



The Right Tool at the Right Time

DORMER

2009

MAIN CATALOG



AMG Charts

Our AMG (Application Material Group) Charts are located at the front of each tool section and are designed to give you all the product information you will need to find the best tool quickly.

In the AMG example seen below (see page 12 - Solid Carbide Drill AMG), you can find this information:

How to use the chart to find operating parameters

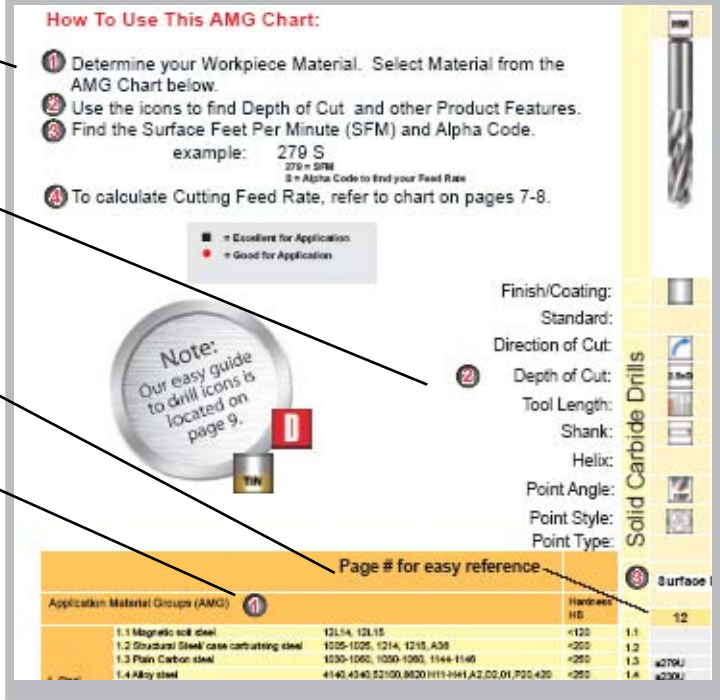
Tool features

Product pages (see below)

Application Material Groups

Product pages:

- Features
- Drawings
- Sizes
- Order Codes



How To Use This AMG Chart:

- Determine your Workpiece Material. Select Material from the AMG Chart below.
- Use the icons to find Depth of Cut and other Product Features.
- Find the Surface Feet Per Minute (SFM) and Alpha Code.
- To calculate Cutting Feed Rate, refer to chart on pages 7-8.

example: 279 S
S = Alpha Code to find your Feed Rate

■ = Excellent for Application
● = Good for Application

Note: Our easy guide to drill icons is located on page 9.

Finish/Coating: Standard

Direction of Cut: Standard

Depth of Cut: Standard

Tool Length: Standard

Shank: Standard

Helix: Standard

Point Angle: Standard

Point Style: Standard

Point Type: Standard

Page # for easy reference

Application Material Groups (AMG)	Hardness HB	Page
1.1 Magnesium alloy steel	121-14	121-15
1.2 Structural Steel/case carburizing steel	1025-1026, 1214, 1215, A30	<120
1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<200
1.4 Alloy steel	4140, 4340, 52100, 8620, H11-H14, A2, D2, D1, P20, A20	<250

D12W

• Stub Drill
• Slow helix, heavy-duty

• Form extra-coat
• Broca extra-coat

HM 2.5xD 135°

1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d ₁	d ₂	l ₁	l ₂	EDP #	d ₁	d ₂	l ₁	l ₂	EDP #
inch	inch	inch	inch	or e-Code	inch	inch	inch	inch	or e-Code
60	0.0400	1/2	1.30	000350	28	0.1470	1"	2.118	003391
69	0.0410	1/2	1.30	000351	25	0.1465	1"	2.118	003392

To order our products, or if you have any questions, please contact our customer service team at the numbers listed below, or contact cs@precisiondormer.com. To find a distributor in your area, please visit our web site.

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Customer Service, Sales and Technical Support

Style Index (Alpha/Numeric Order) 4

DRILLS

Table of Contents.....	6
Technical (Feed Rates).....	9

SOLID CARBIDE DRILLS

AMG Chart (Products Follow).....	12

HSS DRILLS

Stub Drills AMG Chart (Products Follow)	26
Jobber Drills AMG Chart (Product Follow).....	54
Taper Length Drills AMG Chart (Product Follow).....	108
Extra Length Drills AMG Chart (Products Follow)	136
Taper/Redc'd Shank AMG Chart (Products Follow) ...	152
Special Purp./Sets AMG Chart (Products Follow)	166

TAPS and DIES

Table of Contents.....	182
AMG Charts	186
Technical Charts	201
Straight Flute Taps.....	211
Spiral Point Taps.....	252
Spiral Flute Taps.....	285
Thread Forming Taps	308
Pipe Taps.....	322
Drill and Tap, Wrenches & Dies.....	336

SOLID CARBIDE END MILLS

Table of Contents.....	345
Technical (Feed Rates).....	346
AMG Chart (Products Follow).....	348

HSS END MILLS

Table of Contents.....	391
Technical (Feed Rates).....	392
AMG Chart (Products Follow).....	394

REAMERS, MISC

Table of Contents.....	437
Technical (Feed Rates).....	438
AMG Chart (Products Follow).....	440



Quick Search by
Tool Style on
next page

Application/ Material Guides	
Drills	
Solid Carbide	12
HSS Stub	26
HSS Jobber	54
HSS Taper Length	108
HSS Extra Length	136
HSS Taper/Red. Shank	152
Special Purpose	166
Taps/Dies	
Straight Flute	186
Spiral Point	190
Spiral Flute	194
Thread Forming	196
Taper Pipe	198
Miscellaneous Taps	200
Dies	200
End Mills	
Solid Carbide	348
HSS	394
Reamers	
	440
Counterbores	
	441
Countersinks	
	442

Guide to Icons	
Drills	11
Taps/Dies	203
SC End Mills	348
HSS End Mills	394
Reamers/Counterbores	440
Countersinks	442

Feed Rate Charts	
Drills	8
SC End Mills	346
HSS End Mills	392
Reamers/Counterbores	438

A	
A002	68
A012	66
A022	34
A141	65
A217	172
A218	172
A221	173
A236	173
A345	150
A510	60
A520	28
A553	58
A554	59
A577	62
A578	110
A597	30
A720	33
A907	64
A916	112
A927	31
A976	138
A977	139
A978	139
ATR41	175
B	
B76HA	171
C	
C191	430
C192	432
C291	433
C292	435
C391	436
C392	436
CO500-12	141
CO500-6	140
CO501-12	141
CO501-6	140
D	
D000	168
D12F	18
D12W	19
D13F	14
D13M	14
D21	24
D31F	20
D31W	21
D33F	22
D33L	22
D33M	24

D33W	23
D444	169
D555	170
DC	25
Drill Sets	178
DS-90	25
E	
E000	259
E001	260
E002	294
E003	295
E005	256
E006	257
E007	291
E008	291
E009	310
E010	261
E011	262
E012	296
E013	297
E015	258
E016	258
E017	292
E018	292
E025	252
E026	254
E027	285
E028	286
E029	308
E035	253
E036	255
E037	287
E038	288
E039	309
E040	330
E041	330
E042	331
E043	331
E044	299
E045	263
E046	264
E048	299
E049	263
E050	298
E051	298
E052	300
E053	242
E054	243
E055	264
E057	265

E058	300
E059	242
E060	265
E061	212
E064	309
E069	289
E071	214
E074	310
E079	290
E080	313
E085	293
E094	311
E097	311
E098	312
E099	312
E1302	355
E1302G	356
E1302V	356
E1304	374
E1304G	374
E1304V	375
E2302	357
E2304	375
E3302	357
E3302G	358
E3302M	360
E3302MG	361
E3302MV	362
E3302V	359
E3303	372
E3303G	373
E3303V	373
E3304	376
E3304G	377
E3304M	379
E3304MG	380
E3304MV	381
E3304V	378
E3603	354
E3603G	354
E3603V	355
E4302	368
E4304	386
E500	244
E501	247
E513	248
E547	332
E550	333
E6302	369
E6302G	370

E6302V	370
E6304	387
E6304G	388
E6304V	388
E650, E651	335
E653	336
E710	322
EB3302	363
EB3302G	364
EB3302M	366
EB3302MG	367
EB3302MV	368
EB3302V	365
EB3304	382
EB3304G	383
EB3304M	385
EB3304MG	386
EB3304MV	384
EB3304V	384
EB4302	369
EB4304	387
EB6302	371
EB6302G	371
EB6302V	372
EB6304	389
EB6304G	389
EB6304V	390
EZ10P	84
EZ18P	84
EZ40G	43
EZ40P	44
EZ41G	45
EZ41P	45
EZ51P	126
G	
G135	465
G136	466
G137	466
G138	467
G154	467
G155	467
H	
HX10	85
HX15	85
HX18	86
L	
L10	106
L18	107
L209	158
L40	53

M	
M40CO	40
M41CO	41
M42CO	40
M51CO	123
M52CO	124
Q	
QC0860P	146
QC1290P	148
QC21	74
QC21CO	70
QC21COM	71
QC21G	73
QC21GM	76
QC21M	77
QC21P	75
QC21PM	77
QC21V	72
QC41	38
QC41CO	36
QC41G	37
QC41P	39
QC91	118
QC91CO	114
QC91COM	115
QC91G	117
QC91GM	120
QC91M	121
QC91P	119
QC91PM	122
QC91V	116
R	
R002	16
R022	15
R08	102
R09	133
R10	91
R10A	89
R10B	87
R10CO	78
R10H	103
R10P	97
R10PM	100
R10S	106
R15	93
R15A	90
R15B	88
R15CO	80
R15P	99
R18	92

R18A	89	TN1543(NPTF)	324	901	424	1528(UNC)	216	1593(UNF)	280	4587	451
R18B	88	TN1585(UNC)	273	905	412	1528(UNF)	218	1595(UNC)	233	4588	452
R18CO	79	TN1585(UNF)	273	907	416	1528(UNS)	218	1595(UNF)	233	4591	451
R18H	104	TN1785	275	911	428	1528S	219	1599(M)	241	4600	452
R18P	98	TN9002	400	917	428	1534(UNC)	266	1599(UNC)	240	4602	464
R18S	105	TN9003	404	919	429	1534(UNF)	267	1599(UNF)	240	4603	465
R40	50	TN9008	402	920	409	1534NE(UNC)	283	1599SB(M)	241	4608	456
R40C	46	TN9009	405	920K	410	1534NE(UNF)	283	1600(UNC)	239	4700	461
R41	51	TN920	411	921	412	1534NR(UNC)	276	1600(UNF)	239	4702	459
R41C	47	TN921	413	922	413	1534NR(UNF)	277	1634(UNC)	268	4703	460
R42	52	TN923	416	923	415	1534NR(UNS)	277	1634(UNF)	268	4704	463
R42C	48	TN940	420	930	417	1541(NPT)	323	1700(M)	225	4705	462
R51	128	TN943	426	931	418	1542(NPS)	329	1700S	227	4706	461
R51FS	134	TN945	422	933	418	1543(NPTF)	324	1785M	275	8007	338
R51K	127	TN946	424	940	419	1544(NPT)	325	1785NR	282	9002	400
R51OH	125	TN948	427	941	421	1545(NPT)	325	1788(M)	305	9003	403
R52	129	TS10,15,18	177	943	425	1545A(NPT)	326	1800-3850		9004	406
R52FS	134	TS40, 41	177	944	421	1546(NPTF)	326	1800	468	9008	402
R53OH	125	TS51, 52, 55	177	945	422	1548(NPT)	328	1813	149	9009	405
R55	130	U		946	423	1549(NPTF)	328	1815	468		
R55FS	135	U1511	237	947	425	1567(NPTF)	327	1816	468		
R56	163	0860-883		948	427	1568(NPT)	327	1985(UNC)	274		
R56CO	162	0860	146	960	407	1572(UNC)	236	1985(UNF)	274		
R57	164	2A	95	961	408	1572(UNF)	237	1900	468		
R58	165	2AB	94	962	408	1578(UNC)	284	1994(UNC)	334		
R88CO	83	2ACO	81	963	407	1578(UNF)	284	1994(UNF)	334		
R89CO	83	60B	176	980	414	1580(M)	316	2010	341		
RTDA	390	76HA	171	981	414	1580(UNC)	314	2025	339		
S		76LO	171	982	415	1580(UNF)	315	2025S	340		
SETS	178	209	156	1215-1301		1582(UNC)	301	2510	342		
S209	159	209CO	154	1215	337	1582(UNF)	301	2325M	340		
SM8	176	209OH	155	1290	147	1585(UNC)	270	2710M	343		
SPL, SPLG	174	229C	337	1301	338	1585(UNF)	271	3150	344		
SPR, SPRG	174	4ASM	49	1500-1788		1585A(UNC)	272	3300(M)	319		
SPS, SPSG	174	4ASMC	42	1500(UNC)	220	1585A(UNF)	272	3300(UNC)	317		
SS300	457	411	468	1500(UNF)	222	1585NR(UNC)	278	3300(UNF)	318		
SS400	457	430	468	1500(UNS)	223	1585NR(UNF)	279	3306E(UNC)	320		
T		500-6	142	1500A(UNC)	228	1585OV(UNC)	281	3306E(UNF)	321		
T100	211	500-12	144	1500A(UNF)	228	1586(UNC)	302	3850	338		
T110	211	501-6	143	1500L(UNC)	230	1586(UNF)	302	4500-9009			
T400	458	501-12	145	1500L(UNF)	230	1587(UNC)	303	4500	449		
TC9002	401	502-6	142	1500L(UNS)	231	1587(UNF)	303	4531	450		
TC9003	404	502-12	144	1500OV(UNC)	231	1588(UNC)	304	4532	455		
TC9008	403	5ATL	131	1500S	224	1588(UNF)	304	4533	443		
TC9009	406	5ATS	160	1505(UNC)	234	1590(UNC)	306	4533S	446		
TN1500(UNC)	229	707, 727, 757	468	1505(UNS)	235	1590(UNF)	306	4535	447		
TN1500(UNF)	229	860	146	1508(UNC)	232	1591(UNC)	307	4536	454		
TN1534(UNC)	269	883	429	1508(UNF)	232	1591(UNF)	307	4537	453		
TN1534(UNF)	269	900-982		1511	149	1592(NPSF)	329	4543	448		
TN1541(NPT)	323	900	423	1519(UNC)	238	1593(UNC)	280	4579	456		



Drill Table of Contents



Style	Description	Size	Point Angle	Finish	Page No.
Solid Carbide					
D12F	Slow Helix, Short	F	135°	Bright	18
D12W	Slow Helix, Short	W	135°	Bright	19
D13F, D13M	3 Flute Solid Short	F, M	150°	Bright	14
D21	Spade Drill	F	118°	Bright	24
D31F	Short	F	140°	Bright	20
D31W	Short	W	140°	Bright	21
D33F	Standard Length	F	118°	Bright	22
D33L	Standard Length	L	118°	Bright	22
D33M	Standard Length	M	118°	Bright	24
D33W	Standard Length	W	118°	Bright	23
DC	Center Drill	No.	60°	Bright	25
DS-90	Spotting Drill	F	90°	Bright	25
R002	Standard Length	F, W, L, M	118°	Bright/TiN	16
R022	Short	F, W, L, M	118°	Bright/TiN	15
Stub					
4ASM	Heavy-Duty	M	135°	Steam Oxide	49
4ASMC0	Heavy-Duty	M	135°	Bronze	42
A022	TiN-Tipped	F,M	135°	Bright/TiN	34
A520	ADX, Quick Helix, CNC Machining	F,M	130°	TiN	28
A597	PFX, Cobalt, Deep-Hole Drilling	M	130°	TiAlN	30
A720	Micro	M	118°	Bright	33
A927	PFX, Cobalt, Deep-Hole Drilling	F,M	130°	Bright	31
EZ40G	Parabolic	F	135°	TiN	43
EZ40P	Parabolic	F	135°	Bright	44
EZ41G	Parabolic	W	135°	TiN	45
EZ41P	Parabolic	W	135°	Bright	45
L40	Left-Hand	F	118°	Bright	53
M40, 41, 42CO	Heavy-Duty	F, W, L	135°	Bronze	40
QC41	Wide-Land Parabolic	F,W	135°	Steam Oxide	38
QC41CO	Wide-Land Parabolic	F,W	135°	Bronze	36
QC41G	Wide-Land Parabolic	F,W	135°	TiN	37
QC41P	Wide-Land Parabolic	F,W	135°	Bright	39
R40	General Purpose	F	118°	Bright	50
R40C	Heavy-Duty	F	135°	Steam Oxide	46
R41	General Purpose	W	118°	Bright	51
R41C	Heavy-Duty	W	135°	Steam Oxide	47
R42	General Purpose	L	118°	Bright	52
R42C	Heavy-Duty	L	135°	Steam Oxide	48
Jobber					
A002	118°, 4-Facet Point	M	118°	Bright/TiN	68
A012	TiN-Tipped	F, L, W	118°	Bright/TiN	66
A141	Fast Spiral	F	135°	Steam Oxide/Bronze	65
A510	ADX, Quick Helix, CNC Machining	F, M	130°	TiN	60
A553	ADX Coolant	M	130°	TiAlN	58
A554	ADX Coolant	M	130°	TiAlN	59
A577	PFX, Cobalt Deep-Hole	M	130°	Bright	62
A907	PFX, Cobalt Deep-Hole	F, L,W	130°	Bright	64
QC21	Wide-Land Parabolic	F, W	135°	Steam Oxide	74
QC21CO	Wide-Land Parabolic	F, W, L	135°	Bronze	70
QC21COM	Wide-Land Parabolic	M	135°	Bronze	71
QC21G	Wide-Land Parabolic	F, W	135°	TiN	73
QC21GM	Wide-Land Parabolic	M	135°	TiN	76
QC21P	Wide-Land Parabolic	F, W, L	135°	Bright	75
QC21V	Wide-Land Parabolic	F, W	135°	TiAlN	72

Style	Description	Size	Point Angle	Finish	Page No.
Jobber (con't)					
2A	General Purpose	M	118°	Bright	95
2AB	General Purpose	M	118°	Steam Oxide	94
2ACO	Heavy-Duty, Type J	M	135°	Bronze	81
EZ10P	Parabolic	F	135°	Bright	84
EZ18P	Parabolic	W	135°	Bright	84
HX10	General Purpose	F	135°	Purple/Bronze	85
HX15	General Purpose	L	135°	Purple/Bronze	85
HX18	General Purpose	W	135°	Purple/Bronze	86
L10, L18	Left Hand	F, W	118°	Bright	106
QC21M	Wide-Land Parabolic	M	135°	Steam Oxide Oxide	77
QC21PM	Wide-Land Parabolic	F	135°	Bright	77
R08	Auto, Tang	F, L, W	118°	Steam Oxide	102
R10	General Purpose	F	118°	Steam Oxide	91
R10A	Heavy-Duty, Type A	F	118°	Steam Oxide	89
R10B	Heavy-Duty, Type B	F	135°	Steam Oxide	87
R10CO	Heavy-Duty, Type J	F	135°	Bronze	78
R10H	High Helix	F	118°	Bright	103
R10P	General Purpose	F	118°	Bright	97
R10PM	General Purpose	M	118°	Bright	100
R10S	Low Helix	W	118°	Bright	106
R15	General Purpose	L	118°	Steam Oxide	93
R15A	Heavy-Duty, Type A	L	118°	Steam Oxide	90
R15B	Heavy-Duty, Type B	L	135°	Steam Oxide	88
R15CO	Heavy-Duty, Type J	L	135°	Bronze	80
R15P	General Purpose	L	118°	Bright	99
R18	General Purpose	W	118°	Steam Oxide	92
R18A	Heavy-Duty, Type A	W	118°	Steam Oxide	89
R18B	Heavy-Duty, Type B	W	135°	Steam Oxide	88
R18CO	Heavy-Duty, Type J	W	135°	Bronze	79
R18H	High Helix	W	118°	Bright	104
R18P	General Purpose	W	118°	Bright	98
R18S	Low Helix	F	118°	Bright	105
R88CO	Heavy-Duty, Type D	F	135°	Bronze	83
R89CO	Heavy-Duty, Type D	W	135°	Bronze	83
Taper					
5ATL	General Purpose	F, M	118°	Bright, Steam Oxide	131
A578	PFX	M	130°	TiAlN	110
A916	PFX	F, M	130°	Bright	112
EZ51P	Tanged	F	135°	Bright	126
M51CO	Heavy-Duty	F	135°	Bronze	123
M52CO	Heavy-Duty	W	135°	Bronze	124
QC91	Wide-Land Parabolic	F, W	135°	Steam Oxide	118
QC91CO	Wide-Land Parabolic	F, W	135°	Bronze	114
QC91COM	Wide-Land Parabolic	M	135°	Bronze	115
QC91G	Wide-Land Parabolic	F, W	135°	TiN	117
QC91GM	Wide-Land Parabolic	M	135°	TiN	120
QC91M	Wide-Land Parabolic	M	135°	Steam Oxide	121
QC91P	Wide-Land Parabolic	F, W	135°	Bright	119
QC91PM	Wide-Land Parabolic	M	135°	Bright	122
QC91V	Wide-Land Parabolic	F, W	135°	TiAlN	116
R09	Auto Tang	F	118°	Steam Oxide	133
R51	General Purpose	F	118°	Bright	128
R51FS	High Helix	F	118°	Bright	134
R51K	Tanged	F	118°	Steam Oxide	127
R51OH	23° Helix	F	118°	Bright	125
R52	General Purpose	W	118°	Bright	129
R52FS	High Helix	W	118°	Bright	134



Drill Table of Contents (con't)



Style	Description	Size	Point Angle	Finish	Page No.
Taper (con't)					
R53OH	34° Helix	F	118°	Bright	125
R55	General Purpose	L	118°	Bright	130
R55FS	High Helix	L	118°	Bright	135
Extra Length					
0860	8" Extra Length	F	118°	Bright	146
1290	12" Extra Length	F	118°	Bright	147
1511	15" Extra Length	F	118°	Bright	149
1813	18" Extra Length	F	118°	Bright	149
500-12	Aircraft Extension, Type B	F	135°	Steam Oxide	144
500-6	Aircraft Extension, Type B	F	135°	Steam Oxide	142
501-12	Aircraft Extension, Type B	W	135°	Steam Oxide	145
501-6	Aircraft Extension, Type B	W	135°	Steam Oxide	143
502-12	Aircraft Extension, Type B	L	135°	Steam Oxide	144
502-6	Aircraft Extension, Type B	L	135°	Steam Oxide	142
A345	Taper Shank	F, M	118°	Steam Oxide	150
A976, 977, 978	PFX, Cobalt, Deep-Hole Drilling	F, W	130°	Bright	138
CO500-12	Heavy-Duty, Cobalt, 12"	F	135°	Bronze	141
CO500-6	Heavy-Duty, Cobalt, 6"	F	135°	Bronze	140
CO501-12	Heavy-Duty, Cobalt, 12"	W	135°	Bronze	141
CO501-6	Heavy-Duty, Cobalt, 6"	W	135°	Bronze	140
QC0860P	Wide-Land Parabolic	F	135°	Bright	146
QC1290P	Wide-Land Parabolic	F	135°	Bright	148
Taper Shank/Reduced Shank					
209	Taper Shank	F	118°	Steam Oxide	156
209CO	Taper Shank	F	135°	Bronze	154
209OH	32°, Taper, Coolant	F	118°	Steam Oxide	155
5ATS	Taper Shank	M	118°	Steam Oxide	160
L209	Large Taper	F	118°	Steam Oxide	158
R56	1/2" Reduced Shank, S&D	F	118°	Bright/Steam Oxide	163
R56CO	1/2", Round Red. Shank, S&D	F	118°	Steam Oxide/Bronze	162
R57	1/2", S&D, 3-Flat Shank	F	118°	Bright/Steam Oxide	164
R58	1/2", S&D, Round Shank	F	118°	Bright/Steam Oxide	165
S209	Small Taper	F	118°	Steam Oxide	159
Miscellaneous/Special Purpose/Sets					
60B	Drill Blank	F	N/A	Bright	176
76HA	Combined/Drill C'Sink, Reg. Lgth	No.	60° C'Sink Angle	Bright	171
76LO	Combined/Drill C'Sink, Extra Lgth	No.	60° Point Angle	Bright	171
A217, A218	Center Drill	No.	120°	Bright	172
A221, A236	Center Drill	No.	118°	Bright	173
ATR41	Aircraft Taper Router	No.	N/A	Bright	175
B76HA	Combined/Drill C'Sink, Bell Type	No.	60/120° Pt. Angle	Bright	171
D000	Carbide-Tipped Die	F	118°	Bright	168
D444	Carbide-Tipped Jobber	F, W, L	118°	Bright	169
D555	Carbide-Tipped Taper Length	F	118°	Bright	170
Drill Sets	All				178
SM8	Body Drill	F	135° Split Point	Steam Oxide	176
SPL, SPLG	Spotting Drill, Long	F	90° or 120°	Bright or TiN	174
SPR, SPRG	Spotting Drill, Regular	F	90° or 120°	Bright or TiN	174
SPS, SPSG	Spotting Drill, Short	F	90° or 120°	Bright or TiN	174
TS10,15,18	Threaded Hex Shank, Short	F	135° Split Point	Steam Oxide	177
TS40, 41	Threaded Hex Shank, Stub	F	135° Split Point	Steam Oxide	177
TS51, 52, 55	Threaded Hex Shank, Long	F	135° Split Point	Steam Oxide	177

Drill Feed Rate Chart - Inches

Solid Carbide Drills

HSS Stub Drills

HSS Jobber Drills

HSS Taper Lgth Drills

HSS Extra Lgth Drills

HSS Red'd Shank Drills

Spcl. Purp. Drills, Sets

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 279 U : U is the Alpha Code)
2. Find the closest diameter for your cutting application on the chart to find your IPR

Alpha Code	Feed in Inches per Revolution (IPR) ± 25%																Ø Diameter	
	1mm/ 1/32"	2mm/ 3/32"	3mm/ 1/8"	4mm/ 5/32"	5mm/ 3/16"	6mm/ 1/4"	8mm/ 5/16"	10mm/ 3/8"	12mm/ 1/2"	15mm/ 9/16"	16mm/ 5/8"	20mm/ 3/4"	25mm/ 1"	30mm/ 1.1/8"	40mm/ 1.5/8"	50mm/ 2"		
A	0.0004	0.0009	0.0011	0.0013	0.0014	0.0017	0.0021	0.0024	0.0027	0.0032	0.0034	0.0043	0.0049	0.0053	0.0061	0.0069		
B	0.0006	0.0011	0.0015	0.0016	0.0018	0.0021	0.0026	0.0031	0.0035	0.0041	0.0043	0.0053	0.0060	0.0065	0.0074	0.0082		
C	0.0006	0.0013	0.0017	0.0020	0.0022	0.0025	0.0031	0.0039	0.0043	0.0049	0.0051	0.0063	0.0071	0.0077	0.0087	0.0094		
D	0.0006	0.0015	0.0021	0.0024	0.0027	0.0031	0.0039	0.0047	0.0051	0.0059	0.0061	0.0074	0.0083	0.0090	0.0100	0.0108		
E	0.0007	0.0017	0.0024	0.0028	0.0031	0.0037	0.0045	0.0055	0.0059	0.0068	0.0071	0.0085	0.0094	0.0102	0.0112	0.0122		
F	0.0007	0.0020	0.0029	0.0033	0.0037	0.0043	0.0054	0.0065	0.0070	0.0080	0.0083	0.0098	0.0108	0.0116	0.0126	0.0135		
G	0.0007	0.0022	0.0033	0.0038	0.0043	0.0050	0.0063	0.0075	0.0081	0.0091	0.0094	0.0110	0.0122	0.0130	0.0140	0.0148		
H	0.0008	0.0026	0.0040	0.0046	0.0051	0.0059	0.0075	0.0090	0.0096	0.0107	0.0110	0.0126	0.0140	0.0148	0.0157	0.0165		
I	0.0008	0.0030	0.0047	0.0053	0.0059	0.0068	0.0087	0.0104	0.0110	0.0122	0.0126	0.0142	0.0157	0.0165	0.0173	0.0181		
J	0.0009	0.0033	0.0053	0.0060	0.0067	0.0078	0.0098	0.0117	0.0124	0.0137	0.0142	0.0159	0.0175	0.0183	0.0191	0.0198		
K	0.0010	0.0036	0.0059	0.0067	0.0075	0.0087	0.0110	0.0130	0.0138	0.0153	0.0157	0.0177	0.0193	0.0201	0.0209	0.0215		
L	0.0011	0.0040	0.0065	0.0073	0.0082	0.0094	0.0120	0.0142	0.0152	0.0165	0.0169	0.0191	0.0207	0.0215	0.0224	0.0231		
M	0.0012	0.0043	0.0071	0.0080	0.0089	0.0102	0.0130	0.0154	0.0165	0.0177	0.0181	0.0205	0.0220	0.0228	0.0238	0.0248		
N	0.0013	0.0047	0.0077	0.0086	0.0095	0.0110	0.0140	0.0165	0.0179	0.0189	0.0193	0.0219	0.0234	0.0242	0.0253	0.0265		
S	0.0003	0.0006	0.0008	0.0010	0.0012	0.0015	0.0020	0.0031	0.0039	0.0048	0.0051	0.0059						
T	0.0006	0.0011	0.0016	0.0020	0.0024	0.0028	0.0035	0.0043	0.0051	0.0063	0.0067	0.0075						
U	0.0010	0.0019	0.0028	0.0031	0.0035	0.0042	0.0055	0.0067	0.0079	0.0088	0.0091	0.0094						
V	0.0015	0.0027	0.0039	0.0045	0.0051	0.0060	0.0079	0.0098	0.0110	0.0122	0.0126	0.0134						
W	0.0019	0.0035	0.0051	0.0059	0.0067	0.0079	0.0102	0.0130	0.0150	0.0165	0.0169	0.0177						
X	0.0022	0.0041	0.0059	0.0071	0.0083	0.0098	0.0130	0.0165	0.0189	0.0210	0.0217	0.0228						
Y	0.0027	0.0049	0.0071	0.0087	0.0102	0.0125	0.0169	0.0217	0.0276	0.0276	0.0276	0.0291						
Z	0.0037	0.0068	0.0098	0.0128	0.0157	0.0210	0.0315	0.0394	0.0433	0.0463	0.0472	0.0472						

Easy Calculations: (inch)

RPM = SFM/D x 3.82
 SFM = RPM x D x .262
 IPM = IPR x RPM
 IPR = IPM ÷ RPM
 Inch = mm x .0394

Terms:

D = Drill Diameter
 RPM = Revolutions Per Minute
 SFM = Surface Feet per Minute
 IPM = Inches Per Minute
 IPR = Inches Per Revolution
 IPR = Inches Per Revolution

Drill Feed Rate Chart - Metric

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 279 U : U is the Alpha Code)
2. Find the closest diameter for your cutting application on the chart to find your IPR

Alpha Code	Feed in mm per Revolution (IPR) ± 25%															Ø Diameter				
	1mm/ 1/32"	2mm/ 3/32"	3mm/ 1/8"	4mm/ 5/32"	5mm/ 3/16"	6mm/ 1/4"	8mm/ 5/16"	10mm/ 3/8"	12mm/ 1/2"	15mm/ 9/16"	16mm/ 5/8"	20mm/ 3/4"	25mm/ 1"	30mm/ 1.1/8"	40mm/ 1.5/8"	50mm/ 2"				
A	0.0102	0.0229	0.0279	0.0330	0.0356	0.0432	0.0533	0.0610	0.0686	0.0813	0.0864	0.1092	0.1245	0.1346	0.1549	0.1753				
B	0.0152	0.0279	0.0381	0.0406	0.0457	0.0533	0.0660	0.0787	0.0889	0.1041	0.1092	0.1346	0.1524	0.1651	0.1880	0.2083				
C	0.0152	0.0330	0.0432	0.0508	0.0559	0.0635	0.0787	0.0991	0.1092	0.1245	0.1295	0.1600	0.1803	0.1956	0.2210	0.2388				
D	0.0152	0.0381	0.0533	0.0610	0.0686	0.0787	0.0991	0.1194	0.1295	0.1499	0.1549	0.1880	0.2108	0.2286	0.2540	0.2743				
E	0.0178	0.0432	0.0610	0.0711	0.0787	0.0940	0.1143	0.1397	0.1499	0.1727	0.1803	0.2159	0.2388	0.2591	0.2845	0.3099				
F	0.0178	0.0508	0.0737	0.0838	0.0940	0.1092	0.1372	0.1651	0.1778	0.2032	0.2108	0.2489	0.2743	0.2946	0.3200	0.3429				
G	0.0178	0.0559	0.0838	0.0965	0.1092	0.1270	0.1600	0.1905	0.2057	0.2311	0.2388	0.2794	0.3099	0.3302	0.3556	0.3759				
H	0.0203	0.0660	0.1016	0.1168	0.1295	0.1499	0.1905	0.2286	0.2438	0.2718	0.2794	0.3200	0.3556	0.3759	0.3988	0.4191				
I	0.0203	0.0762	0.1194	0.1346	0.1499	0.1727	0.2210	0.2642	0.2794	0.3099	0.3200	0.3607	0.3988	0.4191	0.4394	0.4597				
J	0.0229	0.0838	0.1346	0.1524	0.1702	0.1981	0.2489	0.2972	0.3150	0.3480	0.3607	0.4039	0.4445	0.4648	0.4851	0.5029				
K	0.0254	0.0914	0.1499	0.1702	0.1905	0.2210	0.2794	0.3302	0.3505	0.3886	0.3988	0.4496	0.4902	0.5105	0.5309	0.5461				
L	0.0279	0.1016	0.1651	0.1854	0.2083	0.2388	0.3048	0.3607	0.3861	0.4191	0.4293	0.4851	0.5258	0.5461	0.5690	0.5867				
M	0.0305	0.1092	0.1803	0.2032	0.2261	0.2591	0.3302	0.3912	0.4191	0.4496	0.4597	0.5207	0.5588	0.5791	0.6045	0.6299				
N	0.0330	0.1194	0.1956	0.2184	0.2413	0.2794	0.3556	0.4191	0.4547	0.4801	0.4902	0.5563	0.5944	0.6147	0.6426	0.6731				
S	0.0076	0.0152	0.0203	0.0254	0.0305	0.0381	0.0508	0.0787	0.0991	0.1219	0.1295	0.1499								
T	0.0152	0.0279	0.0406	0.0508	0.0610	0.0711	0.0889	0.1092	0.1295	0.1600	0.1702	0.1905								
U	0.0254	0.0483	0.0711	0.0787	0.0889	0.1067	0.1397	0.1702	0.2007	0.2235	0.2311	0.2388								
V	0.0381	0.0686	0.0991	0.1143	0.1295	0.1524	0.2007	0.2489	0.2794	0.3099	0.3200	0.3404								
W	0.0483	0.0889	0.1295	0.1499	0.1702	0.2007	0.2591	0.3302	0.3810	0.4191	0.4293	0.4496								
X	0.0559	0.1041	0.1499	0.1803	0.2108	0.2489	0.3302	0.4191	0.4801	0.5334	0.5512	0.5791								
Y	0.0686	0.1245	0.1803	0.2210	0.2591	0.3175	0.4293	0.5512	0.7010	0.7010	0.7010	0.7391								
Z	0.0940	0.1727	0.2489	0.3251	0.3988	0.5334	0.8001	1.0008	1.0998	1.1760	1.1989	1.1989								

Easy Calculations: (mm)

$$\begin{aligned} \text{RPM} &= [(\text{m/min.}) \times 1000] \div (3.14 \times D) \\ \text{m/min.} &= \text{SFM} \div 3.281 \\ \text{mm/min.} &= (\text{SFM} \div 3.281) \times 1000 \\ \text{mm} &= \text{Inch} \times .0394 \end{aligned}$$

Terms:

D = Drill Diameter
RPM = Revolutions Per Minute
m/min. = Meters Per Minute (Cutting Speed)
mm/min. = Millimeters Per Minute
mm/rev. = Millimeters Per Revolution

Guide to Icons - Drills

Solid Carbide Drills

HSS Stub Drills

HSS Jobber Drills

HSS Taper Lgth Drills

HSS Extra Lgth Drills

HSS Red'd Shank Drills

Spcl. Pump. Drills, Sets



ADX Point



Continually Thinned Web Point



PFX Point



Conventional Point



Split Point



Straight Flute



Coolant



Countersink Angle



Split Point



4-Facet Point



Radius Split Point



ADX SP Coolant Point



Thinned Point



Special Point Geometry (ADX)



Special Point Geometry (A002, A012)



Carbide (Hard Metal)



Carbide Tipped



High Speed Cobalt Material



High Speed Steel Material



Regular Helix 21° - 34°



Slow Helix 10° - 20°



Quick Helix 35° - 45°



Straight Shank



Reduced Shank



Taper Shank



Shank with Tang



Shank with Sq. End



Whistle Notch Shank



Cylindrical Shank



Stub/Short Length



Intermediate Length



Jobber/Standard Length



Long Length



Extra Length



Dormer Standard



Continuously Thinned Web



Solid Carbide



Tin-Tipped



Steam Oxide



Bright Finish



Bright with TiN Tip



TiAlN Top Coat



Bronze

Solid Carbide Drills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Depth of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
example: 279 S
279 = SFM
S = Alpha Code to find your Feed Rate
- 4 To calculate Cutting Feed Rate, refer to chart on pages 9-10.

■ = Excellent for Application
● = Good for Application



Style:

Tool Material:

Finish/Coating:

Standard:

Direction of Cut:

2 Depth of Cut:

Tool Length:

Shank:

Helix:

Point Angle:

Point Style:

Point Type:

Solid Carbide Drills

3

Surface Feet per Minute (SFM)

Page # for easy reference							
Application Material Groups (AMG)				Hardness HB		Surface Feet per Minute (SFM)	
					14	15	16-17
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1		■246V	■246U
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2		■213V	■213U
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■279U	■213V	■213U
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	■230U	■180V	■180U
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	■230U	■148U	■148T
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6	■164T	■148U	■148T
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7	■148S	■98U	■98T
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8	■131S	■98U	■98T
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1			
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2			
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH. DUPLEX	<300	2.3			
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4			
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●246V	■246X	■246W
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●246V	■246X	■246W
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●180V	■180X	■180W
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●180V	■180X	■180W
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●131T		
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●131T		
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●82T		
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1			
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●72T		
	5.3 Nickel, alloyed	Inconel 718,Nimonic 75-95,Rene 41,Inconel 825,A286	>270<350	5.3	●46S		
6. Copper	6.1 Copper	Commercially Pure	<100	6.1			
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2		●623W	●623V
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3		●623W	●623V
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	■230W		
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1		●508W	●508V
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	●656X	●508W	●508V
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	■367X	●279W	●279V
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	■197X	●148W	●148V
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1		●148X	●148X
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2		●246W	●246V
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3	■105U		
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1			
10. Graphite	10.1 Standard graphite		---	10.1			

Solid Carbide Drills (con't)

Solid Carbide Drills	D12F D12W	D31F D31W	D33 (F, W, L, M)	D21	DS-90	DC	
	HM	HM	HM	HM	HM	HM	
							
							
							
	2.5xD	2.5xD	3xD	1.5xD	1xD	1xD	
							
							
							
							
Surface Feet per Minute (SFM)							
	18-19	20-21	22-24	24	25	25	
1.1	•279S	•279S	•279S	•279S	■279S	•279S	1.1
1.2	•246S	•246S	•246S	•246S	■246S	•246S	1.2
1.3	•246S	•246S	•246S	•246S	■246S	•246S	1.3
1.4	•230S	•230S	•230S	•230S	■230S	•230S	1.4
1.5	•148S	•148S	•148S	•148S	■148S	•148S	1.5
1.6	•148S	•148S	•148S	•148S	■148S	•148S	1.6
1.7	•98S	•98S	•98S	•98S	■98S	•98S	1.7
1.8	•98S	•98S	•98S	•98S	■98S	•98S	1.8
2.1	•98S		•98S		■174S		2.1
2.2	•98S				■148S		2.2
2.3	•75S	•75S					2.3
2.4	•65S	•65S					2.4
3.1	•246T	•246T	•246T	•246T	■246T	•246T	3.1
3.2	•246T	•246T	•246T	•246T	■246T	•246T	3.2
3.3	•180T	•180T	•180T	•180T	■180T	•180T	3.3
3.4	•180T	•180T	•180T	•180T	■180T	•180T	3.4
4.1					■148T		4.1
4.2					■115T		4.2
4.3					■82S		4.3
5.1					■148T		5.1
5.2					■98S		5.2
5.3					■66S		5.3
6.1					■902V		6.1
6.2	■820V	■820V	■820V	■820V	■820V	■820V	6.2
6.3	■820V	■820V	■820V	■820V	■820V	■820V	6.3
6.4					■230T		6.4
7.1	•656V	•656V	•656V	•656V	■656V	•656V	7.1
7.2	•656V	•656V	•656V	•656V	■656V	•656V	7.2
7.3	•367V	•367V	•367V	•367V	■367V	•367V	7.3
7.4	•197V	•197V	•197V	•197V	■197V	•197V	7.4
8.1	■197X	■197X	■197X	■197X	■197X	■197X	8.1
8.2	■328V	■328V	■328V	■328V	■328V	■328V	8.2
8.3							8.3
9.1							9.1
10.1							10.1

D13F - D13M

- Short length
- 3-Flute

- Foret extra-court

- Broca extra corta



D13F



■	1.3	1.4	1.5	1.6	1.7	1.8	6.4	7.3	7.4	8.3
●	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.2	5.3	7.2

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	3/4	1.7/8	006008
9/64	0.1406	13/16	1.15/16	006009
5/32	0.1562	7/8	2.1/16	006010
11/64	0.1719	7/8	2.1/8	006011
3/16	0.1875	15/16	2.3/16	006012
13/64	0.2031	1"	2.1/4	006013
7/32	0.2188	1.1/16	2.3/8	006014
15/64	0.2344	1.1/8	2.7/16	006015
1/4	0.2500	1.3/16	2.1/2	006016
17/64	0.2656	1.1/4	2.5/8	006017
9/32	0.2812	1.5/16	2.11/16	006018
19/64	0.2969	1.3/8	2.3/4	006019
5/16	0.3125	1.7/16	2.13/16	006020
21/64	0.3281	1.1/2	2.15/16	006021
11/32	0.3438	1.1/2	3"	006022
23/64	0.3594	1.9/16	3.1/16	006023
3/8	0.3750	1.5/8	3.1/8	006024
25/64	0.3906	1.5/8	3.1/4	006025
13/32	0.4062	1.5/8	3.5/16	006026
27/64	0.4219	1.21/32	3.3/8	006027
7/16	0.4375	1.3/4	3.7/16	006028
29/64	0.4531	1.7/8	3.7/16	006029

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
15/32	0.4688	1.7/8	3.5/8	006030
31/64	0.4844	2"	3.11/16	006031
1/2	0.5000	2"	3.3/4	006032
33/64	0.5156	2"	3.7/8	006033
17/32	0.5312	2"	3.7/8	006034
35/64	0.5469	2.1/8	4"	006035
9/16	0.5625	2.1/8	4"	006036
37/64	0.5781	2.1/8	4"	006037
19/32	0.5938	2.1/8	4"	006038
39/64	0.6094	2.1/8	4"	006039
5/8	0.6250	2.1/4	4.1/4	006040
41/64	0.6406	2.1/4	4.1/4	006041
21/32	0.6562	2.1/4	4.1/4	006042
43/64	0.6719	2.1/4	4.1/4	006043
11/16	0.6875	2.7/8	4.5/8	006044
45/64	0.7031	2.7/8	4.5/8	006045
23/32	0.7188	2.7/8	4.5/8	006046
47/64	0.7344	2.7/8	4.5/8	006047
3/4	0.7500	3.1/8	5"	006048

D13M

d ₁ Ø	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
3.00	0.1181	20	50	006130
3.30	0.1299	20	50	006133
3.50	0.1378	20	50	006135
4.00	0.1575	22	50	006140
4.50	0.1772	24	55	006145
4.80	0.1890	24	55	006148
5.00	0.1969	24	55	006150
5.50	0.2165	29	63	006155
6.00	0.2362	29	63	006160
6.50	0.2559	29	63	006165
6.80	0.2677	34	68	006168
7.00	0.2756	34	68	006170
7.50	0.2953	34	68	006175
8.00	0.3150	38	75	006180

d ₁ Ø	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
8.50	0.3346	38	75	006185
9.00	0.3543	41	80	006190
9.50	0.3740	41	80	006195
10.00	0.3937	41	80	006200
10.20	0.4016	41	84	006202
10.50	0.4134	41	84	006205
10.80	0.4252	44	87	006208
11.00	0.4331	44	87	006210
11.50	0.4528	48	92	006215
12.00	0.4724	48	92	006220
12.50	0.4921	57	102	006225

R022

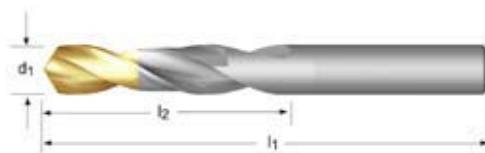
DORMER

Solid
Carbide
Drills

• Short length

• Foret extra-court

• Broca extra corta



R022



■	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	3.1	3.2	3.3	3.4
●	6.2	6.3	7.1	7.2	7.3	7.4	8.1	8.2				

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
1/8	3.00	0.1181	16	46	0392744	R0223.0
	3.10	0.1220	18	49	0392751	R0223.1
	3.18	0.1252	18	49	0422595	R0221/8
	3.20	0.1260	18	49	0392768	R0223.2
30	3.26	0.1283	18	49	0422700	R022N30
	3.30	0.1299	18	49	0392775	R0223.3
	3.40	0.1339	20	52	0392782	R0223.4
29	3.45	0.1358	20	52	0422717	R022N29
	3.50	0.1378	20	52	0392799	R0223.5
	3.60	0.1417	20	52	0392805	R0223.6
	3.70	0.1457	20	52	0392812	R0223.7
25	3.80	0.1496	22	55	0392829	R0223.8
	3.80	0.1496	22	55	0422724	R022N25
	3.86	0.1520	22	55	0422731	R022N24
5/32	3.90	0.1535	22	55	0392836	R0223.9
	3.97	0.1563	22	55	0422663	R0225/32
	4.00	0.1575	22	55	0392843	R0224.0
20	4.04	0.1591	22	55	0422755	R022N20
	4.04	0.1591	22	55	0422748	R022N21
	4.10	0.1614	22	55	0392850	R0224.1
17	4.20	0.1654	22	55	0392867	R0224.2
	4.30	0.1693	24	58	0392874	R0224.3
	4.40	0.1732	24	58	0392881	R0224.4
	4.40	0.1732	24	58	0422762	R022N17
16	4.50	0.1772	24	58	0422779	R022N16
	4.50	0.1772	24	58	0392898	R0224.5
	4.60	0.1811	24	58	0392904	R0224.6
14	4.62	0.1819	24	58	0422786	R022N14
	4.70	0.1850	24	58	0392911	R0224.7
	4.76	0.1874	26	62	0422632	R0223/16
10	4.80	0.1890	26	62	0392928	R0224.8
	4.90	0.1929	26	62	0392935	R0224.9
	4.92	0.1937	26	62	0422793	R022N10
9	4.98	0.1961	26	62	0422809	R022N9
	5.00	0.1969	26	62	0392942	R0225.0
	5.06	0.1992	26	62	0422816	R022N8
7	5.10	0.2008	26	62	0392959	R0225.1
	5.11	0.2012	26	62	0422823	R022N7
	5.20	0.2047	26	62	0392966	R0225.2
	5.30	0.2087	26	62	0392973	R0225.3
3	5.40	0.2126	28	66	0392980	R0225.4
	5.41	0.2130	28	66	0422830	R022N3
	5.50	0.2165	28	66	0392997	R0225.5
7/32	5.56	0.2189	28	66	0422687	R0227/32

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
1	5.60	0.2205	28	66	0393000	R0225.6
	5.70	0.2244	28	66	0393017	R0225.7
	5.80	0.2283	28	66	0393024	R0225.8
	5.80	0.2283	28	66	0422847	R022N1
D	5.90	0.2323	28	66	0393031	R0225.9
	6.00	0.2362	28	66	0393048	R0226.0
	6.10	0.2402	31	70	0393055	R0226.1
1/4	6.20	0.2441	31	70	0393062	R0226.2
	6.23	0.2453	31	70	0422854	R022D
	6.30	0.2480	31	70	0393079	R0226.3
F	6.35	0.2500	31	70	0422588	R0221/4
	6.40	0.2520	31	70	0393086	R0226.4
	6.50	0.2559	31	70	0393093	R0226.5
I	6.53	0.2571	31	70	0422861	R022F
	6.60	0.2598	31	70	0393109	R0226.6
	6.70	0.2638	31	70	0393116	R0226.7
	6.80	0.2677	34	74	0393123	R0226.8
9/32	6.90	0.2717	34	74	0393130	R0226.9
	6.91	0.2720	34	74	0422878	R022I
	7.00	0.2756	34	74	0393147	R0227.0
M	7.10	0.2795	34	74	0393154	R0227.1
	7.14	0.2811	34	74	0422694	R0229/32
	7.20	0.2835	34	74	0393161	R0227.2
	7.30	0.2874	34	74	0393178	R0227.3
Q	7.40	0.2913	34	74	0393185	R0227.4
	7.49	0.2949	34	74	0422885	R022M
	7.50	0.2953	34	74	0393192	R0227.5
	7.60	0.2992	37	79	0393208	R0227.6
R	7.70	0.3031	37	79	0393215	R0227.7
	7.80	0.3071	37	79	0393222	R0227.8
	7.90	0.3110	37	79	0393239	R0227.9
	7.94	0.3126	37	79	0422656	R0225/16
11/32	8.00	0.3150	37	79	0393246	R0228.0
	8.10	0.3189	37	79	0393253	R0228.1
	8.20	0.3228	37	79	0393260	R0228.2
	8.30	0.3268	37	79	0393277	R0228.3
R	8.40	0.3307	37	79	0393284	R0228.4
	8.43	0.3319	37	79	0422892	R022Q
	8.50	0.3346	37	79	0393291	R0228.5
	8.60	0.3386	40	84	0393307	R0228.6
11/32	8.61	0.3390	40	84	0422908	R022R
	8.70	0.3425	40	84	0393314	R0228.7
	8.73	0.3437	40	84	0422601	R02211/32
7/32	8.80	0.3465	40	84	0393321	R0228.8
	8.90	0.3504	40	84	0393338	R0228.9

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

R022 - R002

• Short length

• Foret extra-court

• Broca extra corta

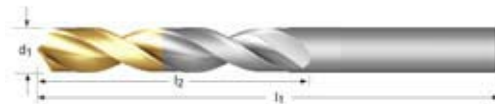
d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
T	9.00	0.3543	40	84	0393345	R0229.0
	9.09	0.3579	40	84	0422915	R022T
	9.10	0.3583	40	84	0393352	R0229.1
	9.20	0.3622	40	84	0393369	R0229.2
U	9.30	0.3661	40	84	0393376	R0229.3
	9.35	0.3681	40	84	0422922	R022U
	9.40	0.3701	40	84	0393383	R0229.4
	9.50	0.3740	40	84	0393390	R0229.5
3/8	9.53	0.3752	43	89	0422649	R0223/8
	9.60	0.3780	43	89	0393406	R0229.6
	9.70	0.3819	43	89	0393413	R0229.7
	9.80	0.3858	43	89	0393420	R0229.8
25/64	9.90	0.3898	43	89	0393437	R0229.9
	9.92	0.3906	43	89	0422939	R02225/64
	10.00	0.3937	43	89	0392683	R02210.0
	10.10	0.3976	43	89	0566817	R02210.1
Y	10.20	0.4016	43	89	0392690	R02210.2
	10.26	0.4039	43	89	0422946	R022Y
	10.30	0.4055	43	89	0566824	R02210.3
	10.32	0.4063	43	89	0423240	R02213/32
13/32	10.40	0.4094	43	89	0566831	R02210.4
	10.50	0.4134	43	89	0392706	R02210.5
	10.60	0.4173	43	89	0566848	R02210.6

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
27/64	10.70	0.4213	47	95	0566855	R02210.7
	10.72	0.4220	47	95	0422953	R02227/64
	10.80	0.4252	47	95	0566862	R02210.8
	10.90	0.4291	47	95	0566879	R02210.9
7/16	11.00	0.4331	47	95	0392713	R02211.0
	11.10	0.4370	47	95	0566886	R02211.1
	11.11	0.4374	47	95	0422670	R0227/16
	11.20	0.4409	47	95	0566893	R02211.2
29/64	11.30	0.4449	47	95	0566909	R02211.3
	11.40	0.4488	47	95	0566916	R02211.4
	11.50	0.4528	47	95	0392720	R02211.5
	11.51	0.4531	47	95	0422960	R02229/64
15/32	11.60	0.4567	47	95	0566923	R02211.6
	11.70	0.4606	47	95	0566930	R02211.7
	11.80	0.4646	47	95	0566947	R02211.8
	11.90	0.4685	51	102	0566954	R02211.9
31/64	12.00	0.4724	51	102	0422618	R02215/32
	12.30	0.4843	51	102	0422977	R02231/64
	12.70	0.5000	51	102	0422571	R0221/2
	13.10	0.5157	54	107	0422984	R02233/64
17/32	13.49	0.5311	54	107	0422625	R02217/32

• Standard length

• Foret court

• Broca , serie corta



R002



■	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	3.1	3.2	3.3	3.4
●	6.2	6.3	7.1	7.2	7.3	7.4	8.1	8.2				

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
1/8	3.00	0.1181	21	61	0381502	R0023.0
	3.10	0.1220	23	65	0381519	R0023.1
	3.18	0.1250	23	65	0393468	R0021/8
	3.20	0.1260	23	65	0381526	R0023.2
30	3.27	0.1285	23	65	0395738	R002N30
	3.30	0.1299	23	65	0381533	R0023.3
	3.40	0.1339	26	70	0381540	R0023.4
	3.45	0.1360	26	70	0395745	R002N29
29	3.50	0.1378	26	70	0381557	R0023.5
	3.60	0.1417	26	70	0381564	R0023.6
	3.70	0.1457	26	70	0381571	R0023.7
	3.80	0.1495	30	75	0395752	R002N25
25	3.80	0.1496	30	75	0381588	R0023.8
	3.86	0.1520	30	75	0395769	R002N24
	3.90	0.1535	30	75	0381595	R0023.9
	3.97	0.1563	30	75	0393543	R0025/32

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
21	4.00	0.1575	30	75	0381601	R0024.0
	4.04	0.1590	30	75	0395776	R002N21
	4.09	0.1610	30	75	0395783	R002N20
	4.10	0.1614	30	75	0381618	R0024.1
20	4.20	0.1654	30	75	0381625	R0024.2
	4.30	0.1693	33	80	0381632	R0024.3
	4.40	0.1730	33	80	0395790	R002N17
	4.40	0.1732	33	80	0381649	R0024.4
17	4.50	0.1770	33	80	0395806	R002N16
	4.50	0.1772	33	80	0381656	R0024.5
	4.60	0.1811	33	80	0381663	R0024.6
	4.62	0.1820	33	80	0395813	R002N14
16	4.70	0.1850	33	80	0381670	R0024.7
	4.76	0.1875	37	86	0393512	R0023/16
	4.80	0.1890	37	86	0381687	R0024.8
	4.90	0.1929	37	86	0381694	R0024.9

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
10	4.92	0.1935	37	86	0395820	R002N10
9	4.98	0.1960	37	86	0395837	R002N9
	5.00	0.1969	37	86	0381700	R0025.0
8	5.06	0.1990	37	86	0395844	R002N8
	5.10	0.2008	37	86	0381717	R0025.1
7	5.11	0.2010	37	86	0395851	R002N7
	5.20	0.2047	37	86	0381724	R0025.2
	5.30	0.2087	37	86	0381731	R0025.3
	5.40	0.2126	42	93	0381748	R0025.4
3	5.41	0.2130	42	93	0395868	R002N3
	5.50	0.2165	42	93	0381755	R0025.5
7/32	5.56	0.2187	42	93	0393567	R0027/32
	5.60	0.2205	42	93	0381762	R0025.6
	5.70	0.2244	42	93	0381779	R0025.7
1	5.79	0.2280	42	93	0395875	R002N1
	5.80	0.2283	42	93	0381786	R0025.8
	5.90	0.2323	42	93	0381793	R0025.9
	6.00	0.2362	42	93	0381809	R0026.0
	6.10	0.2402	47	101	0381816	R0026.1
	6.20	0.2441	47	101	0381823	R0026.2
D	6.23	0.2460	47	101	0395882	R002D
	6.30	0.2480	47	101	0381830	R0026.3
1/4	6.35	0.2500	47	101	0393451	R0021/4
	6.40	0.2520	47	101	0381847	R0026.4
	6.50	0.2559	47	101	0381854	R0026.5
F	6.53	0.2570	47	101	0395899	R002F
	6.60	0.2598	47	101	0381861	R0026.6
	6.70	0.2638	47	101	0381878	R0026.7
	6.80	0.2677	53	109	0381885	R0026.8
	6.90	0.2717	53	109	0381892	R0026.9
I	6.91	0.2720	53	109	0395905	R002I
	7.00	0.2756	53	109	0381908	R0027.0
	7.10	0.2795	53	109	0381915	R0027.1
9/32	7.15	0.2813	53	109	0393574	R0029/32
	7.20	0.2835	53	109	0381922	R0027.2
	7.30	0.2874	53	109	0381939	R0027.3
	7.40	0.2913	53	109	0381946	R0027.4
M	7.49	0.2950	53	109	0395912	R002M
	7.50	0.2953	53	109	0381953	R0027.5
	7.60	0.2992	60	117	0381960	R0027.6
	7.70	0.3031	60	117	0381977	R0027.7
	7.80	0.3071	60	117	0381984	R0027.8
	7.90	0.3110	60	117	0381991	R0027.9
5/16	7.94	0.3125	60	117	0393536	R0025/16
	8.00	0.3150	60	117	0382004	R0028.0
	8.10	0.3189	60	117	0382011	R0028.1
	8.20	0.3228	60	117	0382028	R0028.2
	8.30	0.3268	60	117	0382035	R0028.3
	8.40	0.3307	60	117	0382042	R0028.4
Q	8.43	0.3320	60	117	0395929	R002Q
	8.50	0.3346	60	117	0382059	R0028.5
	8.60	0.3386	67	125	0382066	R0028.6
R	8.61	0.3390	67	125	0395936	R002R
	8.70	0.3425	67	125	0382073	R0028.7
11/32	8.73	0.3437	67	125	0393475	R00211/32
	8.80	0.3465	67	125	0382080	R0028.8

	8.90	0.3504	67	125	0382097	R0028.9
	9.00	0.3543	67	125	0382103	R0029.0
T	9.09	0.3580	67	125	0395943	R002T
	9.10	0.3583	67	125	0382110	R0029.1
	9.20	0.3622	67	125	0382127	R0029.2
	9.30	0.3661	67	125	0382134	R0029.3
U	9.35	0.3680	67	125	0395950	R002U
	9.40	0.3701	67	125	0382141	R0029.4
	9.50	0.3740	67	125	0382158	R0029.5
3/8	9.53	0.3750	70	133	0393529	R0023/8
	9.60	0.3780	70	133	0382165	R0029.6
	9.70	0.3819	70	133	0382172	R0029.7
	9.80	0.3858	70	133	0382189	R0029.8
	9.90	0.3898	70	133	0382196	R0029.9
25/64	9.92	0.3906	70	133	0395967	R00225/64
	10.00	0.3937	70	133	0381427	R00210.0
	10.10	0.3976	74	133	0566497	R00210.1
	10.20	0.4016	74	133	0381434	R00210.2
Y	10.26	0.4040	74	133	0395974	R002Y
	10.30	0.4055	74	133	0566503	R00210.3
13/32	10.32	0.4063	74	133	0393482	R00213/32
	10.40	0.4094	74	133	0566510	R00210.4
	10.50	0.4134	74	133	0381441	R00210.5
	10.60	0.4173	74	133	0566527	R00210.6
	10.70	0.4213	83	142	0566534	R00210.7
27/64	10.72	0.4219	83	142	0395981	R00227/64
	10.80	0.4252	83	142	0566541	R00210.8
	10.90	0.4291	83	142	0566558	R00210.9
	11.00	0.4331	83	142	0381458	R00211.0
	11.10	0.4370	83	142	0566565	R00211.1
7/16	11.11	0.4375	83	142	0393550	R0027/16
	11.20	0.4409	83	142	0566572	R00211.2
	11.30	0.4449	83	142	0566589	R00211.3
	11.40	0.4488	83	142	0566596	R00211.4
	11.50	0.4528	83	142	0381465	R00211.5
29/64	11.51	0.4531	83	142	0395998	R00229/64
	11.60	0.4567	83	142	0566602	R00211.6
	11.70	0.4606	83	142	0566619	R00211.7
	11.80	0.4646	83	142	0566626	R00211.8
	11.90	0.4685	93	151	0566633	R00211.9
15/32	11.91	0.4687	93	151	0393499	R00215/32
	12.00	0.4724	93	151	0381472	R00212.0
	12.10	0.4764	93	151	0566640	R00212.1
	12.20	0.4803	93	151	0566657	R00212.2
	12.30	0.4843	93	151	0566664	R00212.3
31/64	12.30	0.4844	93	151	0396001	R00231/64
	12.40	0.4882	93	151	0566671	R00212.4
	12.50	0.4921	93	151	0566688	R00212.5
	12.60	0.4961	93	151	0566695	R00212.6
1/2	12.70	0.5000	93	151	0393444	R0021/2
	12.70	0.5000	93	151	0566695	R00212.7
	12.80	0.5039	93	151	0566701	R00212.8
	12.90	0.5079	93	151	0566718	R00212.9
	13.00	0.5118	93	151	0381489	R00213.0
33/64	13.10	0.5156	93	151	0396018	R00233/64
	13.10	0.5157	93	151	0566725	R00213.1
	13.20	0.5197	93	151	0566732	R00213.2
	13.30	0.5236	98	160	0566749	R00213.3
	13.40	0.5276	98	160	0566756	R00213.4

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
17/32	13.49	0.5313	98	160	0393505	R00217/32
	13.50	0.5315	98	160	0566763	R00213.5
	13.60	0.5354	98	160	0566770	R00213.6
	13.70	0.5394	98	160	0566787	R00213.7

d ₁ Øh ₇ Inch	d ₁ Øh ₇ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Dormer Stock No.	EDP # or e-Code
	13.80	0.5433	98	160	0566794	R00213.8
	13.90	0.5472	98	160	0566800	R00213.9
	14.00	0.5512	98	160	0381496	R00214.0

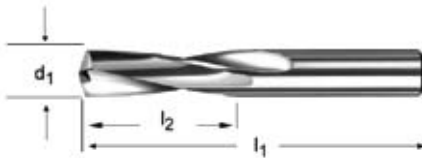


D12F

- Short length
- Heavy-duty

- Foret extra-court

- Broca extra corta



D12F



6.2 6.3 8.1 8.2



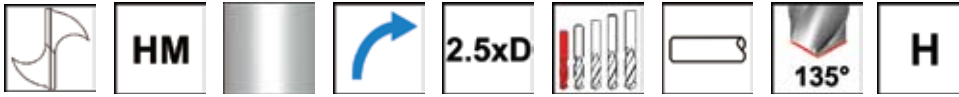
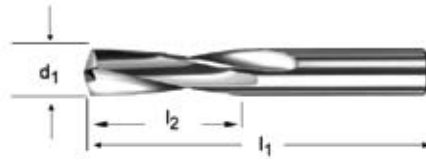
1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/64	0.0469	1/2	1.1/2	003355
1/16	0.0625	5/8	1.5/8	003359
5/64	0.0781	11/16	1.11/16	003365
3/32	0.0938	3/4	1.3/4	003372
7/64	0.1094	13/16	1.13/16	003379
1/8	0.1250	7/8	1.7/8	003385
9/64	0.1406	15/16	1.15/16	003389
5/32	0.1562	1"	2.1/16	003395
11/64	0.1719	1.1/16	2.1/8	003401
3/16	0.1875	1.1/8	2.3/16	003407
13/64	0.2031	1.3/16	2.1/4	003414
7/32	0.2188	1.1/4	2.3/8	003419
15/64	0.2344	1.5/16	2.7/16	003423
1/4	0.2500	1.3/8	2.1/2	003427
17/64	0.2656	1.7/16	2.5/8	003430
9/32	0.2812	1.1/2	2.11/16	003435

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
19/64	0.2969	1.9/16	2.3/4	003438
5/16	0.3125	1.5/8	2.13/16	003440
21/64	0.3281	1.11/16	2.15/16	003443
11/32	0.3438	1.11/16	2.15/16	003446
23/64	0.3594	1.3/4	3.1/16	003449
3/8	0.3750	1.13/16	3.1/8	003451
25/64	0.3906	1.7/8	3.1/4	003454
13/32	0.4062	1.15/16	3.5/16	003457
27/64	0.4219	2"	3.3/8	003459
7/16	0.4375	2.1/16	3.7/16	003460
29/64	0.4531	2.1/8	3.5/8	003461
15/32	0.4688	2.1/8	3.5/8	003462
31/64	0.4844	2.3/16	3.11/16	003463
1/2	0.5000	2.1/4	3.3/4	003464

Solid Carbide Drills

- Broca extra corta



■ 6.2 6.3 8.1 8.2
 ● 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

D12W

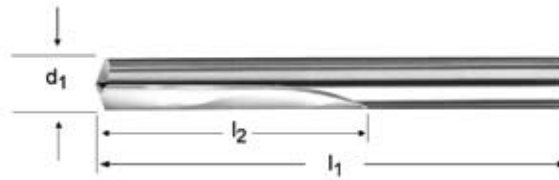
d₁ Ø	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code	d₁ Ø	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
60	0.0400	1/2	1.3/8	003350	26	0.1470	1"	2.1/16	003391
59	0.0410	1/2	1.3/8	003351	25	0.1495	1"	2.1/16	003392
58	0.0420	1/2	1.3/8	003352	24	0.1520	1"	2.1/16	003393
57	0.0430	1/2	1.3/8	003353	23	0.1540	1"	2.1/16	003394
56	0.0465	1/2	1.3/8	003354	22	0.1570	1.1/16	2.1/8	003396
55	0.0520	5/8	1.1/2	003356	21	0.1590	1.1/16	2.1/8	003397
54	0.0550	5/8	1.1/2	003357	20	0.1610	1.1/16	2.1/8	003398
53	0.0595	5/8	1.1/2	003358	19	0.1660	1.1/16	2.1/8	003399
52	0.0635	11/16	1.11/16	003360	18	0.1695	1.1/16	2.1/8	003400
51	0.0670	11/16	1.11/16	003361	17	0.1730	1.1/8	2.3/16	003402
50	0.0700	11/16	1.11/16	003362	16	0.1770	1.1/8	2.3/16	003403
49	0.0730	11/16	1.11/16	003363	15	0.1800	1.1/8	2.3/16	003404
48	0.0760	11/16	1.11/16	003364	14	0.1820	1.1/8	2.3/16	003405
47	0.0785	3/4	1.3/4	003366	13	0.1850	1.1/8	2.3/16	003406
46	0.0810	3/4	1.3/4	003367	12	0.1890	1.3/16	2.1/4	003408
45	0.0820	3/4	1.3/4	003368	11	0.1910	1.3/16	2.1/4	003409
44	0.0860	3/4	1.3/4	003369	10	0.1935	1.3/16	2.1/4	003410
43	0.0890	3/4	1.3/4	003370	9	0.1960	1.3/16	2.1/4	003411
42	0.0935	3/4	1.3/4	003371	8	0.1990	1.3/16	2.1/4	003412
41	0.0960	13/16	1.13/16	003373	7	0.2010	1.3/16	2.1/4	003413
40	0.0980	13/16	1.13/16	003374	6	0.2040	1.1/4	2.3/8	003415
39	0.0995	13/16	1.13/16	003375	5	0.2055	1.1/4	2.3/8	003416
38	0.1015	13/16	1.13/16	003376	4	0.2090	1.1/4	2.3/8	003417
37	0.1040	13/16	1.13/16	003377	3	0.2130	1.1/4	2.3/8	003418
36	0.1065	13/16	1.13/16	003378	2	0.2210	1.5/16	2.7/16	003420
35	0.1100	7/8	1.7/8	003380	1	0.2280	1.5/16	2.7/16	003421
34	0.1110	7/8	1.7/8	003381					
33	0.1130	7/8	1.7/8	003382					
32	0.1160	7/8	1.7/8	003383					
31	0.1200	7/8	1.7/8	003384					
30	0.1285	15/16	1.15/16	003386					
29	0.1360	15/16	1.15/16	003387					
28	0.1405	15/16	1.15/16	003388					
27	0.1440	1"	2.1/16	003390					

D31F

- Short length

- Foret extra-court

- Broca extra corta



D31F



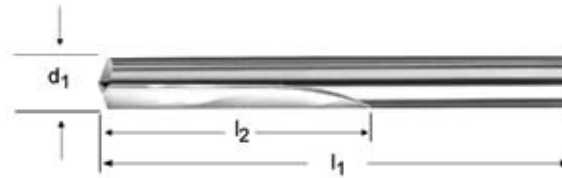
■ 6.2 6.3 8.1 8.2
● 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d_i Ø Inch	d_i dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
3/64	0.0469	1/4	1.1/2	003805
1/16	0.0625	5/16	1.1/2	003809
5/64	0.0781	3/8	1.1/2	003815
3/32	0.0938	1/2	1.1/2	003822
7/64	0.1094	5/8	1.1/2	003829
1/8	0.1250	5/8	1.1/2	003835
9/64	0.1406	5/8	2"	003839
5/32	0.1562	5/8	2"	003845
11/64	0.1719	5/8	2"	003851
3/16	0.1875	5/8	2"	003857
13/64	0.2031	3/4	2"	003864
7/32	0.2188	3/4	2"	003869
15/64	0.2344	3/4	2"	003873
1/4	0.2500	3/4	2"	003877
17/64	0.2656	3/4	2.1/2	003880
9/32	0.2812	3/4	2.1/2	003885

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
19/64	0.2969	3/4	2.1/2	003888
5/16	0.3125	3/4	2.1/2	003890
21/64	0.3281	1"	2.1/2	003893
11/32	0.3438	1"	2.1/2	003896
23/64	0.3594	1"	2.1/2	003899
3/8	0.3750	1"	2.1/2	003901
25/64	0.3906	1"	2.3/4	003904
13/32	0.4062	1"	2.3/4	003907
27/64	0.4219	1"	2.3/4	003909
7/16	0.4375	1"	2.3/4	003910
29/64	0.4531	1"	3"	003911
15/32	0.4688	1"	3"	003912
31/64	0.4844	1"	3"	003913
1/2	0.5000	1"	3"	003914

Solid Carbide Drills

- Broca extra corta



D31W



■ 6.2 6.3 8.1 8.2

● 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d_1 Ø	d_1 dec. Inch	l_2 Inch	l_1 Inch	EDP # or e-Code	d_1 Ø	d_1 dec. Inch	l_2 Inch	l_1 Inch	EDP # or e-Code
60	0.0400	3/16	1.1/2	003800	30	0.1285	5/8	2"	003836
59	0.0410	3/16	1.1/2	003801	29	0.1360	5/8	2"	003837
58	0.0420	3/16	1.1/2	003802	28	0.1405	5/8	2"	003838
57	0.0430	3/16	1.1/2	003803	27	0.1440	5/8	2"	003840
56	0.0465	1/4	1.1/2	003804	26	0.1470	5/8	2"	003841
55	0.0520	5/16	1.1/2	003806	25	0.1495	5/8	2"	003842
54	0.0550	5/16	1.1/2	003807	24	0.1520	5/8	2"	003843
53	0.0595	5/16	1.1/2	003808	23	0.1540	5/8	2"	003844
52	0.0635	5/16	1.1/2	003810	22	0.1570	5/8	2"	003846
51	0.0670	3/8	1.1/2	003811	21	0.1590	5/8	2"	003847
50	0.0700	3/8	1.1/2	003812	20	0.1610	5/8	2"	003848
49	0.0730	3/8	1.1/2	003813	19	0.1660	5/8	2"	003849
48	0.0760	3/8	1.1/2	003814	18	0.1695	5/8	2"	003850
47	0.0785	3/8	1.1/2	003816	17	0.1730	5/8	2"	003852
46	0.0810	1/2	1.1/2	003817	16	0.1770	5/8	2"	003853
45	0.0820	1/2	1.1/2	003818	15	0.1800	5/8	2"	003854
44	0.0860	1/2	1.1/2	003819	14	0.1820	5/8	2"	003855
43	0.0890	1/2	1.1/2	003820	13	0.1850	5/8	2"	003856
42	0.0935	1/2	1.1/2	003821	12	0.1890	5/8	2"	003858
41	0.0960	1/2	1.1/2	003823	11	0.1910	5/8	2"	003859
40	0.0980	1/2	1.1/2	003824	10	0.1935	5/8	2"	003860
39	0.0995	1/2	1.1/2	003825	9	0.1960	3/4	2"	003861
38	0.1015	1/2	1.1/2	003826	8	0.1990	3/4	2"	003862
37	0.1040	5/8	1.1/2	003827	7	0.2010	3/4	2"	003863
36	0.1065	5/8	1.1/2	003828	6	0.2040	3/4	2"	003865
35	0.1100	5/8	1.1/2	003830	5	0.2055	3/4	2"	003866
34	0.1110	5/8	1.1/2	003831	4	0.2090	3/4	2"	003867
33	0.1130	5/8	1.1/2	003832	3	0.2130	3/4	2"	003868
32	0.1160	5/8	1.1/2	003833	2	0.2210	3/4	2"	003870
31	0.1200	5/8	1.1/2	003834	1	0.2280	3/4	2"	003871

D33F

• Standard length

• Foret extra-court

• Broca extra corta



D33F



■ 6.2 6.3 8.1 8.2

• 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/32	0.0312	3/8	1.1/8	003501
3/64	0.0469	3/4	1.1/2	003514
1/16	0.0625	3/4	1.1/2	003518
5/64	0.0781	7/8	1.3/4	003524
3/32	0.0938	1"	2"	003531
7/64	0.1094	1.1/4	2.1/4	003538
1/8	0.1250	1.1/4	2.1/4	003544
9/64	0.1406	1.3/8	2.1/2	003548
5/32	0.1562	1.3/8	2.1/2	003554
11/64	0.1719	1.5/8	2.3/4	003560
3/16	0.1875	1.5/8	2.3/4	003566
13/64	0.2031	1.3/4	3"	003573
7/32	0.2188	1.3/4	3"	003578
15/64	0.2344	2"	3.1/4	003582
1/4	0.2500	2"	3.1/4	003586
17/64	0.2656	2.1/8	3.1/2	003589

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	2.1/8	3.1/2	003594
19/64	0.2969	2.3/8	3.3/4	003597
5/16	0.3125	2.3/8	3.3/4	003599
21/64	0.3281	2.1/2	4"	003602
11/32	0.3438	2.1/2	4"	003605
23/64	0.3594	2.1/2	4.1/4	003608
3/8	0.3750	2.3/4	4.1/4	003610
25/64	0.3906	2.7/8	4.1/2	003613
13/32	0.4062	2.7/8	4.1/2	003616
27/64	0.4219	2.7/8	4.1/2	003618
7/16	0.4375	2.7/8	4.1/2	003619
29/64	0.4531	3"	4.3/4	003620
15/32	0.4688	3"	4.3/4	003621
31/64	0.4844	3"	4.3/4	003622
1/2	0.5000	3"	4.3/4	003623

D33L

D33L

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2"	3.1/4	003581
B	0.2380	2"	3.1/4	003583
C	0.2420	2"	3.1/4	003584
D	0.2460	2"	3.1/4	003585
F	0.2570	2"	3.1/4	003587
G	0.2610	2.1/8	3.1/2	003588
H	0.2660	2.1/8	3.1/2	003590
I	0.2720	2.1/8	3.1/2	003591
J	0.2770	2.1/8	3.1/2	003592
K	0.2810	2.1/8	3.1/2	003593
L	0.2900	2.1/8	3.1/2	003595
M	0.2950	2.3/8	3.3/4	003596
N	0.3020	2.3/8	3.3/4	003598
O	0.3160	2.3/8	3.3/4	003600

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
P	0.3230	2.3/8	3.3/4	003601
Q	0.3320	2.1/2	4"	003603
R	0.3390	2.1/2	4"	003604
S	0.3480	2.1/2	4"	003606
T	0.3580	2.1/2	4.1/4	003607
U	0.3680	2.3/4	4.1/4	003609
V	0.3770	2.3/4	4.1/4	003611
W	0.3860	2.7/8	4.1/2	003612
X	0.3970	2.7/8	4.1/2	003614
Y	0.4040	2.7/8	4.1/2	003615
Z	0.4130	2.7/8	4.1/2	003617

D33W

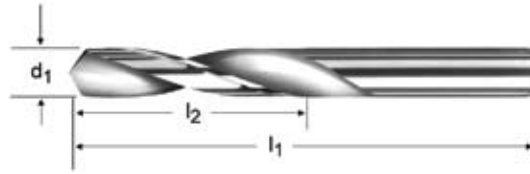


Solid
Carbide
Drills

• Standard length

• Foret extra-court

• Broca extra corta



D33W



6.2 6.3 8.1 8.2



1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
68	0.0310	3/8	1.1/8	003500
67	0.0320	3/8	1.1/8	003502
66	0.0330	3/8	1.1/8	003503
65	0.0350	3/8	1.1/8	003504
64	0.0360	1/2	1.1/4	003505
63	0.0370	1/2	1.1/4	003506
62	0.0380	1/2	1.1/4	003507
61	0.0390	1/2	1.1/4	003508
60	0.0400	3/4	1.1/2	003509
59	0.0410	3/4	1.1/2	003510
58	0.0420	3/4	1.1/2	003511
57	0.0430	3/4	1.1/2	003512
56	0.0465	3/4	1.1/2	003513
55	0.0520	3/4	1.1/2	003515
54	0.0550	3/4	1.1/2	003516
53	0.0595	3/4	1.1/2	003517
52	0.0635	3/4	1.1/2	003519
51	0.0670	3/4	1.1/2	003520
50	0.0700	7/8	1.3/4	003521
49	0.0730	7/8	1.3/4	003522
48	0.0760	7/8	1.3/4	003523
47	0.0785	7/8	1.3/4	003525
46	0.0810	7/8	1.3/4	003526
45	0.0820	7/8	1.3/4	003527
44	0.0860	1"	2"	003528
43	0.0890	1"	2"	003529
42	0.0935	1"	2"	003530
41	0.0960	1"	2"	003532
40	0.0980	1"	2"	003533
39	0.0995	1.1/4	2.1/4	003534
38	0.1015	1.1/4	2.1/4	003535
37	0.1040	1.1/4	2.1/4	003536
36	0.1065	1.1/4	2.1/4	003537
35	0.1100	1.1/4	2.1/4	003539

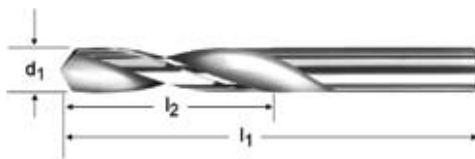
d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
34	0.1110	1.1/4	2.1/4	003540
33	0.1130	1.1/4	2.1/4	003541
32	0.1160	1.1/4	2.1/4	003542
31	0.1200	1.1/4	2.1/4	003543
30	0.1285	1.1/4	2.1/4	003545
29	0.1360	1.3/8	2.1/2	003546
28	0.1405	1.3/8	2.1/2	003547
27	0.1440	1.3/8	2.1/2	003549
26	0.1470	1.3/8	2.1/2	003550
25	0.1495	1.3/8	2.1/2	003551
24	0.1520	1.3/8	2.1/2	003552
23	0.1540	1.3/8	2.1/2	003553
22	0.1570	1.3/8	2.1/2	003555
21	0.1590	1.3/8	2.1/2	003556
20	0.1610	1.3/8	2.1/2	003557
19	0.1660	1.5/8	2.3/4	003558
18	0.1695	1.5/8	2.3/4	003559
17	0.1730	1.5/8	2.3/4	003561
16	0.1770	1.5/8	2.3/4	003562
15	0.1800	1.5/8	2.3/4	003563
14	0.1820	1.5/8	2.3/4	003564
13	0.1850	1.5/8	2.3/4	003565
12	0.1890	1.5/8	2.3/4	003567
11	0.1910	1.5/8	2.3/4	003568
10	0.1935	1.5/8	2.3/4	003569
9	0.1960	1.3/4	3"	003570
8	0.1990	1.3/4	3"	003571
7	0.2010	1.3/4	3"	003572
6	0.2040	1.3/4	3"	003574
5	0.2055	1.3/4	3"	003575
4	0.2090	1.3/4	3"	003576
3	0.2130	1.3/4	3"	003577
2	0.2210	1.3/4	3"	003579
1	0.2280	1.3/4	3"	003580

D33M

- Standard length

- Foret extra-court

- Broca extra corta



D33M



- 6.2 6.3 8.1 8.2
- 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
0.80	0.0315	9.5	28.5	003470
0.90	0.0354	13	32	003471
1.00	0.0394	12	34	003472
1.50	0.0591	18	40	003473
2.00	0.0787	24	49	003474
2.05	0.0807	24	49	003475
2.50	0.0984	30	57	003476
3.00	0.1181	33	61	003477
3.30	0.1299	36	65	003624
3.50	0.1378	39	70	003478
4.00	0.1575	43	75	003626
4.50	0.1772	47	80	003479
5.00	0.1969	52	86	003630
5.50	0.2165	57	93	003480

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
6.00	0.2362	57	93	003481
6.50	0.2559	63	101	003482
7.00	0.2756	69	109	003483
7.50	0.2953	69	109	003484
8.00	0.3150	75	117	003485
8.50	0.3346	75	117	003486
9.00	0.3543	81	125	003487
9.50	0.3740	81	125	003488
10.00	0.3937	87	133	003631
10.50	0.4134	87	133	003489
10.75	0.4232	94	142	003490
11.00	0.4331	94	142	003491
11.50	0.4528	94	142	003492
12.00	0.4724	101	151	003493

D21

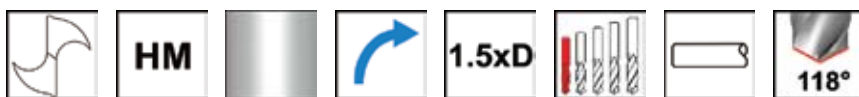
- Spade drill

- Foret extra-court

- Broca "spade"



D21



- 6.2 6.3 8.1 8.2
- 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 3.1 3.2 3.3 3.4 7.1 7.2 7.3 7.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/32	0.0312	3/16	1.1/2	003200
1/16	0.0625	5/16	1.1/2	003201
3/32	0.0938	3/8	1.1/2	003202
1/8	0.1250	7/16	1.1/2	003203
5/32	0.1562	15/32	2"	003204
3/16	0.1875	9/16	2"	003205
7/32	0.2188	19/32	2"	003206
1/4	0.2500	11/16	2"	003207

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	3/4	2.1/2	003208
5/16	0.3125	7/8	2.1/2	003209
3/8	0.3750	1"	2.1/2	003211
7/16	0.4375	1.1/16	2.1/2	003213
1/2	0.5000	1.1/8	2.1/2	003215

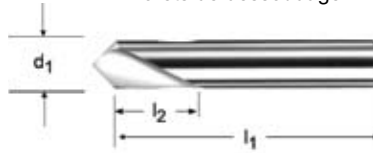
DS-90



- Spotting Drill

- Forets de dessoudage

- Broca para centrados



■	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	2.1	2.2	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3
	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2										

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	9/16	1.1/2	003332
3/16	0.1875	3/4	2"	003334
1/4	0.2500	1"	2.1/2	003336
5/16	0.3125	1"	2.1/2	003338

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/8	0.3750	1"	2.1/2	003340
1/2	0.5000	1.1/4	3"	003342

DC

- Center Drill

- Foret à centrer

- Brocas de Centrar



■	6.2	6.3	8.1	8.2																
●	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	3.1	3.2	3.3	3.4	7.1	7.2	7.3	7.4				

Nr.	d ₁ Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
0	1/32	0.038	1.1/4	1/8	003251
4	1/8	1/8	2.1/8	5/16	003255
5	3/16	3/16	2.3/4	7/16	003256
1	3/64	3/64	1.1/4	1/8	003252

Nr.	d ₁ Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
2	5/64	5/64	1.7/8	3/16	003253
6	7/32	7/32	3"	1/2	003257
3	7/64	7/64	2"	1/4	003254

AMG
Chart

Tool Material:

- example: 279 U
279 = SFM
U = Alpha Code to find your Feed Rate

Note:
Our easy guide
to drill icons is
located on
page 11.

**TIAIN
Top**



Special Standard:

HSS Stub Drills

3

Page # for easy reference				3	Surface Feet per Minute (SFM)			
Application Material Groups (AMG) 1				Hardness HB		28-29	30	31-32
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■187M	●184M	●121J	
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■154M	●157M	●102J	
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■131K	■131L	■85I	
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	■105I	■131L	■82I	
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	■69G	■115G	■69E	
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6	●36E	■98G	■62E	
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2.Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	■98I	●56F	●49F	
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	■52I	■30F	■23F	
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH. DUPLEX	<300	2.3	■66G	●36D	●30D	
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4				
3.Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	■157M	■184I	●112G	
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	■121K	■157I	●98G	
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	■98J	■115G	●75E	
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	■85F	■89G	●56F	
4.Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	■112I	●157I	■98G	
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	■66G	●95I	■59G	
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●13B	●52E	■33C	
5.Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●56I	●79L	■49I	
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●36G	●46I	■30G	
	5.3 Nickel, alloyed	Inconel 718,Nimonic 75-95,Rene 41,Inconel 825,A286	>270<350	5.3	●23E	●33G	■20E	
6.Copper	6.1 Copper	Commercially Pure	<100	6.1	●131E		●213H	
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	■164I		●230H	
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	■148K	●194I	●115G	
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●66F	●164I	●102G	
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	●180I		●230E	
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	■164M		■148N	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	■121K		●131N	
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	■115I	■157I	●98G	
8.Synthetic Materials	8.1 Thermoplastics	Ultradid, Polystrol	---	8.1	●213G		●180J	
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2	■164G		●131H	
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3	■115F			
9.Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1				
10.Graphite	10.1 Standard araphite		---	10.1				

HSS Stub Drills (con't)

	A720	A022	QC41CO	QC41G	QC41	QC41P	M40CO M41CO M42CO	4ASMC0	EZ40G EZ41G	EZ40P EZ41P	R40C R41C R42C	4ASM	R40 R41 R42	L40	
	HSCo	HSS	HSCo	HSS	HSS	HSS	HSCo	HSCo	HSS	HSS	HSS	HSS	HSS	HSS	
															
															
	DIN 1899	DIN ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	DIN 1897	ANSI	ANSI		ANSI	ANSI	ANSI	
															
	2.5xD	2.5xD	3.5xD	3.5xD	3.5xD	3.5xD	2.5xD	2.5xD	3.5xD	3.5xD	2.5xD	2.5xD	2.5xD	2.5xD	
															
	N	N						N			N	N	N		
															
															
	Surface Feet per Minute (SFM)														
	33	34-35	36	37	38	39	40-41	42	43, 45	44, 45	46-48	49	50-52	53	
1.1	■115A	■115K		■115F	■98F	■98F	●125K	●125K	■115F	■98F	■115J	■115J	■115J	■115J	1.1
1.2	■98A	■105K		■69F	■59F	■59F	■108H	■108H	■69F	■59F	■98J	■98J	■98J	■98J	1.2
1.3	■89A	■82I		■75H	■69H	■66H	●98G	●98G	■75H	■66H	■89G	■89G	■89G	■89G	1.3
1.4	■75A	■75H		■69F	■59F	■59F	●89G	●89G	■69F	■59F	■69G	■69G	■69G	■69G	1.4
1.5	●56A	■52G		●56D	●46D	●46D	■59F	■59F	●56D	●46D	●46F	●46F	●46F	●46F	1.5
1.6	●33A	●33E	■20B				■36E	■36E			●33E	●33E	●33E	●33E	1.6
1.7															1.7
1.8															1.8
2.1	●72A	■49G	●95H	●105H	●89H	●89H	■72F	■72F	●105H	●89H	■52F	■52F	■52F	■52F	2.1
2.2	●33A	●26I	●56F	●59F	●49F	●49F	■36H	■36H	●59F	●46F	●30H	●30H	●30H	●30H	2.2
2.3	●49A	●30E	●56D	●59D	●49D	●49D	■49D	■49D	●59D	●49D	●33D	●33D	●33D	●33D	2.3
2.4			■30D												2.4
3.1	■98A	■105K	●161H	■171H	■151H	■151H	●112K	●112K	■171H	■151H	■105J	■105J	■105J	■105J	3.1
3.2	■79A	■82I	●85H	■89H	■79H	■79H	●98F	●98F	■89H	■79H	■89G	■89G	■89G	■89G	3.2
3.3	●66A	■66G	●85F	●95F	●85C	●79F	■72F	■72F	●95F	●79F	■66F	■66F	■66F	■66F	3.3
3.4	●46A	■52G	●56D	●59D			■56F	■56F	●59D		■52F	■52F	■52F	■52F	3.4
4.1	●75A	■82I		●95H	●89H	■98G	■98G	■98G	●89H	■89G	■89G	■89G	■89G	■89G	4.1
4.2	●56A	●46F		●49F	●49F	■59F	■59F	■59F	●49F	■52E	■52E	■52E	■52E	■52E	4.2
4.3	●26A	●26C	■20D			■33C	■33C	■33C		■26C	■26C	■26C	■26C	■26C	4.3
5.1	●33A	●43H		●59H	●49F	●49F	■49H	■49H	●59H	●49F	●43H	●43H	●43H	●43H	5.1
5.2	●23A	●26F	■20B				■30F	■30F			●26F	●26F	●26F	●26F	5.2
5.3	●13A	●13B	●10B				■20C	■20C			●13B	●13B	●13B	●13B	5.3
6.1	●115A	■118H		■98I		●89I	●125I	●125I	■98I	■89I	■118H	■118H	■118H	■118H	6.1
6.2	●131A	●125K		■89H		●79H	●131K	●131K	■89H	■85H	●125J	●125J	●125J	●125J	6.2
6.3	●115A	●89I		■89H		●79H	●89J	●89J	■89H	■79H	●89I	●89I	●89I	●89I	6.3
6.4	●89A	●52I					●52I	●52I		●52H	●52H	●52H	●52H	●52H	6.4
7.1	●115A	■131F				●351H	●115K	●115K	■400H	■351H	●108K	●108K	●108K	●108K	7.1
7.2	●98A	■105K				●325H	●108J	●108J	■351H	■325H	●98J	●98J	●98J	●98J	7.2
7.3	●89A	■105J					●102I	●102I			●98I	●98I	●98I	●98I	7.3
7.4	●89A	●82J				●276H	●98G	●98G	■315H	■276H	●82I	●82I	●82I	●82I	7.4
8.1	●157A	●98K					●115M	●115M			●98K	●98K	●98K	●98K	8.1
8.2	●82A	●115I					●92K	●92K			●115I	●115I	●115I	●115I	8.2
8.3		●56G					●56I	●56I			●56G	●56G	●56G	●56G	8.3
9.1		●13C					■20C	■20C			●13C	●13C	●13C	●13C	9.1
10.1															10.1



ADX

A520



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 6.2 6.3 7.2 7.3
- 7.4 8.2 8.3
- 1.6 4.3 5.1 5.2 5.3 6.1 6.4 7.1 8.1

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
1/8	3.00	0.1181	16	46	0038901	A5203.0
	3.10	0.1220	18	49	0038918	A5203.1
	3.18	0.1250	18	49	0171264	A5201/8
	3.20	0.1259	18	49	0038925	A5203.2
	3.30	0.1299	18	49	0038932	A5203.3
9/64	3.40	0.1338	20	52	0038949	A5203.4
	3.50	0.1377	20	52	0038956	A5203.5
	3.57	0.1405	20	52	0171271	A5209/64
	3.60	0.1417	20	52	0038963	A5203.6
	3.70	0.1456	20	52	0038970	A5203.7
5/32	3.80	0.1496	22	55	0038987	A5203.8
	3.90	0.1535	22	55	0038994	A5203.9
	3.97	0.1562	22	55	0171288	A5205/32
	4.00	0.1574	22	55	0039007	A5204.0
	4.10	0.1614	22	55	0039014	A5204.1
11/64	4.20	0.1653	22	55	0039021	A5204.2
	4.30	0.1692	24	58	0039038	A5204.3
	4.37	0.1720	24	58	0171295	A52011/64
	4.40	0.1732	24	58	0039045	A5204.4
	4.50	0.1771	24	58	0039052	A5204.5
3/16	4.60	0.1811	24	58	0039069	A5204.6
	4.70	0.1850	24	58	0039076	A5204.7
	4.76	0.1874	26	62	0171301	A5203/16
	4.80	0.1889	26	62	0039083	A5204.8
	4.90	0.1929	26	62	0039090	A5204.9
13/64	5.00	0.1968	26	62	0039106	A5205.0
	5.10	0.2007	26	62	0039113	A5205.1
	5.16	0.2031	26	62	0171318	A52013/64
	5.20	0.2047	26	62	0039120	A5205.2
	5.30	0.2086	26	62	0039137	A5205.3
7/32	5.40	0.2125	28	66	0039144	A5205.4
	5.50	0.2165	28	66	0039151	A5205.5
	5.56	0.2188	28	66	0171325	A5207/32
	5.60	0.2204	28	66	0039168	A5205.6
	5.70	0.2244	28	66	0039175	A5205.7
	5.80	0.2283	28	66	0039182	A5205.8

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
15/64	5.90	0.2322	28	66	0039199	A5205.9
	5.95	0.2342	28	66	0171332	A52015/64
	6.00	0.2362	28	66	0039205	A5206.0
	6.10	0.2401	31	70	0039212	A5206.1
	6.20	0.2440	31	70	0039229	A5206.2
1/4	6.30	0.2480	31	70	0039236	A5206.3
	6.35	0.2500	31	70	0171349	A5201/4
	6.40	0.2519	31	70	0039243	A5206.4
	6.50	0.2559	31	70	0039250	A5206.5
	6.60	0.2598	31	70	0039267	A5206.6
17/64	6.70	0.2637	31	70	0039274	A5206.7
	6.75	0.2657	34	74	0171356	A52017/64
	6.80	0.2677	34	74	0039281	A5206.8
	6.90	0.2716	34	74	0039298	A5206.9
	7.00	0.2755	34	74	0039304	A5207.0
9/32	7.10	0.2795	34	74	0039311	A5207.1
	7.14	0.2811	34	74	0171363	A5209/32
	7.20	0.2834	34	74	0039328	A5207.2
	7.30	0.2874	34	74	0039335	A5207.3
	7.40	0.2913	34	74	0039342	A5207.4
19/64	7.50	0.2952	34	74	0039359	A5207.5
	7.54	0.2968	37	79	0171370	A52019/64
	7.60	0.2992	37	79	0039366	A5207.6
	7.70	0.3031	37	79	0039373	A5207.7
	7.80	0.3070	37	79	0039380	A5207.8
5/16	7.90	0.3110	37	79	0039397	A5207.9
	7.94	0.3125	37	79	0171387	A5205/16
	8.00	0.3149	37	79	0039403	A5208.0
	8.10	0.3188	37	79	0039410	A5208.1
	8.20	0.3228	37	79	0039427	A5208.2
21/64	8.30	0.3267	37	79	0039434	A5208.3
	8.33	0.3279	37	79	0171394	A52021/64
	8.40	0.3307	37	79	0039441	A5208.4
	8.50	0.3346	37	79	0039458	A5208.5
	8.60	0.3385	40	84	0039465	A5208.6
	8.70	0.3425	40	84	0039472	A5208.7

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
11/32	8.73	0.3437	40	84	0171400	A52011/32
	8.80	0.3464	40	84	0039489	A5208.8
	8.90	0.3503	40	84	0039496	A5208.9
	9.00	0.3543	40	84	0039502	A5209.0
	9.10	0.3582	40	84	0039519	A5209.1
23/64	9.13	0.3594	40	84	0171417	A52023/64
	9.20	0.3622	40	84	0039526	A5209.2
	9.30	0.3661	40	84	0039533	A5209.3
	9.40	0.3700	40	84	0039540	A5209.4
	9.50	0.3740	40	84	0039557	A5209.5
3/8	9.53	0.3750	43	89	0171424	A5203/8
	9.60	0.3779	43	89	0039564	A5209.6
	9.70	0.3818	43	89	0039571	A5209.7
	9.80	0.3858	43	89	0039588	A5209.8
	9.90	0.3897	43	89	0039595	A5209.9
25/64	9.92	0.3905	43	89	0171431	A52025/64
	10.00	0.3937	43	89	0038598	A52010.0
	10.10	0.3976	43	89	0038604	A52010.1
	10.20	0.4015	43	89	0038611	A52010.2
	10.30	0.4055	43	89	0038628	A52010.3
13/32	10.32	0.4062	43	89	0171448	A52013/32
	10.40	0.4094	43	89	0038635	A52010.4
	10.50	0.4133	43	89	0038642	A52010.5
	10.60	0.4173	43	89	0038659	A52010.6
	10.70	0.4212	47	95	0038666	A52010.7
27/64	10.72	0.4220	47	95	0171455	A52027/64
	10.80	0.4251	47	95	0038673	A52010.8
	10.90	0.4291	47	95	0038680	A52010.9

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	11.00	0.4330	47	95	0038697	A52011.0
	11.10	0.4370	47	95	0038703	A52011.1
7/16	11.11	0.4374	47	95	0171462	A5207/16
	11.20	0.4409	47	95	0038710	A52011.2
	11.30	0.4448	47	95	0038727	A52011.3
	11.40	0.4488	47	95	0038734	A52011.4
	11.50	0.4527	47	95	0038741	A52011.5
29/64	11.51	0.4531	47	95	0171479	A52029/64
	11.60	0.4566	47	95	0038758	A52011.6
	11.70	0.4606	47	95	0038765	A52011.7
	11.80	0.4645	47	95	0038772	A52011.8
	11.90	0.4685	51	102	0038789	A52011.9
15/32	11.91	0.4688	51	102	0171486	A52015/32
	12.00	0.4724	51	102	0038796	A52012.0
	12.10	0.4763	51	102	0038802	A52012.1
	12.20	0.4803	51	102	0038819	A52012.2
	12.30	0.4842	51	102	0038826	A52012.3
31/64	12.30	0.4842	51	102	0171493	A52031/64
	12.40	0.4881	51	102	0038833	A52012.4
	12.50	0.4921	51	102	0038840	A52012.5
	12.60	0.4960	51	102	0038857	A52012.6
	12.70	0.5000	51	102	0038864	A52012.7
1/2	12.70	0.5000	51	102	0171509	A5201/2
	12.80	0.5039	51	102	0038871	A52012.8
	12.90	0.5078	51	102	0038888	A52012.9
	13.00	0.5118	51	102	0038895	A52013.0



PFX

A597



■ 1.3 1.4 1.5 1.6 2.2 3.1 3.2 3.3 3.4 7.4 • 1.1 1.2 2.1 2.3 4.1 4.2 4.3 5.1 5.2 5.3 6.3 6.4

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
2.50	0.0984	14	43	0125557	A5972.5
2.60	0.1023	14	43	0125564	A5972.6
3.00	0.1181	16	46	0125571	A5973.0
3.10	0.1220	18	49	0587645	A5973.1
3.20	0.1259	18	49	0587652	A5973.2
3.30	0.1299	18	49	0125588	A5973.3
3.40	0.1338	20	52	0125595	A5973.4
3.50	0.1377	20	52	0125601	A5973.5
3.60	0.1417	20	52	0587669	A5973.6
3.70	0.1456	20	52	0587676	A5973.7
3.80	0.1496	22	55	0587683	A5973.8
3.90	0.1535	22	55	0587690	A5973.9
4.00	0.1574	22	55	0125618	A5974.0
4.10	0.1614	22	55	0125625	A5974.1
4.20	0.1653	22	55	0125632	A5974.2
4.30	0.1692	24	58	0125649	A5974.3
4.40	0.1732	24	58	0587706	A5974.4
4.50	0.1771	24	58	0125656	A5974.5
4.60	0.1811	24	58	0587713	A5974.6
4.70	0.1850	24	58	0587720	A5974.7
4.80	0.1889	26	62	0587737	A5974.8
4.90	0.1929	26	62	0125663	A5974.9
5.00	0.1968	26	62	0125670	A5975.0
5.10	0.2007	26	62	0125687	A5975.1
5.20	0.2047	26	62	0587744	A5975.2
5.30	0.2086	26	62	0587751	A5975.3
5.40	0.2125	28	66	0587768	A5975.4
5.50	0.2165	28	66	0125694	A5975.5
5.60	0.2204	28	66	0587775	A5975.6
5.70	0.2244	28	66	0587782	A5975.7
5.80	0.2283	28	66	0587799	A5975.8
5.90	0.2322	28	66	0587805	A5975.9
6.00	0.2362	28	66	0125700	A5976.0
6.10	0.2401	31	70	0587812	A5976.1
6.20	0.2440	31	70	0587829	A5976.2
6.30	0.2480	31	70	0587836	A5976.3
6.40	0.2519	31	70	0587843	A5976.4
6.50	0.2559	31	70	0125717	A5976.5
6.60	0.2598	31	70	0587850	A5976.6
6.70	0.2637	31	70	0587867	A5976.7
6.80	0.2677	34	74	0125724	A5976.8
6.90	0.2716	34	74	0125731	A5976.9
7.00	0.2755	34	74	0125748	A5977.0
7.10	0.2795	34	74	0587874	A5977.1
7.20	0.2834	34	74	0587881	A5977.2
7.30	0.2874	34	74	0587898	A5977.3

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
7.40	0.2913	34	74	0587904	A5977.4
7.50	0.2952	34	74	0125755	A5977.5
7.60	0.2992	37	79	0587911	A5977.6
7.70	0.3031	37	79	0587928	A5977.7
7.80	0.3070	37	79	0587935	A5977.8
7.90	0.3110	37	79	0587942	A5977.9
8.00	0.3149	37	79	0125762	A5978.0
8.10	0.3188	37	79	0587959	A5978.1
8.20	0.3228	37	79	0587966	A5978.2
8.30	0.3267	37	79	0587973	A5978.3
8.40	0.3307	37	79	0587980	A5978.4
8.50	0.3346	37	79	0125779	A5978.5
8.60	0.3385	40	84	0125786	A5978.6
8.70	0.3425	40	84	0125793	A5978.7
8.80	0.3464	40	84	0587997	A5978.8
8.90	0.3503	40	84	0588000	A5978.9
9.00	0.3543	40	84	0125809	A5979.0
9.10	0.3582	40	84	0588017	A5979.1
9.20	0.3622	40	84	0588024	A5979.2
9.30	0.3661	40	84	0588031	A5979.3
9.40	0.3700	40	84	0588048	A5979.4
9.50	0.3740	40	84	0125816	A5979.5
9.60	0.3779	43	89	0588055	A5979.6
9.70	0.3818	43	89	0588062	A5979.7
9.80	0.3858	43	89	0588079	A5979.8
9.90	0.3897	43	89	0588086	A5979.9
10.00	0.3937	43	89	0125465	A59710.0
10.20	0.4015	43	89	0125472	A59710.2
10.30	0.4055	43	89	0125489	A59710.3
10.40	0.4094	43	89	0125496	A59710.4
10.50	0.4133	43	89	0125502	A59710.5
10.80	0.4251	47	95	0587522	A59710.8
11.00	0.4330	50	95	0125519	A59711.0 ²⁾
11.20	0.4409	50	95	0587539	A59711.2 ²⁾
11.50	0.4527	50	95	0125526	A59711.5 ²⁾
11.80	0.4645	50	95	0587546	A59711.8 ²⁾
12.00	0.4724	57	102	0125533	A59712.0 ²⁾
12.20	0.4803	57	102	0125540	A59712.2 ²⁾
12.50	0.4921	57	102	0587553	A59712.5 ²⁾
12.80	0.5039	57	102	0587560	A59712.8 ²⁾
13.00	0.5118	57	102	0587577	A59713.0 ²⁾
13.50	0.5314	62	107	0587584	A59713.5 ²⁾
14.00	0.5511	62	107	0587591	A59714.0 ²⁾
14.50	0.5708	62	111	0587607	A59714.5 ²⁾
15.00	0.5905	63	111	0587614	A59715.0 ²⁾
15.50	0.6102	63	115	0587621	A59715.5 ²⁾
16.00	0.6299	67	115	0587638	A59716.0 ²⁾

²⁾ Overall lengths longer than standards

A927

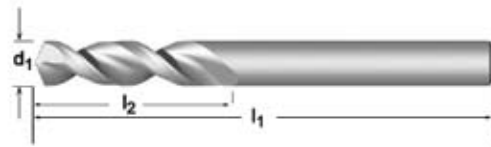
DORMER

HSS
Stub
Drills

• PFX stub drill

• Foret PFX extra-court

• Broca PFX Extra Corta



PFX

A927



■	1.3	1.4	1.5	1.6	2.2	4.1	4.2	4.3	5.1	5.2	5.3	7.2					
●	1.1	1.2	2.1	2.3	3.1	3.2	3.3	3.4	6.1	6.2	6.3	6.4	7.1	7.3	7.4	8.1	8.2

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	1.00	0.0393	6	26	0147382	A9271.0
	1.10	0.0433	7	28	0147399	A9271.1
	1.20	0.0472	8	30	0147405	A9271.2
	1.30	0.0511	8	30	0147412	A9271.3
	1.40	0.0551	9	32	0147429	A9271.4
	1.50	0.0590	9	32	0147436	A9271.5
1/16	1.59	0.0625	10	34	0174357	A9271/16
	1.60	0.0629	10	34	0147443	A9271.6
	1.70	0.0669	10	34	0147450	A9271.7
	1.80	0.0708	11	36	0147467	A9271.8
	1.90	0.0748	11	36	0147474	A9271.9
5/64	1.98	0.0779	12	38	0174364	A9275/64
	2.00	0.0787	12	38	0147481	A9272.0
	2.10	0.0826	12	38	0147498	A9272.1
	2.20	0.0866	13	40	0147504	A9272.2
	2.30	0.0905	13	40	0147511	A9272.3
3/32	2.38	0.0937	14	43	0174371	A9273/32
	2.40	0.0944	14	43	0147528	A9272.4
	2.50	0.0984	14	43	0147535	A9272.5
	2.60	0.1023	14	43	0147542	A9272.6
	2.70	0.1062	16	46	0147559	A9272.7
7/64	2.78	0.1094	16	46	0174388	A9277/64
	2.80	0.1102	16	46	0147566	A9272.8
	2.90	0.1141	16	46	0147573	A9272.9
	3.00	0.1181	16	46	0147580	A9273.0
	3.10	0.1220	18	49	0147597	A9273.1
1/8	3.18	0.1251	18	49	0174395	A9271/8
	3.20	0.1259	18	49	0147603	A9273.2
	3.30	0.1299	18	49	0147610	A9273.3
	3.40	0.1338	20	52	0147627	A9273.4
	3.50	0.1377	20	52	0147634	A9273.5
9/64	3.57	0.1405	20	52	0174401	A9279/64
	3.60	0.1417	20	52	0147641	A9273.6
	3.70	0.1456	20	52	0147658	A9273.7
	3.80	0.1496	22	55	0147665	A9273.8
	3.90	0.1535	22	55	0147672	A9273.9

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
5/32	3.97	0.1562	22	55	0174418	A9275/32
	4.00	0.1574	22	55	0147689	A9274.0
	4.10	0.1614	22	55	0147696	A9274.1
	4.20	0.1653	22	55	0147702	A9274.2
	4.30	0.1692	24	58	0147719	A9274.3
11/64	4.37	0.1720	24	58	0174425	A92711/64
	4.40	0.1732	24	58	0147726	A9274.4
	4.50	0.1771	24	58	0147733	A9274.5
	4.60	0.1811	24	58	0147740	A9274.6
	4.70	0.1850	24	58	0147757	A9274.7
3/16	4.76	0.1874	26	62	0174432	A9273/16
	4.80	0.1889	26	62	0147764	A9274.8
	4.90	0.1929	26	62	0147771	A9274.9
	5.00	0.1968	26	62	0147788	A9275.0
	5.10	0.2007	26	62	0147795	A9275.1
13/64	5.16	0.2031	26	62	0174449	A92713/64
	5.20	0.2047	26	62	0147801	A9275.2
	5.30	0.2086	26	62	0147818	A9275.3
	5.40	0.2125	28	66	0147825	A9275.4
	5.50	0.2165	28	66	0147832	A9275.5
7/32	5.56	0.2188	28	66	0174456	A9277/32
	5.60	0.2204	28	66	0147849	A9275.6
	5.70	0.2244	28	66	0147856	A9275.7
	5.80	0.2283	28	66	0147863	A9275.8
	5.90	0.2322	28	66	0147870	A9275.9
15/64	5.95	0.2342	28	66	0174463	A92715/64
	6.00	0.2362	28	66	0147887	A9276.0
	6.10	0.2401	31	70	0147894	A9276.1
	6.20	0.2440	31	70	0147900	A9276.2
	6.30	0.2480	31	70	0147917	A9276.3
1/4	6.35	0.2500	31	70	0174470	A9271/4
	6.40	0.2519	31	70	0147924	A9276.4
	6.50	0.2559	31	70	0147931	A9276.5
	6.60	0.2598	31	70	0147948	A9276.6
	6.70	0.2637	31	70	0147955	A9276.7
17/64	6.75	0.2657	34	74	0174487	A92717/64

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	6.80	0.2677	34	74	0147962	A9276.8
	6.90	0.2716	34	74	0147979	A9276.9
	7.00	0.2755	34	74	0147986	A9277.0
	7.10	0.2795	34	74	0147993	A9277.1
9/32	7.14	0.2811	34	74	0174494	A9279/32
	7.20	0.2834	34	74	0148006	A9277.2
	7.30	0.2874	34	74	0148013	A9277.3
	7.40	0.2913	34	74	0148020	A9277.4
	7.50	0.2952	34	74	0148037	A9277.5
19/64	7.54	0.2968	37	79	0174500	A92719/64
	7.60	0.2992	37	79	0148044	A9277.6
	7.70	0.3031	37	79	0148051	A9277.7
	7.80	0.3070	37	79	0148068	A9277.8
	7.90	0.3110	37	79	0148075	A9277.9
5/16	7.94	0.3125	37	79	0174517	A9275/16
	8.00	0.3149	37	79	0148082	A9278.0
	8.10	0.3188	37	79	0148099	A9278.1
	8.20	0.3228	37	79	0148105	A9278.2
	8.30	0.3267	37	79	0148112	A9278.3
21/64	8.33	0.3279	37	79	0174524	A92721/64
	8.40	0.3307	37	79	0148129	A9278.4
	8.50	0.3346	37	79	0148136	A9278.5
	8.60	0.3385	40	84	0148143	A9278.6
	8.70	0.3425	40	84	0148150	A9278.7
11/32	8.73	0.3437	40	84	0174531	A92711/32
	8.80	0.3464	40	84	0148167	A9278.8
	8.90	0.3503	40	84	0148174	A9278.9
	9.00	0.3543	40	84	0148181	A9279.0
	9.10	0.3582	40	84	0148198	A9279.1
23/64	9.13	0.3594	40	84	0174548	A92723/64
	9.20	0.3622	40	84	0148204	A9279.2
	9.30	0.3661	40	84	0148211	A9279.3
	9.40	0.3700	40	84	0148228	A9279.4
	9.50	0.3740	40	84	0148235	A9279.5
3/8	9.53	0.3751	43	89	0174555	A9273/8
	9.60	0.3779	43	89	0148242	A9279.6
	9.70	0.3818	43	89	0148259	A9279.7
	9.80	0.3858	43	89	0148266	A9279.8

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	9.90	0.3897	43	89	0148273	A9279.9
25/64	9.92	0.3905	43	89	0174562	A92725/64
	10.00	0.3937	43	89	0148280	A92710.0
	10.20	0.4015	43	89	0148297	A92710.2
	10.30	0.4055	43	89	0148303	A92710.3
13/32	10.32	0.4062	43	89	0174579	A92713/32
	10.40	0.4094	43	89	0148310	A92710.4
	10.50	0.4133	43	89	0148327	A92710.5
27/64	10.72	0.4220	50	95	0174586	A92727/64 ²⁾
	10.80	0.4251	50	95	0148334	A92710.8 ²⁾
	11.00	0.4330	50	95	0148341	A92711.0 ²⁾
7/16	11.11	0.4374	50	95	0174593	A9277/16 ²⁾
	11.20	0.4409	50	95	0148358	A92711.2 ²⁾
	11.50	0.4527	50	95	0148365	A92711.5 ²⁾
29/64	11.51	0.4531	50	95	0174609	A92729/64 ²⁾
	11.80	0.4645	50	95	0148372	A92711.8 ²⁾
15/32	11.91	0.4688	57	102	0174616	A92715/32 ²⁾
	12.00	0.4724	57	102	0148389	A92712.0 ²⁾
	12.20	0.4803	57	102	0148396	A92712.2 ²⁾
31/64	12.30	0.4842	57	102	0174623	A92731/64 ²⁾
	12.50	0.4921	57	102	0148402	A92712.5 ²⁾
1/2	12.70	0.5000	57	102	0174630	A9271/2 ²⁾
	12.80	0.5039	57	102	0148419	A92712.8 ²⁾
	13.00	0.5118	57	102	0148426	A92713.0 ²⁾
	13.50	0.5314	62	107	0302804	A92713.5 ²⁾
	14.00	0.5511	62	107	0308516	A92714.0 ²⁾
	14.50	0.5708	62	107	0302811	A92714.5 ²⁾
	15.00	0.5905	63	111	0302828	A92715.0 ²⁾
	15.50	0.6102	63	111	0302835	A92715.5 ²⁾
	16.00	0.6299	67	115	0302842	A92716.0 ²⁾
	17.00	0.6692	71	119	0302859	A92717.0 ²⁾
	17.50	0.6889	75	123	0588437	A92717.5 ²⁾
	18.00	0.7086	75	123	0302866	A92718.0 ²⁾
	19.00	0.7480	79	127	0302873	A92719.0 ²⁾
	20.00	0.7874	81	131	0302880	A92720.0 ²⁾

²⁾ Overall lengths longer than standards

DORMER

- Micro Broca

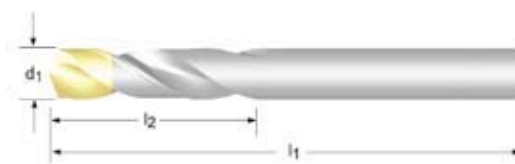


■ 1.1 1.2 1.3 1.4 3.1 3.2

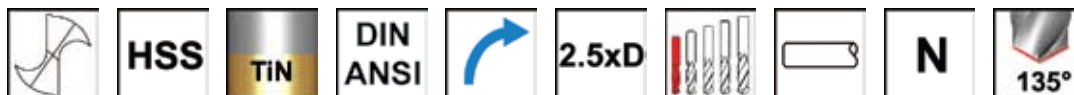
● 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3

7.4 8.1 8.2

d₁ Ø mm	d₁ dec. Inch	l₂ mm	l₁ mm	d₂ Øh₈ mm	Stock #	EDP # or e-Code
0.55	0.0217	4.5	25	1	0612064	A720.55
0.60	0.0236	4.5	25	1	0045121	A720.6
0.62	0.0244	5.0	25	1	0612071	A720.62
0.65	0.0256	5.0	25	1	0612088	A720.65
0.70	0.0276	5.6	25	1	0615577	A720.7
0.75	0.0295	5.6	25	1	0612101	A720.75
0.80	0.0315	6.3	25	1.5	0615584	A720.8
0.85	0.0335	6.3	25	1.5	0612125	A720.85
0.90	0.0354	7.1	25	1.5	0615591	A720.9
0.95	0.0374	7.1	25	1.5	0612149	A720.95
1.00	0.0394	8.0	25	1.5	0615607	A7201.0
1.05	0.0413	8.0	25	1.5	0612163	A7201.05
1.10	0.0433	9.0	25	1.5	0615614	A7201.1
1.20	0.0472	10.0	25	1.5	0615621	A7201.2
1.30	0.0512	10.0	25	1.5	0615638	A7201.3
1.40	0.0551	11.2	25	1.5	0615645	A7201.4



A022 Bright below 2.0 mm, TiN Tipped and split point 2.0 mm and above



- 1.1 1.2 1.3 1.4 1.5 2.1 3.1 3.2 3.3 4.1 7.1 7.2 7.3
 • 1.6 2.2 2.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.4 8.1 8.2 8.3 9.1

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	0.50	0.0196	3	20	0600382	A022.5
	0.60	0.0236	3.5	21	0600399	A022.6
	0.70	0.0275	4.5	23	0600405	A022.7
1/32	0.79	0.0312	13	35	0600542	A0221/32
	0.80	0.0314	5	24	0600412	A022.8
	0.90	0.0354	5.5	25	0600429	A022.9
	1.00	0.0393	6	26	0600436	A0221.0
	1.10	0.0433	7	28	0600443	A0221.1
3/64	1.19	0.0468	13	35	0600559	A0223/64
	1.20	0.0472	8	30	0600450	A0221.2
	1.30	0.0511	8	30	0600467	A0221.3
	1.40	0.0551	9	32	0600474	A0221.4
	1.50	0.0590	9	32	0600481	A0221.5
1/16	1.59	0.0625	16	41	0600535	A0221/16
	1.60	0.0629	10	34	0600498	A0221.6
	1.70	0.0669	10	34	0600504	A0221.7
	1.80	0.0708	11	36	0600511	A0221.8
	1.90	0.0748	11	36	0600528	A0221.9
5/64	1.98	0.0779	17	43	0600566	A0225/64
	2.00	0.0787	12	38	0600115	A0222.0
	2.10	0.0826	12	38	0600122	A0222.1
	2.20	0.0866	13	40	0600139	A0222.2
	2.25	0.0885	13	40	0600146	A0222.25
	2.30	0.0905	13	40	0600153	A0222.3
3/32	2.38	0.0937	20	45	0600238	A0223/32
	2.40	0.0944	14	43	0600160	A0222.4
	2.50	0.0984	14	43	0600177	A0222.5
	2.60	0.1023	14	43	0600184	A0222.6
	2.65	0.1043	14	43	0600191	A0222.65
	2.70	0.1062	16	46	0600207	A0222.7
7/64	2.78	0.1094	22	47	0600245	A0227/64
	2.80	0.1102	16	46	0600214	A0222.8
	2.90	0.1141	16	46	0600221	A0222.9
	3.00	0.1181	16	46	0588697	A0223.0
	3.10	0.1220	18	49	0589083	A0223.1
1/8	3.18	0.1251	23	49	0588727	A0221/8

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	3.20	0.1259	18	49	0589090	A0223.2
	3.25	0.1279	18	49	0589106	A0223.25
	3.30	0.1299	18	49	0589113	A0223.3
	3.40	0.1338	20	52	0589120	A0223.4
	3.50	0.1377	20	52	0589137	A0223.5
9/64	3.57	0.1405	25	50	0589878	A0229/64
	3.60	0.1417	20	52	0589144	A0223.6
	3.70	0.1456	20	52	0589151	A0223.7
	3.80	0.1496	22	55	0589168	A0223.8
	3.90	0.1535	22	55	0589175	A0223.9
5/32	3.97	0.1562	26	53	0589410	A0225/32
	4.00	0.1574	22	55	0589205	A0224.0
	4.10	0.1614	22	55	0589212	A0224.1
	4.20	0.1653	22	55	0589229	A0224.2
	4.30	0.1692	24	58	0589236	A0224.3
11/64	4.37	0.1720	28	55	0588932	A02211/64
	4.40	0.1732	24	58	0589243	A0224.4
	4.50	0.1771	24	58	0589250	A0224.5
	4.60	0.1811	24	58	0589267	A0224.6
	4.70	0.1850	24	58	0589274	A0224.7
3/16	4.76	0.1874	30	57	0589182	A0223/16
	4.80	0.1889	26	62	0589281	A0224.8
	4.90	0.1929	26	62	0589298	A0224.9
	5.00	0.1968	26	62	0589304	A0225.0
	5.10	0.2007	26	62	0589311	A0225.1
13/64	5.16	0.2031	31	58	0589014	A02213/64
	5.20	0.2047	26	62	0589328	A0225.2
	5.30	0.2086	26	62	0589335	A0225.3
	5.40	0.2125	28	66	0589342	A0225.4
	5.50	0.2165	28	66	0589359	A0225.5
7/32	5.56	0.2188	33	61	0589649	A0227/32
	5.60	0.2204	28	66	0589366	A0225.6
	5.70	0.2244	28	66	0589373	A0225.7
	5.80	0.2283	28	66	0589380	A0225.8
	5.90	0.2322	28	66	0589397	A0225.9
15/64	5.95	0.2342	34	63	0589069	A02215/64

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	6.00	0.2362	28	66	0589434	A0226.0
	6.10	0.2401	31	70	0589441	A0226.1
	6.20	0.2440	31	70	0589458	A0226.2
	6.30	0.2480	31	70	0589465	A0226.3
1/4	6.35	0.2500	36	65	0588710	A0221/4
	6.40	0.2519	31	70	0589472	A0226.4
	6.50	0.2559	31	70	0589489	A0226.5
	6.60	0.2598	31	70	0589496	A0226.6
	6.70	0.2637	31	70	0589502	A0226.7
	6.80	0.2677	34	74	0589519	A0226.8
	6.90	0.2716	34	74	0589526	A0226.9
	7.00	0.2755	34	74	0589533	A0227.0
	7.10	0.2795	34	74	0589540	A0227.1
9/32	7.14	0.2811	40	70	0589861	A0229/32
	7.20	0.2834	34	74	0589557	A0227.2
	7.30	0.2874	34	74	0589564	A0227.3
	7.40	0.2913	34	74	0589571	A0227.4
	7.50	0.2952	34	74	0589588	A0227.5
	7.60	0.2992	37	79	0589595	A0227.6
	7.70	0.3031	37	79	0589601	A0227.7
	7.80	0.3070	37	79	0589618	A0227.8
	7.90	0.3110	37	79	0589625	A0227.9
5/16	7.94	0.3125	43	73	0589403	A0225/16
	8.00	0.3149	37	79	0589656	A0228.0
	8.10	0.3188	37	79	0589663	A0228.1
	8.20	0.3228	37	79	0589670	A0228.2
	8.30	0.3267	37	79	0589687	A0228.3
	8.40	0.3307	37	79	0589694	A0228.4
	8.50	0.3346	37	79	0589700	A0228.5
	8.60	0.3385	40	84	0589717	A0228.6
	8.70	0.3425	40	84	0589724	A0228.7
11/32	8.73	0.3437	45	78	0588925	A02211/32
	8.80	0.3464	40	84	0589731	A0228.8
	8.90	0.3503	40	84	0589748	A0228.9
	9.00	0.3543	40	84	0589755	A0229.0
	9.10	0.3582	40	84	0589762	A0229.1
	9.20	0.3622	40	84	0589779	A0229.2
	9.30	0.3661	40	84	0589786	A0229.3
	9.40	0.3700	40	84	0589793	A0229.4
	9.50	0.3740	40	84	0589809	A0229.5

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
3/8	9.53	0.3751	48	81	0589199	A0223/8
	9.60	0.3779	43	89	0589816	A0229.6
	9.70	0.3818	43	89	0589823	A0229.7
	9.80	0.3858	43	89	0589830	A0229.8
	9.90	0.3897	43	89	0589847	A0229.9
	10.00	0.3937	43	89	0588734	A02210.0
	10.10	0.3976	43	89	0588741	A02210.1
	10.20	0.4015	43	89	0588758	A02210.2
	10.30	0.4055	43	89	0588765	A02210.3
13/32	10.32	0.4062	51	86	0589007	A02213/32
	10.40	0.4094	43	89	0588772	A02210.4
	10.50	0.4133	43	89	0588789	A02210.5
	10.60	0.4173	43	89	0588796	A02210.6
	10.70	0.4212	47	95	0588802	A02210.7
	10.80	0.4251	47	95	0588819	A02210.8
	10.90	0.4291	47	95	0588826	A02210.9
	11.00	0.4330	47	95	0588833	A02211.0
	11.10	0.4370	47	95	0588840	A02211.1
7/16	11.11	0.4374	54	89	0589632	A0227/16
	11.20	0.4409	47	95	0588857	A02211.2
	11.30	0.4448	47	95	0588864	A02211.3
	11.50	0.4527	47	95	0588871	A02211.5
	11.60	0.4566	47	95	0588888	A02211.6
	11.70	0.4606	47	95	0588895	A02211.7
	11.80	0.4645	47	95	0588901	A02211.8
	11.90	0.4685	51	102	0588918	A02211.9
	12.00	0.4724	51	102	0588949	A02212.0
	12.10	0.4763	51	102	0588956	A02212.1
	12.20	0.4803	51	102	0588963	A02212.2
	12.50	0.4921	51	102	0588970	A02212.5
1/2	12.70	0.5000	60	98	0588703	A0221/2
	13.00	0.5118	51	102	0588987	A02213.0
	13.50	0.5314	54	107	0588994	A02213.5
	14.00	0.5511	54	107	0589021	A02214.0
9/16	14.29	0.5625	67	105	0589854	A0229/16
	14.50	0.5708	56	111	0589038	A02214.5
	15.00	0.5905	56	111	0589045	A02215.0
	15.50	0.6102	58	115	0589052	A02215.5
5/8	15.88	0.6251	73	111	0589427	A0225/8
	16.00	0.6299	58	115	0589076	A02216.0

- Stub drill
- Wide-land parabolic flute

- Foret extra-court

- Broca extra corta



QC

QC41CO



■ 1.6 2.4 4.3 5.2

● 2.1 2.2 2.3 3.1 3.2 3.3 3.4 5.3

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	060104
5/64	0.0781	11/16	1.11/16	060105
3/32	0.0938	3/4	1.3/4	060106
40	0.0980	13/16	1.13/16	060240
39	0.0995	13/16	1.13/16	060239
38	0.1015	13/16	1.13/16	060238
37	0.1040	13/16	1.13/16	060237
36	0.1065	13/16	1.13/16	060236
7/64	0.1094	13/16	1.13/16	060107
35	0.1100	7/8	1.7/8	060235
34	0.1110	7/8	1.7/8	060234
33	0.1130	7/8	1.7/8	060233
32	0.1160	7/8	1.7/8	060232
31	0.1200	7/8	1.7/8	060231
1/8	0.1250	7/8	1.7/8	060108
30	0.1285	15/16	1.15/16	060230
29	0.1360	15/16	1.15/16	060229
28	0.1405	15/16	1.15/16	060228
9/64	0.1406	15/16	1.15/16	060109
27	0.1440	1"	2.1/16	060227
26	0.1470	1"	2.1/16	060226
25	0.1495	1"	2.1/16	060225
24	0.1520	1"	2.1/16	060224
23	0.1540	1"	2.1/16	060223
5/32	0.1562	1"	2.1/16	060110
22	0.1570	1.1/16	2.1/8	060222
21	0.1590	1.1/16	2.1/8	060221
20	0.1610	1.1/16	2.1/8	060220
19	0.1660	1.1/16	2.1/8	060219
18	0.1695	1.1/16	2.1/8	060218
11/64	0.1719	1.1/16	2.1/8	060111
17	0.1730	1.1/8	2.3/16	060217
16	0.1770	1.1/8	2.3/16	060216
15	0.1800	1.1/8	2.3/16	060215

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
14	0.1820	1.1/8	2.3/16	060214
13	0.1850	1.1/8	2.3/16	060213
3/16	0.1875	1.1/8	2.3/16	060112
12	0.1890	1.3/16	2.1/4	060212
11	0.1910	1.3/16	2.1/4	060211
10	0.1935	1.3/16	2.1/4	060210
9	0.1960	1.3/16	2.1/4	060209
8	0.1990	1.3/16	2.1/4	060208
7	0.2010	1.3/16	2.1/4	060207
13/64	0.2031	1.3/16	2.1/4	060113
6	0.2040	1.1/4	2.3/8	060206
5	0.2055	1.1/4	2.3/8	060205
4	0.2090	1.1/4	2.3/8	060204
3	0.2130	1.1/4	2.3/8	060203
7/32	0.2188	1.1/4	2.3/8	060114
2	0.2210	1.5/16	2.7/16	060202
1	0.2280	1.5/16	2.7/16	060201
15/64	0.2344	1.5/16	2.7/16	060115
1/4	0.2500	1.3/8	2.1/2	060116
17/64	0.2656	1.7/16	2.5/8	060117
9/32	0.2812	1.1/2	2.11/16	060118
19/64	0.2969	1.9/16	2.3/4	060119
5/16	0.3125	1.5/8	2.13/16	060120
21/64	0.3281	1.11/16	2.15/16	060121
11/32	0.3438	1.11/16	3"	060122
23/64	0.3594	1.3/4	3.1/16	060123
3/8	0.3750	1.13/16	3.1/8	060124
25/64	0.3906	1.7/8	3.1/4	060125
13/32	0.4062	1.15/16	3.5/16	060126
27/64	0.4219	2"	3.3/8	060127
7/16	0.4375	2.1/16	3.7/16	060128
29/64	0.4531	2.1/8	3.9/16	060129
15/32	0.4688	2.1/8	3.5/8	060130
31/64	0.4844	2.3/16	3.11/16	060131
1/2	0.5000	2.1/4	3.3/4	060132

QC41G

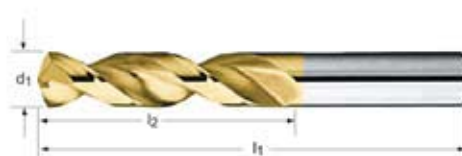


HSS
Stub
Drills

- Stub drill
- Wide-land parabolic flute

Foret extra-court

- Broca extra corta



QC

QC41G



- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3
- 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	062304
5/64	0.0781	11/16	1.11/16	062305
3/32	0.0938	3/4	1.3/4	062306
40	0.0980	13/16	1.13/16	061440
39	0.0995	13/16	1.13/16	061439
38	0.1015	13/16	1.13/16	061438
37	0.1040	13/16	1.13/16	061437
36	0.1065	13/16	1.13/16	061436
7/64	0.1094	13/16	1.13/16	062307
35	0.1100	7/8	1.7/8	061435
34	0.1110	7/8	1.7/8	061434
33	0.1130	7/8	1.7/8	061433
32	0.1160	7/8	1.7/8	061432
31	0.1200	7/8	1.7/8	061431
1/8	0.1250	7/8	1.7/8	062308
30	0.1285	15/16	1.15/16	061430
29	0.1360	15/16	1.15/16	061429
28	0.1405	15/16	1.15/16	061428
9/64	0.1406	15/16	1.15/16	062309
27	0.1440	1"	2.1/16	061427
26	0.1470	1"	2.1/16	061426
25	0.1495	1"	2.1/16	061425
24	0.1520	1"	2.1/16	061424
23	0.1540	1"	2.1/16	061423
5/32	0.1562	1"	2.1/16	062310
22	0.1570	1.1/16	2.1/8	061422
21	0.1590	1.1/16	2.1/8	061421
20	0.1610	1.1/16	2.1/8	061420
19	0.1660	1.1/16	2.1/8	061419
18	0.1695	1.1/16	2.1/8	061418
11/64	0.1719	1.1/16	2.1/8	062311
17	0.1730	1.1/8	2.3/16	061417
16	0.1770	1.1/8	2.3/16	061416
15	0.1800	1.1/8	2.3/16	061415

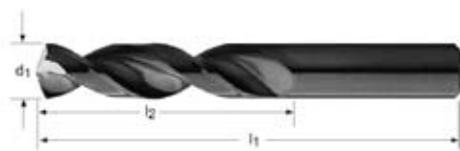
d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
14	0.1820	1.1/8	2.3/16	061414
13	0.1850	1.1/8	2.3/16	061413
3/16	0.1875	1.1/8	2.3/16	062312
12	0.1890	1.3/16	2.1/4	061412
11	0.1910	1.3/16	2.1/4	061411
10	0.1935	1.3/16	2.1/4	061410
9	0.1960	1.3/16	2.1/4	061409
8	0.1990	1.3/16	2.1/4	061408
7	0.2010	1.3/16	2.1/4	061407
13/64	0.2031	1.3/16	2.1/4	062313
6	0.2040	1.1/4	2.3/8	061406
5	0.2055	1.1/4	2.3/8	061405
4	0.2090	1.1/4	2.3/8	061404
3	0.2130	1.1/4	2.3/8	061403
7/32	0.2188	1.1/4	2.3/8	062314
2	0.2210	1.5/16	2.7/16	061402
1	0.2280	1.5/16	2.7/16	061401
15/64	0.2344	1.5/16	2.7/16	062315
1/4	0.2500	1.3/8	2.1/2	062316
17/64	0.2656	1.7/16	2.5/8	062317
9/32	0.2812	1.1/2	2.11/16	062318
19/64	0.2969	1.9/16	2.3/4	062319
5/16	0.3125	1.5/8	2.13/16	062320
21/64	0.3281	1.11/16	2.15/16	062321
11/32	0.3438	1.11/16	3"	062322
23/64	0.3594	1.3/4	3.1/16	062323
3/8	0.3750	1.13/16	3.1/8	062324
25/64	0.3906	1.7/8	3.1/4	062325
13/32	0.4062	1.15/16	3.5/16	062326
27/64	0.4219	2"	3.3/8	062327
7/16	0.4375	2.1/16	3.7/16	062328
29/64	0.4531	2.1/8	3.9/16	062329
15/32	0.4688	2.1/8	3.5/8	062330
31/64	0.4844	2.3/16	3.3/4	062331
1/2	0.5000	2.1/4	3.3/4	062332

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Stub drill
- Wide-land parabolic flute

- Foret extra-court

- Broca extra corta



QC

QC41



HSS

ST

ANSI



3.5XD



135°

■ 1.1 1.2 1.3 1.4 3.1 3.2

● 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	055704
5/64	0.0781	11/16	1.11/16	055705
3/32	0.0938	3/4	1.3/4	055706
40	0.0980	13/16	1.13/16	056040
39	0.0995	13/16	1.13/16	056039
38	0.1015	13/16	1.13/16	056038
37	0.1040	13/16	1.13/16	056037
36	0.1065	13/16	1.13/16	056036
7/64	0.1094	13/16	1.13/16	055707
35	0.1100	7/8	1.7/8	056035
34	0.1110	7/8	1.7/8	056034
33	0.1130	7/8	1.7/8	056033
32	0.1160	7/8	1.7/8	056032
31	0.1200	7/8	1.7/8	056031
1/8	0.1250	7/8	1.7/8	055708
30	0.1285	15/16	1.15/16	056030
29	0.1360	15/16	1.15/16	056029
28	0.1405	15/16	1.15/16	056028
9/64	0.1406	15/16	1.15/16	055709
27	0.1440	1"	2.1/16	056027
26	0.1470	1"	2.1/16	056026
25	0.1495	1"	2.1/16	056025
24	0.1520	1"	2.1/16	056024
23	0.1540	1"	2.1/16	056023
5/32	0.1562	1"	2.1/16	055710
22	0.1570	1.1/16	2.1/8	056022
21	0.1590	1.1/16	2.1/8	056021
20	0.1610	1.1/16	2.1/8	056020
19	0.1660	1.1/16	2.1/8	056019
18	0.1695	1.1/16	2.1/8	056018
11/64	0.1719	1.1/16	2.1/8	055711
17	0.1730	1.1/8	2.3/16	056017
16	0.1770	1.1/8	2.3/16	056016
15	0.1800	1.1/8	2.3/16	056015

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
14	0.1820	1.1/8	2.3/16	056014
13	0.1850	1.1/8	2.3/16	056013
3/16	0.1875	1.1/8	2.3/16	055712
12	0.1890	1.3/16	2.1/4	056012
11	0.1910	1.3/16	2.1/4	056011
10	0.1935	1.3/16	2.1/4	056010
9	0.1960	1.3/16	2.1/4	056009
8	0.1990	1.3/16	2.1/4	056008
7	0.2010	1.3/16	2.1/4	056007
13/64	0.2031	1.3/16	2.1/4	055713
6	0.2040	1.1/4	2.3/8	056006
5	0.2055	1.1/4	2.3/8	056005
4	0.2090	1.1/4	2.3/8	056004
3	0.2130	1.1/4	2.3/8	056003
7/32	0.2188	1.1/4	2.3/8	055714
2	0.2210	1.5/16	2.7/16	056002
1	0.2280	1.5/16	2.7/16	056001
15/64	0.2344	1.5/16	2.7/16	055715
1/4	0.2500	1.3/8	2.1/2	055716
17/64	0.2656	1.7/16	2.5/8	055717
9/32	0.2812	1.1/2	2.11/16	055718
19/64	0.2969	1.9/16	2.3/4	055719
5/16	0.3125	1.5/8	2.13/16	055720
21/64	0.3281	1.11/16	2.15/16	055721
11/32	0.3438	1.11/16	3"	055722
23/64	0.3594	1.3/4	3.1/16	055723
3/8	0.3750	1.13/16	3.1/8	055724
25/64	0.3906	1.7/8	3.1/4	055725
13/32	0.4062	1.15/16	3.5/16	055726
27/64	0.4219	2"	3.3/8	055727
7/16	0.4375	2.1/16	3.7/16	055728
29/64	0.4531	2.1/8	3.9/16	055729
15/32	0.4688	2.1/8	3.5/8	055730
31/64	0.4844	2.3/16	3.3/4	055731
1/2	0.5000	2.1/4	3.3/4	055732

QC41P



HSS
Stub
Drills

- Stub drill
- Wide-land parabolic flute

- Foret extra-court

- Broca extra corta



QC

QC41P



■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 6.1 6.2 6.3 7.1 7.2 7.4

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	058304
5/64	0.0781	11/16	1.11/16	058305
3/32	0.0938	3/4	1.3/4	058306
40	0.0980	13/16	1.13/16	060040
39	0.0995	13/16	1.13/16	060039
38	0.1015	13/16	1.13/16	060038
37	0.1040	13/16	1.13/16	060037
36	0.1065	13/16	1.13/16	060036
7/64	0.1094	13/16	1.13/16	058307
35	0.1100	7/8	1.7/8	060035
34	0.1110	7/8	1.7/8	060034
33	0.1130	7/8	1.7/8	060033
32	0.1160	7/8	1.7/8	060032
31	0.1200	7/8	1.7/8	060031
1/8	0.1250	7/8	1.7/8	058308
30	0.1285	15/16	1.15/16	060030
29	0.1360	15/16	1.15/16	060029
28	0.1405	15/16	1.15/16	060028
9/64	0.1406	15/16	1.15/16	058309
27	0.1440	1"	2.1/16	060027
26	0.1470	1"	2.1/16	060026
25	0.1495	1"	2.1/16	060025
24	0.1520	1"	2.1/16	060024
23	0.1540	1"	2.1/16	060023
5/32	0.1562	1"	2.1/16	058310
22	0.1570	1.1/16	2.1/8	060022
21	0.1590	1.1/16	2.1/8	060021
20	0.1610	1.1/16	2.1/8	060020
19	0.1660	1.1/16	2.1/8	060019
18	0.1695	1.1/16	2.1/8	060018
11/64	0.1719	1.1/16	2.1/8	058311
17	0.1730	1.1/8	2.3/16	060017
16	0.1770	1.1/8	2.3/16	060016
15	0.1800	1.1/8	2.3/16	060015
14	0.1820	1.1/8	2.3/16	060014
13	0.1850	1.1/8	2.3/16	060013
3/16	0.1875	1.1/8	2.3/16	058312
12	0.1890	1.3/16	2.1/4	060012
11	0.1910	1.3/16	2.1/4	060011
10	0.1935	1.3/16	2.1/4	060010
9	0.1960	1.3/16	2.1/4	060009
8	0.1990	1.3/16	2.1/4	060008
7	0.2010	1.3/16	2.1/4	060007
13/64	0.2031	1.3/16	2.1/4	058313

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
6	0.2040	1.1/4	2.3/8	060006
5	0.2055	1.1/4	2.3/8	060005
4	0.2090	1.1/4	2.3/8	060004
3	0.2130	1.1/4	2.3/8	060003
7/32	0.2188	1.1/4	2.3/8	058314
2	0.2210	1.5/16	2.7/16	060002
1	0.2280	1.5/16	2.7/16	060001
15/64	0.2344	1.5/16	2.7/16	058315
1/4	0.2500	1.3/8	2.1/2	058316
17/64	0.2656	1.7/16	2.5/8	058317
9/32	0.2812	1.1/2	2.11/16	058318
19/64	0.2969	1.9/16	2.3/4	058319
5/16	0.3125	1.5/8	2.13/16	058320
21/64	0.3281	1.11/16	2.15/16	058321
11/32	0.3438	1.11/16	3"	058322
23/64	0.3594	1.3/4	3.1/16	058323
3/8	0.3750	1.13/16	3.1/8	058324
25/64	0.3906	1.7/8	3.1/4	058325
13/32	0.4062	1.15/16	3.5/16	058326
27/64	0.4219	2"	3.3/8	058327
7/16	0.4375	2.1/16	3.7/16	058328
29/64	0.4531	2.1/8	3.9/16	058329
15/32	0.4688	2.1/8	3.5/8	058330
31/64	0.4844	2.3/16	3.3/4	058331
1/2	0.5000	2.1/4	3.3/4	058332
33/64	0.5156	2.3/8	3.7/8	058333
17/32	0.5312	2.3/8	3.7/8	058334
35/64	0.5469	2.1/2	4"	058335
9/16	0.5625	2.1/2	4"	058336
37/64	0.5781	2.5/8	4.1/8	058337
19/32	0.5938	2.5/8	4.1/8	058338
39/64	0.6094	2.3/4	4.1/4	058339
5/8	0.6250	2.3/4	4.1/4	058340
41/64	0.6406	2.7/8	4.1/2	058341
21/32	0.6562	2.7/8	4.1/2	058342
43/64	0.6719	2.7/8	4.5/8	058343
11/16	0.6875	2.7/8	4.5/8	058344

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

M40CO - M42CO

HSS
Stub
Drills

• Stub drill

• Foret extra-court

• Broca extra corta



M40CO



■	1.5	1.6	2.1	2.2	2.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	9.1					
●	1.1	1.2	1.3	1.4	3.1	3.2	3.3	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	040304
5/64	0.0781	11/16	1.11/16	040305
3/32	0.0938	3/4	1.3/4	040306
7/64	0.1094	13/16	1.13/16	040307
1/8	0.1250	7/8	1.7/8	040308
9/64	0.1406	15/16	1.15/16	040309
5/32	0.1562	1"	2.1/16	040310
11/64	0.1719	1.1/16	2.1/8	040311
3/16	0.1875	1.1/8	2.3/16	040312
13/64	0.2031	1.3/16	2.1/4	040313
7/32	0.2188	1.1/4	2.3/8	040314
15/64	0.2344	1.5/16	2.7/16	040315
1/4	0.2500	1.3/8	2.1/2	040316
17/64	0.2656	1.7/16	2.5/8	040317
9/32	0.2812	1.1/2	2.11/16	040318
19/64	0.2969	1.9/16	2.3/4	040319
5/16	0.3125	1.5/8	2.13/16	040320
21/64	0.3281	1.11/16	2.15/16	040321
11/32	0.3438	1.11/16	3"	040322
23/64	0.3594	1.3/4	3.1/16	040323
3/8	0.3750	1.13/16	3.1/8	040324
25/64	0.3906	1.7/8	3.1/4	040325
13/32	0.4062	1.15/16	3.5/16	040326
27/64	0.4219	2"	3.3/8	040327

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
7/16	0.4375	2.1/16	3.7/16	040328
29/64	0.4531	2.1/8	3.9/16	040329
15/32	0.4688	2.1/8	3.5/8	040330
31/64	0.4844	2.3/16	3.11/16	040331
1/2	0.5000	2.1/4	3.3/4	040332
33/64	0.5156	2.3/8	3.7/8	046033
17/32	0.5312	2.3/8	3.7/8	046034
35/64	0.5469	2.1/2	4"	046035
9/16	0.5625	2.1/2	4"	046036
37/64	0.5781	2.5/8	4.1/8	046037
19/32	0.5938	2.5/8	4.1/8	046038
39/64	0.6094	2.3/4	4.1/4	046039
5/8	0.6250	2.3/4	4.1/4	046040
41/64	0.6406	2.7/8	4.1/2	046041
21/32	0.6562	2.7/8	4.1/2	046042
43/64	0.6719	2.7/8	4.5/8	046043
11/16	0.6875	2.7/8	4.5/8	046044
45/64	0.7031	3"	4.3/4	046045
23/32	0.7188	3"	4.3/4	046046
47/64	0.7344	3.1/8	5"	046047
3/4	0.7500	3.1/8	5"	046048

M42CO

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	1.5/16	2.7/16	042301
B	0.2380	1.3/8	2.1/2	042302
C	0.2420	1.3/8	2.1/2	042303
D	0.2460	1.3/8	2.1/2	042304
E	0.2500	1.3/8	2.1/2	042305
F	0.2570	1.7/16	2.5/8	042306
G	0.2610	1.7/16	2.5/8	042307
H	0.2660	1.1/2	2.11/16	042308
I	0.2720	1.1/2	2.11/16	042309
J	0.2770	1.1/2	2.11/16	042310
K	0.2810	1.1/2	2.11/16	042311
L	0.2900	1.9/16	2.3/4	042312
M	0.2950	1.9/16	2.3/4	042313
N	0.3020	1.5/8	2.13/16	042314

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	1.11/16	2.15/16	042315
P	0.3230	1.11/16	2.15/16	042316
Q	0.3320	1.11/16	3"	042317
R	0.3390	1.11/16	3"	042318
S	0.3480	1.3/4	3.1/16	042319
T	0.3580	1.3/4	3.1/16	042320
U	0.3680	1.13/16	3.1/8	042321
V	0.3770	1.7/8	3.1/4	042322
W	0.3860	1.7/8	3.1/4	042323
X	0.3970	1.15/16	3.5/16	042324
Y	0.4040	1.15/16	3.5/16	042325
Z	0.4130	2"	3.3/8	042326

M41CO

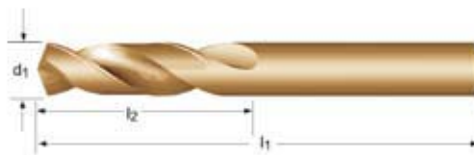


HSS
Stub
Drills

• Stub drill

• Foret extra-court

• Broca extra corta



M41CO



■ 1.5 1.6 2.1 2.2 2.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 9.1

● 1.1 1.2 1.3 1.4 3.1 3.2 3.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
60	0.0400	1/2	1.3/8	041360 ¹⁾
59	0.0410	1/2	1.3/8	041359 ¹⁾
58	0.0420	1/2	1.3/8	041358 ¹⁾
57	0.0430	1/2	1.3/8	041357 ¹⁾
56	0.0465	1/2	1.3/8	041356 ¹⁾
55	0.0520	5/8	1.5/8	041355 ¹⁾
54	0.0550	5/8	1.5/8	041354 ¹⁾
53	0.0595	5/8	1.5/8	041353 ¹⁾
52	0.0635	11/16	1.11/16	041352
51	0.0670	11/16	1.11/16	041351
50	0.0700	11/16	1.11/16	041350
49	0.0730	11/16	1.11/16	041349
48	0.0760	11/16	1.11/16	041348
47	0.0785	11/16	1.11/16	041347
46	0.0810	3/4	1.3/4	041346
45	0.0820	3/4	1.3/4	041345
44	0.0860	3/4	1.3/4	041344
43	0.0890	3/4	1.3/4	041343
42	0.0935	3/4	1.3/4	041342
41	0.0960	13/16	1.13/16	041341
40	0.0980	13/16	1.13/16	041340
39	0.0995	13/16	1.13/16	041339
38	0.1015	13/16	1.13/16	041338
37	0.1040	13/16	1.13/16	041337
36	0.1065	13/16	1.13/16	041336
35	0.1100	7/8	1.7/8	041335
34	0.1110	7/8	1.7/8	041334
33	0.1130	7/8	1.7/8	041333
32	0.1160	7/8	1.7/8	041332
31	0.1200	7/8	1.7/8	041331

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
30	0.1285	15/16	1.15/16	041330
29	0.1360	15/16	1.15/16	041329
28	0.1405	15/16	1.15/16	041328
27	0.1440	1"	2.1/16	041327
26	0.1470	1"	2.1/16	041326
25	0.1495	1"	2.1/16	041325
24	0.1520	1"	2.1/16	041324
23	0.1540	1"	2.1/16	041323
22	0.1570	1.1/16	2.1/8	041322
21	0.1590	1.1/16	2.1/8	041321
20	0.1610	1.1/16	2.1/8	041320
19	0.1660	1.1/16	2.1/8	041319
18	0.1695	1.1/16	2.1/8	041318
17	0.1730	1.1/8	2.3/16	041317
16	0.1770	1.1/8	2.3/16	041316
15	0.1800	1.1/8	2.3/16	041315
14	0.1820	1.1/8	2.3/16	041314
13	0.1850	1.1/8	2.3/16	041313
12	0.1890	1.3/16	2.1/4	041312
11	0.1910	1.3/16	2.1/4	041311
10	0.1935	1.3/16	2.1/4	041310
9	0.1960	1.3/16	2.1/4	041309
8	0.1990	1.3/16	2.1/4	041308
7	0.2010	1.3/16	2.1/4	041307
6	0.2040	1.1/4	2.3/8	041306
5	0.2055	1.1/4	2.3/8	041305
4	0.2090	1.1/4	2.3/8	041304
3	0.2130	1.1/4	2.3/8	041303
2	0.2210	1.5/16	2.7/16	041302
1	0.2280	1.5/16	2.7/16	041301

¹⁾ Not a split point

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

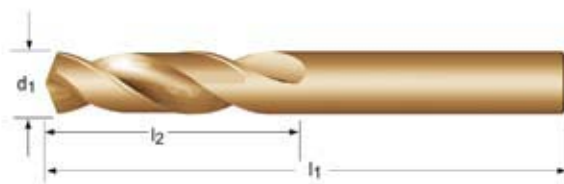
4ASMCO

HSS
Stub
Drills

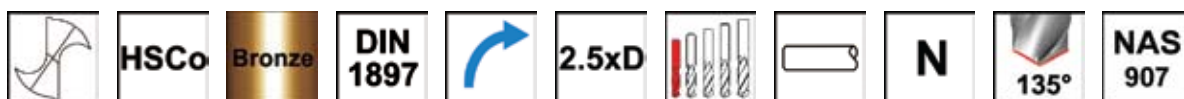
• Stub drill

• Foret extra-court

• Broca extra corta



4ASMCO



■	1.5	1.6	2.1	2.2	2.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	9.1					
●	1.1	1.2	1.3	1.4	3.1	3.2	3.3	6.1	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
2.30	0.0906	13	40	032230
2.50	0.0984	14	43	032250
3.00	0.1181	16	46	032300
3.10	0.1220	18	49	032310
3.20	0.1260	18	49	032320
3.30	0.1299	18	49	032330
3.40	0.1339	20	52	032340
3.50	0.1378	20	52	032350
3.60	0.1417	20	52	032360
3.70	0.1457	20	52	032370
4.00	0.1575	22	55	032400
4.10	0.1614	22	55	032410
4.20	0.1654	22	55	032420
4.70	0.1850	24	58	032470
4.80	0.1890	26	62	032480
4.90	0.1929	26	62	032490
5.00	0.1969	26	62	032500
5.10	0.2008	26	62	032510

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
5.50	0.2165	28	66	032550
5.70	0.2244	28	66	032570
6.00	0.2362	28	66	032600
6.40	0.2520	31	70	032640
6.50	0.2559	31	70	032650
6.80	0.2677	34	74	032680
7.00	0.2756	34	74	032700
8.00	0.3150	37	79	032800
8.50	0.3346	37	79	032850
9.50	0.3740	40	84	032950
9.80	0.3858	43	89	032980
10.00	0.3937	43	89	033000
10.20	0.4016	43	89	033002
10.50	0.4134	43	89	033005
11.00	0.4331	47	95	033110
11.20	0.4409	47	95	033112
11.50	0.4528	47	95	033115
12.00	0.4724	51	102	033200

EZ40G



HSS
Stub
Drills

- Stub drill
- Parabolic flute

- Foret extra-court
- Goujure parabolique

- Broca extra corta
- Canal Parabólico



EZ-Torque

EZ40G



- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4
- 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	042504
5/64	0.0781	11/16	1.11/16	042505
3/32	0.0938	3/4	1.3/4	042506
7/64	0.1094	13/16	1.13/16	042507
1/8	0.1250	7/8	1.7/8	042508
9/64	0.1406	15/16	1.15/16	042509
5/32	0.1562	1"	2.1/16	042510
11/64	0.1719	1.1/16	2.1/8	042511
3/16	0.1875	1.1/8	2.3/16	042512
13/64	0.2031	1.3/16	2.1/4	042513
7/32	0.2188	1.1/4	2.3/8	042514
15/64	0.2344	1.5/16	2.7/16	042515
1/4	0.2500	1.3/8	2.1/2	042516
17/64	0.2656	1.7/16	2.5/8	042517
9/32	0.2812	1.1/2	2.11/16	042518
19/64	0.2969	1.9/16	2.3/4	042519

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	1.5/8	2.13/16	042520
21/64	0.3281	1.11/16	2.15/16	042521
11/32	0.3438	1.11/16	3"	042522
23/64	0.3594	1.3/4	3.1/16	042523
3/8	0.3750	1.13/16	3.1/8	042524
25/64	0.3906	1.7/8	3.1/4	042525
13/32	0.4062	1.15/16	3.5/16	042526
27/64	0.4219	2"	3.3/8	042527
7/16	0.4375	2.1/16	3.7/16	042528
29/64	0.4531	2.1/8	3.9/16	042529
15/32	0.4688	2.1/8	3.5/8	042530
31/64	0.4844	2.3/16	3.11/16	042531
1/2	0.5000	2.1/4	3.3/4	042532

- Stub drill
- Parabolic flute

- Foret extra-court
- Goujure parabolique

- Broca extra corta
- Canal Parabólico



EZ-Torque

EZ40P



HSS



ANSI



3.5XD



135°

- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4
- 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	043604
5/64	0.0781	11/16	1.11/16	043605
3/32	0.0938	3/4	1.3/4	043606
7/64	0.1094	13/16	1.13/16	043607
1/8	0.1250	7/8	1.7/8	043608
9/64	0.1406	15/16	1.15/16	043609
5/32	0.1562	1"	2.1/16	043610
11/64	0.1719	1.1/16	2.1/8	043611
3/16	0.1875	1.1/8	2.3/16	043612
13/64	0.2031	1.3/16	2.1/4	043613
7/32	0.2188	1.1/4	2.3/8	043614
15/64	0.2344	1.5/16	2.7/16	043615
1/4	0.2500	1.3/8	2.1/2	043616
17/64	0.2656	1.7/16	2.5/8	043617
9/32	0.2812	1.1/2	2.11/16	043618
19/64	0.2969	1.9/16	2.3/4	043619

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	1.5/8	2.13/16	043620
21/64	0.3281	1.11/16	2.15/16	043621
11/32	0.3438	1.11/16	3"	043622
23/64	0.3594	1.3/4	3.1/16	043623
3/8	0.3750	1.13/16	3.1/8	043624
25/64	0.3906	1.7/8	3.1/4	043625
13/32	0.4062	1.15/16	3.5/16	043626
27/64	0.4219	2"	3.3/8	043627
7/16	0.4375	2.1/16	3.7/16	043628
29/64	0.4531	2.1/8	3.9/16	043629
15/32	0.4688	2.1/8	3.5/8	043630
31/64	0.4844	2.3/16	3.11/16	043631
1/2	0.5000	2.1/4	3.3/4	043632

EZ41G



HSS
Stub
Drills

- Stub drill
- Parabolic flute

- Foret extra-court
- Goujure parabolique

- Broca extra corta
- Canal Parabólico



EZ-Torque

EZ41G



■ 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4

• 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.0980	13/16	1.13/16	042640
39	0.0995	13/16	1.13/16	042639
38	0.1015	13/16	1.13/16	042638
37	0.1040	13/16	1.13/16	042637
36	0.1065	13/16	1.13/16	042636
35	0.1100	7/8	1.7/8	042635
34	0.1110	7/8	1.7/8	042634
33	0.1130	7/8	1.7/8	042633
32	0.1160	7/8	1.7/8	042632
31	0.1200	7/8	1.7/8	042631
30	0.1285	15/16	1.15/16	042630
29	0.1360	15/16	1.15/16	042629
28	0.1405	15/16	1.15/16	042628
27	0.1440	1"	2.1/16	042627
26	0.1470	1"	2.1/16	042626
25	0.1495	1"	2.1/16	042625
24	0.1520	1"	2.1/16	042624
23	0.1540	1"	2.1/16	042623
22	0.1570	1.1/16	2.1/8	042622
21	0.1590	1.1/16	2.1/8	042621

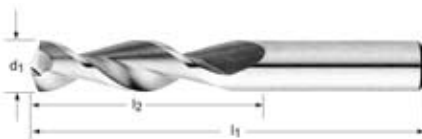
d ₁	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
20	0.1610	1.1/16	2.1/8	042620
19	0.1660	1.1/16	2.1/8	042619
18	0.1695	1.1/16	2.1/8	042618
17	0.1730	1.1/8	2.3/16	042617
16	0.1770	1.1/8	2.3/16	042616
15	0.1800	1.1/8	2.3/16	042615
14	0.1820	1.1/8	2.3/16	042614
13	0.1850	1.1/8	2.3/16	042613
12	0.1890	1.3/16	2.1/4	042612
11	0.1910	1.3/16	2.1/4	042611
10	0.1935	1.3/16	2.1/4	042610
9	0.1960	1.3/16	2.1/4	042609
8	0.1990	1.3/16	2.1/4	042608
7	0.2010	1.3/16	2.1/4	042607
6	0.2040	1.1/4	2.3/8	042606
5	0.2055	1.1/4	2.3/8	042605
4	0.2090	1.1/4	2.3/8	042604
3	0.2130	1.1/4	2.3/8	042603
2	0.2210	1.5/16	2.7/16	042602
1	0.2280	1.5/16	2.7/16	042601

EZ41P

- Stub Drill

- Foret extra-court

- Broca extra corta



EZ-Torque

EZ41P



■ 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4 • 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.0980	13/16	1.13/16	043740
39	0.0995	13/16	1.13/16	043739
38	0.1015	13/16	1.13/16	043738
37	0.1040	13/16	1.13/16	043737

d ₁	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
36	0.1065	13/16	1.13/16	043736
35	0.1100	7/8	1.7/8	043735
34	0.1110	7/8	1.7/8	043734
33	0.1130	7/8	1.7/8	043733

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

d ₁	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
32	0.1160	7/8	1.7/8	043732
31	0.1200	7/8	1.7/8	043731
30	0.1285	15/16	1.15/16	043730
29	0.1360	15/16	1.15/16	043729
28	0.1405	15/16	1.15/16	043728
27	0.1440	1"	2.1/16	043727
26	0.1470	1"	2.1/16	043726
25	0.1495	1"	2.1/16	043725
24	0.1520	1"	2.1/16	043724
23	0.1540	1"	2.1/16	043723
22	0.1570	1.1/16	2.1/8	043722
21	0.1590	1.1/16	2.1/8	043721
20	0.1610	1.1/16	2.1/8	043720
19	0.1660	1.1/16	2.1/8	043719
18	0.1695	1.1/16	2.1/8	043718
17	0.1730	1.1/8	2.3/16	043717

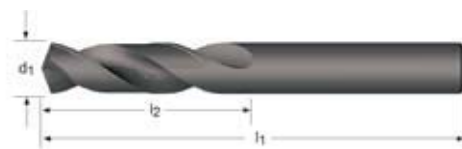
d ₁	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
16	0.1770	1.1/8	2.3/16	043716
15	0.1800	1.1/8	2.3/16	043715
14	0.1820	1.1/8	2.3/16	043714
13	0.1850	1.1/8	2.3/16	043713
12	0.1890	1.3/16	2.1/4	043712
11	0.1910	1.3/16	2.1/4	043711
10	0.1935	1.3/16	2.1/4	043710
9	0.1960	1.3/16	2.1/4	043709
8	0.1990	1.3/16	2.1/4	043708
7	0.2010	1.3/16	2.1/4	043707
6	0.2040	1.1/4	2.3/8	043706
5	0.2055	1.1/4	2.3/8	043705
4	0.2090	1.1/4	2.3/8	043704
3	0.2130	1.1/4	2.3/8	043703
2	0.2210	1.5/16	2.7/16	043702
1	0.2280	1.5/16	2.7/16	043701

R40C

• Stub Drill, Type C

• Foret extra-court

• Broca extra corta



R40C



- 1.1 1.2 1.3 1.4 2.1 3.1 3.2 3.3 4.1
- 1.5 1.6 2.2 2.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1
- 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	040804
5/64	0.0781	11/16	1.11/16	040805
3/32	0.0938	3/4	1.3/4	040806
7/64	0.1094	13/16	1.13/16	040807
1/8	0.1250	7/8	1.7/8	040808
9/64	0.1406	15/16	1.15/16	040809
5/32	0.1562	1"	2.1/16	040810
11/64	0.1719	1.1/16	2.1/8	040811
3/16	0.1875	1.1/8	2.3/16	040812
13/64	0.2031	1.3/16	2.1/4	040813
7/32	0.2188	1.1/4	2.3/8	040814
15/64	0.2344	1.5/16	2.7/16	040815
1/4	0.2500	1.3/8	2.1/2	040816
17/64	0.2656	1.7/16	2.5/8	040817

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	1.1/2	2.11/16	040818
19/64	0.2969	1.9/16	2.3/4	040819
5/16	0.3125	1.5/8	2.13/16	040820
21/64	0.3281	1.11/16	2.15/16	040821
11/32	0.3438	1.11/16	3"	040822
23/64	0.3594	1.3/4	3.1/16	040823
3/8	0.3750	1.13/16	3.1/8	040824
25/64	0.3906	1.7/8	3.1/4	040825
13/32	0.4062	1.15/16	3.5/16	040826
27/64	0.4219	2"	3.3/8	040827
7/16	0.4375	2.1/16	3.7/16	040828
29/64	0.4531	2.1/8	3.9/16	040829
15/32	0.4688	2.1/8	3.5/8	040830
31/64	0.4844	2.3/16	3.11/16	040831
1/2	0.5000	2.1/4	3.3/4	040832

R41C



HSS
Stub
Drills

- Stub drill
- Type C

- Foret extra-court

- Broca extra corta



R41C



HSS

ST

ANSI



2.5xD



135°

**NAS
907**

■ 1.1 1.2 1.3 1.4 2.1 3.1 3.2 3.3 4.1

• 1.5 1.6 2.2 2.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2
8.3 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
60	0.0400	1/2	1.3/8	041860 ¹⁾
59	0.0410	1/2	1.3/8	041859 ¹⁾
58	0.0420	1/2	1.3/8	041858 ¹⁾
57	0.0430	1/2	1.3/8	041857 ¹⁾
56	0.0465	1/2	1.3/8	041856 ¹⁾
55	0.0520	5/8	1.5/8	041855 ¹⁾
54	0.0550	5/8	1.5/8	041854 ¹⁾
53	0.0595	5/8	1.5/8	041853 ¹⁾
52	0.0635	11/16	1.11/16	041852
51	0.0670	11/16	1.11/16	041851
50	0.0700	11/16	1.11/16	041850
49	0.0730	11/16	1.11/16	041849
48	0.0760	11/16	1.11/16	041848
47	0.0785	11/16	1.11/16	041847
46	0.0810	3/4	1.3/4	041846
45	0.0820	3/4	1.3/4	041845
44	0.0860	3/4	1.3/4	041844
43	0.0890	3/4	1.3/4	041843
42	0.0935	3/4	1.3/4	041842
41	0.0960	13/16	1.13/16	041841
40	0.0980	13/16	1.13/16	041840
39	0.0995	13/16	1.13/16	041839
38	0.1015	13/16	1.13/16	041838
37	0.1040	13/16	1.13/16	041837
36	0.1065	13/16	1.13/16	041836
35	0.1100	7/8	1.7/8	041835
34	0.1110	7/8	1.7/8	041834
33	0.1130	7/8	1.7/8	041833
32	0.1160	7/8	1.7/8	041832
31	0.1200	7/8	1.7/8	041831

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
30	0.1285	15/16	1.15/16	041830
29	0.1360	15/16	1.15/16	041829
28	0.1405	15/16	1.15/16	041828
27	0.1440	1"	2.1/16	041827
26	0.1470	1"	2.1/16	041826
25	0.1495	1"	2.1/16	041825
24	0.1520	1"	2.1/16	041824
23	0.1540	1"	2.1/16	041823
22	0.1570	1.1/16	2.1/8	041822
21	0.1590	1.1/16	2.1/8	041821
20	0.1610	1.1/16	2.1/8	041820
19	0.1660	1.1/16	2.1/8	041819
18	0.1695	1.1/16	2.1/8	041818
17	0.1730	1.1/8	2.3/16	041817
16	0.1770	1.1/8	2.3/16	041816
15	0.1800	1.1/8	2.3/16	041815
14	0.1820	1.1/8	2.3/16	041814
13	0.1850	1.1/8	2.3/16	041813
12	0.1890	1.3/16	2.1/4	041812
11	0.1910	1.3/16	2.1/4	041811
10	0.1935	1.3/16	2.1/4	041810
9	0.1960	1.3/16	2.1/4	041809
8	0.1990	1.3/16	2.1/4	041808
7	0.2010	1.3/16	2.1/4	041807
6	0.2040	1.1/4	2.3/8	041806
5	0.2055	1.1/4	2.3/8	041805
4	0.2090	1.1/4	2.3/8	041804
3	0.2130	1.1/4	2.3/8	041803
2	0.2210	1.5/16	2.7/16	041802
1	0.2280	1.5/16	2.7/16	041801

¹⁾ Not a split point

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

R42C

HSS
Stub
Drills

- Stub drill
- Type C

- Foret extra-court

- Broca extra corta



R42C



■ 1.1 1.2 1.3 1.4 2.1 3.1 3.2 3.3 4.1

• 1.5 1.6 2.2 2.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2
8.3 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	1.5/16	2.7/16	042801
B	0.2380	1.3/8	2.1/2	042802
C	0.2420	1.3/8	2.1/2	042803
D	0.2460	1.3/8	2.1/2	042804
E	0.2500	1.3/8	2.1/2	042805
F	0.2570	1.7/16	2.5/8	042806
G	0.2610	1.7/16	2.5/8	042807
H	0.2660	1.1/2	2.11/16	042808
I	0.2720	1.1/2	2.11/16	042809
J	0.2770	1.1/2	2.11/16	042810
K	0.2810	1.1/2	2.11/16	042811
L	0.2900	1.9/16	2.3/4	042812
M	0.2950	1.9/16	2.3/4	042813
N	0.3020	1.5/8	2.13/16	042814

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	1.11/16	2.15/16	042815
P	0.3230	1.11/16	2.15/16	042816
Q	0.3320	1.11/16	3"	042817
R	0.3390	1.11/16	3"	042818
S	0.3480	1.3/4	3.1/16	042819
T	0.3580	1.3/4	3.1/16	042820
U	0.3680	1.13/16	3.1/8	042821
V	0.3770	1.7/8	3.1/4	042822
W	0.3860	1.7/8	3.1/4	042823
X	0.3970	1.15/16	3.5/16	042824
Y	0.4040	1.15/16	3.5/16	042825
Z	0.4130	2"	3.3/8	042826

- Broca extra corta



	HSS	ST	DIN 1897		2.5xD			N		NAS 907

[illegible]

d₁ Ø mm	d₁ decimal Inch	l₂ mm	l₁ mm	EDP # or e-Code
1.00	0.0394	6	22	046100 ¹⁾
1.25	0.0492	8	30	046125 ¹⁾
1.30	0.0512	8	30	046130
1.65	0.0650	11	34	046165
2.00	0.0787	12	38	046200
2.30	0.0906	13	40	046230
2.40	0.0945	14	43	046240
2.50	0.0984	14	43	046250
3.00	0.1181	16	46	046300
3.10	0.1220	18	49	046310
3.20	0.1260	18	49	046320
3.30	0.1299	18	49	046330
3.40	0.1339	20	52	046340
3.50	0.1378	20	52	046350
3.70	0.1457	20	52	046370
4.00	0.1575	22	55	046400
4.20	0.1654	22	55	046420
4.50	0.1772	24	58	046450
5.00	0.1969	26	62	046500
5.50	0.2165	28	66	046550
5.70	0.2244	28	66	046570
5.80	0.2283	28	66	046580
6.00	0.2362	28	66	046600
6.20	0.2441	31	70	046620
6.40	0.2520	31	70	046640
6.50	0.2559	31	70	046650
6.60	0.2598	31	70	046660
6.80	0.2677	34	74	046680

d₁ Ø mm	d₁ decimal Inch	l₂ mm	l₁ mm	EDP # or e-Code
6.90	0.2717	34	74	046690
7.00	0.2756	34	74	046700
7.20	0.2835	34	74	046720
7.50	0.2953	37	79	046750
8.00	0.3150	37	79	046800
8.10	0.3189	37	79	046810
8.40	0.3307	37	79	046840
8.50	0.3346	37	79	046850
8.70	0.3425	40	84	046870
9.00	0.3543	40	84	046900
9.10	0.3583	40	84	046910
9.20	0.3622	40	84	046920
9.30	0.3661	40	84	046930
9.50	0.3740	40	84	046950
9.70	0.3819	43	89	046970
10.00	0.3937	43	89	047000
10.20	0.4016	43	89	047002
10.50	0.4134	43	89	047005
10.80	0.4252	47	95	047008
11.00	0.4331	47	95	047110
11.20	0.4409	47	95	047112
11.50	0.4528	47	95	047115
11.80	0.4646	47	95	047118
12.00	0.4724	51	102	047200
12.20	0.4803	51	102	047220
12.50	0.4921	51	102	047250

¹⁾ Not Split Point



R40

Note: Sizes 45/64" through 2" are black oxide



■ 1.1 1.2 1.3 1.4 2.1 3.1 3.2 3.3 4.1

• 1.5 1.6 2.2 2.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2
8.3 9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/64	0.0469	1/2	1.3/8	040003
1/16	0.0625	5/8	1.5/8	040004
5/64	0.0781	11/16	1.11/16	040005
3/32	0.0938	3/4	1.3/4	040006
7/64	0.1094	13/16	1.13/16	040007
1/8	0.1250	7/8	1.7/8	040008
9/64	0.1406	15/16	1.15/16	040009
5/32	0.1562	1"	2.1/16	040010
11/64	0.1719	1.1/16	2.1/8	040011
3/16	0.1875	1.1/8	2.3/16	040012
13/64	0.2031	1.3/16	2.1/4	040013
7/32	0.2188	1.1/4	2.3/8	040014
15/64	0.2344	1.5/16	2.7/16	040015
1/4	0.2500	1.3/8	2.1/2	040016
17/64	0.2656	1.7/16	2.5/8	040017
9/32	0.2812	1.1/2	2.11/16	040018
19/64	0.2969	1.9/16	2.3/4	040019
5/16	0.3125	1.5/8	2.13/16	040020
21/64	0.3281	1.11/16	2.15/16	040021
11/32	0.3438	1.11/16	3"	040022
23/64	0.3594	1.3/4	3.1/16	040023
3/8	0.3750	1.13/16	3.1/8	040024
25/64	0.3906	1.7/8	3.1/4	040025
13/32	0.4062	1.15/16	3.5/16	040026
27/64	0.4219	2"	3.3/8	040027
7/16	0.4375	2.1/16	3.7/16	040028
29/64	0.4531	2.1/8	3.9/16	040029
15/32	0.4688	2.1/8	3.5/8	040030
31/64	0.4844	2.3/16	3.11/16	040031
1/2	0.5000	2.1/4	3.3/4	040032
33/64	0.5156	2.3/8	3.7/8	040033
17/32	0.5312	2.3/8	3.7/8	040034
35/64	0.5469	2.1/2	4"	040035
9/16	0.5625	2.1/2	4"	040036
37/64	0.5781	2.5/8	4.1/8	040037
19/32	0.5938	2.5/8	4.1/8	040038

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
39/64	0.6094	2.3/4	4.1/4	040039
5/8	0.6250	2.3/4	4.1/4	040040
41/64	0.6406	2.7/8	4.1/2	040041
21/32	0.6562	2.7/8	4.1/2	040042
43/64	0.6719	2.7/8	4.5/8	040043
11/16	0.6875	2.7/8	4.5/8	040044
45/64	0.7031	3"	4.3/4	040545
23/32	0.7188	3"	4.3/4	040546
47/64	0.7344	3.1/8	5"	040547
3/4	0.7500	3.1/8	5"	040548
49/64	0.7656	3.1/4	5.1/8	040549
25/32	0.7812	3.1/4	5.1/8	040550
51/64	0.7969	3.3/8	5.1/4	040551
13/16	0.8125	3.3/8	5.1/4	040552
53/64	0.8281	3.1/2	5.3/8	040553
27/32	0.8438	3.1/2	5.3/8	040554
55/64	0.8594	3.1/2	5.1/2	040555
7/8	0.8750	3.1/2	5.1/2	040556
57/64	0.8906	3.5/8	5.5/8	040557
29/32	0.9062	3.5/8	5.5/8	040558
59/64	0.9219	3.3/4	5.3/4	040559
15/16	0.9375	3.3/4	5.3/4	040560
61/64	0.9531	3.7/8	5.7/8	040561
31/32	0.9688	3.7/8	5.7/8	040562
63/64	0.9844	4"	6"	040563
1"	1.0000	4"	6"	040600 ¹⁾
1.1/16	1.0625	4"	6.1/4	040604 ¹⁾
1.1/8	1.1250	4"	6.3/8	040608 ¹⁾
1.3/16	1.1875	4.1/4	6.5/8	040612 ¹⁾
1.1/4	1.2500	4.3/8	6.3/4	040616 ¹⁾
1.5/16	1.3125	4.3/8	7"	040620 ¹⁾
1.3/8	1.3750	4.1/2	7.1/8	040624 ¹⁾
1.7/16	1.4375	4.3/4	7.3/8	040628 ¹⁾
1.1/2	1.5000	4.7/8	7.1/2	040632 ¹⁾
1.9/16	1.5625	4.7/8	7.3/4	040636 ¹⁾
1.5/8	1.6250	4.7/8	7.3/4	040640 ¹⁾
1.11/16	1.6875	5.1/8	8"	040644 ¹⁾
1.3/4	1.7500	5.1/8	8"	040648 ¹⁾
1.13/16	1.8125	5.3/8	8.1/4	040652 ¹⁾
1.7/8	1.8750	5.3/8	8.1/4	040656 ¹⁾
2"	2.0000	5.5/8	8.1/2	040700

¹⁾ 1" Reduced Shank for dia 1.1/16" - 1.1/4"
1.1/4" Reduced Shank for dia 1.5/16" - 1.1/2"
1.1/2" Reduced Shank for dia 1.9/16" - 2"

R41

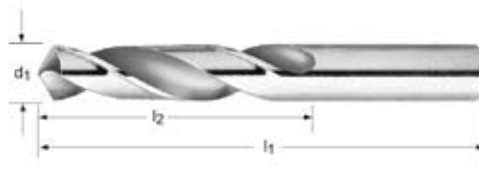


HSS
Stub
Drills

• Stub drill

• Foret extra-court

• Broca extra corta



R41



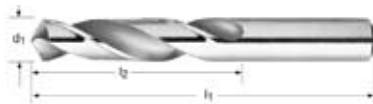
■ 1.1 1.2 1.3 1.4 2.1 3.1 3.2 3.3 4.1

• 1.5 1.6 2.2 2.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2
8.3 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
60	0.0400	1/2	1.3/8	041060
59	0.0410	1/2	1.3/8	041059
58	0.0420	1/2	1.3/8	041058
57	0.0430	1/2	1.3/8	041057
56	0.0465	1/2	1.3/8	041056
55	0.0520	5/8	1.5/8	041055
54	0.0550	5/8	1.5/8	041054
53	0.0595	5/8	1.5/8	041053
52	0.0635	11/16	1.11/16	041052
51	0.0670	11/16	1.11/16	041051
50	0.0700	11/16	1.11/16	041050
49	0.0730	11/16	1.11/16	041049
48	0.0760	11/16	1.11/16	041048
47	0.0785	11/16	1.11/16	041047
46	0.0810	3/4	1.3/4	041046
45	0.0820	3/4	1.3/4	041045
44	0.0860	3/4	1.3/4	041044
43	0.0890	3/4	1.3/4	041043
42	0.0935	3/4	1.3/4	041042
41	0.0960	13/16	1.13/16	041041
40	0.0980	13/16	1.13/16	041040
39	0.0995	13/16	1.13/16	041039
38	0.1015	13/16	1.13/16	041038
37	0.1040	13/16	1.13/16	041037
36	0.1065	13/16	1.13/16	041036
35	0.1100	7/8	1.7/8	041035
34	0.1110	7/8	1.7/8	041034
33	0.1130	7/8	1.7/8	041033
32	0.1160	7/8	1.7/8	041032
31	0.1200	7/8	1.7/8	041031

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
30	0.1285	15/16	1.15/16	041030
29	0.1360	15/16	1.15/16	041029
28	0.1405	15/16	1.15/16	041028
27	0.1440	1"	2.1/16	041027
26	0.1470	1"	2.1/16	041026
25	0.1495	1"	2.1/16	041025
24	0.1520	1"	2.1/16	041024
23	0.1540	1"	2.1/16	041023
22	0.1570	1.1/16	2.1/8	041022
21	0.1590	1.1/16	2.1/8	041021
20	0.1610	1.1/16	2.1/8	041020
19	0.1660	1.1/16	2.1/8	041019
18	0.1695	1.1/16	2.1/8	041018
17	0.1730	1.1/8	2.3/16	041017
16	0.1770	1.1/8	2.3/16	041016
15	0.1800	1.1/8	2.3/16	041015
14	0.1820	1.1/8	2.3/16	041014
13	0.1850	1.1/8	2.3/16	041013
12	0.1890	1.3/16	2.1/4	041012
11	0.1910	1.3/16	2.1/4	041011
10	0.1935	1.3/16	2.1/4	041010
9	0.1960	1.3/16	2.1/4	041009
8	0.1990	1.3/16	2.1/4	041008
7	0.2010	1.3/16	2.1/4	041007
6	0.2040	1.1/4	2.3/8	041006
5	0.2055	1.1/4	2.3/8	041005
4	0.2090	1.1/4	2.3/8	041004
3	0.2130	1.1/4	2.3/8	041003
2	0.2210	1.5/16	2.7/16	041002
1	0.2280	1.5/16	2.7/16	041001

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION



R42



■	1.1	1.2	1.3	1.4	2.1	3.1	3.2	3.3	4.1	•	1.5	1.6	2.2	2.3	3.4	4.2	4.3	5.1	5.2	5.3	6.1
											6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	1.5/16	2.7/16	042001
B	0.2380	1.3/8	2.1/2	042002
C	0.2420	1.3/8	2.1/2	042003
D	0.2460	1.3/8	2.1/2	042004
E	0.2500	1.3/8	2.1/2	042005
F	0.2570	1.7/16	2.5/8	042006
G	0.2610	1.7/16	2.5/8	042007
H	0.2660	1.1/2	2.11/16	042008
I	0.2720	1.1/2	2.11/16	042009
J	0.2770	1.1/2	2.11/16	042010
K	0.2810	1.1/2	2.11/16	042011
L	0.2900	1.9/16	2.3/4	042012
M	0.2950	1.9/16	2.3/4	042013
N	0.3020	1.5/8	2.13/16	042014

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	1.11/16	2.15/16	042015
P	0.3230	1.11/16	2.15/16	042016
Q	0.3320	1.11/16	3"	042017
R	0.3390	1.11/16	3"	042018
S	0.3480	1.3/4	3.1/16	042019
T	0.3580	1.3/4	3.1/16	042020
U	0.3680	1.13/16	3.1/8	042021
V	0.3770	1.7/8	3.1/4	042022
W	0.3860	1.7/8	3.1/4	042023
X	0.3970	1.15/16	3.5/16	042024
Y	0.4040	1.15/16	3.5/16	042025
Z	0.4130	2"	3.3/8	042026

L40



- Stub drill
- Left hand

- Foret extra-court

- Broca extra corta



L40



■	1.1	1.2	1.3	1.4	2.1	3.1	3.2	3.3	4.1		
●	1.5	1.6	2.2	2.3	3.4	4.2	4.3	5.1	5.2	5.3	6.1
	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	5/8	1.5/8	040904
5/64	0.0781	11/16	1.11/16	040905
3/32	0.0938	3/4	1.3/4	040906
7/64	0.1094	13/16	1.13/16	040907
1/8	0.1250	7/8	1.7/8	040908
9/64	0.1406	15/16	1.15/16	040909
5/32	0.1562	1"	2.1/16	040910
11/64	0.1719	1.1/16	2.1/8	040911
3/16	0.1875	1.1/8	2.3/16	040912
13/64	0.2031	1.3/16	2.1/4	040913
7/32	0.2188	1.1/4	2.3/8	040914
15/64	0.2344	1.5/16	2.7/16	040915
1/4	0.2500	1.3/8	2.1/2	040916
17/64	0.2656	1.7/16	2.5/8	040917
9/32	0.2812	1.1/2	2.11/16	040918
19/64	0.2969	1.9/16	2.3/4	040919

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	1.5/8	2.13/16	040920
21/64	0.3281	1.11/16	2.15/16	040921
11/32	0.3438	1.11/16	3"	040922
23/64	0.3594	1.3/4	3.1/16	040923
3/8	0.3750	1.13/16	3.1/8	040924
25/64	0.3906	1.7/8	3.1/4	040925
13/32	0.4062	1.15/16	3.5/16	040926
27/64	0.4219	2"	3.3/8	040927
7/16	0.4375	2.1/16	3.7/16	040928
29/64	0.4531	2.1/8	3.9/16	040929
15/32	0.4688	2.1/8	3.5/8	040930
31/64	0.4844	2.3/16	3.11/16	040931
1/2	0.5000	2.1/4	3.3/4	040932

HSS Jobber Drills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
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- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
example: 279 U
279 = SFM
U = Alpha Code to find your Feed Rate
- 4 To calculate Cutting Feed Rate, refer to chart on pages 9-10.

- = Excellent for Application
- = Good for Application



Style:
Tool Material:

Finish/Coating:
Standard:
Direction of Cut:
Depth of Cut:
Tool Length:
Shank:
Helix:
Point Angle:
Point Style:
Point Type:

A553	A554	A510	A577
HSCo	HSCo	HSS	HSCo
ADX	ADX	ADX	PFX
TIAIN Top	TIAIN Top	TIN	TIAIN
D	D	DIN 338	DIN 338
5XD	5XD	4xD	6xD
			W
S.P.	S.P.		

HSS Jobber Drills

Page # for easy reference

Application Material Groups (AMG)			Hardness HB
1. Steel			
1.1	Magnetic soft steel	12L14, 12L15	<120
1.2	Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200
1.3	Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250
1.4	Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250
1.5	Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350
1.6	Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350
1.7	Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC
1.8	Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC
2. Stainless Steel			
2.1	Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250
2.2	Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250
2.3	Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300
2.4	Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300
3. Cast Iron			
3.1	Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150
3.2	Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300
3.3	Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200
3.4	Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300
4. Titanium			
4.1	Titanium, unalloyed	Commercially Pure	<200
4.2	Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270
4.3	Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350
5. Nickel			
5.1	Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150
5.2	Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270
5.3	Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350
6. Copper			
6.1	Copper	Commercially Pure	<100
6.2	β-Brass, Bronze	314-340, 350-370	<200
6.3	α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200
6.4	High Strength Bronze	Ampco 18-25	<470
7. Aluminium Magnesium			
7.1	Al, Mg, unalloyed	Commercially Pure	<100
7.2	Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150
7.3	Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120
7.4	Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120
8. Synthetic Materials			
8.1	Thermoplastics	Ultramid, Polystrol	---
8.2	Thermosetting plastics	Bakelit, Pertinax	---
8.3	Reinforced plastic materials	CFK, GFKAFK	---
9. Hard Mat.			
9.1	Cermets (Metal-ceramics)	Ferrotic	<550
10. Graphite			
10.1	Standard graphite		---

Surface Feet per Minute (SFM)			
58	59	60-61	62-63
■279L	■279L	■187M	●184J
■230L	■230L	■154M	●157J
■197L	■197L	■131K	■131I
■148H	■148H	■98H	■131I
■92F	■92F	■69F	■98G
■49D	■49D	●36D	■85G
■131G	■131G	■92G	●56E
■62I	■62I	■46I	■30E
●89G	●89G	●62G	●36C
■230K	■230K	■138K	■174I
■164J	■164J	■105J	■141I
■148J	■148J	■92J	■105G
■138F	■138F	■82F	■79G
■148G	■148G	●105G	■115G
●98E	●98E	●66H	■79G
●26C	●26C	●13B	●33E
●82I	●82I	●56I	●72I
●49E	●49E	●30E	●36I
●33G	●33G	●20E	●33E
●230G	●230G	●131D	
■279I	■279I	■164I	
■262I	■262I	■148I	●177I
●115G	●115G	●66F	●157I
●230H	●230H	●164G	
■328M	■328M	■164M	
■180I	■180I	■102I	
■180J	■180J	■108I	■157I
■295G	■295G	■213G	
		■164G	
		■115F	

HSS Jobber Drills (con't)

	A907	A141	A012	A002	QC21CO QC21COM	QC21V	QC21G	QC21	QC21P	QC21GM	QC21M	QC21PM	R10CO R18CO R15CO	
	HSCo	HSS	HSS	HSS	HSCo	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSCo	
														
PFX														
HSS Jobber Drills														
														
														
														
														
Surface Feet per Minute (SFM)														
	64	65	66-67	68-69	70-71	72	73	74	75	76	77	77	78-80	
1.1	●115H	●115I	■154J	■154J	●115J	■125F	■115F	■98F	■98F	■115F	■98F	■98F	■115J	1.1
1.2	●98H	●98I	■131J	■131J	●98H	■75F	■69F	■59F	■59F	■69F	■59F	■59F	●98H	1.2
1.3	■82G	■82G	■115F	■115F	●89G	■79H	■75H	■69H	■66H	■75H	■69H	■66H	●89G	1.3
1.4	■82G	●66F	■98F	■98F	●79F	■75F	■69F	■59F	■59F	■69F	■59F	■59F	●79F	1.4
1.5	■62E	■43E	●59F	●59F	■56E	●59D	■56D	●46D	●46D	■56D	●46D	●46D	■56E	1.5
1.6	■52E	●30D	●33E	●33E	■33D								■33D	1.6
1.7														1.7
1.8														1.8
2.1	●49E	●49E	●66F	●66F	●72E	●115H	●105H	●89H	●89H	●105H	●89H	●89H	●72E	2.1
2.2	■23E	■30G	●39G	●39G	●36G	●66F	●59F	●49F	●49F	●59F	●49F	●49F	●36G	2.2
2.3	●30C	■33D	●52C	●52C	●49C	●66D	●59D	●49D	●49D	●59D	●49D	●49D	●49C	2.3
2.4														2.4
3.1	●108G	●98H	■131J	■131J	●115H	■184H	■171H	■151H	■151H	■171H	■151H	■151H	●115H	3.1
3.2	●89G	●79F	■98E	■98E	●92D	■98H	■89H	■79H	■79H	■89H	■79H	■79H	●92D	3.2
3.3	●66E	●66E	●92E	●92E	●72E	■105F	●95F	●85F	●79F	●95F	●85F	●79F	●72E	3.3
3.4	●49E	●46E	●85E	●85E	■56E	●66D	●59D			●59D			■56E	3.4
4.1	■72E	■82G	●75F	●75F	■92F			●95H	●89H		●95H	●89H	■92F	4.1
4.2	■49E	■52E	●43D	●43D	■66D			●49F	●49F		●49F	●49F	■66D	4.2
4.3	■20C	■23B	●23B	●23B	■36C								■36C	4.3
5.1	■46G	●39G	●43G	●43G	●49G	●66H	●59H	●49F	●49F	●59H	●49F	●49F	●49G	5.1
5.2	■23G	●23G	●23E	●23E	■23E								■23E	5.2
5.3	■20C	●20E	●10A	●10A	●20B								●20B	5.3
6.1	●213G	●108G	●164G	●164G	●125H	■112I	■98I		●89I	■98I		●89I	●125H	6.1
6.2	●230G	●115I	●108I	●108I	●131F	■98H	■89H		●79H	■89H		●79H	●131F	6.2
6.3	●112G	●102H	●128H	●128H	●89H	■98H	■89H		●79H	■89H		●79H	●89H	6.3
6.4	●98G	●52G	●98G	●98G	●69F								●69F	6.4
7.1	●230E	●108J	■134K	■134K	●108J	■440H	■400H		●351H	■400H		●351H	●108J	7.1
7.2	■148N	●98I	■125J	■125J	●98I	■384H	■351H		●325H	■351H		●325H	●98I	7.2
7.3	●131N	●89H	●108I	●108I	●98H								●98H	7.3
7.4	●95G	●79F	●108I	●108I	●89F	■344H	■315H		●276H	■315H		●276H	●89F	7.4
8.1	●180I	●98J	■98I	■98I										8.1
8.2	●131G	●92H	■164H	■164H										8.2
8.3		●46F	●115F	●115F										8.3
9.1		●10B	●10B	●10B	●20C								●20C	9.1
10.1														10.1

HSS Jobber Drills

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- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
example: 279 U
279 = SFM
U = Alpha Code to find your Feed Rate
- 4 To calculate Cutting Feed Rate, refer to chart on pages 9-10.

- = Excellent for Application
- = Good for Application



Style:
Tool Material:

2ACO	R88CO R89CO	EZ10P EZ18P	HX10 HX18 HX15
HSCo	HSCo	HSS	HSS



Finish/Coating:

Standard:

Direction of Cut:

2 Depth of Cut:

Tool Length:

Shank:

Helix:

Point Angle:

Point Style:

Point Type:

				
				
				
HSS Jobber Drills				
				
				
				
				
				
				

HSS Jobber Drills

Page # for easy reference

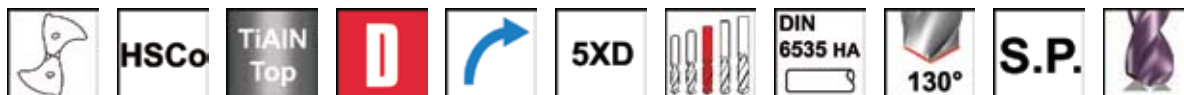
Application Material Groups (AMG)			Hardness HB		Surface Feet per Minute (SFM)			
					81	83	84	85-86
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	●115J	●115J	■115H	■115H
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	●98H	●98H	■98H	■69H
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	●89G	●89G	■82F	■75I
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4	●79F	●79F	■66F	■69H
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5	■56E	■56E	●43E	●56F
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6	■33D	■33D	●30D	
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●72E	●72E	●49E	●105I
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	●36G	●36G	●26G	●59H
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	●49C	●49C	●30C	●56F
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4				
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●115H	●115H	■98H	■171L
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●92D	●92D	■79F	■89I
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●72E	●72E	●66E	●95H
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	■56E	■56E	●46E	●59F
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	■92F	■92F	●75E	●95H
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	■66D	■66D	●39D	●75H
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	■36C	■36C	●20B	
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●49G	●49G	●33G	●59H
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	■23E	■23E	●20E	
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3	●20B	●20B	●10A	
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	●125H	●125H	●108G	
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	●131F	●131F	●115I	
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●89H	●89H	●89H	
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●69F	●69F	●52G	
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	●108J	●108J	●108J	
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	●98I	●98I	●98I	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	●98H	●98H	●89H	
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●89F	●89F	●79F	
8. Synthetic Materials	8.1 Thermoplastics	Ultrad, Polystrol	---	8.1			●98J	
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2			●92H	
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3			●46F	
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1	●20C	●20C	●10B	
10. Graphite	10.1 Standard graphite		---	10.1				

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ADX

A553



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	3.1	3.2	3.3	3.4	4.1	6.2	6.3	7.2	7.3	7.4	8.1
•	2.3	4.2	4.3	5.1	5.2	5.3	6.1	6.4	7.1										

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ Øh ₆ mm	Stock #	EDP # or e-Code
5.00	0.1968	36	79	36	6	0391204	A5535.0
5.10	0.2007	37	79	36	6	0391211	A5535.1
5.20	0.2047	38	79	36	6	0391228	A5535.2
5.30	0.2086	38	79	36	6	0391235	A5535.3
5.50	0.2165	40	79	36	6	0391242	A5535.5
5.60	0.2204	41	79	36	6	0391259	A5535.6
5.80	0.2283	42	79	36	6	0391266	A5535.8
5.90	0.2322	43	79	36	6	0391273	A5535.9
6.00	0.2362	43	79	36	6	0391280	A5536.0
6.30	0.2480	46	87	36	8	0391297	A5536.3
6.50	0.2559	47	87	36	8	0391303	A5536.5
6.60	0.2598	48	87	36	8	0391310	A5536.6
6.80	0.2677	48	87	36	8	0391327	A5536.8
6.90	0.2716	48	87	36	8	0391334	A5536.9
7.00	0.2755	48	87	36	8	0391341	A5537.0
7.30	0.2874	53	94	36	8	0391358	A5537.3
7.40	0.2913	54	94	36	8	0391365	A5537.4
7.50	0.2952	54	94	36	8	0391372	A5537.5
7.80	0.3070	56	94	36	8	0391389	A5537.8
7.90	0.3110	57	94	36	8	0391396	A5537.9
8.00	0.3149	58	94	36	8	0391402	A5538.0
8.50	0.3346	75	130	40	10	0391419	A5538.5
8.70	0.3425	75	130	40	10	0391426	A5538.7
9.00	0.3543	75	130	40	10	0391433	A5539.0
9.40	0.3700	75	130	40	10	0391440	A5539.4
9.50	0.3740	75	130	40	10	0391457	A5539.5
10.00	0.3937	75	130	40	10	0390795	A55310.0
10.20	0.4015	87	150	45	12	0390801	A55310.2
10.30	0.4055	87	150	45	12	0390818	A55310.3
10.50	0.4133	87	150	45	12	0390825	A55310.5
10.80	0.4251	94	150	45	12	0390832	A55310.8
11.00	0.4330	94	150	45	12	0390849	A55311.0
11.30	0.4448	94	150	45	12	0390856	A55311.3
11.50	0.4527	94	150	45	12	0390863	A55311.5

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ Øh ₆ mm	Stock #	EDP # or e-Code
12.00	0.4724	94	150	45	12	0390870	A55312.0
12.50	0.4921	101	160	45	14	0390887	A55312.5
13.00	0.5118	101	160	45	14	0390894	A55313.0
13.10	0.5157	101	160	45	14	0390900	A55313.1
13.25	0.5216	101	160	45	14	0390917	A55313.25
13.50	0.5314	101	160	45	14	0390924	A55313.5
13.75	0.5413	101	160	45	14	0390931	A55313.75
14.00	0.5511	101	160	45	14	0390948	A55314.0
14.25	0.5610	108	170	48	16	0390955	A55314.25
14.50	0.5708	108	170	48	16	0390962	A55314.5
14.75	0.5807	108	170	48	16	0390979	A55314.75
15.00	0.5905	108	170	48	16	0390986	A55315.0
15.10	0.5944	108	170	48	16	0390993	A55315.1
15.25	0.6003	108	170	48	16	0391006	A55315.25
15.50	0.6102	108	170	48	16	0391013	A55315.5
15.75	0.6200	108	170	48	16	0391020	A55315.75
16.00	0.6299	108	170	48	16	0391037	A55316.0
16.25	0.6397	125	190	48	18	0391044	A55316.25
16.50	0.6496	125	190	48	18	0391051	A55316.5
16.75	0.6594	125	190	48	18	0391068	A55316.75
17.00	0.6692	125	190	48	18	0391075	A55317.0
17.25	0.6791	130	190	48	18	0391082	A55317.25
17.50	0.6889	130	190	48	18	0391099	A55317.5
17.75	0.6988	130	190	48	18	0391105	A55317.75
18.00	0.7086	130	190	48	18	0391112	A55318.0
18.25	0.7185	135	200	50	20	0391129	A55318.25
18.50	0.7283	135	200	50	20	0391136	A55318.5
18.75	0.7381	135	200	50	20	0391143	A55318.75
19.00	0.7480	135	200	50	20	0391150	A55319.0
19.25	0.7578	140	200	50	20	0391167	A55319.25
19.50	0.7677	140	200	50	20	0391174	A55319.5
19.75	0.7775	140	200	50	20	0391181	A55319.75
20.00	0.7874	140	200	50	20	0391198	A55320.0

A554

DORMER

• ADX Drill

• Foret ADX

• Broca ADX



ADX

A554



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 3.1 3.2 3.3 3.4 4.1 6.2 6.3 7.2 7.3 7.4 8.1
- 2.3 4.2 4.3 5.1 5.2 5.3 6.1 6.4 7.1

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ Øh ₆ mm	Stock #	EDP # or e-Code
5.00	0.1968	36	79	36	6	0392072	A5545.0
5.10	0.2007	37	79	36	6	0392089	A5545.1
5.20	0.2047	38	79	36	6	0392096	A5545.2
5.30	0.2086	38	79	36	6	0392102	A5545.3
5.50	0.2165	40	79	36	6	0392119	A5545.5
5.60	0.2204	41	79	36	6	0392126	A5545.6
5.80	0.2283	42	79	36	6	0392133	A5545.8
5.90	0.2322	43	79	36	6	0392140	A5545.9
6.00	0.2362	43	79	36	6	0392157	A5546.0
6.30	0.2480	46	87	36	8	0392164	A5546.3
6.50	0.2559	47	87	36	8	0392171	A5546.5
6.60	0.2598	48	87	36	8	0392188	A5546.6
6.80	0.2677	48	87	36	8	0392195	A5546.8
6.90	0.2716	48	87	36	8	0392201	A5546.9
7.00	0.2755	48	87	36	8	0392218	A5547.0
7.30	0.2874	53	94	36	8	0392225	A5547.3
7.40	0.2913	54	94	36	8	0392232	A5547.4
7.50	0.2952	54	94	36	8	0392249	A5547.5
7.80	0.3070	56	94	36	8	0392256	A5547.8
7.90	0.3110	57	94	36	8	0392263	A5547.9
8.00	0.3149	58	94	36	8	0392270	A5548.0
8.50	0.3346	75	130	40	10	0392287	A5548.5
8.70	0.3425	75	130	40	10	0392294	A5548.7
9.00	0.3543	75	130	40	10	0392300	A5549.0
9.40	0.3700	75	130	40	10	0392317	A5549.4
9.50	0.3740	75	130	40	10	0392324	A5549.5
10.00	0.3937	75	130	40	10	0391464	A55410.0
10.20	0.4015	87	150	45	12	0391471	A55410.2
10.30	0.4055	87	150	45	12	0391488	A55410.3
10.50	0.4133	87	150	45	12	0391495	A55410.5
10.80	0.4251	94	150	45	12	0391501	A55410.8
11.00	0.4330	94	150	45	12	0391518	A55411.0
11.30	0.4448	94	150	45	12	0391525	A55411.3
11.50	0.4527	94	150	45	12	0391532	A55411.5
11.80	0.4646	94	150	45	12	0400234	A55411.8
12.00	0.4724	94	150	45	12	0391549	A55412.0
12.50	0.4921	101	160	45	14	0391556	A55412.5
13.00	0.5118	101	160	45	14	0391563	A55413.0
13.10	0.5157	101	160	45	14	0391570	A55413.1
13.25	0.5216	101	160	45	14	0391587	A55413.25
13.50	0.5314	101	160	45	14	0391594	A55413.5
13.75	0.5413	101	160	45	14	0391600	A55413.75
14.00	0.5511	101	160	45	14	0391617	A55414.0
14.25	0.5610	108	170	48	16	0391624	A55414.25

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	l ₃ mm	d ₂ Øh ₆ mm	Stock #	EDP # or e-Code
14.50	0.5708	108	170	48	16	0391631	A55414.5
14.75	0.5807	108	170	48	16	0391648	A55414.75
15.00	0.5905	108	170	48	16	0391655	A55415.0
15.10	0.5944	108	170	48	16	0391662	A55415.1
15.25	0.6003	108	170	48	16	0391679	A55415.25
15.50	0.6102	108	170	48	16	0391686	A55415.5
15.75	0.6200	108	170	48	16	0391693	A55415.75
16.00	0.6299	108	170	48	16	0391709	A55416.0
16.25	0.6397	125	190	48	18	0391716	A55416.25
16.50	0.6496	125	190	48	18	0391723	A55416.5
16.75	0.6594	125	190	48	18	0391730	A55416.75
17.00	0.6692	125	190	48	18	0391747	A55417.0
17.25	0.6791	130	190	48	18	0391754	A55417.25
17.50	0.6889	130	190	48	18	0391761	A55417.5
17.75	0.6988	130	190	48	18	0391778	A55417.75
18.00	0.7086	130	190	48	18	0391785	A55418.0
18.25	0.7185	135	200	50	20	0391792	A55418.25
18.50	0.7283	135	200	50	20	0391808	A55418.5
18.75	0.7381	135	200	50	20	0391815	A55418.75
19.00	0.7480	135	200	50	20	0391822	A55419.0
19.25	0.7578	140	200	50	20	0391839	A55419.25
19.50	0.7677	140	200	50	20	0391846	A55419.5
19.75	0.7775	140	200	50	20	0391853	A55419.75
20.00	0.7874	140	200	50	20	0391860	A55420.0
20.50	0.8070	141	219	56	25	0391877	A55420.5
20.75	0.8169	141	219	56	25	0391884	A55420.75
21.00	0.8267	141	219	56	25	0391891	A55421.0
21.50	0.8464	148	226	56	25	0391907	A55421.5
22.00	0.8661	148	226	56	25	0391914	A55422.0
22.25	0.8759	155	233	56	25	0391921	A55422.25
22.50	0.8858	155	233	56	25	0391938	A55422.5
23.00	0.9055	155	233	56	25	0391945	A55423.0
23.25	0.9153	162	240	56	25	0391952	A55423.25
23.50	0.9251	162	240	56	25	0391969	A55423.5
24.00	0.9448	162	240	56	25	0391976	A55424.0
24.50	0.9645	168	240	56	25	0391983	A55424.5
25.00	0.9842	168	246	56	25	0391990	A55425.0
26.00	1.0236	175	257	60	32	0392003	A55426.0
26.50	1.0433	182	264	60	32	0392010	A55426.5
27.00	1.0629	182	264	60	32	0392027	A55427.0
28.00	1.1023	189	271	60	32	0392034	A55428.0
29.00	1.1417	195	277	60	32	0392041	A55429.0
29.50	1.1614	202	284	60	32	0392058	A55429.5
30.00	1.1811	202	284	60	32	0392065	A55430.0

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION



A510



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 3.1 3.2 3.3 3.4 6.2 6.3 7.2 7.3 7.4 8.1 8.2 8.3
● 1.6 2.3 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.4 7.1

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	3.00	0.1181	33	61	0036495	A5103.0
	3.10	0.1220	36	65	0036501	A5103.1
1/8	3.18	0.1250	36	65	0168974	A5101/8
	3.20	0.1259	36	65	0036518	A5103.2
	3.30	0.1299	36	65	0036525	A5103.3
	3.40	0.1338	39	70	0036532	A5103.4
	3.50	0.1377	39	70	0036549	A5103.5
9/64	3.57	0.1405	39	70	0168981	A5109/64
	3.60	0.1417	39	70	0036556	A5103.6
	3.70	0.1456	39	70	0036563	A5103.7
	3.80	0.1496	43	75	0036570	A5103.8
	3.90	0.1535	43	75	0036587	A5103.9
5/32	3.97	0.1562	43	75	0168998	A5105/32
	4.00	0.1574	43	75	0036594	A5104.0
	4.10	0.1614	43	75	0036600	A5104.1
	4.20	0.1653	43	75	0036617	A5104.2
	4.30	0.1692	47	80	0036624	A5104.3
11/64	4.37	0.1720	47	80	0169001	A51011/64
	4.40	0.1732	47	80	0036631	A5104.4
	4.50	0.1771	47	80	0036648	A5104.5
	4.60	0.1811	47	80	0036655	A5104.6
	4.70	0.1850	47	80	0036662	A5104.7
3/16	4.76	0.1874	52	86	0169018	A5103/16
	4.80	0.1889	52	86	0036679	A5104.8
	4.90	0.1929	52	86	0036686	A5104.9
	5.00	0.1968	52	86	0036693	A5105.0
	5.10	0.2007	52	86	0036709	A5105.1
13/64	5.16	0.2031	52	86	0169025	A51013/64
	5.20	0.2047	52	86	0036716	A5105.2
	5.30	0.2086	52	86	0036723	A5105.3
	5.40	0.2125	57	93	0036730	A5105.4
	5.50	0.2165	57	93	0036747	A5105.5
7/32	5.56	0.2188	57	93	0169032	A5107/32
	5.60	0.2204	57	93	0036754	A5105.6

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	5.70	0.2244	57	93	0036761	A5105.7
	5.80	0.2283	57	93	0036778	A5105.8
	5.90	0.2322	57	93	0036785	A5105.9
15/64	5.95	0.2342	57	93	0169049	A51015/64
	6.00	0.2362	57	93	0036792	A5106.0
	6.10	0.2401	63	101	0036808	A5106.1
	6.20	0.2440	63	101	0036815	A5106.2
	6.30	0.2480	63	101	0036822	A5106.3
1/4	6.35	0.2500	63	101	0169056	A5101/4
	6.40	0.2519	63	101	0036839	A5106.4
	6.50	0.2559	63	101	0036846	A5106.5
	6.60	0.2598	63	101	0036853	A5106.6
	6.70	0.2637	63	101	0036860	A5106.7
17/64	6.75	0.2657	69	109	0169063	A51017/64
	6.80	0.2677	69	109	0036877	A5106.8
	6.90	0.2716	69	109	0036884	A5106.9
	7.00	0.2755	69	109	0036891	A5107.0
	7.10	0.2795	69	109	0036907	A5107.1
9/32	7.14	0.2811	69	109	0169070	A5109/32
	7.20	0.2834	69	109	0036914	A5107.2
	7.30	0.2874	69	109	0036921	A5107.3
	7.40	0.2913	69	109	0036938	A5107.4
	7.50	0.2952	69	109	0036945	A5107.5
19/64	7.54	0.2968	75	117	0169087	A51019/64
	7.60	0.2992	75	117	0036952	A5107.6
	7.70	0.3031	75	117	0036969	A5107.7
	7.80	0.3070	75	117	0036976	A5107.8
	7.90	0.3110	75	117	0036983	A5107.9
5/16	7.94	0.3125	75	117	0169094	A5105/16
	8.00	0.3149	75	117	0036990	A5108.0
	8.10	0.3188	75	117	0037003	A5108.1
	8.20	0.3228	75	117	0037010	A5108.2
	8.30	0.3267	75	117	0037027	A5108.3
21/64	8.33	0.3279	75	117	0169100	A51021/64
	8.40	0.3307	75	117	0037034	A5108.4
	8.50	0.3346	75	117	0037041	A5108.5
	8.60	0.3385	81	125	0037058	A5108.6
	8.70	0.3425	81	125	0037065	A5108.7

A510



• ADX Jobber Drill

• Foret court ADX

• Broca ADX , serie corta

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
11/32	8.73	0.3437	81	125	0169117	A51011/32
	8.80	0.3464	81	125	0037072	A5108.8
	8.90	0.3503	81	125	0037089	A5108.9
	9.00	0.3543	81	125	0037096	A5109.0
	9.10	0.3582	81	125	0037102	A5109.1
23/64	9.13	0.3594	81	125	0169124	A51023/64
	9.20	0.3622	81	125	0037119	A5109.2
	9.30	0.3661	81	125	0037126	A5109.3
	9.40	0.3700	81	125	0037133	A5109.4
	9.50	0.3740	81	125	0037140	A5109.5
3/8	9.53	0.3750	87	133	0169131	A5103/8
	9.60	0.3779	87	133	0037157	A5109.6
	9.70	0.3818	87	133	0037164	A5109.7
	9.80	0.3858	87	133	0037171	A5109.8
	9.90	0.3897	87	133	0037188	A5109.9
25/64	9.92	0.3905	87	133	0169148	A51025/64
	10.00	0.3937	87	133	0036174	A51010.0
	10.10	0.3976	87	133	0036181	A51010.1
	10.20	0.4015	87	133	0036198	A51010.2
	10.30	0.4055	87	133	0036204	A51010.3
13/32	10.32	0.4062	87	133	0169155	A51013/32
	10.40	0.4094	87	133	0036211	A51010.4
	10.50	0.4133	87	133	0036228	A51010.5
	10.60	0.4173	87	133	0036235	A51010.6
	10.70	0.4212	94	142	0036242	A51010.7
27/64	10.72	0.4220	94	142	0169162	A51027/64
	10.80	0.4251	94	142	0036259	A51010.8
	10.90	0.4291	94	142	0036266	A51010.9

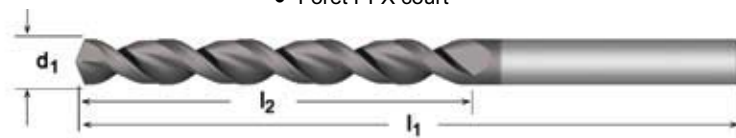
d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	11.00	0.4330	94	142	0036273	A51011.0
	11.10	0.4370	94	142	0036280	A51011.1
7/16	11.11	0.4374	94	142	0169179	A5107/16
	11.20	0.4409	94	142	0036297	A51011.2
	11.30	0.4448	94	142	0036303	A51011.3
	11.40	0.4488	94	142	0036310	A51011.4
	11.50	0.4527	94	142	0036327	A51011.5
29/64	11.51	0.4531	94	142	0169186	A51029/64
	11.60	0.4566	94	142	0036334	A51011.6
	11.70	0.4606	94	142	0036341	A51011.7
	11.80	0.4645	94	142	0036358	A51011.8
	11.90	0.4685	101	151	0036365	A51011.9
15/32	11.91	0.4688	101	151	0169193	A51015/32
	12.00	0.4724	101	151	0036372	A51012.0
	12.10	0.4763	101	151	0036389	A51012.1
	12.20	0.4803	101	151	0036396	A51012.2
	12.30	0.4842	101	151	0036402	A51012.3
31/64	12.30	0.4842	101	151	0169209	A51031/64
	12.40	0.4881	101	151	0036419	A51012.4
	12.50	0.4921	101	151	0036426	A51012.5
	12.60	0.4960	101	151	0036433	A51012.6
	12.70	0.5000	101	151	0036440	A51012.7
1/2	12.70	0.5000	101	151	0169216	A5101/2
	12.80	0.5039	101	151	0036457	A51012.8
	12.90	0.5078	101	151	0036464	A51012.9
	13.00	0.5118	101	151	0036471	A51013.0
	14.00	0.5511	108	160	0036488	A51014.0

HSS
Jobber
Drills

• PFX Jobber Drill

• Foret PFX court

• Broca PFX Serie Corta



PFX

HSS
Jobber
Drills

A577



■ 1.3 1.4 1.5 1.6 2.2 3.1 3.2 3.3 3.4 7.4

• 1.1 1.2 2.1 2.3 4.1 4.2 4.3 5.1 5.2 5.3 6.3 6.4

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
1.50	0.0590	18	40	0279502	A5771.5
2.00	0.0787	24	49	0279519	A5772.0
2.50	0.0984	30	57	0125205	A5772.5
2.60	0.1023	30	57	0125199	A5772.6
3.00	0.1181	33	61	0125212	A5773.0
3.10	0.1220	36	65	0586471	A5773.1
3.20	0.1259	36	65	0586488	A5773.2
3.30	0.1299	36	65	0125229	A5773.3
3.40	0.1338	39	70	0125236	A5773.4
3.50	0.1377	39	70	0125243	A5773.5
3.60	0.1417	39	70	0586495	A5773.6
3.70	0.1456	39	70	0586501	A5773.7
3.80	0.1496	43	75	0586518	A5773.8
3.90	0.1535	43	75	0586525	A5773.9
4.00	0.1574	43	75	0125250	A5774.0
4.10	0.1614	43	75	0125267	A5774.1
4.20	0.1653	43	75	0125274	A5774.2
4.30	0.1692	47	80	0125281	A5774.3
4.40	0.1732	47	80	0586532	A5774.4
4.50	0.1771	47	80	0125298	A5774.5
4.60	0.1811	47	80	0586549	A5774.6
4.70	0.1850	47	80	0586556	A5774.7
4.80	0.1889	52	86	0279526	A5774.8
4.90	0.1929	52	86	0125304	A5774.9
5.00	0.1968	52	86	0125311	A5775.0
5.10	0.2007	52	86	0125328	A5775.1
5.20	0.2047	52	86	0279533	A5775.2
5.30	0.2086	52	86	0586563	A5775.3
5.40	0.2125	57	93	0586570	A5775.4
5.50	0.2165	57	93	0125335	A5775.5

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
5.60	0.2204	57	93	0586587	A5775.6
5.70	0.2244	57	93	0279540	A5775.7
5.80	0.2283	57	93	0586594	A5775.8
5.90	0.2322	57	93	0586600	A5775.9
6.00	0.2362	57	93	0125342	A5776.0
6.10	0.2401	63	101	0279557	A5776.1
6.20	0.2440	63	101	0586617	A5776.2
6.30	0.2480	63	101	0586624	A5776.3
6.40	0.2519	63	101	0586631	A5776.4
6.50	0.2559	63	101	0125359	A5776.5
6.60	0.2598	63	101	0586648	A5776.6
6.70	0.2637	63	101	0586655	A5776.7
6.80	0.2677	69	109	0125366	A5776.8
6.90	0.2716	69	109	0125373	A5776.9
7.00	0.2755	69	109	0125380	A5777.0
7.10	0.2795	69	109	0586662	A5777.1
7.20	0.2834	69	109	0586679	A5777.2
7.30	0.2874	69	109	0586686	A5777.3
7.40	0.2913	69	109	0586693	A5777.4
7.50	0.2952	69	109	0125397	A5777.5
7.60	0.2992	75	117	0586709	A5777.6
7.70	0.3031	75	117	0586716	A5777.7
7.80	0.3070	75	117	0586723	A5777.8
7.90	0.3110	75	117	0586730	A5777.9
8.00	0.3149	75	117	0125403	A5778.0
8.10	0.3188	75	117	0586747	A5778.1
8.20	0.3228	75	117	0586754	A5778.2
8.30	0.3267	75	117	0279564	A5778.3
8.40	0.3307	75	117	0586761	A5778.4
8.50	0.3346	75	117	0125410	A5778.5

A577



• PFX Jobber Drill

• Foret PFX court

• Broca PFX Serie Corta

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
8.60	0.3385	81	125	0125427	A5778.6
8.70	0.3425	81	125	0125434	A5778.7
8.80	0.3464	81	125	0586778	A5778.8
8.90	0.3503	81	125	0586785	A5778.9
9.00	0.3543	81	125	0125441	A5779.0
9.10	0.3582	81	125	0586792	A5779.1
9.20	0.3622	81	125	0586808	A5779.2
9.30	0.3661	81	125	0586815	A5779.3
9.40	0.3700	81	125	0586822	A5779.4
9.50	0.3740	81	125	0125458	A5779.5
9.60	0.3779	87	133	0586839	A5779.6
9.70	0.3818	87	133	0586846	A5779.7
9.80	0.3858	87	133	0586853	A5779.8
9.90	0.3897	87	133	0586860	A5779.9
10.00	0.3937	87	133	0125106	A57710.0
10.20	0.4015	87	133	0125113	A57710.2
10.30	0.4055	87	133	0125120	A57710.3
10.40	0.4094	87	133	0125137	A57710.4

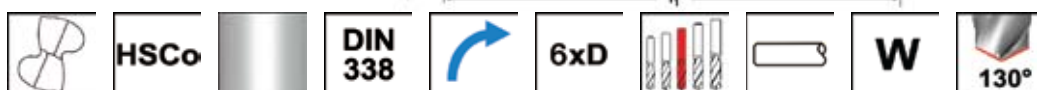
d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
10.50	0.4133	87	133	0125144	A57710.5
10.80	0.4251	914	142	0586372	A57710.8
11.00	0.4330	97	142	0125151	A57711.0 ¹⁾
11.20	0.4409	97	142	0586389	A57711.2 ¹⁾
11.50	0.4527	97	142	0125168	A57711.5 ¹⁾
11.80	0.4645	97	142	0586396	A57711.8 ¹⁾
12.00	0.4724	106	151	0125175	A57712.0 ¹⁾
12.20	0.4803	106	151	0125182	A57712.2 ¹⁾
12.50	0.4921	106	151	0586402	A57712.5 ¹⁾
12.80	0.5039	106	151	0586419	A57712.8 ¹⁾
13.00	0.5118	106	151	0139615	A57713.0 ¹⁾
13.50	0.5314	115	160	0586426	A57713.5 ¹⁾
14.00	0.5511	115	160	0139622	A57714.0 ¹⁾
14.50	0.5708	121	169	0586433	A57714.5 ¹⁾
15.00	0.5905	121	169	0586440	A57715.0 ¹⁾
15.50	0.6102	130	178	0586457	A57715.5 ¹⁾
16.00	0.6299	130	178	0586464	A57716.0 ¹⁾



¹⁾ Flute lengths longer than standard



A907



PFX

■	1.3	1.4	1.5	1.6	2.2	4.1	4.2	4.3	5.1	5.2	5.3	7.2					
●	1.1	1.2	2.1	2.3	3.1	3.2	3.3	3.4	6.1	6.2	6.3	6.4	7.1	7.3	7.4	8.1	8.2

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	1.00	0.0393	12	34	0144831	A9071.0
	1.10	0.0433	14	36	0144848	A9071.1
	1.20	0.0472	16	38	0144855	A9071.2
	1.30	0.0511	16	38	0144862	A9071.3
	1.40	0.0551	18	40	0144879	A9071.4
	1.50	0.0590	18	40	0144886	A9071.5
1/16	1.59	0.0625	20	43	0170830	A9071/16
	1.60	0.0629	20	43	0144893	A9071.6
	1.70	0.0669	20	43	0144909	A9071.7
	1.80	0.0708	22	46	0144916	A9071.8
	1.90	0.0748	22	46	0144923	A9071.9
5/64	1.98	0.0779	24	49	0170847	A9075/64
	2.00	0.0787	24	49	0144930	A9072.0
	2.10	0.0826	24	49	0144947	A9072.1
	2.20	0.0866	27	53	0144954	A9072.2
	2.30	0.0905	27	53	0144961	A9072.3
3/32	2.38	0.0937	30	57	0170854	A9073/32
	2.40	0.0944	30	57	0144978	A9072.4
	2.50	0.0984	30	57	0144985	A9072.5
	2.60	0.1023	30	57	0144992	A9072.6
	2.70	0.1062	33	61	0145005	A9072.7
7/64	2.78	0.1094	33	61	0170861	A9077/64
	2.80	0.1102	33	61	0145012	A9072.8
	2.90	0.1141	33	61	0145029	A9072.9
	3.00	0.1181	33	61	0145036	A9073.0
	3.10	0.1220	36	65	0145043	A9073.1
1/8	3.18	0.1251	36	65	0170878	A9071/8
	3.20	0.1259	36	65	0145050	A9073.2
	3.30	0.1299	36	65	0145067	A9073.3
	3.40	0.1338	39	70	0145074	A9073.4
	3.50	0.1377	39	70	0145081	A9073.5
9/64	3.57	0.1405	39	70	0170885	A9079/64
	3.60	0.1417	39	70	0145098	A9073.6
	3.70	0.1456	39	70	0145104	A9073.7
	3.80	0.1496	43	75	0145111	A9073.8
	3.90	0.1535	43	75	0145128	A9073.9
5/32	3.97	0.1562	43	75	0170892	A9075/32
	4.00	0.1574	43	75	0145135	A9074.0
	4.10	0.1614	43	75	0145142	A9074.1
	4.20	0.1653	43	75	0145159	A9074.2
	4.30	0.1692	47	80	0145166	A9074.3
11/64	4.37	0.1720	47	80	0170908	A90711/64
	4.40	0.1732	47	80	0145173	A9074.4
	4.50	0.1771	47	80	0145180	A9074.5
	4.60	0.1811	47	80	0145197	A9074.6
	4.70	0.1850	47	80	0145203	A9074.7
3/16	4.76	0.1874	52	86	0170915	A9073/16
	4.80	0.1889	52	86	0145210	A9074.8

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	4.90	0.1929	52	86	0145227	A9074.9
	5.00	0.1968	52	86	0145234	A9075.0
	5.10	0.2007	52	86	0145241	A9075.1
N7	5.11	0.2010	52	86	0588116	A907N7
13/64	5.16	0.2031	52	86	0170922	A90713/64
	5.20	0.2047	52	86	0145258	A9075.2
	5.30	0.2086	52	86	0145265	A9075.3
	5.40	0.2125	57	93	0145272	A9075.4
	5.50	0.2165	57	93	0145289	A9075.5
7/32	5.56	0.2188	57	93	0170939	A9077/32
	5.60	0.2204	57	93	0145296	A9075.6
	5.70	0.2244	57	93	0145302	A9075.7
	5.80	0.2283	57	93	0145319	A9075.8
	5.90	0.2322	57	93	0145326	A9075.9
15/64	5.95	0.2342	57	93	0170946	A90715/64
	6.00	0.2362	57	93	0145333	A9076.0
	6.10	0.2401	63	101	0145340	A9076.1
	6.20	0.2440	63	101	0145357	A9076.2
	6.30	0.2480	63	101	0145364	A9076.3
1/4	6.35	0.2500	63	101	0170953	A9071/4
	6.40	0.2519	63	101	0145371	A9076.4
	6.50	0.2559	63	101	0145388	A9076.5
F	6.53	0.2570	63	101	0588093	A907F
	6.60	0.2598	63	101	0145395	A9076.6
	6.70	0.2637	63	101	0145401	A9076.7
17/64	6.75	0.2657	69	109	0170960	A90717/64
	6.80	0.2677	69	109	0145418	A9076.8
	6.90	0.2716	69	109	0145425	A9076.9
I	6.91	0.2720	69	109	0588109	A907I
	7.00	0.2755	69	109	0145432	A9077.0
	7.10	0.2795	69	109	0145449	A9077.1
9/32	7.14	0.2811	69	109	0170977	A9079/32
	7.20	0.2834	69	109	0145456	A9077.2
	7.30	0.2874	69	109	0145463	A9077.3
	7.40	0.2913	69	109	0145470	A9077.4
	7.50	0.2952	69	109	0145487	A9077.5
19/64	7.54	0.2968	75	117	0170984	A90719/64
	7.60	0.2992	75	117	0145494	A9077.6
	7.70	0.3031	75	117	0145500	A9077.7
	7.80	0.3070	75	117	0145517	A9077.8
	7.90	0.3110	75	117	0145524	A9077.9
5/16	7.94	0.3125	75	117	0170991	A9075/16
	8.00	0.3149	75	117	0145531	A9078.0
	8.10	0.3188	75	117	0145548	A9078.1
	8.20	0.3228	75	117	0145555	A9078.2
	8.30	0.3267	75	117	0145562	A9078.3
21/64	8.33	0.3279	75	117	0171004	A90721/64
	8.40	0.3307	75	117	0145579	A9078.4

A907 - A141

DORMER

HSS
Jobber
Drills

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
Q	8.43	0.3320	75	117	0588123	A907Q
	8.50	0.3346	75	117	0145586	A9078.5
	8.60	0.3385	81	125	0145593	A9078.6
R	8.61	0.3390	75	117	0588130	A907R
	8.70	0.3425	81	125	0145609	A9078.7
11/32	8.73	0.3437	81	125	0171011	A90711/32
	8.80	0.3464	81	125	0145616	A9078.8
	8.90	0.3503	81	125	0145623	A9078.9
	9.00	0.3543	81	125	0145630	A9079.0
	9.10	0.3582	81	125	0145647	A9079.1
23/64	9.13	0.3594	81	125	0171028	A90723/64
	9.20	0.3622	81	125	0145654	A9079.2
	9.30	0.3661	81	125	0145661	A9079.3
	9.40	0.3700	81	125	0145678	A9079.4
	9.50	0.3740	81	125	0145685	A9079.5
3/8	9.53	0.3751	87	133	0171035	A9073/8
	9.60	0.3779	87	133	0145692	A9079.6
	9.70	0.3818	87	133	0145708	A9079.7
	9.80	0.3858	87	133	0145715	A9079.8
	9.90	0.3897	87	133	0145722	A9079.9
25/64	9.92	0.3905	87	133	0171042	A90725/64
	10.00	0.3937	87	133	0145739	A90710.0
	10.20	0.4015	87	133	0145746	A90710.2
	10.30	0.4055	87	133	0145753	A90710.3
13/32	10.32	0.4062	87	133	0171059	A90713/32
	10.40	0.4094	87	133	0145760	A90710.4
	10.50	0.4133	87	133	0145777	A90710.5

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
27/64	10.72	0.4220	97	142	0171066	A90727/64 ¹⁾
	10.80	0.4251	97	142	0145784	A90710.8 ¹⁾
	11.00	0.4330	97	142	0145791	A90711.0 ¹⁾
7/16	11.11	0.4374	97	142	0171073	A9077/16 ¹⁾
	11.20	0.4409	97	142	0145807	A90711.2 ¹⁾
	11.50	0.4527	97	142	0145814	A90711.5 ¹⁾
29/64	11.51	0.4531	97	142	0171080	A90729/64 ¹⁾
	11.80	0.4645	97	142	0145821	A90711.8 ¹⁾
15/32	11.91	0.4688	106	151	0171097	A90715/32 ¹⁾
	12.00	0.4724	106	151	0145838	A90712.0 ¹⁾
	12.20	0.4803	106	151	0145845	A90712.2 ¹⁾
31/64	12.30	0.4842	106	151	0171103	A90731/64 ¹⁾
	12.50	0.4921	106	151	0145852	A90712.5 ¹⁾
1/2	12.70	0.5000	106	151	0171110	A9071/2 ¹⁾
	12.80	0.5039	106	151	0145869	A90712.8 ¹⁾
	13.00	0.5118	106	151	0145876	A90713.0 ¹⁾
	13.50	0.5314	115	160	0302897	A90713.5 ¹⁾
	14.00	0.5511	115	160	0213896	A90714.0 ¹⁾
	14.50	0.5708	121	169	0302903	A90714.5 ¹⁾
	15.00	0.5905	121	169	0302910	A90715.0 ¹⁾
	15.50	0.6102	130	178	0302927	A90715.5 ¹⁾
	16.00	0.6299	130	178	0302934	A90716.0 ¹⁾
	17.00	0.6693	125	184	0588147	A90717.0 ¹⁾
	17.50	0.6890	130	191	0588154	A90717.5 ¹⁾
	18.00	0.7087	130	198	0588161	A90718.0 ¹⁾²⁾
	19.00	0.7480	135	205	0588178	A90719.0 ¹⁾²⁾
	20.00	0.7874	140	215	0588185	A90720.0 ¹⁾²⁾

¹⁾ Flute Lengths Longer than Standard ¹⁾ Goujures plus longues que le standard ¹⁾ Longitudes del canal superiores a la standard
²⁾ Overall Lengths Longer than Standard ²⁾ Longueur totale plus longue que le standard ²⁾ Longitudes totales superiores a la standard

- Jobber Drill
- Fast spiral for stainless steel

- Foret court

- Broca , serie corta



A141

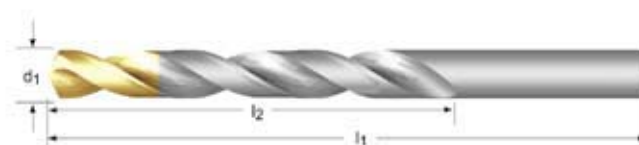


■	2.2	2.3	4.1	4.2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

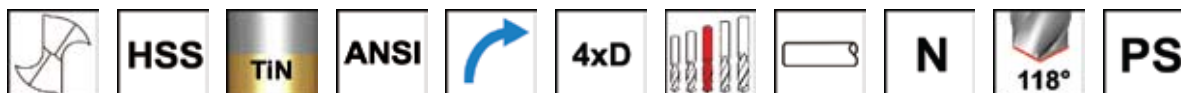
d ₁ Ø Inch	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	Stock #	EDP # or e-Code
1/16	1.588	0.0625	25/32	1.11/16	0423264	A1411/16
5/64	1.984	0.0781	15/16	1.15/16	0423486	A1415/64
3/32	2.381	0.0938	1.3/16	2.1/4	0423431	A1413/32
7/64	2.778	0.1094	1.5/16	2.13/32	0423516	A1417/64
1/8	3.175	0.1250	1.7/16	2.9/16	0423295	A1411/8
9/64	3.572	0.1406	1.17/32	2.3/4	0423530	A1419/64
5/32	3.969	0.1562	1.11/16	2.15/16	0423479	A1415/32
11/64	4.366	0.1719	1.27/32	3.5/32	0423318	A14111/64
3/16	4.763	0.1875	2.1/16	3.3/8	0423424	A1413/16
13/64	5.159	0.2031	2.1/16	3.3/8	0423332	A14113/64
7/32	5.556	0.2188	2.1/4	3.21/32	0423509	A1417/32
15/64	5.953	0.2344	2.1/4	3.21/32	0423547	A14115/64
1/4	6.350	0.2500	2.1/2	3.31/32	0423288	A1411/4
17/64	6.747	0.2656	2.23/32	4.9/32	0423356	A14117/64
9/32	7.144	0.2812	2.23/32	4.9/32	0423523	A1419/32

d ₁ Ø Inch	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	Stock #	EDP # or e-Code
19/64	7.541	0.2969	2.15/16	4.19/32	0423363	A14119/64
5/16	7.938	0.3125	2.15/16	4.19/32	0423462	A1415/16
21/64	8.334	0.3281	2.15/16	4.19/32	0423370	A14121/64
11/32	8.731	0.3438	3.3/16	4.29/32	0423301	A14111/32
23/64	9.128	0.3594	3.3/16	4.29/32	0423387	A14123/64
3/8	9.525	0.3750	3.7/16	5.1/4	0423448	A1413/8
25/64	9.922	0.3906	3.7/16	5.1/4	0423394	A14125/64
13/32	10.319	0.4062	3.7/16	5.1/4	0423325	A14113/32
27/64	10.716	0.4219	3.11/16	5.19/32	0423400	A14127/64
7/16	11.113	0.4375	3.11/16	5.19/32	0423493	A1417/16
29/64	11.509	0.4531	3.11/16	5.19/32	0423417	A14129/64
15/32	11.906	0.4688	3.31/32	5.15/16	0423349	A14115/32
31/64	12.303	0.4844	3.31/32	5.15/16	0423455	A14131/64
1/2	12.700	0.5000	3.31/32	5.15/16	0423271	A1411/2

■ = EXCELLENT FOR APPLICATION
 ● = GOOD FOR APPLICATION



A012



■	1.1	1.2	1.3	1.4	3.1	3.2	7.1	7.2	8.1	8.2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

d ₁ Ø	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	Stock #	EDP # or e-Code
80	0.343	0.0135	1/8	3/4	0574256	A012N80
79	0.368	0.0145	1/8	3/4	0574249	A012N79
1/64	0.397	0.0156	3/16	3/4	0573952	A0121/64
78	0.406	0.0160	3/16	7/8	0574232	A012N78
77	0.457	0.0180	3/16	7/8	0574225	A012N77
76	0.508	0.0200	3/16	7/8	0574218	A012N76
75	0.533	0.0210	1/4	1"	0574201	A012N75
74	0.572	0.0225	1/4	1"	0574195	A012N74
73	0.610	0.0240	5/16	1.1/8	0574188	A012N73
72	0.635	0.0250	5/16	1.1/8	0574171	A012N72
71	0.660	0.0260	3/8	1.1/4	0574164	A012N71
70	0.711	0.0280	3/8	1.1/4	0574157	A012N70
69	0.742	0.0292	1/2	1.3/8	0574140	A012N69
68	0.787	0.0310	1/2	1.3/8	0574133	A012N68
1/32	0.794	0.0312	1/2	1.3/8	0573969	A0121/32
67	0.813	0.0320	1/2	1.3/8	0574126	A012N67
66	0.838	0.0330	1/2	1.3/8	0574119	A012N66
65	0.889	0.0350	5/8	1.1/2	0574102	A012N65
64	0.914	0.0360	5/8	1.1/2	0574096	A012N64
63	0.940	0.0370	5/8	1.1/2	0574089	A012N63
62	0.965	0.0380	5/8	1.1/2	0574072	A012N62
61	0.991	0.0390	11/16	1.5/8	0574065	A012N61
60	1.016	0.0400	11/16	1.5/8	0574058	A012N60
59	1.041	0.0410	11/16	1.5/8	0574041	A012N59
58	1.067	0.0420	11/16	1.5/8	0574034	A012N58
57	1.092	0.0430	3/4	1.3/4	0574027	A012N57
56	1.181	0.0465	3/4	1.3/4	0574010	A012N56
3/64	1.191	0.0469	3/4	1.3/4	0573976	A0123/64
55	1.321	0.0520	7/8	1.7/8	0574003	A012N55
54	1.397	0.0550	7/8	1.7/8	0573990	A012N54
53	1.511	0.0595	7/8	1.7/8	0573983	A012N53
1/16	1.588	0.0625	7/8	1.7/8	0578636	A0121/16
52	1.613	0.0635	7/8	1.7/8	0578704	A012N52
51	1.702	0.0670	1"	2"	0578698	A012N51

d ₁ Ø	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	Stock #	EDP # or e-Code
50	1.778	0.0700	1"	2"	0578681	A012N50
49	1.854	0.0730	1"	2"	0578674	A012N49
48	1.930	0.0760	1"	2"	0578667	A012N48
5/64	1.984	0.0781	1"	2"	0578643	A0125/64
47	1.994	0.0785	1"	2"	0578650	A012N47
46	2.057	0.0810	1.1/8	2.1/8	0571705	A012N46
45	2.083	0.0820	1.1/8	2.1/8	0571699	A012N45
44	2.184	0.0860	1.1/8	2.1/8	0571682	A012N44
43	2.261	0.0890	1.1/4	2.1/4	0571675	A012N43
42	2.375	0.0935	1.1/4	2.1/4	0571668	A012N42
3/32	2.381	0.0938	1.1/4	2.1/4	0572061	A0123/32
41	2.438	0.0960	1.3/8	2.3/8	0571651	A012N41
40	2.489	0.0980	1.3/8	2.3/8	0571644	A012N40
39	2.527	0.0995	1.3/8	2.3/8	0571620	A012N39
38	2.578	0.1015	1.7/16	2.1/2	0571613	A012N38
37	2.642	0.1040	1.7/16	2.1/2	0571606	A012N37
36	2.705	0.1065	1.7/16	2.1/2	0571590	A012N36
7/64	2.778	0.1094	1.1/2	2.5/8	0572184	A0127/64
35	2.794	0.1100	1.1/2	2.5/8	0571583	A012N35
34	2.819	0.1110	1.1/2	2.5/8	0571576	A012N34
33	2.870	0.1130	1.1/2	2.5/8	0571569	A012N33
32	2.946	0.1160	1.5/8	2.3/4	0571552	A012N32
31	3.048	0.1200	1.5/8	2.3/4	0571545	A012N31
1/8	3.175	0.1250	1.5/8	2.3/4	0571897	A0121/8
30	3.264	0.1285	1.5/8	2.3/4	0571538	A012N30
29	3.454	0.1360	1.3/4	2.7/8	0571514	A012N29
28	3.569	0.1405	1.3/4	2.7/8	0571507	A012N28
9/64	3.572	0.1406	1.3/4	2.7/8	0572214	A0129/64
27	3.658	0.1440	1.7/8	3"	0571491	A012N27
26	3.734	0.1470	1.7/8	3"	0571484	A012N26
25	3.797	0.1495	1.7/8	3"	0571477	A012N25
24	3.861	0.1520	2"	3.1/8	0571460	A012N24
23	3.912	0.1540	2"	3.1/8	0571453	A012N23
5/32	3.969	0.1562	2"	3.1/8	0572146	A0125/32

Bright finish below 2.0 mm, TiN Tipped 2.0 mm and above
No split point below 2.00 mm

d ₁ Ø	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	Stock #	EDP # or e-Code
22	3.988	0.1570	2"	3.1/8	0571446	A012N22
21	4.039	0.1590	2.1/8	3.1/4	0571439	A012N21
20	4.089	0.1610	2.1/8	3.1/4	0571422	A012N20
19	4.216	0.1660	2.1/8	3.1/4	0571408	A012N19
18	4.305	0.1695	2.1/8	3.1/4	0571392	A012N18
11/64	4.366	0.1719	2.1/8	3.1/4	0571910	A01211/64
17	4.394	0.1730	2.3/16	3.3/8	0571385	A012N17
16	4.496	0.1770	2.3/16	3.3/8	0571378	A012N16
15	4.572	0.1800	2.3/16	3.3/8	0571361	A012N15
14	4.623	0.1820	2.3/16	3.3/8	0571354	A012N14
13	4.700	0.1850	2.5/16	3.1/2	0571347	A012N13
3/16	4.762	0.1875	2.5/16	3.1/2	0572054	A0123/16
12	4.800	0.1890	2.5/16	3.1/2	0571330	A012N12
11	4.851	0.1910	2.5/16	3.1/2	0571323	A012N11
10	4.915	0.1935	2.7/16	3.5/8	0571316	A012N10
9	4.978	0.1960	2.7/16	3.5/8	0571750	A012N9
8	5.055	0.1990	2.7/16	3.5/8	0571743	A012N8
7	5.105	0.2010	2.7/16	3.5/8	0571736	A012N7
13/64	5.159	0.2031	2.7/16	3.5/8	0571934	A01213/64
6	5.182	0.2040	2.1/2	3.3/4	0571729	A012N6
5	5.220	0.2055	2.1/2	3.3/4	0571712	A012N5
4	5.309	0.2090	2.1/2	3.3/4	0571637	A012N4
3	5.410	0.2130	2.1/2	3.3/4	0571521	A012N3
7/32	5.556	0.2188	2.1/2	3.3/4	0572177	A0127/32
2	5.613	0.2210	2.5/8	3.7/8	0571415	A012N2
1	5.791	0.2280	2.5/8	3.7/8	0571309	A012N1
A	5.944	0.2340	2.5/8	3.7/8	0571163	A012A
15/64	5.953	0.2344	2.5/8	3.7/8	0571958	A01215/64
B	6.045	0.2380	2.3/4	4"	0571170	A012B
C	6.147	0.2420	2.3/4	4"	0571187	A012C
D	6.248	0.2460	2.3/4	4"	0571194	A012D
1/4	6.350	0.2500	2.3/4	4"	0571125	A0121/4
E	6.350	0.2500	2.3/4	4"	0571200	A012E
F	6.528	0.2570	2.7/8	4.1/8	0571217	A012F
G	6.629	0.2610	2.7/8	4.1/8	0571224	A012G
17/64	6.747	0.2656	2.7/8	4.1/8	0571972	A01217/64
H	6.756	0.2660	2.7/8	4.1/8	0571231	A012H
I	6.909	0.2720	2.7/8	4.1/8	0571248	A012I
J	7.036	0.2770	2.7/8	4.1/8	0571255	A012J
K	7.137	0.2810	2.15/16	4.1/4	0571262	A012K
9/32	7.144	0.2812	2.15/16	4.1/4	0572207	A0129/32
L	7.366	0.2900	2.15/16	4.1/4	0571279	A012L
M	7.493	0.2950	3.1/16	4.3/8	0571286	A012M
19/64	7.541	0.2969	3.1/16	4.3/8	0571996	A01219/64

d ₁ Ø	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	Stock #	EDP # or e-Code
N	7.671	0.3020	3.1/16	4.3/8	0571293	A012N
5/16	7.938	0.3125	3.3/16	4.1/2	0572139	A0125/16
O	8.026	0.3160	3.3/16	4.1/2	0571767	A012O
P	8.204	0.3230	3.5/16	4.5/8	0571774	A012P
21/64	8.334	0.3281	3.5/16	4.5/8	0572009	A01221/64
Q	8.433	0.3320	3.7/16	4.3/4	0571781	A012Q
R	8.611	0.3390	3.7/16	4.3/4	0571798	A012R
11/32	8.731	0.3438	3.7/16	4.3/4	0571903	A01211/32
S	8.839	0.3480	3.1/2	4.7/8	0571804	A012S
T	9.093	0.3580	3.1/2	4.7/8	0571811	A012T
23/64	9.128	0.3594	3.1/2	4.7/8	0572016	A01223/64
U	9.347	0.3680	3.5/8	5"	0571828	A012U
3/8	9.525	0.3750	3.5/8	5"	0572078	A0123/8
V	9.576	0.3770	3.5/8	5"	0571835	A012V
W	9.804	0.3860	3.3/4	5.1/8	0571842	A012W
25/64	9.922	0.3906	3.3/4	5.1/8	0572023	A01225/64
X	10.084	0.3970	3.3/4	5.1/8	0571859	A012X
Y	10.262	0.4040	3.7/8	5.1/4	0571866	A012Y
13/32	10.319	0.4062	3.7/8	5.1/4	0571927	A01213/32
Z	10.490	0.4130	3.7/8	5.1/4	0571873	A012Z
27/64	10.716	0.4219	3.15/16	5.3/8	0572030	A01227/64
7/16	11.112	0.4375	4.1/16	5.1/2	0572160	A0127/16
29/64	11.509	0.4531	4.3/16	5.5/8	0572047	A01229/64
15/32	11.906	0.4688	4.5/16	5.3/4	0571941	A01215/32
31/64	12.303	0.4844	4.3/8	5.7/8	0572085	A01231/64
1/2	12.700	0.5000	4.1/2	6"	0571880	A0121/2
33/64	13.097	0.5156	4.13/16	6.5/8	0572092	A01233/64
17/32	13.494	0.5312	4.13/16	6.5/8	0571965	A01217/32
35/64	13.891	0.5469	4.13/16	6.5/8	0572108	A01235/64
9/16	14.288	0.5625	4.13/16	6.5/8	0572191	A0129/16
37/64	14.684	0.5781	4.13/16	6.5/8	0572115	A01237/64
19/32	15.081	0.5938	5.3/16	7.1/8	0571989	A01219/32
39/64	15.478	0.6094	5.3/16	7.1/8	0572122	A01239/64
5/8	15.875	0.6250	5.3/16	7.1/8	0572153	A0125/8
21/32	16.669	0.6562	5.3/16	7.1/8	0578728	A01221/32
11/16	17.462	0.6875	5.5/8	7.5/8	0578711	A01211/16
45/64	17.859	0.7031	5.5/8	7.7/8	0578742	A01245/64
23/32	18.256	0.7188	5.5/8	7.7/8	0578735	A01223/32
47/64	18.653	0.7343	6"	8"	0578766	A01247/64
3/4	18.653	0.7500	6"	8"	0578759	A0123/4

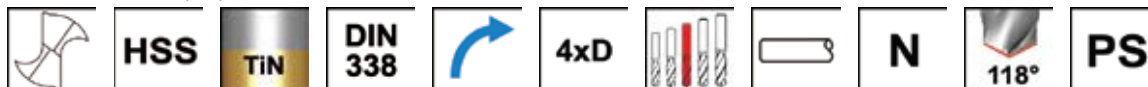
Bright finish below 2.0 mm, TiN Tipped 2.0 mm and above
No split point below 2.00 mm

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION



A002

Bright finish below 2.0 mm, TiN Tipped 2.0 mm and above
No split point below 2.00 mm



■	1.1	1.2	1.3	1.4	3.1	3.2	7.1	7.2	8.1	8.2										
●	1.5	1.6	2.1	2.2	2.3	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	6.4	7.3	7.4	
	8.3	9.1																		

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
1.00	0.0393	12	34	0376782	A0021.0
1.10	0.0433	14	36	0376799	A0021.1
1.20	0.0472	16	38	0376805	A0021.2
1.30	0.0511	16	38	0376812	A0021.3
1.40	0.0551	18	40	0376829	A0021.4
1.50	0.0590	18	40	0376836	A0021.5
1.60	0.0629	20	43	0376843	A0021.6
1.70	0.0669	20	43	0376850	A0021.7
1.80	0.0708	22	46	0376867	A0021.8
1.90	0.0748	22	46	0376874	A0021.9
2.00	0.0787	24	49	0376041	A0022.0
2.10	0.0826	24	49	0376058	A0022.1
2.20	0.0866	27	53	0376898	A0022.2
2.30	0.0905	27	53	0376904	A0022.3
2.40	0.0944	30	57	0376911	A0022.4
2.50	0.0984	30	57	0376065	A0022.5
2.60	0.1023	30	57	0376072	A0022.6
2.70	0.1062	33	61	0376089	A0022.7
2.80	0.1102	33	61	0376096	A0022.8
2.90	0.1141	33	61	0376102	A0022.9
3.00	0.1181	33	61	0350577	A0023.0
3.10	0.1220	36	65	0350584	A0023.1
3.20	0.1259	36	65	0350607	A0023.2
3.25	0.1280	36	65	0605356	A0023.25
3.30	0.1299	36	65	0350614	A0023.3
3.40	0.1338	39	70	0350621	A0023.4
3.50	0.1377	39	70	0350638	A0023.5
3.60	0.1417	39	70	0350652	A0023.6
3.70	0.1456	39	70	0350669	A0023.7
3.80	0.1496	43	75	0350676	A0023.8
3.90	0.1535	43	75	0350683	A0023.9
4.00	0.1574	43	75	0350706	A0024.0
4.10	0.1614	43	75	0350713	A0024.1
4.20	0.1653	43	75	0350720	A0024.2

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
4.30	0.1692	47	80	0350737	A0024.3
4.40	0.1732	47	80	0350751	A0024.4
4.50	0.1771	47	80	0350768	A0024.5
4.60	0.1811	47	80	0350775	A0024.6
4.70	0.1850	47	80	0350782	A0024.7
4.80	0.1889	52	86	0350805	A0024.8
4.90	0.1929	52	86	0350812	A0024.9
5.00	0.1968	52	86	0350829	A0025.0
5.10	0.2007	52	86	0350836	A0025.1
5.20	0.2047	52	86	0350850	A0025.2
5.30	0.2086	52	86	0350867	A0025.3
5.40	0.2125	57	93	0350874	A0025.4
5.50	0.2165	57	93	0350881	A0025.5
5.60	0.2204	57	93	0350904	A0025.6
5.70	0.2244	57	93	0350911	A0025.7
5.80	0.2283	57	93	0350928	A0025.8
5.90	0.2322	57	93	0350935	A0025.9
6.00	0.2362	57	93	0350959	A0026.0
6.10	0.2401	63	101	0350966	A0026.1
6.20	0.2440	63	101	0350973	A0026.2
6.30	0.2480	63	101	0350980	A0026.3
6.40	0.2519	63	101	0351000	A0026.4
6.50	0.2559	63	101	0351017	A0026.5
6.60	0.2598	63	101	0351024	A0026.6
6.70	0.2637	63	101	0351031	A0026.7
6.80	0.2677	69	109	0351055	A0026.8
6.90	0.2716	69	109	0351062	A0026.9
7.00	0.2755	69	109	0351079	A0027.0
7.10	0.2795	69	109	0351086	A0027.1
7.20	0.2834	69	109	0351109	A0027.2
7.30	0.2874	69	109	0351116	A0027.3
7.40	0.2913	69	109	0351123	A0027.4
7.50	0.2952	69	109	0351130	A0027.5
7.60	0.2992	75	117	0351154	A0027.6

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
7.70	0.3031	75	117	0351161	A0027.7
7.80	0.3070	75	117	0351178	A0027.8
7.90	0.3110	75	117	0351185	A0027.9
8.00	0.3149	75	117	0351208	A0028.0
8.10	0.3188	75	117	0351215	A0028.1
8.20	0.3228	75	117	0351222	A0028.2
8.30	0.3267	75	117	0351239	A0028.3
8.40	0.3307	75	117	0351253	A0028.4
8.50	0.3346	75	117	0351260	A0028.5
8.60	0.3385	81	125	0351277	A0028.6
8.70	0.3425	81	125	0351284	A0028.7
8.80	0.3464	81	125	0351307	A0028.8
8.90	0.3503	81	125	0351314	A0028.9
9.00	0.3543	81	125	0351321	A0029.0
9.10	0.3582	81	125	0351338	A0029.1
9.20	0.3622	81	125	0351352	A0029.2
9.30	0.3661	81	125	0351369	A0029.3
9.40	0.3700	81	125	0351376	A0029.4
9.50	0.3740	81	125	0351383	A0029.5
9.60	0.3779	87	133	0351406	A0029.6
9.70	0.3818	87	133	0351413	A0029.7
9.80	0.3858	87	133	0351420	A0029.8
9.90	0.3897	87	133	0351437	A0029.9
10.00	0.3937	87	133	0351451	A00210.0
10.10	0.3976	87	133	0351468	A00210.1
10.20	0.4015	87	133	0351475	A00210.2
10.30	0.4055	87	133	0351482	A00210.3
10.40	0.4094	87	133	0351505	A00210.4
10.50	0.4133	87	133	0351512	A00210.5
10.60	0.4173	87	133	0351529	A00210.6
10.70	0.4212	94	142	0351536	A00210.7
10.80	0.4251	94	142	0351550	A00210.8
10.90	0.4291	94	142	0351567	A00210.9
11.00	0.4330	94	142	0351574	A00211.0
11.10	0.4370	94	142	0351581	A00211.1
11.20	0.4409	94	142	0351604	A00211.2
11.30	0.4448	94	142	0351611	A00211.3
11.40	0.4488	94	142	0351628	A00211.4

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
11.50	0.4527	94	142	0351635	A00211.5
11.60	0.4566	94	142	0351659	A00211.6
11.70	0.4606	94	142	0351666	A00211.7
11.80	0.4645	94	142	0351673	A00211.8
11.90	0.4685	101	151	0351680	A00211.9
12.00	0.4724	101	151	0351703	A00212.0
12.10	0.4763	101	151	0351710	A00212.1
12.20	0.4803	101	151	0351727	A00212.2
12.30	0.4842	101	151	0351734	A00212.3
12.40	0.4881	101	151	0351758	A00212.4
12.50	0.4920	101	151	0351765	A00212.5
12.60	0.4960	101	151	0351772	A00212.6
12.70	0.5000	101	151	0351796	A00212.7
12.80	0.5039	101	151	0351802	A00212.8
12.90	0.5078	101	151	0351819	A00212.9
13.00	0.5118	101	151	0351826	A00213.0
13.10	0.5157	101	151	0385180	A00213.1
13.20	0.5196	101	151	0385524	A00213.2
13.25	0.5216	108	160	0385579	A00213.25
13.30	0.5236	108	160	0385197	A00213.3
13.40	0.5275	108	160	0385531	A00213.4
13.50	0.5314	108	160	0385548	A00213.5
13.60	0.5354	108	160	0385203	A00213.6
13.70	0.5393	108	160	0385210	A00213.7
13.75	0.5413	108	160	0385586	A00213.75
13.80	0.5433	108	160	0385227	A00213.8
13.90	0.5472	108	160	0385494	A00213.9
14.00	0.5511	108	160	0384497	A00214.0
14.25	0.5610	114	169	0385234	A00214.25
14.50	0.5708	114	169	0385241	A00214.5
14.75	0.5807	114	169	0385258	A00214.75
15.00	0.5905	114	169	0385265	A00215.0
15.25	0.6003	120	178	0385272	A00215.25
15.50	0.6102	120	178	0385289	A00215.5
15.75	0.6200	120	178	0385296	A00215.75
16.00	0.6299	120	178	0385302	A00216.0

- Jobber Drill
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Drills



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- 1.6 2.4 4.3 5.2
- 2.1 2.2 2.3 3.1 3.2 3.3 3.4 5.3

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	013504
52	0.0635	7/8	2"	015752
51	0.0670	1"	2"	015751
50	0.0700	1"	2"	015750
49	0.0730	1"	2"	015749
48	0.0760	1"	2"	015748
5/64	0.0781	1"	2"	013505
47	0.0785	1"	2"	015747
46	0.0810	1.1/8	2.1/8	015746
45	0.0820	1.1/8	2.1/8	015745
44	0.0860	1.1/8	2.1/8	015744
43	0.0890	1.1/4	2.1/4	015743
42	0.0935	1.1/4	2.1/4	015742
3/32	0.0938	1.1/4	2.1/4	013506
41	0.0960	1.3/8	2.3/8	015741
40	0.0980	1.3/8	2.3/8	015740
39	0.0995	1.3/8	2.3/8	015739
38	0.1015	1.7/16	2.1/2	015738
37	0.1040	1.7/16	2.1/2	015737
36	0.1065	1.7/16	2.1/2	015736
7/64	0.1094	1.1/2	2.5/8	013507
35	0.1100	1.1/2	2.5/8	015735
34	0.1110	1.1/2	2.5/8	015734
33	0.1130	1.1/2	2.5/8	015733
32	0.1160	1.5/8	2.3/4	015732
31	0.1200	1.5/8	2.3/4	015731
1/8	0.1250	1.5/8	2.3/4	013508
30	0.1285	1.5/8	2.3/4	015730
29	0.1360	1.3/4	2.7/8	015729
28	0.1405	1.3/4	2.7/8	015728
9/64	0.1406	1.3/4	2.7/8	013509
27	0.1440	1.7/8	3"	015727
26	0.1470	1.7/8	3"	015726
25	0.1495	1.7/8	3"	015725

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
24	0.1520	2"	3.1/8	015724
23	0.1540	2"	3.1/8	015723
5/32	0.1562	2"	3.1/8	013510
22	0.1570	2"	3.1/8	015722
21	0.1590	2.1/8	3.1/4	015721
20	0.1610	2.1/8	3.1/4	015720
19	0.1660	2.1/8	3.1/4	015719
18	0.1695	2.1/8	3.1/4	015718
11/64	0.1719	2.1/8	3.1/4	013511
17	0.1730	2.3/16	3.3/8	015717
16	0.1770	2.3/16	3.3/8	015716
15	0.1800	2.3/16	3.3/8	015715
14	0.1820	2.3/16	3.3/8	015714
13	0.1850	2.5/16	3.1/2	015713
3/16	0.1875	2.5/16	3.1/2	013512
12	0.1890	2.5/16	3.1/2	015712
11	0.1910	2.5/16	3.1/2	015711
10	0.1935	2.7/16	3.5/8	015710
9	0.1960	2.7/16	3.5/8	015709
8	0.1990	2.7/16	3.5/8	015708
7	0.2010	2.7/16	3.5/8	015707
13/64	0.2031	2.7/16	3.5/8	013513
6	0.2040	2.1/2	3.3/4	015706
5	0.2055	2.1/2	3.3/4	015705
4	0.2090	2.1/2	3.3/4	015704
3	0.2130	2.1/2	3.3/4	015703
7/32	0.2188	2.1/2	3.3/4	013514
2	0.2210	2.5/8	3.7/8	015702
1	0.2280	2.5/8	3.7/8	015701
A	0.2340	2.5/8	3.7/8	013601
15/64	0.2344	2.5/8	3.7/8	013515
B	0.2380	2.3/4	4"	013602
C	0.2420	2.3/4	4"	013603
D	0.2460	2.3/4	4"	013604

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d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
E	0.2500	2.3/4	4"	013605
1/4	0.2500	2.3/4	4"	013516
F	0.2570	2.7/8	4.1/8	013606
G	0.2610	2.7/8	4.1/8	013607
17/64	0.2656	2.7/8	4.1/8	013517
H	0.2660	2.7/8	4.1/8	013608
I	0.2720	2.7/8	4.1/8	013609
J	0.2770	2.7/8	4.1/8	013610
K	0.2810	2.15/16	4.1/4	013611
9/32	0.2812	2.15/16	4.1/4	013518
L	0.2900	2.15/16	4.1/4	013612
M	0.2950	3.1/16	4.3/8	013613
19/64	0.2969	3.1/16	4.3/8	013519
N	0.3020	3.1/16	4.3/8	013614
5/16	0.3125	3.3/16	4.1/2	013520
O	0.3160	3.3/16	4.1/2	013615
P	0.3230	3.5/16	4.5/8	013616
21/64	0.3281	3.5/16	4.5/8	013521
Q	0.3320	3.7/16	4.3/4	013617
R	0.3390	3.7/16	4.3/4	013618

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
11/32	0.3438	3.7/16	4.3/4	013522
S	0.3480	3.1/2	4.7/8	013619
T	0.3580	3.1/2	4.7/8	013620
23/64	0.3594	3.1/2	4.7/8	013523
U	0.3680	3.5/8	5"	013621
3/8	0.3750	3.5/8	5"	013524
V	0.3770	3.5/8	5"	013622
W	0.3860	3.3/4	5.1/8	013623
25/64	0.3906	3.3/4	5.1/8	013525
X	0.3970	3.3/4	5.1/8	013624
Y	0.4040	3.7/8	5.1/4	013625
13/32	0.4062	3.7/8	5.1/4	013526
Z	0.4130	3.7/8	5.1/4	013626
27/64	0.4219	3.15/16	5.3/8	013527
7/16	0.4375	4.1/16	5.1/2	013528
29/64	0.4531	4.3/16	5.5/8	013529
15/32	0.4688	4.5/16	5.3/4	013530
31/64	0.4844	4.3/8	5.7/8	013531
1/2	0.5000	4.1/2	6"	013532

- Jobber Drill
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QC

QC21COM



- 1.6 2.4 4.3 5.2
- 2.1 2.2 2.3 3.1 3.2 3.3 3.4 5.3

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	18	40	016715
2.00	0.0787	24	49	016720
2.50	0.0984	30	57	016725
3.00	0.1181	33	61	016730
3.50	0.1378	39	70	016735
4.00	0.1575	43	75	016740
4.50	0.1772	47	80	016745
5.00	0.1969	52	86	016750
5.20	0.2047	52	86	016752
5.50	0.2165	57	93	016755
5.60	0.2205	57	93	016756
6.00	0.2362	57	93	016760
6.50	0.2559	63	101	016765
6.80	0.2677	69	109	016768
7.00	0.2758	69	109	016770
7.50	0.2953	69	109	016775
8.00	0.3150	75	117	016780
8.20	0.3228	75	117	016782

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
8.50	0.3346	75	117	016785
8.60	0.3386	81	125	016786
9.00	0.3543	81	125	016790
9.50	0.3740	81	125	016795
10.00	0.3937	87	133	016800
10.50	0.4134	87	133	016805
11.00	0.4331	94	142	016810
11.50	0.4528	94	142	016815
12.00	0.4724	101	151	016820
12.50	0.4921	101	151	016825
13.00	0.5118	101	151	016830

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

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- Canal Parabólico

HSS
Jobber
Drills



QC

QC21V



- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4
- 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	081404
52	0.0635	7/8	1.7/8	080452
51	0.0670	1"	2"	080451
50	0.0700	1"	2"	080450
49	0.0730	1"	2"	080449
48	0.0760	1"	2"	080448
5/64	0.0781	1"	2"	081405
47	0.0785	1"	2"	080447
46	0.0810	1.1/8	2.1/8	080446
45	0.0820	1.1/8	2.1/8	080445
44	0.0860	1.1/8	2.1/8	080444
43	0.0890	1.1/4	2.1/4	080443
42	0.0935	1.1/4	2.1/4	080442
3/32	0.0938	1.1/4	2.1/4	081406
41	0.0960	1.3/8	2.3/8	080441
40	0.0980	1.3/8	2.3/8	080440
39	0.0995	1.3/8	2.3/8	080439
38	0.1015	1.7/16	2.1/2	080438
37	0.1040	1.7/16	2.1/2	080437
36	0.1065	1.7/16	2.1/2	080436
7/64	0.1094	1.1/2	2.5/8	081407
35	0.1100	1.1/2	2.5/8	080435
34	0.1110	1.1/2	2.5/8	080434
33	0.1130	1.1/2	2.5/8	080433
32	0.1160	1.5/8	2.3/4	080432
31	0.1200	1.5/8	2.3/4	080431
1/8	0.1250	1.5/8	2.3/4	081408
30	0.1285	1.5/8	2.3/4	080430
29	0.1360	1.3/4	2.7/8	080429
28	0.1405	1.3/4	2.7/8	080428
9/64	0.1406	1.3/4	2.7/8	081409
27	0.1440	1.7/8	3"	080427
26	0.1470	1.7/8	3"	080426
25	0.1495	1.7/8	3"	080425
24	0.1520	2"	3.1/8	080424
23	0.1540	2"	3.1/8	080423
5/32	0.1562	2"	3.1/8	081410
22	0.1570	2"	3.1/8	080422
21	0.1590	2.1/8	3.1/4	080421
20	0.1610	2.1/8	3.1/4	080420

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
19	0.1660	2.1/8	3.1/4	080419
18	0.1695	2.1/8	3.1/4	080418
11/64	0.1719	2.1/8	3.1/4	081411
17	0.1730	2.3/16	3.3/8	080417
16	0.1770	2.3/16	3.3/8	080416
15	0.1800	2.3/16	3.3/8	080415
14	0.1820	2.3/16	3.3/8	080414
13	0.1850	2.5/16	3.1/2	080413
3/16	0.1875	2.5/16	3.1/2	081412
12	0.1890	2.5/16	3.1/2	080412
11	0.1910	2.5/16	3.1/2	080411
10	0.1935	2.7/16	3.5/8	080410
9	0.1960	2.7/16	3.5/8	080409
8	0.1990	2.7/16	3.5/8	080408
7	0.2010	2.7/16	3.5/8	080407
13/64	0.2031	2.7/16	3.5/8	081413
6	0.2040	2.1/2	3.3/4	080406
5	0.2055	2.1/2	3.3/4	080405
4	0.2090	2.1/2	3.3/4	080404
3	0.2130	2.1/2	3.3/4	080403
7/32	0.2188	2.1/2	3.3/4	081414
2	0.2210	2.5/8	3.7/8	080402
1	0.2280	2.5/8	3.7/8	080401
15/64	0.2344	2.5/8	3.7/8	081415
1/4	0.2500	2.3/4	4"	081416
17/64	0.2656	2.7/8	4.1/8	081417
9/32	0.2812	2.15/16	4.1/4	081418
19/64	0.2969	3.1/16	4.3/8	081419
5/16	0.3125	3.3/16	4.1/2	081420
21/64	0.3281	3.5/16	4.5/8	081421
11/32	0.3438	3.7/16	4.3/4	081422
23/64	0.3594	3.1/2	4.7/8	081423
3/8	0.3750	3.5/8	5"	081424
25/64	0.3906	3.3/4	5.1/8	081425
13/32	0.4062	3.7/8	5.1/4	081426
27/64	0.4219	3.15/16	5.3/8	081427
7/16	0.4375	4.1/16	5.1/2	081428
29/64	0.4531	4.3/16	5.5/8	081429
15/32	0.4688	4.5/16	5.3/4	081430
31/64	0.4844	4.3/8	5.7/8	081431
1/2	0.5000	4.1/2	6"	081432

QC21G



- Jobber Drill
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QC

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Jobber
Drills

QC21G



■	1.1	1.2	1.3	1.4	3.1	3.2	6.1	6.2	6.3	7.1	7.2	7.4
●	1.5	2.1	2.2	2.3	3.3	3.4	5.1					

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	081704
52	0.0635	7/8	1.7/8	080552
51	0.0670	1"	2"	080551
50	0.0700	1"	2"	080550
49	0.0730	1"	2"	080549
48	0.0760	1"	2"	080548
5/64	0.0781	1"	2"	081705
47	0.0785	1"	2"	080547
46	0.0810	1.1/8	2.1/8	080546
45	0.0820	1.1/8	2.1/8	080545
44	0.0860	1.1/8	2.1/8	080544
43	0.0890	1.1/4	2.1/4	080543
42	0.0935	1.1/4	2.1/4	080542
3/32	0.0938	1.1/4	2.1/4	081706
41	0.0960	1.3/8	2.3/8	080541
40	0.0980	1.3/8	2.3/8	080540
39	0.0995	1.3/8	2.3/8	080539
38	0.1015	1.7/16	2.1/2	080538
37	0.1040	1.7/16	2.1/2	080537
36	0.1065	1.7/16	2.1/2	080536
7/64	0.1094	1.1/2	2.5/8	081707
35	0.1100	1.1/2	2.5/8	080535
34	0.1110	1.1/2	2.5/8	080534
33	0.1130	1.1/2	2.5/8	080533
32	0.1160	1.5/8	2.3/4	080532
31	0.1200	1.5/8	2.3/4	080531
1/8	0.1250	1.5/8	2.3/4	081708
30	0.1285	1.5/8	2.3/4	080530
29	0.1360	1.3/4	2.7/8	080529
28	0.1405	1.3/4	2.7/8	080528
9/64	0.1406	1.3/4	2.7/8	081709
27	0.1440	1.7/8	3"	080527
26	0.1470	1.7/8	3"	080526
25	0.1495	1.7/8	3"	080525
24	0.1520	2"	3.1/8	080524
23	0.1540	2"	3.1/8	080523
5/32	0.1562	2"	3.1/8	081710
22	0.1570	2"	3.1/8	080522
21	0.1590	2.1/8	3.1/4	080521
20	0.1610	2.1/8	3.1/4	080520

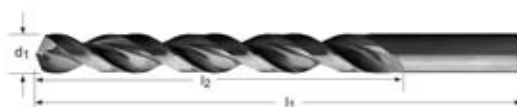
d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
19	0.1660	2.1/8	3.1/4	080519
18	0.1695	2.1/8	3.1/4	080518
11/64	0.1719	2.1/8	3.1/4	081711
17	0.1730	2.3/16	3.3/8	080517
16	0.1770	2.3/16	3.3/8	080516
15	0.1800	2.3/16	3.3/8	080515
14	0.1820	2.3/16	3.3/8	080514
13	0.1850	2.5/16	3.1/2	080513
3/16	0.1875	2.5/16	3.1/2	081712
12	0.1890	2.5/16	3.1/2	080512
11	0.1910	2.5/16	3.1/2	080511
10	0.1935	2.7/16	3.5/8	080510
9	0.1960	2.7/16	3.5/8	080509
8	0.1990	2.7/16	3.5/8	080508
7	0.2010	2.7/16	3.5/8	080507
13/64	0.2031	2.7/16	3.5/8	081713
6	0.2040	2.1/2	3.3/4	080506
5	0.2055	2.1/2	3.3/4	080505
4	0.2090	2.1/2	3.3/4	080504
3	0.2130	2.1/2	3.3/4	080503
7/32	0.2188	2.1/2	3.3/4	081714
2	0.2210	2.5/8	3.7/8	080502
1	0.2280	2.5/8	3.7/8	080501
15/64	0.2344	2.5/8	3.7/8	081715
1/4	0.2500	2.3/4	4"	081716
17/64	0.2656	2.7/8	4.1/8	081717
9/32	0.2812	2.15/16	4.1/4	081718
19/64	0.2969	3.1/16	4.3/8	081719
5/16	0.3125	3.3/16	4.1/2	081720
21/64	0.3281	3.5/16	4.5/8	081721
11/32	0.3438	3.7/16	4.3/4	081722
23/64	0.3594	3.1/2	4.7/8	081723
3/8	0.3750	3.5/8	5"	081724
25/64	0.3906	3.3/4	5.1/8	081725
13/32	0.4062	3.7/8	5.1/4	081726
7/16	0.4375	4.1/16	5.1/2	081728
29/64	0.4531	4.3/16	5.5/8	081729
15/32	0.4688	4.5/16	5.3/4	081730
31/64	0.4844	4.3/8	5.7/8	081731
1/2	0.5000	4.1/2	6"	081732

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

- Jobber Drill
- Wide-land parabolic flute

- Foret court
- Goujüre Parabolique

- Broca , serie corta
- Canal Parabólico



QC

QC21



- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	081604
52	0.0635	7/8	1.7/8	080652
51	0.0670	1"	2"	080651
50	0.0700	1"	2"	080650
49	0.0730	1"	2"	080649
48	0.0760	1"	2"	080648
5/64	0.0781	1"	2"	081605
47	0.0785	1"	2"	080647
46	0.0810	1.1/8	2.1/8	080646
45	0.0820	1.1/8	2.1/8	080645
44	0.0860	1.1/8	2.1/8	080644
43	0.0890	1.1/4	2.1/4	080643
42	0.0935	1.1/4	2.1/4	080642
3/32	0.0938	1.1/4	2.1/4	081606
41	0.0960	1.3/8	2.3/8	080641
40	0.0980	1.3/8	2.3/8	080640
39	0.0995	1.3/8	2.3/8	080639
38	0.1015	1.7/16	2.1/2	080638
37	0.1040	1.7/16	2.1/2	080637
36	0.1065	1.7/16	2.1/2	080636
7/64	0.1094	1.1/2	2.5/8	081607
35	0.1100	1.1/2	2.5/8	080635
34	0.1110	1.1/2	2.5/8	080634
33	0.1130	1.1/2	2.5/8	080633
32	0.1160	1.5/8	2.3/4	080632
31	0.1200	1.5/8	2.3/4	080631
1/8	0.1250	1.5/8	2.3/4	081608
30	0.1285	1.5/8	2.3/4	080630
29	0.1360	1.3/4	2.7/8	080629
28	0.1405	1.3/4	2.7/8	080628
9/64	0.1406	1.3/4	2.7/8	081609
27	0.1440	1.7/8	3"	080627
26	0.1470	1.7/8	3"	080626
25	0.1495	1.7/8	3"	080625
24	0.1520	2"	3.1/8	080624
23	0.1540	2"	3.1/8	080623
5/32	0.1562	2"	3.1/8	081610
22	0.1570	2"	3.1/8	080622
21	0.1590	2.1/8	3.1/4	080621
20	0.1610	2.1/8	3.1/4	080620
19	0.1660	2.1/8	3.1/4	080619
18	0.1695	2.1/8	3.1/4	080618

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
11/64	0.1719	2.1/8	3.1/4	081611
17	0.1730	2.3/16	3.3/8	080617
16	0.1770	2.3/16	3.3/8	080616
15	0.1800	2.3/16	3.3/8	080615
14	0.1820	2.3/16	3.3/8	080614
13	0.1850	2.5/16	3.1/2	080613
3/16	0.1875	2.5/16	3.1/2	081612
12	0.1890	2.5/16	3.1/2	080612
11	0.1910	2.5/16	3.1/2	080611
10	0.1935	2.7/16	3.5/8	080610
9	0.1960	2.7/16	3.5/8	080609
8	0.1990	2.7/16	3.5/8	080608
7	0.2010	2.7/16	3.5/8	080607
13/64	0.2031	2.7/16	3.5/8	081613
6	0.2040	2.1/2	3.3/4	080606
5	0.2055	2.1/2	3.3/4	080605
4	0.2090	2.1/2	3.3/4	080604
3	0.2130	2.1/2	3.3/4	080603
7/32	0.2188	2.1/2	3.3/4	081614
2	0.2210	2.5/8	3.7/8	080602
1	0.2280	2.5/8	3.7/8	080601
15/64	0.2344	2.5/8	3.7/8	081615
1/4	0.2500	2.3/4	4"	081616
17/64	0.2656	2.7/8	4.1/8	081617
9/32	0.2812	2.15/16	4.1/4	081618
19/64	0.2969	3.1/16	4.3/8	081619
5/16	0.3125	3.3/16	4.1/2	081620
21/64	0.3281	3.5/16	4.5/8	081621
11/32	0.3438	3.7/16	4.3/4	081622
23/64	0.3594	3.1/2	4.7/8	081623
3/8	0.3750	3.5/8	5"	081624
25/64	0.3906	3.3/4	5.1/8	081625
13/32	0.4062	3.7/8	5.1/4	081626
27/64	0.4219	3.15/16	5.3/8	081627
7/16	0.4375	4.1/16	5.1/2	081628
29/64	0.4531	4.3/16	5.5/8	081629
15/32	0.4688	4.5/16	5.3/4	081630
31/64	0.4844	4.3/8	5.7/8	081631
1/2	0.5000	4.1/2	6"	081632

QC21P



- Jobber Drill
- Wide-land parabolic flute

- Foret court
- Goujure Parabolique

- Broca , serie corta
- Canal Parabólico



QC

HSS
Jobber
Drills

QC21P



■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 6.1 6.2 6.3 7.1 7.2 7.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	015804
52	0.0635	7/8	1.7/8	019452
51	0.0670	1"	2"	019451
50	0.0700	1"	2"	019450
49	0.0730	1"	2"	019449
48	0.0760	1"	2"	019448
5/64	0.0781	1"	2"	015805
47	0.0785	1"	2"	019447
46	0.0810	1.1/8	2.1/8	019446
45	0.0820	1.1/8	2.1/8	019445
44	0.0860	1.1/8	2.1/8	019444
43	0.0890	1.1/4	2.1/4	019443
42	0.0935	1.1/4	2.1/4	019442
3/32	0.0938	1.1/4	2.1/4	015806
41	0.0960	1.3/8	2.3/8	019441
40	0.0980	1.3/8	2.3/8	019440
39	0.0995	1.3/8	2.3/8	019439
38	0.1015	1.7/16	2.1/2	019438
37	0.1040	1.7/16	2.1/2	019437
36	0.1065	1.7/16	2.1/2	019436
7/64	0.1094	1.1/2	2.5/8	015807
35	0.1100	1.1/2	2.5/8	019435
34	0.1110	1.1/2	2.5/8	019434
33	0.1130	1.1/2	2.5/8	019433
32	0.1160	1.5/8	2.3/4	019432
31	0.1200	1.5/8	2.3/4	019431
1/8	0.1250	1.5/8	2.3/4	015808
30	0.1285	1.5/8	2.3/4	019430
29	0.1360	1.3/4	2.7/8	019429
28	0.1405	1.3/4	2.7/8	019428
9/64	0.1406	1.3/4	2.7/8	015809
27	0.1440	1.7/8	3"	019427
26	0.1470	1.7/8	3"	019426
25	0.1495	1.7/8	3"	019425
24	0.1520	2"	3.1/8	019424
23	0.1540	2"	3.1/8	019423
5/32	0.1562	2"	3.1/8	015810
22	0.1570	2"	3.1/8	019422
21	0.1590	2.1/8	3.1/4	019421
20	0.1610	2.1/8	3.1/4	019420

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
19	0.1660	2.1/8	3.1/4	019419
18	0.1695	2.1/8	3.1/4	019418
11/64	0.1719	2.1/8	3.1/4	015811
17	0.1730	2.3/16	3.3/8	019417
16	0.1770	2.3/16	3.3/8	019416
15	0.1800	2.3/16	3.3/8	019415
14	0.1820	2.3/16	3.3/8	019414
13	0.1850	2.5/16	3.1/2	019413
3/16	0.1875	2.5/16	3.1/2	015812
12	0.1890	2.5/16	3.1/2	019412
11	0.1910	2.5/16	3.1/2	019411
10	0.1935	2.7/16	3.5/8	019410
9	0.1960	2.7/16	3.5/8	019409
8	0.1990	2.7/16	3.5/8	019408
7	0.2010	2.7/16	3.5/8	019407
13/64	0.2031	2.7/16	3.5/8	015813
6	0.2040	2.1/2	3.3/4	019406
5	0.2055	2.1/2	3.3/4	019405
4	0.2090	2.1/2	3.3/4	019404
3	0.2130	2.1/2	3.3/4	019403
7/32	0.2188	2.1/2	3.3/4	015814
2	0.2210	2.5/8	3.7/8	019402
1	0.2280	2.5/8	3.7/8	019401
A	0.2340	2.5/8	3.7/8	019301
15/64	0.2344	2.5/8	3.7/8	015815
B	0.2380	2.3/4	4"	019302
C	0.2420	2.3/4	4"	019303
D	0.2460	2.3/4	4"	019304
E	0.2500	2.3/4	4"	019305
1/4	0.2500	2.3/4	4"	015816
F	0.2570	2.7/8	4.1/8	019306
G	0.2610	2.7/8	4.1/8	019307
17/64	0.2656	2.7/8	4.1/8	015817
H	0.2660	2.7/8	4.1/8	019308
I	0.2720	2.7/8	4.1/8	019309
J	0.2770	2.7/8	4.1/8	019310
K	0.2810	2.15/16	4.1/4	019311
9/32	0.2812	2.15/16	4.1/4	015818
L	0.2900	2.15/16	4.1/4	019312

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

QC21P - QC21GM

- Jobber Drill
- Wide-land parabolic flute

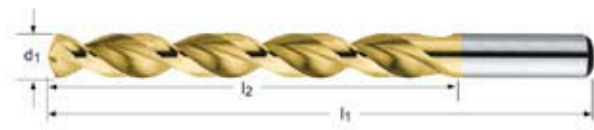
- Foret court
- Goujure Parabolique

- Broca , serie corta
- Canal Parabólico

HSS
Jobber
Drills

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
M	0.2950	3.1/16	4.3/8	019313
19/64	0.2969	3.1/16	4.3/8	015819
N	0.3020	3.1/16	4.3/8	019314
5/16	0.3125	3.3/16	4.1/2	015820
O	0.3160	3.3/16	4.1/2	019315
P	0.3230	3.5/16	4.5/8	019316
21/64	0.3281	3.5/16	4.5/8	015821
Q	0.3320	3.7/16	4.3/4	019317
R	0.3390	3.7/16	4.3/4	019318
11/32	0.3438	3.7/16	4.3/4	015822
S	0.3480	3.1/2	4.7/8	019319
T	0.3580	3.1/2	4.7/8	019320
23/64	0.3594	3.1/2	4.7/8	015823
U	0.3680	3.5/8	5"	019321
3/8	0.3750	3.5/8	5"	015824
V	0.3770	3.5/8	5"	019322
W	0.3860	3.3/4	5.1/8	019323
25/64	0.3906	3.3/4	5.1/8	015825
X	0.3970	3.3/4	5.1/8	019324
Y	0.4040	3.7/8	5.1/4	019325
13/32	0.4062	3.7/8	5.1/4	015826

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
Z	0.4130	3.7/8	5.1/4	019326
27/64	0.4219	3.15/16	5.3/8	015827
7/16	0.4375	4.1/16	5.1/2	015828
29/64	0.4531	4.3/16	5.5/8	015829
15/32	0.4688	4.5/16	5.3/4	015830
31/64	0.4844	4.3/8	5.7/8	015831
1/2	0.5000	4.1/2	6"	015832
33/64	0.5156	4.13/16	6.5/8	015833
17/32	0.5312	4.13/16	6.5/8	015834
35/64	0.5469	4.13/16	6.5/8	015835
9/16	0.5625	4.13/16	6.5/8	015836
37/64	0.5781	4.13/16	6.5/8	015837
19/32	0.5938	5.3/16	7.1/8	015838
39/64	0.6094	5.3/16	7.1/8	015839
5/8	0.6250	5.3/16	7.1/8	015840
41/64	0.6406	5.3/16	7.1/8	015841
21/32	0.6562	5.3/16	7.1/8	015842
43/64	0.6719	5.5/8	7.5/8	015843
11/16	0.6875	5.5/8	7.5/8	015844



QC

QC21GM



- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4
- 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	18	40	019815
2.00	0.0787	24	49	019820
2.50	0.0984	30	57	019825
3.00	0.1181	33	61	019830
3.50	0.1378	39	70	019835
4.00	0.1575	43	75	019840
4.50	0.1772	47	80	019845
5.00	0.1969	52	86	019850
5.20	0.2047	52	86	019852
5.50	0.2165	57	93	019855
5.60	0.2205	57	93	019856
6.00	0.2362	57	93	019860
6.50	0.2559	63	101	019865
6.80	0.2677	69	109	019868
7.00	0.2756	69	109	019870
7.50	0.2953	69	109	019875

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
8.00	0.3150	75	117	019880
8.20	0.3228	75	117	019882
8.50	0.3346	75	117	019885
8.60	0.3386	81	125	019886
9.00	0.3543	81	125	019890
9.50	0.3740	81	125	019895
10.00	0.3937	87	133	019900
10.50	0.4134	87	133	019905
11.00	0.4331	94	142	019910
11.50	0.4528	94	142	019915
12.00	0.4724	101	151	019920
12.50	0.4921	101	151	019925
13.00	0.5118	101	151	019930

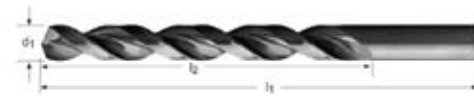
QC21M - QC21PM



- Jobber Drill
- Wide-land parabolic flute

- Foret court
- Goujure Parabolique

- Broca , serie corta
- Canal Parabólico



QC21M



QC

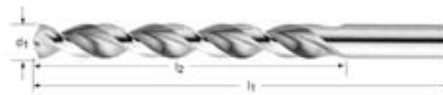
HSS
Jobber
Drills

■ 1.1 1.2 1.3 1.4 3.1 3.2 • 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	18	40	012115
2.00	0.0787	24	49	012120
2.50	0.0984	30	57	012125
3.00	0.1181	33	61	012130
3.50	0.1378	39	70	012135
4.00	0.1575	43	75	012140
4.50	0.1772	47	80	012145
5.00	0.1969	52	86	012150
5.20	0.2047	52	86	012152
5.50	0.2165	57	93	012155
5.60	0.2205	57	93	012156
6.00	0.2362	57	93	012160
6.50	0.2559	63	101	012165
6.80	0.2677	69	109	012168

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
7.00	0.2756	69	109	012170
7.50	0.2953	69	109	012175
8.00	0.3150	75	117	012180
8.20	0.3228	75	117	012182
8.50	0.3346	75	117	012185
8.60	0.3386	81	125	012186
9.00	0.3543	81	125	012190
9.50	0.3740	81	125	012195
10.00	0.3937	87	133	012900
10.50	0.4134	87	133	012905
11.00	0.4331	94	142	012910
11.50	0.4528	94	142	012915
12.00	0.4724	101	151	012920
12.50	0.4921	101	151	012925
13.00	0.5118	101	151	012930

QC21PM



QC

■ 1.1 1.2 1.3 1.4 3.1 3.2 • 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 6.1 6.2 6.3 7.1 7.2 7.4

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	18	40	013115
2.00	0.0787	24	49	013120
2.50	0.0984	30	57	013125
3.00	0.1181	33	61	013130
3.50	0.1378	39	70	013135
4.00	0.1575	43	75	013140
4.50	0.1772	47	80	013145
5.00	0.1969	52	86	013150
5.20	0.2047	52	86	013152
5.50	0.2165	57	93	013155
5.60	0.2205	57	93	013156
6.00	0.2362	57	93	013160
6.50	0.2559	63	101	013165
6.80	0.2677	69	109	013168
7.00	0.2756	69	109	013170
7.50	0.2953	69	109	013175
8.00	0.3150	75	117	013180
8.20	0.3228	75	117	013182
8.50	0.3346	75	117	013185
8.60	0.3386	81	125	013186

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
9.00	0.3543	81	125	013190
9.50	0.3740	81	125	013195
10.00	0.3937	87	133	014900
10.50	0.4134	87	133	014905
11.00	0.4331	94	142	014910
11.50	0.4528	94	142	014915
12.00	0.4724	101	151	014920
12.50	0.4921	101	151	014925
13.00	0.5118	101	151	014930
13.50	0.5315	108	160	014935
14.00	0.5512	108	160	014940
14.50	0.5709	114	169	014945
15.00	0.5906	114	169	014950
15.50	0.6102	120	178	014955
16.00	0.6299	120	178	014960
16.50	0.6496	125	184	014965
17.00	0.6693	125	184	014970
17.50	0.6890	130	191	014975

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Jobber Drill
- Type J
- Heavy-Duty

- Foret court

- Broca , serie corta



HSS
Jobber
Drills

R10CO



HSCo

Bronze

ANSI



4xD



135°

NAS
907

■	1.5	1.6	3.4	4.1	4.2	4.3	5.2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/64	0.0156	3/16	3/4	010301 ¹⁾
1/32	0.0312	1/2	1.3/8	010302 ¹⁾
3/64	0.0469	3/4	1.3/4	010303
1/16	0.0625	7/8	1.7/8	010304
5/64	0.0781	1"	2"	010305
3/32	0.0938	1.1/4	2.1/4	010306
7/64	0.1094	1.1/2	2.5/8	010307
1/8	0.1250	1.5/8	2.3/4	010308
9/64	0.1406	1.3/4	2.7/8	010309
5/32	0.1562	2"	3.1/8	010310
11/64	0.1719	2.1/8	3.1/4	010311
3/16	0.1875	2.5/16	3.1/2	010312
13/64	0.2031	2.7/16	3.5/8	010313
7/32	0.2188	2.1/2	3.3/4	010314
15/64	0.2344	2.5/8	3.7/8	010315
1/4	0.2500	2.3/4	4"	010316
17/64	0.2656	2.7/8	4.1/8	010317
9/32	0.2812	2.15/16	4.1/4	010318
19/64	0.2969	3.1/16	4.3/8	010319
5/16	0.3125	3.3/16	4.1/2	010320
21/64	0.3281	3.5/16	4.5/8	010321
11/32	0.3438	3.7/16	4.3/4	010322

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
23/64	0.3594	3.1/2	4.7/8	010323
3/8	0.3750	3.5/8	5"	010324
25/64	0.3906	3.3/4	5.1/8	010325
13/32	0.4062	3.7/8	5.1/4	010326
27/64	0.4219	3.15/16	5.3/8	010327
7/16	0.4375	4.1/16	5.1/2	010328
29/64	0.4531	4.3/16	5.5/8	010329
15/32	0.4688	4.5/16	5.3/4	010330
31/64	0.4844	4.3/8	5.7/8	010331
1/2	0.5000	4.1/2	6"	010332
33/64	0.5156	4.13/16	6.5/8	010333
17/32	0.5312	4.13/16	6.5/8	010334
35/64	0.5469	4.13/16	6.5/8	010335
9/16	0.5625	4.13/16	6.5/8	010336
37/64	0.5781	4.13/16	6.5/8	010337
19/32	0.5938	5.3/16	7.1/8	010338
39/64	0.6094	5.3/16	7.1/8	010339
5/8	0.6250	5.3/16	7.1/8	010340
41/64	0.6406	5.3/16	7.1/8	010341
21/32	0.6562	5.3/16	7.1/8	010342
43/64	0.6719	5.5/8	7.5/8	010343
11/16	0.6875	5.5/8	7.5/8	010344

¹⁾ Not a split point

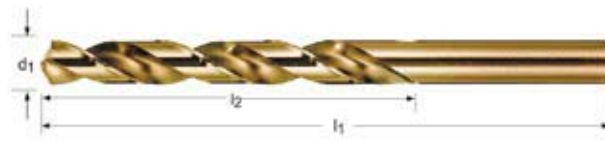
R18CO



- Jobber Drill
- Type J
- Heavy-Duty

- Foret court

- Broca , serie corta



HSS
Jobber
Drills

R18CO



- 1.5 1.6 3.4 4.1 4.2 4.3 5.2
- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 3.1 3.2 3.3 5.1 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
80	0.0135	1/8	3/4	018380 ¹⁾
79	0.0145	1/8	3/4	018379 ¹⁾
78	0.0160	3/16	7/8	018378 ¹⁾
77	0.0180	3/16	7/8	018377 ¹⁾
76	0.0200	3/16	7/8	018376 ¹⁾
75	0.0210	1/4	1"	018375 ¹⁾
74	0.0225	1/4	1"	018374 ¹⁾
73	0.0240	5/16	1.1/8	018373 ¹⁾
72	0.0250	5/16	1.1/8	018372 ¹⁾
71	0.0260	3/8	1.1/4	018371 ¹⁾
70	0.0280	3/8	1.1/4	018370 ¹⁾
69	0.0292	1/2	1.3/8	018369 ¹⁾
68	0.0310	1/2	1.3/8	018368 ¹⁾
67	0.0320	1/2	1.3/8	018367 ¹⁾
66	0.0330	1/2	1.3/8	018366 ¹⁾
65	0.0350	5/8	1.1/2	018365 ¹⁾
64	0.0360	5/8	1.1/2	018364 ¹⁾
63	0.0370	5/8	1.1/2	018363 ¹⁾
62	0.0380	5/8	1.1/2	018362 ¹⁾
61	0.0390	11/16	1.5/8	018361 ¹⁾
60	0.0400	11/16	1.5/8	018360
59	0.0410	11/16	1.5/8	018359
58	0.0420	11/16	1.5/8	018358
57	0.0430	3/4	1.3/4	018357
56	0.0465	3/4	1.3/4	018356
55	0.0520	7/8	1.7/8	018355
54	0.0550	7/8	1.7/8	018354
53	0.0595	7/8	1.7/8	018353
52	0.0635	7/8	1.7/8	018352
51	0.0670	1"	2"	018351
50	0.0700	1"	2"	018350
49	0.0730	1"	2"	018349
48	0.0760	1"	2"	018348
47	0.0785	1"	2"	018347
46	0.0810	1.1/8	2.1/8	018346
45	0.0820	1.1/8	2.1/8	018345
44	0.0860	1.1/8	2.1/8	018344
43	0.0890	1.1/4	2.1/4	018343
42	0.0935	1.1/4	2.1/4	018342
41	0.0960	1.3/8	2.3/8	018341

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.0980	1.3/8	2.3/8	018340
39	0.0995	1.3/8	2.3/8	018339
38	0.1015	1.7/16	2.1/2	018338
37	0.1040	1.7/16	2.1/2	018337
36	0.1065	1.7/16	2.1/2	018336
35	0.1100	1.1/2	2.5/8	018335
34	0.1110	1.1/2	2.5/8	018334
33	0.1130	1.1/2	2.5/8	018333
32	0.1160	1.5/8	2.3/4	018332
31	0.1200	1.5/8	2.3/4	018331
30	0.1285	1.5/8	2.3/4	018330
29	0.1360	1.3/4	2.7/8	018329
28	0.1405	1.3/4	2.7/8	018328
27	0.1440	1.7/8	3"	018327
26	0.1470	1.7/8	3"	018326
25	0.1495	1.7/8	3"	018325
24	0.1520	2"	3.1/8	018324
23	0.1540	2"	3.1/8	018323
22	0.1570	2"	3.1/8	018322
21	0.1590	2.1/8	3.1/4	018321
20	0.1610	2.1/8	3.1/4	018320
19	0.1660	2.1/8	3.1/4	018319
18	0.1695	2.1/8	3.1/4	018318
17	0.1730	2.3/16	3.3/8	018317
16	0.1770	2.3/16	3.3/8	018316
15	0.1800	2.3/16	3.3/8	018315
14	0.1820	2.3/16	3.3/8	018314
13	0.1850	2.5/16	3.1/2	018313
12	0.1890	2.5/16	3.1/2	018312
11	0.1910	2.5/16	3.1/2	018311
10	0.1935	2.7/16	3.5/8	018310
9	0.1960	2.7/16	3.5/8	018309
8	0.1990	2.7/16	3.5/8	018308
7	0.2010	2.7/16	3.5/8	018307
6	0.2040	2.1/2	3.3/4	018306
5	0.2055	2.1/2	3.3/4	018305
4	0.2090	2.1/2	3.3/4	018304
3	0.2130	2.1/2	3.3/4	018303
2	0.2210	2.5/8	3.7/8	018302
1	0.2280	2.5/8	3.7/8	018301

¹⁾ Not a split point

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

R15CO

- Jobber Drill
- Type J
- Heavy-Duty

- Foret court

- Broca , serie corta



R15CO



- 1.5 1.6 3.4 4.1 4.2 4.3 5.2
- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 3.1 3.2 3.3 5.1 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
- 7.4 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2.5/8	3.7/8	015301
B	0.2380	2.3/4	4"	015302
C	0.2420	2.3/4	4"	015303
D	0.2460	2.3/4	4"	015304
E	0.2500	2.3/4	4"	015305
F	0.2570	2.7/8	4.1/8	015306
G	0.2610	2.7/8	4.1/8	015307
H	0.2660	2.7/8	4.1/8	015308
I	0.2720	2.7/8	4.1/8	015309
J	0.2770	2.7/8	4.1/8	015310
K	0.2810	2.15/16	4.1/4	015311
L	0.2900	2.15/16	4.1/4	015312
M	0.2950	3.1/16	4.3/8	015313
N	0.3020	3.1/16	4.3/8	015314

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	3.3/16	4.1/2	015315
P	0.3230	3.5/16	4.5/8	015316
Q	0.3320	3.7/16	4.3/4	015317
R	0.3390	3.7/16	4.3/4	015318
S	0.3480	3.1/2	4.7/8	015319
T	0.3580	3.1/2	4.7/8	015320
U	0.3680	3.5/8	5"	015321
V	0.3770	3.5/8	5"	015322
W	0.3860	3.3/4	5.1/8	015323
X	0.3970	3.3/4	5.1/8	015324
Y	0.4040	3.7/8	5.1/4	015325
Z	0.4130	3.7/8	5.1/4	015326

- Broca , serie corta

[illegible]

d₁ Ø mm	d₁ decimal Inch	l₂ mm	l₁ mm	EDP # or e-Code
3.20	0.1260	36	65	016432
3.25	0.1280	36	65	016371
3.30	0.1299	36	65	016433
3.40	0.1339	39	70	016434
3.50	0.1378	39	70	016435
3.60	0.1417	39	70	016436
3.70	0.1457	39	70	016437
3.75	0.1476	39	70	016372
3.80	0.1496	43	75	016438
4.00	0.1575	43	75	016440
4.10	0.1614	43	75	016441
4.20	0.1654	43	75	016442
4.25	0.1673	43	75	016373
4.30	0.1693	47	80	016443
4.40	0.1732	47	80	016444
4.50	0.1772	47	80	016445
4.70	0.1850	47	80	016447
4.80	0.1890	52	86	016448
5.00	0.1969	52	86	016450
5.10	0.2008	52	86	016451
5.20	0.2047	52	86	016452
5.25	0.2067	52	86	016375
5.30	0.2087	52	86	016453
5.50	0.2165	57	93	016455
5.60	0.2205	57	93	016456
5.70	0.2244	57	93	016457
5.90	0.2323	57	93	016459
6.00	0.2362	57	93	016460
6.10	0.2402	63	101	016461
6.20	0.2441	63	101	016462
6.30	0.2480	63	101	016463
6.40	0.2520	63	101	016464
6.50	0.2559	63	101	016465
6.60	0.2598	63	101	016466

81

- Jobber Drill
- Heavy-Duty

- Foret court

- Broca , serie corta

HSS
Jobber
Drills

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
6.70	0.2638	63	101	016467
6.80	0.2677	69	109	016468
6.90	0.2717	69	109	016469
7.00	0.2756	69	109	016470
7.10	0.2795	69	109	016471
7.20	0.2835	69	109	016472
7.25	0.2854	69	109	016379
7.30	0.2874	69	109	016473
7.50	0.2953	69	109	016475
7.80	0.3071	75	117	016478
7.90	0.3110	75	117	016479
8.00	0.3150	75	117	016480
8.20	0.3228	75	117	016482
8.40	0.3307	75	117	016484
8.50	0.3346	75	117	016485
8.80	0.3465	81	125	016488
8.90	0.3504	81	125	016489
9.00	0.3543	81	125	016490
9.10	0.3583	81	125	016491

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
9.20	0.3622	81	125	016492
9.30	0.3661	81	125	016493
9.40	0.3701	81	125	016494
9.50	0.3740	81	125	016495
9.60	0.3780	87	133	016496
9.70	0.3819	87	133	016497
9.80	0.3858	87	133	016498
10.00	0.3937	87	133	016300
10.20	0.4016	87	133	016302
10.50	0.4134	87	133	016305
10.80	0.4252	94	142	016308
11.00	0.4331	94	142	016310
11.20	0.4409	94	142	016312
11.50	0.4528	94	142	016315
11.80	0.4646	94	142	016318
12.00	0.4724	101	151	016320
12.20	0.4803	101	151	016322
12.50	0.4921	101	151	016325
13.00	0.5118	101	151	016330

-
- Technical drawing of a drill bit. The drawing shows the bit's profile with a double-flute design. Dimensions are indicated: d_1 is the diameter at the cutting edge, l_2 is the length of the cutting edge, and l_1 is the total length of the bit.

**HSS
Jobber
Drills**

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
9/32	0.2812	1.1/2	4.1/4	058718
19/64	0.2969	1.9/16	4.3/8	058719
5/16	0.3125	1.5/8	4.1/2	058720
21/64	0.3281	1.11/16	4.5/8	058721
11/32	0.3438	1.11/16	4.3/4	058722
23/64	0.3594	1.3/4	4.7/8	058723
3/8	0.3750	1.13/16	5"	058724
25/64	0.3906	1.7/8	5.1/8	058725
13/32	0.4062	1.15/16	5.1/4	058726
27/64	0.4219	2"	5.3/8	058727
7/16	0.4375	2.1/16	5.1/2	058728
29/64	0.4531	2.1/8	5.5/8	058729
15/32	0.4688	2.1/8	5.3/4	058730
31/64	0.4844	2.3/16	5.7/8	058731
1/2	0.5000	2.1/4	6"	058732

d₁ Ø	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
25	0.1495	1"	3"	058825
24	0.1520	1"	3.1/8	058824
22	0.1570	1.1/16	3.1/8	058822
21	0.1590	1.1/16	3.1/4	058821
20	0.1610	1.1/16	3.1/4	058820
16	0.1770	1.1/8	3.3/8	058816
13	0.1850	1.1/8	3.1/2	058813
12	0.1890	1.1/8	3.1/2	058812
11	0.1910	1.3/16	3.1/2	058811
10	0.1935	1.3/16	3.5/8	058810
9	0.1960	1.3/16	3.5/8	058809
8	0.1990	1.3/16	3.5/8	058808
7	0.2010	1.3/16	3.5/8	058807
6	0.2040	1.1/4	3.3/4	058806
5	0.2055	1.1/4	3.3/4	058805
3	0.2130	1.1/4	3.3/4	058803

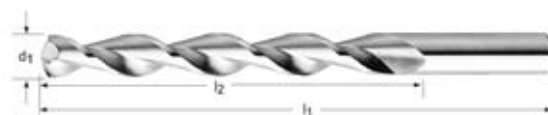
83

- Jobber Drill
- Parabolic flute

- Foret court

- Broca , serie corta

**HSS
Jobber
Drills**



EZ-Torque

EZ10P



HSS



ANSI



4xD



- 1.1 1.2 1.3 1.4 3.1 3.2

- 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

d₁ Ø Inch	d₁ dec. Inch	I₂ Inch	I₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	014604
5/64	0.0781	1"	2"	014605
3/32	0.0938	1.1/4	2.1/4	014606
7/64	0.1094	1.1/2	2.5/8	014607
1/8	0.1250	1.5/8	2.3/4	014608
9/64	0.1406	1.3/4	2.7/8	014609
5/32	0.1562	2"	3.1/8	014610
11/64	0.1719	2.1/8	3.1/4	014611
3/16	0.1875	2.5/16	3.1/2	014612
13/64	0.2031	2.7/16	3.5/8	014613
7/32	0.2188	2.1/2	3.3/4	014614
15/64	0.2344	2.5/8	3.7/8	014615
1/4	0.2500	2.3/4	4"	014616
17/64	0.2656	2.7/8	4.1/8	014617
9/32	0.2812	2.15/16	4.1/4	014618
19/64	0.2969	3.1/16	4.3/8	014619

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
5/16	0.3125	3.3/16	4.1/2	014620
21/64	0.3281	3.5/16	4.5/8	014621
11/32	0.3438	3.7/16	4.3/4	014622
23/64	0.3594	3.1/2	4.7/8	014623
3/8	0.3750	3.5/8	5"	014624
25/64	0.3906	3.3/4	5.1/8	014625
13/32	0.4062	3.7/8	5.1/4	014626
27/64	0.4219	3.15/16	5.3/8	014627
7/16	0.4375	4.1/16	5.1/2	014628
29/64	0.4531	4.3/16	5.5/8	014629
15/32	0.4688	4.5/16	5.3/4	014630
31/64	0.4844	4.3/8	5.7/8	014631
1/2	0.5000	4.1/2	6"	014632

EZ18P

d₁ Ø	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
52	0.0635	7/8	1.7/8	014752
51	0.0670	1"	2"	014751
50	0.0700	1"	2"	014750
49	0.0730	1"	2"	014749
48	0.0760	1"	2"	014748
47	0.0785	1"	2"	014747
46	0.0810	1.1/8	2.1/8	014746
39	0.0995	1.3/8	2.3/8	014739
36	0.1065	1.7/16	2.1/2	014736
34	0.1110	1.1/2	2.5/8	014734
33	0.1130	1.1/2	2.5/8	014733
32	0.1160	1.5/8	2.3/4	014732
31	0.1200	1.5/8	2.3/4	014731
30	0.1285	1.5/8	2.3/4	014730
29	0.1360	1.3/4	2.7/8	014729
26	0.1470	1.7/8	3"	014726
25	0.1495	1.7/8	3"	014725
24	0.1520	2"	3.1/8	014724

d₁ Ø	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
23	0.1540	2"	3.1/8	014723
21	0.1590	2.1/8	3.1/4	014721
19	0.1660	2.1/8	3.1/4	014719
18	0.1695	2.1/8	3.1/4	014718
17	0.1730	2.3/16	3.3/8	014717
16	0.1770	2.3/16	3.3/8	014716
15	0.1800	2.3/16	3.3/8	014715
14	0.1820	2.3/16	3.3/8	014714
12	0.1890	2.5/16	3.1/2	014712
10	0.1935	2.7/16	3.5/8	014710
9	0.1960	2.7/16	3.5/8	014709
7	0.2010	2.7/16	3.5/8	014707
5	0.2055	2.1/2	3.3/4	014705
3	0.2130	2.1/2	3.3/4	014703
2	0.2210	2.5/8	3.7/8	014702
1	0.2280	2.5/8	3.7/8	014701

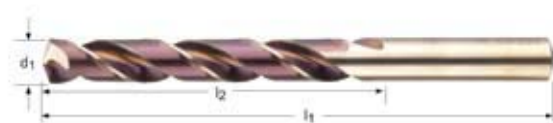
HX10 - HX15



• Jobber Drill

• Foret court

• Broca , serie corta



HX

HSS
Jobber
Drills

HX10



■	1.1	1.2	1.3	1.4	3.1	3.2			
●	1.5	2.1	2.2	2.3	3.3	3.4	4.1	4.2	5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	022004
5/64	0.0781	1"	2"	022005
3/32	0.0938	1.1/4	2.1/4	022006
7/64	0.1094	1.1/2	2.5/8	022007
1/8	0.1250	1.5/8	2.3/4	022008
9/64	0.1406	1.3/4	2.7/8	022009
5/32	0.1563	2"	3.1/8	022010
11/64	0.1719	2.1/8	3.1/4	022011
3/16	0.1875	2.5/16	3.1/2	022012
13/64	0.2031	2.7/16	3.5/8	022013
7/32	0.2188	2.1/2	3.3/4	022014
15/64	0.2344	2.5/8	3.7/8	022015
1/4	0.2500	2.3/4	4"	022016
17/64	0.2656	2.7/8	4.1/8	022017
9/32	0.2813	2.15/16	4.1/4	022018
19/64	0.2969	3.1/16	4.3/8	022019

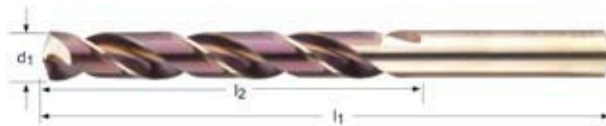
d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	3.3/16	4.1/2	022020
21/64	0.3281	3.5/16	4.5/8	022021
11/32	0.3438	3.7/16	4.3/4	022022
23/64	0.3594	3.1/2	4.7/8	022023
3/8	0.3750	3.5/8	5"	022024
25/64	0.3906	3.3/4	5.1/8	022025
13/32	0.4063	3.7/8	5.1/4	022026
27/64	0.4219	3.15/16	5.3/8	022027
7/16	0.4375	4.1/16	5.1/2	022028
29/64	0.4531	4.3/16	5.5/8	022029
15/32	0.4688	4.5/16	5.3/4	022030
31/64	0.4844	4.3/8	5.7/8	022031
1/2	0.5000	4.1/2	6"	022032

HX15

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2.5/8	3.7/8	022201
B	0.2380	2.3/4	4"	022202
C	0.2420	2.3/4	4"	022203
D	0.2460	2.3/4	4"	022204
E	0.2500	2.3/4	4"	022205
F	0.2570	2.7/8	4.1/8	022206
G	0.2610	2.7/8	4.1/8	022207
H	0.2660	2.7/8	4.1/8	022208
I	0.2720	2.7/8	4.1/8	022209
J	0.2770	2.7/8	4.1/8	022210
K	0.2810	2.15/16	4.1/4	022211
L	0.2900	2.15/16	4.1/4	022212
M	0.2950	3.1/16	4.3/8	022213
N	0.3020	3.1/16	4.3/8	022214

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	3.3/16	4.1/2	022215
P	0.3230	3.5/16	4.5/8	022216
Q	0.3320	3.7/16	4.3/4	022217
R	0.3390	3.7/16	4.3/4	022218
S	0.3480	3.1/2	4.7/8	022219
T	0.3580	3.1/2	4.7/8	022220
U	0.3680	3.5/8	5"	022221
V	0.3770	3.5/8	5"	022222
W	0.3860	3.3/4	5.1/8	022223
X	0.3970	3.3/4	5.1/8	022224
Y	0.4040	3.7/8	5.1/4	022225
Z	0.4130	3.7/8	5.1/4	022226

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION



HX18



■	1.1	1.2	1.3	1.4	3.1	3.2			
●	1.5	2.1	2.2	2.3	3.3	3.4	4.1	4.2	5.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
52	0.0635	7/8	1.7/8	022152
51	0.0670	1"	2"	022151
50	0.0700	1"	2"	022150
49	0.0730	1"	2"	022149
48	0.0760	1"	2"	022148
47	0.0785	1"	2"	022147
46	0.0810	1.1/8	2.1/8	022146
45	0.0820	1.1/8	2.1/8	022145
44	0.0860	1.1/8	2.1/8	022144
43	0.0890	1.1/4	2.1/4	022143
42	0.0935	1.1/4	2.1/4	022142
41	0.0960	1.3/8	2.3/8	022141
40	0.0980	1.3/8	2.3/8	022140
39	0.0995	1.3/8	2.3/8	022139
38	0.1015	1.7/16	2.1/2	022138
37	0.1040	1.7/16	2.1/2	022137
36	0.1065	1.7/16	2.1/2	022136
35	0.1100	1.1/2	2.5/8	022135
34	0.1110	1.1/2	2.5/8	022134
33	0.1130	1.1/2	2.5/8	022133
32	0.1160	1.5/8	2.3/4	022132
31	0.1200	1.5/8	2.3/4	022131
30	0.1285	1.5/8	2.3/4	022130
29	0.1360	1.3/4	2.7/8	022129
28	0.1405	1.3/4	2.7/8	022128
27	0.1440	1.7/8	3"	022127

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
26	0.1470	1.7/8	3"	022126
25	0.1495	1.7/8	3"	022125
24	0.1520	2"	3.1/8	022124
23	0.1540	2"	3.1/8	022123
22	0.1570	2"	3.1/8	022122
21	0.1590	2.1/8	3.1/4	022121
20	0.1610	2.1/8	3.1/4	022120
19	0.1660	2.1/8	3.1/4	022119
18	0.1695	2.1/8	3.1/4	022118
17	0.1730	2.3/16	3.3/8	022117
16	0.1770	2.3/16	3.3/8	022116
15	0.1800	2.3/16	3.3/8	022115
14	0.1820	2.3/16	3.3/8	022114
13	0.1850	2.5/16	3.1/2	022113
12	0.1890	2.5/16	3.1/2	022112
11	0.1910	2.5/16	3.1/2	022111
10	0.1935	2.7/16	3.5/8	022110
9	0.1960	2.7/16	3.5/8	022109
8	0.1990	2.7/16	3.5/8	022108
7	0.2010	2.7/16	3.5/8	022107
6	0.2040	2.1/2	3.3/4	022106
5	0.2055	2.1/2	3.3/4	022105
4	0.2090	2.1/2	3.3/4	022104
3	0.2130	2.1/2	3.3/4	022103
2	0.2210	2.5/8	3.7/8	022102
1	0.2280	2.5/8	3.7/8	022101

R10B



- Jobber Drill
- Type B

- Foret court

- Broca , serie corta



HSS
Jobber
Drills

R10B



- 1.5 1.6 3.4 4.1 4.2 4.3 5.2
- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 3.1 3.2 3.3 5.1 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
- 7.4 9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	010204
5/64	0.0781	1"	2"	010205
3/32	0.0938	1.1/4	2.1/4	010206
7/64	0.1094	1.1/2	2.5/8	010207
1/8	0.1250	1.5/8	2.3/4	010208
9/64	0.1406	1.3/4	2.7/8	010209
5/32	0.1562	2"	3.1/8	010210
11/64	0.1719	2.1/8	3.1/4	010211
3/16	0.1875	2.5/16	3.1/2	010212
13/64	0.2031	2.7/16	3.5/8	010213
7/32	0.2188	2.1/2	3.3/4	010214
15/64	0.2344	2.5/8	3.7/8	010215
1/4	0.2500	2.3/4	4"	010216
17/64	0.2656	2.7/8	4.1/8	010217
9/32	0.2812	2.15/16	4.1/4	010218
19/64	0.2969	3.1/16	4.3/8	010219

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	3.3/16	4.1/2	010220
21/64	0.3281	3.5/16	4.5/8	010221
11/32	0.3438	3.7/16	4.3/4	010222
23/64	0.3594	3.1/2	4.7/8	010223
3/8	0.3750	3.5/8	5"	010224
25/64	0.3906	3.3/4	5.1/8	010225
13/32	0.4062	3.7/8	5.1/4	010226
27/64	0.4219	3.15/16	5.3/8	010227
7/16	0.4375	4.1/16	5.1/2	010228
29/64	0.4531	4.3/16	5.5/8	010229
15/32	0.4688	4.5/16	5.3/4	010230
31/64	0.4844	4.3/8	5.7/8	010231
1/2	0.5000	4.1/2	6"	010232

- Jobber Drill
- Type B

- Foret court

- Broca , serie corta



HSS
Jobber
Drills

R18B



■ 1.5 1.6 3.4 4.1 4.2 4.3 5.2

• 1.1 1.2 1.3 1.4 2.1 2.2 2.3 3.1 3.2 3.3 5.1 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
52	0.0635	7/8	1.7/8	018252
51	0.0670	1"	2"	018251
50	0.0700	1"	2"	018250
49	0.0730	1"	2"	018249
48	0.0760	1"	2"	018248
47	0.0785	1"	2"	018247
46	0.0810	1.1/8	2.1/8	018246
45	0.0820	1.1/8	2.1/8	018245
44	0.0860	1.1/8	2.1/8	018244
43	0.0890	1.1/4	2.1/4	018243
42	0.0935	1.1/4	2.1/4	018242
41	0.0960	1.3/8	2.3/8	018241
40	0.0980	1.3/8	2.3/8	018240
39	0.0995	1.3/8	2.3/8	018239
38	0.1015	1.7/16	2.1/2	018238
37	0.1040	1.7/16	2.1/2	018237
36	0.1065	1.7/16	2.1/2	018236
35	0.1100	1.1/2	2.5/8	018235
34	0.1110	1.1/2	2.5/8	018234
33	0.1130	1.1/2	2.5/8	018233
32	0.1160	1.5/8	2.3/4	018232
31	0.1200	1.5/8	2.3/4	018231
30	0.1285	1.5/8	2.3/4	018230
29	0.1360	1.3/4	2.7/8	018229
28	0.1405	1.3/4	2.7/8	018228
27	0.1440	1.7/8	3"	018227

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
26	0.1470	1.7/8	3"	018226
25	0.1495	1.7/8	3"	018225
24	0.1520	2"	3.1/8	018224
23	0.1540	2"	3.1/8	018223
22	0.1570	2"	3.1/8	018222
21	0.1590	2.1/8	3.1/4	018221
20	0.1610	2.1/8	3.1/4	018220
19	0.1660	2.1/8	3.1/4	018219
18	0.1695	2.1/8	3.1/4	018218
17	0.1730	2.3/16	3.3/8	018217
16	0.1770	2.3/16	3.3/8	018216
15	0.1800	2.3/16	3.3/8	018215
14	0.1820	2.3/16	3.3/8	018214
13	0.1850	2.5/16	3.1/2	018213
12	0.1890	2.5/16	3.1/2	018212
11	0.1910	2.5/16	3.1/2	018211
10	0.1935	2.7/16	3.5/8	018210
9	0.1960	2.7/16	3.5/8	018209
8	0.1990	2.7/16	3.5/8	018208
7	0.2010	2.7/16	3.5/8	018207
6	0.2040	2.1/2	3.3/4	018206
5	0.2055	2.1/2	3.3/4	018205
4	0.2090	2.1/2	3.3/4	018204
3	0.2130	2.1/2	3.3/4	018203
2	0.2210	2.5/8	3.7/8	018202
1	0.2280	2.5/8	3.7/8	018201

R15B

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2.5/8	3.7/8	015201
B	0.2380	2.3/4	4"	015202
C	0.2420	2.3/4	4"	015203
D	0.2460	2.3/4	4"	015204
E	0.2500	2.3/4	4"	015205
F	0.2570	2.7/8	4.1/8	015206
G	0.2610	2.7/8	4.1/8	015207
H	0.2660	2.7/8	4.1/8	015208
I	0.2720	2.7/8	4.1/8	015209
J	0.2770	2.7/8	4.1/8	015210
K	0.2810	2.15/16	4.1/4	015211
L	0.2900	2.15/16	4.1/4	015212

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ inch	l ₁ Inch	EDP # or e-Code
M	0.2950	3.1/16	4.3/8	015213
N	0.3020	3.1/16	4.3/8	015214
O	0.3160	3.3/16	4.1/2	015215
P	0.3230	3.5/16	4.5/8	015216
Q	0.3320	3.7/16	4.3/4	015217
R	0.3390	3.7/16	4.3/4	015218
S	0.3480	3.1/2	4.7/8	015219
T	0.3580	3.1/2	4.7/8	015220
U	0.3680	3.5/8	5"	015221
V	0.3770	3.5/8	5"	015222
W	0.3860	3.3/4	5.1/8	015223
X	0.3970	3.3/4	5.1/8	015224
Y	0.4040	3.7/8	5.1/4	015225
Z	0.4130	3.7/8	5.1/4	015226

R10A



- Jobber Drill
- Type A

- Foret court

- Broca , serie corta

R10A



■ 1.5 1.6 3.4 4.1 4.2 4.3 5.2 • 1.1 1.2 1.3 1.4 2.1 2.2 2.3 3.1 3.2 3.3 5.1 5.3
6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	010104
5/64	0.0781	1"	2"	010105
3/32	0.0938	1.1/4	2.1/4	010106
7/64	0.1094	1.1/2	2.5/8	010107
1/8	0.1250	1.5/8	2.3/4	010108
9/64	0.1406	1.3/4	2.7/8	010109
5/32	0.1562	2.0	3.1/8	010110
11/64	0.1719	2.1/8	3.1/4	010111
3/16	0.1875	2.5/16	3.1/2	010112
13/64	0.2031	2.7/16	3.5/8	010113
7/32	0.2188	2.1/2	3.3/4	010114
15/64	0.2344	2.5/8	3.7/8	010115
1/4	0.2500	2.3/4	4"	010116
17/64	0.2656	2.7/8	4.1/8	010117
9/32	0.2812	2.15/16	4.1/4	010118
19/64	0.2969	3.1/16	4.3/8	010119

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	3.3/16	4.1/2	010120
21/64	0.3281	3.5/16	4.5/8	010121
11/32	0.3438	3.7/16	4.3/4	010122
23/64	0.3594	3.1/2	4.7/8	010123
3/8	0.3750	3.5/8	5"	010124
25/64	0.3906	3.3/4	5.1/8	010125
13/32	0.4062	3.7/8	5.1/4	010126
27/64	0.4219	3.15/16	5.3/8	010127
7/16	0.4375	4.1/16	5.1/2	010128
29/64	0.4531	4.3/16	5.5/8	010129
15/32	0.4688	4.5/16	5.3/4	010130
31/64	0.4844	4.3/8	5.7/8	010131
1/2	0.5000	4.1/2	6"	010132

R18A

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
52	0.0635	7/8	1.7/8	018152
51	0.0670	1"	2"	018151
50	0.0700	1"	2"	018150
49	0.0730	1"	2"	018149
48	0.0760	1"	2"	018148
47	0.0785	1"	2"	018147
46	0.0810	1.1/8	2.1/8	018146
45	0.0820	1.1/8	2.1/8	018145
44	0.0860	1.1/8	2.1/8	018144
43	0.0890	1.1/4	2.1/4	018143
42	0.0935	1.1/4	2.1/4	018142
41	0.0960	1.3/8	2.3/8	018141
40	0.0980	1.3/8	2.3/8	018140
39	0.0995	1.3/8	2.3/8	018139
38	0.1015	1.7/16	2.1/2	018138
37	0.1040	1.7/16	2.1/2	018137
36	0.1065	1.7/16	2.1/2	018136
35	0.1100	1.1/2	2.5/8	018135
34	0.1110	1.1/2	2.5/8	018134
33	0.1130	1.1/2	2.5/8	018133
32	0.1160	1.5/8	2.3/4	018132
31	0.1200	1.5/8	2.3/4	018131
30	0.1285	1.5/8	2.3/4	018130
29	0.1360	1.3/4	2.7/8	018129
28	0.1405	1.3/4	2.7/8	018128
27	0.1440	1.7/8	3"	018127

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
26	0.1470	1.7/8	3"	018126
25	0.1495	1.7/8	3"	018125
24	0.1520	2"	3.1/8	018124
23	0.1540	2"	3.1/8	018123
22	0.1570	2"	3.1/8	018122
21	0.1590	2.1/8	3.1/4	018121
20	0.1610	2.1/8	3.1/4	018120
19	0.1660	2.1/8	3.1/4	018119
18	0.1695	2.1/8	3.1/4	018118
17	0.1730	2.3/16	3.3/8	018117
16	0.1770	2.3/16	3.3/8	018116
15	0.1800	2.3/16	3.3/8	018115
14	0.1820	2.3/16	3.3/8	018114
13	0.1850	2.5/16	3.1/2	018113
12	0.1890	2.5/16	3.1/2	018112
11	0.1910	2.5/16	3.1/2	018111
10	0.1935	2.7/16	3.5/8	018110
9	0.1960	2.7/16	3.5/8	018109
8	0.1990	2.7/16	3.5/8	018108
7	0.2010	2.7/16	3.5/8	018107
6	0.2040	2.1/2	3.3/4	018106
5	0.2055	2.1/2	3.3/4	018105
4	0.2090	2.1/2	3.3/4	018104
3	0.2130	2.1/2	3.3/4	018103
2	0.2210	2.5/8	3.7/8	018102
1	0.2280	2.5/8	3.7/8	018101

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Jobber Drill
- Type A

- Foret court

- Broca , serie corta

HSS
Jobber
Drills

R15A



■	1.5	1.6	3.4	4.1	4.2	4.3	5.2												
●	1.1	1.2	1.3	1.4	2.1	2.2	2.3	3.1	3.2	3.3	5.1	5.3	6.1	6.2	6.3	6.4	7.1	7.2	7.3
	7.4	9.1																	

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2.5/8	3.7/8	015101
B	0.2380	2.3/4	4"	015102
C	0.2420	2.3/4	4"	015103
D	0.2460	2.3/4	4"	015104
E	0.2500	2.3/4	4"	015105
F	0.2570	2.7/8	4.1/8	015106
G	0.2610	2.7/8	4.1/8	015107
H	0.2660	2.7/8	4.1/8	015108
I	0.2720	2.7/8	4.1/8	015109
J	0.2770	2.7/8	4.1/8	015110
K	0.2810	2.15/16	4.1/4	015111
L	0.2900	2.15/16	4.1/4	015112
M	0.2950	3.1/16	4.3/8	015113
N	0.3020	3.1/16	4.3/8	015114

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	3.3/16	4.1/2	015115
P	0.3230	3.5/16	4.5/8	015116
Q	0.3320	3.7/16	4.3/4	015117
R	0.3390	3.7/16	4.3/4	015118
S	0.3480	3.1/2	4.7/8	015119
T	0.3580	3.1/2	4.7/8	015120
U	0.3680	3.5/8	5"	015121
V	0.3770	3.5/8	5"	015122
W	0.3860	3.3/4	5.1/8	015123
X	0.3970	3.3/4	5.1/8	015124
Y	0.4040	3.7/8	5.1/4	015125
Z	0.4130	3.7/8	5.1/4	015126

- Broca, serie corta



**HSS
Jobber
Drills**

HSS

ST

ANSI



4xD



118°

- 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

d₁ Ø Inch	d₁ dec. Inch	I₂ Inch	I₁ Inch	EDP # or e-Code
23/64	0.3594	3.1/2	4.7/8	010023
3/8	0.3750	3.5/8	5"	010024
25/64	0.3906	3.3/4	5.1/8	010025
13/32	0.4062	3.7/8	5.1/4	010026
27/64	0.4219	3.15/16	5.3/8	010027
7/16	0.4375	4.1/16	5.1/2	010028
29/64	0.4531	4.3/16	5.5/8	010029
15/32	0.4688	4.5/16	5.3/4	010030
31/64	0.4844	4.3/8	5.7/8	010031
1/2	0.5000	4.1/2	6"	010032
33/64	0.5156	4.13/16	6.5/8	010033
17/32	0.5312	4.13/16	6.5/8	010034
35/64	0.5469	4.13/16	6.5/8	010035
9/16	0.5625	4.13/16	6.5/8	010036
37/64	0.5781	4.13/16	6.5/8	010037
19/32	0.5938	5.3/16	7.1/8	010038
39/64	0.6094	5.3/16	7.1/8	010039
5/8	0.6250	5.3/16	7.1/8	010040
41/64	0.6406	5.3/16	7.1/8	010041
21/32	0.6562	5.3/16	7.1/8	010042
43/64	0.6719	5.5/8	7.5/8	010043
11/16	0.6875	5.5/8	7.5/8	010044

91

**HSS
Jobber
Drills**



R18

**HSS**

ST

ANSI



4xD



118°

- 1.1 1.2 1.3 1.4 3.1 3.2

1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

d₁ Ø	d₁ dec. Inch	I₂ Inch	I₁ Inch	EDP # or e-Code
80	0.0135	1/8	3/4	018080
79	0.0145	1/8	3/4	018079
78	0.0160	3/16	7/8	018078
77	0.0180	3/16	7/8	018077
76	0.0200	3/16	7/8	018076
75	0.0210	1/4	1"	018075
74	0.0225	1/4	1"	018074
73	0.0240	5/16	1.1/8	018073
72	0.0250	5/16	1.1/8	018072
71	0.0260	3/8	1.1/4	018071
70	0.0280	3/8	1.1/4	018070
69	0.0292	1/2	1.3/8	018069
68	0.0310	1/2	1.3/8	018068
67	0.0320	1/2	1.3/8	018067
66	0.0330	1/2	1.3/8	018066
65	0.0350	5/8	1.1/2	018065
64	0.0360	5/8	1.1/2	018064
63	0.0370	5/8	1.1/2	018063
62	0.0380	5/8	1.1/2	018062
61	0.0390	11/16	1.5/8	018061
60	0.0400	11/16	1.5/8	018060
59	0.0410	11/16	1.5/8	018059
58	0.0420	11/16	1.5/8	018058
57	0.0430	3/4	1.3/4	018057
56	0.0465	3/4	1.3/4	018056
55	0.0520	7/8	1.7/8	018055
54	0.0550	7/8	1.7/8	018054
53	0.0595	7/8	1.7/8	018053
52	0.0635	7/8	1.7/8	018052
51	0.0670	1"	2"	018051
50	0.0700	1"	2"	018050
49	0.0730	1"	2"	018049
48	0.0760	1"	2"	018048
47	0.0785	1"	2"	018047
46	0.0810	1.1/8	2.1/8	018046
45	0.0820	1.1/8	2.1/8	018045
44	0.0860	1.1/8	2.1/8	018044
43	0.0890	1.1/4	2.1/4	018043
42	0.0935	1.1/4	2.1/4	018042
41	0.0960	1.3/8	2.3/8	018041

d₁ Ø	d₁ dec. Inch	I₂ Inch	I₁ Inch	EDP # or e-Code
40	0.0980	1.3/8	2.3/8	018040
39	0.0995	1.3/8	2.3/8	018039
38	0.1015	1.7/16	2.1/2	018038
37	0.1040	1.7/16	2.1/2	018037
36	0.1065	1.7/16	2.1/2	018036
35	0.1100	1.1/2	2.5/8	018035
34	0.1110	1.1/2	2.5/8	018034
33	0.1130	1.1/2	2.5/8	018033
32	0.1160	1.5/8	2.3/4	018032
31	0.1200	1.5/8	2.3/4	018031
30	0.1285	1.5/8	2.3/4	018030
29	0.1360	1.3/4	2.7/8	018029
28	0.1405	1.3/4	2.7/8	018028
27	0.1440	1.7/8	3"	018027
26	0.1470	1.7/8	3"	018026
25	0.1495	1.7/8	3"	018025
24	0.1520	2"	3.1/8	018024
23	0.1540	2"	3.1/8	018023
22	0.1570	2"	3.1/8	018022
21	0.1590	2.1/8	3.1/4	018021
20	0.1610	2.1/8	3.1/4	018020
19	0.1660	2.1/8	3.1/4	018019
18	0.1695	2.1/8	3.1/4	018018
17	0.1730	2.3/16	3.3/8	018017
16	0.1770	2.3/16	3.3/8	018016
15	0.1800	2.3/16	3.3/8	018015
14	0.1820	2.3/16	3.3/8	018014
13	0.1850	2.5/16	3.1/2	018013
12	0.1890	2.5/16	3.1/2	018012
11	0.1910	2.5/16	3.1/2	018011
10	0.1935	2.7/16	3.5/8	018010
9	0.1960	2.7/16	3.5/8	018009
8	0.1990	2.7/16	3.5/8	018008
7	0.2010	2.7/16	3.5/8	018007
6	0.2040	2.1/2	3.3/4	018006
5	0.2055	2.1/2	3.3/4	018005
4	0.2090	2.1/2	3.3/4	018004
3	0.2130	2.1/2	3.3/4	018003
2	0.2210	2.5/8	3.7/8	018002
1	0.2280	2.5/8	3.7/8	018001

R15



• Jobber Drill

• Foret court

• Broca , serie corta



HSS
Jobber
Drills

R15



■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2.5/8	3.7/8	015001
B	0.2380	2.3/4	4"	015002
C	0.2420	2.3/4	4"	015003
D	0.2460	2.3/4	4"	015004
E	0.2500	2.3/4	4"	015005
F	0.2570	2.7/8	4.1/8	015006
G	0.2610	2.7/8	4.1/8	015007
H	0.2660	2.7/8	4.1/8	015008
I	0.2720	2.7/8	4.1/8	015009
J	0.2770	2.7/8	4.1/8	015010
K	0.2810	2.15/16	4.1/4	015011
L	0.2900	2.15/16	4.1/4	015012
M	0.2950	3.1/16	4.3/8	015013
N	0.3020	3.1/16	4.3/8	015014

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	3.3/16	4.1/2	015015
P	0.3230	3.5/16	4.5/8	015016
Q	0.3320	3.7/16	4.3/4	015017
R	0.3390	3.7/16	4.3/4	015018
S	0.3480	3.1/2	4.7/8	015019
T	0.3580	3.1/2	4.7/8	015020
U	0.3680	3.5/8	5"	015021
V	0.3770	3.5/8	5"	015022
W	0.3860	3.3/4	5.1/8	015023
X	0.3970	3.3/4	5.1/8	015024
Y	0.4040	3.7/8	5.1/4	015025
Z	0.4130	3.7/8	5.1/4	015026

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION


HSS
Jobber
Drills

2AB



HSS

ST

DIN
338


4xD



N



■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

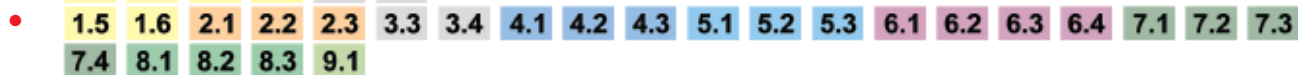
d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.00	0.0394	12.0	34	029010
1.10	0.0433	14.0	36	029011
1.15	0.0453	14.0	36	029256
1.20	0.0472	16.0	38	029012
1.25	0.0492	16.0	38	029257
1.30	0.0512	16.0	38	029013
1.35	0.0531	18.0	40	029258
1.40	0.0551	18.0	40	029014
1.45	0.0571	18.0	40	029259
1.50	0.0591	18.0	40	029015
1.55	0.0610	20.0	43	029260
1.60	0.0630	20.0	43	029016
1.70	0.0669	20.0	43	029017
1.75	0.0689	22.0	46	029262
1.80	0.0709	22.0	46	029018
1.90	0.0748	22.0	46	029019
1.95	0.0768	24.0	49	029264
2.00	0.0787	24.0	49	029020
2.10	0.0827	24.0	49	029021
2.20	0.0866	27.0	53	029022
2.30	0.0906	27.0	53	029023
2.35	0.0925	27.0	53	029268
2.40	0.0945	30.0	57	029024
2.50	0.0984	30.0	57	029025
2.60	0.1024	30.0	57	029026
2.70	0.1063	33.0	61	029027
2.90	0.1142	33.0	61	029029
3.00	0.1181	33.0	61	029030
3.10	0.1220	36.0	65	029031
3.20	0.1260	36.0	65	029032
3.25	0.1280	36.0	65	029271
3.30	0.1299	36.0	65	029033
3.40	0.1339	39.0	70	029034
3.50	0.1378	39.0	70	029035
3.60	0.1417	39.0	70	029036
3.70	0.1457	39.0	70	029037
4.00	0.1575	43.0	75	029040
4.10	0.1614	43.0	75	029041
4.20	0.1654	43.0	75	029042
4.30	0.1693	47.0	80	029043

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
4.40	0.1732	47.0	80	029044
4.50	0.1772	47.0	80	029045
4.60	0.1811	47.0	80	029046
4.80	0.1890	52.0	86	029048
5.00	0.1969	52.0	86	029050
5.10	0.2008	52.0	86	029051
5.20	0.2047	52.0	86	029052
5.30	0.2087	52.0	86	029053
5.40	0.2126	57.0	93	029054
5.50	0.2165	57.0	93	029055
5.60	0.2205	57.0	93	029056
5.70	0.2244	57.0	93	029057
5.75	0.2264	57.0	93	029276
5.80	0.2283	57.0	93	029058
6.00	0.2362	57.0	93	029060
6.10	0.2402	63.0	101	029061
6.20	0.2441	63.0	101	029062
6.30	0.2480	63.0	101	029063
6.40	0.2520	63.0	101	029064
6.50	0.2559	63.0	101	029065
6.60	0.2598	63.0	101	029066
6.70	0.2638	63.0	101	029067
6.75	0.2657	69.0	109	029278
6.80	0.2677	69.0	109	029068
7.00	0.2756	69.0	109	029070
7.20	0.2835	69.0	109	029072
7.25	0.2854	69.0	109	029279
7.30	0.2874	69.0	109	029073
7.40	0.2913	69.0	109	029074
7.50	0.2953	69.0	109	029075
7.60	0.2992	75.0	117	029076
7.80	0.3071	75.0	117	029078
7.90	0.3110	75.0	117	029079
8.00	0.3150	75.0	117	029080
8.10	0.3189	75.0	117	029081
8.20	0.3228	75.0	117	029082
8.25	0.3248	75.0	117	029282
8.40	0.3307	75.0	117	029084
8.50	0.3346	75.0	117	029085
8.60	0.3386	81.0	125	029086

d₁ Ø mm	d₁ decimal Inch	l₂ mm	l₁ mm	EDP # or e-Code
11.00	0.4331	94.0	142	029110
11.20	0.4409	94.0	142	029112
11.30	0.4449	94.0	142	029113
11.40	0.4488	94.0	142	029114
11.50	0.4528	94.0	142	029115
11.70	0.4606	94.0	142	029117
11.80	0.4646	94.0	142	029118
12.00	0.4724	101.0	151	029120
12.10	0.4764	101.0	151	029121
12.20	0.4803	101.0	151	029122
12.50	0.4921	101.0	151	029125
12.70	0.5000	101.0	151	029127
12.80	0.5039	101.0	151	029128
12.90	0.5079	101.0	151	029129
13.00	0.5118	101.0	151	029130
13.50	0.5315	108.0	160	016135
14.00	0.5512	108.0	160	016140
14.50	0.5709	114.0	169	016145
15.00	0.5906	114.0	169	016150

HSS Jobber Drills

- Broca , serie corta



d₁ Ø mm	d₁ decimal Inch	l₂ mm	l₁ mm	EDP # or e-Code
0.25	0.0098	3.0	19	016225
0.26	0.0102	3.0	19	016226
0.27	0.0106	3.0	19	016227
0.28	0.0110	3.0	19	016228
0.29	0.0114	3.0	19	016229
0.30	0.0118	3.0	19	016003
0.32	0.0126	4.0	19	016232
0.44	0.0173	5.0	20	016244

95

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
0.45	0.0177	5.0	20	016245
0.46	0.0181	5.0	20	016246
0.48	0.0189	5.0	20	016248
0.50	0.0197	6.0	22	016005
0.55	0.0217	7.0	24	016250
0.60	0.0236	7.0	24	016006
0.65	0.0256	8.0	26	016251
0.70	0.0276	9.0	28	016007
0.75	0.0295	9.0	28	016252
0.80	0.0315	10.0	30	016008
0.85	0.0335	10.0	30	016253
0.90	0.0354	11.0	32	016009
0.95	0.0374	11.0	32	016254
1.00	0.0394	12.0	34	016010
1.10	0.0433	14.0	36	016011
1.15	0.0453	14.0	36	016256
1.20	0.0472	16.0	38	016012
1.25	0.0492	16.0	38	016257
1.30	0.0512	16.0	38	016013
1.35	0.0531	18.0	40	016258
1.40	0.0551	18.0	40	016014
1.45	0.0571	18.0	40	016259
1.50	0.0591	18.0	40	016015
1.55	0.0610	20.0	43	016260
1.60	0.0630	20.0	43	016016
1.65	0.0650	20.0	43	016261
1.70	0.0669	20.0	43	016017
1.75	0.0689	22.0	46	016262
1.80	0.0709	22.0	46	016018
1.90	0.0748	22.0	46	016019
1.95	0.0768	24.0	49	016264
2.00	0.0787	24.0	49	016020
2.10	0.0827	24.0	49	016021
2.15	0.0846	27.0	53	016266
2.20	0.0866	27.0	53	016022
2.25	0.0886	27.0	53	016267
2.30	0.0906	27.0	53	016023
2.35	0.0925	27.0	53	016268
2.40	0.0945	30.0	57	016024
2.50	0.0984	30.0	57	016025
2.60	0.1024	30.0	57	016026
2.70	0.1063	33.0	61	016027
2.75	0.1083	33.0	61	016270
2.90	0.1142	33.0	61	016029
3.00	0.1181	33.0	61	016030
3.10	0.1220	36.0	65	016031
3.20	0.1260	36.0	65	016032
3.25	0.1280	36.0	65	016271
3.30	0.1299	36.0	65	016033
3.40	0.1339	39.0	70	016034
3.50	0.1378	39.0	70	016035
3.60	0.1417	39.0	70	016036
3.70	0.1457	39.0	70	016037
4.00	0.1575	43.0	75	016040
4.10	0.1614	43.0	75	016041
4.20	0.1654	43.0	75	016042
4.30	0.1693	47.0	80	016043

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
4.40	0.1732	47.0	80	016044
4.50	0.1772	47.0	80	016045
4.60	0.1811	47.0	80	016046
4.80	0.1890	52.0	86	016048
5.00	0.1969	52.0	86	016050
5.10	0.2008	52.0	86	016051
5.20	0.2047	52.0	86	016052
5.30	0.2087	52.0	86	016053
5.40	0.2126	57.0	93	016054
5.50	0.2165	57.0	93	016055
5.60	0.2205	57.0	93	016056
5.70	0.2244	57.0	93	016057
5.75	0.2264	57.0	93	016276
5.80	0.2283	57.0	93	016058
6.00	0.2362	57.0	93	016060
6.10	0.2402	63.0	101	016061
6.20	0.2441	63.0	101	016062
6.30	0.2480	63.0	101	016063
6.40	0.2520	63.0	101	016064
6.50	0.2559	63.0	101	016065
6.60	0.2598	63.0	101	016066
6.70	0.2638	63.0	101	016067
6.75	0.2657	69.0	109	016278
6.80	0.2677	69.0	109	016068
7.00	0.2756	69.0	109	016070
7.20	0.2835	69.0	109	016072
7.25	0.2854	69.0	109	016279
7.30	0.2874	69.0	109	016073
7.40	0.2913	69.0	109	016074
7.50	0.2953	69.0	109	016075
7.60	0.2992	75.0	117	016076
7.80	0.3071	75.0	117	016078
7.85	0.3091	75.0	117	029281
7.90	0.3110	75.0	117	016079
8.00	0.3150	75.0	117	016080
8.10	0.3189	75.0	117	016081
8.20	0.3228	75.0	117	016082
8.25	0.3248	75.0	117	016282
8.40	0.3307	75.0	117	016084
8.50	0.3346	75.0	117	016085
8.60	0.3386	81.0	125	016086
8.70	0.3425	81.0	125	016087
8.75	0.3445	81.0	125	016283
8.80	0.3465	81.0	125	016088
8.90	0.3504	81.0	125	016089
9.00	0.3543	81.0	125	016090
9.30	0.3661	81.0	125	016093
9.40	0.3701	81.0	125	016094
9.50	0.3740	81.0	125	016095
9.60	0.3780	87.0	133	016096
9.70	0.3819	87.0	133	016097
9.80	0.3858	87.0	133	016098
9.90	0.3898	87.0	133	016099
10.00	0.3937	87.0	133	016100
10.20	0.4016	87.0	133	016102
10.30	0.4055	87.0	133	016103
10.50	0.4134	87.0	133	016105

d₁ Ø mm	d₁ decimal Inch	l₂ mm	l₁ mm	EDP # or e-Code
12.70	0.5000	101.0	151	016127
12.80	0.5039	101.0	151	016128
12.90	0.5079	101.0	151	016129
13.00	0.5118	101.0	151	016130
13.50	0.5315	108.0	160	034135
14.00	0.5512	108.0	160	034140
14.50	0.5709	114.0	169	034145
15.00	0.5906	114.0	169	034150
15.50	0.6102	120.0	178	016155
16.00	0.6299	120.0	178	016160
16.50	0.6496	125.0	184	016165
17.00	0.6693	125.0	184	016170
17.50	0.6890	130.0	191	016175

**HSS
Jobber
Drills**

R10P

- Jobber Drill

- Foret court

- Broca , serie corta



R10P



-
- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
- 7.4 8.1 8.2 8.3 9.1

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
23/64	0.3594	3.1/2	4.7/8	010623
3/8	0.3750	3.5/8	5"	010624
25/64	0.3906	3.3/4	5.1/8	010625
13/32	0.4062	3.7/8	5.1/4	010626
27/64	0.4219	3.15/16	5.3/8	010627
7/16	0.4375	4.1/16	5.1/2	010628
29/64	0.4531	4.3/16	5.5/8	010629
15/32	0.4688	4.5/16	5.3/4	010630
31/64	0.4844	4.3/8	5.7/8	010631
1/2	0.5000	4.1/2	6"	010632
33/64	0.5156	4.13/16	6.5/8	010633
17/32	0.5312	4.13/16	6.5/8	010634
35/64	0.5469	4.13/16	6.5/8	010635
9/16	0.5625	4.13/16	6.5/8	010636
37/64	0.5781	4.13/16	6.5/8	010637
19/32	0.5938	5.3/16	7.1/8	010638
39/64	0.6094	5.3/16	7.1/8	010639
5/8	0.6250	5.3/16	7.1/8	010640
41/64	0.6406	5.3/16	7.1/8	010641
21/32	0.6562	5.3/16	7.1/8	010642
43/64	0.6719	5.5/8	7.5/8	010643
11/16	0.6875	5.5/8	7.5/8	010644

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

- Jobber Drill

- Foret court

- Broca , serie corta

**HSS
Jobber
Drills**



R18P



- 1.1 1.2 1.3 1.4 3.1 3.2

1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

d₁ Ø	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
97	0.0059	1/16	3/4	018697
96	0.0063	1/16	3/4	018696
95	0.0067	1/16	3/4	018695
94	0.0071	1/16	3/4	018694
93	0.0075	1/16	3/4	018693
92	0.0079	1/16	3/4	018692
91	0.0083	5/64	3/4	018691
90	0.0087	5/64	3/4	018690
89	0.0091	5/64	3/4	018689
88	0.0095	5/64	3/4	018688
87	0.0100	5/64	3/4	018687
86	0.0105	3/32	3/4	018686
85	0.0110	3/32	3/4	018685
84	0.0115	3/32	3/4	018684
83	0.0120	3/32	3/4	018683
82	0.0125	3/32	3/4	018682
81	0.0130	3/32	3/4	018681
80	0.0135	1/8	3/4	018680
79	0.0145	1/8	3/4	018679
78	0.0160	3/16	7/8	018678
77	0.0180	3/16	7/8	018677
76	0.0200	3/16	7/8	018676
75	0.0210	1/4	1"	018675
74	0.0225	1/4	1"	018674
73	0.0240	5/16	1.1/8	018673
72	0.0250	5/16	1.1/8	018672
71	0.0260	3/8	1.1/4	018671
70	0.0280	3/8	1.1/4	018670
69	0.0292	1/2	1.3/8	018669
68	0.0310	1/2	1.3/8	018668
67	0.0320	1/2	1.3/8	018667
66	0.0330	1/2	1.3/8	018666
65	0.0350	5/8	1.1/2	018665
64	0.0360	5/8	1.1/2	018664

d₁ Ø	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
63	0.0370	5/8	1.1/2	018663
62	0.0380	5/8	1.1/2	018662
61	0.0390	11/16	1.5/8	018661
60	0.0400	11/16	1.5/8	018660
59	0.0410	11/16	1.5/8	018659
58	0.0420	11/16	1.5/8	018658
57	0.0430	3/4	1.3/4	018657
56	0.0465	3/4	1.3/4	018656
55	0.0520	7/8	1.7/8	018655
54	0.0550	7/8	1.7/8	018654
53	0.0595	7/8	1.7/8	018653
52	0.0635	7/8	1.7/8	018652
51	0.0670	1"	2"	018651
50	0.0700	1"	2"	018650
49	0.0730	1"	2"	018649
48	0.0760	1"	2"	018648
47	0.0785	1"	2"	018647
46	0.0810	1.1/8	2.1/8	018646
45	0.0820	1.1/8	2.1/8	018645
44	0.0860	1.1/8	2.1/8	018644
43	0.0890	1.1/4	2.1/4	018643
42	0.0935	1.1/4	2.1/4	018642
41	0.0960	1.3/8	2.3/8	018641
40	0.0980	1.3/8	2.3/8	018640
39	0.0995	1.3/8	2.3/8	018639
38	0.1015	1.7/16	2.1/2	018638
37	0.1040	1.7/16	2.1/2	018637
36	0.1065	1.7/16	2.1/2	018636
35	0.1100	1.1/2	2.5/8	018635
34	0.1110	1.1/2	2.5/8	018634
33	0.1130	1.1/2	2.5/8	018633
32	0.1160	1.5/8	2.3/4	018632
31	0.1200	1.5/8	2.3/4	018631
30	0.1285	1.5/8	2.3/4	018630

d₁ Ø	d₁ dec. Inch	I₂ Inch	I₁ Inch	EDP # or e-Code
13	0.1850	2.5/16	3.1/2	018613
12	0.1890	2.5/16	3.1/2	018612
11	0.1910	2.5/16	3.1/2	018611
10	0.1935	2.7/16	3.5/8	018610
9	0.1960	2.7/16	3.5/8	018609
8	0.1990	2.7/16	3.5/8	018608
7	0.2010	2.7/16	3.5/8	018607
6	0.2040	2.1/2	3.3/4	018606
5	0.2055	2.1/2	3.3/4	018605
4	0.2090	2.1/2	3.3/4	018604
3	0.2130	2.1/2	3.3/4	018603
2	0.2210	2.5/8	3.7/8	018602
1	0.2280	2.5/8	3.7/8	018601

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Jobber
Drills**

- Broca , serie corta



d₁ Ø	d₁ dec. Inch	I₂ Inch	I₁ Inch	EDP # or e-Code
O	0.3160	3.3/16	4.1/2	015615
P	0.3230	3.5/16	4.5/8	015616
Q	0.3320	3.7/16	4.3/4	015617
R	0.3390	3.7/16	4.3/4	015618
S	0.3480	3.1/2	4.7/8	015619
T	0.3580	3.1/2	4.7/8	015620
U	0.3680	3.5/8	5"	015621
V	0.3770	3.5/8	5"	015622
W	0.3860	3.3/4	5.1/8	015623
X	0.3970	3.3/4	5.1/8	015624
Y	0.4040	3.7/8	5.1/4	015625
Z	0.4130	3.7/8	5.1/4	015626

99

• Jobber Drill

• Foret court

• Broca , serie corta



HSS
Jobber
Drills

R10PM



■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
0.50	0.0197	5	22	031005
0.60	0.0236	8	29	031006
0.70	0.0276	11	32	031007
0.80	0.0315	13	35	031008
0.85	0.0335	16	38	031253
0.90	0.0354	16	38	031009
1.00	0.0394	17	41	031010
1.05	0.0413	17	41	031255
1.10	0.0433	19	44	031011
1.15	0.0453	19	44	031256
1.20	0.0472	22	48	031012
1.25	0.0492	22	48	031257
1.30	0.0512	22	48	031013
1.35	0.0531	22	48	031258
1.40	0.0551	22	48	031014
1.45	0.0571	22	48	031259
1.50	0.0591	22	48	031015
1.55	0.0610	22	48	031260
1.60	0.0630	22	48	031016
1.70	0.0669	25	51	031017
1.75	0.0689	25	51	031262
1.80	0.0709	25	51	031018
1.85	0.0728	25	51	031263
1.90	0.0748	25	51	031019
1.95	0.0768	25	51	031264
2.00	0.0787	25	51	031020
2.05	0.0807	29	54	031265
2.10	0.0827	29	54	031021
2.20	0.0866	32	57	031022
2.30	0.0906	32	57	031023
2.40	0.0945	35	60	031024
2.50	0.0984	35	60	031025
2.60	0.1024	37	64	031026
2.70	0.1063	37	64	031027
2.80	0.1102	38	67	031028
3.00	0.1181	41	70	031030
3.10	0.1220	41	70	031031
3.20	0.1260	41	70	031032
3.30	0.1299	44	73	031033
3.40	0.1339	44	73	031034

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
3.50	0.1378	44	73	031035
3.60	0.1417	48	76	031036
3.70	0.1457	48	76	031037
3.80	0.1496	48	76	031038
3.90	0.1535	51	79	031039
4.00	0.1575	54	83	031040
4.10	0.1614	54	83	031041
4.20	0.1654	54	83	031042
4.30	0.1693	54	83	031043
4.40	0.1732	56	86	031044
4.50	0.1772	56	86	031045
4.60	0.1811	56	86	031046
4.70	0.1850	59	89	031047
4.80	0.1890	59	89	031048
4.90	0.1929	62	92	031049
5.00	0.1969	62	92	031050
5.10	0.2008	62	92	031051
5.20	0.2047	64	95	031052
5.30	0.2087	64	95	031053
5.40	0.2126	64	95	031054
5.50	0.2165	64	95	031055
5.60	0.2205	67	98	031056
5.70	0.2244	67	98	031057
5.80	0.2283	67	98	031058
5.90	0.2323	67	98	031059
6.00	0.2362	70	102	031060
6.10	0.2402	70	102	031061
6.20	0.2441	70	102	031062
6.30	0.2480	70	102	031063
6.40	0.2520	73	105	031064
6.50	0.2559	73	105	031065
6.60	0.2598	73	105	031066
6.70	0.2638	73	105	031067
6.80	0.2677	73	105	031068
6.90	0.2717	73	105	031069
7.00	0.2756	73	105	031070
7.10	0.2795	75	108	031071
7.20	0.2835	75	108	031072
7.30	0.2874	75	108	031073
7.40	0.2913	78	111	031074

R10PM



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Drills

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
7.50	0.2953	78	111	031075
7.60	0.2992	78	111	031076
7.70	0.3031	81	114	031077
7.80	0.3071	81	114	031078
7.90	0.3110	81	114	031079
8.00	0.3150	81	114	031080
8.10	0.3189	84	117	031081
8.20	0.3228	84	117	031082
8.30	0.3268	84	117	031083
8.40	0.3307	87	121	031084
8.50	0.3346	87	121	031085
8.60	0.3386	87	121	031086
8.70	0.3425	87	121	031087
8.80	0.3465	89	124	031088
8.90	0.3504	89	124	031089
9.00	0.3543	89	124	031090
9.10	0.3583	89	124	031091
9.20	0.3622	92	127	031092
9.30	0.3661	92	127	031093
9.40	0.3701	92	127	031094

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
9.50	0.3740	92	127	031095
9.60	0.3780	95	130	031096
9.70	0.3819	95	130	031097
9.80	0.3858	95	130	031098
9.90	0.3898	95	130	031099
10.00	0.3937	95	130	031100
10.20	0.4016	98	133	031102
10.50	0.4134	98	133	031105
11.00	0.4331	103	140	031110
11.20	0.4409	106	143	031112
11.50	0.4528	106	143	031115
12.00	0.4724	111	149	031120
12.50	0.4921	114	152	031125
13.00	0.5118	114	152	031130
13.50	0.5315	122	168	031135
14.00	0.5512	122	168	031140
15.00	0.5906	132	181	031150
16.00	0.6299	132	181	031160

- Jobber Drill
- Automotive, tapered shank

- Foret court

- Broca, serie corta

HSS
Jobber
Drills



R08



HSS

ST

ANSI



4xD



118°

■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3

6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	1.5/8	2.3/4	017508
30	0.1285	1.5/8	2.3/4	017630
29	0.1360	1.3/4	2.7/8	017629
9/64	0.1406	1.3/4	2.7/8	017509
24	0.1520	2"	3.1/8	017624
5/32	0.1562	2"	3.1/8	017510
20	0.1610	2.1/8	3.1/4	017620
19	0.1660	2.1/8	3.1/4	017619
18	0.1695	2.1/8	3.1/4	017618
11/64	0.1719	2.1/8	3.1/4	017511
17	0.1730	2.3/16	3.3/8	017617
16	0.1770	2.3/16	3.3/8	017616
15	0.1800	2.3/16	3.3/8	017615
13	0.1850	2.5/16	3.1/2	017613
3/16	0.1875	2.5/16	3.1/2	017512
11	0.1910	2.5/16	3.1/2	017611
10	0.1935	2.7/16	3.5/8	017610
13/64	0.2031	2.7/16	3.5/8	017513
3	0.2130	2.1/2	3.3/4	017603
7/32	0.2188	2.1/2	3.3/4	017514
1	0.2280	2.5/8	3.7/8	017601
15/64	0.2344	2.5/8	3.7/8	017515
1/4	0.2500	2.3/4	4"	017516
F	0.2570	2.7/8	4.1/8	017706
G	0.2610	2.7/8	4.1/8	017707
17/64	0.2656	2.7/8	4.1/8	017517
I	0.2720	2.7/8	4.1/8	017709
J	0.2770	2.7/8	4.1/8	017710
9/32	0.2812	2.15/16	4.1/4	017518
19/64	0.2969	3.1/16	4.3/8	017519
5/16	0.3125	3.3/16	4.1/2	017520
O	0.3160	3.3/16	4.1/2	017715

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
P	0.3230	3.5/16	4.5/8	017716
21/64	0.3281	3.5/16	4.5/8	017521
Q	0.3320	3.7/16	4.3/4	017717
R	0.3390	3.7/16	4.3/4	017718
11/32	0.3438	3.7/16	4.3/4	017522
S	0.3480	3.1/2	4.7/8	017719
23/64	0.3594	3.1/2	4.7/8	017523
U	0.3680	3.5/8	5"	017721
3/8	0.3750	3.5/8	5"	017524
W	0.3860	3.3/4	5.1/8	017723
25/64	0.3906	3.3/4	5.1/8	017525
X	0.3970	3.3/4	5.1/8	017724
13/32	0.4062	3.7/8	5.1/4	017526
27/64	0.4219	3.15/16	5.3/8	017527
7/16	0.4375	4.1/16	5.1/2	017528
29/64	0.4531	4.3/16	5.5/8	017529
15/32	0.4688	4.5/16	5.3/4	017530
31/64	0.4844	4.3/8	5.7/8	017531
1/2	0.5000	4.1/2	6"	017532
33/64	0.5156	4.13/16	6.5/8	017533
17/32	0.5312	4.13/16	6.5/8	017534
35/64	0.5469	4.13/16	6.5/8	017535
9/16	0.5625	4.13/16	6.5/8	017536
37/64	0.5781	4.13/16	6.5/8	017537
19/32	0.5938	5.3/16	7.1/8	017538
39/64	0.6094	5.3/16	7.1/8	017539
5/8	0.6250	5.3/16	7.1/8	017540
41/64	0.6406	5.3/16	7.1/8	017541
21/32	0.6562	5.3/16	7.1/8	017542
43/64	0.6719	5.5/8	7.5/8	017543
11/16	0.6875	5.5/8	7.5/8	017544

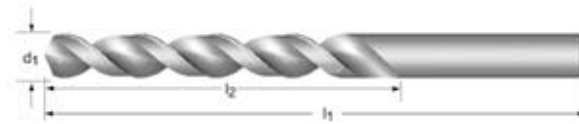
R10H



- Jobber Drill
- High Helix

- Foret court

- Broca, serie corta



HSS
Jobber
Drills

R10H



- 6.1 7.1 7.2 7.3 7.4 8.1
- 1.1 1.2 3.1 3.2 3.3 3.4 4.1 5.1 6.2 8.2 8.3

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/32	0.0312	1/2	1.3/8	010502
3/64	0.0469	3/4	1.3/4	010503
1/16	0.0625	7/8	1.7/8	010504
5/64	0.0781	1"	2"	010505
3/32	0.0938	1.1/4	2.1/4	010506
7/64	0.1094	1.1/2	2.5/8	010507
1/8	0.1250	1.5/8	2.3/4	010508
9/64	0.1406	1.3/4	2.7/8	010509
5/32	0.1562	2"	3.1/8	010510
11/64	0.1719	2.1/8	3.1/4	010511
3/16	0.1875	2.5/16	3.1/2	010512
13/64	0.2031	2.7/16	3.5/8	010513
7/32	0.2188	2.1/2	3.3/4	010514
15/64	0.2344	2.5/8	3.7/8	010515
1/4	0.2500	2.3/4	4"	010516
17/64	0.2656	2.7/8	4.1/8	010517

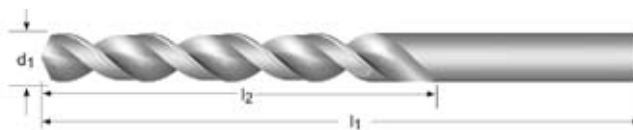
d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	2.15/16	4.1/4	010518
19/64	0.2969	3.1/16	4.3/8	010519
5/16	0.3125	3.3/16	4.1/2	010520
21/64	0.3281	3.5/16	4.5/8	010521
11/32	0.3438	3.7/16	4.3/4	010522
23/64	0.3594	3.1/2	4.7/8	010523
3/8	0.3750	3.5/8	5"	010524
25/64	0.3906	3.3/4	5.1/8	010525
13/32	0.4062	3.7/8	5.1/4	010526
27/64	0.4219	3.15/16	5.3/8	010527
7/16	0.4375	4.1/16	5.1/2	010528
29/64	0.4531	4.3/16	5.5/8	010529
15/32	0.4688	4.5/16	5.3/4	010530
31/64	0.4844	4.3/8	5.7/8	010531
1/2	0.5000	4.1/2	6"	010532

- Jobber Drill
- High Helix

Foret court

- Broca , serie corta

HSS
Jobber
Drills



R18H



- 6.1 7.1 7.2 7.3 7.4 8.1
- 1.1 1.2 3.1 3.2 3.3 3.4 4.1 5.1 6.2 8.2 8.3

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
80	0.0135	1/8	3/4	018580
79	0.0145	1/8	3/4	018579
78	0.0160	3/16	7/8	018578
77	0.0180	3/16	7/8	018577
76	0.0200	3/16	7/8	018576
75	0.0210	1/4	1"	018575
74	0.0225	1/4	1"	018574
73	0.0240	5/16	1.1/8	018573
72	0.0250	5/16	1.1/8	018572
71	0.0260	3/8	1.1/4	018571
70	0.0280	3/8	1.1/4	018570
69	0.0292	1/2	1.3/8	018569
68	0.0310	1/2	1.3/8	018568
67	0.0320	1/2	1.3/8	018567
66	0.0330	1/2	1.3/8	018566
65	0.0350	5/8	1.1/2	018565
64	0.0360	5/8	1.1/2	018564
63	0.0370	5/8	1.1/2	018563
62	0.0380	5/8	1.1/2	018562
61	0.0390	11/16	1.5/8	018561
60	0.0400	11/16	1.5/8	018560
59	0.0410	11/16	1.5/8	018559
58	0.0420	11/16	1.5/8	018558
57	0.0430	3/4	1.3/4	018557
56	0.0465	3/4	1.3/4	018556
55	0.0520	7/8	1.7/8	018555
54	0.0550	7/8	1.7/8	018554
53	0.0595	7/8	1.7/8	018553
52	0.0635	7/8	1.7/8	018552
51	0.0670	1"	2"	018551
50	0.0700	1"	2"	018550
49	0.0730	1"	2"	018549
48	0.0760	1"	2"	018548
47	0.0785	1"	2"	018547
46	0.0810	1.1/8	2.1/8	018546
45	0.0820	1.1/8	2.1/8	018545
44	0.0860	1.1/8	2.1/8	018544
43	0.0890	1.1/4	2.1/4	018543
42	0.0935	1.1/4	2.1/4	018542
41	0.0960	1.3/8	2.3/8	018541
40	0.0980	1.3/8	2.3/8	018540
39	0.0995	1.3/8	2.3/8	018539

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
38	0.1015	1.7/16	2.1/2	018538
37	0.1040	1.7/16	2.1/2	018537
36	0.1065	1.7/16	2.1/2	018536
35	0.1100	1.1/2	2.5/8	018535
34	0.1110	1.1/2	2.5/8	018534
33	0.1130	1.1/2	2.5/8	018533
32	0.1160	1.5/8	2.3/4	018532
31	0.1200	1.5/8	2.3/4	018531
30	0.1285	1.5/8	2.3/4	018530
29	0.1360	1.3/4	2.7/8	018529
28	0.1405	1.3/4	2.7/8	018528
27	0.1440	1.7/8	3"	018527
26	0.1470	1.7/8	3"	018526
25	0.1495	1.7/8	3"	018525
24	0.1520	2"	3.1/8	018524
23	0.1540	2"	3.1/8	018523
22	0.1570	2"	3.1/8	018522
21	0.1590	2.1/8	3.1/4	018521
20	0.1610	2.1/8	3.1/4	018520
19	0.1660	2.1/8	3.1/4	018519
18	0.1695	2.1/8	3.1/4	018518
17	0.1730	2.3/16	3.3/8	018517
16	0.1770	2.3/16	3.3/8	018516
15	0.1800	2.3/16	3.3/8	018515
14	0.1820	2.3/16	3.3/8	018514
13	0.1850	2.5/16	3.1/2	018513
12	0.1890	2.5/16	3.1/2	018512
11	0.1910	2.5/16	3.1/2	018511
10	0.1935	2.7/16	3.5/8	018510
9	0.1960	2.7/16	3.5/8	018509
8	0.1990	2.7/16	3.5/8	018508
7	0.2010	2.7/16	3.5/8	018507
6	0.2040	2.1/2	3.3/4	018506
5	0.2055	2.1/2	3.3/4	018505
4	0.2090	2.1/2	3.3/4	018504
3	0.2130	2.1/2	3.3/4	018503
2	0.2210	2.5/8	3.7/8	018502
1	0.2280	2.5/8	3.7/8	018501

R18S



- Jobber Drill
- Slow Helix

- Foret court

- Broca, serie corta



HSS
Jobber
Drills

R18S



- 6.2 6.3
- 1.1 1.2 3.1 3.2 3.3 3.4 6.4 7.1 7.2 7.3 7.4 8.2 8.3

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
80	0.0135	1/8	3/4	018780
79	0.0145	1/8	3/4	018779
78	0.0160	3/16	7/8	018778
77	0.0180	3/16	7/8	018777
76	0.0200	3/16	7/8	018776
75	0.0210	1/4	1"	018775
74	0.0225	1/4	1"	018774
73	0.0240	5/16	1.1/8	018773
72	0.0250	5/16	1.1/8	018772
71	0.0260	3/8	1.1/4	018771
70	0.0280	3/8	1.1/4	018770
69	0.0292	1/2	1.3/8	018769
68	0.0310	1/2	1.3/8	018768
67	0.0320	1/2	1.3/8	018767
66	0.0330	1/2	1.3/8	018766
65	0.0350	5/8	1.1/2	018765
64	0.0360	5/8	1.1/2	018764
63	0.0370	5/8	1.1/2	018763
62	0.0380	5/8	1.1/2	018762
61	0.0390	11/16	1.5/8	018761
60	0.0400	11/16	1.5/8	018760
59	0.0410	11/16	1.5/8	018759
58	0.0420	11/16	1.5/8	018758
57	0.0430	3/4	1.3/4	018757
56	0.0465	3/4	1.3/4	018756
55	0.0520	7/8	1.7/8	018755
54	0.0550	7/8	1.7/8	018754
53	0.0595	7/8	1.7/8	018753
52	0.0635	7/8	1.7/8	018752
51	0.0670	1"	2"	018751
50	0.0700	1"	2"	018750
49	0.0730	1"	2"	018749
48	0.0760	1"	2"	018748
47	0.0785	1"	2"	018747
46	0.0810	1.1/8	2.1/8	018746
45	0.0820	1.1/8	2.1/8	018745
44	0.0860	1.1/8	2.1/8	018744
43	0.0890	1.1/4	2.1/4	018743
42	0.0935	1.1/4	2.1/4	018742
41	0.0960	1.3/8	2.3/8	018741
40	0.0980	1.3/8	2.3/8	018740
39	0.0995	1.3/8	2.3/8	018739

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
38	0.1015	1.7/16	2.1/2	018738
37	0.1040	1.7/16	2.1/2	018737
36	0.1065	1.7/16	2.1/2	018736
35	0.1100	1.1/2	2.5/8	018735
34	0.1110	1.1/2	2.5/8	018734
33	0.1130	1.1/2	2.5/8	018733
32	0.1160	1.5/8	2.3/4	018732
31	0.1200	1.5/8	2.3/4	018731
30	0.1285	1.5/8	2.3/4	018730
29	0.1360	1.3/4	2.7/8	018729
28	0.1405	1.3/4	2.7/8	018728
27	0.1440	1.7/8	3"	018727
26	0.1470	1.7/8	3"	018726
25	0.1495	1.7/8	3"	018725
24	0.1520	2"	3.1/8	018724
23	0.1540	2"	3.1/8	018723
22	0.1570	2"	3.1/8	018722
21	0.1590	2.1/8	3.1/4	018721
20	0.1610	2.1/8	3.1/4	018720
19	0.1660	2.1/8	3.1/4	018719
18	0.1695	2.1/8	3.1/4	018718
17	0.1730	2.3/16	3.3/8	018717
16	0.1770	2.3/16	3.3/8	018716
15	0.1800	2.3/16	3.3/8	018715
14	0.1820	2.3/16	3.3/8	018714
13	0.1850	2.5/16	3.1/2	018713
12	0.1890	2.5/16	3.1/2	018712
11	0.1910	2.5/16	3.1/2	018711
10	0.1935	2.7/16	3.5/8	018710
9	0.1960	2.7/16	3.5/8	018709
8	0.1990	2.7/16	3.5/8	018708
7	0.2010	2.7/16	3.5/8	018707
6	0.2040	2.1/2	3.3/4	018706
5	0.2055	2.1/2	3.3/4	018705
4	0.2090	2.1/2	3.3/4	018704
3	0.2130	2.1/2	3.3/4	018703
2	0.2210	2.5/8	3.7/8	018702
1	0.2280	2.5/8	3.7/8	018701

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

R10S - L10

- Jobber Drill
- Slow Helix

- Foret court

- Broca, serie corta

HSS
Jobber
Drills

R10S



- 6.2 6.3
- 1.1 1.2 3.1 3.2 3.3 3.4 6.4 7.1 7.2 7.3 7.4 8.2 8.3

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	1.7/8	010704
5/64	0.0781	1"	2"	010705
3/32	0.0938	1.1/4	2.1/4	010706
7/64	0.1094	1.1/2	2.5/8	010707
1/8	0.1250	1.5/8	2.3/4	010708
9/64	0.1406	1.3/4	2.7/8	010709
5/32	0.1562	2"	3.1/8	010710
11/64	0.1719	2.1/8	3.1/4	010711
3/16	0.1875	2.5/16	3.1/2	010712
13/64	0.2031	2.7/16	3.5/8	010713
7/32	0.2188	2.1/2	3.3/4	010714
15/64	0.2344	2.5/8	3.7/8	010715
1/4	0.2500	2.3/4	4"	010716
17/64	0.2656	2.7/8	4.1/8	010717

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	2.15/16	4.1/4	010718
19/64	0.2969	3.1/16	4.3/8	010719
5/16	0.3125	3.3/16	4.1/2	010720
21/64	0.3281	3.5/16	4.5/8	010721
11/32	0.3438	3.7/16	4.3/4	010722
23/64	0.3594	3.1/2	4.7/8	010723
3/8	0.3750	3.5/8	5"	010724
25/64	0.3906	3.3/4	5.1/8	010725
13/32	0.4062	3.7/8	5.1/4	010726
27/64	0.4219	3.15/16	5.3/8	010727
7/16	0.4375	4.1/16	5.1/2	010728
29/64	0.4531	4.3/16	5.5/8	010729
15/32	0.4688	4.5/16	5.3/4	010730
31/64	0.4844	4.3/8	5.7/8	010731
1/2	0.5000	4.1/2	6"	010732

- Jobber Drill
- Left Hand

- Foret court

- Broca, serie corta

L10



- 6.1 7.1 7.2 7.3 7.4 8.1
- 1.1 1.2 3.1 3.2 3.3 3.4 4.1 5.1 6.2 8.2 8.3

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/32	0.0312	1/2	1.3/8	010902
3/64	0.0469	3/4	1.3/4	010903
1/16	0.0625	7/8	1.7/8	010904
5/64	0.0781	1"	2"	010905
3/32	0.0938	1.1/4	2.1/4	010906
7/64	0.1094	1.1/2	2.5/8	010907
1/8	0.1250	1.5/8	2.3/4	010908
9/64	0.1406	1.3/4	2.7/8	010909
5/32	0.1562	2"	3.1/8	010910
11/64	0.1719	2.1/8	3.1/4	010911
3/16	0.1875	2.5/16	3.1/2	010912
13/64	0.2031	2.7/16	3.5/8	010913
7/32	0.2188	2.1/2	3.3/4	010914
15/64	0.2344	2.5/8	3.7/8	010915
1/4	0.2500	2.3/4	4"	010916
17/64	0.2656	2.7/8	4.1/8	010917

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	2.15/16	4.1/4	010918
19/64	0.2969	3.1/16	4.3/8	010919
5/16	0.3125	3.3/16	4.1/2	010920
21/64	0.3281	3.5/16	4.5/8	010921
11/32	0.3438	3.7/16	4.3/4	010922
23/64	0.3594	3.1/2	4.7/8	010923
3/8	0.3750	3.5/8	5"	010924
25/64	0.3906	3.3/4	5.1/8	010925
13/32	0.4062	3.7/8	5.1/4	010926
27/64	0.4219	3.15/16	5.3/8	010927
7/16	0.4375	4.1/16	5.1/2	010928
29/64	0.4531	4.3/16	5.5/8	010929
15/32	0.4688	4.5/16	5.3/4	010930
31/64	0.4844	4.3/8	5.7/8	010931
1/2	0.5000	4.1/2	6"	010932

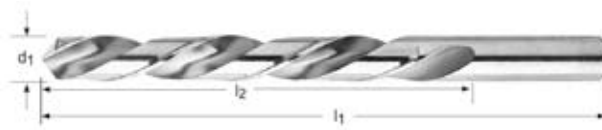
L18



- Jobber Drill
- Left Hand

- Foret court

- Broca , serie corta



HSS
Jobber
Drills

L18



- 6.1 7.1 7.2 7.3 7.4 8.1
- 1.1 1.2 3.1 3.2 3.3 3.4 4.1 5.1 6.2 8.2 8.3

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
60	0.0400	11/16	1.5/8	018960
59	0.0410	11/16	1.5/8	018959
58	0.0420	11/16	1.5/8	018958
57	0.0430	3/4	1.3/4	018957
56	0.0465	3/4	1.3/4	018956
55	0.0520	7/8	1.7/8	018955
54	0.0550	7/8	1.7/8	018954
53	0.0595	7/8	1.7/8	018953
52	0.0635	7/8	1.7/8	018952
51	0.0670	1"	2"	018951
50	0.0700	1"	2"	018950
49	0.0730	1"	2"	018949
48	0.0760	1"	2"	018948
47	0.0785	1"	2"	018947
46	0.0810	1.1/8	2.1/8	018946
48	0.0820	1.1/8	2.1/8	018945
44	0.0860	1.1/8	2.1/8	018944
43	0.0890	1.1/4	2.1/4	018943
42	0.0935	1.1/4	2.1/4	018942
41	0.0960	1.3/8	2.3/8	018941
40	0.0980	1.3/8	2.3/8	018940
39	0.0995	1.3/8	2.3/8	018939
38	0.1015	1.7/16	2.1/2	018938
37	0.1040	1.7/16	2.1/2	018937
36	0.1065	1.7/16	2.1/2	018936
35	0.1100	1.1/2	2.5/8	018935
34	0.1110	1.1/2	2.5/8	018934
33	0.1130	1.1/2	2.5/8	018933
32	0.1160	1.5/8	2.3/4	018932
31	0.1200	1.5/8	2.3/4	018931

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
30	0.1285	1.5/8	2.3/4	018930
29	0.1360	1.3/4	2.7/8	018929
28	0.1405	1.3/4	2.7/8	018928
27	0.1440	1.7/8	3"	018927
26	0.1470	1.7/8	3"	018926
25	0.1495	1.7/8	3"	018925
24	0.1520	2"	3.1/8	018924
23	0.1540	2"	3.1/8	018923
22	0.1570	2"	3.1/8	018922
21	0.1590	2.1/8	3.1/4	018921
20	0.1610	2.1/8	3.1/4	018920
19	0.1660	2.1/8	3.1/4	018919
18	0.1695	2.1/8	3.1/4	018918
17	0.1730	2.3/16	3.3/8	018917
16	0.1770	2.3/16	3.3/8	018916
15	0.1800	2.3/16	3.3/8	018915
14	0.1820	2.3/16	3.3/8	018914
13	0.1850	2.5/16	3.1/2	018913
12	0.1890	2.5/16	3.1/2	018912
11	0.1910	2.5/16	3.1/2	018911
10	0.1935	2.7/16	3.5/8	018910
9	0.1960	2.7/16	3.5/8	018909
8	0.1990	2.7/16	3.5/8	018908
7	0.2010	2.7/16	3.5/8	018907
6	0.2040	2.1/2	3.3/4	018906
5	0.2055	2.1/2	3.3/4	018905
4	0.2090	2.1/2	3.3/4	018904
3	0.2130	2.1/2	3.3/4	018903
2	0.2210	2.5/8	3.7/8	018902
1	0.2280	2.5/8	3.7/8	018901

HSS Taper Length Drills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Depth of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
- 4 To calculate Cutting Feed Rate, refer to chart on pages 9-10.

example: 125 F
125 = SFM
F = Alpha Code to find your Feed Rate

■ = Excellent for Application
● = Good for Application



Style:

Tool Material:

Finish/Coating:

Standard:

Direction of Cut:

2 Depth of Cut:

Tool Length:

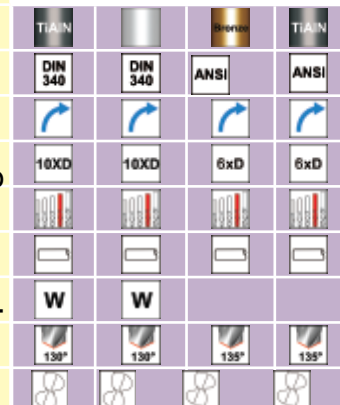
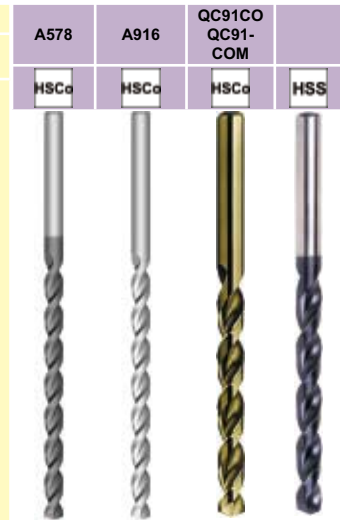
Shank:

Helix:

Point Angle:

Point Style:

HSS Taper Length Drills



3

Surface Feet per Minute (SFM)

Page # for easy reference					3	Surface Feet per Minute (SFM)			
Application Material Groups (AMG) 1				Hardness HB					
						110-111	112-113	114-115	116
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	●161G	●115F			■125F
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	●138G	●98F			■75F
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■115F	■82E			■79H
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	■115F	■82E			■75F
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	■69D	■49C			●59D
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6	■56D	■39C	■20B		
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7					
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8					
2.Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●56C	●49C	●95H	●115H	
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	■30E	■23E	●56F	●66F	
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH. DUPLEX	<300	2.3	●36B	●30B	●56D	●66D	
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4			■30D		
3.Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	■131G		●161H	■184H	
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	■118F	●85E	●85H	■98H	
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	■82F	●59E	●85F	●105F	
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	■59D	●43C	●56D	●66D	
4.Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●82F	■59E			
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●59D	■43C			
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●26D	■20C	■20D		
5.Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1					●66H
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2			■20B		
	5.3 Nickel, alloyed	Inconel 718,Nimonic 75-95,Rene 41,Inconel 825,A286	>270<350	5.3			●10B		
6.Copper	6.1 Copper	Commercially Pure	<100	6.1		●213F		■112I	
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2		●230F		■98H	
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●157H	●112G		■98H	
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●138H	●98G			
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1		●230E		■440H	
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2		■148N		■384H	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3		■131N			
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	■138H	●98G		■344H	
8.Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1		●180H			
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2		●131F			
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3					
9.Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1					
10.Graphite	10.1 Standard graphite		---	10.1					

HSS Taper Length Drills (con't)



HSS Taper Length Drills	QC91G QC21GM	QC91 QC91M	QC91P QC91PM	M51CO M52CO	R53OH	R51OH	EZ51P	R51K	R51 R52 R55	5ATL	R09	R51FS R52FS R55FS	
	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
	TIN	ST				ST		ST			ST		
	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	
Surface Feet per Minute (SFM)													
	117, 120	118, 121	119, 122	123-124	125	125	126	127	128-130	131-132	133	134-135	
1.1	■115F	■98F	■98F	■89G	■154F	■154F	■98F	■98F	■89G	■89G	■98F		1.1
1.2	■69F	■59F	■59F	■82G	■75F	■75F	■59F	■59F	■82G	■82G	■59F		1.2
1.3	■75H	■69H	■66H	■66E	■98H	■98H	■66H	■66H	■66E	■66E	■66H		1.3
1.4	■69F	■59F	■59F	■52E	■85F	■85F	■59F	■59F	■52E	■52E	■59F		1.4
1.5	■56D	■46D	■46D	■30D	■59D	■59D	■46D	■46D	■30D	■30D	■46D		1.5
1.6				■20B	■30B	■30B			■20B	■20B			1.6
1.7													1.7
1.8													1.8
2.1	■105H	■89H	■89H	■33D	■121H	■121H	■89H	■89H	■33D	■33D	■89H		2.1
2.2	■59F	■49F	■49F	■20F	■66F	■66F	■46F	■49F	■20F	■20F	■49F		2.2
2.3	■59D	■49D	■49D	■13B	■66D	■66D	■49D	■49D	■13B	■13B	■49D		2.3
2.4				■49D	■49D	■49D							2.4
3.1	■171H	■151H	■151H	■92H	■180H	■180H	■151H	■151H	■92H	■92H	■151H		3.1
3.2	■89H	■79H	■79H	■69E	■112H	■112H	■79H	■79H	■69E	■69E	■79H		3.2
3.3	■95F	■85F	■79F	■49D	■134F	■134F	■79F	■79F	■49D	■49D	■79F		3.3
3.4	■59D			■43D	■75D	■75D			■43D	■43D			3.4
4.1		■95H	■89H	■56E	■112H	■112H	■89H	■89H	■56E	■56E	■89H		4.1
4.2		■49F	■49F	■30C	■98F	■98F	■49F	■49F	■30C	■30C	■49F		4.2
4.3				■13A	■26D	■26D			■13A	■13A			4.3
5.1	■59H	■49F	■49F	■26F	■75F	■75F	■49F	■49F	■26F	■26F	■49F		5.1
5.2				■13D	■30B	■30B			■13D	■13D			5.2
5.3				■10A					■10A	■10A			5.3
6.1	■98I		■89I	■98E	■125I		■89I	■89I	■98E	■98E	■89I	■89I	6.1
6.2	■89H		■79H	■105H	■184H		■85H	■79H	■105H	■105H	■79H		6.2
6.3	■89H		■79H	■89G	■180H		■79H	■75H	■89G	■89G	■75H		6.3
6.4				■52E	■184H				■52E	■52E			6.4
7.1	■400H		■351H	■105I	■420H		■351H		■105I	■105I		■348H	7.1
7.2	■351H		■325H	■89H	■374H		■325H		■89H	■89H		■325H	7.2
7.3				■89G	■298H				■89G	■89G			7.3
7.4	■315H		■276H	■82E	■364H		■276H		■82E	■82E		■276H	7.4
8.1				■115I					■115I	■115I			8.1
8.2				■85G					■85G	■85G			8.2
8.3				■39E					■39E	■39E			8.3
9.1				■10A					■10A	■10A			9.1
10.1													10.1

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PFX

HSS
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130°

■ 1.3 1.4 1.5 1.6 2.2 3.1 3.2 3.3 3.4 7.4

• 1.1 1.2 2.1 2.3 4.1 4.2 4.3 6.3 6.4

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
1.00	0.0393	33	56	0613832	A5781.0
1.50	0.0590	45	70	0613849	A5781.5
2.00	0.0787	56	85	0613856	A5782.0
2.50	0.0984	62	95	0613863	A5782.5
3.00	0.1181	66	100	0279229	A5783.0
3.10	0.1220	69	106	0587027	A5783.1
3.20	0.1259	69	106	0587034	A5783.2
3.30	0.1299	69	106	0279236	A5783.3
3.40	0.1338	73	112	0279243	A5783.4
3.50	0.1377	73	112	0279250	A5783.5
3.60	0.1417	73	112	0587041	A5783.6
3.70	0.1456	73	112	0587058	A5783.7
3.80	0.1496	78	119	0587065	A5783.8
3.90	0.1535	78	119	0587072	A5783.9
4.00	0.1574	78	119	0279267	A5784.0
4.10	0.1614	78	119	0587089	A5784.1
4.20	0.1653	78	119	0279274	A5784.2
4.30	0.1692	82	126	0587096	A5784.3
4.40	0.1732	82	126	0587102	A5784.4
4.50	0.1771	82	126	0279281	A5784.5
4.60	0.1811	82	126	0587119	A5784.6
4.70	0.1850	82	126	0587126	A5784.7
4.80	0.1889	87	132	0587133	A5784.8
4.90	0.1929	87	132	0587140	A5784.9
5.00	0.1968	87	132	0279298	A5785.0
5.10	0.2007	87	132	0587157	A5785.1
5.20	0.2047	87	132	0587164	A5785.2
5.30	0.2086	87	132	0587171	A5785.3
5.40	0.2125	91	139	0587188	A5785.4
5.50	0.2165	91	139	0279304	A5785.5
5.60	0.2204	91	139	0587195	A5785.6
5.70	0.2244	91	139	0587201	A5785.7

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
5.80	0.2283	91	139	0587218	A5785.8
5.90	0.2322	91	139	0587225	A5785.9
6.00	0.2362	91	139	0279311	A5786.0
6.10	0.2401	97	148	0587232	A5786.1
6.20	0.2440	97	148	0587249	A5786.2
6.30	0.2480	97	148	0587256	A5786.3
6.40	0.2519	97	148	0587263	A5786.4
6.50	0.2559	97	148	0279328	A5786.5
6.60	0.2598	97	148	0279335	A5786.6
6.70	0.2637	97	148	0587270	A5786.7
6.80	0.2677	102	156	0279342	A5786.8
6.90	0.2716	102	156	0587287	A5786.9
7.00	0.2755	102	156	0279359	A5787.0
7.10	0.2795	102	156	0587294	A5787.1
7.20	0.2834	102	156	0587300	A5787.2
7.30	0.2874	102	156	0587317	A5787.3
7.40	0.2913	102	156	0587324	A5787.4
7.50	0.2952	102	156	0279366	A5787.5
7.60	0.2992	109	165	0279373	A5787.6
7.70	0.3031	109	165	0587331	A5787.7
7.80	0.3070	109	165	0587348	A5787.8
7.90	0.3110	109	165	0587355	A5787.9
8.00	0.3149	109	165	0279380	A5788.0
8.10	0.3188	109	165	0587362	A5788.1
8.20	0.3228	109	165	0587379	A5788.2
8.30	0.3267	109	165	0587386	A5788.3
8.40	0.3307	109	165	0587393	A5788.4
8.50	0.3346	109	165	0279397	A5788.5
8.60	0.3385	115	175	0587409	A5788.6
8.70	0.3425	115	175	0587416	A5788.7
8.80	0.3464	115	175	0587423	A5788.8
8.90	0.3503	115	175	0587430	A5788.9

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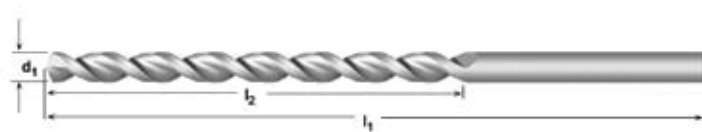
DORMER

HSS
Taper
Length
Drills

d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
9.00	0.3543	115	175	0279403	A5789.0
9.10	0.3582	115	175	0587447	A5789.1
9.20	0.3622	115	175	0587454	A5789.2
9.30	0.3661	115	175	0587461	A5789.3
9.40	0.3700	115	175	0587478	A5789.4
9.50	0.3740	115	175	0279410	A5789.5
9.60	0.3779	121	184	0587485	A5789.6
9.70	0.3818	121	184	0587492	A5789.7
9.80	0.3858	121	184	0587508	A5789.8
9.90	0.3897	121	184	0587515	A5789.9
10.00	0.3937	139	184	0279427	A57810.0 ¹⁾
10.20	0.4015	139	184	0279434	A57810.2 ¹⁾
10.30	0.4055	139	184	0586877	A57810.3 ¹⁾
10.40	0.4094	139	184	0586884	A57810.4 ¹⁾
10.50	0.4133	139	184	0279441	A57810.5 ¹⁾
10.80	0.4251	150	195	0586891	A57810.8 ¹⁾
11.00	0.4330	150	195	0279458	A57811.0 ¹⁾
11.20	0.4409	150	195	0586907	A57811.2 ¹⁾

d ₁ Øh ₈ mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
11.50	0.4527	150	195	0279465	A57811.5 ¹⁾
11.80	0.4646	150	195	0586914	A57811.8 ¹⁾
12.00	0.4724	160	205	0279472	A57812.0 ¹⁾
12.20	0.4803	160	205	0586921	A57812.2 ¹⁾
12.50	0.4921	160	205	0586938	A57812.5 ¹⁾
12.80	0.5039	160	205	0586945	A57812.8 ¹⁾
13.00	0.5118	160	205	0586952	A57813.0 ¹⁾
13.50	0.5314	169	214	0586969	A57813.5 ¹⁾
14.00	0.5511	169	214	0586976	A57814.0 ¹⁾
14.50	0.5708	172	220	0586983	A57814.5 ¹⁾
15.00	0.5905	172	220	0586990	A57815.0 ¹⁾
15.50	0.6102	179	227	0587003	A57815.5 ¹⁾
16.00	0.6299	179	227	0587010	A57816.0 ¹⁾

¹⁾ Flute Lengths Longer than Standard



PFX

HSS
Taper
Length
Drills

A916



■ 1.3 1.4 1.5 1.6 2.2 4.1 4.2 4.3 7.2

• 1.1 1.2 2.1 2.3 3.2 3.3 3.4 6.1 6.2 6.3 6.4 7.1 7.3 7.4 8.1 8.2

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	1.00	0.0393	33	56	0146330	A9161.0
	1.10	0.0433	37	60	0146347	A9161.1
	1.20	0.0472	41	65	0146354	A9161.2
	1.30	0.0511	41	65	0146361	A9161.3
	1.40	0.0551	45	70	0146378	A9161.4
	1.50	0.0590	45	70	0146385	A9161.5
1/16	1.59	0.0625	50	76	0171752	A9161/16
	1.60	0.0629	50	76	0146392	A9161.6
	1.70	0.0669	50	76	0146408	A9161.7
	1.80	0.0708	53	80	0146415	A9161.8
	1.90	0.0748	53	80	0146422	A9161.9
5/64	1.98	0.0779	56	85	0171769	A9165/64
	2.00	0.0787	56	85	0146439	A9162.0
	2.10	0.0826	56	85	0146446	A9162.1
	2.20	0.0866	59	90	0146453	A9162.2
	2.30	0.0905	59	90	0146460	A9162.3
3/32	2.38	0.0937	62	95	0171776	A9163/32
	2.40	0.0944	62	95	0146477	A9162.4
	2.50	0.0984	62	95	0146484	A9162.5
	2.60	0.1023	62	95	0146491	A9162.6
	2.70	0.1062	66	100	0146507	A9162.7
7/64	2.78	0.1094	66	100	0171783	A9167/64
	2.80	0.1102	66	100	0146514	A9162.8
	2.90	0.1141	66	100	0146521	A9162.9
	3.00	0.1181	66	100	0146538	A9163.0
	3.10	0.1220	69	106	0146545	A9163.1
1/8	3.18	0.1251	69	106	0171790	A9161/8
	3.20	0.1259	69	106	0146552	A9163.2
	3.30	0.1299	69	106	0146569	A9163.3
	3.40	0.1338	73	112	0146576	A9163.4
	3.50	0.1377	73	112	0146583	A9163.5
9/64	3.57	0.1405	73	112	0171806	A9169/64
	3.60	0.1417	73	112	0146590	A9163.6
	3.70	0.1456	73	112	0146606	A9163.7
	3.80	0.1496	78	119	0146613	A9163.8
	3.90	0.1535	78	119	0146620	A9163.9

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
5/32	3.97	0.1562	78	119	0171813	A9165/32
	4.00	0.1574	78	119	0146637	A9164.0
	4.10	0.1614	78	119	0146644	A9164.1
	4.20	0.1653	78	119	0146651	A9164.2
	4.30	0.1692	82	126	0146668	A9164.3
11/64	4.37	0.1720	82	126	0171820	A91611/64
	4.40	0.1732	82	126	0146675	A9164.4
	4.50	0.1771	82	126	0146682	A9164.5
	4.60	0.1811	82	126	0146699	A9164.6
	4.70	0.1850	82	126	0146705	A9164.7
3/16	4.76	0.1874	87	132	0171837	A9163/16
	4.80	0.1889	87	132	0146712	A9164.8
	4.90	0.1929	87	132	0146729	A9164.9
	5.00	0.1968	87	132	0146736	A9165.0
	5.10	0.2007	87	132	0146743	A9165.1
13/64	5.16	0.2031	87	132	0171844	A91613/64
	5.20	0.2047	87	132	0146750	A9165.2
	5.30	0.2086	87	132	0146767	A9165.3
	5.40	0.2125	91	139	0146774	A9165.4
	5.50	0.2165	91	139	0146781	A9165.5
7/32	5.56	0.2188	91	139	0171851	A9167/32
	5.60	0.2204	91	139	0146798	A9165.6
	5.70	0.2244	91	139	0146804	A9165.7
	5.80	0.2283	91	139	0146811	A9165.8
	5.90	0.2322	91	139	0146828	A9165.9
15/64	5.95	0.2342	91	139	0171868	A91615/64
	6.00	0.2362	91	139	0146835	A9166.0
	6.10	0.2401	97	148	0146842	A9166.1
	6.20	0.2440	97	148	0146859	A9166.2
	6.30	0.2480	97	148	0146866	A9166.3
1/4	6.35	0.2500	97	148	0171875	A9161/4
	6.40	0.2519	97	148	0146873	A9166.4
	6.50	0.2559	97	148	0146880	A9166.5
	6.60	0.2598	97	148	0146897	A9166.6
	6.70	0.2637	97	148	0146903	A9166.7
17/64	6.75	0.2657	102	156	0171882	A91617/64

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	6.80	0.2677	102	156	0146910	A9166.8
	6.90	0.2716	102	156	0146927	A9166.9
	7.00	0.2755	102	156	0146934	A9167.0
	7.10	0.2795	102	156	0146941	A9167.1
9/32	7.14	0.2811	102	156	0171899	A9169/32
	7.20	0.2834	102	156	0146958	A9167.2
	7.30	0.2874	102	156	0146965	A9167.3
	7.40	0.2913	102	156	0146972	A9167.4
	7.50	0.2952	102	156	0146989	A9167.5
19/64	7.54	0.2968	109	165	0171905	A91619/64
	7.60	0.2992	109	165	0146996	A9167.6
	7.70	0.3031	109	165	0147009	A9167.7
	7.80	0.3070	109	165	0147016	A9167.8
	7.90	0.3110	109	165	0147023	A9167.9
5/16	7.94	0.3125	109	165	0171912	A9165/16
	8.00	0.3149	109	165	0147030	A9168.0
	8.10	0.3188	109	165	0147047	A9168.1
	8.20	0.3228	109	165	0147061	A9168.2
	8.30	0.3267	109	165	0147078	A9168.3
21/64	8.33	0.3279	109	165	0171929	A91621/64
	8.40	0.3307	109	165	0147085	A9168.4
	8.50	0.3346	109	165	0147092	A9168.5
	8.60	0.3385	115	175	0147108	A9168.6
	8.70	0.3425	115	175	0147115	A9168.7
11/32	8.73	0.3437	115	175	0171936	A91611/32
	8.80	0.3464	115	175	0147122	A9168.8
	8.90	0.3503	115	175	0147139	A9168.9
	9.00	0.3543	115	175	0147146	A9169.0
	9.10	0.3582	115	175	0147153	A9169.1
23/64	9.13	0.3594	115	175	0171943	A91623/64
	9.20	0.3622	115	175	0147160	A9169.2
	9.30	0.3661	115	175	0147177	A9169.3
	9.40	0.3700	115	175	0147184	A9169.4
	9.50	0.3740	115	175	0147191	A9169.5
3/8	9.53	0.3751	139	184	0171950	A9163/8 ¹⁾
	9.60	0.3779	139	184	0147207	A9169.6 ¹⁾
	9.70	0.3818	139	184	0147214	A9169.7 ¹⁾
	9.80	0.3858	139	184	0147221	A9169.8 ¹⁾
	9.90	0.3897	139	184	0147238	A9169.9 ¹⁾
25/64	9.92	0.3905	139	184	0171967	A91625/64 ¹⁾
	10.00	0.3937	139	184	0147245	A91610.0 ¹⁾
	10.20	0.4015	139	184	0147252	A91610.2 ¹⁾
	10.30	0.4055	139	184	0171974	A91610.3 ¹⁾
13/32	10.32	0.4062	139	184	0171981	A91613/32 ¹⁾

d ₁ Øh ₈ Inch	d ₁ Øh ₈ mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	Stock #	EDP # or e-Code
	10.40	0.4094	139	184	0171998	A91610.4 ¹⁾
	10.50	0.4133	139	184	0147269	A91610.5 ¹⁾
27/64	10.72	0.4220	150	195	0172001	A91627/64 ¹⁾
	10.80	0.4251	150	195	0147276	A91610.8 ¹⁾
	11.00	0.4330	150	195	0147283	A91611.0 ¹⁾
7/16	11.11	0.4374	150	195	0172018	A9167/16 ¹⁾
	11.20	0.4409	150	195	0147290	A91611.2 ¹⁾
	11.50	0.4527	150	195	0147306	A91611.5 ¹⁾
29/64	11.51	0.4531	150	195	0172025	A91629/64 ¹⁾
	11.80	0.4645	150	195	0147313	A91611.8 ¹⁾
15/32	11.91	0.4688	160	205	0172032	A91615/32 ¹⁾
	12.00	0.4724	160	205	0147320	A91612.0 ¹⁾
	12.20	0.4803	160	205	0147337	A91612.2 ¹⁾
31/64	12.30	0.4842	160	205	0172049	A91631/64 ¹⁾
	12.50	0.4921	160	205	0147344	A91612.5 ¹⁾
1/2	12.70	0.5000	160	205	0172056	A9161/2 ¹⁾
	12.80	0.5039	160	205	0147351	A91612.8 ¹⁾
	13.00	0.5118	160	205	0147368	A91613.0 ¹⁾
33/64	13.10	0.5156	160	205	0588376	A91633/64 ¹⁾
17/32	13.49	0.5312	169	214	0588291	A91617/32 ¹⁾
	13.50	0.5314	169	214	0588208	A91613.5 ¹⁾
	14.00	0.5511	169	214	0588215	A91614.0 ¹⁾
9/16	14.29	0.5625	172	220	0588420	A9169/16 ¹⁾
	14.50	0.5708	172	220	0588222	A91614.5 ¹⁾
37/64	14.68	0.5781	172	220	0588383	A91637/64 ¹⁾
	15.00	0.5905	172	220	0588239	A91615.0 ¹⁾
19/32	15.08	0.5938	179	227	0588321	A91619/32 ¹⁾
	15.50	0.6102	179	227	0588246	A91615.5 ¹⁾
5/8	15.88	0.6250	179	255	0588413	A9165/8 ¹⁾
	16.00	0.6299	179	227	0588253	A91616.0 ¹⁾
	16.50	0.6496	188	235	0588260	A91616.5 ¹⁾
21/32	16.67	0.6562	188	235	0588345	A91621/32 ¹⁾
	17.00	0.6693	188	235	0588277	A91617.0 ¹⁾
11/16	17.46	0.6875	195	241	0588192	A91611/16 ¹⁾
	17.50	0.6890	195	241	0588284	A91617.5 ¹⁾
45/64	17.86	0.7031	195	241	0588390	A91645/64 ¹⁾
	18.00	0.7087	195	257	0588307	A91618.0 ¹⁾
						²⁾
23/32	18.27	0.7188	210	257	0588352	A91623/32 ¹⁾
						²⁾
47/64	18.65	0.7344	210	257	0588406	A91647/64 ¹⁾
						²⁾
	19.00	0.7480	210	264	0588314	A91619.0 ¹⁾
						²⁾
3/4	19.05	0.75	215	264	0588369	A9163/4 ¹⁾
						²⁾
	20.00	0.7874	220	264	0588338	A91620.0 ¹⁾
						²⁾

¹⁾ Flute Lengths Longer than Standard²⁾ Overall Lengths Longer than Standard

- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



QC

QC91CO

HSS
Taper
Length
Drills



- 1.6 2.4 4.3 5.2
- 2.1 2.2 2.3 3.1 3.2 3.3 3.4 5.3

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	1.3/4	3"	057804
52	0.0635	2"	3.3/4	053952
51	0.0670	2"	3.3/4	053951
50	0.0700	2"	3.3/4	053950
49	0.0730	2"	3.3/4	053949
48	0.0760	2"	3.3/4	053948
5/64	0.0781	2"	3.3/4	057805
47	0.0785	2.1/4	4.1/4	053947
46	0.0810	2.1/4	4.1/4	053946
45	0.0820	2.1/4	4.1/4	053945
44	0.0860	2.1/4	4.1/4	053944
43	0.0890	2.1/4	4.1/4	053943
42	0.0935	2.1/4	4.1/4	053942
3/32	0.0938	2.1/4	4.1/4	057806
41	0.0960	2.1/2	4.5/8	053941
40	0.0980	2.1/2	4.5/8	053940
39	0.0995	2.1/2	4.5/8	053939
38	0.1015	2.1/2	4.5/8	053938
37	0.1040	2.1/2	4.5/8	053937
36	0.1065	2.1/2	4.5/8	053936
7/64	0.1094	2.1/2	4.5/8	057807
35	0.1100	2.3/4	5.1/8	053935
34	0.1110	2.3/4	5.1/8	053934
33	0.1130	2.3/4	5.1/8	053933
32	0.1160	2.3/4	5.1/8	053932
31	0.1200	2.3/4	5.1/8	053931
1/8	0.1250	2.3/4	5.1/8	057808
30	0.1285	3"	5.3/8	053930
29	0.1360	3"	5.3/8	053929
28	0.1405	3"	5.3/8	053928
9/64	0.1406	3"	5.3/8	057809
27	0.1440	3"	5.3/8	053927
26	0.1470	3"	5.3/8	053926
25	0.1495	3"	5.3/8	053925
24	0.1520	3"	5.3/8	053924
23	0.1540	3"	5.3/8	053923
5/32	0.1562	3"	5.3/8	057810
22	0.1570	3.3/8	5.3/4	053922
21	0.1590	3.3/8	5.3/4	053921
20	0.1610	3.3/8	5.3/4	053920
19	0.1660	3.3/8	5.3/4	053919
18	0.1695	3.3/8	5.3/4	053918

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
11/64	0.1719	3.3/8	5.3/4	057811
17	0.1730	3.3/8	5.3/4	053917
16	0.1770	3.3/8	5.3/4	053916
15	0.1800	3.3/8	5.3/4	053915
14	0.1820	3.3/8	5.3/4	053914
13	0.1850	3.3/8	5.3/4	053913
3/16	0.1875	3.3/8	5.3/4	057812
12	0.1890	3.5/8	6"	053912
11	0.1910	3.5/8	6"	053911
10	0.1935	3.5/8	6"	053910
9	0.1960	3.5/8	6"	053909
8	0.1990	3.5/8	6"	053908
7	0.2010	3.5/8	6"	053907
13/64	0.2031	3.5/8	6"	057813
6	0.2040	3.5/8	6"	053906
5	0.2055	3.5/8	6"	053905
4	0.2090	3.5/8	6"	053904
3	0.2130	3.5/8	6"	053903
7/32	0.2188	3.5/8	6"	057814
2	0.2210	3.3/4	6.1/8	053902
1	0.2280	3.3/4	6.1/8	053901
15/64	0.2344	3.3/4	6.1/8	057815
1/4	0.2500	3.3/4	6.1/8	057816
17/64	0.2656	3.7/8	6.1/4	057817
9/32	0.2812	3.7/8	6.1/4	057818
19/64	0.2969	4"	6.3/8	057819
5/16	0.3125	4"	6.3/8	057820
21/64	0.3281	4.1/8	6.1/2	057821
11/32	0.3438	4.1/8	6.1/2	057822
23/64	0.3594	4.1/4	6.3/4	057823
3/8	0.3750	4.1/4	6.3/4	057824
25/64	0.3906	4.3/8	7"	057825
13/32	0.4062	4.3/8	7"	057826
27/64	0.4219	4.5/8	7.1/4	057827
7/16	0.4375	4.5/8	7.1/4	057828
29/64	0.4531	4.3/4	7.1/2	057829
15/32	0.4688	4.3/4	7.1/2	057830
31/64	0.4844	4.3/4	7.3/4	057831
1/2	0.5000	4.3/4	7.3/4	057832

QC91COM



- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga

QC



QC91COM



HSS
Taper
Length
Drills

- 1.6 2.4 4.3 5.2
- 2.1 2.2 2.3 3.1 3.2 3.3 3.4 5.3

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	45	70	050415
2.00	0.0787	56	85	050420
2.50	0.0984	62	95	050425
3.00	0.1181	66	100	050430
3.50	0.1378	73	112	050435
4.00	0.1575	78	119	050440
4.50	0.1772	82	126	050445
5.00	0.1969	87	132	050450
5.20	0.2047	87	132	050452
5.50	0.2165	91	139	050455
5.60	0.2205	91	139	050456
6.00	0.2362	91	139	050460
6.50	0.2559	97	148	050465
6.80	0.2677	102	156	050468
7.00	0.2756	102	156	050470
7.50	0.2953	102	156	050475

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
8.00	0.3150	109	165	050480
8.20	0.3228	109	165	050482
8.50	0.3346	109	165	050485
8.60	0.3386	115	175	050486
9.00	0.3543	115	175	050490
9.50	0.3740	115	175	050495
10.00	0.3937	121	184	050500
10.50	0.4134	121	184	050505
11.00	0.4331	128	195	050510
11.50	0.4528	128	195	050515
12.00	0.4724	134	205	050520
12.50	0.4921	134	205	050525
13.00	0.5118	134	205	050530

- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



QC

QC91V



- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4
- 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	1.3/4	3"	081804
52	0.0635	2"	3.3/4	080852
51	0.0670	2"	3.3/4	080851
50	0.0700	2"	3.3/4	080850
49	0.0730	2"	3.3/4	080849
48	0.0760	2"	3.3/4	080848
5/64	0.0781	2"	3.3/4	081805
47	0.0785	2.1/4	4.1/4	080847
46	0.0810	2.1/4	4.1/4	080846
45	0.0820	2.1/4	4.1/4	080845
44	0.0860	2.1/4	4.1/4	080844
43	0.0890	2.1/4	4.1/4	080843
42	0.0935	2.1/4	4.1/4	080842
3/32	0.0938	2.1/4	4.1/4	081806
41	0.0960	2.1/2	4.5/8	080841
40	0.0980	2.1/2	4.5/8	080840
39	0.0995	2.1/2	4.5/8	080839
38	0.1015	2.1/2	4.5/8	080838
37	0.1040	2.1/2	4.5/8	080837
36	0.1065	2.1/2	4.5/8	080836
7/64	0.1094	2.1/2	4.5/8	081807
35	0.1100	2.3/4	5.1/8	080835
34	0.1110	2.3/4	5.1/8	080834
33	0.1130	2.3/4	5.1/8	080833
32	0.1160	2.3/4	5.1/8	080832
31	0.1200	2.3/4	5.1/8	080831
1/8	0.1250	2.3/4	5.1/8	081808
30	0.1285	3"	5.3/8	080830
29	0.1360	3"	5.3/8	080829
28	0.1405	3"	5.3/8	080828
9/64	0.1406	3"	5.3/8	081809
27	0.1440	3"	5.3/8	080827
26	0.1470	3"	5.3/8	080826
25	0.1495	3"	5.3/8	080825
24	0.1520	3"	5.3/8	080824
23	0.1540	3"	5.3/8	080823
5/32	0.1562	3"	5.3/8	081810
22	0.1570	3.3/8	5.3/4	080822
21	0.1590	3.3/8	5.3/4	080821
20	0.1610	3.3/8	5.3/4	080820
19	0.1660	3.3/8	5.3/4	080819
18	0.1695	3.3/8	5.3/4	080818

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
11/64	0.1719	3.3/8	5.3/4	081811
17	0.1730	3.3/8	5.3/4	080817
16	0.1770	3.3/8	5.3/4	080816
15	0.1800	3.3/8	5.3/4	080815
14	0.1820	3.3/8	5.3/4	080814
13	0.1850	3.3/8	5.3/4	080813
3/16	0.1875	3.3/8	5.3/4	081812
12	0.1890	3.5/8	6"	080812
11	0.1910	3.5/8	6"	080811
10	0.1935	3.5/8	6"	080810
9	0.1960	3.5/8	6"	080809
8	0.1990	3.5/8	6"	080808
7	0.2010	3.5/8	6"	080807
13/64	0.2031	3.5/8	6"	081813
6	0.2040	3.5/8	6"	080806
5	0.2055	3.5/8	6"	080805
4	0.2090	3.5/8	6"	080804
3	0.2130	3.5/8	6"	080803
7/32	0.2188	3.5/8	6"	081814
2	0.2210	3.3/4	6.1/8	080802
1	0.2280	3.3/4	6.1/8	080801
15/64	0.2344	3.3/4	6.1/8	081815
1/4	0.2500	3.3/4	6.1/8	081816
17/64	0.2656	3.7/8	6.1/4	081817
9/32	0.2812	3.7/8	6.1/4	081818
19/64	0.2969	4"	6.3/8	081819
5/16	0.3125	4"	6.3/8	081820
21/64	0.3281	4.1/8	6.1/2	081821
11/32	0.3438	4.1/8	6.1/2	081822
23/64	0.3594	4.1/4	6.3/4	081823
3/8	0.3750	4.1/4	6.3/4	081824
25/64	0.3906	4.3/8	7"	081825
13/32	0.4062	4.3/8	7"	081826
27/64	0.4219	4.5/8	7.1/4	081827
7/16	0.4375	4.5/8	7.1/4	081828
29/64	0.4531	4.3/4	7.1/2	081829
15/32	0.4688	4.3/4	7.1/2	081830
31/64	0.4844	4.3/4	7.3/4	081831
1/2	0.5000	4.3/4	7.3/4	081832

QC91G



- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



QC

QC91G



HSS
Taper
Length
Drills

- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4
- 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e- Code
1/16	0.0625	1.3/4	3"	055904
52	0.0635	2"	3.3/4	050952
51	0.0670	2"	3.3/4	050951
50	0.0700	2"	3.3/4	050950
49	0.0730	2"	3.3/4	050949
48	0.0760	2"	3.3/4	050948
5/64	0.0781	2"	3.3/4	055905
47	0.0785	2.1/4	4.1/4	050947
46	0.0810	2.1/4	4.1/4	050946
45	0.0820	2.1/4	4.1/4	050945
44	0.0860	2.1/4	4.1/4	050944
43	0.0890	2.1/4	4.1/4	050943
42	0.0935	2.1/4	4.1/4	050942
3/32	0.0938	2.1/4	4.1/4	055906
41	0.0960	2.1/2	4.5/8	050941
40	0.0980	2.1/2	4.5/8	050940
39	0.0995	2.1/2	4.5/8	050939
38	0.1015	2.1/2	4.5/8	050938
37	0.1040	2.1/2	4.5/8	050937
36	0.1065	2.1/2	4.5/8	050936
7/64	0.1094	2.1/2	4.5/8	055907
35	0.1100	2.3/4	5.1/8	050935
34	0.1110	2.3/4	5.1/8	050934
33	0.1130	2.3/4	5.1/8	050933
32	0.1160	2.3/4	5.1/8	050932
31	0.1200	2.3/4	5.1/8	050931
1/8	0.1250	2.3/4	5.1/8	055908
30	0.1285	3"	5.3/8	050930
29	0.1360	3"	5.3/8	050929
28	0.1405	3"	5.3/8	050928
9/64	0.1406	3"	5.3/8	055909
27	0.1440	3"	5.3/8	050927
26	0.1470	3"	5.3/8	050926
25	0.1495	3"	5.3/8	050925
24	0.1520	3"	5.3/8	050924
23	0.1540	3"	5.3/8	050923
5/32	0.1562	3"	5.3/8	055910
22	0.1570	3.3/8	5.3/4	050922
21	0.1590	3.3/8	5.3/4	050921
20	0.1610	3.3/8	5.3/4	050920

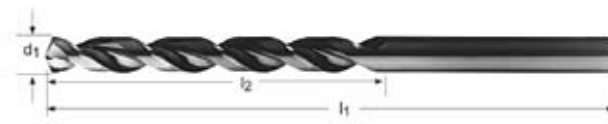
d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e- Code
19	0.1660	3.3/8	5.3/4	050919
18	0.1695	3.3/8	5.3/4	050918
11/64	0.1719	3.3/8	5.3/4	055911
17	0.1730	3.3/8	5.3/4	050917
16	0.1770	3.3/8	5.3/4	050916
15	0.1800	3.3/8	5.3/4	050915
14	0.1820	3.3/8	5.3/4	050914
13	0.1850	3.3/8	5.3/4	050913
3/16	0.1875	3.3/8	5.3/4	055912
12	0.1890	3.5/8	6"	050912
11	0.1910	3.5/8	6"	050911
10	0.1935	3.5/8	6"	050910
9	0.1960	3.5/8	6"	050909
8	0.1990	3.5/8	6"	050908
7	0.2010	3.5/8	6"	050907
13/64	0.2031	3.5/8	6"	055913
6	0.2040	3.5/8	6"	050906
5	0.2055	3.5/8	6"	050905
4	0.2090	3.5/8	6"	050904
3	0.2130	3.5/8	6"	050903
7/32	0.2188	3.5/8	6"	055914
2	0.2210	3.3/4	6.1/8	050902
1	0.2280	3.3/4	6.1/8	050901
15/64	0.2344	3.3/4	6.1/8	055915
1/4	0.2500	3.3/4	6.1/8	055916
17/64	0.2656	3.7/8	6.1/4	055917
9/32	0.2812	3.7/8	6.1/4	055918
19/64	0.2969	4"	6.3/8	055919
5/16	0.3125	4"	6.3/8	055920
21/64	0.3281	4.1/8	6.1/2	055921
11/32	0.3438	4.1/8	6.1/2	055922
23/64	0.3594	4.1/4	6.3/4	055923
3/8	0.3750	4.1/4	6.3/4	055924
25/64	0.3906	4.3/8	7"	055925
13/32	0.4062	4.3/8	7"	055926
27/64	0.4219	4.5/8	7.1/4	055927
7/16	0.4375	4.5/8	7.1/4	055928
29/64	0.4531	4.3/4	7.1/2	055929
15/32	0.4688	4.3/4	7.1/2	055930
31/64	0.4844	4.3/4	7.3/4	055931
1/2	0.5000	4.3/4	7.3/4	055932

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



QC

QC91



■ 1.1 1.2 1.3 1.4 3.1 3.2 • 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	1.3/4	3"	055804
52	0.0635	2"	3.3/4	050852
51	0.0670	2"	3.3/4	050851
50	0.0700	2"	3.3/4	050850
49	0.0730	2"	3.3/4	050849
48	0.0760	2"	3.3/4	050848
5/64	0.0781	2"	3.3/4	055805
47	0.0785	2.1/4	4.1/4	050847
46	0.0810	2.1/4	4.1/4	050846
45	0.0820	2.1/4	4.1/4	050845
44	0.0860	2.1/4	4.1/4	050844
43	0.0890	2.1/4	4.1/4	050843
42	0.0935	2.1/4	4.1/4	050842
3/32	0.0938	2.1/4	4.1/4	055806
41	0.0960	2.1/2	4.5/8	050841
40	0.0980	2.1/2	4.5/8	050840
39	0.0995	2.1/2	4.5/8	050839
38	0.1015	2.1/2	4.5/8	050838
37	0.1040	2.1/2	4.5/8	050837
36	0.1065	2.1/2	4.5/8	050836
7/64	0.1094	2.1/2	4.5/8	055807
35	0.1100	2.3/4	5.1/8	050835
34	0.1110	2.3/4	5.1/8	050834
33	0.1130	2.3/4	5.1/8	050833
32	0.1160	2.3/4	5.1/8	050832
31	0.1200	2.3/4	5.1/8	050831
1/8	0.1250	2.3/4	5.1/8	055808
30	0.1285	3"	5.3/8	050830
29	0.1360	3"	5.3/8	050829
28	0.1405	3"	5.3/8	050828
9/64	0.1406	3"	5.3/8	055809
27	0.1440	3"	5.3/8	050827
26	0.1470	3"	5.3/8	050826
25	0.1495	3"	5.3/8	050825
24	0.1520	3"	5.3/8	050824
23	0.1540	3"	5.3/8	050823
5/32	0.1562	3"	5.3/8	055810
22	0.1570	3.3/8	5.3/4	050822
21	0.1590	3.3/8	5.3/4	050821
20	0.1610	3.3/8	5.3/4	050820
19	0.1660	3.3/8	5.3/4	050819
18	0.1695	3.3/8	5.3/4	050818

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
11/64	0.1719	3.3/8	5.3/4	055811
17	0.1730	3.3/8	5.3/4	050817
16	0.1770	3.3/8	5.3/4	050816
15	0.1800	3.3/8	5.3/4	050815
14	0.1820	3.3/8	5.3/4	050814
13	0.1850	3.3/8	5.3/4	050813
3/16	0.1875	3.3/8	5.3/4	055812
12	0.1890	3.5/8	6"	050812
11	0.1910	3.5/8	6"	050811
10	0.1935	3.5/8	6"	050810
9	0.1960	3.5/8	6"	050809
8	0.1990	3.5/8	6"	050808
7	0.2010	3.5/8	6"	050807
13/64	0.2031	3.5/8	6"	055813
6	0.2040	3.5/8	6"	050806
5	0.2055	3.5/8	6"	050805
4	0.2090	3.5/8	6"	050804
3	0.2130	3.5/8	6"	050803
7/32	0.2188	3.5/8	6"	055814
2	0.2210	3.3/4	6.1/8	050802
1	0.2280	3.3/4	6.1/8	050801
15/64	0.2344	3.3/4	6.1/8	055815
1/4	0.2500	3.3/4	6.1/8	055816
17/64	0.2656	3.7/8	6.1/4	055817
9/32	0.2812	3.7/8	6.1/4	055818
19/64	0.2969	4"	6.3/8	055819
5/16	0.3125	4"	6.3/8	055820
21/64	0.3281	4.1/8	6.1/2	055821
11/32	0.3438	4.1/8	6.1/2	055822
23/64	0.3594	4.1/4	6.3/4	055823
3/8	0.3750	4.1/4	6.3/4	055824
25/64	0.3906	4.3/8	7"	055825
13/32	0.4062	4.3/8	7"	055826
27/64	0.4219	4.5/8	7.1/4	055827
7/16	0.4375	4.5/8	7.1/4	055828
29/64	0.4531	4.3/4	7.1/2	055829
15/32	0.4688	4.3/4	7.1/2	055830
31/64	0.4844	4.3/4	7.3/4	055831
1/2	0.5000	4.3/4	7.3/4	055832

QC91P



- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



QC

HSS
Taper
Length
Drills

QC91P



■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 6.1 6.2 6.3 7.1 7.2 7.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	1.3/4	3"	057904
52	0.0635	2"	3.3/4	059452
51	0.0670	2"	3.3/4	059451
50	0.0700	2"	3.3/4	059450
49	0.0730	2"	3.3/4	059449
48	0.0760	2"	3.3/4	059448
5/64	0.0781	2"	3.3/4	057905
47	0.0785	2.1/4	4.1/4	059447
46	0.0810	2.1/4	4.1/4	059446
45	0.0820	2.1/4	4.1/4	059445
44	0.0860	2.1/4	4.1/4	059444
43	0.0890	2.1/4	4.1/4	059443
42	0.0935	2.1/4	4.1/4	059442
3/32	0.0938	2.1/4	4.1/4	057906
41	0.0960	2.1/2	4.5/8	059441
40	0.0980	2.1/2	4.5/8	059440
39	0.0995	2.1/2	4.5/8	059439
38	0.1015	2.1/2	4.5/8	059438
37	0.1040	2.1/2	4.5/8	059437
36	0.1065	2.1/2	4.5/8	059436
7/64	0.1094	2.1/2	4.5/8	057907
35	0.1100	2.3/4	5.1/8	059435
34	0.1110	2.3/4	5.1/8	059434
33	0.1130	2.3/4	5.1/8	059433
32	0.1160	2.3/4	5.1/8	059432
31	0.1200	2.3/4	5.1/8	059431
1/8	0.1250	2.3/4	5.1/8	057908
30	0.1285	3"	5.3/8	059430
29	0.1360	3"	5.3/8	059429
28	0.1405	3"	5.3/8	059428
9/64	0.1406	3"	5.3/8	057909
27	0.1440	3"	5.3/8	059427
26	0.1470	3"	5.3/8	059426
25	0.1495	3"	5.3/8	059425

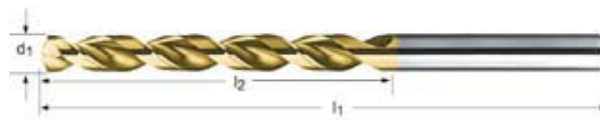
d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
24	0.1520	3"	5.3/8	059424
23	0.1540	3"	5.3/8	059423
5/32	0.1562	3"	5.3/8	057910
22	0.1570	3.3/8	5.3/4	059422
21	0.1590	3.3/8	5.3/4	059421
20	0.1610	3.3/8	5.3/4	059420
19	0.1660	3.3/8	5.3/4	059419
18	0.1695	3.3/8	5.3/4	059418
11/64	0.1719	3.3/8	5.3/4	057911
17	0.1730	3.3/8	5.3/4	059417
16	0.1770	3.3/8	5.3/4	059416
15	0.1800	3.3/8	5.3/4	059415
14	0.1820	3.3/8	5.3/4	059414
13	0.1850	3.3/8	5.3/4	059413
3/16	0.1875	3.3/8	5.3/4	057912
12	0.1890	3.5/8	6"	059412
11	0.1910	3.5/8	6"	059411
10	0.1935	3.5/8	6"	059410
9	0.1960	3.5/8	6"	059409
8	0.1990	3.5/8	6"	059408
7	0.2010	3.5/8	6"	059407
13/64	0.2031	3.5/8	6"	057913
6	0.2040	3.5/8	6"	059406
5	0.2055	3.5/8	6"	059405
4	0.2090	3.5/8	6"	059404
3	0.2130	3.5/8	6"	059403
7/32	0.2188	3.5/8	6"	057914
2	0.2210	3.3/4	6.1/8	059402
1	0.2280	3.3/4	6.1/8	059401
15/64	0.2344	3.3/4	6.1/8	057915
1/4	0.2500	3.3/4	6.1/8	057916
17/64	0.2656	3.7/8	6.1/4	057917
9/32	0.2812	3.7/8	6.1/4	057918
19/64	0.2969	4"	6.3/8	057919

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	4"	6.3/8	057920
21/64	0.3281	4.1/8	6.1/2	057921
11/32	0.3438	4.1/8	6.1/2	057922
23/64	0.3594	4.1/4	6.3/4	057923
3/8	0.3750	4.1/4	6.3/4	057924
25/64	0.3906	4.3/8	7"	057925
13/32	0.4062	4.3/8	7"	057926
27/64	0.4219	4.5/8	7.1/4	057927
7/16	0.4375	4.5/8	7.1/4	057928
29/64	0.4531	4.3/4	7.1/2	057929
15/32	0.4688	4.3/4	7.1/2	057930
31/64	0.4844	4.3/4	7.3/4	057931

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/2	0.5000	4.3/4	7.3/4	057932
33/64	0.5156	4.3/4	8"	057933
17/32	0.5312	4.3/4	8"	057934
35/64	0.5469	4.7/8	8.1/4	057935
9/16	0.5625	4.7/8	8.1/4	057936
37/64	0.5781	4.7/8	8.3/4	057937
19/32	0.5938	4.7/8	8.3/4	057938
39/64	0.6094	4.7/8	8.3/4	057939
5/8	0.6250	4.7/8	8.3/4	057940
41/64	0.6406	5.1/8	9"	057941
21/32	0.6562	5.1/8	9"	057942
43/64	0.6719	5.3/8	9.1/4	057943
11/16	0.6875	5.3/8	9.1/4	057944

QC91GM

- Taper length drill
- Foret serie longue
- Broca de mango conico- Serie Larga



QC

QC91GM



■ 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4 • 1.5 2.1 2.2 2.3 3.3 3.4 5.1

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	45	70	050215
2.00	0.0787	56	85	050220
2.50	0.0984	62	95	050225
3.00	0.1181	66	100	050230
3.50	0.1378	73	112	050235
4.00	0.1575	78	119	050240
4.50	0.1772	82	126	050245
5.00	0.1969	87	132	050250
5.20	0.2047	87	132	050252
5.50	0.2165	91	139	050255
5.60	0.2205	91	139	050256
6.00	0.2362	91	139	050260
6.50	0.2559	97	148	050265
6.80	0.2677	102	156	050268

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
7.00	0.2756	102	156	050270
7.50	0.2953	102	156	050275
8.00	0.3150	109	165	050280
8.20	0.3228	109	165	050282
8.50	0.3346	109	165	050285
8.60	0.3386	115	175	050286
9.00	0.3543	115	175	050290
9.50	0.3740	115	175	050295
10.00	0.3937	121	184	050300
10.50	0.4134	121	184	050305
11.00	0.4331	128	195	050310
11.50	0.4528	128	195	050315
12.00	0.4724	134	205	050320
12.50	0.4921	134	205	050325
13.00	0.5118	134	205	050330

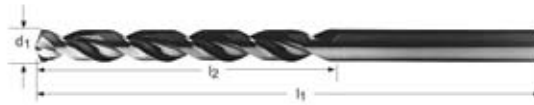
QC91M



- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



QC

QC91M



HSS
Taper
Length
Drills

- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	45	70	050615
2.00	0.0787	56	85	050620
2.50	0.0984	62	95	050625
3.00	0.1181	66	100	050630
3.50	0.1378	73	112	050635
4.00	0.1575	78	119	050640
4.50	0.1772	82	126	050645
5.00	0.1969	87	132	050650
5.20	0.2047	87	132	050652
5.50	0.2165	91	139	050655
5.60	0.2205	91	139	050656
6.00	0.2362	91	139	050660
6.50	0.2559	97	148	050665
6.80	0.2677	102	156	050668

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
7.00	0.2756	102	156	050670
7.50	0.2953	102	156	050675
8.00	0.3150	109	165	050680
8.20	0.3228	109	165	050682
8.50	0.3346	109	165	050685
8.60	0.3386	115	175	050686
9.00	0.3543	115	175	050690
9.50	0.3740	115	175	050695
10.00	0.3937	121	184	050700
10.50	0.4134	121	184	050705
11.00	0.4331	128	195	050710
11.50	0.4528	128	195	050715
12.00	0.4724	134	205	050720
12.50	0.4921	134	205	050725
13.00	0.5118	134	205	050730

- Taper length drill
- Wide-land parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



QC

QC91PM



- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 6.1 6.2 6.3
- 7.1 7.2 7.4

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.50	0.0591	45	70	050015
2.00	0.0787	56	85	050020
2.50	0.0984	62	95	050025
3.00	0.1181	66	100	050030
3.50	0.1378	73	112	050035
4.00	0.1575	78	119	050040
4.50	0.1772	82	126	050045
5.00	0.1969	87	132	050050
5.20	0.2047	87	132	050052
5.50	0.2165	91	139	050055
5.60	0.2205	91	139	050056
6.00	0.2362	91	139	050060
6.50	0.2559	97	148	050065
6.80	0.2677	102	156	050068
7.00	0.2756	102	156	050070
7.50	0.2953	102	156	050075
8.00	0.3150	109	165	050080
8.20	0.3228	109	165	050082
8.50	0.3346	109	165	050085
8.60	0.3386	115	175	050086

d ₁ Ø mm	d ₁ dec. Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
9.00	0.3543	115	175	050090
9.50	0.3740	115	175	050095
10.00	0.3937	121	184	050100
10.50	0.4134	121	184	050105
11.00	0.4331	128	195	050110
11.50	0.4528	128	195	050115
12.00	0.4724	134	205	050120
12.50	0.4921	134	205	050125
13.00	0.5118	134	205	050130
13.50	0.5315	140	214	050135
14.00	0.5512	140	214	050140
14.50	0.5709	144	220	050145
15.00	0.5906	144	220	050150
15.50	0.6102	149	227	050155
16.00	0.6299	149	227	050160
16.50	0.6496	154	235	050165
17.00	0.6693	154	235	050170
17.50	0.6890	158	241	050175

M51CO



• Taper length drill

• Foret serie longue

• Broca de mango conico- Serie Larga



HSS
Taper
Length
Drills

M51CO



• 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1
6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	1.3/4	3"	051304
5/64	0.0781	2"	3.3/4	051305
3/32	0.0938	2.1/4	4.1/4	051306
7/64	0.1094	2.1/2	4.5/8	051307
1/8	0.1250	2.3/4	5.1/8	051308
9/64	0.1406	3"	5.3/8	051309
5/32	0.1562	3"	5.3/8	051310
11/64	0.1719	3.3/8	5.3/4	051311
3/16	0.1875	3.3/8	5.3/4	051312
13/64	0.2031	3.5/8	6"	051313
7/32	0.2188	3.5/8	6"	051314
15/64	0.2344	3.3/4	6.1/8	051315
1/4	0.2500	3.3/4	6.1/8	051316
17/64	0.2656	3.7/8	6.1/4	051317
9/32	0.2812	3.7/8	6.1/4	051318
19/64	0.2969	4"	6.3/8	051319
5/16	0.3125	4"	6.3/8	051320
21/64	0.3281	4.1/8	6.1/2	051321
11/32	0.3438	4.1/8	6.1/2	051322
23/64	0.3594	4.1/4	6.3/4	051323
3/8	0.3750	4.1/4	6.3/4	051324
25/64	0.3906	4.3/8	7"	051325
13/32	0.4062	4.3/8	7"	051326
27/64	0.4219	4.5/8	7.1/4	051327
7/16	0.4375	4.5/8	7.1/4	051328
29/64	0.4531	4.3/4	7.1/2	051329
15/32	0.4688	4.3/4	7.1/2	051330
31/64	0.4844	4.3/4	7.3/4	051331
1/2	0.5000	4.3/4	7.3/4	051332
33/64	0.5156	4.3/4	8"	051333 ¹⁾
17/32	0.5312	4.3/4	8"	051334 ¹⁾
35/64	0.5469	4.7/8	8.1/4	051335 ¹⁾

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/16	0.5625	4.7/8	8.1/4	051336 ¹⁾
37/64	0.5781	4.7/8	8.3/4	051337 ¹⁾
19/32	0.5938	4.7/8	8.3/4	051338 ¹⁾
39/64	0.6094	4.7/8	8.3/4	051339 ¹⁾
5/8	0.6250	4.7/8	8.3/4	051340 ¹⁾
41/64	0.6406	5.1/8	9"	051341 ¹⁾
21/32	0.6562	5.1/8	9"	051342 ¹⁾
43/64	0.6719	5.3/8	9.1/4	051343 ¹⁾
11/16	0.6875	5.3/8	9.1/4	051344 ¹⁾
45/64	0.7031	5.5/8	9.1/2	051345 ¹⁾
23/32	0.7188	5.5/8	9.1/2	051346 ¹⁾
47/64	0.7344	5.7/8	9.3/4	051347 ¹⁾
3/4	0.7500	5.7/8	9.3/4	051348 ¹⁾
49/64	0.7656	6"	9.7/8	051349 ¹⁾
25/32	0.7812	6"	9.7/8	051350 ¹⁾
51/64	0.7969	6.1/8	10"	051351 ¹⁾
13/16	0.8125	6.1/8	10"	051352 ¹⁾
53/64	0.8281	6.1/8	10"	051353 ¹⁾
27/32	0.8438	6.1/8	10"	051354 ¹⁾
55/64	0.8594	6.1/8	10"	051355 ¹⁾
7/8	0.8750	6.1/8	10"	051356 ¹⁾
57/64	0.8906	6.1/8	10"	051357 ¹⁾
29/32	0.9062	6.1/8	10"	051358 ¹⁾
59/64	0.9219	6.1/8	10.3/4	051359 ¹⁾
15/16	0.9375	6.1/8	10.3/4	051360 ¹⁾
61/64	0.9531	6.3/8	11"	051361 ¹⁾
31/32	0.9688	6.3/8	11"	051362 ¹⁾
63/64	0.9844	6.3/8	11"	051363 ¹⁾
1"	1.0000	6.3/8	11"	051364 ¹⁾

¹⁾ 33/64" - 1" Notched Point

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

• Taper length drill

• Foret serie longue

• Broca de mango conico- Serie Larga



HSS
Taper
Lgth
Drills

M52CO



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1
- 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.0980	2.1/2	4.5/8	052340
39	0.0995	2.1/2	4.5/8	052339
36	0.1065	2.1/2	4.5/8	052336
35	0.1100	2.3/4	5.1/8	052335
34	0.1110	2.3/4	5.1/8	052334
33	0.1130	2.3/4	5.1/8	052333
32	0.1160	2.3/4	5.1/8	052332
31	0.1200	2.3/4	5.1/8	052331
30	0.1285	3"	5.3/8	052330
29	0.1360	3"	5.3/8	052329
28	0.1405	3"	5.3/8	052328
27	0.1440	3"	5.3/8	052327
26	0.1470	3"	5.3/8	052326
25	0.1495	3"	5.3/8	052325
24	0.1520	3"	5.3/8	052324
22	0.1570	3.3/8	5.3/4	052322
21	0.1590	3.3/8	5.3/4	052321
20	0.1610	3.3/8	5.3/4	052320

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
19	0.1660	3.3/8	5.3/4	052319
18	0.1695	3.3/8	5.3/4	052318
17	0.1730	3.3/8	5.3/4	052317
16	0.1770	3.3/8	5.3/4	052316
15	0.1800	3.3/8	5.3/4	052315
14	0.1820	3.3/8	5.3/4	052314
13	0.1850	3.3/8	5.3/4	052313
12	0.1890	3.5/8	6"	052312
11	0.1910	3.5/8	6"	052311
10	0.1935	3.5/8	6"	052310
9	0.1960	3.5/8	6"	052309
8	0.1990	3.5/8	6"	052308
7	0.2010	3.5/8	6"	052307
5	0.2055	3.5/8	6"	052305
4	0.2090	3.5/8	6"	052304
3	0.2130	3.5/8	6"	052303
2	0.2210	3.3/4	6.1/8	052302
1	0.2280	3.3/4	6.1/8	052301

R53OH - R51OH



- Taper length drill
- 34° helix
- Notched point

- Foret serie longue

- Broca de mango conico- Serie Larga



R53OH



HSS
Taper
Length
Drills

- 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4
- 1.5 1.6 2.1 2.2 2.3 2.4 3.3 3.4 4.1 4.2 4.3 5.1 5.2

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/8	0.3750	4.1/4	6.3/4	053204
13/32	0.4062	4.3/8	7"	053206
7/16	0.4375	4.5/8	7.1/4	053208
15/32	0.4688	4.7/8	7.1/2	053210
1/2	0.5000	5"	7.3/4	053212
17/32	0.5312	5.1/4	8"	053214
9/16	0.5625	5.3/8	8.1/4	053216
19/32	0.5938	5.5/8	8.1/2	053218
5/8	0.6250	5.3/4	8.3/4	053220
21/32	0.6562	5.7/8	9"	053222

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
11/16	0.6875	6"	9.1/4	053224
23/32	0.7188	6.3/16	9.1/2	053226
3/4	0.7500	6.3/8	9.3/4	053228
25/32	0.7812	6.1/2	9.7/8	053230
13/16	0.8125	6.5/8	10"	053232
27/32	0.8438	6.3/4	10.1/4	053234
7/8	0.8750	7"	10.1/2	053236
29/32	0.9062	7"	10.5/8	053238
15/16	0.9375	7"	10.3/4	053240
31/32	0.9688	7.1/8	10.7/8	053242
1"	1.0000	7.3/16	11"	053244

- Taper length drill
- 23° helix
- Notched point

- Foret serie longue

- Broca de mango conico- Serie Larga



R51OH



- 1.1 1.2 1.3 1.4 3.1 3.2 • 1.5 1.6 2.1 2.2 2.3 2.4 3.3 3.4 4.1 4.2 4.3 5.1 5.2

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/8	0.3750	4.1/4	6.3/4	051204
13/32	0.4062	4.3/8	7"	051206
7/16	0.4375	4.5/8	7.1/4	051208
15/32	0.4688	4.7/8	7.1/2	051210
1/2	0.5000	5"	7.3/4	051212
17/32	0.5312	5.1/4	8"	051214
9/16	0.5625	5.3/8	8.1/4	051216
19/32	0.5938	5.5/8	8.1/2	051218
5/8	0.6250	5.3/4	8.3/4	051220
21/32	0.6562	5.7/8	9"	051222
11/16	0.6875	6"	9.1/4	051224
23/32	0.7188	6.3/16	9.1/2	051226
3/4	0.7500	6.3/8	9.3/4	051228
25/32	0.7812	6.1/2	9.7/8	051230

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
13/16	0.8125	6.5/8	10"	051232
27/32	0.8438	6.3/4	10.1/4	051234
7/8	0.8750	7"	10.1/2	051236
29/32	0.9062	7"	10.5/8	051238
15/16	0.9375	7"	10.3/4	051240
31/32	0.9688	7.1/8	10.7/8	051242
1"	1.0000	7.3/16	11"	051244
1.1/16	1.0625	7.3/8	11.1/4	051248
1.1/8	1.1250	7.7/8	11.3/4	051252
1.3/16	1.1875	8.1/8	12"	051256
1.1/4	1.2500	8.1/2	12.1/2	051260
1.5/16	1.3125	9.1/4	14.1/4	051264

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Taper length drill
- Tanged shank
- Parabolic flute

- Foret serie longue

- Broca de mango conico- Serie Larga



EZ-Torque

EZ51P

HSS
Taper
Lgth
Drills


HSS


ANSI


6xD


135°

■ 1.1 1.2 1.3 1.4 3.1 3.2 6.1 6.2 6.3 7.1 7.2 7.4

● 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	2"	3"	052404 ¹⁾
5/64	0.0781	2.1/2	3.3/4	052405 ¹⁾
3/32	0.0938	2.13/16	4.1/4	052406 ¹⁾
7/64	0.1094	3.1/8	4.5/8	052407 ¹⁾
1/8	0.1250	3.3/8	5.1/8	052408
9/64	0.1406	3.5/8	5.3/8	052409
5/32	0.1562	3.3/4	5.3/8	052410
11/64	0.1719	4.1/8	5.3/4	052411
3/16	0.1875	4.1/8	5.3/4	052412
13/64	0.2031	4.3/8	6"	052413
7/32	0.2188	4.3/8	6"	052414
15/64	0.2344	4.13/16	6.1/8	052415
1/4	0.2500	4.13/16	6.1/8	052416
17/64	0.2656	5"	6.1/4	052417

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	5"	6.1/4	052418
19/64	0.2969	5.1/8	6.3/8	052419
5/16	0.3125	5.1/8	6.3/8	052420
21/64	0.3281	5.1/4	6.1/2	052421
11/32	0.3438	5.1/4	6.1/2	052422
23/64	0.3594	5.3/8	6.3/4	052423
3/8	0.3750	5.3/8	6.3/4	052424
25/64	0.3906	5.5/8	7"	052425
13/32	0.4062	5.5/8	7"	052426
27/64	0.4219	5.11/16	7.1/4	052427
7/16	0.4375	5.11/16	7.1/4	052428
29/64	0.4531	5.3/4	7.1/2	052429
15/32	0.4688	5.3/4	7.1/2	052430
31/64	0.4844	5.3/4	7.3/4	052431
1/2	0.5000	5.3/4	7.3/4	052432

¹⁾ Not tanged

R51K



- Taper length drill
- Tanged shank
- Notched point

- Foret serie longue

- Broca de mango conico- Serie Larga



R51K



HSS
Taper
Length
Drills

- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 6.1 6.2 6.3

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	3.3/8	5.1/8	051808
9/64	0.1406	3.5/8	5.3/8	051809
5/32	0.1562	3.3/4	5.3/8	051810
11/64	0.1719	4.1/8	5.3/4	051811
3/16	0.1875	4.1/8	5.3/4	051812
13/64	0.2031	4.3/8	6"	051813
7/32	0.2188	4.3/8	6"	051814
15/64	0.2344	4.13/16	6.1/8	051815
1/4	0.2500	4.13/16	6.1/8	051816
17/64	0.2656	5"	6.1/4	051817
9/32	0.2812	5"	6.1/4	051818
19/64	0.2969	5.1/8	6.3/8	051819
5/16	0.3125	5.1/8	6.3/8	051820
21/64	0.3281	5.1/4	6.1/2	051821
11/32	0.3438	5.1/4	6.1/2	051822
23/64	0.3594	5.3/8	6.3/4	051823
3/8	0.3750	5.3/8	6.3/4	051824
25/64	0.3906	5.5/8	7"	051825
13/32	0.4062	5.5/8	7"	051826
27/64	0.4219	5.11/16	7.1/4	051827

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
7/16	0.4375	5.11/16	7.1/4	051828
29/64	0.4531	5.3/4	7.1/2	051829
15/32	0.4688	5.3/4	7.1/2	051830
31/64	0.4844	5.3/4	7.3/4	051831
1/2	0.5000	5.3/4	7.3/4	051832
33/64	0.5156	6"	8"	051833
17/32	0.5312	6"	8"	051834
9/16	0.5625	6.1/4	8.1/4	051836
37/64	0.5781	6.1/2	8.3/4	051837
19/32	0.5938	6.1/2	8.3/4	051838
39/64	0.6094	6.1/2	8.3/4	051839
5/8	0.6250	6.1/2	8.3/4	051840
41/64	0.6406	6.3/4	9"	051841
21/32	0.6562	6.3/4	9"	051842
11/16	0.6875	6.7/8	9.1/4	051844
23/32	0.7188	7.1/8	9.1/2	051846
3/4	0.7500	7.3/8	9.3/4	051848

• Taper length drill

• Foret serie longue

• Broca de mango conico- Serie Larga



R51 Note: Sizes 45/64 and larger are steam oxide

HSS
Taper
Lgth
Drills



• 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1
6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/64	0.0156	5/16	1.1/2	051001
1/32	0.0312	3/4	2"	051002
3/64	0.0469	1.1/8	2.1/4	051003
1/16	0.0625	1.3/4	3"	051004
5/64	0.0781	2"	3.3/4	051005
3/32	0.0938	2.1/4	4.1/4	051006
7/64	0.1094	2.1/2	4.5/8	051007
1/8	0.1250	2.3/4	5.1/8	051008
9/64	0.1406	3"	5.3/8	051009
5/32	0.1562	3"	5.3/8	051010
11/64	0.1719	3.3/8	5.3/4	051011
3/16	0.1875	3.3/8	5.3/4	051012
13/64	0.2031	3.5/8	6"	051013
7/32	0.2188	3.5/8	6"	051014
15/64	0.2344	3.3/4	6.1/8	051015
1/4	0.2500	3.3/4	6.1/8	051016
17/64	0.2656	3.7/8	6.1/4	051017
9/32	0.2812	3.7/8	6.1/4	051018
19/64	0.2969	4"	6.3/8	051019
5/16	0.3125	4"	6.3/8	051020
21/64	0.3281	4.1/8	6.1/2	051021
11/32	0.3438	4.1/8	6.1/2	051022
23/64	0.3594	4.1/4	6.3/4	051023
3/8	0.3750	4.1/4	6.3/4	051024
25/64	0.3906	4.3/8	7"	051025
13/32	0.4062	4.3/8	7"	051026
27/64	0.4219	4.5/8	7.1/4	051027
7/16	0.4375	4.5/8	7.1/4	051028
29/64	0.4531	4.3/4	7.1/2	051029
15/32	0.4688	4.3/4	7.1/2	051030
31/64	0.4844	4.3/4	7.3/4	051031
1/2	0.5000	4.3/4	7.3/4	051032
33/64	0.5156	4.3/4	8"	051033
17/32	0.5312	4.3/4	8"	051034
35/64	0.5469	4.7/8	8.1/4	051035
9/16	0.5625	4.7/8	8.1/4	051036
37/64	0.5781	4.7/8	8.3/4	051037
19/32	0.5938	4.7/8	8.3/4	051038
39/64	0.6094	4.7/8	8.3/4	051039
5/8	0.6250	4.7/8	8.3/4	051040
41/64	0.6406	5.1/8	9"	051041
21/32	0.6562	5.1/8	9"	051042
43/64	0.6719	5.3/8	9.1/4	051043
11/16	0.6875	5.3/8	9.1/4	051044

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
45/64	0.7031	5.5/8	9.1/2	051045
23/32	0.7188	5.5/8	9.1/2	051046
47/64	0.7344	5.7/8	9.3/4	051047
3/4	0.7500	5.7/8	9.3/4	051048
49/64	0.7656	6"	9.7/8	051049
25/32	0.7812	6"	9.7/8	051050
51/64	0.7969	6.1/8	10"	051051
13/16	0.8125	6.1/8	10"	051052
53/64	0.8281	6.1/8	10"	051053
27/32	0.8438	6.1/8	10"	051054
55/64	0.8594	6.1/8	10"	051055
7/8	0.8750	6.1/8	10"	051056
57/64	0.8906	6.1/8	10"	051057
29/32	0.9062	6.1/8	10"	051058
59/64	0.9219	6.1/8	10.3/4	051059
15/16	0.9375	6.1/8	10.3/4	051060
61/64	0.9531	6.3/8	11"	051061
31/32	0.9688	6.3/8	11"	051062
63/64	0.9844	6.3/8	11"	051063
1"	1.0000	6.3/8	11"	051100
1.1/64	1.0156	6.1/2	11.1/8	051101
1.1/32	1.0312	6.1/2	11.1/8	051102
1.3/64	1.0469	6.5/8	11.1/4	051103
1.1/16	1.0625	6.5/8	11.1/4	051104
1.5/64	1.0781	6.7/8	11.1/2	051105
1.3/32	1.0938	6.7/8	11.1/2	051106
1.7/64	1.1094	7.1/8	11.3/4	051107
1.1/8	1.1250	7.1/8	11.3/4	051108
1.9/64	1.1406	7.1/4	11.7/8	051109
1.5/32	1.1562	7.1/4	11.7/8	051110
1.11/64	1.1719	7.3/8	12"	051111
1.3/16	1.1875	7.3/8	12"	051112
1.13/64	1.2031	7.1/2	12.1/8	051113
1.7/32	1.2188	7.1/2	12.1/8	051114
1.15/64	1.2344	7.7/8	12.1/2	051115
1.1/4	1.2500	7.7/8	12.1/2	051116
1.5/16	1.3125	8.5/8	14.1/4	051120
1.3/8	1.3750	8.7/8	14.1/2	051124
1.7/16	1.4375	9.1/8	14.3/4	051128
1.1/2	1.5000	9.3/8	15"	051132
1.9/16	1.5625	9.5/8	15.1/4	051136
1.5/8	1.6250	9.7/8	15.5/8	051140
1.3/4	1.7500	10.1/2	16.1/4	051148

R52



• Taper length drill

• Foret serie longue

• Broca de mango conico- Serie Larga



R52



HSS
Taper
Length
Drills

• 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1
6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
80	0.0135	5/16	1.1/2	052080
79	0.0145	5/16	1.1/2	052079
78	0.0160	5/16	1.1/2	052078
77	0.0180	5/16	1.1/2	052077
76	0.0200	5/16	1.1/2	052076
75	0.0210	5/16	1.1/2	052075
74	0.0225	5/16	1.1/2	052074
73	0.0240	5/16	1.1/2	052073
72	0.0250	5/16	1.1/2	052072
71	0.0260	3/4	2"	052071
70	0.0280	3/4	2"	052070
69	0.0292	3/4	2"	052069
68	0.0310	3/4	2"	052068
67	0.0320	3/4	2"	052067
66	0.0330	3/4	2"	052066
65	0.0350	3/4	2"	052065
64	0.0360	3/4	2"	052064
63	0.0370	3/4	2"	052063
62	0.0380	3/4	2"	052062
61	0.0390	1.1/8	2.1/4	052061
60	0.0400	1.1/8	2.1/4	052060
59	0.0410	1.1/8	2.1/4	052059
58	0.0420	1.1/8	2.1/4	052058
57	0.0430	1.1/8	2.1/4	052057
56	0.0465	1.1/8	2.1/4	052056
55	0.0520	1.3/4	3"	052055
54	0.0550	1.3/4	3"	052054
53	0.0595	1.3/4	3"	052053
52	0.0635	2"	3.3/4	052052
51	0.0670	2"	3.3/4	052051
50	0.0700	2"	3.3/4	052050
49	0.0730	2"	3.3/4	052049
48	0.0760	2"	3.3/4	052048
47	0.0785	2.1/4	4.1/4	052047
46	0.0810	2.1/4	4.1/4	052046
45	0.0820	2.1/4	4.1/4	052045
44	0.0860	2.1/4	4.1/4	052044
43	0.0890	2.1/4	4.1/4	052043
42	0.0935	2.1/4	4.1/4	052042
41	0.0960	2.1/2	4.5/8	052041
40	0.0980	2.1/2	4.5/8	052040
39	0.0995	2.1/2	4.5/8	052039

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
38	0.1015	2.1/2	4.5/8	052038
37	0.1040	2.1/2	4.5/8	052037
36	0.1065	2.1/2	4.5/8	052036
35	0.1100	2.3/4	5.1/8	052035
34	0.1110	2.3/4	5.1/8	052034
33	0.1130	2.3/4	5.1/8	052033
32	0.1160	2.3/4	5.1/8	052032
31	0.1200	2.3/4	5.1/8	052031
30	0.1285	3"	5.3/8	052030
29	0.1360	3"	5.3/8	052029
28	0.1405	3"	5.3/8	052028
27	0.1440	3"	5.3/8	052027
26	0.1470	3"	5.3/8	052026
25	0.1495	3"	5.3/8	052025
24	0.1520	3"	5.3/8	052024
23	0.1540	3"	5.3/8	052023
22	0.1570	3.3/8	5.3/4	052022
21	0.1590	3.3/8	5.3/4	052021
20	0.1610	3.3/8	5.3/4	052020
19	0.1660	3.3/8	5.3/4	052019
18	0.1695	3.3/8	5.3/4	052018
17	0.1730	3.3/8	5.3/4	052017
16	0.1770	3.3/8	5.3/4	052016
15	0.1800	3.3/8	5.3/4	052015
14	0.1820	3.3/8	5.3/4	052014
13	0.1850	3.3/8	5.3/4	052013
12	0.1890	3.5/8	6"	052012
11	0.1910	3.5/8	6"	052011
10	0.1935	3.5/8	6"	052010
9	0.1960	3.5/8	6"	052009
8	0.1990	3.5/8	6"	052008
7	0.2010	3.5/8	6"	052007
6	0.2040	3.5/8	6"	052006
5	0.2055	3.5/8	6"	052005
4	0.2090	3.5/8	6"	052004
3	0.2130	3.5/8	6"	052003
2	0.2210	3.3/4	6.1/8	052002
1	0.2280	3.3/4	6.1/8	052001

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

• Taper length drill

• Foret serie longue

• Broca de mango conico- Serie Larga



R55



• 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1
6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	3.3/4	6.1/8	055001
B	0.2380	3.3/4	6.1/8	055002
C	0.2420	3.3/4	6.1/8	055003
D	0.2460	3.3/4	6.1/8	055004
E	0.2500	3.3/4	6.1/8	055005
F	0.2570	3.7/8	6.1/4	055006
G	0.2610	3.7/8	6.1/4	055007
H	0.2660	3.7/8	6.1/4	055008
I	0.2720	3.7/8	6.1/4	055009
J	0.2770	3.7/8	6.1/4	055010
K	0.2810	3.7/8	6.1/4	055011
L	0.2900	4"	6.3/8	055012
M	0.2950	4"	6.3/8	055013
N	0.3020	4"	6.3/8	055014

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	4.1/8	6.1/2	055015
P	0.3230	4.1/8	6.1/2	055016
Q	0.3320	4.1/8	6.1/2	055017
R	0.3390	4.1/8	6.1/2	055018
S	0.3480	4.1/4	6.3/4	055019
T	0.3580	4.1/4	6.3/4	055020
U	0.3680	4.1/4	6.3/4	055021
V	0.3770	4.3/8	7"	055022
W	0.3860	4.3/8	7"	055023
X	0.3970	4.3/8	7"	055024
Y	0.4040	4.3/8	7"	055025
Z	0.4130	4.5/8	7.1/4	055026

5ATL



• Taper length drill

• Foret serie longue

• Broca de mango conico- Serie Larga



HSS
Taper
Length
Drills

5ATL Steam Tempered 18.00mm and above



•	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	4.1	4.2	4.3	5.1	5.2	5.3	6.1
	6.2	6.3	6.4	7.1	7.2	7.3	7.4	8.1	8.2	8.3	9.1									

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
1.00	0.0394	33	56	056100
1.20	0.0472	41	65	056120
1.25	0.0492	41	65	056125
1.30	0.0512	41	65	056130
1.40	0.0551	45	70	056140
1.50	0.0591	45	70	056150
1.60	0.0630	50	76	056160
1.70	0.0669	50	76	056170
1.80	0.0709	53	80	056180
1.90	0.0748	53	80	056190
2.00	0.0787	56	85	056200
2.10	0.0827	56	85	056210
2.15	0.0846	59	90	056215
2.20	0.0866	59	90	056220
2.30	0.0906	59	90	056230
2.40	0.0945	62	95	056240
2.50	0.0984	62	95	056250
3.00	0.1181	66	100	056300
3.10	0.1220	69	106	056310
3.20	0.1260	69	106	056320
3.30	0.1299	69	106	056330
3.40	0.1339	73	112	056340
3.50	0.1378	73	112	056350
3.60	0.1417	73	112	056360
3.70	0.1457	73	112	056370
3.80	0.1496	78	119	056380
4.00	0.1575	78	119	056400
4.20	0.1654	78	119	056420
4.30	0.1693	82	126	056430
4.50	0.1772	82	126	056450
4.60	0.1811	82	126	056460
4.80	0.1890	87	132	056480
5.00	0.1969	87	132	056500
5.50	0.2165	91	139	056550
5.60	0.2205	91	139	056560
5.70	0.2244	91	139	056570

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
6.00	0.2362	91	139	056600
6.40	0.2520	97	148	056640
6.50	0.2559	97	148	056650
6.80	0.2677	102	156	056680
7.00	0.2756	102	156	056770
7.20	0.2835	102	156	056720
7.50	0.2953	102	156	056750
7.80	0.3071	109	165	056780
8.00	0.3150	109	165	056800
8.20	0.3228	109	165	056820
8.50	0.3346	109	165	056850
9.00	0.3543	115	175	056900
9.20	0.3622	115	175	056920
9.50	0.3740	115	175	056950
9.80	0.3858	121	184	056980
10.00	0.3937	121	184	057100
10.20	0.4016	121	184	057102
10.50	0.4134	121	184	057105
11.00	0.4331	128	195	057110
11.20	0.4409	128	195	057112
11.50	0.4528	128	195	057115
12.00	0.4724	134	205	057120
12.50	0.4921	134	205	057125
13.00	0.5118	134	205	057130
13.50	0.5315	140	214	057135
13.80	0.5433	140	214	057138
14.00	0.5512	140	214	057140
14.50	0.5709	144	220	057145
15.00	0.5906	144	220	057150
15.50	0.6102	149	227	057155
16.00	0.6299	149	227	057160
16.50	0.6496	154	235	057165
17.00	0.6693	154	235	057170
17.50	0.6890	158	241	057175
18.00	0.7087	158	241	057180
18.50	0.7283	162	247	057185

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

Steam Tempered 18.00mm and above

HSS
Taper
Lgth
Drills

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
19.00	0.7480	162	247	057190
19.50	0.7677	166	254	057195
20.00	0.7874	166	254	057200
20.50	0.8071	171	261	057205
21.00	0.8268	171	261	057210
21.50	0.8465	176	268	057215
22.00	0.8661	176	268	057220
22.50	0.8858	180	275	057225
23.00	0.9055	180	275	057230
23.50	0.9252	180	275	057235
24.00	0.9449	185	282	057240
24.50	0.9646	185	282	057245

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
25.00	0.9843	185	282	057250
25.50	1.0039	190	290	057255
26.00	1.0236	190	290	057260
26.50	1.0433	190	290	057265
27.00	1.0630	195	298	057270
28.00	1.1024	195	298	057280
28.50	1.1220	201	307	057285
29.00	1.1417	201	307	057290
29.50	1.1614	201	307	057295
30.00	1.1811	201	307	057300
30.50	1.2008	207	316	057305
31.00	1.2205	207	316	057310

R09



- Taper Length Drill
- Automotive Tanged Shank

- Foret serie longue

- Broca de mango conico- Serie Larga



R09



HSS
Taper
Length
Drills

■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 6.1 6.2 6.3

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	2.3/4	5.1/8	051908
9/64	0.1406	3"	5.3/8	051909
5/32	0.1562	3"	5.3/8	051910
11/64	0.1719	3.3/8	5.3/4	051911
3/16	0.1875	3.3/8	5.3/4	051912
13/64	0.2031	3.5/8	6"	051913
7/32	0.2188	3.5/8	6"	051914
15/64	0.2344	3.3/4	6.1/8	051915
1/4	0.2500	3.3/4	6.1/8	051916
17/64	0.2656	3.7/8	6.1/4	051917
9/32	0.2812	3.7/8	6.1/4	051918
19/64	0.2969	4"	6.3/8	051919
5/16	0.3125	4"	6.3/8	051920
21/64	0.3281	4.1/8	6.1/2	051921
11/32	0.3438	4.1/8	6.1/2	051922
23/64	0.3594	4.1/4	6.3/4	051923
3/8	0.3750	4.1/4	6.3/4	051924
25/64	0.3906	4.3/8	7"	051925

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
13/32	0.4062	4.3/8	7"	051926
27/64	0.4219	4.5/8	7.1/4	051927
7/16	0.4375	4.5/8	7.1/4	051928
29/64	0.4531	4.3/4	7.1/2	051929
15/32	0.4688	4.3/4	7.1/2	051930
31/64	0.4844	4.3/4	7.3/4	051931
1/2	0.5000	4.3/4	7.3/4	051932
33/64	0.5156	4.3/4	8"	051933
17/32	0.5312	4.3/4	8"	051934
35/64	0.5469	4.7/8	8.1/4	051935
9/16	0.5625	4.7/8	8.1/4	051936
37/64	0.5781	4.7/8	8.3/4	051937
19/32	0.5938	4.7/8	8.3/4	051938
5/8	0.6250	4.7/8	8.3/4	051940
21/32	0.6562	5.1/8	9"	051942
43/64	0.6719	5.3/8	9.1/4	051943
11/16	0.6875	5.3/8	9.1/4	051944

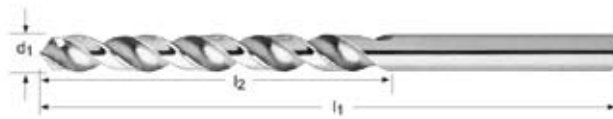
■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

R51FS - R52FS

- Taper Length Drill
- High helix

- Foret serie longue

- Broca de mango conico- Serie Larga



R51FS



■ 6.1 7.1 7.2 7.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	1.3/4	3"	051504
5/64	0.0781	2"	3.3/4	051505
3/32	0.0938	2.1/4	4.1/4	051506
7/64	0.1094	2.1/2	4.5/8	051507
1/8	0.1250	2.3/4	5.1/8	051508
9/64	0.1406	3"	5.3/8	051509
5/32	0.1562	3"	5.3/8	051510
11/64	0.1719	3.3/8	5.3/4	051511
3/16	0.1875	3.3/8	5.3/4	051512
13/64	0.2031	3.5/8	6"	051513
7/32	0.2188	3.5/8	6"	051514
15/64	0.2344	3.3/4	6.1/8	051515
1/4	0.2500	3.3/4	6.1/8	051516
17/64	0.2656	3.7/8	6.1/4	051517

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
9/32	0.2812	3.7/8	6.1/4	051518
19/64	0.2969	4"	6.3/8	051519
5/16	0.3125	4"	6.3/8	051520
21/64	0.3281	4.1/8	6.1/2	051521
11/32	0.3438	4.1/8	6.1/2	051522
23/64	0.3594	4.1/4	6.3/4	051523
3/8	0.3750	4.1/4	6.3/4	051524
25/64	0.3906	4.3/8	7"	051525
13/32	0.4062	4.3/8	7"	051526
27/64	0.4219	4.5/8	7.1/4	051527
7/16	0.4375	4.5/8	7.1/4	051528
29/64	0.4531	4.3/4	7.1/2	051529
15/32	0.4688	4.3/4	7.1/2	051530
31/64	0.4844	4.3/4	7.3/4	051531
1/2	0.5000	4.3/4	7.3/4	051532

R52FS

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
60	0.0400	1.1/8	2.1/4	052560
58	0.0420	1.1/8	2.1/4	052558
56	0.0465	1.1/8	2.1/4	052556
55	0.0520	1.3/4	3"	052555
54	0.0550	1.3/4	3"	052554
53	0.0595	1.3/4	3"	052553
52	0.0635	2"	3.3/4	052552
51	0.0670	2"	3.3/4	052551
50	0.0700	2"	3.3/4	052550
48	0.0760	2"	3.3/4	052548
47	0.0785	2.1/4	4.1/4	052547
46	0.0810	2.1/4	4.1/4	052546
45	0.0820	2.1/4	4.1/4	052545
44	0.0860	2.1/4	4.1/4	052544
43	0.0890	2.1/4	4.1/4	052543
42	0.0935	2.1/4	4.1/4	052542
41	0.0960	2.1/2	4.5/8	052541
40	0.0980	2.1/2	4.5/8	052540
39	0.0995	2.1/2	4.5/8	052539
38	0.1015	2.1/2	4.5/8	052538
37	0.1040	2.1/2	4.5/8	052537
36	0.1065	2.1/2	4.5/8	052536
35	0.1100	2.3/4	5.1/8	052535
34	0.1110	2.3/4	5.1/8	052534
32	0.1160	2.3/4	5.1/8	052532
31	0.1200	2.3/4	5.1/8	052531
30	0.1285	3"	5.3/8	052530
29	0.1360	3"	5.3/8	052529

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
28	0.1405	3"	5.3/8	052528
27	0.1440	3"	5.3/8	052527
26	0.1470	3"	5.3/8	052526
25	0.1495	3"	5.3/8	052525
24	0.1520	3"	5.3/8	052524
23	0.1540	3"	5.3/8	052523
22	0.1570	3.3/8	5.3/4	052522
21	0.1590	3.3/8	5.3/4	052521
20	0.1610	3.3/8	5.3/4	052520
19	0.1660	3.3/8	5.3/4	052519
18	0.1695	3.3/8	5.3/4	052518
16	0.1770	3.3/8	5.3/4	052516
15	0.1800	3.3/8	5.3/4	052515
14	0.1820	3.3/8	5.3/4	052514
13	0.1850	3.3/8	5.3/4	052513
12	0.1890	3.5/8	6"	052512
11	0.1910	3.5/8	6"	052511
10	0.1935	3.5/8	6"	052510
9	0.1960	3.5/8	6"	052509
7	0.2010	3.5/8	6"	052507
6	0.2040	3.5/8	6"	052506
5	0.2055	3.5/8	6"	052505
4	0.2090	3.5/8	6"	052504
3	0.2130	3.5/8	6"	052503
2	0.2210	3.3/4	6.1/8	052502
1	0.2280	3.3/4	6.1/8	052501

R55FS



- Taper Length Drill
- High helix

- Foret serie longue

- Broca de mango conico- Serie Larga



R55FS



HSS
Taper
Length
Drills

■ 6.1 7.1 7.2 7.4

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
B	0.2380	3.3/4	6.1/8	055502
C	0.2420	3.3/4	6.1/8	055503
D	0.2460	3.3/4	6.1/8	055504
F	0.2570	3.7/8	6.1/4	055506
G	0.2610	3.7/8	6.1/4	055507
I	0.2720	3.7/8	6.1/4	055509
J	0.2770	3.7/8	6.1/4	055510
L	0.2900	4"	6.3/8	055512
M	0.2950	4"	6.3/8	055513
N	0.3020	4"	6.3/8	055514

d ₁ Ø	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	4.1/8	6.1/2	055515
P	0.3230	4.1/8	6.1/2	055516
Q	0.3320	4.1/8	6.1/2	055517
R	0.3390	4.1/8	6.1/2	055518
T	0.3580	4.1/4	6.3/4	055520
U	0.3680	4.1/4	6.3/4	055521
V	0.3770	4.3/8	7"	055522
W	0.3860	4.3/8	7"	055523

HSS Extra Length Drills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Depth of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
example: 279 U
279 = SFM
U = Alpha Code to find your Feed Rate
- 4 To calculate Cutting Feed Rate, refer to chart on pages 9-10.

AMG
Chart

- = Excellent for Application
- = Good for Application



Style:

Tool Material:

Finish/Coating:

Standard:

Direction of Cut:

2 Depth of Cut:

Tool Length:

Shank:

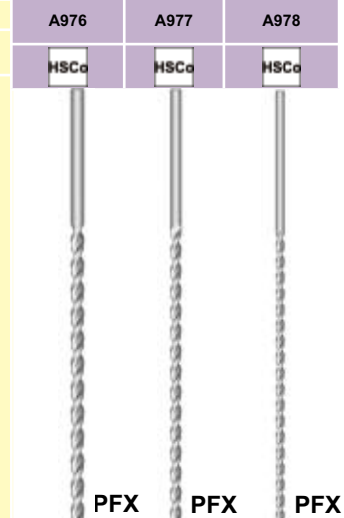
Helix:

Point Angle:

Point Style:

Special Standard:

HSS Extra Length Drills



DIN 1869/1	DIN 1869/2	DIN 1869/3
15XD	15XD	15XD
W	W	W
130°	130°	130°

3 Surface Feet per Minute (SFM)

Page # for easy reference				3	Surface Feet per Minute (SFM)		
Application Material Groups (AMG) 1			Hardness HB				
					138	139	139
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	●102C	●102B	●102A
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	●85C	●85B	●85A
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■72C	■72B	■72A
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	■72C	■72B	■72A
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	■39A	■39A	■39A
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6	■33A	■33A	■33A
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7			
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8			
2.Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●39B	●39B	●39A
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	●23C	●23B	●23A
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH. DUPLEX	<300	2.3	●26A	●26A	●26A
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4			
3.Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1			
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●75C	●75B	●75A
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●52C	●52B	●52A
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●36A	●36A	●36A
4.Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●49C	●49B	●49A
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●36A	●36A	●36A
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●16A	●16A	●16A
5.Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1			
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2			
	5.3 Nickel, alloyed	Inconel 718,Nimonic 75-95,Rene 41,Inconel 825,A286	>270<350	5.3			
6.Copper	6.1 Copper	Commercially Pure	<100	6.1			
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2			
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●98D	●98C	●98B
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●89D	●89C	●89B
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1			
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2			
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3			
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●89D	●89C	●89B
8.Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1			
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2			
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3			
9.Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1			
10.Graphite	10.1 Standard graphite		---	10.1			

HSS Extra Length Drills (con't)

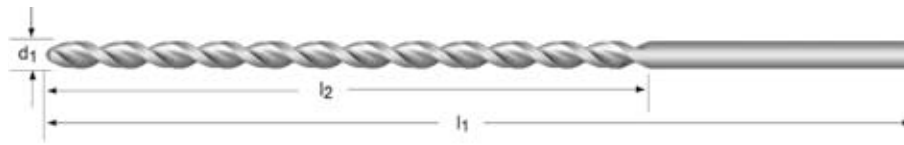
HSS Extra Length Drills											
CO500-6 CO501-6	CO500-12 CO501-12	500-6, 501-6, 502-6	500-12, 501-12, 502-12	QC0860P	QC1290P	0860	1290	1511	1813	A345	
HSCo	HSCo	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
											
		ST	ST							ST	
ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	DIN 18701/5	
											
											
											
NAS 997	NAS 997	NAS 997	NAS 997							N	
Surface Feet per Minute (SFM)											
140	141	142-143	144-145	146	148	146	147	149	149	150	
1.1				■98F	■98F	■79E	■79E	■79E	■79E	■79G	1.1
1.2				■59F	■59F	■72E	■72E	■72E	■72E	■72G	1.2
1.3		●82F	●82F	■66H	■66H	●52C	●52C	●52C	●52C	●56E	1.3
1.4		●66F	●66F	■59F	■59F	●49C	●49C	●49C	●49C	●49D	1.4
1.5		■43E	■43E	■46D	■46D	●20A	●20A	●20A	●20A	●20C	1.5
1.6	■20B	■20B	■30D	■30D		●16A	●16A	●16A	●16A	●16B	1.6
1.7											1.7
1.8											1.8
2.1	●95H	●95H	●49E	●49E	●89H	●89H	●30C	●30C	●30C	●39C	2.1
2.2	●56F	●56F	■26G	■26G	●49F	●49F	●13E	●13E	●13E	●13E	2.2
2.3	●56D	●56D	■30C	■30C	●49D	●49D	●26A	●26A	●26A	●26A	2.3
2.4	●30D	●30D									2.4
3.1	●161H	●161H	●98I	●98I	■151H	■151H	●72G	●72G	●72G	●72G	3.1
3.2	●85H	●85H	●79F	●79F	■79H	■79H	●59D	●59D	●59D	●59D	3.2
3.3	●85F	●85F	●66E	●66E	■79F	■79F	●43C	●43C	●43C	●43C	3.3
3.4	■56D	■56D	■46E	■46E			●30C	●30C	●30C	●30C	3.4
4.1			■75F	■75F			●36D	●36D	●36D	●49D	4.1
4.2			■39D	■39D			●30B	●30B	●30B	●30B	4.2
4.3	■20D	■20D	■20B	■20B			●16A	●16A	●16A	●16A	4.3
5.1			■33G	■33G	●49F	●49F	●16E	●16E	●16E	●26E	5.1
5.2	■20B	■20B	●20E	●20E			●13C	●13C	●13C	●13C	5.2
5.3	●16B	●16B	●10A	●10A			●10A	●10A	●10A	●10A	5.3
6.1							●79D	●79D	●79D	●89D	6.1
6.2					●79H	●79H	●108G	●108G	●108G	●108G	6.2
6.3		●89H	●89H	●89H	●75H	●75H	●72F	●72F	●72F	●89F	6.3
6.4		■52G	■52G	■52G			●52D	●52D	●52D	●52D	6.4
7.1					●348H	●348H	●79H	●79H	●79H	●108H	7.1
7.2					●325H	●325H	●72G	●72G	●72G	●89G	7.2
7.3							●72F	●72F	●72F	●89F	7.3
7.4			■79F	■79F	●276H	●276H	●66E	●66E	●66E	●79F	7.4
8.1					●151D	●151D	●98H	●98H	●98H	●98J	8.1
8.2					●125D	●125D	●85F	●85F	●85F	●98H	8.2
8.3							●33D	●33D	●33D	●33F	8.3
9.1		●10B	●10B				●10A	●10A	●10A	●10A	9.1
10.1											10.1



- PFX extra length drill

- Foret PFX extra-long

- Broca PFX Extra Larga



PFX

A976



HSS
Extra
Lgth
Drills

■	1.3	1.4	1.5	1.6															
●	1.1	1.2	2.1	2.2	2.3	3.2	3.3	3.4	4.1	4.2	4.3	6.3	6.4	7.4					

d_1 $\varnothing h_8$ Inch	d_1 $\varnothing h_8$ mm	d_1 decimal Inch	l_2 mm	l_1 mm	Stock #	EDP # or e-Code
	1.50	0.0590	75	115	0347362	A9761.5
	2.00	0.0787	85	125	0148501	A9762.0X125
	2.10	0.0826	85	125	0279724	A9762.1X125
	2.20	0.0866	90	135	0148518	A9762.2X135
	2.30	0.0905	90	135	0279717	A9762.3X135
	2.40	0.0944	95	140	0279731	A9762.4X140
	2.50	0.0984	95	140	0148525	A9762.5X140
	2.60	0.1023	95	140	0279748	A9762.6X140
	2.70	0.1062	100	150	0279755	A9762.7X150
	2.80	0.1102	100	150	0279762	A9762.8X150
	2.90	0.1141	100	150	0279779	A9762.9X150
	3.00	0.1181	100	150	0148532	A9763.0X150
	3.10	0.1220	105	155	0279786	A9763.1X155
1/8	3.18	0.1251	105	155	0347072	A9761/8
	3.20	0.1259	105	155	0279793	A9763.2X155
	3.30	0.1299	105	155	0148549	A9763.3X155
	3.40	0.1338	115	165	0279809	A9763.4X165
	3.50	0.1377	115	165	0148556	A9763.5X165
	3.60	0.1417	115	165	0279816	A9763.6X165
	3.70	0.1456	115	165	0148563	A9763.7X165
	3.80	0.1496	120	175	0279823	A9763.8X175
	3.90	0.1535	120	175	0279830	A9763.9X175
5/32	3.97	0.1562	120	175	0347089	A9765/32
	4.00	0.1574	120	175	0148570	A9764.0X175
	4.10	0.1614	120	175	0279847	A9764.1X175
	4.20	0.1653	120	175	0279854	A9764.2X175
	4.30	0.1692	125	185	0279861	A9764.3X185
	4.40	0.1732	125	185	0279878	A9764.4X185
	4.50	0.1771	125	185	0148587	A9764.5X185
	4.60	0.1811	125	185	0279885	A9764.6X185
	4.70	0.1850	125	185	0279892	A9764.7X185
3/16	4.76	0.1874	135	195	0347935	A9763/16
	4.80	0.1889	135	195	0279908	A9764.8X195
	4.90	0.1929	135	195	0279915	A9764.9X195
	5.00	0.1968	135	195	0148594	A9765.0X195
	5.10	0.2007	135	195	0279922	A9765.1X195

d_1 Øh ₈ Inch	d_1 Øh ₈ mm	d_1 decimal Inch	l_2 mm	l mm	Stock #	EDP # or e-Code
	5.20	0.2047	135	195	0279939	A9765.2X195
	5.30	0.2086	135	195	0279946	A9765.3X195
	5.40	0.2125	140	205	0279953	A9765.4X205
	5.50	0.2165	140	205	0148600	A9765.5X205
	5.60	0.2204	140	205	0279960	A9765.6X205
	5.70	0.2244	140	205	0279977	A9765.7X205
	5.80	0.2283	140	205	0279984	A9765.8X205
	5.90	0.2322	140	205	0279991	A9765.9X205
	6.00	0.2362	140	205	0148617	A9766.0X205
	6.10	0.2401	150	215	0280003	A9766.1X215
	6.20	0.2440	150	215	0280010	A9766.2X215
	6.30	0.2480	150	215	0280027	A9766.3X215
1/4	6.35	0.2500	140	205	0347096	A9761/4 ¹⁾
	6.40	0.2519	150	215	0280034	A9766.4X215
	6.50	0.2559	150	215	0148624	A9766.5X215
	6.60	0.2598	150	215	0280041	A9766.6X215
	6.70	0.2637	150	215	0280058	A9766.7X215
	6.80	0.2677	155	225	0280065	A9766.8X225
	6.90	0.2716	155	225	0280072	A9766.9X225
	7.00	0.2755	155	225	0148631	A9767.0X225
	7.50	0.2952	155	225	0148648	A9767.5X225
5/16	7.94	0.3125	165	240	0347102	A9765/16
	8.00	0.3149	165	240	0148655	A9768.0X240
	8.50	0.3346	165	240	0148662	A9768.5X240
11/32	8.73	0.3437	175	250	0347119	A97611/32
	9.00	0.3543	175	250	0148679	A9769.0X250
	9.50	0.3740	175	250	0148686	A9769.5X250
3/8	9.53	0.3751	185	265	0347126	A9763/8
	10.00	0.3937	185	265	0148693	A97610.0X265
	10.50	0.4133	185	265	0347133	A97610.5
	11.00	0.4330	195	280	0347140	A97611.0 ¹⁾
7/16	11.11	0.4374	195	280	0347379	A9767/16 ¹⁾
	11.50	0.4527	195	280	0347157	A97611.5 ¹⁾
	12.00	0.4724	205	295	0347164	A97612.0 ¹⁾
	12.50	0.4921	205	295	0347171	A97612.5 ¹⁾
1/2	12.70	0.5000	205	295	0347188	A9761/2 ¹⁾
	13.00	0.5118	205	295	0347195	A97613.0 ¹⁾
	14.00	0.5511	215	310	0347201	A97614.0 ¹⁾

1) Dormer Standard

- Broca PFX Extra Larga



**HSS
Extra
Length
Drills**

1) Dormer Standard

PFX

1) Dormer Standard

CO500-6

- Aircraft extension drill
- Type J

- Foret aéronautique à queue cylindrique rallongée

- Broca extralarga para la industria Aeronáutica



CO500-6



■	1.6	3.4	4.3	5.2					
●	2.1	2.2	2.3	2.4	3.1	3.2	3.3	5.3	

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	6"	053604
5/64	0.0781	1"	6"	053605
3/32	0.0938	1.1/4	6"	053606
7/64	0.1094	1.1/2	6"	053607
1/8	0.1250	1.5/8	6"	053608
9/64	0.1406	1.3/4	6"	053609
5/32	0.1562	2"	6"	053610
11/64	0.1719	2.1/8	6"	053611

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/16	0.1875	2.5/16	6"	053612
13/64	0.2031	2.7/16	6"	053613
7/32	0.2188	2.1/2	6"	053614
15/64	0.2344	2.5/8	6"	053615
1/4	0.2500	2.3/4	6"	053616

CO501-6

CO501-6

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
52	0.0635	7/8	6"	053752
51	0.0670	1"	6"	053751
50	0.0700	1"	6"	053750
49	0.0730	1"	6"	053749
48	0.0760	1"	6"	053748
47	0.0785	1"	6"	053747
46	0.0810	1.1/8	6"	053746
45	0.0820	1.1/8	6"	053745
44	0.0860	1.1/8	6"	053744
43	0.0890	1.1/4	6"	053743
42	0.0935	1.1/4	6"	053742
41	0.0960	1.3/8	6"	053741
40	0.0980	1.3/8	6"	053740
39	0.0995	1.3/8	6"	053739
38	0.1015	1.7/16	6"	053738
37	0.1040	1.7/16	6"	053737
36	0.1065	1.7/16	6"	053736
35	0.1100	1.1/2	6"	053735
34	0.1110	1.1/2	6"	053734
33	0.1130	1.1/2	6"	053733
32	0.1160	1.5/8	6"	053732
31	0.1200	1.5/8	6"	053731
30	0.1285	1.5/8	6"	053730
29	0.1360	1.3/4	6"	053729
28	0.1405	1.3/4	6"	053728
27	0.1440	1.7/8	6"	053727

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
26	0.1470	1.7/8	6"	053726
25	0.1495	1.7/8	6"	053725
24	0.1520	2"	6"	053724
23	0.1540	2"	6"	053723
22	0.1570	2"	6"	053722
21	0.1590	2.1/8	6"	053721
20	0.1610	2.1/8	6"	053720
19	0.1660	2.1/8	6"	053719
18	0.1695	2.1/8	6"	053718
17	0.1730	2.3/16	6"	053717
16	0.1770	2.3/16	6"	053716
15	0.1800	2.3/16	6"	053715
14	0.1820	2.3/16	6"	053714
13	0.1850	2.5/16	6"	053713
12	0.1890	2.5/16	6"	053712
11	0.1910	2.5/16	6"	053711
10	0.1935	2.7/16	6"	053710
9	0.1960	2.7/16	6"	053709
8	0.1990	2.7/16	6"	053708
7	0.2010	2.7/16	6"	053707
6	0.2040	2.1/2	6"	053706
5	0.2055	2.1/2	6"	053705
4	0.2090	2.1/2	6"	053704
3	0.2130	2.1/2	6"	053703
2	0.2210	2.5/8	6"	053702
1	0.2280	2.5/8	6"	053701

CO500-12



- Aircraft extension drill
- Type J

- Foret aéronautique à queue cylindrique rallongée

- Broca extralarga para la industria Aeronáutica



CO500-12



- 1.6 3.4 4.3 5.2
- 2.1 2.2 2.3 2.4 3.1 3.2 3.3 5.3

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/16	0.0625	7/8	12"	052604
5/64	0.0781	1"	12"	052605
3/32	0.0938	1.1/4	12"	052606
7/64	0.1094	1.1/2	12"	052607
1/8	0.1250	1.5/8	12"	052608
9/64	0.1406	1.3/4	12"	052609
5/32	0.1562	2"	12"	052610
11/64	0.1719	2.1/8	12"	052611

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/16	0.1875	2.5/16	12"	052612
13/64	0.2031	2.7/16	12"	052613
7/32	0.2188	2.1/2	12"	052614
15/64	0.2344	2.5/8	12"	052615
1/4	0.2500	2.3/4	12"	052616

HSS
Extra
Lgth
Drills

CO501-12

CO501-12



- 1.6 3.4 4.3 5.2
- 2.1 2.2 2.3 2.4 3.1 3.2 3.3 5.3

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.0980	1.3/8	12"	052840
33	0.1130	1.1/2	12"	052833
30	0.1285	1.5/8	12"	052830
29	0.1360	1.3/4	12"	052829
27	0.1440	1.7/8	12"	052827
21	0.1590	2.1/8	12"	052821

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
20	0.1610	2.1/8	12"	052820
19	0.1660	2.1/8	12"	052819
16	0.1770	2.3/16	12"	052816
11	0.1910	2.5/16	12"	052811
10	0.1935	2.7/16	12"	052810
2	0.2210	2.5/8	12"	052802

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Aircraft extension drill
- Type B

- Foret aéronautique à queue cylindrique rallongée

- Broca extralarga para la industria Aeronáutica



500-6



■	1.5	1.6	2.2	2.3	3.4	4.1	4.2	4.3	5.1	6.4	7.4
•	1.3	1.4	2.1	3.1	3.2	3.3	5.2	5.3	6.3	9.1	

d ₁ Ø	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/64	0.0469	3/4	6"	058003 ¹⁾
1/16	0.0625	7/8	6"	058004
5/64	0.0781	1"	6"	058005
3/32	0.0938	1.1/4	6"	058006
7/64	0.1094	1.1/2	6"	058007
1/8	0.1250	1.5/8	6"	058008
9/64	0.1406	1.3/4	6"	058009
5/32	0.1562	2"	6"	058010
11/64	0.1719	2.1/8	6"	058011
3/16	0.1875	2.5/16	6"	058012
13/64	0.2031	2.7/16	6"	058013
7/32	0.2188	2.1/2	6"	058014
15/64	0.2344	2.5/8	6"	058015
1/4	0.2500	2.3/4	6"	058016
17/64	0.2656	2.7/8	6"	058017
9/32	0.2812	2.15/16	6"	058018

d ₁ Ø	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
19/64	0.2969	3.1/16	6"	058019
5/16	0.3125	3.3/16	6"	058020
21/64	0.3281	3.5/16	6"	058021
11/32	0.3438	3.7/16	6"	058022
23/64	0.3594	3.1/2	6"	058023
3/8	0.3750	3.5/8	6"	058024
25/64	0.3906	3.3/4	6"	058025
13/32	0.4062	3.7/8	6"	058026
27/64	0.4219	3.15/16	6"	058027
7/16	0.4375	4.1/16	6"	058028
29/64	0.4531	4.3/16	6"	058029
15/32	0.4688	4.5/16	6"	058030
31/64	0.4844	4.3/8	6"	058031
1/2	0.5000	4.1/2	6"	058032

502-6

502-6

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2.5/8	6"	058201
B	0.2380	2.3/4	6"	058202
C	0.2420	2.3/4	6"	058203
D	0.2460	2.3/4	6"	058204
E	0.2500	2.3/4	6"	058205
F	0.2570	2.7/8	6"	058206
G	0.2610	2.7/8	6"	058207
H	0.2660	2.7/8	6"	058208
I	0.2720	2.7/8	6"	058209
J	0.2770	2.7/8	6"	058210
K	0.2810	2.15/16	6"	058211
L	0.2900	2.15/16	6"	058212
M	0.2950	3.1/16	6"	058213
N	0.3020	3.1/16	6"	058214

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	3.3/16	6"	058215
P	0.3230	3.5/16	6"	058216
Q	0.3320	3.7/16	6"	058217
R	0.3390	3.7/16	6"	058218
S	0.3480	3.1/2	6"	058219
T	0.3580	3.1/2	6"	058220
U	0.3680	3.5/8	6"	058221
V	0.3770	3.5/8	6"	058222
W	0.3860	3.3/4	6"	058223
X	0.3970	3.3/4	6"	058224
Y	0.4040	3.7/8	6"	058225
Z	0.4130	3.7/8	6"	058226

¹⁾ Not Split Point

501-6



- Aircraft extension drill
- Type B

- Foret aéronautique à queue cylindrique rallongée

- Broca extralarga para la industria Aeronáutica



501-6



■	1.5	1.6	2.2	2.3	3.4	4.1	4.2	4.3	5.1	6.4	7.4
●	1.3	1.4	2.1	3.1	3.2	3.3	5.2	5.3	6.3	9.1	

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
60	0.0400	11/16	6"	058160 ¹⁾
59	0.0410	11/16	6"	058159 ¹⁾
58	0.0420	11/16	6"	058158 ¹⁾
57	0.0430	3/4	6"	058157 ¹⁾
56	0.0465	3/4	6"	058156 ¹⁾
55	0.0520	7/8	6"	058155 ¹⁾
54	0.0550	7/8	6"	058154 ¹⁾
53	0.0595	7/8	6"	058153 ¹⁾
52	0.0635	7/8	6"	058152
51	0.0670	1"	6"	058151
50	0.0700	1"	6"	058150
49	0.0730	1"	6"	058149
48	0.0760	1"	6"	058148
47	0.0785	1"	6"	058147
46	0.0810	1.1/8	6"	058146
45	0.0820	1.1/8	6"	058145
44	0.0860	1.1/8	6"	058144
43	0.0890	1.1/4	6"	058143
42	0.0935	1.1/4	6"	058142
41	0.0960	1.3/8	6"	058141
40	0.0980	1.3/8	6"	058140
39	0.0995	1.3/8	6"	058139
38	0.1015	1.7/16	6"	058138
37	0.1040	1.7/16	6"	058137
36	0.1065	1.7/16	6"	058136
35	0.1100	1.1/2	6"	058135
34	0.1110	1.1/2	6"	058134
33	0.1130	1.1/2	6"	058133
32	0.1160	1.5/8	6"	058132
31	0.1200	1.5/8	6"	058131

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
30	0.1285	1.5/8	6"	058130
29	0.1360	1.3/4	6"	058129
28	0.1405	1.3/4	6"	058128
27	0.1440	1.7/8	6"	058127
26	0.1470	1.7/8	6"	058126
25	0.1495	1.7/8	6"	058125
24	0.1520	2"	6"	058124
23	0.1540	2"	6"	058123
22	0.1570	2"	6"	058122
21	0.1590	2.1/8	6"	058121
20	0.1610	2.1/8	6"	058120
19	0.1660	2.1/8	6"	058119
18	0.1695	2.1/8	6"	058118
17	0.1730	2.3/16	6"	058117
16	0.1770	2.3/16	6"	058116
15	0.1800	2.3/16	6"	058115
14	0.1820	2.3/16	6"	058114
13	0.1850	2.5/16	6"	058113
12	0.1890	2.5/16	6"	058112
11	0.1910	2.5/16	6"	058111
10	0.1935	2.7/16	6"	058110
9	0.1960	2.7/16	6"	058109
8	0.1990	2.7/16	6"	058108
7	0.2010	2.7/16	6"	058107
6	0.2040	2.1/2	6"	058106
5	0.2055	2.1/2	6"	058105
4	0.2090	2.1/2	6"	058104
3	0.2130	2.1/2	6"	058103
2	0.2210	2.5/8	6"	058102
1	0.2280	2.5/8	6"	058101

¹⁾ Not Split Point

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

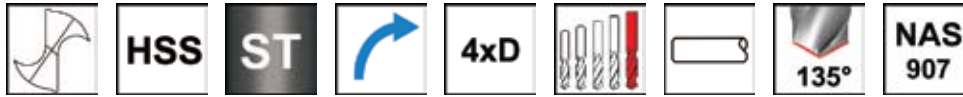
- Aircraft extension drill
- Type B

- Foret aéronautique à queue cylindrique rallongée

- Broca extralarga para la industria Aeronáutica



500-12



■	1.5	1.6	2.2	2.3	3.4	4.1	4.2	4.3	5.1	6.4	7.4
●	1.3	1.4	2.1	3.1	3.2	3.3	5.2	5.3	6.3	9.1	

d ₁ Ø	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
3/64	0.0469	3/4	12"	059003 ¹⁾
1/16	0.0625	7/8	12"	059004
5/64	0.0781	1"	12"	059005
3/32	0.0938	1.1/4	12"	059006
7/64	0.1094	1.1/2	12"	059007
1/8	0.1250	1.5/8	12"	059008
9/64	0.1406	1.3/4	12"	059009
5/32	0.1562	2"	12"	059010
11/64	0.1719	2.1/8	12"	059011
3/16	0.1875	2.5/16	12"	059012
13/64	0.2031	2.7/16	12"	059013
7/32	0.2188	2.1/2	12"	059014
15/64	0.2344	2.5/8	12"	059015
1/4	0.2500	2.3/4	12"	059016
17/64	0.2656	2.7/8	12"	059017
9/32	0.2812	2.15/16	12"	059018

d ₁ Ø	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
19/64	0.2969	3.1/16	12"	059019
5/16	0.3125	3.3/16	12"	059020
21/64	0.3281	3.5/16	12"	059021
11/32	0.3438	3.7/16	12"	059022
23/64	0.3594	3.1/2	12"	059023
3/8	0.3750	3.5/8	12"	059024
25/64	0.3906	3.3/4	12"	059025
13/32	0.4062	3.7/8	12"	059026
27/64	0.4219	3.15/16	12"	059027
7/16	0.4375	4.1/16	12"	059028
29/64	0.4531	4.3/16	12"	059029
15/32	0.4688	4.5/16	12"	059030
31/64	0.4844	4.3/8	12"	059031
1/2	0.5000	4.1/2	12"	059032

¹⁾ Not Split Point

502-12

502-12

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
A	0.2340	2.5/8	12"	059201
B	0.2380	2.3/4	12"	059202
C	0.2420	2.3/4	12"	059203
D	0.2460	2.3/4	12"	059204
E	0.2500	2.3/4	12"	059205
F	0.2570	2.7/8	12"	059206
G	0.2610	2.7/8	12"	059207
H	0.2660	2.7/8	12"	059208
I	0.2720	2.7/8	12"	059209
J	0.2770	2.7/8	12"	059210
K	0.2810	2.15/16	12"	059211
L	0.2900	2.15/16	12"	059212
M	0.2950	3.1/16	12"	059213
N	0.3020	3.1/16	12"	059214

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
O	0.3160	3.3/16	12"	059215
P	0.3230	3.5/16	12"	059216
Q	0.3320	3.7/16	12"	059217
R	0.3390	3.7/16	12"	059218
S	0.3480	3.1/2	12"	059219
T	0.3580	3.1/2	12"	059220
U	0.3680	3.5/8	12"	059221
V	0.3770	3.5/8	12"	059222
W	0.3860	3.3/4	12"	059223
X	0.3970	3.3/4	12"	059224
Y	0.4040	3.7/8	12"	059225
Z	0.4130	3.7/8	12"	059226

501-12



- Aircraft extension drill
- Type B

- Foret aéronautique à queue cylindrique rallongée

- Broca extralarga para la industria Aeronáutica



501-12



■	1.5	1.6	2.2	2.3	3.4	4.1	4.2	4.3	5.1	6.4	7.4
●	1.3	1.4	2.1	3.1	3.2	3.3	5.2	5.3	6.3	9.1	

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
50	0.0700	1"	12"	059150
49	0.0730	1"	12"	059149
48	0.0760	1"	12"	059148
47	0.0785	1"	12"	059147
46	0.0810	1.1/8	12"	059146
45	0.0820	1.1/8	12"	059145
44	0.0860	1.1/8	12"	059144
43	0.0890	1.1/4	12"	059143
42	0.0935	1.1/4	12"	059142
41	0.0960	1.3/8	12"	059141
40	0.0980	1.3/8	12"	059140
39	0.0995	1.3/8	12"	059139
38	0.1015	1.7/16	12"	059138
37	0.1040	1.7/16	12"	059137
36	0.1065	1.7/16	12"	059136
31	0.1200	1.5/8	12"	059131
30	0.1285	1.5/8	12"	059130
29	0.1360	1.3/4	12"	059129
27	0.1440	1.7/8	12"	059127
26	0.1470	1.7/8	12"	059126

d ₁	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
25	0.1495	1.7/8	12"	059125
23	0.1540	2"	12"	059123
22	0.1570	2"	12"	059122
21	0.1590	2.1/8	12"	059121
20	0.1610	2.1/8	12"	059120
19	0.1660	2.1/8	12"	059119
18	0.1695	2.1/8	12"	059118
17	0.1730	2.3/16	12"	059117
16	0.1770	2.3/16	12"	059116
13	0.1850	2.5/16	12"	059113
12	0.1890	2.5/16	12"	059112
11	0.1910	2.5/16	12"	059111
10	0.1935	2.7/16	12"	059110
9	0.1960	2.7/16	12"	059109
7	0.2010	2.7/16	12"	059107
5	0.2055	2.1/2	12"	059105
4	0.2090	2.1/2	12"	059104
3	0.2130	2.1/2	12"	059103
1	0.2280	2.5/8	12"	059101

HSS
Extra
Lgth
Drills



- Broca serie extra larga



1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3
6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d₁ Ø Inch	d₁ decimal Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
3/8	0.3750	6"	8"	057424
13/32	0.4062	6"	8"	057426
7/16	0.4375	6"	8"	057428
15/32	0.4688	6"	8"	057430
1/2	0.5000	6"	8"	057432

- Broca serie extra larga



QC0860P



2.1 2.2 2.3 5.1 6.2 6.3 7.1 7.2 7.4 8.1 8.2

d₁ Ø Inch	d₁ decimal Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
11/32	0.3438	6"	8"	055622
23/64	0.3594	6"	8"	055623
3/8	0.3750	6"	8"	055624
25/64	0.3906	6"	8"	055625
13/32	0.4062	6"	8"	055626
27/64	0.4219	6"	8"	055627
7/16	0.4375	6"	8"	055628
29/64	0.4531	6"	8"	055629
15/32	0.4688	6"	8"	055630
31/64	0.4844	6"	8"	055631
1/2	0.5000	6"	8"	055632

1290



• Extra Length Drill

• Foret queue cône morse - Extra long

• Broca serie extra larga



1290



■ 1.1 1.2

• 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3

5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

HSS
Extra
Lgth
Drills

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	9"	12"	059608
9/64	0.1406	9"	12"	059609
5/32	0.1562	9"	12"	059610
11/64	0.1719	9"	12"	059611
3/16	0.1875	9"	12"	059612
13/64	0.2031	9"	12"	059613
7/32	0.2188	9"	12"	059614
15/64	0.2344	9"	12"	059615
1/4	0.2500	9"	12"	059616
17/64	0.2656	9"	12"	059617
9/32	0.2812	9"	12"	059618
19/64	0.2969	9"	12"	059619
5/16	0.3125	9"	12"	059620
21/64	0.3281	9"	12"	059621
11/32	0.3438	9"	12"	059622
23/64	0.3594	9"	12"	059623
3/8	0.3750	9"	12"	059624
25/64	0.3906	9"	12"	059625
13/32	0.4062	9"	12"	059626
27/64	0.4219	9"	12"	059627

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
7/16	0.4375	9"	12"	059628
29/64	0.4531	9"	12"	059629
15/32	0.4688	9"	12"	059630
31/64	0.4844	9"	12"	059631
1/2	0.5000	9"	12"	059632
33/64	0.5156	9"	12"	059633 ¹⁾
17/32	0.5312	9"	12"	059634 ¹⁾
35/64	0.5469	9"	12"	059635 ¹⁾
9/16	0.5625	9"	12"	059636 ¹⁾
37/64	0.5781	9"	12"	059637 ¹⁾
19/32	0.5938	9"	12"	059638 ¹⁾
39/64	0.6094	9"	12"	059639 ¹⁾
5/8	0.6250	9"	12"	059640 ¹⁾
21/32	0.6562	9"	12"	059642 ¹⁾
11/16	0.6875	9"	12"	059644 ¹⁾
23/32	0.7188	9"	12"	059646 ¹⁾
3/4	0.7500	9"	12"	059648 ¹⁾

¹⁾ 33/64" - 3/4" are Steam Oxide

- Extra Length Drill
- Wide-Land Parabolic Flute

- Foret queue cône morse - Extra long

- Broca serie extra larga



QC

QC1290P



- 1.1 1.2 1.3 1.4 1.5 3.1 3.2 3.3
- 2.1 2.2 2.3 5.1 6.2 6.3 7.1 7.2 7.4 8.1 8.2

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	9"	12"	060308
9/64	0.1406	9"	12"	060309
5/32	0.1562	9"	12"	060310
11/64	0.1719	9"	12"	060311
3/16	0.1875	9"	12"	060312
13/64	0.2031	9"	12"	060313
7/32	0.2188	9"	12"	060314
15/64	0.2344	9"	12"	060315
1/4	0.2500	9"	12"	060316
17/64	0.2656	9"	12"	060317
9/32	0.2812	9"	12"	060318
19/64	0.2969	9"	12"	060319

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
5/16	0.3125	9"	12"	060320
21/64	0.3281	9"	12"	060321
11/32	0.3438	9"	12"	060322
23/64	0.3594	9"	12"	060323
3/8	0.3750	9"	12"	060324
25/64	0.3906	9"	12"	060325
13/32	0.4062	9"	12"	060326
27/64	0.4219	9"	12"	060327
7/16	0.4375	9"	12"	060328
29/64	0.4531	9"	12"	060329
15/32	0.4688	9"	12"	060330
31/64	0.4844	9"	12"	060331
1/2	0.5000	9"	12"	060332

- Broca serie extra larga



-

d₁ Ø Inch	d₁ decimal Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
21/32	0.6562	11" ^u	15" ^u	059542
11/16	0.6875	11" ^u	15" ^u	059544
23/32	0.7188	11" ^u	15" ^u	059546
3/4	0.7500	11" ^u	15" ^u	059548
25/32	0.7812	11" ^u	15" ^u	059550
13/16	0.8125	11" ^u	15" ^u	059552
7/8	0.8750	11" ^u	15" ^u	059554
15/16	0.9375	11" ^u	15" ^u	059556
1"	1.0000	11" ^u	15" ^u	059558



Technical drawing of a 15XD drill bit. The drawing includes the following specifications:

- Material:** HSS (High Speed Steel)
- Standard:** ANSI
- Flute Design:** 15XD (Double Flute)
- Flute Length:** 100mm
- Shank Diameter:** 12mm
- Point Angle:** 118°

-
- 1.1 1.2
- 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3
- 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d₁ Ø	d₁ decimal	l₂	l₁	EDP # or e-Code
Inch	Inch	Inch	Inch	
17/32	0.5312	13"	18"	059734
35/64	0.5469	13"	18"	059735
9/16	0.5625	13"	18"	059736
37/64	0.5781	13"	18"	059737
19/32	0.5938	13"	18"	059738
39/64	0.6094	13"	18"	059739
5/8	0.6250	13"	18"	059740
21/32	0.6562	13"	18"	059742
11/16	0.6875	13"	18"	059744
23/32	0.7188	13"	18"	059746
3/4	0.7500	13"	18"	059748
25/32	0.7812	13"	18"	059750
13/16	0.8125	13"	18"	059752
7/8	0.8750	13"	18"	059756
15/16	0.9375	13"	18"	059760
1"	1.0000	13"	18"	059764

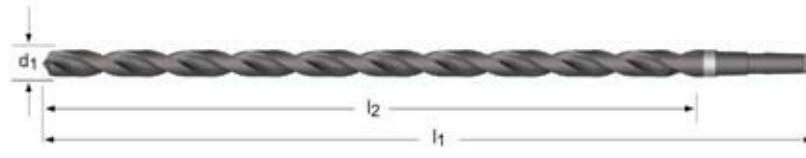
149

A345

- Extra Length Drill
- Taper shank

- Foret queue cône morse - Extra long

- Broca serie extra larga



A345



HSS

ST

DIN
1870/1



10XD



N



-
- 1.1 1.2
- 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3
- 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ Ø mm	d ₁ dec. Inch	I ₂ mm	I ₁ mm	MK	Stock #	EDP # or e-Code
	8.00	0.3149	165	265	1	0418383	A3458.0
	8.50	0.3346	165	265	1	0418390	A3458.5
	9.00	0.3543	175	275	1	0418406	A3459.0
	9.50	0.3740	175	275	1	0420201	A3459.5
3/8	9.53	0.3751	185	285	1	0418307	A3453/8
	10.00	0.3937	185	285	1	0418062	A34510.0
13/32	10.32	0.4062	185	285	1	0418116	A34513/32
	10.50	0.4133	185	285	1	0420171	A34510.5
	11.00	0.4330	195	300	1	0418079	A34511.0
7/16	11.11	0.4374	195	300	1	0418369	A3457/16
	11.50	0.4527	195	300	1	0419564	A34511.5
29/64	11.51	0.4531	205	310	1	0418284	A34529/64
	12.00	0.4724	205	310	1	0418093	A34512.0
	12.50	0.4921	205	310	1	0419571	A34512.5
1/2	12.70	0.5000	205	310	1	0418055	A3451/2
	13.00	0.5118	205	310	1	0418109	A34513.0
17/32	13.49	0.5311	220	325	1	0418161	A34517/32
	13.50	0.5314	220	325	1	0419588	A34513.5
	14.00	0.5511	220	325	1	0418123	A34514.0
9/16	14.29	0.5625	220	340	2	0418413	A3459/16
37/64	14.68	0.5779	220	340	2	0418321	A34537/64
	15.00	0.5905	220	340	2	0418130	A34515.0

d ₁ Ø	d ₁ Ø	d ₁ dec.	I ₂	I ₁			EDP # or e-Code
Inch	mm	Inch	mm	mm	MK	Stock #	
39/64	15.48	0.6094	230	355	2	0418338	A34539/64
	15.50	0.6102	230	355	2	0419601	A34515.5
5/8	15.88	0.6251	230	355	2	0418352	A3455/8
	16.00	0.6299	230	355	2	0418147	A34516.0
41/64	16.27	0.6405	230	355	2	0418345	A34541/64
	16.50	0.6496	230	355	2	0419618	A34516.5
21/32	16.67	0.6562	230	355	2	0418215	A34521/32
	17.00	0.6692	230	355	2	0418154	A34517.0
11/16	17.46	0.6874	245	370	2	0418086	A34511/16
	17.50	0.6889	245	370	2	0419625	A34517.5
	18.00	0.7086	245	370	2	0418178	A34518.0
	18.50	0.7283	245	370	2	0419632	A34518.5
	19.00	0.7480	245	370	2	0418185	A34519.0
3/4	19.05	0.7500	260	385	2	0418291	A3453/4
	19.50	0.7677	260	385	2	0419649	A34519.5
	20.00	0.7874	260	385	2	0418192	A34520.0
	20.50		260	385	2	0419656	A34520.5
	21.00	0.8267	260	385	2	0418208	A34521.0
	21.50		270	405	2	0419663	A34521.5
	22.00	0.8661	270	405	2	0418222	A34522.0
7/8	22.23	0.8751	270	405	2	0418376	A3457/8
	22.50		270	405	3	0419670	A34522.5

A345

d ₁ Ø Inch	d ₁ Ø mm	d ₁ dec. Inch	I ₂ mm	I ₁ mm	MK	Stock #	EDP # or e-Code
	23.00	0.9055	270	405	3	0419687	A34523.0
	23.50		270	425	3	0419694	A34523.5
	24.00	0.9448	290	440	3	0418239	A34524.0
	24.50		290	440	3	0419700	A34524.5
	25.00	0.9842	290	440	3	0418246	A34525.0
1"	25.40	1.0000	290	440	3	0418031	A3451
	25.50		290	440	3	0419717	A34525.5
	26.00	1.0236	290	440	3	0418253	A34526.0
	26.50		290	440	3	0419724	A34526.5
	27.00	1.0629	305	460	3	0418260	A34527.0
	28.00	1.1023	305	460	3	0418277	A34528.0
	29.00		305	460	3	0419731	A34529.0
	30.00	1.1811	305	460	3	0418314	A34530.0
1.1/4	31.75	1.2500	320	480	3	0418048	A3451.1/4
	31.00		320	480	3	0419748	A34531.0
	32.00	1.2598	320	505	4	0419755	A34532.0

d ₁ Ø Inch	d ₁ Ø mm	d ₁ dec. Inch	I ₂ mm	I ₁ mm	MK	Stock #	EDP # or e-Code
	33.00	1.2992	320	505	4	0422564	A34533.0
	34.00	1.3385	340	530	4	0419762	A34534.0
	35.00	1.3779	340	530	4	0419779	A34535.0
	36.00	1.4173	340	530	4	0419786	A34536.0
	37.00	1.4566	340	530	4	0419793	A34537.0
	38.00	1.4960	360	555	4	0419809	A34538.0
1.1/2	38.10	1.5000	360	555	4	0419540	A3451.1/2
	39.00	1.5354	360	555	4	0419816	A34539.0
	40.00	1.5748	360	555	4	0419823	A34540.0
	41.00	1.6141	360	555	4	0419830	A34541.0
	42.00	1.6535	360	555	4	0419847	A34542.0
1.3/4	44.45	1.7500	385	585	4	0419557	A3451.3/4
	45.00	1.7716	385	585	4	0419854	A34545.0
	48.00	1.8897	405	605	4	0419861	A34548.0
	50.00	1.9685	405	605	4	0419878	A34550.0

HSS
Extra
Lgth
Drills

HSS Taper/Reduced Shank Drills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Depth of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
example: 279 U
279 = SFM
U = Alpha Code to find your Feed Rate
- 4 To calculate Cutting Feed Rate, refer to chart on page 9-10.

■ = Excellent for Application
● = Good for Application



Style:
Tool Material:



Finish/Coating:

Standard:

Direction of Cut:

2 Depth of Cut:

Tool Length:

Shank:

Helix:

Point Angle:

Point Style:

HSS Taper/Reduced Shank Drills

209CO	209OH	209	L209
HSCo	HSS	HSS	HSS
	ST	ST	ST
ANSI	ANSI	ANSI	ANSI
4xD	4xD	4xD	4xD
N	N		N
118°	118°	118°	118°

Page # for easy reference

Application Material Groups (AMG) 1			Hardness HB		Surface Feet per Minute (SFM) 3			
					154	155	156	158
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	●115J	■154F	■115I	■115I
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	●98H	■75F	■98I	■98I
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	●89G	■98H	■82F	■82F
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	●75F	■85F	■66F	■66F
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	■56E	●59D	●39E	●39E
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6	■33D	●30B	●30D	●30D
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●79E	●118H	●49E	●49E
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	■36G	●66F	●30G	●30G
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	■56C	●66D	●33C	●33C
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4		●49D		
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●115J	■180H	■98I	■98I
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●92G	■108H	■79E	■79E
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●72E	●134F	●66E	●66E
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	■56E	●75D	●46E	●46E
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●92G	●108H	●75F	●75F
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●66D	●98F	●43D	●43D
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●36C	●26D	●23B	●23B
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●49G	●75F	●33G	●33G
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●23E		●23E	●23E
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3	●20B		●13A	●13A
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	●125L		●108F	●108F
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	●131J		●115I	●115I
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●89H		●115H	●115H
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●69F		●52F	●52F
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	●108J		●85J	●85J
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	●98I		●98I	●98I
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	●98H		●92H	●92H
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●89F		●75H	●75H
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1	●115K		●98K	●98K
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2	●92J		●92J	●92J
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3	●66H		●46H	●46H
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1	●16C		●10B	●10B
10. Graphite	10.1 Standard graphite		---	10.1				

HSS Taper/Reduced Shank Drills (con't)



HSS Taper/Reduced Shank Drills

	S209	5ATS	R56CO	R56	R57	R58	
	HSS	HSS	HSCo	HSS	HSS	HSS	
							
	ST	ST	ST	ST	ST	ST	
	ANSI	DIN 345	ANSI	ANSI	ANSI	ANSI	
							
	4xD	4xD	4xD	4xD	4xD	1.5xD	
							
							
		N					
							
							
Surface Feet per Minute (SFM)							
	159	160	162	163	164	165	
1.1	■115I	■115I	●115H	●115H	●115H	■98F	1.1
1.2	■98I	■98I	●98H	●98H	●98H	■59F	1.2
1.3	■82F	■82F	●82F	●82F	●82F	■66H	1.3
1.4	■66F	■66F	●66E	●66E	●66E	■59F	1.4
1.5	●39E	●39E	●43D	●43D	●43D	●46D	1.5
1.6	●30D	●30D	●30C	●30C	●30C		1.6
1.7							1.7
1.8							1.8
2.1	●49E	●49E	●49D	●49D	●49D	●89H	2.1
2.2	●30G	●30G	●23F	●23F	●23F	●49F	2.2
2.3	●33C	●33C	●23B	●23B	●23B	●49D	2.3
2.4							2.4
3.1	■98I	■98I	●89H	●89H	●89H	■151H	3.1
3.2	■79E	■79E	●72E	●72E	●72E	■79H	3.2
3.3	●66E	●66E	●62D	●62D	●62D	●79F	3.3
3.4	●46E	●46E	●39D	●39D	●39D		3.4
4.1	●75F	●75F	●56E	●56E	●56E	●89H	4.1
4.2	●43D	●43D	●30C	●30C	●30C	●49F	4.2
4.3	●23B	●23B	●16A	●16A	●16A		4.3
5.1	●33G	●33G	●26F	●26F	●26F	●49F	5.1
5.2	●23E	●23E	●13D	●13D	●13D	●23F	5.2
5.3	●13A	●13A	●10A	●10A	●10A	●13B	5.3
6.1	●108F	●108F	●115F	●115F	●115F	●108F	6.1
6.2	●115I	●115I	●108H	●108H	●108H	●115H	6.2
6.3	●115H	●115H	●89G	●89G	●89G	●115H	6.3
6.4	●52F	●52F	●52F	●52F	●52F	●52F	6.4
7.1	●85J	●85J	●108I	●108I	●108I	●85I	7.1
7.2	●98I	●98I	●98H	●98H	●98H	●98H	7.2
7.3	●92H	●92H	●89G	●89G	●89G	●92H	7.3
7.4	●75H	●75H	●72G	●72G	●72G	●75H	7.4
8.1	●98K	●98K	●98I	●98I	●98I	●98I	8.1
8.2	●92J	●92J	●92G	●92G	●92G	●92I	8.2
8.3	●46H	●46H	●46E	●46E	●46E	●46H	8.3
9.1	●10B	●10B	●10A	●10A	●10A	●10B	9.1
10.1							10.1



- Broca de mango cónico



209CO



HSS
Redc'd
Shank
Drills

-
Country	Publications	Region
United States	1.5	Europe
Germany	1.6	Europe
France	2.2	Africa
United Kingdom	2.3	Africa
Canada	3.4	Asia
Italy	1.1	Europe
Spain	1.2	Europe
Sweden	1.3	Europe
Japan	1.4	Asia
China	2.1	Africa
South Korea	3.1	Asia
India	3.2	Asia
Australia	3.3	Asia
Israel	4.1	Asia
South Africa	4.2	Asia
Brazil	4.3	Asia
United States	5.1	Latin America
Germany	5.2	Latin America
France	5.3	Latin America
United Kingdom	6.1	Latin America
Canada	6.2	Latin America
Italy	6.3	Latin America
Spain	6.4	Latin America
Sweden	7.1	Oceania
Japan	7.2	Oceania
China	7.3	Oceania
South Korea	7.4	Oceania
Israel	8.1	Oceania
South Africa	8.2	Oceania
Brazil	8.3	Oceania
United States	9.1	Oceania

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
55/64	0.8594	6.1/8	10.3/4	3	021357
7/8	0.8750	6.1/8	10.3/4	3	021356
57/64	0.8906	6.1/8	10.3/4	3	021358
29/32	0.9062	6.1/8	10.3/4	3	021359
59/64	0.9219	6.1/8	10.3/4	3	021362
15/16	0.9375	6.1/8	10.3/4	3	021360
61/64	0.9531	6.3/8	11"	3	021363
31/32	0.9688	6.3/8	11"	3	021364
63/64	0.9844	6.3/8	11"	3	021365
1"	1.0000	6.3/8	11"	3	021400
1.1/64	1.0156	6.1/2	12.1/8	4	021401
1.1/32	1.0312	6.1/2	12.1/8	4	021402
1.1/16	1.0625	6.5/8	12.1/4	4	021404
1.3/32	1.0938	6.7/8	12.1/2	4	021406
1.7/64	1.1094	7.1/8	12.3/4	4	021407
1.1/8	1.1250	7.1/8	12.3/4	4	021408
1.9/64	1.1406	7.1/4	12.7/8	4	021409
1.5/32	1.1562	7.1/4	12.7/8	4	021410
1.11/64	1.1719	7.3/8	13"	4	021411
1.3/16	1.1875	7.3/8	13"	4	021412
1.7/32	1.2188	7.1/2	13.1/8	4	021414
1.15/64	1.2344	7.7/8	13.1/2	4	021415
1.1/4	1.2500	7.7/8	13.1/2	4	021416
1.9/32	1.2812	8.1/2	14.1/8	4	021418
1.19/64	1.2969	8.5/8	14.1/4	4	021419
1.5/16	1.3125	8.5/8	14.1/4	4	021420
1.11/32	1.3438	8.3/4	14.3/8	4	021422
1.23/64	1.3594	8.7/8	14.1/2	4	021423
1.3/8	1.3750	8.7/8	14.1/2	4	021424
1.27/64	1.4219	9.1/8	14.3/4	4	021427
1.7/16	1.4375	9.1/8	14.3/4	4	021428
1.15/32	1.4688	9.1/4	14.7/8	4	021430
1.31/64	1.4844	9.3/8	15"	4	021431
1.1/2	1.5000	9.3/8	15"	4	021432

209OH



- Taper shank drill
- 32° helix
- Notched point

- Foret queue cône morse

- Broca de mango cónico



209OH



■ 1.1 1.2 1.3 1.4 3.1 3.2 • 1.5 1.6 2.1 2.2 2.3 2.4 3.3 3.4 4.1 4.2 4.3 5.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
1/2	0.5000	4.3/8	9"	3	021632
9/16	0.5625	4.7/8	9.1/2	3	021636
5/8	0.6250	4.7/8	9.1/2	3	021640
11/16	0.6875	5.3/8	10"	3	021644
3/4	0.7500	5.7/8	10.1/2	3	021648
13/16	0.8125	6.1/8	10.3/4	3	021652
7/8	0.8750	6.1/8	10.3/4	3	021656
29/32	0.9062	6.1/8	10.3/4	3	021658
15/16	0.9375	6.1/8	10.3/4	3	021660
31/32	0.9688	6.3/8	11"	3	021662

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
1"	1.0000	6.3/8	11"	3	021700
1.1/32	1.0312	6.1/2	11.1/8	3	021702
1.1/16	1.0625	6.5/8	11.1/4	3	021704
1.3/32	1.0938	6.7/8	12.1/2	4	021706
1.1/8	1.1250	7.1/8	12.3/4	4	021708
1.5/32	1.1562	7.1/4	12.7/8	4	021710
1.3/16	1.1875	7.3/8	13"	4	021712
1.7/32	1.2188	7.1/2	13.1/8	4	021714
1.1/4	1.2500	7.7/8	13.1/2	4	021716

HSS
Red'd
Shank
Drills

- Taper shank drill

- Forêt queue cône morse

- Broca de mango cónico



209



HSS

ST

ANSI



4xD



118°

HSS
Redc'd
Shank
Drills

- 1.1 1.2 1.3 1.4 3.1 3.2

1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
7.4 8.1 8.2 8.3 9.1

d₁ Ø Inch	d₁ decimal Inch	I₂ Inch	I₁ Inch	MTS	EDP # or e-Code
1/8	0.1250	1.7/8	5.1/8	1	020008
9/64	0.1406	2.1/8	5.3/8	1	020009
5/32	0.1562	2.1/8	5.3/8	1	020010
11/64	0.1719	2.1/2	5.3/4	1	020011
3/16	0.1875	2.1/2	5.3/4	1	020012
13/64	0.2031	2.3/4	6"	1	020013
7/32	0.2188	2.3/4	6"	1	020014
15/64	0.2344	2.7/8	6.1/8	1	020015
1/4	0.2500	2.7/8	6.1/8	1	020016
17/64	0.2656	3"	6.1/4	1	020017
9/32	0.2812	3"	6.1/4	1	020018
19/64	0.2969	3.1/8	6.3/8	1	020019
5/16	0.3125	3.1/8	6.3/8	1	020020
21/64	0.3281	3.1/4	6.1/2	1	020021
11/32	0.3438	3.1/4	6.1/2	1	020022
23/64	0.3594	3.1/2	6.3/4	1	020023
3/8	0.3750	3.1/2	6.3/4	1	020024
25/64	0.3906	3.5/8	7"	1	020025
13/32	0.4062	3.5/8	7"	1	020026
27/64	0.4219	3.7/8	7.1/4	1	020027
7/16	0.4375	3.7/8	7.1/4	1	020028
29/64	0.4531	4.1/8	7.1/2	1	020029
15/32	0.4688	4.1/8	7.1/2	1	020030
31/64	0.4844	4.3/8	8.1/4	2	020031
1/2	0.5000	4.3/8	8.1/4	2	020032
33/64	0.5156	4.5/8	8.1/2	2	020033
17/32	0.5312	4.5/8	8.1/2	2	020034
35/64	0.5469	4.7/8	8.3/4	2	020035
9/16	0.5625	4.7/8	8.3/4	2	020036
37/64	0.5781	4.7/8	8.3/4	2	020037
19/32	0.5938	4.7/8	8.3/4	2	020038
39/64	0.6094	4.7/8	8.3/4	2	020039
5/8	0.6250	4.7/8	8.3/4	2	020040
41/64	0.6406	5.1/8	9"	2	020041
21/32	0.6562	5.1/8	9"	2	020042
43/64	0.6719	5.3/8	9.1/4	2	020043

d₁ Ø Inch	d₁ decimal Inch	I₂ Inch	I₁ Inch	MTS	EDP # or e-Code
11/16	0.6875	5.3/8	9.1/4	2	020044
45/64	0.7031	5.5/8	9.1/2	2	020045
23/32	0.7188	5.5/8	9.1/2	2	020046
47/64	0.7344	5.7/8	9.3/4	2	020047
3/4	0.7500	5.7/8	9.3/4	2	020048
49/64	0.7656	6"	9.7/8	2	020049
25/32	0.7812	6"	9.7/8	2	020050
51/64	0.7969	6.1/8	10.3/4	3	020051
13/16	0.8125	6.1/8	10.3/4	3	020052
53/64	0.8281	6.1/8	10.3/4	3	020053
27/32	0.8438	6.1/8	10.3/4	3	020054
55/64	0.8594	6.1/8	10.3/4	3	020055
7/8	0.8750	6.1/8	10.3/4	3	020056
57/64	0.8906	6.1/8	10.3/4	3	020057
29/32	0.9062	6.1/8	10.3/4	3	020058
59/64	0.9219	6.1/8	10.3/4	3	020059
15/16	0.9375	6.1/8	10.3/4	3	020060
61/64	0.9531	6.3/8	11"	3	020061
31/32	0.9688	6.3/8	11"	3	020062
63/64	0.9844	6.3/8	11"	3	020063
1"	1.0000	6.3/8	11"	3	020100
1.1/64	1.0156	6.1/2	11.1/8	3	020101
1.1/32	1.0312	6.1/2	11.1/8	3	020102
1.3/64	1.0469	6.5/8	11.1/4	3	020103
1.1/16	1.0625	6.5/8	11.1/4	3	020104
1.5/64	1.0781	6.7/8	12.1/2	4	020105
1.3/32	1.0938	6.7/8	12.1/2	4	020106
1.7/64	1.1094	7.1/8	12.3/4	4	020107
1.1/8	1.1250	7.1/8	12.3/4	4	020108
1.9/64	1.1406	7.1/4	12.7/8	4	020109
1.5/32	1.1562	7.1/4	12.7/8	4	020110
1.11/64	1.1719	7.3/8	13"	4	020111
1.3/16	1.1875	7.3/8	13"	4	020112
1.13/64	1.2031	7.1/2	13.1/8	4	020113
1.7/32	1.2188	7.1/2	13.1/8	4	020114
1.15/64	1.2344	7.7/8	13.1/2	4	020115

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
1.1/4	1.2500	7.7/8	13.1/2	4	020116
1.17/64	1.2656	8.1/2	14.1/8	4	020117
1.9/32	1.2812	8.1/2	14.1/8	4	020118
1.19/64	1.2969	8.5/8	14.1/4	4	020119
1.5/16	1.3125	8.5/8	14.1/4	4	020120
1.21/64	1.3281	8.3/4	14.3/8	4	020121
1.11/32	1.3438	8.3/4	14.3/8	4	020122
1.23/64	1.3594	8.7/8	14.1/2	4	020123
1.3/8	1.3750	8.7/8	14.1/2	4	020124
1.25/64	1.3906	9"	14.5/8	4	020125
1.13/32	1.4062	9"	14.5/8	4	020126
1.27/64	1.4219	9.1/8	14.3/4	4	020127
1.7/16	1.4375	9.1/8	14.3/4	4	020128
1.29/64	1.4531	9.1/4	14.7/8	4	020129
1.15/32	1.4688	9.1/4	14.7/8	4	020130
1.31/64	1.4844	9.3/8	15"	4	020131
1.1/2	1.5000	9.3/8	15"	4	020132
1.17/32	1.5312	9.3/8	16.3/8	5	020134
1.9/16	1.5625	9.5/8	16.5/8	5	020136
1.19/32	1.5938	9.7/8	16.7/8	5	020138
1.5/8	1.6250	10"	17"	5	020140
1.21/32	1.6562	10.1/8	17.1/8	5	020142
1.11/16	1.6875	10.1/8	17.1/8	5	020144
1.23/32	1.7188	10.1/8	17.1/8	5	020146
1.3/4	1.7500	10.1/8	17.1/8	5	020148
1.25/32	1.7812	10.1/8	17.1/8	5	020150
1.13/16	1.8125	10.1/8	17.1/8	5	020152
1.27/32	1.8438	10.1/8	17.1/8	5	020154

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
1.7/8	1.8750	10.3/8	17.3/8	5	020156
1.29/32	1.9062	10.3/8	17.3/8	5	020158
1.15/16	1.9375	10.3/8	17.3/8	5	020160
1.31/32	1.9688	10.3/8	17.3/8	5	020162
2"	2.0000	10.3/8	17.3/8	5	020200
2.1/32	2.0312	10.3/8	17.3/8	5	020202
2.1/16	2.0625	10.1/4	17.3/8	5	020204
2.3/32	2.0938	10.1/4	17.3/8	5	020206
2.1/8	2.1250	10.1/4	17.3/8	5	020208
2.5/32	2.1562	10.1/4	17.3/8	5	020210
2.3/16	2.1875	10.1/4	17.3/8	5	020212
2.7/32	2.2188	10.1/8	17.3/8	5	020214
2.1/4	2.2500	10.1/8	17.3/8	5	020216
2.5/16	2.3125	10.1/8	17.3/8	5	020220
2.3/8	2.3750	10.1/8	17.3/8	5	020224
2.7/16	2.4375	11.1/4	18.3/4	5	020228
2.1/2	2.5000	11.1/4	18.3/4	5	020232
2.9/16	2.5625	11.7/8	19.1/2	5	020236
2.5/8	2.6250	11.7/8	19.1/2	5	020240
2.11/16	2.6875	12.3/4	20.3/8	5	020244
2.3/4	2.7500	12.3/4	20.3/8	5	020248
2.13/16	2.8125	13.3/8	21.1/8	5	020252
2.7/8	2.8750	13.3/8	21.1/8	5	020256
2.15/16	2.9375	14"	21.3/4	5	020260
3"	3.0000	14"	21.3/4	5	020300

HSS
Red'd
Shank
Drills

- Taper shank drill
- Large shank

- Foret queue cône morse

- Broca de mango cónico



L209



- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

HSS
Redc'd
Shank
Drills

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
3/8	0.3750	3.1/2	7.3/8	2	022524
25/64	0.3906	3.5/8	7.1/2	2	022525
13/32	0.4062	3.5/8	7.1/2	2	022526
27/64	0.4219	3.7/8	7.3/4	2	022527
7/16	0.4375	3.7/8	7.3/4	2	022528
29/64	0.4531	4.1/8	8"	2	022529
15/32	0.4688	4.1/8	8"	2	022530
41/64	0.6406	5.1/8	9.3/4	3	022541
21/32	0.6562	5.1/8	9.3/4	3	022542
43/64	0.6719	5.3/8	10"	3	022543

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
11/16	0.6875	5.3/8	10"	3	022544
45/64	0.7031	5.5/8	10.1/4	3	022545
23/32	0.7188	5.5/8	10.1/4	3	022546
47/64	0.7344	5.7/8	10.1/2	3	022547
3/4	0.7500	5.7/8	10.1/2	3	022548
49/64	0.7656	6"	10.5/8	3	022549
25/32	0.7812	6"	10.5/8	3	022550
1"	1.0000	6.3/8	12"	4	022600
1.1/32	1.0312	6.1/2	12.1/8	4	022602
1.1/16	1.0625	6.5/8	12.1/4	4	022604

S209



- Taper shank drill
- Small shank

Foret queue cône morse

- Broca de mango cónico



S209



- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
31/64	0.4844	4.3/8	7.3/4	1	023031
1/2	0.5000	4.3/8	7.3/4	1	023032
33/64	0.5156	4.5/8	8"	1	023033
17/32	0.5312	4.5/8	8"	1	023034
35/64	0.5469	4.7/8	8.1/4	1	023035
9/16	0.5625	4.7/8	8.1/4	1	023036
51/64	0.7969	6.1/8	10"	2	023051
13/16	0.8125	6.1/8	10"	2	023052
53/64	0.8281	6.1/8	10"	2	023053
27/32	0.8438	6.1/8	10"	2	023054
55/64	0.8594	6.1/8	10"	2	023055
7/8	0.8750	6.1/8	10"	2	023056
57/64	0.8906	6.1/8	10"	2	023057
29/32	0.9062	6.1/8	10"	2	023058
1.5/64	1.0781	6.7/8	11.1/2	3	023105
1.3/32	1.0938	6.7/8	11.1/2	3	023106
1.7/64	1.1094	7.1/8	11.3/4	3	023107
1.1/8	1.1250	7.1/8	11.3/4	3	023108
1.9/64	1.1406	7.1/4	11.7/8	3	023109
1.5/32	1.1562	7.1/4	11.7/8	3	023110
1.11/64	1.1719	7.3/8	12"	3	023111
1.3/16	1.1875	7.3/8	12"	3	023112
1.13/64	1.2031	7.1/2	12.1/8	3	023113
1.7/32	1.2188	7.1/2	12.1/8	3	023114
1.15/64	1.2344	7.7/8	12.1/2	3	023115
1.1/4	1.2500	7.7/8	12.1/2	3	023116

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
1.33/64	1.5156	9.3/8	15"	4	023133
1.17/32	1.5312	9.3/8	15"	4	023134
1.35/64	1.5469	9.5/8	15.1/4	4	023135
1.9/16	1.5625	9.5/8	15.1/4	4	023136
1.37/64	1.5781	9.7/8	15.1/2	4	023137
1.19/32	1.5938	9.7/8	15.1/2	4	023138
1.39/64	1.6094	10"	15.5/8	4	023139
1.5/8	1.6250	10"	15.5/8	4	023140
1.41/64	1.6406	10.1/8	15.3/4	4	023141
1.21/32	1.6562	10.1/8	15.3/4	4	023142
1.43/64	1.6719	10.1/8	15.3/4	4	023143
1.11/16	1.6875	10.1/8	15.3/4	4	023144
1.45/64	1.7031	10.1/8	15.3/4	4	023145
1.23/32	1.7188	10.1/8	15.3/4	4	023146
1.47/64	1.7344	10.3/8	16.1/4	4	023147
1.3/4	1.7500	10.3/8	16.1/4	4	023148
1.25/32	1.7812	10.3/8	16.1/4	4	023150
1.13/16	1.8125	10.3/8	16.1/4	4	023152
1.27/32	1.8438	10.3/8	16.1/4	4	023154
1.7/8	1.8750	10.1/2	16.1/2	4	023156
1.29/32	1.9062	10.1/2	16.1/2	4	023158
1.15/16	1.9375	10.5/8	16.5/8	4	023160
1.31/32	1.9688	10.5/8	16.5/8	4	023162
2"	2.0000	10.5/8	16.5/8	4	023200

HSS
Red'd
Shank
Drills



5ATS


HSS
ST
DIN 345

4xD

N


■ 1.1 1.2 1.3 1.4 3.1 3.2

● 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3

7.4 8.1 8.2 8.3 9.1

HSS
Redc'd
Shank
Drills

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
				MTS
5.00	0.1969	52	133	1 026050
5.50	0.2165	57	138	1 026055
6.00	0.2362	57	138	1 026060
6.50	0.2559	63	144	1 026065
6.80	0.2677	69	150	1 026068
7.00	0.2756	69	150	1 026070
7.50	0.2953	69	150	1 026075
8.00	0.3150	75	156	1 026080
8.50	0.3346	75	156	1 026085
9.00	0.3543	81	162	1 026090
9.50	0.3740	81	162	1 026095
10.00	0.3937	87	168	1 026100
10.20	0.4016	87	168	1 026102
10.50	0.4134	87	168	1 026105
11.00	0.4331	94	175	1 026110
11.50	0.4528	94	175	1 026115
12.00	0.4724	101	182	1 026120
12.20	0.4803	101	182	1 026122
12.50	0.4921	101	182	1 026125
12.80	0.5039	101	182	1 026128
13.00	0.5118	101	182	1 026130
13.50	0.5315	108	189	1 026135
13.80	0.5433	108	189	1 026138
14.00	0.5512	108	189	1 026140
14.25	0.5610	114	212	2 026142
14.50	0.5709	114	212	2 026145
14.75	0.5807	114	212	2 026147
15.00	0.5906	114	212	2 026150
15.25	0.6004	120	218	2 026152
15.50	0.6102	120	218	2 026155
15.75	0.6201	120	218	2 026157
16.00	0.6299	120	218	2 026160
16.25	0.6398	125	223	2 026162
16.50	0.6496	125	223	2 026165
16.75	0.6594	125	223	2 026167
17.00	0.6693	125	223	2 026170

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	EDP # or e-Code
				MTS
17.25	0.6791	130	228	2 026172
17.50	0.6890	130	228	2 026175
18.00	0.7087	130	228	2 026180
18.50	0.7283	135	233	2 026185
19.00	0.7480	135	233	2 026190
19.50	0.7677	140	238	2 026195
20.00	0.7874	140	238	2 026200
20.50	0.8071	145	243	2 026205
21.00	0.8268	145	243	2 026210
21.50	0.8465	150	248	2 026215
22.00	0.8661	150	248	2 026220
22.50	0.8858	155	253	2 026225
23.00	0.9055	155	253	2 026230
23.50	0.9252	155	276	3 026235
24.00	0.9449	160	281	3 026240
24.50	0.9646	160	281	3 026245
25.00	0.9843	160	281	3 026250
25.50	1.0039	165	286	3 026255
26.00	1.0236	165	286	3 026260
26.50	1.0433	165	286	3 026265
27.00	1.0630	170	291	3 026270
27.50	1.0827	170	291	3 026275
28.00	1.1024	170	291	3 026280
28.50	1.1220	175	296	3 026285
29.00	1.1417	175	296	3 026290
29.50	1.1614	175	296	3 026295
30.00	1.1811	175	296	3 026300
30.50	1.2008	180	301	3 026305
31.00	1.2205	180	301	3 026310
31.50	1.2402	180	301	3 026315
32.00	1.2598	185	334	4 026320
32.50	1.2795	185	334	4 026325
33.00	1.2992	185	334	4 026330
33.50	1.3189	185	334	4 026335
34.00	1.3386	190	339	4 026340
34.50	1.3583	190	339	4 026345

5ATS



d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	MTS	EDP # or e-Code
35.00	1.3780	190	339	4	026350
35.50	1.3976	190	339	4	026355
36.00	1.4173	195	344	4	026360
36.50	1.4370	195	344	4	026365
37.00	1.4567	195	344	4	026370
37.50	1.4764	195	344	4	026375
38.00	1.4961	200	349	4	026380
39.00	1.5354	200	349	4	026390
40.00	1.5748	200	349	4	026400
41.00	1.6142	205	354	4	026410

d ₁ Ø mm	d ₁ decimal Inch	l ₂ mm	l ₁ mm	MTS	EDP # or e-Code
42.00	1.6535	205	354	4	026420
43.00	1.6929	210	359	4	026430
44.00	1.7323	210	359	4	026440
45.00	1.7717	210	359	4	026450
47.00	1.8504	215	364	4	026470
48.00	1.8898	220	369	4	026480
49.00	1.9291	220	369	4	026490
50.00	1.9685	220	369	4	026500

HSS
Red'd
Shank
Drills

R56CO

- 1/2" reduced parallel shank drill
- Round shank

- Foret queue dégagée de 12,7 mm

- Brocas de mango cilíndrico, Mango rebajado 1/2"



R56CO



HSCo

ST
Bronze

ANSI



4xD



118°

- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1
6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

HSS
Redc'd
Shank
Drills

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂	EDP # or e-Code
33/64	0.5156	3"	6"	1/2	092333
17/32	0.5312	3"	6"	1/2	092334
35/64	0.5469	3"	6"	1/2	092335
9/16	0.5625	3"	6"	1/2	092336
37/64	0.5781	3"	6"	1/2	092337
19/32	0.5938	3"	6"	1/2	092338
39/64	0.6094	3"	6"	1/2	092339
5/8	0.6250	3"	6"	1/2	092340
41/64	0.6406	3"	6"	1/2	092341
21/32	0.6562	3"	6"	1/2	092342
43/64	0.6719	3"	6"	1/2	092343
11/16	0.6875	3"	6"	1/2	092344
45/64	0.7031	3"	6"	1/2	092345
23/32	0.7188	3"	6"	1/2	092346
47/64	0.7344	3"	6"	1/2	092347
3/4	0.7500	3"	6"	1/2	092348

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂	EDP # or e-Code
49/64	0.7656	3"	6"	1/2	092349
25/32	0.7812	3"	6"	1/2	092350
51/64	0.7969	3"	6"	1/2	092351
13/16	0.8125	3"	6"	1/2	092352
53/64	0.8281	3"	6"	1/2	092353
27/32	0.8438	3"	6"	1/2	092354
55/64	0.8594	3"	6"	1/2	092355
7/8	0.8750	3"	6"	1/2	092356
57/64	0.8906	3"	6"	1/2	092357
29/32	0.9062	3"	6"	1/2	092358
59/64	0.9219	3"	6"	1/2	092359
15/16	0.9375	3"	6"	1/2	092360
61/64	0.9531	3"	6"	1/2	092361
31/32	0.9688	3"	6"	1/2	092362
63/64	0.9844	3"	6"	1/2	092363
1"	1.0000	3"	6"	1/2	092364

R56



- 1/2" reduced parallel shank drill
- Silver & Deming, round shank

- Foret queue dégagée de 12,7 mm

- Brocas de mango cilíndrico, Mango rebajado 1/2"



R56



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
33/64	0.5156	3"	6"	1/2	091433
17/32	0.5312	3"	6"	1/2	091434
35/64	0.5469	3"	6"	1/2	091435
9/16	0.5625	3"	6"	1/2	091436
37/64	0.5781	3"	6"	1/2	091437
19/32	0.5938	3"	6"	1/2	091438
39/64	0.6094	3"	6"	1/2	091439
5/8	0.6250	3"	6"	1/2	091440
41/64	0.6406	3"	6"	1/2	091441
21/32	0.6562	3"	6"	1/2	091442
43/64	0.6719	3"	6"	1/2	091443
11/16	0.6875	3"	6"	1/2	091444
45/64	0.7031	3"	6"	1/2	091445
23/32	0.7188	3"	6"	1/2	091446
47/64	0.7344	3"	6"	1/2	091447
3/4	0.7500	3"	6"	1/2	091448
49/64	0.7656	3"	6"	1/2	091449
25/32	0.7812	3"	6"	1/2	091450
51/64	0.7969	3"	6"	1/2	091451
13/16	0.8125	3"	6"	1/2	091452
53/64	0.8281	3"	6"	1/2	091453
27/32	0.8438	3"	6"	1/2	091454
55/64	0.8594	3"	6"	1/2	091455
7/8	0.8750	3"	6"	1/2	091456
57/64	0.8906	3"	6"	1/2	091457
29/32	0.9062	3"	6"	1/2	091458
59/64	0.9219	3"	6"	1/2	091459
15/16	0.9375	3"	6"	1/2	091460

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
61/64	0.9531	3"	6"	1/2	091461
31/32	0.9688	3"	6"	1/2	091462
63/64	0.9844	3"	6"	1/2	091463
1"	1.0000	3"	6"	1/2	091464
1.1/64	1.0156	3"	6"	1/2	091465
1.1/32	1.0312	3"	6"	1/2	091486
1.3/64	1.0469	3"	6"	1/2	091467
1.1/16	1.0625	3"	6"	1/2	091468
1.5/64	1.0781	3"	6"	1/2	091469
1.3/32	1.0938	3"	6"	1/2	091470
1.7/64	1.1094	3"	6"	1/2	091471
1.1/8	1.1250	3"	6"	1/2	091472
1.9/64	1.1406	3"	6"	1/2	091473
1.5/32	1.1562	3"	6"	1/2	091487
1.11/64	1.1719	3"	6"	1/2	091474
1.3/16	1.1875	3"	6"	1/2	091476
1.13/64	1.2031	3"	6"	1/2	091475
1.7/32	1.2188	3"	6"	1/2	091488
1.15/64	1.2344	3"	6"	1/2	091477
1.1/4	1.2500	3"	6"	1/2	091480
1.9/32	1.2812	3"	6"	1/2	091479
1.5/16	1.3125	3"	6"	1/2	091482
1.11/32	1.3438	3"	6"	1/2	091497
1.3/8	1.3750	3"	6"	1/2	091483
1.13/32	1.4062	3"	6"	1/2	091492
1.7/16	1.4375	3"	6"	1/2	091484
1.15/32	1.4688	3"	6"	1/2	091495
1.1/2	1.5000	3"	6"	1/2	091485

HSS
Reduc'd
Shank
Drills

- 1/2" reduced parallel shank drill
- Silver & Deming, 3-flats

- Foret queue dégagée de 12,7 mm

- Brocas de mango cilíndrico, Mango rebajado 1/2"



R57



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
33/64	0.5156	3"	6"	1/2	091533
17/32	0.5312	3"	6"	1/2	091534
35/64	0.5469	3"	6"	1/2	091535
9/16	0.5625	3"	6"	1/2	091536
37/64	0.5781	3"	6"	1/2	091537
19/32	0.5938	3"	6"	1/2	091538
39/64	0.6094	3"	6"	1/2	091539
5/8	0.6250	3"	6"	1/2	091540
41/64	0.6406	3"	6"	1/2	091541
21/32	0.6562	3"	6"	1/2	091542
43/64	0.6719	3"	6"	1/2	091543
11/16	0.6875	3"	6"	1/2	091544
45/64	0.7031	3"	6"	1/2	091545
23/32	0.7188	3"	6"	1/2	091546
47/64	0.7344	3"	6"	1/2	091547
3/4	0.7500	3"	6"	1/2	091548
49/64	0.7656	3"	6"	1/2	091549
25/32	0.7812	3"	6"	1/2	091550
51/64	0.7969	3"	6"	1/2	091551
13/16	0.8125	3"	6"	1/2	091552
53/64	0.8281	3"	6"	1/2	091553
27/32	0.8438	3"	6"	1/2	091554
55/64	0.8594	3"	6"	1/2	091555
7/8	0.8750	3"	6"	1/2	091556
57/64	0.8906	3"	6"	1/2	091557
29/32	0.9062	3"	6"	1/2	091558
59/64	0.9219	3"	6"	1/2	091559
15/16	0.9375	3"	6"	1/2	091560

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
61/64	0.9531	3"	6"	1/2	091561
31/32	0.9688	3"	6"	1/2	091562
63/64	0.9844	3"	6"	1/2	091563
1"	1.0000	3"	6"	1/2	091564
1.1/64	1.0156	3"	6"	1/2	091565
1.1/32	1.0312	3"	6"	1/2	091586
1.3/64	1.0469	3"	6"	1/2	091567
1.1/16	1.0625	3"	6"	1/2	091568
1.5/64	1.0781	3"	6"	1/2	091569
1.3/32	1.0938	3"	6"	1/2	091570
1.7/64	1.1094	3"	6"	1/2	091571
1.1/8	1.1250	3"	6"	1/2	091572
1.9/64	1.1406	3"	6"	1/2	091573
1.5/32	1.1562	3"	6"	1/2	091587
1.11/64	1.1719	3"	6"	1/2	091575
1.3/16	1.1875	3"	6"	1/2	091576
1.13/64	1.2031	3"	6"	1/2	091577
1.7/32	1.2188	3"	6"	1/2	091588
1.15/64	1.2344	3"	6"	1/2	091579
1.1/4	1.2500	3"	6"	1/2	091580
1.9/32	1.2812	3"	6"	1/2	091589
1.5/16	1.3125	3"	6"	1/2	091582
1.11/32	1.3438	3"	6"	1/2	091592
1.3/8	1.3750	3"	6"	1/2	091583
1.13/32	1.4062	3"	6"	1/2	091595
1.7/16	1.4375	3"	6"	1/2	091584
1.15/32	1.4688	3"	6"	1/2	091598
1.1/2	1.5000	3"	6"	1/2	091585

R58



- 3/4" reduced parallel shank drill
- Silver & Deming, round shank

- Foret queue dégagée de 19,05 mm

- Brocas de mango cilíndrico, Mango rebajado 3/4"



R58



■ 1.1 1.2 1.3 1.4 3.1 3.2

• 1.5 2.1 2.2 2.3 3.3 4.1 4.2 5.1 5.2 5.3 6.1 6.2 6.3 6.4

7.1 7.2 7.3 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
1"	1.0000	3"	6"	3/4	091264
1.1/32	1.0313	3"	6"	3/4	091266
1.1/16	1.0625	3"	6"	3/4	091268
1.3/32	1.0938	3"	6"	3/4	091270
1.1/8	1.1250	3"	6"	3/4	091272
1.5/32	1.1562	3"	6"	3/4	091274
1.3/16	1.1875	3"	6"	3/4	091276
1.7/32	1.2188	3"	6"	3/4	091278
1.1/4	1.2500	3"	6"	3/4	091280
1.9/32	1.2812	3"	6"	3/4	091282
1.5/16	1.3125	3"	6"	3/4	091284
1.11/32	1.3438	3"	6"	3/4	091286

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
1.3/8	1.3750	3"	6"	3/4	091288
1.13/32	1.4062	3"	6"	3/4	091290
1.7/16	1.4375	3"	6"	3/4	091292
1.15/32	1.4688	3"	6"	3/4	091294
1.1/2	1.5000	3"	6"	3/4	091296
1.9/16	1.5625	3"	6"	3/4	091298
1.5/8	1.6250	3"	6"	3/4	091300
1.11/16	1.6875	3"	6"	3/4	091302
1.3/4	1.7500	3"	6"	3/4	091304
1.13/16	1.8125	3"	6"	3/4	091306
1.7/8	1.8750	3"	6"	3/4	091308
1.15/16	1.9375	3"	6"	3/4	091310
2"	2.0000	3"	6"	3/4	091312

HSS
Reduc'd
Shank
Drills

HSS Special Purpose Drills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Depth of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
example: 279 U
279 = SFM
U = Alpha Code to find your Feed Rate
- 4 To calculate Cutting Feed Rate, refer to chart on page 9-10.

■ = Excellent for Application
● = Good for Application



Style:

Tool Material:



Finish/Coating:

Standard:

Direction of Cut:

Depth of Cut:

Tool Length:

Shank:

Helix:

Point Angle:

Point Style:

Special Standard:

HSS Special Purpose Drills

Page # for easy reference

Application Material Groups (AMG) With Examples				Hardness HB	Surface Feet per Minute (SFM)		
					168	169	170
1. Steel	1.1 Magnetic soft steel	12L14, 12L15		<120	1.1		
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36		<200	1.2		
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146		<250	1.3		
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420		<250	1.4		
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420		>250<350	1.5		
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420		>350	1.6	■125D	
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1		49-55HRC	1.7		
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1		55-63HRC	1.8		
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440		<250	2.1		
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350		<250	2.2		
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX		<300	2.3		
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH		<300	2.4		
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20		<150	3.1	■298H	■298H
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60		>150<300	3.2	■298H	■298H
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70		<200	3.3	■226F	■226F
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C		>200<300	3.4	●200D	●200D
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure		<200	4.1		
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K		<270	4.2		
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967		>270<350	4.3		
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553		<150	5.1		
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy		<270	5.2		
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286		>270<350	5.3		
6. Copper	6.1 Copper	Commercially Pure		<100	6.1		
	6.2 β-Brass, Bronze	314-340, 350-370		<200	6.2		
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping		<200	6.3		
	6.4 High Strength Bronze	Ampco 18-25		<470	6.4		
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure		<100	7.1		
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340		<150	7.2		
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390		<120	7.3		
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced		<120	7.4		
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol		---	8.1		
	8.2 Thermosetting plastics	Bakelit, Pertinax		---	8.2		
	8.3 Reinforced plastic materials	CFK, GFKAFK		---	8.3		
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic		<550	9.1		
10. Graphite	10.1 Standard graphite			---	10.1		

HSS Special Purpose Drills (con't)

HSS Special Purpose Drills



	76HA	76LO	B76HA	A217 A218	A221	A236	Spotting Drills SP Series	ATR41	60B	SM8	TS10 TS15 TS18	TS40 TS41	TS51 TS52 TS55	
	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
									</					

- Die drill
- Carbide-tipped

- Foret de matrice

- Taladro del dado



■ 1.6

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
11/64	0.1719	1.1/2	3.1/2	030011
3/16	0.1875	1.1/2	3.1/2	030012
13/64	0.2031	1.3/4	3.3/4	030013
7/32	0.2188	1.3/4	3.3/4	030014
15/64	0.2344	2"	4"	030015
1/4	0.2500	2"	4"	030016
17/64	0.2656	2.1/4	4.1/4	030017
9/32	0.2812	2.1/4	4.1/4	030018
19/64	0.2969	2.1/2	4.1/2	030019
5/16	0.3125	2.1/2	4.1/2	030020
21/64	0.3281	2.3/4	4.3/4	030021
11/32	0.3438	2.3/4	4.3/4	030022
23/64	0.3594	3"	5"	030023
3/8	0.3750	3"	5"	030024
25/64	0.3906	3"	5.1/4	030025
13/32	0.4062	3"	5.1/4	030026

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
27/64	0.4219	3"	5.1/2	030027
7/16	0.4375	3"	5.1/2	030028
29/64	0.4531	3.1/4	5.3/4	030029
15/32	0.4688	3.1/4	5.3/4	030030
31/64	0.4844	3.1/2	6"	030031
1/2	0.5000	3.1/2	6"	030032
17/32	0.5312	3.1/2	6"	030034
9/16	0.5625	3.1/2	6"	030036
19/32	0.5938	4"	7"	030038
5/8	0.6250	4"	7"	030040
21/32	0.6562	4.1/2	7.1/2	030042
11/16	0.6875	4.1/2	7.1/2	030044
23/32	0.7188	4.3/4	8"	030046
3/4	0.7500	4.3/4	8"	030048

Spcl.
Purp.
Drills,
Sets

D444



- Jobber drill
- Carbide-tipped

- Foret court

- Broca , serie corta



D444



- 3.1 3.2 3.3
- 3.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
32	0.1160	1.5/8	2.3/4	034632
1/8	0.1250	1.5/8	2.3/4	034408
30	0.1285	1.5/8	2.3/4	034630
29	0.1360	1.3/4	2.7/8	034629
9/64	0.1406	1.3/4	2.7/8	034409
25	0.1495	1.7/8	3"	034625
5/32	0.1562	2"	3.1/8	034410
21	0.1590	2.1/8	3.1/4	034621
20	0.1610	2.1/8	3.1/4	034620
19	0.1660	2.1/8	3.1/4	034619
18	0.1695	2.1/8	3.1/4	034618
11/64	0.1719	2.1/8	3.1/4	034411
17	0.1730	2.3/16	3.3/8	034617
15	0.1800	2.3/16	3.3/8	034615
14	0.1820	2.3/16	3.3/8	034614
13	0.1850	2.5/16	3.1/2	034613
3/16	0.1875	2.5/16	3.1/2	034412
11	0.1910	2.5/16	3.1/2	034611
10	0.1935	2.7/16	3.5/8	034610
9	0.1960	2.7/16	3.5/8	034609
7	0.2010	2.7/16	3.5/8	034607
13/64	0.2031	2.7/16	3.5/8	034413
3	0.2130	2.1/2	3.3/4	034603
7/32	0.2188	2.1/2	3.3/4	034414
1	0.2280	2.5/8	3.7/8	034601
15/64	0.2344	2.5/8	3.7/8	034415
B	0.2380	2.3/4	4"	034502
C	0.2420	2.3/4	4"	034503
E	0.2500	2.3/4	4"	034505
1/4	0.2500	2.3/4	4"	034416
F	0.2570	2.7/8	4.1/8	034506
G	0.2610	2.7/8	4.1/8	034507

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
17/64	0.2656	2.7/8	4.1/8	034417
H	0.2660	2.7/8	4.1/8	034508
I	0.2720	2.7/8	4.1/8	034509
J	0.2770	2.7/8	4.1/8	034510
K	0.2810	2.15/16	4.1/4	034511
9/32	0.2812	2.15/16	4.1/4	034418
L	0.2900	2.15/16	4.1/4	034512
19/64	0.2969	3.1/16	4.3/8	034419
N	0.3020	3.1/16	4.3/8	034514
5/16	0.3125	3.3/16	4.1/2	034420
O	0.3160	3.3/16	4.1/2	034515
P	0.3230	3.5/16	4.5/8	034516
21/64	0.3281	3.5/16	4.5/8	034421
Q	0.3320	3.7/16	4.3/4	034517
R	0.3390	3.7/16	4.3/4	034518
11/32	0.3438	3.7/16	4.3/4	034422
S	0.3480	3.1/2	4.7/8	034519
T	0.3580	3.1/2	4.7/8	034520
23/64	0.3594	3.1/2	4.7/8	034423
U	0.3680	3.5/8	5"	034521
3/8	0.3750	3.5/8	5"	034424
25/64	0.3906	3.3/4	5.1/8	034425
13/32	0.4062	3.7/8	5.1/4	034426
Z	0.4130	3.7/8	5.1/4	034526
27/64	0.4219	3.15/16	5.3/8	034427
7/16	0.4375	4.1/16	5.1/2	034428
29/64	0.4531	4.3/16	5.5/8	034429
15/32	0.4688	4.5/16	5.3/4	034430
31/64	0.4844	4.3/8	5.7/8	034431
1/2	0.5000	4.1/2	6"	034432

Spcl.
Purp.
Drills,
Sets

- Taper length
- Carbide-tipped

- Foret queue

- Broca de mango cónico



- 3.1 3.2 3.3
- 3.4

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.1250	2.3/4	5.1/8	035508
9/64	0.1406	3"	5.3/8	035509
5/32	0.1562	3"	5.3/8	035510
11/64	0.1719	3.3/8	5.3/4	035511
3/16	0.1875	3.3/8	5.3/4	035512
13/64	0.2031	3.5/8	6"	035513
7/32	0.2188	3.5/8	6"	035514
15/64	0.2344	3.3/4	6.1/8	035515
1/4	0.2500	3.3/4	6.1/8	035516
17/64	0.2656	3.7/8	6.1/4	035517
9/32	0.2812	3.7/8	6.1/4	035518
19/64	0.2969	4"	6.3/8	035519
5/16	0.3125	4"	6.3/8	035520
21/64	0.3281	4.1/8	6.1/2	035521
11/32	0.3438	4.1/8	6.1/2	035522
23/64	0.3594	4.1/4	6.3/4	035523
3/8	0.3750	4.1/4	6.3/4	035524
25/64	0.3906	4.3/8	7"	035525
13/32	0.4062	4.3/8	7"	035526
27/64	0.4219	4.5/8	7.1/4	035527
7/16	0.4375	4.5/8	7.1/4	035528
29/64	0.4531	4.3/4	7.1/2	035529

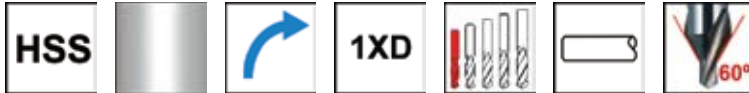
d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
15/32	0.4688	4.3/4	7.1/2	035530
31/64	0.4844	4.3/4	7.3/4	035531
1/2	0.5000	4.3/4	7.3/4	035532
33/64	0.5156	4.3/4	8"	035533
17/32	0.5312	4.3/4	8"	035534
35/64	0.5469	4.7/8	8.1/4	035535
9/16	0.5625	4.7/8	8.1/4	035536
37/64	0.5781	4.7/8	8.3/4	035537
19/32	0.5938	4.7/8	8.3/4	035538
39/64	0.6094	4.7/8	8.3/4	035539
5/8	0.6250	4.7/8	8.3/4	035540
41/64	0.6406	5.1/8	9"	035541
21/32	0.6562	5.1/8	9"	035542
43/64	0.6719	5.3/8	9.1/4	035543
11/16	0.6875	5.3/8	9.1/4	035544
45/64	0.7031	5.5/8	9.1/2	035545
23/32	0.7188	5.5/8	9.1/2	035546
47/64	0.7344	5.7/8	9.3/4	035547
3/4	0.7500	5.7/8	9.3/4	035548
13/16	0.8125	6.1/8	10"	035552
7/8	0.8750	6.1/8	10"	035556
15/16	0.9375	6.1/8	10.3/4	035560
1"	1.0000	6.3/8	11"	035564

Spcl.
Purp.
Drills,
Sets

- Brocas de Centrar



76HA



■ 1.1 1.2 1.3 1.4 3.1 3.2

● 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3

7.4 8.1 8.2 8.3 9.1

	d ₁ Ø	I ₂	I ₁	d ₂ Ø	EDP # or e-Code
Nr.	Inch	Inch	Inch	Inch	
000	0.020	0.030	1.1/4	1/8	097630
00	0.025	0.030	1.1/8	1/8	097620
0	1/32	0.038	1.1/8	1/8	097610
1	3/64	3/64	1.1/4	1/8	097601
2	5/64	5/64	1.7/8	3/16	097602
3	7/64	7/64	2"	1/4	097603

Nr.	d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
4	1/8	1/8	2.1/8	5/16	097604
5	3/16	3/16	2.3/4	7/16	097605
6	7/32	7/32	3"	1/2	097606
7	1/4	1/4	3.1/4	5/8	097607
8	5/16	5/16	3.1/2	3/4	097608

**Spcl.
Purp.
Drills,
Sets**

76LO

- Brocas de Centrar



76LO

Nr.	d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
1	3/64	3/64	3"	1/8	097713
1	3/64	3/64	4"	1/8	097714
3	5/64	5/64	4"	3/16	097724
2	5/64	5/64	5"	3/16	097725
2	7/64	7/64	4"	1/4	097734
3	7/64	7/64	5"	1/4	097735
4	1/8	1/8	4"	5/16	097744
4	1/8	1/8	5"	5/16	097745

Nr.	d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	EDP # or e-Code
4	1/8	1/8	6"	5/16	097746
5	3/16	3/16	5"	7/16	097755
5	3/16	3/16	6"	7/16	097756
6	7/32	7/32	5"	1/2	097765
6	7/32	7/32	6"	1/2	097766
7	1/4	1/4	6"	5/8	097776
8	5/16	5/16	6"	3/4	097786

B76HA

- Brocas de Centrar



B76HA

	d_1	l_2	l_1	d_2	d_3	EDP #
Nr.	Inch	Inch	Inch	$\emptyset$ Inch	$\emptyset$ Inch	or e-Code
11	3/64	3/64	1.1/4	1/8	0.100	097611
12	1/16	1/16	1.7/8	3/16	0.150	097612
13	3/32	3/32	2"	1/4	0.200	097613
14	7/64	7/64	2.1/8	5/16	0.250	097614

	d₁	l₂	l₁	d₂	d₃	EDP #
Nr.	inch	inch	inch	Ø inch	Ø inch	or e-Code
15	5/32	5/32	2.3/4	7/16	0.350	097615
16	3/16	3/16	3"	1/2	0.400	097616
17	7/32	7/32	3.1/4	5/8	0.500	097617
18	1/4	1/4	3.1/2	3/4	0.600	097618

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

A217

- Center Drill

- Forêt à centrer

- Brocas de Centran



A217



■ 1.1 1.2 1.3 1.4 3.1 3.2

● 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3

7.4 8.1 8.2 8.3 9.1

Nr.	d ₁ dec. Inch	I ₂ Inch	I ₁ ch	d ₂ Ø Inch	max T mm	Stock #	EDP # or e-Code
1	0.0469	3/8	1.1/4	3/64	2.33	0239216	A217N1
2	0.0781	33/64	1.7/8	5/64	3.58	0239223	A217N2
3	0.1094	5/8	2"	7/64	4.83	0239230	A217N3
4	0.1250	45/64	2.1/8	1/8	5.92	0239247	A217N4

	d ₁ dec. Inch	I ₂ Inch	I ₁ ch	d ₂ Ø Inch	max T mm		EDP # or e-Code
Nr.						Stock #	
5	0.1875	1"	2.3/4	3/16	8.41	0239254	A217N5
6	0.2188	1"	3"	7/32	9.67	0239261	A217N6
7	0.2500	1.13/16	3.1/4	1/4	11.83	0239278	A217N7
8	0.3125	1.11/32	3.1/2	5/16	14.33	0239285	A217N8

A218

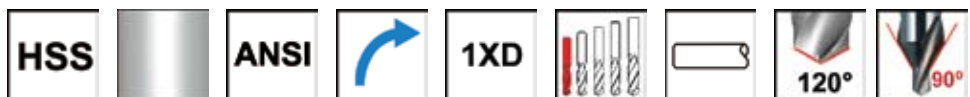
- Center Drill

- Forêt à centrer

- Brocas de Centran



A218



■ 1.1 1.2 1.3 1.4 3.1 3.2

● 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3

7.4 8.1 8.2 8.3 9.1

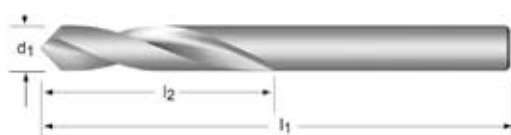
	d ₁ dec. Inch	I ₂ Inch	I ₁ Inch	d ₂ Ø Inch	max T mm		EDP # or e-Code
Nr.						Stock #	
1	0.0469	3/8	1.1/4	3/64	2.18	0239292	A218N1
2	0.0781	33/64	1.7/8	5/64	3.37	0239308	A218N2
3	0.1094	5/8	2"	7/64	4.57	0239315	A218N3
4	0.1250	45/64	2.1/8	1/8	5.56	0239322	A218N4

	d ₁ dec. Inch	I ₂ Inch	I ₁ Inch	d ₂ Ø Inch	max T mm	Stock #	EDP # or e-Code
5	0.1875	1"	2.3/4	3/16	7.94	0239339	A218N5
6	0.2188	1"	3"	7/32	9.13	0239346	A218N6
7	0.2500	1.13/64	3.1/4	1/4	11.11	0239353	A218N7
8	0.3125	1.11/32	3.1/2	5/16	13.50	0239360	A218N8

- Spotting Drill

- Forêts de dessoudage

- Broca para centrados



HSS



1XD



1.1	1.2	1.3	6.1	6.2	6.3	6.4	7.1	7.2
1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2
8.2	8.3	9.1						

Spcl.
Purp.
Drills,
Sets

SPS-120° Short Length

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	2.1/2	087950
3/8	0.3750	1.1/8	3.1/8	087951
1/2	0.5000	1.3/8	3.3/4	087952
5/8	0.6250	1.5/8	4.3/8	087953
3/4	0.7500	1.7/8	5"	087954
1"	1.0000	2.1/4	6"	087955

SPSG-120° Short Length

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	2.1/2	087956
3/8	0.3750	1.1/8	3.1/8	087957
1/2	0.5000	1.3/8	3.3/4	087958
5/8	0.6250	1.5/8	4.3/8	087959
3/4	0.7500	1.7/8	5"	087960
1"	1.0000	2.1/4	6"	087961

SPR-120° Regular Length

d₁ Ø Inch	d₁ dec. Inch	I₂ Inch	I₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	4"	087962
3/8	0.3750	1.1/8	5"	087963
1/2	0.5000	1.3/8	6"	087964
5/8	0.6250	1.5/8	7"	087965
3/4	0.7500	1.7/8	8"	087966
1"	1.0000	2.1/4	8"	087967

SPRG-120° Regular Length

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	4"	087968
3/8	0.3750	1.1/8	5"	087969
1/2	0.5000	1.3/8	6"	087970
5/8	0.6250	1.5/8	7"	087971
3/4	0.7500	1.7/8	8"	087972
1"	1.0000	2.1/4	8"	087973

SPL-120° Long Length

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	6"	087974
3/8	0.3750	1.1/8	7"	087975
1/2	0.5000	1.3/8	8"	087976
5/8	0.6250	1.5/8	9"	087977
3/4	0.7500	1.7/8	10"	087978
1"	1.0000	2.1/4	10"	087979

SPLG-120° Long Length

d₁ Ø Inch	d₁ dec. Inch	l₂ Inch	l₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	6"	087980
3/8	0.3750	1.1/8	7"	087981
1/2	0.5000	1.3/8	8"	087982
5/8	0.6250	1.5/8	9"	087983
3/4	0.7500	1.7/8	10"	087984
1"	1.0000	2.1/4	10"	087985

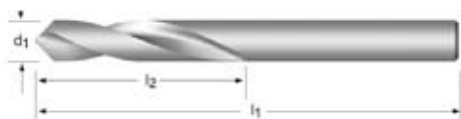
Spotting Drills



- Spotting drill

- Forets de dessoudage

- Broca para centrados



SPS-90° Short Length

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	2.1/2	087900
3/8	0.3750	1.1/8	3.1/8	087901
1/2	0.5000	1.3/8	3.3/4	087902
5/8	0.6250	1.5/8	4.3/8	087903
3/4	0.7500	1.7/8	5"	087904
1"	1.0000	2.1/4	6"	087905

SPSG-90° Short Length

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	2.1/2	087906
3/8	0.3750	1.1/8	3.1/8	087907
1/2	0.5000	1.3/8	3.3/4	087908
5/8	0.6250	1.5/8	4.3/8	087909
3/4	0.7500	1.7/8	5"	087910
1"	1.0000	2.1/4	6"	087911



SPR-90° Regular Length

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	4"	087912
3/8	0.3750	1.1/8	5"	087913
1/2	0.5000	1.3/8	6"	087914
5/8	0.6250	1.5/8	7"	087915
3/4	0.7500	1.7/8	8"	087916
1"	1.0000	2.1/4	8"	087917

SPRG-90° Regular Length

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	4"	087918
3/8	0.3750	1.1/8	5"	087919
1/2	0.5000	1.3/8	6"	087920
5/8	0.6250	1.5/8	7"	087921
3/4	0.7500	1.7/8	8"	087922
1"	1.0000	2.1/4	8"	087923



SPL-90° Long Length

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	6"	087924
3/8	0.3750	1.1/8	7"	087925
1/2	0.5000	1.3/8	8"	087926
5/8	0.6250	1.5/8	9"	087927
3/4	0.7500	1.7/8	10"	087928
1"	1.0000	2.1/4	10"	087929

SPLG-90° Long Length

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	0.2500	3/4	6"	087930
3/8	0.3750	1.1/8	7"	087931
1/2	0.5000	1.3/8	8"	087932
5/8	0.6250	1.5/8	9"	087933
3/4	0.7500	1.7/8	10"	087934
1"	1.0000	2.1/4	10"	087935

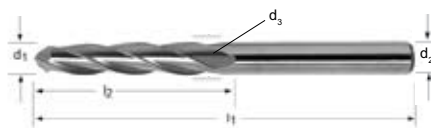


ATR41

- Aircraft extension drill
- Right-hand helix (taper 1/4" per foot)
- Notched point

- Foret aéronautique à queue cylindrique rallongée

- Broca extralarga para la industria Aeronáutica



HSS



4xD



d ₁ Ø No.	d ₁ Ø Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	d ₃ Ø Inch	# of Flutes	EDP # or e-Code
1	0.0810	0.0980	13/16	2"	0.0980	3	041701
2	0.1100	0.1280	7/8	2.1/4	0.1280	3	041702

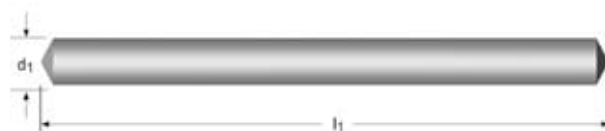
d ₁ Ø No.	d ₁ Ø Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	d ₃ Ø Inch	# of Flutes	EDP # or e-Code
3	0.1650	0.1875	1.1/16	2.1/2	0.1875	3	041703
4	0.2240	0.2500	1.1/4	2.3/4	0.2500	4	041704

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

- Drill blank

- Ebauche pour foret

- Broca sin mecanizar



60B



d ₁ Ø Inch	d ₁ dec. Inch	l ₁ Inch	EDP # or e-Code
1/32	0.0312	1.3/8	019002
3/64	0.0469	1.3/4	019003
1/16	0.0625	1.7/8	019004
5/64	0.0781	2"	019005
3/32	0.0937	2.1/4	019006
7/64	0.1094	2.5/8	019007
1/8	0.125	2.3/4	019008
9/64	0.1406	2.7/8	019009
5/32	0.1562	3.1/8	019010
11/64	0.1719	3.1/4	019011
3/16	0.1875	3.1/2	019012
13/64	0.2031	3.5/8	019013
7/32	0.2187	3.3/4	019014
15/64	0.2344	3.7/8	019015
1/4	0.25	4"	019016
17/64	0.2656	4.1/8	019017
9/32	0.2812	4.1/4	019018
19/64	0.2969	4.3/8	019019
5/16	0.3125	4.1/2	019020
21/64	0.3281	4.5/8	019021
11/32	0.3437	4.3/4	019022
23/64	0.3594	4.7/8	019023

d ₁ Ø Inch	d ₁ dec. Inch	l ₁ Inch	EDP # or e-Code
3/8	0.375	5"	019024
25/64	0.3906	5.1/8	019025
13/32	0.4062	5.1/4	019026
27/64	0.4219	5.3/8	019027
7/16	0.4375	5.1/2	019028
29/64	0.4531	5.5/8	019029
15/32	0.4687	5.3/4	019030
31/64	0.4844	5.7/8	019031
1/2	0.5	6"	019032
17/32	0.5312	6"	019034
9/16	0.5625	6"	019036
19/32	0.5938	6"	019038
5/8	0.625	6"	019040
21/32	0.6562	6"	019042
11/16	0.6875	6"	019044
23/32	0.7188	6"	019046
3/4	0.75	6"	019048
13/16	0.8125	6"	019052
7/8	0.875	6"	019056
15/16	0.9375	6"	019060
1"	1	6"	019064

Spcl.
Purp.
Drills,
Sets

SM8

- Stub drill
- Double end

- Foret extra-court - Double

- Broca extra corta - Doble punta



d ₁ Ø	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Ø Inch	EDP # or e-Code
7/64	2.778	0.1094	1/2	1.7/8	098907
1/8	3.175	0.1250	1/2	2"	098908
30	3.264	0.1285	1/2	2"	098930
9/64	3.572	0.1406	1/2	2"	098909

d ₁ Ø	d ₁ Ø mm	d ₁ dec. Inch	l ₂ Inch	l ₁ Ø Inch	EDP # or e-Code
5/32	3.969	0.1562	1/2	2.1/16	098910
3/16	4.762	0.1875	1/2	2.3/16	098912
11	4.851	0.1910	1/2	2.1/4	098911
1/4	6.350	0.2500	1/2	2.1/2	098916

Threaded Hex Shank Drills



- Threaded hex shank drills
- Type B



TS10 Short

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.125	9/16	1.1/4	045708
5/32	0.1562	9/16	1.1/2	045710
3/16	0.1875	9/16	1.1/2	045712
7/32	0.2188	9/16	1.1/2	045714
1/4	0.25	9/16	1.1/4	045716

TS40 Stub

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.125	5/16	1/2	045808

TS18 Short

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.098	9/16	1"	045640
30	0.1285	9/16	1.1/4	045630
21	0.159	9/16	1.1/4	045621
20	0.161	9/16	1.1/4	045620
11	0.191	9/16	1.1/2	045611
10	0.1935	9/16	1.1/4	045610

TS41 Stub

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.098	5/16	1/2	045840
30	0.1285	5/16	9/16	045830
20	0.161	5/16	9/16	045820
11	0.191	5/16	9/16	045811
10	0.1935	5/16	9/16	045810

TS15 Short

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
F	0.257	9/16	1.1/2	045606



TS51 Long

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	0.125	7/8	2.1/8	017958
5/32	0.1562	1.1/8	2.1/8	017960
3/16	0.1875	1.1/8	2.1/8	017962
7/32	0.2188	1.1/8	2.1/8	017964
1/4	0.25	1.1/8	2.1/8	017966

TS52 Long

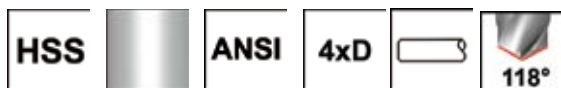
d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
40	0.0980	7/8	2.1/8	017940
30	0.1285	1.1/8	2.1/8	017930
21	0.1590	1.1/8	2.1/8	017921
20	0.1610	1.1/8	2.1/8	017920
11	0.1910	1.1/8	2.1/8	017911
10	0.1935	1.1/8	2.1/8	017910

TS55 Long

d ₁ Ø Inch	d ₁ dec. Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
F	0.257	1.1/8	2.1/8	017990

Spcl.
Purp.
Drills,
Sets

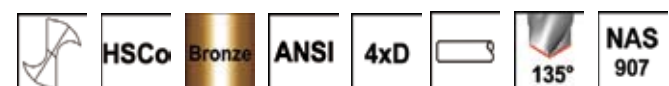
Jobber Drill Sets



Style	Tool Type	# in Set	Sizes	EDP #
C13R10P	R10P	13	1/16-1/4 x 64ths	090164
C15R10P	R10P	15	1/16-1/2 x 32nds	090163
C21R10P	R10P	21	1/16-3/8 x 64ths	090165
C29R10P	R10P	29	1/16-1/2 x 64ths	090162
C20R18P	R18P	20	61-80	090161
C60R18P	R18P	60	1-60	090101
C26R15P	R15P	26	A-Z	090126
C15L10	L10	15	1/16-1/2 x 32nds, LEFT HAND	099955
C29L10	L10	29	1/16-1/2 x 64ths, LEFT HAND	099935
C115COMBP	R10P, R18P, R15P	115	1/16-1/2 x 64ths, 1-60, A-Z	090123
C114COMBP	R10P, R18P, R10PM	114	1/16-1/2 x 64ths, 1-60, 1-13mm x .5 mm	090114
C25R10PM	R10PM	25	1mm-13mm x .5mm	099994
C50R10PM	R10PM	50	1mm-5.9mm x .1mm	099997



Style	Tool Type	# in Set	Sizes	EDP #
C13R10	R10	13	1/16-1/4 x 64ths	099979
C15R10	R10	15	1/16-1/2 x 32nds	099978
C21R10	R10	21	1/16-3/8 x 64ths	099980
C29R10	R10	29	1/16-1/2 x 64ths	099977
C20R18	R18	20	61-80	099981
C60R18	R18	60	1-60	099976
C26R15	R15	26	A-Z	099983
C115COMB	R10, R18, R15	115	1/16-1/2 x 64ths, 1-60, A-Z	099982
C114COMB	R10, R18, 2AB	114	1/16-1/2 x 64ths, 1-60, 1-13mm x .5 mm	099990



Style	Tool Type	# in Set	Sizes	EDP #
C13R10CO	R10CO	13	1/16-1/2 x 64ths	099944
C15R10CO	R10CO	15	1/16-1/2 x 32nds	090291
C21R10CO	R10CO	21	1/16-3/8 x 64ths	099701
C29R10CO	R10CO	29	1/16-1/2 x 64ths	090290
C60R18CO	R18CO	60	1-60	090600
C26R15CO	R15CO	26	A-Z	090292
C115COMBC	R10CO, R18CO, R15CO	115	1/16-1/2 x 64ths, 1-60, A-Z	099706
C114COMBC	R10CO, R18CO, 2ACO	114	1/16-1/2 x 64ths, 1-60, 1-13mm x .5 mm	099705



Drill Sets

DORMER

• Drill Sets

• Coffret de forets courts

• Juego de Brocas, serie corta

Jobber Drill Sets

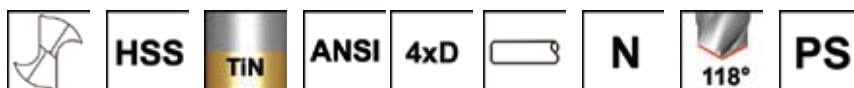


Style	Tool Type	# in Set	Sizes	EDP #
C29HX10	HX10	29	1/16-1/2 x 64ths	091010



Hx

A097



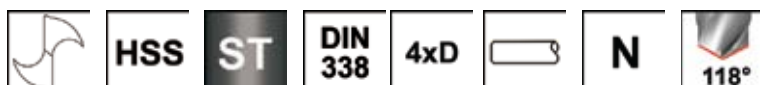
Style	Tool Type	# in Set	Sizes	Stock #	EDP #
18	A012	29	1/16 - 1/2 x 1/64	0574317	A09718
20	A012	15	1/16 - 1/2 x 1/32	0574348	A09720
60	A012	13	1/16 - 1/4 x 1/64	0574355	A09760
12	A012	60	Nr.1 - Nr.60	0574324	A09712
14	A012	26	A - Z	0574331	A09714
30	A012	115	1/16 - 1/2 x 1/64, Nr.1 - Nr.60, A-Z	0574362	A09730



012

Spcl.
Purp.
Drills,
Sets

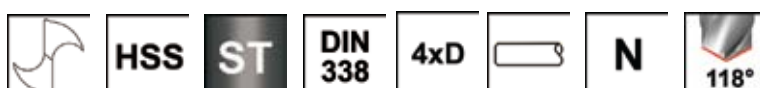
A190



Style	Tool Type	# in Set	Sizes	Stock #	EDP #
3	A100	21	1/16 - 3/8 x 1/64	0179413	A1903
200	A100	24	1.0 mm - 10.5 mm x 0.5 mm + 3.3 - 4.2 - 6.8 - 10.2 mm	0030530	A190200
201	A100	19	1.0 mm - 10.0 mm x 0.5 mm	0030547	A190201
202	A100	51	1.0 mm - 6.0 mm x 0.1 mm	0030554	A190202
203	A100	41	6.0 mm - 10.0 mm x 0.1 mm	0030561	A190203
204	A100	25	1.0 mm - 13.0 mm x 0.5 mm	0030578	A190204



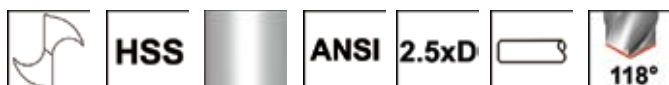
A191



Style	Tool Type	# in Set	Sizes	Stock #	EDP #
31M	A100	20	0.3 mm - 1.0 mm x 0.05 mm + 0.38 - 0.52 - 0.58 - 0.78 - 0.82 mm	0149133	A19131M
61/80	A100	20	Nr.61 - Nr.80	0179499	A19161-80
413	A100	13	1.5 mm - 6.5 mm x 0.5 mm + 3.3 - 4.2 mm	0030608	A191413
419	A100	19	1.0 mm - 10.0 mm x 0.5 mm	0030615	A191419



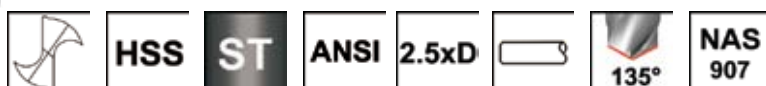
Stub Drill Sets



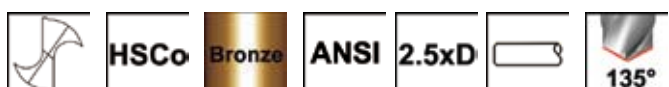
Style	Tool Type	# in Set	Sizes	EDP #
C29R40	R40	29	1/16-1/2 x 64ths	090170
C60R41	R41	60	1-60	090174
C26R42	R42	26	A-Z	090173



Spcl.
Purp.
Drills,
Sets



Style	Tool Type	# in Set	Sizes	EDP #
C29R40C	R40C	29	1/16-1/2 x 64ths	099903
C60R41C	R41C	60	1-60	099930



Style	Tool Type	# in Set	Sizes	EDP #
C29M40CO	M40CO	29	1/16-1/2 x 64ths	099962
C60M41CO	M41CO	60	1-60	099960
C26M42CO	M42CO	26	A-Z	099961



Drill Sets



• Drill Sets

• Coffret de forets courts

• Juego de Brocas, serie corta

Taper Length Drill Sets



Style	Tool Type	# in Set	Sizes	EDP #
C29R51	R51	29	1/16-1/2 x 64ths	090154
C60R52	R52	60	1-60	090155



Taper Shank Drill Sets



Style	Tool Type	# in Set	Sizes	EDP #
C16A209	209	16	33/64-3/4 x 64ths	090131
C16B209	209	16	49/64-1" x 64ths	090133

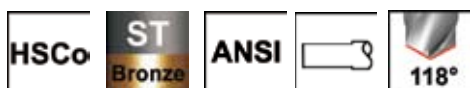


Spcl.
Purp.
Drills,
Sets

Reduced Shank Drill Sets



Style	Tool Type	# in Set	Sizes	EDP #
C8R56	R56	8	1/2" Reduced Shank, 9/16-1" x 16ths, S&D	090556
C8R57	R57	8	1/2" Reduced Shank, 9/16-1" x 16ths, S&D	090558
C33R56	R56	33	1/2" Reduced Shank, 1/2-1"x 64ths, S&D	090231



Style	Tool Type	# in Set	Sizes	EDP #
C8R56CO	R56CO	8	1/2" Reduced Shank, 9/16-1" x 16ths, Silver & Deming	090328



Tap Technical Charts					Page
Threading with Taps					202
Icon Guide for Taps					203
Tap Drill Sizes for Metric M-Profile Screw Threads					204
Tap Drill Sizes for Forming Taps					205
Forming Tap Drill Sizes for Self-Locking Threads					206
Tap Projection and Hole Size for Pipe Taps					207
Tap Size Recommendations for Classes 2B and 3B					208
Unified Screw Thread Limits					209
Tapping Speeds					210
Style	Standard	Thread Designation	Description	Finish	Page No.
Straight Flute					
1500(UNC)	ANSI	UNC	Hand Tap	Bright	220
1500(UNF)	ANSI	UNF	Hand Tap	Bright	222
1500(UNS)	ANSI	UNS	Hand Tap	Bright	223
1500A(UNC)	ANSI	UNC	Hand Tap	ST	228
1500A(UNF)	ANSI	UNF	Hand Tap	ST	228
1500L(UNC)	ANSI	UNC	Left Hand	Bright	230
1500L(UNF)	ANSI	UNF	Left Hand	Bright	230
1500L(UNS)	ANSI	UNS	Left Hand	Bright	231
1500OV(UNC)	ANSI	UNC	Hand Tap, oversize .005"	Bright	231
1500S	ANSI	Sets	Hand Tap set, 3-piece	Bright	224
1505(UNC)	ANSI	UNC	Hand Tap, 8-Pitch	Bright	234
1505(UNS)	ANSI	UNS	Hand Tap, 8-Pitch	Bright	235
1508(UNC)	ANSI	UNC	Hand Tap, Optional Flutes	Bright	232
1508(UNF)	ANSI	UNF	Hand Tap, Optional Flutes	Bright	232
1519(UNC)	ANSI	UNC	Hand Tap, Pulley style	Bright	238
1528(UNC)	ANSI	UNC	Hand Tap	Bright	216
1528(UNF)	ANSI	UNF	Hand Tap	Bright	218
1528(UNS)	ANSI	UNS	Hand Tap	Bright	218
1528S	ANSI	Sets	Hand Tap set, 3-piece	Bright	219
1572(UNC)	ANSI	UNC	Hand Tap, Screw Thread Insert (STI)	Bright	236
1572(UNF)	ANSI	UNF	Hand Tap, Screw Thread Insert (STI)	Bright	237
1595(UNC)	ANSI	UNC	Hand Tap, Optional Flutes	Bright	233
1595(UNF)	ANSI	UNF	Hand Tap, Optional Flutes	Bright	233
1599(M)	ANSI	Metric	Hand Tap, Cast iron	Nitride, ST	241
1599(UNC)	ANSI	UNC	Hand Tap, Cast iron	Nitride, ST	240
1599(UNF)	ANSI	UNF	Hand Tap, Cast iron	Nitride, ST	240
1599SB(M)	ANSI	Metric	Hand Tap, Cast Iron, Semi-Bottoming	Nitride, ST	241
1600(UNC)	ANSI	UNC	Hand Tap, Cast iron	Nitride, ST	239
1600(UNF)	ANSI	UNF	Hand Tap, Cast iron	Nitride, ST	239
1700(M)	ANSI	Metric	Hand Tap	Bright	225
1700S	ANSI	Metric	Hand Tap set, 3-piece	Bright	227
E053	ISO	Metric	MTT-X, Machine Tap	TiAIN	242
E054	ISO	Metric	MTT-X, Machine Tap	TiAIN	243
E059	ISO	UNC	MTT-X, Machine Tap	TiAIN	242
E061	ANSI	UNC	MTT, Hand Tap	Gold	212
E071	ANSI	UNF	MTT, Hand Tap	Gold	214
E500	ISO	Metric	Machine Tap, Straight Flute	Bright	244
E501	ISO	Metric	Machine Tap, Straight Flute	Bright	247
E513	ISO	Metric	Machine Tap, Straight Flute	Bright	248
T100	DIN	Metric	Carbide	TiAIN	211
T110	DIN	Metric	Carbide	TiAIN	211
TN1500(UNC)	ANSI	UNC	Hand Tap	TiN	229
TN1500(UNF)	ANSI	UNF	Hand Tap	TiN	229
U1511	ANSI	UNC	Hand Tap, Nut style	Bright	237

[illegible]

	Style	Standard	Thread Designation	Description	Finish	Page No.
	Spiral Flute					
	1582(UNC)	ANSI	UNC	Machine Tap	Bright	301
	1582(UNF)	ANSI	UNF	Machine Tap	Bright	301
	1586(UNC)	ANSI	UNC	Machine Tap	Bright	302
	1586(UNF)	ANSI	UNF	Machine Tap	Bright	302
	1587(UNC)	ANSI	UNC	Machine Tap, High Spiral Helicut, 52°	Bright	303
	1587(UNF)	ANSI	UNF	Machine Tap, High Spiral Helicut, 52°	Bright	303
	1588(UNC)	ANSI	UNC	Machine Tap, High Spiral Helicut, 52°	Bright	304
	1588(UNF)	ANSI	UNF	Machine Tap, High Spiral Helicut, 52°	Bright	304
	1590(UNC)	ANSI	UNC	Heavy-Duty, High Spiral Flute	ST	306
	1590(UNF)	ANSI	UNF	Heavy-Duty, High Spiral Flute	ST	306
	1591(UNC)	ANSI	UNC	Heavy-Duty, High Spiral Flute	ST	307
	1591(UNF)	ANSI	UNF	Heavy-Duty, High Spiral Flute	ST	307
	1788(M)	ANSI	Metric	Machine Tap, High Spiral Helicut, 52°	Bright	305
	E002	ISO	Metric	MTT-X, Machine Tap	Gold	294
	E003	ISO	Metric	MTT-X, Machine Tap	ST	295
	E007	ANSI	Metric	MTT-X, Machine Tap	Gold	291
	E008	ANSI	Metric	MTT-X, Machine Tap	ST	291
	E012	ISO	Metric	MTT-X, Machine Tap	Gold	296
	E013	ISO	Metric	MTT-X, Machine Tap	ST	297
	E017	ANSI	Metric	MTT-X, Machine Tap	Gold	292
	E018	ANSI	Metric	MTT-X, Machine Tap	ST	292
	E027	ANSI	UNC	MTT-X, Machine Tap	Gold	285
	E028	ANSI	UNC	MTT-X, Machine Tap	ST	286
	E037	ANSI	UNF	MTT-X, Machine Tap	Gold	287
	E038	ANSI	UNF	MTT-X, Machine Tap	ST	288
	E044	ISO	Metric	MTT-X, Machine Tap	Gold	299
	E048	ISO	Metric	MTT-X, Machine Tap	Super B	299
	E050	ISO	Metric	MTT-X, Machine Tap	TiAIN	298
	E051	ISO	Metric	MTT-X, Machine Tap	TiAIN	298
	E052	ISO	Metric	MTT-X, Machine Tap	Gold	300
	E058	ISO	UNC	MTT-X, Machine Tap	TiAIN	300
	E069	ANSI	UNC	MTT-X, Machine Tap	ST	289
	E079	ANSI	UNF	MTT-X, Machine Tap	ST	290
	E085	ANSI	Metric	MTT-X, Machine Tap	ST	293
	Thread Forming					
	1580(M)	ANSI	Metric	Rol-Rite™, Thread Forming	Bright	316
	1580(UNC)	ANSI	UNC	Rol-Rite™, Thread Forming	Bright	314
	1580(UNF)	ANSI	UNF	Rol-Rite™, Thread Forming	Bright	315
	3300(M)	ANSI	Metric	Rol-Form™, Thread Forming	Bright	319
	3300(UNC)	ANSI	UNC	Rol-Form™, Thread Forming	Bright	317
	3300(UNF)	ANSI	UNF	Rol-Form™, Thread Forming	Bright	318
	3306E(UNC)	ANSI	UNC	Rol-Form™, Extension Style, Thrd Form	Bright	320
	3306E(UNF)	ANSI	UNF	Rol-Form™, Extension Style, Thrd Form	Bright	321
	E009	ANSI	Metric	MTT-X, Thread Forming	TiN	310
	E029	ANSI	UNC	MTT-X, Thread Forming	TiN	308
	E039	ANSI	UNF	MTT-X, Thread Forming	TiN	309
	E064	ANSI	UNC	MTT-X, Thread Forming	Gold	309
	E074	ANSI	UNF	MTT-X, Thread Forming	Gold	310
	E080	ISO	Metric	MTT-X, Thread Forming	Dialub	313
	E094	ANSI	Metric	MTT-X, Thread Forming	Gold	311
	E097	ISO	Metric	MTT-X, Thread Forming	CrN	311
	E098	ISO	Metric	MTT-X, Thread Forming	TiN	312
	E099	ISO	Metric	MTT-X, Thread Forming	TiN	312

Style	Standard	Thread Designation	Description	Finish	Page No.
Pipe Taps					
1541(NPT)	ANSI	NPT	Medium Hook, Straight Flute	Bright	323
1542(NPS)	ANSI	NPSM	Straight, Regular Thread	Bright	329
1543(NPTF)	ANSI	NPTF	Medium Hook, Straight Flute	Bright	324
1544(NPT)	ANSI	NPT	Taper, Low Rake Angle	Nitride	325
1545(NPT)	ANSI	NPT	Taper, High Hook	Bright	325
1545A(NPT)	ANSI	NPT	Taper, High Hook	ST	326
1546(NPTF)	ANSI	NPTF	Taper, High Hook	Bright	326
1548(NPT)	ANSI	NPT	Taper, Medium Hook, 30° Spiral Flute	Bright	328
1549(NPTF)	ANSI	NPTF	Taper, Medium Hook, 30° Spiral Flute	Bright	328
1567(NPTF)	ANSI	NPTF	Taper, Interrupted Thread	Bright	327
1568(NPT)	ANSI	NPT	Taper, Interrupted Thread	Bright	327
1592(NPSF)	ANSI	NPSF	Straight, Dryseal, Regular Thread	Bright	329
E040	ISO	G	MTT-X, Machine Tap	Gold	330
E041	ISO	G	MTT-X, Machine Tap	ST	330
E042	ISO	G	MTT-X, Machine Tap	Gold	331
E043	ISO	G	MTT-X, Machine Tap	ST	331
E547	ISO	G	Machine Tap, (BSPF)	Bright	332
E550	ISO	Rc	Machine Tap, (BSPT)	Bright	333
E710	ANSI	NPT	Pipe Tap	Bright	322
TN1541	ANSI	NPT	Medium Hook, Straight Flute	TiN	323
TN1543	ANSI	NPTF	Medium Hook, Straight Flute	TiN	324
Miscellaneous					
1994(UNC)	ANSI	UNC	Combination Drill/Tap	Bright	334
1994(UNF)	ANSI	UNF	Combination Drill/Tap	Bright	334
E650	ISO	Metric	Combination Drill/Tap	ST	335
E651	ISO	UNC	Combination Drill/Tap	ST	335
E653	ANSI	NPT	Combination Drill/Tap	Bright	336
229C	ANSI	N/A	Drill/Tap Set, 9-Piece	Bright	337
1215	ANSI	N/A	T-Handle Tap Wrench	N/A	337
1301	ANSI	N/A	Die stock	N/A	338
3850	ANSI	N/A	Straight-Handle Tap Wrench	N/A	338
Dies					
2010	UNC, UNF, UNS, NPT		Carbon Steel	Bright	341
2025	UNC, UNF, UNS, NPT		Carbon Steel	Bright	339
2025S	Sets		Carbon Steel	Bright	340
2325M	Metric		Carbon Steel	Bright	340
2510	UNC, UNF		HSS	Bright	342
2710M	Metric		HSS	Bright	343
3150	Tap/Round Die Sets		Carbon Steel, HSS	Bright	344

Straight Flute Taps
Spiral Point Taps
Spiral Flute Taps
Thread Forming Taps
Pipe Taps
Misc Taps and Dies

Straight Flute Taps

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example: 72 72 = SFM

■	= Excellent for Application
●	= Good for Application

- 4 NOTE: Additional cutting charts located on pages 204-210.



Style:	T100	T110	E061, E071
Thread Form:	M	M	UNC UNF
Tool Brand:			MTT
Tool Material:	HM	HM	HSS
Finish/Coating:	TiAIN	TiAIN	Gold
Standard:	DIN 371	DIN 371	ANSI
Direction:			
Through/Blind Hole:			
Tolerance:	6H	6HX	2B 3B
Depth:			
Chamfer:	C 2-3	C 2-3	
Thread Designation:			
Coolant:			

Straight Flute Taps

Page # for easy reference				Surface Feet Per Minute (SFM)		
Application Material Groups (AMG)				211	211	212-215
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1		●22
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2		●20
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3		●16
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4		●12
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5		●7
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6		●4
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7	■6	●6
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8	●4	■4
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1		
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2		
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3		
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4		
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●60	■12
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●30	■7
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3		■10
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4		■5
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1		
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2		
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3		
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1		
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2		
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3		
6. Copper	6.1 Copper	Commercially Pure	<100	6.1		●12
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2		●30
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3		●20
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●7	
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1		
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2		
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3		●20
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●60	■15
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1		
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2	●50	●12
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3	●30	●7
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1		
10. Graphite	10.1 Standard graphite		---	10.1	●25	

Straight Flute Taps (con't)

		1528		1528		1500		1500		1700		1500A		TN1500		1500L			1500OV		1508		1595		1505		1572		U1511	
		UNC	UNF	UNS	UNC	UNF	UNS	M	UNC	UNF	UNC	UNF	UNC	UNF	UNS	UNC	UNC	UNF	UNC	UNF	UNC	UNF	UNC	UNS	UNC	UNS	UNC	UNF	UNC	
		UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	
Straight Flute Taps		HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
							ST	TIN																						
		ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI															
		2B 3B	3B	2B 3B	3B	6H	3B	3B	3B		3B	3B	3B	2B	3B	3B														
		Surface Feet Per Minute (SFM)																												
	216-218	218	220-223	223	225-	228	229	230-231	231	232	233	234-235	236-237	237																
1.1	•15	•15	•15	•15	•15	•15	•18	•15	•15	•15	■20	•15	•15	•12																
1.2	•11	•11	•11	•11	•11	•11	•14	•11	•11	•11	■18	•11	•9	•10																
1.3	•8	•8	•8	•8	•8	•8	•9	•8	•8	•8	■12	•8	•8	•8																
1.4	•8	•8	•8	•8	•8	•8	•9	•8	•8	•8	■12	•8	•8	•6																
1.5	•5	•5	•5	•5	•5	•5	•6	•5	•5	•5	■8	•5		•5																
1.6	•2	•2	•2	•2	•2	•2	•3	•2	•2	•2	•5	•2																		
1.7																														
1.8																														
2.1	•6	•6	•6	•6	•6	•6	•8	•6	•6	•6	•9	•6	•5																	
2.2	•4	•4	•4	•4	•4	•4	•8	•4	•4	•4	•6	•4	•2																	
2.3	•4	•4	•4	•4	•4	•4	•5	•4	•4	•4	•6	•4																		
2.4																														
3.1	•12	•12	•12	•12	•12	•12	•15	•12	•12	•12	•14	•12		•14																
3.2	•8	•8	•8	•8	•8	•8	•9	•8	•8	•8	•8	•8		•8																
3.3	•8	•8	•8	•8	•8	•8	•9	•8	•8	•8	•8	•8		•12																
3.4	•4	•4	•4	•4	•4	•4	•5	•4	•4	•4	•5	•4																		
4.1	•5	•5	•5	•5	•5	•5	•6	•5	•5	•5	•6	•5																		
4.2	•4	•4	•4	•4	•4	•4	•5	•4	•4	•4	•5	•4																		
4.3											•2																			
5.1	•5	•5	•5	•5	•5	•5	•6	•5	•5	•5	•8	•5																		
5.2	•2	•2	•2	•2	•2	•2	•3	•2	•2	•2	•3	•2																		
5.3																														
6.1	•6	•6	•6	•6	•6	•6	•8	•6	•6	•6	•9	•6	■8																	
6.2	•20	•20	•20	•20	•20	•20	•24	•20	•20	•20	•27	•20	■20	•16																
6.3	•15	•15	•15	•15	•15	•15	•18	•15	•15	•15	•21	•15	■15	•12																
6.4	•2	•2	•2	•2	•2	•2	•3	•2	•2	•2	•3	•2																		
7.1	•12	•12	•12	•12	•12	•12	•15	•12	•12	•12	•15	•12	■12																	
7.2	•24	•24	•24	•24	•24	•24	•30	•24	•24	•24	•30	•24	■24	•20																
7.3	•18	•18	•18	•18	•18	•18	•23	•18	•18	•18	•20	•18	■18	•12																
7.4	•5	•5	•5	•5	•5	•5	•6	•5	•5	•5	•6	•5	•5																	
8.1	•8	•8	•8	•8	•8	•8	•9	•8	•8	•8	■30	•8																		
8.2	•4	•4	•4	•4	•4	•4	•5	•4	•4	•4	•8	•4		•8																
8.3																														
9.1																														
10.1																														

Straight Flute Taps

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example: 72 72 = SFM

■ = Excellent for Application
● = Good for Application

- 4 NOTE: Additional cutting charts located on pages 204-210.



Style:
Thread Form:

1519	1600	1599	1599SB
UNC	UNC UNF	M	M



Tool Brand:

UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD

Tool Material:

HSS	HSS	HSS	HSS

Finish/Coating:

	N ST	N	N

2 Standard:

	ANSI	ANSI	ANSI

Direction:

↻	↻	↻	↻

Through/Blind Hole:

TH	TH	TH	TH

Tolerance:

3B	2B	6H	6H

Depth:

Chamfer:

Thread Designation:

U	U	U	U

Coolant:

Straight Flute Taps

Page # for easy reference

3

Surface Feet Per Minute (SFM)

Application Material Groups (AMG)				Hardness HB			238	239	240-241	241
1. Steel	1.1 Magnetic soft steel	12L14, 12L15		<120	1.1	●15				
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36		<200	1.2	●11				
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146		<250	1.3	●8				
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420		<250	1.4	●8				
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420		>250<350	1.5	●5				
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420		>350	1.6	●2				
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1		49-55HRC	1.7					
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1		55-63HRC	1.8					
2.Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440		<250	2.1	●6				
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350		<250	2.2	●4				
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH. DUPLEX		<300	2.3	●4				
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH		<300	2.4					
3.Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20		<150	3.1	●12	■15	■15	■15	■15
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60		>150<300	3.2	●8	■11	■11	■11	■11
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70		<200	3.3	●8	■11	■11	■11	■11
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C		>200<300	3.4	●4	■6	■6	■6	■6
4.Titanium	4.1 Titanium, unalloyed	Commercially Pure		<200	4.1	●5				
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K		<270	4.2	●4				
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967		>270<350	4.3					
5.Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553		<150	5.1	●5				
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy		<270	5.2	●2				
	5.3 Nickel, alloyed	Inconel 718,Nimonic 75-95,Rene 41,Inconel 825,A286		>270<350	5.3					
6.Copper	6.1 Copper	Commercially Pure		<100	6.1	●6				
	6.2 β-Brass, Bronze	314-340, 350-370		<200	6.2	●20				
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping		<200	6.3	●15				
	6.4 High Strength Bronze	Ampco 18-25		<470	6.4	●2	●4	●4	●4	●4
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure		<100	7.1	●12				
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340		<150	7.2	●24				
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390		<120	7.3	●18				
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced		<120	7.4	●5				
8.Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol		---	8.1	●8				
	8.2 Thermosetting plastics	Bakelit, Pertinax		---	8.2	●4	●4	●4	●4	●4
	8.3 Reinforced plastic materials	CFK, GFKAFK		---	8.3					
9.Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic		<550	9.1					
10.Graphite	10.1 Standard graphite			---	10.1					

Straight Flute Taps (con't)

Straight Flute Taps	E059	E053	E054	E500	E501	E513	Spiral Point Taps	E025	E035	E026	E036	E005	E006	E015	E016
	UNC	M	MF	M	M	MF		UNC	UNF	UNC	UNF	M	M	MF	MF
	MTT-X	MTT-X	MTT-X	DORMER	DORMER	DORMER		MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X
	HSCo	HSCo	HSCo	HSS	HSS	HSS		HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1
	TiAIN	TiAIN	TiAIN					Gold	Gold	ST	ST	Gold	ST	Gold	ST
	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529		ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI
	2B	6HX	6HX	6H	6H	6H		3B	3B	3B	3B	6H	6H	6H	6H
	C 2-3	C 2-3	C 2-3					B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5
Surface Feet Per Minute (SFM)	242						Surface Feet Per Minute (SFM)	252							
	242	242	243	244-247	247	248-251		252	253	254	255	256	257	258	258
	1.1			7	7	7		25	25	25	25	25	25	25	25
	1.2			6	6	6		22	22	22	22	22	22	22	22
	1.3			5	5	5		18	18	18	18	18	18	18	18
	1.4			4	4	4		16	16	16	16	16	16	16	16
	1.5			3	3	3		10	10	10	10	10	10	10	10
	1.6							5	5	5	5	5	5	5	5
	1.7														
	1.8														
	2.1								8	8		8		8	
	2.2								7	7		7		7	
	2.3								5	5		5		5	
	2.4														
	3.1	22	22	22	12	12		15	15	15	15	15	15	15	15
	3.2	18	18	18	7	7		8	8	8	8	8	8	8	8
	3.3	25	25	25	10	10		15	15	15	15	15	15	15	15
	3.4	18	18	18	5	5		8	8	8	8	8	8	8	8
	4.1							10	10			10		10	
	4.2							5	5			5		5	
	5.1							12	12			12		12	
	5.2							5	5			5		5	
	5.3														
	6.1			4	4	4		12	12			12		12	
	6.2	30	30	30	10	10		30	30			30		30	
	6.3			7	7	7		20	20			20		20	
	6.4	4	4	4	2	2									
	7.1							16	16			16		16	
	7.2			12	12	12		35	35			35		35	
	7.3			7	7	7		20	20			20		20	
	7.4	20	20	20	5	5		15	15			15		15	
	8.1							30	30			30		30	
	8.2	15	15	15	5	5									
	8.3			3	3	3									
	9.1														
	10.1														

Spiral Point Taps

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example: 72 72 = SFM

■	= Excellent for Application
●	= Good for Application

- 4 NOTE: Additional cutting charts located on pages 204-210.



AMG
Chart

Style:
Thread Form:

Style:	E000	E001	E010	E011	E045
Thread Form:	M	M	MF	MF	M

Tool Brand:

MTIX MTIX MTIX MTIX MTIX

Tool Material:

HSS XS1 HSS XS1 HSS XS1 HSS XS1 HSS XS1

Finish/Coating:

Gold ST Gold ST ST

Standard:

ISO 529 ISO 529 ISO 529 ISO 529 ISO 529

Direction:

Through/Blind Hole:

Tolerance:

6H 6H 6H 6H 6H

Depth:

Chamfer:

B B B B B

Flute Form:

Coolant:

Spiral Point Taps

Page # for easy reference

Application Material Groups (AMG)

1

Hardness HB

3

Surface Feet Per Minute (SFM)

				259	260	261	262	263
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■25	■25	■25	■25
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■22	■22	■22	■22
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■18	■18	■18	■18
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4	■16	■16	■16	■16
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5	■10	■10	■10	■10
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6	●5	●5	●5	●5
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●7		●7	■8
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	●6		●6	■7
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	●4		●4	■5
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4				■5
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●15	●15	●15	●15
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●8	●8	●8	●8
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●15	●15	●15	●15
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●8	●8	●8	●8
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●10		●10	
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●5		●5	
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3				
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●12		●12	
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●5		●5	
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3				
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	■12		■12	
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	●30		●30	
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	■20		■20	
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4				
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	■16		■16	
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	■35		■35	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	■20		■20	
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	■15		■15	
8. Synthetic Materials	8.1 Thermoplastics	Ultrad, Polystrol	---	8.1	●30		●30	
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2				
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3				
9. Hard Mat.	9.1 Cermet (Metal-ceramics)	Ferrotic	<550	9.1				
10. Graphite	10.1 Standard graphite		---	10.1				

Spiral Point Taps (cont)

Spiral Point Taps	E049	E046	E055	E057	E060	1534	1634	TN1534	1585	1585A	TN1585	TN1585	1985
	M	M	UNC	UNC	UNF	UNC UNF	UNC UNF	UNC UNF	UNC UNF	UNC UNF	UNC	UNF	UNC UNF
													
	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD
	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS	HSS Co	HSS	HSS	HSS	HSS	HSS	HSS
	TiAIN	Super 6	ST	TiAIN	ST		Bronze	TiN		ST	TiN	TiN	ST
	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529		ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI
													
	6H	6H	2B	2B	2B	2B 3B	3B	2B	3B	2B 3B	2B 3B	3B	2B
	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5	B 3.5-5								
													
Surface Feet Per Minute (SFM)													
	263	264	264	265	265	266-267	268	269	270-271	272	273	273	274
1.1	■40			■40		■20	■20	■24	■20	■20	●24	●24	■23
1.2	■40			■40		■20	■20	■23	■20	■20	●23	●23	■21
1.3	■32			■32		■12	■12	■15	■12	■12	●15	●15	■15
1.4	■30			■30		■12	■12	■15	■12	■12	●15	●15	■15
1.5	■17	●17	●10	■17	●10	■8	■8	■9	■8	■8	●9	●9	■9
1.6	●11	●11	●5	●11	●5	●5	●5	■6	●5	●5	●6	●6	●5
1.7													
1.8													
2.1		■14	■8		■8	●9	●9	■12	●9	●9	■12	■12	■11
2.2		■10	■7		■7	●6	●6	■8	●6	●6	■8	■8	●6
2.3		■6	■5		■5	●6	●6	●8	●6	●6	●8	●8	
2.4		■6	■5		■5								
3.1	●22					●14	●14	●15	●14	●14	●15	●15	
3.2	●18					●8	●8	●9	●8	●8	●9	●9	
3.3	●25					●8	●8	●9	●8	●8	●9	●9	
3.4	●18					●5	●5	●6	●5	●5	●6	●6	
4.1		■15				●6	●6		●6	●6			■6
4.2	●7			●7		●5	●5		●5	●5			■5
4.3						●2	●2		●2	●2			■2
5.1		●15				●8	●8	■9	●8	●8	■9	■9	■9
5.2	●8	●8		●8		●3	●3	■4	●3	●3	■4	■4	■5
5.3													■3
6.1	■18			■18		●9	●9	■12	●9	●9	■12	■12	
6.2	●45			●45		●27	●27	■35	●27	●27	■35	■35	
6.3	■35			■35		●21	●21	■27	●21	●21	■27	■27	
6.4						●3	●3	●4	●3	●3	●4	●4	
7.1						●15	●15	■20	●15	●15	■20	■20	
7.2						●30	●30	■38	●30	●30	■38	■38	
7.3						●20	●20	■24	●20	●20	■24	■24	
7.4						●6	●6	■8	●6	●6	■8	■8	
8.1						■30	■30	■37	■30	■30	■37	■37	
8.2						●8	●8	■9	●8	●8	■9	■9	
8.3													
9.1													
10.1													



Spiral Point Taps (con't)

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example: 72 72 = SFM

■	= Excellent for Application
●	= Good for Application

- 4 NOTE: Additional cutting charts located on pages 204-210.



Style:	1785M	TN1785	1534NR	1534NR
Thread Form:	M	M	UNC UNF	UNS
Tool Brand:	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD
Tool Material:	HSS	HSS	HSS	HSS
Finish/Coating:		TIN		
Standard:	ANSI	ANSI	ANSI	ANSI
Direction:				
Through/Blind Hole:				
Tolerance:	6H	6H	2B 3B	3B
Depth:				
Chamfer:				
Flute Form:				
Coolant:				

Spiral Point Taps

Page # for easy reference

Application Material Groups (AMG)			Hardness HB	Surface Feet Per Minute (SFM)			
				275	275	276-277	277
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■20	●24	■20
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■20	●23	■20
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■12	●15	■12
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4	■12	●15	■12
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5	■8	●9	■8
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6	●5	●6	●5
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7			
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8			
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●9	■12	●9
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	●6	■8	●6
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	●6	●8	●6
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4			
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●14	●15	●14
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●8	●9	●8
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●8	●9	●8
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●5	●6	●5
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●6		●6
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●5		●5
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●2		●2
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●8	■9	●8
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●3	■4	●3
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3			
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	●9	■12	●9
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	●27	■35	●27
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●21	■27	●21
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●3	●4	●3
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	●15	■20	●15
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	●30	■38	●30
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	●20	■24	●20
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●6	■8	●6
8. Synthetic Materials	8.1 Thermoplastics	Ultrad, Polystrol	---	8.1	■30	■37	■30
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2	●8	■9	●8
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3			
9. Hard Mat.	9.1 Cermet (Metal-ceramics)	Ferrotic	<550	9.1			
10. Graphite	10.1 Standard graphite		---	10.1			

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Spiral Flute Taps

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example: 72 72 = SFM

■ = Excellent for Application
● = Good for Application

- 4 NOTE: Additional cutting charts located on pages 204-210.



Style :	E018	E085	E002	E003
Thread Form:	MF	M	M	M
Tool Brand:	MTT-X	MTT-X	MTT-X	MTT-X
Tool Material:	HSS XS1	HSS XS1	HSS XS1	HSS XS1
Finish/Coating:	ST	ST	Gold	ST
Standard:	ANSI	ANSI	ISO 529	ISO 529
Direction:				
Through/Blind Hole:				
Tolerance:	6H	6H	6H	6H
Depth:				
Chamfer:	C 2-3	C 2-3	C 2-3	C 2-3
Flute Form:				
Coolant:				

Spiral Flute Taps

Page # for easy reference				Surface Feet Per Minute (SFM)				
Application Material Groups (AMG)				Hardness HB	292	293	294	295
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■25		■25	■25
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■22		■22	■22
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■18		■18	■18
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	■16		■16	■16
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	■10	●10	■10	■10
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6		●5		
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2.Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●7	■7		●7
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	●6	■6		●6
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	●4	■4		●4
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4				
3.Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1				
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2				
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3				
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4				
4.Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1			●10	
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2			●5	
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3				
5.Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1			●12	
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2			●5	
	5.3 Nickel, alloyed	Inconel 718,Nimonic 75-95,Rene 41,Inconel 825,A286	>270<350	5.3				
6.Copper	6.1 Copper	Commercially Pure	<100	6.1				
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2				
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3				
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4				
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1			■16	
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2			■35	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3			■20	
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4			■15	
8.Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1				
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2				
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3				
9.Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1				
10.Graphite	10.1 Standard graphite	---	---	10.1				

Spiral Flute Taps (con't)

	E012	E013	E050	E051	E048	E044	E052	E058	1582	1586	1587	1588	1788	1590	1591(UNC)	
	MF	MF	M	M	M	M	M	UNC	UNC UNF	UNC UNF	UNC UNF	UNC UNF	M	UNC UNF	UNC	
																
	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD D	UNION BUTTERFIELD	UNION BUTTERFIELD	
	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSCo	HSS XS1	HSS XS1	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
	Gold	ST	TiAIN	TiAIN	Silver	Gold	Gold	TiAIN						ST	ST	
	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	ISO 529	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	
Spiral Flute Taps																
																
	6H	6H	6H	6H	6H	6H	6H	2B	3B	3B	3B	2B 3B	6H	3B	3B	
	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3	C 2-3								
																
	Surface Feet Per Minute (SFM)															
	296	297	298	298	299	299	300	300	301	302	303	304	305	306	307	
1.1	■25	■25	■40	■40		●25	●25	■40	●20	●20				■21	■21	
1.2	■22	■22	■40	■40		●22	●22	■40	●15	●15				■18	■18	
1.3	■18	■18	■32	■32	●32	●18	●18	■32	●11	●11				■12	■12	
1.4	■16	■16	■30	■30	●27	■16	■16	■30	●11	●11				■12	■12	
1.5	■10	■10	■17	■17	●13	■10	■10	■17						●9	●9	
1.6			●11	●11	●11	■5		●11								
1.7																
1.8																
2.1		●7			■14				●8	●8				■9	■9	
2.2		●6			■10				●6	●6				■8	■8	
2.3		●4			■6				●6	●6				■6	■6	
2.4					■6											
3.1																
3.2																
3.3																
3.4																
4.1	●10								●6	●6						
4.2	●5		●7	●7		●5		●7	●5	●5				■6	■6	
4.3									●2	●2				■5	■5	
5.1	●12								●6	●6				●2	●2	
5.2	●5		●8			●5		●8	●5	●5						
5.3														●3	●3	
6.1			■18	■18			●12	■18			●9	●9	●9			
6.2			●45	●45			■30	●45			■24	■24	■24			
6.3			■35	■35			■20	■35			■24	■24	■24			
6.4																
7.1	■16						●16				■15	■15	■15			
7.2	■35						■35				■20	■20	■20			
7.3	■20						■20				■20	■20	■20			
7.4	■15						■15									
8.1	●30															
8.2																
8.3																
9.1																
10.1																

Thread Forming Taps

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example: 72 72 = SFM

■ = Excellent for Application
● = Good for Application

- 4 NOTE: Additional cutting charts located on pages 204-210.



Style:
Thread Form:

Style:	E029	E064	E039	E074
Thread Form:	UNC	UNC	UNF	UNF

Tool Brand:
Tool Material:
Finish/Coating:
Standard:
Direction:
Through/Blind Hole:
Tolerance:
Depth:
Chamfer:
Flute Form:
Coolant:

Tool Brand:	MTT-X	MTT-X	MTT-X	MTT-X
Tool Material:	HSS XS1	HSS XS1	HSS XS1	HSS XS1
Finish/Coating:	TIN	Gold	TIN	Gold
Standard:	ANSI	ANSI	ANSI	ANSI
Direction:				
Through/Blind Hole:				
Tolerance:	2B	2B	2B	2B
Depth:				
Chamfer:	C 2-3	C 2-3	C 2-3	C 2-3
Flute Form:				
Coolant:				

Thread Forming Taps

Page # for easy reference									
Application Material Groups (AMG)				Hardness HB		Surface Feet Per Minute (SFM)			
						308	309	309	310
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■55	●30	■55	●30	
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■50	●27	■50	●27	
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■45	●23	■45	●23	
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4	■40	●20	■40	●20	
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5	●20		●20		
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6					
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7					
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8					
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	■18		■18		
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	■15		■15		
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	●10		●10		
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4					
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1					
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2					
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3					
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4					
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	■35		■35		
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2					
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3					
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	■20		■20		
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●8		●8		
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3					
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	●25		●25		
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2					
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●40		●40		
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4					
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	■40	●22	■40	●22	
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	■55	●38	■55	●38	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	■40	●22	■40	●22	
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●25		●25		
8. Synthetic Materials	8.1 Thermoplastics	Ultrad, Polystrol	---	8.1					
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2					
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3					
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1					
10. Graphite	10.1 Standard graphite	---	---	10.1					

Thread Forming Taps (con't)

Thread Forming Taps	E009	E094	E097	E098	E099	E080	1580(UNC)	1580(UNF)	1580(M)	3300(UNC)	3300(UNF)	3300(M)	3306E(UNC)	3306E(UNF)
	M	M	M	M	M	M	UNC	UNF	M	UNC	UNF	M	UNC	UNF
	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	MTT-X	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD
	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS
	TIN	Gold	CrN	TIN	TIN	Dalub								
	ANSI	ANSI	ISO 529	ISO 529	ISO 529	ISO 529	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI
	6HX	6HX	6HX	6HX	6HX	6HX	2B 3B	2B 3B	6H	2B 3B	2B 3B	6H	2B	2B
	C 2-3	C 2-3	C 2-3	E 1.5-2	C 2-3	C 2-3								
Surface Feet Per Minute (SFM)														
	310	311	311	312	312	313	314	315	316	317	318	319	320	321
1.1	■55	●30	■55	■55	■55		■30	■30	■30	■30	■30	■30	■30	■30
1.2	■50	●27	■50	■50	■50		■24	■24	■24	■24	■24	■24	■24	■24
1.3	■45	●23	■45	■45	■45		■15	■15	■15	■15	■15	■15	■15	■15
1.4	■40	●20	■40	■40	■40		■15	■15	■15	■15	■15	■15	■15	■15
1.5	●20		●40	●20	●20		●9	●9	●9	●9	●9	●9	●9	●9
1.6														
1.7														
1.8														
2.1	■18		●18	■18	■18		●12	●12	●12	●12	●12	●12	●12	●12
2.2	■15		●15	■15	■15		●9	●9	●9	●9	●9	●9	●9	●9
2.3	●10			●10	●10									
2.4														
3.1														
3.2														
3.3														
3.4														
4.1	■35		■35	■35	■35		●9	●9	●9	●9	●9	●9	●9	●9
4.2							●8	●8	●8	●8	●8	●8	●8	●8
4.3														
5.1	■20		■20	■20	■20		●9	●9	●9	●9	●9	●9	●9	●9
5.2	●8		●8	●8	●8									
5.3														
6.1	●25		●25	●25	●25	■25	●12	●12	●12	●12	●12	●12	●12	●12
6.2							■37	■37	■37	■37	■37	■37	■37	■37
6.3	●40		●40	●40	●40	■40	■30	■30	■30	■30	■30	■30	■30	■30
6.4														
7.1	■40	●22	■40	●40	●40	■40	■24	■24	■24	■24	■24	■24	■24	■24
7.2	■55	●38	■55	●55	●55	■55	■49	■49	■49	■49	■49	■49	■49	■49
7.3	■40	●22	■40	■40	■40	■40	■30	■30	■30	■30	■30	■30	■30	■30
7.4	●25		●25	●25	●25									
8.1														
8.2														
8.3														
9.1														
10.1														

Pipe Taps

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example: 72 72 = SFM

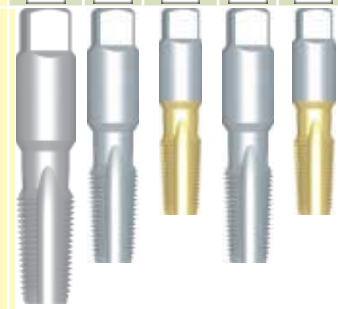
■ = Excellent for Application

● = Good for Application

- 4 NOTE: Additional cutting charts located on pages 204-210.



Style: E710 1541 TN1541 1543 TN1543
Thread Form: NPT NPT NPT NPTF NPTF



Tool Brand: DORMER MTOR BUTTERFIELD MTOR BUTTERFIELD MTOR BUTTERFIELD

Tool Material: HSS HSS HSS HSS HSS

Finish/Coating: HSS HSS TIN HSS TIN

2 Standard: ANSI B94.9 ANSI ANSI ANSI ANSI

Direction: (Clockwise rotation icons)

Through/Blind Hole: (Through hole icons)

Tolerance: NORMAL NORMAL NORMAL NORMAL NORMAL

Depth: 1.5xD

Chamfer: C 2-3

Flute Form: (Flute form icons)

Coolant: (Coolant application icons)

Pipe Taps

Page # for easy reference

Surface Feet Per Minute (SFM)

Application Material Groups (AMG) 1			Hardness HB		322	323	323	324	324
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	●4	●4	●5	●4	●5
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	●4	●4	●5	●4	●5
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	●6	■6	■7	■6	■7
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	●5	■5	■6	■5	■6
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	●3	●3	●4	●3	●4
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6					
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7					
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8					
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1					
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2					
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3					
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4					
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●6	●6	●7	●6	●7
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●4	●4	●5	●4	●5
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●6	●6	●7	●6	●7
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●4	●4	●5	●4	●5
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1					
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2					
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3					
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1					
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2					
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3					
6. Copper	6.1 Copper	Commercially Pure	<100	6.1					
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	●11	●11	●12	●11	●12
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3					
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4					
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1					
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2					
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	●11	●11	●12	●11	●12
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●7	●7	●8	●7	●8
8. Synthetic Materials	8.1 Thermoplastics	Ultradid, Polystrol	---	8.1	●4	●4	●5	●4	●5
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2					
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3					
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1					
10. Graphite	10.1 Standard graphite	---	---	10.1					

Pipe Taps (con't)

	1544	1545	1545A	1546	1568	1567	1548	1549	1542	1592	E040	E041	E042	E043	E547	E550
	NPT	NPT	NPT	NPTF	NPT	NPTF	NPT	NPTF	NPSM	NPSF	G	G	G	G	G	Rc
																
	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	UNION BUTTERFIELD	MTX	MTX	MTX	MTX	MTX	MTX
	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS XS1	HSS XS1	HSS XS1	HSS XS1	HSS	HSS
	N		ST								Gold	ST	Gold	ST		
		ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI		ANSI	ISO	ISO	ISO	ISO	ISO 2284	ISO 2284
																
	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
Pipe Taps																
											B 3.5 - 5	B 3.5 - 5	C 2 - 3	C 2 - 3		C 2 - 3
	Surface Feet Per Minute (SFM)															
	325	325	326	326	327	327	328	328	329	329	330	330	331	331	332-333	333
1.1	4	4	4	4	4	4	4	4	4	4	25	25	25	25	7	22
1.2	4	4	4	4	4	4	4	4	4	4	22	22	22	22	6	20
1.3	6	6	6	6	6	6	6	6	6	6	18	18	18	18	5	16
1.4	5	5	5	5	5	5	5	5	5	5	16	16	16	16	4	12
1.5	3	3	3	3	3	3	3	3	3	3	10	10	10	10	3	7
1.6											5	5		5		4
1.7																
1.8																
2.1												7		7		7
2.2												6		6		5
2.3												4		4		7
2.4																
3.1	6	6	6	6	6	6	6	6	6	6	15	15			12	12
3.2	4	4	4	4	4	4	4	4	4	4	8	8			7	7
3.3	6	6	6	6	6	6	6	6	6	6	15	15			10	10
3.4	4	4	4	4	4	4	4	4	4	4	8	8			5	5
4.1											10		10			
4.2											5		5			
4.3																
5.1											12		12			
5.2											5		5			
5.3																
6.1											12				4	12
6.2	11	11	11	11	11	11	11	11	11	11	30				10	30
6.3											20				7	20
6.4															2	4
7.1											16		16			
7.2											35		35		12	35
7.3	11	11	11	11	11	11	11	11	11	11	20		20		7	20
7.4	7	7	7	7	7	7	7	7	7	7	15		15		5	15
8.1	4	4	4	4	4	4	4	4	4	4	30		30			
8.2															5	12
8.3															3	7
9.1																
10.1																

Miscellaneous Taps and Dies

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Hole Type and other Product Features.
- 3 Locate your Best Product Choices and Surface Feet per Minute (SFM). example 72 72 - SFM

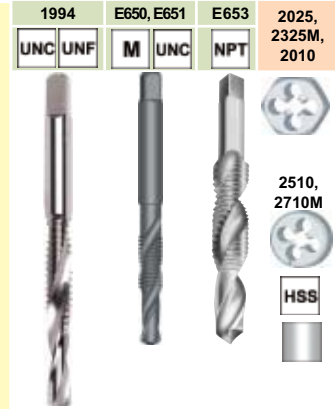
■ = Excellent for Application
● = Good for Application

- 4 NOTE: Additional cutting charts located on page 204-210.



See pg 337-338 for these products

Style:
Thread Form:



Tool Brand:



Tool Material:



Finish/Coating:



Standard:



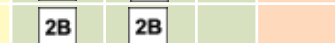
Direction:



Through/Blind Hole:



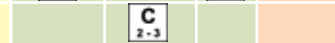
Tolerance:



Depth:



Chamfer:



Flute Form:



Misc Taps

Page # for easy reference

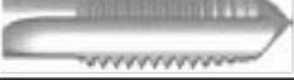
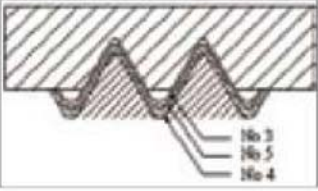
Application Material Groups (AMG) 1				Hardness HB		Surface Feet Per Minute (SFM)			
						334	335	336	342-343
1. Steel	1.1 Magnetic soft steel	12L14, 12L15		<120	1.1	●82	●82	●82	■26
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36		<200	1.2	●72	●72	●72	■23
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146		<250	1.3	●59	●59	●59	■20
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420		<250	1.4	●49	●49	●49	●16
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420		>250<350	1.5				
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420		>350	1.6				
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1		49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1		55-63HRC	1.8				
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440		<250	2.1				●13
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350		<250	2.2				●7
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX		<300	2.3				
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH		<300	2.4				
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20		<150	3.1				■26
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60		>150<300	3.2	●26	●26	●26	■23
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70		<200	3.3				■20
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C		>200<300	3.4				●16
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure		<200	4.1				
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K		<270	4.2				
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967		>270<350	4.3				●7
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553		<150	5.1				●30
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy		<270	5.2				●7
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286		>270<350	5.3				●7
6. Copper	6.1 Copper	Commercially Pure		<100	6.1				●30
	6.2 β-Brass, Bronze	314-340, 350-370		<200	6.2	●98	●98	●98	●26
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping		<200	6.3	●66	●66	●66	●23
	6.4 High Strength Bronze	Ampco 18-25		<470	6.4				
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure		<100	7.1	●59	●59	●59	■33
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340		<150	7.2	●115	●115	●115	■49
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390		<120	7.3				■49
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced		<120	7.4				■33
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol		---	8.1	●98	●98	●98	●49
	8.2 Thermosetting plastics	Bakelit, Pertinax		---	8.2				●33
	8.3 Reinforced plastic materials	CFK, GFKAFK		---	8.3				●16
9. Hard Mat.	9.1 Cermet (Metal-ceramics)	Ferrotic		<550	9.1				
10. Graphite	10.1 Standard graphite			---	10.1				

Tap Technical Charts	
Threading with Taps	202
Icon Guide for Taps	203
Tap Drill Sizes for Metric M-Profile Screw Threads	204
Tap Drill Sizes for Forming Taps	205
Forming Tap Drill Sizes for Self-Locking Threads	206
Tap Projection and Hole Size for Pipe Taps	207
Tap Size Recommendations for Classes 2B and 3B	208
Unified Screw Thread Limits	209
Tapping Speeds	210

Straight
Flute
TapsSpiral
Point
TapsSpiral
Flute
TapsThread
Forming
TapsPipe
TapsMisc
Taps
and
Dies

CHAMFER LENGTHS AND SERIAL TAPS

The first group (No. 1, No. 2, No. 3) includes taps with complete thread profile and the difference is in the chamfer length. The second group (No. 4, No. 5) includes taps with incomplete thread profile. They have lower pitch and outer diameter, compared to the complete standard, and longer chamfer. After using them, a finishing tap No. 3, must be used.

No. 1 =	 6-8 x P	
No. 2 =	 4-6 x P	
No. 3 =	 2-3 x P	
No. 4 =	 6-8 x P	
No. 5 =	 3,5-5 x P	
 Ø ≤ M10  Ø ≥ M12		

ISO	Set code number	Including tap number
	No. 6	No. 1 + No. 2 + No. 3
	No. 7	No. 2 + No. 3
	No. 8	No. 4 + No. 5 + No. 3
	No. 9	No. 5 + No. 3
DIN	Set code number	Including tap number
	No. 8	No.3 (form C) + No.4 (form A) + No.5 (form B)
	No. 9	No.3 (form C) + No.5 (form B)
ANSI	Set code number	Including tap number
	Hand Tap (No. 6)	Taper(No.1) + Plug(No.2) + Bottoming(No.3)

Icon Guide for Taps



Spiral
Point



Form
Tap



Spiral
Flute



Through or
Blind Hole



Straight
Flute



Helix
Angle



Through
Hole



Coolant



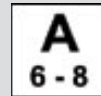
Class
of Fit



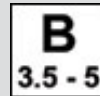
Depth



Parallel
Internal
Thread



Taper
Chamfer



Plug
Chamfer



Semi-
Bottoming
Chamfer



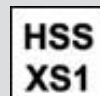
Full
Bottoming
Chamfer



Chromium
Steel



HSCo
Powder
Steel



HSS
Powder
Steel



Carbide
(Hard Metal)



HSS
Cobalt



Carbide



Chromium
Nitride



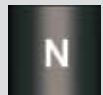
Gold



Steam
Oxide



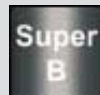
Zirconium
Nitride



Nitride



Nitride
Steam



Hard
Lube



Flash
Chrome



American National Standard Institute
- Standard Tap Blank used in the US
- Fractional Tap Blank Dimensions.



International Organization for Standardization -
Common Tap Blanks used in Great Britain
- Metric Tap Blank Dimensions
(Dormer ISO Standard)



Deutsches Institut für Normung
- Standard Organization based in Germany
- Metric Tap Blank Dimensions that are normally longer than ISO and
ANSI standard (Dormer DIN Standard)

Straight
Flute
Taps

Spiral
Point
Taps

Spiral
Flute
Taps

Thread
Forming
Taps

Pipe
Taps

Misc
Taps
and
Dies

Tap Drill Sizes for Unified Threads

Tap Size	Tap Drill Size	Decimal Equiv. of Tap Drill (Inches)	Theoretical Percent of Thread %	Probable Mean Oversize (Inches)	Probable Hole Size (Inches)	Probable Percent of Thread %
8-88	.56	.0465	83	.0015	.0490	74
—	.3/64	.0469	81	.0015	.0494	71
—	1.20mm	.0472	79	.0015	.0497	69
—	1.25mm	.0492	67	.0015	.0507	57
1-64	.54	.0550	89	.0015	.0565	81
—	1.45mm	.0571	78	.0015	.0586	71
—	.53	.0595	67	.0015	.0610	59
1-72	1.5mm	.0591	77	.0015	.0606	68
—	.53	.0595	75	.0015	.0610	67
—	1.55mm	.0610	67	.0015	.0606	68
2-56	.51	.0670	82	.0017	.0687	74
—	1.75mm	.0689	73	.0017	.0706	66
—	.50	.0700	69	.0017	.0717	62
—	1.80mm	.0709	65	.0017	.0726	58
2-64	.50	.0700	79	.0017	.0717	70
—	1.80mm	.0709	74	.0017	.0726	66
—	.49	.0730	64	.0017	.0747	56
3-48	.48	.0760	85	.0019	.0779	78
—	.5/64	.0781	77	.0019	.0800	70
—	.47	.0785	76	.0019	.0804	69
—	2.00mm	.0787	75	.0019	.0806	68
—	.46	.0810	67	.0019	.0829	60
—	.45	.0820	63	.0019	.0839	56
3-56	.45	.0810	78	.0019	.0829	69
—	.45	.0820	73	.0019	.0839	65
—	2.10mm	.0827	70	.0019	.0846	62
—	2.15mm	.0848	62	.0019	.0865	54
4-40	.44	.0860	80	.0020	.0880	74
—	2.20mm	.0866	78	.0020	.0886	72
—	.43	.0890	71	.0020	.0910	65
—	2.30mm	.0906	66	.0020	.0926	60
4-48	2.35mm	.0925	72	.0020	.0926	72
—	.42	.0935	68	.0020	.0955	61
—	3/32	.0938	68	.0020	.0958	60
—	2.40mm	.0945	65	.0020	.0965	57
5-40	.40	.0980	83	.0023	.1003	76
—	.39	.0995	79	.0023	.1018	71
—	.38	.1015	72	.0023	.1038	65
—	2.60mm	.1024	70	.0023	.1047	63
5-44	.38	.1015	79	.0023	.1038	72
—	2.60mm	.1024	77	.0023	.1047	69
—	.37	.1040	71	.0023	.1063	63
6-32	.37	.1040	84	.0023	.1063	78
—	.36	.1065	78	.0023	.1088	72
—	7/64	.1094	70	.0026	.1120	64
—	.35	.1100	69	.0026	.1126	63
—	.34	.1100	67	.0026	.1136	60
6-40	.34	.1110	83	.0026	.1136	75
—	.33	.1130	77	.0026	.1156	69
—	2.90mm	.1142	73	.0026	.1168	65
—	.32	.1160	68	.0026	.1186	60
8-32	.32	.1160	88	.0026	.1186	60
—	3.40mm	.1339	74	.0029	.1368	67
—	.29	.1360	69	.0029	.1389	62

Tap Size	Tap Drill Size	Decimal Equiv. of Tap Drill (Inches)	Theoretical Percent of Thread %	Probable Mean Oversize (Inches)	Probable Hole Size (Inches)	Probable Percent of Thread %
8-36	.29	.1360	78	.0029	.1389	70
—	3.5mm	.1378	72	.0029	.1407	65
10-24	.27	.1440	85	.0032	.1472	79
—	3.70mm	.1457	82	.0032	.1489	76
—	.26	.1470	79	.0032	.1502	74
—	.25	.1495	75	.0032	.1527	69
—	.24	.1520	70	.0032	.1552	64
10-32	.5/32	.1563	83	.0032	.1595	75
—	.22	.1570	81	.0032	.1602	73
—	.21	.1590	76	.0032	.1622	68
12-24	11/64	.1719	82	.0035	.1754	75
—	.17	.1730	79	.0035	.1765	73
—	.16	.1770	72	.0035	.1805	66
12-28	.16	.1770	84	.0035	.1805	77
—	.15	.1800	78	.0035	.1835	70
—	4.60mm	.1811	75	.0035	.1846	67
—	.14	.1820	73	.0035	.1855	66
1/4-20	.9	.1960	83	.0038	.1998	77
—	.8	.1990	79	.0038	.2028	73
—	.7	.2010	75	.0038	.2048	70
—	13/64	.2031	72	.0038	.2069	66
1/4-28	5.40mm	.2125	81	.0038	.2164	72
—	.3	.2130	80	.0038	.2168	72
5/16-18	F	.2570	77	.0038	.2608	72
—	6.60mm	.2598	73	.0038	.2636	68
—	G	.2610	71	.0041	.2651	66
5/16-24	H	.2660	86	.0041	.2701	78
—	6.80mm	.2677	83	.0041	.2718	75
—	I	.2720	75	.0041	.2761	67
3/8-16	7.80mm	.3071	84	.0044	.3115	78
—	7.90mm	.3110	79	.0044	.3154	73
—	5/16	.3125	77	.0044	.3189	72
—	O	.3160	73	.0044	.3204	68
3/8-24	21/64	.3281	87	.0044	.3325	79
—	8.40mm	.3307	82	.0044	.3351	74
—	Q	.3320	79	.0044	.3364	71
—	8.50mm	.3346	75	.0044	.3390	67
7/16-14	T	.3580	86	.0046	.3626	81
—	23/64	.3594	84	.0046	.3640	79
—	9.20mm	.3622	81	.0046	.3668	76
—	9.30mm	.3661	77	.0046	.3707	72
—	U	.3680	75	.0046	.3726	70
—	9.40mm	.3701	73	.0046	.3747	68
7/16-20	W	.3860	79	.0046	.3906	72
—	25/64	.3906	72	.0046	.3952	65
1/2-13	10.50mm	.4134	87	.0047	.4181	82
—	27/64	.4219	78	.0047	.4266	73
1/2-20	29/64	.4531	72	.0047	.4578	65

Tap Drill Sizes for Metric M-Profile Screw Threads

Metric Tap Size	Tap Drill Size	Decimal Equiv. of Tap Drill (Inches)	Theoretical Percent of Thread %	Probable Mean Oversize (Inches)	Probable Hole Size (Inches)	Probable Percent of Thread %
M1.6 x 0.35	1.20mm	.0472	88	.0014	.0486	80
—	1.25mm	.0492	77	.0014	.0506	69
M2 x 0.4	1/16	.0625	79	.0015	.0640	72
—	1.60mm	.0630	77	.0017	.0647	69
—	.52	.0635	74	.0017	.0652	66
M2.5 x 0.45	2.05mm	.0807	77	.0019	.0826	69
—	.46	.0810	76	.0019	.0829	67
—	.45	.0820	71	.0019	.0839	63
M3 x 0.5	.40	.0980	79	.0023	.1003	70
—	2.5mm	.0984	77	.0023	.1007	68
—	.39	.0995	73	.0023	.1018	64
M3.5 x 0.6	.33	.1130	81	.0026	.1156	72
—	2.9mm	.1142	77	.0026	.1168	68
—	.32	.1160	71	.0026	.1186	63
M4 x 0.7	3.2mm	.1260	86	.0029	.1289	80
—	.30	.1285	81	.0029	.1314	73
—	3.3mm	.1299	77	.0029	.1328	69
M4.5 x 0.75	3.7mm	.1457	82	.0032	.1489	74
—	.26	.1470	79	.0032	.1502	70
—	.25	.1495	72	.0032	.1527	64

Metric Tap Size	Tap Drill Size	Decimal Equiv. of Tap Drill (Inches)	Theoretical Percent of Thread %	Probable Mean Oversize (Inches)	Probable Hole Size (Inches)	Probable Percent of Thread %
M5 x 0.8	4.2mm	.1654	77	.0032	.1686	69
—	.19	.1680	75	.0032	.1692	68
—	.18	.1690	74	.0032	.1702	67
M6 x 1	10	.1935	84	.0038	.1973	76
—	.9	.1960	79	.0038	.1998	71
—	.8	.1990	77	.0038	.2006	70
—	.7	.2020	73	.0038	.2028	65
M7 x 1	A	.2340	81	.0038	.2378	74
—	.6mm	.2362	77	.0038	.2400	70
—	B	.2380	74	.0038	.2418	66
M8 x 1.25	6.7mm	.2638	80	.0041	.2679	74
—	17/64	.2656	77	.0041	.2697	71
—	H	.2660	77	.0041	.2701	70
—	6.8mm	.2677	74	.0041	.2718	68
M10 x 1.5	8.4mm	.3307	82	.0044	.3351	76
—	Q	.3320	80	.0044	.3364	75
—	8.5mm	.3346	77	.0044	.3390	71
M12 x 1.5	10.4mm	.4094	81	.0047	.4141	75
—	Z	.4130	77	.0047	.4177	71
M12 x 1.75	10.20mm	.4016	79	.0047	.4063	74
—	V	.4040	76	.0047	.4087	71
—	13/32	.4062	74	.0047	.4109	69

The charts on this page are recommended sizes for cutting taps. Hole sizes shown may not suit UNJ and MJ hole requirements

Tap Drill Sizes for Forming Taps

Machine Screw Sizes

Tap Size	75% Thread		70% Thread		65% Thread		60% Thread		55% Thread		50% Thread	
	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size
0 - 80	.0536	1.35mm	.0540	1.35mm	.0545	—	.0549	54	.0554	54	.0558	1.0mm
1 - 64	.0650	1.65mm	.0655	1.65mm	.0661	—	.0666	—	.0672	51	.0677	51
1 - 72	.0659	1.65mm	.0663	—	.0669	1.7mm	.0673	51	.0679	51	.0683	—
2 - 56	.0769	1.95mm	.0774	1.95mm	.0781	5/64	.0787	47	.0794	2.0mm	.0799	—
2 - 64	.0780	5/64	.0785	47	.0791	2.0mm	.0796	2.0mm	.0802	—	.0807	2.05mm
3 - 48	.0884	2.25mm	.0890	43	.0898	43	.0905	2.3mm	.0913	2.3mm	.0919	—
3 - 56	.0899	43	.0904	—	.0911	2.3mm	.0917	2.3mm	.0924	2.35mm	.0929	2.35mm
4 - 40	.0993	2.5mm	.1000	39	.1010	39	.1018	38	.1028	2.6mm	.1035	2.6mm
4 - 48	.1014	38	.1020	38	.1028	2.6mm	.1035	2.6mm	.1043	37	.1049	37
5 - 40	.1123	34	.1130	33	.1140	33	.1148	2.9mm	.1158	32	.1165	32
5 - 44	.1134	33	.1141	2.9mm	.1150	2.9mm	.1157	—	.1166	32	.1173	32
6 - 32	.1221	3.1mm	.1230	3.1mm	.1243	—	.1252	1/8	.1264	3.2mm	.1274	—
6 - 40	.1253	1/8	.1260	3.2mm	.1270	3.2mm	.1278	3.25mm	.1288	30	.1295	30
8 - 32	.1481	3.75mm	.1490	—	.1503	25	.1512	3.8mm	.1524	24	.1534	3.9mm
8 - 36	.1498	25	.1507	3.8mm	.1518	24	.1526	24	.1537	3.9mm	.1546	23
10 - 24	.1688	—	.1700	18	.1717	11/64	.1729	11/64	.1746	—	.1758	—
10 - 32	.1741	17	.1750	—	.1763	—	.1772	16	.1784	4.5mm	.1794	—
12 - 24	.1948	10	.1960	9	.1977	5.0mm	.1989	8	.2006	5.1mm	.2018	7
12 - 28	.1978	5.0mm	.1989	8	.2003	8	.2014	7	.2028	—	.2039	13/64

Fractional Sizes

Tap Size	75% Thread		70% Thread		65% Thread		60% Thread		55% Thread		50% Thread	
	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size	Theor. Hole Size	Nearest Drill Size
1/4 - 20	.2245	5.7mm	.2260	—	.2280	1	.2295	1	.2315	—	.2330	5.9mm
1/4 - 28	.2318	—	.2329	5.9mm	.2343	A	.2354	15/64	.2368	6.0mm	.2379	8
5/16 - 18	.2842	7.2mm	.2861	7.25mm	.2879	7.3mm	.2898	L	.2917	7.4mm	.2936	—
5/16 - 24	.2912	7.4mm	.2927	—	.2941	M	.2955	7.5mm	.2969	19/64	.2983	7.6mm
3/8 - 16	.3431	11/32	.3452	8.75mm	.3474	S	.3495	8.9mm	.3516	—	.3537	9.0mm
3/8 - 24	.3537	9.0mm	.3552	9.0mm	.3566	—	.3580	T	.3594	23/64	.3608	—
7/16 - 14	.4011	—	.4035	Y	.4059	13/32	.4084	—	.4108	—	.4132	Z
7/16 - 20	.4120	Z	.4137	10.5mm	.4154	—	.4171	—	.4188	—	.4205	—
1/2 - 13	.4608	—	.4634	—	.4660	—	.4686	15/32	.4712	12mm	.4738	12mm
1/2 - 20	.4745	—	.4762	—	.4779	—	.4796	—	.4813	—	.4830	31/64

Metric Sizes

Metric Tap Size	Tap Drill Size	Decimal Equiv. of Tap Drill (Inches)	Theoretical Percent of Thread %	Probable Mean Oversize (Inches)	Probable Hole Size (Inches)	Probable Percent of Thread % *
M3 x 0.5	36	.1065	86	.0026	.1091	67
—	2.7mm	.1062	88	.0026	.1088	70
M4 x 0.7	27	.1440	72	.0032	.1472	54
—	3.6mm	.1417	84	.0032	.1449	67
—	9/64	.1406	90	.0032	.1438	73
M5 x 0.8	14	.182	69	.0035	.1855	53
—	4.6mm	.1811	74	.0035	.1846	57
—	15	.1800	79	.0035	.1835	62
—	16	.177	92	.0035	.1805	76
M6 x 1	7/32	.2188	65	.0038	.2226	51
—	5.4mm	.2126	88	.0038	.2164	74

Metric Tap Size	Tap Drill Size	Decimal Equiv. of Tap Drill (Inches)	Theoretical Percent of Thread %	Probable Mean Oversize (Inches)	Probable Hole Size (Inches)	Probable Percent of Thread %
M8 x 1.25	7.4mm	.291	71	.0042	.2952	59
—	L	.290	75	.0042	.2942	62
—	7.3mm	.2874	82	.0042	.2916	70
M10 x 1.5	U	.368	64	.0046	.3726	53
—	9.3mm	.366	69	.0046	.3706	58
—	9.2mm	.362	78	.0046	.3666	67
—	23/64	.3594	85	.0046	.3640	74
M12 x 1.5	11.3mm	.4449	70	.0047	.4496	57
—	7/16	.4375	86	.0047	.4422	75
M12 x 1.75	7/16	.4375	75	.0047	.4422	65
—	11mm	.4331	84	.0047	.4378	73

*Probable percent of full thread produced in tapped hole using standard drill sizes.

Forming Tap Drill Sizes for Self-Locking Threads

Fractional and Machine Screw Sizes

Inch Size	Hole Minor Diameter Min. - Max.	Drill Size	Dec. Equiv.
2 - 56	.0790 - .0800	2.0mm	(.0787)
3 - 48	.0913 - .0923	2.32mm	(.0913)
3 - 56	.0923 - .0933	2.35mm	(.0925)
4 - 40	.1030 - .1040	#37	(.1040)
4 - 48	.1038 - .1048	#37	(.1040)
5 - 40	.1161 - .1171	#32	(.1160)
5 - 44	.1167 - .1177	#32	(.1160)
6 - 32	.1233 - .1258	1/8	(.1250)
6 - 40	.1290 - .1310	3.25mm	(.1280)
8 - 32	.1494 - .1519	25	(.1495)
8 - 36	.1542 - .1562	23	(.1540)
10 - 24	.1701 - .1734	11/64	(.1719)
10 - 32	.1754 - .1779	#16	(.1770)
12 - 24	.1962 - .1995	5.0mm	(.1968)
12 - 28	.1992 - .2021	#8	(.1990)
1/4 - 20	.2259 - .2299	5.75mm	(.2264)
1/4 - 28	.2331 - .2362	A	(.2340)
5/16 - 18	.2857 - .2901	7.25mm	(.2854)
5/16 - 24	.2928 - .2961	M	(.2950)
3/8 - 16	.3448 - .3498	S	(.3480)
3/8 - 24	.3554 - .3587	T	(.3580)
7/16 - 14	.4028 - .4085	Y	(.4040)

Inch Size	Hole Minor Diameter Min. - Max.	Drill Size	Dec. Equiv.
7/16 - 20	.4136 - .4176	10.5mm	(.4134)
1/2 - 13	.4626 - .4688	15/32	(.4688)
1/2 - 20	.4761 - .4801	12.1mm	(.4764)
9/16 - 12	.5218 - .5285	13.3mm	(.5236)
9/16 - 18	.5359 - .5403	13.6mm	(.5354)
5/8 - 11	.5805 - .5878	14.75mm	(.5807)
5/8 - 18	.5985 - .6029	15.25mm	(.6004)
3/4 - 10	.7011 - .7091	45/64	(.7031)
3/4 - 16	.7200 - .7250	23/32	(.7188)
7/8 - 9	.8207 - .8296	21.0mm	(.8268)
7/8 - 14	.8405 - .8462	27/32	(.8438)
1 - 8	.9388 - .9488	15/16	(.9375)
1 - 12	.9595 - .9662	24.5mm	(.9646)
1 - 14	.9655 - .9712	31/32	(.9688)
1-1/8 - 7	1.0550 - 1.0664	1-1/16	(1.0625)
1-1/8 - 12	1.0846 - 1.0913	27.25mm	(1.0827)
1-1/4 - 7	1.1800 - 1.1914	1-3/16	(1.1875)
1-1/4 - 12	1.2097 - 1.2164	30.75mm	(1.2106)
1-3/8 - 6	1.2932 - 1.3065	33.0mm	(1.2992)
1-3/8 - 12	1.3347 - 1.3414	34.0mm	(1.3386)
1-1/2 - 6	1.4182 - 1.4315	1-27/64	(1.4219)
1-1/2 - 12	1.4597 - 1.4664	37.0mm	(1.4567)

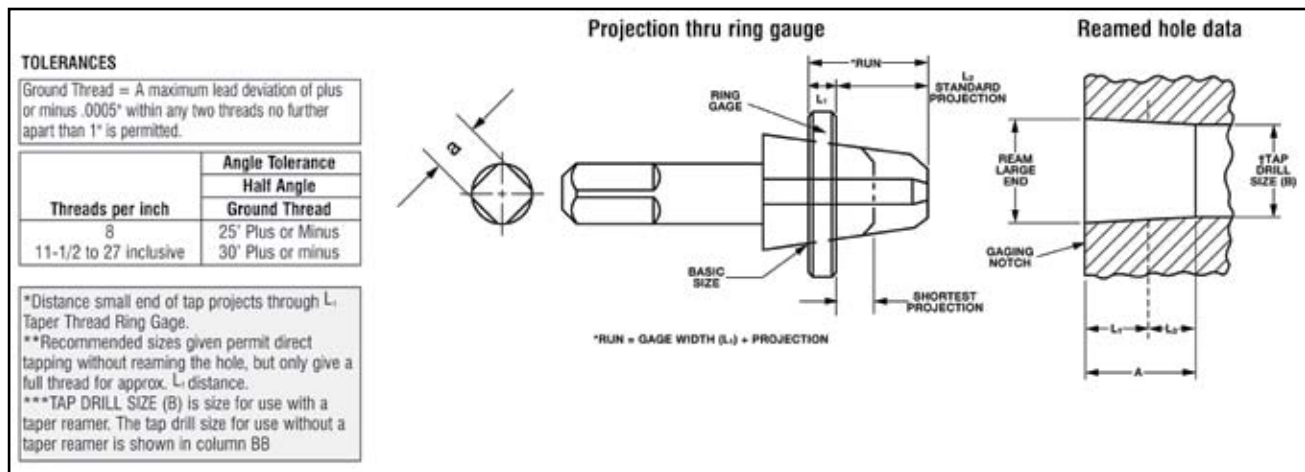
Metric Sizes

Metric Size	Hole Minor Diameter Min. - Max.	Drill Size	Dec. Equiv.
M2.5 X 0.45	.0925 - .0935	#42	(.0935)
M3 X 0.50	.1112 - .1122	#34	(.1110)
M3.5 X 0.60	.1294 - .1309	#30	(.1285)
M4 X 0.70	.1477 - .1497	#26	(.1470)
M4.5 X 0.75	.1634 - .1658	4.15mm	(.1634)
M5 X 0.80	.1821 - .1846	#14	(.1820)
M6 X 1.00	.2178 - .2209	7/32	(.2188)
M7 X 1.00	.2571 - .2602	F	(.2570)
M8 X 1.00	.2966 - .2997	19/64	(.2969)
M8 X 1.25	.2915 - .2954	M	(.2950)
M9 X 1.25	.3308 - .3347	Q	(.3320)
M10 X 1.25	.3703 - .3742	9.5mm	(.3740)
M10 X 1.50	.3652 - .3699	U	(.3680)
M11 X 1.50	.3946 - .4093	X	(.3970)
M12 X 1.25	.4490 - .4529	11.5mm	(.4528)
M12 X 1.75	.4390 - .4445	11.25mm	(.4429)
M14 X 1.25	.5279 - .5318	17/32	(.5313)
M14 X 1.50	.5228 - .5275	13.25mm	(.5216)

Metric Size	Hole Minor Diameter Min. - Max.	Drill Size	Dec. Equiv.
M14 X 2.00	.5129 - .5192	33/64	(.5156)
M16 X 1.50	.6016 - .6063	15.25mm	(.6004)
M16 X 2.00	.5916 - .5979	19/32	(.5938)
M18 X 1.50	.6803 - .6850	15.25mm	(.6791)
M18 X 2.50	.6606 - .6685	16.8mm	(.6614)
M20 X 1.50	.7591 - .7638	19.3mm	(.7598)
M20 X 2.50	.7393 - .7472	47/64	(.7344)
M22 X 1.50	.8379 - .8426	21.3mm	(.8386)
M22 X 2.50	.8181 - .8260	20.8mm	(.8189)
M24 X 3.00	.8865 - .8959	57/64	(.8906)
M27 X 3.00	1.0046 - 1.0140	1"	(1.0000)
M28 X 1.50	1.0743 - 1.0790	1-5/64	(1.0781)
M30 X 2.00	1.1428 - 1.1491	1-9/64	(1.1406)
M30 X 3.50	1.1127 - 1.1237	1-7/64	(1.1094)
M33 X 2.00	1.2609 - 1.2672	1-17/64	(1.2656)
M33 X 3.50	1.2308 - 1.2418	1-15/64	(1.2344)
M36 X 4.00	1.3388 - 1.3514	1-11/32	(1.3438)
M39 X 4.00	1.4569 - 1.4695	1-15/32	(1.4688)

Tap Projection and Hole Size for Pipe Taps

Nominal Size	Tap Thread Limits				*Projection				Ream Dia. Large End	Gage Width		***Tap Drill Size B	**Tap Drill Size BB	
	*L ₁	Tolerance	Taper Per FT. Limits		NPT & NPTF Min.	Max.	SAE-Short			L ₁	L ₂			
			Min.	Max.			Min.	Max.						
1/16 - 27	.312	±1/16	23/32	25/32	.250	.375	.222	.259	.2515	.1600	.1111	.2711	15/64	C
1/8 - 27	.312	±1/16	23/32	25/32	.250	.375	.222	.259	.3440	.1615	.1111	.2726	21/64	Q
1/4 - 18	.459	±1/16	23/32	25/32	.397	.521	.333	.389	.4472	.2278	.1667	.3945	27/64	7/16
3/8 - 18	.454	±1/16	23/32	25/32	.392	.516	.333	.389	.5826	.2400	.1667	.4067	9/16	9/16
1/2 - 14	.579	±1/16	23/32	25/32	.517	.641	.429	.500	.7213	.3200	.2143	.5343	11/16	45/64
3/4 - 14	.565	±1/16	23/32	25/32	.503	.627	.429	.500	.9317	.3390	.2143	.5533	57/64	29/32
1 - 11-1/2	.678	±3/32	23/32	25/32	.584	.772	—	—	1.1691	.4000	.2609	.6609	1-1/8	1-9/64
1-1/4 - 11-1/2	.686	±3/32	23/32	25/32	.592	.780	—	—	1.5138	.4200	.2609	.6809	1-15/32	1-31/64
1-1/2 - 11-1/2	.699	±3/32	23/32	25/32	.606	.792	—	—	1.7528	.4200	.2609	.6809	1-45/64	1-23/32
2 - 11-1/2	.667	±3/32	23/32	25/32	.574	.760	—	—	2.2267	.4360	.2609	.6909	2-11/64	2-3/16



			Aluminum				Plastic-Steel-Magnesium			
NOMINAL DIAMETER	UNC	T.P.I.	Diameter of Tapped Holes		Recommended Minor Recommended Drill		Diameter of Tapped Holes		Recommended Minor Recommended Drill	
			Min.	Max.	Tap Drill Size	Dec. Eq.	Min.	Max.	Tap Drill Size	Dec. Eq.
4	40	—	.1160	.1210	31	.1200	.1190	.1240	31	.1200
6	32	—	.1440	.1500	26	.1470	.1480	.1540	25	.1495
8	32	—	.1700	.1760	17	.1730	.1740	.1800	16	.1770
10	24	—	.1990	.2050	13/64	.2031	.2030	.2090	5	.2055
10	—	32	.1960	.2020	7	.2010	.2000	.2060	13/64	.2031
1/4	20	—	.2610	.2670	H	.2660	.2650	.2710	H	.2660
1/4	—	28	.2570	.2640	G	.2610	.2610	.2680	6.7MM	.2638
5/16	18	—	.3280	.3340	Q	.3320	.3310	.3370	Q	.3320
5/16	—	24	.3230	.3300	21/64	.3281	.3270	.3340	21/64	.3281
3/8	16	—	.3900	.3980	X	.3970	.3960	.4020	X	.3970
3/8	—	24	.3850	.3920	25/64	.3906	.3890	.3960	25/64	.3906
7/16	14	—	.4530	.4630	29/64	.4531	.4610	.4710	29/64	.4531
7/16	—	20	.4500	.4580	29/64	.4531	.4530	.4610	29/64	.4531
1/2	13	—	.5150	.5250	33/64	.5156	.5230	.5330	17/64	.5312
1/2	—	20	.5130	.5220	33/64	.5156	.5150	.5240	17/64	.5312

Tap Size Recommendations for Classes 2B and 3B

Machine Screw Sizes

Size	Threads Per Inch		Recommended Tap For Class of Thread		Pitch Diameter Limits For Class of Thread		
	NC	NF	Class 2B	Class 3B	Min. All Classes (Basic)		
					Min. All Classes (Basic)	Max Class 2B	Max Class 3B
0	—	80	H2	H1	.0519	.0542	.0536
1	64	—	H2	H1	.0629	.0655	.0648
1	—	72	H2	H1	.0640	.0665	.0659
2	56	—	H2	H1	.0744	.0772	.0765
2	—	64	H2	H1	.0759	.0786	.0779
3	48	—	H2	H1	.0855	.0885	.0877
3	—	56	H2	H1	.0874	.0902	.0895
4	40	—	H2	H1	.0958	.0991	.0982
4	—	48	H2	H1	.0985	.1016	.1008
5	40	—	H2	H2	.1088	.1121	.1113
5	—	44	H2	H1	.1102	.1134	.1126
6	32	—	H3	H2	.1177	.1214	.1204
6	—	40	H2	H2	.1218	.1252	.1243
8	32	—	H3	H2	.1437	.1475	.1465
8	—	36	H2	H2	.1460	.1496	.1487
10	24	—	H3	H3	.1629	.1672	.1661
10	—	32	H3	H2	.1697	.1736	.1726
12	24	—	H3	H3	.1889	.1933	.1922
12	—	28	H3	H3	.1928	.1970	.1959

Fractional Sizes

Size	Threads Per Inch		Recommended Tap For Class of Thread		Pitch Diameter Limits For Class of Thread		
	NC	NF	Class 2B	Class 3B	Min. All Classes (Basic)		
					Min. All Classes (Basic)	Max Class 2B	Max Class 3B
1/4	20	—	H5	H3	.2175	.2223	.2211
1/4	—	28	*H4	H3	.2268	.2311	.2300
5/16	18	—	H5	H3	.2764	.2817	.2803
5/16	—	24	*H4	H3	.2854	.2902	.2890
3/8	16	—	H5	H3	.3344	.3401	.3387
3/8	—	24	*H4	H3	.3479	.3528	.3516
7/16	14	—	H5	H3	.3911	.3972	.3957
7/16	—	20	H5	H3	.4050	.4104	.4091
1/2	13	—	H5	H3	.4500	.4565	.4548
1/2	—	20	H5	H3	.4675	.4731	.4717
9/16	12	—	H5	H3	.5084	.5152	.5135
9/16	—	18	H5	H3	.5264	.5323	.5308
5/8	11	—	H5	H3	.5660	.5732	.5714
5/8	—	18	H5	H3	.5889	.5949	.5934
3/4	10	—	H5	H5	.6850	.6927	.6907
3/4	—	16	H5	H3	.7094	.7159	.7143
7/8	9	—	H6	H4	.8028	.8110	.8089
7/8	—	14	H6	H4	.8286	.8356	.8339
1	8	—	H6	H4	.9188	.9276	.9254
1	—	12	H6	H4	.9459	.9535	.9516

Metric Sizes for Class 6H

Thread Size		Internal Thread-Class 6H (Inches)				Recommended Tap		
Nominal Dia. (mm)	Pitch (mm)	Minor Dia.		Pitch Dia.		Major Dia.	Tap Size	Limit Number
		Min.	Max.	Min.	Max.			
1.6	0.35	.0481	.0520	.0541	.0574	.0630	M1.6 x 0.35	D-3
2	0.4	.0617	.0661	.0686	.0720	.0788	M2 x 0.4	D-3
2.5	0.45	.0793	.0841	.0870	.0906	.0985	M2.5 x 0.45	D-3
3	0.5	.0969	.1023	.1054	.1092	.1182	M3 x 0.5	D-3
3.5	0.6	.1123	.1185	.1225	.1268	.1378	M3.5 x 0.6	D-4
4	0.7	.1277	.1347	.1396	.1442	.1575	M4 x 0.7	D-4
4.5	0.75	.1452	.1526	.1580	.1626	.1772	M4.5 x 0.75	D-4
5	0.8	.1628	.1706	.1764	.1812	.1969	M5 x 0.8	D-4
6	1.0	.1936	.2028	.2107	.2165	.2363	M6 x 1	D-5
7	1.0	.2330	.2422	.2500	.2559	.2756	M7 x 1	D-5
8	1.25	.2617	.2721	.2830	.2892	.3150	M8 x 1.25	D-5
10	1.5	.3298	.3415	.3554	.3624	.3937	M10 x 1.5	D-6
12	1.75	.3979	.4110	.4277	.4355	.4725	M12 x 1.75	D-6
14	2.0	.4660	.4807	.5001	.5083	.5512	M14 x 2	D-7
16	2.0	.5447	.5594	.5788	.5871	.6300	M16 x 2	D-7
20	2.5	.6809	.6985	.7235	.7322	.7875	M20 x 2.5	D-7
24	3.0	.8171	.8366	.8682	.8785	.9449	M24 x 3	D-8
30	3.5	1.0320	1.0539	1.0917	1.1026	1.1812	M30 x 3.5	D-9
36	4.0	1.2469	1.2704	1.3151	1.3268	1.4174	M36 x 4	D-9

Forming Type Taps Machine Screw and Fractional Sizes

Tap Size UNC-NF	Basic P.D.	Tap Recommendations For Class 2B Fit		Tap Recommendations For Class 3B Fit		Oversize Forming Taps	
		Styles Avail.	Thread Limit	Styles Avail.	Thread Limit	Styles Avail.	Thread Limit
0-80	.0519	—	—	H-2	.0536	—	—
1-64	.0629	—	—	H-2	.0648	—	—
1-72	.0640	—	—	H-2	.0659	—	—
2-56	.0744	H-3	.0772	H-2	.0765	—	—
2-64	.0759	H-3	.0786	H-2	.0779	—	—
3-48	.0855	H-3	.0885	H-2	.0877	—	—
3-56	.0874	H-3	.0902	H-2	.0895	—	—
4-40	.0958	H-5	.0991	H-3	.0982	—	—
4-48	.0985	H-5	.1016	H-3	.1008	—	—
5-40	.1088	H-5	.1121	H-3	.1113	—	—
5-44	.1102	H-5	.1134	H-3	.1126	—	—
6-32	.1177	H-5	.1214	H-3	.1204	—	—
6-40	.1218	H-5	.1252	H-3	.1243	—	—
8-32	.1437	H-5	.1475	H-3	.1465	—	—
8-36	.1460	H-5	.1496	H-3	.1487	—	—
10-24	.1629	H-6	.1672	H-4	.1661	—	—
10-32	.1697	H-6	.1736	H-4	.1762	—	—
12-24	.1889	H-6	.1933	H-4	.1922	—	—
12-28	.1928	H-6	.1970	H-4	.1959	—	—
1/4-20	.2175	H-6	.2223	H-4	.2211	H-8	.2215
1/4-28	.2268	H-6	.2311	H-4	.2300	H-8	.2308
5/16-18	.2764	H-7	.2817	H-5	.2803	H-9	.2809
5/16-24	.2854	H-7	.2902	H-5	.2890	H-9	.2899
3/8-16	.3344	H-7	.3401	H-5	.3387	H-9	.3389
3/8-24	.3479	H-7	.3528	H-5	.3516	H-9	.3524
7/16-14	.3911	H-8	.3972	H-5	.3957	—	—
7/16-20	.4050	H-8	.4104	H-5	.4091	—	—
1/2-13	.4500	H-8	.4565	H-5	.4548	H-10	.4550
1/2-20	.4675	H-8	.4731	H-5	.4717	H-10	.4725

Unified Screw Thread Limits

Diameter - Pitch Combinations for Class of Fit

Nominal Size Threads Per Inch and Series Designation	Class	Internal*				Major Diameter Min.
		*Minor Diameter		Pitch Diameter		
		Min.	Max.	Min.	Max.	
0-80 UNF	2B	.0465	.0514	.0519	.0542	.0600
—	3B	.0465	.0514	.0519	.0536	.0600
1-64 UNC	2B	.0561	.0623	.0629	.0655	.0730
—	3B	.0561	.0623	.0629	.0648	.0730
1-72 UNF	2B	.0580	.0635	.0640	.0665	.0730
—	3B	.0580	.0635	.0640	.0659	.0730
2-56 UNC	2B	.0667	.0737	.0744	.0772	.0860
—	3B	.0667	.0737	.0744	.0765	.0860
2-64 UNF	2B	.0691	.0753	.0759	.0786	.0860
—	3B	.0691	.0753	.0759	.0779	.0860
3-48 UNC	2B	.0764	.0845	.0855	.0885	.0990
—	3B	.0764	.0845	.0855	.0877	.0990
3-56 UNF	2B	.0797	.0865	.0874	.0902	.0990
—	3B	.0797	.0865	.0874	.0895	.0990
4-40 UNC	2B	.0849	.0939	.0958	.0991	.1120
—	3B	.0849	.0939	.0958	.0982	.1120
4-48 UNF	2B	.0894	.0968	.0985	.1016	.1120
—	3B	.0894	.0968	.0985	.1008	.1120
5-40 UNC	2B	.0979	.1062	.1088	.1121	.1250
—	3B	.0979	.1062	.1088	.1113	.1250

Nominal Size Threads Per Inch and Series Designation	Class	Internal*				Major Diameter Min.
		*Minor Diameter		Pitch Diameter		
		Min.	Max.	Min.	Max.	
5-44 UNF	2B	.1004	.1079	.1102	.1134	.1250
—	3B	.1004	.1079	.1102	.1126	.1250
6-32 UNC	2B	.1040	.1140	.1177	.1214	.1380
—	3B	.1040	.1140	.1177	.1204	.1380
6-40 UNF	2B	.1110	.1190	.1218	.1252	.1380
—	3B	.1110	.1186	.1218	.1243	.1380
8-32 UNC	2B	.1300	.1390	.1437	.1475	.1640
—	3B	.1300	.1389	.1437	.1465	.1640
8-36 UNF	2B	.1340	.1420	.1460	.1496	.1640
—	3B	.1340	.1416	.1460	.1487	.1640
10-24 UNC	2B	.1450	.1560	.1629	.1672	.1900
—	3B	.1450	.1555	.1629	.1661	.1900
10-32 UNF	2B	.1560	.1640	.1697	.1736	.1900
—	3B	.1560	.1641	.1697	.1726	.1900
12-24 UNC	2B	.1710	.1810	.1889	.1933	.2160
—	3B	.1710	.1807	.1889	.1922	.2160
12-28 UNF	2B	.1770	.1860	.1928	.1970	.2160
—	3B	.1770	.1857	.1928	.1959	.2160

Fractional Sizes

Nominal Size Threads Per Inch and Series Designation	Class	Internal*				Major Diameter Min.
		*Minor Diameter Min. Max.		Pitch Diameter Min. Max.		
1/4-20 UNC	1B	.1960	.2070	.2175	.2248	.2500
—	2B	.1960	.2070	.2175	.2224	.2500
—	3B	.1960	.2067	.2175	.2211	.2500
1/4-28 UNF	1B	.2110	.2200	.2268	.2333	.2500
—	2B	.2110	.2200	.2268	.2311	.2500
—	3B	.2110	.2190	.2268	.2300	.2500
5/16-18 UNC	1B	.2520	.2650	.2764	.2843	.3125
—	2B	.2520	.2650	.2764	.2817	.3125
—	3B	.2520	.2630	.2764	.2803	.3125
5/16-24 UNF	1B	.2670	.2770	.2854	.2925	.3125
—	2B	.2670	.2770	.2854	.2902	.3125
—	3B	.2670	.2754	.2854	.2890	.3125
3/8-16 UNC	1B	.3070	.3210	.3344	.3429	.3750
—	2B	.3070	.3210	.3344	.3401	.3750
—	3B	.3070	.3182	.3344	.3387	.3750

Nominal Size Threads Per Inch and Series Designation	Class	Internal*				Major Diameter Min.
		*Minor Diameter		Pitch Diameter		
		Min.	Max.	Min.	Max.	
3/8-24 UNF	1B	.3300	.3400	.3479	.3553	.3750
—	2B	.3300	.3400	.3479	.3528	.3750
—	3B	.3300	.3372	.3479	.3516	.3750
7/16-14 UNC	1B	.3600	.3760	.3911	.4003	.4375
—	2B	.3600	.3760	.3911	.3972	.4375
—	3B	.3600	.3717	.3911	.3957	.4375
7/16-20 UNF	1B	.3830	.3950	.4050	.4131	.4375
—	2B	.3830	.3950	.4050	.4104	.4375
—	3B	.3830	.3916	.4050	.4091	.4375
1/2-13 UNC	1B	.4170	.4340	.4500	.4597	.5000
—	2B	.4170	.4340	.4500	.4565	.5000
—	3B	.4170	.4284	.4500	.4548	.5000
1/2-20 UNF	1B	.4460	.4570	.4675	.4759	.5000
—	2B	.4460	.4570	.4675	.4731	.5000
—	3B	.4460	.4537	.4675	.4717	.5000

Metric Sizes (ANSA B1.13M-1983) All dimensions are in millimeters.

Basic Thread Description	Toler. Class	Minor Diameter		Pitch Diameter			Major Diameter	
		Min.	Max.	Min.	Max.	Tol	Min.	Max.
M1.6 x 0.35	6H	1.221	1.321	1.373	1.458	.085	1.600	1.736
M2 x 0.4	6H	1.567	1.679	1.740	1.830	.090	2.000	2.148
M2.5 x 0.45	6H	2.013	2.138	2.208	2.303	.095	2.500	2.660
M3 x 0.5	6H	2.459	2.599	2.675	2.775	.100	3.000	3.172
M3.5 x 0.6	6H	2.850	3.010	3.110	3.222	.112	3.500	3.699
M4 x 0.7	6H	3.242	3.422	3.545	3.663	.118	4.000	4.219
M5 x 0.8	6H	4.134	4.334	4.480	4.605	.125	5.000	5.240
M6 x 1	6H	4.917	5.153	5.350	5.500	.150	6.000	6.294
M8 x 1.25	6H	6.647	6.912	7.188	7.348	.160	8.000	8.340

Basic Thread Description	Toler. Class	Minor Diameter		Pitch Diameter			Major Diameter	
		Min.	Max.	Min.	Max.	Tol	Min.	Max.
M8 x 1	6H	6.917	7.153	7.350	7.500	.150	8.000	8.294
M10 x 1.5	6H	8.376	8.676	9.026	9.206	.180	10.000	10.396
M10 x 1.25	6H	8.647	8.912	9.188	9.348	.160	10.000	10.340
M10 x 0.75	6H	9.188	9.378	9.513	9.645	.132	10.000	10.240
M12 x 1.75	6H	10.106	10.441	10.863	11.063	.200	12.000	12.453
M12 x 1.5	6H	10.376	10.676	11.026	11.216	.190	12.000	12.406
M12 x 1.25	6H	10.647	10.912	11.188	11.368	.180	12.000	12.360
M12 x 1	6H	10.917	11.153	11.350	11.510	.160	12.000	12.304

*Internal Thread Minor Diameter Tolerances. Internal thread minor diameter tolerances are based on a length of engagement equal to the nominal diameter. For general applications, these tolerances are suitable for lengths of engagement up to 1-1/2 diameters. However, some thread applications have lengths of engagement which are greater than 1-1/2 diameters or less than the nominal diameter. For such applications, it may be advantageous to increase or decrease the tolerance, respectively.

Tapping Speeds (Surface Feet Per Minute to Revolutions Per Minute)

Tap Sizes UNC/ UNF	Pipe	Surface Feet Per Minute																	
		5'	10'	15'	20'	25'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
0	—	318	637	955	1273	1592	1910	2546	3183	3820	4456	5093	5729	6366	7003	7639	8276	8913	9549
1	—	273	546	819	1046	1308	1570	2093	2617	3140	3663	4186	4710	5233	5756	6279	6805	7326	7849
2	—	212	424	637	888	1110	1333	1777	2221	2665	3109	3554	3999	4442	4886	5330	5774	6218	6662
3	—	191	382	573	772	964	1157	1543	1929	2315	2701	3086	3472	3858	4244	4629	5015	5401	5787
4	—	174	347	521	682	853	1023	1364	1705	2046	2387	2728	3069	3411	3751	4092	4434	4775	5116
5	—	147	294	441	511	764	917	1222	1528	1833	2139	2445	2750	3056	3361	3667	3973	4278	4584
6	—	136	273	409	553	691	829	1106	1382	1659	1935	2212	2488	2766	3042	3318	3595	3871	4148
8	—	119	239	358	466	583	699	932	1165	1398	1631	1864	2097	2330	2563	2796	3029	3262	3495
10	—	101	201	302	402	502	603	804	1005	1205	1406	1607	1808	2009	2210	2411	2612	2813	3014
12	—	87	174	260	354	442	531	707	884	1061	1238	1415	1592	1769	1945	2122	2300	2476	2653
1/4	—	76	153	229	306	382	458	611	764	917	1070	1222	1375	1528	1681	1833	1986	2139	2292
5/16	—	62	123	185	245	306	367	489	611	733	856	978	1100	1222	1345	1467	1589	1711	1833
3/8	—	50	101	151	204	255	305	407	509	611	713	815	917	1019	1120	1222	1324	1426	1528
7/16	1/8	43	87	130	175	219	262	349	437	524	611	698	786	873	960	1048	1135	1222	1310
1/2	—	38	76	115	153	191	229	305	382	458	535	611	688	764	840	917	993	1070	1146
9/16	1/4	34	68	102	137	172	206	274	342	410	478	547	616	683	752	820	888	952	1020
5/8	—	32	64	96	122	153	183	244	306	367	428	489	550	611	672	733	794	856	917
11/16	3/8	28	55	83	111	138	167	222	278	333	389	444	500	556	611	667	722	778	833
3/4	—	25	51	76	102	128	153	203	255	305	357	407	458	509	560	611	662	713	764
7/8	1/2	22	43	65	87	109	131	175	218	262	306	350	392	437	480	524	568	611	655
1	—	19	38	57	76	96	115	153	191	230	268	305	344	382	420	458	497	535	573
1-1/8	3/4	17	34	51	68	84	102	136	170	204	238	272	306	340	373	407	441	475	509
1-1/4	—	15	31	46	61	76	92	122	153	183	214	244	275	305	336	367	397	428	458
1-3/8	1	14	28	42	56	69	83	111	139	167	194	222	250	278	306	333	361	389	417
1-1/2	—	13	25	38	51	63	76	102	127	153	178	204	229	255	280	305	331	356	382
1-5/8	—	12	23	35	47	59	71	94	118	141	165	188	212	235	259	282	306	329	353
1-3/4	—	11	22	33	44	55	65	87	109	131	153	175	196	218	240	262	284	306	327
1-7/8	—	10	20	30	41	51	61	81	102	122	143	163	183	204	224	244	265	285	306
2	—	9	19	29	38	48	57	76	96	115	134	153	172	191	210	229	248	267	287

Metric Sizes

Tap Sizes Metric	Surface Feet Per Minute																	
	5'	10'	15'	20'	25'	30'	40'	50'	60'	70'	80'	90'	100'	110'	120'	130'	140'	150'
M 1	490	979	1469	1959	2449	2938	3918	4897	5877	6856	7836	8815	9795	10774	11754	12733	13713	14692
M 2	242	484	725	967	1209	1451	1934	2418	2901	3385	3868	4352	4835	5319	5803	6286	6770	7253
M 3	162	324	486	647	809	971	1295	1619	1942	2266	2590	2914	3237	3561	3885	4208	4532	4856
M 3.5	138	277	415	554	692	830	1107	1384	1661	1938	2214	2491	2768	3045	3322	3599	3875	4152
M 4	122	243	365	487	608	730	973	1217	1460	1703	1946	2190	2433	2676	2920	3163	3406	3650
M 5	97	194	291	388	485	582	776	970	1163	1357	1551	1745	1939	2133	2327	2521	2715	2909
M 6	81	162	243	324	405	486	647	809	971	1133	1295	1457	1619	1781	1942	2104	2266	2428
M 7	69	138	208	277	346	415	554	692	830	969	1107	1246	1384	1522	1661	1799	1938	2076
M 8	61	121	182	243	303	364	485	606	728	849	970	1091	1213	1334	1455	1577	1698	1819
M 10	48	97	145	194	242	291	388	485	582	679	776	873	970	1067	1163	1260	1357	1454
M 12	40	81	121	162	202	243	324	405	486	567	647	728	809	890	971	1052	1133	1214
M 14	35	69	104	139	173	208	277	347	416	485	555	624	693	763	832	901	971	1040
M 16	30	61	91	121	152	182	243	303	364	424	485	546	606	667	728	788	849	910
M 18	27	54	81	108	135	162	216	269	323	377	431	485	539	593	647	700	754	808
M 20	24	49	73	97	121	146	194	243	291	340	388	437	485	534	582	631	680	728
M 22	22	44	66	88	110	132	176	221	265	309	353	397	441	485	529	573	618	662
M 24	20	40	61	81	101	121	162	202	243	283	323	364	404	445	485	526	566	606
M 27	18	36	54	72	90	108	144	180	216	252	287	323	359	395	431	467	503	539
M 30	16	32	49	65	81	97	129	162	194	226	259	291	323	356	388	420	453	485

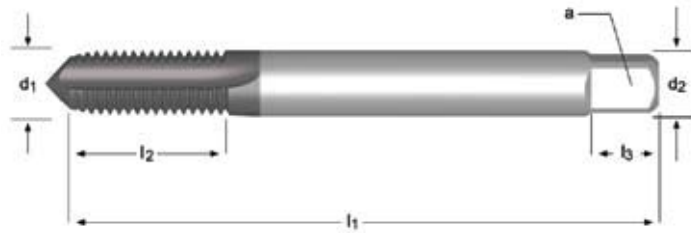
T100 - T110

DORMER

- Carbide-Taps
- Straight Flute

- Tarauds machine

- Machos de máquina



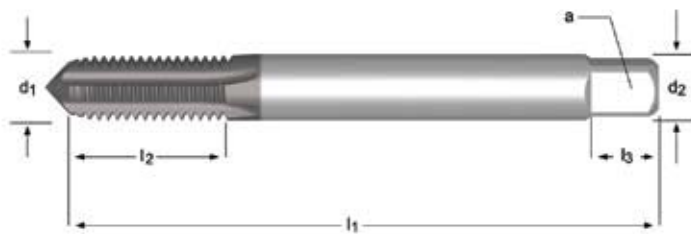
T100



- 1.7
- 1.8 3.1 3.2 6.4 7.4 8.2 8.3 10.1

M	P mm	d ₂ Ø mm	l ₁ mm	l ₂ mm	l ₃ mm	□ a mm	# Flutes		EDP # or e-Code
3	0.50	3.5	56	10	6	2.70	3	2.6	0374214 T100M3
4	0.70	4.5	63	13	6	3.40	3	3.4	0374221 T100M4
5	0.80	6	70	16	8	4.90	3	4.3	0374238 T100M5
6	1.00	6	80	20	8	4.90	3	5.1	0374245 T100M6
8	1.25	8	90	25	9	6.20	3	6.9	0374252 T100M8
10	1.50	10	100	30	11	8.00	3	8.7	0374269 T100M10
12	1.75	12	110	36	14	9.00	3	10.4	0374276 T100M12

Straight
Flute
Taps



T110



- 1.8
- 1.7

M	P mm	d ₂ Ø mm	l ₁ mm	l ₂ mm	l ₃ mm	□ a mm	# Flutes		EDP # or e-Code
3	0.50	3.5	56	10	6	2.70	4	2.6	0374283 T110M3
4	0.70	4.5	63	13	6	3.40	5	3.4	0374290 T110M4
5	0.80	6	70	16	8	4.90	5	4.3	0374306 T110M5
6	1.00	6	80	20	8	4.90	5	5.1	0374313 T110M6
8	1.25	8	90	25	9	6.20	5	6.9	0374320 T110M8
10	1.50	10	100	30	11	8.00	5	8.7	0374337 T110M10
12	1.75	12	110	36	14	9.00	6	10.4	0374344 T110M12

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Hand Tap MTT
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- MTT - Tarauds à main

- MTT Machos de mano



MTT

E061



- 3.1 3.2 3.3 3.4 7.4
- 1.1 1.2 1.3 1.4 1.5 1.6 6.1 6.2 6.3 7.3 8.2 8.3

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
6	32	2"	0.5800	0.1410	0.1100	3	H3	36	2.85	0.5800	0348291	E0616-32NO1
6	32	2"	0.5800	0.1410	0.1100	3	H3	36	2.85	0.5800	0348307	E0616-32NO2
6	32	2"	0.5800	0.1410	0.1100	3	H3	36	2.85	0.5800	0348314	E0616-32NO3
6	32	2"	0.5800	0.1410	0.1100	3	H3	36	2.85	0.5800	0348321	E0616-32NO6
8	32	2.1/8	0.6500	0.1680	0.1310	4	H3	29	3.50	0.6500	0348284	E0618-32NO1
8	32	2.1/8	0.6500	0.1680	0.1310	4	H3	29	3.50	0.6500	0348338	E0618-32NO2
8	32	2.1/8	0.6500	0.1680	0.1310	4	H3	29	3.50	0.6500	0348345	E0618-32NO3
8	32	2.1/8	0.6500	0.1680	0.1310	4	H3	29	3.50	0.6500	0348352	E0618-32NO6
10	24	2.3/8	0.7600	0.1940	0.1520	4	H3	25	3.90	0.7600	0348369	E06110-24NO1
10	24	2.3/8	0.7600	0.1940	0.1520	4	H3	25	3.90	0.7600	0348376	E06110-24NO2
10	24	2.3/8	0.7600	0.1940	0.1520	4	H3	25	3.90	0.7600	0348383	E06110-24NO3
10	24	2.3/8	0.7600	0.1940	0.1520	4	H3	25	3.90	0.7600	0348390	E06110-24NO6
12	24	2.3/8	0.8100	0.2200	0.1650	4	H3	16	4.50	0.8100	0348406	E06112-24NO1
12	24	2.3/8	0.8100	0.2200	0.1650	4	H3	16	4.50	0.8100	0348413	E06112-24NO2
12	24	2.3/8	0.8100	0.2200	0.1650	4	H3	16	4.50	0.8100	0348420	E06112-24NO3
12	24	2.3/8	0.8100	0.2200	0.1650	4	H3	16	4.50	0.8100	0348437	E06112-24NO6
1/4	20	2.1/2	0.6500	0.2550	0.1910	4	H3	7	5.10	1.0630	0348444	E0611/4NO1
1/4	20	2.1/2	0.6500	0.2550	0.1910	4	H3	7	5.10	1.0630	0348451	E0611/4NO2
1/4	20	2.1/2	0.6500	0.2550	0.1910	4	H3	7	5.10	1.0630	0348468	E0611/4NO3
1/4	20	2.1/2	0.6500	0.2550	0.1910	4	H3	7	5.10	1.0630	0348475	E0611/4NO6
5/16	18	2.23/32	0.7700	0.3180	0.2380	4	H3	F	6.60	1.2598	0348482	E0615/16NO1
5/16	18	2.23/32	0.7700	0.3180	0.2380	4	H3	F	6.60	1.2598	0348499	E0615/16NO2
5/16	18	2.23/32	0.7700	0.3180	0.2380	4	H3	F	6.60	1.2598	0348505	E0615/16NO3
5/16	18	2.23/32	0.7700	0.3180	0.2380	4	H3	F	6.60	1.2598	0348512	E0615/16NO6
3/8	16	2.15/16	0.8100	0.3810	0.2860	4	H3	5/16	8.00	1.3780	0348529	E0613/8NO1
3/8	16	2.15/16	0.8100	0.3810	0.2860	4	H3	5/16	8.00	1.3780	0348536	E0613/8NO2
3/8	16	2.15/16	0.8100	0.3810	0.2860	4	H3	5/16	8.00	1.3780	0348543	E0613/8NO3
3/8	16	2.15/16	0.8100	0.3810	0.2860	4	H3	5/16	8.00	1.3780	0348550	E0613/8NO6
7/16	14	3.5/32	0.9055	0.3230	0.2420	4	H3	U	9.40		0348567	E0617/16NO1
7/16	14	3.5/32	0.9055	0.3230	0.2420	4	H3	U	9.40		0348574	E0617/16NO2
7/16	14	3.5/32	0.9055	0.3230	0.2420	4	H3	U	9.40		0348581	E0617/16NO3
7/16	14	3.5/32	0.9055	0.3230	0.2420	4	H3	U	9.40		0348598	E0617/16NO6
1/2	13	3.3/8	0.9055	0.3670	0.2750	4	H3	27/64	10.80		0348604	E0611/2NO1
1/2	13	3.3/8	0.9055	0.3670	0.2750	4	H3	27/64	10.80		0348611	E0611/2NO2
1/2	13	3.3/8	0.9055	0.3670	0.2750	4	H3	27/64	10.80		0348628	E0611/2NO3
1/2	13	3.3/8	0.9055	0.3670	0.2750	4	H3	27/64	10.80		0348635	E0611/2NO6

Sizes up to 1" - Gold Finish
1" and larger - Bright Finish

- Hand Tap MTT
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- MTT - Tarauds à main

- MTT Machos de mano

UNC	TPI	I ₁ Inch	I ₂ Inch	d ₂ Ø Inch /	 a Inch	# Flutes	Limits			I ₄ Inch	Stock #	EDP # or e-Code
9/16	12	3.19/32	0.9843	0.4290	0.3220	4	H3	27/64	12.20	0351833		E0619/16NO1
9/16	12	3.19/32	0.9843	0.4290	0.3220	4	H3	31/64	12.20	0348642		E0619/16NO2
9/16	12	3.19/32	0.9843	0.4290	0.3220	4	H3	31/64	12.20	0348659		E0619/16NO3
9/16	12	3.19/32	0.9843	0.4290	0.3220	4	H3	31/64	12.20	0348666		E0619/16NO6
5/8	11	3.13/16	0.9843	0.4800	0.3600	4	H3	17/32	13.50	0348673		E0615/8NO1
5/8	11	3.13/16	0.9843	0.4800	0.3600	4	H3	17/32	13.50	0348680		E0615/8NO2
5/8	11	3.13/16	0.9843	0.4800	0.3600	4	H3	17/32	13.50	0348697		E0615/8NO3
5/8	11	3.13/16	0.9843	0.4800	0.3600	4	H3	17/32	13.50	0348703		E0615/8NO6
3/4	10	4.1/4	1.1811	0.5900	0.4420	4	H3	21/32	16.50	0348710		E0613/4NO1
3/4	10	4.1/4	1.1811	0.5900	0.4420	4	H3	21/32	16.50	0348727		E0613/4NO2
3/4	10	4.1/4	1.1811	0.5900	0.4420	4	H3	21/32	16.50	0348734		E0613/4NO3
3/4	10	4.1/4	1.1811	0.5900	0.4420	4	H3	21/32	16.50	0348741		E0613/4NO6
7/8	9	4.11/16	1.1811	0.6970	0.5230	4	H4	49/64	19.50	0348758		E0617/8NO1
7/8	9	4.11/16	1.1811	0.6970	0.5230	4	H4	49/64	19.50	0348765		E0617/8NO2
7/8	9	4.11/16	1.1811	0.6970	0.5230	4	H4	49/64	19.50	0348772		E0617/8NO3
7/8	9	4.11/16	1.1811	0.6970	0.5230	4	H4	49/64	19.50	0348789		E0617/8NO6
1"	8	5.1/8	1.4173	0.8000	0.6000	4	H4	7/8	22.25	0348796		E0611NO1
1"	8	5.1/8	1.4173	0.8000	0.6000	4	H4	7/8	22.25	0348802		E0611NO2
1"	8	5.1/8	1.4173	0.8000	0.6000	4	H4	7/8	22.25	0348819		E0611NO3
1"	8	5.1/8	1.4173	0.8000	0.6000	4	H4	7/8	22.25	0348826		E0611NO6
1.1/8	7	5.7/16	1.3976	0.8950	0.6710	4	H4	63/64	25.00	0388112		E0611.1/8NO1
1.1/8	7	5.7/16	1.3976	0.8950	0.6710	4	H4	63/64	25.00	0388129		E0611.1/8NO2
1.1/8	7	5.7/16	1.3976	0.8950	0.6710	4	H4	63/64	25.00	0388136		E0611.1/8NO3
1.1/4	7	5.3/4	1.6338	1.0210	0.7650	4	H4	1.7/64	28.00	0388143		E0611.1/4NO1
1.1/4	7	5.3/4	1.6338	1.0210	0.7650	4	H4	1.7/64	28.00	0388150		E0611.1/4NO2
1.1/4	7	5.3/4	1.6338	1.0210	0.7650	4	H4	1.7/64	28.00	0388167		E0611.1/4NO3
1.3/8	6	6.1/16	1.8700	1.1090	0.8300	4	H4	1.7/32	30.75	0388174		E0611.3/8NO1 ¹⁾
1.3/8	6	6.1/16	1.8700	1.1090	0.8300	4	H4	1.7/32	30.75	0388181		E0611.3/8NO2 ¹⁾
1.3/8	6	6.1/16	1.8700	1.1090	0.8300	4	H4	1.7/32	30.75	0388198		E0611.3/8NO3 ¹⁾
1.1/2	6	6.3/8	1.8700	1.2330	0.9520	4	H4	1.11/32	34.00	0388204		E0611.1/2NO1 ¹⁾
1.1/2	6	6.3/8	1.8700	1.2330	0.9520	4	H4	1.11/32	34.00	0388211		E0611.1/2NO2 ¹⁾
1.1/2	6	6.3/8	1.8700	1.2330	0.9520	4	H4	1.11/32	34.00	0388228		E0611.1/2NO3 ¹⁾

Straight
Flute
Taps

Sizes up to 1" - Gold Finish
1" and larger - Bright Finish

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- MTT - Tarauds à main

- MTT Machos de mano



MTT

E071



- 3.1 3.2 3.3 3.4 7.4
- 1.1 1.2 1.3 1.4 1.5 1.6 6.1 6.2 6.3 7.3 8.2 8.3

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code	
6	40	2"	0.5800	0.1410	0.1100	3	H2	33	2.90	0.5800	0349427	E0716-40NO1	¹⁾
6	40	2"	0.5800	0.1410	0.1100	3	H2	33	2.90	0.5800	0349434	E0716-40NO2	¹⁾
6	40	2"	0.5800	0.1410	0.1100	3	H2	33	2.90	0.5800	0349441	E0716-40NO3	¹⁾
6	40	2"	0.5800	0.1410	0.1100	3	H2	33	2.90	0.5800	0349458	E0716-40NO6	¹⁾
8	36	2.1/8	0.6500	0.1680	0.1310	4	H2	29	3.50	0.6500	0349465	E0718-36NO1	
8	36	2.1/8	0.6500	0.1680	0.1310	4	H2	29	3.50	0.6500	0349472	E0718-36NO2	
8	36	2.1/8	0.6500	0.1680	0.1310	4	H2	29	3.50	0.6500	0349489	E0718-36NO3	
8	36	2.1/8	0.6500	0.1680	0.1310	4	H2	29	3.50	0.6500	0349496	E0718-36NO6	
10	32	2.3/8	0.7600	0.1940	0.1520	4	H3	21	4.10	0.7600	0349502	E07110-32NO1	
10	32	2.3/8	0.7600	0.1940	0.1520	4	H3	21	4.10	0.7600	0349519	E07110-32NO2	
10	32	2.3/8	0.7600	0.1940	0.1520	4	H3	21	4.10	0.7600	0349526	E07110-32NO3	
10	32	2.3/8	0.7600	0.1940	0.1520	4	H3	21	4.10	0.7600	0349533	E07110-32NO6	
12	28	2.3/8	0.8100	0.2200	0.1650	4	H3	15	4.70	0.8100	0349540	E07112-28NO1	¹⁾
12	28	2.3/8	0.8100	0.2200	0.1650	4	H3	15	4.70	0.8100	0349557	E07112-28NO2	¹⁾
12	28	2.3/8	0.8100	0.2200	0.1650	4	H3	15	4.70	0.8100	0349564	E07112-28NO3	¹⁾
12	28	2.3/8	0.8100	0.2200	0.1650	4	H3	15	4.70	0.8100	0349571	E07112-28NO6	¹⁾
1/4	28	2.1/2	0.6500	0.2550	0.1910	4	H3	3	5.50	1.0630	0349588	E07111/4NO1	
1/4	28	2.1/2	0.6500	0.2550	0.1910	4	H3	3	5.50	1.0630	0349595	E07111/4NO2	
1/4	28	2.1/2	0.6500	0.2550	0.1910	4	H3	3	5.50	1.0630	0349601	E07111/4NO3	
1/4	28	2.1/2	0.6500	0.2550	0.1910	4	H3	3	5.50	1.0630	0349618	E07111/4NO6	
5/16	24	2.23/32	0.7700	0.3180	0.2380	4	H3	I	6.90	1.2598	0349625	E0715/16NO1	
5/16	24	2.23/32	0.7700	0.3180	0.2380	4	H3	I	6.90	1.2598	0349632	E0715/16NO2	
5/16	24	2.23/32	0.7700	0.3180	0.2380	4	H3	I	6.90	1.2598	0349649	E0715/16NO3	
5/16	24	2.23/32	0.7700	0.3180	0.2380	4	H3	I	6.90	1.2598	0349656	E0715/16NO6	
3/8	24	2.15/16	0.8100	0.3810	0.2860	4	H3	Q	8.50	1.3780	0349663	E0713/8NO1	
3/8	24	2.15/16	0.8100	0.3810	0.2860	4	H3	Q	8.50	1.3780	0349670	E0713/8NO2	
3/8	24	2.15/16	0.8100	0.3810	0.2860	4	H3	Q	8.50	1.3780	0349687	E0713/8NO3	
3/8	24	2.15/16	0.8100	0.3810	0.2860	4	H3	Q	8.50	1.3780	0349694	E0713/8NO6	
7/16	20	3.5/32	0.9055	0.3230	0.2420	4	H3	25/64	9.90		0349700	E0717/16NO1	
7/16	20	3.5/32	0.9055	0.3230	0.2420	4	H3	25/64	9.90		0349717	E0717/16NO2	
7/16	20	3.5/32	0.9055	0.3230	0.2420	4	H3	25/64	9.90		0349724	E0717/16NO3	
7/16	20	3.5/32	0.9055	0.3230	0.2420	4	H3	25/64	9.90		0349731	E0717/16NO6	
1/2	20	3.3/8	0.9055	0.3670	0.2750	4	H3	29/64	11.50		0349748	E0711/2NO1	
1/2	20	3.3/8	0.9055	0.3670	0.2750	4	H3	29/64	11.50		0349755	E0711/2NO2	
1/2	20	3.3/8	0.9055	0.3670	0.2750	4	H3	29/64	11.50		0349762	E0711/2NO3	
1/2	20	3.3/8	0.9055	0.3670	0.2750	4	H3	29/64	11.50		0349779	E0711/2NO6	

Sizes up to 1" - Gold Finish

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- MTT - Tarauds à main

- MTT Machos de mano

UNF	TPI	I ₁ Inch	I ₂ Inch	d ₂ Ø Inch /	□ a Inch	# Flutes	Limits			Stock #	EDP # or e-Code
9/16	18	3.19/32	0.9843	0.4290	0.3220	4	H3	33/64	12.90	0349786	E0719/16NO1
9/16	18	3.19/32	0.9843	0.4290	0.3220	4	H3	22/64	12.90	0349793	E0719/16NO2
9/16	18	3.19/32	0.9843	0.4290	0.3220	4	H3	33/64	12.90	0349809	E0719/16NO3
9/16	18	3.19/32	0.9843	0.4290	0.3220	4	H3	33/64	12.90	0349816	E0719/16NO6
5/8	18	3.13/16	0.9843	0.4800	0.3600	4	H3	37/64	14.50	0349823	E0715/8NO1
5/8	18	3.13/16	0.9843	0.4800	0.3600	4	H3	37/64	14.50	0349830	E0715/8NO2
5/8	18	3.13/16	0.9843	0.4800	0.3600	4	H3	37/64	14.50	0349847	E0715/8NO3
5/8	18	3.13/16	0.9843	0.4800	0.3600	4	H3	37/64	14.50	0349854	E0715/8NO6
3/4	16	4.1/4	1.1811	0.5900	0.4420	4	H3	11/16	17.50	0349861	E0713/4NO1
3/4	16	4.1/4	1.1811	0.5900	0.4420	4	H3	11/16	17.50	0349878	E0713/4NO2
3/4	16	4.1/4	1.1811	0.5900	0.4420	4	H3	11/16	17.50	0349885	E0713/4NO3
3/4	16	4.1/4	1.1811	0.5900	0.4420	4	H3	11/16	17.50	0351932	E0713/4NO6
7/8	14	4.11/16	1.1811	0.6970	0.5230	4	H4	13/16	20.40	0349892	E0717/8NO1
7/8	14	4.11/16	1.1811	0.6970	0.5230	4	H4	13/16	20.40	0349908	E0717/8NO2
7/8	14	4.11/16	1.1811	0.6970	0.5230	4	H4	13/16	20.40	0349915	E0717/8NO3
7/8	14	4.11/16	1.1811	0.6970	0.5230	4	H4	13/16	20.40	0349922	E0717/8NO6
1"	12	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.25	0349939	E0711X12NO1
1"	12	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.50	0349946	E0711X12NO2
1"	12	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.25	0349953	E0711X12NO3
1"	12	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.25	0349960	E0711X12NO6
1"	14	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.25	0349977	E0711X14NO1
1"	14	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.50	0349984	E0711X14NO2
1"	14	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.50	0349991	E0711X14NO3
1"	14	5.1/8	1.4173	0.8000	0.6000	4	H4	59/64	23.50	0350003	E0711X14NO6
1.1/8	12	5.7/16	2.1654	0.8950	0.6710	4	H4	1.3/64	26.50	0388235	E0711.1/8NO1
1.1/8	12	5.7/16	2.1654	0.8950	0.6710	4	H4	1.3/64	26.50	0388242	E0711.1/8NO2
1.1/8	12	5.7/16	2.1654	0.8950	0.6710	4	H4	1.3/64	26.50	0388259	E0711.1/8NO3
1.1/4	12	5.3/4	2.1654	1.0210	0.7650	4	H4	1.5/32	29.50	0388266	E0711.1/4NO1
1.1/4	12	5.3/4	2.1654	1.0210	0.7650	4	H4	1.5/32	29.50	0388273	E0711.1/4NO2
1.1/4	12	5.3/4	2.1654	1.0210	0.7650	4	H4	1.5/32	29.50	0388280	E0711.1/4NO3
1.3/8	12	6.1/16	2.5591	1.1090	0.8300	4	H4	1.9/32	32.75	0388297	E0711.3/8NO1
1.3/8	12	6.1/16	2.5591	1.1090	0.8300	4	H4	1.9/32	32.75	0388303	E0711.3/8NO2
1.3/8	12	6.1/16	2.5591	1.1090	0.8300	4	H4	1.9/32	32.75	0388310	E0711.3/8NO3
1.1/2	12	6.3/8	2.5591	1.2330	0.9250	4	H4	1.27/64	36.00	0388327	E0711.1/2NO1
1.1/2	12	6.3/8	2.5591	1.2330	0.9250	4	H4	1.27/64	36.00	0388334	E0711.1/2NO2
1.1/2	12	6.3/8	2.5591	1.2330	0.9250	4	H4	1.27/64	36.00	0388341	E0711.1/2NO3

Sizes up to 1" - Gold Finish

1" and larger - Bright Finish

¹⁾ Available as special. Please call for delivery.

Straight
Flute
Taps

1528(UNC)

- Hand Tap
- Machine Screw Sizes
- For use in a wide variety of materials and appropriate in either through or blind hole applications

Tarauds à main

- Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
- 7.1 7.2 7.3 7.4 8.1 8.2

Straight
Flute
Taps

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Inch / Ø	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1	64	1.11/16	3/8	0.141	0.110	3/16	2	H1	B	1010601
1	64	1.11/16	3/8	0.141	0.110	3/16	2	H1	P	1010599
1	64	1.11/16	3/8	0.141	0.110	3/16	2	H1	T	1010598
1	64	1.11/16	3/8	0.141	0.110	3/16	2	H2	P	1010600
2	56	1.3/4	7/16	0.141	0.110	3/16	2	H1	P	1010614
2	56	1.3/4	7/16	0.141	0.110	3/16	3	H1	B	1010612
2	56	1.3/4	7/16	0.141	0.110	3/16	3	H1	P	1010610
2	56	1.3/4	7/16	0.141	0.110	3/16	3	H1	T	1010608
2	56	1.3/4	7/16	0.141	0.110	3/16	2	H2	B	1010617
2	56	1.3/4	7/16	0.141	0.110	3/16	2	H2	P	1010615
2	56	1.3/4	7/16	0.141	0.110	3/16	3	H2	B	1010613
2	56	1.3/4	7/16	0.141	0.110	3/16	3	H2	P	1010611
2	56	1.3/4	7/16	0.141	0.110	3/16	3	H2	T	1010609
3	48	1.13/16	1/2	0.141	0.110	3/16	3	H1	P	1010626
3	48	1.13/16	1/2	0.141	0.110	3/16	2	H2	P	1010631
3	48	1.13/16	1/2	0.141	0.110	3/16	3	H2	B	1010629
3	48	1.13/16	1/2	0.141	0.110	3/16	3	H2	P	1010627
3	48	1.13/16	1/2	0.141	0.110	3/16	3	H2	T	1010625
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H1	P	1010649
4	40	1.7/8	9/16	0.141	0.110	3/16	3	H1	B	1010647
4	40	1.7/8	9/16	0.141	0.110	3/16	3	H1	P	1010645
4	40	1.7/8	9/16	0.141	0.110	3/16	3	H1	T	1010643
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	B	1010652
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	P	1010650
4	40	1.7/8	9/16	0.141	0.110	3/16	3	H2	B	1010648
4	40	1.7/8	9/16	0.141	0.110	3/16	3	H2	P	1010646
4	40	1.7/8	9/16	0.141	0.110	3/16	3	H2	T	1010644
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1010666
5	40	1.15/16	5/8	0.141	0.110	3/16	3	H2	T	1010660
5	40	1.15/16	5/8	0.141	0.110	3/16	3	H2	B	1010664
5	40	1.15/16	5/8	0.141	0.110	3/16	3	H2	P	1010662
6	32	2"	11/16	0.141	0.110	3/16	2	H1	P	1010684
6	32	2"	11/16	0.141	0.110	3/16	3	H1	B	1010681
6	32	2"	11/16	0.141	0.110	3/16	3	H1	P	1010678
6	32	2"	11/16	0.141	0.110	3/16	3	H1	T	1010675
6	32	2"	11/16	0.141	0.110	3/16	2	H2	B	1010688
6	32	2"	11/16	0.141	0.110	3/16	2	H2	P	1010685
6	32	2"	11/16	0.141	0.110	3/16	3	H2	B	1010682
6	32	2"	11/16	0.141	0.110	3/16	3	H2	P	1010679
6	32	2"	11/16	0.141	0.110	3/16	3	H2	T	1010676

1528(UNC)

- Hand Tap
- Machine Screw Sizes
- For use in a wide variety of materials and appropriate in either through or blind hole applications

Tarauds à main

- Machos de mano

UNC	TPI	I ₁ Inch	I ₂ Inch	d ₂ Ø Inch /	□ a Inch	I ₃ Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
6	32	2"	11/16	0.141	0.110	3/16	2	H3	B	1010689
6	32	2"	11/16	0.141	0.110	3/16	2	H3	P	1010686
6	32	2"	11/16	0.141	0.110	3/16	3	H3	B	1010683
6	32	2"	11/16	0.141	0.110	3/16	3	H3	P	1010680
6	32	2"	11/16	0.141	0.110	3/16	3	H3	T	1010677
8	32	2.1/8	3/4	0.168	0.131	1/4	4	H1	P	1010699
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H2	B	1010709
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H2	P	1010706
8	32	2.1/8	3/4	0.168	0.131	1/4	3	H2	B	1010715
8	32	2.1/8	3/4	0.168	0.131	1/4	3	H2	P	1010712
8	32	2.1/8	3/4	0.168	0.131	1/4	4	H2	B	1010703
8	32	2.1/8	3/4	0.168	0.131	1/4	4	H2	P	1010700
8	32	2.1/8	3/4	0.168	0.131	1/4	4	H2	T	1010697
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	B	1010710
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	P	1010707
8	32	2.1/8	3/4	0.168	0.131	1/4	3	H3	B	1010716
8	32	2.1/8	3/4	0.168	0.131	1/4	3	H3	P	1010713
8	32	2.1/8	3/4	0.168	0.131	1/4	4	H3	B	1010704
8	32	2.1/8	3/4	0.168	0.131	1/4	4	H3	P	1010701
8	32	2.1/8	3/4	0.168	0.131	1/4	4	H3	T	1010698
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H1	P	1010738
10	24	2.3/8	7/8	0.194	0.152	1/4	4	H1	P	1010726
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H2	B	1010736
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H2	P	1010733
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H2	P	1010739
10	24	2.3/8	7/8	0.194	0.152	1/4	4	H2	B	1010730
10	24	2.3/8	7/8	0.194	0.152	1/4	4	H2	P	1010727
10	24	2.3/8	7/8	0.194	0.152	1/4	4	H2	T	1010724
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	B	1010737
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	P	1010734
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H3	B	1010743
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H3	P	1010740
10	24	2.3/8	7/8	0.194	0.152	1/4	4	H3	B	1010731
10	24	2.3/8	7/8	0.194	0.152	1/4	4	H3	P	1010728
10	24	2.3/8	7/8	0.194	0.152	1/4	4	H3	T	1010725
12	24	2.3/8	15/16	0.220	0.165	9/32	4	H3	B	1010768
12	24	2.3/8	15/16	0.220	0.165	9/32	4	H3	P	1010767
12	24	2.3/8	15/16	0.220	0.165	9/32	4	H3	T	1010765

Straight
Flute
Taps

1528(UNF)

		I_1	I_2	d_2	$\square$	I_3	#	Limits	Chamfer	EDP # or e-Code
UNF	TPI	Inch	Inch	Inch /	a Inch	Inch	Flutes			
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H1	B	1010596
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H1	P	1010594
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H1	T	1010593
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H2	B	1010597
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H2	P	1010595
1	72	1.11/16	3/8	0.141	0.110	3/16	2	H1	B	1010606
1	72	1.11/16	3/8	0.141	0.110	3/16	2	H1	P	1010604
1	72	1.11/16	3/8	0.141	0.110	3/16	2	H1	T	1010603
1	72	1.11/16	3/8	0.141	0.110	3/16	2	H2	B	1010607
1	72	1.11/16	3/8	0.141	0.110	3/16	2	H2	P	1010605
2	64	1.3/4	7/16	0.141	0.110	3/16	3	H2	B	1010621
2	64	1.3/4	7/16	0.141	0.110	3/16	3	H2	P	1010620
2	64	1.3/4	7/16	0.141	0.110	3/16	3	H2	T	1010618
3	56	1.13/16	1/2	0.141	0.110	3/16	3	H2	B	1010637
3	56	1.13/16	1/2	0.141	0.110	3/16	3	H2	P	1010636
3	56	1.13/16	1/2	0.141	0.110	3/16	3	H2	T	1010634
4	48	1.7/8	9/16	0.141	0.110	3/16	3	H2	B	1010656
4	48	1.7/8	9/16	0.141	0.110	3/16	3	H2	P	1010655
4	48	1.7/8	9/16	0.141	0.110	3/16	3	H2	T	1010653
5	44	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1010673
5	44	1.15/16	5/8	0.141	0.110	3/16	3	H2	B	1010672
5	44	1.15/16	5/8	0.141	0.110	3/16	3	H2	P	1010671
5	44	1.15/16	5/8	0.141	0.110	3/16	3	H2	T	1010669
6	40	2"	11/16	0.141	0.110	3/16	2	H2	P	1010694
6	40	2"	11/16	0.141	0.110	3/16	3	H2	B	1010693
6	40	2"	11/16	0.141	0.110	3/16	3	H2	P	1010692
6	40	2"	11/16	0.141	0.110	3/16	3	H2	T	1010690
8	36	2.1/8	3/4	0.168	0.131	1/4	4	H2	B	1010720
8	36	2.1/8	3/4	0.168	0.131	1/4	4	H2	P	1010719
8	36	2.1/8	3/4	0.168	0.131	1/4	4	H2	T	1010717
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H1	P	1010753
10	32	2.3/8	7/8	0.194	0.152	1/4	4	H1	P	1010747
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H2	B	1010757
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H2	P	1010754
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H2	B	1010763
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H2	P	1010760
10	32	2.3/8	7/8	0.194	0.152	1/4	4	H2	B	1010751
10	32	2.3/8	7/8	0.194	0.152	1/4	4	H2	P	1010748
10	32	2.3/8	7/8	0.194	0.152	1/4	4	H2	T	1010745
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	B	1010758
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	P	1010755
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	B	1010764
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	P	1010761
10	32	2.3/8	7/8	0.194	0.152	1/4	4	H3	B	1010752
10	32	2.3/8	7/8	0.194	0.152	1/4	4	H3	P	1010749
10	32	2.3/8	7/8	0.194	0.152	1/4	4	H3	T	1010746
12	28	2.3/8	15/16	0.220	0.165	9/32	4	H3	B	1010772
12	28	2.3/8	15/16	0.220	0.165	9/32	4	H3	P	1010771
12	28	2.3/8	15/16	0.220	0.165	9/32	4	H3	T	1010769

1528(UNS)

		I_1	I_2	d_2	$\square$	I_3	#	Limits	Chamfer	EDP # or e-Code
UNS	TPI	Inch	Inch	Inch /	a Inch	Inch	Flutes			
4	36	1.7/8	9/16	0.141	0.110	3/16	3	H2	B	1010642
4	36	1.7/8	9/16	0.141	0.110	3/16	3	H2	P	1010641
4	36	1.7/8	9/16	0.141	0.110	3/16	3	H2	T	1010640

1528S(UNC)

**UNION
BUTTERFIELD**

- Hand Tap, Set of 3 pcs
- Set includes taper, plug, and bottoming tap

- Tarauds à main - Jeu de 3

- Machos de mano, Juego de 3 piezas



UNC	TPI	l_1 Inch	l_2 Inch	l_3 Inch	d_2 Ø Inch	$\square$ a Inch	# Flutes	Limits	EDP # or e-Code
1	64	1.11/16	3/8	3/16	.1410	.1100	2	H1	1011000
2	56	1.3/4	7/16	3/16	.1410	.1100	3	H2	1011003
3	48	1.13/16	1/2	3/16	.1410	.1100	3	H2	1011005
4	40	1.7/8	9/16	3/16	.1410	.1100	3	H2	1011008
5	40	1.15/16	5/8	3/16	.1410	.1100	3	H2	1011010
6	32	2"	11/16	3/16	.1410	.1100	3	H2	1011012
6	32	2"	11/16	3/16	.1410	.1100	3	H3	1011013
8	32	2.1/8	3/4	1/4	.1680	.1310	4	H2	1011016
8	32	2.1/8	3/4	1/4	.1680	.1310	4	H3	1011017
10	24	2.3/8	7/8	1/4	.1940	.1520	4	H2	1011020
10	24	2.3/8	7/8	1/4	.1940	.1520	4	H3	1011021
12	24	2.3/8	15/16	9/32	.2200	.1650	4	H3	1011025

Straight
Flute
Taps

1528S(UNF)

UNF	TPI	l_1 Inch	l_2 Inch	l_3 Inch	d_2 Ø Inch	$\square$ a Inch	# Flutes	Limits	EDP # or e-Code
0	80	1.5/8	5/16	3/16	.1410	.1100	2	H1	1010999
1	72	1.11/16	3/8	3/16	.1410	.1100	2	H1	1011001
2	64	1.3/4	7/16	3/16	.1410	.1100	3	H2	1011073
3	56	1.13/16	1/2	3/16	.1410	.1100	3	H2	1011074
4	48	1.7/8	9/16	3/16	.1410	.1100	3	H2	1011075
5	44	1.15/16	5/8	3/16	.1410	.1100	3	H2	1011076
6	40	2"	11/16	3/16	.1410	.1100	3	H2	1011014
8	36	2.1/8	3/4	1/4	.1680	.1310	4	H2	1011018
10	32	2.3/8	7/8	1/4	.1940	.1520	4	H2	1011023
10	32	2.3/8	7/8	1/4	.1940	.1520	4	H3	1011024
12	28	2.3/8	15/16	9/32	.2200	.1650	4	H3	1011026

1528S(UNS)

UNS	TPI	l_1 Inch	l_2 Inch	l_3 Inch	d_2 Ø Inch	$\square$ a Inch	# Flutes	Limits	EDP # or e-Code
4	36	1.7/8	9/16	3/16	.1410	.1100	3	H2	1011006

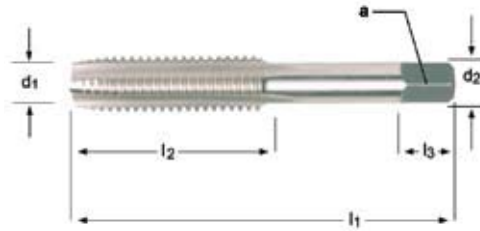
■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

1500(UNC)

- Hand Tap
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main

- Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

Straight
Flute
Taps

		l_1	l_2	d_2	$\frac{a}{\square}$	l_3	#	Limits	Chamfer	EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	a Inch	Inch	Flutes			
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H1	B	1010008
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H1	P	1010004
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H1	T	1010001
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H2	B	1010009
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H2	P	1010005
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H2	T	1010002
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H3	B	1010010
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H3	P	1010006
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H3	T	1010003
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H5	B	1010011
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H5	P	1010007
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H2	B	1010031
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H2	P	1010027
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H2	T	1010024
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	B	1010032
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1010028
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	T	1010025
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H5	B	1010033
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H5	P	1010029
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H2	B	1010053
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H2	P	1010049
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H2	T	1010046
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	B	1010054
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1010050
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	T	1010047
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H5	B	1010055
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H5	P	1010051
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H2	P	1010069
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	B	1010074
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1010070
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	T	1010067
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	B	1010075
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	P	1010071
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H2	B	1010091
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H2	P	1010087
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	B	1010092
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1010088
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	T	1010085
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	B	1010093
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	P	1010089

1500(UNC)

- Hand Tap
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main

- Machos de mano

UNC	TPI	I ₁ Inch	I ₂ Inch	d ₂ Ø Inch /	□ a Inch	I ₃ Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	B	1010108
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1010106
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	T	1010103
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H5	P	1010107
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H2	P	1010120
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	B	1010123
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1010121
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	T	1010118
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	B	1010124
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	P	1010122
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H2	P	1010141
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	B	1010144
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1010142
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	T	1010139
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H5	B	1010145
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H5	P	1010143
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	B	1010159
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	P	1010157
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	T	1010154
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	H6	P	1010158
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	H2	P	1010169
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	B	1010172
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	P	1010170
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	T	1010167
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	H6	P	1010171
1.1/8	7	5.7/16	2.9/16	0.896	0.672	7/8	4	H4	B	1010184
1.1/8	7	5.7/16	2.9/16	0.896	0.672	7/8	4	H4	P	1010183
1.1/8	7	5.7/16	2.9/16	0.896	0.672	7/8	4	H4	T	1010182
1.1/8	7	5.7/16	2.9/16	0.896	0.672	7/8	4	H9	P	1013131
1.1/4	7	5.3/4	2.9/16	1.021	0.766	1"	4	H4	B	1010190
1.1/4	7	5.3/4	2.9/16	1.021	0.766	1"	4	H4	P	1010189
1.1/4	7	5.3/4	2.9/16	1.021	0.766	1"	4	H4	T	1010188
1.1/4	7	5.3/4	2.9/16	1.021	0.766	1"	4	H9	P	1013155
1.3/8	6	6.1/16	3"	1.100	0.831	1.1/16	4	H10	P	1013180
1.3/8	6	6.1/16	3"	1.100	0.831	1.1/16	4	H4	B	1010196
1.3/8	6	6.1/16	3"	1.100	0.831	1.1/16	4	H4	P	1010195
1.3/8	6	6.1/16	3"	1.100	0.831	1.1/16	4	H4	T	1010194
1.1/2	6	6.3/8	3"	1.230	0.925	1.1/8	4	H10	P	1013204
1.1/2	6	6.3/8	3"	1.230	0.925	1.1/8	4	H4	B	1010202
1.1/2	6	6.3/8	3"	1.230	0.925	1.1/8	4	H4	P	1010201
1.1/2	6	6.3/8	3"	1.230	0.925	1.1/8	4	H4	T	1010200

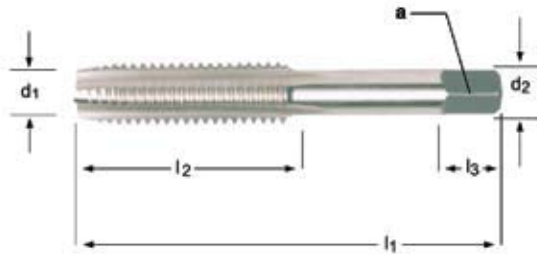
Straight
Flute
Taps

1500(UNF)

- Hand Tap
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main

- Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

Straight
Flute
Taps

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H1	B	1010019
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H1	P	1010015
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H2	B	1010020
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H2	P	1010016
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H3	B	1010021
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H3	P	1010017
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H3	T	1010014
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H4	B	1010022
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H4	P	1010018
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H1	B	1010041
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H2	B	1010042
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H2	P	1010038
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	B	1010043
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1010039
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	T	1010036
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H4	B	1010044
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H4	P	1010040
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H2	B	1010064
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H2	P	1010060
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	B	1010065
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1010061
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	T	1010058
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H4	B	1010066
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H4	P	1010062
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H2	P	1010078
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	B	1010083
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1010079
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	T	1010076
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	B	1010084
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	P	1010080
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H2	P	1010096
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	B	1010101
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1010097
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	T	1010094
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	B	1010102
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	P	1010098
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H2	P	1010112
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	B	1010116
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1010113
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	T	1010110

1500(UNF)

UNF	TPI	I ₁ Inch	I ₂ Inch	d ₂ Ø Inch /	□ a Inch	I ₃ Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H5	B	1010117
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H5	P	1010114
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H2	P	1010127
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	B	1010131
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1010128
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	T	1010125
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	B	1010132
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	P	1010129
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H2	P	1010148
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	B	1010152
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1010149
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	T	1010146
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H5	B	1010153
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H5	P	1010150
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	H2	P	1010162
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	B	1010166
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	P	1010163
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	T	1010160
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	H6	P	1010164
1"	12	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	B	1010175
1"	12	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	P	1010174
1"	12	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	T	1010173
1"	12	5.1/8	2.1/2	0.800	0.600	13/16	4	H7	P	1013105
1.1/8	12	5.7/16	2.9/16	0.896	0.672	7/8	4	H4	B	1010187
1.1/8	12	5.7/16	2.9/16	0.896	0.672	7/8	4	H4	P	1010186
1.1/8	12	5.7/16	2.9/16	0.896	0.672	7/8	4	H4	T	1010185
1.1/8	12	5.7/16	2.9/16	0.896	0.672	7/8	4	H7	P	1013141
1.1/4	12	5.3/4	2.9/16	1.021	0.766	1"	6	H4	B	1010193
1.1/4	12	5.3/4	2.9/16	1.021	0.766	1"	6	H4	P	1010192
1.1/4	12	5.3/4	2.9/16	1.021	0.766	1"	6	H4	T	1010191
1.1/4	12	5.3/4	2.9/16	1.021	0.766	1"	4	H8	P	1013166
1.3/8	12	6.1/16	3"	1.100	0.831	1.1/16	6	H4	B	1010199
1.3/8	12	6.1/16	3"	1.100	0.831	1.1/16	6	H4	P	1010198
1.3/8	12	6.1/16	3"	1.100	0.831	1.1/16	6	H4	T	1010197
1.3/8	12	6.1/16	3"	1.100	0.831	1.1/16	4	H8	P	1013190
1.1/2	12	6.3/8	3"	1.230	0.925	1.1/8	6	H4	B	1010205
1.1/2	12	6.3/8	3"	1.230	0.925	1.1/8	6	H4	P	1010204
1.1/2	12	6.3/8	3"	1.230	0.925	1.1/8	6	H4	T	1010203
1.1/2	12	6.3/8	3"	1.230	0.925	1.1/8	6	H8	P	1013214

Straight
Flute
Taps

1500(UNS)

UNS	TPI	I ₁ Inch	I ₂ Inch	d ₂ Ø Inch /	□ a Inch	I ₃ Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
11/16	11	4.1/32	1.13/16	0.542	0.406	5/8	4	H3	T	1010133
11/16	11	4.1/32	1.13/16	0.542	0.406	5/8	4	H3	P	1010134
11/16	11	4.1/32	1.13/16	0.542	0.406	5/8	4	H3	B	1010135
11/16	16	4.1/32	1.13/16	0.542	0.406	5/8	4	H3	T	1010136
11/16	16	4.1/32	1.13/16	0.542	0.406	5/8	4	H3	P	1010137
11/16	16	4.1/32	1.13/16	0.542	0.406	5/8	4	H3	B	1010138
1"	14	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	B	1010181
1"	14	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	P	1010178
1"	14	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	T	1010176

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

1500S(UNC)

- Hand Tap, Set of 3 pcs
- Set includes taper, plug, and bottoming tap

- Tarauds à main - Jeu de 3

- Machos de mano, Juego de 3 piezas



Straight
Flute
Taps

		I ₁	I ₂	I ₃	d ₂ Ø	☐ a	# Flutes	Limits	EDP # or e-Code
UNC	TPI	Inch	Inch	Inch	Inch	Inch			
1/4	20	2.1/2	1"	5/16	0.2550	0.1910	4	H3	1011029
5/16	18	2.23/32	1.1/8	3/8	0.3180	0.2380	4	H3	1011035
3/8	16	2.15/16	1.1/4	7/16	0.3810	0.2860	4	H3	1011041
7/16	14	3.5/32	1.7/16	13/32	0.3230	0.2420	4	H3	1011045
1/2	13	3.3/8	1.21/32	7/16	0.3670	0.2750	4	H3	1011047
9/16	12	3.19/32	1.21/32	1/2	0.4290	0.3220	4	H3	1011049
5/8	11	3.13/16	1.13/16	9/16	0.4800	0.3600	4	H3	1011051
3/4	10	4.1/4	2"	11/16	0.5900	0.4420	4	H3	1011055
7/8	9	4.11/16	2.7/32	3/4	0.6970	0.5230	4	H4	1011057
1"	8	5.1/8	2.1/2	13/16	0.8000	0.6000	4	H4	1011059
1.1/8	7	5.7/16	2.9/16	7/8	0.8960	0.6720	4	H4	1011062
1.1/4	7	5.3/4	2.9/16	1"	1.0210	0.7660	4	H4	1011064
1.3/8	6	6.1/16	3"	1.1/16	1.1000	0.8310	4	H4	1011066
1.1/2	6	6.3/8	3"	1.1/8	1.2300	0.9250	4	H4	1011068

1500S(UNF)

		I ₁	I ₂	I ₃	d ₂ Ø	☐ a	# Flutes	Limits	EDP # or e-Code
UNF	TPI	Inch	Inch	Inch	Inch	Inch			
1/4	28	2.1/2	1"	5/16	0.2550	0.1910	4	H3	1011032
5/16	24	2.23/32	1.1/8	3/8	0.3180	0.2380	4	H3	1011038
3/8	24	2.15/16	1.1/4	7/16	0.3810	0.2860	4	H3	1011044
7/16	20	3.5/32	1.7/16	13/32	0.3230	0.2420	4	H3	1011046
1/2	20	3.3/8	1.21/32	7/16	0.3670	0.2750	4	H3	1011048
9/16	18	3.19/32	1.21/32	1/2	0.4290	0.3220	4	H3	1011050
5/8	18	3.13/16	1.13/16	9/16	0.4800	0.3600	4	H3	1011052
3/4	16	4.1/4	2"	11/16	0.5900	0.4420	4	H3	1011056
7/8	14	4.11/16	2.7/32	3/4	0.6970	0.5230	4	H4	1011058
1"	12	5.1/8	2.1/2	13/16	0.8000	0.6000	4	H4	1011060
1.1/8	12	5.7/16	2.9/16	7/8	0.8960	0.6720	4	H4	1011063
1.1/4	12	5.3/4	2.9/16	1"	1.0210	0.7660	6	H4	1011065
1.3/8	12	6.1/16	3"	1.1/16	1.1000	0.8310	6	H4	1011067
1.1/2	12	6.3/8	3"	1.1/8	1.2300	0.9250	6	H4	1011069

1500S(UNS)

		I ₁	I ₂	I ₃	d ₂ Ø	☐ a	# Flutes	Limits	EDP # or e-Code
UNS	TPI	Inch	Inch	Inch	Inch	Inch			
11/16	11	4.1/32	1.13/16	5/8	0.5420	0.4060	4	H3	1011053
11/16	16	4.1/32	1.13/16	5/8	0.5420	0.4060	4	H3	1011054
1"	14	5.1/8	2.1/2	13/16	0.8000	0.6000	4	H4	1011061

1700(M)

- Hand Tap
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main

- Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

M	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
M1.6	0.35	1.5/8	5/16	0.141	0.110	3/16	2	D3	T	1012408
M1.6	0.35	1.5/8	5/16	0.141	0.110	3/16	2	D3	P	1012409
M1.6	0.35	1.5/8	5/16	0.141	0.110	3/16	2	D3	B	1012410
M1.8	0.35	1.11/16	3/8	0.141	0.110	3/16	2	D3	T	1012411
M1.8	0.35	1.11/16	3/8	0.141	0.110	3/16	2	D3	P	1012412
M1.8	0.35	1.11/16	3/8	0.141	0.110	3/16	2	D3	B	1012413
M2	0.40	1.3/4	7/16	0.141	0.110	3/16	3	D3	T	1012414
M2	0.40	1.3/4	7/16	0.141	0.110	3/16	3	D3	P	1012415
M2	0.40	1.3/4	7/16	0.141	0.110	3/16	3	D3	B	1012416
M2.3	0.45	1.3/4	7/16	0.141	0.110	3/16	3	D3	P	1012421
M2.3	0.45	1.3/4	7/16	0.141	0.110	3/16	3	D3	B	1012422
M2.5	0.45	1.13/16	1/2	0.141	0.110	3/16	3	D3	T	1012423
M2.5	0.45	1.13/16	1/2	0.141	0.110	3/16	3	D3	P	1012424
M2.5	0.45	1.13/16	1/2	0.141	0.110	3/16	3	D3	B	1012425
M2.6	0.45	1.13/16	1/2	0.141	0.110	3/16	3	D3	T	1012426
M2.6	0.45	1.13/16	1/2	0.141	0.110	3/16	3	D3	P	1012427
M2.6	0.45	1.13/16	1/2	0.141	0.110	3/16	3	D3	B	1012428
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	3	D3	T	1012432
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	3	D3	P	1012433
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	3	D3	B	1012434
M3.5	0.60	2"	11/16	0.141	0.110	3/16	3	D4	T	1012435
M3.5	0.60	2"	11/16	0.141	0.110	3/16	3	D4	P	1012436
M3.5	0.60	2"	11/16	0.141	0.110	3/16	3	D4	B	1012437
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	4	D4	T	1012441
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	4	D4	P	1012442
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	4	D4	B	1012443
M4.5	0.75	2.3/8	7/8	0.194	0.152	1/4	4	D4	T	1012444
M4.5	0.75	2.3/8	7/8	0.194	0.152	1/4	4	D4	P	1012445
M4.5	0.75	2.3/8	7/8	0.194	0.152	1/4	4	D4	B	1012446
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	4	D4	T	1012453
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	4	D4	P	1012454
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	4	D4	B	1012455
M6	1.00	2.1/2	1"	0.255	0.191	5/16	4	D5	T	1012459
M6	1.00	2.1/2	1"	0.255	0.191	5/16	4	D5	P	1012460
M6	1.00	2.1/2	1"	0.255	0.191	5/16	4	D5	B	1012461
M7	1.00	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	T	1012465
M7	1.00	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	P	1012466
M7	1.00	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	B	1012467

Straight
Flute
Taps

1700(M)

Straight
Flute
Taps

M	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\frac{1}{4}$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
M8	1.00	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	T	1012468
M8	1.00	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	P	1012469
M8	1.00	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	B	1012470
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	T	1012471
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	P	1012472
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	B	1012473
M9	1.25	2.15/16	1.1/4	0.381	0.286	7/16	4	D5	P	1012478
M9	1.25	2.15/16	1.1/4	0.381	0.286	7/16	4	D5	B	1012479
M10	1.25	2.15/16	1.1/4	0.381	0.286	7/16	4	D5	T	1012480
M10	1.25	2.15/16	1.1/4	0.381	0.286	7/16	4	D5	P	1012481
M10	1.25	2.15/16	1.1/4	0.381	0.286	7/16	4	D5	B	1012482
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	4	D6	T	1012483
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	4	D6	P	1012484
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	4	D6	B	1012485
M11	1.50	3.5/32	1.7/16	0.323	0.242	13/32	4	D6	P	1012493
M11	1.50	3.5/32	1.7/16	0.323	0.242	13/32	4	D6	B	1012494
M12	1.25	3.3/8	1.21/32	0.367	0.275	7/16	4	D5	T	1012498
M12	1.25	3.3/8	1.21/32	0.367	0.275	7/16	4	D5	P	1012499
M12	1.25	3.3/8	1.21/32	0.367	0.275	7/16	4	D5	B	1012500
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	4	D6	T	1012495
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	4	D6	P	1012496
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	4	D6	B	1012497
M14	1.50	3.19/32	1.21/32	0.429	0.322	1/2	4	D6	T	1012501
M14	1.50	3.19/32	1.21/32	0.429	0.322	1/2	4	D6	P	1012502
M14	1.50	3.19/32	1.21/32	0.429	0.322	1/2	4	D6	B	1012503
M14	2.00	3.19/32	1.21/32	0.429	0.322	1/2	4	D7	T	1012504
M14	2.00	3.19/32	1.21/32	0.429	0.322	1/2	4	D7	P	1012505
M14	2.00	3.19/32	1.21/32	0.429	0.322	1/2	4	D7	B	1012506
M16	1.50	3.13/16	1.13/16	0.480	0.360	9/16	4	D6	T	1012513
M16	1.50	3.13/16	1.13/16	0.480	0.360	9/16	4	D6	P	1012514
M16	1.50	3.13/16	1.13/16	0.480	0.360	9/16	4	D6	B	1012515
M16	2.00	3.13/16	1.13/16	0.480	0.360	9/16	4	D7	T	1012516
M16	2.00	3.13/16	1.13/16	0.480	0.360	9/16	4	D7	P	1012517
M16	2.00	3.13/16	1.13/16	0.480	0.360	9/16	4	D7	B	1012518
M18	1.50	4.1/32	1.13/16	0.542	0.406	5/8	4	D6	T	1012522
M18	1.50	4.1/32	1.13/16	0.542	0.406	5/8	4	D6	P	1012523
M18	1.50	4.1/32	1.13/16	0.542	0.406	5/8	4	D6	B	1012524
M18	2.50	4.1/32	1.13/16	0.542	0.406	5/8	4	D7	T	1012525
M18	2.50	4.1/32	1.13/16	0.542	0.406	5/8	4	D7	P	1012526
M18	2.50	4.1/32	1.13/16	0.542	0.406	5/8	4	D7	B	1012527
M20	1.50	4.15/32	2"	0.652	0.489	11/16	4	D6	T	1012534
M20	1.50	4.15/32	2"	0.652	0.489	11/16	4	D6	P	1012535
M20	1.50	4.15/32	2"	0.652	0.489	11/16	4	D6	B	1012536
M20	2.50	4.15/32	2"	0.652	0.489	11/16	4	D7	T	1012537
M20	2.50	4.15/32	2"	0.652	0.489	11/16	4	D7	P	1012538
M20	2.50	4.15/32	2"	0.652	0.489	11/16	4	D7	B	1012539
M22	1.50	4.11/16	2.7/32	0.697	0.523	3/4	4	D6	T	1012540
M22	1.50	4.11/16	2.7/32	0.697	0.523	3/4	4	D6	P	1012541
M22	1.50	4.11/16	2.7/32	0.697	0.523	3/4	4	D6	B	1012542
M22	2.50	4.11/16	2.7/32	0.697	0.523	3/4	4	D7	T	1012543
M22	2.50	4.11/16	2.7/32	0.697	0.523	3/4	4	D7	P	1012544
M22	2.50	4.11/16	2.7/32	0.697	0.523	3/4	4	D7	B	1012545
M24	2.00	4.29/32	2.7/32	0.760	0.570	3/4	4	D7	T	1012546
M24	2.00	4.29/32	2.7/32	0.760	0.570	3/4	4	D7	P	1012547
M24	2.00	4.29/32	2.7/32	0.760	0.570	3/4	4	D7	B	1012548
M24	3.00	4.29/32	2.7/32	0.760	0.570	3/4	4	D8	T	1012555
M24	3.00	4.29/32	2.7/32	0.760	0.570	3/4	4	D8	P	1012556
M24	3.00	4.29/32	2.7/32	0.760	0.570	3/4	4	D8	B	1012557

1700(M)

M	P mm	I ₁ Inch	I ₂ Inch	d ₂ Ø Inch /	▣ a Inch	I ₃ Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
M30	3.50	5.7/16	2.9/16	1.021	0.766	1"	4	D9	T	1012570
M30	3.50	5.7/16	2.9/16	1.021	0.766	1"	4	D9	P	1012571
M30	3.50	5.7/16	2.9/16	1.021	0.766	1"	4	D9	B	1012572
M36	4.00	6.1/16	3"	1.233	0.925	1.1/8	4	D9	T	1012573
M36	4.00	6.1/16	3"	1.233	0.925	1.1/8	4	D9	P	1012574
M36	4.00	6.1/16	3"	1.233	0.925	1.1/8	4	D9	B	1012575

1700S

- Hand Tap, Set of 3 pcs
- Tarauds à main - Jeu de 3
- Machos de mano, Juego de 3 piezas



Straight
Flute
Taps

1700S



M	P mm	I ₁ Inch	I ₂ Inch	I ₃ Inch	d ₂ Ø Inch	▣ a Inch	# Flutes	Limits	EDP # or e-Code
2	0.40	1.3/4	7/16	3/16	.1410	.1100	3	D3	1012558
2.5	0.45	1.13/16	1/2	3/16	.1410	.1100	3	D3	1012560
2.6	0.45	1.13/16	1/2	3/16	.1410	.1100	3	D3	1012559
3	0.50	1.5/16	5/8	3/16	.1410	.1100	3	D4	1012561
3.5	0.60	2"	11/16	3/16	.1410	.1100	4	D4	1012562
4	0.70	2.1/8	3/4	1/47	0.1680	0.1310	4	D4	1012563
5	0.80	2.3/8	7/8	1/4	0.1940	0.1520	4	D4	1012564
6	1.00	2.1/2	1"	5/16	0.2550	0.1910	4	D5	1012565
7	1.00	2.23/32	1.1/8	3/8	0.3180	0.2380	4	D5	1012576
8	1.00	2.23/32	1.1/8	3/8	0.3180	0.2380	4	D5	1012577
8	1.25	2.23/32	1.1/8	3/8	0.3180	0.2380	4	D5	1012566
10	1.25	2.15/16	1.1/4	7/16	0.3810	0.2860	4	D5	1012578
10	1.50	2.15/16	1.1/4	7/16	0.3810	0.2860	4	D6	1012567
12	1.25	3.3/8	1.21/32	7/16	0.3670	0.2750	4	D5	1012579
12	1.75	3.3/8	1.21/32	7/16	0.3670	0.2750	4	D6	1012568
14	2.00	3.19/32	1.21/32	1/2	0.4290	0.3220	4	D7	1012580
16	2.00	3.13/16	1.13/16	9/16	0.4800	0.3600	4	D7	1012581
18	2.50	4.1/32	1.13/16	5/8	0.5420	0.4060	4	D7	1012582
20	2.50	4.15/32	2"	11/16	0.6520	0.4890	4	D7	1012583

1500A(UNC) - (UNF)

- Hand Tap
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main

- Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1.000	0.255	0.191	5/16	4	H3	P	1050006
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1050028
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1050050
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1050070
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1050088
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1050106
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1050121
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1050142
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	P	1050157
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	P	1050170



1500A(UNF)



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

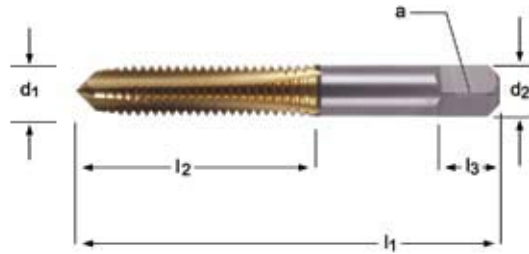
UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1.000	0.255	0.191	5/16	4	H3	B	1050021
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1050039
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1050061
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1050079
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1050097
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1050113
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1050128
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1050149
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	P	1050163

TN1500(UNC) - (UNF)

- Hand Tap
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main

- Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

		l_1	l_2	d_2 Ø	$\square$ a	l_3	# Flutes	Limits	Chamfer	EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	Inch	Inch				
1/4	20	2.1/2	1.000	0.255	0.191	5/16	4	H3	P	1060006
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1060028
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1060050
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1060070
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1060088
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	B	1060092
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1060121
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	B	1060123
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	B	1060144
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	P	1060157

Straight
Flute
Taps

TN1500(UNF)



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

		l_1	l_2	d_2 Ø	$\square$ a	l_3	# Flutes	Limits	Chamfer	EDP # or e-Code
UNF	TPI	Inch	Inch	Inch /	Inch	Inch				
1/4	28	2.1/2	1.000	0.255	0.191	5/16	4	H3	P	1060017
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1060039
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1060061
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1060079
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1060097
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	B	1060131
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	B	1060152

1500L(UNC)

- Hand Tap
- Left Hand
- For use in a wide variety of materials and appropriate in either through or blind hole applications

• Tarauds à main

• Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H3	P	1011772
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1011778
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1011784
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1011790
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1011796
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1011802
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1011808
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1011820
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	P	1011826
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	P	1011832

1500L(UNF)



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H3	P	1011775
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1011781
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1011787
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1011793
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1011799
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1011805
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1011811
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1011823
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	H4	P	1011829
1"	12	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	P	1011835

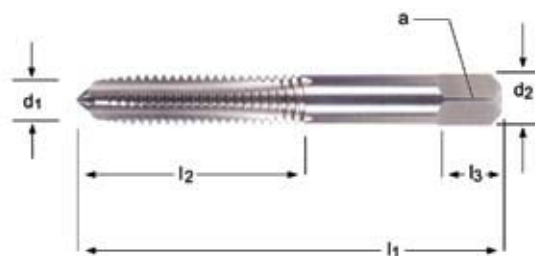
1500L(UNS)

**UNION
BUTTERFIELD**

- Hand Tap
- Left Hand
- For use in a wide variety of materials and appropriate in either through or blind hole applications

• Tarauds à main

• Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

UNS	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1"	14	5.1/8	2.1/2	0.800	0.600	13/16	4	H4	P	1011838

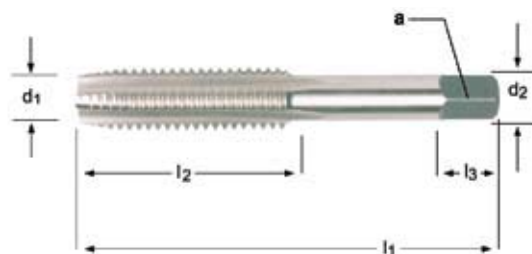
1500OV(UNC)

Straight
Flute
Taps

- Hand Tap, .005" Oversize
- For use in a wide variety of materials and appropriate in either through or blind hole applications

• Tarauds à main

• Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

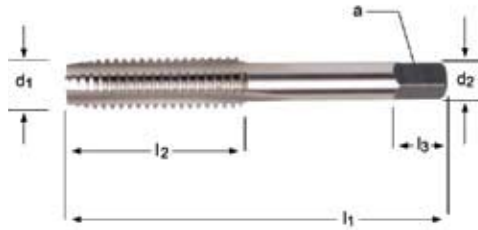
UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1.000	0.255	0.191	5/16	4	H11	P	1011748
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H11	P	1011749
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H11	P	1011750
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H11	P	1011751
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H11	P	1011752
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H11	P	1011753

1508(UNC)

- Hand Tap
- Optional Flutes
- For use in a wide variety of materials and appropriate in either through or blind hole applications

• Tarauds à main

• Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

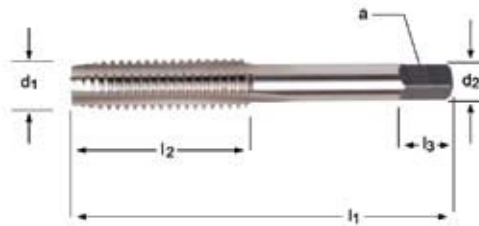
UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	B	1010219
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010216
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010233
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010230
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	B	1010243
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010240
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010248
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	B	1010253
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010252

1508(UNF)

- Hand Tap
- Optional Flutes
- For use in a wide variety of materials and appropriate in either through or blind hole applications

• Tarauds à main

• Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4 8.1 8.2

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H3	B	1010226
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010223
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010237
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010236
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010250
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010254
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	B	1010247
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010246

**UNION
BUTTERFIELD**

- Machos de mano



- Machos de mano

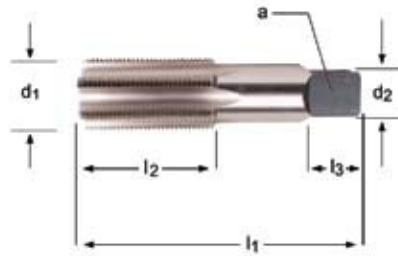


1505(UNC)

- Hand Tap, Eight-Pitch
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main, Eight-Pitch

- Machos de mano, Eight-Pitch



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
2.3/4	8	9.1/4	4"	2.350	1.762	1.9/16	6	H8	B	1013351
2.3/4	8	9.1/4	4"	2.350	1.762	1.9/16	6	H8	P	1013350
2.3/4	8	9.1/4	4"	2.350	1.762	1.9/16	6	H8	T	1013349
2.7/8	8	9.1/4	4"	2.475	1.856	1.9/16	6	H8	B	1013354
2.7/8	8	9.1/4	4"	2.475	1.856	1.9/16	6	H8	P	1013353
2.7/8	8	9.1/4	4"	2.475	1.856	1.9/16	6	H8	T	1013352
3"	8	9.3/4	4.9/16	2.668	2.001	1.5/8	6	H8	B	1013357
3"	8	9.3/4	4.9/16	2.668	2.001	1.5/8	6	H8	P	1013356
3"	8	9.3/4	4.9/16	2.668	2.001	1.5/8	6	H8	T	1013355

Straight
Flute
Taps

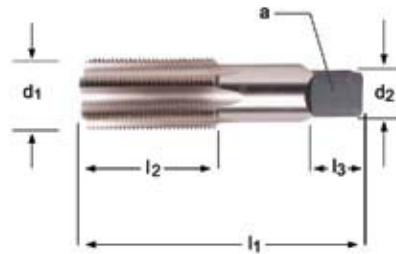
1505(UNS)

**UNION
BUTTERFIELD**

- Hand Tap, Eight-Pitch
- For use in a wide variety of materials and appropriate in either through or blind hole applications

- Tarauds à main, Eight-Pitch

- Machos de mano, Eight-Pitch



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

UNS	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1.1/8	8	5.7/16	2.9/16	0.896	0.672	7/8	4	H5	B	1013312
1.1/8	8	5.7/16	2.9/16	0.896	0.672	7/8	4	H5	P	1013311
1.1/8	8	5.7/16	2.9/16	0.896	0.672	7/8	4	H5	T	1013310
1.1/4	8	5.3/4	2.9/16	1.021	0.766	1"	4	H5	B	1013315
1.1/4	8	5.3/4	2.9/16	1.021	0.766	1"	4	H5	P	1013314
1.1/4	8	5.3/4	2.9/16	1.021	0.766	1"	4	H5	T	1013313
1.3/8	8	6.1/16	3"	1.108	0.831	1.1/16	4	H5	B	1013318
1.3/8	8	6.1/16	3"	1.108	0.831	1.1/16	4	H5	P	1013317
1.3/8	8	6.1/16	3"	1.108	0.831	1.1/16	4	H5	T	1013316
1.1/2	8	6.3/8	3"	1.233	0.925	1.1/8	6	H5	B	1013321
1.1/2	8	6.3/8	3"	1.233	0.925	1.1/8	6	H5	P	1013320
1.1/2	8	6.3/8	3"	1.233	0.925	1.1/8	6	H5	T	1013319
1.5/8	8	6.11/16	3.3/16	1.305	0.978	1.1/8	6	H6	B	1013324
1.5/8	8	6.11/16	3.3/16	1.305	0.978	1.1/8	6	H6	P	1013323
1.5/8	8	6.11/16	3.3/16	1.305	0.978	1.1/8	6	H6	T	1013322
1.3/4	8	7"	3.3/16	1.430	1.072	1.1/4	6	H6	B	1013327
1.3/4	8	7"	3.3/16	1.430	1.072	1.1/4	6	H6	P	1013326
1.3/4	8	7"	3.3/16	1.430	1.072	1.1/4	6	H6	T	1013325
1.7/8	8	7.5/16	3.9/16	1.519	1.139	1.1/4	6	H6	B	1013330
1.7/8	8	7.5/16	3.9/16	1.519	1.139	1.1/4	6	H6	P	1013329
1.7/8	8	7.5/16	3.9/16	1.519	1.139	1.1/4	6	H6	T	1013328
2"	8	7.5/8	3.9/16	1.644	1.233	1.3/8	6	H6	B	1013333
2"	8	7.5/8	3.9/16	1.644	1.233	1.3/8	6	H6	P	1013332
2"	8	7.5/8	3.9/16	1.644	1.233	1.3/8	6	H6	T	1013331
2.1/8	8	8"	3.9/16	1.769	1.327	1.3/8	6	H6	B	1013336
2.1/8	8	8"	3.9/16	1.769	1.327	1.3/8	6	H6	P	1013335
2.1/8	8	8"	3.9/16	1.769	1.327	1.3/8	6	H6	T	1013334
2.1/4	8	8.1/4	3.9/16	1.894	1.420	1.7/16	6	H6	B	1013339
2.1/4	8	8.1/4	3.9/16	1.894	1.420	1.7/16	6	H6	P	1013338
2.1/4	8	8.1/4	3.9/16	1.894	1.420	1.7/16	6	H6	T	1013337
2.3/8	8	8.1/2	4"	2.019	1.514	1.7/16	6	H6	B	1013342
2.3/8	8	8.1/2	4"	2.019	1.514	1.7/16	6	H6	P	1013341
2.3/8	8	8.1/2	4"	2.019	1.514	1.7/16	6	H6	T	1013340
2.1/2	8	8.3/4	4"	2.100	1.575	1.1/2	6	H6	B	1013345
2.1/2	8	8.3/4	4"	2.100	1.575	1.1/2	6	H6	P	1013344
2.1/2	8	8.3/4	4"	2.100	1.575	1.1/2	6	H6	T	1013343
2.5/8	8	8.3/4	4"	2.225	1.669	1.1/2	6	H8	B	1013348
2.5/8	8	8.3/4	4"	2.225	1.669	1.1/2	6	H8	P	1013347

Straight
Flute
Taps

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

1505(UNS)

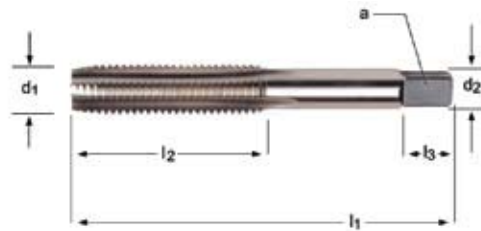
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UNS	TPI	Inch	Inch	Inch /	Inch	Inch	Flutes			
2.5/8	8	8.3/4	4"	2.225	1.669	1.1/2	6	H8	P	1013347
2.5/8	8	8.3/4	4"	2.225	1.669	1.1/2	6	H8	T	1013346

1572(UNC)

- Hand Tap
- Screw Thread Insert
- STI Taps are oversized so that the thread they produce will accept a helical coil wire screw thread insert of the same nominal size and pitch
- For use in aluminum, magnesium, and non-ferrous materials

- Tarauds à main

- Machos de mano



Straight
Flute
Taps



- 6.1 6.2 6.3 7.1 7.2 7.3
- 1.1 1.2 1.3 1.4 2.1 2.2 7.4

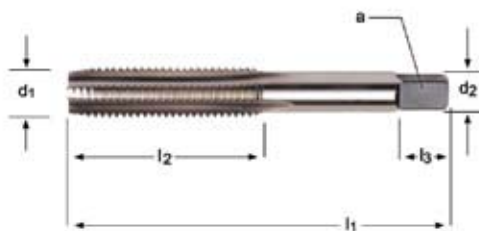
		l_1	l_2	d_2 Ø	$\square$ a	l_3	#	Limits	Chamfer	EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	Inch	Inch	Flutes			
4	40	2"	11/16	0.141	0.110	3/16	3	H2	P	1010419
4	40	2"	11/16	0.141	0.110	3/16	3	H2	B	1010421
6	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	P	1010427
6	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	B	1010429
8	32	2.3/8	15/16	0.220	0.165	9/32	3	H3	P	1010435
8	32	2.3/8	15/16	0.220	0.165	9/32	3	H3	B	1010437
10	24	2.1/2	1"	0.255	0.191	5/16	3	H2	P	1010438
10	24	2.1/2	1"	0.255	0.191	5/16	3	H2	B	1010440
1/4	20	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010451
1/4	20	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010453
5/16	18	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1010458
5/16	18	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	B	1010460
3/8	16	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1010466
3/8	16	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	B	1010468
7/16	14	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1010474
1/2	13	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1010482

1572(UNF)

- Hand Tap
- Screw Thread Insert
- STI Taps are oversized so that the thread they produce will accept a helical coil wire screw thread insert of the same nominal size and pitch
- For use in aluminum, magnesium, and non-ferrous materials

• Tarauds à main

• Machos de mano



- 6.1 6.2 6.3 7.1 7.2 7.3
- 1.1 1.2 1.3 1.4 2.1 2.2 7.4

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
10	32	2.1/2	1"	0.255	0.191	5/16	3	H2	P	1010442
10	32	2.1/2	1"	0.255	0.191	5/16	3	H2	B	1010444
10	32	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010443
10	32	2.1/2	1"	0.255	0.191	5/16	3	H3	B	1010445
1/4	28	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010454
1/4	28	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010456
7/16	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1010478
1/2	20	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1010486

Straight
Flute
Taps

U1511

- Hand Tap
- Nut Style
- For use in medium to low carbon steel, bronze, aluminum, and brass
- Taps have a relatively long shank smaller than the minor diameter to permit the accumulation of several nuts after tapping

• Tarauds à main

• Machos de mano



U1511



- 1.1 1.2 1.3 1.4 1.5 3.1 3.2 3.3 6.2 6.3 7.2 7.3 8.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	5"	1.5/8	0.185	0.139	9/16	4	H3	T	1010375
5/16	18	5.1/2	1.13/16	0.240	0.180	5/8	4	H3	T	1010376
3/8	16	6"	2"	0.294	0.220	11/16	4	H3	T	1010377
1/2	13	7"	2.1/2	0.400	0.300	7/8	4	H3	T	1010378

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

1519(UNC)

- Hand Tap
- Pulley Style
- These taps have the same major and pitch diameters as standard size taps, but with extended shanks for reaching locations inaccessible to regular length hand taps

• Tarauds à main

• Machos de mano



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 6.4
7.1 7.2 7.3 7.4 8.1 8.2

		l_1	l_2	d_2	a	l_3	#			EDP #
UNC	TPI	Inch	Inch	Inch /	Inch	Inch	Flutes	Limits	Chamfer	or e-Code
1/4	20	6"	1.000	0.255	0.191	5/16	4	H3	P	1010379
1/4	20	8"	1.000	0.255	0.191	5/16	4	H3	P	1010380
5/16	18	6"	1.1/8	0.318	0.238	3/8	4	H3	P	1010381
5/16	18	8"	1.1/8	0.318	0.238	3/8	4	H3	P	1010382
3/8	16	6"	1.1/4	0.381	0.286	7/16	4	H3	P	1010383
3/8	16	8"	1.1/4	0.381	0.286	7/16	4	H3	P	1010384
3/8	16	10"	1.1/4	0.381	0.286	7/16	4	H3	P	1010385
7/16	14	6"	1.7/16	0.444	0.333	1/2	4	H3	P	1010386
7/16	14	8"	1.7/16	0.444	0.333	1/2	4	H3	P	1010387
1/2	13	6"	1.21/32	0.507	0.380	9/16	4	H3	P	1010388
1/2	13	8"	1.21/32	0.507	0.380	9/16	4	H3	P	1010389
1/2	13	10"	1.21/32	0.507	0.380	9/16	4	H3	P	1010390
1/2	13	12"	1.21/32	0.507	0.380	9/16	4	H3	P	1010391
5/8	11	6"	1.13/16	0.633	0.475	11/16	4	H3	P	1010392
5/8	11	8"	1.13/16	0.633	0.475	11/16	4	H3	P	1010393
5/8	11	10"	1.13/16	0.633	0.475	11/16	4	H3	P	1010394
5/8	11	12"	1.13/16	0.633	0.475	11/16	4	H3	P	1010395
3/4	10	10"	2.000	0.759	0.569	3/4	4	H3	P	1010396
3/4	10	12"	2.000	0.759	0.569	3/4	4	H3	P	1010397

Straight
Flute
Taps

1600(UNC) - (UNF)

- Hand Tap
- Designed for through or blind tapping with a specific cutting geometry for gray cast irons and those irons producing broken chips

- Tarauds à main

- Machos de mano



- 3.1 3.2 3.3 3.4
- 6.4 8.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H5	P	1011256
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H5	B	1011257
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H5	P	1011260
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H5	B	1011261
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H5	P	1011264
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H5	B	1011265
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	P	1011268
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	B	1011269
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	P	1011272
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	B	1011273
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H5	P	1011276
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H5	B	1011277
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	P	1011280
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	B	1011281
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H5	P	1011284
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H5	B	1011285

Straight
Flute
Taps

1600(UNF)



- 3.1 3.2 3.3 3.4 • 6.4 8.2

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H5	P	1011258
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H5	B	1011259
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H5	P	1011262
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H5	B	1011263
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H5	P	1011266
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H5	B	1011267
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	P	1011270
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H5	B	1011271
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	P	1011274
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H5	B	1011275
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H5	P	1011278
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H5	B	1011279
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	P	1011282
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H5	B	1011283
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H5	P	1011286
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H5	B	1011287

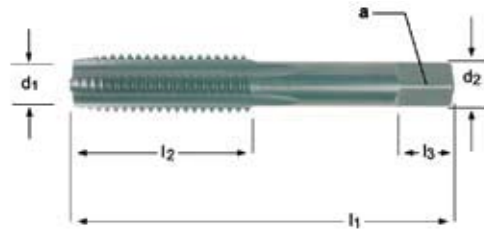
- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

1599(UNC) - (UNF)

- Hand Tap
- Designed for through or blind tapping with a specific cutting geometry for gray cast irons and other irons producing broken chips

• Tarauds à main

• Machos de mano



■ 3.1 3.2 3.3 3.4
● 6.4 8.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H3	P	1010256
1/4	20	2.1/2	1"	0.255	0.191	5/16	4	H3	B	1010257
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1010260
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	B	1010261
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1010264
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	B	1010265
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1010268
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	B	1010269
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1010272
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	B	1010273
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1010276
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	B	1010277
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1010280
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	B	1010281
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1010284
3/4	10	4.1/4	2"	0.590	0.442	11/16	4	H3	B	1010285

Straight
Flute
Taps

1599(UNF)



■ 3.1 3.2 3.3 3.4 ● 6.4 8.2

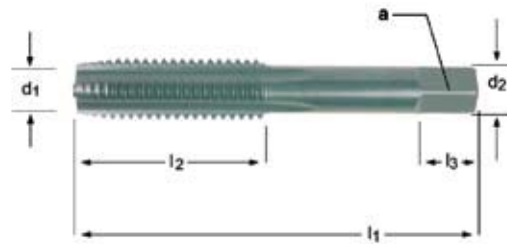
UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H3	P	1010258
1/4	28	2.1/2	1"	0.255	0.191	5/16	4	H3	B	1010259
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	P	1010262
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	4	H3	B	1010263
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	P	1010266
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	4	H3	B	1010267
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	P	1010270
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	4	H3	B	1010271
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	P	1010274
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	4	H3	B	1010275
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	P	1010278
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	4	H3	B	1010279
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	P	1010282
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	4	H3	B	1010283
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	P	1010286
3/4	16	4.1/4	2"	0.590	0.442	11/16	4	H3	B	1010287

1599(M)

- Hand Tap
- Designed for through or blind tapping with a specific cutting geometry for gray cast irons and those irons producing broken chips

- Tarauds à main

- Machos de mano



- 3.1 3.2 3.3 3.4
- 6.4 8.2

M	P	l_1	l_2	d_2 Ø	$\square$ a	l_3	# Flutes	Limits	Chamfer	EDP # or e-Code
	mm	Inch	Inch	Inch /	Inch	Inch				
M6	1.00	2.1/2	1"	0.255	0.191	5/16	4	D5	P	1012256
M6	1.00	2.1/2	1"	0.255	0.191	5/16	4	D5	B	1012266
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	P	1012258
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	B	1012268
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	4	D6	P	1012260
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	4	D6	B	1012270
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	4	D6	P	1012262
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	4	D6	B	1012272
M14	1.50	3.19/32	1.21/32	0.429	0.322	1/2	4	D4	P	1010288
M18	1.50	4.1/32	1.13/16	0.542	0.406	5/8	4	D4	P	1010289

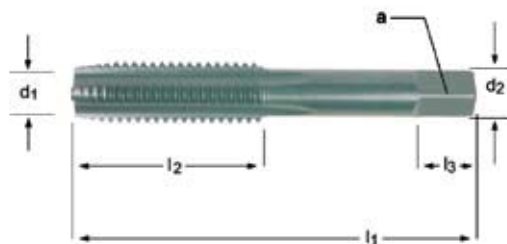
Straight
Flute
Taps

1599SB(M)

- Hand Tap
- SB = Semi-Bottoming
- Designed for through or blind tapping with a specific cutting geometry for gray cast irons and those irons producing broken chips

- Tarauds à main

- Machos de mano



- 3.1 3.2 3.3 3.4
- 6.4 8.2

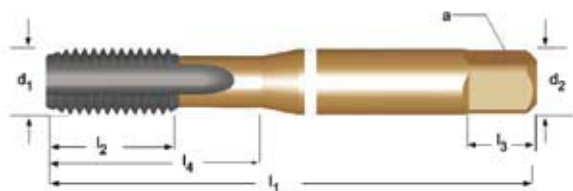
M	P	l_1	l_2	d_2 Ø	$\square$ a	l_3	# Flutes	Limits	Chamfer	EDP # or e-Code
	mm	Inch	Inch	Inch /	Inch	Inch				
M6	1.00	2.1/2	1"	0.255	0.191	5/16	4	D5	SB	1012276
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	4	D5	SB	1012278
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	4	D6	SB	1012280
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	4	D6	SB	1012282

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

- Machine Tap MTT-X, For Cast Iron

- MTT-X Tarauds machine

- MTT-X Machos de máquina


MTT-X

E059



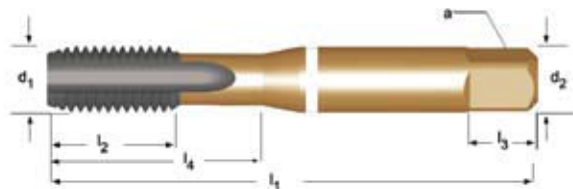
■	3.1	3.2	3.3	8.2
●	3.4	6.2	6.4	7.4

UNC	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	EDP # or e-Code
1/4	20	6.35	66	13	6.30	5.00	8	3	5.1	0607046 E0591/4
5/16	18	7.94	72	16	8.00	6.30	9	3	6.6	0607053 E0595/16
3/8	16	9.53	80	18	10.00	8.00	11	3	8	0607060 E0593/8
1/2	13	12.70	89	22	9.00	7.10	10	3	10.8	0607077 E0591/2
5/8	11	15.88	102	24	12.50	10.00	13	3	13.5	0607084 E0595/8
3/4	10	19.05	112	29	14.00	11.20	14	3	16.5	0607091 E0593/4

- Machine Tap MTT-X, For Cast Iron

- MTT-X Tarauds machine

- MTT-X Machos de máquina


MTT-X

E053



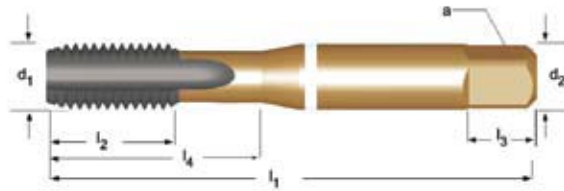
■	3.1	3.2	3.3	8.2
●	3.4	6.2	6.4	7.4

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	EDP # or e-Code
3	0.50	48	12.5	3.15	2.50	5	3	2.5	0606476 E053M3
4	0.70	53	14	4.00	3.15	6	4	3.3	0606483 E053M4
5	0.80	58	11	5.00	4.00	7	4	4.2	0606490 E053M5
6	1.00	66	13	6.30	5.00	8	4	5	0606506 E053M6
8	1.25	72	16	8.00	6.30	9	4	6.8	0606513 E053M8
10	1.50	80	18	10.00	8.00	11	4	8.5	0606520 E053M10
12	1.75	89	22	9.00	7.10	10	4	10.3	0606537 E053M12
14	2.00	95	24	11.20	9.00	12	4	12	0606544 E053M14
16	2.00	102	24	12.50	10.00	13	4	14	0606551 E053M16
20	2.50	112	29	14.00	11.20	14	4	17.5	0606568 E053M20

• Machine Tap MTT-X, For Cast Iron

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

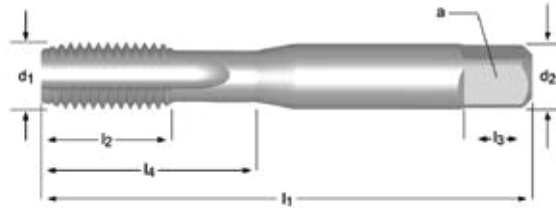
E054



■	3.1	3.2	3.3	8.2
●	3.4	6.2	6.4	7.4

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
8	1.00	72	16	8.00	6.30	9	4	7	29	0606575	E054M8X1.0
10	1.00	80	18	10.00	8.00	11	4	9	34	0606582	E054M10X1.0
10	1.25	80	18	10.00	8.00	11	4	8.8	34	0606599	E054M10X1.25
12	1.00	89	22	9.00	7.10	10	4	11		0606605	E054M12X1.0
12	1.25	89	22	9.00	7.10	10	4	10.8		0606612	E054M12X1.25
12	1.50	89	22	9.00	7.10	10	4	10.5		0606629	E054M12X1.5
14	1.25	95	24	11.20	9.00	12	4	12.8		0606636	E054M14X1.25
14	1.50	95	24	11.20	9.00	12	4	12.5		0606643	E054M14X1.5
16	1.50	102	24	12.50	10.00	13	4	14.5		0606650	E054M16X1.5

Straight
Flute
Taps



E500



• 1.1 1.2 1.3 1.4 1.5 3.1 3.2 3.3 3.4 6.1 6.2 6.3 6.4 7.2 7.3 7.4 8.2 8.3

Straight
Flute
Taps

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\frac{a}{\square}$ mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
1	0.25	38	4.5	2.50	2.00	4	2	0.75	4.5	0160152	E500M1NO1
1	0.25	38	4.5	2.50	2.00	4	2	0.75	4.5	0160169	E500M1NO2
1	0.25	38	4.5	2.50	2.00	4	2	0.75	4.5	0122464	E500M1NO3
1.2	0.25	38	4.5	2.50	2.00	4	2	0.95	4.5	0160176	E500M1.2NO1
1.2	0.25	38	4.5	2.50	2.00	4	2	0.95	4.5	0160183	E500M1.2NO2
1.2	0.25	38	4.5	2.50	2.00	4	2	0.95	4.5	0122471	E500M1.2NO3
1.4	0.30	40	6	2.50	2.00	4	2	1.1	6	0160190	E500M1.4NO1
1.4	0.30	40	6	2.50	2.00	4	2	1.1	6	0160206	E500M1.4NO2
1.4	0.30	40	6	2.50	2.00	4	2	1.1	6	0122488	E500M1.4NO3
1.6	0.35	41	8	2.50	2.00	4	2	1.25	8	0155035	E500M1.6NO1
1.6	0.35	41	8	2.50	2.00	4	2	1.25	8	0139950	E500M1.6NO2
1.6	0.35	41	8	2.50	2.00	4	2	1.25	8	0093900	E500M1.6NO3
1.6	0.35	41	8	2.50	2.00	4	2	1.25	8	0155028	E500M1.6NO6
1.7	0.35	41	8	2.50	2.00	4	2	1.35	8	0155004	E500M1.7NO1
1.7	0.35	41	8	2.50	2.00	4	2	1.35	8	0093924	E500M1.7NO2
1.7	0.35	41	8	2.50	2.00	4	2	1.35	8	0093931	E500M1.7NO3
1.7	0.35	41	8	2.50	2.00	4	2	1.35	8	0154991	E500M1.7NO6
1.8	0.35	41	8	2.50	2.00	4	2	1.45	8	0154960	E500M1.8NO1
1.8	0.35	41	8	2.50	2.00	4	2	1.45	8	0093948	E500M1.8NO2
1.8	0.35	41	8	2.50	2.00	4	2	1.45	8	0093955	E500M1.8NO3
1.8	0.35	41	8	2.50	2.00	4	2	1.45	8	0154953	E500M1.8NO6
2	0.40	41	8	2.50	2.00	4	3	1.6	8	0094259	E500M2NO1
2	0.40	41	8	2.50	2.00	4	3	1.6	8	0094266	E500M2NO2
2	0.40	41	8	2.50	2.00	4	3	1.6	8	0094273	E500M2NO3
2	0.40	41	8	2.50	2.00	4	3	1.6	8	0154939	E500M2NO6
2	0.45	41	8	2.50	2.00	4	3	1.55	8	0160244	E500M2X.45NO1
2	0.45	41	8	2.50	2.00	4	3	1.55	8	0160251	E500M2X.45NO2
2	0.45	41	8	2.50	2.00	4	3	1.55	8	0160268	E500M2X.45NO3
2.2	0.45	44.5	9.5	2.80	2.24	5	3	1.75	9.5	0154915	E500M2.2NO1
2.2	0.45	44.5	9.5	2.80	2.24	5	3	1.75	9.5	0094167	E500M2.2NO2
2.2	0.45	44.5	9.5	2.80	2.24	5	3	1.75	9.5	0094174	E500M2.2NO3
2.2	0.45	44.5	9.5	2.80	2.24	5	3	1.75	9.5	0154908	E500M2.2NO6
2.3	0.45	44.5	9.5	2.80	2.24	5	3	1.85	9.5	0154885	E500M2.3NO1
2.3	0.45	44.5	9.5	2.80	2.24	5	3	1.85	9.5	0094198	E500M2.3NO2
2.3	0.45	44.5	9.5	2.80	2.24	5	3	1.85	9.5	0094204	E500M2.3NO3
2.3	0.45	44.5	9.5	2.80	2.24	5	3	1.85	9.5	0154878	E500M2.3NO6
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	0154854	E500M2.5NO1
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	0094228	E500M2.5NO2

E500



M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		l ₄ mm	EDP # or e-Code
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	0094235 E500M2.5NO3
2.5	0.45	44.5	9.5	2.80	2.24	5	3	2.05	9.5	0154847 E500M2.5NO6
2.6	0.45	44.5	9.5	2.80	2.24	5	3	2.15	9.5	0156735 E500M2.6NO1
2.6	0.45	44.5	9.5	2.80	2.24	5	3	2.15	9.5	0156742 E500M2.6NO2
2.6	0.45	44.5	9.5	2.80	2.24	5	3	2.15	9.5	0122440 E500M2.6NO3
2.6	0.45	44.5	9.5	2.80	2.24	5	3	2.15	9.5	0156759 E500M2.6NO6
3	0.50	48	12.5	3.15	2.50	5	3	2.5	12.5	0154823 E500M3NO1
3	0.50	48	12.5	3.15	2.50	5	3	2.5	12.5	0094440 E500M3NO2
3	0.50	48	12.5	3.15	2.50	5	3	2.5	12.5	0094457 E500M3NO3
3	0.50	48	12.5	3.15	2.50	5	3	2.5	12.5	0094464 E500M3NO6
3	0.60	48	12.5	3.15	2.50	5	3	2.4	12.5	0159927 E500M3X.6NO1
3	0.60	48	12.5	3.15	2.50	5	3	2.4	12.5	0159934 E500M3X.6NO2
3	0.60	48	12.5	3.15	2.50	5	3	2.4	12.5	0159941 E500M3X.6NO3
3.5	0.60	50	14	3.55	2.80	5	3	2.9	14	0094402 E500M3.5NO1
3.5	0.60	50	14	3.55	2.80	5	3	2.9	14	0094419 E500M3.5NO2
3.5	0.60	50	14	3.55	2.80	5	3	2.9	14	0094426 E500M3.5NO3
3.5	0.60	50	14	3.55	2.80	5	3	2.9	14	0154809 E500M3.5NO6
4	0.70	53	14	4.00	3.15	6	3	3.3	14	0154786 E500M4NO1
4	0.70	53	14	4.00	3.15	6	3	3.3	14	0094648 E500M4NO2
4	0.70	53	14	4.00	3.15	6	3	3.3	14	0094655 E500M4NO3
4	0.70	53	14	4.00	3.15	6	3	3.3	14	0094662 E500M4NO6
4	0.75	53	14	4.00	3.15	6	3	3.25	14	0160213 E500M4X.75NO1
4	0.75	53	14	4.00	3.15	6	3	3.25	14	0160220 E500M4X.75NO2
4	0.75	53	14	4.00	3.15	6	3	3.25	14	0160237 E500M4X.75NO3
4.5	0.75	53	9.5	4.50	3.55	6	3	3.8	18	0154762 E500M4.5NO1
4.5	0.75	53	9.5	4.50	3.55	6	3	3.8	18	0094617 E500M4.5NO2
4.5	0.75	53	9.5	4.50	3.55	6	3	3.8	18	0094624 E500M4.5NO3
4.5	0.75	53	9.5	4.50	3.55	6	3	3.8	18	0154755 E500M4.5NO6
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0154731 E500M5NO1
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0094761 E500M5NO2
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0094778 E500M5NO3
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0154724 E500M5NO6
5	0.90	58	11	5.00	4.00	7	3	4.1	22	0159958 E500M5X.9NO1
5	0.90	58	11	5.00	4.00	7	3	4.1	22	0159965 E500M5X.9NO2
5	0.90	58	11	5.00	4.00	7	3	4.1	22	0159972 E500M5X.9NO3
5	0.90	58	11	5.00	4.00	7	3	4.1	22	0159989 E500M5X.9NO6
5.5	0.90	62	12	5.00	4.00	7	3	4.6	21	0159996 E500M5.5X.9NO1
5.5	0.90	62	12	5.00	4.00	7	3	4.6	21	0160008 E500M5.5X.9NO2
5.5	0.90	62	12	5.00	4.00	7	3	4.6	21	0160015 E500M5.5X.9NO3
5.5	0.90	62	12	5.00	4.00	7	3	4.6	21	0160022 E500M5.5X.9NO6
6	1.00	66	13	6.30	5.00	8	3	5	26	0094808 E500M6NO1
6	1.00	66	13	6.30	5.00	8	3	5	26	0094815 E500M6NO2
6	1.00	66	13	6.30	5.00	8	3	5	26	0094822 E500M6NO3
6	1.00	66	13	6.30	5.00	8	3	5	26	0154700 E500M6NO6
7	1.00	66	13	7.10	5.60	8	3	6	26	0154687 E500M7NO1
7	1.00	66	13	7.10	5.60	8	3	6	26	0139967 E500M7NO2
7	1.00	66	13	7.10	5.60	8	3	6	26	0094846 E500M7NO3
7	1.00	66	13	7.10	5.60	8	3	6	26	0094853 E500M7NO6
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0154663 E500M8NO1
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0094877 E500M8NO2
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0094884 E500M8NO3
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0094891 E500M8NO6
9	1.25	72	16	9.00	7.10	10	3	7.8	29	0154649 E500M9NO1
9	1.25	72	16	9.00	7.10	10	3	7.8	29	0152119 E500M9NO2
9	1.25	72	16	9.00	7.10	10	3	7.8	29	0094914 E500M9NO3
9	1.25	72	16	9.00	7.10	10	3	7.8	29	0154632 E500M9NO6
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0153246 E500M10NO1
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0093979 E500M10NO2

Straight
Flute
Taps

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		l ₄ mm	EDP # or e-Code
									Stock #	
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0093986 E500M10NO3
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0154618 E500M10NO6
11	1.50	85	19	8.00	6.30	9	3	9.5		0154595 E500M11NO1
11	1.50	85	19	8.00	6.30	9	3	9.5		0094006 E500M11NO2
11	1.50	85	19	8.00	6.30	9	3	9.5		0094013 E500M11NO3
11	1.50	85	19	8.00	6.30	9	3	9.5		0154588 E500M11NO6
11	1.50	85	19	8.00	6.30	9	3	9.5		0094020 E500M11NO8
12	1.75	89	22	9.00	7.10	10	3	10.3		0094037 E500M12NO2
12	1.75	89	22	9.00	7.10	10	3	10.3		0094044 E500M12NO3
12	1.75	89	22	9.00	7.10	10	3	10.3		0094051 E500M12NO6
14	2.00	95	24	11.20	9.00	12	4	12		0152980 E500M14NO1
14	2.00	95	24	11.20	9.00	12	4	12		0094075 E500M14NO2
14	2.00	95	24	11.20	9.00	12	4	12		0094082 E500M14NO3
14	2.00	95	24	11.20	9.00	12	4	12		0154540 E500M14NO6
16	2.00	102	24	12.50	10.00	13	4	14		0154526 E500M16NO1
16	2.00	102	24	12.50	10.00	13	4	14		0094105 E500M16NO2
16	2.00	102	24	12.50	10.00	13	4	14		0094112 E500M16NO3
16	2.00	102	24	12.50	10.00	13	4	14		0154519 E500M16NO6
18	2.50	112	29	14.00	11.20	14	4	15.5		0154496 E500M18NO1
18	2.50	112	29	14.00	11.20	14	4	15.5		0094136 E500M18NO2
18	2.50	112	29	14.00	11.20	14	4	15.5		0094143 E500M18NO3
18	2.50	112	29	14.00	11.20	14	4	15.5		0154489 E500M18NO6
20	2.50	112	29	14.00	11.20	14	4	17.5		0154465 E500M20NO1
20	2.50	112	29	14.00	11.20	14	4	17.5		0150719 E500M20NO2
20	2.50	112	29	14.00	11.20	14	4	17.5		0094297 E500M20NO3
20	2.50	112	29	14.00	11.20	14	4	17.5		0154458 E500M20NO6
22	2.50	118	29	16.00	12.50	16	4	19.5		0154434 E500M22NO1
22	2.50	118	29	16.00	12.50	16	4	19.5		0094310 E500M22NO2
22	2.50	118	29	16.00	12.50	16	4	19.5		0094327 E500M22NO3
22	2.50	118	29	16.00	12.50	16	4	19.5		0154427 E500M22NO6
24	3.00	130	35	18.00	14.00	18	4	21		0154403 E500M24NO1
24	3.00	130	35	18.00	14.00	18	4	21		0094341 E500M24NO2
24	3.00	130	35	18.00	14.00	18	4	21		0094358 E500M24NO3
24	3.00	130	35	18.00	14.00	18	4	21		0154397 E500M24NO6
27	3.00	135	35	20.00	16.00	20	4	24		0154366 E500M27NO1
27	3.00	135	35	20.00	16.00	20	4	24		0094365 E500M27NO2
27	3.00	135	35	20.00	16.00	20	4	24		0094372 E500M27NO3
30	3.50	138	41	20.00	16.00	20	4	26.5		0154359 E500M30NO1
30	3.50	138	41	20.00	16.00	20	4	26.5		0094488 E500M30NO2
30	3.50	138	41	20.00	16.00	20	4	26.5		0094495 E500M30NO3
33	3.50	151	41	22.40	18.00	22	4	29.5		0154342 E500M33NO1
33	3.50	151	41	22.40	18.00	22	4	29.5		0152225 E500M33NO2
33	3.50	151	41	22.40	18.00	22	4	29.5		0094525 E500M33NO3
36	4.00	162	47	25.00	20.00	24	4	32		0154335 E500M36NO1
36	4.00	162	47	25.00	20.00	24	4	32		0094549 E500M36NO2
36	4.00	162	47	25.00	20.00	24	4	32		0094556 E500M36NO3
39	4.00	170	47	28.00	22.40	26	4	35		0154328 E500M39NO1
39	4.00	170	47	28.00	22.40	26	4	35		0152232 E500M39NO2
39	4.00	170	47	28.00	22.40	26	4	35		0094587 E500M39NO3
42	4.50	170	53	28.00	22.40	26	6	37.5		0154311 E500M42NO1
42	4.50	170	53	28.00	22.40	26	6	37.5		0152249 E500M42NO2
42	4.50	170	53	28.00	22.40	26	6	37.5		0094686 E500M42NO3
45	4.50	187	54	31.50	25.00	28	6	40.5		0154304 E500M45NO1
45	4.50	187	54	31.50	25.00	28	6	40.5		0152256 E500M45NO2
45	4.50	187	54	31.50	25.00	28	6	40.5		0094709 E500M45NO3
48	5.00	187	60	31.50	25.00	28	6	43		0154298 E500M48NO1
48	5.00	187	60	31.50	25.00	28	6	43		0152263 E500M48NO2
48	5.00	187	60	31.50	25.00	28	6	43		0094730 E500M48NO3

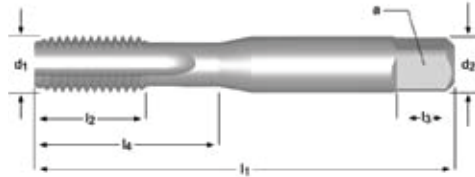
E500 - E501

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		l ₄ mm	EDP # or e-Code
52	5.00	200	60	35.50	28.00	31	6	47	0153253	E500M52NO1
52	5.00	200	60	35.50	28.00	31	6	47	0152270	E500M52NO2
52	5.00	200	60	35.50	28.00	31	6	47	0094792	E500M52NO3
56	5.50	200	60	35.50	28.00	31	6	50.5	0122457	E500M56NO3

- Machine Tap
- Straight Flute, Left Hand

• Tarauds machine

• Machos de máquina



E501



- 1.1 1.2 1.3 1.4 1.5 3.1 3.2 3.3 3.4 6.1 6.2 6.3 6.4 7.2 7.3 7.4 8.2 8.3

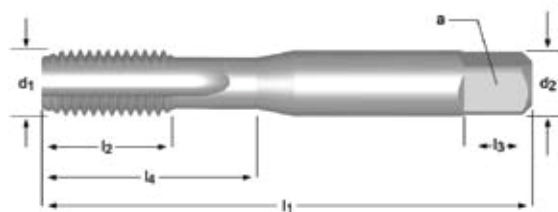
M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		l ₄ mm	EDP # or e-Code
3	0.50	48	12.5	3.15	2.50	5	3	2.5	12.5	0159828 E501M3NO1
3	0.50	48	12.5	3.15	2.50	5	3	2.5	12.5	0095058 E501M3NO2
3	0.50	48	12.5	3.15	2.50	5	3	2.5	12.5	0095065 E501M3NO3
4	0.70	53	14	4.00	3.15	6	3	3.3	14	0159835 E501M4NO1
4	0.70	53	14	4.00	3.15	6	3	3.3	14	0095072 E501M4NO2
4	0.70	53	14	4.00	3.15	6	3	3.3	14	0095089 E501M4NO3
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0159842 E501M5NO1
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0095096 E501M5NO2
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0095102 E501M5NO3
6	1.00	66	13	6.30	5.00	8	3	5	26	0159859 E501M6NO1
6	1.00	66	13	6.30	5.00	8	3	5	26	0095119 E501M6NO2
6	1.00	66	13	6.30	5.00	8	3	5	26	0095126 E501M6NO3
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0159866 E501M8NO1
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0095133 E501M8NO2
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0095140 E501M8NO3
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0159873 E501M10NO1
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0094938 E501M10NO2
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0094945 E501M10NO3
12	1.75	89	22	9.00	7.10	10	3	10.3		0159880 E501M12NO1
12	1.75	89	22	9.00	7.10	10	3	10.3		0094952 E501M12NO2
12	1.75	89	22	9.00	7.10	10	3	10.3		0094969 E501M12NO3
14	2.00	95	24	11.20	9.00	12	4	12		0159897 E501M14NO1
14	2.00	95	24	11.20	9.00	12	4	12		0094976 E501M14NO2
14	2.00	95	24	11.20	9.00	12	4	12		0094983 E501M14NO3
16	2.00	102	24	12.50	10.00	13	4	14		0159903 E501M16NO1
16	2.00	102	24	12.50	10.00	13	4	14		0094990 E501M16NO2
16	2.00	102	24	12.50	10.00	13	4	14		0095003 E501M16NO3
18	2.50	112	29	14.00	11.20	14	4	15.5		0152423 E501M18NO2
18	2.50	112	29	14.00	11.20	14	4	15.5		0095010 E501M18NO3
20	2.50	112	29	14.00	11.20	14	4	17.5		0159910 E501M20NO1
20	2.50	112	29	14.00	11.20	14	4	17.5		0095027 E501M20NO2
20	2.50	112	29	14.00	11.20	14	4	17.5		0095034 E501M20NO3
22	2.50	118	29	16.00	12.50	16	4	19.5		0152430 E501M22NO2
22	2.50	118	29	16.00	12.50	16	4	19.5		0122495 E501M22NO3
24	3.00	130	35	18.00	14.00	18	4	21		0152447 E501M24NO2
24	3.00	130	35	18.00	14.00	18	4	21		0095041 E501M24NO3

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

• Machine Tap, Straight Flute

• Tarauds machine

• Machos de máquina



E513



• 1.1 1.2 1.3 1.4 1.5 3.1 3.2 3.3 3.4 6.1 6.2 6.3 6.4 7.2 7.3 7.4 8.2 8.3

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
3	0.35	48	12.5	3.15	2.50	5	3	2.65	12.5	0160039	E513M3X.35NO1
3	0.35	48	12.5	3.15	2.50	5	3	2.65	12.5	0160046	E513M3X.35NO2
3	0.35	48	12.5	3.15	2.50	5	3	2.65	12.5	0096567	E513M3X.35NO3
3.5	0.35	48	12.5	3.15	2.50	5	3	3.2	12.5	0343111	E513M3.5X.35NO3
4	0.50	53	14	4.00	3.15	6	3	3.5	14	0156766	E513M4X.5NO1
4	0.50	53	14	4.00	3.15	6	3	3.5	14	0152454	E513M4X.5NO2
4	0.50	53	14	4.00	3.15	6	3	3.5	14	0096680	E513M4X.5NO3
5	0.50	58	11	5.00	4.00	7	3	4.5	22	0156728	E513M5X.5NO1
5	0.50	58	11	5.00	4.00	7	3	4.5	22	0096727	E513M5X.5NO2
5	0.50	58	11	5.00	4.00	7	3	4.5	22	0096734	E513M5X.5NO3
5	0.75	58	11	5.00	4.00	7	3	4.3	22	0157046	E513M5X.75NO1
5	0.75	58	11	5.00	4.00	7	3	4.3	22	0156773	E513M5X.75NO2
5	0.75	58	11	5.00	4.00	7	3	4.3	22	0123027	E513M5X.75NO3
6	0.50	66	13	6.30	5.00	8	3	5.5	26	0156780	E513M6X.5NO1
6	0.50	66	13	6.30	5.00	8	3	5.5	26	0156797	E513M6X.5NO2
6	0.50	66	13	6.30	5.00	8	3	5.5	26	0123034	E513M6X.5NO3
6	0.75	66	13	6.30	5.00	8	3	5.3	26	0156803	E513M6X.75NO1
6	0.75	66	13	6.30	5.00	8	3	5.3	26	0152461	E513M6X.75NO2
6	0.75	66	13	6.30	5.00	8	3	5.3	26	0096765	E513M6X.75NO3
7	0.75	66	13	7.10	5.60	8	3	6.3	26	0160053	E513M7X.75NO1
7	0.75	66	13	7.10	5.60	8	3	6.3	26	0096789	E513M7X.75NO2
7	0.75	66	13	7.10	5.60	8	3	6.3	26	0096796	E513M7X.75NO3
8	0.50	72	16	8.00	6.30	9	3	7.5	29	0160060	E513M8X.5NO1
8	0.50	72	16	8.00	6.30	9	3	7.5	29	0160077	E513M8X.5NO2
8	0.50	72	16	8.00	6.30	9	3	7.5	29	0123058	E513M8X.5NO3
8	0.75	72	16	8.00	6.30	9	3	7.3	29	0157053	E513M8X.75NO1
8	0.75	72	16	8.00	6.30	9	3	7.3	29	0152478	E513M8X.75NO2
8	0.75	72	16	8.00	6.30	9	3	7.3	29	0096802	E513M8X.75NO3
8	1.00	72	16	8.00	6.30	9	3	7	29	0157060	E513M8X1.0NO1
8	1.00	72	16	8.00	6.30	9	3	7	29	0152485	E513M8X1.0NO2
8	1.00	72	16	8.00	6.30	9	3	7	29	0096826	E513M8X1.0NO3
9	0.75	72	16	9.00	7.10	10	3	8.3	29	0343128	E513M9X.75NO3
9	1.00	72	16	9.00	7.10	10	3	8	29	0159644	E513M9X1.0NO1

Straight
Flute
Taps

MF	P mm	l_1 mm	l_2 mm	d_2 mm	a mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
9	1.00	72	16	9.00	7.10	10	3	8	29	0155752	E513M9X1.0NO2
9	1.00	72	16	9.00	7.10	10	3	8	29	0096833	E513M9X1.0NO3
10	0.50	80	18	10.00	8.00	11	3	9.5	34	0343135	E513M10X.5NO3
10	0.75	80	18	10.00	8.00	11	3	9.3	34	0160084	E513M10X.75NO1
10	0.75	80	18	10.00	8.00	11	3	9.3	34	0160091	E513M10X.75NO2
10	0.75	80	18	10.00	8.00	11	3	9.3	34	0123065	E513M10X.75NO3
10	1.00	80	18	10.00	8.00	11	3	9	34	0157077	E513M10X1.0NO1
10	1.00	80	18	10.00	8.00	11	3	9	34	0152492	E513M10X1.0NO2
10	1.00	80	18	10.00	8.00	11	3	9	34	0096086	E513M10X1.0NO3
10	1.00	80	18	10.00	8.00	11	3	9	34	0157084	E513M10X1.0NO6
10	1.25	80	18	10.00	8.00	11	3	8.8	34	0157091	E513M10X1.25NO1
10	1.25	80	18	10.00	8.00	11	3	8.8	34	0152508	E513M10X1.25NO2
10	1.25	80	18	10.00	8.00	11	3	8.8	34	0096079	E513M10X1.25NO3
10	1.25	80	18	10.00	8.00	11	3	8.8	34	0157107	E513M10X1.25NO6
11	0.75	85	19	8.00	6.30	9	3	10.3		0160107	E513M11X.75NO1
11	0.75	85	19	8.00	6.30	9	3	10.3		0160114	E513M11X.75NO2
11	0.75	85	19	8.00	6.30	9	3	10.3		0123072	E513M11X.75NO3
11	1.00	85	19	8.00	6.30	9	3	10		0159651	E513M11X1.0NO1
11	1.00	85	19	8.00	6.30	9	3	10		0096093	E513M11X1.0NO2
11	1.00	85	19	8.00	6.30	9	3	10		0096109	E513M11X1.0NO3
11	1.25	85	19	8.00	6.30	9	3	9.8		0343142	E513M11X1.25NO3
12	0.75	89	22	9.00	7.10	10	3	11.3		0343166	E513M12X.75NO3
12	1.00	89	22	9.00	7.10	10	3	11		0157114	E513M12X1.0NO1
12	1.00	89	22	9.00	7.10	10	3	11		0152515	E513M12X1.0NO2
12	1.00	89	22	9.00	7.10	10	3	11		0096154	E513M12X1.0NO3
12	1.25	89	22	9.00	7.10	10	3	10.8		0157121	E513M12X1.25NO1
12	1.25	89	22	9.00	7.10	10	3	10.8		0152522	E513M12X1.25NO2
12	1.25	89	22	9.00	7.10	10	3	10.8		0096116	E513M12X1.25NO3
12	1.25	89	22	9.00	7.10	10	3	10.8		0157138	E513M12X1.25NO6
12	1.50	89	22	9.00	7.10	10	3	10.5		0157145	E513M12X1.5NO1
12	1.50	89	22	9.00	7.10	10	3	10.5		0096130	E513M12X1.5NO2
12	1.50	89	22	9.00	7.10	10	3	10.5		0096147	E513M12X1.5NO3
12	1.50	89	22	9.00	7.10	10	3	10.5		0157152	E513M12X1.5NO6
13	1.50	89	22	9.00	7.10	10	3	11.5		0343173	E513M13X1.5NO3
14	1.00	95	24	11.20	9.00	12	4	13		0156810	E513M14X1.0NO1
14	1.00	95	24	11.20	9.00	12	4	13		0152539	E513M14X1.0NO2
14	1.00	95	24	11.20	9.00	12	4	13		0096185	E513M14X1.0NO3
14	1.25	95	24	11.20	9.00	12	4	12.8		0156827	E513M14X1.25NO1
14	1.25	95	24	11.20	9.00	12	4	12.8		0152546	E513M14X1.25NO2
14	1.25	95	24	11.20	9.00	12	4	12.8		0096161	E513M14X1.25NO3
14	1.25	95	24	11.20	9.00	12	4	12.8		0156834	E513M14X1.25NO6
14	1.50	95	24	11.20	9.00	12	4	12.5		0156841	E513M14X1.5NO1
14	1.50	95	24	11.20	9.00	12	4	12.5		0152553	E513M14X1.5NO2
14	1.50	95	24	11.20	9.00	12	4	12.5		0096178	E513M14X1.5NO3
14	1.50	95	24	11.20	9.00	12	4	12.5		0156858	E513M14X1.5NO6
15	1.50	95	24	11.20	9.00	12	4	13.5		0096192	E513M15X1.5NO2
15	1.50	95	24	11.20	9.00	12	4	13.5		0096208	E513M15X1.5NO3
16	1.00	102	24	12.50	10.00	13	4	15		0156865	E513M16X1.0NO1
16	1.00	102	24	12.50	10.00	13	4	15		0152560	E513M16X1.0NO2

Straight
Flute
Taps

MF	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes		l ₄ mm	Stock #	EDP # or e-Code
16	1.00	102	24	12.50	10.00	13	4	15		0096246	E513M16X1.0NO3
16	1.25	102	24	12.50	10.00	13	4	14.8		0343203	E513M16X1.25NO3
16	1.50	102	24	12.50	10.00	13	4	14.5		0156872	E513M16X1.5NO1
16	1.50	102	24	12.50	10.00	13	4	14.5		0152577	E513M16X1.5NO2
16	1.50	102	24	12.50	10.00	13	4	14.5		0096222	E513M16X1.5NO3
16	1.50	102	24	12.50	10.00	13	4	14.5		0156889	E513M16X1.5NO6
18	1.00	112	29	14.00	11.20	14	4	17		0156896	E513M18X1.0NO1
18	1.00	112	29	14.00	11.20	14	4	17		0096277	E513M18X1.0NO2
18	1.00	112	29	14.00	11.20	14	4	17		0096284	E513M18X1.0NO3
18	1.50	112	29	14.00	11.20	14	4	16.5		0156902	E513M18X1.5NO1
18	1.50	112	29	14.00	11.20	14	4	16.5		0152584	E513M18X1.5NO2
18	1.50	112	29	14.00	11.20	14	4	16.5		0096260	E513M18X1.5NO3
18	1.50	112	29	14.00	11.20	14	4	16.5		0156919	E513M18X1.5NO6
18	2.00	112	29	14.00	11.20	14	4	16		0156926	E513M18X2.0NO1
18	2.00	112	29	14.00	11.20	14	4	16		0096307	E513M18X2.0NO2
18	2.00	112	29	14.00	11.20	14	4	16		0096314	E513M18X2.0NO3
20	1.00	112	29	14.00	11.20	14	4	19		0156933	E513M20X1.0NO1
20	1.00	112	29	14.00	11.20	14	4	19		0096345	E513M20X1.0NO2
20	1.00	112	29	14.00	11.20	14	4	19		0096352	E513M20X1.0NO3
20	1.50	112	29	14.00	11.20	14	4	18.5		0156940	E513M20X1.5NO1
20	1.50	112	29	14.00	11.20	14	4	18.5		0152591	E513M20X1.5NO2
20	1.50	112	29	14.00	11.20	14	4	18.5		0096338	E513M20X1.5NO3
20	1.50	112	29	14.00	11.20	14	4	18.5		0156957	E513M20X1.5NO6
20	2.00	112	29	14.00	11.20	14	4	18		0156964	E513M20X2.0NO1
20	2.00	112	29	14.00	11.20	14	4	18		0096376	E513M20X2.0NO2
20	2.00	112	29	14.00	11.20	14	4	18		0096383	E513M20X2.0NO3
22	1.00	118	29	16.00	12.50	16	4	21		0096406	E513M22X1.0NO2
22	1.00	118	29	16.00	12.50	16	4	21		0096413	E513M22X1.0NO3
22	1.50	118	29	16.00	12.50	16	4	20.5		0156971	E513M22X1.5NO1
22	1.50	118	29	16.00	12.50	16	4	20.5		0152607	E513M22X1.5NO2
22	1.50	118	29	16.00	12.50	16	4	20.5		0096390	E513M22X1.5NO3
22	2.00	118	29	16.00	12.50	16	4	20		0156988	E513M22X2.0NO1
22	2.00	118	29	16.00	12.50	16	4	20		0096420	E513M22X2.0NO2
22	2.00	118	29	16.00	12.50	16	4	20		0096437	E513M22X2.0NO3
24	1.00	130	35	18.00	14.00	18	4	23		0096475	E513M24X1.0NO2
24	1.00	130	35	18.00	14.00	18	4	23		0096482	E513M24X1.0NO3
24	1.50	130	35	18.00	14.00	18	4	22.5		0156995	E513M24X1.5NO1
24	1.50	130	35	18.00	14.00	18	4	22.5		0152614	E513M24X1.5NO2
24	1.50	130	35	18.00	14.00	18	4	22.5		0096451	E513M24X1.5NO3
24	2.00	130	35	18.00	14.00	18	4	22		0157008	E513M24X2.0NO1
24	2.00	130	35	18.00	14.00	18	4	22		0096499	E513M24X2.0NO2
24	2.00	130	35	18.00	14.00	18	4	22		0096505	E513M24X2.0NO3
25	1.50	130	35	18.00	14.00	18	4	23.5		0157015	E513M25X1.5NO1
25	1.50	130	35	18.00	14.00	18	4	23.5		0152621	E513M25X1.5NO2
25	1.50	130	35	18.00	14.00	18	4	23.5		0096512	E513M25X1.5NO3

Straight
Flute
Taps

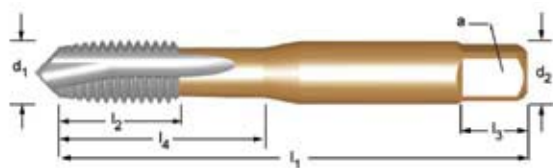
MF	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	▣ a mm	l ₃ mm	# Flutes		l ₄ mm	Stock #	EDP # or e-Code
25	1.50	130	35	18.00	14.00	18	4	23.5		0157022	E513M25X1.5NO6
26	1.50	130	35	18.00	14.00	18	4	24.5		0096529	E513M26X1.5NO2
26	1.50	130	35	18.00	14.00	18	4	24.5		0096536	E513M26X1.5NO3
27	1.50	135	35	20.00	16.00	20	4	25.5		0155738	E513M27X1.5NO2
27	1.50	135	35	20.00	16.00	20	4	25.5		0123010	E513M27X1.5NO3
27	2.00	135	35	20.00	16.00	20	4	25		0123041	E513M27X2.0NO3
28	1.50	138	35	20.00	16.00	20	4	26.5		0096543	E513M28X1.5NO2
28	1.50	138	35	20.00	16.00	20	4	26.5		0096550	E513M28X1.5NO3
30	1.50	138	41	20.00	16.00	20	4	28.5		0096574	E513M30X1.5NO2
30	1.50	138	41	20.00	16.00	20	4	28.5		0096581	E513M30X1.5NO3
30	2.00	138	41	20.00	16.00	20	4	28		0155721	E513M30X2.0NO2
30	2.00	138	41	20.00	16.00	20	4	28		0123003	E513M30X2.0NO3
32	1.50	151	41	22.40	18.00	22	4	30.5		0157039	E513M32X1.5NO1
32	1.50	151	41	22.40	18.00	22	4	30.5		0155578	E513M32X1.5NO2
32	1.50	151	41	22.40	18.00	22	4	30.5		0096598	E513M32X1.5NO3
33	2.00	151	41	22.40	18.00	22	4	31		0096604	E513M33X2.0NO2
33	2.00	151	41	22.40	18.00	22	4	31		0096611	E513M33X2.0NO3
35	1.50	162	47	25.00	20.00	24	4	33.5		0096628	E513M35X1.5NO2
35	1.50	162	47	25.00	20.00	24	4	33.5		0096635	E513M35X1.5NO3
36	1.50	162	47	25.00	20.00	24	4	34.5		0343302	E513M36X1.5NO3
36	2.00	162	47	25.00	20.00	24	4	34		0152638	E513M36X2.0NO2
36	2.00	162	47	25.00	20.00	24	4	34		0096642	E513M36X2.0NO3
36	3.00	162	47	25.00	20.00	24	4	33		0096659	E513M36X3.0NO2
36	3.00	162	47	25.00	20.00	24	4	33		0096666	E513M36X3.0NO3
39	3.00	170	47	28.00	22.40	26	4	36		0152645	E513M39X3.0NO2
39	3.00	170	47	28.00	22.40	26	4	36		0096673	E513M39X3.0NO3
40	1.50	170	53	28.00	22.40	26	6	38.5		0155691	E513M40X1.5NO2
40	1.50	170	53	28.00	22.40	26	6	38.5		0096697	E513M40X1.5NO3
42	1.50	170	53	28.00	22.40	26	6	40.5		0155684	E513M42X1.5NO2
42	1.50	170	53	28.00	22.40	26	6	40.5		0096703	E513M42X1.5NO3
42	3.00	170	53	28.00	22.40	26	6	39		0343319	E513M42X3.0NO3
45	1.50	187	54	31.50	25.00	28	6	43.5		0155677	E513M45X1.5NO2
45	1.50	187	54	31.50	25.00	28	6	43.5		0096710	E513M45X1.5NO3
48	1.50	187	60	31.50	25.00	28	6	46.5		0343333	E513M48X1.5NO3
48	2.00	187	60	31.50	25.00	28	6	46		0343340	E513M48X2.0NO3
48	3.00	187	60	31.50	25.00	28	6	45		0343357	E513M48X3.0NO3
50	1.50	187	60	31.50	25.00	28	6	48.5		0155660	E513M50X1.5NO2
50	1.50	187	60	31.50	25.00	28	6	48.5		0096758	E513M50X1.5NO3

Straight
Flute
Taps

- Machine Tap MTT-X, Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E025



■	1.1	1.2	1.3	1.4	1.5	6.1	6.3	7.1	7.2	7.3	7.4
●	1.6	3.1	3.2	3.3	3.4	4.1	4.2	5.1	5.2	6.2	8.1

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
6	32	2"	0.2610	0.1410	0.1100	2	H2	N36	2.85	0.5938	0581070	E0256-32
8	32	2.1/8	0.2484	0.1680	0.1310	2	H2	N29	3.50	0.6526	0581087	E0258-32
10	24	2.3/8	0.4303	0.1940	0.1520	2	H3	N25	3.90	0.8434	0581094	E02510-24
12	24	2.3/8	0.4173	0.2200	0.1650	2	H3	N16	4.50	0.8848	0581100	E02512-24
1/4	20	2.1/2	0.5075	0.2550	0.1910	2	H3	N7	5.10	1.0073	0581117	E0251/4
1/4	20	2.1/2	0.5075	0.2550	0.1910	3	H3	N7	5.10	1.0073	0581124	E0251/43FL
5/16	18	2.23/32	0.5939	0.3180	0.2380	2	H3	F	6.60	1.1891	0581131	E0255/16
5/16	18	2.23/32	0.5939	0.3180	0.2380	3	H3	F	6.60	1.1891	0581148	E0255/163FL
3/8	16	2.15/16	0.6020	0.3810	0.2860	2	H3	5/16	8.00	1.2915	0581155	E0253/8
3/8	16	2.15/16	0.6020	0.3810	0.2860	3	H3	5/16	8.00	1.2915	0581162	E0253/83FL
7/16	14	3.5/32	0.9055	0.3230	0.2420	3	H3	U	9.40		0581179	E0257/16
1/2	13	3.3/8	0.9055	0.3670	0.2750	2	H3	27/64	10.80		0581186	E0251/2
1/2	13	3.3/8	0.9055	0.3670	0.2750	3	H3	27/64	10.80		0581193	E0251/23FL
9/16	12	3.19/32	0.9843	0.4290	0.3220	3	H3	31/64	12.20		0581209	E0259/16
5/8	11	3.13/16	0.9843	0.4800	0.3600	3	H3	17/32	13.50		0581216	E0255/8
3/4	10	4.1/4	1.1614	0.5900	0.4420	3	H4	21/32	16.50		0581223	E0253/4
7/8	9	4.11/16	1.1614	0.6970	0.5230	3	H4	49/64	19.50		0581230	E0257/8
1"	8	5.1/8	1.3976	0.8000	0.6000	3	H4	7/8	22.25		0581247	E0251

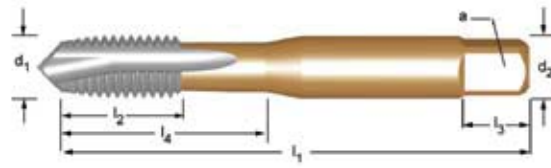
Spiral
Point
Taps

E035

DORMER

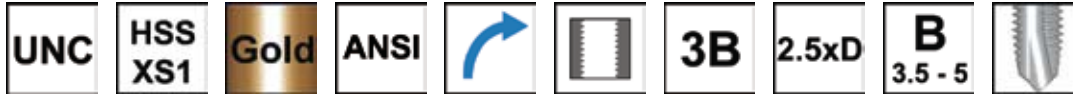
- Machine Tap MTT-X, Spiral Point

- MTT-X Machos de máquina



MTT-X

E035



■	1.1	1.2	1.3	1.4	1.5	6.1	6.3	7.1	7.2	7.3	7.4
●	1.6	3.1	3.2	3.3	3.4	4.1	4.2	5.1	5.2	6.2	8.1

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 mm	Stock #	EDP # or e-Code
6	40	2"	0.2610	0.1410	0.1100	2	H2	N33	2.95	0.5938	0581957	E0356-40
8	36	2.1/8	0.2484	0.1680	0.1310	2	H2	N29	3.50	0.6526	0581964	E0358-36
10	32	2.3/8	0.4303	0.1940	0.1520	2	H2	N21	4.10	0.8434	0581971	E03510-32
12	28	2.3/8	0.4173	0.2200	0.1650	2	H3	N14	4.70	0.8848	0581988	E03512-28
1/4	28	2.1/2	0.5075	0.2550	0.1910	2	H3	N3	5.50	1.0073	0581995	E0351/4
1/4	28	2.1/2	0.5075	0.2550	0.1910	3	H3	N3	5.50	1.0073	0582008	E0351/43FL
5/16	24	2.23/32	0.5939	0.3180	0.2380	2	H3	I	6.90	1.1891	0582015	E0355/16
5/16	24	2.23/32	0.5939	0.3180	0.2380	3	H3	I	6.90	1.1891	0582022	E0355/163FL
3/8	24	2.15/16	0.6020	0.3810	0.2860	2	H3	Q	8.50	1.2915	0582039	E0353/8
3/8	24	2.15/16	0.6020	0.3810	0.2860	3	H3	Q	8.50	1.2915	0582046	E0353/83FL
7/16	20	3.5/32	0.9055	0.3230	0.2420	3	H3	25/64	9.90		0582053	E0357/163FL
1/2	20	3.3/8	0.9055	0.3670	0.2750	2	H3	29/64	11.50		0582060	E0351/2
1/2	20	3.3/8	0.9055	0.3670	0.2750	3	H3	29/64	11.50		0582077	E0351/23FL
9/16	18	3.19/32	0.9843	0.4290	0.3220	3	H3	33/64	12.90		0582084	E0359/16
5/8	18	3.13/16	0.9843	0.4800	0.3600	3	H3	37/64	14.50		0582091	E0355/8
3/4	16	4.1/4	1.1614	0.5900	0.4420	3	H3	11/16	17.50		0582107	E0353/4
7/8	14	4.11/16	1.1614	0.6970	0.5230	3	H4	13/16	20.40		0582114	E0357/8
1"	12	5.1/8	1.3976	0.8000	0.6000	3	H4	59/64	23.25		0582121	E0351-12
1"	14	5.1/8	1.3976	0.8000	0.6000	3	H4	59/64	23.50		0582138	E0351-14

Spiral
Point
Taps



MTT-X

E026



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2
●	1.6	2.3	3.1	3.2	3.3	3.4	

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
2	56	1.3/4	0.3140	0.1410	0.1100	2	H2	N50	1.80	0.3140	0583203	E0262-56
4	40	1.7/8	0.6091	0.1410	0.1100	2	H2	N43	2.35	0.6091	0581254	E0264-40
5	40	1.15/16	0.7404	0.1410	0.1100	2	H2	N38	2.65	0.7404	0581261	E0265-40
6	32	2"	0.2610	0.1410	0.1100	2	H2	N36	2.85	0.5938	0581278	E0266-32
8	32	2.1/8	0.2484	0.1680	0.1310	2	H2	N29	3.50	0.6526	0581285	E0268-32
10	24	2.3/8	0.4303	0.1940	0.1520	2	H3	N25	3.90	0.8434	0581292	E02610-24
12	24	2.3/8	0.4173	0.2200	0.1650	2	H3	N16	4.50	0.8848	0581308	E02612-24
1/4	20	2.1/2	0.5075	0.2550	0.1910	2	H3	N7	5.10	1.0073	0581315	E0261/4
1/4	20	2.1/2	0.5075	0.2550	0.1910	3	H3	N7	5.10	1.0073	0581339	E0261/43FL
1/4	20	2.1/2	0.5075	0.2550	0.1910	3	H11	7	5.10	1.0073	0581322	E0261/4H11 ¹⁾
5/16	18	2.23/32	0.5939	0.3180	0.2380	2	H3	F	6.60	1.1891	0581346	E0265/16
5/16	18	2.23/32	0.5939	0.3180	0.2380	3	H3	F	6.60	1.1891	0581360	E0265/163FL
5/16	18	2.23/32	0.5939	0.3180	0.2380	3	H11	F	6.60	1.1891	0581353	E0265/16H11 ¹⁾
3/8	16	2.15/16	0.6020	0.3810	0.2860	2	H3	5/16	8.00	1.2915	0581377	E0263/8
3/8	16	2.15/16	0.6020	0.3810	0.2860	3	H3	5/16	8.00	1.2915	0581391	E0263/83FL
3/8	16	2.15/16	0.6020	0.3810	0.2860	3	H11	5/16	8.00	1.2915	0581384	E0263/8H11 ¹⁾
7/16	14	3.5/32	0.9055	0.3230	0.2420	3	H3	U	9.40		0581407	E0267/16
1/2	13	3.3/8	0.9055	0.3670	0.2750	2	H3	27/64	10.80		0581414	E0261/2
1/2	13	3.3/8	0.9055	0.3670	0.2750	3	H3	27/64	10.80		0581438	E0261/23FL
1/2	13	3.3/8	0.9055	0.3670	0.2750	3	H11	27/64	10.80		0581421	E0261/2H11 ¹⁾
9/16	12	3.19/32	0.9843	0.4290	0.3220	3	H3	31/64	12.20		0581445	E0269/16
5/8	11	3.13/16	0.9843	0.4800	0.3600	3	H3	17/32	13.50		0581469	E0265/8
5/8	11	3.13/16	0.9843	0.4800	0.3600	3	H11	17/32	13.50		0581452	E0265/8H11 ¹⁾
3/4	10	4.1/4	1.1614	0.5900	0.4420	3	H4	21/32	16.50		0581476	E0263/4
7/8	9	4.11/16	1.1614	0.6970	0.5230	3	H4	49/64	19.50		0581483	E0267/8
1"	8	5.1/8	1.3976	0.8000	0.6000	3	H4	7/8	22.25		0581490	E0261

Spiral
Point
Taps

¹⁾ Oversize +.005", not 3B

• Machine Tap MTT-X, Spiral Point

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E036



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2
●	1.6	2.3	3.1	3.2	3.3	3.4	

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 mm	Stock #	EDP # or e-Code
10	32	2.3/8	0.4303	0.1940	0.1520	2	H2	N21	4.10	0.8434	0582145	E03610-32
12	28	2.3/8	0.4173	0.2200	0.1650	2	H3	N14	4.70	0.8848	0582152	E03612-28 ¹⁾
1/4	28	2.1/2	0.5075	0.2550	0.1910	2	H3	N3	5.50	1.0073	0582169	E0361/4
1/4	28	2.1/2	0.5075	0.2550	0.1910	3	H3	N3	5.50	1.0073	0582176	E0361/43FL
5/16	24	2.23/32	0.5939	0.3180	0.2380	2	H3	I	6.90	1.1891	0582183	E0365/16
5/16	24	2.23/32	0.5939	0.3180	0.2380	3	H3	I	6.90	1.1891	0582190	E0365/163FL
3/8	24	2.15/16	0.6020	0.3810	0.2860	2	H3	Q	8.50	1.2915	0582206	E0363/8
3/8	24	2.15/16	0.6020	0.3810	0.2860	3	H3	Q	8.50	1.2915	0582213	E0363/83FL
7/16	20	3.5/32	0.9055	0.3230	0.2420	3	H3	25/64	9.90		0582220	E0367/163FL
1/2	20	3.3/8	0.9055	0.3670	0.2750	2	H3	29/64	11.50		0582237	E0361/2
1/2	20	3.3/8	0.9055	0.3670	0.2750	3	H3	29/64	11.50		0582244	E0361/23FL
9/16	18	3.19/32	0.9843	0.4290	0.3220	3	H3	33/64	12.90		0582251	E0369/16
5/8	18	3.13/16	0.9843	0.4800	0.3600	3	H3	37/64	14.50		0582268	E0365/8
3/4	16	4.1/4	1.1614	0.5900	0.4420	3	H3	11/16	17.50		0582275	E0363/4
7/8	14	4.11/16	1.1614	0.6970	0.5230	3	H4	13/16	20.40		0582282	E0367/8
1"	12	5.1/8	1.3976	0.8000	0.6000	3	H4	59/64	23.25		0582299	E0361-12 ¹⁾
1"	14	5.1/8	1.3976	0.8000	0.6000	3	H4	59/64	23.50		0582305	E0361-14

Spiral
Point
Taps

¹⁾ Available as special. Please call for delivery.

- Machine Tap MTT-X, Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E005



Group	Scores
Black Square	1.1, 1.2, 1.3, 1.4, 1.5, 8.1
Red Circle	1.6, 2.1, 2.2, 2.3, 3.1, 3.2, 3.3, 3.4, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 6.2, 6.3, 6.4, 7.1

		I_1	I_2	d_2 $\varnothing$	 a	 #	I_4				EDP # or e-Code
M	P mm	Inch	Inch	Inch /	Inch	Flutes			Stock #		
4	0.70	2.1/8	0.2484	0.1680	0.1310	2	3.3	0.6526	N30	0580301	E005M4
4	0.70	2.1/8	0.2484	0.1680	0.1310	3	3.3	0.6526	N30	0580318	E005M43FL
5	0.80	2.3/8	0.4303	0.1940	0.1520	2	4.2	0.8434	N19	0580325	E005M5
5	0.80	2.3/8	0.4303	0.1940	0.1520	3	4.2	0.8434	N19	0580332	E005M53FL
6	1.00	2.1/2	0.5075	0.2550	0.1910	2	5.0	1.0073	N9	0580349	E005M6
6	1.00	2.1/2	0.5075	0.2550	0.1910	3	5.0	1.0073	N9	0580356	E005M63FL
8	1.25	2.23/32	0.5939	0.3180	0.2380	2	6.8	1.1891	H	0580363	E005M8
8	1.25	2.23/32	0.5939	0.3180	0.2380	3	6.8	1.1891	H	0580370	E005M83FL
10	1.50	2.15/16	0.6020	0.3810	0.2860	2	8.5	1.2915	Q	0580387	E005M10
10	1.50	2.15/16	0.6020	0.3810	0.2860	3	8.5	1.2915	Q	0580394	E005M103FL
12	1.75	3.3/8	0.9055	0.3670	0.2750	2	10.3		Y	0580400	E005M12
12	1.75	3.3/8	0.9055	0.3670	0.2750	3	10.3		Y	0580417	E005M123FL
14	2.00	3.19/32	0.9843	0.4290	0.3220	3	12.0		15/32	0580424	E005M14 ¹⁾
16	2.00	3.13/16	0.9843	0.4800	0.3600	3	14.0		35/64	0580431	E005M16
18	2.50	4.1/32	1.1614	0.5420	0.4060	3	15.5		39/64	0580448	E005M18 ¹⁾
20	2.50	4.15/32	1.1614	0.6520	0.4890	3	17.5		11/16	0580455	E005M20 ¹⁾

Spiral Point Taps

¹⁾ Available as special. Please call for delivery.

E006

DORMER

• Machine Tap MTT-X, Spiral Point

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E006



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2
●	1.6	2.3	3.1	3.2	3.3	3.4	

M	P mm	l ₁ Inch	l ₂ Inch	d ₂ Ø Inch /	a Inch	# Flutes	l ₄	EDP # or e-Code
4	0.70	2.1/8	0.2484	0.1680	0.1310	2	3.3	0580462 E006M4
4	0.70	2.1/8	0.2484	0.1680	0.1310	3	3.3	0583180 E006M43FL
5	0.80	2.3/8	0.4303	0.1940	0.1520	2	4.2	0580479 E006M5
5	0.80	2.3/8	0.4303	0.1940	0.1520	3	4.2	0580486 E006M53FL
6	1.00	2.1/2	0.5075	0.2550	0.1910	2	5.0	0580493 E006M6
6	1.00	2.1/2	0.5075	0.2550	0.1910	3	5.0	0580509 E006M63FL
8	1.25	2.23/32	0.5939	0.3180	0.2380	2	6.8	0580516 E006M8
8	1.25	2.23/32	0.5939	0.3180	0.2380	3	6.8	0583197 E006M83FL
10	1.50	2.15/16	0.6020	0.3810	0.2860	2	8.5	0580523 E006M10
10	1.50	2.15/16	0.6020	0.3810	0.2860	3	8.5	0580530 E006M103FL
12	1.75	3.3/8	0.9055	0.3670	0.2750	2	10.3	0580547 E006M12
12	1.75	3.3/8	0.9055	0.3670	0.2750	3	10.3	0580554 E006M123FL
14	2.00	3.19/32	0.9843	0.4290	0.3220	3	12.0	0580561 E006M14
16	2.00	3.13/16	0.9843	0.4800	0.3600	3	14.0	0580578 E006M16
18	2.50	4.1/32	1.1614	0.5420	0.4060	3	15.5	0580585 E006M18 ¹⁾
20	2.50	4.15/32	1.1614	0.6520	0.4890	3	17.5	0580592 E006M20

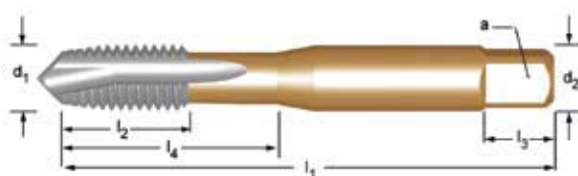
Spiral
Point
Taps

¹⁾ Available as special. Please call for delivery.

- Machine Tap MTT-X
- Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E015



■	1.1	1.2	1.3	1.4	1.5	6.1	6.3	7.1	7.2	7.3	7.4
●	1.6	3.1	3.2	3.3	3.4	4.1	4.2	5.1	5.2	6.2	8.1

MF	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_4	EDP # or e-Code
8	1.00	2.23/32	0.5939	0.3180	0.2380	3	7.0	J 0580912 E015M8X1.0
10	1.00	2.15/16	0.6020	0.3810	0.2860	3	9.0	T 0580929 E015M10X1.0
14	1.50	3.19/32	0.9843	0.4290	0.3220	3	12.5	31/64 0580936 E015M14X1.5
18	1.50	4.1/32	1.1614	0.5420	0.4060	3	16.5	41/64 0580943 E015M18X1.5 ¹⁾

Spiral
Point
Taps

E016

- Machine Tap MTT-X
- Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E016



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2
●	1.6	2.3	3.1	3.2	3.3	3.4	

MF	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_4	EDP # or e-Code
8	1.00	2.23/32	0.5939	0.3180	0.2380	3	7.0	J 0580950 E016M8X1.0
10	1.00	2.15/16	0.6020	0.3810	0.2860	3	9.0	T 0580967 E016M10X1.0
14	1.50	3.19/32	0.9843	0.4290	0.3220	3	12.5	31/64 0580974 E016M14X1.5
18	1.50	4.1/32	1.1614	0.5420	0.4060	3	16.5	41/64 0580981 E016M18X1.5 ¹⁾

¹⁾ Available as special. Please call for delivery.

E000

DORMER

- Machine Tap MTT-X
- Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E000



■	1.1	1.2	1.3	1.4	1.5	6.1	6.3	7.1	7.2	7.3	7.4
●	1.6	3.1	3.2	3.3	3.4	4.1	4.2	5.1	5.2	6.2	8.1

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes		l ₄ mm	EDP # or e-Code
3	0.50	48	15	3.15	2.50	5	3	2.5	12.5	0567586 E000M3
3.5	0.60	50	16	3.55	2.80	5	3	2.9	14	0567593 E000M3.5
4	0.70	53	17	4.00	3.15	6	3	3.3	14	0567609 E000M4
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0567616 E000M5
6	1.00	66	13	6.30	5.00	8	3	5.0	26	0567623 E000M6
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0567630 E000M8
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0567647 E000M10
12	1.75	89	22	9.00	7.10	10	3	10.3		0567654 E000M12
14	2.00	95	24	11.20	9.00	12	3	12.0		0567661 E000M14
16	2.00	102	24	12.50	10.00	13	3	14.0		0567678 E000M16
18	2.50	112	29	14.00	11.20	14	4	15.5		0567685 E000M18
20	2.50	112	29	14.00	11.20	14	4	17.5		0567692 E000M20
22	2.50	118	29	16.00	12.50	16	4	19.5		0567708 E000M22
24	3.00	130	35	18.00	14.00	18	4	21.0		0567715 E000M24

Spiral
Point
Taps

- Machine Tap MTT-X
- Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina

**MTT-X**

E001



		I_1	I_2	d_2 $\varnothing$	$\frac{I_1}{a}$	I_3	#		I_4	EDP # or e-Code
M	P mm	mm	mm	mm	mm	mm	Flutes		mm	Stock #
3	0.50	48	15	3.15	2.50	5	3	2.5	12.5	0567722 E001M3
3.5	0.60	50	16	3.55	2.80	5	3	2.9	14	0567739 E001M3.5
4	0.70	53	17	4.00	3.15	6	3	3.3	14	0567746 E001M4
5	0.80	58	11	5.00	4.00	7	3	4.2	22	0567753 E001M5
6	1.00	66	13	6.30	5.00	8	3	5.0	26	0567760 E001M6
8	1.25	72	16	8.00	6.30	9	3	6.8	29	0567777 E001M8
10	1.50	80	18	10.00	8.00	11	3	8.5	34	0567784 E001M10
12	1.75	89	22	9.00	7.10	10	3	10.3		0567791 E001M12
14	2.00	95	24	11.20	9.00	12	3	12.0		0567807 E001M14
16	2.00	102	24	12.50	10.00	13	3	14.0		0567814 E001M16
18	2.50	112	29	14.00	11.20	14	4	15.5		0567821 E001M18
20	2.50	112	29	14.00	11.20	14	4	17.5		0567838 E001M20
22	2.50	118	29	16.00	12.50	16	4	19.5		0567845 E001M22
24	3.00	130	35	18.00	14.00	18	4	21.0		0567852 E001M24

Spiral Point Taps

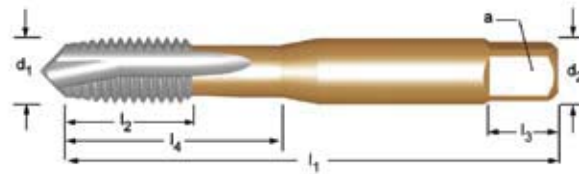
E010

DORMER

- Machine Tap MTT-X
- Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E010



- 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4
- 1.6 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.2 8.1

MF	P mm	l_1 mm	l_2 mm	d_2 mm	a mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
4	0.50	53	17	4.00	3.15	6	3	3.5	14	0568149	E010M4X.5
5	0.50	58	11	5.00	4.00	7	3	4.5	22	0568156	E010M5X.5
6	0.50	66	13	6.30	5.00	8	3	5.5	26	0568163	E010M6X.5
6	0.75	66	13	6.30	5.00	8	3	5.3	26	0568170	E010M6X.75
8	0.75	72	16	8.00	6.30	9	3	7.3	29	0568187	E010M8X.75
8	1.00	72	16	8.00	6.30	9	3	7.0	29	0568194	E010M8X1.0
10	1.00	80	18	10.00	8.00	11	3	9.0	34	0568200	E010M10X1.0
10	1.25	80	18	10.00	8.00	11	3	8.8	34	0568217	E010M10X1.25
12	1.00	89	22	9.00	7.10	10	3	11.0		0568224	E010M12X1.0
12	1.25	89	22	9.00	7.10	10	3	10.8		0568231	E010M12X1.25
12	1.50	89	22	9.00	7.10	10	3	10.5		0568248	E010M12X1.5
14	1.00	95	24	11.20	9.00	12	3	13.0		0568255	E010M14X1.0
14	1.25	95	24	11.20	9.00	12	3	12.8		0568262	E010M14X1.25
14	1.50	95	24	11.20	9.00	12	3	12.5		0568279	E010M14X1.5
16	1.00	102	24	12.50	10.00	13	3	15.0		0568286	E010M16X1.0
16	1.50	102	24	12.50	10.00	13	3	14.5		0568293	E010M16X1.5
18	1.00	112	29	14.00	11.20	14	4	17.0		0568309	E010M18X1.0
18	1.50	112	29	14.00	11.20	14	4	16.5		0568316	E010M18X1.5
20	1.00	112	29	14.00	11.20	14	4	19.0		0568323	E010M20X1.0
20	1.50	112	29	14.00	11.20	14	4	18.5		0568330	E010M20X1.5
20	2.00	112	29	14.00	11.20	14	4	18.0		0568347	E010M20X2.0
22	1.50	118	29	16.00	12.50	16	4	20.5		0568354	E010M22X1.5
24	1.50	130	35	18.00	14.00	18	4	22.5		0568361	E010M24X1.5
24	2.00	130	35	18.00	14.00	18	4	22.0		0568378	E010M24X2.0

Spiral
Point
Taps

- Machine Tap MTT-X
- Spiral Point

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E011



■	1.1	1.2	1.3	1.4	1.5						
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4			

MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
4	0.50	53	17	4.00	3.15	6	3	3.5	14	0568385	E011M4X.5
5	0.50	58	11	5.00	4.00	7	3	4.5	22	0568392	E011M5X.5
6	0.50	66	13	6.30	5.00	8	3	5.5	26	0568408	E011M6X.5
6	0.75	66	13	6.30	5.00	8	3	5.3	26	0568415	E011M6X.75
8	0.75	72	16	8.00	6.30	9	3	7.3	29	0568422	E011M8X.75
8	1.00	72	16	8.00	6.30	9	3	7.0	29	0568439	E011M8X1.0
10	1.00	80	18	10.00	8.00	11	3	9.0	34	0568446	E011M10X1.0
10	1.25	80	18	10.00	8.00	11	3	8.8	34	0568453	E011M10X1.25
12	1.00	89	22	9.00	7.10	10	3	11.0		0568460	E011M12X1.0
12	1.25	89	22	9.00	7.10	10	3	10.8		0568477	E011M12X1.25
12	1.50	89	22	9.00	7.10	10	3	10.5		0568484	E011M12X1.5
14	1.00	95	24	11.20	9.00	12	3	13.0		0568491	E011M14X1.0
14	1.25	95	24	11.20	9.00	12	3	12.8		0568507	E011M14X1.25
14	1.50	95	24	11.20	9.00	12	3	12.5		0568514	E011M14X1.5
16	1.00	102	24	12.50	10.00	13	3	15.0		0568521	E011M16X1.0
16	1.50	102	24	12.50	10.00	13	3	14.5		0568538	E011M16X1.5
18	1.00	112	29	14.00	11.20	14	4	17.0		0568545	E011M18X1.0
18	1.50	112	29	14.00	11.20	14	4	16.5		0568552	E011M18X1.5
20	1.00	112	29	14.00	11.20	14	4	19.0		0568569	E011M20X1.0
20	1.50	112	29	14.00	11.20	14	4	18.5		0568576	E011M20X1.5
20	2.00	112	29	14.00	11.20	14	4	18.0		0568583	E011M20X2.0
22	1.50	118	29	16.00	12.50	16	4	20.5		0568590	E011M22X1.5
24	1.50	130	35	18.00	14.00	18	4	22.5		0568606	E011M24X1.5
24	2.00	130	35	18.00	14.00	18	4	22.0		0568613	E011M24X2.0

Spiral
Point
Taps

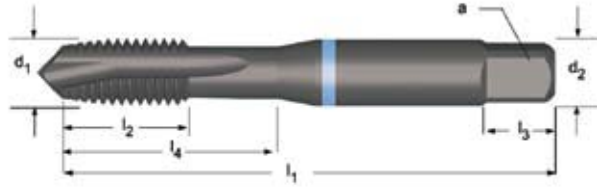
E045 - E049

DORMER

- Machine Tap MTT-X
- Spiral Point for stainless steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E045



- 2.1 2.2 2.3 2.4
- 1.5 1.6

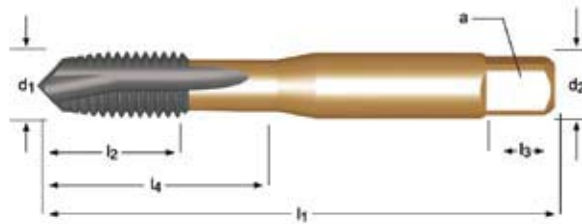
M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	EDP # or e-Code
3	0.50	48	15	3.15	2.50	5	3	2.5	0605790 E045M3
4	0.70	53	17	4.00	3.15	6	3	3.3	0605806 E045M4
5	0.80	58	11	5.00	4.00	7	3	4.2	0605813 E045M5
6	1.00	66	13	6.30	5.00	8	3	5	0605820 E045M6
8	1.25	72	16	8.00	6.30	9	3	6.8	0605837 E045M8
10	1.50	80	18	10.00	8.00	11	3	8.5	0605844 E045M10
12	1.75	89	22	9.00	7.10	10	4	10.3	0605851 E045M12
16	2.00	102	24	12.50	10.00	13	4	14	0605868 E045M16
20	2.50	112	29	14.00	11.20	14	4	17.5	0605875 E045M20

Spiral
Point
Taps

- Machine Tap MTT-X
- Spiral Point for stainless steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E049



- 1.1 1.2 1.3 1.4 1.5 6.1 6.3
- 1.6 3.1 3.2 3.3 3.4 4.2 5.2 6.2

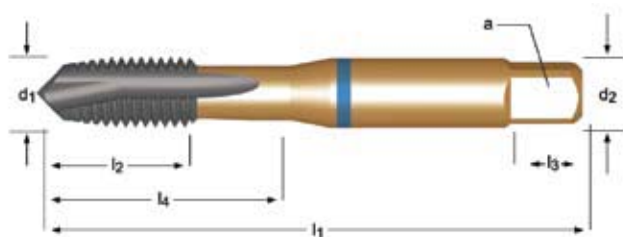
M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	EDP # or e-Code
3	0.50	48	12.5	3.15	2.50	5	3	2.5	0606155 E049M3
4	0.70	53	14	4.00	3.15	6	3	3.3	0606162 E049M4
5	0.80	58	11	5.00	4.00	7	3	4.2	0606179 E049M5
6	1.00	66	13	6.30	5.00	8	3	5.0	0606186 E049M6
8	1.25	72	16	8.00	6.30	9	3	6.8	0606193 E049M8
10	1.50	80	18	10.00	8.00	11	3	8.5	0606209 E049M10
12	1.75	89	22	9.00	7.10	10	3	10.3	0606216 E049M12
16	2.00	102	24	12.50	10.00	13	3	14.0	0606223 E049M16
20	2.50	112	29	14.00	11.20	14	4	17.5	0606230 E049M20

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

- Machine Tap MTT-X
- Spiral Point for stainless steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E046



- 2.1 2.2 2.3 2.4 4.1
- 1.5 1.6 5.1 5.2

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes	l_4 mm	EDP # or e-Code
3	0.50	48	15	3.15	2.50	5	3	2.5	0605882 E046M3
4	0.70	53	17	4.00	3.15	6	3	3.3	0605899 E046M4
5	0.80	58	11	5.00	4.00	7	3	4.2	0605905 E046M5
6	1.00	66	13	6.30	5.00	8	3	5	0605912 E046M6
8	1.25	72	16	8.00	6.30	9	3	6.8	0605929 E046M8
10	1.50	80	18	10.00	8.00	11	3	8.5	0605936 E046M10
12	1.75	89	22	9.00	7.10	10	4	10.3	0605943 E046M12
16	2.00	102	24	12.50	10.00	13	4	14	0605950 E046M16
20	2.50	112	29	14.00	11.20	14	4	17.5	0605967 E046M20



MTT-X

E055



- 2.1 2.2 2.3 2.4
- 1.5 1.6

UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes	l_4 mm	EDP # or e-Code
4	40	2.85	48	12.5	3.15	2.50	5	3	2.35	0606667 E0554-40
6	32	3.51	50	14	3.55	2.80	5	3	2.85	0606674 E0556-32
8	32	4.17	53	9.5	4.50	3.55	6	3	3.5	0606681 E0558-32
10	24	4.83	58	11	5.00	4.00	7	3	3.9	0606698 E05510-24
1/4	20	6.35	66	13	6.30	5.00	8	3	5.1	0606704 E0551/4
5/16	18	7.94	72	16	8.00	6.30	9	3	6.6	0606711 E0555/16
3/8	16	9.53	80	18	10.00	8.00	11	3	8	0606728 E0553/8
1/2	13	12.70	89	22	9.00	7.10	10	4	10.8	0606735 E0551/2
5/8	11	15.88	102	24	12.50	10.00	13	4	13.5	0606742 E0555/8
3/4	10	19.05	112	29	14.00	11.20	14	4	16.5	0606759 E0553/4

E057

DORMER

- Machine Tap MTT-X
- Spiral Point for mild steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E057



- 1.1 1.2 1.3 1.4 1.5 6.1 6.3
- 1.6 4.2 5.2 6.2

UNC	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes	l ₄ mm	Stock #	EDP # or e-Code
6	32	3.505	50	14	3.55	2.80	5	3	2.85	0606865	E0576-32
8	32	4.166	53	9.5	4.50	3.55	6	3	3.50	0606872	E0578-32
10	24	4.826	58	11	5.00	4.00	7	3	3.90	0606889	E05710-24
1/4	20	6.350	66	13	6.30	5.00	8	3	5.10	0606896	E0571/4
5/16	18	7.938	72	16	8.00	6.30	9	3	6.60	0606902	E0575/16
3/8	16	9.525	80	18	10.00	8.00	11	3	8.00	0606919	E0573/8
1/2	13	12.700	89	22	9.00	7.10	10	3	10.80	0606926	E0571/2
5/8	11	15.875	102	24	12.50	10.00	13	3	13.50	0606933	E0575/8
3/4	10	19.050	112	29	14.00	11.20	14	4	16.50	0606940	E0573/4

Spiral
Point
Taps

E060

- Machine Tap MTT-X
- Spiral Point for stainless steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E060



- 2.1 2.2 2.3 2.4
- 1.5 1.6

UNF	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes	l ₄ mm	Stock #	EDP # or e-Code
10	32	4.83	58	11	5.00	4.00	7	3	4.1	0607107	E06010-32
1/4	28	6.35	66	13	6.30	5.00	8	3	5.5	0607114	E0601/4
5/16	24	7.94	72	16	8.00	6.30	9	3	6.9	0607121	E0605/16
3/8	24	9.53	80	18	10.00	8.00	11	3	8.5	0607138	E0603/8

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

1534(UNC)

- Machine Tap
- Spiral Point Taps, Relieved Style
- Features eccentric relieved threads with full pitch diameter relief
- Freer cutting tap, resulting in much longer tool life

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 1.5 8.1
- 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 6.1 6.2 6.3 6.4 7.1
- 7.2 7.3 7.4

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H1	P	1012700
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	B	1012357
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1012356
6	32	2"	11/16	0.141	0.110	3/16	2	H1	P	1012359
6	32	2"	11/16	0.141	0.110	3/16	2	H2	B	1012363
6	32	2"	11/16	0.141	0.110	3/16	2	H2	P	1012360
6	32	2"	11/16	0.141	0.110	3/16	2	H3	B	1012364
6	32	2"	11/16	0.141	0.110	3/16	2	H3	P	1012361
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H1	P	1012368
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H2	B	1012372
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H2	P	1012369
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	B	1012373
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	P	1012370
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H1	P	1012376
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H2	B	1012379
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H2	P	1012377
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	B	1012380
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	P	1012378
12	24	2.3/8	15/16	0.220	0.165	9/32	2	H3	B	1012699
12	24	2.3/8	15/16	0.220	0.165	9/32	2	H3	P	1012389

Spiral
Point
Taps

**UNION
BUTTERFIELD**

- Machos de máquina

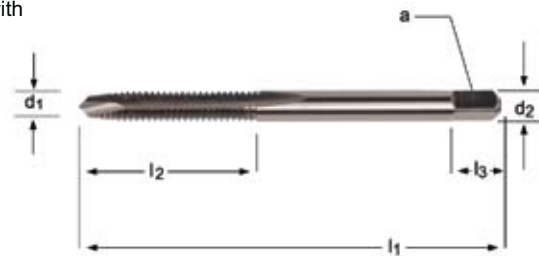
Spiral Point Taps

1634(UNC)

- Machine Tap
- Spiral Point Taps, Relieved Style
- Features eccentric relieved threads with full pitch diameter relief
- Freer cutting tap, resulting in much longer tool life

- Tarauds machine

- Machos de máquina



		I ₁	I ₂	d ₂ Ø	☐ a	I ₃	#	Limits	Chamfer	EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	Inch	Inch				
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	P	1011102
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1011103
6	32	2"	11/16	0.141	0.110	3/16	2	H2	P	1011104
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H2	P	1011105

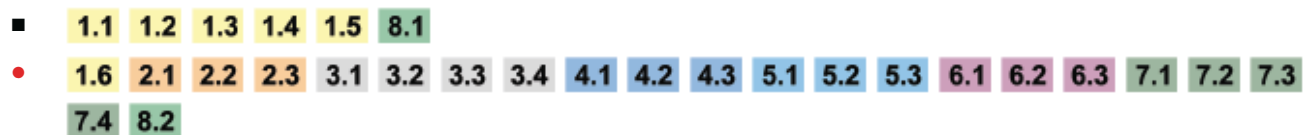
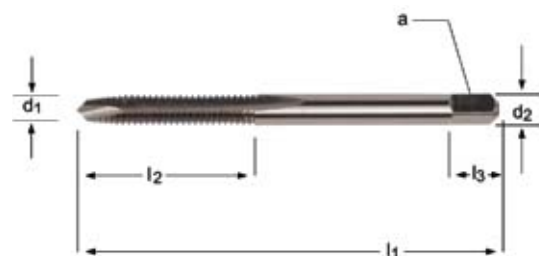
Spiral Point Taps

1634(UNF)

- Spiral Point Taps, Relieved Style
- Features eccentric relieved threads with full pitch diameter relief
- Freer cutting tap, resulting in much longer tool life

- Relieved Style

- Relieved Style



		l_1	l_2	d_2 $\emptyset$	 a	l_3	#	Limits	Chamfer	EDP # or e-Code
UNF	TPI	Inch	Inch	Inch /	Inch	Inch	Flutes			
10	32	2 3/8	7/8	0.194	0.152	1/4	2	H2	P	1011106

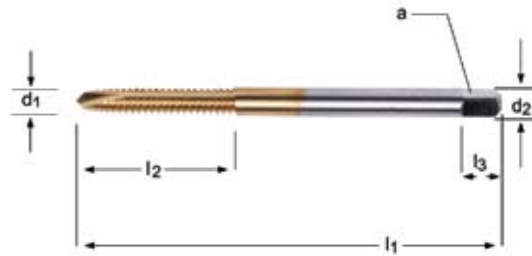
TN1534(UNC)

UNION
BUTTERFIELD

- Machine Tap
- Spiral Point Taps, Relieved Style
- Features eccentric relieved threads with full pitch diameter relief
- Freer cutting tap, resulting in much longer tool life

• Tarauds machine

• Machos de máquina



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	5.1	5.2	6.1	6.2	6.3	7.1	7.2	7.3
•	2.3	3.1	3.2	3.3	3.4	6.4										

		l_1	l_2	d_2	$\square$	l_3	#				EDP #
UNC	TPI	Inch	Inch	Ø Inch /	a Inch	Inch	Flutes	Limits	Chamfer		or e-Code
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	P		1060805
6	32	2"	11/16	0.141	0.110	3/16	2	H3	P		1062361
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	P		1062370
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	P		1062378
12	24	2.3/8	15/16	0.220	0.165	9/32	2	H3	P		1062389

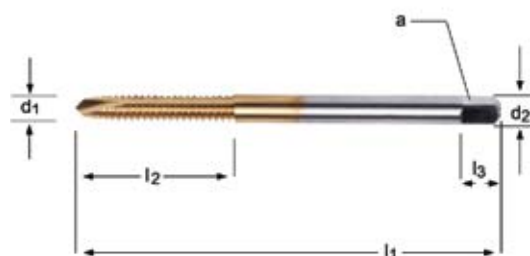
Spiral
Point
Taps

TN1534(UNF)

- Spiral Point Taps, Relieved Style
- Features eccentric relieved threads with full pitch diameter relief
- Freer cutting tap, resulting in much longer tool life

• Relieved Style

• Relieved Style



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	5.1	5.2	6.1	6.2	6.3	7.1	7.2	7.3
•	2.3	3.1	3.2	3.3	3.4	6.4										

		l_1	l_2	d_2	$\square$	l_3	#				EDP #
UNF	TPI	Inch	Inch	Ø Inch /	a Inch	Inch	Flutes	Limits	Chamfer		or e-Code
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	P		1062383

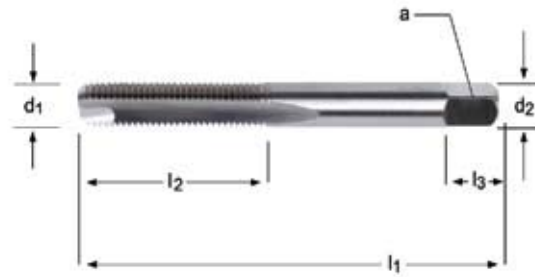
■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

1585(UNC)

- Machine Tap
- Spiral Point Taps, Relieved Style

- Tarauds machine

- Machos de máquina



		I ₁	I ₂	d ₂ Ø	□ a	I ₃				EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	Inch	Inch	#	Flutes	Limits	Chamfer
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H1	P	1010290
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H2	P	1010291
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1010292
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010295
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	B	1010294
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H5	P	1010296
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H5	P	1010293
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H1	P	1010304
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H2	P	1010305
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1010306
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010309
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	B	1010308
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H5	P	1010310
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H5	P	1010307
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H1	P	1010318
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H2	P	1010319
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010320
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H5	P	1010321
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H2	P	1010327
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010328
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H5	P	1010329
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H1	P	1010334
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H2	P	1010335
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010336
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H5	P	1010337
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	3	H3	P	1010342
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	3	H5	P	1010343
3/4	10	4.1/4	2"	0.590	0.442	11/16	3	H3	P	1010344
3/4	10	4.1/4	2"	0.590	0.442	11/16	3	H5	P	1010345

1585(UNF)

- Machine Tap
- Spiral Point Taps, Relieved Style

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 1.5 8.1
- 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H1	P	1010297
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H2	P	1010298
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H2	P	1010302
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1010299
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	B	1010301
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H4	P	1010300
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H4	P	1010303
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H1	P	1010311
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H2	P	1010312
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H2	P	1010316
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1010313
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	B	1010315
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H4	P	1010317
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H4	P	1010314
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H1	P	1010322
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H2	P	1010323
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010324
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H4	P	1010325
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H2	P	1010331
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010332
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H5	P	1010333
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H1	P	1010338
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H2	P	1010339
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010340
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H5	P	1010341
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	3	H3	P	1012774
3/4	16	4.1/4	2"	0.590	0.442	11/16	3	H3	P	1012775

Spiral
Point
Taps

1585A(UNC)

- Machine Tap
- Spiral Point Taps, Relieved Style

- Tarauds machine

- Machos de máquina



		I ₁	I ₂	d ₂ Ø	 a	I ₃				EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	Inch	Inch	# Flutes	Limits	Chamfer	
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1050292
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1050306
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1050320
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1050328
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1050336
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	3	H3	P	1050342
3/4	10	4.1/2	2"	0.590	0.442	11/16	3	H3	P	1050344

Spiral Point Taps

1585A(UNF)

- Machine Tap
- Spiral Point Taps, Relieved Style

- Tarauds machine

- Machos de máquina



		I_1	I_2	d_2 $\emptyset$	 a	I_3				EDP # or e-Code
UNF	TPI	Inch	Inch	Inch /	Inch	Inch	# Flutes	Limits	Chamfer	
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1050299
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1050313
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1050324
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1050332
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1050340
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	3	H3	P	1052774
3/4	16	4.1/2	2"	0.590	0.442	11/16	3	H3	P	1052775

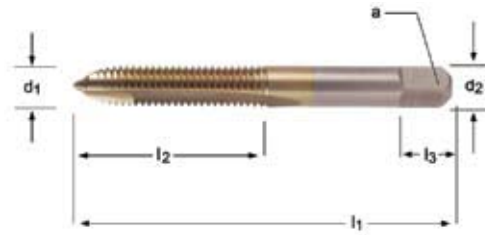
TN1585(UNC)

**UNION
BUTTERFIELD**

- Machine Tap
- Spiral Point Taps, Relieved Style

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3
- 2.3 3.1 3.2 3.3 3.4 6.4

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1060292
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H5	P	1060293
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1060295
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H5	P	1060296
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1060306
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1060309
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H5	P	1060310
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1060320
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H5	P	1060321
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1060328
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1060336

Spiral
Point
Taps

TN1585(UNF)

- Machine Tap
- Spiral Point Taps, Relieved Style

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3
- 2.3 3.1 3.2 3.3 3.4 6.4

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1060299
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1060313
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1060324
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1060332
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1060340

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

1985(UNC) - (UNF)

- Machine Tap
- DDX Spiral Point Taps, Relieved Style, High Hook
- Taps feature a high hook, special O.D. and P.D. relief, and increased back taper
- For use in through hole applications where a free-cutting action is required

- Tarauds machine

- Machos de máquina



1985(UNC)



- 1.1 1.2 1.3 1.4 1.5 2.1 4.1 4.2 4.3 5.1 5.2 5.3
 • 1.6 2.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Chamfer	EDP # or e-Code
4	40	1.7/8	9/16	0.141	0.110	3/16	2	P	1013037
5	40	1.15/16	5/8	0.141	0.110	3/16	2	P	1013039
6	32	2"	11/16	0.141	0.110	3/16	2	P	1013041
8	32	2.1/8	3/4	0.168	0.131	1/4	2	P	1013043
10	24	2.3/8	7/8	0.194	0.152	1/4	2	P	1013045
12	24	2.3/8	15/16	0.220	0.165	9/32	2	P	1013047
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	P	1013049
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	P	1013051
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	P	1013053
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	P	1013055
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	P	1013057
9/16	12	3.19/32	1.21/32	0.429	0.322	1/2	3	P	1013059
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	3	P	1013061
3/4	10	4.1/4	2"	0.590	0.442	11/16	3	P	1013065
7/8	9	4.11/16	2.7/32	0.697	0.523	3/4	4	P	1013067
1"	8	5.1/8	2.1/2	0.800	0.600	13/16	4	P	1013069

1985(UNF)



- 1.1 1.2 1.3 1.4 1.5 2.1 4.1 4.2 4.3 5.1 5.2 5.3
 • 1.6 2.2

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
4	48	1.7/8	9/16	0.141	0.110	3/16	2	2B	P	1013038
5	44	1.15/16	5/8	0.141	0.110	3/16	2	2B	P	1013040
6	40	2"	11/16	0.141	0.110	3/16	2	2B	P	1013042
8	36	2.1/8	3/4	0.168	0.131	1/4	2	2B	P	1013044
10	32	2.3/8	7/8	0.194	0.152	1/4	2	2B	P	1013046
12	28	2.3/8	15/16	0.220	0.165	9/32	2	2B	P	1013048
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	2B	P	1013050
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	2B	P	1013052
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	2B	P	1013054
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	2B	P	1013056
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	2B	P	1013058
9/16	18	3.19/32	1.21/32	0.429	0.322	1/2	3	2B	P	1013060
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	3	2B	P	1013062
3/4	16	4.1/4	2"	0.590	0.442	11/16	3	2B	P	1013066
7/8	14	4.11/16	2.7/32	0.697	0.523	3/4	4	2B	P	1013068

1785M-TN1785

**UNION
BUTTERFIELD**

- Machine Tap
- Spiral Point Taps, Relieved Style

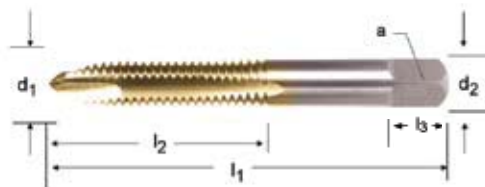
• Tarauds machine

• Machos de máquina



■ 1.1 1.2 1.3 1.4 1.5 8.1 • 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2
6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4

M	P mm	l ₁ Inch	l ₂ Inch	d ₂ Ø Inch /	□ a Inch	l ₃ Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
M2	0.40	1.3/4	7/16	0.141	0.110	3/16	2	D3	P	1012659
M2.3	0.45	1.3/4	7/16	0.141	0.110	3/16	2	D3	P	1012661
M2.5	0.45	1.13/16	1/2	0.141	0.110	3/16	2	D3	P	1012662
M2.6	0.45	1.13/16	1/2	0.141	0.110	3/16	2	D3	P	1012663
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	2	D3	P	1012664
M3.5	0.60	2"	11/16	0.141	0.110	3/16	2	D4	P	1012666
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	2	D4	P	1012668
M4.5	0.75	2.3/8	7/8	0.194	0.152	1/4	2	D4	P	1012669
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	2	D4	P	1012672
M6	1.00	2.1/2	1"	0.255	0.191	5/16	2	D5	P	1012674
M7	1.00	2.23/32	1.1/8	0.318	0.238	3/8	2	D5	P	1012676
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	2	D5	P	1012678
M9	1.25	2.15/16	1.1/4	0.381	0.286	7/16	3	D5	P	1012680
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	3	D5	P	1012682
M11	1.50	3.5/32	1.7/16	0.323	0.242	13/32	3	D6	P	1012685
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	3	D6	P	1012686
M14	2.00	3.19/32	1.21/32	0.429	0.322	1/2	3	D7	P	1012689
M16	2.00	3.13/16	1.13/16	0.480	0.360	9/16	3	D7	P	1012693
M18	2.50	4.1/32	1.13/16	0.542	0.406	5/8	3	D7	P	1012696



TN1785



■ 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3
• 2.3 3.1 3.2 3.3 3.4 6.4

M	P mm	l ₁ Inch	l ₂ Inch	d ₂ Ø Inch /	□ a Inch	l ₃ Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	2	D4	P	1062668
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	2	D4	P	1062672
M6	1.00	2.1/2	1"	0.255	0.191	5/16	2	D5	P	1062674
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	2	D5	P	1062678
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	3	D5	P	1062682
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	3	D6	P	1062686

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

1534NR(UNC)

- Machine Tap
- Spiral Point Taps, Non-Relieved Style
- Recommended for older equipment or manual feed rate applications where the feed rate control is not sufficient for a relieved style tap like our 1534/1585 series

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 1.5 8.1
- 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 6.1 6.2 6.3 6.4
- 7.1 7.2 7.3 7.4

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1	64	1.11/16	3/8	0.141	0.110	3/16	2	H1	P	1010779
1	64	1.11/16	3/8	0.141	0.110	3/16	2	H2	P	1010780
2	56	1.3/4	7/16	0.141	0.110	3/16	2	H1	P	1010787
2	56	1.3/4	7/16	0.141	0.110	3/16	2	H2	B	1010790
2	56	1.3/4	7/16	0.141	0.110	3/16	2	H2	P	1010788
3	48	1.13/16	1/2	0.141	0.110	3/16	2	H2	B	1010798
3	48	1.13/16	1/2	0.141	0.110	3/16	2	H2	P	1010796
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H1	P	1010804
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	P	1010805
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	B	1010807
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1010813
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	B	1010815
6	32	2"	11/16	0.141	0.110	3/16	2	H1	P	1010818
6	32	2"	11/16	0.141	0.110	3/16	2	H2	B	1010822
6	32	2"	11/16	0.141	0.110	3/16	2	H2	P	1010819
6	32	2"	11/16	0.141	0.110	3/16	2	H3	B	1010823
6	32	2"	11/16	0.141	0.110	3/16	2	H3	P	1010820
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H1	P	1010828
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H2	B	1010832
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H2	P	1010829
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	B	1010833
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	P	1010830
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H1	P	1010837
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H2	B	1010841
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H2	P	1010838
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	B	1010842
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	P	1010839
12	24	2.3/8	15/16	0.220	0.165	9/32	2	H3	B	1011072
12	24	2.3/8	15/16	0.220	0.165	9/32	2	H3	P	1011071

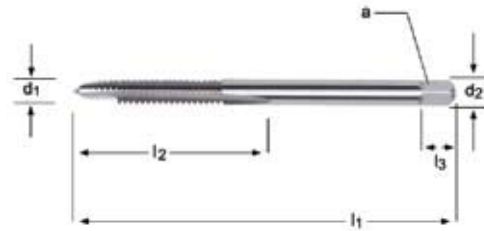
Spiral
Point
Taps

1534NR(UNF)

- Machine Tap
- Spiral Point Taps, Non-Relieved Style
- Recommended for older equipment or manual feed rate applications where the feed rate control is not sufficient for a relieved style tap like our 1534/1585 series

• Tarauds machine

• Machos de máquina



■ 1.1 1.2 1.3 1.4 1.5 8.1 • 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2
6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H1	P	1010775
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H2	B	1010778
0	80	1.5/8	5/16	0.141	0.110	3/16	2	H2	P	1010776
1	72	1.11/16	3/8	0.141	0.110	3/16	2	H1	P	1010783
1	72	1.11/16	3/8	0.141	0.110	3/16	2	H2	P	1010784
2	64	1.3/4	7/16	0.141	0.110	3/16	2	H1	P	1010791
2	64	1.3/4	7/16	0.141	0.110	3/16	2	H2	P	1010792
3	56	1.13/16	1/2	0.141	0.110	3/16	2	H1	P	1010799
3	56	1.13/16	1/2	0.141	0.110	3/16	2	H2	P	1010800
4	48	1.7/8	9/16	0.141	0.110	3/16	2	H2	B	1010811
4	48	1.7/8	9/16	0.141	0.110	3/16	2	H2	P	1010809
5	44	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1010817
6	40	2"	11/16	0.141	0.110	3/16	2	H2	B	1010827
6	40	2"	11/16	0.141	0.110	3/16	2	H2	P	1010825
8	36	2.1/8	3/4	0.168	0.131	1/4	2	H2	P	1010835
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H1	P	1010843
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H2	B	1010847
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H2	P	1010844
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	B	1010848
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	P	1010845
12	28	2.3/8	15/16	0.220	0.165	9/32	2	H3	P	1010853

Spiral
Point
Taps



1534NR(UNS)



■ 1.1 1.2 1.3 1.4 1.5 8.1 • 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2
6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4

UNS	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
4	36	1.7/8	9/16	0.141	0.110	3/16	2	H2	P	1010803

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

1585NR(UNC)

- Machine Tap
- Spiral Point Taps, Non-Relieved Style
- Recommended for older equipment or manual feed rate applications where the feed rate control is not sufficient for a relieved style tap like our 1534/1585 series

- Tarauds machine

- Machos de máquina



		I ₁	I ₂	d ₂ Ø	☐ a	I ₃				EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	Inch	Inch	# Flutes	Limits	Chamfer	
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H1	P	1012813
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H2	P	1012814
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1012815
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1012818
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	B	1012817
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H5	P	1012819
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H5	P	1012816
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H1	P	1012827
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H2	P	1012828
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1012829
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1012832
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1012831
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H5	P	1012833
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H5	P	1012830
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H1	P	1012841
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H2	P	1012842
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1012843
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H5	P	1012844
7/16	14	3.5/32	1.7/16	0.323	0.242	113/32	3	H2	P	1012849
7/16	14	3.5/32	1.7/16	0.323	0.242	113/32	3	H3	P	1012850
7/16	14	3.5/32	1.7/16	0.323	0.242	113/32	3	H5	P	1012851
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H1	P	1012855
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H2	P	1012856
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1012857
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H5	P	1012858
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	3	H3	P	1012863
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	3	H5	P	1012864
3/4	10	4.1/2	2"	0.590	0.442	11/16	3	H3	P	1012865
3/4	10	4.1/2	2"	0.590	0.442	11/16	3	H5	P	1012866

**UNION
BUTTERFIELD**

- Machos de máquina



		l_1	l_2	d_2 Ø	 a	l_3				EDP # or e-Code
UNF	TPI	Inch	Inch	Inch /	Inch	Inch	# Flutes	Limits	Chamfer	
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H1	P	1012820
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H2	P	1012821
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H2	P	1012825
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1012822
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	B	1012824
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H4	P	1012823
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H4	P	1012826
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H1	P	1012834
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H2	P	1012835
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H2	P	1012839
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H3	P	1012836
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1012838
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H4	P	1012840
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	2	H4	P	1012837
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H1	P	1012845
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H2	P	1012846
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1012847
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H4	P	1012848
7/16	20	3.5/32	1.7/16	0.323	0.242	113/32	3	H2	P	1012852
7/16	20	3.5/32	1.7/16	0.323	0.242	113/32	3	H3	P	1012853
7/16	20	3.5/32	1.7/16	0.323	0.242	113/32	3	H5	P	1012854
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H1	P	1012859
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H2	P	1012860
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1012861
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H5	P	1012862
5/8	18	3.13/16	1.13/16	0.480	0.360	9/16	3	H3	P	1012867
3/4	16	4.1/2	2"	0.590	0.442	11/16	3	H3	P	1012868

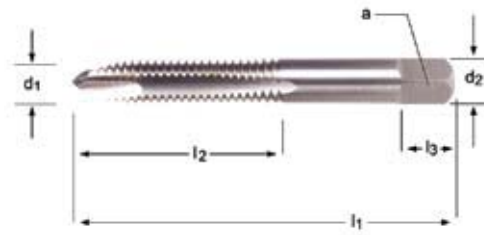
Spiral Point Taps

1593(UNC)

- Machine Tap
- Spiral Point Taps, Relieved Style
- .003"/.0035" Oversize
- Used primarily where a part will be plated or treated after tapping

- Tarauds machine

- Machos de máquina



		I ₁	I ₂	d ₂ Ø	 a	I ₃	#			EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	Inch	Inch	Flutes	Limits	Chamfer	
6	32	2"	11/16	0.141	0.110	3/16	2	H7	P	1010877
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H7	P	1010879
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H7	P	1010881

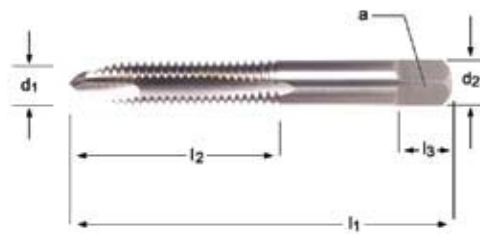
Spiral Point Taps

1593(UNF)

- Machine Tap
- Spiral Point Taps, Non-Relieved Style
- .003"/.0035" Oversize
- Used primarily where a part will be plated or treated after tapping

- Tarauds machine

- Machos de máquina



		l_1	l_2	d_2 $\emptyset$	 a	l_3	#			EDP # or e-Code
UNF	TPI	Inch	Inch	Inch /	Inch	Inch	Flutes	Limits	Chamfer	
10	32	2 3/8	7/8	0.194	0.152	1/4	2	H7	P	1010883

1585OV(UNC)

- Machine Tap
- Spiral Point Taps, Relieved Style
- .005" Oversize
- Used primarily where a part will be plated or treated after tapping

- Tarauds machine

- Machos de máquina



1585OV(UNC)



- 1.1 1.2 1.3 1.4 1.5 8.1
- 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 6.1 6.2 6.3 6.4
- 7.1 7.2 7.3 7.4

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H11	P	1011754
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	2	H11	P	1011755
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H11	P	1011756
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H11	P	1011757
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H11	P	1011758
5/8	11	3.13/16	1.13/16	0.480	0.360	9/16	3	H11	P	1011759

Spiral
Point
Taps

1785NR

- Machine Tap
- Spiral Point Taps, Non-Relieved Style
- Recommended for applications requiring close gauging fits and in older equipment that is not sufficiently rigid to accommodate the 1534/1585 series

- Tarauds machine

- Machos de máquina



1785NR



- 1.1 1.2 1.3 1.4 1.5 8.1

- 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 6.1 6.2 6.3 6.4 7.1 7.2 7.3 7.4

		I ₁	I ₂	I ₃	d ₂ Ø	☐ a	#		EDP # or e-Code
M	P mm	Inch	Inch	Inch	Inch	Inch	Flutes	Limits	
1.6	0.35	1.5/8	5/16	3/16	0.1410	0.1100	2	D3	1012890
2	0.40	1.3/4	7/16	3/16	0.1410	0.1100	2	D3	1012891
2.3	0.40	1.3/4	7/16	3/16	0.1410	0.1100	2	D3	1012892
2.5	0.45	1.13/16	1/2	3/16	0.1410	0.1100	2	D3	1012893
2.6	0.45	1.13/16	1/2	3/16	0.1410	0.1100	2	D3	1012894
3	0.50	1.15/16	5/8	3/16	0.1410	0.1100	2	D3	1012896
3.5	0.60	2"	11/16	3/16	0.1410	0.1100	2	D4	1012897
4	0.70	2.1/8	3/4	1/4	0.1380	0.1310	2	D4	1012898
4.5	0.75	2.3/8	7/8	1/4	0.1940	0.1520	2	D4	1012899
5	0.80	2.3/8	7/8	1/4	0.1940	0.1520	2	D4	1012900
6	1.00	2.1/2	1"	5/16	0.2550	0.1910	2	D5	1012901
7	1.00	2.23/32	1.1/8	3/8	0.3180	0.2380	2	D5	1012902
8	1.25	2.23/32	1.1/8	3/8	0.3180	0.2380	2	D5	1012903
10	1.50	2.15/16	1.1/4	7/16	0.3810	0.2860	3	D6	1012904
12	1.75	3.3/8	1.21/32	7/16	0.3670	0.2750	3	D6	1012905
14	2.00	3.19/32	1.21/32	1/2	0.4290	0.3220	3	D7	1012906
16	2.00	3.13/16	1.13/16	9/16	0.4800	0.3600	3	D7	1012907
18	2.50	4.1/32	1.13/16	5/8	0.5420	0.4060	3	D7	1012908
20	2.50	4.15/32	2"	11/16	0.6520	0.4890	3	D7	1012909

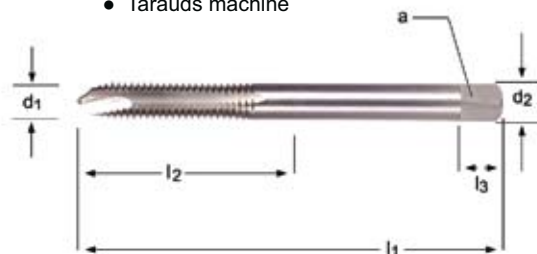
Spiral Point Taps

1534NE(UNC) - (UNF)

- Machine Tap
- Spiral Point Taps, Extension Style, Non-Relieved Style
- Recommended for applications requiring close gauging fits and in older equipment that is not sufficiently rigid to accommodate the 1534/1585 series

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 1.5 8.1
- 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 6.1 6.2 6.3 6.4
- 7.1 7.2 7.3 7.4

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
4	40	4"	9/16	0.141	0.110	3/16	2	H2	P	1020002
6	32	4"	11/16	0.141	0.110	3/16	2	H3	P	1020004
6	32	6"	11/16	0.141	0.110	3/16	2	H3	P	1020006
8	32	4"	3/4	0.168	0.131	1/4	2	H3	P	1020008
8	32	6"	3/4	0.168	0.131	1/4	2	H3	P	1020010
10	24	4"	7/8	0.194	0.152	1/4	2	H3	P	1020012
10	24	6"	7/8	0.194	0.152	1/4	2	H3	P	1020014
1/4	20	4"	1"	0.255	0.191	5/16	2	H3	P	1020020
1/4	20	6"	1"	0.255	0.191	5/16	2	H3	P	1020022
5/16	18	4"	1.1/8	0.318	0.238	3/8	2	H3	P	1020028
5/16	18	6"	1.1/8	0.318	0.238	3/8	2	H3	P	1020030
3/8	16	4"	1.1/4	0.381	0.286	7/16	3	H3	P	1020036
3/8	16	6"	1.1/4	0.381	0.286	7/16	3	H3	P	1020038
7/16	14	6"	1.7/16	0.323	0.242	13/32	3	H3	P	1020044
1/2	13	6"	1.21/32	0.367	0.275	7/16	3	H3	P	1020048

Spiral
Point
Taps

1534NE(UNF)



- 1.1 1.2 1.3 1.4 1.5 8.1
- 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.2 4.3 5.1 5.2 6.1 6.2 6.3 6.4
- 7.1 7.2 7.3 7.4

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
10	32	4"	7/8	0.194	0.152	1/4	2	H3	P	1020016
10	32	6"	7/8	0.194	0.152	1/4	2	H3	P	1020018
1/4	28	4"	1"	0.255	0.191	5/16	2	H3	P	1020024
1/4	28	6"	1"	0.255	0.191	5/16	2	H3	P	1020026
5/16	24	4"	1.1/8	0.318	0.238	3/8	2	H3	P	1020032
5/16	24	6"	1.1/8	0.318	0.238	3/8	2	H3	P	1020034
3/8	24	4"	1.1/4	0.381	0.286	7/16	3	H3	P	1020040
3/8	24	6"	1.1/4	0.381	0.286	7/16	3	H3	P	1020042
7/16	20	6"	1.7/16	0.323	0.242	13/32	3	H3	P	1020046
1/2	20	6"	1.21/32	0.367	0.275	7/16	3	H3	P	1020050

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

1578(UNC)

- Machine Tap
- Spiral Point Tap, Screw Thread Insert
- STI taps are oversize so that the thread they produce will accept a helical coil wire screw thread insert of the same nominal size and pitch

• Tarauds machine

• Machos de máquina



- 1.1 1.2 6.1 6.2 6.3 7.1 7.2 7.3
- 1.3 1.4 2.1 2.2 2.3 6.4 7.4

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	EDP # or e-Code
4	40	2"	11/16	0.141	0.110	3/16	2	H2	1010491
6	32	2.3/8	7/8	0.194	0.152	1/4	2	H2	1010494
6	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	1010495
8	32	2.3/8	15/16	0.220	0.165	9/32	2	H2	1010498
8	32	2.3/8	15/16	0.220	0.165	9/32	2	H3	1010499
1/4	20	2.23/32	1.1/8	0.318	0.238	5/16	2	H2	1010506
1/4	20	2.23/32	1.1/8	0.318	0.238	5/16	2	H3	1010507

Spiral
Point
Taps

1578(UNF)



- 1.1 1.2 6.1 6.2 6.3 7.1 7.2 7.3
- 1.3 1.4 2.1 2.2 2.3 6.4 7.4

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	EDP # or e-Code
10	32	2.1/2	1"	0.255	0.191	9/32	2	H2	1010502
1/4	28	2.23/32	1.1/8	0.318	0.238	5/16	2	H2	1010508
1/4	28	2.23/32	1.1/8	0.318	0.238	5/16	2	H3	1010509

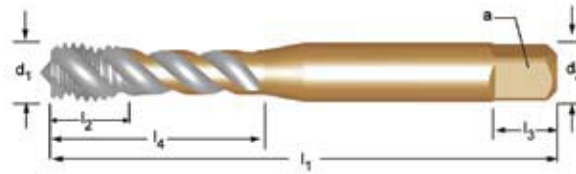
E027

DORMER

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E027

UNC

HSS
XS1

Gold

ANSI

3B

2.5xD

C
2 - 3

■ 1.1 1.2 1.3 1.4 1.5 6.1 6.3 7.1 7.2 7.3 7.4

● 4.1 4.2 5.1 5.2 6.2 8.1

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
6	32	2"	0.2610	0.1410	0.1100	3	H2	N36	2.85	0.5938	0581506	E0276-32
8	32	2.1/8	0.2484	0.1680	0.1310	3	H2	N29	3.50	0.6526	0581513	E0278-32
10	24	2.3/8	0.2650	0.1940	0.1520	3	H3	N25	3.90	0.8434	0581520	E02710-24
12	24	2.3/8	0.2520	0.2200	0.1650	3	H3	N16	4.50	0.8848	0581537	E02712-24
1/4	20	2.1/2	0.3937	0.2550	0.1910	3	H3	N7	5.10	1.0993	0581544	E0271/4
5/16	18	2.23/32	0.4567	0.3180	0.2380	3	H3	F	6.60	1.3094	0581551	E0275/16
3/8	16	2.15/16	0.5315	0.3810	0.2860	3	H3	5/16	8.00	1.4415	0581568	E0273/8
7/16	14	3.5/32	0.6299	0.3230	0.2420	3	H3	U	9.40		0581575	E0277/16
1/2	13	3.3/8	0.6890	0.3670	0.2750	3	H3	27/64	10.80		0581582	E0271/2
9/16	12	3.19/32	0.7087	0.4290	0.3220	3	H3	31/64	12.20		0581599	E0279/16 ¹⁾
5/8	11	3.13/16	0.7087	0.4800	0.3600	3	H3	17/32	13.50		0581605	E0275/8
3/4	10	4.1/4	0.8858	0.5900	0.4420	3	H4	21/32	16.50		0581612	E0273/4
7/8	9	4.11/16	0.9843	0.6970	0.5230	3	H4	49/64	19.50		0581629	E0277/8
1"	8	5.1/8	1.1811	0.8000	0.6000	3	H4	7/8	22.25		0581636	E0271

Spiral
Flute
Taps

¹⁾ Available as special. Please call for delivery.

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E028



- 1.1 1.2 1.3 1.4 1.5
- 2.1 2.2 2.3

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
4	40	1.7/8	0.6091	0.1410	0.1100	3	H2	N43	2.35	0.6091	0581643	E0284-40
5	40	1.15/16	0.7404	0.1410	0.1100	3	H2	N38	2.65	0.7404	0581650	E0285-40
6	32	2"	0.2610	0.1410	0.1100	3	H2	N36	2.85	0.5938	0581667	E0286-32
8	32	2.1/8	0.2484	0.1680	0.1310	3	H2	N29	3.50	0.6526	0581674	E0288-32
10	24	2.3/8	0.2650	0.1940	0.1520	3	H3	N25	3.90	0.8434	0581681	E02810-24
12	24	2.3/8	0.2520	0.2200	0.1650	3	H3	N16	4.50	0.8848	0581698	E02812-24
1/4	20	2.1/2	0.3937	0.2550	0.1910	3	H3	N7	5.10	1.0993	0581704	E0281/4
5/16	18	2.23/32	0.4567	0.3180	0.2380	3	H3	F	6.60	1.3094	0581711	E0285/16
3/8	16	2.15/16	0.5315	0.3810	0.2860	3	H3	5/16	8.00	1.4415	0581728	E0283/8
3/8	16	2.15/16	0.5315	0.3810	0.2860	3	H5	5/16	8.00	1.4415	0581735	E0283/8H5 ¹⁾
7/16	14	3.5/32	0.6299	0.3230	0.2420	3	H3	U	9.40		0581742	E0287/16
1/2	13	3.3/8	0.6890	0.3670	0.2750	3	H3	27/64	10.80		0581759	E0281/2
9/16	12	3.19/32	0.7087	0.4290	0.3220	3	H3	31/64	12.20		0581766	E0289/16
5/8	11	3.13/16	0.7087	0.4800	0.3600	3	H3	17/32	13.50		0581773	E0285/8
3/4	10	4.1/4	0.8858	0.5900	0.4420	3	H4	21/32	16.50		0581780	E0283/4
7/8	9	4.11/16	0.9843	0.6970	0.5230	3	H4	49/64	19.50		0581797	E0287/8
1"	8	5.1/8	1.1811	0.8000	0.6000	3	H4	7/8	22.25		0581803	E0281

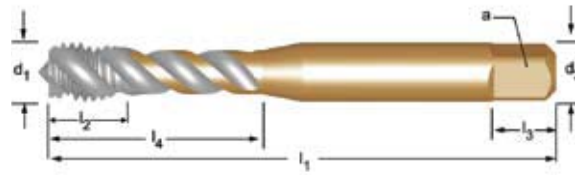
Spiral
Flute
Taps

¹⁾ Class of fit: 2B

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E037



- 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4
- 1.6 4.1 4.2 5.1 5.2 8.1

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
10	32	2.3/8	0.2650	0.1940	0.1520	3	H2	N21	4.10	0.8434	0582312	E03710-32
1/4	28	2.1/2	0.3937	0.2550	0.1910	3	H3	N3	5.50	1.0993	0582329	E0371/4
5/16	24	2.23/32	0.4567	0.3180	0.2380	3	H3	I	6.90	1.3094	0582336	E0375/16
3/8	24	2.15/16	0.5315	0.3810	0.2860	3	H3	Q	8.50	1.4415	0582343	E0373/8
7/16	20	3.5/32	0.6299	0.3230	0.2420	3	H3	25/64	9.90		0582350	E0377/16
1/2	20	3.3/8	0.6890	0.3670	0.2750	3	H3	29/64	11.50		0582367	E0371/2
9/16	18	3.19/32	0.7087	0.4290	0.3220	3	H3	33/64	12.90		0582374	E0379/16
5/8	18	3.13/16	0.7087	0.4800	0.3600	3	H3	37/64	14.50		0582381	E0375/8
3/4	16	4.1/4	0.8858	0.5900	0.4420	3	H3	11/16	17.50		0582398	E0373/4
7/8	14	4.11/16	0.9843	0.6970	0.5230	3	H4	13/16	20.40		0582404	E0377/8
1"	12	5.1/8	1.1811	0.8000	0.6000	3	H4	59/64	23.25		0582411	E0371-12 ¹⁾
1"	14	5.1/8	1.1811	0.8000	0.6000	3	H4	59/64	23.50		0582428	E0371-14

Spiral
Flute
Taps

¹⁾ Available as special. Please call for delivery.

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E038



■ 1.1 1.2 1.3 1.4 1.5

• 1.6 2.1 2.2 2.3

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
10	32	2.3/8	0.2650	0.1940	0.1520	3	H2	N21	4.10	0.8434	0582435	E03810-32
1/4	28	2.1/2	0.3937	0.2550	0.1910	3	H3	N3	5.50	1.0993	0582442	E0381/4
5/16	24	2.23/32	0.4567	0.3180	0.2380	3	H3	I	6.90	1.3094	0582459	E0385/16
3/8	24	2.15/16	0.5315	0.3810	0.2860	3	H3	Q	8.50	1.4415	0582466	E0383/8
7/16	20	3.5/32	0.6299	0.3230	0.2420	3	H3	25/64	9.90		0582473	E0387/16
1/2	20	3.3/8	0.6890	0.3670	0.2750	3	H3	29/64	11.50		0582480	E0381/2
9/16	18	3.19/32	0.7087	0.4290	0.3220	3	H3	33/64	12.90		0582497	E0389/16 ¹⁾
5/8	18	3.13/16	0.7087	0.4800	0.3600	3	H3	37/64	14.50		0582503	E0385/8
3/4	16	4.1/4	0.8858	0.5900	0.4420	3	H3	11/16	17.50		0582510	E0383/4
7/8	14	4.11/16	0.9843	0.6970	0.5230	3	H4	13/16	20.40		0582527	E0387/8
1"	12	5.1/8	1.1811	0.8000	0.6000	3	H4	59/64	23.25		0582534	E0381-12 ¹⁾
1"	14	5.1/8	1.1811	0.8000	0.6000	3	H4	59/64	23.50		0582541	E0381-14

Spiral
Flute
Taps

¹⁾ Available as special. Please call for delivery.

E069

DORMER

- Machine Tap MTT-X
- Spiral Flute for stainless steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E069



- 2.1 2.2 2.3
- 1.5 1.6

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
4	40	1.7/8	0.6091	0.1410	0.1100	3	H2	N43	2.35	0.6091	0582718	E0694-40
5	40	1.15/16	0.7404	0.1410	0.1100	3	H2	N38	2.65	0.7404	0582725	E0695-40
6	32	2"	0.2610	0.1410	0.1100	3	H2	N36	2.85	0.5938	0582732	E0696-32
8	32	2.1/8	0.2484	0.1680	0.1310	3	H2	N29	3.50	0.6526	0582749	E0698-32
10	24	2.3/8	0.2650	0.1940	0.1520	3	H3	N25	3.90	0.8434	0582756	E06910-24
12	24	2.3/8	0.2520	0.2200	0.1650	3	H3	N16	4.50	0.8848	0582763	E06912-24
1/4	20	2.1/2	0.3937	0.2550	0.1910	3	H3	7	5.10	1.0993	0582770	E0691/4
5/16	18	2.23/32	0.4567	0.3180	0.2380	3	H3	F	6.60	1.3094	0582787	E0695/16
3/8	16	2.15/16	0.5315	0.3810	0.2860	3	H3	5/16	8.00	1.4415	0582794	E0693/8
7/16	14	3.5/32	0.6299	0.3230	0.2420	3	H3	U	9.40		0582800	E0697/16
1/2	13	3.3/8	0.6890	0.3670	0.2750	3	H3	27/64	10.80		0582817	E0691/2
9/16	12	3.19/32	0.7087	0.4290	0.3220	3	H3	31/64	12.20		0582824	E0699/16
5/8	11	3.13/16	0.7087	0.4800	0.3600	4	H3	17/32	13.50		0582831	E0695/8
3/4	10	4.1/4	0.8858	0.5900	0.4420	4	H4	21/32	16.50		0582848	E0693/4
7/8	9	4.11/16	0.9843	0.6970	0.5230	4	H4	49/64	19.50		0582855	E0697/8
1"	8	5.1/8	1.1811	0.8000	0.6000	4	H4	7/8	22.25		0582862	E0691

Spiral
Flute
Taps

- Machine Tap MTT-X
- Spiral Flute for stainless steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E079



- 2.1 2.2 2.3
- 1.5 1.6

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	Limits			l_4 Inch	Stock #	EDP # or e-Code
10	32	2.3/8	0.2650	0.1940	0.1520	3	H2	N21	4.10	0.8434	0582916	E07910-32
1/4	28	2.1/2	0.3937	0.2550	0.1910	3	H3	N3	5.50	1.0993	0582923	E0791/4
5/16	24	2.23/32	0.4567	0.3180	0.2380	3	H3	I	6.90	1.3094	0582930	E0795/16
3/8	24	2.15/16	0.5315	0.3810	0.2860	3	H3	Q	8.50	1.4415	0582947	E0793/8
7/16	20	3.5/32	0.6299	0.3230	0.2420	3	H3	25/64	9.90		0582954	E0797/16
1/2	20	3.3/8	0.6890	0.3670	0.2750	3	H3	29/64	11.50		0582961	E0791/2
9/16	18	3.19/32	0.7087	0.4290	0.3220	3	H3	33/64	12.90		0582978	E0799/16
5/8	18	3.13/16	0.7087	0.4800	0.3600	4	H3	37/64	14.50		0582985	E0795/8
3/4	16	4.1/4	0.8858	0.5900	0.4420	4	H3	11/16	17.50		0582992	E0793/4
7/8	14	4.11/16	0.9843	0.6970	0.5230	4	H4	13/16	20.40		0583005	E0797/8
1"	12	5.1/8	1.1811	0.8000	0.6000	4	H4	59/64	23.25		0583012	E0791-12
1"	14	5.1/8	1.1811	0.8000	0.6000	4	H4	59/64	23.50		0583029	E0791-14

Spiral
Flute
Taps

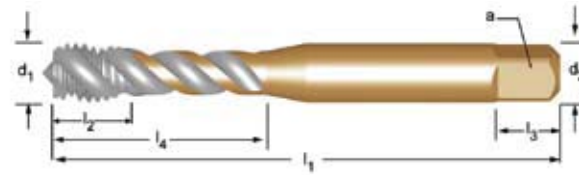
E007 - E008

DORMER

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E007



■	1.1	1.2	1.3	1.4	1.5	7.1	7.2	7.3	7.4
●	4.1	4.2	5.1	5.2					

M	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_4 Inch	Stock #	EDP # or e-Code
4	0.70	2.1/8	0.2484	0.1680	0.1310	3	3.3	0580608	E007M4
5	0.80	2.3/8	0.2650	0.1940	0.1520	3	4.2	0580615	E007M5
6	1.00	2.1/2	0.3937	0.2550	0.1910	3	5	0580622	E007M6
8	1.25	2.23/32	0.4567	0.3180	0.2380	3	6.8	0580639	E007M8
10	1.50	2.15/16	0.5315	0.3810	0.2860	3	8.5	0580646	E007M10
12	1.75	3.3/8	0.6890	0.3670	0.2750	3	10.3	0580653	E007M12
14	2.00	3.19/32	0.7087	0.4290	0.3220	3	12	0580660	E007M14 ¹⁾
16	2.00	3.13/16	0.7087	0.4800	0.3600	3	14	0580677	E007M16
18	2.50	4.1/32	0.8858	0.5420	0.4060	3	15.5	0580684	E007M18 ¹⁾
20	2.50	4.15/32	0.8858	0.6520	0.4890	3	17.5	0580691	E007M20 ¹⁾



MTT-X

Spiral
Flute
Taps

E008



■	1.1	1.2	1.3	1.4	1.5
●	2.1	2.2	2.3		

M	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_4 Inch	Stock #	EDP # or e-Code
4	0.70	2.1/8	0.2484	0.1680	0.1310	3	3.3	0580707	E008M4
5	0.80	2.3/8	0.2650	0.1940	0.1520	3	4.2	0580714	E008M5
6	1.00	2.1/2	0.3937	0.2550	0.1910	3	5	0580721	E008M6
8	1.25	2.23/32	0.4567	0.3180	0.2380	3	6.8	0580738	E008M8
10	1.50	2.15/16	0.5315	0.3810	0.2860	3	8.5	0580745	E008M10
12	1.75	3.3/8	0.6890	0.3670	0.2750	3	10.3	0580752	E008M12
14	2.00	3.19/32	0.7087	0.4290	0.3220	3	12	0580769	E008M14 ¹⁾
16	2.00	3.13/16	0.7087	0.4800	0.3600	3	14	0580776	E008M16
18	2.50	4.1/32	0.8858	0.5420	0.4060	3	15.5	0580783	E008M18 ¹⁾
20	2.50	4.15/32	0.8858	0.6520	0.4890	3	17.5	0580790	E008M20

¹⁾ Available as special. Please call for delivery.

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina


MTT-X

E017



■	1.1	1.2	1.3	1.4	1.5	7.1	7.2	7.3	7.4
●	4.1	4.2	5.1	5.2	8.1				

MF	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_4 Inch	Stock #	EDP # or e-Code
8	1.00	2.23/32	0.4567	0.3180	0.2380	3	7.0	0580998	E017M8X1.0 ¹⁾
10	1.00	2.15/16	0.5315	0.3810	0.2860	3	9.0	0581001	E017M10X1.0 ¹⁾
14	1.50	3.19/32	0.7087	0.4290	0.3220	3	12.5	0581018	E017M14X1.5 ¹⁾
18	1.50	4.1/32	0.8858	0.5420	0.4060	3	16.5	0581025	E017M18X1.5 ¹⁾

E018

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina


MTT-X

E018



■	1.1	1.2	1.3	1.4	1.5
●	2.1	2.2	2.3		

MF	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_4 Inch	Stock #	EDP # or e-Code
8	1.00	2.23/32	0.4567	0.3180	0.2380	3	7.0	0581032	E018M8X1.0 ¹⁾
10	1.00	2.15/16	0.5315	0.3810	0.2860	3	9.0	0581049	E018M10X1.0 ¹⁾
14	1.50	3.19/32	0.7087	0.4290	0.3220	3	12.5	0581056	E018M14X1.5 ¹⁾
18	1.50	4.1/32	0.8858	0.5420	0.4060	3	16.5	0581063	E018M18X1.5 ¹⁾

¹⁾ Available as special. Please call for delivery.

E085

DORMER

- Machine Tap MTT-X
- Spiral Flute for stainless steel
- MTT-X Tarauds machine
- MTT-X Machos de máquina



MTT-X

E085



- 2.1 2.2 2.3
- 1.5 1.6

M	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_4 Inch	Stock #	EDP # or e-Code
4	0.70	2.1/8	0.2484	0.1680	0.1310	3	3.3	N30	0583036 E085M4
5	0.80	2.3/8	0.2650	0.1940	0.1520	3	4.2	N19	0583043 E085M5
6	1.00	2.1/2	0.3937	0.2550	0.1910	3	5	N9	0583050 E085M6
8	1.25	2.23/32	0.4567	0.3180	0.2380	3	6.8	H	0583067 E085M8
10	1.50	2.15/16	0.5315	0.3810	0.2860	3	8.5	Q	0583074 E085M10
12	1.75	3.3/8	0.6890	0.3670	0.2750	3	10.3	Y	0583081 E085M12
14	2.00	3.19/32	0.7087	0.4290	0.3220	3	12	15/32	0583098 E085M14
16	2.00	3.13/16	0.7087	0.4800	0.3600	4	14	35/64	0583104 E085M16
20	2.50	4.15/32	0.8858	0.6520	0.4890	4	17.5	11/16	0583111 E085M20

Spiral
Flute
Taps

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E002



- 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4
- 4.1 4.2 5.1 5.2

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	Stock #	EDP # or e-Code
3	0.50	48	6	3.15	2.50	5	3	2.5	0567869	E002M3
3.5	0.60	50	16	3.55	2.80	5	3	2.9	0567876	E002M3.5
4	0.70	53	7	4.00	3.15	6	3	3.3	0567883	E002M4
5	0.80	58	8	5.00	4.00	7	3	4.2	0567890	E002M5
6	1.00	66	10	6.30	5.00	8	3	5.0	0567906	E002M6
8	1.25	72	12	8.00	6.30	9	3	6.8	0567913	E002M8
10	1.50	80	15	10.00	8.00	11	3	8.5	0567920	E002M10
12	1.75	89	16	9.00	7.10	10	3	10.3	0567937	E002M12
14	2.00	95	18	11.20	9.00	12	3	12.0	0567944	E002M14
16	2.00	102	18	12.50	10.00	13	4	14.0	0567951	E002M16
18	2.50	112	29	14.00	11.20	14	4	15.5	0567968	E002M18
20	2.50	112	29	14.00	11.20	14	4	17.5	0567975	E002M20
22	2.50	118	29	16.00	12.50	16	4	19.5	0567982	E002M22
24	3.00	130	35	18.00	14.00	18	4	21.0	0567999	E002M24

Spiral
Flute
Taps

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E003



- 1.1 1.2 1.3 1.4 1.5
- 2.1 2.2 2.3

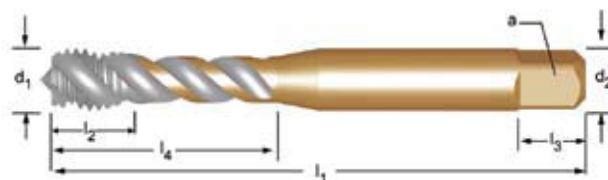
M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
3	0.50	48	6	3.15	2.50	5	3	2.5	12.5	0568002	E003M3
3.5	0.60	50	16	3.55	2.80	5	3	2.9	14	0568019	E003M3.5
4	0.70	53	7	4.00	3.15	6	3	3.3	19	0568026	E003M4
5	0.80	58	8	5.00	4.00	7	3	4.2	22	0568033	E003M5
6	1.00	66	10	6.30	5.00	8	3	5.0	27	0568040	E003M6
8	1.25	72	12	8.00	6.30	9	3	6.8	31	0568057	E003M8
10	1.50	80	15	10.00	8.00	11	3	8.5	35	0568064	E003M10
12	1.75	89	16	9.00	7.10	10	3	10.3		0568071	E003M12
14	2.00	95	18	11.20	9.00	12	3	12.0		0568088	E003M14
16	2.00	102	18	12.50	10.00	13	4	14.0		0568095	E003M16
18	2.50	112	29	14.00	11.20	14	4	15.5		0568101	E003M18
20	2.50	112	29	14.00	11.20	14	4	17.5		0568118	E003M20
22	2.50	118	29	16.00	12.50	16	4	19.5		0568125	E003M22
24	3.00	130	35	18.00	14.00	18	4	21.0		0568132	E003M24

Spiral
Flute
Taps

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E012



- 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4
- 4.1 4.2 5.1 5.2 8.1

MF	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	Stock #	EDP # or e-Code
4	0.50	53	7	4.0	3.15	6	3	3.5	19	0568620 E012M4X.5
5	0.50	58	8	5.0	4.0	7	3	4.5	22	0568637 E012M5X.5
6	0.50	66	10	6.3	5.0	8	3	5.5	27	0568644 E012M6X.5
6	0.75	66	10	6.3	5.0	8	3	5.3	27	0568651 E012M6X.75
8	0.75	72	12	8.0	6.3	9	3	7.3	31	0568668 E012M8X.75
8	1.00	72	12	8.0	6.3	9	3	7.0	31	0568675 E012M8X1.0
10	1.00	80	15	10.0	8.0	11	3	9.0	35	0568682 E012M10X1.0
10	1.25	80	15	10.0	8.0	11	3	8.8	35	0568699 E012M10X1.25
12	1.00	89	16	9.0	7.1	10	3	11.0	0568705	E012M12X1.0
12	1.25	89	16	9.0	7.1	10	3	10.8	0568712	E012M12X1.25
12	1.50	89	16	9.0	7.1	10	3	10.5	0568729	E012M12X1.5
14	1.50	95	18	11.2	9.0	12	3	12.5	0568736	E012M14X1.5
16	1.00	102	18	12.5	10.0	13	4	15.0	0568743	E012M16X1.0
16	1.50	102	18	12.5	10.0	13	4	14.5	0568750	E012M16X1.5
18	1.50	112	29	14.0	11.2	14	4	16.5	0568767	E012M18X1.5
20	1.50	112	29	14.0	11.2	14	4	18.5	0568774	E012M20X1.5
22	1.50	118	29	16.0	12.5	16	4	20.5	0568781	E012M22X1.5

Spiral
Flute
Taps

- Machine Tap MTT-X
- Spiral Flute

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E013



- 1.1 1.2 1.3 1.4 1.5
- 2.1 2.2 2.3

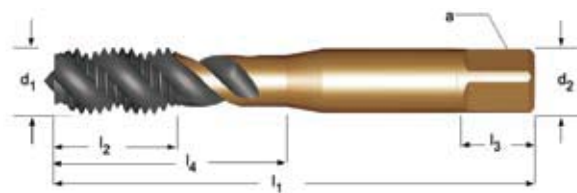
MF	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes		l_4 mm	Stock #	EDP # or e-Code
4	0.50	53	7	4.0	3.15	6	3	3.5	19	0568798	E013M4X.5
5	0.50	58	8	5.0	4.0	7	3	4.5	22	0568804	E013M5X.5
6	0.50	66	10	6.3	5.0	8	3	5.5	27	0568811	E013M6X.5
6	0.75	66	10	6.3	5.0	8	3	5.3	27	0568828	E013M6X.75
8	0.75	72	12	8.0	6.3	9	3	7.3	31	0568835	E013M8X.75
8	1.00	72	12	8.0	6.3	9	3	7.0	31	0568842	E013M8X1.0
10	1.00	80	15	10.0	8.0	11	3	9.0	35	0568859	E013M10X1.0
10	1.25	80	15	10.0	8.0	11	3	8.8	35	0568866	E013M10X1.25
12	1.00	89	16	9.0	7.1	10	3	11.0		0568873	E013M12X1.0
12	1.25	89	16	9.0	7.1	10	3	10.8		0568880	E013M12X1.25
12	1.50	89	16	9.0	7.1	10	3	10.5		0568897	E013M12X1.5
14	1.50	95	18	11.2	9.0	12	3	12.5		0568903	E013M14X1.5
16	1.00	102	18	12.5	10.0	13	4	15.0		0568910	E013M16X1.0
16	1.50	102	18	12.5	10.0	13	4	14.5		0568927	E013M16X1.5
18	1.50	112	29	14.0	11.2	14	4	16.5		0568934	E013M18X1.5
20	1.50	112	29	14.0	11.2	14	4	18.5		0568941	E013M20X1.5
22	1.50	118	29	16.0	12.5	16	4	20.5		0568958	E013M22X1.5

Spiral
Flute
Taps

- Machine Tap MTT-X
- Spiral Flute for mild steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E050



- 1.1 1.2 1.3 1.4 1.5 6.1 6.3
- 1.6 4.2 5.2 6.2

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	Stock #	EDP # or e-Code
3	0.50	48	6	3.15	2.50	5	3	2.5	0606247	E050M3
4	0.70	53	7	4.00	3.15	6	3	3.3	0606254	E050M4
5	0.80	58	8	5.00	4.00	7	3	4.2	0606261	E050M5
6	1.00	66	10	6.30	5.00	8	3	5.0	0606278	E050M6
8	1.25	72	12	8.00	6.30	9	3	6.8	0606285	E050M8
10	1.50	80	15	10.00	8.00	11	3	8.5	0606292	E050M10
12	1.75	89	16	9.00	7.10	10	3	10.3	0606308	E050M12
16	2.00	102	18	12.50	10.00	13	4	14.0	0606315	E050M16
20	2.50	112	29	14.00	11.20	14	4	17.5	0606322	E050M20

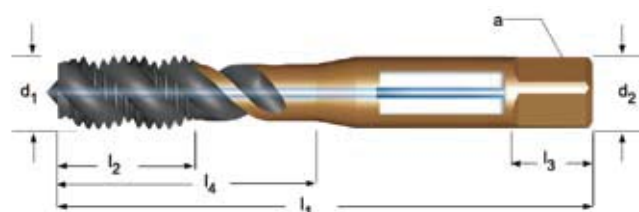
Spiral
Flute
Taps

E051

- Machine Tap MTT-X
- Spiral flute, axial coolant for mild steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E051



- 1.1 1.2 1.3 1.4 1.5 6.1 6.3
- 1.6 4.2 6.2

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	Stock #	EDP # or e-Code
6	1.00	66	10	6.30	5.00	8	3	27	0606339	E051M6
8	1.25	72	12	8.00	6.30	9	3	31	0606346	E051M8
10	1.50	80	15	10.0	8.00	11	3	35	0606353	E051M10
12	1.75	89	16	9.00	7.10	10	3	10.3	0606360	E051M12
16	2.00	102	18	12.50	10.00	13	4	14	0606377	E051M16
20	2.50	112	29	14.00	11.20	14	4	17.5	0606384	E051M20

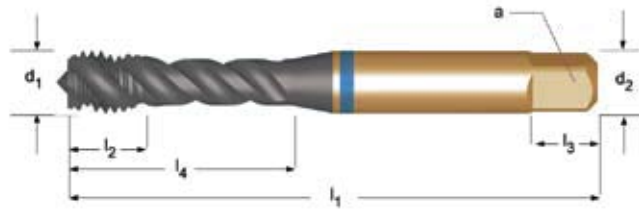
E048

DORMER

- Machine Tap MTT-X
- Spiral flute, for stainless steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E048



- 2.1 2.2 2.3 2.4
- 1.3 1.4 1.5 1.6 5.1 5.2

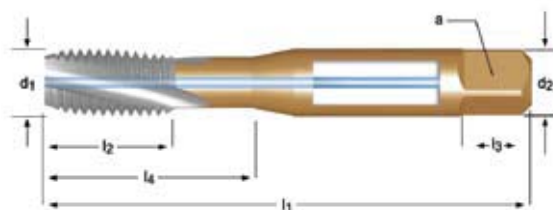
M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	EDP # or e-Code
3	0.50	48	6	3.15	2.5	5	3	2.5	0606063 E048M3
4	0.70	53	7	4.0	3.15	6	3	3.3	0606070 E048M4
5	0.80	58	8	5.0	4.0	7	3	4.2	0606087 E048M5
6	1.00	66	10	6.3	5.0	8	3	5	0606094 E048M6
8	1.25	72	12	8.0	6.3	9	3	6.8	0606100 E048M8
10	1.50	80	15	10.0	8.0	11	3	8.5	0606117 E048M10
12	1.75	89	16	9.0	7.1	10	3	10.3	0606124 E048M12
16	2.00	102	18	12.50	10.0	13	4	14	0606131 E048M16
20	2.50	112	22	14	11.2	14	4	17.5	0606148 E048M20

E044

- Machine Tap MTT-X
- Spiral flute, axial coolant for alloy steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E044



- 1.4 1.5 1.6
- 1.1 1.2 1.3 4.2 5.2

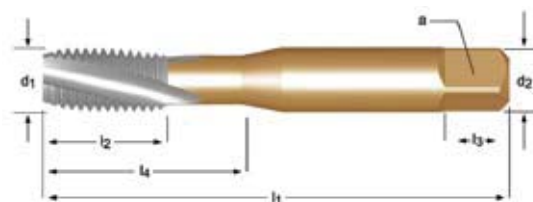
M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	a mm	l ₃ mm	# Flutes	l ₄ mm	EDP # or e-Code
8	1.25	72	17	8.00	6.30	8	3	6.8	0605745 E044M8
10	1.50	80	20	10.00	8.00	9	3	8.5	0605752 E044M10
12	1.75	89	22	9.00	7.10	10	3	10.3	0605769 E044M12
16	2.00	102	24	12.50	10.00	13	4	14	0605776 E044M16
20	2.50	112	29	14.00	11.20	14	4	17.5	0605783 E044M20

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

- Machine Tap MTT-X
- Spiral flute, for aluminum

- MTT-X Tarauds machine

- MTT-X Machos de máquina


MTT-X

E052



■	1.4	1.5	6.2	6.3	7.2	7.3	7.4
●	1.1	1.2	1.3	6.1	7.1		

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes	l_4 mm	Stock #	EDP # or e-Code
3	0.50	48	12.5	3.15	2.50	5	3	2.5	0606391	E052M3
4	0.70	53	14	4.00	3.15	6	3	3.3	0606407	E052M4
5	0.80	58	11	5.00	4.00	7	3	4.2	0606414	E052M5
6	1.00	66	13	6.30	5.00	8	3	5	0606421	E052M6
8	1.25	72	16	8.00	6.30	9	3	6.8	0606438	E052M8
10	1.50	80	18	10.00	8.00	11	3	8.5	0606445	E052M10
12	1.75	89	22	9.00	7.10	10	3	10.3	0606452	E052M12
16	2.00	102	24	12.50	10.00	13	4	14	0606469	E052M16

Spiral
Flute
Taps

- Machine Tap MTT-X
- Spiral flute, for mild steel

- MTT-X Tarauds machine

- MTT-X Machos de máquina


MTT-X

E058



■	1.1	1.2	1.3	1.4	1.5	6.1	6.3
●	1.6	4.2	5.2	6.2			

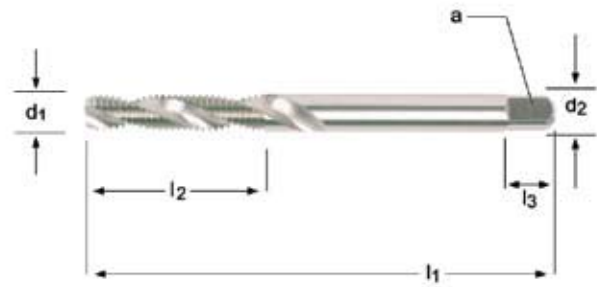
UNC	TPI	d_1 nom mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm	# Flutes	l_4 mm	Stock #	EDP # or e-Code
6	32	3.505	50	14	3.55	2.80	5	3	2.85	0606957	E0586-32
8	32	4.166	53	9.5	4.50	3.55	6	3	3.50	0606964	E0588-32
10	24	4.826	58	11	5.00	4.00	7	3	3.90	0606971	E05810-24
1/4	20	6.350	66	13	6.30	5.00	8	3	5.10	0606988	E0581/4
5/16	18	7.938	72	16	8.00	6.30	9	3	6.60	0606995	E0585/16
3/8	16	9.525	80	18	10.00	8.00	11	3	8.00	0607008	E0583/8
1/2	13	12.700	89	22	9.00	7.10	10	3	10.80	0607015	E0581/2
5/8	11	15.875	102	24	12.50	10.00	13	4	13.50	0607022	E0585/8
3/4	10	19.050	112	29	14.00	11.20	14	4	16.50	0607039	E0583/4

1582(UNC)

- Machine Tap
- Spiral flute

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2 4.3 5.1 5.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Inch / Ø	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	P	1010905
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	B	1010906
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1010907
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	B	1010908
6	32	2"	11/16	0.141	0.110	3/16	2	H3	P	1010909
6	32	2"	11/16	0.141	0.110	3/16	2	H3	B	1010910
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	P	1010913
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	B	1010914
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	P	1010915
10	24	2.3/8	7/8	0.194	0.152	1/4	2	H3	B	1010916

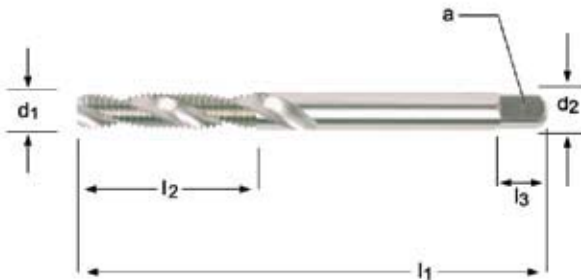
Spiral
Flute
Taps

1582(UNF)

- Machine Tap
- Spiral flute

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2 4.3 5.1 5.2

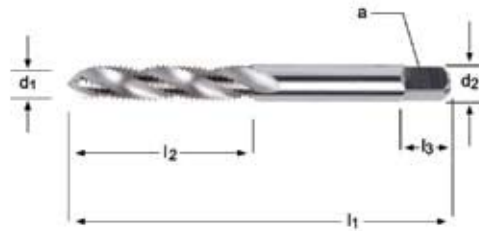
UNC	TPI	l_1 Inch	l_2 Inch	d_2 Inch / Ø	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	P	1010917
10	32	2.3/8	7/8	0.194	0.152	1/4	2	H3	B	1010918

1586(UNC)

- Machine Tap
- Spiral flute

• Tarauds machine

• Machos de máquina



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2 4.3 5.1 5.2

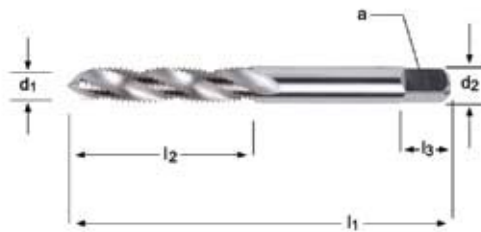
UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\frac{a}{\square}$ Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1010346
1/4	20	2.1/2	1"	0.255	0.191	5/16	2	H3	B	1010347
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010348
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	B	1010349
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010354
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010355
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010358
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	B	1010359
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010362
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	B	1010363
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010366
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	B	1010367

1586(UNF)

- Machine Tap
- Spiral flute

• Tarauds machine

• Machos de máquina



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2 4.3 5.1 5.2

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\frac{a}{\square}$ Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	P	1010350
1/4	28	2.1/2	1"	0.255	0.191	5/16	2	H3	B	1010351
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010352
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H3	B	1010353
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010356
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010357
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010360
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	B	1010361
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010368
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	B	1010369

1587(UNC)

- Machine Tap
- High-spiral helicut
- The higher helix angle gives improved chip removal

• Tarauds machine

• Machos de máquina



- 6.2 6.3 7.1 7.2 7.3
- 6.1

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
3	48	1.13/16	1/2	0.141	0.110	3/16	2	H2	P	1010885
3	48	1.13/16	1/2	0.141	0.110	3/16	2	H2	B	1010886
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	P	1010887
4	40	1.7/8	9/16	0.141	0.110	3/16	2	H2	B	1010888
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	P	1010889
5	40	1.15/16	5/8	0.141	0.110	3/16	2	H2	B	1010890
6	32	2"	11/16	0.141	0.110	3/16	2	H3	P	1010891
6	32	2"	11/16	0.141	0.110	3/16	2	H3	B	1010892
8	32	2.1/8	3/4	0.168	0.131	1/4	3	H3	P	1010895
8	32	2.1/8	3/4	0.168	0.131	1/4	3	H3	B	1010896
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H3	P	1010897
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H3	B	1010898
12	24	2.3/8	15/16	0.220	0.165	9/32	3	H3	P	1010901
12	24	2.3/8	15/16	0.220	0.165	9/32	3	H3	B	1010902

Spiral
Flute
Taps

1587(UNF)

- Machine Tap
- High-spiral helicut
- The higher helix angle gives improved chip removal

• Tarauds machine

• Machos de máquina



- 6.2 6.3 7.1 7.2 7.3
- 6.1

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	P	1010899
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	B	1010900

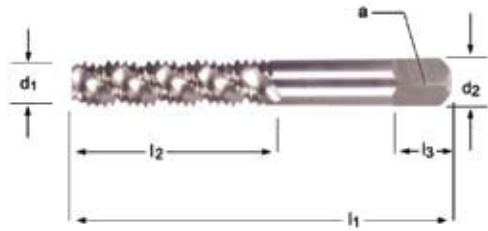
■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

1588(UNC)

- Machine Tap
- High-spiral helicut
- The higher helix angle gives improved chip removal

• Tarauds machine

• Machos de máquina



- 6.2 6.3 7.1 7.2 7.3
- 6.1

		l_1	l_2	d_2	$\square$	l_3	#	Limits	Chamfer	EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	a	Inch	Flutes			
1/4	20	2.1/2	1.000	0.255	0.191	5/16	3	H3	P	1010398
1/4	20	2.1/2	1.000	0.255	0.191	5/16	3	H3	B	1010399
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010402
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010403
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010406
3/8	16	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	B	1010407
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010410
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	B	1010411
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010414
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	B	1010415

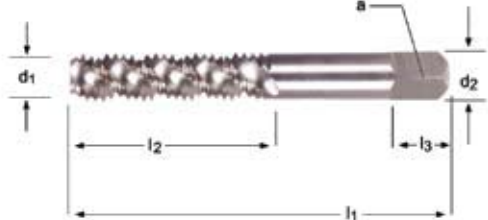
1588(UNF)

Spiral
Flute
Taps

- Machine Tap
- High-spiral helicut
- The higher helix angle gives improved chip removal

• Tarauds machine

• Machos de máquina



- 6.2 6.3 7.1 7.2 7.3
- 6.1

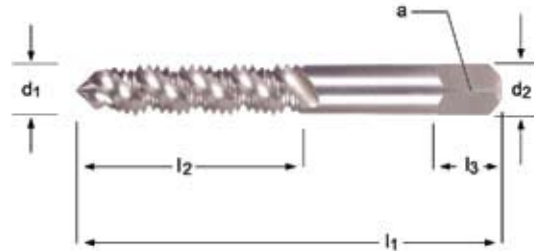
		l_1	l_2	d_2	$\square$	l_3	#	Limits	Chamfer	EDP # or e-Code
UNC	TPI	Inch	Inch	Inch /	a	Inch	Flutes			
1/4	28	2.1/2	1.000	0.255	0.191	5/16	3	H3	P	1010400
1/4	28	2.1/2	1.000	0.255	0.191	5/16	3	H3	B	1010401
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010404
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010405
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	P	1010408
3/8	24	2.15/16	1.1/4	0.381	0.286	7/16	3	H3	B	1010409
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010412
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	B	1010413
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010416
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	B	1010417

1788(M)

- Machine Tap
- High-spiral helicut
- The higher helix angle gives improved chip removal

- Tarauds machine

- Machos de máquina



1788(M)



- 6.2 6.3 7.1 7.2 7.3
- 6.1

M	P	l_1	l_2	d_2	$\square$	l_3	#	Limits	Chamfer	EDP # or e-Code
	mm	Inch	Inch	Ø Inch /	a Inch	Inch	Flutes			
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	2	D3	P	1012920
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	2	D3	B	1012940
M3.5	0.60	2"	11/16	0.141	0.110	3/16	2	D4	P	1012922
M3.5	0.60	2"	11/16	0.141	0.110	3/16	2	D4	B	1012942
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	3	D4	P	1012923
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	3	D4	B	1012943
M4.5	0.75	2.3/8	7/8	0.194	0.152	1/4	3	D4	P	1012924
M4.5	0.75	2.3/8	7/8	0.194	0.152	1/4	3	D4	B	1012944
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	3	D4	P	1012925
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	3	D4	B	1012945
M6	1.00	2.1/2	1"	0.255	0.191	5/16	3	D5	P	1012926
M6	1.00	2.1/2	1"	0.255	0.191	5/16	3	D5	B	1012946
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	3	D5	P	1012928
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	3	D5	B	1012948
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	3	D6	P	1012930
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	3	D6	B	1012950
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	3	D6	P	1012932
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	3	D6	B	1012952

Spiral
Flute
Taps

1590(UNC)

- Machine Tap
- Spiral flute, heavy-duty
- Recommended for use in ferrous materials and higher strength alloys where regular or fast spiral designs perform marginally
- A slower helix angle, large core diameter, and wider throat dimensions than the regular 1587/1588 series

• Tarauds machine

• Machos de máquina



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2
- 1.5 4.3 5.3

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
6	32	2"	11/16	0.141	0.110	3/16	2	H3	P	1010937
6	32	2"	11/16	0.141	0.110	3/16	2	H3	B	1010938
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	P	1010941
8	32	2.1/8	3/4	0.168	0.131	1/4	2	H3	B	1010942
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H3	P	1010945
10	24	2.3/8	7/8	0.194	0.152	1/4	3	H3	B	1010946
12	24	2.3/8	15/16	0.220	0.165	9/32	3	H3	P	1010949
12	24	2.3/8	15/16	0.220	0.165	9/32	3	H3	B	1010950

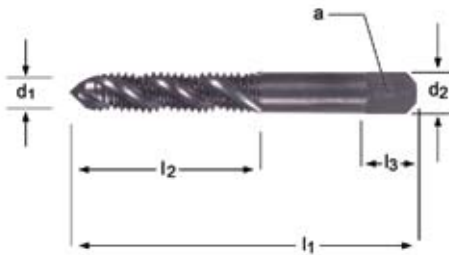
1590(UNF)

Spiral
Flute
Taps

- Machine Tap
- Spiral flute, heavy-duty
- Recommended for use in ferrous materials and higher strength alloys where regular or fast spiral designs perform marginally
- A slower helix angle, large core diameter, and wider throat dimensions than the regular 1587/1588 series

• Tarauds machine

• Machos de máquina



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2
- 1.5 4.3 5.3

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
6	40	2"	11/16	0.141	0.110	3/16	2	H3	P	1010939
6	40	2"	11/16	0.141	0.110	3/16	2	H3	B	1010940
8	36	2.1/8	3/4	0.168	0.131	1/4	2	H3	P	1010943
8	36	2.1/8	3/4	0.168	0.131	1/4	2	H3	B	1010944
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	P	1010947
10	32	2.3/8	7/8	0.194	0.152	1/4	3	H3	B	1010948
12	28	2.3/8	15/16	0.220	0.165	9/32	3	H3	P	1010951
12	28	2.3/8	15/16	0.220	0.165	9/32	3	H3	B	1010952

1591(UNC) - (UNF)

- Machine Tap
- Spiral flute, heavy-duty
- Recommended for use in ferrous materials and higher strength alloys where regular or fast spiral designs perform marginally
- A slower helix angle, large core diameter, and wider throat dimensions than the regular 1587/1588 series

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2
- 1.5 4.3 5.3

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010953
1/4	20	2.1/2	1"	0.255	0.191	5/16	3	H3	B	1010954
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010957
5/16	18	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010958
3/8	16	2.5/16	1.1.4	0.381	0.286	7/16	3	H3	P	1010961
3/8	16	2.5/16	1.1.4	0.381	0.286	7/16	3	H3	B	1010962
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010965
7/16	14	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	B	1010966
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010969
1/2	13	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	B	1010970



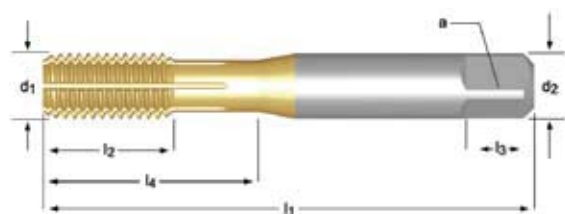
1591(UNF)



- 1.1 1.2 1.3 1.4 2.1 2.2 2.3 4.1 4.2
- 1.5 4.3 5.3

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	Limits	Chamfer	EDP # or e-Code
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H3	P	1010955
1/4	28	2.1/2	1"	0.255	0.191	5/16	3	H3	B	1010956
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	P	1010959
5/16	24	2.23/32	1.1/8	0.318	0.238	3/8	3	H3	B	1010960
3/8	24	2.5/16	1.1.4	0.381	0.286	7/16	3	H3	P	1010963
3/8	24	2.5/16	1.1.4	0.381	0.286	7/16	3	H3	B	1010964
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	P	1010967
7/16	20	3.5/32	1.7/16	0.323	0.242	13/32	3	H3	B	1010968
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	P	1010971
1/2	20	3.3/8	1.21/32	0.367	0.275	7/16	3	H3	B	1010972

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION



MTT-X

E029



■	1.1	1.2	1.3	1.4	2.1	2.2	4.1	5.1	7.1	7.2	7.3
●	1.5	2.3	5.2	6.1	6.3	7.4					

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes			l_4 Inch	Stock #	EDP # or e-Code
2	56	1.3/4	0.3140	0.1410	0.1100	3	N47	2.0	0.3140	0583210	E0292-56
4	40	1.7/8	0.6091	0.1410	0.1100	3	N39	2.6	0.6091	0581810	E0294-40
6	32	2"	0.2610	0.1410	0.1100	3	1/8	3.2	0.5938	0581827	E0296-32
8	32	2.1/8	0.2484	0.1680	0.1310	3	N25	3.8	0.6526	0581834	E0298-32
10	24	2.3/8	0.4303	0.1940	0.1520	4	11/64	4.4	0.8434	0581841	E02910-24
12	24	2.3/8	0.4173	0.2200	0.1650	4	N9	5.0	0.8848	0581858	E02912-24
1/4	20	2.1/2	0.5075	0.2550	0.1910	4		5.8	1.0073	0581865	E0291/4
5/16	18	2.23/32	0.5939	0.3180	0.2380	5		7.3	1.1891	0581872	E0295/16
3/8	16	2.15/16	0.6020	0.3810	0.2860	6	11/32	8.8	1.2915	0581889	E0293/8
7/16	14	3.5/32	0.9055	0.3230	0.2420	6	Y	10.3		0581896	E0297/16
1/2	13	3.3/8	0.9055	0.3670	0.2750	6	15/32	11.9		0581902	E0291/2
5/8	11	3.13/16	0.9843	0.4800	0.3600	8	37/64	14.8		0581919	E0295/8
3/4	10	4-1/4	1.1614	0.5900	0.4420	8	45/64	17.9		0581926	E0293/4
7/8	9	4.11/16	1.1614	0.6970	0.5230	8	53/64	21.0		0581933	E0297/8
1"	8	5-1/8	1.3976	0.8000	0.6000	8	61/64	24.0		0581940	E0291 ¹⁾

Thread
Forming
Taps

¹⁾ Available as special. Please call for delivery.

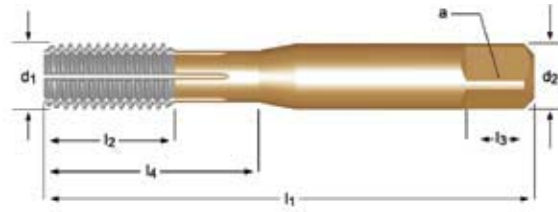
E064



• Thread Forming Taps MTT-X

• MTT-X Tardauds machine

• MTT-X Machos de máquina



MTT-X

E064



• 1.1 1.2 1.3 1.4 7.1 7.2 7.3

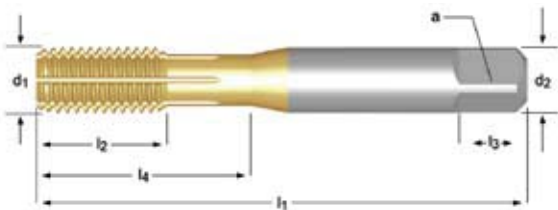
UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	# Flutes			l_4 Inch	Stock #	EDP # or e-Code
4	40	1.7/8	0.6091	0.1410	0.1100	3	N39	2.6	0.6091	0582633	E0644-40
6	32	2"	0.2610	0.1410	0.1100	3	1/8	3.2	0.5938	0582640	E0646-32
8	32	2.1/8	0.2484	0.1680	0.1310	3	N25	3.8	0.6526	0582657	E0648-32
10	24	2.3/8	0.4303	0.1940	0.1520	4	11/64	4.4	0.8434	0582664	E06410-24
12	24	2.3/8	0.4173	0.2200	0.1650	4	N9	5.0	0.8848	0582671	E06412-24
1/4	20	2.1/2	0.5075	0.2550	0.1910	4		5.8	1.0073	0582688	E0641/4
5/16	18	2.23/32	0.5939	0.3180	0.2380	5		7.3	1.1891	0582695	E0645/16
3/8	16	2.15/16	0.6020	0.3810	0.2860	6	11/32	8.8	1.2915	0582701	E0643/8

E039

• Thread Forming Taps MTT-X

• MTT-X Tardauds machine

• MTT-X Machos de máquina



MTT-X

E039



■ 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.1 7.2 7.3

• 1.5 2.3 5.2 6.1 6.3 7.4

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	# Flutes			l_4 Inch	Stock #	EDP # or e-Code
0	80	1.5/8	0.3125	0.1410	0.1100	3	N54	1.4	0.3125	0583234	E0390-80
10	32	2.3/8	0.4303	0.2200	0.1650	4	N16	4.5	0.8434	0582558	E03910-32
1/4	28	2.1/2	0.5075	0.2550	0.1910	4	A	6.0	1.0073	0582565	E0391/4
5/16	24	2.23/32	0.5939	0.3180	0.2380	5	M	7.5	1.1891	0582572	E0395/16
3/8	24	2.15/16	0.6020	0.3810	0.2860	6	T	9.1	1.2915	0582589	E0393/8 ¹⁾
7/16	20	3.5/32	0.9055	0.3230	0.2420	6	Z	10.6		0582596	E0397/16
1/2	20	3.3/8	0.9055	0.3670	0.2750	6	0.4760	12.1		0582602	E0391/2
5/8	18	3.13/16	0.9843	0.4800	0.3600	8	39/64	15.3		0582619	E0395/8 ¹⁾
3/4	16	4.1/4	1.1614	0.5900	0.4420	8	23/32	18.3		0582626	E0393/4 ¹⁾

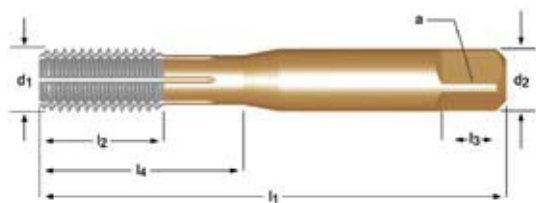
¹⁾ Available as special. Please call for delivery.

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Thread Forming Taps MTT-X

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E074



- 1.1 1.2 1.3 1.4 7.1 7.2 7.3

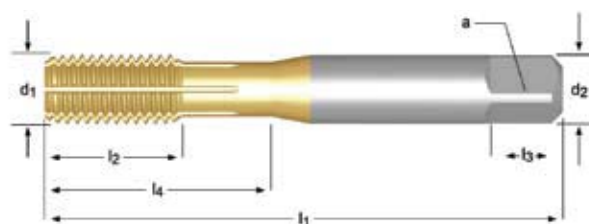
UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	# Flutes		l_4 Inch	Stock #	EDP # or e-Code
10	32	2.3/8	0.4303	0.2200	0.1650	4	N16	0.8434	0582879	E07410-32
1/4	28	2.1/2	0.5075	0.2550	0.1910	4	A	1.0073	0582886	E0741/4
5/16	24	2.23/32	0.5939	0.3180	0.2380	5	M	1.1891	0582893	E0745/16
3/8	24	2.15/16	0.6020	0.3810	0.2860	6	T	1.2915	0582909	E0743/8

E009

- Thread Forming Taps MTT-X

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E009



- 1.1 1.2 1.3 1.4 2.1 2.2 4.1 5.1 7.1 7.2 7.3

- 1.5 2.3 5.2 6.1 6.3 7.4

M	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	# Flutes		l_4 Inch		Stock #	EDP # or e-Code
3	0.50	2"	0.7404	0.1410	0.1100	3	2.8	0.7404	N35	0580806	E009M3
4	0.70	2.1/8	0.2484	0.1680	0.1310	4	3.7	0.6526		0580813	E009M4
5	0.80	2.3/8	0.4303	0.1940	0.1520	4	4.6	0.8434	N14	0580820	E009M5
6	1.00	2.1/2	0.5075	0.2550	0.1910	4	5.5	1.0073	7/32	0580837	E009M6
8	1.25	2.23/32	0.5939	0.3180	0.2380	5	7.4	1.1891		0580844	E009M8
10	1.50	2.15/16	0.6020	0.3810	0.2860	6	9.3	1.2915		0580851	E009M10
12	1.75	3.3/8	0.9055	0.3670	0.2750	6	11.2		7/16	0580868	E009M12
14	2.00	3.19/32	0.9843	0.4290	0.3220	8	13.0			0580875	E009M14 ¹⁾
16	2.00	3.13/16	0.9843	0.4800	0.3600	8	15.0			0580882	E009M16
20	2.50	4.15/32	1.1614	0.4890	0.4890	8	18.8			0580899	E009M20
24	3.00	5.1/8	1.3976	0.8000	0.6000	8	22.5			0580905	E009M24

¹⁾ Available as special. Please call for delivery.

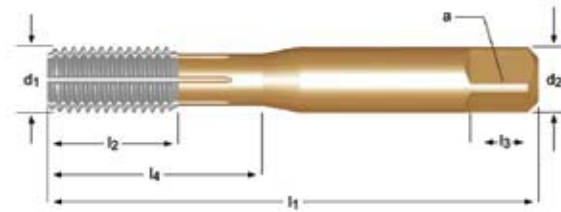
E094



• Thread Forming Taps MTT-X

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E094



• 1.1 1.2 1.3 1.4 7.1 7.2 7.3

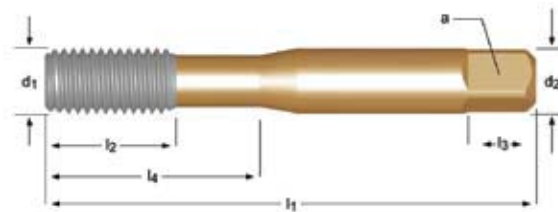
M	P mm	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	# Flutes	l_3 Inch	l_4 Inch	Stock #	EDP # or e-Code
3	0.50	2"	0.7404	0.1410	0.1100	3	2.8	0.7404	N35 0583128	E094M3
4	0.70	2.1/8	0.2484	0.1680	0.1310	4	3.7	0.6526	0583135	E094M4
5	0.80	2.3/8	0.4303	0.1940	0.1520	4	4.6	0.8434	N14 0583142	E094M5
6	1.00	2.1/2	0.5075	0.2550	0.1910	4	5.5	1.0073	7/32 0583159	E094M6
8	1.25	2.23/32	0.5939	0.3180	0.2380	5	7.4	1.1891	0583166	E094M8
10	1.50	2.15/16	0.6020	0.3810	0.2860	6	9.3	1.2915	0583173	E094M10

E097

• Thread Forming Taps MTT-X

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E097



■ 1.1 1.2 1.3 4.1 5.1 7.1 7.2 7.3

• 1.4 2.1 2.2 5.2 6.1 6.3 7.4

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	a mm	l_3 mm	l_4 mm	Stock #	EDP # or e-Code
2	0.40	41	8	2.50	2.00	4	1.8	0599884	E097M2 ¹⁾
2.5	0.45	44.5	9.5	2.80	2.24	5	2.3	0599891	E097M2.5 ¹⁾
3	0.50	48	12.5	3.15	2.50	5	2.8	0599907	E097M3
4	0.70	53	14	4.00	3.15	6	3.7	0599914	E097M4
5	0.80	58	11	5.00	4.00	7	4.6	0599921	E097M5
6	1.00	66	13	6.30	5.00	8	5.5	0599938	E097M6
8	1.25	72.0	16	8.00	6.30	9	7.4	0599945	E097M8
10	1.50	80.0	18	10.00	8.00	11	9.3	0599952	E097M10
12	1.75	89.0	22	9.00	7.10	10	11.2	0599969	E097M12
16	2.00	102.0	24	12.50	10.00	13	15	0599976	E097M16

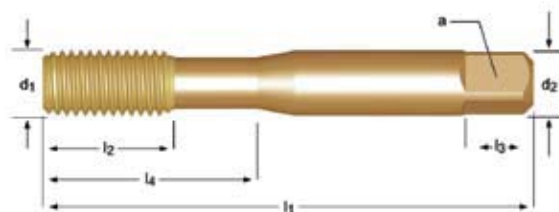
¹⁾ Steel HSCo

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Thread Forming Taps MTT-X
- Short chamfer

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E098



■	1.1	1.2	1.3	1.4	2.1	2.2	4.1	5.1	7.3
●	1.5	2.3	5.2	6.1	6.3	7.1	7.2	7.4	

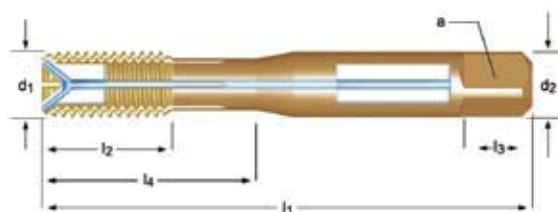
M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm		l ₄ mm	EDP # or e-Code
3	0.50	48	12.5	3.15	2.50	5	2.8	12.5	0599983 E098M3
4	0.70	53	14	4.00	3.15	6	3.7	14	0599990 E098M4
5	0.80	58	11	5.00	4.00	7	4.6	22	0600009 E098M5
6	1.00	66	13	6.30	5.00	8	5.5	26	0600016 E098M6
8	1.25	72	16	8.00	6.30	9	7.4	29	0600023 E098M8
10	1.50	80	18	10.00	8.00	11	9.3	34	0600030 E098M10

E099

- Thread Forming Taps MTT-X
- Oil grooves, internal coolant, radial outlet

- MTT-X Tarauds machine

- MTT-X Machos de máquina



MTT-X

E099



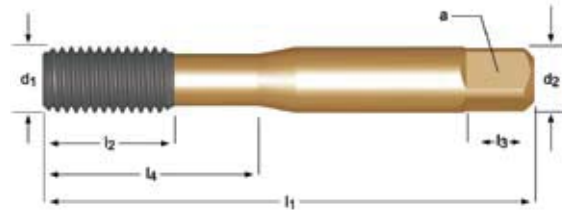
■	1.1	1.2	1.3	1.4	2.1	2.2	4.1	5.1	7.3
●	1.5	2.3	5.2	6.1	6.3	7.1	7.2	7.4	

M	P mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm		l ₄ mm	EDP # or e-Code
4	0.70	53	14	4.00	3.15	6	3.7	14	0600047 E099M4
5	0.80	58	11	5.00	4.00	7	4.6	22	0600054 E099M5
6	1.00	66	13	6.30	5.00	8	5.5	26	0600061 E099M6
8	1.25	72	16	8.00	6.30	9	7.4	29	0600078 E099M8
10	1.50	80	18	10.00	8.00	11	9.3	34	0600085 E099M10
12	1.75	89	22	9.00	7.10	10	11.2		0600092 E099M12
16	2.00	102	24	12.50	10.00	13	15		0600108 E099M16

• Thread Forming Taps MTT-X

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E080



■ 6.1 6.3 7.1 7.2 7.3

M	P mm	l_1 mm	l_2 mm	d_2 Ø mm	$\square$ a mm	l_3 mm		l_4 mm	Stock #	EDP # or e-Code
2	0.40	41.0	8	2.50	2.00	4	1.8	8	0599518	E080M2 ¹⁾
2.5	0.45	44.5	9.5	2.80	2.24	5	2.3	9.5	0599525	E080M2.5 ¹⁾
3	0.50	48.0	12.5	3.15	2.50	5	2.8	12.5	0599532	E080M3
4	0.70	53.0	14	4.00	3.15	6	3.7	14	0599549	E080M4
5	0.80	58.0	11	5.00	4.00	7	4.6	22	0599556	E080M5
6	1.00	66.0	13	6.30	5.00	8	5.5	26	0599563	E080M6
8	1.25	72.0	16	8.00	6.30	9	7.4	29	0599570	E080M8

Thread
Forming
Taps

¹⁾ Steel HSCo

1580(UNC)

- Thread Forming Taps
- Rol-Rite
- The Rol-Rite spiral forming lobe pattern reduces tapping torque but has no lube grooves

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 6.2 6.3 7.1 7.2 7.3
- 1.5 2.1 2.2 4.1 4.2 5.1 6.1

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	Limits	Chamfer	EDP # or e-Code
1	64	1.11/16	3/8	0.141	0.110	3/16	H2	B	1310002
2	56	1.3/4	7/16	0.141	0.110	3/16	H2	B	1310004
2	56	1.3/4	7/16	0.141	0.110	3/16	H3	B	1310005
3	48	1.13/16	1/2	0.141	0.110	3/16	H2	B	1310008
3	48	1.13/16	1/2	0.141	0.110	3/16	H3	B	1310009
4	40	1.7/8	9/16	0.141	0.110	3/16	H3	P	1310012
4	40	1.7/8	9/16	0.141	0.110	3/16	H3	B	1310014
4	40	1.7/8	9/16	0.141	0.110	3/16	H5	P	1310013
4	40	1.7/8	9/16	0.141	0.110	3/16	H5	B	1310015
5	40	1.15/16	5/8	0.141	0.110	3/16	H3	P	1310020
5	40	1.15/16	5/8	0.141	0.110	3/16	H3	B	1310022
5	40	1.15/16	5/8	0.141	0.110	3/16	H5	P	1310021
5	40	1.15/16	5/8	0.141	0.110	3/16	H5	B	1310023
6	32	2"	11/16	0.141	0.110	3/16	H3	P	1310028
6	32	2"	11/16	0.141	0.110	3/16	H3	B	1310031
6	32	2"	11/16	0.141	0.110	3/16	H5	P	1310029
6	32	2"	11/16	0.141	0.110	3/16	H5	B	1310032
8	32	2.1/8	3/4	0.168	0.131	1/4	H3	P	1310038
8	32	2.1/8	3/4	0.168	0.131	1/4	H3	B	1310041
8	32	2.1/8	3/4	0.168	0.131	1/4	H5	P	1310039
8	32	2.1/8	3/4	0.168	0.131	1/4	H5	B	1310042
10	24	2.3/8	7/8	0.194	0.152	1/4	H4	P	1310048
10	24	2.3/8	7/8	0.194	0.152	1/4	H4	B	1310051
10	24	2.3/8	7/8	0.194	0.152	1/4	H6	P	1310049
10	24	2.3/8	7/8	0.194	0.152	1/4	H6	B	1310052
12	24	2.3/8	15/16	0.220	0.165	9/32	H4	P	1310060
12	24	2.3/8	15/16	0.220	0.165	9/32	H4	B	1310062
12	24	2.3/8	15/16	0.220	0.165	9/32	H6	B	1310063
1/4	20	2.1/2	1"	0.255	0.191	5/16	H4	P	1310068
1/4	20	2.1/2	1"	0.255	0.191	5/16	H4	B	1310071
1/4	20	2.1/2	1"	0.255	0.191	5/16	H6	P	1310069
1/4	20	2.1/2	1"	0.255	0.191	5/16	H6	B	1310072
5/16	18	2.23/32	1.1/8	0.318	0.238	7/16	H5	P	1310078
5/16	18	2.23/32	1.1/8	0.318	0.238	7/16	H5	B	1310080
5/16	18	2.23/32	1.1/8	0.318	0.238	7/16	H7	B	1310081
3/8	16	2.15/16	1.1/4	0.381	0.286	1/2	H5	P	1310086
3/8	16	2.15/16	1.1/4	0.381	0.286	1/2	H5	B	1310088
7/16	14	3.5/32	1.7/16	0.323	0.242	9/16	H5	P	1310094
7/16	14	3.5/32	1.7/16	0.323	0.242	9/16	H5	B	1310096
1/2	13	3.3/8	1.21/32	0.367	0.275	23/32	H5	P	1310102
1/2	13	3.3/8	1.21/32	0.367	0.275	23/32	H5	B	1310104

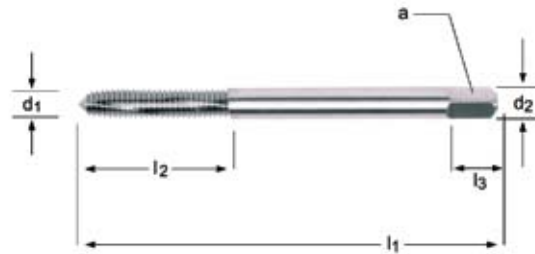
Thread
Forming
Taps

1580(UNF)

- Thread Forming Taps
- Rol-Rite
- The Rol-Rite spiral forming lobe pattern reduces tapping torque but has no lube grooves

- Tardauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 6.2 6.3 7.1 7.2 7.3
- 1.5 2.1 2.2 4.1 4.2 5.1 6.1

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	a Inch	l_3 Inch	Limits	Chamfer	EDP # or e-Code
0	80	1.5/8	5/16	0.141	0.110	3/16	H2	B	1310001
1	72	1.11/16	3/8	0.141	0.110	3/16	H2	B	1310003
2	64	1.3/4	7/16	0.141	0.110	3/16	H2	B	1310006
2	64	1.3/4	7/16	0.141	0.110	3/16	H3	B	1310007
3	56	1.13/16	1/2	0.141	0.110	3/16	H2	B	1310010
3	56	1.13/16	1/2	0.141	0.110	3/16	H3	B	1310011
4	48	1.7/8	9/16	0.141	0.110	3/16	H3	P	1310016
4	48	1.7/8	9/16	0.141	0.110	3/16	H3	B	1310018
5	44	1.15/16	5/8	0.141	0.110	3/16	H3	P	1310024
5	44	1.15/16	5/8	0.141	0.110	3/16	H3	B	1310026
6	40	2"	11/16	0.141	0.110	3/16	H3	P	1310034
6	40	2"	11/16	0.141	0.110	3/16	H3	B	1310036
6	40	2"	11/16	0.141	0.110	3/16	H5	P	1310035
6	40	2"	11/16	0.141	0.110	3/16	H5	B	1310037
8	36	2.1/8	3/4	0.168	0.131	1/4	H3	P	1310044
8	36	2.1/8	3/4	0.168	0.131	1/4	H3	B	1310046
10	32	2.3/8	7/8	0.194	0.152	1/4	H4	P	1310054
10	32	2.3/8	7/8	0.194	0.152	1/4	H4	B	1310057
10	32	2.3/8	7/8	0.194	0.152	1/4	H6	P	1310055
10	32	2.3/8	7/8	0.194	0.152	1/4	H6	B	1310058
12	28	2.3/8	15/16	0.220	0.165	9/32	H4	P	1310064
12	28	2.3/8	15/16	0.220	0.165	9/32	H4	B	1310066
12	28	2.3/8	15/16	0.220	0.165	9/32	H6	B	1310067
1/4	28	2.1/2	1"	0.255	0.191	5/16	H4	P	1310074
1/4	28	2.1/2	1"	0.255	0.191	5/16	H4	B	1310076
5/16	24	2.23/32	1.1/8	0.318	0.238	7/16	H5	P	1310082
5/16	24	2.23/32	1.1/8	0.318	0.238	7/16	H5	B	1310084
5/16	24	2.23/32	1.1/8	0.318	0.238	7/16	H7	B	1310085
3/8	24	2.15/16	1.1/4	0.381	0.286	1/2	H5	P	1310090
3/8	24	2.15/16	1.1/4	0.381	0.286	1/2	H5	B	1310092
7/16	20	3.5/32	1.7/16	0.323	0.242	9/16	H5	P	1310098
7/16	20	3.5/32	1.7/16	0.323	0.242	9/16	H5	B	1310100
1/2	20	3.3/8	1.21/32	0.367	0.275	23/32	H5	P	1310106
1/2	20	3.3/8	1.21/32	0.367	0.275	23/32	H5	B	1310108

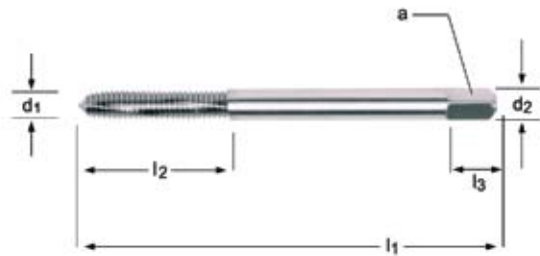
Thread
Forming
Taps

1580(M)

- Thread Forming Taps
- Rol-Rite
- The Rol-Rite spiral forming lobe pattern reduces tapping torque but has no lube grooves

- Tarauds machine

- Machos de máquina



1580(M)



■	1.1	1.2	1.3	1.4	6.2	6.3	7.1	7.2	7.3
•	1.5	2.1	2.2	4.1	4.2	5.1	6.1		

M	P	l_1	l_2	d_2	$\square$	l_3	Limits	Chamfer	EDP # or e-Code
	mm	Inch	Inch	$\varnothing$ Inch /	a Inch	Inch			
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	D5	P	1310400
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	D5	B	1310401
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	D6	P	1310402
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	D6	B	1310403
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	D7	P	1310404
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	D7	B	1310405
M6	1.00	2.1/2	1"	0.255	0.191	5/16	D8	P	1310406
M6	1.00	2.1/2	1"	0.255	0.191	5/16	D8	B	1310407
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	D9	P	1310408
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	D9	B	1310409
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	D10	P	1310410
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	D10	B	1310411
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	D11	P	1310412
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	D11	B	1310413

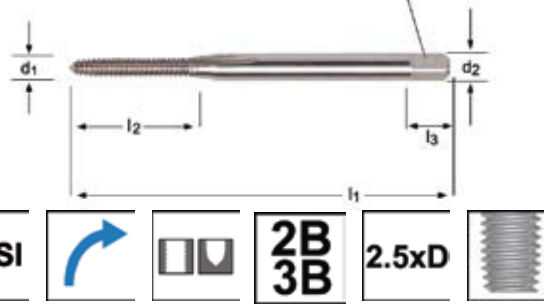
Thread
Forming
Taps

3300(UNC)

- Thread Forming Taps
- Rol-Form
- The Rol-Form taps have lube grooves for improved coolant flow in sizes #6 and larger

- Tarauds machine

- Machos de máquina



■	1.1	1.2	1.3	1.4	6.2	6.3	7.1	7.2	7.3
●	1.5	2.1	2.2	4.1	4.2	5.1	6.1		

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Inch / Ø	a Inch	l_3 Inch	Limits	Chamfer	EDP # or e-Code
1	64	1.11/16	3/8	0.141	0.110	3/16	H2	B	1310111
2	56	1.3/4	7/16	0.141	0.110	3/16	H2	B	1310113
2	56	1.3/4	7/16	0.141	0.110	3/16	H3	B	1310114
3	48	1.13/16	1/2	0.141	0.110	3/16	H3	B	1310118
4	40	1.7/8	9/16	0.141	0.110	3/16	H3	P	1310121
4	40	1.7/8	9/16	0.141	0.110	3/16	H3	B	1310123
4	40	1.7/8	9/16	0.141	0.110	3/16	H5	P	1310122
4	40	1.7/8	9/16	0.141	0.110	3/16	H5	B	1310124
5	40	1.15/16	5/8	0.141	0.110	3/16	H3	P	1310129
5	40	1.15/16	5/8	0.141	0.110	3/16	H3	B	1310131
5	40	1.15/16	5/8	0.141	0.110	3/16	H5	P	1310130
5	40	1.15/16	5/8	0.141	0.110	3/16	H5	B	1310132
6	32	2"	11/16	0.141	0.110	3/16	H3	P	1310137
6	32	2"	11/16	0.141	0.110	3/16	H3	B	1310140
6	32	2"	11/16	0.141	0.110	3/16	H5	P	1310138
6	32	2"	11/16	0.141	0.110	3/16	H5	B	1310141
8	32	2.1/8	3/4	0.168	0.131	1/4	H3	P	1310147
8	32	2.1/8	3/4	0.168	0.131	1/4	H3	B	1310150
8	32	2.1/8	3/4	0.168	0.131	1/4	H5	P	1310148
8	32	2.1/8	3/4	0.168	0.131	1/4	H5	B	1310151
10	24	2.3/8	7/8	0.194	0.152	1/4	H4	P	1310157
10	24	2.3/8	7/8	0.194	0.152	1/4	H4	B	1310160
10	24	2.3/8	7/8	0.194	0.152	1/4	H6	P	1310158
10	24	2.3/8	7/8	0.194	0.152	1/4	H6	B	1310161
12	24	2.3/8	15/16	0.220	0.165	9/32	H4	P	1310169
12	24	2.3/8	15/16	0.220	0.165	9/32	H4	B	1310171
12	24	2.3/8	15/16	0.220	0.165	9/32	H6	B	1310172
1/4	20	2.1/2	1"	0.255	0.191	5/16	H4	P	1310177
1/4	20	2.1/2	1"	0.255	0.191	5/16	H4	B	1310180
1/4	20	2.1/2	1"	0.255	0.191	5/16	H6	P	1310178
1/4	20	2.1/2	1"	0.255	0.191	5/16	H6	B	1310181
5/16	18	2.23/32	1.1/8	0.318	0.238	7/16	H5	P	1310187
5/16	18	2.23/32	1.1/8	0.318	0.238	7/16	H5	B	1310189
5/16	18	2.23/32	1.1/8	0.318	0.238	7/16	H7	P	1310188
5/16	18	2.23/32	1.1/8	0.318	0.238	7/16	H7	B	1310190
3/8	16	2.15/16	1.1/4	0.381	0.286	1/2	H5	P	1310195
3/8	16	2.15/16	1.1/4	0.381	0.286	1/2	H5	B	1310197
3/8	16	2.15/16	1.1/4	0.381	0.286	1/2	H7	P	1310196
3/8	16	2.15/16	1.1/4	0.381	0.286	1/2	H7	B	1310198
7/16	14	3.5/32	1.7/16	0.323	0.242	9/16	H5	P	1310203
7/16	14	3.5/32	1.7/16	0.323	0.242	9/16	H5	B	1310205
1/2	13	3.3/8	1.21/32	0.367	0.275	23/32	H5	P	1310211
1/2	13	3.3/8	1.21/32	0.367	0.275	23/32	H5	B	1310213

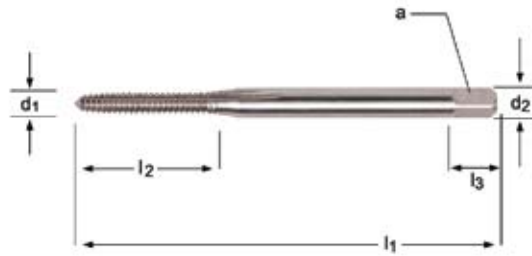
■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

3300(UNF)

- Thread Forming Taps
- Rol-Form
- The Rol-Form taps have lube grooves for improved coolant flow in sizes #6 and larger

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 6.2 6.3 7.1 7.2 7.3
- 1.5 2.1 2.2 4.1 4.2 5.1 6.1

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	Limits	Chamfer	EDP # or e-Code
0	80	1.5/8	5/16	0.141	0.110	3/16	H2	B	1310110
1	72	1.11/16	3/8	0.141	0.110	3/16	H2	B	1310112
2	64	1.3/4	7/16	0.141	0.110	3/16	H2	B	1310115
2	64	1.3/4	7/16	0.141	0.110	3/16	H3	B	1310116
3	56	1.13/16	1/2	0.141	0.110	3/16	H3	B	1310120
4	48	1.7/8	9/16	0.141	0.110	3/16	H3	P	1310125
4	48	1.7/8	9/16	0.141	0.110	3/16	H3	B	1310127
5	44	1.15/16	5/8	0.141	0.110	3/16	H3	P	1310133
5	44	1.15/16	5/8	0.141	0.110	3/16	H3	B	1310135
6	40	2"	11/16	0.141	0.110	3/16	H3	P	1310143
6	40	2"	11/16	0.141	0.110	3/16	H3	B	1310145
6	40	2"	11/16	0.141	0.110	3/16	H5	B	1310146
8	36	2.1/8	3/4	0.168	0.131	1/4	H3	P	1310153
8	36	2.1/8	3/4	0.168	0.131	1/4	H3	B	1310155
10	32	2.3/8	7/8	0.194	0.152	1/4	H4	P	1310163
10	32	2.3/8	7/8	0.194	0.152	1/4	H4	B	1310166
10	32	2.3/8	7/8	0.194	0.152	1/4	H6	P	1310164
10	32	2.3/8	7/8	0.194	0.152	1/4	H6	B	1310167
12	28	2.3/8	15/16	0.220	0.165	9/32	H4	P	1310173
12	28	2.3/8	15/16	0.220	0.165	9/32	H4	B	1310175
1/4	28	2.1/2	1"	0.255	0.191	5/16	H4	P	1310183
1/4	28	2.1/2	1"	0.255	0.191	5/16	H4	B	1310185
5/16	24	2.23/32	1.1/8	0.318	0.238	7/16	H5	P	1310191
5/16	24	2.23/32	1.1/8	0.318	0.238	7/16	H5	B	1310193
5/16	24	2.23/32	1.1/8	0.318	0.238	7/16	H7	P	1310192
5/16	24	2.23/32	1.1/8	0.318	0.238	7/16	H7	B	1310194
3/8	24	2.15/16	1.1/4	0.381	0.286	1/2	H5	P	1310199
3/8	24	2.15/16	1.1/4	0.381	0.286	1/2	H5	B	1310201
3/8	24	2.15/16	1.1/4	0.381	0.286	1/2	H7	P	1310200
3/8	24	2.15/16	1.1/4	0.381	0.286	1/2	H7	B	1310202
7/16	20	3.5/32	1.7/16	0.323	0.242	9/16	H5	P	1310207
7/16	20	3.5/32	1.7/16	0.323	0.242	9/16	H5	B	1310209
1/2	20	3.3/8	1.21/32	0.367	0.275	23/32	H5	P	1310215
1/2	20	3.3/8	1.21/32	0.367	0.275	23/32	H5	B	1310217

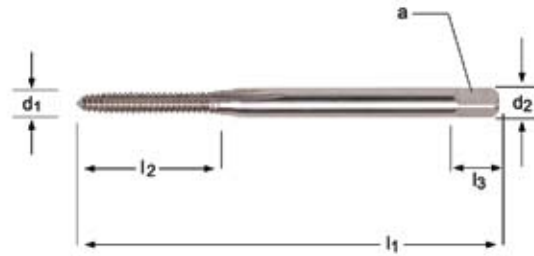
Thread
Forming
Taps

3300(M)

- Thread Forming Taps
- Rol-Form
- The Rol-Form taps have lube grooves for improved coolant flow in sizes M4 and larger

- Tarauds machine

- Machos de máquina



3300(M)



■	1.1	1.2	1.3	1.4	6.2	6.3	7.1	7.2	7.3
•	1.5	2.1	2.2	4.1	4.2	5.1	6.1		

M	P	l_1	l_2	d_2	$\square$	l_3	Limits	Chamfer	EDP # or e-Code
	mm	Inch	Inch	Ø Inch /	a Inch	Inch			
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	D5	P	1310500
M3	0.50	1.15/16	5/8	0.141	0.110	3/16	D5	B	1310501
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	D6	P	1310502
M4	0.70	2.1/8	3/4	0.168	0.131	1/4	D6	B	1310503
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	D7	P	1310504
M5	0.80	2.3/8	7/8	0.194	0.152	1/4	D7	B	1310505
M6	1.00	2.1/2	1"	0.255	0.191	5/16	D8	P	1310506
M6	1.00	2.1/2	1"	0.255	0.191	5/16	D8	B	1310507
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	D9	P	1310508
M8	1.25	2.23/32	1.1/8	0.318	0.238	3/8	D9	B	1310509
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	D10	P	1310510
M10	1.50	2.15/16	1.1/4	0.381	0.286	7/16	D10	B	1310511
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	D11	P	1310512
M12	1.75	3.3/8	1.21/32	0.367	0.275	7/16	D11	B	1310513

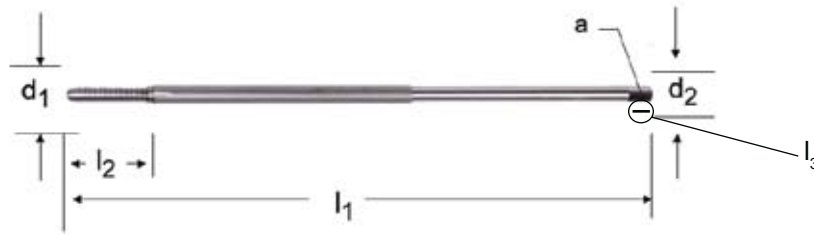
Thread
Forming
Taps

3306E(UNC)

- Thread Forming Taps
- Extension Rol-Form

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 6.2 6.3 7.1 7.2 7.3
- 1.5 2.1 2.2 4.1 4.2 5.1 6.1

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Inch / $\emptyset$	$\square$ a Inch	l_3 Inch	Limits	Chamfer	EDP # or e-Code
4	40	4"	9/16	0.141	0.110	3/16	H3	B	1321002
4	40	4"	9/16	0.141	0.110	3/16	H5	B	1321004
6	32	4"	11/16	0.141	0.110	3/16	H3	B	1321006
6	32	4"	11/16	0.141	0.110	3/16	H5	B	1321008
6	32	6"	11/16	0.141	0.110	3/16	H3	B	1321010
6	32	6"	11/16	0.141	0.110	3/16	H5	B	1321012
8	32	4"	3/4	0.168	0.131	1/4	H3	B	1321014
8	32	4"	3/4	0.168	0.131	1/4	H5	B	1321016
8	32	6"	3/4	0.168	0.131	1/4	H3	B	1321018
8	32	6"	3/4	0.168	0.131	1/4	H5	B	1321020
10	24	4"	7/8	0.194	0.152	1/4	H4	B	1321022
10	24	4"	7/8	0.194	0.152	1/4	H6	B	1321024
10	24	6"	7/8	0.194	0.152	1/4	H4	B	1321026
10	24	6"	7/8	0.194	0.152	1/4	H6	B	1321028
1/4	20	4"	1"	0.255	0.191	5/16	H4	B	1321038
1/4	20	4"	1"	0.255	0.191	5/16	H6	B	1321040
1/4	20	4"	1"	0.255	0.191	5/16	H8	B	1321042
1/4	20	6"	1"	0.255	0.191	5/16	H4	B	1321044
1/4	20	6"	1"	0.255	0.191	5/16	H6	B	1321046
1/4	20	6"	1"	0.255	0.191	5/16	H8	B	1321048
5/16	18	4"	1.1/8	0.318	0.238	3/8	H5	B	1321062
5/16	18	4"	1.1/8	0.318	0.238	3/8	H7	B	1321064
5/16	18	4"	1.1/8	0.318	0.238	3/8	H9	B	1321066
5/16	18	6"	1.1/8	0.318	0.238	3/8	H5	B	1321068
5/16	18	6"	1.1/8	0.318	0.238	3/8	H7	B	1321070
5/16	18	6"	1.1/8	0.318	0.238	3/8	H9	B	1321072
3/8	16	4"	1.1/4	0.381	0.286	7/16	H5	B	1321086
3/8	16	4"	1.1/4	0.381	0.286	7/16	H7	B	1321088
3/8	16	4"	1.1/4	0.381	0.286	7/16	H9	B	1321090
3/8	16	6"	1.1/4	0.381	0.286	7/16	H5	B	1321092
3/8	16	6"	1.1/4	0.381	0.286	7/16	H7	B	1321094
3/8	16	6"	1.1/4	0.381	0.286	7/16	H9	B	1321096

Thread
Forming
Taps

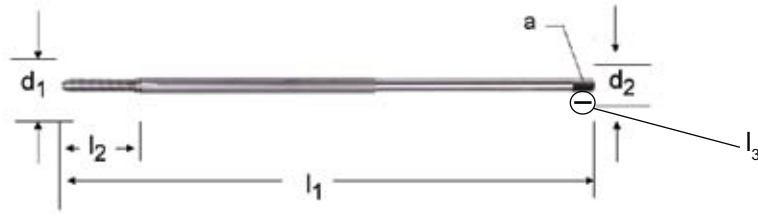
3306E(UNF)

**UNION
BUTTERFIELD**

- Thread Forming Taps
- Extension Rol-Form

- Tarauds machine

- Machos de máquina



- 1.1 1.2 1.3 1.4 6.2 6.3 7.1 7.2 7.3
- 1.5 2.1 2.2 4.1 4.2 5.1 6.1

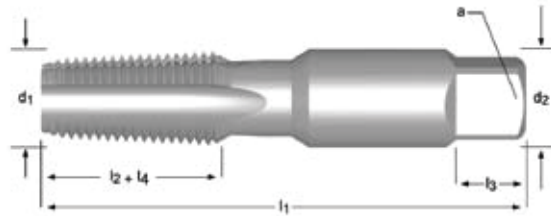
UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	Limits	Chamfer	EDP # or e-Code
10	32	4"	7/8	0.194	0.152	1/4	H4	B	1321030
10	32	4"	7/8	0.194	0.152	1/4	H6	B	1321032
10	32	6"	7/8	0.194	0.152	1/4	H6	B	1321036
10	32	6"	7/8	0.194	0.152	1/4	H4	B	1321034
1/4	28	4"	1"	0.255	0.191	5/16	H4	B	1321050
1/4	28	4"	1"	0.255	0.191	5/16	H6	B	1321052
1/4	28	4"	1"	0.255	0.191	5/16	H8	B	1321054
1/4	28	6"	1"	0.255	0.191	5/16	H4	B	1321056
1/4	28	6"	1"	0.255	0.191	5/16	H6	B	1321058
1/4	28	6"	1"	0.255	0.191	5/16	H8	B	1321060
5/16	24	4"	1.1/8	0.318	0.238	3/8	H5	B	1321074
5/16	24	4"	1.1/8	0.318	0.238	3/8	H7	B	1321076
5/16	24	4"	1.1/8	0.318	0.238	3/8	H9	B	1321078
5/16	24	6"	1.1/8	0.318	0.238	3/8	H5	B	1321080
5/16	24	6"	1.1/8	0.318	0.238	3/8	H7	B	1321082
5/16	24	6"	1.1/8	0.318	0.238	3/8	H9	B	1321084

Thread
Forming
Taps

• Pipe Tap

• Tarauds machine

• Machos de máquina



E710



• 1.1 1.2 1.3 1.4 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

NPT	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm		z	Stock No.	EDP # or e-Code
1/16	27	7.94	65	17	8.1	6.0	8	6.3	4	0159491	E7101/16NO3
1/8	27	10.29	70	19	11.1	8.3	10	8.5	4	0099889	E7101/8
1/4	18	13.72	75	27	14.3	10.7	11	11	4	0099872	E7101/4
3/8	18	17.15	80	27	17.8	13.5	13	14.5	4	0099919	E7103/8
1/2	14	21.34	100	35	17.5	13.1	16	18	4	0099865	E7101/2
3/4	14	26.67	105	35	23.0	17.2	17	23	5	0099902	E7103/4
1"	11.5	33.40	115	43	28.6	21.4	21	29	5	0099834	E7101
1.1/4	11.5	42.16	125	43	33.3	25.0	24	38	5	0099858	E7101.1/4
1.1/2	11.5	48.26	135	43	38.1	28.6	25	44	7	0099841	E7101.1/2
2"	11.5	60.33	145	43	47.6	35.7	29	56	7	0099896	E7102

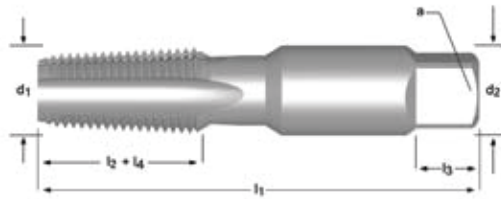
1541(NPT)

UNION
BUTTERFIELD

- Pipe Tap
- Straight flute, medium hook

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

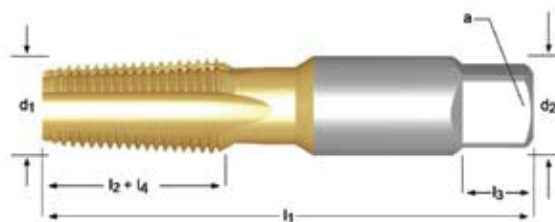
NPT	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1010518
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1010528
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1010519
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1010520
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1010521
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1010522
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1010523
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1010524
1.1/4	11.5	4"	1.3/4	1.313	0.984	15/16	5	1010525
1.1/2	11.5	4.1/4	1.3/4	1.500	1.125	1"	7	1010526
2"	11.5	4.1/2	1.3/4	1.875	1.406	1.1/8	7	1010527

TN1541

- Pipe Tap, Straight Flute, Medium Hook

- Tarauds machine

- Machos de máquina



TN1541



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

NPT	TPI	l_1 mm	l_2 mm	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1060519
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1060520
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1060521
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1060522
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1060523

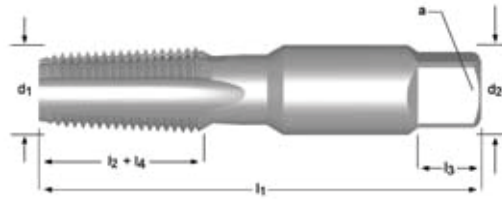
- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

1543(NPTF)

- Pipe Tap
- Straight flute, medium hook

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

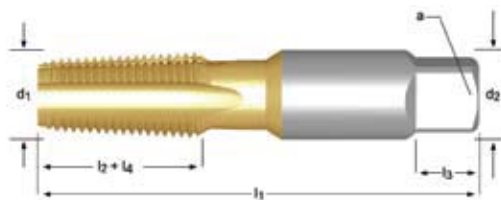
NPTF	TPI	l_1 Inch	l_2 Inch	d_2 Inch / Ø	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1010529
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1010539
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1010530
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1010531
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1010532
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1010533
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1010534
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1010535
1.1/4	11.5	4"	1.3/4	1.313	0.984	15/16	5	1010536
1.1/2	11.5	4.1/4	1.3/4	1.500	1.125	1"	7	1010537

TN1543

- Pipe Tap
- Straight flute, medium hook

- Tarauds machine

- Machos de máquina



Pipe
Taps

TN1543



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

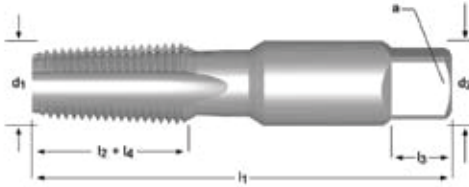
NPTF	TPI	l_1 mm	l_2 mm	d_2 Inch / Ø	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1060530
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1060531
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1060532
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1060533
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1060534

1544(NPT)

- Pipe Tap
- Straight flute, For cast iron and heat-treated alloy steels

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

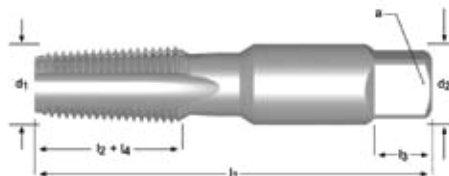
NPT	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1011760
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1011770
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1011761
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1011762
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1011763
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1011764
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1011765
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1011766
1.1/4	11.5	4"	1.3/4	1.313	0.984	15/16	5	1011767
1.1/2	11.5	4.1/4	1.3/4	1.500	1.125	1"	7	1011768
2"	11.5	4.1/2	1.3/4	1.875	1.406	1.1/8	7	1011769

1545(NPT)

- Pipe Tap
- High hook

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

NPT	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1012869
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1012879
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1012870
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1012871
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1012872
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1012873
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1012874
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1012875
1.1/4	11.5	4"	1.3/4	1.313	0.984	15/16	5	1012876
1.1/2	11.5	4.1/4	1.3/4	1.500	1.125	1"	7	1012877
2"	11.5	4.1/2	1.3/4	1.875	1.406	1.1/8	7	1012878

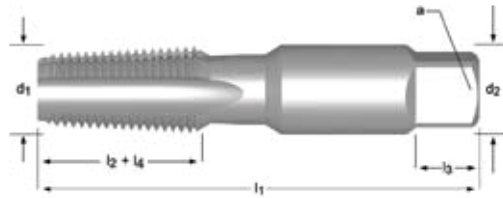
- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

1545A(NPT)

- Pipe Tap
- High hook

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

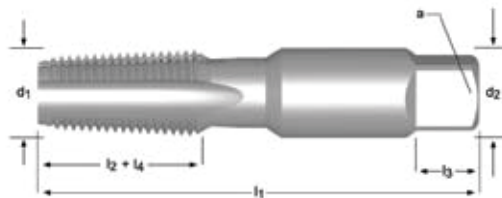
NPT	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1052869
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1052870
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1052871
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1052872
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1052873
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1052874

1546(NPTF)

- Pipe Tap
- High hook

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

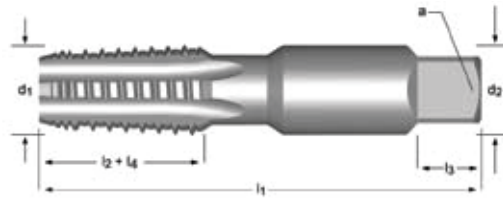
NPTF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1012880
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1012889
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1012881
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1012882
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1012883
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1012884
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1012885
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1012886

1567(NPTF)

- Pipe Tap
- Interrupted thread

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

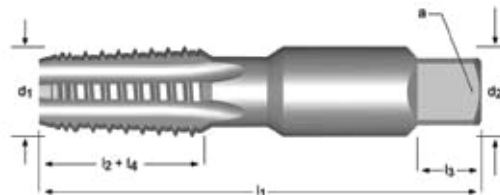
NPTF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/8	27	2.1/8	3/4	0.313	0.234	3/8	5	1010570
1/8	27	2.1/8	3/4	0.438	0.328	3/8	5	1010561
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	5	1010562
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	5	1010563
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	5	1010564
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1010565
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1010566
1.1/4	11.5	4"	1.3/4	1.313	0.984	15/16	5	1010567

1568(NPT)

- Pipe Tap
- Interrupted thread

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

NPT	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/8	27	2.1/8	3/4	0.313	0.234	3/8	5	1010560
1/8	27	2.1/8	3/4	0.438	0.328	3/8	5	1010551
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	5	1010552
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	5	1010553
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	5	1010554
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1010555
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1010556
1.1/4	11.5	4"	1.3/4	1.313	0.984	15/16	5	1010557
1.1/2	11.5	4.1/4	1.3/4	1.500	1.125	1"	7	1010558
2"	11.5	4.1/2	1.3/4	1.875	1.406	1.1/8	7	1010559

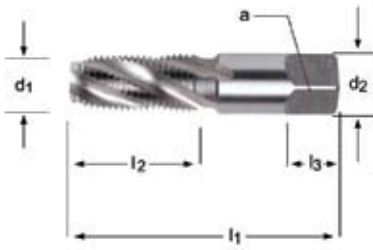
■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

1548(NPT)

- Pipe Tap
- Medium hook

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

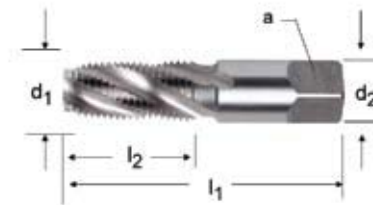
NPT	TPI	l_1 Inch	l_2 Inch	d_2 Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1010920
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1010924
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1010922
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1010926
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1010928
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1010930
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1010932
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1010934

1549(NPTF)

- Pipe Tap
- Medium hook

- Tarauds machine

- Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

NPTF	TPI	l_1 Inch	l_2 Inch	d_2 Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/16	27	2.1/8	11/16	0.313	0.234	3/8	4	1010921
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1010925
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1010923
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1010927
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1010929
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1010931
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1010933
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1010935

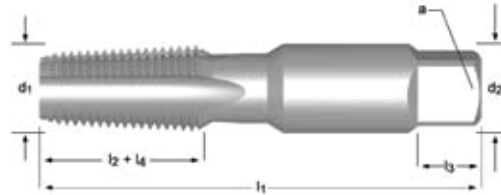
1542(NPS)

**UNION
BUTTERFIELD**

• Pipe Tap

• Tarauds machine

• Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

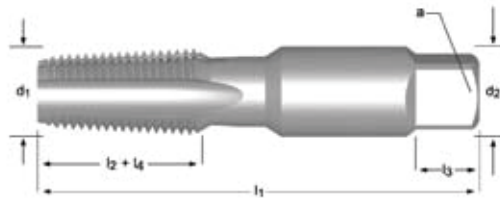
NPS	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1010587
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1010581
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1010582
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1010583
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1010584
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1010585
1"	11.5	3.3/4	1.3/4	1.125	0.843	13/16	5	1010586

1592(NPSF)

• Pipe Tap
• Dryseal

• Tarauds machine

• Machos de máquina



- 1.3 1.4
- 1.1 1.2 1.5 3.1 3.2 3.3 3.4 6.2 7.3 7.4 8.1

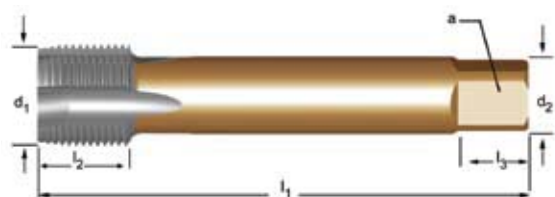
NPSF	TPI	l_1 mm	l_2 mm	d_2 Ø Inch /	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
1/8	27	2.1/8	3/4	0.313	0.234	3/8	4	1010592
1/8	27	2.1/8	3/4	0.438	0.328	3/8	4	1010588
1/4	18	2.7/16	1.1/16	0.563	0.421	7/16	4	1010589
3/8	18	2.9/16	1.1/16	0.700	0.531	1/2	4	1010590
1/2	14	3.1/8	1.3/8	0.688	0.515	5/8	4	1010591
3/4	14	3.1/4	1.3/8	0.906	0.679	11/16	5	1011070

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

• Machine Tap MTT-X

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E040



■	1.1	1.2	1.3	1.4	1.5	6.1	6.3	7.1	7.2	7.3	7.4
●	1.6	3.1	3.2	3.3	3.4	4.1	4.2	5.1	5.2	6.2	8.1

G(BSP)	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes	Stock #	EDP # or e-Code
1/8	28	9.728	90	15	8	6.3	9	3	0569764	E0401/8
1/4	19	13.157	100	19	10	8	11	3	0569771	E0401/4
3/8	19	16.662	100	21	12.5	10	13	3	0569788	E0403/8
1/2	14	20.955	125	26	16	12.5	16	4	0569795	E0401/2
3/4	14	26.441	140	28	20	16	20	4	0569801	E0403/4

E041

• Machine Tap MTT-X

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E041



■	1.1	1.2	1.3	1.4	1.5				
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	

G(BSP)	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes	Stock #	EDP # or e-Code
1/8	28	9.728	90	15	8	6.3	9	3	0569818	E0411/8
1/4	19	13.157	100	19	10	8	11	3	0569825	E0411/4
3/8	19	16.662	100	21	12.5	10	13	3	0569832	E0413/8
1/2	14	20.955	125	26	16	12.5	16	4	0569849	E0411/2
3/4	14	26.441	140	28	20	16	20	4	0569856	E0413/4

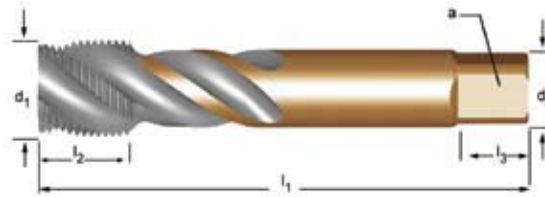
E042



• Machine Tap MTT-X

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

E042



- 1.1 1.2 1.3 1.4 1.5 7.1 7.2 7.3 7.4
- 4.1 4.2 5.1 5.2 8.1

G(BSP)	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		Stock #	EDP # or e-Code
1/8	28	9.728	90	15	8	6.3	9	3	8.80	0569863	E0421/8
1/4	19	13.157	100	19	10	8	11	3	11.80	0569870	E0421/4
3/8	19	16.662	100	21	12.5	10	13	4	15.25	0569887	E0423/8
1/2	14	20.955	125	26	16	12.5	16	4	19.00	0569894	E0421/2
3/4	14	26.441	140	28	20	16	20	4	24.50	0569900	E0423/4

E043

• Machine Tap MTT-X

• MTT-X Tarauds machine

• MTT-X Machos de máquina



MTT-X

Pipe
Taps

E043



- 1.1 1.2 1.3 1.4 1.5
- 1.6 2.1 2.2 2.3

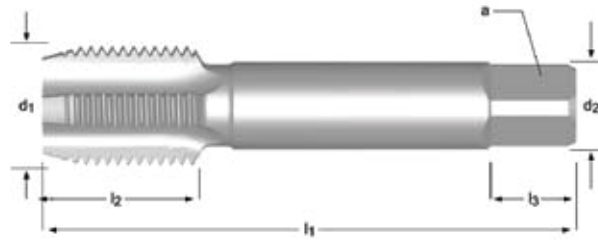
G(BSP)	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		Stock #	EDP # or e-Code
1/8	28	9.728	90	15	8	6.3	9	3	8.80	0569917	E0431/8
1/4	19	13.157	100	19	10	8	11	3	11.80	0569924	E0431/4
3/8	19	16.662	100	21	12.5	10	13	4	15.25	0569931	E0433/8
1/2	14	20.955	125	26	16	12.5	16	4	19.00	0569948	E0431/2
3/4	14	26.441	140	28	20	16	20	4	24.50	0569955	E0433/4

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Machine Tap
- BSPP

- Tarauds machine

- Machos de máquina



E547



- 1.1 1.2 1.3 1.4 1.5 3.1 3.2 3.3 3.4 6.1 6.2 6.3 6.4 7.2 7.3 7.4 8.2 8.3

G(BSP)	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		Stock #	EDP # or e-Code
1/8	28	9.728	59	15	8.0	8.0	9	4	8.8	0157169	E5471/8NO1
1/8	28	9.728	59	15	8.0	6.3	9	4	8.8	0157176	E5471/8NO2
1/8	28	9.728	59	15	8.0	6.3	9	4	8.8	0099285	E5471/8NO3
1/8	28	9.728	59	15	8.0	6.3	9	4	8.8	0157183	E5471/8NO7
1/4	19	13.157	67	19	10.0	8.0	11	4	11.8	0157190	E5471/4NO1
1/4	19	13.157	67	19	10.0	8.0	11	4	11.8	0157206	E5471/4NO2
1/4	19	13.157	67	19	10.0	8.0	11	4	11.8	0099278	E5471/4NO3
1/4	19	13.157	67	19	10.0	8.0	11	4	11.8	0157213	E5471/4NO7
3/8	19	16.662	75	21	12.5	10.0	13	4	15.25	0157220	E5473/8NO1
3/8	19	16.662	75	21	12.5	10.0	13	4	15.25	0157237	E5473/8NO2
3/8	19	16.662	75	21	12.5	10.0	13	4	15.25	0099315	E5473/8NO3
3/8	19	16.662	75	21	12.5	10.0	13	4	15.25	0157244	E5473/8NO7
1/2	14	20.955	87	26	16.0	12.5	16	4	19	0157251	E5471/2NO1
1/2	14	20.955	87	26	16.0	12.5	16	4	19	0157268	E5471/2NO2
1/2	14	20.955	87	26	16.0	12.5	16	4	19	0099261	E5471/2NO3
1/2	14	20.955	87	26	16.0	12.5	16	4	19	0157275	E5471/2NO7
5/8	14	22.911	91	26	18.0	14.0	18	4	21	0157282	E5475/8NO1
5/8	14	22.911	91	26	18.0	14.0	18	4	21	0099322	E5475/8NO2
5/8	14	22.911	91	26	18.0	14.0	18	4	21	0099339	E5475/8NO3
5/8	14	22.911	91	26	18.0	14.0	18	4	21	0340684	E5475/8NO7
3/4	14	26.441	96	28	20.0	16.0	20	4	24.5	0157299	E5473/4NO1
3/4	14	26.441	96	28	20.0	16.0	20	4	24.5	0150757	E5473/4NO2
3/4	14	26.441	96	28	20.0	16.0	20	4	24.5	0099308	E5473/4NO3
3/4	14	26.441	96	28	20.0	16.0	20	4	24.5	0160763	E5473/4NO7
7/8	14	30.201	102	29	22.4	18.0	22	4	28.25	0157305	E5477/8NO1
7/8	14	30.201	102	29	22.4	18.0	22	4	28.25	0099353	E5477/8NO2
7/8	14	30.201	102	29	22.4	18.0	22	4	28.25	0099360	E5477/8NO3
1"	11	33.249	109	33	25.0	20.0	24	4	30.75	0157312	E5471NO1
1"	11	33.249	109	33	25.0	20.0	24	4	30.75	0157329	E5471NO2
1"	11	33.249	109	33	25.0	20.0	24	4	30.75	0099254	E5471NO3
1.1/4	11	41.910	119	36	31.5	25.0	28	6	39.5	0157336	E5471.1/4NO1
1.1/4	11	41.910	119	36	31.5	25.0	28	6	39.5	0099216	E5471.1/4NO2
1.1/4	11	41.910	119	36	31.5	25.0	28	6	39.5	0099223	E5471.1/4NO3
1.1/2	11	47.803	125	37	35.5	28.0	31	6	45	0157343	E5471.1/2NO1
1.1/2	11	47.803	125	37	35.5	28.0	31	6	45	0099193	E5471.1/2NO2
1.1/2	11	47.803	125	37	35.5	28.0	31	6	45	0099209	E5471.1/2NO3
1.3/4	11	53.746	132	39	35.5	28.0	31	6	51	0157350	E5471.3/4NO1
1.3/4	11	53.746	132	39	35.5	28.0	31	6	51	0099230	E5471.3/4NO2

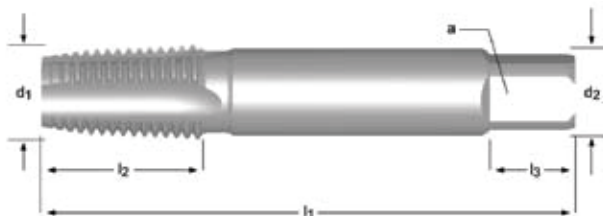
G(BSP)	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		Stock #	EDP # or e-Code
1.3/4	11	53.746	132	39	35.5	28.0	31	6	51	0099247	E5471.3/4NO3
2"	11	59.614	140	41	40.0	31.5	34	6	57	0157367	E5472NO1
2"	11	59.614	140	41	40.0	31.5	34	6	57	0157374	E5472NO2
2"	11	59.614	140	41	40.0	31.5	34	6	57	0099292	E5472NO3
2.1/4	11	65.710	142	42	40.0	31.5	34	6	63	0157404	E5472.1/4NO1
2.1/4	11	65.710	142	42	40.0	31.5	34	6	63	0157411	E5472.1/4NO2
2.1/4	11	65.710	142	42	40.0	31.5	34	6	63	0123775	E5472.1/4NO3
2.1/2	11	75.184	153	45	45.0	35.5	38	6	72.5	0157381	E5472.1/2NO1
2.1/2	11	75.184	153	45	45.0	35.5	38	6	72.5	0157398	E5472.1/2NO2
2.1/2	11	75.184	153	45	45.0	35.5	38	6	72.5	0123768	E5472.1/2NO3
3"	11	87.884	164	48	50.0	40.0	42	8	85.5	0157428	E5473NO1
3"	11	87.884	164	48	50.0	40.0	42	8	85.5	0157435	E5473NO2
3"	11	87.884	164	48	50.0	40.0	42	8	85.5	0123782	E5473NO3

E550

- Machine Tap
- BSPT

- Tarauds machine

- Machos de máquina



E550



- 3.1 3.2 3.3 3.4 6.1
- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 6.2 6.3 6.4 7.2 7.3 7.4 8.2 8.3

Rc	TPI	d ₁ nom mm	l ₁ mm	l ₂ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes		Stock #	EDP # or e-Code
1/8	28	9.728	59	15	8.0	6.3	9	3	8.4	0099490	E5501/8
1/8	28	9.728	59	15	8.0	6.3	9	3	8.4	0159408	E5501/8NO7
1/4	19	13.157	67	19	10.0	8.0	11	3	11.2	0099483	E5501/4
1/4	19	13.157	67	19	10.0	8.0	11	3	11.2	0159422	E5501/4NO7
3/8	19	16.662	75	21	12.5	10.0	13	3	14.75	0099520	E5503/8
3/8	19	16.662	75	21	12.5	10.0	13	3	14.75	0159446	E5503/8NO7
1/2	14	20.955	87	26	16.0	12.5	16	5	18.25	0099476	E5501/2
1/2	14	20.955	87	26	16.0	12.5	16	5	18.25	0159460	E5501/2NO7
3/4	14	26.441	96	28	20.0	16.0	20	5	23.75	0099513	E5503/4
3/4	14	26.441	96	28	20.0	16.0	20	5	23.75	0159484	E5503/4NO7
1	11	33.249	109	33	25.0	20.0	24	5	30	0099445	E5501
1.1/4	11	41.910	119	36	31.5	25.0	28	5	38.5	0099469	E5501.1/4
1.1/2	11	47.803	125	37	35.5	28.0	31	7	44.5	0099452	E5501.1/2
2"	11	59.614	140	41	40.0	31.5	34	7	56	0099506	E5502

- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

1994(UNC) - (UNF)

• Combination Drill and Tap

• Foret taraudeur

• Combinación broca-macho



• 1.1 1.2 1.3 1.4 3.2 6.2 6.3 7.1 7.2 8.1

UNC	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
4	40	1.7/8	3/8	0.141	0.110	3/16	2	1110010
5	40	1.15/16	13/32	0.141	0.110	3/16	2	1110020
6	32	2"	7/16	0.141	0.110	3/16	2	1110030
8	32	2.1/8	1/2	0.168	0.131	1/4	2	1110040
10	24	2.3/8	5/8	0.194	0.152	1/4	2	1110050
12	24	2.3/8	21/32	0.220	0.165	9/32	2	1110060
1/4	20	2.1/2	25/32	0.255	0.191	5/16	2	1110080
5/16	18	2.27/32	15/16	0.318	0.238	3/8	2	1110090
3/8	16	3.3/8	1.1/16	0.381	0.286	7/16	2	1110100
7/16	14	3.3/4	1.1/4	0.323	0.242	13/32	2	1110110
1/2	13	4.1/16	1.3/8	0.367	0.275	7/16	2	1110120

1994(UNF)



• 1.1 1.2 1.3 1.4 3.2 6.2 6.3 7.1 7.2 8.1

UNF	TPI	l_1 Inch	l_2 Inch	d_2 Ø Inch	$\square$ a Inch	l_3 Inch	# Flutes	EDP # or e-Code
4	48	1.7/8	3/8	0.141	0.110	3/16	2	1110012
5	44	1.15/16	13/32	0.141	0.110	3/16	2	1110024
6	40	2"	7/16	0.141	0.110	3/16	2	1110034
8	36	2.1/8	1/2	0.168	0.131	1/4	2	1110044
10	32	2.3/8	5/8	0.194	0.152	1/4	2	1110054
12	28	2.3/8	21/32	0.220	0.165	9/32	2	1110064
1/4	28	2.1/2	25/32	0.255	0.191	5/16	2	1110084
5/16	24	2.27/32	15/16	0.318	0.238	3/8	2	1110094
3/8	24	3.3/8	1.1/16	0.381	0.286	7/16	2	1110104
7/16	20	3.3/4	1.1/4	0.323	0.242	13/32	2	1110114
1/2	20	4.1/16	1.3/8	0.367	0.275	7/16	2	1110124

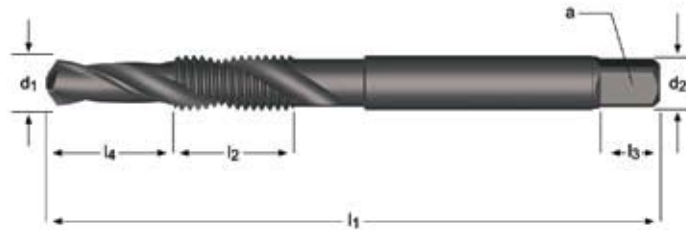
E650 - E651



• Combination Drill and Tap

• Foret taraudeur

• Combinación broca-macho

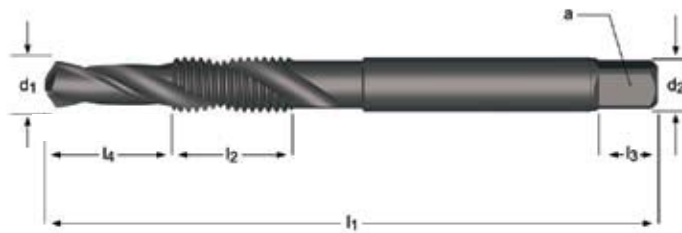


E650



• 1.1 1.2 1.3 1.4 3.2 6.2 6.3 7.1 7.2 8.1

M	P mm	d ₁ Ø mm	l ₁ mm	l ₂ mm	l ₄ mm	d ₂ Ø mm	□ a mm	l ₃ mm	# Flutes	Stock #	EDP # or e-Code
3	0.50	2.5	56	10	6	3.15	2.5	5.0	2	0167861	E650M3
4	0.70	3.3	65	12	8	4.0	3.15	6.0	2	0127551	E650M4
5	0.80	4.2	69	15	10	5.0	4.00	7.0	2	0127568	E650M5
6	1.00	5.0	84	18	12	6.3	5.00	8.0	2	0127575	E650M6
8	1.25	6.8	96	21	16	8.0	6.30	9.0	2	0127582	E650M8
10	1.50	8.5	108	22	20	10.0	8.00	11.0	2	0127513	E650M10
12	1.75	10.2	113	29	24	9.0	7.10	10.0	2	0127520	E650M12
14	2.00	12.0	123	30	28	11.2	9.00	12.0	2	0127537	E650M14
16	2.00	14.0	134	32	32	12.5	10.00	13.0	2	0127544	E650M16



E651



• 1.1 1.2 1.3 1.4 3.2 6.2 6.3 7.1 7.2 8.1

UNC	TPI	d ₁ nom mm	d ₂ Ø mm	l ₁ mm	l ₄ mm	l ₂ mm	□ a mm	↔	Dormer Stock No.	EDP # or e-Code
6	32	2.80	3.5	56.9	6	12	2.90	5.00	0388907	E6516-32
8	32	3.50	4.50	64	8	12	3.55	6.00	0273272	E6518-32
10	24	3.90	5.00	72	10	15	4.00	7.00	0273197	E65110-24
12	24	4.50	5.60	77	11	15	4.50	7.00	0273210	E65112-24
1/4	20	5.20	6.30	83	13	17	5.00	8.00	0273227	E6511/4
5/16	18	6.60	8.00	94	16	21	6.30	9.00	0273241	E6515/16
3/8	16	8.00	10.00	104	19	23	8.00	11.00	0273234	E6513/8
7/16	14	9.40	8.00	107	22	25	6.30	9.00	0273265	E6517/16
1/2	13	10.80	9.00	114	25	29	7.10	10.00	0273203	E6511/2
9/16	12	12.20	11.20	124	28	29	9.00	12.00	0273289	E6519/16
5/8	11	13.50	12.50	134	32.5	31	10.00	13.00	0273258	E6515/8

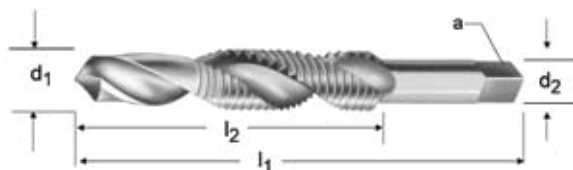
Misc
Taps
and
Dies

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

• Combination Drill and Tap

• Foret taraudeur

• Combinación broca-macho



E653



• 1.1 1.2 1.3 1.4 3.2 6.2 6.3 7.1 7.2 8.1

d_1 Ø		l_1	l_2	d_2 Ø	$\square$ a	z	Stock Code	Dormer Stock No.	EDP # or e-Code
Inch	TPI	Inch	Inch	Inch	Inch				
1/16	27	2.13/16	11/16	0.3120	0.2340	4	52788	0297254	E6531/16
1/8	27	2.7/8	3/4	0.4370	0.3280	4	52791	0297285	E6531/8
1/4	18	3.5/16	1.1/16	0.5620	0.4210	4	52794	0297278	E6531/4
3/8	18	3.1/2	1.1/16	0.7000	0.5310	4	52797	0297308	E6533/8
1/2	14	4.3/8	1.3/8	0.6870	0.5150	4	52800	0297261	E6531/2
3/4	14	4.9/16	1.3/8	0.9060	0.6790	5	52803	0297292	E6533/4
1"	11.5	5.3/8	1.3/4	1.1250	0.8430	5	52806	0297247	E6531

229C

**UNION
BUTTERFIELD**

- Drill-Tap Set, Metal Index
- A=Type of Product in Set, B= No of Pieces, C= Diameters in set

- Juego de Brocas/ Machos, serie corta



229C



Nr.	A	B	UNC	EDP # or e-Code
229C	1500, 1528 taps; R10P and R18P drills	9	6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13	4111502

1215

- Tap Wrench
- Designed for hand tapping in tight places and can also be used with any tool that can be turned by hand
- T-Handle furnished with a sliding handle. They are strong and rugged yet light enough to ensure easy and accurate handling

- Tourne à gauche

- Portamachos regulable



WORK-RITE

Nr.	Hand Reamer Capacity (inch)	Hand Reamer Capacity (mm)	Fractional Tap Capacity (inch)	Fractional Tap Capacity (mm)	EDP # or e-Code
T0	1/8 - 3/16	M3 - M5	1/16 - 5/32	M1 - M4	1810372
T1	3/16 - 5/16	M4 - M7	3/16 - 7/16	M4 - M10	1810373
T2	1/4 - 15/32	M6 - M14	1/4 - 9/16	M6 - M14	1810374

Misc
Taps
and
Dies

1301 - 8007

- Die Stocks
- Designed for use with adjustable round split dies
- The die is held securely by two opposed screws in the stock which locate in two indents in the die

• Porte filières

• Maneta para Terrajas " Portaterrajas"



Die Stock #	Overall Length	Takes Die O.D.	EDP # or e-Code
D2	6.3/8	13/16	1810042
D3	9	1	1810043
D6	14	1.1/2	1810096
D14	40.3/4	3	1810034
200 (Style = 8007)	14.3/4	2	1810053

3850

- Tap Wrench
- Designed for hand tapping in tight places and can also be used with any tool that can be turned by hand
- Straight handle design provides greater leverage, particularly suited for use with larger diameters

• Tourne à gauche

• Portamachos regulable



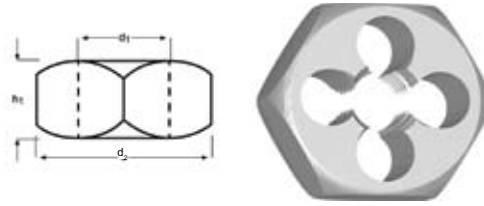
Nr.	Hand Reamer Capacity (inch)	Hand Reamer Capacity (mm)	Fractional Tap Capacity (inch)	Fractional Tap Capacity (mm)	EDP # or e-Code
8	1/8 - 5/16	M3 - M8	1/16-5/16	M1 - M8	1810017
9	3/16 - 3/8	M5 - M9	3/16-1/2	M4 - M12	1810018
10	1/4 - 9/16	M6 - M14	1/4-3/4	M3 - M8	1810019
11	3/8 - 3/4	M9 - M19	3/8-1"	M10 - M25	1810020
12	3/8 - 7/8	M9 - M22	3/8-1.1/8	M10 - M27	1810021
14	5/8 - 1.1/2	M16 - M39	7/8-1.7/8	M22 - M42	1810022

2025(UNC - UNF)

- Hexagon Rethreading Bolt Dies

- Filières hexagonales BSPF

- Terrajas, exterior hexagonal



UNC	TPI	d ₂ Ø Inch	h1 Inch	EDP # or e-Code
1/4	20	19/32	1/2	1410239
5/16	18	11/16	5/16	1410241
3/8	16	25/32	3/8	1410243
7/16	14	7/8	7/16	1410245
1/2	13	1.1/16	1/2	1410247
9/16	12	1.1/16	1/2	1410249
5/8	11	1.1/4	5/8	1410251
3/4	10	1.7/16	3/4	1410255
7/8	9	1.5/8	7/8	1410257
1"	8	1.13/16	1	1410259
1.1/8	7	2"	1	1410262
1.1/4	7	2.3/16	1	1410264
1.3/8	6	2.3/8	1	1410266
1.1/2	6	2.9/16	1	1410268



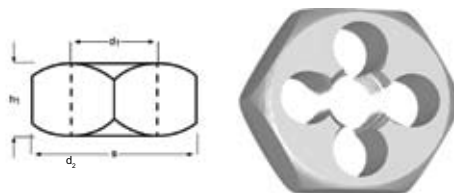
UNF	TPI	d ₂ Ø Inch	h1 Inch	EDP # or e-Code
1/4	28	19/32	1/2	1410240
5/16	24	11/16	5/16	1410242
3/8	24	25/32	3/8	1410244
7/16	20	7/8	7/16	1410246
1/2	20	1.1/16	1/2	1410248
9/16	18	1.1/16	1/2	1410250
5/8	18	1.1/4	5/8	1410252
3/4	16	1.7/16	3/4	1410256
7/8	14	1.5/8	7/8	1410258
1"	12	1.13/16	1"	1410260
1.1/8	12	2"	1"	1410263
1.1/4	12	2.3/16	1"	1410265
1.3/8	12	2.3/8	1"	1410267
1.1/2	12	2.9/16	1"	1410269

2025(UNS - NPT)

- Hexagon Rethreading Bolt Dies

- Filières hexagonales BSPF

- Terrajas, exterior hexagonal



Misc
Taps
and
Dies



UNS	TPI	d ₂ Ø Inch	h1 Inch	EDP # or e-Code
11/16	11	1.7/16	3/4	1410253
11/16	16	1.7/16	3/4	1410254
1"	14	1.13/16	1"	1410261



NPT	TPI	d ₂ Ø Inch	h1 Inch	EDP # or e-Code
1/8	27	1.1/6	3/8	1410270
1/4	18	1.1/4	5/8	1410271
3/8	18	1.1/16	5/8	1410272
1/2	14	1.5/8	3/4	1410273
3/4	14	2"	13/16	1410274
1"	11.1/2	2.3/8	1"	1410275

2025S

- Hexagon Rethreading Bolt Dies

- Filières hexagonales BSPF

- Terrajas, exterior hexagonal



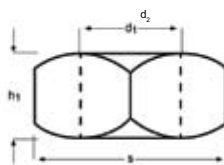
Nr.	A	B	UNC	UNF	EDP # or e-Code
set 821	Hexagon Dienut	1 each	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4		1410277
set 822	Hexagon Dienut	1 each	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8, 1"		1410278
set 831	Hexagon Dienut	1 each		1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4	1410280
set 832	Hexagon Dienut	1 each		1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8, 1-14(UNS)	1410281
set 824	Hexagon Dienut	1 each	1/4, 5/16, 3/8, 7/16, 1/2	1/4, 5/16, 3/8, 7/16, 1/2	1410282
set 825	Hexagon Dienut	1 each	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4	1410283

2325M

- Hexagon Rethreading Bolt Dies

- Filières hexagonales BSPF

- Terrajas, exterior hexagonal



Misc
Taps
and
Dies



M	P mm	d ₂ Ø Inch	h1 Inch	EDP # or e-Code
6.0	1.00	19/32	1/4	1410609
7.0	1.00	11/16	5/16	1410610
8.0	1.25	11/16	5/16	1410611
9.0	1.25	25/32	3/8	1410612
10.0	1.50	7/8	7/16	1410613
11.0	1.50	7/8	7/16	1410614

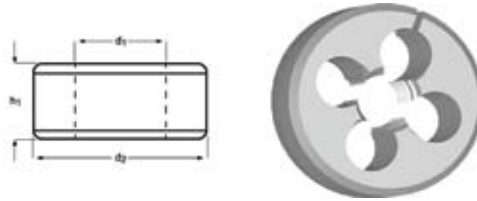
M	P mm	d ₂ Ø Inch	h1 Inch	EDP # or e-Code
12.0	1.75	1.1/16	1/2	1410615
14.0	1.25	1.1/16	1/2	1410617
14.0	2.00	1.1/16	1/2	1410616
16.0	2.00	1.1/4	5/8	1410618
18.0	1.50	1.7/16	3/4	1410620
18.0	2.50	1.7/16	3/4	1410619
20.0	2.50	1.7/16	3/4	1410621

2010(UNC - UNF)

- Round Adjustable Split Dies
- Used for threading bolts, studs, rods and other applications requiring external threads

- Filières extensibles

- Terraja tipo abierto



UNC	TPI	d ₂ Ø Inch	EDP # or e-Code
1	64	13/16	1410004
2	56	13/16	1410008
3	48	13/16	1410012
4	40	13/16	1410016
5	40	13/16	1410022
6	32	13/16	1410026
6	32	1"	1410027
8	32	13/16	1410032
8	32	1"	1410033
10	24	13/16	1410038
10	24	1"	1410039
12	24	13/16	1410044
12	24	1"	1410045
1/4	20	13/16	1410063
1/4	20	1"	1410064
1/4	20	1.1/2	1410066
1/4	20	2"	1410067
5/16	18	13/16	1410079
5/16	18	1"	1410080
5/16	18	1.1/2	1410082
5/16	18	2"	1410083
3/8	16	1"	1410093
3/8	16	1.1/2	1410095
3/8	16	2"	1410096
7/16	14	1"	1410101
7/16	14	1.1/2	1410103
7/16	14	2"	1410104
1/2	13	1.1/2	1410110
1/2	13	2"	1410111
9/16	12	1.1/2	1410117
9/16	12	2"	1410118
5/8	11	1.1/2	1410123
5/8	11	2"	1410124
3/4	10	2"	1410131
7/8	9	2"	1410135
1"	8	3"	1410140
1.1/8	7	3"	1410145
1.1/4	7	3"	1410147
1.3/8	6	3"	1410149
1.1/2	6	3"	1410151

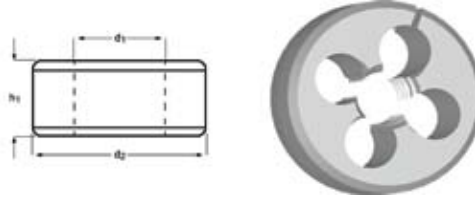
UNF	TPI	d ₂ Ø Inch	EDP # or e-Code
0	80	13/16	1410002
1	72	13/16	1410006
2	64	13/16	1410010
3	56	13/16	1410014
4	48	13/16	1410018
5	44	13/16	1410024
6	40	13/16	1410029
8	36	13/16	1410035
10	32	13/16	1410041
10	32	1"	1410042
12	28	13/16	1410047
1/4	28	13/16	1410068
1/4	28	1"	1410069
1/4	28	1.1/2	1410071
1/4	28	2"	1410072
1/4	32	1"	1410077
5/16	24	1"	1410085
5/16	24	1.1/2	1410087
5/16	24	2"	1410088
5/16	32	1"	1410090
3/8	24	1"	1410097
3/8	24	1.1/2	1410099
3/8	24	2"	1410100
7/16	20	1"	1410105
7/16	20	1.1/2	1410107
7/16	20	2"	1410108
1/2	20	1.1/2	1410114
1/2	20	2"	1410115
9/16	18	1.1/2	1410120
9/16	18	2"	1410121
5/8	18	1.1/2	1410126
5/8	18	2"	1410127
3/4	16	2"	1410133
7/8	14	2"	1410137
1"	12	3"	1410142
1.1/8	12	3"	1410146
1.1/4	12	3"	1410148
1.3/8	12	3"	1410150
1.1/2	12	3"	1410152

2010(UNS - NPT)

- Round Adjustable Split Dies
- Used for threading bolts, studs, rods and other applications requiring external threads

- Filières extensibles

- Terraja tipo abierto



UNS	TPI	d ₂ Ø Inch	EDP # or e-Code
4	36	13/16	1410020
1/4	24	1"	1410074
1"	14	3"	1410144

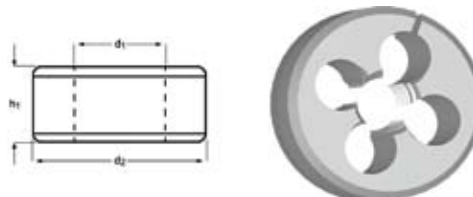
NPT	TPI	d ₂ Ø Inch	EDP # or e-Code
1/8	27	1"	1410203
1/8	27	1.1/2	1410204
1/4	18	1.1/2	1410205
1/4	18	2"	1410206
3/8	18	1.1/2	1410207
3/8	18	2"	1410208
1/2	14	2"	1410209

2510(UNC)

- Round Adjustable Split Dies
- Used for threading bolts, studs, rods and other applications requiring external threads

- Filières extensibles

- Terraja tipo abierto



UNC	TPI	d ₂ Ø Inch	EDP # or e-Code
5	40	13/16	1410153
6	32	13/16	1410155
6	32	1"	1410156
8	32	13/16	1410159
8	32	1"	1410160
10	24	13/16	1410163
10	24	1"	1410164
12	24	13/16	1410167
12	24	1"	1410168
1/4	20	13/16	1410171
1/4	20	1"	1410172
1/4	20	1.1/2	1410173
5/16	18	13/16	1410177

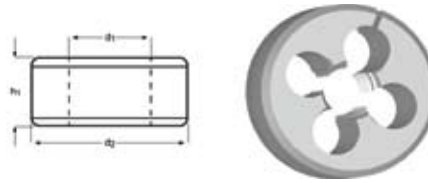
UNC	TPI	d ₂ Ø Inch	EDP # or e-Code
5/16	18	1"	1410178
5/16	18	1.1/2	1410179
3/8	16	1"	1410183
3/8	16	1.1/2	1410184
7/16	14	1"	1410187
7/16	14	1.1/2	1410188
1/2	13	1.1/2	1410191
9/16	12	1.1/2	1410193
5/8	11	1.1/2	1410195
5/8	11	2"	1410196
3/4	10	2"	1410199
7/8	9	2"	1410201

2510(UNF)

- Round Adjustable Split Dies
- Used for threading bolts, studs, rods and other applications requiring external threads

- Filières extensibles

- Terraja tipo abierto



UNF	TPI	d ₂ Ø Inch	EDP # or e-Code
5	44	13/16	1410154
6	40	13/16	1410157
8	36	13/16	1410161
10	32	13/16	1410165
10	32	1"	1410166
12	28	13/16	1410169
1/4	28	13/16	1410174
1/4	28	1"	1410175
1/4	28	1.1/2	1410176
5/16	24	13/16	1410180
5/16	24	1"	1410181

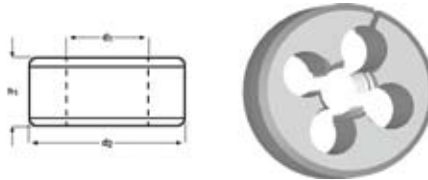
UNF	TPI	d ₂ Ø Inch	EDP # or e-Code
5/16	24	1.1/2	1410182
3/8	24	1"	1410185
3/8	24	1.1/2	1410186
7/16	20	1"	1410189
7/16	20	1.1/2	1410190
1/2	20	1.1/2	1410192
9/16	18	1.1/2	1410194
5/8	18	1.1/2	1410197
5/8	18	2"	1410198
3/4	16	2"	1410200
7/8	14	2"	1410202

2710M

- Round Adjustable Split Dies
- Used for threading bolts, studs, rods and other applications requiring external threads

- Filières extensibles

- Terraja tipo abierto



M	P mm	d ₂ Ø Inch	EDP # or e-Code
2.0	0.40	13/16	1410573
2.3	0.40	13/16	1410574
2.5	0.45	13/16	1410575
2.6	0.45	13/16	1410576
3.0	0.50	13/16	1410577
3.5	0.60	13/16	1410578
4.0	0.70	13/16	1410579
4.5	0.75	13/16	1410580
5.0	0.80	13/16	1410581
6.0	1.00	1"	1410582
7.0	1.00	1"	1410583
8.0	1.25	1"	1410584

M	P mm	d ₂ Ø Inch	EDP # or e-Code
9.0	1.25	1"	1410585
10.0	1.50	1"	1410586
11.0	1.50	1"	1410587
12.0	1.75	1"	1410630
12.0	1.75	1.1/2	1410588
14.0	2.00	1.1/2	1410589
16.0	2.00	1.1/2	1410590
18.0	2.50	2"	1410591
20.0	2.50	2"	1410592

- Tap and Round Die Screw Plate Sets
- One plug tap and one round die for each cutting size



Style	Description	Die Stock #	Die Stock Length	Tap Wrench #	Outside Diameter Dies	EDP # or e-Code
3150	Master Series: UNC TAP SIZES: 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13, 9/16-12, 5/8-11 (16 piece set) UNF TAP SIZES: 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20, 9/16-18, 5/8-18 (16 piece set)	D-6	14"	8-10	1.1/2"	1610078
		D-6	14"	10	1.1/2	1610079
	General Purpose: UNC TAP SIZES: 1/4-20, 5/16-18, 3/8-16, 1/2-13, 9/16-12, 5/8-11, 2-56, 3-48, 6-32, 8-32, 10-24, 12-24 UNF TAP SIZES: 1/4-28, 5/16-24, 3/8-24, 1/2-20, 9/16-18, 5/8-18 UNS SIZE: 4-36 (42 piece set)	D-2 & D-6	7"-14"	8-10	13/16"(UNC); 1.1/2(UNC) 1.1/2(UNF)	1610080
	70H: UNC TAP SIZES: 4-36NS, 6-32, 8-32, 10-24, 12-24, 1/4 - 20, 5/16 - 18 (16 piece set)	D-2	7"	8	13/16"	1610065
	70K: UNC TAP SIZES: 2-56, 3-48, 4-36 NS, 5-40, 6-32, 8-32, 10-24, 12-24, 1/4-20, 5/16 -18 (22 piece set)	D-2	7"	8	13/16"	1610067
	70M: UNF TAP SIZES: NC and NF 4-36 NS, 6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20 (16 piece set)	D-2	7"	8	13/16"	1610070
	70P: UNF TAP SIZES: NC and NF 4-40, 4-48, 6-32, 6-40, 8-32, 8-36, 10-24, 10-32, 12-24, 12-28 (22 piece set)	D-2	7"	8	13/16"	1610072
	90A: UNC TAP SIZES: 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13, 5/8-11 (15 piece set)	D3, D-6	9"-14"	10	1/4" to 3/8"-1, 7/16" to 5/8"-1.1/2"	1610076
	90B: UNF TAP SIZES : 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20, 5/8-18, 3/4-16, 7/8-14 (22 piece set)	D-3, D-6 200	9"-14"-16"	9 and 11	1/4" to 3/8"-1"; 7/16" to 5/8"-1.1/2"; 3/4" to 7/8"-2"	1610077
*	1702M: M2.0 x 0.40, M2.5 x 0.45, M3.0 x 0.50, M3.5 x 0.60, M4.0 x 0.70, M4.5 x 0.75, M5.0 x 0.80 AND 1.6 mm, 2.05 mm, 2.5 mm, 2.9 mm, 3.3 mm, 3.7 mm, 4.2 mm (23 piece set)	D-2	7"	T-0	13/16"	1610087
*	1703M: M6 x 1.00, M7 x 1.00, M8 x 1.25, M10 x 1.50, M12 x 1.75 AND 5.0 mm, 6.0 mm, 6.7 mm, 8.5 mm, 10.2 mm (17 piece set)	D-3	9"	T-2	1"	1610088

*One plug tap, one round die and one tap drill for each cutting size

Solid Carbide End Mill Table of Contents

Style	Description	#Flutes	Finish	Page No.
High Helix				
E3603	60°, High Helix	3-Flute	Bright	354
E3603G	60°, High Helix	3-Flute	TiN	354
E3603V	60°, High Helix	3-Flute	TiALN	355
2-Flute				
E1302	Stub Length	2-Flute	Bright	355
E1302G	Stub Length	2-Flute	TiN	356
E1302V	Stub Length	2-Flute	TiALN	356
E2302	Stub Length	2-Flute	Bright	357
E3302	Regular Length	2-Flute	Bright	357
E3302G	Regular Length	2-Flute	TiN	358
E3302V	Regular Length	2-Flute	TiALN	359
E3302M	Regular Length, Metric	2-Flute	Bright	360
E3302MG	Regular Length, Metric	2-Flute	TiN	361
E3302MV	Regular Length, Metric	2-Flute	TiALN	362
EB3302	Ball Nose, Regular Length	3-Flute	Bright	363
EB3302G	Ball Nose, Regular Length	3-Flute	TiN	364
EB3302V	Ball Nose, Regular Length	3-Flute	TiALN	365
EB3302M	Ball Nose, Regular Length, Metric	2-Flute	Bright	366
EB3302MG	Ball Nose, Regular Length, Metric	2-Flute	TiN	367
EB3302MV	Ball Nose, Regular Length, Metric	2-Flute	TiALN	368
E4302	Double End, Regular Length	2-Flute	Bright	368
EB4302	Ball Nose, Double End, Regular Length	2-Flute	Bright	369
E6302	Extra Length	2-Flute	Bright	369
E6302G	Extra Length	2-Flute	TiN	370
E6302V	Extra Length	2-Flute	TiALN	370
EB6302	Ball Nose, Extra Length	2-Flute	Bright	371
EB6302G	Ball Nose, Extra Length	2-Flute	TiN	371
EB6302V	Ball Nose, Extra Length	2-Flute	TiALN	372
3-Flute				
E3303	Regular Length	3-Flute	Bright	372
E3303G	Regular Length	3-Flute	TiN	373
E3303V	Regular Length	3-Flute	TiALN	373
4-Flute				
E1304	Stub Length	4-Flute	Bright	374
E1304G	Stub Length	4-Flute	TiN	374
E1304V	Stub Length	4-Flute	TiALN	375
E2304	Stub Length	4-Flute	Bright	375
E3304	Regular Length	4-Flute	Bright	376
E3304G	Regular Length	4-Flute	TiN	377
E3304V	Regular Length	4-Flute	TiALN	378
E3304M	Regular Length, Metric	4-Flute	Bright	379
E3304MG	Regular Length, Metric	4-Flute	TiN	380
E3304MV	Regular Length, Metric	4-Flute	TiALN	381
EB3304	Ball Nose, Regular Length	4-Flute	Bright	382
EB3304G	Ball Nose, Regular Length	4-Flute	TiN	383
EB3304V	Ball Nose, Regular Length	4-Flute	TiALN	384
EB3304M	Ball Nose, Regular Length, Metric	4-Flute	Bright	385
EB3304MG	Ball Nose, Regular Length, Metric	4-Flute	TiN	386
EB3304MV	Ball Nose, Regular Length, Metric	4-Flute	TiALN	384
E4304	Double End, Regular Length	4-Flute	Bright	386
EB4304	Ball Nose, Double End, Regular Length	4-Flute	Bright	387
E6304	Extra Length	4-Flute	Bright	387
E6304G	Extra Length	4-Flute	TiN	388
E6304V	Extra Length	4-Flute	TiALN	388
EB6304	Ball Nose, Extra Length	4-Flute	Bright	389
EB6304G	Ball Nose, Extra Length	4-Flute	TiN	389
EB6304V	Ball Nose, Extra Length	4-Flute	TiALN	390
RTDA	Router	3-Flute	Bright	390

Feed Rate Chart - Solid Carbide End Mills

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 279 U : U is the Alpha Code).
2. Find the closest diameter for your cutting application on the chart.
3. Select the type of cut and # Flutes to find your Ft Range.

# of Flutes	Type of Cut	Depth/ Width of Cut	Alpha Code	Feed Per Tooth (Ft) Dia Inches											
				1/8	5/32	3/16	1/4	5/16	13/32	1/2	9/16	5/8	11/16	3/4	
>4		↑ 1,5 ↔ 0,05	A				0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	
			B				0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.004	
			C				0.003	0.003	0.004	0.004	0.005	0.005	0.006	0.007	
3-4		↑ 1,5 ↔ 0,1	A	0.001	0.001	0.002	0.002	0.002	0.002	0.003	0.003	0.004	0.004	0.005	
			B	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.005	0.006	0.007	
			C	0.001	0.002	0.002	0.003	0.004	0.005	0.006	0.006	0.007	0.008	0.009	
3-4		↑ 1 ↔ 0,5	A	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	
			B	0.003	0.000	0.001	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004	
			C	0.000	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	
2-3		↑ 0,5 ↔ 1	A	0.000	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003	
			B	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.004	
			C	0.001	0.001	0.001	0.002	0.002	0.003	0.003	0.004	0.004	0.005	0.005	
3-4		↑ 0,5 ↔ 1 ↑ 1	B				0.001	0.002	0.003	0.003	0.003	0.004	0.004	0.004	
2 & 4		↑ 0,1 - 0,5mm ↔ 0,1 - 0,5mm	A												
			BC	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.003	0.003			
				0.001	0.001	0.001	0.002	0.002	0.002	0.003	0.003	0.004			
4		↑ 0,01 - 0,1 ↔ ≤ 1	A												
			BC				0.002	0.002	0.002	0.003		0.003			
							0.002	0.002	0.003	0.003		0.004			

Easy Calculations: (inch)

$$\text{RPM} = \text{SFM}/\text{D} \times 3.82$$

$$\text{F} = \text{Ft} \times \text{T} \times \text{RPM}$$

Terms:

RPM = Revolutions Per Minute

F = Feed Inches Per Minute

Ft = Feed Per Tooth

T = Number of Teeth

D = Cutting Diameter

SFM = Surface Feet per Minute

Feed Rate Chart - Solid Carbide End Mills

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 279 U : U is the Alpha Code).
2. Find the closest diameter for your cutting application on the chart.
3. Select the type of cut and # Flutes to find your Ft Range.

# of Flutes	Type of Cut	Depth/ Width of Cut	Alpha Code	Feed Per Tooth (Ft)									Dia MM							
				>0,5	0.6	0.8	1	2	3	4	5	6	8	10	12	14	16	18	20	
>4		↑ 1,5 ↔ 0,05	A										0.015	0.020	0.025	0.030	0.035	0.040	0.050	0.060
			B										0.045	0.050	0.060	0.075	0.080	0.090	0.100	0.110
			C										0.065	0.075	0.090	0.110	0.120	0.130	0.150	0.170
3-4		↑ 1,5 ↔ 0,1	A					0.010	0.020	0.030	0.040	0.045	0.050	0.060	0.075	0.080	0.090	0.100	0.120	
			B					0.015	0.030	0.040	0.055	0.065	0.075	0.090	0.110	0.120	0.130	0.150	0.170	
			C					0.015	0.030	0.040	0.055	0.085	0.100	0.120	0.140	0.150	0.170	0.200	0.220	
3-4		↑ 1 ↔ 0,5	A				0.001	0.003	0.005	0.008	0.010	0.013	0.020	0.027	0.035	0.040	0.050	0.055	0.060	
			B					0.002	0.004	0.008	0.012	0.015	0.020	0.030	0.040	0.050	0.060	0.070	0.080	0.090
			C					0.003	0.005	0.010	0.015	0.020	0.025	0.040	0.050	0.065	0.080	0.090	0.105	0.120
2-3		↑ 0,5 ↔ 1	A	0.001	0.001	0.002	0.002	0.005	0.009	0.013	0.017	0.020	0.023	0.035	0.040	0.050	0.055	0.060	0.070	
			B	0.001	0.002	0.003	0.003	0.007	0.013	0.020	0.025	0.030	0.035	0.050	0.060	0.070	0.080	0.090	0.100	
			C	0.002	0.003	0.004	0.004	0.009	0.017	0.025	0.033	0.040	0.045	0.065	0.080	0.090	0.105	0.120	0.130	
3-4		↑ 0,5 ↔ 1 ↑ 1	A																	
			B										0.035	0.040	0.055	0.065	0.080	0.090	0.100	0.110
			C																	
2 & 4		↑ 0,1 - 0,5mm ↔ 0,1 - 0,5mm	A					0.010	0.017	0.023	0.028	0.032	0.040	0.050	0.055	0.070	0.080			
			BC					0.015	0.022	0.030	0.035	0.040	0.050	0.060	0.070	0.085	0.100			
			C																	
4		↑ 0,01 - 0,1 ↔ ≤ 1	A									0.040	0.050	0.055	0.065		0.080			
			BC									0.050	0.060	0.070	0.080		0.100			
			C																	

Easy Calculations: (MM)

$$\text{RPM} = (\text{mm/min} \times 1000)$$

$$/ 3.14 \times \text{Diameter}$$

$$\text{F} = \text{mm/min} = \text{RPM} \times \text{feed per tooth} \times \text{number of teeth}$$

Terms:

RPM = Revolutions Per MM

F = Feed MM Per Minute

Ft = Feed Per Tooth

T = Number of Teeth

D = Cutting Diameter

SFM = Surface Feet per Minute

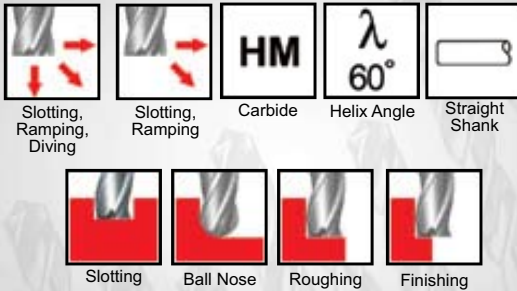
Solid Carbide End Mills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Type of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
example: 289 B
289 = SFM
B = Alpha Code to find your Feed Rate
- 4 To calculate Feed Per Tooth, refer to chart on page 346-347.

■ = Excellent for Application
● = Good for Application

Icon Guide for Solid Carbide End Mills



Style:	E3603	E3603G	E3603V
Flutes:	3-Flute High Helix	3-Flute High Helix	3-Flute High Helix
			
Material:	HM	HM	HM
Finish/Coating:		TIN	TiAlN
Axial Direction:			
Type of Cut:			
Tool Length:			
Shank:			
Tolerance:	NORMAL	NORMAL	NORMAL
End Grind:			
Helix Angle:	λ 60°	λ 60°	λ 60°

Solid Carbide End Mills

Page # for easy reference

Application Material Groups (AMG)

Hardness HB

Surface Feet per Minute (SFM)

						354	354	355
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1				
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2				
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3				
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4				
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5				
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6	■151B	■161B	■200B	
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	■200A	■249A	■325A	
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	■141A	■161A	■226A	
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	■112A	■131A	■174A	
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4	■89A	■105A	■131A	
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1				
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2				
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3				
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4				
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	■161B	■184B	■230B	
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	■144B	■180B	■200B	
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	■131B	■151B	■190B	
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	■171B	■184B	■230B	
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	■115A	■131A	■161A	
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3	■66A	■75A	■98A	
6. Copper	6.1 Copper	Commercially Pure	<100	6.1				
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2				
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3				
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4				
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1				
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2				
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3				
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4				
8. Synthetic Materials	8.1 Thermoplastics	Ultrad, Polystrol	---	8.1				
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2				
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3				
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1				
10. Graphite	10.1 Standard graphite		---	10.1				

AMG Chart

Solid Carbide End Mills (con't)

Solid Carbide End Mills	E1302	E1302G	E1302V	E2302	E3302	E3302G	E3302V	E3302M	E3302MG	E3302MV	EB3302	EB3302G	EB3302V	EB3302M	EB3302MG	
	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	
																
	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	
																
																
																
																
																
																
																
																
																
																
																
																
Surface Feet per Minute (SFM)																
	355	356	356	357	357	358	359	360	361	362	363	364	365	366	367	
1.1	■289B	■325B	■400B	■289B	■289B	■325B	■400B	■289B	■325B	■400B	■289B	■325B	■400B	■289B	■325B	1.1
1.2	■223B	■249B	■298B	■223B	■223B	■249B	■298B	■223B	■249B	■298B	■223B	■249B	■298B	■223B	■249B	1.2
1.3	■223B	■249B	■298B	■223B	■223B	■249B	■298B	■223B	■249B	■298B	■223B	■249B	■298B	■223B	■249B	1.3
1.4	■180B	■200B	■259B	■180B	■180B	■200B	■259B	■180B	■200B	■259B	■180B	■200B	■259B	■180B	■200B	1.4
1.5	■161B	■180B	■230B	■161B	■161B	■180B	■230B	■161B	■180B	■230B	■161B	■180B	■230B	■161B	■180B	1.5
1.6	■148B	■161B	■200B	■148B	■148B	■161B	■200B	■148B	■161B	■200B	■148B	■161B	■200B	■148B	■161B	1.6
1.7																1.7
1.8																1.8
2.1	■200A	■249A	■325A	■200A	■200A	■249A	■325A	■200A	■249A	■325A	■200A	■249A	■325A	■200A	■249A	2.1
2.2	■141A	■161A	■223A	■141A	■141A	■161A	■223A	■141A	■161A	■223A	■141A	■161A	■223A	■141A	■161A	2.2
2.3	■108A	■131A	■174A	■108A	■108A	■131A	■174A	■108A	■131A	■174A	■108A	■131A	■174A	■108A	■131A	2.3
2.4											■89A	■98A		■89A	■98A	2.4
3.1	■374B		■551B	■374B	■374B		■551B	■374B		■551B	■374B		■551B	■374B		3.1
3.2	■318B		■525B	■318B	■318B		■525B	■318B		■525B	■318B		■525B	■318B		3.2
3.3	■318B		■525B	■318B	■318B		■525B	■318B		■525B	■318B		■525B	■318B		3.3
3.4	■249B		■374B	■249B	■249B		■374B	■249B		■374B	■249B		■374B	■249B		3.4
4.1			■230B				■230B			■230B			■230B			4.1
4.2			■200B				■200B			■200B			■200B			4.2
4.3			■190B				■190B			■190B			■190B			4.3
5.1		■184B	■230B			■184B	■230B		■184B	■230B		■184B	■230B		■184B	5.1
5.2			■161A				■161A			■161A			■161A			5.2
5.3			■98A				■98A			■98A			■98A			5.3
6.1	■649C			■649C			■649C			■649C			■649C			6.1
6.2	■499C			■499C			■499C			■499C			■499C			6.2
6.3	■499C			■499C			■499C			■499C			■499C			6.3
6.4	■125B			■125B	■125B					■125B					■125B	6.4
7.1										■1499C			■1499C			7.1
7.2										■1499C			■1499C			7.2
7.3	■649C			■649C						■649C			■649C			7.3
7.4	■400B			■400B	■400B					■400B					■400B	7.4
8.1																8.1
8.2																8.2
8.3																8.3
9.1																9.1
10.1																10.1

Solid Carbide End Mills

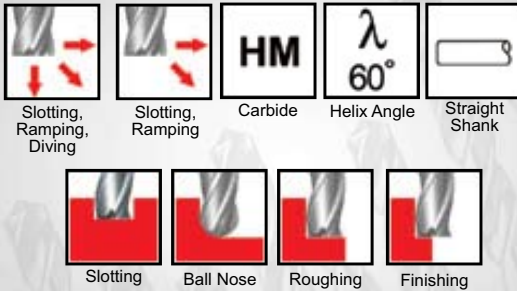
How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Type of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
- 4 To calculate Feed Per Tooth, refer to chart on page 346-347.

example: 289 B
289 = SFM
B = Alpha Code to find your Feed Rate

■ = Excellent for Application
● = Good for Application

Icon Guide for Solid Carbide End Mills



Style:	EB3302MV	E4302	EB4302
Flutes:	2-Flute	2-Flute	2-Flute
Material:	HM	HM	HM
Finish/Coating:	TiAlN		
Axial Direction:			
Type of Cut:			
Tool Length:			
Shank:			
Tolerance:			
End Grind:			
Helix Angle:			

Solid Carbide End Mills

Page # for easy reference

Application Material Groups (AMG)		Hardness HB	Surface Feet per Minute (SFM)
			368 368 369
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120 1.1 ■400B ■289B ■289B
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200 1.2 ■298B ■223B ■223B
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250 1.3 ■298B ■223B ■223B
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250 1.4 ■259B ■180B ■180B
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350 1.5 ■230B ■161B ■161B
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350 1.6 ■200B ■148B ■148B
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC 1.7
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC 1.8
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250 2.1 ■325A ■200A ■200A
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250 2.2 ■223A ■141A ■141A
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300 2.3 ■174A ■108A ■108A
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300 2.4 ■89A
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150 3.1 ■551B ■374B ■374B
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300 3.2 ●525B ●318B ●318B
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200 3.3 ■525B ■318B ■318B
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300 3.4 ●374B ●249B ●249B
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200 4.1 ■230B
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270 4.2 ●200B
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350 4.3 ●190B
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150 5.1 ●230B
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270 5.2 ●161A
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350 5.3 ●98A
6. Copper	6.1 Copper	Commercially Pure	<100 6.1
	6.2 β-Brass, Bronze	314-340, 350-370	<200 6.2 ■649C ■499C ■499C
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200 6.3 ■499C ■499C
	6.4 High Strength Bronze	Ampco 18-25	<470 6.4 ■125B ■125B
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100 7.1 ●1499C ●1499C
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150 7.2 ●1499C ●1499C
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120 7.3 ●649C ●649C
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120 7.4 ●400B ●400B
8. Synthetic Materials	8.1 Thermoplastics	Ultrad, Polystrol	8.1
	8.2 Thermosetting plastics	Bakelit, Pertinax	8.2
	8.3 Reinforced plastic materials	CFK, GFKAFK	8.3
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550 9.1
10. Graphite	10.1 Standard graphite		10.1

AMG Chart

Solid Carbide End Mills (con't)

	E6302	E6302G	E6302V	EB6302	EB6302G	EB6302V	E3303	E3303G	E3303V	E1304	E1304G	E1304V	E2304	E3304	E3304G	
	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	3-Flute	3-Flute	3-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	
																
Solid Carbide End Mills	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	
																
																
																
																
																
																
Surface Feet per Minute (SFM)																
	369	370	370	371	371	372	372	373	373	374	374	375	375	376	377	
1.1	■249B	■289B	■361B	■249B	■289B	■361B	■289B	■325B	■400B	■361B	■400B	■499B	■361B	■361B	■400B	1.1
1.2	■200B	■226B	■269B	■200B	■226B	■269B	■223B	■249B	■298B	■325B	■374B	■449B	■325B	■325B	■374B	1.2
1.3	■200B	■226B	■269B	■200B	■226B	■269B	■223B	■249B	■298B	■325B	■374B	■449B	■325B	■325B	■374B	1.3
1.4	■161B	■180B	■239B	■161B	■180B	■239B	■180B	■200B	■259B	■298B	■341B	■423B	■298B	■298B	■341B	1.4
1.5	■144B	■161B	■200B	■144B	■161B	■200B	■161B	■180B	■230B	■249B	■298B	■400B	■249B	■249B	■298B	1.5
1.6	●131B	●148B	■180B	●131B	●148B	■180B	●148B	●161B	■200B	●230B	●239B	■328B	●230B	●230B	●239B	1.6
1.7																1.7
1.8																1.8
2.1	■180A	●210A	■298A	■180A	●210A	■298A	■200A	■249A	■325A	■239A	■276A	■351A	■239A	■239A	■276A	2.1
2.2	■108A	●128A	■180A	■108A	●128A	■180A	■141A	■161A	■223A	■171A	■200A	■276A	■171A	■171A	■200A	2.2
2.3	■98A	●118A	■171A	■98A	●118A	■171A	■108A	■131A	■174A	■131A	■151A	■200A	■131A	■131A	■151A	2.3
2.4			■82A			■89A				●98A	●121A			■105A	■105A	2.4
3.1	■298B		■499B	■298B		■499B	■374B		■551B	■449B		■699B	■449B	■449B		3.1
3.2	●249B		■400B	●249B		■400B	●318B		●525B	●377B		■649B	●377B	●377B		3.2
3.3	■249B		■400B	■249B		■400B	●318B		■525B	■377B		■649B	■377B	■377B		3.3
3.4	●200B		■341B	■200B		■341B	■249B		●374B	●279B		■430B	●279B	●279B		3.4
4.1			■200B			■200B			■230B			■259B				4.1
4.2			●180B			●180B			●200B			●230B				4.2
4.3			●174B			●174B			●190B			●200B				4.3
5.1		●164B	■200B	●148B	●164B	■200B		●184B	■230B		●210B	●266B			●210B	5.1
5.2			●141A			●141A			●161A			●200A				5.2
5.3			●85A			●85A			●98A			●131A				5.3
6.1	■584C	■584C		■584C	■584C		■649C			■679C			■679C	■679C		6.1
6.2	■449C	■449C		■449C	■449C		■499C			■574C			■574C	■574C		6.2
6.3	■449C	■449C		■449C	■449C		■499C			■574C			■574C	■574C		6.3
6.4	●108B	●108B		●108B	●108B		●125B			●144B			●144B	●144B		6.4
7.1	●1348C	●1348C		●1348C	●1348C		●1499C			●1601C			●1601C	●1601C		7.1
7.2	●1348C	●1348C		●1348C	●1348C		●1499C			●1601C			●1601C	●1601C		7.2
7.3	●584C	●584C		●584C	●584C		●649C			●708C			●708C	●708C		7.3
7.4	●361B	●361B		●361B	●361B		●400B			●479B			●479B	●479B		7.4
8.1																8.1
8.2																8.2
8.3																8.3
9.1																9.1
10.1																10.1

Solid Carbide End Mills

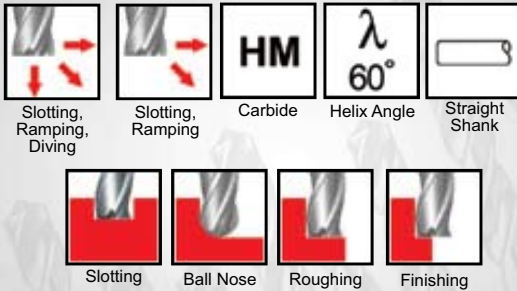
How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find Type of Cut and other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
- 4 To calculate Feed Per Tooth, refer to chart on page 346-347.

example: 289 B
289 = SFM
B = Alpha Code to find your Feed Rate

■ = Excellent for Application
● = Good for Application

Icon Guide for Solid Carbide End Mills



Style:	E3304V	E3304M	E3304MG
Flutes:	4-Flute	4-Flute	4-Flute
Material:	HM	HM	HM
Finish/Coating:	TiAlN		TiN
Axial Direction:			
Type of Cut:			
Tool Length:			
Shank:			
Tolerance:	NORMAL	NORMAL	NORMAL
End Grind:			
Helix Angle:			

Solid Carbide End Mills

Page # for easy reference

Application Material Groups (AMG)

Hardness HB

Surface Feet per Minute SFM)

						378	379	380
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■499B	■361B	■400B	
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■449B	■325B	■374B	
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■449B	■325B	■374B	
	1.4 Alloy steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	<250	1.4	■423B	■298B	■341B	
	1.5 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>250<350	1.5	■400B	■249B	■298B	
	1.6 Alloy steel/ Hardened and tempered steel	4140,4340,52100,8620 H11-H41,A2,D2,01,P20,420	>350	1.6	■328B	●230B	●239B	
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2.Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	■351A	■239A	■276A	
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	■276A	■171A	■200A	
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	■200A	■131A	■151A	
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4	■164A	■105A	■105A	
3.Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	■699B	■449B		
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	■649B	●377B		
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	■649B	■377B		
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	■430B	●279B		
4.Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	■259B			
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●230B			
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●200B			
5.Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●266B		●210B	
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●200A			
	5.3 Nickel, alloyed	Inconel 718,Nimonic 75-95,Rene 41,Inconel 825,A286	>270<350	5.3	●131A			
6.Copper	6.1 Copper	Commercially Pure	<100	6.1		■679C		
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2		■574C		
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3		■574C		
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4		●144B		
7.Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1			■1601C	
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2			●1601C	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3			●708C	
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4			●479B	
8.Synthetic Materials	8.1 Thermoplastics	Ultradid, Polystrol	---	8.1				
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2				
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3				
9.Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1				
10.Graphite	10.1 Standard graphite		---	10.1				

AMG Chart

Solid Carbide End Mills (con't)

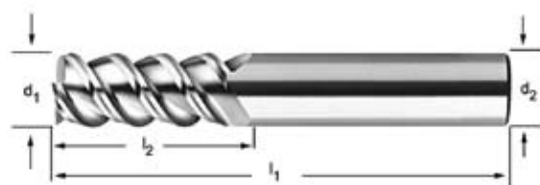
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	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	3-Flute	
																
	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	HM	
	TiAlN		TiN	TiAlN		TiN				TiN	TiAlN		TiN	TiAlN		
																
																
																
																
																
																
																
																
																
																
																

E3603

- End Mill
- 3-flute, 60° high helix

- Fraises de finition

- Fresas de acabado



E3603



■ 1.6 2.1 2.2 2.3 2.4 4.1 4.2 4.3 5.1 5.2 5.3

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	5/8	1.1/2	3	005802
3/16	0.1875	3/16	5/8	2"	3	005804
1/4	0.2500	1/4	3/4	2.1/2	3	005807
5/16	0.3125	5/16	13/16	2.1/2	3	005808
3/8	0.3750	3/8	1"	2.1/2	3	005810
7/16	0.4375	7/16	1"	3"	3	005812
1/2	0.5000	1/2	1"	3"	3	005814
5/8	0.6250	5/8	1.1/4	3.1/2	3	005815
3/4	0.7500	3/4	1.1/2	4"	3	005817
1"	1.0000	1	1.1/2	4"	3	005820

E3603G



E3603G



■ 1.6 2.1 2.2 2.3 2.4 4.1 4.2 4.3 5.1 5.2 5.3

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1/2	1.1/2	3	005902
3/16	0.1875	3/16	5/8	2"	3	005904
1/4	0.2500	1/4	3/4	2.1/2	3	005907
5/16	0.3125	5/16	13/16	2.1/2	3	005908
3/8	0.3750	3/8	1"	2.1/2	3	005910
7/16	0.4375	7/16	1"	3"	3	005912
1/2	0.5000	1/2	1"	3"	3	005914
5/8	0.6250	5/8	1.1/4	3.1/2	3	005915
3/4	0.7500	3/4	1.1/2	4"	3	005917
1"	1.0000	1	1.1/2	4"	3	005920

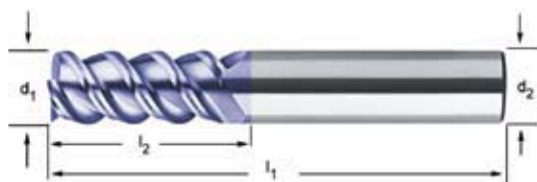
E3603V



- End Mill
- 3-flute, 60° high helix

Fraises de finition

- Fresas de acabado



E3603V



■ 1.6 2.1 2.2 2.3 2.4 4.1 4.2 4.3 5.1 5.2 5.3

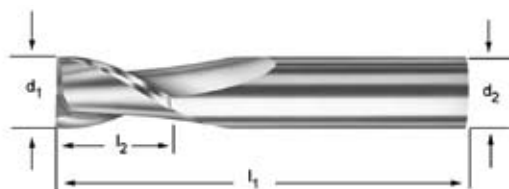
d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1/2	1.1/2	3	002780
3/16	0.1875	3/16	5/8	2"	3	002781
1/4	0.2500	1/4	3/4	2.1/2	3	002782
5/16	0.3125	5/16	13/16	2.1/2	3	002783
3/8	0.3750	3/8	1"	2.1/2	3	002784
7/16	0.4375	7/16	1"	3"	3	002785
1/2	0.5000	1/2	1"	3"	3	002786
5/8	0.6250	5/8	1.1/4	3.1/2	3	002787
3/4	0.7500	3/4	1.1/2	4"	3	002788
1"	1.0000	1	1.1/2	4"	3	002789

E1302

- End Mill
- 2-flute, stub length

Fraises de finition

- Fresas de acabado



E1302



■ 1.1 1.2 1.3 1.4 1.5 3.1 3.3 6.1 6.2 6.3
• 1.6 2.1 2.2 2.3 3.2 3.4 6.4 7.1 7.2 7.3 7.4

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	2	001802
3/32	0.0938	1/8	3/16	1.1/2	2	001804
1/8	0.1250	1/8	1/4	1.1/2	2	001806
5/32	0.1562	3/16	5/16	2"	2	001808
3/16	0.1875	3/16	3/8	2"	2	001810
7/32	0.2188	1/4	7/16	2"	2	001811
1/4	0.2500	1/4	1/2	2"	2	001812
5/16	0.3125	5/16	1/2	2"	2	001813
3/8	0.3750	3/8	5/8	2"	2	001814
7/16	0.4375	7/16	5/8	3"	2	001815
1/2	0.5000	1/2	5/8	2.1/2	2	001816

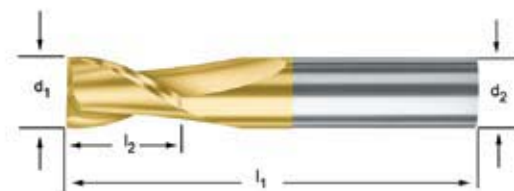
■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

E1302G

- End Mill
- 2-flute, stub length

- Fraises de finition

- Fresas de acabado



E1302G



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3
- 1.6 5.1

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	2	006802
3/32	0.0938	1/8	3/16	1.1/2	2	006804
1/8	0.1250	1/8	1/4	1.1/2	2	006806
5/32	0.1562	3/16	5/16	2"	2	006808
3/16	0.1875	3/16	3/8	2"	2	006810
7/32	0.2188	1/4	7/16	2"	2	006811
1/4	0.2500	1/4	1/2	2"	2	006812
5/16	0.3125	5/16	1/2	2"	2	006813
3/8	0.3750	3/8	5/8	2"	2	006814
7/16	0.4375	7/16	5/8	3"	2	006815
1/2	0.5000	1/2	5/8	2.1/2	2	006816

E1302V



E1302V



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.3 4.1
- 3.2 3.4 4.2 4.3 5.1 5.2 5.3

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	2	002735
3/32	0.0938	1/8	3/16	1.1/2	2	002736
1/8	0.1250	1/8	1/4	1.1/2	2	002737
5/32	0.1562	3/16	5/16	2"	2	002738
3/16	0.1875	3/16	3/8	2"	2	002739
7/32	0.2188	1/4	7/16	2"	2	002740
1/4	0.2500	1/4	1/2	2"	2	002741
5/16	0.3125	5/16	1/2	2"	2	002742
3/8	0.3750	3/8	5/8	2"	2	002743
7/16	0.4375	7/16	5/8	3"	2	002744
1/2	0.5000	1/2	5/8	2.1/2	2	002745

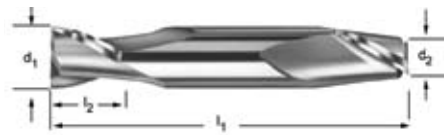
E2302 - E3302



- End Mill, double-end
- 2-flute, stub length

- Fraises de finition - Double

- Fresas de acabado - Doble final



E2302



1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 3.1 3.3 6.1 6.2 6.3 1.6 3.2 3.4 6.4 7.1 7.2 7.3 7.4						
d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	2	002002
3/32	0.0938	1/8	3/16	1.1/2	2	002003
1/8	0.1250	1/8	1/4	1.1/2	2	002004
3/16	0.1875	3/16	3/8	2"	2	002006
1/4	0.2500	1/4	1/2	2.1/2	2	002008
5/16	0.3125	5/16	1/2	2.1/2	2	002009
3/8	0.3750	3/8	1/2	2.1/2	2	002010
1/2	0.5000	1/2	5/8	3"	2	002012

- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



E3302



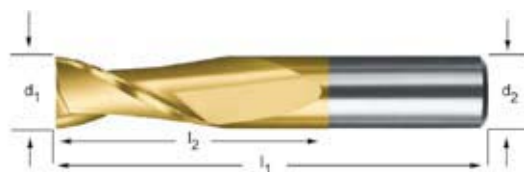
1.1 1.2 1.3 1.4 1.5 3.1 3.3 6.1 6.2 6.3 1.6 2.1 2.2 2.3 3.2 3.4 6.4 7.1 7.2 7.3 7.4						
d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	2	001000
5/64	0.0781	1/8	1/4	1.1/2	2	001001
3/32	0.0938	1/8	3/8	1.1/2	2	001002
7/64	0.1094	1/8	3/8	1.1/2	2	001003
1/8	0.1250	1/8	1/2	1.1/2	2	001004
9/64	0.1406	3/16	9/16	2"	2	001005
5/32	0.1562	3/16	9/16	2"	2	001006
11/64	0.1719	3/16	9/16	2"	2	001007
3/16	0.1875	3/16	5/8	2"	2	001008
13/64	0.2031	1/4	5/8	2.1/2	2	001009
7/32	0.2188	1/4	5/8	2.1/2	2	001010
15/64	0.2344	1/4	3/4	2.1/2	2	001011
1/4	0.2500	1/4	3/4	2.1/2	2	001012
5/16	0.3125	5/16	7/8	2.1/2	2	001016
3/8	0.3750	3/8	7/8	2.1/2	2	001017
7/16	0.4375	7/16	1"	2.1/2	2	001018
1/2	0.5000	1/2	1"	3"	2	001019
9/16	0.5625	9/16	1.1/4	3.1/2	2	001020
5/8	0.6250	5/8	1.1/4	3.1/2	2	001021
11/16	0.6875	3/4	1.1/2	4"	2	001022
3/4	0.7500	3/4	1.1/2	4"	2	001023
7/8	0.8750	7/8	1.1/2	4"	2	001024
1"	1.0000	1"	1.1/2	4"	2	001025

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



E3302G



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3
- 1.6 5.1

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	2	005100
5/64	0.0781	1/8	1/4	1.1/2	2	005101
3/32	0.0938	1/8	3/8	1.1/2	2	005102
7/64	0.1094	1/8	3/8	1.1/2	2	005103
1/8	0.1250	1/8	1/2	1.1/2	2	005104
9/64	0.1406	3/16	9/16	2"	2	005105
5/32	0.1562	3/16	9/16	2"	2	005106
11/64	0.1719	3/16	9/16	2"	2	005107
3/16	0.1875	3/16	5/8	2"	2	005108
13/64	0.2031	1/4	5/8	2.1/2	2	005109
7/32	0.2188	1/4	5/8	2.1/2	2	005110
15/64	0.2344	1/4	3/4	2.1/2	2	005111
1/4	0.2500	1/4	3/4	2.1/2	2	005112
5/16	0.3125	5/16	7/8	2.1/2	2	005116
3/8	0.3750	3/8	7/8	2.1/2	2	005117
7/16	0.4375	7/16	1"	2.1/2	2	005118
1/2	0.5000	1/2	1"	3"	2	005119
9/16	0.5625	9/16	1.1/4	3.1/2	2	005120
5/8	0.6250	5/8	1.1/4	3.1/2	2	005121
11/16	0.6875	3/4	1.1/2	4"	2	005122
3/4	0.7500	3/4	1.1/2	4"	2	005123
7/8	0.8750	7/8	1.1/2	4"	2	005124
1"	1.0000	1"	1.1/2	4"	2	005125

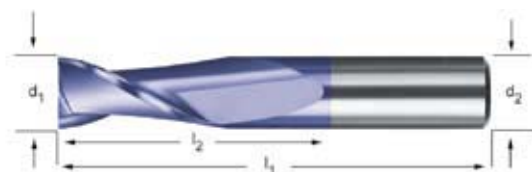
E3302V



- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



E3302V



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	3.1	3.3	4.1
●	3.2	3.4	4.2	4.3	5.1	5.2	5.3					

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	2	002850
5/64	0.0781	1/8	1/4	1.1/2	2	002851
3/32	0.0938	1/8	3/8	1.1/2	2	002852
7/64	0.1094	1/8	3/8	1.1/2	2	002853
1/8	0.1250	1/8	1/2	1.1/2	2	002854
9/64	0.1406	3/16	9/16	2"	2	002855
5/32	0.1562	3/16	9/16	2"	2	002856
11/64	0.1719	3/16	9/16	2"	2	002857
3/16	0.1875	3/16	5/8	2"	2	002858
13/64	0.2031	1/4	5/8	2.1/2	2	002859
7/32	0.2188	1/4	5/8	2.1/2	2	002860
15/64	0.2344	1/4	3/4	2.1/2	2	002861
1/4	0.2500	1/4	3/4	2.1/2	2	002862
5/16	0.3125	5/16	7/8	2.1/2	2	002863
3/8	0.3750	3/8	7/8	2.1/2	2	002864
7/16	0.4375	7/16	1"	2.1/2	2	002865
1/2	0.5000	1/2	1"	3"	2	002866
9/16	0.5625	9/16	1.1/4	3.1/2	2	002867
5/8	0.6250	5/8	1.1/4	3.1/2	2	002868
11/16	0.6875	3/4	1.1/2	4"	2	002869
3/4	0.7500	3/4	1.1/2	4"	2	002870
7/8	0.8750	7/8	1.1/2	4"	2	002871
1"	1.0000	1"	1.1/2	4"	2	002872

Solid
Carbide
End
Mills

E3302M

- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



E3302M



■	1.1	1.2	1.3	1.4	1.5	3.1	3.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.2	3.4	6.4	7.1	7.2	7.3	7.4

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	2	001028
2.50	0.0984	3.0	6.0	38.0	2	001029
3.00	0.1181	3.0	12.0	38.0	2	001030
3.50	0.1378	4.0	14.0	50.0	2	001031
4.00	0.1575	4.0	14.0	50.0	2	001032
4.50	0.1772	5.0	14.0	50.0	2	001033
5.00	0.1969	5.0	16.0	50.0	2	001034
6.00	0.2362	6.0	19.0	63.0	2	001035
7.00	0.2756	8.0	19.0	63.0	2	001036
8.00	0.3150	8.0	19.0	63.0	2	001037
9.00	0.3543	10.0	22.0	70.0	2	001038
10.00	0.3937	10.0	22.0	70.0	2	001039
11.00	0.4331	11.0	25.0	70.0	2	001040
12.00	0.4724	12.0	25.0	75.0	2	001041
14.00	0.5512	14.0	30.0	88.0	2	001043
16.00	0.6299	16.0	32.0	88.0	2	001044
18.00	0.7087	18.0	36.0	100.0	2	001045
20.00	0.7874	20.0	38.0	100.0	2	001046
25.00	0.9843	25.0	38.0	100.0	2	001047

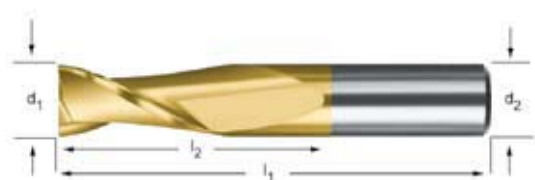
E3302MG



- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



E3302MG



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3
- 1.6 5.1

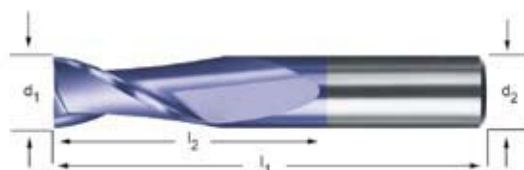
d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	2	005128
2.50	0.0984	3.0	6.0	38.0	2	005129
3.00	0.1181	3.0	12.0	38.0	2	005130
3.50	0.1378	4.0	14.0	50.0	2	005131
4.00	0.1575	4.0	14.0	50.0	2	005132
4.50	0.1772	5.0	14.0	50.0	2	005133
5.00	0.1969	5.0	16.0	50.0	2	005134
6.00	0.2362	6.0	19.0	63.0	2	005135
7.00	0.2756	8.0	19.0	63.0	2	005136
8.00	0.3150	8.0	19.0	63.0	2	005137
9.00	0.3543	10.0	22.0	70.0	2	005138
10.00	0.3937	10.0	22.0	70.0	2	005139
11.00	0.4331	11.0	25.0	70.0	2	005140
12.00	0.4724	12.0	25.0	75.0	2	005141
14.00	0.5512	14.0	30.0	88.0	2	005143
16.00	0.6299	16.0	32.0	88.0	2	005144
18.00	0.7087	18.0	36.0	100.0	2	005145
20.00	0.7874	20.0	38.0	100.0	2	005146
25.00	0.9843	25.0	38.0	100.0	2	005147

Solid
Carbide
End
Mills

- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



E3302MV



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	3.1	3.3	4.1
●	3.2	3.4	4.2	4.3	5.1	5.2	5.3					

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	2	004275
2.50	0.0984	3.0	6.0	38.0	2	004276
3.00	0.1181	3.0	12.0	38.0	2	004277
3.50	0.1378	4.0	14.0	50.0	2	004278
4.00	0.1575	4.0	14.0	50.0	2	004279
4.50	0.1772	5.0	14.0	50.0	2	004280
5.00	0.1969	5.0	16.0	50.0	2	004281
6.00	0.2362	6.0	19.0	63.0	2	004282
7.00	0.2756	8.0	19.0	63.0	2	004283
8.00	0.3150	8.0	20.0	63.0	2	004284
9.00	0.3543	10.0	22.0	73.0	2	004285
10.00	0.3937	10.0	22.0	70.0	2	004286
11.00	0.4331	11.0	25.0	70.0	2	004287
12.00	0.4724	12.0	25.0	75.0	2	004288
14.00	0.5512	14.0	30.0	88.0	2	004289
16.00	0.6299	16.0	32.0	88.0	2	004290
18.00	0.7087	18.0	36.0	100.0	2	004291
20.00	0.7874	20.0	38.0	100.0	2	004292
25.00	0.9843	25.0	38.0	100.0	2	004293

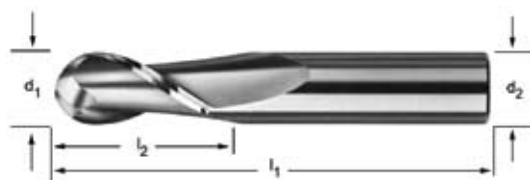
EB3302



- End Mill
- 2-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3302



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4						

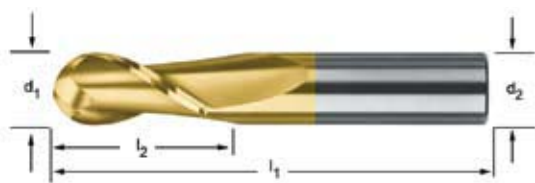
d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	2	001200
5/64	0.0781	1/8	1/4	1.1/2	2	001201
3/32	0.0938	1/8	3/8	1.1/2	2	001202
7/64	0.1094	1/8	3/8	1.1/2	2	001203
1/8	0.1250	1/8	1/2	1.1/2	2	001204
9/64	0.1406	3/16	9/16	2"	2	001205
5/32	0.1562	3/16	9/16	2"	2	001206
11/64	0.1719	3/16	9/16	2"	2	001207
3/16	0.1875	3/16	5/8	2"	2	001208
13/64	0.2031	1/4	5/8	2.1/2	2	001209
7/32	0.2188	1/4	5/8	2.1/2	2	001210
15/64	0.2344	1/4	3/4	2.1/2	2	001211
1/4	0.2500	1/4	3/4	2.1/2	2	001212
5/16	0.3125	5/16	7/8	2.1/2	2	001216
3/8	0.3750	3/8	7/8	2.1/2	2	001217
7/16	0.4375	7/16	1"	2.1/2	2	001218
1/2	0.5000	1/2	1"	3"	2	001219
9/16	0.5625	9/16	1.1/4	3.1/2	2	001220
5/8	0.6250	5/8	1.1/4	3.1/2	2	001221
11/16	0.6875	3/4	1.1/2	4"	2	001222
3/4	0.7500	3/4	1.1/2	4"	2	001223
7/8	0.8750	7/8	1.1/2	4"	2	001224
1"	1.0000	1"	1.1/2	4"	2	001225

Solid
Carbide
End
Mills

- End Mill
- 2-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3302G



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4
●	1.6	5.1							

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	2	002570
5/64	0.0781	1/8	1/4	1.1/2	2	002571
3/32	0.0938	1/8	3/8	1.1/2	2	002572
7/64	0.1094	1/8	3/8	1.1/2	2	002573
1/8	0.1250	1/8	1/2	1.1/2	2	002574
9/64	0.1406	3/16	9/16	2"	2	002575
5/32	0.1562	3/16	9/16	2"	2	002576
11/64	0.1719	3/16	9/16	2"	2	002577
3/16	0.1875	3/16	5/8	2"	2	002578
13/64	0.2031	1/4	5/8	2.1/2	2	002579
7/32	0.2188	1/4	5/8	2.1/2	2	002580
15/64	0.2344	1/4	3/4	2.1/2	2	002581
1/4	0.2500	1/4	3/4	2.1/2	2	002582
5/16	0.3125	5/16	7/8	2.1/2	2	002583
3/8	0.3750	3/8	7/8	2.1/2	2	002584
7/16	0.4375	7/16	1"	2.1/2	2	002585
1/2	0.5000	1/2	1"	3"	2	002586
9/16	0.5625	9/16	1.1/4	3.1/2	2	002587
5/8	0.6250	5/8	1.1/4	3.1/2	2	002588
11/16	0.6875	3/4	1.1/2	4"	2	002589
3/4	0.7500	3/4	1.1/2	4"	2	002590
7/8	0.8750	7/8	1.1/2	4"	2	002591
1"	1.0000	1"	1.1/2	4"	2	002592

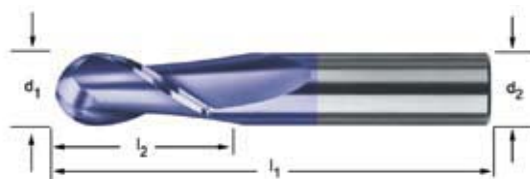
EB3302V



- End Mill
- 2-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3302V



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	3.1	3.3	4.1
●	3.2	3.4	4.2	4.3	5.1	5.2	5.3					

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	2	002630
5/64	0.0781	1/8	1/4	1.1/2	2	002631
3/32	0.0938	1/8	3/8	1.1/2	2	002632
7/64	0.1094	1/8	3/8	1.1/2	2	002633
1/8	0.1250	1/8	1/2	1.1/2	2	002634
9/64	0.1406	3/16	9/16	2"	2	002635
5/32	0.1562	3/16	9/16	2"	2	002636
11/64	0.1719	3/16	9/16	2"	2	002637
3/16	0.1875	3/16	5/8	2"	2	002638
13/64	0.2031	1/4	5/8	2.1/2	2	002639
7/32	0.2188	1/4	5/8	2.1/2	2	002640
15/64	0.2344	1/4	3/4	2.1/2	2	002641
1/4	0.2500	1/4	3/4	2.1/2	2	002642
5/16	0.3125	5/16	7/8	2.1/2	2	002643
3/8	0.3750	3/8	7/8	2.1/2	2	002644
7/16	0.4375	7/16	1"	2.1/2	2	002645
1/2	0.5000	1/2	1"	3"	2	002646
9/16	0.5625	9/16	1.1/4	3.1/2	2	002647
5/8	0.6250	5/8	1.1/4	3.1/2	2	002648
11/16	0.6875	3/4	1.1/2	4"	2	002649
3/4	0.7500	3/4	1.1/2	4"	2	002650
7/8	0.8750	7/8	1.1/2	4"	2	002651
1"	1.0000	1"	1.1/2	4"	2	002652

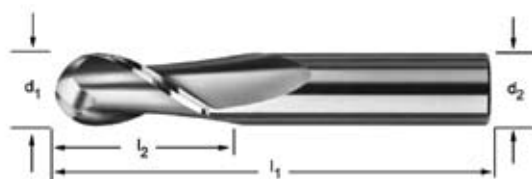
Solid
Carbide
End
Mills

EB3302M

- End Mill
- 2-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3302M



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4						

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	2	001228
2.50	0.0984	3.0	7.0	38.0	2	001229
3.00	0.1181	3.0	12.0	38.0	2	001230
3.50	0.1378	4.0	12.0	50.0	2	001231
4.00	0.1575	4.0	14.0	50.0	2	001232
4.50	0.1772	5.0	14.0	50.0	2	001233
5.00	0.1969	5.0	16.0	50.0	2	001234
6.00	0.2362	6.0	19.0	63.0	2	001235
7.00	0.2756	8.0	19.0	63.0	2	001236
8.00	0.3150	8.0	19.0	63.0	2	001237
9.00	0.3543	10.0	22.0	70.0	2	001238
10.00	0.3937	10.0	22.0	70.0	2	001239
11.00	0.4331	11.0	25.0	70.0	2	001240
12.00	0.4724	12.0	25.0	75.0	2	001241
14.00	0.5512	14.0	30.0	88.0	2	001242
16.00	0.6299	16.0	32.0	88.0	2	001243
18.00	0.7087	18.0	36.0	100.0	2	001244
20.00	0.7874	20.0	38.0	100.0	2	001245
25.00	0.9843	25.0	38.0	100.0	2	001246

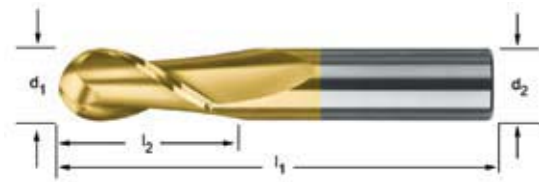
EB3302MG



- End Mill
- 2-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3302MG



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 2.4
- 1.6 5.1

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	2	004350
2.50	0.0984	3.0	7.0	38.0	2	004351
3.00	0.1181	3.0	12.0	38.0	2	004352
3.50	0.1378	4.0	12.0	50.0	2	004353
4.00	0.1575	4.0	14.0	50.0	2	004354
4.50	0.1772	5.0	14.0	50.0	2	004355
5.00	0.1969	5.0	16.0	50.0	2	004356
6.00	0.2362	6.0	19.0	63.0	2	004357
7.00	0.2756	8.0	19.0	63.0	2	004358
8.00	0.3150	8.0	19.0	63.0	2	004359
9.00	0.3543	10.0	22.0	70.0	2	004360
10.00	0.3937	10.0	22.0	70.0	2	004361
11.00	0.4331	11.0	25.0	70.0	2	004362
12.00	0.4724	12.0	25.0	75.0	2	004363
14.00	0.5512	14.0	30.0	88.0	2	004364
16.00	0.6299	16.0	32.0	88.0	2	004365
18.00	0.7087	18.0	36.0	100.0	2	004366
20.00	0.7874	20.0	38.0	100.0	2	004367
25.00	0.9843	25.0	38.0	100.0	2	004368

Solid
Carbide
End
Mills

EB3302MV - E4302

- End Mill
- 2-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3302MV



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.3 4.1
- 3.2 3.4 4.2 4.3 5.1 5.2 5.3

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	2	004400
2.50	0.0984	3.0	7.0	38.0	2	004401
3.00	0.1181	3.0	12.0	38.0	2	004402
3.50	0.1378	4.0	12.0	50.0	2	004403
4.00	0.1575	4.0	14.0	50.0	2	004404
4.50	0.1772	5.0	14.0	50.0	2	004405
5.00	0.1969	5.0	16.0	50.0	2	004406
6.00	0.2362	6.0	19.0	63.0	2	004407
7.00	0.2756	8.0	19.0	63.0	2	004408
8.00	0.3150	8.0	19.0	63.0	2	004409
9.00	0.3543	10.0	22.0	70.0	2	004410
10.00	0.3937	10.0	22.0	70.0	2	004411
11.00	0.4331	11.0	25.0	70.0	2	004412
12.00	0.4724	12.0	25.0	75.0	2	004413
14.00	0.5512	14.0	30.0	88.0	2	004414
16.00	0.6299	16.0	32.0	88.0	2	004415
18.00	0.7087	18.0	36.0	100.0	2	004416
20.00	0.7874	20.0	38.0	100.0	2	004417
25.00	0.9843	25.0	38.0	100.0	2	004418

- End Mill
- 2-flute, double end, regular length

- Fraises de finition - Double

- Fresas de acabado - Doble final



E4302



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 3.1 3.3 6.1 6.2 6.3
- 1.6 3.2 3.4 6.4 7.1 7.2 7.3 7.4

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3/8	3"	2	002200
5/32	0.1562	3/8	7/16	3"	2	002201
3/16	0.1875	3/8	1/2	3"	2	002202
7/32	0.2188	3/8	9/16	3"	2	002203
1/4	0.2500	3/8	5/8	3"	2	002204
5/16	0.3125	3/8	3/4	3.1/2	2	002206
3/8	0.3750	3/8	3/4	3.1/2	2	002208
7/16	0.4375	7/16	7/8	4"	2	002209
1/2	0.5000	1/2	1"	4"	2	002210

EB4302



- End Mill
- 2-flute, ball nose, double end, regular length

- Fraises de finition bout hémisphérique - Double

- Fresas con punta esferica - Doble final



EB4302



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4						

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3/8	3"	2	002300
5/32	0.1562	3/8	7/16	3"	2	002301
3/16	0.1875	3/8	1/2	3"	2	002302
7/32	0.2188	3/8	9/16	3"	2	002303
1/4	0.2500	3/8	5/8	3"	2	002304
5/16	0.3125	3/8	3/4	3.1/2	2	002306
3/8	0.3750	3/8	3/4	3.1/2	2	002308
7/16	0.4375	7/16	7/8	4"	2	002309
1/2	0.5000	1/2	1"	4"	2	002310

E6302

- End Mill
- 2-Flute, Extra Length

- Fraises de finition

- Fresas de acabado



E6302



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4					

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	2	004800
3/16	0.1875	3/16	1.1/8	3"	2	004801
1/4	0.2500	1/4	1.1/2	4"	2	004802
5/16	0.3125	5/16	1.5/8	4"	2	004803
3/8	0.3750	3/8	1.3/4	4"	2	004804
7/16	0.4375	7/16	3"	6"	2	004805
1/2	0.5000	1/2	3"	6"	2	004806
5/8	0.6250	5/8	3"	6"	2	004807
3/4	0.7500	3/4	3"	6"	2	004808
1"	1.0000	1	3"	6"	2	004809

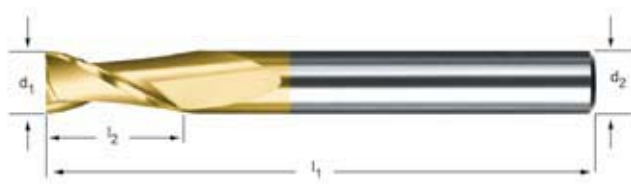
■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

E6302G - E6302V

- End Mill
- 2-flute, extra length

- Fraises de finition

- Fresas de acabado

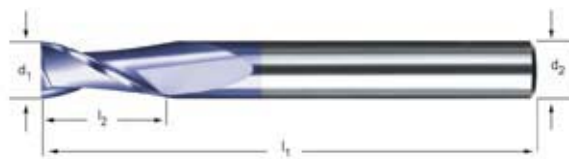


E6302G



■	1.1	1.2	1.3	1.4	1.5	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	5.1	6.4	7.1	7.2	7.3 7.4

d₁ Ø Inch	d₁ decimal Inch	d₂ Ø Inch	l₂ Inch	l₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	2	003100
3/16	0.1875	3/16	1.1/8	3"	2	003101
1/4	0.2500	1/4	1.1/2	4"	2	003102
5/16	0.3125	5/16	1.5/8	4"	2	003103
3/8	0.3750	3/8	1.3/4	4"	2	003104
7/16	0.4375	7/16	3"	6"	2	003105
1/2	0.5000	1/2	3"	6"	2	003106
5/8	0.6250	5/8	3"	6"	2	003107
3/4	0.7500	3/4	3"	6"	2	003108
1"	1.0000	1	3"	6"	2	003109



E6302V



■ 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.2 3.3 3.4 4.1 5.1
● 4.2 4.3 5.2 5.3

d₁ Ø Inch	d₁ decimal Inch	d₂ Ø Inch	l₂ Inch	l₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	2	003130
3/16	0.1875	3/16	1.1/8	3"	2	003131
1/4	0.2500	1/4	1.1/2	4"	2	003132
5/16	0.3125	5/16	1.5/8	4"	2	003133
3/8	0.3750	3/8	1.3/4	4"	2	003134
7/16	0.4375	7/16	3"	6"	2	003135
1/2	0.5000	1/2	3"	6"	2	003136
5/8	0.6250	5/8	3"	6"	2	003137
3/4	0.7500	3/4	3"	6"	2	003138
1"	1.0000	1	3"	6"	2	003139

EB6302



- End Mill,
- 2-flute, ball nose, extra length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB6302



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
•	1.6	3.2	3.4	5.1	6.4	7.1	7.2	7.3	7.4					

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	2	005400
3/16	0.1875	3/16	1.1/8	3"	2	005401
1/4	0.2500	1/4	1.1/2	4"	2	005402
5/16	0.3125	5/16	1.5/8	4"	2	005403
3/8	0.3750	3/8	1.3/4	4"	2	005404
7/16	0.4375	7/16	3"	6"	2	005405
1/2	0.5000	1/2	3"	6"	2	005406
5/8	0.6250	5/8	3"	6"	2	005407
3/4	0.7500	3/4	3"	6"	2	005408
1"	1.0000	1	3"	6"	2	005409

EB6302G



EB6302G



■	1.1	1.2	1.3	1.4	1.5	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	5.1	6.4	7.1	7.2	7.3 7.4

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	2	003670
3/16	0.1875	3/16	1.1/8	3"	2	003671
1/4	0.2500	1/4	1.1/2	4"	2	003672
5/16	0.3125	5/16	1.5/8	4"	2	003673
3/8	0.3750	3/8	1.3/4	4"	2	003674
7/16	0.4375	7/16	3"	6"	2	003675
1/2	0.5000	1/2	3"	6"	2	003676
5/8	0.6250	5/8	3"	6"	2	003677
3/4	0.7500	3/4	3"	6"	2	003678
1"	1.0000	1	3"	6"	2	003679

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

EB6302V

- End Mill
- 2-flute, ball nose, extra length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB6302V



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 2.4 3.1 3.2 3.3 3.4 4.1 5.1
- 4.2 4.3 5.2 5.3

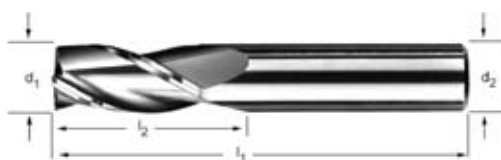
d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	2	003700
3/16	0.1875	3/16	1.1/8	3"	2	003701
1/4	0.2500	1/4	1.1/2	4"	2	003702
5/16	0.3125	5/16	1.5/8	4"	2	003703
3/8	0.3750	3/8	1.3/4	4"	2	003704
7/16	0.4375	7/16	3"	6"	2	003705
1/2	0.5000	1/2	3"	6"	2	003706
5/8	0.6250	5/8	3"	6"	2	003707
3/4	0.7500	3/4	3"	6"	2	003708
1"	1.0000	1	3"	6"	2	003709

E3303

- End Mill
- 3-flute, standard length

- Fraises de finition

- Fresas de acabado



E3303



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 3.1 3.3 6.1 6.2 6.3
- 1.6 3.2 3.4 6.4 7.1 7.2 7.3 7.4

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	3	001050
3/32	0.0938	1/8	3/8	1.1/2	3	001052
1/8	0.1250	1/8	1/2	1.1/2	3	001054
5/32	0.1562	3/16	9/16	2"	3	001056
3/16	0.1875	3/16	5/8	2"	3	001058
7/32	0.2188	1/4	5/8	2.1/2	3	001060
1/4	0.2500	1/4	3/4	2.1/2	3	001062
5/16	0.3125	5/16	7/8	2.1/2	3	001066
3/8	0.3750	3/8	7/8	2.1/2	3	001067
7/16	0.4375	7/16	1"	2.1/2	3	001068
1/2	0.5000	1/2	1"	3"	3	001069

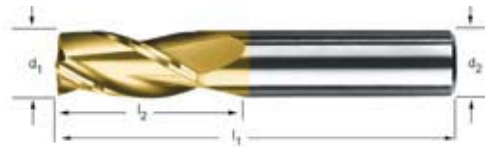
E3303G



- End Mill
- 3-flute, regular length

- Fraises de finition

- Fresas de acabado



E3303G



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3
- 1.6 5.1

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	3	002880
3/32	0.0938	1/8	3/8	1.1/2	3	002881
1/8	0.1250	1/8	1/2	1.1/2	3	002882
5/32	0.1562	3/16	9/16	2"	3	002883
3/16	0.1875	3/16	5/8	2"	3	002884
7/32	0.2188	1/4	5/8	2.1/2	3	002885
1/4	0.2500	1/4	3/4	2.1/2	3	002886
5/16	0.3125	5/16	7/8	2.1/2	3	002887
3/8	0.3750	3/8	7/8	2.1/2	3	002888
7/16	0.4375	7/16	1"	2.1/2	3	002889
1/2	0.5000	1/2	1"	3"	3	002890

E3303V



E3303V



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 3.1 3.3 4.1
- 3.2 3.4 4.2 4.3 5.1 5.2 5.3

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	3	002920
3/32	0.0938	1/8	3/8	1.1/2	3	002921
1/8	0.1250	1/8	1/2	1.1/2	3	002922
5/32	0.1562	3/16	9/16	2"	3	002923
3/16	0.1875	3/16	5/8	2"	3	002924
7/32	0.2188	1/4	5/8	2.1/2	3	002925
1/4	0.2500	1/4	3/4	2.1/2	3	002926
5/16	0.3125	5/16	7/8	2.1/2	3	002927
3/8	0.3750	3/8	7/8	2.1/2	3	002928
7/16	0.4375	7/16	1"	2.1/2	3	002929
1/2	0.5000	1/2	1"	3"	3	002930

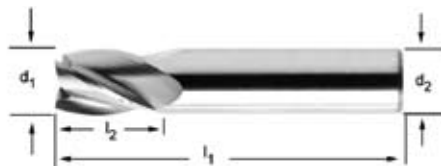
- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

E1304

- End Mill
- 4-flute, stub length

• Fraises definition

• Fresas de acabado



E1304



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	3.1	3.3	6.1	6.2	6.3
•	1.6	2.4	3.2	3.4	6.4	7.1	7.2	7.3	7.4				

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	4	001852
3/32	0.0938	1/8	3/16	1.1/2	4	001854
1/8	0.1250	1/8	1/4	1.1/2	4	001856
5/32	0.1562	3/16	5/16	2"	4	001858
3/16	0.1875	3/16	3/8	2"	4	001860
7/32	0.2188	1/4	7/16	2"	4	001861
1/4	0.2500	1/4	1/2	2"	4	001862
5/16	0.3125	5/16	1/2	2"	4	001863
3/8	0.3750	3/8	5/8	2"	4	001864
7/16	0.4375	7/16	5/8	3"	4	001865
1/2	0.5000	1/2	5/8	2.1/2	4	001866

E1304G



E1304G



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3
•	1.6	2.4	5.1					

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	4	006852
3/32	0.0938	1/8	3/16	1.1/2	4	006854
1/8	0.1250	1/8	1/4	1.1/2	4	006856
5/32	0.1562	3/16	5/16	2"	4	006858
3/16	0.1875	3/16	3/8	2"	4	006860
7/32	0.2188	1/4	7/16	2"	4	006861
1/4	0.2500	1/4	1/2	2"	4	006862
5/16	0.3125	5/16	1/2	2"	4	006863
3/8	0.3750	3/8	5/8	2"	4	006864
7/16	0.4375	7/16	5/8	3"	4	006865
1/2	0.5000	1/2	5/8	2.1/2	4	006866

E1304V



- End Mill
- 4-flute, stub length

- Fraises de finition

- Fresas de acabado



E1304V



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	4.1
●	4.2	4.3	5.1	5.2	5.3									

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	4	002765
3/32	0.0938	1/8	3/16	1.1/2	4	002766
1/8	0.1250	1/8	1/4	1.1/2	4	002767
5/32	0.1562	3/16	5/16	2"	4	002768
3/16	0.1875	3/16	3/8	2"	4	002769
7/32	0.2188	1/4	7/16	2"	4	002770
1/4	0.2500	1/4	1/2	2"	4	002771
5/16	0.3125	5/16	1/2	2"	4	002772
3/8	0.3750	3/8	5/8	2"	4	002773
7/16	0.4375	7/16	5/8	3"	4	002774
1/2	0.5000	1/2	5/8	2.1/2	4	002775

E2304

- End Mill
- 4-flute, double end, stub length

- Fraises de finition - Double

- Fresas de acabado - Doble final



E2304



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4					

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/8	1.1/2	4	002052
3/32	0.0938	1/8	3/16	1.1/2	4	002053
1/8	0.1250	1/8	1/4	1.1/2	4	002054
3/16	0.1875	3/16	3/8	2"	4	002056
1/4	0.2500	1/4	1/2	2.1/2	4	002058
5/16	0.3125	5/16	1/2	2.1/2	4	002059
3/8	0.3750	3/8	1/2	2.1/2	4	002060
1/2	0.5000	1/2	5/8	3"	4	002062

Solid
Carbide
End
Mills

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



E3304



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4						

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	4	001100
5/64	0.0781	1/8	1/4	1.1/2	4	001101
3/32	0.0938	1/8	3/8	1.1/2	4	001102
7/64	0.1094	1/8	3/8	1.1/2	4	001103
1/8	0.1250	1/8	1/2	1.1/2	4	001104
9/64	0.1406	3/16	9/16	2"	4	001105
5/32	0.1562	3/16	9/16	2"	4	001106
11/64	0.1719	3/16	9/16	2"	4	001107
3/16	0.1875	3/16	5/8	2"	4	001108
13/64	0.2031	1/4	5/8	2.1/2	4	001109
7/32	0.2188	1/4	5/8	2.1/2	4	001110
15/64	0.2344	1/4	3/4	2.1/2	4	001111
1/4	0.2500	1/4	3/4	2.1/2	4	001112
5/16	0.3125	5/16	7/8	2.1/2	4	001116
3/8	0.3750	3/8	7/8	2.1/2	4	001117
7/16	0.4375	7/16	1"	2.1/2	4	001118
1/2	0.5000	1/2	1"	3"	4	001119
9/16	0.5625	9/16	1.1/4	3.1/2	4	001120
5/8	0.6250	5/8	1.1/4	3.1/2	4	001121
11/16	0.6875	3/4	1.1/2	4"	4	001122
3/4	0.7500	3/4	1.1/2	4"	4	001123
7/8	0.8750	7/8	1.1/2	4"	4	001124
1"	1.0000	1"	1.1/2	4"	4	001125

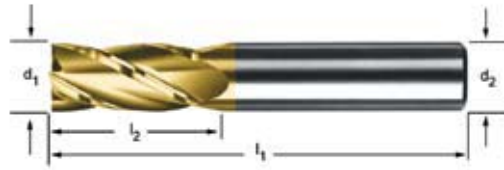
E3304G



- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



E3304G



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 2.4
- 1.6 5.1

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	4	005300
5/64	0.0781	1/8	1/4	1.1/2	4	005301
3/32	0.0938	1/8	3/8	1.1/2	4	005302
7/64	0.1094	1/8	3/8	1.1/2	4	005303
1/8	0.1250	1/8	1/2	1.1/2	4	005304
9/64	0.1406	3/16	9/16	2"	4	005305
5/32	0.1562	3/16	9/16	2"	4	005306
11/64	0.1719	3/16	9/16	2"	4	005307
3/16	0.1875	3/16	5/8	2"	4	005308
13/64	0.2031	1/4	5/8	2.1/2	4	005309
7/32	0.2188	1/4	5/8	2.1/2	4	005310
15/64	0.2344	1/4	3/4	2.1/2	4	005311
1/4	0.2500	1/4	3/4	2.1/2	4	005312
5/16	0.3125	5/16	7/8	2.1/2	4	005316
3/8	0.3750	3/8	7/8	2.1/2	4	005317
7/16	0.4375	7/16	1"	2.1/2	4	005318
1/2	0.5000	1/2	1"	3"	4	005319
9/16	0.5625	9/16	1.1/4	3.1/2	4	005320
5/8	0.6250	5/8	1.1/4	3.1/2	4	005321
11/16	0.6875	3/4	1.1/2	4"	4	005322
3/4	0.7500	3/4	1.1/2	4"	4	005323
7/8	0.8750	7/8	1.1/2	4"	4	005324
1"	1.0000	1"	1.1/2	4"	4	005325

Solid
Carbide
End
Mills

- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



E3304V



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1
●	4.2	4.3	5.1	5.2	5.3										

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	4	002690
5/64	0.0781	1/8	1/4	1.1/2	4	002691
3/32	0.0938	1/8	3/8	1.1/2	4	002692
7/64	0.1094	1/8	3/8	1.1/2	4	002693
1/8	0.1250	1/8	1/2	1.1/2	4	002694
9/64	0.1406	3/16	9/16	2"	4	002695
5/32	0.1562	3/16	9/16	2"	4	002696
11/64	0.1719	3/16	9/16	2"	4	002697
3/16	0.1875	3/16	5/8	2"	4	002698
13/64	0.2031	1/4	5/8	2.1/2	4	002699
7/32	0.2188	1/4	5/8	2.1/2	4	002700
15/64	0.2344	1/4	3/4	2.1/2	4	002701
1/4	0.2500	1/4	3/4	2.1/2	4	002702
5/16	0.3125	5/16	7/8	2.1/2	4	002703
3/8	0.3750	3/8	7/8	2.1/2	4	002704
7/16	0.4375	7/16	1"	2.1/2	4	002705
1/2	0.5000	1/2	1"	3"	4	002706
9/16	0.5625	9/16	1.1/4	3.1/2	4	002707
5/8	0.6250	5/8	1.1/4	3.1/2	4	002708
11/16	0.6875	3/4	1.1/2	4"	4	002709
3/4	0.7500	3/4	1.1/2	4"	4	002710
7/8	0.8750	7/8	1.1/2	4"	4	002711
1"	1.0000	1"	1.1/2	4"	4	002712

E3304M



- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



E3304M



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4						

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	4	001128
2.50	0.0984	3.0	7.0	38.0	4	001129
3.00	0.1181	3.0	12.0	38.0	4	001130
3.50	0.1378	4.0	12.0	50.0	4	001131
4.00	0.1575	4.0	14.0	50.0	4	001132
4.50	0.1772	5.0	14.0	50.0	4	001133
5.00	0.1969	5.0	16.0	50.0	4	001134
6.00	0.2362	6.0	19.0	63.0	4	001135
7.00	0.2756	8.0	19.0	63.0	4	001136
8.00	0.3150	8.0	19.0	63.0	4	001137
9.00	0.3543	10.0	22.0	70.0	4	001138
10.00	0.3937	10.0	22.0	70.0	4	001139
11.00	0.4331	11.0	25.0	70.0	4	001140
12.00	0.4724	12.0	25.0	75.0	4	001141
14.00	0.5512	14.0	30.0	88.0	4	001143
16.00	0.6299	16.0	32.0	88.0	4	001144
18.00	0.7087	18.0	36.0	100.0	4	001145
20.00	0.7874	20.0	38.0	100.0	4	001146
25.00	0.9843	25.0	38.0	100.0	4	001147

Solid
Carbide
End
Mills

- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



E3304MG



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4
●	1.6	5.1							

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	4	005328
2.50	0.0984	3.0	7.0	38.0	4	005329
3.00	0.1181	3.0	12.0	38.0	4	005330
3.50	0.1378	4.0	12.0	50.0	4	005331
4.00	0.1575	4.0	14.0	50.0	4	005332
4.50	0.1772	5.0	14.0	50.0	4	005333
5.00	0.1969	5.0	16.0	50.0	4	005334
6.00	0.2362	6.0	19.0	63.0	4	005335
7.00	0.2756	8.0	19.0	63.0	4	005336
8.00	0.3150	8.0	19.0	63.0	4	005337
9.00	0.3543	10.0	22.0	70.0	4	005338
10.00	0.3937	10.0	22.0	70.0	4	005339
11.00	0.4331	11.0	25.0	70.0	4	005340
12.00	0.4724	12.0	25.0	75.0	4	005341
14.00	0.5512	14.0	30.0	88.0	4	005343
16.00	0.6299	16.0	32.0	88.0	4	005344
18.00	0.7087	18.0	36.0	100.0	4	005345
20.00	0.7874	20.0	38.0	100.0	4	005346
25.00	0.9843	25.0	38.0	100.0	4	005347

E3304MV



- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



E3304MV



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1
●	4.2	4.3	5.1	5.2	5.3										

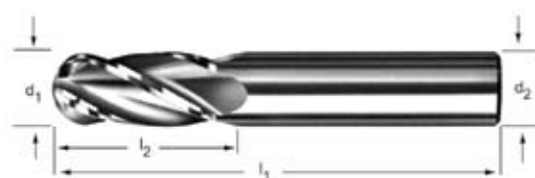
d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	4	004325
2.50	0.0984	3.0	7.0	38.0	4	004326
3.00	0.1181	3.0	12.0	38.0	4	004327
3.50	0.1378	4.0	12.0	50.0	4	004328
4.00	0.1575	4.0	14.0	50.0	4	004329
4.50	0.1772	5.0	14.0	50.0	4	004330
5.00	0.1969	5.0	16.0	50.0	4	004331
6.00	0.2362	6.0	19.0	63.0	4	004332
7.00	0.2756	8.0	19.0	63.0	4	004333
8.00	0.3150	8.0	19.0	63.0	4	004334
9.00	0.3543	10.0	22.0	70.0	4	004335
10.00	0.3937	10.0	22.0	70.0	4	004336
11.00	0.4331	11.0	25.0	70.0	4	004337
12.00	0.4724	12.0	25.0	75.0	4	004338
14.00	0.5512	14.0	30.0	88.0	4	004339
16.00	0.6299	16.0	32.0	88.0	4	004340
18.00	0.7087	18.0	36.0	100.0	4	004341
20.00	0.7874	20.0	38.0	100.0	4	004342
25.00	0.9843	25.0	38.0	100.0	4	004343

Solid
Carbide
End
Mills

- End Mill
- 4-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3304



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4						

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	4	001300
5/64	0.0781	1/8	1/4	1.1/2	4	001301
3/32	0.0938	1/8	3/8	1.1/2	4	001302
7/64	0.1094	1/8	3/8	1.1/2	4	001303
1/8	0.1250	1/8	1/2	1.1/2	4	001304
9/64	0.1406	3/16	9/16	2"	4	001305
5/32	0.1562	3/16	9/16	2"	4	001306
11/64	0.1719	3/16	9/16	2"	4	001307
3/16	0.1875	3/16	5/8	2"	4	001308
13/64	0.2031	1/4	5/8	2.1/2	4	001309
7/32	0.2188	1/4	5/8	2.1/2	4	001310
15/64	0.2344	1/4	3/4	2.1/2	4	001311
1/4	0.2500	1/4	3/4	2.1/2	4	001312
5/16	0.3125	5/16	7/8	2.1/2	4	001316
3/8	0.3750	3/8	7/8	2.1/2	4	001317
7/16	0.4375	7/16	1"	2.1/2	4	001318
1/2	0.5000	1/2	1"	3"	4	001319
9/16	0.5625	9/16	1.1/4	3.1/2	4	001320
5/8	0.6250	5/8	1.1/4	3.1/2	4	001321
11/16	0.6875	3/4	1.1/2	4"	4	001322
3/4	0.7500	3/4	1.1/2	4"	4	001323
7/8	0.8750	7/8	1.1/2	4"	4	001324
1"	1.0000	1"	1.1/2	4"	4	001325

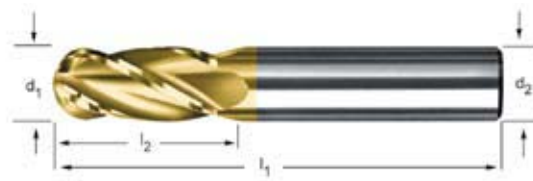
EB3304G



- End Mill
- 4-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3304G



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 2.4
- 1.6 5.1

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	4	003010
5/64	0.0781	1/8	1/4	1.1/2	4	003011
3/32	0.0938	1/8	3/8	1.1/2	4	003012
7/64	0.1094	1/8	3/8	1.1/2	4	003013
1/8	0.1250	1/8	1/2	1.1/2	4	003014
9/64	0.1406	3/16	9/16	2"	4	003015
5/32	0.1562	3/16	9/16	2"	4	003016
11/64	0.1719	3/16	9/16	2"	4	003017
3/16	0.1875	3/16	5/8	2"	4	003018
13/64	0.2031	1/4	5/8	2.1/2	4	003019
7/32	0.2188	1/4	5/8	2.1/2	4	003020
15/64	0.2344	1/4	3/4	2.1/2	4	003021
1/4	0.2500	1/4	3/4	2.1/2	4	003022
5/16	0.3125	5/16	7/8	2.1/2	4	003023
3/8	0.3750	3/8	7/8	2.1/2	4	003024
7/16	0.4375	7/16	1"	2.1/2	4	003025
1/2	0.5000	1/2	1"	3"	4	003026
9/16	0.5625	9/16	1.1/4	3.1/2	4	003027
5/8	0.6250	5/8	1.1/4	3.1/2	4	003028
11/16	0.6875	3/4	1.1/2	4"	4	003029
3/4	0.7500	3/4	1.1/2	4"	4	003030
7/8	0.8750	7/8	1.1/2	4"	4	003031
1"	1.0000	1"	1.1/2	4"	4	003032

Solid
Carbide
End
Mills

EB3304V - EB3304MV

- End Mill
- 4-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3304V



■	1.1	1.2	1.3	1.4	1.5	1.6	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1
●	4.2	4.3	5.1	5.2	5.3										

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
1/16	0.0625	1/8	1/4	1.1/2	4	003070
5/64	0.0781	1/8	1/4	1.1/2	4	003071
3/32	0.0938	1/8	3/8	1.1/2	4	003072
7/64	0.1094	1/8	3/8	1.1/2	4	003073
1/8	0.1250	1/8	1/2	1.1/2	4	003074
9/64	0.1406	3/16	9/16	2"	4	003075
5/32	0.1562	3/16	9/16	2"	4	003076
11/64	0.1719	3/16	9/16	2"	4	003077
3/16	0.1875	3/16	5/8	2"	4	003078
13/64	0.2031	1/4	5/8	2.1/2	4	003079
7/32	0.2188	1/4	5/8	2.1/2	4	003080
15/64	0.2344	1/4	3/4	2.1/2	4	003081
1/4	0.2500	1/4	3/4	2.1/2	4	003082
5/16	0.3125	5/16	7/8	2.1/2	4	003083
3/8	0.3750	3/8	7/8	2.1/2	4	003084
7/16	0.4375	7/16	1"	2.1/2	4	003085
1/2	0.5000	1/2	1"	3"	4	003086
9/16	0.5625	9/16	1.1/4	3.1/2	4	003087
5/8	0.6250	5/8	1.1/4	3.1/2	4	003088
11/16	0.6875	3/4	1.1/2	4"	4	003089
3/4	0.7500	3/4	1.1/2	4"	4	003090
7/8	0.8750	7/8	1.1/2	4"	4	003091
1"	1.0000	1"	1.1/2	4"	4	003092

EB3304MV

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	4	004750
2.50	0.0984	3.0	7.0	38.0	4	004751
3.00	0.1181	3.0	12.0	38.0	4	004752
3.50	0.1378	4.0	12.0	50.0	4	004753
4.00	0.1575	4.0	14.0	50.0	4	004754
4.50	0.1772	5.0	14.0	50.0	4	004755
5.00	0.1969	5.0	16.0	50.0	4	004756
6.00	0.2362	6.0	19.0	63.0	4	004757
7.00	0.2756	8.0	19.0	63.0	4	004758
8.00	0.3150	8.0	19.0	63.0	4	004759
9.00	0.3543	10.0	22.0	70.0	4	004760
10.00	0.3937	10.0	22.0	70.0	4	004761
11.00	0.4331	11.0	25.0	70.0	4	004762
12.00	0.4724	12.0	25.0	75.0	4	004763
14.00	0.5512	14.0	30.0	88.0	4	004764
16.00	0.6299	16.0	32.0	88.0	4	004765
18.00	0.7087	18.0	36.0	100.0	4	004766
20.00	0.7874	20.0	38.0	100.0	4	004767
25.00	0.9843	25.0	38.0	100.0	4	004768

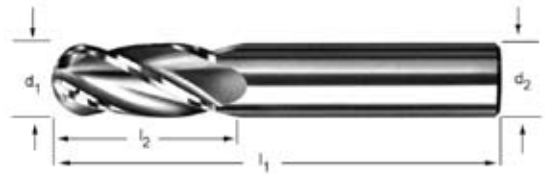
EB3304M



- End Mill
- 4-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3304M



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4						

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	4	001344
2.50	0.0984	3.0	7.0	38.0	4	001343
3.00	0.1181	3.0	12.0	38.0	4	001342
3.50	0.1378	4.0	12.0	50.0	4	001341
4.00	0.1575	4.0	14.0	50.0	4	001340
4.50	0.1772	5.0	14.0	50.0	4	001339
5.00	0.1969	5.0	16.0	50.0	4	001338
6.00	0.2362	6.0	19.0	63.0	4	001337
7.00	0.2756	8.0	19.0	63.0	4	001336
8.00	0.3150	8.0	19.0	63.0	4	001335
9.00	0.3543	10.0	22.0	70.0	4	001334
10.00	0.3937	10.0	22.0	70.0	4	001333
11.00	0.4331	11.0	25.0	70.0	4	001332
12.00	0.4724	12.0	25.0	75.0	4	001331
14.00	0.5512	14.0	30.0	88.0	4	001330
16.00	0.6299	16.0	32.0	88.0	4	001329
18.00	0.7087	18.0	36.0	100.0	4	001328
20.00	0.7874	20.0	38.0	100.0	4	001327
25.00	0.9843	25.0	38.0	100.0	4	001326

Solid
Carbide
End
Mills

EB3304MG - E4304

- End Mill
- 4-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB3304MG



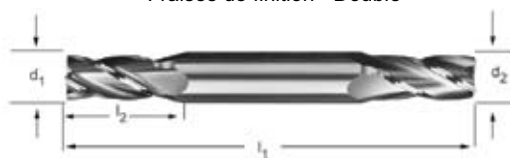
■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 2.4 • 1.6 5.1

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
2.00	0.0787	3.0	6.0	38.0	4	004640
2.50	0.0984	3.0	7.0	38.0	4	004641
3.00	0.1181	3.0	12.0	38.0	4	004642
3.50	0.1378	4.0	12.0	50.0	4	004643
4.00	0.1575	4.0	14.0	50.0	4	004644
4.50	0.1772	5.0	14.0	50.0	4	004645
5.00	0.1969	5.0	16.0	50.0	4	004646
6.00	0.2362	6.0	19.0	63.0	4	004647
7.00	0.2756	8.0	19.0	63.0	4	004648
8.00	0.3150	8.0	19.0	63.0	4	004649
9.00	0.3543	10.0	22.0	70.0	4	004650
10.00	0.3937	10.0	22.0	70.0	4	004651
11.00	0.4331	11.0	25.0	70.0	4	004652
12.00	0.4724	12.0	25.0	75.0	4	004653
14.00	0.5512	14.0	30.0	88.0	4	004654
16.00	0.6299	16.0	32.0	88.0	4	004655
18.00	0.7087	18.0	36.0	100.0	4	004656
20.00	0.7874	20.0	38.0	100.0	4	004657
25.00	0.9843	25.0	38.0	100.0	4	004658

- End Mill
- 4-flute, double end, regular length

- Fraises de finition - Double

- Fresas de acabado - Doble final



E4304



■ 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 2.4 3.1 3.3 6.1 6.2 6.3
• 1.6 3.2 3.4 6.4 7.1 7.2 7.3 7.4

d ₁ Ø mm	d ₁ decimal Inch	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3/8	3"	4	002250
5/32	0.1562	3/8	7/16	3"	4	002251
3/16	0.1875	3/8	1/2	3"	4	002252
7/32	0.2188	3/8	9/16	3"	4	002253
1/4	0.2500	3/8	5/8	3"	4	002254
5/16	0.3125	3/8	3/4	3.1/2	4	002256
3/8	0.3750	3/8	3/4	3.1/2	4	002258
7/16	0.4375	7/16	7/8	4"	4	002259
1/2	0.5000	1/2	1"	4"	4	002260

EB4304



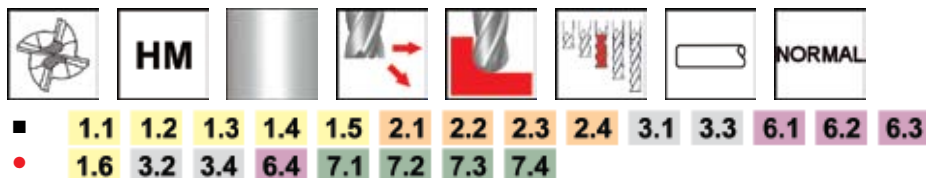
- End Mill
- 4-flute, ball nose, double end, regular length

- Fraises de finition bout hémisphérique - Double

- Fresas con punta esferica - Doble final



EB4304



d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3/8	3"	4	002350
5/32	0.1562	3/8	7/16	3"	4	002351
3/16	0.1875	3/8	1/2	3"	4	002352
7/32	0.2188	3/8	9/16	3"	4	002353
1/4	0.2500	3/8	5/8	3"	4	002354
5/16	0.3125	3/8	3/4	3.1/2	4	002356
3/8	0.3750	3/8	3/4	3.1/2	4	002358
7/16	0.4375	7/16	7/8	4"	4	002359
1/2	0.5000	1/2	1"	4"	4	002360

E6304

- End Mill
- 4-flute, extra length

- Fraises de finition

- Fresas de acabado



E6304



d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	4	004900
3/16	0.1875	3/16	1.1/8	3"	4	004901
1/4	0.2500	1/4	1.1/2	4"	4	004902
5/16	0.3125	5/16	1.5/8	4"	4	004903
3/8	0.3750	3/8	1.3/4	4"	4	004904
7/16	0.4375	7/16	3"	6"	4	004905
1/2	0.5000	1/2	3"	6"	4	004906
5/8	0.6250	5/8	3"	6"	4	004907
3/4	0.7500	3/4	3"	6"	4	004908
1"	1.0000	1	3"	6"	4	004909

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

E6304G

- End Mill
- 4-flute, extra length

- Fraises de finition

- Fresas de acabado



E6304G



- 1.1 1.2 1.3 1.4 1.5 2.1 2.2 2.3 2.4
- 1.6 3.4 5.1

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	4	003285
3/16	0.1875	3/16	1.1/8	3"	4	003286
1/4	0.2500	1/4	1.1/2	4"	4	003287
5/16	0.3125	5/16	1.5/8	4"	4	003288
3/8	0.3750	3/8	1.3/4	4"	4	003289
7/16	0.4375	7/16	3"	6"	4	003290
1/2	0.5000	1/2	3"	6"	4	003291
5/8	0.6250	5/8	3"	6"	4	003292
3/4	0.7500	3/4	3"	6"	4	003293
1"	1.0000	1	3"	6"	4	003294

E6304V



E6304V



- 1.1 1.2 1.3 1.4 1.5 1.6 2.1 2.2 2.3 2.4 3.1 3.2 3.3 3.4
- 4.1 4.2 4.3 5.1 5.2 5.3

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	4	003165
3/16	0.1875	3/16	1.1/8	3"	4	003166
1/4	0.2500	1/4	1.1/2	4"	4	003167
5/16	0.3125	5/16	1.5/8	4"	4	003168
3/8	0.3750	3/8	1.3/4	4"	4	003169
7/16	0.4375	7/16	3"	6"	4	003170
1/2	0.5000	1/2	3"	6"	4	003171
5/8	0.6250	5/8	3"	6"	4	003172
3/4	0.7500	3/4	3"	6"	4	003173
1"	1.0000	1	3"	6"	4	003174

Solid
Carbide
End
Mills

EB6304



- End Mill
- 4-flute, ball nose, extra length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



EB6304



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	3.1	3.3	6.1	6.2	6.3
●	1.6	3.2	3.4	6.4	7.1	7.2	7.3	7.4					

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	4	005700
3/16	0.1875	3/16	1.1/8	3"	4	005701
1/4	0.2500	1/4	1.1/2	4"	4	005702
5/16	0.3125	5/16	1.5/8	4"	4	005703
3/8	0.3750	3/8	1.3/4	4"	4	005704
7/16	0.4375	7/16	3"	6"	4	005705
1/2	0.5000	1/2	3"	6"	4	005706
5/8	0.6250	5/8	3"	6"	4	005707
3/4	0.7500	3/4	3"	6"	4	005708
1"	1.0000	1	3"	6"	4	005709

EB6304G



EB6304G



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4
●	1.6								

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	4	003715
3/16	0.1875	3/16	1.1/8	3"	4	003716
1/4	0.2500	1/4	1.1/2	4"	4	003717
5/16	0.3125	5/16	1.5/8	4"	4	003718
3/8	0.3750	3/8	1.3/4	4"	4	003719
7/16	0.4375	7/16	3"	6"	4	003720
1/2	0.5000	1/2	3"	6"	4	003721
5/8	0.6250	5/8	3"	6"	4	003722
3/4	0.7500	3/4	3"	6"	4	003723
1"	1.0000	1	3"	6"	4	003724

Solid
Carbide
End
Mills

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

- End Mill
- 4-flute, ball nose, extra length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



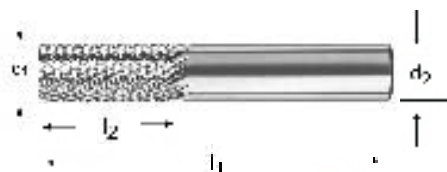
EB6304V



■	1.1	1.2	1.3	1.4	1.5	2.1	2.2	2.3	2.4	3.1	3.2	3.3	7.1	7.2	7.3	7.4
●	1.6	3.4	4.1	4.2	5.1	6.1	6.2	6.3	6.4							

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/8	0.1250	1/8	1"	3"	4	003745
3/16	0.1875	3/16	1.1/8	3"	4	003746
1/4	0.2500	1/4	1.1/2	4"	4	003747
5/16	0.3125	5/16	1.5/8	4"	4	003748
3/8	0.3750	3/8	1.3/4	4"	4	003749
7/16	0.4375	7/16	3"	6"	4	003750
1/2	0.5000	1/2	3"	6"	4	003751
5/8	0.6250	5/8	3"	6"	4	003752
3/4	0.7500	3/4	3"	6"	4	003753
1"	1.0000	1	3"	6"	4	003754

RTDA



- Router



d ₁ Ø Inch	d ₁ type	d ₁ dec. Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/8	Coarse	0.1250	1/8	1/2	1.1/2	002505
1/8	Medium	0.1250	1/8	1/2	1.1/2	002506
3/16	Coarse	0.1875	3/16	5/8	2"	002507
3/16	Coarse	0.1875	1/4	5/8	2"	002508
3/16	Medium	0.1875	3/16	5/8	2"	002509
3/16	Medium	0.1875	1/4	5/8	2"	002510

d ₁ Ø Inch	d ₁ type	d ₁ dec. Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	Coarse	0.2500	1/4	3/4	2"	002511
1/4	Fine	0.2500	1/4	3/4	2"	002512
1/4	Coarse	0.2500	1/4	1"	3"	002513
1/4	Fine	0.2500	1/4	1"	3"	002514
5/16	Medium	0.3125	5/16	1"	2.1/2	002515
3/8	Medium	0.3750	3/8	1"	2.1/2	002516
1/2	Medium	0.5000	1/2	1"	3"	002517

Style	Description	#Flutes	Finish	Page No.
9002	Rougher, Multi-Flute	4-8	HSCo, Bright	400
TN9002	Rougher, Multi-Flute	4-8	HSCo, TiN	400
TC9002	Rougher, Multi-Flute	4-8	HSCo, TiCN	401
9008	Rougher, Multi-Flute	4-8	HSCo, Bright	402
TN9008	Rougher, Multi-Flute	4-8	HSCo, TiN	402
TC9008	Rougher, Multi-Flute	4-8	HSCo, TiCN	403
9003	Rougher, Multi-Flute	4-8	HSCo, Bright	403
TN9003	Rougher, Multi-Flute	4-8	HSCo, TiN	404
TC9003	Rougher, Multi-Flute	4-8	HSCo, TiCN	404
9009	Rougher, Multi-Flute	4-8	HSCo, Bright	405
TN9009	Rougher, Multi-Flute	4-8	HSCo, TiN	405
TC9009	Rougher, Multi Flute	4-8	HSCo, TiCN	406
9004	Rougher, Multi-Flute	3-6	HSCo, Bright	406
963	Regular Length	2	HSCo, Bright	407
960	Regular Length, Multi-Flute	4-6	HSCo, Bright	407
961	Regular Length, Multi-Flute	4-6	HSCo, Bright	408
962	Extra Length	4	HSCo, Bright	408
920	Regular Length	2	HSS, Bright	409
920K	Keyway, Regular Length	2	HSS, Bright	410
TN920	Regular Length	2	HSS, TiN	411
905	Ball Nose, Regular Length	2	HSS, Bright	412
921	Long Length	2	HSS, Bright	412
TN921	Long Length	2	HSS, TiN	413
922	Long Length	2	HSS, Bright	413
980	Regular Length	2	HSS, Bright	414
981	Long Length	2	HSS, Bright	414
982	Extra Length	2	HSS, Bright	415
923	Regular Length	2	HSS, Bright	415
TN923	Regular Length	2	HSS, TiN	416
907	Ball Nose, Regular Length	2	HSS, Bright	416
930	Regular Length	3	HSS, Bright	417
931	Long Length	3	HSS, Bright	418
933	Regular Length	3	HSS, Bright	418
940	Regular Length	4	HSS, Bright	419
TN940	Regular Length	4	HSS, TiN	420
941	Long Length	4	HSS, Bright	421
944	Extra Length	4	HSS, Bright	421
945	Regular Length	4	HSS, Bright	422
TN945	Regular Length	4	HSS, TiN	422
900	Ball Nose, Regular Length	4	HSS, Bright	423
946	Long Length	4	HSS, Bright	423
TN946	Long Length	4	HSS, TiN	424
901	Ball Nose, Long Length	4	HSS, Bright	424
947	Extra Length	4	HSS, Bright	425
943	Double End, Regular Length	4	HSS, Bright	425
TN943	Double End, Regular Length	4	HSS, TiN	426
948	Double End, Regular Length	4	HSS, Bright	427
TN948	Double End, Regular Length	4	HSS, TiN	427
911	Miniature, Double End	2	HSS, Bright	428
917	Miniature, Double End	4	HSS, Bright	428
919	Miniature, Double End	4	HSS, Bright	429
883	Corner Rounding Cutter	N/A	HSS, Bright	429
C191	Slot Drill, Stub Length	2	HSCo, Bronze	430
C192	Slot Drill, Stub Length	2	HSCo, Bronze	432
C291	Regular Length	2-8	HSCo, Bronze	433
C292	Long Length	2-6	HSCo, Bronze	435
C391	Slot Drill, Standard Length	3	HSCo, Bronze	436
C392	Slot Drill, Long Length	3	HSCo, Bronze	436

HSS End Mill - Feed Rate Chart

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 279 U : U is the Alpha Code).
2. Find the closest diameter for your cutting application on the chart.
3. Select the type of cut and # Flutes to find your Ft Range.

Feed per Tooth (Ft) Dia Inches																	
Type of Cut	Alpha Code	0.078	1/8	5/32	3/16	1/4	5/16	13/32	1/2	9/16	5/8	11/16	3/4	7/8	1"	1.1/4	1.1/2
 ↑ 0,5D ↔ D	A	0.0003	0.0005	0.0007	0.0009	0.0011	0.0017	0.0024	0.0028	0.0033	0.0038	0.0038	0.0038	0.0039	0.0041	0.0042	0.0043
	B	0.0003	0.0005	0.0006	0.0009	0.0010	0.0015	0.0021	0.0026	0.0030	0.0034	0.0034	0.0034	0.0035	0.0037	0.0037	0.0038
	C	0.0003	0.0004	0.0006	0.0007	0.0009	0.0014	0.0019	0.0023	0.0027	0.0031	0.0031	0.0031	0.0031	0.0033	0.0034	0.0034
	D	0.0003	0.0004	0.0006	0.0008	0.0009	0.0015	0.0020	0.0024	0.0028	0.0032	0.0032	0.0032	0.0033	0.0035	0.0038	0.0040
	E	0.0005	0.0007	0.0009	0.0014	0.0017	0.0025	0.0034	0.0041	0.0048	0.0055	0.0056	0.0066	0.0057	0.0060	0.0066	0.0069
	F	0.0004	0.0005	0.0007	0.0008	0.0010	0.0013	0.0016	0.0020	0.0022	0.0025	0.0028	0.0031	0.0031	0.0033	0.0033	0.0033
 ↑ D ↔ 0,8D	G					0.0010	0.0013	0.0014	0.0017	0.0020	0.0022	0.0025	0.0028	0.0028	0.0021	0.0021	0.0022
	H					0.0009	0.0012	0.0013	0.0015	0.0018	0.0020	0.0023	0.0025	0.0021	0.0019	0.0019	0.0020
	I					0.0008	0.0011	0.0011	0.0014	0.0016	0.0018	0.0020	0.0023	0.0023	0.0017	0.0017	0.0018
	J					0.0009	0.0012	0.0013	0.0015	0.0018	0.0020	0.0023	0.0026	0.0026	0.0019	0.0019	0.0020
	K					0.0014	0.0019	0.0026	0.0031	0.0036	0.0059	0.0035	0.0039	0.0038	0.0043	0.0043	0.0046
	L					0.0004	0.0005	0.0007	0.0008	0.0010	0.0011	0.0012	0.0013	0.0013	0.0013	0.0015	0.0017
 ↑ 1,5D ↔ 0,25D	M	0.0003	0.0005	0.0007	0.0009	0.0012	0.0016	0.0022	0.0027	0.0031	0.0036	0.0041	0.0045	0.0035	0.0041	0.0038	0.0042
	N	0.0003	0.0004	0.0006	0.0008	0.0011	0.0015	0.0020	0.0024	0.0028	0.0032	0.0037	0.0041	0.0024	0.0037	0.0034	0.0038
	O	0.0002	0.0004	0.0006	0.0007	0.0010	0.0013	0.0018	0.0022	0.0026	0.0029	0.0033	0.0036	0.0029	0.0033	0.0031	0.0034
	P	0.0003	0.0004	0.0006	0.0008	0.0011	0.0014	0.0019	0.0023	0.0027	0.0031	0.0015	0.0039	0.0031	0.0035	0.0033	0.0036
	Q	0.0004	0.0006	0.0008	0.0010	0.0015	0.0019	0.0026	0.0031	0.0036	0.0041	0.0035	0.0039	0.0039	0.0044	0.0050	0.0055
	R	0.0005	0.0006	0.0008	0.0010	0.0011	0.0015	0.0019	0.0022	0.0026	0.0029	0.0033	0.0036	0.0036	0.0036	0.0041	0.0043
 ↑ 1,5D ↔ 0,1D	S	0.0004	0.0006	0.0009	0.0011	0.0015	0.0020	0.0028	0.0034	0.0039	0.0045	0.0051	0.0056	0.0044	0.0051	0.0048	0.0052
	T	0.0004	0.0006	0.0008	0.0010	0.0014	0.0018	0.0025	0.0030	0.0035	0.0051	0.0046	0.0051	0.0040	0.0046	0.0043	0.0047
	U	0.0003	0.0005	0.0007	0.0009	0.0013	0.0016	0.0023	0.0028	0.0032	0.0036	0.0041	0.0046	0.0036	0.0041	0.0039	0.0043
	V	0.0004	0.0005	0.0008	0.0010	0.0013	0.0017	0.0024	0.0029	0.0034	0.0039	0.0043	0.0048	0.0038	0.0043	0.0041	0.0045
	X	0.0005	0.0007	0.0010	0.0013	0.0018	0.0023	0.0032	0.0039	0.0045	0.0052	0.0044	0.0049	0.0048	0.0055	0.0062	0.0068
	Y	0.0006	0.0008	0.0010	0.0012	0.0014	0.0019	0.0023	0.0028	0.0024	0.0036	0.0041	0.0045	0.0045	0.0045	0.0051	0.0054

Easy Calculations: (inch)

$$\text{RPM} = \text{SFM}/\text{D} \times 3.82 \quad \text{F} = \text{Ft} \times \text{T} \times \text{RPM}$$

$$\text{RPM} = [(\text{m/min.}) \times 1000] \div (3.14 \times \text{D})$$

Terms: RPM = Revolutions Per Minute F = Feed Inches Per Minute

Ft = Feed Per Tooth T = Number of Teeth D = Cutting Dia.

SFM = Surface Feet per Minute

HSS End Mill - Feed Rate Chart

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 279 U : U is the Alpha Code).
2. Find the closest diameter for your cutting application on the chart.
3. Select the type of cut and # Flutes to find your Ft Range.

Feed per Tooth (Ft) Dia MM																							
Type of Cut	Alpha Code	1	2	3	4	5	6	8	10	12	14	16	18	20	22	25	28	30	32	36	40	50	
	A	0,004	0,008	0,013	0,017	0,024	0,029	0,043	0,060	0,072	0,084	0,096	0,097	0,096	0,099	0,105	0,109	0,108	0,106	0,108	0,108	0,105	
	B	0,004	0,007	0,012	0,015	0,022	0,026	0,039	0,054	0,065	0,076	0,086	0,087	0,086	0,089	0,095	0,098	0,097	0,095	0,097	0,097	0,095	
	C	0,003	0,006	0,011	0,014	0,019	0,023	0,035	0,049	0,058	0,068	0,078	0,079	0,078	0,080	0,085	0,088	0,087	0,086	0,087	0,087	0,085	
	D	0,004	0,007	0,011	0,014	0,020	0,024	0,037	0,051	0,061	0,071	0,081	0,082	0,081	0,084	0,089	0,099	0,091	0,097	0,091	0,101	0,101	
↑ 0,5D	E	0,007	0,012	0,018	0,024	0,035	0,042	0,063	0,087	0,105	0,122	0,140	0,141	0,140	0,144	0,153	0,171	0,157	0,168	0,157	0,175	0,175	
↔ D	F	0,007	0,009	0,013	0,018	0,021	0,025	0,033	0,041	0,050	0,055	0,064	0,072	0,079	0,079	0,085	0,085	0,085	0,085	0,085	0,085	0,085	
	G						0,026	0,034	0,036	0,043	0,050	0,057	0,064	0,071	0,071	0,054	0,053	0,054	0,053	0,056	0,057	0,060	
	H						0,023	0,031	0,032	0,039	0,045	0,051	0,058	0,064	0,064	0,049	0,048	0,049	0,048	0,050	0,051	0,054	
	I						0,021	0,028	0,029	0,035	0,041	0,046	0,052	0,058	0,058	0,044	0,043	0,044	0,043	0,045	0,046	0,049	
	J						0,024	0,031	0,033	0,039	0,046	0,052	0,059	0,065	0,065	0,049	0,049	0,049	0,049	0,051	0,052	0,055	
	K						0,035	0,047	0,065	0,079	0,092	0,105	0,088	0,098	0,097	0,110	0,110	0,110	0,110	0,115	0,118	0,123	
	↔ 0,8D	L						0,010	0,013	0,017	0,020	0,025	0,028	0,030	0,032	0,033	0,034	0,036	0,038	0,039	0,040	0,042	0,042
	M		0,008	0,012	0,018	0,023	0,031	0,041	0,057	0,069	0,080	0,091	0,103	0,114	0,090	0,103	0,085	0,091	0,097	0,110	0,107	0,086	
	N		0,007	0,011	0,016	0,021	0,028	0,037	0,051	0,062	0,072	0,082	0,093	0,103	0,081	0,093	0,077	0,082	0,087	0,099	0,096	0,077	
	O		0,006	0,010	0,015	0,019	0,025	0,033	0,046	0,056	0,065	0,074	0,083	0,092	0,073	0,083	0,069	0,074	0,079	0,089	0,087	0,070	
	↑ 1,5D	P		0,007	0,010	0,016	0,020	0,027	0,035	0,049	0,059	0,069	0,079	0,088	0,098	0,078	0,088	0,073	0,079	0,084	0,094	0,092	0,074
	↔ 0,25D	Q		0,009	0,014	0,021	0,026	0,036	0,048	0,066	0,079	0,092	0,106	0,089	0,099	0,098	0,111	0,111	0,119	0,127	0,143	0,139	0,148
		R		0,012	0,016	0,020	0,025	0,029	0,038	0,047	0,056	0,065	0,073	0,083	0,092	0,092	0,092	0,092	0,092	0,104	0,104	0,108	0,108
	S		0,010	0,015	0,023	0,029	0,039	0,051	0,071	0,086	0,100	0,114	0,129	0,143	0,113	0,129	0,107	0,114	0,122	0,137	0,133	0,107	
	T		0,009	0,014	0,021	0,026	0,035	0,046	0,064	0,077	0,090	0,103	0,116	0,129	0,102	0,116	0,096	0,103	0,110	0,123	0,120	0,096	
	U		0,008	0,012	0,019	0,023	0,032	0,041	0,058	0,070	0,081	0,092	0,104	0,116	0,092	0,104	0,087	0,092	0,099	0,111	0,108	0,087	
	V		0,009	0,013	0,020	0,025	0,033	0,044	0,061	0,074	0,086	0,098	0,110	0,123	0,097	0,110	0,092	0,098	0,105	0,118	0,115	0,092	
	↑ 1,5D	X		0,012	0,017	0,026	0,033	0,045	0,059	0,082	0,099	0,115	0,132	0,111	0,124	0,122	0,139	0,139	0,148	0,158	0,178	0,173	0,186
	↔ 0,1D	Y		0,015	0,020	0,025	0,031	0,036	0,047	0,059	0,070	0,081	0,092	0,104	0,115	0,115	0,115	0,115	0,115	0,130	0,130	0,136	0,136

Easy Calculations: (inch)

$$\text{RPM} = \text{SFM}/\text{D} \times 3.82 \quad \text{F} = \text{Ft} \times \text{T} \times \text{RPM}$$

$$\text{RPM} = [(\text{m/min.}) \times 1000] \div (3.14 \times \text{D})$$

Terms: RPM = Revolutions Per Minute F = Feed Inches Per Minute
 Ft = Feed Per Tooth T = Number of Teeth D = Cutting Dia.
 SFM = Surface Feet per Minute

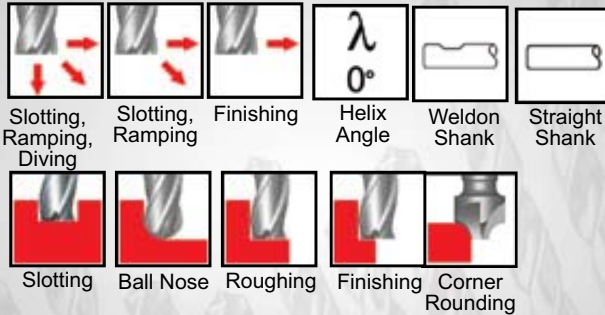
HSS End Mills

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
 - 2 Use the icons to find Type of Cut and other Product Features.
 - 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
- example: 289 B
289 = SFM
B = Alpha Code to find your Feed Rate
- 4 To calculate Feed Per Tooth, refer to chart on page 392-393.

- = Excellent for Application
- = Good for Application

Icon Guide for HSS End Mills



Style:	9002	TN9002	TC9002
Flutes:	Multi-Flute	Multi-Flute	Multi-Flute
Material:	HSCo	HSCo	HSCo
Finish/Coating:		TiN	TiCN
Standard:	ANSI	ANSI B94.9	ANSI B94.9
Axial Direction:			
Type of Cut:			
Tool Length:			
Shank:			
Tolerance:	+ .005 - .005	+ .005 - .005	+ .005 - .005
End Grind:			
Helix Angle:			

HSS End Mills

Page # for easy reference

Application Material Groups (AMG)

Surface Feet per Minute (SFM)

						400	400	401
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	●164G	●197G	●197G	
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■131G	■157G	■184G	
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■115H	■138H	■161H	
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4	●98H	●118H	●138H	
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5				
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6				
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7				
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8				
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●75L	●92L	●105L	
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2				
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3				
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4				
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●92G	●112G	●128G	
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●75G	●92G	●105G	
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●131H	●157H	●184H	
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●82H	●98H	●128H	
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●92J	●112J	●128J	
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●75J	●92J	●105J	
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3				
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●157J	●187J	●220J	
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●43I	●49I	●59I	
	5.3 Nickel, alloyed	Inconel 718, Monimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3				
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	●410I	●492I	●574I	
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	■410I	■492I	■574I	
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	■410I	■492I	■574I	
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4				
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1				
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	●984K	●1181K	●1378K	
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	●295K	●354K	●413K	
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4				
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1	●410I	●492I	●574I	
	8.2 Thermosetting plastics	Bakelint, Pertinax	---	8.2				
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3				
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1				
10. Graphite	10.1 Standard graphite		---	10.1				

(con't)



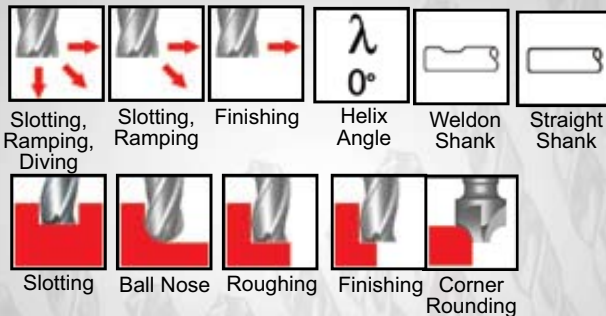
HSS End Mills

How To Use This AMG Chart:

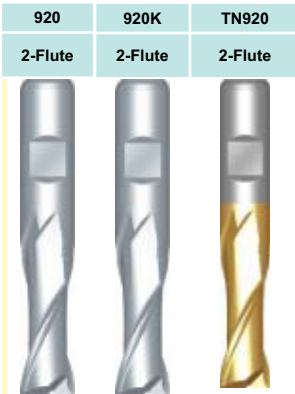
- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
 - 2 Use the icons to find Type of Cut and other Product Features.
 - 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
- example: 289 B
289 = SFM
B = Alpha Code to find your Feed Rate
- 4 To calculate Feed Per Tooth, refer to chart on page 392-393.

■ = Excellent for Application
● = Good for Application

Icon Guide for HSS End Mills



Style:
Flutes:



Material:
Finish/Coating:
Standard:
Axial Direction:
Type of Cut:
Tool Length:
Shank:
Tolerance:
End Grind:
Helix Angle:

920	920K	TN920
2-Flute	2-Flute	2-Flute

Page # for easy reference

Application Material Groups (AMG)

Hardness HB

Surface Feet per Minute (SFM)

					409	410	411
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■98A	■98A	■118A
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■89A	■89A	■105A
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	●75B	●75B	●89B
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4			
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5			
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6			
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7			
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8			
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1			
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2			
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3			
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4			
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●82A	●82A	●98A
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●66A	●66A	●79A
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●82B	●82B	●98B
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4			
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●59D	●59D	●72D
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●49D	●49D	●59D
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3			
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	●98D	●98D	●118D
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●20C	●20C	●23C
	5.3 Nickel, alloyed	Inconel 718, Monimic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3			
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	●180C	●180C	●216C
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	●197C	●197C	●236C
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●197C	●197C	●236C
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4			
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	●197E	●197E	●236E
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	●180E	●180E	●216E
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	●115E	●115E	●138E
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4			
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1	●197C	●197C	●236C
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2			
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3			
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1			
10. Graphite	10.1 Standard graphite	---	---	10.1			

HSS End Mills (con't)

HSS End Mills																
	905	921	TN921	922	980	981	982	923	TN923	907	930	931	933	940	TN940	
	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	2-Flute	3-Flute	3-Flute	3-Flute	Multi-Flute	Multi-Flute	
																
	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
																
	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	
																
																
																
																
Surface Feet per Minute (SFM)																
	412	412	413	413	414	414	415	415	416	416	417	418	418	419	420	
1.1	■112S	■98A	■118A	■98A	■164A	■148A	■148A	■98A	■118A	■112S		●164A		■115S	■138S	1.1
1.2	■89S	■89A	■105A	■89A	●131A	●118A	●118A	■89A	■105A	■89S	●131A	■131A	●131A	■92S	■112S	1.2
1.3	●79T	●75B	●89B	●75B	●115B	●102B	●102B	●75B	●89B	●79T	■115B	■115B	■115B	■79T	■95T	1.3
1.4											●98B	●98B	●98B	●69T	●82T	1.4
1.5											●66C		●66C			1.5
1.6																1.6
1.7																1.7
1.8																1.8
2.1					●75F	●66F	●66F					●75F		●52Y	●62Y	2.1
2.2					●62F	●56F	●56F				●62F		●62F			2.2
2.3																2.3
2.4																2.4
3.1	●89S	●82A	●98A	●82A				●82A	●98A	●89S		●92A		●92S	●112S	3.1
3.2	●72S	●66A	●79A	●66A				●66A	●79A	●72S	●75A	●75A	●75A	●75S	●92S	3.2
3.3	●89T	●82B	●98B	●82B				●82B	●98B	●89T	●131B	●131B	●131B	●92T	●112T	3.3
3.4											●82B	●82B	●82B	●56T	●66T	3.4
4.1	●62V	●59D	●72D	●59D	●92D	●82D	●82D	●59D	●72D	●62V	●92D	■92D	●92D	■62V	■75V	4.1
4.2	●49V	●49D	●59D	●49D				●49D	●59D	●49V	■75D	●75D	■75D	●52V	●62V	4.2
4.3											●33D		●33D			4.3
5.1	●108V	●98D	●118D	●98D	●157D	●141D	●141D	●98D	●118D	●108V		■157D		■108V	■131V	5.1
5.2	●20U	●20C	●23C	●20C				●20C	●23C	●20U	■43C	●43C		●20U	●23U	5.2
5.3											●20D		●20D			5.3
6.1	●200U	●180C	●216C	●180C	■410C	■367C	■367C	●180C	●216C	●200U		■410C		■203U	■243U	6.1
6.2	●223U	●197C	●236C	●197C				●197C	●236C	●223U	■410C	■410C	■410C	■223U	■269U	6.2
6.3	●223U	●197C	●236C	●197C				●197C	●236C	●223U	■410C	■410C	■410C	■223U	■269U	6.3
6.4											■49C		■49C			6.4
7.1	●243X	●197E	●236E	●197E	■984E	■886E	■886E	●197E	●236E	●243X						7.1
7.2	●194X	●180E	●216E	●180E	■984E	■886E	■886E	●180E	●216E	●194X		●984E		●197X	●236X	7.2
7.3	●144X	●115E	●138E	●115E	■295E	■266E	■266E	●115E	●138E	●144X	●295E	●295E	●295E	●148X	●177X	7.3
7.4											●197A		●197A			7.4
8.1	●200U	●197C	●236C	●197C	●410C	●367C	●367C	●197C	●236C	●200U		●410C		●203U	●243U	8.1
8.2											●410C		●410C			8.2
8.3																8.3
9.1																9.1
																10.1

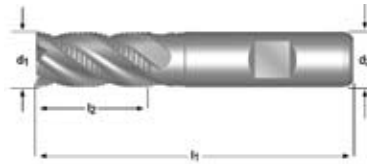
HSS End Mills (con't)

HSS End Mills													Threaded Shank End Mills					
946	TN946	901	947	943	TN943	948	TN948	911	917	919	883		C191	C192	C291	C292	C391	C392
4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	4-Flute	2-Flute Mini	4-Flute Mini	4-Flute Mini	Corner Rounding		2-Flute	2-Flute	Multi-Flute	Multi-Flute	3-Flute	3-Flute
																		
HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS		HSCo	HSCo	HSCo	HSCo	HSCo	HSCo
ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI	ANSI		BS 12214	BS 12214	BS 12214	BS 12214	BS 12214	BS 12214
																		
+ .003 - .000	+ .003 - .000	+ .003 - .000	+ .003 - .000	+ .003 - .000	+ .003 - .000	+ .003 - .000	+ .003 - .000	NORMAL	NORMAL	NORMAL	NORMAL		e8	e8			e8	e8
																		
Surface Feet per Minute (SFM)													Surface Feet per Minute (SFM)					
423	424	424	425	425	426	427	427	428	428	429	429		430	432	433	435	436	436
1.1 ■98A	■138S	■148S	■98A	■115S	■138S	■115S	■138S	■98A	■98A	■98A	■66p	1.1 ■47A	■42A	■42S	■38S	■42A	■38A	
1.2 ■89A	■112S	■118S	■89A	■92S	■112S	■92S	■112S	■89A	■89A	■89A	■66p	1.2 ■37A	■34A	■34S	■30S	■34A	■30A	
1.3 ■75B	■95T	■102T	■75B	■79T	■95T	■79T	■95T	■75B	■75B	■75B	■52p	1.3 ■32B	■29B	■29T	■26T	■29B	■26B	
1.4	■82T	■89T		■69T	■82T	■69T	■82T				■46p	1.4 ■28B	■25B	■25T	■23T	■25B	■23B	
1.5											■33p	1.5						
1.6											■26p	1.6						
1.7												1.7						
1.8												1.8						
2.1	■62Y	■66Y		■52Y	■62Y	■52Y	■62Y				■43p	2.1	■21F	■19F	■19Y	■17Y	■19F	■17F
2.2											■30p	2.2						
2.3											■20r	2.3						
2.4											■16r	2.4						
3.1	■82A	■112S	■82S	■82A	■92S	■112S	■92S	■112S	■82A	■82A	■82A	3.1	■26A	■23A	■23S	■21S	■23A	■21A
3.2	■66A	■92S	■66S	■66A	■75S	■92S	■75S	■92S	■66A	■66A	■66A	3.2	■21A	■19A	■19S	■17S	■19A	■17A
3.3	■82B	■112T	■118T	■82B	■92T	■112T	■92T	■112T	■82B	■82B	■82B	3.3	■37B	■34B	■34T	■30T	■34B	■30B
3.4	■66T	■72T		■56T	■66T	■56T	■66T				■33r	3.4	■23B	■21B	■21T	■19T	■21B	■19B
4.1	■59D	■75V	■82V	■59D	■62V	■75V	■62V	■75V	■59D	■59D	■59D	4.1	■26D	■23D	■23V	■21V	■23D	■21D
4.2	■49D	■62V	■66V	■49D	■52V	■62V	■52V	■62V	■49D	■49D	■49D	4.2	■21C	■19D	■19V	■17V	■19D	■17D
4.3											■20o	4.3						
5.1	■98D	■131V	■141V	■98D	■108V	■131V	■108V	■131V	■98D	■98D	■98D	5.1	■45D	■41D	■41V	■36V	■41D	■36D
5.2	■20C	■23U	■36U	■20C	■20U	■23U	■20U	■23U	■20C	■20C	■20C	5.2	■12C	■11C	■11U	■10U	■11C	■10C
5.3											■7m	5.3						
6.1	■180C	■243U	■367U	■180C	■203U	■243U	■203U	■243U	■180C	■180C	■180C	6.1	■117C	■106C		■96U	■106C	■96C
6.2	■197C	■269U	■367U	■197C	■223U	■269U	■223U	■269U	■197C	■197C	■197C	6.2	■117C	■106C		■96U	■106C	■96C
6.3	■197C	■269U	■367U	■197C	■223U	■269U	■223U	■269U	■197C	■197C	■197C	6.3	■117C	■106C		■96U	■106C	■96C
6.4											■16m	6.4						
7.1		■886X							■197E	■197E	■197E	7.1	■282E	■256E				
7.2	■180E	■236X	■886X	■180E	■197X	■236X	■197X	■236X	■180E	■180E	■180E	7.2	■282E	■256E		■256E	■230E	
7.3	■115E	■177X	■266X	■115E	■148X	■177X	■148X	■177X	■115E	■115E	■115E	7.3	■84E	■76E	■76X	■69X	■76E	■69E
7.4											■56r	7.4						
8.1	■197C	■243U	■367U	■197C	■203U	■243U	■203U	■243U	■197C	■197C	■197C	8.1	■117C	■106C		■96U	■106C	■96C
8.2												8.2						
8.3												8.3						
9.1												9.1						
											■56r	10.1						

- End Mill
- Rougher

- Fraises d'ébauche

- Fresas Gran Desbaste



9002



■ 1.2 1.3 6.2 6.3 • 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	4	5210014
5/16	0.3125	3/4	2.1/2	3/8	4	5210015
3/8	0.3750	3/4	2.1/2	3/8	4	5210016
7/16	0.4375	1.1/4	3.1/4	1/2	4	5210017
1/2	0.5000	1.1/4	3.1/4	1/2	4	5210018
9/16	0.5625	1.3/8	3.3/8	1/2	4	5210019
5/8	0.6250	1.5/8	3.3/4	5/8	4	5210020
3/4	0.7500	1.5/8	3.7/8	3/4	4	5210021
7/8	0.8750	1.7/8	4.1/8	3/4	5	5210022
1"	1.0000	2"	4.1/2	1"	5	5210023
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5210024
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5210025
1.3/4	1.7500	2"	4.1/2	1.1/4	6	5210026
2"	2.0000	2"	4.1/2	1.1/4	8	5210027

TN9002



TN9002



■ 1.2 1.3 6.2 6.3 • 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

d ₁ Ø inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	4	5260014
5/16	0.3125	3/4	2.1/2	3/8	4	5260015
3/8	0.3750	3/4	2.1/2	3/8	4	5260016
7/16	0.4375	1.1/4	3.1/4	1/2	4	5260017
1/2	0.5000	1.1/4	3.1/4	1/2	4	5260018
9/16	0.5625	1.3/8	3.3/8	1/2	4	5260019
5/8	0.6250	1.5/8	3.3/4	5/8	4	5260020
3/4	0.7500	1.5/8	3.7/8	3/4	4	5260021
7/8	0.8750	1.7/8	4.1/8	3/4	5	5260022
1"	1.0000	2"	4.1/2	1"	5	5260023
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5260024
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5260025
1.3/4	1.7500	2"	4.1/2	1.1/4	6	5260026
2"	2.0000	2"	4.1/2	1.1/4	8	5260027

HSS
End
Mills

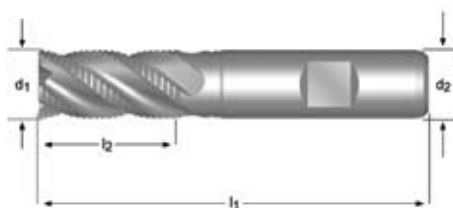
TC9002

**UNION
BUTTERFIELD**

- End Mill
- Rougher

- Fraises d'ébauche

- Fresas Gran Desbaste



TC9002



HSCo

TiCN

**ANSI
B94.9**



**+ .005
- .000**



1.2

1.3

6.2

6.3



1.1

1.4

2.1

3.1

3.2

3.3

3.4

4.1

4.2

5.1

5.2

6.1

7.2

7.3

8.1

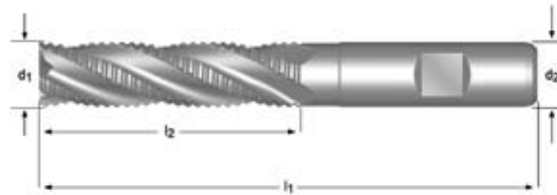
d_1 Ø Inch	d_1 decimal Inch	l_2 Inch	l_1 Inch	d_2 Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	4	5270014
5/16	0.3125	3/4	2.1/2	3/8	4	5270015
3/8	0.3750	3/4	2.1/2	3/8	4	5270016
7/16	0.4375	1.1/4	3.1/4	1/2	4	5270017
1/2	0.5000	1.1/4	3.1/4	1/2	4	5270018
9/16	0.5625	1.3/8	3.3/8	1/2	4	5270019
5/8	0.6250	1.5/8	3.3/4	5/8	4	5270020
3/4	0.7500	1.5/8	3.7/8	3/4	4	5270021
7/8	0.8750	1.7/8	4.1/8	3/4	5	5270022
1"	1.0000	2"	4.1/2	1"	5	5270023
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5270024
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5270025
1.3/4	1.7500	2"	4.1/2	1.1/4	6	5270026
2"	2.0000	2"	4.1/2	1.1/4	8	5270027

HSS
End
Mills

- End Mill
- Rougher, fine profile

- Fraises d'ébauche

- Fresas Gran Desbaste



9008



d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/8	3/8	4	5210078
3/8	0.3750	1.1/2	3.1/4	3/8	4	5210079
1/2	0.5000	2"	4"	1/2	4	5210080
5/8	0.6250	2.1/2	4.5/8	5/8	4	5210081
3/4	0.7500	3"	5.1/4	3/4	4	5210082
7/8	0.8750	3.1/2	5.3/4	3/4	6	5210083
1"	1.0000	4"	6.1/2	1"	5	5210084
1.1/4	1.2500	4"	6.1/2	1.1/4	6	5210085
1.1/2	1.5000	4"	6.1/2	1.1/4	6	5210086
1.3/4	1.7500	4"	6.1/2	1.1/4	6	5210087
2"	2.0000	4"	6.1/2	1.1/4	8	5210088

TN9008



TN9008



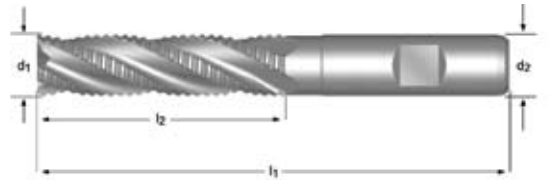
d₁ Ø Inch	d₁ decimal Inch	l₂ Inch	l₁ Inch	d₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/8	3/8	4	5260078
3/8	0.3750	1.1/2	3.1/4	3/8	4	5260079
1/2	0.5000	2"	4"	1/2	4	5260080
5/8	0.6250	2.1/2	4.5/8	5/8	4	5260081
3/4	0.7500	3"	5.1/4	3/4	4	5260082
7/8	0.8750	3.1/2	5.3/4	3/4	6	5260083
1"	1.0000	4"	6.1/2	1"	5	5260084
1.1/4	1.2500	4"	6.1/2	1.1/4	6	5260085
1.1/2	1.5000	4"	6.1/2	1.1/4	6	5260086
1.3/4	1.7500	4"	6.1/2	1.1/4	6	5260087
2"	2.0000	4"	6.1/2	1.1/4	8	5260088

TC9008 - 9003

- End Mill
- Rougher, fine profile
- Long length

• Fraises d'ébauche

• Fresas Gran Desbaste



TC9008



- 1.2 1.3 6.2 6.3
- 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/8	3/8	4	5270078
3/8	0.3750	1.1/2	3.1/4	3/8	4	5270079
1/2	0.5000	2"	4"	1/2	4	5270080
5/8	0.6250	2.1/2	4.5/8	5/8	4	5270081
3/4	0.7500	3"	5.1/4	3/4	4	5270082
7/8	0.8750	3.1/2	5.3/4	3/4	6	5270083
1"	1.0000	4"	6.1/2	1"	5	5270084
1.1/4	1.2500	4"	6.1/2	1.1/4	6	5270085
1.1/2	1.5000	4"	6.1/2	1.1/4	6	5270086
1.3/4	1.7500	4"	6.1/2	1.1/4	6	5270087
2"	2.0000	4"	6.1/2	1.1/4	8	5270088

- End Mill
- Rougher, coarse profile
- Regular length

• Fraises d'ébauche

• Fresas Gran Desbaste



9003



- 1.2 1.3 6.2 6.3
- 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	4	5210028
5/16	0.3125	3/4	2.1/2	3/8	4	5210029
3/8	0.3750	3/4	2.1/2	3/8	4	5210030
7/16	0.4375	1.1/4	3.1/4	1/2	4	5210031
1/2	0.5000	1.1/4	3.1/4	1/2	4	5210032
9/16	0.5625	1.3/8	3.3/8	1/2	4	5210033
5/8	0.6250	1.5/8	3.3/4	5/8	4	5210034
3/4	0.7500	1.5/8	3.7/8	3/4	4	5210035
7/8	0.8750	1.7/8	4.1/8	3/4	5	5210036
1"	1.0000	2"	4.1/2	1"	5	5210037
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5210038
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5210039
1.3/4	1.7500	2"	4.1/2	1.1/4	6	5210040
2"	2.0000	2"	4.1/2	1.1/4	8	5210041

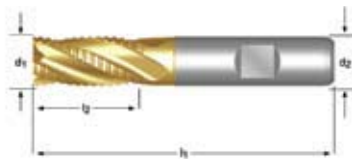
- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

TN9003 - TC9003

- End Mill
- Rougher, coarse profile

- Fraises d'ébauche

- Fresas Gran Desbaste



TN9003



+.005
-.000

- 1.2 1.3 6.2 6.3
● 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

d₁ Ø Inch	d₁ decimal Inch	l₂ Inch	l₁ Inch	d₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	4	5260028
5/16	0.3125	3/4	2.1/2	3/8	4	5260029
3/8	0.3750	3/4	2.1/2	3/8	4	5260030
7/16	0.4375	1.1/4	3.1/4	1/2	4	5260031
1/2	0.5000	1.1/4	3.1/4	1/2	4	5260032
9/16	0.5625	1.3/8	3.3/8	1/2	4	5260033
5/8	0.6250	1.5/8	3.3/4	5/8	4	5260034
3/4	0.7500	1.5/8	3.7/8	3/4	4	5260035
7/8	0.8750	1.7/8	4.1/8	3/4	5	5260036
1"	1.0000	2"	4.1/2	1"	5	5260037
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5260038
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5260039
1.3/4	1.7500	2"	4.1/2	1.1/4	6	5260040
2"	2.0000	2"	4.1/2	1.1/4	8	5260041



TC9003



+.005
-.000

- 1.2 1.3 6.2 6.3 • 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	4	5270028
5/16	0.3125	3/4	2.1/2	3/8	4	5270029
3/8	0.3750	3/4	2.1/2	3/8	4	5270030
7/16	0.4375	1.1/4	3.1/4	1/2	4	5270031
1/2	0.5000	1.1/4	3.1/4	1/2	4	5270032
9/16	0.5625	1.3/8	3.3/8	1/2	4	5270033
5/8	0.6250	1.5/8	3.3/4	5/8	4	5270034
3/4	0.7500	1.5/8	3.7/8	3/4	4	5270035
7/8	0.8750	1.7/8	4.1/8	3/4	5	5270036
1"	1.0000	2"	4.1/2	1"	5	5270037
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5270038
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5270039
1.3/4	1.7500	2"	4.1/2	1.1/4	6	5270040
2"	2.0000	2"	4.1/2	1.1/4	8	5270041

**UNION
BUTTERFIELD**

- Fresas Gran Desbaste



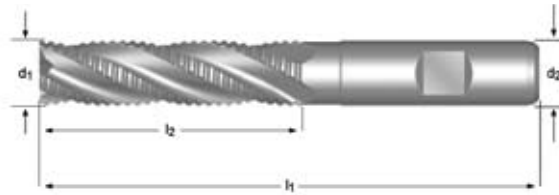
405

TC9009

- End Mill
- Rougher, coarse profile

- Fraises d'ébauche

- Fresas Gran Desbaste



TC9009



- 1.2 1.3 6.2 6.3
- 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

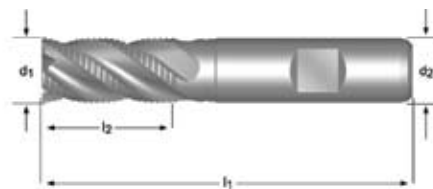
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/8	3/8	4	5270089
3/8	0.3750	1.1/2	3.1/4	3/8	4	5270090
1/2	0.5000	2"	4"	1/2	4	5270091
5/8	0.6250	2.1/2	4.5/8	5/8	4	5270092
3/4	0.7500	3"	5.1/4	3/4	4	5270093
7/8	0.8750	3.1/2	5.3/4	3/4	6	5270094
1"	1.0000	4"	6.1/2	1"	5	5270095
1.1/4	1.2500	4"	6.1/2	1.1/4	6	5270096
1.1/2	1.5000	4"	6.1/2	1.1/4	6	5270097
1.3/4	1.7500	4"	6.1/2	1.1/4	6	5270098
2"	2.0000	4"	6.1/2	1.1/4	8	5270099

9004

- End Mill
- Truncated, rougher & finisher

- Fraises d'ébauche

- Fresas Gran Desbaste



9004



- 1.2 1.3 6.2 6.3
- 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	3	5210042
3/8	0.3750	3/4	2.1/2	3/8	4	5210043
1/2	0.5000	1.1/4	3.1/4	1/2	4	5210044
5/8	0.6250	1.5/8	3.3/4	5/8	4	5210045
3/4	0.7500	1.5/8	3.7/8	3/4	4	5210046
7/8	0.8750	1.7/8	4.1/8	3/4	5	5210047
1"	1.0000	2"	4.1/2	1"	5	5210048
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5210049
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5210050
2"	2.0000	2"	4.1/2	1.1/4	6	5210051

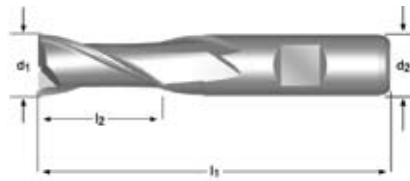
963

**UNION
BUTTERFIELD**

- End Mill
- 2-Flute, Regular Length

- Fraises de finition

- Fresas de acabado



963



■ 1.1 1.2 5.1 6.1 6.2 6.3 • 1.3 1.4 2.1 3.1 3.2 3.3 3.4 4.1 4.2 5.2 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	2	5110633
3/16	0.1875	7/16	2.3/8	3/8	2	5110634
1/4	0.2500	1/2	2.7/16	3/8	2	5110635
5/16	0.3125	9/16	2.1/2	3/8	2	5110636
3/8	0.3750	9/16	2.1/2	3/8	2	5110637
1/2	0.5000	1"	3.1/4	1/2	2	5110638
5/8	0.6250	1.5/16	3.3/4	5/8	2	5110639
3/4	0.7500	1.5/16	3.7/8	3/4	2	5110640
1"	1.0000	1.5/8	4.1/2	1"	2	5110641

960

- End Mill
- Multi-flute, regular length

- Fraises de finition

- Fresas de acabado



960



■ 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3 • 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	4	5110660
3/16	0.1875	1/2	2.3/8	3/8	4	5110661
1/4	0.2500	5/8	2.7/16	3/8	4	5110662
5/16	0.3125	3/4	2.1/2	3/8	4	5110663
3/8	0.3750	3/4	2.1/2	3/8	4	5110664
1/2	0.5000	1.1/4	3.1/4	1/2	4	5110665
1/2	0.5000	1.1/4	3.1/4	1/2	6	5110772
5/8	0.6250	1.5/8	3.3/4	5/8	6	5110773
5/8	0.6250	1.5/8	3.3/4	5/8	4	5110666
3/4	0.7500	1.5/8	3.7/8	3/4	4	5110667
3/4	0.7500	1.5/8	3.7/8	3/4	6	5110774
1"	1.0000	2"	4.1/2	1"	6	5110778
1"	1.0000	2"	4.1/2	1"	4	5110669
1.1/4	1.2500	2"	4.1/2	1.1/4	6	5110670
1.1/2	1.5000	2"	4.1/2	1.1/4	6	5110671
2"	2.0000	4"	7.3/4	2"	6	5110782

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

961

- End Mill
- Multi-flute, long length

- Fraises de finition

- Fresas de acabado



961



- 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3
- 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.1 7.2 7.3 8.1

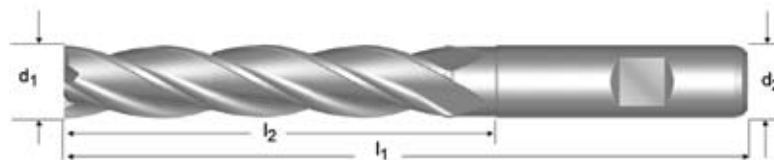
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
3/8	0.3750	1.1/2	3.1/4	3/8	4	5110672
1/2	0.5000	2"	4"	1/2	4	5110673
5/8	0.6250	2.1/2	4.5/8	5/8	4	5110674
3/4	0.7500	3"	5.1/4	3/4	4	5110675
3/4	0.7500	3"	5.1/4	3/4	6	5110775
1"	1.0000	4"	6.1/2	1"	6	5110779
1"	1.0000	4"	6.1/2	1"	4	5110677
1.1/4	1.2500	4"	6.1/2	1.1/4	6	5110678

962

- End Mill
- 4-flute, extra length

- Fraises de finition

- Fresas de acabado



962



- 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3
- 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.1 7.2 7.3 8.1

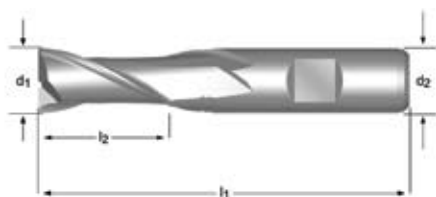
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
3/8	0.3750	2.1/2	4.1/4	3/8	4	5110679
1/2	0.5000	3"	5"	1/2	4	5110680
5/8	0.6250	4"	6.1/8	5/8	4	5110681
3/4	0.7500	4"	6.1/4	3/4	4	5110682
1"	1.0000	6"	8.1/2	1"	4	5110684

HSS
End
Mills

- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



920

**HSS****ANSI**

+ .003
- .000

- 1.1 1.2
- 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

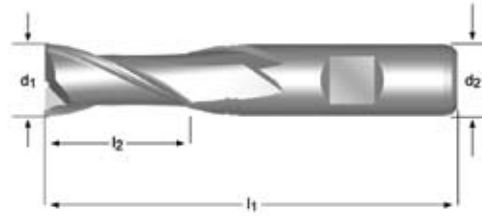
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	2	5110302
3/16	0.1875	7/16	2.3/8	3/8	2	5110303
1/4	0.2500	1/2	2.7/16	3/8	2	5110304
5/16	0.3125	9/16	2.1/2	3/8	2	5110305
3/8	0.3750	9/16	2.1/2	3/8	2	5110306
7/16	0.4375	13/16	2.11/16	3/8	2	5110307
1/2	0.5000	13/16	2.11/16	3/8	2	5110308
1/2	0.5000	1"	3.1/4	1/2	2	5110309
9/16	0.5625	1.1/8	3.3/8	1/2	2	5110310
5/8	0.6250	1.1/8	3.3/8	1/2	2	5110311
5/8	0.6250	1.5/16	3.3/4	5/8	2	5110314
11/16	0.6875	1.5/16	3.3/4	5/8	2	5110315
11/16	0.6875	1.5/16	3.5/8	1/2	2	5110312
3/4	0.7500	1.5/16	3.5/8	1/2	2	5110313
3/4	0.7500	1.5/16	3.3/4	5/8	2	5110316
3/4	0.7500	1.5/16	3.7/8	3/4	2	5110708
13/16	0.8125	1.1/2	4"	5/8	2	5110317
7/8	0.8750	1.1/2	4"	5/8	2	5110318
7/8	0.8750	1.1/2	4.1/8	7/8	2	5110321
7/8	0.8750	1.1/2	4.1/8	3/4	2	5110709
15/16	0.9375	1.1/2	4"	5/8	2	5110319
1"	1.0000	1.1/2	4"	5/8	2	5110320
1"	1.0000	1.1/2	4.1/8	7/8	2	5110323
1"	1.0000	1.5/8	4.1/2	1"	2	5110326
1"	1.0000	1.1/2	4.1/8	3/4	2	5110710
1.1/8	1.1250	1.5/8	4.1/4	3/4	2	5111714
1.1/8	1.1250	1.5/8	4.1/4	7/8	2	5110324
1.1/8	1.1250	1.5/8	4.1/2	1"	2	5110327
1.1/4	1.2500	1.5/8	4.1/2	1"	2	5110328
1.1/4	1.2500	1.5/8	4.1/2	1.1/4	2	5110331
1.1/4	1.2500	1.5/8	4.1/4	7/8	2	5110325
1.1/4	1.2500	1.5/8	4.1/4	3/4	2	5111715
1.3/8	1.3750	1.5/8	4.1/4	3/4	2	5111716
1.3/8	1.3750	1.5/8	4.1/2	1"	2	5110329
1.1/2	1.5000	1.5/8	4.1/2	1"	2	5110330
1.1/2	1.5000	1.5/8	4.1/2	1.1/4	2	5110332
1.1/2	1.5000	1.5/8	4.1/4	3/4	2	5111717
1.3/4	1.7500	1.1/2	3.7/8	3/4	2	5111718
1.3/4	1.7500	1.5/8	4.1/2	1.1/4	2	5110334
2"	2.0000	1.5/8	4.1/2	1.1/4	2	5110336
2	2.0000	1.1/2	3.7/8	3/4	2	5111719

HSS
End
Mills

- End Mill
- 2-flute, keyway, regular length

- Fraises à rainurer les clavettes

- Fresas de ranurar



920K



HSS



ANSI



+ .0001
- .0015

■

1.1 1.2

●

1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

d_1 Ø Inch	d_1 decimal Inch	l_2 Inch	l_1 Inch	d_2 Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	2	5110715
3/16	0.1875	7/16	2.3/8	3/8	2	5110716
1/4	0.2500	1/2	2.7/16	3/8	2	5110717
5/16	0.3125	9/16	2.1/2	3/8	2	5110718
3/8	0.3750	9/16	2.1/2	3/8	2	5110719
1/2	0.5000	1"	3.1/4	1/2	2	5110720
5/8	0.6250	1.5/16	3.3/4	5/8	2	5110721
3/4	0.7500	1.5/16	3.7/8	3/4	2	5110722
7/8	0.8750	1.1/2	4.1/8	7/8	2	5110723
1"	1.0000	1.5/8	4.1/2	1"	2	5110724
1.1/4	1.2500	1.5/8	4.1/2	1.1/4	2	5110725
1.1/2	1.5000	1.5/8	4.1/2	1.1/4	2	5110726

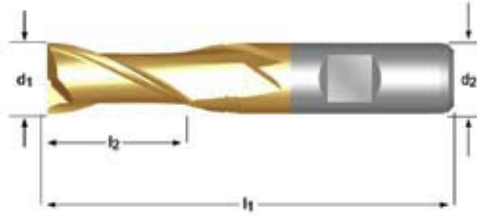
TN920

**UNION
BUTTERFIELD**

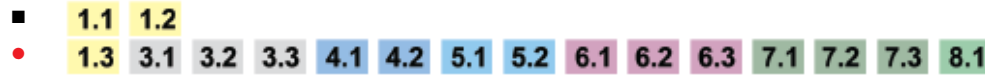
- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



TN920



d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	2	5160302
3/16	0.1875	7/16	2.3/8	3/8	2	5160303
1/4	0.2500	1/2	2.7/16	3/8	2	5160304
5/16	0.3125	9/16	2.1/2	3/8	2	5160305
3/8	0.3750	9/16	2.1/2	3/8	2	5160306
7/16	0.4375	13/16	2.11/16	3/8	2	5160307
1/2	0.5000	13/16	2.11/16	3/8	2	5160308
1/2	0.5000	1"	3.1/4	1/2	2	5160309
9/16	0.5625	1.1/8	3.3/8	1/2	2	5160310
5/8	0.6250	1.1/8	3.3/8	1/2	2	5160311
5/8	0.6250	1.5/16	3.3/4	5/8	2	5160314
11/16	0.6875	1.5/16	3.3/4	5/8	2	5160315
11/16	0.6875	1.5/16	3.5/8	1/2	2	5160312
3/4	0.7500	1.5/16	3.5/8	1/2	2	5160313
3/4	0.7500	1.5/16	3.3/4	5/8	2	5160316
3/4	0.7500	1.5/16	3.7/8	3/4	2	5160708
13/16	0.8125	1.1/2	4"	5/8	2	5160317
7/8	0.8750	1.1/2	4"	5/8	2	5160318
7/8	0.8750	1.1/2	4.1/8	7/8	2	5160321
7/8	0.8750	1.1/2	4.1/8	3/4	2	5160709
15/16	0.9375	1.1/2	4"	5/8	2	5160319
1"	1.0000	1.1/2	4"	5/8	2	5160320
1"	1.0000	1.1/2	4.1/8	7/8	2	5160323
1"	1.0000	1.5/8	4.1/2	1"	2	5160326
1"	1.0000	1.1/2	4.1/8	3/4	2	5160710
1.1/8	1.1250	1.5/8	4.1/4	3/4	2	5161714
1.1/8	1.1250	1.5/8	4.1/4	7/8	2	5160324
1.1/8	1.1250	1.5/8	4.1/2	1"	2	5160327
1.1/4	1.2500	1.5/8	4.1/2	1"	2	5160328
1.1/4	1.2500	1.5/8	4.1/2	1.1/4	2	5160331
1.1/4	1.2500	1.5/8	4.1/4	7/8	2	5160325
1.1/4	1.2500	1.5/8	4.1/4	3/4	2	5161715
1.3/8	1.3750	1.5/8	4.1/4	3/4	2	5161716
1.3/8	1.3750	1.5/8	4.1/2	1"	2	5160329
1.1/2	1.5000	1.5/8	4.1/4	3/4	2	5161717
1.3/4	1.7500	1.1/2	3.7/8	3/4	2	5161718
1.3/4	1.7500	1.5/8	4.1/2	1.1/4	2	5160334
2"	2.0000	1.5/8	4.1/2	1.1/4	2	5160336
2"	2.0000	1.1/2	3.7/8	3/4	2	5161719

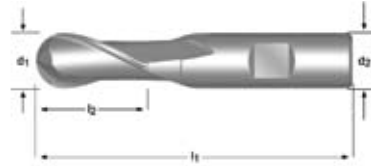
■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

905

- End Mill
- 2-flute, ball nose, regular length

- Fraises de finition bout hémisphérique

- Fresas con punta esférica



905



■ 1.1 1.2 • 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

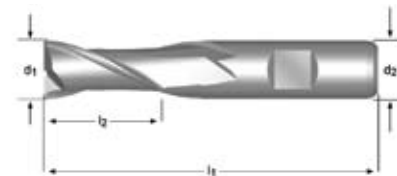
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	2	5110390
3/16	0.1875	1/2	2.3/8	3/8	2	5110391
1/4	0.2500	5/8	2.7/16	3/8	2	5110392
5/16	0.3125	3/4	2.1/2	3/8	2	5110393
3/8	0.3750	3/4	2.1/2	3/8	2	5110394
7/16	0.4375	1"	3.1/4	1/2	2	5110395
1/2	0.5000	1"	3.1/4	1/2	2	5110396
9/16	0.5625	1.1/8	3.3/8	1/2	2	5110700
5/8	0.6250	1.1/8	3.3/8	1/2	2	5110701
5/8	0.6250	1.3/8	3.3/4	5/8	2	5110397
3/4	0.7500	1.5/8	3.7/8	3/4	2	5110398
3/4	0.7500	1.5/16	3.5/8	1/2	2	5110702
7/8	0.8750	1.7/8	4.1/8	3/4	2	5110703
7/8	0.8750	2"	4.1/4	7/8	2	5110399
1"	1.0000	2.1/4	4.3/4	1"	2	5110400
1"	1.0000	2.1/4	4.1/2	3/4	2	5110704
1.1/8	1.1250	2.1/4	4.3/4	1"	2	5110401
1.1/4	1.2500	2.1/2	5"	1.1/4	2	5110402
1.1/2	1.5000	2.1/2	5"	1.1/4	2	5110403

921

- End Mill
- 2-flute, keyway, long length

- Fraises de finition

- Fresas de acabado



921



■ 1.1 1.2 • 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
3/8	0.3750	1.1/2	3.1/4	3/8	2	5110337
1/2	0.5000	1.7/8	4"	1/2	2	5110338
5/8	0.6250	2"	4.1/8	5/8	2	5110339
3/4	0.7500	2.1/4	4.1/2	3/4	2	5110340
1"	1.0000	3"	5.1/2	1"	2	5110342

HSS
End
Mills

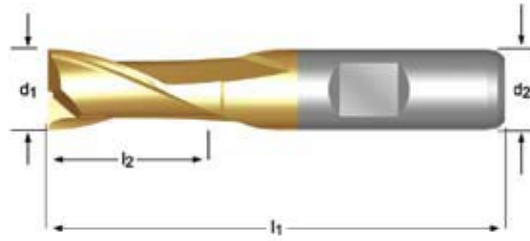
TN921

**UNION
BUTTERFIELD**

- End Mill
- 2-flute, long length

• Fraises de finition

• Fresas de acabado



TN921



- 1.1 1.2
- 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

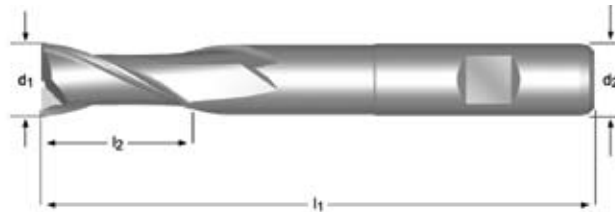
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
3/8	0.3750	1.1/2	3.1/4	3/8	2	5160337
1/2	0.5000	1.7/8	4"	1/2	2	5160338
5/8	0.6250	2"	4.1/8	5/8	2	5160339
3/4	0.7500	2.1/4	4.1/2	3/4	2	5160340
1"	1.0000	3"	5.1/2	1"	2	5160342

922

- End Mill
- 2-flute, long length

• Fraises de finition

• Fresas de acabado



922



- 1.1 1.2
- 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

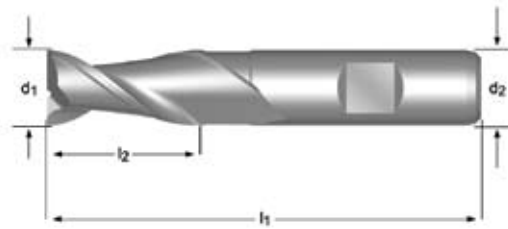
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	3.1/16	3/8	2	5110352
5/16	0.3125	3/4	3.1/8	3/8	2	5110353
3/8	0.3750	3/4	3.1/4	3/8	2	5110354
1/2	0.5000	1"	4"	1/2	2	5110355
5/8	0.6250	1.3/8	4.5/8	5/8	2	5110356
3/4	0.7500	1.5/8	5.1/4	3/4	2	5110357
7/8	0.8750	2"	6"	7/8	2	5110358
1"	1.0000	2.1/2	7.1/4	1"	2	5110359
1.1/4	1.2500	3"	7.1/4	1.1/4	2	5110360

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



980



■	1.1	6.1	7.1	7.2	7.3		
●	1.2	1.3	2.1	2.2	4.1	5.1	8.1

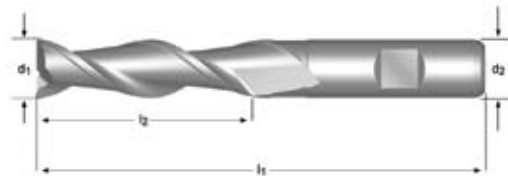
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	5/8	2.7/16	3/8	2	5110602
5/16	0.3125	3/4	2.1/2	3/8	2	5110603
3/8	0.3750	3/4	2.1/2	3/8	2	5110604
7/16	0.4375	1"	2.11/16	3/8	2	5110605
1/2	0.5000	1.1/4	3.1/4	1/2	2	5110606
5/8	0.6250	1.5/8	3.3/4	5/8	2	5110607
3/4	0.7500	1.5/8	3.7/8	3/4	2	5110608
1"	1.0000	2"	4.1/2	1"	2	5110609

981

- End Mill
- 2-flute, long length

- Fraises de finition

- Fresas de acabado



981



■	1.1	6.1	7.1	7.2	7.3			
●	1.2	1.3	2.1	2.2	4.1	5.1	8.1	

d₁ Ø Inch	d₁ decimal Inch	l₂ Inch	l₁ Inch	d₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/16	3/8	2	5110613
5/16	0.3125	1.3/8	3.1/8	3/8	2	5110614
3/8	0.3750	1.1/2	3.1/4	3/8	2	5110615
7/16	0.4375	1.3/4	3.3/4	1/2	2	5110616
1/2	0.5000	2"	4"	1/2	2	5110617
5/8	0.6250	2.1/2	4.5/8	5/8	2	5110618
3/4	0.7500	3"	5.1/4	3/4	2	5110619
1"	1.0000	4"	6.1/2	1"	2	5110620

982

- End Mill
- 2-flute, extra length

- Fraises de finition

- Fresas de acabado



982



■ 1.1 6.1 7.1 7.2 7.3 • 1.2 1.3 2.1 2.2 4.1 5.1 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.3/4	3.9/16	3/8	2	5110624
5/16	0.3125	2"	3.3/4	3/8	2	5110625
3/8	0.3750	2.1/2	4.1/4	3/8	2	5110626
1/2	0.5000	3"	5"	1/2	2	5110627
5/8	0.6250	4"	6.1/8	5/8	2	5110628
3/4	0.7500	4"	6.1/4	3/4	2	5110629
1"	1.0000	6"	8.1/2	1"	2	5110630

923

- End Mill
- 2-flute, regular length

- Fraises à rainurer

- Fresas Frontales



923



■ 1.1 1.2 • 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	2	5110364
5/32	0.1562	7/16	3.1/8	3/8	2	5110365
3/16	0.1875	7/16	3.1/4	3/8	2	5110366
7/32	0.2188	1/2	3.1/4	3/8	2	5110367
1/4	0.2500	1/2	3.3/8	3/8	2	5110368
9/32	0.2812	9/16	3.3/8	3/8	2	5110369
5/16	0.3125	9/16	3.1/2	3/8	2	5110370
11/32	0.3438	9/16	3.1/2	3/8	2	5110371
3/8	0.3750	9/16	3.1/2	3/8	2	5110372
13/32	0.4062	13/16	4.1/8	1/2	2	5110373
7/16	0.4375	13/16	4.1/8	1/2	2	5110374
15/32	0.4688	13/16	4.1/8	1/2	2	5110375
1/2	0.5000	13/16	4.1/8	1/2	2	5110376
9/16	0.5625	1.1/8	5"	5/8	2	5110377
5/8	0.6250	1.1/8	5"	5/8	2	5110378
11/16	0.6875	1.5/16	5.5/8	3/4	2	5110379
3/4	0.7500	1.5/16	5.5/8	3/4	2	5110380
13/16	0.8125	1.9/16	6.1/8	7/8	2	5110381
7/8	0.8750	1.9/16	6.1/8	7/8	2	5110382
15/16	0.9375	1.5/8	6.3/8	1"	2	5110383
1"	1.0000	1.5/8	6.3/8	1"	2	5110384

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

TN923 - 907

- End Mill
- 2-flute, regular length

- Fraises à rainurer

- Fresas Frontales



TN923



■ 1.1 1.2 • 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	2	5160364
5/32	0.1562	7/16	3.1/8	3/8	2	5160365
3/16	0.1875	7/16	3.1/4	3/8	2	5160366
7/32	0.2188	1/2	3.1/4	3/8	2	5160367
1/4	0.2500	1/2	3.3/8	3/8	2	5160368
9/32	0.2812	9/16	3.3/8	3/8	2	5160369
5/16	0.3125	9/16	3.1/2	3/8	2	5160370
11/32	0.3438	9/16	3.1/2	3/8	2	5160371
3/8	0.3750	9/16	3.1/2	3/8	2	5160372
13/32	0.4062	13/16	4.1/8	1/2	2	5160373
7/16	0.4375	13/16	4.1/8	1/2	2	5160374
15/32	0.4688	13/16	4.1/8	1/2	2	5160375
1/2	0.5000	13/16	4.1/8	1/2	2	5160376
9/16	0.5625	1.1/8	5"	5/8	2	5160377
5/8	0.6250	1.1/8	5"	5/8	2	5160378
11/16	0.6875	1.5/16	5.5/8	3/4	2	5160379
3/4	0.7500	1.5/16	5.5/8	3/4	2	5160380
7/8	0.8750	1.9/16	6.1/8	7/8	2	5160382
1"	1.0000	1.5/8	6.3/8	1"	2	5160384

- End Mill
- 2-flute, ball nose, double end, regular length

- Fraises de finition bout hémisphérique - Double

- Fresas con punta esferica - Doble final



907



■ 1.1 1.2 • 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

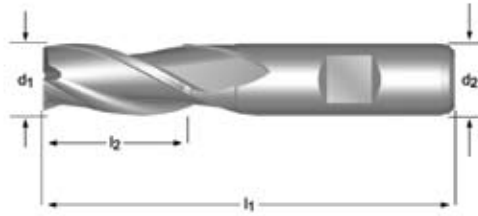
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	2	5110416
3/16	0.1875	7/16	3.1/4	3/8	2	5110417
1/4	0.2500	1/2	3.3/8	3/8	2	5110418
5/16	0.3125	9/16	3.1/2	3/8	2	5110419
3/8	0.3750	9/16	3.1/2	3/8	2	5110420
7/16	0.4375	13/16	4.1/8	1/2	2	5110421
1/2	0.5000	13/16	4.1/8	1/2	2	5110422
5/8	0.6250	1.1/8	5"	5/8	2	5110423
3/4	0.7500	1.5/16	5.5/8	3/4	2	5110424
1"	1.0000	1.5/8	6.3/8	1"	2	5110426

HSS
End
Mills

- End Mill
- 2-flute, regular length

- Fraises de finition

- Fresas de acabado



930



■	1.3	4.2	5.2	6.2	6.3	6.4													
●	1.2	1.4	1.5	2.2	3.2	3.3	3.4	4.1	4.3	5.3	7.3	7.4	8.2						

d_1 Ø Inch	d_1 decimal Inch	l_2 Inch	l_1 Inch	d_2 Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	3	5110221
3/16	0.1875	1/2	2.3/8	3/8	3	5110222
1/4	0.2500	5/8	2.7/16	3/8	3	5110223
5/16	0.3125	3/4	2.1/2	3/8	3	5110224
3/8	0.3750	3/4	2.1/2	3/8	3	5110225
7/16	0.4375	1"	2.11/16	3/8	3	5110226
1/2	0.5000	1"	2.11/16	3/8	3	5110227
1/2	0.5000	1.1/4	3.1/4	1/2	3	5110228
9/16	0.5625	1.3/8	3.3/8	1/2	3	5110229
5/8	0.6250	1.3/8	3.3/8	1/2	3	5110230
5/8	0.6250	1.5/8	3.3/4	5/8	3	5110232
3/4	0.7500	1.5/8	3.5/8	1/2	3	5110231
3/4	0.7500	1.5/8	3.3/4	5/8	3	5110233
3/4	0.7500	1.5/8	3.7/8	3/4	3	5110696
7/8	0.8750	1.7/8	4.1/8	3/4	3	5110697
1"	1.0000	1.7/8	4.1/8	3/4	3	5110698
1"	1.0000	1.7/8	4"	5/8	3	5110235
1"	1.0000	2"	4.1/2	1"	3	5110237
1.1/8	1.1250	2"	4.1/2	1"	3	5110238
1.1/4	1.2500	2"	4.1/2	1"	3	5110239
1.1/4	1.2500	2"	4.1/2	1.1/4	3	5110240
1.1/2	1.5000	2"	4.1/2	1.1/4	3	5110241
1.3/4	1.7500	2"	4.1/2	1.1/4	3	5110242
2"	2.0000	2"	4.1/2	1.1/4	3	5110243

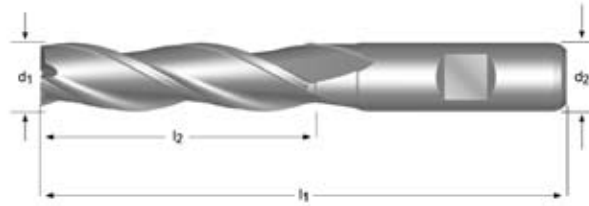
HSS
End
Mills

931

- End Mill
- 3-flute, long length

- Fraises de finition

- Fresas de acabado



931



- 1.2 1.3 4.1 5.1 6.1 6.2 6.3
- 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/16	3/8	3	5110244
5/16	0.3125	1.3/8	3.1/8	3/8	3	5110245
3/8	0.3750	1.1/2	3.1/4	3/8	3	5110246
7/16	0.4375	1.3/4	3.3/4	1/2	3	5110247
1/2	0.5000	2"	4"	1/2	3	5110248
5/8	0.6250	2.1/2	4.5/8	5/8	3	5110249
3/4	0.7500	3"	5.1/4	3/4	3	5110250
1"	1.0000	4"	6.1/2	1"	3	5110252

933

- End Mill
- 3-flute, regular length

- Fraises de finition

- Fresas de acabado



933



- 1.3 4.2 5.2 6.2 6.3 6.4
- 1.2 1.4 1.5 2.2 3.2 3.3 3.4 4.1 4.3 5.3 7.3 7.4 8.2

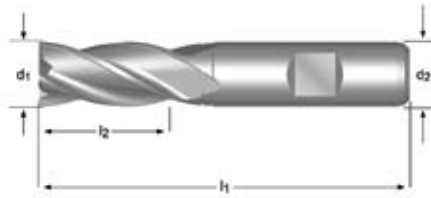
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	3	5110257
3/16	0.1875	1/2	3.1/4	3/8	3	5110258
1/4	0.2500	5/8	3.3/8	3/8	3	5110259
5/16	0.3125	3/4	3.1/2	3/8	3	5110260
3/8	0.3750	3/4	3.1/2	3/8	3	5110261
7/16	0.4375	1"	4.1/8	1/2	3	5110262
1/2	0.5000	1"	4.1/8	1/2	3	5110263
9/16	0.5625	1.3/8	5"	5/8	3	5110264
5/8	0.6250	1.3/8	5"	5/8	3	5110265
3/4	0.7500	1.5/8	5.5/8	3/4	3	5110266
1"	1.0000	1.7/8	6.3/8	1"	3	5110268

HSS
End
Mills

- End Mill
- Multi-flute, regular length

- Fraises de finition

- Fresas de acabado



940



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3				
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1	

d ₁ Ø Inch	d ₁ decimal Inch	l ₁ Inch	l ₂ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	2.5/16	3/8	3/8	4	5110001
3/16	0.1875	2.3/8	1/2	3/8	4	5110002
1/4	0.2500	2.7/16	5/8	3/8	4	5110003
5/16	0.3125	2.1/2	3/4	3/8	4	5110004
3/8	0.3750	2.1/2	3/4	3/8	4	5110005
7/16	0.4375	2.11/16	1"	3/8	4	5110006
1/2	0.5000	2.11/16	1"	3/8	4	5110007
1/2	0.5000	3.1/4	1.1/4	1/2	4	5110008
9/16	0.5625	3.3/8	1.3/8	1/2	4	5110009
5/8	0.6250	3.3/8	1.3/8	1/2	4	5110010
5/8	0.6250	3.3/4	1.5/8	5/8	4	5110013
11/16	0.6875	3.5/8	1.5/8	1/2	4	5110011
11/16	0.6875	3.3/4	1.5/8	5/8	4	5110014
3/4	0.7500	3.5/8	1.5/8	1/2	4	5110012
3/4	0.7500	3.3/4	1.5/8	5/8	4	5110015
3/4	0.7500	3.7/8	1.5/8	3/4	4	5110711
13/16	0.8125	4"	1.7/8	5/8	6	5110016
7/8	0.8750	4"	1.7/8	5/8	6	5110017
7/8	0.8750	4.1/8	1.7/8	3/4	4	5110712
7/8	0.8750	4.1/8	1.7/8	7/8	4	5110020
1"	1"	4"	1.7/8	5/8	6	5110019
1"	1"	4.1/8	1.7/8	3/4	4	5110713
1"	1"	4.1/8	1.7/8	7/8	4	5110022
1"	1"	4.1/2	2"	1"	4	5110025
1.1/8	1.1250	4"	1.3/4	3/4	6	5111720
1.1/8	1.1250	4.1/4	2"	7/8	6	5110023
1.1/8	1.1250	4.1/2	2"	1"	6	5110026
1.1/4	1.2500	4"	1.3/4	3/4	6	5111721
1.1/4	1.2500	4.1/4	2"	7/8	6	5110024
1.1/4	1.2500	4.1/2	2"	1"	6	5110027
1.1/4	1.2500	4.1/2	2"	1.1/4	6	5110030
1.3/8	1.3750	4.1/4	2"	3/4	6	5111722
1.3/8	1.3750	4.1/2	2"	1"	6	5110028
1.1/2	1.5000	4.1/4	2"	3/4	6	5111723
1.1/2	1.5000	4.1/2	2"	1"	6	5110029
1.1/2	1.5000	4.1/2	2"	1.1/4	6	5110031
1.3/4	1.7500	3.7/8	1.1/2	3/4	6	5111724
1.3/4	1.7500	4.1/2	2"	1.1/4	6	5110033
2"	2"	3.7/8	1.1/2	3/4	8	5111725
2"	2"	4.1/2	2"	1.1/4	8	5110035

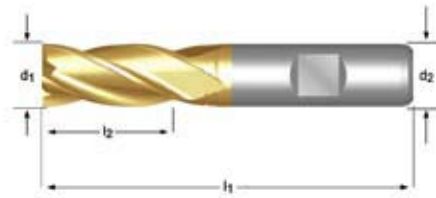
■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

TN940

- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



TN940



HSS

TiN

ANSI



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3				
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1	

d ₁ Ø Inch	d ₁ decimal Inch	l ₁ Inch	l ₂ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	2.5/16	3/8	3/8	4	5160001
3/16	0.1875	2.3/8	1/2	3/8	4	5160002
1/4	0.2500	2.7/16	5/8	3/8	4	5160003
5/16	0.3125	2.1/2	3/4	3/8	4	5160004
3/8	0.3750	2.1/2	3/4	3/8	4	5160005
7/16	0.4375	2.11/16	1"	3/8	4	5160006
1/2	0.5000	2.11/16	1"	3/8	4	5160007
1/2	0.5000	3.1/4	1.1/4	1/2	4	5160008
9/16	0.5625	3.3/8	1.3/8	1/2	4	5160009
5/8	0.6250	3.3/8	1.3/8	1/2	4	5160010
5/8	0.6250	3.3/4	1.5/8	5/8	4	5160013
11/16	0.6875	3.3/4	1.5/8	5/8	4	5160014
11/16	0.6875	3.5/8	1.5/8	1/2	4	5160011
3/4	0.7500	3.5/8	1.5/8	1/2	4	5160012
3/4	0.7500	3.3/4	1.5/8	5/8	4	5160015
3/4	0.7500	3.7/8	1.5/8	3/4	4	5160711
13/16	0.8125	4"	1.7/8	5/8	6	5160016
7/8	0.8750	4"	1.7/8	5/8	6	5160017
7/8	0.8750	4.1/8	1.7/8	7/8	4	5160020
7/8	0.8750	4.1/8	1.7/8	3/4	4	5160712
1"	1"	4.1/8	1.7/8	3/4	4	5160713
1"	1"	4.1/8	1.7/8	7/8	4	5160022
1"	1"	4"	1.7/8	5/8	6	5160019
1"	1"	4.1/2	2"	1"	4	5160025
1.1/8	1.1250	4.1/2	2"	1"	6	5160026
1.1/8	1.1250	4.1/4	2"	7/8	6	5160023
1.1/8	1.1250	4"	1.3/4	3/4	6	5161720
1.1/4	1.2500	4"	1.3/4	3/4	6	5161721
1.1/4	1.2500	4.1/4	2"	7/8	6	5160024
1.1/4	1.2500	4.1/2	2"	1"	6	5160027
1.1/4	1.2500	4.1/2	2"	1.1/4	6	5160030
1.3/8	1.3750	4.1/2	2"	1"	6	5160028
1.3/8	1.3750	4.1/4	2"	3/4	6	5161722
1.1/2	1.5000	4.1/4	2"	3/4	6	5161723
1.1/2	1.5000	4.1/2	2"	1"	6	5160029
1.1/2	1.5000	4.1/2	2"	1.1/4	6	5160031
1.3/4	1.7500	4.1/2	2"	1.1/4	6	5160033
1.3/4	1.7500	3.7/8	1.1/2	3/4	6	5161724
2"	2"	3.7/8	1.1/2	3/4	8	5161725
2"	2"	4.1/2	2"	1.1/4	8	5160035

HSS
End
Mills

941 - 944

- End Mill
- Multi-flute, long length

- Fraises de finition

- Fresas de acabado



941



■ 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3 • 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/16	3/8	4	5110044
5/16	0.3125	1.3/8	3.1/8	3/8	4	5110045
3/8	0.3750	1.1/2	3.1/4	3/8	4	5110046
7/16	0.4375	1.3/4	3.3/4	1/2	4	5110047
1/2	0.5000	2"	4"	1/2	4	5110048
5/8	0.6250	2.1/2	4.5/8	5/8	4	5110049
3/4	0.7500	3"	5.1/4	3/4	4	5110050
7/8	0.8750	3.1/2	5.3/4	7/8	4	5110051
1"	1.0000	4"	6.1/2	1"	4	5110052
1.1/8	1.1250	4"	6.1/2	1"	6	5110053
1.1/4	1.2500	4"	6.1/2	1"	6	5110054
1.1/4	1.2500	4"	6.1/2	1.1/4	6	5110057
1.1/2	1.5000	4"	6.1/2	1.1/4	6	5110058
1.1/2	1.5000	4"	6.1/2	1"	6	5110056
1.3/4	1.7500	4"	6.1/2	1.1/4	6	5110059
2"	2.0000	4"	6.1/2	1.1/4	6	5110060

- End Mill
- Multi-flute, extra length

- Fraises de finition

- Fresas de acabado



944



■ 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3
• 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.3/4	3.9/16	3/8	4	5110061
5/16	0.3125	2"	3.3/4	3/8	4	5110062
3/8	0.3750	2.1/2	4.1/4	3/8	4	5110063
1/2	0.5000	3"	5"	1/2	4	5110064
5/8	0.6250	4"	6.1/8	5/8	4	5110065
3/4	0.7500	4"	6.1/4	3/4	4	5110066
7/8	0.8750	5"	7.1/4	7/8	4	5110067
1"	1.0000	6"	8.1/2	1"	4	5110068
1.1/4	1.2500	6"	8.1/2	1.1/4	6	5110069
1.1/2	1.5000	6"	8.1/2	1.1/4	6	5110070

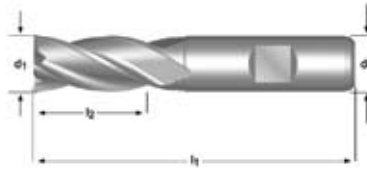
■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

945 - TN945

- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



945



- 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3
- 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	4	5110071
3/16	0.1875	1/2	2.3/8	3/8	4	5110072
1/4	0.2500	5/8	2.7/16	3/8	4	5110073
5/16	0.3125	3/4	2.1/2	3/8	4	5110074
3/8	0.3750	3/4	2.1/2	3/8	4	5110075
1/2	0.5000	1.1/4	3.1/4	1/2	4	5110076
5/8	0.6250	1.5/8	3.3/4	5/8	4	5110077
11/16	0.6875	1.5/8	3.3/4	5/8	4	5110078
3/4	0.7500	1.5/8	3.7/8	3/4	4	5110079
7/8	0.8750	1.7/8	4.1/8	7/8	4	5110080
1"	1.0000	2"	4.1/2	1"	4	5110081
1.1/8	1.1250	2"	4.1/2	1"	4	5110082
1.1/4	1.2500	2"	4.1/2	1.1/4	4	5110083
1.1/2	1.5000	2"	4.1/2	1.1/4	4	5110084

- End Mill
- 4-flute, regular length

- Fraises de finition

- Fresas de acabado



TN945



- 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3 • 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	2.5/16	3/8	4	5160071
3/16	0.1875	1/2	2.3/8	3/8	4	5160072
1/4	0.2500	5/8	2.7/16	3/8	4	5160073
5/16	0.3125	3/4	2.1/2	3/8	4	5160074
3/8	0.3750	3/4	2.1/2	3/8	4	5160075
1/2	0.5000	1.1/4	3.1/4	1/2	4	5160076
5/8	0.6250	1.5/8	3.3/4	5/8	4	5160077
11/16	0.6875	1.5/8	3.3/4	5/8	4	5160078
3/4	0.7500	1.5/8	3.7/8	3/4	4	5160079
7/8	0.8750	1.7/8	4.1/8	7/8	4	5160080
1"	1.0000	2"	4.1/2	1"	4	5160081
1.1/8	1.1250	2"	4.1/2	1"	4	5160082
1.1/4	1.2500	2"	4.1/2	1.1/4	4	5160083
1.1/2	1.5000	2"	4.1/2	1.1/4	4	5160084

HSS
End
Mills

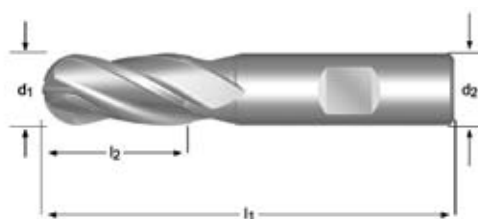
900

**UNION
BUTTERFIELD**

- End Mill
- 4-flute, regular length

• Fraises de finition

- Fresas de acabado



900



- 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3
- 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
3/8	0.3750	3/4	2.1/2	3/8	4	5110172
1/2	0.5000	1.1/4	3.1/4	1/2	4	5110173
5/8	0.6250	1.5/8	3.3/4	5/8	4	5110174
3/4	0.7500	1.5/8	3.7/8	3/4	4	5110175
7/8	0.8750	1.7/8	4.1/8	7/8	4	5110176
1"	1.0000	2"	4.1/2	1"	4	5110177
1.1/4	1.2500	2"	4.1/2	1.1/4	4	5110178
1.1/2	1.5000	2"	4.1/2	1.1/4	4	5110179

946

- End Mill
- 4-flute, long length

• Fraises de finition

- Fresas de acabado



946



- 1.1 1.2
- 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/16	3/8	4	5110085
5/16	0.3125	1.3/8	3.1/8	3/8	4	5110086
3/8	0.3750	1.1/2	3.1/4	3/8	4	5110087
1/2	0.5000	2"	4"	1/2	4	5110088
5/8	0.6250	2.1/2	4.5/8	5/8	4	5110089
3/4	0.7500	3"	5.1/4	3/4	4	5110090
7/8	0.8750	3.1/2	5.3/4	7/8	4	5110091
1"	1.0000	4"	6.1/2	1"	4	5110092
1.1/4	1.2500	4"	6.1/2	1.1/4	4	5110093

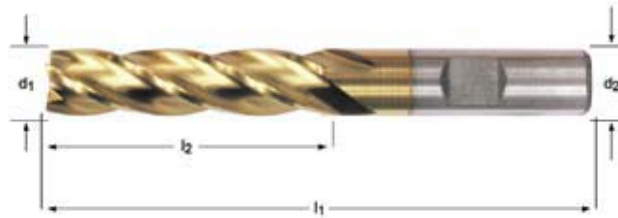
- = EXCELLENT FOR APPLICATION
- = GOOD FOR APPLICATION

TN946

- End Mill
- 4-flute, long length

- Fraises de finition

- Fresas de acabado



TN946



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3				
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1	

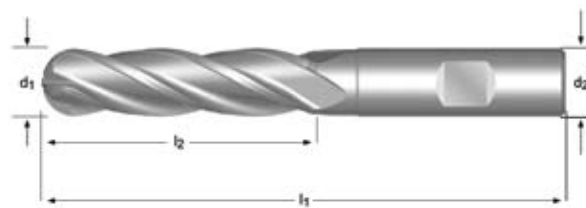
d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.1/4	3.1/16	3/8	4	5160085
5/16	0.3125	1.3/8	3.1/8	3/8	4	5160086
3/8	0.3750	1.1/2	3.1/4	3/8	4	5160087
1/2	0.5000	2"	4"	1/2	4	5160088
5/8	0.6250	2.1/2	4.5/8	5/8	4	5160089
3/4	0.7500	3"	5.1/4	3/4	4	5160090
7/8	0.8750	3.1/2	5.3/4	7/8	4	5160091
1"	1.0000	4"	6.1/2	1"	4	5160092
1.1/4	1.2500	4"	6.1/2	1.1/4	4	5160093

901

- End Mill
- 4-flute, ball nose, long length

- Fraises de finition bout hémisphérique

- Fresas con punta esferica



901



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3						
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.1	7.2	7.3	8.1		

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/2	0.5000	2"	4"	1/2	4	5110180
5/8	0.6250	2.1/2	4.5/8	5/8	4	5110181
3/4	0.7500	3"	5.1/4	3/4	4	5110182
1"	1.0000	4"	6.1/2	1"	4	5110183

HSS
End
Mills

947 - 943

**UNION
BUTTERFIELD**

- End Mill
- 4-flute, extra length

Fraises de finition

- Fresas de acabado



947



■ 1.1 1.2 • 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/4	0.2500	1.3/4	3.9/16	3/8	4	5110094
5/16	0.3125	2"	3.3/4	3/8	4	5110095
3/8	0.3750	2.1/2	4.1/4	3/8	4	5110096
1/2	0.5000	3"	5"	1/2	4	5110097
5/8	0.6250	4"	6.1/8	5/8	4	5110098
3/4	0.7500	4"	6.1/4	3/4	4	5110099
7/8	0.8750	5"	7.1/4	7/8	4	5110100
1"	1.0000	6"	8.1/2	1"	4	5110101
1.1/4	1.2500	6"	8.1/2	1.1/4	4	5110102

- End Mill
- 4-flute, double end, regular length

Fraises de finition - Double

- Fresas de acabado - Doble final



943



■ 1.1 1.2 1.3 4.1 5.1 6.1 6.2 6.3 • 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	4	5110186
5/32	0.1563	7/16	3.1/4	3/8	4	5110187
3/16	0.1875	1/2	3.1/4	3/8	4	5110188
7/32	0.2188	9/16	3.1/4	3/8	4	5110189
1/4	0.2500	5/8	3.3/8	3/8	4	5110190
9/32	0.2813	11/16	3.3/8	3/8	4	5110191
5/16	0.3125	3/4	3.1/2	3/8	4	5110192
11/32	0.3438	3/4	3.1/2	3/8	4	5110193
3/8	0.3750	3/4	3.1/2	3/8	4	5110194
13/32	0.4063	1"	4.1/8	1/2	4	5110195
7/16	0.4375	1"	4.1/8	1/2	4	5110196
15/32	0.4688	1"	4.1/8	1/2	4	5110197
1/2	0.5000	1"	4.1/8	1/2	4	5110198
9/16	0.5625	1.3/8	5"	5/8	4	5110199
5/8	0.6250	1.3/8	5"	5/8	4	5110200
11/16	0.6875	1.5/8	5.5/8	3/4	4	5110201
3/4	0.7500	1.5/8	5.5/8	3/4	4	5110202
13/16	0.8125	1.7/8	6.1/8	7/8	4	5110203
7/8	0.8750	1.7/8	6.1/8	7/8	4	5110204
15/16	0.9375	1.7/8	6.3/8	1"	4	5111043
1"	1.0000	1.7/8	6.3/8	1"	4	5110206

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

TN943

- End Mill
- 4-flute, double end, regular length

- Fraises de finition - Double

- Fresas de acabado - Doble final



TN943



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3				
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1	

d_1 Ø Inch	d_1 decimal Inch	l_2 Inch	l_1 Inch	d_2 Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	4	5160186
5/32	0.1563	7/16	3.1/4	3/8	4	5160187
3/16	0.1875	1/2	3.1/4	3/8	4	5160188
7/32	0.2188	9/16	3.1/4	3/8	4	5160189
1/4	0.2500	5/8	3.3/8	3/8	4	5160190
9/32	0.2813	11/16	3.3/8	3/8	4	5160191
5/16	0.3125	3/4	3.1/2	3/8	4	5160192
11/32	0.3438	3/4	3.1/2	3/8	4	5160193
3/8	0.3750	3/4	3.1/2	3/8	4	5160194
13/32	0.4063	1"	4.1/8	1/2	4	5160195
7/16	0.4375	1"	4.1/8	1/2	4	5160196
15/32	0.4688	1"	4.1/8	1/2	4	5160197
1/2	0.5000	1"	4.1/8	1/2	4	5160198
9/16	0.5625	1.3/8	5"	5/8	4	5160199
5/8	0.6250	1.3/8	5"	5/8	4	5160200
11/16	0.6875	1.5/8	5.5/8	3/4	4	5160201
3/4	0.7500	1.5/8	5.5/8	3/4	4	5160202
13/16	0.8125	1.7/8	6.1/8	7/8	4	5160203
7/8	0.8750	1.7/8	6.1/8	7/8	4	5160204
1"	1.0000	1.7/8	6.3/8	1"	4	5160206

- End Mill
- 4-flute, double end, regular length

- Fraises de finition - Double

- Fresas de acabado - Doble final



948



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3				
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1	

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	4	5110162
3/16	0.1875	1/2	3.1/4	3/8	4	5110163
1/4	0.2500	5/8	3.3/8	3/8	4	5110164
5/16	0.3125	3/4	3.1/2	3/8	4	5110165
3/8	0.3750	3/4	3.1/2	3/8	4	5110166
1/2	0.5000	1"	4.1/2	1/2	4	5110167
5/8	0.6250	1.3/8	5"	5/8	4	5110168
3/4	0.7500	1.5/8	5.5/8	3/4	4	5110169
7/8	0.8750	1.7/8	6.1/8	7/8	4	5110170
1"	1.0000	1.7/8	6.3/8	1"	4	5110171

TN948



TN948



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3				
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1	

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/8	0.1250	3/8	3.1/16	3/8	4	5160162
3/16	0.1875	1/2	3.1/4	3/8	4	5160163
1/4	0.2500	5/8	3.3/8	3/8	4	5160164
5/16	0.3125	3/4	3.1/2	3/8	4	5160165
3/8	0.3750	3/4	3.1/2	3/8	4	5160166
1/2	0.5000	1"	4.1/2	1/2	4	5160167
5/8	0.6250	1.3/8	5"	5/8	4	5160168
3/4	0.7500	1.5/8	5.5/8	3/4	4	5160169
7/8	0.8750	1.7/8	6.1/8	7/8	4	5160170
1"	1.0000	1.7/8	6.3/8	1"	4	5160171

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

911

- End Mill
- 2-flute, miniature, double end, regular length
- Fraises de finition - Double
- Fresas de acabado - Doble final



911



- 1.1 1.2
- 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/32	0.0313	3/32	2.1/4	3/16	2	5110714
3/64	0.0469	9/64	2.1/4	3/16	2	5110489
1/16	0.0625	3/16	2.1/4	3/16	2	5110490
5/64	0.0781	15/64	2.1/4	3/16	2	5110491
3/32	0.0938	9/32	2.1/4	3/16	2	5110492
7/64	0.1094	21/64	2.1/4	3/16	2	5110493
1/8	0.1250	3/8	2.1/4	3/16	2	5110494
9/64	0.1406	13/32	2.1/4	3/16	2	5110495
5/32	0.1563	7/16	2.1/4	3/16	2	5110496
11/64	0.1719	1/2	2.1/4	3/16	2	5110497
3/16	0.1875	1/2	2.1/4	3/16	2	5110498

917

- End Mill
- 4-flute, miniature, double end, regular length
- Fraises de finition - Double
- Fresas de acabado - Doble final



917



- 1.1 1.2
- 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/16	0.0625	3/16	2.1/4	3/16	4	5110537
3/32	0.0938	9/32	2.1/4	3/16	4	5110538
1/8	0.1250	3/8	2.1/4	3/16	4	5110539
5/32	0.1563	7/16	2.1/4	3/16	4	5110540
3/16	0.1875	1/2	2.1/4	3/16	4	5110541

HSS
End
Mills

- End Mill
- 4-flute, double end, miniature, long length

- Fraises de finition - Double

- Fresas de acabado - Doble final



919



- 1.1 1.2
- 1.3 3.1 3.2 3.3 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	EDP # or e-Code
1/16	0.0625	7/32	2.1/2	3/16	4	5110546
3/32	0.0938	9/32	2.5/8	3/16	4	5110547
1/8	0.1250	3/4	3.1/8	3/16	4	5110548
5/32	0.1563	7/8	3.1/4	3/16	4	5110549
3/16	0.1875	1"	3.3/8	3/16	4	5110550

883

- Corner Rounding Cutter

- Fraises concaves

- Fresas frontales de perfil cóncavo



883



- 1.1 1.2 1.3 1.4 2.1 2.2 3.1 3.2 3.3 3.4 4.1 4.2 5.1 5.2 6.1 6.2 6.3 7.1 7.2 7.3 7.4
- 1.5 1.6 2.3 2.4 4.3 5.3 6.4 10.1

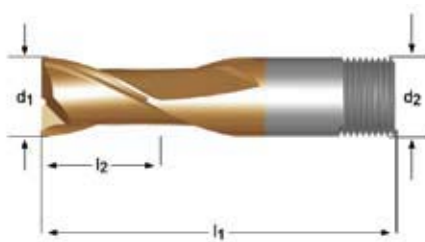
R Inch	d ₁ Ø Inch	d ₂ Ø Inch	l ₁ Inch	# Flutes	EDP # or e-Code
1/16	7/16	3/8	2.1/2	4	5110686
3/32	1/2	3/8	2.1/2	4	5110687
1/8	5/8	1/2	3"	4	5110688
5/32	3/4	1/2	3"	4	5110689
3/16	7/8	3/4	3.1/8	4	5110690
1/4	1.000	3/4	3.1/4	4	5110691
5/16	1.1/8	7/8	3.1/2	4	5110692
3/8	1.1/4	7/8	3.3/4	4	5110693
7/16	1.3/8	1"	4"	4	5110694
1/2	1.1/2	1"	4.1/8	4	5110695

HSS
End
Mills

- Slot Drill

- Fraises à rainurer

- Fresas Frontales



C191



N

HSCo

Bronze

BS
122/4

P9



DIN
1835 D


e8

 λ_{30°

■

1.1

1.2

4.1

5.1

6.1

6.2

6.3

1.3

1.4

2.1

3.1

3.2

3.3

3.4

4.2

5.2

7.1

7.2

7.3

8.1

d ₁ Ø Inch	d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code
	1.50	6.00	2.5	48.5	2	0412336	C1911.5
1/16	1.59	6.35 - 1/4	2.5	48.5	2	0412404	C1911/16 ¹⁾
5/64	1.98	6.35 - 1/4	2.5	49.0	2	0413043	C1915/64 ¹⁾
	2.00	6.00	3.0	49.0	2	0412626	C1912.0
3/32	2.38	6.35 - 1/4	4.5	51.0	2	0412886	C1913/32 ¹⁾
	2.50	6.00	4.5	51.0	2	0412633	C1912.5
7/64	2.78	6.35 - 1/4	6.5	51.0	2	0413128	C1917/64 ¹⁾
	3.00	6.00	7.0	51.0	2	0412824	C1913.0
1/8	3.18	6.35 - 1/4	7.0	51.0	2	0412572	C1911/8 ¹⁾
	3.50	6.00	7.5	52.5	2	0412831	C1913.5
9/64	3.57	6.35 - 1/4	9.5	52.5	2	0413203	C1919/64 ¹⁾
5/32	3.97	6.35 - 1/4	9.5	52.5	2	0413036	C1915/32 ¹⁾
	4.00	6.00	9.5	52.5	2	0412954	C1914.0
11/64	4.37	6.35 - 1/4	9.5	52.5	2	0412411	C19111/64 ¹⁾
	4.50	6.00	9.5	52.5	2	0412961	C1914.5
3/16	4.76	6.35 - 1/4	9.5	52.5	2	0412855	C1913/16 ¹⁾
	5.00	6.00	9.5	52.5	2	0412992	C1915.0
13/64	5.16	6.35 - 1/4	11.0	55.5	2	0412473	C19113/64 ¹⁾
	5.50	6.00	11.0	55.5	2	0413005	C1915.5
7/32	5.56	6.35 - 1/4	11.0	55.5	2	0413111	C1917/32 ¹⁾
15/64	5.95	6.35 - 1/4	11.0	56.5	2	0412527	C19115/64 ¹⁾
	6.00	6.00	11.0	56.5	2	0413067	C1916.0
1/4	6.35	6.35 - 1/4	11.0	56.5	2	0412480	C1911/4 ¹⁾
	6.50	10.00	11.0	58.5	2	0413074	C1916.5
17/64	6.75	9.53 - 3/8	11.0	59.5	2	0412565	C19117/64 ¹⁾
	7.00	10.00	11.0	58.5	2	0413081	C1917.0
9/32	7.14	9.53 - 3/8	11.0	58.5	2	0413197	C1919/32 ¹⁾
	7.50	10.00	11.0	58.5	2	0413098	C1917.5
19/64	7.54	9.53 - 3/8	12.5	58.5	2	0412619	C19119/64 ¹⁾
5/16	7.94	9.53 - 3/8	12.5	59.5	2	0413029	C1915/16 ¹⁾
	8.00	10.00	12.5	59.5	2	0413142	C1918.0
21/64	8.33	9.53 - 3/8	14.5	59.5	2	0412688	C19121/64 ¹⁾
	8.50	10.00	14.5	60.5	2	0413159	C1918.5
11/32	8.73	9.53 - 3/8	14.5	60.5	2	0412398	C19111/32 ¹⁾
	9.00	10.00	14.5	60.5	2	0413166	C1919.0
23/64	9.13	9.53 - 3/8	14.5	60.5	2	0412725	C19123/64 ¹⁾

• Slot Drill

• Fraises à rainurer

• Fresas Frontales

d ₁ Ø Inch	d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code
	9.50	10.00	14.5	60.5	2	0413173	C1919.5
3/8	9.53	9.53 - 3/8	14.5	60.5	2	0412930	C1913/8 ¹⁾
25/64	9.92	9.53 - 3/8	16.0	60.5	2	0412756	C19125/64 ¹⁾
	10.00	10.00	14.5	60.5	2	0412343	C19110.0
13/32	10.32	9.53 - 3/8	16.0	60.5	2	0412466	C19113/32 ¹⁾
	10.50	12.00	17.5	65.0	2	0412350	C19110.5
27/64	10.72	12.70 - 1/2	17.5	65.0	2	0412787	C19127/64 ¹⁾
	11.00	12.00	17.5	65.0	2	0412367	C19111.0
7/16	11.11	12.70 - 1/2	17.5	65.0	2	0413104	C1917/16 ¹⁾
	11.50	12.00	17.5	65.0	2	0412374	C19111.5
29/64	11.51	12.70 - 1/2	17.5	65.0	2	0412817	C19129/64 ¹⁾
	12.00	12.00	19.0	66.5	2	0412435	C19112.0
31/64	12.30	12.70 - 1/2	19.0	66.5	2	0412862	C19131/64 ¹⁾
1/2	12.70	12.70 - 1/2	19.0	66.5	2	0412428	C19111/2 ¹⁾
	13.00	12.00	19.0	66.5	2	0412442	C19113.0
17/32	13.49	12.70 - 1/2	22.0	68.5	2	0412558	C19117/32 ²⁾
	14.00	12.00	22.0	68.5	2	0412497	C19114.0
9/16	14.29	12.70 - 1/2	21.5	69.0	2	0413180	C1919/16 ²⁾
	15.00	16.00	22.0	72.0	2	0412503	C19115.0
19/32	15.08	15.88 - 5/8	22.0	72.0	2	0412602	C19119/32 ²⁾
5/8	15.88	15.88 - 5/8	22.0	72.0	2	0413050	C1915/8 ²⁾
	16.00	16.00	22.0	72.0	2	0412534	C19116.0
21/32	16.67	15.88 - 5/8	24.0	73.0	2	0412671	C19121/32 ²⁾
	17.00	16.00	24.0	74.0	2	0412541	C19117.0
11/16	17.46	15.88 - 5/8	24.0	74.0	2	0412381	C19111/16 ²⁾
	18.00	16.00	24.0	74.0	2	0412589	C19118.0
23/32	18.26	15.88 - 5/8	25.5	75.5	2	0412718	C19123/32 ²⁾
	19.00	16.00	25.5	77.0	2	0412596	C19119.0
3/4	19.05	15.88 - 5/8	25.5	77.0	2	0412893	C1913/4 ²⁾
	20.00	16.00	25.5	77.0	2	0412657	C19120.0
13/16	20.64	25.40 - 1	25.4	98.5	2	0412459	C19113/16 ²⁾
	21.00	25.00	25.5	98.5	2	0412664	C19121.0
	22.00	25.00	25.5	100.0	2	0412695	C19122.0
7/8	22.23	25.40 - 1	25.5	100.0	2	0413135	C1917/8 ²⁾
	23.00	25.00	25.5	101.5	2	0412701	C19123.0
15/16	23.81	25.40 - 1	25.5	103.0	2	0412510	C19115/16 ²⁾
	24.00	25.00	25.5	103.0	2	0412732	C19124.0
	25.00	25.00	27.0	95.0	2	0412749	C19125.0
1	25.40	25.40 - 1	27.0	95.0	2	0412237	C1911 ²⁾
	26.00	25.00	27.0	95.0	2	0412763	C19126.0
1.1/16	26.99	25.40 - 1	28.5	93.5	2	0412244	C1911.1/16 ²⁾
	27.00	25.00	28.5	93.5	2	0412770	C19127.0
	28.00	25.00	30.0	95.0	2	0412794	C19128.0
1.1/8	28.58	25.40 - 1	30.0	95.0	2	0412299	C1911.1/8 ²⁾
	29.00	25.00	30.0	93.5	2	0412800	C19129.0
	30.00	25.00	30.0	93.5	2	0412848	C19130.0
1.1/4	31.75	25.40 - 1	38.0	101.5	2	0412275	C1911.1/4X1 ²⁾
1.1/4	31.75	31.75 - 1.1/4	35.0	117.5	2	0412282	C1911.1/4X1.1/4 ²⁾
	32.00	25.00	38.0	101.5	2	0412879	C19132.0X25.0
	34.00	25.00	38.0	101.5	2	0412909	C19134.0X25.0
1.3/8	34.93	25.40 - 1	39.5	103.0	2	0412312	C1911.3/8X1 ²⁾
	35.00	25.00	39.5	103.0	2	0412916	C19135.0X25.0
	36.00	25.00	39.5	103.0	2	0412923	C19136.0X25.0
	38.00	25.00	43.0	106.5	2	0412947	C19138.0X25.0

¹⁾ diameter tolerance -.0005 inches / -.0013 inches / tolérance sur le diamètre -.0005 inches / -.0013 inches / Tolerancia diámetro -.0005 pulgadas / -.0013 pulgadas

²⁾ diameter tolerance -.0005 inches / -.0015 inches / tolérance sur le diamètre -.0005 inches / -.0015 inches / Tolerancia diámetro -.0005 pulgadas / -.0015 pulgadas

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

C191 - C192

• Slot Drill

• Fraises à rainurer

• Fresas Frontales

d ₁ Ø Inch	d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code
1.1/2	38.10	25.40 - 1	43.0	106.5	2	0412251	C1911.1/2X1 ²⁾
1.1/2	38.10	31.75 - 1.1/4	43.0	114.5	2	0412268	C1911.1/2X1.1/4 ²⁾
	40.00	25.00	46.0	111.0	2	0412978	C19140.0X25.0
1.5/8	41.28	25.40 - 1	47.5	112.5	2	0412329	C1911.5/8X1 ²⁾
1.3/4	44.45	25.40 - 1	51.0	116.0	2	0412305	C1911.3/4X1 ²⁾
	45.00	25.00	51.0	116.0	2	0412985	C19145.0X25.0
	50.00	32.00	51.0	117.5	2	0413012	C19150.0X32.0
2"	50.80	25.40 - 1	57.0	122.0	2	0412640	C1912X1 ²⁾

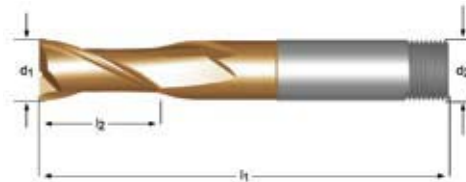
²⁾ diameter tolerance -.0005 inches / -.0015 inches / tolérance sur le diamètre -.0005 inches / -.0015 inches / Tolerancia diámetro -.0005 pulgadas / -.0015 pulgadas

C192

• Slot Drill

• Fraises à rainurer

• Fresas Frontales



C192



■	1.1	1.2	4.1	5.1	6.1	6.2	6.3						
●	1.3	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.1	7.2	7.3	8.1

d ₁ Ø Inch	d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flt	Stock No.	EDP # or e-Code
1/16	1.59	6.35 - 1/4	4.5	51.0	2	0413289	C1921/16 ¹⁾
	2.00	6.0	4.0	51.0	2	0413418	C1922.0
	3.00	6.0	11.0	60.5	2	0413487	C1923.0
1/8	3.18	6.35 - 1/4	11.0	63.5	2	0413388	C1921/8 ¹⁾
5/32	3.97	6.35 - 1/4	12.5	70.0	2	0413562	C1925/32 ¹⁾
	4.00	6.0	12.5	66.5	2	0413531	C1924.0
3/16	4.76	6.35 - 1/4	12.5	70.0	2	0413500	C1923/16 ¹⁾
	5.00	6.0	12.5	70.0	2	0413548	C1925.0
	6.00	6.0	16.0	76.0	2	0413586	C1926.0
1/4	6.35	6.35 - 1/4	16.0	76.0	2	0413333	C1921/4 ¹⁾
	6.50	10.0	16.0	76.0	2	0413593	C1926.5
	7.00	10.0	16.0	76.0	2	0413609	C1927.0
9/32	7.14	9.53 - 3/8	16.0	76.0	2	0413685	C1929/32 ¹⁾
	7.50	10.0	16.0	76.0	2	0413616	C1927.5
5/16	7.94	9.53 - 3/8	19.0	79.5	2	0413555	C1925/16 ¹⁾
	8.00	10.0	19.0	79.5	2	0413647	C1928.0
	8.50	10.0	22.0	82.5	2	0413654	C1928.5
11/32	8.73	9.53 - 3/8	22.0	82.5	2	0413272	C19211/32 ¹⁾
	9.00	10.0	22.0	82.5	2	0413661	C1929.0
3/8	9.53	9.53 - 3/8	22.0	82.5	2	0413524	C1923/8 ¹⁾
	10.00	10.0	22.0	82.5	2	0413258	C19210.0
13/32	10.32	9.53 - 3/8	22.2	89.0	2	0413326	C19213/32 ¹⁾
	11.00	12.0	22.0	89.0	2	0413265	C19211.0
7/16	11.11	12.7 - 1/2	22.0	89.0	2	0413623	C1927/16 ¹⁾

d ₁ Ø Inch	d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flt	Stock No.	EDP # or e-Code
	12.00	12.0	25.5	95.0	2	0413302	C19212.0
1/2	12.70	12.7 - 1/2	25.5	95.0	2	0413296	C1921/2 ¹⁾
	13.00	12.0	25.5	95.0	2	0413319	C19213.0
	14.00	12.0	28.5	101.5	2	0413340	C19214.0
9/16	14.29	12.7 - 1/2	28.5	101.5	2	0413678	C1929/16 ²⁾
	15.00	16.0	31.5	108.0	2	0413357	C19215.0
5/8	15.88	15.88 - 5/8	31.5	108.0	2	0413579	C1925/8 ²⁾
	16.00	16.0	31.5	108.0	2	0413364	C19216.0
	17.00	16.0	35.0	114.5	2	0413371	C19217.0
	18.00	16.0	35.0	114.5	2	0413395	C19218.0
	19.00	16.0	38.0	120.5	2	0413401	C19219.0
3/4	19.05	15.88 - 5/8	38.0	120.7	2	0413517	C1923/4 ²⁾
	20.00	16.0	38.0	120.5	2	0413425	C19220.0
	22.00	25.0	41.5	140.0	2	0413432	C19222.0
7/8	22.23	25.4 - 1	41.5	139.7	2	0413630	C1927/8 ²⁾
	24.00	25.0	41.5	152.5	2	0413449	C19224.0
	25.00	25.0	44.5	159.0	2	0413456	C19225.0
1"	25.40	25.4 - 1	44.5	159.0	2	0413210	C1921 ²⁾
	26.00	25.0	44.5	159.0	2	0413463	C19226.0
	28.00	25.0	47.5	159.0	2	0413470	C19228.0
	30.00	25.0	51.0	159.0	2	0413494	C19230.0
1.1/8	28.58	25.4 - 1	47.5	159.0	2	0413241	C1921.1/8 ²⁾

¹⁾ diameter tolerance -.0005 inches / -.0013 inches / tolérance sur le diamètre -.0005 inches / -.0013 inches / Tolerancia diámetro -.0005 pulgadas / -.0013 pulgadas

²⁾ diameter tolerance -.0005 inches / -.0015 inches / tolérance sur le diamètre -.0005 inches / -.0015 inches / Tolerancia diámetro -.0005 pulgadas / -.0015 pulgadas

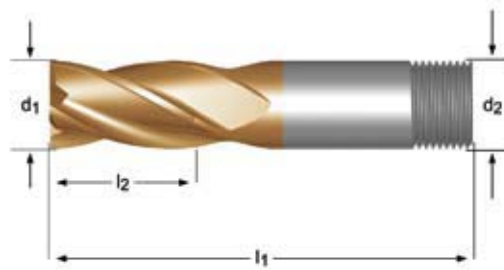
C291



• End Mill

• Fraises de finition

• Fresas de acabado



C291



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3				
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1	

d ₁ Ø Inch	d ₁ Ø mm	l ₂ mm	d ₂ Ø mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code
1/16	1.59	2.5	6.35 - 1/4	48.5	2	0413791	C2911/16 ¹⁾
	2.00	3.0	6.0	49.0	2	0413920	C2912.0 ¹⁾
3/32	2.38	6.5	6.35 - 1/4	51.0	4	0414095	C2913/32 ¹⁾
	2.50	6.5	6.0	51.0	4	0413937	C2912.5 ¹⁾
	3.00	9.5	6.0	54.0	4	0414040	C2913.0 ¹⁾
1/8	3.18	9.5	6.35 - 1/4	54.0	4	0413890	C2911/8 ¹⁾
	3.50	12.5	6.0	57.0	4	0414057	C2913.5 ¹⁾
5/32	3.97	12.5	6.35 - 1/4	57.0	4	0414255	C2915/32 ¹⁾
	4.00	12.5	6.0	57.0	4	0414163	C2914.0 ¹⁾
	4.50	12.5	6.0	57.0	4	0414170	C2914.5 ¹⁾
3/16	4.76	12.5	6.35 - 1/4	57.0	4	0414071	C2913/16 ¹⁾
	5.00	16.0	6.0	60.5	4	0414217	C2915.0 ¹⁾
	5.50	16.0	6.0	60.5	4	0414224	C2915.5 ¹⁾
	6.00	16.0	6.0	60.5	4	0414279	C2916.0 ¹⁾
1/4	6.35	16.0	6.35 - 1/4	60.5	4	0413845	C2911/4 ¹⁾
	6.50	16.0	10.0	60.5	4	0414286	C2916.5 ¹⁾
	7.00	15.0	10.0	60.5	4	0414293	C2917.0 ¹⁾
	7.50	18.0	10.0	63.5	4	0414309	C2917.5 ¹⁾
5/16	7.94	18.0	9.53 - 3/8	63.5	4	0414248	C2915/16 ¹⁾
	8.00	18.0	10.0	63.5	4	0414330	C2918.0 ¹⁾
	8.50	21.0	10.0	66.5	4	0414347	C2918.5 ¹⁾
	9.00	21.0	10.0	66.5	4	0414354	C2919.0 ¹⁾
	9.50	21.0	10.0	66.5	4	0414361	C2919.5 ¹⁾
3/8	9.53	21.0	9.53 - 3/8	66.5	4	0414149	C2913/8 ¹⁾
	10.00	21.0	10.0	66.5	4	0413760	C29110.0 ¹⁾
13/32	10.32	22.5	9.53 - 3/8	66.5	4	0413838	C29113/32 ¹⁾
	10.50	19.0	10.0	66.5	4	0413777	C29110.5 ¹⁾
	11.00	19.0	12.0	66.5	4	0413784	C29111.0 ¹⁾
7/16	11.11	19.0	12.7 - 1/2	66.5	4	0414316	C2917/16 ¹⁾
	12.00	24.0	12.0	70.0	4	0413814	C29112.0 ¹⁾
1/2	12.70	24.0	12.7 - 1/2	70.0	4	0413807	C2911/2 ¹⁾
	13.00	24.5	12.0	70.0	4	0413821	C29113.0 ¹⁾
	14.00	28.5	12.0	73.0	4	0413852	C29114.0 ¹⁾
9/16	14.29	28.5	12.7 - 1/2	73.0	4	0414378	C2919/16 ¹⁾
	15.00	26.5	16.0	77.0	4	0413869	C29115.0 ¹⁾
5/8	15.88	26.5	15.88 - 5/8	77.0	4	0414262	C2915/8 ¹⁾

¹⁾ diameter tolerance +.0025 inches / -.0005 inches / tolérance sur le diamètre +.0025 inches / -.0005 inches / Tolerancia diámetro + .0025 pulgadas / -.0005 pulgadas

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

d ₁ Ø Inch	d ₁ Ø mm	l ₂ mm	d ₂ Ø mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code	
	16.00	26.5	16.0	77.0	4	0413876	C29116.0	¹⁾
	17.00	32.0	16.0	80.0	4	0413883	C29117.0	¹⁾
	18.00	35.0	16.0	80.0	4	0413906	C29118.0	¹⁾
	19.00	38.0	16.0	83.5	4	0413913	C29119.0	¹⁾
3/4	19.05	38.0	15.88 - 5/8	83.5	4	0414101	C2913/4	¹⁾
	20.00	38.0	16.0	83.5	4	0413968	C29120.0	¹⁾
	21.00	38.0	25.0	95.0	6	0413975	C29121.0	¹⁾
	22.00	41.5	25.0	98.5	6	0413982	C29122.0	¹⁾
7/8	22.23	41.5	25.4 - 1	98.5	6	0414323	C2917/8	¹⁾
	23.00	41.5	25.0	98.5	6	0413999	C29123.0	¹⁾
	24.00	41.5	25.0	98.5	6	0414002	C29124.0	¹⁾
	25.00	44.5	25.0	101.5	6	0414019	C29125.0	¹⁾
1"	25.40	43.0	25.4 - 1	101.5	6	0413692	C2911	¹⁾
	26.00	43.0	25.0	101.5	6	0414026	C29126.0	¹⁾
	28.00	46.0	25.0	104.5	6	0414033	C29128.0	¹⁾
1.1/8	28.58	46.0	25.4 - 1	104.5	6	0413722	C2911.1/8	¹⁾
	30.00	46.0	25.0	104.5	6	0414064	C29130.0	¹⁾
1.1/4	31.75	49.0	25.4 - 1	108.0	6	0413715	C2911.1/4X1	¹⁾
	32.00	49.0	25.0	108.0	6	0414088	C29132.0X25.0	¹⁾
	34.00	49.0	25.0	108.0	6	0414118	C29134.0X25.0	¹⁾
1.3/8	34.93	52.5	25.4 - 1	111.0	6	0413746	C2911.3/8X1	¹⁾
	35.00	52.5	25.0	111.0	6	0414125	C29135.0X25.0	¹⁾
	36.00	52.5	25.0	111.0	6	0414132	C29136.0X25.0	¹⁾
	38.00	55.5	25.0	114.5	6	0414156	C29138.0X25.0	¹⁾
1.1/2	38.10	55.5	25.4 - 1	114.5	6	0413708	C2911.1/2X1	¹⁾
	40.00	58.5	25.0	117.5	8	0414187	C29140.0X25.0	²⁾
1.5/8	41.28	60.5	25.4 - 1	117.5	8	0413753	C2911.5/8X1	²⁾
	42.00	60.5	25.0	117.5	8	0414194	C29142.0X25.0	²⁾
1.3/4	44.45	63.5	25.4 - 1	120.5	8	0413739	C2911.3/4X1	²⁾
	45.00	63.5	25.0	120.5	8	0414200	C29145.0X25.0	²⁾
	50.00	65.0	32.0	127.0	8	0414231	C29150.0X32.0	²⁾
2"	50.80	70.0	25.4 - 1	127.0	8	0413944	C2912X1	²⁾
2"	50.80	65.0	31.75 - 1.1/4	127.0	8	0413951	C2912X1.1/4	²⁾

¹⁾ diameter tolerance +.0025 inches / -.0005 inches / tolérance sur le diamètre +.0025 inches / -.0005 inches / Tolerancia diámetro + .0025 pulgadas/ -.0005 pulgadas

²⁾ diameter tolerance +0.005 inches / 0 / tolérance sur le diamètre +.0005 inches / 0 / Tolerancia diámetro + 0.0055 pulgadas/ -.0

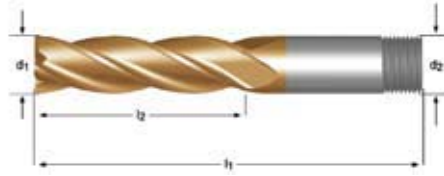
C292



• End Mill

• Fraises de finition

• Fresas de acabado



C292



■	1.1	1.2	1.3	4.1	5.1	6.1	6.2	6.3			
●	1.4	2.1	3.1	3.2	3.3	3.4	4.2	5.2	7.2	7.3	8.1

d ₁ Ø Inch	d ₁ Ø mm	l ₂ mm	d ₂ Ø mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code	
1/16	1.59	4.5	6.35 - 1/4	51.0	2	0414446	C2921/16	¹⁾
	3.00	19.0	6.0	63.5	4	0414606	C2923.0	¹⁾
1/8	3.18	19.0	6.35 - 1/4	63.5	4	0414538	C2921/8	¹⁾
	3.50	25.5	6.0	70.0	4	0414613	C2923.5	¹⁾
	4.00	25.5	6.0	70.0	4	0414675	C2924.0	¹⁾
	4.50	25.5	6.0	70.0	4	0414682	C2924.5	¹⁾
3/16	4.76	25.5	6.35 - 1/4	70.0	4	0414637	C2923/16	¹⁾
	5.00	31.5	6.0	76.0	4	0414699	C2925.0	¹⁾
	6.00	31.5	6.0	76.0	4	0414729	C2926.0	¹⁾
1/4	6.35	31.5	6.35 - 1/4	76.0	4	0414484	C2921/4	¹⁾
	7.00	34.0	10.0	79.5	4	0414736	C2927.0	¹⁾
9/32	7.14	34.0	9.53 - 3/8	79.5	4	0414798	C2929/32	¹⁾
5/16	7.94	34.0	9.53 - 3/8	79.5	4	0414705	C2925/16	¹⁾
	8.00	34.0	10.0	79.5	4	0414767	C2928.0	¹⁾
	9.00	37.0	10.0	82.5	4	0414774	C2929.0	¹⁾
3/8	9.53	37.0	9.53 - 3/8	82.5	4	0414668	C2923/8	¹⁾
	10.00	37.0	10.0	82.5	4	0414422	C29210.0	¹⁾
	11.00	41.5	12.0	89.0	4	0414439	C29211.0	¹⁾
7/16	11.11	41.5	12.7 - 1/2	89.0	4	0414743	C2927/16	¹⁾
	12.00	49.5	12.0	95.0	4	0414460	C29212.0	¹⁾
1/2	12.70	49.5	12.7 - 1/2	95.0	4	0414453	C2921/2	¹⁾
	13.00	50.0	12.0	95.0	4	0414477	C29213.0	¹⁾
	14.00	57.0	12.0	101.5	4	0414491	C29214.0	¹⁾
9/16	14.29	57.0	12.7 - 1/2	101.5	4	0414781	C2929/16	¹⁾
	15.00	58.5	16.0	108.5	4	0414507	C29215.0	¹⁾
5/8	15.88	58.5	15.88 - 5/8	108.5	4	0414712	C2925/8	¹⁾
	16.00	58.5	16.0	108.5	4	0414514	C29216.0	¹⁾
	17.00	67.0	16.0	115.0	4	0414521	C29217.0	¹⁾
	18.00	70.0	16.0	115.0	4	0414545	C29218.0	¹⁾
	19.00	76.0	16.0	121.5	4	0414552	C29219.0	¹⁾
3/4	19.05	76.0	15.88 - 5/8	121.5	4	0414651	C2923/4	¹⁾
	20.00	76.0	16.0	121.5	4	0414569	C29220.0	¹⁾
	22.00	85.5	25.0	143.0	6	0414576	C29222.0	¹⁾
7/8	22.23	85.5	25.4 - 1	143.0	6	0414750	C2927/8	¹⁾
	24.00	92.0	25.0	149.0	6	0414583	C29224.0	¹⁾
	25.00	100.0	25.0	157.0	6	0414590	C29225.0	¹⁾
1"	25.40	100.0	25.4 - 1	157.0	6	0414385	C2921	¹⁾
1.1/8	28.58	98.5	25.4 - 1	157.0	6	0414415	C2921.1/8	¹⁾
	30.00	98.5	25.0	157.0	6	0414620	C29230.0	¹⁾
1.1/4	31.75	100.0	25.4 - 1	159.0	6	0414408	C2921.1/4X1	¹⁾
	32.00	100.0	25.0	159.0	6	0414644	C29232.0X25.0	¹⁾
1.1/2	38.10	100.0	25.4 - 1	159.0	6	0414392	C2921.1/2X1	¹⁾

¹⁾ diameter tolerance +.0025 inches / -.0005 inches / tolérance sur le diamètre +.0025 inches / -.0005 inches / Tolerancia diámetro + .0025 pulgadas/ -.0005 pulgadas

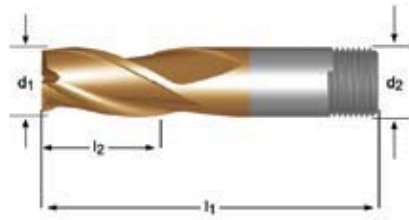
■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

C391

• Slot Drill

• Fraises à rainurer

• Fresas Frontales



C391



■ 1.2 1.3 4.1 5.1 6.1 6.2 6.3

• 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.2 7.3 8.1

d ₁ Ø Inch	d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flt	Stock No.	EDP # or e-Code
	6.00	6	16.0	60.5	3	0414934	C3916.0
1/4	6.35	6.35 - 1/4	16.0	60.5	3	0414842	C3911/4 ¹⁾
	8.00	10	18.0	63.5	3	0414958	C3918.0
3/8	9.53	9.53 - 3/8	21.0	66.5	3	0414910	C3913/8 ¹⁾
	10.00	10	21.0	66.5	3	0414811	C39110.0
	12.00	12	24.0	70.0	3	0414835	C39112.0
1/2	12.70	12.7 - 1/2	24.0	70.0	3	0414828	C3911/2 ¹⁾
	14.00	12	28.5	73.0	3	0414859	C39114.0

d ₁ Ø Inch	d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flt	Stock No.	EDP # or e-Code
5/8	15.88	15.88 - 5/8	27.0	77.0	3	0414927	C3915/8 ²⁾
	16.00	16	26.5	77.0	3	0414866	C39116.0
	18.00	16	33.0	80.0	3	0414873	C39118.0
3/4	19.05	15.88 - 5/8	38.0	83.5	3	0414903	C3913/4 ²⁾
	20.00	16	38.0	83.5	3	0414880	C39120.0
7/8	22.23	25.4 - 1.	35.0	98.5	3	0414941	C3917/8 ²⁾
	25.00	25	40.0	101.5	3	0414897	C39125.0
1"	25.40	25.4 - 1.	40.0	101.5	3	0414804	C3911 ²⁾

¹⁾ diameter tolerance -.0005 inches / -.0013 inches / tolérance sur le diamètre -.0005 inches / -.0013 inches / Tolerancia diámetro -.0005 pulgadas / -.0013 pulgadas

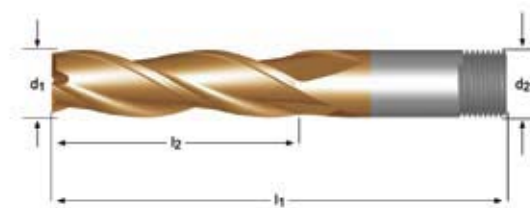
²⁾ diameter tolerance -.0005 inches / -.0015 inches / tolérance sur le diamètre -.0005 inches / -.0015 inches / Tolerancia diámetro -.0005 pulgadas / -.0015 pulgadas

C392

• Slot Drill

• Fraises à rainure

• Fresas Frontales



C392



■ 1.2 1.3 4.1 5.1 6.1 6.2 6.3

• 1.1 1.4 2.1 3.1 3.2 3.3 3.4 4.2 5.2 7.2 7.3 8.1

d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code
6.00	6	31.5	76.0	3	0415023	C3926.0
8.00	10	34.0	79.5	3	0415030	C3928.0
10.00	10	37.0	82.5	3	0414965	C39210.0
12.00	12	49.5	95.0	3	0414972	C39212.0

d ₁ Ø mm	d ₂ Ø mm	l ₂ mm	l ₁ mm	# Flutes	Stock No.	EDP # or e-Code
14.00	12	57.0	101.5	3	0414989	C39214.0
16.00	16	58.5	108.5	3	0414996	C39216.0
18.00	16	67.5	115.0	3	0415009	C39218.0
20.00	16	76.0	121.5	3	0415016	C39220.0

HSS
End
Mills

Style	Description	# of Flutes	Finish	Page No.
Reamers				
4533	Chucking, Straight Flute	4	Bright	443
4533S	Chucking Set, Straight Flute	N//A	Bright	446
4535	Chucking, Right-Hand Spiral	4	Bright	447
4543	Chucking, Left-Hand Spiral	4	Bright	448
4500	Hand Reamer, Straight Flute	Multi	Bright	449
4531	Chucking, Expansion	Multi	Bright	450
4587	Taper Pin, Straight Flute	Multi	Bright	451
4591	Taper Pin, Left-Hand Spiral	Multi	Bright	451
4588	Taper Pin, Left-Hand, High Spiral	Multi	Bright	452
4600	Taper Pipe, Left-Hand Spiral	Multi	Bright	452
4537	Chucking, R.H. Spiral, R.H. Cut	Multi	Bright	453
4536	Chucking, Straight Flute, R.H. Cut	Multi	Bright	454
4532	Chucking, Expansion	Multi	Bright	455
4579	Bridge, Spiral Flute, R.H. Cut	N//A	Bright	456
4608	Center, Straight Shank	N/A	Bright	456
SS300	Core Drill	3	Bright	457
SS400	Core Drill	4	Bright	457
T400	Core Drill	4	Surface Treated	458
Counterbores				
4702	Short, Straight Shank	N//A	Bright	459
4703	Short, Taper Shank	N//A	Bright	460
4706	Aircraft Short, Reduced Shank	N//A	Bright	461
4700	Long, Straight Shank	N//A	Bright	461
4705	Aircraft Long, Straight Shank	N//A	Bright	462
4704	Counterbore Pilots	N//A	Bright	463
Countersinks				
4602	60° and 82° Included Angles	4	Bright	464
4603	60°, 82°, 90° Included Angles	Single	Bright	465
G135	60° Included Angle	3	Bright	465
G136	90° Included Angle	3	Bright	466
G137	60° Included Angle	3	Bright	466
G138	90° Included Angle	3	Bright	467
G154	82° Included Angle	3	Bright	467
G155	82° Included Angle	3	Bright	467
Miscellaneous				
411	Drift Keys	N//A	Surface Treated	468
430	Drill Sleeves	N//A	Surface Treated	468
707, 727, 757	Tool Bit Blanks	N//A	N//A	468
1800, 1815, 1816	Screw Extractor Sets	N//A	Bright	468
1900	Cutting Oil	N//A	N//A	468

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 82 C : C is the Alpha Code) .
2. Find the closest diameter for your cutting application on the chart to find your IPR.

Reamers

Alpha Code	Reamers - Feed in Inches per Revolution										Ø Diameter		
	1/16	5/64	1/8	3/16	5/16	25/64	1/2	5/8	25/32	1"	1-13/16	1-1/2	2"
A	0.002	0.002	0.003	0.004	0.006	0.007	0.007	0.009	0.010	0.011	0.013	0.015	0.017
B	0.002	0.003	0.004	0.006	0.007	0.008	0.009	0.011	0.012	0.014	0.016	0.020	0.022
C	0.003	0.003	0.005	0.007	0.009	0.010	0.011	0.013	0.015	0.017	0.019	0.024	0.027
D	0.031	0.004	0.006	0.008	0.011	0.013	0.014	0.016	0.019	0.021	0.024	0.029	0.033
E	0.004	0.006	0.007	0.010	0.014	0.015	0.017	0.020	0.021	0.025	0.030	0.036	1.043
F	0.006	0.007	0.010	0.014	0.017	0.020	0.022	0.025	0.028	0.031	0.037	1.047	1.059

Alpha Code	Reamers - Feed in MM per Revolution										Ø Diameter		
	1.5	2	3	5	8	10	12	16	20	25	30	40	50
A	0.045	0.055	0.078	0.100	0.150	0.170	0.185	0.220	0.250	0.280	0.320	0.390	0.440
B	0.055	0.072	0.110	0.150	0.180	0.210	0.240	0.280	0.310	0.360	0.400	0.500	0.550
C	0.065	0.085	0.135	0.185	0.220	0.260	0.285	0.335	0.390	0.440	0.480	0.600	0.680
D	0.080	0.110	0.160	0.200	0.270	0.320	0.360	0.410	0.470	0.540	0.600	0.730	0.850
E	0.100	0.140	0.180	0.250	0.350	0.390	0.430	0.500	0.530	0.640	0.750	0.910	1.100
F	0.140	0.180	0.260	0.350	0.440	0.500	0.550	0.630	0.700	0.800	0.930	1.200	1.500
mm/REV ± 15%													

How To Use This Chart to Find Cutting Feed Rate (IPR):

1. Find your Alpha Code on the AMG Chart (example: 82 C : C is the Alpha Code) .
2. Find the closest diameter for your cutting application on the chart to find your IPR.

Countersinks, Counterbores

Alpha Code	Countersinks, Counterbores - Feed in Inches per Revolution										Ø Diameter
	1/4	5/16	5/64	5/8	25/32	1"	1-1/4	1-1/2	2-3/8	3"	
A	0.001	0.002	0.002	0.002	0.003	0.004	0.004	0.005	0.006	0.006	
B	0.002	0.002	0.002	0.003	0.004	0.005	0.006	0.006	0.007	0.008	
C	0.002	0.002	0.003	0.004	0.005	0.006	0.006	0.007	0.008	0.009	
D	0.002	0.003	0.004	0.005	0.006	0.007	0.008	0.009	0.010	0.011	
E	0.003	0.004	0.005	0.006	0.007	0.008	0.010	0.011	0.012	0.013	
F	0.004	0.004	0.005	0.006	0.007	0.008	0.010	0.011	0.013	0.014	
G	0.004	0.005	0.006	0.007	0.008	0.009	0.011	0.013	0.014	0.016	
H	0.005	0.006	0.007	0.008	0.009	0.010	0.012	0.014	0.016	0.018	

Alpha Code	Countersinks, Counterbores - Feed in MM per Revolution										Ø Diameter
	6	8	10	16	20	25	32	40	60	80	
A	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.12	0.14	0.16	
B	0.04	0.05	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	
C	0.05	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	
D	0.06	0.08	0.10	0.12	0.15	0.18	0.20	0.22	0.25	0.28	
E	0.08	0.10	0.12	0.15	0.18	0.20	0.25	0.27	0.30	0.32	
F	0.09	0.11	0.13	0.16	0.19	0.21	0.26	0.29	0.33	0.36	
G	0.10	0.12	0.15	0.18	0.20	0.22	0.28	0.32	0.36	0.40	
H	0.12	0.15	0.18	0.20	0.22	0.25	0.30	0.35	0.40	0.45	

Reamers

Reamers, Counterbores

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
- 4 To calculate IPR, refer to chart on page 438-439.

example:

82 C

82 = SFM

C = Alpha Code to find your Feed Rate

■ = Excellent for Application

● = Good for Application

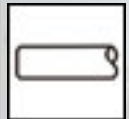


Countersink Application

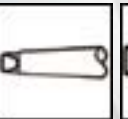


Counterbore Application

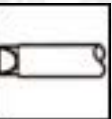
Icon Guide for Reamers, Counterbores and Countersinks



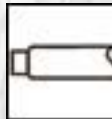
Straight Shank



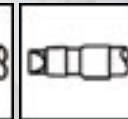
Taper Shank



Shank with Tang



Shank with Square End



Square Shank

Style:

Material:

4533 4535 4543 4500

HSS HSS HSS HSS

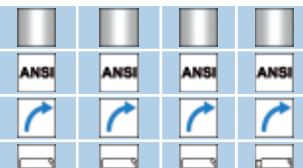


Coating:

Standard:

Direction of Cut:

Shank:



Reamers

Page # for easy reference

Application Material Groups (AMG)

Hardness HB

Surface Feet per Minute (SFM)

						443	447	448	449
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■82C	■82C	■82C	■82C	■82C
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■66C	■66C	■66C	■66C	■66C
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■52C	■52C	■52C	■52C	■52C
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4	■49B	■49B	■49B	■49B	■49B
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5	●30B	●30B	●30B	●30B	●30B
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6	●16A	●16A	●16A	●16A	●16A
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7					
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8					
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	■36C	■36C	■36C	■36C	■36C
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	●20B	●20B	●20B	●20B	●20B
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	●26B	●26B	●26B	●26B	●26B
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4	●20B	●20B	●20B	●20B	●20B
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●52E	●52E	●52E	●52E	●52E
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●49D	●49D	●49D	●49D	●49D
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●43C	●43C	●43C	●43C	●43C
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●36C	●36C	●36C	●36C	●36C
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	●49C	●49C	●49C	●49C	●49C
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	●30B	●30B	●30B	●30B	●30B
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	●16B	●16B	●16B	●16B	●16B
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	■26D	■26D	■26D	■26D	■26D
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	●16C	●16C	●16C	●16C	●16C
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3	●10C	●10C	●10C	●10C	●10C
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	●82D	●82D	●82D	●82D	●82D
	6.2 β-Brass, Bronze	314-340, 350-370	<200	6.2	●92E	●92E	●92E	●92E	●92E
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	●82D	●82D	●82D	●82D	●82D
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	●46D	●46D	●46D	●46D	●46D
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1					
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2					
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3					
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4					
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1					
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2					
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3					
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1					
10. Graphite	10.1 Standard graphite		---	10.1					

Reamers and Counterbores

	4531	4587	4591	4588	4600	4537	4536	4532	4579	4608	SS300 SS400	T400	4702 Short	4703 Short	4706 Short	4700, 4705 Long	
	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	HSS	
																	
																Counterbore Pilot, 4704, Page 463	
Reamers/Counterbores																	
																	
																	
																	
	Surface Feet per Minute (SFM)																
	450	451	451	452	452	453	454	455	456	456	457	458	459	460	461	461	
1.1	82C	59C	59C	59C	59C	82C	82C	82C	59C	98F	75C	75F	82C	82C	82C	82C	
1.2	66C	46C	46C	46C	46C	66C	66C	66C	46C	82E	46C	46F	66C	66C	66C	66C	
1.3	52C	36C	36C	36C	36C	52C	52C	52C	36C	66D	49C	49F	52C	52C	52C	52C	
1.4	49B	33B	33B	33B	33B	49B	49B	49B	33B	49D	49B	49D	49B	49B	49B	49B	
1.5	30B	16B	16B	16B	16B	30B	30B	30B	16B	33B	36B	36D	30B	30B	30B	30B	
1.6	16A	13A	13A	13A	13A	16A	16A	16A	13A	20A			16A	16A	16A	16A	
1.7																	
1.8																	
2.1	36C	26C	26C	26C	26C	36C	36C	36C	26C	26C	66C	66F	36C	36C	36C	36C	
2.2	20B	16B			16B	20B	20B	20B	16B	20B	39B	39D	20B	20B	20B	20B	
2.3	26B	20B			20B	26B	26B	26B	20B	13A	39B	39D	26B	26B	26B	26B	
2.4	20B				20B	20B	20B	20B		13A							
3.1	52E	46E	46E	46E	46E	52E	52E	52E	46E	82F	108E	108E	52E	52E	52E	52E	
3.2	49D	36D	36D	36D	36D	49D	49D	49D	36D	49D	59D	59H	49D	49D	49D	49D	
3.3	43C	33C	33C	33C	33C	43C	43C	43C	33C	39C	59C	59F	43C	43C	43C	43C	
3.4	36C	30C	30C	30C	30C	36C	36C	36C	30C	26C			36C	36C	36C	36C	
4.1	49C	36C	36C	36C	36C	49C	49C	49C	36C	39C	69C	69F	49C	49C	49C	49C	
4.2	30B	16B	16B	16B	16B	30B	30B	30B	16B	33A	36B	36D	30B	30B	30B	30B	
4.3	16B	13B	13B	13B	13B	16B	16B	16B	13B	26A			16B	16B	16B	16B	
5.1	26D	16D	16D	16D	16D	26D	26D	26D	16D	39C	49D	49D	26D	26D	26D	26D	
5.2	16C					16C	16C	16C		20B			16C	16C	16C	16C	
5.3	10C					10C	10C	10C		13A			10C	10C	10C	10C	
6.1	82D	59D	59D	59D	59D	82D	82D	82D	59D	82D			82D	82D	82D	82D	
6.2	92E	66E	66E	66E	66E	92E	92E	92E	66E	66F			92E	92E	92E	92E	
6.3	82D	59D	59D	59D	59D	82D	82D	82D	59D	82F			82D	82D	82D	82D	
6.4	46D	36D	36D	36D	36D	46D	46D	46D	36D	33D			46D	46D	46D	46D	
7.1		75F	75F	75F	75F				75F	98G							
7.2		59F	59F	59F	59F				59F	82F							
7.3		49E			49E				49E	66F							
7.4		46D			46D				46D	33F							
8.1										98G							
8.2		69B	69B	69B	69B				69B	66G							
8.3																	
9.1																	
10.1																	

Counterbore Pilot,
4704, Page 463

Countersinks

How To Use This AMG Chart:

- 1 Determine your Workpiece Material. Select Material from the AMG Chart below.
- 2 Use the icons to find other Product Features.
- 3 Find the Surface Feet Per Minute (SFM) and Alpha Code.
- 4 To calculate IPR, refer to chart on page 438-439.

example:

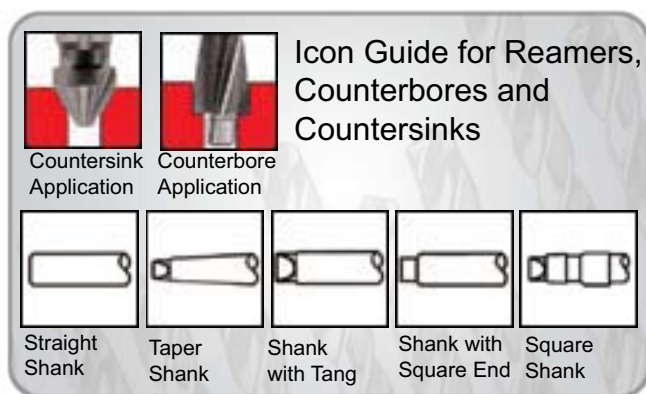
82 C

82 = SFM

C = Alpha Code to find your Feed Rate

■ = Excellent for Application

● = Good for Application



Style:

Material:



Coating:

Standard:

Direction of Cut:

Application:

Shank:

Countersinks

Page # for easy reference

Application Material Groups (AMG)

Hardness HB

Surface Feet per Minute (SFM)

				464	465	465	467
1. Steel	1.1 Magnetic soft steel	12L14, 12L15	<120	1.1	■98F	■98F	■98F
	1.2 Structural Steel/ case carburising steel	1005-1025, 1214, 1215, A36	<200	1.2	■82E	■82E	■82E
	1.3 Plain Carbon steel	1030-1060, 1050-1060, 1144-1146	<250	1.3	■66D	■66D	■66D
	1.4 Alloy steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	<250	1.4	■49D	■49D	■49D
	1.5 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>250<350	1.5	■33B	■33B	■33B
	1.6 Alloy steel/ Hardened and tempered steel	4140, 4340, 52100, 8620 H11-H41, A2, D2, 01, P20, 420	>350	1.6	●20A	●20A	●20A
	1.7 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	49-55HRC	1.7			
	1.8 Alloy steel Hardened	A2-D2, H10-H41, L1-L6, M1-M42, T1	55-63HRC	1.8			
2. Stainless Steel	2.1 Free machining Stainless Steel	200, 303, 416, 420F, 430F, 440	<250	2.1	●26C	●26C	●26C
	2.2 Austenitic	301, 302, 304, 316, 321, 330, CUSTOM 455, AM-350	<250	2.2	●20B	●20B	●20B
	2.3 Ferritic + Austenitic, Martensitic	318-329, 400-446, 15-4PH, 17-4PH, DUPLEX	<300	2.3	●13A	●13A	●13A
	2.4 Precipitation Hardened	15-5PH, Custom 450 17-4PH	<300	2.4			
3. Cast Iron	3.1 Lamellar graphite	Grey, G10, Gg40, J431C, A48 CLASS 20	<150	3.1	●82F	●82F	●82F
	3.2 Lamellar graphite	Grey, GG25-Gg40, J158, A48 CLASS 40-60	>150<300	3.2	●49D	●49D	●49D
	3.3 Nodular graphite/ Malleable Cast Iron	A220, A436, A439, A602, Black, GGG40-GGG70	<200	3.3	●39C	●39C	●39C
	3.4 Nodular graphite/ Malleable Cast Iron	Black Gts/Gtw, J434C	>200<300	3.4	●26C	●26C	●26C
4. Titanium	4.1 Titanium, unalloyed	Commercially Pure	<200	4.1	■39C	■39C	■39C
	4.2 Titanium, alloyed	6A14V, 6A14V-2Sn, Monel, Monel K	<270	4.2	■33A	■33A	■33A
	4.3 Titanium, alloyed	6A14V-4Mo, 7A14V-4Mo, 4911-4967	>270<350	4.3	■26A	■26A	■26A
5. Nickel	5.1 Nickel, unalloyed	Commercially Pure, 17644, 200, 5553	<150	5.1	■39C	■39C	■39C
	5.2 Nickel, alloyed	Monel 400, Hastelloy C, Inconel 625, Waspaloy	<270	5.2	■20B	■20B	■20B
	5.3 Nickel, alloyed	Inconel 718, Nimonic 75-95, Rene 41, Inconel 825, A286	>270<350	5.3	■13A	■13A	■13A
6. Copper	6.1 Copper	Commercially Pure	<100	6.1	■82D	■82D	■82D
	6.2 B-Brass, Bronze	314-340, 350-370	<200	6.2	■66F	■66F	■66F
	6.3 α-Brass	Alloyed Cu + Al + Fe, Long Chipping	<200	6.3	■82F	■82F	■82F
	6.4 High Strength Bronze	Ampco 18-25	<470	6.4	■33D	■33D	■33D
7. Aluminium Magnesium	7.1 Al, Mg, unalloyed	Commercially Pure	<100	7.1	●98G	●98G	●98G
	7.2 Al alloyed, Si<0.5%	6061 T6, 7075, 314-340	<150	7.2	●82F	●82F	●82F
	7.3 Al alloyed, Si>0.5%<10%	6061 T6, 380-390	<120	7.3	●66F	●66F	●66F
	7.4 Al alloyed, Si>10% Mg alloys	Magnesium Whisker Reinforced	<120	7.4	●33F	●33F	●33F
8. Synthetic Materials	8.1 Thermoplastics	Ultramid, Polystrol	---	8.1	●98G	●98G	●98G
	8.2 Thermosetting plastics	Bakelit, Pertinax	---	8.2	●66G	●66G	●66G
	8.3 Reinforced plastic materials	CFK, GFKAFK	---	8.3			
9. Hard Mat.	9.1 Cermets (Metal-ceramics)	Ferrotic	<550	9.1			
10. Graphite	10.1 Standard graphite		---	10.1			

**UNION
BUTTERFIELD**

- Escariadores de máquina



HSS ANSI  

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
60	0.0400	0.0390	1/2	2.1/2	4	5010173
59	0.0410	0.0390	1/2	2.1/2	4	5010175
58	0.0420	0.0390	1/2	2.1/2	4	5010177
57	0.0430	0.0390	1/2	2.1/2	4	5010179
56	0.0465	0.0455	1/2	2.1/2	4	5010186
3/64	0.0469	0.0455	1/2	2.1/2	4	5010187
55	0.0520	0.0510	1/2	2.1/2	4	5010198
54	0.0550	0.0510	1/2	2.1/2	4	5010204
53	0.0595	0.0585	1/2	2.1/2	4	5010213
1/16	0.0625	0.0585	1/2	2.1/2	4	5010219
52	0.0635	0.0585	1/2	2.1/2	4	5010221
51	0.0670	0.0660	3/4	3"	4	5010228
50	0.0700	0.0660	3/4	3"	4	5010234
49	0.0730	0.0660	3/4	3"	4	5010240
48	0.0760	0.0720	3/4	3"	4	5010246
5/64	0.0781	0.0720	3/4	3"	4	5010251
47	0.0785	0.0720	3/4	3"	4	5010252
46	0.0810	0.0771	3/4	3"	4	5010257
45	0.0820	0.0771	3/4	3"	4	5010259
44	0.0860	0.0810	3/4	3"	4	5010267
43	0.0890	0.0810	3/4	3"	4	5010273
42	0.0935	0.0880	3/4	3"	4	5010282
3/32	0.0938	0.0880	3/4	3"	4	5010283
41	0.0960	0.0928	7/8	3.1/2	4	5010288
40	0.0980	0.0928	7/8	3.1/2	4	5010292
39	0.0995	0.0928	7/8	3.1/2	4	5010295
38	0.1015	0.0950	7/8	3.1/2	4	5010299
37	0.1040	0.0950	7/8	3.1/2	4	5010304
36	0.1065	0.1030	7/8	3.1/2	4	5010309
7/64	0.1094	0.1030	7/8	3.1/2	4	5010316
35	0.1100	0.1030	7/8	3.1/2	4	5010318
34	0.1110	0.1055	7/8	3.1/2	4	5010320
33	0.1130	0.1055	7/8	3.1/2	4	5010324
32	0.1160	0.1120	7/8	3.1/2	4	5010330
31	0.1200	0.1120	7/8	3.1/2	4	5010338
0.1230	0.1230	0.1120	7/8	3.1/2	4	5010344

Reamers,
C'Bores,
C' Sinks,
Misc

d₁ Ø Inch	d₁ decimal Inch	d₂ Ø Inch	l₂ Inch	l₁ Inch	# Flutes	EDP #
0.1240	0.1240	0.1190	7/8	3.1/2	4	5010346
0.1247	0.1247	0.1190	7/8	3.1/2	4	5010349
1/8	0.1250	0.1190	7/8	3.1/2	4	5010350
0.1260	0.1260	0.1190	7/8	3.1/2	4	5010354
30	0.1285	0.1190	7/8	3.1/2	4	5010359
29	0.1360	0.1275	1"	4"	4	5010374
28	0.1400	0.1350	1"	4"	4	5010383
9/64	0.1410	0.1350	1"	4"	4	5010384
27	0.1440	0.1350	1"	4"	4	5010391
26	0.1470	0.1430	1"	4"	4	5010397
25	0.1495	0.1430	1"	4"	4	5010402
24	0.1520	0.1460	1"	4"	4	5010407
23	0.1540	0.1460	1"	4"	4	5010411
5/32	0.1562	0.1510	1"	4"	6	5010416
22	0.1570	0.1510	1"	4"	6	5010418
21	0.1590	0.1530	1.1/8	4.1/2	6	5010422
20	0.1610	0.1530	1.1/8	4.1/2	6	5010426
19	0.1660	0.1595	1.1/8	4.1/2	6	5010436
18	0.1695	0.1595	1.1/8	4.1/2	6	5010443
11/64	0.1719	0.1645	1.1/8	4.1/2	6	5010448
17	0.1730	0.1645	1.1/8	4.1/2	6	5010451
16	0.1770	0.1700	1.1/8	4.1/2	6	5010459
15	0.1800	0.1755	1.1/8	4.1/2	6	5010465
14	0.1820	0.1755	1.1/8	4.1/2	6	5010469
13	0.1850	0.1800	1.1/8	4.1/2	6	5010475
0.1855	0.1855	0.1800	1.1/8	4.1/2	6	5010476
0.1865	0.1865	0.1800	1.1/8	4.1/2	6	5010478
0.1870	0.1870	0.1800	1.1/8	4.1/2	6	5010479
3/16	0.1875	0.1800	1.1/8	4.1/2	6	5010480
0.1885	0.1885	0.1800	1.1/8	4.1/2	6	5010482
12	0.1890	0.1800	1.1/8	4.1/2	6	5010483
11	0.1910	0.1860	1.1/4	5"	6	5010487
10	0.1935	0.1860	1.1/4	5"	6	5010492
9	0.1960	0.1895	1.1/4	5"	6	5010498
8	0.1990	0.1895	1.1/4	5"	6	5010504
7	0.2010	0.1945	1.1/4	5"	6	5010508
13/64	0.2031	0.1945	1.1/4	5"	6	5010513
6	0.2040	0.1945	1.1/4	5"	6	5010515
5	0.2055	0.2016	1.1/4	5"	6	5010518
4	0.2090	0.2016	1.1/4	5"	6	5010525
3	0.2130	0.2075	1.1/4	5"	6	5010533
7/32	0.2188	0.2075	1.1/4	5"	6	5010545
2	0.2210	0.2173	1.1/2	6"	6	5010550
1	0.2280	0.2173	1.1/2	6"	6	5010564
A	0.2340	0.2265	1.1/2	6"	6	5010576
15/64	0.2344	0.2265	1.1/2	6"	6	5010577
B	0.2380	0.2329	1.1/2	6"	6	5010585
C	0.2420	0.2329	1.1/2	6"	6	5010593
D	0.2460	0.2329	1.1/2	6"	6	5010602
0.2480	0.2480	0.2329	1.1/2	6"	6	5010606
0.2490	0.2490	0.2400	1.1/2	6"	6	5010608
0.2495	0.2495	0.2400	1.1/2	6"	6	5010609
1/4	0.2500	0.2400	1.1/2	6"	6	5010610
E	0.2500	0.2400	1.1/2	6"	6	5011202
0.2510	0.2510	0.2400	1.1/2	6"	6	5010612
F	0.2570	0.2485	1.1/2	6"	6	5010619
G	0.2610	0.2485	1.1/2	6"	6	5010622
17/64	0.2656	0.2485	1.1/2	6"	6	5010623

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
H	0.2660	0.2485	1.1/2	6"	6	5010624
I	0.2720	0.2485	1.1/2	6"	6	5010626
J	0.2770	0.2485	1.1/2	6"	6	5010627
K	0.2810	0.2485	1.1/2	6"	6	5010628
9/32	0.2812	0.2485	1.1/2	6"	6	5010629
L	0.2900	0.2792	1.1/2	6"	6	5010630
M	0.2950	0.2792	1.1/2	6"	6	5010631
19/64	0.2969	0.2792	1.1/2	6"	6	5010632
N	0.3020	0.2792	1.1/2	6"	6	5010633
0.3100	0.3100	0.2792	1.1/2	6"	6	5010636
0.3115	0.3115	0.2792	1.1/2	6"	6	5010638
0.3120	0.3120	0.2792	1.1/2	6"	6	5010639
5/16	0.3125	0.2792	1.1/2	6"	6	5010640
0.3135	0.3135	0.2792	1.1/2	6"	6	5010642
O	0.3160	0.2792	1.1/2	6"	6	5010645
P	0.3230	0.2792	1.1/2	6"	6	5010647
21/64	0.3281	0.2792	1.1/2	6"	6	5010648
Q	0.3320	0.2792	1.1/2	6"	6	5010649
R	0.3390	0.2792	1.1/2	6"	6	5010650
11/32	0.3438	0.2792	1.1/2	6"	6	5010651
S	0.3480	0.3105	1.3/4	7"	6	5010652
T	0.3580	0.3105	1.3/4	7"	6	5010653
23/64	0.3594	0.3105	1.3/4	7"	6	5010654
U	0.3680	0.3105	1.3/4	7"	6	5010655
0.3730	0.3730	0.3105	1.3/4	7"	6	5010658
0.3740	0.3740	0.3105	1.3/4	7"	6	5010659
0.3745	0.3745	0.3105	1.3/4	7"	6	5010660
3/8	0.3750	0.3105	1.3/4	7"	6	5010661
0.3760	0.3760	0.3105	1.3/4	7"	6	5010662
V	0.3770	0.3105	1.3/4	7"	6	5010663
W	0.3860	0.3105	1.3/4	7"	6	5010665
25/64	0.3910	0.3105	1.3/4	7"	6	5010666
X	0.3970	0.3105	1.3/4	7"	6	5010667
Y	0.4040	0.3105	1.3/4	7"	6	5010668
13/32	0.4062	0.3105	1.3/4	7"	6	5010670
Z	0.4130	0.3730	1.3/4	7"	6	5010671
27/64	0.4219	0.3730	1.3/4	7"	6	5010672
0.4355	0.4355	0.3730	1.3/4	7"	6	5010673
0.4365	0.4365	0.3730	1.3/4	7"	6	5010674
0.4370	0.4370	0.3730	1.3/4	7"	6	5010675
7/16	0.4375	0.3730	1.3/4	7"	6	5010676
0.4385	0.4385	0.3730	1.3/4	7"	6	5010677
29/64	0.4531	0.3730	1.3/4	7"	6	5010678
15/32	0.4688	0.3730	1.3/4	7"	6	5010679
31/64	0.4844	0.4355	2"	8"	6	5010680
0.4980	0.4980	0.4355	2"	8"	6	5010681
0.4990	0.4990	0.4355	2"	8"	6	5010682
0.4995	0.4995	0.4355	2"	8"	6	5010683
1/2	0.5000	0.4355	2"	8"	6	5010684
0.5010	0.5010	0.4355	2"	8"	6	5010685
33/64	0.5156	0.4355	2"	8"	6	5010690
17/32	0.5312	0.4355	2"	8"	6	5010691
35/64	0.5469	0.4355	2"	8"	8	5010692
9/16	0.5625	0.4355	2"	8"	8	5010693
37/64	0.5781	0.4355	2"	8"	8	5010694
19/32	0.5938	0.4355	2"	8"	8	5010695
39/64	0.6094	0.5620	2.1/4	9"	8	5010696
5/8	0.6250	0.5620	2.1/4	9"	8	5010698

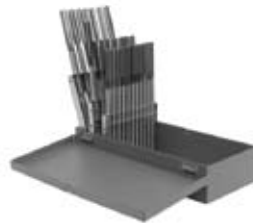
■ = EXCELLENT FOR APPLICATION
 ● = GOOD FOR APPLICATION

4533

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
41/64	0.6410	0.5620	2.1/4	9"	8	5010700
21/32	0.6562	0.5620	2.1/4	9"	8	5010701
43/64	0.6719	0.5620	2.1/4	9"	8	5010702
11/16	0.6875	0.5620	2.1/4	9"	8	5010703
45/64	0.7031	0.5620	2.1/4	9"	8	5010704
23/32	0.7188	0.5620	2.1/4	9"	8	5010705
47/64	0.7344	0.6245	2.1/2	9.1/2	8	5010706
3/4	0.7500	0.6245	2.1/2	9.1/2	8	5010708
49/64	0.7656	0.6245	2.1/2	9.1/2	8	5010710
25/32	0.7812	0.6245	2.1/2	9.1/2	8	5010711
51/64	0.7969	0.6245	2.1/2	9.1/2	8	5010712
13/16	0.8125	0.6245	2.1/2	9.1/2	8	5010713
53/64	0.8281	0.6245	2.1/2	9.1/2	8	5010714
27/32	0.8438	0.6245	2.1/2	9.1/2	8	5010715
55/64	0.8594	0.7495	2.5/8	10"	8	5010716
7/8	0.8750	0.7495	2.5/8	10"	8	5010717
57/64	0.8910	0.7495	2.5/8	10"	8	5010718
29/32	0.9062	0.7495	2.5/8	10"	8	5010719
59/64	0.9219	0.7495	2.5/8	10"	8	5010720
15/16	0.9375	0.7495	2.5/8	10"	8	5010721
61/64	0.9531	0.7495	2.5/8	10"	8	5010722
31/32	0.9688	0.7495	2.5/8	10"	8	5010723
63/64	0.9844	0.8745	2.3/4	10.1/2	8	5010724
1"	1.0000	0.8745	2.3/4	10.1/2	8	5010725
1.1/16	1.0625	0.8745	2.3/4	10.1/2	8	5010726
1.1/8	1.1250	0.8745	2.7/8	11"	10	5010727
1.3/16	1.1875	0.9995	2.7/8	11"	10	5010728
1.1/4	1.2500	0.9995	3"	11.1/2	10	5010729
1.5/16	1.3125	0.9995	3"	11.1/2	10	5010103
1.3/8	1.3750	0.9995	3.1/4	12"	10	5010731
1.7/16	1.4375	1.2495	3.1/4	12"	10	5010105
1.1/2	1.5000	1.2495	3.1/2	12.1/2	10	5010733

4533S

- Chucking Reamer Sets In Steel Cases
- Coffret d'alésoirs machine
- Juego de escariador de máquina en acero cementado



4533S



Type	Style	# in Set	Sizes	EDP #
50	4533	29	1/16-1/2 x 64ths	5011089
51	4533	14	1/8-1/2 x 16ths, decimal 0.001" over and 0.001" under	5011090
52	4533	60	N1 - N60	5011091
53	4533	26	A - Z	5011092

**UNION
BUTTERFIELD**

- Escariadores de máquina



HSS ANSI

● 1.5 1.6 2.2 2.3 2.4 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
1/16	0.0625	0.0585	1/2	2.1/2	4	5010054
5/64	0.0781	0.0720	3/4	3"	4	5010055
3/32	0.0938	0.0880	3/4	3"	4	5010056
7/64	0.1094	0.1030	7/8	3.1/2	4	5010057
1/8	0.1250	0.1190	7/8	3.1/2	4	5010058
9/64	0.1410	0.1350	1"	4"	4	5010059
5/32	0.1562	0.1510	1"	4"	6	5010060
11/64	0.1719	0.1645	1.1/8	4.1/2	6	5010061
3/16	0.1875	0.1800	1.1/8	4.1/2	6	5010062
13/64	0.2031	0.1945	1.1/4	5"	6	5010063
7/32	0.2188	0.2075	1.1/4	5"	6	5010064
15/64	0.2344	0.2265	1.1/2	6"	6	5010065
1/4	0.2500	0.2400	1.1/2	6"	6	5010066
17/64	0.2656	0.2485	1.1/2	6"	6	5010067
9/32	0.2812	0.2485	1.1/2	6"	6	5010068
19/64	0.2969	0.2792	1.1/2	6"	6	5010069
5/16	0.3125	0.2792	1.1/2	6"	6	5010070
21/64	0.3281	0.2792	1.1/2	6"	6	5010071
11/32	0.3438	0.2792	1.1/2	6"	6	5010072
23/64	0.3594	0.3105	1.3/4	7"	6	5010073
3/8	0.3750	0.3105	1.3/4	7"	6	5010074
25/64	0.3910	0.3105	1.3/4	7"	6	5010075
13/32	0.4062	0.3105	1.3/4	7"	6	5010076
27/64	0.4219	0.3730	1.3/4	7"	6	5010077
7/16	0.4375	0.3730	1.3/4	7"	6	5010078
29/64	0.4531	0.3730	1.3/4	7"	6	5010079
15/32	0.4688	0.3730	1.3/4	7"	6	5010080
31/64	0.4844	0.4355	2"	8"	6	5010081
1/2	0.5000	0.4355	2"	8"	6	5010082
17/32	0.5312	0.4355	2"	8"	6	5010083
9/16	0.5625	0.4355	2"	8"	8	5010084
19/32	0.5938	0.4355	2"	8"	8	5010085
5/8	0.6250	0.5620	2.1/4	9"	8	5010086
21/32	0.6562	0.5620	2.1/4	9"	8	5010087
11/16	0.6875	0.5620	2.1/4	9"	8	5010088
23/32	0.7188	0.5620	2.1/4	9"	8	5010089

447

Reamers,
C'Bores,
C' Sinks,
Misc

4535

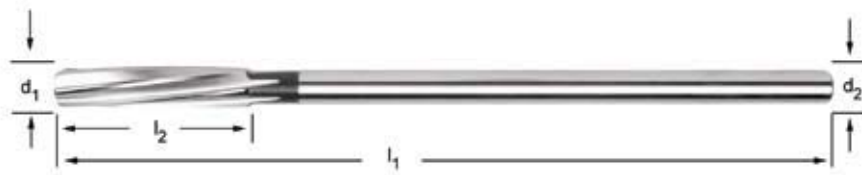
d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
3/4	0.7500	0.6245	2.1/2	9.1/2	8	5010090
25/32	0.7812	0.6245	2.1/2	9.1/2	8	5010091
13/16	0.8125	0.6245	2.1/2	9.1/2	8	5010092
27/32	0.8438	0.6245	2.1/2	9.1/2	8	5010093
7/8	0.8750	0.7495	2.5/8	10"	8	5010094
29/32	0.9062	0.7495	2.5/8	10"	8	5010095
15/16	0.9375	0.7495	2.5/8	10"	8	5010096
31/32	0.9688	0.7495	2.5/8	10"	8	5010097
1"	1.0000	0.8745	2.3/4	10.1/2	8	5010098
1.1/16	1.0625	0.8745	2.3/4	10.1/2	8	5010099
1.1/8	1.1250	0.8745	2.7/8	11"	10	5010100
1.3/16	1.1875	0.9995	2.7/8	11"	10	5010101
1.1/4	1.2500	0.9995	3"	11.1/2	10	5010102
1.3/8	1.3750	0.9995	3.1/4	12"	10	5010104
1.1/2	1.5000	1.2495	3.1/2	12.1/2	10	5010106

4543

- Chucking Reamer
- Left Hand Spiral Flute

- Alésoirs machine LH hélicoïdaux

- Escariadores de máquina estrias en espiral LH



4543

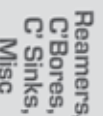


- 1.1 1.2 1.3 1.4 2.1 4.2 5.1
- 1.5 1.6 2.2 2.3 2.4 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
1/16	0.0625	0.0585	1/2	2.1/2	4	5010001
3/32	0.0938	0.0880	3/4	3"	4	5010003
1/8	0.1250	0.1190	7/8	3.1/2	4	5010005
5/32	0.1562	0.1510	1"	4"	6	5010007
3/16	0.1875	0.1800	1.1/8	4.1/2	6	5010009
7/32	0.2188	0.2075	1.1/4	5"	6	5010011
1/4	0.2500	0.2400	1.1/2	6"	6	5010013
9/32	0.2812	0.2485	1.1/2	6"	6	5010015
5/16	0.3125	0.2792	1.1/2	6"	6	5010017
11/32	0.3438	0.2792	1.1/2	6"	6	5010019
3/8	0.3750	0.3100	1.3/4	7"	6	5010021
13/32	0.4062	0.3100	1.3/4	7"	6	5010023
7/16	0.4375	0.3730	1.3/4	7"	6	5010025
15/32	0.4688	0.3730	1.3/4	7"	6	5010027
1/2	0.5000	0.4355	2"	8"	6	5010029

**UNION
BUTTERFIELD**

- Escariador de mano



- Chucking Reamer, Expansion

- Alésoirs machine

- Escariadores de máquina



4531



- 1.1 1.2 1.3 1.4 2.1 4.2 5.1

1.5 1.6 2.2 2.3 2.4 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	d ₁ decimal Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
3/8	0.3750	5/16	3/4	7"	6	5011204
13/32	0.4062	5/16	3/4	7"	6	5011205
7/16	0.4375	3/8	7/8	7"	6	5010778
15/32	0.4687	3/8	7/8	7"	6	5010779
1/2	0.5000	7/16	1"	8"	6	5010780
17/32	0.5312	7/16	1"	8"	6	5010781
9/16	0.5625	7/16	1.1/8	8"	6	5010782
19/32	0.5938	7/16	1.1/8	8"	6	5010783
5/8	0.6250	9/16	1.1/4	9"	6	5010784
21/32	0.6562	9/16	1.1/4	9"	6	5010785
11/16	0.6875	9/16	1.1/4	9"	6	5010786
23/32	0.7188	9/16	1.1/4	9"	6	5010787
3/4	0.7500	5/8	1.3/8	9.1/2	6	5010788
25/32	0.7812	5/8	1.3/8	9.1/2	6	5010789
13/16	0.8125	5/8	1.3/8	9.1/2	6	5010790
27/32	0.8438	5/8	1.3/8	9.1/2	6	5010791
7/8	0.8750	3/4	1.1/2	10"	6	5010792
29/32	0.9062	3/4	1.1/2	10"	6	5010793
15/16	0.9375	3/4	1.1/2	10"	6	5010794
31/32	0.9688	3/4	1.1/2	10"	6	5010795
1"	1.0000	7/8	1.1/8	10.1/2	8	5010796
1.1/32	1.0312	7/8	1.5/8	10.1/2	8	5010797
1.1/16	1.0625	7/8	1.5/8	10.1/2	8	5010798
1.3/32	1.0937	7/8	1.5/8	10.1/2	8	5010799
1.1/8	1.1250	7/8	1.3/4	11"	8	5010800
1.5/32	1.1562	7/8	1.3/4	11"	8	5010801
1.3/16	1.1875	1"	1.3/4	11"	8	5010802
1.7/32	1.2187	1"	1.3/4	11"	8	5010803
1.1/4	1.2500	1"	1.7/8	11.1/2	8	5010804
1.5/16	1.3125	1"	1.7/8	11.1/2	8	5010805
1.3/8	1.3750	1"	2"	12"	8	5010806
1.7/16	1.4375	1.1/4	2"	12"	10	5010807
1.1/2	1.5000	1.1/4	2.1/8	12.1/2	10	5010808
1.9/16	1.5625	1.1/4	2.1/8	12.1/2	10	5010809
1.5/8	1.6250	1.1/4	2.1/4	13"	10	5010810
1.11/16	1.6875	1.1/4	2.1/4	13"	10	5010811
1.3/4	1.7500	1.1/4	2.3/8	13.1/2	10	5010812
1.13/16	1.8125	1.1/2	2.3/8	13.1/2	10	5010813
1.7/8	1.8750	1.1/2	2.1/2	14"	12	5010814
1.15/16	1.9375	1.1/2	2.1/2	14"	12	5010815
2"	2.0000	1.1/2	2.1/2	14"	12	5010816

**UNION
BUTTERFIELD**

-
- A schematic diagram of a tapered shaft. The shaft has a diameter d_1 at the left end and a diameter d at the right end. The length of the tapered section is labeled l_2 , and the total length of the shaft is labeled l_1 .

HSS ANSI

nom Ø	d _{small} Ø Inch	d _{large} Ø Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
0	0.1287	0.1638	11/64	1.11/16	2.15/16	6	5011129
1	0.1447	0.1798	3/16	1.11/16	2.15/16	6	5011130
2	0.1600	0.201	13/64	1.15/16	3.3/16	6	5011131
3	0.1813	0.2294	15/64	2.5/16	3.11/16	6	5011132
4	0.2071	0.2600	17/64	2.9/16	4.1/16	6	5011133
5	0.2410	0.2994	5/16	2.13/16	4.5/16	6	5011134
6	0.2773	0.354	23/64	3.11/16	5.7/16	6	5011135
7	0.3297	0.422	13/32	4.7/16	6.5/16	6	5011136
8	0.3971	0.505	7/16	5.3/16	7.3/16	6	5011137
9	0.4800	0.6066	9/16	6.1/16	8.5/16	8	5011138
10	0.5799	0.7216	5/8	6.13/16	9.5/16	8	5011139

HSS ANSI

nom Ø	d _{small} Ø Inch	d _{large} Ø Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
0	0.1287	0.1638	11/64	1.11/16	2.15/16	6	5011146
1	0.1447	0.1798	3/16	1.11/16	2.15/16	6	5011147
2	0.1600	0.201	13/64	1.15/16	3.3/16	6	5011148
3	0.1813	0.2294	15/64	2.5/16	3.11/16	6	5011149
4	0.2071	0.2600	17/64	2.9/16	4.1/16	6	5011150
5	0.2410	0.2994	5/16	2.13/16	4.5/16	6	5011151
6	0.2773	0.354	23/64	3.11/16	5.7/16	6	5011152
7	0.3297	0.422	13/32	4.7/16	6.5/16	6	5011153
8	0.3971	0.505	7/16	5.3/16	7.3/16	6	5011154
9	0.4800	0.6066	9/16	6.1/16	8.5/16	8	5011155
10	0.5799	0.7216	5/8	6.13/16	9.5/16	8	5011156

Reamers,
C'Bores,
C' Sinks,
Misc

4588 - 4600

- Taper Pin Reamer, Left Hand Spiral Flute
- (Taper: 1/4" per foot)

- Alésoir machine cône morse conique

- Escariadores para pasadores cónicos



4588



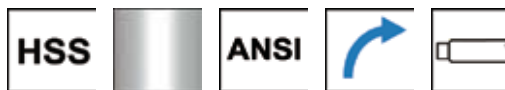
- 1.1 1.2 1.3 1.4 2.1 3.1 4.1 6.2
- 1.5 1.6 3.2 3.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1 6.3 6.4 7.1 7.2 8.2

nom Ø	d _{small} Ø Inch	d _{large} Ø Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
7/0	0.0497	0.0666	5/64	13/16	1.13/16	2	5011157
6/0	0.0611	0.0810	3/32	15/16	1.15/16	2	5011158
5/0	0.0719	0.0966	7/64	1.3/16	2.3/16	2	5011159
4/0	0.0869	0.1142	1/8	1.5/16	2.5/16	2	5011160
3/0	0.1029	0.1300	9/64	1.5/16	5.5/16	2	5011161
2/0	0.1137	0.1462	5/32	1.9/16	2.9/16	3	5011162
0	0.1287	0.1638	11/64	1.11/16	5.15/16	3	5011163
1	0.1447	0.1798	3/16	1.11/16	2.15/16	3	5011164
2	0.1600	0.2010	13/64	1.15/16	3.3/16	3	5011165
3	0.1813	0.2294	15/64	2.5/16	3.11/16	3	5011166
4	0.2071	0.2600	17/64	2.9/16	4.1/16	3	5011167
5	0.2410	0.2994	5/16	2.13/16	4.5/16	3	5011168
6	0.2773	0.3540	23/64	3.11/16	5.7/16	3	5011169
7	0.3297	0.4220	13/32	4.7/16	6.5/16	3	5011170
8	0.3971	0.5050	7/16	5.3/16	7.3/16	3	5011171
9	0.4800	0.6066	9/16	6.1/16	8.5/16	4	5011172
10	0.5799	0.7216	5/8	6.13/16	9.5/16	4	5011173

- Taper Pipe Reamer, Left Hand Spiral Flute
- (Taper: 3/4" per foot)



4600



- 1.1 1.2 1.3 1.4 2.1 3.1 4.1 6.2
- 1.5 1.6 2.2 2.3 2.4 3.2 3.3 3.4 4.2 4.3
- 5.1 5.2 5.3 6.1 6.3 6.4 7.1 7.2 7.3 7.4 8.2

nom Ø Inch	d _{small} Ø Inch	d _{large} Ø Inch	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	□ Square Size mm	# Flutes	EDP #
1/8	0.3160	0.3620	0.4375	3/4	2.1/8	0.3280	6	1810007
1/4	0.4060	0.4720	0.5625	1.1/16	2.7/16	0.4210	6	1810008
3/8	0.5400	0.6060	0.7000	1.1/16	2.9/16	0.5310	8	1810009
1/2	0.6650	0.7510	0.6875	1.3/8	3.1/8	0.5150	8	1810010
3/4	0.8760	0.9620	0.9063	1.3/8	3.1/4	0.6790	10	1810011
1"	1.1030	1.2120	1.1250	1.3/4	3.3/4	0.8430	10	1810012
1.1/4	1.4440	1.5530	1.3125	1.3/4	4"	0.9840	10	1810013
1.1/2	1.6840	1.7930	1.5000	1.3/4	4.1/4	1.1250	10	1810014
2"	2.1590	2.2680	1.8750	1.3/4	4.1/2	1.4060	12	1810015

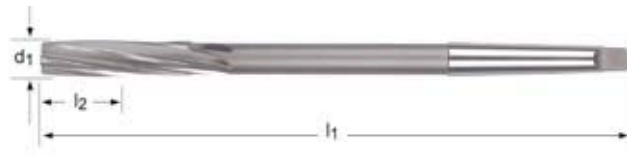
4537

**UNION
BUTTERFIELD**

- Chucking Reamer
- Taper Shank Right Hand Spiral Flute

• Alésoirs machine

• Escariadores de máquina



4537



- 1.1 1.2 1.3 1.4 2.1 4.1 5.1
- 1.5 1.6 2.2 2.3 3.1 3.2 3.3 3.4 4.2 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d_1 Ø Inch	d_1 decimal Inch	MTS	l_2 Inch	l_1 Inch	# Flutes	EDP #
1/4	0.2500	1	1.1/2	6"	6	5010140
5/16	0.3125	1	1.1/2	6"	6	5010142
3/8	0.3750	1	1.3/4	7"	6	5010144
7/16	0.4375	1	1.3/4	7"	6	5010146
1/2	0.5000	1	2"	8"	6	5010148
9/16	0.5625	1	2"	8"	8	5010150
5/8	0.6250	2	2.1/4	9"	8	5010152
11/16	0.6875	2	2.1/4	9"	8	5010154
3/4	0.7500	2	2.1/2	9.1/2	8	5010156
13/16	0.8125	2	2.1/2	9.1/2	8	5010158
7/8	0.8750	2	2.5/8	10"	8	5010160
15/16	0.9375	3	2.5/8	10"	8	5010162
1"	1.0000	3	2.3/4	10.1/2	8	5010164
1.1/16	1.0625	3	2.3/4	10.1/2	8	5010165
1.1/8	1.1250	3	2.7/8	11"	10	5010166
1.3/16	1.1875	3	2.7/8	11"	10	5010167
1.1/4	1.2500	4	3"	11.1/2	10	5010168
1.5/16	1.3125	4	3"	11.1/2	10	5010169
1.3/8	1.3750	4	3.1/4	12"	10	5010170
1.7/16	1.4375	4	3.1/4	12"	10	5010171
1.1/2	1.5000	4	3.1/2	12.1/2	10	5010172

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Chucking Reamer
- Taper Shank

- Alésoirs machine

- Escariadores de máquina



4536



- 1.1 1.2 1.3 1.4 2.1 4.2 5.1

1.5 1.6 2.2 2.3 2.4 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d_1 Ø Inch	d_1 decimal Inch	MTS	l_2 Inch	l_1 Inch	# Flutes	EDP #
1/4	0.2500	1	1.1/2	6"	6	5010734
9/32	0.2813	1	1.1/2	6"	6	5010735
5/16	0.3125	1	1.1/2	6"	6	5010736
11/32	0.3437	1	1.1/2	6"	6	5010737
3/8	0.3750	1	1.3/4	7"	6	5010738
13/32	0.4062	1	1.3/4	7"	6	5010739
7/16	0.4375	1	1.3/4	7"	6	5010740
15/32	0.4687	1	1.3/4	7"	6	5010741
1/2	0.5000	1	2"	8"	6	5010742
17/32	0.5312	1	2"	8"	6	5010743
9/16	0.5625	1	2"	8"	8	5010744
19/32	0.5938	1	2"	8"	8	5010745
5/8	0.6250	2	2.1/4	9"	8	5010746
21/32	0.6562	2	2.1/4	9"	8	5010747
11/16	0.6875	2	2.1/4	9"	8	5010748
23/32	0.7188	2	2.1/4	9"	8	5010749
3/4	0.7500	2	2.1/2	9.1/2	8	5010750
25/32	0.7812	2	2.1/2	9.1/2	8	5010751
13/16	0.8125	2	2.1/2	9.1/2	8	5010752
27/32	0.8438	2	2.1/2	9.1/2	8	5010753
7/8	0.8750	2	2.5/8	10"	8	5010754
29/32	0.9062	2	2.5/8	10"	8	5010755
15/16	0.9375	3	2.5/8	10"	8	5010756
31/32	0.9688	3	2.5/8	10"	8	5010757
1"	1.0000	3	2.3/4	10.1/2	8	5010758
1.1/16	1.0625	3	2.3/4	10.1/2	8	5010759
1.1/8	1.1250	3	2.7/8	11"	10	5010760
1.3/16	1.1875	3	2.7/8	11"	10	5010761
1.1/4	1.2500	4	3"	11.1/2	10	5010762
1.5/16	1.3125	4	3"	11.1/2	10	5010763
1.3/8	1.3750	4	3.1/4	12"	10	5010764
1.7/16	1.4375	4	3.1/4	12"	10	5010765
1.1/2	1.5000	4	3.1/2	12.1/2	10	5010766

- Chucking Reamer
- Taper Shank Expansion

- Alésoirs machine

- Escariadores de máquina



4532



■ 1.1 1.2 1.3 1.4 2.1 4.2 5.1

• 1.5 1.6 2.2 2.3 2.4 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	d ₁ decimal Inch	MTS	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
3/8	0.3750	1	3/4	7"	6	5011206
13/32	0.4062	1	3/4	7"	6	5011207
7/16	0.4375	1	7/8	7"	6	5010820
15/32	0.4687	1	7/8	7"	6	5010821
1/2	0.5000	1	1"	8"	6	5010822
17/32	0.5312	1	1"	8"	6	5010823
9/16	0.5625	1	1.1/8	8"	6	5010824
19/32	0.5938	1	1.1/8	8"	6	5010825
5/8	0.6250	2	1.1/4	9"	6	5010826
21/32	0.6562	2	1.1/4	9"	6	5010827
11/16	0.6875	2	1.1/4	9"	6	5010828
23/32	0.7188	2	1.1/4	9"	6	5010829
3/4	0.7500	2	1.3/8	9.1/2	6	5010830
25/32	0.7812	2	1.3/8	9.1/2	6	5010831
13/16	0.8125	2	1.3/8	9.1/2	6	5010832
27/32	0.8438	2	1.3/8	9.1/2	6	5010833
7/8	0.8750	2	1.1/2	10"	6	5010834
29/32	0.9062	2	1.1/2	10"	6	5010835
15/16	0.9375	3	1.1/2	10"	6	5010836
31/32	0.9688	3	1.1/2	10"	6	5010837
1"	1.0000	3	1.5/8	10.1/2	8	5010838
1.1/32	1.0312	3	1.5/8	10.1/2	8	5010839
1.1/16	1.0625	3	1.5/8	10.1/2	8	5010840
1.3/32	1.0937	3	1.5/8	10.1/2	8	5010841
1.1/8	1.1250	3	1.3/4	11"	8	5010842
1.5/32	1.1562	3	1.3/4	11"	8	5010843
1.3/16	1.1875	3	1.3/4	11"	8	5010844
1.7/32	1.2187	3	1.3/4	11"	8	5010845
1.1/4	1.2500	4	1.7/8	11.1/2	8	5010846
1.5/16	1.3125	4	1.7/8	11.1/2	8	5010847
1.3/8	1.3750	4	2"	12"	8	5010848
1.7/16	1.4375	4	2"	12"	10	5010849
1.1/2	1.5000	4	2.1/8	12.1/2	10	5010850
1.5/8	1.6250	4	2.1/4	13"	10	5010852
1.3/4	1.7500	5	2.3/8	13.1/2	10	5010854
1.7/8	1.8750	5	2.1/2	14"	12	5010856
2"	2.0000	5	2.1/2	14"	12	5010858
2.1/8	2.1250	5	2.1/4	14.1/2	12	5010860
2.1/4	2.2500	5	2.1/4	14.1/2	12	5010862
2.3/8	2.3750	5	3"	15	12	5010864
2.1/2	2.5000	5	3"	15	12	5010866

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

- Bridge Reamer
- Taper shank, Right-hand spiral flute

- Alésoirs de chaudronnerie queue cône morse

- Escariador de mango cónico



4579



■ 1.1 1.2 1.3 1.4 2.1 3.1 4.1 6.2

• 1.5 1.6 2.2 2.3 3.2 3.3 3.4 4.2 4.3 5.1 5.2 5.3 6.1 6.3 6.4 7.1 7.2 7.3 7.4 8.2

d ₁ Ø Inch	d _{small} Ø Inch	d _{large} Ø Inch	MTS	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
7/16	1/4	7/16	2	4.3/8	8.1/4	4	5011055
1/2	9/32	1/2	2	5.1/8	9	4	5011056
9/16	11/32	9/16	2	5.1/8	9	4	5011057
5/8	3/8	5/8	2	6.1/8	10	4	5011058
11/16	25/64	11/16	3	7.1/8	11.3/4	4	5011059
3/4	7/16	3/4	3	7.3/8	12	4	5011060
13/16	1/2	13/16	3	7.3/8	12	4	5011061
7/8	9/16	7/8	3	7.3/8	12	4	5011062

d ₁ Ø Inch	d _{small} Ø Inch	d _{large} Ø Inch	MTS	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
15/16	5/8	15/16	3	7.3/8	12	4	5011063
1"	11/16	1"	3	7.3/8	12	4	5011064
1.1/16	3/4	1.1/16	3	7.3/8	12	4	5011065
1.1/8	13/16	1.1/8	3	7.3/8	12	4	5011066
1.3/16	7/8	1.3/16	3	7.3/8	12	4	5011067
1.1/4	15/16	1.1/4	4	7.3/8	13	4	5011068
1.5/16	1"	1.5/16	4	7.3/8	13	4	5011069

4608

- Center reamer
- 3-flute countersink
- 60°, 82° and 100° included angles



4608



■ 1.1 1.2 1.3 1.4 1.5 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3

• 1.6 2.1 2.2 2.3 2.4 3.1 3.2 3.3 3.4 6.4 7.1 7.2 7.3 7.4 8.1 8.2

d ₁ Ø Inch	angle	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
1/4	100	3/16	3/4	1.1/2	3	5011108
3/8	100	1/4	7/8	1.3/4	3	5011109
1/2	100	3/8	1"	2"	3	5011110
5/8	100	3/8	1"	2.1/4	3	5011111
3/4	100	1/2	1.1/4	2.5/8	3	5011112
1/4	60	3/16	3/4	1.1/2	3	5011093
3/8	60	1/4	7/8	1.3/4	3	5011094
1/2	60	3/8	1"	2"	3	5011095
5/8	60	3/8	1"	2.1/4	3	5011096
3/4	60	1/2	1.1/4	2.5/8	3	5011097

d ₁ Ø Inch	angle	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
1/4	82	3/16	3/4	1.1/2	3	5011098
3/8	82	1/4	7/8	1.3/4	3	5011099
1/2	82	3/8	1"	2"	3	5011100
5/8	82	3/8	1"	2.1/4	3	5011101
3/4	82	1/2	1.1/4	2.5/8	3	5011102
1/4	90	3/16	3/4	1.1/2	3	5011103
3/8	90	1/4	7/8	1.3/4	3	5011104
1/2	90	3/8	1"	2"	3	5011105
5/8	90	3/8	1"	2.1/4	3	5011106

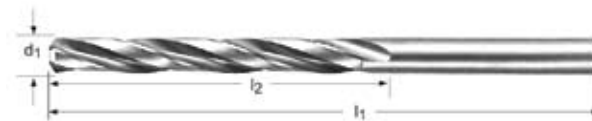
SS300 - SS400



- Core Drill
- Taper length, 3-flute

- Forets aléseurs 3 lèvres Queue cylindrique

- Brocas escariadoras



SS300



■ 1.1 1.2 1.3 1.4 2.1 3.1 3.2 3.3 4.1 • 1.5 2.2 2.3 4.2 5.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP # or e-Code
1/4	0.2500	3.3/4	6.1/8	053016
9/32	0.2812	3.7/8	6.1/4	053018
5/16	0.3125	4"	6.3/8	053020
11/32	0.3438	4.1/8	6.1/2	053022
3/8	0.3750	4.1/4	6.3/4	053024
13/32	0.4062	4.3/8	7"	053026
7/16	0.4375	4.5/8	7.1/4	053028
15/32	0.4688	4.3/4	7.1/2	053030
1/2	0.5000	4.3/4	7.3/4	053032
9/16	0.5625	4.7/8	8.1/4	053036
5/8	0.6250	4.7/8	8.3/4	053040

- Core Drill
- Taper length, 4-flute

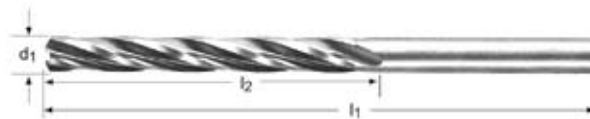
- Forets aléseurs 4 lèvres Queue cylindrique

- Brocas escariadoras

SS400



■ 1.1 1.2 1.3 1.4 2.1 3.1 3.2 3.3 4.1 • 1.5 2.2 2.3 4.2 5.1



d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	EDP #
1/4	0.2500	3.3/4	6.1/8	054016
9/32	0.2812	3.7/8	6.1/4	054018
5/16	0.3125	4"	6.3/8	054020
11/32	0.3438	4.1/8	6.1/2	054022
3/8	0.3750	4.1/4	6.3/4	054024
13/32	0.4062	4.3/8	7"	054026
7/16	0.4375	4.5/8	7.1/4	054028
15/32	0.4688	4.3/4	7.1/2	054030
1/2	0.5000	4.3/4	7.3/4	054032
17/32	0.5312	4.3/4	8"	054034
9/16	0.5625	4.7/8	8.1/4	054036
19/32	0.5938	4.7/8	8.3/4	054038
5/8	0.6250	4.7/8	8.3/4	054040
21/32	0.6562	5.1/8	9"	054042
11/16	0.6875	5.3/8	9.1/4	054044
23/32	0.7188	5.5/8	9.1/2	054046
3/4	0.7500	5.7/8	9.3/4	054048
25/32	0.7812	6"	9.7/8	054050
13/16	0.8125	6.1/8	10"	054052
27/32	0.8438	6.1/8	10"	054054
7/8	0.8750	6.1/8	10"	054056
29/32	0.9062	6.1/8	10"	054058
15/16	0.9375	6.1/8	10.3/4	054060
31/32	0.9688	6.3/8	11"	054062
1"	1.0000	6.3/8	11"	054100

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

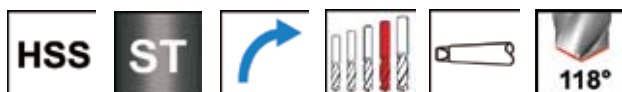
- Core drill
- Taper shank, 4-flute

- Forets aléseurs 4 lèvres Queue cylindrique DIN1809

- Brocas escariadoras



T400



-
- 1.1 1.2 1.3 1.4 3.1 3.2
- 1.5 1.6 2.1 2.2 2.3 3.3 3.4 4.1 4.2 4.3 5.1 5.2 5.3 6.1 6.2 6.3 6.4 7.1 7.2 7.3
- 7.4 8.1 8.2 8.3 9.1

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP #
1/2	0.5000	4.3/8	8.1/4	2	024532
17/32	0.5312	4.5/8	8.1/2	2	024534
9/16	0.5625	4.7/8	8.3/4	2	024536
19/32	0.5938	4.7/8	8.3/4	2	024538
5/8	0.6250	4.7/8	8.3/4	2	024540
21/32	0.6562	5.1/8	9"	2	024542
11/16	0.6875	5.3/8	9.1/4	2	024544
23/32	0.7188	5.5/8	9.1/2	2	024546
3/4	0.7500	5.7/8	9.3/4	2	024548
25/32	0.7812	6"	9.7/8	2	024550
13/16	0.8125	6.1/8	10.3/4	3	024552
27/32	0.8438	6.1/8	10.3/4	3	024554
7/8	0.8750	6.1/8	10.3/4	3	024556
29/32	0.9062	6.1/8	10.3/4	3	024558
15/16	0.9375	6.1/8	10.3/4	3	024560
31/32	0.9688	6.3/8	11"	3	024562
1"	1.0000	6.3/8	11"	3	024600
1.1/32	1.0312	6.1/2	11.1/8	3	024602
1.1/16	1.0625	6.5/8	11.1/4	3	024604
1.3/32	1.0938	6.7/8	12.1/2	4	024606
1.1/8	1.1250	7.1/8	12.3/4	4	024608
1.5/32	1.1562	7.1/4	12.7/8	4	024610
1.3/16	1.1875	7.3/8	13"	4	024612
1.7/32	1.2188	7.1/2	13.1/8	4	024614
1.1/4	1.2500	7.7/8	13.1/2	4	024616
1.9/32	1.2812	8.1/2	14.1/8	4	024618
1.5/16	1.3125	8.5/8	14.1/4	4	024620
1.11/32	1.3438	8.3/4	14.3/8	4	024622
1.3/8	1.3750	8.7/8	14.1/2	4	024624
1.13/32	1.4062	9"	14.5/8	4	024626
1.7/16	1.4375	9.1/8	14.3/4	4	024628
1.15/32	1.4688	9.1/4	14.7/8	4	024630
1.1/2	1.5000	9.3/8	15"	4	024632
1.17/32	1.5312	9.3/8	16.3/8	5	024634
1.9/16	1.5625	9.5/8	16.5/8	5	024636
1.19/32	1.5938	9.7/8	16.7/8	5	024638
1.5/8	1.6250	10"	17"	5	024640
1.21/32	1.6562	10.1/8	17.1/8	5	024642
1.11/16	1.6875	10.1/8	17.1/8	5	024644
1.23/32	1.7188	10.1/8	17.1/8	5	024646
1.3/4	1.7500	10.1/8	17.1/8	5	024648
1.25/32	1.7812	10.1/8	17.1/8	5	024650
1.13/16	1.8125	10.1/8	17.1/8	5	024652
1.27/32	1.8438	10.1/8	17.1/8	5	024654

T400

d ₁ Ø Inch	d ₁ decimal Inch	l ₂ Inch	l ₁ Inch	MTS	EDP # or e-Code
1.7/8	1.8750	10.3/8	17.3/8	5	024656
1.29/32	1.9062	10.3/8	17.3/8	5	024658
1.15/16	1.9375	10.3/8	17.3/8	5	024660
1.31/32	1.9688	10.3/8	17.3/8	5	024662
2"	2.0000	10.3/8	17.3/8	5	024700
2.1/8	2.1250	10.1/4	17.3/8	5	024708
2.1/4	2.2500	10.1/8	17.3/8	5	024716
2.3/8	2.3750	10.1/8	17.3/8	5	024724
2.1/2	2.5000	11.1/4	18.3/4	5	024732

4702

- Counterbore
- Short series, interchangeable pilot type
- Fraises pour logement de tête de vis
- Refrentadores



4702



■ 1.1 1.2 1.3 1.4 2.1 4.2 5.1

● 1.5 1.6 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	pilot Ø Inch	pilot Ø low	pilot Ø high	EDP #
1/4	3/4	3.13/16	15/64	3	3/32	1/8	3/16	6210031
9/32	3/4	3.13/16	17/64	3	3/32	1/8	7/32	6210032
5/16	3/4	3.13/16	19/64	3	3/32	1/8	1/4	6210033
11/32	3/4	3.13/16	5/16	3	3/32	1/8	9/32	6210034
3/8	1.000	4.1/16	5/16	3	5/32	3/16	5/16	6210035
13/32	1.000	4.1/16	3/8	3	5/32	3/16	11/32	6210036
7/16	1.000	4.1/16	3/8	3	5/32	3/16	3/8	6210037
15/32	1.1/4	4.5/16	7/16	3	3/16	3/16	13/32	6210038
1/2	1.1/4	4.5/16	7/16	3	3/16	3/16	7/16	6210039
17/32	1.1/4	4.5/16	1/2	3	3/16	3/16	15/32	6210040
9/16	1.1/4	4.5/16	1/2	3	3/16	3/16	1/2	6210041
19/32	1.1/4	5.1/8	1/2	3	3/16	3/16	17/32	6210042
5/8	1.1/4	5.1/8	1/2	3	3/16	3/16	9/16	6210043
21/32	1.1/4	5.1/8	1/2	3	3/16	3/16	19/32	6210044
11/16	1.1/4	5.1/8	1/2	3	3/16	3/16	5/8	6210045
23/32	1.1/2	5.3/8	1/2	3	1/4	5/16	21/32	6210046
3/4	1.1/2	5.3/8	1/2	3	1/4	5/16	11/16	6210047
25/32	1.1/2	5.3/8	5/8	3	1/4	5/16	23/32	6210048
13/16	1.1/2	5.3/8	5/8	3	1/4	5/16	3/4	6210049
27/32	1.1/2	5.3/8	3/4	3	1/4	5/16	25/32	6210050
7/8	1.1/2	5.3/8	3/4	3	1/4	5/16	13/16	6210051
29/32	1.1/2	6.1/8	3/4	3	1/4	5/16	27/32	6210052
15/16	1.1/2	6.1/8	3/4	3	1/4	5/16	7/8	6210053
31/32	1.3/4	6.3/8	3/4	3	5/16	3/8	29/32	6210054
1	1.3/4	6.3/8	3/4	3	5/16	3/8	15/16	6210055
1.1/16	1.3/4	6.3/8	3/4	3	5/16	3/8	1	6210056
1.1/8	1.3/4	6.3/8	1"	3	5/16	3/8	1.1/16	6210057
1.3/16	1.3/4	6.3/8	1"	3	5/16	3/8	1.1/8	6210058

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

4702

d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	# Flutes	pilot Ø Inch	pilot Ø low	pilot Ø high	EDP # or e-Code
1.1/4	2	6.5/8	1"	5	3/8	7/16	1.3/16	6210059
1.3/8	2	6.5/8	1"	5	3/8	7/16	1.5/16	6210060
1.1/2	2	7.7/8	1.1/4	5	3/8	7/16	1.7/16	6210061
1.5/8	2.1/4	8.1/8	1.1/4	5	7/16	1/2	1.9/16	6210062
1.3/4	2.1/4	8.1/8	1.1/4	5	7/16	1/2	1.11/16	6210063
1.7/8	2.1/4	8.1/8	1.1/2	5	7/16	1/2	1.13/16	6210064
2	2.1/2	8.3/8	1.1/2	5	1/2	9/16	1.15/16	6210065

4703

- Counterbore
- Short series, interchangeable pilot type

- Fraises pour logement de tête de vis

- Refrentadores



4703



- 1.1 1.2 1.3 1.4 2.1 4.2 5.1
- 1.5 1.6 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	neck Ø Inch	d ₃ Ø Inch	# Flutes	pilot Ø Inch	pilot Ø low	MTS	pilot Ø high	EDP #
1/4	3/4	3.13/16	15/64	2.9/16	3	3/32	1/8	1	3/16	6210066
5/16	3/4	3.13/16	19/64	2.9/16	3	3/32	1/8	1	1/4	6210068
3/8	1.000	4.1/16	11/32	2.9/16	3	5/32	3/16	1	5/16	6210070
7/16	1.000	4.1/16	13/32	2.9/16	3	5/32	3/16	1	3/8	6210072
1/2	1.1/4	4.5/16	29/64	2.9/16	3	3/16	1/4	1	7/16	6210074
9/16	1.1/4	4.5/16	29/64	2.9/16	3	3/16	1/4	1	1/2	6210076
5/8	1.1/4	5.1/8	9/16	3.1/8	3	3/16	1/4	2	9/16	6210078
11/16	1.1/4	5.1/8	5/8	3.1/8	3	3/16	1/4	2	5/8	6210080
3/4	1.1/2	5.3/8	21/32	3.1/8	3	1/4	5/16	2	11/16	6210082
13/16	1.1/2	5.3/8	21/32	3.1/8	3	1/4	5/16	2	3/4	6210084
7/8	1.1/2	5.3/8	21/32	3.1/8	3	1/4	5/16	2	13/16	6210085
15/16	1.1/2	6.1/8	7/8	3.7/8	3	1/4	5/16	2	7/8	6210086
1"	1.3/4	6.3/8	7/8	3.7/8	3	5/16	3/8	3	15/16	6210087
1.1/16	1.3/4	6.3/8	7/8	3.7/8	3	5/16	3/8	3	1	6210088
1.1/8	1.3/4	6.3/8	7/8	3.7/8	3	5/16	3/8	3	1.1/16	6210089
1.3/16	1.3/4	6.3/8	7/8	3.7/8	3	5/16	3/8	3	1.1/8	6210090
1.1/4	2	6.5/8	7/8	3.7/8	5	3/8	7/16	3	1.3/16	6210091
1.5/16	2	6.5/8	7/8	3.7/8	5	3/8	7/16	3	1.1/4	6210092
1.3/8	2	6.5/8	7/8	3.7/8	5	3/8	7/16	3	1.5/16	6210093
1.1/2	2	7.7/8	1.3/16	4.7/8	5	3/8	7/16	4	1.7/16	6210094
1.5/8	2.1/4	8.1/8	1.3/8	4.7/8	5	7/16	1/2	4	1.9/16	6210095
1.3/4	2.1/4	8.1/8	1.3/8	4.7/8	5	7/16	1/2	4	1.11/16	6210096
1.7/8	2.1/4	8.1/8	1.1/2	4.7/8	5	7/16	1/2	4	1.13/16	6210097
2"	2.1/2	8.3/8	1.1/2	4.7/8	5	1/2	9/16	4	1.5/16	6210098
2.1/8	2.1/2	9.7/8	1.3/4	6.1/8	5	1/2	9/16	5	2.1/16	6210099
2.1/4	2.1/2	9.7/8	1.3/4	6.1/8	5	1/2	9/16	5	2.3/16	6210100
2.3/8	2.1/2	9.7/8	1.3/4	6.1/8	5	1/2	9/16	5	2.5/16	6210101
2.1/2	2.1/2	9.7/8	1.3/4	6.1/8	5	1/2	9/16	5	2.7/16	6210102

4706

**UNION
BUTTERFIELD**

- Counterbore
- Aircraft short series
- Designed for pneumatic or electric drills
- Interchangeable pilot type

- Fraises pour logement de tête de vis

- Refrentadores



- 1.1 1.2 1.3 1.4 2.1 4.2 5.1
● 1.5 1.6 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	l ₃ Inch	neck Ø Inch	# Flutes	pilot Ø Inch	pilot Ø low	pilot Ø high	EDP #
1/4	1/2	2.3/8	1/4	1.1/8	15/64	4	3/32	1/8	3/16	6210137
9/32	1/2	2.3/8	1/4	1.1/8	0.2560	4	3/32	1/8	7/32	6210138
5/16	1/2	2.3/8	1/4	7/8	17/64	4	3/32	1/8	1/4	6210139
11/32	1/2	2.3/8	1/4	7/8	19/64	4	3/32	1/8	9/32	6210140
3/8	1/2	2.3/8	1/4	7/8	5/16	4	3/32	3/16	5/16	6210141
13/32	1/2	2.13/16	1/4	7/8	5/16	4	1/8	3/16	11/32	6210142
7/16	1/2	2.13/16	1/4	7/8	5/16	4	1/8	3/16	3/8	6210143
15/32	1/2	2.13/16	1/4	7/8	5/16	4	1/8	1/4	13/32	6210144
1/2	1/2	2.13/16	1/4	7/8	3/8	4	1/8	1/4	7/16	6210145
17/32	1/2	2.13/16	1/4	7/8	3/8	4	1/8	1/4	15/32	6210146
9/16	1/2	2.13/16	1/4	7/8	3/8	4	1/8	1/4	1/2	6210147
5/8	1/2	2.13/16	1/4	7/8	1/2	4	1/8	1/4	9/16	6210149
11/16	1/2	2.13/16	1/4	7/8	1/2	4	1/8	1/4	5/8	6210151
3/4	1/2	2.13/16	1/4	7/8	1/2	4	3/16	5/16	11/16	6210153
13/16	1/2	2.13/16	1/4	7/8	1/2	4	3/16	5/16	3/4	6210155
7/8	1/2	2.13/16	1/4	7/8	1/2	4	3/16	5/16	13/16	6210157
15/16	1/2	2.13/16	1/4	7/8	1/2	4	3/16	5/16	7/8	6210159
1"	1/2	2.13/16	1/4	7/8	1/2	4	3/16	3/8	15/16	6210161

4700

- Counterbore
- Long series

- Fraises pour logement de tête de vis

- Refrentadores



4700



- 1.1 1.2 1.3 1.4 2.1 4.2 5.1
● 1.5 1.6 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	l ₃ Inch	neck Ø Inch	# Flutes	pilot Ø Inch	pilot Ø low	pilot Ø high	EDP #
1/4	3/4	5.3/4	15/64	2.1/4	15/64	3	3/32	1/8	3/16	6210001
5/16	3/4	5.3/4	3/8	2.1/4	19/64	3	3/32	1/8	1/4	6210003
3/8	1.000	5.3/4	3/8	2.1/4	11/32	3	5/32	3/16	5/16	6210005
7/16	1.000	6.1/8	7/16	2.1/4	13/32	3	5/32	3/16	3/8	6210007
1/2	1.1/4	6.3/8	1/2	2.1/2	15/32	3	3/16	1/4	7/16	6210009
9/16	1.1/4	6.1/2	1/2	2.1/2	15/32	3	3/16	1/4	1/2	6210010
5/8	1.1/4	7"	5/8	1.5/8	9/16	3	3/16	1/4	9/16	6210011
3/4	1.1/2	7.1/4	3/4	2.3/4	11/16	3	1/4	5/16	11/16	6210013
7/8	1.1/2	7.3/4	7/8	3"	3/4	3	1/4	5/16	13/16	6210015
1"	1.3/4	9"	1"	3"	7/8	3	5/16	3/8	15/16	6210017

- = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

- Counterbore
- Aircraft long series
- Interchangeable pilot type

- Fraises pour logement de tête de vis

- Refrentadores



4705



- 1.1 1.2 1.3 1.4 2.1 4.2 5.1
- 1.5 1.6 2.2 2.3 3.1 3.2 3.3 3.4 4.1 4.3 5.2 5.3 6.1 6.2 6.3 6.4

d ₁ Ø Inch	l ₂ Inch	l ₁ Inch	d ₂ Ø Inch	l ₃ Inch	neck Ø Inch	# Flutes	pilot Ø Inch	pilot Ø low	pilot Ø high	EDP #
1/4	3/4	3.13/16	15/64	3.1/16	15/64	3	3/32	1/8	3/16	6210107
9/32	3/4	3.13/16	17/64	3.1/16	17/64	3	3/32	1/8	7/32	6210108
5/16	3/4	3.13/16	19/64	3.1/16	19/64	3	3/32	1/8	1/4	6210109
11/32	3/4	3.13/16	5/16	3.1/16	5/16	3	3/32	1/8	9/32	6210110
3/8	3/4	3.13/16	5/16	3.1/16	5/16	3	3/32	3/16	5/16	6210111
13/32	3/4	3.13/16	3/8	3.1/16	3/8	3	1/8	3/16	11/32	6210112
7/16	3/4	3.13/16	3/8	3.1/16	3/8	3	1/8	3/16	3/8	6210113
15/32	3/4	3.13/16	7/16	3.1/16	7/16	3	1/8	1/4	13/32	6210114
1/2	3/4	3.13/16	7/16	3.1/16	7/16	3	1/8	1/4	7/16	6210115
17/32	3/4	5.3/8	1/2	4.5/8	1/2	3	1/8	1/4	15/32	6210116
9/16	3/4	5.3/8	1/2	4.5/8	1/2	3	1/8	1/4	1/2	6210117
19/32	3/4	5.3/8	1/2	4.3/16	9/16	3	1/8	1/4	17/32	6210118
5/8	3/4	5.3/8	1/2	4.3/16	9/16	3	1/8	1/4	9/16	6210119
21/32	1.1/4	5.3/8	1/2	3.5/8	9/16	3	3/16	1/4	19/32	6210120
11/16	1.1/4	5.3/8	1/2	3.5/8	5/8	3	3/16	1/4	5/8	6210121
23/32	1.1/4	5.3/8	1/2	3.5/8	5/8	3	3/16	5/16	21/32	6210122
3/4	1.1/4	5.3/8	1/2	3.5/8	11/16	3	3/16	5/16	11/16	6210123
25/32	1.1/4	5.3/8	1/2	3.5/8	11/16	3	3/16	5/16	23/32	6210124
13/16	1.1/4	5.3/8	1/2	3.5/8	3/4	3	3/16	5/16	3/4	6210125
7/8	1.1/4	5.3/8	1/2	3.5/8	3/4	3	3/16	5/16	13/16	6210126
15/16	1.1/4	5.3/8	1/2	3.5/8	3/4	3	3/16	5/16	7/8	6210127
1	1.1/4	5.3/8	1/2	3.5/8	3/4	3	3/16	3/8	15/16	6210128
1.1/16	1.1/4	5.3/8	1/2	3.5/8	15/16	3	3/16	3/8	1	6210129
1.1/8	1.1/4	5.3/8	1/2	3.5/8	15/16	3	3/16	3/8	1.1/16	6210130
1.3/16	1.1/4	5.3/8	1/2	3.5/8	15/16	3	3/16	3/8	1.1/8	6210131
1.1/4	1.1/4	5.3/8	1/2	3.5/8	1"	5	3/16	7/16	1.3/16	6210132
1.5/16	1.1/4	5.3/8	1/2	3.5/8	1"	5	1/4	9/32	1"	6210133
1.3/8	1.1/4	5.3/8	1/2	3.5/8	1"	5	1/4	9/32	1"	6210134
1.7/16	1.1/4	5.3/8	1/2	3.5/8	1.1/8	5	1/4	9/32	1	6210135
1.1/2	1.1/4	5.3/8	1/2	3.5/8	1.1/8	5	1/4	9/32	1	6210136

• Detachable Pilot

• Pilote

• Guía desmontable para Refrentador

4704



Pilot Ø Inch /	d ₁ Ø Inch	EDP #
3/32	3/32	3210235
40	3/32	3210236
1/8	3/32	3210114
30	3/32	3210238
5/32	3/32	3210115
21	3/32	3210240
20	3/32	3210241
19	3/32	3210242
3/16	3/32	3210116
11	3/32	3210244
10	3/32	3210245
7/32	3/32	3210117
1/4	3/32	3210118
F	3/32	3210248
1/8	1/8	3210249
30	1/8	3210250
5/32	1/8	3210251
21	1/8	3210252
20	1/8	3210253
19	1/8	3210254
3/16	1/8	3210255
11	1/8	3210256
10	1/8	3210257
7/32	1/8	3210258
1/4	1/8	3210259
F	1/8	3210260
9/32	1/8	3210261
5/16	1/8	3210262
3/8	1/8	3210263
7/16	1/8	3210264
1/2	1/8	3210265
9/16	1/8	3210266
5/8	1/8	3210267
3/16	5/32	3210119
7/32	5/32	3210120
1/4	5/32	3210121
9/32	5/32	3210122
5/16	5/32	3210123
3/8	5/32	3210124
3/16	3/16	3210281
11	3/16	3210282
10	3/16	3210283
7/32	3/16	3210284
1/4	3/16	3210125
F	3/16	3210286
9/32	3/16	3210287
5/16	3/16	3210126
11/32	3/16	3210444

Pilot Ø Inch /	d ₁ Ø Inch	EDP #
3/8	3/16	3210127
13/32	3/16	3210445
7/16	3/16	3210128
15/32	3/16	3210446
1/2	3/16	3210129
9/16	3/16	3210130
5/8	3/16	3210131
11/16	3/16	3210294
3/4	3/16	3210295
13/16	3/16	3210296
7/8	3/16	3210297
15/16	3/16	3210298
1"	3/16	3210299
1/4	1/4	3210300
F	1/4	3210301
9/32	1/4	3210302
5/16	1/4	3210132
3/8	1/4	3210133
7/16	1/4	3210134
1/2	1/4	3210135
17/32	1/4	3210447
9/16	1/4	3210136
5/8	1/4	3210137
11/16	1/4	3210138
3/4	1/4	3210139
13/16	1/4	3210140
7/8	1/4	3210141
15/16	1/4	3210313
1"	1/4	3210314
3/8	5/16	3210142
7/16	5/16	3210143
1/2	5/16	3210144
9/16	5/16	3210145
5/8	5/16	3210146
11/16	5/16	3210147
3/4	5/16	3210148
13/16	5/16	3210149
7/8	5/16	3210150
15/16	5/16	3210151
1"	5/16	3210152
1.1/16	5/16	3210153
1.1/8	5/16	3210154
7/16	3/8	3210155
1/2	3/8	3210156
9/16	3/8	3210157
5/8	3/8	3210158
11/16	3/8	3210159
3/4	3/8	3210160

■ = EXCELLENT FOR APPLICATION
 ● = GOOD FOR APPLICATION

Pilot Ø Inch /	d ₁ Ø Inch	EDP #
13/16	3/8	3210161
7/8	3/8	3210162
15/16	3/8	3210163
1"	3/8	3210164
1.1/16	3/8	3210165
1.1/8	3/8	3210166
1.3/16	3/8	3210167
1.1/4	3/8	3210168
1.5/16	3/8	3210169
1.3/8	3/8	3210170
1.7/16	3/8	3210171
1/2	7/16	3210172
9/16	7/16	3210173
5/8	7/16	3210174
11/16	7/16	3210175
3/4	7/16	3210176
13/16	7/16	3210177
7/8	7/16	3210178
15/16	7/16	3210179
1"	7/16	3210180
1.1/16	7/16	3210181
1.1/8	7/16	3210182
1.3/16	7/16	3210183
1.1/4	7/16	3210184
1.5/16	7/16	3210185
1.3/8	7/16	3210186

Pilot Ø Inch /	d ₁ Ø Inch	EDP #
9/16	1/2	3210195
5/8	1/2	3210196
11/16	1/2	3210197
3/4	1/2	3210198
13/16	1/2	3210199
7/8	1/2	3210200
15/16	1/2	3210201
1"	1/2	3210202
1.1/16	1/2	3210203
1.1/8	1/2	3210204
1.3/16	1/2	3210205
1.1/4	1/2	3210206
1.5/16	1/2	3210207
1.3/8	1/2	3210208
1.7/16	1/2	3210209
1.1/2	1/2	3210210
1.9/16	1/2	3210211
1.5/8	1/2	3210212
1.11/16	1/2	3210213
1.3/4	1/2	3210214
1.13/16	1/2	3210215
1.15/16	1/2	3210217
1.7/8	1/2	3210216
2"	1/2	3210218

4602

- 4-flute Countersink
- 60° and 82° included angles

- Fraise à ébavurer et à chanfreiner

- Avellanadores



4602



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

d ₁ Ø Inch	angle	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
1/2	60	1/2	1.5/8	3.7/8	4	4710588
5/8	60	1/2	1.3/4	4"	4	4710589
3/4	60	1/2	1.7/8	4.1/8	4	4710590
7/8	60	1/2	2"	4.1/4	4	4710591
1"	60	1/2	2.1/8	4.3/8	4	4710592

d ₁ Ø Inch	angle	d ₂ Ø Inch	l ₂ Inch	l ₁ Inch	# Flutes	EDP #
1/2	82	1/2	1.5/8	3.7/8	4	4710593
5/8	82	1/2	1.3/4	4"	4	4710594
3/4	82	1/2	1.7/8	4.1/8	4	4710595
7/8	82	1/2	2"	4.1/4	4	4710596
1"	82	1/2	2.1/8	4.3/8	4	4710597

4603

**UNION
BUTTERFIELD**

- Single flute Countersink
- 60°, 82° and 90° included angles

- Fraise à ébavurer et à chanfreiner

- Avellanadores



4603



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

d ₁ Ø Inch	angle	d ₂ Ø mm	l ₁ Inch	EDP #
3/8	60	1/4	1.21/32	4710790
1/2	60	1/4	1.27/32	4710791
3/4	60	3/8	2.13/32	4710793
1"	60	1/2	2.13/16	4710794
1.1/4	60	1/2	3.1/2	4710795
1.1/2	60	1/2	3.7/8	4710796
1/4	82	3/16	1.7/16	4710797
3/8	82	1/4	1.21/32	4710798
1/2	82	1/4	1.27/32	4710799
5/8	82	3/8	2.3/32	4710800
3/4	82	3/8	2.13/32	4710801
1"	82	1/2	2.13/16	4710802

d ₁ Ø Inch	angle	d ₂ Ø mm	l ₁ Inch	EDP #
1.1/4	82	1/2	3.1/2	4710803
1.1/2	82	1/2	3.7/8	4710804
1/4	90	3/16	1.7/16	4710805
3/8	90	1/4	1.21/32	4710806
1/2	90	1/4	1.27/32	4710807
5/8	90	3/8	2.3/32	4710808
3/4	90	3/8	2.13/32	4710809
1"	90	1/2	2.13/16	4710810
1.1/4	90	1/2	3.1/2	4710811
1.1/2	90	1/2	3.7/8	4710812



G135

- 3-Flute Countersink

- Fraise à ébavurer et à chanfreiner

- Avellanadores



G135



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

max d mm	min d	l ₁ mm	d ₂ Ø mm	# Flutes	Stock #	EDP # or e-Code
6.3	1.6	45	5	3	0108482	G1356.3
8.0	2.0	50	6	3	0108499	G1358.0
10.0	2.5	50	6	3	0144817	G13510.0
12.5	3.2	56	8	3	0108444	G13512.5

max d mm	min d	l ₁ mm	d ₂ Ø mm	# Flutes	Stock #	EDP # or e-Code
16.0	4.0	63	10	3	0108451	G13516.0
20.0	5.0	67	10	3	0108468	G13520.0
25.0	6.3	71	10	3	0108475	G13525.0

■ = EXCELLENT FOR APPLICATION
• = GOOD FOR APPLICATION

G136

• 3-Flute Countersink

• Fraise à ébavurer et à chanfreiner

• Avellanadores



G136



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

max d mm	min d	L ₁ mm	d ₂ mm	# Flutes	Stock #	EDP # or e-Code
4.3	1.3	40	4	3	0108659	G1364.3
5.0	1.5	40	4	3	0108666	G1365.0
5.3	1.5	40	4	3	0108673	G1365.3
5.8	1.5	45	5	3	0108680	G1365.8
6.0	1.5	45	5	3	0108697	G1366.0
6.3	1.5	45	5	3	0108703	G1366.3
7.0	1.8	50	6	3	0108710	G1367.0
7.3	1.8	50	6	3	0108727	G1367.3
8.0	2.0	50	6	3	0108734	G1368.0
8.3	2.0	50	6	3	0108741	G1368.3
9.4	2.2	50	6	3	0108758	G1369.4
10.0	2.5	50	6	3	0108505	G13610.0
10.4	2.5	50	6	3	0108512	G13610.4
11.5	2.8	56	8	3	0108529	G13611.5

max d mm	min d	L ₁ mm	d ₂ mm	# Flutes	Stock #	EDP # or e-Code
12.4	2.8	56	8	3	0108536	G13612.4
13.4	2.9	56	8	3	0108543	G13613.4
15.0	3.2	60	10	3	0108550	G13615.0
16.5	3.2	60	10	3	0108567	G13616.5
19.0	3.5	63	10	3	0108574	G13619.0
20.5	3.5	63	10	3	0108581	G13620.5
23.0	3.8	67	10	3	0108598	G13623.0
25.0	3.8	67	10	3	0108604	G13625.0
26.0	3.8	67	10	3	0108611	G13626.0
28.0	4.0	71	12	3	0108628	G13628.0
30.0	4.2	71	12	3	0108635	G13630.0
31.0	4.2	71	12		0108642	G13631.0

G137

• 3-Flute Countersink

• Fraise à ébavurer et à chanfreiner

• Avellanadores



G137



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

max d mm	min d	L ₁ mm	MK (MTS)	# Flutes	Stock #	EDP # or e-Code
16.0	4.0	90	1	3	0108765	G13716.0
20.0	5.0	106	2	3	0108772	G13720.0
25.0	6.3	112	2	3	0108789	G13725.0
31.5	10.0	118	2	3	0108796	G13731.5

max d mm	min d	L ₁ mm	MK (MTS)	# Flutes	Stock #	EDP # or e-Code
40.0	12.5	150	3	3	0108802	G13740.0
50.0	16.0	160	3	3	0108819	G13750.0
63.0	20.0	190	4	3	0108826	G13763.0
80.0	25.0	200	4	3	0108833	G13780.0

G138 - G154 - G155

DORMER

• 3-flute Countersink

• Fraise à ébavurer et à chanfreiner

• Avellanadores



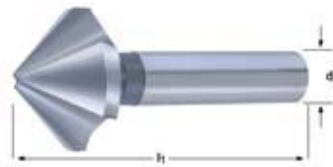
G138



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

max d mm	min d	L ₁ mm	MK (MTS)	# Flutes	Stock #	EDP # or e-Code
15.0	3.2	85	1	3	0108840	G13815.0
16.5	3.2	85	1	3	0108857	G13816.5
19.0	3.5	100	2	3	0108864	G13819.0
20.5	3.5	100	2	3	0108871	G13820.5
23.0	3.8	106	2	3	0108888	G13823.0
25.0	3.8	106	2	3	0108895	G13825.0
26.0	3.8	106	2	3	0108901	G13826.0
28.0	4.0	112	2	3	0108918	G13828.0

max d mm	min d	L ₁ mm	MK (MTS)	# Flutes	Stock #	EDP # or e-Code
30.0	4.2	112	2	3	0108925	G13830.0
31.0	4.2	112	2	3	0108932	G13831.0
34.0	4.5	118	2	3	0108949	G13834.0
37.0	4.8	118	2	3	0108956	G13837.0
40.0	10.0	140	3	3	0108963	G13840.0
50.0	14.0	150	3	3	0108970	G13850.0
63.0	16.0	180	4	3	0108987	G13863.0
80.0	22.0	190	4	3	0108994	G13880.0



G154



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

max d mm	min d	L ₁ mm	d ₂ mm	# Flutes	Stock #	EDP # or e-Code
6.3	1.5	45	5	3	0149348	G1546.3
8.3	2.0	50	6	3	0149355	G1548.3
10.4	2.5	50	6	3	0149362	G15410.4
12.4	2.8	56	8	3	0149379	G15412.4

max d mm	min d	L ₁ mm	d ₂ mm	# Flutes	Stock #	EDP # or e-Code
16.5	3.2	60	10	3	0149386	G15416.5
20.5	3.5	63	10	3	0149393	G15420.5
25.0	3.8	67	10	3	0149409	G15425.0



G155



■	1.1	1.2	1.3	1.4	1.5	4.1	4.2	4.3	5.1	5.2	5.3	6.1	6.2	6.3	
●	1.6	2.1	2.2	2.3	3.1	3.2	3.3	3.4	6.4	7.1	7.2	7.3	7.4	8.1	8.2

max d mm	min d	L ₁ mm	MK (MTS)	# Flutes	Stock #	EDP # or e-Code
16.5	3.2	85	1	3	0216958	G15516.5
20.5	3.5	100	2	3	0216965	G15520.5
25.0	3.8	106	2	3	0216972	G15525.0
31.0	4.2	112	2	3	0216989	G15531.0

max d mm	min d	L ₁ mm	MK (MTS)	# Flutes	Stock #	EDP # or e-Code
40.0	10.0	140	3	3	0216996	G15540.0
50.0	14.0	150	3	3	0217009	G15550.0
63.0	16.0	180	4	3	0217016	G15563.0
80.0	22.0	190	4	3	0217023	G15580.0

■ = EXCELLENT FOR APPLICATION
● = GOOD FOR APPLICATION

Screw Extractor

1800

- Extracteur De Vis
- Extractor Del Tornillo



Nr.	d ₁ Ø Inch	d ₂ Ø Inch	l ₁ Inch	EDP#	For Removing Screw Size
#1	0.054	5/32	2"	3210001	3/32 to 5/32
#2	0.086	3/16	2.3/8	3210002	5/32 to 7/32
#3	1/8	1/4	2.3/4	3210003	7/32 to 9/32
#4	11/64	5/16	3"	3210004	9/32 to 3/8
#5	1/4	7/16	3.3/8	3210005	3/8 to 5/8, 1/8, 1/4 pipe
#6	3/8	5/8	3.3/4	3210006	5/8 to 7/8, 3/8 pipe
#7	31/64	3/4	4.1/8	3210007	7/8 to 1.1/8, 1/2 pipe
#8	47/64	1"	4.3/8	3210008	1.1/8 to 1.3/8, 3/4 pipe
#9	31/32	1.1/4	4.5/8	3210009	1.3/8 and up, 1" pipe
#10	1.7/32	1.17/32	5"	3210010	2.1/8 to 2.1/2
#11	1.15/32	1.27/32	5.5/8	3210011	2.1/2 to 3"
#12	1.27/32	2.9/32	6.1/4	3210012	3" to 3.1/2"

1815 (Sets)

Style	# in Set	Description	EDP#
1800	5	Range: #1 - #5	3210013

1816 (Sets)

Style	# in Set	Description	EDP#
1800	6	Range: #1 - #6	3210014



Drift Keys

411

- Hardened and ground
- Extracteur d'outils
- Expulsores de Brocas



Taper Shank	EDP#
1	3210338
2	3210339
3	3210340
4	3210341
5	3210342



Drill Sleeves

430

- Cône de réduction
- Conos Morse endurecidos y cementados



K = Nr.	K1 = Nr.	l ₁ Inch	EDP #
2	1	3-1/2	3210046
3	1	3-15/16	3210047
4	1	4-13/16	3210048
3	2	4-3/8	3210050
4	2	4-13/16	3210051
4	3	5-5/16	3210053



K = Nr.	K1 = Nr.	l ₁ Inch	EDP #
5	3	6-1/16	3210054
5	4	6-1/2	3210055
6	5	8-1/2	3210057

K=Ext. K1=Int.
K=Ext.(externe) K1=Int. (Interne)
K=Ext. K1=Int.

Tool Bit Blanks



707 (HSS) 727 (Cobalt)
757 (Cobalt Vanadium T-15)

- Barreaux rectifiés
- Cuchillas

Size	OAL	707 EDP#	727 EDP#	757 EDP#
3/16	2.1/2	6310293	6310317	6310305
1/4	2.1/2	6310294	6310318	6310306
5/16	2.1/2	6310295	6310319	6310307
3/8	3"	6310296	6310320	6310308
7/16	3.1/2	6310297	6310321	6310309
1/2	4"	6310298	6310322	6310310
5/8	4.1/2	6310299	6310323	6310311
3/4	5"	6310300	6310324	6310312
1"	7"	6310302	6310326	6310314

Cutting Oil

1900

- Huile de coupe
- Aceite de Corte



Nr.	Style	Qty.	Description	EDP#
4 oz	1900	24	Drilling & Tapping Fluid, Squirt Bottle	1910501
16 oz	1900	12	Drilling & Tapping Fluid, Squirt Bottle	1910502
1 gal	1900	6	Drilling & Tapping Fluid, Bottle	1910503
5 gal	1900	1	Drilling & Tapping Fluid, Dispenser	1910506
5 gal	1900	1	Drilling & Tapping Fluid, Pail	1910504
55 gal	1900	1	Drilling & Tapping Fluid, Drum	1910505
1 lb	1900	24	Wax Stick	1950501
20 oz	1900	12	Aerosal Can - Foam	1910509
1 gal	1900	6	Light Tapping Fluid, Bottle	1930503
16 oz	1900	12	Light Tapping Fluid, Squirt Bottle	1930502

Notes

Notes



Product Warranty



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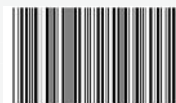
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