

# Cutting Tools

## End Mills - Slot Drills - - - Solid Carbide

### • series 112 - 2 flute slot drill



Two flute slot drills offer the maximum stock removal and with over-centre end cutting offer optimum performance when plunging and slotting, particularly on soft materials such as light alloys, aluminium, non-ferrous metals and plastics.

### • series 113 - 3 flute slot drill



Three flute slot drills represent a compromise between two and four flute benefits, offering slotting and plunging facilities due to their over-centre cutting capability as well as profiling. Their increased flute clearance capability compared with the four flute, together with a stronger tooth form than a two flute, often makes them the optimum tool for medium range materials.

### • series 114 - 4 flute end mill



Four flute end mills have one of the strongest tooth forms available and as such are suited to peripheral and profile milling operations on harder and tougher materials where the excellent swarf clearance properties of the two flute are not critical. Series 114-4 flute end mills are centre cutting.

#### METRIC SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code		
				2 flute	3 flute	4 flute
1	3	3	38	AG03001	AG03022	AG03043
1.5	3	5	38	AG03002	AG03023	AG03044
2	3	6	38	AG03003	AG03024	AG03045
2.5	3	7	38	AG03004	AG03025	AG03046
3	3	12	38	AG03005	AG03026	AG03047
3.5	4	12	50	AG03006	AG03027	AG03048
4	4	14	50	AG03007	AG03028	AG03049
4.5	5	14	50	AG03008	AG03029	AG03050
5	5	16	50	AG03009	AG03030	AG03051
6	6	19	63	AG03010	AG03031	AG03052
7	8	19	63	AG03011	AG03032	AG03053
8	8	19	63	AG03012	AG03033	AG03054
9	10	22	70	AG03013	AG03034	AG03055
10	10	22	70	AG03014	AG03035	AG03056
11	11	25	70	AG03015	AG03036	AG03057
12	12	25	75	AG03016	AG03037	AG03058
14	14	30	88	AG03017	AG03038	AG03059
16	16	32	88	AG03018	AG03039	AG03060
18	18	36	100	AG03019	AG03040	AG03061
20	20	38	100	AG03020	AG03041	AG03062
25	25	38	100	AG03021	AG03042	AG03063

#### IMPERIAL SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code		
				2 flute	3 flute	4 flute
1/16	1/8	3/16	1 1/2	AG03064	AG03080	AG03096
3/32	1/8	9/32	1 1/2	AG03065	AG03081	AG03097
1/8	1/8	7/16	1 1/2	AG03066	AG03082	AG03098
5/32	3/16	1/2	2	AG03067	AG03083	AG03099
3/16	3/16	9/16	2	AG03068	AG03084	AG03100
7/32	1/4	5/8	2 1/2	AG03069	AG03085	AG03101
1/4	1/4	3/4	2 1/2	AG03070	AG03086	AG03102
9/32	5/16	3/4	2 1/2	AG03071	AG03087	AG03103
5/16	5/16	13/16	2 1/2	AG03072	AG03088	AG03104
3/8	3/8	7/8	2 1/2	AG03073	AG03089	AG03105
7/16	7/16	1	2 3/4	AG03074	AG03090	AG03106
1/2	1/2	1	3	AG03075	AG03091	AG03107
9/16	9/16	1 1/8	3 1/2	AG03076	AG03092	AG03108
5/8	5/8	1 1/4	3 1/2	AG03077	AG03093	AG03109
3/4	3/4	1 1/2	4	AG03078	AG03094	AG03110
1	1	1 1/2	4	AG03079	AG03095	AG03111

## Ball Nosed - End Mills - - - Solid Carbide

Ball nosed end mills in two, three and four flute configurations may be used for contour milling of three-dimensional components.

### • series 122 - 2 flute slot drill ball nosed



### • series 123 - 3 flute slot drill ball nosed



### • series 124 - 4 flute end mill ball nosed



#### METRIC SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code		
				2 flute	3 flute	4 flute
1	3	2	38	AG03112	AG03132	AG03152
1.5	3	5	38	AG03113	AG03133	AG03153
2	3	6	38	AG03114	AG03134	AG03154
2.5	3	7	38	AG03115	AG03135	AG03155
3	3	12	38	AG03116	AG03136	AG03156
3.5	4	12	50	AG03117	AG03137	AG03157
4	4	14	50	AG03118	AG03138	AG03158
4.5	5	14	50	AG03119	AG03139	AG03159
5	5	16	50	AG03120	AG03140	AG03160
6	6	19	63	AG03121	AG03141	AG03161
7	8	19	63	AG03122	AG03142	AG03162
8	8	19	63	AG03123	AG03143	AG03163
9	10	22	70	AG03124	AG03144	AG03164
10	10	22	70	AG03125	AG03145	AG03165
11	11	25	70	AG03126	AG03146	AG03166
12	12	25	75	AG03127	AG03147	AG03167
14	14	30	88	AG03128	AG03148	AG03168
16	16	32	88	AG03129	AG03149	AG03169
18	18	36	100	AG03130	AG03150	AG03170
20	20	38	100	AG03131	AG03151	AG03171

#### IMPERIAL SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code		
				2 flute	3 flute	4 flute
1/16	1/8	3/16	1 1/2	AG03172	AG03187	AG03202
3/32	1/8	9/32	1 1/2	AG03173	AG03188	AG03203
1/8	1/8	7/16	1 1/2	AG03174	AG03189	AG03204
5/32	3/16	1/2	2	AG03175	AG03190	AG03205
3/16	3/16	9/16	2	AG03176	AG03191	AG03206
7/32	1/4	5/8	2 1/2	AG03177	AG03192	AG03207
1/4	1/4	3/4	2 1/2	AG03178	AG03193	AG03208
9/32	5/16	3/4	2 1/2	AG03179	AG03194	AG03209
5/16	5/16	13/16	2 1/2	AG03180	AG03195	AG03210
3/8	3/8	7/8	2 1/2	AG03181	AG03196	AG03211
7/16	7/16	1	2 3/4	AG03182	AG03197	AG03212
1/2	1/2	1	3	AG03183	AG03198	AG03213
9/16	9/16	1 1/8	3 1/2	AG03184	AG03199	AG03214
5/8	5/8	1 1/4	3 1/2	AG03185	AG03200	AG03215
3/4	3/4	1 1/2	4	AG03186	AG03201	AG03216

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## Long Series- End Mills—Solid Carbide

Long series end mills have the same geometry and end cut configuration as our standard two, three and four flute end mills but have longer flutes and greater overall lengths.

- series 146 - 2 flute slot drill long series



- series 147 - 3 flute slot drill long series



- series 148 - 3 flute end mill long series



### METRIC SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code		
				2 flute	3 flute	4 flute
3	3	25	65	AG03332	AG03342	AG03352
4	4	25	65	AG03333	AG03343	AG03353
5	5	25	75	AG03334	AG03344	AG03354
6	6	25	75	AG03335	AG03345	AG03355
8	8	25	75	AG03336	AG03346	AG03356
10	10	38	100	AG03337	AG03347	AG03357
12	12	50	100	AG03338	AG03348	AG03358
16	16	75	150	AG03339	AG03349	AG03359
20	20	75	150	AG03340	AG03350	AG03360
25	25	75	150	AG03341	AG03351	AG03361

### IMPERIAL SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code	
				2 flute	4 flute
1/8	1/8	1	2 1/4	AG03362	AG03372
3/16	3/16	1 1/8	3	AG03363	AG03373
1/4	1/4	1 1/8	3	AG03364	AG03374
5/16	5/16	1 1/8	3	AG03365	AG03375
3/8	3/8	1 1/4	4	AG03366	AG03376
7/16	7/16	2	4 1/2	AG03367	AG03377
1/2	1/2	2	4 1/2	AG03368	AG03378
5/8	5/8	2 1/4	5	AG03369	AG03379
3/4	3/4	2 1/4	5	AG03370	AG03380
1	1	2 1/4	5	AG03371	AG03381

## Long Series- End Mills—Solid Carbide

Long Series ball nosed end mills have the same geometry and end cut configuration as our standard two, three and four flute ball nosed cutters but have longer flutes and greater overall lengths.

These cutters are ideal for deep three dimensional contour milling.

- series 126 - 2 flute slot drill long series - ball nosed



- series 127 - 3 flute slot drill long series - ball nosed



- series 128 - 4 flute end mill long series - ball nosed



### METRIC SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code		
				2 flute	3 flute	4 flute
3	3	25	75	AG03382	AG03393	AG03404
4	4	25	75	AG03383	AG03394	AG03405
5	5	25	75	AG03384	AG03395	AG03406
6	6	25	75	AG03385	AG03396	AG03407
8	8	25	75	AG03386	AG03397	AG03408
10	10	38	100	AG03387	AG03398	AG03409
12	12	50	100	AG03388	AG03399	AG03410
14	14	60	125	AG03389	AG03400	AG03411
16	16	75	150	AG03390	AG03401	AG03412
18	18	75	150	AG03391	AG03402	AG03413
20	20	75	150	AG03392	AG03403	AG03414

### IMPERIAL SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code	
				2 flute	4 flute
1/4	1/4	1 1/8	3	AG03415	AG03422
5/16	5/16	1 1/8	3	AG03416	AG03423
3/8	3/8	1 1/4	4	AG03417	AG03424
7/16	7/16	2	4 1/2	AG03418	AG03425
1/2	1/2	2	4 1/2	AG03419	AG03426
5/8	5/8	2 1/4	5	AG03420	AG03427
3/4	3/4	2 1/4	5	AG03421	AG03428

## Drills—Solid Carbide

This drill has a stronger web and shallower flute than the Jobber Drill. Whilst still exhibiting the four facet end geometry, it is web thinned at the point to facilitate accurate penetration. This reduces heat build up on high temperature alloys and work hardening materials. The Slow Helix Drill offers more mechanical strength during drilling operations, enabling harder and tougher materials to be drilled effectively whilst providing excellent hole size retention together with a high surface finish. High Alloy steels, inconal, titanium and stainless steels (austenitic) are the materials where the Slow Helix Drill performs at its best.

- series 212 - slow helix 135° angle



### METRIC SIZES

Cutter dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code
1.5	16	41	AG03611
1.6	16	41	AG03612
1.7	17	43	AG03613
1.8	17	43	AG03614
1.9	17	43	AG03615
2.0	19	44	AG03616
2.1	19	44	AG03617
2.2	19	44	AG03618
2.3	19	44	AG03619
2.4	19	44	AG03620
2.5	21	46	AG03621
2.6	21	46	AG03622
2.7	21	46	AG03623
2.8	22	48	AG03624
2.9	22	48	AG03625
3.0	22	48	AG03626
3.1	22	48	AG03627
3.2	22	48	AG03628
3.3	24	50	AG03629
3.4	24	50	AG03630
3.5	24	50	AG03631
3.6	24	50	AG03632

### METRIC SIZES

Cutter dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code
3.7	25	52	AG03633
3.8	25	52	AG03634
3.9	25	52	AG03635
4.0	27	54	AG03636
4.1	27	54	AG03637
4.2	27	54	AG03638
4.3	27	54	AG03639
4.4	29	56	AG03640
4.5	29	56	AG03641
4.6	29	56	AG03642
4.7	29	56	AG03643
4.8	30	57	AG03644
4.9	30	57	AG03645
5.0	30	57	AG03646
5.1	30	57	AG03647
5.2	32	60	AG03648
5.3	32	60	AG03649
5.4	32	60	AG03650
5.5	32	60	AG03651
5.6	33	62	AG03652
5.7	33	62	AG03653

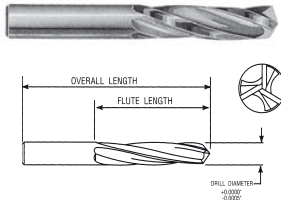
### METRIC SIZES

Cutter dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code
5.8	33	62	AG03654
5.9	33	62	AG03655
6.0	35	63	AG03656
6.1	35	63	AG03657
6.2	35	63	AG03658
6.3	35	63	AG03659
6.4	35	63	AG03660
6.5	37	67	AG03661
7.0	38	68	AG03662
7.5	40	70	AG03663
8.0	41	71	AG03664
8.5	43	75	AG03665
9.0	44	78	AG03666
9.5	46	80	AG03667
10.0	49	83	AG03668
10.5	50	84	AG03669
11.0	52	87	AG03670
11.5	54	92	AG03671
12.0	56	94	AG03672
12.5	57	95	AG03673

## Drills—Solid Carbide

Designed for tough materials including stainless steel, nickel based alloys and titanium, this is also suitable for use on cast iron, alloys steels and non-ferrous metals. As well as providing an accurate self-centring and core drilling capability the three flute geometry enables improved hole roundness and surface finish whilst maintaining a superior hole size. The three flutes also reduce the chip load per cutting edge, thereby increasing tool life and enabling higher feed rates to be achieved.

- series 210 - three flute 135° incl. angle



METRIC SIZES

Cutter dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code
3.0	19	48	AG03772
3.1	19	48	AG03773
3.2	19	48	AG03774
3.3	20	50	AG03775
3.4	20	50	AG03776
3.5	20	50	AG03777
3.6	20	50	AG03778
3.7	21	52	AG03779
3.8	21	52	AG03780
3.9	21	52	AG03781
4.0	22	54	AG03782
4.1	22	54	AG03783
4.2	22	54	AG03784
4.3	22	54	AG03785
4.4	24	56	AG03786
4.5	24	56	AG03787
4.6	24	56	AG03788
4.7	24	56	AG03789
4.8	25	57	AG03790
4.9	25	57	AG03791
5.0	25	57	AG03792
5.1	25	57	AG03793
5.2	27	60	AG03794
5.3	27	60	AG03795

METRIC SIZES

Cutter dia (mm)	Flute length (mm)	Overall length (mm)	Stock Code
5.4	27	60	AG03796
5.5	27	60	AG03798
5.6	29	62	AG03799
5.7	29	62	AG03800
5.8	29	62	AG03801
5.9	29	62	AG03802
6.0	30	63	AG03803
6.1	30	63	AG03804
6.2	30	63	AG03805
6.3	30	63	AG03806
6.4	30	63	AG03807
6.5	32	67	AG03808
7.0	33	68	AG03809
7.5	35	70	AG03810
8.0	37	71	AG03811
8.5	38	75	AG03812
9.0	39	78	AG03813
9.5	40	80	AG03814
10.0	41	83	AG03815
10.5	42	84	AG03816
11.0	44	87	AG03817
11.5	47	92	AG03818
12.0	50	94	AG03819
12.5	50	95	AG03820

## Micro Drill—Solid Carbide

Micro Drill are manufactured to exacting standards of geometry and finish and offer the following special advantages:

- Standard 1/8" shank diameter for all drill eliminates the need for costly range of collets.
- Strength and rigidity of 1/8" shank ensures accurate size and location tolerance of holes.
- TiR is held to 0.0001" to minimise breakages.
- Four facet point and micro finish flutes permit faster drilling of clean accurate holes in single sided and multi layer work.

### Applications

Cast Iron, Light Alloys, Alloy Bronze, Brass, Copper, Stainless Steel, Steels over 35 Rc, Glass Reinforced Plastic.

- series 226 - micro drill



METRIC SIZES

Size (mm)	Inch equiv. (mm)	Flute length (mm)	Stock Code
.50	.0197	6.35	AG03821
.55	.0216	6.35	AG03822
.60	.0236	7.92	AG03823
.65	.0256	7.92	AG03824
.70	.0275	9.92	AG03825
.75	.0295	9.92	AG03826
.80	.0315	9.52	AG03827
.85	.0335	10.66	AG03828
.90	.0354	10.66	AG03829
.95	.0374	10.66	AG03830
1.00	0.394	10.66	AG03831
1.05	.0413	10.66	AG03832
1.10	.0433	10.66	AG03833
1.15	.0453	10.66	AG03834
1.20	.0472	10.66	AG03835
1.25	.0492	10.66	AG03836
1.30	.0512	10.66	AG03837
1.35	.0531	10.66	AG03838
1.40	.0551	10.66	AG03839
1.45	.0571	10.66	AG03840
1.50	.0590	10.66	AG03841
1.55	.0610	10.66	AG03842
1.60	.0630	12.19	AG03843
1.65	.0650	12.19	AG03844

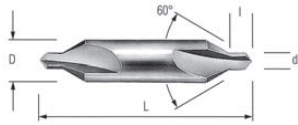
METRIC SIZES

Size (mm)	Inch equiv. (mm)	Flute length (mm)	Stock Code
1.70	.0670	12.19	AG03845
1.75	.0689	12.19	AG03846
1.80	.0709	12.19	AG03847
1.85	.0728	12.19	AG03848
1.90	.0748	12.19	AG03849
1.95	.0768	12.19	AG03850
2.00	.0787	12.19	AG03851
2.05	.0807	12.19	AG03852
2.10	.0827	12.19	AG03853
2.15	.0846	12.19	AG03854
2.20	.0866	12.19	AG03855
2.25	.0886	12.19	AG03856
2.30	.0905	12.19	AG03857
2.35	.0925	12.19	AG03858
2.40	.0945	12.19	AG03859
2.45	.0965	12.19	AG03860
2.50	.0985	12.19	AG03861
2.60	.1024	12.19	AG03862
2.70	.1063	12.19	AG03863
2.80	.1102	12.19	AG03864
2.90	.1142	12.19	AG03865
3.00	.1181	12.19	AG03866
3.10	.1221	12.19	AG03867

## Centre drills—Solid Carbide

Combined Countersink Centre Drills are produced to the highest standards of finish and tolerance. Although the prime function of the tool is to provide hole centring, the 60° cutting face provides a useful tool for hole chamfering. They resist deflection and provide positional accuracy. Ideal for machining hard or exotic materials.

### • series 214 - centre drills



### METRIC SIZES

'd' dia (mm)	'D' dia (mm)	'L' length (mm)	'l' length (mm)	Stock Code
1.6	4.0	35.5	2.4	AG03941
2.0	5.0	40.0	2.9	AG03942
2.5	6.3	45.0	3.6	AG03943
3.15	8.0	50.0	4.4	AG03944
4.0	10.0	56.0	5.6	AG03945
5.0	12.5	63.0	6.9	AG03946

### IMPERIAL SIZES

'd' dia (mm)	'D' dia (mm)	'L' length (mm)	'l' length (mm)	Stock Code	Equiv BS Ref.	U.S. Std. No.
3/64	1/8	1 1/4	5/64	AG03947	BS1	1
5/64	3/16	1 7/8	7/64	AG03948		2
7/64	1/4	2	5/32	AG03949		3
1/8	5/16	2 1/8	11/64	AG03950	BS4	4
3/16	7/16	2 3/4	1/4	AG03951	BS5	5
7/32	1/2	3	19/64	AG03952		6
1/4	5/8	3 1/4	11/32	AG03953	BS6	7

## Countersinks

Countersinks are available with 60° and 90° included angles. Single flute, although it can be used on hardened steel, is recommended primarily for softer non-metallic and non-ferrous materials. The multi-flute version is ideal for hardened steel, high temperature alloys and other tough materials.

Rigid set-up and good machine tool maintenance are vital to reduce the possibility of cutting edge damage.

- series 241 - single flute 60° incl. angle
- series 242 - single flute 90° incl. angle
- series 243 - multi flute 60° incl. angle
- series 244 - multi flute 90° incl. angle



### IMPERIAL SIZES

Head dia (ins)	Shank dia (ins)	Stock Code	
		series 241 single-60°	series 242 single-90°
1/4	1/4	AG03964	AG03988
3/8	1/4	AG03965	AG03969
1/2	1/4	AG03966	AG03970
3/4	1/2	AG03967	AG03971

### IMPERIAL SIZES

Head dia (ins)	Shank dia (ins)	Stock Code	
		series 243 multi-60°	series 244 multi-90°
1/4	1/4	AG03972	AG03977
3/8	1/4	AG03973	AG03978
1/2	1/4	AG03974	AG03979
5/8	3/8	AG03975	AG03980
3/4	1/2	AG03976	AG03981

## Ground Rod - - - Solid Carbide

The following tables indicate the STOCK SIZES of GROUND LENGTHS of TUNGSTEN CARBIDE ROD. On many occasions toolmakers, engravers, etc., prefer to produce cutting tools to their own design, and the following stock list is provided for their use.

- series 200 - metric
- series 201 - imperial



### METRIC STOCK SIZES

Head dia (ins)	Shank dia (ins)	Stock Code
3	38	AG04167
3	45	AG04168
3	63	AG04169
4	50	AG04170
5	50	AG04171
6	50	AG04172
6	63	AG04173
6	75	AG04174
8	63	AG04175
10	70	AG04176
11	70	AG04177
12	75	AG04178
14	88	AG04179
16	88	AG04180
18	100	AG04181
20	100	AG04182
25	100	AG04183

### IMPERIAL STOCK SIZES

Head dia (ins)	Shank dia (ins)	Stock Code
3/32	1 1/4	AG04184
3/32	2 1/2	AG04185
1/8	1 1/2	AG04186
1/8	1 3/4	AG04187
1/8	2 1/2	AG04188
3/16	2	AG04189
1/4	2	AG04190
1/4	2 1/2	AG04191
1/4	3	AG04192
5/16	2 1/2	AG04193
3/8	2 1/2	AG04194
7/16	2 3/4	AG04195
1/2	3	AG04196
9/16	3 1/2	AG04197
5/8	3 1/2	AG04198
3/4	4	AG04199
1	4	AG04200

Diameter Tolerances +0.000mm/-0.013mm (All lengths nominal)

Diameter Tolerances +0.000"/-0.00005" (All lengths nominal)

## Reamers—Solid Carbide

Solid Carbide Reamers give an excellent surface finish. The rigidity of the carbide enables consistent size and position to be maintained on long production runs. The problems incurred when using conventional reamers on exotic materials are eliminated by the use of solid carbide. Garryson Carbide Reamers can also be used successfully on materials having a hardness above 40Rc. For the best results it is essential that the reamer is made to work. Too little stock left in the hole will cause the reamer to rub and scrape, resulting in premature tool failure.

- series 220 - 40° straight flute right hand cutting



### METRIC SIZES

Cutter dia (mm)	Shank dia (mm)	Flute length (mm)	Overall length (mm)	No. of flutes	Stock Code
1.5	1.17	9.5	38.0	4	AG03982
2	1.85	12.7	44.4	4	AG03983
2.5	2.44	15.9	57.1	4	AG03984
3	2.84	15.9	57.1	4	AG03985
3.5	3.43	19.1	63.5	4	AG03986
4	3.84	19.1	63.5	4	AG03987
4.5	4.42	22.2	69.9	4	AG03988
5	4.83	25.4	76.2	4	AG03989
6	5.82	25.4	76.2	4	AG03990
7	6.86	28.6	82.6	6	AG03991
8	7.65	28.6	82.6	6	AG03992
9	8.84	31.8	88.9	6	AG03993
10	9.65	31.8	88.9	6	AG03994

### Standard Tolerances

1/4" diameter and smaller +0.0001" to +0.0004"  
Over 1/4" diameter +0.0001" to +0.0005"

### IMPERIAL SIZES

Cutter dia (ins)	Shank dia (ins)	Flute length (ins)	Overall length (ins)	No. of flutes	Stock Code
3/64	.043	3/8	1 1/2	4	AG03995
1/16	.058	3/8	1 1/2	4	AG03996
5/64	.073	1/2	1 3/4	4	AG03997
3/32	.088	1/2	2	4	AG03998
7/64	.104	5/8	2 1/4	4	AG03999
1/8	.120	5/8	2 1/4	4	AG04000
9/64	.135	3/4	2 1/2	4	AG04001
5/32	.151	3/4	2 1/2	4	AG04002
11/64	.166	7/8	2 3/4	4	AG04003
3/16	.182	7/8	2 3/4	4	AG04004
13/64	.198	1	3	4	AG04005
7/32	.213	1	3	4	AG04006
15/64	.229	1	3	4	AG04007
1/4	.244	1	3	4	AG04008
17/64	.252	1 1/8	3 1/4	6	AG04009
9/32	.270	1 1/8	3 1/4	6	AG04010
19/64	.252	1 1/8	3 1/4	6	AG04011
5/16	.301	1 1/8	3 1/4	6	AG04012
21/64	.217	1 1/4	3 1/2	6	AG04013
11/32	.332	1 1/4	3 1/2	6	AG04014
23/64	.348	1 1/4	3 1/2	6	AG04015
3/8	.363	1 1/4	3 1/2	6	AG04016
7/16	.410	1 3/8	3 3/4	6	AG04017
1/2	.470	1 1/2	4	6	AG04018

# Cutting Tools

<b>OTHER DIAMETERS - OTHER LENGTHS</b>
OPTION (1) - All above listed diameters with alternative overall lengths - Delivery - 2-3 days. Prices on application.
OPTION (2) - Any diameter (up to 25mm or 1") , any length (up to max. 300mm or 12") - Price and delivery on application; subject to quantity.

## Conversion Chart—Solid Carbide

Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)	Decimal (mm)	Sizes	Decimal (ins)
.794	1/32	.0132	2.383	3/32	.0938	4.700	13	.1850	7.366	L	2.900	12.000		.4724
.800		.0315	2.400		.0945	4.750		.1870	7.400		.2913	12.304	31/64	.4844
.813	67	.0320	2.438	41	.0960	4.763	3/16	.1875	7.493	M	.2950	12.500		.4921
.838	66	.0330	2.450		.0965	4.800	12	.1890	7.500		.2953	12.700	1/2	.5000
.851		.0335	2.489	40	.0980	4.850	11	.1910	7.541	19/64	.2969	13.000		.5118
.889	65	.0350	2.500		.0984	4.900		.1929	7.600		.2992	13.096	33/64	.5156
.900		.0354	2.527	39	.0995	4.915	10	.1935	7.671	N	.3020	13.492	17/32	.5312
.914	64	.0360	2.578	38	.1015	4.978	9	.1960	7.700		.3031	13.500		.5315
.940	63	.0370	2.600		.1024	5.000		.1969	7.750		.3051	13.891	35/64	.5469
.950		.0374	2.642	37	.1040	5.055	8	.1990	7.800		.3071	14.000		.5512
.965	62	.0380	2.700		.1063	5.100		.2008	7.900		.3110	14.287	9/16	.5625
.991	61	.0390	2.705	36	.1065	5.105	7	.2010	7.938	5/16	.3125	14.500		.5709
1.000		.0394	2.750		.1083	5.159	13/64	.2031	8.000		.3150	14.684	37/64	.5781
1.016	60	.0400	2.779	7/64	.1094	5.182	6	.2040	8.026	O	.3160	15.000		.5906
1.041	59	.0410	2.794	35	.1100	5.200		.2047	8.100		.3189	15.083	19/32	.5938
1.049		.0413	2.800		.1102	5.220	5	.2055	8.200		.3228	15.479	39/64	.6094
1.067	58	.0420	2.819	34	.1110	5.250		.2067	8.204	P	.3230	15.500		.6102
1.092	57	.0430	2.870	33	.1130	5.300		.2087	8.250		.3248	15.875	5/8	.6250
1.100		.0433	2.900		.1142	5.309	4	.2090	8.300		.3268	16.000		.6299
1.151		.0453	2.946	32	.1160	5.400		.2126	8.334	21/64	.3281	16.271	41/64	.6406
1.181	56	.0465	3.000		.1181	5.410	3	.2130	8.400		.3307	16.500		.6496
1.191	3/64	.0469	3.048	31	.1200	5.500		.2165	8.433	Q	.3320	16.667	21/32	.6562
1.200		.0472	3.100		.1220	5.558	7/32	.2188	8.500		.3346	17.000		.6693
1.250		.0492	3.175	1/8	.1250	5.600		.2205	8.600		.3386	17.066	43/64	.6719
1.300		.0512	3.200		.1260	5.613	2	.2210	8.611	R	.3390	17.463	11/16	.6875
1.321	55	.0520	3.250		.1280	5.700		.2244	8.700		.3425	17.500		.6890
1.349		.0531	3.264	30	.1285	5.750		.2264	8.733	11/32	.3438	17.859	45/64	.7031
1.397	54	.0550	3.300		.1299	5.791	1	.2280	8.750		.3445	18.000		.7087
1.400		.0551	3.400		.1339	5.800		.2283	8.800		.3465	18.258	23/32	.7188
1.450		.0571	3.454	29	.1360	5.900		.2323	8.839	S	.3480	18.5000		.7283
1.500		.0591	3.500		.1378	5.944	A	.2340	8.900		.3504	18.654	47/64	.7344
1.511	53	.0595	3.569	28	.1405	5.954	15/64	.2344	9.000		.3543	19.000		.7480
1.550		.0610	3.571	9/64	.1406	6.000		.2362	9.093	T	.3580	19.050	3/4	.7500
1.588	1/16	.0625	3.600		.1417	6.045	B	.2380	9.100		.3583	19.446	49/64	.7656
1.600		.0630	3.658	27	.1440	6.100		.2402	9.125	23/64	.3594	19.500		.7677
1.613	52	.0635	3.700		.1457	6.147	C	.2420	9.200		.3622	19.842	25/32	.7812
1.650		.0650	3.734	26	.1470	6.200		.2441	9.250		.3642	20.000		.7874
1.700		.0669	3.750		.1476	6.248	D	.2460	9.300		.3661	20.241	51/64	.7969
1.702	51	.0670	3.797	25	.1495	6.250		.2461	9.347	U	.3680	20.500		.8071
1.750		.0689	3.800		.1496	6.300		.2480	9.400		.3701	20.638	13/16	.8125
1.778	50	.0700	3.861	24	.1520	6.350	E	.2500	9.500		.3740	21.000		.8268
1.800		.0709	3.900		.1536	6.350	1/4	.2500	9.525	3/8	.3750	21.034	53/64	.8281
1.850		.0728	3.912	23	.1540	6.400		.2520	9.576	V	.3770	21.433	27/32	.8438
1.854	49	.0730	3.962	5/32	.1562	6.500		.2559	9.600		.3780	21.500		.8465
1.900		.0748	3.988	22	.1570	6.528	F	.2570	9.700		.3819	21.829	55/64	.8594
1.930	48	.0760	4.000		.1575	6.600		.2598	9.750		.3839	22.000		.8661
1.950		.0768	4.039	21	.1590	6.629	G	.2610	9.800		.3858	22.225	7/8	.8750
1.984	5/64	.0781	4.089	20	.1610	6.700		.2638	9.804	W	.3860	22.500		.8858
1.994	47	.0785	4.100		.1614	6.746	17/64	.2656	9.900		.3898	22.261	57/64	.8906
2.000		.0787	4.200		.1654	6.750		.2657	9.921	25/64	.3906	23.000		.9055
2.050		.0807	4.216	19	.1660	6.756	H	.2660	10.000		.3937	23.000		.9055
2.057	46	.0810	4.250		.1673	6.800		.2677	10.084	X	.3970	23.017	29/32	.9062
2.083	45	.0820	4.300		.1693	6.900		.2717	10.262	Y	.4040	23.416	59/64	.9219
2.100		.0827	4.305	18	.1695	6.909	I	.2720	10.317	13/32	.4062	23.500		.9252
2.150		.0846	4.366	11/64	.1719	7.000		.2756	10.490	Z	.4130	23.813	15/16	.9375
2.184	44	.0860	4.394	17	.1730	7.036	J	.2770	10.500		.4134	24.000		.9449
2.200		.0866	4.400		.1732	7.100		.2795	10.716	27/64	.4219	24.209	61/64	.9531
2.250		.0886	4.496	16	.1770	7.137	K	.2810	11.000		.4331	24.500		.9646
2.260	43	.0890	4.500		.1772	7.142	9/32	.2812	11.113	7/16	.4375	24.608	31/2	.9688
2.300		.0906	4.572	15	.1800	7.200		.2835	11.500		.4528	25.000		.9843
2.350		.0925	4.600		.1811	7.250		.2854	11.509	29/64	.4531	25.004	63/64	.9844
2.375	42	.0935	4.623	14	.1820	7.300		.2874	11.908	15/32	.4688	25.400		1.000

# Cutting Tools

## Recoil Kits

Kits are available in both single size kits and range kits. Each kit consists of a high speed tap, tang break - off/insertion tool, a quantity of inserts, easy to follow instructions, and comes in a quality reusable metal box. A standard kit comes with an intermediate tap. M10, 12, 14, 18 spark plug have pilot nose taps.

### BA

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
3/16-22	30030	10	5.00	13/64
1/4-26	30040	10	6.60	17/64
5/16-22	30050	10	8.20	21/64
3/8-20	30060	10	9.80	25/64
7/16-18	30070	10	11.50	29/64
1/2-16	30080	10	13.00	33/64
9/16-16	30090	5	14.50	37/64
5/8-14	30100	5	16.20	41/64
3/4-12	30120	5	19.5	49/64
7/8-11	30140	5	22.50	57/64
1-10	30160	5	26.00	1 1/32
1 1/4-9	30200	5	32.50	1 9/32

### BA

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
0 BA	30500	10	6.20	
1 BA	30510	10	5.50	
2 BA	30520	10	4.90	
4 BA	30540	10	3.80	
6 BA	30560	10	2.90	

### BSP

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
1/8-28	31020	10	9.90	3/8
1/4-19	31040	10	13.50	33/64
3/8-19	31060	5	17.00	21/32
1/2-14	31080	5	21.50	13/16
5/8-14	31100	5	23.50	59/64
3/4-14	31120	5	27.00	11/64
1-11	31160	5	33.50	19/32

### BSC BRASS OR 26TPI

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
1/4-26	30040	10	6.60	17/64
5/16-26	36500	10	8.20	21/64
3/8-26	36600	10	9.80	25/64
7/16-26	36700	5	11.10	7/16
1/2-26	36800	5	12.70	1/2

### METRIC COARSE

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
2.0-.4	35020	10	2.10	
2.2-.45	35010	10	2.30	#42
2.5-.45	35250	10	2.60	#37
3-.5	35030	10	3.20	1/8
3.5-.6	35350	10	3.70	#27
4-.7	35040	10	4.20	11/64
5-.8	35050	10	5.20	13/64
6-1	35060	10	6.30	1/4
7-1	35070	10	7.30	9/32
8-1.25	35080	10	8.30	21/64
9-1.25	35090	10	9.40	3/8
10-1.5	35100	10	10.40	13/32
11-15	35110	5	11.50	29/64
12-1.75	35120	5	12.50	31/64
13-1.75	35130	5	13.50	37/64
14-2	35140	5	14.50	21/32
15-2	35150	5	15.50	39/64
16-2	35160	5	16.50	47/64
18-2.5	35180	5	18.80	13/16
20-2/5	35200	5	20.80	13/16
22-2.5	35220	5	22.80	57/64
24-3	35240	5	24.80	31/32
27-3	35270	5	27.50	1 5/64
30-3.5	35300	5	30.50	1 3/16
30-3	35300-3	5	30.50	1 5/16
36-4	35360	4	36.50	7/16
39-4	35390	4	39.50	1 9/16
42-4.5	35420	4	42.50	1 11/16
42-4	35420-4	4	42.50	1 11/16

### METRIC MEDIUM & FINE

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
8-1	37080	10	8.30	21/64
9-1	37090	10	9.30	
10-1.25	37100	10	10.30	13/32
10-1.25x25	37101	10	10.30	13/32
11-1.25	37110	5	11.30	7/16
12-1.5	37120	5	12.30	31/64
13-1.5	37130	5	13.30	33/64
14-1.5	37140	5	14.25	9/16
15-1.5	37150	5	15.25	39/64
16-1.5	37160	5	16.50	21/32
18-2	37180	5	18.50	23/32
20-2	37200	5	20.50	13/16
22-2	37220	5	22.50	57/64
24-2	37240	5	24.50	
27-2	37270	5	27.50	1 5/64
30-2	37300	5	30.50	1 3/16
36-3	37360	4	36.50	1 7/16
39-3	37390	4	39.50	1 9/16
42-3	37420	4	42.50	1 11/16

### METRIC EXTRA FINE (NOT FOR SPARKPLUG)

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
10-1	38101	10	10.30	13/32
11-1	38110	5	11.30	7/16
12-1.25	38121	5	12.30	31/64
13-1.25	38130	5	13.20	33/64
14-1.25	38141	5	14.25	9/16
18-1/5*	38181	5	18.50	23/32
20-1.5	38200	5	20.50	13/16
22-1.5	38220	5	22.50	57/64
24-1.5	38240	5	24.50	29/32
26-1/5	38260	5	26.5	1 1/32
27-1.7	38270	5	27.5	1 5/64
30-1.5	38300	5	30.50	1 5/16
36-1/5	38360	4	36.50	1 7/16
39-2	38390	4	39.5	1 9/16
42-2	38420	4	42.5	1 11/16

\*M18 EXTRA FINE IS A DIFFERENT SPEC AND THREAD FORM TO M18 SPARKPLUG

### SPARKPLUG (NOT SUITABLE FOR TAPER SEAT)

Size	Part No.	Inserts Per Kit	No Drilling Required	
			mm	inch
10-1	38100	10		
12-1.25	38120	10		
14-1.25*	38140	10	EXTRACTOR TOOL	
14-1.25	38142	5	SMALL TIN	
18-1.5*	38180	5		

\*INCLUDES EXTRACTING TOOL AND LARGE KIT BOX

### UNC

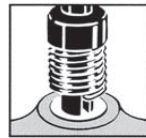
Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
2-56	33520	10	2.30	3/32
3-48	33530	10	2.70	#36
4-40	33540	10	3.00	#31
5-40	33550	10	3.40	#29
6-32	33560	10	3.80	#25
8-32	33580	10	4.40	11/64
10-24	33600	10	5.10	13/64
12-24	33620	10	5.80	15/64
1/4-20	33040	10	6.70	17/64
5/16-18	33050	10	8.30	21/64
3/8-16	33060	10	9.90	25/64
7/16-14	33070	5	11.50	29/64
1/2-13	33080	5	13.00	17/32
9/16-12	33090	5	15.00	19/32
5/8-11	33100	5	16.50	21/32
11/16-11	33110	5	18.00	23/32
3/4-10	33120	5	19.80	25/32
7/8-9	33140	5	23.00	29/32
1-8	33160	5	26.00	1 1/32
1 1/8-7	33180	5	29.50	1 5/32
1 1/4-7	33200	5	33.00	1 9/32
1 3/8-6	33220	5	36.00	1 13/32
1 1/2-6	33240	4	39.00	1 17/32

## Drill



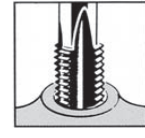
Drill to clear out the damaged thread (if necessary).

## Install



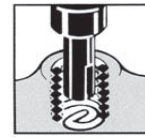
Wind insert in with light downward pressure until 1/4 to 1/2 turn below surface, driving tang towards bottom of the hole.

## Tap



Thread insert tap supplied. Tap thread should match up with bolt.

## Tang Removal



Remove tool and sit back on top of tang. Tap down sharply. Do not try to twist tang off. Sparkplug and large fine threads, use long nose pliers and pull tang out.

## BSW

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
1/8-40	32020	10	3.40	#29
5/32	ONLY *8-32 UNC AVAILABLE			
3/16-24	32030	10	5.00	13/64
7/32-24	USE UNC 12-24			
1/4-20	32040	10	6.70	17/64
5/16-18	32050	10	8.30	21/64
3/8-16	32060	10	9.90	25/64
7/16-14	32070	5	11.50	29/64
1/2-12	32080	5	13.00	17/32
9/16-12	32090	5	15.00	19/32
5/8-11	32100	5	16.50	21/32
3/4-10	32120	5	19.80	25/32
7/8-9	32140	5	23.00	29/32
1-8	32160	5	26.00	1 1/32
1 1/8-7	32180	5	29.50	1 5/32
1 1/4-7	32200	5	33.00	1 9/32
1 3/8-6	32220	5	36.00	1 13/32
1 1/2-6	32240	4	39.00	1 17/32

## SPECIALS

Size	Part No.	Inserts Per Kit	mm	inch
UNEF				
1/4-32	34040-32	10	6.6	17/64
HARLEY			6.6	17/64
1/4-24	34040-24	10	11.5	29/64
7/16-16	34070-16	5		
CARBURETOR				
7/8-20	34140-20	5	-	7/8
1-20	34160-20	5	-	1"
CUMMINS-HEAD BOLT, GMC MAIN CAPS				
11/16-16	34110-16	5	18.0	45/64

## UNF (SAE)

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
3-56	34530	10	2.65	#37
4-48	34540	10	3.00	#31
6-40	34560	10	3.80	#25
8-36	34580	10	4.40	#17
10-32	34600	10	5.10	13/64
1/4-28	34040	10	6.60	17/64
5/16-24	34050	10	8.20	21/64
3/8-24	34060	10	9.80	25/64
7/16-20	34070	5	11.50	29/64
1/2-20	34080	5	13.00	3/64
9/16-18	34090	5	14.50	37/64
5/8-18	34100	5	16.30	41/64
3/4-16	34120	5	19.50	49/64
7/8-14	34140	5	22.50	57/64
1-12	34160	5	26.00	1 1/64
1-14	34160-14	3	26.00	1 1/64
1 1/8-12	34180	5	29.50	1 5/32
1 1/4-12	3200	5	32.50	1 9/32
1 3/8-12	34200	3	36.00	1 13/32
1 1/2-12	34240	3	39.00	1 17/32

## NPT

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
1/8-27	36020	10	9.90	3/8
1/4-18	36040	10	13.50	33/64
3/8-18	36060	10	17.00	21/32
1/2-14	36080	5	21.50	13/16
3/4-14	36120	5	27.00	1 1/64
1-11 1/2	36160	5	33.50	1 9/32

## BTPI UN SERIES

Size	Part No.	Inserts Per Kit	Drill Size	
			mm	inch
1 1/8-8	36180	5	28.50	1 1/8
1 1/4-8	36200	5	32.00	1 1/4
1 3/8-8	36220	5	35.00	1 3/8
1 1/2-8	36240	4	38.00	1 1/2
1 5/8-8	36260	4	41.00	1 5/8
1 3/4-8	36280	4	44.50	

# Cutting Tools

## Knurling Tool Holders



Stock Code	Model	Holder Size L x W x H (ins)	No of Knurls fitted	Cat No	Size of Knurls Ø x W x Bore (ins)	Pattern	Pitch
AG04695	SKH-35A	4 x 1/2 x 1/2	1	SSK-37A	3/4 x 1/4 x 1/4	Straight	Medium
AG04696	SKH-35B	5 x 5/16 x 3/4	2	SSK-37C	5/8 x 5/16 x 1/4	Spiral (Rt. & Lt)	Medium
AG04697	SKH-35C	5-1/2 x 3/8 x 7/8	2	SSK-37C	5/8 x 5/16 x 1/4	Spiral (Rt. & Lt)	Medium
AG04698	SKH-35D	6-1/2 x 1/2 x 1-1/8	2	SSK-37B	3/4 x 3/8 x 1/4	Spiral (Rt. & Lt)	Medium
AG04699	SKH-36B	4-7/8 x 5/8 x 5/8	2	SSK-37B	3/4 x 3/8 x 1/4	Spiral (Rt. & Lt)	Medium
AG04700	SKH-8144	5 x 1/2 x 1/2	2	SSK-37B	3/4 x 3/8 x 1/4	Spiral (Rt. & Lt)	Medium
AG04701	SCT-002	3 x 3/8 x 5/8	2	SSK-37B	3/4 x 3/8 x 1/4	Spiral (Rt. & Lt)	Medium
AG04702	SKH-35G	5-1/2 x 3/8 x 7/8	6	SSK-37C	5/8 x 5/16 x 1/4	Spiral (Rt. & Lt)	Coarse, Medium & Fine
AG04703	SKH-35H	6-1/2 x 1/2 x 1-1/8	6	SSK-37B	3/4 x 3/8 x 1/4	Spiral (Rt. & Lt)	Coarse, Medium & Fine
AG04704	SKH-35E	6-1/2 x 1/2 x 7/8	6	SSK-37D	5/8 x 3/16 x 1/4	Spiral (Rt. & Lt)	Coarse, Medium & Fine

## Cutting Off Tool Holders



Stock Code	Cat No	Shank Size W x H		Overall Length		Blade Holding Capacity	
		Ins	mm	Ins	mm	Ins	mm
AG04705	SPH-35A	5/16 x 9/16	8 x 14	3-11/16	94	5/16	8
AG04706	SPH-35B	1/2 x 1	12.7 x 25.4	6	152	3/32 x 1/2 & 3/32 x 5/8	2.3 x 12.7 & 2.3 x 15.8
AG04707	SPH-35C	5/8 x 1-3/8	16 x 35	7	178	1/8 x 3/4 & 1/8 x 7/8	3 x 19 & 3 x 22
AG04708	SPH-35D	3/4 x 1-11/16	19 x 43	7 1/2	190	3/16 x 1 & 3/16 x 1-1/8	4.7 x 25.4 & 4.7 x 28.5

## Parting Tool Holders – Tee Type



Stock Code	Cat No	Holder Size (mm)				Blade Holding Capacity	
		L	W	H	D	Ins	mm
AG04709	PTH-CT1	70	12.5	20	12.5	3/32 x 1/2	2.3 x 12.7
AG04710	PTH-CT2	70	12.5	20	12.5	3/32 x 5/8	2.3 x 15.8
AG04711	PTH-CT3	80	15	24	17.5	1/8 x 3/4	3 x 19

## Parting Off & Side Tool Holders



Stock Code	Cat No	Shank Size W x H		Overall Length		Blade Holding Capacity	
		Ins	mm	Ins	mm	Ins	mm
AG04712	SCH-32A	3/8 x 7/8	9.5 x 22	5	127	3/32 x 1/2	2.3 x 12.7
AG04713	SCH-32B	3/8 x 31/32	9.5 x 24	5	140	3/32 x 5/8	2.3 x 15.8
AG04714	SCH-32C	1/2 x 1-3/16	12.7 x 30	6	152	1/8 x 3/4	3 x 9
AG04715	SCH-32D	5/8 x 1-3/8	16 x 35	7	178	1/8 x 7/8	3 x 22
AG04716	SCH-32E	3/4 x 1-5/8	19 x 41	8	203	3/18 x 1	4.7 x 25.4
AG04717	SCH-32F	7/8 x 1-3/4	22 x 44	9	228	3/16 x 1-1/8	4.7 x 28.5

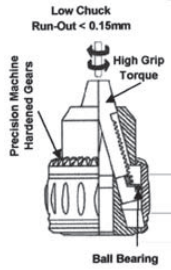
## Planar & Shaper Tool



Stock Code	Cat No	Shank Size W x H		Overall Length		Blade Holding Capacity
		Ins	mm	Ins	mm	Ins
AG04718	SP-128	1/2 x 1	13 x 25	7	178	1/4 x 1/4 to 3/8
AG04719	SP-129	5/8 x 1-1/4	16 x 32	8-1/2	216	5/16 x 5/16 to 1/2
AG04720	SP-130	3/4 x 1-1/2	19 x 38	10	254	3/8 x 3/8 to 5/8
AG04721	SP-130	1-1/8 x 1-3/4	28 x 44	13	330	1/2 x 1/2 to 3/4

# Cutting Tools

## Heavy Duty Drill Chuck



Stock Code	Size
AG02574	6mm [3/8 x 24UNF] 0.6-6.0mm
AG02575	6mm [B10] 0.6-6.0mm
AG02576	6mm [J1] 0.6-6.0mm
AG02577	10mm [3/8 x 24UNF] 1.0-10mm
AG02578	10mm [JT2] 1.0-10mm
AG02579	10mm [B12] 1.0-10mm
AG02580	13mm [1/2 x 20UNF] 1.0-13mm
AG02581	13mm [B16] 1.0-13mm
AG02582	13mm [J6] 1.0-13mm
AG02583	13mm [J33] 1.0-13.0mm
AG02584	19mm [J4] 1.0-19.0mm

## Extra heavy Duty Drill Chuck



Stock Code	Size
AG02585	13mm [JT6] 1.0-13mm
AG02586	13mm [B16] 1.0-13mm
AG02587	16mm [JT6] 3.0-16mm
AG02588	16mm [JT3] 1.0-16mm
AG02589	16mm [B16] 1.0-16mm
AG02590	20mm [JT3] 5.0-20mm

## Chuck Key



Stock Code	Size
AG02591	Black Oxide Coated
AG02592	Polished
AG02593	Nickel Plated
AG02594	PVC Coated

## Super Ball Bearing Drill Chuck



Stock Code	Size
AG02595	10mm [JT2]
AG02596	13mm [B16] 0.5-13mm
AG02597	13mm [JT6] 0.5-13.0mm
AG02598	13mm [J33] 0.5-13.0mm
AG02599	16mm [JT3] 1.0-16.0mm
AG02600	16mm [B16] 1.0-16.0mm
AG02601	19mm [JT4] 1.0-19.0mm
AG02602	25mm [JT5] 1.0-25.0mm

## High Speed Spindle Machine Chuck



Stock Code	Size
AG02603	4mm [JO] 0.3-4.0mm
AG02604	6mm [B10] 0.4-6.5mm

## Keyless Chuck



Stock Code	Size
AG02849	10mm [JT2]
AG02850	13mm [B16] 0.5-13mm
AG02851	13mm [JT6] 0.5-13.0mm

## Lathechucks

Body: Semi Steel from high strength cast iron & ground all over

Jaws: Case hardened & precision ground at gripping faces jaws ways

Operating Screw: Aws: Case hardened & precision ground at gripping faces jaws ways

Operating Screw: A case hardened alloy steel for strength & wear resistance

Thrust Bearing: Case hardened alloy steel to provide maximum strength to working Part provides higher grip with reasonable torque providd with four bolts chunk operating key



### 3 JAWS

Stock Code	Ø Size		d2 mm	d3 mm	H mm	Appox wgt kgs
	Ins	mm				
AG02852	8	200	95	51	88	16.5
AG02853	10	250	125	64	88	22.5
AG02854	12	300	160	76	102	37.5
AG02855	14	350	160	89	102	46
AG02856	16	400	190	102	102	72
AG02857	18	450	190	115	105	80
AG02858	20	500	225	127	115	103
AG02859	24	600	254	152	140	180

### 4 JAWS

Stock Code	Ø Size		d2 mm	d3 mm	H mm	Appox wgt kgs
	Ins	mm				
AG02860	8	200	95	51	88	16.5
AG02861	10	250	125	64	88	22.5
AG02862	12	300	160	76	102	37.5
AG02863	14	350	160	89	102	46
AG02864	16	400	190	102	102	72
AG02865	18	450	190	115	105	80
AG02866	20	500	225	127	115	103
AG02867	24	600	254	152	140	180



# Cutting Tools

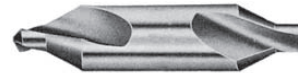
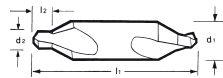
## High Speed Jobber Drill Set



These sets are ideal for the workshop, school, garage, etc. The sizes are clearly marked on retractable panels.

Stock Code	Number of Drill in set	Range of sizes
AG02026	13	1/16in. to 1/4in. x 64ths
AG02027	15	1/16in. to 1/2in. x 32nds
AG02028	21	1/16in. to 3/8in. x 64ths
AG02029	29	1/16in. to 1/2in. x 64ths
AG02030	13	1.5mm to 6.5mm x 0.5mm and 3.2mm and 4.8mm
AG02031	19	1mm to 10.0mm x 0.5mm
AG02032	25	1mm to 13mm x 0.5mm
AG02033	41	6mm to 10mm x 0.1mm
AG02034	50	1mm to 5.9mm x 0.1mm
AG02035	60	No. 1 to 60mm Drill Set

## High Speed Centre Drill



Stock Code	Body Diameter	Drill Point Diameter	Pilot Length		Overall Length	
	mm d <sub>1</sub>		mm d <sub>2</sub>	Max. mm l <sub>2</sub>	Min. mm l <sub>2</sub>	Max. mm l <sub>1</sub>
AG02036	3.15	1.0	1.9	1.3	33.5	29.5
AG02037	3.15*	(1.25)	2.2	1.6	33.5	29.5
AG02038	4.0	1.6	2.8	2.0	37.5	33.5
AG02039	5.0	2.0	3.3	2.5	42	38
AG02040	6.3	2.5	4.1	3.1	47	43
AG02041	8.0	3.15	4.9	3.9	52	48
AG02042	10.0	4.0	6.2	5.0	59	53
AG02043	12.5*	(5.0)	7.5	6.3	66	60
AG02044	16.0	6.3	9.2	8.0	74	68

Stock Code	Body Diameter	Drill Point Diameter	Pilot Length		Overall Length	
	mm d <sub>1</sub>		mm d <sub>2</sub>	Max. mm l <sub>2</sub>	Min. mm l <sub>2</sub>	Max. mm l <sub>1</sub>
AG02045	BS 1	1/8	3/64	5/64	1/16	1.1/2
AG02046	BS 2	3/16	1/16	3/32	5/64	1.3/4
AG02047	BS 3	1/4	3/32	5/32	1/8	2
AG02048	BS 4	5/16	1/8	3/16	5/32	2.1/4
AG02049	BS 5	7/16	3/16	9/32	1/4	2.1/2
AG02050	BS 6	5/8	1/4	3/8	5/16	3
AG02051	BS 7	3/4	5/16	15/32	13/32	3.1/2

\*Non-recommended size

### Drill Sleeve



AG02057

Sleeves, Oil Toughened, Hardened and Ground

Stock Code	Size OD-ID
AG02057	1-0
AG02058	2-1
AG02059	3-1
AG02060	4-1
AG02061	3-2
AG02062	4-2
AG02063	5-2
AG02064	4-3
AG02065	5-3
AG02066	5-4
AG02067	6-5

### Extension Drill Sleeve



AG02068

Extension Sockets, Oil Toughened, Hardened and Ground

Stock Code	Size OD-ID	Stock Code	Size OD-ID
AG02068	1-1	AG02077	2-3
AG02069	2-2	AG02078	3-3
AG02070	3-1	AG02079	4-3
AG02071	4-1	AG02080	3-4
AG02072	5-1	AG02081	4-4
AG02073	1-2	AG02082	5-4
AG02074	2-2	AG02083	4-5
AG02075	3-2	AG02084	5-5
AG02076	4-2		

### Screw Extractors



AG02085

Stock Code	Size OD-ID
AG02085	1-6
AG02086	7-9

### Live Centre



AG02087

Stock Code	Size OD-ID
AG02087	MT 1
AG02088	MT 2
AG02089	MT 3
AG02090	MT 4
AG02091	MT 5
AG02092	MT 6

# Cutting Tools

## General Cutting Tools

H.S.S Straight Shank 3 Flutes  
Countersinks (G136) x 90Deg.  
(Available in 82Deg model G101)



**AG02093**

Countersinks, Straight Shank,  
60/90/82Deg

Stock Code	Size mm
AG02093	S1 (1.6 x 8.0 x 6 shk)
AG02094	S2 (2.0 x 10.0 x 6 shk)
AG02095	S3 (2.5 x 12.5 x 8 shk)
AG02096	S4 (3.2 x 16 x 10 shk)
AG02097	S5 (4.0 x 20 x 10 shk)
AG02098	S6 (7.0 x 25 x 10 shk)

H.S.S Straight Shank 3 Flutes  
Countersinks (G137) x 60Deg.



**AG02099**

Countersinks, Straight Shank,  
60/90/82Deg

Stock Code	Size mm
AG02099	S1 (1.6 x 8.0 x 6 shk)
AG02100	S2 (2.0 x 10.0 x 6 shk)
AG02101	S3 (2.5 x 12.5 x 8 shk)
AG02102	S4 (3.2 x 16 x 10 shk)
AG02103	S5 (4.0 x 20 x 10 shk)
AG02104	S6 (7.0 x 25 x 10 shk)

H.S.S Taper Shank 3 Flutes  
Countersinks (G138) x 90Deg.  
(Available in 82Deg model G104)



**AG02105**

Countersinks, Morse Taper Shank  
60/90/82Deg

Stock Code	Size mm
AG02105	T1 (3.2 x 16) MT.1
AG02106	T2 (4.0 x 20) MT.2
AG02107	T3 (7.0 x 25.0) MT.2
AG02108	T4 (9.0 x 31.5) MT.2
AG02109	T5 (12.5 x 40.0) MT.3
AG02110	T6 (16.0 x 50.0) MT.3
AG02111	T7 (20.0 x 63.0) MT.4
AG02112	T8 (25.0 x 80.0) MT.4

H.S.S Taper Shank 3 Flutes  
Countersinks (G137) x 90Deg.  
(Available in 82Deg model G104)



**AG02113**

Countersinks, Morse Taper Shank,  
60/90/82Deg

Stock Code	Size mm
AG02113	T1 (3.2 x 16) MT.1
AG02114	T2 (4.0 x 20) MT.2
AG02115	T3 (7.0 x 25.0) MT.2
AG02116	T4 (9.0 x 31.5) MT.2
AG02117	T5 (12.5 x 40.0) MT.3
AG02118	T6 (16.0 x 50.0) MT.3
AG02119	T7 (20.0 x 63.0) MT.4
AG02120	T8 (25.0 x 80.0) MT.4

Adjustable Hand Reamers with HSS Blades (B33)



**AG02121**

Expanding Hand Reamers, Straight, 4 or 6 Blades,  
Cased Sets, Spare Parts

Stock Code	Size mm	Stock Code	Size mm	Stock Code	Size mm
AG02121	HV (6.35-7.14)	AG02129	H5 (13.49-15.08)	AG02137	H13 (30.16-34.13)
AG02122	HW (7.14-7.94)	AG02130	H6 (15.08-16.66)	AG02138	H14 (34.13-38.1)
AG02123	HZ (7.94-8.73)	AG02131	H7 (16.66-18.25)	AG02139	H15 (38.1-46.03)
AG02124	HY (8.73-9.52)	AG02132	H8 (18.25-19.84)	AG02140	H16 (46.03-56.35)
AG02125	H1 (9.52-10.31)	AG02133	H9 (19.84-21.43)	AG02141	H17 (56.35-69.85)
AG02126	H2 (10.31-11.11)	AG02134	H10 (21.43-23.81)	AG02142	H18 (69.85-84.93)
AG02127	H3 (11.11-11.9)	AG02135	H11 (23.81-26.98)		
AG02128	H4 (11.9-13.49)	AG02136	H12 (26.98-30.16)		

Reduced Shank Drill



**AG02143**

Stock Code	Size mm	Stock Code	Size mm	Stock Code	Size mm
AG02143	33/64	AG02155	45/64	AG02167	57/64
AG02144	17/32	AG02156	23/32	AG02168	29/32
AG02145	35/64	AG02157	47/64	AG02169	15/16
AG02146	9/16	AG02158	3/4	AG02170	59/64
AG02147	37/64	AG02159	49/64	AG02171	61/64
AG02148	19/32	AG02160	25/32	AG02172	31/32
AG02149	39/64	AG02161	51/64	AG02173	63/64
AG02150	5/8	AG02162	13/16	AG02174	1
AG02151	41/64	AG02163	56/64	AG02175	1-1/16
AG02152	21/32	AG02164	27/32	AG02176	1-1/8
AG02153	43/64	AG02165	55/64	AG02177	1-3/16
AG02154	11/16	AG02166	7/8	AG02178	1-1/4

Stock Code	Size mm	Stock Code	Size mm	Stock Code	Size mm
AG02179	13.5	AG02192	20.0	AG02205	26.5
AG02180	14.0	AG02193	20.5	AG02206	27.0
AG02181	14.5	AG02194	21.0	AG02207	27.5
AG02182	15.0	AG02195	21.5	AG02208	28.0
AG02183	15.5	AG02196	22.0	AG02209	28.5
AG02184	16.0	AG02197	22.5	AG02210	29.0
AG02185	16.5	AG02198	23.0	AG02211	29.5
AG02186	17.0	AG02199	23.5	AG02212	30.0
AG02187	17.5	AG02200	24.0	AG02213	30.5
AG02188	18.0	AG02201	24.5	AG02214	31.0
AG02189	18.5	AG02202	25.0	AG02215	31.5
AG02190	19.0	AG02203	25.5	AG02216	32.0
AG02191	19.5	AG02204	26.0		

High Speed Jobber Drill













**AG02217**

Stock Code	Size mm	Stock Code	Size mm	Stock Code	Size mm
AG02217	1/16	AG02227	7/32	AG02237	3/8
AG02218	5/64	AG02228	15/64	AG02238	25/64
AG02219	3/32	AG02229	1/4	AG02239	13/32
AG02220	7/64	AG02230	17/64	AG02240	27/64
AG02221	1/8	AG02231	9/32	AG02241	7/16
AG02222	9/64	AG02232	19/64	AG02242	29/64
AG02223	5/32	AG02233	5/16	AG02243	15/32
AG02224	11/64	AG02234	21/64	AG02244	31/64
AG02225	3/16	AG02235	11/32	AG02245	1/2
AG02226	13/64	AG02236	23/64		

Stock Code	Size mm	Stock Code	Size mm	Stock Code	Size mm
AG02246	1.0	AG02257	6.5	AG02268	12.0
AG02247	1.5	AG02258	7.0	AG02269	12.5
AG02248	2.0	AG02259	7.5	AG02270	13.0
AG02249	2.5	AG02260	8.0	AG02271	13.5
AG02250	3.0	AG02261	8.5	AG02272	14.0
AG02251	3.5	AG02262	9.0	AG02273	14.5
AG02252	4.0	AG02263	9.5	AG02274	15.0
AG02253	4.5	AG02264	10.0	AG02275	15.5
AG02254	5.0	AG02265	10.5	AG02276	16.0
AG02255	5.5	AG02266	11.0		
AG02256	6.0	AG02267	11.5		

# Cutting Tools

		
6118 Straight - Left Hand Reamers, Straight, Intermediate Diameter, Spiral Flute	6119 Hand/Machine Socket Reamers, Finishing, Straight Flute	6120 Counterbores, Straight Shank, Solid Pattern, Metric, Fractional
		
6122 Hand/Machine Socket Reamers, MTS, Spiral Flute, Roughing	6123 Counterbores, Morse Taper Shank, Detachable, Pilot Type, Metric, Fractional	6124 Machine Reamers, Straight, Spiral Flute Intermediate Diameter
		
6125 Hand/Machine Socket Reamers, MTS, Spiral Flute, Finishing	6126 Counterbores, Detachable Pilots, Metric for type G1111, Fractional for type G121, Group 2, 3, 4	6127 Machine Reamers, MTS, Left Hand Spiral Flute
		
6128 Taper Pin Reamers, Hand, Straight Metric, Fractional	6130 Machine Reamers, MTS, Intermediate Diameter	6131 Bridge Reamers, MTS, Spiral Flute
		
6133 Machine Reamers, MTS Extra Length, Left Hand Spiral Flute	6134 Shell Reamers	6135 Turret Sockets
		
6136 Chucking Reamers, Straight Flute	6138 Drill Dfits	6139 Chucking Reamers, Left Hand Spiral Flute
		
6141 Core Drills	6144 Long Series Drills - MTS Standard Helix	6145 Roto-bors
		
6146 Long Series Drills - Straight Shank Standard Helix, Right Hand, 118 Deg. Split Point, 135 Deg. Split Point	6147 Extra Length Drills - MTS Standard Helix	6149 Long Series Drills - Straight Shank DHD for Deep Holes
		
6152 Extra Length Drills - Straight Shank, Standard Helix	6153 Lathe Centres	6154 Extra Length Drills - Straight Shank, Worm Pattern
		
6157 Taper Pin Drills - Straight Shank, Slow Helix, Swarfbreaker Grooves	6159 Morse Taper Shank Drills, Standard Helix	6161 Jobber Drills, Quick Spiral, for Stainless
		
6162 Morse Taper Shank Drills, Carbide Tipped Drills	6163 Roto-bors, MTS	6164 Jobber Drills, DHD for Deep Holes

# Cutting Tools

Short Machine Taps and Hand Taps



Short Machine Taps and Hand Taps



Hexagon Diesnuts



Circular Solid Dies



BSW Hand Taps

Stock Code	BSW	Stock Code	BSW
AG02277	1/16" x 60	AG02291	11/16" x 11
AG02278	3/32" x 48	AG02292	3/4" x 10
AG02279	1/8" x 40	AG02293	13/16" x 10
AG02280	5/32" x 32	AG02294	7/8" x 9
AG02281	3/16" x 24	AG02295	15/16" x 9
AG02282	7/32" x 24	AG02296	1" x 8
AG02283	1/4" x 20	AG02297	1.1/8" x 7
AG02284	9/32" x 20	AG02298	1.1/4" x 7
AG02285	5/16" x 18	AG02299	1.3/8" x 6
AG02286	3/8" x 16	AG02300	1.1/2" x 6
AG02287	7/16" x 14	AG02301	1.5/8" x 5
AG02288	1/2" x 12	AG02302	1.3/4" x 5
AG02289	9/16" x 12	AG02303	1.7/8" x 4.1/2
AG02290	5/8" x 11	AG02304	2" x 4.1/2

BSF Hand Taps

Stock Code	BSF	Stock Code	BSF
AG02305	3/16" x 32	AG02317	13/16" x 12
AG02306	7/32" x 28	AG02318	7/8" x 11
AG02307	1/4" x 26	AG02319	15/16" x 11
AG02308	9/32" x 26	AG02320	1" x 10
AG02309	5/16" x 22	AG02321	1.1/8" x 9
AG02310	3/8" x 20	AG02322	1.1/4" x 9
AG02311	7/16" x 18	AG02323	1.3/8" x 8
AG02312	1/2" x 16	AG02324	1.1/2" x 8
AG02313	9/16" x 16	AG02325	1.5/8" x 8
AG02314	5/8" x 14	AG02326	1.3/4" x 7
AG02315	11/16" x 14	AG02327	1.7/8" x 7
AG02316	3/4" x 12	AG02328	2" x 7

UNS Hand Taps

Stock Code	UNS	Stock Code	UNS
AG02329	5/32" x 32	AG02338	1" x 14
AG02330	5/32" x 36	AG02339	1.1/8" x 8
AG02331	3/16" x 34	AG02340	1.1/4" x 8
AG02332	3/16" x 32	AG02341	1.3/8" x 8
AG02333	7/32" x 24	AG02342	1.1/2" x 8
AG02334	7/32" x 28	AG02343	1.5/8" x 8
AG02335	5/8" x 20	AG02344	1.3/4" x 8
AG02336	11/16" x 11	AG02345	1.7/8" x 8
AG02337	11/16" x 16	AG02346	2" x 8

UNC Hand Taps

Stock Code	UNC	Stock Code	UNC
AG02347	1" x 64	AG02362	7/16" x 14
AG02348	2" x 56	AG02363	1/2" x 13
AG02349	3" x 48	AG02364	9/16" x 12
AG02350	4" x 40	AG02365	5/8" x 11
AG02351	5" x 40	AG02366	11/16" x 11
AG02352	6" x 32	AG02367	3/4" x 10
AG02353	8" x 32	AG02368	7/8" x 9
AG02354	10" x 24	AG02369	1" x 8
AG02355	12" x 24	AG02370	1.1/8" x 7
AG02356	5/32" x 32	AG02371	1.1/4" x 7
AG02357	3/16" x 24	AG02372	1.3/8" x 6
AG02358	7/32" x 34	AG02373	1.1/2" x 6
AG02359	1/4" x 20	AG02374	1.3/4" x 5
AG02360	5/16" x 18	AG02375	2" x 4.1/2
AG02361	3/8" x 16		

Metric Hand Taps

Stock Code	Metric	Stock Code	Metric	Stock Code	Metric	Stock Code	Metric	Stock Code	Metric	Stock Code	Metric	Stock Code	Metric	Stock Code	Metric
AG02380	1.6 x 0.35	AG02393	4.0 x 0.70	AG02406	6.0 x 1.00	AG02419	10.0 x 1.25	AG02432	14.0 x 2.00	AG02445	22.0 x 1.50	AG02458	30.0 x 3.50	AG02471	39.0 x 1.50
AG02381	2.0 x 0.40	AG02394	4.0 x 0.75	AG02407	6.0 x 1.25	AG02420	10.0 x 1.50	AG02433	16.0 x 1.00	AG02446	22.0 x 2.00	AG02459	32.0 x 1.50	AG02472	45.0 x 1.50
AG02382	2.0 x 0.45	AG02395	4.5 x 0.50	AG02408	7.0 x 0.75	AG02421	11.0 x 0.75	AG02434	16.0 x 1.50	AG02447	22.0 x 2.50	AG02460	33.0 x 3.50	AG02473	50.0 x 1.50
AG02383	2.2 x 0.45	AG02396	4.5 x 0.75	AG02409	7.0 x 1.00	AG02422	11.0 x 1.00	AG02435	16.0 x 2.00	AG02448	24.0 x 1.50	AG02461	36.0 x 4.00	AG02474	50.0 x 5.00
AG02384	2.3 x 0.40	AG02397	5.0 x 0.50	AG02410	8.0 x 0.75	AG02423	11.0 x 1.25	AG02436	18.0 x 1.00	AG02449	24.0 x 2.00	AG02462	39.0 x 4.50		
AG02385	2.5 x 0.45	AG02398	5.0 x 0.75	AG02411	8.0 x 1.00	AG02424	11.0 x 1.50	AG02437	18.0 x 1.50	AG02450	24.0 x 2.50	AG02463	40.0 x 1.50		
AG02386	2.6 x 0.45	AG02399	5.0 x 0.80	AG02412	8.0 x 1.25	AG02425	12.0 x 1.00	AG02438	18.0 x 2.00	AG02451	24.0 x 3.00	AG02464	42.0 x 4.50		
AG02387	3.0 x 0.35	AG02400	5.0 x 0.90	AG02413	8.0 x 1.50	AG02426	12.0 x 1.25	AG02439	18.0 x 2.50	AG02452	25.0 x 1.50	AG02465	45.0 x 4.50		
AG02388	3.0 x 0.50	AG02401	5.0 x 1.00	AG02414	9.0 x 0.75	AG02427	12.0 x 1.50	AG02440	20.0 x 1.00	AG02453	27.0 x 1.50	AG02466	48.0 x 5.00		
AG02389	3.0 x 0.60	AG02402	5.5 x 0.50	AG02415	9.0 x 1.00	AG02428	12.0 x 1.75	AG02441	20.0 x 1.50	AG02454	27.0 x 2.00	AG02467	30.0 x 2.50		
AG02390	3.5 x 0.35	AG02403	5.5 x 0.90	AG02416	9.0 x 1.25	AG02429	14.0 x 1.00	AG02442	20.0 x 2.00	AG02455	27.0 x 3.00	AG02468	32.0 x 3.00		
AG02391	3.5 x 0.60	AG02404	6.0 x 0.50	AG02417	10.0 x 0.75	AG02430	14.0 x 1.25	AG02443	20.0 x 2.50	AG02456	30.0 x 1.50	AG02469	35.0 x 2.00		
AG02392	4.0 x 0.50	AG02405	6.0 x 0.75	AG02418	10.0 x 1.00	AG02431	14.0 x 1.50	AG02444	22.0 x 1.00	AG02457	30.0 x 2.00	AG02470	38.0 x 2.00		

UNF Hand Taps

Stock Code	UNF	Stock Code	UNF
AG02475	0 x 80	AG02490	3/8 x 24
AG02476	1 x 72	AG02491	7/16 x 20
AG02477	2 x 64	AG02492	1/2 x 20
AG02478	3 x 56	AG02493	9/16 x 18
AG02479	4 x 48	AG02494	5/8 x 18
AG02480	5 x 44	AG02495	11/16 x 16
AG02481	6 x 40	AG02496	3/4 x 16
AG02482	8 x 36	AG02497	7/8 x 14
AG02483	10 x 32	AG02498	1 x 12
AG02484	12 x 28	AG02499	1.1/8 x 12
AG02485	5/32 x 36	AG02500	1.1/4 x 12
AG02486	3/16 x 32	AG02501	1.3/8 x 12
AG02487	7/32 x 28	AG02502	1.1/2 x 12
AG02488	1/4 x 28	AG02503	1.3/4 x 12
AG02489	5/16 x 24	AG02504	2 x 12

ME Hand Taps

Stock Code	ME
AG02507	1/4" x 40
AG02509	5/16" x 32
AG02510	3/8" x 32

BSPT Hand Taps

Stock Code	BSPT	Stock Code	BSPT
AG02527	1/8" x 28	AG02530	1/2" x 14
AG02528	1/4" x 19	AG02531	3/4" x 14
AG02529	3/8" x 19	AG02532	1" x 11

NPT Hand Taps

Stock Code	NPT	Stock Code	NPT
AG02542	1/8" x 27	AG02547	1" x 11.1/2
AG02543	1/4" x 18	AG02548	1.1/4" x 11.1/2
AG02544	3/8" x 18	AG02549	1.1/2" x 11.1/2
AG02545	1/2" x 14	AG02550	1.3/4" x 11.1/2
AG02546	3/4" x 14	AG02551	2" x 11.1/2

BSPF Hand Taps

Stock Code	BSPF	Stock Code	BSPF
AG02511	1/8" x 28	AG02519	1.1/4" x 11
AG02512	1/4" x 19	AG02520	1.1/2" x 11
AG02513	3/8" x 19	AG02521	1.3/4" x 11
AG02514	1/2" x 14	AG02522	2" x 11
AG02515	5/8" x 14	AG02523	2.1/4" x 11
AG02516	3/4" x 14	AG02524	2.1/2" x 11
AG02517	7/8" x 14	AG02525	2.3/4" x 11
AG02518	1" x 11	AG02526	3" x 11

BSCY Hand Taps

Stock Code	B.S.BRASS /B.S.C.Y	Stock Code	B.S.BRASS /B.S.C.Y
AG02533	1/4" x 26	AG02538	5/8" x 26
AG02534	5/16" x 26	AG02539	3/4" x 26
AG02535	3/8" x 26	AG02540	7/8" x 24
AG02536	7/16" x 26	AG02541	1" x 24
AG02537	1/2" x 26		

NPS Hand Taps

Stock Code	NPS	Stock Code	NPS
AG02552	1/8" x 27	AG02555	1/2" x 14
AG02553	1/4" x 18	AG02556	3/4" x 14
AG02554	3/8" x 18	AG02557	1" x 11.1/2

BS Conduit Hand Taps

Stock Code	B.S. CONDUIT	Stock Code	B.S. CONDUIT
AG02558	1/2" x 18	AG02560	3/4" x 16
AG02559	5/8" x 18	AG02561	1" x 16

Cutting Tools

# Cutting Tools

## Stocks & Dies Set

Cased Sets Circular Split Pattern  
H.S.S. Ground Thread



### British Standard Whitworth (BSW)

Stock Code	Group No.	Range of sizes-in.
AG02594	C22	$\frac{3}{16}, \frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}$
AG02595	C31	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}$
AG02596	C38	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{9}{16}, \frac{5}{8}, \frac{3}{4}$
AG02597	C39	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$

### British Standard Fine (BSF)

Stock Code	Group No.	Range of sizes-in.
AG02600	C52	$\frac{3}{16}, \frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}$
AG02605	C57	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{9}{16}, \frac{5}{8}, \frac{3}{4}$
AG02606	C58	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$

Stock Code	Group No.	Range of sizes-in.
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### Unified/America National Coarse (UNC)

AG02610	C84	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{9}{16}, \frac{5}{8}, \frac{3}{4}$
AG02611	C85	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, 1$
AG02612	C82	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}$

Stock Code	Group No.	Range of sizes-in.
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### Unified/America National Coarse (UNC)

AG02613	C91	No.10 & $\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$
AG02614	C92	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}$
AG02615	C94	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$
AG02616	C95	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$

### Combination (UNC & UNF)

AG02619	C109	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{9}{16}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$
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### Metric

AG02623	C112	2, 2.5, 3, 3.5, 4, 5, 6
AG02625	C114	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
AG02626	C115	3, 4, 5, 6, 7, 8, 9, 10
AG02628	C118	5, 6, 7, 8, 9, 10, 11, 12

### BSW & BSF Combination

AG02633	C79	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$
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## Taps & Dies Set



### BSW

Stock Code	Group No.	Range of sizes-in.
AG02803	OK1	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}$
AG02804	OK5	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$
AG02805	OK7	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$
AG02806	OK40	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1, 1\frac{1}{8}, 1\frac{1}{4}$
AG02807	OK50	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1, 1\frac{1}{8}, 1\frac{1}{4}, 1\frac{3}{8}, 1\frac{1}{2}$

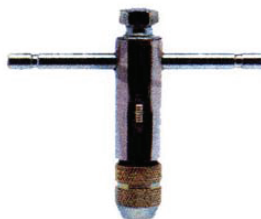
### UNC

Stock Code	Group No.	Range of sizes-in.
AG02816	OK5UNC	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$
AG02817	OK7UNC	$\frac{1}{4}, \frac{5}{16}, \frac{3}{8}, \frac{7}{16}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$



### BSP

Stock Code	Group No.	Range of sizes-in.
AG02808	R-1	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}$
AG02809	R-2	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}$
AG02810	R-3	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1$
AG02811	R-4	$\frac{1}{8}, \frac{1}{4}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{4}, \frac{7}{8}, 1, 1\frac{1}{8}, 1\frac{1}{4}$



### METRIC

Stock Code	Group No.	Range of sizes-in.
AG02812	OK41	6, 7, 8, 10, 12
AG02813	OK45	6, 8, 10, 12, 14, 16, 18
AG02814	OK47	6, 8, 10, 12, 14, 16, 18, 20, 22, 24
AG02815	OK100	6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30



### TAP HANDLE

Stock Code	Group No.	Capacity Hand Taps
AG02818	00	1/16" to 1/4"
AG02819	04	1/16" to 1/2"
AG02820	06	1/4" to 3/4"
AG02821	07	3/8" to 1"
AG02822	08	3/4" to 1-1/2"
AG02823	10	7/8" to 2"
AG02824	24	1-3/4" to 4"


### RATCHET TAP HANDLE

Stock Code	Group No.	Range of sizes-in.
AG02825	R1	1/8" to 3/8"
AG02826	R2	7/32" to 1/2"

### ROUND DIE HANDLE

Stock Code	Group No.	Range of sizes-in.
AG02827	S1951	13/16"
AG02828	S1952	1"
AG02829	S1954	1-5/16"
AG02830	S1955	1-1/2"
AG02831	S1958	2"

### FLAT FILE




AH01597

Stock Code	lgt	Cut
AH01597	4"	Bastard
AH01598	4"	2 <sup>nd</sup> Cut
AH01599	4"	Smooth
AH01600	6"	Bastard
AH01601	6"	2 <sup>nd</sup> Cut
AH01602	6"	Smooth
AH01603	8"	Bastard
AH01604	8"	2 <sup>nd</sup> Cut
AH01605	8"	Smooth

Stock Code	lgt	Cut
AH01606	10"	Bastard
AH01607	10"	2 <sup>nd</sup> Cut
AH01608	10"	Smooth
AH01609	12"	Bastard
AH01610	12"	2 <sup>nd</sup> Cut
AH01611	12"	Smooth
AH01612	14"	Bastard
AH01613	14"	2 <sup>nd</sup> Cut
AH01614	14"	Smooth

### HALF ROUND FILE




AH01615

Stock Code	lgt	Cut
AH01615	4"	Bastard
AH01616	4"	2 <sup>nd</sup> Cut
AH01617	4"	Smooth
AH01618	6"	Bastard
AH01619	6"	2 <sup>nd</sup> Cut
AH01620	6"	Smooth
AH01621	8"	Bastard
AH01622	8"	2 <sup>nd</sup> Cut
AH01623	8"	Smooth

Stock Code	lgt	Cut
AH01624	10"	Bastard
AH01625	10"	2 <sup>nd</sup> Cut
AH01626	10"	Smooth
AH01627	12"	Bastard
AH01628	12"	2 <sup>nd</sup> Cut
AH01629	12"	Smooth
AH01630	14"	Bastard
AH01631	14"	2 <sup>nd</sup> Cut
AH01632	14"	Smooth

### TRIANGULAR FILE




AH01633

Stock Code	lgt	Cut
AH01633	4"	Bastard
AH01634	4"	2 <sup>nd</sup> Cut
AH01635	4"	Smooth
AH01636	6"	Bastard
AH01637	6"	2 <sup>nd</sup> Cut
AH01638	6"	Smooth
AH01639	8"	Bastard
AH01640	8"	2 <sup>nd</sup> Cut
AH01641	8"	Smooth

Stock Code	lgt	Cut
AH01642	10"	Bastard
AH01643	10"	2 <sup>nd</sup> Cut
AH01644	10"	Smooth
AH01645	12"	Bastard
AH01646	12"	2 <sup>nd</sup> Cut
AH01647	12"	Smooth

For filing acute angle. Double cut.

### SQUARE FILE




AH01651

Stock Code	lgt	Cut
AH01651	4"	Bastard
AH01652	4"	2 <sup>nd</sup> Cut
AH01653	4"	Smooth
AH01654	6"	Bastard
AH01655	6"	2 <sup>nd</sup> Cut
AH01656	6"	Smooth
AH01657	8"	Bastard
AH01658	8"	2 <sup>nd</sup> Cut
AH01659	8"	Smooth

Stock Code	lgt	Cut
AH01660	10"	Bastard
AH01661	10"	2 <sup>nd</sup> Cut
AH01662	10"	Smooth
AH01663	12"	Bastard
AH01664	12"	2 <sup>nd</sup> Cut
AH01665	12"	Smooth

### ROUND FILE




AH01669

Stock Code	lgt	Cut
AH01669	4"	Bastard
AH01670	4"	2 <sup>nd</sup> Cut
AH01671	4"	Smooth
AH01672	6"	Bastard
AH01673	6"	2 <sup>nd</sup> Cut
AH01674	6"	Smooth
AH01675	8"	Bastard
AH01676	8"	2 <sup>nd</sup> Cut
AH01677	8"	Smooth

Stock Code	lgt	Cut
AH01678	10"	Bastard
AH01679	10"	2 <sup>nd</sup> Cut
AH01680	10"	Smooth
AH01681	12"	Bastard
AH01682	12"	2 <sup>nd</sup> Cut
AH01683	12"	Smooth
AH01684	14"	Bastard
AH01685	14"	2 <sup>nd</sup> Cut
AH01686	14"	Smooth

### SOFT METAL HAND FILE




AH02841

Stock Code	lgt	Cut
AH02841	8"	Special Cut
AH02842	10"	Special Cut

Special tooth construction for use on soft metal, e.g. aluminium, brass, bronze, etc.

### SOFT METAL HALF ROUND FILE




AH02844

Stock Code	lgt	Cut
AH02844	8"	Special Cut
AH02845	10"	Special Cut
AH02846	12"	Special Cut

Special tooth construction for use on soft metal, e.g. aluminium, brass, bronze, etc.

### WOOD RASP HAND FILE




AH02847

Stock Code	lgt	Cut
AH02847	6"	Bastard
AH02848	6"	2 <sup>nd</sup> Cut
AH02850	8"	Bastard
AH02851	8"	2 <sup>nd</sup> Cut
AH02853	10"	Bastard

For wood working. One edge uncut.

### WOOD RASP HAL ROUND FILE




AH02856

Stock Code	lgt	Cut
AH02856	6"	Bastard
AH02857	6"	2 <sup>nd</sup> Cut
AH02859	8"	Bastard
AH02860	8"	2 <sup>nd</sup> Cut

Code No.	lgt	Cut
AH02862	10"	Bastard
AH02863	10"	2 <sup>nd</sup> Cut
AH02864	10"	Smooth

For wood working.

### TAPER SAW FILE SLIM



AH02865


Stock Code	lgt	Cut
AH02865	4"	2 <sup>nd</sup> Cut
AH02866	5"	2 <sup>nd</sup> Cut
AH02867	6"	2 <sup>nd</sup> Cut

EX SLIM

Code No.	lgt	Cut
AH02870	6"	2 <sup>nd</sup> Cut

Commonly used on different type of saws with 60° angle. Single cut.

### BLUNT MILE FILE 2 sq Edges




AH02877

Stock Code	lgt	Cut
AH02877	8"	2 <sup>nd</sup> Cut
AH02878	10"	2 <sup>nd</sup> Cut

Single cut on sides and edges.

### BLUNT MILE FILE 1 round 1 sq Edges




AH02815

Stock Code	lgt	Cut
AH02815	6"	2 <sup>nd</sup> Cut
AH02816	8"	2 <sup>nd</sup> Cut

Stock Code	lgt	Cut
AH02817	10"	2 <sup>nd</sup> Cut
AH02818	12"	2 <sup>nd</sup> Cut

For wood working. One edge uncut.


### CHAIN SAW FILE



AH02820

Stock Code	lgt	Cut
AH02820	4.0mm x 8"	Smooth
AH02821	4.8mm x 8"	Smooth
AH02822	5.6mm x 8"	Smooth

### FARMER'S FILE




AH02824

Stock Code	lgt	Cut
AH02824	8"	Bastard / Saw File Cut

# Cutting Tools

**UNIVERSAL FILE** AH02826



Stock Code	lgt	Cut	Code No.	lgt	Cut
AH02826	8"	Bastard	AH02828	10"	Bastard
AH02827	8"	Smooth	AH02829	10"	Smooth

All purpose file, specially designed for plastic materials but also steels and all non-iron metals.


**RIFFLER FILE SET (6pcs)** AH02830

Stock Code	lgt	Model
AH02830	150mm	12181
AH02831	180mm	12186

**RIFFLER FILE SET (12pcs)** AH02832

Stock Code	lgt	Model
AH02832	150mm	12197
AH02833	180mm	12277

**KEY FILE (WARDING)** AH02835




Stock Code	lgt	Cut
AH02835	5"	2 <sup>nd</sup> Cut

Specially designed for locksmiths in repairing or filing ward notches in keys. Also suitable for use in narrow spaces.

**5-PIECE FILE SET**

5-piece file set contains one each of hand, halfround, three-square, square and round. All files are 8" long, second cut, with wooden handles, and are packed in a plastic pouch.




Stock Code	lgt	Cut
AH02838	8"	2 <sup>nd</sup> Cut

AH02838

**PRECISION 12-PIECE NEEDLE FILE**

Stock Code	lgt	Cut
AH02839	160mm	No.2



12-piece precision needle file set contains one each of different shapes as illustrated. All files are 160mm in length, No. 0 or No. 2 cut, and packed in a plastic pouch. Used mainly by die makers, jewellers, watchmakers and toolmakers.

Equaling	Flat
Three square	Halfround
Square	Round
V	Chamfer
Joint	Oval
	Circular
	Barrel


AH02839

**6-PIECE NEEDLE FILE SET**



AH02840

**BRAKE CYLINDER HORN**



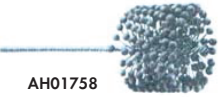
SIZE: BEADED 1/2", O.L. 5-1/2"

Stock Code	Model No.	Size	Recommended Working Dia	Grit
AH01752	2480	22	20	180
AH01753	2481	25	22	180
AH01754	2482	29	25	180
AH01755	2483	35	29	180

AH 01752

Caution: Wear Safety Glasses. Flex Hones are available in USA and Canada only. Flex-Hones are manufactured by Brusck Research Mfg Co. U.S. Patent No. 3384915-3971139. Handles are made of heat treated alloy steel.

**ENGINE CYLINDER FLEX-HONES, HEAVY DUTY**

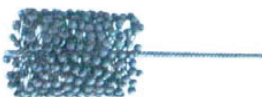


AH01758

Stock Code	Model No.	Size	Recommended Working Dia	Grit
AH01758	2486	89	83	120
AH01759	2487	95	89	120
AH01760	2488	105	95	120

Hones engine cylinders 3-1/4" to 4-1/8" (83mm to 105mm) in diameter. Flex-Hones® produce a plateaued finish with a perfect cross-hatch for fast ring seating and better oil retention for longer engine life. Hones life is in excess of 1000 cylinders. No set-up is required. Use variable speed 3/8" electric hand drill. Hone moving the Flex-Hone® up and down in cylinder until desired results are obtained.

**ENGINE CYLINDER FLEX-HONES, HEAVY DUTY**



AH01761

Stock Code	Model No.	Size	Recommended Working Dia	Grit
AH01761	2489	76	70	120
AH01762	2490	82	76	120
AH01763	2491	89	82	120
AH01764	2492	101	89	120
AH01765	2493	114	101	120

Hones engine cylinders 2-3/4" to 4-1/2" (70mm to 114mm) in diameter. Heavy-duty Flex-Hones® deliver the same plateaued finish and long life as standard duty Flex-Hones®

**265 BRAKE CYLINDER HONE**



AH03051

Hone drum brake wheel cylinders from 13/16 to 2-3/4" (21mm to 69mm) in diameter. Collar prevents stone breakage. Sleeve makes insertion in cylinder easy and protects stones when not in use. Use with variable speed drill. For disc brake honing use No. 2004 Replacement Stone Set. For drum brake honing use No. 266 Replacement Stone Set. Made from heat treated alloy steel. MODEL: 265, Q: 21-69

**267 BRAKE CYLINDER HONE**



AH03052

Hones brake cylinders from 11/16" to 1" (18mm to 25mm) in diameter. Two-legged hone fits Volkswagen and other small diameter wheel cylinders. Collar prevents stone breakage. Use with variable speed drill. use No. 268 Replacement Stone Set. Made from heat treated alloy steel.

**2544 BRAKE CYLINDER HONE**



AH03053

Hones drum brake wheel cylinders 13/16" to 2-3/4" (21mm to 69mm) in diameter. Works on cylinders through bore or blind end. Use variable speed drill. For disc brake honing use No. 2004 Replacement Stone Set. For drum brake honing, use No. 266 Replacement Stone Set. Made from heat treated alloy steel.

**2833 ENGINE CYLINDER HONE**

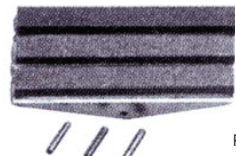


AH03054

Stock Code	Model No.	Capacity
AH03054	2833	2"-7"

Made of heat treated alloy steel.

**2833 REPLACEMENT STONES**




AH03055

Stock Code	Model No.	Size	Grit
AH03055	2834	4"	Coarse
AH03056	2835	4"	Medium
AH03057	2836	4"	Fine

Replacement stones roll pins included with replacement stones

**266, 268, 2004 REPLACEMENT STONES**



AH03061 AH03062 AH03063

Stock Code	for
AH03061	266
AH03062	268
AH03063	2004

Cutting Tools