



Hand Taps – Premium

Taper, Plug & Bottoming Style Taps



Inch Sizes

Size	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Taper Style	Plug Style	Bottoming Style
					Code	Code	Code
6-32	2	3	0.688	GH3	915600	915628	915656
8-32	2-1/8	4	0.750	GH3	915601	915629	915657
10-24	2-3/8	4	0.875	GH3	915602	915630	915658
10-32	2-3/8	4	0.875	GH3	915615	915643	915671
12-24	2-3/8	4	0.938	GH3	915603	915631	915659
1/4-20	2-1/2	4	1.000	GH3	915604	915632	915660
1/4-28	2-1/2	4	1.000	GH3	915616	915644	915672
5/16-18	2-23/32	4	1.125	GH3	915605	915633	915661
5/16-24	2-23/32	4	1.125	GH3	915617	915645	915673
3/8-16	2-15/16	4	1.250	GH3	915606	915634	915662
3/8-24	2-15/16	4	1.250	GH3	915618	915646	915674
7/16-14	3-5/32	4	1.438	GH3	915607	915635	915663
7/16-20	3-5/32	4	1.438	GH3	915619	915647	915675
1/2-13	3-3/8	4	1.656	GH3	915608	915636	915664
1/2-20	3-3/8	4	1.656	GH3	915620	915648	915676
9/16-12	3-19/32	4	1.656	GH3	915609	915637	915665
9/16-18	3-19/32	4	1.656	GH3	915621	915649	915677
5/8-11	3-13/16	4	1.813	GH3	915610	915638	915666
5/8-18	3-13/16	4	1.813	GH3	915622	915650	915678
3/4-10	4-1/4	4	2.000	GH3	915611	915639	915667
3/4-16	4-1/4	4	2.000	GH3	915623	915651	915679
7/8-9	4-11/16	4	2.219	GH3	915612	915640	915668
7/8-14	4-11/16	4	2.219	GH4	915624	915652	915680
1-8	5-1/8	4	2.500	GH3	915613	915641	915669
1-12	5-1/8	4	2.500	GH4	915625	915653	915681
1-14	5-1/8	4	2.500	GH4	915626	915654	915682
1-1/8-7	5-7/16	4	2.562	GH3	915614	915642	915670
1-1/8-12	5-7/16	4	2.562	GH4	915627	915655	915683

Metric Sizes

Size & Pitch	Thread Limit	Overall Length (Inch)	Thread Length (Inch)	Plug Style	Bottoming Style
				Code	Code
M3 x 0.5	D3	1-15/16	0.675	915684	915692
M4 x 0.7	D4	2-1/8	0.750	915685	915693
M5 x 0.8	D5	2-3/8	0.675	915686	915694
M6 x 1.0	D5	2-1/2	1.000	915687	915695
M8 x 1.25	D5	2-23/32	1.125	915688	915696
M10 x 1.25	D5	2-15/16	1.250	915689	915697
M10 x 1.5	D6	2-15/16	1.250	915690	915698
M12 x 1.75	D6	3-3/8	1.656	915691	915699

Hand Taps – Value

Taper, Plug & Bottoming Style Taps



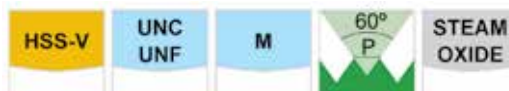
- For general use in production tapping or hand operations
- Taper, plug and bottoming styles provide great versatility in tough materials, blind and through-holes
- Sets include 1 taper tap, 1 plug tap and 1 bottoming tap

Inch Sizes

Size	No. of Flutes	Thread Limit	Taper Style	Plug Style	Bottoming Style	3-Piece Set
			Code	Code	Code	Code
1-64	2	1	828099	828100	828101	828350
1-72	2	1	828103	828104	828105	828349
2-56	3	2	828107	828108	828109	828110
2-64	3	2	828112	828113	828114	828351
3-48	3	2	828117	828118	828119	828120
3-56	3	2	828122	828123	828124	828125
4-40	3	2	828128	828129	828130	828131
4-48	3	2	828133	828134	828135	828136
5-40	3	2	828140	828141	828142	828143
5-44	3	2	828145	828146	828147	828148
6-32	3	3	830000	830001	830002	828155
6-40	3	2	828157	828158	828159	828160
8-32	4	3	830003	830004	830005	828168
8-36	4	2	828170	828171	828172	828173
10-24	4	3	830006	830007	830008	828180
10-32	4	3	830009	828185	828186	828187
12-24	4	3	830010	828192	828193	828194
12-28	4	3	828196	828197	828198	828199
1/4-20	4	3	830011	830012	830013	828206
1/4-28	4	3	830014	830015	830016	828213
5/16-18	4	3	830017	830018	830019	828220
5/16-24	4	3	830020	830021	830022	828227
3/8-16	4	3	830023	830024	830025	828234
3/8-24	4	3	830026	830027	830028	828240
7/16-14	4	3	830029	830030	830031	828248
7/16-20	4	3	830032	830033	830034	828255
1/2-13	4	3	830035	830036	830037	828262
1/2-20	4	3	830038	830039	830040	828269
9/16-12	4	3	830041	830042	830043	828273
9/16-18	4	3	830044	830045	830046	828277
5/8-11	4	3	830047	830048	830049	828282
5/8-18	4	3	830050	830051	830052	828286
11/16-11	4	3	828287	828288	828289	828352
11/16-16	4	3	828290	828291	828292	828293
3/4-10	4	3	830053	830054	830055	828298
3/4-16	4	3	830056	830057	830058	828302
7/8-9	4	4	830059	830060	830061	828306
7/8-14	4	4	830062	830063	830064	828310
1-8	4	4	830065	830066	830067	830068
1-12	4	4	830069	830070	830071	828318
1-14	4	4	830072	830073	830074	828322
1-1/8-7	4	4	830075	830076	830077	828353
1-1/8-12	6	4	830078	830079	830080	828354
1-1/4-7	4	4	828329	828330	828331	828355
1-1/4-12	6	4	828332	828333	828334	828356
1-3/8-6	4	4	828335	828336	828337	828357
1-3/8-12	4	4	828338	828339	828340	-
1-1/2-6	4	4	828341	828342	828343	-
1-1/2-12	6	4	828344	828345	828346	-



Blue Colour Band Taps Spiral Point Plug & Spiral Flute Bottoming Styles



CUTTING CONDITIONS

Material	Material Sub-Group	Condition	Hardness (HRC)	Cutting Speed (FPM)
Low Carbon Steel	1018, 1010, 1035	normalized	<25	20-50
Medium Carbon Steel	1045, 1050, 1065	normalized	<25	20-40
Aluminum	unalloyed, cast	-	-	30-80
Brass/Bronze	-	-	-	30-80
Copper	-	-	-	25-60
Cast iron	-	as cast	<15	20-40

Inch Sizes

Size	Spiral Point					Spiral Flute				
	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code
4-40	1-7/8	2	0.313	GH2	915170	1-7/8	2	0.313	GH2	915126
6-32	2	2	0.375	GH3	915172	2	3	0.375	GH3	915128
6-40	2	2	0.375	GH2	915174	2	-	0.375	GH2	-
8-32	2-1/8	2	0.375	GH3	915176	2-1/8	3	0.375	GH3	915130
10-24	2-3/8	2	0.500	GH3	915178	2-3/8	3	0.500	GH3	915132
10-32	2-3/8	2	0.500	GH3	915180	2-3/8	3	0.500	GH3	915134
12-24	2-3/8	2	0.500	GH3	915182	2-3/8	-	0.500	GH3	-
1/4-20	2-1/2	2	0.625	GH3	915184	2-1/2	3	0.625	GH3	915136
1/4-28	2-1/2	3	0.625	GH3	915186	2-1/2	3	0.625	GH3	915138
5/16-18	2-23/32	2	0.688	GH3	915188	2-23/32	3	0.688	GH3	915140
5/16-24	2-23/32	3	0.688	GH3	915190	2-23/32	3	0.688	GH3	915142
3/8-16	2-15/16	3	0.750	GH3	915192	2-15/16	3	0.750	GH3	915144
3/8-24	2-15/16	3	0.750	GH3	915194	2-15/16	3	0.750	GH3	915146
7/16-14	3-5/32	3	0.875	GH3	915196	3-5/32	3	0.875	GH3	915148
7/16-20	3-5/32	3	0.875	GH3	915198	3-5/32	3	0.875	GH3	-
1/2-13	3-3/8	3	0.938	GH3	915200	3-3/8	3	0.938	GH3	915150
1/2-20	3-3/8	3	0.938	GH3	915202	3-3/8	3	0.938	GH3	915152
5/8-11	3-13/16	3	1.094	GH3	915204	3-13/16	3	1.094	GH3	915154
5/8-18	3-13/16	3	1.094	GH3	915206	3-13/16	4	1.094	GH3	915156
3/4-10	4-1/4	3	1.219	GH3	915208	4-1/4	3	1.219	GH3	915158
3/4-16	4-1/4	3	1.219	GH3	915210	4-1/4	4	1.219	GH3	915160
7/8-9	4-11/16	3	1.344	GH4	915212	4-11/16	3	1.344	GH4	915162
7/8-14	4-11/16	3	1.344	GH4	915214	4-11/16	4	1.344	GH4	915164
1-8	5-1/8	3	1.500	GH4	915216	5-1/8	3	1.500	GH4	915166
1-12	5-1/8	3	1.500	GH4	915218	5-1/8	4	1.500	GH4	915168

Metric Sizes

Size & Pitch	Thread Limit	Overall Length (Inch)	Thread Length (Inch)	Spiral Point		Spiral Flute	
				No. of Flutes	Code	No. of Flutes	Code
M2 x 0.4	D3	1-15/16	0.313	2	915463	-	-
M2.5 x 0.45	D3	1-15/16	0.313	2	915465	-	-
M3 x 0.5	D3	1-15/16	0.313	2	915467	2	915419
M3.5 x 0.6	D4	2	0.375	2	915469	2	915421
M4 x 0.7	D4	2-1/8	0.375	2	915471	3	915423
M4.5 x 0.75	D4	2-3/8	0.500	2	915473	-	-
M5 x 0.8	D4	2-3/8	0.500	2	915475	3	915425
M6 x 1	D5	2-1/2	0.625	3	915477	3	915427
M7 x 1	D5	2-23/32	0.688	3	915479	3	915429
M8 x 1	D5	2-23/32	0.688	3	915483	3	915433

Blue Colour Band Taps



Spiral Point Plug & Spiral Flute Bottoming Styles



Metric Sizes (continued)

Size & Pitch	Thread Limit	Overall Length (Inch)	Thread Length (Inch)	Spiral Point		Spiral Flute	
				No. of Flutes	Code	No. of Flutes	Code
M8 x 1.25	D5	2-23/32	0.688	3	915481	3	915431
M10 x 1.25	D5	2-15/16	0.750	3	915487	3	915437
M10 x 1.5	D6	2-15/16	0.750	3	915485	3	915435
M12 x 1.25	D5	3-3/8	0.938	3	915491	3	915441
M12 x 1.75	D6	3-3/8	0.938	3	915489	3	915439
M14 x 1.5	D6	3-19/32	1.000	3	915495	3	915445
M14 x 2	D7	3-19/32	1.000	3	915493	3	915443
M16 x 1.5	D6	3-13/16	1.094	3	915499	4	915449
M16 x 2	D7	3-13/16	1.094	3	915497	3	915447
M18 x 1.5	D6	4-1/32	1.094	3	915503	4	915453
M18 x 2.5	D7	4-1/32	1.094	3	915501	4	915451
M20 x 1.5	D5	4-15/32	1.219	3	915507	4	915457
M20 x 2.5	D6	4-15/32	1.219	3	915505	4	915455
M22 x 1.5	D6	4-11/16	1.344	3	915511	4	915461
M22 x 2.5	D6	4-11/16	1.344	3	915509	4	915459
M24 x 1.5	D5	4-29/32	1.344	3	915515	-	-
M24 x 3	D7	4-29/32	1.344	3	915513	-	-

Yellow Colour Band Taps



Spiral Point Plug & Spiral Flute Bottoming Styles



Cutting Conditions

Material	Material Sub-Group	Condition	Hardness (HRC)	Cutting Speed (FPM)
Stainless Steel	200 Series	annealed	<28	20-35
	300 Series		<28	20-35
	17-4, 15-5		<25	15-25
	AM286		<25	15-25
	400 Series		<29	20-35
Tool Steel	01, A-2, D-2, H-13, P-20	annealed	<35	15-25
Medium Carbon Steel	1030, 1035, 1038, 1040, 1045, 1050	normalized	<28	20-40
Alloyed High Carbon Steel	1065, 1070, 1080, 1090, 1095, 1561, 1572	normalized	<32	20-30
High Strength Steel	4140, 4340	normalized	<32	20-30
Titanium	commercially pure	annealed	<32	15-30
Aluminum	cast, wrought		-	30-90

Inch Sizes

Size	Spiral Point					Spiral Flute				
	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code
4-40	1-7/8	2	0.335	GH2	915060	1-7/8	2	0.236	GH2	915000
6-32	2	3	0.413	GH3	915062	2	3	0.276	GH2	915002
6-40	2	3	0.413	GH3	915064	2	3	-	-	-
8-32	2-1/8	3	0.453	GH3	915066	2-1/8	3	0.276	GH2	915004



Yellow Colour Band Taps Spiral Point Plug & Spiral Flute Bottoming Styles



Inch Sizes (continued)

Size	Spiral Point					Spiral Flute				
	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code
10-24	2-3/8	3	0.531	GH3	915068	2-3/8	3	0.354	GH2	915006
10-32	2-3/8	3	0.531	GH3	915070	2-3/8	3	0.276	GH3	915008
12-24	2-3/8	3	0.531	GH3	915072	2-3/8	3	-	-	-
1/4-20	2-1/2	3	0.591	GH3	915074	2-1/2	3	0.433	GH3	915010
1/4-28	2-1/2	3	0.591	GH3	915076	2-1/2	3	0.433	GH3	915012
5/16-18	2-23/32	3	0.669	GH3	915078	2-23/32	3	0.472	GH3	915014
5/16-24	2-23/32	3	0.669	GH3	915080	2-23/32	3	0.472	GH3	915016
3/8-16	2-15/16	3	0.748	GH3	915082	2-15/16	3	0.551	GH3	915018
3/8-24	2-15/16	3	0.748	GH3	915084	2-15/16	3	0.551	GH3	915020
7/16-14	3-5/32	3	0.866	GH3	915086	3-5/32	3	0.591	GH3	915022
7/16-20	3-5/32	3	0.866	GH3	915088	-	-	-	-	-
1/2-13	3-3/8	3	0.984	GH3	915090	3-3/8	3	0.630	GH3	915024
1/2-20	3-3/8	3	0.984	GH3	915092	3-3/8	3	0.630	GH3	915026
5/8-11	3-13/16	3	1.083	GH3	915094	3-13/16	4	0.478	GH3	915028
5/8-18	3-13/16	3	1.083	GH3	915096	3-13/16	3	0.572	GH3	915030
3/4-10	4-1/4	3	1.201	GH3	915098	4-1/4	4	0.827	GH3	915032
3/4-16	4-1/4	3	1.201	GH3	915100	4-1/4	4	0.591	GH3	915034
7/8-9	4-11/16	3	1.339	GH4	915102	4-11/16	4	0.827	GH4	915036
7/8-14	4-11/16	3	1.339	GH4	915104	4-11/16	4	0.709	GH4	915038
1-8	5-1/8	3	1.496	GH4	915106	5-1/8	4	0.764	GH4	915040
1-12	5-1/8	3	1.496	GH4	915108	5-1/8	4	0.984	GH4	915042
1-1/8-7	5-7/16	4	1.610	GH4	915110	5-7/16	4	1.115	GH4	915044
1-1/8-12	5-7/16	4	1.610	GH4	915112	5-7/16	4	0.984	GH4	915046
1-1/4-7	5-3/4	4	1.610	GH4	915114	5-3/4	4	1.115	GH4	915048
1-1/4-12	5-3/4	4	1.610	GH4	915116	5-3/4	4	0.984	GH4	915050
1-3/8-6	6-1/16	4	1.900	GH4	915118	5-3/4	4	1.115	GH4	915052
1-3/8-12	6-1/16	4	1.900	GH4	915120	5-3/4	4	1.115	GH4	915054
1-1/2-6	6-3/8	4	2.000	GH4	915122	6-3/8	4	1.350	GH4	915056
1-1/2-12	6-3/8	4	2.000	GH4	915124	6-3/8	4	1.350	GH4	915058

Metric Sizes

Size & Pitch	Spiral Point					Spiral Flute				
	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code
M2 x 0.4	1-15/16	2	0.375	D3	915357	-	-	-	-	-
M2.5 x 0.45	1-15/16	2	0.375	D3	915359	-	-	-	-	-
M3 x 0.5	1-15/16	2	0.375	D3	915361	1-15/16	3	0.197	D3	915301
M3.5 x 0.6	2	2	0.375	D4	915363	2	3	0.276	D4	915303
M4 x 0.7	2-1/8	2	0.375	D4	915365	2-1/8	3	0.276	D4	915305
M4.5 x 0.75	2-3/8	2	0.500	D4	915367	-	-	-	-	-
M5 x 0.8	2-3/8	2	0.500	D4	915369	2-3/8	3	0.354	D4	915307
M6 x 1	2-1/2	2	0.625	D5	915371	2-1/2	3	0.433	D5	915309
M7 x 1	2-23/32	3	0.687	D5	915373	2-23/32	3	0.433	D5	915311
M8 x 1	2-23/32	3	0.687	D5	915377	2-23/32	3	0.472	D5	915315
M8 x 1.25	2-23/32	3	0.687	D5	915375	2-23/32	3	0.472	D5	915313
M10 x 1.25	2-15/16	3	0.750	D5	915381	2-15/16	3	0.472	D5	915319
M10 x 1.5	2-15/16	3	0.750	D6	915379	2-15/16	3	0.512	D6	915317
M12 x 1.25	3-3/8	3	0.937	D5	915385	3-3/8	3	0.551	D5	915323
M12 x 1.75	3-3/8	3	0.937	D6	915383	3-3/8	3	0.591	D6	915321
M14 x 1.5	3-19/32	3	1.000	D6	915389	3-19/32	3	0.709	D6	915327

Yellow Colour Band Taps



Spiral Point Plug & Spiral Flute Bottoming Styles



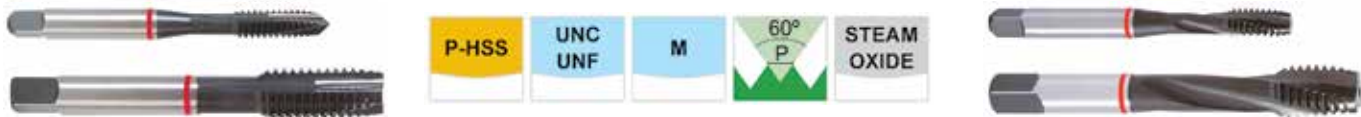
Metric Sizes (continued)

Size & Pitch	Spiral Point					Spiral Flute				
	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code
M14 x 2	3-19/32	3	1.000	D7	915387	3-19/32	3	0.709	D7	915325
M16 x 1.5	3-13/16	3	1.093	D6	915393	3-13/16	3	0.551	D6	915331
M16 x 2	3-13/16	3	1.093	D7	915391	3-13/16	3	0.709	D7	915329
M18 x 1.5	4-1/32	3	1.093	D6	915397	4-1/32	4	0.551	D6	915335
M18 x 2.5	4-1/32	3	1.093	D7	915395	4-1/32	4	0.787	D7	915333
M20 x 1.5	4-1/4	3	1.201	D5	915401	4-1/32	4	0.551	D5	915339
M20 x 2.5	4-1/4	3	1.201	D6	915399	4-1/32	4	0.701	D6	915337
M22 x 1.5	4-11/16	3	1.343	D6	915405	4-11/16	4	0.551	D6	915343
M22 x 2.5	4-11/16	3	1.343	D6	915403	4-11/16	4	0.787	D6	915341
M24 x 1.5	4-29/32	3	1.496	D5	915409	4-11/16	4	0.551	D5	915347
M24 x 3	4-29/32	3	1.496	D7	915407	4-11/16	4	0.787	D7	915345
M27 x 1.5	5-1/8	3	1.540	D7	915413	5-1/8	4	0.690	D7	915351
M27 x 3	5-1/8	3	1.540	D7	915411	5-1/8	4	1.105	D7	915349
M30 x 1.5	5-1/8	3	1.540	D7	915417	5-7/16	4	0.690	D7	915355
M30 x 3.5	5-1/8	3	1.540	D7	915415	5-7/16	4	1.250	D7	915353

Red Colour Band Taps



Spiral Point Plug & Spiral Flute Bottoming Styles



Cutting Conditions

Material	Material Sub-Group	Condition	Hardness (HRC)	Cutting Speed (FPM)
Stainless Steel	17-4PH, 15-5, 17-7PH, AM350	hardened	<48	12-20
Tool Steel	01, A-2, D-2, H-13, P-20	hardened	<48	10-20
High Strength Steel	4140, 4340, 50100	hardened	<48	15-20
Nickel Alloys	inconel, hastaloy, waspaloy, astraloy, rene, monel	annealed or hardened	<42	5-20
Titanium	6 AL 4	annealed or hardened	<42	8-15

Inch Sizes

Size	Spiral Point					Spiral Flute				
	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code
4-40	1-7/8	2	0.335	H2	915258	1-7/8	2	0.236	H2	915220
5-40	1-15/16	3	0.374	H2	915260	1-15/16	3	-	-	-
6-32	2	3	0.413	H3	915262	2	3	0.276	H3	915222
8-32	2-1/8	3	0.453	H3	915264	2-1/8	3	0.276	H3	915224
10-24	2-3/8	3	0.531	H3	915266	2-3/8	3	0.354	H3	915226
10-32	2-3/8	3	0.531	H3	915268	2-3/8	3	0.276	H3	915228
1/4-20	2-1/2	3	0.591	H3	915270	2-1/2	3	0.433	H3	915230
1/4-28	2-1/2	3	0.591	H3	915272	2-1/2	3	0.354	H3	915232
5/16-18	2-23/32	3	0.669	H3	915274	2-23/32	3	0.472	H3	915234
5/16-24	2-23/32	3	0.669	H3	915276	2-23/32	3	0.394	H3	915236



Red Colour Band Taps

Spiral Point Plug & Spiral Flute Bottoming Styles



Inch Sizes (continued)

Size	Spiral Point					Spiral Flute				
	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code	Overall Length (Inch)	No. of Flutes	Thread Length (Inch)	Thread Limit	Code
3/8-16	2-15/16	3	0.748	H3	915278	2-15/16	3	0.551	H3	915238
3/8-24	2-15/16	3	0.748	H3	915280	2-15/16	3	0.394	H3	915240
7/16-14	3-5/32	3	0.866	H3	915282	3-5/32	3	0.591	H3	915242
7/16-20	3-5/32	3	0.866	H3	915284	3-5/32	3	0.472	H3	915244
1/2-13	3-3/8	3	0.984	H3	915286	3-3/8	3	0.630	H3	915246
1/2-20	3-3/8	3	0.984	H3	915288	3-3/8	3	0.472	H3	915248
5/8-11	3-13/16	3	1.083	H3	915290	3-13/16	4	0.748	H3	915250
5/8-18	3-13/16	3	1.083	H3	915292	3-13/16	4	0.512	H3	915252
3/4-10	4-1/4	3	1.201	H3	915294	4-1/4	4	0.827	H3	915254
3/4-16	4-1/4	3	1.201	H3	915296	4-1/4	4	0.591	H3	915256

Metric Sizes

Size & Pitch	Overall Length (Inch)	Thread Limit	Spiral Point Plug Style			Spiral Flute Bottoming Style		
			No. of Flutes	Thread Length (Inch)	Code	No. of Flutes	Thread Length (Inch)	Code
M3 x 0.5	1-15/16	D3	3	0.374	915533	3	0.197	915517
M4 x 0.7	2-1/8	D4	3	0.453	915535	3	0.276	915519
M5 x 0.8	2-3/8	D4	3	0.531	915537	3	0.354	915521
M6 x 1.0	2-1/2	D5	3	0.591	915539	3	0.433	915523
M8 x 1.25	2-23/32	D5	3	0.669	915541	3	0.472	915525
M10 x 1.25	2-15/16	D5	3	0.748	915545	3	0.472	915529
M10 x 1.5	2-15/16	D6	3	0.748	915543	3	0.512	915527
M12 x 1.75	3-3/8	D6	3	0.984	915547	3	0.591	915531

Taper Pipe Taps

High Speed Steel – Straight Flute – Ground Flute



Size	Threads per Inch	Code	Size	Threads per Inch	Code	Size	Threads per Inch	Code
1/16	27	313131	1/2	14	313135	1-1/2	11-1/2	313139
1/8	27	313132	3/4	14	313136	2	11-1/2	313140
1/4	18	313133	1	11-1/2	313137			
3/8	18	313134	1-1/4	11-1/2	313138			

Pipe Taps



High Speed Steel – Straight Flute, Spiral Flute & Interrupted Thread



HSS – Straight Flute



- For cast iron and steel applications
- NPT and NPTF standards

HSSE-V3 – Spiral Flute



- For cast iron, steel and stainless steel applications
- NPT and NPTF standards
- High speed steel substrate with cobalt and 3% vanadium content for cutting stainless steels up to 29 HRC and tool steels up to 35 HRC

HSS – Interrupted Thread



- For cast iron and steel applications
- Reduces cutting pressure
- NPTF standards

Size (Inch)	Thread per Inch	No. of Flutes	Overall Length (Inch)	Thread Length (Inch)	Straight Flute	Spiral Flute	Interrupted Thread
					Code	Code	Code
1/16	27	4	2-1/8	0.688	915700	915716	–
1/8	27	4	2-1/8	0.750	915701	915717	915710
1/4	18	4	2-7/16	1.063	915702	915718	915711
3/8	18	4	2-9/16	1.063	915703	915719	915712
1/2	14	4	3-1/8	1.375	915704	915720	915713
3/4	14	5	3-1/4	1.375	915705	915721	915714
1	11-1/2	5	3-3/4	1.750	915706	915722	915715
1-1/4	11-1/2	5	4	1.750	915707	915723	–
1-1/2	11-1/2	7	4-1/4	1.750	915708	915724	–
2	11-1/2	7	4-1/2	1.750	915709	915725	–

Long Pipe Taps

High Speed Steel

Taper Pipe



Tap Size	No. of Flutes	6"	12"
		Overall Length Code	Overall Length Code
1/8 - 27	4	828900	–
1/4 - 18	4	828901	828905
3/8 - 18	4	828902	828906
1/2 - 14	4	828903	828907
3/4 - 14	5	828904	311522

Pulley Taps

High Speed Steel – Ground Thread



These taps have the same major and pitch diameters as standard fractional size taps, but with extended shanks for reaching locations inaccessible with regular hand taps.

Tap Size	Thread Length (Inch)	6"	8"	10"
		Overall Length Code	Overall Length Code	Overall Length Code
1/4 - 20	1	828077	828083	–
5/16 - 18	1-1/2	828078	828084	–
3/8 - 16	1-1/4	828079	828085	828089
7/16 - 14	1-7/16	828080	828086	828090
1/2 - 13	1-21/32	828081	828087	828091
5/8 - 11	1-13/16	828082	828088	828092
3/4 - 10	2	–	–	828093

Extension Taps

High Speed Steel – Ground Thread



- Plug chamfer
- Hand taps
- Spiral pointed
- Similar to a pulley tap but has a smaller shank diameter for long reach applications

Tap Size	Threads per Inch	6" Overall Length	
		Hand Tap	Spiral Point Tap
		Code	Code
#10	24	311775	311781
#10	32	311776	311782
1/4	20	311777	311783
5/16	18	311778	311784
3/8	16	311779	311785
1/2	13	311780	311786



Tapping Lubricant

- This proven tapping lubricant is made from a unique blend of synthetic additives for use on all metals
- Water-based formula for easy clean-up
- Safe for all materials
- Does not contain 1,1,1 trichloroethane
- No mineral oils or solvents
- No oily residue
- 100% safe

Description	Code
16 oz. bottle	219002

Combined Taps & Drills

High Speed Steel – 2 Flute – Ground Thread



- Designed to drill and tap through-holes in a single pass up to depths that are two times the tap diameter
- May be used on multiple spindle heads with reversing mechanisms

Machine Screw Sizes

Nominal Size	Drill Size (Inch)	Thread Length (Inch)	Overall Length (Inch)	Code
4-40	0.0910	3/8	1-7/8	311537
4-48	0.0945	11/32	1-7/8	311538
5-40	0.1040	13/32	1-15/16	311540
6-32	0.1115	15/32	2	311541
6-40	0.1170	7/16	2	311543
8-32	0.1375	33/64	2-1/8	311544

Nominal Size	Drill Size (Inch)	Thread Length (Inch)	Overall Length (Inch)	Code
10-24	0.1545	5/8	2-3/8	311545
10-32	0.1635	9/16	2-3/8	311546
12-24	0.1805	11/16	2-3/8	311547
12-28	0.1860	21/32	2-3/8	311548

Fractional Sizes

Nominal Size	Drill Size (Inch)	Thread Length (Inch)	Overall Length (Inch)	Code
1/4-20	0.2080	13/16	2-1/2	311549
1/4-28	0.2200	23/22	2-1/2	311550
5/16-18	0.2660	31/32	2-27/32	311551
5/16-24	0.2770	7/8	2-27/32	311552
3/8-16	0.3225	1-1/8	3-3/8	311553
3/8-24	0.3395	1	3-3/8	311554

Nominal Size	Drill Size (Inch)	Thread Length (Inch)	Overall Length (Inch)	Code
7/16-14	0.3770	1-5/16	3-3/4	311555
7/16-20	0.3955	1-3/16	4-3/4	311556
1/2-13	0.4350	1-15/32	4-1/16	311557
1/2-20	0.4580	1-15/16	4-1/16	311558

Metric Sizes

Nominal Size	Drill Size (Inch)	Thread Length (Inch)	Overall Length (Inch)	Code
M3 x 0.50	M2.50	13/32	1-15/16	311559
M4 x 0.70	M3.30	1/2	2-1/8	311560
M5 x 0.80	M4.20	5/8	2-3/8	311561
M6 x 1.00	M5.00	25/32	2-1/2	311562

Nominal Size	Drill Size (Inch)	Thread Length (Inch)	Overall Length (Inch)	Code
M8 x 1.25	M6.75	15/16	2-27/32	311563
M10 x 1.50	M8.50	1-1/16	3-3/8	311564
M12 x 1.75	M10.25	1-3/8	4-1/16	311565

ACME Tandem Taps

High Speed Steel



- Tandem style tap eliminates the excessive cost of producing ACME threads
- Produces threads from 10° to 30° included angle in a single pass without a lead-screw
- The last few threads on the roughing section function as a guide for the short finishing section, which corrects the angles and brings the threads to size

Size (Inch)	Threads per Inch	Thread Length (Inch)	Overall Length (Inch)	Code
3/8	12	2-1/2	5	311566
1/2	10	2-9/16	5	311567
5/8	8	3-3/16	6-1/4	311568
3/4	6	4-5/16	7-15/16	311569
7/8	6	4-3/8	8-5/8	311570
1	5	5-1/4	10-1/8	311571
1-1/8	5	5-1/4	10-3/4	311572
1-1/4	5	5-1/4	11-1/8	311573
1-3/8	4	5-7/8	12-1/4	311574
1-1/2	4	5-7/8	12-5/8	311575

Tap Chucks

SJ Style – For Machine Screw, Hand & Pipe Tap Sizes



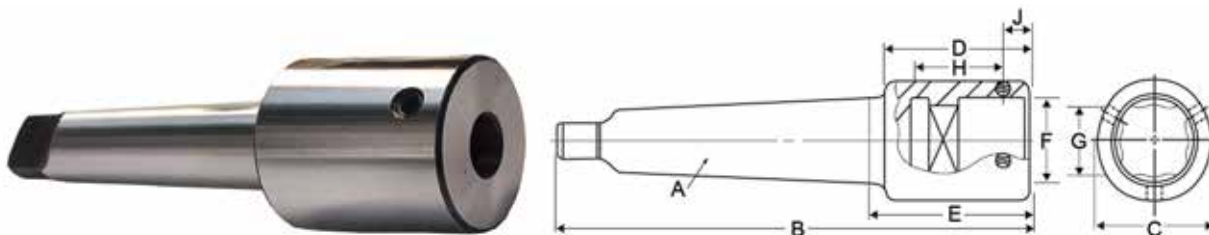
Tap Size	Morse Taper	Diameter of Tap Shank (Inch)	Dimension Across Flats of Square (Inch)	Depth Tap Enters Chuck (Inch)	Machine Screw Tap Sizes	Hand Tap Sizes	Pipe Tap Sizes
					Code	Code	Code
#0 to #6	1	0.1410	0.110	0.7125	826000	–	–
#8	1	0.1680	0.131	0.8250	826001	–	–
#10	1	0.1940	0.152	0.8875	826002	–	–
#12	1	0.2200	0.165	0.9125	826003	–	–
1/4	1	0.2550	0.191	0.9750	–	826004	–
1/4	2	0.2550	0.191	0.9750	–	826005	–
5/16	1	0.3180	0.238	1.0000	–	826006	–
5/16	2	0.3180	0.238	1.0000	–	826007	–
*3/8	1	0.2750	0.206	1.0500	–	826008	–
*3/8	2	0.2750	0.206	1.0500	–	826009	–
**3/8	2	0.3810	0.286	1.0500	–	826010	–
7/16	2	0.3230	0.242	1.0750	–	826011	–
1/2	2	0.3670	0.275	1.1000	–	826012	–
1/2	3	0.3670	0.275	1.1000	–	826013	–
9/16	2	0.4290	0.322	1.2750	–	826014	–
5/8	2	0.4800	0.360	1.4500	–	826015	–
5/8	3	0.4800	0.360	1.4500	–	826016	–
3/4	3	0.5900	0.442	1.8000	–	826017	–
3/4	4	0.5900	0.442	1.8000	–	826018	–
7/8	3	0.6970	0.523	1.9125	–	826019	–
7/8	4	0.6970	0.523	1.9125	–	826020	–
1	4	0.8000	0.600	2.0250	–	826021	–
1-1/8	5	0.8960	0.672	2.1375	–	826022	–
1-1/4	5	1.0210	0.766	2.3000	–	826023	–
1-3/8	5	1.1080	0.831	2.3500	–	826024	–
1-1/2	5	1.2330	0.925	2.4000	–	826025	–
1-3/4	5	1.4300	1.072	2.3750	–	826026	–
*1/16, 1/8	2	0.3125	0.234	1.0000	–	–	826027
**1/8	2	0.4375	0.328	1.0000	–	–	826028
1/4	3	0.5625	0.421	1.1250	–	–	826029
3/8	4	0.7000	0.531	1.3750	–	–	826030
1/2	4	0.6875	0.515	1.5000	–	–	826031
3/4	4	0.9063	0.679	1.6875	–	–	826032
3/4	5	0.9063	0.679	1.6875	–	–	826033
1	5	1.1250	0.843	1.8750	–	–	826034
1-1/4	5	1.3125	0.984	2.1250	–	–	826035
1-1/2	5	1.5000	1.125	2.2500	–	–	826036

*Small Shank **Large Shank 3/8 hand tap with small shank is not standard

Tap Drivers

Heavy Duty – For Hand & Pipe Tap Sizes

Broached square in holder is approximately 0.030" larger than tap square dimension "G"



For Hand Tap Sizes

Tap Size (Inch)	A Morse Taper Shank	B Overall Length (Inch)	C Body Diameter (Inch)	D Body Length (Inch)	E Projection (Inch)	F Tap Shank (Inch)	G Tap Square (Inch)	H Depth Tap Enters Holder (Inch)	J Location of Set Screw (Inch)	Code
3/4	3	6	1-23/32	2-1/8	2-5/16	0.590	0.442	1-3/8	7/16	826037
3/4	4	7	1-23/32	2-1/8	2-3/8	0.590	0.442	1-3/8	7/16	826038
7/8	3	6	1-23/32	2-1/8	2-5/16	0.697	0.523	1-1/2	7/16	826039
7/8	4	7	1-23/32	2-1/8	2-3/8	0.697	0.523	1-1/2	7/16	826040
1	3	6	1-23/32	2-1/8	2-5/16	0.800	0.600	1-5/8	7/16	826041
1	4	7	1-23/32	2-1/8	2-3/8	0.800	0.600	1-5/8	7/16	826042
1-1/16 – 1-1/8	3	6	1-23/32	2-1/8	2-5/16	0.896	0.672	1-3/4	7/16	826043
1-1/16 – 1-1/8	4	7	1-23/32	2-1/8	2-3/8	0.896	0.672	1-3/4	7/16	826044
1-3/16 – 1-1/4	3	6-5/8	1-27/32	2-3/4	2-15/16	1.021	0.766	2-3/16	5/8	826045
1-3/16 – 1-1/4	4	7-5/8	1-27/32	2-3/4	3	1.021	0.766	2-3/16	5/8	826046
1-5/16 – 1-3/8	3	7-5/8	1-27/32	2-3/4	2-15/16	1.108	0.831	2-1/4	5/8	826047
1-5/16 – 1-3/8	4	9-1/8	1-27/32	2-3/4	3	1.108	0.831	2-1/4	5/8	826048
1-7/16 – 1-1/2	4	7-7/8	1-27/32	2-3/4	3	1.233	0.925	2-5/16	5/8	826049
1-7/16 – 1-1/2	5	9-1/8	2-19/32	3	3-1/4	1.233	0.925	2-5/16	5/8	826050
1-5/8	4	7-7/8	2-19/32	3	3-1/4	1.305	0.979	2-3/8	5/8	826051
1-5/8	5	9-1/8	2-19/32	3	3-1/4	1.305	0.979	2-3/8	5/8	826052
1-3/4	4	7-7/8	2-19/32	3	3-1/4	1.430	1.072	2-3/8	5/8	826053
1-3/4	5	9-1/8	2-19/32	3	3-1/4	1.430	1.072	2-3/8	5/8	826054
1-7/8	4	7-7/8	2-19/32	3	3-1/4	1.519	1.139	2-1/2	5/8	826055
1-7/8	5	9-1/8	2-19/32	3	3-1/4	1.519	1.139	2-1/2	5/8	826056
2	4	8	2-19/32	3-1/8	3-3/8	1.644	1.233	2-5/8	5/8	826057
2	5	9-5/8	2-23/32	3-1/2	3-3/4	1.644	1.233	2-5/8	3/4	826058
2-1/8	5	9-5/8	2-23/32	3-1/2	3-3/4	1.769	1.327	3	3/4	826059
2-1/4	5	10-3/16	2-31/32	4-1/16	4-5/16	1.894	1.420	3-1/8	7/8	826060
2-3/8	5	10-3/16	2-31/32	4-1/16	4-5/16	2.019	1.514	3-3/8	7/8	826061
2-1/2	5	10-1/2	3-11/32	4-3/8	4-5/8	2.100	1.575	3-1/2	1	826062
2-5/8	5	10-1/2	3-11/32	4-3/8	4-5/8	2.225	1.669	3-1/2	1	826063
2-3/4	5	10-1/2	3-11/32	4-3/8	4-5/8	2.350	1.762	3-5/8	1	826064
2-7/8	5	10-11/16	3-17/32	4-9/16	4-13/16	2.475	1.856	3-5/8	1	826065
3	5	10-11/16	3-17/32	4-9/16	4-13/16	2.543	1.907	3-3/4	1	826066

For Pipe Tap Sizes

Tap Size (Inch)	A Morse Taper Shank	B Overall Length (Inch)	C Body Diameter (Inch)	D Body Length (Inch)	E Projection (Inch)	F Tap Shank (Inch)	G Tap Square (Inch)	H Depth Tap Enters Holder (Inch)	J Location of Set Screw (Inch)	Code
3/4	3	6	1-23/32	2-1/8	2-5/16	0.9063	0.679	1-5/8	1/2	826067
3/4	4	7	1-23/32	2-1/8	2-3/8	0.9063	0.679	1-5/8	1/2	826068
1	3	6	1-23/32	2-1/8	2-5/16	1.1250	0.843	1-3/4	1/2	826069
1	4	7	1-23/32	2-1/8	2-3/8	1.1250	0.843	1-3/4	1/2	826070
1-1/4	4	7-9/16	2-7/32	2-11/16	2-15/16	1.3125	0.984	2	5/8	826071
1-1/4	5	8-13/16	2-7/32	2-11/16	2-15/16	1.3125	0.984	2	5/8	826072
1-1/2	4	7-9/16	2-7/32	2-11/16	2-15/16	1.5000	1.125	2-1/4	5/8	826073
1-1/2	5	8-13/16	2-7/32	2-11/16	2-15/16	1.5000	1.125	2-1/4	5/8	826074
1-3/4	4	7-7/8	2-19/32	3	3-1/4	1.6250	1.218	2-3/8	3/4	826075
1-3/4	5	9-1/8	2-19/32	3	3-1/4	1.6250	1.218	2-3/8	3/4	826076
2	5	9-1/2	3-3/16	3-3/8	3-5/8	1.8750	1.406	2-1/2	3/4	826077

Tap Drivers

Heavy Duty – For Hand & Pipe Tap Sizes (continued)

For Pipe Tap Sizes (continued)

Tap Size (Inch)	A Morse Taper Shank	B Overall Length (Inch)	C Body Diameter (Inch)	D Body Length (Inch)	E Projection (Inch)	F Tap Shank (Inch)	G Tap Square (Inch)	H Depth Tap Enters Holder (Inch)	J Location of Set Screw (Inch)	Code
2-1/4	5	9-1/2	3-3/16	3-3/8	3-5/8	2.0000	1.500	2-5/8	3/4	826078
2-1/2	5	9-1/2	3-3/16	3-3/8	3-5/8	2.2500	1.687	2-3/4	3/4	826079
2-3/4	5	9-15/16	3-19/32	3-13/16	4-1/16	2.3750	1.781	2-7/8	3/4	826080
3	5	9-15/16	3-19/32	3-13/16	4-1/16	2.6250	1.968	3	3/4	826081

Tap Extensions

ANSI Standard



Tap Size	A Diameter (Inch)	B Square (Inch)	C Extension (Inch)	D	E Diameter (Inch)	Code
#0 – #6	0.141	0.110	2.000	1.000	0.440	685001
#8	0.168	0.131	2.000	1.000	0.440	685002
#10	0.194	0.152	2.000	1.000	0.440	685003
#12	0.220	0.165	2.000	1.000	0.440	685004
1/4	0.255	0.191	2.000	1.120	0.620	685005
5/16	0.318	0.238	2.000	1.120	0.620	685006
3/8	0.381	0.286	2.000	1.250	0.750	685007
7/16	0.323	0.242	2.000	1.250	0.750	685008
1/2	0.367	0.275	2.000	1.250	0.750	685009
9/16	0.429	0.322	3.000	1.380	0.750	685010

Tap Size	A Diameter (Inch)	B Square (Inch)	C Extension (Inch)	D	E Diameter (Inch)	Code
5/8	0.480	0.360	3.000	1.620	0.880	685011
3/4	0.590	0.442	3.000	1.750	1.000	685012
7/8	0.697	0.523	3.000	2.000	1.120	685013
1/8 P SS	0.312	0.234	2.000	1.250	0.620	685020
1/8 P LS	0.437	0.328	2.000	1.250	0.750	685021
1/4 P	0.562	0.421	2.000	1.250	0.880	685022
3/8 P	0.700	0.531	3.000	1.500	1.120	685023
1/2 P	0.687	0.515	3.000	1.500	1.120	685024

Tap Wrenches



T-Handle



Ratchet

For drill presses or lathes. Used for threading a drilled hole manually at one machine location without moving the workpiece. Better than a hand-held tap wrench.



Piloted Spindle



Adjustable Tap and Reamer

Description	Range	Range (mm)	Length (Inch)	Code
T-Handle	#0 – #12	1.5 – 5.0	–	318001
	#10 – 1/4	4.0 – 6.0	–	318002
	#12 – 5/16	5.0 – 8.0	–	318003
	1/4 – 1/2	6.0 – 12.0	–	318004
Ratchet	#0 – 1/4	1.5 – 6.0	–	318006
	1/4 – 1/2	6.0 – 12.0	–	318007

Description	Range	Range (mm)	Length (Inch)	Code
Piloted Spindle	#0 – 1/4	1.5 – 6	–	318009
	1/4 – 1/2	6 – 12	–	318010
Adjustable Tap and Reamer	#0 – 1/4	1.5 – 6	7	318012
	#12 – 1/2	5 – 12	11	318013
	1/4 – 3/4	6 – 20	15	318014
	3/8 – 1	10 – 25	19	318015
	3/8 – 1-3/4	9.2 – 36	29	318017



Round Dies

High Speed Steel – Adjustable – Split
Machine Screw, Fractional, NPT Pipe & Metric Sizes

Machine Screw & Fractional Sizes

Size	Threads per Inch	Die Diameter (Inch)	Code
0	80	13/16	601500
1	64	13/16	601501
1	72	13/16	601502
2	56	13/16	601503
2	64	13/16	601504
3	48	13/16	601505
3	56	13/16	601506
4	48	13/16	601507
4	40	13/16	601508
4	36	13/16	601509
5	40	13/16	601510
5	44	13/16	601511
6	32	13/16	601512
6	40	13/16	601513
8	32	13/16	601514
8	36	13/16	601515
10	24	13/16	601516
10	32	13/16	601517
12	24	13/16	601518
12	28	13/16	601519
1/4	20	13/16	601520
1/4	28	13/16	601521
5/16	18	13/16	601522
5/16	24	13/16	601523
4	48	1	601524
4	40	1	601525
5	40	1	601526
6	32	1	601527
6	40	1	601528
8	32	1	601529
8	36	1	601530
10	24	1	601531

Size	Threads per Inch	Die Diameter (Inch)	Code
10	32	1	601532
12	24	1	601533
12	28	1	601534
1/4	20	1	601535
1/4	28	1	601536
5/16	18	1	601537
5/16	24	1	601538
3/8	16	1	601539
3/8	24	1	601540
7/16	14	1	601541
7/16	20	1	601542
1/2	13	1	601543
1/2	20	1	601544
1/4	20	1-1/2	601545
1/4	28	1-1/2	601546
5/16	18	1-1/2	601547
5/16	24	1-1/2	601548
3/8	16	1-1/2	601549
3/8	24	1-1/2	601550
7/16	14	1-1/2	601551
7/16	20	1-1/2	601552
1/2	13	1-1/2	601553
1/2	20	1-1/2	601554
9/16	12	1-1/2	601555
9/16	18	1-1/2	601556
5/8	11	1-1/2	601557
5/8	18	1-1/2	601558
11/16	11	1-1/2	601559
11/16	16	1-1/2	601560
3/4	10	1-1/2	601561

Size	Threads per Inch	Die Diameter (Inch)	Code
3/4	16	1-1/2	601562
1/4	20	2	601563
1/4	28	2	601564
5/16	18	2	601565
5/16	24	2	601566
3/8	16	2	601567
3/8	24	2	601568
7/16	14	2	601569
7/16	20	2	601570
1/2	13	2	601571
1/2	20	2	601572
9/16	12	2	601573
9/16	18	2	601574
5/8	11	2	601575
5/8	18	2	601576
3/4	10	2	601577
3/4	16	2	601578
7/8	9	2	601579
7/8	14	2	601580
1	8	2	601581
1	12	2	601582
1	14	2	601583
1-1/8	7	2-1/2	601584
1-1/8	12	2-1/2	601585
1-1/4	7	2-1/2	601586
1-1/4	12	2-1/2	601587
1-3/8	6	2-1/2	601588
1-3/8	12	2-1/2	601589
1-1/2	6	2-1/2	601590
1-1/2	12	2-1/2	601591

NPT Pipe Sizes

Size	Threads per Inch	Die Diameter (Inch)	Code
1/8	27	1	601592
1/8	27	1-1/2	601593

Size	Threads per Inch	Die Diameter (Inch)	Code
1/4	18	1-1/2	601594
3/8	18	1-1/2	601595

Size	Threads per Inch	Die Diameter (Inch)	Code
1/2	14	2	601596
3/4	14	2	601597
1	11-1/2	2-1/2	601598

Metric Sizes

Size (mm)	Pitch (mm)	Die Diameter (Inch)	Code
2	0.40	1	601599
2.2	0.45	1	601600
2.3	0.40	1	601601
2.5	0.45	1	601602
2.6	0.45	1	601603
3	0.50	1	601604
3.5	0.60	1	601605
4	0.50	1	601606

Size (mm)	Pitch (mm)	Die Diameter (Inch)	Code
4	0.70	1	601607
4.5	0.50	1	601608
4.5	0.75	1	601609
5	0.50	1	601610
5	0.80	1	601611
6	0.50	1	601612
6	0.75	1	601613
6	1.00	1	601614

Size (mm)	Pitch (mm)	Die Diameter (Inch)	Code
7	0.75	1	601615
7	1.00	1	601616
8	0.75	1	601617
8	1.00	1	601618
8	1.25	1	601619
9	1.25	1	601620
10	0.75	1	601621
10	1.00	1	601622



Round Dies

High Speed Steel – Adjustable – Split
Machine Screw, Fractional, NPT Pipe & Metric Sizes

Metric Sizes (continued)

Size (mm)	Pitch (mm)	Die Diameter (Inch)	Code	Size (mm)	Pitch (mm)	Die Diameter (Inch)	Code	Size (mm)	Pitch (mm)	Die Diameter (Inch)	Code
10	1.25	1	601623	14	1.00	1-1/2	601639	20	2.50	2	601655
10	1.50	1	601624	14	1.25	1-1/2	601640	22	1.00	2	601656
11	1.50	1	601625	14	1.50	1-1/2	601641	22	1.50	2	601657
12	1.00	1	601626	14	2.00	1-1/2	601642	22	2.00	2	601658
9	1.00	1-1/2	601627	15	1.50	1-1/2	601643	22	2.50	2	601659
9	1.25	1-1/2	601628	16	1.00	1-1/2	601644	24	1.50	2	601660
10	0.75	1-1/2	601629	16	1.50	1-1/2	601645	24	2.00	2	601661
10	1.00	1-1/2	601630	16	2.00	1-1/2	601646	24	3.00	2	601662
10	1.25	1-1/2	601631	17	1.50	1-1/2	601647	27	2.00	2	601663
10	1.50	1-1/2	601632	18	1.50	1-1/2	601648	27	3.00	2	601664
11	1.00	1-1/2	601633	18	2.00	1-1/2	601649	28	1.50	2	601665
11	1.50	1-1/2	601634	18	2.50	1-1/2	601650	30	1.50	2	601666
12	1.00	1-1/2	601635	20	1.50	1-1/2	601651	30	2.00	2	601667
12	1.25	1-1/2	601636	20	2.50	1-1/2	601652	30	3.50	2	601668
12	1.50	1-1/2	601637	20	1.50	2	601653				
12	1.75	1-1/2	601638	20	2.00	2	601654				



Hexagonal Dies

Carbon Steel – Rethreading
Machine Screw, Fractional, NPT Pipe & Metric Sizes

Machine Screw & Fractional Sizes

Size	Threads per Inch	Code	Size	Threads per Inch	Code	Size	Threads per Inch	Code	Size	Threads per Inch	Code
2	56	311787	12	28	311799	9/16	18	311811	1-1/8	7	311823
4	40	311788	1/4	20	311800	5/8	11	311812	1-1/8	12	311824
4	48	311789	1/4	28	311801	5/8	18	311813	1-1/4	7	311825
5	40	311790	5/16	18	311802	11/16	11	311814	1-1/4	12	311826
5	44	311791	5/16	24	311803	11/16	16	311815	1-3/8	6	311827
6	32	311792	3/8	16	311804	3/4	10	311816	1-3/8	12	311828
6	40	311793	3/8	24	311805	3/4	16	311817	1-1/2	6	311829
8	32	311794	7/16	14	311806	7/8	9	311818	1-1/2	12	311830
8	36	311795	7/16	20	311807	7/8	14	311819	1-3/4	5	311831
10	24	311796	1/2	13	311808	1	8	311820	2	4-1/2	311832
10	32	311797	1/2	20	311809	1	12	311821	2-1/4	4-1/2	311833
12	24	311798	9/16	12	311810	1	14	311822	2-1/2	4	311834

NPT Pipe Sizes

Size (Inch)	Threads per Inch	Code	Size (Inch)	Threads per Inch	Code	Size (Inch)	Threads per Inch	Code
1/8	27	311874	3/8	18	311876	3/4	14	311878
1/4	18	311875	1/2	14	311877	1	11-1/2	311879



Hexagonal Dies

Carbon Steel – Rethreading

Machine Screw, Fractional, NPT Pipe & Metric Sizes (continued)

Metric Sizes

Size (mm)	Pitch (mm)	Code	Size (mm)	Pitch (mm)	Code	Size (mm)	Pitch (mm)	Code	Size (mm)	Pitch (mm)	Code
3	0.50	311835	8	1.25	311845	14	2.00	311855	24	3.00	311865
3	0.60	311836	9	1.00	311846	16	1.50	311856	27	2.00	311866
4	0.70	311837	9	1.25	311847	16	2.00	311857	27	3.00	311867
4	0.75	311838	10	1.25	311848	18	1.50	311858	30	2.00	311868
5	0.80	311839	10	1.50	311849	18	2.50	311859	30	3.50	311869
5	0.90	311840	11	1.50	311850	20	1.50	311860	33	2.00	311870
6	1.00	311841	12	1.25	311851	20	2.50	311861	33	3.50	311871
6.3	1.00	311842	12	1.50	311852	22	1.50	311862	36	3.00	311872
7	1.00	311843	12	1.75	311853	22	2.50	311863	36	4.00	311873
8	1.00	311844	14	1.50	311854	24	2.00	311864			

Round Die Holders



Hand Type - Die Stock



Piloted Spindle



Floating

Description	Ø Die (Inch)	Ø Body (Inch)	Ø Shank (Inch)	Overall Length (Inch)	Code
Hand Type Die Stock	13/16	–	–	–	318020
	1	–	–	–	318021
	1-5/16	–	–	–	318022
	1-1/2	–	–	–	318023
	2	–	–	–	318024
	2-1/2	–	–	–	318025

Description	Ø Die (Inch)	Ø Body (Inch)	Ø Shank (Inch)	Overall Length (Inch)	Code
Piloted Spindle	13/16	1-1/2	–	3	318030
	1	1-1/2	–	3	318031
Floating	13/16	–	1/2	–	318027
	1	–	1/2	–	318028
	1-1/2	–	3/4	–	318029

Screw Extractors



- For removing broken screws, studs, pipe fittings, etc., without damaging the threads



Size	Sizes for Screws & Bolts (Inch)	Pipe Size (Inch)	Code	Size	Sizes for Screws & Bolts (Inch)	Pipe Size (Inch)	Code
1	3/16 – 1/4	–	311496	7	1 – 1-3/8	1/2	311502
2	1/4 – 5/16	–	311497	8	1-3/8 – 1-3/4	3/4	311503
3	5/16 – 7/16	–	311498	9	1-3/4 – 2-1/8	1	311504
4	7/16 – 9/16	1/8	311499	10	2-1/8 – 2-1/2	1-1/4	311505
5	9/16 – 3/4	1/4	311500	11	2-1/2 – 3	1-1/2	311506
6	3/4 – 1	3/8	311501	12	3 – 3-1/2	2	311507

Size	Sizes for Screws & Bolts (Inch)	Pipe Size (Inch)	Code
SETS – 5 Pieces – Sizes 1 to 5			311508
Vinyl Pouch not included			

Premium Bolt & Screw Extrator Sets

Spiral & Square – Left Hand – Gold Finish



Spiral – 10 Pieces

Description	Code
5 left hand drill sizes: 3/32", 1/8", 3/16", 1/4" and 5/16", and 5 spiral extrators Supplied in Metal Index	750008



Square – 8 Pieces

Description	Code
4 left hand drill sizes: 1/8", 3/16", 1/4" and 5/16", and 4 square extrators Supplied in Metal Index	750009

Tap & Drill Sets

- Larger drill diameters which reduce tap breakage
- Supplied in vinyl storage case

Fractional & Machine Screw



Taps (Plug)	Tap Drill
6 - 32	7/64
8 - 32	#29
10 - 24	#23
10 - 32	#20
1/4 - 20	13/64
5/16 - 18	17/64
3/8 - 16	P
1/2 - 13	7/16

Metric



Taps (Plug)	Tap Drill (mm)
M3 x 0.50	2.50
M3.5 x 0.60	2.90
M4 x 0.70	3.30
M5 x 0.80	4.20
M6 x 1.00	5.00
M8 x 1.25	6.75
M10 x 1.50	8.50
M12 x 1.75	10.25

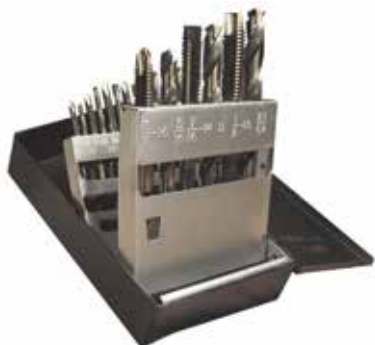
Description	Code
16-Piece Set (8 taps and 8 drills) Supplied in Vinyl Pouch	311526

Description	Code
16-Piece Set (8 taps and 8 drills) Supplied in Vinyl Pouch	311527

Premium Tap & Drill Sets

Black & Gold – 18 Pieces

- These premium heavy duty drills have gold treatment for maximum lubricity and torsional strength



Description	Code
135° Split Point Drills: 5/16", 27/64", #7, #21, #25, #29, #36, F and U, and Spiral Point Taps: 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14 and 1/2-13 Supplied in Metal Index	750007