

10xD

Twist Drills

Steam Oxide
>2.36 mm dia.

External Coolant



Straight Shank

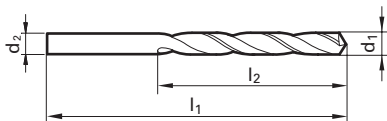
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Series 217

General Purpose

HSS, general purpose (Type N), taper length, 118° point, Form A web
thinned >14.0mm dia., standard straight shank, RH helix

Cut / Shank Dia. = h8 tolerance range



$$d_1 = d_2$$

Application Materials:



General Steels/Brass



Universal Steels



Cast Iron

Diameter (d1)			l1 mm	l2 mm
Dec. inch	Fract. inch	Wire / letter		
0.0157	1/64		4.00	10.00
0.0173			4.40	10.00
0.0185			4.70	10.00
0.0197			5.00	12.00
0.0205			5.20	12.00
0.0217			5.50	15.00
0.0224	74		5.70	15.00
0.0236			6.00	15.00
0.0244			6.20	18.00
0.0256			6.50	18.00
0.0276			7.00	21.00
0.0287			7.30	21.00
0.0295			7.50	21.00
0.0299			7.60	25.00
0.0311	1/32	68	7.90	25.00
0.0315			8.00	25.00
0.0323			8.20	25.00
0.0335			8.50	25.00
0.0354			9.00	29.00
0.0362			9.20	29.00
0.0374			9.50	29.00
0.0382	62		9.70	33.00
0.0394			1.00	33.00
0.0402	60		1.020	33.00
0.0413			1.050	33.00
0.0421	58		1.070	37.00
0.0429	57		1.090	37.00
0.0433			1.100	37.00
0.0441			1.120	37.00
0.0453			1.150	37.00
0.0465	56		1.180	37.00
0.0469	3/64		1.190	41.00
0.0472			1.200	41.00
0.0492			1.250	41.00
0.0512			1.300	41.00
0.0520	55		1.320	41.00
0.0531			1.350	45.00
0.0551	54		1.400	45.00
0.0571			1.450	45.00
0.0591			1.500	45.00
0.0594	53		1.510	50.00
0.0610			1.550	50.00
0.0626	1/16		1.590	50.00
0.0630			1.600	50.00
0.0634	52		1.610	50.00
0.0650			1.650	50.00
0.0669	51		1.700	50.00
0.0689			1.750	53.00
0.0701	50		1.780	53.00
0.0709			1.800	53.00
0.0728	49		1.850	53.00
0.0748			1.900	53.00
0.0760	48		1.930	56.00
0.0768			1.950	56.00

Diameter (d1)			l1 mm	l2 mm
Dec. inch	Fract. inch	Wire / letter		
0.0780	5/64		1.980	56.00
0.0787			2.000	56.00
0.0799			2.030	56.00
0.0807			2.050	56.00
0.0811	46		2.060	56.00
0.0819	45		2.080	56.00
0.0827			2.100	56.00
0.0846			2.150	59.00
0.0858	44		2.180	59.00
0.0866			2.200	59.00
0.0886			2.250	59.00
0.0890	43		2.260	59.00
0.0906			2.300	59.00
0.0913			2.320	59.00
0.0925			2.350	59.00
0.0933	42		2.370	62.00
0.0937	3/32		2.380	62.00
0.0945			2.400	62.00
0.0961	41		2.440	62.00
0.0965			2.450	62.00
0.0980	40		2.490	62.00
0.0984			2.500	62.00
0.0996	39		2.530	62.00
0.1004			2.550	62.00
0.1016	38		2.580	62.00
0.1024			2.600	62.00
0.1031			2.620	62.00
0.1039	37		2.640	62.00
0.1043			2.650	62.00
0.1063			2.700	66.00
0.1067	36		2.710	66.00
0.1083			2.750	66.00
0.1094	7/64		2.780	66.00
0.1098	35		2.790	66.00
0.1102			2.800	66.00
0.1122			2.850	66.00
0.1130	33		2.870	66.00
0.1142			2.900	66.00
0.1161	32		2.950	66.00
0.1181			3.000	66.00
0.1201	31		3.050	69.00
0.1220			3.100	69.00
0.1240			3.150	69.00
0.1248	1/8		3.170	69.00
0.1260			3.200	69.00
0.1280			3.250	69.00
0.1283	30		3.260	69.00
0.1299			3.300	69.00
0.1319			3.350	69.00
0.1339			3.400	73.00
0.1358	29		3.450	73.00
0.1378			3.500	73.00
0.1398			3.550	73.00
0.1406	9/64	28	3.570	73.00

Diameter (d1)			l1 mm	l2 mm
Dec. inch	Fract. inch	Wire / letter		
0.1417			3.600	73.00
0.1437			3.650	73.00
0.1441	27		3.660	73.00
0.1457			3.700	73.00
0.1476			3.750	73.00
0.1496	25		3.800	78.00
0.1516			3.850	78.00
0.1520	24		3.860	78.00
0.1535			3.900	78.00
0.1539	23		3.910	78.00
0.1555			3.950	78.00
0.1563	5/32		3.970	78.00
0.1571	22		3.990	78.00
0.1575			4.000	78.00
0.1591	21		4.040	78.00
0.1594			4.050	78.00
0.1610	20		4.090	78.00
0.1614			4.100	78.00
0.1634			4.150	78.00
0.1654			4.200	78.00
0.1661	19		4.220	78.00
0.1673			4.250	78.00
0.1693	18		4.300	82.00
0.1713			4.350	82.00
0.1720	11/64		4.370	82.00
0.1728	17		4.390	82.00
0.1732			4.400	82.00
0.1752			4.450	82.00
0.1772	16		4.500	82.00
0.1799	15		4.570	82.00
0.1811			4.600	82.00
0.1819	14		4.620	82.00
0.1831			4.650	82.00
0.1850	13		4.700	82.00
0.1870			4.750	82.00
0.1874	3/16		4.760	87.00
0.1890	12		4.800	87.00
0.1909	11		4.850	87.00
0.1929			4.900	87.00
0.1937	10		4.920	87.00
0.1949			4.950	87.00
0.1961	9		4.980	87.00
0.1969			5.000	87.00
0.1988			5.050	87.00
0.1992	8		5.060	87.00
0.2008			5.100	87.00
0.2012	7		5.110	87.00
0.2028			5.150	87.00
0.2031	13/64		5.160	87.00
0.2039	6		5.180	87.00
0.2047			5.200	87.00
0.2055	5		5.220	87.00
0.2067			5.250	87.00
0.2087			5.300	87.00

Series 217

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Diameter (d1)					
Dec. inch	Fract. inch	Wire / letter	mm	I1 mm	I2 mm
0.2091		4	5.310	139.00	91.00
0.2106			5.350	139.00	91.00
0.2126			5.400	139.00	91.00
0.2130		3	5.410	139.00	91.00
0.2146			5.450	139.00	91.00
0.2165			5.500	139.00	91.00
0.2185			5.550	139.00	91.00
0.2189	7/32		5.560	139.00	91.00
0.2205			5.600	139.00	91.00
0.2209		2	5.610	139.00	91.00
0.2224			5.650	139.00	91.00
0.2244			5.700	139.00	91.00
0.2264			5.750	139.00	91.00
0.2280		1	5.790	139.00	91.00
0.2283			5.800	139.00	91.00
0.2303			5.850	139.00	91.00
0.2323			5.900	139.00	91.00
0.2343	15/64		5.950	139.00	91.00
0.2362			6.000	139.00	91.00
0.2402			6.100	148.00	97.00
0.2421		C	6.150	148.00	97.00
0.2441			6.200	148.00	97.00
0.2461		D	6.250	148.00	97.00
0.2480			6.300	148.00	97.00
0.2500	1/4	E	6.350	148.00	97.00
0.2520			6.400	148.00	97.00
0.2559			6.500	148.00	97.00
0.2598			6.600	148.00	97.00
0.2638			6.700	148.00	97.00
0.2657	17/64	H	6.750	156.00	102.00
0.2677			6.800	156.00	102.00
0.2717		I	6.900	156.00	102.00
0.2756			7.000	156.00	102.00
0.2795			7.100	156.00	102.00
0.2811	9/32	K	7.140	156.00	102.00
0.2835			7.200	156.00	102.00
0.2854			7.250	156.00	102.00
0.2874			7.300	156.00	102.00
0.2913			7.400	156.00	102.00
0.2953			7.500	156.00	102.00
0.2969	19/64		7.540	165.00	109.00
0.2992			7.600	165.00	109.00
0.3031			7.700	165.00	109.00
0.3051			7.750	165.00	109.00
0.3071			7.800	165.00	109.00
0.3110			7.900	165.00	109.00
0.3126	5/16		7.940	165.00	109.00
0.3150			8.000	165.00	109.00
0.3189			8.100	165.00	109.00
0.3228		P	8.200	165.00	109.00
0.3248			8.250	165.00	109.00
0.3268			8.300	165.00	109.00
0.3280	21/64		8.330	165.00	109.00
0.3307			8.400	165.00	109.00
0.3346			8.500	165.00	109.00
0.3386			8.600	175.00	115.00

Diameter (d1)					
Dec. inch	Fract. inch	Wire / letter	mm	I1 mm	I2 mm
0.3425			8.700	175.00	115.00
0.3437	11/32		8.730	175.00	115.00
0.3445			8.750	175.00	115.00
0.3465			8.800	175.00	115.00
0.3504			8.900	175.00	115.00
0.3543			9.000	175.00	115.00
0.3583			9.100	175.00	115.00
0.3594	23/64		9.130	175.00	115.00
0.3622			9.200	175.00	115.00
0.3642			9.250	175.00	115.00
0.3661			9.300	175.00	115.00
0.3701			9.400	175.00	115.00
0.3740			9.500	175.00	115.00
0.3748	3/8		9.520	184.00	121.00
0.3780			9.600	184.00	121.00
0.3819			9.700	184.00	121.00
0.3839			9.750	184.00	121.00
0.3858		W	9.800	184.00	121.00
0.3898			9.900	184.00	121.00
0.3906	25/64		9.920	184.00	121.00
0.3937			10.000	184.00	121.00
0.3976			10.100	184.00	121.00
0.4016			10.200	184.00	121.00
0.4035			10.250	184.00	121.00
0.4055			10.300	184.00	121.00
0.4063	13/32		10.320	184.00	121.00
0.4094			10.400	184.00	121.00
0.4134			10.500	184.00	121.00
0.4173			10.600	184.00	121.00
0.4213			10.700	195.00	128.00
0.4220	27/64		10.720	195.00	128.00
0.4232			10.750	195.00	128.00
0.4252			10.800	195.00	128.00
0.4291			10.900	195.00	128.00
0.4331			11.000	195.00	128.00
0.4374	7/16		11.110	195.00	128.00
0.4409			11.200	195.00	128.00
0.4429			11.250	195.00	128.00
0.4449			11.300	195.00	128.00
0.4488			11.400	195.00	128.00
0.4528			11.500	195.00	128.00
0.4531	29/64		11.510	195.00	128.00
0.4567			11.600	195.00	128.00
0.4626			11.750	195.00	128.00
0.4646			11.800	195.00	128.00
0.4689	15/32		11.910	205.00	134.00
0.4724			12.000	205.00	134.00
0.4764			12.100	205.00	134.00
0.4803			12.200	205.00	134.00
0.4823			12.250	205.00	134.00
0.4843	31/64		12.300	205.00	134.00
0.4921			12.500	205.00	134.00
0.5000	1/2		12.700	205.00	134.00
0.5020			12.750	205.00	134.00
0.5039			12.800	205.00	134.00
0.5118			13.000	205.00	134.00

Diameter (d1)					
Dec. inch	Fract. inch	Wire / letter	mm	I1 mm	I2 mm
0.5157	33/64		13.100	205.00	134.00
0.5197			13.200	205.00	134.00
0.5311	17/32		13.490	214.00	140.00
0.5315			13.500	214.00	140.00
0.5413			13.750	214.00	140.00
0.5433			13.800	214.00	140.00
0.5469	35/64		13.890	214.00	140.00
0.5512			14.000	214.00	140.00
0.5591			14.200	220.00	144.00
0.5610			14.250	220.00	144.00
0.5626	9/16		14.290	220.00	144.00
0.5709			14.500	220.00	144.00
0.5780	37/64		14.680	220.00	144.00
0.5906			15.000	220.00	144.00
0.5937	19/32		15.080	227.00	149.00
0.6004			15.250	227.00	149.00
0.6063			15.400	227.00	149.00
0.6094	39/64		15.480	227.00	149.00
0.6102			15.500	227.00	149.00
0.6248	5/8		15.870	227.00	149.00
0.6299			16.000	227.00	149.00
0.6406	41/64		16.270	235.00	154.00
0.6496			16.500	235.00	154.00
0.6563	21/32		16.670	235.00	154.00
0.6693			17.000	235.00	154.00
0.6720	43/64		17.070	241.00	158.00
0.6874	11/16		17.460	241.00	158.00
0.6890			17.500	241.00	158.00
0.7087			18.000	241.00	158.00
0.7185			18.250	247.00	162.00
0.7189	23/32		18.260	247.00	162.00
0.7283			18.500	247.00	162.00
0.7343	47/64		18.650	247.00	162.00
0.7480			19.000	247.00	162.00
0.7500	3/4		19.050	254.00	166.00
0.7677			19.500	254.00	166.00
0.7811	25/32		19.840	254.00	166.00
0.7874			20.000	254.00	166.00
0.8071			20.500	261.00	171.00
0.8126	13/16		20.640	261.00	171.00
0.8169			20.750	261.00	171.00
0.8268			21.000	261.00	171.00
0.8465			21.500	268.00	176.00
0.8661			22.000	268.00	176.00
0.8748	7/8		22.220	268.00	176.00
0.9374	15/16		23.810	282.00	185.00
0.9449			24.000	282.00	185.00
0.9843	63/64		25.000	282.00	185.00

Alternative Drill Series:

#667 HSS, GP, 10xD, 118 pt, TiN
 #317 Cobalt, GP, 10xD, 118 pt, Oxide
 #617 Cobalt, Ti, 10xD, 130 pt, Bright
 #669 Cobalt, Ti, 10xD, 130 pt, TiN