

Tool material

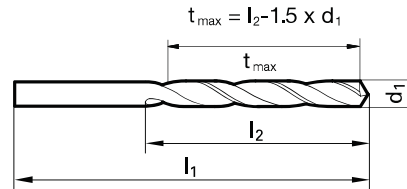
HSC

Surface



P	Steel	●	web thinning $\geq \varnothing 1.000$ • relieved cone • Co-alloyed high speed steel • increased wear resistance
M	Stainless steel	○	
K	Cast iron	●	alloyed/unalloyed steel and cast steel • cast materials over 800 N/mm ² • hot and cold rolled steels • antifriction bearing steels • high-alloyed S steels • heat treatable and case hardened steels
N	Aluminum	○	
S	Titanium alloys		
H	Hardened steel		

●=Optimal
○=Limited



Jobber Length

Speeds and feeds information on pg. 489

Shank diameter = cut diameter

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0079	#92	0.20	19.00	2.20	2.50	9003050002000
0.0083	#91	0.21	19.00	2.19	2.50	9003050002100
0.0087	#90	0.22	19.00	2.17	2.50	9003050002200
0.0091	#89	0.23	19.00	2.16	2.50	9003050002300
0.0098	#87	0.25	19.00	2.63	3.00	9003050002500
0.0102		0.26	19.00	2.61	3.00	9003050002600
0.0106	#86	0.27	19.00	2.60	3.00	9003050002700
0.0110	#85	0.28	19.00	2.58	3.00	9003050002800
0.0118		0.30	19.00	2.55	3.00	9003050003000
0.0122	#83	0.31	19.00	3.54	4.00	9003050003100
0.0126	#82	0.32	19.00	3.52	4.00	9003050003200
0.0130	#81	0.33	19.00	3.51	4.00	9003050003300
0.0134	#80	0.34	19.00	3.49	4.00	9003050003400
0.0138		0.35	19.00	3.48	4.00	9003050003500
0.0146	#79	0.37	19.00	3.45	4.00	9003050003700
0.0150		0.38	19.00	3.43	4.00	9003050003800
0.0157	1/64	0.40	20.00	4.40	5.00	9003050004000
0.0161	#78	0.41	20.00	4.39	5.00	9003050004100
0.0165		0.42	20.00	4.37	5.00	9003050004200
0.0169		0.43	20.00	4.36	5.00	9003050004300
0.0173		0.44	20.00	4.34	5.00	9003050004400
0.0177		0.45	20.00	4.33	5.00	9003050004500
0.0181	#77	0.46	20.00	4.31	5.00	9003050004600
0.0185		0.47	20.00	4.30	5.00	9003050004700
0.0189		0.48	20.00	4.28	5.00	9003050004800
0.0193		0.49	22.00	5.27	6.00	9003050004900
0.0197		0.50	22.00	5.25	6.00	9003050005000
0.0201	#76	0.51	22.00	5.24	6.00	9003050005100
0.0205		0.52	22.00	5.22	6.00	9003050005200
0.0209	#75	0.53	22.00	5.21	6.00	9003050005300
0.0213		0.54	24.00	6.19	7.00	9003050005400
0.0217		0.55	24.00	6.18	7.00	9003050005500
0.0220		0.56	24.00	6.16	7.00	9003050005600
0.0224	#74	0.57	24.00	6.15	7.00	9003050005700
0.0232		0.59	24.00	6.12	7.00	9003050005900
0.0236		0.60	24.00	6.10	7.00	9003050006000
0.0240	#73	0.61	26.00	7.09	8.00	9003050006100
0.0244		0.62	26.00	7.07	8.00	9003050006200
0.0252	#72	0.64	26.00	7.04	8.00	9003050006400
0.0256		0.65	26.00	7.03	8.00	9003050006500
0.0260	#71	0.66	26.00	7.01	8.00	9003050006600
0.0264		0.67	26.00	7.00	8.00	9003050006700
0.0268		0.68	28.00	7.98	9.00	9003050006800
0.0276		0.70	28.00	7.95	9.00	9003050007000
0.0280	#70	0.71	28.00	7.94	9.00	9003050007100

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0283		0.72	28.00	7.92	9.00	9003050007200
0.0291	#69	0.74	28.00	7.89	9.00	9003050007400
0.0295		0.75	28.00	7.88	9.00	9003050007500
0.0299		0.76	30.00	8.86	10.00	9003050007600
0.0303		0.77	30.00	8.85	10.00	9003050007700
0.0307		0.78	30.00	8.83	10.00	9003050007800
0.0311	1/32 #68	0.79	30.00	8.82	10.00	9003050007900
0.0315		0.80	30.00	8.80	10.00	9003050008000
0.0319	#67	0.81	30.00	8.79	10.00	9003050008100
0.0323		0.82	30.00	8.77	10.00	9003050008200
0.0331	#66	0.84	30.00	8.74	10.00	9003050008400
0.0335		0.85	30.00	8.73	10.00	9003050008500
0.0339		0.86	32.00	9.71	11.00	9003050008600
0.0343		0.87	32.00	9.70	11.00	9003050008700
0.0346		0.88	32.00	9.68	11.00	9003050008800
0.0350	#65	0.89	32.00	9.67	11.00	9003050008900
0.0354		0.90	32.00	9.65	11.00	9003050009000
0.0358	#64	0.91	32.00	9.64	11.00	9003050009100
0.0362		0.92	32.00	9.62	11.00	9003050009200
0.0370	#63	0.94	32.00	9.59	11.00	9003050009400
0.0374		0.95	32.00	9.58	11.00	9003050009500
0.0378		0.96	34.00	10.56	12.00	9003050009600
0.0382	#62	0.97	34.00	10.55	12.00	9003050009700
0.0390	#61	0.99	34.00	10.52	12.00	9003050009900
0.0394		1.00	34.00	10.50	12.00	9003050010000
0.0398		1.01	34.00	10.49	12.00	9003050010100
0.0402	#60	1.02	34.00	10.47	12.00	9003050010200
0.0406		1.03	34.00	10.46	12.00	9003050010300
0.0409	#59	1.04	34.00	10.44	12.00	9003050010400
0.0413		1.05	34.00	10.43	12.00	9003050010500
0.0421	#58	1.07	36.00	12.40	14.00	9003050010700
0.0425		1.08	36.00	12.38	14.00	9003050010800
0.0429	#57	1.09	36.00	12.37	14.00	9003050010900
0.0433		1.10	36.00	12.35	14.00	9003050011000
0.0449		1.14	36.00	12.29	14.00	9003050011400
0.0453		1.15	36.00	12.28	14.00	9003050011500
0.0457		1.16	36.00	12.26	14.00	9003050011600
0.0461		1.17	36.00	12.25	14.00	9003050011700
0.0465	#56	1.18	36.00	12.23	14.00	9003050011800
0.0469	3/64	1.19	38.00	14.22	16.00	9003050011900
0.0472		1.20	38.00	14.20	16.00	9003050012000
0.0480		1.22	38.00	14.17	16.00	9003050012200
0.0484		1.23	38.00	14.16	16.00	9003050012300
0.0492		1.25	38.00	14.13	16.00	9003050012500
0.0508		1.29	38.00	14.07	16.00	9003050012900

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0512	#55	1.30	38.00	14.05	16.00	9003050013000
0.0520		1.32	38.00	14.02	16.00	9003050013200
0.0524		1.33	40.00	16.01	18.00	9003050013300
0.0531		1.35	40.00	15.98	18.00	9003050013500
0.0535		1.36	40.00	15.96	18.00	9003050013600
0.0539	#54	1.37	40.00	15.95	18.00	9003050013700
0.0543		1.38	40.00	15.93	18.00	9003050013800
0.0551		1.40	40.00	15.90	18.00	9003050014000
0.0555		1.41	40.00	15.89	18.00	9003050014100
0.0559		1.42	40.00	15.87	18.00	9003050014200
0.0563	#53	1.43	40.00	15.86	18.00	9003050014300
0.0567		1.44	40.00	15.84	18.00	9003050014400
0.0571		1.45	40.00	15.83	18.00	9003050014500
0.0583		1.48	40.00	15.78	18.00	9003050014800
0.0591		1.50	40.00	15.75	18.00	9003050015000
0.0594	1/16	1.51	43.00	17.74	20.00	9003050015100
0.0598		1.52	43.00	17.72	20.00	9003050015200
0.0602		1.53	43.00	17.71	20.00	9003050015300
0.0610		1.55	43.00	17.68	20.00	9003050015500
0.0614		1.56	43.00	17.66	20.00	9003050015600
0.0618	#52	1.57	43.00	17.65	20.00	9003050015700
0.0622		1.58	43.00	17.63	20.00	9003050015800
0.0626		1.59	43.00	17.62	20.00	9003050015900
0.0630		1.60	43.00	17.60	20.00	9003050016000
0.0634		1.61	43.00	17.59	20.00	9003050016100
0.0638	#51	1.62	43.00	17.57	20.00	9003050016200
0.0646		1.64	43.00	17.54	20.00	9003050016400
0.0650		1.65	43.00	17.53	20.00	9003050016500
0.0654		1.66	43.00	17.51	20.00	9003050016600
0.0657		1.67	43.00	17.50	20.00	9003050016700
0.0661	#50	1.68	43.00	17.48	20.00	9003050016800
0.0669		1.70	43.00	17.45	20.00	9003050017000
0.0673		1.71	46.00	19.44	22.00	9003050017100
0.0677		1.72	46.00	19.42	22.00	9003050017200
0.0681		1.73	46.00	19.41	22.00	9003050017300
0.0689	#49	1.75	46.00	19.38	22.00	9003050017500
0.0693		1.76	46.00	19.36	22.00	9003050017600
0.0701		1.78	46.00	19.33	22.00	9003050017800
0.0705		1.79	46.00	19.32	22.00	9003050017900
0.0709		1.80	46.00	19.30	22.00	9003050018000
0.0713	#48	1.81	46.00	19.29	22.00	9003050018100
0.0717		1.82	46.00	19.27	22.00	9003050018200
0.0720		1.83	46.00	19.26	22.00	9003050018300
0.0724		1.84	46.00	19.24	22.00	9003050018400
0.0728		1.85	46.00	19.23	22.00	9003050018500
0.0732	5/64	1.86	46.00	19.21	22.00	9003050018600
0.0748		1.90	46.00	19.15	22.00	9003050019000
0.0760		1.93	49.00	21.11	24.00	9003050019300
0.0768		1.95	49.00	21.08	24.00	9003050019500
0.0776		1.97	49.00	21.05	24.00	9003050019700
0.0780	#47	1.98	49.00	21.03	24.00	9003050019800
0.0783		1.99	49.00	21.02	24.00	9003050019900
0.0787		2.00	49.00	21.00	24.00	9003050020000
0.0791		2.01	49.00	20.99	24.00	9003050020100
0.0795		2.02	49.00	20.97	24.00	9003050020200
0.0799	#46	2.03	49.00	20.96	24.00	9003050020300
0.0803		2.04	49.00	20.94	24.00	9003050020400
0.0807		2.05	49.00	20.93	24.00	9003050020500
0.0811		2.06	49.00	20.91	24.00	9003050020600
0.0819		2.08	49.00	20.88	24.00	9003050020800
0.0827	#45	2.10	49.00	20.85	24.00	9003050021000
0.0846		2.15	53.00	23.78	27.00	9003050021500
0.0858		2.18	53.00	23.73	27.00	9003050021800
0.0866		2.20	53.00	23.70	27.00	9003050022000
0.0878		2.23	53.00	23.66	27.00	9003050022300
0.0886	#44	2.25	53.00	23.63	27.00	9003050022500

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0890	#43	2.26	53.00	23.61	27.00	9003050022600
0.0906		2.30	53.00	23.55	27.00	9003050023000
0.0925		2.35	53.00	23.48	27.00	9003050023500
0.0933	3/32	2.37	57.00	26.45	30.00	9003050023700
0.0937		2.38	57.00	26.43	30.00	9003050023800
0.0945		2.40	57.00	26.40	30.00	9003050024000
0.0961	#41	2.44	57.00	26.34	30.00	9003050024400
0.0965		2.45	57.00	26.33	30.00	9003050024500
0.0972		2.47	57.00	26.30	30.00	9003050024700
0.0980	#40	2.49	57.00	26.27	30.00	9003050024900
0.0984		2.50	57.00	26.25	30.00	9003050025000
0.0992		2.52	57.00	26.22	30.00	9003050025200
0.0996	#39	2.53	57.00	26.21	30.00	9003050025300
0.1004		2.55	57.00	26.18	30.00	9003050025500
0.1016		2.58	57.00	26.13	30.00	9003050025800
0.1024	#37	2.60	57.00	26.10	30.00	9003050026000
0.1039		2.64	57.00	26.04	30.00	9003050026400
0.1043		2.65	57.00	26.03	30.00	9003050026500
0.1063	#36	2.70	61.00	28.95	33.00	9003050027000
0.1067		2.71	61.00	28.94	33.00	9003050027100
0.1083		2.75	61.00	28.88	33.00	9003050027500
0.1094	7/64	2.78	61.00	28.83	33.00	9003050027800
0.1098	#35	2.79	61.00	28.82	33.00	9003050027900
0.1102		2.80	61.00	28.80	33.00	9003050028000
0.1110		2.82	61.00	28.77	33.00	9003050028200
0.1122	#34	2.85	61.00	28.73	33.00	9003050028500
0.1130		2.87	61.00	28.70	33.00	9003050028700
0.1142		2.90	61.00	28.65	33.00	9003050029000
0.1150	#32	2.92	61.00	28.62	33.00	9003050029200
0.1161		2.95	61.00	28.58	33.00	9003050029500
0.1169		2.97	61.00	28.55	33.00	9003050029700
0.1181	#33	3.00	61.00	28.50	33.00	9003050030000
0.1193		3.03	65.00	31.46	36.00	9003050030300
0.1201		3.05	65.00	31.43	36.00	9003050030500
0.1220	1/8	3.10	65.00	31.35	36.00	9003050031000
0.1240		3.15	65.00	31.28	36.00	9003050031500
0.1248		3.17	65.00	31.25	36.00	9003050031700
0.1260	#30	3.20	65.00	31.20	36.00	9003050032000
0.1280		3.25	65.00	31.13	36.00	9003050032500
0.1283		3.26	65.00	31.11	36.00	9003050032600
0.1299	#29	3.30	65.00	31.05	36.00	9003050033000
0.1311		3.33	65.00	31.01	36.00	9003050033300
0.1319		3.35	65.00	30.98	36.00	9003050033500
0.1339	9/64	3.40	70.00	33.90	39.00	9003050034000
0.1358		3.45	70.00	33.83	39.00	9003050034500
0.1378		3.50	70.00	33.75	39.00	9003050035000
0.1406	#28	3.57	70.00	33.65	39.00	9003050035700
0.1417		3.60	70.00	33.60	39.00	9003050036000
0.1441		3.66	70.00	33.51	39.00	9003050036600
0.1457	#27	3.70	70.00	33.45	39.00	9003050037000
0.1469		3.73	70.00	33.41	39.00	9003050037300
0.1476		3.75	70.00	33.38	39.00	9003050037500
0.1496	#26	3.80	75.00	37.30	43.00	9003050038000
0.1516		3.85	75.00	37.23	43.00	9003050038500
0.1520		3.86	75.00	37.21	43.00	9003050038600
0.1535	#25	3.90	75.00	37.15	43.00	9003050039000
0.1539		3.91	75.00	37.14	43.00	9003050039100
0.1563		3.97	75.00	37.05	43.00	9003050039700
0.1571	5/32	3.99	75.00	37.02	43.00	9003050039900
0.1575	#22	4.00	75.00	37.00	43.00	9003050040000
0.1591		4.04	75.00	36.94	43.00	9003050040400
0.1610		4.09	75.00	36.87	43.00	9003050040900
0.1614	#21	4.10	75.00	36.85	43.00	9003050041000
0.1622		4.12	75.00	36.82	43.00	9003050041200
0.1634		4.15	75.00	36.78	43.00	9003050041500
0.1642	#20	4.17	75.00	36.75	43.00	9003050041700

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.1654		4.20	75.00	36.70	43.00	9003050042000
0.1661	#19	4.22	75.00	36.67	43.00	9003050042200
0.1673		4.25	75.00	36.63	43.00	9003050042500
0.1693	#18	4.30	80.00	40.55	47.00	9003050043000
0.1720	11/64	4.37	80.00	40.45	47.00	9003050043700
0.1728	#17	4.39	80.00	40.42	47.00	9003050043900
0.1732		4.40	80.00	40.40	47.00	9003050044000
0.1752		4.45	80.00	40.33	47.00	9003050044500
0.1772	#16	4.50	80.00	40.25	47.00	9003050045000
0.1799	#15	4.57	80.00	40.15	47.00	9003050045700
0.1811		4.60	80.00	40.10	47.00	9003050046000
0.1819	#14	4.62	80.00	40.07	47.00	9003050046200
0.1831		4.65	80.00	40.03	47.00	9003050046500
0.1850	#13	4.70	80.00	39.95	47.00	9003050047000
0.1870		4.75	80.00	39.88	47.00	9003050047500
0.1874	3/16	4.76	86.00	44.86	52.00	9003050047600
0.1890	#12	4.80	86.00	44.80	52.00	9003050048000
0.1909	#11	4.85	86.00	44.73	52.00	9003050048500
0.1929		4.90	86.00	44.65	52.00	9003050049000
0.1937	#10	4.92	86.00	44.62	52.00	9003050049200
0.1961	#9	4.98	86.00	44.53	52.00	9003050049800
0.1969		5.00	86.00	44.50	52.00	9003050050000
0.1992	#8	5.06	86.00	44.41	52.00	9003050050600
0.2008		5.10	86.00	44.35	52.00	9003050051000
0.2012	#7	5.11	86.00	44.34	52.00	9003050051100
0.2031	13/64	5.16	86.00	44.26	52.00	9003050051600
0.2039	#6	5.18	86.00	44.23	52.00	9003050051800
0.2047		5.20	86.00	44.20	52.00	9003050052000
0.2055	#5	5.22	86.00	44.17	52.00	9003050052200
0.2067		5.25	86.00	44.13	52.00	9003050052500
0.2087		5.30	86.00	44.05	52.00	9003050053000
0.2091	#4	5.31	93.00	49.04	57.00	9003050053100
0.2126		5.40	93.00	48.90	57.00	9003050054000
0.2130	#3	5.41	93.00	48.89	57.00	9003050054100
0.2165		5.50	93.00	48.75	57.00	9003050055000
0.2189	7/32	5.56	93.00	48.66	57.00	9003050055600
0.2205		5.60	93.00	48.60	57.00	9003050056000
0.2209	#2	5.61	93.00	48.59	57.00	9003050056100
0.2224		5.65	93.00	48.53	57.00	9003050056500
0.2244		5.70	93.00	48.45	57.00	9003050057000
0.2264		5.75	93.00	48.38	57.00	9003050057500
0.2280	#1	5.79	93.00	48.32	57.00	9003050057900
0.2283		5.80	93.00	48.30	57.00	9003050058000
0.2303		5.85	93.00	48.23	57.00	9003050058500
0.2323		5.90	93.00	48.15	57.00	9003050059000
0.2339	A	5.94	93.00	48.09	57.00	9003050059400
0.2343	15/64	5.95	93.00	48.08	57.00	9003050059500
0.2362		6.00	93.00	48.00	57.00	9003050060000
0.2378	B	6.04	101.00	53.94	63.00	9003050060400
0.2402		6.10	101.00	53.85	63.00	9003050061000
0.2421	C	6.15	101.00	53.78	63.00	9003050061500
0.2441		6.20	101.00	53.70	63.00	9003050062000
0.2461	D	6.25	101.00	53.63	63.00	9003050062500
0.2480		6.30	101.00	53.55	63.00	9003050063000
0.2500	1/4	6.35	101.00	53.48	63.00	9003050063500
0.2520		6.40	101.00	53.40	63.00	9003050064000
0.2539		6.45	101.00	53.33	63.00	9003050064500
0.2559		6.50	101.00	53.25	63.00	9003050065000
0.2571		6.53	101.00	53.21	63.00	9003050065300
0.2598		6.60	101.00	53.10	63.00	9003050066000
0.2610	G	6.63	101.00	53.06	63.00	9003050066300
0.2638		6.70	101.00	52.95	63.00	9003050067000
0.2657	17/64	6.75	109.00	58.88	69.00	9003050067500
0.2677		6.80	109.00	58.80	69.00	9003050068000
0.2717	I	6.90	109.00	58.65	69.00	9003050069000
0.2736		6.95	109.00	58.58	69.00	9003050069500

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.2756		7.00	109.00	58.50	69.00	9003050070000
0.2768	J	7.03	109.00	58.46	69.00	9003050070300
0.2776		7.05	109.00	58.43	69.00	9003050070500
0.2795		7.10	109.00	58.35	69.00	9003050071000
0.2811	9/32	7.14	109.00	58.29	69.00	9003050071400
0.2835		7.20	109.00	58.20	69.00	9003050072000
0.2854		7.25	109.00	58.13	69.00	9003050072500
0.2874		7.30	109.00	58.05	69.00	9003050073000
0.2902	L	7.37	109.00	57.95	69.00	9003050073700
0.2913		7.40	109.00	57.90	69.00	9003050074000
0.2949	M	7.49	109.00	57.77	69.00	9003050074900
0.2953		7.50	109.00	57.75	69.00	9003050075000
0.2969	19/64	7.54	117.00	63.69	75.00	9003050075400
0.2992		7.60	117.00	63.60	75.00	9003050076000
0.3020	N	7.67	117.00	63.50	75.00	9003050076700
0.3031		7.70	117.00	63.45	75.00	9003050077000
0.3051		7.75	117.00	63.38	75.00	9003050077500
0.3071		7.80	117.00	63.30	75.00	9003050078000
0.3110		7.90	117.00	63.15	75.00	9003050079000
0.3126	5/16	7.94	117.00	63.09	75.00	9003050079400
0.3150		8.00	117.00	63.00	75.00	9003050080000
0.3161	O	8.03	117.00	62.96	75.00	9003050080300
0.3189		8.10	117.00	62.85	75.00	9003050081000
0.3228	P	8.20	117.00	62.70	75.00	9003050082000
0.3248		8.25	117.00	62.63	75.00	9003050082500
0.3268		8.30	117.00	62.55	75.00	9003050083000
0.3280	21/64	8.33	117.00	62.51	75.00	9003050083300
0.3307		8.40	117.00	62.40	75.00	9003050084000
0.3319	Q	8.43	117.00	62.36	75.00	9003050084300
0.3346		8.50	117.00	62.25	75.00	9003050085000
0.3386		8.60	125.00	68.10	81.00	9003050086000
0.3390	R	8.61	125.00	68.09	81.00	9003050086100
0.3425		8.70	125.00	67.95	81.00	9003050087000
0.3437	11/32	8.73	125.00	67.91	81.00	9003050087300
0.3445		8.75	125.00	67.88	81.00	9003050087500
0.3465		8.80	125.00	67.80	81.00	9003050088000
0.3480	S	8.84	125.00	67.74	81.00	9003050088400
0.3504		8.90	125.00	67.65	81.00	9003050089000
0.3543		9.00	125.00	67.50	81.00	9003050090000
0.3579	T	9.09	125.00	67.37	81.00	9003050090900
0.3583		9.10	125.00	67.35	81.00	9003050091000
0.3594	23/64	9.13	125.00	67.31	81.00	9003050091300
0.3622		9.20	125.00	67.20	81.00	9003050092000
0.3642		9.25	125.00	67.13	81.00	9003050092500
0.3661		9.30	125.00	67.05	81.00	9003050093000
0.3677	U	9.34	125.00	66.99	81.00	9003050093400
0.3701		9.40	125.00	66.90	81.00	9003050094000
0.3740		9.50	125.00	66.75	81.00	9003050095000
0.3748	3/8	9.52	133.00	72.72	87.00	9003050095200
0.3772	V	9.58	133.00	72.63	87.00	9003050095800
0.3780		9.60	133.00	72.60	87.00	9003050096000
0.3799		9.65	133.00	72.53	87.00	9003050096500
0.3819		9.70	133.00	72.45	87.00	9003050097000
0.3839		9.75	133.00	72.38	87.00	9003050097500
0.3858	W	9.80	133.00	72.30	87.00	9003050098000
0.3878		9.85	133.00	72.23	87.00	9003050098500
0.3898		9.90	133.00	72.15	87.00	9003050099000
0.3906	25/64	9.92	133.00	72.12	87.00	9003050099200
0.3937		10.00	133.00	72.00	87.00	9003050100000
0.3969	X	10.08	133.00	71.88	87.00	9003050100800
0.3976		10.10	133.00	71.85	87.00	9003050101000
0.4016		10.20	133.00	71.70	87.00	9003050102000
0.4039	Y	10.26	133.00	71.61	87.00	9003050102600
0.4055		10.30	133.00	71.55	87.00	9003050103000
0.4063	13/32	10.32	133.00	71.52	87.00	9003050103200
0.4094		10.40	133.00	71.40	87.00	9003050104000

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.4130	Z	10.49	133.00	71.27	87.00	9003050104900
0.4134		10.50	133.00	71.25	87.00	9003050105000
0.4173		10.60	133.00	71.10	87.00	9003050106000
0.4213		10.70	142.00	77.95	94.00	9003050107000
0.4220	27/64	10.72	142.00	77.92	94.00	9003050107200
0.4232		10.75	142.00	77.88	94.00	9003050107500
0.4252		10.80	142.00	77.80	94.00	9003050108000
0.4291		10.90	142.00	77.65	94.00	9003050109000
0.4331		11.00	142.00	77.50	94.00	9003050110000
0.4374	7/16	11.11	142.00	77.34	94.00	9003050111100
0.4409		11.20	142.00	77.20	94.00	9003050112000
0.4429		11.25	142.00	77.13	94.00	9003050112500
0.4449		11.30	142.00	77.05	94.00	9003050113000
0.4488		11.40	142.00	76.90	94.00	9003050114000
0.4528		11.50	142.00	76.75	94.00	9003050115000
0.4531	29/64	11.51	142.00	76.74	94.00	9003050115100
0.4567		11.60	142.00	76.60	94.00	9003050116000
0.4626		11.75	142.00	76.38	94.00	9003050117500
0.4646		11.80	142.00	76.30	94.00	9003050118000
0.4685		11.90	151.00	83.15	101.00	9003050119000
0.4689	15/32	11.91	151.00	83.14	101.00	9003050119100
0.4724		12.00	151.00	83.00	101.00	9003050120000
0.4764		12.10	151.00	82.85	101.00	9003050121000
0.4803		12.20	151.00	82.70	101.00	9003050122000
0.4843	31/64	12.30	151.00	82.55	101.00	9003050123000
0.4882		12.40	151.00	82.40	101.00	9003050124000
0.4921		12.50	151.00	82.25	101.00	9003050125000
0.4961		12.60	151.00	82.10	101.00	9003050126000
0.5000	1/2	12.70	151.00	81.95	101.00	9003050127000
0.5039		12.80	151.00	81.80	101.00	9003050128000
0.5079		12.90	151.00	81.65	101.00	9003050129000
0.5118		13.00	151.00	81.50	101.00	9003050130000
0.5157	33/64	13.10	151.00	81.35	101.00	9003050131000
0.5197		13.20	151.00	81.20	101.00	9003050132000

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.5236		13.30	160.00	88.05	108.00	9003050133000
0.5311	17/32	13.49	160.00	87.77	108.00	9003050134900
0.5315		13.50	160.00	87.75	108.00	9003050135000
0.5354		13.60	160.00	87.60	108.00	9003050136000
0.5413		13.75	160.00	87.38	108.00	9003050137500
0.5433		13.80	160.00	87.30	108.00	9003050138000
0.5469	35/64	13.89	160.00	87.17	108.00	9003050138900
0.5512		14.00	160.00	87.00	108.00	9003050140000
0.5591		14.20	169.00	92.70	114.00	9003050142000
0.5626	9/16	14.29	169.00	92.57	114.00	9003050142900
0.5669		14.40	169.00	92.40	114.00	9003050144000
0.5709		14.50	169.00	92.25	114.00	9003050145000
0.5780	37/64	14.68	169.00	91.98	114.00	9003050146800
0.5807		14.75	169.00	91.88	114.00	9003050147500
0.5906		15.00	169.00	91.50	114.00	9003050150000
0.5945		15.10	178.00	97.35	120.00	9003050151000
0.6004		15.25	178.00	97.13	120.00	9003050152500
0.6024		15.30	178.00	97.05	120.00	9003050153000
0.6094	39/64	15.48	178.00	96.78	120.00	9003050154800
0.6102		15.50	178.00	96.75	120.00	9003050155000
0.6201		15.75	178.00	96.38	120.00	9003050157500
0.6248	5/8	15.87	178.00	96.20	120.00	9003050158700
0.6299		16.00	178.00	96.00	120.00	9003050160000
0.6496		16.50	184.00	100.25	125.00	9003050165000
0.6563	21/32	16.67	184.00	100.00	125.00	9003050166700
0.6693		17.00	184.00	99.50	125.00	9003050170000
0.6874	11/16	17.46	191.00	103.81	130.00	9003050174600
0.6890		17.50	191.00	103.75	130.00	9003050175000
0.7087		18.00	191.00	103.00	130.00	9003050180000
0.7283		18.50	198.00	107.25	135.00	9003050185000
0.7480		19.00	198.00	106.50	135.00	9003050190000
0.7677		19.50	205.00	110.75	140.00	9003050195000
0.7811	25/32	19.84	205.00	110.24	140.00	9003050198400
0.7874		20.00	205.00	110.00	140.00	9003050200000

Material group	Hardness		SFM	Feed Rate - IPR									
	HRC	Bhn		.0039 in. .10 mm	.0063 in. .16 mm	.0098 in. .25 mm	.0118 in. .30 mm	.0197 in. .50 mm	.0248 in. .63 mm	.0315 in. .8 mm	.0394 in. 1.0 mm	.0591 in. 1.5 mm	.0787 in. 2.0 mm
Common structural steels	- ≤ 32	≤ 150 ≤ 301	70 60	0.0003 0.0002	0.0004 0.0003	0.0004 0.0004	0.0006 0.0004	0.0007 0.0006	0.0010 0.0008	0.0012 0.0009	0.0020 0.0016	0.0024 0.0020	0.0031 0.0028
Free-cutting steels	≤ 25 ≤ 32	≤ 255 ≤ 301	60 50	0.0003 0.0002	0.0004 0.0003	0.0004 0.0004	0.0006 0.0004	0.0007 0.0006	0.0010 0.0008	0.0012 0.0009	0.0020 0.0016	0.0024 0.0020	0.0031 0.0028
Unalloyed heat-treatable steels	≤ 20 ≤ 25 ≤ 32	≤ 220 ≤ 255 ≤ 301	65 60 45	0.0002 0.0002 0.0002	0.0003 0.0003 0.0002	0.0004 0.0004 0.0003	0.0004 0.0004 0.0004	0.0006 0.0006 0.0006	0.0008 0.0008 0.0006	0.0009 0.0009 0.0008	0.0016 0.0016 0.0014	0.0020 0.0020 0.0018	0.0028 0.0028 0.0024
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402	45 40	0.0002 0.0001	0.0002 0.0002	0.0003 0.0002	0.0004 0.0003	0.0004 0.0003	0.0006 0.0005	0.0008 0.0006	0.0014 0.0011	0.0018 0.0016	0.0024 0.0021
Unalloyed case hardened steels	≤ 25	≤ 255	60	0.0003	0.0004	0.0004	0.0006	0.0007	0.0010	0.0012	0.0020	0.0024	0.0031
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402	45 40	0.0002 0.0001	0.0002 0.0002	0.0003 0.0002	0.0004 0.0003	0.0004 0.0003	0.0006 0.0005	0.0008 0.0006	0.0014 0.0011	0.0018 0.0016	0.0024 0.0021
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402	45 40	0.0002 0.0001	0.0002 0.0002	0.0003 0.0002	0.0004 0.0003	0.0004 0.0003	0.0006 0.0005	0.0008 0.0006	0.0014 0.0011	0.0018 0.0016	0.0024 0.0021
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402	50 45	0.0002 0.0001	0.0002 0.0002	0.0003 0.0002	0.0004 0.0003	0.0004 0.0003	0.0006 0.0005	0.0008 0.0006	0.0014 0.0011	0.0018 0.0016	0.0024 0.0021
High speed steels	≤ 43	≤ 402	45	0.0001	0.0002	0.0002	0.0003	0.0003	0.0005	0.0006	0.0011	0.0016	0.0021
Spring steels	≤ 38	≤ 354	25	0.0001	0.0001	0.0002	0.0002	0.0003	0.0004	0.0005	0.0009	0.0014	0.0018
Hardened steels	≤ 48 ≤ 66	≤ 460 -											
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 ≤ 46	≤ 273 ≤ 337 ≤ 435	60 45 50	0.0002 0.0001 0.0001	0.0002 0.0002 0.0002	0.0003 0.0002 0.0002	0.0004 0.0003 0.0003	0.0004 0.0003 0.0003	0.0006 0.0005 0.0005	0.0008 0.0006 0.0006	0.0014 0.0011 0.0011	0.0018 0.0016 0.0016	0.0024 0.0021 0.0021
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	85 70	0.0003 0.0003	0.0004 0.0004	0.0004 0.0004	0.0006 0.0006	0.0007 0.0007	0.0010 0.0010	0.0012 0.0012	0.0020 0.0020	0.0024 0.0024	0.0031 0.0031
Spheroidal graphite iron and malleable cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	60 70	0.0003 0.0003	0.0004 0.0004	0.0004 0.0004	0.0006 0.0006	0.0007 0.0007	0.0010 0.0010	0.0012 0.0012	0.0020 0.0020	0.0024 0.0024	0.0031 0.0031
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											
Aluminium and Al-alloys	-	≤ 120											
Al wrought alloys	-	≤ 200											
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180	85 60	0.0004 0.0003	0.0005 0.0004	0.0006 0.0004	0.0007 0.0006	0.0009 0.0007	0.0013 0.0010	0.0015 0.0012	0.0024 0.0020	0.0027 0.0024	0.0037 0.0031
Magnesium alloys	-	≤ 120	245	0.0003	0.0004	0.0004	0.0006	0.0007	0.0010	0.0012	0.0020	0.0024	0.0031
Copper, low-alloyed	-	≤ 150	140	0.0002	0.0003	0.0004	0.0004	0.0006	0.0008	0.0009	0.0016	0.0020	0.0028
Brass, short-chipping long-chipping	- -	≤ 180 ≤ 180	70 70	0.0002 0.0002	0.0003 0.0003	0.0004 0.0004	0.0004 0.0004	0.0006 0.0006	0.0008 0.0008	0.0009 0.0009	0.0016 0.0016	0.0020 0.0020	0.0028 0.0028
Bronze, short-chipping	-	≤ 180	70	0.0002	0.0002	0.0003	0.0004	0.0004	0.0006	0.0008	0.0014	0.0018	0.0024
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301	60 45	0.0002 0.0002	0.0002 0.0002	0.0003 0.0003	0.0004 0.0004	0.0004 0.0004	0.0006 0.0006	0.0008 0.0008	0.0014 0.0014	0.0018 0.0018	0.0024 0.0024
Duroplastics Thermoplastics Reinforced plastics - Kevlar Reinforced plastics - GFK / CFK			50 60	0.0002 0.0002	0.0002 0.0002	0.0003 0.0003	0.0004 0.0004	0.0004 0.0004	0.0006 0.0006	0.0008 0.0008	0.0014 0.0014	0.0018 0.0018	0.0024 0.0024

Material group	Hardness		SFM	Feed Rate - IPR									
	HRc	Bhn		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	90	0.0015	0.0040	0.0065	0.0080	0.0100					
Unalloyed heat-treatable steels	≤ 20	≤ 220											
	≤ 25	≤ 255	90	0.0015	0.0040	0.0065	0.0080	0.0100					
	≤ 32	≤ 301	45	0.0012	0.0030	0.0050	0.0065	0.0080					
Alloyed heat-treatable steels	≤ 32 ≤ 43	≤ 301 ≤ 402	55 45	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065					
Unalloyed case hardened steels	≤ 25	≤ 255											
Alloyed case hardened steels	≤ 32 ≤ 43	≤ 301 ≤ 402	50 35	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065					
Nitriding steels	≤ 32 ≤ 43	≤ 301 ≤ 402	45 30	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065					
Tool steels	≤ 25 ≤ 43	≤ 255 ≤ 402	55 30	0.0012 0.0010	0.0030 0.0025	0.0050 0.0040	0.0065 0.0050	0.0080 0.0065					
High speed steels	≤ 43	≤ 402	30	0.0010	0.0025	0.0040	0.0050	0.0065					
Spring steels	≤ 38	≤ 354	25	0.0007	0.0020	0.0030	0.0040	0.0050					
Hardened steels	≤ 48 ≤ 66	≤ 460 -											
Stainless steels, sulphured austenitic martensitic	≤ 28	≤ 273	45	0.0012	0.0030	0.0050	0.0065	0.0080					
	≤ 36	≤ 337	30	0.0010	0.0025	0.0040	0.0050	0.0065					
	≤ 46	≤ 435	35	0.0010	0.0025	0.0040	0.0050	0.0065					
Cast iron	≤ 23 ≤ 38	≤ 242 ≤ 354	115 90	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125					
	≤ 23 ≤ 38	≤ 242 ≤ 354	95 70	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	≤ 23 ≤ 38	≤ 242 ≤ 354	95 70	0.0017 0.0017	0.0050 0.0050	0.0080 0.0080	0.0100 0.0100	0.0125 0.0125					
Chilled cast iron	≤ 38	≤ 354	25	0.0010	0.0025	0.0040	0.0050	0.0065					
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											
Aluminium and Al-alloys	-	≤ 120											
Al wrought alloys	-	≤ 200											
Al cast alloys ≤ 10 % Si	-	≤ 180											
≤ 24 % Si	-	≤ 180											
Magnesium alloys	-	≤ 120											
Copper, low-alloyed	-	≤ 150	115	0.0015	0.0040	0.0065	0.0080	0.0100					
Brass, short-chipping	-	≤ 180											
long-chipping	-	≤ 180	145	0.0015	0.0040	0.0065	0.0080	0.0100					
Bronze, short-chipping	-	≤ 180	115	0.0012	0.0030	0.0050	0.0065	0.0080					
	≤ 25	≤ 255	95	0.0012	0.0030	0.0050	0.0065	0.0080					
Bronze, long-chipping	≤ 25 ≤ 32	≤ 255 ≤ 301	90 70	0.0012 0.0012	0.0030 0.0030	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080					
Duroplastics			55	0.0012	0.0030	0.0050	0.0065	0.0080					
Thermoplastics													
Reinforced plastics - Kevlar													
Reinforced plastics - GFK / CFK													