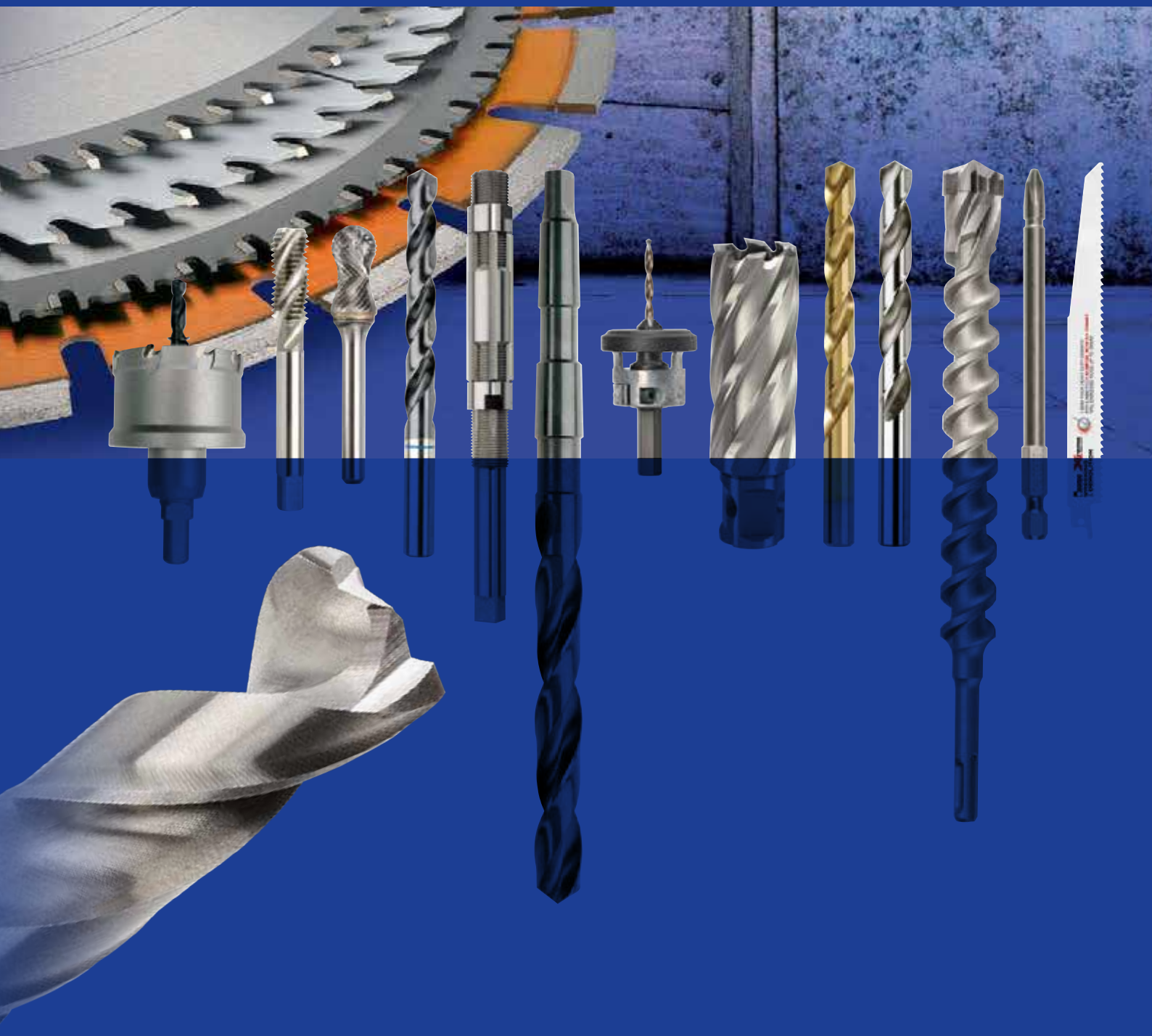
BORDO®
INDUSTRIAL TOOLS



BUYER'S GUIDE 03/2016

BORDO®
INDUSTRIAL TOOLS

All prices in this Bordo Buyer's Guide are shown in AUSTRALIAN DOLLARS and exclude GST.
Prices throughout this document are 'recommended retail prices' and there is no obligation for distributors or retailers to comply with the pricing recommendations.

Bordo International continues to make a significant commitment to environmental awareness and sustainability.

Wherever possible we avoid creating emissions, we continue to reduce the emissions that we make and we offset the emissions that we can't avoid.

- Wherever possible we utilise recyclable packing and implement a strict recycling program in our office and warehouse facilities.
- Our corporate headquarters, in the the eastern suburbs of Melbourne, is one of the first privately owned 5 star rated buildings in Australia - certified by the Green Building Council of Australia.
- In 2012 our 85kW solar array was installed – enough to supply all our electricity needs.
- We maximise our use of electronic communications and store most documents electronically to minimise the use of laser printers and paper.
- We offset the carbon emissions of our vehicles through accredited carbon offset programs.

This Buyer's Guide is printed using vegetable based inks on PEFC certified paper. Where possible we supply this publication electronically to reduce our paper usage.





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NEW PRODUCT

METRIC JOBBER DRILLS
DIN338

NEW
DELTA POINT

The Delta Point drill bit is completely unlike traditional chisel point and split point drill bits. Rather than try to modify existing point types or tweak the grind angles, Delta Point tip design required a revolutionary re-think of drill tip function.

Delta Point drills have a multi-faceted cutting tip. The overall length of the cutting edge of Delta Point significantly exceeds that of conventional split point drills of comparable size. This means there is more edge doing the cutting and this is one reason the design is superior to anything that has come before it. Although the final design might look complicated the results are simply extraordinary.

Drills 2 times faster, lasts 10 times longer!

DRILLS FASTER LASTS LONGER

GROUP	DELT
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	**DELTA POINT***
FLUTE TYPE	30º HELIX
PACKAGING	**BULK**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
1.00	12	34	10	**4.03**	2015-1.00
1.50	18	40	10	**4.03**	2015-1.50
2.00	24	49	10	**3.27**	2015-2.00
2.50	30	57	10	**3.27**	2015-2.50
3.00	33	61	10	**3.11**	2015-3.00
3.20	36	65	10	**3.11**	2015-3.20
3.30	36	65	10	**3.27**	2015-3.30
3.50	39	70	10	**3.41**	2015-3.50
3.70	39	70	10	**3.54**	2015-3.70
3.90	43	75	10	**3.82**	2015-3.90
4.00	43	75	10	**3.95**	2015-4.00
4.10	43	75	10	**4.03**	2015-4.10
4.20	43	75	10	**4.35**	2015-4.20
4.50	47	80	10	**4.35**	2015-4.50
4.70	47	80	10	**4.78**	2015-4.70
5.00	52	86	10	**5.14**	2015-5.00
5.10	52	86	10	**5.39**	2015-5.10
5.20	52	86	10	**5.94**	2015-5.20
5.50	57	93	10	**5.94**	2015-5.50
6.00	57	93	10	**6.76**	2015-6.00
6.20	63	101	10	**7.02**	2015-6.20
6.50	63	101	10	**7.54**	2015-6.50
6.60	63	101	10	**8.25**	2015-6.60
6.80	69	109	10	**8.37**	2015-6.80
6.90	69	109	10	**8.37**	2015-6.90
7.00	69	109	10	**8.80**	2015-7.00
7.20	69	109	10	**9.48**	2015-7.20
7.50	69	109	10	**9.98**	2015-7.50
7.80	75	117	10	**10.83**	2015-7.80
7.90	75	117	10	**10.83**	2015-7.90
8.00	75	117	5	**10.83**	2015-8.00
8.50	75	117	5	**12.21**	2015-8.50
8.80	81	125	5	**13.43**	2015-8.80
9.00	81	125	5	**13.43**	2015-9.00
9.20	81	125	5	**14.85**	2015-9.20
9.30	81	125	5	**14.85**	2015-9.30
9.40	81	125	5	**14.85**	2015-9.40
9.50	81	125	5	**14.85**	2015-9.50
9.90	87	133	5	**15.84**	2015-9.90
10.00	87	133	5	**15.95**	2015-10.00
10.20	87	133	5	**17.73**	2015-10.20
10.50	87	133	5	**18.06**	2015-10.50
10.80	94	142	5	**29.77**	2015-10.80
11.00	94	142	5	**20.82**	2015-11.00
11.50	94	142	5	**23.44**	2015-11.50
11.80	94	142	5	**36.52**	2015-11.80
12.00	101	151	5	**26.51**	2015-12.00
12.20	101	151	5	**40.61**	2015-12.20
12.50	101	151	5	**29.21**	2015-12.50
12.80	101	151	5	**43.28**	2015-12.80
12.90	101	151	5	**43.28**	2015-12.90
13.00	101	151	5	**31.35**	2015-13.00

GROUP	DELT
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	**DELTA POINT***
FLUTE TYPE	30º HELIX
PACKAGING	**SET**



SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER
M2 JOBBER – ABS CASE	19	**160.15**	2015-M2
1.0 - 10.0 x 0.5mm rises			
M3 JOBBER – ABS CASE	25	**315.13**	2015-M3
1.0 - 13.0 x 0.5mm rises			
M5 JOBBER – ABS CASE	19	**207.40**	2015-M5
1.0 - 6.5 x 0.5mm rises			
7.0 - 13.0 x 1.0mm rises			



MERCHANDISER DESCRIPTION MERCHANDISER CONTENTS	SET QTY	$ MERCH.	PART NUMBER
DS1 MERCHANDISER 9 SETS		**2,048.04**	2015-DS1
M2 DRILL SET	3		
M3 DRILL SET	3		
M5 DRILL SET	3		
DS3 MERCHANDISER 9 SETS		**2,836.17**	2015-DS3
M3 DRILL SET	9		

* Sizes 2.5mm and below are 135º standard chisel point.



GROUP	DELT
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	**DELTA POINT***
FLUTE TYPE	30º HELIX
PACKAGING	**CLAM SHELL**



DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
1.00	12	34	2	**8.32**	2015-1.00S
1.50	18	40	2	**7.58**	2015-1.50S
2.00	24	49	2	**6.89**	2015-2.00S
2.50	30	57	2	**6.89**	2015-2.50S
3.00	33	61	2	**6.49**	2015-3.00S
3.50	39	70	1	**3.95**	2015-3.50S
4.00	43	75	1	**4.47**	2015-4.00S
4.50	47	80	1	**4.85**	2015-4.50S
5.00	52	86	1	**5.66**	2015-5.00S
5.50	57	93	1	**6.49**	2015-5.50S
6.00	57	93	1	**7.30**	2015-6.00S
6.50	63	101	1	**8.16**	2015-6.50S
7.00	69	109	1	**9.35**	2015-7.00S
7.50	69	109	1	**10.56**	2015-7.50S
8.00	75	117	1	**11.37**	2015-8.00S
8.50	75	117	1	**12.70**	2015-8.50S
9.00	81	125	1	**13.96**	2015-9.00S
9.50	81	125	1	**15.42**	2015-9.50S
10.00	87	133	1	**16.51**	2015-10.00S
10.50	87	133	1	**18.53**	2015-10.50S
11.00	94	142	1	**21.36**	2015-11.00S
11.50	94	142	1	**23.94**	2015-11.50S
12.00	101	151	1	**27.03**	2015-12.00S
12.50	101	151	1	**29.77**	2015-12.50S
13.00	101	151	1	**31.90**	2015-13.00S

DRILLS FASTER LASTS LONGER





GROUP	DELT
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	**DELTA POINT***
FLUTE TYPE	30º HELIX
PACKAGING	**CLAM SHELL**

MERCHANDISER TYPE	$ MERCH	PART NUMBER
DELTA POINT 171 CLAM SHELLS	**1,712.75**	2015-D1

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER
	10	2015-1.00S
	10	2015-1.50S
	10	2015-2.00S
	10	2015-2.50S
	10	2015-3.00S
	10	2015-3.50S
	10	2015-4.00S
	10	2015-4.50S
	10	2015-5.00S
	5	2015-5.50S
	10	2015-6.00S
	5	2015-6.50S
	5	2015-7.00S
	5	2015-7.50S
	10	2015-8.00S
	5	2015-8.50S
	5	2015-9.00S
	3	2015-9.50S
	10	2015-10.00S
	3	2015-10.50S
	3	2015-11.00S
	3	2015-11.50S
	3	2015-12.00S
	3	2015-12.50S
	3	2015-13.00S

NEW PRODUCT

METRIC JOBBER DRILLS
DIN338

NEW DELTA POINT

Delta Point drills are nearly twice as fast as conventional split point drills in mild steel. The time savings in stainless steel, aluminium and wood are even more significant.

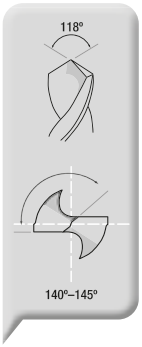
The productivity gains from a Delta Point drill speak for themselves, but what about drill bit life? During independent drill bit lifetime testing, using 20mm mild steel plate as a reference material, Delta Point drill bits drilled ten times more holes than conventional split point drill bits.

Drills 2 times faster, lasts 10 times longer!

DRILLS FASTER LASTS LONGER

* Sizes 2.5mm and below are 135º standard chisel point.

METRIC JOBBER DRILLS
DIN338



118° Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118° point angles are ideal for use in materials such as mild steel and cast iron. The 118° point creates easily controlled chips which are wide and thin.



135° Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135° point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.






GROUP	JOBB	JOBB	JOBB	JOBB
SURFACE FINISH	BRIGHT	BLACK	BRONZE	BLACK
MATERIAL	HSS	HSS	HSS-Co5	HSS
POINT TYPE	**118° SPLIT POINT***	**118° SPLIT POINT***	**135° SPLIT POINT†**	**118° CHISEL POINT**
FLUTE TYPE	30° HELIX	30° HELIX	30° HELIX	30° HELIX
PACKAGING	**BULK**	**BULK**	**BULK**	**BULK**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
0.30	4	19	10	**15.43**	2007-0.30	–	–	–	–	–	–
0.35	4	19	10	**10.44**	2007-0.35	–	–	–	–	–	–
0.38	4	19	10	**14.12**	2007-0.38	–	–	–	–	–	–
0.40	5	20	10	**10.17**	2007-0.40	–	–	–	–	–	–
0.45	5	20	10	**10.17**	2007-0.45	–	–	–	–	–	–
0.50	6	22	10	**10.17**	2007-0.50	–	–	–	–	–	–
0.55	7	24	10	**10.17**	2007-0.55	–	–	–	–	–	–
0.60	7	24	10	**10.17**	2007-0.60	–	–	–	–	–	–
0.65	8	26	10	**10.17**	2007-0.65	–	–	–	–	–	–
0.70	9	28	10	**10.17**	2007-0.70	–	–	–	–	–	–
0.75	9	28	10	**10.17**	2007-0.75	–	–	–	–	–	–
0.80	10	30	10	**6.49**	2007-0.80	–	–	–	–	–	–
0.85	10	30	10	**6.49**	2007-0.85	–	–	–	–	–	–
0.90	11	32	10	**6.49**	2007-0.90	–	–	–	–	–	–
0.95	11	32	10	**6.49**	2007-0.95	–	–	–	–	–	–
1.00	12	34	10	**4.03**	2007-1.00	**4.03**	2003-1.00	**14.66**	2011-1.00	–	–
1.05	12	34	10	–	–	**4.03**	2003-1.05	–	–	–	–
1.10	14	36	10	**4.03**	2007-1.10	**4.03**	2003-1.10	–	–	–	–
1.15	14	36	10	–	–	**4.03**	2003-1.15	–	–	–	–
1.20	16	38	10	**4.03**	2007-1.20	**4.03**	2003-1.20	–	–	–	–
1.25	16	38	10	**4.03**	2007-1.25	**4.03**	2003-1.25	–	–	–	–
1.30	16	38	10	**4.03**	2007-1.30	**4.03**	2003-1.30	–	–	–	–
1.35	18	40	10	–	–	**4.85**	2003-1.35	–	–	–	–
1.40	18	40	10	**4.85**	2007-1.40	**4.85**	2003-1.40	–	–	–	–
1.45	18	40	10	–	–	**4.85**	2003-1.45	–	–	–	–
1.50	18	40	10	**3.61**	2007-1.50	**3.61**	2003-1.50	**14.66**	2011-1.50	–	–
1.55	20	43	10	–	–	**4.85**	2003-1.55	–	–	–	–
1.60	20	43	10	**3.54**	2007-1.60	**3.54**	2003-1.60	–	–	–	–
1.65	20	43	10	–	–	**4.35**	2003-1.65	–	–	–	–
1.70	20	43	10	**3.41**	2007-1.70	**3.41**	2003-1.70	–	–	–	–
1.75	22	46	10	**4.03**	2007-1.75	**4.03**	2003-1.75	–	–	–	–
1.80	22	46	10	**3.27**	2007-1.80	**3.27**	2003-1.80	–	–	–	–
1.85	22	46	10	–	–	**3.89**	2003-1.85	–	–	–	–
1.90	22	46	10	**3.27**	2007-1.90	**3.27**	2003-1.90	–	–	–	–
1.95	24	49	10	–	–	**3.89**	2003-1.95	–	–	–	–
2.00	24	49	10	**3.27**	2007-2.00	**3.27**	2003-2.00	**7.33**	2011-2.00	–	–
2.05	24	49	10	–	–	**3.89**	2003-2.05	–	–	–	–
2.10	24	49	10	**3.27**	2007-2.10	**3.27**	2003-2.10	–	–	–	–
2.15	27	53	10	–	–	**3.89**	2003-2.15	–	–	–	–
2.20	27	53	10	**3.27**	2007-2.20	**3.27**	2003-2.20	–	–	–	–
2.25	27	53	10	**3.27**	2007-2.25	**3.27**	2003-2.25	–	–	–	–
2.30	27	53	10	**3.27**	2007-2.30	**3.27**	2003-2.30	–	–	–	–
2.35	27	53	10	–	–	**3.89**	2003-2.35	–	–	–	–
2.40	30	57	10	**3.27**	2007-2.40	**3.27**	2003-2.40	–	–	–	–
2.45	30	57	10	–	–	**3.89**	2003-2.45	–	–	–	–
2.50	30	57	10	**3.27**	2007-2.50	**3.27**	2003-2.50	**7.33**	2011-2.50	–	–
2.55	30	57	10	–	–	**3.89**	2003-2.55	–	–	–	–
2.60	30	57	10	**3.27**	2007-2.60	**3.27**	2003-2.60	–	–	–	–
2.65	30	57	10	–	–	**3.56**	2003-2.65	–	–	–	–
2.70	33	61	10	**2.97**	2007-2.70	**2.97**	2003-2.70	–	–	–	–
2.75	33	61	10	**3.56**	2007-2.75	**3.56**	2003-2.75	–	–	–	–
2.80	33	61	10	**2.97**	2007-2.80	**2.97**	2003-2.80	–	–	–	–
2.85	33	61	10	–	–	**3.56**	2003-2.85	–	–	–	–
2.90	33	61	10	**2.97**	2007-2.90	**2.97**	2003-2.90	–	–	–	–

* Sizes 3.40mm, 1/8" and below are 118° standard chisel point. † 1.00mm, 1.50mm and 1/16" are 135° standard chisel point.






GROUP	JOBB	JOBB	JOBB	JOBB
SURFACE FINISH	BRIGHT	BLACK	BRONZE	BLACK
MATERIAL	HSS	HSS	HSS-Co5	HSS
POINT TYPE	**118º SPLIT POINT***	**118º SPLIT POINT***	**135º SPLIT POINT**	**118º CHISEL POINT**
FLUTE TYPE	30º HELIX	30º HELIX	30º HELIX	30º HELIX
PACKAGING	**BULK**	**BULK**	**BULK**	**BULK**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
2.95	33	61	10	–	–	3.56	2003-2.95	–	–	–	–
3.00	33	61	10	3.11	2007-3.00	3.11	2003-3.00	7.29	2011-3.00	–	–
3.10	36	65	10	3.11	2007-3.10	3.11	2003-3.10	–	–	3.11	2008-3.10
3.20	36	65	12	3.11	2007-3.20	3.11	2003-3.20	–	–	–	–
3.26	36	65	10	5.66	2013-30	–	–	–	–	–	–
3.30	36	65	10	3.27	2007-3.30	3.27	2003-3.30	–	–	3.27	2008-3.30
3.40	39	70	10	3.27	2007-3.40	3.27	2003-3.40	–	–	–	–
3.50	39	70	10	3.41	2007-3.50	3.41	2003-3.50	8.01	2011-3.50	3.41	2008-3.50
3.60	39	70	10	3.54	2007-3.60	3.54	2003-3.60	–	–	–	–
3.70	39	70	10	3.54	2007-3.70	3.54	2003-3.70	–	–	–	–
3.80	43	75	10	3.61	2007-3.80	3.61	2003-3.80	–	–	–	–
3.90	43	75	10	3.82	2007-3.90	3.82	2003-3.90	–	–	–	–
4.00	43	75	10	3.95	2007-4.00	3.95	2003-4.00	9.19	2011-4.00	3.95	2008-4.00
4.10	43	75	10	4.03	2007-4.10	4.03	2003-4.10	–	–	–	–
4.20	43	75	10	4.35	2007-4.20	4.35	2003-4.20	–	–	4.35	2008-4.20
4.30	47	80	10	4.35	2007-4.30	4.35	2003-4.30	–	–	–	–
4.40	47	80	10	4.35	2007-4.40	4.35	2003-4.40	–	–	–	–
4.50	47	80	10	4.35	2007-4.50	4.35	2003-4.50	10.09	2011-4.50	4.35	2008-4.50
4.60	47	80	10	4.78	2007-4.60	4.78	2003-4.60	–	–	4.78	2008-4.60
4.70	47	80	10	4.78	2007-4.70	4.78	2003-4.70	–	–	–	–
4.80	52	86	10	4.85	2007-4.80	4.85	2003-4.80	–	–	4.85	2008-4.80
4.90	52	86	10	5.14	2007-4.90	5.14	2003-4.90	–	–	–	–
5.00	52	86	10	5.14	2007-5.00	5.14	2003-5.00	11.91	2011-5.00	5.14	2008-5.00
5.10	52	86	10	5.39	2007-5.10	5.39	2003-5.10	–	–	5.39	2008-5.10
5.20	52	86	10	5.94	2007-5.20	5.94	2003-5.20	–	–	–	–
5.30	52	86	10	5.94	2007-5.30	5.94	2003-5.30	–	–	–	–
5.40	57	93	10	5.94	2007-5.40	5.94	2003-5.40	–	–	–	–
5.50	57	93	10	5.94	2007-5.50	5.94	2003-5.50	13.75	2011-5.50	5.94	2008-5.50
5.60	57	93	10	6.49	2007-5.60	6.49	2003-5.60	–	–	–	–
5.70	57	93	10	6.49	2007-5.70	6.49	2003-5.70	–	–	–	–
5.80	57	93	10	6.49	2007-5.80	6.49	2003-5.80	–	–	–	–
5.90	57	93	10	6.49	2007-5.90	6.49	2003-5.90	–	–	–	–
6.00	57	93	10	6.76	2007-6.00	6.76	2003-6.00	15.80	2011-6.00	6.76	2008-6.00
6.10	63	101	10	7.02	2007-6.10	7.02	2003-6.10	–	–	–	–
6.20	63	101	10	7.02	2007-6.20	7.02	2003-6.20	–	–	–	–
6.30	63	101	10	7.02	2007-6.30	7.02	2003-6.30	–	–	–	–
6.40	63	101	10	7.54	2007-6.40	7.54	2003-6.40	–	–	–	–
6.50	63	101	10	7.54	2007-6.50	7.54	2003-6.50	17.03	2011-6.50	7.54	2008-6.50
6.60	63	101	10	8.25	2007-6.60	8.25	2003-6.60	–	–	–	–
6.70	63	101	10	8.25	2007-6.70	8.25	2003-6.70	–	–	–	–
6.80	69	109	10	8.37	2007-6.80	8.37	2003-6.80	–	–	8.37	2008-6.80
6.90	69	109	10	8.37	2007-6.90	8.37	2003-6.90	–	–	–	–
7.00	69	109	10	8.80	2007-7.00	8.80	2003-7.00	19.94	2011-7.00	8.80	2008-7.00
7.10	69	109	10	8.80	2007-7.10	8.80	2003-7.10	–	–	–	–
7.20	69	109	10	9.48	2007-7.20	9.48	2003-7.20	–	–	–	–
7.30	69	109	10	9.48	2007-7.30	9.48	2003-7.30	–	–	–	–
7.40	69	109	10	9.48	2007-7.40	9.48	2003-7.40	–	–	–	–
7.50	69	109	10	9.98	2007-7.50	9.98	2003-7.50	22.58	2011-7.50	9.98	2008-7.50
7.60	75	117	10	10.27	2007-7.60	10.27	2003-7.60	–	–	–	–
7.70	75	117	10	10.83	2007-7.70	10.83	2003-7.70	–	–	–	–
7.80	75	117	10	10.83	2007-7.80	10.83	2003-7.80	–	–	–	–
7.90	75	117	10	10.83	2007-7.90	10.83	2003-7.90	–	–	–	–
8.00	75	117	5	10.83	2007-8.00	10.83	2003-8.00	24.33	2011-8.00	10.83	2008-8.00
8.10	75	117	5	11.63	2007-8.10	11.63	2003-8.10	–	–	–	–

DRILL BIT SURFACE TREATMENT

BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition. *These tools are suitable for general purpose use, particularly for non-ferrous applications.*

BLACK FINISH
(also called blue finish)
A black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface helps to keep lubricant on the tool, particularly important on the cutting edges, thus reducing friction and cold welding. The result is increased tool life.
Black finish tools are generally recommended for ferrous applications where the oxide layer aids chip flow and heat dissipation.

BRONZE FINISH
(gold oxide)
This metallic brown coloured low temperature temper treatment is normally only used on cobalt tools for identification purposes.
Cobalt HSS drills are extremely hard and provide superior performance and increased tool life especially in stainless steel and high tensile steel.

COLOUR BAND SERIES

Drills & Taps designed for optimum machining efficiency in specific materials

PAGE
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DRILL BIT MATERIALS

HIGH SPEED STEEL (HSS)

Bordo HSS jobber drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process. HSS has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS jobber drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.

HSS-Co5 (COBALT)

Bordo Cobalt jobber drills are manufactured from HSS-Co5 steel, which is very similar to M2 HSS with the important addition of 5% cobalt. The addition of cobalt to M2 HSS significantly increases heat resistance and allows the drill to run at higher temperatures without losing its temper (hardness). Cobalt drills provide increased performance and tool life when machining tough steels.

HSS-Co5 (Cobalt) jobber drills are ideal for use in drilling stainless steel and high tensile steel.

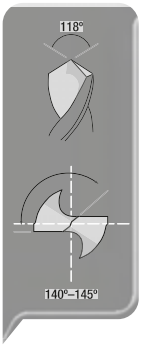
GROUP				JOBB		JOBB		JOBB		JOBB	
SURFACE FINISH				BRIGHT		BLACK		BRONZE		BLACK	
MATERIAL				HSS		HSS		HSS-Co5		HSS	
POINT TYPE				118º SPLIT POINT*		118º SPLIT POINT*		135º SPLIT POINT		118º CHISEL POINT	
FLUTE TYPE				30º HELIX		30º HELIX		30º HELIX		30º HELIX	
PACKAGING				BULK		BULK		BULK		BULK	
DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
8.20	75	117	5	11.63	2007-8.20	11.63	2003-8.20	–	–	–	–
8.30	75	117	5	11.63	2007-8.30	11.63	2003-8.30	–	–	–	–
8.40	75	117	5	11.89	2007-8.40	11.89	2003-8.40	–	–	–	–
8.50	75	117	5	12.21	2007-8.50	12.21	2003-8.50	26.80	2011-8.50	12.21	2008-8.50
8.60	81	125	5	12.87	2007-8.60	12.87	2003-8.60	–	–	–	–
8.70	81	125	5	12.87	2007-8.70	12.87	2003-8.70	–	–	–	–
8.80	81	125	5	13.43	2007-8.80	13.43	2003-8.80	–	–	–	–
8.90	81	125	5	13.43	2007-8.90	13.43	2003-8.90	–	–	–	–
9.00	81	125	5	13.43	2007-9.00	13.43	2003-9.00	29.39	2011-9.00	13.43	2008-9.00
9.10	81	125	5	13.96	2007-9.10	13.96	2003-9.10	–	–	–	–
9.20	81	125	5	14.85	2007-9.20	14.85	2003-9.20	–	–	–	–
9.30	81	125	5	14.85	2007-9.30	14.85	2003-9.30	–	–	–	–
9.40	81	125	5	14.85	2007-9.40	14.85	2003-9.40	–	–	–	–
9.50	81	125	5	14.85	2007-9.50	14.85	2003-9.50	32.83	2011-9.50	14.85	2008-9.50
9.60	81	125	5	15.70	2007-9.60	15.70	2003-9.60	–	–	–	–
9.70	87	133	5	15.70	2007-9.70	15.70	2003-9.70	–	–	–	–
9.80	87	133	5	15.84	2007-9.80	15.84	2003-9.80	–	–	–	–
9.90	87	133	5	15.84	2007-9.90	15.84	2003-9.90	–	–	–	–
10.00	87	133	5	15.95	2007-10.00	15.95	2003-10.00	35.00	2011-10.00	15.95	2008-10.00
10.10	87	133	5	24.35	2007-10.10	24.35	2003-10.10	–	–	–	–
10.20	87	133	5	17.73	2007-10.20	17.73	2003-10.20	–	–	17.73	2008-10.20
10.30	87	133	5	24.35	2007-10.30	24.35	2003-10.30	–	–	–	–
10.40	87	133	5	25.71	2007-10.40	25.71	2003-10.40	–	–	–	–
10.50	87	133	5	18.06	2007-10.50	18.06	2003-10.50	39.53	2011-10.50	18.06	2008-10.50
10.60	87	133	5	27.03	2007-10.60	27.03	2003-10.60	–	–	–	–
10.70	94	142	5	27.03	2007-10.70	27.03	2003-10.70	–	–	–	–
10.80	94	142	5	29.77	2007-10.80	29.77	2003-10.80	–	–	–	–
10.90	94	142	5	29.77	2007-10.90	29.77	2003-10.90	–	–	–	–
11.00	94	142	5	20.82	2007-11.00	20.82	2003-11.00	45.78	2011-11.00	20.82	2008-11.00
11.10	94	142	5	32.47	2007-11.10	32.47	2003-11.10	–	–	–	–
11.20	94	142	5	33.83	2007-11.20	33.83	2003-11.20	–	–	–	–
11.30	94	142	5	33.83	2007-11.30	33.83	2003-11.30	–	–	–	–
11.40	94	142	5	33.83	2007-11.40	33.83	2003-11.40	–	–	–	–
11.50	94	142	5	23.44	2007-11.50	23.44	2003-11.50	51.41	2011-11.50	23.44	2008-11.50
11.60	94	142	5	36.52	2007-11.60	36.52	2003-11.60	–	–	–	–
11.70	94	142	5	36.52	2007-11.70	36.52	2003-11.70	–	–	–	–
11.80	94	142	5	36.52	2007-11.80	36.52	2003-11.80	–	–	–	–
11.90	101	151	5	36.52	2007-11.90	36.52	2003-11.90	–	–	–	–
12.00	101	151	5	26.51	2007-12.00	26.51	2003-12.00	58.32	2011-12.00	26.51	2008-12.00
12.10	101	151	5	40.61	2007-12.10	40.61	2003-12.10	–	–	–	–
12.20	101	151	5	40.61	2007-12.20	40.61	2003-12.20	–	–	–	–
12.30	101	151	5	40.61	2007-12.30	40.61	2003-12.30	–	–	–	–
12.40	101	151	5	41.94	2007-12.40	41.94	2003-12.40	–	–	–	–
12.50	101	151	5	29.21	2007-12.50	29.21	2003-12.50	64.17	2011-12.50	29.21	2008-12.50
12.60	101	151	5	41.94	2007-12.60	41.94	2003-12.60	–	–	–	–
12.70	101	151	5	43.28	2007-12.70	43.28	2003-12.70	–	–	–	–
12.80	101	151	5	43.28	2007-12.80	43.28	2003-12.80	–	–	–	–
12.90	101	151	5	43.28	2007-12.90	43.28	2003-12.90	–	–	–	–
13.00	101	151	5	31.35	2007-13.00	31.35	2003-13.00	68.89	2011-13.00	31.35	2008-13.00



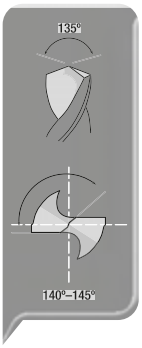


GROUP					JOBB		JOBB		JOBB	
SURFACE FINISH					BRIGHT		BLACK		BRONZE	
MATERIAL					HSS		HSS		HSS-Co5	
POINT TYPE					**118º SPLIT POINT***		**118º SPLIT POINT***		**135º SPLIT POINT†**	
FLUTE TYPE					30º HELIX		30º HELIX		30º HELIX	
PACKAGING					**BULK**		**BULK**		**BULK**	
DIA INCH	MM	**FL** MM	**OAL** MM	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
1/64	0.40	5	19	10	**10.98**	2006-1/64	**10.98**	2000-1/64	**–**	-
1/32	0.79	13	35	10	**7.01**	2006-1/32	**7.01**	2000-1/32	**–**	-
3/64	1.19	19	44	10	**4.03**	2006-3/64	**4.03**	2000-3/64	**–**	-
1/16	1.59	22	48	10	**3.54**	2006-1/16	**3.54**	2000-1/16	**7.96**	2010-1/16
5/64	1.98	25	51	10	**3.27**	2006-5/64	**3.27**	2000-5/64	**7.33**	2010-5/64
3/32	2.38	32	57	10	**3.27**	2006-3/32	**3.27**	2000-3/32	**7.33**	2010-3/32
7/64	2.78	38	67	10	**2.97**	2006-7/64	**2.97**	2000-7/64	**6.64**	2010-7/64
1/8	3.17	41	70	10	**3.11**	2006-1/8	**3.11**	2000-1/8	**7.29**	2010-1/8
9/64	3.57	44	73	10	**3.54**	2006-9/64	**3.54**	2000-9/64	**8.23**	2010-9/64
5/32	3.97	51	79	10	**3.82**	2006-5/32	**3.82**	2000-5/32	**8.93**	2010-5/32
11/64	4.37	54	83	10	**4.35**	2006-11/64	**4.35**	2000-11/64	**10.09**	2010-11/64
3/16	4.76	59	89	10	**4.78**	2006-3/16	**4.78**	2000-3/16	**10.98**	2010-3/16
13/64	5.16	62	92	10	**5.39**	2006-13/64	**5.39**	2000-13/64	**12.61**	2010-13/64
7/32	5.56	64	95	10	**5.94**	2006-7/32	**5.94**	2000-7/32	**13.75**	2010-7/32
15/64	5.95	67	98	10	**6.49**	2006-15/64	**6.49**	2000-15/64	**15.08**	2010-15/64
1/4	6.35	70	102	10	**7.30**	2006-1/4	**7.30**	2000-1/4	**16.92**	2010-1/4
17/64	6.75	73	105	10	**8.25**	2006-17/64	**8.25**	2000-17/64	**18.58**	2010-17/64
9/32	7.14	75	108	10	**9.20**	2006-9/32	**9.20**	2000-9/32	**20.79**	2010-9/32
19/64	7.54	78	111	5	**9.98**	2006-19/64	**9.98**	2000-19/64	**22.58**	2010-19/64
5/16	7.94	81	114	5	**10.83**	2006-5/16	**10.83**	2000-5/16	**24.33**	2010-5/16
21/64	8.33	84	117	5	**11.63**	2006-21/64	**11.63**	2000-21/64	**26.13**	2010-21/64
11/32	8.73	87	121	5	**12.87**	2006-11/32	**12.87**	2000-11/32	**28.77**	2010-11/32
23/64	9.13	89	124	5	**13.96**	2006-23/64	**13.96**	2000-23/64	**31.42**	2010-23/64
3/8	9.52	92	127	5	**14.85**	2006-3/8	**14.85**	2000-3/8	**33.64**	2010-3/8
25/64	9.92	95	130	5	**15.84**	2006-25/64	**15.84**	2000-25/64	**34.56**	2010-25/64
13/32	10.32	98	133	5	**17.73**	2006-13/32	**17.73**	2000-13/32	**38.89**	2010-13/32
27/64	10.72	100	137	5	**19.61**	2006-27/64	**19.61**	2000-27/64	**43.21**	2010-27/64
7/16	11.11	103	140	5	**21.27**	2006-7/16	**21.27**	2000-7/16	**46.63**	2010-7/16
29/64	11.51	106	143	5	**23.51**	2006-29/64	**23.51**	2000-29/64	**51.65**	2010-29/64
15/32	11.91	110	146	5	**26.27**	2006-15/32	**26.27**	2000-15/32	**57.67**	2010-15/32
31/64	12.30	111	149	5	**27.88**	2006-31/64	**27.88**	2000-31/64	**61.17**	2010-31/64
1/2	12.70	114	152	5	**29.21**	2006-1/2	**29.21**	2000-1/2	**64.17**	2010-1/2

FRACTIONAL JOBBER DRILLS
ANSI B94-11

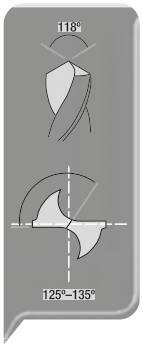


118º Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118º point angles are ideal for use in materials such as mild steel and cast iron. The 118º point creates easily controlled chips which are wide and thin.



135º Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135º point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

* Sizes 3.40mm, 1/8" and below are 118º standard chisel point. † 1.00mm, 1.50mm and 1/16" are 135º standard chisel point.



Standard Point
(chisel point)
Standard point is suitable for general purpose drilling.

USAGE

GAUGE DRILLS
Gauge size drill calculations are generally made utilising a referance book or table. For example, to drill a hole which is 10 thou (thousandth of an inch = .001) bigger than a 1/8" bolt, the user must first work out that 1/8" is 125 thou, so the required hole size is 135 thou. Using a reference table establishes that you would need a number 29.

Number drill bit gauge sizes are analogous to, but different from, American wire gauge.

Number gauge is most commonly used from size 80 (the smallest) to size 1 (the largest) followed by letter gauge size A (the smallest) to size Z (the largest). Number gauge is actually defined down to size 97, but these smallest sizes are very rarely used.

DRILL BIT SURFACE TREATMENT

BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition. *These tools are suitable for general purpose use, particularly for non-ferrous applications.*



GROUP	JOBB
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	**118º STD CHISEL**
FLUTE TYPE	30º HELIX
PACKAGING	**BULK**

DIA GAUGE	DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
80	0.34	1/8	3/4	12	**15.63**	2013-80
79	0.37	1/8	3/4	12	**15.63**	2013-79
78	0.41	3/16	7/8	12	**13.13**	2013-78
77	0.46	3/16	7/8	12	**13.13**	2013-77
76	0.51	3/16	7/8	12	**13.13**	2013-76
75	0.53	1/4	1	12	**13.13**	2013-75
74	0.57	1/4	1	12	**13.13**	2013-74
73	0.61	5/16	1-1/8	12	**13.13**	2013-73
72	0.63	5/16	1-1/8	12	**13.13**	2013-72
71	0.66	3/8	1-1/4	12	**13.13**	2013-71
70	0.71	3/8	1-1/4	12	**10.98**	2013-70
69	0.74	1/2	1-3/8	12	**10.98**	2013-69
68	0.79	1/2	1-3/8	12	**10.16**	2013-68
67	0.81	1/2	1-3/8	12	**10.16**	2013-67
66	0.84	1/2	1-3/8	12	**10.16**	2013-66
65	0.89	5/8	1-1/2	12	**10.16**	2013-65
64	0.91	5/8	1-1/2	12	**10.16**	2013-64
63	0.94	5/8	1-1/2	12	**10.16**	2013-63
62	0.96	5/8	1-1/2	12	**10.16**	2013-62
61	0.99	11/16	1-5/8	12	**10.16**	2013-61
60	1.02	11/16	1-5/8	12	**9.57**	2013-60
59	1.04	11/16	1-5/8	12	**9.57**	2013-59
58	1.07	11/16	1-5/8	12	**9.57**	2013-58
57	1.09	3/4	1-3/4	12	**9.57**	2013-57
56	1.18	3/4	1-3/4	12	**9.57**	2013-56
55	1.32	7/8	1-7/8	12	**6.03**	2013-55
54	1.4	7/8	1-7/8	12	**6.03**	2013-54
53	1.51	7/8	1-7/8	12	**6.03**	2013-53
52	1.61	7/8	1-7/8	12	**5.48**	2013-52
51	1.7	1	2	12	**5.48**	2013-51
50	1.78	1	2	12	**5.48**	2013-50
49	1.85	1	2	12	**5.48**	2013-49
48	1.93	1	2	12	**5.48**	2013-48
47	1.99	1	2	12	**5.48**	2013-47
46	2.06	1-1/8	2-1/8	12	**5.48**	2013-46
45	2.08	1-1/8	2-1/8	12	**5.48**	2013-45
44	2.18	1-1/8	2-1/8	12	**5.48**	2013-44
43	2.26	1-1/4	2-1/4	12	**5.48**	2013-43
42	2.37	1-1/4	2-1/4	12	**5.48**	2013-42
41	2.44	1-3/8	2-3/8	12	**5.48**	2013-41

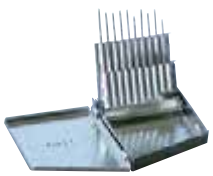
GROUP	JOBB
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	**118º STD CHISEL**
FLUTE TYPE	30º HELIX
PACKAGING	**BULK**

DIA GAUGE	DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
40	2.49	1-3/8	2-3/8	12	**5.39**	2013-40
39	2.53	1-3/8	2-3/8	12	**5.66**	2013-39
38	2.58	1-7/16	2-1/2	12	**5.66**	2013-38
37	2.63	1-7/16	2-1/2	12	**5.66**	2013-37
36	2.70	1-7/16	2-1/2	12	**5.66**	2013-36
35	2.79	1-1/2	2-5/8	12	**5.66**	2013-35
34	2.72	1-1/2	2-5/8	12	**5.66**	2013-34
33	2.87	1-1/2	2-5/8	12	**5.66**	2013-33
32	2.95	1-5/8	2-3/4	12	**5.66**	2013-32
31	3.05	1-5/8	2-3/4	12	**5.66**	2013-31
30	3.26	1-5/8	2-3/4	12	**5.66**	2013-30
29	3.45	1-3/4	2-7/8	12	**6.49**	2013-29
28	3.57	1-3/4	2-7/8	12	**6.49**	2013-28
27	3.66	1-7/8	3	12	**6.49**	2013-27
26	3.73	1-7/8	3	12	**6.49**	2013-26
25	3.80	1-7/8	3	12	**6.49**	2013-25
24	3.86	2	3-1/8	12	**8.66**	2013-24
23	3.91	2	3-1/8	12	**8.66**	2013-23
22	3.99	2	3-1/8	12	**8.66**	2013-22
21	4.04	2-1/8	3-1/4	12	**8.66**	2013-21
20	4.09	2-1/8	3-1/4	12	**8.92**	2013-20
19	4.22	2-1/8	3-1/4	12	**8.92**	2013-19
18	4.30	2-1/8	3-1/4	12	**8.92**	2013-18
17	4.39	2-3/16	3-3/8	12	**8.92**	2013-17
16	4.50	2-3/16	3-3/8	12	**8.92**	2013-16
15	4.57	2-3/16	3-3/8	12	**8.92**	2013-15
14	4.62	2-3/16	3-3/8	12	**8.92**	2013-14
13	4.70	2-5/16	3-1/2	12	**8.92**	2013-13
12	4.80	2-5/16	3-1/2	12	**10.83**	2013-12
11	4.85	2-5/16	3-1/2	12	**10.83**	2013-11
10	4.91	2-7/16	3-5/8	12	**10.83**	2013-10
9	4.98	2-7/16	3-5/8	12	**10.83**	2013-9
8	5.05	2-7/16	3-5/8	12	**11.37**	2013-8
7	5.10	2-7/16	3-5/8	12	**11.37**	2013-7
6	5.18	2-1/2	3-3/4	12	**11.37**	2013-6
5	5.22	2-1/2	3-3/4	12	**11.37**	2013-5
4	5.31	2-1/2	3-3/4	12	**13.52**	2013-4
3	5.41	2-1/2	3-3/4	12	**13.52**	2013-3
2	5.61	2-5/8	3-7/8	12	**13.52**	2013-2
1	5.79	2-5/8	3-7/8	12	**13.52**	2013-1



GAUGE DRILL SETS

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GROUP	JOBB	JOBB	JOBB	JOBB
SURFACE FINISH	BRIGHT	BLACK	BRIGHT	BLACK
MATERIAL	HSS	HSS	HSS	HSS
POINT TYPE	**118º SPLIT POINT***	**118º SPLIT POINT***	**118º SPLIT POINT***	**118º SPLIT POINT***
FLUTE TYPE	30º HELIX	30º HELIX	30º HELIX	30º HELIX
PACKAGING	**BULK**	**BULK**	**BULK**	**BULK**







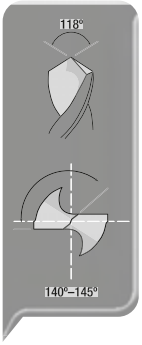


MERCHANDISER TYPE	$ MERCH	PART NUMBER	$ MERCH	PART NUMBER	$ MERCH	PART NUMBER	$ MERCH	PART NUMBER
METRIC **BRIGHT** 230 PIECES	**2,008.05**	2007-D2						
METRIC **BLACK** 230 PIECES			**2,008.05**	2003-D2				
FRACTIONAL **BRIGHT** 265 PIECES					**2,343.50**	2006-D2		
FRACTIONAL **BLACK** 265 PIECES							**2,343.50**	2000-D2

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER
	20	2007-1.00	20	2003-1.00	10	2006-1/16	10	2000-1/16
	10	2007-1.50	10	2003-1.50	10	2006-5/64	10	2000-5/64
	10	2007-2.00	10	2003-2.00	10	2006-3/32	10	2000-3/32
	10	2007-2.50	10	2003-2.50	10	2006-7/64	10	2000-7/64
	20	2007-3.00	20	2003-3.00	20	2006-1/8	20	2000-1/8
	10	2007-3.50	10	2003-3.50	10	2006-9/64	10	2000-9/64
	10	2007-4.00	10	2003-4.00	10	2006-5/32	10	2000-5/32
	10	2007-4.50	10	2003-4.50	10	2006-11/64	10	2000-11/64
	10	2007-5.00	10	2003-5.00	20	2006-3/16	20	2000-3/16
	10	2007-5.50	10	2003-5.50	10	2006-13/64	10	2000-13/64
	20	2007-6.00	20	2003-6.00	10	2006-7/32	10	2000-7/32
	10	2007-6.50	10	2003-6.50	10	2006-15/64	10	2000-15/64
	10	2007-7.00	10	2003-7.00	20	2006-1/4	20	2000-1/4
	10	2007-7.50	10	2003-7.50	10	2006-17/64	10	2000-17/64
	10	2007-8.00	10	2003-8.00	10	2006-9/32	10	2000-9/32
	5	2007-8.50	5	2003-8.50	10	2006-19/64	10	2000-19/64
	5	2007-9.00	5	2003-9.00	10	2006-5/16	10	2000-5/16
	5	2007-9.50	5	2003-9.50	10	2006-21/64	10	2000-21/64
	5	2007-10.00	5	2003-10.00	5	2006-11/32	5	2000-11/32
	5	2007-10.50	5	2003-10.50	5	2006-23/64	5	2000-23/64
	5	2007-11.00	5	2003-11.00	5	2006-3/8	5	2000-3/8
	5	2007-11.50	5	2003-11.50	5	2006-25/64	5	2000-25/64
	5	2007-12.00	5	2003-12.00	5	2006-13/32	5	2000-13/32
	5	2007-12.50	5	2003-12.50	5	2006-27/64	5	2000-27/64
	5	2007-13.00	5	2003-13.00	5	2006-7/16	5	2000-7/16
					5	2006-29/64	5	2000-29/64
					5	2006-15/32	5	2000-15/32
					5	2006-31/64	5	2000-31/64
					5	2006-1/2	5	2000-1/2

METRIC JOBBER DRILLS
DIN338

FRACTIONAL JOBBER DRILLS
ANSI B94-11



118º Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118º point angles are ideal for use in materials such as mild steel and cast iron. The 118º point creates easily controlled chips which are wide and thin.

* Sizes 3.40mm, 1/8" and below are 118º standard chisel point.





METRIC JOBBER DRILLS
DIN338

FRACTIONAL JOBBER DRILLS
ANSI B94-11

GROUP	–
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	118º SPLIT POINT*
FLUTE TYPE	30º HELIX
PACKAGING	**BULK MERCHANDISER**

MERCHANDISER TYPE	TOTAL PIECES	$ MERCHANDISER	PART NUMBER
BULK JOBBER DRAWER MERCHANDISER	630	**6,349.95**	2007-D4

USAGE

PANEL DRILLS
Panel drills are principally used during sheet metal fabrication to drill holes for rivets. They are designed to drill shallow holes that do not exceed 1.25 x drill diameter. When using double ended panel drills ensure the drill chuck jaws are tight to prevent damage to the back of the chuck.

DRILL BIT MATERIALS

HIGH SPEED STEEL (HSS)
Bordo HSS jobber drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process. HSS has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS jobber drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.

MERCHANDISER CONTENTS	QTY EACH	TYPE	SIZE	PART NUMBER	QTY EACH	TYPE	SIZE	PART NUMBER
	10	Jobber	1.0mm	2007-1.00	10	Jobber	1/16"	2006-1/16
	10	Jobber	1.5mm	2007-1.50	10	Jobber	5/64"	2006-5/64
	10	Jobber	2.0mm	2007-2.00	10	Jobber	3/32"	2006-3/32
	10	Jobber	2.5mm	2007-2.50	10	Jobber	7/64"	2006-7/64
	10	Jobber	3.0mm	2007-3.00	10	Jobber	1/8"	2006-1/8
	10	Jobber	3.3mm	2007-3.30	10	Jobber	9/64"	2006-9/64
	10	Jobber	3.5mm	2007-3.50	10	Jobber	5/32"	2006-5/32
	10	Jobber	3.7mm	2007-3.70	10	Jobber	11/64"	2006-11/64
	10	Jobber	3.9mm	2007-3.90	10	Jobber	3/16"	2006-3/16
	10	Jobber	4.0mm	2007-4.00	10	Jobber	13/64"	2006-13/64
	10	Jobber	4.1mm	2007-4.10	10	Jobber	7/32"	2006-7/32
	10	Jobber	4.2mm	2007-4.20	10	Jobber	15/64"	2006-15/64
	10	Jobber	4.5mm	2007-4.50	10	Jobber	1/4"	2006-1/4
	10	Jobber	5.0mm	2007-5.00	10	Jobber	17/64"	2006-17/64
	10	Jobber	5.1mm	2007-5.10	10	Jobber	9/32"	2006-9/32
	10	Jobber	5.5mm	2007-5.50	5	Jobber	19/64"	2006-19/64
	10	Jobber	6.0mm	2007-6.00	5	Jobber	5/16"	2006-5/16
	10	Jobber	6.5mm	2007-6.50	5	Jobber	21/64"	2006-21/64
	10	Jobber	6.6mm	2007-6.60	5	Jobber	11/32"	2006-11/32
	10	Jobber	6.8mm	2007-6.80	5	Jobber	23/64"	2006-23/64
	10	Jobber	6.9mm	2007-6.90	5	Jobber	3/8"	2006-3/8
	10	Jobber	7.0mm	2007-7.00	5	Jobber	25/64"	2006-25/64
	10	Jobber	7.5mm	2007-7.50	5	Jobber	13/32"	2006-13/32
	5	Jobber	8.0mm	2007-8.00	5	Jobber	27/64"	2006-27/64
	5	Jobber	8.4mm	2007-8.40	5	Jobber	7/16"	2006-7/16
	5	Jobber	8.5mm	2007-8.50	5	Jobber	29/64"	2006-29/64
	5	Jobber	8.7mm	2007-8.70	5	Jobber	15/32"	2006-15/32
	5	Jobber	8.8mm	2007-8.80	5	Jobber	31/64"	2006-31/64
	5	Jobber	9.0mm	2007-9.00	5	Jobber	1/2"	2006-1/2
	5	Jobber	9.4mm	2007-9.40				
	5	Jobber	9.5mm	2007-9.50	10	Panel D'End	#30	2345-30
	5	Jobber	9.9mm	2007-9.90	10	Panel D'End	#20	2345-20
	5	Jobber	10.0mm	2007-10.00	10	Panel D'End	#11	2345-11
	5	Jobber	10.2mm	2007-10.20	10	Panel S'End	#30	2346-30
	5	Jobber	10.5mm	2007-10.50	10	Panel S'End	#20	2346-20
	5	Jobber	10.8mm	2007-10.80	10	Panel S'End	#11	2346-11
	5	Jobber	11.0mm	2007-11.00				
	5	Jobber	11.1mm	2007-11.10				
	5	Jobber	11.2mm	2007-11.20				
	5	Jobber	11.5mm	2007-11.50				
	5	Jobber	11.8mm	2007-11.80				
	5	Jobber	12.0mm	2007-12.00				
	5	Jobber	12.2mm	2007-12.20				
	5	Jobber	12.5mm	2007-12.50				
	5	Jobber	12.8mm	2007-12.80				
	5	Jobber	12.9mm	2007-12.90				
	5	Jobber	13.0mm	2007-13.00				

* Sizes 3.40mm, 1/8" and below are 118º standard chisel point.



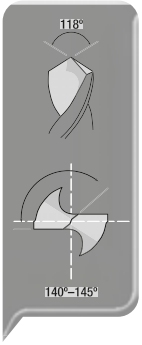


GROUP	–
SURFACE FINISH	BLACK
MATERIAL	HSS
POINT TYPE	118º SPLIT POINT*
FLUTE TYPE	30º HELIX
PACKAGING	**BULK MERCHANDISER**

MERCHANDISER TYPE	TOTAL PIECES	$ MERCHANDISER	PART NUMBER
BULK JOBBER DRAWER MERCHANDISER	630	**6,349.95**	2003-D4

METRIC JOBBER DRILLS
DIN338

FRACTIONAL JOBBER DRILLS
ANSI B94-11

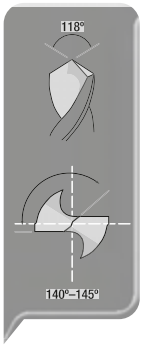


118º Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118º point angles are ideal for use in materials such as mild steel and cast iron. The 118º point creates easily controlled chips which are wide and thin.

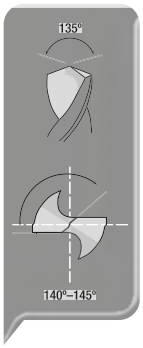
MERCHANDISER CONTENTS	QTY EACH	TYPE	SIZE	PART NUMBER	QTY EACH	TYPE	SIZE	PART NUMBER
	10	Jobber	1.0mm	2003-1.00	10	Jobber	1/16"	2006-1/16
	10	Jobber	1.5mm	2003-1.50	10	Jobber	5/64"	2000-5/64
	10	Jobber	2.0mm	2003-2.00	10	Jobber	3/32"	2000-3/32
	10	Jobber	2.5mm	2003-2.50	10	Jobber	7/64"	2000-7/64
	10	Jobber	3.0mm	2003-3.00	10	Jobber	1/8"	2006-1/8
	10	Jobber	3.3mm	2003-3.30	10	Jobber	9/64"	2000-9/64
	10	Jobber	3.5mm	2003-3.50	10	Jobber	5/32"	2000-5/32
	10	Jobber	3.7mm	2003-3.70	10	Jobber	11/64"	2000-11/64
	10	Jobber	3.9mm	2003-3.90	10	Jobber	3/16"	2000-3/16
	10	Jobber	4.0mm	2003-4.00	10	Jobber	13/64"	2000-13/64
	10	Jobber	4.1mm	2003-4.10	10	Jobber	7/32"	2000-7/32
	10	Jobber	4.2mm	2003-4.20	10	Jobber	15/64"	2000-15/64
	10	Jobber	4.5mm	2003-4.50	10	Jobber	1/4"	2000-1/4
	10	Jobber	5.0mm	2003-5.00	10	Jobber	17/64"	2000-17/64
	10	Jobber	5.1mm	2003-5.10	10	Jobber	9/32"	2000-9/32
	10	Jobber	5.5mm	2003-5.50	5	Jobber	19/64"	2000-19/64
	10	Jobber	6.0mm	2003-6.00	5	Jobber	5/16"	2000-5/16
	10	Jobber	6.5mm	2003-6.50	5	Jobber	21/64"	2000-21/64
	10	Jobber	6.6mm	2003-6.60	5	Jobber	11/32"	2000-11/32
	10	Jobber	6.8mm	2003-6.80	5	Jobber	23/64"	2000-23/64
	10	Jobber	6.9mm	2003-6.90	5	Jobber	3/8"	2000-3/8
	10	Jobber	7.0mm	2003-7.00	5	Jobber	25/64"	2000-25/64
	10	Jobber	7.5mm	2003-7.50	5	Jobber	13/32"	2000-13/32
	5	Jobber	8.0mm	2003-8.00	5	Jobber	27/64"	2000-27/64
	5	Jobber	8.4mm	2003-8.40	5	Jobber	7/16"	2000-7/16
	5	Jobber	8.5mm	2003-8.50	5	Jobber	29/64"	2000-29/64
	5	Jobber	8.7mm	2003-8.70	5	Jobber	15/32"	2000-15/32
	5	Jobber	8.8mm	2003-8.80	5	Jobber	31/64"	2000-31/64
	5	Jobber	9.0mm	2003-9.00	5	Jobber	1/2"	2000-1/2
	5	Jobber	9.4mm	2003-9.40				
	5	Jobber	9.5mm	2003-9.50	10	Panel D'End	#30	2343-30
	5	Jobber	9.9mm	2003-9.90	10	Panel D'End	#20	2343-20
	5	Jobber	10.0mm	2003-10.00	10	Panel D'End	#11	2343-11
	5	Jobber	10.2mm	2003-10.20	10	Panel S'End	#30	2344-30
	5	Jobber	10.5mm	2003-10.50	10	Panel S'End	#20	2344-20
	5	Jobber	10.8mm	2003-10.80	10	Panel S'End	#11	2344-11
	5	Jobber	11.0mm	2003-11.00				
	5	Jobber	11.1mm	2003-11.10				
	5	Jobber	11.2mm	2003-11.20				
	5	Jobber	11.5mm	2003-11.50				
	5	Jobber	11.8mm	2003-11.80				
	5	Jobber	12.0mm	2003-12.00				
	5	Jobber	12.2mm	2003-12.20				
	5	Jobber	12.5mm	2003-12.50				
	5	Jobber	12.8mm	2003-12.80				
	5	Jobber	12.9mm	2003-12.90				
	5	Jobber	13.0mm	2003-13.00				

* Sizes 3.40mm, 1/8" and below are 118º standard chisel point.

METRIC JOBBER DRILLS
DIN338



118° Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118° point angles are ideal for use in materials such as mild steel and cast iron. The 118° point creates easily controlled chips which are wide and thin.



135° Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135° point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.





GROUP	JOBB	JOBB
SURFACE FINISH	BRIGHT	BRONZE
MATERIAL	HSS	HSS-Co5
POINT TYPE	**118° SPLIT POINT***	**135° SPLIT POINT†**
FLUTE TYPE	30° HELIX	30° HELIX
PACKAGING	**CLAM SHELL**	**CLAM SHELL**





DIA MM	FL MM	OAL MM	CLAM QTY	$ CLAM	PART NUMBER	$ CLAM	PART NUMBER
1.00	12	34	2	**8.32**	2007-1.00S	**29.38**	2011-1.00S
1.50	18	40	2	**7.58**	2007-1.50S	**29.38**	2011-1.50S
2.00	24	49	2	**6.89**	2007-2.00S	**14.68**	2011-2.00S
2.50	30	57	2	**6.89**	2007-2.50S	**14.68**	2011-2.50S
3.00	33	61	2	**6.49**	2007-3.00S	**14.66**	2011-3.00S
3.50	39	70	1	**3.95**	2007-3.50S	**8.92**	2011-3.50S
4.00	43	75	1	**4.47**	2007-4.00S	**10.23**	2011-4.00S
4.50	47	80	1	**4.85**	2007-4.50S	**11.19**	2011-4.50S
5.00	52	86	1	**5.66**	2007-5.00S	**13.24**	2011-5.00S
5.50	57	93	1	**6.49**	2007-5.50S	**15.26**	2011-5.50S
6.00	57	93	1	**7.30**	2007-6.00S	**17.54**	2011-6.00S
6.50	63	101	1	**8.16**	2007-6.50S	**18.95**	2011-6.50S
7.00	69	109	1	**9.35**	2007-7.00S	**22.14**	2011-7.00S
7.50	69	109	1	**10.56**	2007-7.50S	**25.08**	2011-7.50S
8.00	75	117	1	**11.37**	2007-8.00S	**27.03**	2011-8.00S
8.50	75	117	1	**12.70**	2007-8.50S	**29.76**	2011-8.50S
9.00	81	125	1	**13.96**	2007-9.00S	**32.61**	2011-9.00S
9.50	81	125	1	**15.42**	2007-9.50S	**36.49**	2011-9.50S
10.00	87	133	1	**16.51**	2007-10.00S	**38.90**	2011-10.00S
10.50	87	133	1	**18.53**	2007-10.50S	**43.95**	2011-10.50S
11.00	94	142	1	**21.36**	2007-11.00S	**50.86**	2011-11.00S
11.50	94	142	1	**23.94**	2007-11.50S	**57.14**	2011-11.50S
12.00	101	151	1	**27.03**	2007-12.00S	**64.79**	2011-12.00S
12.50	101	151	1	**29.77**	2007-12.50S	**71.29**	2011-12.50S
13.00	101	151	1	**31.90**	2007-13.00S	**76.59**	2011-13.00S

* Sizes 3.40mm, 1/8" and below are 118° standard chisel point. † 1.00mm, 1.50mm and 1/16" are 135° standard chisel point.





GROUP	JOBB	JOBB
SURFACE FINISH	BRIGHT	BRONZE
MATERIAL	HSS	HSS-Co5
POINT TYPE	118º SPLIT POINT*	**135º SPLIT POINT†**
FLUTE TYPE	30º HELIX	30º HELIX
PACKAGING	**CLAM SHELL**	**CLAM SHELL**





DIA INCH	DIA MM	FL MM	OAL MM	PACK QTY	$ CLAM	PART NUMBER	$ CLAM	PART NUMBER
1/16	1.59	22	48	2	**7.27**	2006-1/16S	**16.43**	2010-1/16S
5/64	1.98	25	51	2	**6.89**	2006-5/64S	**15.17**	2010-5/64S
3/32	2.38	32	57	2	**6.89**	2006-3/32S	**15.17**	2010-3/32S
7/64	2.78	38	67	2	**6.37**	2006-7/64S	**13.72**	2010-7/64S
1/8	3.17	41	70	2	**6.49**	2006-1/8S	**14.66**	2010-1/8S
9/64	3.57	44	73	1	**4.03**	2006-9/64S	**9.13**	2010-9/64S
5/32	3.97	51	79	1	**4.35**	2006-5/32S	**9.89**	2010-5/32S
11/64	4.37	54	83	1	**4.85**	2006-11/64S	**11.19**	2010-11/64S
3/16	4.76	59	89	1	**5.31**	2006-3/16S	**12.19**	2010-3/16S
13/64	5.16	62	92	1	**5.94**	2006-13/64S	**13.98**	2010-13/64S
7/32	5.56	64	95	1	**6.49**	2006-7/32S	**15.26**	2010-7/32S
15/64	5.95	67	98	1	**7.02**	2006-15/64S	**16.73**	2010-15/64S
1/4	6.35	70	102	1	**7.86**	2006-1/4S	**18.78**	2010-1/4S
17/64	6.75	73	105	1	**8.80**	2006-17/64S	**20.67**	2010-17/64S
9/32	7.14	75	108	1	**9.71**	2006-9/32S	**23.09**	2010-9/32S
19/64	7.54	78	111	1	**10.56**	2006-19/64S	**25.08**	2010-19/64S
5/16	7.94	81	114	1	**11.37**	2006-5/16S	**27.03**	2010-5/16S
21/64	8.33	84	117	1	**12.21**	2006-21/64S	**29.01**	2010-21/64S
11/32	8.73	87	121	1	**13.43**	2006-11/32S	**31.99**	2010-11/32S
23/64	9.13	89	124	1	**14.45**	2006-23/64S	**34.92**	2010-23/64S
3/8	9.52	92	127	1	**15.42**	2006-3/8S	**37.38**	2010-3/8S
25/64	9.92	95	130	1	**16.39**	2006-25/64S	**38.38**	2010-25/64S
13/32	10.32	98	133	1	**18.27**	2006-13/32S	**43.21**	2010-13/32S
27/64	10.72	100	137	1	**20.18**	2006-27/64S	**48.00**	2010-27/64S
7/16	11.11	103	140	1	**21.76**	2006-7/16S	**51.83**	2010-7/16S
29/64	11.51	106	143	1	**24.08**	2006-29/64S	**57.41**	2010-29/64S
15/32	11.91	110	146	1	**26.77**	2006-15/32S	**64.09**	2010-15/32S
31/64	12.30	111	149	1	**28.41**	2006-31/64S	**67.95**	2010-31/64S
1/2	12.70	114	152	1	**29.77**	2006-1/2S	**71.29**	2010-1/2S

DRILL BIT MATERIALS

HIGH SPEED STEEL (HSS)
Bordo HSS jobber drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process. HSS has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS jobber drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.

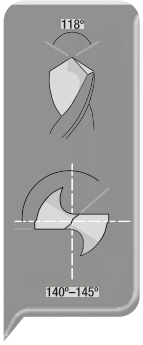
HSS-Co5 (COBALT)
Bordo Cobalt jobber drills are manufactured from HSS-Co5 steel, which is very similar to M2 HSS with the important addition of 5% cobalt. The addition of cobalt to M2 HSS significantly increases heat resistance and allows the drill to run at higher temperatures without losing its temper (hardness). Cobalt drills provide increased performance and tool life when machining tough steels.

HSS-Co5 (Cobalt) jobber drills are ideal for use in drilling stainless steel and high tensile steel.

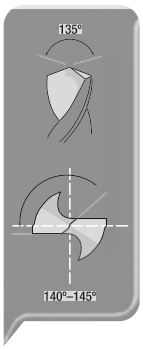
* Sizes 3.40mm, 1/8" and below are 118º standard chisel point. † 1.00mm, 1.50mm and 1/16" are 135º standard chisel point.

METRIC JOBBER DRILLS
DIN338

FRACTIONAL JOBBER DRILLS
ANSI B94-11



118° Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118° point angles are ideal for use in materials such as mild steel and cast iron. The 118° point creates easily controlled chips which are wide and thin.



135° Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135° point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.



GROUP	JOBB	JOBB	JOBB	JOBB
SURFACE FINISH	BRIGHT	BRONZE	BRIGHT	BRONZE
MATERIAL	HSS	HSS-Co5	HSS	HSS-Co5
POINT TYPE	**118° SPLIT POINT***	**135° SPLIT POINT†**	**118° SPLIT POINT***	**135° SPLIT POINT†**
FLUTE TYPE	30° HELIX	30° HELIX	30° HELIX	30° HELIX
PACKAGING	**CLAM SHELL**	**CLAM SHELL**	**CLAM SHELL**	**CLAM SHELL**






MERCHANDISER TYPE	$ MERCH	PART NUMBER	$ MERCH	PART NUMBER	$ MERCH	PART NUMBER	$ MERCH	PART NUMBER
METRIC **BRIGHT** 171 CLAM SHELLS	**1,712.75**	2007-D1						
METRIC **COBALT** 92 CLAM SHELLS			**2,382.77**	2011-D1				
FRACTIONAL **BRIGHT** 179 CLAM SHELLS					**1,774.79**	2006-D1		
FRACTIONAL **COBALT** 99 CLAM SHELLS							**2,428.59**	2010-D1

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER
	10	2007-1.00S	5	2011-1.00S	10	2006-1/16S	5	2010-1/16S
	10	2007-1.50S	5	2011-1.50S	10	2006-5/64S	5	2010-5/64S
	10	2007-2.00S	5	2011-2.00S	10	2006-3/32S	5	2010-3/32S
	10	2007-2.50S	5	2011-2.50S	10	2006-7/64S	5	2010-7/64S
	10	2007-3.00S	5	2011-3.00S	10	2006-1/8S	5	2010-1/8S
	10	2007-3.50S	5	2011-3.50S	10	2006-9/64S	5	2010-9/64S
	10	2007-4.00S	5	2011-4.00S	10	2006-5/32S	5	2010-5/32S
	10	2007-4.50S	5	2011-4.50S	10	2006-11/64S	5	2010-11/64S
	10	2007-5.00S	5	2011-5.00S	10	2006-3/16S	5	2010-3/16S
	5	2007-5.50S	3	2011-5.50S	5	2006-13/64S	3	2010-13/64S
	10	2007-6.00S	5	2011-6.00S	5	2006-7/32S	3	2010-7/32S
	5	2007-6.50S	3	2011-6.50S	5	2006-15/64S	3	2010-15/64S
	5	2007-7.00S	3	2011-7.00S	5	2006-1/4S	3	2010-1/4S
	5	2007-7.50S	3	2011-7.50S	5	2006-17/64S	3	2010-17/64S
	10	2007-8.00S	5	2011-8.00S	5	2006-9/32S	3	2010-9/32S
	5	2007-8.50S	3	2011-8.50S	5	2006-19/64S	3	2010-19/64S
	5	2007-9.00S	3	2011-9.00S	5	2006-5/16S	3	2010-5/16S
	3	2007-9.50S	2	2011-9.50S	5	2006-21/64S	3	2010-21/64S
	10	2007-10.00S	5	2011-10.00S	5	2006-11/32S	3	2010-11/32S
	3	2007-10.50S	2	2011-10.50S	5	2006-23/64S	3	2010-23/64S
	3	2007-11.00S	2	2011-11.00S	10	2006-3/8S	5	2010-3/8S
	3	2007-11.50S	2	2011-11.50S	3	2006-25/64S	2	2010-25/64S
	3	2007-12.00S	2	2011-12.00S	3	2006-13/32S	2	2010-13/32S
	3	2007-12.50S	2	2011-12.50S	3	2006-27/64S	2	2010-27/64S
	3	2007-13.00S	2	2011-13.00S	3	2006-7/16S	2	2010-7/16S
					3	2006-29/64S	2	2010-29/64S
					3	2006-15/32S	2	2010-15/32S
					3	2006-31/64S	2	2010-31/64S
					3	2006-1/2S	2	2010-1/2S

* Sizes 3.40mm, 1/8" and below are 118° standard chisel point. † 1.00mm, 1.50mm and 1/16" are 135° standard chisel point.

METRIC JOBBER DRILLS
DIN338

FRACTIONAL JOBBER DRILLS
ANSI B94-11



EXTENSIVE MERCHANDISING SOLUTIONS

Bordo has developed a modular and flexible merchandising system which is suitable for use across all product cataegories.
Our system is completely scalable – from small bench top merchandisers all the way up to multi-bay super store installations.
Individual hang sell merchandisers are available in single, two and three tier configurations and are suitable for use on both slat wall and peg board. Standard merchandisers are 540mm wide and for maximum space utilisation our FLT (full length tier) merchandisers span an impressive 1098mm.
See page 288 for more details on our modular merchandising options.

METRIC JOBBER DRILLS
DIN338





GROUP	JOBB	JOBB	JOBB
SURFACE FINISH	BRIGHT	BLACK	BRONZE
MATERIAL	HSS	HSS	HSS-Co5
POINT TYPE	118º SPLIT POINT*	118º SPLIT POINT*	135º SPLIT POINT†
FLUTE TYPE	30º HELIX	30º HELIX	30º HELIX
PACKAGING	**SET**	**SET**	**SET**

NEW DELTA POINT
HIGH PERFORMANCE DRILL SETS PAGE 2





SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
M1 JOBBER – ABS CASE	12	**64.95**	2007-M1	**64.95**	2003-M1	**–**	–
1.0 - 6.5 x 0.5mm rises							
M2 JOBBER – ABS CASE	19	**160.15**	2007-M2	**160.15**	2003-M2	**372.99**	2011-M2
1.0 - 10.0 x 0.5mm rises						**–**	
M3 JOBBER – ABS CASE	25	**315.13**	2007-M3	**315.13**	2003-M3	**735.16**	2011-M3
1.0 - 13.0 x 0.5mm rises						**–**	
M5 JOBBER – ABS CASE	19	**207.40**	2007-M5	**–**	–	**492.58**	2011-M5
1.0 - 6.5 x 0.5mm rises							
7.0 - 13.0 x 1.0mm rises							
WIRE GAUGE S2 – METAL CASE	20	**241.84**	2013-WGS2	**–**	–	**–**	–
No.61 - No.80							
WIRE GAUGE S1 – METAL CASE	60	**494.23**	2013-WGS1	**–**	–	**–**	–
No.1 - No.60							





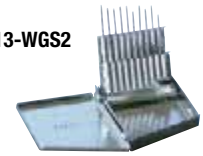


MERCHANDISER DESCRIPTION MERCHANDISER CONTENTS	SET QTY	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
DS1 MERCHANDISER 9 SETS		**2,048.04**	2007-DS1	**–**	–	**4,802.19**	2011-DS1
M2 DRILL SET	3						
M3 DRILL SET	3						
M5 DRILL SET	3						
DS2 MERCHANDISER 10 SETS		**1,685.64**	2007-DS2	**1,685.64**	2003-DS2	**–**	–
M1 DRILL SET	4						
M2 DRILL SET	3						
M3 DRILL SET	3						
DS3 MERCHANDISER 9 SETS		**2,836.17**	2007-DS3	**–**	–	**–**	–
M3 DRILL SET	9						

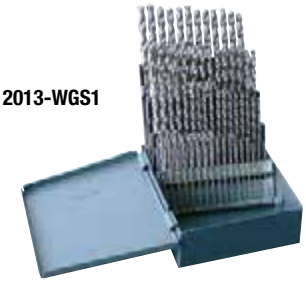
* Sizes 3.40mm, 1/8" and below are 118º standard chisel point. † 1.00mm, 1.50mm and 1/16" are 135º standard chisel point.



2013-WGS2



2013-WGS1







DRILL BIT SURFACE TREATMENT

BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition. *These tools are suitable for general purpose use, particularly for non-ferrous applications.*

BLACK FINISH
(also called blue finish)
A black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface helps to keep lubricant on the tool, particularly important on the cutting edges, thus reducing friction and cold welding. The result is increased tool life.
Black finish tools are generally recommended for ferrous applications where the oxide layer aids chip flow and heat dissipation.

BRONZE FINISH
(gold oxide)
This metallic brown coloured low temperature temper treatment is normally only used on cobalt tools for identification purposes
Cobalt HSS drills are extremely hard and provide superior performance and increased tool life especially in stainless steel and high tensile steel.

GROUP	JOBB
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	118º SPLIT POINT*
FLUTE TYPE	30º HELIX
PACKAGING	**SET**

SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER
METRIC ASSORTMENT 1-10mm	110	**552.28**	2007-MA1
1.0 - 4.0 x 0.5mm rises : 10 each			
4.5 - 6.5 x 0.5mm rises : 5 each			
8.0 & 10.0mm : 5 each			
#30 Double Ended Panel Drills : 5			
Bonus 60ml Cutting Fluid			



* Sizes 3.40mm, 1/8" and below are 118º standard chisel point.

FRACTIONAL JOBBER DRILLS ANSI B94-11





GROUP	JOBB	JOBB	JOBB
SURFACE FINISH	BRIGHT	BLACK	BRONZE
MATERIAL	HSS	HSS	HSS-Co5
POINT TYPE	118º SPLIT POINT*	118º SPLIT POINT*	135º SPLIT POINT†
FLUTE TYPE	30º HELIX	30º HELIX	30º HELIX
PACKAGING	**SET**	**SET**	**SET**







SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
F1 JOBBER – ABS CASE	13	**68.98**	2006-F1	**68.98**	2000-F1	**–**	–
1/16" - 1/4" x 1/64" rises							
F2 JOBBER – ABS CASE	21	**163.64**	2006-F2	**163.64**	2000-F2	**394.67**	2010-F2
1/16" - 3/8" x 1/64" rises							
F3 JOBBER – ABS CASE	29	**349.75**	2006-F3	**349.75**	2000-F3	**856.59**	2010-F3
1/16" - 1/2" x 1/64" rises							
F5 JOBBER – ABS CASE	21	**241.09**	2006-F5	**–**	–	**562.63**	2010-F5
1/16" - 1/4" x 1/64" rises							
9/32" - 1/2" x 1/32" rises							







MERCHANDISER DESCRIPTION MERCHANDISER CONTENTS	SET QTY	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
DS1 MERCHANDISER 9 SETS		**2,263.44**	2006-DS1	**–**	–	**5,441.67**	2010-DS1
F2 DRILL SET	3						
F3 DRILL SET	3						
F5 DRILL SET	3						
DS2 MERCHANDISER 10 SETS		**1,816.09**	2006-DS2	**1,816.09**	2000-DS2	**–**	–
F1 DRILL SET	4						
F2 DRILL SET	3						
F3 DRILL SET	3						
DS3 MERCHANDISER 9 SETS		**3,147.75**	2006-DS3	**–**	–	**–**	–
F3 DRILL SET	9						

* Sizes 3.40mm, 1/8" and below are 118º standard chisel point. † 1.00mm, 1.50mm and 1/16" are 135º standard chisel point.





DRILL SET CADDIES

GREAT RANGE OF DRILL SET CADDIES AVAILABLE TO SUIT ALL ABS SET CASES

SEE NEXT PAGE FOR DETAILS





COUNTER DISPLAY BOX MERCHANDISING SOLUTIONS

Orders in box quantities (5 sets) of M2, M3, M5 and F2, F3, F5 drill sets are supplied in heavy duty, full colour counter display boxes.



DRILL BIT MATERIALS

HIGH SPEED STEEL (HSS)

Bordo HSS jobber drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process. HSS steel has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS jobber drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.

HSS-Co5 (COBALT)

Bordo Cobalt jobber drills are manufactured from HSS-Co5 steel, which is very similar to M2 HSS with the important addition of 5% cobalt. The addition of cobalt to M2 HSS significantly increases heat resistance and allows the drill to run at higher temperatures without losing its temper (hardness). Cobalt drills provide increased performance and tool life when machining tough steels.

HSS-Co5 (Cobalt) jobber drills are ideal for use in drilling stainless steel and high tensile steel.



DRILL SET CADDIES
Drill set caddies are designed to snap into the base of Bordo's ABS drill sets. The caddies allow the convenient storage of extra drills, screwdriver bits and other related accessories.

GROUP			JOBB		
CADDY TYPE CONTENTS	QTY	SIZE	PART NUMBER	**$** EACH	**PART** NUMBER
METRIC JOBBER DRILLS – BRIGHT	1	1.00	2007-1.00	**17.29**	2018-C2
	1	1.50	2007-1.50		
	1	2.00	2007-2.00		
	1	2.50	2007-2.50		
	1	3.00	2007-3.00		
FRACTIONAL JOBBER DRILLS – BRIGHT	1	1/16	2006-1/16	**16.16**	2018-C1
	1	5/64	2006-5/64		
	1	3/32	2006-3/32		
	1	7/64	2006-7/64		
	1	1/8	2006-1/8		
METRIC JOBBER DRILLS – COBALT	1	1.00	2011-1.00	**51.27**	2018-C11
	1	1.50	2011-1.50		
	1	2.00	2011-2.00		
	1	2.50	2011-2.50		
	1	3.00	2011-3.00		
FRACTIONAL JOBBER DRILLS – COBALT	1	1/16	2010-1/16	**36.55**	2018-C10
	1	5/64	2010-5/64		
	1	3/32	2010-3/32		
	1	7/64	2010-7/64		
	1	1/8	2010-1/8		
METRIC JOBBER DRILLS – BLACK	1	1.00	2003-1.00	**17.29**	2018-C13
	1	1.50	2003-1.50		
	1	2.00	2003-2.00		
	1	2.50	2003-2.50		
	1	3.00	2003-3.00		
FRACTIONAL JOBBER DRILLS – BLACK	1	1/16	2000-1/16	**16.16**	2018-C12
	1	5/64	2000-5/64		
	1	3/32	2000-3/32		
	1	7/64	2000-7/64		
	1	1/8	2000-1/8		
DOUBLE ENDED PANEL DRILLS – BRIGHT	2	NO.30	2345-30	**21.70**	2018-C8
	1	NO.20	2345-20		
	1	NO.11	2345-11		
SCREWDRIVER BITS & BIT HOLDER	1	HX5	5300-HX5X25	**24.15**	2018-C3
	1	PZ2	5300-PZ2X25		
	1	PH2	5300-PH2X25		
	1	PH1	5300-PH1X25		
	1	SL5	5300-SL5X25		
	1	HOLDER	5350-MH1/4X75		
NUTSETTER & DOUBLE ENDED POWER BIT	1	NS5/16	5600-NS5/16X65	**17.25**	2018-C4
	1	PH2/SL2	5500-PH2SL5X45		
PIN CHUCK SET	–	–	–	**30.85**	2018-C5
CHUCK KEY	–	–	–	**11.46**	2018-C7
3 FLUTE COUNTERSINK – COBALT	1	20.5	3843-20.5	**140.41**	2018-C6
STORAGE BOX	–	–	–	**8.40**	2018-C9



GROUP	PSDL	PDSL	JOBB
SURFACE FINISH	BRIGHT / BLACK	BRIGHT / BLACK	BRIGHT
MATERIAL	HSS	HSS	HSS
POINT TYPE	118º NOTCHED POINT	118º NOTCHED POINT	118º SPLIT POINT
FLUTE TYPE	30º HELIX	30º HELIX	30º HELIX
SHANK DIAMETER	**1/2"**	**3/8"**	**3/8"**
PACKAGING	**CLAM SHELL**	**CLAM SHELL**	**CLAM SHELL**







DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
10.50	87	133	1	–	–	–	–	**18.53**	2647-10.50
11.00	94	142	1	–	–	–	–	**21.36**	2647-11.00
11.50	94	142	1	–	–	–	–	**23.94**	2647-11.50
12.00	101	151	1	–	–	–	–	**27.03**	2647-12.00
12.50	101	151	1	–	–	–	–	**29.77**	2647-12.50
13.00	89	152	1	**56.81**	2654-13.00	–	–	**31.90**	2647-13.00
13.50	89	152	1	**56.81**	2654-13.50	**56.81**	2647-13.50	–	–
14.00	89	152	1	**56.81**	2654-14.00	**56.81**	2647-14.00	–	–
14.50	89	152	1	**56.81**	2654-14.50	–	–	–	–
15.00	89	152	1	**62.23**	2654-15.00	–	–	–	–
15.50	89	152	1	**62.23**	2654-15.50	–	–	–	–
16.00	89	152	1	**62.23**	2654-16.00	–	–	–	–
16.50	89	152	1	**70.33**	2654-16.50	–	–	–	–
17.00	89	152	1	**70.33**	2654-17.00	–	–	–	–
17.50	89	152	1	**73.04**	2654-17.50	–	–	–	–
18.00	89	152	1	**73.04**	2654-18.00	–	–	–	–
18.50	89	152	1	**75.75**	2654-18.50	–	–	–	–
19.00	89	152	1	**75.75**	2654-19.00	–	–	–	–
19.50	89	152	1	**86.59**	2654-19.50	–	–	–	–
20.00	89	152	1	**86.59**	2654-20.00	–	–	–	–
20.50	89	152	1	**93.32**	2654-20.50	–	–	–	–
21.00	89	152	1	**93.32**	2654-21.00	–	–	–	–
21.50	89	152	1	**93.32**	2654-21.50	–	–	–	–
22.00	89	152	1	**93.32**	2654-22.00	–	–	–	–
22.50	89	152	1	**102.79**	2654-22.50	–	–	–	–
23.00	89	152	1	**102.79**	2654-23.00	–	–	–	–
23.50	89	152	1	**108.23**	2654-23.50	–	–	–	–
24.00	89	152	1	**113.64**	2654-24.00	–	–	–	–
24.50	89	152	1	**113.64**	2654-24.50	–	–	–	–
25.00	89	152	1	**113.64**	2654-25.00	–	–	–	–
26.00	89	152	1	**156.91**	2654-26.00	–	–	–	–
27.00	89	152	1	**167.71**	2654-27.00	–	–	–	–
28.00	89	152	1	**167.71**	2654-28.00	–	–	–	–
29.00	89	152	1	**175.81**	2654-29.00	–	–	–	–
30.00	89	152	1	**175.81**	2654-30.00	–	–	–	–

DRILL BIT SURFACE TREATMENT

BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition. *These tools are suitable for general purpose use, particularly for non-ferrous applications.*

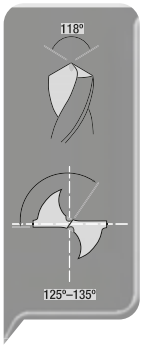
BRIGHT/BLACK FINISH
These drills are ground and then a black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface aids chip flow and heat dissipation. The drill is then ground a second time to achieve a bright finish on the shank and cutting edges.

DRILL BIT MATERIALS

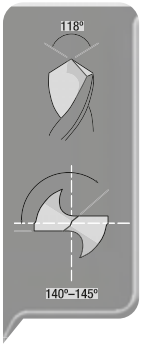
HIGH SPEED STEEL (HSS)
Bordo HSS drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process. HSS has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.





Notched Point
A variation on standard chisel point providing faster starting and reduced drill wander. Suitable for general purpose drilling.



118° Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118° point angles are ideal for use in materials such as mild steel and cast iron. The 118° point creates easily controlled chips which are wide and thin.

GROUP	PSDL	PDSL	JOBB
SURFACE FINISH	BRIGHT/ BLACK	BRIGHT / BLACK	BRIGHT
MATERIAL	HSS	HSS	HSS
POINT TYPE	118° NOTCHED POINT	118° NOTCHED POINT	118° SPLIT POINT
FLUTE TYPE	30° HELIX	30° HELIX	30° HELIX
SHANK DIAMETER	**1/2"**	**3/8"**	**3/8"**
PACKAGING	**CLAM SHELL**	**CLAM SHELL**	**CLAM SHELL**







DIA INCH	DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
25/64	9.92	95	130	1	–	–	–	–	**16.39**	2646-25/64
13/32	10.32	98	133	1	–	–	–	–	**18.27**	2646-13/32
27/64	10.72	100	137	1	–	–	–	–	**20.18**	2646-27/64
7/16	11.11	103	140	1	–	–	–	–	**21.76**	2646-7/16
29/64	11.51	106	143	1	–	–	–	–	**24.08**	2646-29/64
15/32	11.91	110	146	1	–	–	–	–	**26.77**	2646-15/32
31/64	12.30	111	149	1	–	–	–	–	**28.41**	2646-31/64
1/2	12.70	114	152	1	–	–	–	–	**29.77**	2646-1/2
17/32	13.49	86	152	1	**56.81**	2651-17/32	–	–	–	–
35/64	13.89	86	152	1	**56.81**	2651-35/64	–	–	–	–
9/16	14.29	86	152	1	**56.81**	2651-9/16	**56.81**	2646-9/16	–	–
37/64	14.68	86	152	1	**56.81**	2651-37/64	–	–	–	–
19/32	15.08	86	152	1	**62.23**	2651-19/32	–	–	–	–
39/64	15.48	86	152	1	**62.23**	2651-39/64	–	–	–	–
5/8	15.88	86	152	1	**62.23**	2651-5/8	**62.23**	2646-5/8	–	–
41/64	16.27	86	152	1	**62.23**	2651-41/64	–	–	–	–
21/32	16.67	86	152	1	**70.33**	2651-21/32	–	–	–	–
43/64	17.06	86	152	1	**70.33**	2651-43/64	–	–	–	–
11/16	17.46	86	152	1	**71.68**	2651-11/16	–	–	–	–
45/64	17.86	86	152	1	**73.65**	2651-45/64	–	–	–	–
23/32	18.26	86	152	1	**73.04**	2651-23/32	–	–	–	–
47/64	18.65	86	152	1	**75.75**	2651-47/64	–	–	–	–
3/4	19.05	86	152	1	**75.75**	2651-3/4	**75.75**	2646-3/4	–	–
49/64	19.45	86	152	1	**86.59**	2651-49/64	–	–	–	–
25/32	19.84	86	152	1	**86.59**	2651-25/32	–	–	–	–
51/64	20.24	86	152	1	**89.30**	2651-51/64	–	–	–	–
13/16	20.64	86	152	1	**89.30**	2651-13/16	–	–	–	–
53/64	21.03	86	152	1	**93.32**	2651-53/64	–	–	–	–
27/32	21.43	86	152	1	**93.32**	2651-27/32	–	–	–	–
55/64	21.83	86	152	1	**93.32**	2651-55/64	–	–	–	–
7/8	22.23	86	152	1	**93.32**	2651-7/8	–	–	–	–
57/64	22.62	86	152	1	**102.79**	2651-57/64	–	–	–	–
29/32	23.02	86	152	1	**102.79**	2651-29/32	–	–	–	–
59/64	23.42	86	152	1	**108.23**	2651-59/64	–	–	–	–
15/16	23.81	86	152	1	**108.23**	2651-15/16	–	–	–	–
61/64	24.21	86	152	1	**113.64**	2651-61/64	–	–	–	–
31/32	24.61	86	152	1	**113.64**	2651-31/32	–	–	–	–
63/64	25.00	86	152	1	**113.64**	2651-63/64	–	–	–	–
1	25.40	86	152	1	**113.64**	2651-1	–	–	–	–
1-1/32*	26.19	86	152	1	**156.91**	2651-1.1/32	–	–	–	–
1-1/16	26.99	86	152	1	**156.91**	2651-1.1/16	–	–	–	–
1-1/8	28.58	86	152	1	**167.71**	2651-1.1/8	–	–	–	–
1-3/16	30.16	86	152	1	**175.81**	2651-1.3/16	–	–	–	–
1-7/32*	30.96	86	152	1	**194.77**	2651-1.7/32	–	–	–	–
1-1/4	31.75	86	152	1	**194.77**	2651-1.1/4	–	–	–	–

* Discontinued - available until current stocks are depleted.



GROUP	PDSL	PDSL
SURFACE FINISH	BRIGHT/ BLACK	BRIGHT / BLACK
MATERIAL	HSS	HSS
POINT TYPE	118º NOTCHED POINT	118º NOTCHED POINT
FLUTE TYPE	30º HELIX	30º HELIX
SHANK DIAMETER	**1/2"**	**1/2"**
PACKAGING	**INJECTION MOULDED CASE**	**INJECTION MOULDED CASE**





SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER	$ SET	PART NUMBER
REDUCED SHANK METRIC	4	**357.31**	2654-S1	–	–
16, 18, 22, 25mm					
REDUCED SHANK METRIC	8	**780.68**	2654-S2	–	–
14, 15, 16, 16.5, 18, 20, 22, 25mm					
REDUCED SHANK FRACTIONAL	4	–	–	**357.31**	2651-S1
5/8", 3/4", 7/8", 1"					
REDUCED SHANK FRACTIONAL	8	–	–	**780.68**	2651-S2
9/16", 5/8", 11/16", 3/4", 13/16", 7/8", 15/16", 1"					





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
METRIC	**1,286.40**	2654-D1		
FRACTIONAL			**1,362.18**	2651-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER	QTY EACH	SIZE INCH	PART NUMBER
	2	13.00	2654-13.00	2	9/16	2651-9/16
	2	13.50	2654-13.50	2	19/32	2651-19/32
	2	14.00	2654-14.00	2	5/8	2651-5/8
	2	14.50	2654-14.50	2	21/32	2651-21/32
	2	15.00	2654-15.00	2	11/16	2651-11/16
	2	16.00	2654-16.00	1	23/32	2651-23/32
	2	16.50	2654-16.50	2	3/4	2651-3/4
	1	18.00	2654-18.00	1	25/32	2651-25/32
	1	19.00	2654-19.00	1	13/16	2651-13/16
	1	20.00	2654-20.00	1	7/8	2651-7/8
	1	22.00	2654-22.00	1	15/16	2651-15/16
	1	25.00	2654-25.00	1	1	2651-1

DRILL BIT SURFACE TREATMENT

BRIGHT/BLACK FINISH
These drills are ground and then a black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface aids chip flow and heat dissipation. The drill is then ground a second time to achieve a bright finish on the shank and cutting edges.

DRILL BIT MATERIALS

HIGH SPEED STEEL (HSS)
Bordo HSS drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process. HSS has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.



METRIC LONG SERIES
ANSI B94-11

GROUP	LONG	LONG
SURFACE FINISH	BLACK	BLACK
MATERIAL	HSS	HSS
POINT TYPE	118° STD CHISEL	118° STD CHISEL
FLUTE TYPE	30° HELIX	30° HELIX
PACKAGING	**BULK**	**CLAM SHELL**





DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ EACH	PART NUMBER
1.00	29*	57*	10	**10.63**	2501-1.00	1	**10.63**	2501-1.00S
1.50	44*	76*	10	**8.66**	2501-1.50	1	**8.66**	2501-1.50S
2.00	57*	108*	10	**10.47**	2501-2.00	1	**10.47**	2501-2.00S
2.50	64*	117*	10	**10.47**	2501-2.50	1	**10.47**	2501-2.50S
3.00	70*	130*	10	**10.47**	2501-3.00	1	**10.47**	2501-3.00S
3.30	76*	137*	10	**11.40**	2501-3.30	1	**11.39**	2501-3.30S
3.50	76*	137*	10	**11.40**	2501-3.50	1	**11.39**	2501-3.50S
4.00	86*	146*	10	**11.85**	2501-4.00	1	**11.85**	2501-4.00S
4.20	86*	146*	10	**13.93**	2501-4.20	1	**13.93**	2501-4.20S
4.50	86*	146*	10	**14.61**	2501-4.50	1	**14.61**	2501-4.50S
5.00	92*	152*	10	**15.77**	2501-5.00	1	**15.76**	2501-5.00S
5.50	92*	152*	10	**16.39**	2501-5.50	1	**16.39**	2501-5.50S
6.00	95*	156*	10	**17.54**	2501-6.00	1	**17.54**	2501-6.00S
6.50	98*	159*	10	**25.44**	2501-6.50	1	**25.44**	2501-6.50S
7.00	98*	159*	10	**25.44**	2501-7.00	1	**25.44**	2501-7.00S
7.50	102*	162*	10	**27.47**	2501-7.50	1	**27.47**	2501-7.50S
8.00	109*	165*	5	**31.57**	2501-8.00	1	**31.57**	2501-8.00S
8.50	109*	165*	5	**31.57**	2501-8.50	1	**31.57**	2501-8.50S
9.00	115*	175*	5	**36.53**	2501-9.00	1	**36.52**	2501-9.00S
9.50	115*	175*	5	**38.31**	2501-9.50	1	**38.31**	2501-9.50S
10.00	121*	184*	5	**39.46**	2501-10.00	1	**39.46**	2501-10.00S
10.50	121*	184*	5	**45.26**	2501-10.50	1	**45.26**	2501-10.50S
11.00	128*	195*	5	**51.13**	2501-11.00	1	**51.13**	2501-11.00S
11.50	128*	195*	5	**58.55**	2501-11.50	1	**58.55**	2501-11.50S
12.00	134*	205*	5	**62.83**	2501-12.00	1	**62.83**	2501-12.00S
12.50	134*	205*	5	**65.75**	2501-12.50	1	**65.75**	2501-12.50S
13.00	134*	205*	5	**68.66**	2501-13.00	1	**68.66**	2501-13.00S

DRILL BIT MATERIALS

HIGH SPEED STEEL (HSS)
Bordo HSS jobber drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process.
HSS has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS jobber drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.

* Some older stock may be supplied in different lengths



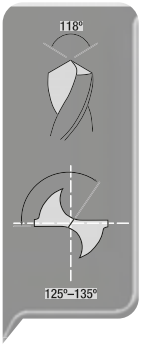
GROUP	LONG	LONG
SURFACE FINISH	BLACK	BLACK
MATERIAL	HSS	HSS
POINT TYPE	118º STD CHISEL	118º STD CHISEL
FLUTE TYPE	30º HELIX	30º HELIX
PACKAGING	**BULK**	**CLAM SHELL**





DIA INCH	DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ EACH	PART NUMBER
1/16	1.59	50	76	10	**12.21**	2500-1/16	1	**12.21**	2500-1/16S
5/64	1.98	51	95.5	10	**8.78**	2500-5/64	1	**8.78**	2500-5/64S
3/32	2.38	57	108	10	**8.78**	2500-3/32	1	**8.78**	2500-3/32S
7/64	2.78	64	118	10	**8.78**	2500-7/64	1	**8.78**	2500-7/64S
1/8	3.17	70	131	10	**9.94**	2500-1/8	1	**9.94**	2500-1/8S
9/64	3.57	76	137	10	**10.34**	2500-9/64	1	**10.34**	2500-9/64S
5/32	3.97	76	137	10	**11.10**	2500-5/32	1	**11.10**	2500-5/32S
11/64	4.37	86	146	10	**11.85**	2500-11/64	1	**11.85**	2500-11/64S
3/16	4.76	86	146	10	**14.61**	2500-3/16	1	**14.61**	2500-3/16S
13/64	5.16	92	152	10	**15.76**	2500-13/64	1	**15.76**	2500-13/64S
7/32	5.56	92	152	10	**16.39**	2500-7/32	1	**16.39**	2500-7/32S
15/64	5.95	97	158	10	**16.94**	2500-15/64	1	**16.94**	2500-15/64S
1/4	6.35	95	155	10	**19.00**	2500-1/4	1	**19.00**	2500-1/4S
17/64	6.75	102	156	10	**25.44**	2500-17/64	1	**25.44**	2500-17/64S
9/32	7.14	102	156	10	**24.84**	2500-9/32	1	**24.84**	2500-9/32S
19/64	7.54	109	165	5	**27.47**	2500-19/64	1	**27.47**	2500-19/64S
5/16	7.94	109	165	5	**28.60**	2500-5/16	1	**28.60**	2500-5/16S
21/64	8.33	109	165	5	**31.57**	2500-21/64	1	**31.57**	2500-21/64S
11/32	8.73	115	175	5	**35.66**	2500-11/32	1	**35.66**	2500-11/32S
23/64	9.13	115	175	5	**36.52**	2500-23/64	1	**36.52**	2500-23/64S
3/8	9.52	121	184	5	**37.38**	2500-3/8	1	**37.38**	2500-3/8S
25/64	9.92	121	184	5	**39.46**	2500-25/64	1	**39.46**	2500-25/64S
13/32	10.32	121	184	5	**45.26**	2500-13/32	1	**45.26**	2500-13/32S
27/64	10.72	128	195	5	**49.73**	2500-27/64	1	**49.73**	2500-27/64S
7/16	11.11	128	195	5	**51.13**	2500-7/16	1	**51.13**	2500-7/16S
29/64	11.51	128	195	5	**52.61**	2500-29/64	1	**52.61**	2500-29/64S
15/32	11.91	134	205	5	**59.91**	2500-15/32	1	**59.91**	2500-15/32S
31/64	12.30	134	205	5	**62.83**	2500-31/64	1	**62.83**	2500-31/64S
1/2	12.70	134	205	5	**65.75**	2500-1/2	1	**65.75**	2500-1/2S

FRACTIONAL LONG SERIES
ANSI B94-11



Standard Point
(chisel point)
Standard point is suitable for general purpose drilling.

DRILL BIT SURFACE TREATMENT

BLACK FINISH
(also called blue finish)
A black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface helps to keep lubricant on the tool, particularly important on the cutting edges, thus reducing friction and cold welding. The result is increased tool life. ***Black finish tools are generally recommended for ferrous applications where the oxide layer aids chip flow and heat dissipation.***



METRIC LONG SERIES ANSI B94-11

FRACTIONAL LONG SERIES ANSI B94-11

GROUP	LONG	LONG
SURFACE FINISH	BLACK	BLACK
MATERIAL	HSS	HSS
POINT TYPE	118º STD CHISEL	118º STD CHISEL
FLUTE TYPE	30º HELIX	30º HELIX
PACKAGING	**CLAM SHELL**	**CLAM SHELL**





DRILL BIT MATERIALS

HIGH SPEED STEEL (HSS)
Bordo HSS jobber drills are ground from premium quality M2 high speed steel. HSS can withstand higher operating temperatures than carbon steel without losing its temper (hardness). This property allows HSS to cut faster than high carbon steel, hence the name high speed steel. M2 HSS is an alloyed steel in the tungsten-molybdenum series which typically contains 4% Chromium, 5% Molybdenum, 6% Tungsten, 2% Vanadium and 1% Carbon (approx. by % wt). The material is also subject to high temperature heat treatment to complete the process.
HSS has a very high wear resistance, a bending strength up to 4700MPa with high toughness and themoplasticity.

HSS jobber drills are ideal for general purpose use in a wide variety of ferrous and non-ferrous metals, timber and plastic.

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
LONG SERIES METRIC – 50 DRILLS	**1,492.40**	2501-D1		
LONG SERIES FRACTIONAL – 58 DRILLS			**1,677.28**	2500-D1

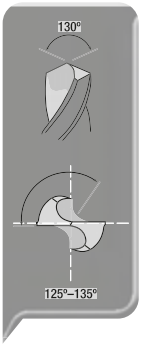
MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER	QTY EACH	SIZE INCH	PART NUMBER
	2	1.00	2501-1.00S	2	1/16	2500-1/16S
	2	1.50	2501-1.50S	2	5/64	2500-5/64S
	2	2.00	2501-2.00S	2	3/32	2500-3/32S
	2	2.50	2501-2.50S	2	7/64	2500-7/64S
	2	3.00	2501-3.00S	2	1/8	2500-1/8S
	2	3.50	2501-3.50S	2	9/64	2500-9/64S
	2	4.00	2501-4.00S	2	5/32	2500-5/32S
	2	4.50	2501-4.50S	2	11/64	2500-11/64S
	2	5.00	2501-5.00S	2	3/16	2500-3/16S
	2	5.50	2501-5.50S	2	13/64	2500-13/64S
	2	6.00	2501-6.00S	2	7/32	2500-7/32S
	2	6.50	2501-6.50S	2	15/64	2500-15/64S
	2	7.00	2501-7.00S	2	1/4	2500-1/4S
	2	7.50	2501-7.50S	2	17/64	2500-17/64S
	2	8.00	2501-8.00S	2	9/32	2500-9/32S
	2	8.50	2501-8.50S	2	19/64	2500-19/64S
	2	9.00	2501-9.00S	2	5/16	2500-5/16S
	2	9.50	2501-9.50S	2	21/64	2500-21/64S
	2	10.00	2501-10.00S	2	11/32	2500-11/32S
	2	10.50	2501-10.50S	2	23/64	2500-23/64S
	2	11.00	2501-11.00S	2	3/8	2500-3/8S
	2	11.50	2501-11.50S	2	25/64	2500-25/64S
	2	12.00	2501-12.00S	2	13/32	2500-13/32S
	2	12.50	2501-12.50S	2	27/64	2500-27/64S
	2	13.00	2501-13.00S	2	7/16	2500-7/16S
				2	29/64	2500-29/64S
				2	15/32	2500-15/32S
				2	31/64	2500-31/64S
				2	1/2	2500-1/2S



GROUP	XTRA	XTRA	XTRA
SURFACE FINISH	BRONZE	BRONZE	BRONZE
MATERIAL	HSS-Co5	HSS-Co5	HSS-Co5
POINT TYPE	130º UX POINT	130º UX POINT	130º UX POINT
FLUTE TYPE	40º HELIX PARABOLIC	40º HELIX PARABOLIC	40º HELIX PARABOLIC
PACKAGING	**BULK TUBE**	**BULK TUBE**	**BULK TUBE**
LENGTH	**SERIES 1**	**SERIES 2**	**SERIES 3**

DIA MM	PACK QTY	FL MM	OAL MM	$ EACH	PART NUMBER	FL MM	OAL MM	$ EACH	PART NUMBER	FL MM	OAL MM	$ EACH	PART NUMBER
2.00	1	90	135	**28.90**	2503-2.00X135	–	–	**–**	–	–	–	**–**	–
2.50	1	95	140	**29.88**	2503-2.50X140	–	–	**–**	–	–	–	**–**	–
3.00	1	105	155	**32.47**	2503-3.00X155	135	200	**35.18**	2503-3.00X200	–	–	**–**	–
3.50	1	115	165	**33.20**	2503-3.50X165	145	210	**38.11**	2503-3.50X210	180	265	**42.99**	2503-3.50X265
4.00	1	120	175	**36.16**	2503-4.00X175	150	220	**40.06**	2503-4.00X220	190	280	**43.98**	2503-4.00X280
4.50	1	125	185	**40.48**	2503-4.50X185	160	235	**47.88**	2503-4.50X235	200	295	**52.78**	2503-4.50X295
5.00	1	135	195	**44.95**	2503-5.00X195	170	245	**49.82**	2503-5.00X245	210	315	**40.09**	2503-5.00X315
5.50	1	140	205	**47.88**	2503-5.50X205	180	260	**54.75**	2503-5.50X260	225	330	**60.59**	2503-5.50X330
6.00	1	140	205	**49.82**	2503-6.00X205	180	260	**55.69**	2503-6.00X260	225	330	**61.57**	2503-6.00X330
6.50	1	150	215	**66.49**	2503-6.50X215	190	275	**72.30**	2503-6.50X275	235	350	**81.15**	2503-6.50X350
7.00	1	155	225	**69.37**	2503-7.00X225	200	290	**76.21**	2503-7.00X290	250	370	**87.98**	2503-7.00X370
7.50	1	155	225	**82.10**	2503-7.50X225	200	290	**86.98**	2503-7.50X290	250	370	**99.66**	2503-7.50X370
8.00	1	165	240	**87.98**	2503-8.00X240	210	305	**96.73**	2503-8.00X305	235	390	**108.47**	2503-8.00X390
8.50	1	165	240	**91.85**	2503-8.50X240	210	305	**100.65**	2503-8.50X305	280	390	**112.36**	2503-8.50X390
9.00	1	175	250	**95.76**	2503-9.00X250	220	320	**106.53**	2503-9.00X320	280	410	**123.11**	2503-9.00X410
9.50	1	175	250	**99.66**	2503-9.50X250	220	320	**111.41**	2503-9.50X320	280	410	**128.02**	2503-9.50X410
10.00	1	185	265	**105.52**	2503-10.00X265	235	340	**119.22**	2503-10.00X340	295	430	**140.71**	2503-10.00X430

EXTRA DEEP HOLE
DIN1869



UX Point
The notched UX point provides self centering, easier penetration, improved hole accuracy and improved load distribution. The special notch geometry gives a corrected rake angle of 15º which provides a strong point for harder materials, as well as preventing snatching with materials such as Aluminium, Brass, Bronze and Plastics.





GROUP	LONG
SURFACE FINISH	BLACK
MATERIAL	HSS
POINT TYPE	135º SPLIT POINT
FLUTE TYPE	30º HELIX
PACKAGING	**CLAM SHELL**

DIA INCH	DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
1/8	3.17	114	305	1	**29.50**	2502-1/8
3/16	4.76	114	305	1	**55.53**	2502-3/16
1/4	6.35	114	305	1	**60.13**	2502-1/4
5/16	7.94	114	305	1	**82.94**	2502-5/16
3/8	9.52	114	305	1	**102.43**	2502-3/8
7/16	11.11	114	305	1	**115.09**	2502-7/16
1/2	12.70	114	305	1	**132.36**	2502-1/2

USAGE

Long Reach Drills are suitable for all general purpose drilling where extra reach is required.

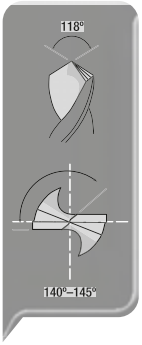
They are suitable for drilling:
Wood – All types
Plastic – All types
Metal – Brass, Steel, Aluminium and Stainless Steel at reduced speed using cutting fluid.

Long Reach Drills have self centering 135º Split Point for fast penetration and reduced need for end thrust.

WARNING
Long Reach Drillls are not designed to drill deep holes. Maximum hole depth must be less than the flute length (FL) of the drill. Deep hole drilling requires the use of a Bordo Long Series Drill, Bordo Extra Deep Hole Drill or Bordo Auger Bit depending on the material being drilled.



METRIC JOBBER DRILLS
DIN338



Multi Faceted Point
The multi faceted point was specifically developed to enable higher load carrying capacity and to enhance feed rates during the machining of difficult materials such as stainless steel.

DRILL BIT SURFACE TREATMENT

VIOLET / GREY - TiAlN
(Titanium Aluminium Nitride – TiAlN)
A violet/grey finish with a higher hardness than both TiN and TiCN coating utilises aluminium in the coating which imparts greater oxidation stability. This stability is a result of a very thin film (of Aluminium Oxide) which is formed on the surface of the TiAlN. This film is self repairing which leads to increased tool service life. This high performance coating is able to withstand much higher temperatures which allows increased speeds and feeds and semi-dry machining operations.
TiAlN coating is especially useful when machining cast iron and tough steels.

GROUP	CBJB
SURFACE FINISH	VIOLET / GREY
MATERIAL	HSS-Co TiAlN COATED
POINT TYPE	MULTI FACETED
FLUTE TYPE	35º HELIX
DRILL LENGTH / TAP THREAD	STANDARD
PACKAGING	**SNAP PACK**

CBTP	CBTP
VIOLET / GREY	VIOLET / GREY
HSSE-V3 TiAlN COATED	HSSE-V3 TiAlN COATED
STRAIGHT	SPIRAL FLUTE
SPIRAL POINT	SPIRAL 40º HELIX
METRIC COARSE	METRIC COARSE
SNAP/TELESCOPIC PACK	**SNAP/TELESCOPIC PACK**





DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	SIZE X PITCH MM	$ EACH	PART NUMBER	$ EACH	PART NUMBER
2.00	24	49	1	**24.77**	2050-2.00	–	**–**	–	**–**	–
2.50	30	57	1	**25.34**	2050-2.50	M3.00 x 0.5	**32.72**	3150-3.00	**39.59**	3250-3.00
3.00	33	61	1	**25.97**	2050-3.00	–	**–**	–	**–**	–
3.30	36	65	1	**26.44**	2050-3.30	M4.00 x 0.7	**35.30**	3150-4.00	**41.84**	3250-4.00
3.50	39	70	1	**27.45**	2050-3.50	–	**–**	–	**–**	–
3.70	39	70	1	**28.29**	2050-3.70	–	**–**	–	**–**	–
4.00	43	75	1	**29.13**	2050-4.00	–	**–**	–		–
4.20	43	75	1	**30.16**	2050-4.20	M5.00 x 0.8	**42.49**	3150-5.00	**51.13**	3250-5.00
4.50	47	80	1	**30.88**	2050-4.50	–	**–**	–	**–**	–
5.00	52	86	1	**32.82**	2050-5.00	M6.00 x 1.0	**45.27**	3150-6.00	**54.88**	3250-6.00
5.50	57	93	1	**35.44**	2050-5.50	–	**–**	–	**–**	–
6.00	57	93	1	**40.18**	2050-6.00	–	**–**	–	**–**	–
6.50	63	101	1	**43.05**	2050-6.50	–	**–**	–	**–**	–
6.80	69	109	1	**45.46**	2050-6.80	M8.00 x 1.25	**47.76**	3150-8.00	**67.71**	3250-8.00
7.00	69	109	1	**45.65**	2050-7.00	–	**–**	–	**–**	–
7.50	69	109	1	**48.25**	2050-7.50	–	**–**	–	**–**	–
7.80	75	117	1	**49.07**	2050-7.80	–	**–**	–	**–**	–
8.00	75	117	1	**49.44**	2050-8.00	–		–	**–**	–
8.50	75	117	1	**54.92**	2050-8.50	M10.00 x 1.5	**63.44**	3150-10.00	**84.91**	3250-10.00
9.00	81	125	1	**56.86**	2050-9.00	–	**–**	–	**–**	–
9.50	81	125	1	**60.85**	2050-9.50	–	**–**	–	**–**	–
10.00	87	133	1	**63.91**	2050-10.00	–	**–**	–	**–**	–
10.20	87	133	1	**66.88**	2050-10.20	M12.00 x 1.75	**106.51**	3150-12.00	**126.73**	3250-12.00
11.00	94	142	1	**74.12**	2050-11.00	–	**–**	–		–
12.00	101	151	1	**80.70**	2050-12.00	M14.00 x 2.0	**124.25**	3150-14.00	**147.86**	3250-14.00
13.00	101	151	1	**94.80**	2050-13.00	–	**–**	–	**–**	–

for the complete range of **Colour Band Taps see Page 122**

STAINLESS STEEL BLUE BAND

The machining of stainless steels is difficult due to its work hardening properties, toughness and poor thermal conductivity, which places high demands on the cutting tools. The Blue Band Series has been specifically designed to suit these difficult machining requirements.

TiAlN coating increases tool surface hardness to 87Rc. For machining materials with Hardness <350 HB : Tensile Strength <1250 N/mm2

MACHINED MATERIAL	HARDNESS Brinell	HARDNESS N/mm2	SPEED m/min	FEED RATE FOR DIAMETER (MM) 3	5	6	8	10	12	16	20
DRILLING – COPPER											
Free Cutting	<250	861	12-22	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
Austenitic	<250	861	10-15	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
Martensitic, Ferritic	>300	971	12-18	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
DRILLING – TITANIUM											
Pure, Unalloyed	<200	758	20-32	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
Titanium Alloys	>300	971	06-12	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
DRILLING – NICKEL											
Pure, Unalloyed	<300	971	10-15	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28



GROUP	CBJB
SURFACE FINISH	VIOLET / GREY
MATERIAL	HSS-CO TiAlN COATED
POINT TYPE	MULTI FACETED
FLUTE TYPE	35º HELIX
DRILL LENGTH / TAP THREAD	**STUB**
PACKAGING	**SNAP PACK**

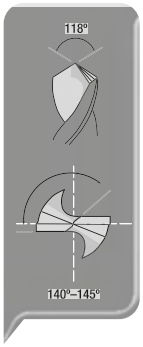
CBTP	CBTP
VIOLET / GREY	VIOLET / GREY
HSSE-V3 TiAlN COATED	HSSE-V3 TiAlN COATED
SPIRAL POINT	SPIRAL FLUTE
STRAIGHT	SPIRAL 40º HELIX
METRIC COARSE	METRIC COARSE
SNAP/TELESCOPIC PACK	**SNAP/TELESCOPIC PACK**



DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	SIZE X PITCH MM	$ EACH	PART NUMBER	$ EACH	PART NUMBER
2.00	12	38	1	**22.27**	2051-2.00	–	**–**	–	**–**	–
2.50	14	43	1	**22.50**	2051-2.50	M3.00 x 0.5	**32.72**	3150-3.00	**39.59**	3250-3.00
3.00	16	46	1	**23.11**	2051-3.00	–	**–**	–	**–**	–
3.30	18	49	1	**23.92**	2051-3.30	M4.00 x 0.7	**35.30**	3150-4.00	**41.84**	3250-4.00
3.50	20	52	1	**24.31**	2051-3.50	–	**–**	–	**–**	–
3.70	20	52	1	**24.67**	2051-3.70	–	**–**	–	**–**	–
4.00	22	55	1	**25.50**	2051-4.00	–	**–**	–	**–**	–
4.20	22	55	1	**25.87**	2051-4.20	M5.00 x 0.8	**42.49**	3150-5.00	**51.13**	3250-5.00
4.50	24	58	1	**25.97**	2051-4.50	–	**–**	–	**–**	–
5.00	26	62	1	**27.10**	2051-5.00	M6.00 x 1.0	**45.27**	3150-6.00	**54.88**	3250-6.00
5.50	28	66	1	**28.84**	2051-5.50	–	**–**	–	**–**	–
6.00	28	66	1	**33.30**	2051-6.00	–	**–**	–	**–**	–
6.50	31	70	1	**36.73**	2051-6.50	–	**–**	–	**–**	–
6.80	34	74	1	**38.03**	2051-6.80	M8.00 x 1.25	**47.76**	3150-8.00	**67.71**	3250-8.00
7.00	34	74	1	**38.50**	2051-7.00	–	**–**	–	**–**	–
7.50	34	74	1	**39.80**	2051-7.50	–	**–**	–	**–**	–
7.80	37	79	1	**39.98**	2051-7.80	–	**–**	–	**–**	–
8.00	37	79	1	**40.82**	2051-8.00	–	**–**	–	**–**	–
8.50	37	79	1	**45.08**	2051-8.50	M10.00 x 1.5	**63.44**	3150-10.00	**84.91**	3250-10.00
9.00	40	84	1	**46.66**	2051-9.00	–	**–**	–	**–**	–
9.50	40	84	1	**48.79**	2051-9.50	–	**–**	–	**–**	–
10.00	43	89	1	**50.73**	2051-10.00	–	**–**	–	**–**	–
10.20	43	89	1	**53.14**	2051-10.20	M12.00 x 1.75	**106.51**	3150-12.00	**126.73**	3250-12.00
11.00	47	95	1	**57.25**	2051-11.00	–	**–**	–	**–**	–
12.00	51	102	1	**61.70**	2051-12.00	M14.00 x 2.0	**124.25**	3150-14.00	**147.86**	3250-14.00
13.00	51	102	1	**71.71**	2051-13.00	–	**–**	–	**–**	–

for the complete range of **Colour Band Taps see Page 122**

METRIC STUB DRILLS
DIN1897



Multi Faceted Point
The multi faceted point was specifically developed to enable higher load carrying capacity and to enhance feed rates during the machining of difficult materials such as stainless steel.

DRILL BIT SURFACE TREATMENT

VIOLET / GREY - TiAlN
(Titanium Aluminium Nitride – TiAlN)
A violet/grey finish with a higher hardness than both TiN and TiCN coating utilises aluminium in the coating which imparts greater oxidation stability. This stability is a result of a very thin film (of Aluminium Oxide) which is formed on the surface of the TiAlN. This film is self repairing which leads to increased tool service life. This high performance coating is able to withstand much higher temperatures which allows increased speeds and feeds and semi-dry machining operations.
TiAlN coating is especially useful when machining cast iron and tough steels.

STAINLESS STEEL BLUE BAND

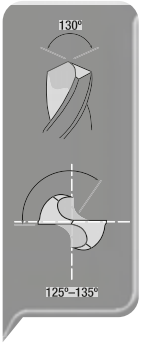
The machining of stainless steels is difficult due to its work hardening properties, toughness and poor thermal conductivity, which places high demands on the cutting tools. The Blue Band Series has been specifically designed to suit these difficult machining requirements.

TiAlN coating increases tool surface hardness to 87Rc. For machining materials with Hardness <350 HB : Tensile Strength <1250 N/mm2

MACHINED MATERIAL	HARDNESS Brinell	N/mm2	SPEED m/min	FEED RATE FOR DIAMETER (MM) 3	5	6	8	10	12	16	20
DRILLING – COPPER											
Free Cutting	<250	861	12-22	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
Austenitic	<250	861	10-15	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
Martensitic, Ferritic	>300	971	12-18	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
DRILLING – TITANIUM											
Pure, Unalloyed	<200	758	20-32	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
Titanium Alloys	>300	971	06-12	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
DRILLING – NICKEL											
Pure, Unalloyed	<300	971	10-15	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28



METRIC JOBBER DRILLS
DIN338



UX Point
The notched UX point provides self centering, easier penetration, improved hole accuracy and improved load distribution. The special notch geometry gives a corrected rake angle of 15° which provides a strong point for harder materials, as well as preventing snatching with materials such as Aluminium, Brass, Bronze and Plastics.

DRILL BIT SURFACE TREATMENT

VIOLET / GREY
(Titanium Aluminium Nitride – TiAlN)
A violet/grey finish with a higher hardness than both TiN and TiCN coating utilises aluminium in the coating which imparts greater oxidation stability. This stability is a result of a very thin film (of Aluminium Oxide) which is formed on the surface of the TiAlN. This film is self repairing which leads to increased tool service life. This high performance coating is able to withstand much higher temperatures which allows increased speeds and feeds and semi-dry machining operations.
TiAlN coating is especially useful when machining cast iron and tough steels.

GROUP	CBJB
SURFACE FINISH	VIOLET / GREY
MATERIAL	HSS-Co TiAlN COATED
POINT TYPE	130° UX
FLUTE TYPE	33° HELIX PARABOLIC
THREAD	–
PACKAGING	**SNAP PACK**

CBTP	CBTP
VIOLET / GREY	VIOLET / GREY
HSSE-EV TiAlN COATED	HSSE-EV TiALN COATED
SPIRAL POINT	SPIRAL FLUTE
STRAIGHT	SPIRAL 15° HELIX
METRIC COARSE	METRIC COARSE
SNAP/TELEPACK	**SNAP/TELEPACK**





DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	SIZE X PITCH MM	$ EACH	PART NUMBER	$ EACH	PART NUMBER
2.00	24	49	1	**10.64**	2052-2.00	–	**–**	–	**–**	–
2.50	30	57	1	**10.64**	2052-2.50	M3.00 x 0.5	**33.12**	3152-3.00	**34.85**	3252-3.00
3.00	33	61	1	**12.29**	2052-3.00	–	**–**	–	**–**	–
3.20	36	65	1	**13.42**	2052-3.20	–	**–**	–	**–**	–
3.30	36	65	1	**13.42**	2052-3.30	M4.00 x 0.7	**36.09**	3152-4.00	**37.00**	3252-4.00
3.50	39	70	1	**14.31**	2052-3.50	–	**–**	–	**–**	–
3.70	39	70	1	**15.31**	2052-3.70	–	**–**	–	**–**	–
4.00	43	75	1	**15.94**	2052-4.00	–	**–**	–	**–**	–
4.10	43	75	1	**16.82**	2052-4.10	–	**–**	–	**–**	–
4.20	43	75	1	**16.95**	2052-4.20	M5.00 x 0.8	**40.73**	3152-5.00	**43.26**	3252-5.00
4.50	47	80	1	**17.71**	2052-4.50	–	**–**	–	**–**	–
5.00	52	86	1	**20.12**	2052-5.00	M6.00 x 1.0	**42.67**	3152-6.00	**45.74**	3252-6.00
5.50	57	93	1	**23.79**	2052-5.50	–	**–**	–	**–**	–
6.00	57	93	1	**25.44**	2052-6.00	–	**–**	–	**–**	–
6.50	63	101	1	**28.34**	2052-6.50	–	**–**	–	**–**	–
6.80	69	109	1	**32.64**	2052-6.80	M8.00 x 1.25	**54.47**	3152-8.00	**56.88**	3252-8.00
7.00	69	109	1	**32.64**	2052-7.00	–	**–**	–	**–**	–
7.50	69	109	1	**36.19**	2052-7.50	–	**–**	–	**–**	–
8.00	75	117	1	**38.32**	2052-8.00	–	**–**	–	**–**	–
8.50	75	117	1	**40.99**	2052-8.50	M10.00 x 1.5	**72.68**	3152-10.00	**73.92**	3252-10.00
9.00	81	125	1	**44.76**	2052-9.00	–	**–**	–	**–**	–
9.50	81	125	1	**48.45**	2052-9.50	–	**–**	–	**–**	–
10.00	87	133	1	**51.99**	2052-10.00	–	**–**	–	**–**	–
10.20	87	133	1	**57.05**	2052-10.20	M12.00 x 1.75	**103.22**	3152-12.00	**106.32**	3252-12.00
10.50	87	133	1	**59.21**	2052-10.50	–	**–**	–	**–**	–
11.00	94	142	1	**64.03**	2052-11.00	–	**–**	–	**–**	–
12.00	101	151	1	**72.60**	2052-12.00	M14.00 x 2.0	**123.93**	3152-14.00	**127.63**	3252-14.00
13.00	101	151	1	**83.24**	2052-13.00	–	**–**	–	**–**	–

for the complete range of **Colour Band Taps see Page 122**

TOUGH TREATABLE STEEL RED BAND

The mechanical properties of materials are influenced diversely by the addition of alloying elements and heat treatment processes, resulting in some high-strength, quenched and tempered steels or hardened steels. This range has its own unique set of machining requirements which are satisified by the Red Band Series.

TiAlN coating increases tool surface hardness to 87Rc. For machining materials with Hardness <470 HB : Tensile Strength <1500 N/mm2

MACHINED MATERIAL	HARDNESS Brinell	HARDNESS N/mm2	SPEED m/min	FEED RATE FOR DIAMETER (MM) 3	5	6	8	10	12	16	20
DRILLING – COPPER											
High Tensile Bronze	<350	1144	15-28	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
DRILLING – CARBON ALLOY STEELS											
Low Alloy Steel	>250	861	25-30	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
Alloyed, Heat Treated	>300	971	15-20	0.04	0.06	0.06	0.07	0.10	0.11	0.13	0.16
Alloyed, Heat Treated	>350	1144	10-15	0.04	0.06	0.06	0.07	0.10	0.11	0.13	0.16
DRILLING – NICKEL											
Nimonic 75	>300	971	06-10	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
Iconel 718 Alloy	<350	1144	04-08	0.04	0.06	0.06	0.07	0.10	0.11	0.13	0.16



GROUP	CBJB
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	130º WEB THINNED
FLUTE TYPE	35º HELIX
THREAD	–
PACKAGING	**SNAP PACK**

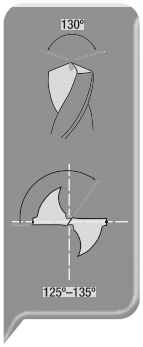
CBTP	CBTP	CBTP
BRIGHT	BRIGHT	BRIGHT
HSSE-EV	HSSE-EV	HSSE-EV
SPIRAL POINT	SPIRAL FLUTE	ROLL FORM
STRAIGHT	SPIRAL 40º HELIX	FLUTELESS
METRIC COARSE	METRIC COARSE	METRIC COARSE
SNAP/TELEPACK	**SNAP/TELEPACK**	**SNAP/TELEPACK**



DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	SIZE X PITCH MM	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
2.00	24	49	1	**4.65**	2054-2.00	–	–	–	–	–	–	–
2.50	30	57	1	**4.85**	2054-2.50	M3.00 x 0.5	**15.27**	3154-3.00	**19.87**	3254-3.00	**36.77**	3255-3.00
3.00	33	61	1	**5.32**	2054-3.00	–	–	–	–	–	–	–
3.20	36	65	1	**6.29**	2054-3.20	–	–	–	–	–	–	–
3.30	36	65	1	**6.43**	2054-3.30	M4.00 x 0.7	**16.61**	3154-4.00	**19.52**	3254-4.00	**37.42**	3255-4.00
3.50	39	70	1	**6.59**	2054-3.50	–	–	–	–	–	–	–
3.70	39	70	1	**6.59**	2054-3.70	–	–	–	–	–	–	–
4.00	43	75	1	**6.59**	2054-4.00	–	–	–	–	–	–	–
4.10	43	75	1	**7.27**	2054-4.10	–	–	–	–	–	–	–
4.20	43	75	1	**7.71**	2054-4.20	M5.00 x 0.8	**16.52**	3154-5.00	**20.40**	3254-5.00	**39.29**	3255-5.00
4.50	47	80	1	**8.09**	2054-4.50	–	–	–	–	–	–	–
4.80	52	86	1	**8.83**	2054-4.80	–	–	–	–	–	–	–
5.00	52	86	1	**9.00**	2054-5.00	M6.00 x 1.0	**17.32**	3154-6.00	**20.21**	3254-6.00	**40.64**	3255-6.00
5.50	57	93	1	**9.35**	2054-5.50	–	–	–	–	–	–	–
6.00	57	93	1	**10.93**	2054-6.00	–	–	–	–	–	–	–
6.50	63	101	1	**11.46**	2054-6.50	–	–	–	–	–	–	–
6.80	69	109	1	**12.43**	2054-6.80	M8.00 x 1.25	**22.09**	3154-8.00	**25.05**	3254-8.00	**44.07**	3255-8.00
7.00	69	109	1	**14.14**	2054-7.00	–	–	–	–	–	–	–
7.50	69	109	1	**16.76**	2054-7.50	–	–	–	–	–	–	–
7.80	75	117	1	**17.60**	2054-7.80	–	–	–	–	–	–	–
8.00	75	117	1	**17.89**	2054-8.00	–	–	–	–	–	–	–
8.50	75	117	1	**20.43**	2054-8.50	M10.00 x 1.5	**29.51**	3154-10.00	**35.32**	3254-10.00	**62.70**	3255-10.00
9.00	81	125	1	**23.06**	2054-9.00	–	–	–	–	–	–	–
9.50	81	125	1	**24.47**	2054-9.50	–	–	–	–	–	–	–
10.00	87	133	1	**26.14**	2054-10.00	–	–	–	–	–	–	–
10.20	87	133	1	**26.43**	2054-10.20	M12.00 x 1.75	**53.08**	3154-12.00	**60.75**	3254-12.00	–	–
10.50	87	133	1	**30.46**	2054-10.50	–	–	–	–	–	–	–
11.00	94	142	1	**31.14**	2054-11.00	–	–	–	–	–	–	–
12.00	101	151	1	**36.45**	2054-12.00	M14.00 x 2.0	**63.74**	3154-14.00	**72.93**	3254-14.00	–	–
13.00	101	151	1	**45.43**	2054-13.00	–	–	–	–	–	–	–

for the complete range of **Colour Band Taps see Page 122**

METRIC JOBBER DRILLS
DIN338



130º Thinned
The thinned point reduces end thrust and optimizes centre cutting efficiency with chisel strength.

DRILL BIT SURFACE TREATMENT

BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition. *These tools are suitable for general purpose use, particularly for non-ferrous applications.*

ALUMINIUM YELLOW BAND

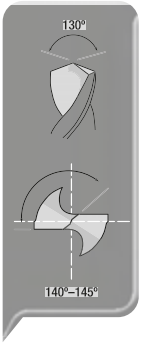
The alloying elements which are used to create the myriad of Aluminium Alloys have an effect on the machining properties of the resulting materials. This generally creates a difficult long chip form, which tends to stick to the tool, placing a unique set of demands on tooling. Yellow Band Series contends with these difficulties.

For machining materials with Hardness <200 HB :
Tensile Strength <700 N/mm2

MACHINED MATERIAL	HARDNESS Brinell	N/mm2	SPEED m/min	FEED RATE FOR DIAMETER (MM) 3	5	6	8	10	12	16	20
DRILLING – ALUMINIUM ALLOYS											
Wrought & Extruded	<150	541	50-60	0.12	0.15	0.17	0.22	0.26	0.28	0.32	0.36
Wrought & Treated	>150	541	35-50	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
Cast, Low Si <5%	<150	541	30-40	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
Cast, High Si >10%	>150	541	23-35	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
DRILLING – COPPER											
Pure <100	–	35-55	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21	0.21
Brass, Soft	<200	717	40-50	0.15	0.19	0.21	0.28	0.33	0.35	0.40	0.45
Brass, Bronze	>200	717	35-45	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28



METRIC JOBBER DRILLS
DIN338



Split Point
The 130° Split Point provides self centering and easier penetration. The 33° helix open profile flute design has reinforced web for high rigidity under extreme conditions.

DRILL BIT SURFACE TREATMENT

GOLD FINISH (TiN)
(Titanium Nitride)
A very hard gold coloured surface finish a few microns thick is achieved by Physical Vapour Deposition (PVD). As with all surface coated tools, performance will deteriorate after resharpening.
The coating helps to dissipate heat and reduces friction and cold welding. Higher speed and feed rates can be achieved and tool life is greatly increased.

GROUP	CBJB
SURFACE FINISH	GOLD COLOURED
MATERIAL	HSS-CO TiN COATED
POINT TYPE	130° SPLIT POINT
FLUTE TYPE	33° HELIX
THREAD	–
PACKAGING	**SNAP PACK**

CBTP	CBTP
GOLD COLOURED	GOLD COLOURED
HSSE-EV TiN COATED	HSSE-EV TiN COATED
SPIRAL POINT	SPIRAL FLUTE
STRAIGHT	SPIRAL 35° HELIX
METRIC COARSE	METRIC COARSE
SNAP/TELESCOPIC PACK	**SNAP/TELESCOPIC PACK**





DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	SIZE X PITCH MM	$ EACH	PART NUMBER	$ EACH	PART NUMBER
2.00	24	49	1	**6.78**	2056-2.00	–	**–**	–	**–**	–
2.50	30	57	1	**6.94**	2056-2.50	M3.00 x 0.5	**29.51**	3156-3.00	**41.27**	3256-3.00
3.00	33	61	1	**7.35**	2056-3.00	–	**–**	–	**–**	–
3.20	36	65	1	**7.35**	2056-3.20	–	**–**	–	**–**	–
3.30	36	65	1	**7.35**	2056-3.30	M4.00 x 0.7	**33.58**	3156-4.00	**46.00**	3256-4.00
3.50	39	70	1	**8.20**	2056-3.50	–	**–**	–	**–**	–
3.70	39	70	1	**8.92**	2056-3.70	–	**–**	–	**–**	–
4.00	43	75	1	**8.92**	2056-4.00	–	**–**	–	**–**	–
4.10	43	75	1	**9.53**	2056-4.10	–	**–**	–	**–**	–
4.20	43	75	1	**9.53**	2056-4.20	M5.00 x 0.8	**37.62**	3156-5.00	**52.18**	3256-5.00
4.50	47	80	1	**9.78**	2056-4.50	–	**–**	–	**–**	–
4.80	52	86	1	**10.49**	2056-4.80	–	**–**	–	**–**	–
5.00	52	86	1	**10.49**	2056-5.00	M6.00 x 1.0	**42.69**	3156-6.00	**58.55**	3256-6.00
5.50	57	93	1	**12.64**	2056-5.50	–	**–**	–	**–**	–
6.00	57	93	1	**13.39**	2056-6.00	–	**–**	–	**–**	–
6.50	63	101	1	**15.15**	2056-6.50	–	**–**	–	**–**	–
6.80	69	109	1	**17.05**	2056-6.80	M8.00 x 1.25	**45.63**	3156-8.00	**61.70**	3256-8.00
7.00	69	109	1	**17.05**	2056-7.00	–	**–**	–	**–**	–
7.50	69	109	1	**18.72**	2056-7.50	–	**–**	–	**–**	–
7.80	75	117	1	**19.95**	2056-7.80	–	**–**	–	**–**	–
8.00	75	117	1	**19.95**	2056-8.00	–	**–**	–	**–**	–
8.50	75	117	1	**22.28**	2056-8.50	M10.00 x 1.5	**53.39**	3156-10.00	**82.68**	3256-10.00
9.00	81	125	1	**24.08**	2056-9.00	–	**–**	–	**–**	–
9.50	81	125	1	**26.26**	2056-9.50	–	**–**	–	**–**	–
10.00	87	133	1	**28.40**	2056-10.00	–	**–**	–	**–**	–
10.20	87	133	1	**30.55**	2056-10.20	M12.00 x 1.75	**103.95**	3156-12.00	**106.89**	3256-12.00
10.50	87	133	1	**31.60**	2056-10.50	–	**–**	–	**–**	–
11.00	94	142	1	**33.70**	2056-11.00	–	**–**	–	**–**	–
12.00	101	151	1	**38.37**	2056-12.00	M14.00 x 2.0	**121.34**	3156-14.00	**121.94**	3256-14.00
13.00	101	151	1	**47.88**	2056-13.00	–	**–**	–	**–**	–

for the complete range of **Colour Band Taps see Page 122**

CARBON STEEL GREEN BAND

The machinability of different carbon steels is as varied as their properties. Soft-tough construction steels place a unique set of demands on the tools.The Green Band Series of drills and taps have been developed specifically for this range of steels.

TiN coating increases tool surface hardness to 85Rc. For machining materials with Hardness <250 HB : Tensile Strength <900 N/mm2

MACHINED MATERIAL	HARDNESS Brinell	HARDNESS N/mm2	SPEED m/min	FEED RATE FOR DIAMETER (MM) 3	5	6	8	10	12	16	20
DRILLING – CARBON ALLOY STEELS											
Free Cutting Mild Steel	<120	420	40-50	0.12	0.15	0.17	0.22	0.26	0.28	0.32	0.36
Low Carbon Steel	<200	758	30-40	0.08	0.11	0.12	0.16	0.19	0.20	0.24	0.28
Medium Carbon Steel	<250	861	25-35	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21

To convert Surface Metres Per Minute to RPM : RPM = (surface m/min x 318.5) ÷ D
where "D" is outside diameter of drill expressed in millimeters



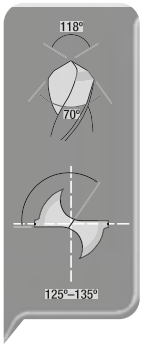
GROUP	CBJB	CBTP
SURFACE FINISH	VIOLET / GREY	VIOLET / GREY
MATERIAL	HSS-CO TiAlN COATED	HSSE-EV TiAlN COATED
POINT TYPE	118º / 70º DX	SPIRAL FLUTE
FLUTE TYPE	33º HELIX	SPIRAL 15º HELIX
THREAD	–	METRIC COARSE
PACKAGING	**SNAP PACK**	**SNAP/TELESCOPIC PACK**



DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	SIZE X PITCH MM	$ EACH	PART NUMBER
4.00	43	75	1	**8.92**	2058-4.00	–	**–**	–
4.20	43	75	1	**9.53**	2058-4.20	M5.00 x 0.8	**48.25**	3258-5.00
4.50	47	80	1	**9.78**	2058-4.50	–	**–**	–
5.00	52	86	1	**10.49**	2058-5.00	M6.00 x 1.0	**55.88**	3258-6.00
5.50	57	93	1	**12.64**	2058-5.50	–	**–**	–
6.00	57	93	1	**13.39**	2058-6.00	–	**–**	–
6.50	63	101	1	**15.15**	2058-6.50	–	**–**	–
6.80	69	109	1	**17.05**	2058-6.80	M8.00 x 1.25	**69.52**	3258-8.00
7.00	69	109	1	**17.05**	2058-7.00	–	**–**	–
7.50	69	109	1	**18.72**	2058-7.50	–	**–**	–
8.00	75	117	1	**19.95**	2058-8.00	–	**–**	–
8.50	75	117	1	**22.28**	2058-8.50	M10.00 x 1.5	**85.74**	3258-10.00
9.00	81	125	1	**24.08**	2058-9.00	–	**–**	–
9.50	81	125	1	**26.26**	2058-9.50	–	**–**	–
10.00	87	133	1	**28.40**	2058-10.00	–	**–**	–
10.20	87	133	1	**30.55**	2058-10.20	M12.00 x 1.75	**122.42**	3258-12.00
10.50	87	133	1	**31.60**	2058-10.50	–	**–**	–
11.00	94	142	1	**33.70**	2058-11.00	–	**–**	–
12.00	101	151	1	**38.37**	2058-12.00	M14.00 x 2.0	**141.23**	3258-14.00

for the complete range of **Colour Band Taps see Page 122**

METRIC JOBBER DRILLS
DIN338



DX Point
The double angled DX Point (118º/70º) minimises wear on the outer corners of the drill point in highly abrasive materials such as Cast Iron and Reinforced Plastics. The point is web thinned to enable easier penetration.

DRILL BIT SURFACE TREATMENT

VIOLET / GREY
(Titanium Aluminium Nitride – TiAlN)
A violet/grey finish with a higher hardness than both TiN and TiCN coating utilises aluminium in the coating which imparts greater oxidation stability. This stability is a result of a very thin film (of Aluminium Oxide) which is formed on the surface of the TiAlN. This film is self repairing which leads to increased tool service life. This high performance coating is able to withstand much higher temperatures which allows increased speeds and feeds and semi-dry machining operations.
TiAlN coating is especially useful when machining cast iron and tough steels.

CAST IRON WHITE BAND

A highly abrasive material with damping and thermal conductivity, high strength and resistance to wear. Cast Iron is used extensively for mass produced components.The White Band Series is designed for this specific purpose.

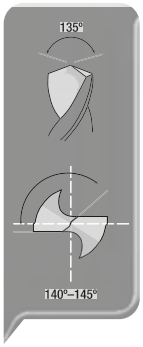
TiAlN coating increases tool surface hardness to 87Rc. For machining materials with Hardness <300 HB : Tensile Strength <1000 N/mm2

MACHINED MATERIAL	HARDNESS Brinell	N/mm2	SPEED m/min	FEED RATE FOR DIAMETER (MM) 3	5	6	8	10	12	16	20
DRILLING – CAST IRON											
Plain Grey Irons	<150	541	35-45	0.12	0.15	0.17	0.22	0.26	0.28	0.32	0.36
Plain SG Iron	<250	861	23-35	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21
Alloy SG Iron Nickel	>250	861	15-28	0.06	0.08	0.09	0.12	0.14	0.15	0.16	0.21

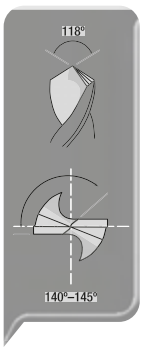
To convert Surface Metres Per Minute to RPM : RPM = (surface m/min x 318.5) ÷ D
where "D" is outside diameter of drill expressed in millimeters



METRIC STUB DRILLS
DIN1897



135° Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust.
The 135° point should be used to cut harder steel materials especially in deep hole applications.
In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.



Multi Faceted Point
The multi faceted point was specifically developed to enable higher load carrying capacity and to enhance feed rates during the machining of difficult materials such as stainless steel.

GROUP	STUB	STUB	CBTP
SURFACE FINISH	BLACK	BRIGHT	VIOLET / GREY
MATERIAL	HSS	HSS	HSS-Co TiAlN COATED
POINT TYPE	135° SPLIT POINT	135° SPLIT POINT	MULTI FACETED POINT
FLUTE TYPE	30° HELIX	30° HELIX	35° HELIX
PACKAGING	**BULK**	**BULK**	**SNAP PACK**





DIA MM	DIA GAUGE	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	PACK QTY	$ EACH	PART NUMBER
1.00	–	6	26	10	**4.07**	2021-1.00	**–**	–	–	**–**	–
1.50	–	9	32	10	**3.64**	2021-1.50	**–**	–	–	**–**	–
2.00	–	12	38	10	**3.30**	2021-2.00	**–**	–	1	**22.27**	2051-2.00
2.50	–	14	43	10	**3.30**	2021-2.50	**–**	–	1	**22.50**	2051-2.50
3.00	–	16	46	10	**3.14**	2021-3.00	**–**	–	1	**23.11**	2051-3.00
3.26	30	24	49	10	**–**	–	**3.15**	2034-30	–	**–**	–
3.30	–	18	49	–	**–**	–	**–**	–	1	**23.92**	2051-3.30
3.50	–	20	52	10	**3.44**	2021-3.50	**–**	–	1	**24.31**	2051-3.50
3.70	–	20	52	10	**–**	–	**–**	–	1	**24.67**	2051-3.70
4.00	–	22	55	10	**3.99**	2021-4.00	**–**	–	1	**25.50**	2051-4.00
4.09	20	27	54	10	**–**	–	**4.07**	2034-20	–	**–**	–
4.20	–	22	55	–	**–**	–	**–**	–	1	**25.87**	2051-4.20
4.50	–	24	58	10	**4.39**	2021-4.50	**–**	–	1	**25.97**	2051-4.50
4.85	11	30	57	10	**–**	–	**6.00**	2034-11	–	**–**	–
5.00	–	26	62	10	**5.19**	2021-5.00	**–**	–	1	**27.10**	2051-5.00
5.50	–	28	66	10	**5.99**	2021-5.50	**–**	–	1	**28.84**	2051-5.50
6.00	–	28	66	10	**6.83**	2021-6.00	**–**	–	1	**33.30**	2051-6.00
6.50	–	31	70	10	**7.62**	2021-6.50	**–**	–	1	**36.73**	2051-6.50
6.80	–	34	74	–	**–**	–	**–**	–	1	**38.03**	2051-6.80
7.00	–	34	74	10	**8.88**	2021-7.00	**–**	–	1	**38.50**	2051-7.00
7.50	–	34	74	10	**10.08**	2021-7.50	**–**	–	1	**39.80**	2051-7.50
7.80	–	37	79	–	**–**	–	**–**	–	1	**39.98**	2051-7.80
8.00	–	37	79	5	**10.93**	2021-8.00	**–**	–	1	**40.82**	2051-8.00
8.50	–	37	79	5	**12.32**	2021-8.50	**–**	–	1	**45.08**	2051-8.50
9.00	–	40	84	5	**13.56**	2021-9.00	**–**	–	1	**46.66**	2051-9.00
9.50	–	40	84	5	**14.99**	2021-9.50	**–**	–	1	**48.79**	2051-9.50
10.00	–	43	89	5	**16.10**	2021-10.00	**–**	–	1	**50.73**	2051-10.00
10.20	–	43	89	–	**–**	–	**–**	–	1	**53.14**	2051-10.20
10.50	–	43	89	5	**18.23**	2021-10.50	**–**	–	–	**–**	–
11.00	–	47	95	5	**21.02**	2021-11.00	**–**	–	1	**57.25**	2051-11.00
11.50	–	47	95	5	**23.66**	2021-11.50	**–**	–	–	**–**	–
12.00	–	51	102	5	**26.77**	2021-12.00	**–**	–	1	**61.70**	2051-12.00
12.50	–	51	102	5	**29.49**	2021-12.50	**–**	–	–	**–**	–
13.00	–	51	102	5	**31.65**	2021-13.00	**–**	–	1	**71.71**	2051-13.00



GROUP	STUB
SURFACE FINISH	BLACK
MATERIAL	HSS
POINT TYPE	135º SPLIT POINT
FLUTE TYPE	30º HELIX
PACKAGING	**BULK**



DIA INCH	DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
1/16	1.59	16	41	10	**3.58**	2020-1/16
5/64	1.98	18	43	10	**3.30**	2020-5/64
3/32	2.38	19	44	10	**3.30**	2020-3/32
7/64	2.78	21	46	10	**3.00**	2020-7/64
1/8	3.17	22	48	10	**3.14**	2020-1/8
9/64	3.57	24	49	10	**3.58**	2020-9/64
5/32	3.97	25	52	10	**3.86**	2020-5/32
11/64	4.37	27	54	10	**4.39**	2020-11/64
3/16	4.76	29	56	10	**4.82**	2020-3/16
13/64	5.16	30	57	10	**5.44**	2020-13/64
7/32	5.56	32	60	10	**5.99**	2020-7/32
15/64	5.95	33	62	10	**6.55**	2020-15/64
1/4	6.35	35	64	10	**7.37**	2020-1/4
17/64	6.75	37	67	10	**8.32**	2020-17/64
9/32	7.14	38	68	10	**9.28**	2020-9/32
19/64	7.54	40	70	5	**10.08**	2020-19/64
5/16	7.94	41	71	5	**10.93**	2020-5/16
21/64	8.33	43	75	5	**11.74**	2020-21/64
11/32	8.73	43	75	5	**13.00**	2020-11/32
23/64	9.13	44	78	5	**14.09**	2020-23/64
3/8	9.52	46	79	5	**14.99**	2020-3/8
25/64	9.92	48	83	5	**15.99**	2020-25/64
13/32	10.32	49	84	5	**17.90**	2020-13/32
27/64	10.72	51	86	5	**19.80**	2020-27/64
7/16	11.11	52	87	5	**21.47**	2020-7/16
29/64	11.51	54	90	5	**23.74**	2020-29/64
15/32	11.91	54	92	5	**26.52**	2020-15/32
31/64	12.30	56	94	5	**28.15**	2020-31/64
1/2	12.70	57	95	5	**29.49**	2020-1/2

FRACTIONAL STUB DRILLS
DIN1897

DRILL BIT SURFACE TREATMENT

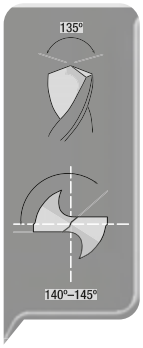
BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition. ***These tools are suitable for general purpose use, particularly for non-ferrous applications.***

BLACK FINISH
(also called blue finish)
A black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface helps to keep lubricant on the tool, particularly important on the cutting edges, thus reducing friction and cold welding. The result is increased tool life.
Black finish tools are generally recommended for ferrous applications where the oxide layer aids chip flow and heat dissipation.

VIOLET / GREY
(Titanium Aluminium Nitride – TiAlN)
A violet/grey finish with a higher hardness than both TiN and TiCN coating utilises aluminium in the coating which imparts greater oxidation stability. This stability is a result of a very thin film (of Aluminium Oxide) which is formed on the surface of the TiAlN. This film is self repairing which leads to increased tool service life. This high performance coating is able to withstand much higher temperatures which allows increased speeds and feeds and semi-dry machining operations.
TiAlN coating is especially useful when machining cast iron and tough steels.







135° Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust.
The 135° point should be used to cut harder steel materials especially in deep hole applications.
In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

GROUP	PANL	PANL	PANL	PANL
SURFACE FINISH	BRIGHT	BRIGHT	BLACK	BLACK
MATERIAL	HSS	HSS	HSS	HSS
POINT TYPE	135° SPLIT POINT	135° SPLIT POINT	135° SPLIT POINT	135° SPLIT POINT
END TYPE	**SINGLE ENDED**	**DOUBLE ENDED**	**SINGLE ENDED**	**DOUBLE ENDED**
PACKAGING	**BULK (10)**	**BULK (10)**	**BULK (10)**	**BULK (10)**

DIA GAUGE	DIA MM / INCH	RIVET DIA.	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
–	1/8"	3mm	14	51	10	–	–	**4.64**	2345-1/8	–	–	**4.64**	2343-1/8
30	3.26mm	1/8"	14	51	10	**2.97**	2346-30	**4.64**	2345-30	**2.97**	2344-30	**4.64**	2343-30
20	4.09mm	5/32"	14	55	10	**3.61**	2346-20	**5.66**	2345-20	**3.61**	2344-20	**5.66**	2343-20
11	4.85mm	3/16"	17	62	10	**4.35**	2346-11	**6.76**	2345-11	**4.35**	2344-11	**6.76**	2343-11







GROUP	PANL	PANL	PANL
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT
MATERIAL	HSS	HSS	HSS
POINT TYPE	135° SPLIT POINT	135° SPLIT POINT	135° SPLIT POINT
END TYPE	**SINGLE ENDED**	**DOUBLE ENDED**	**DOUBLE ENDED**
PACKAGING	**CLAM SHELL OF 2**	**CLAM SHELL OF 2**	**CLAM SHELL OF 10**

DIA GAUGE	DIA MM / INCH	RIVET DIA.	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
–	1/8"	3mm	14	51	10	–	–	**10.17**	2345-1/8S	**46.47**	2345-1/8T
30	3.26mm	1/8"	14	51	10	**6.76**	2346-30S	**10.17**	2345-30S	**46.47**	2345-30T
20	4.09mm	5/32"	14	55	10	**8.37**	2346-20S	**12.96**	2345-20S	**56.83**	2345-20T
11	4.85mm	3/16"	17	62	10	**8.92**	2346-11S	**14.61**	2345-11S	**67.74**	2345-11T



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
PANEL DRILLS DOUBLE ENDED BRIGHT	**660.60**	2345-D1

MERCHANDISER CONTENTS	QTY CLAMS	SIZE GAUGE	PART NUMBER
	5	30	2345-30T
	15	30	2345-30S
	10	20	2345-20S
	10	11	2345-11S

USAGE

PANEL DRILLS
Panel drills are principally used during sheet metal fabrication to drill holes for rivets. They are designed to drill shallow holes that do not exceed 1.25 x drill diameter. When using double ended panel drills ensure the drill chuck jaws are tight to prevent damage to the back of the chuck.



GROUP	CENT
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE / ANGLE	118° / 60°
PACKAGING	**BULK**

EQUIV NO.	BODY DIA. INCH	PILOT DIA. INCH	PL INCH	OAL INCH	PACK QTY	$ EACH	PART NUMBER
1	1/8	3/64	3/64	1-1/4	1	**11.48**	2560-1
2	3/16	5/64	5/64	1-7/8	1	**12.04**	2560-2
3	1/4	7/64	7/64	2	1	**13.26**	2560-3
4	5/16	1/8	1/8	2-1/8	1	**15.99**	2560-4
5	7/16	3/16	3/16	2-3/4	1	**25.94**	2560-5
6	1/2	7/32	7/32	3	1	**48.37**	2560-6
7	5/8	1/4	1/4	3-1/4	1	**73.43**	2560-7
8	3/4	5/16	5/16	3-1/2	1	**99.52**	2560-8

CENTRE DRILLS
ANSI B94-11

USAGE

CENTRE DRILLS
Centre Drills are used with a lathe to centre drill stock for mounting in the lathe. They are designed to drill a small diameter pilot hole followed by a 60° countersink which provides a bearing surface for the 60° point of the lathe centre. Centre drills are also used extensively with milling machines to accurately start holes. The hole locations can be dialled in using the milling machine's calibrated handwheels. The hole is then started using the centre drill. The large diameter shank on the centre drill holds the drill point right on centre. Once the hole is started, the centre drill is replaced with a drill of the desired diameter and the finished hole is then drilled.



GROUP	SPOT
SURFACE FINISH	VIOLET / GREY
MATERIAL	HSS-Co5 TiAlN COATED
POINT TYPE	90°
PACKAGING	**BULK**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
6.00	20	66	1	**12.68**	2570-6
8.00	25	79	1	**14.79**	2570-8
10.00	32	90	1	**20.55**	2570-10
12.00	30	102	1	**33.26**	2570-12
16.00	35	115	1	**64.94**	2570-16
20.00	37	130	1	**120.83**	2570-20

USAGE

SPOTTING DRILLS
Spotting Drills have practically no flutes and are designed to be extremely rigid. They are used to create precise spot holes by making a small indentation in the workpiece that prevents the twist drill from wandering.



SPOT WELD DRILLS

These drills are designed for removing spot welds and are especially useful for vehicle body repairs. The drills are designed to cut through existing spot welds, releasing damaged panels and enabling replacements to be fitted with minimum fuss. The HSS-Co5 material ensures a long bit life.

GROUP	SWDB
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co5
PACKAGING	**BULK**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
6.00	28	66	1	**37.63**	2555-6X66
8.00	15	38	1	**35.82**	2555-8X38
8.00	15	45	1	**39.42**	2555-8X45
8.00	37	79	1	**43.37**	2555-8X79



TUNGSTEN CARBIDE TiAIN COATED SPOT WELD DRILL

These milling drills are designed for removing spot welds with pneumatic tools. They are designed for maximum performance and tool life when used on the hard welds featured in many modern vehicles. The combination of solid carbide and TiAlN coating allows them to cut very hard metal sheets up to 1500N/mm2 tensile strength.

GROUP	SWDB
SURFACE FINISH	VIOLET / GREY
COATING	TiAlN
MATERIAL	SOLID TUNGSTEN CARBIDE
PACKAGING	**BULK**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
8.00	15	45	1	**231.40**	2556-8X45



GROUP	GLBD
SURFACE FINISH	SHOT PEENED SHANK
POINT TYPE	TUNGSTEN CARBIDE TIPPED
POINT FORM	SPEAR
PACKAGING	**CLAM SHELL**



DIA INCH	DIA MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
1/8	3	63.5	1	**13.18**	2550-1/8
5/32	4	63.5	1	**11.22**	2550-5/32
3/16	5	63.5	1	**11.89**	2550-3/16
1/4	6	63.5	1	**13.68**	2550-1/4
5/16	8	70.0	1	**16.57**	2550-5/16
3/8	9.5	70.0	1	**22.09**	2550-3/8
1/2	12.5	76.0	1	**34.00**	2550-1/2



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
GLASS & TILE DRILL	**764.40**	2550-D1

MERCHANDISER CONTENTS	QTY CLAMS	SIZE INCH	PART NUMBER
	5	1/8	2550-1/8
	5	5/32	2550-5/32
	5	3/16	2550-3/16
	10	1/4	2550-1/4
	10	5/16	2550-5/16
	5	3/8	2550-3/8
	5	1/2	2550-1/2

TUNGSTEN CARBIDE SPEAR POINT DRILLS

These drills are designed for drilling glass, tile and other hard, brittle materials. The tungsten carbide spear point is extremely hard and features uniquely sharpened edges for fast penetration with a reduced need for end thrust. These drill bits cut clean round holes without chipping or material breakage, and work best with a lubricant such as water to extend bit life.

When drilling multiple holes in ceramic tiles, or when drilling vitrified porcelain, we recommend using either Bordo ceramic tile drills, Bordo Aqua Shot or the Bordo mist drill product range.

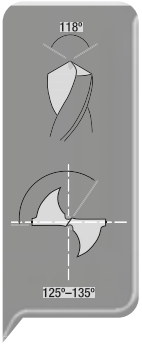
DRILL BIT MATERIAL

TUNGSTEN CARBIDE
(Commonly referred to as Carbide)
Is a chemical compound containing equal parts of tungsten and carbon atoms. Carbide is three times stiffer than steel and is much denser than either steel or titanium. Carbide has a very high abrasion resistance and can also withstand higher temperatures than standard HSS. Carbide tools are often used for machining hard materials such as ceramics and stainless steel, as well as in situations where other tools would wear away, such as high volume production runs. Because carbide tools maintain a sharp cutting edge better than other tools, they generally produce a better finish on parts, and their temperature resistance allows faster machining. Whilst tunsgten carbide is extremely hard it is also brittle so it is important to avoid bit "chattering" as this is the most common cause of tool failure.





MORSE TAPER DRILLS
DIN345



Notched Point
A variation on standard chisel point providing faster starting and reduced drill wander. Suitable for general purpose drilling.

DRILL BIT SURFACE TREATMENT

BLACK FINISH
(also called blue finish)
A black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface helps to keep lubricant on the tool, particularly important on the cutting edges, thus reducing friction and cold welding. The result is increased tool life.
Black finish tools are generally recommended for ferrous applications where the oxide layer aids chip flow and heat dissipation.

GROUP	MTSD
SURFACE FINISH	BLACK
MATERIAL	HSS
POINT TYPE	118° NOTCHED†
FLUTE TYPE	30° HELIX
PACKAGING	**SINGLE**

DIA MM	MTS NO.	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
MTS	1					
5.00	1	52	133	1	**34.60**	2608-5.00
6.00	1	57	138	1	**37.89**	2608-6.00
7.00	1	69	150	1	**38.80**	2608-7.00
8.00	1	75	156	1	**42.26**	2608-8.00
9.00	1	81	162	1	**43.89**	2608-9.00
10.00	1	87	168	1	**45.10**	2608-10.00
10.25*	1	87	168	1	**45.10**	2608-10.25
10.50	1	87	168	1	**44.67**	2608-10.50
10.75*	1	94	175	1	**44.67**	2608-10.75
11.00	1	94	175	1	**44.67**	2608-11.00
11.25*	1	94	175	1	**45.89**	2608-11.25
11.50	1	94	175	1	**45.89**	2608-11.50
11.75*	1	101	182	1	**49.07**	2608-11.75
12.00	1	101	182	1	**49.07**	2608-12.00
12.50	1	101	182	1	**51.19**	2608-12.50
13.00	1	101	182	1	**58.57**	2608-13.00
13.50	1	108	189	1	**59.64**	2608-13.50
14.00	1	108	189	1	**59.64**	2608-14.00
MTS	2					
14.50	2	114	212	1	**67.03**	2608-14.50
15.00	2	114	212	1	**67.03**	2608-15.00
15.50	2	120	218	1	**71.78**	2608-15.50
16.00	2	120	218	1	**71.78**	2608-16.00
16.50	2	125	223	1	**77.05**	2608-16.50
17.00	2	125	223	1	**77.05**	2608-17.00
17.50	2	130	228	1	**84.97**	2608-17.50
18.00	2	130	228	1	**84.97**	2608-18.00
18.50	2	135	233	1	**91.30**	2608-18.50
19.00	2	135	233	1	**91.30**	2608-19.00
19.25*	2	140	238	1	**96.47**	2608-19.25
19.50	2	140	238	1	**96.47**	2608-19.50
20.00	2	140	238	1	**96.47**	2608-20.00
20.50	2	145	243	1	**109.78**	2608-20.50
21.00	2	145	243	1	**109.78**	2608-21.00
21.50	2	150	248	1	**122.44**	2608-21.50
22.00	2	150	248	1	**122.44**	2608-22.00
22.50	2	155	253	1	**126.65**	2608-22.50
23.00	2	155	253	1	**129.67**	2608-23.00
MTS	3					
23.50	3	155	276	1	**150.94**	2608-23.50
24.00	3	160	281	1	**150.94**	2608-24.00
24.25*	3	160	281	1	**155.16**	2608-24.25
24.50	3	160	281	1	**155.16**	2608-24.50
25.00	3	160	281	1	**155.16**	2608-25.00
25.50	3	165	286	1	**164.66**	2608-25.50
26.00	3	165	286	1	**164.66**	2608-26.00
26.50	3	165	286	1	**193.16**	2608-26.50
27.00	3	170	291	1	**193.16**	2608-27.00
27.25*	3	170	291	1	**214.06**	2608-27.25
27.50	3	170	291	1	**214.06**	2608-27.50
28.00	3	170	291	1	**218.49**	2608-28.00
28.50	3	175	296	1	**218.49**	2608-28.50
29.00	3	175	296	1	**232.69**	2608-29.00
29.25*	3	175	296	1	**234.22**	2608-29.25

GROUP	MTSD
SURFACE FINISH	BLACK
MATERIAL	HSS
POINT TYPE	118° NOTCHED†
FLUTE TYPE	30° HELIX
PACKAGING	**SINGLE**

DIA MM	MTS NO.	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
MTS	3					
29.50	3	175	296	1	**234.22**	2608-29.50
29.75*	3	175	296	1	**235.80**	2608-29.75
30.00	3	175	296	1	**235.80**	2608-30.00
30.50	3	180	301	1	**243.55**	2608-30.50
31.00	3	180	301	1	**246.64**	2608-31.00
31.25*	3	180	301	1	**246.64**	2608-31.25
31.50	3	180	301	1	**246.64**	2608-31.50
MTS	4					
32.00	4	185	334	1	**333.54**	2608-32.00
32.50	4	185	334	1	**333.54**	2608-32.50
33.00	4	185	334	1	**333.54**	2608-33.00
33.50	4	185	334	1	**402.15**	2608-33.50
34.00	4	190	339	1	**402.15**	2608-34.00
34.50	4	190	339	1	**402.15**	2608-34.50
35.00	4	190	339	1	**434.62**	2608-35.00
35.50	4	190	339	1	**434.62**	2608-35.50
36.00	4	195	344	1	**434.62**	2608-36.00
37.00	4	195	344	1	**440.14**	2608-37.00
38.00	4	200	349	1	**440.14**	2608-38.00
39.00	4	200	349	1	**497.97**	2608-39.00
40.00	4	200	349	1	**497.97**	2608-40.00
41.00	4	205	354	1	**531.47**	2608-41.00
42.00	4	205	354	1	**554.57**	2608-42.00
43.00	4	210	359	1	**568.44**	2608-43.00
44.00	4	210	359	1	**568.44**	2608-44.00
45.00	4	210	359	1	**585.77**	2608-45.00
46.00	4	215	364	1	**585.77**	2608-46.00
47.00	4	215	364	1	**637.76**	2608-47.00
48.00	4	220	369	1	**688.59**	2608-48.00
49.00	4	220	369	1	**688.59**	2608-49.00
50.00	4	220	369	1	**748.68**	2608-50.00
MTS	5					
53.00*	5	225	412	1	**1,146.75**	2608-53.00
54.00*	5	230	417	1	**1,201.81**	2608-54.00
55.00	5	230	417	1	**1,161.66**	2608-55.00
57.00*	5	235	422	1	**1,324.02**	2608-57.00
58.00*	5	235	422	1	**1,406.88**	2608-58.00
60.00	5	235	422	1	**1,420.16**	2608-60.00
63.00*	5	240	427	1	**1,608.39**	2608-63.00
64.00*	5	245	432	1	**1,717.23**	2608-64.00
65.00	5	245	432	1	**1,733.19**	2608-65.00
70.00	5	250	437	1	**1,988.21**	2608-70.00
75.00	5	255	442	1	**2,337.00**	2608-75.00

MTS Sleeves

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† Some older stock may be 118° standard chisel point. * Discontinued - available until current stocks are depleted.

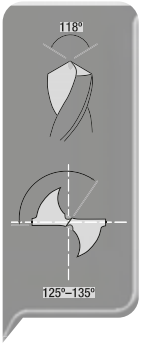


GROUP	MTSD
SURFACE FINISH	BLACK
MATERIAL	HSS
POINT TYPE	118º NOTCHED†
FLUTE TYPE	30º HELIX
PACKAGING	**SINGLE**

DIA INCH	MTS NO.	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
MTS	1					
1/8	1	37	117	1	**34.78**	2607-1/8
3/16	1	52	133	1	**37.29**	2607-3/16
13/64	1	52	133	1	**37.29**	2607-13/64
7/32	1	57	138	1	**37.29**	2607-7/32
1/4	1	64	144	1	**37.89**	2607-1/4
9/32	1	69	150	1	**38.80**	2607-9/32
5/16	1	75	156	1	**40.68**	2607-5/16
21/64*	1	75	156	1	**42.26**	2607-21/64
11/32	1	81	162	1	**43.89**	2607-11/32
3/8	1	87	168	1	**43.89**	2607-3/8
13/32	1	87	168	1	**44.67**	2607-13/32
7/16	1	94	175	1	**44.67**	2607-7/16
15/32	1	101	182	1	**45.89**	2607-15/32
31/64*	1	101	182	1	**51.19**	2607-31/64
1/2	1	101	182	1	**51.19**	2607-1/2
17/32	1	108	189	1	**58.57**	2607-17/32
35/64	1	108	189	1	**59.64**	2607-35/64
MTS	2					
9/16	2	114	213	1	**60.68**	2607-9/16
37/64*	2	114	212	1	**67.03**	2607-37/64
19/32	2	121	219	1	**71.78**	2607-19/32
41/64*	2	125	223	1	**77.05**	2607-41/64
5/8	2	121	219	1	**71.78**	2607-5/8
21/32	2	124	222	1	**77.05**	2607-21/32
11/16	2	130	229	1	**82.34**	2607-11/16
45/64*	2	130	228	1	**84.97**	2607-45/64
23/32	2	133	232	1	**91.30**	2607-23/32
3/4	2	140	238	1	**95.52**	2607-3/4
25/32	2	140	238	1	**96.47**	2607-25/32
13/16	2	146	244	1	**109.78**	2607-13/16
27/32	2	149	248	1	**115.43**	2607-27/32
7/8	2	149	248	1	**126.65**	2607-7/8
29/32	2	156	254	1	**129.67**	2607-29/32
MTS	3					
15/16	3	159	279	1	**150.94**	2607-15/16
31/32	3	159	279	1	**155.16**	2607-31/32
1	3	165	286	1	**162.55**	2607-1
1-1/16	3	168	289	1	**193.16**	2607-1.1/16
1-1/8	3	175	295	1	**218.49**	2607-1.1/8
1-3/16	3	181	302	1	**235.80**	2607-1.3/16
1-1/4	3	184	305	1	**246.64**	2607-1.1/4
MTS	4					
1-5/16	4	184	333	1	**333.54**	2607-1.5/16
1-3/8	4	191	340	1	**402.15**	2607-1.3/8
1-7/16	4	194	343	1	**434.64**	2607-1.7/16
1-1/2	4	200	349	1	**440.14**	2607-1.1/2
1-9/16	4	200	349	1	**498.00**	2607-1.9/16
1-5/8	4	206	356	1	**531.47**	2607-1.5/8
1-11/16	4	210	359	1	**554.59**	2607-1.11/16
1-3/4	4	210	359	1	**568.44**	2607-1.3/4
1-13/16	4	216	365	1	**585.79**	2607-1.13/16
1-7/8	4	219	368	1	**637.76**	2607-1.7/8
1-15/16	4	219	368	1	**688.62**	2607-1.15/16
2	4	225	375	1	**748.68**	2607-2
MTS	5					
2-3/8*	5	235	422	1	**1,458.43**	2607-2.3/8
2-1/2*	5	245	432	1	**1,609.66**	2607-2.1/2
2-5/8*	5	244	432	1	**1,859.27**	2607-2.5/8
2-7/8*	5	255	442	1	**2,116.75**	2607-2.7/8
3*	5	260	447	1	**2,430.73**	2607-3

† Some older stock may be 118º standard chisel point. * Discontinued - available until current stocks are depleted.

MORSE TAPER DRILLS
DIN345



Notched Point
A variation on standard chisel point providing faster starting and reduced drill wander. Suitable for general purpose drilling.

DRILL BIT SURFACE TREATMENT

BLACK FINISH
(also called blue finish)
A black finish is achieved by steam tempering, a thermal process resulting in a porous tool coating. This surface helps to keep lubricant on the tool, particularly important on the cutting edges, thus reducing friction and cold welding. The result is increased tool life.
Black finish tools are generally recommended for ferrous applications where the oxide layer aids chip flow and heat dissipation.

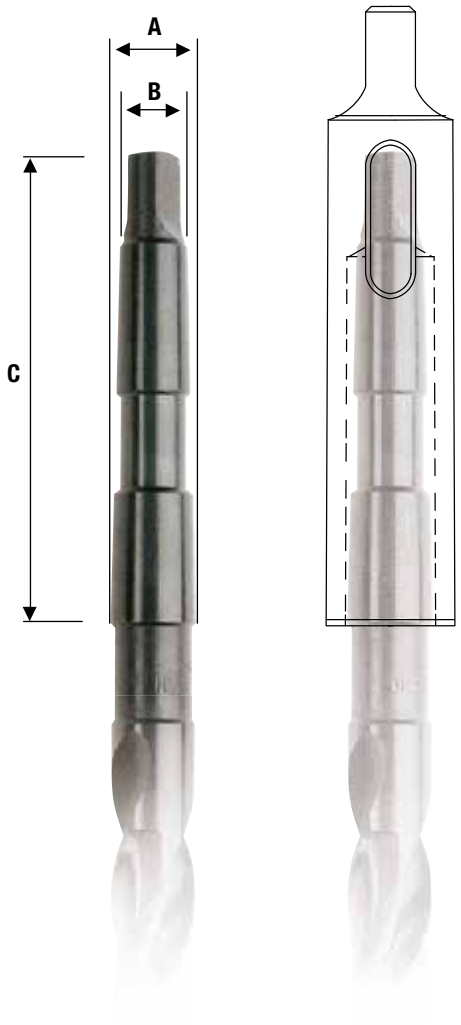


MTS SLEEVES

The Bordo range of hardened steel Morse Taper Shank Sleeves are precision ground inside and out and are also fully through hardened. These "adapter sleeves" convert the smaller MT male taper of a tool to a larger MT shank to enable usage in a drill press or lathe fitted with a larger MTS chuck.

GROUP	MSLV
SURFACE FINISH	BRIGHT
MATERIAL	HARDENED STEEL
PACKAGING	**SINGLE**

MTS INSIDE	MTS OUTSIDE	PACK QTY	$ EACH	PART NUMBER
1	2	1	**33.99**	2625-1X2
1	3	1	**46.33**	2625-1X3
2	3	1	**44.57**	2625-2X3
2	4	1	**55.89**	2625-2X4
2	5	1	**85.09**	2625-2X5
3	4	1	**55.89**	2625-3X4
3	5	1	**85.09**	2625-3X5
4	5	1	**85.81**	2625-4X5
5	6	1	**220.96**	2625-5X6



IDENTIFYING MORSE TAPER SHANK SIZES

MTS #	A	B	C
MTS 1	0.4750" 12.065MM	0.3690" 9.373MM	2.13" 54.10MM
MTS 2	0.7000" 17.780MM	0.5720" 14.529MM	2.56" 65.02MM
MTS 3	0.9380" 23.825MM	0.7780" 19.761MM	3.19" 81.06MM
MTS 4	1.2310" 31.267MM	1.0200" 25.908MM	4.06" 103.12MM
MTS 5	1.7480" 44.399MM	1.4750" 37.465MM	5.19" 131.83MM
MTS 6	2.4940" 63.348MM	2.1160" 53.746MM	7.25" 184.15mm



GROUP	MPDB
SURFACE FINISH	BRIGHT / ORANGE
MATERIAL	STEEL
POINT TYPE	TITANIUM CARBIDE
FLUTE TYPE	30º HELIX
PACKAGING	**CLAM SHELL**



DIA MM	FL MM	OAL MM	SHANK MM	PACK QTY	$ EACH	PART NUMBER
3.00	40.00	70	2.8	1	**10.50**	2700-3.00
4.00	40.00	75	3.8	1	**10.50**	2700-4.00
5.00	50.00	85	4.5	1	**10.81**	2700-5.00
5.50	50.00	85	4.5	1	**11.13**	2700-5.50
6.00	60.00	100	5.5	1	**11.24**	2700-6.00
6.50	60.00	100	5.5	1	**12.41**	2700-6.50
7.00	60.00	100	6.5	1	**12.96**	2700-7.00
8.00	80.00	120	7.0	1	**13.06**	2700-8.00
9.00	80.00	120	8.0	1	**16.31**	2700-9.00
10.00	80.00	120	8.9	1	**16.69**	2700-10.00
12.00	90.00	150	10.0	1	**22.16**	2700-12.00





SET DESCRIPTION	SETS PER OUTER	$ SET	PART NUMBER
UNIVERSAL DRILL	10	**62.30**	2700-S1
4, 5, 6, 8 and 10mm			



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
UNIVERSAL DRILLS	**394.22**	2700-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER
	2	3.00	2700-3.00
	2	4.00	2700-4.00
	2	5.00	2700-5.00
	2	5.50	2700-5.50
	2	6.00	2700-6.00
	2	6.50	2700-6.50
	2	8.00	2700-8.00
	2	10.00	2700-10.00
	2	12.00	2700-12.00
	2	SET	2700-S1

UNIVERSAL DRILLS

FEATURES
- DIN 8039/ISO 5468
- Special cutting edge geometry
- Diamond-ground carbide tip
- Universal drill bit with asymmetric spiral shape
- Cutting drilling spiral for optimum spoil removal
- Straight flute entry
- High-temperature brazing at 1,120ºC
- Specially ground cutting helix with micro surface hardness
- Ground surface

FOR USE IN
Masonry
Natural Stone
Artificial Stone
Ceramics
Steel / Metal
Wood / PVC / Acrylic
Glass
Tiles, Hard burnt brick

Not for hammer action



EXTREME PERFORMANCE MULTI-FACET TUNGSTEN CARBIDE TIP

These ***Rotary Only*** ceramic tile drills provide outstanding performance and extended tool life in hard ceramic materials. They feature a unique cutting edge geometry in conjunction with high temperature brazing to ensure reliable and accurate drilling in multiple hole applications.

Use of water cooling will extend bit life.

- Although these drill bits are not recommended for drilling vitrified porcelain, their superior multi-facet tungsten carbide tip enables them to drill most materials of this type, albeit with a reduced tool life.
- These ceramic tile drills can also be used to successfully drill in brick, concrete and other masonry materials.

DRILL BIT MATERIAL

TUNGSTEN CARBIDE
(Commonly referred to as Carbide)

Is a chemical compound containing equal parts of tungsten and carbon atoms. Carbide is three times stiffer than steel and is much denser than either steel or titanium. Carbide has a very high abrasion resistance and can also withstand higher temperatures than standard HSS. Carbide tools are often used for machining hard materials such as ceramics and stainless steel, as well as in situations where other tools would wear away, such as high volume production runs.

Because carbide tools maintain a sharp cutting edge better than other tools, they generally produce a better finish on parts, and their temperature resistance allows faster machining. Whilst tunsgten carbide is extremely hard it is also brittle so it is important to avoid bit "chattering" as this is the most common cause of tool failure.

GROUP	CTDB
SURFACE FINISH	BRIGHT
MATERIAL	STEEL
POINT TYPE	TUNGSTEN CARBIDE
FLUTE TYPE	30º HELIX
PACKAGING	**CLAM SHELL**



CERAMIC TILE DRILLS
are also suitable for use in brick, concrete and other masonry materials. Ensure the drill is in rotary only - DO NOT use hammer action.

DIA MM	FL MM	OAL MM	SHANK MM	PACK QTY	$ EACH	PART NUMBER
3.00	42	85	3.0	1	**29.12**	2710-3.00
4.00	50	85	4.0	1	**28.78**	2710-4.00
5.00	50	85	5.0	1	**30.64**	2710-5.00
5.50	65	100	5.5	1	**30.64**	2710-5.50
6.00	65	100	6.0	1	**32.15**	2710-6.00
6.50	65	100	6.5	1	**32.15**	2710-6.50
8.00	75	125	8.0	1	**40.37**	2710-8.00
10.00	90	150	10.0	1	**49.33**	2710-10.00



SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
CERAMIC TILE DRILL SET	5	**165.95**	2710-S1
5, 5.5, 6, 6.5 and 8mm			

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
CERAMIC TILE DRILLS	**985.49**	2710-D1



MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER
	3	3.00	2710-3.00
	3	4.00	2710-4.00
	3	5.00	2710-5.00
	3	5.50	2710-5.50
	3	6.00	2710-6.00
	3	6.50	2710-6.50
	3	8.00	2710-8.00
	3	10.00	2710-10.00
	1	SET	2710-S1





GROUP	DIMD
TYPE	AQUA SHOT
CUTTERS	REPLACEABLE
CUTTING SURFACE	DIAMOND
CUTTING METHOD	WET
MAXIMUM DRILLING DEPTH	35MM
PACKAGING	**CLAM SHELL**



DESCRIPTION	PIECES QTY	$ EACH	PART NUMBER
AQUA SHOT – BODY ONLY	1	**319.73**	2713-AS
REQUIRES SHANK AND CUTTER			





DIA MM	SUITS DIAMOND AQUA SHOT BODY	PACK QTY	$ SET	PART NUMBER
SHANK AND DIAMOND CUTTER SETS				
4.00	2713-B040 & 2713-4.0	1	**108.55**	2713-SC4.0
5.00	2713-B050 & 2713-5.0	1	**108.55**	2713-SC5.0
6.00	2713-B060 & 2713-6.0	1	**117.15**	2713-SC6.0
6.50	2713-B060 & 2713-6.5	1	**117.15**	2713-SC6.5
8.00	2713-B080 & 2713-8.0	1	**153.78**	2713-SC8.0
10.00	2713-B100 & 2713-10.0	1	**171.42**	2713-SC10.0





DIA MM	SUITS DIAMOND AQUA SHOT SHANK	PACK QTY	$ EACH	PART NUMBER
REPLACEABLE DIAMOND CUTTERS – NO SHANK INCLUDED				
4.00	2713-B050	1	**48.48**	2713-4.0
5.00	2713-B060	1	**48.48**	2713-5.0
6.00	2713-B060	1	**57.69**	2713-6.0
6.50	2713-B060	1	**57.69**	2713-6.5
8.00	2713-B085	1	**96.97**	2713-8.0
10.00	2713-B105	1	**106.19**	2713-10.0

MERCHANDISER TYPE	$ MERCH.	PART NUMBER
AQUA SHOT	**1,096.33**	2713-D1

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER
	1	2713-AS
	1	2713-SC4.0
	1	2713-SC5.0
	1	2713-SC6.0
	1	2713-SC6.5
	1	2713-SC8.0
	1	2713-SC10.0



SHANK #	SUITS CUTTER MM	PACK QTY	$ EACH	PART NUMBER
AQUA SHOT SHANKS – NO CUTTER INCLUDED				
040	**4.0**	1	**68.60**	2713-B040
050	**5.0**	1	**68.60**	2713-B050
060	**6.0 AND 6.5**	1	**68.60**	2713-B060
080	**8.0**	1	**68.60**	2713-B080
100	**10.0**	1	**78.41**	2713-B100

DIAMOND AQUA SHOT DRILL

Bordo Aqua Shot diamond drills are ideally suited to cutting ceramics, porcelain tiles and stone.

In-built water tank removes the need for pressure bottles and hoses.

Automatic water feed for optimium cutting performance and bit life.

Quick change shank and cutter.

No-crack, burr-free holes with minimum spalling.

Interchangeable cutters result in a lower cost per hole than most other diamond drill solutions.

Rotary only action ensures low noise and vibration.

Ideal for use in cordless drills.

Optimium speed 1000-3000 RPM.

Maximum drilling depth 35mm.





DIAMOND MIST DRILL

Bordo diamond drills are ideally suited to cutting ceramics, porcelain tiles and stone.

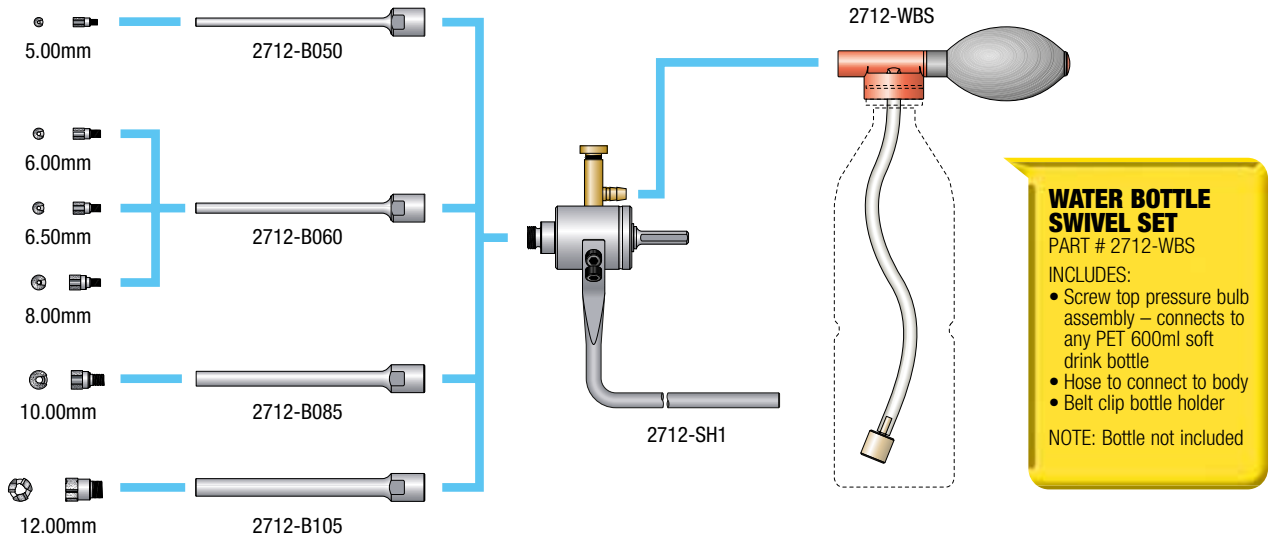
They produce no-crack, burr-free holes with minimum spalling.

The interchangeable cutters result in a lower cost per hole than some other diamond drill solutions.

Rotary only action ensures low noise and vibration.

Speed recommendations over page.

GROUP	DIMD
TYPE	DIAMOND MIST DRILL
CUTTERS	REPLACEABLE
CUTTING SURFACE	DIAMOND
CUTTING METHOD	WET
PACKAGING	**CLAM SHELL**



WATER BOTTLE SWIVEL SET
PART # 2712-WBS

INCLUDES:
- Screw top pressure bulb assembly – connects to any PET 600ml soft drink bottle
- Hose to connect to body
- Belt clip bottle holder

NOTE: Bottle not included

DIA MM	SUITS DIAMOND MIST DRILL SHANK	PACK QTY	$ EACH	PART NUMBER
INTERCHANGEABLE DIAMOND CUTTERS				
5.00	2712-B050	1	**48.48**	2712-5.00
6.00	2712-B060	1	**57.69**	2712-6.00
6.50	2712-B060	1	**57.69**	2712-6.50
8.00	2712-B060	1	**96.97**	2712-8.00
10.00	2712-B085	1	**106.19**	2712-10.00
12.00	2712-B105	1	**121.21**	2712-12.00





2712-SH1

SHANK #	SUITS CUTTER MM	LENGTH MM	PACK QTY	$ EACH	PART NUMBER
MIST DRILL SHANKS ENSURE CUTTER AND SHANK ARE COMPATIBLE - SEE ABOVE					
050	**5.0**	100	1	**80.79**	2712-B050
060	**6.0, 6.5, 8.0**	100	1	**80.79**	2712-B060
085	**10.0**	100	1	**90.90**	2712-B085
105	**12.0**	100	1	**90.90**	2712-B105

DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
MIST DRILL BODY - SH1	1	**278.75**	2712-SH1
DRILLING TEMPLATE 4-13MM	1	**49.58**	2715-DT
PRESSURE WATER BOTTLE	1	**17.71**	2715-WB
WATER BOTTLE SWIVEL SET	1	**121.21**	2712-WBS



2715-DT





GROUP	DIMD
TYPE	DIAMOND MIST DRILL
CUTTERS	REPLACEABLE
CUTTING SURFACE	DIAMOND
CUTTING METHOD	WET
PACKAGING	**INJECTION MOULDED CASE**



SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
MIST DRILL SET S1	**637.91**	2712-S1	–	–	–	–	–	–	–	–
MIST DRILL SET S2	–	–	**804.84**	2712-S2	–	–	–	–	–	–
MIST DRILL SET S3	–	–	–	–	**709.44**	2712-S3	–	–	–	–
MIST DRILL SET S4	–	–	–	–	–	–	**721.38**	2712-S4	–	–
MIST DRILL SET S5	–	–	–	–	–	–	–	–	**1,281.78**	2712-S5

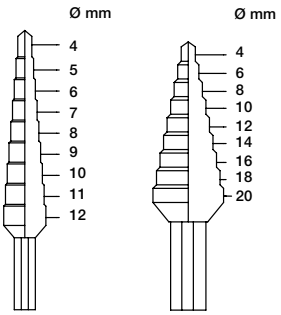
SET CONTENTS	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER
5MM CUTTER	1	2712-5.00	–	–	–	–	–	–	1	2712-5.00
6MM CUTTER	–	–	1	2712-6.00	–	–	–	–	1	2712-6.00
6.5MM CUTTER	–	–	1	2712-6.50	–	–	–	–	1	2712-6.50
8MM CUTTER	–	–	1	2712-8.00	–	–	–	–	1	2712-8.00
10MM CUTTER	–	–	–	–	1	2712-10.00	–	–	1	2712-10.00
12MM CUTTER	–	–	–	–	–	–	1	2712-12.00	1	2712-12.00
B050 SHANK	1	2712-B050	–	–	–	–	–	–	1	2712-B050
B060 SHANK	–	–	1	2712-B060	–	–	–	–	1	2712-B060
B085 SHANK	–	–	–	–	1	2712-B085	–	–	1	2712-B085
B105 SHANK	–	–	–	–	–	–	1	2712-B105	1	2712-B105
SH1 BODY	1	2712-SH1	1	2712-SH1	1	2712-SH1	1	2712-SH1	1	2712-SH1
SWIVEL SET	1	2712-WBS	1	2712-WBS	1	2712-WBS	1	2712-WBS	1	2712-WBS
TEMPLATE	1	2715-DT	1	2715-DT	1	2715-DT	1	2715-DT	1	2715-DT

DIAMOND MIST DRILL

Diamond mist drills are designed to deliver the correct amount of lubrication to maximise drill life and optimise drilling performance. The life of any type of diamond drill depends upon the hardness, abrasiveness and thickness of the material being drilled and the specific drilling techniques used (drill speed, pressure and lubrication). Using diamond drills in hard materials is not difficult, however drilling the hole takes time. You should consider that they aren't "drilling" a hole – they are "grinding" a hole. As the diameter of the cutter increases the optimum rotation speed decreases.

Cutter size 5.0 to 10.0mm Rotation Speed 15,000 to 3,000 RPM; Cutter size 11.0 to 24.0mm Rotation Speed 7,000 to 1,500 RPM





HSS STEP DRILLS

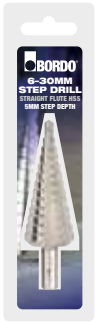
Bordo step drills are ideal for electrical contractors, sheetmetal workers and auto mechanics. Step drills are designed for drilling repetitive holes in steel, stainless steel, copper, brass, aluminium, plastic, plexiglas, laminates and many other thin materials.

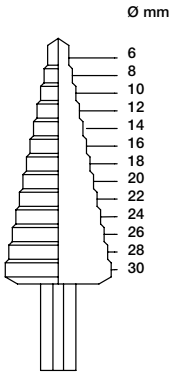
Manufactured from premium quality high speed steel with double fluted ground cutting edges for long service life.

STEP DRILL BENEFITS

- No pilot hole required
- Easy to sharpen
- Step depth of 5mm
- Stepless drilling in the thinnest sheets
- Burr-free drilling without sheet deformation
- Automatic deburring

GROUP	STEP
SURFACE FINISH	BRIGHT
MATERIAL	**HSS**
FLUTE TYPE	STRAIGHT
FLUTES	2
PACKAGING	**HANG SELL**





DIAMETER MM MAX	INCREMENT MM	STEP DEPTH MM	SHANK DIA. MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
4 - 12	1.0	5.5	6.0	80.0	1	**88.41**	2600-M1
4 - 20	2.0	3.5	8.0	67.0	1	**101.30**	2600-M2
6 - 30	2.0	4.0	10.0	98.0	1	**197.89**	2600-M3

DIAMETER MM MAX	INCREMENT INCH	STEP DEPTH INCH	SHANK DIA. INCH	OAL INCH	PACK QTY	$ EACH	PART NUMBER
1/8" - 1/2"	1/32	9/64	1/4	3-3/64	1	**88.41**	2600-1
1/4" - 3/4"	1/16	5/32	3/8	2-27/32	1	**101.30**	2600-2



SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
METRIC STEP DRILL SET	3	**387.60**	2600-S1
2600 -M1, 2600-M2, 2600-M3			

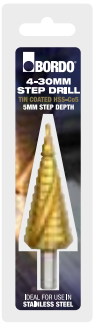


MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
STEP DRILLS	**1,154.62**	2600-D2

MERCHANDISER CONTENTS	QTY EACH	SIZE MM/INCH	PART NUMBER
	2	4-12	2600-M1
	2	4-20	2600-M2
	2	6-30	2600-M3
	2	1/8-1/2	2600-1
	2	1/4-3/4	2600-2



GROUP	STEP
SURFACE FINISH	GOLD COLOURED
MATERIAL	**HSS-Co5 TiN COATED**
FLUTE TYPE	SPIRAL
FLUTES	2
PACKAGING	**HANG SELL**



DIAMETER MM MAX	INCREMENT MM	STEP DEPTH MM	SHANK DIA. MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
4 - 12	1.0	4.5	6.0	66.5	1	**104.01**	2602-M1
4 - 20	2.0	5.5	8.0	75.0	1	**119.19**	2602-M2
4 - 30	2.0	5.0	10.0	100.0	1	**232.82**	2602-M3



SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
METRIC STEP DRILL SET	3	**456.02**	2602-S1
2602 -M1, 2602-M2, 2602-M3			



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
STEP DRILLS	**1,033.33**	2602-D2

MERCHANDISER CONTENTS	QTY EACH	SIZE MM/INCH	PART NUMBER
	1	4-12	2600-M1
	1	4-20	2600-M2
	1	6-30	2600-M3
	1	1/8-1/2	2600-1
	1	1/4-3/4	2600-2
	1	4-12	2602-M1
	1	4-20	2602-M2
	1	4-30	2602-M3

HSS-Co5 SPIRAL FLUTE TiN COATED STEP DRILLS

Bordo Cobalt Spiral Flute Titanium Nitride (TiN) coated step drills offer unparalleled performance when drilling hard metals such as stainless steel.

- HSS-Co5 material provides increased performance and tool life when machining tough steels.
- High performance point for faster starting and reduced bit wander.
- 3 flatted shank prevents slipping in drill chuck.
- Spiral flutes enable easier tool penetration.
- TiN coating extends tool life, helps to dissipate heat, reduces friction and cold welding.
- Deburring groove simplifies deburring operation and negates the need for an additional manufacturing process.

HSS-Co5 (COBALT)
Bordo Cobalt step drills are manufactured from HSS-Co5 steel, which is very similar to M2 HSS with the important addition of 5% cobalt.
The addition of cobalt to M2 HSS significantly increases heat resistance and allows the drill to run at higher temperatures without losing its temper (hardness). Cobalt drills provide increased performance and tool life when machining tough steels.

HSS-Co5 (Cobalt) step drills are ideal for use in drilling stainless steel and high tensile steel.



HSS STEP DRILLS

Bordo step drills are ideal for electrical contractors, sheetmetal workers and auto mechanics. Step drills are designed for drilling repetitive holes in steel, stainless steel, copper, brass, aluminium, plastic, plexiglas, laminates and many other thin materials.

Manufactured from premium quality high speed steel with double fluted ground cutting edges for long service life.

STEP DRILL BENEFITS

- No pilot hole required
- Easy to sharpen
- Step depth of 5mm
- Stepless drilling in the thinnest sheets
- Burr-free drilling without sheet deformation
- Automatic deburring

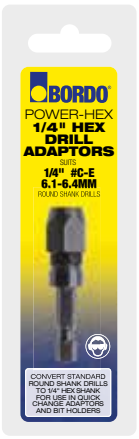
GROUP	–
SURFACE FINISH	BRIGHT
MATERIAL - STEP DRILL / COUNTERSINK	HSS / HSS-Co5
COUNTERSINK TYPE	CROSS HOLE / SINGLE / TRIPLE
COUNTERSINK ANGLE	**90º**
PACKAGING	**MERCHANDISER**



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
COUNTERSINKS - PERSPEX BENCH	**2,778.08**	2600-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM/INCH	PART NUMBER
COUNTERSINKS - CROSS HOLE	3	6.35	3840-6.35
	3	10.0	3840-10
	2	15.0	3840-15
	2	20.0	3840-20
	1	25.0	3840-25
	1	30.0	3840-30
COUNTERSINKS - SINGLE FLUTE	3	10.0	3842-10
	2	15.0	3842-15
	2	20.0	3842-20
	1	25.0	3842-25
	1	30.0	3842-30
COUNTERSINKS - THREE FLUTE	3	10.0	3843-10
	2	14.4	3843-14.4
	2	20.5	3843-20.5
	1	28.0	3843-28
	1	35.0	3843-35
STEP DRILLS	2	4-12	2600-M1
	1	4-20	2600-M2
	1	6-30	2600-M3
	2	1/8-1/2	2600-1
	2	1/4-3/4	2600-2





GROUP	PHEX
SURFACE FINISH	BLACK
SHANK TYPE	**1/4" HEX**
PACKAGING	**CLAM SHELL**

SUITS DRILL INCH	SUITS DRILL # / LETTER	SUITS DRILL MM	PACK QTY	$ PACK	PART NUMBER
1/32"	59-68	1.0	1	**8.56**	2201-1/32
1/16"	52-54	1.4-1.6	1	**8.56**	2201-1/16
5/64"	45-54	1.7-2.0	1	**8.56**	2201-5/64
3/32"	40-44	2.1-2.4	1	**8.56**	2201-3/32
7/64"	33-39	2.5-2.8	1	**8.56**	2201-7/64
1/8"	30-32	2.9-3.2	1	**8.56**	2201-1/8
9/64"	27-29	3.3-3.6	1	**8.56**	2201-9/64
5/32"	20-26	3.7-4.0	1	**8.56**	2201-5/32
11/64"	16-19	4.1-4.4	1	**8.56**	2201-11/64
3/16"	11-15	4.5-4.8	1	**8.56**	2201-3/16
13/64"	5-10	4.9-5.2	1	**8.56**	2201-13/64
7/32"	2-4	5.3-5.6	1	**8.56**	2201-7/32
15/64"	No.1 - Letter B	5.7-6.0	1	**8.56**	2201-15/64
1/4"	Letter C - E	6.1-6.4	1	**8.56**	2201-1/4
9/32"	Letter I - K	7.0	1	**8.56**	2201-9/32
5/16"	Letter N	8.0	1	**8.56**	2201-5/16
3/8"	Letter V	9.25	1	**8.56**	2201-3/8
1/8" BULK PACK					
1/8"	30-32	2.9-3.2	10	**69.35**	2201-1/8B



SET DESCRIPTION SET CONTENTS	ADAPTOR QTY	$ SET	PART NUMBER
POWER-HEX DRILL ADAPTORS – IMPERIAL	7	**48.54**	2201-S1
1/16", 3/32", 1/8", 5/32", 3/16", 7/32" & 1/4"			
POWER-HEX DRILL ADAPTORS – METRIC	8	**55.48**	2201-S2
1.0 TO 4.0MM			

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
POWER-HEX DRILL ADAPTORS	**499.08**	2201-D1

MERCHANDISER CONTENTS	QTY	SIZE	PART NUMBER	QTY	SIZE	PART NUMBER
	2	1/32"	2201-1/32	2	13/64"	2201-13/64
	2	1/16"	2201-1/16	2	7/32"	2201-7/32
	2	5/64"	2201-5/64	2	15/64"	2201-15/64
	2	3/32"	2201-3/32	2	1/4"	2201-1/4
	2	7/64"	2201-7/64	2	9/32"	2201-9/32
	2	1/8"	2201-1/8	2	5/16"	2201-5/16
	2	9/64"	2201-9/64	2	3/8"	2201-3/8
	2	5/32"	2201-5/32	2	SET 1	2201-S1
	2	11/64"	2201-11/64	2	SET 2	2201-S2
	2	3/16"	2201-3/16	–	–	–

POWER-HEX DRILL ADAPTORS

Bordo Power-Hex Drill Adaptors convert standard round shank jobber drills to 1/4" hex shank. The resulting hex shank drill is suitable for use in quick change adaptors, bit holders and standard drill chucks.

Guidelines for Use

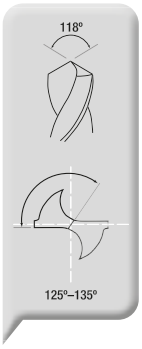
Select the correct size Power-Hex Drill Adaptor to suit the drill you wish to convert.

Loosen the collet on the adaptor and fully insert the drill into the adaptor.

Tighten the adaptor with a spanner or adjustable wrench to ensure that there is no slip.

To remove and replace the drill simply reverse the procedure.





Standard Point
(chisel point)
Standard point is suitable for general purpose drilling.

DRILL BIT SURFACE TREATMENT

BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition. ***These tools are suitable for general purpose use, particularly for non-ferrous applications.***

POWER-HEX DRILLS

Power-Hex drill bits feature a 1/4" hex shank which makes them ideal for use with quick change adaptors and bit holders. Changing your drill bit is now as easy as swapping between any other 1/4" hex shank accessory. Power-Hex drills are ideal for use with the extensive range of Bordo quick change adaptors, bit holders and quick change extensions.

GUIDELINES FOR USE

The depth of the drilled hole can be adjusted by loosening the grub screw on the countersink and re-positioning it at the desired position on the drill. Ensure you tighten the grub screw to secure it in place.

Power-Hex drills and countersinks are designed for use in timber and plastics – they are NOT designed for use in metal.

GROUP	PHEX	PHEX
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	HSS	HSS
POINT TYPE	118˚ STD CHISEL	118˚ STD CHISEL
FLUTE TYPE	30˚ HELIX	30˚ HELIX
COUNTERSINK TYPE	–	**4 FLUTE 90˚ HSS**
SHANK TYPE	**1/4" HEX**	**1/4" HEX**
PACKAGING	**CLAM SHELL**	**CLAM SHELL**





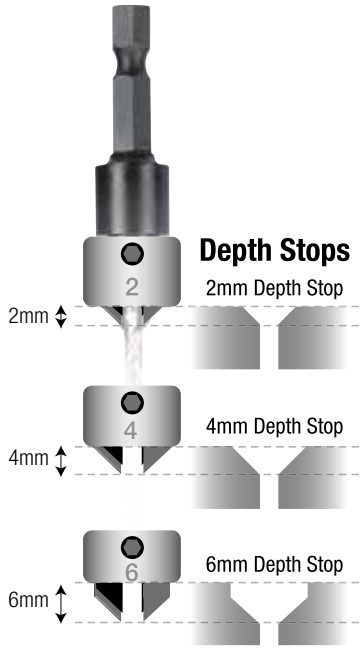
DIA MM	GAUGE SCREW	OAL MM	C'SINK DIA. MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
2.00	2G	69	13	1	**3.78**	2200-2.00	**6.80**	2200-2.00CS
2.50	4G	77	13	1	**3.43**	2200-2.50	**6.20**	2200-2.50CS
3.00	6G	81	13	1	**3.60**	2200-3.00	**6.54**	2200-3.00CS
3.50	8G	90	13	1	**3.86**	2200-3.50	**6.94**	2200-3.50CS
4.00	10G	95	13	1	**4.19**	2200-4.00	**7.55**	2200-4.00CS
4.50	12G	100	14	1	**4.19**	2200-4.50	**7.55**	2200-4.50CS
5.00	12G	106	16	1	**4.70**	2200-5.00	**8.47**	2200-5.00CS
5.50	–	113	16	1	**4.85**	2200-5.50	**8.82**	2200-5.50CS
6.00	–	113	16	1	**5.11**	2200-6.00	**9.23**	2200-6.00CS
6.50	–	121	16	1	**5.54**	2200-6.50	**10.00**	2200-6.50CS



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
POWER-HEX DRILLS	**901.10**	2200-D1

MERCHANDISER CONTENTS	QTY CLAMS	SIZE INCH	PART NUMBER	QTY CLAMS	SIZE INCH	PART NUMBER
	DRILLS			DRILLS WITH COUNTERSINK		
	10	2.00	2200-2.00	6	2.00	2200-2.00CS
	10	2.50	2200-2.50	6	2.50	2200-2.50CS
	10	3.00	2200-3.00	6	3.00	2200-3.00CS
	10	3.50	2200-3.50	6	3.50	2200-3.50CS
	10	4.00	2200-4.00	6	4.00	2200-4.00CS
	10	4.50	2200-4.50	6	4.50	2200-4.50CS
	10	5.00	2200-5.00	6	5.00	2200-5.00CS
	10	5.50	2200-5.50	6	5.50	2200-5.50CS
	10	6.00	2200-6.00	6	6.00	2200-6.00CS
	10	6.50	2200-6.50	6	6.50	2200-6.50CS





GROUP	PHDL
DRILL TYPE	HSS-Co5
POINT TYPE	135˚ SPLIT POINT
FLUTE TYPE	30˚ HELIX
COUNTERSINK MATERIAL	**TUNGSTEN CARBIDE**
COUNTERSINK TYPE	**90º DUAL BLADE**
SHANK TYPE	**1/4" HEX**
PACKAGING	**CLAM SHELL**



SIZE INCH	PILOT HARDWOOD	PILOT SOFTWOOD	SHANK HOLE	PACK QTY	$ EACH	PART NUMBER
5/64	6G	8G	1G	1	**56.90**	2202-5/64
3/32	8G	10G	2G	1	**56.90**	2202-3/32
1/8	10G	14G	4G	1	**56.90**	2202-1/8
7/64	12G	–	5G	1	**56.90**	2202-7/64
9/64	14G	16G	6G	1	**56.90**	2202-9/64

CLAM CONTENTS	QTY	$ CLAM	PART NUMBER
DEPTH STOPS TO SUIT TCT COUNTERSINKS 2MM, 4MM AND 6MM	3	**16.19**	2202-3ST



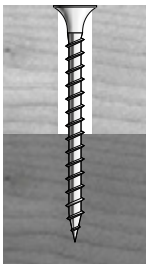
GROUP	–

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
TCT COUNTERSINK	**866.60**	2202-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE INCH	PART NUMBER
	2	3/32	2202-3/32
	2	5/64	2202-5/64
	2	7/64	2202-7/64
	2	9/64	2202-9/64
	2	1/8	2202-1/8
	2	3/32	2010-3/32S
	2	5/64	2010-5/64S
	2	7/64	2010-7/64S
	2	9/64	2010-9/64S
	2	1/8	2010-1/8S
	10	–	2202-3ST

COUNTERSINK MATERIAL

TUNGSTEN CARBIDE
(Commonly referred to as Carbide)
Is a chemical compound containing equal parts of tungsten and carbon atoms. Carbide is three times stiffer than steel and is much denser than either steel or titanium. Carbide has a very high abrasion resistance and can also withstand higher temperatures than standard HSS. Carbide tools are often used for machining hard materials such as ceramics and stainless steel, as well as in situations where other tools would wear away, such as high volume production runs. Because carbide tools maintain a sharp cutting edge better than other tools, they generally produce a better finish on parts, and their temperature resistance allows faster machining. Whilst tunsgten carbide is extremely hard it is also brittle so it is important to avoid bit "chattering" as this is the most common cause of tool failure.



SHANK HOLES
Using a shank hole allows the screw to thread only the base material and tighten gaps between them.







DECK BITS

Bordo Deck Bits are fully adjustable to suit your specific fastener, timber species or custom application.

Additionally Deck Bits feature:

- Pilot hole to suit 10G or 14G screws.
- Prevent decking timber splitting.
- Adjustable, free spinning, non-marking collar.
- Wide gullets prevent the jamming and clogging of wood chips.
- Large gullets also provide an unobscured view of the operation.
- Replaceable HSS pilot drill.
- Heavy duty hex shank ensures maximum torque transfer & eliminates chuck slip.

GROUP	DECK	DECK
DRILL TYPE	HSS	HSS
FLUTE TYPE	30˚ HELIX	30˚ HELIX
COUNTERSINK MATERIAL	**HIGH CARBON STEEL**	**TUNGSTEN CARBIDE**
COUNTERSINK TYPE	**90º TRIPLE BLADE**	**90º DUAL BLADE**
SHANK TYPE	**1/4" HEX**	**1/4" HEX**
PACKAGING	**CLAM SHELL**	**CLAM SHELL**





SCREW GAUGE	PILOT MM	COUNTERSINK DEPTH	PACK QTY	SETS PER OUTER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
10G	3.0	ADJUSTABLE	1	5	**38.22**	2203-10G	**57.63**	2204-10G
14G	4.8	ADJUSTABLE	1	5	**41.04**	2203-14G	**62.70**	2204-14G

TUNGSTEN CARBIDE

(Commonly referred to as Carbide)
Is a chemical compound containing equal parts of tungsten and carbon atoms. Carbide is three times stiffer than steel and is much denser than either steel or titanium. Carbide has a very high abrasion resistance and can also withstand higher temperatures than standard steel. Carbide tools are often used in repetitive applications where other tool materials would experience significnt wear and performance degradation. Because carbide tools maintain a sharp cutting edge they generally produce a superior finish.





GROUP	DECK	DECK
PILOT DRILL TYPE	HSS	TUNGSTEN CARBIDE TIPPED
PACKAGING	**CLAM SHELL**	**CLAM SHELL**

SCREW GAUGE	PILOT MM	PILOT DRILL TO SUIT	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
10G	3.0	DECK BIT	1	**10.99**	2203-3.00	**16.49**	2204-3.00
14G	4.8	DECK BIT	1	**16.19**	2203-4.80	**24.30**	2204-4.80

WHEN USING TCT DECK BITS IN COMPRESSED FIBRE CEMENT SHEET, OR OTHER ABRASIVE MATERIALS, IT IS RECOMMENDED TO USE A TCT PILOT DRILL TO MAXIMISE PERFORMANCE AND INCREASE BIT LIFE.



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
DECK BIT	**870.65**	2203-D1

MERCHANDISER CONTENTS	QTY EACH	DESCRIPTION	PART NUMBER
	3	10G HCS DECK BIT	2203-10G
	3	14G HCS DECK BIT	2203-14G
	4	3.0MM HSS PILOT DRILL	2203-3.00
	4	4.8MM HSS PILOT DRILL	2203-4.80
	3	10G TCT DECK BIT	2204-10G
	3	10G TCT DECK BIT	2204-14G
	4	3.0MM TCT PILOT DRILL	2204-3.00
	4	4.8MM TCT PILOT DRILL	2204-4.80



GROUP	BPDB
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	W POINT
FLUTE TYPE	30º HELIX
PACKAGING	**CLAM SHELL**



DIA MM	FL MM	OAL MM	SHANK MM	PACK QTY	$ EACH	PART NUMBER
3.00	33	61	3	1	**15.58**	2666-3.00
4.00	43	75	4	1	**15.58**	2666-4.00
5.00	52	86	5	1	**15.58**	2666-5.00
6.00	57	93	6	1	**15.58**	2666-6.00
7.00	65	109	7	1	**17.39**	2666-7.00
8.00	70	117	8	1	**17.39**	2666-8.00
9.00	70	115	9	1	**22.17**	2666-9.00
10.00	75	120	10	1	**27.55**	2666-10.00
11.00	94	142	10	1	**34.97**	2666-11.00
12.00	101	151	10	1	**38.13**	2666-12.00



SET DESCRIPTION SET CONTENTS	DRILL QTY	$ SET	PART NUMBER
BRAD POINT SET	5	**91.68**	2666-S1
4, 5, 6, 8, 10MM			



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
BRAD POINT DRILL	**733.81**	2666-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM/INCH	PART NUMBER
	3	3.00	2666-3.00
	3	4.00	2666-4.00
	3	5.00	2666-5.00
	3	6.00	2666-6.00
	3	8.00	2666-8.00
	3	9.00	2666-9.00
	3	10.00	2666-10.00
	2	11.00	2666-11.00
	3	12.00	2666-12.00
	2	SET	2666-S1

BRAD POINT DRILLS

Brad point drills are ideally suited to drilling dowel holes and for drilling fibreboard, plywood, softwoods and hardwoods.

FEATURES

- Precision ground shoulder cutters provide completely round holes and minimise break through.
- The centering tip enables drilling of precise pilot holes.
- HSS construction ensures a long service life.

USAGE

- Hold the drill bit perpendicular to the workpiece; start (slowly) with a low speed. Then continue drilling with the recommended speed.
- Drill using steady pressure; do not use a coolant.
- Lift out regularly, at least every 30mm, and remove spoil from the flutes.
- The workpiece should always be clamped tightly.
- Never let the drill tip impact on a hard support surface (metal/stone).
- Blunt drill bits result in imprecise holes. Only sharp drill bits achieve optimum drilling results.

Not for hammer action



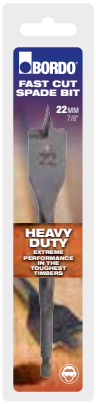
HIGH CARBON SPADE BITS

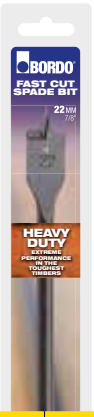
Bordo standard length spade bits are ideal for creating holes in a wide variety of timbers.

SPADE BIT BENEFITS

- Low cost per hole.
- Fast starting.
- Heavy duty shank prevents bending.
- Hex shank prevents slippage in chuck.
- Hex shank ensures a positive lock in spade bit extensions.
- Suits all standard quick change adaptors.

GROUP	SPAD	SPAD
SURFACE FINISH	BLACK	BLACK
MATERIAL	HIGH CARBON STEEL	HIGH CARBON STEEL
POINT TYPE	SELF CENTERING	SELF CENTERING
SHANK TYPE	1/4" HEX	1/4" HEX
OAL	**150MM**	**405MM**
PACKAGING	**CLAM SHELL**	**CLAM SHELL**





DIA MM	DIA INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
6.00	1/4	1	**8.80**	2670-6	**–**	–
8.00	5/16	1	**8.80**	2670-8	**–**	–
10.00	3/8	1	**10.70**	2670-10	**22.31**	2672-10
11.00	7/16	1	**10.77**	2670-11	**–**	–
12.00	–	1	**10.77**	2670-12	**–**	–
13.00	1/2	1	**10.94**	2670-13	**–**	–
14.00	9/16	1	**11.12**	2670-14	**–**	–
16.00	5/8	1	**11.45**	2670-16	**24.96**	2672-16
18.00	11/16	1	**12.26**	2670-18	**–**	–
19.00	3/4	1	**12.26**	2670-19	**30.90**	2672-19
20.00	13/16	1	**12.26**	2670-20	**30.90**	2672-20
22.00	7/8	1	**12.26**	2670-22	**30.90**	2672-22
24.00	15/16	1	**13.77**	2670-24	**–**	–
25.00	1	1	**13.77**	2670-25	**33.90**	2672-25
28.00	1-1/8	1	**13.77**	2670-28	**–**	–
30.00	–	1	**14.05**	2670-30	**–**	–
32.00	1-1/4	1	**14.32**	2670-32	**33.90**	2672-32
35.00	1-3/8	1	**14.69**	2670-35	**–**	–
38.00	1-1/2	1	**15.45**	2670-38	**–**	–



GROUP	SPAD
SURFACE FINISH	BLACK
MATERIAL	HIGH CARBON STEEL
POINT TYPE	SELF CENTERING
SHANK	1/4" HEX

HIGH CARBON SPADE BITS

Bordo standard length spade bits are ideal for creating holes in a wide variety of timbers.

SPADE BIT BENEFITS

- Low cost per hole.
- Fast starting.
- Heavy duty shank prevents bending.
- Hex shank prevents slippage in chuck.
- Hex shank ensures a positive lock in spade bit extensions.
- Suits all standard quick change adaptors.









SET DESCRIPTION SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
SET 1 - CLAM SHELL	3	**38.29**	2670-S1
19, 22, 25MM			
SET 2 - CLAM SHELL	6	**83.43**	2670-S2
16, 19, 22, 25, 32MM PLUS 150MM QUICK CHANGE EXTENSION			
SET 4 - NYLON POUCH	7	**94.20**	2670-S4
12, 16, 20, 22, 25, 32MM PLUS 150MM EXTENSION 5 SETS PER DISPLAY BOX			



GROUP	–

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SPADE BITS	**809.56**	2670-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER
	4	6	2670-6
	4	8	2670-8
	2	10	2670-10
	2	11	2670-11
	4	12	2670-12
	2	14	2670-14
	4	16	2670-16
	2	18	2670-18
	8	19	2670-19
	4	20	2670-20
	4	22	2670-22
	2	24	2670-24
	8	25	2670-25
	2	28	2670-28
	4	32	2670-32
	2	35	2670-35
	2	38	2670-38
	2	150	5750-14X150
	2	300	5750-14X300



HIGH CARBON AUGER BITS

Bordo auger bits are available in short, medium and long series OALs.

AUGER BIT BENEFITS

- Fully heat treated to increase durability and protect against bending in heavy duty drilling applications.
- Single spur scribes hole edge and ensures a smooth hole finish.
- Coarse screw point provides fast starting in all wood types.
- Solid centre design provides increased bit rigidity.
- Optimised flute grind ensures fast chip removal improving speed and finish.
- Hex shank ensures a positive lock in chucks and extensions.

GROUP	AUGR	AUGR	AUGR
SURFACE FINISH	BRIGHT / BLUE	BRIGHT / BLUE	BRIGHT / BLUE
MATERIAL	HIGH CARBON STEEL	HIGH CARBON STEEL	HIGH CARBON STEEL
POINT TYPE	WORM POINT	WORM POINT	WORM POINT
SHANK	3/8" (NOMINAL) HEX*	3/8" (NOMINAL) HEX*	3/8" (NOMINAL) HEX*
PACKAGING	HANG TUBE	HANG TUBE	HANG TUBE
LENGTH	**SHORT**	**MEDUIM**	**LONG**

DIA MM	PACK QTY	OAL MM	$ EACH	PART NUMBER	OAL MM	$ EACH	PART NUMBER	OAL MM	$ EACH	PART NUMBER
6.00	1	160	**24.35**	2660-6X160	210	**27.63**	2660-6X210	–	**–**	–
8.00	1	170	**24.35**	2660-8X170	225	**27.63**	2660-8X225	–	**–**	–
10.00	1	190	**24.35**	2660-10X190	250	**28.40**	2660-10X250	500	**51.93**	2660-10X500
12.00	1	190	**25.14**	2660-12X190	270	**31.62**	2660-12X270	500	**54.30**	2660-12X500
13.00	1	190	**25.14**	2660-13X190	270	**37.01**	2660-13X290	500	**59.65**	2660-13X500
14.00	1	200	**27.32**	2660-14X200	290	**37.01**	2660-14X290	500	**62.21**	2660-14X500
15.00	1	200	**27.47**	2660-15X200	–	**–**	–	–	**–**	–
16.00	1	200	**27.47**	2660-16X200	290	**38.23**	2660-16X290	500	**64.90**	2660-16X500
17.00	1	200	**29.16**	2660-17X200†	–	**–**	–	–	**–**	–
18.00	1	200	**29.16**	2660-18X200	330	**48.51**	2660-18X330	500	**73.90**	2660-18X500
19.00	1	210	**31.82**	2660-19X210	330	**51.81**	2660-19X330	500	**79.07**	2660-19X500
20.00	1	210	**31.82**	2660-20X210	330	**51.81**	2660-20X330	500	**79.07**	2660-20X500
21.00	1	210	**34.83**	2660-21X210	–	**–**	–	–	**–**	–
22.00	1	210	**34.83**	2660-22X210	330	**56.05**	2660-22X330	500	**85.34**	2660-22X500
24.00	1	210	**37.34**	2660-24X210†	–	**–**	–	–	**–**	–
25.00	1	210	**37.34**	2660-25X210	330	**63.36**	2660-25X330	500	**90.48**	2660-25X500
28.00	1	210	**45.66**	2660-28X210†	–	**–**	–	–	**–**	–
30.00	1	–	**–**	–	330	**77.89**	2660-30X330	500	**110.48**	2660-30X500†
32.00	1	210	**53.99**	2660-32X210†	330	**89.16**	2660-32X330	500	**128.03**	2660-32X500†
35.00	1	–	**–**	–	330	**104.11**	2660-35X330	500	**140.37**	2660-35X500†
38.00	1	210	**77.89**	2660-38X210†	330	**123.41**	2660-38X330	–	**–**	–

DESCRIPTION	$ SET	PART NUMBER
AUGER & EXTENSION SET	**354.30**	2660-25S1
25MM X 210MM AUGER BIT WITH 6 QUICK CHANGE 300MM LOCKING EXTENSIONS		





NEW AND IMPROVED *LOCKING* EXTENSIONS

Bordo 3/8" x 300mm quick change extensions suit all accessories with 3/8" shank and power groove. Join multiple extensions together for extreme reach. Extensions are securely joined together by rotating the threaded quick change locking collar – no threaded rods to come undone!

Extends your reach up to 1,700mm. Set contains 1 x 25mm high carbon steel, heat treated Auger Bit with coarse screw point and 6 x 300mm Quick Change Extensions.

* Older stock of auger drills may have 7/16" hex shank. † This product is being discontinued and is only available until current stocks are depleted.



GROUP	–	–
SURFACE FINISH	BRIGHT / BLUE	BRIGHT / BLUE
MATERIAL	HIGH CARBON STEEL	HIGH CARBON STEEL
POINT TYPE	WORM POINT	WORM POINT
SHANK	3/8" (NOMINAL) HEX*	3/8" (NOMINAL) HEX*
PACKAGING	HANG TUBE	HANG TUBE
LENGTH	**SHORT AND MEDIUM**	**SHORT, MEDUIM AND LONG**

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
AUGER BITS - 2 TIER MERCHANDISER	**915.53**	2660-D1		
AUGER BITS - 3 TIER MERCHANDISER			**1,377.19**	2660-D2





MERCHANDISER CONTENTS	QTY EACH	SIZE MM	OAL MM	PART NUMBER	QTY EACH	SIZE MM	OAL MM	PART NUMBER
	1	10.00	190	2660-10X190	1	8.00	170	2660-8X170
	1	12.00	190	2660-12X190	1	10.00	190	2660-10X190
	1	16.00	200	2660-16X200	1	12.00	190	2660-12X190
	1	25.00	210	2660-25X210	1	13.00	190	2660-13X190
	1	8.00	225	2660-8X225	1	14.00	200	2660-14X200
	1	10.00	250	2660-10X250	1	16.00	200	2660-16X200
	1	12.00	270	2660-12X270	1	20.00	210	2660-20X210
	1	13.00	290	2660-13X290	1	22.00	210	2660-22X210
	1	14.00	290	2660-14X290	1	25.00	210	2660-25X210
	1	16.00	290	2660-16X290	1	8.00	225	2660-8X225
	1	19.00	330	2660-19X330	1	10.00	250	2660-10X250
	1	20.00	330	2660-20X330	1	12.00	270	2660-12X270
	1	25.00	330	2660-25X330	1	13.00	290	2660-13X290
	1	10.00	500	2660-10X500	1	14.00	290	2660-14X290
	1	12.00	500	2660-12X500	1	16.00	290	2660-16X290
	1	16.00	500	2660-16X500	1	18.00	330	2660-18X330
	1	19.00	500	2660-19X500	1	19.00	330	2660-19X330
	1	25.00	500	2660-25X500	1	20.00	330	2660-20X330
	1	EXT	300	5750-38X300	1	25.00	330	2660-25X330
	1	EXT	300	5750-38716X300	1	10.00	500	2660-10X500
					1	12.00	500	2660-12X500
					1	13.00	500	2660-13X500
					1	14.00	500	2660-14X500
					1	16.00	500	2660-16X500
					1	18.00	500	2660-18X500
					1	19.00	500	2660-19X500
					1	20.00	500	2660-20X500
					1	22.00	500	2660-22X500
					1	EXT	300	5750-38X300
					1	EXT	300	5750-38716X300

HIGH CARBON AUGER BITS

Bordo auger bits are available in short, medium and long series OALs.

AUGER BIT BENEFITS

- Fully heat treated to increase durability and protect against bending in heavy duty drilling applications.
- Single spur scribes hole edge and ensures a smooth hole finish.
- Coarse screw point provides fast starting in all wood types.
- Solid centre design provides increased bit rigidity.
- Optimised flute grind ensures fast chip removal improving speed and finish.
- Hex shank ensures a positive lock in chucks and extensions.



Extensions & Adaptors to suit Hex Shank Auger Drills see page 241

5750-38716X300 pictured **Outside diameter of 27.5mm – Ideally suited for use wth auger bits 28mm and above.**



QUAD MAX 4 FLUTE CUTTERS

Use for all general drilling in wood

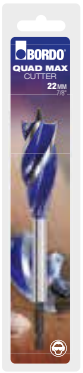
QUAD MAX BENEFITS

- Coarse screw point starts quickly in dry, wet & gummy wood.
- Cutting spurs reduce splintering to ensure a smooth clean hole.
- Four cutting surfaces – up to 10 times faster than standard spade bits.
- 1/4" hex shank suits Power-Hex® quick change adaptors and standard chucks.
- Fully heat treated for increased durability.

Recommended Speeds

Size (mm)	RPM
16 - 20	1500-2000
22 - 25	1000-1500
32	<1300

GROUP	QMWB
SURFACE FINISH	BLUE OR BLACK
MATERIAL	HIGH CARBON STEEL
CUTTERS	4 FLUTE
POINT	WORM POINT
SHANK	1/4" HEX*
PACKAGING	**CLAM SHELL**



DIA MM	FL MM	OAL MM	SHANK INCH	PACK QTY	$ EACH	PART NUMBER
16.00	70	165	1/4	1	**16.13**	2673-16
20.00	70	165	1/4	1	**16.91**	2673-20
22.00	80	165	1/4	1	**16.91**	2673-22
25.00	90	165	1/4	1	**18.17**	2673-25
32.00	90	165	7/16	1	**22.95**	2673-32





SET DESCRIPTION SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
SET 1 - CLAM SHELL	3	**51.21**	2673-S1
16, 20, 25MM			
SET 2 - CLAM SHELL	5	**91.07**	2673-S2
16, 20, 22, 25, 32MM			

* Older stock of 32mm Quad Max 4 flute cutters may have 7/16" hex shank



GROUP	QMWB	–	–
PRODUCTS	QUAD MAX	QUAD MAX / SPADE BITS	QUAD MAX / SPADE / SELF FEED
PACKAGING	**CLAM SHELL**	**CLAM SHELL**	**CLAM SHELL**







MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
QUAD MAX MERCHANDISER - D1	**466.70**	2673-D1				
WOOD DRILLING MERCHANDISER - D2			**727.40**	2673-D2		
WOOD DRILLING MERCHANDISER - D3					**923.25**	2673-D3

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER	QTY EACH	SIZE MM	PART NUMBER	QTY EACH	SIZE MM	PART NUMBER
	QUAD MAX CUTTERS			QUAD MAX CUTTERS			QUAD MAX CUTTERS		
	2	16.00	2673-16	2	16.00	2673-16	2	16.00	2673-16
	2	20.00	2673-20	2	20.00	2673-20	2	20.00	2673-20
	2	22.00	2673-22	2	22.00	2673-22	2	22.00	2673-22
	2	25.00	2673-25	2	25.00	2673-25	2	25.00	2673-25
	2	32.00	2673-32	2	32.00	2673-32	2	32.00	2673-32
	2	SET	2673-S1	2	SET	2673-S1	2	SET	2673-S1
	2	SET	2673-S2	2	SET	2673-S2	2	SET	2673-S2
				SPADE BITS			SPADE BITS		
				2	10.00	2670-10	2	10.00	2670-10
				2	12.00	2670-12	2	12.00	2670-12
				2	14.00	2670-14	2	14.00	2670-14
				2	16.00	2670-16	2	16.00	2670-16
				2	19.00	2670-19	2	19.00	2670-19
				2	20.00	2670-20	2	20.00	2670-20
				2	22.00	2670-22	2	22.00	2670-22
				2	25.00	2670-25	2	25.00	2670-25
				2	32.00	2670-32	2	32.00	2670-32
				2	EXT300	5750-14X300	2	EXT300	5750-14X300
							SELF FEEDING WOOD BITS		
							1	25.00	2674-25
							1	32 00	2674-32
							1	38.00	2674-38
							1	51.00	2674-51
							1	54.00	2674-54



SUPERFLEX FLEXIBLE SHAFT WOOD DRILLS

Bordo SuperFlex drills are ideal for installing wire or cable inside existing timber stud walls. The flexible spring steel shaft allows maximum flexibility of drilling position within the wall cavity. The extreme reach of SuperFlex drills (up to 1.8m) simplifies the previously time consuming task of drilling through noggins, top plates, bottom plates or studs inside finished walls.

The SuperFlex drill features a double fluted reduced taper auger head with a self feeding lead screw point, fishing eyes at both ends, flexible memory retention shaft with flatted ends to ensure a positive chuck engagement.

Available in 3/8", 1/2", 9/16" and 3/4" diameters in lengths of 54" (1,372mm) and 72" (1,829mm).

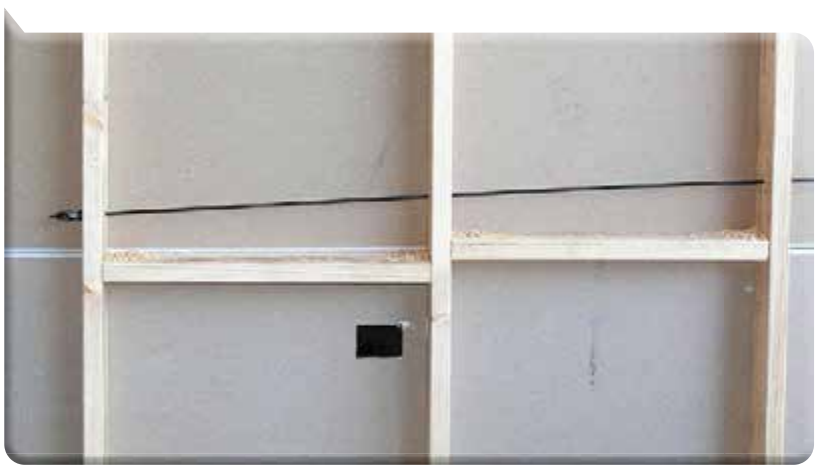
GROUP	FLEX
SURFACE FINISH	BLACK
MATERIAL – DRILL BODY / SHAFT	HCS / SPRING STEEL
POINT TYPE	WORM POINT
PACKAGING	**HANG SELL**

DIA INCHES	OAL MM	OAL INCHES	PACK QTY	$ EACH	PART NUMBER
3/8	1372	54	1	**87.20**	2680-3/8X54
1/2	1372	54	1	**89.07**	2680-1/2X54
9/16	1372	54	1	**96.99**	2680-9/16X54
3/4	1372	54	1	**130.76**	2680-3/4X54
3/8	1829	72	1	**94.55**	2680-3/8X72
1/2	1829	72	1	**96.43**	2680-1/2X72
9/16	1829	72	1	**104.34**	2680-9/16X72
3/4	1829	72	1	**141.26**	2680-3/4X72



ACCESSORIES	$ EACH	PART NUMBER
POSITIONING HANDLE	**54.92**	2680-PH









GROUP	AUGR
SURFACE FINISH	BRIGHT
MATERIAL	HSS
POINT TYPE	THREADED SPLIT POINT
SHANK TYPE	11MM HEX
PACKAGING	**HANG SELL**

DIA MM	OAL MM	FL MM	PACK QTY	$ EACH	PART NUMBER
13.00	280.00	165.00	1	**77.12**	2662-13.0X280
14.50	300.00	180.00	1	**84.04**	2662-14.5X300
15.00	300.00	180.00	1	**85.46**	2662-15.0X300
16.00	300.00	180.00	1	**88.34**	2662-16.0X300
16.00	450.00	330.00	1	**124.49**	2662-16.0X450
17.50	300.00	180.00	1	**91.80**	2662-17.5X300
19.00	300.00	180.00	1	**103.99**	2662-19.0X300
19.00	450.00	330.00	1	**142.52**	2662-19.0X450
20.00	300.00	180.00	1	**132.38**	2662-20.0X300
22.00	300.00	200.00	1	**147.20**	2662-22.0X300
25.00	450.00	330.00	1	**212.48**	2662-25.0X450
25.50	300.00	200.00	1	**192.44**	2662-25.5X300
32.00	335.00	215.00	1	**251.42**	2662-32.0X335
38.00	335.00	220.00	1	**414.72**	2662-38.0X335



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
POWER-BORE	**2,332.04**	2662-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER
	2	13.00	2662-13.0X280
	2	14.50	2662-14.5X300
	2	15.00	2662-15.0X300
	2	16.00	2662-16.0X300
	2	17.50	2662-17.5X300
	2	19.00	2662-19.0X300
	2	20.00	2662-20.0X300
	1	22.00	2662-22.0X300
	1	25.50	2662-25.5X300
	1	32.00	2662-32.0X335
	1	38.00	2662-38.0X335

POWER-BORE DRILLS

Bordo Power-Bore HSS split point auger bits outperform conventional augers in tough Australian hardwood.

FEATURES

- Hex shank eliminates chuck slip.
- Self feeding HSS threaded split point.
- Outperforms and outlasts conventional augers.
- Extreme performance in tough Australian hardwoods.
- Heavy duty construction for long life – guaranteed!



SELF FEEDING WOOD BITS

Bordo Self Feeding Wood Bits are ideal for drilling large diameter holes in soft woods for plumbing and conduit penetrations and a wide variety of other applications.

SELF FEEDING WOOD BITS FEATURE

- Replaceable coarse screw points which drill quickly in dry, wet and gummy woods.
- 7/16" hex shanks to suit drills with 1/2" (or larger) chuck.
- Precision milled shank which eliminates wobble and runout.
- Spurs on the outside diameter cut holes cleanly and accurately.
- Dual inside cutting planes shave hole radius for clean, smooth holes without pressure.
- Forged in one piece from high carbon steel for maximum strength under the toughest drilling conditions.
- Clam shell packed with spare screw point drill.

GROUP	SFWB
SURFACE FINISH	BRIGHT / BLUE
MATERIAL	FORGED HIGH CARBON STEEL
POINT TYPE	REPLACEABLE SCREW POINT
CUTTING EDGES	2
PACKAGING	**CLAM SHELL**



DIA MM	DIA INCH	SHANK INCH	PACK QTY	$ EACH	PART NUMBER
25.00	1	7/16	1	**28.01**	2674-25
29.00	1-1/8	7/16	1	**29.62**	2674-29
32.00	1-1/4	7/16	1	**30.68**	2674-32
35.00	1-3/8	7/16	1	**33.01**	2674-35
38.00	1-1/2	7/16	1	**37.08**	2674-38
44.00	1-3/4	7/16	1	**44.39**	2674-44
51.00	2	7/16	1	**48.01**	2674-51
54.00	2-1/8	7/16	1	**52.07**	2674-54
57.00	2-1/4	7/16	1	**54.40**	2674-57
65.00	2-9/16	7/16	1	**60.77**	2674-65
76.00	3	7/16	1	**86.69**	2674-76
92.00	3-5/8	7/16	1	**105.08**	2674-92
118.00	4-5/8	7/16	1	**138.32**	2674-118

NEW PACKAGING

SET TYPE	$ SET	PART NUMBER
SELF FEEDING WOOD BITS - 9 PIECES	**432.16**	2674-S1
25, 29, 32, 35, 38, 44, 51, 54 AND 57MM PLUS 5 REPLACEMENT SCREW TIP POINTS AND A 300MM QUICK CHANGE EXTENSION		





GROUP	SFWB
SURFACE FINISH	BRIGHT / BLUE
MATERIAL	FORGED HIGH CARBON STEEL
POINT TYPE	REPLACEABLE SCREW POINT
CUTTING EDGES	2
PACKAGING	**CLAM SHELL**



SELF FEEDING WOOD BITS

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- Spurs on the outside diameter cut holes cleanly and accurately.
- Dual inside cutting planes shave hole radius for clean, smooth holes without pressure.
- Forged in one piece from high carbon steel for maximum strength under the toughest drilling conditions.
- Clam shell packed with spare screw point drill.

WOOD DRILLING MERCHANDISERS
Additional wood drilling merchandisers featuring spade bits, quad max 4 flute cutters and self feeding wood bits are listed on page 61.

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SELF FEEDING WOOD BITS	**807.87**	2674-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER
	1	25	2674-25
	1	29	2674-29
	1	32	2674-32
	1	35	2674-35
	1	38	2674-38
	1	44	2674-44
	1	51	2674-51
	1	54	2674-54
	1	57	2674-57
	1	65	2674-65
	1	76	2674-76
	1	92	2674-92
	1	118	2674-118
	1	300 EXT	5750-38716X300

ACCESSORIES	PACK QTY	$ EACH	PART NUMBER
EXTENSION - 140MM (5-1/2")	1	**22.67**	2674-EXT140
NO 1 TIP - SUITS SIZES 25 – 65MM	5	**3.03**	2674-TIP1
NO 2 TIP - SUITS SIZES 75MM PLUS	5	**2.57**	2674-TIP2
GRUB SCREW	1	**1.17**	2674-GS



Extensions & Adaptors to suit Self Feeding Wood Bits see page 241

5750-38716X300 pictured **Outside diameter of 27.5mm – Ideally suited for use wth self feeding bits 29mm and above.**



GROUP	MSDB	MSDB	MSDB
SURFACE FINISH	SHOT PEENED	SHOT PEENED	SHOT PEENED
POINT TYPE	CARBIDE TIPPED	CARBIDE TIPPED	CARBIDE TIPPED
SHANK TYPE	STRAIGHT	STRAIGHT	STRAIGHT
PACKAGING	**CLAM SHELL**	**CLAM SHELL**	**CLAM SHELL**
LENGTH	**STANDARD FIXING**	**SINGLE BRICK**	**DOUBLE BRICK**

DIAMETER MM	DIAMETER INCH	PLUG COLOUR	FL MM	OAL MM	SHANK MM	$ EACH	PART NUMBER	FL MM	OAL MM	SHANK MM	$ EACH	PART NUMBER	FL MM	OAL MM	SHANK MM	$ EACH	PART NUMBER
3.00	1/8	**YELLOW**	40	70	3.0	**6.57**	2530-3.00X70	–	–	–	**–**	–	–	–	–	**–**	–
4.00	5/32	**–**	40	75	4.0	**6.35**	2530-4.00X75	–	–	–	**–**	–	–	–	–	**–**	–
5.00	3/16	**WHITE**	50	85	5.0	**5.09**	2530-5.00X85	90	150	5.0	**10.34**	2530-5.00X150	–	–	–	**–**	–
5.50	7/32	**RED**	50	85	5.5	**5.64**	2530-5.50X100	90	150	5.5	**9.96**	2530-5.50X150	–	–	–	**–**	–
6.00	15/64	**–**	60	100	6.0	**5.64**	2530-6.00X100	90	150	6.0	**9.85**	2530-6.00X150	250	330	6.0	**24.18**	2530-6.00X330
6.50	1/4	**GREEN**	60	100	6.5	**5.64**	2530-6.50X100	90	150	6.5	**10.09**	2530-6.50X150	250	330	6.5	**24.18**	2530-6.50X330
7.00	9/32	**–**	60	100	7.0	**7.18**	2530-7.00X100	90	150	7.0	**10.82**	2530-7.00X150	–	–	–	**–**	–
8.00	5/16	**BLUE**	80	120	8.0	**7.70**	2530-8.00X120	90	150	8.0	**11.37**	2530-8.00X150	250	330	8.0	**25.76**	2530-8.00X330
9.00	11/32	**–**	80	120	9.0	**8.74**	2530-9.00X120	–	–	–	**–**	–	–	–	–	**–**	–
10.00	3/8	**ORANGE**	80	120	10.0	**8.74**	2530-10.00X120	90	150	10.0	**13.06**	2530-10.00X150	250	330	10.0	**26.11**	2530-10.00X330
11.00	7/16	**GREY**	–	–	–	**–**	–	90	150	11.0	**14.62**	2530-11.00X150	–	–	–	**–**	–
12.00	15/32	**–**	–	–	–	**–**	–	90	150	10.0	**15.77**	2530-12.00X150	250	330	10.0	**26.11**	2530-12.00X330
13.00	1/2	**–**	–	–	–	**–**	–	90	150	10.0	**17.22**	2530-13.00X150	250	330	10.0	**26.11**	2530-13.00X330
14.00	9/16	**–**	–	–	–	**–**	–	90	150	10.0	**22.16**	2530-14.00X150	250	330	10.0	**38.13**	2530-14.00X330
16.00	5/8	**BLACK**	–	–	–	**–**	–	90	150	12.0	**25.75**	2530-16.00X150	250	330	12.0	**38.13**	2530-16.00X330
18.00	23/32	**–**	–	–	–	**–**	–	100	160	12.0	**33.93**	2530-18.00X150	250	330	12.0	**52.21**	2530-18.00X330
20.00	3/4	**–**	–	–	–	**–**	–	100	160	12.0	**33.93**	2530-20.00X150	250	330	12.0	**52.21**	2530-20.00X330
22.00	7/8	**–**	–	–	–	–	–	100	160	12.0	**38.13**	2530-22.00X150	250	330	12.0	**60.56**	2530-22.00X330
25.00	1	**–**	–	–	–	–	–	100	160	12.0	**56.08**	2530-25.00X150	250	330	12.0	**75.74**	2530-25.00X330





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
MASONRY - STRAIGHT SHANK	**1,067.10**	2530-D1

MERCHANDISER CONTENTS	PLUG COLOUR	QTY EACH	SIZE MM	PART NUMBER	QTY EACH	SIZE MM	PART NUMBER
		STANDARD FIXING			SINGLE BRICK		
	YELLOW	10	3.0	2530-3.00X70	–	–	–
	–	10	4.0	2530-4.00X75	–	–	–
	WHITE	10	5.0	2530-5.00X85	5	5.0	2530-5.00X150
	RED	10	5.5	2530-5.50X100	10	5.5	2530-5.50X150
	–	5	6.0	2530-6.00X100	5	6.0	2530-6.00X150
	GREEN	5	6.5	2530-6.50X100	–	–	–
	–	5	7.0	2530-7.00X100	–	–	–
	BLUE	10	8.0	2530-8.00X120	10	8.0	2530-8.00X150
	ORANGE	5	10.0	2530-10.00X120	5	10.0	2530-10.00X150
	GREY	–	–	–	5	11.0	2530-11.00X150
	–	–	–	–	5	12.0	2530-12.00X150
	–	–	–	–	5	13.0	2530-13.00X150





GROUP	MSDB
SURFACE FINISH	BRIGHT WITH COLOUR CODED FLUTES
POINT TYPE	CARBIDE TIPPED
SHANK TYPE	STRAIGHT
PACKAGING	**CLAM SHELL**
LENGTH	**STANDARD FIXING**





DIAMETER MM	DIAMETER INCH	PLUG COLOUR	FL MM	OAL MM	SHANK MM	$ EACH	PART NUMBER
3.00	1/8	**YELLOW**	30	70	3.0	**7.11**	2532-3.00X70
5.00	3/16	**WHITE**	45	85	5.0	**5.44**	2532-5.00X85
5.50	7/32	**RED**	50	100	5.5	**6.05**	2532-5.50X100
6.50	1/4	**GREEN**	55	100	6.5	**6.05**	2532-6.50X100
8.00	5/16	**BLUE**	60	120	8.0	**8.27**	2532-8.00X120
10.00	3/8	**ORANGE**	65	120	10.0	**9.39**	2532-10.00X120



PACKAGING	**SET**
LENGTH	**STANDARD FIXING**

SET TYPE	$ SET	PART NUMBER
MASONRY - COLOUR FLUTE	**42.31**	2532-S1

COLOUR FLUTE MASONRY

Bordo Colour Flute Masonry Drill set features "colour coded" drill sizes to match standard masonry wall plug (and spaghetti) colour coding conventions. Now you no longer need to look up reference tables to determine what drill size to use with your masonry plug - just match the colour!

COLOUR FLUTE MASONRY DRILLS FEATURE

- Straight shank for use in a hammer drill with a standard chuck.
- Premium grade carbide.
- High temperature brazing for longer life.
- Flutes designed for optimum spoil removal.
- Colour coded to match masonry wall plugs.

COLOUR FLUTE MASONRY DRILLS ARE SUITABLE FOR USE IN

- Concrete
- Brick
- Block
- Stone





GROUP	MSDB
DRILL TYPE	TUNGSTEN CARBIDE TIPPED
COUNTERSINK MATERIAL	**TUNGSTEN CARBIDE**
PILOT DRILL	**DEPTH ADJUSTABLE**
SHANK TYPE	**1/4" HEX**
PACKAGING	**CLAM SHELL**

SCREW GAUGE	PILOT MM	PILOT DRILL DEPTH	PACK QTY	$ EACH	PART NUMBER
8G	5.0	ADJUSTABLE 9-18MM	1	**30.00**	2531-5.00-9/18
10G	6.0	ADJUSTABLE 9-18MM	1	**30.00**	2531-6.00-9/18

CEMENT SHEET COUNTERSINK AND PILOT DRILL

Suitable for use in all types of fibre cement sheet from 9mm to 18mm thick. Meets the specifications of James Hardie and CSR Building Products fibre cement sheet installation guidelines.

NEW PRODUCT

Fibre cement sheet has a high sand and cement content creating a difficult material for conventional cutting tools. Tungsten Carbide has a very high abrasion resistance and maintains a sharp cutting edge ensuring long life even in fibre cement products.



SDS Multi-fit

SDS Multi-fit
Suits all Rotary Hammers fitted with an SDS Plus® or Ramset R3® chuck

GROUP	SDSM
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS MULTI-FIT
PACKAGING	**HANG TAB**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
	50	**110**		**SDS MULTI-FIT**	**SDS MULTI-FIT**
5.00	50	110	1	**11.54**	2540-5.00X110
5.50	50	110	1	**11.54**	2540-5.50X110
6.00	50	110	1	**11.54**	2540-6.00X110
6.50	50	110	1	**12.37**	2540-6.50X110
8.00	50	110	1	**13.83**	2540-8.00X110
10.00	50	110	1	**15.56**	2540-10.00X110
	100	**160**		**SDS MULTI-FIT**	**SDS MULTI-FIT**
5.00	100	160	1	**12.83**	2540-5.00X160
5.50	100	160	1	**12.83**	2540-5.50X160
6.00	100	160	1	**12.83**	2540-6.00X160
6.50	100	160	1	**14.54**	2540-6.50X160
7.00*	100	160	1	**16.12**	2540-7.00X160
8.00	100	160	1	**14.22**	2540-8.00X160
10.00	100	160	1	**16.07**	2540-10.00X160
12.00	100	160	1	**20.88**	2540-12.00X160
13.00*	100	160	1	**23.68**	2540-13.00X160
15.00*	100	160	1	**27.04**	2540-15.00X160
16.00	100	160	1	**31.09**	2540-16.00X160
	150	**210**		**SDS MULTI-FIT**	**SDS MULTI-FIT**
5.00	150	210	1	**19.70**	2540-5.00X210
6.00	150	210	1	**19.70**	2540-6.00X210
6.50	150	210	1	**19.70**	2540-6.50X210
8.00	150	210	1	**18.54**	2540-8.00X210
10.00	150	210	1	**23.31**	2540-10.00X210
12.00	150	210	1	**25.57**	2540-12.00X210
16.00	150	210	1	**40.75**	2540-16.00X210
18.00	150	210	1	**50.98**	2540-18.00X210
20.00	150	210	1	**63.88**	2540-20.00X210
	200	**260**		**SDS MULTI-FIT**	**SDS MULTI-FIT**
8.00*	200	260	1	**25.71**	2540-8.00X260
10.00	200	260	1	**25.71**	2540-10.00X260
12.00	200	260	1	**26.45**	2540-12.00X260
14.00	200	260	1	**32.10**	2540-14.00X260
22.00	200	260	1	**98.09**	2540-22.00X260
24.00	200	260	1	**111.74**	2540-24.00X260
25.00	200	260	1	**119.13**	2540-25.00X260
	400	**450**		**SDS MULTI-FIT**	**SDS MULTI-FIT**
6.50*	400	450	1	**43.75**	2540-6.50X450
10.00*	400	450	1	**43.75**	2540-10.00X450
12.00	400	450	1	**46.15**	2540-12.00X450
14.00*	400	450	1	**55.21**	2540-14.00X450
16.00	400	450	1	**55.21**	2540-16.00X450
18.00	400	450	1	**82.38**	2540-18.00X450
20.00	400	450	1	**82.38**	2540-20.00X450
22.00	400	450	1	**114.21**	2540-22.00X450
24.00	400	450	1	**143.63**	2540-24.00X450
25.00	400	450	1	**143.63**	2540-25.00X450



* Discontinued item. These items will only be available until current stocks are depleted.

The following are registered trademarks R3® – Illinois Tool Works Ramset® – Illinois Tool Works SDS Plus® – Robert Bosch Power Tool Corp. SDS Max® – Robert Bosch Power Tool Corp.



GROUP	SDSM
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS MULTI-FIT
PACKAGING	**HANG TAB**



SDS Multi-fit
Suits all Rotary Hammers fitted with an SDS Plus® or Ramset R3® chuck

SET TYPE	$ SET	PART NUMBER
SDS MULTI-FIT - 5 PIECES	**70.49**	2540-S1
5.0, 5.5, 6.5, 8.0, 10.0MM X 160MM		



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
MASONRY - SDS MULTI-FIT	**1,922.11**	2540-D1

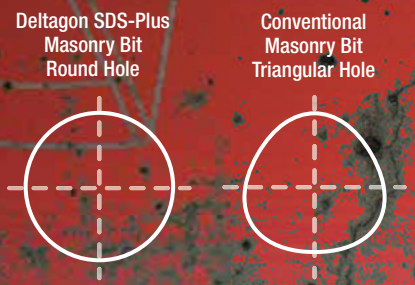
MERCHANDISER CONTENTS	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER
	3	2540-5.00X110	2	2540-5.00X210
	3	2540-5.50X110	2	2540-6.00X210
	3	2540-6.00X110	2	2540-8.00X210
	3	2540-6.50X110	2	2540-10.00X210
	3	2540-8.00X110	2	2540-12.00X210
	3	2540-10.00X110	2	2540-16.00X210
	3	2540-5.00X160	2	2540-18.00X210
	3	2540-5.50X160	2	2540-20.00X210
	3	2540-6.00X160	2	2540-10.00X260
	3	2540-6.50X160	2	2540-12.00X260
	3	2540-8.00X160	2	2540-22.00X260
	3	2540-10.00X160	2	2540-24.00X260
	3	2540-12.00X160	2	2540-25.00X260
	3	2540-16.00X160		

DELTAGON®

The Bordo range of Deltagon SDS Plus® drill bits offer outstanding performance in a wide variety of masonry drilling applications. Deltagon bits offer specific advantages over standard SDS Plus® bits:

- High durability and improved drilling speed.
- Tungsten carbide head is permanently bonded to shank – not brazed. This results in extended bit life by eliminating bit failure due to excessive heat melting brazing material.
- Drills through reinforcing mesh and reinforcing bar.
- Minimised bit binding against reinforcing bar – increasing operator safety.
- Easily drills through all typical steel decking plate including Bondek®.
- Eliminates rifling - drilling holes close to perfect roundness.
- Extremely round holes result in improved fastener performance by increasing pull out loads.
- More accurate hole starting without bit walk.
- Limited circumferential wear.
- Reduced vibration minimising operator fatigue.
- Extremely hard wearing for long tool life.
- Triple thread shank for improved dust extraction.
- The Delta Shank, on a limited range of small size Deltagon drills (6mm and smaller), has a triangular cross section and provides exceptional resistance to bending. The Delta Shank provides efficient dust extraction without the need for conventional flutes.
- Triple flute solid head and asymmetrical five cutter head (on sizes over 20mm) minimise vibration.





Superior hole roundness results in increased anchor performance.





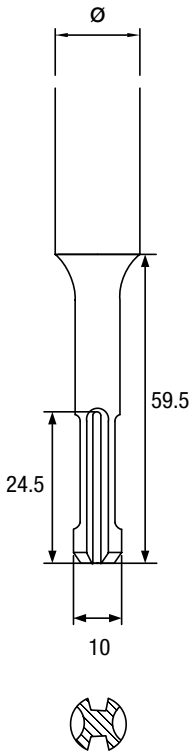
Bondek® is a registered trademark of BlueScope Steel Limited.
Deltagon® is a registered trademark of Kabushiki Kaisha Miyanaga.



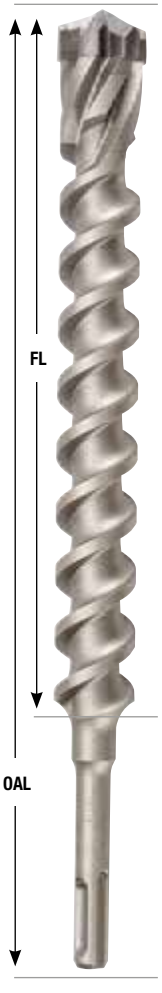
GROUP	SDSD
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	SOLID MULTI-FACET CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**



SDS Plus®
Suits all Rotary Hammers fitted with an SDS Plus® chuck



DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
	50	**116**		DELTAGON SDS PLUS	DELTAGON SDS PLUS
4.00	50	116	1	**28.06**	2543-4.00X116
5.00	50	116	1	**29.17**	2543-5.00X116
5.50	50	116	1	**29.17**	2543-5.50X116
6.00	50	116	1	**30.22**	2543-6.00X116
6.50	50	116	1	**30.22**	2543-6.50X116
8.00	50	116	1	**30.22**	2543-8.00X116
10.00	50	116	1	**32.38**	2543-10.00X116
	100	**166**		DELTAGON SDS PLUS	DELTAGON SDS PLUS
5.00	100	166	1	**32.38**	2543-5.00X166
5.50	100	166	1	**32.38**	2543-5.50X166
6.00	100	166	1	**32.38**	2543-6.00X166
6.50	100	166	1	**32.38**	2543-6.50X166
7.00	100	166	1	**32.38**	2543-7.00X166
8.00	100	166	1	**33.48**	2543-8.00X166
10.00	100	166	1	**39.97**	2543-10.00X166
12.00	100	166	1	**41.01**	2543-12.00X166
13.00	100	166	1	**44.29**	2543-13.00X166
14.00	100	166	1	**49.64**	2543-14.00X166
15.00	100	166	1	**62.59**	2543-15.00X166
16.00	100	166	1	**69.07**	2543-16.00X166
18.00	100	166	1	**80.98**	2543-18.00X166
20.00	100	166	1	**94.98**	2543-20.00X166
	150	**216**		DELTAGON SDS PLUS	DELTAGON SDS PLUS
5.00	150	216	1	**47.48**	2543-5.00X216
5.50	150	216	1	**50.76**	2543-5.50X216
6.00	150	216	1	**50.76**	2543-6.00X216
6.50	150	216	1	**50.76**	2543-6.50X216
8.00	150	216	1	**51.81**	2543-8.00X216
10.00	150	216	1	**59.39**	2543-10.00X216
12.00	150	216	1	**74.51**	2543-12.00X216
14.00	150	216	1	**88.49**	2543-14.00X216
16.00	150	216	1	**107.92**	2543-16.00X216
18.00	150	216	1	**123.04**	2543-18.00X216
20.00	150	216	1	**140.30**	2543-20.00X216
	200	**270**		DELTAGON SDS PLUS	DELTAGON SDS PLUS
22.00	200	270	1	**172.67**	2543-22.00X270
24.00	200	270	1	**194.26**	2543-24.00X270
25.00	200	270	1	**205.07**	2543-25.00X270
26.00	200	270	1	**215.85**	2543-26.00X270
	250	**316**		DELTAGON SDS PLUS	DELTAGON SDS PLUS
8.00	250	316	1	**64.75**	2543-8.00X316
10.00	250	316	1	**71.23**	2543-10.00X316
12.00	250	316	1	**87.45**	2543-12.00X316
14.00	250	316	1	**96.10**	2543-14.00X316
16.00	250	316	1	**125.20**	2543-16.00X316
18.00	250	316	1	**151.10**	2543-18.00X316
20.00	250	316	1	**172.67**	2543-20.00X316





ASYMMETRICAL SOLID CARBIDE 5 CUTTER HEAD
Standard Deltagon bits feature a solid triple flute carbide head. Bits over 20mm feature an asymmetrical solid 5 cutter carbide head for improved cutting efficiency, reduced vibration and superior performance in mesh and bar.



SDS Plus

SDS Plus®
Suits all Rotary Hammers fitted with an SDS Plus® chuck

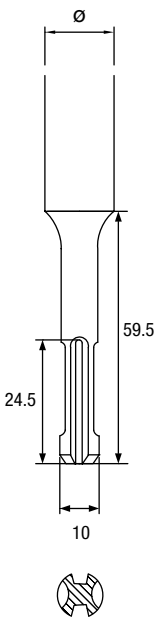


GROUP	SDSD
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	SOLID MULTI-FACET CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
	250	**320**		**DELTAGON SDS PLUS**	**DELTAGON SDS PLUS**
22.00	250	320	1	**189.95**	2543-22.00X320
24.00	250	320	1	**209.38**	2543-24.00X320
25.00	250	320	1	**230.96**	2543-25.00X320
26.00	250	320	1	**243.90**	2543-26.00X320
	400	**466**		**DELTAGON SDS PLUS**	**DELTAGON SDS PLUS**
10.00	400	466	1	**92.81**	2543-10.00X466
12.00	400	466	1	**114.40**	2543-12.00X466
14.00	400	466	1	**133.83**	2543-14.00X466
16.00	400	466	1	**164.04**	2543-16.00X466
18.00	400	466	1	**170.51**	2543-18.00X466
20.00	400	466	1	**202.90**	2543-20.00X466
	400	**470**		**DELTAGON SDS PLUS**	**DELTAGON SDS PLUS**
22.00	400	470	1	**211.53**	2543-22.00X470
24.00	400	470	1	**233.12**	2543-24.00X470
25.00	400	470	1	**254.70**	2543-25.00X470
26.00	400	470	1	**261.19**	2543-26.00X470



ASYMMETRICAL SOLID CARBIDE 5 CUTTER HEAD
Standard Deltagon bits feature a solid triple flute carbide head. Bits over 20mm feature an asymmetrical solid 5 cutter carbide head for improved cutting efficiency, reduced vibration and superior performance in mesh and bar.





SET TYPE	$ EACH	PART NUMBER
DELTA 5 PACK S1 – 166MM OAL	**170.59**	2543-S1
5.0, 5.5, 6.5, 8.0, 10.0MM		



GROUP	SDSD
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	SOLID MULTI-FACET CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**



SDS Plus®
Suits all Rotary Hammers fitted with an SDS Plus® chuck

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
DELTAGON SDS PLUS	**2,279.84**	2543-D1



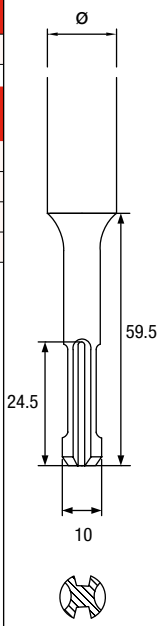
MERCHANDISER CONTENTS	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER
	2	2543-5.00X116	1	2543-5.00X216
	1	2543-5.50X116	1	2543-6.00X216
	2	2543-6.00X116	1	2543-8.00X216
	2	2543-6.50X116	2	2543-10.00X216
	1	2543-8.00X116	2	2543-12.00X216
	1	2543-10.00X116	1	2543-14.00X216
	2	2543-5.00X166	1	2543-16.00X216
	1	2543-5.50X166	1	2543-18.00X216
	2	2543-6.00X166	1	2543-20.00X216
	2	2543-6.50X166	1	2543-10.00X316
	1	2543-7.00X166	1	2543-12.00X316
	2	2543-8.00X166	1	2543-10.00X466
	2	2543-10.00X166	1	2543-12.00X466
	2	2543-12.00X166	1	2543-16.00X466
	1	2543-13.00X166		
	1	2543-16.00X166		



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
DELTAGON SDS PLUS – UNIVERSAL	**904.74**	2543-D4

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER	QTY EACH	PART NUMBER
	2	2543-5.50X166	2	2543-6.50X216
	2	2543-6.50X166	2	2543-10.00X216
	2	2543-8.00X166	2	2543-12.00X216
	2	2543-10.00X166	2	2543-14.00X216
	2	2543-12.00X166		

DELTAGON SDS PLUS UNIVERSAL MERCHANDISER
This high impact merchandiser can be used as a bench mounted display and it can also be used on existing slatwall and pegboard merchandising systems.







NEW PRODUCT

GROUP	XBIT
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**

SDS Plus

SDS Plus®
Suits all Rotary Hammers fitted with an SDS Plus® chuck



DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
	45	110		X-BIT SDS PLUS	X-BIT SDS PLUS
5.00	45	110	1	**12.14**	2538-5.00X110
5.50	45	110	1	**12.86**	2538-5.50X110
6.00	45	110	1	**12.86**	2538-6.00X110
6.50	45	110	1	**16.86**	2538-6.50X110
8.00	45	110	1	**14.45**	2538-8.00X110
10.00	45	110	1	**18.20**	2538-10.00X110
	85	160		X-BIT SDS PLUS	X-BIT SDS PLUS
5.00	85	160	1	**12.76**	2538-5.00X160
5.50	85	160	1	**14.19**	2538-5.50X160
6.00	85	160	1	**14.19**	2538-6.00X160
6.50	85	160	1	**18.10**	2538-6.50X160
8.00	85	160	1	**15.51**	2538-8.00X160
10.00	85	160	1	**19.43**	2538-10.00X160
12.00	85	160	1	**23.66**	2538-12.00X160
	135	210		X-BIT SDS PLUS	X-BIT SDS PLUS
6.00	135	210	1	**17.33**	2538-6.00X210
8.00	135	210	1	**18.45**	2538-8.00X210
10.00	135	210	1	**22.53**	2538-10.00X210
12.00	135	210	1	**28.20**	2538-12.00X210
	180	260		X-BIT SDS PLUS	X-BIT SDS PLUS
12.00	180	260	1	**31.83**	2538-12.00X260
14.00	180	260	1	**46.04**	2538-14.00X260
16.00	180	260	1	**64.97**	2538-16.00X260
18.00	180	260	1	**77.54**	2538-18.00X260
20.00	180	260	1	**84.63**	2538-20.00X260
22.00	180	260	1	**107.60**	2538-22.00X260
24.00	180	260	1	**119.60**	2538-24.00X260
25.00	180	260	1	**121.97**	2538-25.00X260
	230	310		X-BIT SDS PLUS	X-BIT SDS PLUS
12.00	230	310	1	**37.96**	2538-12.00X310
	350	450		X-BIT SDS PLUS	X-BIT SDS PLUS
12.00	350	450	1	**52.31**	2538-12.00X450
16.00	350	450	1	**81.06**	2538-16.00X450
18.00	350	450	1	**97.23**	2538-18.00X450
20.00	350	450	1	**114.69**	2538-20.00X450
22.00	350	450	1	**140.69**	2538-22.00X450
24.00	350	450	1	**156.34**	2538-24.00X450
25.00	350	450	1	**159.11**	2538-25.00X450

SET TYPE	$ SET	PART NUMBER
X-BIT SDS PLUS - 5 PIECES	**79.99**	2538-S1
5.0, 6.0, 6.5, 8.0, 10.0MM X 160MM		

X-BIT

NEW Bordo X-Bits drill faster and last longer than standard two edged rotary hammer bits.

Hard stone and high MPA concrete quickly cause standard masonry bits to dull and break, but not the X-Bit.

- Single piece 4 edge tungsten carbide head.
- Extreme toughness and wear resistance.
- Exceptionally low vibration.
- Precision cutting facets create dimensionally accurate holes for improved anchor performance.
- Patented chamfering on the tip ensures fracture resistance when drilling into concrete reinforcing.
- Self-centering drill tip reduces bit wander.
- Four flute geometry ensures efficient dust removal.
- Solid engineered heavy duty core the length of the drill prevents bending and breakage.







GROUP	SDSP
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**

NEW PRODUCT

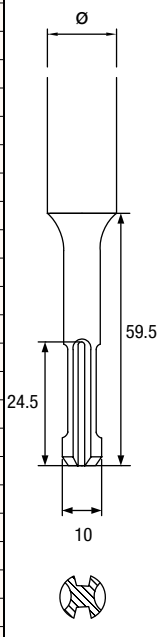


SDS Plus

SDS Plus®
Suits all Rotary Hammers fitted with an SDS Plus® chuck

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
X-BIT SDS PLUS	**2,077.01**	2538-D1

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER
	2	2538-5.00X110
	2	2538-5.00X160
	2	2538-5.50X110
	2	2538-5.50X160
	2	2538-6.00X110
	2	2538-6.00X160
	2	2538-6.00X210
	2	2538-6.50X110
	2	2538-6.50X160
	2	2538-8.00X110
	2	2538-8.00X160
	2	2538-8.00X210
	2	2538-10.00X110
	2	2538-10.00X160
	2	2538-10.00X210
	2	2538-12.00X160
	2	2538-12.00X210
	1	2538-12.00X260
	1	2538-12.00X310
	1	2538-12.00X450
	1	2538-14.00X260
	1	2538-16.00X260
	1	2538-16.00X450
	1	2538-18.00X260
	1	2538-18.00X450
	1	2538-20.00X260
	1	2538-20.00X450
	1	2538-22.00X260
	1	2538-22.00X450
	1	2538-24.00X260
	1	2538-24.00X450
	1	2538-25.00X260
	1	2538-25.00X450





SDS Plus

SDS Plus®
Suits all Rotary Hammers fitted with an SDS Plus® chuck



GROUP	SDSP
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
	50	**110**		**SDS PLUS**	**SDS PLUS**
4.00	50	110	1	**9.73**	2544-4.00X110
5.00	50	110	1	**8.07**	2544-5.00X110
5.50	50	110	1	**8.80**	2544-5.50X110
6.00	50	110	1	**8.43**	2544-6.00X110
6.50	50	110	1	**10.63**	2544-6.50X110
7.00	50	110	1	**10.63**	2544-7.00X110
8.00	50	110	1	**9.53**	2544-8.00X110
10.00	50	110	1	**11.00**	2544-10.00X110
	100	**160**		**SDS PLUS**	**SDS PLUS**
5.00	100	160	1	**9.77**	2544-5.00X160
5.50	100	160	1	**10.13**	2544-5.50X160
6.00	100	160	1	**8.43**	2544-6.00X160
6.50	100	160	1	**11.37**	2544-6.50X160
7.00	100	160	1	**11.37**	2544-7.00X160
8.00	100	160	1	**9.90**	2544-8.00X160
10.00	100	160	1	**11.37**	2544-10.00X160
12.00	100	160	1	**16.13**	2544-12.00X160
13.00	100	160	1	**19.80**	2544-13.00X160
15.00	100	160	1	**26.40**	2544-15.00X160
16.00	100	160	1	**27.87**	2544-16.00X160
	150	**210**		**SDS PLUS**	**SDS PLUS**
5.00	150	210	1	**14.87**	2544-5.00X210
5.50	150	210	1	**14.87**	2544-5.50X210
6.00	150	210	1	**13.57**	2544-6.00X210
6.50	150	210	1	**16.13**	2544-6.50X210
8.00	150	210	1	**13.20**	2544-8.00X210
10.00	150	210	1	**15.03**	2544-10.00X210
11.00	150	210	1	**17.23**	2544-11.00X210
12.00	150	210	1	**17.23**	2544-12.00X210
16.00	150	210	1	**34.83**	2544-16.00X210
18.00	150	210	1	**51.33**	2544-18.00X210
20.00	150	210	1	**62.33**	2544-20.00X210
	200	**260**		**SDS PLUS**	**SDS PLUS**
8.00	200	260	1	**17.60**	2544-8.00X260
10.00	200	260	1	**17.97**	2544-10.00X260
12.00	200	260	1	**21.27**	2544-12.00X260
13.00	200	260	1	**29.33**	2544-13.00X260
14.00	200	260	1	**29.33**	2544-14.00X260
15.00	200	260	1	**34.47**	2544-15.00X260
22.00	200	260	1	**80.67**	2544-22.00X260
24.00	200	260	1	**91.67**	2544-24.00X260
25.00	200	260	1	**100.83**	2544-25.00X260



GROUP	SDSP
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**

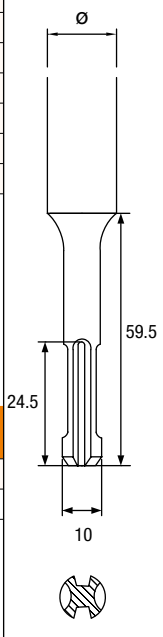
DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
	400	**450**		**SDS PLUS**	**SDS PLUS**
6.50	400	450	1	**35.20**	2544-6.50X450
8.00	400	450	1	**35.20**	2544-8.00X450
10.00	400	450	1	**33.73**	2544-10.00X450
12.00	400	450	1	**46.20**	2544-12.00X450
14.00	400	450	1	**46.93**	2544-14.00X450
16.00	400	450	1	**60.50**	2544-16.00X450
18.00	400	450	1	**75.17**	2544-18.00X450
20.00	400	450	1	**86.17**	2544-20.00X450
22.00	400	450	1	**102.67**	2544-22.00X450
24.00	400	450	1	**113.67**	2544-24.00X450
25.00	400	450	1	**113.67**	2544-25.00X450
26.00	400	450	1	**113.67**	2544-26.00X450
	550	**600**		**SDS PLUS**	**SDS PLUS**
8.00	550	600	1	**54.27**	2544-8.00X600
10.00	550	600	1	**66.00**	2544-10.00X600
12.00	550	600	1	**66.00**	2544-12.00X600
14.00	550	600	1	**70.40**	2544-14.00X600
16.00	550	600	1	**74.80**	2544-16.00X600
18.00	550	600	1	**100.25**	2544-18.00X600
20.00	550	600	1	**123.87**	2544-20.00X600
22.00	550	600	1	**137.39**	2544-22.00X600
25.00	550	600	1	**143.74**	2544-25.00X600
	950	**1000**		**SDS PLUS**	**SDS PLUS**
10.00	950	1000	1	**134.93**	2544-10.00X1000
12.00	950	1000	1	**143.73**	2544-12.00X1000
14.00	950	1000	1	**159.87**	2544-14.00X1000
16.00	950	1000	1	**176.00**	2544-16.00X1000
18.00	950	1000	1	**212.67**	2544-18.00X1000
20.00	950	1000	1	**220.00**	2544-20.00X1000
22.00	950	1000	1	**234.67**	2544-22.00X1000
26.00	950	1000	1	**281.60**	2544-25.00X1000



SET TYPE	$ SET	PART NUMBER
SDS PLUS - 5 PIECES	**52.54**	2544-S1
5.0, 5.5, 6.5, 8.0, 10.0MM X 160MM		



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SDS Plus

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GROUP	SDSP
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS PLUS
PACKAGING	**HANG TAB**



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SDS PLUS	**1,520.40**	2544-D2

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER
	3	2544-4.00X110
	3	2544-5.00X110
	3	2544-5.50X110
	3	2544-6.00X110
	3	2544-6.50X110
	3	2544-8.00X110
	3	2544-10.00X110
	3	2544-5.00X160
	3	2544-5.50X160
	3	2544-6.00X160
	3	2544-6.50X160
	3	2544-8.00X160
	3	2544-10.00X160
	3	2544-12.00X160
	3	2544-16.00X160
	2	2544-5.00X210
	2	2544-5.50X210
	2	2544-6.00X210
	2	2544-6.50X210
	2	2544-8.00X210
	2	2544-10.00X210
	2	2544-12.00X210
	2	2544-16.00X210
	2	2544-18.00X210
	2	2544-20.00X210
	2	2544-10.00X260
	2	2544-12.00X260
	2	2544-14.00X260
	2	2544-22.00X260
	2	2544-25.00X260



GROUP	SMXD	SMXD
SURFACE FINISH	SHOT PEENED	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	SOLID MULTI-FACET CARBIDE – **3 CUTTER**	SOLID MULTI-FACET CARBIDE – **5 CUTTER**
SHANK TYPE	SDS MAX	SDS MAX
PACKAGING	**HANG TAB**	**HANG TAB**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
	165	**305**		**DELTAGON 3 CUTTER**	**DELTAGON 3 CUTTER**	**DELTAGON 5 CUTTER**	**DELTAGON 5 CUTTER**
10.00	165	305	1	**136.33**	2549-10.00X305	**–**	–
12.00	165	305	1	**138.92**	2549-12.00X305	**–**	–
14.00	165	305	1	**151.78**	2549-14.00X305	**–**	–
15.00	165	305	1	**154.36**	2549-15.00X305	**–**	–
16.00	165	305	1	**156.94**	2549-16.00X305	**–**	–
	200	**340**		**DELTAGON 3 CUTTER**	**DELTAGON 3 CUTTER**	**DELTAGON 5 CUTTER**	**DELTAGON 5 CUTTER**
18.00	200	340	1	**190.38**	2549-18.00X340	**–**	–
18.00	200	340	1	**–**	–	**214.38**	2549-18.00X340-5
20.00	200	340	1	**216.10**	2549-20.00X340	**–**	–
20.00	200	340	1	**–**	–	**226.30**	2549-20.00X340-5
22.00	200	340	1	**252.12**	2549-22.00X340	**–**	–
	260	**380**		**DELTAGON 3 CUTTER**	**DELTAGON 3 CUTTER**	**DELTAGON 5 CUTTER**	**DELTAGON 5 CUTTER**
24.00	260	380	1	**–**	–	**283.15**	2549-24.00X380
25.00	260	380	1	**–**	–	**308.72**	2549-25.00X380
	400	**520**		**DELTAGON SDS-MAX**	**DELTAGON 3 CUTTER**	**DELTAGON 5 CUTTER**	**DELTAGON 5 CUTTER**
24.00	400	520	1	**–**	–	**334.64**	2549-24.00X520
25.00	400	520	1	**–**	–	**380.75**	2549-25.00X520
26.00	400	520	1	**–**	–	**386.12**	2549-26.00X520
	400	**540**		**DELTAGON 3 CUTTER**	**DELTAGON 3 CUTTER**	**DELTAGON 5 CUTTER**	**DELTAGON 5 CUTTER**
10.00	400	540	1	**223.81**	2549-10.00X540	**–**	–
12.00	400	540	1	**226.39**	2549-12.00X540	**–**	–
14.00	400	540	1	**231.54**	2549-14.00X540	**–**	–
16.00	400	540	1	**236.67**	2549-16.00X540	**–**	–
18.00	400	540	1	**241.83**	2549-18.00X540	**–**	–
20.00	400	540	1	**257.26**	2549-20.00X540	**–**	–
22.00	400	540	1	**319.01**	2549-22.00X540	**–**	–



SDS Max®
Suits all Rotary Hammers fitted with an SDS Max® chuck



ASYMMETRICAL SOLID CARBIDE 5 CUTTER HEAD

Standard Deltagon bits feature a solid triple flute carbide head. Some sizes are also available with an asymmetrical solid 5 cutter carbide head for improved cutting efficiency, reduced vibration and superior performance in mesh and bar.

SDS MAX 5 cutter configuration ultra performance bits are ideal for use in drilling pre-cast concrete.





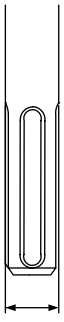
SDS Max

SDS Max®
Suits all Rotary Hammers fitted with an SDS Max® chuck



GROUP	SMAX
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS MAX
PACKAGING	**HANG TAB**

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
	250	**370**		**SDS MAX**	**SDS MAX**
12.00	250	370	1	**97.49**	2547-12.00X370
14.00	250	370	1	**103.68**	2547-14.00X370
16.00	250	370	1	**109.64**	2547-16.00X370
18.00	250	370	1	**126.47**	2547-18.00X370
	230	**370**		**SDS MAX**	**SDS MAX**
20.00	230	370	1	**138.61**	2547-20.00X370
22.00	230	370	1	**156.00**	2547-22.00X370
25.00	230	370	1	**171.43**	2547-25.00X370
28.00	230	370	1	**188.61**	2547-28.00X370
30.00	230	370	1	**217.37**	2547-30.00X370
32.00	230	370	1	**239.57**	2547-32.00X370
35.00	230	370	1	**263.70**	2547-35.00X370
38.00	230	370	1	**316.46**	2547-38.00X370
40.00	230	370	1	**368.30**	2547-40.00X370
	450	**570**		**SDS MAX**	**SDS MAX**
12.00	450	570	1	**120.28**	2547-12.00X570
14.00	450	570	1	**128.78**	2547-14.00X570
16.00	450	570	1	**121.83**	2547-16.00X570
18.00	450	570	1	**134.20**	2547-18.00X570
	200	**260**		**SDS MAX**	**SDS MAX**
20.00	430	570	1	**142.78**	2547-20.00X570
22.00	430	570	1	**171.60**	2547-22.00X570
25.00	430	570	1	**221.70**	2547-25.00X570
28.00	430	570	1	**238.15**	2547-28.00X570
30.00	430	570	1	**248.38**	2547-30.00X570
32.00	430	570	1	**282.57**	2547-32.00X570
35.00	430	570	1	**337.77**	2547-35.00X570
38.00	430	570	1	**398.96**	2547-38.00X570
40.00	430	570	1	**485.74**	2547-40.00X570
	800	**920**		**SDS MAX**	**SDS MAX**
12.00	800	920	1	**183.78**	2547-12.00X920
14.00	800	920	1	**194.79**	2547-14.00X920
16.00	800	920	1	**205.42**	2547-16.00X920
18.00	800	920	1	**227.80**	2547-18.00X920
	780	**920**		**SDS MAX**	**SDS MAX**
20.00	780	920	1	**239.19**	2547-20.00X920
22.00	780	920	1	**289.00**	2547-22.00X920
25.00	780	920	1	**325.67**	2547-25.00X920
28.00	780	920	1	**392.29**	2547-28.00X920
30.00	780	920	1	**450.98**	2547-30.00X920
32.00	780	920	1	**466.06**	2547-32.00X920
35.00	780	920	1	**627.40**	2547-35.00X920
38.00	780	920	1	**712.93**	2547-38.00X920
40.00	780	920	1	**819.50**	2547-40.00X920
	1180	**1320**		**SDS MAX**	**SDS MAX**
20.00	1180	1320	1	**372.59**	2547-20.00X1320
25.00	1180	1320	1	**534.18**	2547-25.00X1320
32.00	1180	1320	1	**873.73**	2547-32.00X1320







GROUP	SMAX
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS MAX
PACKAGING	**HANG TAB**



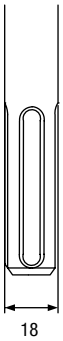
SDS Max®
Suits all Rotary Hammers fitted with an SDS Max® chuck



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
MASONRY - SDS MAX	**4,070.25**	2547-D1

MERCHANDISER CONTENTS	QTY EACH	PART NUMBER
	1	2547-12.00X370
	1	2547-14.00X370
	1	2547-16.00X370
	1	2547-18.00X370
	1	2547-20.00X370
	1	2547-22.00X370
	1	2547-25.00X370
	1	2547-28.00X370
	1	2547-30.00X370
	1	2547-32.00X370
	1	2547-12.00X570
	1	2547-16.00X570
	1	2547-20.00X570
	1	2547-22.00X570
	1	2547-25.00X570
	1	2547-28.00X570
	1	2547-32.00X570
	1	2547-35.00X570
	1	2547-38.00X570
	1	2547-40.00X570







SDS Chisels and Core Bits

The Bordo range of SDS Plus and SDS Max Chisels and SDS Multi-fit Core Bits.

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GROUP	SDPC	SMCH
SURFACE FINISH	SHEET PEENED	SHEET PEENED
MATERIAL	CHROME, NICKEL, MOLY STEEL ALLOY	CHROME, NICKEL, MOLY STEEL ALLOY
SHANK TYPE	**SDS PLUS**	**SDS MAX**
PACKAGING	**HANG TAB**	**HANG TAB**

SDS Plus®
Suits all Rotary Hammers fitted with an SDS Plus® chuck



WIDTH MM	POINT TYPE	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
–	POINT	250	1	**32.89**	2546-PX250	**–**	–
–	POINT	280	1	**–**	–	**37.34**	2548-PX280
–	POINT	400	1	**–**	–	**50.06**	2548-PX400
–	POINT	600	1	**–**	–	**69.14**	2548-PX600
20	FLAT	250	1	**47.19**	2546-F20X250	**–**	–
25	FLAT	280	1	**–**	–	**49.35**	2548-F25X280
25	FLAT	400	1	**–**	–	**52.07**	2548-F25X400
25	FLAT	600	1	**–**	–	**72.64**	2548-F25X600
40	FLAT	250	1	**52.00**	2546-F40X250	**–**	–
50	FLAT	400	1	**–**	–	**83.78**	2548-F50X400
50	FLAT	600	1	**–**	–	**104.54**	2548-F50X600
20	HOLLOW	250	1	**64.99**	2546-H20X250	**–**	–

SDS Max®
Suits all Rotary Hammers fitted with an SDS Max® chuck





GROUP	–

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SDS PLUS & SDS MAX CHISELS	**516.86**	2546-D1

MERCHANDISER CONTENTS	QTY EACH	SDS PLUS PART NUMBER	QTY EACH	SDS MAX PART NUMBER
	1	2546-PX250	1	2548-PX280
	2	2546-F20X250	1	2548-PX400
	1	2546-F40X250	1	2548-F25X280
	1	2546-H20X250	1	2548-F25X400
			1	2548-F50X400





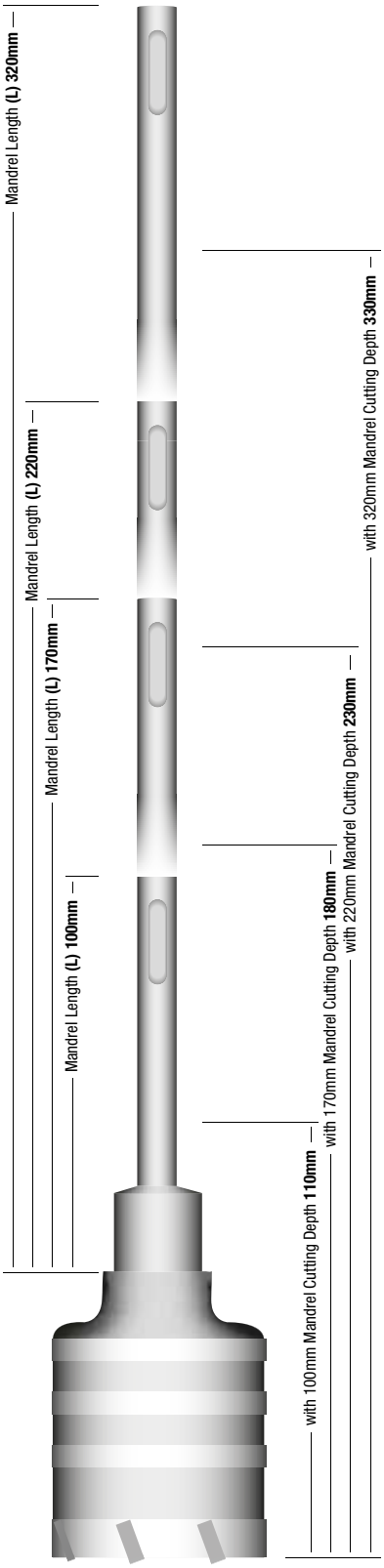
GROUP	CORE
SURFACE FINISH	SHOT PEENED
MATERIAL	CHROME, NICKEL, MOLYBDENUM STEEL ALLOY
POINT TYPE	VACUUM BRAZED CARBIDE
SHANK TYPE	SDS MULTI-FIT
PACKAGING	**HANG PACK**

DIA MM	THREAD MM X MM	TEETH NUMBER	PACK QTY	$ EACH	PART NUMBER
30.00	16.0 X 2.0	5	1	**132.00**	7082-30
35.00	16.0 X 2.0	5	1	**142.19**	7082-35
40.00	16.0 X 2.0	6	1	**166.11**	7082-40
45.00	16.0 X 2.0	6	1	**179.50**	7082-45
50.00	16.0 X 2.0	7	1	**196.38**	7082-50
60.00	16.0 X 2.0	8	1	**230.21**	7082-60
66.00	16.0 X 2.0	8	1	**243.78**	7082-66
68.00	16.0 X 2.0	8	1	**257.34**	7082-68
70.00	16.0 X 2.0	8	1	**264.10**	7082-70
80.00	16.0 X 2.0	9	1	**297.95**	7082-80
85.00	16.0 X 2.0	9	1	**311.50**	7082-85
90.00	16.0 X 2.0	10	1	**325.04**	7082-90
105.00	16.0 X 2.0	11	1	**375.76**	7082-105
125.00	16.0 X 2.0	12	1	**460.49**	7082-125



LENGTH MM	CUT DEPTH MM	PACK QTY	$ EACH	PART NUMBER
100	110	1	**99.14**	7082-4446
170	180	1	**134.86**	7082-6186
220	240	1	**155.00**	7082-7617
320	330	1	**189.83**	7082-6150

ACCESSORIES	$ EACH	PART NUMBER
CORE BIT PILOT BIT	**21.14**	7082-6299





SDS Multi-fit
Suits all Rotary Hammers fitted with an SDS Plus® or Ramset R3® chuck



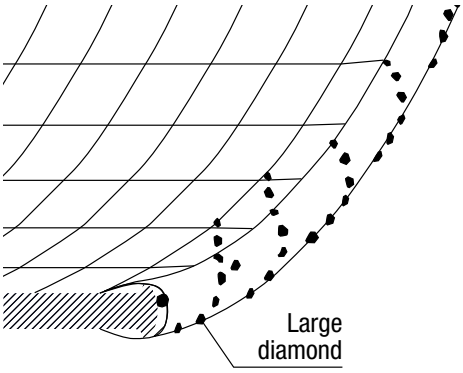
FOR USE IN ROTARY HAMMERS WITH SDS CHUCK
RECOMMENDED 800W MIN.



SDS Plus

GROUP	HYPD
CORE BIT TYPE	DRY DIAMOND
CUTTING MATERIAL	LARGE PARTICLE DIAMOND
SURFACE FINISH	PERIPHERAL THREAD
SHANK TYPE	POLY-CLIC
PACKAGING	**HANG SELL**

DIA MM	CUT DEPTH MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
25.00	130	160	1	**321.12**	7105-25
29.00	130	160	1	**321.12**	7105-29
32.00	130	160	1	**321.12**	7105-32
35.00	130	160	1	**321.12**	7105-35
38.00	130	160	1	**321.12**	7105-38
45.00	130	160	1	**321.12**	7105-45
50.00	130	160	1	**326.53**	7105-50
55.00	130	160	1	**326.53**	7105-55
60.00	130	160	1	**340.01**	7105-60
65.00	130	160	1	**348.12**	7105-65
70.00	130	160	1	**385.89**	7105-70
75.00	130	160	1	**404.78**	7105-75
80.00	130	160	1	**423.66**	7105-80
85.00	130	160	1	**442.55**	7105-85
90.00	130	160	1	**480.33**	7105-90
95.00	130	160	1	**499.22**	7105-95
100.00	130	160	1	**537.00**	7105-100
105.00	130	160	1	**566.70**	7105-105
110.00	130	160	1	**574.78**	7105-110
115.00	130	160	1	**607.17**	7105-115
120.00	130	160	1	**639.57**	7105-120
125.00	130	160	1	**704.31**	7105-125
130.00	130	160	1	**769.08**	7105-130
140.00	130	160	1	**806.85**	7105-140
150.00	130	160	1	**874.31**	7105-150
155.00	130	160	1	**901.31**	7105-155
160.00	130	160	1	**901.31**	7105-160
165.00	130	160	1	**1,014.66**	7105-165
170.00	130	160	1	**1,014.66**	7105-170
200.00	130	160	1	**1,454.50**	7105-200
210.00	130	160	1	**1,700.07**	7105-210
220.00	130	160	1	**1,789.12**	7105-220
250.00	130	160	1	**2,563.59**	7105-250
260.00	130	160	1	**2,833.44**	7105-260
300.00	130	160	1	**3,508.07**	7105-300
310.00	130	160	1	**3,777.92**	7105-310





Cuts through block, mortar and various types of pipes thanks to the unique large particle diamond configuration on the cutting surfaces in conjunction with the external peripheral thread.

Ideal for use in: block, mortar, brick, roof tiles, ALC (Autoclaved Light-weight Concrete block), AAC (Autoclaved Aerated Concrete) such as Hebel®, siding boards (ceramic or metal), FRP (Fibre Reinforced Plastic) pipe, PVC pipe, FRPM (Fibre Reinforced Plastic Mortar) pipe, and spiral duct pipe.

By using a centre pin you can drill insulated walls, hard ceramic siding board, and even composite wall!

Characteristics
The embedded diamonds make it easy to cut holes in block, mortar, and brick, which are traditionally difficult materials for a rotation only carbide blade. The unique diamond layout reduces jamming.

Poly-clic Shanks:
"S" shank with 10mm for 22-45mm diameter Hyperdia cutters.
"L" shank with 13mm for 50-310mm diameter Hyperdia cutters.

Use Centre Pin with:
- Mortar, block & tile
- Extruded cement panel, brick, ceramic siding, FRP
- Hard ceramic siding board
- Insulated walls

Use Centre Drill with:
- Extruded cement panel, brick, ceramic siding, FRP
- Metal siding board
- ALC
- PVC & FRPM pipe

HEBEL® is a registered trademark of the Xella® group

Poly-clic shanks, centre pins and carbide centre drills

to suit Hyperdia diamond core bits

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GROUP	DRMD
CORE BIT TYPE	DRY DIAMOND
CUTTING MATERIAL	DIAMOND
SURFACE FINISH	PERIPHERAL THREAD
SHANK TYPE	POLY-CLIC
PACKAGING	**HANG SELL**

DIA MM	CUT DEPTH MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
25.00	150	180	1	**586.94**	7106-25
29.00	150	180	1	**586.94**	7106-29
32.00	150	180	1	**586.94**	7106-32
35.00	150	180	1	**586.94**	7106-35
38.00	150	180	1	**586.94**	7106-38
45.00	150	180	1	**586.94**	7106-45
50.00	150	180	1	**613.91**	7106-50
55.00	150	180	1	**613.91**	7106-55
60.00	150	180	1	**640.91**	7106-60
65.00	150	180	1	**674.64**	7106-65
70.00	150	180	1	**715.10**	7106-70
75.00	150	180	1	**789.32**	7106-75
80.00	150	180	1	**863.52**	7106-80
85.00	150	180	1	**930.99**	7106-85
90.00	150	180	1	**978.20**	7106-90
95.00	150	180	1	**1,079.41**	7106-95
100.00	150	180	1	**1,146.86**	7106-100
105.00	150	180	1	**1,214.33**	7106-105
110.00	150	180	1	**1,281.79**	7106-110
115.00	150	180	1	**1,349.26**	7106-115
120.00	150	180	1	**1,416.72**	7106-120
125.00*	150	180	1	**1,450.45**	7106-125
130.00	150	180	1	**1,450.45**	7106-130
150.00	150	180	1	**1,619.11**	7106-150
155.00	150	180	1	**1,787.77**	7106-155
160.00	150	180	1	**1,787.77**	7106-160
165.00	150	180	1	**1,855.23**	7106-165
170.00	150	180	1	**1,855.23**	7106-170
180.00	150	180	1	**1,994.19**	7106-180
200.00	150	180	1	**2,260.02**	7106-200
210.00	150	180	1	**2,394.92**	7106-210
220.00	150	180	1	**2,529.85**	7106-220



Drimond core bits are optimally designed for dry cut drilling in reinforced concrete with re-bar below 13mm diameter.

Ideal for use in:
- pre-cast and reinforced concrete containing re-bar smaller than 13mm diameter.
- All kinds of masonry pipes.

Carbide tipped centre pin ensures accurate starting.

Peripheral threading for efficient dust removal.

Poly-clic Shanks:
"S" shank with 10mm for 22-45mm diameter Drimond cutters.
"L" shank with 13mm for 50-310mm diameter Drimond cutters.

Poly-clic shanks and centre pins

to suit Drimond diamond core bits

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SDS Plus

GROUP	WTMD
CORE BIT TYPE	WET DIAMOND
CUTTING MATERIAL	DIAMOND
SURFACE FINISH	SMOOTH
SHANK TYPE	POLY-CLIC - WETMOND
PACKAGING	**HANG SELL**

DIA MM	CUT DEPTH MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
25.00	150	180	1	**620.67**	7107-25
29.00	150	180	1	**620.67**	7107-29
32.00	150	180	1	**620.67**	7107-32
35.00	150	180	1	**620.67**	7107-35
38.00	150	180	1	**620.67**	7107-38
45.00	150	180	1	**620.67**	7107-45
50.00	150	180	1	**688.13**	7107-50
55.00	150	180	1	**715.10**	7107-55
60.00	150	180	1	**742.11**	7107-60
65.00	150	180	1	**775.83**	7107-65
70.00	150	180	1	**843.29**	7107-70
75.00	150	180	1	**910.75**	7107-75
80.00	150	180	1	**978.20**	7107-80
90.00	150	180	1	**1,126.62**	7107-90
100.00	150	180	1	**1,281.79**	7107-100
110.00	150	180	1	**1,382.99**	7107-110
120.00	150	180	1	**1,484.18**	7107-120
150.00	150	180	1	**1,754.05**	7107-150
170.00	150	180	1	**2,057.62**	7107-170
220.00	150	180	1	**2,752.49**	7107-220

Wetmond diamond core bits feature an internal water injection system to ensure optimal cooling of the cutting surface.

Ideal for use in: concrete, reinforced concrete, brick, mortar, stone, ceramic tile, marble, granite, hume and clay pipes, etc.

By using a centre pin you can drill insulated walls, hard ceramic siding board, and even composite wall.

Poly-clic WET Shanks:
"S" shank for 25-45mm diameter Wetmond cutters.
"L" shank for 50-220mm diameter Wetmond cutters.

IMPORTANT
Poly-clic wet shanks are only suitable for use with Wetmond diamond core bits. A consistent supply of water is required when using Wetmond core bits.

SAFETY WARNING
The presence of water greatly increases the risk of electric shock to the operator - ensure adequate safety precautions are being implemented.



Poly-clic shanks & centre pins

to suit Wetmond diamond core bits

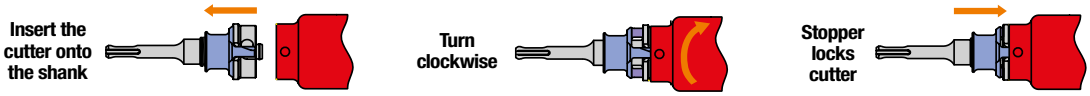
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SDS Plus

GROUP	POLY
CORE BIT TYPE	DIAMOND
PACKAGING	**HANG SELL**



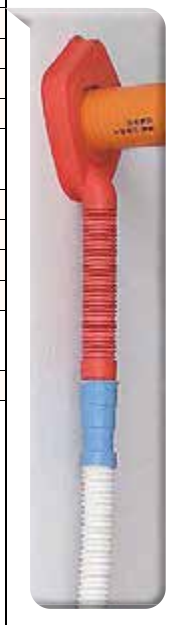
SUITS CORE BIT TYPE	CORE BIT SIZE MM	SHANK LENGTH MM	SHANK TYPE	PACK QTY	$ EACH	PART NUMBER
DRY CUTTING DIAMOND POLY-CLIC SHANK						
HYPERDIA AND DRIMOND	25 – 45	80	STRAIGHT	1	**98.24**	7100-S
HYPERDIA AND DRIMOND	25 – 45	178	STRAIGHT	1	**118.72**	7100-S200
HYPERDIA AND DRIMOND	25 – 45	80	SDS PLUS	1	**98.24**	7100-SSDS
HYPERDIA AND DRIMOND	25 – 45	178	SDS PLUS	1	**118.72**	7100-S200SDS
HYPERDIA AND DRIMOND	50 – 220	100	STRAIGHT	1	**176.60**	7100-L
HYPERDIA AND DRIMOND	50 – 220	178	STRAIGHT	1	**211.55**	7100-L200
HYPERDIA AND DRIMOND	50 – 220	100	SDS PLUS	1	**176.60**	7100-LSDS
HYPERDIA AND DRIMOND	50 – 220	178	SDS PLUS	1	**211.55**	7100-L200SDS
WET CUTTING DIAMOND POLY-CLIC SHANK						
WETMOND	25 – 45	80	STRAIGHT	1	**539.70**	7101-S
WETMOND	25 – 45	276	STRAIGHT	1	**566.70**	7101-S300
WETMOND	25 – 45	80	SDS PLUS	1	**539.70**	7101-SSDS
WETMOND	25 – 45	276	SDS PLUS	1	**566.70**	7101-S300SDS
WETMOND	50 – 220	100	STRAIGHT	1	**620.67**	7101-L
WETMOND	50 – 220	276	STRAIGHT	1	**674.64**	7101-L300
WETMOND	50 – 220	100	SDS PLUS	1	**620.67**	7101-LSDS
WETMOND	50 – 220	276	SDS PLUS	1	**674.64**	7101-L300SDS
CENTRE PINS						
HYPERDIA	ALL	–	–	1	**118.72**	7100-CP3
DRIMOND	ALL	–	–	1	**148.42**	7100-DCP3
WETMOND	ALL	–	–	1	**75.57**	7101-CP
CENTRE DRILLS						
HYPERDIA	ALL	–	–	1	**56.13**	7100-CD225
DUST COLLECTION PAD & PLATE – WET OR DRY USE						
HYPERDIA, DRIMOND, WETMOND	≤ 38	–	–	1	**91.15**	7102-38
HYPERDIA, DRIMOND, WETMOND	≤ 80	–	–	1	**115.13**	7102-80
HYPERDIA, DRIMOND, WETMOND	≤ 165	–	–	1	**383.79**	7102-V
HYPERDIA, DRIMOND, WETMOND	≤ 220	–	–	1	**491.74**	7102-L
DUST COLLECTION REPLACEMENT PLATES						
HYPERDIA, DRIMOND, WETMOND	≤ 38	–	–	1	**20.06**	7102-38P
HYPERDIA, DRIMOND, WETMOND	≤ 80	–	–	1	**24.68**	7102-80P
HYPERDIA, DRIMOND, WETMOND	≤ 165	–	–	1	**53.98**	7102-VP
HYPERDIA, DRIMOND, WETMOND	≤ 220	–	–	1	**53.98**	7102-LP
HOSE ADAPTOR						
HYPERDIA, DRIMOND, WETMOND	–	–	–	1	**21.59**	7102-ADP

Poly-clic Shanks for Dry Diamond Cutters
Two quick change shanks fit the entire range of Hyperdia and Drimond core cutters.

Poly-clic Shanks for Wet Diamond Cutters
An internal water injection system allows effective cooling of the cutting edge and smooth discharge of dust.

POLY-CLIC BENEFITS:

- Cost per hole is reduced by use of interchangeable core cutters.
- Automatic lock and manual release.
- Quick-change system allows easy slug removal.
- Shank is equipped with a semi-auto lock mechanism to prevent loosening of cutter in reverse mode.
- Shank has a quick-change center drill/center pin.






GROUP	CSNK	CSNK
SURFACE FINISH	BRIGHT	GOLD COLOURED
MATERIAL	HSS-Co5	HSS-Co5 – TiN COATED
FLUTE TYPE	CROSS HOLE	CROSS HOLE
ANGLE	**90°**	**90°**
PACKAGING	**TELEPACK**	**TELEPACK**




DIAMETER MM	DIAMETER INCH	CAPACITY MIN-MAX	SHANK TYPE MM	SHANK TYPE INCH	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
6.35*	1/4	2 - 5	6.35	1/4	45	1	**34.76**	3840-6.35	**44.63**	3850-6.35
10.0	–	4 - 9	6	–	45	1	**36.10**	3840-10	**69.32**	3850-10
15.0	–	6 - 14	8	–	55	1	**45.38**	3840-15	**64.06**	3850-15
20.0	–	8 - 18	10	–	65	1	**67.40**	3840-20	**87.61**	3850-20
25.0	–	10 - 23	12	–	78	1	**106.48**	3840-25	**131.86**	3850-25
30.0	–	12 - 28	12	–	88	1	**128.32**	3840-30	**157.31**	3850-30
40.0	–	16 - 38	16	–	132	1	**411.06**	3840-40	**471.96**	3850-40

* DOUBLE ENDED

COUNTERSINKS

All Bordo Countersinks are made from 100% M35 cobalt high speed steel. Cobalt offers increased wear and heat resistance in alloy steels, stainless steels and other abrasive or difficult materials. This increases tool life in all production applications.

Titanium Nitride (TiN) Coated Countersinks have a very hard gold coloured surface finish. This coating is only a few microns thick and is achieved by Physical Vapour Deposition (PVD). This treatment results in reduced friction, greater heat dissipation and reduced cold welding - which means higher speed and feed rates with greatly increased tool life. As with all surface coated tools, performance will deteriorate after resharpening.

CROSS HOLE COUNTERSINKS

For countersinking and deburring in a wide range of materials including ferrous and non-ferrous metals.

These tools are best used as deburring tools, where a burr, or sharp edge, from a previous machining operation needs to be removed for cosmetic and safety reasons. However they may be used in softer materials (such as wood or plastic) to create a countersunk hole for a screw.

The intersection of the hole and cone form the cutting edge on the tool. The cone is not truly symmetrical as it is essential that the cone retreats away from the cutting edge as the tool rotates. If this does not occur the cutting edge will lack clearance and rub rather than bite into the material. This clearance is referred to as cutting relief. The radially relieved single cutting edge provides fast stock removal with low vibration for chatter-free operation ensuring the smoothest finish.




SET	$ SET	PART NUMBER	$ SET	PART NUMBER
CROSS HOLE 90°	**383.68**	3840-S	**476.94**	3850-S

SET CONTENTS	SIZE MM	PART NUMBER	SIZE MM	PART NUMBER
	10.0	3840-10	10.0	3850-10
	15.0	3840-15	15.0	3850-15
	20.0	3840-20	20.0	3850-20
	25.0	3840-25	25.0	3850-25
	30.0	3840-30	30.0	3850-30



GROUP	CSNK
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co5
FLUTE TYPE	CROSS HOLE
ANGLE	**60°**
PACKAGING	**TELEPACK**



DIAMETER MM	DIAMETER INCH	CAPACITY MIN-MAX	SHANK TYPE MM	SHANK TYPE INCH	OAL MM	PACK QTY	$ EACH	PART NUMBER
10.0	–	5 - 9	6	–	49	1	**50.66**	3841-10
15.0	–	8 - 14	8	–	60	1	**67.68**	3841-15
20.0	–	10 - 18	10	–	72	1	**104.66**	3841-20
25.0	–	12 - 23	12	–	87	1	**158.84**	3841-25
30.0	–	15 - 28	12	–	93	1	**195.63**	3841-30



SET	$ SET	PART NUMBER
CROSS HOLE 60°	**577.47**	3841-S

SET CONTENTS	SIZE MM	PART NUMBER
	10.0	3841-10
	15.0	3841-15
	20.0	3841-20
	25.0	3841-25
	30.0	3841-30

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SINGLE FLUTE COUNTERSINKS

For countersinking and deburring in a wide range of materials including ferrous and non-ferrous metals. The fluted countersink cutter is used to provide a heavy chamfer in the entrance to a drilled hole. This may be required to allow the correct seating for a countersunk head screw or to provide the lead in for a second machining operation such as tapping. Use on light to medium materials. Resharpenable.

TRIPLE FLUTE COUNTERSINKS

For countersinking and deburring in a wide range of materials including ferrous and non-ferrous metals. The three fluted countersink is self centering with wide flutes and is used to provide a heavy chamfer in the entrance to a drilled hole. This may be required to allow the correct seating for a countersunk head screw or to provide the lead in for a second machining operation such as tapping. Use on medium to hard materials. Resharpenable.

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GROUP	CSNK	CSNK
SURFACE FINISH	BRIGHT	GOLD COLOURED
MATERIAL	HSS-Co5	HSS-Co5 – TiN COATED
FLUTE TYPE	SINGLE FLUTE	SINGLE FLUTE
ANGLE	**90°**	**90°**
PACKAGING	**TELEPACK**	**TELEPACK**





DIAMETER MM	DIAMETER INCH	CAPACITY MIN-MAX	SHANK TYPE MM	SHANK TYPE INCH	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
10.0	–	1 - 10	6	–	45	1	**42.34**	3842-10	**44.42**	3852-10
15.0	–	2 - 15	8	–	55	1	**46.62**	3842-15	**57.35**	3852-15
20.0	–	2 - 20	10	–	65	1	**63.78**	3842-20	**83.99**	3852-20
25.0	–	3 - 25	12	–	78	1	**106.48**	3842-25	**131.86**	3852-25
30.0	–	3 - 30	12	–	88	1	**141.72**	3842-30	**170.25**	3852-30





SET	$ SET	PART NUMBER	$ SET	PART NUMBER
SINGLE FLUTE	**400.94**	3842-S	**487.87**	3852-S

SET CONTENTS	SIZE MM	PART NUMBER	SIZE MM	PART NUMBER
	10.0	3842-10	10.0	3852-10
	15.0	3842-15	15.0	3852-15
	20.0	3842-20	20.0	3852-20
	25.0	3842-25	25.0	3852-25
	30.0	3842-30	30.0	3852-30




GROUP	CSNK	CSNK
SURFACE FINISH	BRIGHT	GOLD COLOURED
MATERIAL	HSS-Co5	HSS-Co5 – TiN COATED
FLUTE TYPE	TRIPLE FLUTE	TRIPLE FLUTE
ANGLE	**90°**	**90°**
PACKAGING	**TELEPACK**	**TELEPACK**




DIAMETER MM	DIAMETER INCH	CAPACITY MM-MAX	SHANK TYPE MM	SHANK TYPE INCH	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
10.0	–	2.2 - 10.0	6	–	50	1	**34.56**	3843-10	**44.42**	3853-10
14.4	–	2.5 - 14.4	8	–	56	1	**40.22**	3843-14.4	**55.26**	3853-14.4
20.5	–	3.0 - 20.5	10	–	63	1	**62.72**	3843-20.5	**82.92**	3853-20.5
25.0	–	3.2 - 25.0	10	–	67	1	**98.25**	3843-25	**123.61**	3853-25
28.0	–	3.5 - 28.0	12	–	71	1	**112.50**	3843-28	**141.04**	3853-28
31.0	–	3.5 - 31.0	12	–	71	1	**154.83**	3843-31	**188.53**	3853-31
35.0*	–	4.5 - 35.0	16	–	98	1	**231.63**	3843-35	**265.24**	3853-35
40.0*	–	4.5 - 40.0	16	–	111	1	**304.41**	3843-40	**347.00**	3853-40

* shanks have 3 flats for more effective holding



SET	$ SET	PART NUMBER
TRIPLE FLUTE	**390.58**	3843-S

SET CONTENTS	SIZE MM	PART NUMBER
	10.0	3843-10
	14.4	3843-14.4
	20.5	3843-20.5
	25.0	3843-25
	31.0	3843-31

COUNTERSINKS

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GROUP	CSNK
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co5
COUNTERSINK TYPE	CROSS HOLE / SINGLE / TRIPLE
ANGLE	**90º**
PACKAGING	**MERCHANDISER**



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
COUNTERSINKS - PERSPEX BENCH	**3,803.74**	3840-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	PART NUMBER
COUNTERSINKS - CROSS HOLE	3	6.35	3840-6.35
	3	10.0	3840-10
	2	15.0	3840-15
	2	20.0	3840-20
	1	25.0	3840-25
	1	30.0	3840-30
COUNTERSINKS - SINGLE FLUTE	3	10.0	3842-10
	2	15.0	3842-15
	2	20.0	3842-20
	1	25.0	3842-25
	1	30.0	3842-30
COUNTERSINKS - THREE FLUTE	3	10.0	3843-10
	2	14.4	3843-14.4
	2	20.5	3843-20.5
	1	28.0	3843-28
	1	35.0	3843-35
COUNTERBORES	1	M3	3870-3.0
	1	M4	3870-4.0
	1	M5	3870-5.0
	1	M6	3870-6.0
	1	M8	3870-8.0
	1	M10	3870-10.0
	1	M12	3870-12.0
COUNTERBORE DRILLS	1	M3	3871-3.0
	1	M4	3871-4.0
	1	M5	3871-5.0
	1	M6	3871-6.0
	1	M8	3871-8.0
	1	M10	3871-10.0
	1	M12	3871-12.0





GROUP	–
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co5
COUNTERSINK TYPE	CROSS HOLE / SINGLE / TRIPLE
ANGLE	**90º**
PACKAGING	**MERCHANDISER**

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
COUNTERSINKS - PERSPEX BENCH	**2,778.08**	2600-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM/INCH	PART NUMBER
COUNTERSINKS - CROSS HOLE	3	6.35	3840-6.35
	3	10.0	3840-10
	2	15.0	3840-15
	2	20.0	3840-20
	1	25.0	3840-25
	1	30.0	3840-30
COUNTERSINKS - SINGLE FLUTE	3	10.0	3842-10
	2	15.0	3842-15
	2	20.0	3842-20
	1	25.0	3842-25
	1	30.0	3842-30
COUNTERSINKS - THREE FLUTE	3	10.0	3843-10
	2	14.4	3843-14.4
	2	20.5	3843-20.5
	1	28.0	3843-28
	1	35.0	3843-35
STEP DRILLS	2	4-12	2600-M1
	1	4-20	2600-M2
	1	6-30	2600-M3
	2	1/8-1/2	2600-1
	2	1/4-3/4	2600-2

CROSS HOLE COUNTERSINKS

For countersinking and deburring in a wide range of materials including ferrous and non-ferrous metals. The intersection of the hole and cone form the cutting edge on the tool. The cone is not truly symmetrical as it is essential that the cone retreats away from the cutting edge as the tool rotates. If this does not occur the cutting edge will lack clearance and rub rather than bite into the material. This clearance is referred to as cutting relief. The radially relieved single cutting edge provides fast stock removal with low vibration for chatter-free operation ensuring the smoothest finish. These tools are best used as deburring tools, where a burr, or sharp edge, from a previous machining operation needs to be removed for cosmetic and safety reasons, however they may be used in softer materials (such as wood or plastic) to create a countersunk hole for a screw.

HSS STEP DRILLS

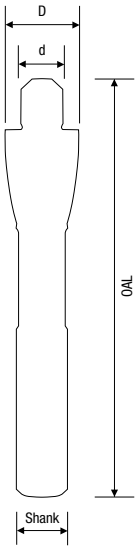
These step drills are ideal for electrical contractors, sheetmetal workers and auto mechanics. Step drills are designed for drilling repetitive holes in steel, stainless steel, copper, brass, aluminium, plastic, acrylic, laminates and many other thin materials.

Manufactured from premium quality high speed steel with a double fluted ground cutting edge for long service life.

STEP DRILL BENEFITS

- No pilot hole required.
- Easy to sharpen.
- Step depth of 5mm.
- Stepless drilling in the thinnest sheets.
- Burr-free drilling without sheet deformation.
- Automatic deburring.





COUNTERBORES

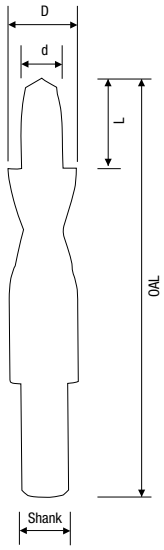
Use with Fillister cap screw and ejector caps in moulds.

GROUP	CSNK
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co5
COUNTERBORE ANGLE	180°
PACKAGING	**TELEPACK**

DIAMETER D	DIAMETER d	SHANK MM	OAL MM	SCREW MM	PACK QTY	$ EACH	PART NUMBER
6.0	3.2	6.0	71.0	M3.0	1	**69.23**	3870-3.0
6.5	3.7	6.5	71.0	M3.5	1	**69.23**	3870-3.5
8.0	4.3	8.0	71.0	M4.0	1	**69.98**	3870-4.0
10.0	5.3	10.0	80.0	M5.0	1	**79.88**	3870-5.0
11.0	6.4	10.0	80.0	M6.0	1	**90.14**	3870-6.0
15.0	8.4	12.5	100.0	M8.0	1	**123.62**	3870-8.0
18.0	10.5	12.5	100.0	M10.0	1	**161.64**	3870-10.0
20.0	13.0	12.5	100.0	M12.0	1	**220.22**	3870-12.0



SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
COUNTERBORE SET	6	**470.87**	3870-SET
6.0/3.2, 8.0/4.3, 10.0/5.3, 11.0/6.4, 15.0/8.4, 18.0/10.5MM			





GROUP	CSNK
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co5
COUNTERBORE ANGLE	180°
PACKAGING	**TELEPACK**

COUNTERBORE DRILLS

Use with standard cap screws.

DIAMETER D	DIAMETER d	SHANK MM	STEP (L) MM	OAL MM	SCREW MM	PACK QTY	$ EACH	PART NUMBER
6.0	3.4	6.0	9.00	45.0	M3.0	1	**86.54**	3871-3.0
8.0	4.5	8.0	11.0	50.0	M4.0	1	**87.48**	3871-4.0
10.0	5.5	10.0	13.0	55.0	M5.0	1	**99.85**	3871-5.0
11.0	6.6	10.0	15.0	63.0	M6.0	1	**112.68**	3871-6.0
15.0	9.0	12.5	19.0	100.0	M8.0	1	**155.17**	3871-8.0
18.0	11.0	12.5	23.0	110.0	M10.0	1	**227.25**	3871-10.0
20.0	14.0	12.5	28.0	110.0	M12.0	1	**297.42**	3871-12.0



SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
COUNTERBORE DRILL SET	6	**613.79**	3871-SET
6.0/3.4, 8.0/4.5, 10.0/5.5, 11.0/6.6, 15.0/9.0, 18.0/11.0MM			



MC
MF

GROUP	CTAP	CTAP
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**CHROME ALLOY**	**CHROME ALLOY**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**CLAM SHELL TO 12MM / TELEPACK ≥ 14MM**	**SET CASE**





METRIC
COARSE & FINE

Angle of thread is 60º. The crest is flat and the thread has clearance at the root allowing external thread and internal thread to engage well. Larger root radius and lower thread height enable easy screw thread processing and increase thread screw strength. The major diameter of external thread and pitch are specified by a simple numerical value (most commonly measured in millimetres).

TAPER TAPS

Taper Taps have a lead of eight threads and are used as a starting tap in difficult or high precision holes. Manufactured from chrome alloy this general purpose tap is designed for use in medium tensile materials and is for hand or general machine use.

INTERMEDIATE TAPS

Intermediate Taps have a lead of four threads and are used in most general purpose applications to cut a thread true to a pre-drilled pilot hole.

BOTTOMING TAPS

Bottoming Taps have a lead of two threads and are used to ensure minimum thread run-out when tapping to the bottom of a blind hole. Bottoming Taps are typically preceded by the use of a Taper or Intermediate Tap.

DIA MM	PITCH MM	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
METRIC COARSE										
2.00	0.40	43	1.60	1	**7.88**	4220-2.00T	4220-2.00I	4220-2.00B	**23.64**	4220-2.00TS
3.00	0.50	48	2.50	1	**12.21**	4220-3.00T	4220-3.00I	4220-3.00B	**36.60**	4220-3.00TS
4.00	0.70	54	3.30	1	**12.21**	4220-4.00T	4220-4.00I	4220-4.00B	**36.60**	4220-4.00TS
5.00	0.8	60	4.20	1	**8.35**	4220-5.00T	4220-5.00I	4220-5.00B	**22.34**	4220-5.00TS
6.00	1.00	64	5.00	1	**8.35**	4220-6.00T	4220-6.00I	4220-6.00B	**22.34**	4220-6.00TS
7.00	1.00	64	6.00	1	**8.64**	4220-7.00T	4220-7.00I	4220-7.00B	**25.87**	4220-7.00TS
8.00	1.25	70	6.80	1	**8.65**	4220-8.00T	4220-8.00I	4220-8.00B	**26.01**	4220-8.00TS
9.00	1.25	75	7.80	1	**11.31**	4220-9.00T	4220-9.00I	4220-9.00B	**33.88**	4220-9.00TS
10.00	1.50	75	8.50	1	**11.13**	4220-10.00T	4220-10.00I	4220-10.00B	**33.40**	4220-10.00TS
11.00	1.50	80	9.50	1	**14.00**	4220-11.00T	4220-11.00I	4220-11.00B	**42.00**	4220-11.00TS
12.00	1.75	86	10.20	1	**14.36**	4220-12.00T	4220-12.00I	4220-12.00B	**43.09**	4220-12.00TS
14.00	2.00	91	12.00	1	**20.59**	4220-14.00T	4220-14.00I	4220-14.00B	**61.79**	4220-14.00TS
16.00	2.00	97	14.00	1	**26.91**	4220-16.00T	4220-16.00I	4220-16.00B	**80.72**	4220-16.00TS
18.00	2.50	102	15.50	1	**32.08**	4220-18.00T	4220-18.00I	4220-18.00B	**96.26**	4220-18.00TS
20.00	2.50	108	17.50	1	**31.57**	4220-20.00T	4220-20.00I	4220-20.00B	**94.72**	4220-20.00TS
22.00	2.50	119	19.50	1	**41.56**	4220-22.00T	4220-22.00I	4220-22.00B	**124.72**	4220-22.00TS
24.00	3.00	124	21.00	1	**81.73**	4220-24.00T	4220-24.00I	4220-24.00B	**245.18**	4220-24.00TS
27.00	3.00	135	24.00	1	**108.67**	4220-27.00T	4220-27.00I	4220-27.00B	**326.01**	4220-27.00TS
30.00	3.50	138	26.50	1	**119.07**	4220-30.00T	4220-30.00I	4220-30.00B	**357.21**	4220-30.00TS
33.00	3.50	151	29.50	1	**167.08**	4220-33.00T	4220-33.00I	4220-33.00B	**501.24**	4220-33.00TS
36.00	4.00	162	32.00	1	**193.61**	4220-36.00T	4220-36.00I	4220-36.00B	**580.83**	4220-36.00TS
METRIC FINE										
8.00	1.00	69.00	7.00	1	**8.64**	4221-8.00T	4221-8.00I	4221-8.00B	**25.92**	4221-8.00TS
10.00	1.00	75.00	9.00	1	**15.59**	4222-10.00T	4222-10.00I	4222-10.00B	**46.83**	4222-10.00TS
10.00	1.25	76.00	8.80	1	**11.13**	4221-10.00T	4221-10.00I	4221-10.00B	**33.40**	4221-10.00TS
12.00	1.25	76.00	10.80	1	**23.49**	4222-12.00T	4222-12.00I	4222-12.00B	**70.45**	4222-12.00TS
12.00	1.50	89.00	10.50	1	**14.36**	4221-12.00T	4221-12.00I	4221-12.00B	**43.10**	4221-12.00TS
14.00	1.25	76.00	12.80	1	**27.94**	4222-14.00T	4222-14.00I	4222-14.00B	**83.84**	4222-14.00TS
14.00	1.50	95.00	12.50	1	**20.59**	4221-14.00T	4221-14.00I	4221-14.00B	**61.79**	4221-14.00TS
16.00	1.50	102.00	14.50	1	**26.91**	4223-16.00T	4223-16.00I	4223-16.00B	**80.72**	4223-16.00TS
18.00	1.50	104.00	16.50	1	**32.08**	4221-18.00T	4221-18.00I	4221-18.00B	**96.26**	4221-18.00TS
20.00	1.50	104.00	18.50	1	**32.08**	4223-20.00T	4223-20.00I	4223-20.00B	**96.26**	4223-20.00TS
22.00	1.50	113.00	20.50	1	**41.21**	4221-22.00T	4221-22.00I	4221-22.00B	**123.74**	4221-22.00TS
24.00	2.00	130.00	22.00	1	**83.16**	4221-24.00T	4221-24.00I	4221-24.00B	**249.50**	4221-24.00TS
25.00	1.50	83.00	23.50	1	**91.82**	4223-25.00T	4223-25.00I	4223-25.00B	**275.00**	4223-25.00TS
32.00	1.50	102.00	30.50	1	**161.37**	4223-32.00T	4223-32.00I	4223-32.00B	**483.23**	4223-32.00TS
SPARK PLUG										
10.00	1.00	75.00	9.00	1	**15.59**	4222-10.00T	4222-10.00I	4222-10.00B	**46.83**	4222-10.00TS
12.00	1.25	76.00	10.80	1	**23.49**	4222-12.00T	4222-12.00I	4222-12.00B	**70.45**	4222-12.00TS
14.00	1.25	76.00	12.80	1	**27.94**	4222-14.00T	4222-14.00I	4222-14.00B	**83.84**	4222-14.00TS
18.00	1.50	104.00	16.50	1	**32.08**	4221-18.00T	4221-18.00I	4221-18.00B	**96.26**	4221-18.00TS
CONDUIT										
16.00	1.50	102.00	14.50	1	**26.91**	4223-16.00T	4223-16.00I	4223-16.00B	**80.72**	4223-16.00TS
20.00	1.50	104.00	18.50	1	**32.08**	4223-20.00T	4223-20.00I	4223-20.00B	**96.26**	4223-20.00TS
25.00	1.50	83.00	23.50	1	**91.82**	4223-25.00T	4223-25.00I	4223-25.00B	**275.00**	4223-25.00TS
32.00	1.50	102.00	30.50	1	**161.37**	4223-32.00T	4223-32.00I	4223-32.00B	**483.23**	4223-32.00TS



UNC
UNF

GROUP	CTAP	CTAP
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**CHROME ALLOY**	**CHROME ALLOY**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**CLAM SHELL TO 1/2" / TELEPACK PACK ≥ 9/16"**	**SET CASE**















DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
UNC										
5G	40	48.00	2.65	1	**12.90**	4232-5GT	4232-5GI	4232-5GB	**38.71**	4232-5GTS
6G	32	50.00	2.85	1	**12.90**	4232-6GT	4232-6GI	4232-6GB	**38.71**	4232-6GTS
8G	32	53.00	3.50	1	**11.47**	4232-8GT	4232-8GI	4232-8GB	**34.44**	4232-8GTS
10G	24	58.00	3.90	1	**9.27**	4232-10GT	4232-10GI	4232-10GB	**27.89**	4232-10GTS
12G	24	62.00	4.50	1	**9.27**	4232-12GT	4232-12GI	4232-12GB	**27.89**	4232-12GTS
3/16	24 UNS	58.00	3.70	1	**9.27**	4232-3/16T	4232-3/16I	4232-3/16B	**27.89**	4232-3/16TS
1/4	20	66.00	5.10	1	**9.27**	4232-1/4T	4232-1/4I	4232-1/4B	**27.89**	4232-1/4TS
5/16	18	72.00	6.60	1	**9.27**	4232-5/16T	4232-5/16I	4232-5/16B	**27.89**	4232-5/16TS
3/8	16	80.00	8.00	1	**10.02**	4232-3/8T	4232-3/8I	4232-3/8B	**30.05**	4232-3/8TS
7/16	14	85.00	9.40	1	**12.10**	4232-7/16T	4232-7/16I	4232-7/16B	**36.25**	4232-7/16TS
1/2	13	89.00	10.80	1	**14.51**	4232-1/2T	4232-1/2I	4232-1/2B	**43.56**	4232-1/2TS
9/16	12	95.00	12.20	1	**23.64**	4232-9/16T	4232-9/16I	4232-9/16B	**71.04**	4232-9/16TS
5/8	11	102.00	13.50	1	**22.95**	4232-5/8T	4232-5/8I	4232-5/8B	**68.83**	4232-5/8TS
3/4	10	112.00	16.50	1	**29.12**	4232-3/4T	4232-3/4I	4232-3/4B	**87.45**	4232-3/4TS
7/8	9	118.00	19.50	1	**46.99**	4232-7/8T	4232-7/8I	4232-7/8B	**140.99**	4232-7/8TS
1	8	130.00	22.25	1	**50.23**	4232-1T	4232-1I	4232-1B	**150.65**	4232-1TS
1-1/8	7	138.00	25.00	1	**96.47**	4232-1.1/8T	4232-1.1/8I	4232-1.1/8B	**289.41**	4232-1.1/8TS
1-1/4	7	151.00	28.00	1	**116.87**	4232-1.1/4T	4232-1.1/4I	4232-1.1/4B	**350.61**	4232-1.1/4TS
UNF										
5G	44	48.00	2.70	1	**12.90**	4234-5GT	4234-5GI	4234-5GB	**38.71**	4234-5GTS
6G	40	50.00	2.95	1	**12.90**	4234-6GT	4234-6GI	4234-6GB	**38.71**	4234-6GTS
8G	36	53.00	3.50	1	**11.69**	4234-8GT	4234-8GI	4234-8GB	**35.00**	4234-8GTS
10G	32	58.00	4.10	1	**9.27**	4234-10GT	4234-10GI	4234-10GB	**27.89**	4234-10GTS
12G	28	62.00	4.70	1	**9.27**	4234-12GT	4234-12GI	4234-12GB	**27.89**	4234-12GTS
3/16	32 UNS	62.00	4.10	1	**10.57**	4236-3/16T	4236-3/16I	4236-3/16B	**31.73**	4236-3/16TS
1/4	28	66.00	5.50	1	**9.27**	4234-1/4T	4234-1/4I	4234-1/4B	**27.89**	4234-1/4TS
5/16	24	69.00	6.90	1	**10.38**	4234-5/16T	4234-5/16I	4234-5/16B	**31.18**	4234-5/16TS
3/8	24	76.00	8.50	1	**10.38**	4234-3/8T	4234-3/8I	4234-3/8B	**31.18**	4234-3/8TS
7/16	20	82.00	9.90	1	**13.41**	4234-7/16T	4234-7/16I	4234-7/16B	**40.20**	4234-7/16TS
1/2	20	84.00	11.50	1	**14.71**	4234-1/2T	4234-1/2I	4234-1/2B	**44.11**	4234-1/2TS
9/16	18	90.00	12.90	1	**23.13**	4234-9/16T	4234-9/16I	4234-9/16B	**69.39**	4234-9/16TS
5/8	18	95.00	14.50	1	**22.77**	4234-5/8T	4234-5/8I	4234-5/8B	**68.32**	4234-5/8TS
3/4	16	104.00	17.50	1	**26.73**	4234-3/4T	4234-3/4I	4234-3/4B	**80.17**	4234-3/4TS
7/8	14	113.00	20.40	1	**46.80**	4234-7/8T	4234-7/8I	4234-7/8B	**140.43**	4234-7/8TS
1	12	120.00	23.25	1	**48.39**	4234-1T	4234-1I	4234-1B	**145.18**	4234-1TS
1	14 UNS	120.00	23.25	1	**81.07**	4236-1T	4236-1I	4236-1B	**243.11**	4236-1TS
1-1/8	12	127.00	26.50	1	**96.84**	4234-1.1/8T	4234-1.1/8I	4234-1.1/8B	**290.52**	4234-1.1/8TS
1-1/4	12	137.00	29.50	1	**116.87**	4234-1.1/4T	4234-1.1/4I	4234-1.1/4B	**350.61**	4234-1.1/4TS

UNC
UNIFIED NATIONAL COARSE

This thread form was introduced in 1948 as an attempt to standardise thread forms in the USA, Canada and the UK. The thread profile of UNC is the same as for metric threads and is described in the JIS B0206 standard. The thread is described by its major diameter and the number of threads per inch of length (TPI).This thread series is commonly used in the mass production of bolts, screws and nuts. It is used for threading into lower tensile strength materials (bronze, brass, aluminium and plastics) to obtain the best resistance to stripping of the internal thread. It is also used on quick assembly or disassembly or if corrosion or slight damage is possible.

UNF
UNIFIED NATIONAL FINE

This thread form was introduced in 1948 as an attempt to standardise thread forms in the USA, Canada and the UK. The thread profile of UNF is the same as for metric threads and is described in the JIS B0206 standard. The thread is described by its major diameter and the number of threads per inch of length (TPI). When used on external threads this series has greater tensile stress area than coarse threads of the same size. Fine series threads will resist stripping out better than coarse threads in areas where the external and mating internal threads are subjected to loads equal to or greater than the capacity of the screw or bolt. Fine threads are also used where the length of engagement is limited or where wall thickness demands a fine pitch.



BSW
BSF

GROUP	CTAP	CTAP
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**CHROME ALLOY**	**CHROME ALLOY**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**CLAM SHELL TO 1/2" / TELEPACK PACK ≥ 9/16"**	**SET CASE**















DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
BSW										
1/8	40	48.00	2.55	1	**10.33**	4228-1/8T	4228-1/8I	4228-1/8B	**30.85**	4228-1/8TS
5/32	32 (WHIT)	53.00	3.20	1	**10.02**	4228-5/32T	4228-5/32I	4228-5/32B	**30.05**	4228-5/32TS
3/16	24	58.00	3.70	1	**7.09**	4228-3/16T	4228-3/16I	4228-3/16B	**21.23**	4228-3/16TS
1/4	20	66.00	5.10	1	**7.84**	4228-1/4T	4228-1/4I	4228-1/4B	**23.45**	4228-1/4TS
5/16	18	72.00	6.50	1	**8.64**	4228-5/16T	4228-5/16I	4228-5/16B	**25.87**	4228-5/16TS
3/8	16	80.00	7.90	1	**10.02**	4228-3/8T	4228-3/8I	4228-3/8B	**30.05**	4228-3/8TS
7/16	14	85.00	9.30	1	**12.41**	4228-7/16T	4228-7/16I	4228-7/16B	**37.22**	4228-7/16TS
1/2	12	89.00	10.50	1	**14.51**	4228-1/2T	4228-1/2I	4228-1/2B	**43.56**	4228-1/2TS
9/16	12	95.00	12.10	1	**23.64**	4228-9/16T	4228-9/16I	4228-9/16B	**71.04**	4228-9/16TS
5/8	11	102.00	13.50	1	**22.77**	4228-5/8T	4228-5/8I	4228-5/8B	**68.32**	4228-5/8TS
3/4	10	112.00	16.25	1	**26.73**	4228-3/4T	4228-3/4I	4228-3/4B	**80.17**	4228-3/4TS
7/8	9	118.00	19.25	1	**43.38**	4228-7/8T	4228-7/8I	4228-7/8B	**130.16**	4228-7/8TS
1	8	130.00	22.00	1	**48.39**	4228-1T	4228-1I	4228-1B	**145.18**	4228-1TS
1-1/8	7	138.00	24.75	1	**96.44**	4228-1.1/8T	4228-1.1/8I	4228-1.1/8B	**289.32**	4228-1.1/8TS
1-1/4	7	151.00	28.00	1	**119.07**	4228-1.1/4T	4228-1.1/4I	4228-1.1/4B	**357.21**	4228-1.1/4TS
1-3/8	6	162.00	30.25	1	**176.29**	4228-1.3/8T	4228-1.3/8I	4228-1.3/8B	**528.87**	4228-1.3/8TS
1-1/2	6	170.00	33.50	1	**217.32**	4228-1.1/2T	4228-1.1/2I	4228-1.1/2B	**651.96**	4228-1.1/2TS
BSF										
3/16	32	58.00	4.00	1	**7.88**	4230-3/16T	4230-3/16I	4230-3/16B	**23.64**	4230-3/16TS
1/4	26	66.00	5.30	1	**8.99**	4230-1/4T	4230-1/4I	4230-1/4B	**26.93**	4230-1/4TS
5/16	22	72.00	6.80	1	**10.38**	4230-5/16T	4230-5/16I	4230-5/16B	**31.18**	4230-5/16TS
3/8	20	80.00	8.30	1	**12.21**	4230-3/8T	4230-3/8I	4230-3/8B	**36.60**	4230-3/8TS
7/16	18	85.00	9.70	1	**15.04**	4230-7/16T	4230-7/16I	4230-7/16B	**45.07**	4230-7/16TS
1/2	16	89.00	11.10	1	**18.84**	4230-1/2T	4230-1/2I	4230-1/2B	**56.50**	4230-1/2TS
9/16	16	91.00	12.70	1	**28.34**	4230-9/16T	4230-9/16I	4230-9/16B	**85.02**	4230-9/16TS
5/8	14	102.00	14.00	1	**37.66**	4230-5/8T	4230-5/8I	4230-5/8B	**112.98**	4230-5/8TS
3/4	12	112.00	16.75	1	**44.50**	4230-3/4T	4230-3/4I	4230-3/4B	**133.50**	4230-3/4TS
7/8	11	118.00	19.75	1	**57.40**	4230-7/8T	4230-7/8I	4230-7/8B	**172.20**	4230-7/8TS
1	10	130.00	22.75	1	**80.69**	4230-1T	4230-1I	4230-1B	**242.07**	4230-1TS

BSW
BRITISH STANDARD WHITWORTH

This thread form was developed by Sir Joseph Whitworth in 1841. The thread form has rounded roots and crests and is specified in BS84:1956. The thread angle for BSW is 55º as opposed to 60º in Metric and Unified threads.

BSF
BRITISH STANDARD FINE

This thread form was based upon the British Standard Whitworth (BSW) but has a finer thread (more threads per inch for a given diameter). The thread form was first introduced in 1908 and is specified in BS84:1956.

When used on external threads this series has greater tensile stress area than coarse threads of the same size. Fine series threads will resist stripping out better than coarse threads in areas where the external and mating internal threads are subjected to loads equal to or greater than the capacity of the screw or bolt. Fine threads are also used where the length of engagement is limited or where wall thickness demands a fine pitch.

BSP
BRITISH STANDARD PIPE BSPF (G SERIES)

This series is a pipe thread which is used mainly for mechanical coupling. The angle of thread is mainly 55º however for the US method some threads have a 60º angle. It is specified according to JIS and ISO R228.



BSP BSPT NPT NPSF

GROUP	CTAP	CTAP
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**CHROME ALLOY**	**CHROME ALLOY**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**CLAM SHELL TO 1/4" / TELEPACK PACK ≥ 3/8"**	**SET CASE**







DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
BSPF (G SERIES)										
1/8	28	54.00	8.80	1	**12.90**	4246-1/8T	4246-1/8I	4246-1/8B	**38.71**	4246-1/8TS
1/4	19	62.00	11.80	1	**16.17**	4246-1/4T	4246-1/4I	4246-1/4B	**48.51**	4246-1/4TS
3/8	19	65.00	15.25	1	**23.64**	4246-3/8T	4246-3/8I	4246-3/8B	**71.04**	4246-3/8TS
1/2	14	79.00	19.00	1	**29.40**	4246-1/2T	4246-1/2I	4246-1/2B	**88.17**	4246-1/2TS
5/8	14	81.00	21.00	1	**49.87**	4246-5/8T	4246-5/8I	4246-5/8B	**149.55**	4246-5/8TS
3/4	14	83.00	24.50	1	**51.68**	4246-3/4T	4246-3/4I	4246-3/4B	**155.06**	4246-3/4TS
1	11	96.00	30.75	1	**92.64**	4246-1T	4246-1I	4246-1B	**245.36**	4246-1TS
1-1/4	11	102.00	39.50	1	**204.37**	4246-1.1/4T	4246-1.1/4I	4246-1.1/4B	**613.11**	4246-1.1/4TS
1-1/2	11	108.00	45.50	1	**252.42**	4246-1.1/2T	4246-1.1/2I	4246-1.1/2B	**757.26**	4246-1.1/2TS
2	11	115.00	57.00	1	**308.86**	4246-2T	4246-2I	4246-2B	**926.58**	4246-2TS
BSPT (RC SERIES PIPE TAPER)										
1/8	28	54.00	8.40	1	**31.57**	–	–	4248-1/8B	**–**	–
1/4	19	62.00	11.20	1	**31.57**	–	–	4248-1/4B	**–**	–
3/8	19	65.00	14.75	1	**39.43**	–	–	4248-3/8B	**–**	–
1/2	14	79.00	18.25	1	**46.61**	–	–	4248-1/2B	**–**	–
3/4	14	83.00	23.75	1	**66.18**	–	–	4248-3/4B	**–**	–
1	11	96.00	30.00	1	**112.97**	–	–	4248-1B	**–**	–
1-1/4	11	102.00	38.50	1	**230.60**	–	–	4248-1.1/4B	**–**	–
1-1/2	11	108.00	44.50	1	**287.68**	–	–	4248-1.1/2B	**–**	–
2	11	115.00	56.00	1	**359.60**	–	–	4248-2B	**–**	–
NPT										
1/8	27	54.00	8.70	1	**31.57**	–	–	4252-1/8B	**–**	–
1/4	18	62.00	11.10	1	**37.32**	–	–	4252-1/4B	**–**	–
3/8	18	65.00	14.50	1	**48.39**	–	–	4252-3/8B	**–**	–
1/2	14	79.00	18.00	1	**59.15**	–	–	4252-1/2B	**–**	–
3/4	14	83.00	23.25	1	**105.80**	–	–	4252-3/4B	**–**	–
1	11.5	96.00	29.00	1	**166.04**	–	–	4252-1B	**–**	–
1-1/4	11.5	102.00	38.00	1	**276.10**	–	–	4252-1.1/4B	**–**	–
1-1/2	11.5	108.00	44.00	1	**380.06**	–	–	4252-1.1/2B	**–**	–
2	11.5	114.00	56.00	1	**591.64**	–	–	4252-2B	**–**	–
NPSF (DRYSEAL)										
1/8	27	59.00	8.70	1	**32.31**	–	–	4256-1/8B	**–**	–
1/4	18	67.00	11.20	1	**39.43**	–	–	4256-1/4B	**–**	–
3/8	18	75.00	15.00	1	**60.99**	–	–	4256-3/8B	**–**	–
1/2	14	87.00	18.50	1	**84.25**	–	–	4256-1/2B	**–**	–

NPSF (DRYSEAL) NATIONAL PIPE STRAIGHT FUEL

Another variation of the Dryseal thread is the NPSF. It is used for internal threads and an NPTF external thread can be screwed into it to provide both a satisfactory mechanical connection and hydraulic seal. A combination of a parallel and tapered thread would not appear to be ideal but it is widely used. Many quick disconnect couplers for example have the NPSF thread and are recommended by the manufacturer for use with NPT and NPTF.

BSPT BRITISH STANDARD PIPE TAPER (RC SERIES PIPE TAPER)

This is based on the Whitworth thread form - a symmetrical V-thread with an angle of 55º. BSPT has been widely adopted internationally for interconnecting and sealing pipe ends by mating an external (male) with an internal (female) thread. The thread diameter increases along the length of the thread allowing the coupled pipes to form a seal when torqued as the flanks of the threads compress against each other. The taper is "1 to 16", meaning that for each 16 mm increase in the distance from the end, the diameter increases by 1 mm.

NPT NATIONAL PIPE TAPERED

NPT is a US standard for tapered threads used to join pipes and fittings. ANSI/ASME standard B1.20.1 covers threads of 60º form with flat crests and roots. The taper on NPT threads allows them to form a seal when torqued as the flanks of the threads compress against each other. However a clearance remains between the crests and roots of the threads, resulting in a leakage around this spiral. This means that NPT fittings must be made leak free with the aid of thread seal tape or a thread sealant compound. For each 12" increase in distance from the end, the diameter increases by 3/4".



GROUP	CTAP
SURFACE FINISH	BRIGHT
MATERIAL	**CHROME ALLOY**
FLUTE TYPE	STRAIGHT
CONTENTS	SINGLE
PACKAGING	**MERCHANDISER**



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
HAND TAP MERCHANDISER	**811.91**	4220-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM/INCH	PART NUMBER
METRIC COARSE	5	4.0	4220-4.00I
	5	5.0	4220-5.00I
	5	6.0	4220-6.00I
	5	7.0	4220-7.00I
	5	8.0	4220-8.00I
	2	10.0	4220-10.00I
	2	12.0	4220-12.00I
BSW	5	1/8	4228-1/8I
	5	5/32	4228-5/32I
	5	3/16	4228-3/16I
	5	1/4	4228-1/4I
	5	5/16	4228-5/16I
	5	3/8	4228-3/8I
	2	7/16	4228-7/16I
	2	1/2	4228-1/2I
UNF	5	1/4	4234-1/4I
	5	5/16	4234-5/16I
	5	3/8	4234-3/8I
	2	7/16	4234-7/16I
	2	1/2	4234-1/2I



GROUP	CTAP
SURFACE FINISH	BRIGHT
MATERIAL	CHROME ALLOY
LEAD TYPE	TAPER / INTERMEDIATE / BOTTOMING
FLUTE TYPE	**STRAIGHT**
PACKAGING	**BULK MERCHANDISER**

MERCHANDISER TYPE	TOTAL PIECES	$ MERCHANDISER	PART NUMBER
BULK TAP MERCHANDISER	304	**5,731.64**	4220-D3

MERCHANDISER CONTENTS

QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER
5	MC - TAPER	3 X 0.5	4220-3.00T	2	BSW - TAPER	1/2 X 12	4228-1/2T	2	UNF - INTER	3/8 X 24	4234-3/8I
5	MC - TAPER	4 X 0.7	4220-4.00T	2	BSW - INTER	1/2 X 12	4228-1/2I	1	UNF - INTER	7/16 X 20	4234-7/16I
5	MC - TAPER	5 X 0.8	4220-5.00T	2	BSW - BOTT	1/2 X 12	4228-1/2B	2	UNF - INTER	1/2 X 20	4234-1/2I
5	MC - TAPER	6 X 1	4220-6.00T					1	UNF - INTER	9/16 X 18	4234-9/16I
5	MC - TAPER	8 X 1.25	4220-8.00T	1	UNC - TAPER	8G X 32	4232-8GT	1	UNF - INTER	5/8 X 18	4234-5/8I
5	MC - TAPER	10 X 1.5	4220-10.00T	1	UNC - TAPER	10G X 24	4232-10GT	1	UNF - INTER	3/4 X 16	4234-3/4I
5	MC - TAPER	12 X 1.75	4220-12.00T	2	UNC - TAPER	3/16X24(UNS)	4232-3/16T	1	UNF - INTER	1 X 12	4234-1I
1	MC - TAPER	14 X 2	4220-14.00T	2	UNC - TAPER	1/4 X 20	4232-1/4T	1	UNF - BOTT	8G X 36	4234-8GB
1	MC - TAPER	16 X 2	4220-16.00T	2	UNC - TAPER	5/16 X 18	4232-5/16T	1	UNF - BOTT	10G X 32	4234-10GB
1	MC - TAPER	18 X 2.5	4220-18.00T	2	UNC - TAPER	3/8 X 16	4232-3/8T	2	UNF - BOTT	3/16 X 32	4236-3/16B
1	MC - TAPER	20 X 2.5	4220-20.00T	1	UNC - TAPER	7/16 X 14	4232-7/16T	2	UNF - BOTT	1/4 X 28	4234-1/4B
5	MC - INTER	3 X 0.5	4220-3.00I	2	UNC - TAPER	1/2 X 13	4232-1/2T	2	UNF - BOTT	5/16 X 24	4234-5/16B
5	MC - INTER	4 X 0.7	4220-4.00I	1	UNC - TAPER	9/16 X 12	4232-9/16T	2	UNF - BOTT	3/8 X 24	4234-3/8B
5	MC - INTER	5 X 0.8	4220-5.00I	1	UNC - TAPER	5/8 X 11	4232-5/8T	1	UNF - BOTT	7/16 X 20	4234-7/16B
5	MC - INTER	6 X 1	4220-6.00I	1	UNC - TAPER	3/4 X 10	4232-3/4T	2	UNF - BOTT	1/2 X 20	4234-1/2B
5	MC - INTER	8 X 1.25	4220-8.00I	1	UNC - TAPER	1 X 8	4232-1T	1	UNF - BOTT	9/16 X 18	4234-9/16B
5	MC - INTER	10 X 1.5	4220-10.00I	1	UNC - INTER	8G X 32	4232-8GI	1	UNF - BOTT	5/8 X 18	4234-5/8B
5	MC - INTER	12 X 1.75	4220-12.00I	1	UNC - INTER	10G X 24	4232-10GI	1	UNF - BOTT	3/4 X 16	4234-3/4B
1	MC - INTER	14 X 2	4220-14.00I	2	UNC - INTER	3/16X24(UNS)	4232-3/16I	1	UNF - BOTT	1 X 12	4234-1B
1	MC - INTER	16 X 2	4220-16.00I	2	UNC - INTER	1/4 X 20	4232-1/4I				
1	MC - INTER	18 X 2.5	4220-18.00I	2	UNC - INTER	5/16 X 18	4232-5/16I	1	BSPF - TAPER	1/8 X 28	4246-1/8T
1	MC - INTER	20 X 2.5	4220-20.00I	2	UNC - INTER	3/8 X 16	4232-3/8I	1	BSPF - TAPER	1/4 X 19	4246-1/4T
5	MC - BOTT	3 X 0.5	4220-3.00B	1	UNC - INTER	7/16 X 14	4232-7/16I	1	BSPF - TAPER	3/8 X 19	4246-3/8T
5	MC - BOTT	4 X 0.7	4220-4.00B	2	UNC - INTER	1/2 X 13	4232-1/2I	1	BSPF - TAPER	1/2 X14	4246-1/2T
5	MC - BOTT	5 X 0.8	4220-5.00B	1	UNC - INTER	9/16 X 12	4232-9/16I	1	BSPF - TAPER	3/4 X 14	4246-3/4T
5	MC - BOTT	6 X 1	4220-6.00B	1	UNC - INTER	5/8 X 11	4232-5/8I	1	BSPF - TAPER	1 X 11	4246-1T
5	MC - BOTT	8 X 1.25	4220-8.00B	1	UNC - INTER	3/4 X 10	4232-3/4I	1	BSPF - INTER	1/8 X 28	4246-1/8I
5	MC - BOTT	10 X 1.5	4220-10.00B	1	UNC - INTER	1 X 8	4232-1I	1	BSPF - INTER	1/4 X 19	4246-1/4I
5	MC - BOTT	12 X 1.75	4220-12.00B	1	UNC - BOTT	8G X 32	4232-8GB	1	BSPF - INTER	3/8 X 19	4246-3/8I
1	MC - BOTT	14 X 2	4220-14.00B	1	UNC - BOTT	10G X 24	4232-10GB	1	BSPF - INTER	1/2 X 14	4246-1/2I
1	MC - BOTT	16 X 2	4220-16.00B	2	UNC - BOTT	3/16X 24(UNS)	4232-3/16B	1	BSPF - INTER	3/4 X 14	4246-3/4I
1	MC - BOTT	18 X 2.5	4220-18.00B	2	UNC - BOTT	1/4 X 20	4232-1/4B	1	BSPF - INTER	1 X 11	4246-1I
1	MC - BOTT	20 X 2.5	4220-20.00B	2	UNC - BOTT	5/16 X 18	4232-5/16B	1	BSPF - BOTT	1/8 X 28	4246-1/8B
				2	UNC - BOTT	3/8 X 16	4232-3/8B	1	BSPF - BOTT	1/4 X 19	4246-1/4B
2	MF - TAPER	8 X 1	4221-8.00T	1	UNC - BOTT	7/16 X 14	4232-7/16B	1	BSPF - BOTT	3/8 X 19	4246-3/8B
2	S/PLUG - TAPER	10 X 1	4222-10.00T	2	UNC - BOTT	1/2 X 13	4232-1/2B	1	BSPF - BOTT	1/2 X 14	4246-1/2B
2	MF - TAPER	10 X 1.25	4221-10.00T	1	UNC - BOTT	9/16 X 12	4232-9/16B	1	BSPF - BOTT	3/4 X 14	4246-3/4B
2	MF - TAPER	12 X 1.25	4222-12.00T	1	UNC - BOTT	5/8 X 11	4232-5/8B	1	BSPF - BOTT	1 X 11	4246-1B
2	MF - TAPER	12 X 1.5	4221-12.00T	1	UNC - BOTT	3/4 X 10	4232-3/4B				
2	S/PLUG - TAPER	14 X 1.25	4222-14.00T	1	UNC - BOTT	1 X 8	4232-1B	2	BSPT - BOTT	1/8 X 28	4248-1/8B
2	MF - TAPER	14 X 1.5	4221-14.00T					2	BSPT - BOTT	1/4 X 19	4248-1/4B
1	CONDUIT - TAPER	25 X 1.5	4223-25.00T	1	UNF - TAPER	8G X 36	4234-8GT	1	BSPT - BOTT	3/8 X 19	4248-3/8B
2	MF - INTER	8 X 1	4221-8.00I	1	UNF - TAPER	10G X 32	4234-10GT	1	BSPT - BOTT	1/2 X 14	4248-1/2B
2	S/PLUG - INTER	10 X 1	4222-10.00I	2	UNF - TAPER	3/16 X 32	4236-3/16T	1	BSPT - BOTT	3/4 X 14	4248-3/4B
2	MF - INTER	10 X 1.25	4221-10.00I	2	UNF - TAPER	1/4 X 28	4234-1/4T	1	BSPT - BOTT	1 X 11	4248-1B
2	MF - INTER	12 X 1.25	4222-12.00I	2	UNF - TAPER	5/16 X 24	4234-5/16T				
2	MF - INTER	12 X 1.5	4221-12.00I	2	UNF - TAPER	3/8 X 24	4234-3/8T	2	NPT - BOTT	1/8 X 27	4252-1/8B
2	S/PLUG - INTER	14 X 1.25	4222-14.00I	1	UNF - TAPER	7/16 X 20	4234-7/16T	2	NPT - BOTT	1/4 X 18	4252-1/4B
2	MF - INTER	14 X 1.5	4221-14.00I	2	UNF - TAPER	1/2 X 20	4234-1/2T	1	NPT - BOTT	3/8 X 18	4252-3/8B
1	CONDUIT - INTER	25 X 1.5	4223-25.00I	1	UNF - TAPER	9/16 X 18	4234-9/16T	1	NPT - BOTT	1/2 X 14	4252-1/2B
2	MF - BOTT	8 X 1	4221-8.00B	1	UNF - TAPER	5/8X18	4234-5/8T	1	NPT - BOTT	3/4 X 14	4252-3/4B
2	S/PLUG - BOTT	10 X 1	4222-10.00B	1	UNF - TAPER	3/4 X 16	4234-3/4T	1	NPT - BOTT	1 X 11.5	4252-1B
2	MF - BOTT	10 X 1.25	4221-10.00B	1	UNF - TAPER	1 X 12	4234-1T				
2	MF - BOTT	12 X 1.25	4222-12.00B	1	UNF - INTER	8G X 36	4234-8GI				
2	MF - BOTT	12 X 1.5	4221-12.00B	1	UNF - INTER	10G X 32	4234-10GI				
2	S/PLUG - BOTT	14 X 1.25	4222-14.00B	2	UNF - INTER	3/16 X 32	4236-3/16I				
2	MF - BOTT	14 X 1.5	4221-14.00B	2	UNF - INTER	1/4X28	4234-1/4I				
1	CONDUIT - BOTT	25 X 1.5	4223-25.00B	2	UNF - INTER	5/16X24	4234-5/16I				





GROUP	–
SURFACE FINISH	BRIGHT
MATERIAL	CHROME ALLOY
TAP LEAD TYPE	TAPER / INTERMEDIATE / BOTTOMING
TAP FLUTE TYPE	**STRAIGHT**
PACKAGING	**BULK MERCHANDISER**

MERCHANDISER TYPE	TOTAL PIECES	$ MERCHANDISER	PART NUMBER
BULK TAP & DIE MERCHANDISER	327	**7,257.61**	4220-D4

TAPER TAPS

Taper Taps have a lead of eight threads and are used as a starting tap in difficult or high precision holes. Manufactured from chrome alloy this general purpose tap is designed for use in medium tensile materials and is for hand or general machine use.

INTERMEDIATE TAPS

Intermediate Taps have a lead of four threads and are used in most general purpose applications to cut a thread true to a pre-drilled pilot hole.

BOTTOMING TAPS

Bottoming Taps have a lead of two threads and are used to ensure minimum thread run-out when tapping to the bottom of a blind hole. Bottoming Taps are typically preceded by the use of a Taper or Intermediate Tap.

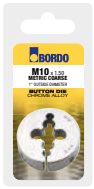
MERCHANDISER CONTENTS

QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER
5	MC - TAPER	4 X 0.7	4220-4.00T	1	UNC - TAPER	3/4 X 10	4232-3/4T	1	BSPF - BOTT	1/8 X 28	4246-1/8B
5	MC - TAPER	5 X 0.8	4220-5.00T	1	UNC - TAPER	8G X 32	4232-8GI	1	BSPF - BOTT	1/4 X 19	4246-1/4B
5	MC - TAPER	6 X 1	4220-6.00T	1	UNC - INTER	10G X 24	4232-10GI	1	BSPF - BOTT	3/8 X 19	4246-3/8B
5	MC - TAPER	8 X 1.25	4220-8.00T	1	UNC - INTER	3/16X24(UNS)	4232-3/16I	1	BSPF - BOTT	1/2 X 14	4246-1/2B
3	MC - TAPER	10 X 1.5	4220-10.00T	2	UNC - INTER	1/4 X 20	4232-1/4I	3	BSPT - BOTT	1/8 X 28	4248-1/8B
3	MC - TAPER	12 X 1.75	4220-12.00T	2	UNC - INTER	5/16 X 18	4232-5/16I	3	BSPT - BOTT	1/4 X 19	4248-1/4B
3	MC - TAPER	14 X 2	4220-14.00T	2	UNC - INTER	3/8 X 16	4232-3/8I	3	BSPT - BOTT	3/8 X 19	4248-3/8B
3	MC - TAPER	16 X 2	4220-16.00T	1	UNC - INTER	7/16 X 14	4232-7/16I	3	BSPT - BOTT	1/2 X 14	4248-1/2B
1	MC - TAPER	18 X 2.5	4220-18.00T	1	UNC - INTER	1/2 X 13	4232-1/2I				
1	MC - TAPER	20 X 2.5	4220-20.00T	1	UNC - INTER	9/16 X 12	4232-9/16I	3	NPT - BOTT	1/8 X 27	4252-1/8B
5	MC - INTER	4 X 0.7	4220-4.00I	1	UNC - INTER	5/8 X 11	4232-5/8I	3	NPT - BOTT	1/4 X 18	4252-1/4B
5	MC - INTER	5 X 0.8	4220-5.00I	1	UNC - INTER	3/4 X 10	4232-3/4I	3	NPT - BOTT	3/8 X 18	4252-3/8B
5	MC - INTER	6 X 1	4220-6.00I	1	UNC - INTER	8G X 32	4232-8GB	3	NPT - BOTT	1/2 X 14	4252-1/2B
5	MC - INTER	8 X 1.25	4220-8.00I	1	UNC - INTER	10G X 24	4232-10GB				
3	MC - INTER	10 X 1.5	4220-10.00I	1	UNC - BOTT	3/16X 24(UNS)	4232-3/16B	3	MC - DIE - 1D	4 X 0.7	4800-4-1D
3	MC - INTER	12 X 1.75	4220-12.00I	2	UNC - BOTT	1/4 X 20	4232-1/4B	3	MC - DIE - 1D	5 X 0.8	4800-5-1D
3	MC - INTER	14 X 2	4220-14.00I	2	UNC - BOTT	5/16 X 18	4232-5/16B	3	MC - DIE - 1D	6 X 1	4800-6-1D
3	MC - INTER	16 X 2	4220-16.00I	2	UNC - BOTT	3/8 X 16	4232-3/8B	3	MC - DIE - 1D	8 X 1.25	4800-8-1D
1	MC - INTER	18 X 2.5	4220-18.00I	1	UNC - BOTT	7/16 X 14	4232-7/16B	3	MC - DIE - 1D	10 X 1.5	4800-10-1D
1	MC - INTER	20 X 2.5	4220-20.00I	1	UNC - BOTT	1/2 X 13	4232-1/2B	3	MC - DIE - 1D	12 X 1.75	4800-12-1D
5	MC - BOTT	4 X 0.7	4220-4.00B	1	UNC - BOTT	9/16 X 12	4232-9/16B	2	MC - DIE - 1.5D	14 X 2	4800-14-1.5D
5	MC - BOTT	5 X 0.8	4220-5.00B	1	UNC - BOTT	5/8 X 11	4232-5/8B	2	MC - DIE - 1.5D	16 X 2	4800-16-1.5D
5	MC - BOTT	6 X 1	4220-6.00B	1	UNC - BOTT	3/4 X 10	4232-3/4B	1	MC - DIE - 2D	18 X 2.5	4800-18-2D
5	MC - BOTT	8 X 1.25	4220-8.00B					1	MC - DIE - 2D	20 X 2.5	4800-20-2D
3	MC - BOTT	10 X 1.5	4220-10.00B	1	UNF - TAPER	8G X 36	4234-8GT	1	MF - DIE - 1D	8 X 1	4801-8-1D
3	MC - BOTT	12 X 1.75	4220-12.00B	1	UNF - TAPER	10G X 32	4234-10GT	1	MF - DIE - 1D	10 X 1.25	4801-10-1D
3	MC - BOTT	14 X 2	4220-14.00B	2	UNF - TAPER	1/4 X 28	4234-1/4T	1	MF - DIE - 1D	12 X 1.5	4801-12-1D
3	MC - BOTT	16 X 2	4220-16.00B	2	UNF - TAPER	5/16 X 24	4234-5/16T	1	MF - DIE - 1.5D	12 X 1.25	4802-14-1.5D
1	MC - BOTT	18 X 2.5	4220-18.00B	2	UNF - TAPER	3/8 X 24	4234-3/8T	1	MF - DIE - 2D	14 X 1.25	4801-14-2D
1	MC - BOTT	20 X 2.5	4220-20.00B	1	UNF - TAPER	7/16 X 20	4234-7/16T	1	MF - DIE - 2D	14 X 1.5	4802-12-1D
2	MF - TAPER	8 X 1	4221-8.00T	1	UNF - TAPER	1/2 X 20	4234-1/2T	1	MF - DIE - 2D	16 X 1.5	4803-16-2D
2	MF - TAPER	10 X 1.25	4221-10.00T	1	UNF - TAPER	9/16 X 18	4234-9/16T	1	BSW - Die - 1D	1/2 x 12	4808-1/2-1D
2	MF - TAPER	12 X 1.5	4221-12.00T	1	UNF - TAPER	5/8X18	4234-5/8T	1	UNC - Die - 1D	8G x 32	4812-8G-1D
2	MF - TAPER	12 X 1.25	4222-12.00T	1	UNF - TAPER	3/4 X 16	4234-3/4T	1	UNC - Die - 1D	10G x 24	4812-10G-1D
1	S/PLUG - TAPER	14 X 1.25	4222-14.00T	1	UNF - INTER	8G X 36	4234-8GI	1	UNC - Die - 1D	1/4 x 20	4812-1/4-1D
1	MF - TAPER	14 X 1.5	4221-14.00T	1	UNF - INTER	10G X 32	4234-10GI	1	UNC - Die - 1D	5/16 x 18	4812-5/16-1D
1	CONDUIT - TAPER	16 X 1.5	4223-16.00T	2	UNF - INTER	1/4X28	4234-1/4I	1	UNC - DIE - 1D	3/8 X 16	4812-3/8-1D
2	MF - INTER	8 X 1	4221-8.00I	2	UNF - INTER	5/16X24	4234-5/16I	1	UNC - DIE - 1D	7/16 X 14	4812-7/16-1D
2	MF - INTER	10 X 1.25	4221-10.00I	2	UNF - INTER	3/8 X 24	4234-3/8I	1	UNC - DIE - 1D	1/2 X 13	4812-1/2-1D
2	MF - INTER	12 X 1.25	4222-12.00I	1	UNF - INTER	7/16 X 20	4234-7/16I	1	UNC - DIE - 1.5D	9/16 X 12	4812-9/16-1.5D
2	MF - INTER	12 X 1.5	4221-12.00I	1	UNF - INTER	1/2 X 20	4234-1/2I	1	UNC - DIE - 1.5D	5/8 X 11	4812-5/8-1.5D
1	S/PLUG - INTER	14 X 1.25	4221-14.00I	1	UNF - INTER	9/16 X 18	4234-9/16I	1	UNC - DIE - 2D	3/4 X 10	4812-3/4-2D
1	MF - INTER	14 X 1.5	4222-14.00I	1	UNF - INTER	5/8 X 18	4234-5/8I	1	UNF - Die - 1D	8G x 36	4814-8G-1D
1	CONDUIT - INTER	16 X 1.5	4223-16.00I	1	UNF - INTER	3/4 X 16	4234-3/4I	1	UNF - Die - 1D	10G x 32	4814-10G-1D
2	MF - BOTT	8 X 1	4221-8.00B	1	UNF - BOTT	8G X 36	4234-8GB	1	UNF - Die - 1D	3/16 x 32	4816-3/16-1D
2	MF - BOTT	10 X 1.25	4221-10.00B	1	UNF - BOTT	10G X 32	4234-10GB	1	UNF - Die - 1D	1/4 x 28	4814-1/4-1D
2	MF - BOTT	12 X 1.25	4222-12.00B	2	UNF - BOTT	1/4 X 28	4234-1/4B	1	UNF - Die - 1D	5/16 x 24	4814-5/16-1D
2	MF - BOTT	12 X 1.5	4221-12.00B	2	UNF - BOTT	5/16 X 24	4234-5/16B	1	UNF - Die - 1D	3/8 x 24	4814-3/8-1D
1	S/PLUG - BOTT	14 X 1.25	4222-14.00B	2	UNF - BOTT	3/8 X 24	4234-3/8B	1	UNF - Die - 1D	7/16 x 20	4814-7/16-1D
1	MF - BOTT	14 X 1.5	4221-14.00B	1	UNF - BOTT	7/16 X 20	4234-7/16B	1	UNF - Die - 1D	1/2 x 20	4814-1/2-1D
1	CONDUIT - BOTT	16 X 1.5	4223-16.00B	1	UNF - BOTT	1/2 X 20	4234-1/2B	1	UNF - DIE - 1.5D	9/16 X 18	4814-9/16-1.5D
				1	UNF - BOTT	9/16 X 18	4234-9/16B	1	UNF - DIE - 1.5D	5/8X18	4814-5/8-1.5D
2	BSW - TAPER	1/2 X 12	4228-1/2T	1	UNF - BOTT	5/8 X 18	4234-5/8B	1	UNF - DIE - 2D	3/4 X 16	4814-3/4-2D
2	BSW - INTER	1/2 X 12	4228-1/2I	1	UNF - BOTT	3/4 X 16	4234-3/4B	1	UNS - Die - 1D	3/16x24	4812-3/16-1D
2	BSW - BOTT	1/2 X 12	4228-1/2B	1	UNS - TAPER	3/16 X 24	4236-3/16T	1	BSPF - DIE - 2D	1/8 X 28	4818-1/8-2D
				1	UNS - INTER	3/16 X 24	4236-3/16I	1	BSPF - DIE - 2D	1/4 X 19	4818-1/4-2D
1	UNC - TAPER	8G X 32	4232-8GT	1	UNS - BOTT	3/16 X 24	4236-3/16B	1	BSPF - DIE - 2D	3/8 X 19	4818-3/8-2D
1	UNC - TAPER	10G X 24	4232-10GT					1	BSPF - DIE - 2D	1/2 X14	4818-1/2-2D
1	UNC - TAPER	3/16X24(UNS)	4232-3/16T	1	BSPF - TAPER	1/8 X 28	4246-1/8T	1	BSPT - DIE - 2D	1/8 X 28	4820-1/8-2D
2	UNC - TAPER	1/4 X 20	4232-1/4T	1	BSPF - TAPER	1/4 X 19	4246-1/4T	1	BSPT - DIE - 2D	1/4 X 19	4820-1/4-2D
2	UNC - TAPER	5/16 X 18	4232-5/16T	1	BSPF - TAPER	3/8 X 19	4246-3/8T	1	BSPT - DIE - 2D	3/8 X 19	4820-3/8-2D
2	UNC - TAPER	3/8 X 16	4232-3/8T	1	BSPF - TAPER	1/2 X14	4246-1/2T	1	BSPT - DIE - 2D	1/2 X 14	4820-1/2-2D
1	UNC - TAPER	7/16 X 14	4232-7/16T	1	BSPF - INTER	1/8 X 28	4246-1/8I	1	NPT - DIE - 2D	1/8 X 27	4822-1/8-2D
1	UNC - TAPER	1/2 X 13	4232-1/2T	1	BSPF - INTER	1/4 X 19	4246-1/4I	1	NPT - DIE - 2D	1/4 X 18	4822-1/4-2D
1	UNC - TAPER	9/16 X 12	4232-9/16T	1	BSPF - INTER	3/8 X 19	4246-3/8I	1	NPT - DIE - 2D	3/8 X 18	4822-3/8-2D
1	UNC - TAPER	5/8 X 11	4232-5/8T	1	BSPF - INTER	1/2 X 14	4246-1/2I	1	NPT - DIE - 2D	1/2 X 14	4822-1/2-2D



MC
MF

GROUP	DIES	DIES	DIES	DIES
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT	BRIGHT
MATERIAL	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY
DIE TYPE	**BUTTON**	**BUTTON**	**BUTTON**	**NUT**
PACKAGING	CLAM SHELL	CLAM SHELL	CLAM SHELL	CLAM SHELL
OUTSIDE DIAMETER	**1"**	**1- 1/2"**	**2"**	**-**













DIAMETER MM	PITCH MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
METRIC COARSE										
2.00	0.40	1	**27.70**	4800-2-1D	**–**	–	**–**	–	**–**	–
3.00	0.50	1	**24.01**	4800-3-1D	**–**	–	**–**	–	**–**	–
4.00	0.70	1	**21.87**	4800-4-1D	**41.84**	4800-4-1.5D	**–**	–	**28.49**	4830-4
5.00	0.80	1	**21.87**	4800-5-1D	**41.84**	4800-5-1.5D	**–**	–	**28.49**	4830-5
6.00	1.00	1	**21.87**	4800-6-1D	**41.84**	4800-6-1.5D	**–**	–	**28.49**	4830-6
7.00	1.00	1	**21.87**	4800-7-1D	**41.87**	4800-7-1.5D	**–**	–	**29.04**	4830-7
8.00	1.25	1	**21.87**	4800-8-1D	**40.16**	4800-8-1.5D	**–**	–	**28.49**	4830-8
9.00	1.25	1	**21.87**	4800-9-1D	**40.09**	4800-9-1.5D	**–**	–	**29.04**	4830-9
10.00	1.50	1	**21.87**	4800-10-1D	**40.16**	4800-10-1.5D	**52.38**	4800-10-2D	**41.56**	4830-10
11.00	1.50	1	**24.66**	4800-11-1D	**40.84**	4800-11-1.5D	**–**	–	**–**	–
12.00	1.75	1	**24.66**	4800-12-1D	**40.16**	4800-12-1.5D	**52.38**	4800-12-2D	**41.56**	4830-12
14.00	2.00	1	**–**	–	**40.84**	4800-14-1.5D	**52.38**	4800-14-2D	**53.41**	4830-14
16.00	2.00	1	**–**	–	**40.84**	4800-16-1.5D	**55.24**	4800-16-2D	**53.41**	4830-16
18.00	2.50	1	**–**	–	**–**	–	**58.08**	4800-18-2D	**67.41**	4830-18
20.00	2.50	1	**–**	–	**–**	–	**58.08**	4800-20-2D	**66.01**	4830-20
22.00	2.50	1	**–**	–	**–**	–	**62.76**	4800-22-2D	**100.37**	4830-22
24.00	3.00	1	**–**	–	**–**	–	**76.01**	4800-24-2D	**122.63**	4830-24
27.00	3.00	1	**–**	–	**–**	–	**–**	–	**170.34**	4830-27
30.00	3.50	1	**–**	–	**–**	–	**–**	–	**209.76**	4830-30
33.00	3.50	1	**–**	–	**–**	–	**–**	–	**252.77**	4830-33
36.00	4.00	1	**–**	–	**–**	–	**–**	–	**299.41**	4830-36
METRIC FINE										
8.00	1.00	1	**21.87**	4801-8-1D	**40.16**	4801-8-1.5D	**–**	–	**28.49**	4831-8
10.00	1.00	1	**21.87**	4802-10-1D	**40.16**	4802-10-1.5D	**–**	–	**41.56**	4832-10
10.00	1.25	1	**21.87**	4801-10-1D	**40.16**	4801-10-1.5D	**–**	–	**41.56**	4831-10
12.00	1.25	1	**24.58**	4802-12-1D	**40.84**	4802-12-1.5D	**52.38**	4802-12-2D	**41.56**	4832-12
12.00	1.50	1	**24.58**	4801-12-1D	**40.16**	4801-12-1.5D	**52.38**	4801-12-2D	**41.56**	4831-12
14.00	1.25	1	**–**	–	**40.84**	4802-14-1.5D	**53.07**	4802-14-2D	**–**	–
14.00	1.50	1	**–**	–	**40.16**	4801-14-1.5D	**52.38**	4801-14-2D	**53.41**	4831-14
16.00	1.50	1	**–**	–	**–**	–	**55.24**	4803-16-2D	**53.41**	4833-16
18.00	1.50	1	**–**	–	**–**	–	**58.08**	4802-18-2D	**66.01**	4832-18
20.00	1.50	1	**–**	–	**–**	–	**57.95**	4803-20-2D	**66.01**	4833-20
22.00	1.50	1	**–**	–	**–**	–	**62.63**	4801-22-2D	**66.01**	4831-22
24.00	2.00	1	**–**	–	**–**	–	**75.88**	4801-24-2D	**66.01**	4831-24
25.00	1.50	1	**–**	–	**–**	–	**76.75**	4803-25-2D	**79.45**	4833-25
SPARK PLUG										
10.00	1.00	1	**21.87**	4802-10-1D	**40.16**	4802-10-1.5D	**–**	–	**41.56**	4832-10
12.00	1.25	1	**24.58**	4802-12-1D	**40.84**	4802-12-1.5D	**52.38**	4802-12-2D	**41.56**	4832-12
14.00	1.25	1	**–**	–	**40.84**	4802-14-1.5D	**53.07**	4802-14-2D	**–**	–
18.00	1.50	1	**–**	–	**–**	–	**58.08**	4802-18-2D	**66.01**	4832-18
CONDUIT										
16.00	1.50	1	**–**	–	**–**	–	**55.24**	4803-16-2D	**53.41**	4833-16
20.00	1.50	1	**–**	–	**–**	–	**57.95**	4803-20-2D	**66.01**	4833-20
25.00	1.50	1	**–**	–	**–**	–	**76.75**	4803-25-2D	**79.45**	4833-25

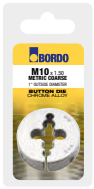
METRIC
COARSE & FINE

Angle of thread is 60º. The crest is flat and the thread has clearance at the root allowing external thread and internal thread to engage well. Larger root radius and lower thread height enable easy screw thread processing and increase thread screw strength. The major diameter of external thread and pitch are specified by a simple numerical value (most commonly measured in millimetres).



UNC
UNF

GROUP	DIES	DIES	DIES	DIES
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT	BRIGHT
MATERIAL	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY
DIE TYPE	**BUTTON**	**BUTTON**	**BUTTON**	**NUT**
PACKAGING	CLAM SHELL	CLAM SHELL	CLAM SHELL	CLAM SHELL
OUTSIDE DIAMETER	**1"**	**1- 1/2"**	**2"**	**–**











DIAMETER INCH	TPI	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
UNC										
5G	40	1	**27.78**	4812-5G-1D	**–**	–	**–**	–	**–**	–
6G	32	1	**27.78**	4812-6G-1D	**–**	–	**–**	–	**–**	–
8G	32	1	**27.78**	4812-8G-1D	**–**	–	**–**	–	**–**	–
10G	24	1	**27.78**	4812-10G-1D	**–**	–	**–**	–	**–**	–
12G	24	1	**27.78**	4812-12G-1D	**–**	–	**–**	–	**–**	–
3/16	24 UNS	1	**27.78**	4812-3/16-1D	**–**	–	**–**	–	**–**	–
1/4	20	1	**22.21**	4812-1/4-1D	**40.16**	4812-1/4-1.5D	**–**	–	**24.38**	4842-1/4
5/16	18	1	**22.21**	4812-5/16-1D	**40.16**	4812-5/16-1.5D	**–**	–	**24.38**	4842-5/16
3/8	16	1	**22.21**	4812-3/8-1D	**35.68**	4812-3/8-1.5D	**–**	–	**24.38**	4842-3/8
7/16	14	1	**25.00**	4812-7/16-1D	**40.16**	4812-7/16-1.5D	**–**	–	**26.54**	4842-7/16
1/2	13	1	**26.73**	4812-1/2-1D	**40.16**	4812-1/2-1.5D	**52.18**	4812-1/2-2D	**27.61**	4842-1/2
9/16	12	1	**–**	–	**43.91**	4812-9/16-1.5D	**56.08**	4812-9/16-2D	**33.40**	4842-9/16
5/8	11	1	**–**	–	**44.85**	4812-5/8-1.5D	**55.58**	4812-5/8-2D	**35.16**	4842-5/8
3/4	10	1	**–**	–	**–**	–	**58.08**	4812-3/4-2D	**43.75**	4842-3/4
7/8	9	1	**–**	–	**–**	–	**62.76**	4812-7/8-2D	**58.08**	4842-7/8
1	8	1	**–**	–	**–**	–	**75.69**	4812-1-2D	**68.84**	4842-1
1-1/8	7	1	**–**	–	**–**	–	**–**	–	**105.52**	4842-1.1/8
1-1/4	7	1	**–**	–	**–**	–	**–**	–	**111.89**	4842-1.1/4
1-3/8	6	1	**–**	–	**–**	–	**–**	–	**95.79**	4842-1.3/8
1-1/2	6	1	**–**	–	**–**	–	**–**	–	**228.65**	4842-1.1/2
1-3/4	5	1	**–**	–	**–**	–	**–**	–	**134.86**	4842-1.3/4
2	4.5	1	**–**	–	**–**	–	**–**	–	**166.24**	4842-2
UNF										
5G	44	1	**27.78**	4814-5G-1D	**–**	–	**–**	–	**–**	–
6G	40	1	**27.78**	4814-6G-1D	**–**	–	**–**	–	**–**	–
8G	36	1	**27.78**	4814-8G-1D	**–**	–	**–**	–	**–**	–
10G	32	1	**27.78**	4814-10G-1D	**–**	–	**–**	–	**–**	–
12G	28	1	**30.34**	4814-12G-1D	**–**	–	**–**	–	**–**	–
3/16	32 UNS	1	**32.08**	4816-3/16-1D	**–**	–	**–**	–	**32.00**	4846-3/16
1/4	28	1	**21.87**	4814-1/4-1D	**40.16**	4814-1/4-1.5D	**–**	–	**22.21**	4844-1/4
5/16	24	1	**21.87**	4814-5/16-1D	**40.16**	4814-5/16-1.5D	**–**	–	**24.38**	4844-5/16
3/8	24	1	**21.87**	4814-3/8-1D	**40.16**	4814-3/8-1.5D	**–**	–	**24.38**	4844-3/8
7/16	20	1	**24.66**	4814-7/16-1D	**40.16**	4814-7/16-1.5D	**–**	–	**26.73**	4844-7/16
1/2	20	1	**26.16**	4814-1/2-1D	**40.16**	4814-1/2-1.5D	**52.38**	4814-1/2-2D	**27.61**	4844-1/2
9/16	18	1	**–**	–	**44.09**	4814-9/16-1.5D	**55.24**	4814-9/16-2D	**32.65**	4844-9/16
5/8	18	1	**–**	–	**44.09**	4814-5/8-1.5D	**55.24**	4814-5/8-2D	**34.92**	4844-5/8
3/4	16	1	**–**	–	**–**	–	**58.08**	4814-3/4-2D	**43.75**	4844-3/4
7/8	14	1	**–**	–	**–**	–	**62.76**	4814-7/8-2D	**58.08**	4844-7/8
1	12	1	**–**	–	**–**	–	**76.01**	4814-1-2D	**68.84**	4844-1
1	14 UNS	1	**–**	–	**–**	–	**112.59**	4816-1-2D	**89.28**	4846-1
1-1/8	12	1	**–**	–	**–**	–	**–**	–	**115.46**	4844-1.1/8
1-1/4	12	1	**–**	–	**–**	–	**–**	–	**139.11**	4844-1.1/4
1-3/8	12	1	**–**	–	**–**	–	**–**	–	**185.76**	4844-1.3/8
1-1/2	12	1	**–**	–	**–**	–	**–**	–	**232.41**	4844-1.1/2

UNC
UNIFIED NATIONAL COARSE

This thread form was introduced in 1948 as an attempt to standardise thread forms in the USA, Canada and the UK. The thread profile of UNC is the same as for metric threads and is described in the JIS B0206 standard. The thread is described by its major diameter and the number of threads per inch of length (TPI).This thread series is commonly used in the mass production of bolts, screws and nuts. It is used for threading into lower tensile strength materials (bronze, brass, aluminium and plastics) to obtain the best resistance to stripping of the internal thread. It is also used on quick assembly or disassembly or if corrosion or slight damage is possible.

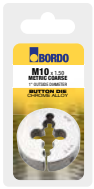
UNF
UNIFIED NATIONAL FINE

This thread form was introduced in 1948 as an attempt to standardise thread forms in the USA, Canada and the UK. The thread profile of UNF is the same as for metric threads and is described in the JIS B0206 standard. The thread is described by its major diameter and the number of threads per inch of length (TPI). When used on external threads this series has greater tensile stress area than coarse threads of the same size. Fine series threads will resist stripping out better than coarse threads in areas where the external and mating internal threads are subjected to loads equal to or greater than the capacity of the screw or bolt. Fine threads are also used where the length of engagement is limited or where wall thickness demands a fine pitch.



BSW
BSF

GROUP	DIES	DIES	DIES	DIES
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT	BRIGHT
MATERIAL	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY
DIE TYPE	**BUTTON**	**BUTTON**	**BUTTON**	**NUT**
PACKAGING	CLAM SHELL	CLAM SHELL	CLAM SHELL	CLAM SHELL
OUTSIDE DIAMETER	**1"**	**1- 1/2"**	**2"**	**–**













DIAMETER INCH	TPI	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
BSW										
1/8	40	1	**22.84**	4808-1/8-1D	**–**	–	**–**	–	**17.72**	4838-1/8
5/32	32 WHIT	1	**23.14**	4808-5/32-1D	**–**	–	**–**	–	**29.78**	4838-5/32
3/16	24	1	**20.58**	4808-3/16-1D	**37.66**	4808-3/16-1.5D	**–**	–	**17.72**	4838-3/16
1/4	20	1	**20.58**	4808-1/4-1D	**37.66**	4808-1/4-1.5D	**–**	–	**20.26**	4838-1/4
5/16	18	1	**20.58**	4808-5/16-1D	**37.66**	4808-5/16-1.5D	**–**	–	**22.60**	4838-5/16
3/8	16	1	**20.58**	4808-3/8-1D	**37.66**	4808-3/8-1.5D	**–**	–	**22.60**	4838-3/8
7/16	14	1	**23.14**	4808-7/16-1D	**37.66**	4808-7/16-1.5D	**–**	–	**24.38**	4838-7/16
1/2	12	1	**24.89**	4808-1/2-1D	**37.42**	4808-1/2-1.5D	**49.13**	4808-1/2-2D	**25.29**	4838-1/2
9/16	12	1	**–**	–	**41.98**	4808-9/16-1.5D	**52.00**	4808-9/16-2D	**30.10**	4838-9/16
5/8	11	1	**–**	–	**41.21**	4808-5/8-1.5D	**52.18**	4808-5/8-2D	**32.31**	4838-5/8
3/4	10	1	**–**	–	**–**	–	**54.12**	4808-3/4-2D	**40.49**	4838-3/4
7/8	9	1	**–**	–	**–**	–	**58.81**	4808-7/8-2D	**54.47**	4838-7/8
1	8	1	**–**	–	**–**	–	**70.25**	4808-1-2D	**62.76**	4838-1
1-1/8	7	1	**–**	–	**–**	–	**–**	–	**105.45**	4838-1.1/8
1-1/4	7	1	**–**	–	**–**	–	**–**	–	**113.66**	4838-1.1/4
1-1/2	6	1	**–**	–	**–**	–	**–**	–	**223.41**	4838-1.1/2
1-3/4	5	1	**–**	–	**–**	–	**–**	–	**314.11**	4838-1.3/4
2	4.5	1	**–**	–	**–**	–	**–**	–	**395.88**	4838-2
BSF										
3/16	32	1	**29.04**	4810-3/16-1D	**–**	–	**–**	–	**25.29**	4840-3/16
1/4	26	1	**28.49**	4810-1/4-1D	**60.25**	4810-1/4-1.5D	**–**	–	**25.29**	4840-1/4
5/16	22	1	**29.04**	4810-5/16-1D	**53.77**	4810-5/16-1.5D	**–**	–	**25.29**	4840-5/16
3/8	20	1	**29.04**	4810-3/8-1D	**53.77**	4810-3/8-1.5D	**–**	–	**25.29**	4840-3/8
7/16	18	1	**32.65**	4810-7/16-1D	**53.77**	4810-7/16-1.5D	**–**	–	**34.80**	4840-7/16
1/2	16	1	**–**	–	**53.77**	4810-1/2-1.5D	**79.62**	4810-1/2-2D	**27.61**	4840-1/2
9/16	16	1	**–**	–	**–**	–	**82.48**	4810-9/16-2D	**42.32**	4840-9/16
5/8	14	1	**–**	–	**–**	–	**82.48**	4810-5/8-2D	**45.53**	4840-5/8
3/4	12	1	**–**	–	**–**	–	**87.19**	4810-3/4-2D	**55.95**	4840-3/4
7/8	11	1	**–**	–	**–**	–	**94.68**	4810-7/8-2D	**75.69**	4840-7/8
1	10	1	**–**	–	**–**	–	**112.24**	4810-1-2D	**91.08**	4840-1

BSW
BRITISH STANDARD WHITWORTH

This thread form was developed by Sir Joseph Whitworth in 1841. The thread form has rounded roots and crests and is specified in BS84:1956. The thread angle for BSW is 55º as opposed to 60º in Metric and Unified threads.

BSF
BRITISH STANDARD FINE

This thread form was based upon the British Standard Whitworth (BSW) but has a finer thread (more threads per inch for a given diameter). The thread form was first introduced in 1908 and is specified in BS84:1956.

When used on external threads this series has greater tensile stress area than coarse threads of the same size. Fine series threads will resist stripping out better than coarse threads in areas where the external and mating internal threads are subjected to loads equal to or greater than the capacity of the screw or bolt. Fine threads are also used where the length of engagement is limited or where wall thickness demands a fine pitch.





BSP
BSPT
NPT

BSP
BRITISH STANDARD PIPE
BSPF (G SERIES)
This series is a pipe thread which is used mainly for mechanical coupling. The angle of thread is mainly 55º however for the US method some threads have a 60º angle. It is specified according to JIS and ISO R228.

BSPT
BRITISH STANDARD PIPE TAPER (RC SERIES PIPE TAPER)
This is based on the Whitworth thread form - a symmetrical V-thread with an angle of 55º. BSPT has been widely adopted internationally for interconnecting and sealing pipe ends by mating an external (male) with an internal (female) thread. The thread diameter increases along the length of the thread allowing the coupled pipes to form a seal when torqued as the flanks of the threads compress against each other. The taper is "1 to 16", meaning that for each 16 mm increase in the distance from the end, the diameter increases by 1 mm.

NPT
NATIONAL PIPE TAPERED
NPT is a US standard for tapered threads used to join pipes and fittings. ANSI/ASME standard B1.20.1 covers threads of 60º form with flat crests and roots. The taper on NPT threads allows them to form a seal when torqued as the flanks of the threads compress against each other. However a clearance remains between the crests and roots of the threads, resulting in a leakage around this spiral. This means that NPT fittings must be made leak free with the aid of thread seal tape or a thread sealant compound. For each 12" increase in distance from the end, the diameter increases by 3/4".

GROUP	DIES	DIES	DIES	DIES
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT	BRIGHT
MATERIAL	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY
DIE TYPE	**BUTTON**	**BUTTON**	**BUTTON**	**NUT**
PACKAGING	CLAM SHELL	CLAM SHELL	CLAM SHELL	CLAM SHELL*
OUTSIDE DIAMETER	**1"**	**1- 1/2"**	**2"**	**-**







DIAMETER INCH	TPI	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
BSPF (G SERIES)										
1/8	28	1	**–**	–	**–**	–	**52.38**	4818-1/8-2D	**24.38**	4848-1/8
1/4	19	1	**–**	–	**–**	–	**52.38**	4818-1/4-2D	**31.19**	4848-1/4
3/8	19	1	**–**	–	**–**	–	**55.24**	4818-3/8-2D	**36.57**	4848-3/8
1/2	14	1	**–**	–	**–**	–	**70.64**	4818-1/2-2D	**51.64**	4848-1/2
5/8	14	1	**–**	–	**–**	–	**72.06**	4818-5/8-2D	**78.51**	4848-5/8
3/4	14	1	**–**	–	**–**	–	**70.64**	4818-3/4-2D	**71.36**	4848-3/4
7/8	14	1	**–**	–	**–**	–	**98.72**	4818-7/8-2D	**–**	–
1	11	1	**–**	–	**–**	–	**98.72**	4818-1-2D	**124.74**	4848-1
BSPT (Rc SERIES PIPE TAPER)										
1/8	28	1	**–**	–	**–**	–	**107.22**	4820-1/8-2D	**35.62**	4850-1/8
1/4	19	1	**–**	–	**–**	–	**107.22**	4820-1/4-2D	**52.94**	4850-1/4
3/8	19	1	**–**	–	**–**	–	**114.34**	4820-3/8-2D	**57.77**	4850-3/8
1/2	14	1	**–**	–	**–**	–	**142.37**	4820-1/2-2D	**98.66**	4850-1/2
3/4	14	1	**–**	–	**–**	–	**142.37**	4820-3/4-2D	**149.21**	4850-3/4
1	11	1	**–**	–	**–**	–	**–**	–	**199.75**	4850-1
NPT										
1/8	27	1	**–**	–	**–**	–	**107.01**	4822-1/8-2D	**–**	–
1/4	18	1	**–**	–	**–**	–	**107.01**	4822-1/4-2D	**–**	–
3/8	18	1	**–**	–	**–**	–	**114.13**	4822-3/8-2D	**–**	–
1/2	14	1	**–**	–	**–**	–	**142.11**	4822-1/2-2D	**–**	–
3/4	14	1	**–**	–	**–**	–	**142.11**	4822-3/4-2D	**–**	–

* BSW sizes greater than 1-1/2" and some BSPF and BSPT sizes may be supplied in bulk single packs.



GROUP	DIES
SURFACE FINISH	BRIGHT
MATERIAL	**CHROME ALLOY**
TYPE	1" BUTTON DIE
CONTENTS	SINGLE
PACKAGING	**MERCHANDISER**



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
BUTTON DIE MERCHANDISER	**897.28**	4800-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM/INCH	PART NUMBER
METRIC COARSE	2	4.0	4800-4-1D
	2	5.0	4800-5-1D
	2	6.0	4800-6-1D
	2	7.0	4800-7-1D
	2	8.0	4800-8-1D
	2	10.0	4800-10-1D
	2	12.0	4800-12-1D
BSW	2	1/8	4808-1/8-1D
	2	5/32	4808-5/32-1D
	2	3/16	4808-3/16-1D
	2	1/4	4808-1/4-1D
	2	5/16	4808-5/16-1D
	2	3/8	4808-3/8-1D
	2	7/16	4808-7/16-1D
	2	1/2	4808-1/2-1D
UNF	2	1/4	4814-1/4-1D
	2	5/16	4814-5/16-1D
	2	3/8	4814-3/8-1D
	2	7/16	4814-7/16-1D
	2	1/2	4814-1/2-1D

* BSW sizes greater than 1-1/2" and some BSPF and BSPT sizes may be supplied in bulk single packs.





GROUP	–
SURFACE FINISH	BRIGHT
MATERIAL	CHROME ALLOY
TYPE	BUTTON DIE / DIE NUT
PACKAGING	**BULK MERCHANDISER**

MERCHANDISER TYPE	TOTAL PIECES	$ MERCHANDISER	PART NUMBER
BULK DIE MERCHANDISER	151	**7,270.28**	4800-D2

MERCHANDISER CONTENTS

QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER
1	MC DIE 1D	3 X 0.5	4800-3-1D
2	MC DIE 1D	4 X 0.7	4800-4-1D
2	MC DIE 1D	5 X 0.8	4800-5-1D
2	MC DIE 1D	6 X 1.0	4800-6-1D
2	MC DIE 1D	8 X 1.25	4800-8-1D
2	MC DIE 1D	10 X 1.5	4800-10-1D
2	MC DIE 1D	12 X 1.75	4800-12-1D
2	MC DIE 1.5D	14 X 2.0	4800-14-1.5D
2	MC DIE 1.5D	16 X 2.0	4800-16-1.5D
1	MC DIE 2D	18 X 2.5	4800-18-2D
1	MC DIE 2D	20 X 2.5	4800-20-2D
1	MF DIE 1D	8 X 1.0	4801-8-1D
1	S/PLUG DIE 1D	10 X 1.0	4802-10-1D
1	MF DIE 1D	10 X 1.25	4801-10-1D
1	S/PLUG DIE 1D	12 X 1.25	4802-12-1D
1	MF DIE 1D	12 X 1.5	4801-12-1D
1	S/PLUG DIE 1.5D	14 X 1.25	4802-14-1.5D
1	MF DIE 1.5D	14 X 1.5	4801-14-1.5D
1	MF DIE 2D	16 X 1.5	4803-16-2D
1	MF DIE 2D	25 X 1.5	4803-25-2D
1	UNC DIE 1D	8G X 32	4812-8G-1D
1	UNC DIE 1D	10G X 24	4812-10G-1D
1	UNC DIE 1D	12G X 24	4812-12G-1D
1	UNC DIE 1D	3/16 X 24 UNS	4812-3/16-1D
2	UNC DIE 1D	1/4 X 20	4812-1/4-1D
2	UNC DIE 1D	5/16 X 18	4812-5/16-1D
2	UNC DIE 1D	3/8 X 16	4812-3/8-1D
2	UNC DIE 1D	7/16 X 14	4812-7/16-1D
2	UNC DIE 1D	1/2 X 13	4812-1/2-1D
2	UNC DIE 1.5D	9/16 X 12	4812-9/16-1.5D
1	UNC DIE 1.5D	5/8 X 11	4812-5/8-1.5D
1	UNC DIE 2D	3/4 X 10	4812-3/4-2D
1	UNC DIE 2D	7/8 X 9	4812-7/8-2D
1	UNC DIE 2D	1 X 8	4812-1-2D
2	UNF DIE 1D	8G X 36	4814-8G-1D
2	UNF DIE 1D	10G X 32	4814-10G-1D
2	UNF DIE 1D	12G X 28	4814-12G-1D
2	UNF DIE 1D	3/16 X 32 UNS	4816-3/16-1D
2	UNF DIE 1D	1/4 X 28	4814-1/4-1D
2	UNF DIE 1D	5/16 X 24	4814-5/16-1D
2	UNF DIE 1D	3/8 X 24	4814-3/8-1D
2	UNF DIE 1D	7/16 X 20	4814-7/16-1D
2	UNF DIE 1D	1/2 X 20	4814-1/2-1D
1	UNF DIE 2D	9/16 X 18	4814-9/16-2D
1	UNF DIE 2D	5/8 X 18	4814-5/8-2D
1	BSPF DIE 2D	3/4 X 14	4818-3/4-2D
1	BSPF DIE 2D	7/8 X 14	4818-7/8-2D
1	BSPF DIE 2D	1 X 11	4818-1-2D
2	BSPT DIE 2D	1/8 X 28	4820-1/8-2D
2	BSPT DIE 2D	1/4 X 19	4820-1/4-2D
2	BSPT DIE 2D	3/8 X 19	4820-3/8-2D
2	BSPT DIE 2D	1/2 X 14	4820-1/2-2D
1	BSPT DIE 2D	3/4 X 14	4820-3/4-2D

QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER
2	NPT DIE 2D	1/8 X 27	4822-1/8-2D
2	NPT DIE 2D	1/4 X 18	4822-1/4-2D
2	NPT DIE 2D	3/8 X 18	4822-3/8-2D
2	NPT DIE 2D	1/2 X 14	4822-1/2-2D
1	NPT DIE 2D	3/4 X 14	4822-3/4-2D
2	MC DIE NUT	4 X 0.70	4830-4
2	MC DIE NUT	5 X 0.80	4830-5
2	MC DIE NUT	6 X 1.0	4830-6
2	MC DIE NUT	8 X 1.25	4830-8
2	MC DIE NUT	10 X 1.5	4830-10
2	MC DIE NUT	12 X 1.75	4830-12
1	MC DIE NUT	14 X 2.0	4830-14
1	MC DIE NUT	16 X 2.0	4830-16
1	MC DIE NUT	18 X 2.5	4830-18
1	MC DIE NUT	20 X 2.5	4830-20
2	MF DIE NUT	8 X 1.0	4831-8
2	S/PLUG DIE NUT	10 X 1.0	4832-10
2	MF DIE NUT	10 X 1.25	4831-10
2	S/PLUG DIE NUT	12 X 1.25	4832-12
1	MF DIE NUT	14 X 1.5	4831-14
1	MF DIE NUT	16 X 1.50	4833-16
1	MF DIE NUT	25 X 1.5	4833-25
2	UNC DIE NUT	1/4 X 20	4842-1/4
1	UNC DIE NUT	5/16 X 18	4842-5/16
2	UNC DIE NUT	3/8 X 16	4842-3/8
2	UNC DIE NUT	7/16 X 14	4842-7/16
2	UNC DIE NUT	1/2 X 13	4842-1/2
1	UNC DIE NUT	9/16 X 12	4842-9/16
1	UNC DIE NUT	5/8 X 11	4842-5/8
1	UNC DIE NUT	3/4 X 10	4842-3/4
1	UNC DIE NUT	7/8 X 9	4842-7/8
1	UNC DIE NUT	1 X 8	4842-1
2	UNF DIE NUT	1/4 X 28	4844-1/4
2	UNF DIE NUT	5/16 X 24	4844-5/16
2	UNF DIE NUT	3/8 X 24	4844-3/8
2	UNF DIE NUT	7/16 X 20	4844-7/16
2	UNF DIE NUT	1/2 X 20	4844-1/2
1	UNF DIE NUT	9/16 X 18	4844-9/16
1	UNF DIE NUT	5/8 X 18	4844-5/8
1	UNF DIE NUT	3/4 X 16	4844-3/4
1	UNF DIE NUT	7/8 X 14	4844-7/8
1	UNF DIE NUT	1 X 12	4844-1
1	BSPT DIE NUT	1/8 X 27	4850-1/8
1	BSPT DIE NUT	1/4 X 18	4850-1/4
1	BSPT DIE NUT	3/8 X 18	4850-3/8
1	BSPT DIE NUT	1/2 X 14	4850-1/2
1	BSPT DIE NUT	3/4 X 14	4850-3/4
1	BSPT DIE NUT	1 X 11	4850-1





GROUP	CTAP
SURFACE FINISH	BRIGHT
MATERIAL	CHROME ALLOY
PACKAGING	BLOW MOULDED CASE
TAP TYPE	INTERMEDIATE TAPS
DIE TYPE	1" BUTTON DIES



TAP & DIE SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
METRIC COARSE – 18 PIECES	**375.81**	4220-S1	–	–	–	–	–	–
UNC – 18 PIECES	–	–	**375.81**	4232-S1	–	–	–	–
UNF – 18 PIECES	–	–	–	–	**375.81**	4234-S1	–	–
BSW – 18 PIECES	–	–	–	–	–	–	**375.81**	4228-S1

SET CONTENTS	SIZE MM	PART NUMBER	SIZE INCH	PART NUMBER	SIZE INCH	PART NUMBER	SIZE INCH	PART NUMBER
CHROME ALLOY TAPS	3.00 X 0.50	4220-3.00I	6G x 32	4232-6GI	8G x 36	4234-8GI	1/8 x 40	4228-1/8I
	4.00 X 0.70	4220-4.00I	8G x 32	4232-8GI	10G x 32	4234-10GI	5/32 x 32	4228-5/32I
	5.00 X 0.80	4220-5.00I	10G x 24	4232-10GI	3/16 x 32	4236-3/16I	3/16 x 24	4228-3/16I
	6.00 X 1.00	4220-6.00I	1/4 x 20	4232-1/4I	1/4 x 28	4234-1/4I	1/4 x 20	4228-1/4I
	7.00 X 1.00	4220-7.00I	5/16 x 18	4232-5/16I	5/16 x 24	4234-5/16I	5/16 x 18	4228-5/16I
	8.00 X 1.25	4220-8.00I	3/8 x 16	4232-3/8I	3/8 x 24	4234-3/8I	3/8 x 16	4228-3/8I
	10.00 X 1.50	4220-10.00I	7/16 x 14	4232-7/16I	7/16 x 20	4234-7/16I	7/16 x 14	4228-7/16I
	12.00 X 1.75	4220-12.00I	1/2 x 13	4232-1/2I	1/2 x 20	4234-1/2I	1/2 x 12	4228-1/2I
CHROME ALLOY BUTTON DIES	3.00 x 0.50	4800-3-1D	6G x 32	4812-6G-1D	8G x 36	4814-8G-1D	1/8 x 40	4808-1/8-1D
	4.00 x 0.70	4800-4-1D	8G x 32	4812-8G-1D	10G x 32	4814-10G-1D	5/32 x 32	4808-5/32-1D
	5.00 x 0.80	4800-5-1D	10G x 24	4812-10G-1D	3/16 x 32	4816-3/16-1D	3/16 x 24	4808-3/16-1D
	6.00 x 1.00	4800-6-1D	1/4 x 20	4812-1/4-1D	1/4 x 28	4814-1/4-1D	1/4 x 20	4808-1/4-1D
	7.00 x 1.00	4800-7-1D	5/16 x 18	4812-5/16-1D	5/16 x 24	4814-5/16-1D	5/16 x 18	4808-5/16-1D
	8.00 x 1.25	4800-8-1D	3/8 x 16	4812-3/8-1D	3/8 x 24	4814-3/8-1D	3/8 x 16	4808-3/8-1D
	10.00 x 1.50	4800-10-1D	7/16 x 14	4812-7/16-1D	7/16 x 20	4814-7/16-1D	7/16 x 14	4808-7/16-1D
	12.00 x 1.75	4800-12-1D	1/2 x 13	4812-1/2-1D	1/2 x 20	4814-1/2-1D	1/2 x 12	4808-1/2-1D
WRENCH/HOLDER	Tap Wrench "0" Size (M3-M12)	4998-1/8-1/2	Tap Wrench "0" Size (M3-M12)	4998-1/8-1/2	Tap Wrench "0" Size (M3-M12)	4998-1/8-1/2	Tap Wrench "0" Size (M3-M12)	4998-1/8-1/2
	Die Holder 1" Diameter	4999-1	Die Holder 1" Diameter	4999-1	Die Holder 1" Diameter	4999-1	Die Holder 1" Diameter	4999-1



TAP & DIE SET TYPE	SETS PER OUTER	$ SET	PART NUMBER
METRIC COARSE – QC RATCHET	4	**388.78**	4220-S2

SET CONTENTS	SIZE MM	PART NUMBER	SIZE MM	PART NUMBER
TAPS AND BUTTON DIES	**CHROME ALLOY TAPS**		**CHROME ALLOY DIES**	
	3.00 x 0.50	4220-3.00I	3.00 x 0.50	4800-3-1D
	4.00 x 0.70	4220-4.00I	4.00 x 0.70	4800-4-1D
	5.00 x 0.80	4220-5.00I	5.00 x 0.80	4800-5-1D
	6.00 x 1.00	4220-6.00I	6.00 x 1.00	4800-6-1D
	8.00 x 1.25	4220-8.00I	8.00 x 1.25	4800-8-1D
	10.00 x 1.50	4220-10.00I	10.00 x 1.50	4800-10-1D
	12.00 x 1.75	4220-12.00I	12.00 x 1.75	4800-12-1D
WRENCH/HOLDER	Tap Wrench	4996-1/2QC	Die Holder	–





MC

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**











METRIC
COARSE & FINE

Angle of thread is 60º. The crest is flat and the thread has clearance at the root allowing external thread and internal thread to engage well. Larger root radius and lower thread height enable easy screw thread processing and increase thread screw strength. The major diameter of external thread and pitch are specified by a simple numerical value (most commonly measured in millimeters).

TAPER TAPS

Taper Taps have a lead of eight threads and are used as a starting tap in difficult or high precision holes. Manufactured from HSS this general purpose tap is designed for use in medium tensile materials and is for hand or general machine use.

INTERMEDIATE TAPS

Intermediate Taps have a lead of four threads and are used in most general purpose applications to cut a thread true to a pre-drilled pilot hole.

BOTTOMING TAPS

Bottoming Taps have a lead of two threads and are used to ensure minimum thread run-out when tapping to the bottom of a blind hole. Bottoming Taps are typically preceded by the use of a Taper or Intermediate Tap.

DIA MM	PITCH MM	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
METRIC COARSE										
1.00	0.25	38.50	0.75	1	**96.54**	–	3020-1.00I	–	**–**	–
1.20	0.25	38.50	0.85	1	**91.96**	–	3020-1.20I	–	**–**	–
1.40	0.30	40.00	1.10	1	**91.96**	–	3020-1.40I	–	**–**	–
1.60	0.35	41.00	1.25	1	**77.45**	–	3020-1.60I	–	**–**	–
1.70	0.35	41.00	1.45	1	**77.45**	–	3020-1.80I	–	**–**	–
2.00	0.40	41.00	1.60	1	**32.28**	3020-2.00T	3020-2.00I	3020-2.00B	**96.83**	3020-2.00TS
2.50	0.45	44.50	2.05	1	**27.19**	3020-2.50T	3020-2.50I	3020-2.50B	**81.59**	3020-2.50TS
3.00	0.50	48.00	2.50	1	**20.37**	3020-3.00T	3020-3.00I	3020-3.00B	**61.14**	3020-3.00TS
3.50	0.60	50.00	2.90	1	**21.33**	3020-3.50T	3020-3.50I	3020-3.50B	**63.97**	3020-3.50TS
4.00	0.70	53.00	3.30	1	**17.67**	3020-4.00T	3020-4.00I	3020-4.00B	**52.98**	3020-4.00TS
4.50	0.75	53.00	3.70	1	**23.02**	3020-4.50T	3020-4.50I	3020-4.50B	**69.08**	3020-4.50TS
5.00	0.80	58.00	4.20	1	**19.68**	3020-5.00T	3020-5.00I	3020-5.00B	**59.07**	3020-5.00TS
6.00	1.00	66.00	5.00	1	**20.37**	3020-6.00T	3020-6.00I	3020-6.00B	**61.14**	3020-6.00TS
7.00	1.00	66.00	6.00	1	**24.42**	3020-7.00T	3020-7.00I	3020-7.00B	**73.22**	3020-7.00TS
8.00	1.25	72.00	6.80	1	**21.33**	3020-8.00T	3020-8.00I	3020-8.00B	**63.97**	3020-8.00TS
9.00	1.25	72.00	7.80	1	**34.94**	3020-9.00T	3020-9.00I	3020-9.00B	**104.81**	3020-9.00TS
10.00	1.50	80.00	8.50	1	**29.03**	3020-10.00T	3020-10.00I	3020-10.00B	**87.10**	3020-10.00TS
12.00	1.75	89.00	10.20	1	**42.99**	3020-12.00T	3020-12.00I	3020-12.00B	**128.98**	3020-12.00TS
14.00	2.00	95.00	12.00	1	**54.26**	3020-14.00T	3020-14.00I	3020-14.00B	**162.74**	3020-14.00TS
16.00	2.00	102.00	14.00	1	**65.73**	3020-16.00T	3020-16.00I	3020-16.00B	**197.15**	3020-16.00TS
18.00	2.50	112.00	15.50	1	**101.95**	3020-18.00T	3020-18.00I	3020-18.00B	**305.82**	3020-18.00TS
20.00	2.50	112.00	17.50	1	**113.42**	3020-20.00T	3020-20.00I	3020-20.00B	**340.25**	3020-20.00TS
22.00	2.50	118.00	19.50	1	**128.22**	3020-22.00T	3020-22.00I	3020-22.00B	**384.70**	3020-22.00TS
24.00	3.00	130.00	21.00	1	**147.94**	3020-24.00T	3020-24.00I	3020-24.00B	**443.85**	3020-24.00TS
30.00	3.50	138.00	26.50	1	**253.18**	3020-30.00T	3020-30.00I	3020-30.00B	**759.54**	3020-30.00TS
33.00	3.50	151.00	29.50	1	**332.25**	3020-33.00T	3020-33.00I	3020-33.00B	**996.75**	3020-33.00TS
36.00	4.00	162.00	32.00	1	**384.64**	3020-36.00T	3020-36.00I	3020-36.00B	**1,153.92**	3020-36.00TS
39.00	4.00	170.00	35.00	1	**460.35**	3020-39.00T	3020-39.00I	3020-39.00B	**1,381.04**	3020-39.00TS
42.00	4.50	170.00	37.50	1	**526.10**	3020-42.00T	3020-42.00I	3020-42.00B	**1,578.30**	3020-42.00TS
45.00	4.50	187.00	40.50	1	**680.83**	3020-45.00T	3020-45.00I	3020-45.00B	**2,042.48**	3020-45.00TS
48.00	5.00	187.00	43.00	1	**726.64**	3020-48.00T	3020-48.00I	3020-48.00B	**2,179.93**	3020-48.00TS
52.00	5.00	200.00	47.00	1	**894.43**	3020-52.00T	3020-52.00I	3020-52.00B	**2,683.28**	3020-52.00TS
56.00	5.50	200.00	50.50	1	**1,430.29**	3020-56.00T	3020-56.00I	3020-56.00B	**4,290.86**	3020-56.00TS
METRIC COARSE - LEFT HAND										
3.00	0.50	48.00	2.50	1	**46.01**	3080-3.00T	3080-3.00I	3080-3.00B	**138.03**	3080-3.00TS
4.00	0.70	53.00	3.30	1	**46.01**	3080-4.00T	3080-4.00I	3080-4.00B	**138.03**	3080-4.00TS
5.00	0.80	58.00	4.20	1	**46.01**	3080-5.00T	3080-5.00I	3080-5.00B	**138.03**	3080-5.00TS
6.00	1.00	66.00	5.00	1	**48.70**	3080-6.00T	3080-6.00I	3080-6.00B	**146.10**	3080-6.00TS
8.00	1.25	72.00	6.80	1	**51.05**	3080-8.00T	3080-8.00I	3080-8.00B	**153.15**	3080-8.00TS
10.00	1.50	80.00	8.50	1	**62.40**	3080-10.00T	3080-10.00I	3080-10.00B	**187.20**	3080-10.00TS
12.00	1.75	89.00	10.20	1	**105.28**	3080-12.00T	3080-12.00I	3080-12.00B	**315.84**	3080-12.00TS
14.00	2.00	95.00	12.00	1	**94.24**	3080-14.00T	3080-14.00I	3080-14.00B	**282.72**	3080-14.00TS
16.00	2.00	102.00	14.00	1	**94.24**	3080-16.00T	3080-16.00I	3080-16.00B	**282.72**	3080-16.00TS
18.00	2.50	112.00	15.50	1	**111.18**	3080-18.00T	3080-18.00I	3080-18.00B	**333.54**	3080-18.00TS
20.00	2.50	112.00	17.50	1	**143.11**	3080-20.00T	3080-20.00I	3080-20.00B	**429.33**	3080-20.00TS
22.00	2.50	118.00	19.50	1	**266.43**	3080-22.00T	3080-22.00I	3080-22.00B	**799.29**	3080-22.00TS
24.00	3.00	130.00	21.00	1	**266.43**	3080-24.00T	3080-24.00I	3080-24.00B	**799.29**	3080-24.00TS



MF

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**







DIA MM	PITCH MM	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
METRIC FINE										
2.00	0.45	41.00	1.55	1	**49.93**	–	3021-2.00I	–	**–**	–
3.00	0.35	48.00	2.65	1	**40.12**	3021-3.00T	3021-3.00I	3021-3.00B	**120.38**	3021-3.00TS
4.00	0.50	53.00	3.50	1	**40.12**	3021-4.00T	3021-4.00I	3021-4.00B	**120.38**	3021-4.00TS
4.50	0.50	53.00	4.00	1	**40.12**	3021-4.50T	3021-4.50I	3021-4.50B	**120.38**	3021-4.50TS
5.00	0.50	58.00	4.50	1	**36.01**	3021-5.00T	3021-5.00I	3021-5.00B	**108.04**	3021-5.00TS
6.00	0.75	66.00	5.20	1	**36.01**	3021-6.00T	3021-6.00I	3021-6.00B	**108.04**	3021-6.00TS
7.00	0.75	66.00	6.20	1	**38.59**	3021-7.00T	3021-7.00I	3021-7.00B	**115.78**	3021-7.00TS
8.00	0.75	69.00	7.20	1	**49.29**	3024-8.00T	3024-8.00I	3024-8.00B	**147.87**	3024-8.00TS
8.00	1.00	69.00	7.00	1	**39.51**	3021-8.00T	3021-8.00I	3021-8.00B	**118.52**	3021-8.00TS
9.00	1.00	69.00	8.00	1	**57.13**	3021-9.00T	3021-9.00I	3021-9.00B	**171.40**	3021-9.00TS
10.00	0.75	76.00	9.20	1	**67.02**	3024-10.00T	3024-10.00I	3024-10.00B	**201.07**	3024-10.00TS
10.00	1.00	76.00	9.00	1	**54.34**	3022-10.00T	3022-10.00I	3022-10.00B	**163.04**	3022-10.00TS
10.00	1.25	76.00	8.80	1	**54.26**	3021-10.00T	3021-10.00I	3021-10.00B	**162.74**	3021-10.00TS
12.00	1.00	84.00	11.00	1	**78.35**	3024-12.00T	3024-12.00I	3024-12.00B	**235.07**	3024-12.00TS
12.00	1.25	84.00	10.80	1	**62.40**	3022-12.00T	3022-12.00I	3022-12.00B	**187.19**	3022-12.00TS
12.00	1.50	89.00	10.50	1	**62.40**	3021-12.00T	3021-12.00I	3021-12.00B	**187.19**	3021-12.00TS
14.00	1.00	90.00	13.00	1	**94.24**	3024-14.00T	3024-14.00I	3024-14.00B	**282.74**	3024-14.00TS
14.00	1.25	90.00	12.80	1	**92.09**	3022-14.00T	3022-14.00I	3022-14.00B	**276.20**	3022-14.00TS
14.00	1.50	95.00	12.50	1	**92.09**	3021-14.00T	3021-14.00I	3021-14.00B	**276.22**	3021-14.00TS
16.00	1.00	95.00	15.00	1	**94.24**	3021-16.00T	3021-16.00I	3021-16.00B	**282.74**	3021-16.00TS
16.00	1.25	95.00	14.75	1	**94.24**	3024-16.00T	3024-16.00I	3024-16.00B	**282.74**	3024-16.00TS
16.00	1.50	102.00	14.50	1	**92.09**	3023-16.00T	3023-16.00I	3023-16.00B	**276.22**	3023-16.00TS
18.00	1.00	104.00	17.00	1	**111.19**	3021-18.00T	3021-18.00I	3021-18.00B	**333.55**	3021-18.00TS
18.00	1.25	104.00	16.80	1	**111.19**	3024-18.00T	3024-18.00I	3024-18.00B	**333.55**	3024-18.00TS
18.00	1.50	104.00	16.50	1	**118.43**	3022-18.00T	3022-18.00I	3022-18.00B	**355.32**	3022-18.00TS
20.00	1.50	104.00	18.50	1	**148.11**	3023-20.00T	3023-20.00I	3023-20.00B	**444.33**	3023-20.00TS
20.00	2.00	112.00	18.00	1	**143.11**	3021-20.00T	3021-20.00I	3021-20.00B	**429.35**	3021-20.00TS
22.00	1.50	113.00	20.50	1	**177.46**	3021-22.00T	3021-22.00I	3021-22.00B	**532.42**	3021-22.00TS
22.00	2.00	118.00	20.00	1	**143.11**	3024-22.00T	3024-22.00I	3024-22.00B	**429.35**	3024-22.00TS
24.00	1.50	120.00	22.50	1	**159.88**	3024-24.00T	3024-24.00I	3024-24.00B	**479.63**	3024-24.00TS
24.00	2.00	120.00	22.00	1	**217.16**	3021-24.00T	3021-24.00I	3021-24.00B	**651.48**	3021-24.00TS
25.00	1.50	120.00	23.50	1	**159.88**	3023-25.00T	3023-25.00I	3023-25.00B	**479.63**	3023-25.00TS
27.00	2.00	127.00	25.00	1	**201.13**	3021-27.00T	3021-27.00I	3021-27.00B	**603.39**	3021-27.00TS
30.00	2.00	127.00	28.00	1	**226.55**	3021-30.00T	3021-30.00I	3021-30.00B	**679.65**	3021-30.00TS
32.00	1.50	137.00	30.50	1	**226.55**	3021-32.00T	3021-32.00I	3021-32.00B	**679.65**	3021-32.00TS
METRIC FINE - LEFT HAND										
8.00	0.75	69.00	7.20	1	**110.91**	3082-8.00T	3082-8.00I	3082-8.00B	**332.73**	3082-8.00TS
10.00	1.00	76.00	9.00	1	**152.58**	3082-10.00T	3082-10.00I	3082-10.00B	**457.74**	3082-10.00TS
10.00	1.25	76.00	8.80	1	**152.31**	3083-10.00T	3083-10.00I	3083-10.00B	**456.93**	3083-10.00TS
12.00	1.00	84.00	11.00	1	**219.96**	3082-12.00T	3082-12.00I	3082-12.00B	**659.88**	3082-12.00TS
12.00	1.25	84.00	10.80	1	**175.20**	3083-12.00T	3083-12.00I	3083-12.00B	**525.60**	3083-12.00TS
12.00	1.50	89.00	10.50	1	**175.20**	3084-12.00T	3084-12.00I	3084-12.00B	**525.60**	3084-12.00TS
14.00	1.50	95.00	12.50	1	**258.50**	3082-14.00T	3082-14.00I	3082-14.00B	**775.50**	3082-14.00TS
16.00	1.50	102.00	14.50	1	**258.50**	3082-16.00T	3082-16.00I	3082-16.00B	**775.50**	3082-16.00TS
18.00	1.50	104.00	16.50	1	**332.54**	3082-18.00T	3082-18.00I	3082-18.00B	**997.62**	3082-18.00TS
20.00	1.50	104.00	18.50	1	**415.80**	3082-20.00T	3082-20.00I	3082-20.00B	**1,247.40**	3082-20.00TS
22.00	1.50	113.00	20.50	1	**498.27**	3082-22.00T	3082-22.00I	3082-22.00B	**1,494.81**	3082-22.00TS

METRIC
COARSE & FINE

Angle of thread is 60º. The crest is flat and the thread has clearance at the root allowing external thread and internal thread to engage well. Larger root radius and lower thread height enable easy screw thread processing and increase thread screw strength. The major diameter of external thread and pitch are specified by a simple numerical value (most commonly measured in millimetres).

TAPER TAPS

Taper Taps have a lead of eight threads and are used as a starting tap in difficult or high precision holes. Manufactured from HSS this general purpose tap is designed for use in medium tensile materials and is for hand or general machine use.

INTERMEDIATE TAPS

Intermediate Taps have a lead of four threads and are used in most general purpose applications to cut a thread true to a pre-drilled pilot hole.

BOTTOMING TAPS

Bottoming Taps have a lead of two threads and are used to ensure minimum thread run-out when tapping to the bottom of a blind hole. Bottoming Taps are typically preceded by the use of a Taper or Intermediate Tap.



SPARK CONDUIT OVERSIZE / GALVANISING

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**





DIA MM	PITCH MM	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
SPARK PLUG										
10.00	1.00	76.00	9.00	1	**54.34**	3022-10.00T	3022-10.00I	3022-10.00B	**163.04**	3022-10.00TS
12.00	1.25	84.00	10.80	1	**62.40**	3022-12.00T	3022-12.00I	3022-12.00B	**187.19**	3022-12.00TS
14.00	1.25	90.00	12.80	1	**92.09**	3022-14.00T	3022-14.00I	3022-14.00B	**276.20**	3022-14.00TS
18.00	1.50	104.00	16.50	1	**118.43**	3022-18.00T	3022-18.00I	3022-18.00B	**355.32**	3022-18.00TS
CONDUIT										
16.00	1.50	102.00	14.50	1	**92.09**	3023-16.00T	3023-16.00I	3023-16.00B	**276.22**	3023-16.00TS
20.00	1.50	104.00	18.50	1	**148.11**	3023-20.00T	3023-20.00I	3023-20.00B	**444.33**	3023-20.00TS
OVERSIZE / GALVANISING										
10.00+0.4	1.50	80.00	8.9	1	**78.35**	–	–	3026-10.00B	**–**	–
12.00+0.4	1.75	89.00	10.6	1	**94.24**	–	–	3026-12.00B	**–**	–
16.00+0.4	2.00	102.00	14.4	1	**111.19**	–	–	3026-16.00B	**–**	–
20.00+0.4	2.50	112.00	17.9	1	**159.88**	–	–	3026-20.00B	**–**	–
24.00+0.4	3.00	130.00	21.5	1	**202.21**	–	–	3026-24.00B	**–**	–

METRIC
COARSE & FINE

Angle of thread is 60º. The crest is flat and the thread has clearance at the root allowing external thread and internal thread to engage well. Larger root radius and lower thread height enable easy screw thread processing and increase thread screw strength. The major diameter of external thread and pitch are specified by a simple numerical value (most commonly measured in millimeters).

TAPER TAPS

Taper Taps have a lead of eight threads and are used as a starting tap in difficult or high precision holes. Manufactured from HSS this general purpose tap is designed for use in medium tensile materials and is for hand or general machine use.

INTERMEDIATE TAPS

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BOTTOMING TAPS

Bottoming Taps have a lead of two threads and are used to ensure minimum thread run-out when tapping to the bottom of a blind hole. Bottoming Taps are typically preceded by the use of a Taper or Intermediate Tap.



UNC

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**







DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
UNC										
5G	40	48.00	2.65	1	**34.58**	3032-5GT	3032-5GI	3032-5GB	**103.71**	3032-5GTS
6G	32	50.00	2.85	1	**22.61**	3032-6GT	3032-6GI	3032-6GB	**67.82**	3032-6GTS
8G	32	53.00	3.50	1	**23.02**	3032-8GT	3032-8GI	3032-8GB	**69.08**	3032-8GTS
10G	24	58.00	3.90	1	**21.09**	3032-10GT	3032-10GI	3032-10GB	**63.22**	3032-10GTS
12G	24	62.00	4.50	1	**25.37**	3032-12GT	3032-12GI	3032-12GB	**76.10**	3032-12GTS
3/16	24 UNS	58.00	3.70	1	**24.29**	3032-3/16T	3032-3/16I	3032-3/16B	**72.91**	3032-3/16TS
1/4	20	66.00	5.10	1	**20.13**	3032-1/4T	3032-1/4I	3032-1/4B	**60.38**	3032-1/4TS
5/16	18	72.00	6.60	1	**21.09**	3032-5/16T	3032-5/16I	3032-5/16B	**63.22**	3032-5/16TS
3/8	16	80.00	8.00	1	**29.03**	3032-3/8T	3032-3/8I	3032-3/8B	**87.10**	3032-3/8TS
7/16	14	85.00	9.40	1	**38.53**	3032-7/16T	3032-7/16I	3032-7/16B	**115.60**	3032-7/16TS
1/2	13	89.00	10.80	1	**43.17**	3032-1/2T	3032-1/2I	3032-1/2B	**129.50**	3032-1/2TS
9/16	12	95.00	12.20	1	**62.40**	3032-9/16T	3032-9/16I	3032-9/16B	**187.19**	3032-9/16TS
5/8	11	102.00	13.50	1	**65.73**	3032-5/8T	3032-5/8I	3032-5/8B	**197.15**	3032-5/8TS
3/4	10	112.00	16.50	1	**85.58**	3032-3/4T	3032-3/4I	3032-3/4B	**256.70**	3032-3/4TS
7/8	9	118.00	19.50	1	**128.22**	3032-7/8T	3032-7/8I	3032-7/8B	**384.70**	3032-7/8TS
1	8	130.00	22.25	1	**154.75**	3032-1T	3032-1I	3032-1B	**464.24**	3032-1TS
1-1/8	7	138.00	25.00	1	**253.18**	3032-1.1/8T	3032-1.1/8I	3032-1.1/8B	**759.54**	3032-1.1/8TS
1-1/4	7	151.00	28.00	1	**282.86**	3032-1.1/4T	3032-1.1/4I	3032-1.1/4B	**848.57**	3032-1.1/4TS
1-1/2	6	170.00	34.00	1	**421.52**	3032-1.1/2T	3032-1.1/2I	3032-1.1/2B	**1,264.53**	3032-1.1/2TS
1-3/4	5	187.00	39.50	1	**617.77**	3032-1.3/4T	3032-1.3/4I	3032-1.3/4B	**1,853.31**	3032-1.3/4TS
2	4.5	200.00	45.00	1	**842.56**	3032-2T	3032-2I	3032-2B	**2,527.67**	3032-2TS
UNC - LEFT HAND										
1/4	20	66.00	5.10	1	**63.01**	3090-1/4T	3090-1/4I	3090-1/4B	**189.03**	3090-1/4TS
5/16	18	72.00	6.60	1	**73.10**	3090-5/16T	3090-5/16I	3090-5/16B	**219.30**	3090-5/16TS
3/8	16	80.00	8.00	1	**89.61**	3090-3/8T	3090-3/8I	3090-3/8B	**268.83**	3090-3/8TS
7/16	14	85.00	9.40	1	**130.58**	3090-7/16T	3090-7/16I	3090-7/16B	**391.74**	3090-7/16TS
1/2	13	89.00	10.80	1	**157.89**	3090-1/2T	3090-1/2I	3090-1/2B	**473.67**	3090-1/2TS
5/8	11	102.00	13.50	1	**183.10**	3090-5/8T	3090-5/8I	3090-5/8B	**549.30**	3090-5/8TS
3/4	10	112.00	16.50	1	**271.79**	3090-3/4T	3090-3/4I	3090-3/4B	**815.37**	3090-3/4TS
7/8	9	118.00	19.50	1	**359.37**	3090-7/8T	3090-7/8I	3090-7/8B	**1,078.11**	3090-7/8TS
1	8	130.00	22.25	1	**361.56**	3090-1T	3090-1I	3090-1B	**1,084.68**	3090-1TS

UNC
UNIFIED NATIONAL COARSE

This thread form was introduced in 1948 as an attempt to standardise thread forms in the USA, Canada and the UK. The thread profile of UNC is the same as for metric threads and is described in the JIS B0206 standard. The thread is described by its major diameter and the number of threads per inch of length (TPI).This thread series is commonly used in the mass production of bolts, screws and nuts. It is used for threading into lower tensile strength materials (bronze, brass, aluminium and plastics) to obtain the best resistance to stripping of the internal thread. It is also used on quick assembly or disassembly or if corrosion or slight damage is possible.



UNF UNEF

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**





DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
UNF										
4G	48	48.00	2.40	1	**34.58**	3034-4GT	3034-4GI	3034-4GB	**103.71**	3034-4GTS
5G	44	48.00	2.70	1	**34.58**	3034-5GT	3034-5GI	3034-5GB	**103.71**	3034-5GTS
6G	40	50.00	2.95	1	**34.58**	3034-6GT	3034-6GI	3034-6GB	**103.71**	3034-6GTS
8G	36	53.00	3.50	1	**23.72**	3034-8GT	3034-8GI	3034-8GB	**71.15**	3034-8GTS
10G	32	58.00	4.10	1	**20.69**	3034-10GT	3034-10GI	3034-10GB	**62.04**	3034-10GTS
12G	28	62.00	4.70	1	**25.70**	3034-12GT	3034-12GI	3034-12GB	**77.06**	3034-12GTS
3/16	32 UNS	58.00	4.00	1	**29.69**	3036-3/16T	3036-3/16I	3036-3/16B	**89.08**	3036-3/16TS
1/4	28	66.00	5.50	1	**19.68**	3034-1/4T	3034-1/4I	3034-1/4B	**59.07**	3034-1/4TS
5/16	24	69.00	6.90	1	**20.81**	3034-5/16T	3034-5/16I	3034-5/16B	**62.40**	3034-5/16TS
3/8	24	76.00	8.50	1	**28.55**	3034-3/8T	3034-3/8I	3034-3/8B	**85.67**	3034-3/8TS
7/16	20	82.00	9.90	1	**38.53**	3034-7/16T	3034-7/16I	3034-7/16B	**115.60**	3034-7/16TS
1/2	20	84.00	11.50	1	**43.42**	3034-1/2T	3034-1/2I	3034-1/2B	**130.27**	3034-1/2TS
9/16	18	90.00	12.90	1	**62.40**	3034-9/16T	3034-9/16I	3034-9/16B	**187.19**	3034-9/16TS
5/8	18	95.00	14.50	1	**64.05**	3034-5/8T	3034-5/8I	3034-5/8B	**192.12**	3034-5/8TS
3/4	16	104.00	17.50	1	**85.42**	3034-3/4T	3034-3/4I	3034-3/4B	**256.22**	3034-3/4TS
7/8	14	113.00	20.40	1	**128.22**	3034-7/8T	3034-7/8I	3034-7/8B	**384.70**	3034-7/8TS
1	12	120.00	23.25	1	**154.45**	3034-1T	3034-1I	3034-1B	**463.37**	3034-1TS
1	14 UNS	120.00	24.00	1	**221.86**	3036-1T	3036-1I	3036-1B	**665.62**	3036-1TS
1-1/8	12	127.00	26.50	1	**253.18**	3034-1.1/8T	3034-1.1/8I	3034-1.1/8B	**759.54**	3034-1.1/8TS
1-1/4	12	137.00	29.50	1	**282.86**	3034-1.1/4T	3034-1.1/4I	3034-1.1/4B	**848.58**	3034-1.1/4TS
1-1/2	12	149.00	36.00	1	**421.01**	3034-1.1/2T	3034-1.1/2I	3034-1.1/2B	**1,263.03**	3034-1.1/2TS
UNF - LEFT HAND										
10G	32	58.00	4.10	1	**45.89**	3092-10GT	3092-10GI	3092-10GB	**137.67**	3092-10GTS
1/4	28	66.00	5.50	1	**68.74**	3092-1/4T	3092-1/4I	3092-1/4B	**206.22**	3092-1/4TS
5/16	24	69.00	6.90	1	**73.10**	3092-5/16T	3092-5/16I	3092-5/16B	**219.30**	3092-5/16TS
3/8	24	76.00	8.50	1	**92.46**	3092-3/8T	3092-3/8I	3092-3/8B	**277.38**	3092-3/8TS
7/16	20	82.00	9.90	1	**130.58**	3092-7/16T	3092-7/16I	3092-7/16B	**391.74**	3092-7/16TS
1/2	20	84.00	11.50	1	**157.89**	3092-1/2T	3092-1/2I	3092-1/2B	**473.67**	3092-1/2TS
5/8	18	95.00	14.50	1	**194.76**	3092-5/8T	3092-5/8I	3092-5/8B	**584.28**	3092-5/8TS
3/4	16	104.00	17.50	1	**276.82**	3092-3/4T	3092-3/4I	3092-3/4B	**830.46**	3092-3/4TS
7/8	14	113.00	20.40	1	**338.77**	3092-7/8T	3092-7/8I	3092-7/8B	**1,016.31**	3092-7/8TS
1	12	120.00	23.25	1	**387.11**	3092-1T	3092-1I	3092-1B	**1,161.33**	3092-1TS
UNEF										
1/4	32	66.00	5.60	1	**62.56**	–	–	3038-1/4B	**–**	–
5/16	32	69.00	7.20	1	**67.97**	–	–	3038-5/16B	**–**	–
3/8	32	76.00	8.80	1	**67.97**	–	–	3038-3/8B	**–**	–
1/2	28	84.00	11.80	1	**78.35**	–	–	3038-1/2B	**–**	–
5/8	24	95.00	14.75	1	**94.24**	–	–	3038-5/8B	**–**	–
3/4	20	104.00	18.00	1	**111.19**	–	–	3038-3/4B	**–**	–
1	20	120.00	24.20	1	**159.88**	–	–	3038-1B	**–**	–

UNF
UNIFIED NATIONAL FINE

This thread form was introduced in 1948 as an attempt to standardise thread forms in the USA, Canada and the UK. The thread profile of UNF is the same as for metric threads and is described in the JIS B0206 standard. The thread is described by its major diameter and the number of threads per inch of length (TPI). When used on external threads this series has greater tensile stress area than coarse threads of the same size. Fine series threads will resist stripping out better than coarse threads in areas where the external and mating internal threads are subjected to loads equal to or greater than the capacity of the screw or bolt. Fine threads are also used where the length of engagement is limited or where wall thickness demands a fine pitch.

UNEF
UNIFIED NATIONAL EXTRA FINE

UNEF is a subset of UNF in which the thread forms feature a greater number of TPI than the standard UNF series.

UNS
UNIFIED NATIONAL SPECIAL

UNS is a variation on standard UNF and UNEF diameter and pitch combinations. UNS threads are rarely used for bolts, but rather on nuts, tapped holes, and threaded OD's. Most UNS threads have more threads per inch than the correlating UNF or UNEF standard, therefore they are often the strongest thread available. Because of this they are often used in applications where high stresses are encountered, such as machine tool spindles or automotive spindles.



BSW

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**







DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
BSW										
1/16	60	41.00	1.20	1	**102.90**	–	3028-1/16I	–	**–**	–
3/32	48 WHIT	44.50	1.85	1	**82.56**	3028-3/32T	3028-3/32I	3028-3/32B	**247.62**	3028-3/32TS
1/8	40	48.00	2.55	1	**32.97**	3028-1/8T	3028-1/8I	3028-1/8B	**98.93**	3028-1/8TS
5/32	32 WHIT	53.00	3.20	1	**32.97**	3028-5/32T	3028-5/32I	3028-5/32B	**98.93**	3028-5/32TS
3/16	24	58.00	3.70	1	**20.81**	3028-3/16T	3028-3/16I	3028-3/16B	**62.40**	3028-3/16TS
7/32	24 WHIT	62.00	4.50	1	**31.33**	3028-7/32T	3028-7/32I	3028-7/32B	**93.95**	3028-7/32TS
1/4	20	66.00	5.10	1	**21.09**	3028-1/4T	3028-1/4I	3028-1/4B	**63.22**	3028-1/4TS
5/16	18	72.00	6.50	1	**22.10**	3028-5/16T	3028-5/16I	3028-5/16B	**66.25**	3028-5/16TS
3/8	16	80.00	7.90	1	**30.22**	3028-3/8T	3028-3/8I	3028-3/8B	**90.65**	3028-3/8TS
7/16	14	85.00	9.30	1	**40.20**	3028-7/16T	3028-7/16I	3028-7/16B	**120.63**	3028-7/16TS
1/2	12	89.00	10.50	1	**45.03**	3028-1/2T	3028-1/2I	3028-1/2B	**135.16**	3028-1/2TS
9/16	12	95.00	12.10	1	**65.35**	3028-9/16T	3028-9/16I	3028-9/16B	**196.03**	3028-9/16TS
5/8	11	102.00	13.50	1	**68.75**	3028-5/8T	3028-5/8I	3028-5/8B	**206.26**	3028-5/8TS
3/4	10	112.00	16.25	1	**89.42**	3028-3/4T	3028-3/4I	3028-3/4B	**268.27**	3028-3/4TS
7/8	9	118.00	19.25	1	**134.12**	3028-7/8T	3028-7/8I	3028-7/8B	**402.35**	3028-7/8TS
1	8	130.00	22.00	1	**161.71**	3028-1T	3028-1I	3028-1B	**485.11**	3028-1TS
1-1/8	7	138.00	24.75	1	**264.81**	3028-1.1/8T	3028-1.1/8I	3028-1.1/8B	**794.43**	3028-1.1/8TS
1-1/4	7	151.00	28.00	1	**293.42**	3028-1.1/4T	3028-1.1/4I	3028-1.1/4B	**880.26**	3028-1.1/4TS
1-3/8	6	162.00	30.25	1	**375.62**	3028-1.3/8T	3028-1.3/8I	3028-1.3/8B	**1,126.83**	3028-1.3/8TS
1-1/2	6	170.00	33.50	1	**438.18**	3028-1.1/2T	3028-1.1/2I	3028-1.1/2B	**1,314.54**	3028-1.1/2TS
1-3/4	5	187.00	39.00	1	**618.45**	3028-1.3/4T	3028-1.3/4I	3028-1.3/4B	**1,855.35**	3028-1.3/4TS
2	4.5	200.00	44.50	1	**893.00**	3028-2T	3028-2I	3028-2B	**2,679.00**	3028-2TS
BSW - LEFT HAND										
1/4	20	66.00	5.10	1	**61.83**	3086-1/4T	3086-1/4I	3086-1/4B	**185.46**	3086-1/4TS
5/16	18	72.00	6.50	1	**67.97**	3086-5/16T	3086-5/16I	3086-5/16B	**203.94**	3086-5/16TS
3/8	16	80.00	7.90	1	**67.97**	3086-3/8T	3086-3/8I	3086-3/8B	**203.94**	3086-3/8TS
7/16	14	85.00	9.30	1	**78.35**	3086-7/16T	3086-7/16I	3086-7/16B	**235.05**	3086-7/16TS
1/2	12	89.00	10.50	1	**78.35**	3086-1/2T	3086-1/2I	3086-1/2B	**235.05**	3086-1/2TS
9/16	12	95.00	12.10	1	**94.24**	3086-9/16T	3086-9/16I	3086-9/16B	**282.72**	3086-9/16TS
5/8	11	102.00	13.50	1	**94.24**	3086-5/8T	3086-5/8I	3086-5/8B	**282.72**	3086-5/8TS
3/4	10	112.00	16.25	1	**111.19**	3086-3/4T	3086-3/4I	3086-3/4B	**333.54**	3086-3/4TS
7/8	9	118.00	19.25	1	**230.40**	3086-7/8T	3086-7/8I	3086-7/8B	**691.20**	3086-7/8TS
1	8	130.00	22.00	1	**301.36**	3086-1T	3086-1I	3086-1B	**904.08**	3086-1TS

BSW
BRITISH STANDARD WHITWORTH

This thread form was developed by Sir Joseph Whitworth in 1841. The thread form has rounded roots and crests and is specified in BS84:1956. The thread angle for BSW is 55º as opposed to 60º in Metric and Unified threads.



BSF BRASS BA

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**





BSF
BRITISH STANDARD FINE

This thread form was based upon the British Standard Whitworth (BSW) but has a finer thread (more threads per inch for a given diameter). The thread form was first introduced in 1908 and is specified in BS84:1956.

When used on external threads this series has greater tensile stress area than coarse threads of the same size. Fine series threads will resist stripping out better than coarse threads in areas where the external and mating internal threads are subjected to loads equal to or greater than the capacity of the screw or bolt. Fine threads are also used where the length of engagement is limited or where wall thickness demands a fine pitch.

BA
BRITISH ASSOCIATION

In 1884 the British Association for the Advancement of Science adopted a thread form and series, primarily for use in precision equipment. It was inspired by one used in the Swiss watch and clock industry, and was formerly sometimes called the Swiss Small Screw Thread System; but is now just referred to as the BA series. Like the Whitworth thread, it has a rounded root and crest, but the included angle is 47.5°. Despite the date of origin and the British sponsorship, the BA is a metric series. Not only is it based on the metre, but the thread frequency is specified in terms of round numbers in the pitch sequence, with threads per metre allowed to fall where it may.

DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
BSF										
3/16	32	58.00	4.00	1	**22.76**	3030-3/16T	3030-3/16I	3030-3/16B	**68.22**	3030-3/16TS
1/4	26	66.00	5.30	1	**26.13**	3030-1/4T	3030-1/4I	3030-1/4B	**78.21**	3030-1/4TS
5/16	22	72.00	6.80	1	**28.29**	3030-5/16T	3030-5/16I	3030-5/16B	**84.87**	3030-5/16TS
3/8	20	80.00	8.30	1	**39.66**	3030-3/8T	3030-3/8I	3030-3/8B	**118.97**	3030-3/8TS
7/16	18	85.00	9.70	1	**47.43**	3030-7/16T	3030-7/16I	3030-7/16B	**142.25**	3030-7/16TS
1/2	16	89.00	11.10	1	**58.52**	3030-1/2T	3030-1/2I	3030-1/2B	**175.56**	3030-1/2TS
5/8	14	102.00	14.00	1	**75.70**	3030-5/8T	3030-5/8I	3030-5/8B	**227.10**	3030-5/8TS
3/4	12	112.00	16.75	1	**116.91**	3030-3/4T	3030-3/4I	3030-3/4B	**350.73**	3030-3/4TS
7/8	11	118.00	19.75	1	**158.10**	3030-7/8T	3030-7/8I	3030-7/8B	**474.30**	3030-7/8TS
1	10	130.00	22.75	1	**206.63**	3030-1T	3030-1I	3030-1B	**619.89**	3030-1TS
BSF - LEFT HAND										
1/4	26	66.00	5.30	1	**73.40**	3088-1/4T	3088-1/4I	3088-1/4B	**220.20**	3088-1/4TS
5/16	22	72.00	6.80	1	**81.21**	3088-5/16T	3088-5/16I	3088-5/16B	**243.63**	3088-5/16TS
3/8	20	80.00	8.30	1	**100.62**	3088-3/8T	3088-3/8I	3088-3/8B	**301.86**	3088-3/8TS
7/16	18	85.00	9.70	1	**107.90**	3088-7/16T	3088-7/16I	3088-7/16B	**323.70**	3088-7/16TS
1/2	16	89.00	11.10	1	**162.57**	3088-1/2T	3088-1/2I	3088-1/2B	**487.71**	3088-1/2TS
5/8	14	102.00	14.00	1	**181.77**	3088-5/8T	3088-5/8I	3088-5/8B	**545.31**	3088-5/8TS
3/4	12	112.00	16.75	1	**254.68**	3088-3/4T	3088-3/4I	3088-3/4B	**764.04**	3088-3/4TS
7/8	11	118.00	19.75	1	**340.22**	3088-7/8T	3088-7/8I	3088-7/8B	**1,020.66**	3088-7/8TS
1	10	130.00	22.75	1	**346.87**	3088-1T	3088-1I	3088-1B	**1,040.61**	3088-1TS
BRASS										
1/4	26	66.00	5.30	1	**25.39**	3060-1/4T	3060-1/4I	3060-1/4B	**76.17**	3060-1/4TS
5/16	26	72.00	6.90	1	**48.09**	3060-5/16T	3060-5/16I	3060-5/16B	**144.38**	3060-5/16TS
3/8	26	80.00	8.50	1	**48.09**	3060-3/8T	3060-3/8I	3060-3/8B	**144.38**	3060-3/8TS
7/16	26	85.00	10.20	1	**72.09**	3060-7/16T	3060-7/16I	3060-7/16B	**216.34**	3060-7/16TS
1/2	26	89.00	11.80	1	**85.97**	3060-1/2T	3060-1/2I	3060-1/2B	**257.92**	3060-1/2TS
BA	PITCH									
10	0.35	41.00	1.40	1	**73.41**	3044-10T	3044-10I	3044-10B	**220.20**	3044-10TS
9	0.39	41.00	1.55	1	**69.73**	3044-9T	3044-9I	3044-9B	**209.17**	3044-9TS
8	0.43	44.50	1.80	1	**38.14**	3044-8T	3044-8I	3044-8B	**114.53**	3044-8TS
7	0.48	44.50	2.05	1	**39.68**	3044-7T	3044-7I	3044-7B	**118.97**	3044-7TS
6	0.53	44.50	2.30	1	**26.05**	3044-6T	3044-6I	3044-6B	**78.13**	3044-6TS
5	0.59	48.00	2.65	1	**24.04**	3044-5T	3044-5I	3044-5B	**71.94**	3044-5TS
4	0.66	50.00	3.00	1	**23.12**	3044-4T	3044-4I	3044-4B	**69.27**	3044-4TS
3	0.73	53.00	3.40	1	**25.75**	3044-3T	3044-3I	3044-3B	**77.27**	3044-3TS
2	0.81	58.00	4.00	1	**23.12**	3044-2T	3044-2I	3044-2B	**69.27**	3044-2TS
1	0.9	62.00	4.50	1	**26.05**	3044-1T	3044-1I	3044-1B	**78.13**	3044-1TS
0	1.00	66.00	5.10	1	**24.85**	3044-0T	3044-0I	3044-0B	**72.48**	3044-0TS



BSPF BSPT

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**





DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
BSPF (G SERIES)										
1/8	28	59.00	8.80	1	**34.94**	3046-1/8T	3046-1/8I	3046-1/8B	**104.81**	3046-1/8TS
1/4	19	67.00	11.80	1	**49.34**	3046-1/4T	3046-1/4I	3046-1/4B	**148.09**	3046-1/4TS
3/8	19	75.00	15.25	1	**72.43**	3046-3/8T	3046-3/8I	3046-3/8B	**217.25**	3046-3/8TS
1/2	14	87.00	19.00	1	**101.95**	3046-1/2T	3046-1/2I	3046-1/2B	**305.82**	3046-1/2TS
5/8	14	91.00	21.00	1	**134.75**	3046-5/8T	3046-5/8I	3046-5/8B	**404.24**	3046-5/8TS
3/4	14	96.00	24.50	1	**144.76**	3046-3/4T	3046-3/4I	3046-3/4B	**434.31**	3046-3/4TS
7/8	14	102.00	28.25	1	**207.15**	3046-7/8T	3046-7/8I	3046-7/8B	**621.45**	3046-7/8TS
1	11	109.00	30.75	1	**240.13**	3046-1T	3046-1I	3046-1B	**720.39**	3046-1TS
1-1/4	11	119.00	39.50	1	**427.08**	3046-1.1/4T	3046-1.1/4I	3046-1.1/4B	**679.63**	3046-1.1/4TS
1-1/2	11	125.00	45.50	1	**479.81**	3046-1.1/2T	3046-1.1/2I	3046-1.1/2B	**927.43**	3046-1.1/2TS
1-3/4	11	132.00	51.00	1	**773.77**	3046-1.3/4T	3046-1.3/4I	3046-1.3/4B	**2,321.30**	3046-1.3/4TS
2	11	140.00	57.00	1	**829.25**	3046-2T	3046-2I	3046-2B	**2,487.74**	3046-2TS
2-1/4	11	142.00	62.70	1	**1,274.35**	3046-2.1/4T	3046-2.1/4I	3046-2.1/4B	**3,823.05**	3046-2.1/4TS
2-1/2	11	153.00	72.10	1	**1,703.90**	3046-2.1/2T	3046-2.1/2I	3046-2.1/2B	**5,111.71**	3046-2.1/2TS
3	11	164.00	84.80	1	**2,659.29**	3046-3T	3046-3I	3046-3B	**7,977.88**	3046-3TS
BSPT										
1/8	28	59.00	8.00	1	**78.93**	–	–	3048-1/8B	**–**	–
1/4	19	67.00	11.20	1	**85.42**	–	–	3048-1/4B	**–**	–
3/8	19	75.00	14.75	1	**131.60**	–	–	3048-3/8B	**–**	–
1/2	14	87.00	18.25	1	**148.11**	–	–	3048-1/2B	**–**	–
3/4	14	96.00	23.75	1	**184.15**	–	–	3048-3/4B	**–**	–
1	11	109.00	30.00	1	**263.18**	–	–	3048-1B	**–**	–
1-1/4	11	119.00	38.50	1	**424.33**	–	–	3048-1.1/4B	**–**	–
1-1/2	11	125.00	44.50	1	**560.16**	–	–	3048-1.1/2B	**–**	–
2	11	140.00	56.00	1	**915.14**	–	–	3048-2B	**–**	–

BSP
BRITISH STANDARD PIPE BSPF (G SERIES)
This series is a pipe thread which is used mainly for mechanical coupling. The angle of thread is mainly 55º however for the US method some threads have a 60º angle. It is specified according to JIS and ISO R228.

BSPT
BRITISH STANDARD PIPE TAPER (RC SERIES PIPE TAPER)
This is based on the Whitworth thread form - a symmetrical V-thread with an angle of 55º. BSPT has been widely adopted internationally for interconnecting and sealing pipe ends by mating an external (male) with an internal (female) thread. The thread diameter increases along the length of the thread allowing the coupled pipes to form a seal when torqued as the flanks of the threads compress against each other. The taper is "1 to 16", meaning that for each 16 mm increase in the distance from the end, the diameter increases by 1 mm.

BRASS (BSB)
BRITISH STANDARD BRASS
Brass tubing has a uniform wall thickness, irrespective of the tube diameter, therefore any thread cut on, or in, it needs to have the same depth, so 26 TPI is standard on all BSB diameters. BSB is often confused with BS Cycle thread, the difference being that brass thread has an angle of 55º whereas Cycle is 60º.



NPT
NPTF
NPSF

GROUP	HSTD	HSTD
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**HSS**	**HSS**
FLUTE TYPE	STRAIGHT	STRAIGHT
CONTENTS	SINGLE	3 PCS - TAPER / INTER / BOTT
PACKAGING	**SNAP PACK / TELESCOPIC PACK**	**SET CASE**





DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	TAPER PART NUMBER	INTERMEDIATE PART NUMBER	BOTTOMING PART NUMBER	$ SET	PART NUMBER
NPT										
1/8	27	59.00	8.70	1	**61.83**	–	–	3052-1/8B	–	–
1/4	18	67.00	11.10	1	**87.08**	–	–	3052-1/4B	–	–
3/8	18	75.00	14.50	1	**131.60**	–	–	3052-3/8B	–	–
1/2	14	87.00	18.00	1	**151.18**	–	–	3052-1/2B	–	–
3/4	14	96.00	23.25	1	**187.50**	–	–	3052-3/4B	–	–
1	11.5	109.00	29.00	1	**271.24**	–	–	3052-1B	–	–
1-1/4	11.5	119.00	38.00	1	**443.70**	–	–	3052-1.1/4B	–	–
1-1/2	11.5	125.00	44.00	1	**680.54**	–	–	3052-1.1/2B	–	–
2	11.5	140.00	56.00	1	**1,083.75**	–	–	3052-2B	–	–
NPTF (DRYSEAL TAPER)										
1/8	27	59.00	8.40	1	**75.70**	–	–	3054-1/8B	–	–
1/4	18	67.00	11.00	1	**124.84**	–	–	3054-1/4B	–	–
3/8	18	75.00	14.50	1	**157.82**	–	–	3054-3/8B	–	–
1/2	14	87.00	17.50	1	**180.83**	–	–	3054-1/2B	–	–
NPSF (DRYSEAL)										
1/8	27	59.00	8.50	1	**47.71**	–	–	3056-1/8B	–	–
1/4	18	67.00	11.00	1	**78.93**	–	–	3056-1/4B	–	–
3/8	18	75.00	14.50	1	**95.43**	–	–	3056-3/8B	–	–
1/2	14	87.00	18.00	1	**144.78**	–	–	3056-1/2B	–	–

NPT
NATIONAL PIPE TAPERED

NPT is a US standard for tapered threads used to join pipes and fittings. ANSI/ASME standard B1.20.1 covers threads of 60-degree form with flat crests and roots. The taper on NPT threads allows them to form a seal when torqued as the flanks of the threads compress against each other. However a clearance remains between the crests and roots of the threads, resulting in a leakage around this spiral. This means that NPT fittings must be made leak free with the aid of thread seal tape or a thread sealant compound. For each 12" increase in distance from the end, the diameter increases by 3/4".

NPTF (DRYSEAL TAPER)
NATIONAL PIPE TAPER FUEL

NPTF is a semi-compatible variant of NPT, designed to provide a more leak free seal without the use of teflon tape or other sealant compound. NPTF threads are the same basic shape but with crest and root heights adjusted for an interference fit, eliminating the spiral leakage path.

NPSF (DRYSEAL)
NATIONAL PIPE STRAIGHT FUEL

Another variation of the Dryseal thread is the NPSF. It is used for internal threads and an NPTF external thread can be screwed into it to provide both a satisfactory mechanical connection and hydraulic seal. A combination of a parallel and tapered thread would not appear to be ideal but it is widely used. Many quick disconnect couplers for example have the NPSF thread and are recommended by the manufacturer for use with NPT and NPTF.



MC
MF

GROUP					HPMT		HPMT	
SURFACE FINISH					BRIGHT		BRIGHT	
MATERIAL					**HSS-Co5***		**HSS-Co5***	
FLUTE TYPE					**STRAIGHT**		**SPIRAL 35º**	
POINT TYPE / LEAD (THREADS)					**GUN NOSE (SPIRAL POINT) / 4-5**		**2-3**	
PACKAGING					SNAP PACK / TELESCOPIC PACK		SNAP PACK / TELESCOPIC PACK	







DIA MM	PITCH MM	OAL MM	DRILL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
METRIC COARSE								
3.00	0.50	48.00	2.50	1	**26.64**	3120-3.00	**35.16**	3220-3.00
3.50	0.60	50.00	2.90	1	**26.64**	3120-3.50	**37.69**	3220-3.50
4.00	0.70	53.00	3.30	1	**22.10**	3120-4.00	**27.33**	3220-4.00
5.00	0.80	58.00	4.20	1	**24.69**	3120-5.00	**30.52**	3220-5.00
6.00	1.00	66.00	5.00	1	**25.37**	3120-6.00	**31.62**	3220-6.00
7.00	1.00	66.00	6.00	1	**33.88**	3120-7.00	**44.79**	3220-7.00
8.00	1.25	72.00	6.80	1	**27.33**	3120-8.00	**34.29**	3220-8.00
9.00	1.25	72.00	7.80	1	**50.40**	3120-9.00	**66.27**	3220-9.00
10.00	1.50	80.00	8.50	1	**36.27**	3120-10.00	**48.70**	3220-10.00
11.00	1.50	85.00	9.50	1	**60.02**	3120-11.00	**79.86**	3220-11.00
12.00	1.75	89.00	10.20	1	**60.12**	3120-12.00	**76.26**	3220-12.00
14.00	2.00	95.00	12.00	1	**77.97**	3120-14.00	**97.63**	3220-14.00
16.00	2.00	102.00	14.00	1	**96.67**	3120-16.00	**121.77**	3220-16.00
18.00	2.50	112.00	15.50	1	**131.60**	3120-18.00	**164.44**	3220-18.00
20.00	2.50	112.00	17.50	1	**167.75**	3120-20.00	**207.15**	3220-20.00
22.00	2.50	118.00	19.50	1	**164.89**	3120-22.00	**179.99**	3220-22.00
24.00	3.00	130.00	21.00	1	**187.93**	3120-24.00	**205.22**	3220-24.00
27.00	3.00	135.00	24.00	1	**293.70**	3120-27.00	**–**	–
30.00	3.50	138.00	26.50	1	**347.15**	3120-30.00	**–**	–
33.00	3.50	151.00	29.50	1	**445.83**	3120-33.00	**–**	–
36.00	4.00	162.00	32.00	1	**494.46**	3120-36.00	**–**	–
METRIC FINE								
5.00	0.50	58.00	4.50	1	**47.67**	3121-5.00	**61.82**	3221-5.00
6.00	0.75	66.00	5.20	1	**58.27**	3121-6.00	**61.82**	3221-6.00
8.00	1.00	69.00	7.00	1	**27.33**	3121-8.00	**51.29**	3221-8.00
10.00	1.00	76.00	9.00	1	**81.31**	3122-10.00	**67.98**	3222-10.00
10.00	1.25	76.00	8.80	1	**36.27**	3121-10.00	**73.51**	3221-10.00
12.00	1.50	89.00	10.50	1	**60.12**	3121-12.00	**115.35**	3221-12.00
SPARK PLUG								
10.00	1.00	76.00	9.00	1	**81.31**	3122-10.00	**67.98**	3222-10.00

SPIRAL FLUTE TAPS

Spiral Flute Taps are used for machine tapping in all blind hole applications, especially in soft metals that produce long stringy swarf such as aluminium, copper and magnesium. Manufactured from HSS-Co5 this modern design tap uses the shear action provided by the spiral flutes to draw the swarf out of the hole which minimises swarf clogging when tapping deeper holes.

SPIRAL POINT TAPS GUN NOSE

Spiral Point Taps are used for machine tapping blind and through holes where there is sufficient clearance to accomodate chips. Manufactured from HSS-Co5 this modern design tap uses straight flutes supplemented by angular cutting faces at the point to produce a fine finish on the threads. Shallower flutes achieve a stronger cross section allowing the tap to withstand greater cutting forces.

* Some older stock may be supplied as HSSE-V3



UNC
UNF

GROUP		HPMT	HPMT
SURFACE FINISH		BRIGHT	BRIGHT
MATERIAL		**HSS-Co5***	**HSS-Co5***
FLUTE TYPE		**STRAIGHT**	**SPIRAL 35º**
POINT TYPE / LEAD (THREADS)		**GUN NOSE (SPIRAL POINT) / 4-5**	**2-3**
PACKAGING		SNAP PACK / TELESCOPIC PACK	SNAP PACK / TELESCOPIC PACK







DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
UNC								
6G	32	50.00	2.85	1	**26.13**	3132-6G	**32.19**	3232-6G
8G	32	53.00	3.50	1	**29.03**	3132-8G	**32.19**	3232-8G
10G	24	58.00	3.90	1	**26.32**	3132-10G	**32.19**	3232-10G
12G	24	62.00	4.50	1	**33.88**	3132-12G	**31.10**	3232-12G
1/4	20	66.00	5.10	1	**25.37**	3132-1/4	**31.62**	3232-1/4
5/16	18	72.00	6.60	1	**27.33**	3132-5/16	**34.58**	3232-5/16
3/8	16	80.00	8.00	1	**33.31**	3132-3/8	**47.43**	3232-3/8
7/16	14	85.00	9.40	1	**54.26**	3132-7/16	**67.12**	3232-7/16
1/2	13	89.00	10.80	1	**60.12**	3132-1/2	**76.97**	3232-1/2
9/16	12	95.00	12.20	1	**91.85**	3132-9/16	**100.49**	3232-9/16
5/8	11	102.00	13.50	1	**95.43**	3132-5/8	**121.77**	3232-5/8
3/4	10	112.00	16.50	1	**134.75**	3132-3/4	**164.44**	3232-3/4
7/8	9	118.00	19.50	1	**173.22**	3132-7/8	**225.72**	3232-7/8
1	8	130.00	22.25	1	**217.91**	3132-1	**261.72**	3232-1
UNF								
5G	44	48.00	2.70	1	**32.43**	3134-5G	**35.34**	3234-5G
6G	40	50.00	2.95	1	**30.11**	3134-6G	**32.73**	3234-6G
8G	36	53.00	3.50	1	**30.11**	3134-8G	**32.73**	3234-8G
10G	32	58.00	4.10	1	**26.64**	3134-10G	**32.62**	3234-10G
12G	28	62.00	4.70	1	**35.67**	3134-12G	**32.73**	3234-12G
1/4	28	66.00	5.50	1	**25.70**	3134-1/4	**31.62**	3234-1/4
5/16	24	69.00	6.90	1	**27.69**	3134-5/16	**34.58**	3234-5/16
3/8	24	76.00	8.50	1	**37.43**	3134-3/8	**47.43**	3234-3/8
7/16	20	82.00	9.90	1	**54.26**	3134-7/16	**67.12**	3234-7/16
1/2	20	84.00	11.50	1	**60.12**	3134-1/2	**76.97**	3234-1/2
9/16	18	90.00	12.90	1	**83.49**	3134-9/16	**91.36**	3234-9/16
5/8	18	95.00	14.50	1	**95.43**	3134-5/8	**121.77**	3234-5/8
3/4	16	104.00	17.50	1	**134.75**	3134-3/4	**164.44**	3234-3/4
7/8	14	113.00	20.40	1	**173.22**	3134-7/8	**172.53**	3234-7/8
1	12	120.00	23.25	1	**217.91**	3134-1	**215.78**	3234-1

SPIRAL FLUTE TAPS

Spiral Flute Taps are used for machine tapping in all blind hole applications, especially in soft metals that produce long stringy swarf such as aluminium, copper and magnesium. Manufactured from HSS-Co5 this modern design tap uses the shear action provided by the spiral flutes to draw the swarf out of the hole which minimises swarf clogging when tapping deeper holes.

SPIRAL POINT TAPS GUN NOSE

Spiral Point Taps are used for machine tapping blind and through holes where there is sufficient clearance to accomodate chips. Manufactured from HSS-Co5 this modern design tap uses straight flutes supplemented by angular cutting faces at the point to produce a fine finish on the threads. Shallower flutes achieve a stronger cross section allowing the tap to withstand greater cutting forces.

* Some older stock may be supplied as HSSE-V3



BSW

GROUP					HPMT		HPMT	
SURFACE FINISH					BRIGHT		BRIGHT	
MATERIAL					**HSS-Co5***		**HSS-Co5***	
FLUTE TYPE					**STRAIGHT**		**SPIRAL 35º**	
POINT TYPE / LEAD (THREADS)					**GUN NOSE (SPIRAL POINT) / 4-5**		**2-3**	
PACKAGING					SNAP PACK / TELESCOPIC PACK		SNAP PACK / TELESCOPIC PACK	







DIA INCH	TPI	OAL MM	DRILL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
BSW								
1/8	40	48.00	2.55	1	**39.91**	3128-1/8	**38.82**	3228-1/8
5/32	32 WHIT	53.00	3.20	1	**38.53**	3128-5/32	**40.20**	3228-5/32
3/16	24	58.00	3.70	1	**31.62**	3128-3/16	**40.20**	3228-3/16
1/4	20	66.00	5.10	1	**26.93**	3128-1/4	**32.97**	3228-1/4
5/16	18	72.00	6.50	1	**28.84**	3128-5/16	**36.08**	3228-5/16
3/8	16	80.00	7.90	1	**39.26**	3128-3/8	**49.49**	3228-3/8
7/16	14	85.00	9.30	1	**56.75**	3128-7/16	**70.17**	3228-7/16
1/2	12	89.00	10.50	1	**62.97**	3128-1/2	**80.47**	3228-1/2
9/16	12	95.00	12.10	1	**79.86**	3128-9/16	**94.83**	3228-9/16
5/8	11	102.00	13.50	1	**101.49**	3128-5/8	**127.27**	3228-5/8
3/4	10	112.00	16.25	1	**142.02**	3128-3/4	**158.44**	3228-3/4
7/8	9	118.00	19.25	1	**149.66**	3128-7/8	**225.72**	3228-7/8
1	8	130.00	22.00	1	**189.23**	3128-1	**261.72**	3228-1

SPIRAL FLUTE TAPS

Spiral Flute Taps are used for machine tapping in all blind hole applications, especially in soft metals that produce long stringy swarf such as aluminium, copper and magnesium. Manufactured from HSS-Co5 this modern design tap uses the shear action provided by the spiral flutes to draw the swarf out of the hole which minimises swarf clogging when tapping deeper holes.

SPIRAL POINT TAPS GUN NOSE

Spiral Point Taps are used for machine tapping blind and through holes where there is sufficient clearance to accomodate chips. Manufactured from HSS-Co5 this modern design tap uses straight flutes supplemented by angular cutting faces at the point to produce a fine finish on the threads. Shallower flutes achieve a stronger cross section allowing the tap to withstand greater cutting forces.

* Some older stock may be supplied as HSSE-V3



MC

STAINLESS STEEL
BLUE BAND

The machining of stainless steels is difficult due to its work hardening properties, toughness and poor thermal conductivity, which places high demands on the cutting tools. The Blue Band Series has been specifically designed to suit these difficult machining requirements.

TiAlN coating increases tool surface hardness to 87Rc. For machining materials with Hardness < 350 HB : Tensile Strength <1250 N/mm2.

GROUP				CBTP		CBTP	
SURFACE FINISH				VIOLET / GREY		VIOLET / GREY	
MATERIAL				**HSSE-V3 TiAlN COATED**		**HSSE-V3 TiAlN COATED**	
POINT TYPE				**SPIRAL POINT**		**SPIRAL FLUTE**	
FLUTE TYPE				**STRAIGHT**		**SPIRAL 40° HELIX**	
PACKAGING				SNAP/TELESCOPIC PACK		SNAP/TELESCOPIC PACK	
							
DIA MM	**PITCH** MM	**OAL** MM	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
METRIC COARSE							
3.00	0.50	56.00	1	**32.72**	3150-3.00	**39.59**	3250-3.00
4.00	0.70	63.00	1	**35.30**	3150-4.00	**41.84**	3250-4.00
5.00	0.80	70.00	1	**42.49**	3150-5.00	**51.13**	3250-5.00
6.00	1.00	80.00	1	**45.27**	3150-6.00	**54.88**	3250-6.00
8.00	1.25	90.00	1	**47.76**	3150-8.00	**67.71**	3250-8.00
10.00	1.50	100.00	1	**63.44**	3150-10.00	**84.91**	3250-10.00
12.00	1.75	110.00	1	**106.51**	3150-12.00	**126.73**	3250-12.00
14.00	2.00	110.00	1	**124.25**	3150-14.00	**147.86**	3250-14.00
16.00	2.00	110.00	1	**125.24**	3150-16.00	**149.04**	3250-16.00
18.00	2.50	125.00	1	**177.51**	3150-18.00	**211.22**	3250-18.00
20.00	2.50	140.00	1	**207.29**	3150-20.00	**246.69**	3250-20.00
22.00	2.50	140.00	1	**224.84**	3150-22.00	**267.55**	3250-22.00
24.00	3.00	160.00	1	**262.98**	3150-24.00	**312.94**	3250-24.00

TOUGH TREATABLE STEEL
RED BAND

The mechanical properties of materials are influenced diversely by the addition of alloying elements and heat treatment processes, resulting in some high-strength, quenched and tempered steels or hardened steels. This range has its own unique set of machining requirements which are satisfied by the Red Band Series.

TiAlN coating increases tool surface hardness to 87Rc. For machining materials with Hardness < 470 HB : Tensile Strength <1500 N/mm2

GROUP				CBTP		CBTP	
SURFACE FINISH				VIOLET / GREY		VIOLET / GREY	
MATERIAL				**HSSE-V3 TiAlN COATED**		**HSSE-V3 TiAlN COATED**	
POINT TYPE				**SPIRAL POINT**		**SPIRAL FLUTE**	
FLUTE TYPE				**STRAIGHT**		**SPIRAL 15° HELIX**	
PACKAGING				SNAP/TELESCOPIC PACK		SNAP/TELESCOPIC PACK	
							
DIA MM	**PITCH** MM	**OAL** MM	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
METRIC COARSE							
3.00	0.50	56.00	1	**33.12**	3152-3.00	**34.85**	3252-3.00
4.00	0.70	63.00	1	**36.09**	3152-4.00	**37.00**	3252-4.00
5.00	0.80	70.00	1	**40.73**	3152-5.00	**43.26**	3252-5.00
6.00	1.00	80.00	1	**42.67**	3152-6.00	**45.74**	3252-6.00
8.00	1.25	90.00	1	**54.47**	3152-8.00	**56.88**	3252-8.00
10.00	1.50	100.00	1	**72.68**	3152-10.00	**73.92**	3252-10.00
12.00	1.75	110.00	1	**103.22**	3152-12.00	**106.32**	3252-12.00
14.00	2.00	110.00	1	**123.93**	3152-14.00	**127.63**	3252-14.00
16.00	2.00	110.00	1	**124.99**	3152-16.00	**128.75**	3252-16.00
18.00	2.50	125.00	1	**173.33**	3152-18.00	**176.80**	3252-18.00
20.00	2.50	140.00	1	**191.29**	3152-20.00	**195.11**	3252-20.00
22.00	2.50	140.00	1	**199.10**	3152-22.00	**203.09**	3252-22.00
24.00	3.00	160.00	1	**243.69**	3152-24.00	**248.56**	3252-24.00



MC

GROUP				CBTP		CBTP		CBTP	
SURFACE FINISH				BRIGHT		BRIGHT		BRIGHT	
MATERIAL				HSSE-V3		HSSE-V3		HSSE-V3	
POINT TYPE				SPIRAL POINT		SPIRAL FLUTE		ROLL FORM	
FLUTE TYPE				STRAIGHT		SPIRAL 40° HELIX		FLUTELESS	
PACKAGING				SNAP/TELESCOPIC PACK		SNAP/TELESCOPIC PACK		SNAP/TELESCOPIC PACK	
									
DIA MM	PITCH MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
METRIC COARSE									
3.00	0.50	56.00	1	15.27	3154-3.00	19.87	3254-3.00	36.77	3255-3.00
4.00	0.70	63.00	1	16.61	3154-4.00	19.52	3254-4.00	37.42	3255-4.00
5.00	0.80	70.00	1	16.52	3154-5.00	20.40	3254-5.00	39.29	3255-5.00
6.00	1.00	80.00	1	17.32	3154-6.00	20.21	3254-6.00	40.64	3255-6.00
8.00	1.25	90.00	1	22.09	3154-8.00	25.05	3254-8.00	44.07	3255-8.00
10.00	1.50	100.00	1	29.51	3154-10.00	35.32	3254-10.00	62.70	3255-10.00
12.00	1.75	110.00	1	53.08	3154-12.00	60.75	3254-12.00	–	–
14.00	2.00	110.00	1	63.74	3154-14.00	72.93	3254-14.00	–	–
16.00	2.00	110.00	1	71.42	3154-16.00	91.97	3254-16.00	–	–
18.00	2.50	125.00	1	99.05	3154-18.00	126.28	3254-18.00	–	–
20.00	2.50	140.00	1	109.30	3154-20.00	139.36	3254-20.00	–	–
22.00	2.50	140.00	1	113.78	3154-22.00	145.07	3254-22.00	–	–
24.00	3.00	160.00	1	139.26	3154-24.00	177.55	3254-24.00	–	–

ALUMINIUM
YELLOW BAND

The alloying elements which achieve varying Aluminium Alloys have an effect on the machining properties of these materials. This generally creates a difficult long chip formation and material which has tendencies to stick to the tool, placing a unique set of demands on tooling. Yellow Band Series contends with these difficulties.

For machining materials with Hardness < 200 HB : Tensile Strength <700 N/mm2

CARBON STEEL
GREEN BAND

The machinability of different carbon steels is as varied as their properties. Soft-tough construction steels place a unique set of demands on the tools. The Green Band Series of drills and taps have been developed specifically for this range of steels.

TiN coating increases tool surface hardness to 85Rc. For machining materials with Hardness < 250 HB : Tensile Strength <900 N/mm2

CAST IRON
WHITE BAND

A highly abrasive material with damping and thermal conductivity, high strength and resistance to wear. Cast Iron is used extensively for mass produced components. The White Band Series is designed for this specific purpose.

TiAlN coating increases tool surface hardness to 87Rc. For machining materials with Hardness < 300 HB : Tensile Strength <1000 N/mm2

GROUP				CBTP		CBTP		CBTP	
SURFACE FINISH				GOLD COLOURED		GOLD COLOURED		VIOLET / GREY	
MATERIAL				HSSE-V3 TiN COATED		HSSE-V3 TiN COATED		HSSE-V3 TiAlN COATED	
POINT TYPE				SPIRAL POINT		SPIRAL FLUTE		SPIRAL FLUTE	
FLUTE TYPE				STRAIGHT		SPIRAL 35° HELIX		SPIRAL 15° HELIX	
PACKAGING				SNAP/TELESCOPIC PACK		SNAP/TELESCOPIC PACK		SNAP/TELESCOPIC PACK	
									
DIA MM	PITCH MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
METRIC COARSE									
3.00	0.50	56.00	1	29.51	3156-3.00	41.27	3256-3.00	43.92	3258-3.00
4.00	0.70	63.00	1	33.58	3156-4.00	46.00	3256-4.00	44.66	3258-4.00
5.00	0.80	70.00	1	37.62	3156-5.00	52.18	3256-5.00	48.25	3258-5.00
6.00	1.00	80.00	1	42.69	3156-6.00	58.55	3256-6.00	55.88	3258-6.00
8.00	1.25	90.00	1	45.63	3156-8.00	61.70	3256-8.00	69.52	3258-8.00
10.00	1.50	100.00	1	53.39	3156-10.00	82.68	3256-10.00	85.74	3258-10.00
12.00	1.75	110.00	1	103.95	3156-12.00	106.89	3256-12.00	122.42	3258-12.00
14.00	2.00	110.00	1	121.34	3156-14.00	121.94	3256-14.00	141.23	3258-14.00
16.00	2.00	110.00	1	143.22	3156-16.00	123.03	3256-16.00	148.69	3258-16.00
18.00	2.50	125.00	1	202.50	3156-18.00	164.95	3256-18.00	188.46	3258-18.00
20.00	2.50	140.00	1	221.37	3156-20.00	181.95	3256-20.00	219.98	3258-20.00
22.00	2.50	140.00	1	238.20	3156-22.00	194.52	3256-22.00	233.70	3258-22.00
24.00	3.00	160.00	1	290.03	3156-24.00	245.10	3256-24.00	284.27	3258-24.00



GROUP	HSTD	HSTD	CBTP
SURFACE FINISH	BRIGHT	BRIGHT	VIOLET / GREY
DRILL MATERIAL & TYPE	–	**HSS JOBBER**	**HSS-Co TiAlN JOBBER**
TAP MATERIAL & TYPE	**HSS INTERMEDIATE LEADS**	**HSS INTERMEDIATE LEADS**	**HSSE-V3 TiAlN INTER**
PACKAGING	SET	SET	SET







SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
HSS TAP SET METRIC COARSE - 7 PCE	**171.44**	3020-S1	–	–	–	–
HSS MC DRILL & TAP SET - M3 TO M12	–	–	**205.23**	3020-S2	–	–
BLUE BAND MC DRILL & TAP SET - M3 TO M12	–	–	–	–	**655.51**	3150-S1

SET CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION	PAR T NUMBER
	3.00 x 0.50	3020-3.00I	3.00 x 0.50	3020-3.00I	3.00 x 0.50	3150-3.00
	4.00 x 0.70	3020-4.00I	4.00 x 0.70	3020-4.00I	4.00 x 0.70	3150-4.00
	5.00 x 0.80	3020-5.00I	5.00 x 0.80	3020-5.00I	5.00 x 0.80	3150-5.00
	6.00 x 1.00	3020-6.00I	6.00 x 1.00	3020-6.00I	6.00 x 1.00	3150-6.00
	8.00 x 1.25	3020-8.00I	8.00 x 1.25	3020-8.00I	8.00 x 1.25	3150-8.00
	10.00 x 1.50	3020-10.00I	10.00 x 1.50	3020-10.00I	10.00 x 1.50	3150-10.00
	12.00 x 1.75	3020-12.00I	12.00 x 1.75	3020-12.00I	12.00 x 1.75	3150-12.00
			2.50MM JOBBER	2007-2.50	2.50MM JOBBER	2050-2.50
			3.30MM JOBBER	2007-3.30	3.30MM JOBBER	2050-3.30
			4.20MM JOBBER	2007-4.20	4.20MM JOBBER	2050-4.20
			5.00MM JOBBER	2007-5.00	5.00MM JOBBER	2050-5.00
			6.80MM JOBBER	2007-6.80	6.80MM JOBBER	2050-6.80
			8.50MM JOBBER	2007-8.50	8.50MM JOBBER	2050-8.50
			10.20MM JOBBER	2007-10.20	10.20MM JOBBER	2050-10.20



GROUP	HSTD
SURFACE FINISH	BRIGHT
MATERIAL	**HSS**
LEAD TYPE	TAPER / INTER / BOTTOMING
FLUTE TYPE	STRAIGHT
PACKAGING	HANG SELL MERCHANDISER



MERCHANDISER TYPE	TOTAL PIECES	$ MERCHANDISER	PART NUMBER
HSS TAP MERCHANDISER	54	**2,659.89**	3020-D1

MERCHANDISER CONTENTS

QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER
1	MC - Taper	3 x 0.5	3020-3.00T	1	MC - Bott	3 x 0.5	3020-3.00B	1	UNC - Taper	3/16x 24(UNS)	3032-3/16T
1	MC - Taper	4 x 0.7	3020-4.00T	1	MC - Bott	4 x 0.7	3020-4.00B	1	UNC - Taper	1/4 x 20	3032-1/4T
1	MC - Taper	5 x 0.8	3020-5.00T	1	MC - Bott	5 x 0.8	3020-5.00B	1	UNC - Taper	5/16 x 18	3032-5/16T
1	MC - Taper	6 x 1	3020-6.00T	1	MC - Bott	6 x 1	3020-6.00B	1	UNC - Taper	3/8 x 16	3032-3/8T
1	MC - Taper	8 x 1.25	3020-8.00T	1	MC - Bott	8 x 1.25	3020-8.00B	1	UNC - Taper	1/2 x 13	3032-1/2T
1	MC - Taper	10 x 1.5	3020-10.00T	1	MC - Bott	10 x 1.5	3020-10.00B	1	UNC - Inter	3/16x 24(UNS)	3032-3/16I
1	MC - Taper	12 x 1.75	3020-12.00T	1	MC - Bott	12 x 1.75	3020-12.00B	1	UNC - Inter	1/4 x 20	3032-1/4I
1	MC - Taper	16 x 2	3020-16.00T	1	MC - Bott	16 x 2	3020-16.00B	1	UNC - Inter	5/16 x 18	3032-5/16I
1	MC - Taper	20 x 2.5	3020-20.00T	1	MC - Bott	20 x 2.5	3020-20.00B	1	UNC - Inter	3/8 x 16	3032-3/8I
1	MC - Inter	3 x 0.5	3020-3.00I					1	UNC - Inter	1/2x13	3032-1/2I
1	MC - Inter	4 x 0.7	3020-4.00I	1	BSPT - Bott	1/8 x 28	3048-1/8B	1	UNC - Bott	3/16x 24(UNS)	3032-3/16B
1	MC - Inter	5 x 0.8	3020-5.00I	1	BSPT - Bott	1/4x 19	3048-1/4B	1	UNC - Bott	1/4 x 20	3032-1/4B
1	MC - Inter	6 x 1	3020-6.00I	1	BSPT - Bott	3/8 x 19	3048-3/8B	1	UNC - Bott	5/16 x 18	3032-5/16B
1	MC - Inter	8 x 1.25	3020-8.00I	1	BSPT - Bott	1/2 x 14	3048-1/2B	1	UNC - Bott	3/8 x16	3032-3/8B
1	MC - Inter	10 x 1.5	3020-10.00I	1	BSPT - Bott	3/4 x 14	3048-3/4B	1	UNC - Bott	1/2 x 13	3032-1/2B
1	MC - Inter	12 x 1.75	3020-12.00I								
1	MC - Inter	16 x 2	3020-16.00I	1	NPT - Bott	1/8 x 27	3052-1/8B	1	BSW - Taper	1/2 x 12	3028-1/2T
1	MC - Inter	20 x 2.5	3020-20.00I	1	NPT - Bott	1/4 x 18	3052-1/4B	1	BSW - Inter	1/2 x 12	3028-1/2I
				1	NPT - Bott	3/8 x 18	3052-3/8B	1	BSW - Bott	1/2 x 12	3028-1/2B
				1	NPT - Bott	1/2 x 14	3052-1/2B				

TAPER TAPS

Taper Taps have a lead of eight threads and are used as a starting tap in difficult or high precision holes. Manufactured from HSS this general purpose tap is designed for use in medium tensile materials and is for hand or general machine use.

INTERMEDIATE TAPS

Intermediate Taps have a lead of four threads and are used in most general purpose applications to cut a thread true to a pre-drilled pilot hole.

BOTTOMING TAPS

Bottoming Taps have a lead of two threads and are used to ensure minimum thread run-out when tapping to the bottom of a blind hole. Bottoming Taps are typically preceded by the use of a Taper or Intermediate Tap.





GROUP	HSTD
SURFACE FINISH	BRIGHT
MATERIAL	**HSS**
LEAD TYPE	TAPER / INTER / BOTTOMING
FLUTE TYPE	STRAIGHT
PACKAGING	BULK MERCHANDISER

MERCHANDISER TYPE	TOTAL PIECES	$ MERCHANDISER	PART NUMBER
BULK HSS TAP MERCHANDISER	159	**10,608.24**	3020-D3

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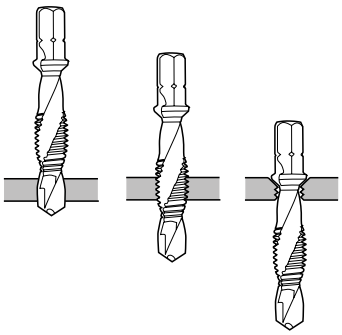
BOTTOMING TAPS

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MERCHANDISER CONTENTS

QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER	QTY EACH	TYPE THREAD FORM	SIZE D X PITCH	PART NUMBER
1	MC - Taper	3 x 0.5	3020-3.00T	1	S/Plug - Bott	14 x 1.25	3022-14.00B	1	UNC - Inter	3/16x 24(UNS)	3032-3/16I
1	MC - Taper	4 x 0.7	3020-4.00T	1	MF - Bott	14 x 1.5	3021-14.00B	1	UNF - Inter	1/4 x 28	3034-1/4I
1	MC - Taper	5 x 0.8	3020-5.00T	1	MF - Bott	25 x 1.5	3023-25.00B	1	UNF - Inter	5/16 x 24	3034-5/16I
1	MC - Taper	6 x 1	3020-6.00T					1	UNF - Inter	3/8 x 24	3034-3/8I
1	MC - Taper	8 x 1.25	3020-8.00T	1	UNC - Taper	8G x 32	3032-8GT	1	UNF - Inter	7/16 x 20	3034-7/16I
1	MC - Taper	10 x 1.5	3020-10.00T	1	UNC - Taper	10G x 24	3032-10GT	1	UNF - Inter	1/2 x 20	3034-1/2I
1	MC - Taper	12 x 1.75	3020-12.00T	1	UNC - Taper	3/16x 24(UNS)	3032-3/16T	1	UNF - Inter	9/16 x 18	3034-9/16I
1	MC - Taper	14 x 2	3020-14.00T	1	UNC - Taper	1/4 x 20	3032-1/4T	1	UNF - Inter	5/8 x 18	3034-5/8I
1	MC - Taper	16 x 2	3020-16.00T	1	UNC - Taper	5/16 x 18	3032-5/16T	1	UNF - Inter	3/4 x 16	3034-3/4I
1	MC - Taper	18 x 2.5	3020-18.00T	1	UNC - Taper	3/8 x 16	3032-3/8T	1	UNF - Inter	1 x 12	3034-1I
1	MC - Taper	20 x 2.5	3020-20.00T	1	UNC - Taper	7/16 x 14	3032-7/16T	1	UNF - Bott	8G x 36	3034-8GB
1	MC - Inter	3 x 0.5	3020-3.00I	1	UNC - Taper	1/2 x 13	3032-1/2T	1	UNF - Bott	10G x 32	3034-10GB
1	MC - Inter	4 x 0.7	3020-4.00I	1	UNC - Taper	9/16 x 12	3032-9/16T	1	UNC - Bott	3/16x 24(UNS)	3032-3/16B
1	MC - Inter	5 x 0.8	3020-5.00I	1	UNC - Taper	5/8 x 11	3032-5/8T	1	UNF - Bott	1/4 x 28	3034-1/4B
1	MC - Inter	6 x 1	3020-6.00I	1	UNC - Taper	3/4 x 10	3032-3/4T	1	UNF - Bott	5/16 x 24	3034-5/16B
1	MC - Inter	8 x 1.25	3020-8.00I	1	UNC - Taper	1 x 8	3032-1T	1	UNF - Bott	3/8 x 24	3034-3/8B
1	MC - Inter	10 x 1.5	3020-10.00I	1	UNC - Inter	8G x 32	3032-8GI	1	UNF - Bott	7/16 x 20	3034-7/16B
1	MC - Inter	12 x 1.75	3020-12.00I	1	UNC - Inter	10G x 24	3032-10GI	1	UNF - Bott	1/2 x 20	3034-1/2B
1	MC - Inter	14 x 2	3020-14.00I	1	UNC - Inter	3/16x 24(UNS)	3032-3/16I	1	UNF - Bott	9/16 x 18	3034-9/16B
1	MC - Inter	16 x 2	3020-16.00I	1	UNC - Inter	1/4 x 20	3032-1/4I	1	UNF - Bott	5/8 x 18	3034-5/8B
1	MC - Inter	18 x 2.5	3020-18.00I	1	UNC - Inter	5/16 x 18	3032-5/16I	1	UNF - Bott	3/4 x 16	3034-3/4B
1	MC - Inter	20 x 2.5	3020-20.00I	1	UNC - Inter	3/8 x 16	3032-3/8I	1	UNF - Bott	1 x 12	3034-1B
1	MC - Bott	3 x 0.5	3020-3.00B	1	UNC - Inter	7/16x14	3032-7/16I				
1	MC - Bott	4 x 0.7	3020-4.00B	1	UNC - Inter	1/2x13	3032-1/2I	1	BSPF - Taper	1/8 x 28	3046-1/8T
1	MC - Bott	5 x 0.8	3020-5.00B	1	UNC - Inter	9/16 x 12	3032-9/16I	1	BSPF - Taper	1/4 x 19	3046-1/4T
1	MC - Bott	6 x 1	3020-6.00B	1	UNC - Inter	5/8 x 11	3032-5/8I	1	BSPF - Taper	3/8 x 19	3046-3/8T
1	MC - Bott	8 x 1.25	3020-8.00B	1	UNC - Inter	3/4 x 10	3032-3/4I	1	BSPF - Taper	1/2 x 14	3046-1/2T
1	MC - Bott	10 x 1.5	3020-10.00B	1	UNC - Inter	1 x 8	3032-1I	1	BSPF - Taper	3/4 x 14	3046-3/4T
1	MC - Bott	12 x 1.75	3020-12.00B	1	UNC - Bott	8G x 32	3032-8GB	1	BSPF - Taper	1 x 11	3046-1T
1	MC - Bott	14 x 2	3020-14.00B	1	UNC - Bott	10G x 24	3032-10GB	1	BSPF - Inter	1/8 x 28	3046-1/8I
1	MC - Bott	16 x 2	3020-16.00B	1	UNC - Bott	3/16x 24(UNS)	3032-3/16B	1	BSPF - Inter	1/4 x 19	3046-1/4I
1	MC - Bott	18 x 2.5	3020-18.00B	1	UNC - Bott	1/4 x 20	3032-1/4B	1	BSPF - Inter	3/8 x 19	3046-3/8I
1	MC - Bott	20 x 2.5	3020-20.00B	1	UNC - Bott	5/16 x 18	3032-5/16B	1	BSPF - Inter	1/2 x 14	3046-1/2I
				1	UNC - Bott	3/8x16	3032-3/8B	1	BSPF - Inter	3/4 x 14	3046-3/4I
1	MF - Taper	8 x 1	3021-8.00T	1	UNC - Bott	7/16 x 14	3032-7/16B	1	BSPF - Inter	1 x 11	3046-1I
1	S/Plug - Taper	10 x 1	3022-10.00T	1	UNC - Bott	1/2 x 13	3032-1/2B	1	BSPF - Bott	1/8 x 28	3046-1/8B
1	MF - Taper	10 x 1.25	3021-10.00T	1	UNC - Bott	9/16 x 12	3032-9/16B	1	BSPF - Bott	1/4 x 19	3046-1/4B
1	S/Plug - Taper	12 x 1.25	3022-12.00T	1	UNC - Bott	5/8 x 11	3032-5/8B	1	BSPF - Bott	3/8 x 19	3046-3/8B
1	MF - Taper	12 x 1.5	3021-12.00T	1	UNC - Bott	3/4 x 10	3032-3/4B	1	BSPF - Bott	1/2 x 14	3046-1/2B
1	S/Plug - Taper	14 x 1.25	3022-14.00T	1	UNC - Bott	1 x 8	3032-1B	1	BSPF - Bott	3/4 x 14	3046-3/4B
1	MF - Taper	14 x 1.5	3021-14.00T					1	BSPF - Bott	1 x 11	3046-1B
1	MF - Taper	25 x 1.5	3023-25.00T	1	UNF - Taper	8G x 36	3034-8GT				
1	MF - Inter	8 x 1	3021-8.00I	1	UNF - Taper	10G x 32	3034-10GT	1	BSPT - Bott	1/8 x 28	3048-1/8B
1	S/Plug - Inter	10 x 1	3022-10.00I	1	UNC - Taper	3/16x 24(UNS)	3032-3/16T	1	BSPT - Bott	1/4 x 19	3048-1/4B
1	MF - Inter	10 x 1.25	3021-10.00I	1	UNF - Taper	1/4 x 28	3034-1/4T	1	BSPT - Bott	3/8 x 19	3048-3/8B
1	S/Plug - Inter	12 x 1.25	3022-12.00I	1	UNF - Taper	5/16 x 24	3034-5/16T	1	BSPT - Bott	1/2 x 14	3048-1/2B
1	MF - Inter	12 x 1.5	3021-12.00I	1	UNF - Taper	3/8 x 24	3034-3/8T	1	BSPT - Bott	3/4 x 14	3048-3/4B
1	S/Plug - Inter	14 x 1.25	3022-14.00I	1	UNF - Taper	7/16 x 20	3034-7/16T	1	BSPT - Bott	1 x 11	3048-1B
1	MF - Inter	14 x 1.5	3021-14.00I	1	UNF - Taper	1/2 x 20	3034-1/2T				
1	MF - Inter	25 x 1.5	3023-25.00I	1	UNF - Taper	9/16 x 18	3034-9/16T	1	NPT - Bott	1/8 x 27	3052-1/8B
1	MF - Bott	8 x 1	3021-8.00B	1	UNF - Taper	5/8 x 18	3034-5/8T	1	NPT - Bott	1/4 x 18	3052-1/4B
1	S/Plug - Bott	10 x 1	3022-10.00B	1	UNF - Taper	3/4 x 16	3034-3/4T	1	NPT - Bott	3/8 x 18	3052-3/8B
1	MF - Bott	10 x 1.25	3021-10.00B	1	UNF - Taper	1 x 12	3034-1T	1	NPT - Bott	1/2 x 14	3052-1/2B
1	S/Plug - Bott	12 x 1.25	3022-12.00B	1	UNF - Inter	8G x 36	3034-8GI	1	NPT - Bott	3/4 x 14	3052-3/4B
1	MF - Bott	12 x 1.5	3021-12.00B	1	UNF - Inter	10G x 32	3034-10GI	1	NPT - Bott	1 x 11.5	3052-1B





GROUP	HSTD
SURFACE FINISH	BRIGHT
MATERIAL	**HSS**
FLUTE TYPE	**SPIRAL**
SHANK	**1/4" HEX**
PACKAGING	CLAM SHELL



DIA MM / INCH	PITCH / TPI MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
MC					
3.00	0.50	36	1	**32.04**	3010-3.00
4.00	0.70	39	1	**32.04**	3010-4.00
5.00	0.80	41	1	**32.04**	3010-5.00
6.00	1.00	44	1	**32.04**	3010-6.00
8.00	1.25	51	1	**35.02**	3010-8.00
10.00	1.50	58	1	**46.88**	3010-10.00
UNC					
6G	32	39	1	**32.04**	3011-6G
8G	32	39	1	**32.04**	3011-8G
10G	24	41	1	**32.04**	3011-10G
12G	24	44	1	**32.04**	3011-12G
1/4	20	44	1	**32.04**	3011-1/4
5/16	18	50	1	**35.02**	3011-5/16
3/8	16	59	1	**46.88**	3011-3/8
UNF					
10G	32	41	1	**32.04**	3012-10G

COMBINATION DRILL TAPS

FEATURES

- Save time! Drill, tap and deburr in one operation.
- One-piece drill/tap guarantees correct drill for tap size.
- Tapered design prevents thread damage from over drilling.
- Made of high speed steel for long life.
- After completing tap, reverse the drill to back out.
- Use of cutting oil recommended.
- Clean tap of metal chips to extend life.
- Capacity: 10 gauge (3.5mm).



SET TYPE	$ SET	PART NUMBER
HSS DRILL TAP SET– METRIC COARSE	**140.14**	3010-S1
M3X0.50, M4X0.70, M5X0.80, M6X1.00, M8X1.25, M10X1.50 + 1/4" QUICK CHANGE BIT HOLDER		

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
DRILL TAP MERCHANDISER	**764.48**	3010-D1



MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER
	1	MC 3.00 X 0.50	3010-3.00
	1	MC 4.00 X 0.70	3010-4.00
	1	MC 5.00 X 0.80	3010-5.00
	1	MC 6.00 X 1.00	3010-6.00
	1	MC 8.00 X 1.25	3010-8.00
	1	MC 10.00 X 1.50	3010-10.00
	1	UNC 6G X 32	3011-6G
	1	UNC 8G X 32	3011-8G
	1	UNC 10G X 24	3011-10G
	1	UNC 12G X 24	3011-12G
	1	UNC 1/4 X 20	3011-1/4
	1	UNC 5/16 X 18	3011-5/16
	1	UNC 3/8 X 16	3011-3/8
	1	UNF 10G X 32	3012-10G
	2	SET	3010-S1



GROUP	CTAP	CTAP	CTAP	CTAP
WRENCH TYPE	BAR PATTERN	BAR PATTERN	T PATTERN	T PATTERN - RATCHET
PACKAGING	**BULK**	**CLAM SHELL**	**HANG SELL**	**HANG SELL**







SIZE	RANGE MM	RANGE INCH	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
BAR PATTERN TAP WRENCH												
00	M1–M8	1/16 – 1/4	135	1	–	–	**67.41**	4998-1/16-1/4	–	–	–	–
0	M1–M10	1/16 – 3/8	185	1	–	–	**65.65**	4998-1/16-3/8	–	–	–	–
5	M4–M12	3/16 –1/2	285	1	–	–	**67.96**	4998-3/16-1/2	–	–	–	–
6	M5–M20	1/4 – 3/4	375	1	–	–	**109.71**	4998-1/4-3/4	–	–	–	–
7	M9–M27	3/8 – 1.1/16	523	1	**165.67**	4998-3/8-1.1/16	–	–	–	–	–	–
8	M13–M33	1/2 – 1.5/16	615	1	**342.22**	4998-1/2-1.5/16	–	–	–	–	–	–
T PATTERN TAP WRENCH												
1/4	M3–M6	1/8 – 1/4	–	1	–	–	–	–	**31.56**	4997-1/8-1/4	**53.12**	4996-1/8-1/4
1/2	M6–M12	1/4 – 1/2	–	1	–	–	–	–	**50.24**	4997-1/4-1/2	**69.27**	4996-1/4-1/2

GROUP	CTAP
WRENCH TYPE	DIE HOLDER
PACKAGING	**CLAM SHELL**



SIZE INCH	RANGE MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
DIE HOLDER					
1	–	230	1	**29.96**	4999-1
1-1/2	–	315	1	**66.71**	4999-1.1/2
2	–	495	1	**90.34**	4999-2

NEW MERCH

GROUP	CTAP

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
TAP WRENCH & DIE HOLDER MERCH.	**497.74**	4998-D1

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER
	1	M1–M8 TAP WRENCH	4998-1/16-1/4
	1	M1–M10 TAP WRENCH	4998-1/16-3/8
	1	M4–M12 TAP WRENCH	4998-3/16-1/2
	1	M5–M20 TAP WRENCH	4998-1/4-3/4
	1	1" DIE STOCK	4999-1
	1	1-1/2" DIE STOCK	4999-1.1/2
	1	2" DIE STOCK	4999-2



GROUP	CTAP
SURFACE FINISH	BRIGHT
SUITS TAP SIZES	M2 - M12 : 5G - 1/2"
PACKAGING	INJECTION MOULDED CASE





SET TYPE	SETS PER OUTER	$ SET	PART NUMBER
QUICK CHANGE RATCHET SET	4	**129.91**	4996-1/2QC

TAP WRENCH WITH 65MM EXTENSION – HI-TORQUE

GROUP	CTAP
SURFACE FINISH	BRIGHT
MATERIAL	CHROME ALLOY
PACKAGING	BLOW MOULDED CASE
TAP TYPE	INTERMEDIATE TAPS
DIE TYPE	1" BUTTON DIES



TAP & DIE SET TYPE	SETS PER OUTER	$ SET	PART NUMBER
METRIC COARSE – QC RATCHET	4	**388.78**	4220-S2



SET CONTENTS	SIZE MM	PART NUMBER	SIZE MM	PART NUMBER
TAPS AND BUTTON DIES	CHROME ALLOY TAPS		CHROME ALLOY DIES	
	3.00 x 0.50	4220-3.00I	3.00 x 0.50	4800-3-1D
	4.00 x 0.70	4220-4.00I	4.00 x 0.70	4800-4-1D
	5.00 x 0.80	4220-5.00I	5.00 x 0.80	4800-5-1D
	6.00 x 1.00	4220-6.00I	6.00 x 1.00	4800-6-1D
	8.00 x 1.25	4220-8.00I	8.00 x 1.25	4800-8-1D
	10.00 x 1.50	4220-10.00I	10.00 x 1.50	4800-10-1D
	12.00 x 1.75	4220-12.00I	12.00 x 1.75	4800-12-1D
WRENCH/HOLDER	Tap Wrench	4996-1/2QC	Die Holder	–



GROUP	EXTR	EXTR	EXTR	EXTR
SURFACE FINISH	BLACK	BLACK	BLACK	BRONZE
MATERIAL	CHROME ALLOY	CHROME ALLOY	CHROME ALLOY	HSS-Co5
DRILL	–	–	**EXTRACTOR + LH STUB DRILL**	**LH STUB DRILL ONLY**
PACKAGING	**BULK**	**CLAM SHELL**	**CLAM SHELL**	**BULK**









SIZE	PILOT DRILL MM	PILOT DRILL INCH	FOR BOLT MM	FOR BOLT INCH	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ EACH	PART NUMBER
1	2.00	5/64	4-4.5	5/32-3/16	5	**7.89**	9900-1	1	**8.63**	9900-1S	1+1	**12.55**	9900-1W	5	**4.30**	2005-5/64
2	3.00	7/64	5.5-6.5	7/32-1/4	5	**8.43**	9900-2	1	**9.14**	9900-2S	1+1	**12.82**	9900-2W	5	**4.05**	2005-7/64
3	4.00	5/32	8	5/16	5	**10.38**	9900-3	1	**10.94**	9900-3S	1+1	**15.97**	9900-3W	5	**5.44**	2005-5/32
4	6.35	1/4	10-12	3/8-1/2	5	**11.13**	9900-4	1	**11.84**	9900-4S	1+1	**20.54**	9900-4W	5	**9.25**	2005-1/4
5	7.50	19/64	14-20	9/16-3/4	5	**12.91**	9900-5	1	**13.62**	9900-5S	1+1	**23.58**	9900-5W	5	**10.49**	2005-19/64
6	10.70	27/64	19-25	3/4-1	1	**16.70**	9900-6	–	**–**	–	–	–	–	–	**–**	–
7	13.50	17/32	25-35	1 - 1-3/8	1	**26.35**	9900-7	–	**–**	–	–	–	–	–	**–**	–
8	20.60	13/16	35-44.5	1-3/8 - 1-3/4	1	**117.80**	9900-8	–	**–**	–	–	–	–	–	**–**	–
9	27.00	1-1/16	44.5-54	1-3/4 - 2-1/8	1	**158.84**	9900-9	–	**–**	–	–	–	–	–	**–**	–





SET DESCRIPTION	SETS PER OUTER	$ SET	PART NUMBER	$ SET	PART NUMBER
SCREW EXTRACTORS	10	**55.24**	9900-SM1	**–**	–
SCREW EXT. + LH STUB DRILLS	5	**–**	–	**94.82**	9900-SM2





SET CONTENTS	QTY EACH	SIZE	PART NUMBER	QTY EACH	SIZE	PART NUMBER
	1	1	9900-1	1	1	9900-1
	1	2	9900-2	1	2	9900-2
	1	3	9900-3	1	3	9900-3
	1	4	9900-4	1	4	9900-4
	1	5	9900-5	1	5	9900-5
				1	5/64"	2005-5/64
				1	7/64"	2005-7/64
				1	5/32"	2005-5/32
				1	1/4"	2005-1/4
				1	19/64"	2005-19/64



GROUP	EXTR
SURFACE FINISH	BLACK
MATERIAL	CHOME ALLOY
PACKAGING	**MERCHANDISER**



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SCREW EXTRACTOR MERCHANDISER	**879.50**	9900-D1

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER
	2	Screw Extractor No.1	9900-1S
	2	Screw Extractor No.2	9900-2S
	2	Screw Extractor No.3	9900-3S
	2	Screw Extractor No.4	9900-4S
	2	Screw Extractor No.5	9900-5S
	2	Screw Ext No.1 + LH Drill	9900-1W
	2	Screw Ext No.2 + LH Drill	9900-2W
	2	Screw Ext No.3 + LH Drill	9900-3W
	2	Screw Ext No.4 + LH Drill	9900-4W
	2	Screw Ext No.5 + LH Drill	9900-5W
	4	Screw Extractor Set 1	9900-SM1
	4	Screw Extractor Set 2	9900-SM2



M METRIC

GROUP	ENDM	ENDM
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	HSS-Co8	HSS-Co8
LENGTH	**SHORT**	**SHORT**
TYPE	CENTRE CUTTING **THREADED**	CENTRE CUTTING **PLAIN - FLATTED**
PACKAGING	SINGLE	SINGLE

DIA MM	SHANK MM	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
SHORT									
1.50	6.00	2.50	48.00	2	1	**36.77**	6006-1.50S	**–**	–
2.00	6.00	4.00	48.00	2	1	**36.77**	6006-2.00S	**–**	–
2.50	6.00	5.00	49.00	2	1	**35.75**	6006-2.50S	**–**	–
3.00	6.00	5.00	49.00	2	1	**35.75**	6006-3.00S	**35.78**	6010-3.00S
3.50	6.00	6.00	50.00	2	1	**30.20**	6006-3.50S	**49.17**	6010-3.50S
4.00	6.00	7.00	51.00	2	1	**30.20**	6006-4.00S	**30.20**	6010-4.00S
4.50	6.00	7.00	51.00	2	1	**30.20**	6006-4.50S	**49.17**	6010-4.50S
5.00	6.00	8.00	52.00	2	1	**30.20**	6006-5.00S	**30.20**	6010-5.00S
5.50	6.00	8.00	52.00	2	1	**35.75**	6006-5.50S	**49.17**	6010-5.50S
6.00	6.00	8.00	52.00	2	1	**35.75**	6006-6.00S	**35.78**	6010-6.00S
6.50	10.00	10.00	60.00	2	1	**45.51**	6006-6.50S	**63.84**	6010-6.50S
7.00	10.00	10.00	60.00	2	1	**45.51**	6006-7.00S	**45.51**	6010-7.00S
7.50	10.00	10.00	60.00	2	1	**45.91**	6006-7.50S	**63.84**	6010-7.50S
8.00	10.00	11.00	61.00	2	1	**45.91**	6006-8.00S	**45.91**	6010-8.00S
8.50	10.00	11.00	61.00	2	1	**47.94**	6006-8.50S	**63.84**	6010-8.50S
9.00	10.00	11.00	61.00	2	1	**47.94**	6006-9.00S	**47.94**	6010-9.00S
9.50	10.00	11.00	61.00	2	1	**46.53**	6006-9.50S	**63.84**	6010-9.50S
10.00	10.00	13.00	63.00	2	1	**46.53**	6006-10.00S	**46.53**	6010-10.00S
10.50	12.00	13.00	70.00	2	1	**52.65**	6006-10.50S	**–**	–
11.00	12.00	13.00	70.00	2	1	**52.65**	6006-11.00S	**50.23**	6010-11.00S
12.00	12.00	16.00	73.00	2	1	**53.37**	6006-12.00S	**47.22**	6010-12.00S
13.00	12.00	16.00	73.00	2	1	**56.66**	6006-13.00S	**52.27**	6010-13.00S
14.00	12.00	16.00	73.00	2	1	**66.14**	6006-14.00S	**55.77**	6010-14.00S
15.00	12.00	16.00	73.00	2	1	**78.03**	6006-15.00S	**67.10**	6010-15.00S
16.00	16.00	19.00	79.00	2	1	**78.03**	6006-16.00S	**63.83**	6010-16.00S
17.00	16.00	19.00	79.00	2	1	**85.75**	6006-17.00S	**–**	–
18.00	16.00	19.00	79.00	2	1	**89.45**	6006-18.00S	**75.84**	6010-18.00S
19.00	16.00	19.00	79.00	2	1	**99.72**	6006-19.00S	**–**	–
20.00	16.00	19.00	79.00	2	1	**106.77**	6006-20.00S	**82.68**	6010-20.00S
22.00	25.00	26.00	102.00	2	1	**164.73**	6006-22.00S	**144.68**	6010-22.00S
24.00	25.00	26.00	102.00	2	1	**167.77**	6006-24.00S	**–**	–
25.00	25.00	26.00	102.00	2	1	**167.77**	6006-25.00S	**144.68**	6010-25.00S
28.00	25.00	26.00	102.00	2	1	**214.32**	6006-28.00S	**–**	–
30.00	25.00	26.00	102.00	2	1	**267.81**	6006-30.00S	**–**	–
32.00	32.00	32.00	112.00	2	1	**285.23**	6006-32.00S	**–**	–
36.00	32.00	32.00	112.00	2	1	**308.51**	6006-36.00S	**–**	–
40.00	32.00	38.00	118.00	2	1	**440.89**	6006-40.00S	**–**	–
45.00	32.00	38.00	118.00	2	1	**545.19**	6006-45.00S	**–**	–
50.00	32.00	45.00	125.00	2	1	**636.69**	6006-50.00S	**–**	–



GROUP	ENDM	ENDM
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	HSS-Co8	HSS-Co8
LENGTH	**LONG**	**LONG**
TYPE	CENTRE CUTTING **THREADED**	CENTRE CUTTING **PLAIN - FLATTED**
PACKAGING	SINGLE	SINGLE

DIA MM	SHANK MM	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
LONG									
2.00	6.00	4.00	51.00	2	1	**42.97**	6006-2.00L	**–**	–
3.00	6.00	11.00	60.50	2	1	**42.97**	6006-3.00L	**42.97**	6010-3.00L
4.00	6.00	12.50	66.50	2	1	**34.16**	6006-4.00L	**56.85**	6010-4.00L
5.00	6.00	12.50	70.00	2	1	**35.20**	6006-5.00L	**56.85**	6010-5.00L
6.00	6.00	16.00	76.00	2	1	**41.83**	6006-6.00L	**56.85**	6010-6.00L
6.50	10.00	16.00	76.00	2	1	**52.44**	6006-6.50L	**–**	–
7.00	10.00	16.00	76.00	2	1	**52.44**	6006-7.00L	**–**	–
8.00	10.00	19.00	79.50	2	1	**54.49**	6006-8.00L	**54.49**	6010-8.00L
8.50	10.00	22.00	82.50	2	1	**54.14**	6006-8.50L	**79.65**	6010-8.50L
9.00	10.00	22.00	82.50	2	1	**54.14**	6006-9.00L	**56.85**	6010-9.00L
10.00	10.00	22.00	82.50	2	1	**55.77**	6006-10.00L	**55.77**	6010-10.00L
11.00	12.00	22.00	89.00	2	1	**66.87**	6006-11.00L	**63.03**	6010-11.00L
12.00	12.00	25.50	95.00	2	1	**66.87**	6006-12.00L	**62.04**	6010-12.00L
13.00	12.00	25.50	95.00	2	1	**74.22**	6006-13.00L	**74.07**	6010-13.00L
14.00	12.00	28.50	101.50	2	1	**77.53**	6006-14.00L	**74.07**	6010-14.00L
15.00	12.00	31.50	108.00	2	1	**104.09**	6006-15.00L	**89.49**	6010-15.00L
16.00	16.00	31.50	108.00	2	1	**104.09**	6006-16.00L	**89.49**	6010-16.00L
17.00	16.00	35.00	114.50	2	1	**113.96**	6006-17.00L	**–**	–
18.00	16.00	35.00	114.50	2	1	**119.92**	6006-18.00L	**110.31**	6010-18.00L
19.00	16.00	38.00	120.50	2	1	**124.69**	6006-19.00L	**–**	–
20.00	16.00	38.00	120.50	2	1	**145.99**	6006-20.00L	**124.08**	6010-20.00L



F FRACTIONAL

GROUP	ENDM
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co8
LENGTH	**SHORT**
TYPE	CENTRE CUTTING **THREADED**
PACKAGING	SINGLE

DIA INCH	SHANK INCH	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER
SHORT							
1/16	1/4	2.50	48.00	2	1	**37.77**	6000-1/16S
1/8	1/4	8.00	51.00	2	1	**34.29**	6000-1/8S
3/16	1/4	10.00	52.00	2	1	**30.38**	6000-3/16S
1/4	1/4	11.00	56.00	2	1	**36.01**	6000-1/4S
5/16	3/8	13.00	60.00	2	1	**45.22**	6000-5/16S
3/8	3/8	14.00	60.00	2	1	**46.80**	6000-3/8S
7/16	1/2	17.00	65.00	2	1	**52.67**	6000-7/16S
1/2	1/2	19.00	67.00	2	1	**56.66**	6000-1/2S
9/16	1/2	22.00	69.00	2	1	**66.14**	6000-9/16S
5/8	5/8	22.00	72.00	2	1	**78.03**	6000-5/8S
3/4	5/8	25.00	77.00	2	1	**99.72**	6000-3/4S
7/8	1	25.00	100.00	2	1	**164.64**	6000-7/8S
1	1	27.00	95.00	2	1	**167.77**	6000-1S
1-1/8	1	30.00	95.00	2	1	**214.32**	6000-1.1/8S
1-1/4	1-1/4	35.00	117.00	2	1	**285.23**	6000-1.1/4S
1-3/8	1-1/4	40.00	111.00	2	1	**320.84**	6000-1.3/8S
1-1/2	1-1/4	43.00	115.00	2	1	**356.96**	6000-1.1/2S
1-5/8	1-1/4	48.00	118.00	2	1	**344.53**	6000-1.5/8S
1-3/4	1-1/4	48.00	118.00	2	1	**492.52**	6000-1.3/4S
1-7/8	1-1/4	51.00	118.00	2	1	**596.21**	6000-1.7/8S
2	1-1/4	51.00	118.00	2	1	**596.21**	6000-2S



GROUP	ENDM
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co8
LENGTH	**LONG**
TYPE	CENTRE CUTTING **THREADED**
PACKAGING	SINGLE

F FRACTIONAL

DIA INCH	SHANK INCH	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER
LONG							
1/8	1/4	11.00	64.00	2	1	**38.21**	6000-1/8L
3/16	1/4	13.00	70.00	2	1	**39.21**	6000-3/16L
1/4	1/4	16.00	76.00	2	1	**42.87**	6000-1/4L
5/16	3/8	19.00	79.00	2	1	**53.72**	6000-5/16L
3/8	3/8	22.00	83.00	2	1	**54.49**	6000-3/8L
7/16	1/2	22.00	89.00	2	1	**69.45**	6000-7/16L
1/2	1/2	25.00	95.00	2	1	**62.16**	6000-1/2L
9/16	1/2	29.00	102.00	2	1	**82.73**	6000-9/16L
5/8	5/8	32.00	108.00	2	1	**98.14**	6000-5/8L
3/4	5/8	38.00	121.00	2	1	**127.57**	6000-3/4L
7/8	1	42.00	140.00	2	1	**197.63**	6000-7/8L
1	1	44.00	159.00	2	1	**217.94**	6000-1L
1-1/8	1	48.00	159.00	2	1	**262.92**	6000-1.1/8L
1-1/4	1-1/4	51.00	159.00	2	1	**361.15**	6000-1.1/4L
1-3/8	1-1/4	54.00	159.00	2	1	**368.05**	6000-1.3/8L
1-1/2	1-1/4	57.00	159.00	2	1	**401.27**	6000-1.1/2L
1-5/8	1-1/4	64.00	159.00	2	1	**574.55**	6000-1.5/8L
1-3/4	1-1/4	64.00	159.00	2	1	**676.40**	6000-1.3/4L
1-7/8	1-1/4	64.00	159.00	2	1	**765.26**	6000-1.7/8L
2	1-1/4	64.00	159.00	2	1	**854.08**	6000-2L



M METRIC

GROUP	ENDM	ENDM
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	HSS-Co8	HSS-Co8
LENGTH	**SHORT / LONG**	**SHORT / LONG**
TYPE	CENTRE CUTTING **THREADED**	CENTRE CUTTING **PLAIN - FLATTED**
PACKAGING	SINGLE	SINGLE

DIA MM	SHANK MM	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
SHORT									
3.00	6.00	5.00	49.00	2	1	**55.77**	6022-3.00S	**67.80**	6024-3.00S
4.00	6.00	7.00	51.00	2	1	**55.77**	6022-4.00S	**63.31**	6024-4.00S
5.00	6.00	8.00	52.00	2	1	**55.77**	6022-5.00S	**66.89**	6024-5.00S
6.00	6.00	8.00	52.00	2	1	**55.77**	6022-6.00S	**67.37**	6024-6.00S
8.00	10.00	11.00	61.00	2	1	**76.44**	6022-8.00S	**86.47**	6024-8.00S
10.00	10.00	13.00	63.00	2	1	**97.20**	6022-10.00S	**91.19**	6024-10.00S
12.00	12.00	16.00	73.00	3	1	**99.44**	6022-12.00S	**120.67**	6024-12.00S
14.00	12.00	16.00	73.00	2	1	**118.84**	6022-14.00S	**–**	–
16.00	16.00	19.00	79.00	2	1	**129.30**	6022-16.00S	**–**	–
18.00	16.00	19.00	79.00	2	1	**154.42**	6022-18.00S	**–**	–
20.00	16.00	19.00	79.00	2	1	**173.65**	6022-20.00S	**–**	–
22.00	25.00	26.00	102.00	2	1	**272.17**	6022-22.00S	**–**	–
25.00	25.00	26.00	102.00	2	1	**272.17**	6022-25.00S	**–**	–
30.00	25.00	26.00	102.00	2	1	**396.27**	6022-30.00S	**–**	–
LONG									
3.00	6.00	11.00	60.50	2	1	**55.10**	6022-3.00L	**58.15**	6024-3.00L
4.00	6.00	12.50	66.50	2	1	**55.10**	6022-4.00L	**58.15**	6024-4.00L
5.00	6.00	12.50	70.00	2	1	**55.10**	6022-5.00L	**58.15**	6024-5.00L
6.00	6.00	16.00	76.00	2	1	**55.53**	6022-6.00L	**58.15**	6024-6.00L
8.00	10.00	19.00	79.50	2	1	**69.58**	6022-8.00L	**79.23**	6024-8.00L
10.00	10.00	22.00	82.50	2	1	**77.12**	6022-10.00L	**100.35**	6024-10.00L
12.00	12.00	25.50	95.00	2	1	**106.40**	6022-12.00L	**100.35**	6024-12.00L
16.00	16.00	31.50	108.00	2	1	**127.83**	6022-16.00L	**132.11**	6024-16.00L
18.00	16.00	35.00	114.50	2	1	**163.40**	6022-18.00L	**171.71**	6024-18.00L
25.00	16.00	44.50	159.00	2	1	**324.11**	6022-25.00L	**266.20**	6024-25.00L
30.00	25.00	51.00	159.00	2	1	**469.84**	6022-30.00L	**542.76**	6024-30.00L



F FRACTIONAL

GROUP	ENDM
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co8
LENGTH	**SHORT / LONG**
TYPE	CENTRE CUTTING **THREADED**
PACKAGING	SINGLE

DIA INCH	SHANK INCH	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER
SHORT							
1/8	1/4	8.00	51.00	2	1	**53.12**	6016-1/8S
3/16	1/4	10.00	52.00	2	1	**53.12**	6016-3/16S
1/4	1/4	11.00	56.00	2	1	**53.12**	6016-1/4S
5/16	3/8	13.00	60.00	2	1	**65.58**	6016-5/16S
3/8	3/8	14.00	60.00	2	1	**65.58**	6016-3/8S
7/16	1/2	17.00	65.00	2	1	**69.18**	6016-7/16S
1/2	1/2	19.00	67.00	2	1	**102.03**	6016-1/2S
5/8	5/8	22.00	72.00	2	1	**129.42**	6016-5/8S
3/4	5/8	25.00	77.00	2	1	**173.06**	6016-3/4S
7/8	1	25.00	100.00	2	1	**280.79**	6016-7/8S
1	1	27.00	95.00	2	1	**281.00**	6016-1S
1-1/8	1	30.00	95.00	2	1	**357.42**	6016-1.1/8S
1-1/4	1-1/4	35.00	117.00	2	1	**332.07**	6016-1.1/4S
1-3/8	1-1/4	40.00	111.00	2	1	**538.38**	6016-1.3/8S
1-1/2	1-1/4	43.00	115.00	2	1	**622.09**	6016-1.1/2S
1-5/8	1-1/4	48.00	118.00	2	1	**802.14**	6016-1.5/8S
1-3/4	1-1/4	48.00	118.00	2	1	**866.45**	6016-1.3/4S
1-7/8	1-1/4	51.00	118.00	2	1	**951.93**	6016-1.7/8S
2	1-1/4	51.00	118.00	2	1	**1,037.38**	6016-2S
LONG							
1/8	1/4	11.00	64.00	2	1	**68.62**	6016-1/8L
3/16	1/4	13.00	70.00	2	1	**75.81**	6016-3/16L
1/4	1/4	16.00	76.00	2	1	**75.81**	6016-1/4L
5/16	3/8	19.00	79.00	2	1	**85.94**	6016-5/16L
3/8	3/8	22.00	83.00	2	1	**91.89**	6016-3/8L
7/16	1/2	22.00	89.00	2	1	**101.77**	6016-7/16L
1/2	1/2	25.00	95.00	2	1	**105.06**	6016-1/2L
5/8	5/8	32.00	108.00	2	1	**147.79**	6016-5/8L
3/4	5/8	38.00	121.00	2	1	**196.76**	6016-3/4L
7/8	1	42.00	140.00	2	1	**277.11**	6016-7/8L
1	1	44.00	159.00	2	1	**304.40**	6016-1L
1-1/8	1	48.00	159.00	2	1	**389.88**	6016-1.1/8L
1-1/4	1-1/4	51.00	159.00	2	1	**520.93**	6016-1.1/4L
1-3/8	1-1/4	54.00	159.00	2	1	**539.51**	6016-1.3/8L
1-1/2	1-1/4	57.00	159.00	2	1	**553.56**	6016-1.1/2L
1-3/4	1-1/4	64.00	159.00	2	1	**891.80**	6016-1.3/4L
2	1-1/4	64.00	159.00	2	1	**1,130.86**	6016-2L



M METRIC

GROUP	ENDM	ENDM
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	HSS-Co8	HSS-Co8
LENGTH	**SHORT**	**SHORT**
TYPE	END CUTTING **THREADED**	END CUTTING **PLAIN - FLATTED**
PACKAGING	SINGLE	SINGLE

DIA MM	SHANK MM	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
SHORT									
3.00	6.00	9.50	54.00	4	1	**28.76**	6066-3.00S	**28.76**	6070-3.00S
3.50	6.00	12.50	57.00	4	1	**28.21**	6066-3.50S	**–**	–
4.00	6.00	12.50	57.00	4	1	**28.21**	6066-4.00S	**49.17**	6070-4.00S
4.50	6.00	12.50	57.00	4	1	**28.76**	6066-4.50S	**–**	–
5.00	6.00	16.00	60.50	4	1	**28.76**	6066-5.00S	**49.17**	6070-5.00S
5.50	6.00	16.00	60.50	4	1	**28.21**	6066-5.50S	**–**	–
6.00	6.00	16.00	60.50	4	1	**28.21**	6066-6.00S	**56.85**	6070-6.00S
6.50	10.00	16.00	60.50	4	1	**35.42**	6066-6.50S	**–**	–
7.00	10.00	15.00	60.50	4	1	**35.42**	6066-7.00S	**37.20**	6070-7.00S
7.50	10.00	18.00	63.50	4	1	**37.20**	6066-7.50S	**–**	–
8.00	10.00	18.00	63.50	4	1	**37.20**	6066-8.00S	**37.20**	6070-8.00S
8.50	10.00	21.00	66.50	4	1	**37.20**	6066-8.50S	**–**	–
9.00	10.00	21.00	66.50	4	1	**37.20**	6066-9.00S	**63.84**	6070-9.00S
9.50	10.00	21.00	66.50	4	1	**37.20**	6066-9.50S	**–**	–
10.00	10.00	21.00	66.50	4	1	**37.20**	6066-10.00S	**37.20**	6070-10.00S
11.00	12.00	19.00	66.50	4	1	**47.65**	6066-11.00S	**80.60**	6070-11.00S
12.00	12.00	24.00	70.00	4	1	**47.65**	6066-12.00S	**47.22**	6070-12.00S
13.00	12.00	24.50	70.00	4	1	**59.44**	6066-13.00S	**92.45**	6070-13.00S
14.00	12.00	28.50	73.00	4	1	**59.44**	6066-14.00S	**54.03**	6070-14.00S
15.00	12.00	26.50	71.00	4	1	**68.35**	6066-15.00S	**107.41**	6070-15.00S
16.00	16.00	26.50	77.00	4	1	**68.35**	6066-16.00S	**62.77**	6070-16.00S
18.00	16.00	35.00	80.00	4	1	**80.92**	6066-18.00S	**75.84**	6070-18.00S
19.00	16.00	38.00	83.50	4	1	**105.44**	6066-19.00S	**–**	–
20.00	20.00	38.00	83.50	4	1	**105.44**	6066-20.00S	**84.40**	6070-20.00S
22.00	25.00	41.50	98.50	6	1	**146.75**	6066-22.00S	**134.38**	6070-22.00S
24.00	25.00	41.50	98.50	6	1	**152.00**	6066-24.00S	**–**	–
25.00	25.00	44.50	101.50	6	1	**152.00**	6066-25.00S	**151.68**	6070-25.00S
28.00	25.00	46.00	104.50	6	1	**202.22**	6066-28.00S	**–**	–
30.00	25.00	46.00	104.50	6	1	**223.29**	6066-30.00S	**–**	–
32.00	32.00	51.00	112.50	6	1	**248.57**	6066-32.00S	**–**	–
35.00	32.00	54.00	116.00	6	1	**277.98**	6066-35.00S	**–**	–
38.00	32.00	54.00	116.00	6	1	**345.57**	6066-38.00S	**–**	–
40.00	32.00	55.50	117.50	6	1	**416.86**	6066-40.00S	**–**	–
45.00	32.00	57.00	119.00	6	1	**532.74**	6066-45.00S	**–**	–
50.00	32.00	65.00	127.00	8	1	**606.59**	6066-50.00S	**–**	–



GROUP	ENDM	ENDM
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	HSS-Co8	HSS-Co8
LENGTH	**LONG**	**LONG**
TYPE	END CUTTING **THREADED**	END CUTTING **PLAIN - FLATTED**
PACKAGING	SINGLE	SINGLE

DIA MM	SHANK MM	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
LONG									
3.00	6.00	19.00	63.50	4	1	**36.77**	6066-3.00L	**36.77**	6070-3.00L
4.00	6.00	25.50	70.00	4	1	**33.40**	6066-4.00L	**56.85**	6070-4.00L
5.00	6.00	31.50	76.00	4	1	**33.40**	6066-5.00L	**56.85**	6070-5.00L
6.00	6.00	31.50	76.00	4	1	**34.88**	6066-6.00L	**56.85**	6070-6.00L
7.00	10.00	34.00	79.50	4	1	**45.99**	6066-7.00L	**–**	–
8.00	10.00	34.00	79.50	4	1	**45.99**	6066-8.00L	**43.48**	6070-8.00L
9.00	10.00	37.00	82.50	4	1	**47.69**	6066-9.00L	**–**	–
10.00	10.00	37.00	82.50	4	1	**47.69**	6066-10.00L	**43.48**	6070-10.00L
11.00	12.00	41.50	89.00	4	1	**60.26**	6066-11.00L	**–**	–
12.00	12.00	49.50	95.00	4	1	**60.26**	6066-12.00L	**52.27**	6070-12.00L
13.00	12.00	50.00	95.00	4	1	**79.20**	6066-13.00L	**–**	–
14.00	12.00	57.00	101.50	4	1	**79.20**	6066-14.00L	**68.31**	6070-14.00L
15.00	12.00	58.50	103.00	4	1	**97.38**	6066-15.00L	**–**	–
16.00	16.00	58.50	108.50	4	1	**97.38**	6066-16.00L	**81.63**	6070-16.00L
18.00	16.00	70.00	115.00	4	1	**107.88**	6066-18.00L	**104.76**	6070-18.00L
20.00	25.00	76.00	121.50	4	1	**133.82**	6066-20.00L	**118.27**	6070-20.00L



F FRACTIONAL

GROUP	ENDM
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co8
LENGTH	**SHORT / LONG**
TYPE	END CUTTING **THREADED**
PACKAGING	SINGLE

DIA INCH	SHANK INCH	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER
SHORT							
1/8	1/4	10.00	54.00	4	1	**28.76**	6060-1/8S
3/16	1/4	13.00	57.00	4	1	**28.76**	6060-3/16S
1/4	1/4	16.00	60.00	4	1	**28.76**	6060-1/4S
5/16	3/8	18.00	64.00	4	1	**35.90**	6060-5/16S
3/8	3/8	22.00	67.00	4	1	**36.63**	6060-3/8S
7/16	1/2	22.00	67.00	4	1	**46.94**	6060-7/16S
1/2	1/2	24.00	70.00	4	1	**55.51**	6060-1/2S
9/16	1/2	29.00	73.00	4	1	**59.46**	6060-9/16S
5/8	5/8	32.00	77.00	4	1	**68.37**	6060-5/8S
3/4	5/8	38.00	83.00	4	1	**102.95**	6060-3/4S
7/8	1	41.00	98.00	6	1	**173.56**	6060-7/8S
1	1	43.00	102.00	6	1	**152.00**	6060-1S
1-1/8	1	46.00	105.00	6	1	**202.22**	6060-1.1/8S
1-1/4	1-1/4	51.00	113.00	6	1	**248.64**	6060-1.1/4S
1-3/8	1-1/4	54.00	116.00	6	1	**277.97**	6060-1.3/8S
1-1/2	1-1/4	54.00	116.00	6	1	**345.60**	6060-1.1/2S
1-5/8	1-1/4	54.00	116.00	8	1	**532.77**	6060-1.5/8S
1-3/4	1-1/4	57.00	119.00	8	1	**532.77**	6060-1.3/4S
1-7/8	1-1/4	62.00	124.00	8	1	**606.59**	6060-1.7/8S
2	1-1/4	65.00	127.00	8	1	**606.59**	6060-2S
LONG							
1/8	1/4	19.00	64.00	4	1	**34.29**	6060-1/8L
3/16	1/4	25.00	70.00	4	1	**31.97**	6060-3/16L
1/4	1/4	32.00	76.00	4	1	**33.42**	6060-1/4L
5/16	3/8	34.00	79.00	4	1	**44.16**	6060-5/16L
3/8	3/8	37.00	83.00	4	1	**45.81**	6060-3/8L
7/16	1/2	42.00	89.00	4	1	**50.52**	6060-7/16L
1/2	1/2	49.00	95.00	4	1	**68.53**	6060-1/2L
9/16	1/2	57.00	102.00	4	1	**97.38**	6060-9/16L
5/8	5/8	59.00	109.00	4	1	**97.38**	6060-5/8L
3/4	5/8	76.00	121.00	4	1	**122.08**	6060-3/4L
7/8	1	86.00	143.00	6	1	**167.45**	6060-7/8L
1	1	100.00	157.00	6	1	**221.94**	6060-1L
1-1/8	1	100.00	157.00	6	1	**252.66**	6060-1.1/8L
1-1/4	1-1/4	102.00	164.00	6	1	**380.74**	6060-1.1/4L
1-3/8	1-1/4	102.00	164.00	6	1	**380.74**	6060-1.3/8L
1-1/2	1-1/4	102.00	164.00	6	1	**380.74**	6060-1.1/2L
1-5/8	1-1/4	102.00	164.00	8	1	**502.27**	6060-1.5/8L
1-3/4	1-1/4	102.00	164.00	8	1	**502.27**	6060-1.3/4L
1-7/8	1-1/4	102.00	164.00	8	1	**655.86**	6060-1.7/8L
2	1-1/4	102.00	164.00	8	1	**655.86**	6060-2L



GROUP	ENDM
SURFACE FINISH	BRIGHT
MATERIAL	HSS-Co8
LENGTH	**SHORT / LONG**
TYPE	END CUTTING **THREADED**
PACKAGING	SINGLE

M METRIC

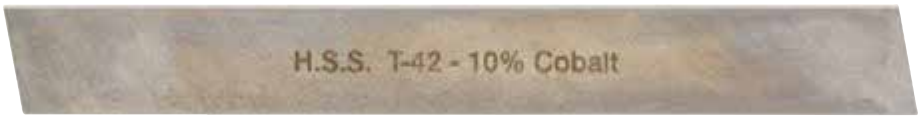
DIA MM	SHANK MM	FL MM	OAL MM	FLUTES #	PACK QTY	$ EACH	PART NUMBER
SHORT							
3.00	6.00	9.50	54.00	3	1	**41.09**	6036-3.00S
4.00	6.00	12.50	57.00	3	1	**41.09**	6036-4.00S
5.00	6.00	16.00	60.50	3	1	**41.09**	6036-5.00S
6.00	6.00	16.00	60.50	3	1	**41.09**	6036-6.00S
8.00	10.00	18.00	63.50	3	1	**52.75**	6036-8.00S
10.00	10.00	21.00	66.50	3	1	**63.03**	6036-10.00S
12.00	12.00	24.00	70.00	3	1	**66.63**	6036-12.00S
13.00	12.00	24.50	70.00	3	1	**90.89**	6036-13.00S
14.00	12.00	28.50	73.00	3	1	**90.88**	6036-14.00S
15.00	12.00	26.50	71.00	3	1	**105.75**	6036-15.00S
16.00	16.00	26.50	77.00	3	1	**105.75**	6036-16.00S
18.00	16.00	35.00	80.00	3	1	**146.89**	6036-18.00S
19.00	16.00	38.00	83.50	3	1	**146.89**	6036-19.00S
20.00	16.00	38.00	83.50	3	1	**146.88**	6036-20.00S
22.00	25.00	41.50	98.50	3	1	**216.96**	6036-22.00S
25.00	25.00	44.50	101.50	3	1	**230.14**	6036-25.00S
LONG							
6.00	6.00	31.50	76.00	3	1	**36.14**	6036-6.00L
8.00	10.00	34.00	79.50	3	1	**48.48**	6036-8.00L
10.00	10.00	37.00	82.50	3	1	**51.82**	6036-10.00L
12.00	12.00	49.50	95.00	3	1	**71.03**	6036-12.00L
14.00	12.00	57.00	101.50	3	1	**102.51**	6036-14.00L
16.00	16.00	58.50	108.50	3	1	**114.40**	6036-16.00L
18.00	16.00	70.00	115.00	3	1	**142.96**	6036-18.00L
20.00	16.00	76.00	121.50	3	1	**169.44**	6036-20.00L
22.00	25.00	85.50	143.00	3	1	**253.91**	6036-22.00L
25.00	25.00	100.00	157.00	3	1	**280.66**	6036-25.00L

M METRIC



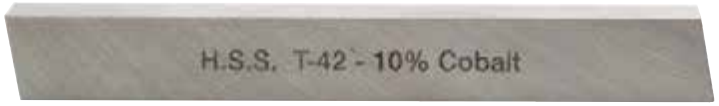
GROUP	TOOL	TOOL
SHAPE	SQUARE	ROUND
MATERIAL	HSS-Co10	HSS-Co10
PACKAGING	SINGLE	SINGLE

DIAMETER MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
4.00	63.00	5	**–**	–	**16.73**	3813-4X63
5.00	80.00	5	**–**	–	**19.21**	3813-5X80
6.00	63.00	5	**16.89**	3803-6X63	**21.91**	3813-6X63
8.00	63.00	5	**–**	–	**23.51**	3813-8X63
8.00	100.00	5	**41.86**	3803-8X100	**–**	–
10.00	100.00	5	**65.39**	3803-10X100	**49.51**	3813-10X100
12.00	100.00	5	**–**	–	**66.98**	3813-12X100
14.00	125.00	1	**89.21**	3803-14X125	**–**	–



GROUP	TOOL
SHAPE	BEVEL
TYPE	PARTING OFF BLADE
MATERIAL	HSS-Co10
PACKAGING	SINGLE

OAL MM	HEIGHT MM	WIDTH MM	PACK QTY	$ EACH	PART NUMBER
90	12	3	1	**73.74**	3826-12X3





F FRACTIONAL

GROUP	TOOL	TOOL	TOOL	TOOL
SHAPE	SQUARE	ROUND	SQUARE	ROUND
MATERIAL	HSS	HSS	HSS-Co10	HSS-Co10
PACKAGING	SINGLE	SINGLE	SINGLE	SINGLE

DIA INCH	LENGTH INCH	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
1/8	3	5	–	–	–	–	–	–	22.42	3812-1/8X3
3/16	2-1/2	5	11.81	3800-3/16X2.5	–	–	12.49	3802-3/16X2.5	–	–
3/16	3	5	–	–	–	–	14.21	3802-3/16X3	–	–
3/16	4	5	–	–	–	–	–	–	23.26	3812-3/16X4
1/4	2-1/2	5	15.81	3800-1/4X2.5	–	–	15.81	3802-1/4X2.5	–	–
1/4	3	5	18.94	3800-1/4X3	7.26	3810-1/4X3	18.94	3802-1/4X3	24.71	3812-1/4X3
1/4	4	5	25.27	3800-1/4X4	9.81	3810-1/4X4	25.27	3802-1/4X4	–	–
5/16	2-1/2	5	18.68	3800-5/16X2.5	–	–	18.68	3802-5/16X2.5	–	–
5/16	3	5	22.62	3800-5/16X3	10.49	3810-5/16X3	22.62	3802-5/16X3	–	–
5/16	4	5	30.37	3800-5/16X4	–	–	30.37	3802-5/16X4	39.01	3812-5/16X4
3/8	3	5	26.87	3800-3/8X3	–	–	26.87	3802-3/8X3	–	–
3/8	4	5	35.25	3800-3/8X4	16.15	3810-3/8X4	35.25	3802-3/8X4	52.38	3812-3/8X4
3/8	6	5	53.09	3800-3/8X6	–	–	53.09	3802-3/8X6	–	–
7/16	3-1/2	5	–	–	–	–	–	–	51.94	3812-7/16X3.5
7/16	4	5	–	–	–	–	58.75	3802-7/16X4	–	–
1/2	4	5	52.81	3800-1/2X4	29.11	3810-1/2X4	52.81	3802-1/2X4	70.64	3812-1/2X4
1/2	6	5	79.41	3800-1/2X6	–	–	79.41	3802-1/2X6	105.26	3812-1/2X6
5/8	4-1/2	1	49.19	3800-5/8X4.5	–	–	76.55	3802-5/8X4.5	–	–
5/8	6	1	77.84	3800-5/8X6	–	–	121.14	3802-5/8X6	160.43	3812-5/8X6
3/4	5	1	119.64	3800-3/4X5	–	–	110.67	3802-3/4X5	–	–
3/4	6	1	–	–	–	–	–	–	236.94	3812-3/4X6
1	7	1	258.73	3800-1X7	–	–	249.83	3802-1X7	–	–



GROUP	TOOL
SHAPE	BEVEL
TYPE	PARTING OFF BLADE
MATERIAL	HSS-Co10
PACKAGING	SINGLE

OAL INCH	HEIGHT INCH	WIDTH INCH	PACK QTY	$ EACH	PART NUMBER
4-1/2	1/2	3/32	1	70.90	3825-1/2X3/32
5	5/8	3/32	1	87.59	3825-5/8X3/32
6	3/4	1/8	1	121.11	3825-3/4X1/8



GROUP	REAM
MATERIAL	HSS
FLUTE TYPE	10° LEFT HAND SPIRAL
CUTTING DIRECTION	**RIGHT HAND**
HOLE LIMIT	H7
PACKAGING	SINGLE

DIA MM	FL MM	OAL MM	MTS #	PACK QTY	$ EACH	PART NUMBER
METRIC						
MTS 1						
3.00	32.00	115.00	1	1	**96.57**	6301-3.00
3.50	32.00	115.00	1	1	**96.57**	6301-3.50
4.00	38.00	120.00	1	1	**96.57**	6301-4.00
4.50	38.00	120.00	1	1	**96.57**	6301-4.50
5.00	38.00	120.00	1	1	**96.57**	6301-5.00
5.50	45.00	127.00	1	1	**96.57**	6301-5.50
6.00	45.00	127.00	1	1	**86.75**	6301-6.00
6.50	50.00	130.00	1	1	**90.77**	6301-6.50
7.00	54.00	134.00	1	1	**90.77**	6301-7.00
7.50	54.00	134.00	1	1	**90.77**	6301-7.50
8.00	58.00	138.00	1	1	**90.77**	6301-8.00
8.50	58.00	138.00	1	1	**96.64**	6301-8.50
9.00	62.00	142.00	1	1	**96.64**	6301-9.00
9.50	62.00	142.00	1	1	**92.98**	6301-9.50
10.00	66.00	146.00	1	1	**92.98**	6301-10.00
10.50	66.00	146.00	1	1	**117.67**	6301-10.50
11.00	71.00	151.00	1	1	**117.67**	6301-11.00
11.50	71.00	151.00	1	1	**126.93**	6301-11.50
12.00	76.00	156.00	1	1	**112.45**	6301-12.00
12.50	76.00	156.00	1	1	**122.01**	6301-12.50
13.00	76.00	156.00	1	1	**135.78**	6301-13.00
13.50	81.00	161.00	1	1	**165.86**	6301-13.50
14.00	81.00	161.00	1	1	**135.78**	6301-14.00
MTS 2						
14.50	81.00	181.00	2	1	**182.82**	6301-14.50
15.00	81.00	181.00	2	1	**176.58**	6301-15.00
15.50	87.00	187.00	2	1	**201.11**	6301-15.50
16.00	87.00	187.00	2	1	**179.70**	6301-16.00
16.50	87.00	187.00	2	1	**207.65**	6301-16.50
17.00	87.00	187.00	2	1	**179.70**	6301-17.00
17.50	93.00	193.00	2	1	**232.16**	6301-17.50
18.00	93.00	193.00	2	1	**213.65**	6301-18.00
18.50	93.00	193.00	2	1	**244.72**	6301-18.50
19.00	93.00	193.00	2	1	**229.05**	6301-19.00
19.50	100.00	200.00	2	1	**260.13**	6301-19.50
20.00	100.00	200.00	2	1	**229.05**	6301-20.00
21.00	100.00	200.00	2	1	**271.66**	6301-21.00
22.00	107.00	207.00	2	1	**247.88**	6301-22.00
23.00	107.00	207.00	2	1	**297.75**	6301-23.00
MTS 3						
24.00	115.00	242.00	3	1	**313.42**	6301-24.00
25.00	115.00	242.00	3	1	**326.50**	6301-25.00

GROUP	REAM
MATERIAL	HSS
FLUTE TYPE	10° LEFT HAND SPIRAL
CUTTING DIRECTION	**RIGHT HAND**
HOLE LIMIT	H7
PACKAGING	SINGLE

DIA INCH	FL MM	OAL MM	MTS #	PACK QTY	$ EACH	PART NUMBER
FRACTIONAL						
MTS 1						
1/8	32.00	115.00	1	1	**96.40**	6300-1/8
5/32	32.00	115.00	1	1	**96.40**	6300-5/32
3/16	38.00	120.00	1	1	**96.40**	6300-3/16
7/32	45.00	127.00	1	1	**96.40**	6300-7/32
1/4	50.00	130.00	1	1	**87.64**	6300-1/4
9/32	54.00	134.00	1	1	**90.77**	6300-9/32
5/16	58.00	138.00	1	1	**90.77**	6300-5/16
11/32	62.00	142.00	1	1	**96.64**	6300-11/32
3/8	66.00	146.00	1	1	**99.16**	6300-3/8
13/32	66.00	146.00	1	1	**102.89**	6300-13/32
7/16	71.00	151.00	1	1	**104.35**	6300-7/16
15/32	76.00	156.00	1	1	**108.38**	6300-15/32
1/2	76.00	156.00	1	1	**108.38**	6300-1/2
17/32	81.00	161.00	1	1	**122.65**	6300-17/32
MTS 2						
9/16	81.00	181.00	2	1	**136.36**	6300-9/16
19/32	87.00	187.00	2	1	**171.85**	6300-19/32
5/8	87.00	187.00	2	1	**144.41**	6300-5/8
21/32	87.00	187.00	2	1	**178.92**	6300-21/32
11/16	93.00	193.00	2	1	**164.54**	6300-11/16
23/32	93.00	193.00	2	1	**210.51**	6300-23/32
3/4	100.00	200.00	2	1	**190.69**	6300-3/4
25/32	100.00	200.00	2	1	**229.04**	6300-25/32
13/16	100.00	200.00	2	1	**204.53**	6300-13/16
27/32	107.00	207.00	2	1	**271.66**	6300-27/32
7/8	107.00	207.00	2	1	**229.33**	6300-7/8
29/32	107.00	207.00	2	1	**297.75**	6300-29/32
MTS 3						
15/16	115.00	242.00	3	1	**313.42**	6300-15/16
31/32	115.00	242.00	3	1	**363.07**	6300-31/32
1	115.00	242.00	3	1	**363.07**	6300-1
1-1/16	124.00	251.00	3	1	**373.50**	6300-1.1/16
1-1/8	124.00	251.00	3	1	**402.22**	6300-1.1/8
1-3/16	133.00	260.00	3	1	**467.51**	6300-1.3/16
1-1/4	133.00	260.00	3	1	**498.88**	6300-1.1/4
MTS 4						
1-5/16	133.00	293.00	4	1	**564.14**	6300-1.5/16
1-3/8	142.00	302.00	4	1	**605.97**	6300-1.3/8
1-7/16	142.00	302.00	4	1	**652.93**	6300-1.7/16
1-1/2	152.00	312.00	4	1	**762.64**	6300-1.1/2
1-5/8	152.00	312.00	4	1	**856.71**	6300-1.5/8
1-3/4	163.00	323.00	4	1	**1,089.17**	6300-1.3/4
1-7/8	174.00	334.00	4	1	**1,329.44**	6300-1.7/8



GROUP	REAM
MATERIAL	HSS
FLUTE TYPE	10° LEFT HAND SPIRAL
CUTTING DIRECTION	**RIGHT HAND**
HOLE LIMIT	H7
PACKAGING	SINGLE

DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
METRIC					
2.00	25.00	50	1	**74.88**	6311-2.00
2.50	29.00	58	1	**74.88**	6311-2.50
3.00	31.00	62	1	**68.17**	6311-3.00
3.50	35.00	71	1	**61.91**	6311-3.50
4.00	38.00	76	1	**61.91**	6311-4.00
4.50	41.00	81	1	**61.91**	6311-4.50
5.00	44.00	87	1	**61.91**	6311-5.00
5.50	47.00	93	1	**61.91**	6311-5.50
6.00	47.00	93	1	**61.91**	6311-6.00
6.50	50.00	100	1	**65.29**	6311-6.50
7.00	54.00	107	1	**65.29**	6311-7.00
7.50	54.00	107	1	**68.67**	6311-7.50
8.00	58.00	115	1	**68.67**	6311-8.00
8.50	58.00	115	1	**74.95**	6311-8.50
9.00	62.00	124	1	**84.59**	6311-9.00
9.50	62.00	124	1	**84.59**	6311-9.50
10.00	66.00	133	1	**84.59**	6311-10.00
10.50	66.00	133	1	**99.16**	6311-10.50
11.00	71.00	142	1	**103.71**	6311-11.00
11.50	71.00	142	1	**117.41**	6311-11.50
12.00	76.00	152	1	**109.96**	6311-12.00
12.50	76.00	152	1	**127.58**	6311-12.50
13.00	76.00	152	1	**127.58**	6311-13.00
13.50	81.00	163	1	**150.17**	6311-13.50
14.00	81.00	163	1	**133.48**	6311-14.00
14.50	81.00	163	1	**165.08**	6311-14.50
15.00	81.00	163	1	**165.08**	6311-15.00
16.00	87.00	175	1	**170.29**	6311-16.00
17.00	87.00	175	1	**164.02**	6311-17.00
18.00	93.00	188	1	**198.21**	6311-18.00
19.00	93.00	188	1	**191.95**	6311-19.00
20.00	100.00	201	1	**198.21**	6311-20.00
21.00	100.00	201	1	**269.05**	6311-21.00
22.00	107.00	215	1	**238.46**	6311-22.00
23.00	107.00	215	1	**297.75**	6311-23.00
24.00	115.00	231	1	**297.75**	6311-24.00
25.00	115.00	231	1	**329.10**	6311-25.00

GROUP	REAM
MATERIAL	HSS
FLUTE TYPE	10° LEFT HAND SPIRAL
CUTTING DIRECTION	**RIGHT HAND**
HOLE LIMIT	H7
PACKAGING	SINGLE

DIA INCH	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
FRACTIONAL					
1/8	33.00	66.00	1	**57.62**	6310-1/8
9/64	35.00	71.00	1	**57.62**	6310-9/64
5/32	38.00	76.00	1	**68.41**	6310-5/32
11/64	41.00	81.00	1	**68.41**	6310-11/64
3/16	44.00	87.00	1	**68.17**	6310-3/16
13/64	44.00	87.00	1	**58.75**	6310-13/64
7/32	47.00	93.00	1	**61.91**	6310-7/32
15/64	47.00	93.00	1	**61.91**	6310-15/64
1/4	50.00	100.00	1	**61.91**	6310-1/4
9/32	54.00	107.00	1	**65.02**	6310-9/32
5/16	58.00	115.00	1	**68.17**	6310-5/16
11/32	62.00	124.00	1	**84.59**	6310-11/32
3/8	66.00	133.00	1	**90.65**	6310-3/8
13/32	66.00	133.00	1	**90.65**	6310-13/32
7/16	71.00	142.00	1	**102.89**	6310-7/16
15/32	76.00	152.00	1	**109.96**	6310-15/32
1/2	76.00	152.00	1	**111.53**	6310-1/2
9/16	81.00	163.00	1	**133.20**	6310-9/16
5/8	87.00	175.00	1	**141.03**	6310-5/8
11/16	93.00	188.00	1	**172.10**	6310-11/16
3/4	100.00	201.00	1	**190.69**	6310-3/4
13/16	100.00	201.00	1	**207.65**	6310-13/16
7/8	107.00	215.00	1	**253.84**	6310-7/8
15/16	115.00	231.00	1	**300.38**	6310-15/16
1	115.00	231.00	1	**334.32**	6310-1



GROUP	REAM
MATERIAL	HSS-CO
FLUTE TYPE	10° LEFT HAND SPIRAL
CUTTING DIRECTION	**RIGHT HAND**
HOLE LIMIT	H7
PACKAGING	SINGLE

DIA MM / INCH	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
METRIC					
4.00	19.00	75.00	1	**39.10**	6321-4.00
4.50	21.00	80.00	1	**42.97**	6321-4.50
5.00	23.00	86.00	1	**44.35**	6321-5.00
5.50	26.00	93.00	1	**45.25**	6321-5.50
6.00	26.00	93.00	1	**47.45**	6321-6.00
7.00	31.00	109.00	1	**49.73**	6321-7.00
8.00	33.00	117.00	1	**54.28**	6321-8.00
9.00	36.00	125.00	1	**59.92**	6321-9.00
10.00	38.00	133.00	1	**74.63**	6321-10.00
11.00	41.00	142.00	1	**83.66**	6321-11.00
12.00	44.00	151.00	1	**92.65**	6321-12.00
13.00	44.00	151.00	1	**97.22**	6321-13.00
FRACTIONAL					
3/16	23.00	86.00	1	**45.25**	6320-3/16
1/4	28.00	101.00	1	**47.45**	6320-1/4
5/16	33.00	117.00	1	**54.28**	6320-5/16
3/8	38.00	133.00	1	**76.90**	6320-3/8
7/16	41.00	142.00	1	**83.66**	6320-7/16
1/2	44.00	151.00	1	**97.22**	6320-1/2



GROUP	REAM
MATERIAL	HSS
PACKAGING	SINGLE

RANGE INCH	RANGE MM	PACK QTY	$ EACH	PART NUMBER
1/4 - 9/32	6.35 - 7.15	1	**164.59**	6345-1/4
9/32 - 5/16	7.15 - 7.95	1	**164.59**	6345-9/32
5/16 - 11/32	7.95 - 8.70	1	**164.59**	6345-5/16
11/32 - 3/8	8.70 - 9.50	1	**164.59**	6345-11/32
3/8 - 13/32	9.50 - 10.25	1	**169.62**	6345-3/8
13/32 - 7/16	10.25 - 11.00	1	**169.62**	6345-13/32
7/16 - 15/32	11.00 - 12.00	1	**173.00**	6345-7/16
15/32 - 17/32	12.00 - 13.50	1	**173.00**	6345-15/32
17/32 - 19/32	13.50 - 15.00	1	**176.07**	6345-17/32
19/32 - 21/32	15.00 - 16.75	1	**182.80**	6345-19/32
21/32 - 23/32	16.75 - 18.25	1	**206.07**	6345-21/32
23/32 - 25/32	18.25 - 19.75	1	**219.26**	6345-23/32
25/32 - 27/32	19.75 - 21.50	1	**235.52**	6345-25/32
27/32 - 15/16	21.50 - 23.75	1	**255.14**	6345-27/32
15/16 - 1-1/16	23.75 - 27.00	1	**291.58**	6345-15/16
1-1/16 - 1-3/16	27.00 - 30.25	1	**328.00**	6345-1.1/16
1-3/16 - 1-11/32	30.25 - 34.25	1	**406.59**	6345-1.3/16
1-11/32 - 1-1/2	34.25 - 38.00	1	**479.46**	6345-1.11/32
1-1/2 - 1-13/16	38.00 - 46.00	1	**698.18**	6345-1.1/2
1-13/16 - 2-7/32	46.00 - 56.00	1	**1,141.18**	6345-1.13/16



GROUP	REAM
MATERIAL	HSS
FLUTE TYPE	STRAIGHT
INCLINATION (TAPER)	**1:50**
PACKAGING	SINGLE

DIA MM	MIN DIA MM	MAX DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
METRIC							
2.00	1.90	2.86	48.00	68.00	1	**75.88**	6331-2.00
2.50	2.40	3.36	48.00	68.00	1	**75.88**	6331-2.50
3.00	2.90	4.06	58.00	80.00	1	**75.88**	6331-3.00
4.00	3.90	5.26	68.00	93.00	1	**78.85**	6331-4.00
5.00	4.90	6.36	73.00	100.00	1	**78.85**	6331-5.00
6.00	5.90	8.00	105.00	135.00	1	**81.99**	6331-6.00
8.00	7.90	10.80	145.00	180.00	1	**94.55**	6331-8.00
10.00	9.90	13.40	175.00	215.00	1	**117.67**	6331-10.00
12.00	11.80	16.00	210.00	255.00	1	**191.95**	6331-12.00
16.00	15.80	20.40	230.00	280.00	1	**420.51**	6331-16.00
20.00	19.80	24.80	250.00	310.00	1	**543.25**	6331-20.00
25.00	24.70	30.70	300.00	370.00	1	**626.38**	6331-25.00

GROUP	REAM
MATERIAL	HSS
FLUTE TYPE	STRAIGHT
INCLINATION (TAPER)	**1:48**
PACKAGING	SINGLE

DIA INCH	NUMBER SERIES	MIN DIA MM	MAX DIA MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
FRACTIONAL								
1/16	7/0	1.10	1.63	25.4	50.8	1	**75.88**	6330-1/16
3/32	5/0	1.75	2.41	31.8	57.2	1	**75.88**	6330-3/32
7/64	4/0	2.03	2.82	38.1	63.5	1	**75.88**	6330-7/64
1/8	3/0	2.29	3.23	44.5	69.9	1	**75.88**	6330-1/8
9/64	2/0	2.64	3.63	47.6	73.0	1	**75.88**	6330-9/64
5/32	0	2.95	4.01	50.8	76.2	1	**78.86**	6330-5/32
11/64	1	3.23	4.42	52.2	88.9	1	**78.86**	6330-11/64
3/16	2	3.50	4.95	69.9	101.6	1	**78.86**	6330-3/16
7/32	3	4.13	5.59	69.9	101.6	1	**78.86**	6330-7/32
1/4	4	4.64	6.43	85.7	117.5	1	**81.99**	6330-1/4
9/32	5	5.23	7.42	104.8	142.9	1	**86.75**	6330-9/32
5/16	–	5.84	8.03	104.8	142.9	1	**94.55**	6330-5/16
11/32	6	6.43	8.81	114.3	152.4	1	**95.44**	6330-11/32
3/8	–	7.03	9.68	127.0	165.1	1	**117.67**	6330-3/8
13/32	7	7.42	10.46	146.1	190.5	1	**117.67**	6330-13/32
7/16	–	8.21	11.25	146.1	190.5	1	**191.95**	6330-7/16
1/2	8	9.41	12.85	165.1	209.6	1	**191.95**	6330-1/2
9/16	9	10.93	14.50	171.5	215.9	1	**303.00**	6330-9/16
5/8	–	12.11	16.08	190.5	235.0	1	**420.51**	6330-5/8
3/4	10	14.67	19.30	222.3	273.1	1	**420.52**	6330-3/4
7/8	11	17.45	22.48	241.3	204.8	1	**543.26**	6330-7/8





GROUP						BURS		BURS	
SURFACE FINISH						BRIGHT		BRIGHT	
MATERIAL						**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**	
STYLE						**RADIUS CORNER CYLINDER + END CUT**		**RADIUS CYLINDER + END CUT**	
TYPE						**EXPRESS CUT**		**EXPRESS CUT**	
PACKAGING						HANG PACK		HANG PACK	
									
HEAD DIA MM	**FL** MM	**OAL** MM	**SHANK** INCH	**STYLE**	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
RADIUS CORNER CYLINDER			**1/4**	**RADIUS**					
6	18	50	1/4	–	1	**52.08**	6400-38578	**–**	–
9.6	19	64	1/4	–	1	**67.37**	6400-38592	**–**	–
12.7	25	70	1/4	–	1	**105.18**	6400-38608	**–**	–
16	25	70	1/4	–	1	**132.47**	6400-38615	**–**	–
RADIUS CYLINDER			**1/4**	**RADIUS**					
12.7	25	70	1/4	–	1	**–**	–	**199.83**	6400-37349





RADIUS BURRS

With their exclusive inverted curve design, the innovative new Radius Burr range now allows you to create a smooth radius on sharp corners with ease. Incorporating a unique guide system which will always centre the burr when working on edges, the Radius Burrs enable significantly enhanced control to guarantee faster and easier removal of material.

With these handy new tools, you'll no longer have to worry about scoring the surface you're working on - whatever the application.

The new Radius Burrs are truly a great alternative to traditional grinding or flap discs which are commonly used to finish external edges.

Ideal for the production of internal and external chamfers, the new Radius Burrs' unique designs give them a versatility for use across a wide range of jobs and reduces the need for consumable and tool changes, saving you time as well as money.

CNC machined for consistently high quality, and offering the latest cut technology, the new Radius Burrs are suitable for use on a wide range of metals, alloys and other materials including titanium, bronze, stainless steel, cast iron and brass. Manufactured and inspected to strict standards from sintered tungsten carbide, their innovative designs cut better and last longer, giving you a more cost effective and efficient solution for difficult to machine materials.

GROUP						BURS		BURS	
SURFACE FINISH						BRIGHT		BRIGHT	
MATERIAL						**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**	
STYLE						**RADIUS BALL NOSE**		**RADIUS BALL NOSE + END CUT**	
TYPE						**EXPRESS CUT**		**EXPRESS CUT**	
PACKAGING						HANG PACK		HANG PACK	
									
HEAD DIA MM	**FL** MM	**OAL** MM	**SHANK** INCH	**STYLE**	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
RADIUS BALL NOSE			**1/4**	**RADIUS**					
12.7	25	70	1/4	–	1	**173.29**	6400-37108	**–**	–
RADIUS BALL NOSE + END CUT			**1/4**	**RADIUS**					
12.7	25	70	1/4	–	1	**–**	–	**173.29**	6400-37363









GROUP	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
STYLE	**RADIUS BALL NOSED TREE**	**RADIUS TREE**
TYPE	**EXPRESS CUT**	**EXPRESS CUT**
PACKAGING	HANG PACK	HANG PACK





HEAD DIA MM	FL MM	OAL MM	SHANK INCH	STYLE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
RADIUS BALL NOSED TREE			**1/4**	**RADIUS**					
12.7	35	80	1/4	–	1	**206.46**	6400-37370	**–**	–
RADIUS TREE			**1/4**	**RADIUS**					
12.7	35	80	1/4	–	1	**–**	–	**156.38**	6400-37387

EXPRESS CUT BURRS
(Double Cut Burrs)

Express Cut Burrs are general purpose burrs designed for rapid stock removal and improved operator control. Chip size is reduced and lower tool speeds can be used compared with standard cut burrs.

Express Cut Burrs are ideal for use in carbon steel, cast iron, high strength steel, stainless steel, steel castings, steel welds, titanium alloy and fibreglass composite.

USAGE

- It may be necessary to alter the running speeds from those shown in the speed chart in order to achieve optimum performance.
- Harder materials require slower running speeds.
- Smaller burrs require faster running speeds.
- Long shank burrs require slower speeds for safety reasons.
- Apply constant movement and light pressure when using the burr.
- Running below the optimum speed will cause chipping.
- Running above optimum speed will cause premature tooth wear.
- Allowing the burr to become too hot may cause the braze to soften, and cause the head to become detached from the shank.
- Using tools and collets which have become worn will cause chipping.
- Do not sink the burr for more than one third of its periphery.

GROUP	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
STYLE	**RADIUS CYLINDER COUNTERSINK**	**RADIUS BALL NOSE CONE**
TYPE	**EXPRESS CUT**	**EXPRESS CUT**
PACKAGING	HANG PACK	HANG PACK





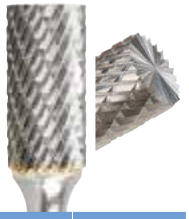
HEAD DIA MM	FL MM	OAL MM	SHANK INCH	STYLE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
RADIUS CYLINDER COUNTERSINK			**1/4**	**RADIUS**					
12.7	28	73	1/4	–	1	**155.01**	6400-37400	**–**	–
RADIUS BALL NOSE CONE			**1/4**	**RADIUS**					
12.7	35	80	1/4	–	1	**–**	–	**168.41**	6400-37417



GROUP						BURS		BURS	
SURFACE FINISH						BRIGHT		BRIGHT	
MATERIAL						**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**	
STYLE						**CYLINDRICAL**		**CYLINDRICAL + END CUT**	
TYPE						**EXPRESS CUT**		**EXPRESS CUT**	
PACKAGING						HANG PACK		HANG PACK	







HEAD DIA INCH	FL INCH	OAL INCH	SHANK INCH	STYLE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
CYLINDRICAL			**1/8**	**SA**					
1/16	1/4	1-1/2	1/8	SA-41	1	**23.18**	6400-95013	–	–
3/32	7/16	1-1/2	1/8	SA-42	1	**23.18**	6400-95014	–	–
1/8	9/16	1-1/2	1/8	SA-43	1	**23.18**	6400-95016	–	–
5/32	1/2	1-1/2	1/8	SA-52	1	**55.87**	6400-95024	–	–
3/16	1/2	1-1/2	1/8	SA-53	1	**55.87**	6400-95026	–	–
1/4	3/16	1-7/16	1/8	SA-51	1	**38.00**	6400-95020	–	–
1/4	1/2	1-1/2	1/8	SA-51	1	**38.00**	6400-95022	–	–
CYLINDRICAL			**1/4**	**SA**					
1/8	1/2	2	1/4	SA-11	1	**39.00**	6400-95003	–	–
3/16	5/8	2	1/4	SA-14	1	**39.00**	6400-95005	–	–
1/4	5/8	2	1/4	SA-1	1	**42.28**	6400-95000	–	–
5/16	3/4	2-1/2	1/4	SA-2	1	**51.01**	6400-95006	–	–
3/8	3/4	2-1/2	1/4	SA-3	1	**54.85**	6400-95008	–	–
7/16	1	2-3/4	1/4	SA-4	1	**79.41**	6400-95011	–	–
1/2	1	2-3/4	1/4	SA-5	1	**85.54**	6400-95018	–	–
5/8	1	2-3/4	1/4	SA-6	1	**107.92**	6400-95028	–	–
3/4	1	2-3/4	1/4	SA-7	1	**160.47**	6400-95030	–	–
1	1	2-3/4	1/4	SA-9	1	**224.44**	6400-95032	–	–
CYLINDRICAL WITH END CUT			**1/8**	**SB**					
1/4	3/16	1-7/16	1/8	SB-51	1	–	–	**38.00**	6400-95051
1/4	1/2	1-3/4	1/8	SB-51	1	–	–	**38.00**	6400-95052
CYLINDRICAL WITH END CUT			**1/4**	**SB**					
1/8	1/2	2	1/4	SB-11	1	–	–	**42.14**	6400-95037
3/16	5/8	2	1/4	SB-14	1	–	–	**42.14**	6400-95039
1/4	5/8	2	1/4	SB-1	1	–	–	**45.71**	6400-95034
5/16	3/4	2-1/2	1/4	SB-2	1	–	–	**56.06**	6400-95040
3/8	3/4	2-1/2	1/4	SB-3	1	–	–	**60.44**	6400-95042
7/16	1	2-3/4	1/4	SB-4	1	–	–	**87.58**	6400-95044
1/2	1	2-3/4	1/4	SB-5	1	–	–	**94.25**	6400-95048
5/8	1	2-3/4	1/4	SB-6	1	–	–	**118.42**	6400-95054
3/4	1	2-3/4	1/4	SB-7	1	–	–	**176.55**	6400-95055



GROUP	BURS	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
STYLE	**CYLINDRICAL BALL NOSE**	**BALL**	**OVAL**
TYPE	**EXPRESS CUT**	**EXPRESS CUT**	**EXPRESS CUT**
PACKAGING	HANG PACK	HANG PACK	HANG PACK









HEAD DIA INCH	FL INCH	OAL INCH	SHANK INCH	STYLE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
CYLINDRICAL BALL NOSE			**1/8**	**SC**							
3/32	7/16	1-1/2	1/8	SC-41	1	**23.18**	6400-95068	–	–	–	–
1/8	9/16	1-1/2	1/8	SC-42	1	**23.18**	6400-95070	–	–	–	–
5/32	1/2	1-1/2	1/8	SC-52	1	**55.87**	6400-95077	–	–	–	–
3/16	1/2	1-1/2	1/8	SC-53	1	**55.87**	6400-95079	–	–	–	–
1/4	1/2	1-3/4	1/8	SC-51	1	**38.00**	6400-95074	–	–	–	–
CYLINDRICAL BALL NOSE			**1/4**	**SC**							
1/8	1/2	2	1/4	SC-11	1	**45.38**	6400-95058	–	–	–	–
3/16	5/8	2	1/4	SC-14	1	**45.38**	6400-95061	–	–	–	–
1/4	5/8	2	1/4	SC-1	1	**49.13**	6400-95056	–	–	–	–
5/16	3/4	2-1/2	1/4	SC-2	1	**55.52**	6400-95062	–	–	–	–
3/8	3/4	2-1/2	1/4	SC-3	1	**60.99**	6400-95065	–	–	–	–
7/16	1	2-3/4	1/4	SC-4	1	**87.16**	6400-95066	–	–	–	–
1/2	1	2-3/4	1/4	SC-5	1	**96.05**	6400-95072	–	–	–	–
5/8	1	2-3/4	1/4	SC-6	1	**120.76**	6400-95081	–	–	–	–
3/4	1	2-3/4	1/4	SC-7	1	**173.39**	6400-95082	–	–	–	–
BALL			**1/8**	**SD**							
3/32	–	1-1/2	1/8	SD-41	1	–	–	**23.18**	6400-95206	–	–
1/8	–	1-1/2	1/8	SD-42	1	–	–	**23.18**	6400-95208	–	–
3/16	–	1-1/2	1/8	SD-53		–	–	**55.87**	6400-95214	–	–
1/4	–	1-15/32	1/8	SD-51	1	–	–	**38.00**	6400-95211	–	–
BALL			**1/4**	**SD**							
1/8	–	2	1/4	SD-11		–	–	**45.16**	6400-95196	–	–
3/16	–	2	1/4	SD-14	1	–	–	**45.16**	6400-95197	–	–
1/4	–	2	1/4	SD-1	1	–	–	**45.16**	6400-95194	–	–
5/16	–	2-1/32	1/4	SD-2	1	–	–	**44.75**	6400-95199	–	–
3/8	–	2-5/64	1/4	SD-3	1	–	–	**50.06**	6400-95201	–	–
7/16	–	2-9/64	1/4	SD-4	1	–	–	**57.98**	6400-95204	–	–
1/2	–	2-13/64	1/4	SD-5	1	–	–	**67.65**	6400-95209	–	–
5/8	–	2-5/8	1/4	SD-6	1	–	–	**83.77**	6400-95216	–	–
3/4	–	2-7/16	1/4	SD-7	1	–	–	**115.71**	6400-95218	–	–
1	–	2-11/16	1/4	SD-9	1	–	–	**198.64**	6400-95219	–	–
OVAL			**1/8**	**SE**							
1/8	7/32	1-1/2	1/8	SE-41	1	–	–	–	–	**23.18**	6400-95162
3/16	9/32	1-1/2	1/8	SE-53	1	–	–	–	–	**55.87**	6400-95169
1/4	3/8	1-5/8	1/8	SE-51	1	–	–	–	–	**38.00**	6400-95166
OVAL			**1/4**	**SE**							
1/4	3/8	2	1/4	SE-1	1	–	–	–	–	**55.26**	6400-95159
3/8	5/8	2-3/8	1/4	SE-3	1	–	–	–	–	**60.99**	6400-95161
1/2	7/8	2-5/8	1/4	SE-5	1	–	–	–	–	**89.36**	6400-95164
5/8	1	2-3/4	1/4	SE-6	1	–	–	–	–	**124.31**	6400-95170
3/4	1	2-3/4	1/4	SE-7	1	–	–	–	–	**166.78**	6400-95173

EXPRESS CUT BURRS
(Double Cut Burrs)

Express Cut Burrs are general purpose burrs designed for rapid stock removal and improved operator control. Chip size is reduced and lower tool speeds can be used compared with standard cut burrs.

Express Cut Burrs are ideal for use in carbon steel, cast iron, high strength steel, stainless steel, steel castings, steel welds, titanium alloy and fibreglass composite.

USAGE

- It may be necessary to alter the running speeds from those shown in the speed chart in order to achieve optimum performance.
- Harder materials require slower running speeds.
- Smaller burrs require faster running speeds.
- Long shank burrs require slower speeds for safety reasons.
- Apply constant movement and light pressure when using the burr.
- Running below the optimum speed will cause chipping.
- Running above optimum speed will cause premature tooth wear.
- Allowing the burr to become too hot may cause the braze to soften, and cause the head to become detached from the shank.
- Using tools and collets which have become worn will cause chipping.
- Do not sink the burr for more than one third of its periphery.



GROUP						BURS		BURS		BURS	
SURFACE FINISH						BRIGHT		BRIGHT		BRIGHT	
MATERIAL						**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**	
STYLE						**TREE RADIUS NOSE**		**TREE POINTED NOSE**		**FLAME**	
TYPE						**EXPRESS CUT**		**EXPRESS CUT**		**EXPRESS CUT**	
PACKAGING						HANG PACK		HANG PACK		HANG PACK	
											
HEAD DIA INCH	**FL** INCH	**OAL** INCH	**SHANK** INCH	**STYLE**	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
TREE RADIUS NOSE			**1/8**	**SF**							
1/8	1/4	1-1/2	1/8	SF-41	1	**23.18**	6400-95096	–	–	–	–
1/8	1/2	1-1/2	1/8	SF-42	1	**23.18**	6400-95098	–	–	–	–
3/16	1/2	1-1/2	1/8	SF-53	1	**55.87**	6400-95104	–	–	–	–
1/4	1/2	1-3/4	1/8	SF-51	1	**38.00**	6400-95102	–	–	–	–
TREE RADIUS NOSE			**1/4**	**SF**							
1/4	5/8	2	1/4	SF-1	1	**51.30**	6400-95085	–	–	–	–
3/8	3/4	2-1/2	1/4	SF-3	1	**59.76**	6400-95092	–	–	–	–
7/16	1	2-3/4	1/4	SF-4	1	**83.10**	6400-95094	–	–	–	–
1/2	1	2-3/4	1/4	SF-5	1	**88.43**	6400-95100	–	–	–	–
1/2	3/4	2-1/2	1/4	SF-13	1	**88.43**	6400-95087	–	–	–	–
5/8	1	2-3/4	1/4	SF-6	1	**155.36**	6400-95107	–	–	–	–
3/4	1-1/4	3	1/4	SF-14	1	**202.05**	6400-95089	–	–	–	–
3/4	1	2-3/4	1/4	SF-7	1	**160.47**	6400-95108	–	–	–	–
3/4	1-/1/2	3-1/4	1/4	SF-15	1	**237.11**	6400-95091	–	–	–	–
TREE POINTED NOSE			**1/8**	**SG**							
1/8	1/4	1-1/2	1/8	SG-41	1	–	–	**23.18**	6400-95119	–	–
1/8	5/16	1-1/2	1/8	SG-42	1	–	–	**23.18**	6400-95121	–	–
1/8	3/8	1-1/2	1/8	SG-43	1	–	–	**23.18**	6400-95122	–	–
1/8	1/2	1-1/2	1/8	SG-44	1	–	–	**23.18**	6400-95125	–	–
3/16	1/2	1-1/2	1/8	SG-53	1	–	–	**55.87**	6400-95131	–	–
1/4	1/2	1-3/4	1/8	SG-51	1	–	–	**38.00**	6400-95128	–	–
TREE POINTED NOSE			**1/4**	**SG**							
1/4	5/8	2	1/4	SG-1	1	–	–	**51.30**	6400-95110	–	–
5/16	3/4	2-1/2	1/4	SG-2	1	–	–	**57.57**	6400-95115	–	–
3/8	3/4	2-1/2	1/4	SG-3	1	–	–	**63.72**	6400-95117	–	–
1/2	3/4	2-1/2	1/4	SG-13	1	–	–	**86.64**	6400-95113	–	–
1/2	1	2-3/4	1/4	SG-5	1	–	–	**86.64**	6400-95126	–	–
5/8	1	2-3/4	1/4	SG-6	1	–	–	**120.60**	6400-95133	–	–
3/4	1	2-3/4	1/4	SG-7	1	–	–	**160.47**	6400-95135	–	–
FLAME			**1/8**	**SH**							
1/8	1/4	1-1/2	1/8	SH-41	1	–	–	–	–	**23.18**	6400-95223
3/16	3/8	1-1/2	1/8	SH-53	1	–	–	–	–	**55.87**	6400-95227
FLAME			**1/4**	**SH**							
5/16	3/4	2-1/2	1/4	SH-2	1	–	–	–	–	**62.62**	6400-95221
1/2	1-1/4	3	1/4	SH-5	1	–	–	–	–	**127.95**	6400-95225
5/8	1-7/16	3-3/16	1/4	SH-6	1	–	–	–	–	**176.67**	6400-95230
3/4	1-5/8	3-3/8	1/4	SH-7	1	–	–	–	–	**224.44**	6400-95232

EXPRESS CUT BURRS
(Double Cut Burrs)

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USAGE

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- Using tools and collets which have become worn will cause chipping.
- Do not sink the burr for more than one third of its periphery.



GROUP							BURS		BURS		BURS	
SURFACE FINISH							BRIGHT		BRIGHT		BRIGHT	
MATERIAL							**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**	
STYLE							**14º INCLUDED ANGLE**		**POINTED CONE**		**INVERTED TAPER**	
TYPE							**EXPRESS CUT**		**EXPRESS CUT**		**EXPRESS CUT**	
PACKAGING							HANG PACK		HANG PACK		HANG PACK	









HEAD DIA INCH	FL INCH	OAL INCH	ANGLE DEG.	SHANK INCH	STYLE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
14º INCLUDED ANGLE				**1/8**	**SL**							
1/8	3/8	1-1/2	8º	1/8	SL-41	1	**23.18**	6400-95183	–	–	–	–
1/8	1/2	1-1/2	8º	1/8	SL-42	1	**23.18**	6400-95184	–	–	–	–
3/16	1/2	1-1/2	14º	1/8	SL-53	1	**55.87**	6400-95186	–	–	–	–
14º INCLUDED ANGLE				**1/4**	**SL**							
1/4	5/8	2	14º	1/4	SL-1	1	**52.52**	6400-95174	–	–	–	–
5/16	7/8	2-3/4	14º	1/4	SL-2	1	**63.57**	6400-95177	–	–	–	–
3/8	1-1/16	2-15/16	14º	1/4	SL-3	1	**76.41**	6400-95179	–	–	–	–
1/2	1-1/8	3	14º	1/4	SL-4	1	**93.33**	6400-95180	–	–	–	–
5/8	1-5/16	3-3/16	14º	1/4	SL-6	1	**183.63**	6400-95189	–	–	–	–
3/4	1-1/2	3-3/8	14º	1/4	SL-7	1	**242.30**	6400-95190	–	–	–	–
POINTED CONE				**1/8**	**SM**							
1/8	3/8	1-1/2	12º	1/8	SM-41	1	–	–	**23.18**	6400-95145	–	–
1/8	7/16	1-1/2	14º	1/8	SM-42	1	–	–	**23.18**	6400-95146	–	–
1/8	5/8	1-1/2	7º	1/8	SM-43	1	–	–	**23.18**	6400-95148	–	–
3/16	1/2	1-1/2	16º	1/8	SM-53	1	–	–	**55.87**	6400-95154	–	–
1/4	1/2	1-7/8	22º	1/8	SM-51	1	–	–	**38.00**	6400-95153	–	–
POINTED CONE				**1/4**	**SM**							
1/4	1/2	2	22º	1/4	SM-1	1	–	–	**45.94**	6400-95136	–	–
1/4	3/4	2	14º	1/4	SM-2	1	–	–	**52.52**	6400-95138	–	–
1/4	1	2	10º	1/4	SM-3	1	–	–	**51.75**	6400-95141	–	–
3/8	5/8	2-1/2	28º	1/4	SM-4	1	–	–	**76.50**	6400-95143	–	–
1/2	7/8	2-3/4	28º	1/4	SM-5	1	–	–	**95.84**	6400-95151	–	–
5/8	1	2-7/8	31º	1/4	SM-6	1	–	–	**127.90**	6400-95156	–	–
INVERTED TAPER				**1/8**	**SN**							
1/8	3/16	1-1/2	10º	1/8	SN-42	1	–	–	–	–	**23.18**	6400-95237
3/16	1/4	1-1/2	10º	1/8	SN-53	1	–	–	–	–	**55.87**	6400-95242
1/4	1/4	1-1/2	10º	1/8	SN-51	1	–	–	–	–	**38.00**	6400-95239
INVERTED TAPER				**1/4**	**SN**							
1/4	5/16	2	10º	1/4	SN-1	1	–	–	–	–	**50.06**	6400-95233
1/2	1/2	2-1/4	16º	1/4	SN-3	1	–	–	–	–	**81.90**	6400-95243

EXPRESS CUT BURRS
(Double Cut Burrs)

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- Using tools and collets which have become worn will cause chipping.
- Do not sink the burr for more than one third of its periphery.



GROUP						BURS		BURS		BURS	
SURFACE FINISH						BRIGHT		BRIGHT		BRIGHT	
MATERIAL						**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**		**TUNGSTEN CARBIDE**	
STYLE						**CYLINDRICAL**		**CYLINDRICAL BALL NOSE**		**BALL**	
TYPE						**NON-FERROUS CUT**		**NON-FERROUS CUT**		**NON-FERROUS CUT**	
PACKAGING						HANG PACK		HANG PACK		HANG PACK	
											
HEAD DIA INCH	**FL** INCH	**OAL** INCH	**SHANK** INCH	**STYLE**	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
CYLINDRICAL			**1/4**	**SA**							
1/4	3/4	2	1/4	SA-1NF	1	**53.00**	6401-95289	–	–	–	–
3/8	3/4	2-1/2	1/4	SA-3NF	1	**79.46**	6401-95293	–	–	–	–
1/2	1	2-3/4	1/4	SA-5NF	1	**116.48**	6401-95299	–	–	–	–
5/8	1	2-3/4	1/4	SA-6NF	1	**142.83**	6401-95305	–	–	–	–
3/4	1	2-3/4	1/4	SA-7NF	1	**196.09**	6401-95311	–	–	–	–
CYLINDRICAL WITH BALL NOSE			**1/4**	**SC**							
1/4	3/4	2	1/4	SC-1NF	1	–	–	**59.23**	6401-95290	–	–
3/8	3/4	2-1/2	1/4	SC-3NF	1	–	–	**79.46**	6401-95294	–	–
1/2	1	2-3/4	1/4	SC-5NF	1	–	–	**116.48**	6401-95300	–	–
5/8	1	2-3/4	1/4	SC-6NF	1	–	–	**177.64**	6401-95306	–	–
3/4	1	2-3/4	1/4	SC-7NF	1	–	–	**243.64**	6401-95312	–	–
BALL			**1/4**	**SD**							
1/4	–	2	1/4	SD-1NF	1	–	–	–	–	**58.39**	6401-95291
3/8	–	2-5/64	1/4	SD-3NF	1	–	–	–	–	**63.19**	6401-95295
1/2	–	2-13/64	1/4	SD-5NF	1	–	–	–	–	**93.66**	6401-95301
5/8	–	2-5/16	1/4	SD-6NF	1	–	–	–	–	**169.29**	6401-95307

STYLE						**OVAL**		**TREE RADIUS NOSE**		**14º INCLUDED ANGLE**	
											
HEAD DIA INCH	**FL** INCH	**OAL** INCH	**SHANK** INCH	**STYLE**	**PACK** QTY	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER	**$** EACH	**PART** NUMBER
OVAL			**1/4**	**SE**							
3/8	5/8	2-3/8	1/4	SE-3NF	1	**86.01**	6401-95296	–	–	–	–
1/2	7/8	2-5/8	1/4	SE-5NF	1	**105.84**	6401-95302	–	–	–	–
5/8	1	2-3/4	1/4	SE-6NF	1	**190.96**	6401-95308	–	–	–	–
TREE RADIUS NOSE			**1/4**	**SF**							
1/4	3/4	2	1/4	SF-1NF	1	–	–	**59.23**	6401-95292	–	–
3/8	3/4	2-1/2	1/4	SF-3NF	1	–	–	**83.99**	6401-95297	–	–
1/2	1	2-3/4	1/4	SF-5NF	1	–	–	**117.94**	6401-95303	–	–
5/8	1	2-3/4	1/4	SF-6NF	1	–	–	**169.29**	6401-95309	–	–
14º INCLUDED ANGLE			**1/4**	**SL**							
3/8	1-1/16	2-15/16	1/4	SL-3NF	1	–	–	–	–	**107.70**	6401-95298
1/2	1-1/8	3	1/4	SL-4NF	1	–	–	–	–	**148.52**	6401-95304
5/8	1-5/16	3-3/16	1/4	SL-6NF	1	–	–	–	–	**270.23**	6401-95310

NON-FERROUS CUT BURRS

Non-Ferrous Cut Burrs are for use on non-ferrous and non-metallic materials such as aluminium, brass, copper, bronze, coarse plastic, hard rubber, reinforced plastic and fibreglass composites. They are designed for rapid stock removal with minimum chip loading resulting in longer life and reduced clogging.

USAGE

- It may be necessary to alter the running speeds from those shown in the speed chart in order to achieve optimum performance.
- Harder materials require slower running speeds.
- Smaller burrs require faster running speeds.
- Long shank burrs require slower speeds for safety reasons.
- Apply constant movement and light pressure when using the burr.
- Running below the optimum speed will cause chipping.
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- Allowing the burr to become too hot may cause the braze to soften, and cause the head to become detached from the shank.
- Using tools and collets which have become worn will cause chipping.
- Do not sink the burr for more than one third of its periphery.



GROUP	BURS	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
STYLE	**CYLINDRICAL**	**CYLINDRICAL BALL NOSE**	**BALL**
TYPE	**EXPRESS CUT**	**EXPRESS CUT**	**EXPRESS CUT**
PACKAGING	TELEPACK	TELEPACK	TELEPACK





HEAD DIA INCH	FL INCH	OAL INCH	SHANK INCH	STYLE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
CYLINDRICAL			**1/4**	**SA**							
1/4	5/8	6-5/8	1/4	SA-1L6	1	**59.91**	6402-95247	**–**	–	**–**	–
3/8	3/4	6-3/4	1/4	SA-3L6	1	**84.40**	6402-95249	**–**	–	**–**	–
1/2	1	7	1/4	SA-5L6	1	**131.86**	6402-95251	**–**	–	**–**	–
CYLINDRICAL WITH BALL NOSE			**1/4**	**SC**							
1/4	5/8	6-5/8	1/4	SC-1L6	1	**–**	–	**69.79**	6402-95253	**–**	–
3/8	3/4	6-3/4	1/4	SC-3L6	1	**–**	–	**94.01**	6402-95255	**–**	–
1/2	1	7	1/4	SC-5L6	1	**–**	–	**147.93**	6402-95257	**–**	–
BALL			**1/4**	**SD**							
1/4	–	6-13/64	1/4	SD-1L6	1	**–**	–	**–**	–	**64.34**	6402-95259
3/8	–	6-21/64	1/4	SD-3L6	1	**–**	–	**–**	–	**77.36**	6402-95261
1/2	–	2-29/64	1/4	SD-5L6	1	**–**	–	**–**	–	**104.20**	6402-95263

STYLE	TREE RADIUS NOSE	14° INCLUDED ANGLE




HEAD DIA INCH	FL INCH	OAL INCH	SHANK INCH	STYLE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
TREE RADIUS NOSE			**1/4**	**SF**					
1/4	5/8	6-5/8	1/4	SF-1L6	1	**72.74**	6402-95265	**–**	–
3/8	3/4	6-3/4	1/4	SF-3L6	1	**92.18**	6402-95267	**–**	–
1/2	1	7	1/4	SF-5L6	1	**135.95**	6402-95269	**–**	–
14° INCLUDED ANGLE			**1/4**	**SL**					
1/4	5/8	6-5/8	1/4	SL-1L6	1	**–**	–	**74.52**	6402-95271
3/8	1-1/16	7-3/16	1/4	SL-3L6	1	**–**	–	**117.45**	6402-95273
1/2	1-1/8	7-1/4	1/4	SL-4L6	1	**–**	–	**143.91**	6402-95275

EXPRESS CUT BURRS
(Double Cut Burrs)

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- Using tools and collets which have become worn will cause chipping.
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GROUP	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
SHANK DIAMETER	**1/4"**	**1/4"**
TYPE	**EXPRESS CUT***	**EXPRESS CUT**
PACKAGING	INJECTION MOULDED CASE	INJECTION MOULDED CASE





SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER
#3 – 1/4" CUT DIAMETER BURRS, 8 PCS	**399.47**	6400-S6	**–**	–
#4 – 1/2" CUT DIAMETER BURRS, 8 PCS	**–**	–	**702.84**	6400-S4

SET CONTENTS	HEAD DIA INCH	STYLE	DESCRIPTION	PART NUMBER	HEAD DIA INCH	STYLE	DESCRIPTION	PART NUMBER
	1/4	SA-1	CYLINDRICAL	6400-95000	1/2	SA-5	CYLINDRICAL	6400-95018
	1/4	SC-1	CYLINDRICAL BALL	6400-95056	1/2	SC-5	CYLINDRICAL BALL	6400-95072
	1/4	SD-1	BALL	6400-95194	1/2	SD-5	BALL	6400-95209
	1/4	SE-1	OVAL	6400-95159	1/2	SE-5	OVAL	6400-95164
	1/4	SF-1	TREE RADIUS	6400-95085	1/2	SF-5	TREE RADIUS	6400-95100
	1/4	SG-1	TREE POINTED	6400-95110	1/2	SG-5	TREE POINTED	6400-95126
	1/4	SL-1	14º INCLUDED ANGLE	6400-95174	1/2	SL-4	14º INCLUDED ANGLE	6400-95180
	1/4	SM-2	POINTED CONE	6400-95138	1/2	SM-5	POINTED CONE	6400-95151





SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER
#10 – AUTOMOTIVE, 8 PCS*	**498.02**	6400-S10	**–**	–
#11 – 3/8" CUT DIAMETER BURRS, 8 PCS	**–**	–	**508.87**	6400-S11

SET CONTENTS	HEAD DIA INCH	STYLE	DESCRIPTION	PART NUMBER	HEAD DIA INCH	STYLE	DESCRIPTION	PART NUMBER
	1/4	SA-1	CYLINDRICAL	6400-95000	3/8	SB-3	CYLINDRICAL END CUT	6400-95042
	3/8	SB-3	CYLINDRICAL END CUT	6400-95042	3/8	SC-3	CYLINDRICAL BALL	6400-95065
	1/2	SB-5	CYLINDRICAL END CUT	6400-95048	3/8	SD-3	BALL	6400-95201
	1/4	SC-1	CYLINDRICAL BALL	6400-95056	3/8	SE-3	OVAL	6400-95161
	1/4	SD-1	BALL	6400-95194	3/8	SF-3	TREE RADIUS	6400-95092
	3/8	SE-3	OVAL	6400-95161	3/8	SG-3	TREE POINTED	6400-95117
	3/8	SF-3	TREE RADIUS	6400-95092	3/8	SL-3	14º INCLUDED ANGLE	6400-95179
	3/8	SE-3NF	OVAL – NON-FERROUS	6401-95296	3/8	SM-4	POINTED CONE	6400-95143

* #10 Set Automotive contains 7 x Express Cut Burrs and 1 x Non-Ferrous Burr



GROUP	BURS	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
SHANK DIAMETER	**1/4"**	**1/4"**	**1/4"**
TYPE	**EXPRESS CUT**	**EXPRESS CUT**	**NON-FERROUS CUT**
PACKAGING	SET	SET	SET







SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
#5 – EXPRESS CUT BURRS, 5 PCS	**365.67**	6400-S5	**–**	–	**–**	–
S3 – EXPRESS CUT BURRS, 3 PCS	**–**	–	**249.82**	6400-S3	**–**	–
NF S3 – NON-FERROUS CUT BURRS, 3 PCS	**–**	–	**–**	–	**307.44**	6401-S3

SET CONTENTS	STYLE	DESCRIP.	PART NUMBER	STYLE	DESCRIP.	PART NUMBER	STYLE	DESCRIP.	PART NUMBER
	SB-3	CYL END CUT	6400-95042	SB-3	CYL END CUT	6400-95042	SA-3NF	CYLINDRICAL	6401-95293
	SC-3	CYL BALL	6400-95065	SC-5	CYL BALL	6400-95072	SC-3NF	CYL BALL	6401-95294
	SC-5	CYL BALL	6400-95072	SL-4	14° INC. ANG.	6400-95180	SL-4NF	14° INC. ANG.	6401-95304
	SF-3	TREE RADIUS	6400-95092						
	SF-5	TREE RADIUS	6400-95100						



GROUP	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
SHANK DIAMETER	**1/4"**	**1/4"**
TYPE	**RADIUS**	**RADIUS CORNER**
PACKAGING	SET	SET





SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER
RADIUS – EXPRESS CUT, 3 PCS	**579.58**	6400-S1	**–**	–
CORNER RADIUS – EXPRESS CUT, 3 PCS	**–**	–	**224.63**	6400-S2

SET CONTENTS	DESCRIP.	PART NUMBER	DESCRIP.	PART NUMBER
	RAD. BALL NOSED TREE	6400-37370	RADIUS CORNER CYL.	6400-38578
	RAD. CYL. BALL NOSED	6400-37363	RADIUS CORNER CYL.	6400-38592
	RADIUS CYLINDER E/C	6400-37349	RADIUS CORNER CYL.	6400-38608



GROUP	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
SHANK DIAMETER	**1/4"**	**1/4"**
TYPE	**EXPRESS CUT & NON-FERROUS CUT**	**EXPRESS CUT & NON-FERROUS CUT**
PACKAGING	BENCH MERCHANDISER	BENCH MERCHANDISER





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
D2 BURR MERCHANDISER – 22 PCS	**1,575.81**	6404-D2		
D3 BURR MERCHANDISER – 50 PCS			**3,693.53**	6404-D3

MERCHANDISER CONTENTS	QTY EACH	STYLE	PART NUMBER	QTY EACH	STYLE	PART NUMBER
	1	SB-1	6400-95034	1	SA-1	6400-95000
	1	SB-3	6400-95042	1	SA-2	6400-95006
	1	SB-5	6400-95048	1	SA-3	6400-95008
	1	SC-1	6400-95056	1	SA-5	6400-95018
	1	SC-3	6400-95065	1	SA-6	6400-95028
	1	SC-5	6400-95072	1	SB-1	6400-95034
	1	SD-1	6400-95194	1	SB-2	6400-95040
	1	SD-3	6400-95201	1	SB-3	6400-95042
	1	SE-3	6400-95161	1	SB-5	6400-95048
	1	SE-5	6400-95164	1	SB-6	6400-95054
	1	SF-1	6400-95085	1	SC-1	6400-95056
	1	SF-3	6400-95092	1	SC-2	6400-95062
	1	SF-5	6400-95100	1	SC-3	6400-95065
	1	SG-3	6400-95117	1	SC-5	6400-95072
	1	SG-5	6400-95126	1	SC-6	6400-95081
	1	SH-2	6400-95221	1	SH-2	6400-95221
	1	SH-5	6400-95225	1	SH-5	6400-95225
	1	SL-3	6400-95179	1	SD-1	6400-95194
	1	SL-4	6400-95180	1	SD-2	6400-95199
	1	SN-1	6400-95233	1	SD-3	6400-95201
	1	SC-3NF	6401-95294	1	SD-5	6400-95209
	1	SF-3NF	6401-95297	1	SE-1	6400-95159
				1	SE-3	6400-95161
				1	SE-5	6400-95164
				1	SF-1	6400-95085
				1	SF-3	6400-95092
				1	SF-5	6400-95100
				1	SF-6	6400-95107
				1	SG-1	6400-95110
				1	SG-2	6400-95115
				1	SG-3	6400-95117
				1	SG-5	6400-95126
				1	SL-1	6400-95174
				1	SL-2	6400-95177
				1	SL-3	6400-95179
				1	SL-4	6400-95180
				1	SM-1	6400-95136
				1	SM-3	6400-95141
				1	SM-4	6400-95143
				1	SM-5	6400-95151
				1	SN-1	6400-95233
				1	SA-1NF	6401-95289
				1	SA-3NF	6401-95293
				1	SC-1NF	6401-95290
				1	SC-3NF	6401-95294
				1	SD-3NF	6401-95295
				1	SE-3NF	6401-95296
				1	SF-3NF	6401-95297
				1	SF-5NF	6401-95303
				1	SL-4NF	6401-95304



GROUP	BURS	BURS	BURS
SURFACE FINISH	BRIGHT	BRIGHT	BRIGHT
MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
SHANK DIAMETER	**1/4"**	**1/4"**	**1/4"**
TYPE	**EXPRESS CUT & NON-FERROUS CUT**	**EXPRESS CUT & NON-FERROUS CUT**	**EXPRESS CUT & NON-FERROUS CUT**
PACKAGING	MERCHANDISER	MERCHANDISER	MERCHANDISER







MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
D6 BURR MERCHANDISER – 18 PCS	**1,603.09**	6404-D6				
D7 BURR MERCHANDISER – 36 PCS			**3,100.17**	6404-D7		
D8 BURR MERCHANDISER – 54 PCS					**4,606.73**	6404-D8

MERCHANDISER CONTENTS	QTY EACH	STYLE	PART NUMBER	QTY EACH	STYLE	PART NUMBER	QTY EACH	STYLE	PART NUMBER
	1	SC-5	6400-95072	1	SC-5	6400-95072	1	SC-5	6400-95072
	1	SC-3	6400-95065	1	SC-3	6400-95065	1	SC-3	6400-95065
	1	SL-4	6400-95180	1	SL-4	6400-95180	1	SL-4	6400-95180
	1	SF-5	6400-95100	1	SF-5	6400-95100	1	SF-5	6400-95100
	1	SF-3	6400-95092	1	SF-3	6400-95092	1	SF-3	6400-95092
	1	SB-5	6400-95048	1	SB-5	6400-95048	1	SB-5	6400-95048
	1	SB-3	6400-95042	1	SB-3	6400-95042	1	SA-5	6400-95018
	1	SL-3	6400-95179	1	SL-3	6400-95179	1	SB-3	6400-95042
	1	SH-5	6400-95225	1	SH-5	6400-95225	1	SA-1	6400-95000
	1	SC-1	6400-95056	1	SC-1	6400-95056	1	SL-3	6400-95179
	1	SB-1	6400-95034	1	SF-5NF	6401-95303	1	SH-5	6400-95225
	1	SE-5	6400-95164	1	SB-1	6400-95034	1	SC-1	6400-95056
	1	–	6400-37108	1	SC-2	6400-95062	1	SA-3	6400-95008
	1	SG-3	6400-95117	1	SE-5	6400-95164	1	SF-5NF	6401-95303
	1	SC-3NF	6401-95294	1	–	6400-37108	1	SB-1	6400-95034
	1	SE-3	6400-95161	1	SG-5	6400-95126	1	SC-2	6400-95062
	1	SF-3NF	6401-95297	1	SC-6	6400-95081	1	SE-5	6400-95164
	1	–	6400-37349	1	SF-1	6400-95085	1	–	6400-37108
				1	SL-4NF	6401-95304	1	SG-5	6400-95126
				1	SM-5	6400-95151	1	SC-6	6400-95081
				1	SG-3	6400-95117	1	SF-1	6400-95085
				1	SC-3NF	6401-95294	1	SL-4NF	6401-95304
				1	SE-3	6400-95161	1	SM-5	6400-95151
				1	SF-3NF	6401-95297	1	SG-3	6400-95117
				1	SB-2	6400-95040	1	SC-3NF	6401-95294
				1	SH-2	6400-95221	1	SE-3	6400-95161
				1	SL-2	6400-95177	1	SF-3NF	6401-95297
				1	SD-3	6400-95201	1	SB-2	6400-95040
				1	SD-1	6400-95194	1	SA-2	6400-95006
				1	SB-6	6400-95054	1	SA-6	6400-95028
				1	SA-3NF	6401-95293	1	SH-2	6400-95221
				1	SL-1	6400-95174	1	SL-2	6400-95177
				1	SM-3	6400-95141	1	SD-3	6400-95201
				1	SD-5	6400-95209	1	SD-1	6400-95194
				1	–	6400-37349	1	SB-6	6400-95054
				1	–	6400-37363	1	SA-3NF	6401-95293
							1	SL-1	6400-95174
							1	SM-3	6400-95141
							1	SD-5	6400-95209
							1	SG-2	6400-95115
							1	SF-6	6400-95107
							1	SM-4	6400-95143
							1	SG-1	6400-95110
							1	SA-1NF	6401-95289
							1	–	6400-95087
							1	–	6400-95156
							1	SE-1	6400-95159
							1	SM-1	6400-95136
							1	–	6401-95299
							1	SD-2	6400-95199
							1	SE-3NF	6401-95296
							1	–	6400-37349
							1	–	6400-37363
							1	–	6400-37370





GROUP	BMHS
MATERIAL	Vx COBALT BI-METAL
TYPE	4/6 VARIABLE PITCH
INTERNAL DEPTH	48MM
PACKAGING	HANG BOX



DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
14.00	9/16	1	27.52	7010-14
16.00	5/8	1	20.59	7010-16
17.00	11/16	1	20.59	7010-17
19.00	3/4	1	20.59	7010-19
20.00	–	1	20.59	7010-20
21.00	13/16	1	20.59	7010-21
22.00	7/8	1	20.59	7010-22
24.00	15/16	1	21.80	7010-24
25.00	1	1	23.13	7010-25
27.00	1-1/16	1	23.13	7010-27
29.00	1-1/8	1	23.44	7010-29
30.00	1-3/16	1	23.96	7010-30
32.00	1-1/4	1	24.59	7010-32
33.00	1-5/16	1	25.14	7010-33
35.00	1-3/8	1	26.47	7010-35
37.00	1-7/16	1	26.47	7010-37
38.00	1-1/2	1	26.72	7010-38
40.00	1-9/16	1	27.79	7010-40
41.00	1-5/8	1	27.79	7010-41
43.00	1-11/16	1	29.43	7010-43
44.00	1-3/4	1	30.50	7010-44
45.00	–	1	30.62	7010-45
46.00	1-13/16	1	30.71	7010-46
48.00	1-7/8	1	31.49	7010-48
50.00	–	1	31.49	7010-50
51.00	2	1	31.49	7010-51
52.00	2-1/16	1	35.68	7010-52
54.00	2-1/8	1	35.68	7010-54
55.00	–	1	35.68	7010-55
57.00	2-1/4	1	35.68	7010-57
59.00	2-5/16	1	36.17	7010-59
60.00	2-3/8	1	36.28	7010-60
64.00	2-1/2	1	38.52	7010-64
65.00	2-9/16	1	42.05	7010-65
67.00	2-5/8	1	41.96	7010-67
68.00	–	1	42.15	7010-68
70.00	2-3/4	1	42.53	7010-70
73.00	2-7/8	1	43.32	7010-73
75.00	–	1	44.18	7010-75
76.00	3	1	44.43	7010-76
79.00	3-1/8	1	45.38	7010-79

BI-METAL HOLE SAWS

Bordo hole saws are premium quality, general purpose saws suitable for a wide variety of materials and applications.
The high-speed steel cutting edge provides shock resistant teeth and resists tooth strippage. 4/6 positive tooth configuration allows for fast, smooth cuts and less vibration.

FEATURES

- 4/6 variable tooth configuration.
- 48mm (1-7/8") depth of cut.
- 5mm (3/16") thick heavy-duty backing plate eliminates need for drive plate.

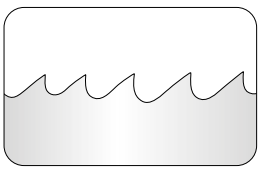
APPLICATIONS

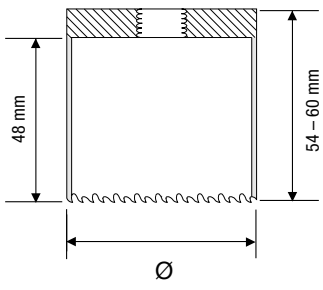
- Creates holes for pipe and tubing installations, door lock installations, electrical conduit, hoses and antennas.
- Ideal for plumbing, construction, aircraft, electrical, maintenance and automotive applications.
- Use in steel, aluminium, brass, cast iron, plastic, wood and a wide variety of other materials.
- Can be used in stainless steel with use of a cutting lubricant, reduced spindle speed and sufficient feed pressure to produce chips. Repetition hole cutting in stainless steel is best suited to Bordo XP and XP2 hole saws.

GROUP	BMHS
MATERIAL	Vx COBALT BI-METAL
TYPE	4/6 VARIABLE PITCH
INTERNAL DEPTH	48MM
PACKAGING	HANG BOX



DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
83.00	3-1/4	1	45.38	7010-83
86.00	3-3/8	1	47.82	7010-86
89.00	3-1/2	1	48.02	7010-89
92.00	3-5/8	1	52.97	7010-92
95.00	3-3/4	1	55.36	7010-95
98.00	3-7/8	1	58.44	7010-98
100.00 *	–	1	60.72	7010-100
102.00 *	4	1	60.72	7010-102
105.00 *	4-1/8	1	64.81	7010-105
108.00 *	4-1/4	1	69.49	7010-108
111.00 *	4-3/8	1	69.49	7010-111
114.00 *	4-1/2	1	74.18	7010-114
121.00 *	4-3/4	1	84.92	7010-121
127.00 *	5	1	88.64	7010-127
140.00 *	5-1/2	1	97.29	7010-140
146.00 *	5-3/4	1	107.27	7010-146
152.00 *	6	1	116.21	7010-152
160.00 *	6-5/16	1	121.52	7010-160
168.00 *	6-5/8	1	130.20	7010-168
177.00 *	7	1	138.88	7010-177
210.00 *	8-1/4	1	147.58	7010-210





* Large diameter hole saws should be used with high feed pressure and lower speeds.



GROUP	BMKT	BMKT
MATERIAL	**Vx COBALT BI-METAL**	**Vx COBALT BI-METAL**
TYPE	**4/6 VARIABLE PITCH**	**4/6 VARIABLE PITCH**
INTERNAL DEPTH	**48MM**	**48MM**
PACKAGING	BLOW MOULDED KIT BOX	BLOW MOULDED KIT BOX





KIT TYPE	$ KIT	PART NUMBER	$ KIT	PART NUMBER
ELECTRICIAN'S MASTER KIT – 8 SAWS	**344.20**	7010-S1	**–**	–
CHIPPY'S MASTER KIT – 11 SAWS	**–**	–	**503.79**	7010-S2

KIT CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	SPADE BIT 16MM	2670-16	BI-METAL HOLE SAW 16MM	7010-16
	SPADE BIT 20MM	2670-20	BI-METAL HOLE SAW 20MM	7010-20
	SPADE BIT 25MM	2670-25	BI-METAL HOLE SAW 22MM	7010-22
	BI-METAL HOLE SAW 16MM	7010-16	BI-METAL HOLE SAW 25MM	7010-25
	BI-METAL HOLE SAW 20MM	7010-20	BI-METAL HOLE SAW 32MM	7010-32
	BI-METAL HOLE SAW 25MM	7010-25	BI-METAL HOLE SAW 40MM	7010-40
	BI-METAL HOLE SAW 32MM	7010-32	BI-METAL HOLE SAW 50MM	7010-50
	BI-METAL HOLE SAW 40MM	7010-40	BI-METAL HOLE SAW 54MM	7010-54
	BI-METAL HOLE SAW 50MM	7010-50	BI-METAL HOLE SAW 64MM	7010-64
	BI-METAL HOLE SAW 54MM	7010-54	BI-METAL HOLE SAW 92MM	7010-92
	BI-METAL HOLE SAW 64MM	7010-64	BI-METAL HOLE SAW 114MM	7010-114
	3/8 HEX MANDREL	7050-5519	3/8-7/16 HEX QC EXT. 300MM (12")	5750-38716X300
	7/16" HEX POSI-LOCK QC MANDREL	7050-5548	3/8 HEX MANDREL	7050-5519
	1/4" PILOT DRILL 3-1/2L	7060-8534	7/16" HEX POSI-LOCK QC MANDREL	7050-5548
			1/4" PILOT DRILL 3-1/2L	7060-8534

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GROUP	BMKT	BMKT
MATERIAL	**Vx COBALT BI-METAL**	**Vx COBALT BI-METAL**
TYPE	**4/6 VARIABLE PITCH**	**4/6 VARIABLE PITCH**
INTERNAL DEPTH	**48MM**	**48MM**
PACKAGING	BLOW MOULDED KIT BOX	BLOW MOULDED KIT BOX





KIT TYPE	$ KIT	PART NUMBER	$ KIT	PART NUMBER
PLUMBER'S PIPE KIT – 12 SAWS	**527.96**	7010-S3	**–**	–
SPARKY'S KIT – 6 SAWS	**–**	–	**235.05**	7010-S4

BI-METAL HOLE SAWS

Bordo hole saws are premium quality, general purpose saws suitable for a wide variety of materials and applications.
The high-speed steel cutting edge provides shock resistant teeth and resists tooth strippage. 4/6 positive tooth configuration allows for fast, smooth cuts and less vibration.

FEATURES

- 4/6 variable tooth configuration.
- 48mm (1-7/8") depth of cut.
- 5mm (3/16") thick heavy-duty backing plate eliminates need for drive plate.

APPLICATIONS

- Creates holes for pipe and tubing installations, door lock installations, electrical conduit, hoses and antennas.
- Ideal for plumbing, construction, aircraft, electrical, maintenance and automotive applications.
- Use in steel, aluminium, brass, cast iron, plastic, wood and a wide variety of other materials.
- Can be used in stainless steel with use of a cutting lubricant, reduced spindle speed and sufficient feed pressure to produce chips. Repetition hole cutting in stainless steel is best suited to Bordo XP and XP2 hole saws.

KIT CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	BI-METAL HOLE SAW 16MM	7010-16	BI-METAL HOLE SAW 16MM	7010-16
	BI-METAL HOLE SAW 19MM	7010-19	BI-METAL HOLE SAW 20MM	7010-20
	BI-METAL HOLE SAW 22MM	7010-22	BI-METAL HOLE SAW 25MM	7010-25
	BI-METAL HOLE SAW 25MM	7010-25	BI-METAL HOLE SAW 32MM	7010-32
	BI-METAL HOLE SAW 27MM	7010-27	BI-METAL HOLE SAW 40MM	7010-40
	BI-METAL HOLE SAW 30MM	7010-30	BI-METAL HOLE SAW 50MM	7010-50
	BI-METAL HOLE SAW 35MM	7010-35	3/8 HEX MANDREL	7050-5519
	BI-METAL HOLE SAW 44MM	7010-44	7/16" HEX POSI-LOCK QC MANDREL	7050-5548
	BI-METAL HOLE SAW 57MM	7010-57	1/4" PILOT DRILL 3-1/2L	7060-8534
	BI-METAL HOLE SAW 73MM	7010-73		
	BI-METAL HOLE SAW 92MM	7010-92		
	BI-METAL HOLE SAW 114MM	7010-114		
	3/8~7/16 HEX QC EXT. 300MM (12")	5750-38716X300		
	3/8 HEX MANDREL	7050-5519		
	7/16" HEX POSI-LOCK QC MANDREL	7050-5548		
	1/4" PILOT DRILL 3-1/2L	7060-8534		

PLUMBER'S PIPE SET 7010-S3

16mm	1/2" Copper
19mm	1/2" Lagged Copper and 16mm PEX
22mm	3/4" (20mm) Copper and 20mm PEX
25mm	3/4" (20mm) Lagged Copper
27mm	1" (25mm) Copper and 25mm PEX
30mm	25mm Lagged Copper
35mm	1-1/4" (32mm) Copper and 32mm PEX
44mm	40mm PVC
57mm	50mm PVC
73mm	65mm PVC
92mm	90mm PVC Stormwater
114mm	100mm PVC



GROUP	BMKT	BMKT
MATERIAL	**Vx COBALT BI-METAL**	**Vx COBALT BI-METAL**
TYPE	**4/6 VARIABLE PITCH**	**4/6 VARIABLE PITCH**
INTERNAL DEPTH	**48MM**	**48MM**
PACKAGING	BLOW MOULDED KIT BOX	BLOW MOULDED KIT BOX

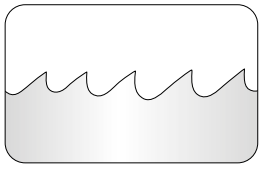




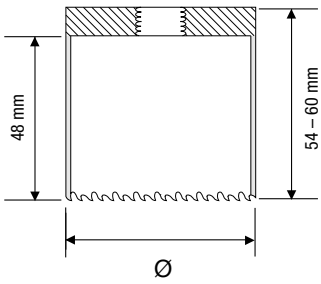
KIT TYPE	$ KIT	PART NUMBER	$ KIT	PART NUMBER
LOCKSMITH'S KIT – 4 SAWS	**257.24**	7010-S5	**–**	–
INDUSTRIAL KIT – 16 SAWS	**–**	–	**712.62**	7010-S6

KIT CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	25MM CHISEL	–	BI-METAL HOLE SAW 16MM	7010-16
	SPADE BITS-10MM	2670-10	BI-METAL HOLE SAW 20MM	7010-20
	SPADE BITS-22MM	2670-22	BI-METAL HOLE SAW 22MM	7010-22
	SPADE BITS-25MM	2670-25	BI-METAL HOLE SAW 25MM	7010-25
	SPADE BITS-32MM	2670-32	BI-METAL HOLE SAW 32MM	7010-32
	SPADE BITS-35MM	2670-35	BI-METAL HOLE SAW 38MM	7010-38
	BI-METAL HOLE SAW 22MM	7010-22	BI-METAL HOLE SAW 40MM	7010-40
	BI-METAL HOLE SAW 25MM	7010-25	BI-METAL HOLE SAW 51MM	7010-51
	BI-METAL HOLE SAW 32MM	7010-32	BI-METAL HOLE SAW 54MM	7010-54
	BI-METAL HOLE SAW 54MM	7010-54	BI-METAL HOLE SAW 60MM	7010-60
	3/8 HEX MANDREL	7050-5519	BI-METAL HOLE SAW 64MM	7010-64
	7/16" HEX POSI-LOCK QC MANDREL	7050-5548	BI-METAL HOLE SAW 70MM	7010-70
	1/4" PILOT DRILL 3-1/2L	7060-8534	BI-METAL HOLE SAW 89MM	7010-89
			BI-METAL HOLE SAW 92MM	7010-92
			BI-METAL HOLE SAW 100MM	7010-100
			BI-METAL HOLE SAW 114MM	7010-114
			7/16" HEX POSI-LOCK QC MANDREL	7050-5548
			3/8 HEX MANDREL	7050-5519
			3/8-7/16 HEX QC EXT. 300MM (12")	5750-38716X300
			1/4" PILOT DRILL 3-1/2L	7060-8534





GROUP	BMKT
MATERIAL	**Vx COBALT BI-METAL**
TYPE	**4/6 VARIABLE PITCH**
INTERNAL DEPTH	**48MM**
PACKAGING	BLOW MOULDED KIT BOX





KIT TYPE	$ KIT	PART NUMBER
TRADESMAN'S SET – 9 SAWS	**521.58**	7030-S1

KIT CONTENTS	DESCRIPTION	PART NUMBER
	BI-METAL HOLE SAW 16MM	7010-16
	BI-METAL HOLE SAW 20MM	7010-20
	BI-METAL HOLE SAW 22MM	7010-22
	BI-METAL HOLE SAW 25MM	7010-25
	BI-METAL HOLE SAW 32MM	7010-32
	BI-METAL HOLE SAW 40MM	7010-40
	BI-METAL HOLE SAW 51MM	7010-51
	BI-METAL HOLE SAW 54MM	7010-54
	BI-METAL HOLE SAW 60MM	7010-60
	POWER-HEX QC ADAPTOR	5750-1438X70
	1/4" PILOT DRILL 3-1/2L	7060-8534
	MANDRELS X 4	7050-5519
	MANDRELS X 5	7050-5558

BI-METAL HOLE SAWS

Bordo hole saws are premium quality, general purpose saws suitable for a wide variety of materials and applications.
The high-speed steel cutting edge provides shock resistant teeth and resists tooth strippage. 4/6 positive tooth configuration allows for fast, smooth cuts and less vibration.

FEATURES

- 4/6 variable tooth configuration.
- 48mm (1-7/8") depth of cut.
- 5mm (3/16") thick heavy-duty backing plate eliminates need for drive plate.

APPLICATIONS

- Creates holes for pipe and tubing installations, door lock installations, electrical conduit, hoses and antennas.
- Ideal for plumbing, construction, aircraft, electrical, maintenance and automotive applications.
- Use in steel, aluminium, brass, cast iron, plastic, wood and a wide variety of other materials.
- Can be used in stainless steel with use of a cutting lubricant, reduced spindle speed and sufficient feed pressure to produce chips. Repetition hole cutting in stainless steel is best suited to Bordo XP and XP2 hole saws.



GROUP	–	–
MATERIAL	**Vx COBALT BI-METAL**	**Vx COBALT BI-METAL**
TYPE	**4/6 VARIABLE PITCH**	**4/6 VARIABLE PITCH**
INTERNAL DEPTH	**48MM**	**48MM**
PACKAGING	MERCHANDISER	MERCHANDISER



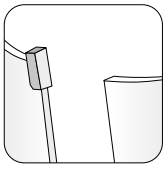


MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
D1 MERCHANDISER – 27 SAWS	**1,201.25**	7010-D1		
D3 MERCHANDISER – 58 SAWS			**2,874.45**	7010-D3

KIT CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	BI-METAL HOLE SAW - 16MM	7010-16	**ALL** BI-METAL HOLE SAWS 14-152MM	7010-XXX
	BI-METAL HOLE SAW - 19MM	7010-19	3/8 HEX MANDREL	7050-5519
	BI-METAL HOLE SAW - 20MM	7010-20	1/4 ROUND MANDREL	7050-5514
	BI-METAL HOLE SAW - 22MM	7010-22	7/16 HEX MANDREL	7050-5520
	BI-METAL HOLE SAW - 25MM	7010-25	7/16 HEX QUICK CHANGE MANDREL	7050-5545
	BI-METAL HOLE SAW - 29MM	7010-29	3/8 HEX QUICK CHANGE MANDREL	7050-5546
	BI-METAL HOLE SAW - 30MM	7010-30	3/8" HEX SNAP-LOCK QC MANDREL	7050-5547
	BI-METAL HOLE SAW - 32MM	7010-32	7/16" HEX POSI-LOCK QC MANDREL	7050-5548
	BI-METAL HOLE SAW - 35MM	7010-35	1/4" PILOT DRILL 3-1/2L	7060-8534
	BI-METAL HOLE SAW - 38MM	7010-38	1/4" PILOT DRILL 4-1/2L	7060-8535
	BI-METAL HOLE SAW - 40MM	7010-40	CARBIDE TIPPED DRILL	7060-8537CT
	BI-METAL HOLE SAW - 41MM	7010-41	3/8-7/16 HEX QC EXT. 300MM (12")	5750-38716X300
	BI-METAL HOLE SAW - 44MM	7010-44		
	BI-METAL HOLE SAW - 48MM	7010-48		
	BI-METAL HOLE SAW - 50MM	7010-50		
	BI-METAL HOLE SAW - 51MM	7010-51		
	BI-METAL HOLE SAW - 54MM	7010-54		
	BI-METAL HOLE SAW - 57MM	7010-57		
	BI-METAL HOLE SAW - 60MM	7010-60		
	BI-METAL HOLE SAW - 64MM	7010-64		
	BI-METAL HOLE SAW - 70MM	7010-70		
	BI-METAL HOLE SAW - 76MM	7010-76		
	BI-METAL HOLE SAW - 83MM	7010-83		
	BI-METAL HOLE SAW - 89MM	7010-89		
	BI-METAL HOLE SAW - 92MM	7010-92		
	BI-METAL HOLE SAW - 102MM	7010-102		
	BI-METAL HOLE SAW - 114MM	7010-114		
	1/4 ROUND MANDREL	7050-5514		
	3/8 HEX MANDREL	7050-5519		
	7/16 HEX MANDREL	7050-5520		
	7/16 HEX QUICK CHANGE MANDREL	7050-5545		
	3/8 HEX SNAP-LOCK QC MANDREL	7050-5547		
	1/4" PILOT DRILL 3-1/2L	7060-8534		
	1/4" PILOT DRILL 4-1/2L	7060-8535		
	3/8-7/16 HEX QC EXT.- 300MM (12")	5750-38716X300		







RIPPER HEAVY DUTY TUNGSTEN CARBIDE TIPPED HOLE SAWS

FEATURES

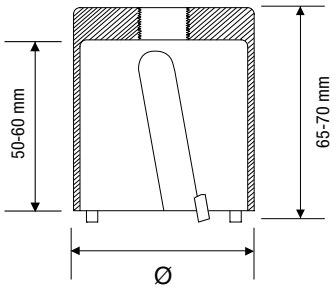
- Heavy duty abrasion resistant tungsten carbide teeth will cut materials that quickly dull normal hole saws.
- Heavy duty construction for long life with large gullets for easy slug removal.

APPLICATIONS

- Ideal for cutting timber and all types of composite board, particularly MDF.
- Ripper hole saws are also suitable for cutting wood laminates, plywood, insulation and fibre cement sheet.

GROUP	CTHS
MATERIAL	**TUNGSTEN CARBIDE TIPPED**
TYPE	**2 PIECE**
INTERNAL DEPTH	**50-60MM**
PACKAGING	HANG BOX





DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
16.00	5/8	1	**15.19**	7075-16
20.00	–	1	**15.19**	7075-20
22.00	7/8	1	**15.19**	7075-22
25.00	1	1	**17.05**	7075-25
27.00	1-1/16	1	**18.18**	7075-27
30.00	1-3/16	1	**19.43**	7075-30
32.00	1-1/4	1	**19.67**	7075-32
35.00	1-3/8	1	**19.92**	7075-35
38.00	1-1/2	1	**20.18**	7075-38
40.00	1-9/16	1	**20.67**	7075-40
44.00	1-3/4	1	**22.53**	7075-44
50.00	–	1	**25.89**	7075-50
54.00	2-1/8	1	**27.27**	7075-54
57.00	2-1/4	1	**28.76**	7075-57
60.00	2-3/8	1	**30.14**	7075-60
64.00	–	1	**32.50**	7075-64
68.00	–	1	**33.99**	7075-68
73.00	2-7/8	1	**36.88**	7075-73
76.00	3	1	**37.73**	7075-76
80.00	–	1	**39.61**	7075-80
83.00	3-1/4	1	**39.95**	7075-83
89.00	3-1/2	1	**41.29**	7075-89
92.00	3-5/8	1	**42.87**	7075-92
102.00	4	1	**50.19**	7075-102
111.00	4-3/8	1	**54.42**	7075-111
114.00	4-1/2	1	**55.91**	7075-114
125.00	–	1	**61.02**	7075-125
152.00	6	1	**78.45**	7075-152



GROUP	CTHS	CTHS
MATERIAL	TUNGSTEN CARBIDE TIPPED	TUNGSTEN CARBIDE TIPPED
TYPE	2 PIECE	2 PIECE
INTERNAL DEPTH	50-60MM	50-60MM
PACKAGING	BLOW MOULDED KIT BOX	BLOW MOULDED KIT BOX





KIT TYPE	$ KIT	PART NUMBER	$ KIT	PART NUMBER
RIPPER S1 HOLE SAW KIT - 9 SAWS	330.99	7075-S1	–	–
RIPPER PLUMBER'S PIPE KIT - 12 SAWS	–	–	474.12	7075-S3

KIT CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	TCT HOLE SAW 25MM	7075-25	TCT HOLE SAW 16MM	7075-16
	TCT HOLE SAW 32MM	7075-32	TCT HOLE SAW 20MM	7075-20
	TCT HOLE SAW 35MM	7075-35	TCT HOLE SAW 22MM	7075-22
	TCT HOLE SAW 38MM	7075-38	TCT HOLE SAW 25MM	7075-25
	TCT HOLE SAW 44MM	7075-44	TCT HOLE SAW 27MM	7075-27
	TCT HOLE SAW 50MM	7075-50	TCT HOLE SAW 30MM	7075-30
	TCT HOLE SAW 54MM	7075-54	TCT HOLE SAW 35MM	7075-35
	TCT HOLE SAW 57MM	7075-57	TCT HOLE SAW 44MM	7075-44
	TCT HOLE SAW 64MM	7075-64	TCT HOLE SAW 57MM	7075-57
	7/16" POSI-LOCK QC MANDREL	7050-5548	TCT HOLE SAW 73MM	7075-73
	3/8" HEX MANDREL	7050-5519	TCT HOLE SAW 92MM	7075-92
	PILOT DRILL – HSS	7060-8535	TCT HOLE SAW 114MM	7075-114
	PILOT DRILL – TCT	7060-8537CT	3/8~7/16 HEX QC EXT. 300MM (12")	5750-38716X300
			3/8" HEX MANDREL	7050-5519
			7/16" HEX POSI-LOCK QC MANDREL	7050-5548
			PILOT DRILL – TCT	7060-8537CT

PLUMBER'S TCT PIPE SET 7075-S3

16mm	1/2" Copper
20mm	1/2" Lagged Copper and 16mm PEX
22mm	3/4" (20mm) Copper and 20mm PEX
25mm	3/4" (20mm) Lagged Copper
27mm	1" (25mm) Copper and 25mm PEX
30mm	25mm Lagged Copper
35mm	1-1/4" (32mm) Copper and 32mm PEX
44mm	40mm PVC
57mm	50mm PVC
73mm	65mm PVC
92mm	90mm PVC Stormwater
114mm	100mm PVC

RIPPER HEAVY DUTY TUNGSTEN CARBIDE TIPPED HOLE SAWS

FEATURES

- Heavy duty abrasion resistant tungsten carbide teeth will cut materials that quickly dull normal hole saws.
- Heavy duty construction for long life with large gullets for easy slug removal.

APPLICATIONS

- Ideal for cutting timber and all types of composite board, particularly MDF.
- Ripper hole saws are also suitable for cutting wood laminates, plywood, insulation and fibre cement sheet.







RIPPER HEAVY DUTY TUNGSTEN CARBIDE TIPPED HOLE SAWS

FEATURES

- Heavy duty abrasion resistant tungsten carbide teeth will cut materials that quickly dull normal hole saws.
- Heavy duty construction for long life with large gullets for easy slug removal.

APPLICATIONS

- Ideal for cutting timber and all types of composite board, particularly MDF.
- Ripper hole saws are also suitable for cutting wood laminates, plywood, insulation and fibre cement sheet.

GROUP	CTHS
MATERIAL	**TUNGSTEN CARBIDE TIPPED**
TYPE	**1 PIECE**
INTERNAL DEPTH	**50-60MM**
PACKAGING	BLOW MOULDED KIT BOX



KIT TYPE	$ KIT	PART NUMBER
RIPPER TRADESMAN'S KIT - 9 SAWS	**501.04**	7075-S2

KIT CONTENTS	DESCRIPTION	PART NUMBER
	TCT HOLE SAW 16MM	7075-16
	TCT HOLE SAW 20MM	7075-20
	TCT HOLE SAW 22MM	7075-22
	TCT HOLE SAW 25MM	7075-25
	TCT HOLE SAW 32MM	7075-32
	TCT HOLE SAW 40MM	7075-40
	TCT HOLE SAW 50MM	7075-50
	TCT HOLE SAW 54MM	7075-54
	TCT HOLE SAW 60MM	7075-60
	1/4 & 3/8 QUICK CHANGE ADAPTOR	5750-1438X70
	PILOT DRILL – TCT	7060-8537CT
	MANDRELS X 4	7050-5519
	MANDRELS X 5	7050-5558







GROUP	CTHS
MATERIAL	**TUNGSTEN CARBIDE TIPPED**
TYPE	**2 PIECE**
INTERNAL DEPTH	**50-60MM**
PACKAGING	MERCHANDISER

RIPPER HEAVY DUTY TUNGSTEN CARBIDE TIPPED HOLE SAWS

FEATURES

- Heavy duty abrasion resistant tungsten carbide teeth will cut materials that quickly dull normal hole saws.
- Heavy duty construction for long life with large gullets for easy slug removal.







MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
RIPPER – 17 SAWS	**401.30**	7075-D1		
RIPPER – 24 SAWS			**822.61**	7075-D2

MERCHANDISER CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	RIPPER HOLE SAW 16MM	7075-16	RIPPER HOLE SAW 16MM	7075-16
	RIPPER HOLE SAW 20MM	7075-20	RIPPER HOLE SAW 20MM	7075-20
	RIPPER HOLE SAW 22MM	7075-22	RIPPER HOLE SAW 22MM	7075-22
	RIPPER HOLE SAW 25MM	7075-25	RIPPER HOLE SAW 25MM	7075-25
	RIPPER HOLE SAW 30MM	7075-30	RIPPER HOLE SAW 30MM	7075-30
	RIPPER HOLE SAW 32MM	7075-32	RIPPER HOLE SAW 32MM	7075-32
	RIPPER HOLE SAW 35MM	7075-35	RIPPER HOLE SAW 35MM	7075-35
	RIPPER HOLE SAW 38MM	7075-38	RIPPER HOLE SAW 38MM	7075-38
	RIPPER HOLE SAW 40MM	7075-40	RIPPER HOLE SAW 40MM	7075-40
	RIPPER HOLE SAW 44MM	7075-44	RIPPER HOLE SAW 44MM	7075-44
	RIPPER HOLE SAW 50MM	7075-50	RIPPER HOLE SAW 50MM	7075-50
	RIPPER HOLE SAW 54MM	7075-54	RIPPER HOLE SAW 54MM	7075-54
	RIPPER HOLE SAW 57MM	7075-57	RIPPER HOLE SAW 57MM	7075-57
	RIPPER HOLE SAW 60MM	7075-60	RIPPER HOLE SAW 60MM	7075-60
	RIPPER HOLE SAW 64MM	7075-64	RIPPER HOLE SAW 64MM	7075-64
	RIPPER HOLE SAW 68MM	7075-68	RIPPER HOLE SAW 68MM	7075-68
	RIPPER HOLE SAW 76MM	7075-76	RIPPER HOLE SAW 76MM	7075-76
			RIPPER HOLE SAW 80MM	7075-80
			RIPPER HOLE SAW 83MM	7075-83
			RIPPER HOLE SAW 89MM	7075-89
			RIPPER HOLE SAW 92MM	7075-92
			RIPPER HOLE SAW 102MM	7075-102
			RIPPER HOLE SAW 111MM	7075-111
			RIPPER HOLE SAW 114MM	7075-114
			3/8 HEX QC MANDREL	7050-5546CT
			CARBIDE PILOT DRILL	7060-8537CT

APPLICATIONS

- Ideal for cutting timber and all types of composite board, particularly MDF.
- Ripper hole saws are also suitable for cutting wood laminates, plywood, insulation and fibre cement sheet.





brilliant
vacuum brazed diamond

GROUP	DIHS
MATERIAL	VACUUM BRAZED DIAMOND
TYPE	1 PIECE; HEX SHANK
INTERNAL DEPTH	30MM
PACKAGING	CLAM SHELL





DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
6.00	15/64	1	17.64	7084-6H
6.50	–	1	18.23	7084-6.5H
8.00	5/16	1	19.76	7084-8H
10.00	–	1	21.64	7084-10H
12.00	–	1	23.52	7084-12H







GROUP	DIHS
MATERIAL	VACUUM BRAZED DIAMOND
TYPE	2 PIECE; M14 THREAD
INTERNAL DEPTH	40MM
PACKAGING	HANG BOX

GROUP	DIHS
SHANK	HEX SHANK
THREAD	M14
PACKAGING	TELEPACK

DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
6.00	15/64	1	40.09	7084-6
6.50	–	1	40.67	7084-6.5
8.00	5/16	1	41.75	7084-8
10.00	–	1	43.42	7084-10
12.00	–	1	44.98	7084-12
16.00	–	1	43.42	7084-16
19.00	3/4	1	49.10	7084-19
20.00	–	1	51.25	7084-20
22.00	7/8	1	56.35	7084-22
25.00	1	1	63.99	7084-25
32.00	1-1/4	1	69.00	7084-32
35.00	1-3/8	1	75.17	7084-35
38.00	1-1/2	1	81.63	7084-38
42.00	–	1	89.87	7084-42
45.00	–	1	96.14	7084-45
50.00	–	1	107.70	7084-50
63.00	–	1	135.53	7084-63
68.00	–	1	146.12	7084-68
75.00	–	1	160.72	7084-75
105.00	4-1/8	1	192.94	7084-105
110.00	–	1	202.13	7084-110
124.00	–	1	235.49	7084-124
128.00	–	1	247.77	7084-128

DESCRIPTION	$ EACH	PART NUMBER
MANDREL – TO SUIT 2 PCE SAWS	21.43	7084-1420



Brilliant diamond hole saws achieve optimal cutting efficiency when used at high speeds in an angle grinder. The saws feature an M14 thread which is suitable for use with most popular angle grinders.

Brilliant saws may be used in pistol and pedestal drills using the three jaw chuck adaptor mandrel – Part # 7084-1420



Adjustable Holesaw Drilling Template 4-83mm

page 240

DIAMOND HOLE SAWS

Bordo Brilliant diamond hole saws are manufactured using vacuum brazing to "adhere" the diamond material to the saw.

FEATURES

- Vacuum brazing provides the strongest bond between the diamond particles and the holesaw.
- Superior performance and greater saw life than traditional electroplated diamond saws.
- Slotted cutting edge allows water to enter the cut, extending tool life.

APPLICATIONS

- Ideally suited to cutting ceramics, tiles, porcelain and stone.



GROUP	DIHS	DIHS
MATERIAL	VACUUM BRAZED DIAMOND	VACUUM BRAZED DIAMOND
TYPE	2 PIECE; M14 THREAD	2 PIECE; M14 THREAD
PACKAGING	MERCHANDISER	MERCHANDISER





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
BRILLIANT D1 MERCH – 21 SAWS	**1,116.75**	7084-D1		
BRILLIANT D2 MERCH – 28 SAWS			**2,437.45**	7084-D2

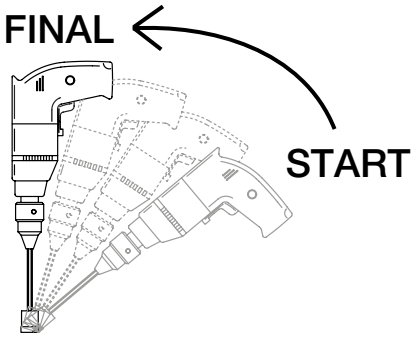
MERCHANDISER CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	6MM DIAMETER – HEX SHANK	7084-6H	6MM DIAMETER – HEX SHANK	7084-6H
	6.5MM DIAMETER – HEX SHANK	7084-6.5H	6.5MM DIAMETER – HEX SHANK	7084-6.5H
	8MM DIAMETER – HEX SHANK	7084-8H	8MM DIAMETER – HEX SHANK	7084-8H
	10MM DIAMETER – HEX SHANK	7084-10H	10MM DIAMETER – HEX SHANK	7084-10H
	12MM DIAMETER – HEX SHANK	7084-12H	12MM DIAMETER – HEX SHANK	7084-12H
	6MM DIAMETER – M14 THREAD	7084-6	6MM DIAMETER – M14 THREAD	7084-6
	6.5MM DIAMETER – M14 THREAD	7084-6.5	6.5MM DIAMETER – M14 THREAD	7084-6.5
	8MM DIAMETER – M14 THREAD	7084-8	8MM DIAMETER – M14 THREAD	7084-8
	10MM DIAMETER – M14 THREAD	7084-10	10MM DIAMETER – M14 THREAD	7084-10
	12MM DIAMETER – M14 THREAD	7084-12	12MM DIAMETER – M14 THREAD	7084-12
	16MM DIAMETER – M14 THREAD	7084-16	16MM DIAMETER – M14 THREAD	7084-16
	19MM DIAMETER – M14 THREAD	7084-19	19MM DIAMETER – M14 THREAD	7084-19
	20MM DIAMETER – M14 THREAD	7084-20	20MM DIAMETER – M14 THREAD	7084-20
	22MM DIAMETER – M14 THREAD	7084-22	22MM DIAMETER – M14 THREAD	7084-22
	25MM DIAMETER – M14 THREAD	7084-25	25MM DIAMETER – M14 THREAD	7084-25
	32MM DIAMETER – M14 THREAD	7084-32	32MM DIAMETER – M14 THREAD	7084-32
	35MM DIAMETER – M14 THREAD	7084-35	35MM DIAMETER – M14 THREAD	7084-35
	38MM DIAMETER – M14 THREAD	7084-38	38MM DIAMETER – M14 THREAD	7084-38
	42MM DIAMETER – M14 THREAD	7084-42	42MM DIAMETER – M14 THREAD	7084-42
	45MM DIAMETER – M14 THREAD	7084-45	45MM DIAMETER – M14 THREAD	7084-45
	50MM DIAMETER – M14 THREAD	7084-50	50MM DIAMETER – M14 THREAD	7084-50
	HEX SHANK MANDREL	7084-1420	50MM DIAMETER – M14 THREAD	7084-63
			68MM DIAMETER – M14 THREAD	7084-68
			75MM DIAMETER – M14 THREAD	7084-75
			105MM DIAMETER – M14 THREAD	7084-105
			110MM DIAMETER – M14 THREAD	7084-110
			124MM DIAMETER – M14 THREAD	7084-124
			128MM DIAMETER – M14 THREAD	7084-128
			HEX SHANK MANDREL	7084-1420

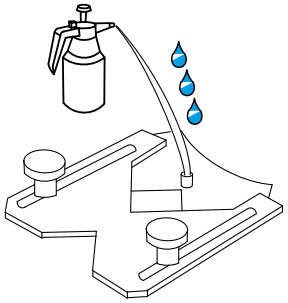
Apply spinning hole saw to workpiece at an angle so that only the edge is engaged.

As a small groove begins to form gradually move the grinder/drill until the saw is flat and fully engaged with the workpiece.

Aternatively position the saw using Bordo adjustable drilling template and commence drilling with the saw flat against the workpiece

IMPORTANT
Drilling using diamond abrasive is a wet process. Ensure adequate water to keep the saw edge cool. Water and electricity are a dangerous combination - maintain a safe working environment.













GRIT EDGE HOLE SAWS

The tungsten carbide Grit Edge on each Grit Edge product equips it to handle the toughest materials, from ceramic tile to marble and glass. Thousands of carbide particles are permanently bonded to the cutting edge precisely for specific cutting and drilling needs.

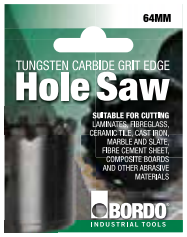
FEATURES

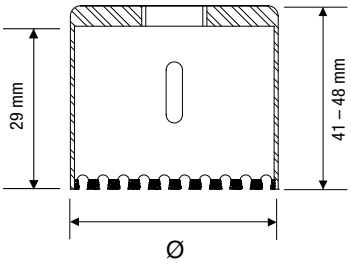
- 29mm (1-1/8") depth of cut.
- No teeth to dull or chip.
- High heat and abrasion resistance.
- Resists snagging.
- Smooth cutting.
- High wear resistance.
- 5mm (3/16") thick heavy duty backing plate eliminates the need for drive plate.
- Uses standard hole saw mandrel, usually in conjunction with carbide tipped pilot drill.

APPLICATIONS

- Recommended for cutting laminates, fibreglass, ceramic tile, marble and slate, cast iron, fibre cement sheet and composites.
- Not suitable for monocottura or vitrified products – these products are best cut by Bordo Brilliant diamond hole saws.
See page 170.

GROUP	REMG
MATERIAL	**TUNGSTEN CARBIDE GRIT**
TYPE	**2 PIECE**
INTERNAL DEPTH	**29MM**
PACKAGING	HANG BOX





DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
16.00	–	1	**40.72**	7090-16
19.00	3/4	1	**40.72**	7090-19
20.00	–	1	**41.44**	7090-20
22.00	7/8	1	**41.44**	7090-22
25.00	1	1	**41.44**	7090-25
29.00	1-1/8	1	**43.12**	7090-29
32.00	1-1/4	1	**45.57**	7090-32
35.00	1-3/8	1	**47.19**	7090-35
38.00	1-1/2	1	**50.53**	7090-38
44.00	1-3/4	1	**55.39**	7090-44
48.00	1-7/8	1	**55.39**	7090-48
51.00	2	1	**55.39**	7090-51
54.00	2-1/8	1	**55.39**	7090-54
57.00	2-1/4	1	**56.27**	7090-57
60.00	2-3/8	1	**57.83**	7090-60
64.00	2-1/2	1	**58.65**	7090-64
70.00	2-3/4	1	**70.04**	7090-70
76.00	3	1	**72.60**	7090-76
83.00	3-1/4	1	**74.93**	7090-83
86.00	3-3/8	1	**75.56**	7090-86
95.00	3-3/4	1	**77.30**	7090-95
102.00	4	1	**78.06**	7090-102
114.00	4-1/2	1	**91.97**	7090-114







GROUP	–	–
MATERIAL	**TUNGSTEN CARBIDE GRIT**	**TUNGSTEN CARBIDE GRIT**
TYPE	**2 PIECE**	**2 PIECE**
CUTTING DEPTH	**29MM**	**29MM**
PACKAGING	MERCHANDISER	MERCHANDISER





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
GRIT EDGE D1 MERCH – 14 SAWS	**843.44**	7090-D1		
GRIT EDGE D2 MERCH – 23 SAWS			**1,500.38**	7090-D2

MERCHANDISER CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	GRIT EDGE HOLE SAW 16MM	7090-16	GRIT EDGE HOLE SAW 16MM	7090-16
	GRIT EDGE HOLE SAW 19MM	7090-19	GRIT EDGE HOLE SAW 19MM	7090-19
	GRIT EDGE HOLE SAW 20MM	7090-20	GRIT EDGE HOLE SAW 20MM	7090-20
	GRIT EDGE HOLE SAW 22MM	7090-22	GRIT EDGE HOLE SAW 22MM	7090-22
	GRIT EDGE HOLE SAW 25MM	7090-25	GRIT EDGE HOLE SAW 25MM	7090-25
	GRIT EDGE HOLE SAW 29MM	7090-29	GRIT EDGE HOLE SAW 29MM	7090-29
	GRIT EDGE HOLE SAW 32MM	7090-32	GRIT EDGE HOLE SAW 32MM	7090-32
	GRIT EDGE HOLE SAW 35MM	7090-35	GRIT EDGE HOLE SAW 35MM	7090-35
	GRIT EDGE HOLE SAW 38MM	7090-38	GRIT EDGE HOLE SAW 38MM	7090-38
	GRIT EDGE HOLE SAW 44MM	7090-44	GRIT EDGE HOLE SAW 44MM	7090-44
	GRIT EDGE HOLE SAW 48MM	7090-48	GRIT EDGE HOLE SAW 48MM	7090-48
	GRIT EDGE HOLE SAW 51MM	7090-51	GRIT EDGE HOLE SAW 51MM	7090-51
	GRIT EDGE HOLE SAW 54MM	7090-54	GRIT EDGE HOLE SAW 54MM	7090-54
	GRIT EDGE HOLE SAW 57MM	7090-57	GRIT EDGE HOLE SAW 57MM	7090-57
	PILOT BIT - CARBIDE TIPPED 89MM	7060-8537CT	GRIT EDGE HOLE SAW 60MM	7090-60
	PILOT BIT - CARBIDE TIPPED 114MM	7060-8538CT	GRIT EDGE HOLE SAW 64MM	7090-64
	11/32" HEX MANDREL	7050-5519CT	GRIT EDGE HOLE SAW 70MM	7090-70
	11/32" HEX QC MANDREL	7050-5546CT	GRIT EDGE HOLE SAW 76MM	7090-76
			GRIT EDGE HOLE SAW 83MM	7090-83
			GRIT EDGE HOLE SAW 86MM	7090-86
			GRIT EDGE HOLE SAW 95MM	7090-95
			GRIT EDGE HOLE SAW 102MM	7090-102
			GRIT EDGE HOLE SAW 114MM	7090-114
			PILOT BIT - CARBIDE TIPPED 89MM	7060-8537CT
			PILOT BIT - CARBIDE TIPPED 114MM	7060-8538CT
			11/32" HEX MANDREL	7050-5519CT
			11/32" HEX QC MANDREL	7050-5546CT







DOWNLIGHT CUTTERS

The tungsten carbide Grit Edge on each Bordo Downlight Cutter provides an extremely hard wearing, smooth cutting edge - even in the most abrasive materials.

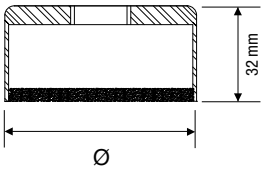
FEATURES

- 22mm (7/8") depth of cut.
- No teeth to dull or chip.
- High heat and abrasion resistance.
- Resists snagging.
- Smooth cutting.
- High wear resistance.

APPLICATIONS

- Recommended for cutting plasterboard, fibre cement sheet and composites.

GROUP	REMG
MATERIAL	**TUNGSTEN CARBIDE GRIT**
TYPE	**2 PIECE**
INTERNAL DEPTH	**26MM**
PACKAGING	CLAM SHELL





DIAMETER MM	DIAMETER INCH	PACK QTY	$ EACH	PART NUMBER
72.00	–	1	**71.48**	7095-72
75.00	–	1	**71.48**	7095-75
89.00	3-1/2	1	**80.25**	7095-89
92.00	3-5/8	1	**80.25**	7095-92
95.00	3-3/4	1	**80.25**	7095-95







GROUP	–

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
DOWNLIGHT CUTTER – 10 SAWS	**1,108.04**	7095-D1

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER
	2	DOWNLIGHT CUTTER - 72MM	7095-72
	2	DOWNLIGHT CUTTER - 75MM	7095-75
	2	DOWNLIGHT CUTTER - 89MM	7095-89
	2	DOWNLIGHT CUTTER - 92MM	7095-92
	2	DOWNLIGHT CUTTER - 95MM	7095-95
	3	7/16 HEX MANDREL	7050-5546
	3	300MM QUICK CHANGE EXT.	5750-38716X300



GROUP	ADHC
CUTTING BLADE	TUNGSTEN CARBIDE
CUTTING DEPTH	50MM MAX.
COWL	IMPACT RESISTANT POLYCARBONATE
TYPE	ADJUSTABLE WITH BALANCE BAR
SHANK	FLATTED
PACKAGING	BLOW MOULDED KIT BOX





MAX. DIA MM	MIN. DIA MM	PACK QTY	$ EACH	PART NUMBER
220	30	1	**241.46**	7096-220A
290	30	1	**289.74**	7096-285A

7096-WDB



7096-SMB



ACCESSORIES	$ EACH	PART NUMBER
REPLACEMENT BLADE	**20.13**	7096-WDB
REPLACEMENT BLADE - SPEAR TIP	**22.14**	7096-SMB
HSS PILOT DRILL	**14.36**	7096-HSSD
CARBIDE TIPPED PILOT DRILL	**18.69**	7096-CTD

ADJUSTABLE HOLE CUTTERS

Quickly and safely cut large diameter holes in a wide variety of materials.

FEATURES

- Simple to adjust and built to last.
- Supplied with two replaceable tungsten carbide blades.
- Adjustable cutting thickness from 5mm to 50mm.
- Impact resistant cowl collects dust and debris whilst protecting the operator from flying material.
- Balance bar ensures minimal vibration when cutting large diameter holes.
- **7096-WDB Blade** Suitable for cutting veneer, plywood, composite board, plasterboard, fibre cement sheet and acrylic sheet.
- **7096-SMB Blade** Suitable for cutting sheet metal up to 1mm thick – including brass & aluminium using tungsten carbide spear tip blade included.

HANG SELL



7050-5547
SNAP-LOCK MANDREL

The Bordo Snap-Lock mandrel features a spring loaded collar to quickly engage and disengage the dual locking pins that prevent mandrel and saw binding.

7050-5548
POSI-LOCK MANDREL

The Bordo Posi-Lock mandrel tightens to create a positive lock to minimise saw runout and wobble. Locking pins prevent mandrel and saw binding.

GROUP	MAND
PACKAGING	CLAM SHELL



HOLE SAW MM	CHUCK INCH	SHANK INCH	SUITS	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
14 - 30	1/4"	1/4" RND	●	MOST ECONOMICAL	1	**21.17**	7050-5514
14 - 30	3/8"-1/2"	11/32" HEX	●●	FITS 3/8" AND 1/2" DRILLS	1	**30.91**	7050-5519
14 - 30	3/8"-1/2"	11/32" HEX	●●●	5519 WITH CARBIDE BIT	1	**53.07**	7050-5519CT
32 - 100	1/2"	7/16" HEX	●●●	FITS 1/2" DRILLS	1	**36.34**	7050-5520
32 - 100	3/8"-1/2"	11/32" HEX	●●●	FITS 3/8" AND 1/2" DRILLS	1	**30.91**	7050-5558
32 - 152	1/2"	7/16" HEX	●●●	SCREW IN PINS (QUICK CHANGE)	1	**53.80**	7050-5545
32 - 152	3/8"-1/2"	11/32" HEX	●●●	SCREW IN PINS (QUICK CHANGE)	1	**53.80**	7050-5546
32 - 152	3/8"-1/2"	11/32" HEX	●●●●	5546 WITH CARBIDE BIT	1	**73.77**	7050-5546CT
32 - 210	1/2"	11/32"	●●●	SNAP-LOCK MANDREL	1	**53.80**	7050-5547
32 - 210	1/2"	7/16"	●●●	POSI-LOCK MANDREL	1	**53.07**	7050-5548

● BI-METAL HOLE SAW
● GRIT EDGE TUNGSTEN CARBIDE HOLE SAW
● RIPPER CARBIDE TIPPED HOLE SAW
● DOWNLIGHT CUTTER

GROUP	PHEX
PACKAGING	DISPLAY BOX





HOLE SAW MM	CHUCK INCH	SHANK INCH	SUITS	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
STUB MANDRELS – TO SUIT POWER-HEX ADAPTOR							
16 - 30*	3/8"-1/2"	11/32" HEX	●●	POWER-HEX COMPATIBLE	10	**18.01**	7065-5512
32 - 100*	3/8"-1/2"	11/32" HEX	●●●	POWER-HEX COMPATIBLE	10	**18.01**	7065-5558

● BI-METAL HOLE SAW
● GRIT EDGE TUNGSTEN CARBIDE HOLE SAW
● RIPPER CARBIDE TIPPED HOLE SAW
● DOWNLIGHT CUTTER

* Discontinued - available until current stocks are depleted.



GROUP	ACES	ACES
PRODUCT	PILOT DRILL	PILOT DRILL
MATERIAL	**HSS**	**TUNGSTEN CARBIDE TIP**
DIAMETER	1/4"	1/4"
PACKAGING	**CLAM SHELL**	**CLAM SHELL**







LENGTH MM	LENGTH INCH	FOR USE WITH MANDRELS	QTY PACK	$ EACH	PART NUMBER	$ EACH	PART NUMBER
89.00	**3-1/2**	5519, 5546, 5558, 5547, 5548 MANDRELS	1	**9.94**	7060-8534	**–**	–
114.00	**4-1/2**	5514, 5520, 5545 MANDRELS	1	**9.94**	7060-8535	**–**	–
89.00	**3-1/2**	5519CT, 5546CT, 5547, 5548 MANDRELS	1	**–**	–	**23.30**	7060-8537CT
114.00	**4-1/2**	5514, 5520, 5545 MANDRELS	1	**–**	–	**23.30**	7060-8538CT

GROUP	ACES
PACKAGING	**BULK**

DESCRIPTION	$ EACH	PART NUMBER
EXTENSION 300MM (12") – FOR USE WITH 5520, 5545, 5548	**41.69**	7060-5500
MANDREL ADAPTOR – FOR SMALL THREAD MANDRELS TO FIT HOLE SAWS >30MM	**8.44**	7060-5511
SET SCREWS – FOR USE WITH 5514, 5519, 5520	**5.85**	7060-SS1
SET SCREWS – FOR USE WITH 5545, 5546, 5549	**5.85**	7060-SS2
SET SCREWS – FOR USE WITH 7065-5512 AND 7065-5558 STUB MANDRELS	**5.85**	7060-SS3
SET SCREWS – FOR USE WITH 5548	**5.85**	7060-SS4



Dust Bowls & Power-Hex Quick Change Adaptors and Extensions

Quick change industrial strength adaptors and extensions

page 240









THINWALL SHEETMETAL HOLE SAWS

Ideal for the electrical and plumbing tradesman. Hole saw has a thin 0.65mm sidewall blade thickness, which allows for faster cutting and longer battery life. Ideal for chargeable impact drivers.

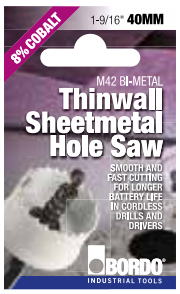
FEATURES

- Variable pitch, M42 material with 8º positive rake for fast, smooth cuts in sheet metal and plastic.
- Self ejecting plug removal.
- 5/32" pilot drill for easy centre locating and quicker cutting penetration.
- 1/4" quick change shank, ideal for use with battery operated impact drivers.
- Safety collar stop helps prevent cutting too deep.

BENEFITS

- Smooth and fast cutting – especially designed tooth geometry assures increased performance and better wear resistance.
- Lightweight blades maximize the use of chargeable impact drivers by using a reduced motor and operation load.
- Safety collar stop helps prevent damage to wires when drilling into electrical boxes.

GROUP	BMSM
MATERIAL	**M42 BI-METAL – 8% COBALT**
TEETH	**VARIABLE PITCH, 8º POSITIVE RAKE**
SIDEWALL	**0.65MM**
TYPE	1 PIECE
SHANK	1/4"
PACKAGING	HANG BOX





DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
16.00	5/8	1	**21.98**	7040-16
19.00	3/4	1	**22.04**	7040-19
20.00	–	1	**22.10**	7040-20
22.00	7/8	1	**22.19**	7040-22
25.00	1	1	**22.23**	7040-25
27.00	1-1/16	1	**22.31**	7040-27
29.00	1-1/8	1	**22.64**	7040-29
30.00	1-3/16	1	**23.17**	7040-30
32.00	1-1/4	1	**23.91**	7040-32
35.00	1-3/8	1	**24.57**	7040-35
38.00	1-1/2	1	**25.31**	7040-38
40.00	1-9/16	1	**28.46**	7040-40
44.00	1-3/4	1	**32.03**	7040-44
51.00	2	1	**39.20**	7040-51





NEW SET

SET TYPE	$ SET	PART NUMBER
THINWALL SHEETMETAL SET - 8 SAWS	**184.33**	7040-S1



IDEAL FOR CREATING PENETRATIONS IN

Distribution boards, meter enclosures, data cabinets, rigid conduit, trunking and skirting ducts.

SUITABLE FOR USE IN

Stainless steel, mild steel, brass, aluminium and plastic.

SET CONTENTS	DESCRIPTION	PART NUMBER
	THINWALL HOLE SAW 16MM	7040-16
	THINWALL HOLE SAW 19MM	7040-19
	THINWALL HOLE SAW 20MM	7040-20
	THINWALL HOLE SAW 22MM	7040-22
	THINWALL HOLE SAW 25MM	7040-25
	THINWALL HOLE SAW 32MM	7040-32
	THINWALL HOLE SAW 35MM	7040-35
	THINWALL HOLE SAW 38MM	7040-38





GROUP	BMSM
MATERIAL	**M42 BI-METAL – 8% COBALT**
TEETH	**VARIABLE PITCH, 8º POSITIVE RAKE**
SIDEWALL	**0.5MM**
TYPE	1 PIECE
SHANK	1/4"
PACKAGING	HANG SELL MERCHANDISER



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SHEETMETAL HOLE SAWS– 11 SAWS	**252.45**	7040-D1

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER
	1	THINWALL SAW 16MM	7040-16
	1	THINWALL SAW 19MM	7040-19
	1	THINWALL SAW 20MM	7040-20
	1	THINWALL SAW 22MM	7040-22
	1	THINWALL SAW 25MM	7040-25
	1	THINWALL SAW 27MM	7040-27
	1	THINWALL SAW 29MM	7040-29
	1	THINWALL SAW 30MM	7040-30
	1	THINWALL SAW 32MM	7040-32
	1	THINWALL SAW 35MM	7040-35
	1	THINWALL SAW 38MM	7040-38

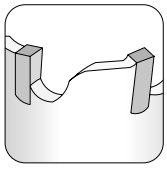


MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SHEETMETAL HOLE SAWS– 20 SAWS	**492.24**	7040-D2

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER
	2	THINWALL SAW 16MM	7040-16
	1	THINWALL SAW 19MM	7040-19
	2	THINWALL SAW 20MM	7040-20
	1	THINWALL SAW 22MM	7040-22
	2	THINWALL SAW 25MM	7040-25
	1	THINWALL SAW 27MM	7040-27
	1	THINWALL SAW 29MM	7040-29
	1	THINWALL SAW 30MM	7040-30
	2	THINWALL SAW 32MM	7040-32
	2	THINWALL SAW 35MM	7040-35
	2	THINWALL SAW 38MM	7040-38
	1	THINWALL SAW 40MM	7040-40
	1	THINWALL SAW 44MM	7040-44
	1	THINWALL SAW 51MM	7040-51







XP TUNGSTEN CARBIDE HOLE SAWS

XP TCT hole saws are ideal for repetition cutting in steel plate, stainless steel plate and synthetic resin plates up to 4mm thick.

XP2 TUNGSTEN CARBIDE HOLE SAWS

XP2 TCT hole saws feature 3 edged cutters which balance the cutting effort for smoother boring, greater control and reduced drag. The deep body makes them ideal for use with curved surfaces such as metal pipes.

FEATURES

- Non-uniform separation of the tungsten carbide teeth and integrated mandrel virtually elimates vibration due to resonance.
- Extremely long service life.
- No need for messy cutting fluids.
- Heavy duty plug ejector spring.

APPLICATIONS

- Repetition cutting of steel plate, stainless steel plate, sheet metal and other hard or abrasive materials.

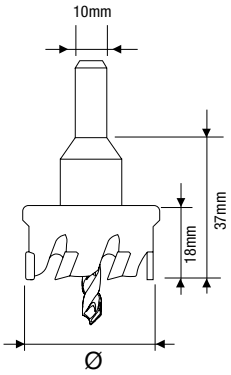
Cutting Depth (mm)

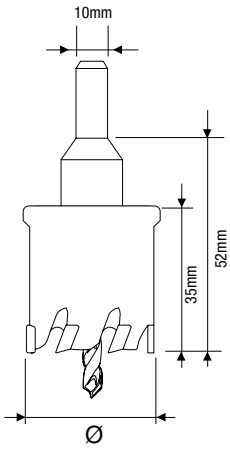
	XP	XP2
Steel	4.5	23
S/Steel	3	3+
Aluminium	3	3+

GROUP	SMCC	SMCC
TYPE	**XP**	**XP2 - DEEP CUT**
TOOTH MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
MANDREL	**BUILT-IN**	**BUILT-IN**
CUTTING DEPTH	4.5MM	25.0MM
PACKAGING	CLAM SHELL	CLAM SHELL









DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
16.00	5/8	1	**93.74**	7080-16	**136.88**	7081-16
17.00	11/16	1	**93.74**	7080-17	**–**	–
18.00	–	1	**93.74**	7080-18	**136.88**	7081-18
19.00	3/4	1	**93.74**	7080-19	**136.88**	7081-19
20.00	–	1	**93.74**	7080-20	**143.01**	7081-20
21.00	13/16	1	**93.74**	7080-21	**–**	–
22.00	7/8	1	**93.74**	7080-22	**143.01**	7081-22
23.00	–	1	**93.74**	7080-23	**–**	–
24.00	15/16	1	**93.74**	7080-24	**143.01**	7081-24
25.00	1	1	**93.74**	7080-25	**143.01**	7081-25
26.00	–	1	**108.38**	7080-26	**155.26**	7081-26
27.00	1-1/16	1	**108.38**	7080-27	**155.26**	7081-27
28.00	–	1	**108.38**	7080-28	**155.26**	7081-28
29.00	1-1/8	1	**108.38**	7080-29	**–**	–
30.00	1-3/16	1	**108.38**	7080-30	**155.26**	7081-30
31.00	–	1	**120.99**	7080-31	**–**	–
32.00	1-1/4	1	**120.99**	7080-32	**187.03**	7081-32
33.00	1-5/16	1	**120.99**	7080-33	**187.03**	7081-33
34.00	–	1	**120.99**	7080-34	**187.03**	7081-34
35.00	1-3/8	1	**120.99**	7080-35	**187.03**	7081-35
36.00	–	1	**139.35**	7080-36	**199.30**	7081-36
38.00	1-1/2	1	**139.35**	7080-38	**199.30**	7081-38
40.00	1-9/16	1	**139.35**	7080-40	**199.30**	7081-40
42.00	–	1	**152.74**	7080-42	**224.07**	7081-42
43.00	1-11/16	1	**152.74**	7080-43	**–**	–
45.00	–	1	**152.74**	7080-45	**224.07**	7081-45
48.00	1-7/8	1	**159.45**	7080-48	**–**	–
50.00	–	1	**159.45**	7080-50	**224.07**	7081-50
55.00	–	1	**196.38**	7080-55	**309.93**	7081-55
60.00	2-3/8	1	**248.05**	7080-60	**320.70**	7081-60
65.00	2-9/16	1	**270.28**	7080-65	**320.70**	7081-65
70.00	2-3/4	1	**278.58**	7080-70	**345.24**	7081-70
75.00	–	1	**318.49**	7080-75	**345.24**	7081-75
80.00	–	1	**318.49**	7080-80	**394.30**	7081-80
90.00	–	1	**400.03**	7080-90	**443.35**	7081-90
100.00	–	1	**475.45**	7080-100	**529.20**	7081-100





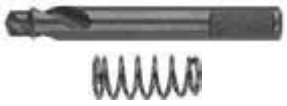
GROUP	SMCC	SMCC
TYPE	**XP**	**XP2 - DEEP CUT**
TOOTH MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
MANDREL	**BUILT-IN**	**BUILT-IN**
CUTTING DEPTH	4.5MM	25.0MM
PACKAGING	BLOW MOULDED KIT BOX	BLOW MOULDED KIT BOX



KIT TYPE	$ KIT	PART NUMBER	$ KIT	PART NUMBER
XP CARBIDE CUTTER – 5 SAWS	**556.64**	7080-S1	**–**	–
XP2 CARBIDE CUTTER – 5 SAWS	**–**	–	**824.31**	7081-S1

KIT CONTENTS	QTY	DESCRIPTION	PART NUMBER	QTY	DESCRIPTION	PART NUMBER
	1	XP SAW 16MM	7080-16	1	XP2 SAW 16MM	7081-16
	1	XP SAW 20MM	7080-20	1	XP2 SAW 20MM	7081-20
	1	XP SAW 25MM	7080-25	1	XP2 SAW 25MM	7081-25
	1	XP SAW 32MM	7080-32	1	XP2 SAW 32MM	7081-32
	1	XP SAW 40MM	7080-40	1	XP2 SAW 40MM	7081-40
	2	XP PILOT DRILL	7080-6PD	2	XP2 PILOT DRILL	7081-6PD
	2	XP SPRING	7080-SPRING	2	XP2 SPRING	7081-SPRING

GROUP	SMCC	SMCC
TYPE	**XP**	**XP2 - DEEP CUT**
PACKAGING	BULK	BULK




ACCESSORIES	$ EACH	PART NUMBER	$ EACH	PART NUMBER
PILOT DRILL – 6MM X 47MM TO SUIT XP	**9.74**	7080-6PD	**–**	–
PILOT DRILL – 6MM X 75MM TO SUIT XP2	**–**	–	**9.74**	7081-6PD
EJECTOR SPRING TO SUIT XP	**5.34**	7080-SPRING	**–**	–
EJECTOR SPRING TO SUIT XP2	**–**	–	**5.34**	7081-SPRING

XP TUNGSTEN CARBIDE HOLE SAWS

XP TCT hole saws are ideal for repetition cutting in steel plate, stainless steel plate and synthetic resin plates up to 4mm thick.

XP2 TUNGSTEN CARBIDE HOLE SAWS

XP2 TCT hole saws feature 3 edged cutters which balance the cutting effort for smoother boring, greater control and reduced drag. The deep body makes them ideal for use with curved surfaces such as metal pipes.

FEATURES

- Non-uniform separation of the tungsten carbide teeth and integrated mandrel virtually elimates vibration due to resonance.
- Extremely long service life.
- No need for messy cutting fluids.
- Heavy duty plug ejector spring.

APPLICATIONS

- Repetition cutting of steel plate, stainless steel plate, sheet metal and other hard or abrasive materials.

Cutting Depth (mm)

	XP	XP2
Steel	4.5	23
S/Steel	3	3+
Aluminium	3	3+









XP TUNGSTEN CARBIDE HOLE SAWS

XP TCT hole saws are ideal for repetition cutting in steel plate, stainless steel plate and synthetic resin plates up to 4mm thick.

XP2 TUNGSTEN CARBIDE HOLE SAWS

XP2 TCT hole saws feature 3 edged cutters which balance the cutting effort for smoother boring, greater control and reduced drag. The deep body makes them ideal for use with curved surfaces such as metal pipes.

GROUP	SMCC	SMCC
TYPE	**XP**	**XP2 - DEEP CUT**
TOOTH MATERIAL	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
MANDREL	**BUILT-IN**	**BUILT-IN**
CUTTING DEPTH	4.5MM	25.0MM
PACKAGING	MERCHANDISER	MERCHANDISER



7080-D2



7081-D2



7080-D2FLT



7081-D2FLT

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
XP CARBIDE CUTTER – 14 SAWS	**1,838.31**	7080-D2		
XP CARBIDE CUTTER – 14 SAWS	**1,838.31**	7080-D2FLT		
XP2 CARBIDE CUTTER– 14 SAWS			**2,589.02**	7081-D2
XP2 CARBIDE CUTTER– 14 SAWS			**2,589.02**	7081-D2FLT

MERCHANDISER CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	XP CUTTER 16MM	7080-16	XP2 CUTTER 16MM	7081-16
	XP CUTTER 18MM	7080-18	XP2 CUTTER 18MM	7081-18
	XP CUTTER 19MM	7080-19	XP2 CUTTER 19MM	7081-19
	XP CUTTER 20MM	7080-20	XP2 CUTTER 20MM	7081-20
	XP CUTTER 22MM	7080-22	XP2 CUTTER 22MM	7081-22
	XP CUTTER 25MM	7080-25	XP2 CUTTER 25MM	7081-25
	XP CUTTER 28MM	7080-28	XP2 CUTTER 28MM	7081-28
	XP CUTTER 30MM	7080-30	XP2 CUTTER 30MM	7081-30
	XP CUTTER 32MM	7080-32	XP2 CUTTER 32MM	7081-32
	XP CUTTER 35MM	7080-35	XP2 CUTTER 35MM	7081-35
	XP CUTTER 38MM	7080-38	XP2 CUTTER 38MM	7081-38
	XP CUTTER 50MM	7080-50	XP2 CUTTER 50MM	7081-50
	XP CUTTER 60MM	7080-60	XP2 CUTTER 60MM	7081-60
	XP CUTTER 65MM	7080-65	XP2 CUTTER 65MM	7081-65







GROUP	SMCC
TYPE	**XP & XP2**
TOOTH MATERIAL	**TUNGSTEN CARBIDE**
MANDREL	**BUILT-IN**
PACKAGING	MERCHANDISER



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
XP & XP2 CARBIDE CUTTER – 17 SAWS	**2,305.87**	7080-D3

MERCHANDISER CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	XP CUTTER 16MM	7080-16	XP2 CUTTER 16MM	7081-16
	XP CUTTER 19MM	7080-19	XP2 CUTTER 19MM	7081-19
	XP CUTTER 20MM	7080-20	XP2 CUTTER 20MM	7081-20
	XP CUTTER 22MM	7080-22	XP2 CUTTER 22MM	7081-22
	XP CUTTER 25MM	7080-25	XP2 CUTTER 25MM	7081-25
	XP CUTTER 30MM	7080-30	XP2 CUTTER 30MM	7081-30
	XP CUTTER 32MM	7080-32	XP2 CUTTER 32MM	7081-32
	XP CUTTER 38MM	7080-38	XP2 CUTTER 38MM	7081-38
			XP2 CUTTER 50MM	7081-50





MULTI-CUT GEOMETRY
SMOOTH AND FAST CUTTING

GROUP	ANLL	ANLR	ANLL	ANLL
DESCRIPTION	HSS ANNULAR CUTTER	HSS ANNULAR CUTTER	HSS ANNULAR CUTTER	HSS ANNULAR CUTTER
MATERIAL	HSS-M2 AL	HSS-M2 AL	HSS-M2 AL	HSS-M2 AL
CUTTING DEPTH	25.0MM	50.0MM	75.0MM	100.0MM
PACKAGING	HANG SELL	HANG SELL	HANG SELL	HANG SELL

HSS ANNULAR CUTTERS

Annular Cutters achieve burr-free finished holes without the need for pre-drilling or step drilling. Faster and more accurate than using standard HSS twist drills.

Bordo Annular Cutters are CNC ground and feature multi-cut geometry for smooth and fast cutting. The precision ground flutes run the entire length of the cutter providing efficient chip removal.

FEATURES

- Increased cutting speed.
- Reduced tooth load.
- Minimized tool wear.
- Extended tool life.
- Close tolerance drilling without runout.
- Reamed quality, burr free finished holes.
- Resharpenable.

Bordo Annular Cutters feature a 3/4" universal shank that suits most standard machines including Hougen®, Slugger®, Rotabroach®, Rotabest® and Nitto®.

Trademarks remain the property of their respective owners.

DIAMETER MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
12.00	1	48.52	7400-12X25	64.00	7400-12X50	–	–	–	–
13.00	1	48.52	7400-13X25	64.00	7400-13X50	–	–	–	–
14.00	1	50.80	7400-14X25	65.27	7400-14X50	–	–	–	–
15.00	1	50.80	7400-15X25	65.27	7400-15X50	–	–	–	–
16.00	1	52.68	7400-16X25	66.68	7400-16X50	–	–	–	–
17.00	1	52.68	7400-17X25	66.68	7400-17X50	–	–	–	–
18.00	1	55.67	7400-18X25	70.76	7400-18X50	111.25	7400-18X75	180.07	7400-18X100
19.00	1	55.67	7400-19X25	72.39	7400-19X50	111.25	7400-19X75	220.52	7400-19X100
20.00	1	60.64	7400-20X25	76.16	7400-20X50	115.99	7400-20X75	194.45	7400-20X100
21.00	1	61.58	7400-21X25	76.16	7400-21X50	118.75	7400-21X75	203.44	7400-21X100
22.00	1	69.17	7400-22X25	85.73	7400-22X50	123.42	7400-22X75	207.98	7400-22X100
23.00	1	71.34	7400-23X25	87.89	7400-23X50	125.74	7400-23X75	213.39	7400-23X100
24.00	1	73.57	7400-24X25	93.31	7400-24X50	137.59	7400-24X75	220.52	7400-24X100
25.00	1	74.65	7400-25X25	93.31	7400-25X50	139.09	7400-25X75	245.72	7400-25X100
26.00	1	77.91	7400-26X25	96.31	7400-26X50	145.26	7400-26X75	253.83	7400-26X100
27.00	1	77.91	7400-27X25	99.06	7400-27X50	149.54	7400-27X75	261.94	7400-27X100
28.00	1	83.58	7400-28X25	103.13	7400-28X50	155.92	7400-28X75	274.60	7400-28X100
29.00	1	85.44	7400-29X25	106.32	7400-29X50	166.23	7400-29X75	290.71	7400-29X100
30.00	1	86.64	7400-30X25	112.62	7400-30X50	176.72	7400-30X75	301.52	7400-30X100
31.00	1	92.23	7400-31X25	121.78	7400-31X50	188.01	7400-31X75	311.47	7400-31X100
32.00	1	94.99	7400-32X25	122.61	7400-32X50	199.54	7400-32X75	343.81	7400-32X100
33.00	1	99.58	7400-33X25	127.01	7400-33X50	211.07	7400-33X75	353.76	7400-33X100
34.00	1	104.32	7400-34X25	133.44	7400-34X50	220.84	7400-34X75	378.09	7400-34X100
35.00	1	106.05	7400-35X25	134.85	7400-35X50	229.68	7400-35X75	398.75	7400-35X100
36.00	1	112.62	7400-36X25	143.83	7400-36X50	237.73	7400-36X75	409.57	7400-36X100
37.00	1	116.70	7400-37X25	149.17	7400-37X50	245.61	7400-37X75	417.68	7400-37X100
38.00	1	121.53	7400-38X25	155.16	7400-38X50	255.79	7400-38X75	423.95	7400-38X100
39.00	1	125.36	7400-39X25	159.57	7400-39X50	260.94	7400-39X75	432.93	7400-39X100
40.00	1	129.43	7400-40X25	170.96	7400-40X50	268.61	7400-40X75	438.34	7400-40X100
41.00	1	139.10	7400-41X25	177.72	7400-41X50	276.99	7400-41X75	450.99	7400-41X100
42.00	1	142.42	7400-42X25	188.61	7400-42X50	285.35	7400-42X75	459.10	7400-42X100
43.00	1	151.41	7400-43X25	188.61	7400-43X50	293.73	7400-43X75	468.94	7400-43X100
44.00	1	164.88	7400-44X25	204.01	7400-44X50	302.10	7400-44X75	487.87	7400-44X100
45.00	1	165.20	7400-45X25	204.01	7400-45X50	310.46	7400-45X75	503.23	7400-45X100
46.00	1	171.95	7400-46X25	220.00	7400-46X50	318.84	7400-46X75	517.61	7400-46X100
47.00	1	176.67	7400-47X25	220.00	7400-47X50	327.21	7400-47X75	536.54	7400-47X100
48.00	1	181.87	7400-48X25	233.08	7400-48X50	335.57	7400-48X75	555.36	7400-48X100
49.00	1	186.71	7400-49X25	233.08	7400-49X50	343.95	7400-49X75	565.31	7400-49X100
50.00	1	198.04	7400-50X25	256.38	7400-50X50	352.32	7400-50X75	574.28	7400-50X100
51.00	1	203.87	7400-51X25	256.38	7400-51X50	–	–	584.23	7400-51X100
52.00	1	214.40	7400-52X25	269.94	7400-52X50	–	–	588.67	7400-52X100
53.00	1	–	–	–	–	–	–	606.72	7400-53X100
54.00	1	–	–	–	–	–	–	632.79	7400-54X100
55.00	1	–	–	282.18	7400-55X50	–	–	637.33	7400-55X100
56.00	1	–	–	–	–	–	–	663.39	7400-56X100
57.00	1	–	–	–	–	–	–	686.75	7400-57X100
58.00	1	–	–	–	–	–	–	705.68	7400-58X100
59.00	1	–	–	–	–	–	–	724.61	7400-59X100
60.00	1	–	–	–	–	–	–	746.24	7400-60X100



GROUP	ANLR	ANLR	ANLR	ANLR
DESCRIPTION	TCT RAIL CUTTER	TCT ANNULAR CUTTER	TCT ANNULAR CUTTER	TCT ANNULAR CUTTER
MATERIAL	TUNGSTEN CARBIDE	TUNGSTEN CARBIDE	TUNGSTEN CARBIDE	TUNGSTEN CARBIDE
CUTTING DEPTH	25.0MM	50.0MM	75.0MM	100.0MM
PACKAGING	HANG SELL	HANG SELL	HANG SELL	HANG SELL

DIAMETER MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
12.00	1	–	–	–	–	–	–	–	–
13.00	1	–	–	–	–	–	–	–	–
14.00	1	–	–	101.13	7402-14X50	–	–	–	–
15.00	1	–	–	101.39	7402-15X50	–	–	–	–
16.00	1	–	–	105.47	7402-16X50	–	–	–	–
17.00	1	–	–	109.46	7402-17X50	–	–	–	–
18.00	1	112.74	7402-18x25	111.52	7402-18X50	210.36	7402-18X75	239.66	7402-18X100
19.00	1	114.54	7402-19x25	114.49	7402-19X50	210.36	7402-19X75	239.66	7402-19X100
20.00	1	115.97	7402-20x25	118.47	7402-20X50	210.36	7402-20X75	239.66	7402-20X100
21.00	1	115.97	7402-21x25	120.42	7402-21X50	210.36	7402-21X75	239.66	7402-21X100
22.00	1	115.97	7402-22x25	121.34	7402-22X50	218.03	7402-22X75	244.18	7402-22X100
23.00	1	127.52	7402-23x25	121.34	7402-23X50	218.03	7402-23X75	244.18	7402-23X100
24.00	1	127.52	7402-24x25	127.51	7402-24X50	218.03	7402-24X75	248.19	7402-24X100
25.00	1	127.52	7402-25x25	137.19	7402-25X50	235.98	7402-25X75	261.72	7402-25X100
26.00	1	137.71	7402-26x25	137.19	7402-26X50	235.98	7402-26X75	275.25	7402-26X100
27.00	1	137.71	7402-27x25	138.66	7402-27X50	235.98	7402-27X75	288.76	7402-27X100
28.00	1	137.71	7402-28x25	138.66	7402-28X50	235.98	7402-28X75	288.76	7402-28X100
29.00	1	137.71	7402-29x25	157.58	7402-29X50	235.98	7402-29X75	293.63	7402-29X100
30.00	1	137.71	7402-30x25	157.58	7402-30X50	245.93	7402-30X75	293.63	7402-30X100
31.00	1	147.65	7402-31x25	171.50	7402-31X50	245.93	7402-31X75	293.63	7402-31X100
32.00	1	147.65	7402-32x25	171.50	7402-32X50	259.42	7402-32X75	293.63	7402-32X100
33.00	1	153.80	7402-33x25	180.51	7402-33X50	263.57	7402-33X75	307.15	7402-33X100
34.00	1	153.80	7402-34x25	180.51	7402-34X50	271.79	7402-34X75	309.85	7402-34X100
35.00	1	153.80	7402-35x25	193.21	7402-35X50	280.22	7402-35X75	309.85	7402-35X100
36.00	1	–	–	203.36	7402-36X50	290.55	7402-36X75	322.83	7402-36X100
37.00	1	–	–	203.36	7402-37X50	295.02	7402-37X75	322.83	7402-37X100
38.00	1	–	–	203.36	7402-38X50	297.01	7402-38X75	322.83	7402-38X100
39.00	1	–	–	203.36	7402-39X50	297.01	7402-39X75	322.83	7402-39X100
40.00	1	–	–	203.36	7402-40X50	297.01	7402-40X75	322.83	7402-40X100
41.00	1	–	–	246.80	7402-41X50	335.89	7402-41X75	331.27	7402-41X100
42.00	1	–	–	246.80	7402-42X50	335.89	7402-42X75	339.70	7402-42X100
43.00	1	–	–	246.80	7402-43X50	335.89	7402-43X75	348.14	7402-43X100
44.00	1	–	–	246.80	7402-44X50	341.36	7402-44X75	356.58	7402-44X100
45.00	1	–	–	246.80	7402-45X50	344.16	7402-45X75	365.01	7402-45X100
46.00	1	–	–	253.62	7402-46X50	349.84	7402-46X75	373.45	7402-46X100
47.00	1	–	–	253.62	7402-47X50	355.95	7402-47X75	381.88	7402-47X100
48.00	1	–	–	253.62	7402-48X50	361.65	7402-48X75	386.86	7402-48X100
49.00	1	–	–	253.62	7402-49X50	366.28	7402-49X75	391.83	7402-49X100
50.00	1	–	–	253.62	7402-50X50	371.22	7402-50X75	396.81	7402-50X100
51.00	1	–	–	266.29	7402-51X50	375.26	7402-51X75	401.78	7402-51X100
52.00	1	–	–	266.29	7402-52X50	377.60	7402-52X75	406.76	7402-52X100
53.00	1	–	–	–	–	377.60	7402-53X75	411.73	7402-53X100
54.00	1	–	–	–	–	377.60	7402-54X75	416.71	7402-54X100
55.00	1	–	–	266.29	7402-55X50	377.60	7402-55X75	421.68	7402-55X100
56.00	1	–	–	–	–	382.43	7402-56X75	426.66	7402-56X100
57.00	1	–	–	–	–	387.26	7402-57X75	434.23	7402-57X100
58.00	1	–	–	–	–	392.10	7402-58X75	439.20	7402-58X100
59.00	1	–	–	281.30	7402-59X50	396.93	7402-59X75	455.42	7402-59X100
60.00	1	–	–	281.30	7402-60X50	401.76	7402-60X75	471.65	7402-60X100

HSS ANNULAR CUTTER PINS

Annular Cutter Pins perform three functions:

Centering
The pilot pin accurately centres the cutter over the area to be drilled.

Cutting Lubricant
During drilling, the pilot pin retracts and allows internal coolant to reach the cutting teeth.

Slug Ejection
When hole cutting is complete, the slug is automatically ejected from the cutter.

PINS SOLD SEPARATELY

See next page.





PINS TO SUIT
HSS CUTTERS

HSS ANNULAR CUTTER PINS

Annular Cutter Pins perform three functions:

Centering
The pilot pin accurately centres the cutter over the area to be drilled.

Cutting Lubricant
During drilling, the pilot pin retracts and allows internal coolant to reach the cutting teeth.

Slug Ejection
When hole cutting is complete, the slug is automatically ejected from the cutter.

GROUP	ANLR	ANLR	ANLR	ANLR
TO SUIT	**HSS ANNULAR CUTTER**	**HSS ANNULAR CUTTER**	**HSS ANNULAR CUTTER**	**HSS ANNULAR CUTTER**
CUTTER DEPTH	**25.0MM**	**50.0MM**	**75.0MM**	**100.0MM**
PACKAGING	BULK & HANG SELL	BULK & HANG SELL	BULK	BULK

ANNULAR CUTTER PINS	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
77MM – BULK	**6.73**	7400-1/4X77	**–**	–	**–**	–	**–**	–
77MM – CLAM SHELL	**7.96**	7400-1/4X77S	**–**	–	**–**	–	**–**	–
103MM – BULK	**–**	–	**8.95**	7400-1/4X103	**–**	–	**–**	–
103MM – CLAM SHELL	**–**	–	**10.19**	7400-1/4X103S	**–**	–	**–**	–
130MM – BULK	**–**	–	**–**	–	**12.05**	7400-8X130	**–**	–
160MM – BULK	**–**	–	**–**	–	**–**	–	**14.33**	7400-8X160

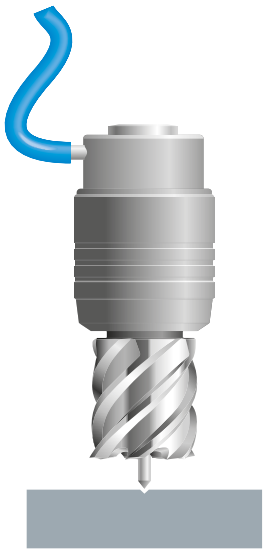




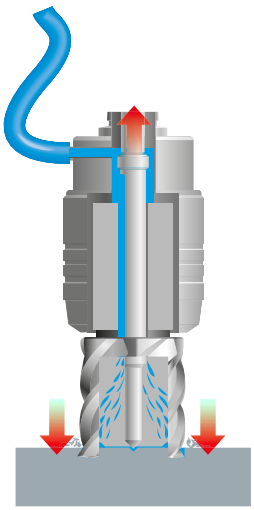
PINS TO SUIT
TCT CUTTERS

GROUP	ANLR	ANLR	ANLR	ANLR
TO SUIT	**TCT RAIL CUTTER**	**TCT ANNULAR CUTTER**	**TCT ANNULAR CUTTER**	**TCT ANNULAR CUTTER**
CUTTER DEPTH	**25.0MM**	**50.0MM**	**75.0MM**	**100.0MM**
PACKAGING	BULK	BULK	BULK	BULK

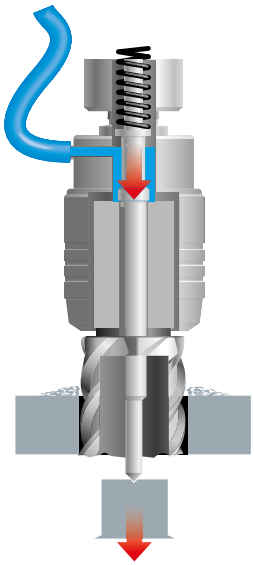
ANNULAR CUTTER PINS	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
77MM – BULK	**12.05**	7402-8X77	**–**	–	**–**	–	**–**	–
108MM – BULK	**–**	–	**12.11**	7400-8X108	**–**	–	**–**	–
130MM – BULK	**–**	–	**–**	–	**12.05**	7400-8X130	**–**	–
160MM – BULK	**–**	–	**–**	–	**–**	–	**14.33**	7400-8X160



Pin helps to centre cutter.



Retraction of pin allows cutting lubricant to flow to cutting edge.



Pin ejects plug from cutter.





GROUP	ANLL
DESCRIPTION	ANNULAR CUTTER ACCESSORIES
SHANK	3/4" WITH TWO FLATS
PACKAGING	HANG SELL

34MM FLUTE LENGTH

HSS DRILL – UNIVERSAL SHANK	$ EACH	PART NUMBER
6.00MM – HSS 118° SPLIT POINT	40.24	7404-6
8.00MM – HSS 118° SPLIT POINT	43.87	7404-8
10.00MM – HSS 118° SPLIT POINT	44.94	7404-10
12.00MM – HSS 118° SPLIT POINT	50.61	7404-12
16.00MM – HSS 118° SPLIT POINT	59.96	7404-16

HSS COUNTERSINK – UNIVERSAL SHANK	$ EACH	PART NUMBER
30MM 90° 3 FLUTE HSS COUNTERSINK	109.78	7405-30
40MM 90° 3 FLUTE HSS COUNTERSINK	146.55	7405-40
55MM 90° 3 FLUTE HSS COUNTERSINK	243.99	7405-55





GROUP	ANLL
DESCRIPTION	ANNULAR CUTTER ACCESSORIES
SHANK	UNIVERSAL
PACKAGING	HANG SELL

ADAPTORS AND EXTENSIONS	$ EACH	PART NUMBER
ADAPTOR 3/4" UNIVERSAL MALE TO 1/2-20 MALE	32.05	7400-A3/4U-1/2
ADAPTOR 3/4" UNIVERSAL MALE TO 3/4" WELDON FEMALE 6MM PIN	35.69	7400-A3/4U-3/4W6
ADAPTOR 3/4" UNIVERSAL MALE TO 3/4" WELDON FEMALE 8MM PIN	35.69	7400-A3/4U-3/4W8
50MM EXTENSION 3/4" UNIVERSAL	37.32	7400-EXTX50
75MM EXTENSION 3/4" UNIVERSAL	42.44	7400-EXTX75
100MM EXTENSION 3/4" UNIVERSAL	50.81	7400-EXTX100

GROUP	ANLR
DESCRIPTION	ANNULAR CUTTER ACCESSORIES
PACKAGING	HANG SELL



ACCESSORY	$ EACH	PART NUMBER
DRILL CHUCK	61.73	7400-DRILLCHUCK





MULTI-CUT GEOMETRY
SMOOTH AND FAST CUTTING

GROUP	ANLR	ANLR
TYPE	**HSS ANNULAR CUTTER**	**HSS ANNULAR CUTTER**
MATERIAL	**HSS-M2 AL**	**HSS-M2 AL**
CUTTING DEPTH	**25.0MM**	**50.0MM**
PACKAGING	BLOW MOULDED SET BOX	BLOW MOULDED SET BOX





SET TYPE	$ SET	PART NUMBER	$ SET	PART NUMBER
25MM ANNULAR CUTTER SET – 7 PCE	**373.60**	7400-S1X25	**–**	–
50MM ANNULAR CUTTER SET – 7 PCE	**–**	–	**469.86**	7400-S1X50

SET CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	HSS ANNULAR CUTTER 25MM	7400-14X25	HSS ANNULAR CUTTER 25MM	7400-14X50
	HSS ANNULAR CUTTER 16MM	7400-16X25	HSS ANNULAR CUTTER 16MM	7400-16X50
	HSS ANNULAR CUTTER 18MM	7400-18X25	HSS ANNULAR CUTTER 18MM	7400-18X50
	HSS ANNULAR CUTTER 20MM	7400-20X25	HSS ANNULAR CUTTER 20MM	7400-20X50
	HSS ANNULAR CUTTER 22MM	7400-22X25	HSS ANNULAR CUTTER 22MM	7400-22X50
	HSS ANNULAR CUTTER 26MM	7400-26X25	HSS ANNULAR CUTTER 26MM	7400-26X50
	PIN TO SUIT 25MM DEEP CUTTERS	7400-1/4X77	PIN TO SUIT 50MM DEEP CUTTERS	7400-1/4X103

HSS ANNULAR CUTTERS

Annular Cutters achieve burr-free finished holes without the need for pre-drilling or step drilling. Faster and more accurate than using standard HSS twist drills.

Bordo Annular Cutters are CNC ground and feature multi-cut geometry for smooth and fast cutting. The precision ground flutes run the entire length of the cutter providing efficient chip removal.

FEATURES

- Increased cutting speed.
- Reduced tooth load.
- Minimized tool wear.
- Extended tool life.
- Close tolerance drilling without runout.
- Reamed quality, burr free finished holes.
- Resharpenable.

Bordo Annular Cutters feature a 3/4" universal shank that suits most standard machines including Hougen®, Slugger®, Rotabroach®, Rotabest® and Nitto®.

Trademarks remain the property of their respective owners.



GROUP	ANLR
MATERIAL	**HSS-M2 AL**
CUTTING DEPTH	25.0MM & 50.0MM
PACKAGING	BENCH AND HANG SELL MERCHANDISERS







MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
LARGE BENCH MERCH – 24 CUTTERS	**1,890.35**	7400-D2				
SMALL BENCH MERCH – 18 CUTTERS			**1,489.92**	7400-D3		
HANG SELL MERCH – 18 CUTTERS					**1,502.27**	7400-D1

MERCHANDISER CONTENTS	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION	PART NUMBER
	12MM X 25MM	7400-12X25	14MM X 25MM	7400-14X25	14MM X 25MM	7400-14X25
	13MM X 25MM	7400-13X25	16MM X 25MM	7400-16X25	16MM X 25MM	7400-16X25
	14MM X 25MM	7400-14X25	18MM X 25MM	7400-18X25	18MM X 25MM	7400-18X25
	16MM X 25MM	7400-16X25	20MM X 25MM	7400-20X25	20MM X 25MM	7400-20X25
	17MM X 25MM	7400-17X25	22MM X 25MM	7400-22X25	22MM X 25MM	7400-22X25
	18MM X 25MM	7400-18X25	24MM X 25MM	7400-24X25	24MM X 25MM	7400-24X25
	20MM X 25MM	7400-20X25	26MM X 25MM	7400-26X25	26MM X 25MM	7400-26X25
	22MM X 25MM	7400-22X25	30MM X 25MM	7400-30X25	30MM X 25MM	7400-30X25
	24MM X 25MM	7400-24X25	32MM X 25MM	7400-32X25	32MM X 25MM	7400-32X25
	26MM X 25MM	7400-26X25	14MM X 50MM	7400-14X50	14MM X 50MM	7400-14X50
	28MM X 25MM	7400-28X25	16MM X 50MM	7400-16X50	16MM X 50MM	7400-16X50
	30MM X 25MM	7400-30X25	18MM X 50MM	7400-18X50	18MM X 50MM	7400-18X50
	32MM X 25MM	7400-32X25	20MM X 50MM	7400-20X50	20MM X 50MM	7400-20X50
	12MM X 50MM	7400-12X50	22MM X 50MM	7400-22X50	22MM X 50MM	7400-22X50
	14MM X 50MM	7400-14X50	24MM X 50MM	7400-24X50	24MM X 50MM	7400-24X50
	16MM X 50MM	7400-16X50	26MM X 50MM	7400-26X50	26MM X 50MM	7400-26X50
	18MM X 50MM	7400-18X50	30MM X 50MM	7400-30X50	30MM X 50MM	7400-30X50
	20MM X 50MM	7400-20X50	32MM X 50MM	7400-32X50	32MM X 50MM	7400-32X50
	22MM X 50MM	7400-22X50	5 X PINS 103MM	7400-1/4X103	5 X PINS 103MM	7400-1/4X103S
	24MM X 50MM	7400-24X50	5 X PINS 77MM	7400-1/4X77	5 X PINS 77MM	7400-1/4X77S
	26MM X 50MM	7400-26X50				
	28MM X 50MM	7400-28X50				
	30MM X 50MM	7400-30X50				
	32MM X 50MM	7400-32X50				
	5 X PINS 103MM	7400-1/4X103				
	5 X PINS 77MM	7400-1/4X77				

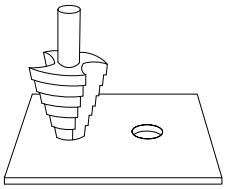




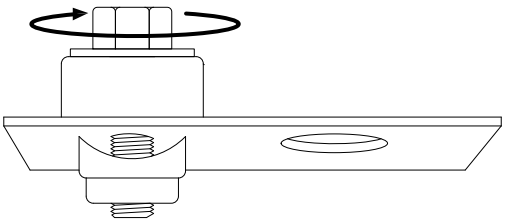




GROUP	SCWP
MATERIAL	**CHROME ALLOY STEEL**
CAPACITY - PLASTIC	8.0MM
CAPACITY - MILD STEEL	3.0MM
CAPACITY - STAINLESS STEEL	1.5MM
PACKAGING	CLAM SHELL







SCREW (CHASSIS) PUNCH

A screw punch, also known as a chassis punch or a knockout punch, is used to punch a hole through sheet metal.

USAGE

First drill a pilot hole in the sheet metal the same size as the bolt in the punch. For sizes 13mm and under a jobber drill may be used. For larger sizes use a Bordo step drill.

Place the die on to the bolt and then insert this assembly through the pilot hole. Wind the punch onto the bolt and tighten by hand until firm. Turn hex head of bolt with a socket, spanner or wrench until the punch is drawn completely through the sheet metal.

DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
12.70	1/2	1	**59.24**	7086-12.7
16.00	5/8	1	**59.24**	7086-16.0
19.00	3/4	1	**65.68**	7086-19.0
20.00	–	1	**65.68**	7086-20.0
22.00	7/8	1	**72.10**	7086-22.0
22.50	–	1	**72.10**	7086-22.5
25.00	–	1	**72.10**	7086-25.0
25.40	1	1	**72.10**	7086-25.4
28.30	–	1	**72.10**	7086-28.3
30.00	–	1	**81.12**	7086-30.0
32.00	1-1/4	1	**81.12**	7086-32.0
32.50	–	1	**81.12**	7086-32.5
35.00	1-3/8	1	**99.15**	7086-35.0
38.00	1-1/2	1	**99.15**	7086-38.0
40.00	–	1	**122.34**	7086-40.0
45.00	–	1	**141.65**	7086-45.0
48.00	1-7/8	1	**148.10**	7086-48.0
50.00	–	1	**160.97**	7086-50.0
51.00	2	1	**160.97**	7086-51.0

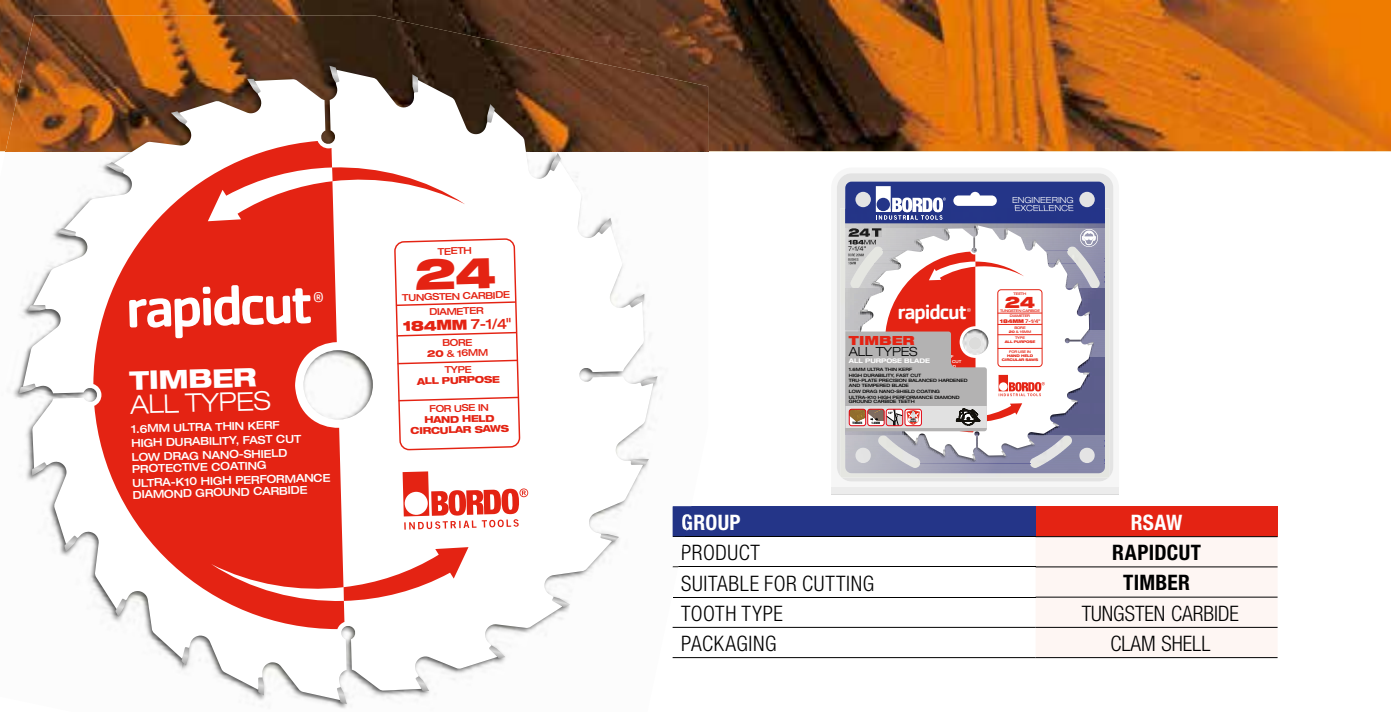
MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
CHASSIS PUNCH – 6 PUNCHES	**693.50**	7086-D1



MERCHANDISER CONTENTS	DESCRIPTION	PART NUMBER
	PUNCH 20MM	7086-20.0
	PUNCH 22.5MM	7086-22.5
	PUNCH 25MM	7086-25.0
	PUNCH 32.5MM	7086-32.5
	PUNCH 40MM	7086-40.0
	PUNCH 50MM	7086-50.0
	M2 STEP DRILL	2602-M2



tradecut®	TIMBER – ALL TYPES, GENERAL PURPOSE, COMPETITIVE PRICE POINT.
rapidcut®	TIMBER – ALL TYPES, THIN KERF, FAST CUT.
rapidcut®	FIBRE CEMENT SHEET, TCT, LONG LIFE.
opticut®	TIMBER, THIN KERF, PRECISION PLATE, PREMIUM QUALITY TABLE SAW BLADES.
multicut®	TITANIUM CARBIDE, MULTIPLE MATERIALS, EXTREME PERFORMANCE.
alucut®	IDEAL FOR ALUMINIUM AND NON-FERROUS METALS.
enduro® diamond PCD	POLYCRYSTALLINE DIAMOND FOR FIBRE CEMENT SHEET – EXTREME BLADE LIFE.



GROUP	RSAW
PRODUCT	**RAPIDCUT**
SUITABLE FOR CUTTING	**TIMBER**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	CLAM SHELL

rapidcut

High performance, ultra thin kerf timber blades from 140mm to 305mm.

Nano-shield coating reduces friction for reducing saw load, resists gumming keeping blade cooler and extending blade life, protects blade from corrosion.

Tru-plate fully hardened and tempered steel body is precision balanced to run truer.

Ultra K-10 high density, high performance diamond ground carbide teeth for extreme durability and cutting life.

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
140	**5-1/2**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
140	5-1/2	18	1.5	1.0	20	16, 10	FRAMING, RIPPING & CROSS CUTTING	1	**29.60**	7452-14018
140	5-1/2	24	1.5	1.0	20	16, 10	ALL PURPOSE	1	**30.41**	7452-14024
160	**6-1/4**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
160	6-1/4	20	1.6	1.0	20	16	FRAMING, RIPPING & CROSS CUTTING	1	**36.42**	7452-16020
160	6-1/4	40	1.6	1.0	20	16	ALL PURPOSE	1	**40.48**	7452-16040
160	6-1/4	60	1.6	1.0	20	16	FINE CUT	1	**44.54**	7452-16060
184	**7-1/4**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
184	7-1/4	16	1.6	1.0	20	16	FRAMING, RIPPING & CROSS CUTTING	1	**32.25**	7452-18416
184	7-1/4	20	1.6	1.0	20	16	FRAMING, RIPPING & CROSS CUTTING	1	**34.55**	7452-18420
184	7-1/4	24	1.6	1.0	20	16	ALL PURPOSE	1	**35.81**	7452-18424
184	7-1/4	40	1.6	1.0	20	16	ALL PURPOSE	1	**43.20**	7452-18440
184	7-1/4	60	1.6	1.0	20	16	FINE CUT	1	**47.26**	7452-18460
210	**8-1/4**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
210	8-1/4	24	1.7	1.2	25	16	FRAMING, RIPPING & CROSS CUTTING	1	**53.15**	7452-21024
210	8-1/4	40	1.7	1.2	25	16	ALL PURPOSE	1	**62.88**	7452-21040
210	8-1/4	60	1.7	1.2	25	16	FINE CUT	1	**68.58**	7452-21060
235	**9-1/4**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
235	9-1/4	20	1.9	1.4	25	16	FRAMING, RIPPING & CROSS CUTTING	1	**68.91**	7452-23520
235	9-1/4	40	1.9	1.4	25	16	ALL PURPOSE	1	**77.85**	7452-23540
235	9-1/4	60	1.9	1.4	25	16	FINE CUT	1	**81.09**	7452-23560
254	**10**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
254	10	24	2.0	1.5	30	1", 25, 16	FRAMING, RIPPING & CROSS CUTTING	1	**76.14**	7452-25424
254	10	40	2.0	1.5	30	1", 25, 16	ALL PURPOSE	1	**83.44**	7452-25440
254	10	60	2.0	1.5	30	1", 25, 16	FINE CUT	1	**94.00**	7452-25460
254	10	80	2.0	1.5	30	1", 25, 16	FINE CUT, TRIM/FINISH	1	**99.68**	7452-25480
305	**12**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
305	12	40	2.2	1.7	30	1", 25, 16	FRAMING, RIPPING & CROSS CUTTING	1	**108.44**	7452-30540
305	12	60	2.2	1.7	30	1", 25, 16	ALL PURPOSE	1	**123.06**	7452-30560
305	12	100	2.2	1.7	30	1", 25, 16	FINE CUT, TRIM/FINISH	1	**133.20**	7452-305100





GROUP	RSAW
PRODUCT	**RAPIDCUT**
SUITABLE FOR CUTTING	**TIMBER**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	CLAM SHELL

NEW PRODUCT MERCHANDISERS PAGES 206-208

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
184	**7-1/4**	**RAPIDCUT**								
184	7-1/4	24 X 2	1.6	1.0	20	16	**TWIN PACK**	1	**68.04**	7452-184S2
							7452-18424 ALL PURPOSE BLADES X 2			
184	7-1/4	16/24	1.6	1.0	20	16	**MULTI PACK** - 2 BLADES	1	**64.65**	7452-184S1
							7452-18416 FRAMING, RIPPING, CROSS CUT			
							7452-18424 ALL PURPOSE			
184	7-1/4	40/60	1.6	1.0	20	16	**MULTI PACK** - 2 BLADES	1	**85.93**	7452-184S4
							7452-18440 ALL PURPOSE			
							7452-18460 FINE CUT			
184	7-1/4	16/24/40	1.6	1.0	20	16	**MULTI PACK** - 3 BLADES	1	**98.61**	7452-184S3
							7452-18416 FRAMING, RIPPING, CROSS CUT			
							7452-18424 ALL PURPOSE			
							7452-18440 ALL PURPOSE			
184	7-1/4	16/24/40/60	1.6	1.0	20	16	**MULTI PACK** - 4 BLADES	1	**137.57**	7452-184S5
							7452-18416 FRAMING, RIPPING, CROSS CUT			
							7452-18424 ALL PURPOSE			
							7452-18440 ALL PURPOSE			
							7452-18460 FINE CUT			

rapidcut

High performance, ultra thin kerf timber blades from 140mm to 305mm.

Nano-shield coating reduces friction for reducing saw load, resists gumming keeping blade cooler and extending blade life, protects blade from corrosion.

Tru-plate fully hardened and tempered steel body is precision balanced to run truer.

Ultra K-10 high density, high performance diamond ground carbide teeth for extreme durability and cutting life.



GROUP	RSAW
PRODUCT	**RAPIDCUT**
SUITABLE FOR CUTTING	**TIMBER**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	10 PIECE DISPLAY BOX

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	BOX QTY	$ BOX	PART NUMBER
–	**–**	**RAPIDCUT** THIN KERF BLADE. TIMBER – ALL TYPES								
160	6-1/4	20	1.6	1.0	20	16	FRAMING, RIPPING & CROSS CUTTING	10	**338.75**	7452-16020T
184	7-1/4	24	1.6	1.0	20	16	ALL PURPOSE	10	**332.99**	7452-18424T
184	7-1/4	40	1.6	1.0	20	16	ALL PURPOSE	10	**401.73**	7452-18440T
235	9-1/4	20	1.9	1.4	25	16	FRAMING, RIPPING & CROSS CUTTING	10	**640.88**	7452-23520T

NEW PRODUCT





GROUP	TSAW
PRODUCT	**TRADECUT**
SUITABLE FOR CUTTING	**TIMBER**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	CLAM SHELL

tradecut

High performance, tungsten carbide tipped timber blades from 160mm to 305mm.

Heavy duty anti-kickback tooth shoulders provide optimum support to the cutting tips ensuring maximum performance, extended blade life and safer cutting.

Fully hardened and tempered steel body resists warping even in the most demanding applications.

High performance diamond ground carbide teeth for improved cutting efficiency.

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
160	**6-1/4**	**TRADECUT** TCT BLADE. TIMBER – ALL TYPES								
160	6-1/4	24	2.5	1.5	20	19, 16	FRAMING, RIPPING & CROSS CUTTING	1	**13.91**	7451-16024
160	6-1/4	40	2.5	1.5	20	19, 16	ALL PURPOSE	1	**17.85**	7451-16040
184	**7-1/4**	**TRADECUT** TCT BLADE. TIMBER – ALL TYPES								
184	7-1/4	16	2.5	1.5	20	16	FRAMING, RIPPING & CROSS CUTTING	1	**17.00**	7451-18416
184	7-1/4	24	2.5	1.5	20	16	ALL PURPOSE	1	**17.23**	7451-18424
184	7-1/4	40	2.5	1.5	20	16	ALL PURPOSE	1	**20.24**	7451-18440
184	7-1/4	60	2.5	1.5	20	16	FINE CUT	1	**24.01**	7451-18460
210	**8-1/4**	**TRADECUT** TCT BLADE. TIMBER – ALL TYPES								
210	8-1/4	24	2.5	1.5	30	25, 20, 16	FRAMING, RIPPING & CROSS CUTTING	1	**22.39**	7451-21024
210	8-1/4	40	2.5	1.5	30	25, 20, 16	ALL PURPOSE	1	**25.41**	7451-21040
210	8-1/4	60	2.5	1.5	30	25, 20, 16	FINE CUT	1	**29.59**	7451-21060
235	**9-1/4**	**TRADECUT** TCT BLADE. TIMBER – ALL TYPES								
235	9-1/4	20	2.8	1.8	25	20, 16	FRAMING, RIPPING & CROSS CUTTING	1	**28.75**	7451-23520
235	9-1/4	40	2.8	1.8	25	20, 16	ALL PURPOSE	1	**30.88**	7451-23540
235	9-1/4	60	2.8	1.8	25	20, 16	FINE CUT	1	**35.53**	7451-23560
254	**10**	**TRADECUT** TCT BLADE. TIMBER – ALL TYPES								
254	10	40	2.8	1.8	30	1", 25, 16	ALL PURPOSE	1	**34.46**	7451-25440
254	10	60	2.8	1.8	30	1", 25, 16	FINE CUT	1	**38.98**	7451-25460
254	10	80	2.8	1.8	30	1", 25, 16	FINE CUT, TRIM/FINISH	1	**44.25**	7451-25480
254	10	100	2.8	1.8	30	1", 25, 16	FINE CUT, TRIM/FINISH	1	**48.77**	7451-254100
305	**12**	**TRADECUT** TCT BLADE. TIMBER – ALL TYPES								
305	12	60	3.2	2.2	30	1", 25, 16	FRAMING, RIPPING & CROSS CUTTING	1	**58.62**	7451-30560
305	12	80	3.2	2.2	30	1", 25, 16	ALL PURPOSE	1	**64.65**	7451-30580
305	12	100	3.2	2.2	30	1", 25, 16	FINE CUT, TRIM/FINISH	1	**70.67**	7451-305100





GROUP	TSAW
PRODUCT	**TRADECUT**
SUITABLE FOR CUTTING	**TIMBER**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	CLAM SHELL

NEW PRODUCT

NEW PRODUCT MERCHANDISERS PAGES 206-208

tradecut

High performance, tungsten carbide tipped timber blades from 160mm to 305mm.

Heavy duty anti-kickback tooth shoulders provide optimum support to the cutting tips ensuring maximum performance, extended blade life and safer cutting.

Fully hardened and tempered steel body resists warping even in the most demanding applications.

High performance diamond ground carbide teeth for improved cutting efficiency.

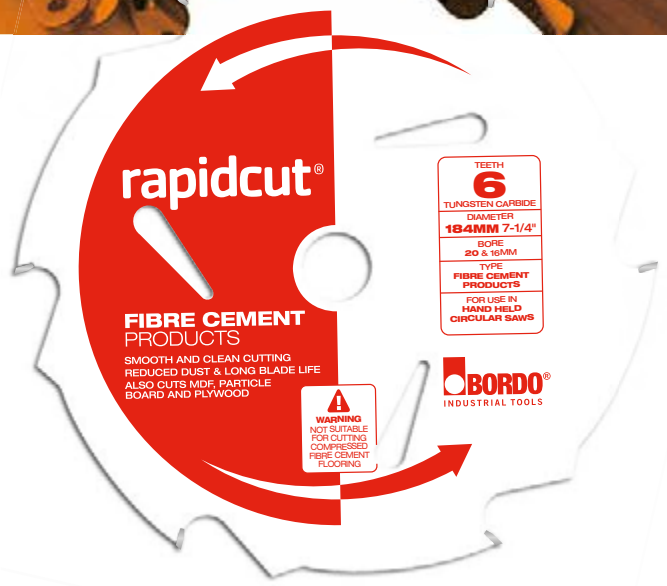
DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
184	**7-1/4**	**TRADECUT MULTI PACKS** TCT BLADE. TIMBER – ALL TYPES								
184	7-1/4	24/40	1.6	1.0	20	16	**MULTI PACK** - 2 BLADES	1	**62.08**	7451-184S2
							7451-18424 ALL PURPOSE			
							7451-18440 ALL PURPOSE			
184	7-1/4	16/24/40	1.6	1.0	20	16	**MULTI PACK** - 3 BLADES	1	**76.77**	7451-184S1
							7451-18416 FRAMING, RIPPING, CROSS CUT			
							7451-18424 ALL PURPOSE			
							7451-18440 ALL PURPOSE			

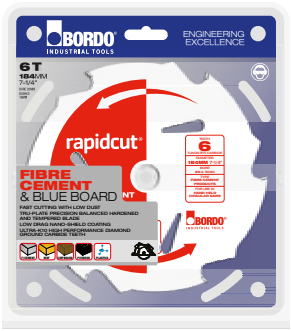


GROUP	TSAW
PRODUCT	**TRADECUT**
SUITABLE FOR CUTTING	**TIMBER**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	10 PIECE DISPLAY BOX

NEW PRODUCT

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	BOX QTY	$ BOX	PART NUMBER
–	–	**TRADECUT BULK DISPLAY BOXES** TCT BLADE. TIMBER – ALL TYPES								
160	6-1/4	24	2.5	1.5	20	19, 16	FRAMING, RIPPING & CROSS CUTTING	10	**115.65**	7451-16024T
160	6-1/4	40	2.5	1.5	20	19, 16	ALL PURPOSE	10	**148.80**	7451-16040T
184	7-1/4	24	2.5	1.5	20	16	ALL PURPOSE	10	**141.64**	7451-18424T
184	7-1/4	40	2.5	1.5	20	16	ALL PURPOSE	10	**171.78**	7451-18440T
235	9-1/4	20	2.8	1.8	25	20, 16	FRAMING, RIPPING & CROSS CUTTING	10	**232.10**	7451-23520T
235	9-1/4	40	2.8	1.8	25	20, 16	ALL PURPOSE	10	**256.16**	7451-23540T





GROUP	RSAW
PRODUCT	**RAPIDCUT**
SUITABLE FOR CUTTING	**CEMENT SHEET**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	CLAM SHELL

rapidcut cement sheet

High speed, low dust cutting in fibre cement and blue board. Available in 184mm.

Thin kerf design combined with a low tooth count ensures high speed cutting and reduced dust compared with continuous rim diamond blades.

Anti-kick back shoulders for extended blade life and safer cutting.

Designed to cut fibre cement sheet products as well as plasterboard, MDF, chipboard, plywood and plastic.

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
184	**7-1/4**	**RAPIDCUT** THIN KERF BLADE. FIBRE CEMENT SHEET AND COMPOSITE TIMBER								
184	7-1/4	6	2.1	1.2	20	16	FIBRE CEMENT SHEET, BLUE BOARD, MDF, PARTICLE BOARD AND PLYWOOD	1	**42.80**	7456-1846





GROUP	OSAW
PRODUCT	**OPTICUT**
SUITABLE FOR CUTTING	**TIMBER**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	CLAM SHELL

opticut

Optimum cutting thin kerf timber blades in 254mm and 305mm.

Thin kerf for fast, effortless cuts with reduced stock wastage.

High performance tooth geometries produce crisp, smooth cuts both with and across the grain, low feed resistance.

Tru-plate fully hardened and tempered steel body is precision balanced to run truer.

Ultra K-10 high density, high performance diamond ground carbide teeth for extreme durability and cutting life.

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
254	**10**	**OPTICUT** PRECISION THIN KERF BLADE. TIMBER – ALL TYPES								
254	10	24	2.4	1.8	30	1", 25, 16	FRAMING, RIPPING & CROSS CUTTING	1	**83.61**	7453-25424
254	10	40	2.4	1.8	30	1", 25, 16	ALL PURPOSE	1	**100.66**	7453-25440
254	10	60	2.4	1.8	30	1", 25, 16	FINE CUT	1	**116.76**	7453-25460
254	10	80	2.4	1.8	30	1", 25, 16	FINE CUT, TRIM/FINISH	1	**132.86**	7453-25480
305	**12**	**OPTICUT** PRECISION THIN KERF BLADE. TIMBER – ALL TYPES								
305	12	40	2.4	1.8	30	1", 25, 16	FRAMING, RIPPING & CROSS CUTTING	1	**160.14**	7453-30540
305	12	72	2.4	1.8	30	1", 25, 16	ALL PURPOSE	1	**190.45**	7453-30572
305	12	80	2.4	1.8	30	1", 25, 16	FINE CUT, TRIM/FINISH	1	**195.18**	7453-30580





GROUP	MSAW
PRODUCT	**MULTICUT**
SUITABLE FOR CUTTING	**MULTIPLE MATERIALS**
TOOTH TYPE	TITANIUM CARBIDE
PACKAGING	CLAM SHELL

NEW PRODUCT MERCHANDISERS PAGES 206-208

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
103	4	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
103	4	20	1.8	1.2	16	–	TIMBER, STEEL & ALUMINIUM	1	**44.35**	7450-10320
115	4-1/2	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
115	4-1/2	20	1.8	1.2	22.2	–	TIMBER, STEEL & ALUMINIUM	1	**51.72**	7450-11520
127	5	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
127	5	20	1.8	1.2	22.2	–	TIMBER, STEEL & ALUMINIUM	1	**51.26**	7450-12720
135	5-1/2	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
135	5-1/2	30	1.8	1.2	20	16, 10	TIMBER, STEEL & ALUMINIUM	1	**71.13**	7450-13530
160	6-1/4	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
160	6-1/4	30	1.8	1.4	20	16	TIMBER, STEEL & ALUMINIUM	1	**87.44**	7450-16030
184	7-1/4	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
184	7-1/4	36	1.8	1.4	20	16	TIMBER, STEEL & ALUMINIUM	1	**133.27**	7450-18436
184	7-1/4	60	1.8	1.4	20	16	TIMBER, STEEL & ALUMINIUM	1	**173.29**	7450-18460
210	8-1/4	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
210	8-1/4	40	1.8	1.4	25	16	TIMBER, STEEL & ALUMINIUM	1	**177.07**	7450-21040
230	9	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
230	9	48	1.8	1.4	25	22.2, 20, 16	TIMBER, STEEL & ALUMINIUM	1	**181.04**	7450-23048
230	9	60	1.8	1.4	25	22.2, 20, 16	TIMBER, STEEL & ALUMINIUM	1	**199.02**	7450-23060
250	10	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
250	10	60	1.8	1.4	30	1", 25, 16	TIMBER, STEEL & ALUMINIUM	1	**202.06**	7450-25060
300	12	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
300	12	60	2.2	1.8	30	1", 25, 16	TIMBER, STEEL & ALUMINIUM	1	**269.93**	7450-30060
355	14	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
355	14	80	2.4	2.0	30	1", 25, 16	TIMBER, STEEL & ALUMINIUM	1	**384.99**	7450-35580

multicut

Fast clean cuts in timber, ferrous and non-ferrous metals, plastic, plaster and fibreglass from 103mm to 355mm.

Titanium carbide metal cutting teeth provide long blade life in the most demanding applications.

Heavy duty anti-kick back tooth shoulders provide optimum support to the cutting tips ensuring maximum performance, extended blade life and safer cutting.

Cool cutting with no heat, no burrs or dust and minimal sparks when cutting metal.



GROUP	OSAW
PRODUCT	**MULTICUT**
SUITABLE FOR CUTTING	**MULTIPLE MATERIALS**
TOOTH TYPE	TITANIUM CARBIDE
PACKAGING	10 PIECE DISPLAY BOX

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	BOX QTY	$ BOX	PART NUMBER
127	5	**MULTICUT** TIMBER, STEEL, ALUMINIUM – FERROUS & NON-FERROUS METALS, PLASTIC, TIMBER, PLASTER & FIBREGLASS								
127	5	20	1.8	1.2	22.2	–	TIMBER, STEEL & ALUMINIUM	10	**476.73**	7450-12720T





GROUP	ASAW
PRODUCT	**ALUCUT**
SUITABLE FOR CUTTING	**NON-FERROUS METAL**
TOOTH TYPE	TUNGSTEN CARBIDE
PACKAGING	CLAM SHELL

alucut

Fast clean cuts in aluminium and non-ferrous metals including copper, brass, plastic and timber from 160mm to 355mm.

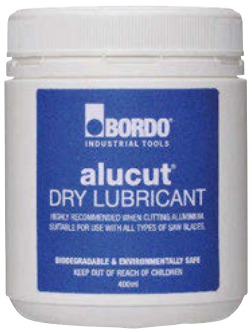
Triple chip tungsten carbide teeth for high performance smooth cutting.

Heavy duty thick steel plate hardened and tempered to ensure accurate cuts.

Smooth and fast cutting with solid stock in stationary and semi-stationary saws.

Negative rake angle eliminates self-feeding and reduces blade grab.

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
160	**6-1/4**	**ALUCUT** ALUMINIUM CUTTING – NON-FERROUS METALS INCLUDING COPPER & BRASS, PLASTIC AND TIMBER								
160	6-1/4	60	2.0	1.4	20	16	ALUMINIUM & NON-FERROUS METALS	1	**65.51**	7454-16060
184	**7-1/4**	**ALUCUT** ALUMINIUM CUTTING – NON-FERROUS METALS INCLUDING COPPER & BRASS, PLASTIC AND TIMBER								
184	7-1/4	60	2.2	1.6	20	16	ALUMINIUM & NON-FERROUS METALS	1	**81.01**	7454-18460
216	**8-1/2**	**ALUCUT** ALUMINIUM CUTTING – NON-FERROUS METALS INCLUDING COPPER & BRASS, PLASTIC AND TIMBER								
216	8-1/2	80	2.2	1.6	30	25, 16	ALUMINIUM & NON-FERROUS METALS	1	**118.54**	7454-21680
235	**9-1/4**	**ALUCUT** ALUMINIUM CUTTING – NON-FERROUS METALS INCLUDING COPPER & BRASS, PLASTIC AND TIMBER								
235	9-1/4	80	2.6	2	25	20, 16	ALUMINIUM & NON-FERROUS METALS	1	**127.76**	7454-23580
254	**10**	**ALUCUT** ALUMINIUM CUTTING – NON-FERROUS METALS INCLUDING COPPER & BRASS, PLASTIC AND TIMBER								
254	10	80	2.8	2.2	30	1", 25, 16	ALUMINIUM & NON-FERROUS METALS	1	**144.73**	7454-25480
305	**12**	**ALUCUT** ALUMINIUM CUTTING – NON-FERROUS METALS INCLUDING COPPER & BRASS, PLASTIC AND TIMBER								
305	12	80	2.8	2.2	30	1", 25, 16	ALUMINIUM & NON-FERROUS METALS	1	**182.72**	7454-30580
305	12	100	2.8	2.2	30	1", 25, 16	ALUMINIUM & NON-FERROUS METALS	1	**199.77**	7454-305100
355	**14**	**ALUCUT** ALUMINIUM CUTTING – NON-FERROUS METALS INCLUDING COPPER & BRASS, PLASTIC AND TIMBER								
355	14	100	3.0	2.4	30	1", 25, 16	ALUMINIUM & NON-FERROUS METALS	1	**271.15**	7454-355100



GROUP	ASAW
PRODUCT	**ALUCUT DRY LUBE**
SUITABLE FOR CUTTING	**ALUMINIUM**
PACKAGING	400ML TUB

ALWAYS
Use a suitable lubricant when cutting aluminium.

DESCRIPTION	TUB SIZE ML	$ TUB	PART NUMBER
ALUCUT DRY LUBRICANT			
FOR CUTTING ALUMINIUM – SUITABLE FOR USE WITH ALL TYPES OF SAW BLADES	400	**38.54**	7454-DL





GROUP	PSAW
PRODUCT	**ENDURO PCD**
SUITABLE FOR CUTTING	**FIBRE CEMENT SHEET** (FCS)
TOOTH TYPE	DIAMOND
PACKAGING	CLAM SHELL

NEW PRODUCT MERCHANDISERS PAGES 206-208

DIAMETER MM	DIAMETER INCH	TEETH #	KERF MM	BODY MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
160	**6-1/4**	**ENDURO POLYCRYSTALLINE DIAMOND** CEMENT SHEET – PLASTERBOARD, MDF, CHIPBOARD, PLYWOOD & PLASTIC								
160	6-1/4	4	1.8	1.2	20	16	CEMENT SHEET	1	**119.84**	7455-1604
184	**7-1/4**	**ENDURO POLYCRYSTALLINE DIAMOND** CEMENT SHEET – PLASTERBOARD, MDF, CHIPBOARD, PLYWOOD & PLASTIC								
184	7-1/4	4	1.8	1.2	20	16	CEMENT SHEET	1	**125.76**	7455-1844
235	**9-1/4**	**ENDURO POLYCRYSTALLINE DIAMOND** CEMENT SHEET – PLASTERBOARD, MDF, CHIPBOARD, PLYWOOD & PLASTIC								
235	9-1/4	6	2.2	1.6	25	20, 16	CEMENT SHEET	1	**193.61**	7455-2356
254	**10**	**ENDURO POLYCRYSTALLINE DIAMOND** CEMENT SHEET – PLASTERBOARD, MDF, CHIPBOARD, PLYWOOD & PLASTIC								
254	10	6	2.2	1.6	30	1", 25, 16	CEMENT SHEET	1	**198.29**	7455-2546
305	**12**	**ENDURO POLYCRYSTALLINE DIAMOND** CEMENT SHEET – PLASTERBOARD, MDF, CHIPBOARD, PLYWOOD & PLASTIC								
305	12	8	2.4	1.6	30	1", 25, 16	CEMENT SHEET	1	**267.14**	7455-3058

enduro PCD fibre cement

High speed, low dust cutting in fibre cement and blue board. Available in 160mm to 305mm.

Extremely hard and durable polycrystalline diamond (PCD) teeth for extreme blade life.

Thin kerf design combined with a low tooth count ensures high speed cutting and reduced dust compared with continuous rim diamond blades.

Designed to cut fibre cement products, plasterboard, MDF, chipboard, plywood and plastic.





GROUP	RSAW
SUITS	**ALL CIRCULAR SAW BLADES**
PACKAGING	CLAM SHELL

NEW PRODUCT

DESCRIPTION	$ PACK	PART NUMBER
SAW BLADE BUSHES REDUCING BUSHES TO SUIT CIRCULAR SAW BLADES		
30MM–1", **30MM**–25MM, **30MM**–16MM, **25MM**–22.2MM, **25MM**–20MM, **25MM**–16MM, **20MM**–16MM, **20MM**–10MM	**6.34**	7452-BA

enduro diamond®



BLADE SELECTION

MATERIAL	BLADE COLOUR / TYPE TRADECUT	BLACK	BLUE	GREEN	RED
ASPHALT	–	–	–	✓✓✓	–
BLUESTONE BASALT	✓✓	✓✓	✓✓	–	✓✓✓
BRICK HARD CLAY	✓✓	✓✓	✓✓	–	✓✓✓
BRICK FIRE	✓✓	✓	✓✓	–	✓✓✓
CEMENT SHEET	✓✓	✓	✓✓	✓✓✓	–
CONCRETE CURED	✓✓✓	✓	✓✓✓	–	✓✓
CONCRETE GREEN	–	–	–	✓✓✓	–
CONCRETE LIGHT WEIGHT	✓	–	–	✓✓✓	–
CONCRETE BLOCK (BESSER)	✓✓	✓	✓✓	✓✓✓	✓✓
CONCRETE REINFORCED	✓✓✓	✓✓	✓✓✓	✓✓	–
CONCRETE HEBEL®	✓✓✓	✓	✓✓✓	✓✓	–
CONCRETE PIPE	✓✓✓	✓✓	✓✓✓	✓✓	–
FIBREGLASS	✓✓✓	✓✓	✓✓✓	–	–
GRANITE	✓✓	✓	✓✓	–	✓✓✓
LIMESTONE	✓	–	–	✓✓✓	–
MARBLE	✓✓	✓	✓✓	–	✓✓✓
PLASTIC REINFORCED	✓✓✓	✓✓	✓✓✓	–	–
PORCELAIN	✓✓✓	✓✓	✓✓✓	–	–
SANDSTONE	✓	–	–	✓✓✓	–
SLATE	✓✓✓	✓✓	✓✓✓	✓✓	–
TILES CONCRETE	✓✓	–	✓✓	✓✓✓	–
TILES TERRACOTTA	✓✓✓	✓✓	✓✓✓	–	–
TILES CERAMIC	✓✓✓	✓✓	✓✓✓	✓✓	–
WALL CHASING BRICK	✓✓	✓✓✓	–	✓✓	
WALL CHASING CONCRETE	✓✓✓	✓✓	✓✓✓	–	–
WALL CHASING RENDERED	✓✓	✓	✓✓	✓✓✓	–

GOOD ✓
BETTER ✓✓
BEST ✓✓✓

PRO HD BLADE
HIGH DIAMOND DENSITY





GROUP	SDIA
PRODUCT	ENDURO DIAMOND
TYPE	GENERAL PURPOSE
RIM TYPE	CONTINUOUS
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
103	4	CONTINUOUS	7	20	–	CONTINUOUS RIM GENERAL PURPOSE	1	**26.88**	7460-103
115	4-1/2	CONTINUOUS	7	22.2	–	CONTINUOUS RIM GENERAL PURPOSE	1	**30.24**	7460-115
125	5	CONTINUOUS	7	22.2	–	CONTINUOUS RIM GENERAL PURPOSE	1	**37.07**	7460-125
150	6	CONTINUOUS	7	20	–	CONTINUOUS RIM GENERAL PURPOSE	1	**59.75**	7460-150
180	7	CONTINUOUS	7	22.2	20	CONTINUOUS RIM GENERAL PURPOSE	1	**67.73**	7460-180
200	8	CONTINUOUS	7	25	22.2	CONTINUOUS RIM GENERAL PURPOSE	1	**82.32**	7460-200
230	9	CONTINUOUS	7	25	22.2	CONTINUOUS RIM GENERAL PURPOSE	1	**108.47**	7460-230
250	10	CONTINUOUS	7	25	–	CONTINUOUS RIM GENERAL PURPOSE	1	**142.28**	7460-250





GROUP	SDIA
PRODUCT	ENDURO DIAMOND
TYPE	ULTRA THIN 1.2MM
RIM TYPE	TURBO ACTION
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE MM	BUSHES MM / INCH	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
103	4	TURBO ACTION	12	16	–	CONTINUOUS RIM GENERAL PURPOSE	1	**31.40**	7461-103
125	5	TURBO ACTION	12	22.2	–	CONTINUOUS RIM GENERAL PURPOSE	1	**45.47**	7461-125

NEW PRODUCT MERCHANDISERS PAGES 206-208

DIAMOND SAW BLADE TYPES

SEGMENTED

Segmented blades typically have medium to hard bonds for a range of wet and dry cutting applications. These blades offer a relatively smooth cut combined with a fast cutting speed however some chipping may occur. They are durable and have a long blade life compared to other blades.

The spaces between the segments (gullets) improve air flow, dissipate heat, and remove slurry from the cut, helping to optimise the blade's cutting performance. The size and shape of the gullets vary from blade to blade and will depend on the type of material the blade is designed to cut.

CONTINUOUS RIM

Continuous rim blades have softer bonds for cutting hard materials such as tile, porcelain, granite, stone, glass, and other materials that can chip easily. These blades don't have individual segments but instead have a solid, continuous rim or edge. Most continuous rim blades are designed for wet cutting applications, providing the smoothest, chip free cuts.

TURBO RIM

Turbo blades typically have soft to medium bonds for a variety of general purpose to specific cutting applications. Turbo blades feature a continuous rim with an edge that is serrated. This serrated edge is designed to give the blade faster cutting speeds while maintaining a smooth cut, combining the best qualities from both segmented and continuous rim blades.





GROUP	SDIA
PRODUCT	**ENDURO DIAMOND**
TYPE	**GENERAL PURPOSE**
RIM TYPE	SUPER TURBO
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE MM	BUSHES MM	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
103	**4**	SUPER TURBO	7	16	–	SUPER TURBO FAST CUT GENERAL PURPOSE	1	**29.09**	7462-103
115	**4-1/2**	SUPER TURBO	7	22.2	–	SUPER TURBO FAST CUT GENERAL PURPOSE	1	**35.39**	7462-115
125	**5**	SUPER TURBO	7	22.2	–	SUPER TURBO FAST CUT GENERAL PURPOSE	1	**42.42**	7462-125
180	**7**	SUPER TURBO	7	22.2	20	SUPER TURBO FAST CUT GENERAL PURPOSE	1	**68.25**	7462-180
230	**9**	SUPER TURBO	7	25	22.2	SUPER TURBO FAST CUT GENERAL PURPOSE	1	**98.28**	7462-230





GROUP	LDIA
PRODUCT	**ENDURO DIAMOND**
TYPE	**HARD BRICK/MASONRY**
RIM TYPE	SEGMENTED
BORE WITH PIN HOLE	YES
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE INCH	BUSHES MM	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
350	**14**	SEGMENTED	10	1"	20	SEGMENTED RIM HARD BRICK & MASONRY	1	**471.66**	7468-350

DIAMOND SAW BLADES

GENERAL INFORMATION

Diamond blades do not cut, they actually grind through the material by exposing new diamond at the right moment just before the old diamond wears away. The newly exposed diamonds again will wear, chip, or break out of the metal bond in the segment, while the metal bond gradually wears away to expose new diamond. This process is repeated over and over until there is no diamond remaining and the blade is worn out.

Ideally and to get the maximum life out of a diamond blade, the metal should wear away at just the right time to expose new diamond for optimum cutting performance.

- If the metal wears away too quickly, the diamonds are exposed to soon and get torn out of the metal bond before they are fully worn. The result is a very short blade life.
- If the metal wears away too slowly, the diamonds wear away before new diamond is exposed. This is often referred to as a 'glazed blade'. Without exposed diamond the blade will not cut.

Abrasive materials like green concrete and asphalt will wear the metal bond very fast, so blades for these materials have a much harder metal bond to resist this abrasion.

The opposite occurs on a hard clay paver. The clay paver is not abrasive enough to wear the metal bond fast enough to expose fresh diamond, therefore a different and much softer alloy is needed for cutting these types of materials.

The single most important factor for the life of the blade is to match it to the job application and the type of equipment it is being used on.





GROUP	SDIA
PRODUCT	ENDURO DIAMOND
TYPE	GENERAL PURPOSE
RIM TYPE	SEGMENTED
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE MM	BUSHES MM	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
103	4	SEGMENTED	7	16	–	SEGMENTED RIM GENERAL PURPOSE	1	29.09	7464-103
115	4-1/2	SEGMENTED	7	22.2	–	SEGMENTED RIM GENERAL PURPOSE	1	35.39	7464-115
125	5	SEGMENTED	7	22.2	–	SEGMENTED RIM GENERAL PURPOSE	1	42.42	7464-125
150	6	SEGMENTED	7	20	–	SEGMENTED RIM GENERAL PURPOSE	1	68.25	7464-150
230	9	SEGMENTED	7	25	22.2	SEGMENTED RIM GENERAL PURPOSE	1	98.28	7464-230





GROUP	LDIA
PRODUCT	ENDURO DIAMOND
TYPE	GENERAL PURPOSE
RIM TYPE	SEGMENTED
BORE WITH PIN HOLE	YES
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE INCH	BUSHES MM	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
300	12	SEGMENTED	10	1"	20	SEGMENTED RIM GENERAL PURPOSE	1	265.65	7467-300
350	14	SEGMENTED	10	1"	20	SEGMENTED RIM GENERAL PURPOSE	1	355.43	7467-350
400	16	SEGMENTED	10	1"	20	SEGMENTED RIM GENERAL PURPOSE	1	473.97	7467-400
450	18	SEGMENTED	10	1"	20	SEGMENTED RIM GENERAL PURPOSE	1	554.40	7467-450
500	20	SEGMENTED	10	1"	20	SEGMENTED RIM GENERAL PURPOSE	1	686.28	7467-500

NEW PRODUCT MERCHANDISERS PAGES 206-208

DIAMOND SAW BLADE TYPES

SEGMENTED

Segmented blades typically have medium to hard bonds for a range of wet and dry cutting applications. These blades offer a relatively smooth cut combined with a fast cutting speed however some chipping may occur. They are durable and have a long blade life compared to other blades.

The spaces between the segments (gullets) improve air flow, dissipate heat, and remove slurry from the cut, helping to optimise the blade's cutting performance. The size and shape of the gullets vary from blade to blade and will depend on the type of material the blade is designed to cut.

CONTINUOUS RIM

Continuous rim blades have softer bonds for cutting hard materials such as tile, porcelain, granite, stone, glass, and other materials that can chip easily. These blades don't have individual segments but instead have a solid, continuous rim or edge. Most continuous rim blades are designed for wet cutting applications, providing the smoothest, chip free cuts.

TURBO RIM

Turbo blades typically have soft to medium bonds for a variety of general purpose to specific cutting applications. Turbo blades feature a continuous rim with an edge that is serrated. This serrated edge is designed to give the blade faster cutting speeds while maintaining a smooth cut, combining the best qualities from both segmented and continuous rim blades.





GROUP	SDIA
PRODUCT	ENDURO DIAMOND
TYPE	GREEN CONCRETE/ASPHALT
RIM TYPE	SEGMENTED
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE MM	BUSHES MM	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
103	4	SEGMENTED	8	16	–	SEGMENTED RIM GREEN CONCRETE	1	**34.76**	7465-103
125	5	SEGMENTED	8	22.2	–	SEGMENTED RIM GREEN CONCRETE	1	**57.65**	7465-125
150	6	SEGMENTED	8	20	–	SEGMENTED RIM GREEN CONCRETE	1	**87.15**	7465-150
180	7	SEGMENTED	8	22.2	20	SEGMENTED RIM GREEN CONCRETE	1	**102.80**	7465-180
230	9	SEGMENTED	8	25	22.2	SEGMENTED RIM GREEN CONCRETE	1	**141.75**	7465-230





GROUP	LDIA
PRODUCT	ENDURO DIAMOND
TYPE	GREEN CONCRETE/ASPHALT
RIM TYPE	SEGMENTED
BORE WITH PIN HOLE	YES
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE INCH	BUSHES MM	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
300	12	SEGMENTED	10	1"	20	SEGMENTED RIM GREEN CONCRETE	1	**310.80**	7466-300
350	14	SEGMENTED	10	1"	20	SEGMENTED RIM GREEN CONCRETE	1	**399.00**	7466-350
400	16	SEGMENTED	10	1"	20	SEGMENTED RIM GREEN CONCRETE	1	**535.50**	7466-400
450	18	SEGMENTED	10	1"	20	SEGMENTED RIM GREEN CONCRETE	1	**661.50**	7466-450
500	20	SEGMENTED	10	1"	20	SEGMENTED RIM GREEN CONCRETE	1	**819.00**	7466-500

DIAMOND SAW BLADES

GENERAL INFORMATION

Diamond blades do not cut, they actually grind through the material by exposing new diamond at the right moment just before the old diamond wears away. The newly exposed diamonds again will wear, chip, or break out of the metal bond in the segment, while the metal bond gradually wears away to expose new diamond. This process is repeated over and over until there is no diamond remaining and the blade is worn out.

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- If the metal wears away too slowly, the diamonds wear away before new diamond is exposed. This is often referred to as a 'glazed blade'. Without exposed diamond the blade will not cut.

Abrasive materials like green concrete and asphalt will wear the metal bond very fast, so blades for these materials have a much harder metal bond to resist this abrasion.

The opposite occurs on a hard clay paver. The clay paver is not abrasive enough to wear the metal bond fast enough to expose fresh diamond, therefore a different and much softer alloy is needed for cutting these types of materials.

The single most important factor for the life of the blade is to match it to the job application and the type of equipment it is being used on.





GROUP	CDIA	CDIA	CDIA
PRODUCT	ENDURO DIAMOND	ENDURO DIAMOND	ENDURO DIAMOND
TYPE	CUP WHEEL	CUP WHEEL	CUP WHEEL
STYLE	SINGLE ROW	DOUBLE ROW (UNIVERSAL)	TURBO
PACKAGING	CLAM SHELL	CLAM SHELL	CLAM SHELL

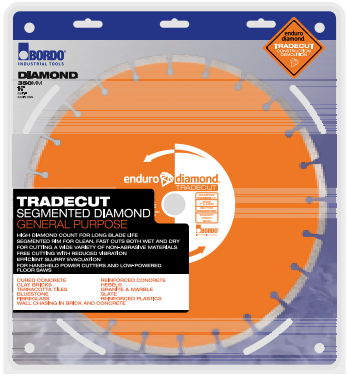






DIAMETER MM	DIAMETER INCH	BORE TYPE	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
103	4	M10	1	71.40	7469-103SR	98.70	7469-103DR	88.20	7469-103T
125	5	M14	1	100.80	7469-125SR	136.50	7469-125DR	140.70	7469-125T
180	7	M14	1	172.20	7469-180SR	245.70	7469-180DR	178.50	7469-180T





GROUP	TSAW
PRODUCT	ENDURO DIAMOND
TYPE	TRADECUT
RIM TYPE	SEGMENTED
PACKAGING	CLAM SHELL

DIAMETER MM	DIAMETER INCH	RIM TYPE	SEG. HEIGHT MM	BORE INCH	BUSHES MM	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
350	12	SEGMENTED	10	1"	20	TRADECUT GENERAL PURPOSE	1	186.50	7470-350
400	16	SEGMENTED	10	1"	20	TRADECUT GENERAL PURPOSE	1	248.70	7470-400

NEW PRODUCT MERCHANDISERS PAGES 206-208

ENDURO DIAMOND CUP WHEELS

SINGLE ROW

Economical cup wheel for flat grinding with fast material removal – ideal for removing imperfections in cured concrete. 103, 125 & 180mm diameters.

- Extreme diamond count.
- Maximum material removal.
- Dry grinding.

UNIVERSAL (DOUBLE ROW)

Long life cup wheel for flat grinding with a smooth high quality finish – ideal for removing imperfections in cured concrete. 103, 125 & 180mm diameters.

- Extreme diamond count.
- Smooth high quality finish.
- Dry grinding.

TURBO

For light grinding, shaping and finishing in concrete, stone and general masonry. Improved cooling for increased cup life. 103, 125 & 180mm diameters.

- Extreme diamond count.
- Ideal for removing formwork seams and imperfections in concrete and stone.

NEW PRODUCT

GROUP	–	–
TYPE	**CIRCULAR SAW BLADE**	**DIAMOND CIRCULAR SAW BLADE**
BLADE TYPE	**TUNGSTEN CARBIDE / PCD**	**DIAMOND**
PACKAGING	HANG SELL MERCHANDISER	HANG SELL MERCHANDISER





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
TCT / PCD MERCH – 60 SAW BLADES	**4,111.50**	7450-D1		
DIAMOND MERCH – 30 SAW BLADES			**4,236.07**	7460-D1

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER	QTY	DESCRIPTION	PART NUMBER
	2	MULTICUT 103MM 20T	7450-10320	2	DIA. CONT. RIM 103MM	7460-103
	2	MULTICUT 115MM 20T	7450-11520	2	DIA. CONT. RIM 125MM	7460-125
	2	MULTICUT 127MM 20T	7450-12720	1	DIA. CONT. RIM 180MM	7460-180
	2	MULTICUT 184MM 36T	7450-18436	1	DIA. CONT. RIM 230MM	7460-230
	2	ALUCUT 184MM 60T	7454-18460	2	DIA. ULTRA THIN 103MM	7461-103
	2	RAPIDCUT 140MM 24T	7452-14024	2	DIA. ULTRA THIN 125MM	7461-125
	2	RAPIDCUT 160MM 20T	7452-16020	2	DIA. SUPER TURBO 103MM	7462-103
	2	RAPIDCUT 160MM 40T	7452-16040	2	DIA. SUPER TURBO 125MM	7462-125
	4	RAPIDCUT 184MM 16T	7452-18416	1	DIA. SUPER TURBO 180MM	7462-180
	4	RAPIDCUT 184MM 24T	7452-18424	1	DIA. SUPER TURBO 230MM	7462-230
	4	RAPIDCUT 184MM 40T	7452-18440	1	DIA. SEG. RIM 230MM	7464-230
	4	RAPIDCUT 184MM 60T	7452-18460	1	DIA. SEG. RIM 300MM	7467-300
	2	RAPIDCUT 184MM SET 3	7452-184S3	1	DIA. SEG. RIM 350MM	7467-350
	2	RAPIDCUT 184MM SET 5	7452-184S5	1	DIA. SEG. RIM 400MM	7467-400
	2	RAPIDCUT 210MM 24T	7452-21024	1	DIA. SEG. RIM GREEN 230MM	7465-230
	2	RAPIDCUT 210MM 40T	7452-21040	1	DIA. SEG. RIM GREEN 300MM	7466-300
	2	RAPIDCUT 235MM 20T	7452-23520	1	DIA. SEG. RIM GREEN 350MM	7466-350
	2	RAPIDCUT 235MM 40T	7452-23540	1	DIA. SEG. RIM GREEN 400MM	7466-400
	2	RAPIDCUT 254MM 40T	7452-25440	1	DIA. CUP DBL ROW 103MM	7469-103DR
	2	RAPIDCUT 254MM 60T	7452-25460	1	DIA. CUP DBL ROW 125MM	7469-125DR
	2	RAPIDCUT 305MM 60T	7452-30560	1	DIA. CUP DBL ROW 180MM	7469-180DR
	2	RAPIDCUT 305MM 100T	7452-305100	1	DIA. CUP TURBO 103MM	7469-103TR
	4	RAPIDCUT 184MM FCS	7456-1846	1	DIA. CUP TURBO 125MM	7469-125TR
	4	PCD 184MM FCS	7455-1844	1	DIA. CUP TURBO 180MM	7469-180TR

GROUP	–
TYPE	**CIRCULAR SAW BLADE**
BLADE TYPE	**TUNGSTEN CARBIDE / PCD**
PACKAGING	HANG SELL MERCHANDISER



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
TCT / PCD MERCH – 80 SAW BLADES	**8,571.89**	7450-D2

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER	QTY	DESCRIPTION	PART NUMBER
	2	MULTICUT 103MM 20T	7450-10320	2	RAPIDCUT 210MM 24T	7452-21024
	2	MULTICUT 115MM 20T	7450-11520	2	RAPIDCUT 210MM 40T	7452-21040
	2	MULTICUT 127MM 20T	7450-12720	2	RAPIDCUT 210MM 60T	7452-21060
	2	MULTICUT 184MM 36T	7450-18436	2	RAPIDCUT 235MM 20T	7452-23520
	2	MULTICUT 230MM 48T	7450-23048	2	RAPIDCUT 235MM 40T	7452-23540
	2	MULTICUT 250MM 60T	7450-25060	2	RAPIDCUT 235MM 60T	7452-23560
	2	MULTICUT 300MM 60T	7450-30060	2	RAPIDCUT 254MM 24T	7452-25424
	2	MULTICUT 355MM 80T	7450-35580	2	RAPIDCUT 254MM 40T	7452-25440
	1	ALUCUT 184MM 60T	7454-18460	2	RAPIDCUT 254MM 60T	7452-25460
	1	ALUCUT 254MM 80T	7454-25480	2	RAPIDCUT 254MM 80T	7452-25480
	2	ALUCUT 305MM 100T	7454-305100	2	RAPIDCUT 305MM 40T	7452-30540
	2	ALUCUT 355MM 100T	7454-355100	2	RAPIDCUT 305MM 60T	7452-30560
	2	RAPIDCUT 140MM 18T	7452-14018	2	RAPIDCUT 305MM 100T	7452-305100
	2	RAPIDCUT 140MM 24T	7452-14024	2	OPTICUT 254MM 60T	7453-25460
	2	RAPIDCUT 160MM 20T	7452-16020	2	OPTICUT 254MM 80T	7453-25480
	2	RAPIDCUT 160MM 40T	7452-16040	2	OPTICUT 305MM 72T	7453-30572
	2	RAPIDCUT 184MM 16T	7452-18416	2	OPTICUT 305MM 80T	7453-30580
	2	RAPIDCUT 184MM 24T	7452-18424	1	PCD 160MM FCS	7455-1604
	2	RAPIDCUT 184MM 40T	7452-18440	1	PCD 184MM FCS	7455-1844
	2	RAPIDCUT 184MM 60T	7452-18460	1	PCD 254MM FCS	7455-2546
	2	RAPIDCUT 184MM SET 3	7452-184S3	1	RAPIDCUT 184MM FCS	7456-1846
	2	RAPIDCUT 184MM SET 5	7452-184S5			

GROUP	TSAW	TSAW
TYPE	**TRADECUT CIRCULAR SAW BLADE**	**TRADECUT CIRCULAR SAW BLADE**
BLADE TYPE	**TUNGSTEN CARBIDE**	**TUNGSTEN CARBIDE**
PACKAGING	HANG SELL MERCHANDISER	HANG SELL MERCHANDISER





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
TRADECUT MERCH – 58 SAW BLADES	**1,781.41**	7451-D1		
TRADECUT MERCH – 36 SAW BLADES			**998.19**	7451-D2

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER	QTY	DESCRIPTION	PART NUMBER
	2	TRADECUT 160MM 24T	7451-16024	3	TRADECUT 160MM 24T	7451-16024
	2	TRADECUT 160MM 40T	7451-16040	3	TRADECUT 160MM 40T	7451-16040
	3	TRADECUT 184MM 16T	7451-18416	3	TRADECUT 184MM 24T	7451-18424
	3	TRADECUT 184MM 24T	7451-18424	3	TRADECUT 184MM 40T	7451-18440
	3	TRADECUT 184MM 40T	7451-18440	3	TRADECUT 184MM 60T	7451-18460
	3	TRADECUT 184MM 60T	7451-18460	3	TRADECUT 210MM 24T	7451-21024
	2	TRADECUT 210MM 24T	7451-21024	3	TRADECUT 210MM 40T	7451-21040
	2	TRADECUT 210MM 40T	7451-21040	3	TRADECUT 235MM 20T	7451-23520
	2	TRADECUT 210MM 60T	7451-21060	3	TRADECUT 235MM 40T	7451-23540
	2	TRADECUT 235MM 20T	7451-23520	3	TRADECUT 254MM 40T	7451-25440
	2	TRADECUT 235MM 40T	7451-23540	3	TRADECUT 254MM 60T	7451-25460
	2	TRADECUT 235MM 60T	7451-23560	3	TRADECUT 305MM 60T	7451-30560
	2	TRADECUT 254MM 40T	7451-25440			
	2	TRADECUT 254MM 60T	7451-25460			
	2	TRADECUT 254MM 80T	7451-25480			
	2	TRADECUT 254MM 100T	7451-254100			
	2	TRADECUT 305MM 60T	7451-30560			
	2	TRADECUT 305MM 80T	7451-30580			
	2	TRADECUT 305MM 100T	7451-305100			
	3	TRADECUT 3 PACK 184MM	7451-184S1			
	3	TRADECUT 2 PACK 184MM	7451-184S2			
	2	RAPIDCUT 305MM 100T	7452-305100			
	4	RAPIDCUT 184MM FCS	7456-1846			
	4	PCD 184MM FCS	7455-1844			

BORDO INDUSTRIAL TOOLS **COBALT BI-METAL** Flexible Shatterproof 300 x 13 x 0.65mm **32TPI** ITEM NO. 7255-32

GROUP	HACK	HACK	HACK	HACK
MATERIAL	**BI-METAL, M42 EDGE**	**BI-METAL, M3 EDGE**	**HIGH SPEED STEEL**	**HIGH CARBON**
BI-METAL MATERIAL	**8% COBALT**	**HSS**	–	–
TOOTH CONFIGURATION	REGULAR PITCH	REGULAR PITCH	REGULAR PITCH	REGULAR PITCH
HEIGHT	13MM (1/2")	13MM (1/2")	13MM (1/2")	13MM (1/2")
THICKNESS	0.65MM (0.025")	0.65MM (0.025")	0.65MM (0.025")	0.65MM (0.025")
PACKAGING	TELEPACK	TELEPACK	TELEPACK	TELEPACK











LENGTH MM	LENGTH INCH	TPI	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
300	**12**	18	100	**6.02**	7255-18	**4.85**	7250-1218UL	**4.15**	7251-18	**1.86**	7260-18
300	**12**	24	100	**6.02**	7255-24	**4.85**	7250-1224UL	**4.15**	7251-24	**1.86**	7260-24
300	**12**	32	100	**6.02**	7255-32	**4.85**	7250-1232UL	**4.15**	7251-32	**1.86**	7260-32





MATERIAL	**BI-METAL, M42 EDGE**	**BI-METAL, M3 EDGE**
BI-METAL MATERIAL	**8% COBALT**	**HSS**
PACKAGING	10 PACK CLAM SHELL	10 PACK CLAM SHELL

LENGTH MM	LENGTH INCH	TPI	PACK QTY	$ PACK	PART NUMBER	$ PACK	PART NUMBER
300	**12**	18	10	**61.19**	7255-18T	**57.92**	7250-1218ULT
300	**12**	24	10	**61.19**	7255-24T	**57.92**	7250-1224ULT
300	**12**	32	10	**61.19**	7255-32T	**57.92**	7250-1232ULT

REGULAR PITCH
A standard tooth configuration that produces an efficient cut on all types of materials.

BI-METAL M42 EDGE 5% COBALT FLEXIBLE SHATTERPROOF
High speed steel cutting edge with 5% Cobalt welded to tough flexible alloy steel producing a blade with superior cutting life and resistance to breakage. Will cut any metals including alloys, steels and stainless steels. Long lasting, and hard wearing.

BI-METAL M3 EDGE FLEXIBLE SHATTERPROOF
High speed steel cutting edge welded to tough flexible alloy steel producing a blade with superior cutting life and resistance to breakage.

HIGH SPEED STEEL FLEXIBLE
Flexible high speed steel blade for increased wear resistance and superior cutting life.

HIGH CARBON FLEXIBLE
Professional quality blade manufactured from flexible hi-carbon steel for general purpose cutting in a wide range of materials.



BI-METAL M42 EDGE 5% COBALT FLEXIBLE SHATTERPROOF

High speed steel cutting edge with 5% Cobalt welded to tough flexible alloy steel producing a blade with superior cutting life and resistance to breakage. Will cut any metals including alloys, steels and stainless steels. Long lasting, and hard wearing.

BI-METAL M3 EDGE FLEXIBLE SHATTERPROOF

High speed steel cutting edge welded to tough flexible alloy steel producing a blade with superior cutting life and resistance to breakage.

GROUP	HACK	HACK
MATERIAL	**BI-METAL M3 EDGE**	**BI-METAL & COBALT BI-METAL**
TOOTH CONFIGURATION	REGULAR PITCH	REGULAR PITCH
HEIGHT	13MM (1/2")	13MM (1/2")
THICKNESS	0.65MM (0.025")	0.65MM (0.025")
PACKAGING	BENCH MERCHANDISER	BENCH MERCHANDISER





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
BI-METAL – 300 BLADES	**1,455.00**	7250-D2		
BI-METAL & COBALT – 300 BLADES			**1,630.50**	7250-D3

MERCHANDISER CONTENTS	QTY	PART NUMBER	QTY	PART NUMBER
	100	7250-1218UL	50	7250-1218UL
	100	7250-1224UL	50	7250-1224UL
	100	7250-1232UL	50	7250-1232UL
			50	7255-18
			50	7255-24
			50	7255-32

GROUP	HACK	HACK	HACK
MATERIAL	**BI-METAL M3 EDGE**	**BI-METAL M3 EDGE**	**BI-METAL M3 EDGE**
TEETH PER INCH	**18 TPI**	**24 TPI**	**32 TPI**
TOOTH CONFIGURATION	REGULAR PITCH	REGULAR PITCH	REGULAR PITCH
HEIGHT	13MM (1/2")	13MM (1/2")	13MM (1/2")
THICKNESS	0.65MM (0.025")	0.65MM (0.025")	0.65MM (0.025")
PACKAGING	TRIPLE HOOK WITH HEADER	TRIPLE HOOK WITH HEADER	TRIPLE HOOK WITH HEADER







MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
BI-METAL – 100 BLADES	**485.00**	7250-D6/18	**485.00**	7250-D6/24	**485.00**	7250-D6/32

MERCHANDISER CONTENTS	QTY	PART NUMBER	QTY	PART NUMBER	QTY	PART NUMBER
	100	7250-1218UL	100	7250-1224UL	100	7250-1232UL



GROUP	HACK	HACK
TYPE	**HI-TENSION FRAME**	**HEAVY DUTY FRAME**
SIZE	300MM (12")	300MM (12")
PACKAGING	DISPLAY BOX	DISPLAY BOX







DESCRIPTION	QTY PER OUTER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
HI-TENSION FRAME	10	**51.52**	7268-1	**–**	–
HEAVY DUTY FRAME	10	**–**	–	**76.41**	7268-2

GROUP	HACK
MATERIAL	**BI-METAL M3 EDGE**
TOOTH CONFIGURATION	REGULAR PITCH
HEIGHT	13MM (1/2")
THICKNESS	0.65MM (0.025")
PACKAGING	MERCHANDISER



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
BI-METAL BLADE AND FRAME MERCH	**2,219.10**	7250-D5

MERCHANDISER CONTENTS	QTY	DECRIPTION	PART NUMBER
	100	BI-METAL BLADE 18TPI	7250-1218UL
	100	BI-METAL BLADE 24TPI	7250-1224UL
	100	BI-METAL BLADE 32TPI	7250-1232UL
	10	HEAVY DUTY HACKSAW FRAME	7268-2



XTREME RECIPROCATING SAW BLADES

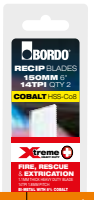
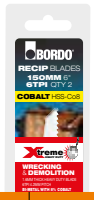
Bi-Metal with Cobalt Demolition Saw Blades are extra thick for heavy duty cutting and long life.

14 TPI Demolition & Rescue Saw Blades

- For cutting pipe, angle iron, nail embedded wood and structural steel.
- Wider (25mm – 1") and thicker (1.1mm – .042") blades for demolition work.
- Available in 152mm (6"), 229mm (9") and 305mm (12") lengths with 1/2" universal shanks.

6 TPI Wrecking Saw Blades

- For cutting wood, sleepers and other tough materials.
- Wider (22mm – 7/8") and thicker (1.6mm – .062") blades for demolition work.
- Available in 152mm (6"), 229mm (9") and 305mm (12") lengths with 1/2" universal shanks and structural steel.

GROUP					AGRS			AGRS		
TYPE					XTREME			XTREME		
MATERIAL					BI-METAL 8% COBALT			BI-METAL 8% COBALT		
PACKAGING					TELEPACK			CLAM SHELL		
										
LENGTH MM	LENGTH INCH	TPI	THICKNESS MM	USAGE	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ CLAM	PART NUMBER
FIRE, RESCUE AND EXTRICATION										
150	6	14	1.1	FIRE, RESCUE & EXTRICATION	10	**9.60**	7202-0614	2	**19.92**	7202-0614C
230	9	14	1.1	FIRE, RESCUE & EXTRICATION	10	**13.00**	7202-0914	2	**26.97**	7202-0914C
305	12	14	1.1	FIRE, RESCUE & EXTRICATION	10	**16.13**	7202-1214	2	**33.46**	7202-1214C
WRECKING AND DEMOLITION										
150	6	6	1.6	WRECKING & DEMOLITION	10	**10.26**	7202-0606	2	**21.28**	7202-0606C
230	9	6	1.6	WRECKING & DEMOLITION	10	**14.92**	7202-0906	2	**30.96**	7202-0906C
305	12	6	1.6	WRECKING & DEMOLITION	10	**20.98**	7202-1206	2	**43.52**	7202-1206C

GROUP	AGRS
TYPE	**XTREME**
MATERIAL	**BI-METAL 8% COBALT**
PACKAGING	BENCH MERCHANDISER



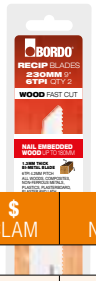
MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
XTREME RECIPS – 60 BLADES	**848.90**	7202-D1

MERCHANDISER CONTENTS	QTY	DESCRIPTION	PART NUMBER
	10	150MM FIRE, RESCUE & EXTRICATION	7202-0614
	10	230MM FIRE, RESCUE & EXTRICATION	7202-0914
	10	305MM FIRE, RESCUE & EXTRICATION	7202-1214
	10	150MM WRECKING & DEMOLITION	7202-0606
	10	230MM WRECKING & DEMOLITION	7202-0906
	10	305MM WRECKING & DEMOLITION	7202-1206



GROUP					AGRS			AGRS		
TYPE					HEAVY DUTY			HEAVY DUTY		
MATERIAL					BI-METAL			BI-METAL		
PACKAGING					TELEPACK			CLAM SHELL		





LENGTH MM	LENGTH INCH	TPI	THICKNESS MM	USAGE	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ CLAM	PART NUMBER
WOOD – FAST CUT / ROUGHING IN										
150	6	6	1.3	NAIL EMBEDDED WOOD UP TO 100MM	10	**9.17**	7200-0606	2	**19.02**	7200-0606C
230	9	6	1.3	NAIL EMBEDDED WOOD UP TO 180MM	10	**12.39**	7200-0906	2	**25.71**	7200-0906C
305	12	6	1.3	NAIL EMBEDDED WOOD UP TO 205MM	10	**15.16**	7200-1206	2	**31.46**	7200-1206C
WOOD, COMPOSITES & PLASTICS										
150	6	10	1.3	NAIL EMBEDDED WOOD UP TO 100MM	10	**9.17**	7200-0610	2	**19.02**	7200-0610C
METAL										
150	6	14	0.9	THICK SHEETMETAL & TUBE	10	**7.58**	7200-0614	2	**15.73**	7200-0614C
150	6	18	0.9	MEDIUM SHEETMETAL & TUBE	10	**7.58**	7200-0618	2	**15.73**	7200-0618C
150	6	24	0.9	THIN SHEETMETAL & TUBE	10	**7.58**	7200-0624	2	**15.73**	7200-0624C
230	9	18	0.9	MEDIUM SHEETMETAL & TUBE	10	**11.37**	7200-0918	2	**23.60**	7200-0918C
MULTI-PURPOSE – METALS, WOOD & PLASTIC										
230	9	10/14	0.9	WIDE RANGE OF METALS, WOOD & PLASTICS	10	**11.37**	7200-091014	2	**23.60**	7200-091014C
305	12	10/14	0.9	WIDE RANGE OF METALS, WOOD & PLASTICS	10	**14.03**	7200-121014	2	**29.13**	7200-121014C



GROUP					AGRS			AGRS		
TYPE					GRIT EDGE			GRIT EDGE		
MATERIAL					TUNGSTEN CARBIDE GRIT			TUNGSTEN CARBIDE GRIT		
PACKAGING					TELEPACK			CLAM SHELL		





LENGTH MM	LENGTH INCH	TPI	THICKNESS MM	USAGE	PACK QTY	$ EACH	PART NUMBER	PACK QTY	$ CLAM	PART NUMBER
CERAMICS, STONE, TILES, MASONRY & COMPOSITES										
150	6	–	1.3	HARD & ABRASIVE MATERIALS UP TO 100MM	10	**13.92**	7200-06G	1	**14.55**	7200-06GC
305	12	–	1.3	HARD & ABRASIVE MATERIALS UP TO 250MM	10	**23.64**	7200-12G	1	**24.59**	7200-12GC

TUNGSTEN CARBIDE RECIPROCATING SAW BLADES

Carbide grit particles are permanently bonded to an alloy steel blade. TCG reciprocating saw blades are designed to cut materials that standard blades won't even scratch. They are ideal for cutting hardened steel chain and bolts as well as ceramic tiles, stranded cable, hydraulic hose and even concrete block and pavers.

When using TCG reciprocating blades to cut masonry products it is best to use a sawing action to help clear material from the cut to maximise blade efficiency.



XTREME RECIPROCATING SAW BLADES

Bi-Metal with Cobalt Demolition Saw Blades are extra thick for heavy duty cutting and long life.

14 TPI Demolition & Rescue Saw Blades

- For cutting pipe, angle iron, nail embedded wood and structural steel.
- Wider (25mm – 1") and thicker (1.1mm – .042") blades for demolition work.
- Available in 152mm (6"), 229mm (9") and 305mm (12") lengths with 1/2" universal shanks.

6 TPI Wrecking Saw Blades

- For cutting wood, sleepers and other tough materials.
- Wider (22mm – 7/8") and thicker (1.6mm – .062") blades for demolition work.
- Available in 152mm (6"), 229mm (9") and 305mm (12") lengths with 1/2" universal shanks and structural steel.

TUNGSTEN CARBIDE RECIPROCATING SAW BLADES

Carbide grit particles are permanently bonded to an alloy steel blade. TCG reciprocating saw blades are designed to cut materials that standard blades won't even scratch. They are ideal for cutting hardened steel chain and bolts as well as ceramic tiles, stranded cable, hydraulic hose and even concrete block and pavers.

When using TCG reciprocating blades to cut masonry products it is best to use a sawing action to help clear material from the cut to maximise blade efficiency.

GROUP	AGRS
TYPE	**HEAVY DUTY**
MATERIAL	**BI-METAL AND BI-METAL 8% COBALT**
PACKAGING	BULK MERCHANDISER



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
RECIPROCATING MERCH – 180 BLADES	**2,278.50**	7200-D1

MERCHANDISER CONTENTS	QTY BLADES	DESCRIPTION	PART NUMBER
	10	150MM FIRE, RESCUE & EXTRICATION	7202-0614
	10	230MM FIRE, RESCUE & EXTRICATION	7202-0914
	10	305MM FIRE, RESCUE & EXTRICATION	7202-1214
	10	150MM WRECKING & DEMOLITION	7202-0606
	10	230MM WRECKING & DEMOLITION	7202-0906
	10	305MM WRECKING & DEMOLITION	7202-1206
	10	150MM 6TPI WOOD - FAST CUT	7200-0606
	10	150MM 10TPI WOOD - WOOD & COMPOSITES	7200-0610
	10	230MM 6TPI WOOD - FAST CUT	7200-0906
	10	305MM 6TPI WOOD - FAST CUT	7200-1206
	10	230MM 10/14TPI MULTIPURPOSE	7200-091014
	10	305MM 10/14TPI MULTIPURPOSE	7200-121014
	10	150MM THICK SHEETMETAL & TUBE	7200-0614
	10	150MM MEDIUM SHEETMETAL & TUBE	7200-0618
	10	150MM THIN SHEETMETAL & TUBE	7200-0624
	10	230MM MEDIUM SHEETMETAL & TUBE	7200-0918
	10	150MM TUNGSTEN CARBIDE GRIT EDGE	7200-06G
	10	305MM TUNGSTEN CARBIDE GRIT EDGE	7200-12G



GROUP	AGRS
TYPE	**HEAVY DUTY**
MATERIAL	**BI-METAL AND BI-METAL 8% COBALT**
PACKAGING	CLAM SHELL MERCHANDISER



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
RECIPROCATING MERCH – 36 BLADE PKTS	**867.96**	7200-D2

MERCHANDISER CONTENTS	QTY PKTS	DESCRIPTION	PART NUMBER
	2	150MM FIRE, RESCUE & EXTRICATION	7202-0614C
	2	230MM FIRE, RESCUE & EXTRICATION	7202-0914C
	2	305MM FIRE, RESCUE & EXTRICATION	7202-1214C
	2	150MM WRECKING & DEMOLITION	7202-0606C
	2	230MM WRECKING & DEMOLITION	7202-0906C
	2	305MM WRECKING & DEMOLITION	7202-1206C
	2	150MM 6TPI WOOD - FAST CUT	7200-0606C
	2	150MM 10TPI WOOD - WOOD & COMPOSITES	7200-0610C
	2	230MM 6TPI WOOD - FAST CUT	7200-0906C
	2	305MM 6TPI WOOD - FAST CUT	7200-1206C
	2	230MM 10/14TPI MULTIPURPOSE	7200-091014C
	2	305MM 10/14TPI MULTIPURPOSE	7200-121014C
	2	150MM THICK SHEETMETAL & TUBE	7200-0614C
	2	150MM MEDIUM SHEETMETAL & TUBE	7200-0618C
	2	150MM THIN SHEETMETAL & TUBE	7200-0624C
	2	230MM MEDIUM SHEETMETAL & TUBE	7200-0918C
	2	150MM TUNGSTEN CARBIDE GRIT EDGE	7200-06GC
	2	305MM TUNGSTEN CARBIDE GRIT EDGE	7200-12GC







GROUP	JIGS
SHANK	T-SHANK (EURO)
TYPE	TIMBER
PACKAGING	HANG CARD

SOLID TIMBER MM	PLYWOOD MM	CHIPBOARD AND MDF MM	LAMINATED PARTICLE BOARD MM	PVC MM	ACRYLIC MM	FAST CUT	CLEAN CUT	ROUGH CUT	STRAIGHT CUT	CURVED CUT	DOWN CUT	BLADE MATERIAL	LENGTH MM	PITCH	BOSCH EQUIVALENT	2 PACK $ PACK	2 PACK PART #	5 PACK $ PACK	5 PACK PART #
T-SHANK (EURO SHANK) - TIMBER & SYNTHETICS																			
≤ 30	≤ 30	≤ 30	≤ 30	≤ 30	–	–	✔	–	✔	–	–	ALLOY	100	2.5	T101B	**6.93**	7110-31113	**15.71**	7110-30970
TIMBER UP TO 30MM. IDEAL FOR PRECISE, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, CHIPBOARD, MDF AND SYNTHETICS.																			
BORDO 31113 TIMBER PRECISE CUT																			
≤ 30	≤ 30	≤ 30	≤ 30	≤ 30	–	–	✔	–	✔	–	✔	ALLOY	100	2.5	T101BR	**7.36**	7110-31120	**16.80**	7110-30987
TIMBER UP TO 30MM. IDEAL FOR PRECISE, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, CHIPBOARD, MDF AND SYNTHETICS. **DOWN CUT.**																			
BORDO 31120 TIMBER DOWN CUT																			
≤ 60	≤ 60	≤ 60	≤ 60	≤ 60	–	✔	✔	–	✔	–	–	ALLOY	100	4.0	T101D	**6.93**	7110-31137	**15.71**	7110-30994
TIMBER UP TO 60MM. IDEAL FOR FAST, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD, MDF AND SYNTHETICS.																			
BORDO 31137 TIMBER FAST CUT																			
≤ 100	≤ 100	≤ 100	–	≤ 100	–	✔	✔	–	✔	–	–	ALLOY	132	4.0	T301DL	**8.76**	7110-31144	**20.27**	7110-31007
TIMBER UP TO 100MM. IDEAL FOR FAST, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD, MDF AND SYNTHETICS.																			
BORDO 31144 TIMBER FAST CUT LONG																			
≤ 60	≤ 60	≤ 60	≤ 60	–	–	✔	–	–	✔	–	–	ALLOY	100	4.0	T144D	**5.81**	7110-31151	**12.90**	7110-31014
TIMBER UP TO 60MM. HIGH SPEED, STRAIGHT CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD AND MDF.																			
BORDO 31151 TIMBER HIGH SPEED																			
≤ 60	≤ 60	≤ 60	≤ 60	–	–	✔	–	–	–	✔	–	ALLOY	100	4.0	T244D	**6.20**	7110-31175	**13.87**	7110-31021
TIMBER UP TO 60MM. HIGH SPEED, CURVED CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD AND MDF.																			
BORDO 31175 TIMBER CURVED CUT																			
≤ 60	≤ 60	–	–	≤ 60	–	✔	–	✔	✔	–	–	ALLOY	100	3.0	T111C	**4.64**	7110-31182	**9.96**	7110-31038
TIMBER UP TO 60MM. FOR FAST, STRAIGHT, ROUGH CUTS IN HARDWOOD, SOFTWOOD AND PLASTIC.																			
BORDO 31182 TIMBER ROUGH CUT																			
≤ 30	≤ 30	–	–	≤ 30	≤ 30	–	–	–	✔	–	–	ALLOY	75	2.0	T119B	**4.34**	7110-31199	–	–
TIMBER & ACRYLIC UP TO 30MM. FOR STRAIGHT CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.																			
BORDO 31199 TIMBER AND ACRYLIC																			
≤ 50	≤ 50	–	–	≤ 50	≤ 50	–	–	–	✔	–	–	ALLOY	100	2.0	–	**4.99**	7110-31205	–	–
TIMBER & ACRYLIC UP TO 50MM. FOR STRAIGHT CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.																			
BORDO 31205 TIMBER AND ACRYLIC																			
≤ 20	≤ 20	≤ 20	–	≤ 20	≤ 20	–	–	–	–	✔	–	ALLOY	75	2.0	T119BO	**4.77**	7110-31212	–	–
TIMBER & ACRYLIC UP TO 20MM. FOR CURVED CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.																			
BORDO 31212 TIMBER AND ACRYLIC																			







GROUP	JIGS
SHANK	T-SHANK (EURO)
TYPE	METAL
PACKAGING	HANG CARD

T-SHANK (EURO SHANK) – METAL, SYNTHETICS & MISCELLANEOUS

FERROUS (STEEL) MM	NON-FERROUS MM	ALUMINIUM MM	SANDWICH MATERIAL MM	PVC MM	ACRYLIC MM	FAST CUT	CLEAN CUT	ROUGH CUT	STRAIGHT CUT	CURVED CUT	DOWN CUT	BLADE MATERIAL	LENGTH MM	PITCH	BOSCH EQUIVALENT	2 PACK $ PACK	2 PACK PART #	5 PACK $ PACK	5 PACK PART #
1.2	1.2	1.2	–	–	–	–	–	–	✔	–	–	HSS	75	0.9	T118G	**6.70**	7110-31229	–	–

THIN METALS 0.9 TO 1.2MM. STRAIGHT CUTS IN EXTRA THIN METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.



3	3	3	–	–	–	–	–	–	✔	–	–	HSS	75	1.2	T118A	**6.70**	7110-31236	**15.31**	7110-31045

THIN METALS 1.5 TO 3.0MM. STRAIGHT CUTS IN THIN METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.



3	3	3	–	–	–	–	–	–	–	✔	–	HSS	75	1.2	T218A	–	–	**16.09**	7110-31069

THIN METALS 1.5 TO 3.0MM. CURVED CUTS IN THIN METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.



3	3	3	–	–	3	–	–	–	✔	–	–	BiM	75	1.2	T118AF	**7.78**	7110-31243	**18.02**	7110-31052

THIN METALS 1.5 TO 3.0MM. STRAIGHT CUTS. BI-METAL FLEXIBLE & SHATTERPROOF BLADE. FERROUS, NON-FERROUS, STAINLESS, ALUMINIUM & ACRYLIC.



6	6	6	–	–	–	–	–	–	✔	–	–	HSS	75	2.0	T118B	**6.70**	7110-31250	**15.31**	7110-31076

METALS 3.0 TO 6.0MM. STRAIGHT CUTS IN MEDIUM-THICK METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.



3	3	3	65	–	–	–	–	–	✔	–	–	HSS	132	1.2	T318A	**10.17**	7110-31267	**23.98**	7110-31083

METALS 1.5–3.0MM, SANDWICH 1.5–65.0MM. STRAIGHT CUTS IN METALS & SANDWICH MATERIALS. FERROUS, NON-FERROUS, SHEET METAL & ALUMINIUM.



6	6	6	85	85	85	–	–	–	✔	–	–	BiM	132	2.0	T318BF	**11.71**	7110-31274	**27.84**	7110-31090

METALS 2.0–6.0MM, SANDWICH 2.0–85.0MM. SAME AS 7110-31267 ABOVE WITH BI-METAL FLEXIBLE & SHATTERPROOF BLADE.



–	20	20	–	20	–	✔	–	–	✔	–	–	HSS	100	3.0	T127D	**7.90**	7110-31281	**18.30**	7110-31106

ALUMINIUM 2.0–20.0MM. FAST, STRAIGHT CUTS IN ALUM., NON-FERROUS METALS, FIBREGLASS REINFORCED SYNTHETICS, FIBRE CEMENT SHEET & PLASTIC.



PERFECT FOR FIBRE CEMENT SHEET

T-SHANK (EURO SHANK) – CERAMICS, GLASS, FIBRE CEMENT SHEET

–	–	–	–	–	–	–		–	✔	–	–	TCG	75	–	T130RIFF	**7.71**	7110-31298	–	–

ABRASIVE 1.0–15.0MM. PRECISE, STRAIGHT CUTS IN CERAMICS, GLASS, FIBRE CEMENT SHEET AND FIBREGLASS REINFORCED SYNTHETICS.



PERFECT FOR CERAMICS AND FIBRE CEMENT SHEET







GROUP	JIGS
SHANK	UNIVERSAL SHANK (B&D)
TYPE	TIMBER
PACKAGING	HANG CARD

SOLID TIMBER MM	PLYWOOD MM	CHIPBOARD AND MDF MM	LAMINATED PARTICLE BOARD MM	PVC MM	ACRYLIC MM	FAST CUT	CLEAN CUT	ROUGH CUT	STRAIGHT CUT	CURVED CUT	DOWN CUT	BLADE MATERIAL	LENGTH MM	PITCH	BOSCH EQUIVALENT	2 PACK $ PACK	2 PACK PART #	5 PACK $ PACK	5 PACK PART #
UNIVERSAL SHANK – TIMBER & SYNTHETICS																			
≤ 30	≤ 30	≤ 30	≤ 30	≤ 30	–	–	✔	–	✔	–	–	ALLOY	100	2.5	U101B	**6.93**	7110-31373	**15.71**	7110-31304

TIMBER UP TO 30MM. IDEAL FOR PRECISE, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, CHIPBOARD, MDF AND SYNTHETICS.



≤ 30	≤ 30	≤ 30	≤ 30	≤ 30	–	–	✔	–	✔	–	✔	ALLOY	100	2.5	U101BR	**7.36**	7110-31380	**16.80**	7110-31311

TIMBER UP TO 30MM. IDEAL FOR PRECISE, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, CHIPBOARD, MDF AND SYNTHETICS. **DOWN CUT.**



≤ 60	≤ 60	≤ 60	≤ 60	≤ 60	–	✔	✔	–	✔	–	–	ALLOY	100	4.0	U101D	**6.93**	7110-31397	**15.71**	7110-31328

TIMBER UP TO 60MM. IDEAL FOR FAST, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD, MDF AND SYNTHETICS.



≤ 100	≤ 100	≤ 100	–	≤ 100	–	✔	✔	–	✔	–	–	ALLOY	132	4.0	U301DL	**8.76**	7110-31403	–	–

TIMBER UP TO 100MM. IDEAL FOR FAST, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD, MDF AND SYNTHETICS.



≤ 60	≤ 60	≤ 60	≤ 60	–	–	✔	–	–	✔	–	–	ALLOY	100	4.0	U144D	**5.81**	7110-31410	**12.90**	7110-31335

TIMBER UP TO 60MM. HIGH SPEED, STRAIGHT CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD AND MDF.



≤ 60	≤ 60	≤ 60	≤ 60	–	–	✔	–	–	–	✔	–	ALLOY	100	4.0	U244D	**6.20**	7110-31427	–	–

TIMBER UP TO 60MM. HIGH SPEED, CURVED CUTS IN HARDWOOD, SOFTWOOD, CHIPBOARD AND MDF.



≤ 60	≤ 60	–	–	≤ 60	–	✔	–	✔	✔	–	–	ALLOY	100	3.0	U111C	**4.64**	7110-31434	**9.96**	7110-31342

TIMBER UP TO 60MM. FOR FAST, STRAIGHT, ROUGH CUTS IN HARDWOOD, SOFTWOOD AND PLASTIC.



≤ 30	≤ 30	–	–	≤ 30	≤ 30	–	–	–	✔	–	–	ALLOY	75	2.0	U119B	**4.34**	7110-31441	–	–

TIMBER & ACRYLIC UP TO 30MM. FOR STRAIGHT CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.



≤ 50	≤ 50	–	–	≤ 50	≤ 50	–	–	–	✔	–	–	ALLOY	100	2.0	–	**4.99**	7110-31458	–	–

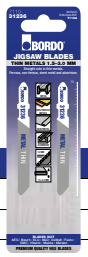
TIMBER & ACRYLIC UP TO 50MM. FOR STRAIGHT CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.



≤ 20	≤ 20	≤ 20	–	≤ 20	≤ 20	–	–	–	–	✔	–	ALLOY	75	2.0	U119BO	**4.77**	7110-31465	–	–

TIMBER & ACRYLIC UP TO 20MM. FOR CURVED CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.









GROUP	JIGS
SHANK	UNIVERSAL SHANK (B&D)
TYPE	METAL
PACKAGING	HANG CARD

FERROUS (STEEL) MM	NON-FERROUS MM	ALUMINIUM MM	SANDWICH MATERIAL MM	PVC MM	ACRYLIC MM	FAST CUT	CLEAN CUT	ROUGH CUT	STRAIGHT CUT	CURVED CUT	DOWN CUT	BLADE MATERIAL	LENGTH MM	PITCH	BOSCH EQUIVALENT	2 PACK $ PACK	2 PACK PART #	5 PACK $ PACK	5 PACK PART #
UNIVERSAL SHANK – METAL, SYNTHETICS & MISCELLANEOUS																			
3	3	3	–	–	–	–	–	–	✔	–	–	HSS	75	1.2	U118A	**6.70**	7110-31472	**15.31**	7110-31359

THIN METALS 1.5 TO 3.0MM. STRAIGHT CUTS IN THIN METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.

BORDO 31472 **METAL** THIN

3	3	3	–	–	–	–	–	–	–	✔	–	HSS	75	1.2	U218A	**7.78**	7110-31496	**–**	–

THIN METALS 1.5 TO 3.0MM. CURVED CUTS IN THIN METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.

BORDO 31496 **METAL** THIN CURVED

3	3	3	–	–	3	–	–	–	✔	–	–	BiM	75	1.2	U118AF	**6.70**	7110-31489	**–**	–

THIN METALS 1.5 TO 3.0MM. STRAIGHT CUTS. BI-METAL FLEXIBLE & SHATTERPROOF BLADE. FERROUS, NON-FERROUS, STAINLESS, ALUMINIUM & ACRYLIC.

BORDO 31489 **METAL** THIN

6	6	6	–	–	–	–	–	–	✔	–	–	HSS	75	2.0	U118B	**6.70**	7110-31502	**15.31**	7110-31366

METALS 3.0 TO 6.0MM. STRAIGHT CUTS IN MEDIUM-THICK METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.

BORDO 31502 **METAL** MEDIUM

3	3	3	65	–	–	–	–	–	✔	–	–	HSS	132	1.2	U318A	**10.17**	7110-31519	**–**	–

METALS 1.5–3.0MM, SANDWICH 1.5–65.0MM. STRAIGHT CUTS IN METALS & SANDWICH MATERIALS. FERROUS, NON-FERROUS, SHEET METAL & ALUMINIUM.

BORDO 31519 **METAL** & SANDWICH

6	6	6	85	85	85	–	–	–	✔	–	–	BiM	132	2.0	U318BF	**11.71**	7110-31526	**–**	–

METALS 2.0–6.0MM, SANDWICH 2.0–85.0MM. SAME AS 7110-31519 ABOVE WITH BI-METAL FLEXIBLE & SHATTERPROOF BLADE.

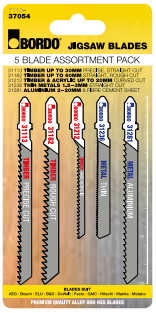
BORDO 31526 **METAL** & SANDWICH

–	20	20	–	20	–	✔	–	–	✔	–	–	HSS	100	3.0	U127D	**7.90**	7110-31533	**–**	–

ALUMINIUM 2.0–20.0MM. FAST, STRAIGHT CUTS IN ALUM., NON-FERROUS METALS, FIBREGLASS REINFORCED SYNTHETICS, FIBRE CEMENT SHEET & PLASTIC.

BORDO 31533 **METAL** ALUMINIUM

PERFECT FOR FIBRE CEMENT SHEET



GROUP	JIGS
PACKAGING	HANG CARD

ASSORTMENT	$ ASSORTMENT	PART NUMBER
T-SHANK – 5 BLADES	**15.47**	7110-37054



T-SHANK (EURO SHANK) – ASSORTMENT PACK

TIMBER UP TO 30MM. IDEAL FOR PRECISE, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, CHIPBOARD, MDF AND SYNTHETICS.



TIMBER UP TO 60MM. FOR FAST, STRAIGHT, ROUGH CUTS IN HARDWOOD, SOFTWOOD AND PLASTIC.



TIMBER & ACRYLIC UP TO 20MM. FOR CURVED CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.



THIN METALS 1.5 TO 3.0MM. STRAIGHT CUTS IN THIN METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.



ALUMINIUM 2.0–20.0MM. FAST, STRAIGHT CUTS IN ALUM., NON-FERROUS METALS, FIBREGLASS REINFORCED SYNTHETICS, FIBRE CEMENT SHEET & PLASTIC.



ASSORTMENT	$ ASSORTMENT	PART NUMBER
UNIVERSAL SHANK – 5 BLADES	**15.47**	7110-37061



UNIVERSAL SHANK (B&D SHANK) – ASSORTMENT PACK

TIMBER UP TO 30MM. IDEAL FOR PRECISE, STRAIGHT, CLEAN CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, CHIPBOARD, MDF AND SYNTHETICS.



TIMBER UP TO 60MM. FOR FAST, STRAIGHT, ROUGH CUTS IN HARDWOOD, SOFTWOOD AND PLASTIC.



TIMBER & ACRYLIC UP TO 20MM. FOR CURVED CUTS IN HARDWOOD, SOFTWOOD, PLYWOOD, INSULATION MATERIALS, PLASTIC AND ACRYLIC GLASS.



THIN METALS 1.5 TO 3.0MM. STRAIGHT CUTS IN THIN METALS. FERROUS, NON-FERROUS, SHEET METAL AND ALUMINIUM.



ALUMINIUM 2.0–20.0MM. FAST, STRAIGHT CUTS IN ALUM., NON-FERROUS METALS, FIBREGLASS REINFORCED SYNTHETICS, FIBRE CEMENT SHEET & PLASTIC.



GROUP	JIGS	JIGS	JIGS
PACKAGING	MERCHANDISER	MERCHANDISER	MERCHANDISER







MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
D1 T-SHANK MERCHANDISER – 5 PACKS	**526.50**	7110-D1				
D2 T-SHANK MERCHANDISER – 2 PACKS			**355.17**	7110-D2		
D3 UNI. SHANK MERCHANDISER – 2 PACKS					**355.17**	7110-D3

MERCHANDISER CONTENTS	PACK QTY	PART NUMBER	PACK QTY	PART NUMBER	PACK QTY	PART NUMBER
	WOOD BLADES		**WOOD BLADES**		**WOOD BLADES**	
	2	7110-30970 (5 PACK)	3	7110-31113 (2 PACK)	3	7110-31373 (2 PACK)
	2	7110-30987 (5 PACK)	3	7110-31120 (2 PACK)	3	7110-31380 (2 PACK)
	2	7110-30994 (5 PACK)	3	7110-31137 (2 PACK)	3	7110-31397 (2 PACK)
	2	7110-31007 (5 PACK)	3	7110-31144 (2 PACK)	3	7110-31403 (2 PACK)
	2	7110-31014 (5 PACK)	3	7110-31151 (2 PACK)	3	7110-31410 (2 PACK)
	2	7110-31021 (5 PACK)	3	7110-31175 (2 PACK)	3	7110-31427 (2 PACK)
	2	7110-31038 (5 PACK)	3	7110-31182 (2 PACK)	3	7110-31434 (2 PACK)
	METAL BLADES		3	7110-31199 (2 PACK)	3	7110-31441 (2 PACK)
	2	7110-31045 (5 PACK)	3	7110-31205 (2 PACK)	3	7110-31458 (2 PACK)
	2	7110-31052 (5 PACK)	3	7110-31212 (2 PACK)	3	7110-31465 (2 PACK)
	2	7110-31069 (5 PACK)	**METAL BLADES**		**METAL BLADES**	
	2	7110-31076 (5 PACK)	3	7110-31229 (2 PACK)	3	7110-31472 (2 PACK)
	2	7110-31083 (5 PACK)	3	7110-31236 (2 PACK)	3	7110-31489 (2 PACK)
	2	7110-31090 (5 PACK)	3	7110-31243 (2 PACK)	3	7110-31496 (2 PACK)
	2	7110-31106 (5 PACK)	3	7110-31250 (2 PACK)	3	7110-31502 (2 PACK)
	ASSORTMENT PACK		3	7110-31267 (2 PACK)	3	7110-31519 (2 PACK)
	2	7110-37054	3	7110-31274 (2 PACK)	3	7110-31526 (2 PACK)
	TUNGSTEN CARBIDE GRIT EDGE		3	7110-31281 (2 PACK)	3	7110-31533 (2 PACK)
	2	7110-31298 (2 PACK)				



BORDO IMPACT BITS

Bordo Impact Bits are designed and manufactured for optimum performance in modern impact drivers. Not only do they offer significantly increased bit life in impact applications but they also offer exceptional performance in standard driving usage. The impact driver action places high peak torque demands on both insert and power bits. Our range features a uniquely engineered torsion zone with multi-stage hardening and tempering to dissipate damaging peak loads.

Many manufacturers spruik the benefits of their “high torque”, “torsion” and “impact” bits. The vast majority do not live up to the hype. Bordo Impact Bits significantly outperform those of our competitors.

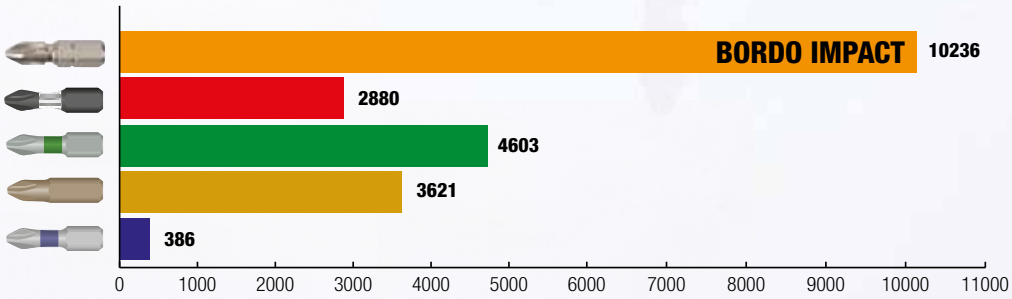




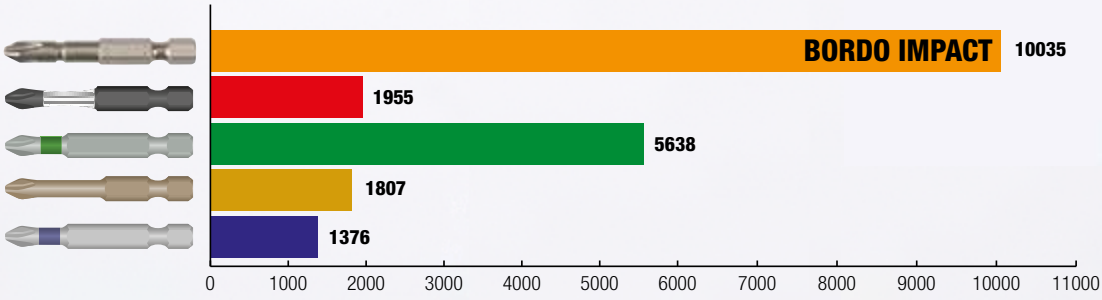
Uniquely engineered torsion zone with multi-stage hardening and tempering to dissipate damaging peak loads



PH2 x 25MM CYCLES BEFORE FAILURE average impact 10.3 Nm at 100% loading



PH2 x 50MM CYCLES BEFORE FAILURE average impact 10.3 Nm at 100% loading





GROUP | **SCIM**

TYPE – IMPACT	SIZE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
PHILLIPS®	#2	25	10	SLEEVE	**1.30**	5305-PH2X25
PHILLIPS®	#2	50	10	SLEEVE	**2.33**	5405-PH2X50
PHILLIPS®	#2	75	10	SLEEVE	**3.84**	5405-PH2X75
PHILLIPS®	#2	100	10	SLEEVE	**5.33**	5405-PH2X100
PHILLIPS®	#2	150	10	SLEEVE	**6.53**	5405-PH2X150
POZIDRIV®	#2	25	10	SLEEVE	**1.30**	5305-PZ2X25
POZIDRIV®	#2	50	10	SLEEVE	**2.33**	5405-PZ2X50
HEX	5MM	25	10	SLEEVE	**1.71**	5305-HX5X25
HEX	5MM	50	10	SLEEVE	**3.07**	5405-HX5X50
SQUARE RECESS	#1	50	10	SLEEVE	**2.33**	5405-SR1X50
SQUARE RECESS	#2	25	10	SLEEVE	**1.30**	5305-SR2X25
SQUARE RECESS	#2	50	10	SLEEVE	**2.16**	5405-SR2X50
SQUARE RECESS	#2	100	10	SLEEVE	**5.33**	5405-SR2X100
SQUARE RECESS	#2	150	10	SLEEVE	**6.53**	5405-SR2X150
SQUARE RECESS	#3	50	10	SLEEVE	**2.33**	5405-SR3X50
NUTSETTER	1/4"	65	5	SLEEVE	**9.93**	5605-NS1/4X65
NUTSETTER	3/8"	65	5	SLEEVE	**10.79**	5605-NS3/8X65
NUTSETTER	5/16"	65	5	SLEEVE	**10.11**	5605-NS5/16X65
NUTSETTER	5/16"	150	5	SLEEVE	**18.17**	5605-NS5/16X150
NUTSETTER	7/16"	65	5	SLEEVE	**17.17**	5605-NS7/16X65

LARGER RANGE

Phillips®	Most common screw drive system that absorbs torque peaks and lowers slippage.
Grippa®	Ribbing on the Grippa grips in the recess of the screw greatly reducing cam-out.
Slotted	Oldest and still very popular screw type.
Hex	Reduces cam-out and less operator pressure is needed.
PoziDriv®	Self-centering for fast, efficient assembly operations.
Square Recess	Growing in popularity in fasteners such as batten and decking screws.
Torx®	For fast, efficient installation and removal of fasteners. Cam-out is virtually eliminated due to the vertical sidewalls and reduced recess fallaway, and torque transfer is improved by the large cross-sectional areas of the six lobes.



BONUS
5350-MH1/4x50
bit holder in every
insert bit trade pack





GROUP | **SCIM**

TYPE – IMPACT	SIZE	OAL MM	BITS PER PACK	PACK TYPE	ORDER QTY	$ PER PACK	PART NUMBER
PHILLIPS®	#2	25	25	BOX	5 PACKS	**39.64**	5305-PH2X25TP
PHILLIPS®	#2	50	25	BOX	5 PACKS	**56.54**	5405-PH2X50TP
POZIDRIV®	#2	25	25	BOX	5 PACKS	**39.64**	5305-PZ2X25TP
POZIDRIV®	#2	50	25	BOX	5 PACKS	**56.54**	5405-PZ2X50TP
SQUARE RECESS	#2	25	25	BOX	5 PACKS	**39.64**	5305-SR2X25TP
SQUARE RECESS	#2	50	25	BOX	5 PACKS	**56.54**	5405-SR2X50TP
HEX	5MM	50	25	BOX	5 PACKS	**68.20**	5405-HX5X50TP
TORX	T20	50	25	BOX	5 PACKS	**68.20**	5405-TX20X50TP
TORX	T25	50	25	BOX	5 PACKS	**68.20**	5405-TX25X50TP
NUTSETTER	5/16"	65	5	BOX	5 PACKS	**49.68**	5605-NS5/16X65TP

LARGER RANGE

BORDO STANDARD SERIES SCREWDRIVER BITS, NUTSETTERS, BIT HOLDERS AND QUICK CHANGE EXTENSIONS

The Bordo standard series of screwdriver bits includes an extensive range of insert bits, power bits, nutsetters, magnetic bit holders, quick change bit holders and quick change extensions. Insert bits and power bits are available in a large range of tip styles and lengths to suit all common applications and most security fasteners. All bits are packaged in individual sleeves, in strips of 5 or 10 pieces, which are marked with the part number and barcode. All bit tips are precision formed to ensure optimum engagement ensuring maximum tool life and minimising damage to screw heads. Each bit is manufactured using high grade alloy material and heat tempered for high durability in all general purpose applications. Bordo standard series provides professional quality bits that are suitable for use in all common fastening applications.



Today's modern impact drivers place a unique set of demands on screwdriver bits. Bordo Impact Bits have been specifically engineered to provide industry leading performance in impact applications – see page 222.





GROUP	SCRW

	TYPE – STANDARD	SIZE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
	PHILLIPS®	#0	25	10	SLEEVE	**0.97**	5300-PH0X25
	PHILLIPS®	#1	25	10	SLEEVE	**0.97**	5300-PH1X25
	PHILLIPS®	#2	25	10	SLEEVE	**0.97**	5300-PH2X25
	PHILLIPS®	#3	25	10	SLEEVE	**0.97**	5300-PH3X25
	PHILLIPS® 5/16" HEX	#4	30	10	SLEEVE	**2.56**	5300-PH4X30
	GRIPPA®	1	25	10	SLEEVE	**0.97**	5300-PH1GX25
	GRIPPA®	2	25	10	SLEEVE	**0.97**	5300-PH2GX25
	GRIPPA®	3	25	10	SLEEVE	**0.97**	5300-PH3GX25
	POZIDRIV®	#1	25	10	SLEEVE	**0.97**	5300-PZ1X25
	POZIDRIV®	#2	25	10	SLEEVE	**0.97**	5300-PZ2X25
	POZIDRIV®	#3	25	10	SLEEVE	**0.97**	5300-PZ3X25
	HEX	2MM	25	10	SLEEVE	**1.27**	5300-HX2X25
	HEX	3MM	25	10	SLEEVE	**1.27**	5300-HX3X25
	HEX	4MM	25	10	SLEEVE	**1.27**	5300-HX4X25
	HEX	5MM	25	10	SLEEVE	**1.27**	5300-HX5X25
	SQUARE RECESS	#1	25	10	SLEEVE	**0.97**	5300-SR1X25
	SQUARE RECESS	#2	25	10	SLEEVE	**0.97**	5300-SR2X25
	SQUARE RECESS	#3	25	10	SLEEVE	**0.97**	5300-SR3X25
	SLOTTED	#4	25	10	SLEEVE	**0.97**	5300-SL4X25
	SLOTTED	#5	25	10	SLEEVE	**0.97**	5300-SL5X25
	SLOTTED	#6	25	10	SLEEVE	**0.97**	5300-SL6X25
	TORX®	T10	25	10	SLEEVE	**3.52**	5300-TX10X25
	TORX®	T15	25	10	SLEEVE	**3.52**	5300-TX15X25
	TORX®	T20	25	10	SLEEVE	**3.52**	5300-TX20X25
	TORX®	T25	25	10	SLEEVE	**3.52**	5300-TX25X25
	TORX®	T27	25	10	SLEEVE	**4.48**	5300-TX27X25
	TORX®	T30	25	10	SLEEVE	**4.48**	5300-TX30X25
	TORX®	T40	25	10	SLEEVE	**4.48**	5300-TX40X25
	TORX® 5/16" HEX	T45	30	10	SLEEVE	**4.48**	5300-TX45X25
	PHILLIPS® DRYWALL PLASTERBOARD	#2	25	10	SLEEVE	**2.78**	5300-PH2DWX25
	PHILLIPS® REDUCED NOSE	#2	25	10	SLEEVE	**1.20**	5300-PH2RNX25

PHILLIPS #2 DRYWALL / PLASTERBOARD BITS

Phillip® Drywall/ Plasterboard bits convert any standard cordless (or corded) drill into a screwgun. These bits drive the screw to an ideal preset depth and evenly draw in the plasterboard paper without tearing.

PHILLIPS #2 REDUCED NOSE

Phillips® Reduced Nose insert bits are designed for use in screws with poorly formed or damaged screw heads.

Bordo IMPACT powerbits are engineered for optimum performance in impact drivers – see page 222

See pages 234 for the complete range of Bordo Plus high performance magnetic bit holders.





GROUP	SCRW

TYPE	SIZE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
TORX® TR	T10	25	10	SLEEVE	**5.47**	5300-TX10TRX25
TORX® TR	T15	25	10	SLEEVE	**5.47**	5300-TX15TRX25
TORX® TR	T20	25	10	SLEEVE	**5.47**	5300-TX20TRX25
TORX® TR	T25	25	10	SLEEVE	**5.47**	5300-TX25TRX25
TORX® TR	T27	25	10	SLEEVE	**6.88**	5300-TX27TRX25
TORX® TR	T30	25	10	SLEEVE	**6.88**	5300-TX30TRX25
TORX® TR	T40	25	10	SLEEVE	**6.88**	5300-TX40TRX25
TORX® TR 5/16" HEX	T45	30	10	SLEEVE	**6.88**	5300-TX45TRX25
TORX® TR 5/16" HEX	T50	30	10	SLEEVE	**6.88**	5300-TX50TRX25



TRI-WING®	#0	25	10	SLEEVE	**6.53**	5300-TW0X25
TRI-WING®	#1	25	10	SLEEVE	**6.53**	5300-TW1X25
TRI-WING®	#2	25	10	SLEEVE	**6.53**	5300-TW2X25
TRI-WING®	#3	25	10	SLEEVE	**6.53**	5300-TW3X25
TRI-WING®	#4	25	10	SLEEVE	**6.53**	5300-TW4X25
TRI-WING®	#5	25	10	SLEEVE	**6.53**	5300-TW5X25



IN-HEX	3/32"	25	10	SLEEVE	**4.85**	5300-IH3/32X25
IN-HEX	1/8"	25	10	SLEEVE	**4.85**	5300-IH1/8X25
IN-HEX	5/32"	25	10	SLEEVE	**4.85**	5300-IH5/32X25
IN-HEX	3/16"	25	10	SLEEVE	**4.85**	5300-IH3/16X25
IN-HEX	7/32"	25	10	SLEEVE	**4.85**	5300-IH7/32X25
IN-HEX	3MM	25	10	SLEEVE	**4.85**	5300-IH3X25
IN-HEX	4MM	25	10	SLEEVE	**4.85**	5300-IH4X25
IN-HEX	5MM	25	10	SLEEVE	**4.85**	5300-IH5X25
IN-HEX	6MM	25	10	SLEEVE	**4.85**	5300-IH6X25



PIN DRIVE	#4	25	10	SLEEVE	**4.85**	5300-PD4X25
PIN DRIVE	#6	25	10	SLEEVE	**4.85**	5300-PD6X25
PIN DRIVE	#8	25	10	SLEEVE	**4.85**	5300-PD8X25
PIN DRIVE	#10	25	10	SLEEVE	**4.85**	5300-PD10X25



TRI-LOBULAR	–	25	10	SLEEVE	**6.80**	5300-TLX25

TYPE	SIZE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
IN-HEX	6MM	100	10	SLEEVE	**5.76**	5400-IH6X100
TORX® TR	T20	100	10	SLEEVE	**7.96**	5400-TX20TRX100
TORX® TR	T25	100	10	SLEEVE	**7.96**	5400-TX25TRX100
TORX® TR	T27	100	10	SLEEVE	**7.96**	5400-TX27TRX100
TORX® TR	T40	100	10	SLEEVE	**7.96**	5400-TX40TRX100

SECURITY POWERBIT RANGE



GROUP	SCRW

TYPE	SIZE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
PHILLIPS®	#1	50	10	SLEEVE	**1.72**	5400-PH1X50
PHILLIPS®	#2	50	10	SLEEVE	**1.72**	5400-PH2X50
PHILLIPS®	#2	75	10	SLEEVE	**2.66**	5400-PH2X75
PHILLIPS®	#2	100	10	SLEEVE	**3.93**	5400-PH2X100
PHILLIPS®	#2	150	10	SLEEVE	**4.84**	5400-PH2X150
PHILLIPS®	#3	50	10	SLEEVE	**1.72**	5400-PH3X50
PHILLIPS®	#4	100	10	SLEEVE	**5.76**	5400-PH4X100
GRIPPA®	2	50	10	SLEEVE	**1.72**	5400-PH2GX50
GRIPPA®	2	75	10	SLEEVE	**2.66**	5400-PH2GX75
GRIPPA®	2	100	10	SLEEVE	**3.93**	5400-PH2GX100
GRIPPA®	2	150	10	SLEEVE	**4.84**	5400-PH2GX150
POZIDRIV®	#1	50	10	SLEEVE	**1.72**	5400-PZ1X50
POZIDRIV®	#2	50	10	SLEEVE	**1.72**	5400-PZ2X50
POZIDRIV®	#2	100	10	SLEEVE	**3.93**	5400-PZ2X100
POZIDRIV®	#2	150	10	SLEEVE	**4.84**	5400-PZ2X150
POZIDRIV®	#3	50	10	SLEEVE	**1.72**	5400-PZ3X50
HEX	5MM	50	10	SLEEVE	**2.28**	5400-HX5X50
HEX	6MM	50	10	SLEEVE	**2.28**	5400-HX6X50
HEX	6MM	150	10	SLEEVE	**4.84**	5400-HX6X150
HEX	8MM	50	10	SLEEVE	**2.80**	5400-HX8X50
HEX	10MM	50	10	SLEEVE	**4.40**	5400-HX10X50
HEX	12MM	50	10	SLEEVE	**5.04**	5400-HX12X50
SQUARE RECESS	#1	50	10	SLEEVE	**1.59**	5400-SR1X50
SQUARE RECESS	#1	100	10	SLEEVE	**3.93**	5400-SR1X100
SQUARE RECESS	#1	150	10	SLEEVE	**4.84**	5400-SR1X150
SQUARE RECESS	#2	50	10	SLEEVE	**1.59**	5400-SR2X50
SQUARE RECESS	#2	75	10	SLEEVE	**2.66**	5400-SR2X75
SQUARE RECESS	#2	100	10	SLEEVE	**3.93**	5400-SR2X100
SQUARE RECESS	#2	150	10	SLEEVE	**4.84**	5400-SR2X150
SQUARE RECESS	#3	50	10	SLEEVE	**1.59**	5400-SR3X50
SLOTTED	#3	50	10	SLEEVE	**1.72**	5400-SL3X50
SLOTTED	#4	50	10	SLEEVE	**1.72**	5400-SL4X50
SLOTTED	#5	50	10	SLEEVE	**1.72**	5400-SL5X50
SLOTTED	#6	50	10	SLEEVE	**1.72**	5400-SL6X50
SLOTTED	#8	50	10	SLEEVE	**2.66**	5400-SL8X50





For insert bit sets and power bit sets see page 235



GROUP	SCRW

TYPE	SIZE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
PHILLIPS®	#1	45	10	SLEEVE	**2.45**	5500-PH1DX45
PHILLIPS®	#2	45	10	SLEEVE	**2.45**	5500-PH2DX45
PHILLIPS®	#2	65	10	SLEEVE	**2.61**	5500-PH2DX65
PHILLIPS®	#2	100	10	SLEEVE	**2.82**	5500-PH2DX100
PHILLIPS®	#2	150	10	SLEEVE	**6.68**	5500-PH2DX150
PHILLIPS®	#2	200	10	SLEEVE	**7.46**	5500-PH2DX200
POZIDRIV®	#2	45	10	SLEEVE	**2.45**	5500-PZ2DX45
POZIDRIV®	#2	65	10	SLEEVE	**2.61**	5500-PZ2DX65
SQUARE RECESS	#1	45	10	SLEEVE	**2.45**	5500-SR1DX45
SQUARE RECESS	#2	45	10	SLEEVE	**2.45**	5500-SR2DX45
SQUARE RECESS	#2	65	10	SLEEVE	**2.61**	5500-SR2DX65
PHILLIPS® SLOTTED	#2/5MM	45	10	SLEEVE	**2.77**	5500-PH2SL5X45





Standard Nutsetters feature a small internal chamfer to facilitate quick screw engagement. The chamfer also reduces marking of the head–shoulder junction when using painted hex head screws.

GROUP	SCRW

TYPE	SIZE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
NUTSETTER	1/4"	42	10	SLEEVE	**6.22**	5600-NS1/4X42
NUTSETTER	1/4"	65	10	SLEEVE	**7.06**	5600-NS1/4X65
NUTSETTER	3/16"	42	10	SLEEVE	**6.53**	5600-NS3/16X42
NUTSETTER	5/16"	42	10	SLEEVE	**6.22**	5600-NS5/16X42
NUTSETTER	5/16"	65	10	SLEEVE	**6.72**	5600-NS5/16X65
NUTSETTER	5/16"	100	10	SLEEVE	**11.43**	5600-NS5/16X100
NUTSETTER	5/16"	150	10	SLEEVE	**16.68**	5600-NS5/16X150
NUTSETTER	5/16"	200	10	SLEEVE	**23.93**	5600-NS5/16X200
NUTSETTER	5/16"	300	10	SLEEVE	**30.33**	5600-NS5/16X300
NUTSETTER – FLAT	5/16"	42	10	SLEEVE	**6.53**	5600-NS5/16X42F
NUTSETTER – FLAT	5/16"	65	10	SLEEVE	**7.06**	5600-NS5/16X65F
NUTSETTER	3/8"	42	10	SLEEVE	**7.06**	5600-NS3/8X42
NUTSETTER	3/8"	65	10	SLEEVE	**8.57**	5600-NS3/8X65
NUTSETTER	3/8"	150	10	SLEEVE	**26.50**	5600-NS3/8X150
NUTSETTER	3/8"	200	10	SLEEVE	**22.86**	5600-NS3/8X200
NUTSETTER	10MM	65	10	SLEEVE	**9.69**	5600-NS10X65
NUTSETTER	7/16"	65	10	SLEEVE	**13.21**	5600-NS7/16X65





Flat Nutsetters provide maximum screw engagement and minimise cam-out when using hex screws with small head heights.

All Bordo Nutsetters are manufactured from premium heat treated alloy steel and feature powerful magnets. The universal 1/4" hex shank is suitable for use in most power tools and quick change adaptors/ extensions.




5750-14X65




5350-DCX75

GROUP					SCRW	
TYPE	SIZE OR TYPE	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
ADAPTORS						
1/4" HEX - 3/8" SQUARE	M–M	50	5	SLEEVE	**5.31**	5610-SD3/8X50
1/4" HEX - 3/8" SQUARE	M–M	75	5	SLEEVE	**5.89**	5610-SD3/8X75
1/4" HEX - 1/2" SQUARE	M–M	50	5	SLEEVE	**6.87**	5610-SD1/2X50
1/4" HEX - 1/2" SQUARE	M–M	75	5	SLEEVE	**7.46**	5610-SD1/2X75
1/4" HEX - 1/4" SQUARE	M–M	51	5	SLEEVE	**3.11**	5610-SD1/4X51
1/4" HEX - 1/4" SQUARE	M–M	100	5	SLEEVE	**5.63**	5610-SD1/4X100
1/4" HEX - 1/4" SQUARE	M–M	150	5	SLEEVE	**6.98**	5610-SD1/4X150
1/4" HEX - 1/4" SQUARE	F–F	25	5	SLEEVE	**16.22**	5620-FSD1/4X25
1/4" HEX - 3/8" SQUARE	F–F	25	5	SLEEVE	**20.34**	5620-FSD3/8X25
DRILL CHUCK						
DRILL CHUCK – UP TO 7MM	1/4"	75	1	CLAM	**17.69**	5350-DCX75
MAGNETIC HOLDERS						
STANDARD BIT HOLDER	1/4"	50	5	SLEEVE	**9.09**	5350-MH1/4X50
STANDARD BIT HOLDER	1/4"	75	5	SLEEVE	**9.90**	5350-MH1/4X75
STANDARD BIT HOLDER	1/4"	150	5	SLEEVE	**17.21**	5350-MH1/4X150
C-RING HOLDER S/STEEL	1/4"	75	5	SLEEVE	**24.78**	5350-MHC1/4X75
5/16" BIT HOLDER	5/16"	75	5	SLEEVE	**14.93**	5350-MH5/16BDX75
SDS PLUS BIT HOLDER	1/4"	75	5	SLEEVE	**23.03**	5350-SDSX75


5610-SD1/4X51


5750-14X150

GROUP						PHEX	
TYPE	SUITS HEX	OAL MM	SHANK SIZE	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
QUICK CHANGE							
QUICK CHANGE HOLDER	1/4"	65	1/4"	1	CLAM	**14.17**	5750-14X65
QUICK CHANGE HOLDER	1/4" & 3/8"	70	3/8"	1	CLAM	**26.40**	5750-1438X70
QUICK CHANGE EXT.	1/4"	150	1/4"	1	HANG CARD	**19.37**	5750-14X150
QUICK CHANGE EXT.	1/4"	300	1/4"	1	HANG CARD	**21.44**	5750-14X300
HANDLE							
QUICK CHANGE HANDLE	1/4"	–	–	10	DISPLAY	**26.01**	5750-14DH


5620-FSD1/4X25



Quick Change Handle
Bordo quick change screwdriver bit handle is machined from a solid aluminium billet with fine knurling for the ultimate non-slip grip. Each handle features two click-in quick change sockets to suit all standard 1/4" hex shank accessories.

Ideal for use with with any of the extensive range of Bordo premium quality power bits.


5350-SDSX75



LARGER RANGE

GROUP						SCRW	
TYPE – STANDARD		SIZE	OAL MM	PACK QTY	PACK TYPE	$ CLAM	PART NUMBER
	PHILLIPS®	#1	25	2	CLAM	**3.72**	5300-PH1X25S
	PHILLIPS®	#2	25	2	CLAM	**3.72**	5300-PH2X25S
	PHILLIPS®	#3	25	2	CLAM	**3.72**	5300-PH3X25S
	POZIDRIV®	#1	25	2	CLAM	**3.72**	5300-PZ1X25S
	POZIDRIV®	#2	25	2	CLAM	**3.72**	5300-PZ2X25S
	POZIDRIV®	#3	25	2	CLAM	**3.72**	5300-PZ3X25S
	HEX	5	25	2	CLAM	**3.72**	5300-HX5X25S
	SLOTTED	#4	25	2	CLAM	**3.72**	5300-SL4X25S
	SLOTTED	#5	25	2	CLAM	**3.72**	5300-SL5X25S
	SLOTTED	#6	25	2	CLAM	**3.72**	5300-SL6X25S
	SQUARE RECESS	#1	25	2	CLAM	**2.74**	5300-SR1X25S
	SQUARE RECESS	#2	25	2	CLAM	**2.74**	5300-SR2X25S
	PHILLIPS® DRYWALL	#2	25	2	CLAM	**4.02**	5300-PH2DWX25S
	TORX	T15	25	2	CLAM	**8.04**	5300-TX15X25S
	TORX	T20	25	2	CLAM	**8.04**	5300-TX20X25S
	TORX	T30	25	2	CLAM	**8.04**	5300-TX30X25S



GROUP						SCRW	
TYPE – STANDARD		SIZE	OAL MM	PACK QTY	PACK TYPE	$ CLAM	PART NUMBER
	NUTSETTER	1/4"	42	1	CLAM	**7.97**	5600-NS1/4X42S
	NUTSETTER	1/4"	65	1	CLAM	**9.38**	5600-NS1/4X65S
	NUTSETTER	5/16"	42	1	CLAM	**7.97**	5600-NS5/16X42S
	NUTSETTER	5/16"	65	1	CLAM	**9.38**	5600-NS5/16X65S
	NUTSETTER	5/16"	150	1	CLAM	**14.72**	5600-NS5/16X150S
	NUTSETTER	3/8"	42	1	CLAM	**9.38**	5600-NS3/8X42S
	NUTSETTER	3/8"	65	1	CLAM	**11.14**	5600-NS3/8X65S
MAGNETIC HOLDERS							
	STANDARD BIT HOLDER	1/4"	75	1	CLAM	**9.08**	5350-MH1/4X75S

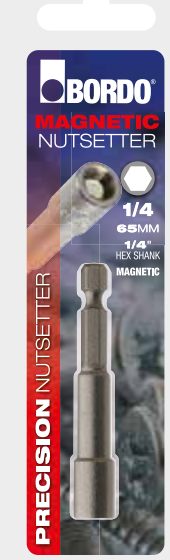
SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
NUTSETTER MULTI-PACK	2	**19.05**	5600-SET1
5/16 AND 3/8 NUTSETTERS X 65MM			

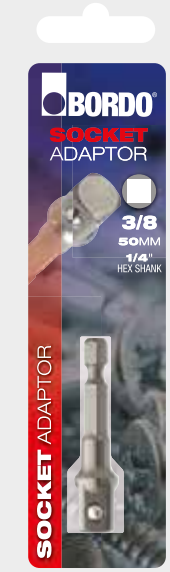


GROUP						SCRW	
TYPE		SIZE	OAL MM	PACK QTY	PACK TYPE	$ CLAM	PART NUMBER
ADAPTORS							
	1/4" HEX - 3/8" SQUARE	M–M	50	1	CLAM	**8.12**	5610-SD3/8X50S
	1/4" HEX - 1/2" SQUARE	M–M	50	1	CLAM	**8.12**	5610-SD1/2X50S
	1/4" HEX - 1/4" SQUARE	M–M	50	1	CLAM	**8.12**	5610-SD1/4X50S

SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
SOCKET ADAPTOR MULTI-PACK	3	**17.49**	5610-SDX50S
1/4, 3/8 AND 1/2 X 50MM			











GROUP						SCRW	
	TYPE – STANDARD	**SIZE**	**OAL** MM	**PACK** QTY	**PACK TYPE**	**$** CLAM	**PART** NUMBER
⊕	PHILLIPS®	#1	50	1	CLAM	**2.96**	5400-PH1X50S
	PHILLIPS®	#2	50	1	CLAM	**2.96**	5400-PH2X50S
	PHILLIPS®	#2	75	1	CLAM	**3.61**	5400-PH2X75S
	PHILLIPS®	#2	100	1	CLAM	**7.04**	5400-PH2X100S
	PHILLIPS®	#2	150	1	CLAM	**8.10**	5400-PH2X150S
	PHILLIPS®	#3	50	1	CLAM	**2.96**	5400-PH3X50S
✱	POZIDRIV®	#1	50	1	CLAM	**2.96**	5400-PZ1X50S
	POZIDRIV®	#2	50	1	CLAM	**2.96**	5400-PZ2X50S
	POZIDRIV®	#2	100	1	CLAM	**7.04**	5400-PZ2X100S
	POZIDRIV®	#2	150	1	CLAM	**8.10**	5400-PZ2X150S
	POZIDRIV®	#3	50	1	CLAM	**2.96**	5400-PZ3X50S
○	HEX	5MM	50	1	CLAM	**3.53**	5400-HX5X50S
■	SQUARE RECESS	#1	50	1	CLAM	**2.84**	5400-SR1X50S
	SQUARE RECESS	#1	100	1	CLAM	**7.04**	5400-SR1X100S
	SQUARE RECESS	#1	150	1	CLAM	**8.10**	5400-SR1X150S
	SQUARE RECESS	#2	50	1	CLAM	**2.84**	5400-SR2X50S
	SQUARE RECESS	#2	100	1	CLAM	**7.04**	5400-SR2X100S
	SQUARE RECESS	#2	150	1	CLAM	**8.10**	5400-SR2X150S
	SQUARE RECESS	#3	50	1	CLAM	**2.84**	5400-SR3X50S
⊖	SLOTTED	#3	50	1	CLAM	**2.96**	5400-SL3X50S
	SLOTTED	#4	50	1	CLAM	**2.96**	5400-SL4X50S
	SLOTTED	#5	50	1	CLAM	**2.96**	5400-SL5X50S
	SLOTTED	#6	50	1	CLAM	**2.96**	5400-SL6X50S
	SLOTTED	#8	50	1	CLAM	**3.78**	5400-SL8X50S
DOUBLE ENDED							
⊕	PHILLIPS®	#1	45	1	CLAM	**3.70**	5500-PH1DX45S
	PHILLIPS®	#2	45	1	CLAM	**2.61**	5500-PH2DX45S
	PHILLIPS®	#2	65	1	CLAM	**2.96**	5500-PH2DX65S
	PHILLIPS®	#2	100	1	CLAM	**3.16**	5500-PH2DX100S
✱	POZIDRIV®	#2	45	1	CLAM	**2.61**	5500-PZ2DX45S
	POZIDRIV®	#2	65	1	CLAM	**2.96**	5500-PZ2DX65S
■	SQUARE RECESS	#1	45	1	CLAM	**2.61**	5500-SR1DX45S
	SQUARE RECESS	#2	45	1	CLAM	**3.70**	5500-SR2DX45S
	SQUARE RECESS	#2	65	1	CLAM	**2.61**	5500-SR2DX65S
⊕ ⊖	PHILLIPS® SLOTTED	#2/5MM	5	1	CLAM	**3.09**	5500-PH2SL5X45S



SCREWGUN PH2 RANGE



GROUP							SCRW	
	TYPE – SCREWGUN	**SIZE**	**OAL** MM	**PACK** QTY	**PACK TYPE**	**SUITS MAKITA MODEL**	**$** CLAM	**PART** NUMBER
⊕	PH2 SCREWGUN BIT	#2	117	1	CLAM	6831D	**7.76**	5550-PH2X117S
	PH2 SCREWGUN BIT	#2	122	1	CLAM	BFR440 / AR440	**7.76**	5550-PH2X122S
	PH2 SCREWGUN BIT	#2	132	1	CLAM	6832 / 6833 / 6836 / 6835D / BFR450R	**7.76**	5550-PH2X132S
	PH2 SCREWGUN BIT	#2	146	1	CLAM	6834	**9.83**	5550-PH2X146S
	PH2 SCREWGUN BIT	#2	157	1	CLAM	AR550	**9.83**	5550-PH2X157S
	PH2 SCREWGUN BIT	#2	162	1	CLAM	BFR450 / BFR550 / 6842 / 6843	**12.31**	5550-PH2X162S



GROUP	SCIM

TYPE – STANDARD	SIZE	OAL MM	PACK QTY	PACK TYPE	$ CLAM	PART NUMBER
PHILLIPS®	#2	50	1	CLAM	**3.57**	5405-PH2X50S
POZIDRIV®	#2	50	1	CLAM	**3.57**	5405-PZ2X50S
SQUARE RECESS	#1	50	1	CLAM	**3.40**	5405-SR1X50S
SQUARE RECESS	#2	50	1	CLAM	**3.40**	5405-SR2X50S
SQUARE RECESS	#3	50	1	CLAM	**3.40**	5405-SR3X50S





GROUP	SCIM

TYPE – STANDARD	SIZE	OAL MM	PACK QTY	PACK TYPE	$ CLAM	PART NUMBER
NUTSETTER	5/16"	65	1	CLAM	**11.36**	5605-NS5/16X65S



GROUP	SCIM

SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
IMPACT POWER BIT SET	6	**28.90**	5405-SET1
50MM POWER BITS - PH2 X 2, PH1, SR1, SR2 AND A 75MM BIT HOLDER			





GROUP	SCRW



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
SCREWDRIVER MERCHANDISER	**1,021.30**	5300-D1

MERCHANDISER CONTENTS	STYLE	QTY PIECES	PART NUMBER	STYLE	QTY PIECES	PART NUMBER
	INSERT BITS			**POWER BITS**		
	HEX 5MM	8	5300-HX5X25S	PHILLIPS #1	8	5400-PH1X50S
	PHILLIPS #1	8	5300-PH1X25S	PHILLIPS #2	8	5400-PH2X50S
	PHILLIPS #2	8	5300-PH2X25S	PHILLIPS #2	8	5400-PH2X75S
	PHILLIPS #3	8	5300-PH3X25S	PHILLIPS #2	8	5400-PH2X100S
	POZIDRIV #1	8	5300-PZ1X25S	PHILLIPS #2	8	5400-PH2X150S
	POZIDRIV #2	8	5300-PZ2X25S	PHILLIPS #3	8	5400-PH3X50S
	SLOT 5MM	8	5300-SL5X25S	POZIDRIV #1	8	5400-PZ1X50S
	NUTSETTERS			POZIDRIV #2	8	5400-PZ2X50S
	1/4" X 42	5	5600-NS1/4X42S	POZIDRIV #3	8	5400-PZ3X50S
	1/4" X 65	5	5600-NS1/4X65S	SLOT 6MM	8	5400-SL6X50S
	3/8" X 42	5	5600-NS3/8X42S	SLOT 8MM	8	5400-SL8X50S
	3/8" X 65	5	5600-NS3/8X65S	**DOUBLE ENDED**		
	5/16" X 42	5	5600-NS5/16X42S	PHILLIPS #2	8	5500-PH2DX45S
	5/16" X 65	5	5600-NS5/16X65S	PHILLIPS #2	8	5500-PH2DX65S
	BIT HOLDER			PHILLIPS #2	8	5500-PH2DX100S
	1/4" X 75	8	5350-MH1/4X75S	PH #2 / SL 5MM	8	5500-PH2SL5X45S
				POZIDRIV #2	8	5500-PZ2DX65S

MAG+ USAGE

Ensure an insert bit is engaged in the holder. Loosen the small locking sleeve and wind the guide sleeve and locking sleeve down to expose the end of the insert bit.

Place the screw on the insert bit and wind the guide sleeve up until the head of the screw is held flat on the annular magnet. Wind the locking sleeve up firmly to lock the position.

To change bits hold the locking sleeve in position and wind off the guide sleeve. Insert and new insert bit and wind the guide sleeve back on and tighten firmly against the locking sleeve.

Check for positive screw engagement and adjust if necessary. The MAG+ screw grip magnetic bit holder is ideally suited for use with PH2, PH3, PZ2 and T30 screws as the annular magnet is optimally sized for their head diameter.

BORDO PLUS BIT HOLDERS

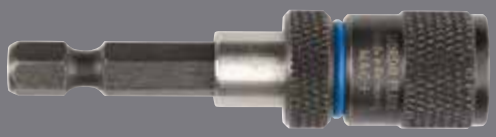
THE BORDO PLUS RANGE OF BIT HOLDERS HAS BEEN DESIGNED TO PROVIDE OUTSTANDING FUNCTIONALITY AND OUTSTANDING TOOL LIFE. OUR MAG+ AND MP-QR+ BIT HOLDERS ARE INTEGRAL COMPONENTS IN THE BORDO PREMIUM INSERT BIT PROGRAM. EACH HOLDER MUST OUTLAST HUNDREDS OR EVEN THOUSANDS OF INSERT BITS. THEREFORE WE MAKE NO COMPROMISES IN ENSURING EACH HOLDER IS PRODUCED TO EXACTING STANDARDS.

BORDO PLUS MP-QR+ SCREW GRIP QUICK CHANGE MAGNETIC BIT HOLDER



The MP-QR+ screw grip quick change magnetic bit holder features a strong annular magnet which firmly grips the screw head and ensures a positive engagement with the insert bit. The screw is held securely on the holder and can be fastened at any angle without tilting or slipping, enabling precise fixing and one-handed operation. The MP-QR+ holder can be used with any type of standard 25mm insert bit. Insert bits click into the holder without retracting the sleeve. To remove the bit simply retract the sleeve and it automatically disengages from the holder for quick and simple replacement. Bits are held in place by a strong neodymium magnet and a retaining ring to ensure safe clamping. This strong “locking” action prevents the bit slipping from the holder or becoming jammed in a screw head.

BORDO PLUS MAG+ SCREW GRIP MAGNETIC BIT HOLDER



The MAG+ screw grip magnetic bit holder features a strong annular magnet which firmly grips the screw head and ensures a positive engagement with the insert bit. The screw is held securely on the holder and can be fastened at any angle without tilting or slipping, enabling precise fixing and one-handed operation. The MAG+ holder can be used with any type of standard 25mm insert bit.

GROUP **SCHT**

TYPE	SHANK INCH	OAL MM	PACK QTY	PACK TYPE	$ EACH	PART NUMBER
MP-QR+ BIT HOLDER	1/4	70	1	BOX	**29.27**	5360-MPQR1/4X70
MAG+ BIT HOLDER	1/4	60	1	BOX	**22.01**	5360-MP1/4X60



GROUP	SCRW
SHANK	1/4" HEX
BODY	POWER GROOVE







SET	SETS PER OUTER	PCS	$ SET	PART NUMBER	PCS	$ SET	PART NUMBER	PCS	$ SET	PART NUMBER
INSERT BIT SET	12	31	**59.48**	5300-S1	–	**–**	–	–	**–**	–
POWER BIT SET	6	–	**–**	–	34	**70.19**	5400-S1	–	**–**	–
POWER BIT SET	5	–	**–**	–	–	**–**	–	11	**107.21**	5400-S2

SET CONTENTS	STYLE	OAL MM	QTY	PART NUMBER	STYLE	OAL MM	QTY	PART NUMBER	STYLE	OAL MM	QTY	PART NUMBER
	PHILLIPS #1	25	1	5300-PH1X25	PHILLIPS #1	50	2	5400-PH1X50	PHILLIPS #1	100	1	5400-PH1X100
	PHILLIPS #2	25	2	5300-PH2X25	PHILLIPS #2	50	3	5400-PH2X50	PHILLIPS #2	75	1	5400-PH2X75
	PH GRIPPA #2	25	1	5300-PH2GX25	PH GRIPPA #2	50	3	5400-PH2GX50	PHILLIPS #2	100	1	5400-PH2X100
	PHILLIPS #3	25	1	5300-PH3X25	PHILLIPS #3	50	2	5400-PH3X50	PHILLIPS #2	150	1	5400-PH2X150
	SLOT 4MM	25	1	5300-SL4X25	POZIDRIV #1	50	2	5400-PZ1X50	PHILLIPS #3	100	1	5400-PH3X100
	SLOT 5MM	25	1	5300-SL5X25	POZIDRIV #2	50	2	5400-PZ2X50	POZIDRIV #2	100	1	5400-PZ2X100
	SLOT 6MM	25	1	5300-SL6X25	POZIDRIV #3	50	2	5400-PZ3X50	HEX 5MM	100	1	5400-HX5X100
	HEX 5MM	25	1	5300-HX5X25	SLOT 3MM	50	2	5400-SL3X50	SQ RECESS #2	100	1	5400-SR2X100
	TRI LOBULAR	25	1	5300-TLX25	SLOT 4MM	50	2	5400-SL4X50	SLOT 4MM	100	1	5400-SL4X100
	POZIDRIV #1	25	1	5300-PZ1X25	SLOT 5MM	50	2	5400-SL5X50	SLOT 6MM	100	1	5400-SL6X100
	POZIDRIV #2	25	1	5300-PZ2X25	SLOT 6MM	50	2	5400-SL6X50	QC HANDLE	–	1	5750-14DH
	POZIDRIV #3	25	1	5300-PZ3X25	SLOT 8MM	50	2	5400-SL8X50				
	TORX T10	25	1	5300-TX10X25	HEX 5MM	50	2	5400-HX5X50				
	TORX T15	25	1	5300-TX15X25	SQ RECESS #1	50	2	5400-SR1X50				
	TORX T20	25	1	5300-TX20X25	SQ RECESS #2	50	2	5400-SR2X50				
	TORX T25	25	1	5300-TX25X25	N/SETTER 5/16"	42	1	5600-NS5/16X42				
	TORX T27	25	1	5300-TX27X25	QC ADAPTOR	65	1	5750-14X65				
	TORX T30	25	1	5300-TX30X25								
	TORX T40	25	1	5300-TX40X25								
	SQ RECESS #1	25	1	5300-SR1X25								
	SQ RECESS #2	25	1	5300-SR2X25								
	SQ RECESS #3	25	1	5300-SR3X25								
	TORX T10 TR	25	1	5300-TX10TRX25								
	TORX T15 TR	25	1	5300-TX15TRX25								
	TORX T20 TR	25	1	5300-TX20TRX25								
	TORX T25 TR	25	1	5300-TX25TRX25								
	TORX T27 TR	25	1	5300-TX27TRX25								
	TORX T30 TR	25	1	5300-TX30TRX25								
	TORX T40 TR	25	1	5300-TX40TRX25								
	QC ADAPTOR	65	1	5750-14X65								









GROUP	–
SHANK	1/4" HEX
BODY	POWER GROOVE



5305-D2

MERCHANDISER TYPE	PIECES TOTAL	$ MERCHANDISER	PART NUMBER
IMPACT SCREWDRIVER MERCHANDISER	334	**1,582.26**	5305-D2

MERCHANDISER CONTENTS	STYLE	OAL MM	QTY	PART NUMBER
	INSERT BITS			
	POZIDRIV #2	25	30	5305-PZ2X25
	PHILLIPS #2	25	30	5305-PH2X25
	HEX 5MM	25	20	5305-HX5X25
	SQR RECESS #2	25	20	5305-SR2X25
	POWER BITS			
	PHILLIPS #2	50	30	5405-PH2X50
	PHILLIPS #2	100	30	5405-PH2X100
	PHILLIPS #2	150	30	5405-PH2X150
	POZIDRIV #2	50	30	5405-PZ2X50
	HEX 5MM	50	20	5405-HX5X50
	SQ RECESS #2	50	20	5405-SR2X50
	SQ RECESS #2	100	10	5405-SR2X100
	NUTSETTERS			
	NUTSETTER 1/4"	65	10	5605-NS1/4X65
	NUTSETTER 3/8"	65	10	5605-NS3/8X65
	NUTSETTER 5/16"	65	10	5605-NS5/16X65
	NUTSETTER 5/16"	150	10	5605-NS5/16X150
	BIT HOLDERS			
	MAGNETIC HOLDER	75	20	5350-MH1/4X75
	MAGPLUS BIT HOLDER	60	2	5360-MP1/4X60
	MP-QR PLUS BIT HOLDER	70	2	5360-MPQR1/4X70



GROUP	SCRW
SHANK	1/4" HEX
BODY	POWER GROOVE



5300-D2
5300-D2G

MERCHANDISER TYPE	PIECES TOTAL	$ MERCHANDISER	PART NUMBER	PIECES TOTAL	$ MERCHANDISER	PART NUMBER
BENCH MERCHANDISER - SMALL	330	**1,273.00**	5300-D2			
BENCH MERCHANDISER GRIPPA - SMALL				330	**1,273.00**	5300-D2G

MERCHANDISER CONTENTS	STYLE	OAL MM	QTY	PART NUMBER	STYLE	OAL MM	QTY	PART NUMBER
	INSERT BITS				**INSERT BITS**			
	PHILLIPS #2	25	30	5300-PH2X25	PHILLIPS #2	25	30	5300-PH2GX25
	POZIDRIV #2	25	20	5300-PZ2X25	POZIDRIV #2	25	20	5300-PZ2X25
	HEX 5MM	25	20	5300-HX5X25	HEX 5MM	25	20	5300-HX5X25
	POWER BITS				**POWER BITS**			
	PHILLIPS #1	50	10	5400-PH1X50	PHILLIPS #1	50	10	5400-PH2GX50
	PHILLIPS #2	50	30	5400-PH2X50	PHILLIPS #2	50	30	5400-PH2GX75
	PHILLIPS #2	75	30	5400-PH2X75	PHILLIPS #2	75	30	5400-PH2GX100
	PHILLIPS #2	100	20	5400-PH2X100	PHILLIPS #2	100	20	5400-PH2GX150
	PHILLIPS #2	150	20	5400-PH2X150	PHILLIPS #2	150	20	5400-PH1X50
	SQ RECESS #2	50	10	5400-SR2X50	SQ RECESS #2	50	10	5400-SR2X50
	POZIDRIV #2	50	10	5400-PZ2X50	POZIDRIV #2	50	10	5400-PZ2X50
	HEX 5MM	50	10	5400-HX5X50	HEX 5MM	50	10	5400-HX5X50
	DOUBLE ENDED				**DOUBLE ENDED**			
	PHILLIPS #2	65	30	5500-PH2DX65	PHILLIPS #2	65	30	5500-PH2DX65
	PHILLIPS #2	100	10	5500-PH2DX100	PHILLIPS #2	100	10	5500-PH2DX100
	NUTSETTERS				**NUTSETTERS**			
	NUTSETTER 1/4"	42	10	5600-NS1/4X42	NUTSETTER 1/4"	42	10	5600-NS1/4X42
	NUTSETTER 3/8"	42	10	5600-NS3/8X42	NUTSETTER 3/8"	42	10	5600-NS3/8X42
	NUTSETTER 3/8"	65	10	5600-NS3/8X65	NUTSETTER 3/8"	65	10	5600-NS3/8X65
	NUTSETTER 5/16"	42	10	5600-NS5/16X42	NUTSETTER 5/16"	42	10	5600-NS5/16X42
	NUTSETTER 5/16"	65	10	5600-NS5/16X65	NUTSETTER 5/16"	65	10	5600-NS5/16X65
	NUTSETTER 5/16"	150	10	5600-NS5/16X150	NUTSETTER 5/16"	150	10	5600-NS5/16X150
	BIT HOLDERS				**BIT HOLDERS**			
	MAGNETIC HOLDER	75	20	5350-MH1/4X75	MAGNETIC HOLDER	75	20	5350-MH1/4X75



GROUP	SCRW
SHANK	1/4" HEX
BODY	POWER GROOVE



MERCHANDISER TYPE	PIECES TOTAL	$ MERCHANDISER	PART NUMBER	PIECES TOTAL	$ MERCHANDISER	PART NUMBER
BENCH MERCH. – LARGE	460	**1,731.80**	5300-D4			
BENCH MERCH. GRIPPA – LARGE				460	**1,731.80**	5300-D4G

MERCHANDISER CONTENTS	STYLE	OAL MM	QTY	PART NUMBER	STYLE	OAL MM	QTY	PART NUMBER
	INSERT BITS				**INSERT BITS**			
	PHILLIPS #1	25	10	5300-PH1X25	PHILLIPS GRIPPA #2	25	30	5300-PH2GX25
	PHILLIPS #2	25	30	5300-PH2X25	PHILLIPS #1	25	10	5300-PH1X25
	PHILLIPS #3	25	10	5300-PH3X25	PHILLIPS #3	25	10	5300-PH3X25
	POZIDRIV #1	25	10	5300-PZ1X25	POZIDRIV #1	25	10	5300-PZ1X25
	POZIDRIV #2	25	10	5300-PZ2X25	POZIDRIV #2	25	10	5300-PZ2X25
	HEX 5MM	25	10	5300-HX5X25	HEX 5MM	25	10	5300-HX5X25
	SQR RECESS #2	25	10	5300-SR2X25	SQR RECESS #2	25	10	5300-SR2X25
	POWER BITS				**POWER BITS**			
	PHILLIPS #1	50	10	5400-PH1X50	PHILLIPS #2 GRIPPA	50	30	5400-PH2GX50
	PHILLIPS #2	100	10	5400-PH2X100	PHILLIPS #2 GRIPPA	75	20	5400-PH2GX75
	PHILLIPS #2	150	10	5400-PH2X150	PHILLIPS #2 GRIPPA	100	10	5400-PH2GX100
	PHILLIPS #2	50	30	5400-PH2X50	PHILLIPS #2 GRIPPA	150	10	5400-PH2GX150
	PHILLIPS #2	75	20	5400-PH2X75	PHILLIPS #1	50	10	5400-PH1X50
	POZIDRIV #1	50	10	5400-PZ1X50	POZIDRIV #1	50	10	5400-PZ1X50
	POZIDRIV #2	50	10	5400-PZ2X50	POZIDRIV #2	50	10	5400-PZ2X50
	HEX 5MM	50	10	5400-HX5X50	HEX 5MM	50	10	5400-HX5X50
	SLOTTED 6MM	50	10	5400-SL6X50	SLOTTED 6MM	50	10	5400-SL6X50
	SLOTTED 8MM	50	10	5400-SL8X50	SLOTTED 8MM	50	10	5400-SL8X50
	SQR RECESS #2	50	10	5400-SR2X50	SQR RECESS #2	50	10	5400-SR2X50
	SQR RECESS #2	150	10	5400-SR2X150	SQR RECESS #2	150	10	5400-SR2X150
	DOUBLE ENDED				**DOUBLE ENDED**			
	PHILLIPS #2	45	30	5500-PH2DX45	PHILLIPS #2	45	30	5500-PH2DX45
	PHILLIPS #2	65	30	5500-PH2DX65	PHILLIPS #2	65	30	5500-PH2DX65
	PHILLIPS #2	100	10	5500-PH2DX100	PHILLIPS #2	100	10	5500-PH2DX100
	PHILLIPS #2 SLOT 5	20	20	5500-PH2SL5X45	PHILLIPS #2 SLOT 5	20	10	5500-PH2SL5X45
	NUTTSETTERS				**NUTTSETTERS**			
	NUTSETTER 1/4"	42	10	5600-NS1/4X42	NUTSETTER 1/4"	42	10	5600-NS1/4X42
	NUTSETTER 3/8"	42	10	5600-NS3/8X42	NUTSETTER 3/8"	42	10	5600-NS3/8X42
	NUTSETTER 3/8"	65	10	5600-NS3/8X65	NUTSETTER 3/8"	65	10	5600-NS3/8X65
	NUTSETTER 5/16"	42	20	5600-NS5/16X42	NUTSETTER 5/16"	42	20	5600-NS5/16X42
	NUTSETTER 5/16"	65	30	5600-NS5/16X65	NUTSETTER 5/16"	65	30	5600-NS5/16X65
	NUTSETTER 5/16"	150	10	5600-NS5/16X150	NUTSETTER 5/16"	150	10	5600-NS5/16X150
	ADAPTERS				**ADAPTERS**			
	1/4" HEX - 1/2" SQR	50	10	5610-SD1/2X50	1/4" HEX - 1/2" SQR	50	10	5610-SD1/2X50
	1/4" HEX - 3/8" SQR	50	10	5610-SD3/8X50	1/4" HEX - 3/8" SQR	50	10	5610-SD3/8X50
	BIT HOLDERS				**BIT HOLDERS**			
	MAGNETIC HOLDER	75	20	5350-MH1/4X75	MAGNETIC HOLDER	75	20	5350-MH1/4X75



GROUP	–
SHANK	1/4" HEX
BODY	POWER GROOVE

MERCHANDISER TYPE	PIECES TOTAL	$ MERCHANDISER	PART NUMBER
BULK CABINET MERCHANDISER	1285	**5,658.15**	5300-D3

NEW CONTENTS

MERCHANDISER CONTENTS

STYLE	OAL MM	QTY	PART NUMBER
INSERT BITS			
PHILLIPS #1	25	10	5300-PH1X25
PHILLIPS #2	25	40	5300-PH2X25
PHILLIPS #3	25	10	5300-PH3X25
PHILLIPS #2 GRIPPA	25	30	5300-PH2GX25
PHILLIPS #2 DRYWALL	25	10	5300-PH2DWX25
PHILLIPS #2 R/NOSE	25	10	5300-PH2RNX25
SLOT 4MM	25	10	5300-SL4X25
SLOT 5MM	25	10	5300-SL5X25
SLOT 6MM	25	10	5300-SL6X25
HEX 5MM	25	30	5300-HX5X25
POZIDRIV #1	25	10	5300-PZ1X25
POZIDRIV #2	25	30	5300-PZ2X25
POZIDRIV #3	25	10	5300-PZ3X25
SQUARE RECESS #1	25	10	5300-SR1X25
SQUARE RECESS #2	25	10	5300-SR2X25
SQUARE RECESS #3	25	10	5300-SR3X25
TORX T10	25	10	5300-TX10X25
TORX T15	25	10	5300-TX15X25
TORX T20	25	10	5300-TX20X25
TORX T25	25	10	5300-TX25X25
TORX T27	25	10	5300-TX27X25
TORX T30	25	10	5300-TX30X25
TORX T40	25	10	5300-TX40X25
INSERT BITS – SECURITY			
TORX T10 TR	25	10	5300-TX10TRX25
TORX T15 TR	25	10	5300-TX15TRX25
TORX T20 TR	25	10	5300-TX20TRX25
TORX T125 TR	25	10	5300-TX25TRX25
TORX T27 TR	25	10	5300-TX27TRX25
TORX T30 TR	25	10	5300-TX30TRX25
TORX T40 TR	25	10	5300-TX40TRX25
TRI-LOBULAR	25	10	5300-TLX25
POWER BITS			
PHILLIPS #1	50	20	5400-PH1X50
PHILLIPS #2	50	30	5400-PH2X50
PHILLIPS #2	75	30	5400-PH2X75
PHILLIPS #2	100	30	5400-PH2X100
PHILLIPS #2	150	20	5400-PH2X150
PHILLIPS #3	50	10	5400-PH3X50
PHILLIPS #2 GRIPPA	50	30	5400-PH2GX50
PHILLIPS #2 GRIPPA	75	10	5400-PH2GX75
PHILLIPS #2 GRIPPA	100	10	5400-PH2GX100
PHILLIPS #2 GRIPPA	150	10	5400-PH2GX150
HEX 5MM	50	20	5400-HX5X50
HEX 6MM	50	10	5400-HX6X50
HEX 8MM	50	10	5400-HX8X50
SLOT 4MM	50	10	5400-SL4X50
SLOT 5MM	50	10	5400-SL5X50
SLOT 6MM	50	10	5400-SL6X50
SLOT 8MM	50	10	5400-SL8X50
POZIDRIV #1	50	20	5400-PZ1X50
POZIDRIV #2	50	30	5400-PZ2X50
POZIDRIV #2	150	10	5400-PZ2X150
POZIDRIV #3	50	10	5400-PZ3X50

STYLE	OAL MM	QTY	PART NUMBER
POWER BITS			
SQUARE RECESS #1	50	10	5400-SR1X50
SQUARE RECESS #1	100	10	5400-SR1X100
SQUARE RECESS #1	150	10	5400-SR1X150
SQUARE RECESS #2	50	10	5400-SR2X50
SQUARE RECESS #2	100	10	5400-SR2X100
SQUARE RECESS #2	150	10	5400-SR2X150
DOUBLE ENDED			
PHILLIPS #2	45	20	5500-PH2DX45
PHILLIPS #2	65	20	5500-PH2DX65
PHILLIPS #2	100	10	5500-PH2DX100
POZIDRIV #2	45	10	5500-PZ2DX45
POZIDRIV #2	65	10	5500-PZ2DX65
PHILLIPS #2 SLOT 5MM	45	10	5500-PH2SL5X45
NUTSETTERS			
NUTSETTER 1/4"	42	20	5600-NS1/4X42
NUTSETTER 1/4"	65	20	5600-NS1/4X65
NUTSETTER 5/16"	42	20	5600-NS5/16X42
NUTSETTER 5/16"	65	20	5600-NS5/16X65
NUTSETTER 5/16"	150	20	5600-NS5/16X150
NUTSETTER 5/16"	200	10	5600-NS5/16X200
NUTSETTER 3/8"	42	20	5600-NS3/8X42
NUTSETTER 3/8"	65	20	5600-NS3/8X65
NUTSETTER 7/16"	65	10	5600-NS7/16X65
SQUARE DRIVE			
SQUARE DRIVE 3/8"	50	10	5610-SD3/8X50
SQUARE DRIVE 3/8"	75	10	5610-SD3/8X75
SQUARE DRIVE 1/2"	50	10	5610-SD1/2X50
SQUARE DRIVE 1/2"	75	10	5610-SD1/2X75
BIT HOLDERS			
5350-MH1/4X50	50	20	5350-MH1/4X50
5350-MH1/4X75	75	20	5350-MH1/4X75
5350-MH1/4X150	150	10	5350-MH1/4X150
MPQR PLUS BIT HOLDER	70	5	5360-MPQR1/4X70
IMPACT INSERT BITS			
PHILLIPS #2	25	10	5305-PH2X25
HEX 5MM	25	10	5305-HX5X25
SQUARE RECESS #2	25	10	5305-SR2X25
IMPACT POWER BITS			
PHILLIPS #2	50	10	5405-PH2X50
PHILLIPS #2	100	10	5405-PH2X100
PHILLIPS #2	150	10	5405-PH2X150
POZIDRIV #2	50	10	5405-PZ2X50
HEX 5MM	50	10	5405-HX5X50
SQUARE RECESS #2	50	10	5405-SR2X50
SQUARE RECESS #2	150	10	5405-SR2X150
IMPACT NUTSETTERS			
NUTSETTER 1/4"	65	10	5605-NS1/4X65
NUTSETTER 5/16"	65	10	5605-NS5/16X65
NUTSETTER 5/16"	150	10	5605-NS5/16X150
NUTSETTER 3/8"	65	10	5605-NS3/8X65

GROUP	REMG
MATERIAL	**FLEXIBLE POLYMER**
APERTURE RE-INFORCING	HEAVY DUTY PLASTIC
PACKAGING	HANG SELL







DIAMETER MM	DIAMETER INCH	DEPTH MM	PACK QTY	$ EACH	PART NUMBER
265	**10-1/2**	115	1	**43.97**	7095-DB1



NEW PRODUCTS

GROUP	DIMD	DIMD	PENC	PENC
PRODUCT	HOLESAW TEMPLATE	DRILLING TEMPLATE	CARPENTER'S PENCIL	PENCIL SHARPENER
PENCIL HARDENESS	–	–	MEDIUM	–
HOLDING METHOD	SUCTION CUP	SUCTION CUP	–	–
SUITS DRILL/HOLESAW SIZES	4MM TO 83MM	4 TO 13MM, 5/32 TO 1/2"	–	–
SUITS DRILL/HOLESAW TYPE	BRILLIANT DIAMOND	DIAMOND MIST, AQUA SHOT	–	–
PACKAGING	HANG SELL	HANG SELL	DISPLAY BOX	COUNTER DISPLAY







DESCRIPTION	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
HOLESAW TEMPLATE	1	**80.49**	2715-HT	**–**	–	**–**	–	**–**	–
DRILLING TEMPLATE	1	**–**	–	**49.58**	2715-DT	**–**	–	**–**	–
CARPENTER'S PENCIL	72	**–**	–	**–**	–	**1.15**	7170-BPM	**–**	–
PENCIL SHARPENER	25	**–**	–	**–**	–	**–**	–	**5.00**	7170-BPS



GROUP				PHEX		PHEX		PHEX		PHEX	
ACCEPTS ø inch	LENGTH ADAPTOR	SHANK INCH	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
1/4	65	1/4	1	**14.17**	5750-14X65	–	–	–	–	–	–
1/4	150	1/4	1	**19.37**	5750-14X150	–	–	–	–	–	–
1/4	300	1/4	1	**21.44**	5750-14X300	–	–	–	–	–	–
1/4 and 3/8*	70	3/8	1	–	–	**26.65**	5750-1438X70	–	–	–	–
3/8*	300	3/8	1	–	–	–	–	**33.93**	5750-38X300	–	–
3/8* and 7/16	300	7/16	1	–	–	–	–	–	–	**59.74**	5750-38716X300
3/8* and 7/16	600	7/16	1	–	–	–	–	–	–	**76.89**	5750-38716X600

* These Power-Hex Adaptors suit 11/32" (nominal 3/8")



1/4" HEX SHANK ACCESSORIES



3/8" HEX SHANK ACCESSORIES*



7/16" HEX SHANK ACCESSORIES

for use with **1/4" shanks with or without power groove**



5750-14x65



5750-14x150



5750-14x300

for use with **1/4" and 3/8" shanks with or without power groove**



5750-1438x70

for use with **3/8" shanks with power groove**



5750-38x300

Outside diameter of 19mm – Ideally suited for use wth auger bits 20mm and above.

for use with **3/8" and 7/16" shanks with or without power groove**



5750-38716x300

Outside diameter of 27.5mm – Ideally suited for use wth tools of diameter 28mm and above.



5750-38716x600

Outside diameter of 27.5mm – Ideally suited for use wth tools of diameter 28mm and above.





FLAP DISCS
ALUMINIUM OXIDE

Flap discs are available in a wide range of sizes and grits and are used for applications including weld seam removal, surface blending, edge grinding and weld preparation on ferrous and non-ferrous metals. Their main advantage over other types of abrasives in that they grind and finish in one operation, thereby, reducing both finishing time and finishing costs. Flap discs produce very little vibration and noise during use. Aluminium Oxide flap discs are ideal for use on ferrous metals.

GROUP	FLAP
TYPE	**FLAP DISC**
MATERIAL	ALUMINIUM OXIDE
PACKAGING	BULK

DIAMETER MM	DIAMETER INCH	BORE MM	BORE INCH	GRIT	PACK QTY	$ EACH	PART NUMBER
100	**4**	16	5/8	40	10	**13.78**	7500-FD100Z40
100	**4**	16	5/8	60	10	**13.78**	7500-FD100Z60
100	**4**	16	5/8	80	10	**13.78**	7500-FD100Z80
100	**4**	16	5/8	120	10	**13.78**	7500-FD100Z120
115	**4-1/2**	22	7/8	40	10	**15.14**	7500-FD115Z40
115	**4-1/2**	22	7/8	60	10	**15.14**	7500-FD115Z60
115	**4-1/2**	22	7/8	80	10	**15.14**	7500-FD115Z80
115	**4-1/2**	22	7/8	120	10	**15.14**	7500-FD115Z120
127	**5**	22	7/8	40	10	**16.38**	7500-FD127Z40
127	**5**	22	7/8	60	10	**16.38**	7500-FD127Z60
127	**5**	22	7/8	80	10	**16.38**	7500-FD127Z80
127	**5**	22	7/8	120	10	**16.38**	7500-FD127Z120
180	**7**	22	7/8	40	10	**26.33**	7500-FD180Z40
180	**7**	22	7/8	60	10	**26.33**	7500-FD180Z60
180	**7**	22	7/8	80	10	**26.33**	7500-FD180Z80
180	**7**	22	7/8	120	10	**26.33**	7500-FD180Z120

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
FLAP DISC	**1,181.44**	7500-D2



MERCHANDISER CONTENTS	QTY EACH	SIZE/GRIT MM / G	PART NUMBER
	10	100/40	7500-FD100Z40
	10	100/60	7500-FD100Z60
	10	100/80	7500-FD100Z80
	10	100/120	7500-FD100Z120
	5	115/40	7500-FD115Z40
	5	115/60	7500-FD115Z60
	5	115/80	7500-FD115Z80
	5	115/120	7500-FD115Z120
	5	127/40	7500-FD127Z40
	5	127/40	7500-FD127Z60
	5	127/40	7500-FD127Z80
	5	127/40	7500-FD127Z120

BULK



GROUP	FLWH
TYPE	1 PIECE INCLUDING SPINDLE
MATERIAL	ALUMINIUM OXIDE
SPINDLE DIAMETER	6MM
PACKAGING	BULK

DIAMETER MM	WIDTH MM	GRIT	PACK QTY	$ EACH	PART NUMBER
30.00	**10**	40	1	**8.82**	7510-30X10X40G
30.00	10	60	1	**8.82**	7510-30X10X60G
30.00	10	80	1	**8.82**	7510-30X10X80G
30.00	10	120	1	**8.82**	7510-30X10X120G
30.00	10	180	1	**8.82**	7510-30X10X180G
30.00	10	240	1	**8.82**	7510-30X10X240G
30.00	**15**	40	1	**9.19**	7510-30X15X40G
30.00	15	60	1	**9.19**	7510-30X15X60G
30.00	15	80	1	**9.19**	7510-30X15X80G
30.00	15	120	1	**9.19**	7510-30X15X120G
30.00	15	180	1	**9.19**	7510-30X15X180G
30.00	15	240	1	**9.19**	7510-30X15X240G
40.00	**10**	40	1	**9.42**	7510-40X10X40G
40.00	10	60	1	**9.42**	7510-40X10X60G
40.00	10	80	1	**9.42**	7510-40X10X80G
40.00	10	120	1	**9.42**	7510-40X10X120G
40.00	10	180	1	**9.42**	7510-40X10X180G
40.00	10	240	1	**9.42**	7510-40X10X240G
40.00	**15**	40	1	**9.86**	7510-40X15X40G
40.00	15	60	1	**9.86**	7510-40X15X60G
40.00	15	80	1	**9.86**	7510-40X15X80G
40.00	15	120	1	**9.86**	7510-40X15X120G
40.00	15	180	1	**9.86**	7510-40X15X180G
40.00	15	240	1	**9.86**	7510-40X15X240G
40.00	**20**	40	1	**11.01**	7510-40X20X40G
40.00	20	60	1	**11.01**	7510-40X20X60G
40.00	20	80	1	**11.01**	7510-40X20X80G
40.00	20	120	1	**11.01**	7510-40X20X120G
40.00	20	180	1	**11.01**	7510-40X20X180G
40.00	20	240	1	**11.01**	7510-40X20X240G
40.00	**25**	40	1	**12.19**	7510-40X25X40G
40.00	25	60	1	**12.19**	7510-40X25X60G
40.00	25	80	1	**12.19**	7510-40X25X80G
40.00	25	120	1	**12.19**	7510-40X25X120G
40.00	25	180	1	**12.19**	7510-40X25X180G
40.00	25	240	1	**12.19**	7510-40X25X240G
50.00	**15**	40	1	**11.89**	7510-50X15X40G
50.00	15	60	1	**11.89**	7510-50X15X60G
50.00	15	80	1	**11.89**	7510-50X15X80G
50.00	15	120	1	**11.89**	7510-50X15X120G
50.00	15	180	1	**11.89**	7510-50X15X180G
50.00	15	240	1	**11.89**	7510-50X15X240G

FLAP WHEELS
ALUMINIUM OXIDE

Flap wheels are ideal for stock removal, deburring, cleaning, blending and finishing in a variety of applications, including stainless steel pipe fabrication and stainless steel vessels.

A flap wheel is an abrasive wheel made from abrasive strips (flaps) radiating from a center hub. Bordo flap wheels come in many different diameters, widths and grits. The outside diameter of the wheel can range from 30mm to 80mm.

Bordo flap wheels use Aluminium Oxide (Al_2O_3) as the abrasive material which is bonded to the strips of the wheel. Aluminium oxide is a fused, hard synthetic crystalline abrasive. Within the abrasive compound the Aluminium and Oxygen elements are held very close together causing these two relatively light elements to make a hard, dense crystal. On the MOHS scale of hardness Aluminium Oxide is 9.0. This hard crystal structure has a tendency to slowly dull or round and is hard to fracture.



BULK



FLAP WHEELS
ALUMINIUM OXIDE

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GROUP	FLWH
TYPE	1 PIECE INCLUDING SPINDLE
MATERIAL	ALUMINIUM OXIDE
SPINDLE DIAMETER	6MM
PACKAGING	BULK

DIAMETER MM	WIDTH MM	GRIT	PACK QTY	$ EACH	PART NUMBER
50.00	**20**	40	1	**13.49**	7510-50X20X40G
50.00	20	60	1	**13.49**	7510-50X20X60G
50.00	20	80	1	**13.49**	7510-50X20X80G
50.00	20	120	1	**13.49**	7510-50X20X120G
50.00	20	180	1	**13.49**	7510-50X20X180G
50.00	20	240	1	**13.49**	7510-50X20X240G
50.00	**25**	40	1	**16.36**	7510-50X25X40G
50.00	25	60	1	**16.36**	7510-50X25X60G
50.00	25	80	1	**16.36**	7510-50X25X80G
50.00	25	120	1	**16.36**	7510-50X25X120G
50.00	25	180	1	**16.36**	7510-50X25X180G
50.00	25	240	1	**16.36**	7510-50X25X240G
60.00	**15**	40	1	**13.37**	7510-60X15X40G
60.00	15	60	1	**13.37**	7510-60X15X60G
60.00	15	80	1	**13.37**	7510-60X15X80G
60.00	15	120	1	**13.37**	7510-60X15X120G
60.00	15	180	1	**13.37**	7510-60X15X180G
60.00	15	240	1	**13.37**	7510-60X15X240G
60.00	**20**	40	1	**14.53**	7510-60X20X40G
60.00	20	60	1	**14.53**	7510-60X20X60G
60.00	20	80	1	**14.53**	7510-60X20X80G
60.00	20	120	1	**14.53**	7510-60X20X120G
60.00	20	180	1	**14.53**	7510-60X20X180G
60.00	20	240	1	**14.53**	7510-60X20X240G
60.00	**30**	40	1	**16.57**	7510-60X30X40G
60.00	30	60	1	**16.57**	7510-60X30X60G
60.00	30	80	1	**16.57**	7510-60X30X80G
60.00	30	120	1	**16.57**	7510-60X30X120G
60.00	30	180	1	**16.57**	7510-60X30X180G
60.00	30	240	1	**16.57**	7510-60X30X240G
60.00	**40**	40	1	**20.30**	7510-60X40X40G
60.00	40	60	1	**20.30**	7510-60X40X60G
60.00	40	80	1	**20.30**	7510-60X40X80G
60.00	40	120	1	**20.30**	7510-60X40X120G
60.00	40	180	1	**20.30**	7510-60X40X180G
60.00	40	240	1	**20.30**	7510-60X40X240G
60.00	**50**	40	1	**23.64**	7510-60X50X40G
60.00	50	60	1	**23.64**	7510-60X50X60G
60.00	50	80	1	**23.64**	7510-60X50X80G
60.00	50	120	1	**23.64**	7510-60X50X120G
60.00	50	180	1	**23.64**	7510-60X50X180G
60.00	50	240	1	**23.64**	7510-60X50X240G



GROUP	FLWH
TYPE	1 PIECE INCLUDING SPINDLE
MATERIAL	ALUMINIUM OXIDE
SPINDLE DIAMETER	6MM
PACKAGING	BULK

DIAMETER MM	WIDTH MM	GRIT	PACK QTY	$ EACH	PART NUMBER
80.00	**30**	40	1	**24.31**	7510-80X30X40G
80.00	30	60	1	**24.31**	7510-80X30X60G
80.00	30	80	1	**24.31**	7510-80X30X80G
80.00	30	120	1	**24.31**	7510-80X30X120G
80.00	30	180	1	**24.31**	7510-80X30X180G
80.00	30	240	1	**24.31**	7510-80X30X240G
80.00	**50**	40	1	**34.23**	7510-80X50X40G
80.00	50	60	1	**34.23**	7510-80X50X60G
80.00	50	80	1	**34.23**	7510-80X50X80G
80.00	50	120	1	**34.23**	7510-80X50X120G
80.00	50	180	1	**34.23**	7510-80X50X180G
80.00	50	240	1	**34.23**	7510-80X50X240G

FLAP WHEELS
ALUMINIUM OXIDE

Flap wheels are ideal for stock removal, deburring, cleaning, blending and finishing in a variety of applications, including stainless steel pipe fabrication and stainless steel vessels.

A flap wheel is an abrasive wheel made from abrasive strips (flaps) radiating from a center hub. Bordo flap wheels come in many different diameters, widths and grits. The outside diameter of the wheel can range from 30mm to 80mm.

Bordo flap wheels use Aluminium Oxide (Al_2O_3) as the abrasive material which is bonded to the strips of the wheel. Aluminium oxide is a fused, hard synthetic crystalline abrasive. Within the abrasive compound the Aluminium and Oxygen elements are held very close together causing these two relatively light elements to make a hard, dense crystal. On the MOHS scale of hardness Aluminium Oxide is 9.0. This hard crystal structure has a tendency to slowly dull or round and is hard to fracture.



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
FLAP WHEEL	**914.07**	7510-D1

MERCHANDISER CONTENTS	QTY	DIA MM	WIDTH MM	GRIT	PART NUMBER
	3	30	15	60	7510-30X15X60G
	3	30	15	80	7510-30X15X80G
	3	30	15	120	7510-30X15X120G
	3	40	15	60	7510-40X15X60G
	3	40	15	80	7510-40X15X80G
	3	40	15	120	7510-40X15X120G
	2	50	20	60	7510-50X20X60G
	2	50	20	80	7510-50X20X80G
	2	50	20	120	7510-50X20X120G
	2	60	30	60	7510-60X30X60G
	2	60	30	80	7510-60X30X80G
	2	60	30	120	7510-60X30X120G
	2	60	40	180	7510-60X40X40G
	2	60	40	60	7510-60X40X60G
	2	60	40	80	7510-60X40X80G
	2	60	40	120	7510-60X40X120G
	2	80	30	40	7510-80X30X40G
	2	80	30	60	7510-80X30X60G
	2	80	30	80	7510-80X30X80G
	2	80	30	120	7510-80X30X120G
	2	80	50	60	7510-80X50X60G
	2	80	50	80	7510-80X50X80G
	2	80	50	120	7510-80X50X120G



CUP BRUSHES
TWIST KNOT

Twist knot cup brushes are designed for use with electric or pneumatic high speed grinders for heavy duty cleaning of large surfaces, and also for removal of weld scale, rust, old paint, and corrosion.

These brushes are constructed using hi-tensile wire to ensure superior performance and a long life. They are available with either carbon steel wire or stainless steel wire.

Bordo twist knot cup brushes 100mm and over are bridle banded to reduce flare for a faster cutting action. Bands can easily be removed as the wire wears.

GROUP	WBRS	WBRS
TYPE	**TWIST KNOT CUP BRUSH**	**TWIST KNOT CUP BRUSH**
MATERIAL	**STEEL WIRE**	**316 STAINLESS STEEL WIRE**
PACKAGING	CLAM SHELL	CLAM SHELL





DIAMETER MM	NO. OF ROWS	THREAD	WIRE DIA MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
70	1	MULTI-BORE†	0.35	12,500	1	**26.28**	5100-70-3.3	**64.59**	5101-70-3.3
70	1	MULTI-BORE†	0.50	12,500	1	**26.28**	5100-70-3.5	**64.59**	5101-70-3.5
90*	1	M14 X 2.00	0.35	8,500	1	**41.70**	5100-90-3.3	**–**	–
90	1	M14 X 2.00	0.50	8,500	1	**41.70**	5100-90-3.5	**–**	–
100	1	M14 X 2.00	0.35	8,500	1	**49.14**	5100-100-3.3	**129.03**	5101-100-3.3
100	1	M14 X 2.00	0.50	8,500	1	**49.14**	5100-100-3.5	**129.03**	5101-100-3.5
125	1	M14 X 2.00	0.50	6,500	1	**76.48**	5100-125-3.5	**200.75**	5101-125-3.5
125*	1	5/8" X 11NC	0.50	6,500	1	**76.48**	5100-125-4.5	**–**	–
125*	1	M14 X 2.00	0.80	6,500	1	**76.48**	5100-125-3.8	**–**	–
125*	1	5/8" X 11NC	0.80	6,500	1	**76.48**	5100-125-4.8	**–**	–

† **MULTI-BORE** TWIST KNOT CUP BRUSHES HAVE A M14 X 2.00 THREAD AND ARE SUPPLIED WITH A M10 X 1.50 ADAPTOR

CUP BRUSHES
CRIMPED WIRE

Crimped wire cup brushes are designed for use with electric or pneumatic high speed grinders for removing scale, rust, and paint and other surface preparation including deburring and polishing. Crimped wire brushes are not as agressive as their twist knot equivalents.

These brushes are constructed using hi-tensile wire to ensure superior performance and a long life. They are manufactured from carbon steel wire.

GROUP	WBRS
TYPE	**CRIMPED WIRE CUP BRUSH**
MATERIAL	**STEEL WIRE**
PACKAGING	CLAM SHELL



DIAMETER MM	NO. OF ROWS	THREAD	WIRE DIA MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER
75*	1	M10 X 1.25	0.30	12,500	1	**27.38**	5104-75-1.3
75*	1	M10 X 1.50	0.30	12,500	1	**27.38**	5104-75-2.3
75	1	M14 X 2.00	0.30	12,500	1	**27.38**	5104-75-3.3
80	1	M14 X 2.00	0.30	8,500	1	**34.76**	5104-80-3.3
80	1	5/8" X 11NC	0.30	8,500	1	**34.76**	5104-80-4.3
100	1	M14 X 2.00	0.30	6,500	1	**43.91**	5104-100-3.3
100*	1	5/8" X 11NC	0.30	6,500	1	**43.91**	5104-100-4.3
120*	1	M14 X 2.00	0.30	6,500	1	**57.39**	5104-120-3.3

* Discontinued item. Available until current stock is depleted.



GROUP	WBRS	WBRS
TYPE	TWIST KNOT WHEEL	TWIST KNOT BEVEL
MATERIAL	STEEL WHEEL	STEEL WIRE
PACKAGING	CLAM SHELL	CLAM SHELL





DIAMETER MM	SHANK OR BORE	THREAD / BORE MM	WIRE DIA MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
85	SHANK	6MM SHANK	0.5	20,000	1	**25.84**	5106-85.5S	–	–
100	MULTI	16	0.5	12,500	1	**30.40**	5106-100.5	–	–
125	MULTI	22.2	0.5	10,000	1	**37.57**	5106-125.5	–	–
150	MULTI	22.2	0.5	9,000	1	**39.52**	5106-150.5	–	–
200	MULTI	22.2	0.5	8,500	1	**57.10**	5106-200.5	–	–
100*	–	M10X1.25	0.5	12,500	1	–	–	**32.25**	5112-100-1.5
100	–	M10X1.50	0.5	12,500	1	–	–	**32.25**	5112-100-2.5
100	–	M14X2.00	0.5	12,500	1	–	–	**32.25**	5112-100-3.5
115	–	M14X2.00	0.5	12,500	1	–	–	**50.45**	5112-115-3.5

GROUP	WBRS	WBRS
TYPE	CRIMPED WIRE WHEEL	CRIMPED WIRE WHEEL
MATERIAL	STEEL WIRE	316 STAINLESS STEEL WIRE
PACKAGING	CLAM SHELL	CLAM SHELL





DIAMETER MM	SHANK/ BORE	THREAD / BORE MM	WIRE DIA MM	THICKNESS MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
100	MULTI	20	0.3	16	8,000	1	**29.28**	5108-100/16.3	–	–
125	MULTI	20	0.3	18	6,000	1	**30.62**	5108-125/18.3	–	–
125*	MULTI	20	0.3	25	6,000	1	**39.38**	5108-125/25.3	–	–
150	MULTI	32	0.3	18	8,000	1	**37.02**	5108-150/18.3	–	–
150*	MULTI	32	0.2	25	8,000	1	–	–	**112.36**	5109-150/25.2
150	MULTI	32	0.3	25	8,000	1	**40.07**	5108-150/25.3	–	–
150*	MULTI	32	0.4	25	8,000	1	–	–	**112.36**	5109-150/25.4
200	MULTI	32	0.3	20	4,500	1	**40.75**	5108-200/20.3	–	–
200	MULTI	32	0.3	25	4,500	1	**47.15**	5108-200/25.3	–	–
200*	MULTI	32	0.3	28	4,500	1	**53.43**	5108-200/28.3	–	–
BOXED							BOXED			
250	MULTI	50.8	0.3	25	3,000	1	**95.37**	5108-250/25.3	–	–
250*	MULTI	50.8	0.3	40	3,000	1	**115.79**	5108-250/40.3	–	–
250*	MULTI	50.8	0.3	50	3,000	1	**142.76**	5108-250/50.3	–	–

* Discontinued item. Available until current stock is depleted.



GROUP	WBRS	WBRS
TYPE	CRIMP WIRE WHEEL WITH SHANK	CRIMP WIRE WHEEL WITH BORE
MATERIAL	BRASS COATED WIRE	BRASS COATED WIRE
PACKAGING	CLAM SHELL	CLAM SHELL





DIAMETER MM	SHANK/ BORE	SHANK / BORE INCH	WIRE DIA MM	THICKNESS MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
50	SHANK	1/4	0.3	7	4,500	1	**7.35**	5132-50S	–	–
75	SHANK	1/4	0.3	10	4,500	1	**8.98**	5132-75S	–	–
100	SHANK	1/4	0.3	12	4,500	1	**11.71**	5132-100S	–	–
100	BORE	1/2	0.3	12	4,500	1	–	–	**13.27**	5132-100B
125*	BORE	5/8-1/2	0.3	16	3,750	1	–	–	**20.04**	5132-125B
150*	BORE	5/8-1/2	0.3	18	3,750	1	–	–	**22.44**	5132-150B

* Discontinued item. Available until current stock is depleted.

GROUP	WBRS	WBRS
TYPE	CRIMP WIRE CUP WITH SHANK	CRIMP WIRE END WITH SHANK
MATERIAL	BRASS COATED WIRE	BRASS COATED WIRE
PACKAGING	CLAM SHELL	CLAM SHELL





DIAMETER MM	SHANK/ BORE	SHANK / BORE INCH	WIRE DIA MM	THICKNESS MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
50	SHANK	1/4	0.3	–	4,500	1	**8.30**	5130-50S	–	–
65	SHANK	1/4	0.3	–	4,500	1	**9.54**	5130-65S	–	–
75	SHANK	1/4	0.3	–	4,500	1	**10.35**	5130-75S	–	–
25	SHANK	1/4	0.3	12	4,500	1	–	–	**10.35**	5134-25S

GROUP	WBRS	WBRS
TYPE	FILE CARD	BATTERY TERMINAL BRUSH
PACKAGING	HANG PACK	HANG PACK





TYPE	OAL MM	WIDTH MM	LENGTH MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
FILE CARD	235	40	115	1	**9.24**	5198-FC1	–	–
BATTERY TERMINAL BRUSH	85	15/25	35	1	–	–	**8.17**	5196-BTMB



GROUP	WBRS	WBRS
TYPE	NYLONGRIT WHEEL WITH SHANK	NYLONGRIT WHEEL WITH BORE
MATERIAL	GRIT-IMPREGNATED NYLON	GRIT-IMPREGNATED NYLON
PACKAGING	CLAM SHELL	CLAM SHELL





DIAMETER MM	SHANK/ BORE	SHANK / BORE INCH	WIRE DIA MM	THICKNESS MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
50*	SHANK	1/4"	–	–	4,500	1	**26.52**	5152-50S	**–**	–
75	SHANK	1/4"	–	–	4,500	1	**30.46**	5152-75S	**–**	–
100	SHANK	1/4"	–	–	4,500	1	**34.60**	5152-100S	**–**	–
75*	BORE	1/2"	–	–	4,500	1	**–**	–	**26.21**	5152-75B
100*	BORE	1/2"	–	–	4,500	1	**–**	–	**34.60**	5152-100B
125*	BORE	5/8-1/2"	–	–	3,750	1	**–**	–	**40.73**	5152-125B
150*	BORE	5/8-1/2"	–	–	3,750	1	**–**	–	**47.53**	5152-150B

* Discontinued item. Available until current stock is depleted.

GROUP	WBRS	WBRS
TYPE	NYLONGRIT CUP WITH SHANK	NYLONGRIT END WITH SHANK
MATERIAL	GRIT-IMPREGNATED NYLON	GRIT-IMPREGNATED NYLON
PACKAGING	CLAM SHELL	CLAM SHELL





DIAMETER MM	SHANK/ BORE	SHANK / BORE INCH	WIRE DIA MM	THICKNESS MM	MAX RPM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
50*	SHANK	1/4"	–	–	4,500	1	**28.29**	5150-50S	**–**	–
75	SHANK	1/4"	–	–	4,500	1	**34.60**	5150-75S	**–**	–
25	SHANK	1/4"	–	–	4,500	1	**–**	–	**28.29**	5154-25S

* Discontinued item. Available until current stock is depleted.

GROUP	WBRS
TYPE	DRIVE ARBOR
PACKAGING	HANG PACK



TYPE	SHANK INCH	BORE INCH	PACK QTY	$ EACH	PART NUMBER
DRIVE ARBOR	1/4	1/2	1	**6.97**	5194-DA1/2
DRIVE ARBOR	1/4	3/8	1	**6.54**	5194-DA3/8

BRUSHES NYLONGRIT

Bordo Nylongrit brushes are constructed using grit-impregnated nylon fibres that are self-replenishing as the brush ages.

BENEFITS

- Maintain shape and will not rust.
- Will not shed bristles under normal conditions.
- Abrasive grit is impregnated throughout each bristle.
- Safer to use, will not puncture skin.

APPLICATIONS

- Removing paints, corrosion, weld scale, surface rust and burns from metals.
- Prepare plastic, fibreglass, and rubber surfaces for adhesives.
- Preparing metal surfaces for primers and paint.
- Cleaning unfinished tile, stone, cement, and brick mortar.
- Removing old paint and finishes from wood.
- Cleaning and sanding wood turnings, railings, banisters, trim and moulding.
- Rounding and blending edges, cutouts and joints.



BRUSHES
SCRATCH

STEEL WIRE
These brushes are suitable for a range of general applications in the paint, welding, and automotive trades. They are constructed using tempered steel wire and are the most economical general purpose brush.

STAINLESS STEEL WIRE
Stainless steel wire scratch brushes are primarily used for metal finishing on smooth surfaces such as plating. The stainless steel wire is non-corrosive and suitable where hygiene requirements are a consideration or where moisture is present.

Stainless steel wire scratch brushes are predominantly used in the welding or painting industries. Stainless steel wire resists oxidation and rusting.

BRASS WIRE
Brass bristles remove residues from metal without severely scratching the surface and are ideal for use in tooling production and aluminum welding. They may also used for cleaning grills and some ovens. Brass wire scratch brushes are softer than tempered steel and will not scratch enamelled surfaces.

* Discontinued item. Available until current stock is depleted.

GROUP					WBRS		WBRS		WBRS	
MATERIAL					STEEL WIRE		STAINLESS WIRE		BRASS WIRE	
TYPE	WIRE DIA MM	ROWS	COLOUR	BOX QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
UNIVERSAL HAND	0.3	–	RED	24	**10.91**	5174-SW-R	–	–	–	–
UNIVERSAL HAND	0.3	–	GREEN	24	–	–	**14.97**	5174-SS-G	–	–
UNIVERSAL HAND	0.3	–	YELLOW	24	–	–	–	–	**14.97**	5174-BW-Y
WOODEN HANDLE*	0.3	3	–	24	**3.30**	5172-SW-3R				
WOODEN HANDLE	0.3	4	–	24	**3.81**	5172-SW-4R				
LONG WOODEN HANDLE	0.33	3X19	–	12	**6.31**	5170-SW-3R	–	–	–	–
LONG WOODEN HANDLE	0.35	3X19	–	12	–	–	**13.61**	5170-SS-3R	–	–
LONG WOODEN HANDLE*	0.28	3X19	–	12	–	–	–	–	**10.15**	5170-BW-3R
LONG WOODEN HANDLE	0.33	4X19	–	12	**7.72**	5170-SW-4R	–	–	–	–
LONG WOODEN HANDLE	0.35	4X19	–	12	–	–	**14.63**	5170-SS-4R	–	–
LONG WOODEN HANDLE*	0.28	4X19	–	12	–	–	–	–	**12.58**	5170-BW-4R
LONG WOODEN HANDLE*	0.35	5X19	–	12	**10.54**	5170-SW-5R	–	–	–	–



GROUP					WBRS		WBRS		WBRS	
MATERIAL					STEEL WIRE		STEEL WIRE		STAINLESS WIRE	
TYPE	WIRE DIA MM	ROWS	COLOUR	BOX QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
LONG W/HANDLE CONVEX	0.35	3X14	–	12	**6.94**	5170-SW-3RC	**–**	–		
PLASTIC SHOE HANDLE	0.35	4X16	–	12	**–**	–	**8.10**	5171-SW-4RSH		
WITH SCRAPER										
LONG WOODEN HANDLE	0.33	3X19	–	12	**8.09**	5170-SW-3RSC	**–**	–		
PLASTIC HANDLE	0.35	4X11	–	12	**–**	–	**10.20**	5171-SW-4RSC		
WELDING										
WELDING HMR & BRUSH	0.40	3X15	–	12	**–**	–	**–**	–	**17.03**	5173-SW-WHB





















COMPOUNDS

WHITE
COMBINED CUTTING & FINISHING COMPOUND
Fast cutting with medium to high finish. Use on calico or stitched rag mop - can be used on sisal mops for extra cut.

GREEN
FINISHING COMPOUND
Creates a lustrous surface. This compound achieves a superior finish on chrome, stainless steel, decorative copper and brass. Best used with a calico mop.

BLUE
FINISHING COMPOUND
Used to produce a lustrous, smear free, high reflective surface on all metals that are suitable for lacquering. Best used with a loose leaf calico polishing mop.

BROWN
COMBINED CUTTING AND FINISHING COMPOUND
General purpose tripoli. Use on sisal, stitched rag and calico mops. Easy to remove prior to electroplating.

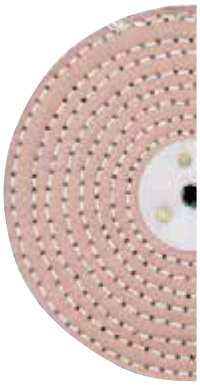
GREY
CUTTING COMPOUND
Rough cut to remove scratches, belt marks and drawing marks. Maximum abrasive content with high rate of surface removal. Fast and economical.

GROUP	MOPS	MOPS	MOPS
TYPE	CALICO - LOOSE LEAF	STITCHED RAG	SISAL
USAGE	HIGH GLOSS POLISHING	GENERAL PURPOSE	CUTTING BACK
BORE	TAPERED	TAPERED	TAPERED
PACKAGING	CLAM SHELL	CLAM SHELL	CLAM SHELL









DIAMETER MM	CALICO MOPS FOLDS	STICHED BAG & SISAL SECTIONS	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
50	50 FOLD	1 SECTION	1	**17.91**	5200-50X50	**12.40**	5202-50X1	**14.14**	5204-50X1
75	50 FOLD	1 SECTION	1	**24.59**	5200-75X50	**20.31**	5202-75X1	**14.14**	5204-75X1
100	50 FOLD	1 SECTION	1	**24.36**	5200-100X50	**20.83**	5202-100X1	**21.50**	5204-100X1
150	50 FOLD	1 SECTION	1	**32.94**	5200-150X50	**21.36**	5202-150X1	**22.48**	5204-150X1
150	100 FOLD	2 SECTION	1	**44.58**	5200-150X100	**29.69**	5202-150X2	**28.20**	5204-150X2
200	50 FOLD	1 SECTION	1	**50.59**	5200-200X50	**24.36**	5202-200X1	**25.34**	5204-200X1
200	100 FOLD	2 SECTION	1	**71.20**	5200-200X100	**37.52**	5202-200X2	**32.71**	5204-200X2









DIAMETER MM	CALICO MOPS HEAD STYLE	SHANK	PACK QTY	$ EACH	PART NUMBER
90	MUSHROOM	HEX	1	**16.91**	5200-MS
70	TAPER	HEX	1	**20.51**	5200-TS



NEW PRODUCT

SET CONTENTS	$ SET	PART NUMBER
CALICO POLISHING KIT	**50.88**	5200-S1
5200-MS MUSHROOM HEAD CALICO POLISHING MOP		
5200-TS TAPER HEAD CALICO POLISHING MOP		
5220-2 GREEN POLISHING COMPOUND		



GROUP	COMP
PACKAGING	CLAM SHELL



COLOUR	DESCRIPTION	PACK QTY	$ EACH	PART NUMBER
WHITE	FOR HIGH GLOSS FINISH ON ALUMINIUM & ALUMINIUM ALLOYS	1	**13.46**	5220-1
LIGHT GREEN	FOR HIGH GLOSS FINISH ON COPPER, BRASS & STAINLESS STEEL	1	**13.46**	5220-2
LIGHT BLUE	FOR HIGH GLOSS FINISH ON MOST PLASTICS, SILVER, GOLD & DIE CAST METALS	1	**13.46**	5220-3
BROWN	FOR GENERAL PURPOSE USE ON COPPER, BRASS, ALUMINIUM & MOST METALS	1	**7.73**	5220-4
DARK GREY	FOR LIGHT SCRATCHES ON COPPER, BRASS, S/STEEL BEFORE HIGH GLOSS POLISHING	1	**11.17**	5220-5

COMPOUNDS

WHITE
COMBINED CUTTING & FINISHING COMPOUND
Fast cutting with medium to high finish. Use on calico or stitched rag mop - can be used on sisal mops for extra cut.

GREEN
FINISHING COMPOUND
Creates a lustrous surface. This compound achieves a superior finish on chrome, stainless steel, decorative copper and brass. Best used with a calico mop.

BLUE
FINISHING COMPOUND
Used to produce a lustrous, smear free, high reflective surface on all metals that are suitable for lacquering. Best used with a loose leaf calico polishing mop.

BROWN
COMBINED CUTTING AND FINISHING COMPOUND
General purpose tripoli. Use on sisal, stitched rag and calico mops. Easy to remove prior to electroplating.

GREY
CUTTING COMPOUND
Rough cut to remove scratches, belt marks and drawing marks. Maximum abrasive content with high rate of surface removal. Fast and economical.

GROUP	SPIN	SPIN
TYPE	**LEFT HAND** TAPERED SPINDLE	**RIGHT HAND** TAPERED SPINDLE
USAGE	CLAM SHELL	CLAM SHELL







THREAD / SHANK MM	THREAD / SHANK INCH	TYPE	USE IN	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
12	–	MC	BENCH GRINDER	1	**31.57**	5240-12L	**31.57**	5240-12R
16	–	MC	BENCH GRINDER	1	**31.57**	5240-16L	**31.57**	5240-16R
–	1/2	BSW	BENCH GRINDER	1	**31.57**	5240-1/2L	**31.57**	5240-1/2R
–	5/8	BSW	BENCH GRINDER	1	**31.57**	5240-5/8L	**31.57**	5240-5/8R



WITH SHANK								
6	–	–	USE IN A PISTOL DRILL WITH MOPS <100MM	1	–	–	**20.85**	5240-6S

GROUP	–
PACKAGING	**MERCHANDISER**



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
POLISHING	**1,304.46**	5200-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	DESCRIPTION MM X FOLD/SECTION	PART NUMBER
		POLISHING MOPS		
	2	CALICO	150MM X 100 FOLD	5200-150X100
	2	CALICO	200MM X 100 FOLD	5200-200X100
	2	STITCH RAG	150MM X 2 SEC.	5202-150X2
	2	STITCH RAG	200MM X 2 SEC.	5202-200X2
	2	SISAL	150MM X 2 SEC.	5204-150X2
	2	SISAL	200MM X 2 SEC.	5204-200X2
	2	CALICO	MUSHROOM MOP	5200-MS
	2	CALICO	TAPERED MOP	5200-TS
		POLISHING COMPOUNDS		
	2	WHITE	–	5220-1
	2	LIGHT GREEN	–	5220-2
	2	LIGHT BLUE	–	5220-3
	2	BROWN	–	5220-4
	2	DARK GREY	–	5220-5
		TAPERED SPINDLES		
	2	LEFT HANDED	12MM	5240-12L
	2	LEFT HANDED	16MM	5240-16L
	2	LEFT HANDED	1/2"	5240-1/2L
	2	LEFT HANDED	5/8"	5240-5/8L
	2	RIGHT HANDED	12MM	5240-12R
	2	RIGHT HANDED	16MM	5240-16R
	2	RIGHT HANDED	1/2"	5240-1/2R
	2	RIGHT HANDED	5/8"	5240-5/8R
		KIT		
	2	–	POLISHING KIT	5200-S1

GROUP	WBRS
PACKAGING	**MERCHANDISER**







MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
BRUSHWARE	**1,904.71**	5100-D1

MERCHANDISER CONTENTS	QTY EACH	SIZE MM	DESCRIPTION	PART NUMBER
		TWIST KNOT CUP – STEEL WIRE		
	2	70	M14 X 2.00	5100-70-3.5
	2	100	M14 X 2.00	5100-100-3.5
	3	125	M14 X 2.00	5100-125-3.5
		CRIMPED WIRE CUP – STEEL WIRE		
	2	75	M14 X 2.00	5104-75-3.3
	2	80	M14 X 2.00	5104-80-3.3
	2	100	M14 X 2.00	5104-100-3.3
		TWIST KNOT WHEEL – STEEL WIRE		
	4	85	6MM SHANK	5106-85.5S
		CRIMPED WIRE WHEEL		
	4	150 X 18	32MM BORE	5108-150/18.3
	4	150 X 25	32MM BORE	5108-150/25.3
	4	200 X 20	32MM BORE	5108-200/20.3
	2	200 X 25	32MM BORE	5108-200/25.3
		TWIST KNOT BEVEL BRUSH – STEEL WIRE		
	2	100	M14 X 2.00	5112-100-3.5
		CRIMPED WIRE CUP – BRASS COATED WIRE		
	2	65	1/4" SHANK	5130-65S
	1	75	1/4" SHANK	5130-75S
		CRIMPED WIRE WHEEL – BRASS COATED WIRE		
	2	75	1/4" SHANK	5152-75S
		NYLONGRIT WHEEL		
	2	75	1/4" SHANK	5152-75S
	2	100	1/4" SHANK	5152-100S
		UNIVERSAL HAND SCRATCH BRUSH		
	2		STEEL WIRE	5174-SW-R
	2		BRASS WIRE	5174-BW-Y
	2		STAINLESS STEEL	5174-SS-G
		WELDING HAMMER AND BRUSH		
	2		STEEL WIRE	5173-SW-WHB
		PLASTIC HANDLE SCRATCH BRUSHES		
	6		SHOE HANDLE	5171-SW-4RSH
	6		WITH SCRAPER	5171-SW-4RSC
		LONG WOODEN HANDLE SCRATCH BRUSH		
	6	4 X 19	S/STEEL WIRE	5170-SS-4R
	6	4 X 19	STEEL + SCRAPER	5170-SW-3RC
	6	4 X 19	STEEL WIRE	5170-SW-4R



SELECTED CLAM SHELL PACK DEBURRERS ARE SUPPLIED IN COUNTER DISPLAY BOXES WHEN ORDERED IN MULTIPLES OF 5. SEE PAGE 268 FOR DETAILS.

GROUP	DBUR



STANDARD SWIVEL DEBURRER

INCLUDES 6 BLADES

PACKAGING	$	PART #
CLAM SHELL	**43.73**	6410-SWS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SE BLADE ADAPTOR	6410-SEAdaptor
NB BLADE ADAPTOR	6410-NBAdaptor
SE #10 BLADE	6411-SE10
SE #20 BLADE	6411-SE20
SE #30 BLADE	6411-SE30
NB #10 BLADE	6411-NB10
NB #20 BLADE	6411-NB20
NB #30 BLADE	6411-NB30







TELESCOPIC SWIVEL DEBURRER

INCLUDES 6 BLADES

PACKAGING	$	PART #
CLAM SHELL	**62.26**	6410-TSS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SE & NB EXTENSION	6412-M
SE #10 BLADE	6411-SE10
SE #20 BLADE	6411-SE20
SE #30 BLADE	6411-SE30
NB #10 BLADE	6411-NB10
NB #20 BLADE	6411-NB20
NB #30 BLADE	6411-NB30







SCRAPER DEBURRER

INCLUDES 4MM AND 8MM SCRAPER BLADES

PACKAGING	$	PART #
CLAM SHELL	**98.16**	6410-SCS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SCRAPER EXTENSION	6412-C
4MM SCRAPER BLADE	6411-C40
8MM SCRAPER BLADE	6411-C42
BLADE CHANGING TOOL	9931-BC





GROUP	DBUR

COUNTERSINK DEBURRER

INCLUDES 20MM HSS COUNTERSINK







PACKAGING	$	PART #
CLAM SHELL	**88.92**	6410-CSS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
THREADED EXTENSION	6412-F
20MM HSS COUNTERSINK	6411-F20

EXTERNAL PIPE DEBURRER

MAXIMUM DIAMETER 26MM







PACKAGING	$	PART #
CLAM SHELL	**123.51**	6410-EPS

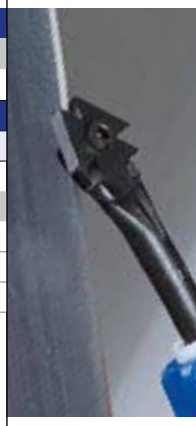
DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
THREADED EXTENSION	6412-F
EXT. PIPE BLADE Ø26MM	6411-F26X

SHEETMETAL EDGE DEBURRER

TUNGSTEN CARBIDE BLADE







PACKAGING	$	PART #
CLAM SHELL	**58.51**	6410-SHS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
EDGE EXTENSION	6412-D
CARBIDE BLADE	6411-D80

SLOT EDGE DEBURRER

15MM HSS 8 EDGE BLADE







PACKAGING	$	PART #
CLAM SHELL	**68.60**	6410-SES

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SLOT EDGE EXTENSION	6412-G
HSS SLOT EDGE BLADE	6411-G10



GROUP	DBUR

CORNER CLEANER DEBURRER

TUNGSTEN CARBIDE 3 CORNER BLADE

PACKAGING	$	PART #
CLAM SHELL	**76.18**	6410-CCS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
CORNER CLEANER EXTENSION	6412-G3
3 EDGED BLADE	6411-G30C





RATCHET EXTENSION

FOR USE WITH COUNTERSINKS & EXTERNAL PIPE DEBURRERS

PACKAGING	$	PART #
CLAM SHELL	**46.72**	6412-FRS

DESCRIPTION
RATCHET EXTENSION TO SUIT HSS COUNTERSINKS AND EXTERNAL PIPE DEBURRER BLADES





NEW PRODUCT

STANDARD SWIVEL DEBURRER PEN

INCLUDES SE10 HEAVY DUTY BLADE

PACKAGING	$	PART #
CLAM SHELL	**16.80**	6411-A12SWS

DESCRIPTION	PART #
SE #10 BLADE	6411-SE10







DISPLAY BOX RANGE SEE **PAGE 268**



GROUP	DBUR

STANDARD SWIVEL DEBURRER

INCLUDES 3 BLADES – SE



PACKAGING	$	PART #
BOXED	**28.22**	6410-SWSE

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SE BLADE ADAPTOR	6410-SEAdaptor
SE #10 BLADE	6411-SE10
SE #20 BLADE	6411-SE20
SE #30 BLADE	6411-SE30



STANDARD SWIVEL DEBURRER

INCLUDES 3 BLADES – NB



PACKAGING	$	PART #
BOXED	**26.21**	6410-SWNB

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
NB BLADE ADAPTOR	6410-NBAdaptor
NB #10 BLADE	6411-NB10
NB #20 BLADE	6411-NB20
NB #30 BLADE	6411-NB30

TELESCOPIC SWIVEL DEBURRER

INCLUDES 3 BLADES – SE



PACKAGING	$	PART #
BOXED	**44.66**	6410-TSSE

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SE BLADE EXTENSION	6412-E
SE #10 BLADE	6411-SE10
SE #20 BLADE	6411-SE20
SE #30 BLADE	6411-SE30

TELESCOPIC SWIVEL DEBURRER

INCLUDES 3 BLADES – NB



PACKAGING	$	PART #
BOXED	**37.62**	6410-TSNB

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
NB BLADE EXTENSION	6412-B
NB #10 BLADE	6411-NB10
NB #20 BLADE	6411-NB20
NB #30 BLADE	6411-NB30

GROUP	DBUR



SCRAPER DEBURRER

INCLUDES 4MM SCRAPER BLADE

PACKAGING	$	PART #
BOXED	**51.79**	6410-SC40

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SCRAPER EXTENSION	6412-C
4MM SCRAPER BLADE	6411-C40
BLADE CHANGING TOOL	–





SCRAPER DEBURRER

INCLUDES 8MM SCRAPER BLADE

PACKAGING	$	PART #
BOXED	**70.44**	6410-SC42

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SCRAPER EXTENSION	6412-C
8MM SCRAPER BLADE	6411-C42
BLADE CHANGING TOOL	–





COUNTERSINK DEBURRER

INCLUDES 20MM HSS COUNTERSINK

PACKAGING	$	PART #
BOXED	**87.60**	6410-CSF20

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
THREADED EXTENSION	6412-F
20MM HSS COUNTERSINK	6411-F20





RATCHET COUNTERSINK DEBURRER

INCLUDES 20MM HSS COUNTERSINK

PACKAGING	$	PART #
BOXED	**132.40**	6410-CSF20FR

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
RATCHET EXTENSION	6412-FRS
20MM HSS COUNTERSINK	6411-F20





GROUP	DBUR

COUNTERSINK DEBURRER

INCLUDES 30MM HSS COUNTERSINK





PACKAGING	$	PART #
BOXED	**127.03**	6410-CSF30

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
THREADED EXTENSION	6412-F
30MM HSS COUNTERSINK	6411-F30



RATCHET COUNTERSINK DEBURRER

INCLUDES 30MM HSS COUNTERSINK





PACKAGING	$	PART #
BOXED	**171.82**	6410-CSF30FR

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
RATCHET EXTENSION	6412-FRS
30MM HSS COUNTERSINK	6411-F30

EXTERNAL PIPE DEBURRER

MAXIMUM DIAMETER 26MM





PACKAGING	$	PART #
BOXED	**122.19**	6410-EPF26X

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
THREADED EXTENSION	6412-F
EXT. PIPE BLADE Ø26MM	6411-F26X

RATCHET EXTERNAL PIPE DEBURRER

MAXIMUM DIAMETER 26MM





PACKAGING	$	PART #
BOXED	**149.99**	6410-EPF26XFR

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
RATCHET EXTENSION	6412-FRS
EXT. PIPE BLADE Ø26MM	6411-F26X



GROUP	DBUR



SHEETMETAL EDGE DEBURRER

TUNGSTEN CARBIDE BLADE WITH 6 CUTTING EDGES

PACKAGING	$	PART #
BOXED	**57.07**	6410-SH

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
EDGE EXTENSION	6412-D
CARBIDE BLADE	6411-D80





SLOT EDGE CLEANER DEBURRER

15MM HSS BLADE WITH 8 CUTTING EDGES

PACKAGING	$	PART #
BOXED	**67.28**	6410-SE

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SLOT EDGE EXTENSION	6412-G
HSS SLOT EDGE BLADE	6411-G10





CORNER CLEANER DEBURRER

TUNGSTEN CARBIDE 3 CORNER BLADE

PACKAGING	$	PART #
BOXED	**74.74**	6410-CC

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
CORNER CLEANER EXTENSION	6412-G3
3 EDGED BLADE	6411-G30C







COUNTER DISPLAY BOX RANGES
SEE **PAGE 268**



BENCH AND WALL MOUNTED MERCHANDISERS
SEE **PAGE 267**



GROUP	DBUR

HEAVY DUTY SHEETMETAL CLEANER

FOR SHEETMETAL UP TO 14MM THICK





SIDE A SIDE B



PACKAGING	$	PART #
BOXED	**56.54**	6410-HS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
HD SHEETMETAL HOLDER	6412-BR
ROUND BLADES (PAIR)	6411-R10

APPLICATIONS / MATERIALS

DEBURR STRAIGHT EDGES AND SHEET ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL & PLASTICS.

SIDE A DEBURRS MATERIALS WITH SPIRAL CHIPS SUCH AS STEEL, ALUMINIUM AND COPPER.

SIDE B DEBURRS MATERIALS WITH POWDERY CHIPS SUCH AS BRASS AND CAST IRON.



SURFACE SCRAPER

TWO EDGED TUNGSTEN CARBIDE BLADE





PACKAGING	$	PART #
BOXED	**99.79**	6410-SS

DESCRIPTION	PART #
HANDLE – SOFT GRIP	–
SURFACE SCRAPER HOLDER	6412-K
CARBIDE BLADE	6411-K10

APPLICATIONS / MATERIALS

TWO EDGED FLAT SURFACE SCRAPER BLADE. CLEANS WITH A PULLING OR PUSHING ACTION. IDEAL FOR SMOOTHING/CLEANING FLAT METAL AND PLASTIC SURFACES AS WELL AS REMOVING PAINT AND VARNISH.

SUITABLE FOR USE ON STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL AND PLASTICS.





GROUP	DBUR

SE10 SWIVEL BLADE

HSS HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	25.50	6411-SE10S
BULK – PER BLADE	4.50	6411-SE10





APPLICATIONS	MATERIALS
STRAIGHT EDGE AND HOLE EDGE	STEEL, ALUMINIUM, COPPER & PLASTICS

HEAVY DUTY 3.2MM

SE10 SWIVEL BLADE TiN COATED

HSS TITANIUM NITRIDE COATED HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	53.00	6411-SE10TINS
BULK – PER BLADE	10.00	6411-SE10TIN





APPLICATIONS	MATERIALS
STRAIGHT EDGE AND HOLE EDGE	STEEL, ALUMINIUM, COPPER, STAINLESS & PLASTICS

HEAVY DUTY 3.2MM

SE10 SWIVEL BLADE COBALT

HSS-Co HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	33.00	6411-SE10COS
BULK – PER BLADE	6.00	6411-SE10CO





APPLICATIONS	MATERIALS
STRAIGHT EDGE AND HOLE EDGE	STEEL, ALUMINIUM, COPPER, STAINLESS & PLASTICS

HEAVY DUTY 3.2MM

SE10 SWIVEL BLADE LEFT HAND

HSS HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	64.50	6411-SE10LS
BULK – PER BLADE	12.30	6411-SE10L





APPLICATIONS	MATERIALS
STRAIGHT EDGE AND HOLE EDGE	STEEL, ALUMINIUM, COPPER & PLASTICS

HEAVY DUTY 3.2MM

SE111 SWIVEL BLADE THIN NOSE

HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	33.00	6411-SE111S
BULK – PER BLADE	6.00	6411-SE111





APPLICATIONS	MATERIALS
STRAIGHT EDGE & HOLE EDGE MIN. DIA. 1.5MM	STEEL, ALUMINIUM, COPPER, STAINLESS & PLASTICS

HEAVY DUTY 3.2MM

SE20 SWIVEL BLADE LEFT & RIGHT HAND

HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	25.50	6411-SE20S
BULK – PER BLADE	4.50	6411-SE20





APPLICATIONS	MATERIALS
STRAIGHT EDGE AND HOLE EDGE	BRASS, CAST IRON AND PLASTICS

HEAVY DUTY 3.2MM

SE30 SWIVEL BLADE BOTH EDGES

HSS HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	25.50	6411-SE30S
BULK – PER BLADE	4.50	6411-SE30





APPLICATIONS	MATERIALS
CROSS HOLE BOTH EDGES MATERIALS UP TO 6MM	STEEL, ALUMINIUM AND COPPER

HEAVY DUTY 3.2MM

SE35 SWIVEL BLADE LEFT & RIGHT HAND

HSS HEAVY DUTY 3.2MM

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	31.50	6411-SE35S
BULK – PER BLADE	5.70	6411-SE35





APPLICATIONS	MATERIALS
STRAIGHT EDGE	BRASS, CAST IRON AND PLASTICS

HEAVY DUTY 3.2MM

GROUP	DBUR

SE60 SWIVEL BLADE BACK EDGE

HSS HEAVY DUTY 3.2MM





APPLICATIONS	MATERIALS
HOLE BACK EDGE MAX. DEPTH 20MM	STEEL, ALUMINIUM, COPPER & PLASTICS

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	58.00	6411-SE60S
BULK – PER BLADE	11.00	6411-SE60

NB10 SWIVEL BLADE

HSS STANDARD 2.6MM





APPLICATIONS	MATERIALS
STRAIGHT EDGE AND HOLE EDGE	STEEL, ALUMINIUM, COPPER & PLASTICS

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	23.00	6411-NB10S
BULK – PER BLADE	4.00	6411-NB10

NB20 SWIVEL BLADE LEFT & RIGHT HAND

HSS STANDARD 2.6MM





APPLICATIONS	MATERIALS
STRAIGHT EDGE AND HOLE EDGE	BRASS, CAST IRON AND PLASTICS

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	23.00	6411-NB20S
BULK – PER BLADE	4.00	6411-NB20

NB30 SWIVEL BLADE BOTH EDGES

HSS STANDARD 2.6MM





APPLICATIONS	MATERIALS
CROSS HOLE BOTH EDGES MATERIALS UP TO 4MM	STEEL, ALUMINIUM, COPPER & PLASTICS

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	26.50	6411-NB30S
BULK – PER BLADE	4.70	6411-NB30

NB60 SWIVEL BLADE BACK EDGE

HSS STANDARD 2.6MM





APPLICATIONS	MATERIALS
HOLE BACK EDGE MAX. DEPTH 20MM	STEEL, ALUMINIUM, COPPER & PLASTICS

PACKAGING	$	PART #
CLAM SHELL – 5 PACK	56.50	6411-NB60S
BULK – PER BLADE	10.70	6411-NB60

C40 TRIANGULAR SCRAPER BLADE 4MM

HSS PRECISION SCRAPER





INCLUDES BLADE CHANGING TOOL

APPLICATIONS	MATERIALS
HOLE BACK EDGE, INNER HOLE SURFACE AND FLAT SURFACES	STEEL, ALUMINIUM, COPPER, BRASS, STAINLESS, CAST IRON & PLASTICS

PACKAGING	$	PART #
CLAM SHELL – 1 PACK	29.00	6411-C40S
BULK – PER BLADE	26.22	6411-C40

C42 TRIANGULAR SCRAPER BLADE 8MM

HSS PRECISION SCRAPER





INCLUDES BLADE CHANGING TOOL

APPLICATIONS	MATERIALS
HOLE BACK EDGE, INNER HOLE SURFACE AND FLAT SURFACES	STEEL, ALUMINIUM, COPPER, BRASS, STAINLESS, CAST IRON & PLASTICS

PACKAGING	$	PART #
CLAM SHELL – 1 PACK	48.00	6411-C42S
BULK – PER BLADE	44.88	6411-C42



GROUP	DBUR

F20 COUNTERSINK BLADE 20MM

HSS COUNTERSINK



PACKAGING	$	PART #
BULK – PER BLADE	62.04	6411-F20

APPLICATIONS / MATERIALS

COUNTERSINK HOLE EDGES UP TO 20MM DIA. IN STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL & PLASTICS

F30 COUNTERSINK BLADE 30MM

HSS COUNTERSINK



PACKAGING	$	PART #
BULK – PER BLADE	101.46	6411-F30

APPLICATIONS / MATERIALS

COUNTERSINK HOLE EDGES UP TO 30MM DIA. IN STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL & PLASTICS

D80 SHEETMETAL EDGE DEBURRER BLADE

TUNGSTEN CARBIDE – 6 CUTTING EDGES



PACKAGING	$	PART #
BULK – PER BLADE	25.00	6411-D80

APPLICATIONS / MATERIALS

SOLID TUNGSTEN CARBIDE BLADE FOR USE ON STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL, HARDENED STEEL & PLASTICS

F26X EXTERNAL PIPE DEBURRER

MAXIMUM DIAMETER 26MM



PACKAGING	$	PART #
BULK – PER BLADE	96.62	6411-F26X

APPLICATIONS / MATERIALS

EXT. CHAMFERING OF PIPES & TUBES TO MAX. DIA. OF 26MM IN STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL & PLASTICS

G10 SLOT EDGE CLEANER BLADE

HSS MAXIMUM WIDTH 15MM – 8 CUTTING EDGES



PACKAGING	$	PART #
BULK – PER BLADE	28.00	6411-G10

APPLICATIONS / MATERIALS

DEBURR INT. & EXT. EDGES OF KEYWAYS AND SLOTS IN STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS & PLASTICS

G30C CORNER CLEANER BLADE

TUNGSTEN CARBIDE – 3 CUTTING CORNERS



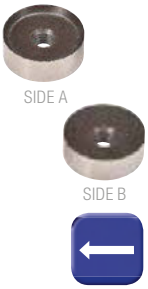
PACKAGING	$	PART #
BULK – PER BLADE	38.00	6411-G30C

APPLICATIONS / MATERIALS

CLEAN INTERNAL CORNERS & REMOVE RADII IN STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS & HARDENED STEELS, PLASTICS

R10 TWO SIDED ROUND CLEANER BLADES

HSS



PACKAGING	$	PART #
BULK – PAIR	14.00	6411-R10

APPLICATIONS / MATERIALS

DEBURR STRAIGHT EDGES ON STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL AND PLASTICS.

SIDE A DEBURRS MATERIALS WITH SPIRAL CHIPS SUCH AS STEEL, ALUMINIUM AND COPPER.

SIDE B DEBURRS MATERIALS WITH POWDERY CHIPS SUCH AS BRASS AND CAST IRON.

K10 TWO EDGED SURFACE SCRAPER BLADE

TUNGSTEN CARBIDE 50MM WIDE



PACKAGING	$	PART #
BULK – PER BLADE	38.00	6411-K10

APPLICATIONS / MATERIALS

TWO EDGED FLAT SURFACE SCRAPER BLADE. CLEANS WITH A PULLING OR PUSHING ACTION. IDEAL FOR SMOOTHING/CLEANING FLAT METAL AND PLASTIC SURFACES AS WELL AS REMOVING PAINT AND VARNISH.

SUITABLE FOR USE ON STEEL, ALUMINIUM, COPPER, BRASS, CAST IRON, STAINLESS STEEL AND PLASTICS.

GROUP	DBUR

DEBURRER COUNTER DISPLAY STAND

THE 5 MOST POPULAR DEBURRERS AND BLADES



MERCHANDISER TYPE	$	PART #
COUNTER DISPLAY	**546.08**	6410-D3

MERCHANDISER CONTENTS

QTY	DESCRIPTION	PART #
1	Swivel Deburrer with SE & NB Blades	6410-SWS
1	Telescopic Swivel Deburrer with SE & NB Blades	6410-TSS
1	Scraper Deburrer with 4mm & 8mm Triangular Blades	6410-SCS
1	Countersink Deburrer with 20mm Countersink	6410-CSS
1	Sheetmetal Edge Deburrer	6410-SHS
1	Heavy Duty 3.2mm Swivel Blades SE10 5Pk	6411-SE10S
1	Heavy Duty 3.2mm Swivel Blades SE30 5Pk	6411-SE30S
1	Standard 2.6mm Swivel Blades NB10 5Pk	6411-NB10S
1	Standard 2.6mm Swivel Blades NB30 5Pk	6411-NB30S
1	Scraper Blade 4mm Triangular C40 Blade and changer	6411-C40S

DEBURRER SINGLE TIER DISPLAY

THE 6 MOST POPULAR DEBURRERS AND TELESCOPIC RATCHET EXTENSION



MERCHANDISER TYPE	$	PART #
1 TIER WALL MOUNT	**521.81**	6410-D1

MERCHANDISER CONTENTS

QTY	DESCRIPTION	PART #
1	Swivel Deburrer with SE & NB Blades	6410-SWS
1	Telescopic Swivel Deburrer with SE & NB Blades	6410-TSS
1	Scraper Deburrer with 4mm & 8mm Triangular Blades	6410-SCS
1	Countersink Deburrer with 20mm Countersink	6410-CSS
1	Sheetmetal Edge Deburrer	6410-SHS
1	External Pipe Deburrer	6410-EPS
1	Telescopic Ratchet- suits Csnk & Ext. Pipe Deburrer	6412-FRS

DEBURRER TWO TIER DISPLAY

THE 8 MOST POPULAR DEBURRERS AND BLADES



MERCHANDISER TYPE	$	PART #
2 TIER WALL MOUNT	**796.09**	6410-D2

MERCHANDISER CONTENTS

QTY	DESCRIPTION	PART #
1	Swivel Deburrer with SE & NB Blades	6410-SWS
1	Telescopic Swivel Deburrer with SE & NB Blades	6410-TSS
1	Scraper Deburrer with 4mm & 8mm Triangular Blades	6410-SCS
1	Countersink Deburrer with 20mm Countersink	6410-CSS
1	Sheetmetal Edge Deburrer	6410-SHS
1	External Pipe Deburrer	6410-EPS
1	Slot Edge Cleaner	6410-SES
1	Corner Cleaner	6410-CCS
1	Telescopic Ratchet- suits Csnk & Ext. Pipe Deburrer	6412-FRS
1	Heavy Duty 3.2mm Swivel Blades SE10 5Pk	6411-SE10S
1	Heavy Duty 3.2mm Swivel Blades SE30 5Pk	6411-SE30S
1	Standard 2.6mm Swivel Blades NB10 5Pk	6411-NB10S
1	Standard 2.6mm Swivel Blades NB30 5Pk	6411-NB30S
1	Scraper Blade 4mm Triangular C40 Blade and changer	6411-C40S





GROUP	DBUR



STANDARD SWIVEL DEBURRER

COUNTER DISPLAY BOX

PACKAGING	$	PART #
DISPLAY BOX	**150.00**	6410-SWSE10T
CONTAINS 10 X DEBURRER TOOLS WITH SE10 BLADES		
DESCRIPTION		PART #
HANDLE – SOFT GRIP		–
SE BLADE ADAPTOR		6410-SEAdaptor
SE #10 BLADE		6411-SE10B





X10 PER BOX





CLAM SHELL DEBURRERS

SUPPLIED IN COUNTER DISPLAY BOX

WHEN ORDERED IN MULTIPLES OF 5 PIECES 6410-SWS, 6410-TSS, 6410-SCS AND 6411-A12SWS DEBURRERS ARE SUPPLIED IN COUNTER DISPLAY BOXES. FOR PRICING SEE PAGES 256 AND 258.

PACKAGING	QTY PER BOX	PART #
DISPLAY BOX	**5 PIECES**	6410-SWS
CONTAINS 5 X 6410-SWS DEBURRER TOOLS		

PACKAGING	QTY PER BOX	PART #
DISPLAY BOX	**5 PIECES**	6410-TSS
CONTAINS 5 X 6410-TSS DEBURRER TOOLS		

PACKAGING	QTY PER BOX	PART #
DISPLAY BOX	**5 PIECES**	6410-SCS
CONTAINS 5 X 6410-SCS DEBURRER TOOLS		

PACKAGING	QTY PER BOX	PART #
DISPLAY BOX	**5 PIECES**	6411-A12SWS
CONTAINS 5 X 6411-A12WS DEBURRER TOOLS		



X5 PER BOX



X5 PER BOX



X5 PER BOX



X5 PER BOX

GROUP	DBUR

SE HEAVY DUTY BLADE PLASTIC ADAPTOR

SUITS ALL SE HEAVY DUTY SWIVEL BLADES



PACKAGING	$	PART #
BAGGED	1.00	6410-SEAdaptor

NB STANDARD BLADE PLASTIC ADAPTOR

SUITS ALL NB STANDARD SWIVEL BLADES



PACKAGING	$	PART #
BAGGED	1.00	6410-NBAdaptor

DEBURRER HANDLE

INCLUDES SE AND NB ADAPTORS



PACKAGING	$	PART #
BOXED	15.00	6410-H1

SE & NB UNIVERSAL EXTENSION

SUITS ALL SE HEAVY DUTY BLADES AND NB STANDARD BLADES



PACKAGING	$	PART #
BAGGED	29.00	6412-M

SE HEAVY DUTY BLADE EXTENSION

SUITS ALL SE HEAVY DUTY BLADES



PACKAGING	$	PART #
BAGGED	25.00	6412-E

NB STANDARD BLADE EXTENSION

SUITS ALL NB STANDARD BLADES



PACKAGING	$	PART #
BAGGED	19.00	6412-B

SCRAPER BLADE EXTENSION

SUITS ALL TRIANGULAR SCRAPER BLADES



PACKAGING	$	PART #
BAGGED	19.00	6412-C

GROUP	DBUR

COUNTERSINK AND EXTERNAL PIPE DEBURRER EXTENSION

SUITS ALL COUNTERSINKS AND EXTERNAL PIPE DEBURRER

PACKAGING	$	PART #
BAGGED	19.00	6412-F



SHEETMETAL EDGE DEBURRER EXTENSION

SUITS D80 TUNGSTEN CARBIDE BLADES

PACKAGING	$	PART #
BAGGED	24.00	6412-D



SLOT EDGE CLEANER EXTENSION

SUITS G10 SLOT EDGE CLEANER BLADES

PACKAGING	$	PART #
BAGGED	37.00	6412-G



CORNER CLEANER EXTENSION

SUITS G30C TUNGSTEN CARBIDE CORNER CLEANER BLADES

PACKAGING	$	PART #
BAGGED	29.00	6412-G3



HEAVY DUTY SHEETMETAL CLEANER ASSEMBLY

SUITS R10 ROUND CLEANER BLADES

PACKAGING	$	PART #
BAGGED	41.00	6412-BR



BLADES SOLD SEPARATELY.

SURFACE SCRAPER EXTENSION

SUITS K10 TUNGSTEN CARBIDE SURFACE SCRAPER BLADES

PACKAGING	$	PART #
BAGGED	56.00	6412-K



UNIVERSAL HANDGUARD

SUITABLE FOR USE WITH ALL EXTENSIONS

PACKAGING	$	PART #
BAGGED	21.00	6412-Handguard



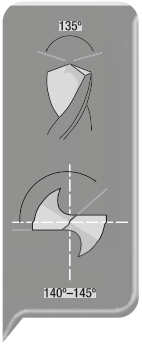
Part# prefix 6411-	Description	Blade image includes work direction	Straight Edge	Hole Edge	Tube External Edge	Cross Hole Both Edges	Hole Back Edge	Hole Inner Surface	Flat Surface	Sheet Edge	Slot and Keyway	Inner Straight Corners	Steel	Aluminium	Copper	Brass	Cast Iron	Stainless Steel	Hardened Steel	Plastics
SE10	Heavy duty HSS blade for deburring materials with spiral chips.		●	●									●	●	●					●
SE10TIN	Heavy duty HSS blade for deburring materials with spiral chips. TiN coated for extended life.		●	●									●	●				●		●
SE10CO	Long life heavy duty Cobalt HSS blade for deburring materials with spiral chips.		●	●									●	●	●			●		●
SE10L	Heavy duty HSS blade for deburring materials with spiral chips. **For left hand use.**		●	●									●	●	●					●
SE111	Thin nosed HSS blade for use in holes with a minimum diameter of 1.5mm.		●	●									●	●	●			●		●
SE20	Heavy duty HSS blade for deburring materials with powdery chips. **Right and left hand use.**		●	●												●	●			●
SE30	Heavy duty HSS blade for materials with spiral chips. Simultaneously deburrs the inside and outside edges of holes up to 6mm thick.					●							●	●	●					
SE35	Heavy duty HSS blade for deburring materials with powdery chips. **Right and left hand use.**		●													●	●			●
SE60	Heavy duty HSS blade for materials with spiral chips. Removes burrs from back edges of holes up to 20mm thick.						●						●	●	●					●
NB10	HSS blade for deburring materials with spiral chips.		●	●									●	●	●					●
NB20	HSS blade for deburring materials with powdery chips. **Right and left hand use.**		●	●												●	●			●
NB30	HSS blade for materials with spiral chips. Simultaneously deburrs the inside and outside edges of holes up to 4mm thick.					●							●	●	●					●
NB60	HSS blade for materials with spiral chips. Removes burrs from back edges of holes up to 20mm thick.						●						●	●	●					●
C40	Small 4mm HSS triangular scraper for precision cleaning and deburring.						●	●	●				●	●	●	●	●	●		●
C42	Medium 8mm HSS triangular scraper for precision cleaning and deburring.						●	●	●				●	●	●	●	●	●		●
F20	HSS two flute countersink for deburring and chamfering holes up to 20mm max. diameter.			●									●	●	●	●	●	●		●
F30	HSS two flute countersink for deburring and chamfering holes up to 30mm max. diameter.			●									●	●	●	●	●	●		●
D80	Solid tungsten carbide with 6 cutting edges. Deburrs the hardest sheet metals up to 3mm in thickness.								●	●			●	●	●	●	●	●	●	●
F26X	External chamfering of pipe, tubing and other round materials to a maximum diameter of 26mm.				●								●	●	●	●	●	●		●
G10	HSS with 8 cutting edges. Deburrs slots, channels and keyways up to 15mm wide.										●		●	●	●	●	●	●		●
G30C	Solid tungsten carbide with 3 cutting corners. Cleans internal corners and removes radii for flush mating of adjoining material faces.											●	●	●	●	●	●	●	●	●
R10	Two sided round HSS blade set. Side A deburrs materials with spiral chips and Side B is for materials with powdery chips.	 A B	●							●			● A	● A	● A	● B	● B	● A		● AB
K10	50mm wide, two edged, solid tungsten carbide blade for deburring and cleaning flat surfaces.								●				●	●	●	●	●	●		●

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METRIC JOBBER DRILLS
DIN338



135º Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135º point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

DRILL BIT SURFACE TREATMENT

GOLD FINISH (TiN)
(Titanium Nitride)
A very hard gold coloured surface finish a few microns thick is achieved by Physical Vapour Deposition (PVD). As with all surface coated tools, performance will deteriorate after resharpening.
The coating helps to dissipate heat and reduces friction and cold welding. Higher speed and feed rates can be achieved and tool life is greatly increased.

TYPE	JOBBER - METRIC	JOBBER - METRIC
SURFACE FINISH	GOLD COLOURED	GOLD COLOURED
MATERIAL	HSS TiN COATED	HSS TiN COATED
POINT TYPE	**135º SPLIT POINT**	**135º SPLIT POINT**
FLUTE TYPE	30º HELIX	30º HELIX
PACKAGING	**BULK TELEPACK**	**CLAM SHELL**





DIAMETER MM	FL MM	OAL MM	TELEPACK QTY	$ EACH	PART NUMBER	CLAM QTY	$ CLAM	PART NUMBER
1.00	12.00	34.00	10	**1.73**	10-1.00	2	**7.49**	10-1.00S
1.50	18.00	40.00	10	**1.80**	10-1.50	2	**6.75**	10-1.50S
2.00	24.00	49.00	10	**1.96**	10-2.00	2	**6.37**	10-2.00S
2.50	30.00	57.00	10	**2.06**	10-2.50	2	**6.37**	10-2.50S
3.00	33.00	61.00	10	**2.51**	10-3.00	2	**6.00**	10-3.00S
3.20	36.00	65.00	10	**2.59**	10-3.20	–	–	–
3.30	36.00	65.00	10	**2.68**	10-3.30	–	–	–
3.50	39.00	70.00	10	**2.68**	10-3.50	1	**3.37**	10-3.50S
3.70	39.00	70.00	10	**2.93**	10-3.70	–	–	–
3.90	43.00	75.00	10	**2.99**	10-3.90	–	–	–
4.00	43.00	75.00	10	**2.99**	10-4.00	1	**3.75**	10-4.00S
4.10	43.00	75.00	10	**3.37**	10-4.10	–	–	–
4.20	43.00	75.00	10	**3.54**	10-4.20	–	–	–
4.50	47.00	80.00	10	**3.90**	10-4.50	1	**4.12**	10-4.50S
4.70	47.00	80.00	10	**4.06**	10-4.70	–	–	–
5.00	52.00	86.00	10	**4.12**	10-5.00	1	**4.68**	10-5.00S
5.10	52.00	86.00	10	**4.30**	10-5.10	–	–	–
5.20	52.00	86.00	10	**4.42**	10-5.20	–	–	–
5.50	57.00	93.00	10	**4.73**	10-5.50	1	**5.44**	10-5.50S
6.00	57.00	93.00	10	**5.61**	10-6.00	1	**6.37**	10-6.00S
6.20	63.00	101.00	10	**6.00**	10-6.20	–	–	–
6.50	63.00	101.00	10	**6.07**	10-6.50	1	**6.93**	10-6.50S
6.60	63.00	101.00	10	**6.17**	10-6.60	–	–	–
6.80	69.00	109.00	10	**6.56**	10-6.80	–	–	–
6.90	69.00	109.00	10	**6.75**	10-6.90	–	–	–
7.00	69.00	109.00	5	**6.83**	10-7.00	1	**8.25**	10-7.00S
7.20	69.00	109.00	5	**7.69**	10-7.20	–	–	–
7.50	69.00	109.00	5	**8.16**	10-7.50	1	**8.98**	10-7.50S
7.80	75.00	117.00	5	**9.75**	10-7.80	–	–	–
7.90	75.00	117.00	5	**9.93**	10-7.90	–	–	–
8.00	75.00	117.00	5	**9.93**	10-8.00	1	**9.93**	10-8.00S
8.50	75.00	117.00	5	**11.61**	10-8.50	1	**11.25**	10-8.50S
8.80	81.00	125.00	5	**12.37**	10-8.80	–	–	–

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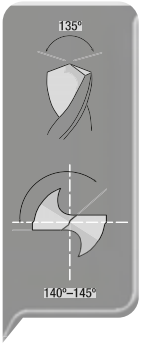
TYPE	JOBBER - METRIC	JOBBER - METRIC
SURFACE FINISH	GOLD COLOURED	GOLD COLOURED
MATERIAL	HSS TiN COATED	HSS TiN COATED
POINT TYPE	**135° SPLIT POINT**	**135° SPLIT POINT**
FLUTE TYPE	30° HELIX	30° HELIX
PACKAGING	**BULK TELEPACK**	**CLAM SHELL**





DIAMETER MM	FL MM	OAL MM	TELEPACK QTY	$ EACH	PART NUMBER	CLAM QTY	$ CLAM	PART NUMBER
9.00	81.00	125.00	5	**12.74**	10-9.00	1	**12.37**	10-9.00S
9.20	81.00	125.00	5	**13.30**	10-9.20	–	–	–
9.30	81.00	125.00	5	**13.30**	10-9.30	–	–	–
9.40	81.00	125.00	5	**13.41**	10-9.40	–	–	–
9.50	81.00	125.00	5	**13.49**	10-9.50	1	**13.49**	10-9.50S
9.90	87.00	133.00	5	**13.79**	10-9.90	–	–	–
10.00	87.00	133.00	1	**13.86**	10-10.00	1	**14.99**	10-10.00S
10.20	87.00	133.00	1	**15.16**	10-10.20	–	–	–
10.50	87.00	133.00	1	**15.73**	10-10.50	1	**16.11**	10-10.50S
10.80	94.00	142.00	1	**16.85**	10-10.80	–	–	–
11.00	94.00	142.00	1	**17.23**	10-11.00	1	**18.34**	10-11.00S
11.50	94.00	142.00	1	**17.98**	10-11.50	1	**20.25**	10-11.50S
11.80	94.00	142.00	1	**19.11**	10-11.80	–	–	–
12.00	101.00	151.00	1	**19.48**	10-12.00	1	**22.83**	10-12.00S
12.20	101.00	151.00	1	**20.61**	10-12.20	–	–	–
12.50	101.00	151.00	1	**21.73**	10-12.50	1	**25.10**	10-12.50S
12.80	101.00	151.00	1	**23.60**	10-12.80	–	–	–
12.90	101.00	151.00	1	**23.97**	10-12.90	–	–	–
13.00	101.00	151.00	1	**24.35**	10-13.00	1	**28.47**	10-13.00S

METRIC JOBBER DRILLS
DIN338



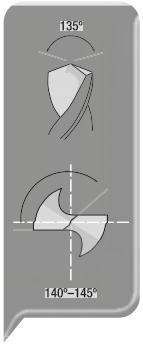
135° Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135° point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

DRILL BIT SURFACE TREATMENT

GOLD FINISH (TiN)
(Titanium Nitride)
A very hard gold coloured surface finish a few microns thick is achieved by Physical Vapour Deposition (PVD). As with all surface coated tools, performance will deteriorate after resharpening.
The coating helps to dissipate heat and reduces friction and cold welding. Higher speed and feed rates can be achieved and tool life is greatly increased.

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FRACTIONAL JOBBER DRILLS ANSI B94-11



135° Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135° point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

DRILL BIT SURFACE TREATMENT

GOLD FINISH (TiN)
(Titanium Nitride)
A very hard gold coloured surface finish a few microns thick is achieved by Physical Vapour Deposition (PVD). As with all surface coated tools, performance will deteriorate after resharpening.
The coating helps to dissipate heat and reduces friction and cold welding. Higher speed and feed rates can be achieved and tool life is greatly increased.





TYPE	JOBBER - FRACTIONAL	JOBBER - FRACTIONAL
SURFACE FINISH	GOLD COLOURED	GOLD COLOURED
MATERIAL	HSS TiN COATED	HSS TiN COATED
POINT TYPE	**135° SPLIT POINT**	**135° SPLIT POINT**
FLUTE TYPE	30° HELIX	30° HELIX
PACKAGING	**BULK TELEPACK**	**CLAM SHELL**





DIAMETER INCH	DIAMETER MM	FL MM	OAL MM	TELEPACK QTY	$ EACH	PART NUMBER	CLAM QTY	$ CLAM	PART NUMBER
1/16	1.59	22.00	48.00	10	**1.86**	11-1/16	2	**6.75**	11-1/16S
5/64	1.98	25.00	51.00	10	**1.96**	11-5/64	2	**6.37**	11-5/64S
3/32	2.38	32.00	57.00	10	**2.06**	11-3/32	2	**6.37**	11-3/32S
7/64	2.78	38.00	67.00	10	**2.17**	11-7/64	2	**6.00**	11-7/64S
1/8	3.17	41.00	70.00	10	**2.51**	11-1/8	2	**6.17**	11-1/8S
9/64	3.57	44.00	73.00	10	**2.82**	11-9/64	1	**3.75**	11-9/64S
5/32	3.97	51.00	79.00	10	**3.05**	11-5/32	1	**3.75**	11-5/32S
11/64	4.37	54.00	83.00	10	**3.90**	11-11/64	1	**4.12**	11-11/64S
3/16	4.76	59.00	89.00	10	**4.12**	11-3/16	1	**4.49**	11-3/16S
13/64	5.16	62.00	92.00	10	**4.30**	11-13/64	1	**4.86**	11-13/64S
7/32	5.56	64.00	95.00	10	**4.75**	11-7/32	1	**5.61**	11-7/32S
15/64	5.95	67.00	98.00	10	**5.17**	11-15/64	1	**6.17**	11-15/64S
1/4	6.35	70.00	102.00	10	**6.04**	11-1/4	1	**6.56**	11-1/4S
17/64	6.75	73.00	105.00	10	**6.48**	11-17/64	1	**7.87**	11-17/64S
9/32	7.14	75.00	108.00	10	**7.96**	11-9/32	1	**8.63**	11-9/32S
19/64	7.54	78.00	111.00	5	**8.98**	11-19/64	1	**9.35**	11-19/64S
5/16	7.94	81.00	114.00	5	**9.05**	11-5/16	1	**9.75**	11-5/16S
21/64	8.33	84.00	117.00	5	**11.25**	11-21/64	1	**11.64**	11-21/64S
11/32	8.73	87.00	121.00	5	**12.93**	11-11/32	1	**13.97**	11-11/32S
23/64	9.13	89.00	124.00	5	**13.49**	11-23/64	1	**13.91**	11-23/64S
3/8	9.52	92.00	127.00	5	**13.68**	11-3/8	1	**14.10**	11-3/8S
25/64	9.92	95.00	130.00	5	**13.79**	11-25/64	1	**14.99**	11-25/64S
13/32	10.32	98.00	133.00	1	**16.30**	11-13/32	1	**16.78**	11-13/32S
27/64	10.72	100.00	137.00	1	**17.98**	11-27/64	1	**18.37**	11-27/64S
7/16	11.11	103.00	140.00	1	**18.74**	11-7/16	1	**19.12**	11-7/16S
29/64	11.51	106.00	143.00	1	**22.47**	11-29/64	1	**22.88**	11-29/64S
15/32	11.91	110.00	146.00	1	**22.83**	11-15/32	1	**23.33**	11-15/32S
31/64	12.30	111.00	149.00	1	**24.91**	11-31/64	1	**25.26**	11-31/64S
1/2	12.70	114.00	152.00	1	**25.46**	11-1/2	1	**25.85**	11-1/2S

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TYPE	JOBBER - METRIC	JOBBER - FRACTIONAL
SURFACE FINISH	GOLD COLOURED	GOLD COLOURED
MATERIAL	HSS TiN COATED	HSS TiN COATED
POINT TYPE	**135º SPLIT POINT**	**135º SPLIT POINT**
FLUTE TYPE	30º HELIX	30º HELIX
PACKAGING	**CLAM SHELL**	**CLAM SHELL**

METRIC JOBBER DRILLS
DIN338

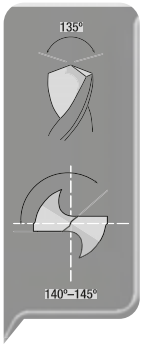
FRACTIONAL JOBBER DRILLS
ANSI B94-11





MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER	$ MERCHANDISER	PART NUMBER
METRIC – 113 CLAM SHELLS	**1,127.80**	10-D1		
FRACTIONAL – 129 CLAM SHELLS			**1,300.69**	11-D1

MERCHANDISER CONTENTS	QTY CLAM	PART NUMBER	QTY CLAM	PART NUMBER
	5	10-1.00S	5	11-1/16S
	5	10-1.50S	5	11-5/64S
	5	10-2.00S	5	11-3/32S
	5	10-2.50S	5	11-7/64S
	5	10-3.00S	5	11-1/8S
	5	10-3.50S	5	11-9/64S
	5	10-4.00S	5	11-5/32S
	5	10-4.50S	5	11-11/64S
	5	10-5.00S	5	11-3/16S
	5	10-5.50S	5	11-13/64S
	5	10-6.00S	5	11-7/32S
	5	10-6.50S	5	11-15/64S
	5	10-7.00S	5	11-1/4S
	5	10-7.50S	5	11-17/64S
	5	10-8.00S	5	11-9/32S
	5	10-8.50S	5	11-19/64S
	5	10-9.00S	5	11-5/16S
	5	10-9.50S	5	11-21/64S
	5	10-10.00S	5	11-11/32S
	3	10-10.50S	5	11-23/64S
	3	10-11.00S	5	11-3/8S
	3	10-11.50S	3	11-25/64S
	3	10-12.00S	3	11-13/32S
	3	10-12.50S	3	11-27/64S
	3	10-13.00S	3	11-7/16S
	–	–	3	11-29/64S
	–	–	3	11-15/32S
	–	–	3	11-31/64S
	–	–	3	11-1/2S



135º Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135º point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

DRILL BIT SURFACE TREATMENT

GOLD FINISH (TiN)
(Titanium Nitride)
A very hard gold coloured surface finish a few microns thick is achieved by Physical Vapour Deposition (PVD). As with all surface coated tools, performance will deteriorate after resharpening.
The coating helps to dissipate heat and reduces friction and cold welding. Higher speed and feed rates can be achieved and tool life is greatly increased.

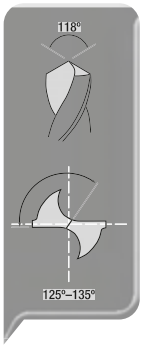
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TYPE	JOBBER	JOBBER	JOBBER
SURFACE FINISH	GOLD COLOURED	BRONZE COLOURED	BRIGHT
MATERIAL	HSS TiN COATED	HSS-Co5	HSS
POINT TYPE	**135º SPLIT POINT**	**135º SPLIT POINT**	**118º CHISEL POINT**
FLUTE TYPE	30º HELIX	30º HELIX	30º HELIX
PACKAGING	**SET**	**SET**	**SET**



Standard Point
(chisel point)
Standard point is suitable for general purpose drilling.

DRILL BIT SURFACE TREATMENT

GOLD FINISH (TiN)
(Titanium Nitride)
A very hard gold coloured surface finish a few microns thick is achieved by Physical Vapour Deposition (PVD). As with all surface coated tools, performance will deteriorate after resharpening.
The coating helps to dissipate heat and reduces friction and cold welding. Higher speed and feed rates can be achieved and tool life is greatly increased.

BRIGHT FINISH
A bright finish tool has no surface treatment and is supplied in the as-ground condition.
These tools are suitable for general purpose use, particularly for non-ferrous applications.

BRONZE FINISH
(gold oxide)
This metallic brown coloured low temperature temper treatment is normally only used on cobalt tools for identification purposes
Cobalt HSS drills are extremely hard and provide superior performance and increased tool life especially in stainless steel and high tensile steel.



SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
METRIC M3 – ABS CASE	25	**230.64**	10-M3P	**434.82**	10-CM3	**–**	–
1.0 - 13.0 x 0.5mm rises							
FRACTIONAL F3 – ABS CASE	29	**281.36**	11-F3P	**527.84**	11-CF3	**–**	–
1/16" - 1/2" x 1/64" rises							



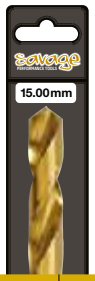


SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER	$ SET	PART NUMBER	$ SET	PART NUMBER
METRIC M3 – METAL CASE	25	**213.56**	10-M3	**–**	–	**111.46**	10-SBM3
1.0 - 13.0 x 0.5mm rises							
FRACTIONAL F3 – METAL CASE	29	**253.16**	11-F3	**–**	–	**117.68**	11-SBF3
1/16" - 1/2" x 1/64" rises							

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TYPE	REDUCED SHANK
SURFACE FINISH	GOLD COLOURED
MATERIAL	HSS TiN COATED
POINT TYPE	**118º SPLIT POINT**
FLUTE TYPE	30º HELIX
SHANK DIAMETER	**1/2"**
PACKAGING	**BULK POUCH**



DIA. MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
13.00	89.00	152.00	1	**43.27**	15-13.00
13.50	89.00	152.00	1	**43.27**	15-13.50
14.00	89.00	152.00	1	**43.27**	15-14.00
14.50	89.00	152.00	1	**48.13**	15-14.50
15.00	89.00	152.00	1	**51.46**	15-15.00
15.50	89.00	152.00	1	**52.23**	15-15.50
16.00	89.00	152.00	1	**52.42**	15-16.00
16.50	89.00	152.00	1	**53.11**	15-16.50
17.00	89.00	152.00	1	**54.81**	15-17.00
17.50	89.00	152.00	1	**56.46**	15-17.50
18.00	89.00	152.00	1	**60.16**	15-18.00
18.50	89.00	152.00	1	**63.99**	15-18.50
19.00	89.00	152.00	1	**64.73**	15-19.00
19.50	89.00	152.00	1	**68.25**	15-19.50
20.00	89.00	152.00	1	**72.73**	15-20.00
21.00	89.00	152.00	1	**75.64**	15-21.00
22.00	89.00	152.00	1	**79.62**	15-22.00
23.00	89.00	152.00	1	**83.59**	15-23.00
24.00	89.00	152.00	1	**90.42**	15-24.00
25.00	89.00	152.00	1	**98.52**	15-25.00



SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER
REDUCED SHANK	4	**290.72**	15-MS1
16, 18, 22, 25mm			

TYPE	REDUCED SHANK
SURFACE FINISH	GOLD COLOURED
MATERIAL	HSS TiN COATED
POINT TYPE	**118º SPLIT POINT**
FLUTE TYPE	30º HELIX
SHANK DIAMETER	**1/2"**
PACKAGING	**BULK POUCH**



DIA. INCH	DIA. MM	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
9/16	14.29	86.00	152.00	1	**44.93**	15-9/16
19/32	15.08	86.00	152.00	1	**48.18**	15-19/32
5/8	15.88	86.00	152.00	1	**47.76**	15-5/8
21/32	16.67	86.00	152.00	1	**51.70**	15-21/32
11/16	17.46	86.00	152.00	1	**55.81**	15-11/16
23/32	18.26	86.00	152.00	1	**59.93**	15-23/32
3/4	19.05	86.00	152.00	1	**63.68**	15-3/4
25/32	19.84	86.00	152.00	1	**68.92**	15-25/32
13/16	20.64	86.00	152.00	1	**73.05**	15-13/16
27/32	21.43	86.00	152.00	1	**75.67**	15-27/32
7/8	22.23	86.00	152.00	1	**77.17**	15-7/8
29/32	23.02	86.00	152.00	1	**79.84**	15-29/32
15/16	23.81	86.00	152.00	1	**86.16**	15-15/16
31/32	24.61	86.00	152.00	1	**89.90**	15-31/32
1	25.40	86.00	152.00	1	**93.65**	15-1



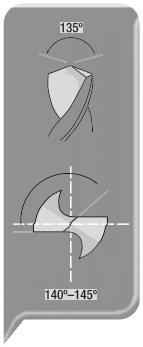
SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER
REDUCED SHANK	4	**282.26**	15-FS1
5/8", 3/4", 7/8", 1"			

DRILL BIT SURFACE TREATMENT

GOLD FINISH (TiN)
(Titanium Nitride)
A very hard gold coloured surface finish a few microns thick is achieved by Physical Vapour Deposition (PVD). As with all surface coated tools, performance will deteriorate after resharpening.
The coating helps to dissipate heat and reduces friction and cold welding. Higher speed and feed rates can be achieved and tool life is greatly increased.

savage® PERFORMANCE





135º Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135º point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

USAGE

PANEL DRILLS
Panel drills are principally used during sheet metal fabrication to drill holes for rivets. They are designed to drill shallow holes that do not exceed 1.25 x drill diameter. When using double ended panel drills ensure the drill chuck jaws are tight to prevent damage to the back of the chuck.

TYPE	PANEL DRILL	PANEL DRILL
SURFACE FINISH	GOLD COLOURED	GOLD COLOURED
MATERIAL	HSS TiN COATED	HSS TiN COATED
POINT TYPE	135° SPLIT POINT	135° SPLIT POINT
END TYPE	**SINGLE ENDED**	**DOUBLE ENDED**
PACKAGING	**BULK TELEPACK**	**BULK TELEPACK**



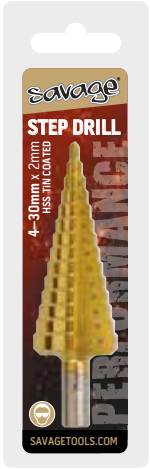


DIA GAUGE	DIA MM / INCH	RIVET DIA.	FL MM	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
–	1/8"	3mm	14	51	10	–	–	**2.68**	40-1/8
30	3.26mm	1/8"	14	51	10	**2.68**	42-30	**2.88**	40-30
20	4.09mm	5/32"	14	55	10	**3.37**	42-20	**4.55**	40-20
11	4.85mm	3/16"	17	62	10	**4.55**	42-11	**4.75**	40-11

savage® PERFORMANCE



TYPE	STEP DRILL
SURFACE FINISH	GOLD COLOURED
MATERIAL	HSS TiN COATED
FLUTE TYPE	STRAIGHT
FLUTES	2
PACKAGING	**CLAM SHELL**



DIAMETER MIN	DIAMETER MAX	INCREMENT MM	STEP DEPTH MM	SHANK DIA. MM	OAL MM	PACK QTY	$ EACH	PART NUMBER
4	12	1.0	5.0	6.0	70.5	1	**35.94**	30-M1
4	20	2.0	5.5	8.0	75.0	1	**57.24**	30-M2
4	30	2.0	5.0	10.0	100.0	1	**117.15**	30-M3

DIAMETER MIN	DIAMETER MAX	INCREMENT INCH	STEP DEPTH MM	SHANK DIA. INCH	OAL MM	PACK QTY	$ EACH	PART NUMBER
1/8"	1/2"	1/32	3.4	1/4	74.0	1	**35.94**	30-F1
1/4"	3/4"	1/16	4.0	3/8	71.5	1	**60.42**	30-F2



SET DESCRIPTION SET CONTENTS	DRILLS QTY	$ SET	PART NUMBER
METRIC STEP DRILL SET – METAL CASE	3	**210.33**	30-S1
30-M1, 30-M2, 30-M3			

HSS SPIRAL FLUTE TiN COATED STEP DRILLS

Spiral Flute Titanium Nitride (TiN) coated step drills offer additional benefits over the standard range of two flute bright finish drills.

- New high performance point for faster starting and reduced bit wander.
- TiN coating extends tool life, helps to dissipate heat, reduces friction and cold welding.

savage® PERFORMANCE





CROSS HOLE COUNTERSINKS

For countersinking and deburring in a wide range of materials including ferrous and non-ferrous metals. The intersection of the hole and cone form the cutting edge on the tool. The cone is not truly symmetrical as it is essential that the cone retreats away from the cutting edge as the tool rotates. If this does not occur the cutting edge will lack clearance and rub rather than bite into the material. This clearance is referred to as cutting relief. The radially relieved single cutting edge provides fast stock removal with low vibration for chatter-free operation ensuring the smoothest finish. These tools are best used as deburring tools, where a burr, or sharp edge, from a previous machining operation needs to be removed for cosmetic and safety reasons. They also may be used in softer materials (such as wood or plastic) to create a countersunk hole for a screw.

TRIPLE FLUTE COUNTERSINKS

For countersinking and deburring in a wide range of materials including ferrous and non-ferrous metals. The three fluted countersink is self centering with wide flutes and is used to provide a heavy chamfer in the entrance to a drilled hole. This may be required to allow the correct seating for a countersunk head screw or to provide the lead in for a second machining operation such as tapping. Use on medium to hard materials. Resharpenable.

TYPE	CROSS HOLE	TRIPLE FLUTE
SURFACE FINISH	GOLD COLOURED	GOLD COLOURED
MATERIAL	HSS-Co5 – TiN COATED	HSS-Co5 – TiN COATED
FLUTE TYPE	CROSS HOLE	TRIPLE FLUTE
ANGLE	**90°**	**90°**
PACKAGING	**SINGLE**	**SINGLE**

DIAMETER MM	DIAMETER INCH	CAPACITY MIN - MAX	SHANK TYPE MM	SHANK TYPE INCH	OAL MM	PACK QTY	$ EACH	PART NUMBER	$ EACH	PART NUMBER
CROSS HOLE										
10.0	–	4.0 - 9.0	6	–	45	1	**37.86**	32-10	–	–
15.0	–	6.0 - 14.0	8	–	48	1	**51.74**	32-15	–	–
21.0	–	8.0 - 18.0	10	–	65	1	**92.91**	32-21	–	–
28.0	–	10.0 - 23.0	12	–	85	1	**148.83**	32-28	–	–
35.0	–	12.0 - 28.0	12	–	102	1	**252.90**	32-35	–	–
TRIPLE FLUTE										
10.0	–	2.2 - 10.0	6	–	50	1	–	–	**35.40**	34-10
16.0	–	3.0 - 16.0	8	–	60	1	–	–	**65.03**	34-16
20.0	–	4.0 - 20.0	10	–	63	1	–	–	**80.20**	34-20
25.0	–	4.0 - 25.0	10	–	67	1	–	–	**98.26**	34-25
31.0	–	5.0 - 31.0	12	–	71	1	–	–	**161.85**	34-31
40.0	–	6.0 - 40.0	16	–	80	1	–	–	**361.28**	34-40





SET DESCRIPTION SET CONTENTS	QTY	$ SET	PART NUMBER	$ SET	PART NUMBER
COUNTERSINK SET – CROSS HOLE	3	**293.48**	32-S1	–	–
15, 21 AND 28MM					
COUNTERSINK SET – TRIPLE FLUTE	3	–	–	**243.49**	34-S1
16, 20 AND 25MM					

MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
PERSPEX BENCH MERCHANDISER	**2,056.09**	32-D1

MERCHANDISER CONTENTS	QTY	PART NUMBER	QTY	PART NUMBER	QTY	PART NUMBER
	STEP DRILLS		**CROSS HOLE**		**TRIPLE FLUTE**	
	1	30-F1	2	32-10	2	34-10
	1	30-F2	2	32-15	2	34-16
	1	30-M1	2	32-21	2	34-20
	1	30-M2	1	32-28	1	34-25
	1	30-M3	1	32-35	1	34-31
	–	–	–	–	1	34-40



savage® PERFORMANCE



TYPE	TUNGSTEN CARBIDE BURRS
SURFACE FINISH	BRIGHT
MATERIAL	TUNGSTEN CARBIDE
SHANK	1/4"
TYPE	**EXPRESS CUT**
PACKAGING	**SET**





SET DESCRIPTION SET CONTENTS	BURR QTY	$ SET	PART NUMBER
BURR SET	5	**205.74**	20-S1
3/8" HEAD SB-3 CYLINDRICAL END CUT			
3/8" HEAD SC-3 CYLINDRICAL BALL			
1/2" HEAD SC-5 CYLINDRICAL BALL			
3/8" HEAD SF-3 TREE RADIUS			
1/2" HEAD SF-5 TREE RADIUS			

EXPRESS CUT TUNGSTEN CARBIDE BURRS
Also known as Double Cut Burrs

These high performance general purpose burrs provide rapid stock removal in harder materials with minimum tool chatter and improved operator control.
The express cut design eliminates loading of the flutes and reduces chip size and the production of sharp sliver chips. Ideal for use in carbon steel, cast iron, high strength steel, stainless steel, steel castings, steel welds, titanium alloy and fibreglass composites.

IMPORTANT
Because of the high speeds when using tungsten carbide burrs it is essential that approved eye protection and clothing are worn at all times.







SET DESCRIPTION SET CONTENTS	BURR QTY	$ SET	PART NUMBER
BURR SET	3	**139.84**	20-S2
3/8" HEAD SB-3 CYLINDRICAL END CUT			
3/8" HEAD SC-3 CYLINDRICAL BALL			
3/8" HEAD SF-3 TREE RADIUS			



savage PERFORMANCE

DIAMOND HOLE SAWS

Diamond core drills and hole saws require the use of proper lubrication, correct drill speed and proper pressure. Drilling methods and techniques vary significantly depending upon the material being drilled.

To achive optimum cutting performance and maximum core drill life use a slow to very slow drill speed, low drill pressure, and plenty of water for lubrication. Variable speed drills work best since the correct speed can be selected.

Diamond core drills only drill out a portion of the resulting hole so they drill much faster then conventional blunt nose drills. Core drills can be used on most non-ferrous hard materials such as glass, ceramic, porcelain, fibreglass, slate, marble, granite and other natural and manufactured stone materials.

The life of any type of diamond drill depends upon the hardness, abrasiveness and thickness of the material being drilled and the specific drilling techniques used.

Using diamond core drills in hard materials is not difficult, however drilling the hole takes time. You should consider that they aren't "drilling" a hole – they are "grinding" a hole.

SPEEDS IN RPM

Fibreglass – 1200

Glass, Ceramic and China – 800

Limestone and Marble – 600

Ceramic Tile – 600

Porcelain – 500

Granite and Comp. Stone – 400

DO NOT USE HAMMER ACTION. NOT FOR DRILLING BEYOND 13MM.

TYPE	DIAMOND HOLE SAWS
MATERIAL	DIAMOND
TYPE	1 PIECE
INTERNAL DEPTH	**50MM**
PACKAGING	**CLAM SHELL**



DIAMETER MM	DIAMETER INCH EQUIV.	PACK QTY	$ EACH	PART NUMBER
CORE DRILLS				
4.00	5/32	1	**9.79**	62-4
5.00	13/64	1	**9.79**	62-5
6.00	15/64	1	**9.79**	62-6
6.50	–	1	**10.56**	62-6.5
8.00	5/16	1	**12.63**	62-8
10.00	25/64	1	**15.47**	62-10
12.00	–	1	**18.39**	62-12
HOLE SAWS				
16.00	5/8	1	**34.03**	62-16
19.00	3/4	1	**34.03**	62-19
22.00	7/8	1	**39.95**	62-22
25.00	1	1	**41.43**	62-25
32.00	1-1/4	1	**47.35**	62-32
35.00	1-3/8	1	**50.31**	62-35
38.00	1-1/2	1	**51.79**	62-38
42.00	–	1	**54.75**	62-42
45.00	–	1	**57.71**	62-45
50.00	–	1	**59.19**	62-50
63.00	–	1	**66.58**	62-63
68.00	–	1	**88.78**	62-68
105.00	4-1/8	1	**133.17**	62-105
110.00	–	1	**140.57**	62-110
124.00	–	1	**147.97**	62-124
128.00	–	1	**154.69**	62-128

savage PERFORMANCE



TYPE	DIAMOND HOLE SAWS
MATERIAL	DIAMOND
TYPE	1 PIECE
INTERNAL DEPTH	**50MM**
PACKAGING	**CLAM SHELL**



SET DESCRIPTION SET CONTENTS	DRILL QTY	$ SET	PART NUMBER
DIAMOND CORE DRILL KIT	5	**115.41**	62-S1
5, 6, 6.5, 8 & 10MM DRILLS PLUS SUCTION DRILLING TEMPLATE			



MERCHANDISER TYPE	$ MERCHANDISER	PART NUMBER
DIAMOND CORE DRILL	**490.08**	62-D1

MERCHANDISER CONTENTS	QTY CLAM	PART NUMBER
	3	62-4
	3	62-5
	3	62-6
	3	62-6.5
	3	62-8
	3	62-10
	3	62-12
	2	62-S1





savage® PERFORMANCE

CREATE NEW THREADS IN ALUMINIUM AND MILD STEEL

CLEAN AND REPAIR EXISTING THREADS

Savage Tap and Die Sets are great value, high quality sets that include various combinations of metric and SAE taps and button dies. Manufactured from premium quality tungsten steel they are packaged in tough, compact, blow moulded cases.

TYPE	TAP & DIE SETS
TAP AND DIE MATERIAL	TUNGSTEN STEEL
TYPE	SETS
PACKAGING	**BLOW MOULDED CASE**





SET DESCRIPTION SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
S1 TAP AND DIE SET – METRIC & SAE	115	**493.61**	50-S1
48 INTERMEDIATE LEAD TAPS AND 48 BUTTON DIES			
4GX40, 5GX40, 6GX32, 8GX32, 10GX24, 10GX32, 12GX24, 1/4"X20, 1/4"X28, 5/16"X18, 5/16"X24, 3/8"X16, 3/8"X24, 7/16"X14, 7/16"X20, 1/2"X13, 1/2"X20, 9/16"X12, 9/16"X18, 5/8"X11, 5/8"X18, 3/4"X10, 3/4"X16, 2X0.4, 3X0.5, 4X0.7, 5X0.8, 6X1.0, 7X1.0, 8X1.0, 8X1.25, 9X1.25, 10X1.0, 10X1.25, 10X1.5, 11X1.5, 12X1.75, 12X1.25, 14X2.0, 14X1.5, 16X2.0, 16X1.5, 18X2.5, 18X1.5, NPT1/8"X27, NPT1/4"X18, BSP1/8"X28, BSP1/4"X19			
5 HSS JOBBER DRILLS 2.5MM, 3.3MM, 4.2MM, 5.0MM, 6.8MM			
5 X SCREW EXTRACTORS #1, #2, #3, #4, #5 2 X SCREW PITCH GAUGES 2 X DIE HOLDERS 3 X TAP WRENCHES 1 X SCREWDRIVER 1 X CENTRE PUNCH			





SET DESCRIPTION SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
S2 TAP AND DIE SET – METRIC, UNC/UNF + 1/8" NPT	60	**213.50**	50-S2
27 INTERMEDIATE LEAD TAPS AND 27 BUTTON DIES			
3X0.5, 4X0.7, 5X0.8, 6X1.0, 7X1.0, 8X1.25, 9X1.25, 10X1.0, 10X1.5, 12X1.75, 4GX40, 6GX32, 8GX32, 10GX24, 10GX32, 12GX24, 1/4"X20, 1/4"X28, 5/16"X18, 5/16"X24, 3/8"X16, 3/8"X24, 7/16"X14, 7/16"X20, 1/2"X13, 1/2"X20, NPT1/8"X27			
2 X SCREW PITCH GAUGES 1 X DIE HOLDER 2 X TAP WRENCHES 1 X SCREWDRIVER			

savage PERFORMANCE





TYPE	TAP & DIE SETS
TAPS AND DIE MATERIAL	TUNGSTEN STEEL
TYPE	SETS
PACKAGING	**BLOW MOULDED CASE**

CREATE NEW THREADS IN ALUMINIUM AND MILD STEEL

CLEAN AND REPAIR EXISTING THREADS

Savage Tap and Die Sets are great value, high quality sets that include various combinations of metric and SAE taps and button dies. Manufactured from premium quality tungsten steel they are packaged in tough, compact, blow moulded cases.





SET DESCRIPTION SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
S3 TAP AND DIE SET – UNC/UNF + 1/8" NPT	39	**130.24**	50-S3
17 INTERMEDIATE LEAD TAPS AND 17 BUTTON DIES			
4GX40, 6GX32, 8GX32, 10GX24, 10GX32, 12GX24, 1/4"X20, 1/4"X28, 5/16"X18, 5/16"X24, 3/8"X16, 3/8"X24, 7/16"X14, 7/16"X20, 1/2"X13, 1/2"X20, NPT1/8"X27			
1 X SCREW PITCH GAUGE 1 X DIE HOLDER 2 X TAP WRENCHES 1 X SCREWDRIVER			



SET DESCRIPTION SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
S4 TAP AND DIE SET – METRIC + 1/8" NPT	39	**130.24**	50-S4
17 INTERMEDIATE LEAD TAPS AND 17 BUTTON DIES			
3X0.5, 3X0.6, 4X0.7, 4X0.75, 5X0.8, 5X0.9, 6X1.0, 6X0.75, 7X1.0, 7X0.75, 8X1.0, 8X1.25, 10X1.25, 10X1.5, 12X1.5, 12X1.75, NPT1/8"X27			
1 X SCREW PITCH GAUGE 1 X DIE HOLDER 2 X TAP WRENCHES 1 X SCREWDRIVER			





TYPE	DRILL & TAP SET
TAP MATERIAL	TUNGSTEN STEEL
DRILL MATERIAL	HSS
PACKAGING	**METAL CASE**

SET DESCRIPTION SET CONTENTS	PIECES QTY	$ SET	PART NUMBER
DRILL & TAP SET – METRIC COARSE	14	**98.12**	50-S5
7 INTERMEDIATE LEAD TAPS M12X1.75, M10X1.50, M8X1.25, M6X1.00, M5X0.80, M4X0.70, M3X0.50			
7 HSS JOBBER DRILLS 2.5MM, 3.3MM, 4.2MM, 5.0MM, 6.8MM, 8.50MM, 10.20MM			

TYPE	MVRK
PACKAGING	CLAM SHELL

MAVERICK PRO-SERIES KNIVES

THESE PREMIUM QUALITY, HEAVY DUTY UTILITY KNIVES HAVE BEEN DESIGNED FOR MAXIMUM DURABILITY AND OPTIMUM PERFORMANCE. **WE GUARANTEE IT!**





MAVERICK PRO-SERIES AUTO LOADING UTILITY KNIFE

FEATURES

- Quick change auto load mechanism
- Professional quality
- Heavy duty Tradesman Tough
- Magazine contains 5 premium quality SK5 blades
- 3 preset blade depth positions
- MaxGrip coating

DESCRIPTION	BLADE TYPE SHAPE	NO. BLADES INCLUDED	BOX QTY PIECES	$ EACH	PART NUMBER
AUTO LOAD UTILITY KNIFE	TRAPEZOIDAL	5	5	**26.13**	11001
AUTO RETRACTING SAFETY KNIFE	TRAPEZOIDAL	1	10	**14.35**	11080

MAVERICK PRO-SERIES AUTO RETRACTING SAFETY KNIFE

FEATURES

- Automatic blade retraction
- Professional quality
- Heavy duty die cast construction
- Contoured non-slip grip
- Non-slip thumb slide





MAVERICK PRO-SERIES AUTO LOAD SNAP BLADE KNIVES

FEATURES

- Quick change auto load system
- Professional quality
- Heavy duty die cast aluminium body
- Heavy gauge stainless steel blade sleeve
- Dual blade locks
- Magazine contains 5 X 8 point SK5 blades
- Includes snap off tool

DESCRIPTION	BLADE TYPE SIZE	NO. BLADES INCLUDED	BOX QTY PIECES	$ EACH	PART NUMBER
AUTOLOAD 18MM SNAP BLADE KNIFE	18MM SNAP	5	10	**31.48**	12260
AUTOLOAD 9MM SNAP BLADE KNIFE	9MM SNAP	3	10	**21.01**	12060

TYPE	MVRK
PACKAGING	HANG SELL



WHAT IS SK-5 STEEL?

SK-5 is the Japanese equivalent of American 1080, a high carbon steel with carbon between 0.75%-0.85% and 0.60%-0.90% manganese. As quenched, it has a hardness near Rc 65 and produces a mixture of carbon rich martensite with some small un-dissolved carbides. The excess carbide increases abrasion resistance and allows the steel to achieve an ideal balance of very good blade toughness with superior edge holding ability.

DESCRIPTION	BLADE TYPE	NO. BLADES PER PACK	POINTS PER BLADE	BOX QTY PIECES	$ EACH	PART NUMBER
10 PIECE SAFETY DISPENSER	TRAPEZOIDAL	10	–	10	**6.26**	21022
100 PIECE SAFETY DISPENSER	TRAPEZOIDAL	100	–	5	**46.11**	21051
9MM SNAP BLADES – 13 POINT	9MM SNAP	10	13	10	**5.41**	25123
18MM SNAP BLADES – 8 POINT	18MM SNAP	10	8	10	**6.55**	26123



DESCRIPTION	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER	$ EACH	PART NUMBER
BENCHTOP MERCHANDISER 01	**554.45**	31001	–	–	–	–	–	–
BENCHTOP MERCHANDISER 02	–	–	**710.00**	31002	–	–	–	–
BENCHTOP MERCHANDISER 03	–	–	–	–	**636.15**	31003	–	–
BENCHTOP MERCHANDISER 04	–	–	–	–	–	–	**567.30**	31004

MERCHANDISER CONTENTS	QTY	PART NUMBER	QTY	PART NUMBER	QTY	PART NUMBER	QTY	PART NUMBER
	10	11001	10	12260	5	11001	5	11001
	10	21022	10	12060	10	12260	10	11080
	5	21051	20	26123	20	21022	10	21022
	–	–	10	25123	10	26123	5	21051

BORDO MERCHANDISING SYSTEM COMPONENTS



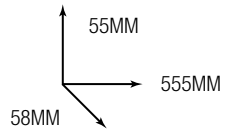
HANGING BRACKET FOR SLATWALL
PART # 9981-SLATBRACKET



HANGING BRACKET FOR PEG BOARD
PART # 9981-PEGBRACKET

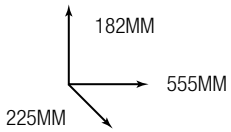


SINGLE TIER RACK
PART # 9980-1T



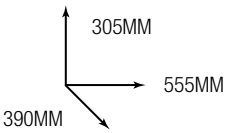


TWO TIER RACK
PART # 9980-2T





THREE TIER RACK
PART # 9980-3T



SELF ADHESIVE PRICING STRIP TO SUIT 30MM INSERT
TO SUIT SINGLE, TWO AND 3 TIER RACKS PART # 9981-PS540



BORDO MERCHANDISING SYSTEM COMPONENTS



SINGLE TIER FULL LENGTH (FLT) RACK
PART # 9980-FL1T

55MM
1098MM
58MM



TWO TIER FULL LENGTH (FLT) RACK
PART # 9980-FL2T

182MM
1098MM
225MM



THREE TIER FULL LENGTH (FLT) RACK
PART # 9980-FL3T

305MM
1098MM
390MM

SELF ADHESIVE PRICING STRIP TO SUIT 30MM INSERT
TO SUIT SINGLE, TWO AND 3 TIER FLT RACKS PART # 9981-PS1098



BORDO MERCHANDISING SYSTEM COMPONENTS



DEBURRER BENCH DISPLAY
PART # 6410-D3E

490MM
400MM
260MM



HACKSAW/RECIP. BLADE DISPLAY
PART # 7202-D1E

490MM
285MM
260MM

SELF ADHESIVE PRICING STRIP TO SUIT 30MM INSERT
TO DEBURRER BENCH DISPLAY PART # 9981-PS390



SELF ADHESIVE PRICING STRIP TO SUIT 30MM INSERT
TO HACKSAW/RECIP. BENCH DISPLAY PART # 9981-PS275

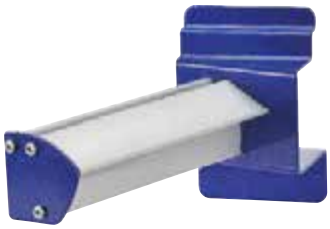




SHELF DISPLAY
PART # 9980-SHELF

305MM
555MM
390MM

BORDO MERCHANDISING SYSTEM COMPONENTS



SPOKE ARM
L 200MM
PART # 9980-SA



HACKSAW FRAME BRACKET
HOLDS 5 FRAMES
PART # 9981-HF

SELF ADHESIVE PRICING STRIP TO SUIT 30MM INSERT
TO SUIT SPOKE ARM PART # 9981-PS218





DOUBLE HOOK – **L** 115MM
PART # 9981-DH126

DOUBLE HOOK FOR SPOKE ARM – **L** 115MM
PART # 9981-DH126BAR

DOUBLE HOOK LONG – **L** 205MM
PART # 9981-DH200

SINGLE HOOK – **L** 115MM
PART # 9981-SH126

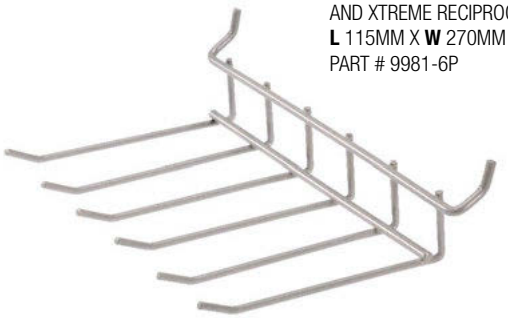
SINGLE HOOK LONG – **L** 180MM
PART # 9981-SH180



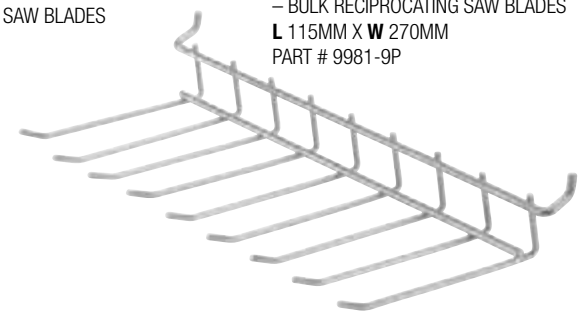
3 HOOK ASSEMBLY – BULK HACKSAW BLADES
L 115MM X **W** 56MM
PART # 9981-3P



6 HOOK ASSEMBLY – BULK HACKSAW BLADES
AND XTREME RECIPROCATING SAW BLADES
L 115MM X **W** 270MM
PART # 9981-6P



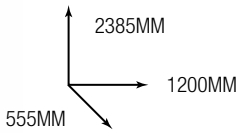
9 HOOK ASSEMBLY
– BULK RECIPROCATING SAW BLADES
L 115MM X **W** 270MM
PART # 9981-9P



BORDO MERCHANDISING SYSTEM COMPONENTS



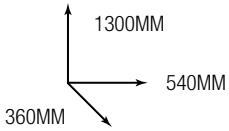
DISPLAY BAY
PART # 9200-DISPLAY

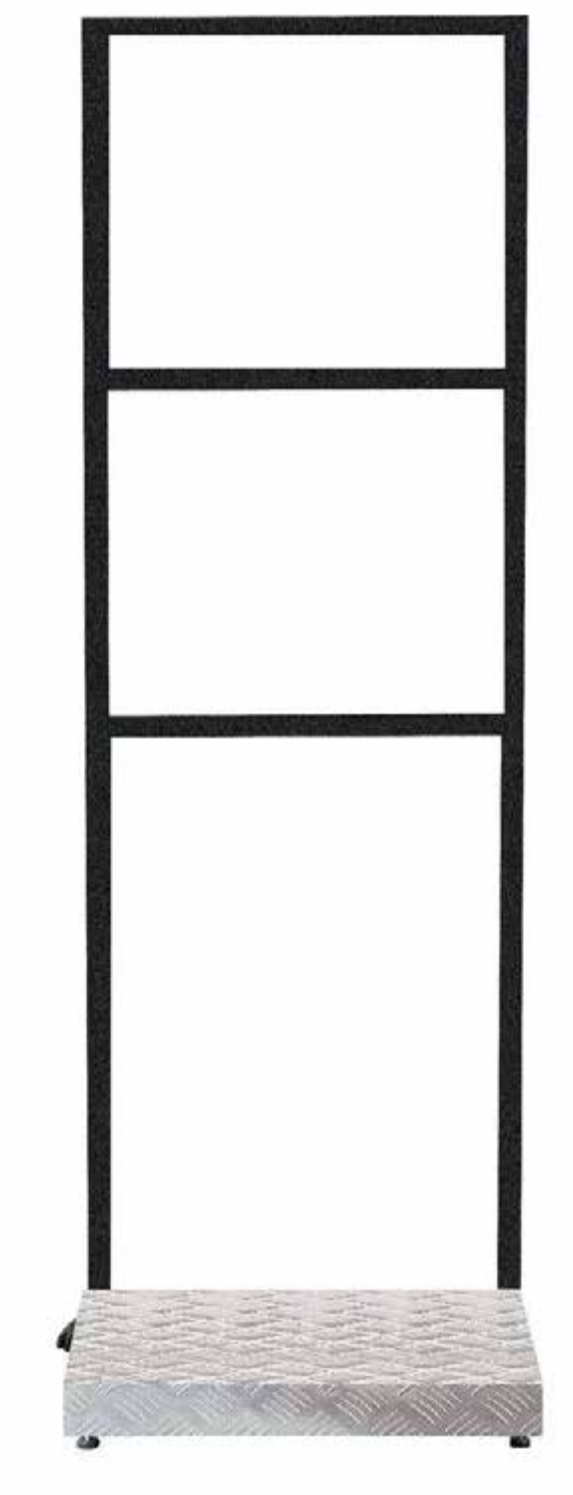


BORDO MERCHANDISING SYSTEM COMPONENTS

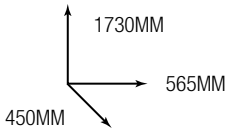


CARDBOARD DISPLAY BIN
PART # 9200-BORDO

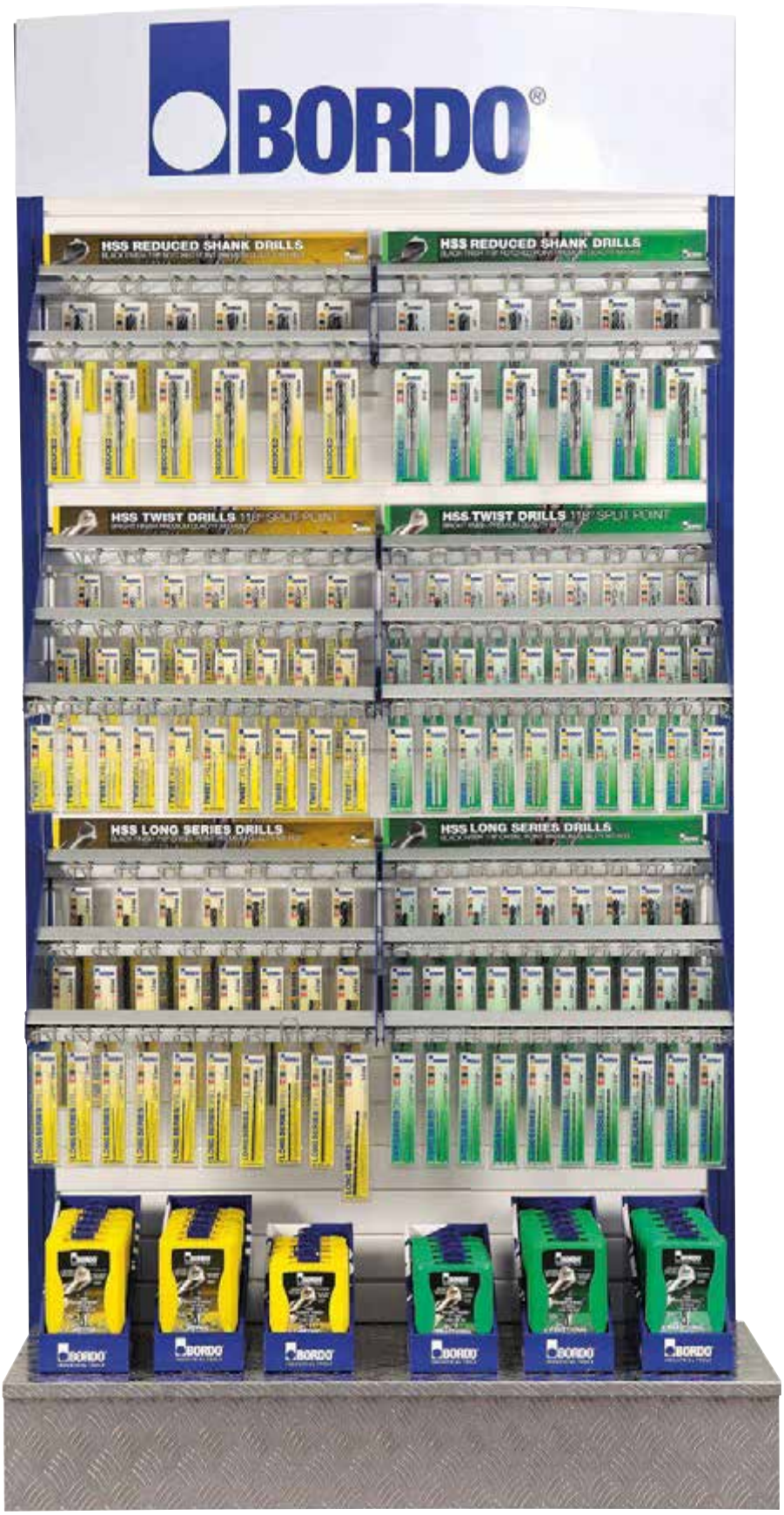




SMALL MOBILE MERCHANDISER STAND
PART # 9991-STAND



BORDO MERCHANDISING EXAMPLES



BORDO MERCHANDISING EXAMPLES



BORDO MERCHANDISING EXAMPLES



BORDO MERCHANDISING EXAMPLES



RELATIVE CUTTING SURFACE SPEEDS, FEEDS, THRUSTS AND CUTTING FLUIDS FOR M2 HSS DRILLS BY MATERIAL



MATERIAL	CONDITION / TREATMENT	SURFACE SPEED M / MIN	FEED "F" (MM PER REVOLUTION) / THRUST "T" (KG) / NOMINAL HOLE DIAMETER (MM)							CUTTING FLUID
	BRINELL HARDNESS NO.			1.5	3.0	6.0	13.0	25.0	50.0	
CARBON STEELS	Annealed or Cold Drawn	23	F	0.03	0.08	0.13	0.23	0.36	0.56	Light Oil or Soluble Oil
1020 1025			T	17	62	162	206	1096	2808	
		21	F	0.03	0.08	0.13	0.23	0.36	0.56	
1040 1045 1050 1055			T	17	62	162	433	1096	2808	
	174 to 241	20	F	0.03	0.08	0.13	0.23	0.36	0.51	
1060 1090			T	17	62	162	433	1096	2644	
ALLOY STEELS		18	F	0.03	0.08	0.15	0.25	0.41	0.58	Light Oil or Soluble Oil
4132 4140 4615 5140			T	18	67	200	505	1299	3130	
TOOL STEELS	Annealed	14	F	0.03	0.05	0.10	0.18	0.30	0.46	Medium Oil, Sulphurized
4132 4140 4615 5140			T	17	47	139	365	990	2476	
HIGH SPEED	197 to 225	14	F	0.03	0.05	0.08	0.13	0.20	0.30	Mineral Oil
M1 M2 T1			T	22	60	149	377	991	2515	
STAINLESS STEELS	Cold Drawn	15	F	0.03	0.05	0.10	0.18	0.30	0.46	Medium Oil, Sulphurized Mineral Oil
304 310 316 321	120 to 240		T	17	47	139	365	990	2476	
203 303		30	F	0.03	0.08	0.15	0.25	0.43	0.64	
			T	17	62	185	466	1250	3050	
403 405 410 416	Annealed	18	F	0.03	0.05	0.10	0.18	0.30	0.46	
420 430 440	174 to 183		T	17	47	140	365	990	2476	
CAST IRON - GREY	Annealed	37	F	0.03	0.08	0.15	0.25	0.41	0.64	Sulphurized or Medium Oil
	190 to 225		T	17	47	139	365	990	2476	
CAST IRON - DUCTILE	As Cast	21	F	0.03	0.08	0.15	0.25	0.41	0.64	Sulphurized or Medium Oil
	190 to 225		T	11	41	123	311	799	2033	
CAST IRON - MALLEABLE	Malleablized & Heat Treated	27	F	0.03	0.05	0.10	0.18	0.25	0.33	Sulphurized or Medium Oil
	202 to 225		T	11	31	93	243	587	1359	
ALUMINIUM ALLOYS	As Cast	61	F	0.03	0.08	0.18	0.28	0.46	0.71	Soluble Oil
- CAST	40 to 100 (500kg)		T	5	18	60	145	379	958	Kerosene
DIE CASTINGS	As Cast	76	F	0.05	0.10	0.20	0.30	0.46	0.64	Soluble Oil
ZINC ALLOYS	80 to 100 (500kg)		T	5	16	47	110	270	635	Kerosene
COPPER ALLOYS	As Cast	37	F	0.03	0.08	0.15	0.30	0.41	0.64	Soluble Oil
	60 to 90		T	14	52	154	215	999	2541	Kerosene
BRASSES & BRONZES	As Cast	61	F	0.03	0.08	0.18	0.33	0.46	0.71	Light Mineral Oil
- SOFT	60 to 90		T	5	18	60	164	379	958	
HIGH TENSILE	As Cast or Heat Treated	27	F	0.03	0.05	0.10	0.18	0.25	0.33	Heavy Sulphurized Oil
	100 to 170		T	11	31	35	243	587	1359	
PLASTICS, THERMO-PLASTICS,	Extruded, Moulded or Cast	15	F	0.05	0.08	0.13	0.25	0.51	0.76	Medium Oil, Sulphurized Mineral Oil
POLYETHYLENE			T	5	13	34	97	291	716	
NYLON, ACRYLICS,		30	F	0.05	0.08	0.13	0.20	0.30	0.41	–
POLYCARBONATES			T	5	13	34	83	206	480	
THERMOSETTING PLASTICS,	Cast, Moulded or Filled	18	F	0.05	0.08	0.13	0.20	0.30	0.38	–
RE-INFORCED FIBREGLASS			T	5	13	34	97	206	462	

CUTTING SPEED CHART IN REVOLUTIONS PER MINUTE (RPM) CALCULATED FROM SURFACE SPEED AND DRILL DIAMETER

DIAMETER		SURFACE SPEED M / MIN													
		3	4	5	6	8	10	12	15	18	20	25	30	35	40
MM	INCH	RPM (REVOLUTIONS PER MINUTE)													
2	5/64	480	640	800	960	1270	1590	1910	2390	2870	3180	3980	4780	5570	6370
3	1/8	320	420	530	640	850	1060	1270	1590	1910	2120	2650	3180	3720	4250
4	5/32	240	320	400	480	640	800	960	1190	1430	1590	1990	2390	2790	3180
5	13/64	190	250	320	380	510	640	760	960	1150	1270	1590	1910	2230	2550
6	15/64	160	210	270	320	420	530	640	800	960	1060	1330	1590	1860	2120
8	5/16	120	160	200	240	320	400	480	600	720	**800**	1000	1190	1390	1590
10	25/64	95	130	160	190	250	320	380	480	570	640	800	960	1110	1270
12	15/32	80	110	130	160	210	270	320	400	480	530	660	800	930	1060
14	35/64	70	90	110	140	180	230	270	340	410	450	570	680	800	910
16	5/8	60	80	100	120	160	200	240	300	360	400	500	600	700	800
18	23/32	55	70	90	110	140	180	210	270	320	350	440	530	620	710
20	25/32	50	65	80	100	130	160	190	240	290	320	400	480	560	640
22	7/8	45	60	70	85	120	140	170	220	260	290	360	430	510	580
24	15/16	40	55	65	80	110	130	160	200	240	270	330	400	460	530
27	–	35	45	60	70	95	120	140	180	210	240	290	350	410	470
30	1-1/8	30	40	55	65	85	110	130	160	190	210	270	320	370	420
32	1-1/4	30	40	50	60	80	100	120	150	180	200	250	300	350	400
34	1-3/8	30	35	45	55	75	95	110	140	170	190	230	280	330	370
36	–	25	35	45	55	70	90	110	130	160	180	220	270	310	350
38	1-1/2	25	35	40	50	65	85	100	130	150	170	210	250	290	340
40	1-9/16	25	30	40	50	65	80	100	120	140	160	200	240	280	320
42	–	25	30	40	45	60	75	90	110	140	150	190	230	270	300
44	1-3/4	20	30	35	45	60	70	85	110	130	140	180	220	250	290
46	1-13/16	20	30	35	40	55	70	85	100	120	140	170	210	240	280
48	1-7/8	20	25	35	40	55	65	80	100	120	130	170	200	230	270
50	–	20	25	30	40	50	65	75	100	110	13	160	190	220	250



COBALT DRILLS (HSS-Co5)

Cobalt drills were developed to tackle the drilling of tough materials like stainless steel, inconel, tool steels, titanium alloys, etc.

Cobalt tools are also used to increase productivity for machining normal steels and other regular materials where increased tool life and faster drilling speeds may offer significant benefits.

When using cobalt drills we recommend up to a 20% increase in cutting speed over standard HSS drills. Increases in speeds of up to 40% or more may be possible in some machining applications.



Use these two charts to calculate the correct cutting parameters for drilling using an M2 HSS drill bit.

FOR EXAMPLE

When drilling a 8mm hole into 1060 Carbon Steel first check the chart opposite where you can see the correct surface speed is 20 metres per minute (m/min). To convert this to RPM use the chart above. The intersection of the 20 m/min surface speed with an 8mm drill diameter shows and optimum speed of 800 RPM.

In addition to speed, the table opposite also shows FEED rate in mm per revolution and THRUST pressure in kg. To maximise cutting efficiency and bit life a suitable cutting fluid (lubricant) should also be used.

TIPS FOR SUCCESSFUL DRILLING



- Ensure workpiece is firmly and securely fastened.
- Avoid excess lateral loads.
- Ensure collets and drill chucks are in good condition and will not allow drill slippage. Both drill and component damage can occur.
- When using taper shank drills ensure all taper sleeves are clean and in good condition. Never allow the drill to drive off the tang. This is an indication that either the drill, the sleeve, or both are damaged. Use only soft faced hammers to drive the taper shank into the sleeve. Use a proper drift key to remove the shank from the sleeve.
- Ensure drill is kept sharp, and sharpen before point of failure. If allowed to become blunt extra grinding will be needed to bring the drill back to optimum performance.
- Keep the flutes free from swarf. Clogged flutes will hamper drill performance.
- Use adequate coolant, particularly at the drill point, wherever possible.
- Avoid excessive speed and feed rates. Use the charts in this catalogue. If unsure of the correct speed or feed rate to use, it is generally better to start at low speeds and feeds, and build up as appropriate.
- When resharpening it is important that all wear is removed, and the correct point geometry is maintained. Do not overheat or burn the drill when grinding.
- If the hole is deeper than 3 times its diameter it is considered a deep hole. When drilling deep holes peck drilling is needed in order for the coolant to reach the point of the drill, and also to aid chip clearance.

RECOMMENDED SPEEDS AND FEEDS FOR DEEP HOLE DRILLING

SPEEDS

3 x Diameter of Drill	10% speed reduction
4 x Diameter of Drill	20% speed reduction
5 x Diameter of Drill	30% speed reduction
>6 x Diameter of Drill	40% speed reduction

FEEDS

3 x Diameter of Drill	10% feed reduction
4 x Diameter of Drill	10% feed reduction
5-8 x Diameter of Drill	20% feed reduction

CAUSES AND SOLUTIONS FOR COMMON DRILLING PROBLEMS

CHIPPING OR BREAKING OF LIPS
CAUSE Excessive lip clearance angles behind cutting edge.
SOLUTION Reduce lip clearance as per charts.

WORN OUTER CORNERS
CAUSE Peripheral speed too great for material being drilled.
SOLUTION Reduce cutting speed to correct speed. Increase feed rate. Improve coolant flow. Check clearance and alignment. Add corner break.

BROKEN OUTER CORNERS
CAUSES Drilling thin material that is insufficiently supported. Using a two flute drill to enlarge the diameter of an existing hole.
SOLUTIONS Use a sheet metal drill and clamp the workpiece securely. Ream the hole to correct size.

DRILL SPLITS UP WEB
CAUSES Feed rate too great. Not enough lip clearance behind cutting edge. Excessive web thinning. Using hard object to seat the drill in sleeve.
SOLUTIONS Reduce feed to correct rate (see charts). Ensure lip clearance is correct. Ensure web thickness is not less than 10% of the drill diameter. Use soft object to seat the drill in sleeve (e.g. copper or wood).

OVERSIZE OR OUT-OF-ROUND HOLES
CAUSES Unequal point angles. Flutes are congested with chips. Loose spindle or worn drill sleeve. Unsecured workpiece which moves during drilling.
SOLUTIONS Ensure points are resharpened accurately. Ensure flutes are kept free from swarf. Ensure spindle or drill sleeve is in good condition. Secure workpiece.

ROUGH HOLE FINISH
CAUSES Drill is blunt. Insufficient coolant supply to drill point. Feed rate too great. Possible chip congestion in flutes.
SOLUTIONS Sharpen the drill. Ensure coolant is reaching the drill point. Use correct feed rate (see charts). Ensure flutes are kept free from swarf.

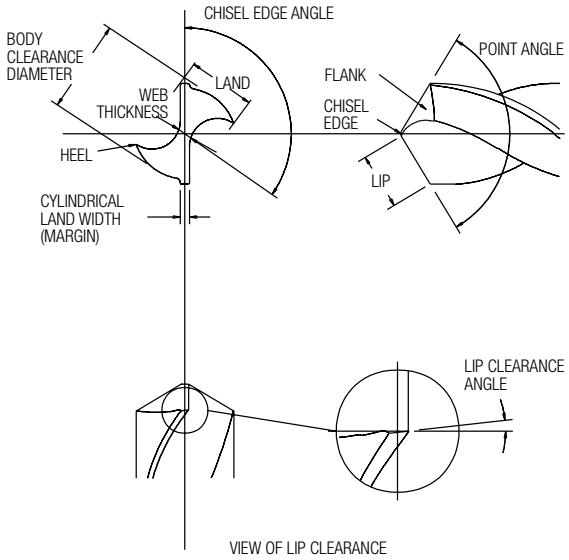
BROKEN OR DAMAGED TANG
CAUSE Poor fit between drill sleeve and the drill shank.
SOLUTIONS Only use sleeves that are in good condition. Ensure both drill shank and sleeve are clean.

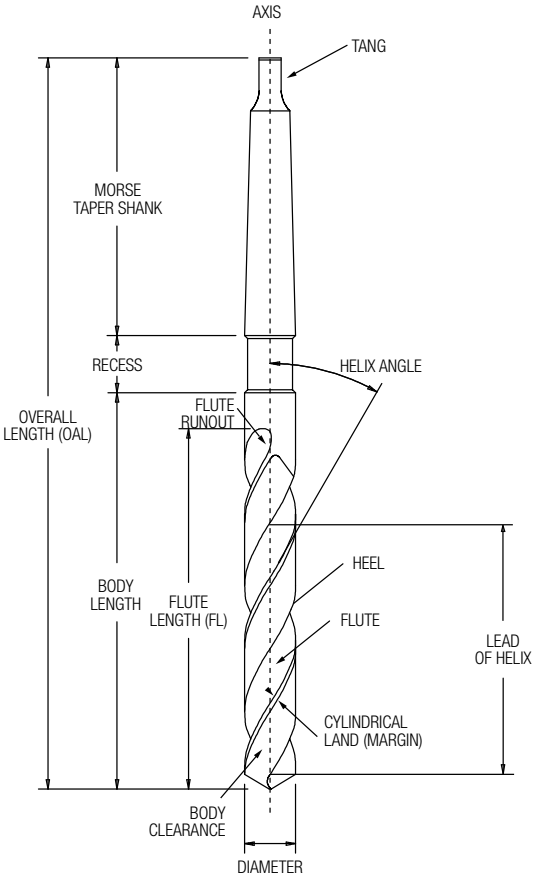
DRILL RUBBING AND NOT ENTERING WORKPIECE
CAUSES Insufficient lip clearance. Web too thick. Chisel angle too high.
SOLUTIONS Increase lip clearance (see charts). Reduce web thickness as per charts. Sharpen drill correctly to ensure correct chisel angle.

CRACKS IN CUTTING EDGES
CAUSE Point was overheated and cooled too quickly when resharpened.
SOLUTION Use coolant when grinding, and quench frequently in soluble oil.

DRILL BREAKS AT FLUTE RUNOUT
CAUSES Workpiece moved during drilling. Flutes clogged with swarf. Incorrect drill for application.
SOLUTIONS Secure workpiece. Maintain clear flutes by peck drilling. Use correct drill for application.

DRILL NOMENCLATURE AND POINT STYLES

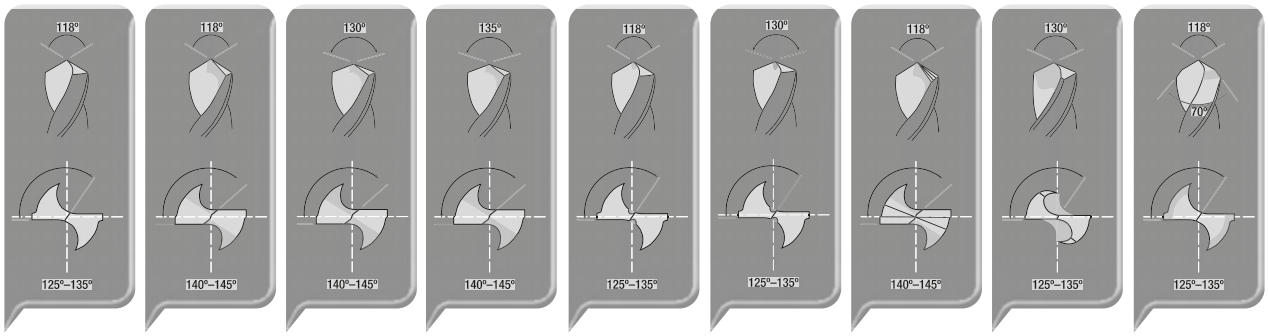




LIP CLEARANCE ANGLE

DRILL SIZE (MM)	**ANGLE** (DEGREES)
0.3 to 3.0	18 – 24
3.1 to 6.0	14 – 18
6.1 to 12.0	10 – 14
12.1 to 20.0	8 – 12
20.1 and over	6 – 10

DRILL POINT STYLES



Standard Point
(chisel point)
Standard point is suitable for general purpose drilling.

118º Split Point
(crankshaft point)
Split point is self centering and reduces the need for end thrust. Friction at workpiece is reduced. 118º point angles are ideal for use in materials such as mild steel and cast iron. The 118º point creates easily controlled chips which are wide and thin.

Split Point
The 130º Split Point provides self centering and easier penetration. The 33º helix open profile flute design has reinforced web for high rigidity under extreme conditions.

135º Split Point
(crankshaft point)
Split point is self centering and the short distance from the drill axis to the outer corners results in faster penetration, reducing the need for end thrust. The 135º point should be used to cut harder steel materials especially in deep hole applications. In these situations it will produce thicker chips minimising work hardening of the cavity. Faster penetration reduces abrasion and friction along the cutting edges.

Notched Point
A variation on standard chisel point providing faster starting and reduced drill wander. Suitable for general purpose drilling.

130º Thinned Point
The thinned point reduces the need for end thrust and optimizes centre cutting efficiency with chisel strength.

Multi Faceted Point
The multi faceted point was specifically developed to enable higher load carrying capacity and to enhance feed rates during the machining of difficult materials such as stainless steel.

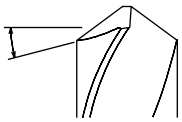
UX Point
The notched UX point provides self centering, easier penetration, improved hole accuracy and improved load distribution. The special notch geometry gives a corrected rake angle of 15º, which provides a strong point for harder materials, as well as preventing snatching with materials such as Aluminium, Brass, Bronze and Plastics.

DX Point
The double angled DX Point (118º/70º) minimises wear on the outer corners of the drill point in highly abrasive materials such as Cast Iron and Reinforced Plastics. The point is web thinned to enable easier penetration.

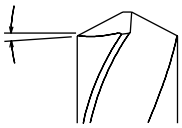


COMMON RESHARPENING ERRORS ON STANDARD POINTS

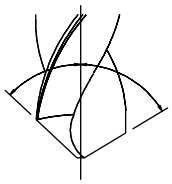
LIP CLEARANCE ANGLE TOO GREAT



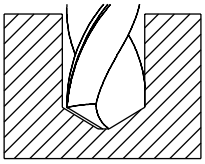
LIP CLEARANCE ANGLE TOO SMALL



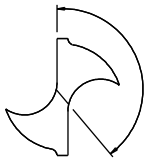
UNEQUAL LIP LENGTH



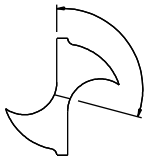
DIFFERENCE IN RELATIVE LIP HEIGHT (DUE TO UNEQUAL LIP LENGTH) WILL CAUSE AN OVERSIZE HOLE



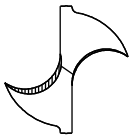
CHISEL ANGLE TOO GREAT



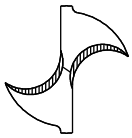
CHISEL ANGLE TOO SMALL



UNEVEN WEB THINNING



WEB THINNING TOO GREAT



WEB THINNING IS RECOMMENDED FOR
- RESTORING CHISEL EDGE TO THE ORIGINAL LENGTH AFTER MULTIPLE REGRINDS
- LARGER DRILLS WHERE MACHINE THRUST IS LIMITED
- DIFFICULT MATERIALS.

DRILL NOMENCLATURE AND DEFINITIONS

AXIS	The longitudinal centre line of the drill.
BACK TAPER	The slight decrease in diameter from the front to the back in the drill body.
BODY	The portion of the drill extending from the cutting lips to the shank.
BODY CLEARANCE	The portion of the land that has been cut away to provide diametrical clearance.
CHISEL EDGE	The edge formed by the intersection of the cutting lips.
CHISEL EDGE ANGLE	The included angle betwen the chisel edge and the cutting lip when viewed from the point end of the drill.
CYLINDRICAL LAND (MARGIN)	The cylindrical portion of the land that is not cut away to provide clearance.
CYLINDRICAL LAND WIDTH	The distance between the leading edge and the heel of the land, measured at a right angle (Margin Width) to the leading edge.
DIAMETER	The measurement across the cylindrical lands (margin) at the outer corners of the drill.
FLANK	The surface of the drill point extending behind the lip to follow the flute.
FLUTE LENGTH	The axial length from the extreme end of the point to the termination of the flutes at the shank end of the drill. As this includes the flute runout, flute length does not indicate the usable length of the drill.
FLUTE RUNOUT	The end of the flutes near the shank where they join the drill body.
FLUTES	The grooves in the body of a drill which provide the cutting lips, allow swarf and chip ejection, and permit cutting fluid to reach the cutting lips.
HEEL	The edge formed by the intersection of the body clearance and the flute surface.
HELIX ANGLE	The angle formed by the leading edge of the land and the plane containing the axis of the drill.
LAND	The peripheral portion of the body between adjacent flutes.
LEAD OF HELIX	The distance measured parallel to the axis between corresponding points on the leading edge of the land in one turn of the drill.
LIP CLEARANCE ANGLE	The angle formed between the outer corner of the lip and a plane at right angles to the axis of the drill, and usually measured at the periphery of the drill.
LIPS	The cutting edges of a two flute drill extending from the chisel edge to the periphery of the drill.
OVERALL LENGTH	The total length measured from the extreme point to the end of the shank.
POINT	The sharpened end of the drill comprising the cutting lips, chisel edge, lands and the web.
POINT ANGLE	The included angle between the cutting lips.
RELATIVE LIP HEIGHT	The relative position of the lips measured at the outer corners in a direction parallel to the drill axis.
RECESS	The section of reduced diameter between the shank and the body of a drill.
SHANK	The part of the drill by which it is held and driven.
TANG	The flattened end of a taper shank intended to fit into a driving slot in a socket.
WEB (CORE)	The central portion of the drill that joins the land. The end of the web forms the chisel edge on a two flute drill.
WEB (CORE) THICKNESS	The minimum dimension of the web measured at the point of the drill.

CUTTING SPEEDS (RPM) AND FEEDS FOR M2 HSS STEP DRILLS



			STEP DRILL SIZE RANGE				
MATERIAL TO BE CUT	**FEED (MM/MIN)**		**4 - 12MM**	**4 - 20MM**	**6 - 30MM**	**1/8 - 1/2"**	**1/4 - 3/4"**
MILD STEEL (<700 N/MM2)	**20 - 25**	SPEED (RPM)	1900 - 600	1900 - 400	1900 - 250	1900 - 600	1900 - 400
MILD STEEL (>700 N/MM2)	**16 - 20**	SPEED (RPM)	1500 - 500	1500 - 320	1500 - 250	1500 - 500	1500 - 320
ALLOY STEEL (1000 N/MM2)	**10 - 16**	SPEED (RPM)	1500 - 500	1500 - 320	1500 - 250	1500 - 500	1500 - 320
CAST IRON (<250 N/MM2)	**12 - 25**	SPEED (RPM)	1190 - 400	1190 - 240	800 - 130	1190 - 400	1190 - 240
CAST IRON (>250 N/MM2)	**8 - 12**	SPEED (RPM)	800 - 230	800 - 160	400 - 250	800 - 230	800 - 160
STAINLESS STEEL	**5 - 12**	SPEED (RPM)	500 - 300	400 - 250	400 - 250	500 - 300	400 - 250
AL ALLOY (<11% Si)	**10 - 16**	SPEED (RPM)	1990 - 550	1900 - 400	1990 - 270	1990 - 550	1900 - 400
THERMOPLASTIC	**12 - 25**	SPEED (RPM)	1590 - 450	1590 - 320	1590 - 210	1590 - 450	1590 - 320
WOOD	**40 - 100**	SPEED (RPM)	3000 - 1000	2800 - 1000	1500 - 800	3000 - 1000	2800 - 1000

CUTTING SPEEDS (RPM) AND FEEDS FOR HSS-Co5 BRIGHT FINISH COUNTERSINKS







		SURFACE SPEED / FEED / RPM BY COUNTERSINK DIAMETER (MM)											
MATERIAL TO BE CUT		**SMM**	**∅10**	**∅20**	**∅30**	**SMM**	**∅10**	**∅20**	**∅30**	**SMM**	**∅10**	**∅20**	**∅30**
STEEL ≤500 N/MM2	FEED	35-45	275	138	90	35-45	275	138	90	17-22	210	100	75
	RPM		1250	625	430		1250	625	420		620	310	210
STEEL 500–800 N/MM2	FEED	20-30	136	68	45	20-30	136	68	45	10-15	150	76	50
	RPM		800	400	260		800	400	260		480	240	160
STEEL 800–1000 N/MM2	FEED	15-20	68	34	23	15-20	68	34	23	8-12	100	50	36
	RPM		520	260	180		520	260	180		380	190	130
STAINLESS STEEL 1000–1300 N/MM2	FEED	12-15	45	25	17	12-15	45	25	17	6-8	32	16	11
	RPM		380	200	140		380	200	140		320	160	110
STAINLESS STEEL ICONEL-NIMONIC	FEED		–	–	–		–	–	–	4-6	15	8	5
	RPM		–	–	–		–	–	–		180	90	65
CAST IRON	FEED		–	–	–	20-40	150	130	100	15-25	80	60	50
	RPM		–	–	–		1200	550	430		630	320	210
ALUMINIUM	FEED	50-60	400	200	150	0-60	400	200	150	35-45	375	190	130
	RPM		1600	800	600		1600	800	600		1250	625	430
BRASS - BRONZE	FEED		–	–	–	30-40	300	150	90	20-30	240	120	80
	RPM		–	–	–		1200	600	370		800	400	260
COPPER	FEED	20-30	200	100	65	20-30	200	100	65	35-70	–	–	–
	RPM		800	400	260		800	400	260		–	–	–
LAMINATES	FEED		–	–	–	50-100	1600	800	250		720	360	240
	RPM		–	–	–		3200	1600	1000		1600	800	530
PLASTICS	FEED	50-100	1600	800	250	500	1600	800	250	35-70	720	360	240
	RPM		3200	1600	1000		3200	1600	1000		1600	800	530

SMM – RELATIVE SURFACE SPEED IN M/MIN
FEED IS SHOWN IN MM/MIN

EXAMPLE
If you are countersinking in Stainless Steel (1000-1300 N/mm2) using a 20mm diameter Single Flute countersink; The SMM (Relative Surface Speed in Metres per Minute) is 12-15 m/min, the Feed Rate is 25 mm/min and the Speed in RPM is 200.

TAPPING DRILL TABLES



METRIC COARSE (ISO)				
DIA.		PITCH	OAL	DRILL
1.00	x	0.25	38.50	0.75
1.20	x	0.25	38.50	0.95
1.40	x	0.30	40.00	1.10
1.60	x	0.35	41.00	1.25
1.80	x	0.35	41.00	1.45
2.00	x	0.40	41.00	1.60
2.50	x	0.45	44.50	2.05
3.00	x	0.50	48.00	2.50
3.50	x	0.60	50.00	2.90
4.00	x	0.70	53.00	3.30
4.50	x	0.75	53.00	3.70
5.00	x	0.80	58.00	4.20
6.00	x	1.00	66.00	5.00
7.00	x	1.00	66.00	6.00
8.00	x	1.25	72.00	6.80
9.00	x	1.25	72.00	7.80
10.00	x	1.50	80.00	8.50
12.00	x	1.75	89.00	10.20
14.00	x	2.00	95.00	12.00
16.00	x	2.00	102.00	14.00
18.00	x	2.50	112.00	15.50
20.00	x	2.50	112.00	17.50
22.00	x	2.50	118.00	19.50
24.00	x	3.00	130.00	21.00
30.00	x	3.50	138.00	26.50
33.00	x	3.50	151.00	29.50
36.00	x	4.00	162.00	32.00
39.00	x	4.00	170.00	35.00
42.00	x	4.50	170.00	37.50
45.00	x	4.50	187.00	40.50
48.00	x	5.00	187.00	43.00
52.00	x	5.00	200.00	47.00
56.00	x	5.50	200.00	50.50

METRIC FINE (ISO)				
DIA.		PITCH	OAL	DRILL
2.00	x	0.45	41.00	1.55
3.00	x	0.35	48.00	2.65
4.00	x	0.50	53.00	4.00
4.50	x	0.50	53.00	4.00
6.00	x	0.75	66.00	5.20
7.00	x	0.75	66.00	6.20
8.00	x	0.75	69.00	7.20
8.00	x	1.00	69.00	7.00
9.00	x	1.00	69.00	8.00
10.00	x	0.75	76.00	9.20
10.00	x	1.00	76.00	9.00
10.00	x	1.25	76.00	8.80
12.00	x	1.00	84.00	11.00
12.00	x	1.25	84.00	10.80
12.00	x	1.50	89.00	10.50
14.00	x	1.00	90.00	13.00
14.00	x	1.25	90.00	12.80
14.00	x	1.50	95.00	12.50
16.00	x	1.00	95.00	15.00
16.00	x	1.25	95.00	14.75
16.00	x	1.50	102.00	14.50
18.00	x	1.00	104.00	17.00
18.00	x	1.25	104.00	16.80
18.00	x	1.50	104.00	16.50
20.00	x	1.50	104.00	18.50
20.00	x	2.00	112.00	18.00
22.00	x	1.50	113.00	20.50
22.00	x	2.00	118.00	20.00
24.00	x	1.50	120.00	22.50
24.00	x	2.00	120.00	22.00
25.00	x	1.50	120.00	23.50
27.00	x	2.00	127.00	25.00
30.00	x	2.00	127.00	28.00
32.00	x	1.50	137.00	30.50

SPARK PLUG (ISO)				
DIA.		PITCH	OAL	DRILL
10.00	x	1.00	76.00	9.00
12.00	x	1.25	84.00	10.80
14.00	x	1.25	90.00	12.80
18.00	x	0.50	104.00	16.50

OVERSIZE / GALVANISING (ISO)				
DIA.		PITCH	OAL	DRILL
10.00+0.4	x	1.50	80.00	8.90
12.00+0.4	x	1.75	89.00	10.60
16.00+0.4	x	2.00	102.00	14.40
20.00+0.4	x	2.50	112.00	17.90
24.00+0.4	x	3.00	130.00	21.40

OVERSIZE / GALVANISING (ISO)				
DIA.		PITCH	OAL	DRILL
16.00	x	1.50	102.00	14.50
20.00	x	1.50	104.00	18.50

BSPF (BRITISH STANDARD PIPE G-SERIES)				
DIA.		TPI	OAL	DRILL
1/8	x	28	59.00	8.80
1/4	x	19	67.00	11.80
3/8	x	19	75.00	15.25
1/2	x	14	87.00	19.00
5/8	x	14	91.00	21.00
3/4	x	14	96.00	24.50
7/8	x	14	102.00	28.25
1	x	11	109.00	30.75
1-1/4	x	11	119.00	39.50
1-1/2	x	11	125.00	45.50
1-3/4	x	11	132.00	51.00
2	x	11	140.00	57.00
2-1/4	x	11	142.00	62.70
2-1/2	x	11	153.00	72.10
3	x	11	164.00	84.80

BSPT (BRITISH STANDARD PIPE TAPER)				
DIA.		TPI	OAL	DRILL
1/8	x	28	59.00	8.40
1/4	x	19	67.00	11.20
3/8	x	19	75.00	14.75
1/2	x	14	87.00	18.25
3/4	x	14	96.00	23.75
1	x	11	109.00	30.00
1-1/4	x	11	119.00	38.50
1-1/2	x	11	125.00	44.50
2	x	11	140.00	56.00

NPT (NATIONAL PIPE THREAD TAPERED)				
DIA.		TPI	OAL	DRILL
1/8	x	27	59.00	8.70
1/4	x	18	67.00	11.10
3/8	x	18	75.00	14.50
1/2	x	14	87.00	18.00
3/4	x	14	96.00	23.25
1	x	11.5	109.00	29.00
1-1/4	x	11.5	119.00	38.00
1-1/2	x	11.5	125.00	44.00
2	x	11.5	140.00	56.00

TAPPING DRILL TABLES



UNC (UNIFIED NATIONAL COARSE)				
DIA.		TPI	OAL	**DRILL**
5G	x	40	48.00	2.65
6G	x	32	50.00	2.85
8G	x	32	53.00	3.50
10G	x	24	58.00	3.90
12G	x	24	62.00	4.50
3/16	x	24 UNS	58.00	3.70
1/4	x	20	66.00	5.10
5/16	x	18	72.00	6.60
3/8	x	16	80.00	8.00
7/16	x	14	85.00	9.40
1/2	x	13	89.00	10.80
9/16	x	12	95.00	12.20
5/8	x	11	102.00	13.50
3/4	x	10	112.00	16.50
7/8	x	9	118.00	19.50
1	x	8	130.00	22.25
1-1/8	x	7	138.00	25.00
1-1/4	x	7	151.00	28.00
1-1/2	x	6	170.00	34.00
1-3/4	x	5	187.00	39.50
2	x	4.5	200.00	45.00

UNF (UNIFIED NATIONAL FINE)				
DIA.		TPI	OAL	**DRILL**
4G	x	48	48.00	2.40
5G	x	44	48.00	2.70
6G	x	40	50.00	2.95
8G	x	36	53.00	3.50
10G	x	32	58.00	4.10
12G	x	28	62.00	4.70
3/16	x	32 UNS	58.00	4.00
1/4	x	28	66.00	5.50
5/16	x	24	69.00	6.90
3/8	x	24	76.00	8.50
7/16	x	20	82.00	9.90
1/2	x	20	84.00	11.50
9/16	x	18	90.00	12.90
5/8	x	18	95.00	14.50
3/4	x	16	104.00	17.50
7/8	x	14	113.00	20.40
1	x	12	120.00	23.25
1	x	14 UNS	120.00	23.25
1-1/8	x	12	127.00	26.50
1-1/4	x	12	137.00	29.50
1-1/2	x	12	149.00	36.00

BSW (BRITISH STANDARD WHITWORTH)				
DIA.		TPI	OAL	**DRILL**
1/16	x	60	41.00	1.20
3/32	x	48 Whit	44.50	1.85
1/8	x	40	48.00	2.55
5/32	x	32 Whit	53.00	3.20
3/16	x	24	58.00	3.70
7/32	x	24 Whit	62.00	4.50
1/4	x	20	66.00	5.10
5/16	x	18	72.00	6.50
3/8	x	16	80.00	7.90
7/16	x	14	85.00	9.30
1/2	x	12	89.00	10.50
9/16	x	12	95.00	12.10
5/8	x	11	102.00	13.50
3/4	x	10	112.00	16.25
7/8	x	9	118.00	19.25
1	x	8	130.00	22.00
1-1/8	x	7	138.00	24.75
1-1/4	x	7	151.00	28.00
1-3/8	x	6	162.00	30.25
1-1/2	x	6	170.00	33.50
1-3/4	x	5	187.00	39.00
2	x	4.5	200.00	44.50

NPSF (DRYSEAL)				
DIA.		TPI	OAL	**DRILL**
1/8	x	27	59.00	8.70
1/4	x	18	67.00	11.10
3/8	x	18	75.00	14.50
1/2	x	14	87.00	18.00

NPTF (DRYSEAL TAPER)				
DIA.		TPI	OAL	**DRILL**
1/8	x	27	59.00	8.40
1/4	x	18	67.00	11.10
3/8	x	18	75.00	14.50
1/2	x	14	87.00	18.00

UNEF (UNIFIED NATIONAL EXTRA FINE)				
DIA.		TPI	OAL	**DRILL**
1/4	x	32	66.00	5.60
5/16	x	32	69.00	7.20
3/8	x	32	76.00	8.80
1/2	x	28	84.00	11.80
5/8	x	24	95.00	14.75
3/4	x	20	104.00	18.00
1	x	20	120.00	24.20

BSF (BRITISH STANDARD FINE)				
DIA.		TPI	OAL	**DRILL**
3/16	x	32	58.00	4.00
1/4	x	26	66.00	5.30
5/16	x	22	72.00	6.80
3/8	x	20	80.00	8.30
7/16	x	18	85.00	9.70
1/2	x	16	89.00	11.10
5/8	x	14	102.00	14.00
3/4	x	12	112.00	16.75
7/8	x	11	118.00	19.75
1	x	10	130.00	22.75

TUNGSTEN CARBIDE BURR SPEEDS



BURR HEAD DIAMETER	MAXIMUM OPERATING SPEED	ALL QUOTED SPEEDS X 1000 RPM							
		ALUMINIUM AND PLASTIC		BRASS, COPPER, CAST IRON AND BRONZE		UNHARDENED STEEL		HARDENED STEEL, STAINLESS STEEL NIMONIC ALLOYS	
		SPEED RANGE	REC. STARTING SPEED	SPEED RANGE	REC. STARTING SPEED	SPEED RANGE	REC. STARTING SPEED	SPEED RANGE	REC. STARTING SPEED
3MM (1/8")	100	60-80	65	45-80	65	60-80	80	60-80	80
6MM (1/4")	65	15-60	40	22-60	45	45-60	50	30-45	40
10MM (3/8")	55	10-50	25	15-40	30	30-40	30	19-30	25
12MM (1/2")	35	7-30	20	11-30	25	22-30	25	15-22	20
16MM (5/8")	25	6-20	15	9-20	20	18-20	20	12-18	15
20MM (3/4")	20	5-17	10	8-17	12	15-17	15	10-15	10
25MM (1")	15	4-13	8	6-13	10	10-13	10	7-11	8

RECOMMENDED SPEEDS ARE BASED ON STANDARD SHANK LENGTH OF 45MM / (1-3/4") MAX OVERHANG OF 10MM (3/8")
MAXIMUM RECOMMENDED OPERATING SPEEDS FOR EXTENDED LENGTH SHANKS IS 15,000RPM

XP AND XP2 TUNGSTEN CARBIDE CUTTER SPEEDS



MATERIAL	XP AND XP2 CUTTER DIAMETER (MM) – SPEEDS IN RPM					
	18 – 21 MM	22 – 30 MM	32 – 40 MM	41 –50 MM	51 – 60 MM	60 – 76 MM
STEEL	700 – 1000	500 – 800	300 – 600	200 – 500	200 – 400	150 – 300
STAINLESS STEEL	300 – 700	200 – 450	175 – 315	120 – 225	95 – 195	80 – 150

TUNGSTEN CARBIDE GRIT EDGE HOLESAW SPEEDS



GRIT EDGE HOLESAWS (TUNGSTEN CARBIDE GRIT)		ALL QUOTED SPEEDS RPM			
DIA. MM	DIA. INCHES	BRICK CERAMIC	SLATE	REINFORCED PLASTICS	FIBRE
16	-	620	1540	2140	920
19	3/4	510	1280	1790	770
20	-	470	1180	1660	715
22	7/8	430	1090	1530	660
25	1	380	960	1340	580
29	1-1/8	340	850	1190	510
32	1-1/4	310	770	1070	460
35	1-3/8	280	700	980	420
38	1-1/2	260	640	890	390
44	1-3/4	220	550	770	330
48	1-7/8	200	510	720	310
51	2	190	480	670	290
54	2-1/8	180	450	630	280
57	2-1/4	170	430	600	270
60	2-3/8	160	400	570	250
64	2-1/2	150	380	540	230
70	2-3/4	140	350	500	210
76	3	130	320	450	190
83	3-1/4	120	295	415	180
86	3-3/8	115	285	400	175
95	3-3/4	102	255	350	160
102	4	95	240	330	150
114	4-1/2	82	215	290	125

Vx COBALT BI-METAL HOLESAW SPEEDS



Vx COBALT BI-METAL HOLESAWS DIA. MM	DIA. INCHES	ALL QUOTED SPEEDS RPM				
		MILD STEEL	TOOL STEEL S/STEEL	CAST IRON	BRASS	ALUMINIUM
14	**9/16**	580	300	400	790	900
16	**5/8**	550	275	365	730	825
17	**11/16**	500	250	330	665	750
19	**3/4**	460	230	300	600	690
20	**-**	440	220	290	580	660
21	**13/16**	425	210	280	560	635
22	**7/8**	390	195	260	520	585
24	**15/16**	370	185	245	495	555
25	**1**	350	175	235	470	525
27	**1-1/16**	325	160	215	435	480
29	**1-1/8**	300	150	200	400	450
30	**1-3/16**	285	145	190	380	425
32	**1-1/4**	275	140	180	360	410
33	**1-5/16**	260	135	175	345	390
35	**1-3/8**	250	125	165	330	375
37	**1-7/16**	240	120	160	315	360
38	**1-1/2**	230	115	150	300	345
40	**1-9/16**	220	110	145	290	330
41	**1-5/8**	210	105	140	280	315
43	**1-11/16**	205	100	135	270	305
44	**1-3/4**	195	95	130	260	295
46	**1-3/16**	190	95	125	250	285
48	**1-7/8**	180	90	120	240	270
51	**2**	170	85	115	230	255
52	**2-1/16**	165	80	110	220	245
54	**2-1/8**	160	80	105	210	240
57	**2-1/4**	150	75	100	200	225
59	**2-5/16**	145	75	95	195	225
60	**2-3/8**	140	70	90	190	220
64	**2-1/2**	135	65	85	180	205
65	**2-9/16**	130	65	85	175	200
67	**2-5/8**	130	65	85	170	195
68	**-**	130	65	80	175	190
70	**2-3/4**	125	60	80	160	185
73	**2-7/8**	120	60	75	160	180
76	**3**	115	55	70	150	170
79	**3-1/8**	110	55	70	140	165
83	**3-1/4**	105	50	65	140	155
86	**3-3/8**	100	50	65	130	150
89	**3-1/2**	95	45	60	130	145
92	**3-5/8**	90	45	60	120	140
95	**3-3/4**	90	45	60	120	135
98	**3-7/8**	90	45	60	120	135
102	**4**	85	40	55	110	130
104	**4-1/8**	80	40	55	110	120
108	**4-1/4**	80	40	55	110	120
111	**4-3/8**	80	40	50	100	120
114	**4-1/2**	75	35	50	100	105
121	**4-3/4**	75	35	50	92	95
127	**5**	65	30	45	90	90
140	**5-1/2**	60	25	40	85	85
146	**5-3/4**	55	25	35	75	75
152	**6**	55	25	35	75	75
160	**6-5/16**	50	25	30	70	80
168	**6-5/8**	50	25	30	70	80
177	**7**	50	25	30	70	80
210	**8-1/4**	40	25	20	60	70

ANNULAR CUTTER SPEEDS IN SURFACE METRES PER MINUTE



MATERIAL		ALL QUOTED SPEEDS IN SMM	
		HARDNESS BRINELL	CUTTING SPEED SURFACE METRES/MIN
ALUMINIUM	WROUGHT & CAST	30-150	150 – 300
	DIE CAST 360, 380	40-125	135 – 180
	DIE CAST 383, 413	40-125	135 – 180
	DIE CAST 390, 392	40-125	20 – 30
BRASS & BRONZE			90 – 180
CAST IRON	SOFT	120-150	20 – 38
	MEDIUM	160-220	15 – 30
	CHILLED	230-300	10 – 15
MALLEABLE IRON	FERRITIC	110-160	30 – 40
	PEARLITIC	160-220	22 – 30
MAGNESIUM		50-90	120 – 240
NICKEL ALLOYS	200-230	80-170	18 – 25
	MONEL 400-404	115-240	10 – 15
STEEL - FREE MACHINING	RESULPHURISED/LEADED		32 – 90
CARBON STEEL	10XX, 12XX, XX10, XX20	125-160	27 – 34
STEEL ALLOYS - SOFT	10XX, 12XX, XX10, XX20		
	41XX, 51XX, XX30, XX40	170-210	20 – 27
	52XX, 93XX, XX50, X100		
STEEL ALLOYS - MEDIUM	10XX, 12XX, XX10, XX20		
	41XX, 51XX, XX30, XX40	220-250	17 – 23
	52XX, 93XX, XX50, X100		
STEEL ALLOYS - HARD		260-300	11 – 15
TOOL STEEL	T15, M42, D2		
	M2, A2	210-250	11 – 18
	S6, H13		
FORGINGS			12 – 15
ARMOUR PLATE		200-250	12 – 17
STAINLESS STEEL - FERRITIC	430/405, 430F	135-185	27 – 38
STAINLESS STEEL - AUSTENITIC	LOWER BHN	135-185	17 – 23
	HIGHER BHN 309/316		
	HIGHER BHN 301/304	225-275	12 – 21
	HIGHER BHN 303/203EZ		
STAINLESS STEEL - MARTENSITIC		135-185	21 – 38
		185-240	14 – 34
STAINLESS STEEL - PRECIPITATION HARDENING		150-200	14 – 17
INCONEL	600/HASTELLOY B, C, X, S	140-220	3 – 5
INCONEL	718/WASPELLOY	200-300	3 – 4
INCONEL	700/RENE 41	225-300	3 – 4

REAMER SPEEDS AND FEEDS



SPEEDS

The most efficient speed for machine reaming is closely related to the type of material being reamed, the rigidity of the set up, and the tolerance or finish required. Quite often the best speed is found to approximate one half of the speed used for drilling the same material. The following table may be used for a guide for high speed steel reamers. Carbide reamers or diamond tipped reamers may be run considerably faster. When close tolerances and a fine finish are required, it is usually found necessary to finish ream at considerably slower speeds.

FEEDS

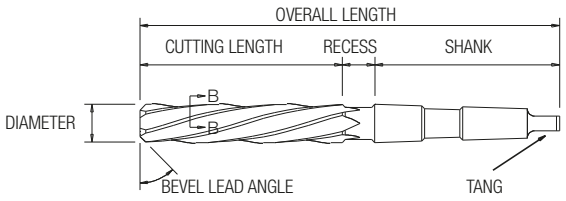
In reaming, feeds are usually higher than those used for drilling. The amount of feed may vary with the material, but a good starting point would be between 0.04MM (.0015") and 0.10MM (.004") per flute per revolution. Too low a feed may result in glazing, excessive wear, and chatter. Too high a feed tends to reduce the accuracy of the hole and may also lower the quality of the finish. The basic idea is to use as high a feed as possible and still produce the required finish and accuracy.

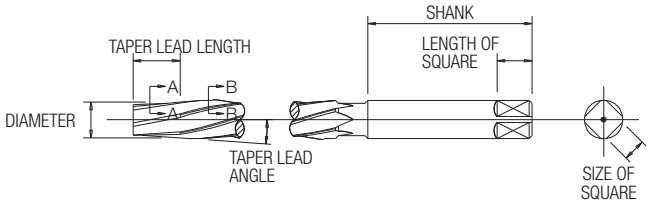
REAMER TOLERANCES

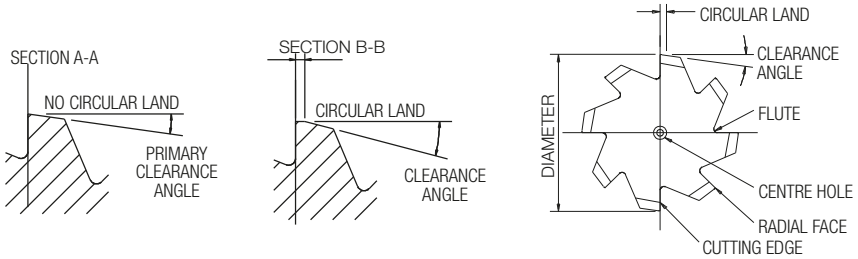
Bordo reamers are manufactured to produce holes to H7 tolerance. The tolerance limits in the table below are added to the nominal reamer diameter.

REAMER DIAMETER (MM)	CUTTING DIAMETER TOLERANCE		HOLE DIAMETER TOLERANCE H7
	MM	MM	MM
> 1.0 – 3.0	+0.004	+0.008	+0.010
> 3.0 – 6.0	+0.005	+0.010	+0.012
> 6.0 – 10.0	+0.006	+0.012	+0.015
> 10.0 – 18.0	+0.008	+0.015	+0.018
> 18.0 – 30.0	+0.009	+0.017	+0.021
> 30.0 – 50.0	+0.012	+0.021	+0.025

MATERIAL	ALL QUOTED SPEEDS SMM
	SPEEDS
MAGNESIUM AND ITS ALLOYS	50 – 82
ALUMINIUM AND ITS ALLOYS	40 – 60
BAKELITE	21 – 30
BRASS AND BRONZE, ORDINARY	39 – 61
BRONZE, HIGH TENSILE	15 – 21
MONEL METAL	7 – 11
CAST IRON, SOFT	21 – 30
CAST IRON, HARD	15 – 21
CAST IRON, CHILLED	6 – 9
MALLEABLE IRON	15 – 18
STEEL, PLAIN CARBON BR 150 - 225	17 – 20
STEEL, PLAIN CARBON BR 230 - 325	12 – 15
STEEL, PLAIN CARBON BR 330 - 425	7 – 11
STEEL ALLOY BR 150 - 225	4 – 20
STEEL ALLOY BR 230 - 325	10 – 14
STEEL ALLOY BR 330 - 425	6 –9
STEEL, TOOL BR 150 - 250	12 –15
STEEL, TOOL BR 255 - 375	6 – 9
STEEL, FREE MACHINING STAINLESS	12 –15
STEEL, HARD STAINLESS & P.H.	6 – 9







CONDITIONS OF SALE

1. PRICES: All prices quoted exclude GST and are subject to change without notice. Export shipments are not subject to GST. All prices quoted in Australian Dollars unless otherwise stated.
2. FREIGHT TERMS: Bordo International Pty Ltd ("Bordo") has no minimum invoice value. All orders over $250 nett exclusive of GST are freight-free — prices are ex-warehouse. Bordo reserves the right to despatch freight-free orders by a carrier and method of its choosing. Freight-free orders are calculated on a $250 nett exclusive of GST basis per order for each warehouse dispatch. Drop-shipments incur freight charges. Where the order is under $250 nett exclusive of GST the customer is responsible for all costs associated with delivery. Any period for delivery of goods stated by Bordo is an estimate only and not a contractual commitment. Bordo will use its reasonable endeavours to meet any estimated dates for delivery of the goods but will not be liable for any loss or damage suffered by the customer or any third party for failure to meet an estimated date. The customer indemnifies Bordo against any loss or damage suffered by Bordo, its subcontractors or employees as a result of delivery, except where the customer is a "consumer" as defined in the Australian Consumer Schedule of the Competition and Consumer Act 2010 (Cth) as amended ("ACL") and Bordo has not used due care and skill.
3. PAYMENT TERMS: Unless otherwise agreed in writing payment for the goods or services must be made in full within 30 days from the end of the month of the date of Bordo's invoice. Bordo reserves the right to require payment in full on delivery of the goods. Payment by cheque is not deemed made until the proceeds of the cheque have cleared. Payment terms may be revoked or amended at Bordo's sole discretion immediately upon giving the customer written or verbal notice. The time for payment is of the essence.
4. DAMAGE, DEFECTS AND LOSS IN TRANSIT: Bordo will not be liable for any shortages or non compliance with the specifications in these Terms and Conditions unless the customer notifies Bordo with full details and description within 10 working days of delivery to the customer. Where any shortages, claim for damaged goods or non compliance with the agreement specifications is accepted by Bordo, Bordo may, at its option, repair or replace the goods or refund or credit the portion of the purchase price. Bordo will not under any circumstances accept goods for return that have been specifically produced, imported or acquired to fulfil the agreement, that are discontinued goods or no longer stocked by Bordo, that have been altered in any way, that have been used, or that are not in their original condition and packaging. If the customer is a consumer, nothing in this clause limits any remedy available for a failure of the statutory guarantees in the ACL.
5. CREDIT INFORMATION:
   - 5.1. Bordo may seek consumer credit information (section 18K(1)(b), Privacy Act 1988). If Bordo considers it relevant to assessing the customer's application for commercial credit the customer agrees to Bordo obtaining from a credit reporting agency a credit report containing personal credit information about the customer and to conducting a search of the Personal Property Securities Register for the purpose of assessing the customer's application for commercial credit.
   - 5.2. Exchanging information with other credit providers (Section 18N(1)(b), Privacy Act 1988). The customer agrees to Bordo obtaining personal information about the customer from other credit providers whose names the customer may have provided for Bordo or that may be named in a credit report, and from the Personal Property Securities Register, for the purpose of assessing the customer's application for commercial credit.
   - 5.3. Agreement to a credit provider being given a consumer credit report to collect overdue payments on commercial credit (Section 18K(1)(h) Privacy Act 1988). The customer agrees that Bordo may obtain a consumer credit report about the customer from a credit reporting agency for the purpose of collecting overdue payments relating to commercial credit owed by the customer.
6. RETENTION OF TITLE:
   - 6.1. Until Bordo receives full payment in cleared funds for all goods supplied by it to the customer, as well as all other amounts owing to Bordo by the customer:
     - (a) title and property in all goods remains vested in Bordo and does not pass to the customer;
     - (b) the customer must hold the goods as fiduciary bailee and agent for Bordo;
     - (c) the customer must keep the goods separate from its own goods and maintain Bordo's labelling and packaging;
     - (d) the customer must hold the proceeds of sale of the goods on trust for Bordo in a separate account with a bank to whom the customer has not given security however failure to do so will not affect the customer's obligation as trustee;
     - (e) in addition to its rights under the Personal Property Securities Act 2009 (Cth) ("PPSA"), Bordo may without notice, enter any premises where it suspects the goods are and remove them, notwithstanding that they may have been attached to other goods not the property of Bordo, and for this purpose the customer irrevocably licences Bordo to enter such premises and also indemnifies Bordo from and against all costs, claims, demands or actions by any party arising from such action.
   - 6.2. The customer warrants that it is not at the time of placing an order for goods or services insolvent and knows of no circumstances which would entitle any creditor to appoint a receiver or to petition for winding up or to exercise any other rights over or against its assets.
   - 6.3. If any of these retention of title provisions are construed to be invalid or not enforceable in accordance with their terms all other provisions which are self-sustaining and capable of separate enforcement without regard to the invalid provisions shall be and continue to be valid and enforceable in accordance with their terms.
7. PERSONAL PROPERTY SECURITIES ACT:
   - 7.1. Notwithstanding anything to the contrary contained in these Terms and Conditions, the PPSA applies to these Terms and Conditions.
   - 7.2. For the purposes of the PPSA:
     - (a) terms used in this clause 7 that are defined in the PPSA have the same meaning as in the PPSA;
     - (b) these Terms and Conditions are a security agreement and Bordo has a Purchase Money Security Interest in all present and future goods supplied by Bordo to the customer and the proceeds of the goods;
     - (c) the security interest is a continuing interest irrespective of whether there are monies or obligation owing by the customer at any particular time; and
     - (d) the customer must do whatever is necessary in order to give a valid security interest over the goods and their proceeds which is able to be registered by Bordo on the Personal Property Securities Register.
   - 7.3. The security interest arising under this clause 7 attaches to the goods when the goods are collected or dispatched from Bordo's premises and not at any later time.
   - 7.4. Where permitted by the PPSA, the customer waives any rights to receive the notifications, verifications, disclosures or other documentation specified under sections 95, 118, 121(4), 130, 132(3)(d), 132(4), 135 and 157 of the PPSA.
   - 7.5. Bordo and the customer agree to contract out of and nothing in the provisions of sections 96, 125, 129, 142 and 143 of the PPSA will apply to these Terms and Conditions.
   - 7.6. To the extent permitted by the PPSA, the customer agrees that:
     - (a) the provisions of Chapter 4 of the PPSA which are for the benefit of the customer or which place obligations on Bordo will apply only to the extent that they are mandatory or Bordo agrees to their application in writing; and
     - (b) where Bordo has rights in addition to those in Chapter 4 of the PPSA, those rights will continue and apply.
   - 7.7. The customer must immediately upon Bordo's request:
     - (a) do all things and execute all documents necessary to give effect to the security interest created under these Terms and Conditions; and
     - (b) procure from any person considered by Bordo to be relevant to its security position such agreements and waivers (including as equivalent to those above) as Bordo may at any time require.
   - 7.8. Bordo may allocate amounts received from the customer in any manner Bordo determines, including in any manner required to preserve any Purchase Money Security Interest it has in goods supplied by Bordo.
8. CREDITS/RETURNS: Except to the extent of any liability imposed by the ACL, authorisation must be obtained before returning goods for credit. No goods will be accepted for credit that are correctly supplied and invoiced if not returned freight paid within 14 days and delivery freight will be charged. Also a 15% restocking fee will be charged for any goods supplied correctly. Goods forwarded in error will be replaced no charge freight paid. Goods incorrectly sent must be held by the customer pending our further instruction.
9. LIABILITY:
   - 9.1. Except as these Terms and Conditions specifically state, these Terms and Conditions do not include by implication any other term, condition or warranty in respect of the quality, merchantability, acceptability, fitness for purpose, condition, description, assembly, manufacture, design or performance of the goods or services or any contractual remedy for their failure.
   - 9.2. If the customer is a consumer nothing in these Terms and Conditions restricts, limits or modifies the customer's rights or remedies against Bordo for failure of a statutory guarantee under the ACL.
   - 9.3. If the customer on-supplies the goods to a consumer:
     - (a) if the goods or services are not of a kind ordinarily acquired for personal, domestic or household use or consumption, then the amount specified in section 276A(1) of the ACL is the absolute limit of Bordo's liability to the customer;
     - (b) if the goods are of a kind ordinarily acquired for personal, domestic of household use or consumption, then payment of any amount required under section 274 of the ACL is the absolute limit of Bordo's liability to the customer howsoever arising under or in connection with the sale, installation, use of, storage or any other dealings with the goods by the customer or any third party.
   - 9.4. If clause 9.2 or 9.3 does not apply, then other than as stated in these Terms and Conditions Bordo is not liable to the customer in any way howsoever arising under or in connection with the sale, installation, use of, storage or any other dealings with the goods or services by the customer or any third party.
   - 9.5. Bordo is not liable for any indirect or consequential losses or expenses suffered by the customer or any third party, howsoever caused, including but not limited to loss of turnover, profits, business or goodwill or any liability to any other party, except to the extent of any liability imposed by the ACL.
   - 9.6. The customer acknowledges that:
     - (a) it has not relied on any service involving skill and judgement, or on any advice, recommendation, information or assistance provided by Bordo in relation to the goods or their use or application;
     - (b) it has not made known, either expressly or by implication, to Bordo any purpose for which it requires the goods and it has the sole responsibility of satisfying itself that the goods are suitable for the use of the customer.
   - 9.7. Nothing in these Terms and Conditions is to be interpreted as excluding, restricting or modifying the application of any State or Federal legislation applicable to the sale of goods which cannot be so excluded, restricted or modified.
10. TRADING TERMS AND CONDITIONS: Are subject to change without notice. Trading terms and conditions appear on the Account Application Form, our web site (www.bordo.com.au), or are available on request.

DISCLAIMER Whilst every effort has been made to ensure the accuracy of the information contained herein, Bordo International Pty Ltd accepts no liability for any loss or damage either direct or consequential arising out of, or in relation to, the use or application of the said information or products referred to herein. All information is believed to be correct at time of printing. E.&O.E.

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CREDITS/RETURNS POLICY

8. CREDITS/RETURNS: Except to the extent of any liability imposed by the ACL, authorisation must be obtained before returning goods for credit. No goods will be accepted for credit that are correctly supplied and invoiced if not returned freight paid within 14 days and delivery freight will be charged. Also a 15% restocking fee will be charged for any goods supplied correctly. Goods forwarded in error will be replaced no charge freight paid. Goods incorrectly sent must be held by the customer pending our further instruction.

CREDITS/RETURNS PROCEDURE

RETURNED FOR WARRANTY

1. All goods returned to Bordo International MUST be accompanied by a Return Authorisation Number. Goods returned to Bordo International without an RA will not be processed.
2. All RA returns are to be delivered to Bordo International Pty Ltd 3 Kingston Park Court Scoresby Victoria 3179 Australia.
3. Cost of returning all goods under warranty including transport and insurance, is the CUSTOMER'S responsibility.
4. Goods must be properly packaged for return, goods damaged in transit will void warranty.
5. Goods returned for warranty will be repaired or replaced at Bordo International's discretion.
6. Whilst Bordo International will endeavour to return warrantied goods to customers as quickly as possible, temporary replacement items will not be supplied.
7. A copy of the original invoice must accompany all warranty returns.
8. Goods returned with NO FAULT FOUND may be charged a minimum adminstration fee of $25.00 +GST per item.

RETURNED FOR CREDIT

1. All credit requests must be made to your account/sales representative OR to Bordo Customer Service.
2. All goods returned to Bordo International MUST be accompanied by a Return Authorisation Number. Goods returned to Bordo International without an RA will not be processed.
3. Specifically ordered non-stock items will not be accepted for credit.
4. Credit will be issued at Bordo International's discretion and, where applicable, re-stocking fees will apply.
5. All RA returns are to be delivered to Bordo International Pty Ltd 3 Kingston Park Court Scoresby Victoria 3179 Australia.
6. Goods may be considered as eligible for credit return provided that ALL of the following criteria are met:
   a) a credit Return Authorisation number (RA) is obtained prior to sending the returned goods; and
   b) the goods are returned unopened, undamaged and in original packaging, and as such must not have additional price, warranty, freight and/or other sticker, tags or labels attached; and
   c) the returned goods are received by Bordo International within 14 days of receipt of goods by the customer.
7. If returned goods are deemed by Bordo International NOT to be in a re-saleable condition, credit will be denied and it will be the customer's responsibility to arrange the collection of the goods.
8. Unless Bordo International have incorrectly shipped products, transport charges will be paid by the customer unless otherwise agreed by Bordo International in writing.

powercoil®

wire thread insert system



M2 – M12 (1/8" – 1/2")
PowerCoil Thread Repair Kits include all the necessary components to sucessfully repair damaged threads. Kits include Drill, STI Tap, Inserts, Installation Tool and Tang Break-Off Tool.

The PowerCoil Wire Thread Insert System includes a complete range of over 140 Thread Repair Kits in all popular thread forms; Free Running and Screw Locking inserts; Strip Feed Inserts; STI Hand and Machine Taps; Installation, Tang Break and Removal Tools.

merchandising and marketing benefits

- **Sold to Distributors Only**
- **Tough and Good Looking** – Clean, modern, slim-line design of robust construction.
- **Stackable** – Subtly integrated feet interlock top and bottom of cases for secure vertical stacking.
- **Full Color Label** – In protective recess on front of box for strong in-store presence. Instruction label included on inside of lid to aid user. Rear identification label also included on base of case for warehousing and product coding.
- **Flexible Rubber Tool Holder** – This provides a neater overall kit appearance, and prevents tools from rattling around inside the box.
- **Hanger Slide Latch** – Locks the lid positively and easily, with integrated hang point for in-store display.
- **Insert Storage** – Internal ribs prevent inserts from moving to other areas of the box. "Exit Ramps" to assist in removal of smaller inserts from compartments.
- **Flexible merchandising solutions.**

wire thread insert system
features & benefits

- Lighter and Cheaper than any other equivalent type of thread insert.
- Can generally be introduced into existing designs where no previous provision has been made.
- Increase quality and performance whilst reducing overall product cost.
- Their introduction may result in the use of thinner sections or lighter parent materials without sacrificing thread strength.
- Create internal threads with greatly improved distribution of residual stress loading
- Compensate for pitch and flank angle errors
- Create internal threads in which wear due to thread friction is virtually eliminated.
- Providing threads that stay tight.

PowerCoil military standards available:
MA3279, MA3280, MA3281, NASM122076–124850, MA3329, MA3330, MA3331 and NASM21209

PowerCoil is a registered trademark of Bordo International Pty Ltd 3 Kingston Park Court Scoresby Victoria 3179 Australia

OUR CORPORATE PHILOSOPHY

Bordo International is synonymous with excellence in industrial cutting tools, accessories, and threading products. Bordo's head office is located in the Eastern suburbs of Melbourne and uses a comprehensive distribution network throughout Australia. Founded in 1987, Bordo remains a 100% family-owned Australian company with offices and warehouses in Europe and the USA.

Reflecting our total commitment to excellence, our mission is to provide a complete cutting tool range of a quality and reliability that exceeds our customers' expectations and requirements, and a service level second-to-none in the market.

PRODUCTS

As Industrial Cutting Tool and Power Tool Accessory specialists, our extensive product range is one of the most comprehensive in the industry. Our continually expanding range of precision cutting tools ensures you need look no further for all your industrial cutting needs. All of our products have been carefully selected and determined to be the best quality of their kind in the world.

SERVICE

Bordo International is committed to working with our suppliers and customers to improve and expand our range of cutting tools and power tool accessories, whilst continuing to provide the highest levels of service. We are supported by a team of technical and production experts who ensure that all specialised tooling requirements are met to our customers' exacting specifications.

VISION

The Bordo Quality Commitment exists throughout all levels of our company – products, service, vision. We source our products from the world's finest manufacturers, maintaining our 'quality without compromise' ethos. Our commitment results in the most reliable and competitive package available – when you use our tools you can be assured you are getting the very best the world has to offer.



BORDO®
INDUSTRIAL TOOLS

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OWNED FAMILY COMPANY

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9 326518 150954