Jobber length drills 605

~5xD	DIN 338	Ti	130°	h8		Cyl	R	GUHRING
Cutting depth	Standard	Type	Point angle	Tolerance on Ø	Web Thinning	Shank form	Cutting direction	

Tool material: HSCO

Surface: ◯

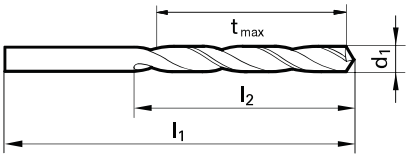
P	Steel	○
M	Stainless steel	●
K	Cast iron	
N	Aluminum	
S	Titanium alloys	●
H	Hardened steel	

●=Optimal
○=Limited

web thinning ≥ Ø 0.970 • relieved cone split point • Co-alloyed high speed steel • increased wear resistance

Titanium and Titanium alloys • stainless/acid-/heat-resistant austenitic steels • high tensile/short chipping steels over 900 N/mm² • Hastelloy, Inconel, Nimonic

$t_{max} = l_2 - 1.5 \times d_1$



Speeds and feeds information on pg. 511

Shank diameter = cut diameter

Diameter (d_1) inch	wire/ltr	mm	l_1 mm	t_{max} mm	l_2 mm	EDP #
0.0118		0.30	19.00	2.55	3.00	9006050003000
0.0157	1/64	0.40	20.00	4.40	5.00	9006050004000
0.0173		0.44	20.00	4.34	5.00	9006050004400
0.0177		0.45	20.00	4.33	5.00	9006050004500
0.0197		0.50	22.00	5.25	6.00	9006050005000
0.0201	#76	0.51	22.00	5.24	6.00	9006050005100
0.0209	#75	0.53	22.00	5.21	6.00	9006050005300
0.0217		0.55	24.00	6.18	7.00	9006050005500
0.0224	#74	0.57	24.00	6.15	7.00	9006050005700
0.0228		0.58	24.00	6.13	7.00	9006050005800
0.0236		0.60	24.00	6.10	7.00	9006050006000
0.0240	#73	0.61	26.00	7.09	8.00	9006050006100
0.0252	#72	0.64	26.00	7.04	8.00	9006050006400
0.0256		0.65	26.00	7.03	8.00	9006050006500
0.0276		0.70	28.00	7.95	9.00	9006050007000
0.0280	#70	0.71	28.00	7.94	9.00	9006050007100
0.0283		0.72	28.00	7.92	9.00	9006050007200
0.0295		0.75	28.00	7.88	9.00	9006050007500
0.0299		0.76	30.00	8.86	10.00	9006050007600
0.0311	1/32 #68	0.79	30.00	8.82	10.00	9006050007900
0.0315		0.80	30.00	8.80	10.00	9006050008000
0.0319	#67	0.81	30.00	8.79	10.00	9006050008100
0.0323		0.82	30.00	8.77	10.00	9006050008200
0.0327		0.83	30.00	8.76	10.00	9006050008300
0.0331	#66	0.84	30.00	8.74	10.00	9006050008400
0.0335		0.85	30.00	8.73	10.00	9006050008500
0.0339		0.86	32.00	9.71	11.00	9006050008600
0.0343		0.87	32.00	9.70	11.00	9006050008700
0.0346		0.88	32.00	9.68	11.00	9006050008800
0.0350	#65	0.89	32.00	9.67	11.00	9006050008900
0.0354		0.90	32.00	9.65	11.00	9006050009000
0.0358	#64	0.91	32.00	9.64	11.00	9006050009100
0.0362		0.92	32.00	9.62	11.00	9006050009200
0.0370	#63	0.94	32.00	9.59	11.00	9006050009400
0.0374		0.95	32.00	9.58	11.00	9006050009500
0.0386		0.98	34.00	10.53	12.00	9006050009800
0.0390	#61	0.99	34.00	10.52	12.00	9006050009900
0.0394		1.00	34.00	10.50	12.00	9006050010000
0.0402	#60	1.02	34.00	10.47	12.00	9006050010200
0.0409	#59	1.04	34.00	10.44	12.00	9006050010400
0.0413		1.05	34.00	10.43	12.00	9006050010500
0.0421	#58	1.07	36.00	12.40	14.00	9006050010700

Diameter (d_1) inch	wire/ltr	mm	l_1 mm	t_{max} mm	l_2 mm	EDP #
0.0425		1.08	36.00	12.38	14.00	9006050010800
0.0429	#57	1.09	36.00	12.37	14.00	9006050010900
0.0433		1.10	36.00	12.35	14.00	9006050011000
0.0449		1.14	36.00	12.29	14.00	9006050011400
0.0453		1.15	36.00	12.28	14.00	9006050011500
0.0457		1.16	36.00	12.26	14.00	9006050011600
0.0465	#56	1.18	36.00	12.23	14.00	9006050011800
0.0469	3/64	1.19	38.00	14.22	16.00	9006050011900
0.0472		1.20	38.00	14.20	16.00	9006050012000
0.0476		1.21	38.00	14.19	16.00	9006050012100
0.0480		1.22	38.00	14.17	16.00	9006050012200
0.0484		1.23	38.00	14.16	16.00	9006050012300
0.0492		1.25	38.00	14.13	16.00	9006050012500
0.0508		1.29	38.00	14.07	16.00	9006050012900
0.0512		1.30	38.00	14.05	16.00	9006050013000
0.0520	#55	1.32	38.00	14.02	16.00	9006050013200
0.0531		1.35	40.00	15.98	18.00	9006050013500
0.0551	#54	1.40	40.00	15.90	18.00	9006050014000
0.0571		1.45	40.00	15.83	18.00	9006050014500
0.0575		1.46	40.00	15.81	18.00	9006050014600
0.0591		1.50	40.00	15.75	18.00	9006050015000
0.0594	#53	1.51	43.00	17.74	20.00	9006050015100
0.0598		1.52	43.00	17.72	20.00	9006050015200
0.0602		1.53	43.00	17.71	20.00	9006050015300
0.0610		1.55	43.00	17.68	20.00	9006050015500
0.0626	1/16	1.59	43.00	17.62	20.00	9006050015900
0.0630		1.60	43.00	17.60	20.00	9006050016000
0.0634	#52	1.61	43.00	17.59	20.00	9006050016100
0.0638		1.62	43.00	17.57	20.00	9006050016200
0.0650		1.65	43.00	17.53	20.00	9006050016500
0.0661		1.68	43.00	17.48	20.00	9006050016800
0.0669	#51	1.70	43.00	17.45	20.00	9006050017000
0.0681		1.73	46.00	19.41	22.00	9006050017300
0.0689		1.75	46.00	19.38	22.00	9006050017500
0.0701	#50	1.78	46.00	19.33	22.00	9006050017800
0.0709		1.80	46.00	19.30	22.00	9006050018000
0.0717		1.82	46.00	19.27	22.00	9006050018200
0.0728	#49	1.85	46.00	19.23	22.00	9006050018500
0.0748		1.90	46.00	19.15	22.00	9006050019000
0.0760	#48	1.93	49.00	21.11	24.00	9006050019300
0.0768		1.95	49.00	21.08	24.00	9006050019500
0.0776		1.97	49.00	21.05	24.00	9006050019700

Jobber length drills

Series no. 605

Diameter (d_1) inch	wire/ltr	mm	l_1 mm	t_{max} mm	l_2 mm	EDP #
0.0780	5/64	1.98	49.00	21.03	24.00	9006050019800
0.0783	#47	1.99	49.00	21.02	24.00	9006050019900
0.0787		2.00	49.00	21.00	24.00	9006050020000
0.0795		2.02	49.00	20.97	24.00	9006050020200
0.0799		2.03	49.00	20.96	24.00	9006050020300
0.0807		2.05	49.00	20.93	24.00	9006050020500
0.0819	#45	2.08	49.00	20.88	24.00	9006050020800
0.0827		2.10	49.00	20.85	24.00	9006050021000
0.0835		2.12	49.00	20.82	24.00	9006050021200
0.0846		2.15	53.00	23.78	27.00	9006050021500
0.0858	#44	2.18	53.00	23.73	27.00	9006050021800
0.0866		2.20	53.00	23.70	27.00	9006050022000
0.0886		2.25	53.00	23.63	27.00	9006050022500
0.0890	#43	2.26	53.00	23.61	27.00	9006050022600
0.0906		2.30	53.00	23.55	27.00	9006050023000
0.0913		2.32	53.00	23.52	27.00	9006050023200
0.0925		2.35	53.00	23.48	27.00	9006050023500
0.0933	#42	2.37	57.00	26.45	30.00	9006050023700
0.0937	3/32	2.38	57.00	26.43	30.00	9006050023800
0.0945		2.40	57.00	26.40	30.00	9006050024000
0.0965		2.45	57.00	26.33	30.00	9006050024500
0.0980	#40	2.49	57.00	26.27	30.00	9006050024900
0.0984		2.50	57.00	26.25	30.00	9006050025000
0.0996	#39	2.53	57.00	26.21	30.00	9006050025300
0.1004		2.55	57.00	26.18	30.00	9006050025500
0.1024		2.60	57.00	26.10	30.00	9006050026000
0.1043		2.65	57.00	26.03	30.00	9006050026500
0.1063		2.70	61.00	28.95	33.00	9006050027000
0.1067	#36	2.71	61.00	28.94	33.00	9006050027100
0.1083		2.75	61.00	28.88	33.00	9006050027500
0.1094	7/64	2.78	61.00	28.83	33.00	9006050027800
0.1098	#35	2.79	61.00	28.82	33.00	9006050027900
0.1102		2.80	61.00	28.80	33.00	9006050028000
0.1106		2.81	61.00	28.79	33.00	9006050028100
0.1110	#34	2.82	61.00	28.77	33.00	9006050028200
0.1122		2.85	61.00	28.73	33.00	9006050028500
0.1130	#33	2.87	61.00	28.70	33.00	9006050028700
0.1142		2.90	61.00	28.65	33.00	9006050029000
0.1161	#32	2.95	61.00	28.58	33.00	9006050029500
0.1181		3.00	61.00	28.50	33.00	9006050030000
0.1193		3.03	65.00	31.46	36.00	9006050030300
0.1201	#31	3.05	65.00	31.43	36.00	9006050030500
0.1220		3.10	65.00	31.35	36.00	9006050031000
0.1240		3.15	65.00	31.28	36.00	9006050031500
0.1248	1/8	3.17	65.00	31.25	36.00	9006050031700
0.1260		3.20	65.00	31.20	36.00	9006050032000
0.1280		3.25	65.00	31.13	36.00	9006050032500
0.1283	#30	3.26	65.00	31.11	36.00	9006050032600
0.1299		3.30	65.00	31.05	36.00	9006050033000
0.1319		3.35	65.00	30.98	36.00	9006050033500
0.1339		3.40	70.00	33.90	39.00	9006050034000
0.1358	#29	3.45	70.00	33.83	39.00	9006050034500
0.1378		3.50	70.00	33.75	39.00	9006050035000
0.1398		3.55	70.00	33.68	39.00	9006050035500
0.1406	9/64 #28	3.57	70.00	33.65	39.00	9006050035700
0.1417		3.60	70.00	33.60	39.00	9006050036000
0.1437		3.65	70.00	33.53	39.00	9006050036500
0.1457		3.70	70.00	33.45	39.00	9006050037000
0.1476		3.75	70.00	33.38	39.00	9006050037500
0.1496	#25	3.80	75.00	37.30	43.00	9006050038000
0.1535		3.90	75.00	37.15	43.00	9006050039000
0.1555		3.95	75.00	37.08	43.00	9006050039500
0.1563	5/32	3.97	75.00	37.05	43.00	9006050039700
0.1575		4.00	75.00	37.00	43.00	9006050040000
0.1591	#21	4.04	75.00	36.94	43.00	9006050040400
0.1594		4.05	75.00	36.93	43.00	9006050040500

Diameter (d_1) inch	wire/ltr	mm	l_1 mm	t_{max} mm	l_2 mm	EDP #
0.1614		4.10	75.00	36.85	43.00	9006050041000
0.1634		4.15	75.00	36.78	43.00	9006050041500
0.1654		4.20	75.00	36.70	43.00	9006050042000
0.1661	#19	4.22	75.00	36.67	43.00	9006050042200
0.1673		4.25	75.00	36.63	43.00	9006050042500
0.1693	#18	4.30	80.00	40.55	47.00	9006050043000
0.1713		4.35	80.00	40.48	47.00	9006050043500
0.1720	11/64	4.37	80.00	40.45	47.00	9006050043700
0.1732		4.40	80.00	40.40	47.00	9006050044000
0.1772	#16	4.50	80.00	40.25	47.00	9006050045000
0.1799	#15	4.57	80.00	40.15	47.00	9006050045700
0.1811		4.60	80.00	40.10	47.00	9006050046000
0.1850	#13	4.70	80.00	39.95	47.00	9006050047000
0.1870		4.75	80.00	39.88	47.00	9006050047500
0.1874	3/16	4.76	86.00	44.86	52.00	9006050047600
0.1890	#12	4.80	86.00	44.80	52.00	9006050048000
0.1909	#11	4.85	86.00	44.73	52.00	9006050048500
0.1929		4.90	86.00	44.65	52.00	9006050049000
0.1969		5.00	86.00	44.50	52.00	9006050050000
0.1988		5.05	86.00	44.43	52.00	9006050050500
0.2008		5.10	86.00	44.35	52.00	9006050051000
0.2012	#7	5.11	86.00	44.34	52.00	9006050051100
0.2031	13/64	5.16	86.00	44.26	52.00	9006050051600
0.2047		5.20	86.00	44.20	52.00	9006050052000
0.2087		5.30	86.00	44.05	52.00	9006050053000
0.2126		5.40	93.00	48.90	57.00	9006050054000
0.2130	#3	5.41	93.00	48.89	57.00	9006050054100
0.2165		5.50	93.00	48.75	57.00	9006050055000
0.2185		5.55	93.00	48.68	57.00	9006050055500
0.2189	7/32	5.56	93.00	48.66	57.00	9006050055600
0.2209	#2	5.61	93.00	48.59	57.00	9006050056100
0.2244		5.70	93.00	48.45	57.00	9006050057000
0.2264		5.75	93.00	48.38	57.00	9006050057500
0.2283		5.80	93.00	48.30	57.00	9006050058000
0.2323		5.90	93.00	48.15	57.00	9006050059000
0.2343	15/64	5.95	93.00	48.08	57.00	9006050059500
0.2362		6.00	93.00	48.00	57.00	9006050060000
0.2382		6.05	101.00	53.93	63.00	9006050060500
0.2394		6.08	101.00	53.88	63.00	9006050060800
0.2402		6.10	101.00	53.85	63.00	9006050061000
0.2441		6.20	101.00	53.70	63.00	9006050062000
0.2480		6.30	101.00	53.55	63.00	9006050063000
0.2500	1/4 E	6.35	101.00	53.48	63.00	9006050063500
0.2520		6.40	101.00	53.40	63.00	9006050064000
0.2559		6.50	101.00	53.25	63.00	9006050065000
0.2598		6.60	101.00	53.10	63.00	9006050066000
0.2638		6.70	101.00	52.95	63.00	9006050067000
0.2657	17/64 H	6.75	109.00	58.88	69.00	9006050067500
0.2677		6.80	109.00	58.80	69.00	9006050068000
0.2717	I	6.90	109.00	58.65	69.00	9006050069000
0.2756		7.00	109.00	58.50	69.00	9006050070000
0.2795		7.10	109.00	58.35	69.00	9006050071000
0.2811	9/32 K	7.14	109.00	58.29	69.00	9006050071400
0.2835		7.20	109.00	58.20	69.00	9006050072000
0.2874		7.30	109.00	58.05	69.00	9006050073000
0.2913		7.40	109.00	57.90	69.00	9006050074000
0.2953		7.50	109.00	57.75	69.00	9006050075000
0.2969	19/64	7.54	117.00	63.69	75.00	9006050075400
0.2992		7.60	117.00	63.60	75.00	9006050076000
0.3031		7.70	117.00	63.45	75.00	9006050077000
0.3071		7.80	117.00	63.30	75.00	9006050078000
0.3110		7.90	117.00	63.15	75.00	9006050079000
0.3126	5/16	7.94	117.00	63.09	75.00	9006050079400
0.3150		8.00	117.00	63.00	75.00	9006050080000
0.3189		8.10	117.00	62.85	75.00	9006050081000
0.3228	P	8.20	117.00	62.70	75.00	9006050082000

Jobber length drills

Series no. **605**

Diameter (d_1) inch	wire/ltr	mm	l_1 mm	t_{max} mm	l_2 mm	EDP #
0.3268		8.30	117.00	62.55	75.00	**9006050083000**
0.3280	21/64	8.33	117.00	62.51	75.00	**9006050083300**
0.3307		8.40	117.00	62.40	75.00	**9006050084000**
0.3346		8.50	117.00	62.25	75.00	**9006050085000**
0.3386		8.60	125.00	68.10	81.00	**9006050086000**
0.3425		8.70	125.00	67.95	81.00	**9006050087000**
0.3437	11/32	8.73	125.00	67.91	81.00	**9006050087300**
0.3465		8.80	125.00	67.80	81.00	**9006050088000**
0.3504		8.90	125.00	67.65	81.00	**9006050089000**
0.3543		9.00	125.00	67.50	81.00	**9006050090000**
0.3583		9.10	125.00	67.35	81.00	**9006050091000**
0.3594	23/64	9.13	125.00	67.31	81.00	**9006050091300**
0.3622		9.20	125.00	67.20	81.00	**9006050092000**
0.3661		9.30	125.00	67.05	81.00	**9006050093000**
0.3701		9.40	125.00	66.90	81.00	**9006050094000**
0.3740		9.50	125.00	66.75	81.00	**9006050095000**
0.3748	3/8	9.52	133.00	72.72	87.00	**9006050095200**
0.3780		9.60	133.00	72.60	87.00	**9006050096000**
0.3819		9.70	133.00	72.45	87.00	**9006050097000**
0.3858	W	9.80	133.00	72.30	87.00	**9006050098000**
0.3898		9.90	133.00	72.15	87.00	**9006050099000**
0.3906	25/64	9.92	133.00	72.12	87.00	**9006050099200**
0.3937		10.00	133.00	72.00	87.00	**9006050100000**
0.4016		10.20	133.00	71.70	87.00	**9006050102000**
0.4055		10.30	133.00	71.55	87.00	**9006050103000**
0.4063	13/32	10.32	133.00	71.52	87.00	**9006050103200**
0.4134		10.50	133.00	71.25	87.00	**9006050105000**
0.4173		10.60	133.00	71.10	87.00	**9006050106000**
0.4220	27/64	10.72	142.00	77.92	94.00	**9006050107200**

Diameter (d_1) inch	wire/ltr	mm	l_1 mm	t_{max} mm	l_2 mm	EDP #
0.4252		10.80	142.00	77.80	94.00	**9006050108000**
0.4331		11.00	142.00	77.50	94.00	**9006050110000**
0.4374	7/16	11.11	142.00	77.34	94.00	**9006050111100**
0.4449		11.30	142.00	77.05	94.00	**9006050113000**
0.4528		11.50	142.00	76.75	94.00	**9006050115000**
0.4531	29/64	11.51	142.00	76.74	94.00	**9006050115100**
0.4606		11.70	142.00	76.45	94.00	**9006050117000**
0.4689	15/32	11.91	151.00	83.14	101.00	**9006050119100**
0.4724		12.00	151.00	83.00	101.00	**9006050120000**
0.4803		12.20	151.00	82.70	101.00	**9006050122000**
0.4843	31/64	12.30	151.00	82.55	101.00	**9006050123000**
0.4921		12.50	151.00	82.25	101.00	**9006050125000**
0.5000	1/2	12.70	151.00	81.95	101.00	**9006050127000**
0.5118		13.00	151.00	81.50	101.00	**9006050130000**
0.5157	33/64	13.10	151.00	81.35	101.00	**9006050131000**
0.5469	35/64	13.89	160.00	87.17	108.00	**9006050138900**
0.5512		14.00	160.00	87.00	108.00	**9006050140000**
0.5626	9/16	14.29	169.00	92.57	114.00	**9006050142900**
0.5709		14.50	169.00	92.25	114.00	**9006050145000**
0.5780	37/64	14.68	169.00	91.98	114.00	**9006050146800**
0.5906		15.00	169.00	91.50	114.00	**9006050150000**
0.6102		15.50	178.00	96.75	120.00	**9006050155000**
0.6299		16.00	178.00	96.00	120.00	**9006050160000**
0.6496		16.50	184.00	100.25	125.00	**9006050165000**
0.6693		17.00	184.00	99.50	125.00	**9006050170000**
0.6890		17.50	191.00	103.75	130.00	**9006050175000**
0.7087		18.00	191.00	103.00	130.00	**9006050180000**
0.7480		19.00	198.00	106.50	135.00	**9006050190000**

Series # 605

Material group	Hardness HRc	Hardness Bhn	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	- ≤ 32	≤ 150 ≤ 301											
Free-cutting steels	≤ 25 ≤ 32	≤ 255 ≤ 301											
Unalloyed heat-treatable steels	≤ 20 ≤ 25 ≤ 32	≤ 220 ≤ 255 ≤ 301											
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402	45	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Unalloyed case hardened steels	≤ 25	≤ 255											
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402	35	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402	30	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402	30	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
High speed steels	≤ 43	≤ 402	30	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
Spring steels	≤ 38	≤ 354	25	0.0007	0.0020	0.0030	0.0040	0.0050	0.0050	0.0055			
Hardened steels	≤ 48 ≤ 66	≤ 460 -											
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 ≤ 46	≤ 273 ≤ 337 ≤ 435	45 30 35	0.0012 0.0010 0.0010	0.0030 0.0025 0.0025	0.0050 0.0040 0.0040	0.0065 0.0050 0.0050	0.0080 0.0065 0.0065	0.0080 0.0065 0.0065	0.0090 0.0070 0.0070			
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354											
Spheroidal graphite iron and malleable cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354											
Chilled cast iron	≤ 38	≤ 354	25	0.0010	0.0025	0.0040	0.0050	0.0065	0.0065	0.0070			
New cast materials GGV	≤ 20 ≤ 32	≤ 220 ≤ 301											
New cast materials ADI	≤ 32 ≤ 43	≤ 301 ≤ 402											
Special alloys	≤ 54	≤ 549	15	0.0005	0.0015	0.0025	0.0030	0.0040	0.0040	0.0045			
Ti and Ti-alloys	≤ 25 ≤ 43	≤ 255 ≤ 402	30 15	0.0007 0.0007	0.0020 0.0020	0.0030 0.0030	0.0040 0.0040	0.0050 0.0050	0.0050 0.0050	0.0055 0.0055			
Aluminium and Al-alloys	-	≤ 120											
Al wrought alloys	-	≤ 200											
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180											
Magnesium alloys	-	≤ 120											
Copper, low-alloyed	-	≤ 150											
Brass, short-chipping long-chipping	- -	≤ 180 ≤ 180											
Bronze, short-chipping	- ≤ 25	≤ 180 ≤ 255											
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301											
Duroplastics Thermoplastics Reinforced plastics - Kevlar Reinforced plastics - GFK / CFK													

Series # 609

Material group	Hardness HRc	Hardness Bhn	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	- ≤ 32	≤ 150 ≤ 301		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080					
Free-cutting steels	≤ 25 ≤ 32	≤ 255 ≤ 301		0.0050 0.0040	0.0080 0.0065	0.0100 0.0080	0.0125 0.0100	0.0125 0.0100					
Unalloyed heat-treatable steels	≤ 20 ≤ 25 ≤ 32	≤ 220 ≤ 255 ≤ 301		0.0040 0.0040 0.0040	0.0065 0.0065 0.0065	0.0080 0.0080 0.0080	0.0100 0.0100 0.0100	0.0100 0.0100 0.0100					
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080					
Unalloyed case hardened steels	≤ 25	≤ 255		0.0050	0.0080	0.0100	0.0125	0.0125					
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402		0.0040 0.0030	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080	0.0100 0.0080					
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402		0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080	0.0080 0.0080					
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402		0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080	0.0080 0.0080					
High speed steels	≤ 43	≤ 402		0.0025	0.0040	0.0050	0.0065	0.0065					
Spring steels	≤ 38	≤ 354											
Hardened steels	≤ 48 ≤ 66	≤ 460 -											
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 ≤ 46	≤ 273 ≤ 337 ≤ 435		0.0025 0.0025 0.0020	0.0040 0.0040 0.0030	0.0050 0.0050 0.0040	0.0065 0.0065 0.0050	0.0065 0.0065 0.0050					
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354		0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0125					
Spheroidal graphite iron and malleable cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354		0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0125					
Chilled cast iron	≤ 38	≤ 354											
New cast materials GGV	≤ 20 ≤ 32	≤ 220 ≤ 301											
New cast materials ADI	≤ 32 ≤ 43	≤ 301 ≤ 402											
Special alloys	≤ 54	≤ 549											
Ti and Ti-alloys	≤ 25 ≤ 43	≤ 255 ≤ 402		0.0025 0.0020	0.0040 0.0030	0.0050 0.0040	0.0065 0.0050	0.0065 0.0050					
Aluminium and Al-alloys	-	≤ 120		0.0065	0.0100	0.0125	0.0160	0.0160					
Al wrought alloys	-	≤ 200		0.0050	0.0080	0.0100	0.0125	0.0125					
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180		0.0065 0.0050	0.0100 0.0080	0.0125 0.0100	0.0160 0.0125	0.0160 0.0125					
Magnesium alloys	-	≤ 120		0.0050	0.0080	0.0100	0.0125	0.0125					
Copper, low-alloyed	-	≤ 150											
Brass, short-chipping long-chipping	- -	≤ 180 ≤ 180		0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125	0.0125 0.0125					
Bronze, short-chipping	- ≤ 25	≤ 180 ≤ 255		0.0025	0.0040	0.0050	0.0065	0.0065					
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301											
Duroplastics Thermoplastics Reinforced plastics - Kevlar Reinforced plastics - GFK / CFK													