



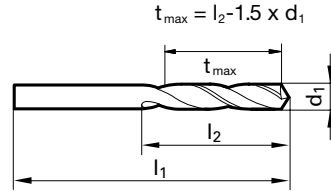
Tool material

HSCo

Surface



- P** Steel ● web thinning ≥ Ø 1.000 • relieved cone • Co-alloyed high speed steel • increased wear resistance
 - M** Stainless steel ●
 - K** Cast iron ● acid resist./stainless steels • spring steels • austenitic stainless steels • Hastelloy, Inconel, Nimonic
 - N** Aluminum ○
 - S** Titanium alloys ●
 - H** Hardened steel ○
- =Optimal
○=Limited



Stub Length

Speeds and feeds information on pg. 511

Shank diameter = cut diameter

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0157	1/64	0.40	19.00	1.90	2.50	9003290004000
0.0197		0.50	20.00	2.25	3.00	9003290005000
0.0201	#76	0.51	20.00	2.24	3.00	9003290005100
0.0217		0.55	21.00	2.68	3.50	9003290005500
0.0224	#74	0.57	21.00	2.65	3.50	9003290005700
0.0236		0.60	21.00	2.60	3.50	9003290006000
0.0240	#73	0.61	22.00	3.09	4.00	9003290006100
0.0252	#72	0.64	22.00	3.04	4.00	9003290006400
0.0256		0.65	22.00	3.03	4.00	9003290006500
0.0276		0.70	23.00	3.45	4.50	9003290007000
0.0287		0.73	23.00	3.41	4.50	9003290007300
0.0291	#69	0.74	23.00	3.39	4.50	9003290007400
0.0295		0.75	23.00	3.38	4.50	9003290007500
0.0311	1/32 #68	0.79	24.00	3.82	5.00	9003290007900
0.0315		0.80	24.00	3.80	5.00	9003290008000
0.0319	#67	0.81	24.00	3.79	5.00	9003290008100
0.0323		0.82	24.00	3.77	5.00	9003290008200
0.0331	#66	0.84	24.00	3.74	5.00	9003290008400
0.0335		0.85	24.00	3.73	5.00	9003290008500
0.0343		0.87	25.00	4.20	5.50	9003290008700
0.0354		0.90	25.00	4.15	5.50	9003290009000
0.0358	#64	0.91	25.00	4.14	5.50	9003290009100
0.0370	#63	0.94	25.00	4.09	5.50	9003290009400
0.0374		0.95	25.00	4.08	5.50	9003290009500
0.0382	#62	0.97	26.00	4.55	6.00	9003290009700
0.0390	#61	0.99	26.00	4.52	6.00	9003290009900
0.0394		1.00	26.00	4.50	6.00	9003290010000
0.0402	#60	1.02	26.00	4.47	6.00	9003290010200
0.0413		1.05	26.00	4.43	6.00	9003290010500
0.0417		1.06	26.00	4.41	6.00	9003290010600
0.0421	#58	1.07	28.00	5.40	7.00	9003290010700
0.0429	#57	1.09	28.00	5.37	7.00	9003290010900
0.0433		1.10	28.00	5.35	7.00	9003290011000
0.0453		1.15	28.00	5.28	7.00	9003290011500
0.0465	#56	1.18	28.00	5.23	7.00	9003290011800
0.0469	3/64	1.19	30.00	6.22	8.00	9003290011900
0.0472		1.20	30.00	6.20	8.00	9003290012000
0.0484		1.23	30.00	6.16	8.00	9003290012300
0.0492		1.25	30.00	6.13	8.00	9003290012500
0.0504		1.28	30.00	6.08	8.00	9003290012800
0.0512		1.30	30.00	6.05	8.00	9003290013000
0.0520	#55	1.32	30.00	6.02	8.00	9003290013200
0.0524		1.33	32.00	7.01	9.00	9003290013300
0.0531		1.35	32.00	6.98	9.00	9003290013500
0.0551	#54	1.40	32.00	6.90	9.00	9003290014000

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0571		1.45	32.00	6.83	9.00	9003290014500
0.0579		1.47	32.00	6.80	9.00	9003290014700
0.0591		1.50	32.00	6.75	9.00	9003290015000
0.0594	#53	1.51	34.00	7.74	10.00	9003290015100
0.0610		1.55	34.00	7.68	10.00	9003290015500
0.0618		1.57	34.00	7.65	10.00	9003290015700
0.0626	1/16	1.59	34.00	7.62	10.00	9003290015900
0.0630		1.60	34.00	7.60	10.00	9003290016000
0.0634	#52	1.61	34.00	7.59	10.00	9003290016100
0.0650		1.65	34.00	7.53	10.00	9003290016500
0.0669	#51	1.70	34.00	7.45	10.00	9003290017000
0.0681		1.73	36.00	8.41	11.00	9003290017300
0.0689		1.75	36.00	8.38	11.00	9003290017500
0.0701	#50	1.78	36.00	8.33	11.00	9003290017800
0.0709		1.80	36.00	8.30	11.00	9003290018000
0.0717		1.82	36.00	8.27	11.00	9003290018200
0.0728	#49	1.85	36.00	8.23	11.00	9003290018500
0.0748		1.90	36.00	8.15	11.00	9003290019000
0.0760	#48	1.93	38.00	9.11	12.00	9003290019300
0.0768		1.95	38.00	9.08	12.00	9003290019500
0.0776		1.97	38.00	9.05	12.00	9003290019700
0.0780	5/64	1.98	38.00	9.03	12.00	9003290019800
0.0783	#47	1.99	38.00	9.02	12.00	9003290019900
0.0787		2.00	38.00	9.00	12.00	9003290020000
0.0799		2.03	38.00	8.96	12.00	9003290020300
0.0811	#46	2.06	38.00	8.91	12.00	9003290020600
0.0819	#45	2.08	38.00	8.88	12.00	9003290020800
0.0827		2.10	38.00	8.85	12.00	9003290021000
0.0846		2.15	40.00	9.78	13.00	9003290021500
0.0858	#44	2.18	40.00	9.73	13.00	9003290021800
0.0866		2.20	40.00	9.70	13.00	9003290022000
0.0886		2.25	40.00	9.63	13.00	9003290022500
0.0890	#43	2.26	40.00	9.61	13.00	9003290022600
0.0906		2.30	40.00	9.55	13.00	9003290023000
0.0913		2.32	40.00	9.52	13.00	9003290023200
0.0925		2.35	40.00	9.48	13.00	9003290023500
0.0929		2.36	40.00	9.46	13.00	9003290023600
0.0933	#42	2.37	43.00	10.45	14.00	9003290023700
0.0937	3/32	2.38	43.00	10.43	14.00	9003290023800
0.0945		2.40	43.00	10.40	14.00	9003290024000
0.0953		2.42	43.00	10.37	14.00	9003290024200
0.0961	#41	2.44	43.00	10.34	14.00	9003290024400
0.0965		2.45	43.00	10.33	14.00	9003290024500
0.0972		2.47	43.00	10.30	14.00	9003290024700
0.0980	#40	2.49	43.00	10.27	14.00	9003290024900

Stub Length

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.0984		2.50	43.00	10.25	14.00	9003290025000
0.0996	#39	2.53	43.00	10.21	14.00	9003290025300
0.1004		2.55	43.00	10.18	14.00	9003290025500
0.1016	#38	2.58	43.00	10.13	14.00	9003290025800
0.1024		2.60	43.00	10.10	14.00	9003290026000
0.1039	#37	2.64	43.00	10.04	14.00	9003290026400
0.1043		2.65	43.00	10.03	14.00	9003290026500
0.1063		2.70	46.00	11.95	16.00	9003290027000
0.1067	#36	2.71	46.00	11.94	16.00	9003290027100
0.1083		2.75	46.00	11.88	16.00	9003290027500
0.1094	7/64	2.78	46.00	11.83	16.00	9003290027800
0.1098	#35	2.79	46.00	11.82	16.00	9003290027900
0.1102		2.80	46.00	11.80	16.00	9003290028000
0.1110	#34	2.82	46.00	11.77	16.00	9003290028200
0.1130	#33	2.87	46.00	11.70	16.00	9003290028700
0.1142		2.90	46.00	11.65	16.00	9003290029000
0.1161	#32	2.95	46.00	11.58	16.00	9003290029500
0.1181		3.00	46.00	11.50	16.00	9003290030000
0.1189		3.02	49.00	13.47	18.00	9003290030200
0.1201	#31	3.05	49.00	13.43	18.00	9003290030500
0.1220		3.10	49.00	13.35	18.00	9003290031000
0.1240		3.15	49.00	13.28	18.00	9003290031500
0.1248	1/8	3.17	49.00	13.25	18.00	9003290031700
0.1260		3.20	49.00	13.20	18.00	9003290032000
0.1280		3.25	49.00	13.13	18.00	9003290032500
0.1283	#30	3.26	49.00	13.11	18.00	9003290032600
0.1299		3.30	49.00	13.05	18.00	9003290033000
0.1339		3.40	52.00	14.90	20.00	9003290034000
0.1358	#29	3.45	52.00	14.83	20.00	9003290034500
0.1378		3.50	52.00	14.75	20.00	9003290035000
0.1398		3.55	52.00	14.68	20.00	9003290035500
0.1406	9/64	3.57	52.00	14.65	20.00	9003290035700
0.1417		3.60	52.00	14.60	20.00	9003290036000
0.1441	#27	3.66	52.00	14.51	20.00	9003290036600
0.1457		3.70	52.00	14.45	20.00	9003290037000
0.1469	#26	3.73	52.00	14.41	20.00	9003290037300
0.1476		3.75	52.00	14.38	20.00	9003290037500
0.1496	#25	3.80	55.00	16.30	22.00	9003290038000
0.1516		3.85	55.00	16.23	22.00	9003290038500
0.1520	#24	3.86	55.00	16.21	22.00	9003290038600
0.1535		3.90	55.00	16.15	22.00	9003290039000
0.1539	#23	3.91	55.00	16.14	22.00	9003290039100
0.1543		3.92	55.00	16.12	22.00	9003290039200
0.1555		3.95	55.00	16.08	22.00	9003290039500
0.1563	5/32	3.97	55.00	16.05	22.00	9003290039700
0.1571	#22	3.99	55.00	16.02	22.00	9003290039900
0.1575		4.00	55.00	16.00	22.00	9003290040000
0.1591	#21	4.04	55.00	15.94	22.00	9003290040400
0.1594		4.05	55.00	15.93	22.00	9003290040500
0.1610	#20	4.09	55.00	15.87	22.00	9003290040900
0.1614		4.10	55.00	15.85	22.00	9003290041000
0.1634		4.15	55.00	15.78	22.00	9003290041500
0.1654		4.20	55.00	15.70	22.00	9003290042000
0.1661	#19	4.22	55.00	15.67	22.00	9003290042200
0.1673		4.25	55.00	15.63	22.00	9003290042500
0.1693	#18	4.30	58.00	17.55	24.00	9003290043000
0.1720	11/64	4.37	58.00	17.45	24.00	9003290043700
0.1728	#17	4.39	58.00	17.42	24.00	9003290043900
0.1732		4.40	58.00	17.40	24.00	9003290044000
0.1752		4.45	58.00	17.33	24.00	9003290044500
0.1772	#16	4.50	58.00	17.25	24.00	9003290045000
0.1799	#15	4.57	58.00	17.15	24.00	9003290045700
0.1811		4.60	58.00	17.10	24.00	9003290046000
0.1819	#14	4.62	58.00	17.07	24.00	9003290046200
0.1831		4.65	58.00	17.03	24.00	9003290046500
0.1850	#13	4.70	58.00	16.95	24.00	9003290047000
0.1870		4.75	58.00	16.88	24.00	9003290047500

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.1874	3/16	4.76	62.00	18.86	26.00	9003290047600
0.1890	#12	4.80	62.00	18.80	26.00	9003290048000
0.1909	#11	4.85	62.00	18.73	26.00	9003290048500
0.1929		4.90	62.00	18.65	26.00	9003290049000
0.1937	#10	4.92	62.00	18.62	26.00	9003290049200
0.1949		4.95	62.00	18.58	26.00	9003290049500
0.1961	#9	4.98	62.00	18.53	26.00	9003290049800
0.1969		5.00	62.00	18.50	26.00	9003290050000
0.1992	#8	5.06	62.00	18.41	26.00	9003290050600
0.2008		5.10	62.00	18.35	26.00	9003290051000
0.2012	#7	5.11	62.00	18.34	26.00	9003290051100
0.2028		5.15	62.00	18.28	26.00	9003290051500
0.2031	13/64	5.16	62.00	18.26	26.00	9003290051600
0.2039	#6	5.18	62.00	18.23	26.00	9003290051800
0.2047		5.20	62.00	18.20	26.00	9003290052000
0.2055	#5	5.22	62.00	18.17	26.00	9003290052200
0.2067		5.25	62.00	18.13	26.00	9003290052500
0.2087		5.30	62.00	18.05	26.00	9003290053000
0.2091	#4	5.31	66.00	20.04	28.00	9003290053100
0.2106		5.35	66.00	19.98	28.00	9003290053500
0.2126		5.40	66.00	19.90	28.00	9003290054000
0.2130	#3	5.41	66.00	19.89	28.00	9003290054100
0.2146		5.45	66.00	19.83	28.00	9003290054500
0.2165		5.50	66.00	19.75	28.00	9003290055000
0.2185		5.55	66.00	19.68	28.00	9003290055500
0.2189	7/32	5.56	66.00	19.66	28.00	9003290055600
0.2205		5.60	66.00	19.60	28.00	9003290056000
0.2209	#2	5.61	66.00	19.59	28.00	9003290056100
0.2244		5.70	66.00	19.45	28.00	9003290057000
0.2264		5.75	66.00	19.38	28.00	9003290057500
0.2280	#1	5.79	66.00	19.32	28.00	9003290057900
0.2283		5.80	66.00	19.30	28.00	9003290058000
0.2303		5.85	66.00	19.23	28.00	9003290058500
0.2323		5.90	66.00	19.15	28.00	9003290059000
0.2343	15/64	5.95	66.00	19.08	28.00	9003290059500
0.2362		6.00	66.00	19.00	28.00	9003290060000
0.2378	B	6.04	70.00	21.94	31.00	9003290060400
0.2402		6.10	70.00	21.85	31.00	9003290061000
0.2421	C	6.15	70.00	21.78	31.00	9003290061500
0.2441		6.20	70.00	21.70	31.00	9003290062000
0.2461	D	6.25	70.00	21.63	31.00	9003290062500
0.2480		6.30	70.00	21.55	31.00	9003290063000
0.2488		6.32	70.00	21.52	31.00	9003290063200
0.2500	1/4	6.35	70.00	21.48	31.00	9003290063500
0.2520		6.40	70.00	21.40	31.00	9003290064000
0.2539		6.45	70.00	21.33	31.00	9003290064500
0.2559		6.50	70.00	21.25	31.00	9003290065000
0.2571		6.53	70.00	21.21	31.00	9003290065300
0.2598		6.60	70.00	21.10	31.00	9003290066000
0.2610	G	6.63	70.00	21.06	31.00	9003290066300
0.2638		6.70	70.00	20.95	31.00	9003290067000
0.2657	17/64	6.75	74.00	23.88	34.00	9003290067500
0.2677		6.80	74.00	23.80	34.00	9003290068000
0.2697		6.85	74.00	23.73	34.00	9003290068500
0.2717	I	6.90	74.00	23.65	34.00	9003290069000
0.2756		7.00	74.00	23.50	34.00	9003290070000
0.2768	J	7.03	74.00	23.46	34.00	9003290070300
0.2776		7.05	74.00	23.43	34.00	9003290070500
0.2795		7.10	74.00	23.35	34.00	9003290071000
0.2811	9/32	7.14	74.00	23.29	34.00	9003290071400
0.2835		7.20	74.00	23.20	34.00	9003290072000
0.2854		7.25	74.00	23.13	34.00	9003290072500
0.2874		7.30	74.00	23.05	34.00	9003290073000
0.2902	L	7.37	74.00	22.95	34.00	9003290073700
0.2913		7.40	74.00	22.90	34.00	9003290074000
0.2949	M	7.49	74.00	22.77	34.00	9003290074900
0.2953		7.50	74.00	22.75	34.00	9003290075000

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.2969	19/64	7.54	79.00	25.69	37.00	9003290075400
0.2992		7.60	79.00	25.60	37.00	9003290076000
0.3020	N	7.67	79.00	25.50	37.00	9003290076700
0.3031		7.70	79.00	25.45	37.00	9003290077000
0.3051		7.75	79.00	25.38	37.00	9003290077500
0.3071		7.80	79.00	25.30	37.00	9003290078000
0.3110		7.90	79.00	25.15	37.00	9003290079000
0.3126	5/16	7.94	79.00	25.09	37.00	9003290079400
0.3150		8.00	79.00	25.00	37.00	9003290080000
0.3161	O	8.03	79.00	24.96	37.00	9003290080300
0.3189		8.10	79.00	24.85	37.00	9003290081000
0.3209		8.15	79.00	24.78	37.00	9003290081500
0.3228	P	8.20	79.00	24.70	37.00	9003290082000
0.3248		8.25	79.00	24.63	37.00	9003290082500
0.3268		8.30	79.00	24.55	37.00	9003290083000
0.3280	21/64	8.33	79.00	24.51	37.00	9003290083300
0.3307		8.40	79.00	24.40	37.00	9003290084000
0.3319	Q	8.43	79.00	24.36	37.00	9003290084300
0.3346		8.50	79.00	24.25	37.00	9003290085000
0.3366		8.55	84.00	27.18	40.00	9003290085500
0.3386		8.60	84.00	27.10	40.00	9003290086000
0.3390	R	8.61	84.00	27.09	40.00	9003290086100
0.3425		8.70	84.00	26.95	40.00	9003290087000
0.3437	11/32	8.73	84.00	26.91	40.00	9003290087300
0.3445		8.75	84.00	26.88	40.00	9003290087500
0.3465		8.80	84.00	26.80	40.00	9003290088000
0.3480	S	8.84	84.00	26.74	40.00	9003290088400
0.3504		8.90	84.00	26.65	40.00	9003290089000
0.3543		9.00	84.00	26.50	40.00	9003290090000
0.3563		9.05	84.00	26.43	40.00	9003290090500
0.3579	T	9.09	84.00	26.37	40.00	9003290090900
0.3583		9.10	84.00	26.35	40.00	9003290091000
0.3594	23/64	9.13	84.00	26.31	40.00	9003290091300
0.3622		9.20	84.00	26.20	40.00	9003290092000
0.3642		9.25	84.00	26.13	40.00	9003290092500
0.3661		9.30	84.00	26.05	40.00	9003290093000
0.3677	U	9.34	84.00	25.99	40.00	9003290093400
0.3701		9.40	84.00	25.90	40.00	9003290094000
0.3740		9.50	84.00	25.75	40.00	9003290095000
0.3748	3/8	9.52	89.00	28.72	43.00	9003290095200
0.3772	V	9.58	89.00	28.63	43.00	9003290095800
0.3780		9.60	89.00	28.60	43.00	9003290096000
0.3819		9.70	89.00	28.45	43.00	9003290097000
0.3839		9.75	89.00	28.38	43.00	9003290097500
0.3858	W	9.80	89.00	28.30	43.00	9003290098000
0.3898		9.90	89.00	28.15	43.00	9003290099000
0.3906	25/64	9.92	89.00	28.12	43.00	9003290099200
0.3937		10.00	89.00	28.00	43.00	9003290100000
0.3969	X	10.08	89.00	27.88	43.00	9003290100800
0.3976		10.10	89.00	27.85	43.00	9003290101000
0.4016		10.20	89.00	27.70	43.00	9003290102000
0.4039	Y	10.26	89.00	27.61	43.00	9003290102600
0.4055		10.30	89.00	27.55	43.00	9003290103000
0.4063	13/32	10.32	89.00	27.52	43.00	9003290103200
0.4094		10.40	89.00	27.40	43.00	9003290104000
0.4130	Z	10.49	89.00	27.27	43.00	9003290104900
0.4134		10.50	89.00	27.25	43.00	9003290105000
0.4173		10.60	89.00	27.10	43.00	9003290106000
0.4193		10.65	95.00	31.03	47.00	9003290106500
0.4220	27/64	10.72	95.00	30.92	47.00	9003290107200
0.4252		10.80	95.00	30.80	47.00	9003290108000
0.4291		10.90	95.00	30.65	47.00	9003290109000
0.4331		11.00	95.00	30.50	47.00	9003290110000
0.4370		11.10	95.00	30.35	47.00	9003290111000
0.4374	7/16	11.11	95.00	30.34	47.00	9003290111100
0.4409		11.20	95.00	30.20	47.00	9003290112000
0.4429		11.25	95.00	30.13	47.00	9003290112500

Diameter (d ₁)			l ₁ mm	t _{max} mm	l ₂ mm	EDP #
inch	wire/ltr	mm				
0.4449		11.30	95.00	30.05	47.00	9003290113000
0.4488		11.40	95.00	29.90	47.00	9003290114000
0.4528		11.50	95.00	29.75	47.00	9003290115000
0.4531	29/64	11.51	95.00	29.74	47.00	9003290115100
0.4567		11.60	95.00	29.60	47.00	9003290116000
0.4606		11.70	95.00	29.45	47.00	9003290117000
0.4646		11.80	95.00	29.30	47.00	9003290118000
0.4689	15/32	11.91	102.00	33.14	51.00	9003290119100
0.4724		12.00	102.00	33.00	51.00	9003290120000
0.4764		12.10	102.00	32.85	51.00	9003290121000
0.4803		12.20	102.00	32.70	51.00	9003290122000
0.4843	31/64	12.30	102.00	32.55	51.00	9003290123000
0.4882		12.40	102.00	32.40	51.00	9003290124000
0.4921		12.50	102.00	32.25	51.00	9003290125000
0.5000	1/2	12.70	102.00	31.95	51.00	9003290127000
0.5039		12.80	102.00	31.80	51.00	9003290128000
0.5079		12.90	102.00	31.65	51.00	9003290129000
0.5118		13.00	102.00	31.50	51.00	9003290130000
0.5157	33/64	13.10	102.00	31.35	51.00	9003290131000
0.5197		13.20	102.00	31.20	51.00	9003290132000
0.5311	17/32	13.49	107.00	33.77	54.00	9003290134900
0.5315		13.50	107.00	33.75	54.00	9003290135000
0.5413		13.75	107.00	33.38	54.00	9003290137500
0.5469	35/64	13.89	107.00	33.17	54.00	9003290138900
0.5512		14.00	107.00	33.00	54.00	9003290140000
0.5551		14.10	111.00	34.85	56.00	9003290141000
0.5626	9/16	14.29	111.00	34.57	56.00	9003290142900
0.5709		14.50	111.00	34.25	56.00	9003290145000
0.5780	37/64	14.68	111.00	33.98	56.00	9003290146800
0.5807		14.75	111.00	33.88	56.00	9003290147500
0.5906		15.00	111.00	33.50	56.00	9003290150000
0.5937	19/32	15.08	115.00	35.38	58.00	9003290150800
0.6004		15.25	115.00	35.13	58.00	9003290152500
0.6094	39/64	15.48	115.00	34.78	58.00	9003290154800
0.6102		15.50	115.00	34.75	58.00	9003290155000
0.6248	5/8	15.87	115.00	34.20	58.00	9003290158700
0.6299		16.00	115.00	34.00	58.00	9003290160000
0.6378		16.20	119.00	35.70	60.00	9003290162000
0.6406	41/64	16.27	119.00	35.60	60.00	9003290162700
0.6496		16.50	119.00	35.25	60.00	9003290165000
0.6563	21/32	16.67	119.00	35.00	60.00	9003290166700
0.6693		17.00	119.00	34.50	60.00	9003290170000
0.6720	43/64	17.07	123.00	36.40	62.00	9003290170700
0.6874	11/16	17.46	123.00	35.81	62.00	9003290174600
0.6890		17.50	123.00	35.75	62.00	9003290175000
0.7031	45/64	17.86	123.00	35.21	62.00	9003290178600
0.7087		18.00	123.00	35.00	62.00	9003290180000
0.7283		18.50	127.00	36.25	64.00	9003290185000
0.7343	47/64	18.65	127.00	36.03	64.00	9003290186500
0.7480		19.00	127.00	35.50	64.00	9003290190000
0.7500	3/4	19.05	131.00	37.43	66.00	9003290190500
0.7657	49/64	19.45	131.00	36.83	66.00	9003290194500
0.7677		19.50	131.00	36.75	66.00	9003290195000
0.7811	25/32	19.84	131.00	36.24	66.00	9003290198400
0.7874		20.00	131.00	36.00	66.00	9003290200000
0.7972		20.25	136.00	37.63	68.00	9003290202500
0.8071		20.50	136.00	37.25	68.00	9003290205000
0.8126	13/16	20.64	136.00	37.04	68.00	9003290206400
0.8268		21.00	136.00	36.50	68.00	9003290210000
0.8465		21.50	141.00	37.75	70.00	9003290215000
0.8661		22.00	141.00	37.00	70.00	9003290220000
0.8740		22.20	141.00	36.70	70.00	9003290222000
0.9055		23.00	146.00	37.50	72.00	9003290230000
0.9449		24.00	151.00	39.00	75.00	9003290240000
0.9646		24.50	151.00	38.25	75.00	9003290245000
0.9843	63/64	25.00	151.00	37.50	75.00	9003290250000
1.0000	1.0000	25.40	156.00	39.90	78.00	9003290254000

Stub Length