

Get better performance and value from Hertel drills

Benefits: Hertel drills now offer improved quality and tool life to maximize your productivity. They are manufactured from quality High Speed Steel and Cobalt to meet all of your production needs.

HSS Jobber Drills

- HSS works well in free-cutting and carbon steels, as well as with soft nonferrous materials like aluminum, brass, bronze and copper
- Oxide coating aids in wear resistance and chip flow
- 118° Point allows for quick penetration
- 135° Split Point offers self-centering and prevents “walking”



Cobalt 135° Jobber Drills

- Cobalt provides better wear resistance, and higher hardness and toughness than HSS
- For use in high-temp alloys such as titanium and Inconel, as well as cast iron and high-nickel stainless steels
- TiAlN coating is used where extremely high machining temperatures are generated
- 135° Split Point offers self-centering and prevents “walking”



Additional drills available.

For more information, go to mscdirect.com/hertel or call 800.521.9520.



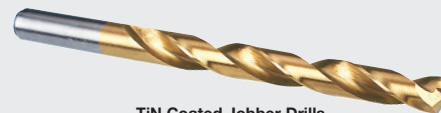
Screw Machine Drills



Cobalt Screw Machine Drills



Cobalt Screw Machine TiAlN Coated Drills



TiN Coated Jobber Drills

Jobber Drills



HSS Jobber Drills



Cobalt 135° Jobber Drills

Size (In.)	Dec. Equiv. (In.)	Flute L (In.)	OAL (In.)	HSS			Cobalt 135°	
				Bright	118° Oxide	135° Oxide	Cobalt	TiAIN
1/16	0.0625	7/8	1-7/8	85703353	71205637	84579069	04138194	04139556
5/64	0.0781	1	2	85703361	71205645	84579077	04138202	04139564
3/32	0.0938	1-1/4	2-1/4	85703379	71205652	84580471	04138210	04139572
7/64	0.1094	1-1/2	2-5/8	85703387	71205660	84579085	04138228	04139580
1/8	0.1250	1-5/8	2-3/4	85703395	71205678	84579093	04138236	04139598
9/64	0.1406	1-3/4	2-7/8	85703403	71205686	84579101	04138244	04139606
5/32	0.1562	2	3-1/8	85703411	71205694	84579119	04138251	04139614
11/64	0.1719	2-1/8	3-1/4	85703429	71205702	84579127	04138269	04139622
3/16	0.1875	2-5/16	3-1/2	85703437	71205710	84579135	04138277	04139630
13/64	0.2031	2-7/16	3-5/8	85703445	71205728	84579143	04138285	04139648
7/32	0.2188	2-1/2	3-3/4	85703452	71205736	84579150	04138293	04139656
1/4	0.2500	2-3/4	4	85703478	71205751	84579176	04138319	04139671
17/64	0.2656	2-7/8	4-1/8	85703486	71205769	84579184	04138327	04139689
9/32	0.2812	2-15/16	4-1/4	85703494	71205777	84579192	04138335	04139697
5/16	0.3125	3-3/16	4-1/2	85703510	71205793	84579218	04138350	04139713
11/32	0.3438	3-7/16	4-3/4	85703536	71205819	84579234	04138376	04139739
3/8	0.3750	3-5/8	5	85703551	71205835	84579259	04138392	04139754
1/2	0.5000	4-1/2	6	85703635	71205918	84579333	04138475	04139838

Hertel Drill Speeds and Feeds

Material Group	Workpiece Material	Treatment/Alloy	Hardness HB	HSS 118° Point				Cobalt 135° Point			
				SFPM Uncoated	SFPM TiN Coated	SFPM TiCN Coated	SFPM TiAIN Coated	SFPM Uncoated	SFPM TiN Coated	SFPM TiCN Coated	SFPM TiAIN/ TiTN Coated
P	Non-Alloyed Steel	Annealed	125	80-110	100-135	125-165	155-205	100-135	125-165	155-205	190-255
		Annealed	150-250	45-70	55-85	65-105	80-130	55-85	65-105	80-130	100-160
		Tempered	300					30-45	40-55	50-70	65-90
	Low-Alloyed Steel	Annealed	180	45-70	55-85	65-105	80-130	55-85	65-105	80-130	100-160
		Tempered	250-300					30-45	40-55	50-70	65-90
		Tempered	350					15-25	20-30	25-35	35-45
	High-Alloyed Steel	Annealed	200	45-70	55-85	65-105	80-130	55-85	65-105	80-130	100-160
		Tempered	350					15-25	20-30	25-35	35-45
Corrosion-Resistant Steel	Ferritic	200	45-70	55-85	65-105	80-130	55-85	65-105	80-130	100-160	
	Martensitic	325					15-25	20-30	25-35	35-45	
M	Stainless Steel	Ferritic/Martensitic	200					25-50	30-60	40-75	50-90
		Austenitic	180					30-60	40-75	50-90	60-110
		Duplex	230-260					15-25	20-30	25-35	35-45
		PH/400 Series	180	30-60	40-75	50-90	60-110	40-75	50-90	60-110	75-135
K	Gray Cast Iron	Pearlitic/Ferritic	180	70-100	85-125	105-155	130-190	85-125	105-155	130-190	160-235
		Pearlitic/Martensitic	260	50-70	60-85	75-105	95-130	60-85	75-105	95-130	115-160
	Nodular Cast Iron	Ferritic	160	70-80	85-100	105-125	130-155	85-100	105-125	130-155	160-190
		Pearlitic		70-80	85-100	105-125	130-155	85-100	105-125	130-155	160-190
	Malleable Cast Iron	Ferritic	130	70-80	85-100	105-125	130-155	85-100	105-125	130-155	160-190
Pearlitic		230	70-80	85-100	105-125	130-155	85-100	105-125	130-155	160-190	
N	Aluminum Wrought Alloys	Non-Hardened		Use of Parabolic Drills Recommended for Aluminum							
			100	200-300	250-375	300-400		250-375	300-400	375-500	
	Copper & Copper Alloys (Bronze, Brass)	Brass	90	150-250	180-300	215-375		180-300	215-375	265-450	
		Bronze	100	100-200	125-250	155-180		125-250	155-180	190-210	
		Lead-Free Copper	100	100-200	125-250	155-180		125-250	155-180	190-210	
	Nonmetallic Materials			1500	1500	1500		1500	1500	1500	
			1500	1500	1500		1500	1500	1500		
			1500	1500	1500		1500	1500	1500		
S	Heat-Resistant Alloys	Inconel 600 Series	200					20-35	25-45	30-55	
		Inconel 700 Series	280					10-15	15-20	25-30	
		Hastelloy	250					20-35	25-45	30-55	
		Monel	300					50-60	60-75	75-95	
	Titanium Alloys	Pure Titanium Alpha, Beta Alloys						25-40	30-50	35-65	

Feed per Revolution (IPR) by Diameter:

#60 to 7/64"	1/8" to 15/64"	1/4" to 5/16"	3/8" to 7/16"	1/2" to 9/16"	5/8" to 11/16"	3/4" to 13/16"	7/8" to 1-1/8"	1-1/4" to 1-1/2"	Over 1-1/2"
0.001-0.002	0.002-0.005	0.006-0.010	0.008-0.012	0.010-0.014	0.012-0.016	0.013-0.018	0.015-0.025	0.020-0.030	0.020 and up

The speeds and feeds listed here are conservative recommendations for initial setup. In actual use, depending on the machine and/or setup condition and workpiece material, higher speeds and feeds may be achievable. Using these speeds and feeds as a starting point, cutting conditions can be gradually adjusted until the optimum rates for the application are found.

For the expertise you have come to trust, visit mscdirect.com/hertel or call 800.521.9520.

Exclusively Distributed By