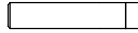


3xD

Nitrided lands >2.36mm
steam oxide >16mm



External Coolant



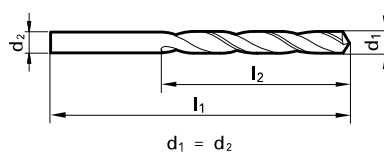
Straight Shank

Speeds & Feeds
information pg 442

Series 553**GT80 Parabolic, LH helix**

HSS, GT 80, stub length, 130° point, special web thinned all dia.,
standard straight shank, LH cut

Cut / Shank Dia. = h8 tolerance range

**Application Materials:**

General Steels/
Brass



Aluminum & Alloys



Universal Steels

Twist Drills

Dec. inch	Diameter (d1)		l1 mm	l2 mm	EDP #	
	Fract. inch	Wire / letter				
0.0394			1.000	26.00	6.00	9005530010000
0.0402		60	1.020	26.00	6.00	9005530010200
0.0421		58	1.070	28.00	7.00	9005530010700
0.0429		57	1.090	28.00	7.00	9005530010900
0.0433			1.100	28.00	7.00	9005530011000
0.0453			1.150	28.00	7.00	9005530011500
0.0465		56	1.180	28.00	7.00	9005530011800
0.0472			1.200	28.00	7.00	9005530012000
0.0492			1.250	28.00	7.00	9005530012500
0.0512			1.300	28.00	7.00	9005530013000
0.0520		55	1.320	28.00	7.00	9005530013200
0.0531			1.350	32.00	9.00	9005530013500
0.0551		54	1.400	32.00	9.00	9005530014000
0.0571			1.450	32.00	9.00	9005530014500
0.0591			1.500	32.00	9.00	9005530015000
0.0594		53	1.510	34.00	10.00	9005530015100
0.0610			1.550	34.00	10.00	9005530015500
0.0626	1/16		1.590	34.00	10.00	9005530015900
0.0630			1.600	34.00	10.00	9005530016000
0.0634		52	1.610	34.00	10.00	9005530016100
0.0650			1.650	34.00	10.00	9005530016500
0.0669		51	1.700	34.00	10.00	9005530017000
0.0689			1.750	36.00	11.00	9005530017500
0.0701		50	1.780	36.00	11.00	9005530017800
0.0709			1.800	36.00	11.00	9005530018000
0.0728		49	1.850	36.00	11.00	9005530018500
0.0748			1.900	36.00	11.00	9005530019000
0.0760		48	1.930	38.00	12.00	9005530019300
0.0768			1.950	38.00	12.00	9005530019500
0.0780	5/64		1.980	38.00	12.00	9005530019800
0.0783		47	1.990	38.00	12.00	9005530019900
0.0787			2.000	38.00	12.00	9005530020000
0.0807			2.050	38.00	12.00	9005530020500
0.0811		46	2.060	38.00	12.00	9005530020600
0.0819		45	2.080	38.00	12.00	9005530020800
0.0858		44	2.180	40.00	13.00	9005530021800
0.0866			2.200	40.00	13.00	9005530022000
0.0886			2.250	40.00	13.00	9005530022500
0.0890		43	2.260	40.00	13.00	9005530022600
0.0906			2.300	40.00	13.00	9005530023000
0.0925			2.350	40.00	13.00	9005530023500
0.0937	3/32		2.380	43.00	14.00	9005530023800
0.0945			2.400	43.00	14.00	9005530024000
0.0961		41	2.440	43.00	14.00	9005530024400
0.0984			2.500	43.00	14.00	9005530025000
0.0996		39	2.530	43.00	14.00	9005530025300
0.1004			2.550	43.00	14.00	9005530025500
0.1016		38	2.580	43.00	14.00	9005530025800
0.1024			2.600	43.00	14.00	9005530026000
0.1039		37	2.640	43.00	14.00	9005530026400
0.1043			2.650	43.00	14.00	9005530026500
0.1067		36	2.710	46.00	16.00	9005530027100
0.1083			2.750	46.00	16.00	9005530027500
0.1094	7/64		2.780	46.00	16.00	9005530027800

Dec. inch	Diameter (d1)		l1 mm	l2 mm	EDP #	
	Fract. inch	Wire / letter mm				
0.1098		35	2.790	46.00	16.00	9005530027900
0.1102			2.800	46.00	16.00	9005530028000
0.1110		34	2.820	46.00	16.00	9005530028200
0.1130		33	2.870	46.00	16.00	9005530028700
0.1142			2.900	46.00	16.00	9005530029000
0.1161		32	2.950	46.00	16.00	9005530029500
0.1181			3.000	46.00	16.00	9005530030000
0.1201		31	3.050	49.00	18.00	9005530030500
0.1220			3.100	49.00	18.00	9005530031000
0.1240			3.150	49.00	18.00	9005530031500
0.1248	1/8		3.170	49.00	18.00	9005530031700
0.1260			3.200	49.00	18.00	9005530032000
0.1283		30	3.260	49.00	18.00	9005530032600
0.1339			3.400	52.00	20.00	9005530034000
0.1358		29	3.450	52.00	20.00	9005530034500
0.1378			3.500	52.00	20.00	9005530035000
0.1406	9/64	28	3.570	52.00	20.00	9005530035700
0.1417			3.600	52.00	20.00	9005530036000
0.1441		27	3.660	52.00	20.00	9005530036600
0.1457			3.700	52.00	20.00	9005530037000
0.1469		26	3.730	52.00	20.00	9005530037300
0.1476			3.750	52.00	20.00	9005530037500
0.1496		25	3.800	55.00	22.00	9005530038000
0.1520		24	3.860	55.00	22.00	9005530038600
0.1535			3.900	55.00	22.00	9005530039000
0.1539		23	3.910	55.00	22.00	9005530039100
0.1555			3.950	55.00	22.00	9005530039500
0.1563	5/32		3.970	55.00	22.00	9005530039700
0.1571		22	3.990	55.00	22.00	9005530039900
0.1575			4.000	55.00	22.00	9005530040000
0.1591		21	4.040	55.00	22.00	9005530040400
0.1610		20	4.090	55.00	22.00	9005530040900
0.1634			4.150	55.00	22.00	9005530041500
0.1654			4.200	55.00	22.00	9005530042000
0.1661		19	4.220	55.00	22.00	9005530042200
0.1693		18	4.300	58.00	24.00	9005530043000
0.1720	11/64		4.370	58.00	24.00	9005530043700
0.1732			4.400	58.00	24.00	9005530044000
0.1752			4.450	58.00	24.00	9005530044500
0.1772		16	4.500	58.00	24.00	9005530045000
0.1799		15	4.570	58.00	24.00	9005530045700
0.1811			4.600	58.00	24.00	9005530046000
0.1819		14	4.620	58.00	24.00	9005530046200
0.1831			4.650	58.00	24.00	9005530046500
0.1850		13	4.700	58.00	24.00	9005530047000
0.1874	3/16		4.760	62.00	26.00	9005530047600
0.1890		12	4.800	62.00	26.00	9005530048000
0.1909		11	4.850	62.00	26.00	9005530048500
0.1937		10	4.920	62.00	26.00	9005530049200
0.1961		9	4.980	62.00	26.00	9005530049800
0.1969			5.000	62.00	26.00	9005530050000
0.1992		8	5.060	62.00	26.00	9005530050600
0.2008			5.100	62.00	26.00	9005530051000
0.2012		7	5.110	62.00	26.00	9005530051100

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

Series 553

Speeds & Feeds information pg 442

Diameter (d1)						
Dec. inch	Fract. inch	Wire / letter	mm	I1 mm	I2 mm	EDP #
0.2031	13/64		5.160	62.00	26.00	9005530051600
0.2039		6	5.180	62.00	26.00	9005530051800
0.2055		5	5.220	62.00	26.00	9005530052200
0.2087			5.300	62.00	26.00	9005530053000
0.2165			5.500	66.00	28.00	9005530055000
0.2189	7/32		5.560	66.00	28.00	9005530055600
0.2205			5.600	66.00	28.00	9005530056000
0.2209		2	5.610	66.00	28.00	9005530056100
0.2244			5.700	66.00	28.00	9005530057000
0.2280		1	5.790	66.00	28.00	9005530057900
0.2283			5.800	66.00	28.00	9005530058000
0.2323			5.900	66.00	28.00	9005530059000
0.2339		A	5.940	66.00	28.00	9005530059400
0.2343	15/64		5.950	66.00	28.00	9005530059500
0.2362			6.000	66.00	28.00	9005530060000
0.2402			6.100	70.00	31.00	9005530061000
0.2421		C	6.150	70.00	31.00	9005530061500
0.2461		D	6.250	70.00	31.00	9005530062500
0.2500	1/4	E	6.350	70.00	31.00	9005530063500
0.2559			6.500	70.00	31.00	9005530065000
0.2571		F	6.530	70.00	31.00	9005530065300
0.2598			6.600	70.00	31.00	9005530066000
0.2610		G	6.630	70.00	31.00	9005530066300
0.2657	17/64	H	6.750	74.00	34.00	9005530067500
0.2677			6.800	74.00	34.00	9005530068000
0.2717		I	6.900	74.00	34.00	9005530069000
0.2756			7.000	74.00	34.00	9005530070000
0.2768		J	7.030	74.00	34.00	9005530070300
0.2811	9/32	K	7.140	74.00	34.00	9005530071400
0.2835			7.200	74.00	34.00	9005530072000
0.2874			7.300	74.00	34.00	9005530073000
0.2902		L	7.370	74.00	34.00	9005530073700
0.2913			7.400	74.00	34.00	9005530074000
0.2949		M	7.490	74.00	34.00	9005530074900
0.2953			7.500	74.00	34.00	9005530075000
0.2969	19/64		7.540	79.00	37.00	9005530075400
0.3020		N	7.670	79.00	37.00	9005530076700
0.3031			7.700	79.00	37.00	9005530077000
0.3126	5/16		7.940	79.00	37.00	9005530079400
0.3150			8.000	79.00	37.00	9005530080000
0.3228		P	8.200	79.00	37.00	9005530082000
0.3268			8.300	79.00	37.00	9005530083000
0.3280	21/64		8.330	79.00	37.00	9005530083300

Diameter (d1)						
Dec. inch	Fract. inch	Wire / letter	mm	I1 mm	I2 mm	EDP #
0.3319		Q	8.430	79.00	37.00	9005530084300
0.3346			8.500	79.00	37.00	9005530085000
0.3390		R	8.610	84.00	40.00	9005530086100
0.3437	11/32		8.730	84.00	40.00	9005530087300
0.3480		S	8.840	84.00	40.00	9005530088400
0.3543			9.000	84.00	40.00	9005530090000
0.3579		T	9.090	84.00	40.00	9005530090900
0.3594	23/64		9.130	84.00	40.00	9005530091300
0.3677		U	9.340	84.00	40.00	9005530093400
0.3740			9.500	84.00	40.00	9005530095000
0.3748	3/8		9.520	89.00	43.00	9005530095200
0.3772		V	9.580	89.00	43.00	9005530095800
0.3858		W	9.800	89.00	43.00	9005530098000
0.3906	25/64		9.920	89.00	43.00	9005530099200
0.3937			10.000	89.00	43.00	9005530100000
0.4016			10.200	89.00	43.00	9005530102000
0.4039		Y	10.260	89.00	43.00	9005530102600
0.4063	13/32		10.320	89.00	43.00	9005530103200
0.4130		Z	10.490	89.00	43.00	9005530104900
0.4134			10.500	89.00	43.00	9005530105000
0.4220	27/64		10.720	95.00	47.00	9005530107200
0.4331			11.000	95.00	47.00	9005530110000
0.4374	7/16		11.110	95.00	47.00	9005530111100
0.4528			11.500	95.00	47.00	9005530115000
0.4531	29/64		11.510	95.00	47.00	9005530115100
0.4689	15/32		11.910	102.00	51.00	9005530119100
0.4724			12.000	102.00	51.00	9005530120000
0.4843	31/64		12.300	102.00	51.00	9005530123000
0.4921			12.500	102.00	51.00	9005530125000
0.5000	1/2		12.700	102.00	51.00	9005530127000
0.5157	33/64		13.100	102.00	51.00	9005530131000
0.5311	17/32		13.490	107.00	54.00	9005530134900
0.5512			14.000	107.00	54.00	9005530140000
0.5626	9/16		14.290	111.00	56.00	9005530142900
0.6102			15.500	115.00	58.00	9005530155000
0.6248	5/8		15.870	115.00	58.00	9005530158700
0.7500	3/4		19.050	131.00	66.00	9005530190500
0.7874			20.000	131.00	66.00	9005530200000

Alternative Drill Series:

#226 HSS, GT100, LH Helix, 3xD, 118 pt, Bright/ Steam Oxide > 6.00

Series # 552

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1,590 mm	1/8 in. 3,170 mm	1/4 in. 6,350 mm	3/8 in. 9,520 mm	1/2 in. 12,700 mm	5/8 in. 15,870 mm	3/4 in. 19,050 mm	1 in. 25,400 mm	1 1/4 in. 31,750 mm	1 1/2 in. 38,100 mm
Common structural steels	≤100 Bhn >100-260 Bhn	115 90	0.0017 0.0015	0.0050 0.0040	0.0080 0.0065	0.0100 0.0080	0.0125 0.0100	0.0125 0.0100	0.0140 0.0110	• •	• •	• •
Free-cutting steels	≤24 Rc >24-30 Rc	115 90	0.0017 0.0015	0.0050 0.0040	0.0080 0.0065	0.0100 0.0080	0.0125 0.0100	0.0125 0.0100	0.0140 0.0110	• •	• •	• •
Unalloyed heat-treatable steels	≤16 Rc 16-24 Rc 24-30 Rc	115 90 •	0.0015 0.0015	0.0040 0.0040	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100	0.0100 0.0100	0.0110 0.0110	• • •	• • •	• • •
Alloyed heat-treatable steels	24-30 Rc >30-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Unalloyed case hardened steels	≤230 Bhn	115	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
Alloyed case hardened steels	24-30 Rc >30-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Nitriding steels	≥24-30 Rc >30-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Tool steels	≤24 Rc >24-30 Rc	55 •	0.0012 •	0.0030 •	0.0050 •	0.0065 •	0.0080 •	0.0080 •	0.0090 •	• •	• •	• •
High speed steels	≥14-30 Rc	•	•	•	•	•	•	•	•	•	•	•
Spring steels	≤330 Bhn	•	•	•	•	•	•	•	•	•	•	•
Stainless steels, sulphured	≤24 Rc	•	•	•	•	•	•	•	•	•	•	•
austenitic	≤24 Rc	•	•	•	•	•	•	•	•	•	•	•
martensitic	≤24 Rc	•	•	•	•	•	•	•	•	•	•	•
Hardened steels	≤40-48 Rc >48-60 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Special alloys	≤38 Rc	•	•	•	•	•	•	•	•	•	•	•
Cast iron	≤240 Bhn <300 Bhn	115 90	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0125	0.0140 0.0140	• •	• •	• •
Spheroidal graphite iron and malleable cast iron	≤240 Bhn <300 Bhn	100 75	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0125	0.0140 0.0140	• •	• •	• •
Chilled cast iron	≤350 Bhn	•	•	•	•	•	•	•	•	•	•	•
Ti and Ti-alloys	≤24 Rc >24-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Aluminium and Al-alloys	≤120 Bhn	295	0.0020	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	•	•	•
Al wrought alloys	≤150 Bhn	295	0.0020	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	•	•	•
Al cast alloys ≤ 10 % Si	≤200 Bhn	225	0.0020	0.0065	0.0100	0.0125	0.0160	0.0160	0.0180	•	•	•
> 10 % Si	≤200 Bhn	180	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
Magnesium alloys	≤150 Bhn	295	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
Copper, low-alloyed	≤120 Bhn	115	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•
Brass, short-chipping	≤200 Bhn	•	•	•	•	•	•	•	•	•	•	•
long-chipping	≤200 Bhn	145	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•
Bronze, short-chipping	≤200 Bhn	115	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	•	•	•
	>200-260 Bhn	100	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	•	•	•
Bronze, long-chipping	≤24 Rc	90	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	•	•	•
	>24-30 Rc	•	•	•	•	•	•	•	•	•	•	•
Duroplastics	—	55	0.0012	0.0030	0.0050	0.0065	0.0080	0.0080	0.0090	•	•	•
Thermoplastics	—	90	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•
Reinforced plastics - Kevlar	—	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - GFK / CFK	—	•	•	•	•	•	•	•	•	•	•	•

Series # 553

Material group	Hardness	SFM	Feed Rate - IPR									
			1/16 in. 1,590 mm	1/8 in. 3,170 mm	1/4 in. 6,350 mm	3/8 in. 9,520 mm	1/2 in. 12,700 mm	5/8 in. 15,870 mm	3/4 in. 19,050 mm	1 in. 25,400 mm	1 1/4 in. 31,750 mm	1 1/2 in. 38,100 mm
Common structural steels	≤100 Bhn >100-260 Bhn	115 90	0.0017 0.0015	0.0050 0.0040	0.0080 0.0065	0.0100 0.0080	0.0125 0.0100	• •	• •	• •	• •	• •
Free-cutting steels	≤24 Rc >24-30 Rc	115 90	0.0017 0.0015	0.0050 0.0040	0.0080 0.0065	0.0100 0.0080	0.0125 0.0100	• •	• •	• •	• •	• •
Unalloyed heat-treatable steels	≤16 Rc 16-24 Rc 24-30 Rc	115 90 •	0.0015 0.0015 •	0.0040 0.0040 •	0.0065 0.0065 •	0.0080 0.0080 •	0.0100 0.0100 •	• • •	• • •	• • •	• • •	• • •
Alloyed heat-treatable steels	24-30 Rc >30-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Unalloyed case hardened steels	≤230 Bhn	115	0.0017	0.0050	0.0080	0.0100	0.0125	•	•	•	•	•
Alloyed case hardened steels	24-30 Rc >30-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Nitriding steels	≥24-30 Rc >30-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Tool steels	≤24 Rc >24-30 Rc	55 •	0.0012 •	0.0030 •	0.0050 •	0.0065 •	0.0080 •	• •	• •	• •	• •	• •
High speed steels	≥14-30 Rc	•	•	•	•	•	•	•	•	•	•	•
Spring steels	≤330 Bhn	•	•	•	•	•	•	•	•	•	•	•
Stainless steels, sulphured austenitic martensitic	≤24 Rc • ≤24 Rc • ≤24 Rc	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •	• • • •
Hardened steels	≤40-48 Rc >48-60 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Special alloys	≤38 Rc	•	•	•	•	•	•	•	•	•	•	•
Cast iron	≤240 Bhn <300 Bhn	115 90	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	• •	• •	• •	• •	• •
Spheroidal graphite iron and malleable cast iron	≤240 Bhn <300 Bhn	100 75	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	• •	• •	• •	• •	• •
Chilled cast iron	≤350 Bhn	•	•	•	•	•	•	•	•	•	•	•
Ti and Ti-alloys	≤24 Rc >24-38 Rc	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •	• •
Aluminium and Al-alloys	≤120 Bhn	295	0.0020	0.0065	0.0100	0.0125	0.0160	•	•	•	•	•
Al wrought alloys	≤150 Bhn	295	0.0020	0.0065	0.0100	0.0125	0.0160	•	•	•	•	•
Al cast alloys ≤ 10 % Si > 10 % Si	≤200 Bhn ≤200 Bhn	225 180	0.0020 0.0017	0.0065 0.0050	0.0100 0.0080	0.0125 0.0100	0.0160 0.0125	• •	• •	• •	• •	• •
Magnesium alloys	≤150 Bhn	295	0.0017	0.0050	0.0080	0.0100	0.0125	•	•	•	•	•
Copper, low-alloyed	≤120 Bhn	115	0.0015	0.0040	0.0065	0.0080	0.0100	•	•	•	•	•
Brass, short-chipping long-chipping	≤200 Bhn ≤200 Bhn	• 145	• 0.0015	• 0.0040	• 0.0065	• 0.0080	• 0.0100	• •	• •	• •	• •	• •
Bronze, short-chipping	≤200 Bhn >200-260 Bhn	115 100	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080	• •	• •	• •	• •	• •
Bronze, long-chipping	≤24 Rc >24-30 Rc	90 •	0.0012 •	0.0030 •	0.0050 •	0.0065 •	0.0080 •	• •	• •	• •	• •	• •
Duroplastics	–	55	0.0012	0.0030	0.0050	0.0065	0.0080	•	•	•	•	•
Thermoplastics	–	90	0.0015	0.0040	0.0065	0.0080	0.0100	•	•	•	•	•
Reinforced plastics - Kevlar	–	•	•	•	•	•	•	•	•	•	•	•
Reinforced plastics - GFK / CFK	–	•	•	•	•	•	•	•	•	•	•	•