



Recommended Cutting Data Series CXDSS and CXDSR - Inch 3xD & 5xD, Solid Drilling

Material Group	I S O	Hardness	Vc - SFM		Drill Diameter (inch)				
					1/8	3/16	1/4	5/16	
			Low	Mid	High	Feed (in/rev)			
Low Carbon Steels 12L14, 1018, A36	P	≤ 180 HB	280	350	420	.0031 - .0044	.0047 - .0066	.0063 - .0088	.0078 - .0109
Med Carbon / Alloy Steels 1045, 1050, 4140, 4340		≤ 38 HRC	230	290	350	.0031 - .0044	.0047 - .0066	.0063 - .0088	.0078 - .0109
Die / Tool Steels A2, D2, H13, P20		≤ 45 HRC	140	180	220	.0019 - .0031	.0028 - .0047	.0038 - .0063	.0047 - .0078
Ferritic / Martensitic Stainless 400 Series	M	≤ 28 HRC	200	250	300	.0025 - .0038	.0038 - .0056	.0050 - .0075	.0063 - .0094
Austenitic Stainless 300 Series			100	120	140	.0025 - .0038	.0038 - .0056	.0050 - .0075	.0063 - .0094
PH Stainless 15-5 PH, 17-4 PH, 17-7 PH		≤ 45 HRC	90	110	130	.0019 - .0031	.0028 - .0047	.0038 - .0063	.0047 - .0078
High Temp Alloys Inconel, Hastelloy, Monel	S	≤ 42 HRC	50	60	70	.0013 - .0019	.0019 - .0028	.0025 - .0038	.0031 - .0047
Titanium Alloys 6Al-4V			80	100	120	.0019 - .0025	.0028 - .0038	.0038 - .0050	.0047 - .0063
Cast Iron - Gray	K	≤ 240 HB	320	400	480	.0038 - .0050	.0056 - .0075	.0075 - .0100	.0094 - .0125
Cast Iron - Ductile & Malleable		> 240 HB	180	230	280	.0031 - .0044	.0047 - .0066	.0063 - .0088	.0078 - .0109

Material Group	I S O	Hardness	Vc - SFM		Drill Diameter (inch)				
					3/8	1/2	5/8	3/4	
			Low	Mid	High	Feed (in/rev)			
Low Carbon Steels 12L14, 1018, A36	P	≤ 180 HB	280	350	420	.0094 - .0131	.0125 - .0175	.0156 - .0219	.0188 - .0263
Med Carbon / Alloy Steels 1045, 1050, 4140, 4340		≤ 38 HRC	230	290	350	.0094 - .0131	.0125 - .0175	.0156 - .0219	.0188 - .0263
Die / Tool Steels A2, D2, H13, P20		≤ 45 HRC	140	180	220	.0056 - .0094	.0075 - .0125	.0094 - .0156	.0113 - .0188
Ferritic / Martensitic Stainless 400 Series	M	≤ 28 HRC	200	250	300	.0075 - .0113	.0100 - .0150	.0125 - .0188	.0150 - .0225
Austenitic Stainless 300 Series			100	120	140	.0075 - .0113	.0100 - .0150	.0125 - .0188	.0150 - .0225
PH Stainless 15-5 PH, 17-4 PH, 17-7 PH		≤ 45 HRC	90	110	130	.0056 - .0094	.0075 - .0125	.0094 - .0156	.0113 - .0188
High Temp Alloys Inconel, Hastelloy, Monel	S	≤ 42 HRC	50	60	70	.0038 - .0056	.0050 - .0075	.0063 - .0094	.0075 - .0113
Titanium Alloys 6Al-4V			80	100	120	.0056 - .0075	.0075 - .0100	.0094 - .0125	.0113 - .0150
Cast Iron - Gray	K	≤ 240 HB	320	400	480	.0113 - .0150	.0150 - .0200	.0188 - .0250	.0225 - .0300
Cast Iron - Ductile & Malleable		> 240 HB	180	230	280	.0094 - .0131	.0125 - .0175	.0156 - .0219	.0188 - .0263

Technical data provided should be considered advisory only as variations may be necessary depending on the particular application.

For product information, call your local distributor.



Recommended Cutting Data Series CXDSS and CXDSR - Metric 3xD & 5xD, Solid Drilling

Material Group	I S O	Hardness	Vc - M/Min		Drill Diameter (mm)				
					3	5	6	8	
			Low	Mid	High	Feed (mm/rev)			
Low Carbon Steels 12L14, 1018, A36	P	≤ 180 HB	85	105	125	0.075 - 0.105	0.125 - 0.175	0.150 - 0.210	0.200 - 0.280
Med Carbon / Alloy Steels 1045, 1050, 4140, 4340		≤ 38 HRC	70	90	110	0.075 - 0.105	0.125 - 0.175	0.150 - 0.210	0.200 - 0.280
Die / Tool Steels A2, D2, H13, P20		≤ 45 HRC	45	55	65	0.045 - 0.075	0.075 - 0.125	0.090 - 0.150	0.120 - 0.200
Ferritic / Martensitic Stainless 400 Series	M	≤ 28 HRC	60	75	90	0.060 - 0.090	0.100 - 0.150	0.120 - 0.180	0.160 - 0.240
Austenitic Stainless 300 Series			30	35	40	0.060 - 0.090	0.100 - 0.150	0.120 - 0.180	0.160 - 0.240
PH Stainless 15-5 PH, 17-4 PH, 17-7 PH		≤ 45 HRC	30	35	40	0.045 - 0.075	0.075 - 0.125	0.090 - 0.150	0.120 - 0.200
High Temp Alloys Inconel, Hastelloy, Monel	S	≤ 42 HRC	15	20	25	0.030 - 0.045	0.050 - 0.075	0.060 - 0.090	0.080 - 0.120
Titanium Alloys 6Al-4V			25	30	35	0.045 - 0.060	0.075 - 0.100	0.090 - 0.120	0.120 - 0.160
Cast Iron - Gray	K	≤ 240 HB	95	120	145	0.090 - 0.120	0.150 - 0.200	0.110 - 0.210	0.130 - 0.180
Cast Iron - Ductile & Malleable		> 240 HB	55	70	85	0.075 - 0.105	0.125 - 0.175	0.150 - 0.210	0.200 - 0.280

Material Group	I S O	Hardness	Vc - M/Min		Drill Diameter (mm)				
					10	12	16	20	
			Low	Mid	High	Feed (mm/rev)			
Low Carbon Steels 12L14, 1018, A36	P	≤ 180 HB	85	105	125	0.250 - 0.350	0.300 - 0.420	0.400 - 0.560	0.500 - 0.700
Med Carbon / Alloy Steels 1045, 1050, 4140, 4340		≤ 38 HRC	70	90	110	0.250 - 0.350	0.300 - 0.420	0.400 - 0.560	0.500 - 0.700
Die / Tool Steels A2, D2, H13, P20		≤ 45 HRC	45	55	65	0.150 - 0.250	0.180 - 0.300	0.240 - 0.400	0.300 - 0.500
Ferritic /Martensitic Stainless 400 Series	M	≤ 28 HRC	60	75	90	0.200 - 0.300	0.240 - 0.360	0.320 - 0.480	0.400 - 0.600
Austenitic Stainless 300 Series			30	35	40	0.200 - 0.300	0.240 - 0.360	0.320 - 0.480	0.400 - 0.600
PH Stainless 15-5 PH, 17-4 PH, 17-7 PH		≤ 45 HRC	30	35	40	0.150 - 0.250	0.180 - 0.300	0.240 - 0.400	0.300 - 0.500
High Temp Alloys Inconel, Hastelloy, Monel	S	≤ 42 HRC	15	20	25	0.100 - 0.150	0.120 - 0.180	0.160 - 0.240	0.200 - 0.300
Titanium Alloys 6Al-4V			25	30	35	0.150 - 0.200	0.180 - 0.240	0.240 - 0.320	0.300 - 0.400
Cast Iron - Gray	K	≤ 240 HB	95	120	145	0.300 - 0.400	0.360 - 0.480	0.480 - 0.640	0.600 - 0.800
Cast Iron - Ductile & Malleable		> 240 HB	55	70	85	0.250 - 0.350	0.300 - 0.420	0.400 - 0.560	0.500 - 0.700

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