

EDITION 19



ENGINEERING CUTTING TOOLS

CATALOGUE 2025/26



BROOKE
CUTTING TOOLS



Delivery Terms:

Minimum order value £15.00 if order below an additional £2.50 charge.

Minimum carriage paid order £75.00 net, next day for UK mainland. Under £75.00 net, £8.25 next day.

For Northern Ireland/Channel Islands/Isle of Man/Wight/Islands and Highlands of Scotland £24.50, delivery 2 days.
Minimum carriage paid order £150.00 net.

Non-mainland UK minimum carriage paid order £250.00 net.

Any products over 1 metre when packaged, will occur a surcharge.
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All prices shown are exclusive of VAT.

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5101 HSS-G Straight Shank Jobber Drills

ISO 235 DIN 338 BS 328

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 135°DEG Split Point

APPLICATION For general purpose drilling

SURFACE TREATMENT Blue Oxide



BROOKE

PRODUCT
DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5101-00030	0.3 x 3 x 19	10	W
5101-00040	0.4 x 5 x 20	10	W
5101-00050	0.5 x 6 x 20	10	W
5101-00060	0.6 x 7 x 24	10	W
5101-00070	0.7 x 9 x 28	10	W
5101-00075	0.75 x 9 x 28	10	W
5101-00080	0.8 x 10 x 30	10	W
5101-00085	0.85 x 10 x 30	10	W
5101-00090	0.9 x 11 x 32	10	W
5101-0010	1 x 12 x 34	10	W
5101-0011	1.1 x 14 x 36	10	W
5101-0012	1.2 x 16 x 38	10	W
5101-00125	1.25 x 16 x 38	10	W
5101-0013	1.3 x 16 x 38	10	W
5101-0014	1.4 x 18 x 40	10	W
5101-00145	1.45 x 18 x 40	10	W
5101-0015	1.5 x 18 x 40	10	W
5101-00155	1.55 x 20 x 43	10	W
5101-0016	1.6 x 20 x 43	10	W
5101-00165	1.65 x 20 x 43	10	W
5101-0017	1.7 x 20 x 43	10	W
5101-00175	1.75 x 22 x 46	10	W
5101-0018	1.8 x 22 x 46	10	W
5101-0019	1.9 x 22 x 46	10	W
5101-0020	2 x 24 x 49	10	W
5101-00205	2.05 x 24 x 49	10	W
5101-0021	2.1 x 24 x 49	10	W
5101-0022	2.2 x 27 x 53	10	W
5101-0023	2.3 x 27 x 53	10	W
5101-00235	2.35 x 27 x 53	10	W
5101-0024	2.4 x 30 x 57	10	W
5101-00245	2.45 x 30 x 57	10	W
5101-0025	2.5 x 30 x 57	10	W
5101-0026	2.6 x 30 x 57	10	W
5101-0027	2.7 x 33 x 61	10	W
5101-0028	2.8 x 33 x 61	10	W
5101-0029	2.9 x 33 x 61	10	W
5101-0030	3 x 33 x 61	10	W
5101-00305	3.05 x 36 x 65	10	W
5101-0031	3.1 x 36 x 65	10	W
5101-0032	3.2 x 36 x 65	10	W
5101-00325	3.25 x 36 x 65	10	W
5101-0033	3.3 x 36 x 65	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5101-0034	3.4 x 39 x 70	10	W
5101-0035	3.5 x 39 x 70	10	W
5101-0036	3.6 x 39 x 70	10	W
5101-0037	3.7 x 39 x 70	10	W
5101-0038	3.8 x 43 x 75	10	W
5101-0039	3.9 x 43 x 75	10	W
5101-0040	4 x 43 x 75	10	W
5101-0041	4.1 x 43 x 75	10	W
5101-0042	4.2 x 43 x 75	10	W
5101-00425	4.25 x 43 x 75	10	W
5101-0043	4.3 x 47 x 80	10	W
5101-0044	4.4 x 47 x 80	10	W
5101-0045	4.5 x 47 x 80	10	W
5101-0046	4.6 x 47 x 80	10	W
5101-0047	4.7 x 47 x 80	10	W
5101-00475	4.75 x 47 x 80	10	W
5101-0048	4.8 x 52 x 86	10	W
5101-0049	4.9 x 52 x 86	10	W
5101-0050	5 x 52 x 86	10	W
5101-0051	5.1 x 52 x 86	10	W
5101-0052	5.2 x 52 x 86	10	W
5101-00525	5.25 x 52 x 86	10	W
5101-0053	5.3 x 52 x 86	10	W
5101-0054	5.4 x 57 x 93	10	W
5101-0055	5.5 x 57 x 93	10	W
5101-0056	5.6 x 57 x 93	10	W
5101-0057	5.7 x 57 x 93	10	W
5101-00575	5.75 x 57 x 93	10	W
5101-0058	5.8 x 57 x 93	10	W
5101-0059	5.9 x 57 x 93	10	W
5101-0060	6 x 57 x 93	10	W
5101-0061	6.1 x 63 x 101	10	W
5101-0062	6.2 x 63 x 101	10	W
5101-00625	6.25 x 63 x 101	10	W
5101-0063	6.3 x 63 x 101	10	W
5101-0064	6.4 x 63 x 101	10	W
5101-0065	6.5 x 63 x 101	10	W
5101-0066	6.6 x 63 x 101	10	W
5101-0067	6.7 x 63 x 101	10	W
5101-00675	6.75 x 63 x 101	10	W
5101-0068	6.8 x 63 x 101	10	W
5101-0069	6.9 x 63 x 101	10	W
5101-0070	7 x 63 x 101	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5101-0071	7.1 x 69 x 109	10	W
5101-0072	7.2 x 69 x 109	10	W
5101-0073	7.3 x 69 x 109	10	W
5101-0074	7.4 x 69 x 109	10	W
5101-0075	7.5 x 69 x 109	10	W
5101-0076	7.6 x 75 x 117	10	W
5101-0077	7.7 x 75 x 117	10	W
5101-00775	7.75 x 75 x 117	10	W
5101-0078	7.8 x 75 x 117	10	W
5101-0079	7.9 x 75 x 117	10	W
5101-0080	8 x 75 x 117	10	W
5101-0081	8.1 x 75 x 117	10	W
5101-0082	8.2 x 75 x 117	10	W
5101-0083	8.3 x 75 x 117	10	W
5101-0084	8.4 x 75 x 117	10	W
5101-0085	8.5 x 75 x 117	10	W
5101-0086	8.6 x 81 x 125	10	W
5101-0087	8.7 x 81 x 125	10	W
5101-00875	8.75 x 81 x 125	10	W
5101-0088	8.8 x 81 x 125	10	W
5101-0089	8.9 x 81 x 125	10	W
5101-0090	9 x 81 x 125	10	W
5101-0091	9.1 x 81 x 125	10	W
5101-0092	9.2 x 81 x 125	10	W
5101-0093	9.3 x 81 x 125	10	W
5101-0094	9.4 x 81 x 125	10	W
5101-0095	9.5 x 81 x 125	10	W
5101-0096	9.6 x 87 x 133	10	W
5101-0097	9.7 x 87 x 133	10	W
5101-0098	9.8 x 87 x 133	10	W
5101-0099	9.9 x 87 x 133	10	W
5101-0100	10 x 87 x 133	5	W
5101-0101	10.1 x 87 x 133	5	W
5101-0102	10.2 x 87 x 133	5	W
5101-01025	10.25 x 87 x 133	5	W
5101-0103	10.3 x 87 x 133	5	W
5101-0104	10.4 x 94 x 142	5	W
5101-0105	10.5 x 94 x 142	5	W
5101-0106	10.6 x 94 x 142	5	W
5101-0107	10.7 x 94 x 142	5	W
5101-0108	10.8 x 94 x 142	5	W
5101-0109	10.9 x 94 x 142	5	W
5101-0110	11 x 94 x 142	5	W

Dia	DIAMETER
Wl	WORKING LENGTH
O/all	OVERALL LENGTH
Disc Group	DISCOUNT GROUP
Bd	BODY DIAMETER



BROOKE

PRODUCT
DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5101-0111	11.1 x 94 x 142	5	W
5101-0112	11.2 x 94 x 142	5	W
5101-0113	11.3 x 94 x 142	5	W
5101-0114	11.4 x 94 x 142	5	W
5101-0115	11.5 x 94 x 142	5	W
5101-0116	11.6 x 94 x 142	5	W
5101-0117	11.7 x 94 x 142	5	W
5101-0118	11.8 x 94 x 142	5	W
5101-0119	11.9 x 101 x 151	5	W
5101-0120	12 x 101 x 151	5	W
5101-0121	12.1 x 101 x 151	5	W
5101-0122	12.2 x 101 x 151	5	W
5101-0123	12.3 x 101 x 151	5	W
5101-0124	12.4 x 101 x 151	5	W
5101-0125	12.5 x 101 x 151	5	W
5101-0126	12.6 x 101 x 151	5	W
5101-0127	12.7 x 101 x 151	5	W
5101-0128	12.8 x 101 x 151	5	W
5101-0129	12.9 x 101 x 151	5	W
5101-0130	13 x 101 x 151	5	W
5101-0131	13.1 x 101 x 151	1	W
5101-0132	13.2 x 101 x 151	1	W
5101-0133	13.3 x 108 x 160	1	W
5101-0134	13.4 x 108 x 160	1	W
5101-0135	13.5 x 108 x 160	1	W
5101-0137	13.7 x 108 x 160	1	W
5101-0138	13.8 x 108 x 160	1	W
5101-0139	13.9 x 108 x 160	1	W
5101-0140	14 x 108 x 160	1	W
5101-0145	14.5 x 114 x 169	1	W
5101-0150	15 x 114 x 169	1	W
5101-0155	15.5 x 120 x 178	1	W
5101-0160	16 x 120 x 178	1	W
5101-0165	16.5 x 125 x 184	1	W
5101-0170	17 x 125 x 184	1	W
5101-0175	17.5 x 130 x 191	1	W
5101-0180	18 x 130 x 191	1	W
5101-0185	18.5 x 135 x 198	1	W
5101-0190	19 x 135 x 198	1	W
5101-0195	19.5 x 205 x 205	1	W
5101-0200	20 x 205 x 205	1	W

Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5101-1001	1/64 x 5 x 20	10	W
5101-1002	1/32 x 10 x 30	10	W
5101-1003	3/64 x 16 x 38	10	W
5101-1004	1/16 20 x 43	10	W
5101-1005	5/64 x 24 x 49	10	W
5101-1006	3/32 x 30 x 57	10	W
5101-1007	7/64 x 33 x 61	10	W
5101-1008	1/8 x 35 x 65	10	W
5101-1009	9/64 x 39 x 70	10	W
5101-1010	5/32 x 43 x 75	10	W
5101-1011	11/64 x 47 x 80	10	W
5101-1012	3/16 x 52 x 86	10	W
5101-1013	13/64 x 52 x 86	10	W
5101-1014	7/32 x 57 x 93	10	W
5101-1015	15/64 x 57 x 93	10	W
5101-1016	1/4 x 63 x 101	10	W
5101-1017	17/64 x 69 x 109	10	W
5101-1018	9/32 x 69 x 109	10	W
5101-1019	19/64 x 75 x 117	10	W
5101-1020	5/16 x 75 x 117	10	W
5101-1021	21/64 x 75 x 117	10	W
5101-1022	11/32 x 81 x 125	10	W
5101-1023	23/64 x 81 x 125	10	W
5101-1024	3/8 x 87 x 133	10	W
5101-1025	25/64 x 87 x 133	5	W
5101-1026	13/32 x 87 x 133	5	W
5101-1027	27/64 x 94 x 142	5	W
5101-1028	7/16 x 94 x 142	5	W
5101-1029	29/64 x 94 x 142	5	W
5101-1030	15/32 x 101 x 151	5	W
5101-1031	31/64 x 101 x 151	5	W
5101-1032	1/2 x 101 x 151	5	W
5101-1034	17/32 x 108 x 160	5	W
5101-1036	9/16 x 114 x 169	5	W
5101-1038	19/32 x 114 x 169	5	W
5101-1040	5/8 x 120 x 178	5	W

BROOKE
CUTTING TOOLS

Drilling & Cutting Lubricant

Code	Description	Pack Qty	Disc Group
84010	Drilling & Cutting Lubricant Spray 400ml	1	W



5103 Kombat HSS-G TiN Coated Straight Shank Jobber Drills

ISO 235 DIN 338 BS 328

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 135°DEG Split Point

APPLICATION For general purpose drilling

SURFACE TREATMENT TiN Coated



PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5103-00050	0.50 x 6 x 22	10	W
5103-00070	0.70 x 9 x 28	10	W
5103-0008	0.8 x 10 x 30	10	W
5103-00090	0.90 x 11 x 32	10	W
5103-0010	1.0 x 12 x 34	10	W
5103-0011	1.1 x 14 x 36	10	W
5103-0012	1.2 x 16 x 38	10	W
5103-0013	1.3 x 16 x 38	10	W
5103-0014	1.4 x 18 x 40	10	W
5103-0015	1.5 x 18 x 40	10	W
5103-0016	1.6 x 20 x 43	10	W
5103-0017	1.7 x 20 x 43	10	W
5103-0018	1.8 x 22 x 46	10	W
5103-0019	1.9 x 22 x 46	10	W
5103-0020	2.0 x 24 x 49	10	W
5103-0021	2.1 x 24 x 49	10	W
5103-0022	2.2 x 27 x 53	10	W
5103-0023	2.3 x 27 x 53	10	W
5103-0024	2.4 x 30 x 57	10	W
5103-0025	2.5 x 30 x 57	10	W
5103-0026	2.6 x 30 x 57	10	W
5103-0027	2.7 x 33 x 61	10	W
5103-0028	2.80 x 33 x 61	10	W
5103-0029	2.9 x 33 x 61	10	W
5103-0030	3.0 x 33 x 61	10	W
5103-0031	3.1 x 35 x 65	10	W
5103-0032	3.2 x 35 x 65	10	W
5103-0033	3.3 x 35 x 65	10	W
5103-0034	3.4 x 39 x 70	10	W
5103-0035	3.5 x 39 x 70	10	W
5103-0036	3.6 x 39 x 70	10	W
5103-0037	3.7 x 39 x 70	10	W
5103-0038	3.8 x 43 x 75	10	W
5103-0039	3.9 x 43 x 75	10	W
5103-0040	4.0 x 43 x 75	10	W
5103-0041	4.1x 43 x 75	10	W
5103-0042	4.2x 43 x 75	10	W
5103-0043	4.3 x 47 x 80	10	W
5103-0044	4.4 x 47 x 80	10	W
5103-0045	4.5 x 47 x 80	10	W
5103-0046	4.6 x 47 x 80	10	W
5103-0047	4.7 x 47 x 80	10	W
5103-0048	4.8 x 52 x 86	10	W
5103-0049	4.9 x 52 x 86	10	W
5103-0050	5.0 x 52 x 86	10	W
5103-0051	5.1 x 52 x 86	10	W
5103-0052	5.2 x 52 x 86	10	W
5103-0053	5.3 x 52 x 86	10	W
5103-0054	5.4 x 57 x 93	10	W
5103-0055	5.5 x 57 x 93	10	W
5103-0056	5.6 x 57 x 93	10	W
5103-0057	5.7 x 57 x 93	10	W
5103-0058	5.8 x 57 x 93	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5103-0059	5.9 x 57 x 93	10	W
5103-0060	6.0 x 57 x 93	10	W
5103-0061	6.1 x 63 x 101	10	W
5103-0062	6.2 x 63 x 101	10	W
5103-0063	6.3 x 63 x 101	10	W
5103-0064	6.4 x 63 x 101	10	W
5103-0065	6.5 x 63 x 101	10	W
5103-0066	6.6 x 63 x 101	10	W
5103-0067	6.7 x 63 x 101	10	W
5103-0068	6.8 x 69 x 101	10	W
5103-0069	6.9 x 69 x 101	10	W
5103-0070	7.0 x 69 x 101	10	W
5103-0071	7.1 x 69 x 101	10	W
5103-0072	7.2 x 69 x 109	10	W
5103-0073	7.3 x 69 x 109	10	W
5103-0074	7.4 x 69 x 109	10	W
5103-0075	7.5 x 69 x 109	10	W
5103-0076	7.6 x 75 x 117	10	W
5103-0077	7.7x 75 x 117	10	W
5103-0078	7.8 x 75 x 117	10	W
5103-0079	7.9 x 75 x 117	10	W
5103-0080	8.0 x 75 x 117	10	W
5103-0081	8.1 x 75 x 117	10	W
5103-0082	8.2 x 75 x 117	10	W
5103-0083	8.3 x 75 x 117	10	W
5103-0084	8.4 x 75 x 117	10	W
5103-0085	8.5 x 75 x 117	10	W
5103-0086	8.6 x 81 x 125	10	W
5103-0087	8.7 x 81 x 125	10	W
5103-0088	8.8 x 81 x 125	10	W
5103-0089	8.9 x 81 x 125	10	W
5103-0090	9.0 x 81 x 125	10	W
5103-0091	9.1 x 81 x 125	10	W
5103-0092	9.2 x 81 x 125	10	W
5103-0093	9.3 x 81 x 125	10	W
5103-0094	9.4 x 81 x 125	10	W
5103-0095	9.5 x 81 x 125	10	W
5103-0096	9.6 x 87 x 133	10	W
5103-0097	9.7 x 87 x 133	10	W
5103-0098	9.8 x 87 x 133	10	W
5103-0099	9.9 x 87 x 133	10	W
5103-0100	10.0 x 87 x 133	5	W
5103-0101	10.1 x 87 x 133	5	W
5103-0102	10.2 x 87 x 133	5	W
5103-0103	10.3 x 87 x 133	5	W
5103-0104	10.4 x 87 x 133	5	W
5103-0105	10.5 x 87 x 133	5	W
5103-0106	10.6 x 87 x 133	5	W
5103-0107	10.7 x 94 x 142	5	W
5103-0108	10.8 x 94 x 142	5	W
5103-0109	10.9 x 94 x 142	5	W
5103-0110	11.0 x 94 x 142	5	W
5103-0111	11.1 x 94 x 142	5	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5103-0112	11.2 x 94 x 142	5	W
5103-0113	11.3 x 94 x 142	5	W
5103-0114	11.4 x 94 x 142	5	W
5103-0115	11.5 x 94 x 142	5	W
5103-0116	11.6 x 94 x 142	5	W
5103-0117	11.7 x 94 x 142	5	W
5103-0118	11.8 x 94 x 142	5	W
5103-0119	11.9 x 101 x 151	5	W
5103-0120	12.0 x 101 x 151	5	W
5103-0121	12.1 x 101 x 151	5	W
5103-0122	12.2 x 101 x 151	5	W
5103-0123	12.3 x 101 x 151	5	W
5103-0124	12.4 x 101 x 151	5	W
5103-0125	12.5 x 101 x 151	5	W
5103-0126	12.6 x 101 x 151	5	W
5103-0127	12.7 x 101 x 151	5	W
5103-0128	12.8 x 101 x 151	5	W
5103-0129	12.9 x 101 x 151	5	W
5103-0130	13.0 x 101 x 151	5	W
5103-0135	13.5 x 108 x 160	1	W
5103-0140	14.0 x 108 x 160	1	W
5103-0145	14.5 x 114 x 169	1	W
5103-0150	15.0 x 114 x 169	1	W
5103-0155	15.5 x 120 x 178	1	W
5103-0160	16.0 x 120 x 178	1	W

Code	Dia* x Wl x O/all mm	Pack Qty	Disc Group
5103-1004	1/16 x 20 x 43	10	W
5103-1005	5/64 x 24 x 49	10	W
5103-1006	3/32 x 30 x 57	10	W
5103-1007	7/64 x 33 x 61	10	W
5103-1008	1/8 x 36 x 65	10	W
5103-1009	9/64 x 39 x 70	10	W
5103-1010	5/32 x 43 x 75	10	W
5103-1011	11/64 x 47 x 80	10	W
5103-1012	3/16 x 53 x 86	10	W
5103-1013	13/64 x 52 x 86	10	W
5103-1014	7/32 x 57 x 93	10	W
5103-1015	15/64 x 57 x 93	10	W
5103-1016	1/4 x 63 x 101	10	W
5103-1017	17/64 x 69 x 109	10	W
5103-1018	9/32 x 63 x 109	10	W
5103-1019	19/64 x 75 x 117	10	W
5103-1020	5/16 x 75 x 117	10	W
5103-1021	21/64 x 75 x 117	10	W
5103-1022	11/32 x 81 x 125	10	W
5103-1023	23/64 x 81 x 125	10	W
5103-1024	3/8 x 87 x 133	10	W
5103-1025	25/64 x 87 x 133	5	W
5103-1026	13/32 x 87 x 133	5	W
5103-1027	27/64 x 94 x 142	5	W
5103-1028	7/16 x 94 x 142	5	W
5103-1029	29/64 x 94 x 142	5	W
5103-1030	15/32 x 101 x 151	5	W
5103-1031	31/64 x 101 x 151	5	W
5103-1032	1/2 x 101 x 151	5	W

5112 HSS-Co5 Cobalt Straight Shank Jobber Drills

ISO 235 DIN 338 BS 328

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 135°DEG Split Point

APPLICATION Self centring for accurate holes,
for drilling High Tensile Steels and other difficult materials

SURFACE TREATMENT Straw Finish



BROOKE

PRODUCT
DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5112-0010	1 x 12 x 34	10	W
5112-0011	1.1 x 14 x 36	10	W
5112-0012	1.2 x 16 x 38	10	W
5112-0013	1.3 x 16 x 38	10	W
5112-0014	1.4 x 18 x 40	10	W
5112-0015	1.5 x 18 x 40	10	W
5112-0016	1.6 x 20 x 43	10	W
5112-0017	1.7 20 x 43	10	W
5112-0018	1.8 x 22 x 46	10	W
5112-0019	1.9 x 22 x 46	10	W
5112-0020	2 x 24 x 49	10	W
5112-0021	2.1 x 24 x 49	10	W
5112-0022	2.2 x 27 x 53	10	W
5112-0023	2.3 x 27 x 53	10	W
5112-0024	2.4 x 30 x 57	10	W
5112-0025	2.5 x 30 x 57	10	W
5112-0026	2.6 x 30 x 57	10	W
5112-0027	2.7 x 33 x 61	10	W
5112-0028	2.8 x 33 x 61	10	W
5112-0029	2.9 x 33 x 61	10	W
5112-0030	3 x 33 x 61	10	W
5112-0031	3.1 x 36 x 65	10	W
5112-0032	3.2 x 36 x 65	10	W
5112-0033	3.3 x 36 x 65	10	W
5112-0034	3.4 x 39 x 70	10	W
5112-0035	3.5 x 39 x 70	10	W
5112-0036	3.6 x 39 x 70	10	W
5112-0037	3.7 x 39 x 70	10	W
5112-0038	3.8 x 43 x 75	10	W
5112-0039	3.9 x 43 x 75	10	W
5112-0040	4 x 43 x 75	10	W
5112-0041	4.1 x 43 x 75	10	W
5112-0042	4.2 x 43 x 75	10	W
5112-0043	4.3 x 47 x 80	10	W
5112-0045	4.5 x 47 x 80	10	W
5112-0046	4.6 x 47 x 80	10	W
5112-0047	4.7 x 47 x 80	10	W
5112-0048	4.8 x 52 x 86	10	W
5112-0049	4.9 x 52 x 86	10	W
5112-0050	5 x 52 x 86	10	W
5112-0051	5.1 x 52 x 86	10	W
5112-0052	5.2 x 52 x 86	10	W
5112-0053	5.3 x 52 x 86	10	W
5112-0054	5.4 x 57 x 93	10	W
5112-0055	5.5 x 57 x 93	10	W
5112-0056	5.6 x 57 x 93	10	W
5112-0057	5.7 x 57 x 93	10	W
5112-0058	5.8 x 57 x 93	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5112-0059	5.9 x 57 x 93	10	W
5112-0060	6 x 57 x 93	10	W
5112-0061	6.1 x 63 x 101	10	W
5112-0062	6.2 x 63 x 101	10	W
5112-0063	6.3 x 63 x 101	10	W
5112-0064	6.4 x 63 x 101	10	W
5112-0065	6.5 x 63 x 101	10	W
5112-0066	6.6 x 63 x 101	10	W
5112-0067	6.7 x 63 x 101	10	W
5112-0068	6.8 x 69 x 109	10	W
5112-0069	6.9 x 69 x 109	10	W
5112-0070	7 x 69 x 109	10	W
5112-0071	7.1 x 69 x 109	10	W
5112-0072	7.2 x 69 x 109	10	W
5112-0073	7.3 x 69 x 109	10	W
5112-0074	7.4 x 69 x 109	10	W
5112-0075	7.5 x 69 x 109	10	W
5112-0076	7.6 x 75 x 117	10	W
5112-0077	7.7 x 75 x 117	10	W
5112-0078	7.8 x 75 x 117	10	W
5112-0079	7.9 x 75 x 117	10	W
5112-0080	8 x 75 x 117	10	W
5112-0081	8.1 x 75 x 117	10	W
5112-0082	8.2 x 75 x 117	10	W
5112-0083	8.3 x 75 x 117	10	W
5112-0085	8.5 x 75 x 117	10	W
5112-0087	8.7 x 81 x 125	10	W
5112-0088	8.8 x 81 x 125	10	W
5112-0089	8.9 x 81 x 125	10	W
5112-0090	9 x 81 x 125	10	W
5112-0091	9.1 x 81 x 125	10	W
5112-0092	9.2 x 81 x 125	10	W
5112-0093	9.3 x 81 x 125	10	W
5112-0094	9.4 x 81 x 125	10	W
5112-0095	9.5 x 81 x 125	10	W
5112-0096	9.6 x 87 x 133	10	W
5112-0098	9.8 x 87 x 133	10	W
5112-0099	9.9 x 87 x 133	10	W
5112-0100	10 x 87 x 133	5	W
5112-0101	10.1 x 87 x 133	5	W
5112-0102	10.2 x 87 x 133	5	W
5112-0103	10.3 x 87 x 133	5	W
5112-0104	10.4 x 94 x 142	5	W
5112-0105	10.5 x 94 x 142	5	W
5112-0106	10.6 x 94 x 142	5	W
5112-0107	10.7 x 94 x 142	5	W
5112-0108	10.8 x 94 x 142	5	W
5112-0110	11 x 94 x 142	5	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5112-0115	11.5 x 94 x 142	5	W
5112-0120	12 x 101 x 151	5	W
5112-0125	12.5 x 101 x 151	5	W
5112-0130	13.0 x 101 x 151	5	W
Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5112-1002	1/32 x 5 x 24	10	W
5112-1004	1/16 x 20 x 43	10	W
5112-1005	5/64 x 24 x 49	10	W
5112-1006	3/32 x 30 x 57	10	W
5112-1007	7/64 x 33 x 61	10	W
5112-1008	1/8 x 36 x 65	10	W
5112-1009	9/64 x 39 x 70	10	W
5112-1010	5/32 x 43 x 75	10	W
5112-1011	11/64 x 47 x 80	10	W
5112-1012	3/16 x 52 x 86	10	W
5112-1013	13/64 x 52 x 86	10	W
5112-1014	7/32 x 57 x 93	10	W
5112-1015	15/64 x 57 x 93	10	W
5112-1016	1/4 x 63 x 101	10	W
5112-1017	17/64 x 69 x 109	10	W
5112-1018	9/32x 69 x 109	10	W
5112-1019	19/64 x 75 x 117	10	W
5112-1020	5/16 x 75 x117	10	W
5112-1021	21/64 x75x117	10	W
5112-1022	11/32 x 81 x 125	10	W
5112-1023	23/64x 81 x 125	10	W
5112-1024	3/8 x 87 x 133	10	W
5112-1025	25/64 x 87 x 133	5	W
5112-1026	13/32 x 87 x 133	5	W
5112-1027	27/64 x 94 x 142	5	W
5112-1028	7/16 x 94 x 142	5	W
5112-1029	29/64 x 94 x 142	5	W
5112-1030	15/32 x 101 x 151	5	W
5112-1031	31/64 x 101 x 151	5	W
5112-1032	1/2 x 101 x 151	5	W

BROOKE
CUTTING TOOLS

5177 HSS-Co8 Cobalt Straight Shank Heavy Duty Jobber Drills

ISO 235 DIN 338 BS 328

FLUTE TYPE 35°DEG Helix, Thick Web

POINT ANGLE 135°DEG Split Point

APPLICATION Self centring for accurate holes, for drilling High

Tensile Steels and other difficult materials

SURFACE TREATMENT Straw Finish



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5177-0010	1 x 12 x 34	10	W
5177-0015	1.5 x 18 x 40	10	W
5177-0020	2 x 24 x 49	10	W
5177-0021	2.1 x 24 x 49	10	W
5177-0022	2.2 x 27 x 53	10	W
5177-0024	2.4 x 30 x 57	10	W
5177-0025	2.5 x 30 x 57	10	W
5177-0026	2.6 x 30 x 57	10	W
5177-0027	2.7 x 33 x 61	10	W
5177-0028	2.8 x 33 x 61	10	W
5177-0029	2.9 x 33 x 61	10	W
5177-0030	3 x 33 x 61	10	W
5177-0031	3.1 x 36 x 65	10	W
5177-0032	3.2 x 36 x 65	10	W
5177-0033	3.3 x 36 x 65	10	W
5177-0034	3.4 x 39 x 70	10	W
5177-0035	3.5 x 39 x 70	10	W
5177-0036	3.6 x 39 x 70	10	W
5177-0037	3.7 x 39 x 70	10	W
5177-0040	4 x 43 x 75	10	W
5177-0041	4.1 x 43 x 75	10	W
5177-0042	4.2 x 43 x 75	10	W
5177-0043	4.3 x 47 x 80	10	W
5177-0044	4.4 x 47 x 80	10	W
5177-0045	4.5 x 47 x 80	10	W
5177-0048	4.8 x 52 x 86	10	W
5177-0049	4.9 x 52 x 86	10	W
5177-0050	5 x 52 x 86	10	W
5177-0051	5.1 x 52 x 86	10	W
5177-0052	5.2 x 52 x 86	10	W
5177-0053	5.3 x 52 x 86	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5177-0055	5.5 x 57 x 93	10	W
5177-0056	5.6 x 57 x 93	10	W
5177-0058	5.8 x 57 x 93	10	W
5177-0059	5.9 x 57 x 93	10	W
5177-0060	6 x 57 x 93	10	W
5177-0062	6.2 x 63 x 101	10	W
5177-0063	6.3 x 63 x 101	10	W
5177-0064	6.4 x 63 x 101	10	W
5177-0065	6.5 x 63 x 101	10	W
5177-0067	6.7 x 63 x 101	10	W
5177-0068	6.8 x 69 x 109	10	W
5177-0069	6.9 x 69 x 109	10	W
5177-0070	7 x 69 x 110	10	W
5177-0072	7.2 x 69 x 109	10	W
5177-0073	7.3 x 69 x 109	10	W
5177-0074	7.4 x 69 x 109	10	W
5177-0075	7.5 x 69 x 109	10	W
5177-0077	7.7 x 74 x 117	10	W
5177-0080	8 x 74 x 117	10	W
5177-0082	8.2 x 74 x 117	10	W
5177-0083	8.3 x 74 x 117	10	W
5177-0085	8.5 x 74 x 117	10	W
5177-0087	8.7 x 81 x 125	10	W
5177-0090	9 x 81 x 125	10	W
5177-0095	9.5 x 81 x 125	10	W
5177-0098	9.8 x 87 x 133	10	W
5177-0099	9.9 x 87 x 133	10	W
5177-0100	10 x 87 x 133	5	W
5177-0102	10.2 x 87 x 133	5	W
5177-0103	10.3 x 87 x 133	5	W
5177-0105	10.5 x 87 x 133	5	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5177-0110	11 x 94 x 142	5	W
5177-0115	11.5 x 94 x 142	5	W
5177-0118	11.8 x 94 x 142	5	W
5177-0120	12 x 101 x 151	5	W
5177-0125	12.5 x 101 x 151	5	W
5177-0130	13 x 101 x 151	5	W

Code	Dia* x Wl x O/all mm	Pack Qty	Disc Group
5177-1004	1/16 x 20 x 43	10	W
5177-1005	5/64 x 24 x 49	10	W
5177-1006	3/32 x 30 x 57	10	W
5177-1007	7/64 x 33 x 61	10	W
5177-1008	1/8 x 36 x 65	10	W
5177-1009	9/64 x 39 x 70	10	W
5177-1010	5/32 x 43 x 75	10	W
5177-1011	11/64 x 47 x 80	10	W
5177-1012	3/16 x 52 x 86	10	W
5177-1013	13/64 x 52 x 86	10	W
5177-1014	7/32 x 57 x 93	10	W
5177-1015	15/64 x 57 x 93	10	W
5177-1016	1/4 x 63 x 101	10	W
5177-1017	17/64 x 69 x 109	10	W
5177-1019	19/64 x 74 x 117	10	W
5177-1020	5/16 x 74 x 117	10	W
5177-1022	11/32 x 81 x 125	10	W
5177-1024	3/8 x 87 x 133	10	W
5177-1026	13/32 x 87 x 133	5	W
5177-1028	7/16 x 94 x 142	5	W
5177-1030	15/32x101x151	5	W
5177-1031	31/64x101x151	5	W
5177-1032	1/2 x101x151	5	W

5151 HSS-G Double Ended Body Drills

WORKS STANDARD

FLUTE TYPE

Standard Helix, Right Hand

POINT ANGLE 135 °DEG Split Point

APPLICATION Self centring for accurate holes in thin materials/white goods

SURFACE TREATMENT Blue Oxide



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5151-0032	3.2 x 10 x 49	10	W
5151-00325	3.25 x 10 x 49	10	W
5151-00326	3.26 x 10 x 49	10	W
5151-0033	3.3 x 10 x 49	10	W
5151-0035	3.5 x 11 x 52	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5151-0040	4 x 12 x 55	10	W
5151-0041	4.1 x 12 x 55	10	W
5151-0042	4.2 x 12 x 56	10	W
5151-0045	4.5 x 13 x 58	10	W
5151-0049	4.9 x 14 x 62	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5151-0050	5 x 14 x 62	10	W
5151-0051	5.1 x 14 x 62	10	W
5151-0053	5.3 x 14 x 62	10	W
5151-0058	5.8 x15 x 66	10	W

5124 Jobber Drills K20/40 Carbide

BS 328 PART 1 DIN 338 RN 235/1

FLUTE TYPE Standard Helix, 4 facet point

POINT ANGLE 118°DEG

APPLICATION For drilling difficult material where rigid fixing is possible. Hole depths upto 4 x diameter

SURFACE TREATMENT Bright coated



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5124-0010	1 x 12 x 34	1	P
5124-0011	1.1 x 14 x 36	1	P
5124-0012	1.2 x 16 x 38	1	P
5124-0014	1.4 x 18 x 40	1	P
5124-0015	1.5 x 18 x 40	1	P
5124-0016	1.6 x 20 x 43	1	P
5124-0017	1.7 x 20 x 43	1	P
5124-0018	1.8 x 22 x 46	1	P
5124-0020	2 x 24 x 49	1	P
5124-0022	2.2 x 27 x 53	1	P
5124-0025	2.5 x 30 x 57	1	P
5124-0026	2.6 x 30 x 57	1	P
5124-0027	2.7 x 33 x 61	1	P
5124-0029	2.9 x 33 x 61	1	P
5124-0030	3 x 33 x 61	1	P
5124-0032	3.2 x 36 x 65	1	P
5124-0033	3.3 x 36 x 65	1	P

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5124-0034	3.4 x 39 x 70	1	P
5124-0035	3.5 x 39 x 70	1	P
5124-0037	3.7 x 39 x 70	1	P
5124-0038	3.8 x 43 x 75	1	P
5124-0040	4 x 43 x 75	1	P
5124-0042	4.2 x 43 x 75	1	P
5124-0045	4.5 x 47 x 80	1	P
5124-0047	4.7 x 47 x 80	1	P
5124-0048	4.8 x 52 x 86	1	P
5124-0050	5 x 52 x 86	1	P
5124-0052	5.2 x 52 x 86	1	P
5124-0055	5.5 x 57 x 93	1	P
5124-0058	5.8 x 57 x 93	1	P
5124-0060	6 x 57 x 93	1	P
5124-0065	6.5 x 63 x 101	1	P
5124-0066	6.6 x 63 x 101	1	P
5124-0068	6.8 x 69 x 109	1	P

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5124-0070	7 x 69 x 109	1	P
5124-0075	7.5 x 69 x 109	1	P
5124-0080	8 x 75 x 117	1	P
5124-0082	8.2 x 75 x 117	1	P
5124-0085	8.5 x 75 x 117	1	P
5124-0090	9 x 81 x 125	1	P
5124-0095	9.5 x 81 x 125	1	P
5124-0100	10 x 87 x 133	1	P
5124-0102	10.2 x 87 x 133	1	P
5124-0105	10.5 x 87 x 133	1	P
5124-0110	11 x 94 x 142	1	P
5124-0115	11.5 x 94 x 142	1	P
5124-0120	12 x 101 x 151	1	P
5124-0125	12.5 x 101 x 151	1	P
5124-0130	13 x 101 x 151	1	P

5175 1/2" HSS Reduced Shank Drills

BS 328 PART 1

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 118°DEG

APPLICATION For general purpose drilling

SURFACE TREATMENT Blue Oxide



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5175-0130	13 x 80 x 152	1	W
5175-0135	13.5 x 80 x 152	1	W
5175-0140	14 x 80 x 152	1	W
5175-0145	14.5 x 80 x 152	1	W
5175-0150	15 x 80 x 152	1	W
5175-0155	15.5 x 80 x 152	1	W
5175-0160	16 x 80 x 152	1	W
5175-0165	16.5 x 80 x 152	1	W
5175-0170	17 x 80 x 152	1	W
5175-0175	17.5 x 80 x 152	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5175-0180	18 x 80 x 152	1	W
5175-0185	18.5 x 80 x 152	1	W
5175-0190	19 x 80 x 152	1	W
5175-0195	19.5 x 76 x 152	1	W
5175-0200	20 x 76 x 152	1	W
5175-0205	20.5 x 76 x 152	1	W
5175-0210	21 x 76 x 152	1	W
5175-0215	21.5 x 76 x 152	1	W
5175-0220	22 x 76 x 152	1	W
5175-0230	23 x 76 x 152	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5175-0240	24 x 76 x 152	1	W
5175-0250	25x 76 x 152	1	W
5175-0260	26x 76 x 152	1	W
5175-0280	28x 76 x 152	1	W
Code	Dia "x Wl x O/all mm	Pack Qty	Disc Group
5175-1036	9/16 x 80 x 152	1	W
5175-1040	5/8 x 80 x 152	1	W
5175-1044	11/16 x 80 x 152	1	W
5175-1048	3/4 x 80 x 152	1	W
5175-1056	7/8 x 76 x 152	1	W
5175-1060	15/16 x 76 x 152	1	W
5175-1100	1 x 76 x 152	1	W

BROOKE
CUTTING TOOLS

5172 1/2" HSS-Co5 Reduced Shank Drills

BS 328 PART 1

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 118°DEG

APPLICATION For drilling high tensile steels and other difficult materials

SURFACE TREATMENT Straw Finish



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5172-0135	13.5 x 80 x 152	1	W
5172-0140	14 x 80 x 152	1	W
5172-0145	14.5 x 80 x 152	1	W
5172-0150	15 x 80 x 152	1	W
5172-0155	15.5 x 80 x 152	1	W
5172-0160	16 x 80 x 152	1	W
5172-0165	16.5 x 80 x 152	1	W
5172-0170	17 x 80 x 152	1	W
5172-0175	17.5 x 80 x 152	1	W
5172-0180	18 x 80 x 152	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5172-0185	18.5 x 80 x 152	1	W
5172-0190	19 x 80 x 152	1	W
5172-0195	19.5 x 76 x 152	1	W
5172-0200	20 x 76 x 152	1	W
5172-0210	21 x 76 x 152	1	W
5172-0220	22 x 76 x 152	1	W
5172-0230	23 x 76 x 152	1	W
5172-0240	24 x 76 x 152	1	W
5172-0250	25 x 76 x 152	1	W

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

5141 HSS-G Stub Drills

ISO 235 DIN 1897 BS 328

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 135°DEG Split Point

APPLICATION Short robust drill for portable drill application.

SURFACE TREATMENT Blue Oxide



BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5141-0010	1 x 6 x 26	10	W
5141-0015	1.5 x 9 x 32	10	W
5141-0020	2 x 12 x 38	10	W
5141-0025	2.5 x 13 x 40	10	W
5141-0030	3 x 16 x 46	10	W
5141-0031	3.1 x 18 x 49	10	W
5141-0032	3.2 x 18 x 49	10	W
5141-0033	3.3 x 18 x 49	10	W
5141-0035	3.5 x 20 x 52	10	W
5141-0040	4 x 22 x 55	10	W
5141-0041	4.1 x 22 x 55	10	W
5141-0042	4.2 x 22 x 55	10	W
5141-0043	4.3 x 24 x 58	10	W
5141-0045	4.5 x 24 x 58	10	W
5141-0048	4.8 x 26 x 62	10	W
5141-0049	4.9 x 26 x 62	10	W
5141-0050	5 x 26 x 62	10	W
5141-0051	5.1 x 26 x 62	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5141-0052	5.2 x 26 x 62	10	W
5141-0055	5.5 x 28 x 66	10	W
5141-0058	5.8 x 28 x 66	10	W
5141-0060	6 x 28 x 66	10	W
5141-0065	6.5 x 31 x 70	10	W
5141-0068	6.8 x 34 x 74	10	W
5141-0069	6.9 x 34 x 74	10	W
5141-0070	7 x 34 x 74	10	W
5141-0075	7.5 x 34 x 74	10	W
5141-0080	8 x 37 x 79	10	W
5141-0085	8.5 x 37 x 79	10	W
5141-0090	9 x 40 x 84	10	W
5141-0095	9.5 x 40 x 84	10	W
5141-0100	10 x 43 x 89	5	W
5141-0102	10.2 x 43 x 89	5	W
5141-0105	10.5 x 43 x 89	5	W
5141-0110	11 x 47 x 95	5	W
5141-0115	11.5 x 47 x 95	5	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5141-0120	12 x 51 x 102	5	W
5141-0125	12.5 x 51 x 102	5	W
5141-0130	13 x 51 x 102	5	W
5141-0140	14 x 54 x 107	5	W
Code	Dia* x Wl x O/all mm	Pack Qty	Disc Group
5141-1004	1/16 x 10 x 34	10	W
5141-1006	3/32 x 14 x 43	10	W
5141-1007	7/64 x 16 x 46	10	W
5141-1008	1/8 x 18 x 49	10	W
5141-1009	9/64 x 20 x 52	10	W
5141-1010	5/32 x 22 x 55	10	W
5141-1011	11/64 x 11 x 58	10	W
5141-1012	3/16 x 26 x 62	10	W
5141-1013	13/64 x 26 x 62	10	W
5141-1016	1/4 x 31 x 70	10	W
5141-1020	5/16 x 37 x 79	10	W
5141-1024	3/8 x 43 x 89	10	W
5141-1028	7/16 x 47 x 95	5	W
5141-1032	1/2 x 51 x 102	5	W

BROOKE
CUTTING TOOLS

5116 HSS-G Long Series Straight Shank Drills

ISO 494 DIN 340 BS 328

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 135°DEG Split Point

APPLICATION For general purpose long reach drilling.

SURFACE TREATMENT Blue Oxide



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5116-0010	1 x 33 x 56	10	W
5116-0015	1.5 x 45 x 70	10	W
5116-0020	2 x 56 x 85	10	W
5116-0025	2.5 x 62 x 95	10	W
5116-0030	3 x 66 x 100	10	W
5116-0032	3.2 x 69 x 106	10	W
5116-0033	3.3 x 69 x 106	10	W
5116-0035	3.5 x 73 x 112	10	W
5116-0040	4 x 78 x 119	10	W
5116-0042	4.2 x 78 x 119	10	W
5116-0045	4.5 x 82 x 126	10	W
5116-0048	4.8 x 87 x 126	10	W
5116-0049	4.9 x 87 x 132	10	W
5116-0050	5 x 87 x 132	10	W
5116-0051	5.1 x 87 x 132	10	W
5116-0055	5.5 x 91 x 139	10	W
5116-0060	6 x 91 x 139	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5116-0065	6.5 x 97 x 148	10	W
5116-0068	6.8 x 102 x 156	10	W
5116-0070	7 x 102 x 156	10	W
5116-0075	7.5 x 102 x 156	10	W
5116-0080	8 x 109 x 165	10	W
5116-0085	8.5 x 109 x 165	10	W
5116-0090	9 x 115 x 175	10	W
5116-0095	9.5 x 115 x 175	10	W
5116-0100	10 x 121 x 184	10	W
5116-0102	10.2 x 121 x 184	5	W
5116-0105	10.5 x 121 x 184	5	W
5116-0110	11 x 128 x 195	5	W
5116-0115	11.5 x 128 x 195	5	W
5116-0120	12 x 134 x 205	5	W
5116-0125	12.5 x 134 x 205	5	W
5116-0130	13 x 134 x 205	5	W
5116-0135	13.5 x 140 x 214	1	W
5116-0140	14 x 140 x 214	1	W

Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5116-1004	1/16 x 50 x 76	10	W
5116-1005	5/64 x 56 x 85	10	W
5116-1006	3/32 x 62 x 95	10	W
5116-1007	7/64 x 66 x 100	10	W
5116-1008	1/8 x 69 x 106	10	W
5116-1009	9/64 x 73 x 112	10	W
5116-1010	5/32 x 78 x 119	10	W
5116-1012	3/16 x 87 x 126	10	W
5116-1013	13/64 x 87 x 132	10	W
5116-1014	7/32 x 91 x 139	10	W
5116-1016	1/4 x 97 x 148	10	W
5116-1017	17/64x102x156	10	W
5116-1020	5/16 x 109 x 165	10	W
5116-1024	3/8 x 121 x 184	10	W
5116-1028	7/16 x 128 x 195	5	W
5116-1032	1/2 x 134 x 205	5	W

5117 HSS-Co5 Cobalt Long Series Drills

ISO 494 DIN 340 BS 328

FLUTE TYPE Standard helix, right hand ground flutes

POINT ANGLE 135° Split Point

SURFACE TREATMENT Bright

APPLICATION Drills in steel, high tensile steel up to 1000N/mm2, stainless steel V2A/V4A, cast steel



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5117-0020	2 x 56 x 85	10	W
5117-0025	2.5 x 62 x 95	10	W
5117-0030	3 x 66 x 100	10	W
5117-0032	3.2 x 69 x 106	10	W
5117-0035	3.5 x 73 x 112	10	W
5117-0040	4 x 78 x 119	10	W
5117-0042	4.2 x 78 x 119	10	W
5117-0045	4.5 x 82 x 126	10	W
5117-0050	5 x 87 x 132	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5117-0060	6 x 91 x 139	10	W
5117-0065	6.5 x 97 x 148	10	W
5117-0068	6.8 x 102 x 156	10	W
5117-0070	7.0 x 102 x 156	10	W
5117-0075	7.5 x 102 x 156	10	W
5117-0080	8.0 x 109 x 165	10	W
5117-0085	8.5 x 109 x 165	10	W
5117-0090	9.0 x 115 x 175	10	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5117-0095	9.5 x 115 x 175	10	W
5117-0100	10 x 121 x 184	5	W
5117-0102	10.2 x 121 x 184	5	W
5117-0105	10.5 x 121 x 184	5	W
5117-0110	11 x 128 x 195	5	W
5117-0120	12 x 134 x 205	5	W
5117-0125	12.5 x 134 x 205	5	W
5117-0130	13 x 134 x 205	5	W

5121 HSS-G Straight Shank Extra Length Drills

ISO 3 92 BS 328 PART 1

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 135°DEG Split Point

APPLICATION For extra deep hole drilling.

SURFACE TREATMENT Blue Oxide

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5121-00202	2 x 100 x 160	1	W
5121-00252	2.5 x 100 x 160	1	W
5121-00302	3 x 100 x 160	1	W
5121-00303	3 x 150 x 200	1	W
5121-00332	3.3 x 100 x 160	1	W
5121-00354	3.5 x 200 x 250	1	W
5121-00402	4 x 100 x 160	1	W
5121-00404	4 x 200 x 250	1	W
5121-00452	4.5 x 100 x 160	1	W
5121-00453	4.5 x 150 x 200	1	W
5121-00493	4.9 x 150 x 200	1	W
5121-00502	5 x 100 x 160	1	W
5121-00503	5 x 150 x 200	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5121-00504	5 x 200 x 250	1	W
5121-00506	5 x 300 x 400	1	W
5121-00554	5.5 x 200 x 250	1	W
5121-00603	6 x 160 x 200	1	W
5121-00604	6 x 200 x 250	1	W
5121-00605	6 x 250 x 315	1	W
5121-00606	6 x 300 x 400	1	W
5121-00653	6.5 x 160 x 200	1	W
5121-00704	7 x 200 x 250	1	W
5121-00705	7 x 250 x 315	1	W
5121-00707	7 x 300 x 400	1	W
5121-00754	7.5 x 200 x 250	1	W
5121-00804	8 x 200 x 250	1	W
5121-00805	8 x 250 x 315	1	W
5121-00806	8 x 300 x 400	1	W
5121-00854	8.5 x 200 x 250	1	W
5121-00904	9 x 200 x 250	1	W
5121-00905	9 x 250 x 315	1	W
5121-00906	9 x 300 x 400	1	W



BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5121-00954	9.5 x 200 x 250	1	W
5121-00955	9.5 x 250 x 315	1	W
5121-01004	10 x 200 x 250	1	W
5121-01005	10 x 250 x 315	1	W
5121-01006	10 x 300 x 400	1	W
5121-01054	10.5 x 200 x 250	1	W
5121-01104	11 x 200 x 250	1	W
5121-01105	11 x 250 x 315	1	W
5121-01106	11 x 300 x 400	1	W
5121-01204	12 x 200 x 250	1	W
5121-01205	12 x 250 x 315	1	W
5121-01206	12 x 300 x 400	1	W
5121-01305	13 x 250 x 315	1	W
5121-01306	13x 300 x 400	1	W

Please contact us for imperial sizes.

4230 HSS Rotabor Cutters Short Series 30mm

WORK STANDARD

SHANK TYPE Universal Weldon 19.0mm (3/4") Shank

SURFACE TREATMENT Bright

APPLICATION For use in magnetic drilling machines and pillar drills with MTS adaptors.

For drilling large holes in alloyed and non-alloyed steel.



BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Diameter	Cutting Depth	PACK QTY	Disc Group
423012	12.0mm	30.0mm	1	W
423013	13.0mm	30.0mm	1	W
423014	14.0mm	30.0mm	1	W
423015	15.0mm	30.0mm	1	W
423016	16.0mm	30.0mm	1	W
423017	17.0mm	30.0mm	1	W
423018	18.0mm	30.0mm	1	W
423019	19.0mm	30.0mm	1	W
423020	20.0mm	30.0mm	1	W
423021	21.0mm	30.0mm	1	W
423022	22.0mm	30.0mm	1	W
423023	23.0mm	30.0mm	1	W

Code	Diameter	Cutting Depth	PACK QTY	Disc Group
423024	24.0mm	30.0mm	1	W
423025	25.0mm	30.0mm	1	W
423026	26.0mm	30.0mm	1	W
423027	27.0mm	30.0mm	1	W
423028	28.0mm	30.0mm	1	W
423029	29.0mm	30.0mm	1	W
423030	30.0mm	30.0mm	1	W
423031	31.0mm	30.0mm	1	W
423032	32.0mm	30.0mm	1	W
423033	33.0mm	30.0mm	1	W
423034	34.0mm	30.0mm	1	W
423035	35.0mm	30.0mm	1	W

4250 HSS Rotabor Cutters Long Series 50mm

WORK STANDARD

SHANK TYPE Universal Weldon 19.0mm (3/4") Shank

SURFACE TREATMENT Bright

APPLICATION For use in magnetic drilling machines and pillar drills with MTS adaptors.

For drilling large holes in alloyed and non-alloyed steel.



BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Diameter	Cutting Depth	PACK QTY	Disc Group
425012	12.0mm	50.0mm	1	W
425013	13.0mm	50.0mm	1	W
425014	14.0mm	50.0mm	1	W
425015	15.0mm	50.0mm	1	W
425016	16.0mm	50.0mm	1	W
425017	17.0mm	50.0mm	1	W
425018	18.0mm	50.0mm	1	W
425019	19.0mm	50.0mm	1	W
425020	20.0mm	50.0mm	1	W
425021	21.0mm	50.0mm	1	W
425022	22.0mm	50.0mm	1	W
425023	23.0mm	50.0mm	1	W

SHORT PILOT

Code	Diameter	Pack Qty	Disc Group
4230P	Short Straight Pilot	1	W

Code	Diameter	Cutting Depth	PACK QTY	Disc Group
425024	24.0mm	50.0mm	1	W
425025	25.0mm	50.0mm	1	W
425026	26.0mm	50.0mm	1	W
425027	27.0mm	50.0mm	1	W
425028	28.0mm	50.0mm	1	W
425029	29.0mm	50.0mm	1	W
425030	30.0mm	50.0mm	1	W
425031	31.0mm	50.0mm	1	W
425032	32.0mm	50.0mm	1	W
425033	33.0mm	50.0mm	1	W
425034	34.0mm	50.0mm	1	W
425035	35.0mm	50.0mm	1	W

LONG PILOT

Code	Diameter	Pack Qty	Disc Group
4250P	Long Straight Pilot	1	W

Please contact us for larger diameters and HSS-Co Cutters.

5114 HSS Centre Drills Type A

ISO 866 DIN 333 BS 328

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 118°DEG with 60 °DEG Countersink

APPLICATION For general centring operations.

SURFACE TREATMENT Bright



BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Bd x Wl x O/all mm	Pack Qty	Disc Group
5114-0001	B.S.1 x 3.18 x 38	1	U
5114-0002	B.S.2 x 4.76 x 45	1	U
5114-0003	B.S.3 x 6.35 x 51	1	U
5114-0004	B.S.4 x 7.94 x 57	1	U
5114-0005	B.S.5 x 11.11 x 64	1	U
5114-0006	B.S.6 x 15.88 x 76	1	U

Code	Dia x Bd x Wl x O/all mm	Pack Qty	Disc Group
5114-0007	B.S.7 x 19.05 x 89	1	U
5114-10100	1 x 3.15 x 31.5	1	U
5114-10160	1.6 x 4 x 35.5	1	U
5114-10200	2 x 5 x 40	1	U
5114-10250	2.5 x 6.3 x 45	1	U
5114-10315	3.15 x 8 x 50	1	U

Code	Dia x Bd x Wl x O/all mm	Pack Qty	Disc Group
5114-10400	4 x 10 x 56	1	U
5114-10500	5 x 12.5 x 63	1	U
5114-10630	6.3 x 16 x 71	1	U
5114-10800	8 x 20 x 80	1	U
5114-11000	10 x 25 x 100	1	U

5145 HSS Step Drills

WORK STANDARD

FLUTE TYPE Right hand cutting

SHANK 3 flatted shank

POINT ANGLE 118° **STEP ANGLE** 90°

APPLICATION Cutting varying hole sizes in steel, high tensile steel up to 1.000N/mm², cast steel, cast iron, metals and hard plastics up to 4mm thick without changing the drill bit. Each drill cuts parallel holes within a specific size range, rising in 2mm increments.

SURFACE TREATMENT Bright



BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Size Range mm in increments of 2mm	Pack Qty	Disc Group
5145-0001	4-12	1	W
5145-0002	4-20	1	W
5145-0003	4-30	1	W
5145-0004	3Pc Set	1	W

5156 HSS Combination Drill & Tap

DIN ISO 13

THREAD TYPE Metric coarse

FLUTE TYPE Spiral flutes with deburring zone edge breaker

SHANK TYPE 1/4" quick change hex shank

SURFACE TREATMENT Bright

APPLICATION For unalloyed and low-alloyed steels up to 600N/mm², malleable cast iron and non-ferrous metals.

BROOKE

PRODUCT
DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5156-0030	3 x 0.50 x52	1	W
5156-0040	4 x 0.70 x52	1	W
5156-0050	5 x 0.80 x57	1	W
5156-0060	6 x 1.0 x57	1	W
5156-0080	8 x 1.25 x79	1	W
5156-0100	10 x 1.5 x79	1	W
5156-0000	7Pc Set M3-M10 + Magnetic Bit Holder	1	W



5195, 5182 & 5103 HSS-G, TiN & HSS-Co5 Drill Sets

ISO 235 DIN 338 BS 328

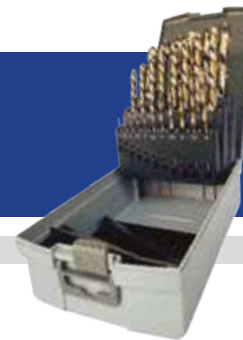
FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 135°DEG Split Point

APPLICATION For general purpose drilling

SURFACE TREATMENT Bright, Blue Oxide (HSS-G), Straw Finish (HSS-Co5),

TiN Coated (HSS-G) as stated below



170Pc Set Contents

10 pc per size - 1.0,1.5,2.0,2.5,3.0,3.5,4.0,4.5,5.0,
5.5,6.0,6.5,7.0,7.5,8.0mm
5 pc per size - 8.5,9.0,9.5,10.0mm

Code	Description (HSS-G)	Pack Qty	Disc Group
5195-0019	19 Pc 1-10 x 0.5mm	1	W
5195-0025	25 Pc 1-13 x 0.5mm	1	W
5195-0025BF	25 Pc 1-13 x 0.5mm (Bright Finish)	1	W
5195-9170	170 Pc 1-10 x 0.5mm	1	W

Code	Description (HSS-Co5)	Pack Qty	Disc Group
5182-0019	19 Pc 1-10 x 0.5mm	1	W
5182-0025	25 Pc 1-13 x 0.5mm	1	W
5182-9170	170 Pc 1-10 x 0.5mm	1	W

Code	Description (TiN Coated HSS-G)	Pack Qty	Disc Group
5103-0925 Kombat	25 Pc 1-13 x 0.5mm	1	W
5103-9170 Kombat	170 Pc 1-10 x 0.5mm	1	W

6380 HSS/HSS-E Tap & Drill Sets

DIN 338 Drill Bits

ISO 529 Taps

SURFACE TREATMENT Bright, Blue Oxide, TiN Coated, Straw Finish.

KEY	
D	DRILL BITS
HT	HAND TAPS
SP	SPIRAL POINT
SF	SPIRAL FLUTE

Code	Description	Pack Qty	Disc Group
6380-0030 HT - BRIGHT D - BLUE	28Pcs HSS Tap and Drill Set Taps-Taper(T), Second(S), Bottom(B) M3, M4, M5, M6, M8, M10, M12 Drills-2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W
6380-0031 Kombat HT - BRIGHT D - TiN COATED	28Pcs HSS Tap and Tin Coated Drill Set Taps-Taper(T), Second(S), Bottom(B) M3, M4, M5, M6, M8, M10, M12 Drills-2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W
6380-0032 HT - BRIGHT D - STRAW	28Pcs HSS Tap and HSS Co5 Drill Set Taps-Taper(T), Second(S), Bottom(B) M3, M4, M5, M6, M8, M10, M12 Drills-2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W



Code	Description	Pack Qty	Disc Group
6380-0801 SP - BRIGHT D - BLUE	14 HSS Spiral Point Tap & Drill Set M3, M4, M5, M6, M8, M10, M12. Drill size - 2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W
6380-0802 SP - BLUE D - STRAW	14Pcs HSS-E Spiral Point Tap & Drill Set M3, M4, M5, M6, M8, M10, M12. Drill sizes - 2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W
6380-1001 SF - BRIGHT D - BLUE	14Pcs HSS Spiral Flute Tap & Drill Set M3, M4, M5, M6, M8, M10, M12. Drill sizes - 2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W
6380-1002 SF - BLUE D - STRAW	14Pcs HSS-E Spiral Flute Tap & Drill Set M3, M4, M5, M6, M8, M10, M12. Drill sizes - 2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W
6380-5028 HT/SP/SF - BLUE D - STRAW	28Pcs HSS-E Hand Taps(Bottom),Spiral/Point Flute Taps & Drill Set M3, M4, M5, M6, M8, M10, M12 Drill sizes - 2.5, 3.3, 4.2, 5, 6.8, 8.5, 10.2mm	1	W

5201 HSS Morse Taper Shank Drills

ISO 235 DIN345 BS 328

FLUTE TYPE Standard Helix, Right Hand

POINT ANGLE 118°DEG

APPLICATION For general purpose drilling

SURFACE TREATMENT Blue Oxide



BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
No.1 Morse Taper Shank			
5201-0030	3 x 33 x 114	1	U
5201-0040	4 x 43 x 124	1	U
5201-0050	5 x 52 x 133	1	U
5201-0060	6 x 57 x 138	1	U
5201-0070	7 x 69 x 150	1	U
5201-0080	8 x 75 x 156	1	U
5201-0085	8.5 x 75 x 156	1	U
5201-0090	9 x 81 x 162	1	U
5201-0100	10 x 87 x 168	1	U
5201-0102	10.2 x 87 x 168	1	U
5201-0105	10.5 x 87 x 168	1	U
5201-0110	11 x 94 x 175	1	U
5201-0115	11.5 x 94 x 175	1	U
5201-0120	12 x 101 x 182	1	U
5201-0125	12.5 x 101 x 182	1	U
5201-0130	13 x 101 x 182	1	U
5201-0135	13.5 x 108 x 189	1	U
5201-0140	14 x 108 x 189	1	U
Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5201-1008	1/8 x 36 x 117	1	U
5201-1012	3/16 x 52 x 133	1	U
5201-1016	1/4 x 63 x 144	1	U
5201-1020	5/16 x 75 x 156	1	U
5201-1024	3/8 x 87 x 168	1	U
5201-1028	7/16 x 94 x 175	1	U
5201-1032	1/2 x 101 x 182	1	U

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
No.3 Morse Taper Shank			
5201-4235	23.5 x 155 x 276	1	U
5201-4240	24 x 160 x 281	1	U
5201-4245	24.5 x 160 x 281	1	U
5201-4250	25 x 160 x 281	1	U
5201-4255	25.5 x 165 x 286	1	U
5201-4260	26 x 165 x 286	1	U
5201-4265	26.5 x 165 x 286	1	U
5201-4270	27 x 170 x 291	1	U
5201-4275	27.5 x 170 x 291	1	U
5201-4280	28 x 170 x 291	1	U
5201-4285	28.5 x 175 x 296	1	U
5201-4290	29 x 175 x 296	1	U
5201-4295	29.5 x 175 x 296	1	U
5201-4300	30 x 175 x 296	1	U
5201-4305	30.5 x 180 x 301	1	U
5201-4310	31 x 180 x 301	1	U
5201-4315	31.5 x 180 x 301	1	U
Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5201-5060	15/16 x 160 x 281	1	U
5201-5100	1" x 165 x 286	1	U
5201-5104	1.1/16 x 170 x 291	1	U
5201-5108	1.1/8 x 175 x 296	1	U
5201-5112	1.3/16 x 180 x 301	1	U
5201-5116	1.1/4 x 185 x 306	1	U

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
No.2 Morse Taper Shank			
5201-2145	14.5 x 114 x 212	1	U
5201-2150	15 x 114 x 212	1	U
5201-2155	15.5 x 120 x 218	1	U
5201-2160	16 x 120 x 218	1	U
5201-2165	16.5 x 125 x 223	1	U
5201-2170	17 x 125 x 223	1	U
5201-2175	17.5 x 130 x 228	1	U
5201-2180	18 x 130 x 228	1	U
5201-2185	18.5 x 135 x 233	1	U
5201-2190	19 x 135 x 233	1	U
5201-2195	19.5 x 140 x 238	1	U
5201-2200	20 x 140 x 238	1	U
5201-2205	20.5 x 145 x 243	1	U
5201-2210	21 x 145 x 243	1	U
5201-2215	21.5 x 150 x 248	1	U
5201-2220	22 x 150 x 248	1	U
5201-2225	22.5 x 155 x 253	1	U
5201-2230	23 x 155 x 253	1	U
Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5201-3036	9/16 x 114 x 212	1	U
5201-3038	19/32 x 120 x 218	1	U
5201-3040	5/8 x 120 x 218	1	U
5201-3042	21/32 x 125 x 223	1	U
5201-3044	11/16 x 130 x 228	1	U
5201-3046	23/32 x 135 x 233	1	U
5201-3048	3/4 x 140 x 238	1	U
5201-3050	25/32 x 140 x 238	1	U
5201-3052	13/16 x 145 x 243	1	U
5201-3054	27/32 x 150 x 248	1	U
5201-3056	7/8 x 150 x 248	1	U

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
No.4 Morse Taper Shank			
5201-6320	32 x 185 x 334	1	U
5201-6330	33 x 185 x 334	1	U
5201-6340	34 x 190 x 339	1	U
5201-6350	35 x 190 x 339	1	U
5201-6360	36 x 195 x 344	1	U
5201-6370	37 x 195 x 344	1	U
5201-6380	38 x 200 x 349	1	U
5201-6390	39 x 200 x 349	1	U
5201-6400	40 x 200 x 349	1	U
5201-6410	41 x 205 x 354	1	U
5201-6420	42 x 205 x 354	1	U
5201-6430	43 x 210 x 359	1	U
5201-6440	44 x 210 x 359	1	U
5201-6450	45 x 210 x 359	1	U
5201-6455	45.5 x 215 x 364	1	U
5201-6460	46 x 215 x 364	1	U
5201-6470	47 x 215 x 364	1	U
5201-6480	48 x 220 x 369	1	U
5201-6500	50 x 220 x 369	1	U
Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5201-7120	1.5/16 x 185 x 334	1	U
5201-7132	1.1/2 x 200 x 349	1	U
5201-7148	1.3/4 x 210 x 359	1	U
5201-7200	2" x 225 x 374	1	U

5731 5732 HSS Hand Taper Pin Reamers

ISO 3465 DIN 9 BS328

SHANK Straight shank

SURFACE TREATMENT Blue flutes, bright lands

APPLICATION Reaming holes to suit standard Taper Pins

TAPER 1:50 Metric 1:48 Imperial



Code	Dia x WL x O/all mm	D1 & D2 Dia mm	Pack Qty	Disc Group
5731-0020	2 x 48 x 68	1.9 - 2.86	1	U
5731-0030	3 x 58 x 80	2.9 - 4.06	1	U
5731-0040	4 x 68 x 93	3.9 - 5.26	1	U
5731-0050	5 x 73 x 100	4.9 - 6.36	1	U
5731-0060	6 x 105 x 135	5.9 - 8.0	1	U
5731-0080	8 x 145 x 180	7.9 - 10.8	1	U
5731-0100	10 x 175 x 215	9.9 - 13.4	1	U
5731-0120	12 x 210 x 255	11.8 - 16.0	1	U
5731-0130	13 x 210 x 255	12.8 - 17.0	1	U
5731-0140	14 x 210 x 255	13.8 - 18.0	1	U
5731-0160	16 x 230 x 280	15.8 - 20.4	1	U
5731-0200	20 x 250 x 310	19.8 - 24.8	1	U

Code	Dia" x WL x O/all mm	D1 & D2 Dia mm	Pack Qty	Disc Group
5732-0006	3/32 x 31.8 x 57.2	2.0 - 2.41	1	U
5732-0008	1/8 x 44.5 x 69.9	2.5 - 3.23	1	U
5732-0010	5/32 x 50.8 x 76.2	3.15 - 4.01	1	U
5732-0012	3/16 x 69.9 x 101.6	4.0 - 4.95	1	U
5732-0016	1/4 x 85.7 x 117.5	5.0 - 6.43	1	U
5732-0020	5/16 x 104.8 x 142.9	6.3 - 8.03	1	U
5732-0024	3/8 x 127.4 x 165.1	8.0 - 9.68	1	U
5732-0032	1/2 x 165.1 x 209.6	10.0 - 12.85	1	U

5701 HSS Parallel Hand Reamers

ISO236/1 DIN 206 BS328

SHANK Straight shank

SURFACE TREATMENT Blue flutes, bright lands

APPLICATION General Hand Reaming

EXECUTION 10°DEG Left hand spiral



Code	Dia x WL x O/all mm	Pack Qty	Disc Group
5701-0020	2 x 25 x 50	1	U
5701-0030	3 x 31 x 62	1	U
5701-0040	4 x 38 x 76	1	U
5701-0050	5 x 44 x 87	1	U
5701-0060	6 x 47 x 93	1	U
5701-0070	7 x 54 x 107	1	U
5701-0080	8 x 58 x 115	1	U
5701-0090	9 x 62 x 124	1	U
5701-0100	10 x 66 x 133	1	U
5701-0110	11 x 71 x 142	1	U
5701-0120	12 x 76 x 152	1	U
5701-0130	13 x 76 x 153	1	U
5701-0140	14 x 81 x 163	1	U
5701-0150	15 x 81 x 163	1	U

Code	Dia x WL x O/all mm	Pack Qty	Disc Group
5701-0160	16 x 87 x 175	1	U
5701-0170	17 x 87 x 175	1	U
5701-0180	18 x 93 x 188	1	U
5701-0190	19 x 93 x 188	1	U
5701-0200	20 x 100 x 201	1	U
5701-0210	21 x 100 x 201	1	U
5701-0220	22 x 107 x 215	1	U
5701-0230	23 x 107 x 215	1	U
5701-0240	24 x 115 x 231	1	U
5701-0250	25 x 115 x 231	1	U
5701-0260	26 x 115 x 231	1	U
5701-0270	27 x 115 x 231	1	U
5701-0280	28 x 124 x 247	1	U
5701-0300	30 x 124 x 247	1	U

Code	Dia x WL x O/all mm	Pack Qty	Disc Group
5701-0320	32 x 133 x 265	1	U
5701-0340	34 x 133 x 265	1	U
5701-0350	35 x 142 x 284	1	U
5701-0360	36 x 142 x 284	1	U
5701-0370	37 x 142 x 284	1	U
5701-0380	38 x 142 x 284	1	U
5701-0400	40 x 152 x 305	1	U
Code	Dia" x WL x O/all mm	Pack Qty	Disc Group
5701-1008	1/8 x 33 x 66	1	U
5701-1016	1/4 x 50 x 100	1	U
5701-1020	5/16 x 58 x 115	1	U
5701-1024	3/8 x 66 x 133	1	U
5701-1032	1/2 x 76 x 152	1	U
5701-1040	5/8 x 87 x 175	1	U
5701-1048	3/4 x 100 x 201	1	U
5701-1100	1 x 115 x 231	1	U



5725 HSS Car/Construction Reamers

SHANK 3 flatted sides parallel shank
SURFACE TREATMENT Blue flutes, bright lands
APPLICATION for enlarging existing holes,
 or re-aligning mismatched holes on mating components
EXECUTION Taper 1 in 10 Left hand spiral
TOLERANCE +0.1mm -0.0mm



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	D1 & D2 Dia mm	Pack Qty	Disc Group
5725-0100	10 x 72 x 127	5.2 - 10.0	1	U
5725-0120	12 x 102 x 152	5.6 - 12.0	1	U
5725-0140	14 x 102 x 152	7.8 - 14.0	1	U
5725-0160	16 x 102 x 152	8.9 - 16.0	1	U

Code	Dia x Wl x O/all mm	D1 & D2 Dia mm	Pack Qty	Disc Group
5725-0180	18 x 125 x 178	9.2 - 18.0	1	U
5725-0220	22 x 132 x 184	13.0 - 22.0	1	U
5725-0240	24 x 132 x 184	15.0 - 24.0	1	U
5725-0260	26 x 132 x 184	17.20 - 26.0	1	U

5711 HSS MTS Machine Reamers (Parallel Flute)

ISO236/1 BS328

SHANK Morse Taper Shank

SURFACE TREATMENT Blue flutes, bright lands

APPLICATION General Machine Reaming

EXECUTION 10°DEG Left hand spiral



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
No1. MTS			
5711-0030	3 x 32 x 115	1	U
5711-0040	4 x 38 x 120	1	U
5711-0050	5 x 38 x 120	1	U
5711-0060	6 x 45 x 127	1	U
5711-0070	7 x 54 x 134	1	U
5711-0080	8 x 58 x 138	1	U
5711-0090	9 x 62 x 142	1	U
5711-0100	10 x 66 x 146	1	U
5711-0110	11 x 71 x 151	1	U
5711-0120	12 x 76 x 156	1	U
5711-0130	13 x 76 x 156	1	U
5711-0140	14 x 81 x 161	1	U
5711-0150	15 x 81 x 161	1	U

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
No2. MTS			
5711-0160	16 x 87 x 137	1	U
5711-0170	17 x 87 x 137	1	U
5711-0180	18 x 93 x 193	1	U
5711-0190	19 x 93 x 193	1	U
5711-0200	20 x 100 x 200	1	U
5711-0210	21 x 100 x 200	1	U
5711-0220	22 x 107 x 207	1	U
5711-0230	23 107 x 207	1	U
No3. MTS			
5711-0240	24 x 115 x 242	1	U
5711-0250	25 x 115 x 242	1	U
5711-0260	26 x 115 x 242	1	U
5711-0270	27 x 124 x 251	1	U

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5711-0280	28 x 124 x 251	1	U
5711-0300	30 x 124 x 251	1	U
5711-0310	31 x 133 x 260	1	U
No4. MTS			
5711-0320	32 x 133 x 293	1	U
5711-0330	33 x 133 x 293	1	U
5711-0340	34 x 142 x 302	1	U
5711-0350	35 x 142 x 302	1	U
5711-0360	36 x 142 x 302	1	U
5711-0400	40 x 152 x 312	1	U
5711-0420	42 x 152 x 312	1	U
5711-0450	45 x 163 x 323	1	U
5711-0460	46 x 163 x 323	1	U
5711-0500	50 x 174 x 334	1	U

Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
No1. MTS			
5711-1008	1/8 x 32 x 115	1	U
5711-1016	1/4 x 50 x 130	1	U
5711-1020	5/16 x 58 x 138	1	U
5711-1024	3/8 x 66 x 146	1	U
5711-1032	1/2 x 76 x 156	1	U
No2. MTS			
5711-1040	5/8 x 87 x 187	1	U
5711-1048	3/4 x 100 x 200	1	U
No3. MTS			
5711-1100	1 x 115 x 242	1	U

5751 Cobalt Parallel Shank Machine Chucking Reamers

ISO 521 DIN 212 BS328

SHANK Straight Shank

SURFACE TREATMENT Blue flutes, bright lands

APPLICATION General Machine Reaming

EXECUTION 10°DEG Left hand spiral



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5751-0020	2 x 2 x 49	1	U
5751-0030	3 x 3 x 61	1	U
5751-0040	4 x 4 x 75	1	U
5751-0050	5 x 5 x 86	1	U
5751-0060	6 x 5.6 x 93	1	U
5751-0070	7 x 7.1 x 109	1	U

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5751-0080	8 x 8 x 117	1	U
5751-0090	9 x 9 x 125	1	U
5751-0100	10 x 10 x 133	1	U
5751-0110	11 x 10 x 142	1	U
5751-0120	12 x 10 x 151	1	U
5751-0130	13 x 10 x 151	1	U

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5751-0140	14 x 12.5 x 160	1	U
5751-0150	15 x 12.5 x 162	1	U
5751-0160	16 x 12.5 x 170	1	U
Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5751-1008	1/8 x 3.2 x 65	1	U
5751-1016	1/4 x 6.3 x 101	1	U
5751-1024	3/8 x 10 x 133	1	U
5751-1032	1/2 x 10 x 151	1	U

5755 HSS Adjustable Reamers

WORKS STANDARD

SHANK Straight shank

SURFACE TREATMENT Bright Finish

APPLICATION Expandable Reamer



BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Range imperial	Range metric	Size	Pack Qty	Disc Group
5755-0004	3/8-13/32"	9.5-10.3	H1	1	U
5755-0005	13/32-7/16"	10.3-11.11	H2	1	U
5755-0006	7/16-15/32"	11.11-11.9	H3	1	U
5755-0007	15/32-17/32"	11.9-13.5	H4	1	U
5755-0008	17/32-19/32"	13.5-15.0	H5	1	U
5755-0009	19/32-21/32"	15.0-16.6	H6	1	U
5755-0010	21/32-23/32"	16.6-18.25	H7	1	U
5755-0011	23/32-25/32"	18.25-19.80	H8	1	U
5755-0012	25/32-27/32"	19.75-21.5	H9	1	U
5755-0013	27/32-15/16"	21.5-23.75	H10	1	U
5755-0014	15/16-1.1/16"	23.75-26.98	H11	1	U
5755-0015	1.1/16-1.3/16"	26.98-30.16	H12	1	U
5755-0016	1.3/16-1.11/32"	30.16-34.15	H13	1	U
5755-0017	1.11/32-1.1/2"	34.15-38.09	H14	1	U
5755-0018	1.1/2-1.13/16"	38.10-46.0	H15	1	U
5755-0019	1.13/16-2.7/32"	46.03-56.3	H16	1	U

5763 5773 3-Flute HSS-Co5 Cobalt Countersinks x 90°DEG

DIN335

EXECUTION 3 flutes ground all over, 90 °deg included angle

SHANK Parallel (PS) or MTS

APPLICATION To produce a countersink suitable for countersunk head screws, also used as a deburring tool

SURFACE TREATMENT Bright

5773



D1

5763



D1

BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

Code	Dia x O/L x Shank Dia mm	D1 mm	Pack Qty	Disc Group
5763-0060	PS 6.3 x 45 x 5.0	1.6	1	M
5763-0080	PS 8.3 x 50 x 6.0	1.6	1	M
5763-0100	PS 10.4 x 50 x 6.0	2.0	1	M
5763-0125	PS 12.4 x 56 x 8.0	2.5	1	M
5763-0160	PS 16.5 x 60 x 10	3.2	1	M
5763-0200	PS 20.5 x 63 x 10	4.0	1	M
5763-0250	PS 25.0 x 67 x 10	7.0	1	M
5763-0906	6Pc Set 6.3, 8.3, 10.4, 12.4, 16.5, 20.5	-	1	M
Code	MTS x Dia x O/L mm	D1 mm	Pack Qty	Disc Group
5773-0160	1 MTS 16.0 x 85.0	3.2	1	M
5773-0200	2 MTS 20.0 x 100.0	4.0	1	M
5773-0250	2 MTS 25.0 x 106.0	7.0	1	M
5773-0315	2 MTS 31.5 x 112.0	9.0	1	M
5773-0400	3 MTS 40.0 x 140.0	12.5	1	M
5773-0500	3 MTS 50.0 x 150.0	16.0	1	M
5773-0630	4 MTS 63.0 x 180.0	20.0	1	M
5773-0800	4 MTS 80.0 x 190.0	25.0	1	M

HSS Hand Taps & Sets

ISO 529

APPLICATION Hand or machine tapping through or blind holes

SURFACE TREATMENT Bright

FLUTE TYPE Straight flutes



PACKAGING TYPE SET



PACKAGING TYPE

5501 Metric Coarse Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR 64 FIT

Code	Dia & Pitch	Pack Qty	Disc Group
5501-0020	2.0 x .40 SET	1	W
5501-00201	2.0 x .40 T	1	W
5501-00202	2.0 x .40 S	1	W
5501-00203	2.0 x .40 B	1	W
5501-0025	2.5 x .45 SET	1	W
5501-00251	2.5 x .45 T	1	W
5501-00252	2.5 x .45 S	1	W
5501-00253	2.5 x .45 B	1	W
5501-0030	3.0 x .50 SET	1	W
5501-00301	3.0 x .50 T	1	W
5501-00302	3.0 x .50 S	1	W
5501-00303	3.0 x .50 B	1	W
5501-0035	3.5 x .60 SET	1	W
5501-00351	3.5 x .60 T	1	W
5501-00352	3.5 x .60 S	1	W
5501-00353	3.5 x .60 B	1	W
5501-0040	4.0 x .70 SET	1	W
5501-00401	4.0 x .70 T	1	W
5501-00402	4.0 x .70 S	1	W
5501-00403	4.0 x .70 B	1	W
5501-0045	4.5 x .75 SET	1	W
5501-00451	4.5 x .75 T	1	W
5501-00452	4.5 x .75S	1	W
5501-00453	4.5 x .75 B	1	W
5501-0050	5.0 x .80 SET	1	W
5501-00501	5.0 x .80 T	1	W
5501-00502	5.0 x .80 S	1	W
5501-00503	5.0 x .80 B	1	W
5501-0060	6.0 x 1.0 SET	1	W
5501-00601	6.0 x 1.0 T	1	W
5501-00602	6.0 x 1.0 S	1	W
5501-00603	6.0 x 1.0 B	1	W
5501-0070	7.0 x 1.0 SET	1	W
5501-00701	7.0 x 1.0 T	1	W
5501-00702	7.0 x 1.0 S	1	W
5501-00703	7.0 x 1.0 B	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5501-0080	8.0 x 1.25 SET	1	W
5501-00801	8.0 x 1.25 T	1	W
5501-00802	8.0 x 1.25 S	1	W
5501-00803	8.0 x 1.25 B	1	W
5501-0090	9.0 x 1.25 SET	1	W
5501-00901	9.0 x 1.25 T	1	W
5501-00902	9.0 x 1.25 S	1	W
5501-00903	9.0 x 1.25 B	1	W
5501-0100	10.0 x 1.5 SET	1	W
5501-01001	10.0 x 1.5 T	1	W
5501-01002	10.0 x 1.5 S	1	W
5501-01003	10.0 x 1.5 B	1	W
5501-0110	11.0 x 1.5 SET	1	W
5501-01101	11.0 x 1.5 T	1	W
5501-01102	11.0 x 1.5 S	1	W
5501-01103	11.0 x 1.5 B	1	W
5501-0120	12.0 x 1.75 SET	1	W
5501-01201	12.0 x 1.75 T	1	W
5501-01202	12.0 x 1.75 S	1	W
5501-01203	12.0 x 1.75 B	1	W
5501-0140	14.0 x 2.0 SET	1	W
5501-01401	14.0 x 2.0 T	1	W
5501-01402	14.0 x 2.0 S	1	W
5501-01403	14.0 x 2.0 B	1	W
5501-0160	16.0 x 2.0 SET	1	W
5501-01601	16.0 x 2.0 T	1	W
5501-01602	16.0 x 2.0 S	1	W
5501-01603	16.0 x 2.0 B	1	W
5501-0180	18.0 x 2.5 SET	1	W
5501-01801	18.0 x 2.5 T	1	W
5501-01802	18.0 x 2.5 S	1	W
5501-01803	18.0 x 2.5 B	1	W
5501-0200	20.0 x 2.5 SET	1	W
5501-02001	20.0 x 2.5 T	1	W
5501-02002	20.0 x 2.5 S	1	W
5501-02003	20.0 x 2.5 B	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5501-0220	22.0 x 2.5 SET	1	W
5501-02201	22.0 x 2.5 T	1	W
5501-02202	22.0 x 2.5 S	1	W
5501-02203	22.0 x 2.5 B	1	W
5501-0240	24.0 x 3.0 SET	1	W
5501-02401	24.0 x 3.0 T	1	W
5501-02402	24.0 x 3.0 S	1	W
5501-02403	24.0 x 3.0 B	1	W
5501-0270	27.0 x 3.0 SET	1	W
5501-02701	27.0 x 3.0 T	1	W
5501-02702	27.0 x 3.0 S	1	W
5501-02703	27.0 x 3.0 B	1	W
5501-0300	30.0 x 3.5 SET	1	W
5501-03001	30.0 x 3.5 T	1	W
5501-03002	30.0 x 3.5 S	1	W
5501-03003	30.0 x 3.5 B	1	W
5501-0330	33.0 x 3.5 SET	1	W
5501-03301	33.0 x 3.5T	1	W
5501-03302	33.0 x 3.5 S	1	W
5501-03303	33.0 x 3.5 B	1	W
5501-0360	36.0 x 4.0 SET	1	W
5501-03601	36.0 x 4.0 T	1	W
5501-03602	36.0 x 4.0 S	1	W
5501-03603	36.0 x 4.0 B	1	W
5501-03901	39.0 x 4.0T	1	W
5501-03902	39.0 x 4.0 S	1	W
5501-03903	39.0 x 4.0 B	1	W
5501-0420	42 x 4.5 SET	1	W
5501-04201	42 x 4.5 T	1	W
5501-04202	42.0 x 4.5 S	1	W
5501-04203	42.0 x 4.5 B	1	W
5501-0450	45 x 4.5 SET	1	W
5501-04501	45.0 x 4.5 T	1	W
5501-04502	45 x 4.5 S	1	W
5501-04503	45 x 4.5 B	1	W

Thread Repair Kit M5-M12 110 Pcs

Code	SIZE & DESCRIPTION	Pack Qty	Disc Group
6480-0512	• 25PCS helicoil thread inserts M5 x 0.8 x 6.7mm • 25PCS helicoil thread inserts M6 x 1.0 x 8mm • 25PCS helicoil thread inserts M8 x 1.25 x 10.8mm • 25PCS helicoil thread inserts M10 x 1.5 x 13.5mm • 10PCS helicoil thread inserts M12 x 1.75 x 16.3mm • 5PCS HSS Twist Drills 5.2, 6.2, 8.3, 10.3, 12.4mm • 5PCS HSS Taps M5x0.8, M6x1.0, M8x1.25, M10x1.5, M12x1.75 • 5PCS installation tools • 5PCS Break Pin Tools • 1PC 2mm Hex Key	1	W



5502 HSS-E hand Taps & Sets Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR 64 FIT

Code	Dia & Pitch	Pack Qty	Disc Group
5502-0030	3.0 x .50 SET	1	W
5502-00301	3.0 x .50 T	1	W
5502-00302	3.0 x .50 S	1	W
5502-00303	3.0 x .50 B	1	W
5502-0040	4.0 x .70 SET	1	W
5502-00401	4.0 x .70 T	1	W
5502-00402	4.0 x .70 S	1	W
5502-00403	4.0 x .70 B	1	W
5502-0050	5.0 x .80 SET	1	W
5502-00501	5.0 x .80 T	1	W
5502-00502	5.0 x .80 S	1	W
5502-00503	5.0 x .80 B	1	W
5502-0060	6.0 x 1.0 SET	1	W
5502-00601	6.0 x 1.0 T	1	W
5502-00602	6.0 x 1.0 S	1	W
5502-00603	6.0 x 1.0 B	1	W
5502-0080	8.0 x 1.25 SET	1	W
5502-00801	8.0 x 1.25 T	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5502-00802	8.0 x 1.25 S	1	W
5502-00803	8.0 x 1.25 B	1	W
5502-0100	10.0 x 1.5 SET	1	W
5502-01001	10.0 x 1.5 T	1	W
5502-01002	10.0 x 1.5 S	1	W
5502-01003	10.0 x 1.5 B	1	W
5502-0120	12.0 x 1.75 SET	1	W
5502-01201	12.0 x 1.75 T	1	W
5502-01202	12.0 x 1.75 S	1	W
5502-01203	12.0 x 1.75 B	1	W
5502-0140	14.0 x 2.0 SET	1	W
5502-01401	14.0 x 2.0 T	1	W
5502-01402	14.0 x 2.0 S	1	W
5502-01403	14.0 x 2.0 B	1	W
5502-0160	16.0 x 2.0 SET	1	W
5502-01601	16.0 x 2.0 T	1	W
5502-01602	16.0 x 2.0 S	1	W
5502-01603	16.0 x 2.0 B	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5502-0180	18.0 x 2.5 SET	1	W
5502-01801	18.0 x 2.5 T	1	W
5502-01802	18.0 x 2.5 S	1	W
5502-01803	18.0 x 2.5 B	1	W
5502-0200	20.0 x 2.5 SET	1	W
5502-02001	20.0 x 2.5 T	1	W
5502-02002	20.0 x 2.5 S	1	W
5502-02003	20.0 x 2.5 B	1	W
5502-0240	24.0 x 3.0 SET	1	W
5502-02401	24.0 x 3.0 T	1	W
5502-02402	24.0 x 3.0 S	1	W
5502-02403	24.0 x 3.0 B	1	W
5502-0300	30.0 x 3.5 SET	1	W
5502-03001	30.0 x 3.5 T	1	W
5502-03002	30.0 x 3.5 S	1	W
5502-03003	30.0 x 3.5 B	1	W

HSS Hand Taps & Sets

5511 Metric Fine Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR 64 FIT

Code	Dia & Pitch	Pack Qty	Disc Group
5511-0040	4.0 x 0.5 SET	1	W
5511-00401	4.0 x 0.50 T	1	W
5511-00402	4.0 x 0.50 S	1	W
5511-00403	4.0 x 0.5 B	1	W
5511-0050	5.0 x 0.50 SET	1	W
5511-00501	5.0 x 0.50 T	1	W
5511-00502	5.0 x 0.50 S	1	W
5511-00503	5.0 x 0.50 B	1	W
5511-0060	6.0 x 0.75 SET	1	W
5511-00601	6.0 x 0.75 T	1	W
5511-00602	6.0 x 0.75 S	1	W
5511-00603	6.0 x 0.75 B	1	W
5511-0080	8.0 x 0.75 SET	1	W
5511-00801	8.0 x 0.75 T	1	W
5511-00802	8.0 x 0.75 S	1	W
5511-00803	8.0 x 0.75 B	1	W
5511-0081	8.0 x 1.0 SET	1	W
5511-00811	8.0 x 1.0 T	1	W
5511-00812	8.0 x 1.0 S	1	W
5511-00813	8.0 x 1.0 B	1	W
5511-0100	10 x 0.75 SET	1	W
5511-01001	10 x 0.75 T	1	W
5511-01002	10 x 0.75 S	1	W
5511-01003	10 x 0.75 B	1	W
5511-0110	10 x 1.0 SET	1	W
5511-01101	10 x 1.0 T	1	W
5511-01102	10 x 1.0 S	1	W
5511-01103	10 x 1.0 B	1	W
5511-0112	10 x 1.25 SET	1	W
5511-01121	10 x 1.25 T	1	W
5511-01122	10 x 1.25 S	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5511-01123	10 x 1.25 B	1	W
5511-0120	12 x 1.0 SET	1	W
5511-01201	12 x 1.0 T	1	W
5511-01202	12 x 1.0 S	1	W
5511-01203	12 x 1.0 B	1	W
5511-0121	12 x 1.25 SET	1	W
5511-01211	12 x 1.25 T	1	W
5511-01212	12 x 1.25 S	1	W
5511-01213	12 x 1.25 B	1	W
5511-0122	12 x 1.5 SET	1	W
5511-01221	12 x 1.5 T	1	W
5511-01222	12 x 1.5 S	1	W
5511-01223	12 x 1.5 B	1	W
5511-0140	14 x 1.0 SET	1	W
5511-01401	14 x 1.0 T	1	W
5511-01402	14 x 1.0 S	1	W
5511-01403	14 x 1.0 B	1	W
5511-0141	14 x 1.25 SET	1	W
5511-01411	14 x 1.25 T	1	W
5511-01412	14 x 1.25 S	1	W
5511-01413	14 x 1.25 B	1	W
5511-0142	14 x 1.5 SET	1	W
5511-01421	14 x 1.5 T	1	W
5511-01422	14 x 1.5 S	1	W
5511-01423	14 x 1.5 B	1	W
5511-0160	16 x 1.0 SET	1	W
5511-01601	16 x 1.0 T	1	W
5511-01602	16 x 1.0 S	1	W
5511-01603	16 x 1.0 B	1	W
5511-0162	16 x 1.5 SET	1	W
5511-01621	16 x 1.5 T	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5511-01622	16 x 1.5 S	1	W
5511-01623	16 x 1.5 B	1	W
5511-0180	18 x 1.0 SET	1	W
5511-01801	18 x 1.0 T	1	W
5511-01802	18 x 1.0 S	1	W
5511-01803	18 x 1.0 B	1	W
5511-0181	18 x 1.5 SET	1	W
5511-01811	18 x 1.5 T	1	W
5511-01812	18 x 1.5 S	1	W
5511-01813	18 x 1.5 B	1	W
5511-0182	18 x 2.0 Set	1	W
5511-01821	18 x 2.0 T	1	W
5511-01822	18 x 2.0 S	1	W
5511-01823	18 x 2.0 B	1	W
5511-0200	20 x 1.0 SET	1	W
5511-02001	20 x 1.0 T	1	W
5511-02002	20 x 1.0 S	1	W
5511-02003	20 x 1.0 B	1	W
5511-0201	20 x 1.5 SET	1	W
5511-02011	20 x 1.5 T	1	W
5511-02012	20 x 1.5 S	1	W
5511-02013	20 x 1.5 B	1	W
5511-0241	24 x 1.5 SET	1	W
5511-02411	24 x 1.5 T	1	W
5511-02412	24 x 1.5 S	1	W
5511-02413	24 x 1.5 B	1	W
5511-0242	24 x 2.0 SET	1	W
5511-02421	24 x 2.0 T	1	W
5511-02422	24 x 2.0 S	1	W
5511-02423	24 x 2.0 B	1	W

5516 Metric Coarse Long Series Taps Second (S) Only

Code	Dia & Pitch	Pack Qty	Disc Group
5516-00402	4.0 x 0.7 x 73 S	1	W
5516-00502	5.0 x 0.8 x 79 S	1	W
5516-00602	6.0 x 1.0 x 89 S	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5516-00802	8.0 x 1.25 x 97 S	1	W
5516-01002	10.0 x 1.5 x 108 S	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5516-01202	12.0 x 1.75 x 119 S	1	W
5516-01602	16.0 x 2.0 x 137 S	1	W

5541 UNC Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR 2B FIT

Code	Dia & TPI	Pack Qty	Disc Group
5541-0004	No.4 x 40 SET	1	W
5541-00041	No.4 x 40 T	1	W
5541-00042	No.4 x 40 S	1	W
5541-00043	No.4 x 40 B	1	W
5541-0005	No.5 x 40 SET	1	W
5541-00051	No.5 x 40 T	1	W
5541-00052	No.5 x 40 S	1	W
5541-00053	No.5 x 40 B	1	W
5541-0006	No.6 x 32 SET	1	W
5541-00061	No.6 x 32 T	1	W
5541-00062	No.6 x 32 S	1	W
5541-00063	No.6 x 32 B	1	W
5541-0008	No.8 x 32 SET	1	W
5541-00081	No.8 x 32 T	1	W
5541-00082	No.8 x 32 S	1	W
5541-00083	No.8 x 32 B	1	W
5541-0010	No.10 x 24 SET	1	W
5541-00101	No.10 x 24 T	1	W
5541-00102	No.10 x 24 S	1	W
5541-00103	No.10 x 24 B	1	W
5541-0012	No.12 x 24 SET	1	W
5541-00121	No.12 x 24 T	1	W
5541-00122	No.12 x 24 S	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5541-00123	No.12 x 24 B	1	W
5541-0016	1/4 x 20 SET	1	W
5541-00161	1/4 x 20 T	1	W
5541-00162	1/4 x 20 S	1	W
5541-00163	1/4 x 20 B	1	W
5541-0020	5/16 x 18 SET	1	W
5541-00201	5/16 x 18 T	1	W
5541-00202	5/16 x 18 S	1	W
5541-00203	5/16 x 18 B	1	W
5541-0024	3/8 x 16 SET	1	W
5541-00241	3/8 x 16 T	1	W
5541-00242	3/8 x 16 S	1	W
5541-00243	3/8 x 16 B	1	W
5541-0028	7/16 x 14 SET	1	W
5541-00281	7/16 x 14 T	1	W
5541-00282	7/16 x 14 S	1	W
5541-00283	7/16 x 14 B	1	W
5541-0032	1/2 x 13 SET	1	W
5541-00321	1/2 x 13 T	1	W
5541-00322	1/2 x 13 S	1	W
5541-00323	1/2 x 13 B	1	W
5541-0036	9/16 x 12 SET	1	W
5541-00361	9/16 x 12 T	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5541-00362	9/16 x 12 S	1	W
5541-00363	9/16 x 12 B	1	W
5541-0040	5/8 x 11 SET	1	W
5541-00401	5/8 x 11 T	1	W
5541-00402	5/8 x 11 S	1	W
5541-00403	5/8 x 11 B	1	W
5541-0048	3/4 x 10 SET	1	W
5541-00481	3/4 x 10 T	1	W
5541-00482	3/4 x 10 S	1	W
5541-00483	3/4 x 10 B	1	W
5541-0056	7/8 x 9 SET	1	W
5541-00561	7/8 x 9 T	1	W
5541-00562	7/8 x 9 S	1	W
5541-00563	7/8 x 9 B	1	W
5541-0100	1 inch x 8 SET	1	W
5541-01001	1 inch x 8 T	1	W
5541-01002	1 inch x 8 S	1	W
5541-01003	1 inch x 8 B	1	W
5541-0108	1.1/8 x 7 SET	1	W
5541-01081	1.1/8 x 7 T	1	W
5541-01082	1.1/8 x 7 S	1	W
5541-01083	1.1/8 x 7 B	1	W

5551 UNF Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR 2B FIT

Code	Dia & TPI	Pack Qty	Disc Group
5551-0010	No10x32 x 32 SET	1	W
5551-00101	No10x32 x 32 T	1	W
5551-00102	No10x32 x 32 S	1	W
5551-00103	No10x32 x 32 B	1	W
5551-0016	1/4 x 28 SET	1	W
5551-00161	1/4 x 28 T	1	W
5551-00162	1/4 x 28 S	1	W
5551-00163	1/4 x 28 B	1	W
5551-0020	5/16 x 24 SET	1	W
5551-00201	5/16 x 24 T	1	W
5551-00202	5/16 x 24 S	1	W
5551-00203	5/16 x 24 B	1	W
5551-0024	3/8 x 24 SET	1	W
5551-00241	3/8 x 24 T	1	W
5551-00242	3/8 x 24 S	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5551-00243	3/8 x 24 B	1	W
5551-0028	7/16 x 20 SET	1	W
5551-00281	7/16 x 20 T	1	W
5551-00282	7/16 x 20 S	1	W
5551-00283	7/16 x 20 B	1	W
5551-0032	1/2 x 20 SET	1	W
5551-00321	1/2 x 20 T	1	W
5551-00322	1/2 x 20 S	1	W
5551-00323	1/2 x 20 B	1	W
5551-0036	9/16 x 18 SET	1	W
5551-00361	9/16 x 18 T	1	W
5551-00362	9/16 x 18 S	1	W
5551-00363	9/16 x 18 B	1	W
5551-0040	5/8 x 18 SET	1	W
5551-00401	5/8 x 18 T	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5551-00402	5/8 x 18 S	1	W
5551-00403	5/8 x 18 B	1	W
5551-0048	3/4 x 16 SET	1	W
5551-00481	3/4 x 16 T	1	W
5551-00482	3/4 x 16 S	1	W
5551-00483	3/4 x 16 B	1	W
5551-0056	7/8 x 14 SET	1	W
5551-00561	7/8 x 14 T	1	W
5551-00562	7/8 x 14 S	1	W
5551-00563	7/8 x 14 B	1	W
5551-0100	1 inch x 12 SET	1	W
5551-01001	1 inch x 12 T	1	W
5551-01002	1 inch x 12 S	1	W
5551-01003	1 inch x 12 B	1	W

HSS Hand Taps & Sets

ISO 529

APPLICATION Hand or machine tapping through or blind holes

SURFACE TREATMENT Bright

FLUTE TYPE Straight flutes



PACKAGING TYPE SET



PACKAGING TYPE

5521 BSW

Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR MEDIUM FIT

Code	Dia & TPI	Pack Qty	Disc Group
5521-0012	3/16 x 24 SET	1	W
5521-00121	3/16 x 24 T	1	W
5521-00122	3/16 x 24 S	1	W
5521-00123	3/16 x 24 B	1	W
5521-0016	1/4 x 20 SET	1	W
5521-00161	1/4 x 20 T	1	W
5521-00162	1/4 x 20 S	1	W
5521-00163	1/4 x 20 B	1	W
5521-0020	5/16 x 18 SET	1	W
5521-00201	5/16 x 18 T	1	W
5521-00202	5/16 x 18 S	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5521-00203	5/16 x 18 B	1	W
5521-0024	3/8 x 16 SET	1	W
5521-00241	3/8 x 16 T	1	W
5521-00242	3/8 x 16 S	1	W
5521-00243	3/8 x 16 B	1	W
5521-0028	7/16 x 14 SET	1	W
5521-00281	7/16 x 14 T	1	W
5521-00282	7/16 x 14 S	1	W
5521-00283	7/16 x 14 B	1	W
5521-0032	1/2 x 12 SET	1	W
5521-00321	1/2 x 12 T	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5521-00322	1/2 x 12 S	1	W
5521-00323	1/2 x 12 B	1	W
5521-0040	5/8 x 11 SET	1	W
5521-00401	5/8 x 11 T	1	W
5521-00402	5/8 x 11 S	1	W
5521-00403	5/8 x 11 B	1	W
5521-0048	3/4 x 10 SET	1	W
5521-00481	3/4 x 10 T	1	W
5521-00482	3/4 x 10 S	1	W
5521-00483	3/4 x 10 B	1	W

5531 BSF

Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR MEDIUM FIT

Code	Dia & TPI	Pack Qty	Disc Group
5531-0016	1/4 x 26 SET	1	W
5531-00161	1/4 x 26 T	1	W
5531-00162	1/4 x 26 S	1	W
5531-00163	1/4 x 26 B	1	W
5531-0020	5/16 x 22 SET	1	W
5531-00201	5/16 x 22 T	1	W
5531-00202	5/16 x 22 S	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5531-00203	5/16 x 22 B	1	W
5531-0024	3/8 x 20 SET	1	W
5531-00241	3/8 x 20 T	1	W
5531-00242	3/8 x 20 S	1	W
5531-00243	3/8 x 20 B	1	W
5531-0032	1/2 x 16 SET	1	W
5531-00321	1/2 x 16 T	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5531-00322	1/2 x 16 S	1	W
5531-00323	1/2 x 16 B	1	W
5531-0040	5/8 x 14 SET	1	W
5531-00401	5/8 x 14 T	1	W
5531-00402	5/8 x 14 S	1	W
5531-00403	5/8 x 14 B	1	W

5591 BA

Set Taper (T) Second (S) Bottom (B)

TOLERANCE CLASS 2 FOR MEDIUM FIT

Code	Dia & TPI	Pack Qty	Disc Group
5591-0000	0BA x 1 SET	1	W
5591-00001	0BA x 1 T	1	W
5591-00002	0BA x 1 S	1	W
5591-00003	0BA x 1 B	1	W
5591-0001	1BA x 0.9 SET	1	W
5591-00011	1BA x 0.9 T	1	W
5591-00012	1BA x 0.9 S	1	W
5591-00013	1BA x 0.9 B	1	W
5591-0002	2BA x 0.81 SET	1	W
5591-00021	2BA x 0.81 T	1	W
5591-00022	2BA x 0.81 S	1	W
5591-00023	2BA x 0.81 B	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5591-0003	3BA x 0.73 SET	1	W
5591-00031	3BA x 0.73 T	1	W
5591-00032	3BA x 0.73 S	1	W
5591-00033	3BA x 0.73 B	1	W
5591-0004	4BA x 0.66 SET	1	W
5591-00041	4BA x 0.66 T	1	W
5591-00042	4BA x 0.66 S	1	W
5591-00043	4BA x 0.66 B	1	W
5591-0005	5BA x 0.59 SET	1	W
5591-00051	5BA x 0.59 T	1	W
5591-00052	5BA x 0.59 S	1	W
5591-00053	5BA x 0.59 B	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5591-0006	6BA x 0.53 SET	1	W
5591-00061	6BA x 0.53 T	1	W
5591-00062	6BA x 0.53 S	1	W
5591-00063	6BA x 0.53 B	1	W
5591-0007	7BA x 0.48 SET	1	W
5591-00071	7BA x 0.48 T	1	W
5591-00072	7BA x 0.48 S	1	W
5591-00073	7BA x 0.48 B	1	W
5591-0008	8BA x 0.42 SET	1	W
5591-00081	8BA x 0.42 T	1	W
5591-00082	8BA x 0.42 S	1	W
5591-00083	8BA x 0.42 B	1	W

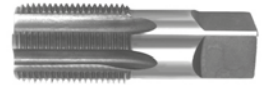
HSS Hand Taps & Sets

ISO 2284

APPLICATION Hand or machine tapping through or blind holes

SURFACE TREATMENT Bright

FLUTE TYPE Straight flutes



PACKAGING TYPE PAIR



PACKAGING TYPE

5571 BSPF(G) Pair Taper (T) Second (S) Bottom (B)

TOLERANCE BS949-1982 PART 3

Code	Dia & TPI	Pack Qty	Disc Group
5571-0008	1/8 x 28 PAIR	1	W
5571-00081	1/8 x 28 T	1	W
5571-00082	1/8 x 28 S	1	W
5571-00083	1/8 x 28 B	1	W
5571-0016	1/4 x 19 PAIR	1	W
5571-00161	1/4 x 19 T	1	W
5571-00162	1/4 x 19 S	1	W
5571-00163	1/4 x 19 B	1	W
5571-0024	3/8 x 19 PAIR	1	W
5571-00241	3/8 x 19 T	1	W
5571-00242	3/8 x 19 S	1	W
5571-00243	3/8 x 19 B	1	W
5571-0032	1/2 x 14 PAIR	1	W
5571-00321	1/2 x 14 T	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5571-00322	1/2 x 14 S	1	W
5571-00323	1/2 x 14 B	1	W
5571-0040	5/8 x 14 PAIR	1	W
5571-00401	5/8 x 14 T	1	W
5571-00402	5/8 x 14 S	1	W
5571-00403	5/8 x 14 B	1	W
5571-0048	3/4 x 14 PAIR	1	W
5571-00481	3/4 x 14 T	1	W
5571-00482	3/4 x 14 S	1	W
5571-00483	3/4 x 14 B	1	W
5571-0100	1 inch x 11 PAIR	1	W
5571-01001	1 x 11 T	1	W
5571-01002	1 x 11 S	1	W
5571-01003	1 x 11 B	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5571-0116	1.1/4 x 11 PAIR	1	W
5571-01161	1.1/4 x 11 T	1	W
5571-01162	1.1/4 x 11 S	1	W
5571-01163	1.1/4 x 11 B	1	W
5571-0132	1.1/2 x 11 PAIR	1	W
5571-01321	1.1/2 x 11 T	1	W
5571-01322	1.1/2 x 11 S	1	W
5571-01323	1.1/2 x 11 B	1	W
5571-0200	2 x 11 PAIR	1	W
5571-02001	2 x 11 T	1	W
5571-02002	2 x 11 S	1	W
5571-02003	2 x 11 B	1	W

5575 BSPT Taper (T) Second (S) Bottom (B)

TOLERANCE BS949-1982 PART 3

Code	Dia & TPI	Pack Qty	Disc Group
5575-00081	1/8 x 28 T	1	W
5575-00082	1/8 x 28 S	1	W
5575-00083	1/8 x 28 B	1	W
5575-00161	1/4 x 19 T	1	W
5575-00162	1/4 x 14 S	1	W
5575-00163	1/4 x 19 B	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5575-00241	3/8 x 19 T	1	W
5575-00242	3/8 x 19 S	1	W
5575-00243	3/8 x 19 B	1	W
5575-00321	1/2 x 14 T	1	W
5575-00322	1/2 x 14 S	1	W
5575-00323	1/2 x 14 B	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5575-00481	3/4 x 14 T	1	W
5575-00482	3/4 x 14 S	1	W
5575-00483	3/4 x 14 B	1	W
5575-01001	1 x 11 T	1	W
5575-01002	1 x 11 S	1	W
5575-01003	1 x 11 B	1	W

5585 NPT Bottom (B)

TOLERANCE ANSI B94.9-1979

Code	Dia & TPI	Pack Qty	Disc Group
5585-00083	1/8" x 27 B	1	W
5585-00163	1/4" x 18 B	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5585-00243	3/8" x 18 B	1	W
5585-00323	1/2" x 14 B	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5585-00483	3/4" x 14 B	1	W
5585-01003	1" x 11.1/2" B	1	W

9782 Adjustable Tap Wrenches & Ratchet Type Tap Wrenches

Code	Tap Size	Pack Qty	Disc Group
9782-0078	1/16"- 1/4" 2-6mm	1	P
9782-0079	1/8" - 1/2" 2-12mm	1	P
9782-0080	1/8" - 9/16 " 4-14mm	1	P
9782-0081	1/4"- 3/4" 2-20mm	1	P
9782-0082	1/2"- 1" 6-33mm	1	P

Code	Tap Size	Pack Qty	Disc Group
9782-0083	3/4"- 1.1/2" 8-42mm	1	P
9782-0084	9/16"- 2.5/8" 14-68mm	1	P
9782-0089 Ratchet	11/64"- 1/4" 4-6mm	1	P
9782-0090 Ratchet	1/4"- 15/32" 6-12mm	1	P



HSS E-V Spiral Point Machine Taps

ISO 529

TAP TOLERANCE Class 2 for 6h Fit

APPLICATION Machine tapping through holes

SURFACE TREATMENT Bright or Blue as stated

FLUTE TYPE Spiral Point



5508-0 Bright Finish Metric Coarse 5508-1 Blue Finish

TOLERANCE CLASS 2 FOR 64 FIT

Code	Dia & Pitch	Pack Qty	Disc Group
5508-0030	M3 x 0.5	1	W
5508-0040	M4 x 0.7	1	W
5508-0050	M5 x 0.8	1	W
5508-0060	M6 x 1	1	W
5508-0080	M8 x 1.25	1	W
5508-0100	M10 x 1.5	1	W
5508-0120	M12 x 1.75	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5508-0140	M14 x 2	1	W
5508-0160	M16 x 2	1	W
5508-0200	M20 x 2.5	1	W
5508-1030	M3 x 0.5	1	W
5508-1040	M4 x 0.7	1	W
5508-1050	M5 x 0.8	1	W
5508-1060	M6 x 1	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5508-1080	M8 1.25	1	W
5508-1100	M10 x 1.5	1	W
5508-1120	M12 x 1.75	1	W
5508-1140	M14 x 2	1	W
5508-1160	M16 x 2	1	W
5508-1200	M20 x 2.5	1	W

5526-0 BSW Bright Finish

TOLERANCE CLASS 2 FOR MEDIUM FIT

Code	Dia & TPI	Pack Qty	Disc Group
5526-0012	3/16 x 24	1	W
5526-0016	1/4 x 20	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5526-0024	3/8 x 16	1	W
5526-0032	1/2 x 12	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5526-0048	3/4 x 10	1	W

HSS E-V Spiral Flute Machine Taps

ISO 529

TAP TOLERANCE Class 2 for 6h Fit

APPLICATION Machine tapping of blind holes

SURFACE TREATMENT Bright or Blue as stated

FLUTE TYPE Spiral Flute



PACKAGING TYPE

5510-0 Bright Finish Metric Coarse 5510-1 Blue Finish

TOLERANCE CLASS 2 FOR 64 FIT

Code	Dia & Pitch	Pack Qty	Disc Group
5510-0030	M3 x 0.5	1	W
5510-0040	M4 x 0.7	1	W
5510-0050	M5 x 0.8	1	W
5510-0060	M6 x 1	1	W
5510-0080	M8 x 1.25	1	W
5510-0100	M10 x 1.5	1	W
5510-0120	M12 x 1.75	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5510-0140	M14 x 2	1	W
5510-0160	M16 x 2	1	W
5510-0200	M20 x 2.5	1	W
5510-1030	M3 x 0.5	1	W
5510-1040	M4 x 0.7	1	W
5510-1050	M5 x 0.8	1	W
5510-1060	M6 x 1	1	W

Code	Dia & Pitch	Pack Qty	Disc Group
5510-1080	M8 x 1.25	1	W
5510-1100	M10 x 1.5	1	W
5510-1120	M12 x 1.75	1	W
5510-1140	M14 x 2	1	W
5510-1160	M16 x 2	1	W
5510-1200	M20 x 2.5	1	W

5528-0 BSW Bright Finish

TOLERANCE CLASS 2 FOR MEDIUM FIT

Code	Dia & TPI	Pack Qty	Disc Group
5528-0012	3/16 x 24	1	W
5528-0016	1/4 x 20	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5528-0024	3/8 x 16	1	W
5528-0032	1/2 x 12	1	W

Code	Dia & TPI	Pack Qty	Disc Group
5528-0048	3/4 x 10	1	W



HSS Split Dies

BS1127:1950

TYPE OF THREAD As below in each section

SURFACE TREATMENT Bright

APPLICATION Threading Steel, some stainless, cast iron and non-ferrous materials such as aluminium and brass



PACKAGING TYPE

6210 Metric Coarse Split Dies

TOLERANCE 6G

Code	Dia & Pitch	Pack Qty	Disc Group
13/16" O/D			
6210-0006	M2.0x0.40	1	V
6210-0008	M2.5x0.45	1	V
6210-0009	M3.0x0.50	1	V
6210-0010	M3.5x0.60	1	V
6210-0011	M4.0x0.70	1	V
6210-0012	M4.5x0.75	1	V
6210-0013	M5.0x0.80	1	V
6210-0014	M6.0x1.00	1	V
6210-0015	M7.0x1.00	1	V
1" O/D			
6210-0022	M5.0x0.80	1	V
6210-0023	M6.0x1.00	1	V
6210-0024	M7.0x1.00	1	V
6210-0025	M8.0x1.25	1	V
6210-0026	M9.0x1.25	1	V
6210-0027	M10.0x1.50	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
1.5/16" O/D			
6210-0030	M6x1.00	1	V
6210-0032	M8x1.25	1	V
6210-0033	M9x1.25	1	V
6210-0034	M10x1.50	1	V
6210-0036	M12x1.75	1	V
6210-0037	M14x2.00	1	V
1.1/2" O/D			
6210-0044	M10x1.50	1	V
6210-0045	M11x1.50	1	V
6210-0046	M12x1.75	1	V
6210-0047	M14x2.00	1	V
6210-0048	M16x2.00	1	V
6210-0049	M18x2.50	1	V
6210-0050	M20x2.50	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
2" O/D			
6210-0061	M12x1.75	1	V
6210-0062	M14x2.00	1	V
6210-0063	M16x2.00	1	V
6210-0065	M20x2.50	1	V
6210-0066	M22x2.50	1	V
6210-0067	M24x3.00	1	V
3" O/D			
6210-0090	M27x3.00	1	V
6210-0091	M30x3.50	1	V
6210-0093	M36x4.00	1	V
4" O/D			
6210-0100	M42x4.50	1	V
6210-0102	M48x5.00	1	V

6220 Metric Fine Split Dies

TOLERANCE 6G

Code	Dia & Pitch	Pack Qty	Disc Group
13/16" O/D			
6220-0007	M4.0x0.50	1	V
6220-0010	M5.0x0.50	1	V
6220-0013	M6.0x0.75	1	V
1" O/D			
6220-0020	M8.0x0.75	1	V
6220-0021	M8.0x1.00	1	V
6220-0023	M10.0x0.75	1	V
6220-0024	M10.0x1.00	1	V
6220-0025	M10.0x1.25	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
1.5/16" O/D			
6220-0033	M12x1.00	1	V
6220-0034	M12x1.25	1	V
6220-0035	M12x1.50	1	V
6220-0036	M14x1.25	1	V
6220-0037	M14x1.50	1	V
1.1/2" O/D			
6220-0040	M16x1.00	1	V
6220-0041	M16x1.50	1	V
6220-0043	M18x1.50	1	V
6220-0045	M20x1.00	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
2" O/D			
6220-0061	M16x1.50	1	V
6220-0064	M20x1.50	1	V
6220-0066	M22x1.50	1	V
6220-0069	M24x1.50	1	V
6220-0071	M25x1.50	1	V
3" O/D			
6220-0093	M30x2.00	1	V



HSS Split Dies

BS1127:1950

TYPE OF THREAD As below in each section

SURFACE TREATMENT Bright

APPLICATION Threading Steel, some stainless, cast iron and non-ferrous materials such as aluminium and brass



PACKAGING TYPE

6230 UNC Split Dies

TOLERANCE 2A

Code	Dia & Pitch	Pack Qty	Disc Group
13/16" O/D			
6230-0005	No.6x32	1	V
6230-0007	No.10 x 24	1	V
6230-0008	No.12 x 24	1	V
6230-0009	1/4" x 20	1	V
1" O/D			
6230-0025	1/4 x 20	1	V
6230-0026	5/16 x 18	1	V
6230-0027	3/8 x 16	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
1.5/16" O/D			
6230-0030	1/4x20	1	V
6230-0031	5/16x18	1	V
6230-0032	3/8x16	1	V
6230-0033	7/16x14	1	V
6230-0034	1/2x13	1	V
6230-0035	9/16x12	1	V
1.1/2" O/D			
6230-0042	3/8x16	1	V
6230-0043	7/16x14	1	V
6230-0044	1/2x13	1	V
6230-0046	5/8x11	1	V
6230-0047	3/4x10	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
2" O/D			
6230-0066	7/8x9	1	V
6230-0067	1 x 8	1	V
3" O/D			
6230-0093	1.1/4x7	1	V
6230-0094	1.3/8x6	1	V
6230-0095	1.1/2x6	1	V

6240 UNF Split Dies

TOLERANCE 2A

Code	Dia & Pitch	Pack Qty	Disc Group
13/16" O/D			
6240-0010	1/4x28	1	V
1" O/D			
6240-0025	1/4x28	1	V
6240-0026	5/16x24	1	V
6240-0027	3/8x24	1	V
6240-0028	7/16x20	1	V
1.5/16" O/D			
6240-0026	5/16x24	1	V
6240-0027	3/8x24	1	V
6240-0028	7/16x20	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6240-0031	5/16x24	1	V
6240-0032	3/8x24	1	V
6240-0033	7/16x20	1	V
6240-0034	1/2x20	1	V
6240-0035	9/16x18	1	V
1.1/2" O/D			
6240-0042	3/8x24	1	V
6240-0045	9/16x18	1	V
6240-0046	5/8x18	1	V
6240-0047	3/4x16	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
2" O/D			
6240-0065	3/4x16	1	V
6240-0066	7/8x14	1	V
6240-0067	1 inch x 12	1	V
3" O/D			
6240-0092	1.1/8x12	1	V
6240-0093	1.1/4x12	1	V
6240-0094	1.3/8x12	1	V
6240-0095	1.1/2x12	1	V

6260 BSW Split Dies

TOLERANCE MEDIUM

Code	Dia & Pitch	Pack Qty	Disc Group
13/16" O/D			
6260-0004	3/16x24	1	V
6260-0006	1/4x20	1	V
1" O/D			
6260-0022	1/4x20	1	V
6260-0024	3/8x16	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
1.5/16" O/D			
6260-0030	1/4x20	1	V
6260-0032	3/8x16	1	V
6260-0033	7/16x14	1	V
6260-0034	1/2x12	1	V
1.1/2" O/D			
6260-0044	1/2x12	1	V
6260-0046	5/8x11	1	V
6260-0048	3/4x10	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
2" O/D			
6260-0062	5/8x12	1	V
6260-0070	1"x8	1	V
3" O/D			
6260-0093	1.1/4x7	1	V

HSS Split Dies

6270 BSF Split Dies

TOLERANCE MEDIUM BOLT

Code	Dia & Pitch	Pack Qty	Disc Group
13/16" O/D			
6270-0002	1/4x26	1	V
1" O/D			
6270-0022	1/4x26	1	V
6270-0023	5/16x22	1	V
6270-0024	3/8x20	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
1.5/16" O/D			
6270-0032	3/8x20	1	V
6270-0033	7/16x18	1	V
1.1/2" O/D			
6270-0044	1/2 x16	1	V
6270-0045	9/16x16	1	V
6270-0046	5/8x14	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
2" O/D			
6270-0066	3/4 x 12	1	V
6270-0068	1" x 10	1	V

6290 BA Split Dies

TOLERANCE NORMAL

Code	Dia & Pitch	Pack Qty	Disc Group
13/16" O/D			
6290-0006	No.10x72.6	1	V
6290-0008	No.8x59.1	1	V
6290-0009	No.7x52.9	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6290-0100	No.6x47.9	1	V
6290-0101	No.5x43	1	V
6290-0102	No.4x38.5	1	V
6290-0103	No.3x34.8	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6290-0104	No.2x31.4	1	V
6290-0105	No.1x28.2	1	V
6290-0106	No.0x25.4	1	V

6310 BSPF(G) Split Dies

TOLERANCE CLASS B

Code	Dia & Pitch	Pack Qty	Disc Group
1" O/D			
6310-0020	1/8x28	1	V
1.5/16" O/D			
6310-0031	1/4x19	1	V
1.1/2" O/D			
6310-0042	3/8x19	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
2" O/D			
6310-0062	1/2x14	1	V
6310-0063	5/8x14	1	V
6310-0064	3/4x14	1	V
2.1/4" O/D			
6310-0085	1 inch x11	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
3" O/D			
6310-0093	1.1/4x11	1	V
4" O/D			
6310-0102	1.1/2x11	1	V
6310-0104	2 inch x11	1	V

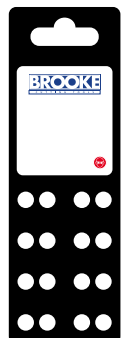
9783 Die Stock Holders

DIN 225

APPLICATION For direct application of Circular Dies

Code	Dia & Pitch	Pack Qty	Disc Group
9783-0089	DS.1 13/16"	1	Y
9783-0090	DS.2 1"	1	Y
9783-0091	DS.3 1.5/16"	1	Y
9783-0092	DS.4 1.1/2"	1	Y

Code	Dia & Pitch	Pack Qty	Disc Group
9783-0093	DS.5 2"	1	Y
9783-0094	DS.6 2.1/4"	1	Y
9783-0095	DS.7 3"	1	Y
9783-0096	DS.8 4"	1	Y



PACKAGING TYPE

HSS Die Nuts

BS1127:1950

TYPE OF THREAD As below in each section

SURFACE TREATMENT Bright

APPLICATION General purpose repairing or cleaning threads



**PACKAGING
TYPE**

6212 Metric Coarse

TOLERANCE 6G

Code	Dia & Pitch	Pack Qty	Disc Group
6212-0200	M3.0x0.50	1	V
6212-0202	M4.0x0.70	1	V
6212-0204	M5.0x0.80	1	V
6212-0205	M6.0x1.00	1	V
6212-0206	M7.0x1.00	1	V
6212-0207	M8.0x1.25	1	V
6212-0208	M9.0x1.25	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6212-0209	M10.0x1.50	1	V
6212-0211	M12.0x1.75	1	V
6212-0212	M14.0x2.00	1	V
6212-0213	M16.0x2.00	1	V
6212-0214	M18.0x2.50	1	V
6212-0215	M20.0x2.50	1	V
6212-0216	M22.0x2.50	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6212-0217	M24.0x3.00	1	V
6212-0218	M27.0x3.00	1	V
6212-0219	M30.0x3.50	1	V
6212-0220	M33.0x3.50	1	V
6212-0221	M36.0x4.00	1	V
6212-0223	M42.0x4.50	1	V

6222 Metric Fine

TOLERANCE 6G

Code	Dia & Pitch	Pack Qty	Disc Group
6222-0205	M5.0x0.50	1	V
6222-0207	M6.0x0.75	1	V
6222-0209	M8.0x0.75	1	V
6222-0210	M8.0x1.00	1	V
6222-0211	M9.0x1.00	1	V
6222-0212	M10.0x0.75	1	V
6222-0213	M10.0x1.00	1	V
6222-0214	M10.0x1.25	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6222-0215	M12.0x1.00	1	V
6222-0216	M12.0x1.25	1	V
6222-0217	M12.0x1.50	1	V
6222-0218	M14.0x1.25	1	V
6222-0219	M14.0x1.50	1	V
6222-0220	M16.0x1.00	1	V
6222-0221	M16.0x1.50	1	V
6222-0223	M18.0x1.50	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6222-0225	M20.0x1.00	1	V
6222-0226	M20.0x1.50	1	V
6222-0227	M20.0x2.00	1	V
6222-0228	M22.0x1.50	1	V
6222-0230	M24.0x1.00	1	V
6222-0231	M24.0x1.50	1	V
6222-0232	M24.0x2.00	1	V
6222-0233	M25.0x1.50	1	V

6232 UNC

TOLERANCE 2A

Code	Dia & Pitch	Pack Qty	Disc Group
6232-0205	No.6x32	1	V
6232-0207	No.10x24	1	V
6232-0208	No.12x24	1	V
6232-0209	1/4x20	1	V
6232-0210	5/16x18	1	V
6232-0211	3/8x16	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6232-0212	7/16x14	1	V
6232-0213	1/2x13	1	V
6232-0215	5/8x11	1	V
6232-0216	3/4x10	1	V
6232-0217	7/8x9	1	V
6232-0218	1"x8	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6232-0221	1.3/8x6	1	V
6232-0222	1.1/2 x6	1	V
6232-0223	1.3/4x5	1	V
6232-0224	2" x4.5	1	V

6242 UNF

TOLERANCE 2A

Code	Dia & Pitch	Pack Qty	Disc Group
6242-0210	1/4x28	1	V
6242-0211	5/16x24	1	V
6242-0212	3/8x24	1	V
6242-0213	7/16x20	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6242-0214	1/2x20	1	V
6242-0215	9/16x18	1	V
6242-0216	5/8x18	1	V
6242-0217	3/4x16	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6242-0218	7/8x14	1	V
6242-0219	1" x 12	1	V
6242-0221	1.1/4 x12	1	V
6242-0223	1.1/2x12	1	V

HSS Die Nuts

6262 BSW

TOLERANCE MEDIUM BOLT

Code	Dia & Pitch	Pack Qty	Disc Group
6262-0206	1/4x20	1	V
6262-0207	5/16x18	1	V
6262-0208	3/8x16	1	V
6262-0209	7/16x14	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6262-0210	1/2x12	1	V
6262-0212	5/8x11	1	V
6262-0214	3/4x10	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6262-0216	7/8x9	1	V
6262-0218	1" x8	1	V
6262-0220	1.1/4x7	1	V

6272 BSF

TOLERANCE MEDIUM BOLT

Code	Dia & Pitch	Pack Qty	Disc Group
6272-0202	1/4x26	1	V
6272-0203	5/16x22	1	V
6272-0204	3/8x20	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6272-0206	1/2x16	1	V
6272-0208	5/8x14	1	V
6272-0210	3/4x12	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6272-0212	1" x 10	1	V
6272-0214	1.1/4x9	1	V
6272-0216	1.1/2x8	1	V

6312 BSPF(G)

TOLERANCE CLASS B

Code	Dia & Pitch	Pack Qty	Disc Group
6312-0200	1/8x28	1	V
6312-0201	1/4x19	1	V
6312-0204	5/8 x 14	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6312-0205	3/4x14	1	V
6312-0202	3/8x19	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6312-0203	1/2x14	1	V
6312-0207	1" x11	1	V

6332 NPT

TOLERANCE ANSI B2.1

Code	Dia & Pitch	Pack Qty	Disc Group
6332-0202	3/8 x 18	1	V
6332-0203	1/2x14	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6332-0204	3/4x14	1	V

Code	Dia & Pitch	Pack Qty	Disc Group
6332-0205	1" x11	1	V

6380 HSS Tap and Die Sets in Wooden Boxes

TAP AND DIE SETS ARE MADE UP TO ORDER

Code	Set No.	Size and Type	Pack Qty	Disc Group
6380-0001	HC3	0BA - 10BA	1	V
6380-0002	HC5	0BA - 8BA	1	V
6380-0005	HC31	1/8 - 1/2" BSW	1	V
6380-0007	HC36	1/4 - 1/2" BSW	1	V
6380-0008	HC37	1/4 - 3/4" BSW	1	V
6380-0009	HC39	1/4 - 1" BSW	1	V
6380-0010	HC52	3/16 - 1/2" BSF	1	V
6380-0011	HC56	1/4-3/4" BSF	1	V
6380-0012	HC58	1/4 - 1" BSF	1	V
6380-0015	HC82	1/4 - 1/2" UNC	1	V
6380-0016	HC83	1/4 - 3/4" UNC	1	V

Code	Set No.	Size and Type	Pack Qty	Disc Group
6380-0017	HC85	1/4 - 1" UNC	1	V
6380-0018	HC92	1/4 - 1/2" UNF	1	V
6380-0019	HC93	1/4 - 3/4" UNF	1	V
6380-0020	HC95	1/4 - 1" UNF	1	V
6380-0023	HC111	M2 - M6	1	V
6380-0025	HC114	M2 - M12	1	V
6380-0026	HC115	M3 - M10	1	V
6380-0027	HC118	M6 - M12	1	V
6380-0028	HC119	M6 - M20	1	V
6380-0029	HC120	M6 - M24	1	V

Rotary Carbide Burrs

MANUFACTURED TO Din 8033

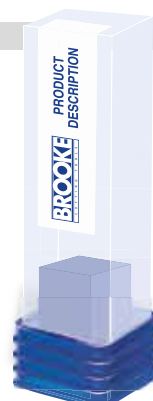
CUT TYPE Double cut

SHANK TYPE Parallel

SURFACE TREATMENT Bright

APPLICATION Deburring and polishing of cast iron, cast steel, carbon steel, alloy steel and stainless steel etc. up to HRC65 hardness.
MATERIAL Tungsten carbide

Code	Dia x Wl x O/all mm	Shank Dia mm	Pack Qty	Discount Group
CYLINDER W/OUT END CUT - A SHAPE				
5785-06016006	6.0x16x50	6mm	1	W
5785-10019006	10x19x65	6mm	1	W
5785-12719006	12.7x19x65	6mm	1	W
CYLINDER WITH END CUT - B SHAPE				
5784-06016006	6x16x50	6mm	1	W
5784-08019006	8x19x65	6mm	1	W
5784-10019006	10x19x65	6mm	1	W
5784-12719006	12.7x19x65	6mm	1	W
BALL NOSED CYLINDER - C SHAPE				
5781-06016006	6.0x16x50	6mm	1	W
5781-08019006	8.0x19x65	6mm	1	W
5781-10019006	10x19x65	6mm	1	W
5781-12719006	12.7x19x65	6mm	1	W
5781-12725406	12.7x25.4x70	6mm	1	W
BALL - D SHAPE				
5788-12011006	12x11x51	6mm	1	W
5788-16014006	16x14x58	6mm	1	W
BALL NOSED TREE - F SHAPE				
5782-10019006	10x19x65	6mm	1	W
5782-12025406	12x25.4x70	6mm	1	W
TREE - G SHAPE				
5787-06016006	6.0x16x50	6mm	1	W
5787-10019006	10x19x65	6mm	1	W
5787-12719006	12.7x19x65	6mm	1	W
5787-12725406	12.7x25.4x70	6mm	1	W
FLAME - H SHAPE				
5786-06014006	6x14x50	6mm	1	W
5786-08019006	8x19x65	6mm	1	W
5786-12732006	12.7x32x70	6mm	1	W
BALL NOSED CONE - L SHAPE				
5780-06016006	6x16x50	6mm	1	W
5780-10019006	10x19x65	6mm	1	W
5780-12030006	12x30x76	6mm	1	W
CONE - M SHAPE				
5783-06019006	6x19x50	6mm	1	W
5783-12719006	12.7x19x65	6mm	1	W
5783-12722006	12.7x22x70	6mm	1	W
CODE	SIZE & DESCRIPTION		PACK QTY	DISCOUNT GROUP
10PC CARBIDE BURR SET DOUBLE				
5793-0010	2x A shape cylinder without end cut: 10x19x65x6mm, 12.7x19x65x6mm 2x C shape ball nosed cylinder: 10x19x65x6mm, 12.7x19x65x6mm 1x D shape ball: 12x11x51x6mm 2x F shape ball nosed tree: 10x19x65x6mm, 12.0x19x65x6mm 2x G shape tree: 10x19x65x6mm, 12.7x19x65x6mm 1x M shap cone: 12.7x19x65x6mm		1	W



PACKAGING TYPE

2 Flute Slot Drills

5321 DIN 327 ISO 1641 5323 BS 122

SURFACE TREATMENT Bright

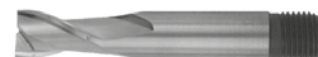
APPLICATION Milling keyways and slots in one cut, designed for plunging operations

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

5321 & 5323 HSS STD Length Screwed Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5321-0080	8 x 11 x 61	1	W
5321-0100	10 x 13 x 63	1	W
5321-0120	12 x 16 x 73	1	W
5321-0140	14 x 16 x 73	1	W
5321-0160	16 x 19 x 79	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5321-0180	18 x 19 x 79	1	W
5321-0200	20 x 19 x 79	1	W
5321-0220	22 x 26 x 102	1	W
5321-0240	24 x 26 x 102	1	W
5321-0250	25 x 26 x 102	1	W

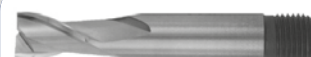
Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5323-0020	5/16" x 13 x 60	1	W
5323-0024	3/8" x 14 x 60	1	W
5323-0032	1/2" x 19 x 67	1	W
5323-0040	5/8" x 22 x 72	1	W
5323-0048	3/4" x 25 x 77	1	W

5348 DIN 327 5349 ISO 122

SURFACE TREATMENT Bright

APPLICATION Milling keyways and slots in one cut, designed for plunging operations

5348 & 5349 HSS-Co8 STD Length Screwed Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5348-0015	1.5 x 2.5 x 48	1	W
5348-0020	2 x 4 x 48	1	W
5348-0025	2.5 x 5 x 49	1	W
5348-0030	3 x 5 x 49	1	W
5348-0035	3.5 x 6 x 50	1	W
5348-0040	4 x 7 x 51	1	W
5348-0045	4.5 x 7 x 51	1	W
5348-0050	5 x 8 x 52	1	W
5348-0055	5.5 x 8 x 52	1	W
5348-0060	6 x 8 x 52	1	W
5348-0065	6.5 x 10 x 60	1	W
5348-0070	7 x 10 x 60	1	W
5348-0080	8 x 11 x 61	1	W
5348-0085	8.5 x 11 x 61	1	W
5348-0090	9 x 11 x 61	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5348-0100	10 x 13 x 63	1	W
5348-0110	11 x 13 x 70	1	W
5348-0120	12 x 16 x 73	1	W
5348-0130	13 x 16 x 73	1	W
5348-0140	14 x 16 x 73	1	W
5348-0150	15 x 16 x 73	1	W
5348-0160	16 x 19 x 79	1	W
5348-0170	17 x 19 x 79	1	W
5348-0180	18 x 19 x 79	1	W
5348-0190	19 x 19 x 79	1	W
5348-0200	20 x 19 x 79	1	W
5348-0220	22 x 26 x 102	1	W
5348-0240	24 x 26 x 102	1	W
5348-0250	25 x 26 x 102	1	W
5348-0260	26 x 26 x 102	1	W

Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5349-0008	1/8" x 8 x 51	1	W
5349-0012	3/16" x 10 x 52	1	W
5349-0016	1/4" x 11 x 56	1	W
5349-0020	5/16" x 13 x 60	1	W
5349-0024	3/8" x 14 x 60	1	W
5349-0028	7/16" x 17 x 65	1	W
5349-0032	1/2" x 19 x 67	1	W
5349-0036	9/16" x 22 x 69	1	W
5349-0040	5/8" x 22 x 72	1	W
5349-0048	3/4" x 25 x 77	1	W
5349-0056	7/8" x 25 x 100	1	W

BS 122

SURFACE TREATMENT Bright

APPLICATION Milling keyways and slots in one cut, designed for plunging operations

5350 & 5343 HSS-Co8 long series screwed shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5350-0020	2 x 4 x 51	1	W
5350-0030	3 x 11 x 61	1	W
5350-0040	4 x 13 x 67	1	W
5350-0050	5 x 13 x 76	1	W
5350-0060	6 x 16 x 76	1	W
5350-0080	8 x 19 x 80	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5350-0100	10 x 22 x 83	1	W
5350-0120	12 x 26 x 95	1	W
5350-0140	14 x 29 x 102	1	W
5350-0160	16 x 32 x 108	1	W
5350-0200	20 x 38 x 121	1	W

Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5343-0008	1/8" x 11 x 64	1	W
5343-0012	3/16" x 13 x 70	1	W
5343-0016	1/4" x 16 x 76	1	W
5343-0024	3/8" x 22 x 83	1	W
5343-0028	7/16" x 22 x 89	1	W
5343-0032	1/2" x 25 x 95	1	W
5343-0048	3/4" x 38 x 121	1	W

2 Flute Slot Drills

DIN 327 ISO 1641/1

SURFACE TREATMENT Bright

APPLICATION Milling keyways and slots in one cut, designed for plunging operations

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

5305 HSS-Co8 STD Length Flatted Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5305-0020	2x3x47	1	W
5305-0030	3x5x49	1	W
5305-0040	4x7x51	1	W
5305-0050	5x8x52	1	W
5305-0060	6x8x52	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5305-0080	8x11x61	1	W
5305-0100	10x13x63	1	W
5305-0120	12x16x73	1	W
5305-0140	14x16x73	1	W
5305-0160	16x19x79	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5305-0180	18x19x79	1	W
5305-0200	20x22x88	1	W
5305-0240	24x26x102	1	W
5305-0250	25x26x102	1	W

DIN 844 ISO 1641/1

SURFACE TREATMENT Bright

APPLICATION Milling keyways and slots in one cut, designed for plunging operations

5320 HSS-Co8 Long Series Flatted Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5320-0030	3x8x56	1	W
5320-0040	4x11x63	1	W
5320-0050	5x13x68	1	W
5320-0060	6x13x68	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5320-0080	8x19x88	1	W
5320-0100	10x22x95	1	W
5320-0120	12x26x110	1	W
5320-0140	14x26x110	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5320-0160	16x32x123	1	W
5320-0200	20x38x141	1	W
5320-0250	25x45x166	1	W

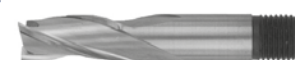
3 Flute Slot Drills

BS 122

SURFACE TREATMENT Bright

APPLICATION Multi-purpose tool used for slotting, plunging and profiling

5342 HSS-Co8 STD Length Screwed Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5342-0030	3x10x54	1	W
5342-0040	4x13x57	1	W
5342-0050	5x16x61	1	W
5342-0060	6x16x61	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5342-0080	8x18x64	1	W
5342-0100	10x21x67	1	W
5342-0120	12x24x70	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5342-0160	16x27x77	1	W
5342-0200	20x38x84	1	W
5342-0250	25x45x102	1	W

DIN 844 ISO 1641/1

SURFACE TREATMENT Bright

APPLICATION Multi-purpose tool used for slotting, plunging and profiling

5325 HSS-Co8 STD Length Flatted Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5325-0030	3x8x52	1	W
5325-0040	4x11x55	1	W
5325-0050	5x13x57	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5325-0060	6x13x57	1	W
5325-0080	8x19x69	1	W
5325-0100	10x22x72	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5325-0120	12x26x83	1	W
5325-0200	20x38x104	1	W
5325-0250	25x45x121	1	W

Multi-flute End Mills

BS 122 ISO 1641

SURFACE TREATMENT Bright

APPLICATION For profile milling

BROOKE

PRODUCT
DESCRIPTION

PACKAGING TYPE

5301 & 5303 HSS STD Length Screwed Shank



Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5301-0080	8x18x64	4	1	W
5301-0100	10x21x67	4	1	W
5301-0120	12x24x70	4	1	W
5301-0140	14x29x73	4	1	W
5301-0160	16x27x77	4	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5301-0180	18x35x80	4	1	W
5301-0200	20x38x84	4	1	W
5301-0220	22x38x95	6	1	W
5301-0240	24x42x99	6	1	W
5301-0250	25x45x101.5	6	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5303-0016	1/4"x16x60	4	1	W
5303-0020	5/16"x18x64	4	1	W
5303-0024	3/8"x22x67	4	1	W
5303-0040	5/8"x32x77	4	1	W
5301-0250	25x45x101.5	4	1	W

Contact us for more 5303 HSS imperial sizes.

5344 HSS-Co8 STD Length Screwed Shank



Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5344-0030	3x10x54	4	1	W
5344-0040	4x13x57	4	1	W
5344-0050	5x16x61	4	1	W
5344-0060	6x16x61	4	1	W
5344-0080	8x18x64	4	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5344-0100	10x21x67	4	1	W
5344-0120	12x24x70	4	1	W
5344-0160	16x27x77	4	1	W
5344-0180	18x35x80	4	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5344-0200	20x38x84	4	1	W
5344-0250	25x45x102	6	1	W
5344-0300	30x46x105	6	1	W
5344-0322	32x51x113	6	1	W

5345 HSS-Co8 STD Length Screwed Shank



Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5345-0008	1/8"x10x54	4	1	W
5345-0012	3/16"x13x57	4	1	W
5345-0016	1/4"x16x60	4	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5345-0020	5/16"x18x64	4	1	W
5345-0024	3/8"x22x67	4	1	W
5345-0032	1/2"x24x70	4	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5345-0040	5/8"x32x77	4	1	W
5345-0048	3/4"x38x83	4	1	W
5345-0100	1 xx43x102	6	1	W

5346 & 5347 HSS-Co8 Long Series Screwed Shank



Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5346-0030	3x19x64	4	1	W
5346-0040	4x26x70	4	1	W
5346-0050	5x32x76	4	1	W
5346-0060	6x32x76	4	1	W
5346-0080	8x34x80	4	1	W
5346-0100	10x37x83	4	1	W
5346-0120	12x50x95	4	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5346-0140	14x57x102	4	1	W
5346-0160	16x59x109	4	1	W
5346-0180	18x70x115	4	1	W
5346-0200	20x76x122	4	1	W
5346-0250	25x100x157	6	1	W
5346-0300	30x99x157	6	1	W

Code	Dia x WL x O/all mm	No. of Flutes	Pack Qty	Disc Group
5347-0012	3/16"x25x70	4	1	W
5347-0016	1/4"x32x76	4	1	W
5347-0032	1/2"x49x95	4	1	W
5347-0040	5/8"x59x109	4	1	W
5347-0048	3/4"x76x121	4	1	W
5347-0100	1"x100x157	6	1	W

BROOKE
CUTTING TOOLS

Multi-flute End Mills

DIN 844

SURFACE TREATMENT Bright

APPLICATION For profile milling

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

5359 HSS-Co8 STD Length Flatted Shank



Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5359-0030	3x8x52	4	1	W
5359-0040	4x11x55	4	1	W
5359-0050	5x13x52	4	1	W
5359-0060	6x13x57	4	1	W
5359-0080	8x19x69	4	1	W

Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5359-0100	10x22x72	4	1	W
5359-0120	12x26x83	4	1	W
5359-0130	13x26x83	4	1	W
5359-0140	14x26x83	4	1	W
5359-0160	16x32x92	4	1	W

Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5359-0180	18x32x92	4	1	W
5359-0200	20x38x104	4	1	W
5359-0220	22x38x104	6	1	W
5359-0250	25x45x121	6	1	W

5360 HSS-CoLong Series Flatted Shank



Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5360-0060	6x24x68	4	1	W
5360-0080	8x38x88	4	1	W
5360-0100	10x45x95	4	1	W
5360-0120	12x53x110	4	1	W

Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5360-0140	14x53x110	4	1	W
5360-0160	16x63x123	4	1	W
5360-0180	18x63x123	4	1	W

Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5360-0200	20x75x141	4	1	W
5360-0250	25x90x166	6	1	W
5360-0320	32x106x186	6	1	W

2 Flute Ball Nose Slot Drills

BS 122

SURFACE TREATMENT Bright

APPLICATION Milling keyways and slots to size in one cut, designed for plunging operations, produces a radius at the bottom of the cut

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

5340 & 5334 HSS-Co8 STD Length Screwed Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5340-0030	3x5x49	1	W
5340-0040	4x7x51	1	W
5340-0050	5x8x52	1	W
5340-0060	6x8x52	1	W
5340-0080	8x11x61	1	W
5340-0100	10x13x63	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5340-0120	12x16x73	1	W
5340-0140	14x16x73	1	W
5340-0160	16x19x79	1	W
5340-0200	20x19x79	1	W
5340-0250	25x26x102	1	W

Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5334-0016	1/4"x11x56	1	W
5334-0024	3/8"x14x60	1	W
5334-0032	1/2"x19x67	1	W
5334-0048	3/4"x25x77	1	W

5341 & 5339 HSS-Co8 Long Series Screwed Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5341-0030	3x11x61	1	W
5341-0040	4x13x67	1	W
5341-0050	5x13x70	1	W
5341-0060	6x16x76	1	W
5341-0080	8x19x80	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5341-0100	10x22x83	1	W
5341-0120	12x26x95	1	W
5341-0160	16x32x108	1	W
5341-0200	20x38x121	1	W

Code	Dia" x Wl x O/all mm	Pack Qty	Disc Group
5339-0016	1/4"x16x76	1	W
5339-0024	3/8"x22x83	1	W
5339-0032	1/2"x25x95	1	W
5339-0048	3/4"x38x121	1	W

2 Flute Ball Nose Slot Drills

DIN 327

SURFACE TREATMENT Bright

APPLICATION Milling keyways and slots to size in one cut, designed for plunging operations, produces a radius at the bottom of the cut

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

5337 HSS-Co8 STD Length Flatted Shank



Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5337-0030	3x5x49	1	W
5337-0040	4x7x51	1	W
5337-0050	5x8x52	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5337-0060	6x8x52	1	W
5337-0080	8x11x61	1	W
5337-0100	10x13x63	1	W

Code	Dia x Wl x O/all mm	Pack Qty	Disc Group
5337-0120	12x16x73	1	W
5337-0160	16x19x79	1	W
5337-0200	20x22x88	1	W

Coarse Pitch Rippers

BS 122 ISO 1641

SURFACE TREATMENT Bright

APPLICATION Maxium stock removal at high feed rates in profiling application

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

5316 HSS-Co8 STD length screwed shank coarse pitch rippers



Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5316-0060	6x16x61	4	1	W
5316-0080	8x18x64	4	1	W
5316-0100	10x21x67	4	1	W
5316-0120	12x24x70	4	1	W

Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5316-0140	14x29x73	4	1	W
5316-0160	16x27x77	4	1	W
5316-0180	18x35x80	4	1	W
5316-0200	20x38x84	4	1	W

Code	Dia x Wl x O/all mm	No. of Flutes	Pack Qty	Disc Group
5316-0220	22x42x99	5	1	W
5316-0250	25x45x102	5	1	W
5316-0300	30x46x105	5	1	W

BROOKE
CUTTING TOOLS

2001 HSS Side & Face Cutters Straight Tooth

BS122

APPLICATION Designed with tooth form to give strength and more chip clearance. These cutters are well adapted for a wide variety of production operations and are commonly used in pairs for straddle or gang milling.



PACKAGING TYPE



Code	Size"	Pack Qty	Disc Group
2001-1002	2.1/2x1/4x1	1	K
2001-1006	2.1/2x1/2x1	1	K
2001-1013	3x1/4x1	1	K
2001-1015	3x3/8x1	1	K
2001-1017	3x1/2x1	1	K

Code	Size"	Pack Qty	Disc Group
2001-1026	3.1/2 X 1/4 X 1	1	K
2001-1030	3.1/2x1/2x1	1	K
2001-1043	4x1/4x1	1	K
2001-1048	4x3/8x1	1	K
2001-1052	4x1/2x1	1	K

Code	Size"	Pack Qty	Disc Group
2001-1083	5x1/4x1	1	K
2001-1091	5x1/2x1	1	K
2001-1105	6x3/16x1	1	K
2001-1107	6x1/4x1	1	K
2001-1115	6x1/2x1	1	K

2003 HSS Side & Face Cutters Staggered Tooth

BS122

APPLICATION Designed for deep slot operations in steel and in most soft materials, these cutters have alternate right and left spiral teeth producing ample chip clearance for fast stock removal.



PACKAGING TYPE



Code	Size"	Pack Qty	Disc Group
2003-1001	2.1/2x1/2x1	1	K
2003-1011	3x1/4x1	1	K
2003-1013	3x3/8x1	1	K
2003-1015	3x1/2x1	1	K
2003-1021	3.1/2x1/4x1	1	K

Code	Size"	Pack Qty	Disc Group
2003-1025	3.1/2x1/2x1	1	K
2003-1033	4x1/4x1	1	K
2003-1038	4x3/8x1	1	K
2003-1042	4x1/2x1	1	K
2003-1061	5x1/4x1	1	K

Code	Size"	Pack Qty	Disc Group
2003-1069	5x1/2x1	1	K
2003-1090	6x3/16x1	1	K
2003-1092	6x1/4x1	1	K
2003-1100	6x1/2x1	1	K

Above sizes are stocked but many other sizes in this range are available - please enquire

2005 HSS Side & Face Cutters Staggered Tooth

DIN885A TYPE N

APPLICATION Designed for deep slot operations in steel and in most soft materials, these cutters have alternate right and left spiral teeth producing ample chip clearance for fast stock removal.



PACKAGING TYPE



Code	Size mm	Pack Qty	Disc Group
2005-1000	50x4x16	1	K
2005-1001	50 X 5 X 16	1	K
2005-1002	50 X 6 X 16	1	K
2005-1003	50x8x16	1	K
2005-1011	63x5x22	1	K
2005-1012	63x6x22	1	K

Code	Size mm	Pack Qty	Disc Group
2005-1013	63x8x22	1	K
2005-1020	80x5x27	1	K
2005-1021	80x6x27	1	K
2005-1022	80 X 8 X 27	1	K
2005-1101	100x8x27	1	K
2005-1102	100x10x27	1	K

Code	Size mm	Pack Qty	Disc Group
2005-1103	100x12x27	1	K
2005-1121	125x8x32	1	K
2005-1123	125x10x32	1	K
2005-1124	125 X 12 X 32	1	K
2005-1141	160x10x40	1	K
2005-1142	160x12x40	1	K

The above sizes are stocked. Many other sizes in this range are available - please contact us.

2031 HSS Equal Angle Cutters

BS122

APPLICATION Used for milling vee-shaped slots, serrations and chamfers.

Note: a 1mm flat may be added to maintain integrity of the cutting point on certain angle and diameter combinations.



PACKAGING TYPE



Code	Size "	Pack Qty	Disc Group
30°			
2031-1001	2.3/4x5/16x1	1	K
2031-1010	3x5/16x1	1	K
45°			
2031-1002	2.3/4x1/2x1	1	K
2031-1020	3x1/2x1	1	K
2031-1060	4x3/4x1	1	K

Code	Size "	Pack Qty	Disc Group
60°			
2031-1003	2.3/4x1/2x1	1	K
2031-1021	3x1/2x1	1	K
2031-1030	3x5/8x1	1	K
2031-1061	4x3/4x1	1	K

Code	Size "	Pack Qty	Disc Group
90°			
2031-1004	2.3/4x1/2x1	1	K
2031-1023	3x1/2x1	1	K
2031-1032	3x5/8x1	1	K
2031-1041	3x3/4x1	1	K
2031-1062	4x3/4x1	1	K

HSS Bore type Cutters available on POA basis

The following are available on a short lead times (some ex stock) - please contact us.



2010 HSS Plain Mills
RH Helix-Imperial



2014 HSS Shell End Mills-Metric



2013 HSS Shell End Mills-Imperial



2030 HSS Single Angle Cutters RH -Imperial



2016 HSS Face Mills
- Imperial



2032 HSS Single Angle Cutters RH Metric



2030 HSS Single Angle Cutters LH Imperial



2020 & 2021 HSS Convex Cutters - Imperial



2033 HSS Equal Angle Cutters - Metric



2022 HSS Concave Cutters - Imperial



2023 HSS Convex Cutters - Metric



2040 HSS Involute Gear Cutters



2024 HSS Concave Cutters - Metric

1000 HSS Slitting Saws (Small Circular)

BS122

APPLICATION Hollow ground to give the clearance necessary for deep cutting. Supplied with keyways to British Standard on saws of 5/8" bore and above.

TEETH Straight

SURFACE TREATMENT BRIGHT

Code	Size "	Pack Qty	Disc Group
1/4" Bore			
1000-0001	3/4x.006x40T	1	K
1000-0002	3/4x.008x40T	1	K
1000-0003	3/4x.010x40T	1	K
1000-0004	3/4x.012x40T	1	K
1000-0005	3/4x1/64x40T	1	K
1000-0006	3/4x.020x40T	1	K
1000-0007	3/4x.025x40T	1	K
1000-0008	3/4x1/32x40T	1	K
1000-0009	3/4x3/64x40T	1	K
1000-0010	3/4x1/16x40T	1	K
1000-0011	3/4x5/64x40T	1	K
1000-0012	3/4x3/32x40T	1	K
1000-0013	3/4x7/64x40T	1	K
1000-0014	3/4x1/8x40T	1	K
1000-0015	1x.006x50T	1	K
1000-0016	1x.008x50T	1	K
1000-0017	1x.010x50T	1	K
1000-0018	1x.012x50T	1	K
1000-0019	1x1/64x50T	1	K
1000-0020	1x.020x50T	1	K
1000-0021	1x.025x50T	1	K
1000-0022	1x1/32x50T	1	K
1000-0023	1x3/64x50T	1	K
1000-0024	1x1/16x50T	1	K
1000-0025	1x5/64x50T	1	K

Code	Size "	Pack Qty	Disc Group
1000-0026	1x3/32x50T	1	K
1000-0027	1x7/64x50T	1	K
1000-0028	1x1/8x50T	1	K
3/8" Bore			
1000-0029	1.1/4x.006x60T	1	K
1000-0030	1.1/4x.008x60T	1	K
1000-0031	1.1/4x.010x60T	1	K
1000-0032	1.1/4x.012x60T	1	K
1000-0033	1.1/4x1/64x60T	1	K
1000-0034	1.1/4x.020x60T	1	K
1000-0035	1.1/4x.025x60T	1	K
1000-0036	1.1/4x1/32x60T	1	K
1000-0037	1.1/4x3/64x60T	1	K
1000-0038	1.1/4x1/16x60T	1	K
1000-0039	1.1/4x5/64x60T	1	K
1000-0040	1.1/4x3/32x60T	1	K
1000-0042	1.1/4x1/8x60T	1	K
1000-0043	1.1/2x.006x72T	1	K
1000-0045	1.1/2x.010x72T	1	K
1000-0046	1.1/2x.012x72T	1	K
1000-0047	1.1/2x1/64x72T	1	K
1000-0048	1.1/2x.020x72T	1	K
1000-0049	1.1/2x.025x72T	1	K
1000-0050	1.1/2x1/32x72T	1	K
1000-0051	1.1/2x3/64x72T	1	K
1000-0052	1.1/2x1/16x72T	1	K



PACKAGING TYPE



Code	Size "	Pack Qty	Disc Group
1000-0053	1.1/2x5/64x72T	1	K
1000-0054	1.1/2x3/32x72T	1	K
1000-0055	1.1/2x7/64x72T	1	K
1000-0056	1.1/2x1/8x72T	1	K
1000-0057	1.1/2x5/32x72T	1	K
1000-0058	1.1/2x3/16x72T	1	K
5/8" Bore			
1000-0059	2x.006x100T	1	K
1000-0060	2x.008x100T	1	K
1000-0061	2x.010x100T	1	K
1000-0062	2x.012x100T	1	K
1000-0063	2x1/64x100T	1	K
1000-0064	2x.020x100T	1	K
1000-0065	2x.025x100T	1	K
1000-0066	2x1/32x100T	1	K
1000-0067	2x3/64x100T	1	K
1000-0068	2x1/16x100T	1	K
1000-0069	2x5/64x100T	1	K
1000-0070	2x3/32x100T	1	K
1000-0071	2x7/64x100T	1	K
1000-0072	2x1/8 100T	1	K
1000-0073	2x5/32x100T	1	K
1000-0074	2x3/16x100T	1	K
1000-0076	2x1/4x100T	1	K

1001 HSS Screw Slitting Saws

BS122

APPLICATION Metal screw slotting saw are fine pitch and are primarily used for slotting screw heads. Supplied with keyways as standard.

TEETH Straight

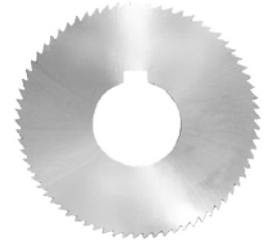
SURFACE TREATMENT BRIGHT

Code	Size "	Pack Qty	Disc Group
1" Bore			
1001-0146	2.3/4x.006x1x72T	1	K
1001-0147	2.3/4x.008x1x72T	1	K
1001-0148	2.3/4x.010x1x72T	1	K
1001-0149	2.3/4x.012x1x72T	1	K
1001-0150	2.3/4x.014x1x72T	1	K
1001-0151	2.3/4x.016x1x72T	1	K
1001-0152	2.3/4x.018x1x72T	1	K
1001-0153	2.3/4x.020x1x72T	1	K
1001-0154	2.3/4x.023x1x72T	1	K

Code	Size "	Pack Qty	Disc Group
1" Bore			
1001-0155	2.3/4x.025x1x72T	1	K
1001-0156	2.3/4x.028x1x72T	1	K
1001-0157	2.3/4x.032x1x72T	1	K
1001-0158	2.3/4x.035x1x72T	1	K
1001-0159	2.3/4x.036x1x72T	1	K
1001-0160	2.3/4x.040x1x72T	1	K
1001-0161	2.3/4x.045x1x72T	1	K
1001-0162	2.3/4x.051x1x72T	1	K
1001-0163	2.3/4x.057x1x72T	1	K



PACKAGING TYPE



Code	Size "	Pack Qty	Disc Group
1" Bore			
1001-0164	2.3/4x.064x1x72T	1	K
1001-0165	2.3/4x.072x1x72T	1	K
1001-0166	2.3/4x.081x1x72T	1	K
1001-0167	2.3/4x.091x1x72T	1	K
1001-0168	2.3/4x.102x1x72T	1	K
1001-0169	2.3/4x.114x1x72T	1	K
1001-0170	2.3/4x.128x1x72T	1	K
1001-0171	2.3/4x.144x1x72T	1	K
1001-0172	2.3/4x.162x1x72T	1	K

1005 HSS Slitting Saws - Coarse Pitch - Metric

DIN1838B

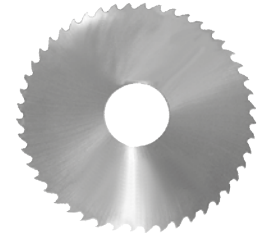
APPLICATION General sawing and slotting operations in thin material

TEETH Straight teeth, Type N (types H and W to special order) Supplied without a keyway.

SURFACE TREATMENT Bright



PACKAGING TYPE



Code	Size "	Pack Qty	Disc Group
13mm Bore			
1005-0001	50x0.5x48T	1	K
1005-0002	50x0.6x48T	1	K
1005-0003	50x0.8x40T	1	K
1005-0004	50x1.0x40T	1	K
1005-0005	50x1.2x40T	1	K
1005-0006	50x1.6x32T	1	K
1005-0007	50x2.0x32T	1	K
1005-0008	50x2.5x32T	1	K
1005-0009	50x3.0x24T	1	K
1005-0010	50x4.0x24T	1	K
1005-0011	50x5.0x24T	1	K
1005-0012	50x6.0x20T	1	K
16mm Bore			
1005-0013	63x0.5x64T	1	K
1005-0014	63x0.6x48T	1	K
1005-0015	63x0.8x48T	1	K
1005-0016	63x1.0x48T	1	K
1005-0017	63x1.2x40T	1	K
1005-0018	63x1.5x40T	1	K
1005-0019	63x1.6x40T	1	K
1005-0020	63x2.0x40T	1	K
1005-0021	63x2.5x32T	1	K
1005-0022	63x3.0x32T	1	K
1005-0023	63x4.0x32T	1	K
1005-0024	63x5.0x24T	1	K
1005-0025	63x6.0x24T	1	K

Code	Size "	Pack Qty	Disc Group
22mm Bore			
1005-0026	80x0.5x64T	1	K
1005-0027	80x0.6x64T	1	K
1005-0028	80x0.8x64T	1	K
1005-0029	80x1.0x48T	1	K
1005-0030	80x1.2x48T	1	K
1005-0031	80x1.6x48T	1	K
1005-0032	80x2.0x40T	1	K
1005-0033	80x2.5x40T	1	K
1005-0034	80x3.0x40T	1	K
1005-0035	80x4.0x32T	1	K
1005-0036	80x5.0x32T	1	K
1005-0038	100X0.5X80T	1	K
1005-0039	100x0.6x80T	1	K
1005-0041	100x0.8x64T	1	K
1005-0043	100x1.0x64T	1	K
1005-0045	100x1.2x64T	1	K
1005-00461	100x1.5x 48T	1	K
1005-0047	100x1.6x48T	1	K
1005-0049	100x2.0x48T	1	K
1005-0051	100x2.5x48T	1	K
1005-0053	100x3.0x40T	1	K
1005-0055	100x4.0x40T	1	K
1005-0059	100x6.0x32T	1	K
1005-0061	125x0.6x80T	1	K
1005-0063	125x0.8x80T	1	K
1005-0065	125x1.0x80T	1	K

Code	Size "	Pack Qty	Disc Group
1005-0067	125x1.2x64T	1	K
1005-0069	125x1.6x64T	1	K
1005-0071	125x2.0x64T	1	K
1005-0073	125x2.5x48T	1	K
1005-0075	125x3.0x48T	1	K
1005-0077	125x4.0x48T	1	K
1005-0079	125x5.0x40T	1	K
1005-0081	125x6.0x40T	1	K
32mm Bore			
1005-0083	160x1.0x80T	1	K
1005-0084	160x1.2x80T	1	K
1005-0085	160x1.6x80T	1	K
1005-0086	160x2.0x64T	1	K
1005-0087	160x2.5x64T	1	K
1005-0088	160x3.0x64T	1	K
1005-0089	160x4.0x48T	1	K
1005-0090	160x5.0x48T	1	K
1005-0091	160x6.0x48T	1	K
1005-0092	200x1.0x100T	1	K
1005-0093	200x1.2x100T	1	K
1005-0094	200x1.6x80T	1	K
1005-0095	200x2.0x80T	1	K
1005-0097	200x3.0x64T	1	K
1005-0098	200x4.0x64T	1	K
1005-0099	200x5.0x64T	1	K
1005-0101	250x1.6x100T	1	K
1005-0102	250x2.0x100T	1	K
1005-0104	250x3.0x80T	1	K

1011 HSS Side Chip Clearance Saws Straight Tooth

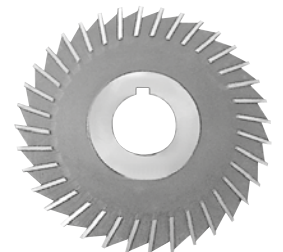
BS122

APPLICATION The teeth are designed to give maximum support to the cutting edge and provide sufficient swarf clearance.

TEETH Straight teeth, Type B



PACKAGING TYPE



Code	Size "	Pack Qty	Disc Group
1" Bore			
1011-0002	3x1/16x26T	1	K
1011-0006	3x1/8x26T	1	K
1011-0007	3x5/32x26T	1	K
1011-0010	4x1/16x36T	1	K

Code	Size "	Pack Qty	Disc Group
1" Bore			
1011-0012	4x5/64x36T	1	K
1011-0013	4x3/32x36T	1	K
1011-0014	4x7/64x36T	1	K
1011-0020	5x1/16x40T	1	K

Code	Size "	Pack Qty	Disc Group
1" Bore			
1011-0024	5x1/8 x40T	1	K
1011-0034	6x1/8 x 42T	1	K

1012 HSS Side Chip Clearance Saws Staggered Tooth

BS122

APPLICATION Designed for taking moderately deep cuts in steel where more clearance is provided on the peripheral cut than on ordinary slitting saws.

TEETH Alternate right and left hand helical teeth, Type A



PACKAGING TYPE



Code	Size "	Pack Qty	Disc Group
1" Bore			
1012-1011	4x1/8x34T	1	K
1012-1013	4x3/16x34T	1	K

Code	Size "	Pack Qty	Disc Group
1" Bore			
1012-1020	5x1/8x38T	1	K
1012-1023	5x3/16x38T	1	K

Code	Size "	Pack Qty	Disc Group
1" Bore			
1012-1030	6x1/8x40T	1	K
1012-1033	6x3/16x40T	1	K

1014 HSS Side Chip Clearance Saws Staggered Tooth

DIN 1834A

APPLICATION Designed for taking moderately deep cuts in steel where more clearance is provided on the peripheral cut than on ordinary slitting saws.

TEETH Alternate right and left hand helical teeth, Type A



PACKAGING TYPE



Code	Size mm	Pack Qty	Disc Group
22mm Bore			
1014-1003	63x2.5x28T	1	K
27mm Bore			
1014-1012	80x2.5x32T	1	K

Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1014-1023	100x3.0x36T	1	K
1014-1024	100x4.0x36T	1	K
1014-1026	100x6.0x36T	1	K

Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1014-1034	125x4.0x40T	1	K
1014-1036	125x6.0x40T	1	K
1014-1049	160x6.0x48T	1	K
40mm Bore			
1014-1043	160x4.0x48T	1	K

1020 Standard HSS Cut Off Saw Blade

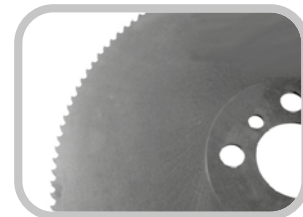
DIN 1834A

APPLICATION For use with most cut-off saw machines which take 32mm bore saws. Supplied with multi-pinholes

TEETH Parrot tooth type BW or C depending on pitch



PACKAGING
TYPE



Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1020-0102	200x1.80x160T	1	P
1020-0121	225x1.80x220T	1	P
1020-0122	225x1.80x180T	1	P
1020-0123	225x1.80x140T	1	P
1020-0124	225x1.80x120T	1	P
1020-0160	250x2.0x250T	1	P
1020-0161	250x2.0x240T	1	P
1020-0162	250x2.0x200T	1	P
1020-0163	250x2.0x160T	1	P
1020-0164	250x2.0x128T	1	P
1020-0165	250x2.0x100T	1	P
1020-0172	250x2.5x200T	1	P

Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1020-0174	250x2.5x128T	1	P
1020-0191	275x2.0x280T	1	P
1020-0192	275x2.0x220T	1	P
1020-0193	275x2.0x180T	1	P
1020-0194	275x2.0x140T	1	P
1020-0201	275x2.5x280T	1	P
1020-0202	275x2.5x220T	1	P
1020-0203	275x2.5x180T	1	P
1020-0204	275x2.5x140T	1	P
1020-0221	300x2.5x300T	1	P
1020-0222	300x2.5x220T	1	P
1020-0223	300x2.5x180T	1	P

Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1020-0224	300x2.5x160T	1	P
1020-0225	300x2.5x120T	1	P
1020-0242	315x2.5x240T	1	P
1020-0243	315x2.5x200T	1	P
1020-0244	315x2.5x160T	1	P
1020-0282	350x2.5x280T	1	P
1020-0283	350x2.5x220T	1	P
1020-0284	350x2.5x180T	1	P
1020-0292	350x3.0x280T	1	P
1020-0293	350x3.0x220T	1	P
1020-0294	350x3.0x180T	1	P

1021 Standard HSS Cut Off Saw Blanks

DIN 1834A

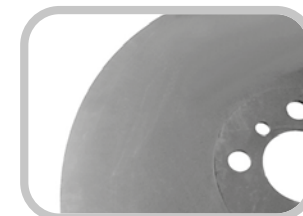
APPLICATION For use with most cut-off saw machines which take 32mm bore saws. Supplied with multi-pinholes

TEETH Blanks - no teeth

Note : 40mm Bore Cut-off Saws and Blanks are also available please contact us.



PACKAGING
TYPE



Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1021-0107	200x1.8x32	1	P
1021-0127	225x1.8x32	1	P
1021-0167	250x2x32	1	P
1021-0177	250x2.5x32	1	P

Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1021-0197	275x2.00x32	1	P
1021-0207	275x2.50x32	1	P
1021-0227	300x2.50x32	1	P
1021-0247	315x2.50x32	1	P

Code	Size mm	Pack Qty	Disc Group
32mm Bore			
1021-0257	315x3.00x32	1	P
1021-0287	350x2.50x32	1	P
1021-0297	350x3.00x32	1	P



Superweld Butt-Welded Tools - HSS

BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

4001 Light Turning And Facing Tools - Right Hand - Shape No.1

Code	Section Size mm	Pack Qty	Disc Group
4001-1212	12X12	1	N
4001-1616	16X16	1	N
4001-2016	20X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4001-2020	20X20	1	N
4001-2516	25X16	1	N
4001-2520	25X20	1	N



4002 Light Turning And Facing Tools - Left Hand - Shape No.2

Code	Section Size mm	Pack Qty	Disc Group
4002-1212	12X12	1	N
4002-1616	16X16	1	N
4002-2016	20X16	1	N

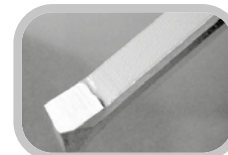
Code	Section Size mm	Pack Qty	Disc Group
4002-2020	20X20	1	N
4002-2516	25X16	1	N
4002-2520	25X20	1	N



4003 Straight Nosed Roughing Tools - Right Hand - Shape No.3

Code	Section Size mm	Pack Qty	Disc Group
4003-1212	12X12	1	N
4003-1616	16X16	1	N
4003-2016	20X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4003-2020	20X20	1	N
4003-2516	25X16	1	N



4004 Straight Nosed Roughing Tools - Left Hand - Shape No.4

Code	Section Size mm	Pack Qty	Disc Group
4004-2016	20X16	1	N

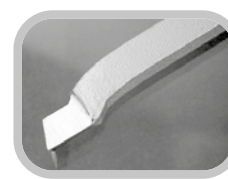
Code	Section Size mm	Pack Qty	Disc Group
4004-2525	25X25	1	N



4007 Knife Or Side Cutting Tools - Right Hand - Shape No.7

Code	Section Size mm	Pack Qty	Disc Group
4007-1212	12X12	1	N
4007-1616	16X16	1	N
4007-2016	20X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4007-2020	20X20	1	N
4007-2516	25X16	1	N
4007-2520	25X20	1	N



4008 Knife Or Side Cutting Tools - Left Hand - Shape No.8

Code	Section Size mm	Pack Qty	Disc Group
4008-1212	12X12	1	N
4008-1616	16X16	1	N
4008-2016	20X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4008-2020	20X20	1	N
4008-2516	25X16	1	N
4008-2520	25X20	1	N



4012 External Screw Cutting Tools - Left Hand - Shape No.12

Code	Section Size mm	Pack Qty	Disc Group
4012-1212	13L 12X12	1	N
4012-1616	13L 16X16	1	N
4012-2016	13L 20X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4012-2020	13L 20X20	1	N
4012-2516	13L 25X16	1	N



Superweld Butt-Welded Tools - HSS

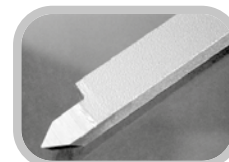
BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

4013 External Screw Cutting Tools - Right Hand - Shape No.13

Code	Section Size mm	Pack Qty	Disc Group
4013-1212	13R 12X12	1	N
4013-1616	13R 16X16	1	N
4013-2016	13R 20X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4013-2020	13R 20X20	1	N
4013-2516	13R 25X16	1	N
4013-2520	13R 25X20	1	N



4015 Parting Off Tools - Left Hand - Shape No.15

Code	Section Size mm	Pack Qty	Disc Group
4015-1212	16L 12X12	1	N
4015-1616	16L 16X16	1	N
4015-2016	16L 20X16	1	N

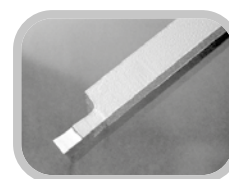
Code	Section Size mm	Pack Qty	Disc Group
4015-2020	16L 20X20	1	N
4015-2516	16L 25X16	1	N
4015-2020	16L 20X20	1	N
4015-2516	16L 25X16	1	N



4016 Parting Off Tools - Right Hand - Shape No.16

Code	Section Size mm	Pack Qty	Disc Group
4016-1212	16R 12X12	1	N
4016-1616	16R 16X16	1	N
4016-2016	16R 20X16	1	N
4016-2020	16R 20X20	1	N

Code	Section Size mm	Pack Qty	Disc Group
4016-2516	16R 25X16	1	N
4016-2520	16R 25X20	1	N
4016-2525	16R 25X25	1	N
4016-3220	16R 32X20	1	N
4016-4025	16R 40X25	1	N



4017 Round Nosed Tools - Shape No.17 - Cuts In Either Direction

Code	Section Size mm	Pack Qty	Disc Group
4017-1212	12X12	1	N
4017-1616	16X16	1	N
4017-2016	20X16	1	N
4017-2020	20X20	1	N
4017-2516	25X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4017-2520	25X20	1	N
4017-2525	25X25	1	N
4017-3220	32X20	1	N
4017-3232	32X32	1	N
4017-4025	40X25	1	N



4019 Facing Tools - Right Hand - Shape No.19

Code	Section Size mm	Pack Qty	Disc Group
4019-1212	12X12	1	N
4019-1616	16X16	1	N
4019-2016	20X16	1	N
4019-2020	20X20	1	N

Code	Section Size mm	Pack Qty	Disc Group
4019-2516	25X16	1	N
4019-2520	25X20	1	N
4019-2525	25X25	1	N



4020 Facing Tools - Left Hand - Shape No.20

Code	Section Size mm	Pack Qty	Disc Group
4020-1212	12X12	1	N
4020-1616	16X16	1	N
4020-2016	20X16	1	N
4020-2020	20X20	1	N

Code	Section Size mm	Pack Qty	Disc Group
4020-2516	25X16	1	N
4020-2520	25X20	1	N
4020-2525	25X25	1	N



Superweld Butt-Welded Tools - HSS

BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

4025 Right Angle Recessing Tools - Right Hand - Shape No.25

Code	Section Size mm	Pack Qty	Disc Group
4025-1212	12X12	1	N
4025-1616	16X16	1	N
4025-2016	20X16	1	N
4025-2020	20X20	1	N

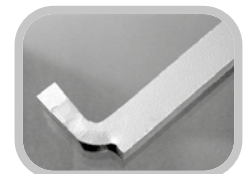
Code	Section Size mm	Pack Qty	Disc Group
4025-2516	25X16	1	N
4025-2520	25X20	1	N
4025-2525	25X25	1	N



4026 Right Angle Recessing Tool - Left Hand - Shape No.26

Code	Section Size mm	Pack Qty	Disc Group
4026-1212	12X12	1	N
4026-1616	16X16	1	N

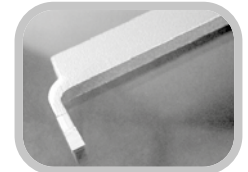
Code	Section Size mm	Pack Qty	Disc Group
4026-2016	20X16	1	N
4026-2020	20X20	1	N



4027 Right Angle Parting Off Tools - Right Hand - Shape No.27

Code	Section Size mm	Pack Qty	Disc Group
4027-1212	12X12	1	N
4027-1616	16X16	1	N
4027-2016	20X16	1	N

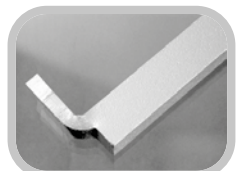
Code	Section Size mm	Pack Qty	Disc Group
4027-2020	20X20	1	N
4027-2520	25X20	1	N



4028 Right Angle Parting Off Tools - Left Hand - Shape No.28

Code	Section Size mm	Pack Qty	Disc Group
4028-1212	12X12	1	N
4028-1616	16X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4028-2016	20X16	1	N
4028-2020	20X20	1	N



4029 Square Nosed Turning And Facing Tools - Right Hand - Shape No.29

Code	Section Size mm	Pack Qty	Disc Group
4029-1212	12X12	1	N
4029-1212	12X12	1	N

Code	Section Size mm	Pack Qty	Disc Group
4029-2020	20X20	1	N



4030 Square Nosed Turning And Facing Tools - Left Hand - Shape No.30

Code	Section Size mm	Pack Qty	Disc Group
4030-1212	12X12	1	N
4030-2016	20X16	1	N

Code	Section Size mm	Pack Qty	Disc Group
4030-2020	20X20	1	N



BROOKE
CUTTING TOOLS

Superweld Butt-Welded Tools - HSS

BROOKE

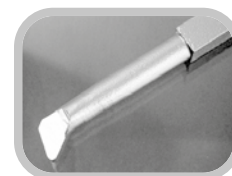
PRODUCT
DESCRIPTION

PACKAGING TYPE

4048 Through Boring Tools - Shape No.50b

Code	Section Size mm	Pack Qty	Disc Group
4048-1212	12X12	1	N
4048-1616	16X16	1	N
4048-1212	12X12	1	N

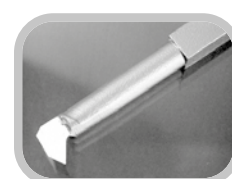
Code	Section Size mm	Pack Qty	Disc Group
4048-1616	16X16	1	N
4048-2020	20X20	1	N



4049 Internal Screw Cutting Tools - Shape No.50a

Code	Section Size mm	Pack Qty	Disc Group
4049-1212	12X12	1	N
4049-1616	16X16	1	N

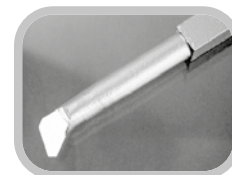
Code	Section Size mm	Pack Qty	Disc Group
4049-2016	20X16	1	N
4049-2020	20X20	1	N



4050 Boring Tools - Shape No.50

Code	Section Size mm	Pack Qty	Disc Group
4050-1212	12X12	1	N
4050-1616	16X16	1	N

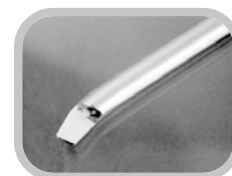
Code	Section Size mm	Pack Qty	Disc Group
4050-2016	20X16	1	N
4050-2020	20X20	1	N



4055 Boring Tools With 10°deg Rake - Shape No.57a

Code	Section Size mm	Pack Qty	Disc Group
4055-0008	8X160	1	N
4055-0010	10X200	1	N

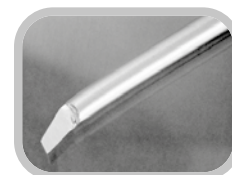
Code	Section Size mm	Pack Qty	Disc Group
4055-0012	12X220	1	N
4055-0016	16X240	1	N



4056 Boring Tools With 10°deg Rake - Shape No. 57b

Code	Section Size mm	Pack Qty	Disc Group
4056-0010	10X200	1	N
4056-0012	12X220	1	N

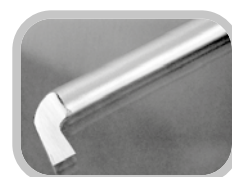
Code	Section Size mm	Pack Qty	Disc Group
4056-0016	16X240	1	N
4056-0020	20X270	1	N



4057 Boring Tools With Zero Rake - Shape No.57c

Code	Section Size mm	Pack Qty	Disc Group
4057-0008	8X160	1	N
4057-0010	10X200	1	N
4057-0012	12X220	1	N

Code	Section Size mm	Pack Qty	Disc Group
4057-0016	16X240	1	N
4057-0020	20X270	1	N
4057-0025	25X320	1	N



Square Toolbits HSS & HSS-Co

BROOKE

PRODUCT DESCRIPTION

PACKAGING TYPE

4220 HSS Toolbits - Imperial Sizes



Code	Section Size	Pack Qty	Disc Group
4220-1001	3/16 SQ x2.1/2"	1	N
4220-10015	3/16 SQ x3"	1	N
4220-1002	1/4 SQ x2.1/2"	1	N
4220-1003	1/4 SQ x3"	1	N
4220-1004	1/4 SQ x4"	1	N
4220-1006	5/16 SQ x3"	1	N
4220-1007	5/16 SQ x4"	1	N

Code	Section Size	Pack Qty	Disc Group
4220-1008	5/16 SQ x6"	1	N
4220-1009	3/8 SQ x3"	1	N
4220-1010	3/8 SQ x4"	1	N
4220-1011	3/8 SQ x6"	1	N
4220-1012	7/16 SQ x3.1/2"	1	N
4220-1013	1/2 SQ x3"	1	N
4220-1014	1/2 SQ x4"	1	N

Code	Section Size	Pack Qty	Disc Group
4220-1015	1/2 SQ x6"	1	N
4220-1016	5/8 SQ x4"	1	N
4220-1018	5/8 SQ x6"	1	N
4220-1019	3/4 SQ x4"	1	N
4220-1021	3/4 SQ x6"	1	N
4220-1022	1 SQ x6"	1	N
4220-1023	1 SQ x7"	1	N

4222 HSS-Co Toolbits - Imperial Sizes

Code	Section Size	Pack Qty	Disc Group
4222-2001	3/16 SQx2-1/2"	1	N
4222-2003	3/16 SQx 4"	1	N
4222-2004	1/4SQx2-1/2"	1	N
4222-2005	1/4SQx 3"	1	N
4222-2006	1/4SQx 4"	1	N
4222-2007	1/4SQx 6"	1	N
4222-2008	5/16SQx2-1/2"	1	N
4222-2009	5/16SQx 3"	1	N

Code	Section Size	Pack Qty	Disc Group
4222-2010	5/16SQx3-1/2"	1	N
4222-2011	5/16SQx 4"	1	N
4222-2012	5/16SQx 6"	1	N
4222-2013	3/8SQ x 3"	1	N
4222-2015	3/8SQ x 4"	1	N
4222-2016	3/8SQ x 6"	1	N
4222-2018	7/16SQx 4"	1	N
4222-2020	1/2SQx 3"	1	N

Code	Section Size	Pack Qty	Disc Group
4222-2021	1/2SQx 3.1/2"	1	N
4222-2022	1/2SQx 4"	1	N
4222-2023	1/2SQx 6"	1	N
4222-2026	5/8SQx 5"	1	N
4222-2027	5/8SQx 6"	1	N
4222-2030	3/4SQx 6"	1	N
4222-2031	7/8SQx 6"	1	N
4222-2032	1"SQx7"	1	N

4223 HSS-Co Toolbits - Metric Sizes

Code	Section Size	Pack Qty	Disc Group
4223-2001	4mmSQx40mm	1	N
4223-2003	4mmSQx80mm	1	N
4223-2004	5mmSQx40mm	1	N
4223-2005	5mmSQx63mm	1	N
4223-2006	5mmSQx80mm	1	N
4223-2007	6mmSQx40mm	1	N
4223-2008	6mmSQx63mm	1	N
4223-2010	6mmSQx100mm	1	N
4223-2011	6mmSQx125mm	1	N
4223-2013	8mmSQx40mm	1	N
4223-2014	8mmSQx63mm	1	N
4223-2015	8mmSQx80mm	1	N
4223-2016	8mmSQx100mm	1	N

Code	Section Size	Pack Qty	Disc Group
4223-2017	8mmSQx125mm	1	N
4223-2018	8mmSQx160mm	1	N
4223-2020	10mmSQx63mm	1	N
4223-2021	10mmSQx80mm	1	N
4223-2022	10mmSQx100mm	1	N
4223-2023	10mmSQx125mm	1	N
4223-2024	10mmSQx160mm	1	N
4223-2026	12mmSQx63mm	1	N
4223-2027	12mmSQx80mm	1	N
4223-2028	12mmSQx100mm	1	N
4223-2029	12mmSQx125mm	1	N
4223-2031	12mmSQx200mm	1	N
4223-2032	14mmSQx100mm	1	N

Code	Section Size	Pack Qty	Disc Group
4223-2033	14mmSQx125mm	1	N
4223-2034	14mmSQx160mm	1	N
4223-2035	14mmSQx200mm	1	N
4223-2036	16mmSQx100mm	1	N
4223-2037	16mmSQx125mm	1	N
4223-2038	16mmSQx160mm	1	N
4223-2039	16mmSQx200mm	1	N
4223-2040	18mmSQx160mm	1	N
4223-2041	18mmSQx200mm	1	N
4223-2042	20mmSQx160mm	1	N
4223-2043	20mmSQx200mm	1	N

BROOKE
CUTTING TOOLS

Carbide Tipped Lathe Tools

BROOKE

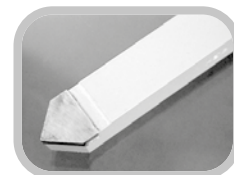
PRODUCT
DESCRIPTION

PACKAGING TYPE

4065 Straight Round Nosed Turning Tools Shape No.65

Code	Size	Pack Qty	Disc Group
4065-0100	TCT M010 EK	1	N
4065-0105	TCT M010 ES	1	N
4065-0120	TCT M012 EK	1	N
4065-0125	TCT M012 ES	1	N
4065-0160	TCT M016 EK	1	N

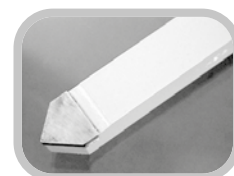
Code	Size	Pack Qty	Disc Group
4065-0165	TCT M016 ES	1	N
4065-0200	TCT M020 EK	1	N
4065-0205	TCT M020 ES	1	N
4065-0240	TCT M024 EK	1	N
4065-0245	TCT M024 ES	1	N



4066 Light Turning Or Boring Tools - Shape No.66

Code	Size	Pack Qty	Disc Group
4066-0400	TCT M40 EK	1	N
4066-0405	TCT M40 ES	1	N
4066-0440	TCT M44 EK	1	N
4066-0445	TCT M44 ES	1	N
4066-0525	TCT M52 ES	1	N
4066-0600	TCT M60 EK	1	N

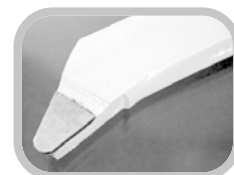
Code	Size	Pack Qty	Disc Group
4066-0605	TCT M60 ES	1	N
4066-0625	TCT M68 ES	1	N
4066-0705	TCT M70 ES	1	N
4066-0720	TCT M72 EK	1	N
4066-0725	TCT M72 ES	1	N



4067 Cranked Round Nosed Turning Tools - Shape No.67

Code	Size	Pack Qty	Disc Group
4067-0100	TCT M10 EK	1	N
4067-0105	TCT M10 ES	1	N
4067-0110	TCT M11 EK	1	N
4067-0115	TCT M11 ES	1	N
4067-0120	TCT M12 EK	1	N
4067-0125	TCT M12 ES	1	N
4067-0130	TCT M13 EK	1	N
4067-0135	TCT M13 ES	1	N
4067-0160	TCT M16 EK	1	N
4067-0165	TCT M16 ES	1	N
4067-0170	TCT M17 EK	1	N
4067-0175	TCT M17 ES	1	N
4067-0200	TCT M20 EK	1	N
4067-0205	TCT M20 ES	1	N

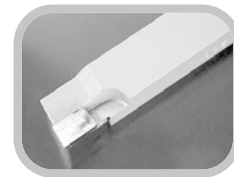
Code	Size	Pack Qty	Disc Group
4067-0210	TCT M21 EK	1	N
4067-0215	TCT M21 ES	1	N
4067-0240	TCT M24 EK	1	N
4067-0245	TCT M24 ES	1	N
4067-0250	TCT M25 EK	1	N
4067-0255	TCT M25 ES	1	N
4067-0260	TCT M26 EK	1	N
4067-0265	TCT M26 ES	1	N
4067-0270	TCT M27 EK	1	N
4067-0275	TCT M27 ES	1	N
4067-0300	TCT M30 EK	1	N
4067-0305	TCT M30 ES	1	N
4067-0310	TCT M31 EK	1	N
4067-0315	TCT M31 ES	1	N



4068 Straight Bar Turning Tools - Shape No.68

Code	Size	Pack Qty	Disc Group
4068-1000	TCT M100 EK	1	N
4068-1005	TCT M100 ES	1	N
4068-1010	TCT-M101 EK	1	N
4068-1015	TCT-M101 ES	1	N
4068-1020	TCT M102 EK	1	N
4068-1025	TCT M102 ES	1	N
4068-1030	TCT M103 EK	1	N
4068-1035	TCT M103 ES	1	N
4068-1060	TCT M106 EK	1	N

Code	Size	Pack Qty	Disc Group
4068-1065	TCT M106 ES	1	N
4068-1070	TCT M107 EK	1	N
4068-1075	TCT M107 ES	1	N
4068-1100	TCT M110 EK	1	N
4068-1105	TCT M110 ES	1	N
4068-1110	TCT M111 EK	1	N
4068-1115	TCT M111 ES	1	N
4068-1160	TCT M116 EK	1	N
4068-1165	TCT M116 ES	1	N



Carbide Tipped Lathe Tools

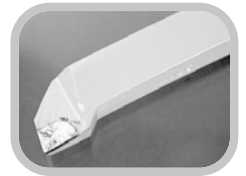
BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

4070 Offset Turning Tools - Shape No.70

Code	Size	Pack Qty	Disc Group
4070-1600	TCT M160 EK	1	N
4070-1605	TCT M160 ES	1	N
4070-1610	TCT M161 EK	1	N
4070-1615	TCT M161 ES	1	N
4070-1620	TCT M162 EK	1	N
4070-1625	TCT M162 ES	1	N
4070-1630	TCT M163 EK	1	N
4070-1635	TCT M163 ES	1	N
4070-1645	TCT M164 ES	1	N
4070-1660	TCT M166 EK	1	N
4070-1665	TCT M166 ES	1	N
4070-1670	TCT M167 EK	1	N
4070-1675	TCT M167 ES	1	N

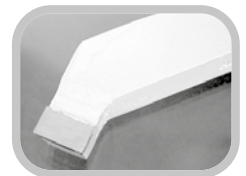
Code	Size	Pack Qty	Disc Group
4070-1700	TCT M170 EK	1	N
4070-1705	TCT M170 ES	1	N
4070-1710	TCT M171 EK	1	N
4070-1715	TCT M171 ES	1	N
4070-1735	TCT M173 ES	1	N
4070-1740	TCT M174 EK	1	N
4070-1745	TCT M174 ES	1	N
4070-1750	TCT M175 EK	1	N
4070-1755	TCT M175 ES	1	N
4070-1760	TCT M176 EK	1	N
4070-1765	TCT M176 ES	1	N
4070-1770	TCT M177 EK	1	N
4070-1775	TCT M177 ES	1	N



4071 Cranked Turning And Facing Tools - Shape No.71

Code	Size	Pack Qty	Disc Group
4071-1900	TCT M190 EK	1	N
4071-1905	TCT M190 ES	1	N
4071-1910	TCT M191 EK	1	N
4071-1915	TCT M191 ES	1	N
4071-1920	TCT M192 EK	1	N
4071-1925	TCT M192 ES	1	N
4071-1930	TCT M193 EK	1	N
4071-1935	TCT M193 ES	1	N
4071-1960	TCT M196 EK	1	N
4071-1965	TCT M196 ES	1	N
4071-1970	TCT M197 EK	1	N
4071-1975	TCT M197 ES	1	N
4071-1985	TCT M198 ES	1	N
4071-2000	TCT M200 EK	1	N

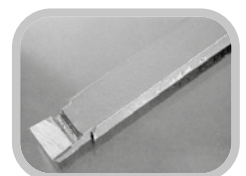
Code	Size	Pack Qty	Disc Group
4071-2005	TCT M200 ES	1	N
4071-2010	TCT M201 EK	1	N
4071-2015	TCT M201 ES	1	N
4071-2020	TCT M202 EK	1	N
4071-2025	TCT M202 ES	1	N
4071-2040	TCT M204 EK	1	N
4071-2045	TCT M204 ES	1	N
4071-2050	TCT M205 EK	1	N
4071-2055	TCT M205 ES	1	N
4071-2060	TCT M206 EK	1	N
4071-2065	TCT M206 ES	1	N
4071-2070	TCT M207 EK	1	N
4071-2075	TCT M207 ES	1	N



4072 Straight Recessing Tools - Shape No.72

Code	Size	Pack Qty	Disc Group
4072-2300	TCT M230 EK	1	N
4072-2305	TCT M230 ES	1	N
4072-2320	TCT M232 EK	1	N
4072-2325	TCT-M232-ES	1	N
4072-2340	TCT M234 EK	1	N
4072-2300	TCT M230 EK	1	N
4072-2305	TCT M230 ES	1	N
4072-2320	TCT M232 EK	1	N

Code	Size	Pack Qty	Disc Group
4072-2385	TCT M238 ES	1	N
4072-2400	TCT M240 EK	1	N
4072-2405	TCT M240 ES	1	N
4072-2420	TCT M242 EK	1	N
4072-2425	TCT M242 ES	1	N
4072-2440	TCT M244 EK	1	N
4072-2445	TCT M244 ES	1	N



BROOKE
CUTTING TOOLS

Carbide Tipped Lathe Tools

BROOKE

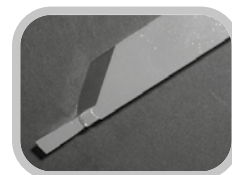
PRODUCT
DESCRIPTION

PACKAGING TYPE

4073 Parting Tools - Shape No.73

Code	Size	Pack Qty	Disc Group
4073-2600	TCT M260 EK	1	N
4073-2605	TCT M260 ES	1	N
4073-2610	TCT M0260 EK	1	N
4073-2615	TCT M0260 ES	1	N
4073-2620	TCT M262 EK	1	N
4073-2625	TCT-M262-ES	1	N
4073-2630	TCT M0262 EK	1	N

Code	Size	Pack Qty	Disc Group
4073-2635	TCT M0262 ES	1	N
4073-2640	TCT-M264-EK	1	N
4073-2645	TCT-M264-ES	1	N
4073-2650	TCT M0264 EK	1	N
4073-2655	TCT M0264 ES	1	N
4073-2660	TCT M265 EK	1	N
4073-2665	TCT M265 ES	1	N



4074 Parting Tools - Reinforced Type - Shape No.74

Code	Size	Pack Qty	Disc Group
4074-2680	TCT M270 EK	1	N
4074-2685	TCT M270 ES	1	N
4074-2700	TCT M272 EK	1	N
4074-2705	TCT M272 ES	1	N
4074-2710	TCT M0272 EK	1	N
4074-2715	TCT M0272 ES	1	N
4074-2720	TCT M274 EK	1	N
4074-2721	TCT M274 EK10	1	N
4074-2725	TCT M274 ES	1	N
4074-2730	TCT M0274 EK	1	N
4074-2735	TCT M0274 ES	1	N
4074-2740	TCT M275 EK	1	N

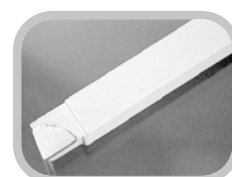
Code	Size	Pack Qty	Disc Group
4074-2745	TCT-M275-ES	1	N
4074-2750	TCT M0275 EK	1	N
4074-2755	TCT M0275 ES	1	N
4074-2760	TCT M276 EK	1	N
4074-2765	TCT-M276-ES	1	N
4074-2770	TCT M0276 EK	1	N
4074-2775	TCT M0276 ES	1	N
4074-2780	TCT M278 EK	1	N
4074-2785	TCT M278 ES	1	N
4074-2790	TCT M0278 EK	1	N
4074-2795	TCT M0278 ES	1	N



4077 Square Shank Boring Tools Held At 90°deg On Bar - Shape No.77

Code	Size	Pack Qty	Disc Group
4077-2800	TCT 280 EK	1	N
4077-2805	TCT 280 ES	1	N
4077-2815	TCT 281 ES	1	N
4077-2820	TCT 282 EK	1	N
4077-2825	TCT 282 ES	1	N
4077-2830	TCT 283 EK	1	N
4077-2835	TCT 283 ES	1	N
4077-2840	TCT 284 EK	1	N

Code	Size	Pack Qty	Disc Group
4077-2845	TCT 284 ES	1	N
4077-2850	TCT 285 EK	1	N
4077-2855	TCT 285 ES	1	N
4077-2880	TCT 288 EK	1	N
4077-2885	TCT-288-ES	1	N
4077-2890	TCT 289 EK	1	N
4077-2895	TCT 289 ES	1	N



BROOKE
CUTTING TOOLS

Carbide Tipped Lathe Tools

BROOKE PRODUCT DESCRIPTION

PACKAGING TYPE

4075 Cranked Knife Tools - Shape No.75

Code	Size	Pack Qty	Disc Group
4075-1300	TCT M2130 EK	1	N
4075-1305	TCT M2130 ES	1	N
4075-1310	TCT M2131 EK	1	N
4075-1315	TCT M2131 ES	1	N
4075-1320	TCT M2132 EK	1	N
4075-1325	TCT-M2132-ES	1	N
4075-1330	TCT M2133 EK	1	N
4075-1335	TCT-M2133-ES	1	N
4075-1360	TCT M2136 EK	1	N
4075-1365	TCT M2136 ES	1	N
4075-1370	TCT M2137 EK	1	N
4075-1375	TCT M2137 ES	1	N
4075-1400	TCT M2140 EK	1	N
4075-1405	TCT-M2140-ES	1	N
4075-1410	TCT M2141 EK	1	N

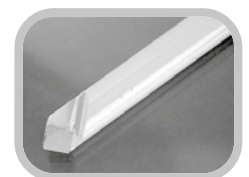
Code	Size	Pack Qty	Disc Group
4075-1415	TCT M2141 ES	1	N
4075-1420	TCT M2142 EK	1	N
4075-1430	TCT M2143 EK	1	N
4075-1440	TCT M2144 EK	1	N
4075-1445	TCT-M2144-ES	1	N
4075-1450	TCT M2145 EK	1	N
4075-1455	TCT M2145 ES	1	N
4075-1460	TCT M2146 EK	1	N
4075-1465	TCT M2146 ES	1	N
4075-1470	TCT M2147 EK	1	N
4075-1475	TCT M2147 ES	1	N
4075-1500	TCT M2150 EK	1	N
4075-1505	TCT M2150 ES	1	N
4075-1515	TCT M2151 ES	1	N
4075-1530	TCT M2153 EK	1	N



4079 Light Duty Boring Tools Held At 45°deg (Round Shank) - Shape No. 79

Code	Size	Pack Qty	Disc Group
4079-3310	TCT 331 EK	1	N
4079-3330	TCT 333 EK	1	N
4079-3335	TCT 333 ES	1	N
4079-3740	TCT 374 EK	1	N
4079-3745	TCT 374 ES	1	N
4079-3750	TCT 375 EK	1	N
4079-3755	TCT 375 ES	1	N
4079-3760	TCT 376 EK	1	N

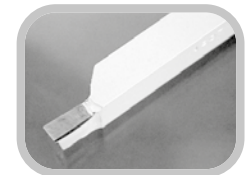
Code	Size	Pack Qty	Disc Group
4079-3765	TCT 376 ES	1	N
4079-3770	TCT 377 EK	1	N
4079-3775	TCT 377 ES	1	N
4079-3790	TCT 379 EK	1	N
4079-3800	TCT 380 EK	1	N
4079-3805	TCT 380 ES	1	N
4079-3810	TCT 381 EK	1	N
4079-3815	TCT 381 ES	1	N



4081 Parting Tools - Shape No.81 ISO 7

Code	Size	Pack Qty	Disc Group
4081-1200	12X8 RH EK	1	N
4081-1205	12X8 RH ES	1	N
4081-1600	16X10 RH EK	1	N
4081-1605	16X10 RH ES	1	N
4081-1615	16X10 LH ES	1	N
4081-2000	20X12 RH EK	1	N
4081-2005	20X12 RH ES	1	N
4081-2015	20X12 LH ES	1	N

Code	Size	Pack Qty	Disc Group
4081-2500	25X16 RH EK	1	N
4081-2505	25X16 RH ES	1	N
4081-2510	25X16 LH EK	1	N
4081-2515	25X16 LH ES	1	N
4081-3205	32X20 RH ES	1	N
4081-3210	32X20 LH EK	1	N
4081-3215	32X20 LH ES	1	N



BROOKE
CUTTING TOOLS

Morse Taper Sleeves, Extension Sockets, Drifts

BROOKE

PRODUCT
DESCRIPTION

PACKAGING TYPE

2071 Hardened And Ground Drill Sleeves

Code	Morse Tapers out-in	Pack Qty	Disc Group
2071-1000	1-0 MT.	1	N
2071-1002	2-1 MT.	1	N
2071-1003	3-1 MT.	1	N
2071-1004	3-2 MT.	1	N
2071-1005	4-1 MT.	1	N
2071-1006	4-2 MT.	1	N
2071-1007	4-3 MT.	1	N

Code	Morse Tapers out-in	Pack Qty	Disc Group
2071-1008	5-1 MT.	1	N
2071-1009	5-2 MT.	1	N
2071-1010	5-3 MT.	1	N
2071-1011	5-4 MT.	1	N
2071-1013	6-3 MT.	1	N
2071-1014	6-4 MT.	1	N
2071-1015	6-5 MT.	1	N



2073 Hardened And Ground Extension Sockets

Code	Morse Tapers out-in	Pack Qty	Disc Group
2073-1101	1-2 MT.	1	N
2073-1102	2-1 MT.	1	N
2073-1103	2-2 MT.	1	N
2073-1104	2-3 MT.	1	N
2073-1105	3-1 MT.	1	N
2073-1106	3-2 MT.	1	N
2073-1107	3-3 MT.	1	N

Code	Morse Tapers out-in	Pack Qty	Disc Group
2073-1108	3-4 MT.	1	N
2073-1110	4-2 MT.	1	N
2073-1111	4-3 MT.	1	N
2073-1112	4-4 MT.	1	N
2073-1113	4-5 MT.	1	N
2073-1117	5-4 MT.	1	N
2073-1118	5-5 MT.	1	N



2078 Drill Drifts

Code	For Morse Tapers	Pack Qty	Disc Group
2078-1001	1	1	N
2078-1002	2	1	N

Code	For Morse Tapers	Pack Qty	Disc Group
2078-1003	3	1	N
2078-1004	4,5,6	1	N



Jobber Drill Merchandiser Cabinets

FREE
LOCKABLE
CABINET

Starter Sets 148Pcs

Code	Description	Pack Qty
HSS-G JOBBER DRILLS - GROUND FLUTE, SPLIT POINT. DIN 338		
5101-3024	5 of each 1.0 - 10.0mm x 0.5mm Incl. 3.2, 4.2, 4.8, 6.8 Except 10 of each 3.0, 5.0, 6.0 mm 3 of each 10.5 - 13.0 mm x 0.5mm	1
HSS-G TIN COATED JOBBER DRILLS - GROUND FLUTE, SPLIT POINT. DIN 338		
5103-1033 	5 of each 1.0 - 10.0mm x 0.5mm Incl. 3.2, 4.2, 4.8, 6.8 Except 10 of each 3.0, 5.0, 6.0 mm 3 of each 10.5 - 13.0 mm x 0.5mm	1
HSS-Co5 JOBBER DRILLS - GROUND FLUTE, SPLIT POINT. DIN 338		
5112-1037	5 of each 1.0 - 10.0mm x 0.5mm Incl. 3.2, 4.2, 4.8, 6.8 Except 10 of each 3.0, 5.0, 6.0 mm 3 of each 10.5 - 13.0 mm x 0.5mm	1



Full Sets 260Pcs

Code	Description	Pack Qty
HSS-G JOBBER DRILLS - GROUND FLUTE, SPLIT POINT. DIN 338		
5101-3025	10 of each 1.0 - 10.0mm x 0.5mm Incl. 3.2, 4.2, 4.8, 6.8 5 of each 10.5 - 13.0 mm x 0.5mm	1
HSS-G TIN COATED JOBBER DRILLS - GROUND FLUTE, SPLIT POINT. DIN 338		
5103-1034 	10 of each 1.0 - 10.0mm x 0.5mm Incl. 3.2, 4.2, 4.8, 6.8 5 of each 10.5 - 13.0 mm x 0.5mm	1
HSS-Co5 JOBBER DRILLS - GROUND FLUTE, SPLIT POINT. DIN 338		
5112-1038	10 of each 1.0 - 10.0mm x 0.5mm Incl. 3.2, 4.2, 4.8, 6.8 5 of each 10.5 - 13.0 mm x 0.5mm	1







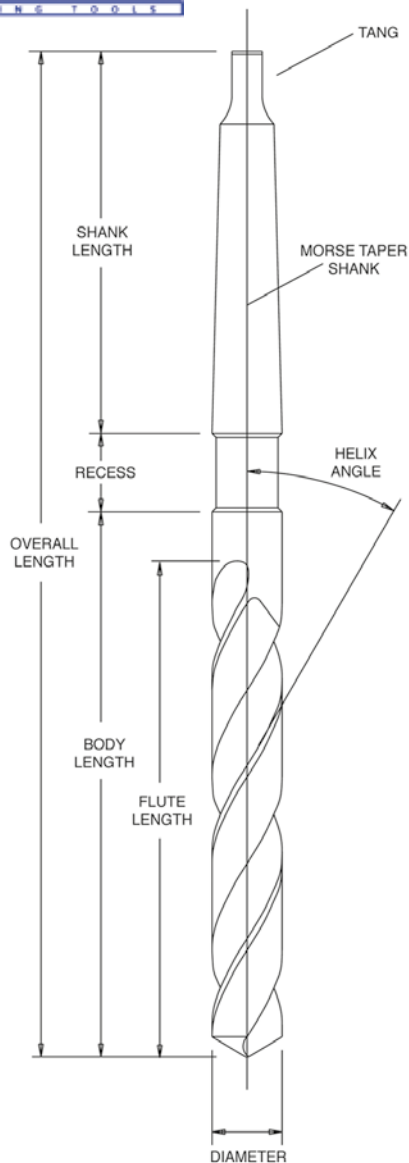
TECHNICAL

If you can not find the technical information you require within the following pages please contact us.

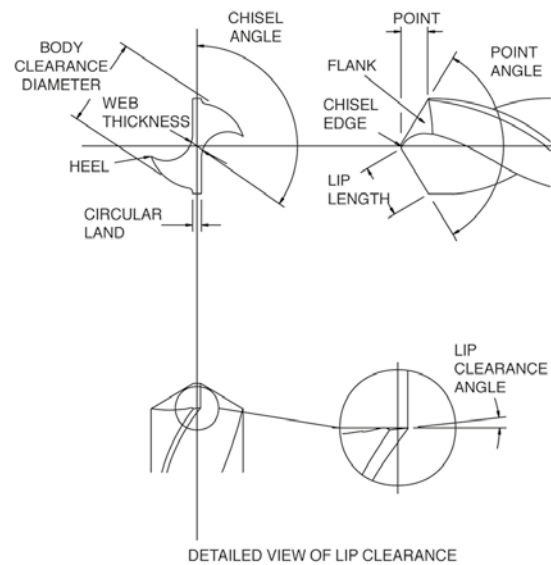
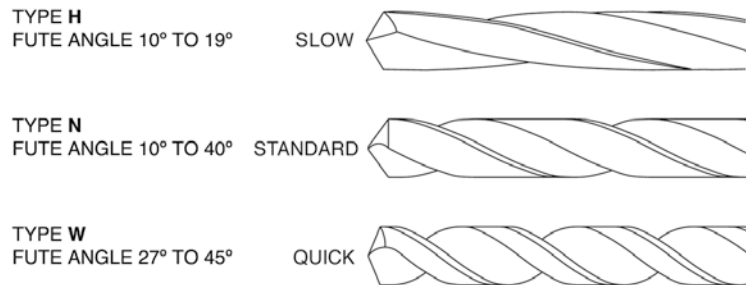
Tel: +44 (0) 114 261 7200

E-mail: info@castlebrooke.co.uk

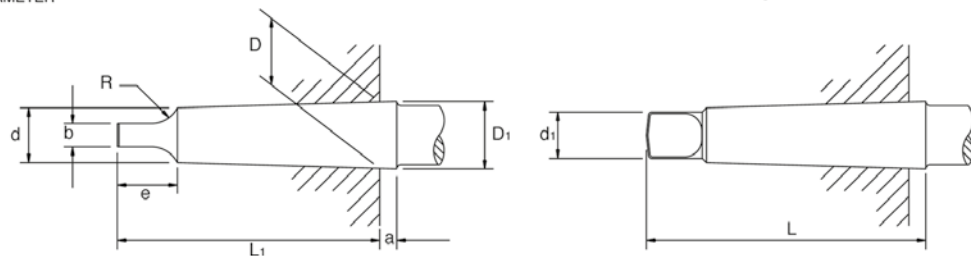
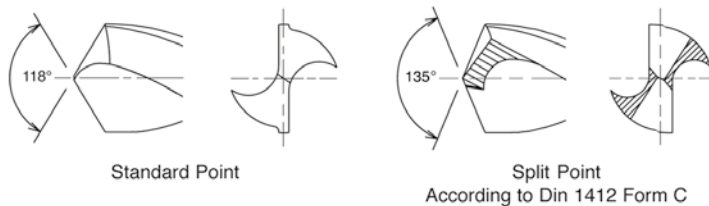
Drill Information



TYPES OF SPIRAL (OR HELIX) ANGLES



DRILL POINT STYLES



No. of Taper	Fitting line Diameter D	Diameter d	Overall Length Max L	D ₁	a	Max L ₁	Max e	H13 b	Max d ₁	Taper / mm on Dia	Max R
1	12.065	9.0	65.5	12.2	3.5	62.0	13.5	5.2	8.7	0.04998	5.0
2	17.780	14.0	80.0	18.0	5.0	75.0	16.0	6.3	13.5	0.04995	6.0
3	23.825	19.0	99.0	24.1	5.0	94.0	20.0	7.9	18.5	0.05020	7.0
4	31.267	25.0	124.0	31.6	6.5	117.5	24.0	11.9	24.5	0.05194	8.0
5	44.399	36.0	156.0	44.7	6.5	149.5	29.0	15.9	35.7	0.05263	10.0
6	63.348	52.0	218.0	63.8	8.0	210.0	40.0	19.0	51.0	0.05214	13.0

RECOMMENDED FEEDS FOR HIGH SPEED STEEL DRILLS

When commencing to drill new work the slowest speed and lightest feed should be used and these should be gradually increased until optimum output per grind is obtained.

When drilling NIMONIC materials use a feed per revolution equal to half the lower figure given in the table.

DRILL DIAMETER		FEED - PER REVOLUTION	
mm	inches	mm	inches
1.59 to 2.38	1/16 to 3/32	0.04 to 0.06	0.0015 to 0.0025
3.18 to 3.97	1/8 to 5/32	0.05 to 0.10	0.002 to 0.004
4.76 to 5.56	3/16 to 7/32	0.08 to 0.15	0.003 to 0.006
6.35 to 7.94	1/4 to 5/16	0.10 to 0.20	0.004 to 0.008
9.52 to 11.11	3/8 to 7/16	0.15 to 0.25	0.006 to 0.010
12.7 to 14.29	1/2 to 9/16	0.20 to 0.30	0.008 to 0.012
15.88 to 17.46	5/8 to 11/16	0.23 to 0.33	0.009 to 0.013
19.05 to 20.64	3/4 to 13/16	0.25 to 0.36	0.010 to 0.014
22.22 to 23.81	7/8 to 15/16	0.28 to 0.38	0.011 to 0.015
25.40 to 28.58	1" to 1.1/8	0.30 to 0.41	0.012 to 0.016
31.75 to 38.10	1.1/4 to 1.1/2	0.36 to 0.46	0.014 to 0.018
Over 38- 10	Over 1.1/2	0.41 to 0.50	0.016 to 0.020*

* or greater according to diameter and local conditions.

RECOMMENDED SPEEDS AND COOLANTS FOR HIGH SPEED STEEL DRILLS

MATERIALS TO BE DRILLED	SPEED		COOLANT
	Feet per Minute	Metres per Minute	
Aluminium and Aluminium Alloys	200 to 300	61 to 92	Soluble Oil. Paraffin.
Bakelite - Vulcanite	100 to 150	30 to 46	Dry. If possible, keep the drill cooled with a jet of compressed air.
Brass	150 to 250	46 to 76	Dry. Soluble Oil.
Brass - Leaded	200 to 300	61 to 92	Dry. Soluble Oil.
Bronze - Ordinary	100 to 200	30 to 61	Soluble Oil. Lard Oil.
Bronze - High Tensile	70 to 100	22 to 30	Soluble Oil. Lard Oil.
Cast Iron - Soft	100 to 150	30 to 46	Dry. If possible, keep the drill cooled with a jet of compressed air.
Cast Iron - Medium	80 to 90	24 to 27	Soluble Oil.
Cast Iron - Hard	50 to 70	15 to 22	Dry. If possible, keep the drill cooled with a jet of compressed air.
Cast Iron - Chilled	25 to 35	8 to 11	Soluble Oil.
Copper	100 to 200	30 to 61	Soluble Oil. Lard Oil.
Duralumin	100 to 200	30 to 61	Dry. Soluble Oil.
Magnesium and Magnesium Alloys	250 to 400	76 to 122	Dry. If possible, keep the drill cooled with a jet of compressed air.
Malleable Iron	70 to 80	22 to 24	Soluble Oil.
Mazak	200 to 300	61 to 91	Soluble Oil.
Monel Metal	40 to 50	12 to 15	Soluble Oil. Sulphurised Oil.
Nimonic	5 to 30*	1-5 to 9*	Neat Oil. Lard Oil.
Slate, Stone, Marble	15 to 20	5 to 6	Dry. If possible, keep the drill cooled with a jet of compressed air.
Steel - Free Cutting Mild	100 to 150	30 to 46	Soluble Oil. Sulphurised Oil.
Steel - Up to 40 Tons Tensile	80 to 110	24 to 33	Soluble Oil. Sulphurised Oil.
Steel - 40 to 60 Tons Tensile	45 to 70	14 to 22	Soluble Oil. Sulphurised Oil.
Steel - 60 to 80 Tons Tensile	30 to 45	9 to 14	Soluble Oil. Sulphurised Oil.
Steel - Over 80 Tons Tensile	15 to 25	5 to 8	Soluble Oil. Sulphurised Oil.
Steel - Manganese 12% / 14%	10 to 15	3 to 5	Dry.
Stainless Steels - Group 'A' - Martensitic and Ferritic	30 to 50	9 to 15	Sulphurised Oil.
Stainless Steels - Group 'B' - Austenitic and Heat Resisting	20 to 45	6 to 14	Sulphurised Oil.
Stainless Steels - Group 'A' - Free Cutting (Ferritic)	50 to 60	15 to 18	Sulphurised Oil.
Stainless Steels - Group 'B' - Free Cutting (Austenitic)	40 to 50	12 to 15	Sulphurised Oil.
Wood	300 to 400	92 to 122	Sulphurised Oil.

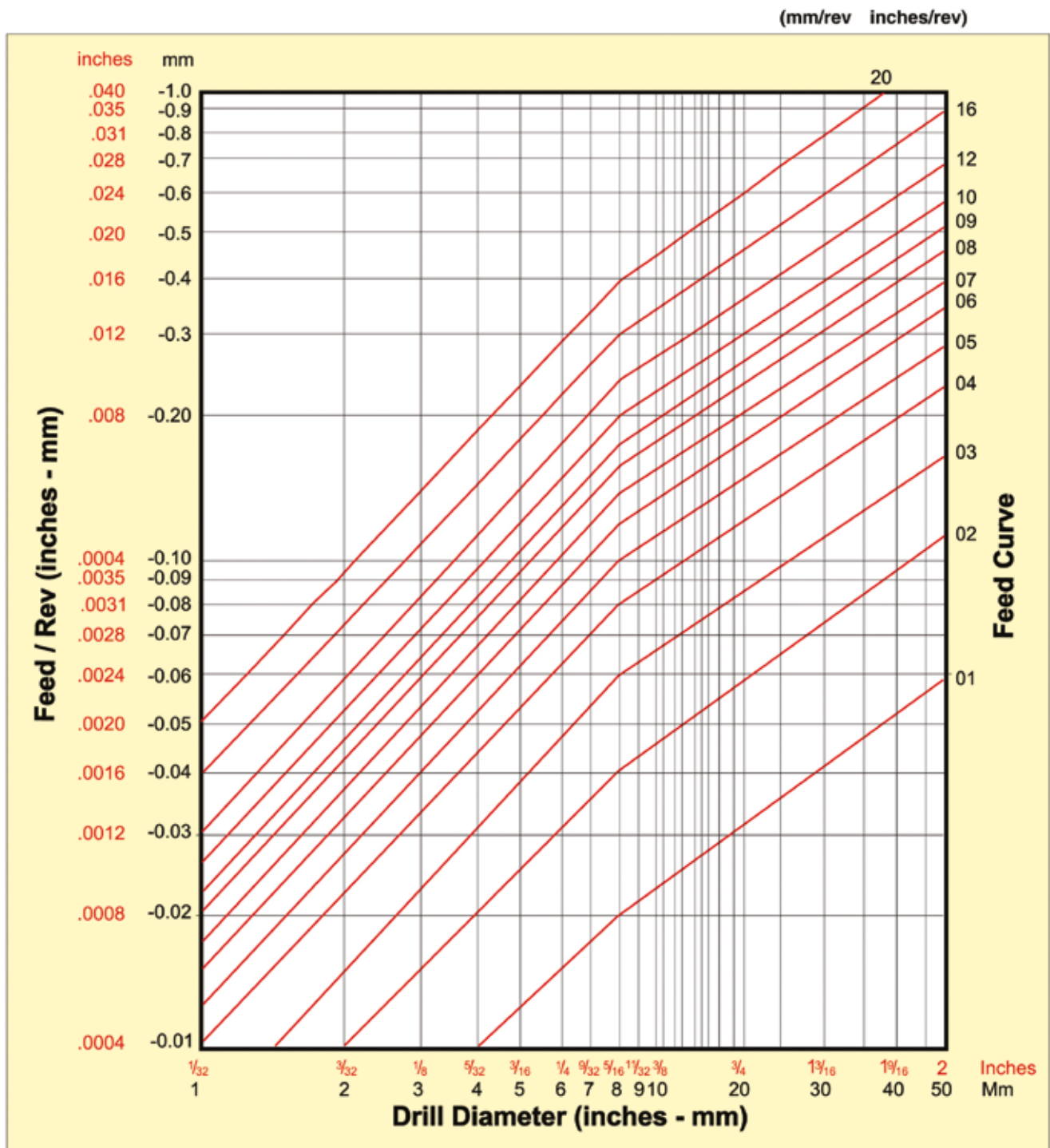
* According to Grade

The speeds quoted are only a basic guide. If conditions permit it may be found possible to increase the above values.

When selecting a suitable cutting lubricant it should be remembered that soluble oil and water emulsions have good cooling properties and are therefore applicable to high speed working. The sulphurised cutting lubricants have good anti-weld properties and are therefore applicable where cutting pressures are high.

It may be advantageous to dilute the sulphurised oils with paraffin or light mineral oils in order to reduce excessive drill wear at high speeds.

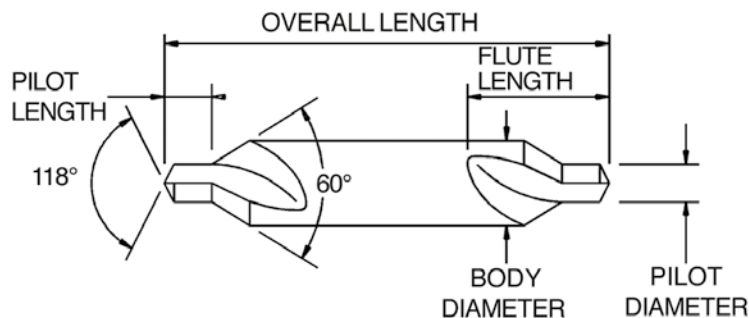
Recommended Drill Feeds



How to use the Drill Feed Chart

- 1 Locate feed curve (as given on the application data chart) on right-hand side of chart
- 2 Locate drill diameter along bottom axis of chart
- 3 Determine point of intersection of feed curve and drill diameter
- 4 Project horizontally from point of intersection to left hand side of chart and read off nearest feed in mm/rev or inches/rev
- 5 Select nearest feed on drilling machine within +/- 20% of chart figure

Centre Drills Nomenclature



SELECTING THE CORRECT CENTRE DRILL

Type 'A' For general centering operations on workpieces requiring additional machining between centres.

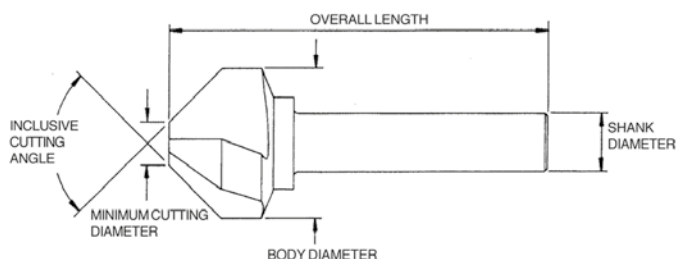
Recommended speeds: The peripheral speeds for centre drills are the same as for 2 flute drills given on page 433. For calculation purposes the nominal diameter given below should be used.

Recommended feeds: Use the nominal diameter given above to establish the feed as given on page 433 and then reduce by 40% for centre Drills.

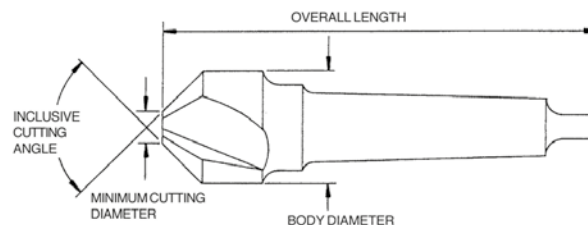
Centre Drill Size	Nominal Diameter (ins)	Centre Drill Size (mm)	Nominal Diameter (mm)
BS 1	5/64	1	2
BS 2	1/8	1.25	2
BS 3	11/64	1.6	3
BS 4	7/32	2	4
BS 5	5/16	2.5	5
BS 6	7/16	3.15	6
BS 7	17/32	4	7
		5	9
		6.3	11
		8	14
		10	18

Countersinks Nomenclature

PARALLEL SHANK COUNTERSINK



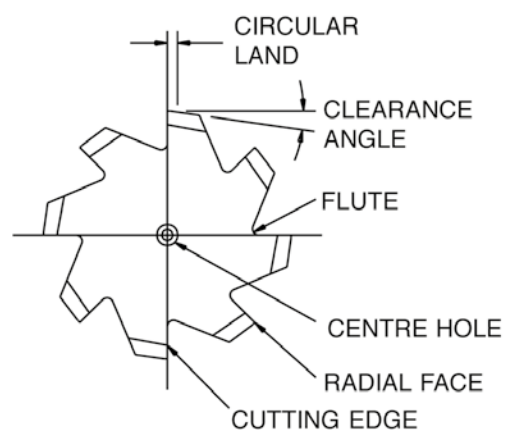
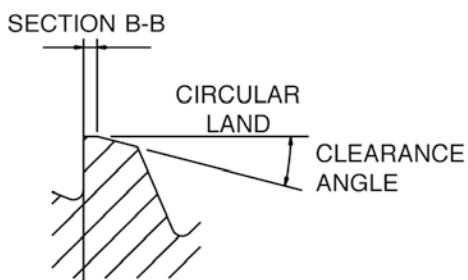
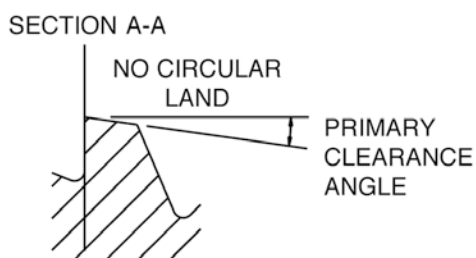
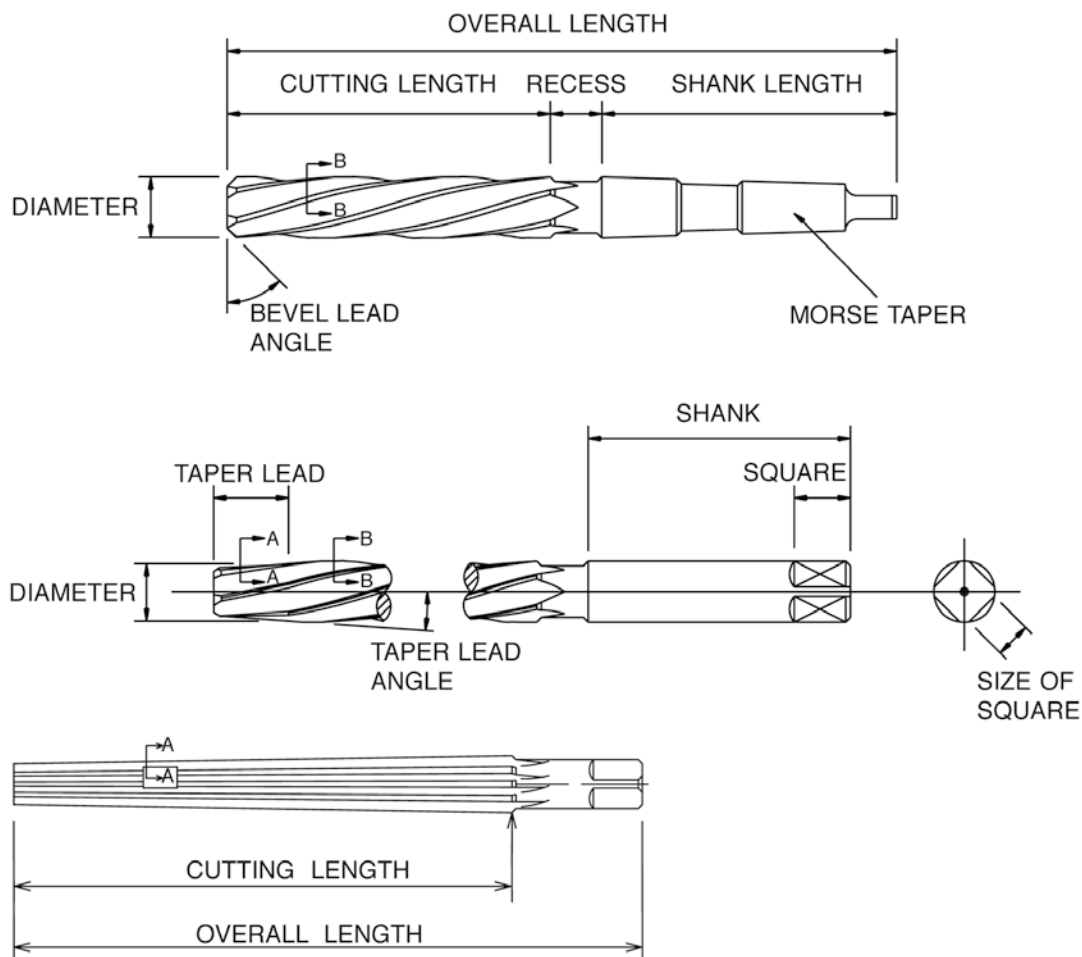
MORSE TAPER SHANK COUNTERSINK



Speed and feeds: The speeds and feeds for countersinks are the same as those for drills (see page 433) and should be based on the mean diameter between the largest and smallest diameters of the countersink.



Reamer Information



Reamer Technical Data

Type	Grade	Hardness up to			† Speed		*Type Of. Feed
		Hardness Brinell	Tons per sq in	kg/mm ²	m/min	ft/min	
Alloy Steel		248	54	85	7-10	23-33	M
		330	74	116	5-8	16-26	M
		381	82	129	2-4	6-13	L
Aluminium Alloys		As Supplied			30-45	98-150	H
Carbon Steel	Free cutting	150	33	52	12-15	23-33	M-H
	0.3 to 0.4% Carbon	170	38	59	7-10	16-26	M
	0.3 to 0.4% Carbon	248	54	85			
	0.4 to 0.7% Carbon	206	44	69			
	0.4 to 0.7% Carbon	286	63	99	5-8	6-13	L
Cast Irons	Grey	250	52	81	12-15	40-50	M-H
	Ductile				10-13	33-43	M-H
	Malleable	330	74	116	12-15	40-50	M-H
	Hardened & Tempered				4-5	13-16	M
Copper Alloys	Brass Free Cutting	As Supplied			20-35	65-115	H
	Brass Low Lead				30-45	98-150	H
	Bronze Silicon				15-30	50-98	H
	Bronze Manganese				10-15	33-50	M
	Copper				15-45	50-150	M-H
	Bronze Aluminium				7-15	23-50	M
Nimonic Alloys	Wrought	300	67	105	2-5	6-16	L
	Cast	350	78	123			
Manganese Alloys		As Supplied			35-60	65-200	H
Manganese Steel		As Supplied			2-3	6-10	L
Plastics	Soft Hard Reinforced	As Supplied			12-15	40-50	M-H
Stainless Steel	Martensitic Free Cutting	248	54	85	5-8	16-26	M
	Martensitic Std. Grade				2-5	6-16	L-M
	Austenitic Free Cutting	As Supplied			5-8	16-26	L-H
	Austenitic Std. Grade				2-5	6-16	L-H
Titanium	Titanium Comm: Pure	170	38	52	7-10	23-33	M
	Titanium Comm: Pure	200	43	68			
	Titanium Comm: Pure	275	61	96			
	Titanium: Alloyed	340	76	120	2-4	6-13	L-M
	Titanium: Alloyed	350	78	123			
	Titanium: Alloyed	380	85	129			
Tool Steel	HSS Standard Grades	225	48	75	7-10	23-33	M
	HSS Cobalt Grades						
	Hot Working Steel Cold Working Steel	250	54	85			
Zinc Alloys		As Supplied			30-45	98-150	H

† See speed conversion chart on pages 453 & 454

* See feed conversion chart on pages 453 & 454

Reamer Technical Data

DRILL / REAMER PERIPHERAL SPEED TO rpm CONVERSION CHART

metre per min	5	10	20	30	40	50	60	70	80	90	100
Dia. mm	Revolutions per minute										
1.0	1 591	3 182	6 364	9 546	12 728	15 910	19 092	22 274	25 456	28 638	31 820
2.0	795	1 590	3 182	4 770	6 360	7 950	9 540	11 130	12 720	14 310	15 900
3.0	530	1 060	2 120	3 180	4 240	5 300	6 360	7 420	8 480	9 540	10 600
4.0	398	795	1 590	2 385	3 180	3 975	4 770	5 565	6 360	7 155	7 950
5.0	318	636	1 272	1 908	2 544	3 180	3 816	4 452	5 088	5 724	6 360
6.0	265	530	1 060	1 590	2 120	2 650	3 180	3 710	4 240	4 770	5 300
7.0	227	455	910	1 365	1 820	2 275	2 730	3 185	3 640	4 095	4 550
8.0	199	398	796	1 194	1 592	1 990	2 388	2 786	3 184	3 582	3 980
9.0	177	353	706	1 059	1 412	1 765	2 118	2 471	2 824	3 177	3 530
10.0	159	318	636	954	1 272	1 590	1 908	2 226	2 544	2 862	3 180
11.0	145	289	578	867	1 156	1 445	1 734	2 023	2 312	2 601	2 890
12.0	133	265	530	795	1 060	1 325	1 590	1 855	2 120	2 385	2 650
13.0	122	245	490	735	980	1 225	1 470	1 715	1 960	2 205	2 450
14.0	114	227	454	681	908	1 135	1 362	1 589	1 816	2 043	2 270
15.0	106	212	424	636	848	1 060	1 272	1 484	1 696	1 908	2 120
16.0	100	199	398	597	796	995	1 194	1 393	1 592	1 791	1 990
18.0	89	177	354	531	708	885	1 062	1 239	1 416	1 593	1 770
20.0	80	159	318	477	636	795	954	1 113	1 272	1 431	1 590
22.0	73	145	290	435	580	725	870	1 015	1 160	1 305	1 450
24.0	67	133	266	399	532	665	798	931	1 064	1 197	1 330
26.0	61	122	244	366	488	610	732	854	976	1 098	1 220
28.0	57	114	228	342	456	570	684	798	912	1 026	1 140
30.0	53	106	212	318	424	530	636	742	848	954	1 060
35.0	46	91	182	273	364	455	546	637	728	819	910
40.0	40	80	160	240	320	400	480	560	640	720	800
45.0	35	70	140	210	280	350	420	490	560	630	700
50.0	32	64	128	192	256	320	384	448	512	576	640
63.0	25	50	100	150	200	250	300	350	400	450	500
75.0	21	42	84	126	168	210	252	294	336	378	420
100.0	16	32	64	96	128	160	192	224	256	288	320

Note: FOR DEEP HOLES above 3 to 6 diameters reduce speed 20%
above 6 to 10 diameters reduce speed 35%

***Feed Conversion Table**

Reamer Diameter Range (mm)		Feed (mm/rev)		
Above	Up to	Light (L)	Medium (M)	Heavy (H)
1.5	1.5	0.005-0.025	0.012-0.05	0.025-0.075
3	3	0.025-0.05	0.05-0.1	0.075-0.15
6	6	0.05-0.1	0.1-0.15	0.15-0.25
13	13	0.1-0.15	0.15-0.25	0.25-0.38
25	24	0.15-0.25	0.25-0.5	0.38-0.76
		0.25-0.5	0.5-1	0.76-1.27

Tolerances

Brooke Reamers are manufactured to H7 tolerance. The tolerance limits shown in the table are added to the nominal reamer diameter.

e.g. nominal diameter = 12mm

actual diameter = 12.015 mm / 12.008mm

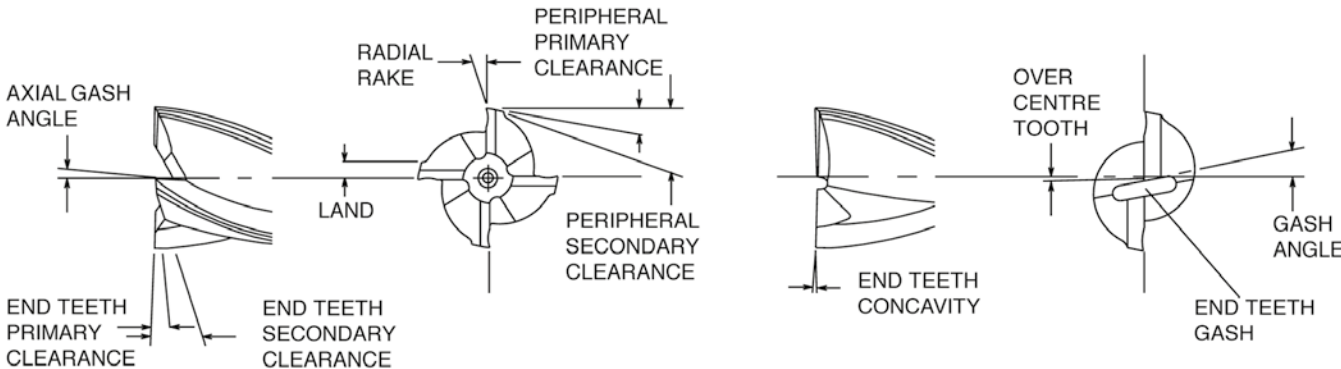
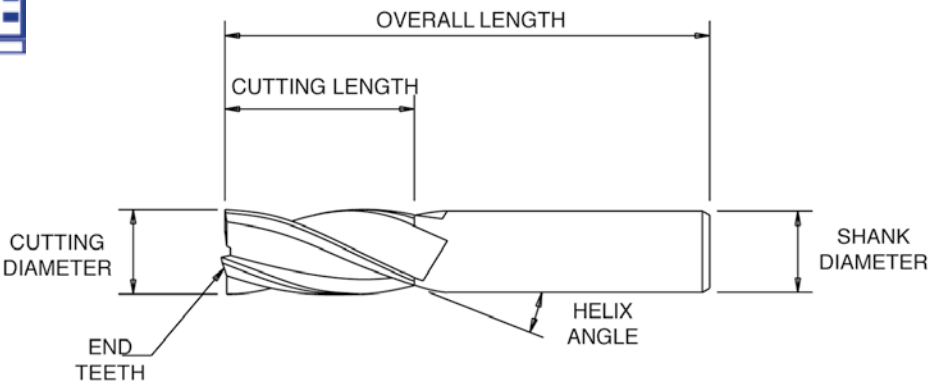
Tolerance limits for reamers and reamed hole diameters

Reamer Diameter Range (mm)		Reamer Diameter Tolerance		Hole Diameter Tolerance	
Above	Up to	mm		mm	
1	3	+0.008	+0.004	+0.010	+0.000
3	6	+0.010	+0.005	+0.012	+0.000
6	10	+0.012	+0.006	+0.015	+0.000
10	18	+0.015	+0.008	+0.018	+0.000
18	30	+0.017	+0.009	+0.021	+0.000
30	50	+0.021	+0.012	+0.025	+0.000

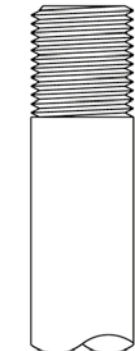
Taps Peripheral Speed to RPM Conversion Chart

Metres / Min.		4	6	8	9	10	12	15	18	21	25	27	30	36
Tap Size		Revolutions per minute (rpm)												
m m	inch													
1.6	1/16	800	1194	1592	1789	1988	2386	2983	3579	4176	4971	5369	5965	7158
1.8		708	1065	1415	1598	1768	2121	2652	3182	3712	4419	4773	5303	6364
2		637	955	1274	1433	1591	1909	2386	2863	3341	3977	4295	4773	5727
2.2	3/32	579	869	1158	1303	1446	1736	2169	1603	3037	3616	3905	4339	5207
2.5		510	764	1019	1147	1274	1527	1909	2291	2673	3182	3436	3818	4582
3	1/8	425	637	849	955	1061	1273	1591	1909	2227	2651	2864	3182	3818
3.5		364	546	728	819	909	1091	1364	1636	1909	2273	2455	2727	3273
4	5/32	318	478	637	718	796	955	1193	1432	1671	1989	2148	2387	2864
4.5		283	425	566	637	707	849	1061	1273	1485	1768	1909	2122	2546
5	3/16	255	382	510	573	637	764	955	1146	1337	1591	1719	1909	2292
6	1/4	212	319	425	477	530	636	795	954	1113	1326	1432	1592	1909
7	9/32	182	273	364	409	455	546	682	818	955	1136	1227	1364	1636
8	5/16	159	239	319	358	398	477	597	716	835	994	1074	1193	1432
9		142	212	283	318	354	425	531	637	742	885	955	1061	1293
10	3/8	127	191	255	286	318	382	477	573	668	795	859	955	1146
11		116	174	232	260	289	347	434	521	608	723	781	868	1041
12	1/2	106	159	212	238	265	318	398	477	557	663	716	796	955
13		98	147	196	220	245	296	367	441	514	612	661	734	881
14	9/16	91	136	182	205	227	273	341	409	477	568	614	682	818
16	5/8	80	119	159	179	199	239	298	358	418	497	537	597	716
18		71	106	141	159	177	212	265	318	371	442	477	530	636
20	3/4	64	96	127	143	159	191	239	286	334	398	430	477	573
22	7/8	58	87	116	130	145	174	217	260	304	362	391	434	521
24	1"	53	80	106	119	133	159	199	239	275	331	353	398	477
27		47	71	94	106	118	141	177	212	245	295	318	354	424
30	1.1/8	43	64	85	95	106	127	159	191	223	265	286	318	382
33	1.1/4	39	58	77	87	96	116	145	174	203	241	260	289	347
36		35	53	71	80	88	106	133	159	186	221	239	265	318
39	1.1/2	33	49	65	73	82	98	122	147	171	204	220	245	294
42		30	46	61	68	76	91	114	136	159	189	205	227	273
45	1.3/4	28	42	57	64	71	85	106	127	149	177	191	212	255
48		27	40	53	60	66	80	99	119	139	166	179	199	239
52		24	37	49	55	61	73	92	110	129	153	165	184	220
56	2"	23	34	46	51	57	68	85	102	119	142	153	170	205

End Mills Shank Cutter Information



THREADED SHANK:
ALL DIAMETERS
20 TPI
WHITWORTH
FORM



THREADED SHANK
TOLERANCE h8



FLATTED SHANK
TOLERANCE h6



PLAIN SHANK
TOLERANCE h7

HSS End Mills and Slot Drills - Feed Per Tooth Sz

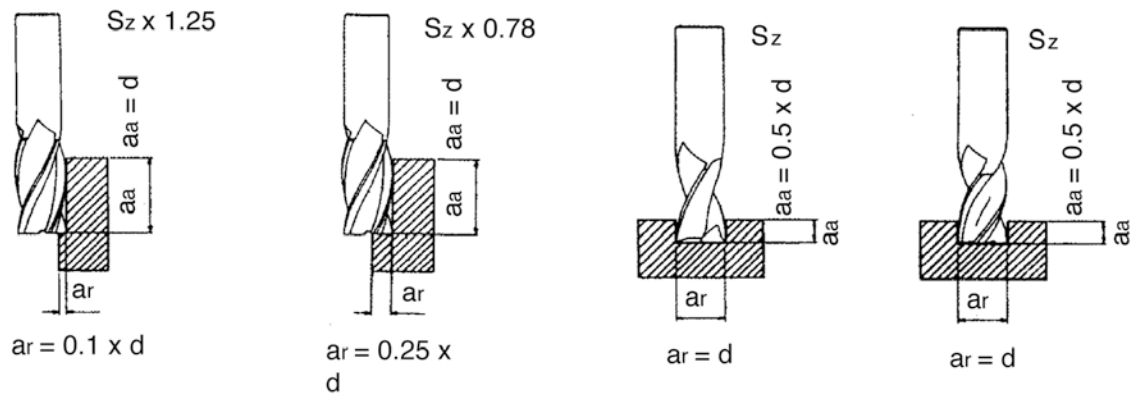


Table Shows Sz Values (mm)

Dia mm	Carbon Steels	Alloy Steels	Stainless Steels	Nimonic Steels	Titanium	Tool Steels	Cast Irons	Manganese Steels	Aluminium Alloys	Copper Alloys
3	0.010	0.010	0.010	0.008	0.010	0.009	0.010	0.008	0.013	0.013
4	0.015	0.015	0.015	0.012	0.015	0.013	0.016	0.012	0.019	0.019
5	0.0018	0.018	0.018	0.014	0.018	0.016	0.022	0.014	0.023	0.023
6	0.022	0.022	0.022	0.018	0.022	0.020	0.028	0.018	0.028	0.028
8	0.030	0.030	0.030	0.024	0.030	0.027	0.036	0.024	0.039	0.039
10	0.036	0.036	0.036	0.029	0.036	0.032	0.040	0.029	0.046	0.046
12	0.044	0.044	0.044	0.036	0.044	0.040	0.045	0.036	0.057	0.057
14	0.051	0.051	0.051	0.040	0.051	0.046	0.056	0.040	0.066	0.066
16	0.058	0.058	0.058	0.046	0.058	0.052	0.064	0.046	0.075	0.075
18	0.065	0.065	0.065	0.052	0.065	0.058	0.070	0.052	0.085	0.085
20	0.073	0.073	0.073	0.058	0.073	0.065	0.080	0.058	0.092	0.092
22	0.080	0.080	0.080	0.064	0.080	0.072	0.088	0.064	0.104	0.104
25	0.090	0.090	0.090	0.072	0.090	0.080	0.095	0.072	0.117	0.117
28	0.102	0.102	0.102	0.081	0.102	0.091	0.110	0.081	0.132	0.132
30	0.110	0.110	0.110	0.088	0.110	0.100	0.120	0.088	0.143	0.143
32	0.116	0.116	0.116	0.092	0.116	0.104	0.127	0.092	0.150	0.150
35	0.130	0.130	0.130	0.104	0.130	0.117	0.142	0.104	0.170	0.170
40	0.130	0.130	0.130	0.104	0.130	0.117	0.142	0.104	0.170	0.170
50	0.130	0.130	0.130	0.104	0.130	0.117	0.142	0.104	0.170	0.170

Table Shows Sz Values (inches)

Dia mm	Carbon Steels	Alloy Steels	Stainless Steels	Nimonic Steels	Titanium	Tool Steels	Cast Irons	Manganese Steels	Aluminium Alloys	Copper Alloys
1/8	0.0004	0.0004	0.0004	0.0003	0.0004	0.0003	0.0004	0.0003	0.0005	0.0005
3/16	0.0007	0.0007	0.0007	0.0005	0.0007	0.0006	0.0008	0.0005	0.0009	0.0009
1/4	0.0008	0.0008	0.0008	0.0007	0.0008	0.0007	0.0011	0.0007	0.0011	0.0011
5/16	0.0012	0.0012	0.0012	0.0009	0.0012	0.0010	0.0014	0.0009	0.0015	0.0015
3/8	0.0014	0.0014	0.0014	0.0011	0.0014	0.0012	0.0015	0.0011	0.0018	0.0018
7/16	0.0015	0.0015	0.0015	0.0012	0.0015	0.0013	0.0016	0.0011	0.0020	0.0020
1/2	0.0017	0.0017	0.0017	0.0014	0.0017	0.0015	0.0017	0.0012	0.0022	0.0022
5/8	0.0023	0.0023	0.0023	0.0018	0.0023	0.0020	0.0025	0.0018	0.0029	0.0029
3/4	0.0028	0.0028	0.0028	0.0023	0.0028	0.0025	0.0032	0.0023	0.0036	0.0036
7/8	0.0032	0.0032	0.0032	0.0025	0.0032	0.0028	0.0035	0.0025	0.0040	0.0040
1"	0.0035	0.0035	0.0035	0.0028	0.0035	0.0032	0.0037	0.0028	0.0046	0.0046
1.1/8	0.0040	0.0040	0.0040	0.0032	0.0040	0.0035	0.0043	0.0032	0.0052	0.0052
1.1/4	0.0045	0.0045	0.0045	0.0035	0.0045	0.0040	0.0050	0.0035	0.0059	0.0059
1.3/8	0.0051	0.0051	0.0051	0.0040	0.0051	0.0046	0.0055	0.0040	0.0067	0.0067
1.1/2	0.0051	0.0051	0.0051	0.0040	0.0051	0.0046	0.0055	0.0040	0.0067	0.0067
1.3/4	0.0051	0.0051	0.0051	0.0040	0.0051	0.0046	0.0055	0.0040	0.0067	0.0067
2"	0.0051	0.0051	0.0051	0.0040	0.0051	0.0046	0.0055	0.0040	0.0067	0.0067

Cutting Speeds for HSS End Mills and Slot Drills



Material Type	Grade	Hardness HB	Tensile Str N/mm ²	Peripheral Speed Range	
				metres/min	feet/min
Carbon Steel	Free Cutting	150	510	30-40	100-130
	0.3 - 0.4% Carbon	170	580	24-32	80-105
	0.3 - 0.4% Carbon	248	830	18-25	60-82
	0.4 - 0.7% Carbon	206	675	24-32	80-105
	0.4 - 0.7% Carbon	286	970	16-25	52-82
Alloy Steel		248	833	16-30	52-100
		330	1137	12-18	40-60
		381	1265	9-15	30-50
Stainless Steel	Martensitic: Free Cutting	248	833	10-20	32-65
	Std. Grade	248	833	5-10	15-32
	Austenitic: Free Cutting	As supplied		10-20	32-65
	Std. Grade			5-10	16-32
Nimonic Alloys	Wrought	300	1030	4-8	13-26
	Cast	350	1200		
Titanium	Commercially Pure	170	510	7-12	23-40
	Commercially Pure	200	660		
	Commercially Pure	275	970		
	Alloyed	340	1170		
	Alloyed	350	1200		
	Alloyed	380	1265		
Tool Steels	HSS Std. Grade	225	735	10-20	32-65
	HSS Cobalt Grade	250	830	10-16	32-52
	Hot Work Steel	250	830	10-16	32-52
	Cold Work Steel	250	830	10-16	32-52
Cast Irons	Grey, Malleable	240	800	16-20	52-65
	Hardened	330	1137	12-16	40-52

Material Type	Grade	Hardness HB	Tensile Str N/mm ²	Peripheral Speed Range	
				metres/min	feet/min
Aluminium Alloys	Wrought	55		200-1500	650-5000
	Wrought	110		100-250	330-820
	Cast	100		40-100	130-330
Copper Alloys	Brass: Free Cutting	As Supplied		40-70	130-230
	Low Leaded			50-80	160-260
	Bronze: Silicon			40-70	130-230
	Manganese			25-45	82-150
	Aluminium			15-253	50-82
	Phosphor			15-25	50-82
	Copper	40-70	130-230		
Plastics		As supplied		50-200	160-650

End Mills Conversion Chart

Surface Feet Per Minute (SFM) to Revolutions Per Minute (RPM)

SFM	RPM							
	CUTTING DIAMETER							
	1/8"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"	1"
10	305	153	102	76	61	51	44	38
15	458	229	153	115	92	76	65	57
20	611	305	204	153	122	102	87	76
25	763	382	254	191	153	127	109	95
30	916	458	305	229	183	153	131	115
35	1069	534	356	267	214	178	153	134
40	1221	611	407	305	244	204	174	153
45	1374	687	458	344	275	229	196	172
50	1527	763	509	382	305	254	218	191
60	1832	916	611	458	366	305	262	229
70	2137	1069	712	534	427	356	305	267
80	2443	1221	814	611	489	407	349	305
90	2748	1374	916	687	550	458	393	344
100	3053	1527	1018	763	611	509	436	382
150	4580	2290	1527	1145	916	763	654	573
200	6107	3053	2036	1527	1221	1018	872	763
250	7634	3817	2545	1908	1527	1272	1091	954
300	9160	4580	3053	2290	1832	1527	1309	1145
350	10687	5344	3562	2672	2137	1781	1527	1336
400	12214	6107	4071	3053	2443	2036	1745	1527
450	13740	6870	4580	3435	2748	2290	1963	1718
500	15267	7634	5089	3817	3053	2545	2181	1908
600	18321	9160	6107	4580	3664	3053	2617	2290
700	21374	10687	7125	5344	4275	3562	3053	2672
800	24427	12214	8142	6107	4885	4071	3490	3053
900	27481	13740	9160	6870	5496	4580	3926	3453
1000	30534	15267	10178	7634	6107	5089	4362	3817
1100	33588	16794	11196	8397	6716	5598	4798	4198
1200	36641	18321	12214	9160	7328	6107	5234	4580
1300	39695	19847	13232	9924	7939	6616	5671	4962
1400	42748	21374	14249	10687	8550	7125	6107	5344
1500	45802	22901	15267	11450	9160	7634	643	5725
1600	48855	24427	16285	12214	9771	8142	6979	6107
1700	51908	25954	17303	12977	10382	8651	7415	6489
1800	54962	27481	18321	13740	10992	9160	7852	6870
1900	58015	29008	19338	14504	11603	9669	8288	7252
2000	61069	30534	20356	15267	12214	10178	8724	7634

FORMULAS

$$\text{SFM} = \text{RPM} \times \text{DIAMETER} \times 0.262$$

$$\text{RPM} = \frac{(\text{SFM} \times 3.82)}{\text{DIAMETER}}$$

End Mills Conversion Chart



Metres Per Minute (m/min) to Revolutions Per Minute (RPM)

m/min	RPM							
	CUTTING DIAMETER							
	3.0mm	5.0mm	10.0mm	12.0mm	16.0mm	18.0mm	20.0mm	25.0mm
10	1.060	0.530	0.320	0.265	0.200	0.175	0.160	0.125
20	2.120	1.060	0.630	0.530	0.400	0.350	0.320	0.250
40	4.240	2.120	1.270	1.060	0.795	0.710	0.530	0.310
60	6.350	3.180	1.900	1.590	1.190	1.060	0.950	0.760
80	6.490	4.240	2.540	2.128	1.590	1.410	1.270	1.020
100	10.600	5.300	3.180	2.650	1.950	1.770	1.540	1.270
150	15.910	7.950	4.770	3.980	2.980	3.830	2.390	1.910
200	21.210	10.600	5.360	5.300	3.980	3.530	3.180	2.540
250	26.520	13.260	7.950	6.630	4.970	4.420	3.980	3.180
300	31.820	15.910	9.550	7.950	5.970	5.380	4.770	3.820
350	37.130	18.560	11.140	9.280	6.960	6.190	5.570	4.450
400	42.430	21.210	12.730	10.810	7.960	7.070	6.360	4.090
450	47.740	23.820	14.320	11.930	8.950	7.960	7.160	4.730
500	53.040	26.520	15.910	13.260	9.940	8.640	7.950	6.360
550	58.350	29.170	17.500	14.590	10.940	9.720	8.750	7.000
600	63.650	31.820	19.090	15.910	11.930	10.610	9.550	7.640

FORMULAS

$$\text{m/min} = \frac{3.142 \times \text{DIAMETER} \times \text{RPM}}{1000}$$

$$\text{RPM} = \frac{(1000 \times \text{m/min})}{3.142 \times \text{DIAMETER}}$$

End Mills Speed and Feed Recommendations

IMPERIAL

Material Type	Speed (S.F.M)	End Mill Diameter Feed Per Tooth (inches)		
		Up to 1/4"	Up to 1/2"	Up to 1"
Aluminium / Aluminium Alloys	600-1200	.0002-.0020	.0020-.0040	.0040-.0080
Brass / Bronze	200-350	.0005-.0020	.0020-.0030	.0030-.0050
Copper / Copper Alloys	350-900	.0005-.0020	.0020	.0020-.0060
Iron - Cast (soft)	200-500	.0005-.0020	.0020-.0030	.0030-.00080
Iron - Cast (hard)	80-350	.0003-.0008	.0008-.0020	.0020-.0040
Iron - Ductile	80-400	.0002-.0010	.0010-.0020	.0020-.0060
Iron - Malleable	200-600	.0002-.0010	.0010-.0030	.0030-.0070
Magnesium / Magnesium Alloys	800-1400	.0005-.0020	.0020-.0040	.0040-.0100
Monel / High Nickel Steel	150-300	.0002-.0010	.0010-.0020	.0020-.0040
Nickel Base High-Temperature Alloys	20-130	.0003-.0008	.0008-.0010	.0010-.0020
Plastics	600-1200	.0006-.0030	.0030-.0060	.0060-.0150
Plastic - Glass Filled	300-800	.0006-.0030	.0030-.0040	.0040-.0120
Refractory Alloys	80-400	.0002-.0010	.0010	.0010-.0020
Steel - Low Carbon	200-500	.0002-.0010	.0010-.0030	.0030-.0070
Steel - Medium Carbon	100-250	.0004-.0015	.0015-.0020	.0020-.0050
Steel - Hardened	25-120	.0002-.0005	.0005-.0010	.0010-.0030
Steel - Mould	200-350	.0002-.0010	.0010-.0020	.0020-.0060
Steel - Tool	100-300	.0002-.0010	.0010-.0020	.0020-.0060
Stainless Steel - Soft	150-350	.0002-.0010	.0010-.0020	.0020-.0060
Stainless Steel - Hard	50-200	.0002-.0005	.0005-.0010	.0010-.0050
Titanium - Soft	120-350	.0002-.0010	.0010-.0020	.0020-.0060
Titanium - Hard	30-150	.0002-.0005	.0005-.0010	.0010-.0020

METRIC

Material Type	Speed (m/min)	End Mill Diameter Feed Per Tooth (inches)		
		Up to 6mm	Up to 12mm	Up to 25mm
Aluminium / Aluminium Alloys	183-365	.0050-.0500	.0500-.1015	.1015-.2030
Brass / Bronze	60-107	.0125-.0500	.0500-.0750	.0760-.1250
Copper / Copper Alloys	107-275	.0125-.0500	.0500	.0500-.1525
Iron - Cast (soft)	60-153	.0125-.0500	.0500-.0750	.0750-.2030
Iron - Cast (hard)	24-107	.0075-.0200	.0200-.0500	.0500-.1015
Iron - Ductile	24-122	.0050-.0250	.0250-.0500	.0500-.1525
Iron - Malleable	122-183	.0050-.0250	.0250-.0760	.0760-.1760
Magnesium / Magnesium Alloys	245-427	.0125-.0500	.0500-.1015	.1015-.2540
Monel / High Nickel Steel	45-60	.0050-.0250	.0250-.0500	.0500-.1015
Nickel Base High-Temperature Alloys	5-40	.0075-.0200	.0200-.0250	.0250-.0500
Plastics	183-365	.0150-.0750	.0750-.1525	.1525-.3800
Plastic - Glass Filled	90-245	.0150-.0750	.0760-.1015	.1015-.3045
Refractory Alloys	24-122	.0050-.0250	.0250	.0250-.0500
Steel - Low Carbon	50-153	.0050-.0250	.0250-.0760	.0760-.1780
Steel - Medium Carbon	30-75	.0100-.0380	.0380-.0500	.0500-.1250
Steel - Hardened	7-37	.0050-.0125	.0125-.0250	.0250-.0750
Steel - Mould	50-107	.0050-.0250	.0250-.0500	.0500-.1525
Steel - Tool	30-90	.0050-.0250	.0250-.0500	.0500-.1525
Stainless Steel - Soft	45-107	.0050-.0250	.0250-.0500	.0500-.1525
Stainless Steel - Hard	15-60	.0050-.0125	.0125-.0250	.0250-.1250
Titanium - Soft	35-107	.0050-.0250	.0250-.0500	.0500-.1525
Titanium - Hard	9-45	.0050-.0125	.0125-.0250	.0250-.1015

For Lighter Radial Depths of cut - Higher range of recommended surface speeds should be used

For Greater Radial Depths of cut - Lower range of recommended surface speeds should be used

For slotting Applications - Speed (S.F.M.) should be reduced approximately 29% of lowest range value

Above recommendations are to be used when axial depth of cut does not exceed 1.1/2 times the cutter diameter.

When using long and extra-long End Mills reduce feed per tooth 50%

All recommendations should be considered only as a starting point, with possible variations to achieve optimum results.

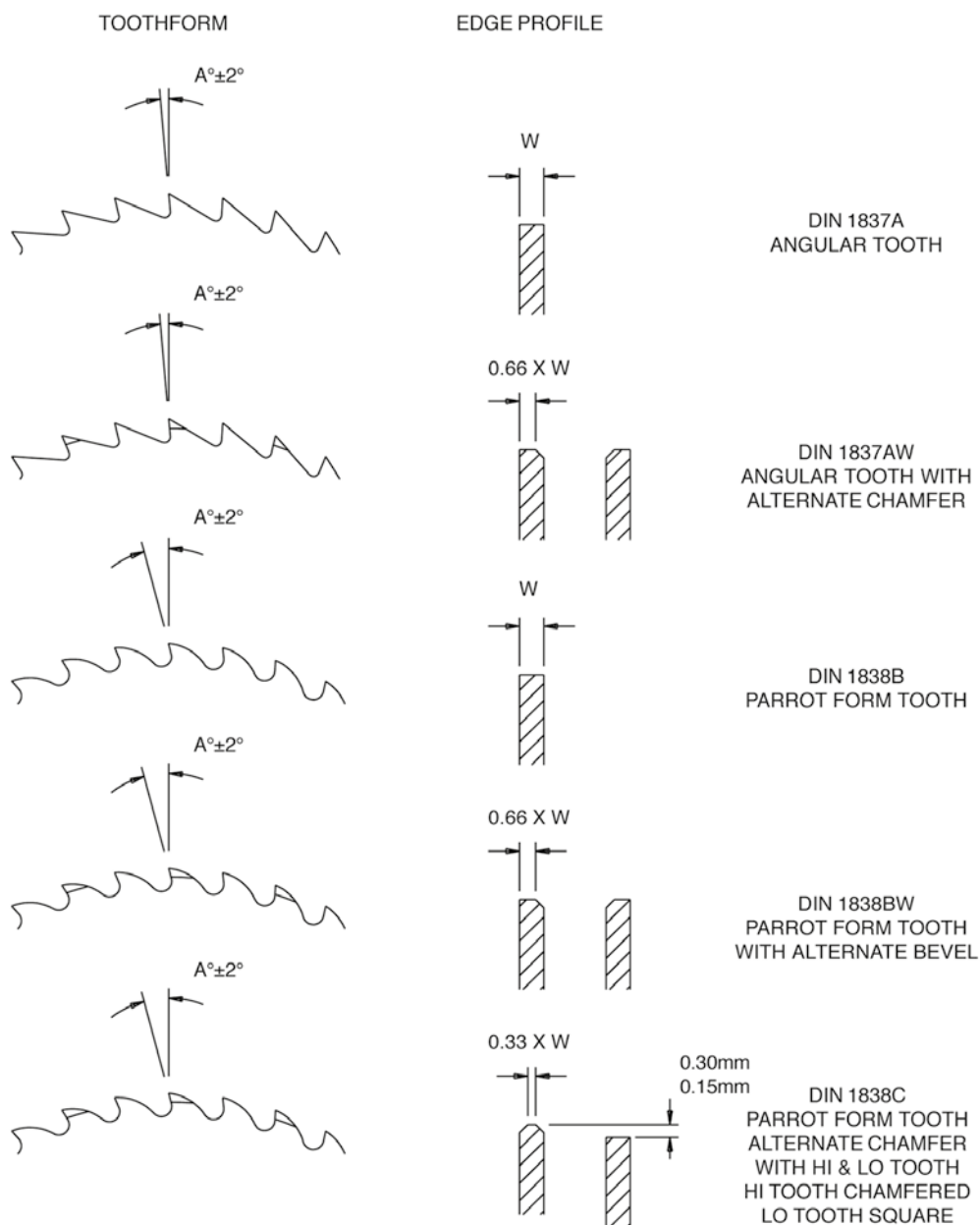
Special Circular Saws

A large part of Brooke production consists of special circular saws made to customers specifications, in a wide variety of High Speed Steel grades and Cobalt High Speed Steel grades (Co5 and Co8).

The following drawings illustrate the standard toothforms which we can adapt to particular applications.

Tool Standard	Tooth Form Type		
	N	H	W
	Angle 'A'		
DIN 1837A & AW	5	0	10
DIN 1838B & BW	15	8	25
DIN 1838C	15	8	25

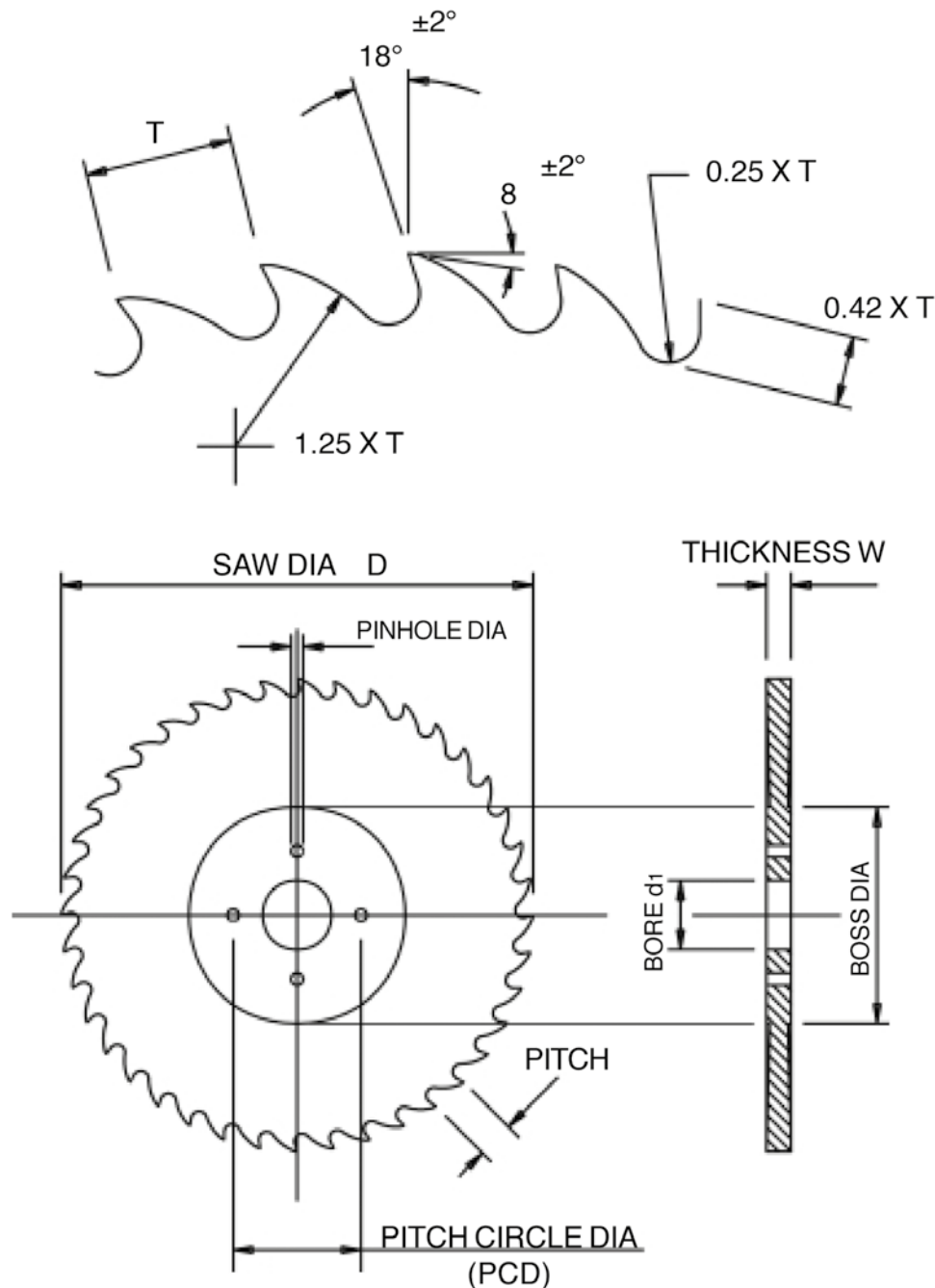
TOOTHFORM STANDARDS
ALL TOOTHFORMS UNLESS OTHERWISE SPECIFIED
ARE SUPPLIED TO DIN 1840 TYPE N
OTHER STYLES ARE AVAILABLE ON REQUEST



Cut-Off Saws

Notes

- All Brooke Cut-Off saws are supplied steam-tempered, unless otherwise stated.
- Brooke Cut-Off saws are available in diameters ranging from 160 mm to 400 mm, with a wide range of pitches, and with Pinholes to suit any make of cut-off machine. Prices for any combination are available on application, but may be subject to a minimum order quantity.
- Cobalt HSS cut-off saws are made to order and may also be subject to a minimum order quantity.
- When specifying non-standard cut-off saws, please provide us with the details outlined in the following drawings.



Toothforms - Special

Other variations are also available, as illustrated below, in order to provide our customers with the best possible solution to their cutting requirements.

SINGLE CHAMFER
NON-STANDARD



DOUBLE CHAMFER
NON-STANDARD



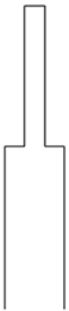
SINGLE CORNER, FULL AND
DOUBLE CORNER RADIUS



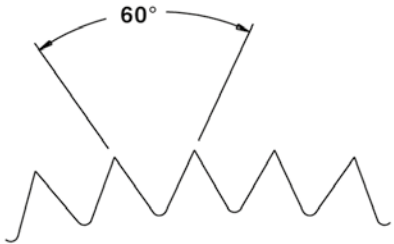
SINGLE STEP



DOUBLE STEP
FOR GANG SLITTING

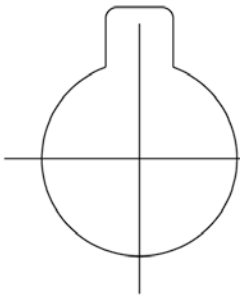


SERRATION TYPE
TOOTHFORM FOR CAR
BODY REPAIRS

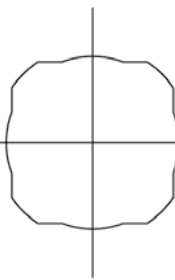


NON-STANDARD BORES AND HUBS (BOSSSES)
Many variations are called for and some are illustrated below

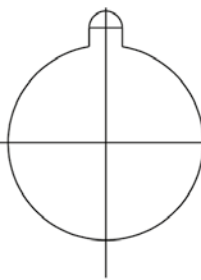
NON-STANDARD WIDTH
HEIGHT OF KEYWAY



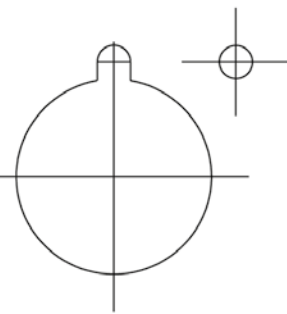
SPECIAL
BORE



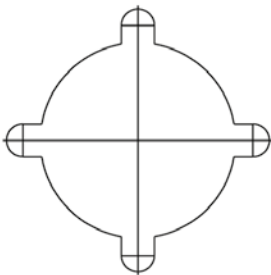
HALF ROUND
KEYWAY



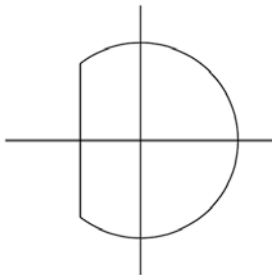
HALF ROUND KEYWAY
AND PINHOLE



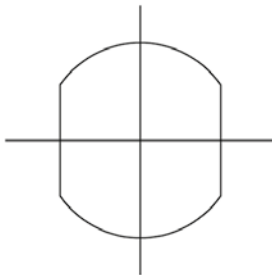
MULTI HALF ROUND
KEYWAY BORE



'D' SHAPED
BORE

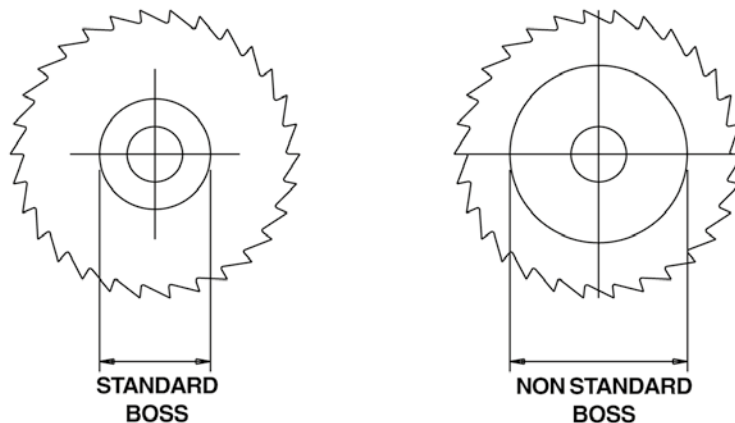


FLATTED BORE



Toothforms - Special

ILLUSTRATION OF STANDARD AND NON-STANDARD HUBS OR BOSSES



MATERIALS

Special saws can be supplied in HSS and HSS Cobalt (Co5 or Co8) depending on the application.

Ordering your special saws

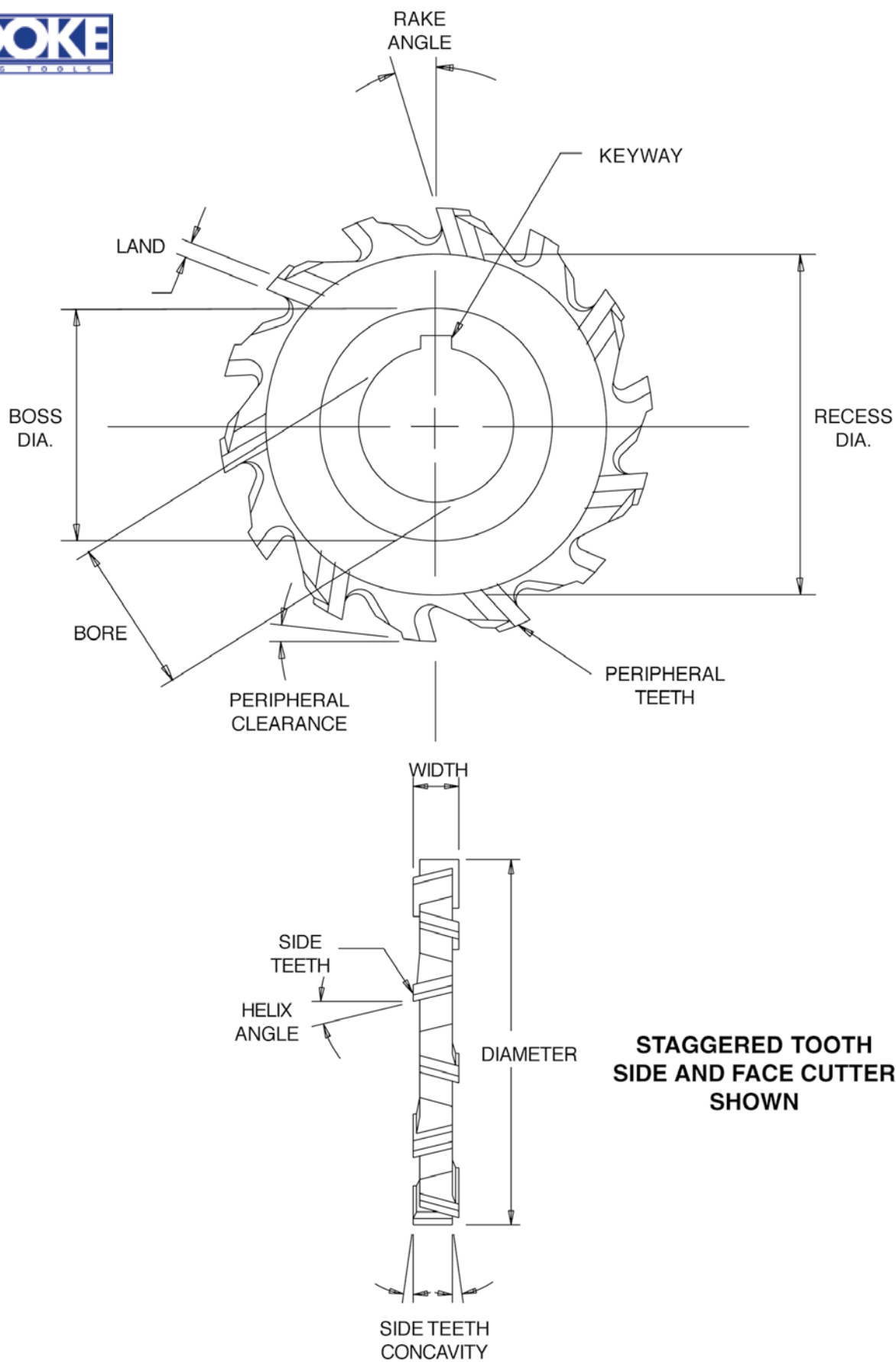
We welcome your enquiries and orders for special circular saws, and providing us with the following information will result in an improved process- and response time:

- Saw diameter
- Saw width
- Saw bore
- Keyway requirements
- Saw hub, or boss, with both its width and diameter
- Toothform requirements, including rake angle (undercut)
- Special toothform features, such as chamfers - radii - steps
- Material the saw is to be made from
- Material the saw is intended to cut

In all the above cases, should you require non-standard tolerances, please include those in the specification.

Should you require assistance in the specification of your special circular saws, please ask for our area sales engineer to call and discuss your particular application.

Bore Cutter Information



Main Types of Taps

HAND TAPS (SHORT MACHINE)

This regular type is the basic tap designed as a general purpose tool for hand and machine operation.

As this basic tap will give acceptable performance in most materials and for short production runs, it is usually the most economical tap to use. However, it performs best in materials where the cutting action results in chips which break up readily and do not present problems of chip disposal.

The regular hand tap has four flutes in sizes larger than 1/4 inch diameter. These taps may not be suitable because of inadequate chip space when deep or blind holes have to be tapped in soft stringy materials. This applies particularly to the coarser pitch threads such as BSW and UNC.

If a gun nosed or spiral fluted tap cannot be used, a three fluted tap which permits extra chip space, is recommended.

PIPE TAPS

Pipe taps are supplied with PARALLEL threads or with TAPER threads.

These taps are shorter than a similar size of regular hand tap, but the design features are the same. They are suitable for hand or machine use.

GUN NOSE TAPS. (SPIRAL POINT) FOR MACHINE USE ONLY

Gun nose taps have straight flutes supplemented by angular cutting faces at the point. These faces cut with a shearing action which propels the chips ahead of the tap leaving the flutes clear for the free flow of coolant to the point.

Primarily designed for use in through holes, these taps can be used in blind holes providing that there is ample clearance beyond the threaded section to accommodate the chips. The advantages of a gun nose tap are, the shearing action of the angular cutting faces which produce a fine finish on the threads and, shallower flutes which permit a stronger cross section throughout the tap.

SPIRAL FLUTE TAPS. FOR MACHINE USE ONLY

These taps are designed primarily for machine tapping of blind holes, are used to the best advantage in materials which produce long stringy chips. The shearing action provided by the spiral flutes produces a better finish on difficult to machine metals and causes the chips to be drawn back, eliminating clogging at the cutting chamfer.

SERIAL TAPS

Serial taps comprise of one or more undersized roughing taps which remove most of the material before final sizing with a finishing tap.

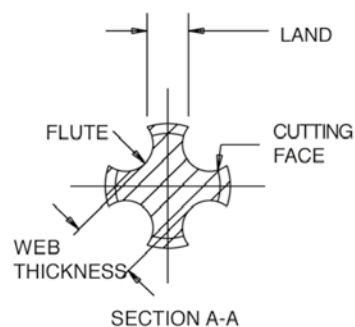
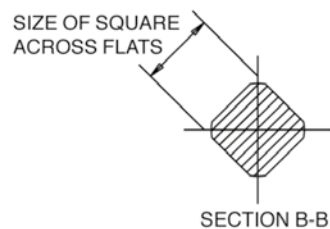
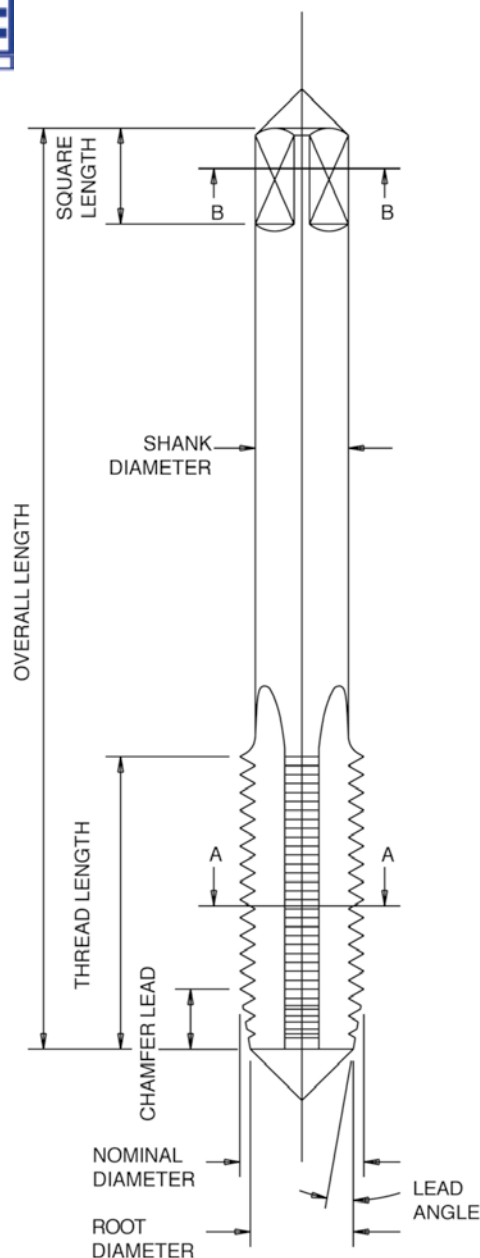
Some reasons for using serial taps are:

- (a) The toughness of the material being tapped.
- (b) The amount of material to be removed could cause swarf choking with a single tap.
- (c) The very small tolerance on pitch diameter.
- (d) An extremely good finish required.

FLUTELESS (ROLL) TAPS (Fluteless Chipless Tapping)

These taps are designed for machine tapping in ductile materials, "Fluteless" taps have no flutes or cutting faces, but have special roll forming lobes with a circular land and have long or short taper leads for through or blind holes.

Tap Information



General Specifications

THREAD

METRIC
METRIC LONG SERIES
METRIC
UNC, UNF
BSW, BSF, BA, BSB
BSP, BSPT
NPS, NPT

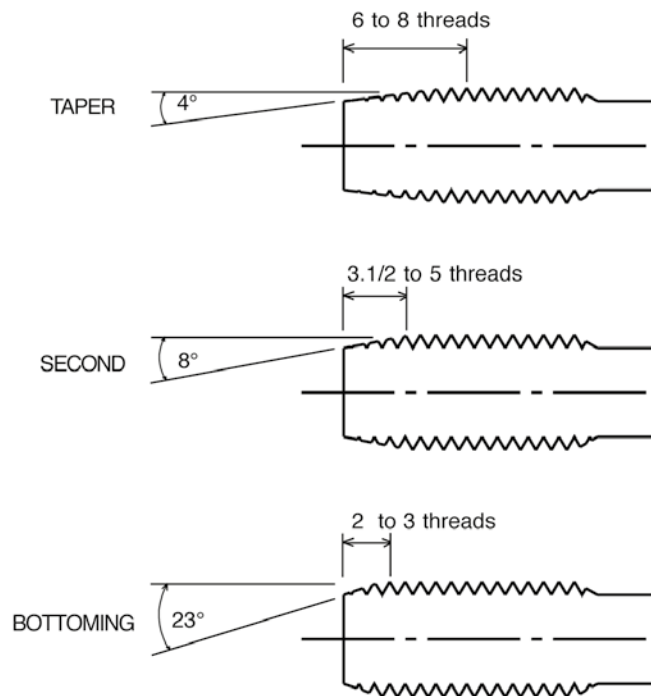
GENERAL SPECIFICATIONS

ISO 529
ISO 2283
DIN 371 / DIN 374 / DIN 376
ISO 529
ISO 529
ISO 2284
ANSI 94.9 1979

THREADS GROUND TO

ISO 2857 - 1973, CLASS 2
ISO 2857 - 1973 CLASS 2
DIN 802 CLASS 6H
ANSI B1.1 1982 2B
BS 949: 1976 CLASS 2
BS 949: 1976 1976-G SERIES
ANSI 94.9 1979

Standard Lead (Chamfer Angles)



In most countries the name "PLUG" is commonly used to indicate a Bottoming tap.

In America it is used to indicate a Second tap. To avoid confusion with American terms, the terminology adopted by British Standard 949 1979 as stated, should be used.

Short Hand and Machine, Long Shank Machine and Pipe Taps	4° (6-8 threads) Taper 8° (3.1/2-5 threads) Second 23° (2-3 threads) Bottoming
Spiral Point Taps	8° (4-5 threads)
Spiral Flute Taps	23° (2-3 threads)
Fluteless Taps	23° (2-3 threads)

Abbreviations for Standard Thread Forms

BA - British Association

BSB - British Standard Brass

BSF - British Standard Fine

BSP - British Standard Pipe (Fine) "G" Series

BSPT - British Standard Pipe Taper "G" Series

BSW - British Standard Whitworth

M - Metric Coarse

MF - Metric Fine

NPS - National Pipe Straight

NPT - National Pipe Taper

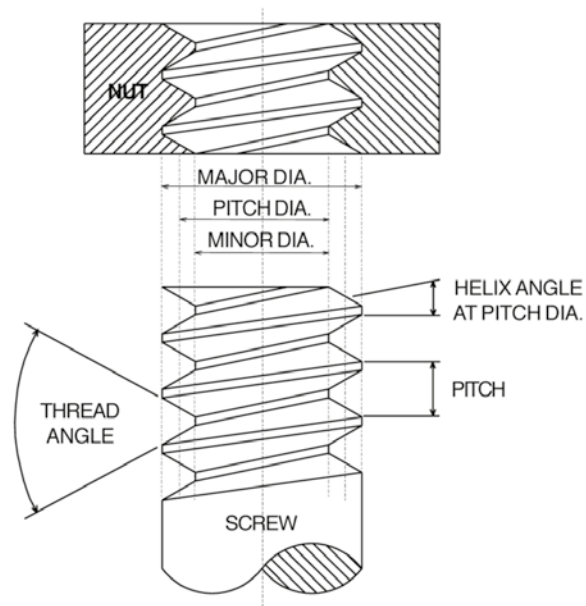
UNC - Unified National Coarse

UNF - Unified National Fine

Standard Thread Forms

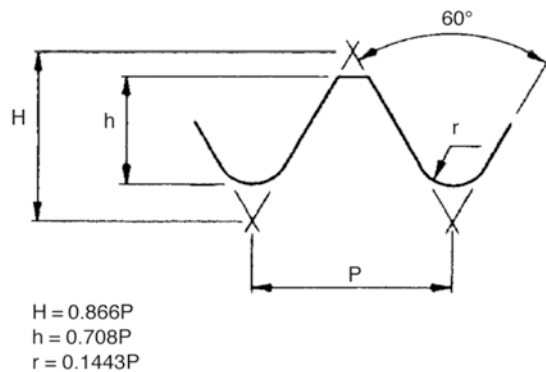


COMPONENT ELEMENTS

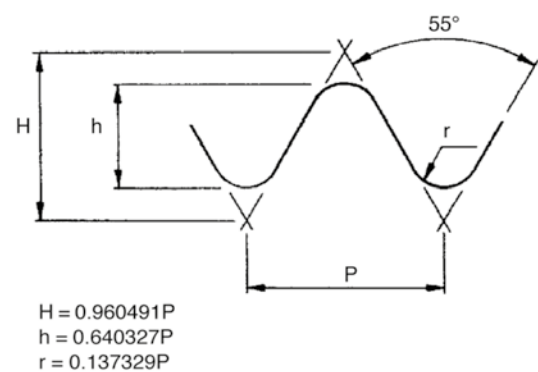


THREAD FORMS

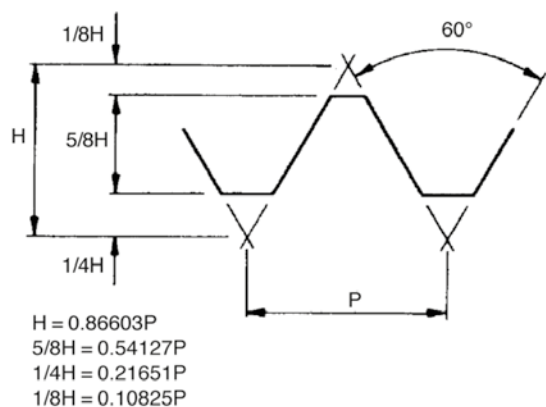
ISO METRIC



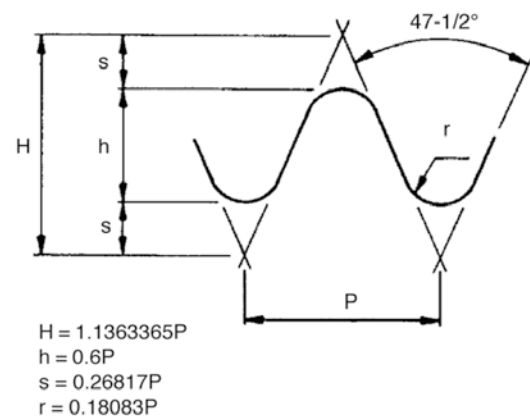
WHITWORTH



UNIFIED

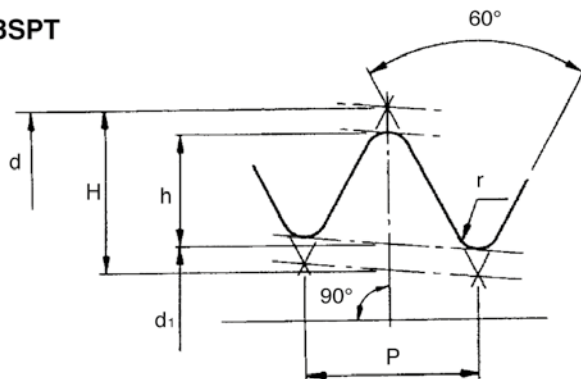


BA



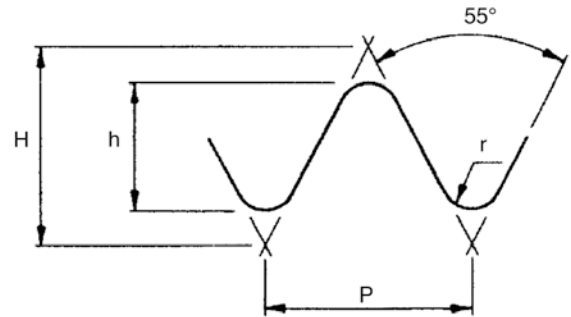
Standard Thread Forms

BSPT



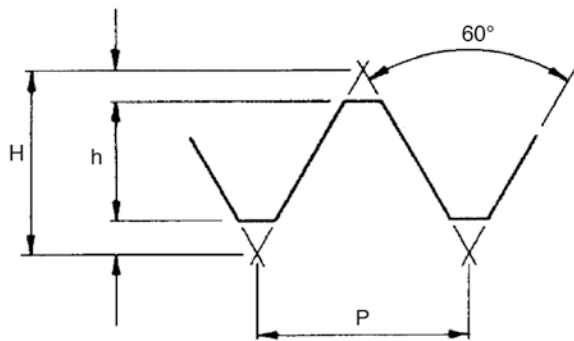
$$\begin{aligned} H &= 0.960237P \\ h &= 0.640327P \\ r &= 0.137278P \\ d &= \text{MAJOR DIAMETER AT GAUGE PLANE} \\ d_1 &= \text{MINOR DIAMETER AT GAUGE PLANE} \\ \text{TAPER} &= 1 \text{ IN } 16 \text{ ON DIAMETER} \end{aligned}$$

BSB



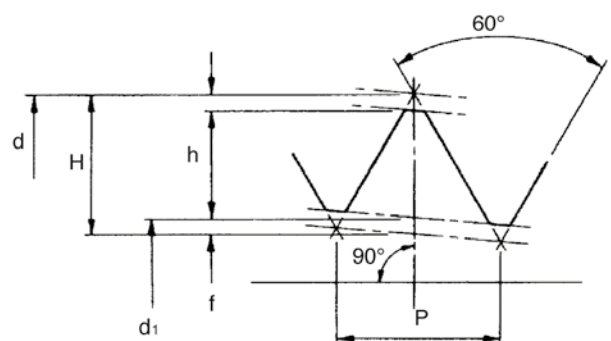
$$\begin{aligned} H &= 0.86603P \\ h &= 0.5327P \\ r &= 0.1667P \end{aligned}$$

NPS



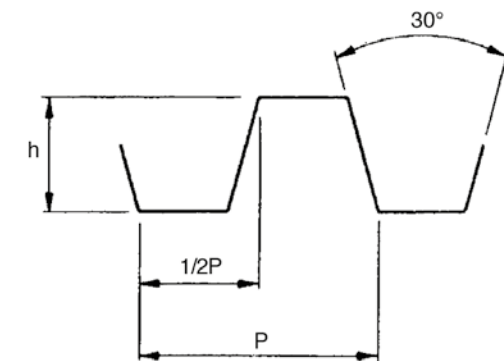
$$\begin{aligned} H &= 0.866P \\ h &= 0.8P \\ f &= 0.033P \end{aligned}$$

NPT



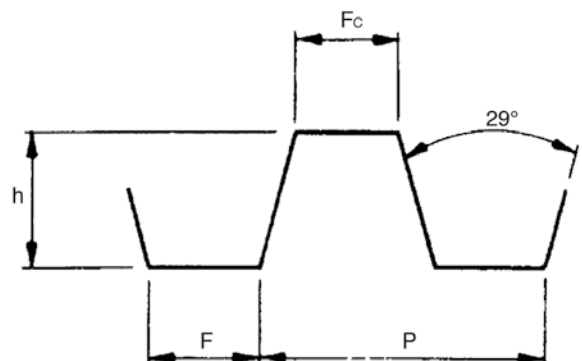
$$\begin{aligned} H &= 0.866P \\ h &= 0.8P \\ f &= 0.033P \\ d &= \text{MAJOR DIAMETER AT GAUGE PLANE} \\ d_1 &= \text{MINOR DIAMETER AT GAUGE PLANE} \\ \text{TAPER} &= 1 \text{ IN } 16 \text{ ON DIAMETER} \end{aligned}$$

TRAPEZOIDAL



$$h = 0.5P + \text{CLEARANCE}$$

ACME



$$\begin{aligned} h &= 0.5P + \text{CLEARANCE} \\ F &= 0.3707P \\ F_c &= 0.3707P - (0.256 \times \text{MAJOR DIAMETER ALLOWANCE}) \end{aligned}$$

Tap Thread Tolerance

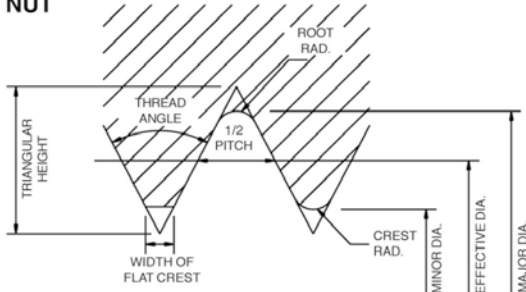
Basic sizes and tolerance classes

To allow for clearance between mating internal and external threads, taps are manufactured with oversize allowances added to the basic diameters.

These basic diameters plus the oversize allowances establish:

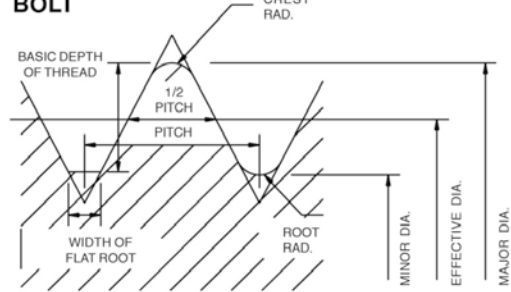
a) the minimum effective diameter; and

NUT



b) the minimum major diameter.

BOLT



Limits of Tolerance

Effective Diameter - The tolerance is the amount of variation allowed in the manufacture of the tap. This tolerance is added to the minimum effective diameter to establish the maximum effective diameter.

It follows that:

Basic Effective + Oversize = Minimum Effective

Basic Effective + Oversize + tolerance = Maximum Effective.

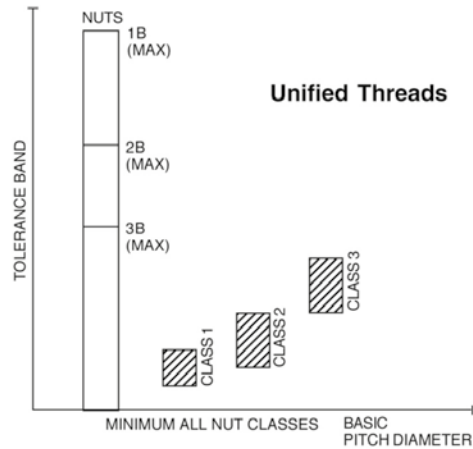
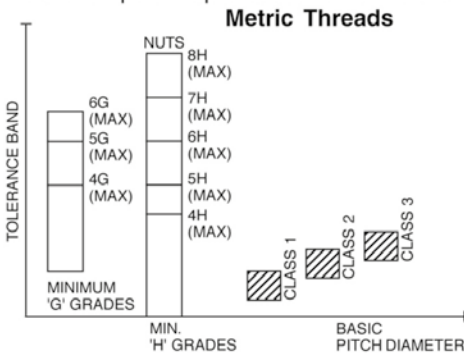
The effective diameter can only be measured with special tap measuring equipment.

Major Diameter - The minimum major diameter is established by adding the oversize allowance to the basic major diameter (the nominal thread size). Therefore, on measurement, the major diameter of the tap is larger than the nominal thread size, and must not be used to judge the size of the tap.

The maximum major diameter of the tap is governed by the thread form and is therefore not subject to a tolerance.

Tap Tolerance Classes

Relationships of Tap Classes to Nut Tolerances.



Class 1 Tap

This is the closest to basic, having little oversize allowance, and is normally specified for "close" fit threads, eg. Unified 3B, Metric 4H, 5H.

Class 2 Tap

This is normally specified for "medium" fit threads, eg. Unified 2B, Metric 6H, 4G, 5G.

Class 3 Tap

This is furthestmost above basic size and used for "free" fit threads, eg. Unified 1B, Metric 7H, 8H, 6G.

Under favourable working conditions, the following thread tolerances should be produced by the new class taps.

	Class 1	Class 2	Class 3
Metric	4H, 5H	6H, 4G, 5G	7H, 8H, 6G
Unified	3B	2B	1B
Whitworth Form	Close Class	Medium Class	Free Class
BA	Close Class	Medium Class	Free Class

All Brooke HSS taps are supplied to Class 2, 6H unless otherwise specified.



Recommended Tapping Drill Sizes for Fluted Taps

(for 75% Thread Depth)

Metric Coarse

Size	Pitch	Tapping Drill size (mm)
2	0.4	1.6 (1.8)*
2.5	0.45	2.05
3	0.5	2.5 (2.75)*
3.5	0.6	2.9 (3.2)*
4	0.7	3.3 (3.65)*
4.5	0.75	3.7 (4.1)*
5	0.8	4.2 (4.6)*
6	1	5 (5.5)*
7	1	6
8	1.25	6.8 (7.4)*
9	1.25	7.8
10	1.5	8.5 (9.25)*
11	1.5	9.5
12	1.75	10.2 (11.1)*
14	2	12
16	2	14
18	2.5	15.5
20	2.5	17.5
22	2.5	19.5
24	3	21
25	3	23.5
27	3	24
30	3.5	26.5
32	3.5	30.5
33	3.5	29.5
36	4	32
39	4	35
42	4.5	37.5
45	4.5	40.5
48	5	43
52	5	47
56	5.5	50.5

* Fluteless Tapping Drill Sizes

BSW

Nominal Diameter	TPI	Tapping Drill size (mm)
3/32	48	1.9
1/8	40	2.55
5/32	32	3.2
3/16	24	3.7
7/32	24	4.5
1/4	20	5.1
5/16	18	6.5
3/8	16	8
7/16	14	9.3
1/2	12	10.5
9/16	12	12.2
5/8	11	13.5
3/4	10	16.5
7/8	9	19.5
1"	8	22
1.1/8	7	25
1.1/4	7	28
1.1/2	6	34
1.3/4	5	39
2"	4.1/2	45

Metric Fine

Size	Pitch	Tapping Drill size (mm)
2	0.25	1.75
2.5	0.35	2.15
3	0.35	2.65
3.5	0.35	3.15
4	0.5	3.5
4.5	0.5	4
5	0.5	4.5
6	0.75	5.25
7	0.75	6.25
8	0.75	7.2
8	1	7
9	1	8
*10	1	9
10	1.25	8.75
*12	1.25	10.75
12	1.5	10.5
*14	1.25	12.75
14	1.5	12.5
†16	1.5	14.5
18	1.5	16.5
†20	1.5	18.5
20	2	18
22	1.5	20.5
22	2	20
24	1.5	22.5
24	2	22
†25	1.5	28.5
25	2	23
27	2	25
30	1.5	28.5
30	2	28
†32	1.5	28.5
33	1.5	31.5
36	1.5	34.5
39	1.5	37.5
40	1.5	38.5
42	1.5	40.5
45	1.5	43.5
48	1.5	46.5
†50	1.5	48.5
52	1.5	50.5

* Spark Plug

† Conduit

BSF

Nominal Diameter	TPI	Tapping Drill size (mm)
3/16	32	4
7/32	28	4.7
1/4	26	5.4
5/16	22	6.8
3/8	20	8.3
7/16	18	9.8
1/2	16	11
9/16	16	12.7
5/8	14	14
3/4	12	16.5
7/8	11	19.5
1"	10	22.5
1.1/8	9	25.5
1.1/4	9	29
1.1/2	8	34.5

Recommended Tapping Drill Sizes for Fluted Taps

(for 75% Thread Depth)

UNC

Nominal Diameter	TPI	Tapping Drill size (mm)
No. 3	48	2
No. 4	40	2.25
No. 5	40	2.6
No. 6	32	2.75
No. 8	32	3.4
No. 10	24	3.8
No. 12	24	4.4
1/4	20	5.1
5/16	18	6.6
3/8	16	8
7/16	14	9.4
1/2	13	10.8
9/16	12	12.2
5/8	11	13.5
3/4	10	16.5
7/8	9	19.5
1"	8	22
1.1/8	7	25
1.1/4	7	28
1.3/8	6	31
1.1/2	6	34
1.3/4	5	39
2"	4.1/2	45

UNF

Nominal Diameter	TPI	Tapping Drill size (mm)
No. 3	56	2.1
No. 4	48	2.35
No. 5	44	2.65
No. 6	40	2.9
No. 8	36	3.5
No. 10	32	4.1
No. 12	28	4.6
3/16	32	4
1/4	28	5.5
5/16	24	6.9
3/8	24	8.5
7/16	20	9.8
1/2	20	11.5
9/16	18	12.8
5/8	18	14.5
3/4	16	17.5
7/8	14	20.5
1"	12	23.5
1.1/8	12	26.5
1.1/4	12	29.5
1.3/8	12	32.5
1.1/2	12	36

BPSF

Nominal Diameter	TPI	Tapping Drill size (mm)
1/8	28	8.8
1/4	19	11.8
3/8	19	15.5
1/2	14	19
5/8	14	21
3/4	14	24.5
7/8	14	28.5
1"	11	31
1.1/4	11	40
1.1/2	11	45.5
1.3/4	11	51.5
2"	11	57

BSPT

Nominal Diameter	TPI	Tapping Drill size (mm)
1/8	28	8.2
1/4	19	10.8
3/8	19	14.5
1/2	14	17.5
3/4	14	23
1"	11	29.5
1.1/4	11	38
1.1/2	11	43.5
2"	11	55

NPS

Nominal Diameter	TPI	Tapping Drill size (mm)
1/8	27	8.2
1/4	18	10.8
3/8	18	14.5
1/2	14	17.5
3/4	14	23
1"	11-1/2	29
1.1/4	11-1/2	37.5
1.1/2	11-1/2	43.5
2"	11-1/2	56

NPT

Nominal Diameter	TPI	Tapping Drill size (mm)
1/8	27	8.4
1/4	18	10.7
3/8	18	14.25
1/2	14	17.5
3/4	14	22.75
1"	11-1/2	28.5
1.1/4	11-1/2	37.5
1.1/2	11-1/2	43.5
2"	11-1/2	55

BA

Nominal Diameter	TPI	Tapping Drill size (mm)
0	25.4	5.1
1	28.2	4.5
2	31.3	3.9
3	34.8	3.4
4	38.3	3
5	43.1	2.65

BA

Nominal Diameter	TPI	Tapping Drill size (mm)
6	47.9	2.3
7	52.9	2.05
8	59.1	1.8
9	65.1	1.55
10	72.6	1.4

Taps Technical Data

Type	Grade	Hardness up to			Recommended Tap Type		Alternative Tap Type		† Rake Angle	* Tap Per- ipheral Speed m/min	Lubricants	
		Hard- ness Brinell	Tons per sq in	kg/m ²	Through Hole	Blind Hole	Through Hole	Blind Hole				
Alloy Steel		248 330 381	54 74 82	85 116 129	Sp/Point	Sp/Flute	Str/Flute	Str/Flute	7-9	8-12	Sulphur based oil	
Aluminium Alloys	Long Chip Short Chip	As Supplied			Fluteless	Fluteless	Sp/Point	Sp/Flute	15-20	20-25 10-15	Sol. oil or light material oil	
Carbon Steel	Free cutting	150	33	52	Sp/Point	Sp/Flute	Str/Flute	Str/Flute	10-14	10-15	Sulphur based oil	
	0.3 to 0.4% Carbon	170	38	59						8-12		
	0.3 to 0.4% Carbon	248	54	85						8-10		8-10
	0.4 to 0.7% Carbon	206	44	69								
0.4 to 0.7% Carbon	286	63	99									
Cast Irons	Grey Ductile Malleable	240	52	81	Str/Flute	Str/Flute	Sp/Point	-	3-5	5-10	Dry, sol. oil or paraffin	
	Hardened & Tempered	330	74	116						4-8		
Copper Alloys	Brass Free Cutting Brass Low Lead Bronze Silicon Bronze Manganese Copper Free Machining Copper Electrolytic Bronze Aluminium Bronze Commercial Bronze Phosphor	As Supplied			Fluteless	Fluteless	Str/Flute	Str/Flute	7-9	15-20	Sol. oil or light mineral oil	
					Sp/Point Fluteless	Str/Flute Fluteless	Str/Flute Sp/Point	Str/Flute Str/Flute	0-4 4-8	25-30 10-12	Chlorinated oil or soluble oil	
									8-10 15-20	3-5 8-12		
					Sp/Point	Str/Flute	Str/Flute	Str/Flute	5-7 7-9	10-12 3-5	Soluble oil or light mineral oil	
									7-9	3-5		
					Manganese Alloys		As Supplied			Sp/Point	Sp/Flute	Str/Flute
Manganese Steel		As Supplied			Sp/Point	Str/Flute	Str/Flute	-	6-10	3-5	Sulphur based oil	
Nimonic Alloys	Wrought Cast	300 350	67 78	105 123	Special Taps					2-4	Chlorinated oil	
Plastics	Soft Hard Reinforced	As Supplied			Str/Flute	Str/Flute	Sp/Point	-	18-20	4-7	Dry	
									5-8	12-15		
Stainless Steels	Martensitic Free cutting Martensitic Std. Grade Austenitic Free cutting Austenitic Std. Grade	248	54	85	Sp/Point	Sp/Flute	Str/Flute	Str/Flute	10-18	2-6	Heavy Duty Sulphur based oil	
		As Supplied										
Titanium	Titanium Comm: Pure	170	38	52	Special Taps					2-4	Chlorinated oil	
	Titanium Comm: Pure	200	43	68								
	Titanium Comm: Pure	275	61	96								
	Titanium: Alloyed	340	76	120								
	Titanium: Alloyed	350	78	123								
	Titanium: Alloyed	380	85	129								
Tool Steel	HSS Standard Grades HSS Cobalt Grades Hot Working Steel Cold Working Steel	225 250	48 54	75 85	Sp/Point	Sp/Flute	Str/Flute	Str/Flute	7-9	8-10	Sulphur based oil	
		As Supplied			Fluteless	Fluteless	Str/Flute	Str/Flute	10-15	15-20	Sol. oil	

† The standard rake angle for Brooke taps is 7° - 9°

The rake angles quoted in the table are recommended for the corresponding material types and are available on request. However 7° - 9° Brooke taps are suitable for all materials.

* The tapping speeds for fluteless taps are 2-3 times higher than the recommended speeds given.



Conversion of Cutting Speeds In Ft. Per Min. To Revolutions Per Min

Cutting Speed in ft / min	5	10	25	50	75	100	150	200	250	300	350	400	500
Dia. in inches	Revolutions per minute (rpm)												
1/16	306	611	1528	3056	4584	6112	9167	12223	15279	18335	21390	24446	30557
1/8	153	306	764	1528	2292	3056	4584	6112	7639	9167	10696	12223	15279
3/16	102	204	509	1019	1528	2037	3056	4074	5093	6112	7130	8149	10186
1/4	76.4	153	382	764	1146	1529	2292	3056	3820	4584	5348	6112	7639
5/16	61.1	122	306	611	917	1222	1833	2445	3056	3667	4278	4889	6112
3/8	50.9	102	255	509	764	1019	1528	2037	2546	3056	3565	4074	5093
7/16	43.7	87	281	437	655	873	1310	1746	2183	2619	3056	3492	4365
1/2	38.2	76.4	191	382	573	764	1146	1528	1910	2291	2674	3056	3820
5/8	30.6	61.1	153	306	458	611	917	1222	1528	1833	2139	2445	3056
3/4	25.5	50.9	127	255	382	509	764	1019	1273	1528	1783	2037	2546
7/8	21.8	43.7	109	218	327	437	655	873	1091	1310	1528	1746	2183
1"	19.1	38.2	95.5	191	286	382	573	764	955	1146	1337	1528	1910
1.1/8	17.0	34.0	84.9	170	255	340	509	679	849	1019	1188	1358	1698
1.1/4	15.3	30.6	76.4	153	229	306	458	611	764	917	1070	1222	1528
1.3/8	13.9	27.8	69.4	139	208	278	417	556	694	833	972	1111	1389
1.1/2	12.7	25.5	63.7	127	191	255	382	509	637	764	891	1019	1273
1.5/8	11.8	23.5	58.8	118	176	235	353	470	588	705	823	940	1175
1.3/4	10.9	21.8	54.6	109	164	218	327	437	546	655	764	873	1091
1.7/8	10.2	20.4	50.9	102	153	204	306	407	509	611	713	815	1019
2"	9.5	19.1	47.7	95.5	143	191	286	382	477	573	668	764	955
2.1/4	8.5	17.0	42.4	84.9	127	170	255	340	424	509	594	679	849
2.1/2	7.6	15.3	38.2	76.4	115	153	229	306	382	458	535	611	764
2.3/4	6.9	13.9	34.7	69.4	104	139	208	278	347	417	486	556	694
3"	6.4	12.7	31.8	63.7	95.5	127	191	255	318	382	446	509	637
3.1/4	5.9	11.8	29.4	58.8	88.1	118	176	235	294	353	411	470	588
3.1/2	5.5	10.9	27.3	54.6	81.9	109	164	218	273	327	382	437	546
3.3/4	5.1	10.2	25.5	50.9	76.4	102	153	204	255	306	357	407	509
4"	4.8	9.6	23.9	47.7	71.6	95.5	143	191	239	286	334	382	477

Feed Conversion Table

Reamer Diameter Range (ins)		Feed (ins / rev)		
Above	Up to	Light (L)	Medium (M)	Heavy (H)
	0.1181	0.0002 - 0.0010	0.005 - 0.0020	0.0010 - 0.0030
0.0590	0.2362	0.0010 - 0.0020	0.0020 - 0.0040	0.0030 - 0.0060
0.1181	0.3937	0.0020 - 0.0040	0.0040 - 0.0060	0.0060 - 0.0100
0.2362	0.7087	0.0040 - 0.0060	0.0060 - 0.0100	0.0100 - 0.0150
0.5118	1.1811	0.0060 - 0.0100	0.0100 - 0.0200	0.0150 - 0.0300
0.9449	1.9685	0.0100 - 0.0200	0.0200 - 0.0400	0.0300 - 0.0500

Brooke Reamers are manufactured to H7 tolerances

Tolerance limits for reamers and reamed hole diameters

Reamer Diameter Range (ins)		Reamer Diameter Tolerance		Hole Diameter Tolerance	
Above	Up to	ins		ins	
0.0394	0.1181	+0.0003	+0.0001	+0.0004	+0.0000
0.1181	0.2362	+0.0004	+0.0002	+0.0005	+0.0000
0.2362	0.3937	+0.0005	+0.0002	+0.0006	+0.0000
0.3937	0.7087	+0.0006	+0.0003	+0.0007	+0.0000
0.7087	1.1811	+0.0007	+0.0004	+0.0008	+0.0000
1.1811	1.9685	+0.0008	+0.0005	+0.0010	+0.0000



mm Equivalents of Standard Fractional Letter and Number Size Drills

Number size drills are now obsolete and should not be used in new designs

Nominal Size	Millimetre Equivalent *	Decimal Inch Equivalent	Nominal Size	Millimetre Equivalent *	Decimal Inch Equivalent	Nominal Size	Millimetre Equivalent *	Decimal Inch Equivalent
80	0.3429	0.0135	24	3.8608	0.1520	Z	10.4902	0.4130
79	0.3683	0.0145	23	3.9116	0.1540	27/64"	10.7163	0.4219
1/64"	0.3962	0.0156	5/32"	3.9675	0.1562	7/16"	11.1125	0.4375
78	0.4064	0.0160	22	3.9878	0.1570	29/64"	11.5087	0.4531
77	0.4572	0.0180	21	4.0386	0.1590	15/32"	11.9075	0.4688
76	0.5080	0.0200	20	4.0894	0.1610	31/64"	12.3038	0.4844
75	0.5334	0.0210	19	4.2164	0.1660	1/2"	12.7000	0.5000
74	0.5715	0.0225	18	4.3053	0.1695	33/64"	13.0962	0.5156
73	0.6096	0.0240	11/64"	4.3663	0.1719	17/32"	13.4925	0.5312
72	0.6350	0.0250	17	4.3942	0.1730	35/64"	13.9813	0.5469
71	0.6604	0.0260	16	4.4958	0.1770	9/16"	14.2875	0.5625
70	0.7112	0.0280	15	4.5720	0.1800	37/64"	14.6837	0.5781
69	0.7417	0.0292	14	4.6228	0.1820	19/32"	15.0825	0.5938
68	0.7874	0.0310	13	4.6990	0.1850	39/64"	15.4788	0.6094
1/32"	0.7925	0.0312	3/16"	4.7625	0.1875	5/8"	15.8750	0.6250
67	0.8128	0.0320	12	4.8006	0.1890	41/64"	16.2712	0.6406
66	0.8382	0.0330	11	4.8514	0.1910	21/32"	16.6675	0.6562
65	0.8890	0.0350	10	4.9149	0.1935	43/64"	17.0663	0.6719
64	0.9144	0.0360	9	4.9784	0.1960	11/16"	17.4625	0.6875
63	0.9398	0.0370	8	5.0546	0.1990	45/64"	17.8587	0.7031
62	0.9652	0.0380	7	5.1054	0.2010	23/32"	18.2575	0.7188
61	0.9906	0.0390	13/64"	5.1587	0.2031	47/64"	18.6538	0.7344
60	1.0160	0.0400	6	5.1816	0.2040	3/4"	19.0500	0.7500
59	1.0414	0.0410	5	5.2197	0.2055	49/64"	19.4462	0.7656
58	1.0668	0.0420	4	5.3086	0.2090	25/32"	19.8425	0.7812
57	1.0922	0.0430	3	5.4102	0.2130	51/64"	20.2413	0.7969
56	1.1811	0.0465	7/32"	5.5575	0.2188	13/16"	20.6375	0.8125
3/64"	1.1913	0.0469	2	5.6134	0.2210	53/64"	21.0337	0.8281
55	1.3208	0.0520	1	5.7912	0.2280	27/32"	21.4325	0.8438
54	1.3970	0.0550	A	5.9436	0.2340	55/64"	21.8288	0.8594
53	1.5113	0.0595	15/64"	5.9538	0.2344	7/8"	22.2250	0.8750
1/16"	1.5875	0.0625	B	6.0542	0.2380	57/64"	22.6212	0.8906
52	1.6129	0.0635	C	6.1468	0.2420	29/32"	23.0175	0.9062
51	1.7018	0.0670	D	6.2484	0.2460	59/64"	23.4163	0.9219
50	1.7780	0.0700	E 1/4"	6.3500	0.2500	15/16"	23.8125	0.9375
49	1.8542	0.0730	F	6.5278	0.2570	61/64"	24.2087	0.9531
48	1.9304	0.0760	G	6.6294	0.2610	31/32"	24.6075	0.9688
5/64"	1.9837	0.0781	17/64"	6.7462	0.2656	63/64"	25.0038	0.9844
47	1.9939	0.0785	H	6.7564	0.2660	1"	25.4000	1.0000
46	2.0574	0.0810	I	6.9088	0.2720	1.1/64"	25.7962	1.0156
45	2.0828	0.0820	J	7.0358	0.2770	1.1/32"	26.1925	1.0312
44	2.1844	0.0860	K	7.1374	0.2810	1.3/64"	26.5913	1.0469
43	2.2606	0.0890	9/32"	7.1425	0.2812	1.1/16"	26.9875	1.0625
42	2.3749	0.0935	L	7.3660	0.2900	1.5/64"	27.3837	1.0781
3/32"	2.3825	0.0938	M	7.4930	0.2950	1.3/32"	27.7825	1.0938
41	2.4384	0.0960	19/64"	7.5413	0.2969	1.7/64"	28.1788	1.1094
40	2.4892	0.0980	N	5.6708	0.3020	1.1/8"	28.5750	1.1250
39	2.5273	0.0995	5/16"	7.9375	0.3125	1.9/64"	28.9712	1.1406
38	2.5781	0.1015	O	8.0264	0.3160	1.5/32"	29.3675	1.1562
37	2.6416	0.1040	P	8.2042	0.3230	1.11/64"	29.7663	1.1719
36	2.7051	0.1065	21/64"	8.3337	0.3281	1.3/16"	30.1625	1.1875
7/64"	2.7788	0.1094	Q	8.4328	0.3320	1.13/64"	30.5587	1.2031
35	2.7940	0.1100	R	8.6106	0.3390	1.7/32"	30.9575	1.2188
34	2.8194	0.1110	11/32"	8.7325	0.3438	1.15/64"	31.3538	1.2344
33	2.8702	0.1130	S	8.8392	0.3480	1.1/4"	31.7500	1.2500
32	2.9464	0.1160	T	9.0932	0.3580	1.17/64"	32.1462	1.2656
31	3.0480	0.1200	23/64"	9.1288	0.3594	1.9/32"	32.5425	1.2812
1/8"	3.1750	0.1250	U	9.3472	0.3680	1.19/64"	32.9413	1.2969
30	3.2639	0.1285	3/8"	9.5250	0.3750	1.5/16"	33.3375	1.3125
29	3.4544	0.1360	V	9.5758	0.3770	1.21/64"	33.7337	1.3281
28	3.5687	0.1405	W	9.8044	0.3860	1.11/32"	34.1325	1.3438
9/64"	3.5712	0.1406	25/64"	9.9212	0.3906	1.23/64"	34.5288	1.3594
27	3.6576	0.1440	X	10.0838	0.3970	1.3/8"	34.9250	1.3750
26	3.7338	0.1470	Y	10.2616	0.4040	1.25/64"	35.3212	1.3906
25	3.7973	0.1495	13/32"	10.3175	0.4062	1.13/32"	35.7175	1.4062

* This column gives the mm. equivalent based on the four place decimal inch equivalent

mm Equivalents of Standard Fractional Letter and Number Size Drills

Number size drills are now obsolete and should not be used in new designs

Nominal Size	Millimetre Equivalent *	Decimal Inch Equivalent	Nominal Size	Millimetre Equivalent *	Decimal Inch Equivalent	Nominal Size	Millimetre Equivalent *	Decimal Inch Equivalent
1.27/64"	36.1163	1.4219	1.61/64"	49.6087	1.9531	2.31/64"	63.1038	2.4844
1.7/16"	36.1525	1.4375	1.31/32"	50.0075	1.9688	2.1/2"	63.5000	2.5000
1.29/64"	36.9087	1.4531	1.63/64"	50.4038	1.9844	2.33/64"	63.8962	2.5156
1.15/32"	37.3075	1.4688	2"	50.8000	2.0000	2.17/32"	64.2925	2.5312
1.31/64"	37.7038	1.4844	2.1/64"	51.1962	2.0156	2.35/64"	64.6913	2.5469
1.1/2"	38.1000	1.5000	2.1/32"	51.5925	2.0312	2.9/16"	65.0875	2.5625
1.33/64"	38.4962	1.5156	1.3/64"	51.9913	2.0469	2.37/64"	65.4837	2.5781
1.17/32"	38.8925	1.5312	2.1/16"	52.3875	2.0625	2.19/32"	65.8825	2.5938
1.35/64"	39.2913	1.5469	2.5/64"	52.7837	2.0781	2.39/64"	66.2788	2.6094
1.9/16"	29.6875	1.5625	2.3/32"	53.1825	2.0938	2.5/8"	66.6750	2.6250
1.37/64"	40.0837	1.5781	2.7/64"	53.5788	2.1094	2.41/64"	67.0712	2.6406
1.19/32"	40.4825	1.5938	2.1/8"	53.9750	2.1250	2.21/32"	67.4675	2.6562
1.39/64"	40.8788	1.6094	2.9/64"	54.3712	2.1406	2.43/64"	67.8663	2.6719
1.5/8"	41.2750	1.6250	2.5/32"	54.7675	2.1562	2.11/16"	68.2625	2.6875
1.41/64"	41.6712	1.6406	2.11/64"	55.1663	2.1719	2.45/64"	68.6587	2.7031
1.21/32"	42.0675	1.6562	2.3/16"	55.5625	2.1875	2.23/32"	69.0575	2.7188
1.43/64"	42.4663	1.6719	2.13/64"	55.9587	2.2031	2.47/64"	69.4538	2.7344
1.11/16"	42.8625	1.6875	2.7/32"	56.3575	2.2188	2.3/4"	69.8500	2.7500
1.45/64"	43.2587	1.7031	2.15/64"	56.7538	2.2344	2.49/64"	70.2462	2.7656
1.23/32"	43.6575	1.7188	2.1/4"	57.1500	2.2500	2.25/32"	70.6425	2.7812
1.47/64"	44.0538	1.7344	2.17/64"	57.5462	2.2656	2.51/64"	71.0413	2.7969
1.3/4"	44.4500	1.7500	2.9/32"	57.9425	2.2812	2.13/16"	71.4375	2.8125
1.49/64"	44.8462	1.7656	2.19/64"	58.3413	2.2969	2.53/64"	71.8337	2.8281
1.25/32"	45.2425	1.7812	2.5/16"	58.7375	2.3125	2.27/32"	72.2325	2.8438
1.51/64"	45.6413	1.7969	2.21/64"	59.1337	2.3281	2.55/64"	72.6288	2.8594
1.13/16"	46.0375	1.8125	2.11/32"	59.5325	2.3438	2.7/8"	73.0250	2.8750
1.53/64"	46.4337	1.8281	2.23/64"	59.9288	2.3594	2.57/64"	73.4212	2.8906
1.27/32"	46.8325	1.8438	2.3/8"	60.3250	2.3750	2.29/32"	73.8175	2.9062
1.55/64"	47.2288	1.8594	2.25/64"	60.7212	2.3906	2.59/64"	74.2163	2.9219
1.7/8"	47.6250	1.8750	2.13/32"	61.1175	2.4062	2.15/16"	74.6125	2.9375
1.57/64"	48.0212	1.8906	2.27/64"	61.5163	2.4219	2.61/64"	75.0087	2.9531
1.29/32"	48.4175	1.9062	2.7/16"	61.9125	2.4375	2.31/32"	75.4075	2.9688
1.59/64"	48.8163	1.9219	2.29/64"	62.3087	2.4531	2.63/64"	75.8038	2.9844
1.15/16"	49.2125	1.9375	2.15/32"	62.7075	2.4688	3"	76.2000	3.000

* This column gives the mm. equivalent based on the four place decimal inch equivalent

USEFULL FORMULAE

Symbol	Description	Symbol	Description
Vc RPM Fr	Drilling Speed in metres per minute Revs per minute Feed per Rev in mm per Rev	Fm D	Feed per minute in mm per minute Drill Diameter in mm

Unknown Units	Known Units	Formulae Required
RPM	D & Vc	$\frac{318 \times Vc}{D}$
Vc	D & RPM	$0.0031 \times D \times RPM$
Fr	RPM & Fm	$\frac{Fm}{RPM}$
Fm	RPM & Fr	$RPM \times Fr$

Brinell Hardness Numbers and Tensile Strength Equiv. With Corresponding HV and HRC Numbers

Brinell Dia. of Impression m m	Brinell Hardness Number HB	Vickers Hardness Number HV	Rockwel C Scale Hardness Number HRC	Equivalent R _m tonf/in ²	Equivalent R _m kgf/mm ²	Equivalent R _m N/mm ²
2.50	(601)	640	57	-	-	-
2.55	(578)	615	56	-	-	-
2.60	(555)	591	54.5	-	-	-
2.65	(534)	569	53.5	-	-	-
2.70	(514)	547	52	-	-	-
2.75	(495)	529	51	-	-	-
2.80	(477)	508	49.5	-	-	-
2.85	(461)	491	48.5	101	160	1569
2.90	444	474	47	98	155	1520
2.95	429	455	45.5	95	150	1471
3.00	415	440	44.5	92	145	1422
3.05	401	425	43	88	139	1363
3.10	388	410	42	85	134	1314
3.15	375	396	40.5	82	129	1265
3.20	363	383	39	80	126	1236
3.25	352	372	38	77	121	1187
3.30	341	360	36.5	75	118	1157
3.35	331	350	35.5	73	114	1118
3.40	321	339	34.5	71	111	1089
3.45	311	328	33	68	107	1049
3.50	302	319	32	66	104	1020
3.55	293	309	31	64	101	990
3.60	285	301	30	63	99	971
3.65	277	292	29	61	96	941
3.70	269	284	27.5	59	93	912
3.75	262	276	26.5	58	91	892
3.80	255	269	25.5	56	89	873
3.85	248	261	24	55	87	853
3.90	241	253	23	53	84	824
3.95	235	247	22.3	51	81	794
4.00	229	241	20.5	50	79	775
4.05	223	235	-	49	77	755
4.10	217	228	-	48	76	745
4.15	212	223	-	46	73	716
4.20	207	218	-	45	71	696
4.30	197	208	-	43	68	667
4.40	187	197	-	41	65	637
4.50	179	189	-	39	62	608
4.60	170	179	-	36	57	559
4.70	163	172	-	35	55	539
4.80	156	165	-	34	54	530
4.90	149	157	-	32	51	500
5.00	143	150	-	31	49	481
5.10	137	144	-	31	49	481
5.20	131	138	-	30	47	461
5.30	126	133	-	29	46	451
5.40	121	127	-	28	44	431
5.50	116	122	-	27	43	422
5.60	111	117	-	26	41	402
5.70	107	113	-	25	39	382
5.80	103	108	-	24	38	373

The figures in parenthesis require a 'modified' Brinell test, i.e. a tungsten carbide ball is required where the BH value exceeds 450 HB to HV and HV to HRC conversions are based on A.S.T.M. E.140



TERMS AND CONDITIONS

CONDITIONS FOR THE SUPPLY OF GOODS BY CASTLE BROOKE TOOLS (UK) LIMITED

1 CONTRACT TERMS, VARIATIONS AND REPRESENTATIONS

- (a) In these conditions, "the Seller" means Castle Brooke Tools (UK) Limited may sell the Goods; "the Buyer" means the individual, firm, company or other party with whom the Seller contracts; "the Goods" means the Goods (including any instalment of the Goods) which the Seller is to supply in accordance with these conditions; "the Services" means the whole or any part of the services which the Seller is to supply or carry out; "the Contract" means any contract under which the Seller provides Services and/or sells the Goods to the Buyer; "Supply" includes (but is not limited to) any supply under a contract of sale and "International Supply Contract" means such a contract as is described in section 26 (3) of the Unfair Contract Terms Act 1977.
- (b) No order in pursuance of any quotation or otherwise shall be binding on the Seller unless and until such order is accepted by the Seller. Any Contract made between the Seller and the Buyer shall be subject to these conditions and save as after mentioned no representative or agent of the Seller has authority to agree any terms or make any representations inconsistent with them or to enter into any contract except on the basis of them; any such term representation or contract will bind the Seller only if in writing and signed by an authorised signatory of the Seller.
- (c) Unless otherwise agreed in writing by the Seller these conditions shall apply to the exclusion of any terms and conditions stipulated or referred to by the Buyer in his order or pre-contract negotiations or any inconsistent terms implied by law or trade custom, practice or course of dealing.
- (d) Any general description contained in the Seller's catalogues or other advertising material shall not form a representation or be part of the Contract.
- (e) Where the Seller has not given a written acknowledgment of the Buyer's order these conditions will nonetheless apply to the Contract provided that the Buyer has had prior notice of them.
- (f) The Seller reserves the right to correct any clerical or typographical errors made by its employees at any time.

2 SPECIFICATION, INSTRUCTIONS OR DESIGN

- (a) The Buyer shall be responsible to the Seller for ensuring the accuracy of the terms of any order (including any applicable specification) submitted by the Buyer, and for giving the Seller any necessary information relating to the Goods or Services within a sufficient time to enable the Seller to perform the Contract in accordance with its terms.
- (b) If the Goods are made to a specification, instruction or design supplied by the Buyer or any third party on behalf of the Buyer then (i) the suitability and accuracy of that specification, instruction or design will be the Buyer's responsibility; (ii) the Buyer will indemnify the Seller against any infringement or alleged infringement of any third party's intellectual property rights including but not limited to patent, design right, registered design, trademark, trade name or copyright and any loss, damage or expense which it may incur by reason of any such infringement or alleged infringement in any country; (iii) the Buyer will indemnify the Seller against any loss, damage or expense in respect of any liability arising in any country by reason of the Goods being made to such specification, instruction or design.

3 QUOTATIONS AND PRICES

- (a) The Seller shall be entitled to increase its prices at anytime to take account of any increase in the cost to the Seller of purchasing any goods or materials or manufacturing working on or supplying any goods (including but not limited to any such increase arising from any error or inadequacy in any specification, instructions or design provided by the Buyer, any modification carried out by the Seller at the Buyer's request or any change in exchange rates) and such increased prices ruling at the date of dispatch by the Seller shall be substituted for the previous Contract price.
- (b) All prices quoted are exclusive of any applicable value added tax and the Buyer shall pay any and all taxes duties and other government charges payable in respect of the Goods and/or Services.
- (c) All prices shown are in British Pounds (Pound Sterling/GBP) unless otherwise stated.

4 DELIVERY

- (a) Unless otherwise agreed in writing by the Seller, the Seller shall deliver the Goods by the means most convenient to the Seller to the address or addresses specified by the Buyer at the time of placing his order or (in the event that the Buyer fails so to specify an address) to any address at which the Buyer resides or carries on business. The Seller shall be entitled to add to the contract price a reasonable charge for packaging and delivery. Off-loading shall be at the Buyer's expense.
- (b) If the Contract requires the Buyer to take delivery of the Goods at the Seller's premises the Seller shall notify the Buyer of the collection date (being the date on which the Goods are or will be ready for delivery) and the Buyer shall take delivery of the Goods within 7 days of the collection date. Loading of the Goods shall be at the Buyer's expense.
- (c) Should the Seller be delayed in or prevented from making delivery of the Goods or carrying out the Services due to any cause whatsoever beyond the reasonable control of the Seller the Seller shall be at liberty to terminate the Contract or suspend the order placed by the Buyer without incurring any liability for any loss or damage arising therefrom, but without prejudice in any such case to rights accrued to the Seller in respect of deliveries already made.
- (d) While the Seller will endeavour to deliver the Goods or complete the Services by any date or within any period agreed upon, such dates and periods are estimates only given in good faith and the Seller will not be liable for any failure to deliver the Goods or carry out the Services by such a date or within such a period. Time for delivery shall not be of the essence of the Contract. Moreover, the Seller shall be entitled to defer delivery until any monies due from the Buyer have been received.
- (e) Where the Goods are to be delivered in instalments, each delivery shall constitute a separate contract and failure by the Seller to deliver any one or more of the instalments in accordance with these conditions or any claim by the Buyer in respect of any one or more instalment shall not entitle the Buyer to treat the Contract as a whole as repudiated.
- (f) If the Buyer fails to take delivery of the Goods or fails to give the Seller adequate delivery instructions at the time stated for delivery (otherwise than by reason of any cause beyond the Buyer's reasonable control or by reason of the Seller's fault) then, without prejudice to any other right or remedy available to the Seller, the Seller may at its option; (i) store the Goods until actual delivery and charge the Buyer for the reasonable costs (including insurance) of storage or; (ii) sell the Goods at the best price readily obtainable and (after deducting all reasonable storage and selling expenses) account to the Buyer for the excess over the price under the Contract or charge the Buyer for any shortfall below the price under the Contract. The Buyer shall pay such shortfall to the Seller within 28 days of the date of the Seller's demand therefor.

5 RISK IN THE GOODS

- (a) Save in the case of International Supply Contracts and subject to any agreement in writing by the Seller, the risk in Goods which the Seller agrees to supply shall pass to the Buyer on (i) delivery or (ii) the date on which, the Goods being ready for delivery, delivery is postponed at the Buyer's request, whichever shall first occur. Delivery shall be deemed to be completed before off-loading or (in the case of delivery at the Seller's premises) loading of the Goods.
- (b) All other goods shall be at the Buyer's sole risk at all times, and the Seller shall not be liable for any loss of or damage sustained by any goods left with the Seller howsoever caused and whether or not attributable to negligence on the part of the Seller or negligence or wilful default on the part of any servant or agent of the Seller.

6 PAYMENT

- (a) Unless otherwise specified in writing by the Seller payment of the Seller's invoices shall be made by the Buyer net cash not later than 30 days after the agreed for the Services shall be made not later than 30 days after the date of which such Services are completed or, in the event that the Services cannot be carried out due to the act or default of the Buyer, its servants or agents, when the Seller is ready to carry out the Services. Time for payment shall be of the essence of the Contract. If payment is not made with this condition all monies owed by the buyer to the seller shall immediately become due and payable and recoverable forthwith. Without prejudice to any other rights of the Seller interest will be payable on all overdue accounts at National Westminster Bank Plc base rate plus 4% and for the purposes of clauses 7 and 9 hereof the full purchase price of the Goods or the Services shall include all interest payable hereunder.

7 FAILURE TO PAY, CANCELLATION OR DEFERMENT

- (a) For the purposes of this clause "an intervening event" shall mean any such event as is described in sub-clause (c) hereof.
- (b) If there shall be an intervening event the Seller may, within a reasonable time thereafter, defer or cancel any further deliveries or services, stop any Goods in transit and treat the Contract of which these conditions form part as determined but without prejudice to its rights to the full purchase price for Goods delivered and Services performed and damages for any loss suffered in consequence of such determination.
- (c) An intervening event shall be any of the following: (i) failure by the Buyer to make any payment when it be comes due; (ii) breach by the Buyer of any of the terms or conditions of the Contract; (iii) the Buyer's proposal for or entry into any composition or arrangement with creditors; (iv) the presentation against the Buyer of any Petition for a Bankruptcy Order, Administration Order, Winding-Up Order, or similar process; (v) the appointment of an Administrative Receiver or Receiver in respect of the business or any part of the assets of the Buyer; (vi) the Seller forming the reasonable opinion that the Buyer has become or is likely in the immediate future to be come unable to pay his, her or its debts (adopting, in the case of a Company, the definition of that term set out in Section 123 of the Insolvency Act 1986).
- (d) Cancellation by the Buyer will only be accepted at the discretion of the Seller and in any case on condition that any costs or expenses incurred by the Seller up to the date of cancellation and all loss or damage resulting to the Seller by reason of such cancellation will be paid by the Buyer to the Seller forthwith. Acceptance of such cancellation will only be binding on the Seller if in writing and signed by an authorised signatory of the Seller.
- (e) Any costs incurred by the Seller due to suspension or deferment of any order by the Buyer or in the event that the Buyer defaults in collecting, or giving instructions for the delivery of, any Goods will be payable by the Buyer forthwith on demand.

8 LIMITATION OF LIABILITY

- (a) The Seller will have no liability for damage in transit, shortage of delivery or loss of Goods unless the Buyer shall have given to the Seller written notice of such damage, shortage or loss with reasonable particulars thereof within 48 hours of receipt of the Goods or (in the case of total loss) of receipt of the invoice or other notification of dispatch. The Seller's liability, if any, shall be limited to replacing or (in its discretion) repairing such Goods and it shall be a condition precedent to any such liability that the Buyer shall if so requested provide authority for the Seller's servants or agents to inspect any damaged Goods within 14 days of such request.
- (b) The Seller will have no liability for any consequential loss arising out of any damage in transit shortage of delivery or loss of Goods.

- (c) Save as otherwise provided in these conditions the Seller's liability in respect of any defect in or failure of Goods whether the Supplier's own branded Goods or third party Goods procured and supplied by the Supplier to the Buyer is limited to replacing or (in its discretion) repairing or paying for the repair or replacement of such Goods.

- (d) All Goods sold by the Seller are supplied with the benefit of the terms implied by section 12 of the Sale of Goods Act 1979. Subject thereto, and whether or not the Contract is a contract of sale, all other conditions, warranties and other terms express or implied, statutory or otherwise, are expressly excluded, save insofar as contained herein or as otherwise expressly agreed by the Seller in writing PROVIDED that if and insofar as any legislation or any order made thereunder shall make or have made it unlawful to exclude or purport to exclude from the Contract any term or shall have made unenforceable any attempt to exclude any such term, the foregoing provisions of this paragraph will not apply to any such term.
- (e) Nothing in these conditions shall exclude or restrict any liability that the Seller may have by virtue of the Consumer Protection Act 1987.
- (f) Subject to the foregoing and to the provisions of section 2(i) of the Unfair Contracts Terms Act 1977 the Seller shall have no liability to the Buyer in the event of any negligence or wilful default on the part of its servants or agents in or in connection with the supply of any Goods or the design or manufacture thereof or in the carrying out of any Services.

9 RETENTION OF TITLE

- (a) The following provisions shall apply to all contracts other than International Supply Contracts and to all Goods which under the Contract the Seller agrees to supply to the Buyer. No failure by the Seller to enforce strict compliance by the Buyer with such provisions shall constitute a waiver thereof and no termination of the Contract shall prejudice limit or extinguish the Seller's rights under this paragraph. (i) Upon delivery of the Goods the Buyer shall hold the Goods solely as bailee for the Seller and the Goods shall remain the property of the Seller until such time as the Buyer shall have paid to the Seller and the Seller shall have cleared funds for the full purchase price thereof. Until such time the Seller shall be entitled to recover the Goods or any part thereof and for the purpose of exercising such rights the Buyer hereby grants a licence to the Seller its employees and agents with appropriate transport to enter upon the Buyer's premises and any other location where the Goods are situated and remove the Goods. (ii) The Buyer is hereby granted a licence by the Seller to incorporate the Goods in any other products. (iii) The licence granted under sub-clause (i) hereof shall extend to detaching the Goods from any property to which they are attached or into which they have been incorporated or from any other products or Goods to which they have been attached pursuant to the licence granted under sub-clause (ii) hereof. (iv) The Buyer is hereby licensed to agree to sell on the Goods and any products incorporating any of them on condition that the Buyer shall inform its customer of the provisions of sub-clauses (i)-(iii) hereof. The Buyer acts as the Seller's bailee in respect of any such sale and shall, immediately upon receipt of the proceeds of sale, and whether or not payment has become due under clause 6 hereof, remit to the Seller the full purchase price of the Goods sold on less any part thereof which has already been paid and until such amount has been so remitted shall hold such amount as trustee and agent for the Seller. (v) The Buyer shall maintain all appropriate insurance in respect of the Goods from the date or dates on which the risk therein passes to him. In the event of any loss or damage occurring while the Goods remain the property of the Seller the Buyer shall immediately on receipt of the insurance monies, remit to the Seller the full purchase price of the Goods lost or damaged less any part thereof which has al ready been paid and until such mount has been so remitted shall hold such amount as trustee and agent for the Seller. For the avoidance of doubt the provisions of this sub-clause do not affect the Buyer's obligations under clause 6 hereof. (vi) The licences granted under sub-clauses (ii) and (iv) above shall be terminable forthwith at any time upon notice by the Seller to the Buyer. In the case of International Supply Contracts property in the Goods shall pass to the Buyer on delivery.

10 EXPORT

- (a) If the Contract is an International Supply Contract it shall be deemed to incorporate the latest edition of Incoterms current at the date of the Contract save that in the event of any inconsistency between Incoterms and any express term of the Contract the latter shall prevail. The Seller shall be under no obligation to give the Buyer the notice specified in section 32 (3) of the Sale of Goods Act 1979.
- (b) The Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods into the country of destination and for the payment of any duties thereon.

11 ILLUSTRATIONS AND DESCRIPTIONS

- (a) Photographs, drawings and other illustrations or descriptions contained in any catalogue, price lists, brochure or other document of the Seller shall not (save where the contrary is expressly stipulated in the order) form part of any contract between the Buyer and the Seller and on warranty is given that the goods supplied will correspond exactly with those specified.
- (b) No oral statement or representation made at any time prior to the contract shall be a term of the contract or deemed to be in inducement or collateral contract pursuant to which the Buyer entered into the contract.
- (c) The Seller reserves the right at any time before or after an order is placed to vary or alter or amend any particular descriptions, prices, measurements or specifications contained in its catalogue, price lists, brochures and other sales literature and such amendments and variations shall be binding upon the Buyer.

12 GENERAL

- (a) The proper law of all contracts with the Seller shall be English law which shall govern in all respects the construction and effect of such contracts and of these conditions. The Buyer agrees that in the event of any dispute arising out of the Contract or the performance thereof he will submit to the jurisdiction of the English court.
- (b) The headings to the paragraphs of these conditions are for ease of reference only and shall not affect the interpretation or construction thereof.
- (c) If any provision of these conditions is or becomes illegal, void or unenforceable for any reason, the validity of the remaining provisions shall not be affected.
- (d) Failure by the Seller to enforce strict compliance with these conditions by the Buyer will not constitute a waiver of any of the provisions of these conditions.
- (e) Any reference in these conditions to any provision of a statute shall be construed as a reference to that provision as amended, re-enacted or extended at the relevant time. This does not affect Your statutory rights.



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Castle Brooke Tools (UK) Ltd

Princess Street
Sheffield
S4 7UU
England

T: +44 (0) 114 261 7200
F: +44 (0) 114 261 7370
E: info@castlebrooke.co.uk

www.castlebrooke.co.uk

