



XHP, 3X Diameter, Solid Carbide Drills Technical Information

- Solid Carbide XHP 3X Diameter drills
- h6 shank and h7 tool tolerances
- Great drill for job shop and production applications
- High performance at an economical price
- 140° point geometry eliminates the need for spotting
- Recommended for steels, stainless, cast iron and special alloy's
- AlTiN Coated for lubricity and high heat control
- 45° Corner chamfer protects from material breakout on through hole applications and minimizes burrs

XHP, 3X Diameter, Solid Carbide Drills Speeds & Feeds

Material	Grades	Starting SFM	Tool Diameter (IPR)								
			1/8 (.1250)	5/32 (.1562)	3/16 (.1875)	1/4 (.2500)	5/16 (.3125)	3/8 (.3750)	1/2 (.5000)	5/8 (.6250)	
P - Steels											
High Strength Tool Steel	A2, D2, P20, H11, H13, S2, O1	130-195									
Low Carbon	A36, 12L14, 12L15, 1005, 1018, 1020, 1108-1119, 1213-1215, 1513-1518, 4012, 5015, 9310	460-590	.0057	.0071	.0071	.0089	.0112	.0143	.0143	.0178	
Medium Carbon	1040-1095, 1140-1151, 1330-1345, 1520-1572, 4023-4063, 4120-4161, 4330-4340, 4620-4640, 8620-8660, 8740-8750, 6150, 51000, 52100	260-330									
M - Stainless Steels											
Austenitic	300 Series	130-195	.0028	.0035	.0035	.0043	.0055	.0071	.0071	.0089	
Martensitic	400 Series	295-360									
K - Cast Irons											
	Ductile	165-230	.0061	.0076	.0085	.012	.012	.0152	.0171	.0209	
	Gray	330-460									
S - Special Alloys											
	High Temp Alloys	N/A									
	Titanium Alloys	N/A									

NOTE: Speeds and Feeds listed are estimated and will vary by application.



XHP, 3X Diameter, Coolant Fed, Carbide Drills Technical Information



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P - Steels										
High Strength Tool Steel	A2, D2, P20, H11, H13, S2, 01	195-260								
Low Carbon	A36, 12L14, 12L15, 1005, 1018, 1020, 1108-1119, 1213-1215, 1513-1518, 4012, 5015, 9310	560-690	.0057	.0071	.0071	.0089	.0112	.0143	.0143	.0178
Medium Carbon	1040-1095, 1140-1151, 1330-1345, 1520-1572, 4023-4063, 4120-4161, 4330-4340, 4620-4640, 8620-8660, 8740-8750, 6150, 51000, 52100	295-425								
M - Stainless Steels										
Austenitic	300 Series	195-260	.0028	.0035	.0035	.0043	.0055	.0071	.0071	.0089
Martensitic	400 Series	330-460								
K - Cast Irons										
	Ductile	230-295	.0061	.0076	.0085	.012	.012	.0152	.0171	.0209
	Gray	425-560								
S - Special Alloys										
	High Temp Alloys	35-100	.0013	.0016	.0019	.0025	.0031	.0038	.0050	.0063
	Titanium Alloys	130-195								

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P - Steels											
High Strength Tool Steel	A2, D2, P20, H11, H13, S2, 01	130-195									
Low Carbon	A36, 12L14, 12L15, 1005, 1018, 1020, 1108-1119, 1213-1215, 1513-1518, 4012, 5015, 9310	425- 560	.0057	.0071	.0071	.0089	.0112	.0143	.0143	.0178	
Medium Carbon	1040-1095, 1140-1151, 1330-1345, 1520-1572, 4023-4063, 4120-4161, 4330-4340, 4620-4640, 8620-8660, 8740-8750, 6150, 51000, 52100	230-295									
M - Stainless Steels											
Austenitic	300 Series	130-195	.0028	.0035	.0035	.0043	.0055	.0071	.0071	.0089	
Martensitic	400 Series	260-330									
K - Cast Irons											
	Ductile	130-195	.0061	.0076	.0085	.012	.012	.0152	.0171	.0209	
	Gray	295-425									
S - Special Alloys											
	High Temp Alloys	N/A									
	Titanium Alloys	N/A									

NOTE: Speeds and Feeds listed are estimated and will vary by application.



XHP, 5X Diameter, Coolant Fed Drills Technical Information



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P - Steels										
High Strength Tool Steel	A2, D2, P20, H11, H13, S2, 01	165-230								
Low Carbon	A36, 12L14, 12L15, 1005, 1018, 1020, 1108-1119, 1213-1215, 1513-1518, 4012, 5015, 9310	525-655	.0057	.0071	.0071	.0089	.0112	.0143	.0143	.0178
Medium Carbon	1040-1095, 1140-1151, 1330-1345, 1520-1572, 4023-4063, 4120-4161, 4330-4340, 4620-4640, 8620-8660, 8740-8750, 6150, 51000, 52100	295-360								
M - Stainless Steels										
Austenitic	300 Series	165-230	.0028	.0035	.0035	.0043	.0055	.0071	.0071	.0089
Martensitic	400 Series	295-425								
K - Cast Irons										
	Ductile	195-260	.0061	.0076	.0085	.012	.012	.0152	.0171	.0209
	Gray	395-525								
S - Special Alloys										
	High Temp Alloys	35-65	.0013	.0016	.0019	.0025	.0031	.0038	.0050	.0063
	Titanium Alloys	100-165								

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