

"WE KNOW THE DRILL"

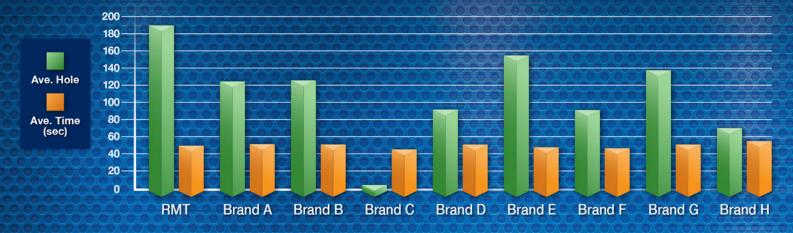


COBALT JOBBER DRILL BITS

35 PLUS HOURS AND 2,500 HOLES LATER

THE CREAM RISES TO THE TOP...AGAIN





Brand	Country of Origin	Material	Point Configuration	Finish	Ave. Holes	Ave. Time
RMT	USA	M42	135° Split Point	Bronze Oxide	189	49.3 sec
Brand A	Brazil	M42	135° Split Point	Bronze Oxide	124	51.9 sec
Brand B	USA	M42	135° Split Point	Bronze Oxide	125	51.4 sec
Brand C	Korea	M35	130° Split Point	Titanium Nitride	3	45.1 sec
Brand D	Germany	M35	118° 4-Facet Split Pt	Bright	93	50.1 sec
Brand E	USA	M42	135° Split Point	Bronze Oxide	155	48.6 sec
Brand F	USA	M42	135° Split Point	Bronze Oxide	89	46.5 sec
Brand G	China	M35	135° Split Point	Bronze Oxide	138	50.6 sec
Brand H	Brazil	M42	135° Split Point	Bronze Oxide	69	55.1 sec

TEST SUBSTRATE: 4130 hot rolled flat stock-hardened 1/2-in plate. Heat treated to 28-32 HRC.

- · Approx. 650 RPM (43 SFM) per Machinery's Hand Book recommendations.
- · Drill press pulley weight adjusted for a chip load of .0005 .001 per cutting lip.
- · Used 8 and 5 lb. weights (spindle load equivalent of 82lbs).
- 1/4-in diameter drill bits were tested (a minimum of two per manufacturer).

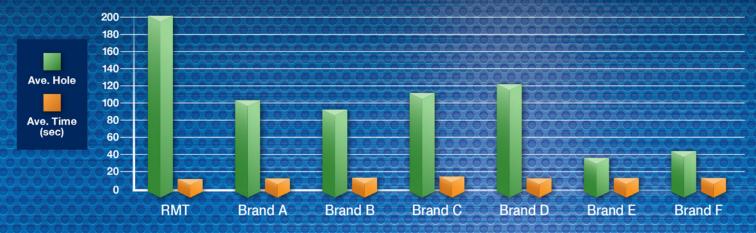


HSS JOBBER DRILL BITS

2,800 HOLES 10 HOURS OF DRILLING

MESS WITH THE BEST, FALL LIKE THE REST





Brand	Country of Origin	Material	Point Configuration	Finish	Ave. Holes	Ave. Time
RMT	USA	M2	135° Split Point	Bright	201	11.6 sec
Brand A	Brazil	M2	135° Split Point	Purple & Gold	103	12.3 sec
Brand B	Korea	M2	135° Split Point	Black Oxide	93	13 sec
Brand C	Germany	M2	130° Split Point	Bronze Oxide	112	14.3 sec
Brand D	USA	M2	135° Split Point	Black Oxide	121	12.3 sec
Brand E	USA	M2	135° Split Point	Black & Gold	36	12.6 sec
Brand F	Brazil	M2	135° Split Point	Black Oxide	43	12.9 sec

TEST SUBSTRATE: 1045 hot rolled flat stock-1/2-in plate.

- Approx. 1280 RPM (85 SFM) per Machinery's Hand Book recommendations.
- Drill press pulley weight adjusted for a chip load of .001 .0015 per cutting lip.
- · Used 8 and 5 lb. weights (spindle load equivalent of 82lbs).
- 1/4-in diameter drill bits were tested (a minimum of two per manufacturer).



DRILL CH	ART	DECIN	1AL EC	DUIVAL	ENTS
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DRILL DEC. DRILL SIZE DEC. SRILE SRI	DIVILL	DRILL GHART DECIMAL EQUIVALENTS							
1/84	SIZE				DRILL SIZE				
1/94	0.1mm	.0039	41	.0960	15/64	.2344	33/64	.5156	
1/94	0.2mm	.00/9	40 2.5mm	.0980		.2362	17/32 13.5mm	.5313	
1/84	80	.0135	39	.0995	Č	2420	35/64	.5469	
1/64	79	.0145	38	.1015		.2460	14mm	.5512	
0.5mm 0.197 34 .1110 17/64 .2656 19/32 .5938 76 .0200 33 .1130 H .2660 39/64 .6094 .6094 .75 .0210 32 .1160 I .2720 15.5mm 6.102 74 .0225 3mm .1181 7mm .2756 5/8 .6250 .0.6mm .0236 31 .1200 J .2770 16mm .6239 .73 .0240 11/8 .1250 K .2810 41/64 .6406 .72 .0250 30 .1285 9/32 .2812 16.5mm .6496 .71 .0260 29 .1360 L .2900 .21/32 .6562 .0.7mm .0276 3.5mm .1378 M .2950 17mm .6693 .70 .0280 28 .1405 7.5mm .2950 17mm .6693 .70 .0280 28 .1405 7.5mm .2950 17mm .6693 .70 .0280 28 .1405 7.5mm .2950 17mm .6693 .1/32 .0312 .26 .1470 5/16 .3125 45/64 .7031 0.8mm .315 .25 .1495 8mm .3150 18mm .7087 .67 .0320 .24 .1520 D .3160 L .2900 .21/32 .666 .0330 .23 .1540 P .3230 18.5mm .7283 .65 .0350 5/32 .1562 .21/64 .3221 16.5mm .7283 .65 .0350 5/32 .1562 .21/64 .3221 17/64 .7344 .0.9mm .3054 .22 .1570 Q .3320 19mm .7480 .663 .0370 .21 .1590 R .3330 49/64 .7656 .63 .0370 .21 .1590 R .3340 .25/32 .7812 .10 .11/64 .1719 T .7500 .3480 .25/32 .7812 .1590 .1610 .11/32 .3438 .19.5mm .7677 .61 .0390 .19 .1660 S .3480 .25/32 .7812 .1590 .10 .10 .10 .10 .10 .10 .10 .10 .10 .1	1/64	.0156	37	1 10/0 1	1/4 & E	1 2500 1	9/16	.5625	
0.5mm 0.197 34 .1110 17/64 .2656 19/32 .5938 76 .2020 33 .1110 17/64 .2656 19/32 .5938 75 .0210 32 .1160 I .2720 15.5mm .6102 74 .0225 3mm .1181 7mm .2756 5/8 .6250 .0.6mm .0236 31 .1200 J .2770 16mm .6239 .73 .0240 11/8 .1250 K .2810 41/64 .6406 .299 .1360 L .2900 .21/32 .6562 .0.7mm .0276 3.5mm .1378 M .2950 17mm .6693 .70 .0280 28 .1405 7.5mm .2950 17mm .6693 .70 .0280 28 .1405 7.5mm .2950 17mm .6693 .1/32 .0312 .26 .1470 5/16 .3125 45/64 .7031 0.8mm .3150 .25 .1495 8mm .3150 .8mm .7087 67 .0320 .24 .1520 P .3230 18.5mm .7087 66 .0330 .23 .1540 P .3230 18.5mm .7283 .65 .0350 5/32 .1562 .21/64 .3221 16.5mm .7283 .65 .0350 5/32 .1562 .21/64 .3221 .1500 .09mm .3340 .27 .1410 N .3150 .23/32 .7188 .65 .0350 5/32 .1562 .21/64 .3320 19mm .7480 .66 .0330 .20 .1610 .11/32 .3330 49/64 .7656 .63 .0370 .21 .1590 R .3330 49/64 .7656 .0330 .20 .1610 .11/32 .3438 19.5mm .7283 .160 .0400 .11/64 .1719 .1730 .23/64 .3580 .25/32 .7812 .1500 .0400 .11/64 .1719 .1730 .23/64 .3580 .21/5mm .8071 .1590 .15 .1500 .	0.4mm	.0157	7/64	1065	6.5mm	.2559	14.5mm	.5709 5781	
76	77	.0180	35	.1100	Ġ	.2610	15mm	.5906	
76	0.5mm	.0197	34	.1110	17/64	.2656	19/32	.5938	
1/8	76	.0200	33	.1130	H	.2660	39/64	.6094	
1/8	74	.0210	3mm	1181	7mm	2756	5/9	.6102 .6250	
72	0.6mm	.0236	31	.1200	J	.2770	16mm	.6299	
1/32	73	.0240	1/8	.1250	K	.2810	41/64	.6406	
1/32	72	.0250	30	.1285	9/32	2900	16.5mm	.6496 6562	
1/32	0.7mm	.0276	3.5mm	.1378	М	.2950	17mm	.6693	
1/32	70	.0280	28	.1405	7.5mm	.2953	43/64	.6719	
65	69	.0292	9/64	.1406	19/64	.2969	17.5	.6875	
65	1/32	.0310	26	1470	5/16	.3020 .3125	15/61	.6890 . 7031	
65	0.8mm	.0315	25	.1495	8mm	.3150	18mm	.7087	
65	67	.0320	24	.1520	O	.3160	23/32	.7188	
61	65	.0330	5/32	.1540		.3230	18.5mm	./283	
61	0.9mm	.0354	22	.1570	Q 21/64	.3320	19mm	.7480	
61	64	.0360	4mm	.1575	8.5mm	.3346	3/4	.7500	
61	63	.0370	21	1590	H 11/22	.3390	49/64	.7656 7677	
57 .0430 4.5mm .1772 9.5mm .3740 21mm .8268 56 .0465 15 .1800 3/8 .3750 53/64 .8281 3/64 .0469 14 .1820 V .3770 27/32 .8438 55 .0520 13 .1850 W .3860 21.5mm .8465 54 .0550 3/16 .1875 25/64 .3906 55/64 .8594 1.5mm .0591 12 .1890 10mm .3937 22mm .8661 53 .0595 11 .1910 X .3970 7/8 .8750 1/16 .0625 10 .1932 .4062 .57/64 .8906 51 .0670 5mm .1969 Z .4130 23mm .9055 50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010	61	.0390	19	.1660	S S	.3480	25/22	.7812	
57 .0430 4.5mm .1772 9.5mm .3740 21mm .8268 56 .0465 15 .1800 3/8 .3750 53/64 .8281 3/64 .0469 14 .1820 V .3770 27/32 .8438 55 .0520 13 .1850 W .3860 21.5mm .8465 54 .0550 3/16 .1875 25/64 .3906 55/64 .8594 1.5mm .0591 12 .1890 10mm .3937 22mm .8661 53 .0595 11 .1910 X .3970 7/8 .8750 1/16 .0625 10 .1932 .4062 .57/64 .8906 51 .0670 5mm .1969 Z .4130 23mm .9055 50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010	1mm	.0394	18	.1695	9mm	.3543	20mm	.7874	
57 .0430 4.5mm .1772 9.5mm .3740 21mm .8268 56 .0465 15 .1800 3/8 .3750 53/64 .8281 3/64 .0469 14 .1820 V .3770 27/32 .8438 55 .0520 13 .1850 W .3860 21.5mm .8465 54 .0550 3/16 .1875 25/64 .3906 55/64 .8594 1.5mm .0591 12 .1890 10mm .3937 22mm .8661 53 .0595 11 .1910 X .3970 7/8 .8750 1/16 .0625 10 .1932 .4062 .57/64 .8906 51 .0670 5mm .1969 Z .4130 23mm .9055 50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010	60	.0400	11/64	1719		.3580	51/64	.7969	
57 .0430 4.5mm .1772 9.5mm .3740 21mm .8268 56 .0465 15 .1800 3/8 .3750 53/64 .8281 3/64 .0469 14 .1820 V .3770 27/32 .8438 55 .0520 13 .1850 W .3860 21.5mm .8465 54 .0550 3/16 .1875 25/64 .3906 55/64 .8594 1.5mm .0591 12 .1890 10mm .3937 22mm .8661 53 .0595 11 .1910 X .3970 7/8 .8750 1/16 .0625 10 .1932 .4062 .57/64 .8906 51 .0670 5mm .1969 Z .4130 23mm .9055 50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010	58	.0420	16	.1770	23/64 U	.3680	13/16	.8125	
1.5mm	57	.0430	4.5mm	.1772	9.5mm	I 374N I	21mm	8268	
1.5mm	56	.0465	15	.1800	3/8	.3750	53/64	.8281	
1.5mm	3/64 55	0520	14 13	.1820 1850	W	3860	27/32 21.5mm	. 8438 8465	
1.5mm	54	.0550	3/16	.1875	25/64	.3906	55/64	.8594	
50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010 27/64 .4219 59/64 .9219 48 .0760 13/64 .2031 11mm .4331 23.5mm .9252 5/64 .0781 6 .2040 7/16 .4375 15/16 .9375 47 .0785 5 .2055 11.5mm .4528 24mm .9449 2mm .0787 4 .2090 29/64 .4531 61/64 .9531 46 .0810 3 .2130 15/32 .4688 24.5mm .9646 45 .0820 5.5mm .2165 12mm .4724 31/32 .9688 44 .0860 7/32 .2188 31/64 .4844 25mm .9844 43 .0890 2 .2210 12.5 .4921 63/64 .9844	1.5mm	.0591	12	.1890	10mm	.3937	22mm	.8661	
50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010 27/64 .4219 59/64 .9219 48 .0760 13/64 .2031 11mm .4331 23.5mm .9252 5/64 .0781 6 .2040 7/16 .4375 15/16 .9375 47 .0785 5 .2055 11.5mm .4528 24mm .9449 2mm .0787 4 .2090 29/64 .4531 61/64 .9531 46 .0810 3 .2130 15/32 .4688 24.5mm .9646 45 .0820 5.5mm .2165 12mm .4724 31/32 .9688 44 .0860 7/32 .2188 31/64 .4844 25mm .9844 43 .0890 2 .2210 12.5 .4921 63/64 .9844	53	.0595	11	.1910	X	.3970	7/8	.8750	
50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010 27/64 .4219 59/64 .9219 48 .0760 13/64 .2031 11mm .4331 23.5mm .9252 5/64 .0781 6 .2040 7/16 .4375 15/16 .9375 47 .0785 5 .2055 11.5mm .4528 24mm .9449 2mm .0787 4 .2090 29/64 .4531 61/64 .9531 46 .0810 3 .2130 15/32 .4688 24.5mm .9646 45 .0820 5.5mm .2165 12mm .4724 31/32 .9688 44 .0860 7/32 .2188 31/64 .4844 25mm .9844 43 .0890 2 .2210 12.5 .4921 63/64 .9844	52	.0635	9	.1960		.4062	57/64	.8906	
50 .0700 8 .1990 10.5mm .4134 29/32 .9062 49 .0730 7 .2010 27/64 .4219 59/64 .9219 48 .0760 13/64 .2031 11mm .4331 23.5mm .9252 5/64 .0781 6 .2040 7/16 .4375 15/16 .9375 47 .0785 5 .2055 11.5mm .4528 24mm .9449 2mm .0787 4 .2090 29/64 .4531 61/64 .9531 46 .0810 3 .2130 15/32 .4688 24.5mm .9646 45 .0820 5.5mm .2165 12mm .4724 31/32 .9688 44 .0860 7/32 .2188 31/64 .4844 25mm .9844 43 .0890 2 .2210 12.5 .4921 63/64 .9844	51	.0670	5mm	.1969	Z	1 41:30 1	23mm	.9055	
2mm	50	.0700	8	.1990	10.5mm	.4134	29/32	.9062	
2mm	49	.0760	13/64	.2010 . 2031	27/64 11mm	4331	23.5mm	9252	
2mm	5/64	.0781	6	.2040	7/16	.4375	15/16	.9375	
44	47	1 0/85 1	5	.2055	11.5mm	.4528	24mm	.9449	
44	2mm 46	.0/8/	3	.2090	29/64 15/32	.4531 4688	61/64 24.5mm	.9531 9646	
44	45	.0820	5.5mm	.2165	12mm	.4724	31/32	.9688	
43 .0890 2 .2210 12.5 .4921 63/64 .9844 42 .0935 1 .2280 1/2 .5000 1 1.000	44	.0860	7/32	.2188	31/64	.4844	25mm	.9843	
	43	.0890	1	2280	1/2.5	.5000	1	1.000	
3/32 .0938 A .2340 13mm .5118	42 3/32	.0935 .0938	À	.2280 .2340	1/2 13mm	.5118		1.000	



