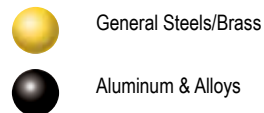


10xD

Series 219

Application Materials:



Bright Finish



External Coolant

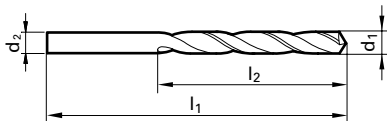


Straight Shank

High Helix

HSS, High Helix (Type W), taper length, 130° point, Form A web thinned
>14.0mm dia., standard straight shank, RH helix

Cut / Shank Dia. = h8 tolerance range

 $d_1 = d_2$

Speeds & Feeds
information pg 426

Diameter (d1)		Wire / letter	mm	l1 mm	l2 mm	EDP #
Dec. inch	Fract. inch					
0.0157	1/64		0.400	30.00	10.00	9002190004000
0.0197			0.500	32.00	12.00	9002190005000
0.0236			0.600	35.00	15.00	9002190006000
0.0256			0.650	38.00	18.00	9002190006500
0.0276			0.700	42.00	21.00	9002190007000
0.0291		69	0.740	42.00	21.00	9002190007400
0.0295			0.750	42.00	21.00	9002190007500
0.0315			0.800	46.00	25.00	9002190008000
0.0335			0.850	46.00	25.00	9002190008500
0.0354			0.900	51.00	29.00	9002190009000
0.0374			0.950	51.00	29.00	9002190009500
0.0394			1.000	56.00	33.00	9002190010000
0.0413			1.050	56.00	33.00	9002190010500
0.0433			1.100	60.00	37.00	9002190011000
0.0453			1.150	60.00	37.00	9002190011500
0.0472			1.200	65.00	41.00	9002190012000
0.0480			1.220	65.00	41.00	9002190012200
0.0492			1.250	65.00	41.00	9002190012500
0.0512			1.300	65.00	41.00	9002190013000
0.0531			1.350	70.00	45.00	9002190013500
0.0551		54	1.400	70.00	45.00	9002190014000
0.0571			1.450	70.00	45.00	9002190014500
0.0591			1.500	70.00	45.00	9002190015000
0.0610			1.550	76.00	50.00	9002190015500
0.0630			1.600	76.00	50.00	9002190016000
0.0650			1.650	76.00	50.00	9002190016500
0.0669		51	1.700	76.00	50.00	9002190017000
0.0689			1.750	80.00	53.00	9002190017500
0.0701		50	1.780	80.00	53.00	9002190017800
0.0709			1.800	80.00	53.00	9002190018000
0.0728		49	1.850	80.00	53.00	9002190018500
0.0748			1.900	80.00	53.00	9002190019000
0.0768			1.950	85.00	56.00	9002190019500
0.0780	5/64		1.980	85.00	56.00	9002190019800
0.0787			2.000	85.00	56.00	9002190020000
0.0807			2.050	85.00	56.00	9002190020500
0.0827			2.100	85.00	56.00	9002190021000
0.0846			2.150	90.00	59.00	9002190021500
0.0866			2.200	90.00	59.00	9002190022000
0.0886			2.250	90.00	59.00	9002190022500
0.0906			2.300	90.00	59.00	9002190023000
0.0925			2.350	90.00	59.00	9002190023500
0.0937	3/32		2.380	95.00	62.00	9002190023800
0.0945			2.400	95.00	62.00	9002190024000
0.0965			2.450	95.00	62.00	9002190024500
0.0984			2.500	95.00	62.00	9002190025000
0.1004			2.550	95.00	62.00	9002190025500
0.1024			2.600	95.00	62.00	9002190026000
0.1043			2.650	95.00	62.00	9002190026500
0.1063			2.700	100.00	66.00	9002190027000
0.1083			2.750	100.00	66.00	9002190027500
0.1102			2.800	100.00	66.00	9002190028000
0.1122			2.850	100.00	66.00	9002190028500
0.1142			2.900	100.00	66.00	9002190029000
0.1161		32	2.950	100.00	66.00	9002190029500

Diameter (d1)		Wire / letter	mm	l1 mm	l2 mm	EDP #
Dec. inch	Fract. inch					
0.1181			3.000	100.00	66.00	9002190030000
0.1220			3.100	106.00	69.00	9002190031000
0.1240			3.150	106.00	69.00	9002190031500
0.1248	1/8		3.170	106.00	69.00	9002190031700
0.1260			3.200	106.00	69.00	9002190032000
0.1280			3.250	106.00	69.00	9002190032500
0.1299			3.300	106.00	69.00	9002190033000
0.1319			3.350	106.00	69.00	9002190033500
0.1339			3.400	112.00	73.00	9002190034000
0.1358		29	3.450	112.00	73.00	9002190034500
0.1378			3.500	112.00	73.00	9002190035000
0.1398			3.550	112.00	73.00	9002190035500
0.1417			3.600	112.00	73.00	9002190036000
0.1437			3.650	112.00	73.00	9002190036500
0.1457			3.700	112.00	73.00	9002190037000
0.1476			3.750	112.00	73.00	9002190037500
0.1496		25	3.800	119.00	78.00	9002190038000
0.1535			3.900	119.00	78.00	9002190039000
0.1575			4.000	119.00	78.00	9002190040000
0.1614			4.100	119.00	78.00	9002190041000
0.1634			4.150	119.00	78.00	9002190041500
0.1654			4.200	119.00	78.00	9002190042000
0.1673			4.250	119.00	78.00	9002190042500
0.1693		18	4.300	126.00	82.00	9002190043000
0.1732			4.400	126.00	82.00	9002190044000
0.1772		16	4.500	126.00	82.00	9002190045000
0.1811			4.600	126.00	82.00	9002190046000
0.1850		13	4.700	126.00	82.00	9002190047000
0.1890		12	4.800	132.00	87.00	9002190048000
0.1929			4.900	132.00	87.00	9002190049000
0.1969			5.000	132.00	87.00	9002190050000
0.2008			5.100	132.00	87.00	9002190051000
0.2047			5.200	132.00	87.00	9002190052000
0.2087			5.300	132.00	87.00	9002190053000
0.2126			5.400	139.00	91.00	9002190054000
0.2165			5.500	139.00	91.00	9002190055000
0.2205			5.600	139.00	91.00	9002190056000
0.2244			5.700	139.00	91.00	9002190057000
0.2283			5.800	139.00	91.00	9002190058000
0.2323			5.900	139.00	91.00	9002190059000
0.2362			6.000	139.00	91.00	9002190060000
0.2402			6.100	148.00	97.00	9002190061000
0.2441			6.200	148.00	97.00	9002190062000
0.2461		D	6.250	148.00	97.00	9002190062500
0.2480			6.300	148.00	97.00	9002190063000
0.2520			6.400	148.00	97.00	9002190064000
0.2559			6.500	148.00	97.00	9002190065000
0.2598			6.600	148.00	97.00	9002190066000
0.2638			6.700	148.00	97.00	9002190067000
0.2677			6.800	156.00	102.00	9002190068000
0.2717		I	6.900	156.00	102.00	9002190069000
0.2756			7.000	156.00	102.00	9002190070000
0.2795			7.100	156.00	102.00	9002190071000
0.2835			7.200	156.00	102.00	9002190072000
0.2874			7.300	156.00	102.00	9002190073000

Series 219

Speeds & Feeds information pg 426

Dec. inch	Diameter (d1)		l1 mm	l2 mm	EDP #	
	Fract. inch	Wire / letter				
0.2913			7.400	156.00	102.00	9002190074000
0.2953			7.500	156.00	102.00	9002190075000
0.3031			7.700	165.00	109.00	9002190077000
0.3071			7.800	165.00	109.00	9002190078000
0.3110			7.900	165.00	109.00	9002190079000
0.3150			8.000	165.00	109.00	9002190080000
0.3169			8.050	165.00	109.00	9002190080500
0.3189			8.100	165.00	109.00	9002190081000
0.3228		P	8.200	165.00	109.00	9002190082000
0.3268			8.300	165.00	109.00	9002190083000
0.3307			8.400	165.00	109.00	9002190084000
0.3346			8.500	165.00	109.00	9002190085000
0.3366			8.550	175.00	115.00	9002190085500
0.3386			8.600	175.00	115.00	9002190086000
0.3425			8.700	175.00	115.00	9002190087000
0.3465			8.800	175.00	115.00	9002190088000
0.3504			8.900	175.00	115.00	9002190089000
0.3543			9.000	175.00	115.00	9002190090000
0.3583			9.100	175.00	115.00	9002190091000
0.3622			9.200	175.00	115.00	9002190092000
0.3740			9.500	175.00	115.00	9002190095000
0.3819			9.700	184.00	121.00	9002190097000
0.3858		W	9.800	184.00	121.00	9002190098000

Dec. inch	Diameter (d1)		l1 mm	l2 mm	EDP #	
	Fract. inch	Wire / letter				
0.3937			10.000	184.00	121.00	9002190100000
0.4016			10.200	184.00	121.00	9002190102000
0.4134			10.500	184.00	121.00	9002190105000
0.4252			10.800	195.00	128.00	9002190108000
0.4331			11.000	195.00	128.00	9002190110000
0.4528			11.500	195.00	128.00	9002190115000
0.4724			12.000	205.00	134.00	9002190120000
0.4921			12.500	205.00	134.00	9002190125000
0.5118			13.000	205.00	134.00	9002190130000
0.5157	33/64		13.100	205.00	134.00	9002190131000
0.5512			14.000	214.00	140.00	9002190140000
0.5709			14.500	220.00	144.00	9002190145000
0.5906			15.000	220.00	144.00	9002190150000
0.6299			16.000	227.00	149.00	9002190160000
0.6693			17.000	235.00	154.00	9002190170000
0.7087			18.000	241.00	158.00	9002190180000
0.7480			19.000	247.00	162.00	9002190190000
0.7874			20.000	254.00	166.00	9002190200000

Alternative Drill Series:
#501 HSS, GT50, 10xD, 118 pt, Bright

*Items listed in red are non-stocked items, and may take 2 - 6 weeks to receive