	Table Height H	Center Height H1	Base Dia. B	Base Dia. L	Width of T-slot E	Locating Key F	Centering Hole D	Center Taper Hole	Weight	Order No.
9.81	8.07	5.51	10.24	12.2	0.47	0.55	1.2	MT-3	172	**200-1915**
12.6	10.04	6.89	13.07	14.96	0.55	0.71	1.6	MT-4	293	**200-1917**

Milling & Drilling Table 十字T形槽工作台

Suitable for all kinds of precision machining operations. Easy to read dials are graduated in .001”. Dovetail slides have adjustable steel gibs to compenate for wear. T-slots are 5/8” wide x 7/16” deep.



Order No.	201-2524
Size	7x7(Rotatable 360°)
Height	4-1/8”
Travel	4 on each axis
Base Size	4-5/8” diameter
Mounting	1-1/8” Long Base Bolt
Weight	35 lbs

Single slide table 单向工作台

A heavy, rugged slide used in all kinds of positioning, milling, drilling, microscope viewing and staging, adjustable bases for heavy loads, small jig boring, precision cut-off.

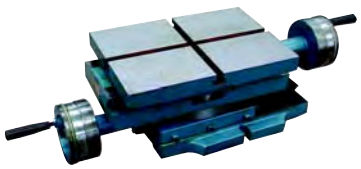


Order No.	200-2539
Table	5-1/2” x 12”
T-Slots	on 2-1/2” centers
Height	3-3/4”
Travel	8”
Weight	35 lbs

Compound Sliding Table

复合工作台(手轮和转盘带刻线)

with Calibrated Wheels and Calibrated Swivel Table

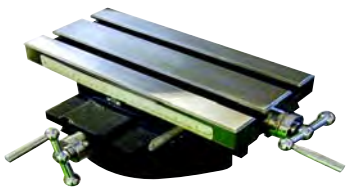


Description	Order No. 200-2707	Order No. 200-2708
Size of Table	11-13/16x7-7/8	7-7/8x7-7/8
Height Overall	5-1/2	6-7/8
Length Overall	20-3/32	13-25/32
Size of Slots	7/16	3/8
Sliding	7-7/8	4-29/32
Graduation	.001”	.001”
Weight (Approx.)	84lbs	44lbs

Compound Slide Tables

复合工作台

A heavy, rugged slide used in all kinds of positioning, milling, drilling, microscope viewing and staging, adjustable bases for heavy loads, small jig boring, precision cutter.



Order No.200-2536

Desc.	Size
Table	5-1/2”x12”
T-Slot Size	5/8”
Height	4-1/2”
Travel	6-1/2”/4-1/3”
Base Size	9”x8”

Adjustable Angle Plates

可调工作台, 带蜗轮蜗杆

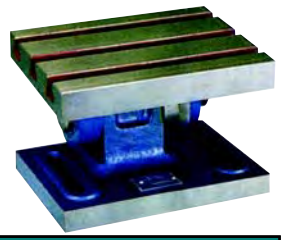


Heavy machined casting. Adjustable 45 in either direction. Crank handle for easy and precise adjustment.

Plate Size (In)	Height (In)	T-Slot (In)	Order No.
5 x 7”	3-7/8”	3/8”	**200-1105**
7 x 10	5-3/16	7/16	**200-1110**
9 x 12	6-7/16	1/2	**200-1112**
10 x 15	7-3/8	9/16	**200-1115**
12 x 24	8-1/8	11/16	**200-1124**

Swivel Angle Tables

可倾角工作台

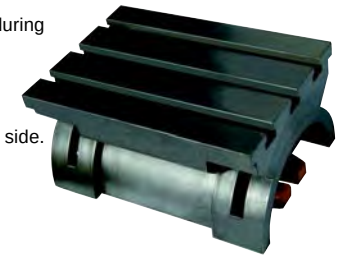


- Adjustable heavy castings.
- Rugged construction.
- Machined “T” slots.
- SAVES job set-up time in operation.
- Graduated for 90 tilt.
- Accuracy of table surface

Size	Height	T-Slot	Order No.
5 x 6”	4-1/2”	3/8”	**200-1305**
6 x 8	5	3/8	**200-1306**
8 x 10	6-1/2	7/16	**200-1308**
10 x 12	8	1/2	**200-1310**
12 x 15	9	9/16	**200-1312**

Swivel Angle Plates

可倾工作台

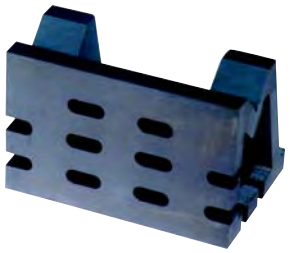


- Perfect for setting work at any angle during milling or other operations.
- Heavy rugged graded casting.
- Machined “T” slots.
- Graduated 90° for setting 45° on each side.
- Accuracy of table surface 0.0005mm

Size	Height	T-Slot	Order No.
5 x 7”	3-3/4”	3/8”	**200-1205**
7 x 10”	5”	1/2”	**200-1207**
10 x 15”	6-3/4”	9/16”	**200-1210**

Vee Angle Plates

V 型角板



The V-Angle is manufactured from a high grade cast iron that is fully stress relieved to give stability though out its working life.
The V-Angle has many more clamping positions than an ordinary angle plate. Its design allows almost any shape to be clamped securely, and all types of clamps to be used.

Size	Order No.
3 x 3 x 5”	**418-4905**
4 x 4 x 6”	**418-4906**
5 x 5 x 7”	**418-4907**
6 x 6 x 8”	**418-4908**

Working Table

工作台

NEW



Table Size(mm)	X Travel(mm)	Y Travel(mm)	Graduation	Order No.
185x100	85	55	0.01	**200-2501**
225x175	105	90	0.01	**200-2502**
330x220	190	100	0.01	**200-2503**
430x240	230	150	0.02	**200-2504**
600x240	400	150	0.02	**200-2505**

Working Table

工作台

NEW

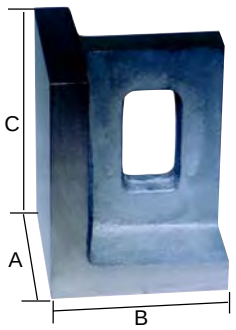


Table Size(mm)	X Travel(mm)	Y Travel(mm)	Graduation	Order No.
225x175	105	70	0.01	**200-2511**
330x220	170	90	0.02	**200-2512**
425x240	225	135	0.02	**200-2513**
600x240	400	135	0.02	**200-2514**

Universal Right Angle Plates

Machined or Precision Ground

直角靠铁



Made of finest quality, close grained semi-steel castings, stress relieved against distortion by annealing after seasoning. All outside surfaces closely finished for square and parallel references: Machined Square and parallel within 0.002” per 6”. Precision ground: Square within 0.0005” per 6”. Parallel within 0.00025” per 6”.

A	B	C	Machine Finished Order No.	Ground Finished Order No.
3-3/4”	4”	5”	**418-4105**	**418-4205**
4”	4”	6”	**418-4110**	**418-4210**
4”	5”	6”	**418-4115**	**418-4215**
4-1/2”	5”	8”	**418-4120**	**418-4220**
5”	8”	12”	**418-4125**	**418-4225**
5-1/2”	7”	10”	**418-4130**	**418-4230**
5-1/2”	8”	10”	**418-4135**	**418-4235**
6”	6”	8”	**418-4140**	**418-4240**
8”	10”	12”	**418-4145**	**418-4245**
8”	9”	16”	**418-4150**	**418-4250**
10”	12”	16”	**418-4155**	**418-4255**
12	12”	24”	**418-4160**	**418-4260**

Plain Angle Plates 无槽带筋角板

Machined or Precision Ground

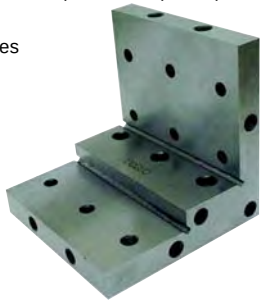
- Made from high tensile cast iron normalized and stress relieved.
- Machined: Flat and square within 0.002” per 6” for general work.
- Precision ground: flat and square within 0.0005” per 6” for layout and inspection or precision machine.



Size	No. of Ribs	Machined Order No.	Ground Order No.
2 x 2 x 2”	1	**418-4310**	**418-4410**
3 x 3 x 3”	1	**418-4315**	**418-4415**
4 x 4x 4”	2	**418-4320**	**418-4420**
5 x 5 x 5”	2	**418-4325**	**418-4425**
6 x 6 x 6”	2	**418-4330**	**418-4430**
8 x 8 x 8”	2	**418-4335**	**418-4435**
10 x 10 x 10	2	**418-4340**	**418-4440**
12 x 12 x 12	2	**418-4345**	**418-4445**

Stepped Angle Plates 梯级角板

- Manufactured fron a single piece of hardened tool steel.
- Precision ground, square and parallel.
- A convenient step of 1-1/4”(32mm) down from the top and a1/2”(12mm) seat allows for use with smaller work pieces.
- 24 Tapped holes allow for fastening to fixtures and clamping work to the angle plate.
- Ground flat, square & paraller within .0002”.

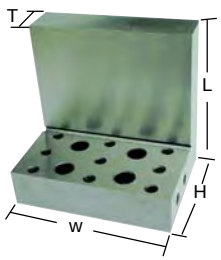


Dimensions Inch/Metric	Thread of Tapped Holes	Order No.
3x3x3”(75x75x75mm)	1/4”-20	**418-4978**
4x4x4(100x100x100)	5/16”-18	**418-4980**
4x4x4(100x100x100)	1/4”-20	**418-4981**

Precision Steel Angle Plates

精密钢角板

- Solid 1 piece steel construction for longer life.
- Hardened to RC 58-62.
- Ground flat, square & parallel within .0002”.
- Tapped holes are either 1/4-20 or 3/8-16 to use standard clamping accessories.

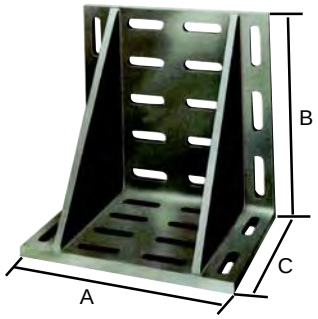


L	w	H	T	Tapped Holes	Order No.
3”	3”	4”	1”	(13)1/4”-20	**418-4970**
3	4	4	1-1/8	(31)1/4-20	**418-4972**
4	4	4	1-1/4	(13)1/4-20	**418-4974**
4	4	6	1-1/4	(14)3/8-16	**418-4976**
4	6	6	1-1/4	(33)1/4-20	**418-4982**

Giant Slotted Angle Plates

带筋大尺寸角板

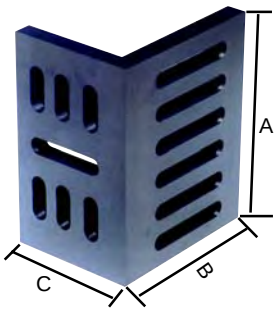
- Made from high tensile cast-iron normalized and stress relieved.
- Machined flat and square within 0.002” per 6” for general work.



Dimensions A	B	C	Order No.
16”	12”	9”	**418-4916**
20”	16”	12”	**418-4920**
24”	24”	18”	**418-4924**
36”	24”	24”	**418-4936**

Slotted Angle Plates 带槽角板

- Made of high tensile cast iron properly seasoned against distortion.
- webbed style accurately machined, square parallel on outside faces and ends.
- Open end style accurately machined square and parallel on a ll faces.



Dimensions A	B	C	Webbed Machined Order No.	Webbed Ground Order No.	Open end Machined Order No.	Open end Ground Order No.
3”	2-1/2”	2”	**418-4510**	**418-4612**	**418-4710**	**418-4812**
3-1/2”	3”	2-1/2”	**418-4515**	**418-4617**	**418-4715**	**418-4817**
4-1/2”	3-1/2”	3”	**418-4520**	**418-4622**	**418-4720**	**418-4822**
6”	5”	4-1/2”	**418-4525**	**418-4627**	**418-4725**	**418-4827**
7”	5-1/2”	4-1/2”	**418-4530**	**418-4632**	**418-4730**	**418-4832**
8”	6”	5”	**418-4535**	**418-4637**	**418-4735**	**418-4837**
9”	7”	6”	**418-4540**	**418-4642**	**418-4740**	**418-4842**
10”	8”	6”	**418-4545**	**418-4647**	**418-4745**	**418-4847**
12”	9”	8”	**418-4550**	**418-4652**	**418-4750**	**418-4752**

Compound Angle Plate

复合角板

- Solid one piece construction.
- Made of steel, hardened to PC 58-62, and ground flat.
- Square and parallel within .0002”.
- Features ground vees for convenient holding of small round parts.
- Includes one clamp.



Dimensions	Tapped Holes	Order No.
6”long x 4”high x 1” thick	(16)1/4”-20	**418-4910**

Precision Sine Plates 正弦板

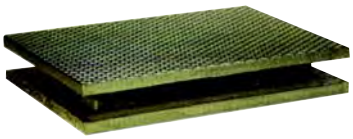
- Squareness & Parallelism: 0.0002".
- Hardened steel.



Size	Order No.
4x4x2"	647-7580
6x6x2-1/4"	647-7590

Lapping Bench Plate 铸铁平板

- Precision grouund on one side, grond on the other side.
- Made of casting iron.
- Size: 10"x14"x2-3/4"



Size	Order No.
Size: 10"x14"x2-3/4"	640-0000

Portable Magnetizer/Demagnetizer

退磁器

- Quickly magnetizes or demagnetizes drills,punches,dies, screwdrivers,simply by passing them through or near the loop.
- No physical contact needed.
- Portable and easy to used.
- Electrically & thermally protected.
- Operates on 110V AC 60 cycle with push button control.



Order No. 285-2700

Magnetizer & Demagnetizer

充退磁器

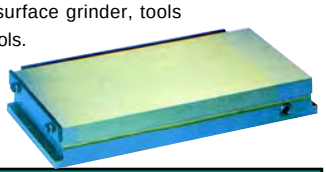


Order No. 625-0000

Dense Permanent Magnetic Chucks

磁性吸盘

Dense permanent magnetic chuck can be used for processing various magnetic conduction work pieces, especially thin and small pieces, in surface grinder, tools grinder and electric sparks machine tools.



Dimensions	Order No.
4 x 7"	285-0160
5 x 10"	285-0170
6 x 12"	285-0180
6 x 18"	285-0190
8 x 24"	285-0200

Magnetic Sine Plates 磁性正旋板

Using ceramic permanent magnets which cannot be demagnetized, these magnetic Sine Plates are designed for the precise angular positioning and holding of small or odd-shaped workpieces. Fine pole division permits more unifrom magnetic holding.Sine plate angles lock rigidly with locking strap. Removable handle included for on -off.



Dimension	Center dist.of Rolls	Order No.
4x4x4-5/8"	3" Within .0002"	647-5544
6x6x4-5/8"	5" Within .0002"	647-5566

Demagnetizers 退磁器

- Demagnetize dies, punches, cutters, or any tools that have become magnetized.
- Operates on 115/220V AC with on /off switch.



Volt	Table Size	Order No.
110V	6-3/4" x 4-1/4"	285-2505
220V	170mm x 108mm	285-2605

Demagnetizers

退磁器

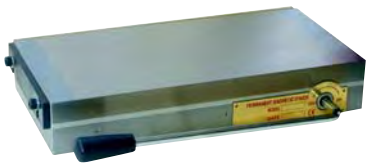


Volt	Table Size	Order No.
110V	190x120mm	285-2805
220V	190x120mm	285-2808
110V	210x152mm	285-2815
220V	210x152mm	285-2818

Powerful Permanent Magnetic Chucks

磁性吸盘

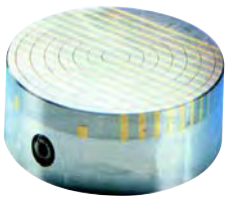
Powerful permanent magnetic chuck has a magnetic strength of 12 - 15 kg/cm, suitable for powerful milling and grinding.



Dimensions	Order No.
4 x 7"	285-0300
6 x 12"	285-0310
8 x 20"	285-0370
10 x 15"	285-0390

Circular Permanent Magnetic Chucks 磁性吸盘

Circular permanent magnetic chuck is used for holding work pieces in grinder, lathe and bench work.



Dia.	Order No.
5”	**285-1205**
6”	**285-1206**
8”	**285-1208**
10”	**285-1210**
12”	**285-1211**

Big Type Punch Formers
大型冲子成型器

One-Way 单向

- This Punch Former is applicable on surface grinder or universal grinder to clamp puncher within diameter 70mm for grinding various shapes.

Main Parameters:
Center height: 150mm
Clamping diameter in V-slot: 70mm
Travel of V-block: 25mm
Quantity of teeth: 24

OrderNo.287-6812



Two-Way 双向

- This Punch Former is applicable on surface grinder or universal grinder to clamp puncher within diameter 70mm for grinding various shapes.
- It can shape quickly and precisely, with the moving function and fixing block for oval grinding.
- The fine truning funtion can adjust center accurately. Using the fixing block and folding down the screw when mouse much, can grind oval workpiece conveniently.

Main Parameters:
Center height: 150mm
Clamping diameter in V-slot: 70mm
Travel of V-block: 35mm
Transveral travel of slide: +/-35mm
Quantity of teeth: 24

OrderNo.287-6813



2-Jaw Self-Centering Chucks
二爪自定心卡盘

- Standard Accuracy.
- Semi-Steel Body.
- Soft two piece hard reversible jaws.
- Shape to Fit work pieces.
- 1 Chuck wrench.

Chuck Dia.	Thru Hole	Order No.
6"	1.65"	**428-7106**
8	2.16	**428-7108**
10	2.99	**428-7110**
12	4.05	**428-7112**



Collet Punch Former ER夹头冲子成型器

- Clamping diameter: 2-20mm
- Supply ER32 collete size: 4, 6, 8, 10, 12, 16, 20, 7Pcs in total
- For workpiece diamete smaller than 4mm, use shank 20mm/ER16 collet chuck
- It clamps workpiece quickly and steadily when processing without checking the center



OrderNo.287-6808

3-Jaws Punch Former 三爪冲子成型器

This Punch Former is attached with 3 jaws which can hold workpieces quickly and conveniently. It can also adjust center of 3 jaws.

Main Parameters:
3 jaws hole diameter 16mm
Min clamping diameter 2mm
Max clamping diameter 70mm



OrderNo.287-6807

4-Jaw Independent Shank Type Self-Centering Chucks

4 Jaw independent direct flat back chucks come with 5C, R8 Mounting Shank.

四爪卡盘

Chuck Dia.	R8 Shank Order No.	5C Shank Order No.
3	**230-6113**	**230-6103**
4	**230-6114**	**230-6104**
5	**230-6115**	**230-6105**
6	**230-6116**	**230-6106**



5C Shank

3-Jaw Shank Type Self-Centering Chucks
三爪卡盘

Scroll type chucks come with attached 5C, R8 or MT Mounting Shank, 2 set of solid jaws and one chuck wrench.



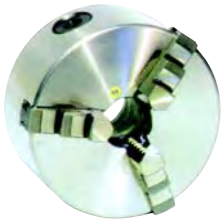
5C Shank



R8 Shank

Chuck Dia.	5C Shank Order No.	R8 Shank Order No.	MT2 Shank Order No.
3"	**230-6003**	**230-6013**	**230-6023**
4	**230-6004**	**230-6014**	**230-6024**
5	**230-6005**	**230-6015**	
6	**230-6006**	**230-6016**	

3-Jaw Plain Back Self-Centering Chucks 3 爪短圆柱型自定心卡盘（正反两副爪）



- Self-Centering 0.003" T.I.R.
- Semi-Steel Body.
- 2 sets solid jaws.
- 2 Pc. hard reversible jaws.
- 1 Chuck wrench.

Chucks with 2 sets solid jaws

Chuck Dia.	Thru Hole	Order No.
3”/80mm	.630”/16mm	**429-3003**
4”/100mm	.866”/22mm	**429-3004**
5”/125mm	1.181”/30mm	**429-3005**
6”/150mm	1.575”/40mm	**429-3006**
8”/200mm	2.559”/65mm	**429-3008**
10”/250mm	3.150”80mm	**429-3010**
12”/325mm	3.937”/100mm	**429-3012**
15”/380mm	4.000”/135mm	**429-3015**

Chucks with 2 piece reversible jaws

Chuck Dia.	Thru Hole	Order No.
6"/160mm	1.575"/40mm	**428-7006**
8"/200mm	2.36"/60mm	**428-7008**
10"/250mm	3.150"/80mm	**428-7010**
12"/325mm	3.937"/100mm	**428-7012**
15"/380mm	5.32"/135mm	**428-7015**
16"/400mm	5.11"/130mm	**428-7016**
20”/508mm		**428-7020**



3-Jaw Direct Mounting D Series Chucks

Universal

3 爪 D 型短锥自定心卡盘（拉杆. 凸轮锁紧连接）

the advantage of using a direct mount chuck is extra working capacity on the lathe due to a shorter overall length with the integral camlock mount.



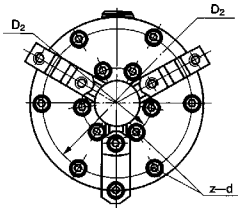
- Self-Centering .
- Semi-Steel body.
- Camlock spindle “D” Series.

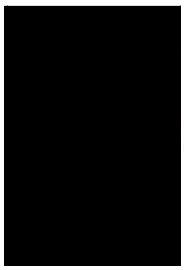
Chuck Dia.	To Fit Spindle	Thru Hole	Order No.
6”/160mm	D1-3	1.575”/40mm	**429-3063**
6”/160mm	D1-4	1.575”/40mm	**429-3064**
6”/160mm	D1-5	1.575”/40mm	**429-3065**
8”/200mm	D1-4	1.969”/50mm	**429-3084**
8”/200mm	D1-5	1.969”/50mm	**429-3085**
8”/200mm	D1-6	1.969”/50mm	**429-3086**
10”/250mm	D1-5	2.756”/70mm	**429-3105**
10”/250mm	D1-6	2.756”/70mm	**429-3106**
10”/250mm	D1-8	2.756”/70mm	**429-3108**
12”/325mm	D1-11	3.937”/100mm	**429-3121**
12”/325mm	D1-6	3.937”/100mm	**429-3126**
12”/325mm	D1-8	3.937”/100mm	**429-3128**
15”/380mm	D1-11	5.11”/130mm	**429-3151**
15”/380mm	D1-8	5.11”/130mm	**429-3158**
16”/406mm	D1-11	4.95”/125mm	**429-3161**

Precision Adjustable Scroll Chucks

3-Jaw 3爪可调自定心卡盘

This series chucks are made of high quality materials with precision machining, and the bodies enjoy nice rigidity. What is more, the chucks have a high repeatable concentrical precision. With suitable adjustment the chuck's clamping precision can reach 0.013mm.

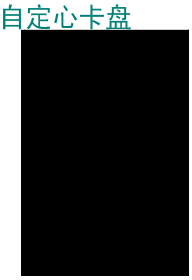






Chuck Dia.	D	D1	D2	D3	H	H1	h	z-d	Order No.
6”/160mm	6	3.125	5.343	1.535	3.882	2.323	0.689	6-1/4-20	**429-3600**
8”/200	8.27	4.75	7.5	2.264	5.206	3.122	0.752	6-3/8-16	**429-3825**
10”/250	10	6.374	4.375	2.835	6.056	3.492	0.803	6-7/16-14	**429-3910**
12”/315	12	7.905	5.25	3.268	6.569	3.980	0.803	6-1/2-13	**429-3912**

6-Jaw 6爪可调自定心卡盘





Chuck Dia.	D	D1	D2	D3	H	H1	h	z-d	Order No.
6”/160mm	6	3.125	5.343	1.535	3.882	2.323	0.689	6-1/4-20	**429-6600**
8-1/4”/200	8.27	4.75	7.5	2.264	5.206	3.122	0.752	6-3/8-16	**429-6825**
10”/250mm	10	6.374	4.375	2.835	6.056	3.492	0.803	6-7/16-14	**429-6910**
12”/315mm	12	7.905	5.25	3.268	6.569	3.980	0.803	6-1/2-13	**429-6912**

4-Jaw Independent Direct Mounting Lathe Chucks

4 爪短锥 D 型单动卡盘（拉杆. 凸轮锁紧连接）





- Self-Centering .
- Cast iron body.
- Camlock spindle “D” Series.
- 1Set solid reversible jaws.
- 1Set of mounting Screws.
- 1 Chuck Wrench.

Chuck Dia.	To Fit Spindle	Thru Hole	Order No.
8"/200mm	D1-4	2.165"/55mm	**429-4084**
8"/200mm	D1-5	2.165"/55mm	**429-4085**
10"/250mm	D1-4	2.756"/70mm	**429-4104**
10"/250mm	D1-5	2.953"/75mm	**429-4105**
10"/250mm	D1-6	2.953"/75mm	**429-4106**
12"/325mm	D1-6	3.740"/9511	**429-4126**
12"/325mm	D1-8	3.740"/9511	**429-4128**
16"/406mm	D1-6	4.921"/125mm	**429-4166**
16"/406mm	D1-8	4.921"/125mm	**429-4168**

4-Jaw Independent Plain Back Chucks

4爪单动直止口卡盘



The chuck body is made of cast iron. The reversible jaws and operation screw are made of high quality carbon steel jaws and are hardened precision ground.

Chuck Dia.	Hole Circle	Thru Hole	Order No.
3"/75mm	2.59"/66mm	.86"/22mm	429-4003
6"/145mm	3.81"/97mm	1.77"/45mm	429-4006
8"/200mm	4-9/67"/107mm	1-15/16"/56mm	429-4008
10"/250mm	4-3/4"/120mm	3"/75mm	429-4010
12"/325mm	5-3/8"/134mm	3"/75mm	429-4012
16"/380mm	5-9/16"/141mm	4-15/16"/125mm	429-4016
20"/508mm	6-1/4"/160mm	6-1/4"/160mm	429-4020

4-Jaw Plain Back Self -Centering Chucks

4 爪自定心卡盘

Chuck Dia.	Thru Hole	Order No.
5"/127mm	1.181"/30mm	428-8205
6"/160mm	1.575"/40mm	428-8206
8"/200mm	2.559"/65mm	428-8208
10"/250mm	3.150"/80mm	428-8210
12"/325mm	3.937"/100mm	428-8212
15"/380mm	4.000"/101mm	428-8215
20"/508mm	6.25"/159mm	428-8220

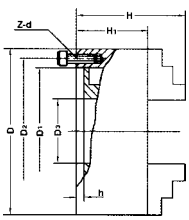


6-Jaw Self-Centering Scroll Chucks

6爪盘丝型自定心卡盘

These chucks are suitable for clamping and machining the thin-walled workpieces, especially the handle-cutting tools.By using this series of chucks, the deformation can be reduced or avoided when the workpieces are gripped and the grinding states can be improved owing to their evenbearing

- Plain back
- Cast iron body.
- 1Set of two Pc. hardened reversible jaws.
- 1Set of mountingScrews.
- 1 Chuck Wrench.



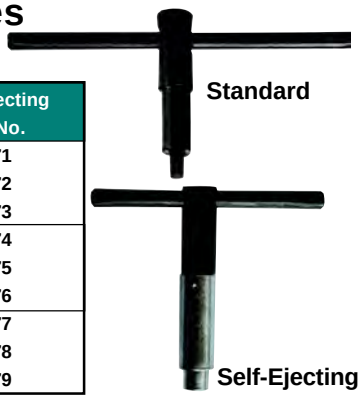


Chuck Dia.	D1	D2	D3	H	H1	h	Order No.
4"/100mm	2.83"	3.31"	1.02"	2.87"	2.11"	0.14"	429-6004
5"/130mm	3.94	4.53	1.38	3.39	2.36	0.14	429-6005
6"/165mm	5.12	5.71	1.65	3.80	2.62	0.18	429-6006
8"/200mm	6.50	7.09	2.56	4.29	2.95	0.20	429-6008

Chuck Wrenches

卡盘手把

Size	Standard Order No.	Self-Ejecting Order No.
1/4"	290-1171	290-1071
5/16"	290-1172	290-1072
3/8"	290-1173	290-1073
7/16"	290-1174	290-1074
1/2"	290-1175	290-1075
9/16"	290-1176	290-1076
5/8"	290-1177	290-1077
11/16"	290-1178	290-1078
3/4"	290-1179	290-1079



Mounting Plates 法兰盘



L Series Back Plates for Adjustable Chucks

长锥型连接法兰盘

Chuck Size	Spindle	Order No.
6"	L-00	429-3830
6	L-0	429-3831
8-1/4	L-00	429-3832
8-1/4	L-0	429-3833
10	L-00	429-3834
10	L-0	429-3835
10	L-1	429-3836
12	L-0	429-3837
12	L-1	429-3838

"D" Series Adapters for 3 Jaw Self-Centering Plain Chucks

三爪自定心平背卡盘法兰盘

Chuck Size	Spindle	Order No.
6"	D4	429-3901
8	D3	429-3902
8	D4	429-3903
8	D6	429-3905
10	D6	429-3907
10	D8	429-3909
12	D8	429-3911
15	D11	429-3913

"A" Series Back Plates for Adjustable Chucks

A型连接法兰盘

Chuck Size	Spindle	Order No.
6"	A4	429-3764
6	A5	429-3765
6	A6	429-3766
8-1/4	A5	429-3785
8-1/4	A6	429-3786
10	A6	429-3806
10	A8	429-3808
12	A6	429-3826
12	A8	429-3828

"D" Series Back Plates for Adjustable Run-True Chucks

可调自定心卡盘法兰盘

Chuck Size	Spindle	Order No.
6"	D3	429-3716
6	D4	429-3719
6	D5	429-3720
8	D3	429-3722
8	D4	429-3725
8	D5	429-3728
8	D6	429-3731
10	D4	429-3734
10	D5	429-3737
10	D6	429-3740
10	D8	429-3743
12	D6	429-3746
12	D8	429-3749
12	D11	429-3752
15	D11	429-3754

Thread Back Plates

螺纹型连接法兰盘

Chuck Size	Spindle Threads	Order No.
6"	1-1/2"-8	429-3840
6	1-3/4"-8	429-3841
6	2-1/4"-8	429-3842
6	2-3/8"-6	429-3843
8	2-1/4"-8	429-3844
8	2-3/8"-6	429-3845
10	2-1/4"-8	429-3846
10	2-3/8"-6	429-3847
10	2-3/4"-8	429-3848
12	2-3/8"-6	429-3849
12	2-3/4"-8	429-3850

52 Piece Deluxe Steel Clamping Kits

机床夹具

Each set contains:

- 6 T-slot nuts.
- 6 flange nuts.
- 4 coupling nuts.
- 6 step blocks.
- 6 serrated end clamps.
- 24 studs, 4 each: 3”, 4”, 5”, 6”,7” & 8” long.
- Plastic holder with metal back



***** This items have two free parts:
1 T slot cleaner.
1 nut wrench.

Stud Size	Table Slot	Order No.
5/16”-18	3/8	**400-3375**
3/8-16	7/16	**400-3437**
3/8-16	1/2	**400-3501**
3/8-16	9/16	**400-3456**
1/2-13	9/16	**400-3562**
1/2-13	5/8	**400-3626***
1/2-13	11/16	**400-3639**
5/8-11	11/16	**400-3740**
5/8-11	3/4	**400-3750**
5/8-11	13/16	**400-3759**

38 Piece T-Nut & Stud Sets

套装机床夹具螺栓螺母

Each set contains:

- 4 flange nuts.
- 4 T-slot nuts.
- 4 coupling nuts.
- 1T-slot cleaner.
- 24 studs, 4 each: 3”, 4”, 5”, 6”, 7” & 8” long.
- 1 wooden stand.



Stud Size	Table Slot	Order No.
5/16’’-18	3/8’’	**402-4375**
3/8”-16	1/2’’	**402-4500**
3/8”-16	7/16’’	**402-4437**
3/8”-16	9/16’’	**402-4560**
1/2”-13	9/16’’	**402-4562**
1/2”-13	5/8’’	**402-4625**
1/2”-13	11/16’’	**402-4680**
5/8”-11	11/16’’	**402-4687**
5/8”-11	3/4’’	**402-4750**
5/8”-11	13/16’’	**402-4800**
3/4’’-10	13/16’’	**402-4812**
3/4’’-10	7/8’’	**402-4875**
3/4’’-10	1’’	**402-4900**
3/4’’-10	1-1/16’’	**402-4962**

50 Piece Super Clamp Sets

机床夹具

Each set contains:

- 24 studs with flats, 4 each: 3”, 4”, 5”, 6”, 7”& 8” long.
- 4 coupling nuts.
- 4 flange nuts.
- 6 serrated end clamps.
- 4 T slot nuts.
- 6 step blocks.
- 1 T-slot cleaner.
- 1 wooden stand.



Stud Size	Table Slot	Order No.
with Standard Blocks 1”		
5/16”-18	3/8”	**400-4375**
3/8-16	7/16	**400-4377**
3/8-16	1/2	**400-4379**
1/2-13	9/16	**400-4381**
1/2-13	5/8	**400-4626**
1/2-13	11/16	**400-4628**
5/8-11	11/16	**400-4630**
5/8-11	3/4	**400-4632**
5/8-11	13/16	**400-4634**
with Heavy Duty Blocks 1-1/2”		
1/2-13	9/16	**400-4636**
1/2-13	5/8	**400-4638**
1/2-13	11/16	**400-4640**
5/8-11	11/16	**400-4642**
5/8-11	3/4	**400-4644**
5/8-11	13/16	**400-4646**
3/4-10	13/16	**400-4648**
3/4-10	7/8	**400-4650**
3/4-10	1	**400-4652**

Economy Adjusta-Clamp Kit

套装沟槽压板

Better Performance with just 21 pieces

Each set contains:

- 2 forged Adjusta-Clamps .
- 8 T slot bolts, two each of 2,4,5 & 6”.
- 4 Rotary T slot bolts 3,4,5 & 6”.
- 2 springs.
- 4 flange nuts.
- 1 sturdy holder.



Order No. 400-8032

52 Piece Metric Clamping Kits 机床夹具

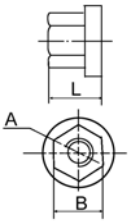
Each set contains:
- 6 T-slot nuts.
- 6 flange nuts.
- 4 coupling nuts.
- 6 step blocks.
- 6 serrated end clamps.
- 24 studs, 4 each: 76, 102,127, 152, 178 & 203mm long.

Clamping Kits

Size	Order No.
M10	400-3010
M12	400-3012
M14	400-3014
M16	400-3016

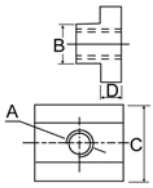


Flanged Nuts



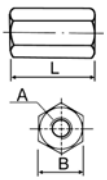
A	L	B	Order No.
M10	12	17	407-5010
M12	17	19	407-5012
M14	17	19	407-5014
M16	20	24	407-5016

T-Slot Nuts



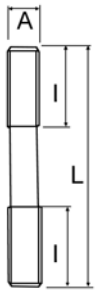
A	B	C	D	Order No.
M10	11.70	18	7.1	407-2310
M12	13.70	22	8	407-2312
M14	15.70	25	8	407-2314
M16	17.70	28	11	407-2316

Coupling Nuts



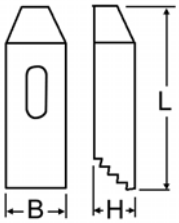
A	L	B	Order No.
M10	30	16	407-4110
M12	36	18	407-4112
M14	42	21	407-4114
M16	48	24	407-4116

Double End Bolts



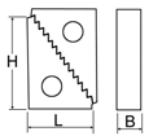
A	L	I	Order No.	A	L	I	Order No.
M10	76	28	407-8005	M14	76	28	407-8065
M10	102	32	407-8010	M14	102	38	407-8070
M10	127	32	407-8015	M14	127	38	407-8075
M10	152	32	407-8020	M14	152	38	407-8080
M10	178	32	407-8025	M14	178	38	407-8085
M10	203	32	407-8030	M14	203	38	407-8090
M12	76	28	407-8035	M16	76	28	407-8095
M12	102	38	407-8040	M16	102	45	407-8100
M12	127	38	407-8045	M16	127	45	407-8105
M12	152	38	407-8050	M16	152	45	407-8110
M12	178	38	407-8055	M16	178	45	407-8115
M12	203	38	407-8060	M16	203	45	407-8120

Step Clamps



For Bolt	L	B	H	Order No.
M10	63.5	25	12	407-8205
M10	101.6	25	15	407-8210
M10	152.4	28	19	407-8215
M12	63.5	28	12	407-8220
M12	101.6	31	19	407-8225
M12	152.4	31	22	407-8230
M14	63.5	28	12	407-8235
M14	101.6	31	19	407-8240
M14	152.4	31	22	407-8245
M16	101.6	38	19	407-8250
M16	152.4	38	22	407-8255

Step Blocks



L	H	B	Order No.
19.05	27.30	25	407-6210
26.99	39.60	25	407-6220
63.50	96.00	25	407-6230
50.80	77.30	27	407-6240
76.20	115	27	407-6250

T-Slot Cleaner T型槽清洁板

A must for every machine shop

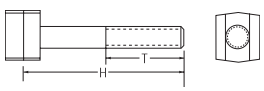


Order No. 400-0000

T Slot Bolts

T 形头螺栓

- Black Oxide finish.
- RC 36-40 Heat Treated
- 2A-UNC Thread.



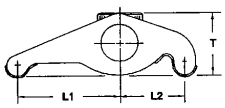
Thread and Head Sizes

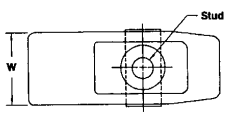
Thread Size	Head Size
3/8"-16	11/16"W x 3/16"
1/2-13	7/8W x 1/4
5/8-11	1-1/8W x 11/32
3/4-10	1-1/4W x 7/16

Length Under Head	Thread Length	Thread 3/8"-16 Order No.	Thread 1/2"-13 Order No.	Thread 5/8"-11 Order No.	Thread 3/4"-10 Order No.
1"	3/4"	407-3001			
1-1/2	1	407-3002	407-3022	407-3042	
2	1-1/2	407-3003	407-3023	407-3043	
2-1/2	1-1/2	407-3004	407-3024	407-3044	407-3064
3	1-1/2	407-3005	407-3025	407-3045	407-3065
3-1/2	2	407-3006	407-3026	407-3046	407-3066
4	2	407-3007	407-3027	407-3047	407-3067
4-1/2	2			407-3048	407-3068
5	2	407-3009	407-3029	407-3049	407-3069
5-1/2	2		407-3030	407-3050	407-3070
6	2-1/2	407-3011	407-3031	407-3051	407-3071
7	2		407-3032	407-3052	407-3072
8	2-1/2		407-3033	407-3053	407-3073
10	2-1/2			407-3054	407-3074
12	3			407-3055	407-3075

Adjusta Clamp 沟槽压板（铸造）

- Instant height adjustment without blocks or shims.
- One piece assembly allows quick setups and eliminates lost clamp pieces.
- Attachable brass shims protect machine table and workpiece.
- Swing clamp 90. in either direction for loading clearance.





Clamp Body and Assembly include one each of
Adjusta Clamp
Flat Washer, Spring,
Flange Nut, T-Slot Bolt

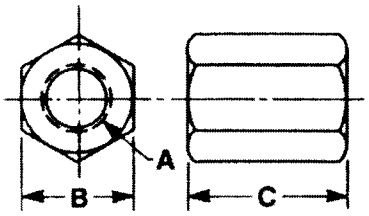


Studs	Clamping Range	L1	L2	T	W	Body Only Order No.	Clamp Body and Assembly T Slot Bolt	Clamp Body and Assembly Order No.
3/8"	Up to 1-3/4"	1-7/8"	1-1/8"	1"	1-1/4"	400-8050	3/8"-16x3"	400-8051
1/2	Up to 2-1/16	2-5/16	1-7/16	1-7/16	1-5/8	400-8052	1/2"-13x4"	400-8053
5/8	Up to 3	3-1/4	2"	1-7/8	1-7/8	400-8054	5/8"-11x5"	400-8055
3/4	Up to 4-1/4	3-1/2	2-1/8	2-1/4	2-5/8	400-8056	3/4"-10x6"	400-8057

Coupling Nuts 联接螺母

- Heated treated steel black oxide finished.



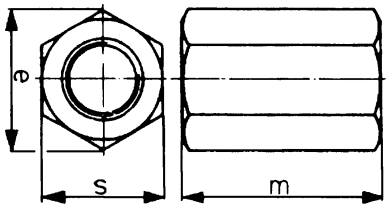


Thread Size A	Hex Size B	Length C	Order No.
1/4-20	1/2	5/8	**407-4016**
5/16"-18	9/16"	7/8"	**407-4020**
3/8-16	11/16	1	**407-4024**
1/2-13	7/8	1-1/4	**407-4032**
5/8-11	15/16	1-5/8	**407-4040**
3/4-10	1-1/8	1-7/8	**407-4048**
7/8-9	1-5/16	2-1/4	**407-4056**
1-8	1-5/8	2-1/2	**407-4064**

Metric Coupling Nuts 公制联接螺母

Material: European class 10.9 steel
For functional and safety purposes bolts (DIN 787) and/or studs (DIN 6379) to be joined should be screwed in on either side to half the length of the nut. Minimum thread reach should be 1 x diameter of thread.





Thread Size	Hex Size S	E	Ht.	Order No.
M6	10	11.5	18	**407-4106**
M8	13	15.0	24	**407-4108**
MI0	16	17.8	30	**407-4110**
M12	18	20.0	36	**407-4112**
M14	21	23.4	42	**407-4114**
M16	24	27.7	48	**407-4116**
M18	27	31.2	54	**407-4118**
M20	30	34.6	60	**407-4120**
M24	36	41.6	72	**407-4124**

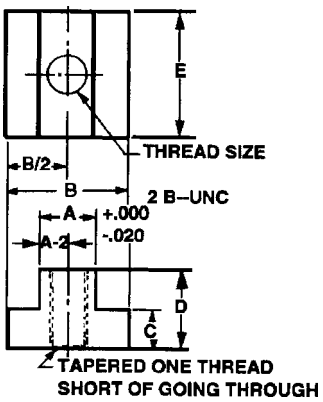
T-Slot Nuts T 形螺母，底部螺纹不通，表面发黑

Medium Carbon Steel

An imperfect thread is left on the tapped T -Nut base to eliminate any danger of screwing the stud through the T-nut and damaging the table slot.

- Case Hardened
- Black oxide finish





Thread Size	Table Slot A	Base W B	Slot Ht. C	OAH D	OAL E	Order No.
1/4"-20	5/16"	9/16"	3/16"	1/4"	9/16"	**407-2241**
1/4-20	3/8	9/16	15/64	3/8	9/16	**407-2242**
5/16-18	3/8	5/8	3/16	1/2	7/8	**407-2202**
5/16-18	7/16	11/16	7/32	1/2	7/8	**407-2244**
5/16-18	1/2	7/8	9/32	1/2	7/8	**407-2245**
3/8-16	7/16	11/16	7/32	1/2	7/8	**407-2204**
3/8-16	1/2	7/8	9/32	1/2	7/8	**407-2206**
3/8-16	9/16	7/8	11/32	5/8	1-1/8	**407-2208**
7/16-14	1/2	3/4	7/32	3/8	7/8	**407-2249**
7/16-14	1/2	7/8	9/32	1/2	7/8	**407-2250**
1/2-13	9/16	7/8	11/32	5/8	1-1/8	**407-2210**
1/2-13	5/8	1	11/32	5/8	1-1/8	**407-2212**
1/2-13	5/8	1-1/8	3/8	3/4	1-1/8	**407-2253**
1/2-13	11/16	1-1/8	7/16	3/4	1-1/4	**407-2214**
1/2-13	3/4	1-1/4	15/32	3/4	1-1/4	**407-2255**
5/8-11	11/16	1-1/8	7/16	3/4	1-1/4	**407-2216**
5/8-11	3/4	1-1/4	15/32	3/4	1-1/4	**407-2218**
5/8-11	13/16	1-1/4	9/16	1	1-1/2	**407-2220**
3/4-10	13/16	1-1/4	9/16	1	1-1/2	**407-2222**
3/4-10	7/8	1-1/2	9/16	1	1-1/2	**407-2224**
3/4-10	1	1-5/8	5/8	1	1-3/4	**407-2226**
3/4-10	1	1-3/4	3/4	1-1/2	1-3/4	**407-2262**
3/4-10	1-1/16	1-5/8	11/16	1-1/8	2	**407-2228**
7/8-9	1	1-5//8	5/8	1	1-3/4	**407-2230**
7/8-9	1-1/16	1-5/8	11/16	1-1/8	2	**407-2265**
7/8-9	1-1/8	1-3/4	3/4	1-1/2	2	**407-2266**
7/8-9	1-5/16	2	15/16	1-1/4	2	**407-2267**
1-8	1-1/16	1-5/8	11/16	1-1/8	2	**407-2232**
1-8	1-1/8	1-3/4	3/4	1-1/2	2	**407-2269**
1-8	1-1/4	2	6/8	1-1/4	2	**407-2270**
1-8	1-5/16	2	15/16	1-1/4	2	**407-2271**
1-1/4-7	1-3/8	2-1/2	1/1/8	1-3/4	2-1/2	**407-2272**

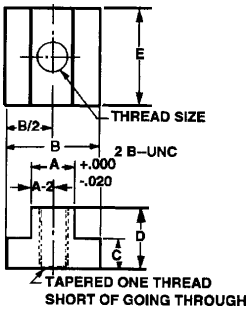
Metric T-Slot Nuts

Table Saver Design or Tapped Thru

公制T形螺母(中碳钢, 表面硬化), 螺纹不通

- Case Hardened
- Black oxide finish
- Size to fit all standard machine tables
- Tapped last thread is incomplete to prevent
- the stud from turning into the machine table





Thread Size	Table Slot A	Base W B	Slot Ht. C	OAH D	OAL E	Order No.
M6X1.0	8mm	14mm	6mm	10mm	19	**407-2280**
M6x1.0	10	16	6	11	22	**407-2281**
M8x1.25	10	16	6	11	22	**407-2282**
M10x1.5	12	19	7	13	22	**407-2283**
M10x1.5	14	22	9	16	29	**407-2284**
M12x1.75	14	22	9	16	29	**407-2285**
M12x1.75	16	25	9	16	29	**407-2286**
M12x1.75	17	29	11	19	32	**407-2287**
M16x2.0	18	29	11	19	32	**407-2288**
M16x2.0	20	32	14	25	38	**407-2289**
M20x2.5	22	35	14	25	38	**407-2290**
M24x3.0	27	41	18	29	51	**407-2291**
M24x3.0	33	51	24	32	51	**407-2292**

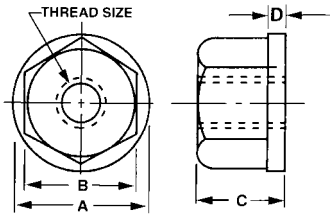
Flange Nuts

表面硬化发黑法兰螺母

- Case Hardened, Black Oxide Finsh

Has a large bearing area to ensure full surface contact with clamping component. Available with choice of National Coarse or National Fine Threads.





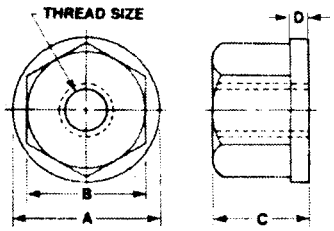
Thd. Size (In.)	Flange Dia. A(In.)	Hex Size B(In.)	Ht. C (In.)	Flange Thick D (In.)	Order No.
National Coarse					
1/4-20	5/8	1/2	5/16	3/32	**407-5070**
5/16-18	3/4	9/16	3/8	1/8	**407-5071**
3/8-16	7/8	11/16	1/2	1/8	**407-5072**
7/16-14	1	3/4	9/16	5/32	**407-5073**
1/2-13	1-1/8	7/8	11/16	3/16	**407-5074**
5/8-11	1-3/8	1-1/16	13/16	3/16	**407-5075**
3/4-10	1-5/8	1-1/4	1	1/4	**407-5076**
7/8-9	1-3/4	1-7/16	1-1/8	1/4	**407-5077**
1-8	2	1-5/8	1-1/4	1/4	**407-5078**
1-1/4-7	2-1/2	1-13/16	1-1/4	1/4	**407-5079**
National Fine					
1/4-28	5/8	1/2	5/16	3/32	**407-5080**
5/16-24	3/4	9/16	3/8	1/8	**407-5081**
3/8-24	7/8	11/16	1/2	1/8	**407-5082**
7/16-20	1	3/4	9/16	5/32	**407-5083**
1/2-20	1-1/8	7/8	11/16	3/16	**407-5084**
5/8-18	1-3/8	1-1/16	13/16	3/16	**407-5085**
3/4-16	1-5/8	1-1/4	1	1/4	**407-5086**
7/8-14	1-3/4	1-7/16	1-1/8	1/4	**407-5087**
1-14	2	1-5/8	1-1/4	1/4	**407-5088**

Flanged Nuts

带肩螺母

- Heat treated steel, black oxide finished.





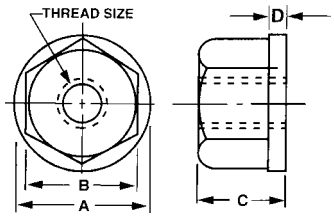
Thread Size	A	B	C	D	Order No.
5/16"-18	11/16"	9/16"	9/32"	1/8"	**407-5020**
3/8-16	53/64	21/32	33/64	1/8	**407-5024**
1/2-13	1-5/32	7/8	1/2	3/16	**407-5032**
5/8-11	1-5/16	15/16	5/8	3/16	**407-5040**
3/4-10	1-1/2	1-1/8	21/32	1/4	**407-5048**
7/8-9	1-3/4	1-5/16	3/4	1/4	**407-5056**
1-8	2	1-1/2	7/8	1/4	**407-5064**

Metric Flange Nuts

公制表面硬化发黑法兰螺母

- Case hardened
- Material: 12L14
- Black oxide finish





Thd. Size	Flange Dia. A(mm)	Hex Size B(mm)	Overal Ht. C (mm)	Flange Ht. D (mm)	Order No.
M6x1.00	16.0	10.0	8	2.00	**407-5090**
M8x1.25	19.0	13.0	10	2.50	**407-5091**
M10x1.50	22.0	17.0	13	3.00	**407-5092**
M12x1.75	27.0	19.0	17	4.00	**407-5093**
M16x2.00	33.0	24.0	21	5.00	**407-5094**
M20x2.50	40.0	30.0	25	6.00	**407-5095**
M24x3.0	49.0	36.0	32	7.00	**407-5096**

Threaded Studs 牙条



These headless externally-threaded studs are designed to provide a permanently mounted anchor. All studs have rolled thread to a commercial nut fit.

NEW

Type 18-8 Stainless Steel

- Excellent corrosion resistance
- Ideal for chemical, marine, and other environments where corrosion is a factor
- Min. tensile strength: 75,000 psi
- Can be mildly magnetic

Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.
2-56	1"	**407-1019**	10-24	3/4	**407-1038**	1/4-20	1-1/2	**407-1052**	1/2-13	2	**407-1076**
2-56	1-1/2	**407-1020**	10-24	1	**407-1039**	1/4-20	1-3/4	**407-1053**	1/2-13	2 1/2	**407-1077**
2-56	2	**407-1021**	10-24	1-1/2	**407-1040**	1/4-20	2	**407-1054**	1/2-13	3	**407-1078**
4-40	1/2	**407-1001**	10-24	2	**407-1041**	1/4-20	2-1/4	**407-1055**	1/2-13	3-1/2	**407-1079**
4-40	3/4	**407-1022**	10-24	2-1/2	**407-1042**	1/4-20	2-1/2	**407-1056**	1/2-13	4	**407-1080**
4-40	1	**407-1023**	10-24	3	**407-1043**	1/4-20	3	**407-1057**	1/2-13	4-1/2	**407-1081**
4-40	1-1/2	**407-1024**	10-24	4	**407-1044**	1/4-20	4	**407-1058**	1/2-13	5	**407-1082**
4-40	2	**407-1025**	10-24	5	**407-1008**	1/4-28	3/4	**407-1102**	1/2-13	5-1/2	**407-1083**
4-40	2-1/2	**407-1026**	10-24	6	**407-1009**	1/4-28	1	**407-1103**	1/2-13	6	**407-1084**
4-40	3	**407-1002**	10-32	3/4	**407-1045**	5/16-18	1	**407-1059**	5/8-11	5	**407-1085**
6-32	3/4	**407-1027**	10-32	1	**407-1046**	5/16-18	1-1/4	**407-1060**	5/8-11	2-1/2	**407-1086**
6-32	1	**407-1028**	10-32	1-1/2	**407-1047**	5/16-18	1-1/2	**407-1061**	5/8-11	3	**407-1087**
6-32	1-1/2	**407-1029**	10-32	2	**407-1104**	5/16-18	1-3/4	**407-1062**	5/8-11	3-1/2	**407-1088**
6-32	2	**407-1030**	10-32	2-1/2	**407-1048**	5/16-18	2	**407-1063**	5/8-11	4	**407-1089**
6-32	2-1/2	**407-1031**	10-32	1/2	**407-1010**	5/16-18	2-1/2	**407-1064**	5/8-11	4-1/2	**407-1090**
6-32	1/2	**407-1003**	10-32	3	**407-1011**	5/16-18	3	**407-1065**	5/8-11	5	**407-1091**
6-32	3	**407-1004**	10-32	4	**407-1012**	3/8-16	1	**407-1066**	5/8-11	6	**407-1092**
6-32	4	**407-1005**	10-32	5	**407-1013**	3/8-16	1-1/4	**407-1067**	5/8-11	7	**407-1093**
8-32	1/2	**407-1006**	10-32	6	**407-1014**	3/8-16	1-1/2	**407-1068**	3/4-10	2	**407-1094**
8-32	3/4	**407-1032**	1/4-28	1-1/2	**407-1015**	3/8-16	1-3/4	**407-1069**	3/4-10	3	**407-1095**
8-32	1	**407-1033**	1/4-28	2	**407-1016**	3/8-16	2	**407-1070**	3/4-10	3-1/2	**407-1096**
8-32	1-1/2	**407-1034**	1/4-28	3	**407-1017**	3/8-16	2-1/4	**407-1071**	3/4-10	4	**407-1097**
8-32	2	**407-1035**	1/4-28	3-1/2	**407-1018**	3/8-16	2-1/2	**407-1072**	3/4-10	5	**407-1098**
8-32	2-1/2	**407-1036**	1/4-20	3/4	**407-1049**	3/8-16	3	**407-1073**	3/4-10	6	**407-1099**
8-32	3	**407-1037**	1/4-20	1	**407-1050**	3/8-16	4	**407-1074**	3/4-10	7	**407-1100**
10-24	1/2	**407-1007**	1/4-20	1-1/4	**407-1051**	1/2-13	1-1/2	**407-1075**	3/4-10	8	**407-1101**

Type 316 Stainless Steel

- Non-magnetic material with Molybdenum
- Better corrosion resistance than type 18-8 Stainless Steel withstands many industrial chemicals and solutions
- Even pitting cased by chlorides is virtually eliminated
- Minimum tensile strength is 75.000 psi

Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.
10-32	3/4"	**407-1201**	1/4-20	2	**407-1210**	3/8-16	2	**407-1219**	1/2-13	6	**407-1228**
10-32	1	**407-1202**	5/16-18	1	**407-1211**	3/8-16	2-1/2	**407-1220**	5/8-11	3-1/2	**407-1229**
10-32	1-1/4	**407-1203**	5/16-18	1-1/4"	**407-1212**	3/8-16	3	**407-1221**	5/8-11	4	**407-1230**
10-32	1-1/2	**407-1204**	5/1618	1-1/2	**407-1213**	1/2-13	2	**407-1222**	5/8-11	5	**407-1231**
10-32	2	**407-1205**	5/16-18	2	**407-1214**	1/2-13	2-1/2	**407-1223**	5/8-11	6	**407-1232**
1/4-20	3/4.	**407-1206**	3/8-16	1	**407-1215**	1/2-13	3	**407-1224**	3/4-10	3-1/2	**407-1233**
1/4-20	1	**407-1207**	3/8-16	1-1/4	**407-1216**	1/2-13	3-1/2	**407-1225**	3/4-10	4	**407-1234**
1/4-20	1-1/4	**407-1208**	3/8-16	1-1/2	**407-1217**	1/2-13	4	**407-1226**	3/4-10	5	**407-1235**
1/4-20	1-1/2	**407-1209**	3/8-16	1-3/4	**407-1218**	1/2-13	5	**407-1227**	3/4-10	6	**407-1236**

Alumimum

- Excellent resistance to corrosion from rain, sunlight and atmosphere
- Ideal for exterior use
- 1/3 the weight of plain steel
- Minimum tensile strenght ranges from 42.000-55.000 psi

Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.
4-40	1”	**407-1323**	8-32	3/4”	**407-1327**	10-24	2”	**407-1310**	10-32	1-1/2”	**407-1302**
4-40	1-1/2	**407-1324**	8-32	1	**407-1328**	10-24	2-1/2	**407-1311**	10-32	2	**407-1315**
4-40	2	**407-1325**	8-32	2	**407-1329**	10-24	3	**407-1312**	1/4-20	1	**407-1316**
4-40	2-1/2	**407-1303**	8-32	1-1/2	**407-1307**	10-24	4	**407-1313**	1/4-20	2	**407-1317**
6-32	1	**407-1304**	8-32	2-1/2	**407-1308**	10-24	5	**407-1314**	1/4-20	3	**407-1318**
6-32	1-1/2	**407-1305**	10-24	1/2	**407-1309**	10-24	6	**407-1301**	1/4-20	4	**407-1319**
6-32	2	**407-1306**	10-24	1	**407-1321**	10-32	1/2	**407-1322**	1/4-20	6	**407-1329**
6-32	2-1/2	**407-1326**									

Threaded Studs Continued 牙条

Plain Steel, Zine Plated Steel

Plain Steel, Class 5.8 Steel, Zine Plated Steel

- AISI C-1010 to C-1020 Steel,
- Minimum tensile strength is 60.000 psi
- Zine plating retards corrosion

NEW



Plain Steel

Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.
2-56	1"	407-1529	10-24	3-1/2"	407-1617	1/4-20	7"	407-1645	3/8-24	1"	407-1672
2-56	1-1/2	407-1530	10-24	4	407-1618	1/4-20	8	407-1646	3/8-24	2	407-1673
2-56	2	407-1531	10-24	5	407-1619	1/4-28	3/4	407-1647	3/8-24	3	407-1556
2-56	3	407-1501	10-24	6	407-1620	1/4-28	1	407-1648	7/16-14	1-1/2	407-1674
4-40	1/2	407-1603	10-24	7	407-1511	1/4-28	1-1/2	407-1649	7/16-14	2	407-1675
4-40	3/4	407-1604	10-24	8	407-1512	1/4-28	2	407-1650	7/16-14	2-1/2	407-1676
4-40	1	407-1605	10-32	1/2	407-1621	1/4-28	2-1/4	407-1651	7/16-14	3	407-1677
4-40	1-1/2	407-1606	10-32	3/4	407-1622	1/4-28	2-1/2	407-1652	7/16-14	3-1/2	407-1678
4-40	2	407-1607	10-32	1	407-1623	1/4-28	3	407-1653	1/2-13	1	407-1679
4-40	2-1/2	407-1532	10-32	1-1/2	407-1624	5/16-18	3/4	407-1654	1/2-13	1-1/4	407-1680
4-40	3	407-1502	10-32	2	407-1625	5/16-18	1	407-1655	1/2-13	1-1/2	407-1681
6-32	1/2	407-1503	10-32	2-1/2	407-1626	5/16-18	1-1/4	407-1656	1/2-13	1-3/4	407-1557
6-32	3/4	407-1533	10-32	3	407-1627	5/16-18	1-1/2	407-1657	1/2-13	2	407-1565
6-32	1	407-1534	10-32	3-1/2	407-1628	5/16-18	2	407-1658	1/2-13	2-1/2	407-1559
6-32	1-1/2	407-1535	10-32	4	407-1629	5/16-18	2-1/4	407-1659	1/2-13	3	407-1567
6-32	2	407-1536	10-32	5	407-1513	5/16-18	2-1/2	407-1660	1/2-13	3-1/2	407-1518
6-32	2-1/2	407-1608	10-32	6	407-1514	5/16-18	3	407-1661	1/2-13	4	407-1561
6-32	3	407-1609	10-32	7	407-1515	5/16-18	3-1/2	407-1662	1/2-13	4-1/2	407-1519
6-32	4	407-1504	10-32	8	407-1516	5/16-18	4	407-1663	1/2-13	5	407-1557
6-32	5	407-1505	12-24	1-1/2	407-1544	5/16-18	5	407-1664	1/2-13	6	407-1563
6-32	6	407-1506	12-24	2	407-1545	5/16-18	6	407-1665	5/8-11	1-1/2	407-1520
8-32	1/2	407-1507	12-24	3	407-1546	5/16-18	7	407-1666	5/8-11	2	407-1521
8-32	3/4	407-1537	1/4-20	1/2	407-1630	5/16-18	8	407-1667	5/8	2-1/2	407-1522
8-32	1	407-1538	1/4-20	3/4	407-1631	3/8-16	3/4	407-1668	5/8-11	2-3/4	407-1564
8-32	1-1/2	407-1539	1/4-20	1	407-1632	3/8-16	1	407-1669	5/8-11	3	407-1560
8-32	2	407-1540	1/4-20	1-1/4	407-1633	3/8-16	1-1/4	407-1670	5/8-11	3-1/2	407-1566
8-32	2-1/2	407-1610	1/4-20	1-1/2	407-1634	3/8-16	1-1/2	407-1671	5/8-11	4	407-1562
8-32	3	407-1611	1/4-20	2	407-1635	3/8-16	2	407-1547	5/8-11	6	407-1568
8-32	4	407-1612	1/4-20	2-1/4	407-1636	3/8-16	2-1/4	407-1548	3/4-10	1-1/2	407-1523
8-32	5	407-1613	1/4-20	2-1/2	407-1637	3/8-16	2-1/2	407-1549	3/4-10	2	407-1524
10-24	1/2	407-1510	1/4-20	2-3/4	407-1638	3/8-16	2-3/4	407-1550	3/4-10	2-1/2	407-1525
10-24	3/4	407-1541	1/4-20	3	407-1639	3/8-16	3	407-1551	3/4-10	3	407-1526
10-24	1	407-1542	1/4-20	3-1/2	407-1640	3/8-16	3-1/2	407-1552	3/4-10	4	407-1527
10-24	1-1/2	407-1543	1/4-20	4	407-1641	3/8-16	4	407-1553	3/4-10	6	407-1528
10-24	2	407-1614	1/4-20	4-1/2	407-1642	3/8-16	5	407-1554			
10-24	2-1/2	407-1615	1/4-20	5	407-1643	3/8-16	6	407-1555			
10-24	3	407-1616	1/4-20	6	407-1644	3/8-16	7	407-1517			

Zine Plated Steel

Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.
8-32	1/2"	407-1801	10-24	3"	407-1810	1/4-20	3"	407-1815	3/8-16	3"	407-1822
8-32	3/4	407-1802	10-24	4	407-1811	5/16-18	1	407-1833	3/8-16	4	407-1823
8-32	1	407-1803	10-24	5	407-1812	5/16-18	1-1/4	407-1816	3/8-16	6	407-1824
8-32	1-1/2	407-1804	10-24	6	407-1813	5/16-18	1-1/2	407-1817	3/8-16	8	407-1825
8-32	2	407-1805	1/4-20	1	407-1830	5/16-18	2	407-1818	3/8-16	10	407-1826
8-32	2-1/2	407-1806	1/4-20	1-1/4	407-1831	5/16-18	3	407-1819	1/2-13	2	407-1827
8-32	3	407-1807	1/4-20	1-1/2	407-1832	3/8-16	1-1/2	407-1820	1/2-13	3	407-1828
10-24	1	407-1808	1/4-20	2	407-1814	3/8-16	2	407-1821	1/2-13	4	407-1829
10-24	2	407-1809									

Metric Plain Steel

Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.
M5x.8	16	407-1569	M6x1	50	407-1590	M12x1.75	30	407-1599	M16x2	80	407-1577
M5x0.8	20	407-1583	M8x1.25	25	407-1591	M12x1.75	40	407-1600	M16x2	100	407-1602
M5x0.8	25	407-1584	M8x1.25	30	407-1592	M12x1.75	50	407-1601	M20x2.5	50	407-1578
M5x0.8	30	407-1585	M8x1.25	40	407-1593	M12x1.75	60	407-1571	M20x2.5	60	407-1579
M6x1	16	407-1570	M8x1.25	50	407-1594	M12x1.75	70	407-1572	M20x2.5	70	407-1580
M6 x1	20	407-1586	M10x1.5	30	407-1595	M12x1.75	80	407-1573	M20x2.5	80	407-1581
M6x1	25	407-1587	M10x1.5	40	407-1596	M16x2	50	407-1574	M20x2.5	100	407-1582
M6x1	30	407-1588	M10x1.5	50	407-1597	M16x2	60	407-1575			
M6x1	40	407-1589	M10x1.5	60	407-1598	M16x2	70	407-1576			

mhc Industrial Supply

Threaded Studs 牙条

Brass

NEW



- Non-magnetic material offers good corrorision resistance, especially in salt air atmosphere
- Minimum tensile strength is 60.000 psi

Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.	Thd. Sz	OAL	Order No.
2-56	3/4"	**407-1401**	6-32	1	**407-1424**	10-24	3/4	**407-1431**	10-32	3	**407-1411**
2-56	1	**407-1417**	6-32	1-1/2	**407-1425**	10-24	1	**407-1432**	10-32	4	**407-1412**
2-56	1-1/2	**407-1418**	6-32	2	**407-1426**	10-24	1-1/2	**407-1433**	1/4-20	1	**407-1441**
2-56	2	**407-1444**	6-32	3	**407-1404**	10-24	2	**407-1434**	1/4-20	1-1/2	**407-1442**
4-40	1/2	**407-1402**	8-32	1/2	**407-1405**	10-24	2-1/2	**407-1435**	1/4-20	2	**407-1443**
4-40	3/4	**407-1419**	8-32	3/4	**407-1427**	10-24	3	**407-1408**	1/4-20	3	**407-1440**
4-40	1	**407-1420**	8-32	1	**407-1428**	10-32	1/2	**407-1409**	1/4-20	4	**407-1413**
4-40	1-1/2	**407-1421**	8-32	1-1/2	**407-1429**	10-32	3/4	**407-1436**	5/16-18	1-1/2	**407-1414**
4-40	2	**407-1422**	8-32	2	**407-1430**	10-32	1	**407-1437**	5/16-18	2	**407-1415**
6-32	1/2	**407-1403**	8-32	3	**407-1406**	10-32	1-1/2	**407-1438**	5/16-18	3	**407-1416**
6-32	3/4	**407-1423**	10-24	1/2	**407-1407**	10-32	2	**407-1410**			

Clamping Studs 夹具螺栓

- Heat treated steel
- Black oxide finished
- Studs threaded the same on both ends



Thread	OAL	Thread Length A	Order No.
1/4-20	1-1/2	1/2	**407-0015**
1/4-20	2	3/4	**407-0020**
1/4-20	2-1/2	1	**407-0025**
1/4-20	3	1	**407-0030**
1/4-20	3-1/2	1	**407-0035**
1/4-20	4	1	**407-0040**
1/4-20	4-1/2	1	**407-0045**
1/4-20	5	1	**407-0050**
1/4-20	5-1/2	1	**407-0055**
1/4-20	6	1	**407-0060**
1/4-20	6-1/2	1	**407-0065**
1/4-20	7	1	**407-0070**
1/4-20	7-1/2	1	**407-0075**
1/4-20	8	1	**407-0080**
5/16-18	1-1/2"	1/2"	**407-0115**
5/16-18	2	3/4	**407-0120**
5/16-18	2-1/2	1	**407-0125**
5/16-18	3	1-1/8	**407-0130**
5/16-18	3-1/2	1-1/8	**407-0135**
5/16-18	4	1-1/8	**407-0140**
5/16-18	4-1/2	1-1/8	**407-0145**
5/16-18	5	1-1/8	**407-0150**
5/16-18	5-1/2	1-1/8	**407-0155**
5/16-18	6	1-1/8	**407-0160**
5/16-8	6-1/2	1-1/8	**407-0165**
5/16-18	7	1-1/8	**407-0170**
5/16-18	7-1/2	1-1/8	**407-0175**
5/16-18	8	1-1/8	**407-0180**
3/8-16	1-1/2	1/2	**407-0215**
3/8-16	2	3/4	**407-0220**
3/8-16	2-1/2	1	**407-0225**
3/8-16	3	1-1/8	**407-0230**
3/8-16	3-1/2	1-1/4	**407-0235**
3/8-16	4	1-1/4	**407-0240**
3/8-16	4-1/2	1-1/4	**407-0245**
3/8-16	5	1-1/4	**407-0250**
3/8-16	5-1/2	1-1/4	**407-0255**
3/8-16	6	1-1/4	**407-0260**
3/8-16	6-1/2	1-1/4	**407-0265**

Thread	OAL	Thread Length A	Order No.
3/8-16	7	1-1/4	**407-0270**
3/8-16	7-1/2	1-1/4	**407-0275**
3/8-16	8	1-1/4	**407-0280**
7/16-14	1-1/2	1/2	**407-0815**
7/16-14	2	3/4	**407-0820**
7/16-14	2-1/2	1	**407-0825**
7/16-14	3	1	**407-0830**
7/16-14	3-1/2	1-1/4	**407-0835**
7/16-14	4	1-3/8	**407-0840**
7/16-14	4-1/2	1-3/8	**407-0845**
7/16-14	5	1-3/8	**407-0850**
7/16-14	5-1/2	1-3/8	**407-0855**
7/16-14	6	1-3/8	**407-0850**
7/16-14	6-1/2	1-3/8	**407-0865**
7/16-14	7-1/2	1-3/8	**407-0875**
1/2-13	1-1/2"	1/2"	**407-0315**
1/2-13	2	3/4	**407-0320**
1/2-13	2-1/2	1	**407-0325**
1/2-13	3	1-1/8	**407-0330**
1/2-13	3-1/2	1-3/8	**407-0335**
1/2-13	4	1-1/2	**407-0340**
1/2-13	4-1/2	1-1/2	**407-0345**
1/2-13	5	1-1/2	**407-0350**
1/2-13	5-1/2	1-1/2	**407-0355**
1/2-13	6	1-1/2	**407-0360**
1/2-13	6-1/2	1-1/2	**407-0365**
1/2-13	7	1-1/2	**407-0370**
1/2-13	7-1/2	1-1/2	**407-0375**
1/2-13	8	1-1/2	**407-0380**
1/2-13	9	1-1/2	**407-0385**
1/2-13	10	1-1/2	**407-0390**
1/2-13	12	1-1/2	**407-0392**
1/2-13	14	1-1/2	**407-0394**
1/2-13	16	1-1/2	**407-0396**
5/8-11	1-1/2	1/2	**407-0415**
5/8-11	2	3/4	**407-0420**
5/8-11	2-1/2	1	**407-0425**
5/8-11	3	1-1/8	**407-0430**
5/8-11	3-1/2	1-3/8	**407-0435**

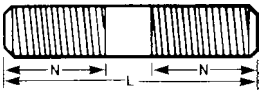
Thread	OAL	Thread Length A	Order No.
5/8-11	4	1-5/8	**407-0440**
5/8-11	4-1/2	1-3/4	**407-0445**
5/8-11	5"	1-3/4"	**407-0450**
5/8-11	5-1/2	1-3/4	**407-0455**
5/8-11	6	1-3/4	**407-0460**
5/8-11	6-1/2	1-3/4	**407-0465**
5/8-11	7	1-3/4	**407-0470**
5/8-11	7-1/2	1-3/4	**407-0475**
5/8-11	8	1-3/4	**407-0480**
5/8-11	9	1-3/4	**407-0485**
5/8-11	10	1-3/4	**407-0490**
5/8-11	12	1-3/4	**407-0492**
5/8-11	14	1-3/4	**407-0494**
5/8-11	16	1-3/4	**407-0495**
5/8-11	18	1-3/4	**407-0496**
5/8-11	20	1-3/4	**407-0497**
5/8-11	22	1-3/4	**407-0498**
5/8-11	24	1-3/4	**407-0499**
3/4-10	3	1	**407-0530**
3/4-10	3-1/2	1-1/4	**407-0535**
3/4-10	4	1-5/8	**407-0540**
3/4-10	4-1/2	1-7/8	**407-0545**
3/4-10	5	2	**407-0550**
3/4-10	5-1/2	2	**407-0555**
3/4-10	6	2	**407-0560**
3/4-10	6-1/2	2	**407-0565**
3/4-10	7	2	**407-0570**
3/4-10	7-1/2	2	**407-0575**
3/4-10	8	1-3/4	**407-0578**
3/4-10	8	2	**407-0580**
3/4-10	9	2	**407-0585**
3/4-10	10	2	**407-0590**
3/4-10	12	2	**407-0591**
3/4-10	14	2	**407-0592**
3/4-10	16	2	**407-0593**
3/4-10	18	2	**407-0594**
3/4-10	20	2	**407-0595**
3/4-10	22	2	**407-0596**
3/4-10	24	2	**407-0597**

Thread	OAL	Thread Length A	Order No.
7/8-9	3"	1	**407-0630**
7/8-9	3-1/2	1-1/4	**407-0635**
7/8-9	4	1-1/2	**407-0640**
7/8-9	4-1/2	1-3/4	**407-0645**
7/8-9	5	2	**407-0650**
7/8-9	5-1/2	2-1/4	**407-0655**
7/8-9	6	2-1/4	**407-0660**
7/8-9	6-1/2	2-1/4	**407-0665**
7/8-9	7	2-1/4	**407-0670**
7/8-9	7-1/2	2-1/4	**407-0675**
7/8-9	8	2-1/4	**407-0680**
7/8-9	9	2-1/4	**407-0685**
7/8-9	10	2-1/4	**407-0690**
7/8-9	12	2-1/4	**407-0691**
7/8-9	14	2-1/4	**407-0692**
7/8-9	16	2-1/4	**407-0693**
7/8-9	18	2-1/4	**407-0694**
7/8-9	20	2-1/4	**407-0695**
7/8-9	22	2-1/4	**407-0696**
7/8-9	24	2-1/4	**407-0697**
1-8	3	1	**407-0730**
1-8	3-1/2	1-1/4	**407-0735**
1-8	4	1-1/2	**407-0740**
1-8	4-1/2	1-3/4	**407-0745**
1-8	5	2	**407-0750**
1-8	5-1/2	2-1/4	**407-0755**
1-8	6	2-1/2	**407-0760**
1-8	6-1/2	2-1/2	**407-0765**
1-8	7-1/2	2-1/2	**407-0775**
1-8	8	2-1/2	**407-0780**
1-8	9	2-1/2	**407-0785**
1-8	10	2-1/2	**407-0790**
1-8	12	2-1/2	**407-0791**
1-8	14	2-1/2	**407-0792**
1-8	16	2-1/2	**407-0793**
1-8	18	2-1/2	**407-0794**
1-8	20	2-1/2	**407-0795**
1-8	22	2-1/2	**407-0796**
1-8	24	2-1/2	**407-0797**

Metric Studs 公制双头螺杆

- Rolled Thread
- Material: Stressproof
- Tensile Strength: 860 MPa[1]/125,000 psi
- Yied Strength: 690 MPa/100,000 psi
- Black Oxide Finish

[1]Mage Pascals





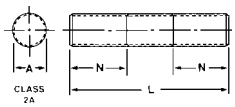
Thread Size	OAL L(mm)	Thread Length N(mm)	Order No.
M6x1.0	50	20	**407-8130**
M6x1.0	65	20	**407-8131**
M6x1.0	80	27	**407-8132**
M6x1.0	95	27	**407-8133**
M6x1.0	110	31	**407-8134**
M6x1.0	140	35	**407-8135**
M6x1.0	150	35	**407-8136**
M6x1.0	175	35	**407-8137**
M6x1.0	200	35	**407-8138**
M8x1.25	50	20	**407-8139**
M8x1.25	65	20	**407-8140**
M8x1.25	80	27	**407-8141**
M8x1.25	95	31	**407-8142**
M8x1.25	110	31	**407-8143**
M8x1.25	140	35	**407-8144**
M8x1.25	150	35	**407-8145**
M8x1.25	175	35	**407-8146**
M8x1.25	200	35	**407-8147**
M10x1.5	50	20	**407-8148**
M10x1.5	65	20	**407-8149**
M10x1.5	80	27	**407-8150**

Thread Size	OAL L(mm)	Thread Length N(mm)	Order No.
M10x1.5	95	31	**407-8151**
M10x1.5	110	35	**407-8152**
M10x1.5	125	35	**407-8153**
M10x1.5	140	35	**407-8154**
M10x1.5	150	35	**407-8155**
M10x1.5	175	35	**407-8156**
M10x1.5	200	35	**407-8157**
M12x1.75	50	20	**407-8158**
M12x1.75	65	20	**407-8159**
M12x1.75	80	27	**407-8160**
M12x1.75	95	31	**407-8161**
M12x1.75	110	39	**407-8162**
M12x1.75	125	39	**407-8163**
M12x1.75	140	39	**407-8164**
M12x1.75	150	39	**407-8165**
M12x1.75	175	39	**407-8166**
M12x1.75	200	39	**407-8167**
M16x2.0	80	27	**407-8168**
M16x2.0	95	31	**407-8169**
M16x2.0	110	47	**407-8170**
M16x2.0	125	47	**407-8171**

Thread Size	OAL L(mm)	Thread Length N(mm)	Order No.
M16x2.0	150	47	**407-8172**
M16x2.0	175	47	**407-8173**
M16x2.0	200	47	**407-8174**
M16x2.0	250	47	**407-8175**
M16x2.0	300	47	**407-8176**
M20x2.5	80	27	**407-8177**
M20x2.5	95	31	**407-8178**
M20x2.5	110	47	**407-8179**
M20x2.5	125	55	**407-8180**
M20x2.5	150	55	**407-8181**
M20x2.5	175	55	**407-8182**
M20x2.5	200	55	**407-8183**
M20x2.5	250	55	**407-8184**
M20x2.5	300	63	**407-8185**
M24x3.0	100	55	**407-8186**
M24x3.0	150	39	**407-8187**
M24x3.0	125	55	**407-8188**
M24x3.0	175	63	**407-8189**
M24x3.0	200	63	**407-8190**
M24x3.0	250	63	**407-8191**
M24x3.0	300	63	**407-8192**

Alloy Steel Studs 合金钢双头螺杆

- Material: Stressproof
- Tensile strength: (125,000 psi min.)
- Yield: (100,000 psi min.)
- Finish: Black oxide
- Cut thread





Thread Size A(In.)	OAL L(In.)	Thread Length N(In.)	Order No.
1/4-20	1-1/2	7/16	**407-0900**
1/4-20	2	11/16	**407-0901**
1/4-20	2-1/2	15/16	**407-0902**
1/4-20	3	1	**407-0903**
1/4-20	3-1/2	1	**407-0904**
1/4-20	4	1	**407-0905**
5/16-18	1-1/2	7/16	**407-0906**
5/16-18	2	11/16	**407-0907**
5/16-18	2-1/2	15/16	**407-0908**
5/16-18	3	1-1/8	**407-0909**
5/16-18	3-1/3	1-1/8	**407-0910**
5/16-18	4	1-1/8	**407-0911**
3/8-16	1-1/2	3/8	**407-0912**
3/8-16	2	5/8	**407-0913**
3/8-16	2-1/2	7/8	**407-0914**
3/8-16	3	1-1/8	**407-0915**
3/8-16	3-1/2	1-1/4	**407-0916**
3/8-16	4	1-1/4	**407-0917**
3/8-16	4-1/2	1-1/4	**407-0918**
3/8-16	5	1-1/4	**407-0919**
3/8-16	5-1/2	1-1/4	**407-0920**
3/8-16	6	1-1/4	**407-0921**
3/8-16	7	1-1/4	**407-0922**
3/8-16	8	1-1/4	**407-0923**
1/2-13	2	5/8	**407-0924**

Thread Size A(In.)	OAL L(In.)	Thread Length N(In.)	Order No.
1/2-13	2-1/2	7/8	**407-0925**
1/2-13	3	1-1/8	**407-0926**
1/2-13	3-1/2	1-3/8	**407-0927**
1/2-13	4	1-1/2	**407-0928**
1/2-13	4-1/2	1-1/2	**407-0929**
1/2-13	5	1-1/2	**407-0930**
1/2-13	5-1/2	1-1/2	**407-0931**
1/2-13	6	1-1/2	**407-0932**
1/2-13	7	1-1/2	**407-0933**
1/2-13	8	1-1/2	**407-0934**
1/2-13	9	1-1/2	**407-0935**
1/2-13	10	1-1/2	**407-0936**
1/2-13	12	1-1/2	**407-0937**
5/8-11	2-1/2	13/16	**407-0938**
5/8-11	3	1-1/16	**407-0939**
5/8-11	3-1/2	1-5/16	**407-0940**
5/8-11	4	1-9/16	**407-0941**
5/8-11	4-1/2	1-3/4	**407-0942**
5/8-11	5	1-3/4	**407-0943**
5/8-11	5-1/2	1-3/4	**407-0944**
5/8-11	6	1-3/4	**407-0945**
5/8-11	7	1-3/4	**407-0946**
5/8-11	8	1-3/4	**407-0947**
5/8-11	9	1-3/4	**407-0948**
5/8-11	10	1-3/4	**407-0949**

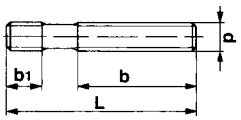
Thread Size A(In.)	OAL L(In.)	Thread Length N(In.)	Order No.
5/8-11	12	1-3/4	**407-0950**
3/4-10	3	5/16	**407-0951**
3/4-10	3-1/2	1-3/16	**407-0952**
3/4-10	4	1-7/16	**407-0953**
3/4-10	4-1/2	1-11/16	**407-0954**
3/4-10	5	1-15/16	**407-0955**
3/4-10	5-1/2	2	**407-0956**
3/4-10	6	2	**407-0957**
3/4-10	7	2	**407-0958**
3/4-10	8	2	**407-0959**
3/4-10	10	2	**407-0960**
3/4-10	12	2	**407-0961**
7/8-9	4	1-13/32	**407-0962**
7/8-9	5	1-29/32	**407-0963**
7/8-9	6	2-1/4	**407-0964**
7/8-9	8	2-1/4	**407-0965**
7/8-9	10	2-1/4	**407-0966**
7/8-9	12	2-1/4	**407-0967**
1-8	4	1-3/8	**407-0968**
1-8	5	1-7/8	**407-0969**
1-8	6	2-3/8	**407-0970**
1-8	8	2-1/2	**407-0971**
1-8	10	2-1/2	**407-0972**
1-8	12	2-1/2	**407-0973**

"Din" Metric Double-End Threaded Studs DIN标公制双头螺杆

DIN 6379 Studs

- Threads are rolled
- M6-M12 European class 10.9 steel
- M14-M42 European class 8.8 steel

Used in conjunction with DIN 508 T-slot nuts on machine tools with T-slot tables.





Thread Size	OAL (mm)	b (mm)	b1 (mm)	Order No.
M6x1.0	32	16	9	**407-8260**
M6x1.0	40	20	9	**407-8261**
M6x1.0	50	30	9	**407-8262**
M6x1.0	63	40	9	**407-8263**
M6x1.0	80	50	9	**407-8264**
M8x1.25	40	20	11	**407-8265**
M8x1.25	63	40	11	**407-8266**
M8x1.25	80	50	11	**407-8267**

Thread Size	OAL (mm)	b (mm)	b1 (mm)	Order No.
M8x1.25	100	63	11	**407-8268**
M8x1.25	160	100	11	**407-8269**
M10x1.50	50	25	12	**407-8270**
M10x1.50	80	50	13	**407-8271**
M10x1.50	100	75	13	**407-8272**
M10x1.50	160	100	13	**407-8273**
M12x1.75	63	32	15	**407-8274**
M12x1.75	80	50	15	**407-8275**

Thread Size	OAL (mm)	b (mm)	b1 (mm)	Order No.
M12x1.75	100	63	15	**407-8276**
M12x1.75	160	100	15	**407-8277**
M12x1.75	200	125	15	**407-8278**
M14x2.0	100	63	17	**407-8279**
M14x2.0	160	100	17	**407-8280**
M14x2.0	250	160	17	**407-8281**
M16x2.0	100	63	19	**407-8282**
M16x2.0	125	75	19	**407-8283**

Plain Clamps 平形压板

Heat treated steel black oxide finished

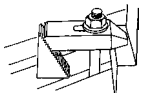




Bolt Size	Length	Width	Thickness	Order No.
5/16 or 3/8"	2-1/2"	1"	1/2"	**410-7002**
5/16 or 3/8	4	1	5/8	**410-7004**
5/16 or 3/8	6	1-1/8	3/4	**410-7006**
1/2	2-1/2	1-1/8	1/2	**410-7008**
1/2	4	1-1/4	3/4	**410-7010**
1/2	6	1-1/4	7/8	**410-7012**
5/8	2-1/2	1-1/4	5/8	**410-7014**
5/8	4	1-1/2	3/4	**410-7016**
5/8	6	1-1/2	7/8	**410-7018**
3/4	4	1-1/2	3/4	**410-7020**
3/4	6	1-1/2	1	**410-7022**
3/4	8	1-3/4	1-1/8	**410-7024**
1	6	2	1-1/4	**410-7026**
1	8	2	1-3/8	**410-7028**
1	10	2	1-1/2	**410-7030**

Step Clamps 台阶压板

- Step clamp teeth are matched to fit any size step blocks.
- Heat treated steel black oxide finished.
- 1/2" & 5/8" bolt size clamps forged & hardened.





Bolt Size	Length	Width	Thickness	Order No.
5/16 or 3/8"	2-1/2"	1"	1/2"	**410-7702**
5/16 or 3/8	4	1	5/8	**410-7704**
5/16 or 3/8	6	1-1/8	3/4	**410-7706**
1/2	2-1/2	1-1/8	1/2	**410-7708**
1/2	4	1-1/4	3/4	**410-7710**
1/2	6	1-1/4	7/8	**410-7712**
5/8	2-1/2	1-1/4	5/8	**410-7714**
5/8	4	1-1/2	3/4	**410-7716**
5/8	6	1-1/2	7/8	**410-7718**
3/4	4	1-1/2	3/4	**410-7720**
3/4	6	1-1/2	1	**410-7722**
3/4	8	1-3/4	1-1/8	**410-7724**
7/8 or 1	6	2	1-1/4	**410-7726**
7/8 or 1	8	2	1-3/8	**410-7728**
7/8 or 1	10	2	1-1/2	**410-7730**

Step Blocks 成对三角钢压板

- Solid in pairs only.
- Standard steel and powder casting.



Standard, 1" Wide

Capacity of Full Block	Height Of 1/2 Block	Powder Casting Order No.	Steel Order No.
3/4 to 1-1/2"	1-1/8"	**407-6110**	**407-6010**
1-1/8 to 2-1/2	1-3/4	**407-6120**	**407-6020**
2-1/2 to 6	3-7/8	**407-6130**	**407-6030**

Heavy Duty, 1-1/2" Wide

Capacity of Full Block	Height Of 1/2 Block	Powder Casting Model No	Steel Order No.
1-1/2 to 3-3/4"	2-1/2"	**407-6140**	**407-6040**
2-1/2 to 6	3-7/8	**407-6150**	**407-6050**
3-1/2 to 9	5-1/2	**407-6160**	**407-6060**

Heavy Duty, 2" Wide

Capacity of Full Block	Height Of 1/2 Block	Powder Casting Order No	Steel Order No.
1-1/2 to 3-3/4"	2-1/2"	**407-6170**	**407-6070**
2-1/2 to 6	3-7/8	**407-6180**	**407-6080**
3-1/2 to 9	5-1/2	**407-6190**	**407-6090**

Fixture Clamp 夹紧螺栓

The Fixture Clamp is made up of two simple components: a hardened steel socket cap screw with an offset head & a hexagonal washer.

- Small size allows more parts per load.
- Simple design keeps cost low.



Screw Size & Pitch	Thread Length	Hex Size	Hex Height	Total Distance of Movement	Maximum Holding Force	Key Size	Order No.
#-32-8	3/8"	5/16"	.110"	.030"	205lbs	5/64"	**407-0205**
1/4-20	1/2	5/8	3/16	.040	800	1/8	**407-0206**
5/16-24	1/2	13/16	3/16	.040	750	3/16	**407-0207**
3/8-16	3/4	13/16	1/4	.050	2000	3/16	**407-0208**
1/2-13	1	1	3/8	.100	4000	5/16	**407-0209**
5/8-11	1-1/4	3/16	1/2	.100	6000	3/8	**407-0210**

T-Slot Bolts T 形螺栓

Used for setting up work on planers, shapers, milling machines or similar applications.
Heads sized to fit in table slot giving more bearing surface.

- Hot forged from C-1045 steel
- Class 3A smooth cut threads
- Cannot twist or jam In slots
- Black oxide finish



Thread Size	L under Head	Slot	Head WxH	Order No.
3/8"-16	1"	3/8"	11/16x3/16"	**407-3200**
3/8-16	1-1/4	3/8	11/16x3/16	**407-3202**
3/8-16	1-1/2	3/8	11/16x3/16	**407-3204**
3/8-16	1-3/4	3/8	11/16x3/16	**407-3206**
3/8-16	2	3/8	11/16x3/16	**407-3208**
3/8-16	2-1/4	3/8	11/16x3/16	**407-3210**
3/8-16	1-1/2	3/8	11/16x3/16	**407-3212**
3/8-16	2-3/4	3/8	11/16x3/16	**407-3214**
3/8-16	2	3/8	11/16x3/16	**407-3216**
3/816	3-1/2	3/8	11/16x3/16	**407-3218**
3/8-16	4	3/8	11/16x3/16	**407-3220**
3/8-16	4-1/2	3/8	11/16x3/16	**407-3222**
3/8-16	5	3/8	11/16x3/16	**407-3224**
3/8-16	5-1/2	3/8	11/16x3/16	**407-3226**
3/8-16	6	3/8	11/16x3/16	**407-3228**
3/8-16	7	3/8	11/16x3/16	**407-3230**
3/8-16	8	3/8	11/16x3/16	**407-3232**
3/8-16	9	3/8	11/16x3/16	**407-3234**
3/8-16	10	3/8	11/16x3/16	**407-3236**
3/8-16	12	3/8	11/16x3/16	**407-3238**
1/2-13	1-1/4	1/2	7/8x9/32	**407-3240**
1/2-13	1-1/2	1/2	7/8x9/32	**407-3242**
1/2-13	1-3/4	1/2	7/8x9/32	**407-3244**
1/2-13	2	1/2	7/8x9/32	**407-3246**
1/2-13	2-1/4	1/2	7/8x9/32	**407-3248**
1/2-13	2-1/2	1/2	7/8x9/32	**407-3250**
1/2-13	2-3/4	1/2	7/8x9/32	**407-3252**
1/2-13	3	1/2	7/8x9/32	**407-3254**
1/2-13	3-1/2	1/2	7/8x9/32	**407-3256**
1/2-13	4	1/2	7/8x9/32	**407-3258**
1/2-13	4-1/2	1/2	7/8x9/32	**407-3260**
1/2-13	5	1/2	7/8x9/32	**407-3262**
1/2-13	5-1/2	1/2	7/8x9/32	**407-3264**
1/2-13	6	1/2	7/8x9/32	**407-3266**
1/2-13	7	1/2	7/8x9/32	**407-3268**
1/2-13	8	1/2	7/8x9/32	**407-3270**
1/2-13	9	1/2	7/8x9/32	**407-3272**
1/2-13	10	1/2	7/8x9/32	**407-3274**
1/2-13	12	1/2	7/8x9/32	**407-3276**
1/2-13	14	1/2	7/8x9/32	**407-3278**
5/8-11	1-1/2	5/8	1-3/32x11/32	**407-3280**
5/8-11	2	5/8	1-3/32x11/32	**407-3282**
5/8-11	2-1/4	5/8	1-3/32x11/32	**407-3284**
5/8-11	2-1/2	5/8	1-3/32x11/32	**407-3286**
5/8-11	2-3/4	5/8	1-3/32x11/32	**407-3288**
5/8-11	3	5/8	1-3/32x11/32	**407-3290**
5/8-11	3-1/2	5/8	1-3/32x11/32	**407-3292**
5/8-11	4	5/8	1-3/32x11/32	**407-3294**

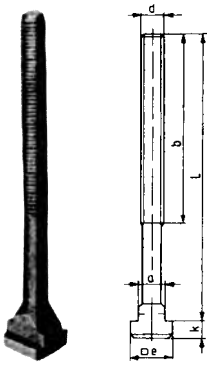
Thread Size	L under Head	Slot	Head WxH	Order No.
5/8"-11	4-1/2"	5/8'	1-3/32x11/32"	**407-3296**
5/8-11	5	5/8	1-3/32x11/32	**407-3298**
5/8-11	5-1/2	5/8	1-3/32x11/32	**407-3300**
5/8-11	6	5/8	1-3/32x11/32	**407-3302**
5/8-11	8	5/8	1-3/32x11/32	**407-3304**
5/8-11	9	5/8	1-3/32x11/32	**407-3306**
5/8-11	10	5/8	1-3/32x11/32	**407-3308**
5/8-11	12	5/8	1-3/32x11/32	**407-3310**
5/8-11	14	5/8	1-3/32x11/32	**407-3312**
5/8-11	16	5/8	1-3/32x11/32	**407-3314**
5/8-11	18	5/8	1-3/32x11/32	**407-3316**
5/8-11	20	5/8	1-3/32x11/32	**407-3318**
5/8-11	24	5/8	1-3/32x11/32	**407-3320**
5/8-11	30	5/8	1-3/32x11/32	**407-3322**
3/4-10	2	3/4	1-1/4x7/16	**407-3324**
3/4-10	2-1/2	3/4	1-1/4x7/16	**407-3326**
3/4-10	3	3/4	1-1/4x7/16	**407-3328**
3/4-10	3-1/2	3/4	1-1/4x7/16	**407-3330**
3/4-10	4	3/4	1-1/4x7/16	**407-3332**
3/4-10	4-1/2	3/4	1-1/4x7/16	**407-3334**
3/4-10	5	3/4	1-1/4x7/16	**407-3336**
3/4-10	5-1/2	3/4	1-1/4x7/16	**407-3338**
3/4-10	6	3/4	1-1/4x7/16	**407-3340**
3/4-10	7	3/4	1-1/4x7/16	**407-3342**
3/4-10	8	3/4	1-1/4x7/16	**407-3344**
3/4-10	9	3/4	1-1/4x7/16	**407-3346**
3/4-10	10	3/4	1-1/4x7/16	**407-3348**
3/4-10	12	3/4	1-1/4x7/16	**407-3350**
3/4-10	14	3/4	1-1/4x7/16	**407-3352**
3/4-10	16	3/4	1-1/4x7/16	**407-3354**
3/4-10	18	3/4	1-1/4x7/16	**407-3356**
3/4-10	20	3/4	1-1/4x7/16	**407-3358**
3/4-10	24	3/4	1-1/4x7/16	**407-3360**
3/4-10	2-1/2	7/8	1-1/2x9/16	**407-3362**
3/4-10	3	7/8	1-1/2x9/16	**407-3364**
3/4-10	3-1/2	7/8	1-1/2x9/16	**407-3366**
3/4-10	4	7/8	1-1/2x9/16	**407-3368**
3/4-10	4-1/2	7/8	1-1/2x9/16	**407-3370**
3/4-10	5	7/8	1-1/2x9/16	**407-3372**
3/4-10	5-1/2	7/8	1-1/2x9/16	**407-3374**
3/4-10	6	7/8	1-1/2x9/16	**407-3376**
3/4-10	7	7/8	1-1/2x9/16	**407-3378**
3/4-10	8	7/8	1-1/2x9/16	**407-3380**
3/4-10	9	7/8	1-1/2x9/16	**407-3382**
3/4-10	10	7/8	1-1/2x9/16	**407-3384**
3/4-10	12	7/8	1-1/2x9/16	**407-3386**
3/4-10	14	7/8	1-1/2x9/16	**407-3388**
3/4-10	16	7/8	1-1/2x9/16	**407-3390**

Thread Size	L under Head	Slot	Head WxH	Order No.
3/4"-10	18"	7/8"	1-1/2x9/16"	**407-3392**
3/4-10	20	7/8	1-1/2x9/16	**407-3394**
3/4-10	24	7/8	1-1/2x9/16	**407-3396**
3/4-10	30	7/8	1-1/2x9/16	**407-3398**
7/8-9	3	7/8	1/1/2x9/16	**407-3400**
7/8-9	4	7/8	1/1/2x9/16	**407-3402**
7/8-9	5	7/8	1/1/2x9/16	**407-3404**
7/8-9	6	7/8	1/1/2x9/16	**407-3406**
7/8-9	7	7/8	1/1/2x9/16	**407-3408**
7/8-9	8	7/8	1/1/2x9/16	**407-3410**
7/8-9	9	7/8	1/1/2x9/16	**407-3412**
7/8-9	10	7/8	1/1/2x9/16	**407-3414**
7/8-9	12	7/8	1/1/2x9/16	**407-3416**
7/8-9	14	7/8	1/1/2x9/16	**407-3418**
7/8-9	16	7/8	1/1/2x9/16	**407-3420**
7/8-9	18	7/8	1/1/2x9/16	**407-3422**
7/8-9	20	7/8	1/1/2x9/16	**407-3424**
7/8-9	24	7/8	1/1/2x9/16	**407-3426**
7/8-9	30	7/8	1/1/2x9/16	**407-3428**
7/8-9	3	1	1-3/4x5/8	**407-3430**
7/8-9	4	1	1-3/4x5/8	**407-3432**
7/8-9	5	1	1-3/4x5/8	**407-3434**
7/8-9	6	1	1-3/4x5/8	**407-3436**
7/8-9	7	1	1-3/4x5/8	**407-3438**
7/8-9	8	1	1-3/4x5/8	**407-3440**
7/8-9	9	1	1-3/4x5/8	**407-3442**
7/8-9	10	1	1-3/4x5/8	**407-3444**
7/8-9	12	1	1-3/4x5/8	**407-3446**
7/8-9	14	1	1-3/4x5/8	**407-3448**
7/8-9	16	1	1-3/4x5/8	**407-3450**
7/8-9	18	1	1-3/4x5/8	**407-3452**
7/8-9	20	1	1-3/4x5/8	**407-3454**
7/8-9	24	1	1-3/4x5/8	**407-3456**
7/8-9	30	1	1-3/4x5/8	**407-3458**
1-8	3	1	1-3/4x5/8	**407-3460**
1-8	4	1	1-3/4x5/8	**407-3462**
1-8	5	1	1-3/4x5/8	**407-3464**
1-8	6	1	1-3/4x5/8	**407-3466**
1-8	7	1	1-3/4x5/8	**407-3468**
1-8	8	1	1-3/4x5/8	**407-3470**
1-8	9	1	1-3/4x5/8	**407-3472**
1-8	10	1	1-3/4x5/8	**407-3474**
1-8	12	1	1-3/4x5/8	**407-3476**
1-8	14	1	1-3/4x5/8	**407-3478**
1-8	16	1	1-3/4x5/8	**407-3480**
1-8	18	1	1-3/4x5/8	**407-3482**
1-8	20	1	1-3/4x5/8	**407-3484**
1-8	24	1	1-3/4x5/8	**407-3486**

Metric T-Slot Bolts-DIN 787 DIN 787 公制 T 形槽螺栓

Forged steel with milled T-slot guide faces and rolled thread.
- M6-M12, heat treated European class 10.9 steel
- M14-M42, heat treated European class 8.8 steel

T-Slot Bolts offer clamps, washers and nuts a guide for secure clamping. Used on machine tools with T-slot tables or grooves.



Thd. Size Depth	Length	b	a	e	k	Order No.
M6	25	15	5.7	10	4	**407-3500**
M6	40	28	5.7	10	4	**407-3501**
M6	63	40	5.7	10	4	**407-3502**
M8	32	22	7.7	13	6	**407-3503**
M8	50	35	7.7	13	6	**407-3504**
M8	80	50	7.7	13	6	**407-3505**
M10	40	30	9.7	15	6	**407-3506**
M10	63	45	9.7	15	6	**407-3507**
M10	100	60	9.7	15	6	**407-3508**
M12	50	35	11.7	18	7	**407-3509**
M12	63	40	11.7	18	7	**407-3510**

Thd. Size Depth	Length	b	a	e	k	Order No.
M12	80	55	11.7	18	7	**407-3511**
M12	125	75	11.7	18	7	**407-3512**
M12	50	35	13.7	22	8	**407-3513**
M12	63	45	13.7	22	8	**407-3514**
M12	125	75	13.7	22	8	**407-3515**
M16	63	15	15.7	25	9	**407-3516**
M16	380	55	15.7	25	9	**407-3517**
M16	63	45	17.7	28	10	**407-3518**
M16	100	65	17.7	28	10	**407-3519**
M20	100	65	21.7	35	14	**407-3520**
M20	125	85	21.7	35	14	**407-3521**

T Bolts 方头 T 形螺栓

- Grade 8.
- Black Oxide finish.
- RC 36-40 Heat Treated.
- 2A-UNC Thread.

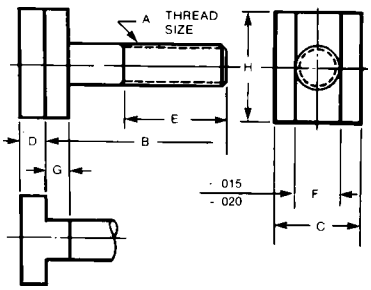


Length Under Head (L)	Thread Length (T)	Thread 3/8"-16 B 1/4 C 11/16 Order No.	Thread 1/2"-13 B 5/16 C 7/8 Order No.	Thread 5/8"-11 B 13/32 C 1-1/8 Order No.	Thread 3/4"-10 B 17/32 C 1-5/16 Order No.	Thread 1"-8 B 11/16 C 1-11/16 Order No.
1-1/2"	1.25"	**407-2450**	**407-2459**	**407-2471**		
2	1.75	**407-2451**	**407-2460**	**407-2472**		
2-1/2	2.00	**407-2452**	**407-2461**	**407-2473**		
3	2.00	**407-2453**	**407-2462**	**407-2474**	**407-2481**	
3-1/2	2.00	**407-2454**	**407-2463**	**407-2475**	**407-2482**	
4	2.00	**407-2455**	**407-2464**	**407-2476**	**407-2483**	**407-2484**
4-1/2	2.00	**407-2456**	**407-2465**	**407-2477**		
5	2.00	**407-2457**	**407-2466**	**407-2478**		**407-2485**
5-1/2	2.00		**407-2467**			
6	2.50	**407-2458**	**407-2468**	**407-2479**		**407-2486**
8	2.50		**407-2469**	**407-2480**		**407-2487**
10	3.00		**407-2470**			**407-2488**
11	3.00					**407-2489**
12	4.00					**407-2490**
14	1.00					**407-2491**

T Slot Bolts

T 形螺栓

- Black Oxide finish.
- RC 32-36 Heat Treated.
- 2A-UNC Thread.

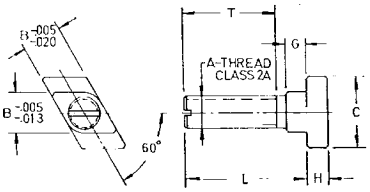


Thread A	B	C	D	E	F	G	H	Order No.
1/2"-13	2"	7/8"	5/16"	1"	1/2"	9/32"	1-1/4"	**407-2400**
1/2-13	2-1/2	7/8	5/16	1-1/4	1/2	9/32	1-1/4	**407-2401**
1/2-13	3	7/8	5/16	1-1/2	1/2	9/32	1-1/4	**407-2402**
1/2-13	3-1/2	7/8	5/16	1-1/2	1/2	9/32	1-1/4	**407-2403**
1/2-13	4	7/8	5/16	1-1/2	1/2	9/32	1-1/4	**407-2404**
1/2-13	5	7/8	5/16	2	1/2	9/32	1-1/4	**407-2405**
1/2-13	6	7/8	5/16	2	1/2	9/32	1-1/4	**407-2406**
1/2-13	8	7/8	5/16	2	1/2	9/32	1-1/4	**407-2407**
5/8-11	2	1-1/8	3/8	1-1/4	5/8	3/8	1-1/2	**407-2408**
5/8-11	2-1/2	1-1/8	3/8	1-1/4	5/8	3/8	1-1/2	**407-2409**
5/8-11	3	1-1/8	3/8	1-1/2	5/8	3/8	1-1/2	**407-2410**

Thread A	B	C	D	E	F	G	H	Order No.
5/8-11	3-1/2	1-1/8	3/8	1-1/2	5/8	3/8	1-1/2	**407-2411**
5/8-11	4	1-1/8	3/8	1-1/2	5/8	3/8	1-1/2	**407-2412**
5/8-11	5	1-1/8	3/8	1-1/2	5/8	3/8	1-1/2	**407-2413**
5/8-11	6	1-1/8	3/8	1-1/2	5/8	3/8	1-1/2	**407-2414**
5/8-11	8	1-1/8	3/8	3	5/8	3/8	1-1/2	**407-2415**
5/8-11	10	1-1/8	3/8	3	5/8	3/8	1-1/2	**407-2416**
5/8-11	12	1-1/8	3/8	3	5/8	3/8	1-1/2	**407-2417**
3/4"-10	2-1/2"	1-5/16"	7/16"	1-1/4"	3/4"	7/16"	1-3/4"	**407-2418**
3/4-10	3	1-5/16	7/16	1-1/4	3/4	7/16	1-3/4	**407-2419**
3/4-10	3-1/2	1-5/16	7/16	1-1/2	3/4	7/16	1-3/4	**407-2420**
3/4-10	4	1-5/16	7/16	1-1/2	3/4	7/16	1-3/4	**407-2421**
3/4-10	5	1-5/16	7/16	1-1/2	3/4	7/16	1-3/4	**407-2422**
3/4-10	6	1-5/16	7/16	1-1/2	3/4	7/16	1-3/4	**407-2423**
3/4-10	8	1-5/16	7/16	3	3/4	7/16	1-3/4	**407-2424**
3/4-10	10	1-5/16	7/16	3	3/4	7/16	1-3/4	**407-2425**
3/4-10	12	1-5/16	7/16	3	3/4	7/16	1-3/4	**407-2426**
1-8	3-1/2	1-11/16	1/2	2	1	1/2	2-1/4	**407-2427**
1-8	4	1-11/16	1/2	2	1	1/2	2-1/4	**407-2428**
1-8	4-1/2	1-11/16	1/2	2-1/2	1	1/2	2-1/4	**407-2429**
1-8	5	1-11/16	1/2	2-1/2	1	1/2	2-1/4	**407-2430**
1-8	6	1-11/16	1/2	2-1/2	1	1/2	2-1/4	**407-2431**
1-8	8	1-11/16	1/2	3	1	1/2	2-1/4	**407-2432**
1-8	10	1-11/16	1/2	3	1	1/2	2-1/4	**407-2433**
1-8	12	1-11/16	1/2	3	1	1/2	2-1/4	**407-2434**

Rotary T Slot Bolts 菱形螺栓

- The Rotary T-Slot Nut give convenienc to rotate the head in the T-Slot.
- Black Oxide finish.



A Thread	B	C	G	H
1/2-13	0.63	1-1/8	11/32	11/32
5/8-11	0.75	1-1/4	13/32	15/32

Length Under Head (L)	Thread Length (T)	Thread 1/2"-13 Order No.	Thread 5/8"-11 Order No.
1.5"	1.0"	**407-3110**	**407-3100**
2.0"	1.5"	**407-3111**	**407-3101**
2.5"	2.0"	**407-3112**	**407-3102**
3.0"	2.5"	**407-3113**	**407-3103**
3.5"	2.0"	**407-3114**	**407-3104**
4.0"	2.5"	**407-3115**	**407-3105**
4.5"	2.5"	**407-3116**	
5.0"	2.5"	**407-3117**	**407-3106**
6.0"	4.5"	**407-3118**	**407-3107**

Leveling Clamp 杠杆压板

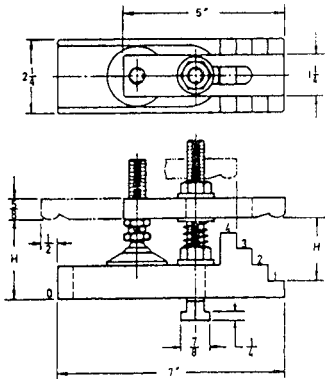
NEW

Multi-function clamp will level, locate, stop and clamp workpiece all in one stroke. All ciamp parts stay together for fast setup. Fully adjustable round-tipped front strap and self-aligning rear support allow for clamping of slightly uneven workpieces. Comes complete as shown with T-Slot Bolt, no additional part required. Use two to three clamps for optimal results.

Thickness	No.0	No.1	No.2	No.3	No.4
Height					
+/-.0005	**Flush**	**.500**	**1.000**	**1.500**	**2.000**
Nin.H	**2**	**1-9/16**	**1-1/16**	**9/16**	**Flush**
Max.H	**3**	**2-1/2**	**2**	**1-1/2**	**1**



Order No. 410-7220

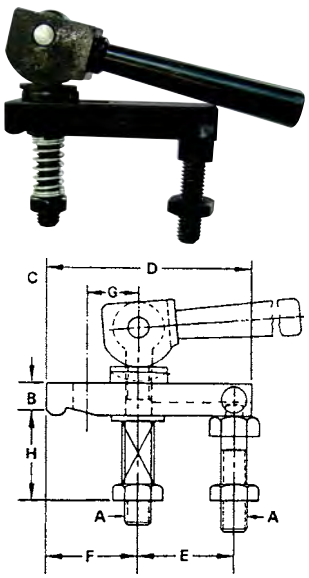


Single End Clamp Strap Assemblies 压板

NEW

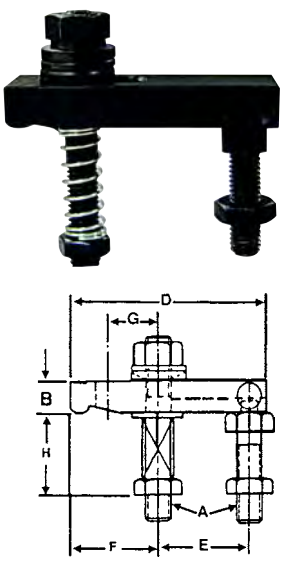
CenterClamp
中心凸轮压板

The Cam makes this assembly a quick acting clamp.



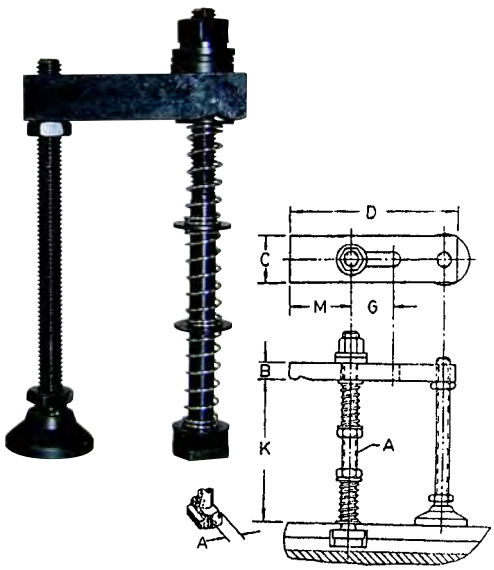
Single End Clamp
单头压板

Clamp strap slides back and forth on clamp rest Good for clamps mounted on jig plates. When used on machine tables, adapter plates may easily be added.



T-Slot Bolt Swing Glamp
T型螺栓回转压板

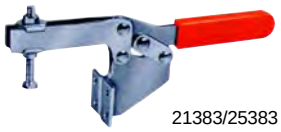
One piece T-slot bolt. The clamp strap can be swung away for easy loading. The clamp components stay together when not in use. Two springs provided as shown.



Stud A	Thickness B	Width C	Length D	E	F	H	Travel G	K	M	Center Cam Order No.	Single End Order No.	Swing Clamp Order No.
1/4-20	3/8”	5/8”	2”	15/16”	1”	5/8	1/2				**410-7230**	
			2-1/2	15/16	1-3/8		1/2			**410-7240**	**410-7231**	
5/16-8	1/2	1-1/4	2-3/4	1-1/4”	1-1/4	5/8	7/16			**410-7241**	**410-7232**	
			3-1/4	1-1/4	1-3/4		13/16			**410-7245**	**410-7233**	
3/8-16	5/8	1-1/4	3	1-3/8	1-1/4	1-5/8	3/4	4	9/16	**410-7242**	**410-7234**	**410-7221**
			4	1-7/8	1-3/4		1		13/16	**410-7246**	**410-7235**	**410-7222**
1/2-13	5/8	1-1/4	4	1-7/8	1-3/4	1-5/8	1	5	3/4	**410-7243**	**410-7236**	**410-7223**
			4-1/2	1-7/8	2-1/4		1-1/2		3/4	**410-7244**	**410-7237**	**410-7224**
5/8-11	7/8	1-1/2	4-1/2	2	2	1-3/4	1	6	1	**410-7247**	**410-7238**	**410-7225**
			5	2	2-1/2		1-1/2		1	**410-7248**	**410-7239**	**410-7226**

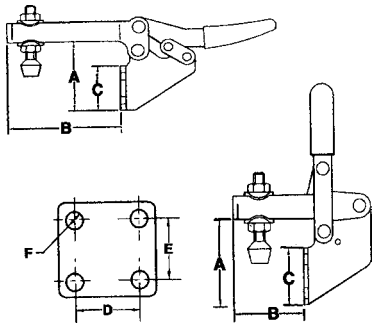
Side Mount Toggle Clamps 水平压紧把手

- Spindle and washer included.
- Red Plastic hand grip.


21383/25383


202-F/202-FL


101-B



Model#	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	Spindle Size	Holding Cap.(lbs.)	Order No.
21383	2-1/32	1-1/2	1-1/4	1	25/32	M6	555	**407-7383**
25383	2-51/64	3-1/8	1-1/2	29/32	1-1/8	M8	621	**407-7386**
202-FL	2-3/8	3-9/16	1-21/32	1-3/16	1	5/16-18	500	**407-7389**
202-F	2-3/8	2-1/8	1-21/32	1-3/16	1	5/16-18	500	**407-7392**
101-B	1-3/4	1-3/8	1-1/8	25/32	35/64	1/4-20	220	**407-7395**

Horizontal Hold Down Action Clamps 水平压紧把手

- Low hight design is ideal for small working ares
- Clamps are available with solid or U-shaped hold down bars
  Providing maximum ease for loading and unloading
- Includes spindle and washer


201-A


201-B


201


20235


20820



225-D

Model#	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Spindle Size	Holding Cap.(lbs.)	Order No.
201-A	11/16	3-3/16	7/8	3/8	7/16X5/8	5/8	8-32	60	**407-7201**
201	11/16	3-3/16	3/4	5/16	7/16X5/8	5/85	8-32	60	**407-7203**
201-B	1-1/2	5-7/16	2-3/16	1	1X1-1/16	7/8	1/4-20	200	**407-7206**
20820	-	6-1/4	2-11/16	2-3/4	5/8	1	5/16-18	220	**407-7212**
225-D	1-13/16	6-1/2	2-3/4	1-3/8	1	7/8	5/16-18	500	**407-7220**
20235	2-1/2	10-3/8	4-7/32	1/3/4	1-5/8	1-5/8	3/8-16	750	**407-7209**

Vertical Hold Down Action Clamps 垂直压紧把手

- Spindle and washer included.


13005


101-A

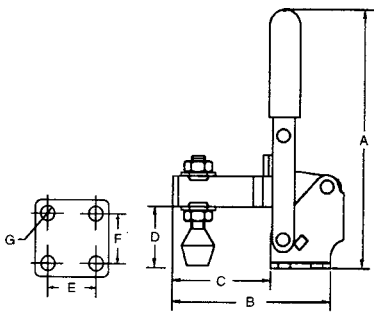
12050


12130


12140


12265


10247



Model#	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	G (in.)	Spindle Size	Holding Cap.(lbs.)	Order No.
101-A	2-61/64	1-31/32	31/32	41/64	5/8	15/16	3/16	10-24	100	**407-7250**
130005	1-3/8	2-1/4	1-7/32	1/2	17/32	5/8	11/64	10-24	150	**407-7253**
12050*	3-3/4	2-17/32	1-5/6	29/32	1/2	1-1/16	13/64	1/4-20	200	**407-7256**
12130	5-1/2	4-9/16	2-13/16	1-1/4	3/4	1-1/4	5/32	5/16-18	500	**407-7259**
12140	5-1/2	5-1/2	3-3/4	1-1/4	3/4	1-1/4	5/32	5/16-18	500	**407-7262**
12265	7-1/2	5-17/32	3-19/32	1-11/16	1-1/4	1-25/32	21/64	3/8-16	750	**407-7265**
12275	7-1/2	5-17/32	3-19/32	1-11/16	1-1/4	1-25/32	21/64	3/8-16	750	**407-7267**
10247	8-7/8	6-15/16	4-15/16	2	1-1/4	1-25/32	11/32	1/2-13	1000	**407-7269**

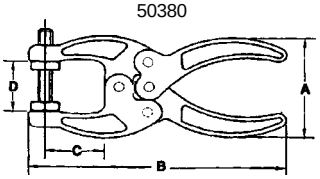
* Fixed bar

Toggle Pliers Toggle clamps 钳式压紧把手

- Squeeze one or both handles against the central position, and jaws lock automatically
- Jaws are drop-forged steel or aluminum, and supplied with adjustable pressure spindles


50360


50380



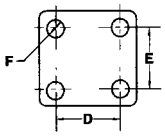
Model#	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	Trigger Release	Holding Cap.(lbs.)	Order No.
50350	1-15/16	5-1/8	1-1/8	1	1/4-20	No	200	**407-7363**
50360	2-3/8	6-1/2	1-3/4	1-1/4	5/16-18	No	350	**407-7366**
50380	2-11/16	8-1/2	2-3/4	1-3/4	3/8-16	Yes	700	**407-7369**

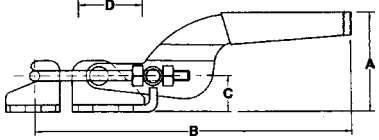
Latch Type Pull Action Clamps 门闸式拉紧把手

- Excellent for many types of latching operations
- Threaded pull bar offers convenient adjustment
- All models are supplied with red vinyl handle grip for maximum operator comfort
- Includes latch plate


40323


431



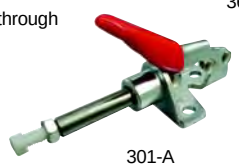


Model#	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Holding Cap.(lbs.)	Order No.
40323	1-5/32	3-1/2	15/32	3/4	5/8	11/64	360	**407-7340**
431	1-5/8	5-5/8	21/32	1-1/4	3/4	17/64	700	**407-7343**
40341	2-29/32	7-1/2	59/64	1-1/2	1-5/8	11/32	2000	**407-7346**

Push/Pull Action Clamps 水平推拉紧把手

- Clamps are available in a variety of moldes
- Push-pull handle makes operating easy by moving the plunger of the clamp in and out along its axis
- Modle 36202 features threaded mounting for through hole mounting
- Includes spindle

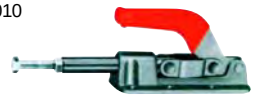

36202

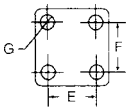

301-A

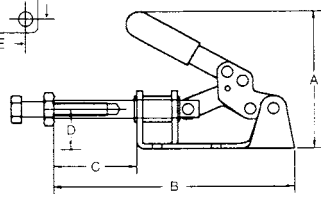

302-F


36010


304-E


36330





Model#	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	F (in.)	Holding Cap.(lbs.)	Order No.
301-A	1-1/4	2-11/16	5/8	1/2	5/8	5/8	100	**407-7301**
36202	2-15/16	2-3/8	3/4	-	-	-	200	**407-7303**
302-F	3-3/8	4-7/16	1-1/4	31/32	1-3/8	1-5/8	300	**407-7306**
36010	4-1/16	6-3/4	1-5/8	1-3/4	1-5/8	1-5/8	800	**407-7309**
36330	4-27/32	7-1/32	2	13/16	1-3/8	1-5/8	2500	**407-7312**
304-E	3-7/8	6-1/4	1-5/8	1-1/4	1-5/8	1-5/8	850	**407-7315**

Accessories 零件

Adjustable Spindle Assemblies

橡胶头平头压紧螺杆


Flat Tip Bonded Neoprene Caps

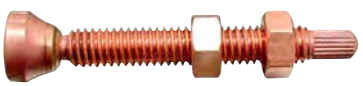
Description	Order No.
10-24x1-3/8	**407-7110**
1/4-20x1-3/4	**407-7112**
1/4-20x2-1/8	**407-7113**
5/16-18x2-1/2	**407-7115**
3/8-16x3-1/2	**407-7117**
1/2-13x3-3/4	**407-7119**

标准螺杆


Hex Head Standard Adjustable

Description	Order No.
8-32x3/4(nylon)	**407-7150**
3/8-16x4	**407-7152**
1/2-13x4-1/2	**407-7154**

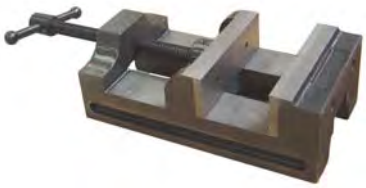
可摆动头螺杆


Swivel Foot

Description	Order No.
14-20x2-1/4	**407-7162**
5/16-18x2-3/4	**407-7164**
3/8-16x3	**407-7166**
1/2-13x4	**407-7168**

Industrial Drill Press Vises

- Versatile vises machined on four sides
- May be used on base, either side or end
- Made of high grade gray iron and are precision ground
- Ground steel jaw plates are removable



Jaw width(In.)	Jaw Opening(In.)	Jaw depth (In.)	OAL(In.)	Approx (Lbs.)	Order#
4	4	1-1/2	7-5/16	9	**5428-7406**
6	6	2	11-15/16	24	**5428-7408**

Industrial Angle Vises

- Removable vises swivels 360° on base.mounting lugs in both vise and swivel base for mounting to machine table.
- Swivel base can be removed from the angle base
- Vise may be rised to 90° and fase adjustment to any angle
- Sturdy angle vise is indispensable on work that frequently requires angle setups for drilling,gapping, milling and grinding
- Bases have 5/8" keyways and two bolt slots for locating and mounting on machine table



Jaw width (In.)	Jaw Opening(In.)	Jaw depth (In.)	Approx (Lbs.)	Order#
4	4	1-1/2	37	**5428-7201**
6	6	2	86	**5428-7202**

Low-Profile Drill Press Vises

- Designed for drilling, tapping and reaming operations
- Base has four 1/2" shoulder slots for quick ,easy positioning on drill press tables
- Moveale jaw is flat and the fixed jaw has a vertical and horizontal v-groove cut into it
- Replaceable jaws



Jaw width(In.)	Jaw Opening(In.)	Jaw depth (In.)	Approx(Lbs.)	Order#
3	3	1-1/8	10	**5428-8461**
4	4	1-1/2	15	**5428-8462**
6	6	2	34	**5428-8464**
8	8	2	54	**5428-8465**

Cradle Style Angle Vises

- Jaw surface is square to 0.002"
- Pin stops at 0°,15°,30°,45°,60°,75°,and 90°
- Scale indexed in 1°increments from 0°to 90°
- Two slots on each side of base for mounting to machine table
- Set to any angle position firmly with tool-less locking
- Designed for drilling,tapping or reaming operations where a vertical setup angle is required
- Cradle base has a 90° vertical scale in 1°graduations
- Quick setup at 0°,45°,60°,and 90°with positive pin stops
- Hand-tightened mechanism allows secure locking in all positions
- Base includes 1/2" shoulder slots for bolting to drill press



Jaw width (In.)	Jaw Opening(In.)	Jaw depth (In.)	Approx(Lbs.)	Order#
3	3	1-1/8	13	**5428-7204**
4	4	1-1/2	20	**5428-7203**

Quick Release Drill Press Vises

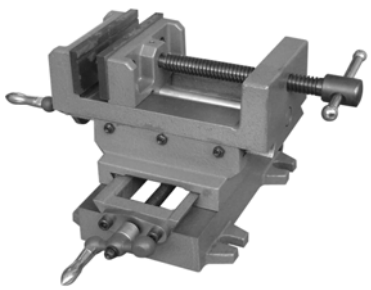
- Made for drill press vise applications that require rapid securing and release of work
- Precision -ground guide bars and proven locking-clamp mechanism provides smooth , accurate holding
- Replaceable jaws are ground flat



Jaw width (In.)	Jaw Opening (In.)	Jaw depth (In.)	Ht.(In.)	Base Dims.(In.)	Approx (Lbs.)	Order#
3	3	1-1/16	2-3/4	7-1/4x5-3/8	9	**5428-8503**
4	4	1-3/8	3-9/16	11-3/16x5-3/4	19	**5428-8504**
6	6	1-5/8	4-5/16	14-5/8x9-3/16	34	**5428-8506**
8	8	1-5/8	4-1/2	18-1/2x11-3/8	59	**5428-8508**

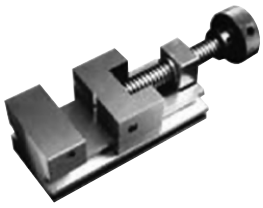
Heavy-duty cross vises

- Heavy-duty cross vise moves workpiece in both horizontal and longitudinal directions for precise centering and drilling



Jaw width(In.)	Jaw Opening(In.)	Jaw depth (In.)	Approx(Lbs.)	Order#
3	3-1/4	1-1/16	15.84	**5428-8313**
4	4	1-3/8	19.8	**5428-8314**
5	5	1-1/2	41.8	**5428-8315**
6	6	1-9/16	59.5	**5428-8316**
8	8	2	77	**5428-8318**

Precision Vises

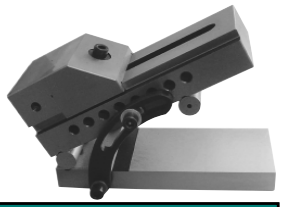


Jaw Width	Jaw Depth	Jaw Opening	Vise Length	Order No.
2"	1"	1-3/8"	3-1/2"	**428-8201**
2-3/4	1-1/8	3-1/8	6	**428-8202**
3	1-1/4	3-5/8	7	**428-8203**

Jaw Width	Jaw Depth	Jaw Opening	Vise Length	Order No.
60mm	25mm	30mm	90mm	**428-8260**
70	30	80	160	**428-8270**
73	32	95	175	**428-8273**

Precision Sine Vises

- Made of high quality steel. Subject to rigid heat-treatment.
- Provide a close tolerance of .005mm/.0002" for both parallelism and squareness.
- Available for inspecting angles and work pieces with angle.



A Type

Jaw Width	Jaw Depth	Jaw Opening	Vise Length	Order No.
2"	1"	2-1/2"	5-3/8"	**428-9520**
2-1/2	1-1/4	3-1/2	7"	**428-9525**
3	1-1/4	3-3/4	7-1/2"	**428-9530**
3-1/2	1-5/8	5	9-3/8"	**428-9535**
4	1-5/8	5	10"	**428-9540**

- Made of high quality steel. Subject to rigid heat-treatment.
- Provide a close tolerance of .005mm/.0002" for both parallelism and squareness.
- Jaw can be opened or closed without unbolting form work surface.



B Type

Jaw Width	Jaw Depth	Jaw Opening	Vise Length	Order No.
2"	1"	2-1/2"	5-3/8"	**428-9555**
2-1/2	1-1/4	3-1/2	7"	**428-9560**
3	1-1/4	4	7-5/8"	**428-9565**
3-1/2	1-5/8	5	9-3/8"	**428-9570**
4	1-5/8	5	10"	**428-9575**

Precision Machine Vises

with 2 Clamping Stations

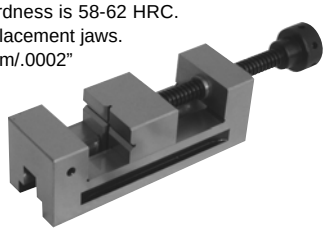
Jaw Width.....6.3(160mm)
Jaw Height.....2" (50mm)
Maximum Opening.....4" (100mm)
Net Weight.....47kg
Size.....730x280x200mm



Description	Order No.
Grey Cast Iron Vise Body	**428-1261**
Spheroidal Cast Iron Vise Body	**428-1260**

Precision Toolmakers Vises

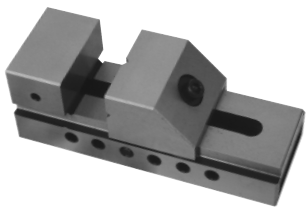
- Clamping slots and 3/8" hole in base, provide easymeans of fixing to angle plate etc.
- Hardened and ground dovetail slides eliminate "left" and insure consistent accuracy, the hardness is 58-62 HRC.
- Has ground"V" way, Detachable replacement jaws.
- Vise is square and parallel to .005mm/.0002"



Jaw Width	Jaw Depth	Jaw Opening	Vise Length	Order No.
2"	1"	2-1/2"	5-1/2"	**428-9020**
2-1/2	1-1/4	3-1/2	7-1/2"	**428-9025**
3	1-1/4	4	8-1/2"	**428-9030**
3-1/2	1-3/8	5	10"	**428-9035**
4	1-5/8	5	10-3/8"	**428-9040**
5	2	6-3/8	12"	**428-9050**
6				**428-9060**

Precision Toolmakers Vises

- Guaranteed tolerance within .005mm/.0002" of parallelism, flatness and squareness with the vise in any mode. Made of high carbon steel, Hardened and tempered to ensure stability and accuracy throughout the unit's working life, The hardness is 58-62 HRC.
- For high accuracy light machining, inspection or marking of precision components. Vise can be used on base, side, end or top.



Jaw Width	Jaw Depth	Jaw Opening	Vise Length	Order No.
1"	3/8"	1"	1-5/8"	**428-9210**
2	1	3	5-1/2	**428-9220**
2-1/2	1-3/8	3-1/2	6-3/4	**428-9225**
3	1-3/8	4	7-1/2	**428-9230**
3-1/2	1-5/8	5	9	**428-9235**
4	1-7/8	5	9-3/4	**428-9240**
5	2	6-3/8	11-1/4	**428-9250**
6				**428-9260**

All Purpose ToolMakers Sine Vises

with Screw Handle

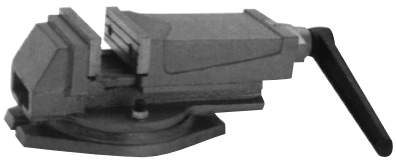
- Sine Range from 0°to 60°.
- Hardness of Jaws 50-55HRC.



Jaw Width	Jaw Depth	Jaw Opening	Vise Length	Order No.
2"	2-1/2"	1"	6"	**428-9720**
2-1/2	3-1/2	1-1/4	7-1/2	**428-9725**
3	4	1-1/4	8-1/2	**428-9730**
3-1/2	5	1-3/8	10	**428-9735**
4	5	1-5/8	10-3/8	**428-9740**
5	6-3/8	2	12	**428-9750**

Milling Vises With Swivel Base

- Used in milling sharpening and drilling machine.
- Fill 360° swivel base with fine, accurate graduation.
- Can be used both as stationery or swivel vise.
- Drop forged handle.



Jaw Width	Jaw Depth	Jaw Opening	Order No.
3”	1-3/8”	2-5/8”	**428-8103**
4	1-1/2	3-1/8”	**428-8104**
5	1-3/4	4”	**428-8105**
6	2	5”	**428-8106**
8	2-3/8	6-1/2”	**428-8108**

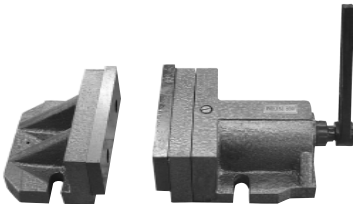
Precision Milling Machine Vises

- Two type with swivel and without swivel.
- With lock down jaw eliminates TILT.
- Provide better clamping pressure.
- Eliminates hammering.
- Removable hinged handle for fast locking.



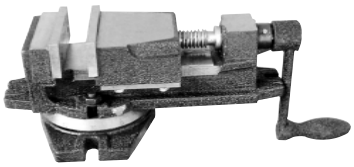
Jaw Width	Jaw Depth	Jaw Opening	With Swivel Base Order No.	Without Swivel Base Order No.
4”	1-1/4”	4-1/8”	**428-7241**	**428-7240**
5	1-3/8	4-1/2”	**428-7251**	**428-7250**
6	1-3/4	5-1/2”	**428-7261**	**428-7260**
6	1-1/2	7-1/2	**428-7267**	
8	2	8-1/4”	**428-7281**	**428-7280**
6-1/4	1-1/2	8-1/8”	**428-7265**	**428-7266**

2 Piece Quick Clamp Milling Vises



Jaw Width	Jaw Depth	Key Slot Width	T-Slot Center Distance	Clamp Travel	Order No.
6”	3”	11/16”	2-1/4 to 2-3/4”	1/4”	**428-3010**
8	3-1/4	13/16	2-3/4 to 3-3/4	1/4	**428-3012**

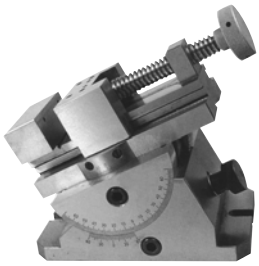
K Type Machine Vise



Jaw Width	Jaw Opening	Jaw Depth	Order No.
4”	2-1/2”	1-1/2”	**428-7925**
6”	4”	2”	**428-7930**

Precision Universal Vises

Precision Universal Vise is a newly developed fixture which is composed of two parts, namely a precision vise and a swivel plate base. With the aid of graduated swivel plate, the vise is capable of revolving 360° in a horizontal plane and 45°in a vertical plane. It is a adaptable to precision grinding machine and boring machine and so on, for level and inclined face machining as well as boring at a certain degree of inclination etc.



Width of Jaw	Max. Opening of Jaws	Depth of Jaw	Order No.
2-3/4”	3-1/8”	1-1/8”	**628-7020**
70mm	80mm	30mm	**628-7010**

Tilt & Swivel Milling Vises

- Positive locking to withstand heavy loads.
- Horizontal swivel movement 360°,Vertical swivel movement 90°.
- Accuracy hardened and ground jaws run on precision ground.

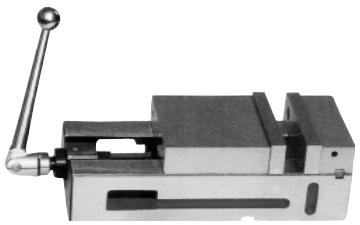


Jaw Width	Jaw Depth	Jaw Opening	Order No.
4”	1-5/8”	2-3/4”	**428-7304**
5	1-7/8	4”	**428-7305**
6	2	5”	**428-7306**

Precision CNC Machine Vise

6” Jaw Width,
5-7/8” Jaw Opening,
17.5” OAL,
5” Height.

Order No. 428-9999



Machine Vises For Holding Shafts and Round

- Capacity 1/2” to 2-1/2” round parts.
- Work rests on V-block made of hardened and ground tool steel.
- Has an adjustable sliding rod to set work in proper position.
- Vise ends are ground so that it can be used vertically or horizontally.

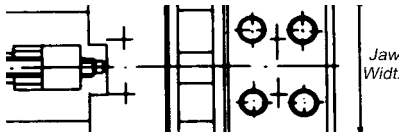


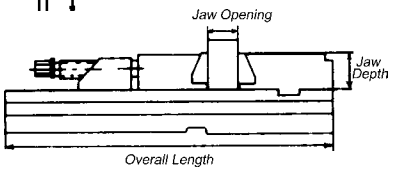
Description	Order No.
3” Jaw Width	**428-3017**
4” Jaw Width	**428-3018**

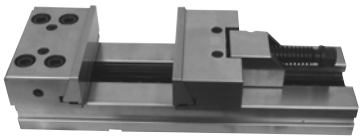
Ground flat, square, and parallel within 0.005mm (.0002")

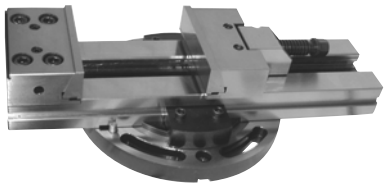
Each Model includes:

- One each of L-Socket Wrench, T-Hex Key,
- One set Vise Holding Clamps (four pieces)
- One set Positioning Key-Nuts (two pieces)
- One Work Stop with main bolt.







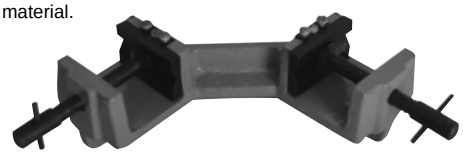


Jaw Width	Jaw Depth	Jaw Opening	Overall Length	Without Swivel Base Order No.	With Swivel Base Order No.
4"/100mm	1.2"/30mm	4"/100mm	10.6"/270mm	**428-0100**	**428-1100**
5"/125mm	1.6"/40mm	6"/150mm	13.6"/345mm	**428-0125**	**428-1125**
6"/150mm	2.0"/50mm	8"/200mm	16.5"/420mm	**428-0150**	**428-1150**
6"/150mm	2.4"/50mm	12"/300mm	20.5"/520mm	**428-0151**	**428-1151**
7"/175mm	2.4"/60mm	8"/200mm	17.9"/455mm	**428-0175**	**428-1175**
7"/175mm	2.4"/60mm	12"/300mm	21.9"/555mm	**428-0176**	**428-1176**
7"/175mm	2.4"/60mm	16"/400mm	25.8"/655mm	**428-0177**	**428-1177**
7"/175mm	2.4"/60mm	20"/500mm	29.7"/755mm	**428-0178**	**428-1178**
8"/200mm	2.6"/65mm	8"/200mm	19.5"/495mm	**428-0200**	**428-1200**
8"/200mm	2.6"/65mm	12"/300mm	23.4"/595mm	**428-0201**	**428-1201**
8"/200mm	2.6"/65mm	16"/400mm	27.4"/695mm	**428-0202**	**428-1202**
8"/200mm	2.6"/65mm	20"/500mm	31.3"/795mm	**428-0203**	**428-1203**
8"200mm	2.6"/65mm	24"/600mm	35.2"/895mm	**428-0204**	**428-1204**
12"/300mm	3.1"/80mm	12"/300mm	25.0"/635mm	**428-0300**	**428-1300**
12"300mm	3.1"/80mm	16"/400mm	28.9"/735mm	**428-0301**	**428-1301**
12"/300mm	3.1"/80mm	20"/500mm	32.9"/835mm	**428-0302**	**428-1302**
12"/300mm	3.1"/80mm	24"/600mm	36.8"/935mm	**428-0303**	**428-1303**

Welding Angle Clamp

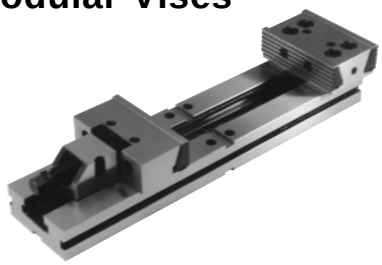
Problems solver and the time saver

- Holds two pieces of different thickness at a 90° angle.
- Has "V" jaws for holding roundmaterial.
- Up to 1-1/2" on square or rect angular material.
- Up to 1-1/2" round material.



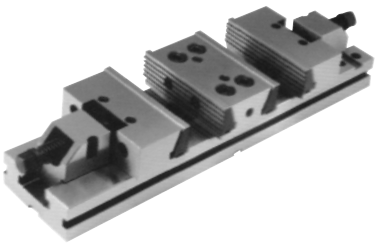
Order No. 318-0008

Long Body Modular Vises



Basic Model

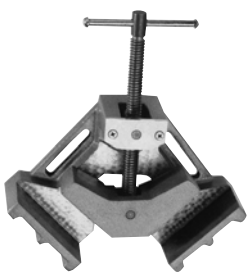
Jaw Width	Jaw Open	Base Length	Weight	Order No.
4"/100mm	11"/290mm	18"/460mm	10kg	**428-2100**
5"/125mm	13"/320mm	20"/520mm	17kg	**428-2125**
6"/150mm	14"/360mm	23"/580mm	31kg	**428-2150**
6"/150mm	18"/460mm	27"/680mm	34kg	**428-2151**
7"/175mm	16"/400mm	26"/666mm	46kg	**428-2181**
7"/175mm	20"/500mm	30"/766mm	51kg	**428-2182**
7"/175mm	24"/600mm	34"/866mm	56kg	**428-2183**
8"/200mm	20"/500mm	32"/805mm	85kg	**428-2200**
8"/200mm	24"/600mm	36"/905mm	92kg	**428-2201**
8"/200mm	28"/700mm	40"/1005mm	99kg	**428-2202**



Double Lock

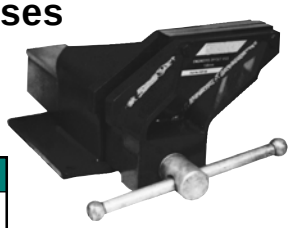
Jaw Width	Each Jaw Open	Base Length	Weight	Order No.
4"/100mm	3-1/2" /90mm	18"/460mm	14kg	**428-3100**
5"/125mm	4" /100mm	20"/520mm	21kg	**428-3125**
6"/150mm	4-3/10"/110mm	23"/580mm	38kg	**428-3150**
6"/150mm	6-3/10"/160mm	27"/680mm	42kg	**428-3151**
7"/175mm	4-7/10"/120mm	26"/666mm	58kg	**428-3181**
7"/175mm	6-7/10"/170mm	30"/766mm	63kg	**428-3182**
7"/175mm	8-7/10"/220mm	34"/866mm	68kg	**428-3183**
8"/200mm	6"/150mm	32"/805mm	95kg	**428-3200**
8"/200mm	8"/200mm	36"/905mm	101kg	**428-3201**
8"/200mm	10"/250mm	40"/1005mm	107kg	**428-3202**

Angle Vises



Length of Jaw	Height of Jaw	Jaw Opening	Order No.
4"	1-3/8"	2-3/8"	**625-0125**
5"	2-3/8"	4"	**625-0130**

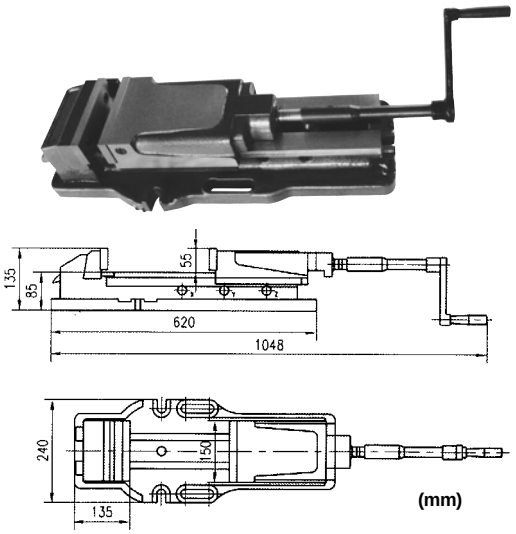
Fabricated Offset Vises



Size	Order No.
5"/125mm	**426-8405**
6"/150mm	**426-8410**

Hydraulic Power Machine Vise

- High precision and rigidity.
- Precision machined.
- The parallelism of two jaws and squareness between Jaws and vise base are within 0.01mm.
- The parallelism of vise base(leading guide to bottom surface) is within 0.01mm.
- Clamping power is much stronger than normal vise.
- The vise body is made of spheroidal cast Iron.
- Three holes one the side of base for clamping rang: X 0-100mm, Y 98-200mm, Z 195-300mm.

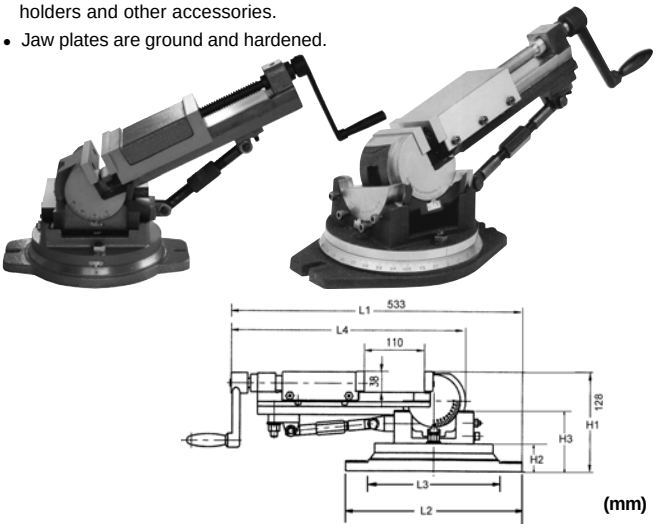


(mm)

Jaw Width	Jaw Opening	Jaw Depth	Clamping Force	Swivel Base Order No.	Stationary Base Order No.
6”/150mm	12”/305mm	2.2”/55mm	5000kgs/11000lbs	**428-6016**	**428-6015**

3- Way Universal Tilt & Swivel Machine Vise

- Designed for machining complex workpiece on Milling, Grinding, Drilling Machine and Electrical Discharge Machine (EDM) etc.
- The vise body is made of high tensile close grain cast iron.
- Swiveling 360° around base, tilting 90° horizontal to vertical, rotate from center axis 45° to each side.
- Vise top surface is ground accurately to facilitate use of magnetic tool holders and other accessories.
- Jaw plates are ground and hardened.



(mm)

Jaw Width	Jaw Opening	Jaw Depth	Clamping Force	Order No.
4”/110mm	4”/110mm	1-3/4”/45mm	1500kgs/3300lbs	**428-6050**
5”/125mm	5”/125mm	1-3/4”/45mm		**428-6055**

Multi-Purpose Adjustable Vises

One of the most versatile vises on the market. Unique design comes equipped with 5” parallel jaw, V-shaped pipe jaws, and a solid steel anvil. Both jaws and locking base swivel 360° for the best angle on your work.



Jaw width	Parallel Jaw Opening	PipeVise Opening	Weight (kgs)	Order No.
4”	0-3.2”	.39-2”	19	**428-9905**
4”	0-3.2”	.39-2”	23	**428-9907**
5”	0-4”	.6-2.36	23	**428-9910**
5”	0-4”	.6-2.36”	22	**428-9911**
5”	0-4”	.6-2.36”	27	**428-9912**
5”	0-4”	0-4.7”	30	**428-9913**
5”	0-4”	0-4.7”	34	**428-9914**
6”	0-4.7”	.59-2.56”	38	**428-9915**
6”	0-4.7”	.59-2.56”	45	**428-9916**

Bench Vises

- Removable hardened alloysteel jaw inserts.
- Completely enclosed center screw.
- Attractive hammered enamel finish.



Jaw Width	Jaw Opening	Weight (kgs)	Stationary Base Order No.	Weight (kgs)	Swivel Base Order No.
4”	4”	**6.5**	**428-7504**	**7**	**428-7604**
5”	5”	**12**	**428-7505**	**13**	**428-7605**
6”	6”	**20**	**428-7506**	**22**	**428-7606**
8”	8”	**32**	**428-7508**	**35**	**428-7608**

Magnetic Vise Jaw Caps 磁性钳口保护器

- Soft metals protect your work piece against scratching and nicking.
- 6 grooves ensure tightly hold different shapes work piece in placel.
- Middle deeper VEE for clamping round work piece.
- Strong magnetic power.



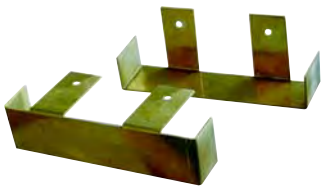
Jaw Width	Aluminum Order No.	Brass Order No.
4”/101mm	**427-0040**	**427-1040**
4-1/2”/114mm	**427-0045**	**427-1045**
5”/127mm	**427-0050**	**427-1050**
5-1/2”/140mm	**427-0055**	**427-1055**
6”/152mm	**427-0060**	**427-1060**
6-1/2”/165mm	**427-0065**	**427-1065**
8”/203mm	**427-0080**	**427-1080**
10”/254mm	**427-0100**	**427-1100**
12”/305mm	**427-0120**	**427-1120**

Brass Vise Jaw Bib

铜制钳口护板

For 4”, 5”, 6” Vises

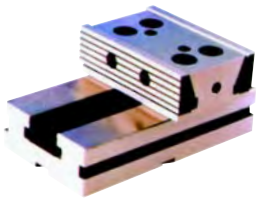
Order No. 428-7500

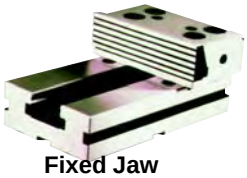


Short Body Precision Modular Vises 短身精密组合平口钳 动钳组件




Moveable Jaw


Fixed Double Jaw


Fixed Jaw

Base Length	Jaw Width	Vise Height	Moveable Jaw Order No.	Fixed Jaw Order No.	Fixed Double Jaw Order No.
5-1/2"/140mm	4"/100mm	2-3/5"/65mm	**428-4014**	**428-4114**	**428-4214**
6-3/10"/160mm	5"/125mm	3"/80mm	**428-4016**	**428-4116**	**428-4216**
9"/230mm	6"/150mm	4"/100mm	**428-4023**	**428-4123**	**428-4223**
9-2/5"/240mm	7"/175mm	4-3/5"/118mm	**428-4024**	**428-4124**	**428-4224**
11-4/5"/300mm	8"/200mm	5-3/10"/135mm	**428-4030**	**428-4130**	**428-4230**
13-4/5"/350mm	12"/300mm	6-1/5"/158mm	**428-4035**	**428-4135**	**428-4235**

Magnetic Quick Clamps

磁性夹具

- Designed to enable fast & accurate holding of ferrous metals for welding & assembly jobs.
- Holds both sheet & tube at angles 90°,75°,60°,45° and 30°.


2-1/2Hx4"Wx1/2TH
Order No. 625-0108


3-1/2Hx5-1/2"Wx5/8TH
Order No. 625-0109

2 Piece Set:
625-0108:2-1/2Hx4"Wx1/2TH,**625-0109**:3-1/2Hx5-1/2"Wx5/8TH
Order No. 625-0111

Machinist Jack

机用千斤顶

- For use any place whereleveling is necessary.
- Lifting capacity of approximately 1000lbs.
- 1" adjustment.
- 4" high when fully extended.


Order No.827-9360

" Little Giant " Jack Screw Sets

组合千斤顶

For leveling work on planer beds, upright drills and setting up machinery

- Each kind of jack has different range as below, which can raise 1000 pounds or more.
- The extensions may be used singly or together, and when use together, Max. Height for each one is: 3-3/4 and 6-1/8.





Sets

Pieces	Range	Ability to Lift	Order No.
6	1-1/2" to 2-1/4"	1000lbs	**827-9370**
6	2-1/4" to 3-3/8"	1000lbs	**827-9380**

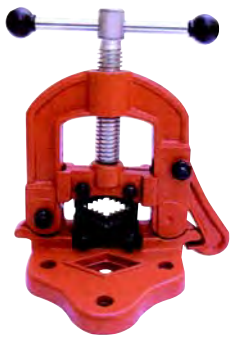
Individual Parts

Pieces	Name	Range 7-1/2 to 2-1/4" Order No.	Range 2-1/4 to 3-3/8" Order No.
A	Jack	**827-9371**	**827-9381**
B	Extension Base	**827-9372**	**827-9382**
C	Extension Base	**827-9373**	**827-9383**
D	Auxiliary Pointed Screw	**827-9374**	**827-9384**
E	Extension V Base	**827-9375**	**827-9385**
F	Extension Base	**827-9376**	**827-9386**

Bench Yoke Vises

管子台虎钳

- Body made of malleable cast iron.
- Hardened and milled alloy steel jaws.
- Suitable for pipe fixing in room.



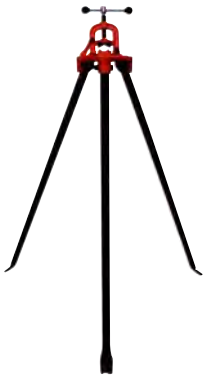
Size	Range	Order No.
0#	2/5" to 1-3/5" /10-40mm	**428-9010**
1#	2/5" to 2-2/5" /10-60mm	**428-9011**
2#	2/5" to 3-3/5"/ 10-90mm	**428-9012**
3#	3/5" to 4-1/2"/15-115mm	**428-9013**
4#	3/5" to 6-1/2"/ 15-165mm	**428-9014**

Bench Yoke Vises

With Tripod Stand

管子台虎钳

- Body made of malleable cast iron.
- Hardened and milled alloy steel jaws.
- Complete with pipe rest.
- Designed for pipe construction ouder door.



Size	Range	Order No.
0#	2/5" to 1-3/5" /10-40mm	**428-9000**
2#	2/5" to 3-3/5"/ 10-90mm	**428-9002**
3#	3/5" to 4-1/2"/15-115mm	**428-9003**

Adjustable Universal Stop

组合可调定位器

- Serves as a rigid stop for milling set-ups.
- Used with vises, angle plates, jigs, etc.
- Usable as a versatile holder, as well as stop.

Column: 5/8" x 7-1/2"
Base: 3/4" x 2" x 4-1/2"
Rod: 3/8" x 9-1/2"



Order No. 209-9008

Vise Work Stop

虎钳定位器

- To fit angle lock type vises
- Single thumbscrew tightens clamp to vise jaw.
- Two ground -pins on both sides of clamp.
- Easily mounts to the top of most vise jaws.
- 1pc. Clamping screw.
- 7/8" capacity.



Order No. 209-9007

Quick Clamp

快速夹

- Fits all milling machine vises with 3/8" to 3/4" vise jaws.
- Hardened steel body. 1" wide and two steel guide pins for positive clamping.
- Clamps quickly and easily to the Top of hard or soft jaws.



Order No. 209-9006

Mechanics' Sonarscope

工业听诊器

- Effective whenever trouble can be traced by sound.
- Can easily locate and isolate trouble in engines, motors and other moving parts.



Order No. 606-0250

Draw Bars 卡头拉杆

Fits All Mills



Order No. 209-9021



Order No. 209-9022

OAL(IN)	HEX(IN)	THREAD SIZE(INCH)	Order No.
26 1/2	7 1/4	7/16-20x2(2life)	209-9021
20 3/4	1 1/2	7/16-20x2(2life)	209-9022

Milling Vise Work Stop

平口钳定位器

Permits fast completely accurate positioning of repetitive work.

Descriptions	Order No.
For 3" or 4" Vise	209-9013
For 6"	209-9010



Speed Handle

台钻定位器

For Machine Vises. Fits 6 curt angle lock vises

- Vises can be completely opened in a few seconds.
- Saves time and increases production.
- Assures more precise feel of clamping pressure3/4" hex.



Order No.428-9705

Quill Stop

台钻定位器

- For Bridgeport Type Mills.
- Quick action clip.
- Top or bottom positioning.
- 0.020" fine adjustment.
- Easily installed, quickly moved.
- Clips on quill easily for rapid depth setting.

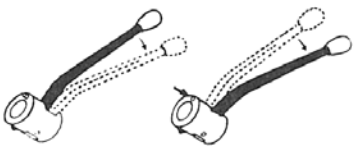


Order No. 209-9003

Quick Indexing Quill Feed Handle

快进手柄

Eliminates removing quill feed resetting or repositioning.Quick flick of the wrist retracts index plate pin of quill
allowing you to move the handle into any position. Spring loaded pin activates quill feed. Speeds up all operations.
Heavy Duty, will not bend or break.
For Your Mill With 1" Die. Hub.





Order No. 209-9002

Knurled Knobs 滚花手柄

Black Oxide Finish

- For adjusting, clamping or locating applications.
- Knurled head assures nonslip finger gripping.



Thread Size	Head Dia.	Hub Dia.	Overall Height	Head Thickness	Order No.
10-24NC	3/4	7/16	5/8	1/4	401-0005
1/4-20NC	1	5/8	3/4	1/4	401-0010
3/8-16NC	1-1/4	3/4	1-1/8	1/2	401-0015
1/2-13NC	1-1/2	1	1-1/4	1/2	401-0020
5/8-11NC	2	1-1/4	1-3/4	5/8	401-0025

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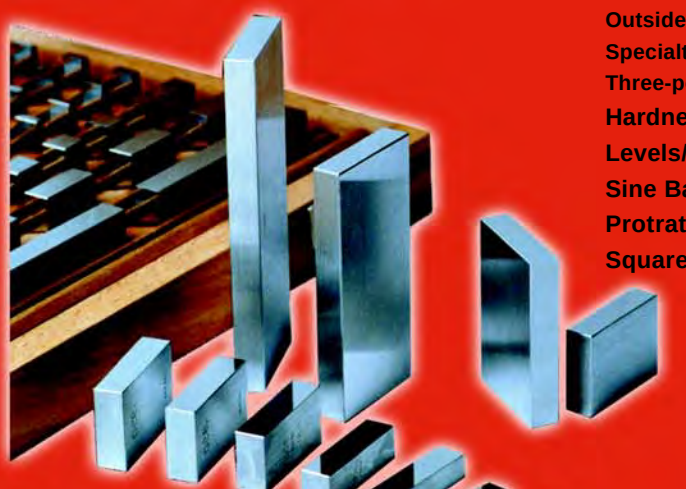
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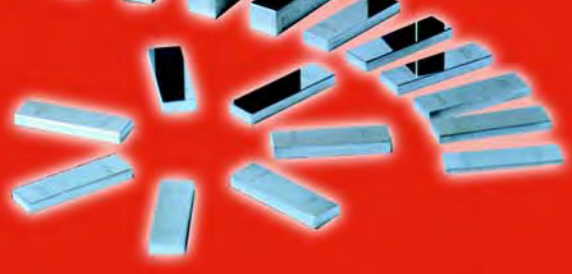
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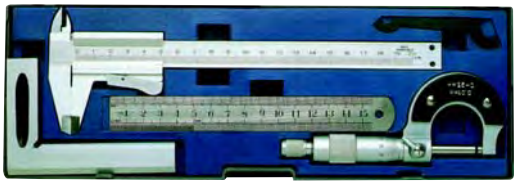




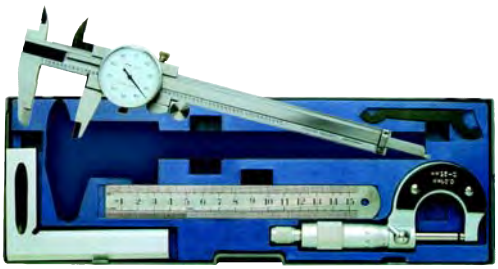




套装量具



No. of Pieces	Specification	Individual Order No.	Set Order No.
4Pcs/set	• One 0-150mm Vernier Caliper Mono-Block, Thumb lock, .05mm • One 0-25mm Outside Micrometer • One 90° Knife Edge Square DIN 875/1, 100x70mm • One 150mm/6" Stainless Steel Ruler • Plastic case	817-0905 601-5025 638-1215 638-8205 13P-4012	135-4001
4Pcs/set	• One 6" Vernier Caliper Graduation 1/128" • One 0-1"Outside Micrometer • One 90° Knife Edge Square DIN875/1,100x70mm • One 150mm/6" Stainless Steel Ruler • Plastic case	817-0905 601-0111 638-1215 638-8205 13P-4012	135-4002
4Pcs/set	• One 0-150mm Electronic Digital caliper • One 0-25mm Electronic Outside Micrometer • One 90° Knife Edge Square DIN 875/1, 100x70mm • One 150mm/6" Stainless Steel Ruler • Plastic case	600-8001 638-1215 638-8205	135-4005



No. of Pieces	Specification	Individual Order No.	Set Order No.
4Pcs/set	• One 0-150mm Dial Caliper, Graduation .02mm • One 0-25mm Outside Micrometer, Grad.: 0.01mm,Chrome-Plated. • One 90° Knife Edge Square DIN 875/1,100x70mm • One 150mm/6" Stainless Steel Ruler • Plastic case	20W-S210 600-5025 638-1215 638-8205 13P-4034	135-4003
4Pcs/set	• One 6" Dial Caliper Graduation: 0.001" • One 0-1" Outside Micrometer, Grad.:0.0001", Chrome-Plated. • One 90° Knife Edge Square DIN 875/1,100x70mm • One 150mm/6" Stainless Steel Ruler • Plastic case	10W-S006 601-0111 638-1215 638-8205 13P-4034	135-4004



No. of Pieces	Specification	Individual Order No.	Set Order No.
2Pcs/set	• One 0-150mm Vernier Caliper Mono-Block, Thumb lock, .05mm • One 90° Knife Edge Square DIN 875/1, 100x70mm • Wooden case	817-0905 638-1215 13W-2012	135-2001
2Pcs/set	• One 6" Vernier Caliper Graduation:1/128" • One 90° Knife Edge Square DIN 875/1, 100x70mm • Wooden case	403-1503 638-1215 13W-2012	135-2002



No. of Pieces	Specification	Individual Order No.	Set Order No.
2Pcs/set	• One 6" Vernier Caliper Graduation:1/128" • One 0-1" Outside Micrometer ,Grad. 0.0001" Chrome-Plated • Wooden case	403-1503 601-0001 13W-2034	135-2003
2Pcs/set	• One 0-150mm Caliper Mono-Block, Thumb lock, .05mm • One 0-25mm Outside Micrometer Grad.:0.01mm, Chrome-Plated • Wooden case	817-0905 601-5025 13W-2034	135-2004

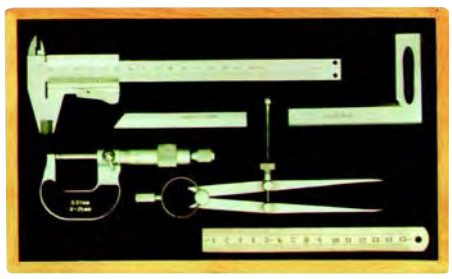
套装量具



No. of Pieces	Specification	Individual Order No.	Set Order No.
3Pcs/set	• One 0-150mm Vernier Caliper Mono-Block, Thumb lock, .05mm	817-0905	135-3001
	• One 0-25mm Outside Micrometer Chrome-Plated	601-5025	
	• One 5-30mm Inside Micrometer,Grad.: 0.01mm	600-4005	
	• Wooden case	13W-3012	
3Pcs/set	• One 0-6” Vernier Caliper Graduation: 1/128”	817-0905	135-3002
	• One 0-1” Outside Micrometer	601-0111	
	• One .2”-1.2” Inside Micrometer	600-5005	
	• Wooden case	13W-3012	



No. of Pieces	Specification	Individual Order No.	Set Order No.
5Pcs/set	• One 0-150mm Vernier Caliper Mono-Block, Thumb lock, .05mm	817-0905	135-5001
	• One 0-25mm Digital Readout Outside Micrometer	600-3025	
	• One 0-200mm Depth Gauge Graduation .05mm	112-0202	
	• One 90° Knife Edge Square DIN 875/1, 100x70mm	638-1215	
	• One Straight Edge Ruler DIN 874/0, 100mm	639-7110	
	• Wooden case	13W-5012	
5Pcs/set	• One 0-6” Vernier Caliper Graduation 1/128”	403-1503	135-5002
	• One 0-1”Digital Readout Outside Micrometer	600-3011	
	• One 0-8” Depth Gauge Graduation1/128”	112-0086	
	• One 90° Knife Edge Square DIN 875/1, 100x70mm	638-1215	
	• One Straight Edge Ruler DIN 874/0, 100mm	638-7110	
	• Wooden case	13W-5012	



No. of Pieces	Specification	Individual Order No.	Set Order No.
6Pcs/set	• One 0-150mm Vernier Caliper Mono-Block, Thumb lock, .05mm	817-0905	135-6001
	• One 0-25mm Outside Micrometer	601-5025	
	• One 90° Knife Edge Square DIN 875/1, 100x70mm	638-1215	
	• One 150mm/6” Stainless Steel Ruler	638-8205	
	• One Steel Scriber		
	• One Steel Divider	109-0904	
	• Wooden case	13W-6012	
6Pcs/set	• One 0-6” Vernier Caliper Graduation: 1/128”	403-1503	135-6002
	• One 0-1” Outside Micrometer	601-0111	
	• One 90° Knife Edge Square DIN 875/1, 100x70mm	638-1215	
	• One 150mm/6” Stainless Steel Ruler	638-8205	
	• One Steel Scriber		
	• One Steel Divider	109-0904	
	• Wooden case	13W-5034	
6Pcs/set	• One 0-25mm Ele. Outside Micrometer	600-8001	135-6003
	• One 0-150mm (.05mm)Ele. Digital caliper		
	• One 90° Knife Edge Square (638-1215) DIN 875/1, 100x70mm		
	• One 150mm/6” Stainless Steel Ruler	135-5006	
	• One Steel Scriber		
	• One Steel Divider(109-0904)		
	• Wooden case(13W-5034)		

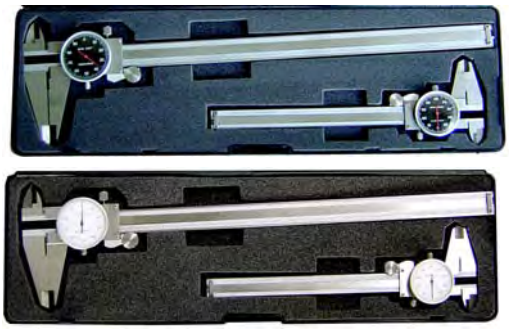
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No. of Pieces	Specification	Set Order No.
2Pcs/set	• One 0-6”/150mm Electronic Caliper Graduation:0.00005”/0.001mm • One 0-1”/25mm Ele. Outside Micrometer, Graduation: 0.00005”/0.001mm • Plastic Case	**135-0050**
2Pcs/set	• One 0-6”/150mm Electronic Caliper Graduation:0.0005”/0.01mm • One 0-1”/25mm Ele. Outside Micrometer, Graduation: 0.00005”/0.001mm • Plastic Case	**135-0051**



No. of Pieces	Specification	Set Order No.
5Pcs/set	• One 0-150mm Vernier Caliper Mono-Block, Thumb lock, .05mm • One 0-25mm Outside Micrometer • One 90° Knife Edge Square DIN 875/1, 100x70mm • One 150mm/6” Stainless Steel Ruler • One Steel Scriber • Wooden case	**135-5003**
5Pcs/set	• One 0-6” Vernier Caliper 1/128” • One 0-1” Outside Micrometer • One 90° Knife Edge Square DIN 875/1, 100x70mm • One 150mm/6” Stainless Steel Ruler • One Steel Scriber • Wooden case	**135-5004**
5Pcs/set	• One 0-150mm Electronic Digital caliper • One 0-25mm Electronic Outside Micrometer • One 90° Knife Edge Square DIN 875/1, 100x70mm • One 150mm/6” Stainless Steel Ruler • One Steel Scriber • case	**135-5005**



No. of Pieces	Specification	Set Order No.
2Pcs/set	• 0-6” White face Dial caliper • 0-6” White face Dial caliper • Plastic case	**10W-0612**
2Pcs/set	• 0-6” Black face Dial caliper • 0-6” Black face Dial caliper • Plastic case	**10B-0612**



No. of Pieces	Specification	Set Order No.
2Pcs/set	• Indicator: 0-1” • Flexible stem holder almost 360 degrees, Length: 350mm • 7” Locking plier for holding and clamping objects regardless of shape or size. • Fixing block • Finished in fitted plastic case • Flexible stem holder with Locking plier	**135-0090**

套装量具



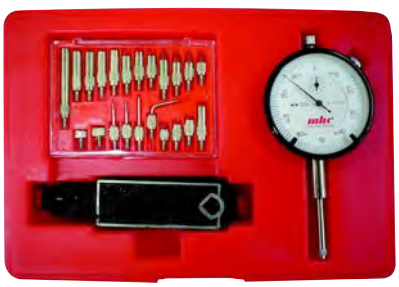
No. of Pieces	Specification	Individual Order No.	Set Order No.
2Pcs/set	• 0-1” White face Dial indicator • 60kg Magnetic base W/fine adj. • Plastic case	6605-4070 6625-0341 135-CP02	135-0002
2Pcs/set	• 0-1” Black face Dial indicator • 60kg Magnetic base W/fine adj. • Plastic case	605-4080 625-0341 135-CP02	135-0005



No. of Pieces	Specification	Individual Order No.	Set Order No.
2Pcs/set	• 0-2” White face Dial indicator • 60kg Magnetic base W/fine adj. • Plastic case	6605-4025 6625-0341 135-CP13	135-2005



No. of Pieces	Specification	Individual Order No.	Set Order No.
2Pcs/set	• .03x.0005” White face test indicator • 1-7/8” Test indicator holder • Plastic case	605-4710 6625-8522 135-CP14	135-0014
2Pcs/set	• .03x.0005” Black face test indicator • 1-7/8” Test indicator holder • Plastic case	605-4709 6625-8522 135-CP14	135-0015



No. of Pieces	Specification	Individual Order No.	Set Order No.
3Pcs/set	• White face 1” dial indicator • 22-pc Indicator point set • Mighty Magnetic Base • Plastic case	6605-4070 605-0022 625-0450 135-CP10	135-0010
3Pcs/set	• Black face 1” Dial indicator • 22-pc Indicator point set • Mighty Magnetic Base • Plastic case	6605-4080 605-0022 625-0450 135-CP10	135-0011



No. of Pieces	Specification	Individual Order No.	Set Order No.
2Pcs/set	• 0-4” Black face Dial caliper • 0-1” Black face Dial indicator • Plastic case	10B-S004 6605-4080 135-CP01	135-0001
2Pcs/set	• 0-4” White face Dial caliper • 0-1” White face Dial indicator • Plastic case	10W-S004 6605-4070 135-CP01	135-0004
2Pcs/set	• 0-6” Black face Dial caliper • 0-1” Black face Dial indicator • Plastic case	10B-S006 6605-4080 135-CP16	135-0016
2Pcs/set	• 0-6” White face Dial caliper • 0-1” White face Dial caliper • Plastic case	10W-S006 6605-4070 135-CP16	135-0017

套装量具



No. of Pieces	Specification	Individual Order No.	Set Order No.
3Pcs/set	• 0-1” White face dial indicator • 60kg Magnetic Base W/fine adj. • 22-pc Indicator point set • Plastic case	6605-4070 6625-0341 605-0022 135-CP02	135-0006
3Pcs/set	• 0-1” Black face Dial indicator • 60kg Magnetic Base W/fine adj. • 22-pc Indicator point set • Plastic case	6605-4080 6625-0341 605-0022 135-CP02	135-0007



No. of Pieces	Specification	Individual Order No.	Set Order No.
6Pcs/set	• 0-6” White face Dial caliper • 0-1” White face Dial indicator • .03x.0005” White face test indicator • 0-1x.0001” Outside micrometer • 60kgs Magnetic base W/fine adj. • 22-pc Indicator point set • Plastic case	10W-S006 6605-4070 605-4710 601-0111 6625-0341 605-0022 135-CP12	135-0012
6Pcs/set	• 0-6” Black face Dial caliper • 0-1” Black face Dial indicator • .03x.0005” Black face test indicator • 0-1x.0001” Outside micrometer • 60kgs Magnetic base W/fine adj. • 22-pc Indicator point set • Plastic case	10B-S006 605-4080 605-4709 601-0111 6625-0341 605-0022 135-CP12	135-0013



No. of Pieces	Specification	Individual Order No.	Set Order No.
6Pcs/set	• 0-6” White face Dial caliper • 0-1x.0001” Outside micrometer • Square head • Protractor head • Center head • 12” Blade 4R • Plastic case	10W-S006 601-0111 638-7759 638-7757 638-7758 638-7752 135-CP18	135-0018
6Pcs/set	• 0-6” Black face Dial caliper • 0-1x.0001” Outside micrometer • Square head • Protractor head • Center head • 12” Blade 4R • Plastic case	10B-S006 601-0111 638-7759 638-7757 638-7758 638-7752 135-CP18	135-0019



No. of Pieces	Specification	Individual Order No.	Set Order No.
3Pcs/set	• 0-6” Black face Dial caliper • .03x.0005” Black face test indicator • 0-1x.0001” Outside micrometer • Plastic case	10B-S006 605-4709 601-0111 135-CP08	135-0008
3Pcs/set	• 0-6” White face Dial caliper • .03x.0005” White face test indicator • 0-1x.0001” Outside micrometer • Plastic case	10W-S006 605-4710 601-0111 135-CP08	135-0009

套装量具



No. of Pieces	Specification	Individual Order No.	Set Order No.
4Pcs/set	• 81pc Grade B steel rectangular gage block • 12x18x3" B-0 Granite surface plate • 12" Vernier height gage • .03x.0005" White face test indicator	630-4115 640-0120 622-8512 605-4710	135-5030
4Pcs/set	• 81pc Grade B steel rectangular gage block • 12x18x3" B-0 Granite surface plate • 12" Vernier height gage • .03x.0005" Black face test indicator	630-4115 640-0120 622-8512 605-4709	135-5031
2Pcs/set	• 0-12"/300mm Vernier height gage • 12x18x3" B-0 Granite surface plate	622-8512 640-0120	135-9999



No. of Pieces	Specification	Individual Order No.	Set Order No.
2Pcs/set	• 0-1" White face Dial indicator • 60kg Flexible Arm Magnetic base • Plastic case	6605-4070 625-1060 135-CP02	135-0038

Electronic Micrometer and Base Sets



Pieces	Specifications	Individual Order No.	Set Order No.
2 Pcs/set	0-1"/0-25mm 2keys Ele. Micrometer Adj. Micrometer Stand	600-8001 600-0105	135-2012
2 Pcs/set	0-1"/0-25mm 5keys Ele. Micrometer Adj. Micrometer Stand	600-8005 600-0105	135-2015
2 Pcs/set	0-1"/0-25mm 7keys Ele. Micrometer Adj. Micrometer Stand	600-8031 600-0105	135-2017

Dial Test Indicator Sets



Set Includes:

- Large size dial test indicator
- Axial support
- Height gage bar with clamp
- Universal holder
- Adaptor sleeve
- Contact point case
- Contact point wrench
- Finished in fitted plastic case

Total Range	Grad.	Dial Diameter	Set Order No.
0.060"	0.0005"	1-1/2"	605-4870

Horizontal Type



Set Includes:

- Test indicator:
- Dial reasing: 0-15-0
- Two contact points
- 3/8" &1/4" dovetail stems
- contact point wrench
- Height gage bar
- Universal Dovetail clamp
- Finished in fitted plastic case

Total Range	Grad.	Face	Sets Order No.
0.030"	0.0005"	White	605-4707
0.030"	0.0005"	Black	605-4708

Vernier Calipers 游标卡尺





Basic Type

- 4 Way measurement.
- Under 125mm without step measurement.
- Made of carbon steel or stainless steel.

Range	Graduation	Carbon Steel Order No.	Stainless Steel Order No.
0-150mm/6”	.02mm/.001”	**103-1501**	**403-1501**
0-200mm/8”	.02mm/.001”	**103-2001**	**403-2001**
0-300mm/12”	.02mm/.001”	**103-3001**	**403-3001**
0-6”	.001”/1/128”	**103-1503**	**403-1503**
0-150mm/6”	.05mm/.001”	**103-1509**	**403-1509**
0-200mm /8”	.05mm/.001”	**103-2009**	**403-2009**
0-150mm/6”	.05mm/1/128”	**103-1508**	**403-1508**
0-200mm/8”	.05mm/1/128”	**103-2008**	**403-2008**
0-300mm/12”	.05mm/1/128”	**103-3008**	**403-3008**

Range	Grad.	Carbon Steel Order No.	Stainless Steel Order No.
0-100mm	.02mm	**103-1002**	**403-1002**
0-125mm	.02mm	**103-1252**	**403-1252**
0-150mm	.02mm	**103-1502**	**403-1502**
0-200mm	.02mm	**103-2002**	**403-2002**
0-300mm	.02mm	**103-3002**	**403-3002**
0-100mm	.05mm	**103-1005**	**403-1005**
0-125mm	.05mm	**103-1255**	**403-1255**
0-150mm	.05mm	**103-1505**	**403-1505**
0-200mm	.05mm	**103-2005**	**403-2005**
0-300mm	.05mm	**103-3005**	**403-3005**

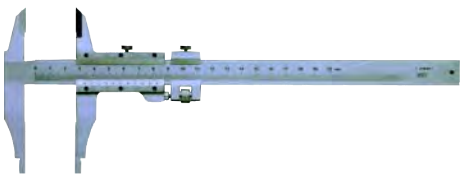


Fine Adjustment Type

- 4 Way measurement.
- Upper 300mm/12” without depth measurement.
- Made of carbon steel or stainless steel.

Range	Graduation	Carbon Steel Order No.	Stainless Steel Order No.
0-150mm/6”	.02mm/.001”	**104-1501**	**404-1501**
0-200mm/8”	.02mm/.001”	**104-2001**	**404-2001**
0-300mm/12”	.02mm/.001”	**104-3001**	**404-3001**
0-150mm/6”	.05mm/.001”	**104-1503**	**404-1503**
0-150mm/6”	.05mm/1/128”	**104-1508**	**404-1508**
0-200mm/8”	.05mm/1/128”	**104-2008**	**404-2008**
0-300mm/12”	.05mm/1/128”	**104-3008**	**404-3008**

Range	Grad.	Carbon Steel Order No.	Stainless Steel Order No.
150mm	.02mm	**104-1502**	**404-1502**
200mm	.02mm	**104-2002**	**404-2002**
300mm	.02mm	**104-3002**	**404-3002**
150mm	.05mm	**104-1505**	**404-1505**
200mm	.05mm	**104-2005**	**404-2005**
300mm	.05mm	**104-3005**	**404-3005**



Fine Adjustment & Upper Scriber Jaws

- With upper scriber jaws.
- With circular inside jaws.
- 2 way measurement.
- Made of carbon steel.

Range	Graduation	Jaw Length	Order No.
0-200mm/8”	.02mm/.001”	60mm	**102-1202**
0-200mm/8”	.02mm/.001”	90mm	**102-1203**
0-300mm/12”	.02mm/.001”	60mm	**102-1302**
0-300mm/12”	.02mm/.001”	90mm	**102-1303**
0-200mm/8”	.05mm/1/128”	60mm	**102-1205**
0-200mm/8”	.05mm/1/128”	90mm	**102-1206**
0-300mm/12”	.05mm/1/128”	60mm	**102-1305**
0-300mm/12”	.05mm/1/128”	90mm	**102-1306**

Range	Grad.	Jaw Length	Order No.
0-200mm	.02mm	60mm	**102-0202**
0-200mm	.02mm	90mm	**102-0203**
0-300mm	.02mm	60mm	**102-0302**
0-300mm	.02mm	90mm	**102-0303**
0-200mm	.05mm	60mm	**102-0205**
0-200mm	.05mm	90mm	**102-0206**
0-300mm	.05mm	60mm	**102-0305**
0-300mm	.05mm	90mm	**102-0306**



Auto Clamp Type

- 4 Way measurement.
- Made of carbon steel or stainless steel.

Range	Graduation	Carbon Steel Order No.	Stainless Steel Order No.
0-150mm/6”	.02mm/.001”	**105-1501**	**405-1501**
0-200mm/8”	.02mm/.001”	**105-2001**	**405-2001**
0-300mm/8”	.02mm/.001”	**105-3001**	**405-3001**
0-150mm/6”	.05mm/1/128”	**105-1508**	**405-1508**
0-200mm/8”	.05mm/1/128”	**105-2008**	**405-2008**
0-300mm/8”	.05mm/1/128”	**105-3008**	**405-3008**

Range	Grad.	Carbon Steel Order No.	Stainless Steel Order No.
0-150mm	.02mm	**105-1502**	**405-1502**
0-200mm	.02mm	**105-2002**	**405-2002**
0-300mm	.02mm	**105-3002**	**405-3002**
0-150mm	.05mm	**105-1505**	**405-1505**
0-200mm	.05mm	**105-2005**	**405-2005**
0-300mm	.05mm	**105-3005**	**405-3005**

Mono-Block Vernier Calipers 游标卡尺



Mono-Block with Screw Lock, Rivet Half-Round Handle

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
0-150mm/6”	.02mm/.001”	**817-0801**
0-200mm/8”	.02mm/.001”	**817-0821**
0-150mm/6”	.05mm/1/128”	**817-0808**
0-200mm/8”	.05mm/1/128”	**817-0828**

Range	Graduations	Order No.
0-150mm	.02mm	**817-0802**
0-200mm	.02mm	**817-0822**
0-150mm	.05mm	**817-0805**
0-200mm	.05mm	**817-0825**



Mono-Block with Screw Lock, Square Mono Block Handle

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
0-150mm/6”	.02mm/.001”	**817-0901**
0-200mm/8”	.02mm/.001”	**817-0921**
0-150mm/6”	.05mm/1/128”	**817-0908**
0-200mm/8”	.05mm/1/128”	**817-0928**

Range	Graduations	Order No.
0-150mm	.02mm	**817-0902**
0-200mm	.02mm	**817-0922**
0-150mm	.05mm	**817-0905**
0-200mm	.05mm	**817-0925**



Mono-Block with Screw Lock, Half-Round Mono Block Handle

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
0-150mm/6”	.02mm/.001”	**817-4001**
0-200mm/8”	.02mm/.001”	**817-4021**
0-150mm/6”	.05mm/1/128”	**817-4008**
0-200mm/8”	.05mm/1/128”	**817-4028**

Range	Graduations	Order No.
0-150mm	.02mm	**817-4002**
0-200mm	.02mm	**817-4022**
0-150mm	.05mm	**817-4005**
0-200mm	.05mm	**817-4025**



Mono-Block, with Lower Screw Lock

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
150mm/6”	0.02mm/0.001”	**817-5151**
150mm/6”	0.05mm/1/128”	**817-5158**

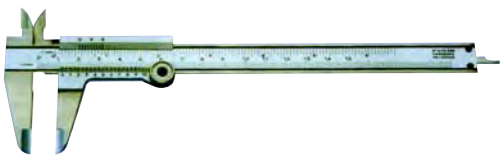
Range	Graduations	Order No.
150mm	0.02mm	**817-5152**
150mm	0.05mm	**817-5155**



Mono-Block, with Upper Screw Lock

- 2 way measurement.
- Made of carbon steel.

Range	Graduations	Order No.
0-200mm	.02mm	**827-0202**
0-200mm	.05mm	**827-0205**



Mono-Block, with Plane Looking

- 4 way measurement.
- Made of stainless steel.

Range	.02mm/.001” Order No.	.05mm/1/128” Order No.
0-150mm/6”	**817-1501**	**817-1508**
0-200mm/8”	**817-2001**	**817-2008**
0-300mm/12”	**817-3001**	**817-3008**

Range	.02mm Order No.	.05mm Order No.
0-150mm	**817-1502**	**817-1505**
0-200mm	**817-2002**	**817-2005**
0-300mm	**817-3002**	**817-3005**



Mono-Block, with Roll-wheel

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
150mm/6”	0.02mm/0.001”	**818-4151**
150mm/6”	0.05mm/1/128”	**818-4158**

Range	Graduations	Order No.
150mm	0.02mm	**818-4152**
150mm	0.05mm	**818-4155**

Mono-Block Vernier Calipers continued 游标卡尺

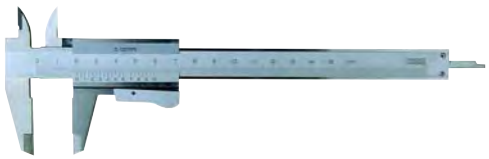


Mono-Block with Auto Clamp, Small Size Handle

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
0-150mm/6”	.02mm/.001”	**818-1151**
0-200mm/8”	.02mm/.001”	**818-1201**
0-150mm/6”	.05mm/1/128”	**818-1158**
0-200mm/8”	.05mm/1/128”	**818-1208**

Range	Graduations	Order No.
0-150mm	.02mm	**818-1152**
0-200mm	.02mm	**818-1202**
0-150mm	.05mm	**818-1155**
0-200mm	.05mm	**818-1205**



Mono-Block with Auto Clamp, Large Size Handle

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
0-150mm/6”	.02mm/.001”	**818-0151**
0-200mm/8”	.02mm/.001”	**818-0201**
0-150mm/6”	.05mm/1/128”	**818-0158**
0-200mm/8”	.05mm/1/128”	**818-0208**

Range	Graduations	Order No.
0-150mm	.02mm	**818-0152**
0-200mm	.02mm	**818-0202**
0-150mm	.05mm	**818-0155**
0-200mm	.05mm	**818-0205**



Mono-Block, Self-locking, Black Small Handle

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
150mm/6”	0.02mm/0.001”	**818-2151**
150mm/6”	0.05mm/1/128”	**818-2158**

Range	Graduations	Order No.
150mm	0.02mm	**818-2152**
150mm	0.05mm	**818-2155**



Mono-Block, Self-locking with Small Lock Handle & Round Depth Bar

- 4 way measurement.
- Made of stainless steel.

Range	Graduations	Order No.
150mm/6”	0.02mm/0.001”	**818-3151**
150mm/6”	0.05mm/1/128”	**818-3158**

Range	Graduations	Order No.
150mm	0.02mm	**818-3152**
150mm	0.05mm	**818-3155**



No Parallax Error

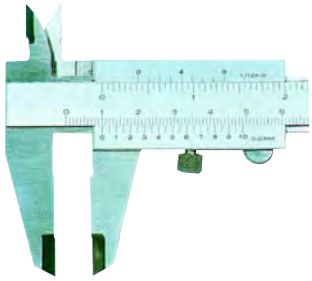
Mono-Block, No parallax Error

Range	Graduations	Order No.
0-150mm/6”	.02mm/.001”	**815-1905**
0-150mm/6”	.05mm/1/128”	**815-1908**

Range	Graduations	Order No.
0-150mm	.02mm	**815-1901**
0-150mm	.05mm	**815-1902**

Parallax Free Caliper 无视差不锈钢卡尺

- 4 way measurement.
- Made of stainless steel.



Basic Model

Range	Graduations	Auto Clamp Order No.
0-150mm/6”	.02mm/.001”	**815-1601**
0-150mm/6”	.05mm/1/128”	**815-1608**

Range	Graduations	Auto Clamp Order No.
0-150mm	.02mm	**815-1602**
0-150mm	.05mm	**815-1605**

Range	Graduations	Screw Lock Order No.
0-150mm/6”	.02mm/.001”	**815-1501**
0-150mm/6”	.05mm/1/128”	**815-1508**

Range	Graduations	Screw Lock Order No.
0-150mm	.02mm	**815-1502**
0-150mm	.05mm	**815-1505**



Mono-Block Type

Range	Graduations	Screw Lock Order No.
0-150mm/6”	.02mm/.001”	**815-1701**
0-150mm/6”	.05mm/1/128”	**815-1708**

Range	Graduations	Screw Lock Order No.
0-150mm	.02mm	**815-1702**
0-150mm	.05mm	**815-1705**

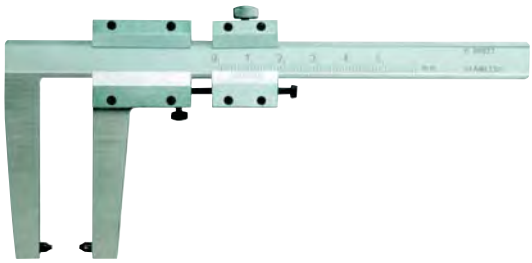
Mono-Block & Double Prism Type

Range	Graduations	Screw Lock Order No.
0-150mm/6”	.02mm/.001”	**815-1801**
0-150mm/6”	.05mm/1/128”	**815-1808**

Range	Graduations	Screw Lock Order No.
0-150mm	.02mm	**815-1802**
0-150mm	.05mm	**815-1805**

Disc Brake Vernier Calipers
尖头式游标卡尺（制动片）

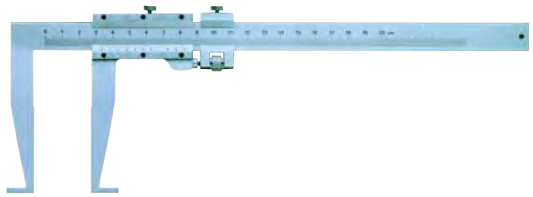
- Fine adjustment.
- Made of stainless steel.



Range	Graduations	Length of Jaws	Order No.
0-60mm	.1mm	55mm	**610-5501**
0-60mm	.1mm	80mm	**610-5502**
0-90mm	.1mm	120mm	**610-5503**

Inside Groove Vernier Calipers
内沟槽游标卡尺

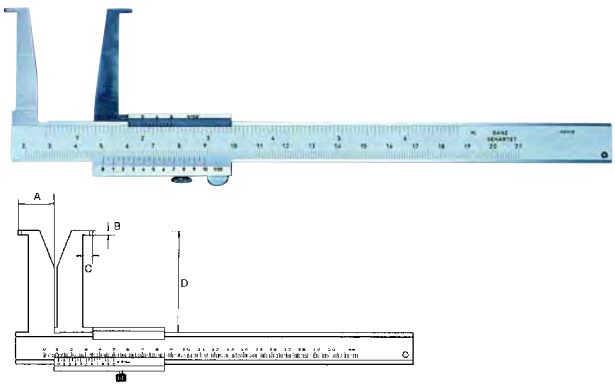
- Prolongation jaws.
- Fine adjustment.
- Made of stainless steel.



Range	Graduations	Size of Jaw	Order No.
40-340mm/0-300mm	0.02mm	95x40mm	**610-6302**
60-560mm/0-500mm	0.02mm	150x60mm	**610-6502**
40-340mm/0-300mm	0.05mm	95x40mm	**610-6305**
60-560mm/0-500mm	0.05mm	150x60mm	**610-6505**

Inside Groove Vernier Calipers
内沟槽游标卡尺

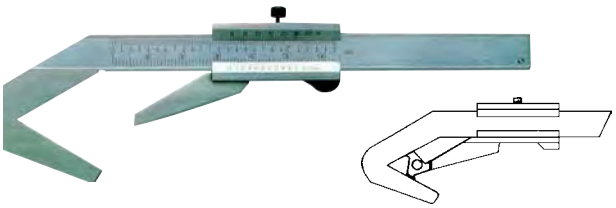
- Mono-Block.
- With upper jaws.
- Made of stainless steel.



Range	Graduations	A	B	C	D	Order No.
10-160mm	0.05mm	10mm	2mm	3mm	30mm	**610-7160**
26-200mm	0.05mm	25mm	3mm	7mm	70mm	**610-7200**

Anvil Vernier Calipers
三勾卡尺

Used for measurements of 3 or 5 flute cutting heads.



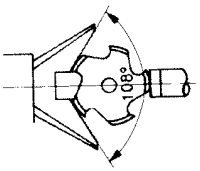
60° for three flute cutters

60° Type

Range	Graduations	Order No.
5-40mm	.05mm	**102-2040**
20-75mm	.05mm	**102-2075**



108° for five flute cutters



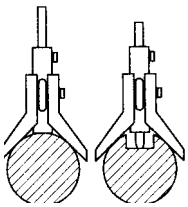
108° Type

Range	Graduations	Order No.
1-40mm	.05mm	**102-2140**
2-40mm	.05mm	**102-2141**

Spline Gages
不绣钢键槽规

- Made of stainless steel.

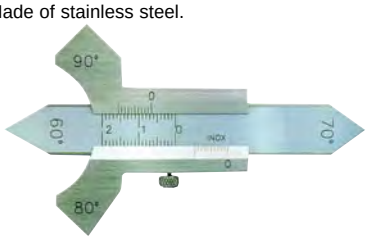




Range	Graduations	Order No.
5-80mm	0.05mm	**102-9105**
6-120mm	0.05mm	**102-9106**
7-160mm	0.05mm	**102-9107**
8-200mm	0.05mm	**102-9108**

Welding Seam Gage
焊缝规

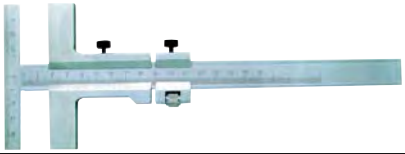
- Made of stainless steel.



Specification	Graduations	Order No.
60°，70°，80° and 90°	0.1mm	**102-5500**

T- Type Marking Vernier Calipers

T 型划线卡尺



Range	Graduation	Order No.
0-150mm	.05mm	102-3150
0-250mm	.05mm	102-3250
0-300mm	.05mm	102-3300
0-400mm	.05mm	102-3400
0-500mm	.05mm	102-3500

Steel Marking Gages

机床标尺，带双针

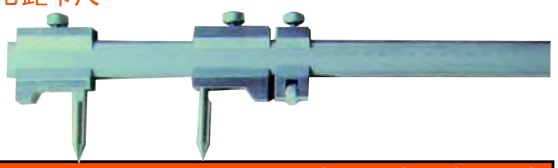
- Double needles
- Made of Stainless Steel



Range	Graduation	Order No.
500mm	0.1mm	102-9020
1000mm	0.1mm	102-9040

Center Distance Calipers

中心距卡尺



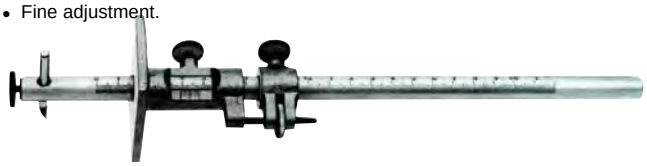
Range	Graduation	Stanless Steel Order No.	CarbonSteel Order No.
300mm	0.1mm	102-9001	102-9011
500mm	0.1mm	102-9002	102-9012
1000mm	0.1mm	102-9003	102-9013
1500mm	0.1mm	102-9004	102-9014
2000mm	0.1mm	102-9005	102-9015
3000mm	0.1mm	102-9006	102-9016

Range	Graduation	Stanless Steel Order No.	CarbonSteel Order No.
300mm/12”	0.1mm/1/128”	102-9021	102-9031
500mm/20”	0.1mm/1/128”	102-9022	102-9032
1000mm/40”	0.1mm/1/128”	102-9023	102-9033
1500mm/60”	0.1mm/1/128”	102-9024	102-9034
2000mm/80”	0.1mm/1/128”	102-9025	102-9035
3000mm/120”	0.1mm/1/128”	102-9026	102-9036

Steel Marking Gages

机床标尺，带圆形杆, 带微调

- Round rod.
- Fine adjustment.



Range	Graduation	Order No.
200mm	0.1mm	102-8200
300mm	0.1mm	102-8300
400mm	0.1mm	102-8400
500mm	0.1mm	102-8500

Marking Vernier Calipers

带针平行划线卡尺



Range	Graduation	Order No.
0-200mm	.05mm	102-4200
0-200mm	.1mm	102-4201
0-200mm/8”	.1mm/1/128”	102-4202
0-400mm	.1mm	102-4400
0-400mm/16”	.1mm/1/128”	102-4402

Steel Marking Gages

- Round rod.

机床标尺，带圆形杆



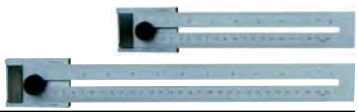
Range	Graduation	Order No.
200mm	0.1mm	102-7200
300mm	0.1mm	102-7300
400mm	0.1mm	102-7400
500mm	0.1mm	102-7500

Steel Marking Gages 机床标尺

- Flat pattern.
- Hardened lay-out edge.
- Satin chrome finish.



Range	Graduation	Order No.
200mm	0.1mm	102-5200
250mm	0.1mm	102-5250
300mm	0.1mm	102-5300
8”	0.005”	102-5008
10”	0.005”	102-5010
12”	0.005”	102-5012



Range	Order No.
8”/200mm	102-5108
12”/300mm	102-5112

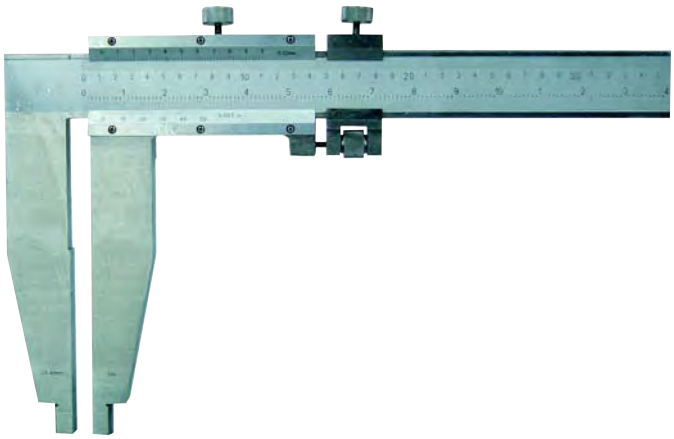
Steel Marking Compasses

划线卡尺



Range	Graduation	Order No.
150mm	0.1mm	102-6150
200mm	0.1mm	102-6200
250mm	0.1mm	102-6250
300mm	0.1mm	102-6300

重型游标卡尺



Heavy Duty Vernier Calipers

Basic Model

- Long 50-division vernier scales (Not available on 611-5612) have wide spread easy to read, clear engraved crisp black graduations in 0.001".
- Longer jaws permit greater accessibility and simpler measurement of larger work pieces.
- With fine adjustment.

Range	Jaw Length	Graduation	Carbon Steel Order No.	Stainless Steel Order No.
0-12"	3"	.001"	**611-5212**	**611-5112**
0-18"	4"	.001"	**611-5218**	**611-5118**
0-20"	4"	.001"	**611-5220**	**611-5120**
0-24"	4"	.001"	**611-5224**	**611-5124**
0-40"	5"	.001"	**611-5240**	**611-5140**
0-60"	7"	.001"	**611-5260**	**611-5160**
0-80"	7"	.001"	**611-5280**	

Range	Jaw Length	Vernier Scale Lower	Vernier Scale Upper	Carbon Steel Order No.	Stainless Steel Order No.
0-12"	3"	.02mm	.001"	**611-5812**	**611-5712**
0-18"	4"	.02mm	.001"	**611-5818**	**611-5718**
0-20"	4"	.02mm	.001"	**611-5820**	**611-5720**
0-24"	4"	.02mm	.001"	**611-5824**	**611-5724**
0-40"	5"	.02mm	.001"	**611-5840**	**611-5740**
0-60"	8"	.02mm	.001"	**611-5860**	**611-5760***
0-80"	8"	.02mm	.001"	**611-5880**	**611-5780***

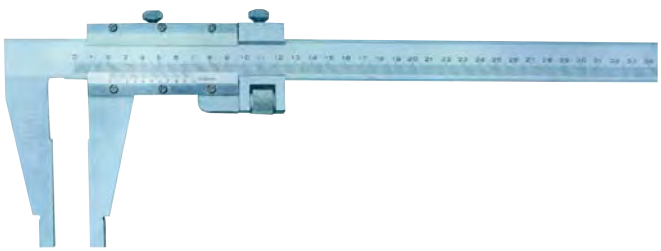
* 7" Jaw Length

Range	Jaw Length	Vernier Scale Lower	Vernier Scale Upper	Carbon Steel Order No.	Stainless Steel Order No.
0-12"	3"	.001"	.02mm	**611-5612**	**611-5512**
0-18"	4"	.001"	.02mm	**611-5618**	**611-5518**
0-20"	4"	.001"	.02mm	**611-5620**	**611-5520**
0-24"	4"	.001"	.02mm	**611-5624**	**611-5524**
0-40"	5"	.001"	.02mm	**611-5640**	**611-5540**
0-40"	6-1/2"	.001"	.02mm	**611-5641**	**611-5541**
0-60"	8"	.001"	.02mm	**611-5660**	**611-5560**
0-80"	8"	.001"	.02mm	**611-5680**	**611-5580**

Range	Jaw Length	Graduation	Carbon Steel Order No.	Stainless Steel Order No.
0-300mm	75mm	.02mm	**611-5305**	**611-5405**
0-450mm	100mm	.02mm	**611-5310**	**611-5410**
0-500mm	100mm	.02mm	**611-5315**	**611-5415**
0-600mm	100mm	.02mm	**611-5320**	**611-5420**
0-1000mm	125mm	.02mm	**611-5325**	**611-5425**
0-1500mm	200mm	.02mm	**611-5330**	**611-5430**
0-2000mm	200mm	.02mm	**611-5335**	

Range	Jaw Length	Graduation	Carbon Steel Order No.	Stainless Steel Order No.
0-300mm	75mm	.05mm	**611-5306**	**611-5406**
0-450mm	100mm	.05mm	**611-5311**	**611-5411**
0-500mm	100mm	.05mm	**611-5316**	**611-5416**
0-600mm	100mm	.05mm	**611-5321**	**611-5421**
0-1000mm	125mm	.05mm	**611-5326**	**611-5426**
0-1500mm	200mm	.05mm	**611-5331**	**611-5431**
0-2000mm	200mm	.05mm	**611-5336**	**611-5436**

加长爪重型游标卡尺



Heavy Duty Vernier Calipers

Long Jaws

- Long 50-division vernier scales have wide spread easy to read, clear engraved crisp black graduations in 0.001".
- Longer jaws permit greater accessibility and simpler measurement of larger work pieces.
- With fine adjustment.
- Made of stainless steel.

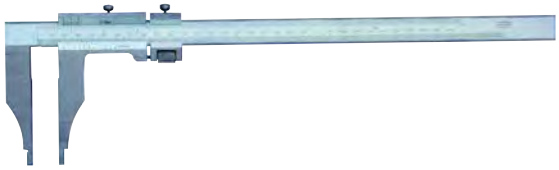
Range	Jaw Length	Graduation	Order No.
0-12"	3.5"	.001"	**611-5012**
0-20"	7.8"	.001"	**611-5020**
0-30"	7.8"	.001"	**611-5030**
0-40"	7.8"	.001"	**611-5040**

Range	Jaw Length	Graduation	Order No.
0-300mm/12"	3.5"	.001"	**611-6012**
0-500mm/20"	7.8"	.001"	**611-6020**
0-750mm/30"	7.8"	.001"	**611-6030**
0-1000mm/40"	7.8"	.001"	**611-6040**

Heavy Duty Vernier Calipers 加长爪重型卡尺

Mono-Block , Long Jaw Type

- Without upper jaws.
- With fine adjustment.
- Made of carbon steel or stainless steel



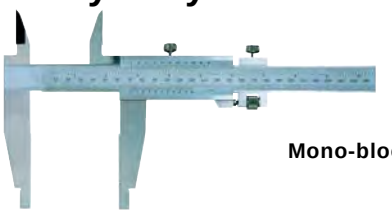
Range	Grad.	Jaw Length	Carbon Steel Order No.	Stainless Steel Order No.
0-450mm	.02mm	150mm	611-0204	611-1204
0-500mm	.02mm	150mm	611-0205	611-1205
0-600mm	.02mm	150mm	611-0206	611-1206
0-1000mm	.02mm	150mm	611-0210	611-1210

Range	Grad.	Jaw Length	Carbon Steel Order No.	Stainless Steel Order No.
0-450mm	.05mm	150mm	611-0504	611-1504
0-500mm	.05mm	150mm	611-0505	611-1505
0-600mm	.05mm	150mm	611-0506	611-1506
0-1000mm	.05mm	150mm	611-0510	611-1510

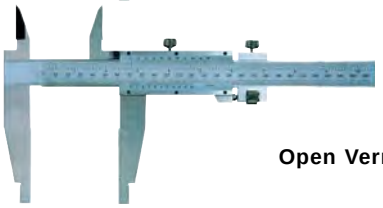
Range	Vernier Scale Lower	Vernier Scale Upper	Jaw Length	Carbon Steel Order No.	Stainless Steel Order No.
0-300mm/12”	.02mm	001”	90mm		611-1212
0-450mm/18”	.02mm	001”	150mm	611-0218	611-1218
0-500mm/20”	.02mm	001”	150mm	611-0220	611-1220
0-600mm/24”	.02mm	001”	150mm	611-0224	611-1224
0-800mm/32”	.02mm	001”	150mm	611-0232	611-1232
0-1000mm/40”	.02mm	001”	150mm	611-0240	611-1240
0-1500mm/60”	.02mm	001”	200mm		611-1260
0-2000mm/80”	.02mm	001”	200mm		611-1280

Range	Vernier Scale Lower	Vernier Scale Upper	Jaw Length	Carbon Steel Order No.	Stainless Steel Order No.
0-300/12”	.05mm	1/128”	90mm		611-1512
0-450mm/18”	.05mm	1/128”	150mm	611-0518	611-1518
0-500mm/20”	.05mm	1/128”	150mm	611-0520	611-1520
0-600mm/24”	.05mm	1/128”	150mm	611-0524	611-1524
0-800mm/32”	.05mm	1/128”	150mm	611-0532	611-1532
0-1000mm/40”	.05mm	1/128”	150mm	611-0540	611-1540
0-1500mm/60”	.05mm	1/128”	200mm		611-1560
0-2000mm/80”	.05mm	1/128”	200mm		611-1580

Heavy Duty Vernier Calipers 带上爪重型游标卡尺

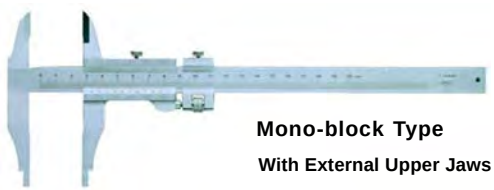


Mono-block Type



Open Vernier Type

- Made of stainless steel
- With fine adjustment.
- Open veriner type and mono-block vernier type for choice.



Mono-block Type

With External Upper Jaws

Range	Jaw Length	Grad.	Open Vernier Order No.	Mono-block Order No.
0-400mm	100mm	.05mm	610-0165	610-2165
0-450mm	100mm	.05mm	610-0185	610-2185
0-500mm	100mm	.05mm	610-0205	610-2205
0-500mm	150mm	.05mm	610-0206	610-2206
0-600mm	100mm	.05mm	610-0245	610-2245
0-600mm	150mm	.05mm	610-0246	610-2246
0-750mm	150mm	.05mm	610-0305	610-2305
0-1000mm	150mm	.05mm	610-0405	610-2405
0-1500mm	200mm	.05mm	610-0605	610-2605
0-2000mm	200mm	.05mm	610-0805	610-2805

Range	Jaw Length	Grad.	Open Vernier Order No.	Mono-block Order No.
0-400mm	100mm	.02mm	610-0162	610-2162
0-450mm	100mm	.02mm	610-0182	610-2182
0-500mm	100mm	.02mm	610-0202	610-2202
0-500mm	150mm	.02mm	610-0203	610-2203
0-600mm	100mm	.02mm	610-0242	610-2242
0-600mm	150mm	.02mm	610-0243	610-2243
0-750mm	150mm	.02mm	610-0302	610-2302
0-1000mm	150mm	.02mm	610-0402	610-2402
0-1500mm	200mm	.02mm	610-0602	610-2602
0-2000mm	200mm	.02mm	610-0802	610-2802

Range	Jaw Length	Vernier Scale Lower	Vernier Scale Upper	With Internal Upper Jaws Open Vernier Order No.	With Internal Upper Jaws Mono-block Order No.	With External Upper Jaws Mono-block Order No.
0-300mm/12”	90mm	.02mm	001”		610-3160	610-3158
0-400mm/16”	100mm	.02mm	001”	610-1162	610-3162	610-3163
0-450mm/18”	100mm	.02mm	001”	610-1182	610-3182	
0-500mm/20”	100mm	.02mm	001”	610-1202	610-3202	
0-500mm/20”	150mm	.02mm	001”	610-1203	610-3203	610-3169
0-600mm/24”	100mm	.02mm	001”	610-1242	610-3242	
0-600mm/24”	150mm	.02mm	001”	610-1243	610-3243	610-3171
0-750mm/30”	150mm	.02mm	001”	610-1302	610-3302	610-3172
0-1000mm/40”	150mm	.02mm	001”	610-1402	610-3402	610-3173
0-1500mm/60”	200mm	.02mm	001”	610-1602	610-3602	610-3174
0-2000mm/80”	200mm	.02mm	001”	610-1802	610-3802	610-3175

Range	Jaw Length	Vernier Scale Lower	Vernier Scale Upper	With Internal Upper Jaws Open Vernier Order No.	With Internal Upper Jaws Mono-block Order No.	With External Upper Jaws Order No.
0-300mm/12”	90mm	.05mm	1/128”		610-3161	610-3180
0-400mm/16”	100mm	.05mm	1/128”	610-1165	610-3165	610-3183
0-450mm/18”	100mm	.05mm	1/128”	610-1185	610-3185	
0-500mm/20”	100mm	.05mm	1/128”	610-1205	610-3205	
0-500mm/20”	150mm	.05mm	1/128”	610-1206	610-3206	610-3188
0-600mm/24”	100mm	.05mm	1/128”	610-1245	610-3245	
0-600mm/24”	150mm	.05mm	1/128”	610-1246	610-3246	610-3190
0-750mm/30”	150mm	.05mm	1/128”	610-1305	610-3305	610-3192
0-1000mm/40”	150mm	.05mm	1/128”	610-1405	610-3405	610-3193
0-1500mm/60”	200mm	.05mm	1/128”	610-1605	610-3605	610-3194
0-2000mm/80”	200mm	.05mm	1/128”	610-1805	610-3805	610-3195

Precision Dial Calipers 不锈钢带表卡尺，螺钉固定齿条

- Stainless steel with satin chrome finish.
- Outside, inside and depth measurements.
- Supplied in plastic case.
- With thumb roll.
- 12"~40" without Upper Jaw





Inch ,Stainless Steel, Dial 0-100

Range	Grad.	Range Per/Rev.	Black Face Order No.	White Face Order No.
0-4"	.001"	0.1"	**10B-S004**	**10W-S004**
0-6	.001	0.1	**10B-S006**	**10W-S006**
0-8	.001	0.1	**10B-S008**	**10W-S008**
0-12	.001	0.1	**10B-S012**	**10W-S012**

Inch ,Stainless Steel, Dial 0-100-0

Range	Grad.	Range Per/Rev.	Black Face Order No.	White Face Order No.
0-6"	.001"	0.2"	**20B-S006**	**20W-S006**
0-8	.001	0.2	**20B-S008**	**20W-S008**
0-12	.001	0.2	**20B-S012**	**20W-S012**

Inch ,Carbon Steel, Dial 0-100

Range	Grad.	Range Per/Rev.	Black Face Order No.	White Face Order No.
0-4"	.001"	0.1"	**10B-C004**	**10W-C004**
0-6	.001	0.1	**10B-C006**	**10W-C006**
0-8	.001	0.1	**10B-C008**	**10W-C008**
0-12	.001	0.1	**10B-C012**	**10W-C012**

Inch ,Carbon Steel, Dial 0-100-0

Range	Grad.	Range Per/Rev.	Black Face Order No.	White Face Order No.
0-4"	.001"	0.2"	**20B-C004**	**20W-C004**
0-6	.001	0.2	**20B-C006**	**20W-C006**
0-8	.001	0.2	**20B-C008**	**20W-C008**
0-12	.001	0.2	**20B-C012**	**20W-C012**

Metric ,Stainless Steel, Dial 0-100

Range	Grad.	Range Per/Rev.	White Face Order No.	Black Face Order No.	Grad.	Range Per/Rev.	White Face Order No.	Black Face Order No.	Grad.	Range Per/Rev.	White Face Order No.	Black Face Order No.
0-100mm	.01mm	1mm	**20W-S110**	**20B-S110**	.02mm	2mm	**20W-S210**	**20B-S210**	.05mm	5mm	**20W-S510**	**20B-S510**
0-150mm	.01mm	1mm	**20W-S115**	**20B-S115**	.02mm	2mm	**20W-S215**	**20B-S215**	.05mm	5mm	**20W-S515**	**20B-S515**
0-200mm	.01mm	1mm	**20W-S120**	**20B-S120**	.02mm	2mm	**20W-S220**	**20B-S220**	.05mm	5mm	**20W-S520**	**20B-S520**
0-300mm	.01mm	1mm	**20W-S130**	**20B-S130**	.02mm	2mm	**20W-S230**	**20B-S230**	.05mm	5mm	**20W-S530**	**20B-S530**

Metric, Carbon Steel, Dial 0-100

Range	Grad.	Range Per/Rev.	White Face Orderl No.	Black Face Order No.	Grad.	Range Per/Rev.	White Face Order No.	Black Face Order No.	Grad.	Range Per/Rev.	White Face Order No.	Black Face Order No.
0-100mm	.01mm	1mm	**20W-C110**	**20B-C110**	.02mm	2mm	**20W-C210**	**20B-C210**	.05mm	5mm	**20W-C510**	**20B-C510**
0-150mm	.01mm	1mm	**20W-C115**	**20B-C115**	.02mm	2mm	**20W-C215**	**20B-C215**	.05mm	5mm	**20W-C515**	**20B-C515**
0-200mm	.01mm	1mm	**20W-C120**	**20B-C120**	.02mm	2mm	**20W-C220**	**20B-C220**	.05mm	5mm	**20W-C520**	**20B-C520**
0-300mm	.01mm	1mm	**20W-C130**	**20B-C130**	.02mm	2mm	**20W-C230**	**20B-C230**	.05mm	5mm	**20W-C530**	**20B-C530**

Heavy Duty Dial Calipers

Long Jaws 重型带表卡尺，螺钉固定齿条

- Stainless Steel,Large dial steel with fine adjustment,double scale
- without Upper Jaw



Range	Grad.	Inside Range	Jaw Length	Order No.
0-450mm	0.02mm	20-450mm	100mm	**102-0845**
0-500mm	0.02mm	20-450mm	100mm	**102-0850**
0-600mm	0.02mm	20-450mm	100mm	**102-0860**
0-1000mm	0.02mm	20-1000mm	120mm	**102-0890**
0-12"	0.01"	0.4-12"	4"	**10W-S013**
0-18"	0.01"	0.5-18"	4"	**10W-S018**
0-20"	0.01"	0.5-20"	4"	**10W-S020**
0-24"	0.01"	0.5-24"	4"	**10W-S024**
0-40"	0.01"	0.8-40"	5"	**10W-S040**

"Swiss Style" Dial Calipers

带塑料盖不锈钢带表卡尺，螺钉固定齿条

- 4 way measurement.
- One revolution reading, dial 0-100.
- Made of stainless steel .



Range	Grad.	Range Per/Rev.	White Face Order No.	Black Face Order No.
0-6"	.001"	0.1"	**102-0006**	**102-1006**
0-8	.001	0.1	**102-0008**	**102-1008**
0-12	.001	0.1	**102-0012**	**102-1012**

Range	Grad.	Range Per/Rev.	Order No.	Grad.	Range Per/Rev.	Order No.
0-150mm	.01mm	1mm	**102-0115**	.02mm	2mm	**102-0215**
0-200mm	.01mm	1mm	**102-0120**	.02mm	2mm	**102-0220**
0-300mm	.01mm	1mm	**102-0130**	.02mm	2mm	**102-0230**

Dial Caliper 不锈钢带表卡尺(彩色表盘)

Stainless steel, Colour Face



Range	Grad.	Range Per/Rev.	Dial Face Color	Order No.
0-6"	.001"	0.1"	Red	**102-1026**
0-6"	.001	0.1	Yellow	**102-1036**
0-6"	.001	0.1	Green	**102-1046**

Inch & Metric Dial Calipers

不锈钢双针带表卡尺(白表面)，螺钉固定齿条

- Outside/inside and depth measurements.
- Hardered stainless steel finish.
- Dial 0-100.

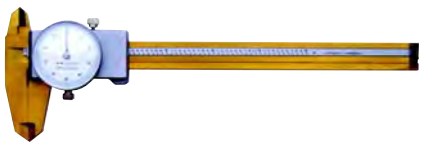


Range	Graduation	Range Per/Rev.	Order No.
0-6"/0-150mm	.001"/.02mm	0.1"/2mm	**10W-1506**
0-8"/0-200mm	.001"/.02mm	0.1"/2mm	**10W-2008**
0-12"/0-300mm	.001"/.02mm	0.1"/2mm	**10W-3012**

TiN-Coated Dial Caliper

不锈钢涂钛带表卡尺(白表面)，螺钉固定齿条

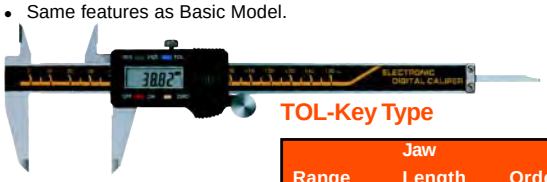
- Stainless steel
- White face
- Dial 0-100



Range	Graduation	Order No.
0-6"	0.001"	**10W-S007**

4 Key Digital Calipers 四键不锈钢电子卡尺

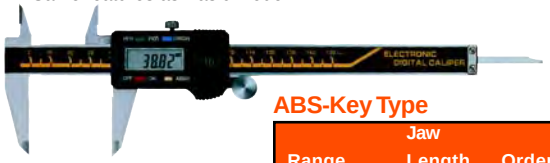
- Four-key type : TOL- key, on/off Key, Inch/mm Key, Zero Key.
- Enter high/low dimensional limits-out of limits ▼ & ▼ will flash on display.
- Same features as Basic Model.



TOL-Key Type

Range	Jaw Length	Order No.
150mm/6"	40mm	**101-4506**
200mm/8"	50mm	**101-4508**
300mm/12"	60mm	**101-4512**

- Four-key type : ABS-key, on/off Key, Inch/mm Key, Zero Key.
- Absolute button allow return to the absolute.
- Same features as Basic Model.



ABS-Key Type

Range	Jaw Length	Order No.
150mm/6"	40mm	**101-4706**
200mm/8"	50mm	**101-4708**
300mm/12"	60mm	**101-4712**

Two Direction Shock Proof Dial Calipers

双向防震表卡，，螺钉固定齿条

- Two direction shock proof system ensure stable and easy reading.
- Hardened and polished measuring faces. Dial 0-100.
- Made of Stainless Steel.



Range	Graduation	Order No.	Graduation	Order No.
0-150 mm	0.01mm	**102-0501**	0.02mm	**102-0511**
0-200 mm	0.01mm	**102-0502**	0.02mm	**102-0512**
0-300 mm	0.01mm	**102-0503**	0.02mm	**102-0513**

Range	Grad.	Face	Order No.	Face	Order No.	Cover	Order No.
0-6"	0.001"	Black	**102-0505**	White	**102-0506**	Metal	**102-0507**

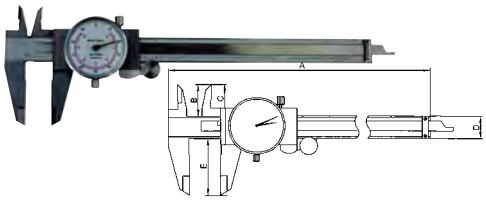
E-Z Reading Dial Calipers

White face, Dual Reading

全读数不锈钢带表卡尺，螺钉固定齿条

This type of dial caliper have two pointers in the dial. One pointers indicate integer fraction, ones indicate decimal fraction. What advantage is that user can get readings directly from the dial, more clear and more easy.

- Made of stainless hardened throughout.
- Resolutions: 0.001".
- Direct reading from a dial.
- All measuring face is hardened and finished.
- Adjustable bezel, easy to zeroset.
- For measuring to ID, OD, Depth and Step.
- With case.



Range	Grad.	Accuracy	Dimensions(mm) A	B	C	D	E	Order No.
0-6"	0.001"	0.001"	236	21	16.5	16	40	**102-1406**
0-8"	0.001"	0.002"	290	24.5	20	16	50	**102-1408**
0-12"	0.001"	0.002"	403	27.5	22	20	64	**102-1412**

- Four-key type : HOLD-key, on/off Key, Inch/mm Key, Zero Key.
- Hold button, hold readout at any position.
- Same features as Basic Model.



HOLD-Key Type

Range	Jaw Length	Order No.
150mm/6"	40mm	**101-4806**
200mm/8"	50mm	**101-4808**
300mm/12"	60mm	**101-4812**

- Four-key type : MODE-key,on/off Key, Inch/mm Key, Zero Key.
- Mode button, hold "peak" maximum or minimum measurements and recall from memory.



MODE-Key Type

Range	Jaw Length	Order No.
150mm/6"	40mm	**101-4606**
200mm/8"	50mm	**101-4608**
300mm/12"	60mm	**101-4612**

Splash Proof Digital Calipers

IP54 防水溅电子数显卡尺

- It can work when cleaning the splashed water on it.
- With ON/OFF button and data out put interface.
- Zero setting at any position. Metric/Inch system conversion at any position.



2 Key Type

Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-5801**
0-200mm/8"	0.01mm/0.0005"	**101-5802**
0-300mm/12"	0.01mm/0.0005"	**101-5803**



3 Key Type

Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-5804**
0-200mm/8"	0.01mm/0.0005"	**101-5805**
0-300mm/12"	0.01mm/0.0005"	**101-5806**

Water Proof Electronic Digital Calipers

防水电子数显卡尺

- Fully protected against the penetration of liquids and antimagnetic
- IP67 Prevent dust, spraying water or oil from entering the caliper through effective encapsulation of the main parts
- Auto Power off
- Inch/mm conversion at any position
- Zero setting at any position
- Four-way measurement



IP65 & IP67

Range	Graduation	IP65 Order No.	IP67 Order No.
0-150mm/6"	0.01mm/0.0005"	**101-5810**	**101-5904**
0-200mm/8"	0.01mm/0.0005"	**101-5811**	**101-5905**
0-300mm/12"	0.01mm/0.0005"		**101-5906**

Water Proof Electronic Caliper

防水电子数显卡尺-金属壳

- One of the toughest calipers available
- Use it anywhere in the shop without worry
- Large LCD display
- IP67 level: protection against coolants, dirt, chips and temporary water submersion



IP67, Water Proof

Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-5910**
0-200mm/8"	0.01mm/0.0005"	**101-5911**
0-300mm/12"	0.01mm/0.0005"	**101-5912**

Water Proof Ele. Digital Caliper

IP65, Water Proof 防水数显卡尺

- Conform to IP65 leveland can be used in cutting liquid conditions.



Range	Graduation	Order No.
0-150mm/6"	0.01/0.0005"	**101-5812**

3 Key Metal Casing Digital Calipers

三按键金属罩壳电子数显卡尺

- With manual ON/OFF
- Metric/inch system conversion at any position
- Zero setting at any position

Type Ⅱ



Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-0114**

Type v

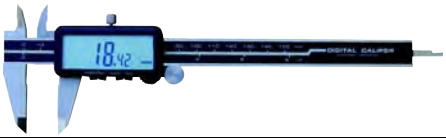


Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-0117**

Digital Calipers

全屏数显卡尺

- Maximum measurement speed: 1.5mm/s 60in/s
- Operating temperature: 0~40°C.
- Power: 3V CR2025(silver oxide cell) 1 battery
- in/mm,ON/OFF, ZERO



Black/White LCD

Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-0104**
0-200mm/8"	0.01mm/0.0005"	**101-0105**
0-300mm/12"	0.01mm/0.0005"	**101-0106**

- in/mm,ON/OFF, ZERO, ABS



Yellow LCD

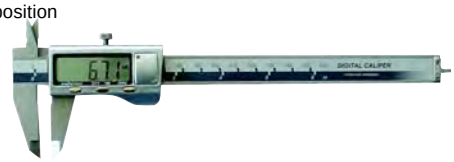
Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-0107**
0-200mm/8"	0.01mm/0.0005"	**101-0108**
0-300mm/12"	0.01mm/0.0005"	**101-0109**

Electronic Digital Calipers

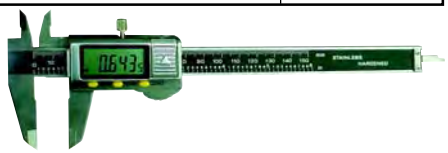
Metal-housing, 3 Key Type

三键大显示屏金属罩壳不锈钢电子卡尺

- With manual ON/OFF
- Metric/inch system conversion at any position
- Zero setting at any position



Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-0155**
0-200mm/8"	0.01mm/0.0005"	**101-0255**
0-300mm/12"	0.01mm/0.0005"	**101-0355**



Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-0156**
0-200mm/8"	0.01mm/0.0005"	**101-0158**
0-300mm/12"	0.01mm/0.0005"	**101-0159**

Left Hand Digital Calipers

左手三键不锈钢电子卡尺

- Extra large LCD



Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-3536**

3 Key Digital Caliper

三键电子数显卡尺

- Manual power off, no auto off
- Super large LCD, function 1, CR2032 3V battery
- Zero setting at any position



Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-0121**

Stainless Steel Pocket Caliper



Specification	Order No.
3"x32nds & 16ths	**403-4003**
4"x32nds & 16ths	**403-4004**

Fractional Digital Caliper

带分数值能数显卡尺

3- key

Technical specifications

- Error of indication(mm): 0.03
- Power Supply: one zinc-silver button cell, SR44, 1.55V
- Measuring speed: ⩽1.5m/s
- Working temperature: 0~+45°C
- Relative humidity: <80%
- Storage temperature: -10°C~+60°C

Functions:

- ON/OFF function
- ZERO setting at any position for differential measurement.
- inch/mm/in frac interchange
- Data can be input to special printer for processing and print via special cable.
- It can test low voltage. It flashes in low voltage.
- It functions “Auto OFF”. “Auto OFF” means the power is off when the slider is not moved for 4 minutes at power-on mode.



101-1021



101-1022

Range	Graduation	Frac Grad.	Order No.
0-150mm/6”	0.001mm/0.00005”	1/128”	**101-1021**
0-100mm/4”	0.001mm/0.00005”	1/64”	**101-1030**
0-150mm/6”	0.001mm/0.00005”	1/64”	**101-1031**
0-200mm/8”	0.001mm/0.00005”	1/64”	**101-1032**
0-150mm/6”	0.001mm/0.00005”	1/128”Metal Housing	**101-1022**

Fractional Digital Caliper

3 Keys, Yellow LCD

带分数值数显卡尺

- Maximum measurement speed: 3m/s 120in/s
- Operating temperature: 0~40°C.
- Power: 3V CR2025(Lithium ion cell) 1 battery
- in/mm/FRAC,ON/OFF, ZERO



Range	Graduation	Frac Grad.	Order No.
0-150mm/6”	0.01mm/0.0005”	1/128”	**101-1006**
0-200mm/8”	0.01mm/0.0005”	1/128”	**101-1008**
0-300mm/12”	0.01mm/0.0005”	1/128”	**101-1012**

Solar Digital Caliper

Solar power 太阳能数显卡尺

Solar Calipers eliminate the problem of battery replacement/disposal and the interent costs.

- Switchable inch/metric .0005"/0.01mm LCD display for easy reading
- Hardened stainless steel throughout for longer life and corrosion resistance
- The thumb roll provides a consistent "feel" for more accurate measurements
- OD, ID, step and depth measurements
- The epoxy embedded scale eliminates rack and pinion jams



Range	Graduation	Order No.
0-150mm/6"	0.01mm/0.0005"	**101-1231**

Solar Digital Calipers

太阳能数显卡尺



101-1233



101-1235

Range	Grad.	Material	Order No.
150mm/6"	.01mm/.0005"	Stanless Steel	**101-1233**
150mm/6"	.01mm/.0005"	Carbon Fiber	**101-1235**

Carbon Fiber Composites Digital Calipers

碳素塑料数显卡尺

- Made of extra strong carbon fiber composites
- Big LCD display for easy reading
- Functions: Zero setting at any position; metric/ inch system conversion at any position & ON; manual OFF or auto power off
- One 1.55V SR44 Battery
- Low voltage warning by flashing display

Black Frame



Range	Graduation	Accuracy	Order No.
0-100mm/4"	0.1mm/0.1"	0.2mm/0.1"	**101-0141**

Black Frame



Range	Graduation	Accuracy	Order No.
0-150mm/6"	0.1mm/0.1"	0.2mm/0.1"	**101-0144**

3 Key Digital Calipers

三键不锈钢电子卡尺

- Large LCD
- Inch/mm conversion (.01mm/.0005").
- Zero setting at any position.
- Three-key type : on/off Key, Inch/mm Key, Zero Key.
- SPC out put.



Range	Jaw Length	Open vernier Order No.	Close Vernier Order No.
100mm/4"	30mm	**101-3504**	**101-3604**
150mm/6"	40mm	**101-3506**	**101-3606**
200mm/8"	50mm	**101-3508**	**101-3608**
300mm/12"	60mm	**101-3512**	**101-3612**

- Extra Large LCD
- Auto Lock Model



Range	Graduation	Roller Order No.	Auto Lock Order No.
150mm	.01mm/.0005"	**101-3526**	**101-3546**
200mm	.01mm/.0005"	**101-3528**	**101-3548**
300mm	.01mm/.0005"	**101-3532**	**101-3552**

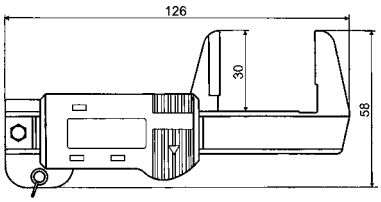
Digital Snap Calipers

Single Wide Measuring Face

单宽量面卡规

- Light weight.
- Easy to operate.
- High efficiency.
- Usually to measure dimensions of small workpieces.
- Power on/off.
- Inch/mm conversion at any position.
- Zero-setting at any position. Data output.

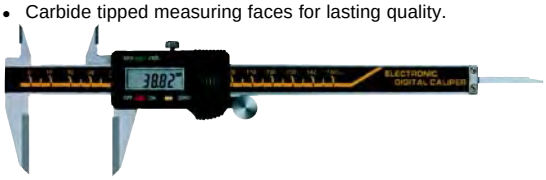




Range	Graduation	Accuracy	Order No.
0-12"/30mm	.0005"/.001mm	0.03mm	**101-5602**

Carbide Tipped Jaw Digital Calipers
合金量面电子卡尺

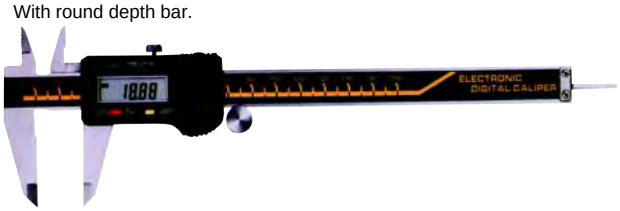
- Carbide tipped measuring faces for lasting quality.



Range	Graduation	Jaw Length	Order No.
150mm/6”	.01mm/.0005”	40mm	**101-3406**
200mm/8”	.01mm/.0005”	50mm	**101-3408**
300mm/12”	.01mm/.0005”	60mm	**101-3412**

Round Depth Bar Digital Calipers
圆棍深度尺电子卡尺

- With round depth bar.



Range	Graduation	Jaw Length	Open Vernier Order No.	Close Vernier Order No.
150mm/6”	.01mm/.0005”	40mm	**101-2806**	**101-2906**
200mm/8”	.01mm/.0005”	50mm	**101-2808**	**101-2908**
300mm/12”	.01mm/.0005”	60mm	**101-2812**	**101-2912**

Pointed Jaw Digital Calipers
细尖爪电子卡尺

- The narrow tip jaws fit into very small grooves and tracks.



Range	Graduation	Jaw Length	Order No.
100mm/4”	.01mm/.0005”	30mm	**101-4100**
150mm/6”	.01mm/.0005”	40mm	**101-4150**
200mm/8”	.01mm/.0005”	50mm	**101-4200**
300mm/12”	.01mm/.0005”	60mm	**101-4300**

Plate Anvil Digital Calipers
碟量面带限力装置电子卡尺

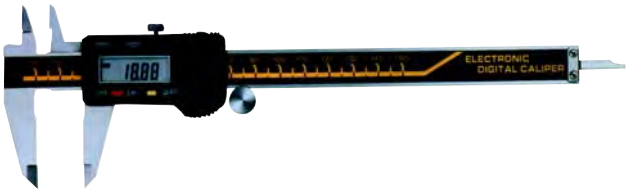
- Featured with pushing power limited device.
- Used to measure the half-soft board.



Range	Graduation	Jaw Length	Plate Dia.	Order No.
150mm/6”	.01mm/.0005”	50mm	20mm	**101-4405**
150mm/6”	.01mm/.0005”	100mm	20mm	**101-4406**
200mm8”	.01mm/.0005”	80mm	30mm	**101-4407**
200mm8”	.01mm/.0005”	150mm	30mm	**101-4408**
300mm/12”	.01mm/.0005”	120mm	50mm	**101-4412**
500mm/20	.01mm/.0005”	150mm	50mm	**101-4415**

Same Direction Upper Jaws Digital Calipers
上同向爪电子卡尺

- To measure the step distance on the same surface and in the same direction.
- To measure the step distance in the same direction , but on different surfaces.



Range	Graduation	Order No.
150mm/6”	.01mm/.0005”	**101-3906**
200mm/8”	.01mm/.0005”	**101-3908**
300mm/12”	.01mm/.0005”	**101-3912**

Jaw Offset Digital Calipers
管壁厚电子卡尺

- Main scale jaw can be slid up and down to facilitate measurement of stepped sections.



Range	Graduation	Jaw Size	Order No.
150mm/6”	.01mm/.0005”	40x110mm	**101-5150**
200mm/8”	.01mm/.0005”	50x120mm	**101-5200**
300mm/12”	.01mm/.0005”	60x130mm	**101-5300**
500mm/20”	.01mm/.0005”	100x210mm	**101-5500**

Tube Digital Calipers
伸缩爪电子卡尺

- To measure the tube thickness(≥ 4mm).



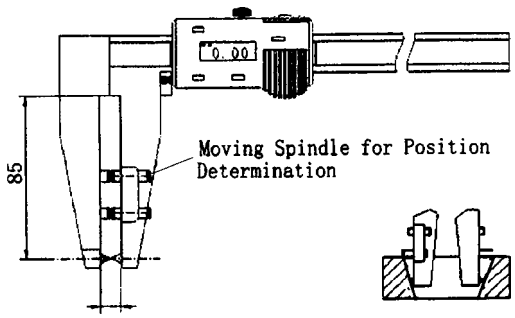
Range	Graduation	Order No.
150mm/6”	.01mm/.0005”	**101-3150**
200mm/8”	.01mm/.0005”	**101-3200**
300mm/12”	.01mm/.0005”	**101-3300**
500mm/20”	.01mm/.0005”	**101-3500**

Digital Brake Drum Gauges

闸圈数显卡尺

- Manual power on/off.
- Zero setting at any position.
- Metric/Inch system conversion at any position.
- With data output interface.
- To measure the wear dimension of the automobile brake drum.
- Made of stainless steel.

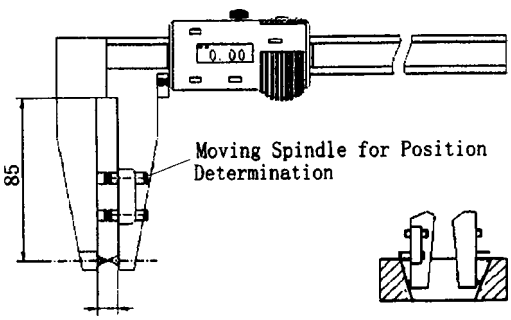




Range (Inch/mm)	Graduation (Inch/mm)	Accuracy (mm)	Order No.
0-12”/0-300	0.0005”/0.01	+/-0.06	**101-1103**

A Type



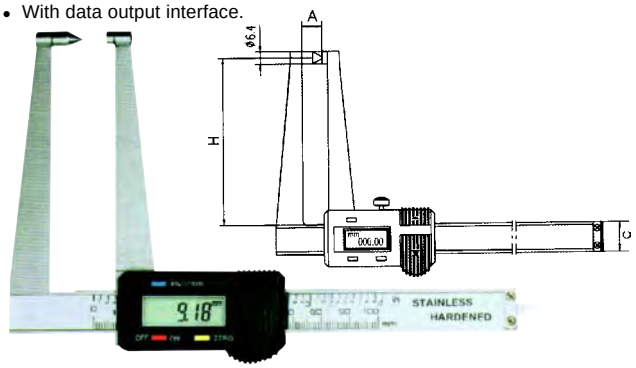


Range (Inch/mm)	Graduation (Inch/mm)	Accuracy (mm)	Order No.
0-20”/0-500	0.0005”/0.01	+/-0.06	**101-1105**

Disc Brake Digital Calipers

刹车片数显卡尺

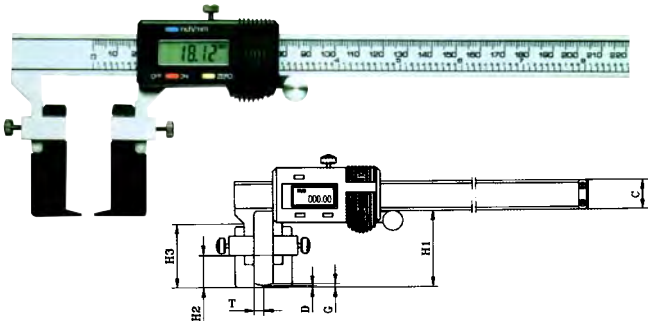
- To measure the depth of grooves on the disc brake.
- Manual power on/off.
- Zero setting at any position.
- Metric/Inch system conversion at any position.
- With data output interface.



Range (Inch/mm)	Graduation (Inch/mm)	Accuracy (mm)	H (mm)	A (mm)	C (mm)	Order No.
0-3”/0-75	0.0005”/0.01	+/-0.03	50	8	13	**101-5503**
0-4”/0-100	0.0005”/0.01	+/-0.03	70	8	13	**101-5504**
0-6”/0-150	0.0005”/0.01	+/-0.04	90	10	16	**101-5506**

Inside & Outside Combined Digital Calipers 组合式内外沟槽数显卡尺

- With interchangeable anvils.
- Manual power on/off.
- Zero setting at any position.
- Metric/Inch system conversion at any position.
- With data output interface.



Range mm	H1 (mm)	H2 (mm)	H3 (mm)	B (mm)	C (mm)	D (mm)	G (mm)	T (mm)
0-6”/0-150	40	17	33	30	16	1	2	5
0-8”/0-200	50	24	40	42	16	1.5	2.5	8
0-12”/0-300	60	32	48	50	17	1.5	3	10



Range (Inch/mm)	Graduation (Inch/mm)	Order No.
0-6”/0-150	0.0005”/0.01	**101-1106**
0-8”/0-200	0.0005”/0.01	**101-1108**
0-12”/0-300	0.0005”/0.01	**101-1112**

Inside Groove Digital Calipers

内槽宽数显卡尺

- Easy to measure the diameter of inside groove.



Range	Graduation	Order No.
125mm/5”	.01mm/.0005”	**101-2705**
150mm/6”	.01mm/.0005”	**101-2706**
200mm/8”	.01mm/.0005”	**101-2708**

Arc Outside Digital Calipers

外圆弧半径电子卡尺

- Easy to measure the radius of a workpiece whose shape is smaller than semi-circle.

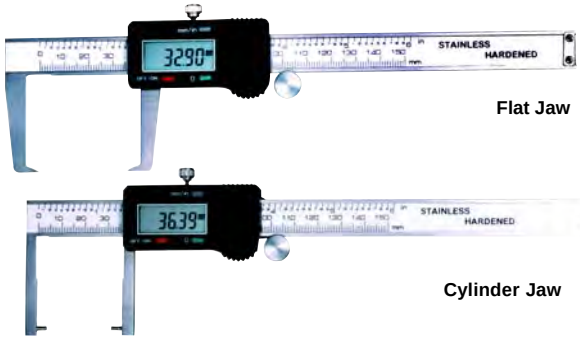


Radius Range	Graduation	Order No.
3-150mm	.01mm/.0005”	**101-5700**

Outside Groove Digital Calipers

外沟槽电子卡尺

- Easy to measure the diameter of outside groove which is hard to reach by normal calipers.



Range	Graduation	Jaw Length	Flat Jaw Order No.	Cylinder Jaw Order No.
150mm/6”	.01mm/.0005”	40mm	**101-1150**	**101-1606**
200mm/8”	.01mm/.0005”	50mm	**101-1200**	**101-1608**
300mm/12”	.01mm/.0005”	60mm	**101-1300**	**101-1612**
500mm/20”	.01mm/.0005”	100mm	**101-1500**	**101-1620**

Inside Groove Digital Calipers

内沟槽电子卡尺

- Easy to measure the diameter of inside groove.



Range	Graduation	Jaw Length	Flat Jaw Order No.	Cylinder Jaw Order No.
150mm/6”	.01mm/.0005”	40mm	**101-2150**	**101-2606**
200mm/8”	.01mm/.0005”	50mm	**101-2200**	**101-2608**
300mm/12”	.01mm/.0005”	60mm	**101-2300**	**101-2612**
500mm/20”	.01mm/.0005”	100mm	**101-2500**	**101-2620**

Battery For Digital Calipers

电池

- Accessory for Electronic Calipers.
- SR44. 1.5V, one year lifetime.



Description	Order No.
Battery for Electronic Calipers	**101-0000**
Battery Plastic Cover for Digital Caliper	**101-0001**

Center Distance Digital Calipers

电子中心距卡尺-小锥头

- Easy measurement solution of hole center to hole center diameter of holes are between 1mm and 10mm.



Range	Graduation	Order No.
5-150mm/0.2-6”	.01mm/.0005”	**101-1706**
5-200mm/0.2-8”	.01mm/.0005”	**101-1708**
5mm-300mm/0.2-12”	.01mm/.0005”	**101-1712**

Welding Groove Digital Calipers

数显焊缝规

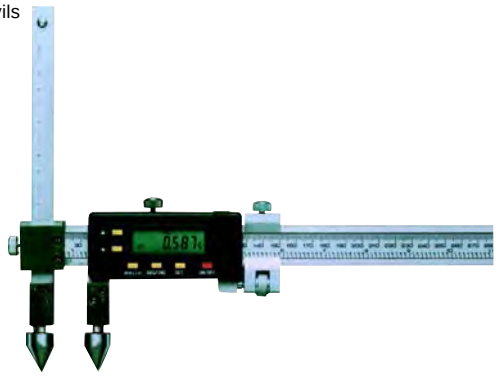


Range	Graduation	Order No.
12.5mm/0.5”	.01mm/.0005”	**101-5600**
60° ,70° , 80° , 90°		

Center Distance Digital Calipers

电子数显中心距卡尺–大锥度测头

- With Cone Anvils



Range	Graduation	Order No.
20-500mm/0.8-20”	0.01mm/0.0005"	**101-1715**
20-1000mm/0.8-40”	0.01mm/0.0005"	**101-1720**
20-2000mm/0.8-80”	0.01mm/0.0005"	**101-1730**

Long Jaws Inside Digital Calipers

下长爪刀口内测数显卡尺

- Easy to obtain the diameter of deep hole with long jaws.



Range	Graduation	Size of Jaw	Order No.
150mm/6”	.01mm/.0005”	60x24mm	**100-2115**
150mm/6”	.01mm/.0005”	90x28mm	**100-2116**
200mm/8”	.01mm/.0005”	80x28mm	**100-2120**
200mm/8”	.01mm/.0005”	100x34mm	**100-2121**
300mm/12”	.01mm/.0005”	150x44mm	**100-2132**
300mm/12”	.01mm/.0005”	90x30mm	**100-2130**
300mm/12”	.01mm/.0005”	120x40mm	**100-2131**
500mm/20”	.01mm/.0005”	120x40mm	**100-2150**
500mm/20”	.01mm/.0005”	150x44mm	**100-2151**
500mm/20”	.01mm/.0005”	180x48mm	**100-2152**

Heavy Duty Digital Calipers

With Fine Adjustment & External Upper Jaws

带微调电子卡尺，带上爪

- Inch/mm conversion (.01mm/.0005”).
- Manual power on/off.
- Zero setting at any position.
- SPC output.



60-90 & 250mm Jaw

Range	Jaw Length	Order No.
300mm/12”	60mm	**100-3030**
300mm/12”	75mm	**100-3031**
300mm/12”	90mm	**100-3032**
500mm/20”	250mm	**100-3053**

100-300 mm Jaw

Range	100mm Jaw Length OrderNo.	150mm Jaw Length Order No.	200mm Jaw Length Order No.	300mm Jaw Length Order No.
450mm/18”	**100-3045**	**100-3046**		**100-3063**
500mm/20”	**100-3050**	**100-3051**	**100-3052**	**100-3082**
600mm/24”	**100-3060**	**100-3061**	**100-3062**	**100-3102**
800mm/32”		**100-3080**	**100-3081**	**100-3152**
1000mm/40”		**100-3100**	**100-3101**	**100-3202**
1500mm/60”		**100-3150**	**100-3151**	
2000mm/80”		**100-3200**	**100-3201**	

Heavy Duty Digital Calipers

No Upper Jaws,with Fine Adjustment

带微调电子卡尺, 无上爪

- Manual power on/off.
- Inch/mm conversion (.01mm/.0005”).
- Fast tracing of maximum or minimum value.
- Zero setting at any position.
- Data hold function.
- SPC out put.



Range	100mm Jaw Length Order No.	150mm Jaw Length Order No.	200mm Jaw Length Order No.	250mm Jaw Length Order No.	300mm Jaw Length Order No.
500mm/20”	**100-5050**	**100-5051**	**100-5052**	**100-5053**	
600mm/24”	**100-5060**	**100-5061**	**100-5062**	**100-5064**	**100-5063**
1000mm/40”		**100-5100**	**100-5101**	**100-5103**	**100-5102**
1500mm/60”		**100-5150**	**100-5151**	**100-5153**	**100-5152**
2000mm/80”			**100-5200**	**100-5201**	**100-5202**

Digital Scale Units 电子标尺

- Made of stainless steel.
- Graduation: .01mm/.0005”
- Each specification of vertical scale has predetermination function.

Horizontal scale units, over 500mm/20” range, have predetermination function.



Horizontal



Horizontal over 500mm/20”



Vertical

Range	Horizontal Reading Order No.	Vertical Reading Order No.
100mm/4”	100-1010	100-0010
150mm/6”	100-1015	100-0015
200mm/8”	100-1020	100-0020
300mm/12”	100-1030	100-0030
400mm/16”	100-1040	100-0040
450mm/18”	100-1045	100-0045

Range	Horizontal Reading Order No.	Vertical Reading Order No.
500mm/20”	100-1050	100-0050
600mm/24”	100-1060	100-0060
750mm/30”	100-1075	100-0075
800mm/32”	100-1080	100-0080
1000mm/40”	100-1100	100-0100
1500mm/60”	100-1150	100-0150
2000mm/80”	100-1200	100-0200

Digital Readout System 欧式数字显示器

For Digital Measuring Tools

The indicator can be used on drilling, lathing, grinding, cutting, and wood working machines along with Digital Scale Units for purpose of easy operation & increasing accuracy.

- mm/Inch conversion: .01mm/.001”.
- Operating range: 999.99mm/39.37”.
- Center-Separation.
- On/Off Switch.
- Zero Reset.
- Magnetic Back.



100-0001/100-0006
Liquid Crystal Display(LCD)



100-0004



100-0005



100-0002
Liquid Crystal Display(LCD)



100-0003
Low Emitting Diode(LED)

Digital Scale Units Not Included

Specification	LCD Order No.	LED Order No.
Three Axis(220V AC Power)	100-0002	100-0003
Three Axis(220V AC Power)	100-0004	100-0005
One Axis 220V	100-0001	
One Axis 110V	100-0006	

Mini-Interface Set 数显量具数据输出适配器

Mini-interface is an integration of interface and COM plugs, designed for portable and easy use

Type A



Specifications	Order No. 101-0041	Oeder No. 101-0042
Data input port	Port for capacitive digital measuring instruments	Port for capacitive digital measuring instruments
Data output port	COM port/RS232 port	USB port
Power supply	Via a PC	Via a PC
Dimensions	80 x 50 x 32mm	80 x 50 x 32mm
Mass	80g	80g

Interface protocol:
Band Tate: 48000 Data Bits: 8 Stop Bit:1
No correction or examination.
Data will be sent in ASCII Code(and TXT) continually. After each datum finishes sending, press <enter>.
There’s no frame for data. Cord ASCII for data measurement consists of 10 bytes starting with sign <+> or sign <->, followed by 7 digits, one decimal point and <Enter>.
With stable bytes transmission.
Followed by a group of data is Code ASCII for <Enter>.
Transmission Rate: 3 times/s.

Type B

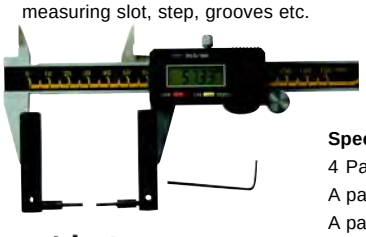


Specifications	Order No. 101-0043	Oeder No. 101-0044
Data input port	Port for capacitive digital measuring instruments	Port for capacitive digital measuring instruments
Data output port	COM port/RS232 port	USB port
Power supply	Via a PC	Via a PC
Dimensions	62 x 33 x 17mm	62 x 33 x 17mm
Mass	30g	30g

Interface protocol:
Band Tate: 48000 Data Bits: 8 Stop Bit:1
No correction or examination.
Data will be sent in ASCII Code(and TXT) continually. After each datum finishes sending, press <enter>.
There’s no frame for data. Cord ASCII for data measurement consists of 10 bytes starting with sign <+> or sign <->, followed by 7 digits, one decimal point and <Enter>.
With stable bytes transmission.
Followed by a group of data is Code ASCII for <Enter>.
Transmission Rate: 3 times/s.

Caliper Accessory Kit 卡尺附件

- Designed for vernier, dial, and electronic calipers.
- For different applications and configurations on hard-to-reach places, measuring slot, step, grooves etc.





Digital caliper not included

Specification
4 Pairs/set,includes:
A pair of Ball Contact Point
A pair of Point Contact Point
A pair of Flat Contact Point
A pair of Spline Contact Point

Order No.101-0020

Optional Extension Bases

深度卡尺附件

- Stainless Steel
- Dial Depth Gages Type

Length	Order No.
7"	610-5007
10"	610-5010
12"	610-5012



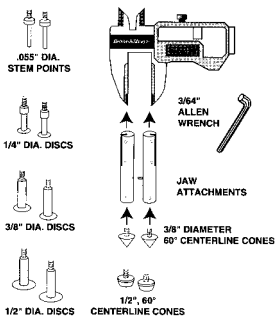
Centerline Plus Accessory Kit

卡尺附件

Fits all 6" Dial,Digital, and Vernier calipers -Jaw attachment slots are manufactured to .140".

Features:

- Exclusive interchangeable centerline cones
- Measure places otherwise impossible to reach with a regular caliper – undercuts, grooves, webs, and shoulders
- Exclusive 4-48 threaded holes in accessory jaws allow the use of any AGD Standard Point equipped with 4-48 threads -- has virtually unlimited uses
- Long life – corrosion protection
- Permanent alignment



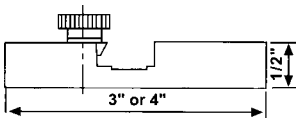


No. of Pieces	Specification	Set Order No.
6Pairs/Set	• 6Pairs/Set,includes: .055"Dia. Stem points 1/4"Dia.Discs 3/8"Dia.Discs 1/2"Dia.Discs 1/2"Dia. 60°Centerline Cones 3/8"Dia. 60°Centerline Cones • Wooden case(Case only **Order No.9100-9186**)	**101-0110**

T-Bar Base Depth Attachment

for Calipers 深度卡尺座

- For 4", 6", 8"& 12" Veinier and Dial calipers
- Choice of 3" or 4" base length for 6" & 8" models
- Finely ground base surface and secure locking clamp





Length	Specifications	Order No.
3"	For 4,6 8" Calipers	**101-0003**
4"	For 4,6 8" Calipers	**101-0004**
5"	For 12" Calipers only	**101-0005**

Caliper Depth Base Attachment

深度卡尺座

1/8" thick, 5/8" wide holder, 3x1/4" base

Order No. 610-5001



Caliper Clamp On Jaw

卡尺附件

Turn your Caliper into a versatile and accurate depth measurement device. Small, light, and corrosion resistant.Clamp On attaches to any Caliper Jaw in seconds. Thin probes in differing lengths can be used singly or in pairs to measure depths of grooves, blind holes, and other places otherwise impossible to reach.

Material is Stainless Steel, 4-48 Threads.

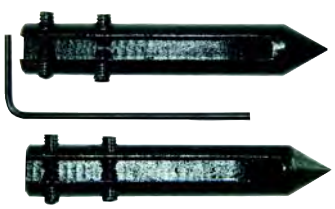
Dimensions	Order No.
Jaw clamp On for 6" Calipers .133 Max.jaw Width (Sold singly)	**101-0002**



Centerline Gage Sets

卡尺测头

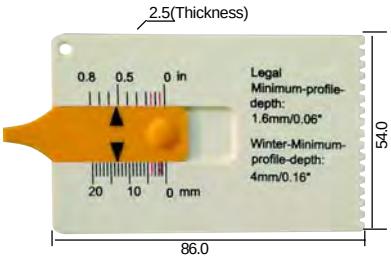
- Designed for dial, vernier and digital calipers, measure centerline distance.
- Sold in pairs, these gages quickly adapt to most calipers.
- Constructed of high quality alloy steel hardened to 50 RC, black oxide finish.



Description	Dia.	Length	Jaw Thickness	Order No.
For 4",6",8" calipers	.375"	2.195"	.155"	**101-0008**
For 10",12" calipers	.500"	2.750"	.188"	**101-0012**

Plastic Tyre Profile Depth Gage
轮胎花纹深度尺

- With metric and inch scales. The red scale can help judge quickly if the tread profile depth on the safe level
- The bevel edge with saw teeth can be used to scrape off the snow or ice on the windsreen and wing mirrors
- Made of ABS plastic, which is a good choice for promtion.



Range: 0-20mm/0-0.8”

Order No. 615-6400

Digital Thread Depth Gauge
数显胎纹尺

- Large LCD display.
- Zero setting at any posistion.
- Metric/Inch system interchange.
- Manual power on/off.
- Suitable for thread depth, brake shoe and pad wear.



Black-Hoursing, black frame

Order No. 110-0100

Blue-Hoursing, black frame

Order No. 110-0101

Range	Resolution	Operation Temperture	Weight
0-25mm/1”	0.01mm/0.0005”	-5°C~40°C	40g

Adjustable Angle Depth Gages
可调角度深度规

- Front side of head has a “V” groove to hold depth rod in upright position
- 6” stainless steel rule;
- Hardened and ground steel base.
- Not precisely a protractor, but the angle measurements in 15 degree increment are a use ful and welcomed feature.



Range	Graduation	Order No.
6”	0.5mm	**615-6122**

Digital Depth Gages
电子深度卡尺

- Graduation .01mm/.0005”
- Three Key Type is popular than auto on/off type .

Without Hook



Range	Base	Three key Order No.
0-150mm /6”	100mm	**110-2150**
0-200mm /8”	100mm	**110-2200**
0-300mm/12”	100mm	**110-2300**
0-500mm/20”	120mm	**110-2500**
0-150mm /6”	150mm	**110-2151**
0-200mm/8”	150mm	**110-2201**
0-300mm/12”	150mm	**110-2301**
0-500mm/20”	150mm	**110-2501**
0-500mm /20”	200mm	**110-2502**

With Hook



Range	Base	Three key Order No.
0-150mm /6”	100mm	**110-3150**
0-200mm /8”	100mm	**110-3200**
0-300mm/12”	100mm	**110-3300**
0-500mm/20”	120mm	**110-3500**
0-150mm /6”	150mm	**110-3151**
0-200mm/8”	150mm	**110-3201**
0-300mm/12”	150mm	**110-3301**
0-500mm/20”	150mm	**110-3501**
0-500mm /20”	200mm	**110-3502**

Double Dial Depth Caliper
深度带表卡尺

- Dial is graduated in both inch and metric.
- Features separate hands for inch and metric measurements for easy recognition
- Range per revolution: .100”/2mm
- Graduations:.001”/.02mm
- Made of hardened stainless steel
- Include case

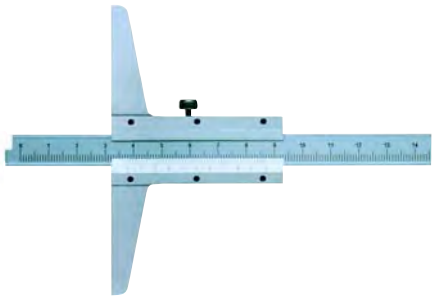


Range	Order No.
0-6”/150mm	**102-0616**
0-8”/200mm	**102-0618**

Vernier Depth Gages 不锈钢游标深度卡尺

Basic Model

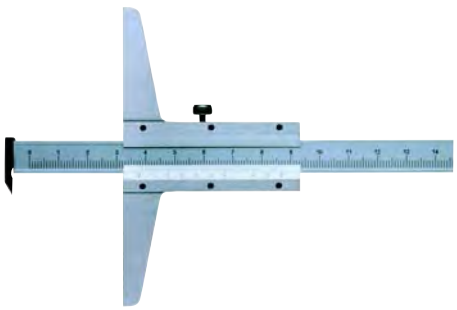
- Designed for measuring depth of holes, slots and recesses.
- Clear graduations on satin chrome finish.
- All bases are hardened and micro-lapped.



Without Hook

Range	Grad.	Base	Carbon Steel Order No.	Stainless Steel Order No.
0-6”	.001”	4”	**111-0060**	**112-0060**
0-8”	.001”	4”	**111-0084**	**112-0084**
0-12”	.001”	4”	**111-0124**	**112-0124**
0-20”	.001”	4”	**111-0140**	**112-0140**
0-6”	1/128”	4”	**111-0061**	**112-0061**
0-8”	1/128”	4”	**111-0086**	**112-0086**
0-12”	1/128”	4”	**111-0125**	**112-0125**
0-20”	1/128”	4”	**111-0141**	**112-0141**
0-8”/200mm	.001”/.02mm	4”	**111-0620**	**112-0620**
0-12”/300mm	.001”/.02mm	4”	**111-0621**	**112-0621**

Range	Grad.	Base	Carbon Steel Order No.	Stainless Steel Order No.
0-150mm	.02mm	100mm	**111-0152**	**112-0152**
0-200mm	.02mm	100mm	**111-0202**	**112-0202**
0-300mm	.02mm	100mm	**111-0302**	**112-0302**
0-500mm	.02mm	100mm	**111-0502**	**112-0502**
0-150mm	.05mm	100mm	**111-0155**	**112-0155**
0-200mm	.05mm	100mm	**111-0205**	**112-0205**
0-300mm	.05mm	100mm	**111-0305**	**112-0305**
0-500mm	.05mm	100mm	**111-0505**	**112-0505**



With Hook

Range	Grad.	Base	Carbon Steel Order No.	Stainless Steel Order No.
0-8”	.001”	4”	**111-1084**	**112-1084**
0-12”	.001”	4”	**111-1124**	**112-1124**
0-20”	.001”	4”	**111-1140**	**112-1140**
0-8”	1/128”	4”	**111-1086**	**112-1086**
0-12”	1/128”	4”	**111-1125**	**112-1125**
0-20”	1/128”	4”	**111-1141**	**112-1141**
0-8”/200mm	.001”/.02mm	4”	**111-1620**	**112-1620**
0-12”/300mm	.001”/.02mm	4”	**111-1621**	**112-1621**

Range	Grad.	Base	Carbon Steel Order No.	Stainless Steel Order No.
0-200mm	.02mm	100mm	**111-1202**	**112-1202**
0-300mm	.02mm	100mm	**111-1302**	**112-1302**
0-500mm	.02mm	100mm	**111-1502**	**112-1502**
0-200mm	.05mm	100mm	**111-1205**	**112-1205**
0-300mm	.05mm	100mm	**111-1305**	**112-1305**
0-500mm	.05mm	100mm	**111-1505**	**112-1505**



Mono-Block Type

Range	Grad.	Base	Carbon Steel Order No.	Stainless Steel Order No.
0-150mm	.02mm	80mm	**111-2152**	**112-2152**
0-200mm	.02mm	100mm	**111-2202**	**112-2202**
0-300mm	.02mm	100mm	**111-2302**	**112-2302**
0-300mm	.02mm	150mm		**112-2303**
0-400mm	.02mm	100mm	**111-2402**	**112-2402**
0-400mm	.02mm	150mm		**112-2403**
0-500mm	.02mm	100mm	**111-2502**	**112-2502**
0-500mm	.02mm	150mm		**112-2503**
0-150mm	.05mm	80mm	**111-2155**	**112-2155**
0-200mm	.05mm	100mm	**111-2205**	**112-2205**
0-300mm	.05mm	100mm	**111-2305**	**112-2305**
0-300mm	.05mm	150mm		**112-2306**
0-400mm	.05mm	100mm	**111-2405**	**112-2405**
0-400mm	.05mm	150mm		**112-2406**
0-500mm	.05mm	100mm	**111-2505**	**112-2505**
0-500mm	.05mm	150mm		**112-2506**

Precision Vernier Height Gages

碳钢游标高度尺, 普通型

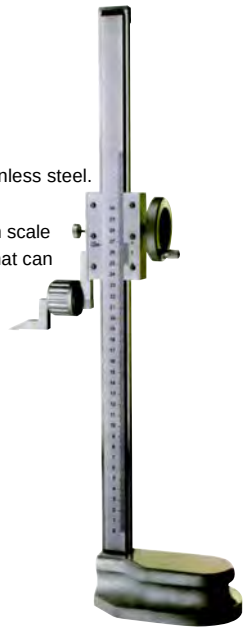


- With fine adjustment and lock.
- Made of high quality tool steel.
- Including offset steel scriber.
- Supplied in fitted case.

Range	Gradu.	Order No.	Grad.	Order No.
0-200mm	.02mm	**622-8222**	.05mm	**622-8225**
0-300mm	.02mm	**622-8232**	.05mm	**622-8235**
0-350mm	.02mm	**622-8237**	.05mm	**622-8239**
0-400mm	.02mm	**622-8242**	.05mm	**622-8245**
0-500mm	.02mm	**622-8252**	.05mm	**622-8255**
0-550mm	.02mm	**622-8257**	.05mm	**622-8259**
0-600mm	.02mm	**622-8262**	.05mm	**622-8265**
0-1000mm	.02mm	**622-8312**	.05mm	**622-8315**

Side Wheel Vernier Height Gages

无视差游标高度尺



- Both main scale and vernier are made of stainless steel.
- Height measurement and scribing.
- No parallax reading. The reading lines of main scale and vernier are at the same horizontal line. That can effectually avoid section parallax.
- Large cross-section area of scale body and infexible vertical shaft ensure the quality of scribing and repeated measurement.
- Vernier can make precision fine adjustable measurement through handwheel.

Range	Graduation	Accuracy	Order No.
0-300mm	.01mm	+/-0.05	**621-8401**
0-450mm	.01mm	+/-0.08	**621-8402**
0-500mm	.01mm	+/-0.08	**621-8403**
0-600mm	.01mm	+/-0.09	**621-8404**

Precision Adjustable Height Gages

可调游标高度尺, 带放大镜



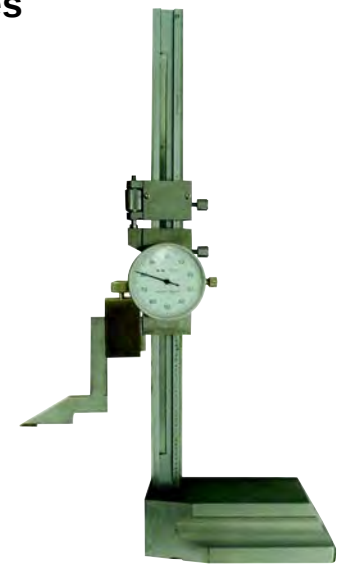
- With Cam-Lock scriber mounting.
- With fine adjustment and lock.
- Include: Straight steel scriber.
  Offset steel scriber.
  Square holding bar.
  Magnifying glass.
- Supplied in fitted case.

Range	Grad.	Base Size	Carbon Steel Order No.	Stainless Steel Order No.
0-10”	.001”	4.8x3.2”	**622-8511**	**621-8511**
0-10”/250mm	.001”/.02mm	3.0x4.0”	**622-8510**	**621-8510**
0-12”/300mm	.001”/.02mm	3.3x4.9”	**622-8512**	**621-8512**
0-18”/450mm	.001”/.02mm	4.7x7”	**622-8518**	**621-8518**
0-20”/500mm	.001”/.02mm	4.7x7”	**622-8520**	**621-8520**
0-24”/600mm	.001”/.02mm	4.7x7”	**622-8524**	**621-8524**
0-40”/1000mm	.001”/.02mm	5.9x9.9”	**622-8540**	**621-8540**

Range	Grad.	Carbon Steel Order No.	Stainless Steel Order No.
0-300mm	.02mm	**622-8442**	**621-8442**
0-500mm	.02mm	**622-8444**	**621-8444**
0-600mm	.02mm	**622-8446**	**621-8446**
0-1000mm	.02mm	**622-8448**	**621-8448**
0-300mm	.05mm	**622-8450**	**621-8450**
0-500mm	.05mm	**622-8452**	**621-8452**

Dial Height Gages

单柱带表高度尺



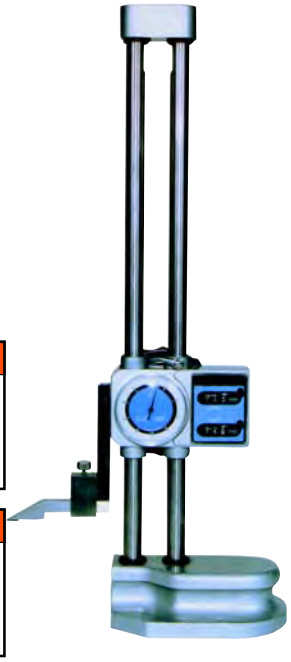
- With fine adjustment and lock.
- Has a carbide tipped scriber.
- Made of stainless steel.
- Black face or white face.
- Shock proof.
- Right hand type for easy use.
- Supplied in fitted case.

Range	Graduations	White Face Order No.	Black Face Order No.
0-6”	.001”	**621-7506**	**621-7606**
0-8”	.001”	**621-7508**	**621-7608**
0-12”	.001”	**621-7512**	**621-7612**
0-150mm	.01mm	**621-7115**	**621-7215**
0-200mm	.01mm	**621-7120**	**621-7220**
0-300mm	.01mm	**621-7130**	**621-7230**
0-150mm	.02mm	**621-7315**	**621-7415**
0-200mm	.02mm	**621-7320**	**621-7420**
0-300mm	.02mm	**621-7330**	**621-7430**
150mm/6”	.02mm/.001”	**621-7806**	**621-7906**
200mm/8”	.02mm/.001”	**621-7808**	**621-7908**
300mm/12”	.02mm/.001”	**621-7812**	**621-7912**

Digital Counter Double Beam Height Gages

双柱带表高度尺

- .001” graduation, .1” dial reading digital counter.
- Double digital counter can be zero-set at an any height within range by pressing zero-reset button.
- Features a large feed wheel for coarse & fine vertical adjustments.
- Carbide tipped scriber.
- Bottom surface hardened & ground.
- Supplied in fitted case.



Range	Grad.	Order No.
0-12”	.001”	**621-8412**
0-18”	.001”	**621-8418**
0-20”	.001”	**621-8420**
0-24”	.001”	**621-8424**

Range	Grad.	Order No.
0-300mm	.01mm	**621-8530**
0-450mm	.01mm	**621-8545**
0-500mm	.01mm	**621-8550**
0-600mm	.01mm	**621-8560**

Digital Counter Three Beam Height Gages

三柱带表高度尺

- .001”/.01mm graduation, .1” dial reading digital counter.
- Three beam type provides high rigidity for large sizes.
- Three beam digital counter can be zero-set at an any height within range by pressing zero-reset button.
- Features a large feed wheel for coarse & fine vertical adjustments.
- Carbide tipped scriber.
- Bottom surface hardened & ground.
- Supplied in fitted case.



Range	Grad.	Order No.
0-32”	.001”	**621-7032**
0-40”	.001”	**621-7040**
0-800mm	.01mm	**621-7080**
0-1000mm	.01mm	**621-7100**

Electronic Digital Height Gages

电子数显单柱高度尺

Saddle Base

- Stainless Steel.
- Large Screen.
- Inch/Metric conversion.
- Relative/Absolute conversion.
- Preset memory functions.
- SPC Output.
- Rotate tighten scriber clamp.
- Supplied in fitted case.



Range	Graduation	Order No.
0-300mm/0-12"	.01mm/.0005”	**621-7813**
0-450mm/0-18"	.01mm/.0005”	**621-7814**
0-500mm/0-20"	.01mm/.0005”	**621-7815**
0-600mm/0-24"	.01mm/.0005”	**621-7816**
0-1000mm/0-40"	.01mm/.0005”	**621-7821**
0-1500mm/0-60"	.01mm/.0005”	**621-7822**

Electronic Digital Height Gages

电子数显单柱高度尺

T - Base

- Switchable Inch/Metric high contrast LCD with fine adjustment device and carbide tipped scriber.
- Made of hardened steel, precision ground and micro-lapped base.
- Two standard 1.5 V batteries.
- Supplied in fitted case.



Ranged	Graduation	Order No.
0-300mm/0-12”	.01mm/.0005”	**621-8390**
0-600mm/0-24”	.01mm/.0005”	**621-8394**
0-500mm0-20”	.01mm/.0005”	**621-8395**
0-1000mm/0-40”	.01mm/.0005”	**621-8396**

Electronic Double Beam Digital Height Gages

双柱电子数显高度尺



Light Duty

- Made of stainless steel.
- Supplied in fitted case.

Range	Graduation	Order No.
0-300mm/0-12”	.01mm/.001”	621-8312
0-450mm/0-18”	.01mm/.001”	621-8318
0-500mm/0-20”	.01mm/.001”	621-8320
0-600mm/0-24”	.01mm/.001”	621-8324

Electronic Digital Height Gage

轻型电子数显高度尺

- Made of stainless steel throughout.
- Bases is hardened throughout.
- The robust construction with a column provides highly repeatable measurements.
- Fine adjustment control for smooth movement.
- Carbide-tipped scriber.
- With RS232 output.
- Battery: 3V Cr2032 battery.
- With wooded case.





Function:

- mm/inch conversion
- ABS and INC mode
- Power on, off
- Zero setting

Range	Grad.	Accuracy	Order No.
0-200mm/8”	0.01mm/0.0005”	0.03mm/0.0015”	621-7842
0-300mm/12”	0.01mm/0.0005”	0.04mm/0.002”	621-7844
0-500mm/20”	0.01mm/0.0005”	0.04mm/0.002”	621-7848
0-600mm/24”	0.01mm/0.0005”	0.05mm/0.0025”	621-7850

Electronic Side Wheel Digital Height Gages

双芯片手轮移动数显高度尺

- Both main scale and vernier are made of stainless steel.
- Height measurement and scribing.
- Structure of double CMOS chips and stable characteristic.
- Vernier have two frames: handwheel movement and quick movenent. The movement of handwheel can make precision fine asjustable measurement.
- Set zero at discretion. INC/ABC. Transfer of measurement. Keeping of data. Power ON/OFF. Metric/Inch transfer.
- Battery SR44.



Range	Graduation	Accuracy	Order No.
0-300mm/12”	.01mm/.0005”	+/-0.04	621-7831
0-450mm/18”	.01mm/.0005”	+/-0.05	621-7832
0-500mm/20”	.01mm/.0005”	+/-0.05	621-7833
0-600mm/24”	.01mm/.0005”	+/-0.05	621-7834

Optional Height Gage Component



Chrome Plated Saddle Base



Painted Saddle Base



Chrome Plated T- Base



Rotate Tighten Clamp



Screw Tighten Clamp

Please advise us if you prefer to certain type of bases or Clamps

Scribers & Clamps

高度尺划线爪框



Stainless Steel

Description	Scriber Order No.	Clamp Order No.
for 150mm/6” dial height gage	621-A006	621-A106
for 200mm/8” dial height gage	621-A008	621-A108
for 300mm/12” dial height gage	621-A012	621-A112
for 12-40” double beam counter	621-D000	621-D010
for 300mm/12” electronic double beam	621-E012	621-E112
for 450mm/18” electronic double beam	621-E018	621-E118
for 500mm/20” electronic double beam	621-E020	621-E120
for 600mm/24” electronic double beam	621-E024	621-E124
for 1000mm/40” electronic double beam	621-E040	621-E140
for 300mm/12” electrical digital	621-G012	621-G112
for 500mm/20” electrical digital	621-G020	621-G120
for 600mm/24” electrical digital	621-G024	621-G124
for 1000mm/40” electrical digital	621-G040	621-G140
for 800mm/32” three beam height gage	621-T032	621-T132
for 1000mm/40” three beam height gage	621-T040	621-T140
for 250mm/10” stainless steel vernier	621-V010	621-V110
for 300mm/12” stainless steel vernier	621-V012	621-V112
for 450mm/18” stainless steel vernier	621-V018	621-V118
for 500mm/20” stainless steel vernier	621-V020	621-V120
for 600mm/24” stainless steel vernier	621-V024	621-V124
for 1000mm/40” stainless steel vernier	621-V040	621-V140

Carbon Steel

Descriptions	Scriber Order No.	Clamp Order No.
for 250mm/10” carbon steel vernier	622-V010	622-V110
for 300mm/12” carbon steel vernier	622-V012	622-V112
for 450mm/18” carbon steel vernier	622-V018	622-V118
for 500mm/20” carbon steel vernier	622-V020	622-V120
for 600mm/24” carbon steel vernier	622-V024	622-V124
for 1000mm/40” carbon steel vernier	622-V040	622-V140

Test Indicator Holder 高度尺用表座

for Eletronic Digital Height Gage



Range	Order No.
Inch dovetail fit and 7/32" & 3/8" holes	621-H006
Metric dovetail fit and 4 & 8mm holes	621-H016
Square 9x9mmx75mm	605-0017

Outside Micrometers 外径千分尺

- Deluxe heat insulated forged steel frame up to 6".
- Tubular steel frame (6" and up).
- Complete with standards (2"and up).
- Carbide tipped anvils.
- Ratchet stop and lock nut for exact and repetitive reading.



Range	Grad.	Painted Order No.	Chrome-Plated Order No.
0-1/2	.001"		601-1001
0-1"	.001"	600-0001	601-0001
1-2"	.001"	600-0002	601-0002
2-3"	.001"	600-0003	601-0003
3-4"	.001"	600-0004	601-0004
4-5"	.001"	600-0005	601-0005
5-6"	.001"	600-0006	601-0006
6-7"	.001"	600-0007	601-0007
7-8"	.001"	600-0008	601-0008
8-9"	.001"	600-0009	
9-10"	.001"	600-0010	
10-11"	.001"	600-0011	
11-12"	.001"	600-0012	

Range	Grad.	Painted Order No.	Chrome-Plated Order No.
0-1"	.0001"	600-0111	601-0111
1-2"	.0001"	600-0112	601-0112
2-3"	.0001"	600-0113	601-0113
3-4"	.0001"	600-0114	601-0114
4-5"	.0001"	600-0125	601-0115
5-6"	.0001"	600-0126	601-0116
6-7"	.0001"	600-0127	601-0117
7-8"	.0001"	600-0128	601-0118
8-9"	.0001"	600-0119	
9-10"	.0001"	600-0210	
10-11"	.0001"	600-0211	
11-12"	.0001"	600-0212	

Range	Grad.	Painted Order No.	Chrome-Plated Order No.
0-25mm	.001mm	600-5025	601-5025
25-50mm	.001mm	600-5050	601-5050
50-75mm	.001mm	600-5075	601-5075
75-100mm	.001mm	600-5100	601-5100
0-13mm	.01mm		601-A013
0-25mm	.01mm	600-4025	601-4025
25-50mm	.01mm	600-4050	601-4050
50-75mm	.01mm	600-4075	601-4075
75-100mm	.01mm	600-4100	601-4100
100-125mm	.01mm	600-4125	601-4125
125-150mm	.01mm	600-4150	601-4150
150-175mm	.01mm	600-4175	601-4175
175-200mm	.01mm	600-4200	601-4200

Outside Micrometer Sets 套装外径千分尺

Horizontal Packing

- Ratchet and lock nut.
- Complete with standards (2" and up).
- Carbide tipped anvils.
- Forged steel frame up to 6".
- Tubular steel frame (6" and up).
- Supplied in fitted plastic case



Piece	Range	Grad.	Painted Order No.	Chrome-Plated Order No.	Grad.	Painted Order No.	Chrome-Plated Order No.
3Pcs/set	0-3"	.001"	600-1003	601-1003	.0001"	600-1013	601-1013
4Pcs/set	0-4"	.001"	600-1004	601-1004	.0001"	600-1014	601-1014

Piece	Range	Grad.	Painted Order No.	Chrome-Plated Order No.
3Pcs/set	0-75mm	.01mm	600-1023	601-1023
4Pcs/set	0-100mm	.01mm	600-1024	601-1024

Vertical Packing

- Ratchet and lock nut.
- Complete with standards (2" and up).
- Carbide tipped anvils.
- Forged steel frame up to 6".
- Tubular steel frame (6" and up).
- Supplied in fitted case



Piece	Range	Grad.	Painted Order No.	Chrome-Plated Order No.	Grad.	Painted Order No.	Chrome-Plated Order No.
6Pcs/set	0-6"	.001"	600-1006	601-1006	.0001"	600-1016	601-1016
6Pcs/set	6-12"	.001"	600-1009		.0001"	600-1019	
12Pcs/set	0-12"	.001"	600-1012		.0001"	600-1122	

Piece	Range	Graduation	Painted Order No.	Chrome-Plated Order No.
6Pcs/set	0-150mm	.01mm	600-1026	601-1026
12Pcs/set	0-300mm	.01mm	600-1212	
4Pcs/set	100-200mm	.01mm	600-1126	
6Pcs/set	150-300mm	.01mm	600-1029	
4Pcs/set	200-300mm	.01mm	600-1129	

Slim Outside Micrometers
棘轮套测力普通尺架千分尺

- Deluxe heat insulated forged steel frame up to 6”.
- Tubular steel frame (6”and up).
- Complete with standards (2”and up).
- Carbide tipped anvils.
- The new slim thimble design is comfortable to hold.
- Small size for one hand holding.



Range	Grad.	Painted Order No.	Chrome-Plated Order No.	Grad.	Painted Order No.	Chrome-Plated Order No.
0-1”	.001”	**6V0-0001**	**6V1-0001**	.0001”	**6V0-0111**	**6V1-0111**
1-2”	.001”	**6V0-0002**	**6V1-0002**	.0001”	**6V0-0112**	**6V1-0112**
2-3”	.001”	**6V0-0003**	**6V1-0003**	.0001”	**6V0-0113**	**6V1-0113**
3-4”	.001”	**6V0-0004**	**6V1-0004**	.0001”	**6V0-0114**	**6V1-0114**
4-5”	.001”	**6V0-0005**	**6V1-0005**	.0001”	**6V0-0115**	**6V1-0115**
5-6”	.001”	**6V0-0006**	**6V1-0006**	.0001”	**6V0-0116**	**6V1-0116**
6-7”	.001”.	**6V0-0007**	**6V1-0007**	.0001”	**6V0-0117**	**6V1-0117**
7-8”	.001”	**6V0-0008**	**6V1-0008**	.0001”	**6V0-0118**	**6V1-0118**
8-9”	.001”	**6V0-0009**		.0001”	**6V0-0119**	
9-10”	.001”	**6V0-0010**		.0001”	**6V0-0210**	
10-11”	.001”	**6V0-0011**		.0001”	**6V0-0211**	
11-12”	.001”	**6V0-0012**		.0001”	**6V0-0212**	

Range	Grad.	Painted Order No.	Chrome-plated Order No.
0-25mm	.001mm	**6V0-5025**	**6V1-5025**
25-50mm	.001mm	**6V0-5050**	**6V1-5050**
50-75mm	.001mm	**6V0-5075**	**6V1-5075**
75-100mm	.001mm	**6V0-5100**	**6V1-5100**
0-25mm	.01mm	**6V0-4025**	**6V1-4025**
25-50mm	.01mm	**6V0-4050**	**6V1-4050**
50-75mm	.01mm	**6V0-4075**	**6V1-4075**
75-100mm	.01mm	**6V0-4100**	**6V1-4100**
100-125mm	.01mm	**6V0-4125**	**6V1-4125**
125-150mm	.01mm	**6V0-4150**	**6V1-4150**
150-175mm	.01mm	**6V0-4175**	**6V1-4175**
175-200mm	.01mm	**6V0-4200**	**6V1-4200**
200-225mm	.01mm	**6V0-4225**	
225-250mm	.01mm	**6V0-4250**	
250-275mm	.01mm	**6V0-4275**	
275-300mm	.01mm	**6V0-4300**	

Slim Outside Micrometer Sets
套装棘轮套测力千分尺

Horizontal Packing

- Ratchet and lock nut.
- Complete with standards(2” and up)
- Carbide tipped anvils.



Piece	Range	Grad.	Painted Order No.	Chrome-Plated Order No.	Grad.	Painted Order No.	Chrome-Plated Order No.
3Pcs/set	0-3”	.001”	**6V0-1003**	**6V1-1003**	.0001”	**6V0-1013**	**6V1-1013**
4Pcs/set	0-4”	.001”	**6V0-1004**	**6V1-1004**	.0001”	**6V0-1014**	**6V1-1014**

Piece	Range	Grad.	Painted Order No.	Chrome-plated Order No.
3Pcs/set	0-75mm	.01mm	**6V0-1023**	**6V1-1023**
4Pcs/set	0-100mm	.01mm	**6V0-1024**	**6V1-1024**

Vertical Packing

- Ratchet and lock nut.
- Complete with standards(2” and up)
- Carbide tipped anvils.



Piece	Range	Grad.	Painted Order No.	Chrome-Plated Order No.	Grad.	Painted Order No.	Chrome-Plated Order No.
6Pcs/set	0-6”	.001”	**6V0-1006**	**6V1-1006**	.0001”	**6V0-1016**	**6V1-1016**
6Pcs/set	6-12”	.001”	**6V0-1009**		.0001”	**6V0-1019**	
12Pcs/set	0-12”	.001”	**6V0-1012**		.0001”	**6V0-1122**	

Piece	Range	Grad.	Painted Order No.	Chrome-plated Order No.
6Pcs/set	0-150mm	.01mm	**6V0-1026**	**6V1-1026**
6Pcs/set	150-300mm	.01mm	**6V0-1029**	
12Pcs/set	0-300mm	.01mm	**6V0-1212**	

Indicator Micrometers 带表杠杆千分尺

- Carbide faces.
- Chrome-plated frame.
- Premium quality.
- Can be used as a Go/ No Go gage.



Type 1

Range	Graduation	Dial Scale	Order No.
0-1”	.00005”	-15~0~+15	**600-0501**
1-2”	.00005”	-15~0~+15	**600-0502**
0-25mm	.001mm	-40~0~+40	**600-0511**
25-50mm	.001mm	-40~0~+40	**600-0512**



Type2

Range	Graduation	Dial Scale	Order No.
0-1”	.00005”	-15~0~+15	**600-0521**
1-2”	.00005”	-15~0~+15	**600-0522**
0-25mm	.001mm	-40~0~+40	**600-0531**
25-50mm	.001mm	-40~0~+40	**600-0532**

A-Type Outside Micrometers

外径千分尺 A型



Range	Grad.	Chrom-Plated Order No.
0-15mm	.01mm	601-A013
0-25mm	.01mm	601-A025
0-0.6”	.001”	601-1001
0-1”	.001”	601-A001
0-1”	.0001”	601-A011

B-Type Outside Micrometers

外径千分尺 B型



Range	Grad.	Chrom-Plated Order No.
0-25mm	.01mm	601-B025
0-25mm	.001mm	601-B026
0-1”	.001”	601-B001
0-1”	.0001”	601-B011

C-Type Outside Micrometers

外径千分尺 C型

- Ratchet stop.
- Complete with standards (2” and up).





Inch Individuals

Range	.001” Order No.	.0001” Order No.
0-1”	600-C001	600-C011
1-2”	600-C002	600-C012
2-3”	600-C003	600-C013
3-4”	600-C004	600-C014
4-5”		600-C015
5-6”		600-C016

Metric Individuals

Range	Grad.	Order No.
0-25mm	.01mm	600-C025
25-50mm	.01mm	600-C050
50-75mm	.01mm	600-C075
75-100mm	.01mm	600-C100
100-125mm	.01mm	600-C125
125-150mm	.01mm	600-C150

Inch Sets

Pcs/Set	Range	Grad.	Order No.
3	0-3”	.0001”	600-C403
4	0-4”	.0001”	600-C404
6	0-6”	.0001”	600-C406

Metric Sets

Pcs /set	Range	Grad.	Order No.
3	0-75mm	.01mm	600-C303
4	0-100mm	.01mm	600-C304
6	0-150mm	.01mm	600-C306

Parallax Free Outside Micrometers

无视差微米千分尺

- No parallax error sleeve scale.
- Ratchet friction thimble.



Range	Painted .0001” Order No.	Chrome-Plated .0001” Order No.	Chrome-Plated .00005” Order No.
0-1”	600-9141	601-9141	601-9101
1-2”	600-9142	601-9142	601-9112
2-3”	600-9143	601-9143	601-9123
3-4”	600-9144	601-9144	
4-5”	600-9145	601-9145	
5-6”	600-9146	601-9146	
6-7”	600-9147	601-9147	
7-8”	600-9148	601-9148	

Range	Grad.	Painted Order No.	Chrome- Plated Order No.
0-15mm	.002mm		601-9140
0-25mm	.001mm	600-9130	601-9130
25-50mm	.001mm	600-9131	601-9131
50-75mm	.001mm	600-9132	601-9132
75-100mm	.001mm	600-9133	601-9133
100-125mm	.001mm	600-9134	601-9134
125-150mm	.001mm	600-9135	601-9135
150-175mm	.001mm	600-9136	601-9136
175-200mm	.001mm	600-9137	601-9137

Digital Outside Micrometer Sets

套装计数器数字外径千分尺

- 0-3”(0-75mm) & 0-4”(0-100mm): Horizontal packing, 0-6”(0-150mm), 0-12”(0-300mm) & 6-12”(150-300mm): Vertical packing.



Piece	Range	Wooden Case .001” Order No.	Wooden Case .0001” Order No.	Plastic Case .0001” Order No.
3-pc set	0- 3”	600-3203		600-3213
4-pc set	0-4”	600-3204		600-3214
6-pc set	0-6”	600-3206	600-3216	
6-pc set	6-12”	600-3207	600-3217	
12-pc set	0-12”	600-3208	600-3218	

Piece	Range	Wooden Case .01mm Order No.	Plastic Case .01mm Order No.
3-pc set	0-75mm		600-3275
4-pc set	0-100mm		600-3300
6-pc set	0-150mm	600-3350	
6-pc set	150-300mm	600-3355	
12-pc set	0-300mm	600-3360	

Electronic Digital Outside Micrometers

IP54,Water Proof IP54防水电子数显外径千分尺

- The water proof digital outside micrometer's degree of protection is IP 54.
- Friction thimble.
- Zero setting at any position.
- Metric/Inch system conversion at any position.



2 Key

Range	Graduation	Order No.
0-1"/0-25mm	.000005"/.0001mm	600-8051
1-2"/25-50mm	.000005"/.0001mm	600-8052
2-3"/50-75mm	.000005"/.0001mm	600-8053
3-4"/75-100mm	.000005"/.0001mm	600-8054

3 Key

Range	Graduation	Order No.
0-1"/0-25mm	.00005"/.001mm	600-8071
1-2"/25-50mm	.00005"/.001mm	600-8072
2-3"/50-75mm	.00005"/.001mm	600-8073
3-4"/75-100mm	.00005"/.001mm	600-8074

Outside Micrometer

镀鎔外径千分尺（尺架刻对照表）

Chrome, Equivalent Chart



- Satin-chrome finish
- Carbide measuring faces
- Convertible "friction" to "feel" thimble sleeve
- Spindle locks are standard
- 1-2" and 3-3" moldels have inaulated frames

Range	Grad.	Order No.
0-1"	0.0001"	601-0501
1-2	0.0001	601-0502
0-25mm	0.01mm	601-0525
25-50	0.01	601-0550

Electronic Digital Outside Micrometer

2 Key Model 数显外径千分尺

- Value presetting.
- The ratchet stop still works even with one hand operation, while regular micrometers don't.
- Absolute and incremental measurement mode switching.
- Less buttons and multi-function.



Range	Graduation	Order No.
0-1"/25mm	.00005"/.001mm	600-8061
1-2"/25-50mm	.00005"/.001mm	600-8062
2-3"/50-75mm	.00005"/.001mm	600-8063
3-4"/75-100mm	.00005"/.001mm	600-8064
4-5"/100-25mm	.00005"/.001mm	600-8065
5-6"/125-150mm	.00005"/.001mm	600-8066

Electronic Digital Outside Micrometers

电子数显外径千分尺

2-Key Model



- LCD display.
- Carbide tipped anvils.
- Ratchet stop.
- Enamel finish for frame.
- Battery 1year life time.

Range	Graduation	Order No.
0-1"/0-25mm	.00005"/.001mm,	600-8001
1-2"/25-50mm	.00005"/.001mm,	600-8002
2-3"/50-75mm	.00005"/.001mm,	600-8003
3-4"/75-100mm	.00005"/.001mm,	600-8004

3-Key Model



- on/off
- Metric/inch conversion
- Origin resetting
- Data Output

Range	Graduation	Order No.
0-1"/0-25mm	.00005"/.001mm	600-8025
1-2"/25-50mm	.00005"/.001mm	600-8026
2-3"/50-75mm	.00005"/.001mm	600-8027
3-4"/75-100mm	.00005"/.001mm	600-8028

Digital Outside Micrometers

计数器数字外径千分尺



- Ratchet stop.
- Carbide tipped anvils.
- Positive locking nut.
- Clear graduations on satin chrome finished thimble.

Range	.001" Order No.	.0001" Order No.
0-1"	600-3001	600-3011
1-2"	600-3002	600-3012
2-3"	600-3003	600-3013
3-4"	600-3004	600-3014
4-5"	600-3005	600-3015
5-6"	600-3006	600-3016
6-7"	600-3007	600-3017
7-8"	600-3008	600-3018
8-9"	600-3009	600-3019
9-10"	600-3010	600-3020
10-11"	600-3111	600-3021
11-12"	600-3112	600-3022

Range	.01mm Order No.	.001mm Order No.
0-25mm	600-3025	601-9225
25-50mm	600-3050	601-9250
50-75mm	600-3075	601-9275
75-100mm	600-3100	601-9300
100-125mm	600-3125	
125-150mm	600-3150	
150-175mm	600-3175	
175-200mm	600-3200	
200-225mm	600-3225	
225-250mm	600-3250	
250-275mm	600-3270	
275-300mm	600-3272	

Electronic Digital Outside Micrometer

2键电子数显外径千分尺

2 Key Model



- Large LCD display.
- Zero setting at any posistion.
- mm/ABS/INC conversion.
- Manual power on/off.

Range	Grad.	Order No.
0-1"/25mm	0.0005"/0.01mm	600-8081
1-2"/25-50mm	0.0005"/0.01mm	600-8082

Interchangeable Anvil Outside Micrometers 钢管尺架外径千分尺（可换测砧）

12”/300 Lower Range Model

- Enamel frame.
- Packed standards in a fitted case.
- Ratchet stop and lock nut.
- High accuracy interchangeable measuring anvils.
- Carbide measuring anvils .
- Laser engraved graduations.

Replacement Anvil

Range	Order No.
1”	600-0021
2”	600-0022
3”	600-0023
4”	600-0024
5”	600-0025

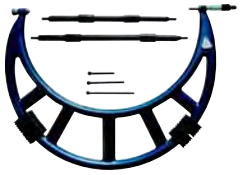


Range	Grad.	Order No.
0-2”	.001”	600-9412
2-4”	.001”	600-9417
2-6”	.001”	600-9418
0-4”	.001”	600-9414
4-8”	.001’	600-9419
0-6”	.001”	600-9416
6-12”	.001”	600-9300
8-12”	.001”	600-9410

Range	Grad.	Order No.
0-50mm	.01mm	600-9403
50-100mm	.01mm	600-9405
50-150mm	.01mm	600-9409
0-150mm	.01mm	600-9406
150-300mm	.01mm	600-9000
0-100mm	.01mm	600-9404
100-200mm	.01mm	600-9407
200-300mm	.01mm	600-9408
200-250mm	.01mm	600-9021
250-300mm	.01mm	600-9022

12”/300mm Upper Range Model

- Pipe combined steel frame provides lightness plus extreme rigidity for perfect balance.
- With standards in a fitted case.
- Carbide measuring faces.
- Ratchet stop and lock nut.



Range	Grad.	Order No.
12-16”	.001”	600-9301
16-20”	.001”	600-9302
20-24”	.001”	600-9303
24-28”	.001”	600-9304
28-32”	.001”	600-9305
32-36”	.001”	600-9306
36-40”	.001”	600-9307

Range	Grad.	Order No.
300-400mm	.01mm	600-9001
400-500mm	.01mm	600-9002
500-600mm	.01mm	600-9003
600-700mm	.01mm	600-9004
700-800mm	.01mm	600-9005
800-900mm	.01mm	600-9006
900-1000mm	.01mm	600-9007

Electronic Outside Micrometers

5 Key Model 5按键电子数显外径千分尺

- 5 keys Positive-designed electronic micrometer head.
- Large LCD.
- Absolute and incremental conversion.
- Friction thimble (Ratchet friction thimble available).
- Data holding and Tolerance setting.
- SPC output.



Range	Graduation	Order No.
0-1”/0-25mm	.00005”/.001mm	600-8005
1-2”/25-50mm	.00005”/.001mm	600-8006
2-3”/50-75mm	.00005”/.001mm	600-8007
3-4”/75-100mm	.00005”/.001mm	600-8008
4-5”/100-125mm	.00005”/.001mm	600-8015
5-6”/125-150mm	.00005”/.001mm	600-8016
6-7”/150-175mm	.00005”/.001mm	600-8017
7-8”/175-200mm	.00005”/.001mm	600-8018
8-9”/200-225mm	.00005”/.001mm	600-8019
9-10”/225-250mm	.00005”/.001mm	600-8020
10-11”/250-275mm	.00005’/.001mm	600-8021
11-12”/275-300mm	.00005”/.001mm	600-8022

7 Key Model



- Auto power on/off.
- Data hold function.
- Relative and absolute measurement.
- Ratchet stop.
- Tolerance setting functions.
- Zero setting at any position.

Range	Graduation	Order No.
0-1”/0-25mm	.00005”/.001mm	600-8031
1-2”/25-50mm	.00005”/.001mm	600-8032
2-3”/50-75mm	.00005”/.001mm	600-8033
3-4”/75-100mm	.00005”/.001mm	600-8034
4-5”/100-125mm	.00005”/.001mm	600-8035
5-6”/125-150mm	.00005”/.001mm	600-8036
6-7”/150-175mm	.00005”/.001mm	600-8037
7-8”/175-200mm	.00005”/.001mm	600-8039

Electronic Interchangeable Anvil Micrometers 电子数显可换测砧外径千分尺

12”/300Lower Range Model

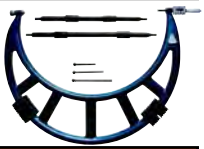
- Friction thimble (ratchet friction thimble available).
- With 5 keys Deluxe Model micrometer head.
- Painted frame.



Range	Graduation	Order No.
0-2”/0-50mm	0.00005”/0.001mm	600-9421
2-4”/50-100mm	0.00005”/0.001mm	600-9424
0-4”/0-100mm	0.00005”/0.001mm	600-9422
4-8”/100-200mm	0.00005”/0.001mm	600-9425
0-6”/0-150mm	0.00005”/0.001mm	600-9423
6-12”/150-300mm	0.00005”/0.001mm	600-9426
8-12”/200-300mm	0.00005”/0.001mm	600-9427

12”/300mm Upper Range Model

- 7keys Positive-designed electronic micrometer head.
- Large and clear LCD.

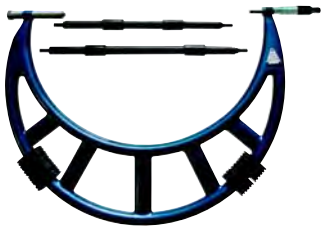


Range	Graduation	Order No.
12-16”/300-400mm	0.00005”/0.001mm	600-9321
16-20”/400-500mm	0.00005”/0.001mm	600-9322
20-24”/500-600mm	0.00005”/0.001mm	600-9323
24-28”/600-700mm	0.00005”/0.001mm	600-9324
28-32”/700-800mm	0.00005”/0.001mm	600-9325
32-36”/800-900mm	0.00005”/0.001mm	600-9326
36-40”/900-1000mm	0.00005”/0.001mm	600-9327

Adjustable Anvil Micrometers

钢管尺架大量程外径千分尺（可换标准套）

- High accuracy standaed collars enable that reading does not have to be reset when changing collars.
- Standard collars:25mm/1”, 50mm/2” (within 1000mm/40”); 50mm/2”, 100mm/4”,(over 1000mm/40”).
- Carbide tipped anvils,painted frame.
- Pipe combined frame for light weight and high rigidity.



Range	Grad.	Order No.
12-16”	.001”	**600-9901**
16-20”	.001”	**600-9902**
20-24”	.001”	**600-9903**
24-28”	.001”	**600-9904**
28-32”	.001”	**600-9905**
32-36”	.001”	**600-9906**
36-40”	.001”	**600-9907**
40-48”	.001’	**600-9308**
18-56”	.001”	**600-9309**
56-64”	.001”	**600-9310**
64-72”	.001”	**600-9311**
72-80”	.001”	**600-9312**
80-88”	.001”	**600-9313**
88-96”	.001”	**600-9314**
96-104”	.001”	**600-9315**
104-112”	.001”	**600-9316**
112-120”	.001”	**600-9317**

Range	Grad.	Order No.
300-400mm	.01mm	**600-9801**
400-500mm	.01mm	**600-9802**
500-600mm	.01mm	**600-9803**
600-700mm	.01mm	**600-9804**
700-800mm	.01mm	**600-9805**
800-900mm	.01mm	**600-9806**
900-1000mm	.01mm	**600-9807**
1000-1200mm	.01mm	**600-9008**
1200-1400mm	.01mm	**600-9009**
1400-1600mm	.01mm	**600-9010**
1600-1800mm	.01mm	**600-9011**
1800-2000mm	.01mm	**600-9012**
2000-2200mm	.01mm	**600-9013**
2200-2400mm	.01mm	**600-9014**
2400-2600mm	.01mm	**600-9015**
2600-2800mm	.01mm	**600-9016**
2800-3000mm	.01mm	**600-9017**

Multi-Anvil Micrometers

多用千分尺

- Chrome-Plated frame.
- Carbide-tipped spindle.
- Friction thimble for exact repetitive readings.
- Interchangeable anvils permit quick accurate measurement of tubing, cylindrical walls, from a hole or slot to an edge, and manyhard-to-reach locations.



Accessories

Name	Order No.
Flat Anvil	**600-0801**
Rod Anvil	**600-0802**

Range	.001” Order No.	.0001” Order No.
0-1”	**600-1501**	**600-1511**
1-2”	**600-1502**	**600-1512**

Range	Graduation	Order No.
0-25mm	.01mm	**600-1525**
25-50mm	.01mm	**600-1550**

Electronic Multi-Anvil Micrometers

电子数显多用千分尺

- Chrome-Plated frame.
- With 5 keys deluxe model micrometer head.



Range	Graduation	Order No.
0-1”/0-25mm	0.00005”/0.001mm	**600-1521**
1-2”/25-50mm	0.00005”/0.001mm	**600-1522**

Quick Feeding Outside Micrometers

快速进给外径千分尺

- Quick feeding.
- Carbide measuring faces.
- Positive locking clamp.
- Ratchet friction thimble (ratchet stop available).



Range	Grad.	Painted Order No.	Chrome-Plated Order No.
0-1”	.0005”	**600-8201**	**601-8201**
1-2”	.0005”	**600-8202**	**601-8202**
2-3”	.0005”	**600-8203**	**601-8203**
3-4”	.0005”	**600-8204**	**601-8204**
4-5”	.0005”	**600-8205**	**601-8205**
5-6”	.0005”	**600-8206**	**601-8206**
6-7”	.0005”	**600-8207**	**601-8207**
7-8”	.0005”	**600-8208**	**601-8208**

Range	Grad.	Painted Order No.	Chrome-Plated Order No.
0-25mm	.01mm	**600-8221**	**601-8221**
25-50mm	.01mm	**600-8222**	**601-8222**
50-75mm	.01mm	**600-8223**	**601-8223**
75-100mm	.01mm	**600-8224**	**601-8224**
100-125mm	.01mm	**600-8225**	**601-8225**
125-150mm	.01mm	**600-8226**	**601-8226**
150-175mm	.01mm	**600-8227**	**601-8227**
175-200mm	.01mm	**600-8228**	**601-8228**

Screw Thread Outside Micrometers

螺纹千分尺

- Either 60° or 55° V-Anvil and conical spindle are made of high-grade special steel.
- Ratchet friction thimble (ratchet stop or friction thimble available).
- Laser engraved graduations.
- Enamel frame.



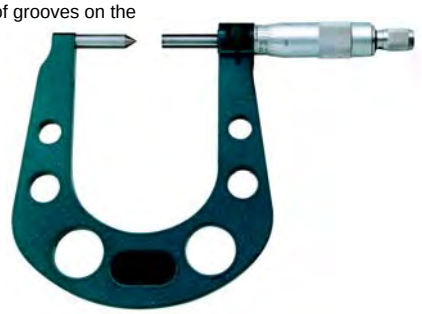
Range	Anvils	.001” Order No.	Anvils	.0001” Order No.
0-1”	5	**600-7801**	5	**600-7811**
1-2”	5	**600-7802**	5	**600-7812**
2-3”	4	**600-7803**	4	**600-7813**
3-4”	4	**600-7804**	4	**600-7814**
4-5”	3	**600-7805**	6	**600-7815**
5-6”	3	**600-7806**	6	**600-7816**

Range	Grad.	Anvils	Order No.
0-25mm	0.01mm	5	**600-8825**
25-50mm	0.01mm	5	**600-8850**
50-75mm	0.01mm	4	**600-8875**
75-100mm	0.01mm	4	**600-8900**
100-125mm	0.01mm	3	**600-8925**
125-150mm	0.01mm	3	**600-8950**

Disc Brake Micrometers

刹车片千分尺

- For measuring the depth of grooves on the Disc Brake.
- Carbide measuring face with 60 degree point.
- Ratchet stop (friction thimble or ratchet friction thimble avaible)



Range	Graduation	Order No.
1-2”	.0001”	**600-7080**
.3-1.3”	.0001”	**600-7099**

Range	Graduation	Order No.
7.6-33mm	.01mm	**600-7082**
25-50mm	.01mm	**600-7084**

Digital Disc Brake Micrometers

数显刹车片千分尺

- To measure the depth of grooves on the disc brake.
- Carbide tipped measuring faces.
- Metric/Inch system conversion at any position.
- Zero setting at any position.
- With data output interface.



Range	Graduation	Accuracy	Order No.
.3-1.3”/7.6-33mm	.00005”/.0001mm	+/-.004mm	**600-7092**
1-2”/25-50mm	.00005”/.0001mm	+/-.004mm	**600-7094**

Electronic Deep Throat Micrometer

电子深喉千分尺

Main Features:

- Fast sliding scale for quick measurements
- Easy to read large digital display
- Easy to hold - ergonomic finger grip
- Cast aluminum frame - rugged and lightweight
- Includes Heavy Duty Molded Plastic Case
- Inch/Metric conversion
- On/Off Buttons
- Zero setting

NEW



Specification:

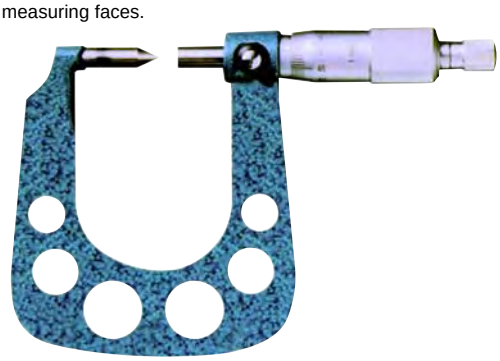
Measuring range: 0-2.6”(66mm)
Max measuring depth: 3-1/8”
Resolution: 0.0005”/0.01mm
Accuracy: 0.001”/0.02mm

Order No. 600-6701

Disc Brake Micrometers

刹车片千分尺

- To measure the depth of grooves on the disc brake.
- Carbide tipped measuring faces.



Range	Graduation	Order No.
1-2”	.0001”	**600-7102**
.3-1.3”	.0001”	**600-7104**

Range	Graduation	Order No.
7.6-33mm	.001mm	**600-7105**
25-50mm	.001mm	**600-7110**
7.6-33mm	.01mm	**600-7115**
25-50mm	.01mm	**600-7120**

Universal Micrometers

多功能外径千分尺(带七组测砧)

- Enamel frame.
- Positive lever locking nut.
- Laser engraved graduations.
- Ratchet friction thimble.
- 7 pairs of interchangeable anvils (flat, spherical, spline, disk, blade, Point and knife-edge) for a wide range of applications.



Range	Grad.	Order No.	Grad.	Order No.
0-1”	.001”	**600-1551**	.0001”	**600-1561**
1-2”	.001”	**600-1552**	.0001”	**600-1562**
2-3”	.001”	**600-1553**	.0001”	**600-1563**
3-4”	.001”	**600-1554**	.0001”	**600-1564**
4-5”	.001”	**600-1555**	.0001”	**600-1565**
5-6”	.001”	**600-1556**	.0001”	**600-1566**
6-7”	.001”	**600-1557**	.0001”	**600-1567**
7-8”	.001”	**600-1558**	.0001”	**600-1568**

Range	Graduation	Order No.
0-25mm	.01mm	**600-1531**
25-50mm	.01mm	**600-1532**
50-75mm	.01mm	**600-1533**
75-100mm	.01mm	**600-1534**
100-125mm	.01mm	**600-1535**
125-150mm	.01mm	**600-1536**
150-175mm	.01mm	**600-1537**
175-200mm	.01mm	**600-1538**

Electronic Universal Micrometers

电子数显多功能外径千分尺(带七组测砧)

- Friction thimble (ratchet friction thimble available).
- Chrome-plated frame.
- With 5 keys Deluxe Model micrometer head.

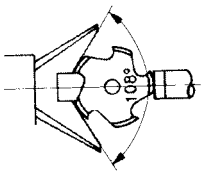


Range	Graduation	Order No.
0-1"/0-25mm	0.00005"/0.001mm	600-1541
1-2"/25-50mm	0.00005"/0.001mm	600-1542
2-3"/50-75mm	0.00005"/0.001mm	600-1543
3-4"/75-100mm	0.00005"/0.001mm	600-1544
4-5"/100-125mm	0.00005"/0.001mm	600-1545
5-6"/125-150mm	0.00005"/0.001mm	600-1546
6-7"/150-175mm	0.00005"/0.001mm	600-1547
7-8"/175-200mm	0.00005"/0.001mm	600-1548

V-Anvil Micrometers

三刃千分尺

- Measuring diameter of cylinder with an odd number flutes such as tapss,reamers and end mills.
- Ratchet stop (friction thimble or ratchet friction thimble available).
- Laser engraved graduations.
- Enamel frame.





60° V-Anvil micrometer 3 flute

Range	Graduation	Order No.
.04 to .6"	.001"	600-9111
.2 to .8"	.001"	600-9112
.8 to 1.4"	.001"	600-9113
1.4 to 2"	.001"	600-9114
2 to 2.6"	.001"	600-9115
2.6 to 3.2"	.001"	600-9116

Range	Graduation	Order No.
1-15mm	.01mm	600-9101
5-20mm	.01mm	600-9102
20-35mm	.01mm	600-9103
35-50mm	.01mm	600-9104
50-65mm	.01mm	600-9105
65-80mm	.01mm	600-9106

108° V-Anvil micrometer 5 flute

Range	Graduation	Order No.
.2 to 1"	.001"	600-9117
1 to 1.8"	.001"	600-9118
1.8 to 2.6"	.001"	600-9119
2.6 to 3.4"	.001"	600-9120

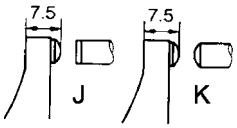
Range	Graduation	Order No.
5-25mm	.01mm	600-9107
25-45mm	.01mm	600-9108
45-65mm	.01mm	600-9109
65-85mm	.01mm	600-9110

Tubing Micrometers

球头千分尺

- Enamel frame.
- Carbide-tipped spherical anvil.
- Ratchet stop (friction thimble or ratchet friction thimble available).





	Anvil Type J		Anvil Type K	
	.001"	.0001"	.001"	.0001"
Range	Order No.	Order No.	Order No.	Order No.
0-1"	600-7644	600-7701	600-7660	600-7670
1-2"	600-7645	600-7702	600-7661	600-7671
2-3"	600-7646	600-7703	600-7662	600-7672
3-4"	600-7647	600-7704	600-7663	600-7673

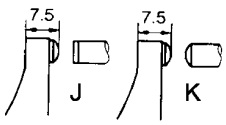
Range	Grad.	Anvil Type J Order No.	Anvil Type K Order No.
0-25mm	.01mm	600-7725	600-7685
25-50mm	.01mm	600-7750	600-7686
50-75mm	.01mm	600-7775	600-7687
75-100mm	.01mm	600-7800	600-7688

Electronic Tubing Micrometers

电子数显球头千分尺

- Chrome-plated frame.
- Friction thimble (ratchet friction thimble available).
- With 5 keys Deluxe Model micrometer head.





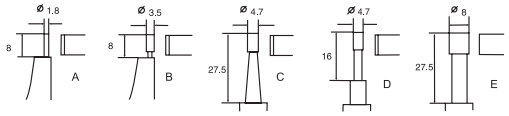
Range	Graduation	Anvil Type J Order No.	Anvil Type K Order No.
0-1"/0-25mm	.00005"/0.001mm	600-7611	600-7615
1-2"/25-50mm	.00005"/0.001mm	600-7612	600-7616
2-3"/50-75mm	.00005"/0.001mm	600-7613	600-7617
3-4"/75-100mm	.00005"/0.001mm	600-7614	600-7618

Tubing Micrometers

测轴壁厚千分尺

- For measuring thickness of various tubes.
- Ratchet stop.
- Carbide-tipped spindle.
- Different diameter on fixed anvils.
- Laser engraved graduations.
- Enamel frame.





Range	Anvils Type	Grad.	Order No.	Grad.	Order No.
0-1"	A	.001"	600-7632	.0001"	600-7626
1-2"	A	.001"	600-7635	.0001"	600-7629
0-1"	B	.001"	600-7633	.0001"	600-7627
1-2"	B	.001"	600-7636	.0001"	600-7630
0-1"	C	.001"	600-7634	.0001"	600-7628
1-2"	C	.001"	600-7637	.0001"	600-7631
0-1"	D	.001"	600-7640	.0001"	600-7650
1-2"	D	.001"	600-7641	.0001"	600-7651
0-1"	E	.001"	600-7642	.0001"	600-7652
1-2"	E	.001"	600-7643	.0001"	600-7653

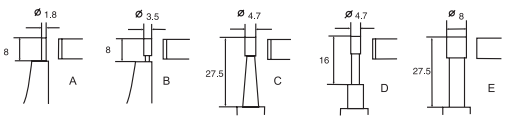
Range	Anvils Type	Grad.	Order No.
0-25mm	A	.01mm	600-7620
25-50mm	A	.01mm	600-7623
0-25mm	B	.01mm	600-7621
25-50mm	B	.01mm	600-7624
0-25mm	C	.01mm	600-7622
25-50mm	C	.01mm	600-7625
0-25mm	D	.01mm	600-7664
25-50mm	D	.01mm	600-7665
0-25mm	E	01mm	600-7666
25-50mm	E	.01mm	600-7667

Electronic Tubing Micrometers

电子数显测轴壁厚千分尺

- Chrome-plated frame.
- Friction thimble (ratchet friction thimble available).
- With 5 keys Deluxe Model micrometer head.





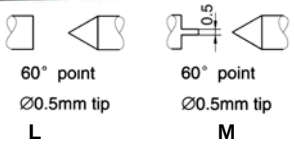
Range	Anvils Type	Graduation	Order No.
0-1"/0-25mm	A	0.00005"/0.001mm	600-7690
1-2"/25-50mm	A	0.00005"/0.001mm	600-7691
0-1"/0-25mm	B	0.00005"/0.001mm	600-7692
1-2"/25-50mm	B	0.00005"/0.001mm	600-7693
0-1"/0-25mm	C	0.00005"/0.001mm	600-7694
1-2"/25-50mm	C	0.00005"/0.001mm	600-7695
0-1"/0-25mm	D	0.00005"/0.001mm	600-7696
1-2"/25-50mm	D	0.00005"/0.001mm	600-7697
0-1"/0-25mm	E	0.00005"/0.001mm	600-7698
1-2"/25-50mm	E	0.00005"/0.001mm	600-7699

Single Point Micrometers

平测砧60° 单尖头外径千分尺

- Pointed Spindle and Flat or blade anvil for measuring drills,grooves and hard-to-reach dimensions.
- Enamel frame.
- Designed to measure the small recess of an electrical wire connector.
- 60° conical spindle.
- Laser engraved graduations.
- Positive lever locking clamp.





Anvil Type M

Range	Grad.	Order No.	Range	Grad.	Order No.
0-1"	.0001"	600-6680	0-25mm	.01mm	600-6671

Anvil Type L

Range	.001" Order No.	.0001" Order No.
0-1"	600-6651	600-6661
1-2"	600-6652	600-6662
2-3"	600-6653	600-6663
3-4"	600-6654	600-6664
4-5"	600-7305	600-7315
5-6"	600-7306	600-7316

Anvil Type L

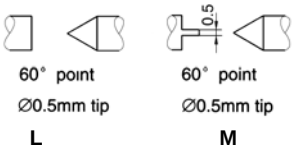
Range	Grad.	Order No.
0-25mm	.01mm	600-6641
25-50mm	.01mm	600-6642
50-75mm	.01mm	600-6643
75-100mm	.01mm	600-6644
100-125mm	.01mm	600-7329
125-150mm	.01mm	600-7330

Electronic Single Point Micrometers

电子数显平测砧60° 单尖头外径千分尺

- Friction thimble (ratchet friction thimble available).
- Chrome-plated frame.
- With 5 keys micrometer head.
- Graduation .00005"/.001mm.





Range	Anvil Type L Order No.	Anvil Type M Order No.
0-1"/0-25mm	600-6691	600-6690
1-2"/25-50mm	600-6692	
2-3"/50-75mm	600-6693	
3-4"/75-100mm	600-6694	

Point Micrometers

尖头千分尺-带转扭

- Pointed spindle and anvil for measuring the web thickness of drills, small grooves, keyways, and other hard-to-reach dimentions.
- Spindle made of special steel to ensure high precision and stability.
- Inside force-limited device for precise repeated reading.
- With ring-type knurled lock nut

NEW

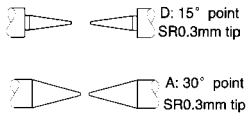


Range	Graduation	Accuracy	Order No.
0-25mm	0.001mm	0.004mm	600-6711
25-50mm	0.001mm	0.004mm	600-6712
50-75mm	0.001mm	0.004mm	600-6713
75-100mm	0.001mm	0.005mm	600-6714

Point Micrometers

尖头外径千分尺

- Designed to measure small grooves keywags and other hard-to-reach diameters.
- Enamel frame.
- Positive lever locking clamp.





Range	Grad.	30° Point Order No.	Grad.	30° Point Order No.	15° Point Order No.
0-1”	.001”	600-6601	.0001”	600-6611	600-6681
1-2”	.001”	600-6602	.0001”	600-6612	600-6682
2-3”	.001”	600-6603	.0001”	600-6613	600-6683
3-4”	.001”	600-6604	.0001”	600-6614	600-6684

Range	Grad.	30° Point Order No.	15° Point Order No.
0-25mm	.01mm	600-6631	600-6676
25-50mm	.01mm	600-6632	600-6677
50-75mm	.01mm	600-6633	600-6678
75-100mm	.01mm	600-6634	600-6679

Electronic Point Micrometers

小孔内径千分尺

- Friction Thimble (ratchet friction thimble available).
- Chrome-plated frame.
- With 5 keys Deluxe Model micrometer head.



Range	Graduation	Order No.
0-1”/0-25mm	0.00005”/0.001mm	600-6621
1-2”/25-50mm	0.00005”/0.001mm	600-6622
2-3”/50-75mm	0.00005”/0.001mm	600-6623
3-4”/75-100mm	0.00005”/0.001mm	600-6624

Electronic Spline Micrometers

电子数显小头外径千分尺

- Friction thimble (Ratchet friction thimble available).
- Chrome-plated frame.
- With 5 keys Deluxe Model micrometer head.
- Graduation: .00005”/.001mm



Range	Measuring tip ϕ2x5mm Order No.	Measuring tip ϕ3x5mm Order No.
0-1”/0-25mm	600-1361	600-1371
1-2”/25-50mm	600-1362	600-1372
2-3”/50-75mm	600-1363	600-1373
3-4”/75-100mm	600-1364	600-1374
4-5”/100-125mm	600-1365	600-1375
5-6”/125-150mm	600-1366	600-1376
6-7”/150-175mm	600-1367	600-1377

Spline Micrometers

小头外径千分尺

- Ideal for measuring splines,slots and keyways .
- Enamel frame.
- Carbide tipped anvils.
- Laser engraved graduations.
- Ratchet stop (friction thimble or ratchet friction thimble available).



Tip 2x5mm

Range	.001” Order No.	.0001” Order No.
0-1”	600-1301	600-1311
1-2”	600-1302	600-1312
2-3”	600-1303	600-1313
3-4”	600-1304	600-1314
4-5”	600-1305	600-1315
5-6”	600-1306	600-1316
6-7”	600-1307	600-1317

Tip 3x10mm

Range	.001” Order No.	.0001” OrderNo.
0-1”	600-1341	600-1351
1-2”	600-1342	600-1352
2-3”	600-1343	600-1353
3-4”	600-1344	600-1354
4-5”	600-1345	600-1355
5-6”	600-1346	600-1356
6-7”	600-1347	600-1357

Range	Grad.	Tip 2x5mm Order No.	Tip 3x10mm Order No.
0-25mm	.01mm	600-1321	600-1331
25-50mm	.01mm	600-1322	600-1332
50-75mm	.01mm	600-1323	600-1333
75-100mm	.01mm	600-1324	600-1334
100-125mm	.01mm	600-1325	600-1335
125-150mm	.01mm	600-1326	600-1336
150-175mm	.01mm	600-1327	600-1337

Sheet Metal Micrometers

深弓架外径千分尺–带指示盘

- For measuring thickness of sheet metal, paper plastic and rubber taparts especially for a hot metlal sheet.
- With a dial.
- Carbide tipped anvils.



Range	Grad.	Depth of Throat	Order No.
0-0.6"	0.001"	50mm	600-1771
0-1"	0.001"	50mm	600-1772
0-1"	0.001"	100mm	600-1773
0-1"	0.001"	150mm	600-1774
1-2"	0.001"	50mm	600-1775

Range	Grad.	Depth of Throat	Order No.
0-15mm	0.01mm	50mm	600-1745
0-25mm	0.01mm	50mm	600-1755
0-25mm	0.01mm	100mm	600-1756
0-25mm	0.01mm	150mm	600-1757
25-50mm	0.01mm	50mm	600-1766

Disc Micrometers

直进式公法线外径千分尺

- Non-Rotating or Rotating Spindle.
- Disk for measuring gears and thickness of paper.
- Ratchet stop (friction thimble or ratchet friction thimble available).



Non-rotating Spindle Type

Range	.001" Order No.	.0001" Order No.
0-1"	600-7031	600-7041
1-2"	600-7032	600-7042
2-3"	600-7033	600-7043
3-4"	600-7034	600-7044
4-5"	600-7035	600-7045
5-6"	600-7036	600-7046
6-7"	600-7037	600-7047
7-8"	600-7038	600-7048

Rotating Spindle Type

Range	.001" Order No.	.0001" Order No.
0-1"	600-7001	600-7011
1-2"	600-7002	600-7012
2-3"	600-7003	600-7013
3-4"	600-7004	600-7014
4-5"	600-7005	600-7015
5-6"	600-7006	600-7016
6-7"	600-7007	600-7017
7-8"	600-7008	600-7018

Range	Grad.	Non-Rotating Order No.	Rotating Order No.
0-25mm	.01mm	600-7051	600-7021
25-50mm	.01mm	600-7052	600-7022
50-75mm	.01mm	600-7053	600-7023
75-100mm	.01mm	600-7054	600-7024
100-125mm	.01mm	600-7055	600-7025
125-150mm	.01mm	600-7056	600-7026
150-175mm	.01mm	600-7057	600-7027
175-200mm	.01mm	600-7058	600-7028

Disc Micrometers

公法线千分尺－带转扭

- With ring-type knurled lock nut

NEW



Range	Graduation	Accuracy	Order No.
0-25mm	0.001mm	0.004mm	600-7061
25-50mm	0.001mm	0.004mm	600-7062
50-75mm	0.001mm	0.004mm	600-7063
75-100mm	0.001mm	0.005mm	600-7064

Digital Disc Micrometers

数显公发线千分尺

- With disc measuring faces, easy to obtain the dimensions of gear tooth span.
- Metric/Inch system conversion at any position.
- Zero setting at any position.
- With data output interface.



Range (Inch/mm)	Graduation (Inch/mm)	Accuracy (mm)	Order No.
0-1"/0-25	0.00005"/0.001	+/-4μm	600-7221
1-2/25-50	0.00005"/0.001	+/-5μm	600-7222
2-3"/50-70	0.00005"/0.001	+/-6μm	600-7223
3-4'/75-100	0.00005"/0.001	+/-6μm	600-7224

Digital Electronic Disc Micrometers

电子数显直进式公法线千分尺

- Friction thimble (ratchet friction thimble available).
- Chrome-plated frame.
- With 5 keys deluxe model micrometer head.



Non-rotating Spindle Type

Range	Grad.	Order No.
0-1"/0-25mm	0.00005"/.001mm	600-7211
1-2"/25-50mm	0.00005"/.001mm	600-7212
2-3"/50-75mm	0.00005"/.001mm	600-7213
3-4"/75-100mm	0.00005"/.001mm	600-7214
4-5"/100-125mm	0.00005"/.001mm	600-7215
5-6"/125-150mm	0.00005"/.001mm	600-7216
6-7"/150-175mm	0.00005"/.001mm	600-7217
7-8"/175-200mm	0.00005"/.001mm	600-7218

Rotating Spindle Type

Range	Grad.	Order No.
0-1"/0-25mm	0.00005"/.001mm	600-7201
1-2"/25-50mm	0.00005"/.001mm	600-7202
2-3"/50-75mm	0.00005"/.001mm	600-7203
3-4"/75-100mm	0.00005"/.001mm	600-7204
4-5"/100-125mm	0.00005"/.001mm	600-7205
5-6"/125-150mm	0.00005"/.001mm	600-7206
6-7"/150-175mm	0.00005"/.001mm	600-7207
7-8"/175-200mm	0.00005"/.001mm	600-7208

Blade Micrometers

直进式刀口叶片外径千分尺

- No-rotating spindle.
- Laser engraved graduations.
- Rathcet friction thimble (friction thimble or ratchet stop available).
- Enamel frame.



Range	.001" Order No.	.0001" Order No.
0-1"	600-1801	600-1811
1-2"	600-1802	600-1812
2-3"	600-1803	600-1813
3-4"	600-1804	600-1814
4-5"	600-1805	600-1815
5-6"	600-1806	600-1816
6-7"	600-1807	600-1817

Range	Grad.	Order No.
0-25mm	.01mm	600-1831
25-50mm	.01mm	600-1832
50-75mm	.01mm	600-1833
75-100mm	.01mm	600-1834
100-125mm	.01mm	600-1835
125-150mm	.01mm	600-1836
150-175mm	.01mm	600-1837

Electronic Blade Micrometers

电子数显刀口叶片外径千分尺

- Friction thimble (Ratchetfriction thimble available).
- Chrome-plated frame.
- With 5 keys deluxe model micrometer head.



Range	Graduation	Order No.
0-1”/0-25mm	0.00005”/0.001mm	**600-1821**
1-2”/25-50mm	0.00005”/0.001mm	**600-1822**
2-3”/50-75mm	0.00005”/0.001mm	**600-1823**
3-4”/75-100mm	0.00005”/0.001mm	**600-1824**
4-5”/100-125mm	0.00005”/0.001mm	**600-1825**
5-6”/125-150mm	0.00005”/0.001mm	**600-1826**
6-7”/150-175mm	0.00005”/0.001mm	**600-1827**

Jaw Type Micrometers

直进式爪型千分尺

- No-rotating spindle.
- Enamel frame.
- Jaw Type measuring face.
- Rathcet friction thimble (friction thimble or ratchet stop available).
- Laser engraved graduations.



Range	.001” Order No.	.0001” Order No.
0-1”	**600-7401**	**600-7411**
1-2”	**600-7402**	**600-7412**
2-3”	**600-7403**	**600-7413**
3-4”	**600-7404**	**600-7414**
4-5”	**600-7405**	**600-7415**
5-6”	**600-7406**	**600-7416**
6-7”	**600-7407**	**600-7417**
7-8”	**600-7408**	**600-7418**

Range	Grad.	Order No.
0-25mm	.01mm	**600-7441**
25-50mm	.01mm	**600-7442**
50-75mm	.01mm	**600-7443**
75-100mm	.01mm	**600-7444**
100-125mm	.01mm	**600-7445**
125-150mm	.01mm	**600-7446**
150-175mm	.01mm	**600-7447**
175-200mm	.01mm	**600-7448**

Electronic Jaw Type Micrometers

电子数显直进式爪型千分尺

- Chrome-Plated frame.
- Friction thimble (ratchet friction thimble available).
- With 5 keys deluxe model micrometer head



Range	Grad.	Jaw Size	Order No.
0-1”/0-25mm	.00005”/.001mm	R 0.5”/12.5mm	**600-7421**
1-2”/25-50mm	.00005”/.001mm	R 0.5”/12.5mm	**600-7422**
2-3”/50-75mm	.00005”/.001mm	R 0.5”/12.5mm	**600-7423**
3-4”/75-100mm	.00005”/.001mm	R 0.5”/12.5mm	**600-7424**
4-5”/100-125mm	.00005”/.001mm	R 0.6”/15mm	**600-7425**
5-6”/125-150mm	.00005”/.001mm	R 0.6”/15mm	**600-7426**
6-7”/150-175mm	.00005”/.001mm	R 0.6”/15mm	**600-7427**
7-8”/175-200mm	.00005”/.001mm	R 0.6”/15mm	**600-7428**

Deep Throat Micrometers

深弓架外径千分尺

- Deep throat frame for measuring thickness of sheet metal, paper, and sheet plastic.
- Ratchet stop (friction thimble or ratchet friction thimble available).



Range	Throat Depth	.001” Order No.	.0001” Order No.
0-1”	2”	**600-1701**	**600-1711**
1-2”	2”	**600-1702**	**600-1712**
0-1”	4”	**600-1703**	**600-1713**
1-2”	4”	**600-1704**	**600-1714**
0-1”	6”	**600-1705**	**600-1715**
1-2”	6”	**600-1706**	**600-1716**
0-1”	8”	**600-1707**	**600-1717**
1-2”	8”	**600-1708**	**600-1718**

Range	Grad.	Throat Depth	Order No.
0-25mm	.01mm	50mm	**600-1721**
25-50mm	.01mm	50mm	**600-1722**
0-25mm	.01mm	100mm	**600-1723**
25-50mm	.01mm	100mm	**600-1724**
0-25mm	.01mm	150mm	**600-1725**
25-50mm	.01mm	150mm	**600-1726**
0-25mm	.01mm	300mm	**600-1727**
25-50mm	.01mm	300mm	**600-1728**

Electronic Deep Throat Micrometers

电子数显深弓架外径千分尺

- Painted frame.
- Friction thimble (ratchet friction thimble available).
- With 5 keys Deluxe Model micrometer head.
- Graduation .00005”/.001mm.



Range	Throat Depth Description	Graduation	Order No.
0-1”/0-25mm	2”/50mm	0.00005”/.001mm	**600-1731**
1-2”/25-50mm	2”/50mm	0.00005”/.001mm	**600-1732**
0-1”/0-25mm	4”/100mm	0.00005”/.001mm	**600-1733**
1-2”/25-50mm	4”/100mm	0.00005”/.001mm	**600-1734**
0-1”/0-25mm	6”/150mm	0.00005”/.001mm	**600-1735**
1-2”/25-50mm	6”/150mm	0.00005”/.001mm	**600-1736**
0-1”/0-25mm	8”/200mm	0.00005”/.001mm	**600-1737**
1-2”/25-50mm	8”/200mm	0.00005”/.001mm	**600-1738**

Micrometer Heads Ratchet Stop

棘轮测力计数器微分头

- Mechanical digital counter for quick and error-free reading.
- Carbide measuring faces
- Flat or spherical measuring faces.



Range	Grad.	Install Dimension	Install Dimension	Order No.
0-1”	.0001”	12x17mm	12x17mm	601-9766

Range	Grad.	Install Dimension	Install Dimension	Order No.
0-25mm	.01mm	12x17mm	12x17mm	601-9765

Ratchet Stop Micrometer Heads

棘轮测力标准微分头

- Direct digital reading.
- Carbide measuring faces.
- Laser engraved graduations.
- Flat or spherical measuring face.



Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Order No.
0-1”	.001”	11x16mm	110mm	6.5mm	601-9501
0-1”	.0001”	11x16mm	110mm	6.5mm	601-9502
0-1”	.001”	12x17mm	113mm	6.5mm	601-9503
0-1”	.0001”	12x17mm	113mm	6.5mm	601-9504
0-1”	.001”	12x20mm	116mm	6.5mm	601-9505
0-1”	.0001”	12x20mm	116mm	6.5mm	601-9506

Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Order No.
0-25mm	.01mm	11x16mm	110mm	6.5mm	601-9524
0-25mm	.002mm	11x16mm	110mm	6.5mm	601-9525
0-25mm	.01mm	12x17mm	113mm	6.5mm	601-9526
0-25mm	.002mm	12x17mm	113mm	6.5mm	601-9527
0-25mm	.01mm	12x20mm	116mm	6.5mm	601-9528
0-25mm	.002mm	12x20mm	116mm	6.5mm	601-9529

Ratchet Friction Thimble Micrometer Heads

棘轮套测力标准微分头

- Carbide measuring faces
- Laser engraved graduations.
- Flat or spherical measuring faces.



Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Order No.
0-1”	.001”	11x16mm	110mm	6.5mm	601-9507
0-1”	.0001”	11x16mm	110mm	6.5mm	601-9508

Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Order No.
0-25mm	.01mm	11x16mm	110mm	6.5mm	601-9522
0-25mm	.002mm	11x16mm	110mm	6.5mm	601-9523

Read Out Micrometer Heads

读数测微头



Range	Graduations	Order No.
0-1”	.00005”	600-7951
0-2”	.00005”	600-7952

Range	Graduations	Order No.
0-25mm	.001mm	600-7925
0-50mm	.001mm	600-7950

Mini-Micrometer Heads

小形微分头

- Carbide measuring faces
- Laser engraved graduations.
- Flat or spherical measuring faces.

0-5mm(0-0.2”)-Flat Spindle(FS)



0-6.5mm(0-0.25”) -Flat Spindle(FS)



0-13mm(0-0.5”)-Flat Spindle(FS)



0-13mm(0-0.5”)-Spherical Spindle(SS)



Inch

Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Face Shapes	Order No.
0-.2”	.001”	3.5x5mm	32mm	2mm	Flat	601-9105
0-.2”	.001”	3.5x5mm	32mm	2mm	SR1.5mm	601-9106
0-.25”	.001”	6x6mm	37mm	3.5mm	Flat	601-9165
0-.25”	.001”	6x6mm	37mm	3.5mm	SR3mm	601-9166
0-.5”	.001”	9.5x9.5mm	58.5mm	5mm	Flat	601-9113
0-.5”	.001”	9.5x9.5mm	58.5mm	5mm	SR4mm	601-9114
0-.6”	.001”	9.5x9.5mm	61mm	5mm	Flat	601-9115
0-.6”	.001”	9.5x9.5mm	61mm	5mm	SR4mm	601-9116

Metric

Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Face Shapes	Order No.
0-5mm	.01mm	3.5x5mm	32mm	2mm	Flat	601-9120
0-5mm	.01mm	3.5x5mm	32mm	2mm	SR1.5mm	601-9121
0-6.5mm	.01mm	6x6mm	37mm	3.5mm	Flat	601-9125
0-6.5mm	.01mm	6x6mm	37mm	3.5mm	SR3mm	601-9126
0-13mm	.01mm	9.5x9.5mm	58.5mm	5mm	Flat	601-9150
0-13mm	.01mm	9.5x9.5mm	58.5mm	5mm	SR4mm	601-9151
0-15mm	.01mm	9.5x9.5mm	61mm	5mm	Flat	601-9160
0-15mm	.01mm	9.5x9.5mm	61mm	5mm	SR4mm	601-9161

Electronic Micrometer Heads

数显微分头

- Absolute and incremental conversion.
- Friction thimble(Ratchet friction thimble available).
- Data hold and Tolerance set.



Range	Grad.	Install Dimension	Total Length	Order No.
0-1”/0-25mm	.00005”/.001mm	12x17mm	154mm	**601-9785**
0-1”/0-25mm	.00005”/.001mm	12x17mm	157mm	**601-9786**

Non-Rotating Spindle Micrometer Heads Ratchet Stop

棘轮测力直进式标准微分头



- Carbide measuring faces
- Laser engraved graduations.
- Flat or spherical measuring faces.

Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Order No.
0-25mm	.01mm	12x10mm	113mm	8mm	**601-9625**
0-25mm	.002mm	12x10mm	113mm	8mm	**601-9626**
0-1”	.001”	12x10mm	113mm	8mm	**601-9621**
0-1”	.0001”	12x10mm	113mm	8mm	**601-9622**

Non-Rotating Spindle Micrometer Heads Ratchet Friction Thimble

棘轮套测力直进式标准微分头



- Carbide measuring faces
- Laser engraved graduations.
- Flat or spherical measuring faces.

Range	Grad.	Install Dimension	Total Length	Spindle Diameter	Order No.
0-1	.001”	12x10mm	113mm	8mm	**601-9631**
0-1	.0001”	12x10mm	113mm	8mm	**601-9632**
0-25mm	.01mm	12x10mm	113mm	8mm	**601-9635**
0-25mm	.002mm	12x10mm	113mm	8mm	**601-9636**

7 Pc. Micrometer Anvil Attachment Kit

千分尺测头

- Turns your micrometer into 7 different tools.
- Fits all brand micrometers from 1” to 12” or metric sizes.



Specification	Order No.
7 Pcs/set: spline, knife, super spline, blade, comparator, disc & ball attachment	**600-0107**

Interchangeable Anvil Micrometer Standards

可换测杆千分尺附件



Range	Order No.	Range	Order No.
for 0-4x.001”	**6MS-9414**	for 40-48”x.001”	**6MS-9308**
for 0-6x.001”	**6MS-9416**	for 48-56”x.001”	**6MS-9309**
for 6-12x.001”	**6MS-9300**	for 56-64”x.001”	**6MS-9310**
for 12-16x.001”	**6MS-9301**	for 64-72”x.001”	**6MS-9311**
for 16-20x.001”	**6MS-9302**	for 72-80”x.001”	**6MS-9312**
for 20-24”x.001”	**6MS-9303**	for 80-88”x.001”	**6MS-9313**
for 24-28”x.001”	**6MS-9304**	for 88-96”x.001”	**6MS-9314**
for 28-32”x.001”	**6MS-9305**	for 96-104”x.001”	**6MS-9315**
for 32-36”x.001”	**6MS-9306**	for 104-112”x.001”	**6MS-9316**
for 36-40”x.001”	**6MS-9307**	for 112-120”x.001”	**6MS-9317**

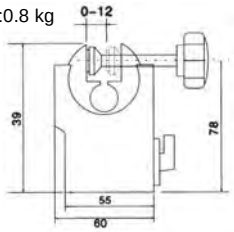
Range	Order No.	Range	Order No.
for 0-100x.01mm	**6MS-9404**	for 1000-1200x.01mm	**6MS-9008**
for 0-150x.01mm	**6MS-9406**	for 1200-1400x.01mm	**6MS-9009**
for 150-300x.01mm	**6MS-9000**	for 1400-1600x.01mm	**6MS-9010**
for 300-400x.01mm	**6MS-9001**	for 1600-1800x.01mm	**6MS-9011**
for 400-500x.01mm	**6MS-9002**	for 1800-2000x.01mm	**6MS-9012**
for 500-600x.01mm	**6MS-9003**	for 2000-2200x.01mm	**6MS-9013**
for 600-700x.01mm	**6MS-9004**	for 2200-2400x.01mm	**6MS-9014**
for 700-800x.01mm	**6MS-9005**	for 2400-2600x.01mm	**6MS-9015**
for 700-900x.01mm	**6MS-9006**	for 2600-2800x.01mm	**6MS-9016**
for 900-1000x.01mm	**6MS-9007**	for 2800-3000x.01mm	**6MS-9017**

Micrometer Stands With Mag. Base

磁性千分尺托架

NEW

- Magnetic base with on/off button
- Clamp can be vertically rotated and locked
- Used for 0-300 mm micrometer
- Weight:0.8 kg





Order No.600-1002

Electronic Micrometer and Base Sets

套装千分尺+托架



Pieces	Specifications	Individual Order No.	Set Order No.
2 Pcs/set	0-1"/0-25mm 2keys Ele. Micrometer	600-8001	135-2012
	Adj. Micrometer Stand	600-0105	
2 Pcs/set	0-1"/0-25mm 5keys Ele. Micrometer	600-8005	135-2015
	Adj. Micrometer Stand	600-0105	
2 Pcs/set	0-1"/0-25mm 7keys Ele. Micrometer	600-8031	135-2017
	Adj. Micrometer Stand	600-0105	

Adjustable Micrometer Stand

Steel Body

千分尺托架

- Foldable design for portable using, folded size:31/8"W x 43/4L x 13/4H.
- Clamp can be adjusted and locked at any positions.
- Angle locking and micrometer locking are in one process by fastening locking nsut.
- Used for 0-4" /0-100mm micrometers.



Specification	Order No.
Steel Body 3-1/8"W x 4-3/4L x 1-3/4H	600-0105

Micrometer Standards

外径千分尺校对量杆

Standard





Inch

Range	Accuracy	Dia.	Order No.
1"	+/-0.00008"	7mm	6MS-0001
2"	+/-0.00008"	7mm	6MS-0002
3"	+/-0.00008"	7mm	6MS-0003
4"	+/-0.00012"	8mm	6MS-0004
5"	+/-0.00016"	8mm	6MS-0005
6"	+/-0.00016"	8mm	6MS-0006
7"	+/-0.0002"	8mm	6MS-0007
8"	+/-0.0002"	8mm	6MS-0008
9"	+/-0.00024"	8mm	6MS-0009
10"	+/-0.00024"	8mm	6MS-0010
11"	+/-0.00028"	8mm	6MS-0011
12"	+/-0.00016"	16mm	6MS-0012
13"	+/-0.00016"	16mm	6MS-0013
14"	+/-0.00016"	16mm	6MS-0014
15"	+/-0.00016"	16mm	6MS-0015
16"	+/-0.0002"	16mm	6MS-0016
17"	+/-0.0002"	16mm	6MS-0017
18"	+/-0.0002"	16mm	6MS-0018
19"	+/-0.0002"	16mm	6MS-0019
20"	+/-0.00024"	16mm	6MS-0020
21"	+/-0.00024"	16mm	6MS-0021
22"	+/-0.00024"	16mm	6MS-0022
23"	+/-0.00024"	16mm	6MS-0023
24"	+/-0.00024"	16mm	6MS-0024

Metric

Range	Accuracy	Dia.	Order No.
25mm	+/-0.0020mm	7mm	6MS-1025
50mm	+/-0.0020mm	7mm	6MS-1050
75mm	+/-0.0020mm	7mm	6MS-1075
100mm	+/-0.0025mm	8mm	6MS-1100
125mm	+/-0.0025mm	8mm	6MS-1125
150mm	+/-0.0030mm	8mm	6MS-1150
175mm	+/-0.0030mm	8mm	6MS-1175
200mm	+/-0.0035mm	8mm	6MS-1200
225mm	+/-0.0035mm	8mm	6MS-1225
250mm	+/-0.0035mm	8mm	6MS-1250
275mm	+/-0.0035mm	8mm	6MS-1275

Micrometer Stands

千分尺托架

- Designed to allow bench-top using with micrometers or other gages which have frame area sufficient to be hold.
- Used for 0-4"/0-100mm micrometers.

Type "A"

Specification	Order No.
Aluminum Body	600-0000
Cast Iron Body	600-1000



Type "B"

Specification	Order No.
Steel Body & Cast Iron Base	600-1001



Inside Diameter Micrometers

小孔内径千分尺

Tubular Type

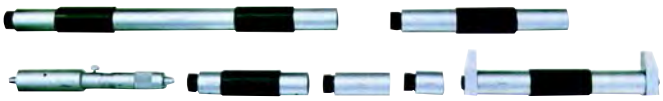
- Carbide measuring faces.
- Laser engraved graduations.



Range	Grad.	Order No.
2-10”	0.001”	**600-6600**

Range	Grad.	Order No.
50-75mm	.01mm	**600-6507**
50-100mm	.01mm	**600-6508**
50-175mm	.01mm	**600-6509**
50-250mm	.01mm	**600-6510**
50-600mm	.01mm	**600-6511**

- Chrome-plated.
- Each rod marked with length.
- Thermal insulator on each rod.
- Carbide measuring faces.
- Laser engraved graduations.



Range	Grad.	Order No.
4-36”	.001”	**600-6520**
6-55”	.001”	**600-6521**
6-80”	.001”	**600-6522**
6-84”	.001”	**600-6523**
40-120	.001”	**600-6524**

Range	Grad.	Order No.
150-1400mm	.01mm	**600-6501**
150-2000mm	.01mm	**600-6502**
150-2100mm	.01mm	**600-6503**
1000-3000mm	.01mm	**600-6504**

Tubular & Single Body Type 单体内径千分尺



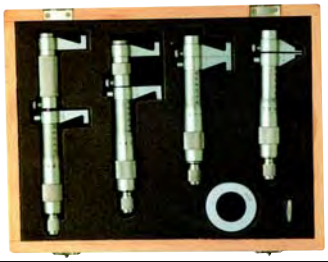
Range	Grad.	Order No.
100-125mm	.01mm	**600-6512**
125-150mm	.01mm	**600-6513**
150-175mm	.01mm	**600-6514**
175-200mm	.01mm	**600-6515**

Range	Grad.	Order No.
200-225mm	.01mm	**600-6516**
225-250mm	.01mm	**600-6517**
250-275mm	.01mm	**600-6518**
275-300mm	.01mm	**600-6519**

Inside Micrometer Sets

套装内测千分尺

- Caliper type jaws.
- Chrome-plated.
- Carbide measuring faces.
- Ratchet stop for exact repetitive readings.
- Complete with fitted case.



Piece	Range	Grad.	Order No.
3Pcs/set	.2 to 3”	.001”	**600-5021**
4Pcs/set	.2 to 4”	.001”	**600-5022**

Piece	Range	Grad.	Order No.
3Pcs/set	5 to 75mm	.01mm	**600-4021**
4Pcs/set	5 to 100mm	.01mm	**600-4022**

Inside Micrometers

内测千分尺

Basic Model

- Caliper type jaws.
- Chrome-plated.
- Carbide measuring faces.
- Ratchet stop for exact repetitive readings.
- Complete with fitted case.



Range	Setting Grad.	Setting Ring	Order No.
0.2-1.2”	.001”	0.2”	**600-5005**
1-2”	.001”	1”	**600-5010**
2-3”	.001”		**600-5015**
3-4”	.001”		**600-5020**
4-5”	.001”		**600-5026**
5-6”	.001”		**600-5030**
6-7”	.001”		**600-5035**
7-8”	.001”		**600-5040**
8-9”	.001”		**600-5045**
9-10”	.001”		**600-5046**
10-11”	.001”		**600-5047**
11-12”	.001”		**600-5048**

Range	Setting Grad.	Setting Ring	Order No.
5-30mm	.01mm	5mm	**600-4005**
25-50	.01mm	25mm	**600-4010**
50-75	.01mm		**600-4015**
75-100	.01mm		**600-4020**
100-125	.01mm		**600-4026**
125-150	.01mm		**600-4030**
150-175	.01mm		**600-4035**
175-200	.01mm		**600-4042**
200-225	.01mm		**600-4045**
225-250	.01mm		**600-4046**
250-275	.01mm		**600-4047**
275-300	.01mm		**600-4048**

Digital Inside Micrometers

计数器内测千分尺

- Mechanical digital counter for quick and error-free reading.
- Caliper type jaws.
- Chrome-plated.
- Carbide measuring faces.
- Laser engraved graduations.



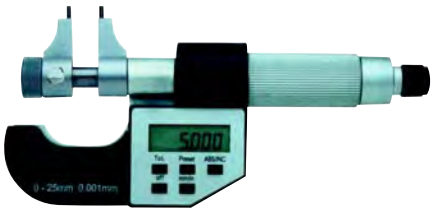
Range	Setting Grad.	Setting Ring	Order No.
.2-1.2”	.001”	0.2”	**600-5605**
1-2”	.001”	1”	**600-5610**
2-3”	.001”		**600-5615**
3-4”	.001”		**600-5620**
4-5”	.001”		**600-5626**
5-6”	.001”		**600-5630**
6-7”	.001”		**600-5635**
7-8”	.001”		**600-5640**
8-9”	.001”		**600-5645**
9-10”	.001”		**600-5646**
10-11”	.001”		**600-5647**
11-12”	.001”		**600-5648**

Range	Setting Grad.	Setting Ring	Order No.
5-30mm	.01mm	5mm	**600-4605**
25-50	.01mm	25mm	**600-4610**
50-75	.01mm		**600-4615**
75-100	.01mm		**600-4620**
100-125	.01mm		**600-4626**
125-150	.01mm		**600-4630**
150-175	.01mm		**600-4635**
175-200	.01mm		**600-4640**
200-225	.01mm		**600-4645**
225-250	.01mm		**600-4646**
250-275	.01mm		**600-4647**
275-300	.01mm		**600-4648**

Electronic Inside Micrometers

电子数显内测千分尺

- With 5 keys Deluxe Model micrometer head.
- Graduation .00005”/.001mm



Range	Setting Ring	Order No.
0.2-1.2”/5-30mm	0.2”/5mm	600-5101
1-2”/25-50mm	1”/25mm	600-5102
2-3”/50-75mm		600-5103
3-4”/75-100mm		600-5104
4-5”/100-125mm		600-5106
5-6”/125-150mm		600-5107

Range	Order No.
6-7”/150-175mm	600-5108
7-8”/175-200mm	600-5109
8-9”/200-225mm	600-5111
9-10”/225250mm	600-5112
10-11”/250-275mm	600-5113
11-12”/275-300m	600-5114

Interchangeable Rods Type Depth Micrometers

深度千分尺（前插入式）

Normal Type

- Spherical end (flat end available).
- High accuracy interchangeable rods changed from hole of base end.



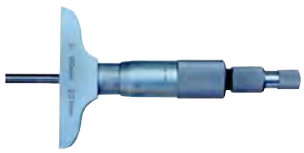
Range	Grad.	No. of Rods	Base size	Order No.	Base size	Order No.
0-1”	.001”	1	2-1/2”	602-3005	4”	602-3006
0-2”	.001”	2	2-1/2”	602-3008	4”	602-3009
0-4”	.001”	4	2-1/2”	602-3015	4”	602-3030
0-6”	.001”	6	2-1/2”	602-3025	4”	602-3020
0-8”	.001”	8	2-1/2”	602-3026	4”	602-3027
0-12”	.001”	12	2-1/2”	602-3028	4”	602-3029

Range	Grad.	No. of Rods	Base size	Order No.	Base size	Order No.
0-25mm	.01mm	1	63mm	602-3105	101.5mm	602-3106
0-50mm	.01mm	2	63mm	602-3108	101.5mm	602-3109
0-100mm	.01mm	4	63mm	602-3110	101.5mm	602-3111
0-150mm	.01mm	6	63mm	602-3115	101.5mm	602-3116
0-200mm	.01mm	8	63mm	602-3120	101.5mm	602-3121
0-300mm	.01mm	12	63mm	602-3125	101.5mm	602-3126

Interchangeable Rods type Depth Micrometers 深度千分尺（后插入式）

Run through rod Type





- Ratchet stop.
- Run through interchangeable rods, provide a wide measuring range.
- Spherical end (flat end available) .
- High accuracy interchangeable rods.

Range	Grad.	No. of Rods	Base size	Order No.	Base size	Order No.
0-1”	.001”	1	2-1/2”	602-4005	4”	602-4006
0-2”	.001”	2	2-1/2”	602-4008	4”	602-4009
0-4”	.001”	4	2-1/2”	602-4015	4”	602-4030
0-6”	.001”	6	2-1/2”	602-4025	4”	602-4020
0-8”	.001”	8	2-1/2”	602-4026	4”	602-4027
0-12”	.001”	12	2-1/2”	602-4028	4”	602-4029

Range	Grad.	No. of Rods	Base size	Order No.	Base size	Order No.
0-25mm	.01mm	1	63mm	602-4105	101.5mm	602-4106
0-50mm	.01mm	2	63mm	602-4108	101.5mm	602-4109
0-100mm	.01mm	4	63mm	602-4110	101.5mm	602-4111
0-150mm	.01mm	6	63mm	602-4115	101.5mm	602-4116
0-200mm	.01mm	8	63mm	602-4120	101.5mm	602-4121
0-300mm	.01mm	12	63mm	602-4125	101.5mm	602-4126

Electronic Depth Micrometers

电子数显深度千分尺



- With 5 keys deluxe model micrometer head.
- Spherical end (flat end available).
- High accuracy interchangeable rods.
- Friction thimble (Ratchet friction thimble available).
- .00005”/.001mm.

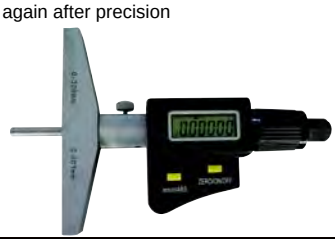
Range	No.of Rods	Base size	Order No.	Base size	Order No.
0-1”/0-25mm	1	4”	602-3311	2-1/2”	602-3301
0-2”/0-50mm	2	4”	602-3312	2-1/2”	602-3302
0-4”/0-100mm	4	4”	602-3314	2-1/2”	602-3304
0-6”/0-150mm	6	4”	602-3316	2-1/2”	602-3306
0-8”/0-200mm	8	4”	602-3318	2-1/2”	602-3308
0-12”/0-300mm	12	4”	602-3319	2-1/2”	602-3309

Digital Depth Micrometers

电子深度千分尺

- With interchangeable anvils for wide range measurements.
- Micrometers need not be set zero again after precision anviles are interchanged.
- Zero setting at any position.
- With data output interface.





Range	Graduation	No. of Rods	Order No.
0-1”/25mm	.000005”/.0001mm	1	602-3501
0-2”/50mm	.000005”/.0001mm	2	602-3502
0-3”/75mm	.000005”/.0001mm	3	602-3503
0-4”/100mm	.000005”/.0001mm	4	602-3504
0-6”/150mm	.000005”/.0001mm	6	602-3506
0-8”/200mm	.000005”/.0001mm	8	602-3508
0-12”/300mm	.000005”/.0001mm	12	602-3509

Digital Depth Micrometers

计数器深度千分尺

- Digit counter for quick and error-free reading.
- Zero-set button.
- Spherical end (flat end available).
- High accuracy interchangeable rods.



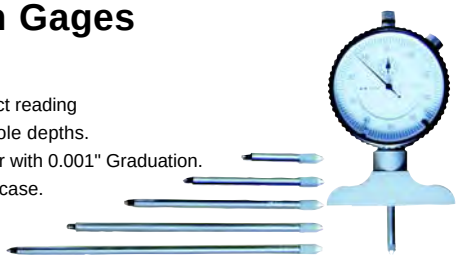
Range	Grad.	No. of Rods	Base size	Order No.	Base size	Order No.
0-1"	.001"	1	2-1/2"	602-3401	4"	602-3411
0-2"	.001"	2	2-1/2"	602-3402	4"	602-3412
0-4"	.001"	4	2-1/2"	602-3404	4"	602-3414
0-6"	.001"	6	2-1/2"	602-3406	4"	602-3416
0-8"	.001"	8	2-1/2"	602-3408	4"	602-3418
0-12"	.001"	12	2-1/2"	602-3409	4"	602-3419

Range	Grad.	No. Of Rods	Base size	Order No.	Base size	Order No.
0-25mm	.01mm	1	63mm	602-3421	101.5mm	602-3431
0-50mm	.01mm	2	63mm	602-3422	101.5mm	602-3432
0-100mm	.01mm	4	63mm	602-3424	101.5mm	602-3434
0-150mm	.01mm	6	63mm	602-3426	101.5mm	602-3436
0-200mm	.01mm	8	63mm	602-3428	101.5mm	602-3438
0-300mm	.01mm	12	63mm	602-3429	101.5mm	602-3439

Dial Depth Gages

带表深度规

- Provides rapid, direct reading measurements of hole depths.
- 0-1" Travel indicator with 0.001" Graduation.
- Supplied with fitted case.



Range	Base Size	No. of Rods	Order No.
0-4"	2-1/2"	4	615-6130
0-4	4	4	615-6131
0-6	2-1/2	6	615-6132
0-6	4	6	615-6133
0-8	2-1/2	8	615-6134
0-8	4	8	615-6135
0-12	2-1/2	12	615-6136
0-12	4	12	615-6137

Dial Indicator Depth Gage

带表深度规

- Provides rapid, direct reading measurements of hole depth
- 2 extra points: one 0.078" dia x 1" long, one needle point x 1" long (Order No. 605-0068)
- Furnished in fitted case



Range	Rod Size	No.of Rods	Base Size	Grad.	Order No.
0-8"	1,2,4"	3	2-1/2"	0.001"	615-6144
0-8"	1,2,4"	3	4"	0.001"	615-6145
0-22"	1-6"	6	2-1/2"	0.001"	615-6139
0-22"	1-6"	6	4"	0.001"	615-6138

Electronic Digital Indicator Depth Gage

电子数显深度表 -3 按键

3 keys, large LCD Screen



Range	Graduation	Base Size	No.of Rods	Rod Size	Order No.
0-200mm/8"	0.01mm/0.0005"	2-1/2"	3	1,2,4"	605-6813
0-200mm/8"	0.01mm/0.0005"	4"	3	1,2,4"	605-6814
0-550mm/22"	0.01mm/0.0005"	2-1/2"	6	1-6"	605-6815
0-550mm/22"	0.01mm/0.0005"	4"	6	1-6"	605-6816

- Provides rapid, direct reading measurements of hole depth
- 2 extra points: one 0.078" dia x 1" long, one needle point x 1" long (Order No. 605-0068)
- Furnished in fitted case



Range	Graduation	Base Size	No.of Rods	Rod Size	Order No.
0-550mm/22"	0.001mm/0.00005"	2-1/2	6	1-6"	605-6809
0-550mm/22"	0.001mm/0.00005"	4"	6	1-6"	605-6810

Accessories For Three Point Inside Micrometers

三点内径千分尺附件

Internal Gage for Three Point Micrometers



For Range	Specifications	Order No.	Specifications	Order No.
6-12mm x .005mm	Dia. 32x10x8	600-9524	Dia. 32x10x10	600-9525
11-20mm x.005mm	Dia. 35x13x11	600-9534	Dia. 45x15x17	600-9535
20-40mm x.005mm	Dia. 53x20x25	600-9544	Dia. 68x20x35	600-9545
40-100 x .005mm	Dia.100x30.2x50	600-9564	Dia.112x32.2x70	600-9565
40-100x .005mm	Dia.140x35.2x90	600-9566		

Arbor, Arbor Socket & Wrench for Basic Model Three Point Micrometers

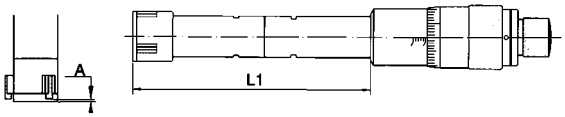
Range	Arbor& Socket Order No.	Wrench Order No.
For .24-.48"	600-9521	600-9523
For .44-.80"	600-9531	600-9533
For .80-1.6"	600-9541	600-9543
For 1.6-4.0"	600-9561	600-9563
for 6-12mm	600-9221	600-9223
for 11-20mm	600-9231	600-9233
for 20-40mm	600-9241	600-9243
for 40-100mm	600-9261	600-9263

Three-point Internal Micrometers

三点内径千分尺

- Self-centering 3-point for accurate measurement of internal diameters.
- Highly durable because of carbide-tipped contact points.
- Measurement can be taken closer to the bottom of the blind bore, and can be taken into a deep hole with an extension rods.
- Supplied with setting rings.

Within 12mm/0.5".
Resolution: 0.001mm(Metric); 0.0001"(Inch).
Over 12mm/0.5".
Resolution: 0.005mm(Metric); 0.0002"(Inch).





Metric

Range	Grad.	Accuracy	Setting Rings	L1	A	Order No.
6-8mm	.001mm	0.004mm	ϕ8mm	53.5mm	0.5mm	**600-9660**
8-10mm	.001mm	0.004mm	ϕ8mm	53.5mm	0.5mm	**600-9661**
10-12mm	.001mm	0.004mm	ϕ10mm	53.5mm	0.5mm	**600-9662**
12-16mm	.005mm	0.004mm	ϕ16mm	80mm	0.5mm	**600-9663**
16-20mm	.005mm	0.004mm	ϕ16mm	80mm	0.5mm	**600-9664**
20-25mm	.005mm	0.004mm	ϕ25mm	90mm	0.5mm	**600-9665**
25-30mm	.005mm	0.004mm	ϕ25mm	90mm	0.5mm	**600-9666**
30-40mm	.005mm	0.004mm	ϕ40mm	97mm	0.5mm	**600-9667**
40-50mm	.005mm	0.005mm	ϕ40mm	97mm	0.5mm	**600-9668**
50-63mm	.005mm	0.005mm	ϕ62mm	114mm	0.5mm	**600-9669**
62-75mm	.005mm	0.005mm	ϕ62mm	114mm	0.5mm	**600-9670**
75-88mm	.005mm	0.005mm	ϕ87mm	114mm	0.5mm	**600-9671**
87-100mm	.005mm	0.005mm	ϕ87mm	114mm	0.5mm	**600-9672**

Inch

Range	Grad.	Accuracy	Setting Rings	L1	A	Order No.
0.275-0.35"	.0001"	0.004mm	0.275"	63.5mm	1.5mm	**600-9860**
0.35-0.425"	.0001"	0.004mm	0.35"	63.5mm	1.5mm	**600-9861**
0.425-0.5"	.0001"	0.004mm	0.5"	63.5mm	0.5mm	**600-9862**
0.5-0.65"	.0002"	0.004mm	0.65"	79.5mm	0.5mm	**600-9863**
0.65-0.8"	.0002"	0.004mm	0.65"	79.5mm	0.5mm	**600-9864**
0.8-1"	.0002"	0.004mm	1	104.5mm	0.5mm	**600-9865**
1-1.2"	.0002"	0.004mm	1	104.5mm	0.5mm	**600-9866**
1.2-1.6"	.0002"	0.004mm	1.6"	110mm	0.5mm	**600-9867**
1.6-2"	.0002"	0.005mm	1.6"	110mm	0.5mm	**600-9868**
2-2.5"	.0002"	0.005mm	2.5"	127mm	0.5mm	**600-9869**
2.5-3"	.0002"	0.005mm	2.5"	127mm	0.5mm	**600-9870**
3-3.5"	.0002"	0.005mm	3.5"	127mm	0.5mm	**600-9871**
3.5-4"	.0002"	0.005mm	3.5"	127mm	0.5mm	**600-9872**

Three-point Internal Micrometers Sets

三点内径千分尺套装



Metric

Range	Grad.	Extension Rods	Desc.	Order No.
6-12mm(A=0.5mm)	.001mm	100mm	3 Heads	**600-9675**
12-20mm(A=0.5mm)	.005mm	150mm	2 Heads	**600-9676**
20-50mm(A=0.5mm)	.005mm	150mm	3 Heads	**600-9677**
50-100mm(A=0.5mm)	.005mm	150mm	5 Heads	**600-9678**

Inch

Range	Grad.	Extension Rods	Desc.	Order No.
0.275-0.5"((A=0.5mm)	.0001"	3.9"	3 Heads	**600-9875**
0.5-0.8"(A=0.5mm)	.0002"	5.9"	2 Heads	**600-9876**
0.8-2"(A=0.5mm)	.0002"	5.9"	4 Heads	**600-9877**
2-4"(A=0.5mm)	.0002"	5.9"	4 Heads	**600-9878**

Electronic Three Point Inside Micrometers & Sets

电子数显三点内径千分尺

- Both electronic digital reading and analog indication on the micrometer Heads.



Individuals

Range	Graduation	Order No.	Range	Graduation	Order No.
6-8mm/.24-.3"	.005mm/.0002"	**600-9731**	30-35mm/1.18-1.37"	.005mm/.0002"	**600-9739**
8-10mm/.3-.39"	.005mm/.0002"	**600-9732**	35-40mm/1.37-1.57"	.005mm/.0002"	**600-9740**
10-12mm/.39-.47"	.005mm/.0002"	**600-9733**	40-50mm/1.57-1.97"	.005mm/.0002"	**600-9741**
11-14mm/.43-.55"	.005mm/.0002"	**600-9734**	50-60mm/1.97-2.36"	.005mm/.0002"	**600-9742**
14-17mm/.55-.66"	.005mm/.0002"	**600-9735**	60-70mm/2.36-2.76"	.005mm/.0002"	**600-9743**
17-20mm/.66-.78"	.005mm/.0002"	**600-9736**	70-80mm/2.76-3.15"	.005mm/.0002"	**600-9744**
20-25mm/.78-.98"	.005mm/.0002"	**600-9737**	80-90mm/3.15-3.54"	.005mm/.0002"	**600-9745**
25-30mm/.98-1.18"	.005mm/.0002"	**600-9738**	90-100mm/3.54-3.94"	.005mm/.0002"	**600-9746**

Sets

Range	Graduations	Heads	Order No.
6-12mm/.24-.47"	.005mm/.0002"	3	**600-9751**
11-20mm/.43-.78"	.005mm/.0002"	3	**600-9752**
20-40mm/.78-1.57"	.005mm/.0002"	4	**600-9753**
40-100mm/1.57-3.94"	.005mm/.0002"	6	**600-9754**

Three Point Inside Micrometers & Sets

三点内径千分尺

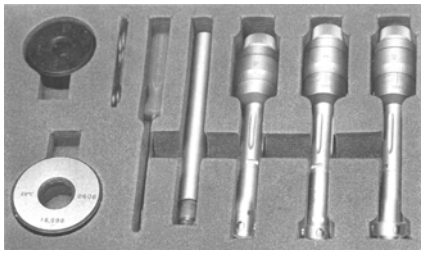


Basic Type, Individuals

- Three point self-centering heads.
- Each size with one Setting Ring.
- Basic type for through holes.
- Ratchet stop

Range	Grad.	Order No.
.24-.3”	.0002”	**600-9501**
.3-.39”	.0002”	**600-9502**
.39-.47”	.0002”	**600-9503**
.43-.55”	.0002”	**600-9504**
.55-.66”	.0002”	**600-9505**
.66-.78”	.0002”	**600-9506**
.78-.98”	.0002”	**600-9507**
.98-1.18”	.0002”	**600-9508**
1.18-1.37”	.0002”	**600-9509**
1.37-1.57”	.0002”	**600-9510**
1.57-1.97”	.0002”	**600-9511**
1.97-2.36”	.0002”	**600-9512**
2.36-2.76”	.0002”	**600-9513**
2.76-3.15”	.0002”	**600-9514**
3.15-3.54”	.0002”	**600-9515**
3.54-3.94”	.0002”	**600-9516**

Range	Grad.	Order No.
6-8mm	.005mm	**600-9201**
8-10mm	.005mm	**600-9202**
10-12mm	.005mm	**600-9203**
11-14mm	.005mm	**600-9204**
14-17mm	.005mm	**600-9205**
17-20mm	.005mm	**600-9206**
20-25mm	.005mm	**600-9207**
25-30mm	.005mm	**600-9208**
30-35mm	.005mm	**600-9209**
35-40mm	.005mm	**600-9210**
40-50mm	.005mm	**600-9211**
50-60mm	.005mm	**600-9212**
60-70mm	.005mm	**600-9213**
70-80mm	.005mm	**600-9214**
80-90mm	.005mm	**600-9215**
90-100mm	.005mm	**600-9216**



Basic Type, Sets

- Three point self-centering heads.
- Including Arbor, Arbor Socket & Internal Ring gage not included.
- Blind Hole Type for measuring bind holes.

Range	Grad.	Desc.	Order No.
.24-.48	.0002”	3 heads	**600-9520**
.44-.80	.0002”	3 heads	**600-9530**
.80-1.6	.0002”	4 heads	**600-9540**
1.6-4.0	.0002”	6 heads	**600-9560**

Range	Grad.	Desc.	Order No.
6-12mm	.005mm	3 heads	**600-9220**
11-20mm	.005mm	3 heads	**600-9230**
20-40mm	.005mm	4 heads	**600-9240**
40-100mm	.005mm	6 heads	**600-9260**



Blind Hole Type, Individuals

- Arbor, Arbor Socket & Internal Ring gage not included.

Range	Grad.	Order No.
.24-.3”	.0002”	**600-2501**
.3-.39”	.0002”	**600-2502**
.39-.47”	.0002”	**600-2503**
.43-.55”	.0002”	**600-2504**
.55-.66”	.0002”	**600-2505**
.66-.78”	.0002”	**600-2506**
.78-.98”	.0002”	**600-2507**
.98-1.18”	.0002”	**600-2508**
1.18-1.37”	.0002”	**600-2509**
1.37-1.57”	.0002”	**600-2510**
1.57-1.97”	.0002”	**600-2511**
1.97-2.36”	.0002”	**600-2512**
2.36-2.76”	.0002”	**600-2513**
2.76-3.15”	.0002”	**600-2514**
3.15-3.54”	.0002”	**600-2515**
3.54-3.94”	.0002”	**600-2516**

Range	Grad.	Order No.
6-8mm	.005mm	**600-2201**
8-10mm	.005mm	**600-2202**
10-12mm	.005mm	**600-2203**
11-14mm	.005mm	**600-2204**
14-17mm	.005mm	**600-2205**
17-20mm	.005mm	**600-2206**
20-25mm	.005mm	**600-2207**
25-30mm	.005mm	**600-2208**
30-35mm	.005mm	**600-2209**
35-40mm	.005mm	**600-2210**
40-50mm	.005mm	**600-2211**
50-60mm	.005mm	**600-2212**
60-70mm	.005mm	**600-2213**
70-80mm	.005mm	**600-2214**
80-90mm	.005mm	**600-2215**
90-100mm	.005mm	**600-2216**

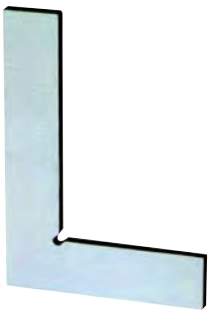


Blind Hole Type, Sets

- Including internal ring gage .
- Arbor & arbor socket not Included.
- Chrome-plated.
- Carbide measuring faces.
- Laser engraved graduations.

Range	Grad.	Desc.	Order No.
.24-.48	.0002”	3 heads	**600-2520**
.44-.80	.0002”	3 heads	**600-2530**
.80-1.6	.0002”	4 heads	**600-2540**
1.6-4.0	.0002”	6 heads	**600-2560**

Range	Grad.	Desc.	Order No.
6-12mm	.005mm	3heads	**600-2220**
11-20mm	.005mm	3 heads	**600-2230**
20-40mm	.005mm	4 heads	**600-2240**
40-100mm	.005mm	6 heads	**600-2260**



Quality Hardened Steel Squares

Blades with Straight Edges, Accuracy Class 2

平口角尺

- **Accuracy: .0008” + L/10,000**
- Beam is grooved at inner corner.
- Beams and blades are accurately ground and lapped.
- Hardness: HRC55.

Blade	Beam	Order No.
1-3/8”	1”	650-7505
2-3/8”	1-3/8”	650-7510
3-1/8”	2”	650-7537
5”	3”	650-7552
6-3/4”	4”	650-7560
8-1/2”	5-1/8”	650-7586
10-1/2”	6-3/8”	650-7602
14”	6”	650-7610
18”	8”	650-7615



Blades with Two Straight Bevelled Edges, Accuracy Class N

宽座角尺

- **Accuracy: .0002” + L/50,000**
- Class N Squares have accurate right angles both inside and outside.
- Beam is grooved at inner corner for clearance of burr and dirt.
- Beams and blades are accurately ground and lapped for straightness and parallelism.
- All squares are fully hardened (HRC55).

Blade	Beam	Order No.
1-3/8”	1”	650-6205
2-3/8”	1-3/8”	650-6210
2-1/2”	1-1/2”	650-6224
3-1/8”	2”	650-6232
5”	3”	650-6257
6-1/4”	4”	650-6265
6-3/4”	4”	650-6270
7-7/8”	5”	650-6281
8-1/2”	5-1/8”	650-6285
10-1/2”	6-3/8”	650-6290



Blades with Two Straight Bevelled Edges, Accuracy Class H

刀口角尺

- **Accuracy: .0008” + L/10,000**
- Squares have accurate right angles both inside and outside.
- Made from a single piece of fully seasoned tool steel.
- Class H Blades are beveled on both edges of each side.
- Beam is grooved at inner corner for clearance of burr and dirt.
- Beams and blades are ground and accurately lapped for straightness and parallelism.
- All squares are fully hardened (HRC55).

Blade	Beam	Order No.
1-3/8”	1”	650-7205
2-3/8”	1”	650-7210
2-3/8”	1-3/8”	650-7211
2-1/2”	1-1/2”	650-7222
3-1/8”	2”	650-7230
5”	3”	650-7255
6-1/4”	4”	650-7263
7-7/8”	5”	650-7289
8-1/2”	5-1/8”	650-7293
10-1/2”	6-3/8”	650-7296



Machinist’s Steel Squares & Sets

钳工宽座角尺（碳钢，铆接）

Plain Type

- **Accuracy: Workshop Grade/Plain Type**
- Made from the finest steel.
- Beams and blades are ground and accurately lapped for straightness and parallelism.
- Hardened blade only.

Individuals

Blade	Beam	Order No.
2”	1-1/2”	650-8022
3”	2-1/2”	650-8030
4”	3”	650-8048
6”	4”	650-8063
9”	5-1/2”	650-8097
12”	7”	650-8121
18”	10”	650-8147
24”	12”	650-8162



Sets

No.of Piece	Size	Order No.
4Pcs/set	2-6”	650-8014
4Pcs/set	4-12”	650-8006



Die Maker’s Square Set

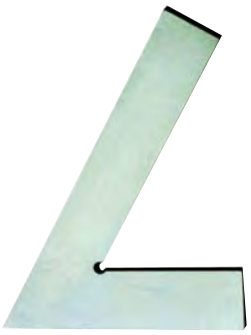
四件套组合角尺

“Die Maker’s Square set” is ideal for the toolmaker working on precise miniature layouts. Sets consist of 3 hardened beveled edge squares 3/4”, 1-1/4” and 2-3/8” plus a 1-1/2” triangular straight edge with handle. Sides of triangular straight edge are grooved in middle for clearance of burr and dirt.

- All tools are hardened and ground, very finely finished and extremely accurate.
- 1-1/2” triangular straight edge with a removable hardle(length 2-1/2”).
- Beam is grooved at inner corner for clearance of bur and dirt.

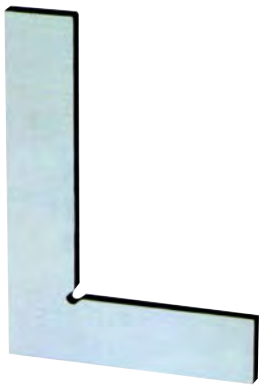
Description	Order No.
Beveled Edge Squares : 3/4”,1-1/4”,2-3/8” Triangular straight edge: 1-1/2” OAL:4”	650-7200

DIN875 Squares



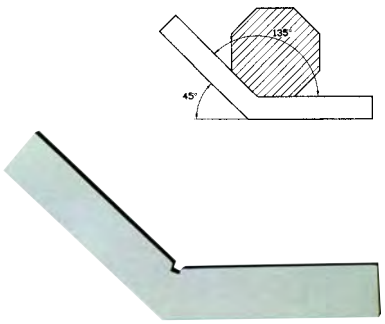
45° & 60° Flat Squares 平口角尺

Blade (mm)	Beam (mm)	45° Carbon Steel Grade 1 Order No.	45° Carbon Steel Grade 2 Order No.	45° Stainless Steel Grade 1 Order No.	45° Stainless Steel Grade 2 Order No.	60° Carbon Steel Grade 1 Order No.	60° Carbon Steel Grade 2 Order No.	60° Stainless Steel Grade 1 Order No.	60° Stainless Steel Grade 2 Order No.
100	70	639-2710	639-2810	638-2710	638-2810	639-6310	639-6410	638-6310	638-6410
125	80	639-2712	639-2812	638-2712	638-2812	639-6312	639-6412	638-6312	638-6412
150	100	639-2715	639-2815	638-2715	638-2815	639-6315	639-6415	638-6315	638-6415
200	130	639-2720	639-2820	638-2720	638-2820	639-6320	639-6420	638-6320	638-6420
250	160	639-2725	639-2825	638-2725	638-2825	639-6325	639-6425	638-6325	638-6425
300	200	639-2730	639-2830	638-2730	638-2830	639-6330	639-6430	638-6330	638-6430



90° Flat Squares

Blade (mm)	Beam (mm)	Carbon Steel Grade 0 Order No.	Carbon Steel Grade 1 Order No.	Carbon Steel Grade 2 Order No.	Stainless Steel Grade 0 Order No.	Stainless Steel Grade 1 Order No.	Stainless Steel Grade 2 Order No.
50	40	639-4105	639-4205	639-4305	638-4105	638-4205	638-4305
75	50	639-4110	639-4210	639-4310	638-4110	638-4210	638-4310
100	70	639-4115	639-4215	639-4315	638-4115	638-4215	638-4315
150	100	639-4120	639-4220	639-4320	638-4120	638-4220	638-4320
200	130	639-4130	639-4230	639-4330	638-4130	638-4230	638-4330
250	160	639-4132	639-4232	639-4332	638-4132	638-4232	638-4332
300	175	639-4136	639-4236	639-4336	638-4136	638-4236	638-4336
300	200	639-4135	639-4235	639-4335	638-4135	638-4235	638-4335



135° &120° Flat Squares

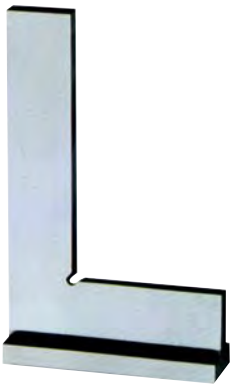
Blade (mm)	Beam (mm)	135° Carbon Steel Grade 1 Order No.	135° Carbon Steel Grade 2 Order No.	135° Stainless Steel Grade 1 Order No.	135° Stainless Steel Grade 2 Order No.	120° Carbon Steel Grade 1 Order No.	120° Carbon Steel Grade 2 Order No.	120° Stainless Steel Grade 1 Order No.	120° Stainless Steel Grade 2 Order No.
100	70	639-5005	639-5105	638-5005	638-5105	639-5055	639-5155	638-5055	638-5155
120	80	639-5010	639-5110	638-5010	638-5110	639-5060	639-5160	638-5060	638-5160
150	100	639-5015	639-5115	638-5015	638-5115	639-5065	639-5165	638-5065	638-5165
200	130	639-5020	639-5120	638-5020	638-5120	639-5070	639-5170	638-5070	638-5170
50	50	639-3005	639-3105	638-3005	638-3105	639-3205	639-3305	638-3205	638-3305
75	75	639-3010	639-3110	638-3010	638-3110	639-3210	639-3310	638-3210	638-3310
100	100	639-3015	639-3115	638-3015	638-3115	639-3215	639-3315	638-3215	638-3315
150	150	639-3020	639-3120	638-3020	638-3120	639-3220	639-3320	638-3220	638-3320
200	200	639-3025	639-3125	638-3025	638-3125	639-3225	639-3325	638-3225	638-3325



135° &120° Wide Base Squares 宽座角尺

Blade (mm)	Beam (mm)	135° Carbon Steel Grade 1 Order No.	135° Carbon Steel Grade 2 Order No.	135° Stainless Steel Grade 1 Order No.	135° Stainless Steel Grade 2 Order No.	120° Carbon Steel Grade 1 Order No.	120° Carbon Steel Grade 2 Order No.	120° Stainless Steel Grade 1 Order No.	120° Stainless Steel Grade 2 Order No.
100	70	639-6005	639-6105	638-6005	638-6105	639-6055	639-6155	638-6055	638-6155
120	80	639-6007	639-6107	638-6007	638-6107	639-6060	639-6160	638-6060	638-6160
150	100	639-6010	639-6110	638-6010	638-6110	639-6065	639-6165	638-6065	638-6165
200	130	639-6015	639-6115	638-6015	638-6115	639-6070	639-6170	638-6070	638-6170
250	160	639-6020	639-6120	638-6020	638-6120	639-6075	639-6175	638-6075	638-6175
300	175	639-6025	639-6125	638-6025	638-6125	639-6080	639-6180	638-6080	638-6180

DIN875 Squares



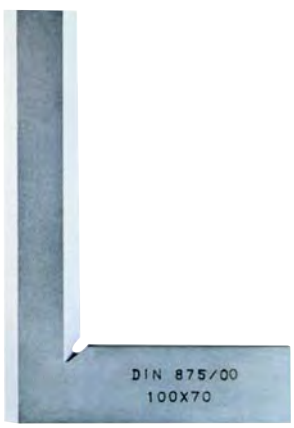
90° Wide Base Squares 90度带座角尺

Blade (mm)	Beam (mm)	Carbon Steel Grade 0 Order No.	Carbon Steel Grade 1 Order No.	Carbon Steel Grade 2 Order No.	Stainless Steel Grade 0 Order No.	Stainless Steel Grade 1 Order No.	Stainless Steel Grade 2 Order No.
50	40	639-2105	639-2205	639-2305	638-2105	638-2205	638-2305
75	50	639-2110	639-2210	639-2310	638-2110	638-2210	638-2310
100	70	639-2115	639-2215	639-2315	638-2115	638-2215	638-2315
125	80	639-2116	639-2216	639-2316	638-2116	638-2216	638-2316
150	100	639-2120	639-2220	639-2320	638-2120	638-2220	638-2320
200	130	639-2130	639-2230	639-2330	638-2130	638-2230	638-2330
250	160	639-2132	639-2232	639-2332	638-2132	638-2232	638-2332
300	175	639-2136	639-2236	639-2336	638-2136	638-2236	638-2336
300	200	639-2135	639-2235	639-2335	638-2135	638-2235	638-2335



90° Heavy Base Squares 90度宽座角尺（加重底座）

Blade (mm)	Beam (mm)	Carbon Steel Grade 0 Order No.	Carbon Steel Grade 1 Order No.	Carbon Steel Grade 2 Order No.	Stainless Steel Grade 0 Order No.	Stainless Steel Grade 1 Order No.	Stainless Steel Grade 2 Order No.
50	40	639-2155	639-2255	639-2355	638-2155	638-2255	638-2355
75	50	639-2160	639-2260	639-2360	638-2160	638-2260	638-2360
100	70	639-2165	639-2265	639-2365	638-2165	638-2265	638-2365
125	80	639-2166	639-2266	639-2366	638-2166	638-2266	638-2366
150	100	639-2170	639-2270	639-2370	638-2170	638-2270	638-2370
200	130	639-2175	639-2275	639-2375	638-2175	638-2275	638-2375
300	200	639-2180	639-2280	639-2380	638-2180	638-2280	638-2380



90° Knife Edge Squares 90度刀口角尺

Blade (mm)	Beam (mm)	Carbon Steel Grade 0 Order No.	Carbon Steel Grade 00 Order No.	Stainless Steel Grade 0 Order No.	Stainless Steel Grade 00 Order No.	Carbon Steel Black Chrome Blades Grade 0 Order No.	Carbon Steel Black Chrome Blades Grade 00 Order No.
25	20	639-1102	639-1002	638-1102	638-1002	639-1152	639-1052
40	28	639-1103	639-1003	638-1103	638-1003	639-1153	639-1053
50	32	639-1104	639-1004	638-1104	638-1004	639-1154	639-1054
50	40	639-1105	639-1005	638-1105	638-1005	639-1155	639-1055
63	40	639-1106	639-1006	638-1106	638-1006	639-1156	639-1056
75	50	639-1110	639-1010	638-1110	638-1010	639-1160	639-1060
80	50	639-1111	639-1011	638-1111	638-1011	639-1161	639-1061
100	63	639-1112	639-1012	638-1112	638-1012	639-1162	639-1062
100	70	639-1115	639-1015	638-1115	638-1015	639-1165	639-1065
125	80	639-1116	639-1016	638-1116	638-1016	639-1166	639-1066
150	100	639-1120	639-1020	638-1120	638-1020	639-1170	639-1070
160	100	639-1121	639-1021	638-1121	638-1021	639-1171	639-1071
200	125	639-1122	639-1022	638-1122	638-1022	639-1172	639-1072
200	130	639-1125	639-1025	638-1125	638-1025	639-1175	639-1075
300	200	639-1135	639-1035	638-1135	638-1035	639-1180	639-1080



90° Wide Base Knife Edge Squares 90度刀口宽座角尺

Blade (mm)	Beam (mm)	Carbon Steel Grade 00 Order No.	Carbon Steel Grade 0 Order No.	Carbon Steel Grade 1 Order No.	Stainless Steel Grade 00 Order No.	Stainless Steel Grade 0 Order No.	Stainless Steel Grade 1 Order No.	Carbon Steel Black Chrome Blades Grade 00 Order No.	Carbon Steel Black Chrome Blades Grade 0 Order No.	Carbon Steel Black Chrome Blades Grade 1 Order No.
50	40	639-4055	639-4155	639-4255	638-4055	638-4155	638-4255	639-4655	639-4755	639-4855
75	50	639-4060	639-4160	639-4260	638-4060	638-4160	638-4260	639-4660	639-4760	639-4860
100	70	639-4065	639-4165	639-4265	638-4065	638-4165	638-4265	639-4665	639-4765	639-4865
125	80	639-4067	639-4167	639-4267	638-4067	638-4167	638-4267	639-4667	639-4767	639-4867
150	100	639-4070	639-4170	639-4270	638-4070	638-4170	638-4270	639-4670	639-4770	639-4870
200	130	639-4074	639-4175	639-4275	638-4075	638-4175	638-4275	639-4675	639-4775	639-4875

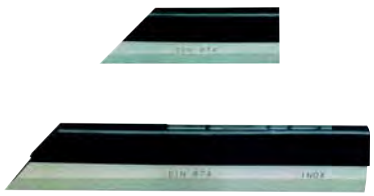
DIN875 Squares 带座角尺



45° & 60° Squares with Wide Base

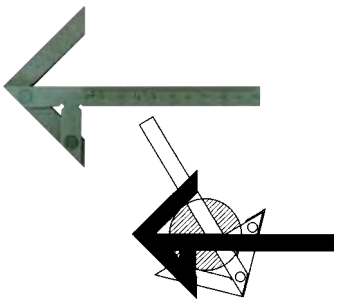
Blade (mm)	Beam (mm)	45° Carbon Steel Grade 1 Order No.	45° Carbon Steel Grade 2 Order No.	45° Stainless Steel Grade 1 Order No.	45° Stainless Steel Grade 2 Order No.	60° Carbon Steel Grade 1 Order No.	60° Carbon Steel Grade 2 Order No.	60° Stainless Steel Grade 1 Order No	60° Stainless Steel Grade 2 Order No.
100	70	639-1710	639-1810	638-1710	638-1810	639-6610	639-6710	638-6610	638-6710
125	80	639-1712	639-1812	638-1712	638-1812	639-6612	639-6712	638-6612	638-6712
150	100	639-1715	639-1815	638-1715	638-1815	639-6615	639-6715	638-6615	638-6715
200	130	639-1720	639-1820	638-1720	638-1820	639-6620	639-6720	638-6620	638-6720
250	160	639-1725	639-1825	638-1725	638-1825	639-6625	639-6725	638-6625	638-6725
300	200	639-1730	639-1830	638-1730	638-1830	639-6630	639-6730	638-6630	638-6730

DIN874 Straight Edges 刀口直尺



Length	Carbon Steel Grade 00 Order No.	Carbon Steel Grade 0 Order No.	Stainless Steel Grade 00 Order No.	Stainless Steel Grade 0 Order No.	Carbon Steel Black Chrome Blades Grade 00 Order No.	Carbon Steel Black Chrome Blades Grade 0 Order No.
50mm	639-7003	639-7103	638-7003	638-7103	639-7053	639-7153
75mm	639-7005	639-7105	638-7005	638-7105	639-7055	639-7155
100mm	639-7010	639-7110	638-7010	638-7110	639-7060	639-7160
125mm	639-7015	639-7115	638-7015	638-7115	639-7065	639-7165
150mm	639-7020	639-7120	638-7020	638-7120	639-7070	639-7170
200mm	639-7025	639-7125	638-7025	638-7125	639-7075	639-7175
250mm	639-7030	639-7130	638-7030	638-7130	639-7080	639-7180
300mm	639-7035	639-7135	638-7035	638-7135	639-7085	639-7185
400mm	639-7040	639-7140	638-7040	638-7140	639-7090	639-7190

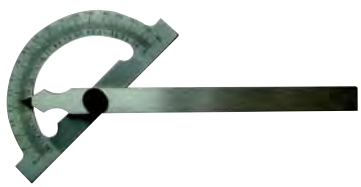
DIN875/1 Centering Squares 中心规（中心角尺）



- Satin chromed finish.
- Special steel.
- Determine the center of shaft and discs rapidly.
- Graduation:0.1mm

Blade	Angle length	Carbon Steel Order No.	Stainless Steel Order No.
100mm	70mm	639-2410	638-2410
150mm	130mm	639-2415	638-2415
200mm	150mm	639-2420	638-2420
250mm	160mm	639-2425	638-2425
300mm	180mm	639-2430	638-2430

Locking Type Protractors 紧固式角度尺



- Graduated from 0°-180° in opposite directions.
- Features a knurled thumb locking nut.
- Graduation 1°.

Dia. of Protractor	Length of Blade	Chrome-Plated Tool Steel Order No.	Stainless Steel Order No.	Dia. of Protractor	Length of Blade	Chrome-Plated Tool Steel Order No.	Stainless Steel Order No.
80mm	120mm	635-7781	635-7881	300mm	600mm	635-7786	635-7886
120mm	150mm	635-7782	635-7882	300mm	800mm	635-7787	635-7887
150mm	200mm	635-7783	635-7883	400mm	600mm	635-7788	635-7888
200mm	300mm	635-7784	635-7884	400mm	800mm	635-7789	635-7889
300mm	500mm	635-7785	635-7885	400mm	1000mm	635-7790	635-7890

Universal Bevel Protractors 320 度万能角度尺



Range	Reading Value	Order No.
0° to 320°	2”	635-7780

Riveting Type Protractors
铆钉式角度尺

- Graduated from 0°-180° in opposite directions.
- Features a rivet in jointing of head and arm.



Dia. of Protractor	Length of Blade	Chrome-Plated Tool Steel Order No.	Stainless Steel Order No.
80mm	120mm	635-8010	635-8110
120mm	150mm	635-8015	635-8115
150mm	200mm	635-8020	635-8120
200mm	300mm	635-8025	635-8125

Adjustable Protractors
可调式角度尺

- Measuring Range: 10-170°



Range	Grad.	Chrome-Plated Tool Steel Order No.	Stainless Steel Order No.
100-150mm	1°	635-9010	635-9110
150-300mm	1°	635-9015	635-9115
200-400mm	1°	635-9020	635-9120
250-500mm	1°	635-9025	635-9125
300-600mm	1°	635-9030	635-9130

Protractor and Depth Gage
Locking Type 带 6″ 深度尺杆紧固式角度尺

- 0-180° Graduation on head
- Rectangular Head, Stainless steel
- 6x1/4" Depth gage at 32nds,& 64ths.



Specifications	Order No.
Rectangular Head,2-1/2" Base	635-7864
Round Head	635-7865

Angle Finder
数显量角仪

Four holes for locking when measuring specifically angle; screw off the locking knob, the measuring range could reach 360°. Lock the moving blade at any angle, make precise drawing and cutting directly. Both inside and outside angle measuring

- Metal moving blade on the front
- Aluminium fixing blade
- LCD display
- Locking knob
- High resolution 0.05°
- Power: 3VCr2032 Lithium battery



Order No. 638-8000

Cylindrical Squares
圆柱角尺

- Use in surface plate as 90° reference angle.
- Used for checking squares, height gages and many instruments.
- The squares are hardened and the ends are lapped to 90° angular accuracy with the cylinders as follow: 6" square to +/- .00010" and 12" square to +/- .00015".

Diameter	Height	Order No.
3"	6"	605-5003
4	12	605-5004

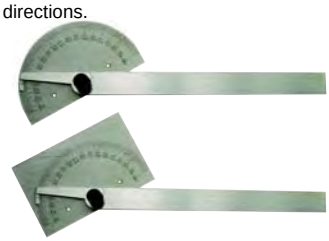




Locking Type Protractors
紧固式量角器

- Graduated from 0°-180° in opposite directions.
- Used for mechinists,draftsmen, layoutmen and other mechanics.
- Carbon steel.
- Graduation 1°.

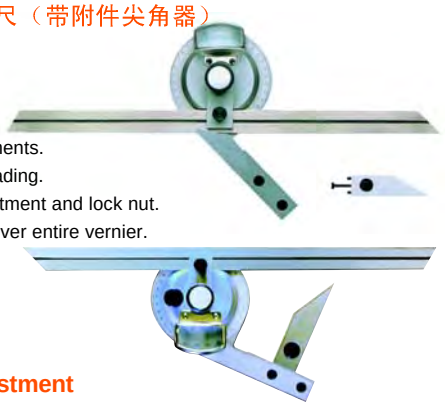
" * " square head type
" ** " Round head type



Dia. of Protractors	Length of Blade	Carbon Steel Order No.	Stainless Steel Order No.
85mm	150mm	635-7700*	635-7860*
85mm	150mm	635-7710**	635-7870**

Parallax Free Universal Bevel Protractors
带放大镜万能角度尺（带附件尖角器）

- 360° scale in 1° increments.
- 5 minutes minimum reading.
- With/without fine adjustment and lock nut.
- Mangnifier moveable over entire vernier.
- stainless steel.



Without Fine Adjustment

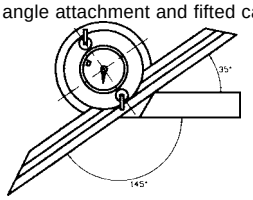
Specifications	Order No.
150mm/6" Blade, Protractor Head, acute angle attachment	635-6545
200mm/8" Blade, Protractor Head, acute angle attachment	635-6547
300mm/12" Blade, Protractor Head, acute angle attachment	635-6549
5 Pcs/set: 1 Protractor Head,1 acute angle attachment, 3 Blades: 150mm/6", 200mm/8" & 300mm/12"	635-6509

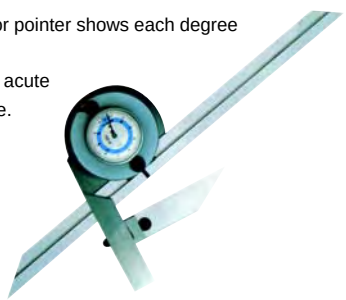
With Fine Adjustment

Specifications	Order No.
150mm/6" Blade, Protractor Head, acute angle attachment	635-6552
200mm/8" Blade, Protractor Head, acute angle attachment	635-6554
300mm/12" Blade, Protractor Head, acute angle attachment	635-6557
5 Pcs/set: 1 Protractor Head,1 acute angle attachment, 3 Blades: 150mm/6", 200mm/8" & 300mm/12"	635-6508

Universal Dial Bevel Protractors
360 度带表万能角度尺（带附件尖角器）

- Dial reads each 10° and indicator pointer shows each degree and 5 minutes of angle.
- Includes protractor head, blade, acute angle attachment and fifted case.





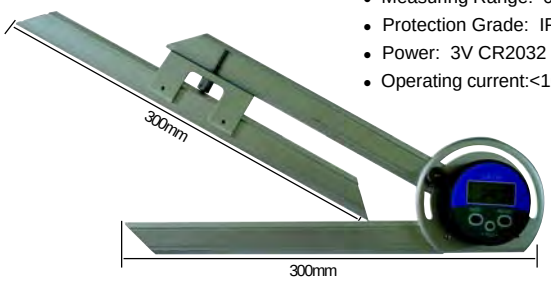
Specifications	Order No.
150mm/6" Blade, Protractor Head, acute angle attachment	635-6601
200mm/8" Blade, Protractor Head, acute angle attachment	635-6602
300mm/12" Blade, Protractor Head, acute angle attachment	635-6603
5 Pcs/set: 1 Protractor Head,1 acute angle attachment, 3 Blades: 150mm/6", 200mm/8" & 300mm/12"	635-6604

Digital Protractor 数显角度尺

Main Functions:
The line drawing function
The exterior angle measuring function
The interior angle measuring function

Technical parameter

- Display resolution: 0.1°
- Duplication accuracy: 0.1”
- Measuring Range: 0°- 180°
- Protection Grade: IP54
- Power: 3V CR2032 lithium
- Operating current:<100μA



Order No. 638-8010

Digital Protractor 数显倾角仪

- 360 degree measure range
- Display always read upright, no matter which way the level is turned
- Precision machined stainless frame
- Simple calibration requiring no special fixtures
- Versatile measuring too, angle finder.protractor. lever three in one.

Functions	Ranges
Range	4x90°(0°-360°)
temperature	-5~50°C
humidity	<=85%RH
Resolution	0.1°
Accuracy	0° and 90° <=0.1°
	the rest <=0.2°



Order No. 638-8801

- Stainless Steel
- 0-360Deg, Grad 0.1Deg
- 5 Keys



Order No. 638-8815

- Stainless Steel
- 0-360Deg, Grad 0.1Deg
- 5 Keys
- Mag.V-base



Order No. 638-8817

Digital Universal Protractors

- USB data output
- Setting preset value
- Removable blade
- Changeable direction
- Zero setting at any position
- (for -quadrant) 3 measurement patterns (1 x 360°, 2 x 180°, 4 x 90°)
- Battery: Button Cell (lithium) 3V (CR2032) x 1pc.



Range	Resolution	Blade Length	Order No.
-360°~+360°	30” (0.008°)	150mm	**638-8015**
-360°~+360°	30” (0.008°)	200mm	**638-8020**
-360°~+360°	30” (0.008°)	300mm	**638-8030**

Universal Set

two blades: 150& 300mm, one Square: 50x60mm, range: -360Deg.+360Deg

Order No. 638-8040



Bevel Box 电子倾角盒

Bevel Box is an innovative tool that provides digital reading between +/-150°. Extra LCD is convenient to read. Small and light, it is read easy to be carried and used. Measuring plane containing disk magnet can stick to the surface to be measured. It is especially easy to measure bevel angle of miter saw, automobile test and repair and so on.

- Resolution 0.1°
- Repeatability +/-0.1°
- Measuring range +/-150.0° (0-180°)
- Water Proof: IP54
- Power: 3V CR2032 Lithium battery
- Working current: <100μA
- Dimension: 2 x 2 x 1.3”
- Measuring plane containing disk magnet can stick to the surface to be measured.



Order No. 638-8802

Metal Structure

Order No. 638-8804



with magnetic stand

Order No. 638-8805

Mini Digital Protractors 电子倾角仪

- Water Proof: IP54
- Resolution 0.1°
- Measuring range 4x90°
- Power: 3V CR2032X3 battery
- Working Temperature: 0°C~40°C
- Relative Hunidity: 40%-80%
- Dimension: 2 x 2 x 1”

with bubble level

Order No. 638-8809



Order No. 638-8806

Level Box 电子倾角盒, 带水泡

Technicial Data:

- Measuring range : (0-180°)
- Resolution: 0.1°
- Accuracy of Levelvial: 2’
- Repeatability: 0.1°
- Working Temperature: +5°C~+50°C
- Working current: <100μA
- Power: 3V Lithium battery (RS2302)
- Dimension: 2 x 2.5 x 1.3”



Order No. 638-8803

Combination Squares 180度组合角尺

2Pcs/set, Stainless Steel Blade
Measuring Range 0-180°



3Pcs/set, Stainless Steel Blade



Graduation
4R: 8th, 16th, 32nd, 64th
16R: 32nd, 64th, 50th, 100th
Inch/Metric: 64th, 1mm, 32nd, .5mm
Metric: Single Size .5mm/1.0mm
Metric/Inch:0.5mm/1/32”

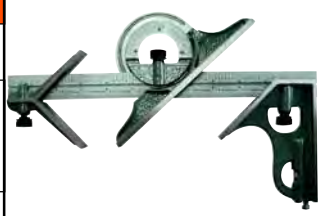
Blade Length	Graduation	2 Piece Set Order No.	3 Piece Set Order No.
6”	4R		635-7779
12”	4R	635-7765	635-7773
12”	16R	635-7761	635-7748
12”/300mm	Inch/Metric	635-7762	635-7749
500mm/20”	Metric/Inch	635-7766	635-7774
300mm	Metric	635-7767	635-7775
500mm	Metric	635-7768	635-7776

Combination Square Sets 组合角尺

4Pcs/set, Stainless Steel Blade, Measuring Range 0-180°

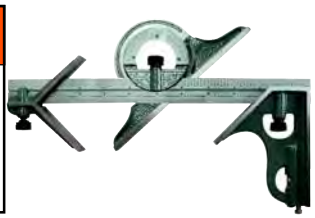
Normal Type - Blades cannot rotate 360°

Length of Blade	Graduation	Order No.
12”	4R	638-7756
12”	16R	638-7755
12”/300mm	Inch/Metric	638-7754
300mm/12”	Metric/Inch	638-7761
500mm/20”	Metric/Inch	638-7762
20”/500mm	Inch/Metric	638-7764
300mm	Metric	638-7763
500mm	Metric	638-7760



Open Type- Blades can rotate 360°

Length of Blade	Graduation	Order No.
12”	4R	638-8756
12”	16R	638-8755
12”/300mm	Inch/Metric	638-8754
300mm/12”	Metric/Inch	638-8761
300mm	Metric	638-8762



Blade	Specifications	Order No.
6”	2pcs, suqare head and rule Grad 1/8,1/16,1/32 & 1/64"	638-7706
12”	2pcs, suqare head and rule Grad 1/8,1/16,1/32 & 1/64"	638-7712
12”	3pcs, suqare head, center head and rule Grad 1/8,1/16,1/32 & 1/64"	638-7714

Digital Level Module 数显水平仪模块

The digital level that combined with laser technology is the most advanced and easy use instrument today. It can display both degree and slope. The digital level can measure all angles in either a 360 degree range or 90 degree quadrants. The digital level also includes a backlight so the unit can used day or night. Not only can this instrument measure with a surface at level or at right angles, it can measure the angles of all slopes rise and fall.

Functions	Ranges
Range	4x90°(0°-360°)
Temperature	-5~50°C
Humidity	<=85%RH
Resolution	0.1°
Accuracy	0° and 90° <=0.1° the rest <=0.2°



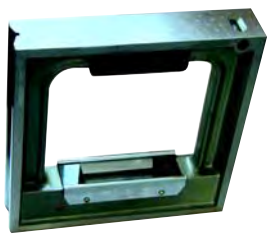
- Power: AAA3V (1.5v x2)
  Length 165mm

Order No. 638-8807

Precision Frame Spirit Levels

框式水平仪

- Used for adjusting and checking horizontal and vertical surfaces and shafts.
- High accuracy: 0.0002” per 10”, 0.0005” per 10”, 0.02mm per 1000mm, 0.05mm per 1000mm.
- 2 sides with flat bearing surfaces and 2 sides with flat plus Vee bearing surfaces.
- Heat insulating top handle.



Sizes	.0002” per 10” Order No.	.0005” per 10” Order No.
6x6”	639-3906	639-3916
8x8”	639-3908	639-3918
10x10”	639-3910	639-3920
12x12”	639-3912	639-3922

Sizes	.02mm per 1m Order No.	0.05mm per 1m Order No.
150x150mm	639-3706	639-3806
200x200mm	639-3708	639-3808
250x250mm	639-3710	639-3810
300x300mm	639-3712	639-3812

Master Precision Levels 条式钳工水平仪

- Use for accurately checking the work of machinists and toolmakers, the setting up of machinery, and other work that requires extreme level accuracy.
- The body of level is made of cast iron.
- Base is lapped for extreme accuracy as table.



Sizes	0.0002” per 10” Order No.	0.0005” per 10” Order No.
6”	639-3606	639-3616
8”	639-3608	639-3618
10”	639-3610	639-3620
12”	639-3612	639-3622

Sizes	0.02mm per 1m Order No.	0.05mm per 1m Order No.
150mm	639-3406	639-3506
200mm	639-3408	639-3508
250mm	639-3410	639-3510
300mm	639-3412	639-3512



Order No. 639-2030
Mfr's # HR-150A

3R-Type Hardness Tester 硬度计

with Automatic Dial Weight Selection

- Designed for measuring hardness of metals and alloys of all kinds,hard of soft whether flat, round or irregular in shape.
- Simple in design and easy to operate, yet sensitive and accurate testing results can be obtained with these testers.
- They are ideally suitable for schools, laboratories, tool rooms, inspection and heat treatment departments and factories.
- Conforms to ISO 33804-1966 and BS: 891-1962 Part I and Part II for Rockwell test.

Loads and Indicators

Description	
Maximum Load (kgf)	150
Load Range (kgf)	60,100,150
Initial Range Load(kgf)	10
Maximum Test Height	4-1/4"
Depth of Throat	5-1/4"
Max. Depth of Spindle Below Base	2"
Size of Base	7x18"
Machine Height	24-1/2"
Approximate Net Weight (lbs)	150

Standard Accessories Included:

Description	Order No.
5-3/4" Testing Table	HARD-100
2-3/16" Testing Table	HARD-101
2-3/16" Testing Table with "V" groove	HARD-102
120° Diamond Penetrator	HARD-103
1/16" Steel Ball Penetrator	HARD-104
Rockwell Test Block HRA80-88	HARD-106
Rockwell Standard Block HRB 85-95	HARD-107
Rockwell Test Block HRC60-70	HARD-108
Rockwell Standard Block HRC35-55	HARD-109
Rockwell Standard Block HRC20-30	HARD-110
Large Screw Driver	HARD-111
Small Screw Driver	HARD-112
Accessory case	HARD-113

Different Rockwell Hardness Scales

Scale	Penetrator	Loading(kgf)	Applications	Brinell vale	Working Range
A	Diamond 120°	60	Carbide, Thin steel, Shallow Case-Hardened steel, Case-Carbonized surfaces	Over HB400	40-91 for hardness greater than C65
B	1/16" Ball	100	Aluminum alloys,Copper alloys, Unhardened steel etc. In rolled, Draw, Extruded or Cast metal	HRB 100-240	30-100 for hardness lower than C20
C	Diamond 120°	150	Hard cast irons, Pearlitic malleable iron, Steel, Deep case hardened steel, Titanium	Over HRB230	20-70 for hardness lower than HRB100
D	Diamond 120°	100	Pearlitic malleable iron,Thin steel & Medium case-hardened steel	Over HRB400	40-77 for intermediate load between A & C scale
E	1/8" Ball	100	Cast iron, Aluminum and magnesium alloys, Bearing metal	Below HRB125	50-100 for hardness lower than HRB0
F	1/16" Ball	60	Thin soft sheet metals, Annealed copper alloys	HRB 50-120	30-100 for hardness lower than HRB0
G	1/16" Ball	150	Copper-Nickel-Zinc and Cupro-Nickel alloys, Malleable irons	HRB 120-280	30-90 for hardness slightly > than HRB 100 upper limit G92
H	1/8" Ball	60	Lead, Zinc, Aluminum,Magesium alloys	HRB 30-50	70-100
K	1/8" Ball	150	Bearing metals, very soft or thin material	HRB 100-200	40-100

Dial Shore Durometers 邵氏橡胶硬度计

- Used for testing the hardness of flexible material.
- Shore A is suitable for testing soft, natural and neoprene rubber products.

Shore A
Sharp 35° Blunt Taper
Hardness: 20-90HA
Dial Range: 0-25mm
Presser: 0.55-8.06N (56-821g)



Order No.639-2071

Shore D
(for hard rubber and plastic)
Sharp 30° Point
Hardness: 0-90HD
Dial Range: 0-25mm
Presser: 0-44.5N (0-4450g)



Order No.639-2072

Shore C
Hardness: 0-100HA



Order No.639-2074

Shore A
Lightweight, Chrome Finish



Order No.639-2073

12" Basic Bench Top Optical Comparator

光学投影仪

- 12", 220V/50Hz, 10X magnifier,
- two 0-1" indicators,
- T-slot stage with a travel 6" horizontally and 2-1/2/" vertically,
- illumination

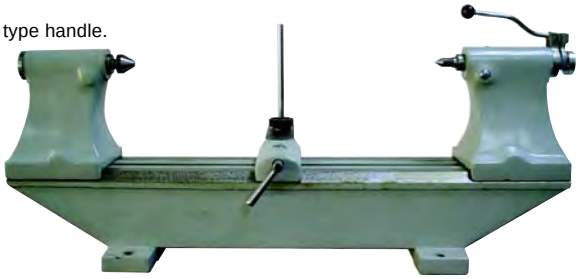


Order No. 105-0000

Bench Centers 偏摆仪

- Used for accurate concentricity inspection.
- Accaracy:less than 0.00015" runout.
- MT2 Centers are hardened and ground.
- Indicator holder included, Indicator not included.
- Hand scraped ways, adjustable gibs.
- Head stock can be adjusted lengthwise and locked securely in any position by special lever type handle.

Distance Between Center	Swing	OAL	Order No.
20"/500mm	12"	37"	640-2001
40"/1000mm	19"	55"	640-2002
12"/300mm	8-3/4"	19-5/8"	640-2004



Inch Pin Gage Sets

英制套装塞规

- Laser marking size, size is quite clear.
- Each set has a certificate, to state the accuracy of each size.
- Smooth finish 10 micro or better
- Uniform 2" length.
- A must for checking hole diameter & dis tance between holes and hole location.
- Sizes marked on storage case.
- All gages within 0.0002".
- 60/62 HRC.



Set without Handle



Set with Handle
(Certificate of Accuracy include)

No. of Piece	Type	Size	w/o Handle Order No.	With handle Order No.	Black With handle Order No.
50	M0 Plus	0.011 to 0.060	616-8100	616-82006	616-92006
50	M0 Minus	0.011 to 0.060	616-8101	616-82016	616-92016
50	M0 Plus	0.115 to 0.605	616-8102		
190	M1 Plus	0.061 to 0.250	616-8110	616-82106	616-92106
190	M1 Minus	0.061 to 0.250	616-8111	616-82116	616-92116
190	M1 Plus	0.0615 to 0.2505	616-8112		
250	M2 Plus	0.251 to 0.500	616-8120	616-82206	616-92206
250	M2 Minus	0.251 to 0.500	616-8121	616-82216	616-92216
250	M2 Plus	0.2515 to 0.5005	616-8122		
125	M3 Plus	0.501 to 0.625	616-8130	616-82306	616-92306
125	M3 Minus	0.501 to 0.625	616-8131	616-82316	616-92316
125	M4 Plus	0.626 to 0.750	616-8140	616-82406	616-92406
125	M4 Minus	0.626 to 0.750	616-8141	616-82416	616-92416
82	M5 Plus	0.751 to 0.832	616-8150	616-82506	616-92506
82	M5 Minus	0.751 to 0.832	616-8151	616-82516	616-92516
84	M6 Plus	0.833 to 0.916	616-8160	616-82606	616-92606
84	M6 Minus	0.833 to 0.916	616-8161	616-82616	616-92616
84	M7 Plus	0.917 to 1.000	616-8170	616-82706	616-92706
84	M7 Minus	0.917 to 1.000	616-8171	616-82716	616-92716

Metric Pin Gage Sets

公制套装塞规 **Set with Handle**

- Class ZZ(0.005mm tolarence).
- 0.02mm size increments on set members.
- 60/62 HRC.
- With handle.
- Certificate of Accuracy included.

Set with Handle No. of pcs	Range(mm)	Plus (+0.005mm) Order No.	Minus (-0.005mm) Order No.
55	0.20-1.28	616-42016	616-43016
55	0.21-1.29	616-42026	616-43026
185	1.3-4.98	616-42036	616-43036
185	1.31-4.99	616-42046	616-43046
250	5.00-13.98	616-42056	616-43056
250	5.01-9.99	616-42066	616-43066
200	10.00-13.98	616-42076	616-43076
200	10.01-13.99	616-42086	616-43086
125	14.00-16.48	616-42096	616-43096
125	14.01-16.49	616-42106	616-43106
125	16.50-18.98	616-42116	616-43116
125	16.51-18.99	616-42126	616-43126
100	19.00-20.98	616-42136	616-43136
100	19.01-20.99	616-42146	616-43146
75	21.00-22.48	616-42156	616-43156
75	21.01-22.49	616-42166	616-43166
75	22.50-23.98	616-42176	616-43176
75	22.51-23.99	616-42186	616-43186
75	24.00-25.48	616-42196	616-43196
75	24.01-25.49	616-42206	616-43206

Set without Handle

- 60/62 HRC.
- With wooden case.
- Without handle.

Set without Handle No. of pcs	Increment (mm)	Range (mm)	(+/-0.002mm) Order No.	Plus (+0.005mm) Order No.	Minus (-0.005mm) Order No.
71	0.01	0.30-1.00	616-6071	616-7071	616-9071
100	0.01	1.01-2.00	616-6102	616-7102	616-9102
100	0.01	2.01-3.00	616-6103	616-7103	616-9103
100	0.01	3.01-4.00	616-6104	616-7104	616-9104
100	0.01	4.01-5.00	616-6105	616-7105	616-9105
100	0.01	5.01-6.00	616-6106	616-7106	616-9106
100	0.01	6.01-7.00	616-6107	616-7107	616-9107
100	0.01	7.01-8.00	616-6108	616-7108	616-9108
100	0.01	8.01-9.00	616-6109	616-7109	616-9109
100	0.01	9.01-10.00	616-6111	616-7111	616-9111
98	0.1	0.30-10.00	616-6098	616-7098	616-9098
101	0.1	10.00-20.00	616-6101	616-7101	616-9101





mhc Industrial Supply

Individual Pin Gages 塞规

615-xxxx for Plus Tolerance 616-xxxx for Minus Tolerance
615-3xxx for Plus Black 615-8xxx for Minus Black

Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.
0.011”	XXX-x011	0.094”	XXX-x094	0.177”	XXX-x177	0.260”	XXX-x260	0.343”	XXX-x343	0.426”	XXX-x426
0.012”	XXX-x012	0.095”	XXX-x095	0.178”	XXX-x178	0.261”	XXX-x261	0.344”	XXX-x344	0.427”	XXX-x427
0.013”	XXX-x013	0.096”	XXX-x096	0.179”	XXX-x179	0.262”	XXX-x262	0.345”	XXX-x345	0.428”	XXX-x428
0.014”	XXX-x014	0.097”	XXX-x097	0.180”	XXX-x180	0.263”	XXX-x263	0.346”	XXX-x346	0.429”	XXX-x429
0.015”	XXX-x015	0.098”	XXX-x098	0.181”	XXX-x181	0.264”	XXX-x264	0.347”	XXX-x347	0.430”	XXX-x430
0.016”	XXX-x016	0.099”	XXX-x099	0.182”	XXX-x182	0.265”	XXX-x265	0.348”	XXX-x348	0.431”	XXX-x431
0.017”	XXX-x017	0.100”	XXX-x100	0.183”	XXX-x183	0.266”	XXX-x266	0.349”	XXX-x349	0.432”	XXX-x432
0.018”	XXX-x018	0.101”	XXX-x101	0.184”	XXX-x184	0.267”	XXX-x267	0.350”	XXX-x350	0.433”	XXX-x433
0.019”	XXX-x019	0.102”	XXX-x102	0.185”	XXX-x185	0.268”	XXX-x268	0.351”	XXX-x351	0.434”	XXX-x434
0.020”	XXX-x020	0.103”	XXX-x103	0.186”	XXX-x186	0.269”	XXX-x269	0.352”	XXX-x352	0.435”	XXX-x435
0.021”	XXX-x021	0.104”	XXX-x104	0.187”	XXX-x187	0.270”	XXX-x270	0.353”	XXX-x353	0.436”	XXX-x436
0.022”	XXX-x022	0.105”	XXX-x105	0.188”	XXX-x188	0.271”	XXX-x271	0.354”	XXX-x354	0.437”	XXX-x437
0.023”	XXX-x023	0.106”	XXX-x106	0.189”	XXX-x189	0.272”	XXX-x272	0.355”	XXX-x355	0.438”	XXX-x438
0.024”	XXX-x024	0.107”	XXX-x107	0.190”	XXX-x190	0.273”	XXX-x273	0.356”	XXX-x356	0.439”	XXX-x439
0.025”	XXX-x025	0.108”	XXX-x108	0.191”	XXX-x191	0.274”	XXX-x274	0.357”	XXX-x357	0.440”	XXX-x440
0.026”	XXX-x026	0.109”	XXX-x109	0.192”	XXX-x192	0.275”	XXX-x275	0.358”	XXX-x358	0.441”	XXX-x441
0.027”	XXX-x027	0.110”	XXX-x110	0.193”	XXX-x193	0.276”	XXX-x276	0.359”	XXX-x359	0.442”	XXX-x442
0.028”	XXX-x028	0.111”	XXX-x111	0.194”	XXX-x194	0.277”	XXX-x277	0.360”	XXX-x360	0.443”	XXX-x443
0.029”	XXX-x029	0.112”	XXX-x112	0.195”	XXX-x195	0.278”	XXX-x278	0.361”	XXX-x361	0.444”	XXX-x444
0.030”	XXX-x030	0.113”	XXX-x113	0.196”	XXX-x196	0.279”	XXX-x279	0.362”	XXX-x362	0.445”	XXX-x445
0.031”	XXX-x031	0.114”	XXX-x114	0.197”	XXX-x197	0.280”	XXX-x280	0.363”	XXX-x363	0.446”	XXX-x446
0.032”	XXX-x032	0.115”	XXX-x115	0.198”	XXX-x198	0.281”	XXX-x281	0.364”	XXX-x364	0.447”	XXX-x447
0.033”	XXX-x033	0.116”	XXX-x116	0.199”	XXX-x199	0.282”	XXX-x282	0.365”	XXX-x365	0.448”	XXX-x448
0.034”	XXX-x034	0.117”	XXX-x117	0.200”	XXX-x200	0.283”	XXX-x283	0.366”	XXX-x366	0.449”	XXX-x449
0.035”	XXX-x035	0.118”	XXX-x118	0.201”	XXX-x201	0.284”	XXX-x284	0.367”	XXX-x367	0.450”	XXX-x450
0.036”	XXX-x036	0.119”	XXX-x119	0.202”	XXX-x202	0.285”	XXX-x285	0.368”	XXX-x368	0.451”	XXX-x451
0.037”	XXX-x037	0.120”	XXX-x120	0.203”	XXX-x203	0.286”	XXX-x286	0.369”	XXX-x369	0.452”	XXX-x452
0.038”	XXX-x038	0.121”	XXX-x121	0.204”	XXX-x204	0.287”	XXX-x287	0.370”	XXX-x370	0.453”	XXX-x453
0.039”	XXX-x039	0.122”	XXX-x122	0.205”	XXX-x205	0.288”	XXX-x288	0.371”	XXX-x371	0.454”	XXX-x454
0.040”	XXX-x040	0.123”	XXX-x123	0.206”	XXX-x206	0.289”	XXX-x289	0.372”	XXX-x372	0.455”	XXX-x455
0.041”	XXX-x041	0.124”	XXX-x124	0.207”	XXX-x207	0.290”	XXX-x290	0.373”	XXX-x373	0.456”	XXX-x456
0.042”	XXX-x042	0.125”	XXX-x125	0.208”	XXX-x208	0.291”	XXX-x291	0.374”	XXX-x374	0.457”	XXX-x457
0.043”	XXX-x043	0.126”	XXX-x126	0.209”	XXX-x209	0.292”	XXX-x292	0.375”	XXX-x375	0.458”	XXX-x458
0.044”	XXX-x044	0.127”	XXX-x127	0.210”	XXX-x210	0.293”	XXX-x293	0.376”	XXX-x376	0.459”	XXX-x459
0.045”	XXX-x045	0.128”	XXX-x128	0.211”	XXX-x211	0.294”	XXX-x294	0.377”	XXX-x377	0.460”	XXX-x460
0.046”	XXX-x046	0.129”	XXX-x129	0.212”	XXX-x212	0.295”	XXX-x295	0.378”	XXX-x378	0.461”	XXX-x461
0.047”	XXX-x047	0.130”	XXX-x130	0.213”	XXX-x213	0.296”	XXX-x296	0.379”	XXX-x379	0.462”	XXX-x462
0.048”	XXX-x048	0.131”	XXX-x131	0.214”	XXX-x214	0.297”	XXX-x297	0.380”	XXX-x380	0.463”	XXX-x463
0.049”	XXX-x049	0.132”	XXX-x132	0.215”	XXX-x215	0.298”	XXX-x298	0.381”	XXX-x381	0.464”	XXX-x464
0.050”	XXX-x050	0.133”	XXX-x133	0.216”	XXX-x216	0.299”	XXX-x299	0.382”	XXX-x382	0.465”	XXX-x465
0.051”	XXX-x051	0.134”	XXX-x134	0.217”	XXX-x217	0.300”	XXX-x300	0.383”	XXX-x383	0.466”	XXX-x466
0.052”	XXX-x052	0.135”	XXX-x135	0.218”	XXX-x218	0.301”	XXX-x301	0.384”	XXX-x384	0.467”	XXX-x467
0.053”	XXX-x053	0.136”	XXX-x136	0.219”	XXX-x219	0.302”	XXX-x302	0.385”	XXX-x385	0.468”	XXX-x468
0.054”	XXX-x054	0.137”	XXX-x137	0.220”	XXX-x220	0.303”	XXX-x303	0.386”	XXX-x386	0.469”	XXX-x469
0.055”	XXX-x055	0.138”	XXX-x138	0.221”	XXX-x221	0.304	XXX-x304	0.387”	XXX-x387	0.470”	XXX-x470
0.056”	XXX-x056	0.139”	XXX-x139	0.222”	XXX-x222	0.305”	XXX-x305	0.388”	XXX-x388	0.471”	XXX-x471
0.057”	XXX-x057	0.140”	XXX-x140	0.223”	XXX-x223	0.306”	XXX-x306	0.389”	XXX-x389	0.472”	XXX-x472
0.058”	XXX-x058	0.141”	XXX-x141	0.224”	XXX-x224	0.307”	XXX-x307	0.390”	XXX-x390	0.473”	XXX-x473
0.059”	XXX-x059	0.142”	XXX-x142	0.225”	XXX-x225	0.308”	XXX-x308	0.391”	XXX-x391	0.474”	XXX-x474
0.060”	XXX-x060	0.143”	XXX-x143	0.226”	XXX-x226	0.309”	XXX-x309	0.392”	XXX-x392	0.475”	XXX-x475
0.061”	XXX-x061	0.144”	XXX-x144	0.227”	XXX-x227	0.310”	XXX-x310	0.393”	XXX-x393	0.476”	XXX-x476
0.062”	XXX-x062	0.145”	XXX-x145	0.228”	XXX-x228	0.311”	XXX-x311	0.394”	XXX-x394	0.477”	XXX-x477
0.063”	XXX-x063	0.146”	XXX-x146	0.229”	XXX-x229	0.312”	XXX-x312	0.395”	XXX-x395	0.478”	XXX-x478
0.064”	XXX-x064	0.147”	XXX-x147	0.230”	XXX-x230	0.313”	XXX-x313	0.396”	XXX-x396	0.479”	XXX-x479
0.065”	XXX-x065	0.148”	XXX-x148	0.231”	XXX-x231	0.314”	XXX-x314	0.397”	XXX-x397	0.480”	XXX-x480
0.066”	XXX-x066	0.149”	XXX-x149	0.232”	XXX-x232	0.315”	XXX-x315	0.398”	XXX-x398	0.481”	XXX-x481
0.067”	XXX-x067	0.150”	XXX-x150	0.233”	XXX-x233	0.316”	XXX-x316	0.399”	XXX-x399	0.482”	XXX-x482
0.068”	XXX-x068	0.151”	XXX-x151	0.234”	XXX-x234	0.317”	XXX-x317	0.400”	XXX-x400	0.483”	XXX-x483
0.069”	XXX-x069	0.152”	XXX-x152	0.235”	XXX-x235	0.318”	XXX-x318	0.401”	XXX-x401	0.484”	XXX-x484
0.070”	XXX-x070	0.153”	XXX-x153	0.236”	XXX-x236	0.319”	XXX-x319	0.402”	XXX-x402	0.485”	XXX-x485
0.071”	XXX-x071	0.154”	XXX-x154	0.237”	XXX-x237	0.320”	XXX-x320	0.403”	XXX-x403	0.486”	XXX-x486
0.072”	XXX-x072	0.155”	XXX-x155	0.238”	XXX-x238	0.321”	XXX-x321	0.404”	XXX-x404	0.487”	XXX-x487
0.073”	XXX-x073	0.156”	XXX-x156	0.239”	XXX-x239	0.322”	XXX-x322	0.405”	XXX-x405	0.488”	XXX-x488
0.074”	XXX-x074	0.157”	XXX-x157	0.240”	XXX-x240	0.323”	XXX-x323	0.406”	XXX-x406	0.489”	XXX-x489
0.075”	XXX-x075	0.158”	XXX-x158	0.241”	XXX-x241	0.324”	XXX-x324	0.407”	XXX-x407	0.490”	XXX-x490
0.076”	XXX-x076	0.159”	XXX-x159	0.242”	XXX-x242	0.325”	XXX-x325	0.408”	XXX-x408	0.491”	XXX-x491
0.077”	XXX-x077	0.160”	XXX-x160	0.243”	XXX-x243	0.326”	XXX-x326	0.409”	XXX-x409	0.492”	XXX-x492
0.078”	XXX-x078	0.161”	XXX-x161	0.244”	XXX-x244	0.327”	XXX-x327	0.410”	XXX-x410	0.493”	XXX-x493
0.079”	XXX-x079	0.162”	XXX-x162	0.245”	XXX-x245	0.328”	XXX-x328	0.411”	XXX-x411	0.494”	XXX-x494
0.080”	XXX-x080	0.163”	XXX-x163	0.246”	XXX-x246	0.329”	XXX-x329	0.412”	XXX-x412	0.495”	XXX-x495
0.081”	XXX-x081	0.164”	XXX-x164	0.247”	XXX-x247	0.330”	XXX-x330	0.413”	XXX-x413	0.496”	XXX-x496
0.082”	XXX-x082	0.165”	XXX-x165	0.248”	XXX-x248	0.331”	XXX-x331	0.414”	XXX-x414	0.497”	XXX-x497
0.083”	XXX-x083	0.166”	XXX-x166	0.249”	XXX-x249	0.332”	XXX-x332	0.415”	XXX-x415	0.498”	XXX-x498
0.084”	XXX-x084	0.167”	XXX-x167	0.245”	XXX-x250	0.333”	XXX-x333	0.416”	XXX-x416	0.499”	XXX-x499
0.085”	XXX-x085	0.168”	XXX-x168	0.251”	XXX-x251	0.334”	XXX-x334	0.417”	XXX-x417	0.500”	XXX-x500
0.086”	XXX-x086	0.169”	XXX-x169	0.252”	XXX-x252	0.335”	XXX-x335	0.418”	XXX-x418	0.501”	XXX-x501
0.087”	XXX-x087	0.170”	XXX-x170	0.253”	XXX-x253	0.336”	XXX-x336	0.419”	XXX-x419	0.502”	XXX-x502
0.088”	XXX-x088	0.171”	XXX-x171	0.254”	XXX-x254	0.337”	XXX-x337	0.420”	XXX-x420	0.503”	XXX-x503
0.089”	XXX-x089	0.172”	XXX-x172	0.255”	XXX-x255	0.338”	XXX-x338	0.421”	XXX-x421	0.504”	XXX-x504
0.090”	XXX-x090	0.173”	XXX-x173	0.256”	XXX-x256	0.339”	XXX-x339	0.422”	XXX-x422	0.505”	XXX-x505
0.091”	XXX-x091	0.174”	XXX-x174	0.257”	XXX-x257	0.340”	XXX-x340	0.423”	XXX-x423	0.506”	XXX-x506
0.092”	XXX-x092	0.175”	XXX-x175	0.258”	XXX-x258	0.341”	XXX-x341	0.424”	XXX-x424	0.507”	XXX-x507
0.093”	XXX-x093	0.176”	XXX-x176	0.259”	XXX-x259	0.342”	XXX-x342	0.425”	XXX-x425	0.508”	XXX-x508

Individual Pin Gages 塞规

615-xxxx for Plus Tolerance 616-xxxx for Minus Tolerance

615-3xxx for Plus Black 615-8xxx for Minus Black

Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.
0.509”	XXX-x509	0.592”	XXX-x592	0.675”	XXX-x675	0.758”	XXX-x758	0.841”	XXX-x841	0.924”	XXX-x924
0.510”	XXX-x510	0.593”	XXX-x593	0.676”	XXX-x676	0.759”	XXX-x759	0.842”	XXX-x842	0.925”	XXX-x925
0.511”	XXX-x511	0.594”	XXX-x594	0.677”	XXX-x677	0.760”	XXX-x760	0.843”	XXX-x843	0.926”	XXX-x926
0.512”	XXX-x512	0.595”	XXX-x595	0.678”	XXX-x678	0.761”	XXX-x761	0.844”	XXX-x844	0.927”	XXX-x927
0.513”	XXX-x513	0.596”	XXX-x596	0.679”	XXX-x679	0.762”	XXX-x762	0.845”	XXX-x845	0.928”	XXX-x928
0.514”	XXX-x514	0.597”	XXX-x597	0.680”	XXX-x680	0.763”	XXX-x763	0.846”	XXX-x846	0.929”	XXX-x929
0.515”	XXX-x515	0.598”	XXX-x598	0.681”	XXX-x681	0.764”	XXX-x764	0.847”	XXX-x847	0.930”	XXX-x930
0.516”	XXX-x516	0.599”	XXX-x599	0.682”	XXX-x682	0.765”	XXX-x765	0.848”	XXX-x848	0.931”	XXX-x931
0.517”	XXX-x517	0.600”	XXX-x600	0.683”	XXX-x683	0.766”	XXX-x766	0.849”	XXX-x849	0.932”	XXX-x932
0.518”	XXX-x518	0.601”	XXX-x601	0.684”	XXX-x684	0.767”	XXX-x767	0.850”	XXX-x850	0.933”	XXX-x933
0.519”	XXX-x519	0.602	XXX-x602	0.685”	XXX-x685	0.768”	XXX-x768	0.851”	XXX-x851	0.934”	XXX-x934
0.520”	XXX-x520	0.603”	XXX-x603	0.686”	XXX-x686	0.769”	XXX-x769	0.852”	XXX-x852	0.935”	XXX-x935
0.521”	XXX-x521	0.604”	XXX-x604	0.687”	XXX-x687	0.770”	XXX-x770	0.853”	XXX-x853	0.936”	XXX-x936
0.522”	XXX-x522	0.605”	XXX-x605	0.688”	XXX-x688	0.771”	XXX-x771	0.854”	XXX-x854	0.937”	XXX-x937
0.523”	XXX-x523	0.606”	XXX-x606	0.689”	XXX-x689	0.772”	XXX-x772	0.855”	XXX-x855	0.938”	XXX-x938
0.524”	XXX-x524	0.607”	XXX-x607	0.690”	XXX-x690	0.773”	XXX-x773	0.856”	XXX-x856	0.939”	XXX-x939
0.525”	XXX-x525	0.608”	XXX-x608	0.691”	XXX-x691	0.774”	XXX-x774	0.857”	XXX-x857	0.940”	XXX-x940
0.526”	XXX-x526	0.609”	XXX-x609	0.692”	XXX-x692	0.775”	XXX-x775	0.858”	XXX-x858	0.941”	XXX-x941
0.527”	XXX-x527	0.610”	XXX-x610	0.693”	XXX-x693	0.776”	XXX-x776	0.859”	XXX-x859	0.942”	XXX-x942
0.528”	XXX-x528	0.611”	XXX-x611	0.694”	XXX-x694	0.777”	XXX-x777	0.860”	XXX-x860	0.943”	XXX-x943
0.529”	XXX-x529	0.612”	XXX-x612	0.695”	XXX-x695	0.778”	XXX-x778	0.861”	XXX-x861	0.944”	XXX-x944
0.530”	XXX-x530	0.613”	XXX-x613	0.696”	XXX-x696	0.779”	XXX-x779	0.862”	XXX-x862	0.945”	XXX-x945
0.531”	XXX-x531	0.614”	XXX-x614	0.697”	XXX-x697	0.780”	XXX-x780	0.863”	XXX-x863	0.946”	XXX-x946
0.532”	XXX-x532	0.615”	XXX-x615	0.698”	XXX-x698	0.781”	XXX-x781	0.864”	XXX-x864	0.947”	XXX-x947
0.533”	XXX-x533	0.616”	XXX-x616	0.699”	XXX-x699	0.782”	XXX-x782	0.865”	XXX-x865	0.948”	XXX-x948
0.534”	XXX-x534	0.617”	XXX-x617	0.700”	XXX-x700	0.783”	XXX-x783	0.866”	XXX-x866	0.949”	XXX-x949
0.535”	XXX-x535	0.618”	XXX-x618	0.701”	XXX-x701	0.784”	XXX-x784	0.867”	XXX-x867	0.950”	XXX-x950
0.536”	XXX-x536	0.619”	XXX-x619	0.702”	XXX-x702	0.785”	XXX-x785	0.868“	XXX-x868	0.951”	XXX-x951
0.537”	XXX-x537	0.620”	XXX-x620	0.703”	XXX-x703	0.786”	XXX-x786	0.869”	XXX-x869	0.952”	XXX-x952
0.538”	XXX-x538	0.621”	XXX-x621	0.704”	XXX-x704	0.787”	XXX-x787	0.870”	XXX-x870	0.953”	XXX-x953
0.539”	XXX-x539	0.622”	XXX-x622	0.705”	XXX-x705	0.788”	XXX-x788	0.871”	XXX-x871	0.954”	XXX-x954
0.540”	XXX-x540	0.623”	XXX-x623	0.706”	XXX-x706	0.789”	XXX-x789	0.872”	XXX-x872	0.955”	XXX-x955
0.541”	XXX-x541	0.624”	XXX-x624	0.707”	XXX-x707	0.790”	XXX-x790	0.873”	XXX-x873	0.956”	XXX-x956
0.542”	XXX-x542	0.625”	XXX-x625	0.708”	XXX-x708	0.791”	XXX-x791	0.874”	XXX-x874	0.957”	XXX-x957
0.543”	XXX-x543	0.626”	XXX-x626	0.709”	XXX-x709	0.792”	XXX-x792	0.875”	XXX-x875	0.958”	XXX-x958
0.544”	XXX-x544	0.627”	XXX-x627	0.710”	XXX-x710	0.793”	XXX-x793	0.876”	XXX-x876	0.959”	XXX-x959
0.545”	XXX-x545	0.628”	XXX-x628	0.711”	XXX-x711	0.794”	XXX-x794	0.877”	XXX-x877	0.960”	XXX-x960
0.546”	XXX-x546	0.629”	XXX-x629	0.712”	XXX-x712	0.795”	XXX-x795	0.878”	XXX-x878	0.961”	XXX-x961
0.547”	XXX-x547	0.630”	XXX-x630	0.713”	XXX-x713	0.796”	XXX-x796	0.879”	XXX-x879	0.962”	XXX-x962
0.548”	XXX-x548	0.631”	XXX-x631	0.714”	XXX-x714	0.797”	XXX-x797	0.880”	XXX-x880	0.963”	XXX-x963
0.549”	XXX-x549	0.632”	XXX-x632	0.715”	XXX-x715	0.798”	XXX-x798	0.881”	XXX-x881	0.964”	XXX-x964
0.550”	XXX-x550	0.633”	XXX-x633	0.716”	XXX-x716	0.799”	XXX-x799	0.882”	XXX-x882	0.965”	XXX-x965
0.551”	XXX-x551	0.634”	XXX-x634	0.717”	XXX-x717	0.800”	XXX-x800	0.883”	XXX-x883	0.966”	XXX-x966
0.552”	XXX-x552	0.635”	XXX-x635	0.718”	XXX-x718	0.801”	XXX-x801	0.884”	XXX-x884	0.967”	XXX-x967
0.553”	XXX-x553	0.636”	XXX-x636	0.719”	XXX-x719	0.802”	XXX-x802	0.885”	XXX-x885	0.968”	XXX-x968
0.554”	XXX-x554	0.637”	XXX-x637	0.720”	XXX-x720	0.803”	XXX-x803	0.886”	XXX-x886	0.969”	XXX-x969
0.555”	XXX-x555	0.638”	XXX-x638	0.721”	XXX-x721	0.804”	XXX-x804	0.887”	XXX-x887	0.970”	XXX-x970
0.556”	XXX-x556	0.639”	XXX-x639	0.722”	XXX-x722	0.805”	XXX-x805	0.888”	XXX-x888	0.971”	XXX-x971
0.557”	XXX-x557	0.640”	XXX-x640	0.723”	XXX-x723	0.806”	XXX-x806	0.889”	XXX-x889	0.972”	XXX-x972
0.558”	XXX-x558	0.641”	XXX-x641	0.724”	XXX-x724	0.807”	XXX-x807	0.890”	XXX-x890	0.973”	XXX-x973
0.559”	XXX-x559	0.642”	XXX-x642	0.725”	XXX-x725	0.808”	XXX-x808	0.891”	XXX-x891	0.974”	XXX-x974
0.560”	XXX-x560	0.643”	XXX-x643	0.726”	XXX-x726	0.809”	XXX-x809	0.892”	XXX-x892	0.975”	XXX-x975
0.561”	XXX-x561	0.644”	XXX-x644	0.727”	XXX-x727	0.810”	XXX-x810	0.893”	XXX-x893	0.976”	XXX-x976
0.562”	XXX-x562	0.645”	XXX-x645	0.728”	XXX-x728	0.811”	XXX-x811	0.894”	XXX-x894	0.977”	XXX-x977
0.563’	XXX-x563	0.646”	XXX-x646	0.729”	XXX-x729	0.812”	XXX-x812	0.895”	XXX-x895	0.978”	XXX-x978
0.564”	XXX-x564	0.647”	XXX-x647	0.730”	XXX-x730	0.813”	XXX-x813	0.896”	XXX-x896	0.979”	XXX-x979
0.565”	XXX-x565	0.648”	XXX-x648	0.731”	XXX-x731	0.814”	XXX-x814	0.897”	XXX-x897	0.980”	XXX-x980
0.566”	XXX-x566	0.649”	XXX-x649	0.732”	XXX-x732	0.815”	XXX-x815	0.898”	XXX-x898	0.981”	XXX-x981
0.567”	XXX-x567	0.650”	XXX-x650	0.733”	XXX-x733	0.816”	XXX-x816	0.899”	XXX-x899	0.982”	XXX-x982
0.568”	XXX-x568	0.651”	XXX-x651	0.734”	XXX-x734	0.817”	XXX-x817	0.900”	XXX-x900	0.983”	XXX-x983
0.569”	XXX-x569	0.652”	XXX-x652	0.735”	XXX-x735	0.818”	XXX-x818	0.901”	XXX-x901	0.984”	XXX-x984
0.570”	XXX-x570	0.653”	XXX-x653	0.736”	XXX-x736	0.819”	XXX-x819	0.902”	XXX-x902	0.985”	XXX-x985
0.571”	XXX-x571	0.654”	XXX-x654	0.737”	XXX-x737	0.820”	XXX-x820	0.903”	XXX-x903	0.986”	XXX-x986
0.572”	XXX-x572	0.655”	XXX-x655	0.738”	XXX-x738	0.821”	XXX-x821	0.904”	XXX-x904	0.987”	XXX-x987
0.573”	XXX-x573	0.656”	XXX-x656	0.739”	XXX-x739	0.822”	XXX-x822	0.905”	XXX-x905	0.988”	XXX-x988
0.574”	XXX-x574	0.657”	XXX-x657	0.740”	XXX-x740	0.823”	XXX-x823	0.906”	XXX-x906	0.989”	XXX-x989
0.575”	XXX-x575	0.658”	XXX-x658	0.741”	XXX-x741	0.824”	XXX-x824	0.907”	XXX-x907	0.990”	XXX-x990
0.576”	XXX-x576	0.659”	XXX-x659	0.742”	XXX-x742	0.825”	XXX-x825	0.908”	XXX-x908	0.991”	XXX-x991
0.577”	XXX-x577	0.660”	XXX-x660	0.743”	XXX-x743	0.826”	XXX-x826	0.909”	XXX-x909	0.992”	XXX-x992
0.578”	XXX-x578	0.661”	XXX-x661	0.744”	XXX-x744	0.827”	XXX-x827	0.910”	XXX-x910	0.993”	XXX-x993
0.579”	XXX-x579	0.662”	XXX-x662	0.745”	XXX-x745	0.828”	XXX-x828	0.911”	XXX-x911	0.994”	XXX-x994
0.580”	XXX-x580	0.663”	XXX-x663	0.746”	XXX-x746	0.829”	XXX-x829	0.912”	XXX-x912	0.995”	XXX-x995
0.581”	XXX-x581	0.664”	XXX-x664	0.747”	XXX-x747	0.830”	XXX-x830	0.913”	XXX-x913	0.996”	XXX-x996
0.582”	XXX-x582	0.665”	XXX-x665	0.748”	XXX-x748	0.831”	XXX-x831	0.914”	XXX-x914	0.997”	XXX-x997
0.583”	XXX-x583	0.666”	XXX-x666	0.749”	XXX-x749	0.832”	XXX-x832	0.915”	XXX-x915	0.998”	XXX-x998
0.584”	XXX-x584	0.667”	XXX-x667	0.750”	XXX-x750	0.833”	XXX-x833	0.916”	XXX-x916	0.999”	XXX-x999
0.585”	XXX-x585	0.668”	XXX-x668	0.751”	XXX-x751	0.834”	XXX-x834	0.917”	XXX-x917	1.000”	XXX-x010
0.586”	XXX-x586	0.669”	XXX-x669	0.752”	XXX-x752	0.835”	XXX-x835	0.918”	XXX-x918		
0.587”	XXX-x587	0.670”	XXX-x670	0.753”	XXX-x753	0.836”	XXX-x836	0.919”	XXX-x919		
0.588”	XXX-x588	0.671”	XXX-x671	0.754”	XXX-x754	0.837”	XXX-x837	0.920”	XXX-x920		
0.589”	XXX-x589	0.672”	XXX-x672	0.755”	XXX-x755	0.838”	XXX-x838	0.921”	XXX-x921		
0.590”	XXX-x590	0.673”	XXX-x673	0.756”	XXX-x756	0.839”	XXX-x839	0.922”	XXX-x922		
0.591”	XXX-x591	0.674”	XXX-x674	0.757”	XXX-x757	0.840”	XXX-x840	0.923”	XXX-x923		

Bore Gage Setting Master Kit 内径量表标定仪



Features:
0-6"/50mm Measuring Rang,
Dimensions:72Wx106Dx200Hmm

NEW

Order No. 612-9100

Dial Bore Gage not Included

Bore Gage Setting Master Kit is used for accurately setting any bore gage up to 150mm in diameter to an accuracy of 2.5 μm. The Bore Gage Setting Master Kit makes setting cylinder bore gages easy by eliminating the need for ring gages or micrometers.

Specifications

Setting Device:

Base Anvil: 2.750" x .80"

Adjustable anvil: 2.375" x .375" (two each)

Internal capacity: 6"

Depth capacity: 1"

Centralizer capacity width: 2.625"

Quick-adjust holder for fast adjustment.

AS-2 Grade Gage Block Set

- 33 piece
- Maximum tolerance to: ± 1.2 μ m
- Certificate of Calibration to N.I.S.T.

Operating Instructions:

1. For best accuracy, remove all excess preservative from the gage blocks and base anvil (A) before use.
2. After determining the desired bore size to be measured with your cylinder bore gage, choose the appropriate combination of gage blocks to match the bore dimension.
3. Insert the gage blocks into the vertical column of the Bore Gage Setting Master Kit. The column features a quick adjust (B) mechanism to facilitate rapid movement of the clamping mechanism.
4. Add an adjustable anvil (C) as shown in the photo. Loosen the quick adjust knob and lower the mechanism down on to the adjustable anvil. With fingers on either side of the quick adjust (D), compress the spring with moderate pressure. Turn the knob (D) and lock in place the complete the setup.
5. Choose the appropriate spacer/post combination on your cylinder bore gage to set the bore gage to the desired range of measurement.
6. Insert the cylinder bore gage into the Bore Gage Setting Master Kit and while rocking the bore gage up and down*, determine the reversal point of the bore gage. If you are using a dial cylinder bore gage, turn the bezel of the indicator to set zero to the reversal point. If you are using an electronic cylinder bore gage, the sum of the gage blocks should be programed into the indicator and preset to size after the reversal point is determined.

*** Care should be taken to ensure the bore gage is kept as vertical as possible and not tilted to either side while rocking the bore gage, which could result in a false reading. It is also recommended to sweep the bore at least one time after the initial setting to insure a good repeatable measurement.**

7. It is recommended to keep a light coat of preservative on the gage blocks and base anvil while the gage is being stored to reduce the possibility of corrosion.

Accessories	Order No.
Measuring Jaw, 9x9.5x60mm	612-9102
Setting Bridge, 70Wx20Dmm	612-9104
Base, 72Wx106Dx30Hmm	612-9106
Gage Block Holder	612-9108

Pin Gage Handle 塞规手把

- Handles all pin gages sizes from: 1/32 thru 1/2"
- Go and no go clearly marked
- Casting Aluminium



Order No. 616-8010

Pin Gage Handles 塞规手把

- 8 Size Collets are spring adjusting and self-centering design, which are used for whole rang of sizes of pin gage sets.
- Handles & Collets are made from aluminum to protect pin gages .
- Color coded Handle for GO/NO GO checking.
- Power coated handle body.
- One handle with two free collets.

One set uses one handle, 8 handles cover all sizes



Specification	Order No.
Handle for .011" to.060" M0 50pcs	616-8000
Handle for .061" to .250" M1 190pcs	616-8001
Handle for .251" to .500" M2 250pcs	616-8002
Handle for .501" to .625" M3 125pcs	616-8003
Handle for .626" to .750" M4 125pcs	616-8004
Handle for .751" to .832" M5 82pcs	616-8005
Handle for .833" to .916" M6 84pcs	616-8006
Handle for .917" to 1.000" M7 84pcs	616-8007

Steel Pin Gage Sets

套装塞规（铁箱）

Class "ZZ", +/-.0002" Tol.

- Go/No-Go gage handle furnished with each set
- Consists of 3,4 Drawer Cabinets

NEW



Size Range	Gage Set No.	Plus Order No.	Minus Order No.
.011-.750	M0 to M4	616-8184	616-8185
.061-.750	M1to M4	616-8190	616-8191
.061-.5005	M1to M3	616-8186	616-8187
.011-.5005	M0 to M3	616-8188	616-8189
.061-1.000	M1 to M7	616-8194	616-8195
.011-1.000	M0 to M7	616-8196	616-8197
.751-1.000	M5 to M7	616-8198	616-8199

Micrometer Checking Sets

千分尺校对用块规和平晶

- A certificate shows individual deviation of each block.
- Gage blocks traceable to the NIST/DIN/ISO3650.
- Each blocks is serialized.
- with Fitted wooden case.



Piece /Set	Specifications	Order No.
10	**9 Gage Blocks, Grade 0:** .0625, .100,.125, .200,.250,.300,.500,1.000 & 2.000". **1 Optical Flat:** 1"Dia. x.5125" Thickness, .000004", Flatness, .00002" Parallel	9100-9156
10	**9 Gage Blocks, Grade AS-1:** .0625, .100,.125, .200,.250,.300,.500,1.000 & 2.000" **1 Optical Flat:** 1"Dia. x.5125" Thickness, .000004", Flatness, .00002" Parallel	9100-9157
12	**10 Gage Blocks Grade 0:** .105, .210,.315, .420, .500, .605, .710, .815, .920, 1.000" **2 Optical Flat:** 1"Dia. x.5000" & .5125" Thickness .000004", Flatness, .00002" Parallel	9100-9159
12	**10 Gage Blocks Grade AS-1:** .105, .210,.315, .420, .500, .605, .710, .815, .920, 1.000" **2 Optical Flat:** 1"Dia. x.5000" & .5125" Thickness .000004", Flatness, .00002" Parallel	9100-9160
11	**9pcs blocks, Grade 0**, Size: .0625, .100,.125, .200,.250,.300,.500,1.000 & 2.000; **2 Optical Flats**: 1" Dia. x .5000",&.5125" Thickness .000004", Flatness, .00002" Parallel	9100-9162
11	**9pcs blocks, Grade AS-1(A&B)**, Size: .0625, .100,.125, .200,.250,.300,.500,1.000 & 2.000; **2 Optical Flats**: 1" Dia. x .5000",&.5125" Thickness .000004", Flatness, .00002" Parallel	9100-9163
17	**13pcs Blocks** (Grade 1: 2.5,5.1,7.7,10.3,12.9,15.0,17.6,20.2,22.8,25,50,75,100mm); **4pcs Optical Flats**: 30mm Dia. Thickness: 12.0, 12.125,12.250,12.375mm (.0001mm Flatness, .0005mm Parallel)	9100-9164
14	**13pcs Blocks** (Grade 1: 2.5,5.1,7.7,10.3,12.9,15.0,17.6,20.2,22.8,25,50,75,100mm); **1pc Optical Flats**: 30mm Dia. Thickness: 12.0mm (.0001mm Flatness, .0005mm Parallel)	9100-9165
11	**10pcs steel Blocks ISO3650 grade 0**: 2.5,5.1,7.7,10.3,12.9,15.0,17.6,20.2,22.8,25mm); **1pcs Optical Flat**: 30mm Dia. Thickness: 12.0mm Optical Flats	9100-9171
11	**10pcs steel Blocks ISO3650 grade 1**: 2.5,5.1,7.7,10.3,12.9,15.0,17.6,20.2,22.8,25mm); **1pc Optical Flat**: 30mm Dia. Thickness: 12.0mm Optical Flats	9100-9172
10	**9pcs Ceramic Blocks ISO3650 grade 0**: 1.00,1.25,1.50,2.00,3.00,5.00,10.00,15.00mm); **1pcs Optical Flat:** 30mm Dia. Thickness: 12.0mm	9100-9177
10	**9pcs Ceramic Blocks ISO3650 grade 1**: 1.00,1.25,1.50,2.00,3.00,5.00,10.00,15.00mm) **1pcs Optical Flat**: 30mm Dia. Thickness: 12.0mm	9100-9278

Precision Gage Block 块规

- Higher degree of accuracy when used at temperature of 68° F(20°C).
- Individual serial numbers on each block,regardless of grade.
- A complete certificate of calibration traceable to the N.I.S.T. showing the deviation of each block.
- All sets are supplied in deluxe fitted wood case.
- All sets meet or exceed Fed.Spec. ASME B89.1.9-2002
- Mirror polished surfaces provide superior wringing characteristics.

Nominal Size	Tolerances(in millionths of an inch) 0	AS-1	AS-2	Economy
Thru .050	+/-6	+/-12	+/-24	+/-50
Thru .400	+/-5	+/-8	+/-18	+/-50
Thru 1”	+/-6	+/-12	+/-24	+/-50
Thru 2”	+/-8	+/-16	+/-32	+/-50
Thru 3”	+/-10	+/-20	+/-40	+/-50
Thru 4”	+/-12	+/-24	+/-48	+/-50

Nominal Size	Tolerances(in millionths of an inch) 0	AS-1	AS-2
Thru 6”	+/-16	+/-32	+/-64
Thru 8”	+/-20	+/-40	+/-80
Thru 10”	+/-24	+/-48	+/-104
Thru 12”	+/-28	+/-56	+/-112
Thru 16”	+/-36	+/-72	+/-144
Thru 20”	+/-44	+/-88	+/-176

Rectangular Gage Block Sets 套装矩形块规

36 Piece Sets

Blocks Included in each Set

1 Blocks: 0.050”
9 Blocks: 0.1001”-0.1009” by 0.0001” steps
9 Blocks: 0.101”-0.109” by 0.001” steps
9 Blocks: 0.110”-0.190” by 0.010” steps
5 Blocks: 0.100”-0.500” by 0.100” steps
3 Blocks: 1, 2, 4”



81 Piece Sets

Blocks Included in each Set

9 Blocks: 0.1001”-0.1009” by 0.0001 steps
49 Blocks: 0.101”-0.149” by 0.001” steps
19 Blocks: 0.050”-0.950” by 0.050” steps
4 Blocks: 1.000”-4.000” by 1.000” steps



Grade	Steel Order No.	Solid Carbide Order No.	Ceramic Order No.
0	630-4100	125-0362	631-0362
AS-1	630-4103	125-0363	631-0363
AS-2	630-4104	125-0364	631-0364
Economy	630-4105	125-0365	631-0365

Grade	Steel Order No.	Solid Carbide Order No.	Ceramic Order No.
0	630-4110	125-0812	631-0812
AS-1	630-4113	125-0813	631-0813
AS-2	630-4114	125-0814	631-0814
Economy	630-4115	125-0815	631-0815

Large Size Gage Block Sets 大八块

8 Piece Sets



Inch

Size	Grade 0 Order No.	Grade AS-1 Order No.	Grade AS-2 Order No.
5”,6”, 7”, 8”, 10”, 12”, 16”, 20”	630-8100	630-8101	630-8102

Metric

Size	Grade 0 Order No.	Grade 1 Order No.	Grade 2 Order No.
125,150,175,200, 250,300,400,500mm	630-8000	630-8001	630-8002
25, 50, 75, 100, 125, 150, 175, 200mm	630-8200	630-8201	630-8202

Square Gage Block Sets 套装方块规

36 Piece Sets

Blocks Included in each Set

1 Blocks: 0.050”
9 Blocks: 0.1001”-0.1009” by 0.0001” steps
9 Blocks: 0.101”-0.109” by 0.001” steps
9 Blocks: 0.110”-0.190” by 0.010” steps
5 Blocks: 0.100”-0.500” by 0.100” steps
3 Blocks: 1, 2, 4”

81 Piece Sets

Blocks Included in each Set

9 Blocks: 0.1001”-0.1009” by 0.0001 steps
49 Blocks: 0.101”-0.149” by 0.001” steps
19 Blocks: 0.050”-0.950” by 0.050” steps
4 Blocks: 1.000”-4.000” by 1.000” steps



Grade	36 PCS Order No.	81 PCS Order No.	Carbide 36 PCS Order No.	Carbide 81 PCS Order No.
0	630-4126	630-4120	125-0366	125-0816
AS-1	630-4127	630-4123	125-0367	125-0817
AS-2		630-4124	125-0368	125-0818
Economy	630-4128	630-4125	125-0369	125-0819

36 Piece Space Block Sets 36 件间距规

- Each block clearly marked for size
- Hardened and lapped
- 4 connecting screws included, make any length desired.
- Complete in fitted case.
- Thread HRC58-60

Set Included:

9 Pieces: .101-.109” by .001”
15 Pieces: .050-.190” by .010”
9 Pieces: .200-1.000” by .100”
1 Piece: .0625”
1 Piece: .125”
1 Piece: 1.000”



Dia.	Accuracy	I.D.	Order No.
3/4”	+/- .0001”	1/4”-28 thread	630-4050
3/4	+/- .0001”	M6 thread	630-4051
3/4	+/- .00005”	1/4”-28 thread	630-4055

Individual Rectangular Gage Blocks 矩形块规

630-XXXX for Steel 125-XXXX for Carbide

Size	Grade 0 Order No.	Grade AS-1 Order No.	Grade AS-2 Order No.	Grade Economy Order No.	Size	Grade 0 Order No.	Grade AS-1 Order No.	Grade AS-2 Order No.	Grade Economy Order No.	Size	Grade 0 Order No.	Grade AS-1 Order No.	Grade AS-2 Order No.	Grade Economy Order NO.
0.050”	-2305	-3305	-A305	-B305	0.123”	-2123	-3123	-A123	-B123	0.300”	-2330	-3330	-A330	-B330
0.100”	-2310	-3310	-A310	-B310	0.124”	-2124	-3124	-A124	-B124	0.350”	-2335	-3335	-A335	-B335
0.10005”	-2205	-3205	-A205	-B205	0.125”	-2125	-3125	-A125	-B125	0.400”	-2340	-3340	-A340	-B340
0.1001”	-2001	-3001	-A001	-B001	0.126”	-2126	-3126	-A126	-B126	0.420”	-2420	-3420	-A420	-B420
0.1002”	-2002	-3002	-A002	-B002	0.127”	-2127	-3127	-A127	-B127	0.450”	-2345	-3345	-A345	-B345
0.1003”	-2003	-3003	-A003	-B003	0.128”	-2128	-3128	-A128	-B128	0.500”	-2350	-3350	-A350	-B350
0.1004”	-2004	-3004	-A004	-B004	0.129”	-2129	-3129	-A129	-B129	0.550”	-2355	-3355	-A355	-B355
0.1005”	-2005	-3005	-A005	-B005	0.130”	-2130	-3130	-A130	-B130	0.600”	-2360	-3360	-A360	-B360
0.1006”	-2006	-3006	-A006	-B006	0.131”	-2131	-3131	-A131	-B131	0.605”	-2605	-3605	-A605	-B605
0.1007”	-2007	-3007	-A007	-B007	0.132”	-2132	-3132	-A132	-B132	0.625”	-2625	-3625	-A625	-B625
0.1008”	-2008	-3008	-A008	-B008	0.133”	-2133	-3133	-A133	-B133	0.650”	-2365	-3365	-A365	-B365
0.1009”	-2009	-3009	-A009	-B009	0.134”	-2134	-3134	-A134	-B134	0.700”	-2370	-3370	-A370	-B370
0.1010”	-2101	-3101	-A101	-B101	0.135”	-2135	-3135	-A135	-B135	0.710”	-2710	-3710	-A710	-B710
0.102”	-2102	-3102	-A102	-B102	0.136”	-2136	-3136	-A136	-B136	0.750”	-2375	-3375	-A375	-B375
0.103”	-2103	-3103	-A103	-B103	0.137”	-2137	-3137	-A137	-B137	0.800”	-2380	-3380	-A380	-B380
0.104”	-2104	-3104	-A104	-B104	0.138”	-2138	-3138	-A138	-B138	0.815	-2815	-3815	-A815	-B815
0.105”	-2105	-3105	-A105	-B105	0.139”	-2139	-3139	-A139	-B139	0.850”	-2385	-3385	-A385	-B385
0.106”	-2106	-3106	-A106	-B106	0.140”	-2140	-3140	-A140	-B140	0.900”	-2390	-3390	-A390	-B390
0.107”	-2107	-3107	-A107	-B107	0.141”	-2141	-3141	-A141	-B141	0.920”	-2920	-3920	-A920	-B820
0.108”	-2108	-3108	-A108	-B108	0.142”	-2142	-3142	-A142	-B142	0.950”	-2395	-3395	-A395	-B395
0.109”	-2109	-3109	-A109	-B109	0.143”	-2143	-3143	-A143	-B143	1.000”	-2100	-3100	-A100	-B100
0.110”	-2110	-3110	-A110	-B110	0.144”	-2144	-3144	-A144	-B144	2.000”	-2200	-3200	-A200	-B200
0.111”	-2111	-3111	-A111	-B111	0.145”	-2145	-3145	-A145	-B145	3.000”	-2300	-3300	-A300	-B300
0.112”	-2112	-3112	-A112	-B112	0.146”	-2146	-3146	-A146	-B146	4.000”	-2400	-3400	-A400	-B400
0.113”	-2113	-3113	-A113	-B113	0.147”	-2147	-3147	-A147	-B147	5.000”	-2500	-3500	-A500	-B500
0.114”	-2114	-3114	-A114	-B114	0.148”	-2148	-3148	-A148	-B148	6.000”	-2600	-3600	-A600	-B600
0.115”	-2115	-3115	-A115	-B115	0.149”	-2149	-3149	-A149	-B149	7.000”	-2700	-3700	-A700	-B700
0.116”	-2116	-3116	-A116	-B116	0.150”	-2315	-3315	-A315	-B315	8.000”	-2800	-3800	-A800	-B800
0.117”	-2117	-3117	-A117	-B117	0.160”	-2316	-3316	-A316	-B316	9.000”	-2901	-3901	-A901	-B901
0.118”	-2118	-3118	-A118	-B118	0.170”	-2317	-3317	-A317	-B317	10.00”	-2910	-3910	-A910	-B910
0.119”	-2119	-3119	-A119	-B119	0.180”	-2318	-3318	-A318	-B318	12.00”	-2912	-3912	-A912	-B912
0.120”	-2120	-3120	-A120	-B120	0.190”	-2319	-3319	-A319	-B319	16.00”	-2916	-3916	-A916	-B916
0.121”	-2121	-3121	-A121	-B121	0.200”	-2320	-3320	-A320	-B320	20.00”	-2921	-3921	-A921	-B921
0.122”	-2122	-3122	-A122	-B122	0.250”	-2325	-3325	-A325	-B325					

Individual Square Gage Blocks 方形块规

630-XXXX for Steel

Size	Grade 0 Order No.	Grade AS-1 Order No.	Grade AS-2 Order No.	Grade Economy Order No.	Size	Grade 0 Order No.	Grade AS-1 Order No.	Grade AS-2 Order No.	Grade Economy Order No.	Size	Grade 0 Order No.	Grade AS-1 Order No.	Grade AS-2 Order No.	Grade Economy Order No.
0.100”	-7000	-6000	-C000	-5202	0.118”	-7118	-6118	-C118	-5230	0.145”	-7145	-6145	-C145	-5257
0.1001”	-7001	-6001	-C001	-5204	0.119”	-7119	-6119	-C119	-5231	0.146”	-7146	-6146	-C146	-5258
0.1002”	-7002	-6002	-C002	-5205	0.120”	-7120	-6120	-C120	-5232	0.147”	-7147	-6147	-C147	-5259
0.1003”	-7003	-6003	-C003	-5206	0.121”	-7121	-6121	-C121	-5233	0.148”	-7148	-6148	-C148	-5260
0.1004”	-7004	-6004	-C004	-5207	0.122”	-7122	-6122	-C122	-5234	0.149”	-7149	-6149	-C149	-5261
0.1005”	-7005	-6005	-C005	-5208	0.123”	-7123	-6123	-C123	-5235	0.150”	-7315	-6315	-C315	-5262
0.1006”	-7006	-6006	-C006	-5209	0.124”	-7124	-6124	-C124	-5236	0.200”	-7320	-6320	-C320	-5267
0.1007”	-7007	-6007	-C007	-5210	0.125”	-7125	-6125	-C125	-5237	0.250”	-7325	-6325	-C325	-5268
0.1008”	-7008	-6008	-C008	-5211	0.126”	-7126	-6126	-C126	-5238	0.300”	-7330	-6330	-C330	-5269
0.1009”	-7009	-6009	-C009	-5212	0.127”	-7127	-6127	-C127	-5239	0.350”	-7335	-6335	-C335	-5270
0.1010”	-7101	-6101	-C101	-5213	0.128”	-7128	-6128	-C128	-5240	0.400”	-7340	-6340	-C340	-5271
0.102”	-7102	-6102	-C102	-5214	0.129”	-7129	-6129	-C129	-5241	0.450”	-7345	-6345	-C345	-5272
0.103”	-7103	-6103	-C103	-5215	0.130”	-7130	-6130	-C130	-5242	0.500”	-7350	-6350	-C350	-5273
0.104”	-7104	-6104	-C104	-5216	0.131”	-7131	-6131	-C131	-5243	0.550”	-7355	-6355	-C355	-5274
0.105”	-7105	-6105	-C105	-5217	0.132”	-7132	-6132	-C132	-5244	0.600”	-7360	-6360	-C360	-5275
0.106”	-7106	-6106	-C106	-5218	0.133”	-7133	-6133	-C133	-5245	0.650”	-7365	-6365	-C365	-5276
0.107”	-7107	-6107	-C107	-5219	0.134”	-7134	-6134	-C134	-5246	0.700”	-7370	-6370	-C370	-5277
0.108”	-7108	-6108	-C108	-5220	0.135”	-7135	-6135	-C135	-5247	0.750”	-7375	-6375	-C375	-5278
0.109”	-7109	-6109	-C109	-5221	0.136”	-7136	-6136	-C136	-5248	0.800”	-7380	-6380	-C380	-5279
0.110”	-7110	-6110	-C110	-5222	0.137”	-7137	-6137	-C137	-5249	0.850”	-7385	-6385	-C385	-5280
0.111”	-7111	-6111	-C111	-5223	0.138”	-7138	-6138	-C138	-5250	0.900”	-7390	-6390	-C390	-5281
0.112”	-7112	-6112	-C112	-5224	0.139”	-7139	-6139	-C139	-5251	0.950”	-7395	-6395	-C395	-5282
0.113”	-7113	-6113	-C113	-5225	0.140”	-7140	-6140	-C140	-5252	1.000”	-7100	-6100	-C100	-5283
0.114”	-7114	-6114	-C114	-5226	0.141”	-7141	-6141	-C141	-5253	2.000”	-7200	-6200	-C200	-5284
0.115”	-7115	-6115	-C115	-5227	0.142”	-7142	-6142	-C142	-5254	3.000”	-7300	-6300	-C300	-5285
0.116”	-7116	-6116	-C116	-5228	0.143”	-7143	-6143	-C143	-5255	4.000”	-7400	-6400	-C400	-5286
0.117”	-7117	-6117	-C117	-5229	0.144”	-7144	-6144	-C144	-5256					

Metric Gage Block Sets 公制套装块规

Metric Gage Blocks meet GGG-G-15, DIN, & JIS Specifications are supplied as indicated in the table.



Piece/Set	Nominal Sizes (mm)	Steps(mm)	No. Of Blocks	Grade	Steel Order No.	Solid Carbide	Ceramic Order No.
	1.0005	----	1	0	630-1120	125-5120	631-1120
112	1.001-1.009	0.001	9	1	630-1121	125-5121	631-1121
	1.01-1.49	0.01	49	2	630-1122	125-5122	631-1122
	0.5-24.5	0.5	49	3	630-1123		
	25-100	25	4				
103	1.005	---	1	0	630-1030	125-5030	631-1030
	1.01-1.49	0.01	49	1	630-1031	125-5031	631-1031
	0.5-24.5	0.5	49	2	630-1032	125-5032	631-1032
	25-100	25	4	3	630-1033		
88	1.0005	---	1	0	630-0880	125-4880	631-0880
	1.001-1.009	0.001	9	1	630-0881	125-4881	631-0881
	1.01-1.49	0.01	49	2	630-0882	125-4882	631-0882
	0.5-9.5	0.5	19	3	630-0883		
	10-100	10	10				
87	1.001-1.009	0.001	9	0	630-0870	125-4870	631-0870
	1.01-1.49	0.01	49	1	630-0871	125-4871	631-0871
	0.5-9.5	0.5	19	2	630-0872	125-4872	631-0872
	10-100	10	10	3	630-0873		
83	1.005	---	1	0	630-0830	125-4830	631-0830
	1.01-1.49	0.01	49	1	630-0831	125-4831	631-0831
	1.6-1.9	0.1	4	2	630-0832	125-4832	631-0832
	0.5-9.5	0.5	19	3	630-0833		
	10-100	10	10				
76	1.005	---	1	0	630-0760	125-4760	631-0760
	1.01-1.49	0.01	49	1	630-0761	125-4761	631-0761
	0.5-9.5	0.1	19	2	630-0762	125-4762	631-0762
	10-50	10	5	3	630-0763		
	75-100	25	2				
47	1.005	---	1	0	630-0474	125-4474	631-0470
	1.01-1.09	0.01	9	1	630-0475	125-4475	631-0471
	1.1-1.9	0.1	9	2	630-0476	125-4476	631-0472
	1-24	1	24	3	630-0477		
	25-100	25	4				
47	1.005	---	1	0	630-0470	125-4470	631-0474
	1.01-1.20	0.01	20	1	630-0471	125-4471	631-0475
	1.3-1.9	0.1	7	2	630-0472	125-4472	631-0476
	1-9	1	9	3	630-0473		
	10-100	10	10				
46	1.001-1.009	0.001	9	0	630-0460	125-4460	631-0460
	1.01-1.09	0.01	9	1	630-0461	125-4461	631-0461
	1.1-1.9	0.1	9	2	630-0462	125-4462	631-0462
	1-9	1	9	3	630-0463		
	10-100	10	10				
38	1.005	---	1	0	630-0380	125-4380	631-0380
	1.01-1.09	0.01	9	1	630-0381	125-4381	631-0381
	1.1-1.9	0.1	9	2	630-0382	125-4382	631-0382
	1-9	1	9	3	630-0383		
	10-100	10	10				
32	1.005	---	1	0	630-0320	125-4320	631-0320
	1.01-1.09	0.01	9	1	630-0321	125-4321	631-0321
	1.1-1.9	0.1	9	2	630-0322	125-4322	631-0322
	1-9	1	9	3	630-0323		
	10-30	10	3				
	50	---	1				
18	0.991-0.999	0.001	9	0	630-0180		
	1.001-1.009	0.001	9	1	630-0181		
				2	630-0182		
				3	630-0183		
13	2.5-12.9,	2.6	5	0	630-0130		631-0130
	15-22.8,	2.6	4	1	630-0131		631-0131
	25.0-100.0	25	4				
12	25, 50, 75,	25		0	630-8300		
	80, 105,130, 155,180, 205,	25		1	630-8301		
	300	25		2	630-8302		
11	10, 20, 41.2, 51.2, 81.2, 101.2,	---		0	630-0110		
	121.5, 121.8, 125, 175, 250	2.6		1	630-0111		
10	2.5-12.9	2.6	5	0	630-0100		
	15-22.8	----	4	1	630-0101		631-0101
	25		1	2	630-0102		631-0102
				3	630-0103		
9	1.001-1.009	0.001	9	0	630-0090		
				1	630-0091		
				2	630-0092		
				3	630-0093		
8	10, 20, 41.2, 51.2, 81.2, 101.2,	---		0	630-0080		631-0080
	121.5, 121.8			1	630-0081		631-0081

Rectangular Gage Block Accessories
矩形块规附件

Special Features:

- Base block:Mounting surface lapped flat and parallel with base. Holds blocks with extreme assuarcy for scribing & measuring.
- Width of jaws: .315” on Scriber point for scribing lines 1.950” long & .750” height 6” long jaws with beveled ends.
- Accessories made with gage block accuracy.



14 pcs Set
Order No. 631-2914



27 pcs Set
Order No. 631-2927



Base Block



Scriber Point



Center Point



Point



Cylindrical Jaw



Flat Jaw



Reference Jaw



Jaw w/Beveled End



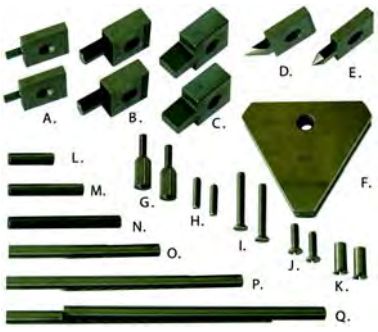
Holder

Description		Qty.	Order No.		
Base Block: Gage Block mounting surface lapped flat & parallel with base					
Base Size: 4x2-3/4x1-3/8", Accuracy: +/-.0002" Height.		1	631-2802		*
Scriber Point: Used for scribing lines, (1.950" Long), Accuracy: Flatness per 2"=.00002".		1	631-2500		*
Center Point: Used for locating centers, (2.0000" Overall Length), Accuracy: Concentricity=+/-.0004".		1	631-2600		*
Points: Used for Checking graduations, (2.050" Long), Accuracy: Concentricity=+/-.0002".		Pair	631-2601		*
Cylindrical Jaws: Used for inside & outside measurments & setting instruments’ Accuracy					
.100”Radius, 1.580" Length, Accuracy: Radius +/-.00003", Pair +/-.00004"		Pair	631-2311	**	
.200”Radius, 1.965" Length, Accuracy: Radius +/-.00003", Pair +/-.00004"		Pair	631-2312	**	
.250”Radius, 2.366" Length, Accuracy: Radius +/-.00003", Pair +/-.00004"		Pair	631-2313	**	
.500”Radius, 2.945" Length, Accuracy: Radius +/-.00003", Pair +/-.00004"		Pair	631-2314	**	
.750”Radius, 4.920" Length, Accuracy: Radius +/-.00003", Pair +/-.00004"		Pair	631-2315		*
Flat Jaw: Two Sizes Lapped & Accurately Flat, Parallel & to Size.					
0.75" Height, 6" Long, Accuracy, Parallelism =.00004"		Pair	631-2320		*
Jaw with Reference Jaw Lines: Used for spacing blocks within limits					
.394” Height, 1.970" Length .0625" Ref.Line (etched on block),					
Accuracy of Reference Line to Measuring Surface, +/-.0002"		Pair	631-2330		*
Jaw with Beveled Ends: .750" Height, 4" Long, Accuracy, Flatness per 2"=.00002"		Pair	631-2331	**	
.750" Height, 6" Long, Accuracy, Flatness per 2"=.00002"		Pair	631-2332	**	
Holders					
Holder, 2.250"/50mm Capacity, 4.175" Long, Accuracy, Flatness per 2"=.00002"		1	631-2050	**	
Holder, 4.000"/100mm Capacity, 6.5" Long, Accuracy, Flatness per 2"=.00002"		1	631-2100		*
Holder, 6.000"/150mm Capacity, 8.5" Long, Accuracy, Flatness per 2"=.00002"		1	631-2150	**	
Holder, 10.000"/250mm Capacity, 12" Long, Accuracy, Flatness per 2"=.00002"		1	631-2220		*
Holder, 16.000"/400mm Capacity, Accuracy, Flatness per 2"=.00002"		1	631-2240		
Accessories Sets					
14-pc Rectangular Gage Block Accessory Set with Wooden Case	Included all “**”		631-2914		
27-pc Rectangular Gage Block Accessory Set with Wooden Case	Included all “*”+ “**”		631-2927		

Square Gage Block Accessories
方形块规附件

Square Gage Block accessories are made of gage block steel, hardened and finished and meet ASME B89.1.9-2002

- Available individually or in a complete set.
- Quality & surface finish are unsurpassed.
- Countless numbers of gages can easily be assembled with ultimate accuracy.





25 pcs Set
Order No. 631-2000

Description	Qty.	Order No.
A. Half-round Jaws, .125" Radius, 1 Pair	Pair	631-2002
B. Half-round Jaws, .250" Radius, 1 Pair	Pair	631-2004
C. Straight jaws .500” thick, 1Pair	Pair	631-2006
D. Scriber point	1	631-2008
E. Center point	1	631-2010
F. Base block	1	631-2012
G. Knurled screws, 1 Pair	Pair	631-2014
H. Studs, 1 Pair	Pair	631-2016
I. Flat head screws-long, 1 Pair	Pair	631-2018
J. Flat head screws-short, 1 Pair	Pair	631-2020
K. Slotted nuts, 1 Pair	Pair	631-2022
L. Tie rod 3/4" Solid	1	631-2024
M. Tie rod 1-1/2" Solid	1	631-2026
N. Tie rod 2-1/4" Solid	1	631-2028
O. Tie rod 3 to 4" adjustable	1	631-2030
P. Tie rod 4 to 6" adjustable	1	631-2032
Q. Tie rod 6 to 9" adjustable	1	631-2034
25-pc Square Gage Block Accessories with wooden case		631-2000

Planer & Shaper Gage 量块支架

- Max. Range 1/4 - 6 - 1/4” with extension rod.
- Makes setting of planer and shaper tools easy.
- Set gage with micrometer, surface gage or caliper and bring cutting tool in contact with it.
- Gives the operator a reliable starting point, thus eliminating trial cuts. Also use in conjunction with dial indicator to level large plates for planing, etc.

Order No.600-0049



ANSI Standard Thread Plug & Ring Gages

ANSI 螺纹塞规和环规

- Used for gaging internal & external thread.
- Plug Gage(Go & No Go with handle)

Plug Gages

	Order No.
Go	623-4xxx (2B) 623-5xxx (3B)
No Go	623-6xxx (2B) 623-7xxx (3B)
Go & No Go	623-2xxx (2B) 623-3xxx (3B)

Adj. Ring Gages

	Order No.
Go	622-4xxx (2A) 622-5xxx (3A)
No Go	622-6xxx (2A) 622-7xxx (3A)
Go & No Go	622-2xxx (2A) 622-3xxx (3A)

Solid Ring Gages

	Order No.
Go	624-4xxx (2A) 624-5xxx (3A)
No Go	624-6xxx (2A) 624-7xxx (3A)
Go & No Go	624-2xxx (2A) 624-3xxx (3A)





Size	UNC UNF UNEF	Plug Gages Class 2B Order No.	Plug Gages Class 3B Order No.	Adjustable Ring Gages Class 2A Order No.	Adjustable Ring Gages Class 3A Order No.	Solid Ring Gages Class 2A Order No.	Solid Ring Gages Class 3A Order No.
0-80	UNF	623-x001	623-x001	622-x001	622-x001	624-x001	624-x001
1-64	UNC	623-x002	623-x002	622-x002	622-x002	624-x002	624-x002
1-72	UNF	623-x003	623-x003	622-x003	622-x003	624-x003	624-x003
2-56	UNC	623-x004	623-x004	622-x004	622-x004	624-x004	624-x004
2-64	UNF	623-x005	623-x005	622-x005	622-x005	624-x005	624-x005
3-48	UNC	623-x006	623-x006	622-x006	622-x006	624-x006	624-x006
3-56	UNF	623-x007	623-x007	622-x007	622-x007	624-x007	624-x007
4-40	UNC	623-x008	623-x008	622-x008	622-x008	624-x008	624-x008
4-48	UNF	623-x009	623-x009	622-x009	622-x009	624-x009	624-x009
5-40	UNC	623-x010	623-x010	622-x010	622-x010	624-x010	624-x010
5-44	UNF	623-x011	623-x011	622-x011	622-x011	624-x011	624-x011
6-32	UNC	623-x012	623-x012	622-x012	622-x012	624-x012	624-x012
6-40	UNF	623-x013	623-x013	622-x013	622-x013	624-x013	624-x013
8-32	UNC	623-x014	623-x014	622-x014	622-x014	624-x014	624-x014
8-36	UNF	623-x015	623-x015	622-x015	622-x015	624-x015	624-x015
10-24	UNC	623-x016	623-x016	622-x016	622-x016	624-x016	624-x016
10-32	UNF	623-x017	623-x017	622-x017	622-x017	624-x017	624-x017
12-24	UNC	623-x018	623-x018	622-x018	622-x018	624-x018	624-x018
12-28	UNF	623-x019	623-x019	622-x019	622-x019	624-x019	624-x019
12-32	UNEF	623-x020	623-x020	622-x020	622-x020	624-x020	624-x020
1/4-20	UNC	623-x021	623-x021	622-x021	622-x021	624-x021	624-x021
1/4-28	UNF	623-x022	623-x022	622-x022	622-x022	624-x022	624-x022
1/4-32	UNEF	623-x023	623-x023	622-x023	622-x023	624-x023	624-x023
5/16-18	UNC	623-x024	623-x024	622-x024	622-x024	624-x024	624-x024
5/16-24	UNF	623-x025	623-x025	622-x025	622-x025	624-x025	624-x025
5/16-32	UNEF	623-x026	623-x026	622-x026	622-x026	624-x026	624-x026
3/8-16	UNC	623-x027	623-x027	622-x027	622-x027	624-x027	624-x027
3/8-24	UNF	623-x028	623-x028	622-x028	622-x028	624-x028	624-x028
3/8-32	UNEF	623-x029	623-x029	622-x029	622-x029	624-x029	624-x029
7/16-14	UNC	623-x030	623-x030	622-x030	622-x030	624-x030	624-x030
7/16-20	UNF	623-x031	623-x031	622-x031	622-x031	624-x031	624-x031
7/16-28	UNEF	623-x032	623-x032	622-x032	622-x032	624-x032	624-x032
1/2-13	UNC	623-x033	623-x033	622-x033	622-x033	624-x033	624-x033
1/2-20	UNF	623-x034	623-x034	622-x034	622-x034	624-x034	624-x034
1/2-28	UNEF	623-x035	623-x035	622-x035	622-x035	624-x035	624-x035
9/16-12	UNC	623-x036	623-x036	622-x036	622-x036	624-x036	624-x036
9/16-18	UNF	623-x037	623-x037	622-x037	622-x037	624-x037	624-x037
9/16-24	UNEF	623-x038	623-x038	622-x038	622-x038	624-x038	624-x038
5/8-11	UNC	623-x039	623-x039	622-x039	622-x039	624-x039	624-x039
5/8-18	UNF	623-x040	623-x040	622-x040	622-x040	624-x040	624-x040
5/8-24	UNEF	623-x041	623-x041	622-x041	622-x041	624-x041	624-x041
11/16-24	UNEF	623-x042	623-x042	622-x042	622-x042	624-x042	624-x042
3/4-10	UNC	623-x043	623-x043	622-x043	622-x043	624-x043	624-x043
3/4-16	UNF	623-x044	623-x044	622-x044	622-x044	624-x044	624-x044
3/4-20	UNEF	623-x045	623-x045	622-x045	622-x045	624-x045	624-x045
13/16-20	UNEF	623-x046	623-x046	622-x046	622-x046	624-x046	624-x046
7/8-9	UNC	623-x047	623-x047	622-x047	622-x047	624-x047	624-x047
7/8-14	UNF	623-x048	623-x048	622-x048	622-x048	624-x048	624-x048
7/8-20	UNEF	623-x049	623-x049	622-x049	622-x049	624-x049	624-x049
15/16-20	UNEF	623-x050	623-x050	622-x050	622-x050	624-x050	624-x050
1-8	UNC	623-x051	623-x051	622-x051	622-x051	624-x051	624-x051
1-12	UNF	623-x052	623-x052	622-x052	622-x052	624-x052	624-x052
1-14	UNF	623-x053	623-x053	622-x053	622-x053	624-x053	624-x053
1-20	UNEF	623-x054	623-x054	622-x054	622-x054	624-x054	624-x054
1-1/16-18	UNEF	623-x055	623-x055	622-x055	622-x055	624-x055	624-x055
1-1/8-7	UNC	623-x056	623-x056	622-x056	622-x056	624-x056	624-x056
1-1/8-12	UNF	623-x057	623-x057	622-x057	622-x057	624-x057	624-x057
1-1/8-18	UNEF	623-x058	623-x058	622-x058	622-x058	624-x058	624-x058
1-3/16-18	UNEF	623-x059	623-x059	622-x059	622-x059	624-x059	624-x059
1-1/4-7	UNC	623-x060	623-x060	622-x060	622-x060	624-x060	624-x060
1-1/4-12	UNF	623-x061	623-x061	622-x061	622-x061	624-x061	624-x061
1-1/4-18	UNEF	623-x062	623-x062	622-x062	622-x062	624-x062	624-x062
1-5/16-18	UNEF	623-x063	623-x063	622-x063	622-x063	624-x063	624-x063
1-3/8-6	UNC	623-x064	623-x064	622-x064	622-x064	624-x064	624-x064
1-3/8-12	UNF	623-x065	623-x065	622-x065	622-x065	624-x065	624-x065
1-3/8-18	UNEF	623-x066	623-x066	622-x066	622-x066	624-x066	624-x066
1-7/16-18	UNEF	623-x067	623-x067	622-x067	622-x067	624-x067	624-x067
1-1/2-6	UNC	623-x068	623-x068	622-x068	622-x068	624-x068	624-x068
1-1/2-12	UNF	623-x069	623-x069	622-x069	622-x069	624-x069	624-x069
1-1/2-18	UNEF	623-x070	623-x070	622-x070	622-x070	624-x070	624-x070

Metric ISO & Unified Thread Plug & Ring Gages

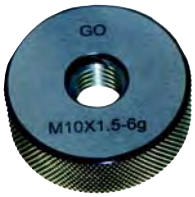
公制螺纹塞规和环规

- Used for gaging internal & external thread.
- Plug Gage(Go & No Go with handle)

	Plug Gages Order No.	Adj. Ring Gages Order No.	Solid Ring Gages Order No.
Go	617-2xxx (6H)	618-4xxx (6G)	618-0xxx (6G)
No Go	617-3xxx (6H)	618-6xxx (6G)	619-0xxx (6G)
Go & No Go	617-0xxx (6H)		



Plug Gages
(Go & No Go with Handle)



Ring Gages

Size (mm)	Plug Gages Order No.	Adjustable Ring Gages Order No.	Solid Ring Gages Order No.
M1.4X0.3	617-x001	618-x001	61x-x001
M1.6X0.35	617-x004	618-x004	61x-x004
M1.8X0.35	617-x008	618-x008	61x-x008
M2.0x.40	617-x011	618-x011	61x-x011
M2.0x.25	617-x012	618-x012	61x-x012
M2.2x.45	617-x021	618-x021	61x-x021
M2.2x.25	617-x022	618-x022	61x-x022
M2.5x.45	617-x031	618-x031	61x-x031
M2.5x.35	617-x032	618-x032	61x-x032
M3.0x.50	617-x041	618-x041	61x-x041
M3.0x.35	617-x042	618-x042	61x-x042
M3.5x.60	617-x051	618-x051	61x-x051
M3.5x.35	617-x052	618-x052	61x-x052
M4.0x.70	617-x061	618-x061	61x-x061
M4.0x.50	617-x062	618-x062	61x-x062
M4.5x.75	617-x063	618-x063	61x-x063
M5.0x.80	617-x071	618-x071	61x-x071
M5.0x.50	617-x072	618-x072	61x-x072
M6.0x1.00	617-x081	618-x081	61x-x081
M6.0x.75	617-x082	618-x082	61x-x082
M6.0x.50	617-x083	618-x083	61x-x083
M7.0x1.00	617-x084	618-x084	61x-x084
M8.0x1.25	617-x091	618-x091	61x-x091
M8.0x1.00	617-x092	618-x092	61x-x092
M8.0x.75	617-x093	618-x093	61x-x093
M8.0x.50	617-x094	618-x094	61x-x094
M10.0x1.50	617-x101	618-x101	61x-x101
M10.0x1.25	617-x102	618-x102	61x-x102
M10.0x1.00	617-x103	618-x103	61x-x103
M10.0x.75	617-x104	618-x104	61x-x104
M10.0x.50	617-x105	618-x105	61x-x105
M12.0x1.75	617-x111	618-x111	61x-x111
M12.0x1.50	617-x112	618-x112	61x-x112
M12.0x1.25	617-x113	618-x113	61x-x113
M12.0x1.00	617-x114	618-x114	61x-x114
M12.0x.75	617-x115	618-x115	61x-x115
M12.0x.50	617-x116	618-x116	61x-x116
M14.0x2.00	617-x121	618-x121	61x-x121
M14.0x1.50	617-x122	618-x122	61x-x122
M14.0x1.25	617-x123	618-x123	61x-x123
M14.0x1.00	617-x124	618-x124	61x-x124
M14.0x.75	617-x125	618-x125	61x-x125
M14.0x.50	617-x126	618-x126	61x-x126
M16.0x2.00	617-x131	618-x131	61x-x131
M16.0x1.50	617-x132	618-x132	61x-x132
M16.0x1.00	617-x133	618-x133	61x-x133
M16.0x.75	617-x134	618-x134	61x-x134
M16.0x.50	617-x135	618-x135	61x-x135
M18.0x2.50	617-x141	618-x141	61x-x141
M18.0x2.00	617-x142	618-x142	61x-x142

Size (mm)	Plug Gages Order No.	Adjustable Ring Gages Order No.	Solid Ring Gages Order No.
M18.0x1.50	617-x143	618-x143	61x-x143
M18.0x1.00	617-x144	618-x144	61x-x144
M18.0x.75	617-x145	618-x145	61x-x145
M18.0x.50	617-x146	618-x146	61x-x146
M20.0x2.50	617-x151	618-x151	61x-x151
M20.0x2.00	617-x152	618-x152	61x-x152
M20.0x1.50	617-x153	618-x153	61x-x153
M20.0x1.00	617-x154	618-x154	61x-x154
M20.0x.75	617-x155	618-x155	61x-x155
M20.0x.50	617-x156	618-x156	61x-x156
M22.0x2.50	617-x161	618-x161	61x-x161
M22.0x2.00	617-x162	618-x162	61x-x162
M22.0x1.50	617-x163	618-x163	61x-x163
M22.0x1.00	617-x164	618-x164	61x-x164
M22.0x.75	617-x165	618-x165	61x-x165
M22.0x.50	617-x166	618-x166	61x-x166
M24.0x3.00	617-x171	618-x171	61x-x171
M24.0x2.00	617-x172	618-x172	61x-x172
M24.0x1.50	617-x173	618-x173	61x-x173
M24.0x1.00	617-x174	618-x174	61x-x174
M24.0x.75	617-x175	618-x175	61x-x175
M24.0x.50	617-x176	618-x176	61x-x176
M27.0x3.00	617-x181	618-x181	61x-x181
M27.0x2.00	617-x182	618-x182	61x-x182
M27.0x1.50	617-x183	618-x183	61x-x183
M27.0x1.00	617-x184	618-x184	61x-x184
M27.0x.75	617-x185	618-x185	61x-x185
M27.0x.50	617-x186	618-x186	61x-x186
M30.0x3.50	617-x191	618-x191	61x-x191
M30.0x3.00	617-x192	618-x192	61x-x192
M30.0x2.00	617-x193	618-x193	61x-x193
M30.0x1.50	617-x194	618-x194	61x-x194
M30.0x1.00	617-x195	618-x195	61x-x195
M30.0x.75	617-x196	618-x196	61x-x196
M33.0x3.50	617-x201	618-x201	61x-x201
M33.0x3.00	617-x202	618-x202	61x-x202
M33.0x2.00	617-x203	618-x203	61x-x203
M33.0x1.50	617-x204	618-x204	61x-x204
M33.0x1.00	617-x205	618-x205	61x-x205
M33.0x.75	617-x206	618-x206	61x-x206
M36.0x4.00	617-x211	618-x211	61x-x211
M36.0x3.00	617-x212	618-x212	61x-x212
M36.0x2.00	617-x213	618-x213	61x-x213
M36.0x1.50	617-x214	618-x214	61x-x214
M36.0x1.00	617-x215	618-x215	61x-x215
M39.0x4.00	617-x221	618-x221	61x-x221
M39.0x3.00	617-x222	618-x222	61x-x222
M39.0x2.00	617-x223	618-x223	61x-x223
M39.0x1.50	617-x224	618-x224	61x-x224
M39.0x1.00	617-x225	618-x225	61x-x225

Precision Feeler Gages 塞尺

- Used for fitting and seting narrow slots.
- lock nut securely holds one or more blades.
- Each blade clearly marked with thickness.





Inch Size(Straight)

No. of Blades	Blade Thickness Induded(inch)	Blade Length	Order No.
9	.0015-.002-.003-.004-.006-.008-.010-.012-.015	3”	615-6203
15	.002-.003-.004-.005-.006-.008-.011-.012-.013-.014-.016-.018-.020-.022-.025	3-1/2”	615-6206
8	.015-.018-.020-.025-.028-.030-.035-.040	3-1/2”	615-6207
26	.0015-.002-.0025-.003-.004-.005-.006-.007-.008-.009-.010-.011-.012-.013-.014-.015-.016-.017-.018-.019-.020-.021-.022-.023-.024-.025	3-1/2”	615-6208

Inch Size(Taper)

No. of Blades	Blade Thickness Induded(inch)	Blade Length	Order No.
12	.008-.010-.012-.013-.014-.015-.016-.018-.019 .020-.025-.026	4”	615-6205
26	.0015-.025"	4”	615-6211

Metric Size

No. of Blades	Blade Thickness Included(mm)	Blades Length 75mm Order No.	100mm Order No.	150mm Order No.	200mm Order No.	300mm Order No.	500mm Order No.
6	0.10-0.15-0.20-0.25-0.30-0.40	615-6006					
9	0.04-0.05-0.06-0.07-0.08-0.10-0.15-0.20-0.30	615-6009					
11	0.03-0.04-0.05-0.06-0.07-0.10-0.15-0.25-0.30-0.40-0.50		615-6401	615-6402	615-6403	615-6404	
12	0.05-0.06-0.07-0.08-0.09-0.10-0.15-0.20-0.25-0.30-0.35-0.40		615-6411	615-6412	615-6413	615-6414	
13	0.02-0.02-0.03-0.03-0.04-0.04-0.05-0.05-0.06-0.07-0.08-0.09-0.10		615-6421	615-6422	615-6423	615-6424	
13	0.05-0.10-0.15-0.20-0.25-0.30-0.40-0.50-0.60-0.70-0.80-0.90-1.00		615-6431	615-6432	615-6433	615-6434	615-6513
14	1 0.05-0.06-0.07-0.08-0.09-0.10-0.15-0.20-0.25-0.30-0.40-0.50-0.75-1.00		615-6441	615-6442	615-6443	615-6444	
14	0.05-0.06-0.07-0.08-0.09-0.10-0.15-0.20-0.25-0.30-0.35-0.40-0.45-0.50		615-6451	615-6452	615-6453	615-6454	
17	0.02-0.03-0.04-0.05-0.06-0.07-0.08-0.09-0.10-0.15-0.20-0.25-0.30-0.35-0.40-0.45-0.50		615-6461	615-6462	615-6463	615-6464	
17	0.02-0.03-0.04-0.05-0.06-0.07-0.08-0.09-0.10-0.15-0.20-0.25-0.30-0.40-0.50-0.75-1.00		615-6471	615-6472	615-6473	615-6474	
20	0.05-0.10-0.15-0.20-0.25-0.30-0.35-0.40-0.45-0.50 -0.55-0.60-0.65-0.70-0.75-0.80-0.85-0.90-0.95-1.00		615-6481	615-6482	615-6483	615-6484	615-6516
21	0.02-0.02-0.03-0.03-0.04-0.04-0.05-0.05-0.06-0.07-0.08-0.09-0.10-0.15-0.20-0.25-0.30-0.35-0.40-0.45-0.50		615-6491	615-6492	615-6493	615-6494	

Acme Screw Thread Gages

梯形螺纹规

29° Acme Screw Thread Gage

- Foe grinding & setting tools when cutting Acme threads whose sides have an inclination of 14-1/2°
- Angle & edges are precision ground.



Specifications	Order No.
Threads: 1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3, 4, 5, 6, 7, 8, 9, 10	615-6123

30° Acme Screw Thread Gage

- Foe grinding & setting tools when cutting Acme threads whose sides have an inclination of 15°.
- Made from stainless steel with satin chrome finish
- Angle & edges are precision ground.



Specifications	Order No.
Threads: 2, 3, 4, 5, 6, 7, 8, 9, 10,12	615-6125

Screw Thread Gages

螺纹规样板

- For grinding & setting tools when cutting Acme threads whose sides have inclination.
- Made from stainless steel with satin chrome finish
- Angle & edges are precision ground.



Order No. 615-6128



Order No. 615-6126



Order No. 615-6127

Specifications	Order No.
Threads: 2, 3, 4, 5, 6, 7, 8, 9, 10,12; 2,2.5,3,3.5,4,5,6,7,8 Angle: 55°&60°	615-6126
Threads: 2, 3, 4, 5, 6, 7, 8, 9, 10,12 Angle: 40°,45°50°,55°,60°65°,70°,75°,80°	615-6127
Threads: 2, 2.5,3,3.5, 4,4.5, 5, 6, 7, 8 Angle: 45°,53.8°,55°,60°,70°,55°,60°	615-6128

Screw Cutting Gage

螺纹规车刀样板

- Gages 47-1/2° British, 14-1/2° Acme, 55° Whitworth & BSF & 60° USA & Metric
- Made from stainless steel with satin chrome finish
- Deep etched graduations
- All gage surfaces are ground



Order No. 615-6124



Order No. 615-6340



Order No. 615-6348

No. of Blades	Range	Order No.
22	4-48TPI, Inch 55°	615-6322
10	13-40 TPI, Metric 60°	615-6323
30	4-42TPI, Inch 55°	615-6324
30	4-42TPI, Metric 60°	615-6342
51	4-84 TPI, Inch 60°	615-6351
30	6-60 TPI, Inch 60°	615-6334
52	4-62TPI, Inch 55°&.25-6mm,metric 60°	615-6348
14	0.35-3mm, 60°	615-6317
20	0.4-6mm, 60°	615-6318
16	0.25-2.5mm, 60°	615-6320
18	0.5-7.0mm, 60°	615-6330
28	0.25-2.5mm, 60°	615-6332
18	0.4-7.0mm, 60°	615-6321
24	0.25-6.0mm, 60°	615-6340
28	0.25-2.5mm, 60°	615-6339
30	0.25-3.0mm, 60°	615-6341
28	4,4-1/2,5,6,7,8,9,10,11,12,13,14,16,18, 19,20,22,24,25,26,28,30,32,36,40,48,60, 62	615-6343

T Screw Pitch gages

T 形螺纹规



Inch

No. of Leaves	Specifications	Degree	Order No.
16	1, 1-1/3, 1-1/2, 1-3/4, 2, 2-1/2, 3,	29°	615-6326
	3-1/2, 4, 5, 6, 7, 8,9,10,12"	30°	615-6151
12	2, 3, 4, 5, 6, 7, 8, 9, 10,	29°	615-6159
	12, 16, 20mm	30°	615-6327
11	2-1/2, 3, 3-1/2, 4, 5, 6, 7, 8, 9,10 , 12		615-6153
7	2, 2-1/2, 3, 3-1/2, 4, 4-1/2, 5		615-6155
7	6, 7, 8, 9, 10, 11, 12		615-6157

Screw Pitch Gages

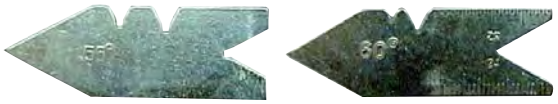
螺纹规

- For use when quick identification of screw pitchosis needed.
- American National-60° Threads Withworth standard-55° Threads.



Center Gages

中心规



Type	Order No.
Metric std. 60°	615-6260
Whitworth std. 55°	615-6255
U.S. std. 60°	615-6300

Angle Gages

角度规



No. of Blades	Angle Range	Order No.
18	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°, 10°, 12°, 14°, 14-1/2°, 15°, 25°, 30°, 35°, 45°	615-9182
20	1°, 2°, 3°, 4°, 5°, 6°, 7°, 8°, 9°,1 0°, 12°, 14°, 16°, 18°, 20°, 25°, 30°, 35°, 40°, 45°	615-9184

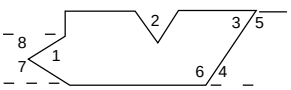
18 Pc. Angle Gage Set

18 件套角度规

Stainless Steel

- Manufactured from stainless steel,satin-finished.
- Inspecting angles on ground from tools and cutters.
- Eight gaging surfaces Per gage.
- Each gage checks primary,1/2 primary and complimentary angle.





Angles 1.2.3 & 4...Primary
Angles 5 & 6...Complimentary
Angles 8 & 8.....1/2-Primary

Order No. 615-9180

Primary Angle	1/2Primary Angle	Comp. Angle	Primary Angle	1/2Primary Angle	Comp. Angle
5°	2° 30"	175°	50°	25°	130°
10°	5°	170°	55°	27° 30"	125°
15°	7° 30"	165°	60°	30°	125°
20°	10°	160°	65°	32° 30"	115°
25°	12° 30"	155°	70°	35°	110°
30°	15°	150°	75°	37° 30"	105°
35°	17° 30"	145°	80°	40°	100°
40°	20°	140°	85°	42° 30"	95°
45°	22° 30"	135°	90°	45°	90°

Radius Gages 半径规

- Made of the finest quality steel.
- Satin chrome finish.
- Each gage is marked with size.



Order No.615-6555

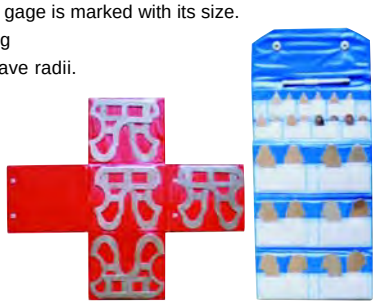


Order No.615-6530

No. of Blades	Concave Blades	Convex Blades	Radius range	Order No.
30	15	15	1/32" - 1/4", step by 1/64"	**615-6565**
32	16	16	17/64" - 1/2", step by 1/32"	**615-6570**
32	16	16	17/32" - 1", step by 1/32"	**615-6575**
32	16	16	1.0-6.5mm, 1-3mm step by 0.25, 3.5-6.5mm step by 0.5	**615-6550**
32	16	16	7.5-15mm, step by 0.5mm	**615-6555**
30	16	16	15.5-25mm, 15.5-20mm step by 0.5 , 21-25mm step by 1.0	**615-6560**
34	17	17	1-7mm, 1-3mm step by 0.25, 3.5-7mm step by 0.5	**615-6530**

Radius Gage Sets 半径规

- Designed for checking radius, easier and faster, it can be used for inspection, layout, pattern making and all other machining job.
- Satin chrome finish and each gage is marked with its size.
- Each gage has five measuring surface for convex and concave radii.



Gages Per Set	Range	Holder	Order No.
8	9/32" to 1/2" by 32nds	Included	**615-4008**
8	9/16" to 1" by 16ths	Included	**615-4108**
8	1-1/16" to 1-1/2" by 16ths	Not Included	**615-4208**
8	9/16" to 1" by 16ths	Not Included	**615-4308**
10	0.550 to 1" by 0.05"	Not Included	**615-4010**
17	1/64" to 17/64" by 64ths	Included	**615-4017**
19	0.02" to 0.500"	Not Included	**615-4019**
19	0.020" to 0.500"	Included	**615-4119**
22	0.5-7mm by 0.5mm, 8-15mm by 1mm	Included	**615-4022**
25	1/64" to 17/64" by 64ths & 9/32 to 1/2 by 32ths	Included	**615-4025**
26	0.010" to 0.500"	Included	**615-4126**
26	0.5-13.0mm by 0.5mm	Included	**615-4226**

Wire Gage 线径规

For measuring wire diameter and non-ferrous sheets

- Made of hardened steel.
- Satin Chrome finish.
- Marks of gage size on front, decimal equivalents on back.



Order No.615-7100

Thread Measuring Wire Sets

三针量规

- 48 Pieces, 16 different sizes for all 60° threads
- Measures all threads from 3 to 48 threads per inch and all metric from 0.5mm to 6mm pitch.
- 3 wire method is the best method of measuring external threads.
- Wires are fitted in a plastic case stamped with sizes.
- Laminated chart compiled from the U.S. Standard.
- Gives proper sizes & measurement over wires.





No. of Wires	Specifications	Order No.
48	Threads from 3 to 48 threads per inch and metric from 0.5mm to 6mm pitch.	**600-0500**

Stainless Steel Sheet Metal Gages

直径规

- Handy gage for measuring cylindrical bores, bearing work and for gaging slots.
- Made from polished stainless steel
- Clearly etched graduations for inch on one side and metric on other.

Inside Gage

Range:3-30mm(1/8" to 1-1/4")
Order No. 615-6253



Outside gage

Range:1-13mm(.035" to .5")
Order No. 615-6254



Surface Roughness Standard

表面光洁度比较块

For checking , identifying and specifying the degree of roughness of machine parts

- 30 specimens: 7/8"L x 3/8W .
- Set completed with marking in μ AA(Micro Inches Arithmetical Average) and metric in μ m RA (Micrometers).



Order No.630-9900

The set includes 30 specimens of six maching methods:

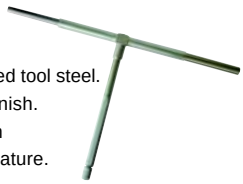
Specifications	Measuring Range
3 Specimens:Flat Lapping	2, 4and 8 μ" A A
3 Specimens:Reaming	16, 32 and 63 μ" A A
6 Specimens:Grinding	2, 4, 8,16,32 and 63 μ" A A
6 Specimens:Horizontal Milling	16, 32, 63, 125, 250 and 500 μ" A A
6 Specimens:Vertical Milling	16, 32, 63, 125, 250 and 500 μ" A A
6 Specimens:Turning	16, 32, 63, 125, 250 and 500 μ" A A

Telescoping Gages
方头可调量规

NEW

Square head

- Made of hardened tool steel.
- Satin chrome finish.
- Rigid handle with self-centering feature.



615-6650



Range	Length	Order No.
5/16 - 1/2”(8-12.7mm)	4”(102mm)	**615-6611**
1/2 - 3/4”(12.7-19mm)	4”(102mm)	**615-6612**
3/4 - 1-1/4”(19-32mm)	4”(102mm)	**615-6613**
1-1/4 - 2-1/8”(32-54mm)	5”(127mm)	**615-6614**
2-1/8” - 3-1/2”(54-90mm)	5”(127mm)	**615-6615**
3-1/2 - 6”(90-150mm)	5”(127mm)	**615-6616**
4-3/4-8”(120-200mm)		**615-6650**
6Pcs/set,5/16”-6”(8-150mm)		**615-6610**

Square head, TiN Coated

- Made of hardened tool steel.
- Satin chrome finish.
- Rigid handle with self-centering feature.



Range	Length	Order No.
5/16 - 1/2”(8-12.7mm)	4”(102mm)	**615-6622**
1/2 - 3/4”(12.7-19mm)	4”(102mm)	**615-6623**
3/4 - 1-1/4”(19-32mm)	4”(102mm)	**615-6624**
1-1/4 - 2-1/8”(32-54mm)	5”(127mm)	**615-6625**
2-1/8” - 3-1/2”(54-90mm)	5”(127mm)	**615-6626**
3-1/2 - 6”(90-150mm)		**615-6627**
6Pcs/set,5/16”-6”(8-150mm)		**615-6621**

Precision Telescoping Gages
圆头可调量规(B&S))

Ball head

- Made of hardened tool steel.
- Satin chrome finish.
- Rigid handle with self-centering feature.



Range	Length	Order No.
5/16 - 1/2”(8-12.7mm)	4”(102mm)	**615-6631**
1/2 - 3/4”(12.7-19mm)	4”(102mm)	**615-6632**
3/4 - 1-1/4”(19-32mm)	4”(102mm)	**615-6633**
1-1/4 - 2-1/8”(32-54mm)	5”(127mm)	**615-6634**
2-1/8” - 3-1/2”(54-90mm)	5”(127mm)	**615-6635**
3-1/2 - 6”(90-150mm)	5”(127mm)	**615-6636**
6Pcs/set,5/16”-6”		**615-6630**
4Pcs/set,5/16”-2-1/2”		**615-6638**
5Pcs/set,1/2”-6”		**615-6639**

Ball head, TiN Coated

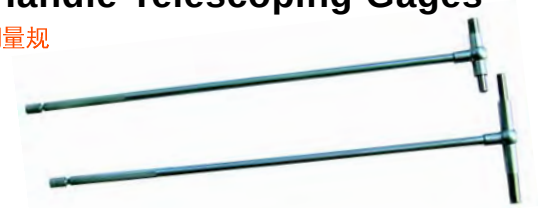
- Made of hardened tool steel.
- Satin chrome finish.
- Rigid handle with self-centering feature.



Range	Length	Order No.
5/16 - 1/2”(8-12.7mm)	4”(102mm)	**615-6641**
1/2 - 3/4”(12.7-19mm)	4”(102mm)	**615-6642**
3/4 - 1-1/4”(19-32mm)	4”(102mm)	**615-6643**
1-1/4 - 2-1/8”(32-54mm)	5”(127mm)	**615-6644**
2-1/8” - 3-1/2”(54-90mm)	5”(127mm)	**615-6645**
3-1/2 - 6”(90-150mm)	5”(127mm)	**615-6646**
6Pcs/set,5/16”-6”(8-150mm)		**615-6640**

Long Handle Telescoping Gages
加长柄可调量规

Ball head



Range	Handle Length	Order No.
5/16 - 1/2”(8-12.7mm)	8”(200mm)	**615-6661**
1/2 - 3/4”(12.7-19mm)	8”(200mm)	**615-6662**
3/4 - 1-1/4”(19-32mm)	8”(200mm)	**615-6663**
1-1/4 - 2-1/8”(32-54mm)	8”(200mm)	**615-6664**
2-1/8” - 3-1/2”(54-90mm)	8”(200mm)	**615-6665**
3-1/2 - 6”(90-150mm)	8”(200mm)	**615-6666**
4-3/4” - 8”(150-200mm)	8”(200mm)	**615-6668**

Range	Handle Length	Order No.
5/16 - 1/2”(8-12.7mm)	12”(300mm)	**615-6671**
1/2 - 3/4”(12.7-19mm)	12”(300mm)	**615-6672**
3/4 - 1-1/4”(19-32mm)	12”(300mm)	**615-6673**
1-1/4 - 2-1/8”(32-54mm)	12”(300mm)	**615-6674**
2-1/8” - 3-1/2”(54-90mm)	12”(300mm)	**615-6675**
3-1/2 - 6”(90-150mm)	12”(300mm)	**615-6676**
4-3/4” - 8”(150-200mm)	12”(300mm)	**615-6678**

Small Hole Gage Sets 小孔量规

- Available in half and full ball styles.
- Sets supplied in fitted case.
- Range is 1/8” thru 1/2”.
- Heat treated and precision ground.
- Hole size is obtained by measuring over the contact points with a micrometer.
- Knurled knob at end of handle is used for size adjustment.





Half Ball Type

Inch Range	Metric Range	Order No.
.125-.200”	3-5mm	**615-6241**
.200-.300”	5-7	**615-6242**
.300-.400”	7.5-10	**615-6243**
.400-.500”	10-12.54	**615-6244**
4pcs set		**615-6250**

Full Ball Type

Inch Range	Metric Range	Order No.
.125-.200”	3-5mm	**615-6245**
.200-.300”	5-7	**615-6246**
.300-.400”	7.5-10	**615-6247**
.400-.500”	10-12.54	**615-6248**
4pcs set		**615-6251**

Dial Bore Gage Sets

内径量表

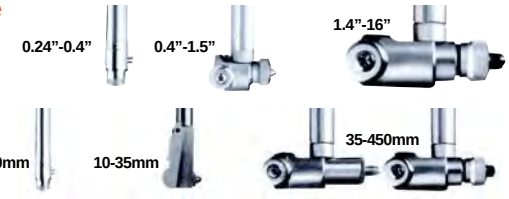


Plastic Cases only for Sizes lower than 6”



Wooden Cases

Probe Type



Inch Size

Range	Depth	Package	.001” Order No.	.0005” Order No.	.0001” Order No.
0.24-0.4”	1.57”	Plastic Case	**612-5906**	**612-5900**	**612-5902**
0.4-0.7”	4”	Plastic Case	**612-5907**	**612-5905**	**612-5904**
0.7-1.5”	5”	Plastic Case	**612-5908**	**612-5910**	**612-5909**
1.4-2.4”	6”	Plastic Case	**612-5912**	**612-5915**	**612-5914**
2-4”	6”	Plastic Case	**612-5918**	**612-5916**	**612-5917**
2-6”	6”	Plastic Case	**612-5919**	**612-5920**	**612-5921**
6-10”	16”	Wooden Case	**612-5930**	**612-5925**	**612-5927**
10-16”	16”	Wooden Case	**612-5940**	**612-5935**	**612-5937**
1.4-2.4”	19.7”	Wooden Case	**612-6906**	**612-6900**	**612-6903**
1.4-2.4”	39.4”	Wooden Case	**612-6915**	**612-6910**	**612-6917**
1.4-2.4”	59.1”	Wooden Case	**612-6925**	**612-6920**	**612-6923**
2-4(6)	19.7”	Wooden Case	**612-6935**	**612-6930**	**612-6933**
2-4(6)	39.4”	Wooden Case	**612-6945**	**612-6940**	**612-6943**
2-4(6)	59.1”	Wooden Case	**612-6955**	**612-6950**	**612-6953**
6-10”	19.7”	Wooden Case	**612-6965**	**612-6960**	**612-6963**
6-10”	39.4”	Wooden Case	**612-6975**	**612-6970**	**612-6973**
6-10”	59.1”	Wooden Case	**612-6985**	**612-6980**	**612-6983**
10-16”	19.7”	Wooden Case	**612-6995**	**612-6990**	**612-6991**
10-16”	59.1”	Wooden Case	**612-6999**	**612-6998**	**612-6993**

Metric Size, Grad. 0.01mm

Range	Depth	Order No.	Range	Depth	Order No.
6-10mm	40mm	**612-7900**	35-50mm	1500mm	**612-7950**
10-18mm	100mm	**612-7905**	50-100mm(160)	500mm	**612-7955**
18-35mm	125mm	**612-7910**	50-100mm(160)	1000mm	**612-7960**
35-50mm	150mm	**612-7915**	50-100mm(160)	1500mm	**612-7965**
50-100mm	150mm	**612-7920**	160-250mm	500mm	**612-7970**
50-160mm	150mm	**612-7925**	160-250mm	1000mm	**612-7975**
160-250mm	400mm	**612-7930**	160-250mm	1500mm	**612-7980**
250-450mm	400mm	**612-7935**	250-450mm	500mm	**612-7985**
35-50mm	500mm	**612-7940**	250-450mm	1000mm	**612-7990**
35-50mm	1000mm	**612-7945**	250-450mm	1500mm	**612-7995**

Digital Bore Gages

数显内径表

- Extra large LCD, 360 degree rotation
- Double display: digital and electronic scale
- Inch/Metric conversion
- Easily calibrated by one button
- Directly measure the actual value of workpiece
- Easily realize the blind measuring by freezing minimum value
- Relative measurement/Absolute measurement
- Data output RS 232
- Various measuring head for different size of bore measuring
- Power: 3V CR2032 Lithium battery
- Work temperature: +5°C+4°C,
  Storage temperature: -10°C+60°C



Range	Graduation	Accuracy	Order No.
.24 to .4”/6-10mm	.00005”/.002mm	.012mm	**612-5700**
.40 to .7”/10-18mm	.00005”/.002mm	.012mm	**612-5702**
.70 to 1.5”/18-35mm	.00005”/.002mm	.015mm	**612-5704**
1.4 to 2.4”/35-50mm	.00005”/.002mm	.015mm	**612-5706**
2 to 4”/50-100mm	.00005”/.002mm	.018mm	**612-5708**
2 to 6”/50-160mm	.00005”/.002mm	.018mm	**612-5710**
6 to 10”/160-250mm	.00005”/.002mm	.018mm	**612-5712**
10 to 16”/250-450mm	.00005”/.002mm	.018mm	**612-5714**

Accessories For Inch Dial Bore Gages

内径表附件

- Anvils for 0.7-1.5” Dial Bore Gages are screw style with 0.1” step.
- 1.4-2.4”, 2-4”, 2-6”, 6-10”, 10-16”, Dial Bore Gage anvils are plug style.
- Washers are used as a smaller steps adjustment.
- Sub-Anvils extend measuring range by 2” or 4”.
- Included with above sets.



Sub-Anvils

Range of Bore Gage	Grad.	Qty of Sub-Anvils	No.1	No.2
2-4”	0.001”	1	2”	
2-6	0.001	1	2	
6-10	0.001	1	2	
10-16	0.001	2	2	4
2-6	0.0005	1	2	
6-10	0.0005	1	2	
10-16	0.0005	2	2	4
2-6	0.0001	1	2	
6-10	0.0001	1	2	

Anvils

Washers

Range of Bore Gage	Grad.	Qty	No. of Anvils No.1	No.2	No.3	No.4	No.5	No.6	No.7	No.8	No.9	No.10	No.11	Order No.	Qty	No. of Washers No.1	No.2	No.3	No.4	No.5	Order No.
0.24-0.4”	.001/.0005”	9	0.24”	0.26”	0.28”	0.3”	0.32”	0.34”	0.36”	0.38”	0.4”			**612-9001**							
0.4-0.7	.001/.0005”	9	0.4	0.44	0.48	0.52	0.58	0.62	0.64	0.68	0.7			**612-9002**	1	0.02					**612-9013**
0.7-1.5	.001/.0005”	8	.7-.8	.8-.9	.9-1.0	1.0-1.1	1.1-1.2	1.2-1.3	1.3-1.4	1.4-1.5				**612-9003**							
1.4-2.4	.001/.0005”	6	1.4	1.6	1.8	2	2.2	2.4				3.8		**612-9004**	3	0.02	0.05	0.1			**612-9014**
2-4	.001/.0005”	11	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4	**612-9005**	3	0.02	0.05	0.1			**612-9015**
2-6	.001/.0005”	11	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6		4	**612-9006**	3	0.02	0.05	0.1			**612-9016**
6-10	.001/.0005”	6	6	6.4	6.8	7.2	7.6	8						**612-9007**	5	0.02	0.05	0.1	0.2	0.3	**612-9017**
10-16	.001/.0005”	6	10	10.4	10.8	11.2	11.6	12						**612-9008**	5	0.02	0.05	0.1	0.2	0.3	**612-9017**
1.4-2.4	.0001”	6	1.4	1.6	1.8	2	2.2	2.4				3.8		**612-9004**	4	0.01	0.02	0.05	0.1		
2-4	.0001”	11	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6	3.8	4	**612-9005**	4	0.01	0.02	0.05	0.1		
2-6	.0001”	11	2	2.2	2.4	2.6	2.8	3	3.2	3.4	3.6		4	**612-9006**	4	0.01	0.02	0.05	0.1		
6-10	.0001”	6	6	6.4	6.8	7.2	7.6	8						**612-9007**	5	0.02	0.05	0.1	0.2	0.3	

Dial Indicators 百分表

Inch Size





Range	Grad.	Dial Reading	Dial Size	Back Lug	Order No.
0.05"	.0001"	0-100	2.28"	With	**605-4000**
0.125	.0005	0-25-0	1-37/64	With	**605-4002**
0.125	.00025	0-100	1-37/64	With	**605-4003**
1/4	0.0005	0-100	1-37/64	Without	**605-4007**
1/4	0.0005	0-100	2.28	Without	**605-4008**
0.25	0.001	0-100	2.28	With	**605-4030**
0.25	0.001	0-50-0	2.28	With	**605-4035**
0.25	0.001	0-100	1-37/64	Without	**605-4041**
0.25	0.001	0-100	1-37/64	With	**605-4040**
0.25	0.0005	0-100	2.28	With	**605-4005****
0.25	0.0005	0-100	1-37/64	With	**605-4004**
0.25	0.0005	0-50	2.28	With	**605-4058**
0.25	0.0001	0-100	2.28	With	**605-4006**
0.40	0.001	0-100	2.28	With	**605-4045**
0.5	0.001	0-100	2.28	With	**605-4050**
0.5	0.001	0-100	2.28	With	**605-4051***
0.5	0.001	0-100	2.28	Without	**605-4605**
0.5	0.001	0-50-0	2.28	With	**605-4055**
0.5	0.0005	0-100	2.28	With	**605-4052**
0.5	0.0005	0-50	2.28	With	**605-4060**
0.5	0.0005	0-25-0	2.28	With	**605-4065**
0.5	0.0001	0-100	2.28	With	**605-4012**
1	0.001	0-100	2.28	With	**605-4070**
1	0.001	0-100	2.28	With	**605-4080*****
1	0.001	0-50-0	2.28	With	**605-4075**
1	0.0005	0-100	2.28	With	**605-4071**
1	0.0005	0-50	2.28	With	**605-4063**
1	0.0001	0-100	2.28	With	**605-4025**
2	0.001	0-100	2.28	With	**605-4205**
2	0.001	0-100	2.28	With	**605-4206*****

* Economy Dial Indicators. ** without Rev.Counter. *** Black Face

Metric Size







Range (mm)	Grad. (mm)	Dia. (mm)	Back Lug	Style	Order No.
0.5	0.001	40	With		**605-4305**
1	0.001	40	Without	6 Jeweled	**605-4100**
1	0.001	40	With	6 Jeweled	**605-4301**
1	0.001	58	Without	6 Jeweled	**605-4101**
3	0.01	40	with		**605-4110**
3	0.01	40	With	6 Jeweled	**605-4311**
3	0.01	40	Without		**605-4120**
3	0.01	40	Without	6 Jeweled	**605-4310**
3	0.01	58	With		**605-4236**
3	0.01	58	With	Shock Proof	**605-4235**
3	0.01	58	Without		**605-4232**
3	0.01	58	Without	Shock Proof	**605-4230**
3	0.001	50	Without		**605-4103**
5	0.01	58	With		**605-4130**
5	0.01	58	Without		**605-4115**
5	0.01	58	Without	6 Jeweled	**605-4330**
5	0.01	58	With	6 Jeweled	**605-4331**
5	0.01	40	Without		**605-4140**
5	0.001	58	Without	6 Jeweled	**605-4345**
10	0.01	58	With		**605-4151**
10	0.01	58	Without		**605-4125**
10	0.01	58	Without	6 Jeweled	**605-4136**
10	0.01	58	With		**605-4360**
10	0.01	60	With	6 Jeweled	**605-4350**
10	0.01	60	Without	6 Jeweled	**605-4351**
25	0.01	58	Without	6 Jeweled	**605-4160**
30	0.01	58	With		**605-4165**
30	0.01	58	Without		**605-4166**
50	0.01	76	With		**605-4170**
50	0.01	76	Without		**605-4180**

Dual System Dial Indicators

公英制双显百分表

Inch/Metric:

Inch Outside, Metric Inside



Inch/Metric Dial Indicators

Range	Dial Dia.	Graduation	Order No.
0-1/2"/0-12.7mm	2-3/8"	0.001"/0.1mm	**605-4815**
0-1"/0-25mm	2-3/8"	0.001"/0.1mm	**605-4816**



Inch/Metric Dial Indicators

Range	Dial Dia.	Graduation	Order No.
0-1"/0-25mm	3"	0.001"/0.1mm	**605-4819**
0-1.5"/0-40mm	3"	0.001"/0.1mm	**605-4820**
0-2"/0-50mm	3"	0.001"/0.1mm	**605-4821**



Metric/Inch:

Metric Outside, Inch Inside

Metric/Inch Dial Indicators

Range	Dial Dia.	Graduation	Order No.
0-12.7mm/0-.5"	2-3/8"	0.1mm/0.001"	**605-4817**
0-25mm/0-1"	2-3/8"	0.1mm/0.001"	**605-4818**



Metric/Inch Dial Indicators

Range	Dial Dia.	Graduation	Order No.
0-25mm/0-1"	3"	0.1mm/0.001"	**605-4822**
0-40mm/0-1.5"	3"	0.1mm/0.001"	**605-4823**
0-50mm/0-2"	3"	0.1mm/0.001"	**605-4824**

Back Plunger Dial Indicators

端面百分表



Inch Back Plunger Dial Test Indicators

Range	Grad.	Dial Diameter	Holding Rod Dia.	Order No.
0-0.1"/0-0.2"	0.001"	1-3/5"	1/4"	**605-3821**



Metric Back Plunger Dial Indicators

Range	Grad.	Dial Diameter	Order No.
0-1mm	0.01mm	40mm	**605-3801**
0-3mm	0.01mm	40mm	**605-3803**
0-5mm	0.01mm	40mm	**605-3805**

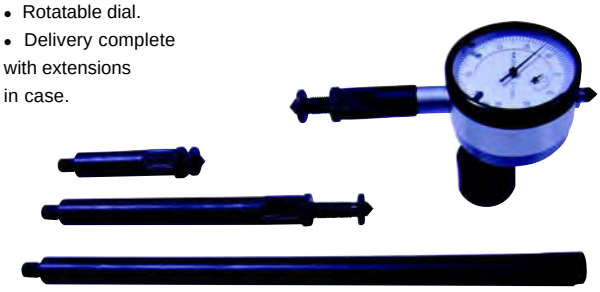


Inch Back Plunger Dial Indicators

Range	Grad.	Dial Diameter	Order No.
0-0.04"	0.001"	1-3/5"	**605-3814**
0-0.1	0.001	1-3/5	**605-3811**
0-0.2	0.001	1-3/5	**605-3812**
0-0.25	0.001	1-3/5	**605-3813**

Crankshaft Meter 曲轴百分表

- Measuring rang: 45-500mm
- Rotatable dial.
- Delivery complete with extensions in case.



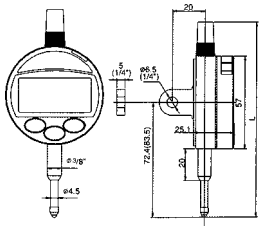
Range	Graduation	Order No.
45-500mm	0.01mm	**605-3830**

Electronic Digital Indicators 电子数显百分表

电子数显百分表(大屏)

3 Keys, Large Screen

- Super large LCD for easy reading .digit height 12.5mm.
- Novel desig, large silvering display window.
  Customer's Logo can be printed on it.
- With data output.
- One 1.55V SR44 battery can last about 12 months. Functions:manual ON/OFF or auto power off; zero setting at any position; Metric/Inch system conversion at any position.
- Low voltage warning by flashing display.





Range	Graduation	Order No.
0-.5"/12.7mm	0.01/0.0005"	605-2255
0-1"/25.4mm	0.01/0.0005"	605-2256
0-.5"/12.7mm	0.001/0.00005"	605-2257
0-1"/25.4mm	0.001/0.00005"	605-2258

3 Keys, Large Screen



Range	Graduation	Order No.
0-10mm/3/8"	0.01mm/.0005"	605-2023
0-25mm/1.0''	0.01mm/.0005"	605-2026

7 Keys, Large LCD Screen



- SPC out put
- Preset, Zero Set, Inch/mm, and Tolerance Set.
- Large LCD Screen.

0-25mm/1"

Range	Graduation	Shell Size	Stem Dia.	Order No.
0-25mm/1''	0.01mm/0.0005''	2-1/2"	9.5mm	605-2002
0-25mm/1''	0.01mm/0.0005''	60mm	8mm	605-2003
0-25mm/1''	0.005mm/0.0001"	2-1/2"x4"	9.5mm	605-2033
0-25mm/1''	0.005mm/0.0001"	64x100mm	8mm	605-2034

with Analog Display



- Absolutely and comparative measurement.
- Preset tolerance and value.
- Extra large LCD.
- Auto power On/Off.
- 360° Screen rotation.

Range	Grad.	Order No.
6.35mm/1/4"	0.01mm/0.0005"	605-2511
12.5mm/0.5"	0.01mm/0.0005"	605-2512
25.4mm/1"	0.002mm/0.0001"	605-2514
6.35mm/1/4"	0.001mm/0.00005"	605-2510
12.5mm/0.5"	0.001mm/0.00005"	605-2513
25.4mm/1"	0.001mm/0.00005"	605-2515

3 Keys, Large LCD Screen



- Super large LCD display for easy reading
- Big easy to press buttons
- With data output

Range	Graduation	3/8" Shank Order No.	8mm shank Order No.
0-12.7mm/0.5"	0.01mm/0.0005"	605-2051	605-2061
0-25.4mm/1.0	0.01mm/0.0005	605-2052	605-2062
0-12.7mm/0.5	0.001mm/.00005	605-2053	605-2063
0-25.4mm/1.0	0.001mm/.00005	605-2054	605-2064

3 Keys, Large LCD Screen, Metal -Housing, Ip54



- Measuring speed is faster.no minus sign when "0.00" display
- Super large LCD display for easy reading.
- With durable and premium metal display housing, IP54 Water-resistant
- Big easy to operate electronic buttons
- With data output
- One 1.55V SR44 battery can last about 12 months
- Functions:manual ON/OFF(auto power off available); zero setting at any position;Metric/Inch system conversion at any position
- Low voltage warning by flashing display

Range	Graduation	Order No.
0-12.7mm/0.5"	0.01mm/0.0005"	605-2251
0-25.4mm/1.0	0.01mm/0.0005	605-2252
0-12.7mm/0.5	0.001mm/.00005	605-2253
0-25.4mm/1.0	0.001mm/.00005	605-2254

7 Keys Multi-Function Large LCD Screen



- Large LCD Screen.
- Featared extra function of Measuring Range and Measuring Direction setting.

Range	Graduation	Shell Dia.	Stem Dia.	Order No.
0-6.5mm/1/4"	0.001mm/0.00005"	2-1/2"	8mm	605-2021
0-13mm/1/2"	0.001mm/0.00005"	64mm	8mm	605-2047

7 Keys, Large LCD Screen

0-13mm/1/2"



Range	Graduation	Shell Size	Stem Dia.	Order No.
0-13mm/1/2"	0.01mm/0.0005''	2-1/2"	9.5mm	605-2000
0-13mm/1/2"	0.01mm/0.0005''	60mm	8mm	605-2001
0-13mm/1/2"	0.005mm/0.0001"	2-1/2"	9.5mm	605-2031
0-13mm/1/2"	0.005mm/0.0001"	60mm	8mm	605-2032
0-13mm/1/2"	0.001mm/0.00005"	2-1/2"	9.5mm	605-2035
0-13mm/1/2"	0.001mm/0.00005"	60mm	8mm	605-2036

Dial Test Indicators 杠杆表

- Accesory Included: Two stems, 5/32 & 3/8"(inch) or 6 & 8mm(metric).
- Items with "*" supplied in black face.

Vertical



Range	Grad.	Vertical Order No.
0.008"	0.0001"	605-4805
0.03"	0.001"	605-4801
0.03"	0.0005"	605-4810
0.12mm	0.001mm	605-4812
0.2mm	0.002mm	605-4811
0.8mm	0.01mm	605-4813

Horizontal & Vertical with Carbide Contact Point



Range	Grad.	Horizontal Ortder No.	Vertical Order No.
0.008"	0.0001"	605-4505	605-4405
0.03"	0.001"	605-4501	605-4401
0.03"	0.0005"	605-4510	605-4410
0.03"	0.0005"	605-4509*	
0.12mm	0.001mm	605-4512	605-4412
0.8mm	0.01mm	605-4513	605-4413
0.2mm	0.002mm	605-4511	605-4411

Horizontal

- Dial Face is 1.26" (32mm), Large Dial Face is 1.57"(39mm)



Range	Grad.	Horizontal Order No.	Horizontal Large Dial Order No.
0.008"	0.0001"	605-4705	605-4905
0.03"	0.001"	605-4701	605-4901
0.03"	0.0005"	605-4709*	
0.03"	0.0005"	605-4710	605-4910
0.12mm	0.001mm	605-4712	605-4912
0.2mm	0.002mm	605-4711	605-4911
0.8mm	0.01mm	605-4713	605-4913

Horizontal with Ruby Contact Point

- Higher resistance to wear.
- Higher hemical and thermal stability.



Range	Graduation	Horizontal Order No.
0.008"	0.0001"	605-5705
0.03"	0.001"	605-5701
0.03"	0.0005"	605-5710
0.03mm	0.0005mm	605-5709*
0.2mm	0.002mm	605-5711
0.12mm	0.001mm	605-5712
0.8mm	0.01mm	605-5713

Digital Test Indicators

电子数显杠杆表

- Function Keys Include: Power on/off key, Zero setting key, Metric/Inch key, Tolerance key.
- Measuring probe: 2.5mm.



Range	Graduation	Point	Order No.
+/- 0.5mm/0.02"	0.01mm/0.0005"	Rubby	605-0001
+/- 0.5mm/0.02"	0.01mm/0.0005"	Steel	605-0002
+/- 0.5mm/0.02"	0.001mm/0.0001"	Rubby	605-0005
+/- 0.5mm/0.02"	0.001mm/0.0001"	Steel	605-0006

Dial Test Indicators 杠杆表

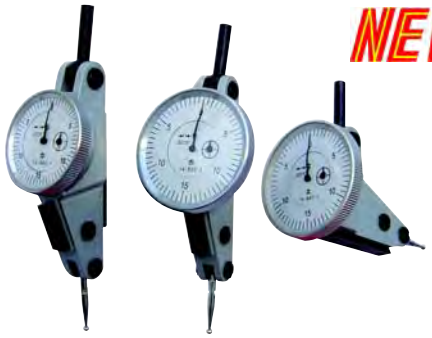
Horizontal

- Dial reading: 0-15-0
- Jeweled movement
- Revolution counter
- Easy-to-read tilted dial
- Automatic reversal
- 210° Swivel arc
- Tungsten carbide .080" point



Range	Grad.	Dial Dia.	Order No.
.060"	.0005"	1.5"	605-5866
1.6mm	0.01mm	38mm	605-5868

NEW



Horizontal

Range x Grad.	Dial	Dial Dia.	Order No.	Dial Dia.	Order No.
0.02"x0.0005"	0-10-0	32mm	605-5821	37mm	605-5831
0.03"x0.0005"	0-15-0	32	605-5822	37	605-5832
0.04"x0.0005"	0-20-0	32	605-5823	37	605-5833
0.008"x0.0001"	0-40-0	32	605-5824	37	605-5834
0.5x0.01mm	0-25-0	32	605-5825	37	605-5835
0.8x0.01mm	0-40-0	32	605-5826	37	605-5836
1.0x0.01mm	0-50-0	32	605-5827	37	605-5837
0.2x0.002mm	0-100-0	32	605-5828	37	605-5838
0.12x0.001mm	0-60-120	32	605-5829	37	605-5839

Vertical

Range x Grad.	Dial	Dial Dia.	Order No.	Dial Dia.	Order No.
0.02"x0.0005"	0-10-0	32mm	605-5841	37mm	605-5851
0.03"x0.0005"	0-15-0	32	605-5842	37	605-5852
0.04"x0.0005"	0-20-0	32	605-5843	37	605-5853
0.008"x0.0001"	0-40-0	32	605-5844	37	605-5854
0.5x0.01mm	0-25-0	32	605-5845	37	605-5855
0.8x0.01mm	0-40-0	32	605-5846	37	605-5856
1.0x0.01mm	0-50-0	32	605-5847	37	605-5857
0.2x0.002mm	0-100-0	32	605-5848	37	605-5858
0.12x0.001mm	0-60-120	32	605-5849	37	605-5859

Horizontal Dial Test Indicators

杠杆千分表

- The test indicators can be applicable to measure the geometrical structure, straightness, planeness, parallelism and coaxiality.
- With the help of machine tool, distance of two bors can be measured and dimension can be coordinated.





Micron

Range	Graduation	Accuracy	Order No.
0-.005"	.00005"	.0001"	605-4502
0-0.12mm	.001mm	.0025mm	605-4512

Large Range

Range	Graduation	Accuracy	Order No.
0-.06"	.0005"	.0004"	605-4606
0-1.6mm	.01mm	.008mm	605-4616

Test Indicator and Accessory Combo Kit
杠杆表及附件

Set

Set Includes:
- Large size dial test indicator
- Axial support
- Height gage bar with clamp
- Universal holder
- Adaptor sleeve
- Contact point case
- Contact point wrench
- Finished in fitted



Total Range	Grad.	Dial Diameter	Order No.
0.060”	0.0005”	1-1/2”	**605-4870**

Accessories


Holding bar


Stem 5/32” Dia.


Stem 3/8”Dia.


Dovetail clamp


Replacement Point


Axial Support


Adaptor sleeve

Specifications	Order No.
1/4”x1/2” Holding bar with 1/4” pin	**605-0031**
Stem 5/32” diameter with dovetail washer	**605-0032**
Stem 3/8” diameter with dovetail washer	**605-0033**
Dovetail clamp, bore diameter 1/4” and 3/8”	**605-0034**
Replacement Point 0.04”	**605-0035**
Replacement Point 0.08”	**605-0036**
Replacement Point 0.12”	**605-0037**
Axial Support	**605-0038**
Adaptor sleeve	**605-0039**

Horizontal Test Indicator & Quill-Type Holder Combo
带表架杠杆表

Test Indicator:
- .060” Range
- Graduation: .0005”
- Dial reading: 0-15-0
- Jewelled movement
- Revolution counter
- Easy-to-read tilted dial
- Automatic reversal
- Swivel arc: 210°
- 3 points: 0.04, 0.08 and 0.12”
- Includes 2 dovetail stems
- Furnished in fitted case

Quill Type Holder
- 1-7/8” capacity
- Reach from 0-12” dia.
- Adapts immediately for fast and positive indication

Order No. 605-4872



Dial Test Indicator Sets
水平表面杠杆百分表

Horizontal Type

Set Includes:
- Test indicator:
- Dial reasing: 0-15-0
- Two contact point
- 3/8” &1/4” dovetail stems
- contact point wrench
- Height gage bar
- Universal Dovetail clamp
- Finished in fitted plastic case



Total Range	Grad.	Face	Order No.
0.030”	0.0005”	White	**605-4707**
0.030”	0.0005”	Black	**605-4708**

Horizontal Test Indicator with Magnetic Base
带表座杠杆表

Magnetic base: Locking screw and two universal ball scokets for setting at any angle position.Microfine adjustment screw. Removable extension arm. Dovetail form holder with lock-ing control to hold dovetail test indicators. Accepts .250 diameter test indicator stems. The base is finished in wrinkled enamel.

Test Indicator:
- .060” Range
- Graduation: .0005”
- Dial reading: 0-15-0
- Jewelled movement
- Revolution counter
- Automatic reversal
- Swivel arc: 210°
- 3 points: 0.04, 0.08 and 0.12”
- Includes 2 dovetail stems
- Furnished in fitted case

Order No. 605-4874



Indicator,Magnetic Base & Indicator Point Set
带表座杠杆表

Indicator:
- .030” Range
- Graduation: .0005”
- Dial reading: 0-15-0
- Includes carbide tip points: (0.08” dia. by 1/2” long)

Magnetic Holder
- Two universal ball sockets
- Fine adjustment
- Dovetail clamp
- Base 1-3/16” dia., 1” high
- Extension rod 1/4” dia. by 3-1/2”

White Face

Order No. 605-4876

Black Face

Order No. 605-4877



Comparator Gages 杠杆齿轮比较仪

Metric Dial Comparator Gage

Range: +/- 0.05mm
Grad: 0.001mm
Stem Dia.: 8mmH6



Order No.605-5001

Inch Dial Comparator Gage

Range: +/- 0.002"
Grad: 0.00005"
Stem Dia.: 3/8"H6



Order No.605-5002

Large Radial Dial gage

测径表

- Easy to measure the radius of cylinders with radius from 100 to 1000mm
- R=200/h+h/2-3



Range	Graduation	Order No.
100-1000mm	0.001mm	**615-6101**

Spherical Radial Dial gages

球径表

- Easy to measure the radius of cylinders item
- Equipped with a shock-proof dial indicator
- R=200/h+h/2-3



Range	Graduation	Order No.
15-100mm	0.01mm	**615-6111**
325-1250mm	0.001	**615-6112**

AGD Dial Indicator Contact Points

For Indicator with #4-48 Thread

表触头

Tungsten Carbide Ball Tip

- Perfect for use in any repetitive measuring application.
- Extremely smooth and hard.
- Will last much longer than standard steel tips.



Ruby Ball Tip

- Use for all measuring applications.
- Hardness offers resistance to wear and chemical and thermal stability.
- Extremely low friction coefficient, negligible thermal expansion.



Tip Length	Ball Size	Thread	Ball Type	Order No.
1/4"	3mm	#4-48	Carbide	**605-0020**
1/2	3mm	#4-48	Ruby	**605-0021**

Digital Bore Gages 数显内径表



- Extra large LCD, 360 degree rotation
- Double display: digital and electronic scale
- Inch/Metric conversion
- Easily calibrated by one button
- Directly measure the actual value of workpiece
- Easily realize the blind measuring by freezing minimum value
- Relative measurement/Absolute measurement
- Data output RS 232
- Various measuring head for different size of bore measuring
- Power: 3V CR2032 Lithium battery
- Work temperature: +5ºC+4ºC,
  Storage temperature: -10ºC+60ºC

Range	Graduation	Accuracy	Order No.
.24-.4"/6-10mm	.00005"/.002mm	.012mm	**612-5700**
.40- .7"/10-18mm	.00005"/.002mm	.012mm	**612-5702**
.70-1.5"/18-35mm	.00005"/.002mm	.015mm	**612-5704**
1.4-2.4"/35-50mm	.00005"/.002mm	.015mm	**612-5706**
2-4"/50-100mm	.00005"/.002mm	.018mm	**612-5708**
2- 6"/50-160mm	.00005"/.002mm	.018mm	**612-5710**
6-10"/160-250mm	.00005"/.002mm	.018mm	**612-5712**
10-16"/250-450mm	.00005"/.002mm	.018mm	**612-5714**

Large Radial Digital gages

数显测径表

- Easy to measure the radius of cylinders with radius from 100 to 1000mm
- R=200/h+h/2-3



Range	Graduation	Order No.
100-1000mm	0.001mm	**615-6105**

Spherical Radial Digital gages

数显球径表

- Easy to measure the radius of cylinders item
- Equipped with a shock-proof dial indicator
- R=200/h+h/2-3

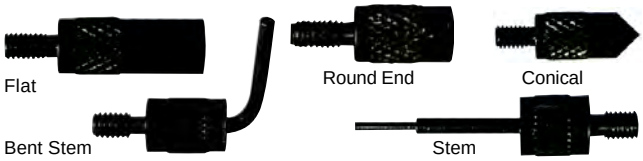


Range	Graduation	Order No.
15-100mm	0.01mm	**615-6115**
325-1250mm	0.001	**615-6116**

Individual Dial Indicator Points

仪表附件－表触头

- Fit standard AGDindicators, #4-48 threads.
- Made of highest quality cold rolled steel, carefully knurled for ease of placement and finished with a high quality protective finish.



Description	Length	Order No.
Flat	0.625"	**605-0012**
Round End	0.359	**605-0013**
Conical	0.500	**605-0014**
Stem(Bent)	0.312	**605-0015**
Stem*	1.025	**605-0016**

*Measuring tip = .250"

Indicator Accessories

仪表附件

Special function Dial Indicator Points

- Cold rolled steel, heat treated and plated. AGD #4-48 standard threads.



Description	Order No.
Radius	605-0007
Offset Chisel Point	605-0008
5/16" Diameter Cone	605-0009
1/16" Needle Stud	605-0010
Roller Anvil	605-0011

Dial Indicator Contact Points

- Standard AGD #4-48 thread fits all standard English dial indicators.
- Cold rolled steel, heat treated and plated.



Flat Botton



Botton

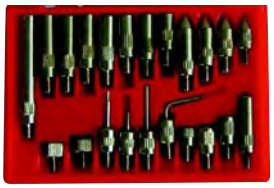


Tappered

Dia.	Length	Type	Order No.
1/4"		Flat	605-0027
1/2		Botton	605-0028
3/16	1"	Tappered	605-0029

22 Piece Indicator Point Sets

- Turns your indicator into 22 different tools
- Fits all brand dial indicator.



Specifications	Order No.
Thread: 0.112"-48	605-0022
Thread: M3-0.5	605-0023

Individual Indicator Point

Fits all AGD Group 1,2,3,4 indicator with 4-48 threads.



Code	Type	Length	Order No.
A	Flat	0.175"	605-0101

Indicator Holder

- Universal Dovetail Indicator Holder
- 1/4"Dial.x3"OAL



Order No. 605-0040

Half Round Combination Holder

- With two point adjustment 1/4" diameter shank
- Suitable for dovetail and 5/32" stem indicator



Order No.605-0043

Replacement Tip for Test Indicator

High Quality



Steel Tips	Order No.
.040x1/2"	605-0025

Rectangular Holder

- 1/4"x1/2" Shank for dovetail and 5/32" Stem Indicators.



Order No. 605-0041

Zero Set Universal Attachment

Z 轴设定器附件

- For standard ZeroSet indicator accessory.
- Allows the placement of any test indicator with dovertails in a multitude of positions.
- Angles up to 90° on either side
- Allows for an infinite range of measure ments over an extensive area



Order No. 605-0030

CMM Style

M2 Threads,Stainless Steel Body, With Grade 10 Ruby Ball



Ball Size	Length	Order No.
1mm Ruby	10mm	605-0024

Arm For Indicator



Order No. 605-0109

Zero Set 铣床对零器

- Perfect for milling machines, magnetic bases and all measuring set ups
- Fits all dovetail equipped indicators
- Checks the alignment of the centers of round materials
- Equipped with a spindle post with 1/4", 3/8", and 1/2" diam.
- Effective measuring range of 3/8" thru 9"

NEW



Order No. 605-0100

2 Points Dial Indicator Contact

one needle point x 1" long
one 0.078" dia x 1" long,



Oeder No. 605-0068

Gem Indicator Accessory Body Clamp Assembly

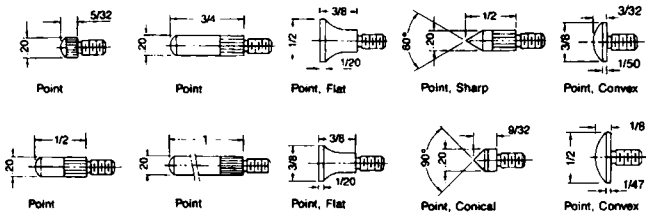


Order No. 605-0110

Dial Indicator Contact points

百分表测头

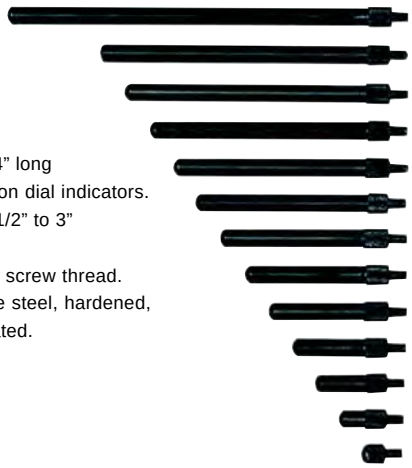




Description	Length	Dia.	Order No.
Point,Length	5/32”	.20”	605-0056
Point, Length	1/2”	.20”	605-0057
Point, Length	3/4”	.20”	605-0058
Point, Length	1”	.20”	605-0059
Point, Flat	3/8’	1/2”	605-0060
Point, Flat	3/8”	3/8”	605-0061
Point, Sharp	1/2”	.20”	605-0062
Point, Conical	9/32”	.20”	605-0063
Point, Convex	3/32”	3/8”	605-0064
Point, Convex	1/8”	1/2”	605-0065
10Pcs			605-0066

Extra Length Contact Points

百分表测头



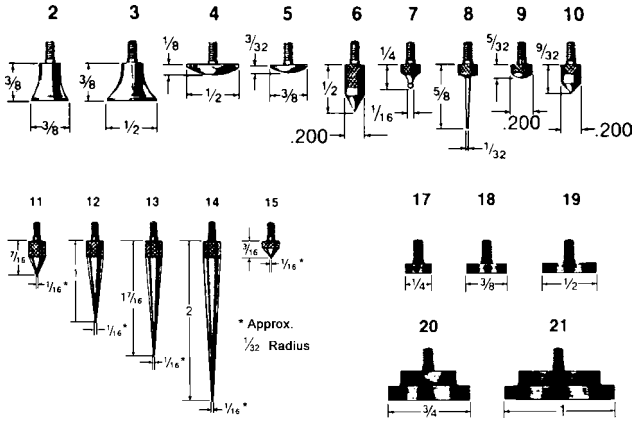
- Used in place of the 1/4” long contact point furnished on dial indicators.
- Standard lengths from 1/2” to 3” in 1/4” increments.
- Diameter 13/64”; #4-48 screw thread.
- Made frome hight grade steel, hardened, ground and chrome plated.

Length	Rounded End Order No.	Flat End Order No.
1/4”	605-0069	605-0169
1/2”	605-0070	605-0170
3/4”	605-0071	605-0171
1”	605-0072	605-0172
1-1/4”	605-0073	605-0173
1-1/2”	605-0074	605-0174
1-3/4”	605-0075	605-0175
2”	605-0076	605-0176
2-1/4”	605-0077	605-0177
2-1/2”	605-0078	605-0178
2-3/4”	605-0079	605-0179
3”	605-0080	605-0180

Special form Contact Points

百分表测头

Special Contact Points are furnished in fourteen shapes. Knurled diameter is approximately 13/64" (5 mm). All have #4-48 screw thread and can be used on any AGD indicator. Other special shapes are available on special order.



Special Form No.	Dia.	Length	Order No.
2	3/8”	3/8”	605-0081
3	1/2	3/8	605-0082
4	1/2	1/8	605-0083
5	3/8	3/32	605-0084
6	.2	1/2	605-0085
7	1/16	1/4	605-0086
8	1/32	5/8	605-0087
9	.2	5/32	605-0088
10	.2	9/32	605-0089
11	1/16	7/16	605-0090
12	1/16	1	605-0091
13	1/16	1-7/16	605-0092
14	1/16	2	605-0093
15	1/16	3/16	605-0094
17	1/4		605-0095
18	3/8		605-0096
19	1/2		605-0097
20	3/4		605-0098
21	1		605-0099

Swivel Joint Clamp for Test Indicators

表架附件（旋转夹）

Adapting indicators to holding bars, height gage attachments, long and short arm attachment, and jointed attachment, etc.



Hole Dia.	OAL	Order No.
5/16”, 1/4”	1-3/4”	605-0042
1/4, 1/4	1-3/4	605-0044
5/16, 5/32	1-3/4	605-0045
3/8, 1/4	1-3/4	605-0046
5/16, 5/16	1-3/4	605-0047
3/8, 5/16	1-3/4	605-0048
3/8, 3/8	1-3/4	605-0049
1/2, 3/8	2-1/16	605-0050

Internal & External Dial Calipers 带表卡规

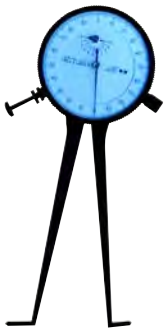
- Bezel rotates for zero setting.
- Button for opening arms.

Inch Size Graduation:0.001"
Metric Size Graduation:0.025mm

Internal Type

Size	Order No.
0.375-1.375"	612-0005
0.750-1.750"	612-0010
1.125-2.125"	612-0015
1.500-2.500"	612-0020
1.875-2.875"	612-0025
2.250-3.250"	612-0030
2.875-3.875"	612-0035
3.250-4.250"	612-0040
3.625-4.625"	612-0045
4.000-5.000"	612-0050

Size	Order No.
10-35mm	612-0305
20-45mm	612-0310
30-55mm	612-0315
40-65mm	612-0320
50-75mm	612-0325
60-85mm	612-0330
75-100mm	612-0335
85-110mm	612-0340
95-120mm	612-0345
100-125mm	612-0350



External Type

Size	Order No.
0-1"	612-0105
0.375-1.375"	612-0110
0.750-1.750"	612-0115
1.125-2.125"	612-0120
1.500-2.500"	612-0125
1.875-2.875"	612-0130
2.250-3.250"	612-0135
2.875-3.875"	612-0140
3.250-4.250"	612-0145
3.625-4.625"	612-0150

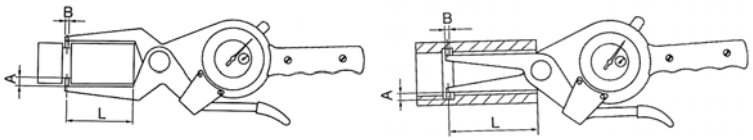
Size	Order No.
0-25mm	612-0205
10-35mm	612-0210
20-45mm	612-0215
30-55mm	612-0220
40-65mm	612-0225
50-75mm	612-0230
60-85mm	612-0235
75-100mm	612-0240
85-110mm	612-0245
95-120mm	612-0250



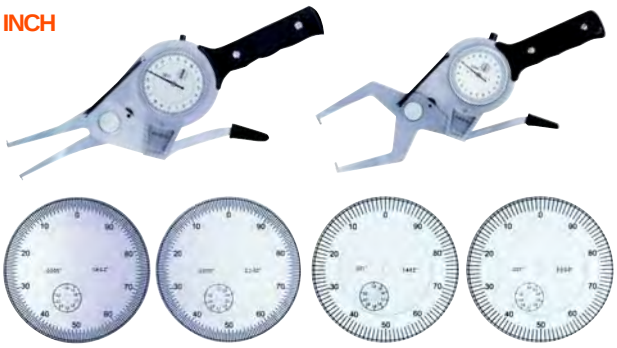
Dial Calipers 带表卡规

Scale Model 0-50-100
Graduation: .01mm

The dial caliper gauges are attachment to the 6-jewel shockproof dial indicator.



INCH



METRIC



Inch Inside

Range	Grad.	A	B	L	Order No.
0.6-1.4"	.0005"	0.118"	0.118"	1.9"	612-8105
1.4-2.2"	.0005"	0.236	0.118	3.1	612-8110
2.2-3.0"	.0005"	0.315	0.118	3.1	612-8115
3.0-3.8"	.0005"	0.315	0.118	3.9	612-8120
0.6-1.4"	.001"	0.118	0.118	1.9	612-8106
1.4-2.2"	.001"	0.236	0.118	3.1	612-8111
2.2-3.0"	.001"	0.315	0.118	3.1	612-8116
3.0-3.8"	.001"	0.315	0.118	3.9	612-8121

Metric Inside

Range	A	B	L	Order No.
15-35mm	3	3	50	612-8005
35-55mm	6	3	80	612-8010
55-75mm	8	3	100	612-8015
75-95mm	8	3	100	612-8020
95-115mm	10	3.2	150	612-8025
115-135mm	10	3.2	150	612-8030

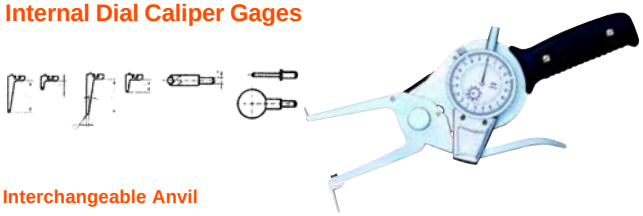
Inch Outside

Range	Grad.	A	B	L	Order No.
0-0.8"	.0005"	0.236	0.118	2.3	612-8135
0.8-1.6"	.0005"	0.236	0.118	2.3	612-8140
1.6-2.4"	.0005"	0.236	0.118	2.1	612-8145
2.4-3.2"	.0005"	0.236	0.118	2.1	612-8150
3.2-4.0"	.0005"	0.236	0.118	2.1	612-8155
0-0.8"	.001"	0.236	0.118	2.3	612-8136
0.8-1.6"	.001"	0.236	0.118	2.3	612-8141
1.6-2.4"	.001"	0.236	0.118	2.1	612-8146
2.4-3.2"	.001"	0.236	0.118	2.1	612-8151
3.2-4.0"	.001"	0.236	0.118	2.1	612-8156

Metric Outside

Range	A	B	L	Order No.
0-20mm	6	3	60	612-8035
20-40mm	6	3	60	612-8040
40-60mm	6	3	55	612-8045
60-80mm	6	3	55	612-8050
80-100mm	6	3	55	612-8055

Internal Dial Caliper Gages



Interchangeable Anvil

Range	Graduation	A	B	L	Order No.
35-55-75mm	0.01mm	10mm	3mm	80mm	612-8302
75-95-115mm	0.01mm	10mm	3mm	100mm	612-8304
115-135-155mm	0.01mm	10mm	3mm	150mm	612-8306

External Dial Caliper Gages



Interchangeable Anvil

Range	Graduation	A	B	L	Order No.
0-20-40mm	0.01mm	10mm	3mm	70mm	612-8312
40-60-80mm	0.01mm	10mm	3mm	70mm	612-8314
80-100-120mm	0.01mm	10mm	3mm	98mm	612-8316

Dial Thickness Gages

带表侧厚规

- Integrative main body machinedfrom aluminum
- Somatological lifting handle
- Upward shockproof





“A”



“B”

Steel Contact Point and Anvil

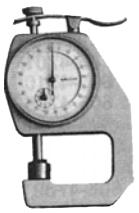
Range	Grad.	Throat Length	Throat Depth	Anvil Dia.	Order No.
0-0.5”	0.001”	1.02”	.84”	.394”	615-6235
0-0.5”	0.0005”	1.02”	.84”	.394”	615-6237
0-10mm	0.01mm	21.3mm	26mm	10mm	615-6239

Ceramic Contact Point and Anvil

Range	Grad.	Throat Length	Throat Depth	Anvil Dia.	Order No.
0-0.5”	0.001”	1.02”	.84”	.394”	615-6236
0-0.5”	0.0005”	1.02”	.84”	.394”	615-6238
0-10mm	0.01mm	21.3mm	26mm	10mm	615-6240

Range	Grad.	Type A Order No.	Type B Order No.
0-0.5”	0.001”	615-6374	615-6274
0-0.5”	0.005”	615-6372	615-6272
0-1”	0.005”	615-6373	615-6273
0-10 mm	0.1 mm	615-6370	615-6270
0-20 mm	0.1 mm	615-6371	615-6271

Range	Grad.	knob Type Order No.
0.4”	0.01”	615-6284
0.4”	0.001”	615-6282
0.4”	0.0005”	615-6283
0-10 mm	0.02 mm	615-6280
0-10 mm	0.01 mm	615-6281



Range	Grad.	Throat Length	Throat Depth	Anvil Dia.	Order No.
0-0.05”	0.0001”		1.18”		615-6225
0-0.5”	0.001”		1.18”		615-6215
0-1.0”	0.001”		1.18”		615-6214
0-10mm	0.01mm	21.3mm	26mm	10mm	615-6216
0-10mm	0.01mm	20mm	30mm	6.0mm	615-6210
0-5mm	0.001mm	20mm	30mm	6.0mm	615-6217



Used for lens center

Range	Grad.	Max. Dia.	Distance	Order No.
0-10mm	0.01mm	58mm	25mm	615-6365
0-10mm	0.01mm	120mm	55mm	615-6360



Pocket

Easy zero point adjustment bezel.

Range	Grad.	Order No.
0-0.5"	0.0005"	615-5205
0-0.5"	0.001"	615-5210
0-10mm	0.01mm	615-5215



with Base

Range	Grad.	Throat Length	Throat Depth	Order No.
0-10mm	0.01mm	32mm	40mm	615-6230



ElectronicPocket

- Manual power On/Off.
- Zero setting and Metric/Inch conversion.
- Measuring faces are lapped and polished.
- Measuring anvil and spindle are made of stainless steel.

Range: 0-10mm/4”
Graduation: 0.01mm/0.0005
Accuracy: >/-0.03mm/0.001”
battery: 1.5V

Order No.615-6358



for Pipe

Range: 0-10mm
Graduation: 0.01mm
Inside Dia.
of Pipe: >4.0mm

Order No.615-6395



Deep Throat

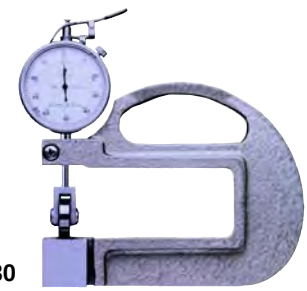
Range	Grad.	Throat Depth	Order No.
0-0.5	0.001”	4.72”	615-6391
0-10mm	0.01mm	120mm	615-6390
0-10mm	0.01mm	200mm	615-6375



Roller Type

Range: 0-10mm
Graduation: 0.01mm

Order No.615-6380



Digital Thickness Gagess

3 Key

NEW



Range	Grad.	Throat depth	Order No.
12.7mm/1/2"	.01mm/.0005"	30mm	**615-6358**

3 Key

0.01mm/0.0005" Repeatability



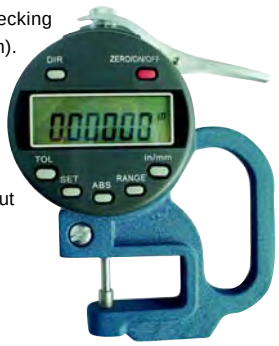
Range	Grad.	Order No.
0-10mm/0.4"	0.01mm/0.0005"	**615-6345**
0-15mm/0.6"	0.01mm/0.0005"	**615-6350**
0-25mm/1"	0.01mm/0.0005"	**615-6355**

7 Key

- Convenient"Snap Action" instruments with LCD readout.
- By pressing down and releasing the thumb lever these gages allow quick and effcient checking of workpiece thickness up to .5"(12.7mm).
- 7 Keys,Includes:TOL,SET,ABS,RANGE, in/mm,DIR,ZERO/ON/OFF.

Range: 0-.5"/0-12.7mm
Display: 7-Digit LCD
with [-] sign .000"/0.01mm with SPC output

Order No. 615-6405



Quick Mini Thickness Gage

Horizontal Type 迷你测厚规

- Manual power on/off.
- Zero setting at any position.
- Metric/Inch system conversion ant any pasition.
- With data output interface



Range	Graduation	Order No.
0-.5"/12mm	0.0005"/0.01mm	**615-6212**

Z-Axis Setters Z 轴设定器

- Low spring force to avoid breaking of small size end mills and drills.
- Easy to be calibrated by a parallel or gage block.
- Made of stainless steel.



Plug in Dial Style

Setting Height	Measuring Range	Grad.	Accuracy	Order No.
2"	0-0.1"	0.001"	0.0004"	**805-4008**
50mm	0-2mm	0.01mm	0.008mm	**805-4007**



Build in Dial Style

Setting Height	Measuring Range	Grad.	Accuracy	Order No.
2"	0-0.1"	0.001"	0.0004"	**805-4006**
50mm	0-2mm	0.01mm	0.008mm	**805-4005**

Zero setting for CNC Machine

- Establishing of "0" reference point with built in indicator.
- Positioning accuracy and repeatability 0.0004"/0.01mm.
- 1.45"/37mm Square, 2"/50mm Height.





Height	Grad.		Order No.
2"	0.0005"	without Magnetic Base	**805-4002**
4"	0.0005"	with Magnetic Base	**805-4004**
50mm	0.01mm	without Magnetic Base	**805-4001**
100mm	0.01mm	with Magnetic Base	**805-4003**

Electronic Z- Axial Preset Gauge

Optical Type

- With magnetic base(Dia.13.5mm). Probe face(Dia.56mm)
- The red lamp will light up when touched.
- Combined vertical and horizontal in a unit.
- Weight:0.5kgs



Height	Accuracy	Order No.
2"	0.0002"	**805-4015**
50mm	0.005mm	**805-4010**

Centering Indicators 定中心表

- All points and feelers included free precision measuring indicator.
- Designed for centering a work piece or fixture.
- Operates at any angle.
- Uses vertically or horizontally.
- Used for internal or external diameter.
- While spindle rotates, the centering indicator always faces the operator.
- Fitted plastic case/wooden case.



Sets

Description	Order No.
Inch Size Set	**607-4904**
Metric Size Set	**607-4905**

Metric Set Specification

	Specifications
Range	0-3mm
Length of Straight Feeler	45,100,154mm
Length of Curved Feeler	45,100,154mm
Length of Centre Point Feeler	52.5mm



Inch Set Accessories Included

Range	Description	Order No.
4.25”	Feeler,for inside diameter	**607-4919**
4.25”	Feeler,for outside diameter	**607-4922**
8”	Feeler,for inside diameter	**607-4920**
8”	Feeler,for outside diameter	**607-4923**
12”	Feeler,for inside diameter	**607-4921**
12”	Feeler,for outside diameter	**607-4924**
	Assembly Center Point Feeler	**607-4925**
	Restraining Arm	**607-4926**
	Hex Wrench	**607-4928**
	Clamping Shank	**607-4911**
	Main Body	**607-4912**
	Dial Component	**607-4913**
	Pin	**607-4914**
	Cam	**607-4915**
	Cam Screw & Nut	**607-4916**
	Feeler Holder	**607-4917**
	thumb screw	**607-4918**
	6 pcs feelers and screw set	**607-4927**



Inch Set Specification

	Specifications
Length	6-7/8”
Shank	3/8” dia. X 7/8” long
Weight	9-1/2” oz net 1 lbs. 14 oz
Feeler ball	1/8” diameter
Measuring range	.250” axis offset
Capacity	Internal: 5/32 to 4-1/4” diameter External: 0 to 4-1/4” diameter
Speed	It is recommended that operation speed not exceed 800 RPM approximately
Locating accuracy	To within 0.0002” or true center
Graduation	0.0005”

Edge & Center Finders 寻边器

- Helps ensure accuracy by releasing an audibe click when the tip jumps.
- Availsbe in three sizes: 1/2”,3/8” and 10mm.
- Hardened and ground on all working surface.

Angle Finders



Shank Dia.	Tip Dia.	Order No.
3/8"	.20”	**805-3112**
1/2"	.20”	**805-3116**
3/8"	10mm	**805-3127**
1/2"	.500"	**805-3165**
10mm	10mm	**805-3163**

Center Finders



Shank Dia.	Order No.
3/8"	**805-3131**
1/2"	**805-3133**

Double end



Shank Dia.	Tip Dia.	Order No.
1/2"	.20”/.50”	**805-3118**
1/2”	5mm/10mm	**805-3119**

Combo Edge/Center Finders



Shank Dia.	Order No.
3/8"	**805-3141**
1/2"	**805-3143**

4Pcs Set

- Two single end and two double edge finders
- Include:(**805-3112,805-3165,805-3118,805-3143**)130,132,133,134#

Order No. 805-3400

Electronic Edge Finders 光电寻边器

- Repeatability within .0002”/0.005m.
- Made of stainless steel.
- Feature LED light.
- Two 1.5V cell batteries included.
- With 10mm diameter probe.



Short Shank

Repeatability	Shank Dia	Overall Length	order No.
0.005mm	20mm	98.4mm	**805-3010**
.0002”	3/4”/20mm	3-7/8”/97mm	**805-3011**
.0002”/0.005mm	1-1/4”/32mm	3-7/8”/97mm	**805-3012**

Long Shank

Repeatability	Shank Dia	Overall Length	Order No.
.0002”/0.005mm	3/4”/20mm	6-7/10”/170mm	**805-3015**
.0002”/0.005mm	1-1/4”/32mm	6-7/10”/170mm	**805-3016**

Beep Alert



Repeatability	Shank Dia	Overall Length	Orderl No.
0002”/0.005mm	3/4”	7-1/2”	**805-3017**
.0002”/0.005mm	1-1/4”/32mm	7-1/2”/190mm	**805-3018**
0.005mm	19.05mm	190.5mm	**805-3019**

3D Alignment Indicators 3D 表

Efficiently finds edge, center or depth with jig bore, miling machines, lathes, CNC and EDM

- Convenient, rapid, accurate measurement on three axis-X,Y and Z.
- Physical characters of ruby sensing tip features: resistance against wear and neglecatable thermal expansion.
- Clamping shank diameter: 3/4”/20mm.
- Accuracy: .0004”/0.01mm.
- The stylus mechanism has a full 360°.

Radial Range	Radial Grad.	Axial Range	Axial Grad.	Sensing Tip Types	Order No.
0.4"	0.0005"	0.25"	0.00016"	Ruby	**605-3000**
0.4"	0.0005"	0.25"	0.00016"	Steel	**605-3001**
10mm	0.01mm	6mm	0.0032	Ruby	**605-3005**
10mm	0.01mm	6mm	0.0032	Steel	**605-3006**



Workshop Transfer Stand stainless steel

带微调可倾表架

NEW



- Overall Heihgt 12”
- Base 3”x3.54”
- Revolutionary Design
- Large Capacity Positioning range
- Can Be Locked In Any Position
- Stainless Steel Construction

Order No. 625-8620

Granite Comparator Stands

花冈石表座



- Micro screw fingertip control.
- 0.0005” flatness.
- Extreme stability.
- 6 x 6 x 2” base.
- 10” height.
- Accepts all A.G.D. indicators

Descriptions	Order No.
6x6x2” granite base only	625-8504
frame only	625-8508
6x6x2” base and frame	625-8510
6x6x2” base, frame & 1” indicator	625-8511

Steel Dial Comparator Stand

铸铁表架

Indicator not Included



- 5-1/2X4-1/4” working surface.

Order No. 625-8520

Dial Gage Comparator Stand

铸铁表架



- Fine adjustment 180° slide travel with lock.
- Quick position adjustment.
- Used for holding 3/8”/8mm stem indicators and lug back.
- Cast iron base size: 3-7/8”x6”, height:8”.
- The Indicator travel distance (from anvil to toper position):6-3/4”
- Base and anvil height: 2-1/8”,anvil dia.:1”.

Order No. 625-8530

Universal Measuring Stand

无磁表座

NEW



- Most useful on granite plates or other non-magnetic smooth surface
- The base with fine adjustment
- Dovetail groove for test indicators
- Clamp hole 8 mm(optional:hole 3/8”)
- Main stem: ϕ20x245 mm
- Branch stem: ϕ12x235 mm
- Base(LxWxH): 115x70x60 mm
- Weight: 3.5 kg

Order No. 625-8630

"UNI-MAG" Direct Mount Magnetic Base

园磁表座



- Permanent magnet.
- Fits all A.G.D. indicators

Size	Order No.
ϕ2-1/4 x 9/16”	625-0451
ϕ1-3/4 x 5/16”	625-0452

Height Transfer & Square Gage

钢底座垂直检测架

NEW



- 7.5" Post
- Indicator Rod And Clamp,
- Steel Base with F/Adj.

Order No. 625-8610

Center Finder Set

中心定位器



For accurately locating working points on drill presses, milling and other machines

Description	Individual Order No.	Set Order No.
.236" Indicator Holder	805-3311	
.250" Ball Contact	805-3312	
Chuck Body	805-3313	805-3305
.100" Disc Contact	805-3314	
Needle Point	805-3315	

Surface Gages

划线座



- Base and scriber are hardened.
- Bottom grooved for cylindrical work.
- Front recessed for depressing spindle below base level.
- Features fine adjustment.
- Base has 2 retractable gage pins to set against edge of a surface plate.
- Test indicator order No. 605-4710.

Description	Order No.
4 & 7" Spindles	625-8550
9 & 12" Spindles	625-8560
12 & 18" Spindles	625-8570

Surface gage and Test Indicator Sets

Description	Order No.
4&7" Spindles & Test indicator 0.03x.0005"	625-8555
9&12" Spindles & Test indicator 0.03x.0005"	625-8565
12&18" Spindles & Test indicator 0.03x.0005"	625-8575

Universal Measuring Stands

通用测量表架



Main Column Length: 150mm
Branch Column Length: 225mm
Base Size: 225x58x35mm
Weight: 3.2kg

Description	Order No.
with Fine Adjustment	625-0012
Without Fine Adjustment	625-0010

Magnetic Base for Uneven Surface

NEW



- Attache on shape or contour
- On/off knob
- Magnetic force: 60 kg
- Base(LxWxH): 75x46x54mm
- Tapped hole: M8x1.25mm
- Weight: 0.6 kg

Order No. 625-0430

Magnetic Stands 磁性表座

- Accepts all A.G.D dial indicators with lug backs.
- Accepts dial test indicator stems .375"/9.52mm dia. and .156"/3.96mm dia.
- On and off lever releases magnet, base doesn't have to be pulled off, no risk of marring polished surfaces.
- Quick adjustment clamp.
- Universal adjustment in horizontal and vertical planes.



Standard Fine Adjustment

Base Only with Switch On/Off

Magnetic Power	Dimensions	Order No.
40kgs	63x50x55mm M8	625-0940
60kgs	63x50x55mm M8	625-0960
70kgs	70x45x65mm M10	625-0961
80kgs	70x50x55mm M8	625-0980
80kgs	70x50x55mm M10	625-0981
100kgs	88x50x55mm M10	625-0982

Magnetic Power	Working Stem	Base Size	Standard Order No.	With Fine Adjustment Order No.
40kgs	176mm/12mm	63x50x55mm	625-0300	625-0340
60kgs	176mm/12mm	63x50x55mm	625-0301	625-0341
80kgs	176mm/12mm	70x50x55mm	625-0302	625-0342
60kgs	225mm/16mm	63x50x55mm	625-3301	625-3341
80kgs	225mm/16mm	70x50x55mm	625-3302	625-3342
100kgs	360mm/20mm	88x50x55mm		625-0360

Magnetic Stands

带微调磁性表座



- Features finedjustment
- Extra stem, one main stem, tow branch stems
- with ON/OFF magnetic base

Magnetic Power	Base Dimension	Tapped Hole	Main Stem	Branch Stem	Order No.
60kgs/130lbs	60x50x55mm	M10x1.25	20x400	16x360, 12x150	625-0350

Vacuum Base Holder 真空座

With Suction Base

- Standard holder mounted on a poweful Vacuum Base
- Most useful on granite plates or other non-magnetic smooth surface
- features an 80mm diameter poweful suction pad
- ON/OFF lever for easy attaching of removing
- 3-1/2" Dia, M8x1.25 Mounting



Order No. 625-0041



Order No. 625-0042



Order No. 625-0040

Mechanical Universal Magnetic Stands

机械万向磁表座

Aluminum Alloy Arm



- Multi-nimble joint for instant fixation in any position.
- Fine adjustment knob.
- On/Off switch on base
- Working stem at 280mm

Magnetic Power	Base Dimension	Order No.
60kgs	63x50x55mm	625-1162
80kgs	70x50x55mm	625-1182

Hydraulic Universal Magnetic Stands

液压万向磁力表座

Aluminum Alloy Arm



Magnetic Power	Working Stem	Base Dimension	Order No.
60kgs	330mm	63x50x55mm	625-1361
60kgs	380mm	63x50x55mm	625-1362
80kgs	330mm	70x50x55mm	625-1381
80kgs	380mm	70x50x55mm	625-1382

Steel Arm

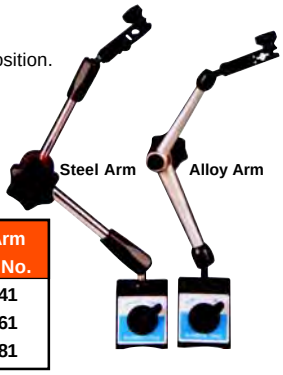


- Unique hydraulic clamping system.
- Can hold all style dial indicators and dial test indicators.
- On-off switch base.

Magnetic Power	Working Stem	Base Dimension	Order No.
60kgs	380mm	63x50x55mm	625-1360
80kgs	380mm	70x50x55mm	625-1380

Universal Magnetic Base Holders

机械万向磁表座



- Multi-nimble joint for instant fixation in any position.
- Fits dovetail & 3/8" or 8 mm stem indicator.
- Fine adjustment knob.
- On-off switch on base.

Magnetic Power	Base Size	Steel Arm Order No.	Alloy Arm Order No.
40kgs	2x2x2-1/8"	625-1140	625-1141
60kgs	2-1/4x2x2-1/8"	625-1160	625-1161
80kgs	2-3/4x2x2-1/8"	625-1180	625-1181

Mini Magnetic Bases

迷你磁性表座

- Articulated arm style magnetic base positions and lock easily.
- Size of Magnetic Base: 30x30x30mm(1-1/5x1-1/5x1-1/5").
- One knob mechanically tightens both arms.
- Overall Stem Length:12".



Switch On/Off
Order No. 625-2627



Push Button On/Off
Order No. 625-2617

Magnetic Base Indicator Holders

小磁表座

Full magnetic base. Non-magnetic stainless steel holding rod, set in hardened universal ball socket. Fine precision adjustment controlled by thumb screw allowing minute adjustments. Hammered blue base finfsh...other parts are chrome plated or stainless steel. Magnetic release.



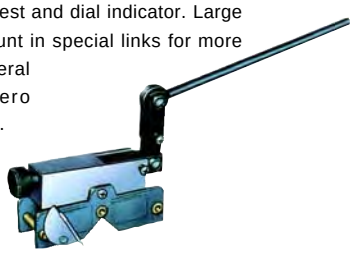
without Arm | with Centre Arm | with Side Arm

Descriptions	High Rod	Order No.
3-1/2x1-1/8x1" without Arm		625-0470
3-1/2x1-1/8x1" with Centre Arm		625-0472
3-1/2x1-1/8x1" with Side Arm	6"x1/4"	625-0480

Magnetic Base Indicator Holder

小磁表座

Accommodates almost any type test and dial indicator. Large 1/4" lug back type indicators mount in special links for more flexible in position. Precision lateral adjustment enables better zero settings. Magnetic pull-over 50lbs.



Base	Order No.
3-1/2x1-1/8x1-1/2" with Side Arm	625-0473

Adjustable Magnetic Connector

磁性连接器

Two permanent magnets for joining of parts in drilling ,scraping, welding , etc. Adjustable to any angle & secured by wing nuts.



2 bars 2x1x1"

Order No. 625-0115

Magnetic Base Indicator Holder & Sets

小磁表座

- Powerful magnetic pull.
- Six mounting locations for indicators and accessories.
- Three 1/4"-20 tapped holes.
- One 10-32 tapped hole.
- One 3/8" mounting hole.
- One V-shaped Mounting Hole.
- 4"x1"x1".



Versatile , Powerful, Compact & Rugged

Descriptions	Order No.
Tiny-Titan Base	625-0450
Base &1" dial indicator (605-4070)	625-0455
Base & 2" dial indicator (605-4205)	625-0460

Mini Magnetic Stands

圆小磁表座



Standard Model

- Height of base: 1"
- Diameter of base: 1"

Description	Order No.
with Fine Adjustment	625-0562
Without Fine Adjustment	625-0560

With Rod



- Height of base: 1"
- Diameter of base: 1"
- Height of rod:3-1/2"
- Diameter of rod:1/4"

Description	Order No.
with Fine Adjustment	625-0572
Without Fine Adjustment	625-0570

Universal Magnetic Indicator Holders

微型万向磁力表座

- Excellent workmanship on many applications.
- Fine adjustment clamp.
- Dovetail clamp for test indicator.
- 1/4" holes for 1/4" stem indicator.
- All knurled knobs and lock screws.



Circular Pot Base

625-0515



Circular Pot Base

625-0520



Square Base

625-0510

Push Button Magnetic Bases

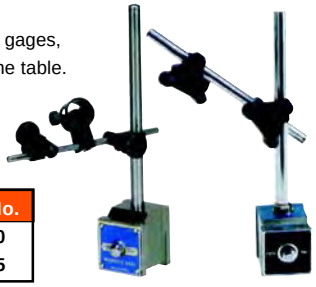
按键式磁表座



- Provided with ON/OFF push button.
- Especially designed for use with dial gages, to work on surface plate and machine table.
- Complete with powerful magnet.

Order No. 625-0900

- Provided with ON/OFF push button.
- Especially designed for use with dial gages, to work on surface plate and machine table.
- Complete with powerful magnet.



Fine Adjustment

Description	Order No.
with Fine Adjustment	625-0910
Without Fine Adjustment	625-0905

DIN Magnetic Stands

带微调磁性表座



- 70 kg pull, switch On/Off base 70x45x65mm. M10
- Working stem Φ16x230mm/Φ12x200mm. M10
- With fine adjustment.

Description	Order No.
Base & Holder Set	625-0343
Dial Gage Holder Only	625-0201
Base Only	625-0961

Flexible Indicator Holders

蛇型万向磁力表座

Round Base

- Ideal for very tight work areas.
- Mounted pot magnetic base-1-3/8" diameter x 1-1/8" high



25 lbs. pull with 5" post and fine adjustment.

Order No. 625-0575

13/64x3-1/8"stem,15kg pull, 9-3/4" height

Order No. 625-0925

Square Base

- Ideal for very tight work areas
- Mounted pot magnetic base-square, 25 lbs. pull with 5" post and fine adjustment.



Indicator not included

Order No. 625-1025

Flexible Arm Magnetic Base Holder

蛇型万向磁力表座

This product is made under the advanced technology .It is an ideal tool used for trusting random angle and internal hole.

Magnetic Power: 60kgs
Stem Length: 360mm
Stem Diameter: 16mm
Base Size: 60x50x55mm



OrderNo.625-0950

Flexible Stem Magnetic Base Holders

蛇型万向磁力表座

- Stem flexes almost 360 degree.
- Locks into exact position with a cam lever-operated cable and tension adjustment.
- Accept all AGD type indicator



Magnetic Power	Base Size	Order No.
40kgs	2-19/64x2x2-1/8"	625-1040
60kgs	2-1/2x2x2-1/8"	625-1060
80kgs	2-3/4x2x2-1/8"	625-1080

Fine Quality Magnetic Base Holder

磁性圆表座

A permanment alnico mangnetic base that easily attaches to any steel or iron surface in any desirable or convenient position,eliminating the use of clamps. The adjustable post assembly swivels into a 40° desired position and has a fine adjusting screw for final setting. Although intended primarily for test indicators, it is just as handy for inspection magnifiers, mirrors, safety shields, oil sprays, air lines, etc. Base diameter 1-1/4", with approximate 5-1/4" fine pivot adjustment post.



Description	Order No.
magnetic Base	625-0400

Plastic Casing Magnetic Stand

塑料磁性表座



Magnetic Power: 60lbs/30kgs
Overall Height: 6"
Branch Column Length: 4-1/2"
Base Size: 1-1/2x1-1/2x1-3/4"
Weight: 2.1lbs

Order No. 625-0015

Universal Indicator Holder

万向表架

- Clamping dia. 1-7/8".
- Length from clamping bracket to indicator 4-1/2".
- Suitable for all popular indicators with 5/32" shank or dovetail.
- Mounts with single pressure screw directly on machine quill, by passing the working tool.
- Guaranteed accurate readings.
- For milling machines & jig bores.
- A quicker way of indicating.
- Does not disturb the working tool.



Order No. 625-8522

Economy Magnetic Bases

长条形磁性表座

- Single Universal Rod, has 3 diameters to permit mounting popular indicators without changing rods.
- Non magnetic ball seat is riveted directly to the pole piece for permanent anchorage and lifetime rigidity.
- Non-breakable plastic base.
- Strong Magnetic Pull.
- Full 360° swivel.



Style A **Style B**

Description	Order No.
Style A	625-0920
Style B	625-0922

with fine adjustment

Description	Order No.
Style A	625-0921
Style B	625-0924

SL Series Magnetic Stand with fine guide screw adjustment

SL 系列微调磁性表座



- Feature fine guide screw adjustment
- With different magnetic base
- Accept dial test indicator
- Stems: ϕ8.0 or ϕ3/8”
- Main sten: ϕ12x190mm
- Height gage bar
- Branch stem: ϕ10x190mm

Order No. 625-0017

Measuring Tool kit

蛇型万向表座带大力钳



Set Includes:

- Indicator: 0-1”
- Flexible stem holder almost 360 degrees, Length: 350mm
- 7” Locking plier for holding and clamping objects regardless of shape or size.
- Fixing block
- Finished in fitted plastic case

Flexible stem holder with Locking plier

Order No. 625-1090



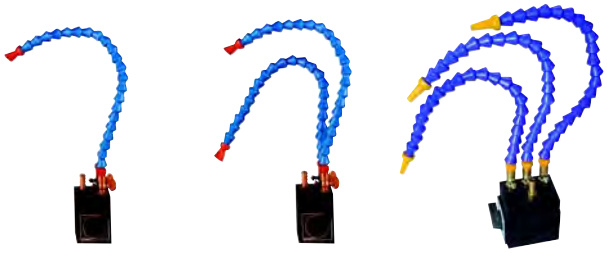
Flexible stem holder with Locking plier & indicator

Order No.135-0090

Magnetic Base Quick Lock Coolant Hose Systems

磁性喷液器

- Powerful magnet base with On/Off switch.
- Featured 1,2 or 3 1/4” dia. flexible coolant hoses.



Magnetic Power	Hose No. & Length	Base Size	Order No.
50kgs	1 x 14”	2-1/2 x 2 x 2-7/8”	**625-0402**
80kgs	1 x 14”	2-3/4 x 2 x 2-7/8”	**625-0404**
50kgs	2 x 14”	2-1/2 x 2 x 2-7/8”	**625-0406**
80kgs	2 x 14”	2-3/4 x 2 x 2-7/8”	**625-0408**
50kgs	3 x 15”	2-1/2 x 2 x 2-7/8”	**625-0410**
80kgs	3 x 15”	2-3/4 x 2 x 2-7/8”	**625-0412**

Pot Magnets

圆形磁性表座体



- For use as magnetic fasteners.
- Comes with plated keeper.

Diameter	Height	Hole	Order No.
21/32”	5/8”	5/16”-18	**625-0382**
7/8”	3/4”	5/16”-18	**625-0384**
1-1/16”	1”	5/16”-18	**625-0386**
1-3/8”	1-3/16”	5/16”-18	**625-0388**

Magnetic Base LED Lighting Units

LED 磁性灯座 NEW



- Magnetic base without switch
- Magnetic force: 12 kg
- The lamp needn’t alternating current
- It’s a flashlight,it only need three 3xAAA batteries
- illuminant source selects LED bulb
- The metal tube length: 120mm
- Weight: 0.4kg

Order No. 625-1220

Magnetic Snap-Lock Flexible Lamps

磁性灯座



- Power magnetic base, magnetic force: 40kg
- Flexible arm is plastic
- Illuminant source selects incandescent lamp, 60W screw socket bulb.
- Arm length: 280mm, base size: ϕ40x25

Power Supply	Order No.
220V/50HZ	**625-1241**
110V/60HZ	**625-1242**



- Powerful magnet base with On/Off switch.
- Guaranteed magnetic power.
- Flexible arm for any position adjustment.
- Bulb not included.
- Body size: 2 x 2 x 2 -1/2”.

Magnetic Power	AC	Order No.
40kgs	**110V**	**625-1240**
60kgs	**110V**	**625-1260**
60kgs	**220V**	**625-1265**
80kgs	**110V**	**625-1280**

Magnetic Base-Goose Neck Magnifier

磁性座放大镜



- Powerful magnetic base with ON/OFF Switch
- Flexible arm for any position adjust
- Flexible arm length: 300mm
- Power 2X

Order No. 625-1290

Magnetizer & Demagnetizer

充退磁器



- Used for Screw Driver/Small Parts

Size	Order No.
2x2x1"	**625-0000**

Economy Sine Bars 正弦规

- Hardened and ground.
- Center to center distance between center of rolls within .0003".
- Top parallel to bottom of rolls within .0002".
- Supplied with back plate.



Distance between Center of Rolls	Width	Order No.
2-1/2"	1"	647-9510
5"	1"	647-9512

3 Piece Inspection Set

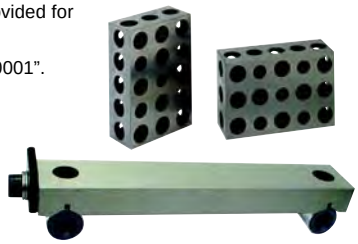
三件套 1-2-3 垫块和正弦规套件

1-2-3 Blocks

- Precision Ground/Case Hardened
- Five 3/8-16 Tapped holes are provided for clamping operations.
- Squareness of all side is within .0001".
- Parallel accuracy .0003".

2-1/2" or 5" Precision Sine Bar

- Accurate to .004" on parallelism.
- Hardened and ground.
- Wide: 1"



Specification	No.of piece	Individual Order No.	Set Order No.
2-1/2" Sine bar 1-2-3 Blocks	3Pcs/set	647-9510 630-4006	630-4060
5" Sine bar 1-2-3 Blocks	3Pcs/set	647-9512 630-4006	630-4062

1-2-3,2-3-4 or 2-4-6 Blocks

1-2-3, 2-3-4 和 2-4-6 垫块

- Precision ground and hardened on all sides.
- Ideal for mounting work for precision grounding and lay out.
- Feature 23 holes:5 are tapped 3/8-16,the other 18 are untapped.
- Dimension accuracy: 0.0001"~0.0007"
- Hardness HRC 56-60.
- Supplied in matched pair.



Specification	Parallelism	Desc.	Order No.
1-2-3"	±.0001"	1 hole	630-4005
1-2-3"	±.0001"	23 holes	630-4006
1-2-3"TIN	±.0001"	23 holes	630-4029
1-2-3"	±.0001"	No hole	630-4007
1-2-3"	±.0002"	No hole	630-4008
1-2-3"	±.0002"	1 hole	630-4009
1-2-3"	±.0002"	23 holes	630-4010
1-2-3"	±.0001"	11 holes	630-4011
1-2-3"TIN	±.0001"	11 holes	630-4018

Specification	Parallelism	Desc.	Order No.
25-50-75mm	±.0050mm	23 holes	630-4012
25-50-100mm	±.0050mm	23 holes	630-4013
50-100-150mm	±.010mm		630-4014

Specification	Parallelism	Desc.	Order No.
2-3-4"	±.0002"	23 holes	630-4016
2-4-6"	±.0005"	23 holes	630-4020

Sine Bars 正弦规



Order No.637-7556

Wide	Long	Center	Parallelism	Order No.
Thin	3	3	0.0001	637-7556



Order No.647-9109

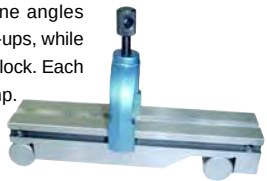
Wide	Long	H	Center accurate	Parallelism	Order No.
15/16"	5"	1-1/4"	0.0002"		647-9059
1-1/4	10	1-1/4	0.0002	0.0004"	647-9108
1	10	2	0.0002		647-9109
1	5	1-1/4	0.0002		647-9157
2	5	1-1/4	0.0002		647-9158

Vee Sine Bar

带卡 V 型架正旋规

5" Vee Sine Bar is an easy way to determine angles accurately for grinder and milling machine set-ups, while incorporating the ease of working with a Vee block. Each Vee sine Bar is furnished complete with clamp.

- Parallelism .0004".
- Center to center distance betwen rolls within .0002".

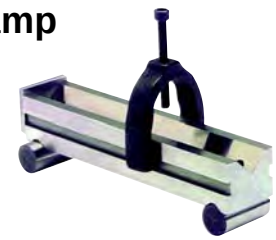


Order No. 647-9520

V-Sine Bar with Clamp

带卡 V 型正旋规

- 5" Sine Bar
- Accurate to .0003"
- 1-1/4" wide
- Hardened and ground
- Include clamp
- 1" round capacity
- Parallelism.0004"



Order No. 647-9612

1-2-3 Block Set

套装 23 孔 1-2-3 垫块

- Squareness: 0.0001" .
- Parallelism: 0.0001".
- Height accuracy in Pair:+/-0.0001".
- Hardness HRC 56-60.
- 5 piece 3/8"-16 socket head cap screws.
- 1 piece hex key.
- Supplied in plastic case.



Order No. 630-4000

Tin Coated: 630-4028

Precision Sine Angle Blocks

正玄可调角度块

- 0-60° adjustable.
- 90°V Angle.
- Block Size:4"x1-3/16"Wx2-1/4"H.
- Diameter of Roll: 5/8"
- Total Height of block (including rolls):2-1/4"



Order No. 418-4941

Precision 0-60° Angle Blocks

可调角度块

- 0-60° adjustable angle by locking the hex screw on the bottom.
- Squareness: 0.0004"/0.01mm.
- Angle of Vee 90°.



Dimension	Order No.
1-3/16 x 1-7/8 x 4"(30 x 48 x 102mm)	418-4940
1-13/16 x 1-7/8 x 4"(46 x 48 x 102mm)	418-4950
7/8 x 1-1/4 x 3"(25 x 32 x 75mm)	418-4960

Economy Thin Parallel Set

套装平行铁

Useful for fast setting of work pieces to needed height in vise jaws. Made of hardened and precision ground steel.



Pairs	Specification	Length	Hole	Order No.
4Pairs/set	1/2", 5/8", 3/4", 7/8"	3-1/2"	1/4"	**630-4257**
5Pairs/set	1/2", 5/8", 3/4", 7/8", 1"	3-1/2"	1/4"	**630-4255**

Thin Angle Block Sets

角度块

A economical and direct method for angle set-ups. Hardened and precision ground on working surfaces. Two 1/4 holes for mounting. 3-1/2" long, 5/32" thick.

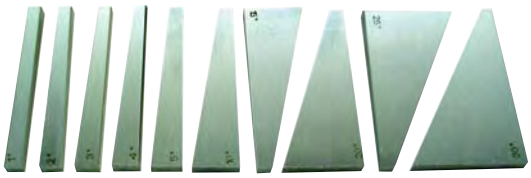


Piece	Specification	Order No.
6Pcs/set	1/2°, 1- 5° by 1°	**630-4258**
5Pcs/set	6 -10° by 1°	**630-4259**
11Pcs/set	1/2 -10° by 1°	**630-4251**

Precision Angle Blocks & Sets

角度块

- Accuracy 0.0001" per inch.
- Furnished in 1° increments to 5° and 5° increments to 30°.
- Hardened and precision ground.
- Light magnetized for better holding.
- Size 3" long x 1/4" thick.



Size	Order No.	Size	Order No.	Size	Order No.
1/4°	**630-0025**	4°	**630-4304**	25°	**630-4325**
1/2°	**630-0050**	5°	**630-4305**	30°	**630-4330**
1°	**630-4301**	10°	**630-4310**	35°	**630-4335**
2°	**630-4302**	15°	**630-4315**	40°	**630-4340**
3°	**630-4303**	20°	**630-4320**	45°	**630-4345**
10Pcs/set, from 1° to 30°					**630-4260**
12Pcs/set, from 1/4°,1/2°,1° to 30°					**630-4261**

7Pcs Precision Angle Blocks Set

- Degree accuracy: </=20"
- Side: 70 long x 5mm thick.
- Rectanglar size: 70x50mm

NEW



7Pcs/set, 15°,30°,45°, 50°, 60°, 75°, 90°

Order No. 630-4267

17 Pcs Angle Block Set

组合角度块



- Provides quick set-up for angles from 1/4° to 45°.
- Eliminates time dressing angles.
- Made from hardened steel.
- Supplied in a fitted case.
- Accuracy:0.0003"

Piece	Specification	Order No.
17Pcs/set	Set Includes: 1/4°, 1/2°, 1°, 2°, 3°, 4°,5°, 10°, 15°, 20°, 25°, 30°, 35°, 40°, 45° & 2 riser blocks.	**630-4275**

8 Pcs Universal Angle Block Sets

组合角度块



- An accurate and direct method for angle set up in production and inspections.
- Tolerance +/-10 Sec. hardness HRC 45° to 50°.

Set includes:

3Pc. V-blocks: 10°, 15°, 30°.

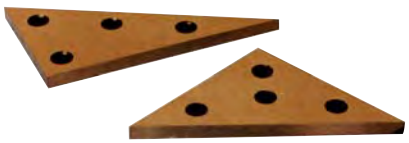
5Pc. Angle blocks: 1°, 2°, 3°,4°,5°.

Piece	Specification	Order No.
8 Pcs/set	V- blocks : 4"L x 1-1/2" W x 1-1/2"H Angle blocks : 4"L x 1-1/2" W x 3/16"H	**630-4270**
8 Pcs/set	V-blocks: 3" L x 1-3/16" W x 1-3/16" H Angle blocks: 2-3/4" L x 1-3/16" W x 5/64" H	**630-4265**

Solid Angle Plates

角度块

- Hardened Steel
- Precision Ground Angles
- Each Block is 1/4" Thick



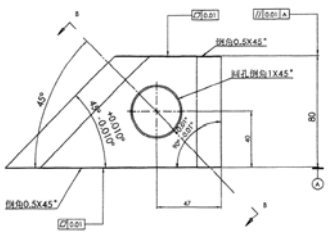
Specification	Angle	Order No.
3 x 3x 5/16"	45°/45°v/90°	**418-4800**
2 x 3-3/8 x 5/16"	30°v/60°/90°	**418-4810**
157x80x25mm	45°	**630-4400**
2Pcs/set,each one of above size		**418-4820**

Angle Plates

45° 角度块规

- 157x80x25mm HRC52-56

NEW





Order No. 630-4400

Bench Block 圆形工作台

- Very handy for holding work when driving pins, drilling, etc.
- V-groove across the face accommodates round and odd shaped stock.
- Hardened and ground.
- Smooth finish on the face preserves the work being held.
- Block is approximately 3" dia and 1-1/2" high.
- Holes vary in sizes from 1/8" to 5/8".



Order No.420-5300

Micrometric Tangent Bar

螺钉微调正弦规

- Hardened steel and precision ground.
- Dial your desired angle with your fingers directly in degrees and minutes. No need to look up sine or tangent functions.
- Interlocking slots prevent slipping even at angles close to 90°.
- Featured with 30 minute dial at the end of MT-Bar, total length: 3.7".

Range of 0-5° Adjustment

Order No. 630-4299



Angle Gage Blocks

角度块－带防滑槽

Featuring No-Slip Slots

- Used with micrometric tangent bar above or separately.
- Enable fast, accurate set-ups.
- Size .35"x 3" wide, hardened & precision ground.



Angle	Order No.
5°	**630-4290**
10°	**630-4291**
20/70°	**630-4292**
30/60°	**630-4293**
45°	**630-4294**

9 Pair Wavy Parallel Sets

波纹平行铁

- Economical, simple and easy to use in precision clamping of parts in drilling, boring, milling, grinding, assembly work, etc.
- Ideal for clamping a group of flat work pieces.
- Guaranteed to size in height and parallelism +/-0. 0002".
- Made of high-quality spring steel, hardened, stress-relieved and precision-ground.
- Thin and fragile work pieces can be secured without damage .



Individual Pairs

Size	Order No.	Size	Order No.
1/2"	**637-7401**	1-1/8"	**637-7406**
5/8"	**637-7402**	1-1/4"	**637-7407**
3/4"	**637-7403**	1-3/8"	**637-7408**
7/8"	**637-7404**	1-1/2"	**637-7409**
1"	**637-7405**		

Sets

Range	Description	Wooden Case Order No.
1/2"-1-1/2"	Set of 9 Pairs	**637-7400**
9-23mm	Set of 8 by 2mm	**637-7451**
25-39mm	Set of 8 by 2mm	**637-7461**

Micrometric Tangent Bar & Angle Gage Block Set

6 件套微调角度规

Set Includes:
One Micrometric Tangent Bar (630-4299)
Angle Gage Blocks with no-slip slot,
one each of 5°, 10°, 20°/70°, 30°/60°, 45°



Order No. 630-4262

Inspection Parallels

成对平行铁



- Made of high grade tool steel, stabilized and thoroughly hardened to HRC 58.
- Surface finish to 16 microinches.
- Parallels finished and sold in pairs.

Dimensions	Order No.	Dimensions	Order No.	Dimensions	Order No.
1/4 x 1/2 x 6”	**637-7590**	5/8x7/8x6"	**637-7612**	3/4x1x12"	**637-7625**
1/4 x 5/8 x 6”	**637-7595**	1/2x1-3/4x6"	**637-7613**	3/4x1-1/4x12"	**637-7630**
1/4x3/4x6"	**637-7600**	1/2x1-1/8x6"	**637-7614**	1x1-1/4x12"	**637-7631**
1/4x1-3/4x6"	**637-7601**	1/2x3/4x9"	**637-7615**	1x1-1/2x12"	**637-7632**
3/8x1/2x6"	**637-7602**	1/2x1-1/4x6"	**637-7616**	1x2x12"	**637-7633**
3/8x3/4x6"	**637-7605**	1/2x1-3/8x6"	**637-7617**	1-1/4x1-1/2x12"	**637-7634**
1/2x5/8x6"	**637-7607**	1/2x1-1/2x6"	**637-7618**	1-1/4x2x12"	**637-7635**
1/2x7/8x6"	**637-7608**	1/2x1-5/8x6"	**637-7619**	1-1/2x2x12"	**637-7636**
1/2x3/4x6"	**637-7609**	1/2x1x9"	**637-7620**	1-1/2x3x12"	**637-7637**
1/2x1x6"	**637-7610**	3/4x1x9"	**637-7622**	1/2x2x8"	**637-7640**
1/2x1x6"	**637-7611**	3/4x1-1/2x9"	**637-7624**	1/2x3x9"	**637-7642**

Metric Precision Parallel Sets 公制套装平行铁



7 Pair Set

- Parallel: ±0.005mm
- Hardened and ground HRC 40-45
- Set includes one each of (Thickness x Height):
  8.5 x (10,15,20, 24, 30)mm
  12.6 x (38, 44)mm

Length: 150mm, **Order No. 637-7777**

8 Pair Sets

- Parallel: ±0.005mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):
  8x(12, 17, 22, 25, 28, 32, 36, 38)mm

Length: 120mm, **Order No. 637-7972**
Length: 160mm, **Order No. 637-7974**

8 Pair Set

- Parallel: ±0.005mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):

8x(17, 22, 25, 28, 32, 36, 38, 43mm)
Length: 200mm**, Order No. 637-7976**

9 Pair Sets

- Parallel: ±0.005mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):
  4x(10, 14, 18, 22, 26, 30, 34, 38, 42)mm

Length: 100mm, **Order No. 637-7968**
Length: 160mm, **Order No. 637-7970**

10 Pair Set

- Parallel: ±0.005mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):

10x(14, 16, 18, 20, 22, 24, 26, 28, 30, 32)mm
Length: 150mm, **Order No. 637-7959**

12 Pair Set

- Parallel: ±0.005mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):
  10x(14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 35, 40)mm

Length: 120mm, **Order No. 637-7962**

14 Pair Set

- Parallel: ±0.005mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):
  10x(14, 16, 18, 20, 22, 24, 26, 28, 30, 32)mm
  10x(35, 40, 45, 50)mm

Length: 150mm, **Order No. 637-7960**

20 Pair Set

- Accuracy: ± 0.01mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):
  2x(5, 15, 20)mm
  3x(6,11, 16, 21)mm
  4x(7, 12, 17, 22)mm
  5x(8, 13, 18, 23)mm
  6x(9, 14, 19, 14)mm

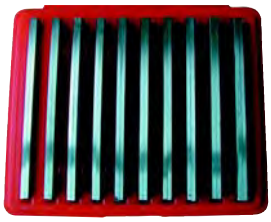
Length:100mm, **Order No. 637-7964**

24 Pair Set

- Accuracy: ±0.01mm.
- Hardened and ground HRC 60-61
- Set includes one each of(Thickness x Height):
  8x(11,16,21,26,31,36)mm step by 5mm
  10x(13, 18, 23, 28, 33, 38)mm step by 5mm
  12x(15, 20, 25, 30, 35, 40)mm step by 5mm
  14x(17, 22, 27, 32, 37, 42)mm step by 5mm

Length:150mm, **Order No. 637-7966**

Precision Thin Parallels & Sets 超薄平行铁（成对）



Thin style, .125 Thick, Matched pairs, Made of high grade alloy steel, hardened and ground, 2 hole in each parallel. Parallelism:±0.0002", ±0.001" to size in height.

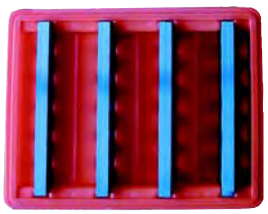
1/8" 10 Pairs Sets

Description	Order No.
Plastic case	637-7030
Wooden case	637-7530

1/8" Individual Pairs

Dimensions	Hole Size	Order No.
1/8 x 1/2 x 6"	13/64"	637-7510
1/8 x 5/8 x 6"	1/4"	637-7511
1/8 x 3/4 x 6"	5/16"	637-7512
1/8 x 7/8 x 6"	5/16"	637-7513
1/8 x 1 x 6"	5/16"	637-7514
1/8 x 1-1/8 x 6"	3/8"	637-7515
1/8 x 1-1/4 x 6"	3/8"	637-7516
1/8 x 1-3/8 x 6"	7/16"	637-7517
1/8 x 1-1/2 x 6"	1/2"	637-7518
1/8 x 1-5/8 x 6"	1/2"	637-7519

Precision Parallel Sets 套装平行铁



Tolerance: Parallel ±0.0003" on 2 sides, top and bottom.
Dimensions: Within ±0.001" allowance.
Hardness: Hardened to HRC 55 TO 62 on 2 sides top and bottom only
The holes are designed for easier handing and set-ups.
Made from fine quality tool steel stress relieved against distortion, precision, ground and hardened.
These precision parallels are recommended for layout work, standards and set-ups.

3/16" 4 Pairs Sets

Descriptions	Order No.
Wooden case	637-7532
Plastic case	637-7032

3/16" Individual Pairs

Dimension	Order No.
3/16 x 1 x 6"	637-7504
3/16 x 1-1/4 x 6"	637-7505
3/16 x 1-1/2 x 6"	637-7506
3/16 x 1-3/4 x 6"	637-7507

1/2" 4 Pairs Sets

Descriptions	Order No.
Wooden case	637-7536
Plastic case	637-7036

NEW

1/2" Individual Pairs

Dimension	Order No.
1/2 x 1 x 6"	637-7500
1/2 x 1-1/4 x 6"	637-7501
1/2 x 1-1/2 x 6"	637-7502
1/2 x 1-3/4 x 6"	637-7503

3/16" & 1/2" 4 Pairs Sets

Descriptions	Order No.
Wooden case	637-7538
Plastic case	637-7038

3/16" & 1/2" Individual Pairs

Dimension	Order No.
1/2 x 1-1/2 x 6"	637-7502
1/2 x 1-3/4 x 6"	637-7503
3/16 x 1 x 6"	637-7504
3/16 x 1-1/4 x 6"	637-7505

6" 4 Pairs Sets

One pair each of 1/2"x3/8", 3/4"x1/4",7/8"x3/16",1x1/8"

Descriptions	Order No.
Wooden case	637-7000

6" 4 Pairs Sets

One pair each of 3/4"x3/8", 1"x1/4", 1-1/8"x3/16",1-3/16"x1/8"

Descriptions	Order No.
Wooden case	637-7001

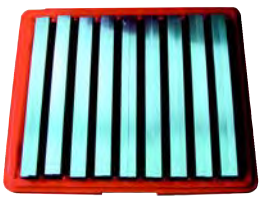


1/2" Individual Pairs

Dimensions	Hole Size	Order No.
1/2 x 7/8 x 6"	5/16"	637-7800
1/2 x 1 x 6"	5/16"	637-7801
1/2 x 1-1/8 x 6"	3/8"	637-7802
1/2 x 1-1/4 x 6"	3/8"	637-7803
1/2 x 1-3/8 x 6"	7/16"	637-7804
1/2 x 1-1/2 x 6"	7/16"	637-7805
1/2 x 1-5/8 x 6"	1/2"	637-7806
1/2 x 1-3/4 x 6"	1/2"	637-7807

1/2" 8 Pairs Sets

Description	Order No.
Plastic Case	637-7034
Wooden Case	637-7534



1/4" 9 Pairs Sets

Descriptions	Order No.
Plastic Case	637-7035
Wooden Case	637-7535

1/4" Individual Pairs

Dimensions	Hole Size	Order No.
1/4 x 3/4 x 6"	5/16"	637-7900
1/4 x 7/8 x 6"	5/16"	637-7901
1/4 x 1 x 6"	5/16"	637-7902
1/4 x 1-1/8 x 6"	3/8"	637-7903
1/4 x 1-1/4 x 6"	3/8"	637-7904
1/4 x 1-3/8 x 6"	7/16"	637-7905
1/4 x 1-1/2 x 6"	7/16"	637-7906
1/4 x 1-5/8 x 6"	1/2"	637-7907
1/4 x 1-3/4 x 6"	1/2"	637-7908

1/32" Ultra Thin Parallel Sets

套装平行铁

- Hardened to HRC50.
- Parallelism ±.0001".
- Pair Height accuracy: ±0.0001".

10 Pairs,1/2" through 1-5/8" by 8ths

Description	Wooden case Order No.	Plastic case Order No.
Blue Finished	637-9036	637-9038
Black Finished	637-9037	637-9039

20 Pairs,1/2" through 1-11/16" by 16ths

Description	Wooden case Order No.	Plastic case Order No.
Blue Finished	637-9032	637-9034
Black Finished	637-9033	637-9035





6 Pc. Adjustable Parallel Sets

可调平行铁

- Length range: 3/8" to 2-1/4" closed. Quickly adjustable, and locked with set screws for micrometer measurement.
- For layout inspection, stop work, set-up etc.



Individuals

Size	Order No.
3/8" to 1/2"	637-7561
1/2" to 11/16"	637-7562
11/16" to 15/16"	637-7563
15/16" to 1-5/16"	637-7564
1-5/16" to 1-3/4"	637-7565
1-3/4" to 2-1/4"	637-7566
6pcs 3/8-2-1/4"	637-7508
4pcs/set, 3/8- 1-5/16"	637-7567

Super Duty Vee Blocks and Clamps

成对 V 形铁



All V-Blocks are parallel, square and centered within 0.0002. Completely hardened and ground tool steel, Wooden case.

60° V-Block

Size LxWxH	Vee Capacity	Individuals Order No.	Pair Order No.
2-1/2 x 2-1/2 x 2"	1-3/8"	420-5415	420-5414
4x3x3	2-1/2	420-5417	420-5416

90° V-Block

Size LxWxH	Vee Capacity	Individuals Order No.	Pair Order No.
1-3/8 x 1-3/8 x 1-3/16"	1-9/32"	420-5421	420-5420
2-3/8 x 2-3/8 x 2	1-3/16	420-5431	420-5430
4-1/8 x 4-1/8 x 3-1/16	2-9/16	420-5441	420-5440
2-1/2 x 2-1/2 x 2	1-3/8	420-5411	420-5410
4x3x3	2-1/2	420-5412	420-5450
4x6x6	4-3/8	420-5413	420-5460

V-Blocks & Clamps

多用途 V 形铁



Size LxWxH	Vee Capacity	Pair Order No.
1-3/4x2-1/2x2-3/4"	1-1/2"	420-5510
2-3/4x3-1/2x4-7/8	2-1/8	420-5520

Toolmakers' V-Block and Clamp

V 型块－底座带 V 槽



- All surfaces parallel and square are within .0002".
- Top 90° V-Groove central, parallel and square with all surface within .0003".
- Side90° V-Groove on Base central, parallel and square with all surfaces within .00015".
- Harden steel ground.

Size(LxWxH)	Capacity	Order No.
3-1/2x1-7/8x1-7/8"	1-5/16"	420-5481

Multi-Use V-Blocks & Clamps

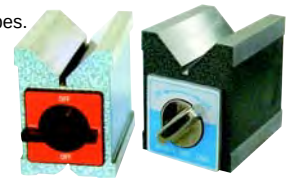
多用途 V 型块



- Stepped groove construction.
- 90° V groove are central, parallel and square with all surface within .0003".
- Harden steel ground.
- Two clamps only order No.: **420-5491**.
- Sold in pair

Size(LxWxH)	Capacity	Order No.
2-3/4x2-3/8x2"	2"	420-5490

Magnetic V-Blocks 带开关磁性三角台



- Ideal for holding round and irregular shapes.
- Fine precision ground finish.
- Holds up to .750" on small vee.
- Holds up to 2.500" on large vee.

Standard Centered 90° V

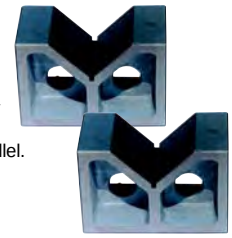
Size LxWxH	Capacity	Magnetic Power	Order No.
2-3/4x2-3/8x2-7/8"	1-3/4"	150lbs	285-2405
4x2-5/8x3-11/16	2	260lbs	285-2410
2-3/4x2-3/8x2-7/8	1-1/2	150lbs	285-2415
5x2-3/8x2-7/8	1-1/2	150lbs	285-2416
4x3x3-1/16	2	150lbs	285-2417
4-7/8x2-3/8x2-7/8	1-3/4	150lbs	285-2406

Double Side Centered 90° V

Size(LxWxH)	Capacity	Order No.
4x2-3/4x3-3/4"	2"	285-2412
6x3x3-3/4	2-1/4	285-2414

Steel V-Blocks

铸铁成对 V 形铁



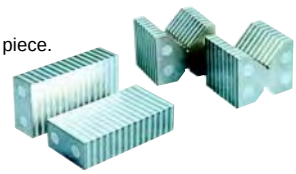
- Supplied in matched and numbered pairs.
- Vee blocks are manufactured from high quality castings.Properly seasoned against distortion.
- Blocks are accurately ma-chined square and parallel.
- Dimensions:

A-OAL, B-Vee Width, C-Height, D-Thickness

A	B	C	D	Weight	Order No.
3"	1-3/4"	2-3/8"	1-5/16"	2-1/2 lbs	420-5700
2"	1-5/8	1-3/8	7/8		420-5701
4	2-1/4	2-5/8	1-5/8	5 lbs	420-5702
5	2-1/2	3-1/8	2	8 lbs	420-5704
6	3-1/8	3-1/2	2-1/2	13 lbs	420-5706
7	3-1/2	4-1/2	3	27 lbs	420-5708
8	4	5-1/2	4	44 lbs	420-5710
10	5	6-5/8	5	73 lbs	420-5712
12	6	8	7	135 lbs	420-5714

Magnetic V-Blocks & Parallels

组合 V 形过磁铁



- Precision ground on all surfaces.
- Integrally aluminum cast into one solid piece.
- Hold in any direction on the magnetic chuck.

Combination Sets

Specifications	Order No.
One Pair of Parallels 4x2x1" One Pair of V Blocks 2x2-3/8x1-7/8"	285-2100
One Pair of Parallels 4x2x1" One Pair of V Blocks 4-3/8x2-3/8x1-7/8"	285-2110

V-Blocks & Parallels

	Size LxWxH	Individual Order No.	Pair Order No.
V-Blocks	2x2-3/8x1-7/8"	285-2065	285-2060
V-Blocks	4-3/8x2-3/8x1-7/8	285-2075	285-2070
Parallels	4x 2 x1"	285-2055	285-2050

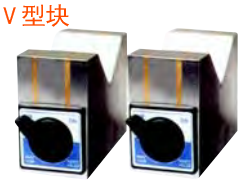
V-Blocks & Clamps 铸钢弓形卡成对 V 形铁



- Designed for layout work or firmly holding circular workpiece during drilling, milling, and grinding.
- Made of hardened tool steel machined and ground to close tolerance.
- Sold in pair which includes 2 V-Blocks and 2 clamps.

Capacity	Dimensions	Sets Order No.	Clamps Only Order No.
1"	1-1/4"Hx1-1/4"Wx1-5/8"L	420-3010	420-3011
1	1-3/8"Hx1-5/8"Wx1-3/4"L	420-3019	420-3018
1-1/2	1-5/8"Hx1-3/4"Wx2-3/4"L	420-3027	420-3026
1-1/2	1-3/4"Hx2-1/2"Wx2-3/4"L	420-3035	420-3034
2-1/8	2-3/4"Hx3-1/2"Wx4-7/8"L	420-3043	420-3042

Magnetic V-Blocks 磁性 V 型块



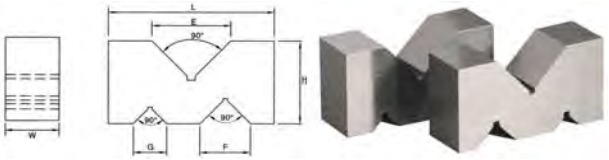
- Holds cylindrical workpieces for grinding.
- Precision ground flat, square and parallel to 0.001"/0.02mm.
- Sold in pairs.

Size HxWxL	Capacity	Magnetic Power	Order No.
50x40x70mm	2"/50mm	15kg/33lbs	625-2515
80x50x100mm	3-1/16"/80mm	20kg/44lbs	625-2520
100x50x150mm	3-31/32"/125mm	23kg/50lbs	625-2523

Precision Non-Magnetic M Type V-Blocks

精密无磁V型块

NEW



Size(LxHxW)	E	F	G	Order No.
2" 50X24X19mm	24	17	13	420-3105
3" 75X35X24mm	37	24	16	420-3110
4" 100x52x33mm	50	30	20	420-3115
5" 125x69x44mm	63	37	26	420-3120
6" 150x80x50mm	75	45	30	420-3125
7" 175x90x62mm	87	50	35	420-3130
8" 200x110x70mm	100	60	40	420-3135

Granite Surface Plates 花岗石平板

Hardest uniformity of all granite surface plate

- Lowest temperature coefficient, least responsive to temperature changes.
- Moisture and corrosion free, no rusting, no oiling, will not stain or discolor.
- Practically maintenance free, fast easy to clean.
- SmoothBall-Bearing" surface.
- Resists dust and abrasives, Non-magnetic.



GGG-P-463C-73 Inspection Grade "A"

Size	Thick-ness	Overall Accuracy	0-Ledge Order No.	2-Ledge Order No.
9x12"	3"	.000050"	640-0400	640-0402
12x12"	3"	.000050"	640-0410	640-0412
12x18"	3"	.000050"	640-0420	640-0422
18x18"	3"	.000050"	640-0430	640-0432
18x24"	3"	.000075"	640-0440	640-0442
18x24"	4"	.000075"	640-0445	640-0446
24x24"	3"	.000075"	640-0450	640-0452
24x24"	4"	.000075"	640-0460	640-0462
24x36"	4"	.0001"	640-0470	640-0472
24x36"	5"	.0001"	640-0474	640-0476
36x48"	4"	.0002"	640-0473	640-0482
36x48"	6"	.0002"	640-0480	640-0483
36x60"	6"	.00025"	640-0490	640-0492

GGG-P-463C-73 Laboratory Grade "AA"

Size	Thick-ness	Overall Accuracy	0-Ledge Order No.	2-Ledge Order No.
9x12"	3"	.000025"	640-0600	640-0602
12x18"	3"	.000025"	640-0620	640-0622
18x24"	4"	.000037"	640-0640	640-0642
24x36"	6"	.000050"	640-0660	640-0662
36x48"	6"	.0001"	640-0680	640-0682

GGG-P-463C-73 Tool Room Grade "B"

Size	Thick-ness	Overall Accuracy	0-Ledge Order No.	2-Ledge Order No.
5x6"	2"	.0001"	640-0070	640-0177
6x8"	2"	.0001"	640-0080	640-0188
8x12"	2"	.0001"	640-0090	640-0199
9x12"	2"	.0001"	640-0101	640-0103
9x12"	3"	.0001"	640-0100	640-0102
12x12"	3"	.0001"	640-0110	640-0112
12x18"	3"	.0001"	640-0120	640-0122
12x18"	4"	.0001"	640-0125	640-0126
18x18"	2"	.0001"	640-0127	640-0128
18x18"	3"	.0001"	640-0130	640-0132
18x24"	3"	.0001"	640-0140	640-0142
18x24"	4"	.00015"	640-0145	640-0146
18x36"	4"	.0002"	640-0147	640-0148
24x24"	3"	.00015"	640-0150	640-0152
24x36"	4"	.0002"	640-0160	640-0162
24x48"	4"	.0003"	640-0170	640-0172
36x48"	4"	.0004"	640-0180	640-0182
36x48"	6"	.0004"	640-0184	640-0186
36x60"	6"	.0005"	640-0190	640-0192
36x72"	6"	.0006"	640-0200	640-0202
48x60"	6"	.0005"	640-0210	640-0212
48x72"	6"	.0007"	640-0220	640-0222
48x84"	8"	.0007"	640-0230	640-0233
48x96"	12"	0.0008"	640-0240	640-0241

DIN876-83

Size	Grade 0 Order No.	Grade 00 Order No.
300x200x50mm	641-0001	641-0070
300x300x70mm	641-0005	641-0075
400x250x70mm	641-0010	641-0080
400x400x100mm	641-0015	641-0085
630x400x100mm	641-0020	641-0090
630x630x130mm	641-0025	641-0095
800x500x130mm	641-0030	641-0100
1000x630x150mm	641-0035	641-0105
1000x750x150mm	641-0040	641-0110
1000x1000x150mm	641-0045	641-0115
1200x800x150mm	641-0047	641-0117
1600x1000x200mm	641-0050	641-0120
2000x1000x250mm	641-0055	641-0125
2000x1600x300mm	641-0060	641-0130
2500x1600x300mm	641-0065	641-0135

JISB7510-78

Size	Grade1 Order No.	Grade 0 Order No.
300x200x50mm	642-0001	642-0070
300x300x70mm	642-0005	642-0075
400x250x70mm	642-0010	642-0080
400x400x100mm	642-0015	642-0085
630x400x100mm	642-0020	642-0090
630x630x130mm	642-0025	642-0095
800x500x130mm	642-0030	642-0100
1000x630x150mm	642-0035	642-0105
1000x750x150mm	642-0040	642-0110
1000x1000x150mm	642-0045	642-0115
1200x800x150mm	642-0047	642-0117
1600x1000x200mm	642-0050	642-0120
2000x1000x250mm	642-0055	642-0125
2000x1600x300mm	642-0060	642-0130
2500x1600x300mm	642-0065	642-0135

Granite Surface Plate Stands

花冈石平板支架



Bolted Construction

- Steel plates bolted construction for easy assembly and disassembly.
- Complete with 4 leveling screws for easy level adjustment.
- Long lasting painting.
- Bottom tool rack for your convenience.

Sizes	Stand Height	Order No.
18x24"	36"	64S-1110
24x24	36	64S-1115
24x36	36	64S-1120

Granite Surface Plate Stands

花冈石平板支架

- Overall working height 36".
- 4 leveling screws at the bottom of stands,5 small jacks on the top of stands to adjust level for metric size.
- Support all grade surface plates.



Inch

Size	0-ledge Order No.
18x24"	64S-1010
24x36"	64S-1020
36x48"	64S-1030
36x60"	64S-1040
48x60"	64S-1050
48x72"	64S-1060
60x72"	64S-1063
48x96"	64S-1070

Size	2-ledge Order No.
18x24"	64S-1012
24x36"	64S-1022
36x48"	64S-1032
36x60"	64S-1042
48x60"	64S-1052
48x72"	64S-1062
60x72"	64S-1064
48x96"	64S-1072

Metric

Size	Order No.	Size	Order No.
400x250mm	641-3005	800x800mm	641-3050
400x400mm	641-3010	1000x630mm	641-3055
500x400mm	641-3015	1000x750mm	641-3060
500x500mm	641-3020	1000x800mm	641-3065
600x500mm	641-3025	1000x1000mm	641-3070
600x600mm	641-3030	1200x800mm	641-3075
630x400mm	641-3035	1500x1000mm	641-3080
630x600mm	641-3036	1600x1000mm	641-3085
630x630mm	641-3040	2000x1600mm	641-3090
800x500mm	641-3045	2500x1600mm	641-3095

Granite V-Blocks

花岗石角板



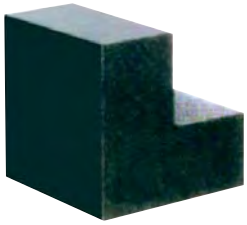
- Support or hold cylindrical pieces during inspection.
- 90° V centered and parallel to the bottom, two sides and square to the ends.
- Furnished in matched pairs.

Size	Accuracy	Order No.
3x3x3”	0.001/6”	640-0001
4x4x4”	0.001/6”	640-0002
6x6x6”	0.001/6”	640-0003

Size	Grade 0 Order No.	Grade 00 Ortder No.
63x63x63mm	641-6101	641-6001
100x100x100mm	641-6103	641-6003
160x160x100mm	641-6105	641-6005
250x250x160mm	641-6107	641-6007

Granite Angle Plates

花岗石角板



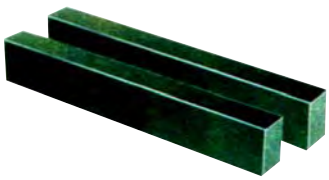
- Furnished with two finished faces or four finished faces.
- When four faces are finished, they are the 2 “L” faces, back and bottom of the angle plate. Two faces models have only back and bottom finished.

Size	Accuracy	2Faces Order No.	4Faces Order No.
4x4x4”	0.005/6”	640-0004	640-0044
6x6x6”	0.005/6”	640-0006	640-0066
6x9x12”	0.005/6”	640-0009	640-0069

Size	2 Faces		4Faces	
	grade 0 Order No.	grade 00 Order No.	grade 0 Order No.	grade 00 Order No.
160x25x16mm	641-7211	641-7201	641-7411	641-7401
250x40x25mm	641-7213	641-7203	641-7413	641-7403
400x63x40mm	641-7215	641-7205	641-7415	641-7405
830x100x63mm	641-7217	641-7207	641-7417	641-7407

Granite Parallels

花岗石平形块

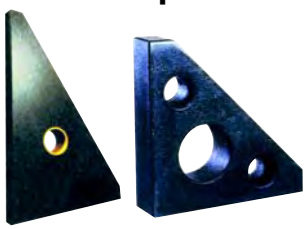


- Used to elevate parts above the surface plate, so that parts with steps and shoulders can be inspected quickly and easily. Each one only has two face finished.
- Supplied in pairs.

Size	Accuracy	Order No.
3/4x1x6”	.000060”	640-0011
1x2x12”	.000100”	640-0022
1-1/2x3x18”	.000300”	640-0033
2x4x24”	.000500”	640-0040
2x4x30”	.000500”	640-0050

Size	Grade 0 Order No.	Grade 00 Order No.
20x25x150mm	641-4020	641-5020
25x50x300mm	641-4025	641-5025
40x75x450mm	641-4040	641-5040
50x100x600mm	641-4050	641-5050
50x100x750mm	641-4055	641-5055

Granite Squares



花岗石直角尺

- For inspecting squareness of machine spindle and other work pieces.
- Round hole size 160,250mm.

Size	Grade 0 Order No.	Grade 00 Order No.
100x63x16mm	641-2011	641-2001
160x100x20mm	641-2012	641-2002
250x160x25mm	641-2013	641-2003
400x250x40mm	641-2014	641-2004
630x400x80mm	641-2015	641-2005
1000x630x80mm	641-2016	641-2006

Granite Square Rulers

花岗石方尺



On inspection of verticality and parallelism as well as absolute 90° measuring base.

Size	Grade 0 Order No.	Grade 00 Order No.
100x100x20mm	641-2111	641-2101
160x160x25mm	641-2112	641-2102

Size	Grade 0 Order No.	Grade 00 Order No.
200x200x25mm	641-2113	641-2103
250x250x30mm	641-2114	641-2104
300x300x30mm	641-2115	641-2105
400x400x40mm	641-2116	641-2106
500x500x50mm	641-2117	641-2107

Granite Straight Rules

花岗石平尺



- For inspecting the straightness and flatness

Size	Grade 0 Order No.	Grade 00 Order No.
400x60x25mm	641-1001	641-1101
630x100x35mm	641-1002	641-1102

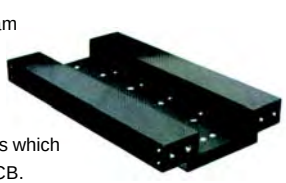
Size	Grade 0 Order No.	Grade 00 Order No.
1000x160x50mm	641-1003	641-1103
1600x250x80mm	641-1004	641-1104
2000x300x100mm	641-1005	641-1105

Granite Machine Component

花岗石构件

CNC Components make of granite, including base, column, beam and slideway.
The maximum dimension up to:
8000mm x 2500mm x 800mm (320"x100"x32")

We can provide our customers with a great variety of granite pieces which can be used for construction of drilling & milling machines for PCB.
The maximum dimension up to:
5000mm x 2500mm x 800mm (200"x100"x32")







Stereo-Microscopes 体视显微镜-45度倾角式,

Objective: Grouped From Any Two Objectives of 1X, 2X, 3X and 4X,
Working Distance: 1X-55mm,2X-81mm, 3X-61mm, 4X-57mm
Wide Field Plane-Scope Eyepiece: WF10X, WF15X (Optional)
Total Magnification:
10X-20X, or 10X-30X, or 10X-40X, or 20X-30X, or 20X-40X, or 30X-40X
Articulated Free Binocular Head, Interpupillary Distance: 55-75mm, 45° Inclined;

XTD-3C

Illumination: Top/Bottom Light: 12V/10W
Halogen Lamp, with Diemeter 95mm Frosted
Glass Stage Plate
Rack and Pinion Coarse Focusing Mechanism
With Slip Clutch and Tension Adjustment
Net Weight/Set: 2.4kg

Order No. 855-0711

XTD-3C-RC

Illumination: Top/Bottom Light: IWLEDLamp,
with Diemeter 95mm Frosted Glass Stage Plate
(XTD-3C-RC:
with a Charger and 3 Rechargeable Batteries)
Rack and Pinion Coarse Focusing Mechanism
With Slip Clutch and Tension Adjustment
Net Weight/Set: 2.4kg

Order No. 855-0721



Stereo Microscopes

直立式体视显微镜

Upright Head Style

- Fully coated excellent optics gives erect image over a wide field of view, sharp and clear.
- Provide the original true color of the viewed object.
- Accurate alignment gives fatigue free viewing.
- Power Supply: 220V 60Hz/110V 50Hz.



Order No. 855-0002



Order No. 855-0003

20X, Pillar Stand

Eyepiece	Objectives	Light	Bulb	Order No.
10X	2X	Top	Halogen	**855-0002**
10X	2X	Top/Bottom	Halogen	**855-0003**

360° Rotatable
45° Inclined Head Style



Order No. 855-0063



Order No. 855-0043

20X/40X, Pillar Stand

Eyepiece	Objectives	Light	Bulb	Order No.	Order No.
10X	2X/4X	Top/Bottom	Halogen	**855-0063**	**855-0043**

10X-40X Zoom Stereo Microscopes

10-40X 连续变倍体视显微镜照明

- Sharp stereo erect image over a wide field view.
- 45° inclined and 360° rotational binocular head.
- Adjustable Pupil Distance: 2.1"-3"/55-75mm.
- Top/Bottom adjustable light.
- Working distance: 3.4"/85mm.



Eyepiece	Objectives	Types of Stands	Order No.
10X	1-4X	Pillar Stand	**855-0301**
10X	1-4X	Arm Stand	**855-0303**

Adjustable Arm Stereo Microscopes

体视显微镜 - 可调臂型

- Top Light: 12V/10W Halogen Bulb.
- Fully coated excellent optics gives erect image over a wide field of view, sharp and clear.
- Provide the original true color of the viewed object.
- Accurate alignment gives fatigue free viewing.
- Power Supply: 220V 60Hz/110V 50Hz.

20X, 45° Inclined Head Style



Order No. 855-0082

Slim Stereo Microscopes

显微镜

- Top/Bottom Light.
- Adjustable Brightness.
- Working Distance 3"/76mm.



Eyepiece	Objectives	Stands	Order No.
10X	Rotated 2X, 4X	Pillar Stand	**855-0861**
10X	Rotated 2X, 4X	Arm Stand	**855-0862**
10X	Rotated 1X, 3X	Pillar Stand	**855-0851**
10X	Rotated 1X, 3X	Arm Stand	**855-0852**

Stereo Microscopes

体视显微镜 -20X-40X

Long Distance Adjustment

Working Distance 3.75"/95mm





Eyepiece	Objectives	Types of Stands	Light	Order No.
10X	Rotated 2X, 4X	Pillar Stand	Top/Bottom Light	**855-0803**
10X	Rotated 2X, 4X	Arm Stand	Top/Bottom Light	**855-0804**
10X	Rotated 1X, 3X	Pillar Stand	Top/Bottom Light	**855-0813**
10X	Rotated 1X, 3X	Arm Stand	Top/Bottom Light	**855-0814**

Hand Held Refractometers 光学折射仪

Application:
Measuring cutting/grinding coolants, oil/water concentrations, also used as Brix Tester (Sugar related liquids fruit juices, soft drinks, wine, honey)

- Accurately measures industrial liquids.
- Easy to read scale.
- Maintain and control optimum performance mixture.
- Two items feature automatic Temperature Compensation System.



Refractometers are precision optical instruments designed to measure the concentration or mixture ration of aqueous solutions

Range	Grad.& Accuracy	Description	Order No.
0-10%	0.1%	without ATC	**854-4010**
0-10%	0.1%	with ATC	**854-4011**
0-18%	0.1%	without ATC	**854-4018**
0-32%	0.2%	without ATC	**854-4032**
0-32%	0.2%	with ATC	**854-4033**
0-55%	1%	without ATC	**854-4055**

Pocket Microscopes 光学折射仪

- Use 2 AA batteries (not included)



For reading fine print, industrial quality control, fine inspections, textiles, etc.

Power	Description	Order No.
30X	Illuminated with Focusing Wheel	**854-3112**
30X	Illuminated with Focusing Wheel	**854-3113**
60-100X	Illuminated with Focusing Wheel	**854-3114**

Triplet Optical Comparators 测量放大镜－带分划板

- Reticles are made of glass offered great stability.
- Each comparator comes with one reticle.

Magnifier & Reticles Sets



Qty of Reticles	Lens Dia.	Power	Order No.
5	25mm/1”	7X	**854-7002**
8	25mm/5/6”	7X	**854-7000**
5	25mm/1”	10X	**854-7003**
5	32mm/1-1/2”	10X	**854-7004**
8	25mm/5/6”	10X	**854-7001**

Individual Magnifiers



Power	Lens Dia.	Order No.
7X	25mm/5/6”	**854-7007**
7X	25mm/1”	**854-7008**
10X	25mm/5/6”	**854-7010**
10X	25mm/1”	**854-7110**
10X	35mm/1-1/2”	**854-7111**

Magni-Visors 头盔式放大镜

Used for reading fine print and precision inspection



Order No. 854-3102

- Outer Lens 1.8X, inner”flip-down” lens for total 2.3X.
- With 2X Auxiliary Lens, for total 4.8X magnification.



Order No. 854-3103

- Outer Lens 1.8X, inner”flip-down” lens for total 2.3X.
- With 2X Auxiliary Lens, for total 4.8X magnification.
- 2 Incandescent bulbs, 2 AAA batteries.

Optional Accessories For Stereo Microscopes
非连续变倍体视显微镜附件

Eye pieces

Description	Order No.
5X 18mm	**855-0211**
10X 20mm	**855-0212**
15X 13mm	**855-0213**
20X 10mm	**855-0214**



Objectives

Description	Order No.
1X	**855-0231**
2X	**855-0232**
3X	**855-0233**
4X	**855-0234**
6X	**855-0236**



Bulbs

Description	Order No.
Incandescent Bulb 12V/10W	**855-0221**
Halogen Bulb 12V/10W	**855-0222**

Triplet Jewel Magnifiers

三层粘和珠宝放大镜



Designed for very distinct, sharp and no color distortin magnified images

- Hasting triplet lens system-three separate lenses bonded together.
- Case colors: Bright, Black and Golden.
- Handle type swing case.
- Glass lens

Without Coating

Power	Lens Dia.	Chrome Plated Bright Order No.	Power Coated Black Order No.	TiN Coated Golden Order No.
10X	18mm	854-5010	854-5110	854-5210
15X	18mm	854-5015	854-5115	854-5215
20X	18mm	854-5020	854-5120	854-5220
30X	18mm	854-5030	854-5130	854-5230
10X	21mm	854-5310	854-5410	854-5510
15X	21mm	854-5315	854-5415	854-5515
20X	21mm	854-5320	854-5420	854-5520
30X	21mm	854-5330	854-5430	854-5530

With Coating

Power	Lens Dia.	Chrome Plated Bright Order No.	Power Coated Black Order No.	TiN Coated Golden Order No.
10X	18mm	854-8010	854-8110	854-8210
15X	18mm	854-8015	854-8115	854-8215
20X	18mm	854-8020	854-8120	854-8220
30X	18mm	854-8030	854-8130	854-8230
10X	21mm	854-8310	854-8410	854-8510
15X	21mm	854-8315	854-8415	854-8515
20X	21mm	854-8320	854-8420	854-8520
30X	21mm	854-8330	854-8430	854-8530

Folding Pocket Magnifiers NEW

折叠袖珍放大镜

- With a swing away case, servers as a handle.
- Glass Lens


Order No. 854-1362


Order No. 854-1339


Order No. 854-1371


Order No. 854-1321


Order No. 854-1348

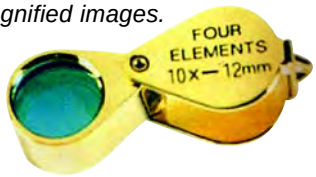
Power	Lens Dia.	Description	Order No.
10X	17mm	Jeweller's Magnifier	854-1317
10X	21mm	Jeweller's Magnifier	854-1321
5X-20X	30mm	3 pcs Lens	854-1339
3x	48.7mm	One Len,Leather Pouch	854-1348
4x	27mm	One Len	854-1361
3X-7X	27mm	2 pcs Lens	854-1362
4X-9X	30mm	3 pcs Lens	854-1363
4x	24mm	One Len With LED	854-1371
3X-7x	24mm	2 pcs Lens With LED	854-1372
4X-9X	24mm	2 pcs Lens With LED	854-1373

Four & Five Element Jewel Magnifiers

4 和 5 层粘和珠宝放大镜

Increased ability of no color distortion, compare to Triplet Lents, also have distinct magnified images.

- Glass lens



Without Coating

Power	Lens Dia.	No. of Lenses	Chrome Plated Bright Order No.	Power Coated Black Order No.	TiN Coated Golden Order No.
10X	12mm	Four	854-6010	854-6110	854-6210
15X	12mm	Five	854-6015	854-6115	854-6215
20X	12mm	Five	854-6020	854-6120	854-6220

With Coating

Power	Lens Dia.	No. of Lenses	Chrome Plated Bright Order No.	Power Coated Black Order No.	TiN Coated Golden Order No.
10X	12mm	Four	854-6310	854-6410	854-6510
15X	12mm	Five	854-6315	854-6415	854-6515
20X	12mm	Five	854-6320	854-6420	854-6520

Deluxe Shop Microscopes

简易珠宝显微镜

with Adjustment Focal Wheel

- Designed for very distinct, sharp and no color distortion magnified images.
- Glass lens
- Features illumination torch with 2 AAA batteries.



Power	Order No.
40X	855-0600
80X	855-0601

Shop Microscopes

简易珠宝显微镜

- Portable shop microscopes for precision and sharp inspection of work pieces.
- 2 in 1 metric and inch straight line scale.
- Glass lens
- 2 AAA batteries.



Power	Graduation	Order No.
20X	0.005"/0.1mm	854-0420
40X	0.0025"/0.05mm	854-0440
60X	0.001"/0.02mm	854-0460
100X	0.0005"/0.01mm	854-0500

Stainless Steel Tweezer Magnifiers

镊子放大镜

- Glass Lens

Lens Dia. 28mm, Power 5X

Order No. 854-1223



Pocket Illuminate Magnifier

袖珍照明放大镜



- Lens Size 40x40mm.
- Power 5X, 10X bifocal.
- Use 2 AA batteries(not include).
- Acrylic Lens

Order No. 854-3061

Rectangular Magnifiers 方形框放大镜



- Glass Lens

Lens Size: 50x100mm,
Power: 3X

Order No. 854-3011



- Acrylic Lens

Bifocal Foldable Model
Lens Size: 50x100mm, 3X, 6X

Order No. 854-3012

Helping Hand Magnifiers

三只手放大镜

- Cast Iron Base.
- Eliminates the use of hand held.
- Two spring clamps and magnifier work at any desired angle.
- Glass Lens

Lens Dia. 60mm, Power 2X



Order No. 854-1550

Round Magnifiers

手持放大镜



- Glass lens

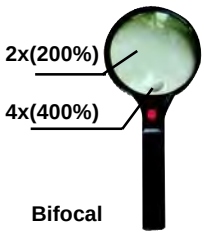
Lens Dia.	Power	Plastic Body Order No.	Plastic Handle Metal Hoop Order No.	Metal Handle Metal Hoop Order No.
100mm	3X		854-1800	854-1900
50mm	6X	854-1650	854-1850	854-1950
65mm	5X	854-1665	854-1865	854-1965
75mm	4X	854-1675	854-1875	854-1975
85mm	4X		854-1885	854-1985
90mm	3X	854-1690	854-1890	854-1990

Illuminated Magnifiers 手持灯式放大镜

- Switch on/off.
- Two AAA batteries for 854-1030, two C batteries for 854-1110, the rest models feature AA size batteries.
- Glass Lens



Order No. 854-1080



Bifocal Order No. 854-1091

Lens Dia.	Power	Order No.
80mm	2X	854-1080
90mm	2X ,4X	854-1091

Round Stand Magnifiers 桶式放大镜

- Glass Lens



Lens Dia.	Power	Order No.
30mm	10X	854-1530
75mm	3X	854-1575

Watchmakers' Loupes

钟表放大镜

- Glass Lens



Lens Dia.	Order No.
10X	854-1560
4X	854-1564
5X	854-1565
20X	854-1569

Digital Lux Meter 数字勒克斯计

Functions	Measuring Ranges
Display	LCD
Luminosity	0 ~ 50000 LUX
Accuracy	+/- (5%+1d)
Resolution	1 LUX
Overload Display	1
Battery	1x9V (6F22)
Size	105 x 70 x 20mm
Mfr's #	XL-101



Order No.856-0231

NON-CONTACT Infrared Thermometer

红外线测温枪

CE APPROVE

- Check temperature of engine,muffler , brakes and more
- Check temperature of tires and brakes
- Check for leaks around windows and doors
- Check temperature of heater vents or air conditioner
- Measures surface temperature without making contact
- Laser pointer for accurate use
- Easy to read large digital display

Specifications:
Temperature Range: -4°F-608°F(-20°C-320°C)
Accuracy:+/-2°C(+/-3°F)
Repeatability: +/-2%(+/-3°F) or 2% reading
Response Time: 500m Sec ,95%
Spectral Resonse:7-18um
Emissivity: 0.95
Ambient Operating Rang: 32-105°F
Storage Temp.: -4-150°F
Weight: 33 lb(not including battery)
Size: 6.3x3.54x1.7"
Power: 9V 6F22
Distance to spotL ratio: 6:1
Mfr's # EM520A

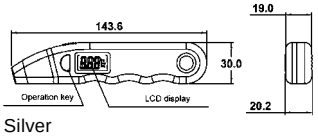


Order No.856-0520

Digital Tyre Gauge 数显电子胎压计

Features

- Large LCD display for easy reading
- Novel design whose shape harmonizes with human engineering
- Single key operation, manual ON/OFF, unit conversion, auto power off
- Four kinds of unit for measuring pressure: PSI,Bar ,Kgf/cm^2 ,Kpa
- One CR-2032, 3V lithium battery can last 24 months
- Working temp.range: -5°C-50°C
- Blister colour card for packing, which can be with customer's logo
- Available colours:elegant silver or sedate iron-grey
- Weight: 50g





Silver
Order No. 856-0301

Iron-gray**Order No. 856-0302**

Resolution	Range	Accuracy
0.1PSI	0-100PSI	
0.01Bar	0-7.0Bar	+/-1%
0.01kgf/cm2	0-7.0Kgf/cm2	
1Kpa	0-700Kpa	

Moisture Meter 水分分析仪

- Measure Fast & Easy To Operate
- The instrument is used for the measurent of water ratio
- Small size
- Light weight

Disply:LED Display
Measuring Range:6~25%
Accuracy:+/-1
Battery:6F22(9V)x1

Size:160x62x28mm
Weight:150g(about)
Mfr's # EM-4G

Order No.856-0004



Hand & Power Tools

Batteries.....448
Counter.....433
Deburring Tools.....422-430
Dividers.....432
Inside & Outside Calipers.....433
Jigs/Pullers/Hole Saw Arbors.....442-443
Laser Levels.....446-447
Manifolds.....450
Telescoping Magnetic &Pickup Tools 445
Pliers.....439
Pipe and Tubing Tools.....440
Punches.....434-438
Rulers ,& Taps.....444
Scribers.....430-431
Screwdriver 440
Spray Guns.....448-449
Steel Stamps.....434
Wrenches.....440-442















Steel Scribers 划线针

One-End Scriber
Straight point with knurled handle. Total Length: 175mm
Order No. 830-2001



Plastic Handle Scriber
One straight and one bent point Total Length: 250mm
Black finish.

Order No. 830-0378



Replaceable Needle Point scriber
- Needle point are long lasting, simply replace with a new point
- Extra point stored under cap
- Use for scribing on stainless steel and other hard metals and for deep hole worh OAL: 5-5/16”

Orser No. 830-2005



Pocket Scribers
Replaceable hardened and centerless ground point.
Point can be reversed into knurled body for safety.
Size: 1/4” x 2-3/8” x 4-3/4” (Body dia. x Point length x OAL)
Order No. 830-2003



Size: 3/8” x 2-7/8” x 5-7/8” (Body dia. x Point length x OAL)
Order No. 830-2004



Right Angle Scriber
Fully hardened point. Total Length: 8”
Order No. 830-2006



Double-End Scriber
One straight and one bend point. Total Length: 9”
Order No. 830-2002



Steel Scribers 划线针

Three Point Scriber
Aluminum knurled body with three interchangeable threaded points:
One short straight, one short bent, one long bent point.
Total Length of two short point combination: 9”
Total Length of one short and one long point Combination: 12”
Order No. 830-2007



Fixed Two Point Scriber
Total Length: 192mm
Order No. 830-0377



Double-End Scriber
One straight and one bent point with knurled handle.
Replaceable Points:Straight Point (**830-0391**)
Bend Point (**830-0392**)
Total Length: 250mm
Order No. 830-0386



Chisel type
6-1/2" overall length
Order No. 830-2012



Pothook type
Total Length: 110mm
Order No. 830-2023



Carbide Tipped Scribers 合金头划线针

Carbide Tipped Points

Pocket Type
Total length: 145mm，Chrome Plated
Order No. 830-2008



Heavy Duty Type
Heavy body, Diameter 8.0mm Total Length: 180mm
Order No. 830-2009



Metal body, chrome plated. 20mm long carbide tipped point.
Total Length: 160mm
Order No. 830-2010



Round spring Collet Pen Scriber
• Pen length: 150mm.
• Include one 40mm carbide point, one 70mm lead point.

Order No. 830-2021



Hexagon spring collet pen scriber

• Pen length: 150mm.
• One Carbide Point.

Order No. 830-2017



Replaceable Point Type

Aluminum body.
Point can be reversed into body for safety when not in use.
Replacement point(**830-0393**). Total Length: 150mm

Order No. 830-0389



Type A

Hold scriber 1.0-3.0mm, Plastic Shank

Order No. 830-2050



Hold scriber 1.0-3.0mm, Aluminum Shank

Order No. 830-2051



Type B

with Auto Feeding

Order No. 830-2055



Type C

Scriber & Center Punch.

Order No. 830-2060



Type F

Scriber lenght is adjustable.

Order No. 830-2065



Type I, Aluminum Shank

with double end Scriber

Order No. 830-2070



Type II, Aluminum Shank

with Magnetic. Pick up,

Order No. 830-2076

without Magnetic. Pick up,

Order No. 830-2075



magnetic pick up

Aluminum body.
Total Length: 5-1/2”

Order No. 830-0382



Heavy Duty

Plastic Handle, Carbide Point.

Order No. 830-2066



8pcs Machinist Scriber Tool Sets

8pc 套装划线工具

A Type

• Vernier Caliper 4"/100mm
• Steel Ruler 6"150mm
• Machinist Square 4x6"(100x150mm)
• Carbide Tip Scriber (Auto Feeding)
• Double End Steel Scriber 8"/200mm
• Plastic Edge Off Deburring Tool
(E100 Blade, magnetic end)
• Steel Divider 4"/100mm
• Automatic Center Punch
• Come with Plastic Case

Order No. 830-0081



B Type

• Steel Ruler 6"150mm
• Machinist Square 4x6"(100x150mm)
• Carbide Tip Scriber (Auto Feeding)
• One End Steel Scriber 7"/175mm
• Pocket Steel Scriber 6"/150mm
• Plastic Edge Off Deburring Tool
(E100 Blade, magnetic end)
• Steel Divider 4"/100mm
• Center Punch
• Come with Plastic Case

Order No. 830-0082



C Type

• Steel Ruler 6"150mm
• Machinist Square 4x6"(100x150mm)
• Carbide Tip Scriber
• Double End Steel Scriber 8"/200mm
• Chisel Type Steel Scriber 7"/175mm
• Plastic Edge Off Deburring Tool
(E100 Blade, magnetic end)
• Steel Divider 4"/100mm
• Center Punch
• Come with Plastic Case

Order No. 830-0083



Dividers 卡规



Rivet Joint Type

Size	Carbon Steel Order No.	Stainless Steel Order No.
100mm/4”	108-0004	109-0004
125mm/5”	108-0005	109-0005
150mm/6”	108-0006	109-0006
175mm/7”	108-0007	109-0007
200mm/8”	108-0008	109-0008
250mm/10”	108-0010	109-0010
300mm/12”	108-0012	109-0012
400mm/16”	108-0016	109-0016
500mm/20”	108-0020	109-0020
600mm/24”	108-0024	109-0024
800mm/32”	108-0032	109-0032
1000mm/40”	108-0040	109-0040



Adjustable Screw Type

Size	Carbon Steel Order No.	Stainless Steel Order No.
100mm/4”	108-0504	109-0504
125mm/5”	108-0505	109-0505
150mm/6”	108-0506	109-0506
175mm/7”	108-0507	109-0507
200mm/8”	108-0508	109-0508
250mm/10”	108-0510	109-0510
300mm/12”	108-0512	109-0512
400mm/16”	108-0516	109-0516
500mm/20”	108-0520	109-0520
600mm/24”	108-0524	109-0524
800mm/32”	108-0532	109-0532
900mm/36”	208-0536	109-0536
1000mm/40”	108-0540	109-0540



Rivet Join Type with Wing

Size	Carbon Steel Order No.	Stainless Steel Order No.
100mm/4”	108-0104	109-0104
125mm/5”	108-0105	109-0105
150mm/6”	108-0106	109-0106
175mm/7”	108-0107	109-0107
200mm/8”	108-0108	109-0108
250mm/10”	108-0110	109-0110
300mm/12”	108-0112	109-0112
400mm/16”	108-0116	109-0116
500mm/20”	108-0120	109-0120
600mm/24”	108-0124	109-0124
800mm/32”	108-0132	109-0132
900mm/36”	108-0136	109-0136
1000mm/40”	108-0140	109-0140



Adjustable Screw Type with Wing

Size	CarbonSteel Order No.	Stainless Steel Order No.
100mm/4”	108-0604	109-0604
125mm/5”	108-0605	109-0605
150mm/6”	108-0606	109-0606
175mm/7”	108-0607	109-0607
200mm/8”	108-0608	109-0608
250mm/10”	108-0610	109-0610
300mm/12”	108-0612	109-0612
400mm/16”	108-0616	109-0616
500mm/20”	108-0620	109-0620
600mm/24”	108-0624	109-0624
800mm/32”	108-0632	109-0632
900mm/36”	108-0636	109-0636
1000mm/40”	108-0640	109-0640



Rivet Join Type with Wing and Pencil Holder

Size	Carbon Steel Order No.	StainlessSteel Order No.
100mm/4”	108-0204	109-0204
125mm/5”	108-0205	109-0205
150mm/6”	108-0206	109-0206
175mm/7”	108-0207	109-0207
200mm/8”	108-0208	109-0208
250mm/10”	108-0210	109-0210
300mm/12”	108-0212	109-0212
400mm/16”	108-0216	109-0216
500mm/20”	108-0220	109-0220
600mm/24”	108-0224	109-0224
800mm/32”	108-0232	109-0232
1000mm/40”	108-0240	109-0240



Spring Type

Size	Carbon Steel Order No.	Stainless Steel Order No.
75mm/3”	108-0903	109-0903
100mm/4”	108-0904	109-0904
125mm/5”	108-0905	109-0905
150mm/6”	108-0906	109-0906
175mm/7”	108-0907	109-0907
200mm/8”	108-0908	109-0908
250mm/10”	108-0910	109-0910
300mm/12”	108-0912	109-0912
400mm/16”	108-0916	109-0916
500mm/20”	108-0920	109-0920
600mm/24”	108-0924	109-0924

Inside Calipers 内卡规



Rivet Join Type

Size	Carbon Steel Order No.	Stainless Steel Order No.
100mm/4”	108-0304	109-0304
125mm/5”	108-0305	109-0305
150mm/6”	108-0306	109-0306
175mm/7”	108-0307	109-0307
200mm/8”	108-0308	109-0308
250mm/10”	108-0310	109-0310
300mm/12”	108-0312	109-0312
400mm/16”	108-0316	109-0316
500mm/20”	108-0320	109-0320
600mm/24”	108-0324	109-0324
800mm/32”	108-0332	109-0332
900mm/36”	108-0336	109-0336
1000mm/40”	108-0340	109-0340

Inside Calipers 内卡规



Adjustable Screw Type

Size	Carbon Steel Order No.	Stainless Steel Order No.
100mm/4”	108-0704	109-0704
125mm/5”	108-0705	109-0705
150mm/6”	108-0706	109-0706
175mm/7”	108-0707	109-0707
200mm/8”	108-0708	109-0708
250mm/10”	108-0710	109-0710
300mm/12”	108-0712	109-0712
400mm/16”	108-0716	109-0716
500mm/20”	108-0720	109-0720
600mm/24”	108-0724	109-0724
800mm/32”	108-0732	109-0732
900mm/36”	108-0736	109-0736
1000mm/40”	108-0740	109-0740

Inside Calipers 内卡规



SpringType

Size	Carbon Steel Order No.	Stainless Steel Order No.
75mm/3”	108-1003	109-1003
100mm/4”	108-1004	109-1004
125mm/5”	108-1005	109-1005
150mm/6”	108-1006	109-1006
175mm/7”	108-1007	109-1007
200mm/8”	108-1008	109-1008
250mm/10”	108-1010	109-1010
300mm/12”	108-1012	109-1012
400mm/16”	108-1016	109-1016
500mm/20”	108-1020	109-1020
600mm/24”	108-1024	109-1024

Outside Calipers 外卡规



SpringType

Size	Carbon Steel Order No.	Stainless Steel Order No.
75mm/3”	108-1103	109-1103
100mm/4”	108-1104	109-1104
125mm/5”	108-1105	109-1105
150mm/6”	108-1106	109-1106
175mm/7”	108-1107	109-1107
200mm/8”	108-1108	109-1108
250mm/10”	108-1110	109-1110
300mm/12”	108-1112	109-1112
400mm/16”	108-1116	109-1116
500mm/20”	108-1120	109-1120
600mm/24”	108-1124	109-1124

Outside Calipers 外卡规



Rivet Join Type

Size	Carbon Steel Order No.	Stainless Steel Order No.
100mm/4”	108-0404	109-0404
125mm/5”	108-0405	109-0405
150mm/6”	108-0406	109-0406
175mm/7”	108-0407	109-0407
200mm/8”	108-0408	109-0408
250mm/10”	108-0410	109-0410
300mm/12”	108-0412	109-0412
400mm/16”	108-0416	109-0416
500mm/20”	108-0420	109-0420
600mm/24”	108-0424	109-0424
800mm/32”	108-0432	109-0432
900mm/36”	108-0436	109-0436
1000mm/40”	108-0440	109-0440

Outside Calipers 外卡规



Adjustable Screw Type

Size	Carbon Steel Order No.	Stainless Steel Order No.
100mm/4”	108-0804	109-0804
125mm/5”	108-0805	109-0805
150mm/6”	108-0806	109-0806
175mm/7”	108-0807	109-0807
200mm/8”	108-0808	109-0808
250mm/10”	108-0810	109-0810
300mm/12”	108-0812	109-0812
400mm/16”	108-0816	109-0816
500mm/20”	108-0820	109-0820
600mm/24”	108-0824	109-0824
800mm/32”	108-0832	109-0832
900mm/36”	108-0836	109-0836
1000mm/40”	108-0840	109-0840

Inside & Outside Calipers

两用内外卡规



Size	Carbon Steel Order No.	Stainless Steel Order No.
150mm/6”	108-2006	109-2006
175mm/7”	108-2007	109-2007
200mm/8”	108-2008	109-2008
250mm/10”	108-2010	109-2010
300mm/12”	108-2012	109-2012

Hermaphrodite Calipers

单边卡钳

NEW



Size	Carbon Steel Order No.
100mm/4”	108-1204
150mm/6”	108-1206

4 Digit Hand Counter
4 位计数器

- Mainly used for checking number of persons, tallying of goods and cargo.
- 2” Height x 1-3/4” Width.



Specification	Order No.
ABS Case	840-1614
Reset with push button	840-1617

4 Digit Hand Counters
4 位计数器





- Chrome plated.
- Finger ring for convenience.
- 2” Height x 1-3/4” Width.

Specification	Order No.
4 Digital	840-1615
4 Digital with steel base	840-1616

5, 6&7 Digit Ratchet Counters 5，6，7 位计数器

With Reset Knob

- Base: 2-1/8”x1-3/4” Counter Height: 1-1/4”.





Specification	Order No.
5 Digital	840-1610
6 Digital	840-1611
7 Digital	840-1613

Steel Stamping Letter & Number Sets
套装字母冲



Alloy Steel, Heat Treatment 50-55 HRC

Size	Specification	Order No.
1/16”	A to Z 27Pcs/set	835-1000
1/8”	A to Z 27Pcs/set	835-1005
3/16”	A to Z 27Pcs/set	835-1010
1/4”	A to Z 27Pcs/set	835-1015
1/16”	0 to 8 9Pcs/set	835-1055
1/8”	0 to 8 9Pcs/set	835-1060
3/16”	0 to 8 9Pcs/set	835-1065
1/4”	0 to 8 9Pcs/set	835-1070
1/16”	A to Z & 0-8 36Pcs/set	835-2000
1/8”	A to Z & 0-8 36Pcs/set	835-2001
3/16”	A to Z & 0-8 36Pcs/set	835-2002
1/4”	A to Z & 0-8 36Pcs/set	835-2003

Size	Specification	order No.
1mm	A-Z 27Pcs/set	835-3001
	0-8 9Pcs/set	835-3002
	A-Z & 0-8 36Pcs/set	835-3005
1.5mm	A-Z 27Pcs/set	835-3011
	0-8 9Pcs/set	835-3012
	A-Z & 0-8 36Pcs/set	835-3015
2mm	A-Z 27Pcs/set	835-3021
	0-8 9Pcs/set	835-3022
	A-Z & 0-8 36Pcs/set	835-3025
3mm	A-Z 27Pcs/set	835-3031
	0-8 9Pcs/set	835-3032
	A-Z & 0-8 36Pcs/set	835-3035
4mm	A-Z 27Pcs/set	835-3041
	0-8 9Pcs/set	835-3042
	A-Z & 0-8 36Pcs/set	835-3045
5mm	A-Z 27Pcs/set	835-3051
	0-8 9Pcs/set	835-3052
	A-Z & 0-8 36Pcs/set	835-3055

38 Pc. Automatic Steel Stamp Sets 组合自动冲



- Permanently identify your belongings.
- Imprints wood & metal.
- Steel handle: 6 x 5/8”, handle only **Order No.830-8300**.
- Complete set includes both letters and numbers plus a 6” handle.

Description	Order No.
Handle + 1/16” Letter Punches(**835-2000**)	830-8350
Handle + 1/8” Letter Punches(**835-2001**)	830-8351
Handle + 3/16” Letter Punches(**835-2002**)	830-8352
Handle + 1/4” Letter Punches(**835-2003**)	830-8353

112 Pc. Industrial Steel Stamp Set 组合字母冲

Special Tool Steel for Hand or Machine Use



- A fast easy solution for multi-character marking. Now in a simple stamp you can indent a series of letters and numbers in a product or nameplate.These kits are made of special tool steel. Each character is hardened and tempered to HRC 58-62.
- Each kit is packed in a case and contains: type holder with a complete selection of letters, numbers,dash, slash amok, period, comma, ampersand and spacers.
- Holder capacity: 8pcs or 12pcs.

Sets

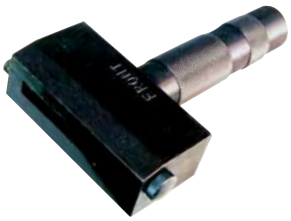
Size	Holder Capacity	Holder Order No.	Holder Capacity	Holder Order No.
1/16”	8Pcs	829-1700	12Pcs	829-1800
3/32”	8Pcs	829-1701	12Pcs	829-1801
1/8”	8Pcs	829-1702	12Pcs	829-1802
3/16”	8Pcs	829-1703	12Pcs	829-1803
1/4”	8Pcs	829-1704	12Pcs	829-1804
3/8”	8Pcs	829-1705	12Pcs	829-1805

Sets Includes:

A A A B B C C D D E
E E E F F G G H H I
I I J J K K L L L M
M N N N O O O P P Q
R R R S S S T T U U
U V W W X X Y Z & /
/ - - . . , , 1 1 1
1 2 2 2 2 3 3 3 4 4
4 4 5 5 5 6 6 6 7 7
7 8 8 8 9 9 9 0 0 0

Steel Type & Holders 冲头和手柄

- Stamp a series of letters or figures in a producing nameplate or metal part, with uniform legibility, in one stroke!
- Hand mobile type holders include threaded pin, Allen wrench and screw.
- Blanks must be used for spacing – or filling unused capacity of type holder.



Steel Type Holders

Size	Capability	Body Size W x H x L	Order No.
1/8”	8	1/8” x 1/4” x 1”	830-0900
1/8”	12	1/8” x 1/4” x 1”	830-0905
1/4”	8	1/8” x 1/4” x 1”	830-0910
1/4”	12	1/8” x 1/4” x 1”	830-0915

Individual Steel Type Sets

Character Height	Description	Order No.
1/8”	Letter A-Z	830-1027
1/8”	Number 0-9	830-1510
1/4”	Letter A-Z	830-1131
1/4”	Number 0-9	830-1610

Steel Spacers

Size	Order No.
1/8”	830-1135
1/4”	830-1145

Individual Letters & Numbers

Character	1/8” Order No.	1/4” Order No.	Character	1/8” Order No.	1/4” Order No.	Character	1/8” Order No.	1/4” Order No.
A	830-1001	830-1101	M	830-1013	830-1113	Y	830-1025	830-1125
B	830-1002	830-1102	N	830-1014	830-1114	Z	830-1026	830-1126
C	830-1003	830-1103	O	830-1015	830-1115	0	830-1500	830-1600
D	830-1004	830-1104	P	830-1016	830-1116	1	830-1501	830-1601
E	830-1005	830-1105	Q	830-1017	830-1117	2	830-1502	830-1602
F	830-1006	830-1106	R	830-1018	830-1118	3	830-1503	830-1603
G	830-1007	830-1107	S	830-1019	830-1119	4	830-1504	830-1604
H	830-1008	830-1108	T	830-1020	830-1120	5	830-1505	830-1605
I	830-1009	830-1109	U	830-1021	830-1121	6	830-1506	830-1606
J	830-1010	830-1110	V	830-1022	830-1122	7	830-1507	830-1607
K	830-1011	830-1111	W	830-1023	830-1123	8	830-1508	830-1608
L	830-1012	830-1112	X	830-1024	830-1124	9	830-1509	830-1609

Automatic Center Punches 自动冲



- Moveable components are made from tool steel and hardened. The point is easily removed for sharpening.
- The pressure of marking is controlled by ratting the dunned cap. Screw the cap down for heavy indentations and screw the cap upward for lighter markings.
- Automatic heavy duty center punch.
- Handle Length 6”, Handle Diameter 5/8”.

Description	Order No.
Steel Handle	830-3001
Copper Handle	830-3002

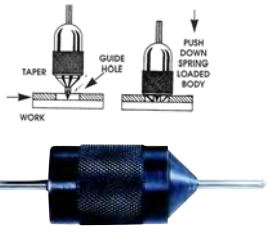
2 in 1 Punch Scriber 内藏式冲、划针



- Attachable carbide scriber head can be stored in the hollow handle for safe carrying.
- The punch scriber consisted of one male handle with punch head and key ring, and one female handle with female thread used to tighten carbide scriber and male handle.

Order No. 830-3003

Universal Transfer Punches & Aligners 大头冲



- Centers top of 3/16”-3/4” hole.
- Perfect hole center alignment assured.
- Precision ground and spring loaded.
- All parts made from steel & hardened.
- Replaces different size transfer punches.

Specification	Weight (lbs)	Order No.
3/16” Dia. Punch 3-1/8” L for 1/4”-3/4” hole	0.26	830-0150
3/16” Dia. Punch 4-1/8” L for 1/4”-1-1/16”hole	0.46	830-0180

Center Punches 中心冲头



Metric Sets

Piece	Size	Order No.
5	1.6, 2.0, 2.4, 3.6, 4.0mm	830-0220
3	1.6,2.0, 2.4mm	830-0230

Inch Sets

Piece	Size	Order No.
5	1/16”, 5/64”, 3/32”, 9/64”, 5/32”	830-0200
3	1/16”, 5/64”, 3/32”	830-0210

Inch Individuals

Point Dia.	Order No.
1/16”	830-0201
5/64”	830-0202
3/32”	830-0203
9/64”	830-0204
5/32”	830-0205

Metric Individuals

Point Dia.	Order No.
1.6mm	830-0211
2.0mm	830-0212
2.4mm	830-0213
3.6mm	830-0214
4.0mm	830-0215



Extra Long Drive Pin Punches 洋冲

Inch Sets

Piece	Size	Length	Order No.
5	1/8", 3/16", 1/4", 5/16", 3/8"	8"	**830-0240**

Metric Sets

Piece	Size	Length	Order No.
5	3.2, 4.8, 6.4, 8.0, 9.5mm	200mm	**830-0270**

Inch Individuals

Point Dia.	Order No.
1/8"	**830-0242**
3/16"	**830-0244**
1/4"	**830-0246**
5/16"	**830-0248**
3/8"	**830-0250**

Metric Individuals

Point Dia.	Order No.
3.2mm	**830-0272**
4.8mm	**830-0274**
6.4mm	**830-0276**
8.0mm	**830-0278**
9.5mm	**830-0280**





Drive Pin Punch Sets 洋冲

Piece	Specification	Order No.
4Pcs	1/16, 3/32, 1/8, 5/32"	**830-0260**
4Pcs	3/16, 7/32, 1/4, 5/16"	**830-0262**
8Pcs	1/16, 3/32, 1/8, 5/32, 3/16, 7/32, 1/4, 5/16"	**830-0264**

Piece	Specification	Order No.
4Pcs	1.6, 2.4, 3.2, 4 mm	**830-0290**
4Pcs	4.8, 5.6, 6.4, 8.0mm	**830-0292**
8Pcs	1.6, 2.4, 3.2, 4 mm 4.8, 5.6, 6.4, 8.0mm	**830-0294**



830-4028



830-4033



830-4060

Transfer Punches 套装冲头

- Heat treated and tempered for long life.
- Diameters 0.0025 undersize to facilitate use.
- Black oxide finish.

Sets

Description	Steel Stand Order No.	Plastic Stand Order No.
25Pcs/set 1mm to 13mm by 0.5mm	**830-4025**	**830-4125**
26Pcs/set letters A-Z	**830-4026**	**830-4126**
28Pcs/set 3/32" to 1/2" by 64ths plus 17/32"	**830-4028**	**830-4128**
33Pcs/set 1/2" to 1" by 64ths	**830-4033**	
60Pcs/set numbers 1 to 60	**830-4060**	**830-4160**

Individual Punches

Size	Order No.	Size	Order No.	Size	Order No.
3/32"	**830-0106**	1/4"	**830-0116**	13/32"	**830-0126**
7/64"	**830-0107**	17/64"	**830-0117**	27/64"	**830-0127**
1/8"	**830-0108**	9/32"	**830-0118**	7/16"	**830-0128**
9/64"	**830-0109**	19/64"	**830-0119**	29/64"	**830-0129**
5/32"	**830-0110**	5/16"	**830-0120**	15/32"	**830-0130**
11/64"	**830-0111**	21/64"	**830-0121**	31/64"	**830-0131**
3/16"	**830-0112**	11/32"	**830-0122**	1/2"	**830-0132**
13/64"	**830-0113**	23/64"	**830-0123**	33/64"	**830-0133**
7/32"	**830-0114**	3/8"	**830-0124**	17/32"	**830-0134**
15/64"	**830-0115**	25/64"	**830-0125**		

Solid Brass Grommet Kits 组合扣眼冲

- Mandrels and anvils are coded with lines for specifying their own individual size.
- Black finished Mandrel, Anvil and Hole Cutters.
- Golden bright finished Grommets.



Each size kit includes:
1 Hole cutter
1 Wooden block
1 Mandrel
1 Anvil
48 grommets for 1/4", 24 grommets for 3/8"& 1/2"

Grommet Kits

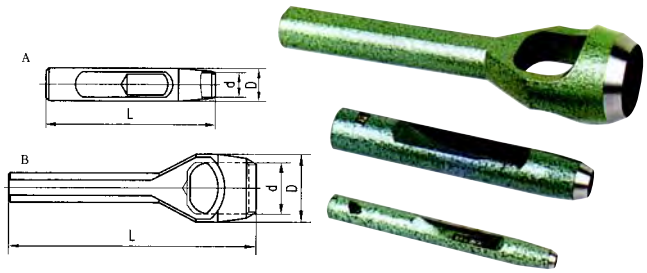
Size	Order No.
1/4"	**830-0400**
3/8	**830-0410**
1/2	**830-0420**

Grommet Refills

Description	Size	Grommet Piece	Order No.
for 830-0400	1/4"	24pcs	**830-0500**
for 830-0410	3/8	24pcs	**830-0510**
for 830-0420	1/2	24pcs	**830-0520**

Hollow Punches 空心冲

These tools are used to punch holes in materials such as leather, rubber, cork, plastic, balsa wood, and thin soft metals such as brass and lead. Widely used for punching holes as well as cutting gaskets and washers, production work, and other close tolerance applications.



Hole Size(in)	D mm	L mm	Type	Order No.
3/16	10	95	A	830-8001
1/4	10.5	100	A	830-8002
5/16	12.5	106	A	830-8003
3/8	15	106	A	830-8004
7/19	17	106	A	830-8005
1/2	19	116	A	830-8007
9/16	21	116	A	830-8008
5/8	23	116	A	830-8009
11/16	24	118	A	830-8010
3/4	26	118	A	830-8011
13/16	27	118	A	830-8012
7/8	29	120	A	830-8013
15/16	31	120	A	830-8014
1	33	120	A	830-8015
1-1/16	40	163	B	830-8017
1-1/8	42	165	B	830-8018
1-3/16	44	168	B	830-8019
1-1/4	46	168	B	830-8020
1-5/16	48	175	B	830-8021
1-3/8	50	185	B	830-8022
1-7/16	52	200	B	830-8023
1-1/2	54	208	B	830-8024
1-9/16	55	208	B	830-8025
1-5/8	57	215	B	830-8026
1-11/16	58	215	B	830-8027
1-3/4	61	215	B	830-8028
1-13/16	63	218	B	830-8029
1-7/8	64	220	B	830-8030
1-15/16	66	230	B	830-8031
2	68	230	B	830-8032
2-1/8	70	230	B	830-8033
2-1/4	75	230	B	830-8034
2-3/8	78	230	B	830-8035
2-1/2	81	230	B	830-8036
2-5/8	84	230	B	830-8037
2-3/4	88	232	B	830-8038
2-7/8	92	235	B	830-8039
3	96	235	B	830-8040
3-1/8	99	235	B	830-8041
3-1/4	102	235	B	830-8042
3-3/8	105	240	B	830-8043
3-1/2	108	240	B	830-8044
3-5/8	112	250	B	830-8045
3-3/4	115	250	B	830-8046
3-7/8	118	255	B	830-8047
4	122	255	B	830-8048

7 Pc. Transfer Screw Sets 7件套螺纹冲

More accurate than transfer punches. The fastest and most precise method of transferring threaded holes to mating parts. Great for tool and die work and in lay out.Set consists of 1 handle and 6 screws.



Size	NC Order No.	NF Order No.
4-40	830-3014	830-3114
5-40	830-3015	830-3115
6-32	830-3016	830-3116
8-32	830-3018	830-3118
10-24	830-3020	830-3120
3/16”-24	830-3021	830-3121
12-24	830-3022	830-3122
1/4”-20	830-3023	830-3123
5/16”-18	830-3024	830-3124
3/8”-16	830-3025	830-3125
7/16”-14	830-3026	830-3126
1/2”-13	830-3027	830-3127
9/16”-12	830-3028	830-3128
5/8”-11	830-3029	830-3129
3/4”-11	830-3030	830-3130
7/8”-9	830-3031	830-3131
1”-8	830-3032	830-3132

3 PC. Punch Set 组合洋冲

4” OAL. Black nitrate finished. Chrome alloy steel, hardened with knurled body. Includes center punch, prick punch and pin punch in pouch.



Orser No. 830-0003

6 Pc. Hollow Punch Set 6pc 挖孔工具

The fast, easy way to punch accurate holes in gasket material, light gauge sheet metal, vinyl, leather, and more. High carbon construction with precision ground flutes and cutting edges, Easy to grip knurled shank.
6 Pcs/set, includes 3/16, 1/4, 5/16, 3/8, 7/16, 1/2 punches



Order No. 830-8006

24 Pc. Pin Punch Set 组合洋冲

- This set combines all the most used pin punches, all are forge hardened, heat-treated tool steel.
- 16 Pcs/set, includes:
  5 pieces 8" extra long drive pin punches.
  8 pieces 4" long drive pin punches.
  5 pieces round shank center punches.
  3 pieces 5/32" taper pin punches.
  1 handle for pin punches.
  1 piece 6"/150mm ruler.
  1 piece 4" divider.



Order No. 830-0024

16 Pc. Punch & Chisel Set

16pc 凿刀

- Comes in a vinyl roll-up pouch.
- 16 Pcs/set, includes:
  4 starting punches: 9-3/4", 7-3/4", 5-3/4", 5-13/16".
  5 cold chisels: 8x5/8, 7x3/4, 6-3/4x5/8, 5-3/4x1/2, 5-3/4x3/8".
  1 center punch.
  3 pin punches.
  1 prick punch.
  1 diamond point punch.



Order No. 830-8016

15 Pc. Gasket Punch Set

皮带冲

- Punch quick, accurate washers and gaskets on the job. Use on rubber, leather, copper, soft brass, and other materials.
- 15 Pcs/set, includes:
  1-1/2, 1-3/8, 1-1/4, 1-1/8, 1, 7/8, 3/4, 5/8, 1/2, 7/16, 3/8, 5/16, and 1/4",
  Handle, Plastic case.



Order No. 830-2115

13Pc. Gunsmith Punch set

13 件套冲棒

- Set include:
  8pc Brass punches, one of each: 1/8, 9/64, 5/32,3/16, 7/32, 1/4, 9/32, 5/16
  2pc Steel pin punches:
  1/16 & 3/32
  2pc Hard plastic punches:
  15/64 & 3/8
  1pc Brass head hammer
- All included in a blow molded case.



Order No. 830-0013

3 Pc. Expandable Pin Punch Set 可膨胀冲头

Rang 1/4 to 11/16" (6-17mm)

- Compact set of 3 takes the pace of numerous individual solid punches.
- Each punch expands within its range to pick up the true center of holes from 1/4" to 11/16" diameter.
- By turning the knurled head, the punch body expands to the perfect fit in the bottom of the hole.
- A light hammer stroke on the top of the center pin provides the desired center mark.



No. of Piece	Size	Individual Order No.	Set Order No.
3Pcs/set	1/4-5/16"(6-8mm)	830-0025	830-0029
	5/16-7/16"(8-11mm)	830-0026	
	7/16-11/16"(11-17mm)	830-0027	

Blind Hole Spotters & Sets 圆盘冲

Fast, easy way to locate opposite centers. When holes do not extend through material (such as holes for dowel pins, perforating punches, etc.) Spellmaco blind-hole spotters get the job done simply. Correct size spotter can be used in threaded, drilled or reamed holes. Packaged six of one size in plastic tube.





Piece	Size	Order No.
108	6pcs each of 1/8-21/32" by 32nds	830-5300
66	6pcs each of 11/16-1" by 32nds	830-5305



Individuals

Size	Order No.	Size	Order No.	Size	Order No.	Size	Order No.
1/8"	830-5008	13/32"	830-5026	11/16"	830-5044	31/32"	830-5062
9/64"	830-5009	27/64"	830-5027	45/64"	830-5045	63/64"	830-5063
5/32"	830-5010	7/16"	830-5028	23/32"	830-5046	1"	830-5064
11/64"	830-5011	29/64"	830-5029	47/64"	830-5047	3#	830-5103
3/16"	830-5012	15/32"	830-5030	3/4"	830-5048	6#	830-5106
13/64"	830-5013	31/64"	830-5031	49/64"	830-5049	7#	830-5107
7/32"	830-5014	1/2"	830-5032	25/32"	830-5050	8#	830-5108
15/64"	830-5015	33/64"	830-5033	51/64"	830-5051	10#	830-5110
1/4"	830-5016	17/32"	830-5034	13/16"	830-5052	16#	830-5116
17/64"	830-5017	35/64"	830-5035	53/64"	830-5053	20#	830-5120
9/32"	830-5018	9/16"	830-5036	27/32"	830-5054	21#	830-5121
19/64"	830-5019	37/64"	830-5037	55/64"	830-5055	25#	830-5125
5/16"	830-5020	19/32"	830-5038	7/8"	830-5056	29#	830-5129
21/64"	830-5021	39/64"	830-5039	57/64"	830-5057	30#	830-5130
11/32"	830-5022	5/8"	830-5040	29/64"	830-5058	F	830-5206
23/64"	830-5023	41/64"	830-5041	59/64"	830-5059	I	830-5209
3/8"	830-5024	21/32'	830-5042	15/16"	830-5060	P	830-5216
25/64"	830-5025	43/64"	830-5043	61/64"	830-5061	Q	830-5217

4PC Pin Vise Set

针夹手柄





ncludes: 1 each size of
0-1mm, .8-1.5mm, 1.3-3.1mm, 3-4.8mm

Order No. 830-3104

Screw Extractors & Sets 螺丝拔出器

- For removing broken screws, bolts, studs, and pipes



Heavy Duty



Straight Flute:GCr15

No.	Screw and Bolt Size	Size Drill	Heavy Duty Order No.	Straight Flute Order No.
1#	3/32— 5/32"	5/64"	312-8921	312-8961
2#	5/32— 7/32"	7/64"	312-8922	312-8962
3#	7/32— 9/32"	5/32"	312-8923	312-8963
4#	9/32— 3/8"	1/4"	312-8924	312-8964
5#	3/8— 5/8"	17/64"	312-8925	312-8965
6#	5/8-7/8"	13/32"	312-8926	312-8966
7#	7/8— 1-1/8"	17/32"	312-8927	312-8967
8#	1-1/8— 1-3/8"	13/16"	312-8928	312-8968
9#	1-3/8— 2"	1-1/16"	312-8929	312-8969
10#	2-1/8— 2-1/2"	1-5/16"	312-8930	312-8970
11#	2-1/2— 3"	1-17/32"	312-8931	312-8971

Sets



312-8938



312-8937

	Heavy Duty Order No.	Straight Flute Order No.
5pcs/set (1-5#)	312-8920	312-8960
6pcs/set (1-6#)	312-8936	
8pcs/set (1-8#)	312-8938	
12pcs/set (1-6# & Drills,2,3,4,5,7,10)	312-8937	

Stair Set Gages 楼梯定位器

A "must" for fast, accurate layout of angles for stair stringers, roof framing and other bevel cut. Clamp to framing square for repetitive layout such as stairs and rafters.



Order No. 830-3047

Door Lock Hole Reforming Tool

门锁修正器

- For repair of damaged door lock apertures.
- Suitable for flush fitting or recessed lock holes.



Order No. 830-3045

High Speed Hand Hacksaw Blades

高速手用钢锯条



Length	Width	Teeth per Inch	Thickness	M2 HSS Order No.	Alloy Steel Order No.
10"	1/2"	18	.025"	402-7568	402-8568
10"	1/2"	24	.025"	402-7572	402-8572
10"	1/2"	32	.025"	402-7576	402-8576
12"	1/2"	14	.025"	402-7625	402-8525
12"	1/2"	18	.025"	402-7629	402-8529
12"	1/2"	24	.025"	402-7633	402-8533
12"	1/2"	32	.025"	402-7637	402-8537

High Speed Power Hacksaw Blades

M2 HSS

高速机用钢锯条



Length	Width	Teeth per Inch	Order No.
12"	1"	10	401-0123
12"	1"	14	401-0126
14"	1"	10	401-0141
14"	1"	14	401-0144
14"	1-1/4"	6	401-0147
14"	1-1/4"	10	401-0149
17"	1"	10	401-0172
17"	1"	14	401-0175
17"	1-1/4"	6	401-0177
17"	1-1/4"	10	401-0179
18"	1-1/2"	4	401-0180
18"	1-1/2"	6	401-0183
18"	1-3/4"	6	401-0185
21"	1-3/4"	4	401-0212
21"	1-3/4"	6	401-0215
24"	2"	4	401-0244
24"	2"	6	401-0247

Telescoping Magnetic Mirror & Pen 磁性伸缩笔



Specification	Order No.
Mirror Size: 2"x3.5", Stem Length: ϕ10x 550	810-0201
Mag. Force: 1 Lbs, Stem Length: ϕ10x 510	810-0202
2Pcs Set	810-0203



Specification	Order No.
Mirror Size: ϕ2", Stem Length: ϕ10x 750	810-0204
Mag. Force: 5 Lbs, Stem Length: ϕ10x 658	810-0205
2Pcs Set	810-0206



Specification	Order No.
Mirror Size: ϕ1.25", Stem Length: ϕ8x 502	810-0207
Mag. Force: 1 Lbs, Stem Length: ϕ8x 475	810-0208
2Pcs Set	810-0209

Magnetic Safe Catcher

磁力安全操作器

- Using it get workpiece when operating pressure machine
- Handle length 220mm



Magnetic Force	Dimension	Order No.
0.7Kg/1.5Lbs	ϕ15x25mm	810-0026
2.5Kg/5.5Lbs	ϕ20x25mm	810-0027
5Kg/11Lbs	ϕ25x25mm	810-0028



Size	Magnetic Force	Order No.
ϕ7x 635	1.5 Lbs	810-0210
ϕ9x 535	2 Lbs	810-0211
ϕ10x 610	5 Lbs	810-0212
ϕ10x 615	8Lbs	810-0213
ϕ10x 615	10Lbs	810-0214

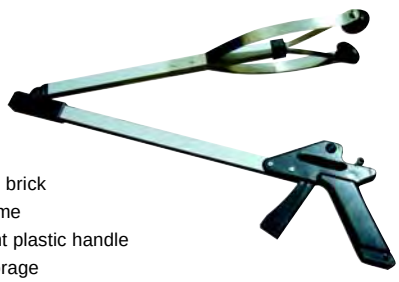


Size	Magnetic Force	Order No.
ϕ8x 710		810-0215
ϕ7x 650	1 Lbs	810-0216
ϕ9x 620		810-0217

Trash Pickup Tools 取物器

Retrieval Tools

NEW



- Strong enough to pick up a brick
- Agile enough to pick up a dime
- Comfortable impact resistant plastic handle
- 72" Model folds for easy storage
- Rod made of durable stainless steel and aluminum parts
- Features trigger latch for retrieval in hard to reach places



Desc.	Order No.
30", no Latch Lock	810-0231
60", Latch Lock	810-0232
72", Latch Lock & Fold	810-0233

Spray Guns-Bottom Cup Style

G70 型喷枪

- Sprays latex, enamel lacquer stain for general purpose painting jobs.
- 1000cc, Bottom Cup
- Adjustable Spray Control.
- Simple and easy maintenance.

Size of Spray Nozzle	Bayonet Lock Order No.	Cam Lock Order No.
1.0mm	106-0010	106-0110
1.2mm	106-0012	106-0112
1.4mm	106-0014	106-0114
1.5mm	106-0015	106-0115
1.6mm	106-0016	106-0116
1.8mm	106-0018	106-0118
2.0mm	106-0020	106-0120
2.2mm	106-0022	106-0122
2.5mm	106-0025	106-0125
3.0mm	106-0030	106-0130
4.0mm	106-0040	106-0140



Spray Guns-Top Cup Style

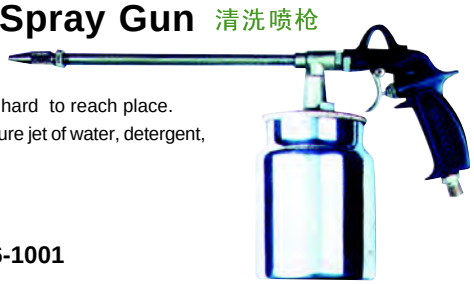
E70 型喷枪

- Sprays latex, enamel lacquer stain for general purpose painting jobs.
- Adjustable Spray Control.
- Simple and easy maintenance.

Size of Spray Nozzles	500cc. Cup Order No.	750cc. Cup. Order No.	1000cc. Cup Order No.
1.0mm	106-0310	106-0410	106-0510
1.2mm	106-0312	106-0412	106-0512
1.4mm	106-0314	106-0414	106-0514
1.5mm	106-0315	106-0415	106-0515
1.6mm	106-0316	106-0416	106-0516
1.8mm	106-0318	106-0418	106-0518
2.0mm	106-0320	106-0420	106-0520
2.2mm	106-0322	106-0422	106-0522
2.5mm	106-0325	106-0425	106-0525
3.0mm	106-0330	106-0430	106-0530
4.0mm	106-0340	106-0440	106-0540



Cleaning Spray Gun 清洗喷枪



- Extension Tip for hard to reach place.
- Applies high pressure jet of water, detergent, or degreaser.

Order No. 106-1001

5 Piece Gun Set 5 支套喷墙套装

Include one of each
Air Gun, Model No.106-1090.
Cleaning Spray Gun, Model No. 106-1001
Tire Inflating Gun, Model No.106-1280
Spray Gun-Bottom Cup Style
Rubber Hose



Order No. 106-1305

Spray Guns-Liquid Supply Hose Style

G70/SSP 型喷枪

- Sprays latex, enamel lacquer stain for general purpose painting jobs.
- 8X17mm Painting Supply Rubber Hose
- Adjustable Spray Control.
- Simple and easy maintenance.

Size of Spray Nozzle	Order No.
1.0mm	106-0210
1.2mm	106-0212
1.4mm	106-0214
1.5mm	106-0215
1.6mm	106-0216
1.8mm	106-0218
2.0mm	106-0220
2.2mm	106-0222
2.5mm	106-0225
3.0mm	106-0230
4.0mm	106-0240

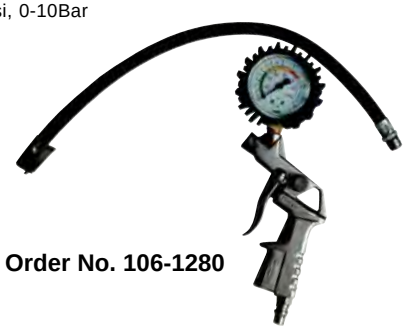


Tire Inflating Gun 胎压枪

- Designed for the measurement of tire pressure of bikes, motorcycles, cars.
- Measurement rang 0-140 psi, 0-10Bar



View of Press Indicator



Order No. 106-1280

Blow Gun 吹尘枪

NEW

Thumb Lever Action, Short type

This is mainly used for blowing off dust and metal particles

- Duster Gun
- Rated Pressure: 0.2-0.4 Mpa
- Max. Pressure: ⩽8 kg/cm^2



Order No. 397-600S

Air Blow Gun
with 25Ft 1/4" Air Hose, (2x1/4"NPT Coupler)

Order No. 106-1097

Air Duster Guns 空气清洗枪



- Designed for hard to reach use.
  Nozzle Length 65mm
- Fitted Plastic Handle.

Order No. 106-1091



- Solid conical tip Prevents blockage of nozzle.
  Nozzle Length 10mm
- Fitted Plastic Handle.

Order No. 106-1090

Manifolds 多支管

Pneumatic & Hydraulic Applications

Designed for the distribution of air and fluids in pneumatic and hydraulic applications. They can be used when a convenient, effective, and attractive connection is needed.

- Manufactured from 16061 aluminum
- Black anodized finish
- All port NPT
- Pre-drilled mounting hols for easy installation
- Two inlets, one each end
- Pressure ratings: air 1000psi, non-shock hydraulic 3000 psi
- Temperature range: -10° to +200°F



No. of Outlets	Inlet Pipe Size(in.)	Outlet Pipe Size(in.)	OAL	Ht. & W(in.)	Outlets Ctr. to Ctr. Dist	Mounting Hole Size	Order No.
2	1/4	1/8	1.75	1.00	0.75	0.17	**106-0911**
2	1/4	1/8	3.25	1.00	1.50	0.17	**106-0912**
2	3/8	1/8	2.37	1.25	0.88	0.20	**106-0913**
2	3/8	1/8	3.25	1.25	1.50	0.20	**106-0914**
2	3/8	1/4	2.37	1.25	0.88	0.20	**106-0915**
2	3/8	1/4	3.25	1.25	1.50	0.20	**106-0916**
2	1/2	1/4	2.37	1.50	1.00	0.20	**106-0917**
2	1/2	1/4	3.25	1.50	1.50	0.20	**106-0918**
2	1/2	3/8	2.75	1.50	1.00	0.20	**106-0919**
2	1/2	3/8	3.25	1.50	1.50	0.20	**106-0920**
3	1/4	1/8	2.5	1.00	0.75	0.17	**106-0921**
3	1/4	1/8	4.75	1.00	1.50	0.17	**106-0922**
3	3/8	1/8	3.25	1.25	0.88	0.20	**106-0923**
3	3/8	1/8	4.75	1.25	1.50	0.20	**106-0924**
3	3/8	1/4	3.25	1.25	0.88	0.20	**106-0925**
3	3/8	1/4	4.75	1.25	1.50	0.20	**106-0926**
3	1/2	1/4	3.75	1.50	1.00	0.20	**106-0927**
3	1/2	1/4	4.75	1.50	1.50	0.20	**106-0928**
3	1/2	3/8	3.75	1.50	1.00	0.20	**106-0929**
3	1/2	3/8	4.75	1.50	1.50	0.20	**106-0930**
4	1/4	1/8	3.25	1.00	0.75	0.17	**106-0931**
4	1/4	1/8	6.25	1.00	1.50	0.17	**106-0932**
4	3/8	1/8	4.12	1.25	0.88	0.20	**106-0933**
4	3/8	1/8	6.25	1.25	1.50	0.20	**106-0934**
4	3/8	1/4	4.12	1.25	0.88	0.20	**106-0935**
4	3/8	1/4	6.25	1.25	1.50	0.20	**106-0936**
4	1/2	1/4	4.75	1.50	1.00	0.20	**106-0937**
4	1/2	1/4	6.25	1.50	1.50	0.20	**106-0938**
4	1/2	3/8	4.75	1.50	1.00	0.20	**106-0939**
4	1/2	3/8	6.25	1.50	1.50	0.20	**106-0940**
5	1/4	1/8	4	1.00	0.75	0.17	**106-0941**
5	1/4	1/8	7.5	1.00	1.50	0.17	**106-0942**
5	3/8	1/8	5	1.25	0.88	0.20	**106-0943**
5	3/8	1/8	7.5	1.25	1.50	0.20	**106-0944**
5	3/8	1/4	5	1.25	0.88	0.20	**106-0945**
5	3/8	1/4	7.75	1.25	1.50	0.20	**106-0946**
5	1/2	1/4	5.75	1.50	1.00	0.20	**106-0947**
5	1/2	1/4	7.75	1.50	1.50	0.20	**106-0948**
5	1/2	3/8	5.75	1.50	1.00	0.20	**106-0949**
5	1/2	3/8	7.75	1.50	1.50	0.20	**106-0950**
5	1/4	1/8	4.75	1.00	0.75	0.17	**106-0951**
6	1/4	1/8	9.25	1.00	1.50	0.17	**106-0952**
6	3/8	1/8	5.88	1.25	0.88	0.20	**106-0953**
6	3/8	1/8	9.25	1.25	1.50	0.20	**106-0955**
6	3/8	1/4	5.88	1.25	0.88	0.20	**106-0954**

No. of Outlets	Inlet Pipe Size(in.)	Outlet Pipe Size(in.)	OAL	Ht. & W(in.)	Outlets Ctr. to Ctr. Dist	Mounting Hole Size	Order No.
6	3/8	1/4	9.25	1.25	1.50	0.20	**106-0956**
6	1/2	1/4	6.75	1.50	1.00	0.20	**106-0957**
6	1/2	1/4	9.25	1.50	1.50	0.20	**106-0958**
6	1/2	3/8	6.75	1.50	1.00	0.20	**106-0959**
6	1/2	3/8	9.25	1.50	1.50	0.20	**106-0960**
6	1/4	1/8	5.5	1.00	0.75	0.17	**106-0961**
7	1/4	1/8	10.75	1.00	1.50	0.17	**106-0962**
7	3/8	1/8	6.75	1.25	0.88	0.20	**106-0963**
7	3/8	1/8	10.75	1.25	1.50	0.20	**106-0964**
7	3/8	1/4	6.75	1.25	0.88	0.20	**106-0965**
7	3/8	1/4	10.75	1.25	1.50	0.20	**106-0966**
7	1/2	1/4	7.75	1.50	1.00	0.20	**106-0967**
7	1/2	1/4	10.75	1.50	1.50	0.20	**106-0968**
7	1/2	3/8	7.75	1.50	1.00	0.20	**106-0969**
7	1/2	3/8	10.75	1.50	1.50	0.20	**106-0970**
7	1/4	1/8	6.25	1.00	0.75	0.17	**106-0971**
8	1/4	1/8	12.25	1.00	1.50	0.17	**106-0972**
8	3/8	1/8	7.62	1.25	0.88	0.20	**106-0973**
8	3/8	1/8	12.25	1.25	1.50	0.20	**106-0974**
8	3/8	1/4	7.62	1.25	0.88	0.20	**106-0975**
8	3/8	1/4	12.25	1.25	1.50	0.20	**106-0976**
8	1/2	1/4	8.75	1.50	1.00	0.20	**106-0977**
8	1/2	1/4	12.25	1.50	1.50	0.20	**106-0978**
8	1/2	3/8	8.75	1.50	1.00	0.20	**106-0979**
8	1/2	3/8	12.25	1.50	1.50	0.20	**106-0980**
8	1/4	1/8	7	1.00	0.75	0.17	**106-0981**
9	1/4	1/8	13.75	1.00	1.50	0.17	**106-0982**
9	3/8	3/8	8.5	1.25	0.88	0.20	**106-0983**
9	3/8	3/8	13.75	1.25	1.50	0.20	**106-0984**
9	3/8	1/4	8.5	1.25	0.88	0.20	**106-0985**
9	3/8	1/4	13.75	1.25	1.50	0.20	**106-0986**
9	1/2	1/4	9.75	1.50	1.00	0.20	**106-0987**
9	1/2	1/4	13.75	1.50	1.50	0.20	**106-0988**
9	1/2	3/8	9.75	1.50	1.00	0.20	**106-0989**
9	1/2	3/8	13.75	1.50	1.50	0.20	**106-0990**
10	1/4	1/8	7.75	1.00	0.75	0.17	**106-0991**
10	1/4	1/8	15.25	1.00	1.50	0.17	**106-0992**
10	3/8	1/8	9.38	1.25	0.88	0.17	**106-0993**
10	3/8	1/8	15.25	1.25	1.50	0.20	**106-0994**
10	3/8	1/4	9.38	1.25	0.88	0.20	**106-0995**
10	3/8	1/4	115.3	1.25	1.50	0.20	**106-0996**
10	1/2	1/4	10.75	1.50	1.00	0.20	**106-0997**
10	1/2	1/4	15.25	1.50	1.50	0.20	**106-0998**
10	1/2	3/8	10.75	1.50	1.00	0.20	**106-0999**
10	1/2	3/8	15.25	1.50	1.50	0.20	**106-1000**

Shop Supplies,Safety & Material Handling

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Drvice Cart with Drawer 469
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Hand Pallet Trucks.....461-463
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Magnifier Lamps

灯式放大镜

For electronic assembly, office and laboratories applications,
quality control inspection.
Feature weighted base, pedestal Base , clamp bracket.
Arms are consisted of square steel tubes with plastic coating and steel springs .
Feature Lock Control at the arm joint.

MAGNIFICATION

- **Diopter**:
  Refers to lens power, higher diopter lenses have greater lens curvature and greater magnification power. Each diopter increases magnification by 25%.
- **Magnification Power**:
  Refers to how much larger an object appears when viewed through a magnifying lens.
  For example :1.75X≈(175%), 3X≈(300%)

Rectangular Magnifier Lamps

灯式放大镜－方形透镜

- AC120/230V, 3 Diopter, Power is 1.75X.
- Large Lens of 7.5x6.2" (190x158mm) size rectangular feature:
  Two 9W H Shape fluorescent bulb (Energy Saving Model)
- Small Lens of 7x5.2" (178x132mm) size rectangular feature:
  Two 7W "H" Shape fluorescent bulb (Energy Saving Model)

C-Clamp Model Single on/off Button

- Single On/Off Button.
- 2-1/2" Adjustable C-Clamp
- 32"/800mm Arm length.



Color	Large Lens 7.5x6.2" Order No.	Small Lens 7x5.2" Order No.
Light Grey	**854-0101**	**854-0201**
White	**854-0102**	**854-0202**
Black	**854-0103**	**854-0203**

C-Clamp Model Double on/off Buttons

- Two On/Off Buttons.
- 2-1/2" Adjustable C-Clamp
- 32"/800mm Arm length.



Color	Large Lens 7.5x6.2" Order No.
Light Grey	**854-0111**
White	**854-0112**
Black	**854-0113**

Weighted Base Model

- 9.9lbs/4.5kg Plastic Weighted Base.
- 24"/600mm Arm length.



Color	Large Lens 7.5x6.2" Order No.	Small Lens 7x5.2" Order No.
Light Grey	**854-0141**	**854-0241**
White	**854-0142**	**854-0242**
Black	**854-0143**	**854-0243**

Handled Peach Head Magnifier Lamps

灯式放大镜－圆形透镜

with 5"/127mm Round Lens

AC120/230V, 3 Diopter, Power is 1.75X
22W circular fluorescent bulb

C-Clamp Model Ballast On Arm

- 2-1/2" Adjustable C-Clamp
- 32"/800mm Arm length.



Color	C-Clamp Ballast On Arm Order No.
Light Grey	**854-0521**
White	**854-0522**
Black	**854-0523**

C-Clamp Model Ballast In Base

- 2-1/2" Adjustable C-Clamp
- 36"/920mm Arm length.



Color	C-Clamp Ballast In Base Order No.
Light Grey	**854-0501**
White	**854-0502**
Black	**854-0503**

Weighted Base Model

- 9.9lbs/4.5kg Plastic Weighted Base.
- 24"/600mm arm length.



Color	Weighted Base Order No.
Light Grey	**854-0581**
White	**854-0582**
Black	**854-0583**

Peach Head Magnifier Lamps 灯式放大镜－圆形透镜

with 5"/127mm Round Lens

AC120/230V, 3 Diopter, Power is 1.75X
22W circular fluorescent bulb

C-Clamp Model

- 2-1/2" Adjustable C-Clamp
- 32"/800mm Arm length.

Color	C-Clamp Order No.
Light Grey	854-0301
White	854-0302
Black	854-0303



Weighted Base Model

- 9.9lbs/4.5kg Plastic Weighted Base.
- 24"/600mm Arm length.

Color	Weighted Base Order No.
Light Grey	854-0341
White	854-0342
Black	854-0343



Round Head Magnifier Lamps

灯式放大镜－圆形透镜

with 5"/127mm Round Lens

AC120/230V, 3 Diopter, Power is 1.75X
a 22W circular fluorescent bulb feature lock control at the arm joint.

C-Clamp Model Ballast On Arm

- 2-1/2" Adjustable C-Clamp
- 32"/800mm Arm length.

Color	without Lens Cover Order No.	with Lens Cover Order No.
Light Grey	854-0411	854-0431
White	854-0412	854-0432
Black	854-0413	854-0433



C-Clamp Model Ballast In Base

- 2-1/2" Adjustable C-Clamp
- 36"/920mm Arm length.

Color	without Lens Cover Order No.	with Lens Cover Order No.
Light Grey	854-0401	854-0421
White	854-0402	854-0422
Black	854-0403	854-0423



Weighted Base Model

- 9.9lbs/4.5kg Plastic Weighted Base.
- 24"/600mm Arm length.

Color	with Lens Cover Order No.
Light Grey	854-0481
White	854-0482
Black	854-0483



Fluorescence Working Lamps

工作灯

Desk Lighting

AC120/230V
Two 15W fluorescent bulbfor Electronic assembly, office and laboratories applications., quality control inspection illumination.
Feature weighted base, pedestal Base, clamp bracket.
Arms are consisted of square steel tubes with plastic coating and steel springs

C-Clamp Model Ballast On Arm

- 32"/800mm Arms.

Color	C-Clamp Ballast on Arm Order No.
Light Grey	854-0621
White	854-0622
Black	854-0623



C-Clamp Model Ballast In Base

- Square Ballast.
- 36"/920mm Arms.

Color	C-Clamp Ballast in Base Order No.
Light Grey	854-0601
White	854-0602
Black	854-0603



Weighted Base Model

- 9.9lbs/4.5kg Weighted Base.
- 32"/800mm Arms.

Color	Weighted Base Order No.
Light Grey	854-0641
White	854-0642
Black	854-0643



Black Frame Protective Eyewear

防护眼镜

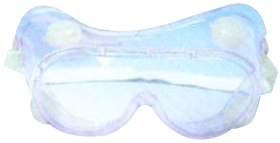
• Polycarbonate lenses.
• Lightweight, economical keeps dust and foreign particles away from eyes.



Order No. 893-7513

Goggles 护目眼镜

• Soft, clear vinyl frame in 3 models: perforated, chemical splash, and non-vented
• Clear polycarbonate lenses
• Meets or exceeds ANSI Z87.1-1989





Specifications	Order No.
Perforated Style	**893-7447**
Indirect Ventilation	**893-7448**
Ventless	**893-7449**

Swing-Away Safety Shields 防护罩



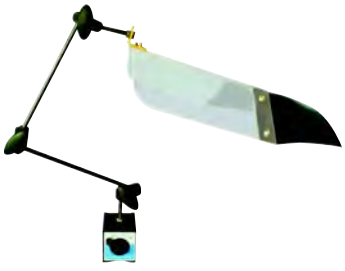
• Shield with Magnetic Base 58x50x55mm, 60kgs
• Shield size: 300 x 260mm

Order No. 893-7534



• Quck cam action locking.
• Shield swivels 360° and locks positively where placed.
• Shield size: 300 x 260mm

Order No. 893-7530



• Shield with square Magnetic Base 40 x 25mm,40kgs

Order No. 893-7532

Universal Shield

万向挡屑板

Used in any part of the lathe, can change the angle wantonly, prevent iron filling, oil, emulsification oil, etc. from spattering out, can grasp the drawing ort file.

Magnetic Power: 80kgs
Back Plate Size: 330x270mm



OrderNo.893-7536

Roller Stands

滚轮支架

V Roller Support Stand, 1 Ton Capacity, 23 to 37 Inches Adjustable Height



150-3025

Roller Stands

滚轮支架

H Roller Support Stand, 2000 Pounds Capacity, 23 1/4 to 38 Inches Adjustable Height



150-3020

Roller Stands

滚轮支架

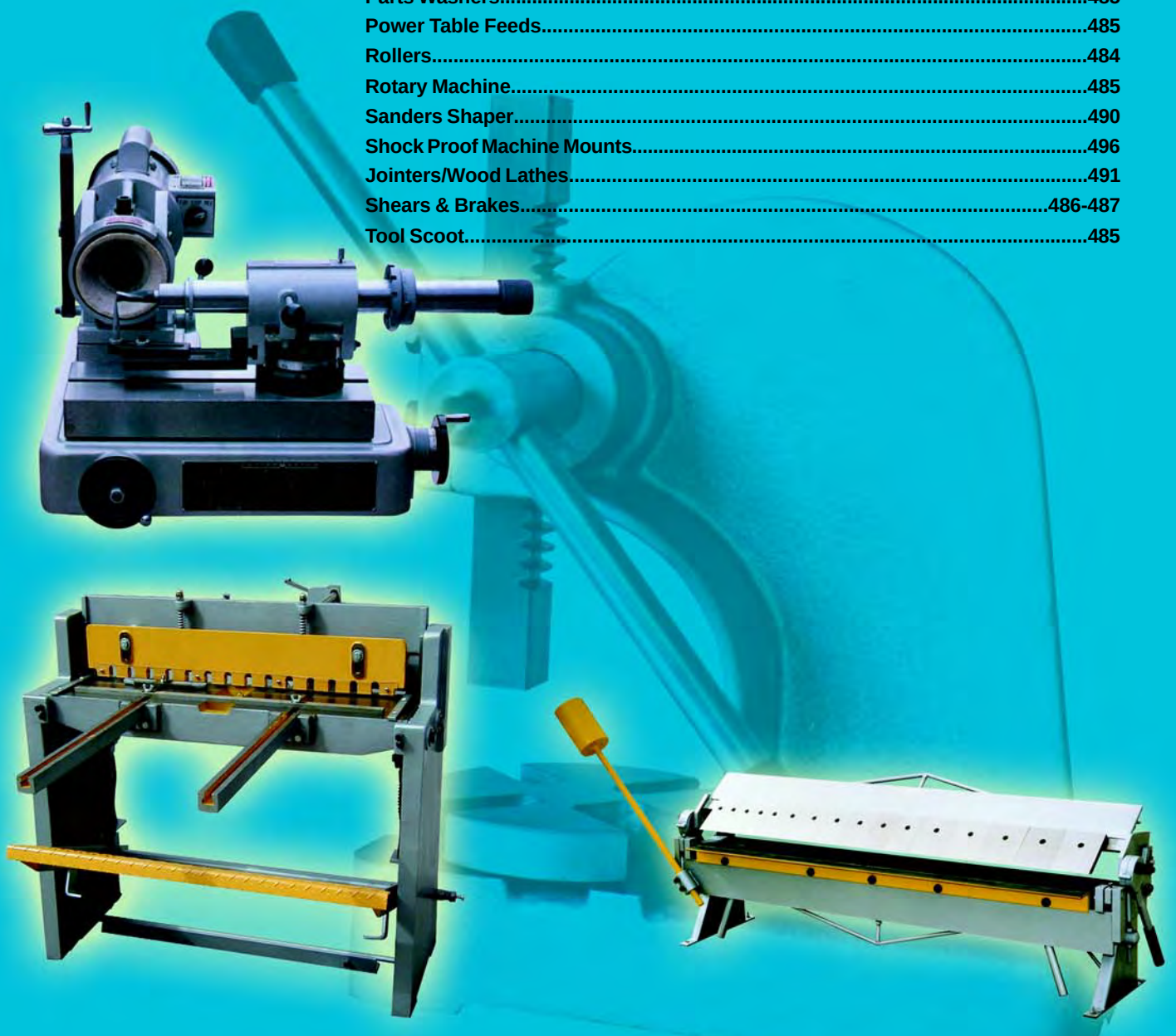


150-3080

Roller Conveyor Support Table, Width 15 In, Height 44 3/4 In, Length 65 In, Raised Height 44 3/4 In, Lowered Height 24 In, Height Range 24 To 44 3/4 In, Load Capacity 500 Lb, Platform Width 15 In, Max Stand Height 44 3/4 In, Construction Steel, Color Dayton Gray, Use With Horizontal Bandsaws, Packaging, Manufacturing And Shipping Departments, Features 9 Solid Ball Bearing Rollers, Folds And Locks For Easy Movement And Storage, Each Leg Is Independently Adjustable

Machinery

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Arbor Presses 压力机

Single Leverage



- Lever arm allows you to easily change positions comfortably for maximum leverage.
- Convenient front and side gib adjustment.
- 4 Position anvil.
- Heavy duty construction for long lasting reliability.
- Steel pinions and rams.

Capacity (Ton)	Height of Press	Max. Work Diameter	Cap Over Table	Ram	Largest Arbor	Order No.
1/2	10”	6-1/2”	4-1/2”	7-1/2”	1”	**805-1005**
1	13”	8”	5-1/4”	9-1/2”	1-1/8”	**805-1010**
2	18”	12”	8-1/2”	14”	1-5/8”	**805-1020**
3	23”	12”	12-1/2”	18”	1-3/4”	**805-1030**
5	35”	17”	18”	27”	2-7/8”	**805-1050**

Ratchet Type



- Ratcheting presses put lever arm in most comfortable position for final application of force.
- Counterweight assures quick return with hand wheel advance.
- Hand wheel advances ram to work.

Capacity (Ton)	Height of Press	Max. Work Diameter	Cap Over Table	Ram	Largest Arbor	Order No.
2	18-1/2”	11-7/8”	3-1/2”	13-1/2”	1-7/8”	**805-1120**
3	21-1/2”	12”	12-5/8”	18”	2-1/2”	**805-1130**
5	34-1/2”	17”	18-1/4”	27-1/2”	3”	**805-1150**

Precision Level Press

杠杆压力机

For precision assembly work and for shearing, punching of light stock, metal or plastic.



- Ideal for small-parts and production assembly
- Reted to with stand 1000Lbs. of force
- Hard chromed ram
- Opening 5x2-1/16”, ram to colum
- Two 1/4” holes are proveded in base for anchoring
- Dimensions: 7-3/4x5-1/2x2-7/8”(HxDxW)

Specifications	
Base size	2.875”Wx5.5”L
Height	7.75”
Capacity	5.125”
Max. Diameter	4.125”
Pressure	0.5 ton
Weight	14LBS

Order No. 130-1300

Throat Level Press 杠杆压力机

Utilizes a 5/8” diameter precision ground ram, press consists of a ground cast iron base and sepatate column. the base xonsists of two mounting holes for 1/4” socket cap screw.



- Throat Clesrance: 6”
- Adjustable down stop
- Up stroce limiter
- Presure 1/4 ton
- Height 7.625”
- Capacity: 5”
- Dimensions: 5x12”(WxL)

Order No. 130-1301

Hand Puncher 手动冲孔器



- It is easy to punch a hole in steel plate.
- Punch die is interchangeable.
- Max. Punching Capacity :
  Steel Plate Thickness 8mm, punch Dia. 20mm
  Steel Plate Thickness 10mm, punch Dia. 16mm
- Throat Depth: 160mm.

Order No. 130-5105

Hand Punchers

手动冲压器

The punch is designed to use in family, school, small factory.
The spring could make the arbor reach “0” position automatically.



Type	Arbors	Order No.
Standard	Rectangular	**805-1205**
Heavy Duty	Rectangular	**805-1206**
Standard	Round	**805-1207**
Heavy Duty	Round	**805-1208**

Sheet Metal Cutter

Mini Type 微型金属剪



For use on mild steel. 16gage capacity.
Adjustable rollers can be used for straight or curved cuts.2”Throat.
Can be mounted to work bench or held in a vise.
3”x2-1/2” Base with 2 mounting holes. 11”Handle.
4-3/4” overall height (less handle)

Order No. 130-5115

Geared Type 齿轮式手动剪



For use on mild steel, 16 gage capacity, can be used for straight or curved cuts

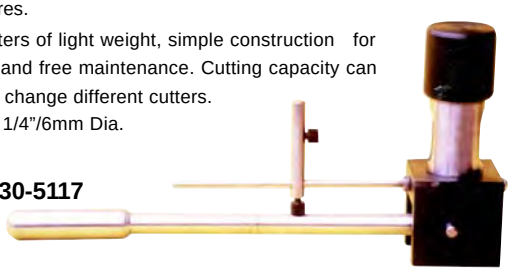
Order No.130-1305

Hand Operated Wire Cutter

动截丝机

Designed to achieve better surface finish and lower distortion on cutting different size wires.

Feature characters of light weight, simple construction for easy operation and free maintenance. Cutting capacity can be extended by change different cutters.
Capacity: up to 1/4”/6mm Dia.



Order No. 130-5117

12” Bench Shear

台式剪切机

- Rear drop off gage
- Front steel rule graduated in inch and metric
- Hardened and ground steel blades
- Upper blade is doubel angle ground for easy cut
- Protective, stationary front and rear plastic shields
- 2 brackets secure shear to work table

Capcity	Arbors
Aluminum	0.050”
Brass	0.025”
Steel	0.020”
Dimensions	26x14x11”
Weight	35Lbs



Order No.130-1303

Manual Shear

辊剪

Sheet-shearing

Max. sheeshearing capacity:2mm
Cut vairous kind of curve quired



Order No.130-7102

Throatless Shear

曲线剪

Designed to allow you to turn the workpiece at any angle for straight, curved , and irregular cuts. Will cut mild steel, aluminum, stainless steel or lighter material.

- 18” Handle for good leverage
- Blades: alloy tool steel, 4” length
- Dimaension: 8-1/4x13-1/2x27-1/4”
  Base size: 5-1/8 x 3-7/8” with three mounting holds:(3/8” Diameter)
  Weight: 16.4Lbs



Order No.130-0050

Mitre Trimmer

塑料手动剪切机

- Make those “perfect mitres” for picture frames, cabinets, chair railing, dooframes etc.
- Positive stops a 45 degree and 90 degree
- Ground cast iron frame and two razor sharp keives
- Used to trim mitres after approximate saw cuts
- weight: 30lbs. Approx



Order No.130-0030

Combination Angle, Rod and Flat Cutter

多用金属剪切机

- Angle 2x2x3/16”, Rod 9/16”, Flate 2x5/16”
- Robust steel plate frames
- Rack and pinion operation
- Blades made of hight grade tool steel
- Blade with two cutting edges
- Overall body size: 19x19”
- Cuts plate, flats, rounds, squares and angle irons
- Blade size: 7-1/2x2-1/2x7/16”
- Weight of the body with 4ft. handle: 48kg



Order No.130-7001

Hand Shear

手动剪切机

Two excellent models to suit you needs. For cutting metal-plate and flat bar stock. Blade are made of high speed steel and accurately tempered

- Capacity: 1/8” plate

Blade	Order No.
8”	**130-7201**
10”	**130-7202**
12”	**130-7203**



Bench Metal Shears

台式剪切机

- Long handle provides plenty of shearing torque.
- Comes with pre-drilled holes to bolt down to workbench.
- Replacable blades made from high grade tool steel.

Blade Length	Capacity Round	Capacity Plates	Order No.	Blade Only Order No.
5"	3/8"	3/32"	**130-5785**	**130-5795**
6	3/8	3/32	**130-5786**	**130-5796**
8	7/16	1/8	**130-5788**	**130-5798**
10	7/16	1/8	**130-5790**	**130-5799**
12	7/16	1/8	**130-5792**	**130-5793**



Plate Cutter 多用台式金属剪

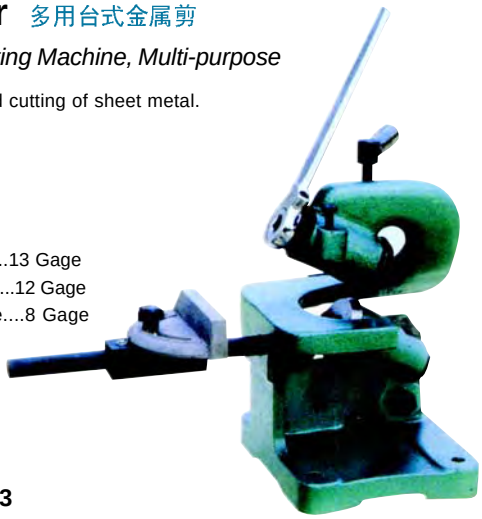
Versatile Metal Cutting Machine, Multi-purpose

- For straight and round cutting of sheet metal.
- No power required.

Specifications

Metarial

Stainless Steel.....13 Gage
Steel Plate.....12 Gage
Aluminum/Copper Plate....8 Gage



Order No. 130-5713

Tube & Pipe Notchers 钢管切割机

Notches, copes, or saddles any pipe or tube up to 2” in diameter, round or square. Easy set-up for angles to 45°. Uses all standard hole saws up to 3” with either a 1/2-20 or 5/8-18 thread mount. 1/2” diameter drive shaft for use with any 1/2” capacity drill motor.
Made of heavy plated chrome steel. The pipe clamp has a black oxide finish.
5-1/4x3 mounting plate with 3-1/4” drilled holes. Weight 9lbs. Hole saw not included.



Aluminium Structure

Order No. 130-5111

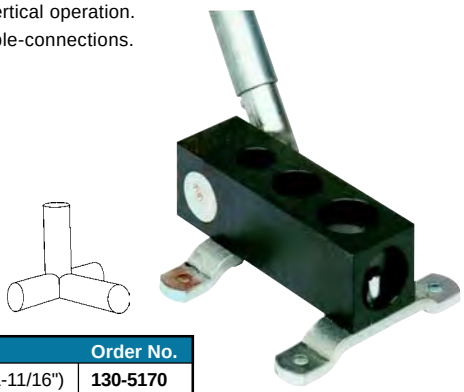
Steel Structure

Order No. 130-5110

Tube Notchers

切管器

- Operated on tubes with up to 3 mm wall thickness which material range from steel or non-ferrous metal.
- Advantage for joining and welding of tubes at a 90 degree angel.
- One device covers several tube diameters.
- Horizontal and vertical operation.
- Suitable for double-connections.



Tube Diameters	Order No.
27-43mm(1-1/16"-1-11/16")	**130-5170**
48-61mm(1-7/8"-2-13/32")	**130-5175**

Hand Notcher

手动切槽机（直角剪）

Heavy duty notcher cuts all shearable material with ease; steel, aluminum, plastic and rubber.
Includes 12” x 18” ground table with front gages.

The gages offer a full 6 inches of surface allowing for easy and accurate squaring. Reversible upper blades for both splay and pierce cutting.



Hand Notcher

4 Ton, capacity:16 Gauge

Order No. 130-5100



Operation Stand

Stand Size: 22"x20x30",
Weight: 90Lbs

Order No.130-5101

Specification

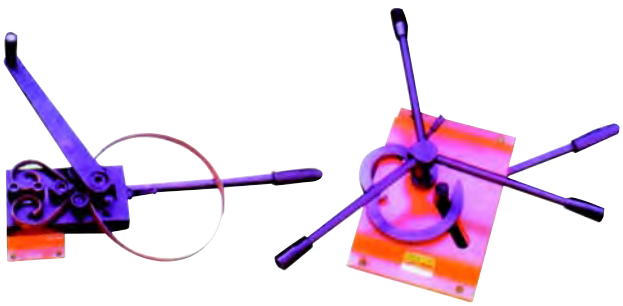
Capacity	Notch	Stroke	Table Size	Weight	Body Height
16 Gage	6x6x90°	3/4”	12x18"	210lbs	18-1/2”

Compact Benders 弯花机

Multipurpose Metal Craft Tool Set

Includes 4 kinds of tools: a punching and shearing tool,a bending and rolling, a curving tool, and a screwing tool.
It is convenient to make cuch things as stand of flowerpot, stand of telephone, legs of table, stand of candle, door, window, handrail, bounding wall and so on.





Up to 5x30mm,shear,bender, twist former,screw former.

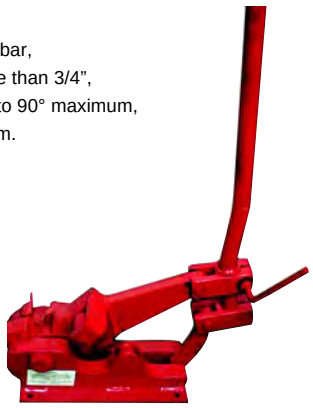
Order No. 130-5075

Up to 3x16mm,shear,bender, twist former,screw former.

Order No. 130-5074

Rebar Cutter/Bender 手动断材器

- It is designed to cut steel bar, which diameter is not more than 3/4", and could bend the rebar to 90° maximum, by adjusting the clamp arm.
- Base: 12-3/64"x6"
- Weight: 80lbs.



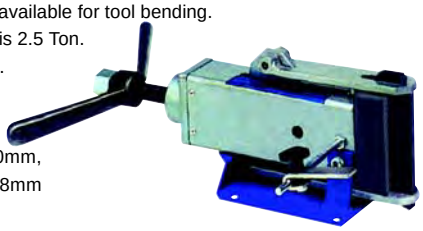
OrderNo.130-5010

Knives Only
Order No. 130-0020

Form Bender 折弯机

Features:

- For cold forming of steel and metals.
- Including set-up plate for table clamping.
- Punch and die tools are available for tool bending.
- The Max. Bending force is 2.5 Ton.
- Min. Adjustment 2.5mm.
- Max. Bending capacity:
  Round material up to 20mm,
  Square material up to 18mm
  Flat material:
  20mm(width)x18mm(Thick)
  50mm(width)x11mm(Thick)
  100mm(wdth)x8mm(Thick)



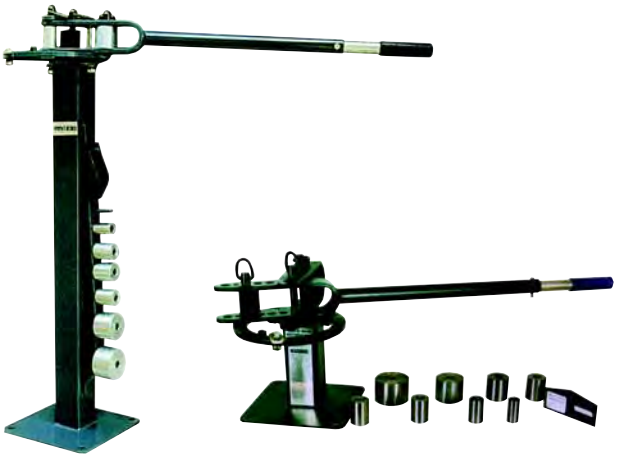
Order No. 130-5125

Compact Benders 弯花机

Includes these round dies:
1", 1-1/4, 1-1/2, 1-3/4, 2", 2-1/2, and 3".
Right angle attachment. Handles telescope to 44".

Capacities:

Mild stee..... 5/16x1-1/4 or 1/4x2"
Right angle bending.....3/16x1-1/4 or 1/4x1-1/4"
Center point.....1/4" thick (use1" die for greater)
Solid rod .....1/2" (use 3" die)



Floor Model

- Height: 33", base: 10" x 10"

Order No. 130-5070

Bench Model

- Height: 8", base: 8.6" x 8.6"

Order No. 130-5071



Scroll Attachment

- Capacity 3/16x1/2 to 3/16x1" mild flat steel.

Order No. 130-5073



Twister Attachment

- Capacity 1/2" pickets 36" long in hot rolled, square mild steel. Handle 25" x 1-1/4".

Order No. 130-5072

Universal Metal Bender 万能折弯机

- Light weight may be mounted in a vise or on a work bench
- Will shape metal up to 9/16" wide and 3/16" thick
- Will bend thin wall tubing to 3/8" dia. and solid bar to 1/4" dia.
- Come with metal case

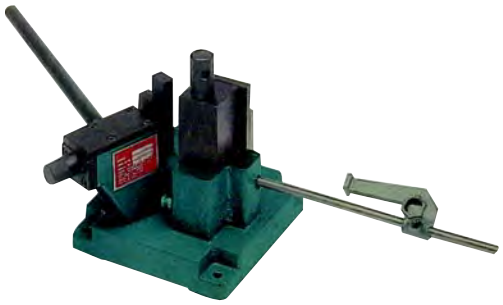


Order No. 130-0040

Right Angle Iron Bender

直角铁折弯机

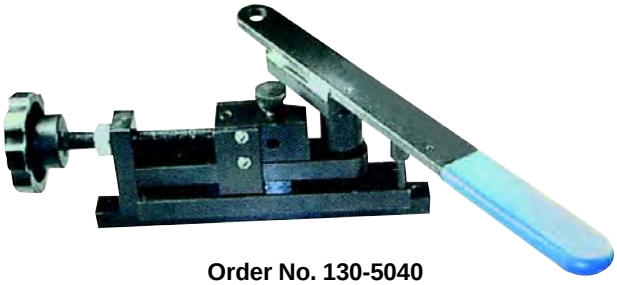
- Made from steel with hardened jaws
- Special vise, eccentric clamping for ease of operation
- Will bend 7/8" rod, 3/4" square or rectangular bar 1-1/8x3/8"
- For angles of 90degree or less
- Approx. weight 83Lbs



Order No. 130-1304

Universal Bender 万能折弯机

Forms wire, flat metal and tubing into clamps, handles, brackets, hooks, coils and more!
Makes sharp angle bends in wire and rod up to 5/16” diameter and in flat metal to 1” x1/8”. Steel construction, weighs 6lbs. Fits into a tool box and mounts on a bench or vise. Includes circle pins for 3/16, 1/4, 1/2” diameter circles, 1” diameter circle die, form pin follower, sharp angle die, gage and handle.Optional edge bender kit adds edgewise bending capability for ductile materials to 0.12” thick and 3/4” wide. Optional circle dies form perfect circles in various diameters.



Order No. 130-5040

Hydraulic Bender

分离式液压弯管机

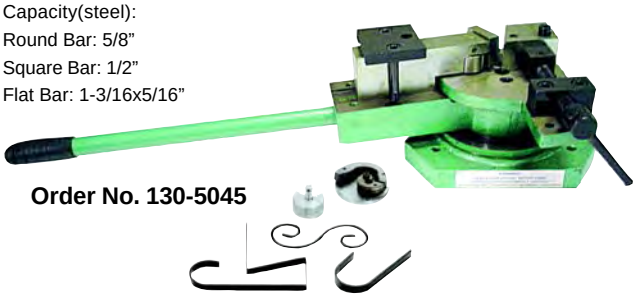
Make 90° bends in rigid steel and rigid aluminum 1/2 to 3” capacity, 10 ton output. Includes steel frame & pipe supports, cast iron shoes and a hydraulic unit. Positive lock pipe support pins and one piece frame for easy pipe insertion and removal from front. Shoes included for 1/2, 3/4, 1, 1-1/4, 1-1/2, 2, 2-1/2, & 3” pipe sizes.



Order No. 837-6310

Universal Bender 万能折弯机

For angular, roll, hoop and coil bending to produce grids, doors, gates, balcony railings, patio furniture as well as rod iron lamps, Suitable for steel, brass, copper, and aluminum.
Bending strength:
28.5 Tons per square inch.
Capacity(steel):
Round Bar: 5/8”
Square Bar: 1/2”
Flat Bar: 1-3/16x5/16”



Order No. 130-5045

Hydraulic Bender

液压折弯机

Bends pipe and tube from 1/2” to 2” diameters, up to 180°. Bending bars are adjustable to accommodate distances of
8-1/2”, 11-1/4”, 12”, 19-1/2”, and 22-1/4”. Steel frame is 4” deep, 21” high and 24” wide. Includes 12 ton jack. Weighs 120lbs.



Order No. 130-5120

Mighty Mini Benders 微型折弯机

- For shops, schools, and hobbyists.
- Clean smooth bends up to 90°.
- Use for heating and cooling ducts.Production runs or one timefabrication of boxes, covers and trays.
- 18” bender could bend and form up to 16 Gauge thick sheet metal. Certain applications require a cut of 1” deep slot in brake bar.
- 30” bender handles up to 16 Gauge aluminum & 18 Gauge steel.

18"x16gauge
Order No. 130-5018

30"x18gauge
Order No. 130-5030



Gear Driven Ring Roller 三辊机

Precision, high quality machined roller forms rings out of not rolled flat stock, Metal sizes 3/16"x1" and up to 1/4" roud, Create rings from 3" diameter to as large as you need. All surface are heat-treated and hardened for long life.

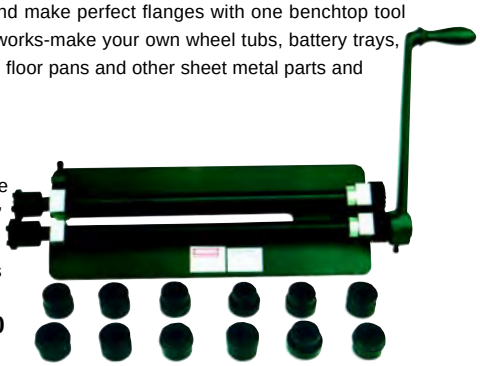


Order No.130-1111

Bead Roller Kit 起鼓器

- Cut,form, roll beads and make perfect flanges with one benchtop tool
- Perfect for auto body works-make your own wheel tubs, battery trays, dash-boards, fire walls, floor pans and other sheet metal parts and accessories.

Capacities:
Mild steel.....18 gauge
Throat.....15"x7/8"
Dimensions.....8"x28"
Weight.....60Lbs



Order No. 130-5060

Bend Roller Fence Attachnebt

Helps you make accurate beads, bends and cuts.
Weight: 3 lbs.



Order No. 130-5062

Tube Rollers 弯管机

This machine is very superior and convenient for square tubes, rectangular tubes. It can bend various capacity workpieces by one by one set roller deliveried with machine. So you can save a lot of moment time and labor by using this machine



Order No. 837-6304

Tube Roller with Adjustable stand

- Hardened steel top plate

Order No. 837-6305



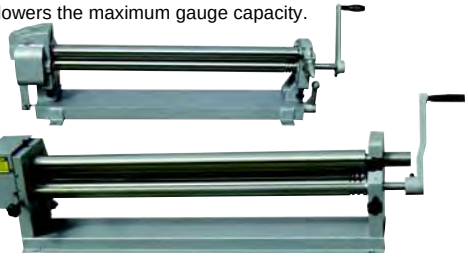
Electronic
Tube Roller with Adjustable stand

Order No. 837-6306

Slip Rolls 手动卷筒机

- Maximum gauge capacities are applicable when using mild steel.
- Using galvanized steel lowers the maximum gauge capacity.

Order No. 130-3622



Order No. 130-5016

Capacity	Dia.of Rolls	Weight	Slip Rolls Order No.	Optional Stands Order No.
12"x22Ga.	1"	37lbs	**130-1222**	**130-1229**
24"x20Ga.	2"	140lbs	**130-2420**	**130-2429**
36"x22Ga.	2"	280lbs	**130-3622**	**130-3629**
50"x16Ga.	3"	570lbs	**130-5016**	**130-5019**

Combination of Shear, Brake & Rolls

三用组合卷筒机
3 in 1

- Removable male dies with female dies.
- Micro adjustable set back Gauge standard equipment.
- One piece 24" two position handle.



Specifications	Order No. 130-1200	Order No. 130-2400	Order No. 130-3000	Order No. 130-4000	Order No. 130-5231
Width	12"	24"	30"	40"	52"
Rolling Dia.	1-1/2"	1-1/2"	1-1/2"	1-1/2"	2"
Weight	115lbs	264lbs	285lbs	570lbs	680lbs

Optional Stands

Width	Order No.
12"	**13B-0312**
24"	**13B-0324**
30"	**13B-0330**
40"	**13B-0340**
52"	**13B-0352**



Power Roll 电动卷筒机

Product Description
Capacity.....50" x 16 gage.
Motor.....220V/440V, 3-PH., 1HP.
Roll speed.....22 RPM.
Dia. of roll.....3".
Min. radius.....1.5".

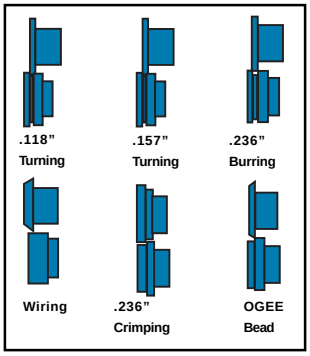


Order No.130-5116

Rotary Machine 起鼓机

- Performs burring, edging, elbowing, flanging, flattening and turning.
- Long throat makes unit highly versatile.
- Includes 6 rolls: 2 turning, 1 each of burring, wiring, crimping, and ogee bead.
- Standard clamp for table mount operation.

Cutting Capacity.....22Gage
Distance Between Shaft Centers.....2" (50.8mm)
Depth of Throat to Frame.....7"(175mm)
Net Weight.....64Lbs(29 kgs)
Gross Weight.....71Lbs(32kgs)
Overall Dimension (LXWXH).....16"x8"x16"(458x203x406mm)





Order No. 130-5400

Power Table Feeds 进给器

135 or 150lbs /inch of torque for mills with 5/8 Lead Screw

- Fits most Bridgeport and Bridgeport type milling machines.
- Speed: 4-180 RPM.
- Bevel Drive Gear Rate 4:8:1, Pilot light.
- A pivot light, on/off switch.
- Protective circuit breaker.
- Travel stop/limit, Internal Clutch, Helical Gearing.
- Strengthened Nylon "spiral gear".
- Automatic shutoff with electric limit switches.
- Central knob to control speed.
- Push button turns motor on for rapid traverse.
- Single lever controls engage, disengage, start, stop and direction of feed.
- Safety limit switches.



Axis	Volt/Frequency	Torque	Order No.
X-axis	115V/60Hz	135lbs	**199-1050**
X-axis	115V/60Hz	150lbs	**199-1051**
X-axis	240V/50Hz	135lbs	**199-1049**
Y-axis	115V/60Hz	135lbs	**199-1052**
Y-axis	115V/60Hz	150lbs	**199-1053**
Y-axis	240V/50Hz	135lbs	**199-1054**
Z-axis	115V/60Hz	150lbs	**199-1055**
Z-axis	240V/50Hz	135lbs	**199-1056**
Feed Horizontal type	115V/60Hz	150lbs	**199-1057**
Feed Horizontal type	240V/50Hz	135lbs	**199-1058**

Parts Washers

清洗桶

This parts washer is design for use in shops ranging from the home mechanic garage to heavy industry. Feature: encolsed pump, seamless construction.



Order No. 199-1035



Order No. 199-1022



Order No. 199-1031



Order No. 199-1041

Capacity	Capacity	Order No.
3.5 gallon (portable)	115V/60Hz/0.5A	**199-1035**
3.5 gallon (portable)	220V/50Hz/0.5A	**199-1036**
20 gallon	115V/60Hz/0.5A	**199-1022**
20 gallon	220V/50Hz/0.5A	**199-1023**
30 gallon	115V/60Hz/0.5A	**199-1030**
30 gallon	220V/50Hz/0.5A	**199-1031**
40 gallon	115V/60Hz/0.5A	**199-1040**
40 gallon	220V/50Hz/0.5A	**199-1041**

Protable Benchtop 14" In-Line Brake

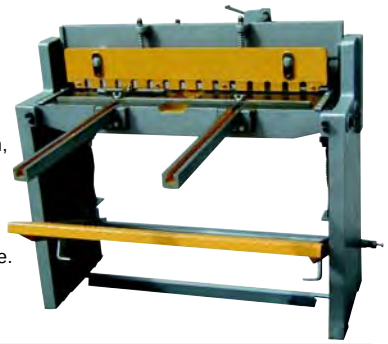
- With removeable fingers
- 4Pcs 1", 3", 4" and 6"
- 20 gage capacity in mild steel
- Weight: 45Lbs



Order No. 130-1302

Precision Foot Shears

脚踏断材器



37” & 52” x 16 Gauge

- Front, Side & Back Gauge.
- Use for mild steel, aluminum, copper, brass, zinc, plastic and lead.
- Finger guards.
- High chrome high steel blade.

Specifications	37” x 16 Gauge Order No. 130-3700	52” x 16 Gauge Order No.130-5200
Capacity: 16 Gauge	37”	52”
Range Back Gauge	30-3/4”	30-3/4”
Range Front Gauge	35”	37-1/2”
Weight(N.W.)	775lbs	1,030lbs

Hand Shear

手动剪切机



Specifications

Dimension...96”x29-1/2”x 41-1/3”.
Weight .....550lbs.
Max Shear Width.....78-5/8”.
Shear Thickness.....1/20”

Order No. 130-5155

7-1/2" Mini Shear Brake

微型剪切机



- Blade length: 8”.
- Max. Cutting/ Bending length: 7-7/8”.
- Mounting base 9”x5”.

Capacities:
Copper and brass.....20gauge
Aluminum.....18gauge

Order No. 130-5050

24" Bending Brakes 24″ 折弯机

- Unlimited throat depth.
- 4” opening.
- 18 gage capacity.
- Maximum angle 135 degree.
- Fully Steel construction with a machined bending edge.
- Both simple and complex forming, like boxes, trays, covers, etc.
- Unique toggle clamp designed for quick and positive clamping.



Order No. 130-3024

40" Bending Brake

40” 手动折弯机



- Dimension: 63-1/2”x23-1/2”x50”.
- Bends 16 gauge steel.
- Weight 1600lbs.

Order No. 130-5140

Bending Brakes 手动折弯机



Order No. 130-5130



Order No. 130-5135

Specifications	Order No. 130-5130	Order No. 130-5135
Width	41”	42”
Capacity	18Gage	18Gage
Weight	205lbs	209lbs
Dimension	54”x40”x38-1/2”	51-1/2”x38-1/2”x30-1/2”

12" Bench Hand Brake 手动折弯机

Perfect for the home hobbyist and delicate forming jobs.



- Mild steel up to 18 gage.
- Adjustable cams for bending from 0 to 135 degree.
- Ground bed for clean, straight edge forming.

Order No. 130-5112

48" Hand Brake 台式手动折弯机

Solid Finger Model

Simple, easy to set up and operate. Body sections are welded steel plate, with heavy truss rods and braces.

- Capacity mild steel: 20 gage.
- Bending length: 48-1/4”.
- Max. Depth of box: 4”
- Max. lift of beam: 1-1/4”



Order No. 130-5160

Hand Bending Brakes

手动折弯机

- Bending Length 97"
- Bends 22 gauge steel
- Weight 790lbs.

Order No. 130-5150



- Bending Length 60"
- Bends 20gauge steel
- Weight 680lbs.

Order No. 130-5145

Universal Brakes 组合折弯机

- Completely portable.
- Rigid cast iron.
- Bronze bushings.
- Maximum gage capacities are applicable when use mild steel.
- Using galvanized steel lowers the maximum gage capacity.

Max. Bending Length.....36”
Capacity Mild Steel.....16Gauge
Max. Lift of Beam .....3/4”
Finger Width.....1~6”
Max. Depth of Box.....3”
Weight.....405lbs



Order No. 130-3616

Pan & Box Brake 重型手动折弯机

Heavy-Duty Floor Model, 48”x12 Gage

Capacity: Mild Steel.....12 Gauge
Stainless Steel.....16 Gauge
Max. Bending Length.....48-1/2”/1220mm
Max. Beam Lift.....1-1/2”/38mm
Beam Adjustment.....0-1/2”(0-13mm)
Net Weight.....1280lbs/581kg
Gross Weight.....1587lbs/720kg



Order No. 130-4812

Pan & Box Brakes

手动折弯机

These bench top modle can handle 20 gage mild steel and are built to take on any serious benchine work

12”x20 Gage

- Material catatic:
  12”x20Gage Mild steel
- Brake angle 0-135 degree
- Box fingers: 2-1”, 2-2” and 2-3”
- Weight: 63Lbs



Order No.130-7012

24”x20 Gage

- Material catatic:
  20”x24Gage Mild steel
- Brake angle 0-135 degree
- Box fingers: 4-2”, 2-3” and 2-4”
- Weight: 100Lbs

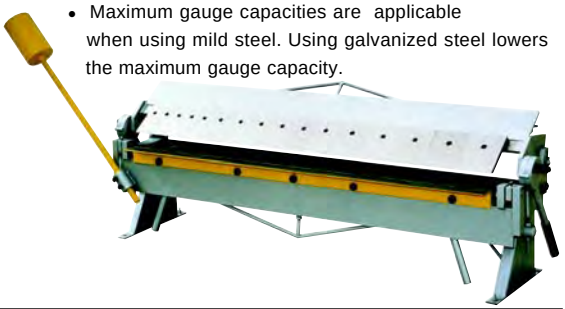


Order No.130-7024

Sheet Metal Pan & Box Brakes

手动折弯机

- Removable fingers.
- Maximum gauge capacities are applicable when using mild steel. Using galvanized steel lowers the maximum gauge capacity.



Specification	48”x22 Gauge Order No.130-4822	48”x16 Gauge Order No.130-4816
Capacity: Mild Steel	22 Gauge	16 Gauge
Stainless Steel	26 Gauge	20 Gauge
Max. Beam Lift	7/8”	1-1/4”
Max. Bend Length	48-1/4”	48-1/4”
Min. Reverse Bend	5/16”	5/16”
Finger Width	2”,3”,4”	2”,3”,4’
Number of Fingers	16	16
Max. Box Depth	3”	3”
Beam Adjustment	0-1/8”	0-5/8”

Brake Stands

for 48"x16 & 48"x22 Pan & Box Brakes



Bolted construction.
Painted steel plate

Order No. 130-4899

Cutter Master 磨刀机

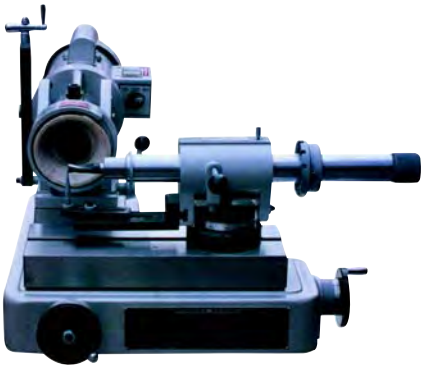
End Mill Grinder

Specialized for grinding various End Mills, Countersinks, Taps, Drills and Machine Tools

- Simple, safe operation—anyone can learn.
- High-grade castings throughout, precision machined and fitted!
- Rapid mounting of attachments.
- Sliding motor mount for rapid setting and lock.
- Wired for 110 Volts, single-phase motor.
- Uses standard 5C Collets.
- Dovetail ways with adjustable gibs.

Specifications

Max. Grinding Dia.....8-21/32”
Max. Grinding Length.....9-1/4”
Air Bearing Fixture Center Height.....4-3/4
Longitudinal Table Travel.....6”
Worktable Surface Dimension
Longitudinal.....16-1/2”x5-21/32”
Cross.....12-29/32”x5-21/32”
Worktable T-Slot.....1/2”x3/4”x5/16”
Table Infeed Graduation.....0.001
Max. Wheel.....5”x2”x1-1/4”
Tilt Adjustment For Wheelhead.....+30°-5°
Wheel Spindle Revolution.....3450R.P.M.
Air Bearing Stroke.....9-1/4”
Motor.....1Phase,110V/220V
Overall Dimensions.....24”x24-1/2”x19-3/4”



Order No. 287-6540

Precision Drill Grinder

磨刀机

Specifications:

point angle of drill bit: 40º-180º
range of grinding : 1.5-32mm
rpm of grnding wheel : 4200RPM
motor : 370W/400V,750W/230V
transversal stroke of grinding wheel : 50 mm
longituelinal stroke of grinding wheel.: 50mm
over size:209xX90cm
size of packing:66X135cm
GW/NW : 145/115kgs

Order No. 287-6510



Blade Grinder 磨刀机

Specifications:

1.Stipulation: 125x10x32x8mm
2.Angle of grinding blade: +/-20º



3.Angle of rotation frame: left 30º, right 45º
4.Diameter of grindable saw: 80-700mm
5.Power: 250W
6.Revolution: 2850rpm(50HZ)/3400rpm(60HZ)
7.Size of appearence: 770x430x300mm
8.Weight: 60/50Kgs

Order No. 287-6640

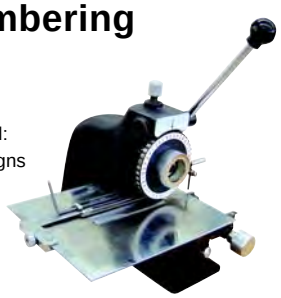
Nameplate & Numbering Machine

压字机

Such signs as follows can be printed:
ten numbers: 0-9; 26 letters: A-Z; signs

Specifications:

Size of Working Table: 250x200mm
Max.Depth of Pressing: 1mm
Packing Size: 460x300x300mm
G.W./N.W.:13/11 kgs



Order No. 805-1220

Drill Presses

钻床



Order No. 125-1010

Specification	Order No. 125-1010
Drilling Capacity	13mm/1/2”
Chuck Size	13mm/1/2”
Swing	359mm/14”
Spindle Travel	85mm/3-1/4”
Distance Spindle to Column	182mm/7.2”
Spindle Taper	B16
Column Diameter	72mm/2-7/8”
Spindle Speeds	4
Spindle Speeds Range	500-2500R.P.M
Motor	1/2HPHP
Overall Height	992mm/39”
Net Weigh	65Kg

Metal Cutting Band Saws 金属带式锯床

BS-100
Max. Capacity:
Circular 90º: 100mm
Rectangular 90º: 100x150mm
Circular 45º: 60mm
Rectangular 45º: 60x100mm
Blade speed 60Hz:54MPM
50Hz:45MPM
Blade size: 13x0.65x1470mm
Motor: 375W 1/2HP(3PH)
550W 3/4HP(1PH)
Drive: Gear
N.W./G.W.: 23/26Kg

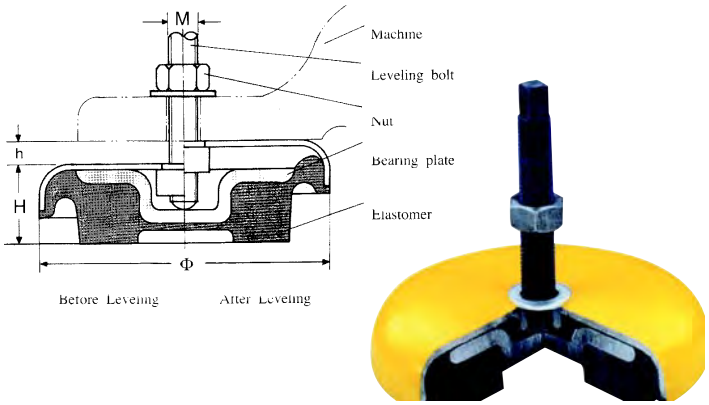


Order No. 199-5012

Shock Proof Machine Mounts 机床减震垫铁

Light Duty

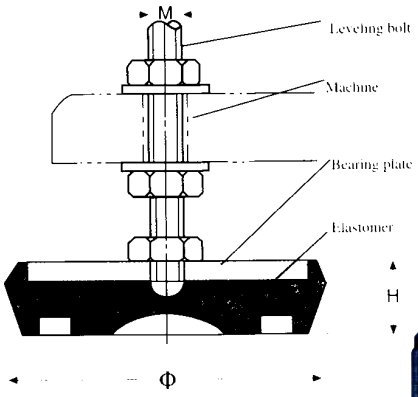
Extra tough rigid design,
Solid rubber base, Finest quality.
Extra tough support screw,
Supplied with bolt nut and washer.



Mount Dia. x Height	Rubber Hardness (ShoreA)	Adjust Height	Load Capacity	Bolt	Order No.
1-37/64x19/32" (40x15mm)	50	5mm	55lbs	M5x30	**429-1015**
3-5/32x63/64" (80x25mm)	50	8mm	220lbs	M10x80	**429-1025**
3-5/32x63/64" (80x25mm)	60	8mm	380lbs	M10x80	**429-1026**
3-5/32x63/64" (80x25mm)	70	8mm	550lbs	M10x80	**429-1027**
4-23/32x1-17/64" (120x32mm)	50	12mm	880lbs	M12x100	**429-1035**
4-23/32x1-17/64" (120x32mm)	60	12mm	1220lbs	M12x100	**429-1036**
4-23/32x1-17/64" (120x32mm)	70	12mm	1880lbs	M12x100	**429-1037**
4-23/32x1-17/64" (120x32mm)	80	12mm	2650lbs	M12x100	**429-1038**
6-19/64x1-3/8" (160x35mm)	50	12mm	2200lbs	M16x120	**429-1045**
6-19/64x1-3/8" (160x35mm)	60	12mm	4190lbs	M16x120	**429-1046**
6-19/64x1-3/8" (160x35mm)	70	12mm	5300lbs	M16x120	**429-1047**
6-19/64x1-3/8" (160x35mm)	80	12mm	7720lbs	M16x120	**429-1048**
7-9/32x1-17/32" (185x39mm)	60	12mm	4850lbs	M20x160	**429-1056**
7-9/32x1-17/32" (185x39mm)	70	12mm	6840lbs	M20x160	**429-1057**
7-9/32x1-17/32" (185x39mm)	80	12mm	9260lbs	M20x160	**429-1058**
9x2-1/8" (228x54mm)	60	12mm	7280lbs	M24x180	**429-1066**
9x2-1/8" (228x54mm)	70	12mm	9480lbs	M24x180	**429-1067**
9x2-1/8" (228x54mm)	80	12mm	14330lbs	M24x180	**429-1068**
12-13/32x2-3/4" (315x70mm)	70	12mm	16840lbs	M30x200	**429-1077**
12-13/32x2-3/4" (315x70mm)	80	12mm	20950lbs	M30x200	**429-1078**

Heavy Duty

- Designed for light duty metalcutting machines and textile, food, wood process machines etc.
- Feature long range height adjustment.





Mount Dia. x Height	Adjust Height	Load Capacity	Bolt	Order No.
2-31/64x11/16"(63x17mm)	15mm	180lbs	M10x80	**429-2005**
2-31/64x11/16"(63x17mm)	15mm	180lbs	M10x110	**429-2006**
3x25/32"(76x20mm)	20mm	300lbs	M12x100	**429-2010**
3x25/32"(76x20mm)	20mm	300lbs	M12x130	**429-2011**
3-3/8x1"(86x25mm)	20mm	700lbs	M12x100	**429-2015**
3-3/8x1"(86x25mm)	20mm	700lbs	M12x130	**429-2016**
4-21/64x1-7/64"(110x28mm)	25mm	1200lbs	M16x120	**429-2020**
4-21/64x1-7/64"(110x28mm)	25mm	1200lbs	M16x180	**429-2021**
5x1-3/16"(127x30mm)	25mm	2000lbs	M16x120	**429-2025**
5x1-3/16"(127x30mm)	25mm	2000lbs	M16x180	**429-2026**
5-29/32x1-19/64"(150x33mm)	25mm	3300lbs	M16x160	**429-2030**
5-29/32x1-19/64"(150x33mm)	25mm	3300lbs	M16x180	**429-2031**
6-3/4x1-3/8"(171x35mm)	25mm	4500lbs	M16x160	**429-2035**
6-3/4x1-3/8"(171x35mm)	25mm	4500lbs	M16x180	**429-2036**

Machine Feet

固定蹄脚

NEW



Base Diameter	Load Capacity	Thread Rod	Order No.
46mm	250kg	M10x47	**429-2051**
60mm	350kg	M16x120	**429-2052**
60mm	350kg	M16x200	**429-2053**
90mm	700kg	M16x200	**429-2054**
90mm	700kg	M16x200	**429-2055**

Universal Swivel Machine Feet

万向蹄脚

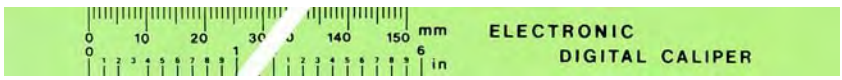
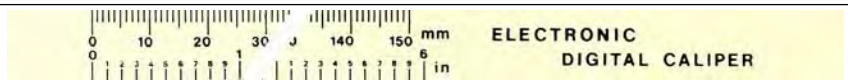
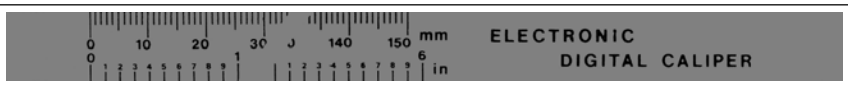
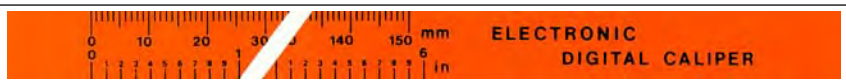
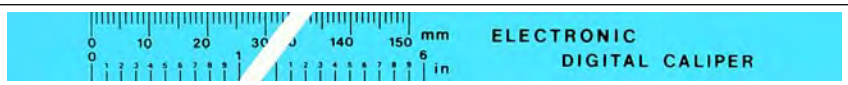
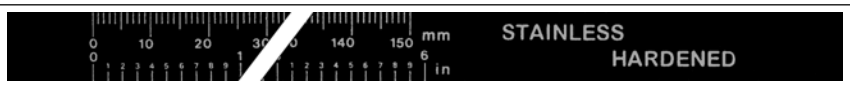
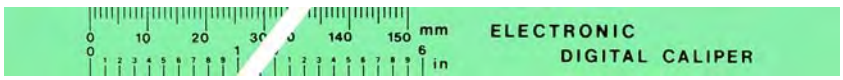
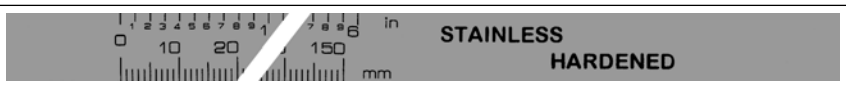
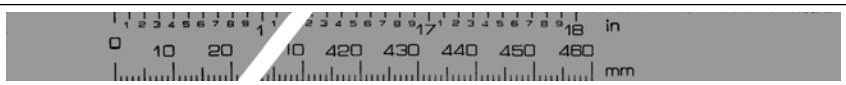
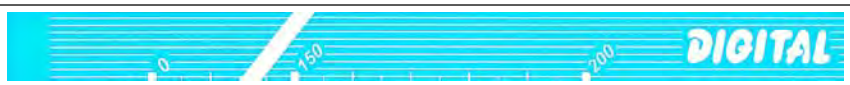
NEW



Base Diameter	Load Capacity	Thread Rod	Order No.
32mm	1000kg	M12x105	**429-2113**
45mm	1200kg	M12x105	**429-2114**
60mm	2000kg	M14x110	**429-2115**

Stickers for digital Calipers, Depth Gages

If you have any prefer sticker style more than us to choose for you, please let us know the sticker number as below.

Number	Styles
#1	
#2	
#3	
#4	
#5	
#6	
#7	
#8	
#9	
#10	
#11	
#12	
#13	
#14	
#15	
#16	
#17	
#18	
#19	
#20	

Decimal Equivalents Chart

Size	Decimal Inches	Size	Decimal Inches	Size	Decimal Inches	Size	Decimal Inches	Size	Decimal Inches	Size	Decimal Inches	Size	Decimal Inches
#80	.0135	#55	.0520	#36	.1065	#15	.1800	6.5mm	.2559	S	.3480	39/64”	.6094
.35mm	.0138	1.35mm	.0531	2.75mm	.1083	4.6mm	.1811	F	.2570	8.9mm	.3504	15.5mm	.6102
#79	.0145	#54	.0550	7/64”	.1094	#14	.1820	6.6mm	.2598	9mm	.3542	5/8”	.6250
1/64”	.0156	1.4mm	.0551	#35	.1100	#13	.1850	G	.2610	T	.3580	16mm	.6299
.4mm	.0157	1.45mm	.0571	2.8mm	.1102	4.7mm	.1850	6.7mm	.2638	9.1mm	.3583	41/64”	.6409
#78	.0160	1.5mm	.0591	#34	.1110	4.75mm	.1870	17/64”	.2656	23/64”	.3594	16.5mm	.6496
.45mm	.0177	#53	.0595	#33	.1130	3/16”	.1875	6.75mm	.2657	9.2mm	.3622	21/32”	.6562
#77	.0180	1.55mm	.0610	2.9mm	.1142	4.8mm	.1890	H	.2660	9.25mm	.3642	17mm	.6693
.5mm	.0197	1/16”	.0625	#32	.1160	#12	.1890	6.8mm	.2677	9.3mm	.3661	43/64”	.6719
#76	.0200	1.6mm	.0630	3mm	.1181	#11	.1910	6.9mm	.2717	U	.3680	11/16”	.6875
#75	.0210	#52	.0635	#31	.1200	4.9mm	.1929	I	.2720	9.4mm	.3701	17.5mm	.6890
.55mm	.0217	1.65mm	.0650	3.1mm	.1220	#10	.1935	7mm	.2756	9.5mm	.3740	45/64”	.7031
#74	.0225	1.7mm	.0669	1/8”	.1250	#9	.1960	J	.2770	3/8”	.3750	18mm	.7087
.6mm	.0236	#51	.0670	3.2mm	.1260	5mm	.1969	7.1mm	.2795	V	.3770	23/32”	.7188
#73	.0240	1.75mm	.0689	3.25mm	.1280	#8	.1990	K	.2810	9.6mm	.3780	18.5mm	.7283
#72	.0250	#50	.0700	#30	.1285	5.1mm	.2008	9/32”	.2812	9.7mm	.3819	47/64”	.7344
.65mm	.0256	1.8mm	.0709	3.3mm	.1299	#7	.2010	7.2mm	.2835	9.75mm	.3839	19mm	.7480
#71	.0260	1.85mm	.0728	3.4mm	.1339	13/64”	.2031	7.25mm	.2854	9.8mm	.3858	3/4”	.7500
.7mm	.0276	#49	.0730	#29	.1360	#6	.2040	7.3mm	.2874	W	.3860	49/64”	.7656
#70	.0280	1.9mm	.0748	3.5mm	.1378	5.2mm	.2047	L	.2900	9.9mm	.3898	19.5mm	.7677
#69	.0292	#48	.0760	#28	.1405	#5	.2055	7.4mm	.2913	25/64”	.3906	25/32”	.7812
.75mm	.0295	1.95mm	.0768	9/64”	.1406	5.25mm	.2067	M	.2950	10mm	.3937	20mm	.7874
#68	.0310	5/64”	.0781	3.6mm	.1417	5.3mm	.2087	7.5mm	.2953	X	.3970	51/64”	.7969
1/32”	.0312	#47	.0785	#27	.1440	#4	.2090	19/64”	.2969	Y	.4040	20.5mm	.8071
.8mm	.0315	2mm	.0787	3.7mm	.1457	5.4mm	.2126	7.6mm	.2992	13/32”	.4062	13/16”	.8125
#67	.0320	2.05mm	.0807	#26	.1470	#3	.2130	N	.3020	Z	.4130	21mm	.8268
#66	.0330	#46	.0810	3.75mm	.1476	5.5mm	.2165	7.7mm	.3031	10.5mm	.4134	53/64”	.8281
.85mm	.0335	#45	.0820	#25	.1495	7/32”	.2188	7.75mm	.3051	27/64”	.4219	27/32”	.8438
#65	.0350	2.1mm	.0827	3.8mm	.1496	5.6mm	.2205	7.8mm	.3071	11mm	.4331	21.5mm	.8465
.9mm	.0354	2.15mm	.0846	#24	.1520	#2	.2210	7.9mm	.3110	7/16”	.4375	55/64”	.8594
#64	.0360	#44	.0860	3.9mm	.1535	5.7mm	.2244	5/16”	.3125	11.5mm	.4528	22mm	.8661
#63	.0370	2.2mm	.0866	#23	.1540	5.75mm	.2264	8mm	.3150	29/64”	.4531	7/8”	.8750
.95mm	.0374	2.25mm	.0886	5/32”	.1562	#1	.2280	O	.3160	15/32”	.4688	22.5mm	.8858
#62	.0380	#43	.0890	#22	.1570	5.8mm	.2283	8.1mm	.3189	12mm	.4724	57/64”	.8906
#61	.0390	2.3mm	.0906	4mm	.1575	5.9mm	.2323	8.2mm	.3228	31/64”	.4844	23mm	.9055
1mm	.0394	2.35mm	.0925	#21	.1590	A	.2340	P	.3230	12.5mm	.4921	29/32”	.9062
#60	.0400	#42	.0935	#20	.1610	15/64”	.2344	8.25mm	.3248	1/2”	.5000	59/64”	.9219
#59	.0410	3/32”	.0938	4.1mm	.1614	6mm	.2362	8.3mm	.3268	13mm	.5118	23.5mm	.9252
1.05mm	.0413	2.4mm	.0945	4.2mm	.1654	B	.2380	21/64”	.3281	33/64”	.5156	15/16”	.9375
#58	.0420	#41	.0960	#19	.1660	6.1mm	.2402	8.4mm	.3307	17/32”	.5312	24mm	.9449
#57	.0430	2.45mm	.0965	4.25mm	.1673	C	.2420	Q	.3320	13.5mm	.5315	61/64”	.9531
1.1mm	.0433	#40	.0980	4.3mm	.1693	6.2mm	.2441	8.5mm	.3346	35/64”	.5469	24.5	.9646
1.15mm	.0453	2.5mm	.0984	#18	.1695	D	.2460	8.6mm	.3386	14mm	.5512	31/32”	.9688
#56	.0465	#39	.0995	11/64”	.1719	6.25mm	.2461	R	.3390	9/16”	.5625	25mm	.9843
3/64”	.0469	#38	.1015	#17	.1730	6.3mm	.2480	8.7mm	.3425	14.5mm	.5709	63/64”	.9844
1.2mm	.0472	2.6mm	.1024	4.4mm	.1732	E	.2500	11/32”	.3438	37/64”	.5781	1”	1.0000
1.25mm	.0492	#37	.1040	#16	.1770	1/4”	.2500	8.75mm	.3445	15mm	.5906		
1.3mm	.0512	2.7mm	.1063	4.5mm	.1772	6.4mm	.2520	8.8mm	.3465	19/32”	.5938		

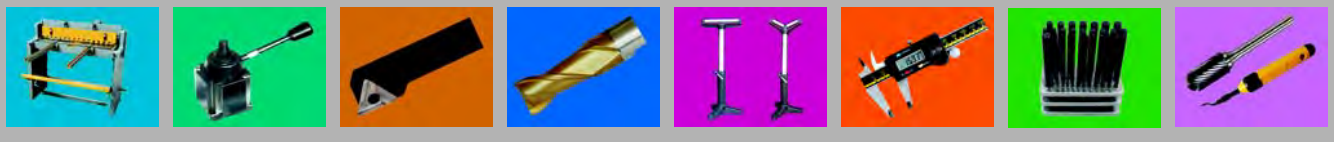
Tap Drill Size(75% Prob.Thread)

Tap Size	Drill Size	Tap Size	Drill Size	Tap Size	Drill Size
0-80	3/64	10-32	21	5/8-18	37/64
M1.6x.35	1.25mm	M5x.8	4.2mm	M16x2	35/64
1-64	1/16	12-24	17	3/4-10	21/32
M2x.4	1/16	12-28	15	3/4-16	11/16
1-72	52	M6x1	10	M20x2.5	11/16
2-56	51	1/4-20	8	7/8-9	49/64
2-64	50	1/4-28	3	7/8-14	13/16
M2.5x.45	2.05mm	5/16-18	F	M24x3	53/64
3-48	5/64	5/16-24	I	1-8	7/8
3-56	46	M8x1.25	6.7mm	1-12	59/64
4-40	43	3/8-16	5/16	1-14	15/16
4-48	42	3/8-24	Q	1-1/8-7	63/64
M3x.5	40	M10x1.5	8.4mm	1-1/8-12	1-3/64
5-40	39	7/16-14	U	M30x3.5	1-3/64*
5-44	37	7/16-20	W	1-1/4-7	1-7/64*
M3.5x.6	33	M12x1.75	13/32	1-1/4-12	1-11/64*
6-32	36	1/2-13	27/64	1-3/8-6	1-7/32*
6-40	33	1/2-20	29/64	1-3/8-12	1-19/64*
M4x.7	3.25mm	M14x2	15/32	M36x4	1-1/4*
8-32	29	9/16-12	31/64	1-1/2-6	1-11/32*
8-36	29	9/16-18	33/64	1-1/2-12	1-27/64*
10-24	25	5/8-11	17/32		

* Reaming Recommended.

Pipe Tap Sizes

Tap Size	Drill Size NPT/NPTF(Taper)	Decimal Equivalent	Drill Size NPS(Straight)	Decimal Equivalent
1/8-27	R	.3390	11/32	.3438
1/4-18	7/16	.4375	7/16	.4375
3/8-18	37/64	.5781	37/64	.5781
1/2-14	45/64	.7031	23/32	.7188
3/4-14	59/64	.9219	59/64	.9129
1-11-1/2	1-5/32	1.1562	1-5/32	1.1562
1-1/4-11-1/2	1-1/2	1.5000	1-1/2	1.5000
1-1/2-11-1/2	1-47/64	1.7344	1-3/4	1.7500
2-11-1/2	2-7/32	2.2188	2-7/32	2.2188
2-1/2-8	2-5/8	2.6250	2-2/32	2.6562
3-8	3-1/4	3.2500		



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If You Selected The Carrier ("Freight Collect"): Please inspect all merchandise as described above. All damage and lost/missing packages must be noted on the delivery receipt. You are responsible for reporting all damages and lost/missing items to your carrier within certain period. Please keep all damaged containers and merchandise for inspection by the carrier's agent...failure to do so may prevent you from successfully filing a claim with the carrier to recover the cost of the merchandise and freight.







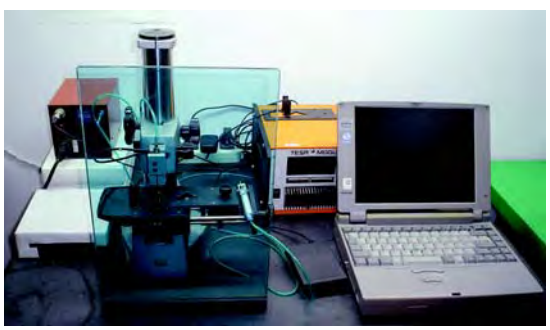








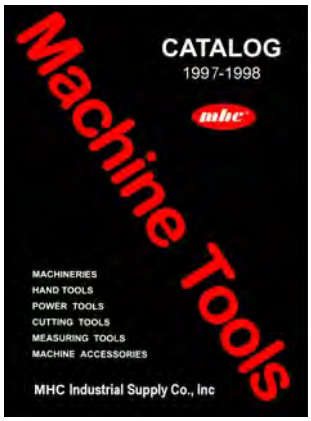


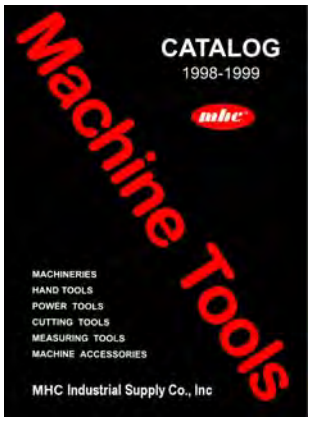


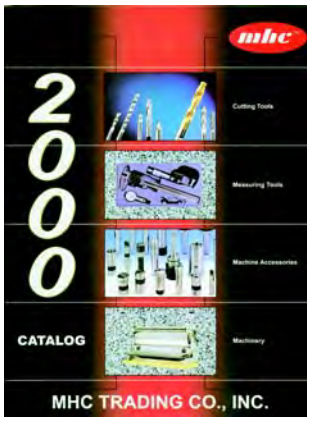


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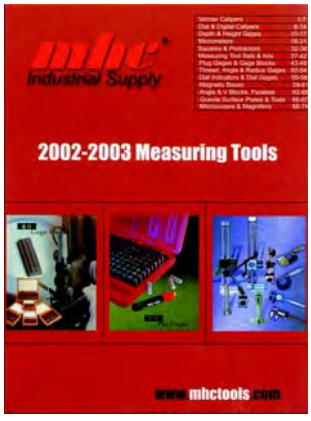
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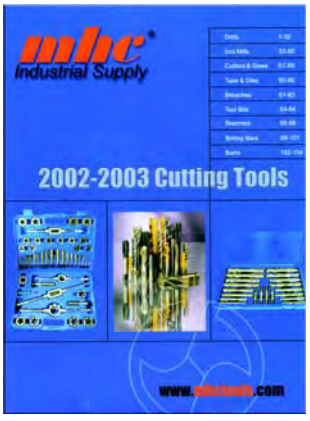


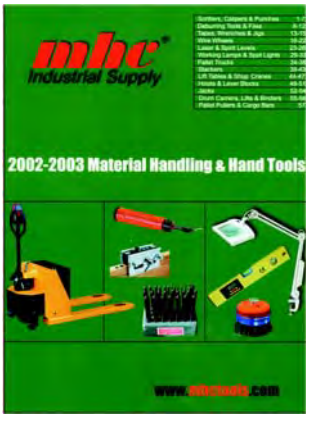
















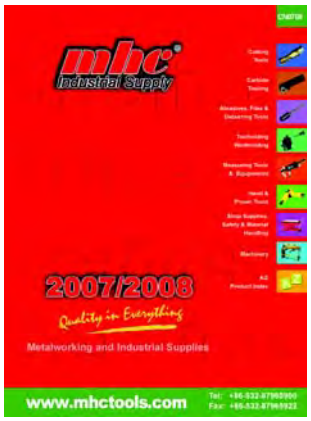








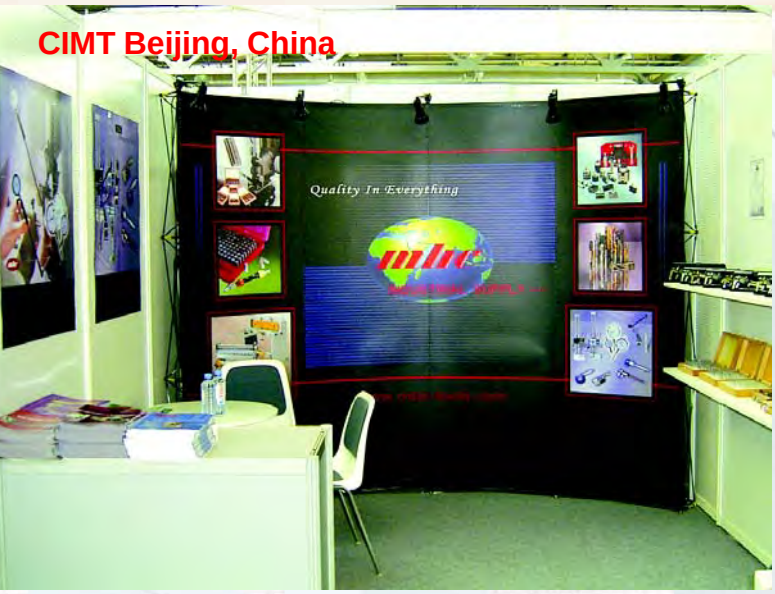






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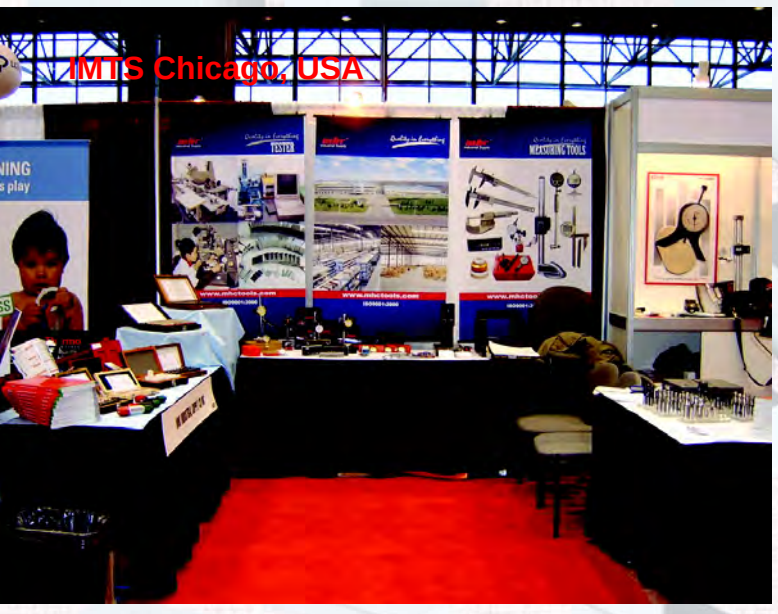
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