

10xD

Twist Drills

Steam Oxide
>2.36 mm dia.

External Coolant



Straight Shank

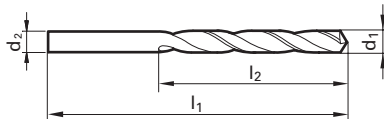
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Series 217

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		1.02	33.00
0.0413			1.05	33.00
0.0421	58		1.07	37.00
0.0429	57		1.09	37.00
0.0433			1.10	37.00
0.0441			1.12	37.00
0.0453			1.15	37.00
0.0465	56		1.18	37.00
0.0469	3/64		1.19	41.00
0.0472			1.20	41.00
0.0492			1.25	41.00
0.0512			1.30	41.00
0.0520	55		1.32	41.00
0.0531			1.35	45.00
0.0551	54		1.40	45.00
0.0571			1.45	45.00
0.0591			1.50	45.00
0.0594	53		1.51	50.00
0.0610			1.55	50.00
0.0626	1/16		1.59	50.00
0.0630			1.60	50.00
0.0634	52		1.61	50.00
0.0650			1.65	50.00
0.0669	51		1.70	50.00
0.0689			1.75	53.00
0.0701	50		1.78	53.00
0.0709			1.80	53.00
0.0728	49		1.85	53.00
0.0748			1.90	53.00
0.0760	48		1.93	56.00
0.0768			1.95	56.00

Diameter (d1)			l1 mm	l2 mm
Dec. inch	Fract. inch	Wire / letter		
0.0780	5/64		1.98	56.00
0.0787			2.00	56.00
0.0799			2.03	56.00
0.0807			2.05	56.00
0.0811	46		2.06	56.00
0.0819	45		2.08	56.00
0.0827			2.10	56.00
0.0846			2.15	59.00
0.0858	44		2.18	59.00
0.0866			2.20	59.00
0.0886			2.25	59.00
0.0890	43		2.26	59.00
0.0906			2.30	59.00
0.0913			2.32	59.00
0.0925			2.35	59.00
0.0933	42		2.37	62.00
0.0937	3/32		2.38	62.00
0.0945			2.40	62.00
0.0961	41		2.44	62.00
0.0965			2.45	62.00
0.0980	40		2.49	62.00
0.0984			2.50	62.00
0.0996	39		2.53	62.00
0.1004			2.55	62.00
0.1016	38		2.58	62.00
0.1024			2.60	62.00
0.1031			2.62	62.00
0.1039	37		2.64	62.00
0.1043			2.65	62.00
0.1063			2.70	66.00
0.1067	36		2.71	66.00
0.1083			2.75	66.00
0.1094	7/64		2.78	66.00
0.1098	35		2.79	66.00
0.1102			2.80	66.00
0.1122			2.85	66.00
0.1130	33		2.87	66.00
0.1142			2.90	66.00
0.1161	32		2.95	66.00
0.1181			3.00	66.00
0.1201	31		3.05	69.00
0.1220			3.10	69.00
0.1240			3.15	69.00
0.1248	1/8		3.17	69.00
0.1260			3.20	69.00
0.1280			3.25	69.00
0.1283	30		3.26	69.00
0.1299			3.30	69.00
0.1319			3.35	69.00
0.1339			3.40	73.00
0.1358	29		3.45	73.00
0.1378			3.50	73.00
0.1398			3.55	73.00
0.1406	9/64	28	3.57	73.00

Diameter (d1)			l1 mm	l2 mm
Dec. inch	Fract. inch	Wire / letter		
0.1417			3.60	73.00
0.1437			3.65	73.00
0.1441	27		3.66	73.00
0.1457			3.70	73.00
0.1476			3.75	73.00
0.1496	25		3.80	78.00
0.1516			3.85	78.00
0.1520	24		3.86	78.00
0.1535			3.90	78.00
0.1539	23		3.91	78.00
0.1555			3.95	78.00
0.1563	5/32		3.97	78.00
0.1571	22		3.99	78.00
0.1575			4.00	78.00
0.1591	21		4.04	78.00
0.1594			4.05	78.00
0.1610	20		4.09	78.00
0.1614			4.10	78.00
0.1634			4.15	78.00
0.1654			4.20	78.00
0.1661	19		4.22	78.00
0.1673			4.25	78.00
0.1693	18		4.30	82.00
0.1713			4.35	82.00
0.1720	11/64		4.37	82.00
0.1728	17		4.39	82.00
0.1732			4.40	82.00
0.1752			4.45	82.00
0.1772	16		4.50	82.00
0.1799	15		4.57	82.00
0.1811			4.60	82.00
0.1819	14		4.62	82.00
0.1831			4.65	82.00
0.1850	13		4.70	82.00
0.1870			4.75	82.00
0.1874	3/16		4.76	87.00
0.1890	12		4.80	87.00
0.1909	11		4.85	87.00
0.1929			4.90	87.00
0.1937	10		4.92	87.00
0.1949			4.95	87.00
0.1961	9		4.98	87.00
0.1969			5.00	87.00
0.1988			5.05	87.00
0.1992	8		5.06	87.00
0.2008			5.10	87.00
0.2012	7		5.11	87.00
0.2028			5.15	87.00
0.2031	13/64		5.16	87.00
0.2039	6		5.18	87.00
0.2047			5.20	87.00
0.2055	5		5.22	87.00
0.2067			5.25	87.00
0.2087			5.30	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