



BASSETT™



Solid Carbide Cutting Tools
End Mills • Drills • Thread Mills • Burs



**GREENFIELD
INDUSTRIES**

2016



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Metalcutting Safety (read this before using Bassett products)

Modern metalcutting operations involve high energy, high spindle or cutter speeds, and high temperatures and cutting forces. Hot, flying chips may be projected from the workpiece during metalcutting. Although advanced cutting tool materials are designed and manufactured to withstand the high cutting forces and temperatures that normally occur in these operations, they are susceptible to fragmenting in service, particularly if they are subjected to over-stress, severe impact or otherwise abused. Therefore, precautions should be taken to adequately protect workers, observers and equipment against hot, flying chips, fragmented cutting tools, broken workpieces or other similar projectiles. Machines should be fully guarded and personal protective equipment should be used at all times.

When grinding advanced cutting tool materials, a suitable means for collection and disposal of dust, mist or sludge should be provided. Overexposure to dust or mist containing metallic particles can be hazardous to health particularly if exposure continues over an extended period of time and may cause eye, skin and mucous membrane irritation and temporary or permanent respiratory disease. Certain existing pulmonary and skin conditions may be aggravated by exposure to dust or mist. Adequate ventilation, respiratory protection and eye protection should be provided when grinding and workers should avoid breathing of and prolonged skin contact with dust or mist. General Industry Safety and Health Regulations, Part 1910. U.S. Department of Labor, published in Title 29 of the Code of Federal Regulations should be consulted. Obtain from Bassett and read the applicable Material Safety Data Sheet before grinding.

Cutting tools are only one part of the worker-machine-tool system. Many variables exist in machining operations, including the metal removal rate; the workpiece size, shape, strength and rigidity; the chucking and fixturing; the load carrying capability of centers; the cutter and spindle speed and torque limitations; the holder and boring bar overhang; the available power; and the condition of the tooling and the machine. A safe metalcutting operation must take all of these variables, and others, into consideration.

Bassett has no control over the end use of its products or the environment into which those products are placed. Bassett urges that its customers adhere to the recommended standards of use of their metalcutting machines and tools, and that they follow procedures that ensure safe metalcutting operations. The information included throughout this catalog under the heading "Technical Data" and other recommendations on machining practices referred to herein are only advisory in nature and do not constitute representations or warranties and are not necessarily appropriate for any particular work environment or application.



BASSETT™

Bassett has manufactured the highest quality carbide cutting tools for six decades. Today, we serve clients throughout North America and the world from our modern, high-tech manufacturing facilities in Seneca, South Carolina, and world-wide. Our mission: to invest in the resources, technology, and people that enable us to provide world-class solid carbide round cutting tools for your most demanding applications.

A good tool begins with a good foundation. With Bassett, quality begins with a tradition of excellence. As part of the TDC Group, a vertically integrated company, Bassett has access to the finest raw materials from our own mines, which are refined in our own mills, and made into the blanks used in the manufacture of Bassett solid carbide cutting tools. All Bassett products conform to the strictest quality standards for your satisfaction.

Bassett Solid Carbide Cutting Tools

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NEW

New

Mini Thread Mills

see page 51

New

Extention Burs

start on page 53



**GREENFIELD
INDUSTRIES**

a brand of



BASSETT™



Solid Carbide End Mills



Style No.	Flutes	Description	Finish	Page No.
High-Performance Variable Index End Mills				
Operating Parameters				2
MSE-V-4R	.4-flute	.corner radius	bright, TiAlN	3-5
MSE-V-4B	.4-flute	.ball nose	bright, TiAlN	5
MSE-V2-5R	.5-flute	.corner radius	bright, TiAlN	6-8
High-Performance End Mills for Steel and Stainless Steel				
Operating Parameters				9
HPDEM-5	.5-flute	.square end, double end	bright, TiCN, TiAlN	10
HPEM-3	.3-flute	.square end	bright, TiCN, TiAlN	11
HPEM-5	.5-flute	.square end	bright, TiCN, TiAlN	12
HPEM-6	.6-flute	.square end	bright, TiAlN	13
High-Performance End Mills for Aluminum				
Operating Parameters				14
HPAM-2	.2-flute	.square end	bright, TiCN	15
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High-Performance Roughing End Mills				
Operating Parameters				17
MRS	.multi-flute	.square end . . . for steel	bright, TiCN	17
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General-Purpose End Mills				
Operating Parameters				19
Double End				
MDE-2	.2-flute	.square end	bright, TiCN	20
MDE-2B	.2-flute	.ball nose	bright, TiCN	21
MDE-4	.4-flute	.square end	bright, TiCN	22
MDE-4B	.4-flute	.ball nose	bright, TiCN	23
Single End				
MSE-2	.2-flute	.square end	bright, TiCN	24-25
MSE-2B	.2-flute	.ball nose	bright, TiCN	26-27
MSE-3	.3-flute	.square end	bright, TiCN	28
MSE-4	.4-flute	.square nose	bright, TiCN	29-31
MSE-4B	.4-flute	.ball nose	bright, TiCN	32-33
Straight Flute				
MSEST-2	.2-flute	.square end	bright	34
Engraving Tool				
MEG-2	.2-flute	.ball nose	TiCN	34
Chamfer Tools				
MCH-2R	.2-flute	.single end	bright	35
MCH-2D	.2-flute	.double end	bright	35
MCH-4R	.4-flute	.single end	bright	35
MCH-4D	.4-flute	.double end	bright	35

Tolerances for Solid Carbide End Mills

Cutting Diameter:

1/32" through 1" +.000 -.002

Shank Diameter:

h6



Variable Index End Mills

Operating Parameters for Series MSE-V-4* Variable Index End Mills

regular and stub length

side milling axial 1.5 x D • side milling radial .5 x D • slotting axial 1 x D

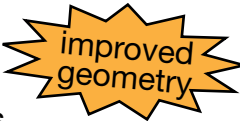
INCH SIZES	Speed	feed per tooth (inches)								
	sfm	5/32	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
easy to cut stainless steel (303)	340	0.0010	0.0012	0.0016	0.0020	0.0024	0.0026	0.0028	0.0028	0.0030
moderately difficult to cut stainless (304)	290	0.0008	0.0010	0.0014	0.0018	0.0020	0.0022	0.0024	0.0026	0.0028
difficult to cut stainless steels (316L)	240	0.0006	0.0010	0.0012	0.0016	0.0018	0.0020	0.0022	0.0024	0.0024
soft steels (1020)	600	0.0010	0.0012	0.0016	0.0024	0.0024	0.0028	0.0030	0.0031	0.0039
titanium alpha beta alloys (Ti6Al4V)	200	0.0005	0.0006	0.0008	0.0012	0.0012	0.0016	0.0018	0.0020	0.0028
gray cast iron (GG)	600	0.0010	0.0012	0.0016	0.0024	0.0024	0.0028	0.0030	0.0031	0.0039

long length

side milling axial 1.3 x D • side milling radial .2 - .3 x D • slotting axial .3 - .5 x D

INCH SIZES	Speed	feed per tooth (inches)								
	sfm	5/32	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
easy to cut stainless steel (303)	340	0.0009	0.0011	0.0014	0.0018	0.0022	0.0023	0.0025	0.0025	0.0027
moderately difficult to cut stainless (304)	290	0.0007	0.0009	0.0013	0.0016	0.0018	0.0020	0.0022	0.0023	0.0025
difficult to cut stainless steel (316L)	240	0.0005	0.0009	0.0011	0.0014	0.0016	0.0018	0.0020	0.0022	0.0022
soft steels (1020)	600	0.0009	0.0011	0.0014	0.0022	0.0022	0.0025	0.0027	0.0028	0.0035
titanium alpha beta alloys (Ti6Al4V)	200	0.0005	0.0005	0.0007	0.0011	0.0011	0.0014	0.0016	0.0018	0.0025
gray cast iron (GG)	600	0.0009	0.0011	0.0014	0.0022	0.0022	0.0025	0.0027	0.0028	0.0035

Operating Parameters for Series MSE-V2-5* Variable Index End Mills



side milling axial 1.5 x D • side milling radial 0.5 x D • slotting axial 1 x D

INCH SIZES material	speed	chip load per tooth (inches)							
	sfm	3/16	1/4	5/16	3/8	1/2	5/8	3/4	1
medium and high carbon steels >0.3% C	600-750	0.0015	0.0021	0.0023	0.0026	0.0028	0.0030	0.0031	0.0039
alloy steels and tool steels <330HB, <35HRC	600-700	0.0011	0.0017	0.0020	0.0023	0.0028	0.0030	0.0031	0.0039
alloy steels and tool steels 340-450 HB, 36-48 HRc	525-625	0.0010	0.0015	0.0016	0.0020	0.0028	0.0030	0.0031	0.0039
austenitic stainless steel 302, 303, 304	350-445	0.0011	0.0017	0.0020	0.0023	0.0022	0.0024	0.0026	0.0028
austenitic stainless steel 316, 316L	225-315	0.0009	0.0013	0.0016	0.0019	0.0020	0.0024	0.0024	0.0024
austenitic stainless steel duplex 0.0024	190-230		0.0008	0.0010	0.0014	0.0015	0.0020	0.0024	0.0024
cast iron, gray GG	520-660	0.0014	0.0022	0.0025	0.0030	0.0028	0.0030	0.0031	0.0039
ductile and maleable cast iron CGI < 80 KSI	430-660	0.0009	0.0013	0.0018	0.0019	0.0028	0.0030	0.0031	0.0039
nickel-based heat-resistant alloys	100-160	0.0004	0.0007	0.0011	0.0015	0.0016	0.0019	0.0023	0.0028
alpha-beta titanium alloys Ti6Al4V	195-240	0.0008	0.0010	0.0014	0.0015	0.0016	0.0018	0.0020	0.0028

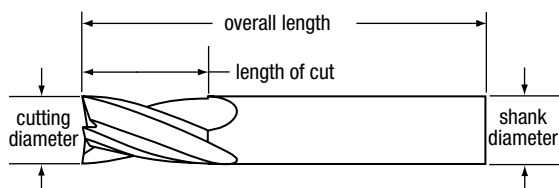
Variable Index End Mills for Ferrous Materials

Series MSE-V-4R

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiAIN
1/8	.1250	3.18	1/8	1/4	1-1/2	4	0.000	B40165	B60165
1/8	.1250	3.18	1/8	1/4	1-1/2	4	0.010	B40140	B60140
1/8	.1250	3.18	1/8	3/8	1-1/2	4	0.000	B40166	B60166
1/8	.1250	3.18	1/8	3/8	1-1/2	4	0.010	B40141	B60141
1/8	.1250	3.18	1/8	1/2	1-1/2	4	0.000	B40231	B60231
1/8	.1250	3.18	1/8	1/2	1-1/2	4	0.010	B40232	B60232
3/16	.1875	4.76	3/16	3/8	2	4	0.000	B40167	B60167
3/16	.1875	4.76	3/16	3/8	2	4	0.010	B40142	B60142
3/16	.1875	4.76	3/16	7/16	2	4	0.000	B40168	B60168
3/16	.1875	4.76	3/16	7/16	2	4	0.010	B40143	B60143
3/16	.1875	4.76	3/16	3/4	2-1/2	4	0.000	B40169	B60169
3/16	.1875	4.76	3/16	3/4	2-1/2	4	0.010	B40170	B60170
1/4	.2500	6.35	1/4	1/2	2	4	0.000	B40171	B60171
1/4	.2500	6.35	1/4	1/2	2	4	0.020	B40144	B60144
1/4	.2500	6.35	1/4	3/4	2-1/2	4	0.000	B40172	B60172
1/4	.2500	6.35	1/4	3/4	2-1/2	4	0.020	B40145	B60145
1/4	.2500	6.35	1/4	3/4	2-1/2	4	0.045	B40234	B60234
1/4	.2500	6.35	1/4	1-1/8	3	4	0.000	B40173	B60173
1/4	.2500	6.35	1/4	1-1/8	3	4	0.020	B40146	B60146
1/4	.2500	6.35	1/4	1-1/4	3	4	0.000	B40233	B60233
5/16	.3125	7.94	5/16	1/2	2	4	0.000	B40174	B60174
5/16	.3125	7.94	5/16	1/2	2	4	0.020	B40147	B60147
5/16	.3125	7.94	5/16	13/16	2-1/2	4	0.000	B40175	B60175
5/16	.3125	7.94	5/16	13/16	2-1/2	4	0.020	B40148	B60148
5/16	.3125	7.94	5/16	1-1/4	3	4	0.000	B40176	B60176
5/16	.3125	7.94	5/16	1-1/4	3	4	0.020	B40177	B60177
3/8	.3750	9.53	3/8	5/8	2	4	0.000	B40178	B60178
3/8	.3750	9.53	3/8	5/8	2	4	0.020	B40149	B60149
3/8	.3750	9.53	3/8	7/8	2-1/2	4	0.000	B40179	B60179
3/8	.3750	9.53	3/8	7/8	2-1/2	4	0.020	B40150	B60150
3/8	.3750	9.53	3/8	1-1/8	3	4	0.000	B40180	B60180
3/8	.3750	9.53	3/8	1-1/8	3	4	0.020	B40151	B60151
3/8	.3750	9.53	3/8	2	4	4	0.000	B40181	B60181
3/8	.3750	9.53	3/8	2	4	4	0.020	B40182	B60182
7/16	.4375	11.11	7/16	5/8	2-1/2	4	0.000	B40183	B60183
7/16	.4375	11.11	7/16	5/8	2-1/2	4	0.020	B40152	B60152
7/16	.4375	11.11	7/16	1	3	4	0.000	B40184	B60184
7/16	.4375	11.11	7/16	1	3	4	0.020	B40153	B60153
7/16	.4375	11.11	7/16	2	4	4	0.000	B40185	B60185

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Variable Index End Mills for Ferrous Materials

Series MSE-V-4R (continued)

	cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
	fractional	decimal	metric						bright	TiAIN
CARBIDE END MILLS	1/2	.5000	12.70	1/2	5/8	2-1/2	4	0.000	B40186	B60186
	1/2	.5000	12.70	1/2	5/8	2-1/2	4	0.020	B40237	B60237
	1/2	.5000	12.70	1/2	5/8	2-1/2	4	0.030	B40154	B60154
	1/2	.5000	12.70	1/2	1	3	4	0.000	B40187	B60187
	1/2	.5000	12.70	1/2	1	3	4	0.030	B40155	B60155
	1/2	.5000	12.70	1/2	1	3	4	0.060	B40188	B60188
CARBIDE DRILLS	1/2	.5000	12.70	1/2	1	3	4	0.090	B40189	B60189
	1/2	.5000	12.70	1/2	1	3	4	0.125	B40190	B60190
	1/2	.5000	12.70	1/2	1-1/4	3	4	0.000	B40191	B60191
	1/2	.5000	12.70	1/2	1-1/4	3	4	0.020	B40238	B60238
	1/2	.5000	12.70	1/2 *	1-1/4	3	4	0.020	-----	B60235
	1/2	.5000	12.70	1/2	1-1/4	3	4	0.030	B40192	B60192
	1/2	.5000	12.70	1/2	1-1/4	3	4	0.060	B40193	B60193
	1/2	.5000	12.70	1/2	1-1/4	3	4	0.090	B40194	B60194
	1/2	.5000	12.70	1/2	1-1/4	3	4	0.125	B40195	B60195
	1/2	.5000	12.70	1/2	2	4	4	0.000	B40196	B60196
	1/2	.5000	12.70	1/2	2	4	4	0.030	B40156	B60156
	1/2	.5000	12.70	1/2	2	4	4	0.060	B40197	B60197
CARBIDE THREAD MILLS	1/2	.5000	12.70	1/2	2	4	4	0.090	B40198	B60198
	1/2	.5000	12.70	1/2	2	4	4	0.125	B40199	B60199
	5/8	.6250	15.88	5/8	3/4	3	4	0.000	B40200	B60200
	5/8	.6250	15.88	5/8	3/4	3	4	0.030	B40157	B60157
	5/8	.6250	15.88	5/8	1-1/4	3-1/2	4	0.000	B40201	B60201
	5/8	.6250	15.88	5/8	1-1/4	3-1/2	4	0.030	B40158	B60158
	5/8	.6250	15.88	5/8	1-1/4	3-1/2	4	0.060	B40202	B60202
	5/8	.6250	15.88	5/8	1-1/4	3-1/2	4	0.090	B40203	B60203
	5/8	.6250	15.88	5/8	1-1/4	3-1/2	4	0.125	B40204	B60204
	5/8	.6250	15.88	5/8	2-1/4	5	4	0.000	B40205	B60205
	5/8	.6250	15.88	5/8	2-1/4	5	4	0.030	B40159	B60159
	5/8	.6250	15.88	5/8	2-1/4	5	4	0.060	B40206	B60206
CARBIDE BURS	5/8	.6250	15.88	5/8	2-1/4	5	4	0.090	B40207	B60207
	5/8	.6250	15.88	5/8	2-1/4	5	4	0.125	B40208	B60208
	3/4	.7500	19.05	3/4	7/8	3	4	0.030	B40236	B60236
	3/4	.7500	19.05	3/4	1	3	4	0.000	B40209	B60209
	3/4	.7500	19.05	3/4	1	3	4	0.030	B40160	B60160
	3/4	.7500	19.05	3/4	1-1/2	4	4	0.000	B40210	B60210
	3/4	.7500	19.05	3/4	1-1/2	4	4	0.030	B40161	B60161
	3/4	.7500	19.05	3/4	1-1/2	4	4	0.060	B40211	B60211
	3/4	.7500	19.05	3/4	1-1/2	4	4	0.090	B40212	B60212
	3/4	.7500	19.05	3/4	1-1/2	4	4	0.125	B40213	B60213
	3/4	.7500	19.05	3/4	2-1/4	5	4	0.000	B40214	B60214
	3/4	.7500	19.05	3/4	2-1/4	5	4	0.030	B40162	B60162
INDEX	3/4	.7500	19.05	3/4	2-1/4	5	4	0.060	B40215	B60215
	3/4	.7500	19.05	3/4	2-1/4	5	4	0.090	B40216	B60216
	3/4	.7500	19.05	3/4	2-1/4	5	4	0.125	B40217	B60217

* Weldon shank; all others plain shank

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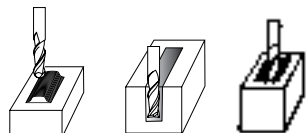
Variable Index End Mills for Ferrous Materials

Series MSE-V-4R (continued)

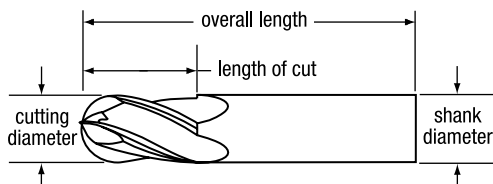
cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiAIN
1	1.0000	25.40	1	1-1/2	4	4	0.000	B40218	B60218
1	1.0000	25.40	1	1-1/2	4	4	0.030	B40163	B60163
1	1.0000	25.40	1	1-1/2	4	4	0.060	B40219	B60219
1	1.0000	25.40	1	1-1/2	4	4	0.090	B40220	B60220
1	1.0000	25.40	1	1-1/2	4	4	0.125	B40221	B60221
1	1.0000	25.40	1	2-1/4	5	4	0.000	B40222	B60222
1	1.0000	25.40	1	2-1/4	5	4	0.030	B40164	B60164
1	1.0000	25.40	1	2-1/4	5	4	0.060	B40223	B60223
1	1.0000	25.40	1	2-1/4	5	4	0.090	B40224	B60224
1	1.0000	25.40	1	2-1/4	5	4	0.125	B40225	B60225
1	1.0000	25.40	1	3	6	4	0.000	B40226	B60226
1	1.0000	25.40	1	3	6	4	0.030	B40227	B60227
1	1.0000	25.40	1	3	6	4	0.060	B40228	B60228
1	1.0000	25.40	1	3	6	4	0.090	B40229	B60229
1	1.0000	25.40	1	3	6	4	0.125	B40230	B60230

Series MSE-V-4B

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	EDP Number	
fractional	decimal	metric					bright	TiAIN
1/8	.1250	3.18	1/8	3/8	1-1/2	4	B40308	B60308
3/16	.1875	4.76	3/16	7/16	2	4	B40309	B60309
1/4	.2500	6.35	1/4	3/4	2-1/2	4	B40310	B60310
5/16	.3125	7.94	5/16	13/16	2-1/2	4	B40311	B60311
3/8	.3750	9.53	3/8	7/8	2-1/2	4	B40312	B60312
7/16	.4375	11.11	7/16	1	3	4	B40313	B60313
1/2	.5000	12.70	1/2	5/8	2-1/2	4	B40390	B70190
1/2	.5000	12.70	1/2	1	3	4	B40314	B60314
5/8	.6250	15.88	5/8	1-1/4	3-1/2	4	B40315	B60315
3/4	.7500	19.05	3/4	1-1/2	4	4	B40316	B60316
1	1.0000	25.40	1	2-1/4	5	4	B40317	B60317



V2 Variable Index End Mills for Ferrous Materials

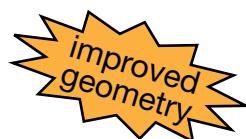
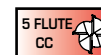
BASSETT™

Series **MSE-V2-5R**

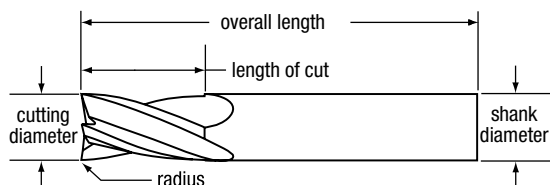
Applications |



Features |



- for slotting up to 1 x D
- minimized chatter from unequal flute spacing
- use one tool for roughing and finishing operations



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiAlN
3/16	.1875	4.76	3/16	3/8	2	5	0.000	B40410	B60410
3/16	.1875	4.76	3/16	3/8	2	5	0.010	B40411	B60411
3/16	.1875	4.76	3/16	7/16	2	5	0.000	B40434	B60434
3/16	.1875	4.76	3/16	7/16	2	5	0.010	B40412	B60412
3/16	.1875	4.76	3/16	3/4	2-1/2	5	0.000	B40435	B60435
3/16	.1875	4.76	3/16	3/4	2-1/2	5	0.010	B40436	B60436
6mm	0.2362	6mm	6mm	13mm	50mm	5	.5mm	B40499	B70199
1/4	.2500	6.35	1/4	1/2	2	5	0.000	B40437	B60437
1/4	.2500	6.35	1/4	1/2	2	5	0.020	B40413	B60413
1/4	.2500	6.35	1/4	3/4	2-1/2	5	0.000	B40438	B60438
1/4	.2500	6.35	1/4	3/4	2-1/2	5	0.020	B40414	B60414
1/4	.2500	6.35	1/4	1-1/8	3	5	0.010	B40439	B60439
1/4	.2500	6.35	1/4	1-1/8	3	5	0.020	B40415	B60415
1/4	.2500	6.35	1/4	1-1/4	3	5	0.000	B40440	B60440
5/16	.3125	7.94	5/16	1/2	2	5	0.000	B40441	B60441
5/16	.3125	7.94	5/16	1/2	2	5	0.020	B40416	B60416
5/16	.3125	7.94	5/16	13/16	2-1/2	5	0.000	B40442	B60442
5/16	.3125	7.94	5/16	13/16	2-1/2	5	0.020	B40417	B60417
5/16	.3125	7.94	5/16	1-1/4	3	5	0.000	B40443	B60443
5/16	.3125	7.94	5/16	1-1/4	3	5	0.020	B40444	B60444
3/8	.3750	9.53	3/8	1/2	2	5	0.030	B40320	B60320
3/8	.3750	9.53	3/8	5/8	2	5	0.000	B40445	B60445
3/8	.3750	9.53	3/8	5/8	2	5	0.020	B40418	B60418
3/8	.3750	9.53	3/8	7/8	2-1/2	5	0.000	B40446	B60446
3/8	.3750	9.53	3/8	7/8	2-1/2	5	0.020	B40419	B60419
3/8	.3750	9.53	3/8	1-1/8	3	5	0.000	B40447	B60447
3/8	.3750	9.53	3/8	1-1/8	3	5	0.020	B40420	B60420
3/8	.3750	9.53	3/8	2	4	5	0.000	B40448	B60448
3/8	.3750	9.53	3/8	2	4	5	0.020	B40449	B60449
7/16	.4375	11.11	7/16	5/8	2-1/2	5	0.000	B40450	B60450
7/16	.4375	11.11	7/16	5/8	2-1/2	5	0.020	B40421	B60421
7/16	.4375	11.11	7/16	1	3	5	0.000	B40451	B60451
7/16	.4375	11.11	7/16	1	3	5	0.020	B40422	B60422
7/16	.4375	11.11	7/16	2	4	5	0.000	B40452	B60452

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V2 Variable Index End Mills for Ferrous Materials

Series MSE-V2-5R (continued)

cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiAIN
1/2	.5000	12.70	1/2	5/8	2-1/2	5	0.000	B40453	B60453
1/2	.5000	12.70	1/2	5/8	2-1/2	5	0.030	B40423	B60423
1/2	.5000	12.70	1/2	1	3	5	0.000	B40454	B60454
1/2	.5000	12.70	1/2 *	1	3	5	0.020	B40321	B60321
1/2	.5000	12.70	1/2	1	3	5	0.030	B40424	B60424
1/2	.5000	12.70	1/2 *	1	3	5	0.030	B40322	B60322
1/2	.5000	12.70	1/2	1	3	5	0.060	B40455	B60455
1/2	.5000	12.70	1/2	1	3	5	0.090	B40456	B60456
1/2	.5000	12.70	1/2	1	3	5	0.125	B40457	B60457
1/2	.5000	12.70	1/2	1-1/4	3	5	0.000	B40458	B60458
1/2	.5000	12.70	1/2	1-1/4	3	5	0.020	B40323	B60323
1/2	.5000	12.70	1/2	1-1/4	3	5	0.030	B40459	B60459
1/2	.5000	12.70	1/2 *	1-1/4	3	5	0.030	B40324	B60324
1/2	.5000	12.70	1/2 *	1-1/4	3	5	0.045	B40325	B60325
1/2	.5000	12.70	1/2	1-1/4	3	5	0.060	B40460	B60460
1/2	.5000	12.70	1/2	1-1/4	3	5	0.090	B40461	B60461
1/2	.5000	12.70	1/2	1-1/4	3	5	0.125	B40462	B60462
1/2	.5000	12.70	1/2	2	4	5	0.000	B40463	B60463
1/2	.5000	12.70	1/2	2	4	5	0.030	B40425	B60425
1/2	.5000	12.70	1/2	2	4	5	0.060	B40464	B60464
1/2	.5000	12.70	1/2	2	4	5	0.090	B40465	B60465
1/2	.5000	12.70	1/2	2	4	5	0.125	B40466	B60466
5/8	.6250	15.88	5/8	3/4	3	5	0.000	B40467	B60467
5/8	.6250	15.88	5/8	3/4	3	5	0.030	B40426	B60426
5/8	.6250	15.88	5/8	1-1/4	3-1/2	5	0.000	B40468	B60468
5/8	.6250	15.88	5/8	1-1/4	3-1/2	5	0.030	B40427	B60427
5/8	.6250	15.88	5/8	1-1/4	3-1/2	5	0.060	B40469	B60469
5/8	.6250	15.88	5/8	1-1/4	3-1/2	5	0.090	B40470	B60470
5/8	.6250	15.88	5/8	1-1/4	3-1/2	5	0.125	B40471	B60471
5/8	.6250	15.88	5/8	2-1/4	5	5	0.000	B40472	B60472
5/8	.6250	15.88	5/8	2-1/4	5	5	0.030	B40428	B60428
5/8	.6250	15.88	5/8	2-1/4	5	5	0.060	B40473	B60473
5/8	.6250	15.88	5/8	2-1/4	5	5	0.090	B40474	B60474
5/8	.6250	15.88	5/8	2-1/4	5	5	0.125	B40475	B60475
3/4	.7500	19.05	1/2 *	1	3	5	0.030	-----	B60498
3/4	.7500	19.05	3/4	1	3	5	0.000	B40476	B60476
3/4	.7500	19.05	3/4	1	3	5	0.030	B40429	B60429
3/4	.7500	19.05	3/4	1-1/2	4	5	0.000	B40477	B60477
3/4	.7500	19.05	3/4	1-1/2	4	5	0.030	B40430	B60430
3/4	.7500	19.05	3/4	1-1/2	4	5	0.060	B40478	B60478
3/4	.7500	19.05	3/4	1-1/2	4	5	0.090	B40479	B60479
3/4	.7500	19.05	3/4	1-1/2	4	5	0.125	B40480	B60480
3/4	.7500	19.05	3/4	2-1/4	5	5	0.000	B40481	B60481
3/4	.7500	19.05	3/4	2-1/4	5	5	0.030	B40431	B60431
3/4	.7500	19.05	3/4	2-1/4	5	5	0.060	B40482	B60482
3/4	.7500	19.05	3/4	2-1/4	5	5	0.090	B40483	B60483
3/4	.7500	19.05	3/4	2-1/4	5	5	0.125	B40484	B60484

* Weldon shank; all others plain shank

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V2 Variable Index End Mills for Ferrous Materials

BASSETT™

Series MSE-V2-5R (continued)

fractional	cutting diameter		shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
	decimal	metric						bright	TiAIN
1	1.0000	25.40	1	1-1/2	4	5	0.000	B40485	B60485
1	1.0000	25.40	1	1-1/2	4	5	0.030	B40432	B60432
1	1.0000	25.40	1	1-1/2	4	5	0.060	B40486	B60486
1	1.0000	25.40	1	1-1/2	4	5	0.090	B40487	B60487
1	1.0000	25.40	1	1-1/2	4	5	0.125	B40488	B60488
1	1.0000	25.40	1	2-1/4	5	5	0.000	B40489	B60489
1	1.0000	25.40	1	2-1/4	5	5	0.030	B40433	B60433
1	1.0000	25.40	1	2-1/4	5	5	0.060	B40490	B60490
1	1.0000	25.40	1	2-1/4	5	5	0.090	B40491	B60491
1	1.0000	25.40	1	2-1/4	5	5	0.125	B40492	B60492
1	1.0000	25.40	1	3	6	5	0.000	B40493	B60493
1	1.0000	25.40	1	3	6	5	0.030	B40494	B60494
1	1.0000	25.40	1	3	6	5	0.060	B40495	B60495
1	1.0000	25.40	1	3	6	5	0.090	B40496	B60496
1	1.0000	25.40	1	3	6	5	0.125	B40497	B60497

High-Performance End Mills for Steel

Operating Parameters: HPEM High-Performance End Mills for Steel

Material	Hardness		Surface Feet per Minute		Chip Load per Tooth		
	Brinell	HRC	Speed Range	SFM	1/32" - 1/4"	1/4" - 1/2"	1/2" - 1"
low alloy steels	<220 HB	<19	Low	600	.0005	.0010	.0020
			High	750	.0010	.0020	.0030
medium alloy steels O1 to O7, W1 to W3, M1 to M3, T1 to T5, A2 to A3, S1 to S7, P2 to P3	225-286	20-30	Low	600	.0003	.0005	.0010
			High	750	.0005	.0010	.0015
high alloy steels M4 to M7, T6 to T15, D2 to D7, A4 to A7, P4	294-371	31-40	Low	525	.0003	.0005	.0008
			High	625	.0005	.0010	.0015
stainless steels 200/300 series	135-275	<28	Low	250	.0005	.0010	.0020
			High	350	.0010	.0020	.0030
stainless steels 400/500 series	135-330	<35	Low	340	.0003	.0008	.0010
			High	400	.0005	.0010	.0015
nickel-based alloys	140-475	<32-50	Low	100	.0005	.0010	.0015
			High	160	.0010	.0015	.0040
titanium alloys	110-450	<48	Low	195	.0005	.0010	.0025
			High	240	.0010	.0030	.0050
inconel	140-475	<48	Low	100	.0005	.0010	.0015
			High	160	.0010	.0015	.0030
aluminum, low silicon	—	—	Low	800	.0030	.0040	.0060
			High	1600	.0040	.0060	.0080

Higher values for surface speed should be used for radial depths of cut less than 25% of the diameter. Lower values for surface speed should be used for radial depths of cut greater than 25% of the diameter. The above recommendations are for axial lengths of cut not to exceed 1 times the cutter diameter for profiling and .5 times the diameter for slotting. Recommended speeds above are for uncoated tools only and should be adjusted when using coated

tools. Generally, speeds can be increased by the following factors: TiCN-coated tools – 20-25% increase; TiAlN-coated tools – 40-50% increase. The above speeds are a recommended starting point only. If the tool is working well, without vibrations or significant noise, increase the SFM in 5-10% increments. Ultimate speeds will depend upon setup conditions. Higher or lower parameters may be required to achieve optimum conditions.

Series HPEM for stainless steels and exotic materials

Features and Benefits of HPEM End Mills

- Maximized strength due to increased cross-sectional area in the core and flute body.
- Combination of micrograin carbide substrate with high-performance coatings.
- Achieve 50% greater chip loads and 20% to 40% higher speeds than conventional end mills.

Applications for HPEM End Mills

- Designed for cutting applications involving excessive mechanical stress.
- Ideally suited for use in stainless steel and exotics such as hastalloy, waspalloy, and inconel.
- 3-flute square end for pocketing, slotting, or roughing.
- 3-flute ball nose gives enhanced surface finish in contour cutting and rapid chip removal in plunge cutting.
- 5-flute design for profiling and finishing applications.



High-Performance End Mills For Steel

Series HPDEM-5 • Double End

Applications |

HARDENED
STEEL

STAINLESS
STEEL

HI-TEMP
ALLOYS

Features |

SOLID
CARBIDE

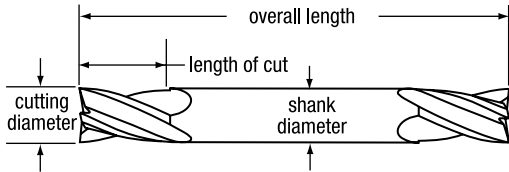
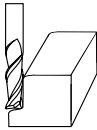
5 FLUTE
CC

47°

BRIGHT

TiCN

TiAIN



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number		
fractional	decimal	metric						bright	TiCN	TiAIN
1/8	.1250	3.18	1/8	1/4	1 1/2	5	0.000	B05100	B05605	B66100
3/16	.1875	4.76	3/16	5/16	2	5	0.000	B05101	B05609	B66101
1/4	.2500	6.35	1/4	3/8	2 1/2	5	0.000	B05103	B05613	B66103
5/16	.3125	7.94	5/16	7/16	2 1/2	5	0.000	B05104	B05617	B66104
3/8	.3750	9.53	3/8	1/2	2 1/2	5	0.000	B05106	B05621	B66106
7/16	.4375	11.11	7/16	9/16	3	5	0.000	B05108	B05625	B66108
1/2	.5000	12.70	1/2 *	5/8	3	5	0.000	B05110	B05629	B66110

* Weldon shank; all others plain shank

CARBIDE END MILLS

CARBIDE DRILLS

CARBIDE THREAD MILLS

CARBIDE BURS

INDEX

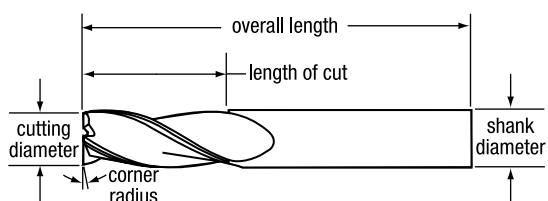
High-Performance End Mills For Steel

Series HPEM-3

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number		
fractional	decimal	metric						bright	TiCN	TiAlN
1/8	.1250	3.18	1/8	1/4	1 1/2	3	0.010	B05105	B05005	B05305
1/8	.1250	3.18	1/8	1/2	1 1/2	3	0.010	B05140	B05040	B05340
5/32	.1562	3.97	3/16	5/16	1 1/2	3	0.010	B05107	B05007	B05307
5/32	.1562	3.97	3/16	9/16	2	3	0.010	B05142	B05042	B05342
3/16	.1875	4.76	3/16	5/16	2	3	0.010	B05109	B05009	B05309
3/16	.1875	4.76	3/16	5/8	2	3	0.010	B05144	B05044	B05344
7/32	.2188	5.56	1/4	1/2	2	3	0.020	B05111	B05011	B05311
7/32	.2188	5.56	1/4	3/4	2 1/2	3	0.020	B05146	B05046	B05346
1/4	.2500	6.35	1/4	3/8	2	3	0.020	B05113	B05013	B05313
1/4	.2500	6.35	1/4	3/4	2 1/2	3	0.020	B05148	B05048	B05348
9/32	.2812	7.14	5/16	7/16	2	3	0.020	B05115	B05015	B05315
9/32	.2812	7.14	5/16	13/16	2 1/2	3	0.020	B05150	B05050	B05350
5/16	.3125	7.94	5/16	7/16	2	3	0.020	B05117	B05017	B05317
5/16	.3125	7.94	5/16	13/16	2 1/2	3	0.020	B05152	B05052	B05352
11/32	.3438	8.73	3/8	1/2	2	3	0.020	B05119	B05019	B05319
11/32	.3438	8.73	3/8	7/8	2 1/2	3	0.020	B05154	B05054	B05354
3/8	.3750	9.53	3/8	1/2	2	3	0.020	B05121	B05021	B05321
3/8	.3750	9.53	3/8	7/8	2 1/2	3	0.020	B05156	B05056	B05356
13/32	.4062	10.32	7/16	9/16	2 1/2	3	0.020	B05123	B05023	B05323
13/32	.4062	10.32	7/16	1	2 1/2	3	0.020	B05158	B05058	B05358
7/16	.4375	11.11	7/16	9/16	2 1/2	3	0.020	B05125	B05025	B05325
7/16	.4375	11.11	7/16	1	2 1/2	3	0.020	B05160	B05060	B05360
15/32	.4688	11.91	1/2 *	5/8	2 1/2	3	0.020	B05127	B05027	B05327
15/32	.4688	11.91	1/2 *	1 1/4	3	3	0.020	B05162	B05062	B05362
1/2	.5000	12.70	1/2 *	5/8	2 1/2	3	0.030	B05129	B05029	B05329
1/2	.5000	12.70	1/2 *	1 1/4	3	3	0.030	B05164	B05064	B05364
5/8	.6250	15.88	5/8 *	3/4	3	3	0.030	B05131	B05031	B05331
5/8	.6250	15.88	5/8 *	1 5/8	4	3	0.030	B05166	B05066	B05366
3/4	.7500	19.05	3/4 *	7/8	3	3	0.030	B05133	B05032	B05332
3/4	.7500	19.05	3/4 *	1 5/8	4	3	0.030	B05168	B05067	B05367
1	1.0000	25.40	1 *	1 1/8	3	3	0.030	B05135	B05034	B05334
1	1.0000	25.40	1 *	2	4	3	0.030	B05170	B05069	B05369

* Weldon shank; all others plain shank

CARBIDE END MILLS

CARBIDE DRILLS

CARBIDE THREAD MILLS

CARBIDE BURS

INDEX



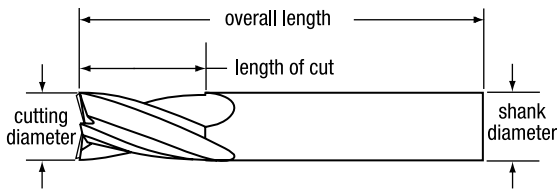
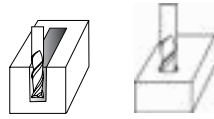
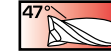
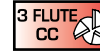
High-Performance End Mills For Steel

Series HPEM-5

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number		
fractional	decimal	metric						bright	TiCN	TiAlN
1/8	.1250	3.18	1/8	1/4	1 1/2	5	0.000	B05112	B05405	B05805
1/8	.1250	3.18	1/8	1/2	1 1/2	5	0.000	B05141	B05440	B05840
1/8	.1250	3.18	1/8	1/2	2	5	0.000	B05098	-----	B70175
5/32	.1562	3.97	3/16	5/16	2	5	0.000	B05114	B05407	B05807
5/32	.1562	3.97	3/16	9/16	2	5	0.000	B05143	B05442	B05842
3/16	.1875	4.76	3/16	5/16	2	5	0.000	B05116	B05409	B05809
3/16	.1875	4.76	3/16	9/16	2	5	0.000	B05145	B05444	B05844
7/32	.2188	5.56	1/4	3/8	2	5	0.000	B05118	B05411	B05811
7/32	.2188	5.56	1/4	3/4	2 1/2	5	0.000	B05147	B05446	B05846
1/4	.2500	6.35	1/4	3/8	2	5	0.000	B05120	B05413	B05813
1/4	.2500	6.35	1/4	3/4	2 1/2	5	0.000	B05149	B05448	B05848
1/4	.2500	6.35	1/4	1 1/4	4	5	0.000	B05171	B05513	B05913
9/32	.2812	7.14	5/16	7/16	2	5	0.000	B05122	B05415	B05815
9/32	.2812	7.14	5/16	13/16	2 1/2	5	0.000	B05151	B05450	B05850
5/16	.3125	7.94	5/16	7/16	2	5	0.000	B05124	B05417	B05817
5/16	.3125	7.94	5/16	13/16	2 1/2	5	0.000	B05153	B05452	B05852
5/16	.3125	7.94	5/16	1 1/4	4	5	0.000	B05173	B05517	B05917
3/8	.3750	9.53	3/8	1/2	2	5	0.000	B05126	B05421	B05821
3/8	.3750	9.53	3/8	7/8	2 1/2	5	0.000	B05155	B05456	B05856
3/8	.3750	9.53	3/8	1 1/2	4	5	0.000	B05175	B05521	B05921
7/16	.4375	11.11	7/16	9/16	2 1/2	5	0.000	B05128	B05425	B05825
7/16	.4375	11.11	7/16	1	2 1/2	5	0.000	B05157	B05460	B05860
7/16	.4375	11.11	7/16	2	4	5	0.000	B05177	B05525	B05925
1/2	.5000	12.70	1/2 *	5/8	2 1/2	5	0.000	B05130	B05429	B05829
1/2	.5000	12.70	1/2 *	1 1/4	3	5	0.000	B05159	B05464	B05864
1/2	.5000	12.70	1/2 *	2	4	5	0.000	B05179	B05529	B05929
9/16	.5625	14.29	9/16 *	1 1/2	3 1/2	5	0.000	B05161	B05465	B05865
5/8	.6250	15.88	5/8 *	3/4	3	5	0.000	B05132	B05431	B05831
5/8	.6250	15.88	5/8 *	1 5/8	4	5	0.000	B05163	B05466	B05866
5/8	.6250	15.88	5/8 *	2 1/2	5	5	0.000	B05181	B05531	B05931
3/4	.7500	19.05	3/4 *	7/8	3	5	0.000	B05134	B05432	B05832
3/4	.7500	19.05	3/4 *	1 5/8	4	5	0.000	B05165	B05467	B05867
3/4	.7500	19.05	3/4 *	3 1/4	6	5	0.000	B05183	B05532	B05932
7/8	.8750	22.23	7/8 *	2	4	5	0.000	B05167	B05468	B05868
1	1.0000	25.40	1 *	1 1/8	3	5	0.000	B05136	B05434	B05834
1	1.0000	25.40	1 *	2	4	5	0.000	B05169	B05469	B05869
1	1.0000	25.40	1 *	3 1/4	6	5	0.000	B05185	B05533	B05933

* Weldon shank; all others plain shank



High-Performance End Mills For Steel

Series HPEM-6

Applications |

HARDENED
STEELSTAINLESS
STEELHI-TEMP
ALLOYS

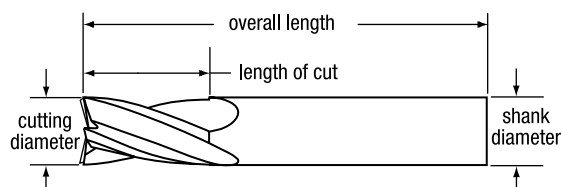
Features |

SOLID
CARBIDE3 FLUTE
CC

47°

BRIGHT

TiAlN



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiAlN
3/16	.1875	4.76	3/16	5/8	2	6	0.000	-----	B70180
1/4	.2500	6.35	1/4	3/4	2 1/2	6	0.000	B50187	B70187
3/8	.3750	9.52	3/8	7/8	2 1/2	6	0.000	-----	B70181
1/2	.5000	12.70	1/2	1 1/4	3	6	0.000	B70185	B70186

CARBIDE END MILLS

CARBIDE DRILLS

CARBIDE THREAD MILLS

CARBIDE BURS

INDEX



High-Performance End Mills for Aluminum

Operating Parameters: HPAM High-Performance End Mills for Aluminum

Type of Cut	Aluminum Alloys 6061-T6, 7075-T6, 440, 356, 380, C61300	Depth of Cut % of tool diameter	SFM (speed)	End Mill Diameter Chip Load per Tooth					
				1/4"	3/8"	1/2"	5/8"	3/4"	1"
shallow slotting	< 32 HRC	< 50%	1200 +	.0045	.0071	.0100	.0123	.0149	.0200
	> 32 HRC		600 +	.0036	.0057	.0080	.0098	.0119	.0160
deep slotting	< 32 HRC	75-100%	1200 +	.0036	.0057	.0080	.0098	.0119	.0160
	> 32 HRC		600 +	.0027	.0043	.0060	.0074	.0089	.0120
medium radial 1.0 x dia depth	< 32 HRC	30% x dia. radial	1200 +	.0045	.0071	.0100	.0123	.0149	.0200
	> 32 HRC		600 +	.0036	.0057	.0080	.0098	.0119	.0160
heavy radial 1.0 x dia depth	< 32 HRC	50% x dia. radial	1200 +	.0036	.0057	.0080	.0098	.0119	.016
medium radial 2.0 x dia depth	< 32 HRC	30% x dia. radial	1200 +	.0045	.0071	.0100	.0123	.0149	.0200
	> 32 HRC		600 +	.0036	.0057	.0080	.0098	.0119	.0160
heavy radial 2.0 x dia depth	< 32 HRC	50% x dia. radial	1200 +	.0036	.0057	.0080	.0098	.0119	.0160
finishing medium radial	< 32 HRC	< 25% of dia.	1200 +	.0045	.0071	.0100	.0123	.0149	.0200
	> 32 HRC		600 +	.0036	.0057	.0080	.0098	.0119	.0160
finishing light radial	< 32HRC	< 10% of dia.	1200 +	.0045	.00713	.0100	.01225	.01485	.0200
finishing	< 32 HRC	< .010 radial depth	1200 +	.0054	.0086	.0120	.0147	.0178	.0240
	> 32 HRC		600 +	.0045	.0071	.0100	.0123	.0149	.0200

This chart represents starting points based on a coated tool. Reduce rates up to 50% when using an uncoated tool.

These speed and feed rates are suggested as general guidelines. Machine type, horsepower, spindle speed limitations, toolholding and workholding devices all may impact a cutting tool's ability to perform properly. Greenfield Industries is not responsible for tool failure, part damage, or injury that may be caused by following these general recommendations..

Formulae

$$RPM = (SFM \times 3.82) / \text{tool diameter}$$

$$IPM = \text{number of flutes} \times RPM \times \text{chip load per tooth}$$

Series HPAM for aluminum and nonferrous materials

Features and Benefits of HPAM End Mills

- Delivers superior performance, providing increased tool life and improved part finish.
- Concentric margins stabilize the tool in the cut and reduce chatter at elevated speeds.
- Greater resistance to chipping with increased feed and speed rates over conventional carbide tools.
- Design incorporates rake enhancements in the flute for improved chip flow and higher feed rates at high and low spindle speeds.
- Tool design eliminates excess pressure that causes chip packing.

Applications for HPAM End Mills

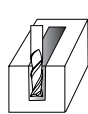
- 2-flute square end offers excellent performance in roughing and finishing, in ramp cutting and in plunging.
- 2-flute ball nose designed for contouring aluminum, copper, and other non-ferrous materials.
- 3-flute square end gives superior surface finishes without sacrificing metal removal rates in high-speed slotting, profiling, and ramping.



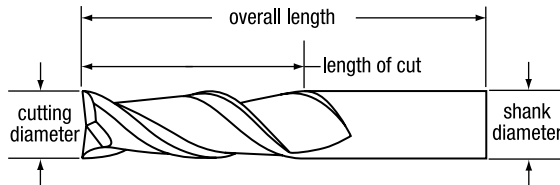
High-Performance End Mills for Aluminum

Series **HPAM-2** • square end

Applications |



Features |



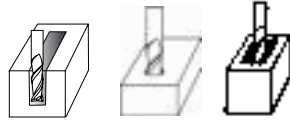
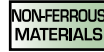
cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiCN
1/8	.1250	3.18	1/8	1/4	1 1/2	2	0.000	B04440	B06440
1/8	.1250	3.18	1/8	3/8	1 1/2	2	0.000	B04405	B06405
3/16	.1875	4.76	3/16	5/16	2	2	0.000	B04444	B06444
3/16	.1875	4.76	3/16	9/16	2	2	0.000	B04409	B06409
1/4	.2500	6.35	1/4	3/8	2 1/2	2	0.000	B04448	B06448
1/4	.2500	6.35	1/4	3/4	2 1/2	2	0.000	B04413	B06413
1/4	.2500	6.35	1/4	1 1/4	3	2	0.000	B04548	B06548
5/16	.3125	7.94	5/16	7/16	2 1/2	2	0.000	B04452	B06452
5/16	.3125	7.94	5/16	13/16	2 1/2	2	0.000	B04417	B06417
5/16	.3125	7.94	5/16	1 1/4	3 1/2	2	0.000	B04552	B06552
5/16	.3125	7.94	5/16	2 1/8	4	2	0.000	B04617	B06617
3/8	.3750	9.53	3/8	1/2	2 1/2	2	0.000	B04456	B06456
3/8	.3750	9.53	3/8	1	2 1/2	2	0.000	B04421	B06421
3/8	.3750	9.53	3/8	1 1/2	4	2	0.000	B04556	B06556
3/8	.3750	9.53	3/8	2 1/2	6	2	0.000	B04621	B06621
7/16	.4375	11.11	7/16	9/16	2 1/2	2	0.000	B04460	B06460
7/16	.4375	11.11	7/16	1	2 1/2	2	0.000	B04425	B06425
7/16	.4375	11.11	7/16	2	4	2	0.000	B04560	B06560
1/2	.5000	12.70	1/2	5/8	3	2	0.000	B04464	B06464
1/2	.5000	12.70	1/2	1 1/4	3	2	0.000	B04429	B06429
1/2	.5000	12.70	1/2	2	4	2	0.000	B04564	B06564
1/2	.5000	12.70	1/2	3 1/8	6	2	0.000	B04629	B06629
5/8	.6250	15.88	5/8	3/4	3 1/2	2	0.000	B04466	B06466
5/8	.6250	15.88	5/8	1 5/8	4	2	0.000	B04431	B06431
5/8	.6250	15.88	5/8	2 1/2	5	2	0.000	B04566	B06566
5/8	.6250	15.88	5/8	3 3/4	6	2	0.000	B04631	B06631
3/4	.7500	19.05	3/4	1	4	2	0.000	B04467	B06467
3/4	.7500	19.05	3/4	1 5/8	4	2	0.000	B04432	B06432
3/4	.7500	19.05	3/4	3 1/4	6	2	0.000	B04567	B06567
3/4	.7500	19.05	3/4	4	6 1/2	2	0.000	B04632	B06632
1	1.0000	25.40	1	1 1/4	5	2	0.000	B04469	B06469
1	1.0000	25.40	1	2	5	2	0.000	B04434	B06434
1	1.0000	25.40	1	3 1/4	6	2	0.000	B04569	B06569
1	1.0000	25.40	1	4 1/8	7	2	0.000	B04634	B06634



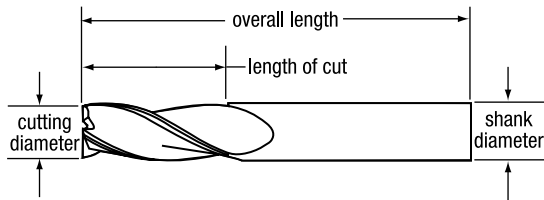
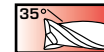
High-Performance End Mills for Aluminum

Series **HPAM-3** • square end

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiCN
1/8	.1250	3.18	1/8	1/4	1 1/2	3	0.000	B04005	B06005
1/8	.1250	3.18	1/8	3/8	1 1/2	3	0.000	B04040	B06040
3/16	.1875	4.76	3/16	5/16	2	3	0.000	B04009	B06009
3/16	.1875	4.76	3/16	9/16	2	3	0.000	B04044	B06044
1/4	.2500	6.35	1/4	3/8	2	3	0.000	B04013	B06013
1/4	.2500	6.35	1/4	5/8	2 1/2	3	0.000	B04048	B06048
1/4	.2500	6.35	1/4	1 1/4	3	3	0.000	B04148	B06148
5/16	.3125	7.94	5/16	7/16	2	3	0.000	B04017	B06017
5/16	.3125	7.94	5/16	5/8	2 1/2	3	0.000	B04052	B06052
5/16	.3125	7.94	5/16	1 1/4	3 1/2	3	0.000	B04152	B06152
5/16	.3125	7.94	5/16	2 1/8	4	3	0.000	B04217	B06217
3/8	.3750	9.53	3/8	1/2	2	3	0.000	B04021	B06021
3/8	.3750	9.53	3/8	1	2 1/2	3	0.000	B04056	B06056
3/8	.3750	9.53	3/8	1 1/2	3 1/2	3	0.000	B04156	B06156
3/8	.3750	9.53	3/8	2 1/2	6	3	0.000	B04221	B06221
7/16	.4375	11.11	7/16	9/16	2 1/2	3	0.000	B04025	B06025
7/16	.4375	11.11	7/16	1 1/4	2 1/2	3	0.000	B04060	B06060
7/16	.4375	11.11	7/16	2	4	3	0.000	B04160	B06160
1/2	.5000	12.70	1/2	5/8	2 1/2	3	0.000	B04029	B06029
1/2	.5000	12.70	1/2	1 1/4	3	3	0.000	B04064	B06064
1/2	.5000	12.70	1/2	2	4	3	0.000	B04164	B06164
1/2	.5000	12.70	1/2	3 1/8	6	3	0.000	B04229	B06229
5/8	.6250	15.88	5/8	3/4	3	3	0.000	B04031	B06031
5/8	.6250	15.88	5/8	1 5/8	4	3	0.000	B04066	B06066
5/8	.6250	15.88	5/8	2 1/2	5	3	0.000	B04166	B06166
5/8	.6250	15.88	5/8	3 3/4	6	3	0.000	B04231	B06231
3/4	.7500	19.05	3/4	1	3	3	0.000	B04032	B06032
3/4	.7500	19.05	3/4	1 5/8	4	3	0.000	B04067	B06067
3/4	.7500	19.05	3/4	3 1/4	6	3	0.000	B04167	B06167
1	1.0000	25.40	1	1 1/4	4	3	0.000	B04034	B06034
1	1.0000	25.40	1	2	5	3	0.000	B04069	B06069
1	1.0000	25.40	1	3 1/4	6	3	0.000	B04169	B06169

High-Performance Roughers

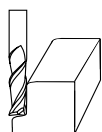
Operating Parameters for High-Performance Roughers

Material	Hardness		Surface Feet per Minute			Chip Load per Tooth	
	Brinell	HRC	Uncoated	TiCN	TiAlN	1/4" to 1/2"	1/2" - 1"
low and plain carbon, alloy, and tool steels	<220 HB	<19	—	325 - 500	430 - 575	.0015 - .0030	.0030 - .0045
plain carbon, alloy and tool steels	225 - 286	20 - 30	—	215 - 375	350 - 430	.0015 - .0030	.0030 - .0045
	294 - 371	31 - 40	—	180 - 280	210 - 320	.0011 - .0021	.0021 - .0032
austenitic stainless steels 200 and 300 series	135 - 275	<28	—	215 - 440	250 - 500	.0010 - .0025	.0025 - .0040
ferritic, martensitic, 400/500 series and PH stainless steels	135 - 330	<35	—	190 - 375	225 - 430	.0015 - .0030	.0030 - .0045
aluminum, low silicon and other non-ferrous alloys	50 -150	600	2000	2400 - 2500	—	.0020 - .0038	.0038 - .0077
aluminum, high silicon			600 - 2000	720 - 2500	—	.0018 - .0035	.0035 - .0071

Series **MRS** Rougher • multi-flute • center cutting • square end

Applications |

HARDENED
STEEL

HI-TEMP
ALLOYS


Features |

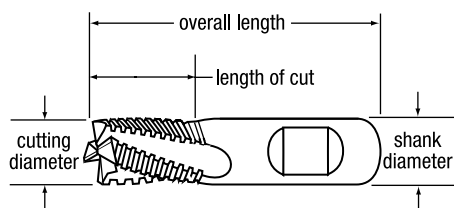
SOLID
CARBIDE

FINE PROFILE

BRIGHT

TiCN

TiAlN



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	bright	EDP Number	
fractional	decimal	metric							TiCN	TiAlN
1/4	.2500	6.35	1/4 *	3/8	2	3	0.000	B03416	B03816	B66416
1/4	.2500	6.35	1/4 *	3/4	2 1/2	3	0.000	B03216	B03316	B66215
3/8	.3750	9.53	3/8 *	1/2	2	4	0.000	B03424	B03824	B66424
3/8	.3750	9.53	3/8 *	7/8	2 1/2	4	0.000	B03224	B03324	B66223
1/2	.5000	12.70	1/2 *	5/8	2 1/2	4	0.000	B03432	B03832	B66432
1/2	.5000	12.70	1/2 *	1	3	4	0.000	B03232	B03332	B66232
5/8	.6250	15.88	5/8 *	3/4	3	4	0.000	B03440	B03840	B66440
5/8	.6250	15.88	5/8 *	1-1/4	3 1/2	4	0.000	B03240	B03340	B66240
3/4	.7500	19.05	3/4 *	7/8	3 1/2	4	0.000	B03448	B03848	B66448
3/4	.7500	19.05	3/4 *	1-1/2	4	4	0.000	B03248	B03348	B66248
1	1.0000	25.40	1 *	1	3 1/2	4	0.000	B03464	B03864	B66464
1	1.0000	25.40	1 *	1-1/2	4	4	0.000	B03264	B03364	B66264

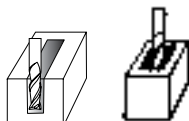
* Weldon shank



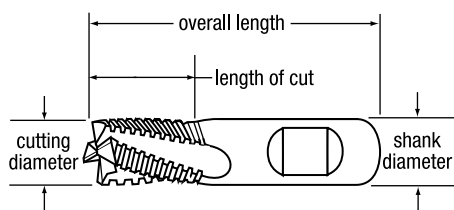
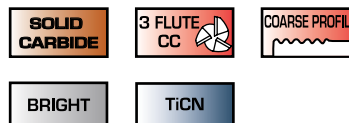
High-Performance Roughers

Series **MRA** Rougher • square end

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP Number	
fractional	decimal	metric						bright	TiCN
1/4	.2500	6.35	1/4 *	3/8	2	3	0.000	B10117	B03117
1/4	.2500	6.35	1/4 *	3/4	2 1/2	3	0.000	B03016	B03116
3/8	.3750	9.53	3/8 *	1/2	2	3	0.000	B10118	B03118
3/8	.3750	9.53	3/8 *	7/8	2 1/2	3	0.000	B03024	B03124
1/2	.5000	12.70	1/2 *	5/8	2 1/2	3	0.000	B10119	B03119
1/2	.5000	12.70	1/2 *	1	3	3	0.000	B03032	B03132
1/2	.5000	12.70	1/2 *	2	4 1/2	3	0.000	B03532	B03632
5/8	.6250	15.88	5/8 *	3/4	3	3	0.000	B10120	B03120
5/8	.6250	15.88	5/8 *	1 1/4	3 1/2	3	0.000	B03040	B03140
5/8	.6250	15.88	5/8 *	2 1/4	5	3	0.000	B03540	B03640
3/4	.7500	19.05	3/4 *	1	3 1/2	3	0.000	B10121	B03121
3/4	.7500	19.05	3/4 *	1 1/2	4	3	0.000	B03048	B03148
3/4	.7500	19.05	3/4 *	2 1/4	5	3	0.000	B03548	B03648
1	1.0000	25.40	1 *	1 1/8	3 1/2	3	0.000	B10122	B03122
1	1.0000	25.40	1 *	1 1/2	4	3	0.000	B03064	B03164
1	1.0000	25.40	1 *	2 1/4	5	3	0.000	B03564	B03664

* Weldon shank

General-Purpose End Mills

Features and Benefits of General-Purpose End Mills

- 10% cobalt submicron grain carbide substrate.
- 30° right-hand spiral, right-hand cut helix designed for maximum chip clearance.
- 2-, 3-, and 4-flute configurations available.
- Square end and ball nose end geometries available.
- Multiple lengths in select styles and sizes.
- TiCN-coated tools available in most styles.

Applications for General-Purpose End Mills

- Use in general milling applications in medium to low-carbon steels, cast iron, non-ferrous light metals, and plastics.
- Double-end end mills economically increase productivity.
- 2-flute end mills are generally used for plunging, slotting, and heavy peripheral cuts.
- 3-flute end mills provide a compromise between the chip clearance of a 2-flute tool and the rigidity and wear resistance of a 4-flute tool; especially useful for many slotting operations.
- 4-flute end mills are most commonly used in profiling and in harder materials; stiffer construction results in minimal deflection. They also provide good surface finishes and wear-resistant characteristics for excellent size control.

Cutting Data for General-Purpose Solid Carbide End Mills

Material	Hardness		Surface Feet per Minute		Chip Load per Tooth									
	Brinell	HRc			1/16"	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"	1"
low and plain carbon, alloy and tool steels	<220 HB	<19	Low High	270 360	.0004	.0006	.0010	.0015	.0020	.0025	.0030	.0035	.0040	.0045
plain carbon, alloy, and tool steels	225-286	20-30	Low High	180 270	.0004	.0006	.0010	.0015	.0020	.0025	.0030	.0035	.0040	.0045
	294-371	31-40	Low High	135 180	.0003	.0004	.0007	.0011	.0014	.0018	.0021	.0025	.0028	.0032
austenitic stainless steels 200 and 300 series	135-275	<28	Low High	180 315	.0002	.0004	.0006	.0010	.0015	.0020	.0025	.0030	.0035	.0040
ductile and malleable cast iron	120-320	<35	Low High	160 270	.0003	.0004	.0007	.0011	.0014	.0018	.0021	.0025	.0028	.0032
cast iron (gray)	120-220	<18	Low High	315 450	.0008	.0012	.0020	.0030	.0040	.0050	.0060	.0070	.0080	.0090
	220-320	19-34	Low High	225 315	.0005	.0007	.0012	.0018	.0024	.0030	.0036	.0042	.0048	.0055
low-silicon aluminum & other non-ferrous alloys	50-150	—	Low High	720 900	.0006	.0010	.0016	.0024	.0032	.0040	.0048	.0560	.0064	.0072
cobalt-based high-temperature alloys	150-425	<45	Low High	30 45	.0004	.0006	.0010	.0015	.0020	.0025	.0030	.0035	.0040	.0045
nickel-based high-temperature alloys	140-300	<32	Low High	45 90	.0002	.0004	.0006	.0009	.0012	.0015	.0018	.0021	.0024	.0027
	300-475	32-50	Low High	40 70	.0002	.0004	.0006	.0009	.0012	.0015	.0018	.0021	.0024	.0027

Higher values for surface speed should be used for radial depths of cut less than 25% of the diameter. Lower values for surface speed should be used for radial depths of cut greater than 25% of the diameter. The above recommendations are for axial lengths of cut not to exceed 1 times the cutter diameter for profiling and .5 times the diameter for slotting.

Recommended speeds above are for uncoated tools only and should be adjusted when using coated tools. Generally, speeds can be increased by the following factors:

- TiCN-coated tools – 20-25% increase
- TiAlN-coated tools – 40-50% increase

The above speeds are a recommended starting point only. If the tool is working well, without vibrations or significant noise, increase the SFM in 5-10% increments. Ultimate speeds will depend upon setup conditions. Higher or lower parameters may be required to achieve optimum conditions.



Double End General-Purpose

Series MDE-2

Applications |

STAINLESS
STEELCAST
IRONHI-TEMP
ALLOYSNON-FERROUS
MATERIALS

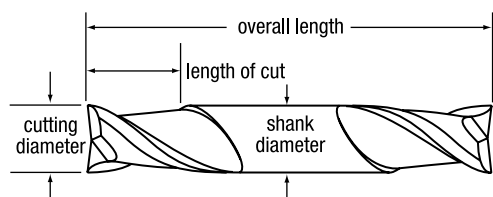
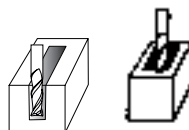
Features |

SOLID
CARBIDE2 FLUTE
CC

BRIGHT

TiCN

TiAlN



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP number		
fractional	decimal	metric						bright	TiCN	TiAlN
1/16	.0625	1.59	1/8	1/8	1 1/2	2	0.000	B52801	B01681	B00207
3/32	.0938	2.38	1/8	3/16	1 1/2	2	0.000	B52803	B01682	B00208
1/8	.1250	3.18	1/8	1/4	1 1/2	2	0.000	B52805W	B01683W	B00209
1/8	.1250	3.18	3/8 *	3/8	3	2	0.000	B52401	B01577	B00220
5/32	.1562	3.97	3/16	5/16	2	2	0.000	B52807	B01684	B00210
5/32	.1562	3.97	3/8 *	7/16	3	2	0.000	B52403	B01578	B00221
3/16	.1875	4.76	3/16	3/8	2	2	0.000	B52809	B01685	B00211
3/16	.1875	4.76	3/8 *	1/2	3	2	0.000	B52405	B01579	B11987
7/32	.2188	5.56	3/8 *	9/16	3 1/2	2	0.000	B52407	B01580	B00212
1/4	.2500	6.35	1/4	1/2	2 1/2	2	0.000	B52814	B01687	B00213
1/4	.2500	6.35	3/8 *	5/8	3 1/2	2	0.000	B52410	B01581	B00222
9/32	.2812	7.14	3/8 *	11/16	3 1/2	2	0.000	B52412	B01582	B00215
5/16	.3125	7.94	3/8 *	3/4	3 1/2	2	0.000	B52414	B01583	B00224
3/8	.3750	9.53	3/8	9/16	3	2	0.000	B52818	B01689	B40779
3/8	.3750	9.53	3/8 *	3/4	3 1/2	2	0.000	B52418	B01585	B00225
7/16	.4375	11.11	1/2 *	7/8	4	2	0.000	B52420	B01586	B00226
1/2	.5000	12.70	1/2	5/8	3	2	0.000	B52823	B01691	B00217
1/2	.5000	12.70	1/2 *	1	4	2	0.000	B52423	B01587	B00227

* Weldon shank; all others plain shank

Double End General-Purpose

Series MDE-2B

Applications |

CAST
IRON

STEEL

HI-TEMP
ALLOYS

NON-FERROUS
MATERIALS

Features |

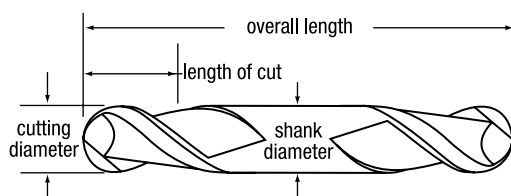
SOLID
CARBIDE

2 FLUTE
BALL CO.

BRIGHT

TiCN

TiAlN



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	EDP number		
fractional	decimal	metric					bright	TiCN	TiAlN
1/16	.0625	1.59	1/8	1/8	1 1/2	2	B52881	B01703	B69881
3/32	.0938	2.38	1/8	3/16	1 1/2	2	B52883	B01704	B69883
1/8	.1250	3.18	3/8 *	3/8	3	2	B52481	B01599	B69481
5/32	.1562	3.97	3/8 *	7/16	3	2	B52483	B01600	B69483
3/16	.1875	4.76	3/8 *	1/2	3	2	B52485	B01601	B69485
7/32	.2188	5.56	3/8 *	9/16	3 1/2	2	B52487	B01602	B69487
1/4	.2500	6.35	3/8 *	5/8	3 1/2	2	B52490	B01603	B69490
9/32	.2812	7.14	3/8 *	11/16	3 1/2	2	B52492	B01604	B69492
5/16	.3125	7.94	3/8 *	3/4	3 1/2	2	B52494	B01605	B69494
3/8	.3750	9.53	3/8 *	3/4	3 1/2	2	B52498	B01607	B69498
7/16	.4375	11.11	1/2 *	7/8	4	2	B52500	B01608	B69500
1/2	.5000	12.70	1/2 *	1	4	2	B52503	B01609	B69503

* Weldon shank; all others plain shank

CARBIDE END MILLS

CARBIDE DRILLS

CARBIDE THREAD MILLS

CARBIDE BURS

INDEX



Double End General-Purpose

Series **MDE-4**

Applications |

STAINLESS
STEELCAST
IRONHI-TEMP
ALLOYSNON-FERROUS
MATERIALS

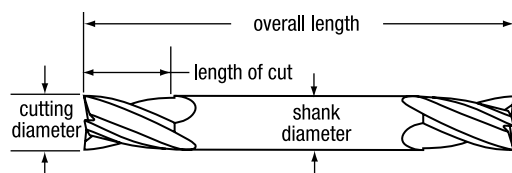
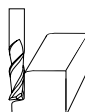
Features |

SOLID
CARBIDE4+ FLUTE
CC

BRIGHT

TiCN

TiAIN



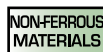
cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP number		
fractional	decimal	metric						bright	TiCN	TiAIN
1/16	.0625	1.59	1/8	1/8	1 1/2	4	0.000	B52841	B01692	B00342
3/32	.0938	2.38	1/8	3/16	1 1/2	4	0.000	B52843	B01693	B69843
1/8	.1250	3.18	1/8	1/4	1 1/2	4	0.000	B52845W	B01694W	B69846
1/8	.1250	3.18	3/16	1/4	2	4	0.000	B52845	B01694	B69845
1/8	.1250	3.18	3/8 *	7/16	3	4	0.000	B52441	B01588	B11999
5/32	.1562	3.97	3/16	5/16	2	4	0.000	B52847	B01695	B00345
5/32	.1562	3.97	3/8 *	7/16	3	4	0.000	B52443	B01589	B69443
3/16	.1875	4.76	3/16	3/8	2	4	0.000	B52849	B01696	B00346
3/16	.1875	4.76	3/8 *	1/2	3	4	0.000	B52445	B01590	B12000
7/32	.2188	5.56	3/8 *	9/16	3 1/2	4	0.000	B52447	B01591	B69447
1/4	.2500	6.35	1/4	1/2	2 1/2	4	0.000	B52854	B01698	B00348
1/4	.2500	6.35	3/8 *	5/8	3 1/2	4	0.000	B52450	B01592	B00357
9/32	.2812	7.14	3/8 *	11/16	3 1/2	4	0.000	B52452	B01593	B69452
5/16	.3125	7.94	5/16	1/2	2 1/2	4	0.000	B52856	B01699	B00349
5/16	.3125	7.94	3/8 *	3/4	3 1/2	4	0.000	B52454	B01594	B00359
3/8	.3750	9.53	3/8	9/16	3	4	0.000	B52858	B01700	B40780
3/8	.3750	9.53	3/8 *	3/4	3 1/2	4	0.000	B52458	B01596	B00360
7/16	.4375	11.11	1/2 *	7/8	4	4	0.000	B52460	B01597	B69460
1/2	.5000	12.70	1/2	5/8	3	4	0.000	B52863	B01702	B00352
1/2	.5000	12.70	1/2 *	1	4	4	0.000	B52463	B01598	B00362

* Weldon shank; all others plain shank

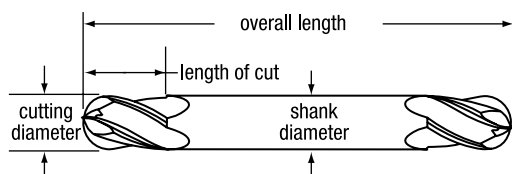
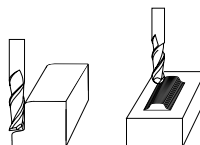
Double End General-Purpose

Series **MDE-4B**

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	EDP number		
fractional	decimal	metric					bright	TiCN	TiAlN
1/16	.0625	1.59	1/8	1/8	1 1/2	4	B52921	B01714	B69921
3/32	.0938	2.38	1/8	3/16	1 1/2	4	B52923	B01715	B69923
1/8	.1250	3.18	3/8 *	3/8	3	4	B52521	B01610	B69521
5/32	.1562	3.97	3/8 *	7/16	3	4	B52523	B01611	B69523
3/16	.1875	4.76	3/8 *	1/2	3	4	B52525	B01612	B69525
7/32	.2188	5.56	3/8 *	9/16	3 1/2	4	B52527	B01613	B69527
1/4	.2500	6.35	3/8 *	5/8	3 1/2	4	B52530	B01614	B69530
9/32	.2812	7.14	3/8 *	11/16	3 1/2	4	B52532	B01615	B69532
5/16	.3125	7.94	3/8 *	3/4	3 1/2	4	B52534	B01616	B69534
3/8	.3750	9.53	3/8 *	3/4	3 1/2	4	B52538	B01618	B69538
7/16	.4375	11.11	1/2 *	7/8	4	4	B52540	B01619	B69540
1/2	.5000	12.70	1/2 *	1	4	4	B52543	B01620	B69543

* Weldon shank; all others plain shank



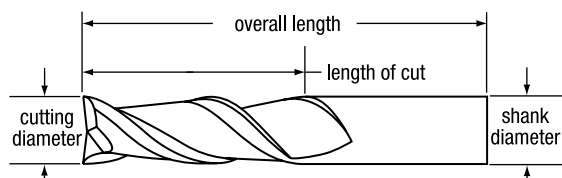
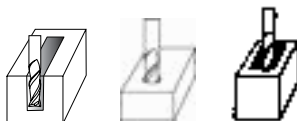
Single End General-Purpose

Series **MSE-2**

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP number		
fractional	decimal	metric						bright	TiCN	TiAlN
1/32	.0312	0.79	1/8	1/8	1 1/2	2	0.000	B52601	B01621	B69601
3/64	.0469	1.19	1/8	1/8	1 1/2	2	0.000	B52602	B01622	B69602
1/16	.0625	1.59	1/8	1/8	1 1/2	2	0.000	B52604	B01623	B69604
1/16	.0625	1.59	1/8	1/4	1 1/2	2	0.000	B52001	B01441	B69001
5/64	.0781	1.98	1/8	1/4	1 1/2	2	0.000	B52002	B01442	B69002
3/32	.0938	2.38	1/8	1/4	1 1/2	2	0.000	B52606	B01624	B69606
3/32	.0938	2.38	1/8	3/8	1 1/2	2	0.000	B52004	B01443	B69004
7/64	.1094	2.78	1/8	3/8	1 1/2	2	0.000	B52005	B01444	B69005
1/8	.1250	3.18	1/8	1/4	1 1/2	2	0.000	B52608	B01625	B69608
1/8	.1250	3.18	1/8	1/2	1 1/2	2	0.000	B52007	B01445	B69007
1/8	.1250	3.18	1/8	1/2	1 1/2	2	0.010	B52060	B06800	B69060
1/8	.1250	3.18	1/8	3/4	2 1/4	2	0.000	B51200	B01329	B68200
1/8	.1250	3.18	1/8	1	3	2	0.000	B51400	B01318	B68400
9/64	.1406	3.57	3/16	9/16	2	2	0.000	B52008	B01446	B69008
5/32	.1562	3.97	3/16	9/16	2	2	0.000	B52010	B01447	B69010
11/64	.1719	4.37	3/16	5/8	2	2	0.000	B52011	B01448	B00059
3/16	.1875	4.76	3/16	5/16	2	2	0.000	B52612	B01627	B62612
3/16	.1875	4.76	3/16	5/8	2	2	0.000	B52013	B01449	B69013
3/16	.1875	4.76	3/16	5/8	2	2	0.010	B52061	B06801	B69061
3/16	.1875	4.76	3/16	3/4	2 1/2	2	0.000	B51202	B01330	B68202
3/16	.1875	4.76	3/16	1 1/8	3	2	0.000	B51402	B01386	B68402
13/64	.2031	5.16	1/4	5/8	2 1/2	2	0.000	B52014	B01450	B69014
7/32	.2188	5.56	1/4	5/8	2 1/2	2	0.000	B52016	B01451	B10575
15/64	.2344	5.95	1/4	3/4	2 1/2	2	0.000	B52017	B01452	B69017
6mm	.2362	6.00	6mm	25mm	75mm	2	0.000	B52019	-----	B69112
1/4	.2500	6.35	1/4	1/2	2	2	0.000	B52617	B01629	B81577
1/4	.2500	6.35	1/4	3/4	2 1/2	2	0.000	B52020	B01453	B69020
1/4	.2500	6.35	1/4	3/4	2 1/2	2	0.020	B52062	B06802	B69062
1/4	.2500	6.35	1/4	3/4	2 1/2	2	0.030	B52063	B06803	B69063
1/4	.2500	6.35	1/4	1 1/8	3	2	0.000	B51204	B01331	B68204
1/4	.2500	6.35	1/4	1 1/2	4	2	0.000	B51404	B01319	B68404
1/4	.2500	6.35	1/4	1 1/2	6	2	0.000	B51405	B01388	B68405
17/64	.2656	6.75	5/16	3/4	2 1/2	2	0.000	B52021	B01454	B69021
9/32	.2812	7.14	5/16	3/4	2 1/2	2	0.000	B52023	B01455	B69023

continued on next page



Single End General-Purpose

Series MSE-2 (continued)

cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	bright	EDP number	
fractional	decimal	metric							TiCN	TiAlN
5/16	.3125	7.94	5/16	1/2	2	2	0.000	B52619	B01630	B81578
5/16	.3125	7.94	5/16	13/16	2 1/2	2	0.000	B52026	B01457	B69026
5/16	.3125	7.94	5/16	13/16	2 1/2	2	0.020	B52065	B06805	B69065
5/16	.3125	7.94	5/16	13/16	2 1/2	2	0.030	B52066	B06806	B69066
5/16	.3125	7.94	5/16	1 1/8	3	2	0.000	B51206	B01333	B68206
5/16	.3125	7.94	5/16	1 5/8	4	2	0.000	B51406	B01389	B68406
3/8	.3750	9.53	3/8	5/8	2	2	0.000	B52621	B01631	B81579
3/8	.3750	9.53	3/8	1	2 1/2	2	0.000	B52032	B01461	B00062
3/8	.3750	9.53	3/8	1	2 1/2	2	0.020	B52068	B06808	B69068
3/8	.3750	9.53	3/8	1	2 1/2	2	0.030	B52069	B06809	B69069
3/8	.3750	9.53	3/8	1	2 1/2	2	0.045	B52070	B06810	B69070
3/8	.3750	9.53	3/8	1 1/8	3	2	0.000	B51208	B01334	B68208
3/8	.3750	9.53	3/8	1 3/4	4	2	0.000	B51408	B01320	B68408
3/8	.3750	9.53	3/8	1 1/2	6	2	0.000	B51409	B01391	B68409
7/16	.4375	11.11	7/16	5/8	2 1/2	2	0.000	B52623	B01632	B69623
7/16	.4375	11.11	7/16	1	2 1/2	2	0.000	B52038	B01465	B69038
7/16	.4375	11.11	7/16	2	4	2	0.000	B51210	B01321	B68210
7/16	.4375	11.11	7/16	3	6	2	0.000	B51410	B01322	B68410
1/2	.5000	12.70	1/2	5/8	2 1/2	2	0.000	B52626	B01633	B81581
1/2	.5000	12.70	1/2	1	3	2	0.000	B52045	B01469	B69045
1/2	.5000	12.70	1/2	1	3	2	0.030	B52072	B06812	B69072
1/2	.5000	12.70	1/2	1	3	2	0.060	B52073	B06813	B69073
1/2	.5000	12.70	1/2	1	3	2	0.090	B52074	B06814	B69074
1/2	.5000	12.70	1/2	2	4	2	0.000	B51212	B01338	B68212
1/2	.5000	12.70	1/2	1 1/2	6	2	0.000	B51411	B01323	B68411
1/2	.5000	12.70	1/2	3	6	2	0.000	B51412	B01394	B68412
9/16	.5625	14.29	9/16	1 1/4	3	2	0.000	B52047	B01470	B69047
5/8	.6250	15.88	5/8	3/4	3	2	0.000	B52628	B01634	B69628
5/8	.6250	15.88	5/8	1 1/4	3 1/2	2	0.000	B52049	B01471	B00064
5/8	.6250	15.88	5/8	1 1/4	3 1/2	2	0.030	B52076	B06816	B69076
5/8	.6250	15.88	5/8	1 1/4	3 1/2	2	0.060	B52077	B06817	B69077
5/8	.6250	15.88	5/8	1 1/4	3 1/2	2	0.090	B52078	B06818	B69078
5/8	.6250	15.88	5/8	2 1/4	5	2	0.000	B51214	B01324	B68214
5/8	.6250	15.88	5/8	3	6	2	0.000	B51414	B01395	B68414
3/4	.7500	19.05	3/4	1	3	2	0.000	B52631	B01635	B81583
3/4	.7500	19.05	3/4	1 1/2	4	2	0.000	B52051	B01472	B00065
3/4	.7500	19.05	3/4	1 1/2	4	2	0.030	B52080	B06820	B69080
3/4	.7500	19.05	3/4	1 1/2	4	2	0.060	B52081	B06821	B69081
3/4	.7500	19.05	3/4	1 1/2	4	2	0.090	B52082	B06822	B69082
3/4	.7500	19.05	3/4	2 1/4	5	2	0.000	B51216	B61216	B68216
3/4	.7500	19.05	3/4	3	6	2	0.000	B51416	B01396	B68416
7/8	.8750	22.23	7/8	1 1/2	4	2	0.000	B52053	B01473	B69053
7/8	.8750	22.23	7/8	2 1/4	5	2	0.000	B51218	B01325	B68218
7/8	.8750	22.23	7/8	3	6	2	0.000	B51418	B01326	B68418
1	1.0000	25.40	1	1 1/2	4	2	0.000	B52057	B01474	B00067
1	1.0000	25.40	1	1 1/2	4	2	0.030	B52084	B06824	B69084
1	1.0000	25.40	1	1 1/2	4	2	0.060	B52085	B06825	B69085
1	1.0000	25.40	1	1 1/2	4	2	0.090	B52086	B06826	B69086
1	1.0000	25.40	1	2 1/4	5	2	0.000	B51220	B01327	B68220
1	1.0000	25.40	1	3	6	2	0.000	B51420	B01398	B68420

CARBIDE END MILLS

CARBIDE DRILLS

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CARBIDE BURS

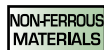
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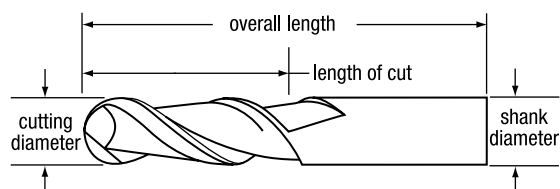
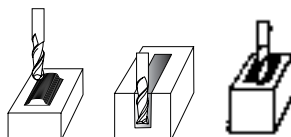
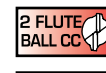
Single End General-Purpose

Series MSE-2B

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cutting diameter			shank diameter	length of cut	overall length	no. of flutes	EDP number		
fractional	decimal	metric					bright	TiCN	TiAlN
1/32	.0312	0.79	1/8	1/8	1 1/2	2	B52681	B01651	B69681
3/64	.0469	1.19	1/8	1/8	1 1/2	2	B52682	B01652	B69682
1/16	.0625	1.59	1/8	1/8	1 1/2	2	B52684	B01653	B69684
1/16	.0625	1.59	1/8	1/4	1 1/2	2	B52201	B01509	B69201
5/64	.0781	1.98	1/8	1/4	1 1/2	2	B52202	B01564	B69202
3/32	.0938	2.38	1/8	3/8	1 1/2	2	B52204	B01511	B69204
7/64	.1094	2.78	1/8	3/8	1 1/2	2	B52205	B01512	B69205
1/8	.1250	3.18	1/8	1/4	1 1/2	2	B52688	B01655	B69688
1/8	.1250	3.18	1/8	1/2	1 1/2	2	B52207	B01513	B69207
1/8	.1250	3.18	1/8	3/4	2 1/4	2	B51300	B01360	B68300
1/8	.1250	3.18	1/8	1	3	2	B51500	B01414	B68500
9/64	.1406	3.57	3/16	9/16	2	2	B52208	B01566	B69208
5/32	.1562	3.97	3/16	9/16	2	2	B52210	B01515	B69210
11/64	.1719	4.37	3/16	5/8	2	2	B52211	B01516	B69211
3/16	.1875	4.76	3/16	5/16	2	2	B52692	B01657	B69692
3/16	.1875	4.76	3/16	5/8	2	2	B52213	B01517	B00236
3/16	.1875	4.76	3/16	3/4	2 1/2	2	B51302	B01363	B68302
3/16	.1875	4.76	3/16	1 1/8	3	2	B51502	B01415	B68502
13/64	.2031	5.16	1/4	5/8	2 1/2	2	B52214	B01364	B69214
7/32	.2188	5.56	1/4	5/8	2 1/2	2	B52216	B01568	B69216
15/64	.2344	5.95	1/4	3/4	2 1/2	2	B52217	B01570	B69217
1/4	.2500	6.35	1/4	1/2	2	2	B52697	B01659	B69697
1/4	.2500	6.35	1/4	3/4	2 1/2	2	B52220	B01521	B69220
1/4	.2500	6.35	1/4	1 1/8	3	2	B51304	B01359	B68304
1/4	.2500	6.35	1/4	1 1/2	4	2	B51504	B01427	B68504
1/4	.2500	6.35	1/4	1 1/2	6	2	B51505	B01416	B68505
17/64	.2656	6.75	5/16	3/4	2 1/2	2	B52221	B01572	B69221
9/32	.2812	7.14	5/16	3/4	2 1/2	2	B52223	B01575	B69223
5/16	.3125	7.94	5/16	1/2	2	2	B52699	B01660	B69699
5/16	.3125	7.94	5/16	13/16	2 1/2	2	B52226	B01525	B00241
5/16	.3125	7.94	5/16	1 1/8	3	2	B51306	B01361	B68306
5/16	.3125	7.94	5/16	1 5/8	4	2	B51506	B01417	B68506

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Single End General-Purpose

Series MSE-2B (continued)

cutting diameter			shank diameter	length of cut	overall length	no. of flutes	EDP number		
fractional	decimal	metric					bright	TiCN	TiAlN
3/8	.3750	9.53	3/8	5/8	2	2	B52701	B01661	B69701
3/8	.3750	9.53	3/8	1	2 1/2	2	B52232	B01529	B12014
3/8	.3750	9.53	3/8	1 1/8	3	2	B51308	B01362	B68308
3/8	.3750	9.53	3/8	1 3/4	4	2	B51508	B01418	B68508
3/8	.3750	9.53	3/8	1 1/2	6	2	B51509	B01419	B68509
7/16	.4375	11.11	7/16	5/8	2 1/2	2	B52703	B01662	B69703
7/16	.4375	11.11	7/16	7/8	2 1/2	2	B52238	B01584	B12015
7/16	.4375	11.11	7/16	2	4	2	B51310	B01365	B68310
7/16	.4375	11.11	7/16	3	6	2	B51510	B01420	B68510
1/2	.5000	12.70	1/2	5/8	2 1/2	2	B52706	B01663	B69706
1/2	.5000	12.70	1/2	1	3	2	B52245	B01537	B00244
1/2	.5000	12.70	1/2	2	4	2	B51312	B01367	B68312
1/2	.5000	12.70	1/2	3	6	2	B51512	B01422	B68512
1/2	.5000	12.70	1/2	1 1/2	6	2	B51511	B01366	B68511
9/16	.5625	14.29	9/16	1 1/4	3	2	B52247	B01617	B69247
5/8	.6250	15.88	5/8	3/4	3	2	B52708	B01664	B69708
5/8	.6250	15.88	5/8	1 1/4	3 1/2	2	B52249	B01539	B00246
5/8	.6250	15.88	5/8	2 1/4	5	2	B51314	B01368	B68314
5/8	.6250	15.88	5/8	3	6	2	B51514	B01423	B68514
3/4	.7500	19.05	3/4	1	3	2	B52711	B01665	B69711
3/4	.7500	19.05	3/4	1 1/2	4	2	B52251	B01540	B69251
3/4	.7500	19.05	3/4	2 1/4	5	2	B51316	B01369	B68316
3/4	.7500	19.05	3/4	3	6	2	B51516	B01424	B68516
7/8	.8750	22.23	7/8	1 1/2	4	2	B52253	B01595	B69253
7/8	.8750	22.23	7/8	2 1/4	5	2	B51318	B01370	B68318
7/8	.8750	22.23	7/8	3	6	2	B51518	B01425	B68518
1	1.0000	25.40	1	1 1/2	4	2	B52257	B01542	B00250
1	1.0000	25.40	1	2 1/4	5	2	B51320	B01371	B68320
1	1.0000	25.40	1	3	6	2	B51520	B01426	B68520

CARBIDE END MILLS

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Single End General-Purpose

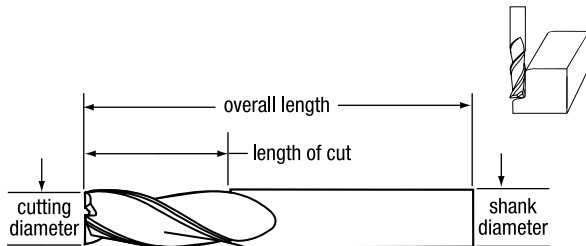
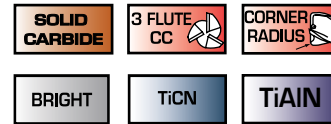
BASSETT™

Series MSE-3

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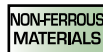
cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP number		
fractional	decimal	metric						bright	TiCN	TiAIN
1/16	.0625	1.59	1/8	1/4	1 1/2	3	0.000	B27104	B37104	B67104
5/64	.0781	1.98	1/8	1/4	1 1/2	3	0.000	B27105	B37105	B67105
3/32	.0938	2.38	1/8	3/8	1 1/2	3	0.000	B27106	B37106	B67106
7/64	.1094	2.78	1/8	3/8	1 1/2	3	0.000	B27107	B37107	B67107
1/8	.1250	3.18	1/8	1/2	1 1/2	3	0.000	B27108	B37108	B67108
1/8	.1250	3.18	1/8	1/2	1 1/2	3	0.010	B27200	B37200	B67200
9/64	.1406	3.57	3/16	9/16	2	3	0.000	B27109	B37109	B67109
5/32	.1562	3.97	3/16	9/16	2	3	0.000	B27110	B37110	B67110
11/64	.1719	4.37	3/16	5/8	2	3	0.000	B27111	B37111	B67111
3/16	.1875	4.76	3/16	5/8	2	3	0.000	B27112	B37112	B67112
3/16	.1875	4.76	3/16	5/8	2	3	0.010	B27201	B37201	B67201
13/64	.2031	5.16	1/4	5/8	2 1/2	3	0.000	B27113	B37113	B67113
7/32	.2188	5.56	1/4	5/8	2 1/2	3	0.000	B27114	B37114	B67114
15/64	.2344	5.95	1/4	3/4	2 1/2	3	0.000	B27115	B37115	B67115
1/4	.2500	6.35	1/4	3/4	2 1/2	3	0.000	B27116	B11971	B67116
1/4	.2500	6.35	1/4	3/4	2 1/2	3	0.020	B27202	B37202	B67202
1/4	.2500	6.35	1/4	3/4	2 1/2	3	0.030	B27203	B37203	B67203
17/64	.2656	6.75	5/16	3/4	2 1/2	3	0.000	B27117	B37117	B67117
9/32	.2812	7.14	5/16	3/4	2 1/2	3	0.000	B27118	B37118	B67118
5/16	.3125	7.94	5/16	13/16	2 1/2	3	0.000	B27120	B11972	B67120
5/16	.3125	7.94	5/16	13/16	2 1/2	3	0.020	B27205	B37205	B67205
5/16	.3125	7.94	5/16	13/16	2 1/2	3	0.030	B27206	B37206	B67206
3/8	.3750	9.53	3/8	7/8	2 1/2	3	0.000	B27124	B11973	B67124
3/8	.3750	9.53	3/8	7/8	2 1/2	3	0.020	B27208	B37208	B67208
3/8	.3750	9.53	3/8	7/8	2 1/2	3	0.030	B27209	B37209	B67209
3/8	.3750	9.53	3/8	7/8	2 1/2	3	0.045	B27210	B37210	B67210
7/16	.4375	11.11	7/16	7/8	2 1/2	3	0.000	B27128	B11974	B67128
1/2	.5000	12.70	1/2	1	3	3	0.000	B27132	B11975	B67132
1/2	.5000	12.70	1/2	1	3	3	0.030	B27212	B37212	B67212
1/2	.5000	12.70	1/2	1	3	3	0.060	B27213	B37213	B67213
1/2	.5000	12.70	1/2	1	3	3	0.090	B27214	B37214	B67214
9/16	.5625	14.29	9/16	1 1/4	3	3	0.000	B27136	B37136	B67136
5/8	.6250	15.88	5/8	1 1/4	3 1/2	3	0.000	B27140	B11976	B67140
5/8	.6250	15.88	5/8	1 1/4	3 1/2	3	0.030	B27216	B37216	B67216
5/8	.6250	15.88	5/8	1 1/4	3 1/2	3	0.060	B27217	B37217	B67217
5/8	.6250	15.88	5/8	1 1/4	3 1/2	3	0.090	B27218	B37218	B67218
3/4	.7500	19.05	3/4	1 1/2	4	3	0.000	B27148	B11977	B67148
3/4	.7500	19.05	3/4	1 1/2	4	3	0.030	B27220	B37220	B67220
3/4	.7500	19.05	3/4	1 1/2	4	3	0.060	B27221	B37221	B67221
3/4	.7500	19.05	3/4	1 1/2	4	3	0.090	B27222	B37222	B67222
7/8	.8750	22.23	7/8	1 1/2	4	3	0.000	B27156	B11986	B67156
1	1.0000	25.40	1	1 1/2	4	3	0.000	B27164	B11978	B67164
1	1.0000	25.40	1	1 1/2	4	3	0.030	B27224	B37224	B67224
1	1.0000	25.40	1	1 1/2	4	3	0.060	B27225	B37225	B67225
1	1.0000	25.40	1	1 1/2	4	3	0.090	B27226	B37226	B67226



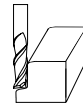
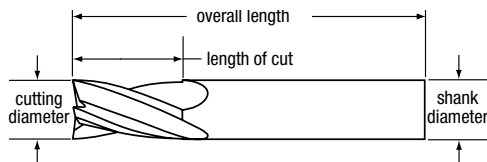
Single End General-Purpose

Series MSE-4

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cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP number		
fractional	decimal	metric						bright	TiCN	TiAlN
1/32	.0312	0.79	1/8	1/16	1 1/2	4	0.000	B52643	-----	B69643
1/32	.0312	0.79	1/8	1/8	1 1/2	4	0.000	B52641	B01636	B69641
3/64	.0469	1.19	1/8	1/8	1 1/2	4	0.000	B52642	B01637	B69642
1/16	.0625	1.59	1/8	1/8	1 1/2	4	0.000	B52644	B01638	B69644
1/16	.0625	1.59	1/8	1/4	1 1/2	4	0.000	B52101	B01475	B69101
1/16	.0625	1.59	1/8	1/4	1 1/2	4	0.010	B52645	-----	B69645
5/64	.0781	1.98	1/8	1/4	1 1/2	4	0.000	B52102	B01476	B69102
3/32	.0938	2.38	1/8	1/4	1 1/2	4	0.000	B52646	B01639	B69646
3/32	.0938	2.38	1/8	3/8	1 1/2	4	0.000	B52104	B01477	B69104
3/32	.0938	2.38	1/8	3/8	1 1/2	4	0.010	B52106	-----	B69106
3/32	.0938	2.38	1/8	3/8	1 1/2	4	0.020	B52190	-----	B69157
7/64	.1094	2.78	1/8	1/4	1 1/2	4	0.000	B52118	-----	B62118
7/64	.1094	2.78	1/8	3/8	1 1/2	4	0.000	B52105	B01478	B69105
1/8	.1250	3.18	1/8	1/4	1 1/2	4	0.000	B52648	B01640	B69648
1/8	.1250	3.18	1/8	1/2	1 1/2	4	0.000	B52107	B01479	B69107
1/8	.1250	3.18	1/8	1/2	1 1/2	4	0.010	B52160	B01750	B69160
1/8	.1250	3.18	1/8	1/2	1 1/2	4	0.015	B52191	-----	B69158
1/8	.1250	3.18	1/8	1/2	1 1/2	4	0.020	B52095	-----	B62095
1/8	.1250	3.18	1/8	1/2	1 1/2	4	0.030	B52192	-----	B69159
1/8	.1250	3.18	1/8	3/4	2 1/4	4	0.000	B51250	B01343	B68250
1/8	.1250	3.18	1/8	1	3	4	0.000	B51450	B01399	B68450
1/8	.1250	3.18	1/8	1	3	4	0.045	B52096	-----	B62096
9/64	.1406	3.57	3/16	9/16	2	4	0.000	B52108	B01480	B69108
5/32	.1562	3.97	3/16	5/16	2	4	0.000	B52650	B01641	B69650
5/32	.1562	3.97	3/16	9/16	2	4	0.000	B52110	B01481	B69110
11/64	.1719	4.37	3/16	5/8	2	4	0.000	B52111	B01482	B69111
3/16	.1875	4.76	3/16	5/16	2	4	0.000	B52652	B01642	B69652
3/16	.1875	4.76	3/16	5/8	2	4	0.000	B52113	B01483	B69113
3/16	.1875	4.76	3/16	5/8	2	4	0.010	B52162	B01751	B69162
3/16	.1875	4.76	3/16	5/8	2	4	0.015	B52087	-----	B62087
3/16	.1875	4.76	3/16	5/8	2	4	0.020	B52088	-----	B62088
3/16	.1875	4.76	3/16	5/8	2	4	0.030	B52089	-----	B62089
3/16	.1875	4.76	3/16	3/4	2 1/2	4	0.000	B51252	B01344	B68252
3/16	.1875	4.76	3/16	1	3	4	0.000	B52090	-----	B62090
3/16	.1875	4.76	3/16	1	3	4	0.045	B52193	-----	B69163
3/16	.1875	4.76	3/16	1	4	4	0.000	B51451	-----	B68451
3/16	.1875	4.76	3/16	1	4	4	0.045	B52091	-----	B62091
3/16	.1875	4.76	3/16	1 1/8	3	4	0.000	B51452	B01400	B68452

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Single End General-Purpose

Series MSE-4 (continued)

	cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP number		
	fractional	decimal	metric						bright	TiCN	TiAlN
	13/64	.2031	5.16	1/4	5/8	2 1/2	4	0.000	B52114	B01484	B69114
	7/32	.2188	5.56	1/4	5/8	2 1/2	4	0.000	B52116	B01485	B69116
	15/64	.2344	5.95	1/4	3/4	2 1/2	4	0.000	B52117	B01486	B69117
	6mm	.2362	6.00	6mm	32mm	100mm	4	0.000	B52194	-----	B69115
	1/4	.2500	6.35	1/4	1/2	2	4	0.000	B52657	B01644	B69657
	1/4	.2500	6.35	1/4	3/4	2 1/2	4	0.000	B52120	B01487	B69120
	1/4	.2500	6.35	1/4	3/4	2 1/2	4	0.010	B52092	-----	B62092
	1/4	.2500	6.35	1/4	3/4	2 1/2	4	0.015	B52093	-----	B62093
	1/4	.2500	6.35	1/4	3/4	2 1/2	4	0.020	B52164	B01752	B69164
	1/4	.2500	6.35	1/4	3/4	2 1/2	4	0.030	B52165	B01753	B69165
	1/4	.2500	6.35	1/4	3/4	2 1/2	4	0.045	B69118	-----	B69119
	1/4	.2500	6.35	1/4	3/4	2 1/2	4	0.060	B52195	-----	B69122
	1/4	.2500	6.35	1/4	1 1/8	3	4	0.000	B51254	B01340	B68254
	1/4	.2500	6.35	1/4	1 1/2	4	4	0.000	B51454	B01732	B68454
	1/4	.2500	6.35	1/4	1 1/2	6	4	0.000	B51455	B01402	B68455
	17/64	.2656	6.75	5/16	3/4	2 1/2	4	0.000	B52121	B01730	B69121
	9/32	.2812	7.14	5/16	3/4	2 1/2	4	0.000	B52123	B01489	B69123
	19/64	.2969	7.54	5/16	7/8	2 1/2	4	0.000	B52196	-----	B69124
	5/16	.3125	7.94	5/16	1/2	2	4	0.000	B52659	B01645	B81587
	5/16	.3125	7.94	5/16	13/16	2 1/2	4	0.000	B52126	B01491	B69126
	5/16	.3125	7.94	5/16	13/16	2 1/2	4	0.020	B52167	B01755	B69167
	5/16	.3125	7.94	5/16	13/16	2 1/2	4	0.030	B52168	B01756	B69168
	5/16	.3125	7.94	5/16	1	3	4	0.000	B52097	-----	B68457
	5/16	.3125	7.94	5/16	1 1/8	3	4	0.000	B51256	B01347	B68256
	5/16	.3125	7.94	5/16	1 5/8	4	4	0.000	B51456	B01403	B68456
	21/64	.3281	8.33	3/8	7/8	2 1/2	4	0.000	B51475	-----	B68475
	11/32	.3438	8.73	3/8	7/8	2 1/2	4	0.000	B51476	-----	B69129
	23/64	.3594	9.13	3/8	7/8	2 1/2	4	0.000	B51477	-----	B68477
	3/8	.3750	9.53	3/8	5/8	2	4	0.000	B52661	B01646	B81588
	3/8	.3750	9.53	3/8	1	2 1/2	4	0.000	B52132	B01495	B69132
	3/8	.3750	9.53	3/8	1	2 1/2	4	0.010	B52430	-----	B69130
	3/8	.3750	9.53	3/8	1	2 1/2	4	0.015	B52431	-----	B69131
	3/8	.3750	9.53	3/8	1	2 1/2	4	0.020	B52170	B01758	B69170
	3/8	.3750	9.53	3/8	1	2 1/2	4	0.030	B52171	B01759	B69171
	3/8	.3750	9.53	3/8	1	2 1/2	4	0.045	B52172	B01760	B69172
	3/8	.3750	9.53	3/8	1	2 1/2	4	0.060	B52134	-----	B69134
	3/8	.3750	9.53	3/8	1	4	4	0.000	B52472	-----	B68472
	3/8	.3750	9.53	3/8	1	4	4	0.020	B52436	-----	B69136
	3/8	.3750	9.53	3/8	1 1/8	3	4	0.000	B51258	B01348	B68258
	3/8	.3750	9.53	3/8	1 3/4	4	4	0.000	B51458	B01733	B68458
	3/8	.3750	9.53	3/8	1 1/2	6	4	0.000	B51459	B01405	B68459
	25/64	.3906	9.92	7/16	7/8	2 3/4	4	0.000	B52274	-----	B61074
	13/32	.4062	10.32	7/16	7/8	2-3/4	4	0.000	B52098	-----	B62098
	27/64	.4218	10.71	7/16	7/8	2-3/4	4	0.000	B52099	-----	B62099
	7/16	.4375	11.11	7/16	5/8	2 1/2	4	0.000	B52663	B01647	B69663
	7/16	.4375	11.11	7/16	1	2 1/2	4	0.000	B52138	B01499	B69138
	7/16	.4375	11.11	7/16	2	4	4	0.000	B51260	B01341	B68260
	7/16	.4375	11.11	7/16	3	6	4	0.000	B51460	B01734	B68460

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Single End General-Purpose

Series **MSE-4** (continued)

cutting diameter			shank diameter	length of cut	overall length	no. of flutes	corner radius	EDP number		
fractional	decimal	metric						bright	TiCN	TiAlN
29/64	.4531	11.51	1/2	1	3	4	0.000	B52276	-----	B62276
15/32	.4688	11.91	1/2	1	3	4	0.000	B52277	-----	B62077
31/64	.4844	12.30	1/2	1	3	4	0.000	B52278	-----	B62078
1/2	.5000	12.70	1/2	5/8	2 1/2	4	0.000	B52666	B01648	B81590
1/2	.5000	12.70	1/2	1	3	4	0.000	B52145	B01503	B69145
1/2	.5000	12.70	1/2	1	3	4	0.015	B52243	-----	B69143
1/2	.5000	12.70	1/2	1	3	4	0.020	B52244	-----	B69144
1/2	.5000	12.70	1/2	1	3	4	0.030	B52173	B01762	B69173
1/2	.5000	12.70	1/2	1	3	4	0.045	B52246	-----	B69146
1/2	.5000	12.70	1/2	1	3	4	0.060	B52174	B01763	B69174
1/2	.5000	12.70	1/2	1	3	4	0.090	B52175	B01764	B69175
1/2	.5000	12.70	1/2	1	3	4	0.125	B52185	-----	B62100
1/2	.5000	12.70	1/2	2	4	4	0.000	B51262	B01352	B68262
1/2	.5000	12.70	1/2	3	6	4	0.000	B51462	B01408	B68462
1/2	.5000	12.70	1/2	1 1/2	6	4	0.000	B51461	B01407	B68461
9/16	.5625	14.29	9/16	1 1/4	3	4	0.000	B52147	B01765	B69147
5/8	.6250	15.88	5/8	3/4	3	4	0.000	B52668	B01649	B81591
5/8	.6250	15.88	5/8	1 1/4	3 1/2	4	0.000	B52149	B01505	B69149
5/8	.6250	15.88	5/8	1 1/4	3 1/2	4	0.030	B52176	B01766	B69176
5/8	.6250	15.88	5/8	1 1/4	3 1/2	4	0.060	B52177	B01767	B69177
5/8	.6250	15.88	5/8	1 1/4	3 1/2	4	0.090	B52178	B01768	B69178
5/8	.6250	15.88	5/8	2 1/4	5	4	0.000	B51264	B01342	B68264
5/8	.6250	15.88	5/8	3	6	4	0.000	B51464	B01409	B68464
3/4	.7500	19.05	3/4	1	3	4	0.000	B52671	B01650	B81592
3/4	.7500	19.05	3/4	1 1/2	4	4	0.000	B52151	B01506	B69151
3/4	.7500	19.05	3/4	1 1/2	4	4	0.030	B52179	B01770	B69179
3/4	.7500	19.05	3/4	1 1/2	4	4	0.060	B52180	B01771	B69180
3/4	.7500	19.05	3/4	1 1/2	4	4	0.090	B52181	B01772	B69181
3/4	.7500	19.05	3/4	2 1/4	5	4	0.000	B51266	B01351	B68266
3/4	.7500	19.05	3/4	3	6	4	0.000	B51466	B01410	B68466
7/8	.8750	22.23	7/8	1 1/2	4	4	0.000	B52153	B01507	B69153
7/8	.8750	22.23	7/8	2 1/4	5	4	0.000	B51268	B01355	B68268
7/8	.8750	22.23	7/8	3	6	4	0.000	B51468	B01735	B68468
1	1.0000	25.40	1	1 1/2	4	4	0.000	B52157	B01508	B00046
1	1.0000	25.40	1	1 1/2	4	4	0.030	B52182	B01774	B69182
1	1.0000	25.40	1	1 1/2	4	4	0.060	B52183	B01775	B69183
1	1.0000	25.40	1	1 1/2	4	4	0.090	B52184	B01776	B69184
1	1.0000	25.40	1	2 1/4	5	4	0.000	B51270	B01356	B68270
1	1.0000	25.40	1	3	6	4	0.000	B51470	B01412	B68470

CARBIDE END MILLS

CARBIDE DRILLS

CARBIDE THREAD MILLS

CARBIDE BURS

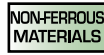
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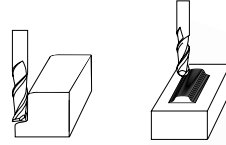
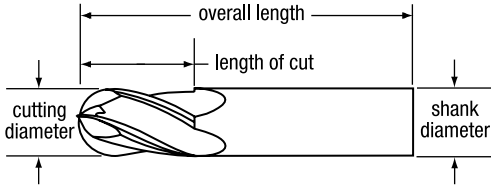
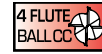
Single End General-Purpose

Series MSE-4B

Applications |



Features |



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	EDP number		
fractional	decimal	metric					bright	TiCN	TiAlN
1/32	.0312	0.79	1/8	1/16	1 1/2	4	B52516	-----	B69716
1/32	.0312	0.79	1/8	1/8	1 1/2	4	B52721	B01434	B69721
1/32	.0312	0.79	1/8	3/32	1 1/2	4	B52517	-----	B69717
1mm	.0394	1mm	3mm	2mm	38mm	4	B52518	-----	B69718
1mm	.0394	1mm	3mm	4mm	38mm	4	B52219	-----	B69719
3/64	.0469	1.19	1/8	1/8	1 1/2	4	B52722	B01435	B69722
1.5mm	.0591	1.5mm	3mm	6mm	38mm	4	B52520	-----	B69720
1/16	.0625	1.59	1/8	1/8	1 1/2	4	B52724	B01668	B69724
1/16	.0625	1.59	1/8	1/4	1 1/2	4	B52301	B01901	B69301
5/64	.0781	1.98	1/8	1/4	1 1/2	4	B52302	B01902	B69302
2mm	.0790	2mm	3mm	8mm	38mm	4	B52187	-----	B69303
3/32	.0938	2.38	1/8	3/8	1 1/2	4	B52304	B01904	B69304
3/32	.0938	2.38	1/8	3/16	1 1/2	4	B52506	-----	B69306
7/64	.1094	2.78	1/8	3/8	1 1/2	4	B52305	B01905	B69305
1/8	.1250	3.18	1/8	1/4	1 1/2	4	B52728	B01670	B69728
1/8	.1250	3.18	1/8	1/2	1 1/2	4	B52307	B01547	B00018
1/8	.1250	3.18	1/8	5/8	2	4	B52599	-----	B68499
1/8	.1250	3.18	1/8	3/4	2 1/4	4	B51350	B01374	B68350
1/8	.1250	3.18	1/8	1	3	4	B51550	B01850	B68550
9/64	.1406	3.57	3/16	9/16	2	4	B52308	B01908	B69308
5/32	.1562	3.97	3/16	5/16	2	4	B52509	-----	B69309
5/32	.1562	3.97	3/16	9/16	2	4	B52310	B01549	B69310
11/64	.1719	4.37	3/16	5/8	2	4	B52311	B01911	B69311
3/16	.1875	4.76	3/16	5/16	2	4	B52732	B01672	B69732
3/16	.1875	4.76	3/16	5/8	2	4	B52313	B01551	B69313
3/16	.1875	4.76	3/16	3/4	2 1/2	4	B51352	B01377	B68352
3/16	.1875	4.76	3/16	1 1/8	3	4	B51552	B01852	B68552
13/64	.2031	5.16	1/4	5/8	2 1/2	4	B52314	B01914	B69314
7/32	.2188	5.56	1/4	5/8	2 1/2	4	B52316	B01553	B69316
15/64	.2344	5.95	1/4	3/4	2 1/2	4	B52317	B01917	B69317
1/4	.2500	6.35	1/4	1/2	2	4	B52737	B01674	B69737
1/4	.2500	6.35	1/4	3/4	2 1/2	4	B52320	B01555	B69320
1/4	.2500	6.35	1/4	1	4	4	B52293	-----	B68503
1/4	.2500	6.35	1/4	1 1/8	3	4	B51354	B01373	B68354
1/4	.2500	6.35	1/4	1 1/2	4	4	B51554	B01854	B68554
1/4	.2500	6.35	1/4	1 1/2	6	4	B51555	B01430	B68555
17/64	.2656	6.75	5/16	3/4	2 1/2	4	B52321	B01921	B69321
9/32	.2812	7.14	5/16	3/4	2 1/2	4	B52323	B01557	B69323

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Single End General-Purpose

Series MSE-4B (continued)

cutting diameter			shank diameter	length of cut	overall length	no. of flutes	bright	EDP number	
fractional	decimal	metric						TiCN	TiAlN
5/16	.3125	7.94	5/16	1/2	2	4	B52739	B01675	B69739
5/16	.3125	7.94	5/16	13/16	2 1/2	4	B52326	B01559	B69326
5/16	.3125	7.94	5/16	1 1/8	3	4	B51356	B01375	B68356
5/16	.3125	7.94	5/16	1 5/8	4	4	B51556	B01856	B68556
23/64	.3594	9.13	3/8	7/8	2 1/2	4	B52457	-----	B01857
3/8	.3750	9.53	3/8	5/8	2	4	B52741	B01676	B69741
3/8	.3750	9.53	3/8	1	2 1/2	4	B52332	B01563	B00025
3/8	.3750	9.53	3/8	1 1/8	3	4	B51358	B01376	B68358
3/8	.3750	9.53	3/8	1 1/2	6	4	B51559	B01433	B68559
3/8	.3750	9.53	3/8	1 3/4	4	4	B51558	B01858	B68558
25/64	.3906	9.92	7/16	7/8	2-3/4	4	B52188	-----	B68574
27/64	.4219	10.71	7/16	7/8	2 3/4	4	B52475	-----	B68575
7/16	.4375	11.11	7/16	5/8	2 1/2	4	B52743	B01439	B69743
7/16	.4375	11.11	7/16	1	2 1/2	4	B52338	B01567	B35859
7/16	.4375	11.11	7/16	2	4	4	B51360	B01378	B68360
7/16	.4375	11.11	7/16	3	6	4	B51560	B01860	B68560
31/64	.4844	12.30	1/2	1	3	4	B52363	-----	B68563
1/2	.5000	12.70	1/2	5/8	2 1/2	4	B52746	B01678	B69746
1/2	.5000	12.70	1/2	1	3	4	B52345	B01571	B69345
1/2	.5000	12.70	1/2	2	4	4	B51362	B01380	B68362
1/2	.5000	12.70	1/2	1 1/2	6	4	B51561	B01431	B68561
1/2	.5000	12.70	1/2	3	6	4	B51562	B01436	B68562
9/16	.5625	14.29	9/16	1 1/4	3	4	B52347	B01947	B69347
5/8	.6250	15.88	5/8	3/4	3	4	B52748	B01679	B69748
5/8	.6250	15.88	5/8	1 1/4	3 1/2	4	B52349	B01573	B00028
5/8	.6250	15.88	5/8	2 1/4	5	4	B51364	B01379	B68364
5/8	.6250	15.88	5/8	3	6	4	B51564	B01437	B68564
3/4	.7500	19.05	3/4	1	3	4	B52751	B01680	B69751
3/4	.7500	19.05	3/4	1 1/2	4	4	B52351	B01574	B00030
3/4	.7500	19.05	3/4	2 1/4	5	4	B51366	B01381	B68366
3/4	.7500	19.05	3/4	3	6	4	B51566	B01438	B68566
7/8	.8750	22.23	7/8	1 1/2	4	4	B52353	B01953	B69353
7/8	.8750	22.23	7/8	2 1/4	5	4	B51368	B01382	B68368
7/8	.8750	22.23	7/8	3	6	4	B51568	B01868	B68568
1	1.0000	25.40	1	1 1/2	4	4	B52357	B01576	B00032
1	1.0000	25.40	1	2 1/4	5	4	B51370	B01383	B68370
1	1.0000	25.40	1	3	6	4	B51570	B01440	B68570

CARBIDE END MILLS

CARBIDE DRILLS

CARBIDE THREAD MILLS

CARBIDE BURS

INDEX



Single End General-Purpose

Series **MSEST-2** • straight flutes

Applications |

STEEL

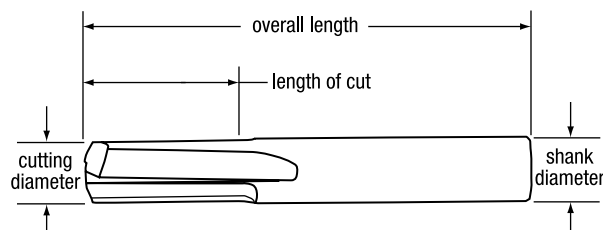
CAST
IRONHI-TEMP
ALLOYSNON-FERROUS
MATERIALS

Features |

SOLID
CARBIDE2 FLUTE
CC

BRIGHT

TiAIN



cutting diameter			shank diameter	length of cut	overall length	no. of flutes	EDP number	
fractional	decimal	metric					bright	TiAIN
1/16	.0625	1.59	1/8	3/16	1 1/2	2	B53201	B70201
1/8	.1250	3.18	1/8	1/2	1 1/2	2	B53203	B70203
3/16	.1875	4.76	3/16	5/8	2	2	B53205	B70205
1/4	.2500	6.35	1/4	3/4	2 1/2	2	B53207	B70207
5/16	.3125	7.94	5/16	13/16	2 1/2	2	B53210	B70210
3/8	.3750	9.53	3/8	7/8	2 1/2	2	B53212	B70212
1/2	.5000	12.70	1/2	1	3	2	B53215	B70215

Series **MEG-2** Engraving Tool

Applications |

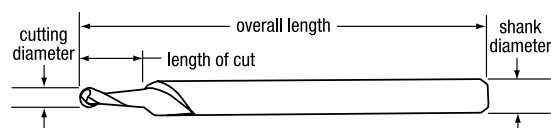
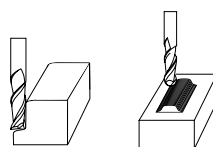
STEEL

CAST
IRONNON-FERROUS
MATERIALS

Features |

SOLID
CARBIDE2 FLUTE
BALL CC

TiCN



cutting diameter		shank diameter	length of cut	overall length	no. of flutes	EDP number	
decimal	metric					TiCN	
.021	0.53	1/8	.040	1 1/2	2	B10901	
.025	0.64	1/8	.040	1 1/2	2	B10903	
.030	0.76	1/8	.040	1 1/2	2	B10906	

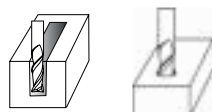
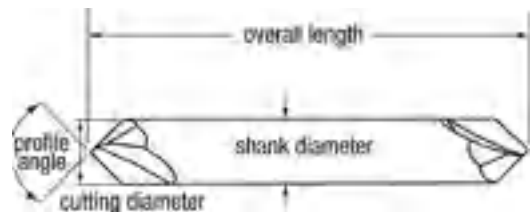
Chamfer Tools

Series **MCH-2R Single End and MCH-2D Double End** Chamfer Tool • 60°, 82°, 90°, and 120° point

Applications |



Features |



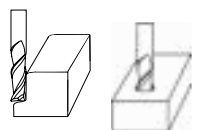
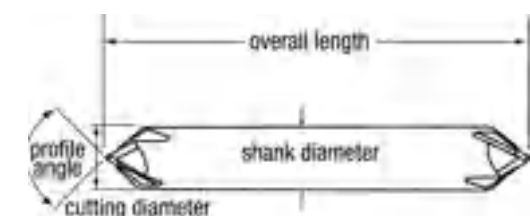
cutting diameter			shank diameter	overall length	no. of flutes	profile angle (°)	EDP number	
fractional	decimal	metric					single end	double end
1/8	.1250	3.18	1/8	1 1/2	2	60	B10010	-----
1/8	.1250	3.18	1/8	1 1/2	2	82	B10013	-----
1/8	.1250	3.18	1/8	1 1/2	2	90	B10014	B10026
3/16	.1875	4.76	3/16	2	2	90	B10016	B10027
1/4	.2500	6.35	1/4	2 1/2	2	60	B10017	-----
1/4	.2500	6.35	1/4	2 1/2	2	82	B10018	-----
1/4	.2500	6.35	1/4	2 1/2	2	90	B10019	B10028
3/8	.3750	9.53	3/8	2 1/2	2	60	B10020	-----
3/8	.3750	9.53	3/8	2 1/2	2	82	B10021	-----
3/8	.3750	9.53	3/8	2 1/2	2	90	B10022	B10029
3/8	.3750	9.53	3/8	2 1/2	2	120	B10012	-----
1/2	.5000	12.70	1/2	3	2	60	B10023	-----
1/2	.5000	12.70	1/2	3	2	82	B10024	-----
1/2	.5000	12.70	1/2	3	2	90	B10025	B10030
1/2	.5000	12.70	1/2	3	2	120	B10232	-----
3/4	.7500	19.05	3/4	4	2	90	B10233	B10231

Series **MCH-4R Single End and MCH-4D Double End** Chamfer Tool • 60°, 82°, 90°, and 120° point

Applications |



Features |



cutting diameter			shank diameter	overall length	no. of flutes	profile angle (°)	EDP number	
fractional	decimal	metric					single end	double end
1/4	.2500	6.35	1/4	2 1/2	4	60	B10219	-----
1/4	.2500	6.35	1/4	2 1/2	4	82	B10220	-----
1/4	.2500	6.35	1/4	2 1/2	4	90	B10221	B10228
3/8	.3750	9.53	3/8	2 1/2	4	60	B10222	-----
3/8	.3750	9.53	3/8	2 1/2	4	82	B10223	-----
3/8	.3750	9.53	3/8	2 1/2	4	90	B10224	B10229
3/8	.3750	9.53	3/8	2 1/2	4	120	B10011	-----
1/2	.5000	12.70	1/2	3	4	60	B10225	-----
1/2	.5000	12.70	1/2	3	4	82	B10226	-----
1/2	.5000	12.70	1/2	3	4	90	B10227	B10230
1/2	.5000	12.70	1/2	3	4	120	B10235	-----
3/4	.7500	19.05	3/4	4	4	90	B10236	B10234



BASSETT™



Carbide Drills

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Feeds and Speeds for Bassett General Purpose Solid Carbide Drills

Material Group	Recommended Speed (SFM)	Feed (IPR)			
		1/16-in.	1/8-in.	1/4-in.	1/2-in.
Low Carbon Steels, Annealed	85-150	.0005	.0010	.0020	.0040
Medium Carbon Steels 275-425 BHn	65-120	.0005	.0010	.0020	.0030
Stainless Steel, Soft 135-275 BHn	50-150	.0005	.0005	.0020	.0040
Stainless Steel, Hard 275-425 BHn	30-90	.0005	.0005	.0010	.0015
Cast Iron, Soft 120-220 BHn	100-300	.0010	.0020	.0040	.0050
Cast Iron, Hard 220-320 BHn	60-200	.0015	.0010	.0020	.0030
Ductile Iron	70-250	.0010	.0020	.0030	.0050
Malleable iron	80-250	.0010	.0020	.0030	.0050
Aluminum / Aluminum Alloys	150-400	.0010	.0020	.0030	.0050
Brass / Bronze	100-300	.0005	.0010	.0020	.0040
Copper / Copper Alloys	150-400	.0010	.0030	.0050	.0060
Magnesium / Magnesium Alloys	200-650	.0015	.0030	.0050	.0080
Plastics - Glass Filled	150-300	.0010	.0020	.0030	.0050
Plastics	250-600	.0015	.0030	.0040	.0060



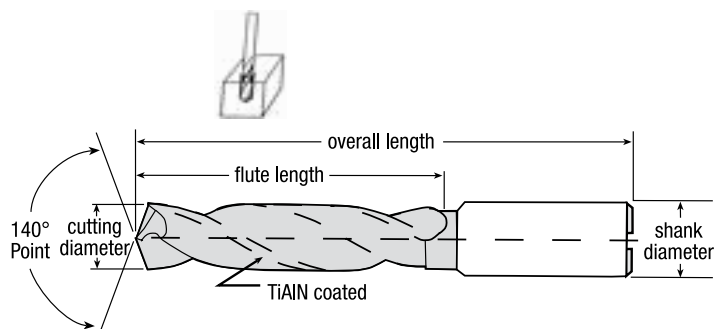
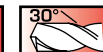
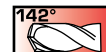
High-Performance

Series DHP-5 High-Performance Jobber Length Drill

Applications



Features



cutting diameter				shank diameter		flute length		overall length		EDP number
fraction	metric	dec equiv	mm equiv	inch	metric	inch	mm	inch	mm	
	3.0	.1181		.118	3.0	.94	24.0	2.48	63.0	B56000
	3.3	.1299		.157	4.0	1.26	32.0	2.72	69.0	B56006
	3.8	.1496		.157	4.0	1.26	32.0	2.72	69.0	B56017
	4.2	.1654		.197	5.0	1.50	38.0	3.15	80.0	B56027
	5.0	.1969		.197	5.0	1.50	38.0	3.15	80.0	B56046
	5.5	.2165		.236	6.0	1.57	40.0	3.23	82.0	B56058
	6.0	.2362		.236	6.0	1.57	40.0	3.23	82.0	B56068
1/4		.2500	6.4	.250	6.4	2.00	50.8	3.75	95.3	B56075
	6.5	.2559		.315	8.0	1.89	48.0	3.58	91.0	B56077
	6.8	.2677		.315	8.0	1.89	48.0	3.58	91.0	B56084
	7.0	.2756		.315	8.0	1.89	48.0	3.58	91.0	B56087
9/32		.2813	7.1	.438	11.1	2.00	50.8	3.75	95.3	B56091
19/64		.2969	7.5	.438	11.1	2.00	50.8	3.75	95.3	B56098
5/16		.3125	7.9	.438	11.1	2.00	50.8	3.75	95.3	B56104
	8.0	.3150		.315	8.0	1.89	48.0	3.58	91.0	B56105
21/64		.3281	8.3	.375	9.5	2.00	50.8	4.00	101.6	B56111
	8.5	.3346		.394	10.0	2.17	55.0	4.06	103.0	B56115
	9.0	.3543		.394	10.0	2.17	55.0	4.06	103.0	B56123
23/64		.3594	9.1	.375	9.5	2.00	50.8	4.00	101.6	B56126
3/8		.3750	9.5	.375	9.5	2.00	50.8	4.00	101.6	B56132
25/64		.3906	9.9	.375	9.5	2.00	50.8	4.00	101.6	B56139
	10.0	.3937		.394	10.0	2.17	55.0	4.06	103.0	B56140
13/32		.4063	10.3	.500	12.7	2.50	63.5	4.75	120.7	B56144
	10.5	.4134		.472	12.0	2.36	60.0	4.72	120.0	B56146
	11.0	.4331		.472	12.0	2.36	60.0	4.72	120.0	B56149
7/16		.4375	11.1	.500	12.7	2.50	63.5	4.75	120.7	B56150
29/64		.4531	11.5	.500	12.7	2.50	63.5	4.75	120.7	B56153
15/32		.4688	11.9	.500	12.7	2.50	63.5	4.75	120.7	B56155
	12.0	.4724		.472	12.0	2.60	66.0	4.72	120.0	B56156
31/64		.4844	12.3	.500	12.7	3.00	76.2	5.00	127.0	B56158
	12.5	.4921		.551	14.0	2.83	72.0	4.96	126.0	B56159
1/2		.5000	12.7	.500	12.7	3.00	76.2	5.00	127.0	B56160

TOLERANCE - Drill Diameter: h7; Shank Diameter: h6

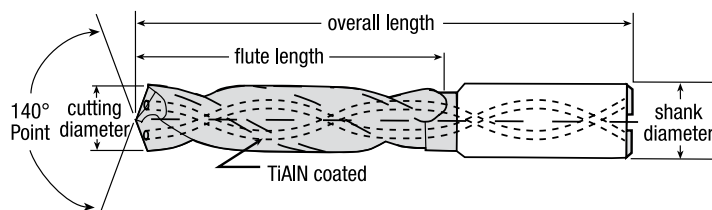
High-Performance

Series DHPCF-5 High-Performance Coolant Fed Jobber Length Drill

Applications



Features



	cutting diameter			shank diameter		flute length		overall length		EDP number
	fraction	metric	dec equiv	mm equiv	inch	metric	inch	mm	inch	
		3.0	.1181		.236	6.0	1.102	28.0	2.598	B54300
		3.3	.1299		.236	6.0	1.102	28.0	2.598	B54306
		3.8	.1496		.236	6.0	1.417	36.0	2.913	B54317
		4.2	.1654		.236	6.0	1.417	36.0	2.913	B54327
		5.0	.1969		.236	6.0	1.732	44.0	3.228	B54346
		5.5	.2165		.236	6.0	1.732	44.0	3.228	B54358
		6.0	.2362		.236	6.0	1.732	44.0	3.228	B54368
1/4		.2500	6.4		.250	6.4	2.080	52.8	3.580	B54375
		6.5	.2559		.315	8.0	2.087	53.0	3.583	B54377
		6.8	.2677		.315	8.0	2.087	53.0	3.583	B54384
		7.0	.2756		.315	8.0	2.087	53.0	3.583	B54387
9/32		.2813	7.1		.313	7.9	2.080	52.8	3.580	B54391
19/64		.2969	7.5		.313	7.9	2.080	52.8	3.580	B54398
5/16		.3125	7.9		.313	7.9	2.080	52.8	3.580	B54404
		8.0	.3150		.315	8.0	2.087	53.0	3.583	B54405
21/64		.3281	8.3		.375	9.5	2.400	61.0	4.050	B54412
		8.5	.3346		.394	10.0	2.402	61.0	4.055	B54415
		8.8	.3465		.394	10.0	2.402	61.0	4.055	B54420
		9.0	.3543		.394	10.0	2.402	61.0	4.055	B54423
3/8		.3750	9.5		.375	9.5	2.400	61.0	4.050	B54432
		10	.3937		.394	10.0	2.402	61.0	4.055	B54440
13/32		.4063	10.3		.438	11.1	2.800	71.1	4.640	B54444
		10.5	.4134		.472	12.0	2.795	71.0	4.646	B54446
		10.8	.4252		.472	12.0	2.795	71.0	4.646	B54448
		11.0	.4331		.472	12.0	2.795	71.0	4.646	B54449
7/16		.4375	11.1		.438	11.1	2.800	71.1	4.640	B54450
29/64		.4531	11.5		.500	12.7	3.030	77.0	4.875	B54453
15/32		.4688	11.9		.500	12.7	3.030	77.0	4.875	B54455
		12.0	.4724		.472	12.0	2.795	71.0	4.646	B54456
31/64		.4844	12.3		.500	12.7	3.030	77.0	4.875	B54458
		12.5	.4921		.551	14.0	3.031	77.0	4.882	B54459
1/2		.5000	12.7		.500	12.7	3.030	77.0	4.875	B54460

TOLERANCE - Drill Diameter: h7; Shank Diameter: h6



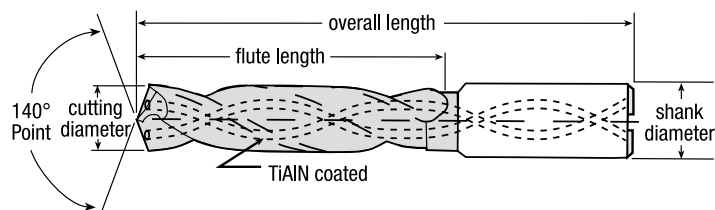
High-Performance

Series **DHPCF-8** High-Performance Coolant Fed Jobber Length Drill

Applications



Features



cutting diameter				shank diameter		flute length		overall length		EDP number
fraction	metric	dec equiv	mm equiv	inch	metric	inch	mm	inch	mm	
	3.5	.1378		.236	6.0	1.34	34.0	2.83	72.0	B54509
	3.8	.1496		.236	6.0	1.69	43.0	3.19	81.0	B54517
	4.2	.1654		.236	6.0	1.69	43.0	3.19	81.0	B54527
	4.5	.1772		.236	6.0	1.69	43.0	3.19	81.0	B54535
	4.8	.1890		.236	6.0	2.24	57.0	3.74	95.0	B54541
	5.0	.1969		.236	6.0	2.24	57.0	3.74	95.0	B54546
	5.5	.2165		.236	6.0	2.24	57.0	3.74	95.0	B54558
	6.0	.2362		.236	6.0	2.24	57.0	3.74	95.0	B54568
1/4		.2500	6.4	.250	6.4	3.00	76.2	4.50	114.3	B54575
	6.5	.2559		.315	8.0	2.99	76.0	4.49	114.0	B54577
	6.8	.2677		.315	8.0	2.99	76.0	4.49	114.0	B54584
	7.0	.2756		.315	8.0	2.99	76.0	4.49	114.0	B54587
9/32		.2813	7.1	.313	7.9	3.00	76.2	4.50	114.3	B54591
	7.5	.2953		.315	8.0	2.99	76.0	4.49	114.0	B54597
19/64		.2969	7.5	.313	7.9	3.00	76.2	4.50	114.3	B54598
5/16		.3125	7.9	.313	7.9	3.00	76.2	4.50	114.3	B54604
	8.0	.3150		.315	8.0	2.99	76.0	4.49	114.0	B54605
	8.5	.3346		.394	10.0	3.74	95.0	5.59	142.0	B54615
	8.8	.3465		.394	10.0	3.74	95.0	5.59	142.0	B54620
	9.0	.3543		.394	10.0	3.74	95.0	5.59	142.0	B54623
	9.5	.3740		.394	10.0	3.74	95.0	5.59	142.0	B54631
3/8		.3750	9.5	.375	9.5	3.75	95.3	5.75	146.1	B54632
	10.0	.3937		.394	10.0	3.74	95.0	5.59	142.0	B54640
	10.2	.4016		.472	12.0	4.49	114.0	6.38	162.0	B54642
	10.5	.4134		.472	12.0	4.49	114.0	6.38	162.0	B54646
	10.8	.4252		.472	12.0	4.49	114.0	6.38	162.0	B54648
	11.0	.4331		.472	12.0	4.49	114.0	6.38	162.0	B54649
7/16		.4375	11.1	.438	11.1	4.50	114.3	6.50	165.1	B54650
	11.5	.4528		.472	12.0	4.49	114.0	6.38	162.0	B54652
	12.0	.4724		.472	12.0	4.49	114.0	6.38	162.0	B54656
	12.5	.4921		.551	14.0	5.24	133.0	7.01	178.0	B54659
1/2		.5000	12.7	.500	12.7	5.25	133.4	7.00	177.8	B54660

TOLERANCE - Drill Diameter: h7; Shank Diameter: h6

Jobber Length

Series DR Jobber Length Drill

Applications

NON-FERROUS
MATERIALS

CAST
IRON

STEEL

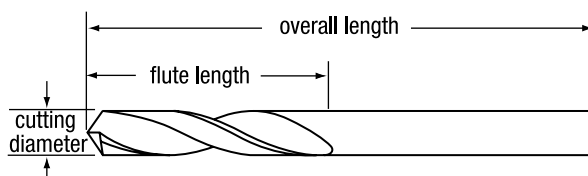


Features

SOLID
CARBIDE

118° 4-FACET

BRIGHT



cutting diameter frac	wire/let	decimal	flute length	overall length	EDP number
1/32		.0312	5/16	1 1/4	B53509
	60	.0400	5/8	1 1/2	B53511
	59	.0410	3/4	1 1/2	B53512
	58	.0420	3/4	1 1/2	B53514
	57	.0430	3/4	1 1/2	B53515
	56	.0465	3/4	1 1/2	B53518
3/64		.0469	3/4	1 1/2	B53521
	55	.0520	3/4	1 1/2	B53523
	54	.0550	3/4	1 1/2	B53525
	53	.0595	3/4	1 1/2	B53529
1/16		.0625	3/4	1 1/2	B53531
	52	.0635	3/4	1 1/2	B53533
	51	.0670	3/4	1 1/2	B53536
	50	.0700	7/8	1 3/4	B53538
	49	.0730	7/8	1 3/4	B53541
	48	.0760	7/8	1 3/4	B53543
5/64		.0781	7/8	1 3/4	B53545
	47	.0785	7/8	1 3/4	B53546
	46	.0810	7/8	1 3/4	B53549
	45	.0820	7/8	1 3/4	B53550
	44	.0860	1	2	B53553
	43	.0890	1	2	B53556
	42	.0935	1	2	B53559
3/32		.0938	1	2	B53560
	41	.0960	1	2	B53562
	40	.0980	1	2	B53564
	39	.0995	1 1/4	2 1/4	B53566
	38	.1015	1 1/4	2 1/4	B53567
	37	.1040	1 1/4	2 1/4	B53569
	36	.1065	1 1/4	2 1/4	B53571
7/64		.1094	1 1/4	2 1/4	B53573
	35	.1100	1 1/4	2 1/4	B53574
	34	.1110	1 1/4	2 1/4	B53576
	33	.1130	1 1/4	2 1/4	B53577
	32	.1160	1 1/4	2 1/4	B53579
	31	.1200	1 1/4	2 1/4	B53581
1/8		.1250	1 1/4	2 1/4	B53583
	30	.1285	1 1/4	2 1/4	B53586
	29	.1360	1 3/8	2 1/2	B53589
	28	.1405	1 3/8	2 1/2	B53591
9/64		.1406	1 3/8	2 1/2	B53592
	27	.1440	1 3/8	2 1/2	B53594

cutting diameter frac	wire/let	decimal	flute length	overall length	EDP number
	26	.1470	1 3/8	2 1/2	B53596
	25	.1495	1 3/8	2 1/2	B53598
	24	.1520	1 3/8	2 1/2	B53600
	23	.1540	1 3/8	2 1/2	B53602
5/32		.1563	1 3/8	2 1/2	B53603
	22	.1570	1 3/8	2 1/2	B53604
	21	.1590	1 3/8	2 1/2	B53606
	20	.1610	1 3/8	2 1/2	B53607
	19	.1660	1 5/8	2 3/4	B53610
	18	.1695	1 5/8	2 3/4	B53613
11/64		.1719	1 5/8	2 3/4	B53614
	17	.1730	1 5/8	2 3/4	B53615
	16	.1770	1 5/8	2 3/4	B53617
	15	.1800	1 5/8	2 3/4	B53619
	14	.1820	1 5/8	2 3/4	B53621
	13	.1850	1 5/8	2 3/4	B53622
3/16		.1875	1 5/8	2 3/4	B53625
	12	.1890	1 5/8	2 3/4	B53626
	11	.1910	1 5/8	2 3/4	B53628
	10	.1935	1 5/8	2 3/4	B53630
	9	.1960	1 3/4	3	B53631
	8	.1990	1 3/4	3	B53633
	7	.2010	1 3/4	3	B53635
13/64		.2031	1 3/4	3	B53637
	6	.2040	1 3/4	3	B53638
	5	.2055	1 3/4	3	B53640
	4	.2090	1 3/4	3	B53643
	3	.2130	1 3/4	3	B53645
7/32		.2188	1 3/4	3	B53647
	2	.2210	1 3/4	3	B53649
	1	.2280	1 3/4	3	B53652
	A	.2340	2	3 1/4	B53655
15/64		.2344	2	3 1/4	B53657
	B	.2380	2	3 1/4	B53660
	C	.2420	2	3 1/4	B53662
	D	.2460	2	3 1/4	B53664
1/4		.2500	2	3 1/4	B53666
	F	.2570	2	3 1/4	B53670
	G	.2610	2 1/8	3 1/2	B53672
17/64		.2656	2 1/8	3 1/2	B53675
	H	.2660	2 1/8	3 1/2	B53677
	I	.2720	2 1/8	3 1/2	B53678

continued on next page



Jobber Length • Stub Length

Series DR Jobber Length Drill (continued)

cutting diameter		flute length	overall length	EDP number	
frac	wire/let decimal				
9/32	J	.2770	2 1/8	3 1/2	B53681
	K	.2810	2 1/8	3 1/2	B53683
	L	.2812	2 1/8	3 1/2	B53685
	M	.2900	2 1/8	3 1/2	B53688
19/64	N	.2950	2 3/8	3 3/4	B53689
	O	.2969	2 3/8	3 3/4	B53691
5/16	P	.3020	2 3/8	3 3/4	B53693
	Q	.3125	2 3/8	3 3/4	B53694
21/64	R	.3160	2 3/8	3 3/4	B53696
	S	.3230	2 3/8	3 3/4	B53698
	T	.3281	2 1/2	4	B53701
	U	.3320	2 1/2	4	B53704
11/32	V	.3438	2 1/2	4	B53708
	W	.3480	2 1/2	4	B53710
23/64	X	.3580	2 1/2	4	B53713
	Y	.3594	2 1/2	4	B53715

cutting diameter			flute length	overall length	EDP number
frac	wire/let	decimal			
3/8	U	.3680	2 3/4	4 1/4	B53718
		.3750	2 3/4	4 1/4	B53720
	V	.3770	2 7/8	4 1/4	B53722
	W	.3860	2 7/8	4 1/2	B53724
25/64		.3906	2 7/8	4 1/2	B53725
	X	.3970	2 7/8	4 1/2	B53727
13/32	Y	.4040	2 7/8	4 1/2	B53729
		.4062	2 7/8	4 1/2	B53731
	Z	.4130	2 7/8	4 1/2	B53732
27/64		.4219	2 7/8	4 1/2	B53735
7/16		.4375	3	4 1/2	B53737
29/64		.4531	3	4 3/4	B53739
15/32		.4688	3	4 3/4	B53741
31/64		.4844	3	4 3/4	B53742
1/2		.5000	3	4 3/4	B53744

Series DRS Stub Length Drill

Applications

NON-FERROUS MATERIALS

CAST IRON

STEEL

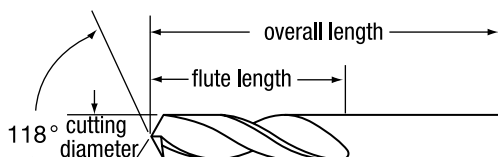


Features

SOLID CARBIDE

118° 4-FACET

BRIGHT



cutting diameter		flute length	overall length	EDP number
frac	wire decimal			
60	.0400	3/8	1 1/2	B36060
	.0410	3/8	1 1/2	B36059
	.0420	3/8	1 1/2	B36058
	.0430	3/8	1 1/2	B36057
	.0465	3/8	1 1/2	B36056
55	.0520	3/8	1 1/2	B36055
	.0550	3/8	1 1/2	B36054
53	.0595	3/8	1 1/2	B36053
	.0625	3/8	1 1/2	B36404
52	.0635	3/8	1 1/2	B36052
	.0670	3/8	1 1/2	B36051
50	.0700	3/8	1 1/2	B36050
	.0730	3/8	1 1/2	B36049
48	.0760	1/2	1 1/2	B36048
	.0781	1/2	1 1/2	B36405
47	.0785	1/2	1 1/2	B36047
	.0810	1/2	1 1/2	B36046
45	.0820	1/2	1 1/2	B36045

cutting diameter		flute length	overall length	EDP number
frac	wire decimal			
44	.0860	1/2	2	B36044
	.0890	1/2	2	B36043
	.0935	1/2	2	B36042
	.0938	1/2	2	B36406
	.0960	1/2	2	B36041
40	.0980	5/8	2	B36040
	.0995	5/8	2	B36039
38	.1015	5/8	2	B36038
	.1040	5/8	2	B36037
36	.1065	5/8	2	B36036
	.1094	5/8	2	B36407
35	.1100	5/8	2	B36035
	.1110	5/8	2	B36034
33	.1130	5/8	2	B36033
	.1160	5/8	2	B36032
31	.1200	5/8	2	B36031
	.1250	5/8	2	B36408
30	.1285	5/8	2	B36030

continued on next page



Stub Length

Series DRS Stub Length Drill (continued)

cutting diameter frac	wire	decimal	flute length	overall length	EDP number
9/64	29	.1360	5/8	2	B36029
		.1406	5/8	2	B36409
	28	.1405	5/8	2	B36028
		.1440	5/8	2	B36027
	26	.1470	5/8	2	B36026
		.1495	5/8	2	B36025
	24	.1520	5/8	2	B36024
		.1540	5/8	2	B36023
5/32		.1563	3/4	2	B36410
		.1570	3/4	2	B36022
	21	.1590	3/4	2	B36021
		.1610	3/4	2	B36020
	19	.1660	3/4	2 1/8	B36019
		.1695	3/4	2 1/8	B36018
11/64		.1719	3/4	2 1/8	B36411
		.1730	3/4	2 1/8	B36017
	16	.1770	3/4	2 1/8	B36016
		.1800	3/4	2 3/16	B36015
	14	.1820	3/4	2 3/16	B36014
		.1850	3/4	2 3/16	B36013
3/16		.1875	3/4	2 3/16	B36412
		.1890	3/4	2 3/16	B36012
	11	.1910	3/4	2 3/16	B36011
		.1935	3/4	2 3/16	B36010
	9	.1960	3/4	2 1/4	B36009
		.1990	3/4	2 1/4	B36008

cutting diameter frac	wire/letter	decimal	flute length	overall length	EDP number
13/64	7	.2010	3/4	2 1/4	B36007
		.2031	3/4	2 1/4	B36413
	6	.2040	3/4	2 1/4	B36006
		.2055	3/4	2 1/4	B36005
	4	.2090	3/4	2 1/4	B36004
		.2130	1	2 1/2	B36003
7/32		.2188	1	2 1/2	B36414
		.2210	1	2 1/2	B36002
	1	.2280	1	2 1/2	B36001
		.2344	1	2 1/2	B36415
15/64	1/4	.2500	1	2 1/2	B36416
		.2656	1	2 1/2	B36417
9/32		.2813	1	2 1/2	B36418
		.2969	1 1/4	2 1/2	B36419
5/16		.3125	1 1/4	2 1/2	B36420
		.3281	1 1/4	2 1/2	B36421
11/32		.3438	1 1/4	2 1/2	B36422
		.3594	1 1/4	2 1/2	B36423
23/64		.3906	1 1/4	2 3/4	B36425
		.4063	1 1/4	2 3/4	B36426
27/64		.4219	1 1/4	2 3/4	B36427
		.4375	1 1/4	2 3/4	B36428
7/16		.4531	1 1/4	3	B36429
		.4688	1 1/4	3	B36430
15/32		.4844	1 1/4	3	B36431
		.5000	1 1/4	3	B36432

CARBIDE END MILLS

CARBIDE DRILLS

CARBIDE THREAD MILLS

CARBIDE BURS

INDEX



Straight Flute

Series DM Straight Flute Drill

Applications

NON-FERROUS
MATERIALSCAST
IRON

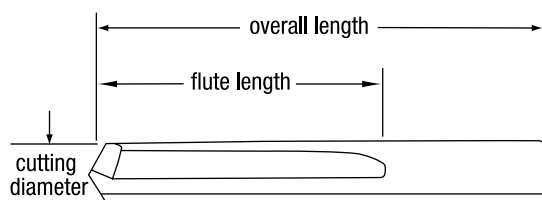
STEEL

Features

SOLID
CARBIDE

140° 4-FACET

BRIGHT



Tolerances for Series DM Drills

Cutting Diameter: +.000, -.0005

Shank Diameter: +.0000, -.0005

cutting diameter frac	wire /mm	decimal	flute length	overall length	EDP number
1/32		.0313	1/2	1 1/2	B54100
	60	.0400	1/2	1 1/2	B54101
	59	.0410	1/2	1 1/2	B54102
	58	.0420	1/2	1 1/2	B54104
	57	.0430	1/2	1 1/2	B54105
	56	.0465	1/2	1 1/2	B54108
3/64		.0469	1/2	1 1/2	B54112
	55	.0520	1/2	1 1/2	B54113
	54	.0550	1/2	1 1/2	B54115
	53	.0595	1/2	1 1/2	B54119
1/16		.0625	5/8	1 5/8	B54121
	52	.0635	11/16	1 11/16	B54123
	51	.0670	11/16	1 11/16	B54126
	50	.0700	11/16	1 11/16	B54128
	49	.0730	11/16	1 11/16	B54131
	48	.0760	11/16	1 11/16	B54133
5/64		.0781	11/16	1 11/16	B54135
	47	.0785	3/4	1 3/4	B54136
	46	.0810	3/4	1 3/4	B54139
	45	.0820	3/4	1 3/4	B54140
	44	.0860	3/4	1 3/4	B54143
	43	.0890	3/4	1 3/4	B54146
	42	.0935	3/4	1 3/4	B54149
3/32		.0938	3/4	1 3/4	B54150
	41	.0960	13/16	1 13/16	B54152
	40	.0980	13/16	1 13/16	B54154
	39	.0995	13/16	1 13/16	B54156
	38	.1015	13/16	1 13/16	B54157
	37	.1040	13/16	1 13/16	B54159
	36	.1065	13/16	1 13/16	B54161
7/64		.1094	13/16	1 13/16	B54163
	35	.1100	7/8	1 7/8	B54164
	34	.1110	7/8	1 7/8	B54166
	33	.1130	7/8	1 7/8	B54167
	32	.1160	7/8	1 7/8	B54169
	31	.1200	7/8	1 7/8	B54171
1/8		.1250	7/8	1 7/8	B54173
	30	.1285	15/16	1 15/16	B54176
	29	.1360	15/16	1 15/16	B54179
	28	.1405	15/16	1 15/16	B54181
9/64		.1406	15/16	1 15/16	B54182
	27	.1440	1	2 1/16	B54184

cutting diameter frac	wire/mm	decimal	flute length	overall length	EDP number
	26	.1470	1	2 1/16	B54186
	25	.1495	1	2 1/16	B54188
	24	.1520	1	2 1/16	B54190
	23	.1540	1	2 1/16	B54192
5/32		.1563	1	2 1/16	B54193
	22	.1570	1 1/16	2 1/8	B54194
	21	.1590	1 1/16	2 1/8	B54196
	20	.1610	1 1/16	2 1/8	B54197
	19	.1660	1 1/16	2 1/8	B54200
	18	.1695	1 1/16	2 1/8	B54203
11/64		.1719	1 1/16	2 1/8	B54204
	17	.1730	1 1/8	2 3/16	B54205
	16	.1770	1 1/8	2 3/16	B54207
	15	.1800	1 1/8	2 3/16	B54209
	14	.1820	1 1/8	2 3/16	B54211
	13	.1850	1 1/8	2 3/16	B54212
3/16		.1875	1 1/8	2 3/16	B54215
	12	.1890	1 3/16	2 1/4	B54216
	11	.1910	1 3/16	2 1/4	B54218
	10	.1935	1 3/16	2 1/4	B54220
	9	.1960	1 3/16	2 1/4	B54221
	8	.1990	1 3/16	2 1/4	B54223
	7	.2010	1 3/16	2 1/4	B54225
13/64		.2031	1 3/16	2 1/4	B54227
	6	.2040	1 1/4	2 3/8	B54228
	5	.2055	1 1/4	2 3/8	B54230
	4	.2090	1 1/4	2 3/8	B54233
	3	.2130	1 1/4	2 3/8	B54235
7/32		.2188	1 1/4	2 3/8	B54237
	2	.2210	1 5/16	2 7/16	B54239
	1	.2280	1 5/16	2 7/16	B54245
15/64		.2344	1 5/16	2 7/16	B54242
1/4		.2500	1 3/8	2 1/2	B54247
17/64		.2656	1 7/16	2 5/8	B54248
9/32		.2813	1 1/2	2 11/16	B54250
19/64		.2969	1 9/16	2 3/4	B54251
5/16		.3125	1 5/8	2 13/16	B54253
21/64		.3281	1 11/16	2 15/16	B54254
11/32		.3438	1 11/16	3	B54256
23/64		.3594	1 3/4	3 1/16	B54257
3/8		.3750	1 13/16	3 1/8	B54259
25/64		.3906	1 7/8	3 1/4	B54260

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Straight Flute • Spade • Drill and Countersink

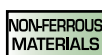
Series **DM** Straight Flute Drill (continued)

cutting diameter frac	cutting diameter decimal	flute length	overall length	EDP number
13/32	.4063	1 15/16	3 5/16	B54262
27/64	.4219	2	3 3/8	B54263
7/16	.4375	2 1/16	3 7/16	B54265
29/64	.4531	2 1/8	3 9/16	B54266

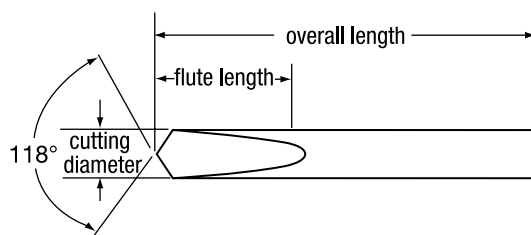
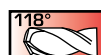
cutting diameter frac	cutting diameter decimal	flute length	overall length	EDP number
15/32	.4688	2 1/8	3 5/8	B54267
31/64	.4844	2 3/16	3 11/16	B54268
1/2	.5000	2 1/4	3 3/4	B54270

Series **DS** Spade Stub Length Drill

Applications



Features



cutting diameter fractional	cutting diameter decimal	flute length	overall length	EDP number
1/32	.0313	3/16	1 1/2	B53451
1/16	.0625	5/16	1 1/2	B53454
3/32	.0938	7/16	1 1/2	B53456
1/8	.1250	7/16	1 1/2	B53458
5/32	.1563	15/32	2	B53460
3/16	.1875	9/16	2	B53462

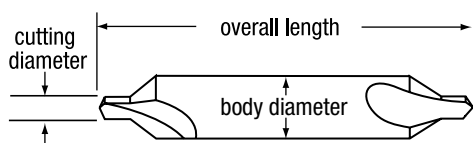
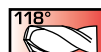
cutting diameter fractional	cutting diameter decimal	flute length	overall length	EDP number
7/32	.2188	19/32	2	B53464
1/4	.2500	11/16	2	B53467
3/8	.3750	1	2 1/2	B53475

Series **DC** Combination Stub Length Drill and Countersink

Applications



Features



tool number	cutting diameter fraction	cutting diameter decimal	body diameter	overall length	EDP number
1	3/64	.125	1/8	1 1/2	B53431
2	5/64	.188	3/16	2	B53432
3	7/64	.250	1/4	2	B53433
4	1/8	.313	5/16	2 1/8	B53434
5	3/16	.438	7/16	2 3/4	B53435
6	7/32	.500	1/2	3	B53436





BASSETT™



Thread Mills

Style No.	Description	Page No.
	Operating Parameters	47
	TM/TMC UN Thread Mills, with and without coolant	48
	TMNP/TMNPC NPT / NPTF Thread Mills, with and without coolant	49
	TMBPP/TMBPPC BSPP Thread Mills, with and without coolant	49
	TMBPT/TMBPTC BSPT Thread Mills, with and without coolant	49
	TMM/TMMC Metric Thread Mills, with and without coolant	50
NEW	BMTM2/BMTM3 Mini Thread Mills	51a
	BMTMM2/BMTMM3 Metric Mini Thread Mills	51b
	Thread Mill Programming Request Form.	51c

Features

- Helical flute design reduces thread chatter, improving product thread finish and quality
- Advanced TiAlN coating is standard for increasing speeds
- Ideal for internal and external threads
- Full range of sizes available
 - Internal threads #4 to 1" UNC and UNF
 - Pipe threads 1/16" to 1" NPT, NPTF and NPSM
 - Metric internal threads M4.5 x .75 through M20 x 3
- Specials program for nonstandard sizes and other coatings

Benefits

- Thread milling is a superior process for threading most materials
- More economical than using taps:
 - One thread mill can produce several diameters of threaded holes of the same pitch
 - Same tool makes right or left-hand threads
 - Avoid chip packing in blind holes, a primary cause of tap breakage
 - One tool for through and blind holes
 - Pitch diameter can be controlled by CNC offset

Applications

Bassett thread mills are the ideal choice when:

- Machine tool has helical interpolation capabilities
- Thread specification calls for full threads close to bottom of hole
- Thread specification requires a special tap
- Small lot size is to be threaded
- Need to cut large diameter threads on low horsepower machines
- Workpiece is thin walled which can be milled more easily than tapped
- CNC machine has a slower RPM capability below what is recommended for carbide thread mills

Calculating Thread Mill Feed Rate

For internal threads: $(D1 - d1) / D1 \times \text{RPM} \times \text{ipr}$

For external threads: $(D1 + d1) / D1 \times \text{RPM} \times \text{ipr}$
where

D1 is the major diameter of the thread

d1 is the cutting diameter

RPM is the calculated speed rate = $(3.82 \times \text{SFM}) / \text{Diameter}$

ipr is the calculated feed rate = $\text{IPT (inches per tooth)} \times \text{number of flutes per cutter}$

Example: to cut an internal 7/8-14 thread using a four-flute, 1/2" diameter cutter in bronze, the programmed feed rate would be $((.875 - .500) / .875) \times (3438 \text{ RPM} \times .016)$ or 23.6 ipm

Operating Parameters for Helical Thread Mills

material	surface feet per minute (SFM)	cutter diameter (inches)					
		0.125	0.250	0.375	0.500	0.750	1.000
		feed per tooth (inches)					
Al-Si Alloys	600	0.0010	0.0020	0.0030	0.0040	0.0050	0.0060
cast iron	600	0.0008	0.0015	0.0020	0.0030	0.0040	0.0050
brass or bronze	450	0.0010	0.0020	0.0030	0.0040	0.0050	0.0060
steel <200 Bhyn	600	0.0007	0.0015	0.0020	0.0030	0.0040	0.0050
steel <325 Bhn	575	0.0005	0.0010	0.0015	0.0020	0.0030	0.0040
stainless steel	525	0.0005	0.0008	0.0015	0.0020	0.0030	0.0040
tool steels, annealed	125	0.0005	0.0008	0.0012	0.0015	0.0020	0.0030

Series **TM Solid** and **TMC Coolant-Thru** Thread Mills for Internal and External Threads

Applications |

STEEL

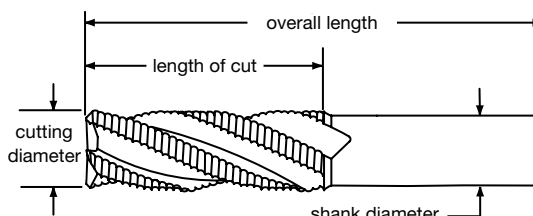
STAINLESS
STEELHI-TEMP
ALLOYSNON-FERROUS
MATERIALS

Features |

SOLID
CARBIDE

UNC

TiAIN



thread size	shank diameter	cutting diameter	length of cut	overall length	number of flutes	EDP number non-coolant	coolant-thru
6-32	1/8	.095	.218	2	3	B71000	—
8-32	1/8	.115	.250	2	3	B71002	—
8-36	1/8	.115	.250	2	3	B71003	—
10-24	3/16	.120	.312	2	3	B71004	—
10-32	3/16	.120	.312	2	3	B71005	—
1/4-20	3/16	.180	.500	2 1/2	3	B71008	B71508
1/4-28	3/16	.180	.500	2 1/2	3	B71009	B71509
5/16-18	1/4	.240	.625	2 1/2	3	B71010	B71510
5/16-24	1/4	.240	.625	2 1/2	3	B71011	B71511
3/8-16	5/16	.290	.750	3	4	B71012	B71512
3/8-24	5/16	.290	.750	3	4	B71013	B71513
7/16-14	3/8	.340	.875	3	4	B71014	B71514
7/16-20	3/8	.340	.875	3	4	B71015	B71515
1/2-13	3/8	.350	.875	3 1/2	4	B71016	B71516
1/2-20	3/8	.350	.875	3 1/2	4	B71017	—
9/16-12	1/2	.370	.875	3 1/2	4	B71018	B71518
9/16-18	1/2	.370	.875	3 1/2	4	B71019	B71519
5/8-11	1/2	.470	1.250	3 1/2	5	B71020	B71520
5/8-18	1/2	.470	1.250	3 1/2	5	B71021	B71521
3/4-10	1/2	.495	1.250	3 1/2	5	B71022	B71522
3/4-12	1/2	.495	1.250	3 1/2	5	B71023	B71523
3/4-16	1/2	.495	1.250	3 1/2	5	B71025	B71525
7/8-9	1/2	.495	1.250	3 1/2	5	B71026	B71526
7/8-14	1/2	.495	1.250	3 1/2	5	B71027	B71527
1-8	3/4	.620	1.375	4	5	B71028	B71528
1-12	3/4	.620	1.375	4	5	B71029	B71529

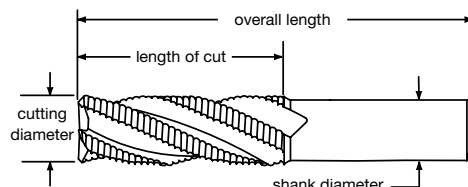
NPT / NPTF • BSPP • BSPT

Series **TMNP Solid** and **TMNPC Coolant-Thru** Thread Mills for Internal and External Threads

Applications

**NON-FERROUS
MATERIALS**
STEEL
**STAINLESS
STEEL**
**HI-TEMP
ALLOYS**

Features

NPT / NPTF
**SOLID
CARBIDE**
TiAIN


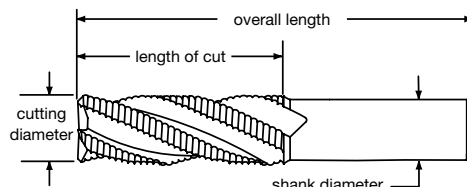
thread size	shank diameter	cutting diameter	length of cut	overall length	number of flutes	EDP number	
						non-coolant	coolant-thru
1/16-27	1/4	.245	.437	2 1/2	3	B71050	B71550
1/8-27	5/16	.310	.437	2 1/2	4	B71051	B71551
1/4, 3/8-18	3/8	.305	.625	3	4	B71052	B71552
1/2, 3/4-14	1/2	.495	.875	3 1/2	4	B71055	B71555
1-11.5	3/4	.620	1.125	4	5	B71056	B71556

Series **TMBPP Solid** and **TMBPPC Coolant-Thru** Thread Mills for Internal and External Threads

Applications

**NON-FERROUS
MATERIALS**
STEEL
**STAINLESS
STEEL**
**HI-TEMP
ALLOYS**

Features

BSPP
**SOLID
CARBIDE**
TiAIN


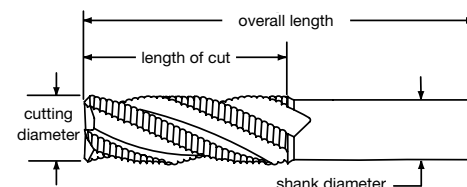
thread size	shank diameter	cutting diameter	length of cut	overall length	number of flutes	EDP number	
						non-coolant	coolant-thru
1/16, 1/8-28	1/4	.240	.572	2 1/2	3	B71100	B71600
1/4-19	5/16	.312	.737	3	4	B71101	B71601
1/2-14	1/2	.470	1.143	3 1/2	4	B71102	B71602
1-11	5/8	.620	1.546	4	5	B71104	B71604

Series **TMBPT Solid** and **TMBPTC Coolant-Thru** Thread Mills for Internal and External Threads

Applications

**NON-FERROUS
MATERIALS**
STEEL
**STAINLESS
STEEL**
**HI-TEMP
ALLOYS**

Features

BSPT
**SOLID
CARBIDE**
TiAIN


thread size	shank diameter	cutting diameter	length of cut	overall length	number of flutes	EDP number	
						non-coolant	coolant-thru
1/16, 1/8-28	1/4	.240	.401	2 1/2	3	B71120	B71620
1/4-19	5/16	.312	.578	3	4	B71121	B71621
1/2-14	1/2	.470	.785	3 1/2	4	B71122	B71622
1-11	5/8	.620	1.546	4	5	B71123	B71623



Metric

Series **TMM Solid** and **TMMC Coolant-Thru** Thread Mills for Internal Threads

Applications |

NON-FERROUS
MATERIALS

STEEL

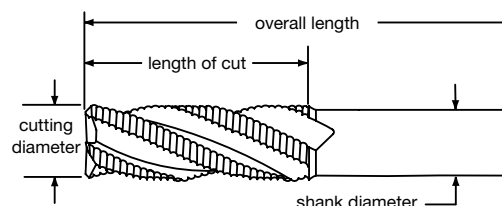
STAINLESS
STEELHI-TEMP
ALLOYS

Features |

SOLID
CARBIDE

METRIC

TiAlN



thread size	shank diameter	cutting diameter	length of cut	overall length	number of flutes	EDP number non-coolant	EDP number coolant-thru
M4 X 0.70	1/8	.120	.250	2	2	B71070	—
M4.5 X 0.75	1/8	.120	.250	2	3	B71071	—
M5 X 0.80	3/16	.120	.312	2	3	B71072	B71572
M6 X 1.00	3/16	.170	.500	2 1/2	3	B71073	B71573
M8 X 0.75	1/4	.235	.625	2 1/2	3	B71074	B71574
M8 X 1.00	1/4	.235	.625	2 1/2	3	B71075	B71575
M8 X 1.25	1/4	.235	.625	2 1/2	3	B71076	B71576
M10 X 1.25	5/16	.300	.750	3	4	B71077	B71577
M10 X 1.50	5/16	.300	.750	3	4	B71078	B71578
M12 X 1.00	3/8	.360	.875	3 1/2	4	B71079	B71579
M12 X 1.25	3/8	.360	.875	3 1/2	4	B71080	B71580
M12 X 1.75	3/8	.360	.875	3 1/2	4	B71081	B71581
M14 X 1.50	3/8	.360	.875	3 1/2	4	B71082	B71582
M16 X 2.00	1/2	.470	1.250	3 1/2	5	B71083	B71583
M18 X 2.50	1/2	.470	1.250	3 1/2	5	B71084	B71584
M20 X 3.00	1/2	.470	1.250	3 1/2	5	B71085	B71585

Series **BMTM2** $2 \times d_1$ ($l \leq 2 \times \text{Thread Diameter}$)

Applications

NON-FERROUS
MATERIALS

STEEL

STAINLESS
STEELHI-TEMP
ALLOYS

Features

SOLID
CARBIDE

INCH

AlCrN

Note

* Bore diameter applies to the smallest thread diameter.



American UN	UNC	UNF	TPI	thread pitch	description	class of fit	shank dia	d ₁ cutting dia	L overall length	l cut depth	pitch x 3 thread length	no. of flutes	no. of teeth	*bore dia.	order number BMTM2
	1-72		72	0.014	BMTM2-0571154-72UN	2B	1/4	.057	2.5	.154	0.042	3	3	.060	B76124
1-64		2-64	64	0.016	BMTM2-0571165-64UN	2B	1/4	.057	2.5	.165	0.047	3	3	.060	B76125
2-56		3-56	56	0.018	BMTM2-0651197-56UN	2B	1/4	.065	2.5	.197	0.054	3	3	.069	B76126
3-48		4-48	48	0.021	BMTM2-0751236-48UN	2B	1/4	.075	2.5	.236	0.063	3	3	.080	B76127
4, 5-40		6-40	40	0.025	BMTM2-0851236-40UN	2B	1/4	.085	2.5	.236	0.075	3	3	.090	B76128
		8-36	36	0.028	BMTM2-1151343-36UN	2B	1/4	.115	2.5	.343	0.083	3	3	.125	B76129
6, 8-32		10-32	32	0.031	BMTM2-1001292-32UN	2B	1/4	.100	2.5	.292	0.094	3	3	.110	B76130
8-32		10-32	32	0.031	BMTM2-1201394-32UN	2B	1/4	.120	2.5	.394	0.094	3	3	.130	B76131
		1/4x28	28	0.036	BMTM2-1801520-28UN	2B	1/4	.180	2.5	.520	0.107	3	3	.190	B76132
10-24		5/16x24	24	0.042	BMTM2-1301400-24UN	2B	1/4	.130	2.5	.400	0.125	3	3	.140	B76133
		5/16x24	24	0.042	BMTM2-2401650-24UN	2B	1/4	.240	2.5	.650	0.125	3	3	.255	B76134
1/4x20		7/16x20	20	0.05	BMTM2-1851530-20UN	2B	1/4	.185	2.5	.530	0.150	3	3	.200	B76135
		7/16x20	20	0.05	BMTM2-3401900-20UN	2B	3/8	.340	3	.900	0.150	4	3	.355	B76136
3/8x16			16	0.063	BMTM2-2901750-16UN	2B	3/8	.290	3	.750	0.188	4	3	.307	B76137
7/16x14			14	0.071	BMTM2-3401900-14UN	2B	3/8	.340	3	.900	0.214	4	3	.355	B76138
1/2-13			13	0.077	BMTM2-35011.10-13UN	2B	3/8	.350	3	1.10	0.231	4	3	.415	B76139

Series **BMTM3** $3 \times d_1$ ($l \leq 3 \times \text{Thread Diameter}$)

Applications

NON-FERROUS
MATERIALS

STEEL

STAINLESS
STEELHI-TEMP
ALLOYS

Features

SOLID
CARBIDE

INCH

AlCrN

Note

* Bore diameter applies to the smallest thread diameter.

American UN	UNC	UNF	TPI	thread pitch	description	class of fit	shank dia	d ₁ cutting dia	L overall length	l cut depth	pitch x 3 thread length	no. of flutes	no. of teeth	*bore dia.	order number BMTM3
	1-72		72	0.014	BMTM3-0571240-72UN	2B	1/4	.057	2.5	.240	0.042	3	3	.060	B76140
2-56		3-56	56	0.018	BMTM3-0651260-56UN	2B	1/4	.065	2.5	.260	0.054	3	3	.069	B76141
4, 5-40		6-40	40	0.025	BMTM3-0851310-40UN	2B	1/4	.085	2.5	.310	0.075	3	3	.090	B76142
5-40		6-40	40	0.025	BMTM3-1001400-32UN	2B	1/4	.100	2.5	.400	0.075	3	3	.110	B76143
8-32		10-32	32	0.031	BMTM3-1201500-32UN	2B	1/4	.120	2.5	.500	0.094	3	3	.130	B76144
		1/4x28	28	0.036	BMTM3-1801750-28UN	2B	1/4	.180	2.5	.750	0.107	3	3	.190	B76145
1/4x20		7/16x20	20	0.05	BMTM3-1851750-20UN	2B	1/4	.185	2.5	.750	0.150	3	3	.200	B76146
		5/16x24	24	0.042	BMTM3-2401940-24UN	2B	1/4	.240	2.5	.940	0.125	3	3	.255	B76147
5/16x18			18	0.056	BMTM3-2401900-18UN	2B	1/4	.240	2.5	.900	0.167	3	3	.255	B76148

Mini Solid Carbide Helical Thread Mills



BASSETT™

Metric

Series **BMTMM2** $2 \times d_1$ ($l \leq 2 \times \text{Thread Diameter}$)

Applications |

NON-FERROUS
MATERIALS

STEEL

STAINLESS
STEELHI-TEMP
ALLOYS

Features |

SOLID
CARBIDE

METRIC

AlCrN

Note

* Bore diameter applies to the smallest thread diameter.



ISO metric		pitch		description	class of fit	shank dia	d_1	L	l	pitch x 3	no. of flutes	no. of teeth	*bore dia.	order number
M course	M fine	mm	inch				cutting dia	overall length	cut depth	thread length				
M1.6x0.35		0.35	0.014	BMTMM2-047I140-0.35ISO	6H	1/8	.047	2.5	.140	0.042	3	3	.050	B76149
M2x0.4		0.4	0.016	BMTMM2-060I165-0.4ISO	6H	1/4	.060	2.5	.165	0.048	3	3	.065	B76150
M2.2x0.45		0.45	0.018	BMTMM2-065I180-0.45ISO	6H	1/4	.065	2.5	.180	0.054	3	3	.070	B76151
M2.5x0.45		0.45	0.018	BMTMM2-075I200-0.45ISO	6H	1/4	.075	2.5	.200	0.054	3	3	.080	B76152
M3x0.5	M3.5-M16x0.5	0.5	0.020	BMTMM2-090I245-05ISO	6H	1/4	.090	2.5	.245	0.060	3	3	.095	B76153
M3.5x0.6		0.6	0.024	BMTMM2-105I285-061ISO	6H	1/4	.105	2.5	.285	0.072	3	3	.111	B76154
M4x0.7		0.7	0.028	BMTMM2-120I325-0.7ISO	6H	1/4	.120	2.5	.325	0.084	3	3	.126	B76155
M5x0.8		0.8	0.031	BMTMM2-155I400-0.81ISO	6H	1/4	.155	2.5	.400	0.093	3	3	.161	B76156
M6x1.0	M8-M40x1.0	1	0.039	BMTMM2-185I500-1.0ISO	6H	1/4	.185	2.5	.500	0.117	3	3	.193	B76157
M8x1.25		1.25	0.049	BMTMM2-245I650-1.25ISO	6H	1/4	.245	2.5	.650	0.147	3	3	.257	B76158
M10x1.5	M12-M48x1.50	1.5	0.059	BMTMM2-330I800-1.5ISO	6H	3/8	.330	3	.800	0.177	3	3	.343	B76159
M12x1.75		1.75	0.069	BMTMM2-360I1.0-1.75ISO	6H	3/8	.360	3	1.000	0.207	4	3	.395	B76160

Series **BMTMM3** $3 \times d_1$ ($l \leq 3 \times \text{Thread Diameter}$)

Applications |

NON-FERROUS
MATERIALS

STEEL

STAINLESS
STEELHI-TEMP
ALLOYS

Features |

SOLID
CARBIDE

METRIC

AlCrN

Note

* Bore diameter applies to the smallest thread diameter.

ISO metric		pitch		description	class of fit	shank dia	d_1	L	l	pitch x 3	no. of flutes	no. of teeth	*bore dia.	order number
M course	M fine	mm	inch				cutting dia	overall length	cut depth	thread length				
M1.6x0.35		0.35	0.014	BMTMM3-047I197-0.35ISO	6H	1/8	.047	2.5	.197	0.042	3	3	.050	B76161
M2x0.4		0.4	0.016	BMTMM3-060I245-04ISO	6H	1/4	.060	2.5	.245	0.048	3	3	.065	B76162
M2.5x0.45		0.45	0.018	BMTMM3-075I275-0.45ISO	6H	1/4	.075	2.5	.275	0.054	3	3	.080	B76163
M3x0.5	M3.5-M16x0.5	0.5	0.020	BMTMM3-090I360-0.5ISO	6H	1/4	.090	2.5	.360	0.060	3	3	.095	B76164
M4x0.7		0.7	0.028	BMTMM3-120I490-07ISO	6H	1/4	.120	2.5	.490	0.084	3	3	.126	B76165
M5x0.8		0.8	0.031	BMTMM3-155I610-08ISO	6H	1/4	.155	2.5	.610	0.093	3	3	.161	B76166
M6x1.0	M8-M40x1.0	1	0.039	BMTMM3-185I725-1.0ISO	6H	1/4	.185	2.5	.725	0.117	3	3	.193	B76167
M8x1.25		1.25	0.049	BMTMM3-245I725-1.25ISO	6H	1/4	.245	2.5	.970	0.147	3	3	.257	B76168



Thread Mill Programming Request Form

Greenfield Industries offers free programming assistance to users of our thread milling products. If you are not familiar with thread milling, we highly recommend that you complete this program request form and fax it to 1-800-892-4290. The Technical Support department will return a suggested CNC program.

Endures Company Name _____
Contact _____
Telephone Number _____
Email Address _____
Distributor Name _____
Distributor Telephone Number _____
Distributor or Endures
Purchase Order Number _____

Thread Specifications:

Thread Type _____
RH/LH _____
Thread Diameter _____
TPI or Pitch (mm) _____
Class of Thread (1B, 2B, 3B) _____
Minimum Drilling Depth _____
Full Thread Length Min _____
Material _____
Material Hardness _____

CNC Machine Info

Brand _____
Model _____
Lathe _____
Milling Machine _____

Is machine capable of helical interpolation?
_____ yes _____ no

(if "no", machine cannot thread mill)

Tool Specs

Description _____
Order Number _____
Tool Diameter _____
Number of Flutes _____

FAX TO
1-800-892-4290



BASSETT™



Solid Carbide Burs

Contents & Technical Information

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Standard Shank Styles



Shank A — 1/8" solid carbide



Shank B — 1/8" hardened steel



Shank C — 1/4" hardened steel



Shank D — 1/4" solid carbide

Recommended Bur Speeds (RPM)

Bur Dia.	Standard Cut		Monarch Cut	
	stainless inconel titanium	all other materials in chart (right)	stainless inconel titanium	all other materials in chart (right)
1/16	75,000	50,000	37,500	25,000
1/8	53,000	35,000	26,500	17,500
3/16	38,000	26,000	19,000	13,000
1/4	33,000	22,000	16,500	11,000
5/16	30,000	20,000	15,000	10,000
3/8	27,000	18,000	13,500	9,000
1/2	24,000	16,000	12,000	8,000
5/8	23,000	15,300	11,500	7,650
3/4	21,000	14,000	10,500	7,000
7/8	20,000	13,000	10,000	6,500
1	18,000	12,000	9,000	6,000

Run aluminum cut burs at approximately the same speed as end mills designed for aluminum when machine milling.

ALL NEW! Carbide Extension Burs

now available on many style types. In this section indicated by **NEW** next to the USCTI number.

NEW

Features: Wide selection of shapes and sizes, constructed from solid carbide, bright surface treatment, right-hand spiral cut and double cut available, solid carbide shanks (Styles A and D) and brazed steel shanks (Styles B and C) available.

Bur Selection

when selecting a bur for a particular application, several factors must be taken into consideration.

The first is the selection of an appropriate shape and diameter that will be most suitable to the part being deburred. If working inside a slot, be certain that the maximum diameter of the bur is smaller than the slot.

Secondly, shank size must be selected. The correct shank will be determined by the size of the equipment being used and considering the diameter and length of the fluted portion of the bur.

The last decision is which cut, or flute pattern, to select. This is determined by the hardness of the material being removed and the finish required.

- Standard (right-hand spiral) cut is a general-purpose flute pattern which is designed for use in cast iron, steel, and other ferrous metals.
- Double cut, a general-purpose tooth pattern, gives better control than the standard cut in offband grinding. It minimizes slivers while producing a better finish. It can be used with slower speed grinders than standard cut.
- Aluminum (end mill) cut can be used for deburring softer, non-ferrous metals and non-metallic materials. The wide clearance and end mill type geometry of the flutes promotes fast stock removal with minimum loading.



standard cut



double cut



aluminum cut

Bur Selection by Material

Workpiece Material	First Choice	Alternative
aluminum	aluminum cut	—
brass	double cut	standard cut
bronze	double cut	standard cut
cast iron	double cut	standard cut
copper	aluminum cut	—
fiberglass	double cut	standard cut
inconel	double cut	standard cut
malleable iron	double cut	standard cut
magnesium	aluminum cut	—
masonite	double cut	standard cut
plastic	standard cut	—
steel alloy	double cut	—
carbon steel	double cut	—
stainless steel	double cut	—
titanium	double cut	—
zinc	aluminum cut	standard cut



Cylindrical

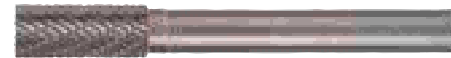
Series BA, Cylindrical Burs without End Cut



Applications |



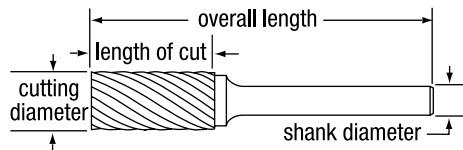
Features |



Applications |

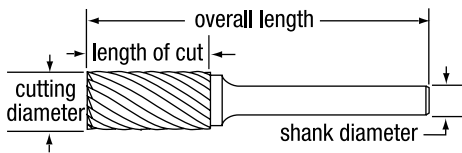


Features |



SCTI reference	cutting diameter inch	cutting diameter decimal	length of cut	overall length	shank diameter	shank type	EDP number	
							standard	double
SA-41	1/16	.0625	1/4	1-1/2	1/8	A	B55600	B55601
SA-42	3/32	.0938	7/16	1-1/2	1/8	A	B55608	B55609
SA-43	1/8	.1250	9/16	1-1/2	1/8	A	B54801	B54810
SA-51	1/4	.2500	1/2	1-3/4	1/8	B	B55700	B55712
SA-1	1/4	.2500	5/8	2	1/4	D	B54802	B54811
NEW SA-1L6	1/4	.2500	1/2	6-1/2	1/4	C	B55900	B55923
SA-3	3/8	.3750	3/4	2-1/2	1/4	C	B54803	B54812
NEW SA-3L6	3/8	.3750	3/4	6-3/4	1/4	C	B55901	B55924
SA-5	1/2	.5000	1	2-3/4	1/4	C	B54804	B54813
NEW SA-5L6	1/2	.5000	1	7	1/4	C	B55902	B55925
SA-6	5/8	.6250	1	2-3/4	1/4	C	B54805	B54814
SA-7	3/4	.7500	1	2-3/4	1/4	C	B54806	B54815
SA-9	1	1.0000	1	2-3/4	1/4	C	B54807	B54816

Series BAE, Cylindrical Burs with End Cut



Applications |



Features |



Applications |



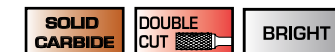
Features |



Applications |



Features |

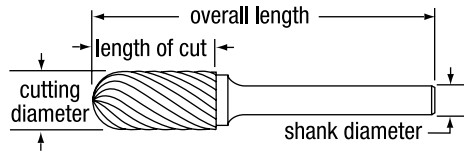


SCTI reference	cutting diameter inch	cutting diameter decimal	length of cut	overall length	shank diameter	shank type	EDP number		
							standard	double	aluminum
SB-41	1/16	.0625	1/4	1 1/2	1/8	A	B55604	—	—
SB-42	3/32	.0938	7/16	1 1/2	1/8	A	B55612	—	—
SB-43	1/8	.1250	9/16	1 1/2	1/8	A	B54837	—	—
SB-51	1/4	.2500	1/2	1 3/4	1/8	B	B55701	B55713	—
SB-1	1/4	.2500	5/8	2	1/4	D	B54838	B54847	B55856
SB-3	3/8	.3750	3/4	2 1/2	1/4	C	B54839	B54848	B55857
SB-5	1/2	.5000	1	2 3/4	1/4	C	B54840	B54849	B55858
SB-6	5/8	.6250	1	2 3/4	1/4	C	—	B54850	B55859
SB-7	3/4	.7500	1	2 3/4	1/4	C	—	B54851	B55860
SB-9	1	1.0000	1	2 3/4	1/4	C	B54843	—	—

Shank Type: A — 1/8" solid carbide. B — 1/8" hardened steel. C — 1/4" hardened steel. D — 1/4" solid carbide.

Cylindrical • Ball

Series BC, Cylindrical Burs with Ball Nose

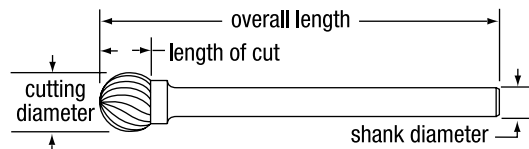


Applications | NON-FERROUS MATERIALS

Features | SOLID CARBIDE ALUMINUM CUT BRIGHT

SCTI reference	cutting diameter inch	cutting diameter decimal	length of cut	overall length	shank diameter	shank type	standard	EDP number double	aluminum
SC-41	3/32	.0938	7/16	1-1/2	1/8	A	B55620	B55621	-
SC-42	1/8	.1250	9/16	1-1/2	1/8	A	B54873	B54882	-
SC-51	1/4	.2500	1/2	1-3/4	1/8	B	B55704	B55716	-
SC-1	1/4	.2500	5/8	2	1/4	D	B54874	B54883	B55862
NEW SC-1L6	1/4	.2500	1/2	6-1/2	1/4	C	B55903	B55926	-
SC-3	3/8	.3750	3/4	2-1/2	1/4	C	B54875	B54884	B55863
NEW SC-3L6	3/8	.3750	3/4	6-3/4	1/4	C	B55904	B55927	-
SC-5	1/2	.5000	1	2-3/4	1/4	C	B54876	B54885	B55864
NEW SC-5L6	1/2	.5000	1	7	1/4	C	B55905	B55928	-
SC-6	5/8	.6250	1	2-3/4	1/4	C	B54877	B54886	-
SC-7	3/4	.7500	1	2-3/4	1/4	C	B54878	B54887	B55865

Series BD, Ball Shape



Applications | NON-FERROUS MATERIALS

Features | SOLID CARBIDE ALUMINUM CUT BRIGHT

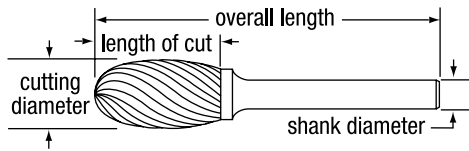
SCTI reference	cutting diameter inch	cutting diameter decimal	length of cut	overall length	shank diameter	shank type	standard	EDP number double	aluminum
SD-41	3/32	.0938	3/32	1-1/2	1/8	A	B55624	B55625	-
SD-42	1/8	.1250	1/8	1-1/2	1/8	A	B54909	B54918	-
SD-51	1/4	.2500	1/4	1-3/4	1/8	B	B55705	B55717	-
SD-1	1/4	.2500	1/4	2	1/4	D	B54910	B54919	B55867
NEW SD-1L6	1/4	.2500	7/32	6-7/32	1/4	C	B55906	B55929	-
SD-3	3/8	.3750	3/8	2-5/64	1/4	C	B54911	B54920	B55868
NEW SD-3L6	3/8	.3750	5/16	6-5/16	1/4	C	B55907	B55930	-
SD-5	1/2	.5000	1/2	2-13/64	1/4	C	B54912	B54921	B55869
NEW SD-5L6	1/2	.5000	7/16	6-7/16	1/4	C	B55908	B55931	-
SD-6	5/8	.6250	5/8	2-5/16	1/4	C	B54913	B54922	-
SD-7	3/4	.7500	3/4	2-7/16	1/4	C	B54914	B54923	-
SD-9	1	1.0000	1	2-11/16	1/4	C	B54915	B54924	-

Shank Type: A — 1/8" solid carbide. B — 1/8" hardened steel. C — 1/4" hardened steel. D — 1/4" solid carbide.



Egg • Round Nose Tree

Series BE, Egg Shape



Applications |

NON-FERROUS
MATERIALS

Features |

SOLID
CARBIDEALUMINUM
CUT

BRIGHT

Applications |

STEEL

CAST
IRONNON-FERROUS
MATERIALSSTAINLESS
STEEL

Features |

SOLID
CARBIDESTANDARD
CUT

BRIGHT



Applications |

STEEL

CAST
IRONHI-TEMP
ALLOYSSTAINLESS
STEEL

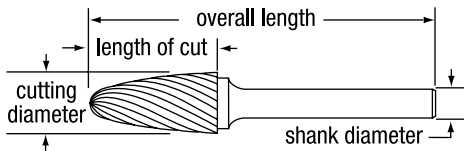
Features |

SOLID
CARBIDEDOUBLE
CUT

BRIGHT

SCTI reference	cutting diameter		length of cut	overall length	shank diameter	shank type	EDP number		
	inch	decimal					standard	double	aluminum
SE-41	1/8	.1250	7/32	1-1/2	1/8	A	B54945	B54954	-
SE-51	1/4	.2500	3/8	1-5/8	1/8	B	-	B55718	-
SE-1	1/4	.2500	3/8	2	1/4	D	B54946	B54955	-
NEW SE-1L6	1/4	.2500	3/8	6-3/8	1/4	C	B55909	B55932	-
SE-3	3/8	.3750	5/8	2-3/8	1/4	C	B54947	B54956	B55873
NEW SE-3L6	3/8	.3750	5/8	6-5/8	1/4	C	B55910	B55933	-
SE-5	1/2	.5000	7/8	2-5/8	1/4	C	B54948	B54957	B55874
NEW SE-5L6	1/2	.5000	7/8	6-7/8	1/4	C	B55911	B55934	-
SE-6	5/8	.6250	1	2-3/4	1/4	C	-	-	B55875
SE-7	3/4	.7500	1	2-3/4	1/4	C	B54950	B54959	-

Series BF, Round Nose Tree Shape



Applications |

NON-FERROUS
MATERIALS

Features |

SOLID
CARBIDEALUMINUM
CUT

BRIGHT

Applications |

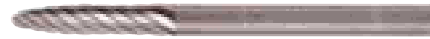
STEEL

CAST
IRONNON-FERROUS
MATERIALSSTAINLESS
STEEL

Features |

SOLID
CARBIDESTANDARD
CUT

BRIGHT



Applications |

STEEL

CAST
IRONHI-TEMP
ALLOYSSTAINLESS
STEEL

Features |

SOLID
CARBIDEDOUBLE
CUT

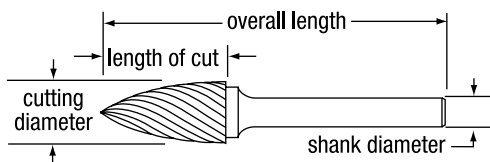
BRIGHT

SCTI reference	cutting diameter		length of cut	overall length	shank diameter	shank type	EDP number		
	inch	decimal					standard	double	aluminum
SF-41	1/8	.1250	1/4	1-1/2	1/8	A	B55628	B55629	-
SF-42	1/8	.1250	1/2	1-1/2	1/8	A	B54981	B54990	-
SF-51	1/4	.2500	1/2	1-3/4	1/8	B	B55707	B55719	-
SF-1	1/4	.2500	5/8	2	1/4	D	B54982	B54991	B55878
NEW SF-1L6	1/4	.2500	1/2	6-1/2	1/4	C	B55912	B55935	-
SF-3	3/8	.3750	3/4	2-1/2	1/4	C	B54983	B54992	B55879
NEW SF-3L6	3/8	.3750	3/4	6-3/4	1/4	C	B55913	B55936	-
SF-5	1/2	.5000	1	2-3/4	1/4	C	B54984	B54993	B55880
NEW SF-5L6	1/2	.5000	1	7	1/4	C	B55914	B55937	-
SF-6	5/8	.6250	1	2-3/4	1/4	C	B54985	B54994	B55881
SF-7	3/4	.7500	1	2-3/4	1/4	C	B54986	B54995	-

Shank Type: A — 1/8" solid carbide. B — 1/8" hardened steel. C — 1/4" hardened steel. D — 1/4" solid carbide.

Pointed Tree • Flame Shape

Series BG, Pointed Tree Shape



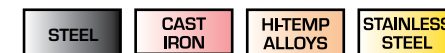
Applications |



Features |



Applications |

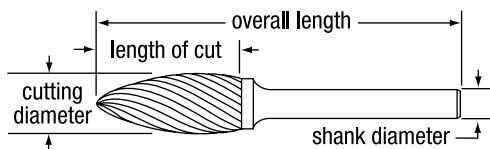


Features |



SCTI reference	cutting diameter		length of cut	overall length	shank diameter	shank type	EDP number	
	inch	decimal					standard	double
SG-42	1/8	.1250	5/16	1-1/2	1/8	A	B55636	B55637
SG-43	1/8	.1250	3/8	1-1/2	1/8	A	B55017	B55026
SG-41	1/8	.1250	1/4	1-1/2	1/8	A	B55632	B55633
SG-51	1/4	.2500	1/2	1-3/4	1/8	B	-	B55720
SG-1	1/4	.2500	5/8	2	1/4	D	B55018	B55027
NEW SG-1L6	1/4	.2500	1/2	6-1/2	1/4	C	B55915	B55938
SG-3	3/8	.3750	3/4	2-1/2	1/4	C	B55019	B55028
NEW SG-3L6	3/8	.3750	3/4	6-3/4	1/4	C	B55916	B55939
SG-5	1/2	.5000	1	2-3/4	1/4	C	B55020	B55029
NEW SG-5L6	1/2	.5000	1	7	1/4	C	B55917	B55940
SG-6	5/8	.6250	1	2-3/4	1/4	C	B55021	B55030

Series BH, Flame Shape



Applications |



Features |



Applications |



Features |



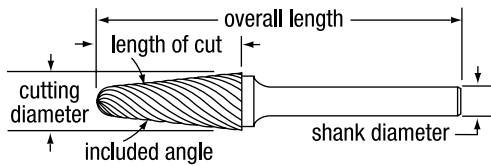
SCTI reference	cutting diameter		length of cut	overall length	shank diameter	shank type	EDP number	
	inch	decimal					standard	double
SH-41	1/8	.1250	1/4	1 1/2	1/8	A	B55053	B55060
SH-2	5/16	.3125	3/4	2 1/2	1/4	C	B55054	B55061
NEW SH-2L6	5/16	.3125	3/4	6-3/4	1/4	C	B55918	B55941
SH-5	1/2	.5000	1-1/4	3	1/4	C	B55055	B55062
NEW SH-5L6	1/2	.5000	1-1/4	7-1/4	1/4	C	B55919	B55942

Shank Type: A — 1/8" solid carbide. B — 1/8" hardened steel. C — 1/4" hardened steel. D — 1/4" solid carbide.



14° Included Cone, Radius • Pointed Cone

Series BL, 14° Included Cone Radius Shape



Applications



Features



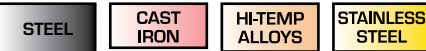
Applications



Features



Applications

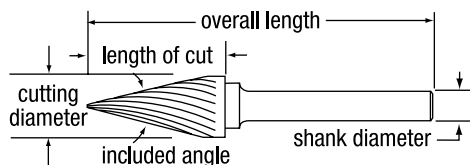


Features



SCTI reference	cutting diameter inch	cutting diameter decimal	length of cut	overall length	shank diameter	shank type	standard	EDP number double	aluminum
SL-41	1/8	.1250	3/8	1-1/2	1/8	A	B55640	B55641	-
SL-42	1/8	.1250	1/2	1-1/2	1/8	A	B55145	B55154	B55170
SL-1	1/4	.2500	5/8	2	1/4	D	B55146	B55155	B55171
NEW SL-1L6	1/4	.2500	5/8	6-5/8	1/4	C	B55920	B55943	-
SL-3	3/8	.3750	1-1/16	2-15/16	1/4	C	B55147	B55156	-
NEW SL-3L6	3/8	.3750	1-1/16	7-1/16	1/4	C	B55921	B55944	-
SL-4	1/2	.5000	1-1/8	3	1/4	C	B55148	B55157	B55884
NEW SL-5L6	1/2	.5000	1-1/8	7-1/8	1/4	C	B55922	B55945	-
SL-6	5/8	.6250	1 5/16	3 3/16	1/4	C	B55149	B55158	B55885

Series BM, Pointed Cone Shape



Applications



Features



Applications



Features

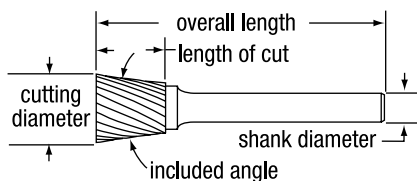


SCTI reference	included angle	cutting diameter inch	cutting diameter decimal	length of cut	overall length	shank diameter	shank type	EDP number standard	double
SM-41	12 °	1/8	.1250	3/8	1-1/2	1/8	A	B55644	B55645
SM-42	14 °	1/8	.1250	7/16	1-1/2	1/8	A	B55181	B55190
SM-43	7 °	1/8	.1250	5/8	1-1/2	1/8	A	B55648	B55649
SM-51	22 °	1/4	.2500	1/2	1-7/8	1/8	B	B55709	B55721
SM-1	22 °	1/4	.2500	1/2	2	1/4	D	B55182	B55191
SM-3	10 °	1/4	.2500	1	2	1/4	D	B55183	B55192
SM-4	28 °	3/8	.3750	5/8	2-1/2	1/4	C	B55184	B55193
SM-5	28 °	1/2	.5000	7/8	2-3/4	1/4	C	B55185	B55194

Shank Type: A — 1/8" solid carbide. B — 1/8" hardened steel. C — 1/4" hardened steel. D — 1/4" solid carbide.

Inverted Taper

Series BN, Inverted Taper Shape



Applications |



Features |



Applications |



Features |



SCTI reference	included angle	cutting diameter		length of cut	overall length	shank diameter	shank type	EDP number	
		inch	decimal					standard	double
SN-41	–	3/32	.0938	3/16	1-1/2	1/8	A	B55652	–
SN-51	10 °	1/4	.2500	1/4	1-1/2	1/8	A	B55710	B55722

Shank Type: A — 1/8" solid carbide. B — 1/8" hardened steel. C — 1/4" hardened steel. D — 1/4" solid carbide.



BASSETT™



Index by EDP Number







Solid Carbide Cutting Tools

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