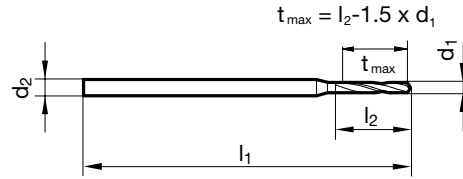


Tool material **Solid Carbide**  
Surface **A**

- P** Steel ● web thinning  $\geq \varnothing 0.800$  • facet point grinding
  - M** Stainless steel
  - K** Cast iron ● structural and case hardened steels • free-cutting steels, heat-treatable steels • alloyed steels up to 1200 N/mm<sup>2</sup> • cast materials
  - N** Aluminum
  - S** Titanium alloys
  - H** Hardened steel
- =Optimal  
○=Limited



Speeds and feeds information on pg. 561

Micro Drills

Diameter (d <sub>1</sub> )			d2 h6	l <sub>1</sub>	t <sub>max</sub>	l <sub>2</sub>	EDP #
inch	wire/ltr	mm	mm	mm	mm	mm	
0.0039		0.10	3.00	38.00	1.05	1.20	9038990001000
0.0043		0.11	3.00	38.00	1.04	1.20	9038990001100
0.0047		0.12	3.00	38.00	1.22	1.40	9038990001200
0.0051		0.13	3.00	38.00	1.21	1.40	9038990001300
0.0055		0.14	3.00	38.00	1.19	1.40	9038990001400
0.0059	#97	0.15	3.00	38.00	1.78	2.00	9038990001500
0.0063	#96	0.16	3.00	38.00	1.76	2.00	9038990001600
0.0067	#95	0.17	3.00	38.00	1.75	2.00	9038990001700
0.0071	#94	0.18	3.00	38.00	1.73	2.00	9038990001800
0.0075	#93	0.19	3.00	38.00	1.72	2.00	9038990001900
0.0079	#92	0.20	3.00	38.00	2.20	3.00	9038990002000
0.0083	#91	0.21	3.00	38.00	2.19	3.00	9038990002100
0.0087	#90	0.22	3.00	38.00	2.17	3.00	9038990002200
0.0091	#89	0.23	3.00	38.00	2.16	3.00	9038990002300
0.0094	#88	0.24	3.00	38.00	2.14	3.00	9038990002400
0.0098	#87	0.25	3.00	38.00	2.63	3.00	9038990002500
0.0102		0.26	3.00	38.00	2.61	3.00	9038990002600
0.0106	#86	0.27	3.00	38.00	2.60	3.00	9038990002700
0.0110	#85	0.28	3.00	38.00	2.58	3.00	9038990002800
0.0114	#84	0.29	3.00	38.00	2.57	3.00	9038990002900
0.0118		0.30	3.00	38.00	4.55	5.00	9038990003000
0.0122	#83	0.31	3.00	38.00	4.54	5.00	9038990003100
0.0126	#82	0.32	3.00	38.00	4.52	5.00	9038990003200
0.0130	#81	0.33	3.00	38.00	4.51	5.00	9038990003300
0.0134	#80	0.34	3.00	38.00	4.49	5.00	9038990003400
0.0138		0.35	3.00	38.00	5.48	6.00	9038990003500
0.0142		0.36	3.00	38.00	5.46	6.00	9038990003600
0.0146	#79	0.37	3.00	38.00	5.45	6.00	9038990003700
0.0150		0.38	3.00	38.00	5.43	6.00	9038990003800
0.0154		0.39	3.00	38.00	5.42	6.00	9038990003900
0.0157	1/64	0.40	3.00	38.00	6.40	7.00	9038990004000
0.0161	#78	0.41	3.00	38.00	6.39	7.00	9038990004100
0.0165		0.42	3.00	38.00	6.37	7.00	9038990004200
0.0169		0.43	3.00	38.00	6.36	7.00	9038990004300
0.0173		0.44	3.00	38.00	6.34	7.00	9038990004400
0.0177		0.45	3.00	38.00	6.33	7.00	9038990004500
0.0181	#77	0.46	3.00	38.00	6.31	7.00	9038990004600
0.0185		0.47	3.00	38.00	6.30	7.00	9038990004700
0.0189		0.48	3.00	38.00	6.28	7.00	9038990004800
0.0193		0.49	3.00	38.00	6.27	7.00	9038990004900
0.0197		0.50	3.00	38.00	6.25	7.00	9038990005000
0.0201	#76	0.51	3.00	38.00	6.24	7.00	9038990005100

Diameter (d <sub>1</sub> )			d2 h6	l <sub>1</sub>	t <sub>max</sub>	l <sub>2</sub>	EDP #
inch	wire/ltr	mm	mm	mm	mm	mm	
0.0205		0.52	3.00	38.00	6.22	7.00	9038990005200
0.0209	#75	0.53	3.00	38.00	6.21	7.00	9038990005300
0.0213		0.54	3.00	38.00	6.19	7.00	9038990005400
0.0217		0.55	3.00	38.00	6.18	7.00	9038990005500
0.0220		0.56	3.00	38.00	6.16	7.00	9038990005600
0.0224	#74	0.57	3.00	38.00	6.15	7.00	9038990005700
0.0228		0.58	3.00	38.00	6.13	7.00	9038990005800
0.0232		0.59	3.00	38.00	6.12	7.00	9038990005900
0.0236		0.60	3.00	38.00	6.10	7.00	9038990006000
0.0240	#73	0.61	3.00	38.00	6.09	7.00	9038990006100
0.0244		0.62	3.00	38.00	6.07	7.00	9038990006200
0.0248		0.63	3.00	38.00	6.06	7.00	9038990006300
0.0252	#72	0.64	3.00	38.00	6.04	7.00	9038990006400
0.0256		0.65	3.00	38.00	6.03	7.00	9038990006500
0.0260	#71	0.66	3.00	38.00	6.01	7.00	9038990006600
0.0264		0.67	3.00	38.00	6.00	7.00	9038990006700
0.0268		0.68	3.00	38.00	5.98	7.00	9038990006800
0.0272		0.69	3.00	38.00	5.97	7.00	9038990006900
0.0276		0.70	3.00	38.00	6.95	8.00	9038990007000
0.0280	#70	0.71	3.00	38.00	6.94	8.00	9038990007100
0.0283		0.72	3.00	38.00	6.92	8.00	9038990007200
0.0287		0.73	3.00	38.00	6.91	8.00	9038990007300
0.0291	#69	0.74	3.00	38.00	6.89	8.00	9038990007400
0.0295		0.75	3.00	38.00	6.88	8.00	9038990007500
0.0299		0.76	3.00	38.00	6.86	8.00	9038990007600
0.0303		0.77	3.00	38.00	6.85	8.00	9038990007700
0.0307		0.78	3.00	38.00	6.83	8.00	9038990007800
0.0311	1/32	#68	3.00	38.00	6.82	8.00	9038990007900
0.0315		0.80	3.00	38.00	8.80	10.00	9038990008000
0.0319	#67	0.81	3.00	38.00	8.79	10.00	9038990008100
0.0323		0.82	3.00	38.00	8.77	10.00	9038990008200
0.0327		0.83	3.00	38.00	8.76	10.00	9038990008300
0.0331	#66	0.84	3.00	38.00	8.74	10.00	9038990008400
0.0335		0.85	3.00	38.00	8.73	10.00	9038990008500
0.0339		0.86	3.00	38.00	8.71	10.00	9038990008600
0.0343		0.87	3.00	38.00	8.70	10.00	9038990008700
0.0346		0.88	3.00	38.00	8.68	10.00	9038990008800
0.0350	#65	0.89	3.00	38.00	8.67	10.00	9038990008900
0.0354		0.90	3.00	38.00	8.65	10.00	9038990009000
0.0358	#64	0.91	3.00	38.00	8.64	10.00	9038990009100
0.0362		0.92	3.00	38.00	8.62	10.00	9038990009200
0.0366		0.93	3.00	38.00	8.61	10.00	9038990009300

Diameter (d1)			d2 h6 mm	l1 mm	tmax mm	l2 mm	EDP #
inch	wire/ltr	mm					
0.0370	#63	0.94	3.00	38.00	8.59	10.00	9038990009400
0.0374		0.95	3.00	38.00	8.58	10.00	9038990009500
0.0378		0.96	3.00	38.00	8.56	10.00	9038990009600
0.0382	#62	0.97	3.00	38.00	8.55	10.00	9038990009700
0.0386		0.98	3.00	38.00	8.53	10.00	9038990009800
0.0390	#61	0.99	3.00	38.00	8.52	10.00	9038990009900
0.0394		1.00	3.00	38.00	8.50	10.00	9038990010000
0.0398		1.01	3.00	38.00	8.49	10.00	9038990010100
0.0402	#60	1.02	3.00	38.00	8.47	10.00	9038990010200
0.0406		1.03	3.00	38.00	8.46	10.00	9038990010300
0.0409	#59	1.04	3.00	38.00	8.44	10.00	9038990010400
0.0413		1.05	3.00	38.00	8.43	10.00	9038990010500
0.0417		1.06	3.00	38.00	8.41	10.00	9038990010600
0.0421	#58	1.07	3.00	38.00	8.40	10.00	9038990010700
0.0425		1.08	3.00	38.00	8.38	10.00	9038990010800
0.0429	#57	1.09	3.00	38.00	8.37	10.00	9038990010900
0.0433		1.10	3.00	38.00	8.35	10.00	9038990011000
0.0437		1.11	3.00	38.00	8.34	10.00	9038990011100
0.0441		1.12	3.00	38.00	8.32	10.00	9038990011200
0.0445		1.13	3.00	38.00	8.31	10.00	9038990011300
0.0449		1.14	3.00	38.00	8.29	10.00	9038990011400
0.0453		1.15	3.00	38.00	8.28	10.00	9038990011500
0.0457		1.16	3.00	38.00	8.26	10.00	9038990011600
0.0461		1.17	3.00	38.00	8.25	10.00	9038990011700
0.0465	#56	1.18	3.00	38.00	8.23	10.00	9038990011800
0.0469	3/64	1.19	3.00	38.00	8.22	10.00	9038990011900
0.0472		1.20	3.00	38.00	8.20	10.00	9038990012000
0.0476		1.21	3.00	38.00	8.19	10.00	9038990012100
0.0480		1.22	3.00	38.00	8.17	10.00	9038990012200
0.0484		1.23	3.00	38.00	8.16	10.00	9038990012300
0.0488		1.24	3.00	38.00	8.14	10.00	9038990012400
0.0492		1.25	3.00	38.00	8.13	10.00	9038990012500
0.0496		1.26	3.00	38.00	8.11	10.00	9038990012600
0.0500		1.27	3.00	38.00	8.10	10.00	9038990012700
0.0504		1.28	3.00	38.00	8.08	10.00	9038990012800
0.0508		1.29	3.00	38.00	8.07	10.00	9038990012900
0.0512		1.30	3.00	38.00	8.05	10.00	9038990013000
0.0516		1.31	3.00	38.00	8.04	10.00	9038990013100
0.0520	#55	1.32	3.00	38.00	8.02	10.00	9038990013200
0.0524		1.33	3.00	38.00	8.01	10.00	9038990013300
0.0528		1.34	3.00	38.00	7.99	10.00	9038990013400
0.0531		1.35	3.00	38.00	7.98	10.00	9038990013500
0.0535		1.36	3.00	38.00	7.96	10.00	9038990013600
0.0539		1.37	3.00	38.00	7.95	10.00	9038990013700
0.0543		1.38	3.00	38.00	7.93	10.00	9038990013800
0.0547		1.39	3.00	38.00	7.92	10.00	9038990013900
0.0551	#54	1.40	3.00	38.00	7.90	10.00	9038990014000
0.0555		1.41	3.00	38.00	7.89	10.00	9038990014100
0.0559		1.42	3.00	38.00	7.87	10.00	9038990014200
0.0563		1.43	3.00	38.00	7.86	10.00	9038990014300
0.0567		1.44	3.00	38.00	7.84	10.00	9038990014400
0.0571		1.45	3.00	38.00	7.83	10.00	9038990014500
0.0575		1.46	3.00	38.00	7.81	10.00	9038990014600
0.0579		1.47	3.00	38.00	7.80	10.00	9038990014700
0.0583		1.48	3.00	38.00	7.78	10.00	9038990014800
0.0587		1.49	3.00	38.00	7.77	10.00	9038990014900
0.0591		1.50	3.00	38.00	7.75	10.00	9038990015000
0.0594		1.51	3.00	38.00	7.74	10.00	9038990015100
0.0598		1.52	3.00	38.00	7.72	10.00	9038990015200
0.0602		1.53	3.00	38.00	7.71	10.00	9038990015300
0.0606		1.54	3.00	38.00	7.69	10.00	9038990015400
0.0610		1.55	3.00	38.00	7.68	10.00	9038990015500
0.0614		1.56	3.00	38.00	7.66	10.00	9038990015600
0.0618		1.57	3.00	38.00	7.65	10.00	9038990015700

Diameter (d1)			d2 h6 mm	l1 mm	tmax mm	l2 mm	EDP #
inch	wire/ltr	mm					
0.0622		1.58	3.00	38.00	7.63	10.00	9038990015800
0.0626	1/16	1.59	3.00	38.00	7.62	10.00	9038990015900
0.0630		1.60	3.00	38.00	9.60	12.00	9038990016000
0.0634	#52	1.61	3.00	38.00	9.59	12.00	9038990016100
0.0638		1.62	3.00	38.00	9.57	12.00	9038990016200
0.0642		1.63	3.00	38.00	9.56	12.00	9038990016300
0.0646		1.64	3.00	38.00	9.54	12.00	9038990016400
0.0650		1.65	3.00	38.00	9.53	12.00	9038990016500
0.0654		1.66	3.00	38.00	9.51	12.00	9038990016600
0.0657		1.67	3.00	38.00	9.50	12.00	9038990016700
0.0661		1.68	3.00	38.00	9.48	12.00	9038990016800
0.0665		1.69	3.00	38.00	9.47	12.00	9038990016900
0.0669	#51	1.70	3.00	38.00	9.45	12.00	9038990017000
0.0673		1.71	3.00	38.00	9.44	12.00	9038990017100
0.0677		1.72	3.00	38.00	9.42	12.00	9038990017200
0.0681		1.73	3.00	38.00	9.41	12.00	9038990017300
0.0685		1.74	3.00	38.00	9.39	12.00	9038990017400
0.0689		1.75	3.00	38.00	9.38	12.00	9038990017500
0.0693		1.76	3.00	38.00	9.36	12.00	9038990017600
0.0697		1.77	3.00	38.00	9.35	12.00	9038990017700
0.0701		1.78	3.00	38.00	9.33	12.00	9038990017800
0.0705		1.79	3.00	38.00	9.32	12.00	9038990017900
0.0709		1.80	3.00	38.00	9.30	12.00	9038990018000
0.0713		1.81	3.00	38.00	9.29	12.00	9038990018100
0.0717		1.82	3.00	38.00	9.27	12.00	9038990018200
0.0720		1.83	3.00	38.00	9.26	12.00	9038990018300
0.0724		1.84	3.00	38.00	9.24	12.00	9038990018400
0.0728	#49	1.85	3.00	38.00	9.23	12.00	9038990018500
0.0732		1.86	3.00	38.00	9.21	12.00	9038990018600
0.0736		1.87	3.00	38.00	9.20	12.00	9038990018700
0.0740		1.88	3.00	38.00	9.18	12.00	9038990018800
0.0744		1.89	3.00	38.00	9.17	12.00	9038990018900
0.0748		1.90	3.00	38.00	9.15	12.00	9038990019000
0.0752		1.91	3.00	38.00	9.14	12.00	9038990019100
0.0756		1.92	3.00	38.00	9.12	12.00	9038990019200
0.0760	#48	1.93	3.00	38.00	9.11	12.00	9038990019300
0.0764		1.94	3.00	38.00	9.09	12.00	9038990019400
0.0768		1.95	3.00	38.00	9.08	12.00	9038990019500
0.0772		1.96	3.00	38.00	9.06	12.00	9038990019600
0.0776		1.97	3.00	38.00	9.05	12.00	9038990019700
0.0780	5/64	1.98	3.00	38.00	9.03	12.00	9038990019800
0.0783	#47	1.99	3.00	38.00	9.02	12.00	9038990019900
0.0787		2.00	3.00	38.00	9.00	12.00	9038990020000
0.0807		2.05	3.00	38.00	8.93	12.00	9038990020500
0.0827		2.10	3.00	38.00	8.85	12.00	9038990021000
0.0846		2.15	3.00	38.00	8.78	12.00	9038990021500
0.0866		2.20	3.00	38.00	8.70	12.00	9038990022000
0.0886		2.25	3.00	38.00	8.63	12.00	9038990022500
0.0906		2.30	3.00	38.00	8.55	12.00	9038990023000
0.0925		2.35	3.00	38.00	8.48	12.00	9038990023500
0.0945		2.40	3.00	38.00	8.40	12.00	9038990024000
0.0965		2.45	3.00	38.00	8.33	12.00	9038990024500
0.0984		2.50	3.00	38.00	8.25	12.00	9038990025000
0.1004		2.55	3.00	38.00	8.18	12.00	9038990025500
0.1024		2.60	3.00	38.00	8.10	12.00	9038990026000
0.1043		2.65	3.00	38.00	8.03	12.00	9038990026500
0.1063		2.70	3.00	38.00	7.95	12.00	9038990027000
0.1083		2.75	3.00	38.00	7.88	12.00	9038990027500
0.1102		2.80	3.00	38.00	7.80	12.00	9038990028000
0.1122		2.85	3.00	38.00	7.73	12.00	9038990028500
0.1142		2.90	3.00	38.00	7.65	12.00	9038990029000
0.1161	#32	2.95	3.00	38.00	7.58	12.00	9038990029500
0.1181		3.00	3.00	38.00	7.50	12.00	9038990030000