3xD

Nitrided lands >2.36mm
steam oxide >16mm

External Coolant

Straight Shank

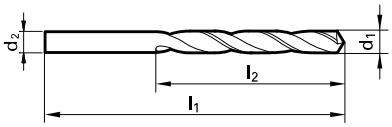
Speeds & Feeds
information pg 442

Series 552

GT80 Parabolic

HSS, GT 80, stub length, 130° point, Special web thinned all dia., standard straight shank, RH helix

Cut / Shank Dia. = h8 tolerance range



$d_1 = d_2$

Application Materials:

- General Steels/ Brass
- Aluminum & Alloys
- Universal Steels

Diameter (d1) Dec. inch	Fract. inch	Wire / letter	mm	l1 mm	l2 mm	EDP #
0.0394			1.000	26.00	6.00	9005520010000
0.0402		60	1.020	26.00	6.00	9005520010200
0.0409		59	1.040	26.00	6.00	9005520010400
0.0413			1.050	26.00	6.00	9005520010500
0.0421		58	1.070	28.00	7.00	9005520010700
0.0429		57	1.090	28.00	7.00	9005520010900
0.0433			1.100	28.00	7.00	9005520011000
0.0453			1.150	28.00	7.00	9005520011500
0.0465		56	1.180	28.00	7.00	9005520011800
0.0469	3/64		1.190	28.00	7.00	9005520011900
0.0472			1.200	28.00	7.00	9005520012000
0.0492			1.250	28.00	7.00	9005520012500
0.0512			1.300	28.00	7.00	9005520013000
0.0520		55	1.320	28.00	7.00	9005520013200
0.0531			1.350	32.00	9.00	9005520013500
0.0551		54	1.400	32.00	9.00	9005520014000
0.0571			1.450	32.00	9.00	9005520014500
0.0591			1.500	32.00	9.00	9005520015000
0.0594		53	1.510	34.00	10.00	9005520015100
0.0602			1.530	34.00	10.00	9005520015300
0.0610			1.550	34.00	10.00	9005520015500
0.0626	1/16		1.590	34.00	10.00	9005520015900
0.0630			1.600	34.00	10.00	9005520016000
0.0634		52	1.610	34.00	10.00	9005520016100
0.0650			1.650	34.00	10.00	9005520016500
0.0669		51	1.700	34.00	10.00	9005520017000
0.0681			1.730	36.00	11.00	9005520017300
0.0689			1.750	36.00	11.00	9005520017500
0.0701		50	1.780	36.00	11.00	9005520017800
0.0709			1.800	36.00	11.00	9005520018000
0.0717			1.820	36.00	11.00	9005520018200
0.0728		49	1.850	36.00	11.00	9005520018500
0.0748			1.900	36.00	11.00	9005520019000
0.0760		48	1.930	38.00	12.00	9005520019300
0.0768			1.950	38.00	12.00	9005520019500
0.0780	5/64		1.980	38.00	12.00	9005520019800
0.0783		47	1.990	38.00	12.00	9005520019900
0.0787			2.000	38.00	12.00	9005520020000
0.0807			2.050	38.00	12.00	9005520020500
0.0811		46	2.060	38.00	12.00	9005520020600
0.0819		45	2.080	38.00	12.00	9005520020800
0.0827			2.100	38.00	12.00	9005520021000
0.0839			2.130	40.00	13.00	9005520021300
0.0846			2.150	40.00	13.00	9005520021500
0.0858		44	2.180	40.00	13.00	9005520021800
0.0866			2.200	40.00	13.00	9005520022000
0.0886			2.250	40.00	13.00	9005520022500
0.0890		43	2.260	40.00	13.00	9005520022600
0.0906			2.300	40.00	13.00	9005520023000
0.0913			2.320	40.00	13.00	9005520023200
0.0925			2.350	40.00	13.00	9005520023500
0.0933		42	2.370	43.00	14.00	9005520023700
0.0937	3/32		2.380	43.00	14.00	9005520023800
0.0945			2.400	43.00	14.00	9005520024000

Diameter (d1) Dec. inch	Fract. inch	Wire / letter	mm	l1 mm	l2 mm	EDP #
0.0961		41	2.440	43.00	14.00	9005520024400
0.0965			2.450	43.00	14.00	9005520024500
0.0980		40	2.490	43.00	14.00	9005520024900
0.0984			2.500	43.00	14.00	9005520025000
0.0996		39	2.530	43.00	14.00	9005520025300
0.1004			2.550	43.00	14.00	9005520025500
0.1016		38	2.580	43.00	14.00	9005520025800
0.1024			2.600	43.00	14.00	9005520026000
0.1039		37	2.640	43.00	14.00	9005520026400
0.1043			2.650	43.00	14.00	9005520026500
0.1063			2.700	46.00	16.00	9005520027000
0.1067		36	2.710	46.00	16.00	9005520027100
0.1083			2.750	46.00	16.00	9005520027500
0.1094	7/64		2.780	46.00	16.00	9005520027800
0.1098		35	2.790	46.00	16.00	9005520027900
0.1102			2.800	46.00	16.00	9005520028000
0.1110		34	2.820	46.00	16.00	9005520028200
0.1130		33	2.870	46.00	16.00	9005520028700
0.1142			2.900	46.00	16.00	9005520029000
0.1161		32	2.950	46.00	16.00	9005520029500
0.1181			3.000	46.00	16.00	9005520030000
0.1201		31	3.050	49.00	18.00	9005520030500
0.1220			3.100	49.00	18.00	9005520031000
0.1240			3.150	49.00	18.00	9005520031500
0.1248	1/8		3.170	49.00	18.00	9005520031700
0.1260			3.200	49.00	18.00	9005520032000
0.1280			3.250	49.00	18.00	9005520032500
0.1283		30	3.260	49.00	18.00	9005520032600
0.1299			3.300	49.00	18.00	9005520033000
0.1319			3.350	49.00	18.00	9005520033500
0.1339			3.400	52.00	20.00	9005520034000
0.1358		29	3.450	52.00	20.00	9005520034500
0.1378			3.500	52.00	20.00	9005520035000
0.1398			3.550	52.00	20.00	9005520035500
0.1406	9/64	28	3.570	52.00	20.00	9005520035700
0.1417			3.600	52.00	20.00	9005520036000
0.1437			3.650	52.00	20.00	9005520036500
0.1441		27	3.660	52.00	20.00	9005520036600
0.1457			3.700	52.00	20.00	9005520037000
0.1469		26	3.730	52.00	20.00	9005520037300
0.1476			3.750	52.00	20.00	9005520037500
0.1496		25	3.800	55.00	22.00	9005520038000
0.1520		24	3.860	55.00	22.00	9005520038600
0.1535			3.900	55.00	22.00	9005520039000
0.1539		23	3.910	55.00	22.00	9005520039100
0.1555			3.950	55.00	22.00	9005520039500
0.1563	5/32		3.970	55.00	22.00	9005520039700
0.1571		22	3.990	55.00	22.00	9005520039900
0.1575			4.000	55.00	22.00	9005520040000
0.1591		21	4.040	55.00	22.00	9005520040400
0.1594			4.050	55.00	22.00	9005520040500
0.1610		20	4.090	55.00	22.00	9005520040900
0.1614			4.100	55.00	22.00	9005520041000
0.1634			4.150	55.00	22.00	9005520041500

Series 552

Speeds & Feeds information pg 442

Diameter (d1)						
Dec. inch	Fract. inch	Wire / letter	mm	l1 mm	l2 mm	EDP #
0.1654			4.200	55.00	22.00	9005520042000
0.1661		19	4.220	55.00	22.00	9005520042200
0.1673			4.250	55.00	22.00	9005520042500
0.1693		18	4.300	58.00	24.00	9005520043000
0.1713			4.350	58.00	24.00	9005520043500
0.1720	11/64		4.370	58.00	24.00	9005520043700
0.1728		17	4.390	58.00	24.00	9005520043900
0.1732			4.400	58.00	24.00	9005520044000
0.1752			4.450	58.00	24.00	9005520044500
0.1772		16	4.500	58.00	24.00	9005520045000
0.1799		15	4.570	58.00	24.00	9005520045700
0.1811			4.600	58.00	24.00	9005520046000
0.1819		14	4.620	58.00	24.00	9005520046200
0.1831			4.650	58.00	24.00	9005520046500
0.1850		13	4.700	58.00	24.00	9005520047000
0.1870			4.750	58.00	24.00	9005520047500
0.1874	3/16		4.760	62.00	26.00	9005520047600
0.1890		12	4.800	62.00	26.00	9005520048000
0.1909		11	4.850	62.00	26.00	9005520048500
0.1929			4.900	62.00	26.00	9005520049000
0.1937		10	4.920	62.00	26.00	9005520049200
0.1961		9	4.980	62.00	26.00	9005520049800
0.1969			5.000	62.00	26.00	9005520050000
0.1992		8	5.060	62.00	26.00	9005520050600
0.2008			5.100	62.00	26.00	9005520051000
0.2012		7	5.110	62.00	26.00	9005520051100
0.2031	13/64		5.160	62.00	26.00	9005520051600
0.2039		6	5.180	62.00	26.00	9005520051800
0.2047			5.200	62.00	26.00	9005520052000
0.2055		5	5.220	62.00	26.00	9005520052200
0.2087			5.300	62.00	26.00	9005520053000
0.2091		4	5.310	66.00	28.00	9005520053100
0.2126			5.400	66.00	28.00	9005520054000
0.2130		3	5.410	66.00	28.00	9005520054100
0.2165			5.500	66.00	28.00	9005520055000
0.2189	7/32		5.560	66.00	28.00	9005520055600
0.2205			5.600	66.00	28.00	9005520056000
0.2209		2	5.610	66.00	28.00	9005520056100
0.2244			5.700	66.00	28.00	9005520057000
0.2280		1	5.790	66.00	28.00	9005520057900
0.2283			5.800	66.00	28.00	9005520058000
0.2323			5.900	66.00	28.00	9005520059000
0.2339		A	5.940	66.00	28.00	9005520059400
0.2343	15/64		5.950	66.00	28.00	9005520059500
0.2362			6.000	66.00	28.00	9005520060000
0.2378		B	6.040	70.00	31.00	9005520060400
0.2402			6.100	70.00	31.00	9005520061000
0.2421		C	6.150	70.00	31.00	9005520061500
0.2441			6.200	70.00	31.00	9005520062000
0.2461		D	6.250	70.00	31.00	9005520062500
0.2480			6.300	70.00	31.00	9005520063000
0.2500	1/4	E	6.350	70.00	31.00	9005520063500
0.2520			6.400	70.00	31.00	9005520064000
0.2559			6.500	70.00	31.00	9005520065000
0.2571		F	6.530	70.00	31.00	9005520065300
0.2598			6.600	70.00	31.00	9005520066000
0.2610		G	6.630	70.00	31.00	9005520066300
0.2638			6.700	70.00	31.00	9005520067000
0.2657	17/64	H	6.750	74.00	34.00	9005520067500
0.2677			6.800	74.00	34.00	9005520068000
0.2717		I	6.900	74.00	34.00	9005520069000
0.2756			7.000	74.00	34.00	9005520070000
0.2768		J	7.030	74.00	34.00	9005520070300
0.2795			7.100	74.00	34.00	9005520071000
0.2811	9/32	K	7.140	74.00	34.00	9005520071400
0.2835			7.200	74.00	34.00	9005520072000
0.2874			7.300	74.00	34.00	9005520073000
0.2902		L	7.370	74.00	34.00	9005520073700
0.2913			7.400	74.00	34.00	9005520074000
0.2949		M	7.490	74.00	34.00	9005520074900

Diameter (d1)						
Dec. inch	Fract. inch	Wire / letter	mm	l1 mm	l2 mm	EDP #
0.2953			7.500	74.00	34.00	9005520075000
0.2969	19/64		7.540	79.00	37.00	9005520075400
0.2992			7.600	79.00	37.00	9005520076000
0.3020		N	7.670	79.00	37.00	9005520076700
0.3031			7.700	79.00	37.00	9005520077000
0.3071			7.800	79.00	37.00	9005520078000
0.3110			7.900	79.00	37.00	9005520079000
0.3126	5/16		7.940	79.00	37.00	9005520079400
0.3150			8.000	79.00	37.00	9005520080000
0.3161		O	8.030	79.00	37.00	9005520080300
0.3189			8.100	79.00	37.00	9005520081000
0.3228		P	8.200	79.00	37.00	9005520082000
0.3268			8.300	79.00	37.00	9005520083000
0.3280	21/64		8.330	79.00	37.00	9005520083300
0.3307			8.400	79.00	37.00	9005520084000
0.3319		Q	8.430	79.00	37.00	9005520084300
0.3346			8.500	79.00	37.00	9005520085000
0.3386			8.600	84.00	40.00	9005520086000
0.3390		R	8.610	84.00	40.00	9005520086100
0.3425			8.700	84.00	40.00	9005520087000
0.3437	11/32		8.730	84.00	40.00	9005520087300
0.3465			8.800	84.00	40.00	9005520088000
0.3480		S	8.840	84.00	40.00	9005520088400
0.3504			8.900	84.00	40.00	9005520089000
0.3543			9.000	84.00	40.00	9005520090000
0.3579		T	9.090	84.00	40.00	9005520090900
0.3583			9.100	84.00	40.00	9005520091000
0.3594	23/64		9.130	84.00	40.00	9005520091300
0.3622			9.200	84.00	40.00	9005520092000
0.3661			9.300	84.00	40.00	9005520093000
0.3677		U	9.340	84.00	40.00	9005520093400
0.3701			9.400	84.00	40.00	9005520094000
0.3740			9.500	84.00	40.00	9005520095000
0.3748	3/8		9.520	89.00	43.00	9005520095200
0.3772		V	9.580	89.00	43.00	9005520095800
0.3780			9.600	89.00	43.00	9005520096000
0.3819			9.700	89.00	43.00	9005520097000
0.3858		W	9.800	89.00	43.00	9005520098000
0.3898			9.900	89.00	43.00	9005520099000
0.3906	25/64		9.920	89.00	43.00	9005520099200
0.3937			10.000	89.00	43.00	9005520100000
0.3969		X	10.080	89.00	43.00	9005520100800
0.4016			10.200	89.00	43.00	9005520102000
0.4039		Y	10.260	89.00	43.00	9005520102600
0.4063	13/32		10.320	89.00	43.00	9005520103200
0.4130		Z	10.490	89.00	43.00	9005520104900
0.4134			10.500	89.00	43.00	9005520105000
0.4173			10.600	89.00	43.00	9005520106000
0.4220	27/64		10.720	95.00	47.00	9005520107200
0.4252			10.800	95.00	47.00	9005520108000
0.4331			11.000	95.00	47.00	9005520110000
0.4374	7/16		11.110	95.00	47.00	9005520111100
0.4409			11.200	95.00	47.00	9005520112000
0.4449			11.300	95.00	47.00	9005520113000
0.4488			11.400	95.00	47.00	9005520114000
0.4528			11.500	95.00	47.00	9005520115000
0.4531	29/64		11.510	95.00	47.00	9005520115100
0.4646			11.800	95.00	47.00	9005520118000
0.4689	15/32		11.910	102.00	51.00	9005520119100
0.4724			12.000	102.00	51.00	9005520120000
0.4843	31/64		12.300	102.00	51.00	9005520123000
0.4882			12.400	102.00	51.00	9005520124000
0.4921			12.500	102.00	51.00	9005520125000
0.5000	1/2		12.700	102.00	51.00	9005520127000
0.5079			12.900	102.00	51.00	9005520129000
0.5118			13.000	102.00	51.00	9005520130000
0.5157	33/64		13.100	102.00	51.00	9005520131000
0.5311	17/32		13.490	107.00	54.00	9005520134900
0.5315			13.500	107.00	54.00	9005520135000
0.5469	35/64		13.890	107.00	54.00	9005520138900

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

Series 552

Speeds & Feeds information pg 442

Diameter (d1) Dec. inch	Fract. inch	Wire / letter	mm	l1 mm	l2 mm	EDP #
0.5512			14.000	107.00	54.00	9005520140000
0.5626	9/16		14.290	111.00	56.00	9005520142900
0.5709			14.500	111.00	56.00	9005520145000
0.5780	37/64		14.680	111.00	56.00	9005520146800
0.5906			15.000	111.00	56.00	9005520150000
0.5937	19/32		15.080	115.00	58.00	9005520150800
0.6094	39/64		15.480	115.00	58.00	9005520154800
0.6102			15.500	115.00	58.00	9005520155000
0.6248	5/8		15.870	115.00	58.00	9005520158700
0.6299			16.000	115.00	58.00	9005520160000
0.6406	41/64		16.270	119.00	60.00	9005520162700
0.6496			16.500	119.00	60.00	9005520165000
0.6693			17.000	119.00	60.00	9005520170000
0.6720	43/64		17.070	123.00	62.00	9005520170700
0.6874	11/16		17.460	123.00	62.00	9005520174600
0.7031	45/64		17.860	123.00	62.00	9005520178600

Diameter (d1) Dec. inch	Fract. inch	Wire / letter	mm	l1 mm	l2 mm	EDP #
0.7087			18.000	123.00	62.00	9005520180000
0.7189	23/32		18.260	127.00	64.00	9005520182600
0.7480			19.000	127.00	64.00	9005520190000
0.7500	3/4		19.050	131.00	66.00	9005520190500
0.7811	25/32		19.840	131.00	66.00	9005520198400
0.7874			20.000	131.00	66.00	9005520200000

Alternative Drill Series:

#225 HSS, GT80, 3xD, 130 pt, Bright
#553 HSS, GT100, 3xD, 130 pt, LH helix, Bright/Nitrided lands > 2.36
#5521 PM Cobalt, GT500, 3xD, 130 pt, TiN
#515 PM Cobalt, GT500, 3xD, 130 pt, FIREX®

Using These Tables. The Speeds & Feeds listed below are conservative recommendations for initial setup. In actual use, depending on the machining environment and workpiece material, significantly higher speeds and feeds may be achievable. Using the below as a starting point, cutting speed/feed can be gradually adjusted upwards until the optimum settings per application are found. Questions? Contact us by telephone at (800) 776-6170.

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	115	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
	>100-260 Bhn	90	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•
Free-cutting steels	≤24 Rc	115	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
	>24-30 Rc	90	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•
Unalloyed heat-treatable steels	≤16 Rc	115	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•
	16-24 Rc	90	0.0015	0.0040	0.0065	0.0080	0.0100	0.0100	0.0110	•	•	•
	24-30 Rc	•	•	•	•	•	•	•	•	•	•	•
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	55	0,0012	0,0030	0,0050	0,0065	0,0080	0,0080	0,0090	•	•	•
	>24-30 Rc	•	•	•	•	•	•	•	•	•	•	•
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	115	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
	<300 Bhn	90	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
Spheroidal graphite iron and malleable cast iron	≤240 Bhn	100	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	0.0140	•	•	•
	<300 Bhn	75	0.0017	0.0050	0.0080	0.0100	0.0125	0.0125	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	115	0.0017	0.0050	0.0080	0.0100	0.0125	•	•	•	•	•
	>100-260 Bhn	90	0.0015	0.0040	0.0065	0.0080	0.0100	•	•	•	•	•
Free-cutting steels	≤24 Rc	115	0.0017	0.0050	0.0080	0.0100	0.0125	•	•	•	•	•
	>24-30 Rc	90	0.0015	0.0040	0.0065	0.0080	0.0100	•	•	•	•	•
Unalloyed heat-treatable steels	≤16 Rc	115	0.0015	0.0040	0.0065	0.0080	0.0100	•	•	•	•	•
	16-24 Rc	90	0.0015	0.0040	0.0065	0.0080	0.0100	•	•	•	•	•
	24-30 Rc	•	•	•	•	•	•	•	•	•	•	•
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	55	0,0012	0,0030	0,0050	0,0065	0,0080	•	•	•	•	•
	>24-30 Rc	•	•	•	•	•	•	•	•	•	•	•
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	115	0.0017	0.0050	0.0080	0.0100	0.0125	•	•	•	•	•
	<300 Bhn	90	0.0017	0.0050	0.0080	0.0100	0.0125	•	•	•	•	•
Spheroidal graphite iron and malleable cast iron	≤240 Bhn	100	0.0017	0.0050	0.0080	0.0100	0.0125	•	•	•	•	•
	<300 Bhn	75	0.0017	0.0050	0.0080	0.0100	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	≤200 Bhn	225	0.0020	0.0065	0.0100	0.0125	0.0160	•	•	•	•	•
> 10 % Si	≤200 Bhn	180	0.0017	0.0050	0.0080	0.0100	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	≤200 Bhn	•	•	•	•	•	•	•	•	•	•	•
long-chipping	≤200 Bhn	145	0.0015	0.0040	0.0065	0.0080	0.0100	•	•	•	•	•
Bronze, short-chipping	≤200 Bhn	115	0.0012	0.0030	0.0050	0.0065	0.0080	•	•	•	•	•
	>200-260 Bhn	100	0.0012	0.0030	0.0050	0.0065	0.0080	•	•	•	•	•
Bronze, long-chipping	≤24 Rc	90	0.0012	0.0030	0.0050	0.0065	0.0080	•	•	•	•	•
	>24-30 Rc	•	•	•	•	•	•	•	•	•	•	•
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	–	•	•	•	•	•	•	•	•	•	•	•