

Micro



Bright Finish



External Coolant



Reinforced Straight Shank

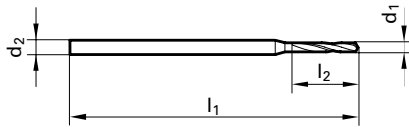
Speeds & Feeds
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Series 301

Micro-Precision

Cobalt, Micro-Precision (Type N), 118° point,
reinforced straight shank, RH helix

Shank Dia. = h8 tolerance range, Cut Dia. +0 / -0.004



Application Materials:

- General Steels/Brass
- Universal Steels
- Stainless Steels
- Hardened Materials
- Cast Iron
- Ti & Ni Alloys
- Aluminum & Alloys

Twist Drills

Diameter (d1)		Wire / letter	d2 mm	l1 mm	l2 mm	EDP #
Dec. inch	Fract. inch					
0.0020			1.000	25.00	0.30	9003010000500
0.0024			1.000	25.00	0.30	9003010000600
0.0028			1.000	25.00	0.30	9003010000700
0.0030			1.000	25.00	0.40	9003010000750
0.0031			1.000	25.00	0.40	9003010000800
0.0035			1.000	25.00	0.40	9003010000900
0.0039			1.000	25.00	0.50	9003010001000
0.0041			1.000	25.00	0.50	9003010001050
0.0043			1.000	25.00	0.50	9003010001100
0.0045			1.000	25.00	0.50	9003010001150
0.0047			1.000	25.00	0.50	9003010001200
0.0049			1.000	25.00	0.80	9003010001250
0.0050			1.000	25.00	0.80	9003010001280
0.0051			1.000	25.00	0.80	9003010001300
0.0055			1.000	25.00	0.80	9003010001400
0.0056			1.000	25.00	0.80	9003010001430
0.0057			1.000	25.00	0.80	9003010001450
0.0058			1.000	25.00	0.80	9003010001470
0.0059		97	1.150	25.00	0.80	9003010001500
0.0061			1.150	25.00	1.10	9003010001550
0.0063		96	1.160	25.00	1.10	9003010001600
0.0067		95	1.170	25.00	1.10	9003010001700
0.0069			1.175	25.00	1.10	9003010001750
0.0071		94	1.180	25.00	1.10	9003010001800
0.0075		93	1.190	25.00	1.10	9003010001900
0.0077			1.195	25.00	1.50	9003010001950
0.0079			1.200	25.00	1.50	9003010002000
0.0081			1.205	25.00	1.50	9003010002050
0.0083		91	1.210	25.00	1.50	9003010002100
0.0087		90	1.220	25.00	1.50	9003010002200
0.0089			1.225	25.00	1.50	9003010002250
0.0091		89	1.230	25.00	1.50	9003010002300
0.0093			1.235	25.00	1.50	9003010002350
0.0094		88	1.240	25.00	1.50	9003010002400
0.0096			1.245	25.00	1.90	9003010002450
0.0098		87	1.250	25.00	1.90	9003010002500
0.0100			1.255	25.00	1.90	9003010002550
0.0102			1.260	25.00	1.90	9003010002600
0.0104			1.265	25.00	1.90	9003010002650
0.0106		86	1.270	25.00	1.90	9003010002700
0.0108			1.275	25.00	1.90	9003010002750
0.0110		85	1.280	25.00	1.90	9003010002800
0.0114		84	1.290	25.00	1.90	9003010002900
0.0116			1.295	25.00	1.90	9003010002950
0.0118			1.300	25.00	1.90	9003010003000
0.0120			1.305	25.00	2.40	9003010003050
0.0122		83	1.310	25.00	2.40	9003010003100
0.0124			1.315	25.00	2.40	9003010003150
0.0126		82	1.320	25.00	2.40	9003010003200
0.0128			1.325	25.00	2.40	9003010003250
0.0130		81	1.330	25.00	2.40	9003010003300
0.0134		80	1.340	25.00	2.40	9003010003400
0.0136			1.345	25.00	2.40	9003010003450
0.0138			1.350	25.00	2.40	9003010003500
0.0140			1.355	25.00	2.40	9003010003550

Diameter (d1)		Wire / letter	d2 mm	l1 mm	l2 mm	EDP #
Dec. inch	Fract. inch					
0.0142			1.000	25.00	2.40	9003010003600
0.0144			1.000	25.00	2.40	9003010003650
0.0146		79	1.000	25.00	2.40	9003010003700
0.0148			1.000	25.00	2.40	9003010003750
0.0150			1.000	25.00	2.40	9003010003800
0.0152			1.000	25.00	3.00	9003010003850
0.0154			1.000	25.00	3.00	9003010003900
0.0157		1/64	1.000	25.00	3.00	9003010004000
0.0159			1.000	25.00	3.00	9003010004050
0.0161		78	1.000	25.00	3.00	9003010004100
0.0163			1.000	25.00	3.00	9003010004150
0.0165			1.000	25.00	3.00	9003010004200
0.0167			1.000	25.00	3.00	9003010004250
0.0169			1.000	25.00	3.00	9003010004300
0.0170			1.000	25.00	3.00	9003010004320
0.0173			1.000	25.00	3.00	9003010004400
0.0175			1.000	25.00	3.00	9003010004450
0.0177			1.000	25.00	3.00	9003010004500
0.0181		77	1.000	25.00	3.00	9003010004600
0.0185			1.000	25.00	3.00	9003010004700
0.0187			1.000	25.00	3.00	9003010004750
0.0189			1.000	25.00	3.00	9003010004800
0.0191			1.000	25.00	3.40	9003010004850
0.0193			1.000	25.00	3.40	9003010004900
0.0195			1.000	25.00	3.40	9003010004950
0.0197			1.000	25.00	3.40	9003010005000
0.0199			1.000	25.00	3.40	9003010005050
0.0201		76	1.000	25.00	3.40	9003010005100
0.0203			1.000	25.00	3.40	9003010005150
0.0205			1.000	25.00	3.40	9003010005200
0.0207			1.000	25.00	3.40	9003010005250
0.0209		75	1.000	25.00	3.40	9003010005300
0.0211			1.000	25.00	3.90	9003010005350
0.0213			1.000	25.00	3.90	9003010005400
0.0215			1.000	25.00	3.90	9003010005450
0.0217			1.000	25.00	3.90	9003010005500
0.0219			1.000	25.00	3.90	9003010005550
0.0220			1.000	25.00	3.90	9003010005600
0.0224		74	1.000	25.00	3.90	9003010005700
0.0228			1.000	25.00	3.90	9003010005800
0.0230			1.000	25.00	3.90	9003010005850
0.0232			1.000	25.00	3.90	9003010005900
0.0234			1.000	25.00	3.90	9003010005950
0.0236			1.000	25.00	3.90	9003010006000
0.0238			1.000	25.00	4.20	9003010006050
0.0240		73	1.000	25.00	4.20	9003010006100
0.0242			1.000	25.00	4.20	9003010006150
0.0244			1.000	25.00	4.20	9003010006200
0.0246			1.000	25.00	4.20	9003010006250
0.0248			1.000	25.00	4.20	9003010006300
0.0249			1.000	25.00	4.20	9003010006320
0.0252		72	1.000	25.00	4.20	9003010006400
0.0256			1.000	25.00	4.20	9003010006500
0.0258			1.000	25.00	4.20	9003010006550
0.0260		71	1.000	25.00	4.20	9003010006600

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

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Diameter (d1)		Wire / letter	d2 mm	l1 mm	l2 mm	EDP #	
Dec. inch	Fract. inch						
0.0262			0.665	1.000	25.00	4.20	9003010006650
0.0264			0.670	1.000	25.00	4.20	9003010006700
0.0266			0.675	1.000	25.00	4.80	9003010006750
0.0268			0.680	1.000	25.00	4.80	9003010006800
0.0272			0.690	1.000	25.00	4.80	9003010006900
0.0276			0.700	1.000	25.00	4.80	9003010007000
0.0278			0.705	1.000	25.00	4.80	9003010007050
0.0280		70	0.710	1.000	25.00	4.80	9003010007100
0.0283			0.720	1.000	25.00	4.80	9003010007200
0.0285			0.725	1.000	25.00	4.80	9003010007250
0.0287			0.730	1.000	25.00	4.80	9003010007300
0.0291		69	0.740	1.000	25.00	4.80	9003010007400
0.0295			0.750	1.000	25.00	4.80	9003010007500
0.0299			0.760	1.000	25.00	5.30	9003010007600
0.0303			0.770	1.000	25.00	5.30	9003010007700
0.0307			0.780	1.000	25.00	5.30	9003010007800
0.0311	1/32	68	0.790	1.000	25.00	5.30	9003010007900
0.0313			0.795	1.500	25.00	5.30	9003010007950
0.0315			0.800	1.500	25.00	5.30	9003010008000
0.0319		67	0.810	1.500	25.00	5.30	9003010008100
0.0323			0.820	1.500	25.00	5.30	9003010008200
0.0327			0.830	1.500	25.00	5.30	9003010008300
0.0331		66	0.840	1.500	25.00	5.30	9003010008400
0.0335			0.850	1.500	25.00	5.30	9003010008500
0.0339			0.860	1.500	25.00	6.00	9003010008600
0.0343			0.870	1.500	25.00	6.00	9003010008700
0.0346			0.880	1.500	25.00	6.00	9003010008800
0.0350		65	0.890	1.500	25.00	6.00	9003010008900
0.0354			0.900	1.500	25.00	6.00	9003010009000
0.0358		64	0.910	1.500	25.00	6.00	9003010009100
0.0362			0.920	1.500	25.00	6.00	9003010009200
0.0364			0.925	1.500	25.00	6.00	9003010009250
0.0366			0.930	1.500	25.00	6.00	9003010009300
0.0370		63	0.940	1.500	25.00	6.00	9003010009400
0.0374			0.950	1.500	25.00	6.00	9003010009500
0.0378			0.960	1.500	25.00	6.80	9003010009600
0.0382		62	0.970	1.500	25.00	6.80	9003010009700
0.0386			0.980	1.500	25.00	6.80	9003010009800
0.0390		61	0.990	1.500	25.00	6.80	9003010009900
0.0394			1.000	1.500	25.00	6.80	9003010010000
0.0398			1.010	1.500	25.00	6.80	9003010010100
0.0402		60	1.020	1.500	25.00	6.80	9003010010200
0.0406			1.030	1.500	25.00	6.80	9003010010300
0.0409		59	1.040	1.500	25.00	6.80	9003010010400
0.0413			1.050	1.500	25.00	6.80	9003010010500
0.0415			1.055	1.500	25.00	6.80	9003010010550
0.0417			1.060	1.500	25.00	6.80	9003010010600
0.0421		58	1.070	1.500	25.00	7.60	9003010010700
0.0425			1.080	1.500	25.00	7.60	9003010010800
0.0429		57	1.090	1.500	25.00	7.60	9003010010900
0.0431			1.095	1.500	25.00	7.60	9003010010950
0.0433			1.100	1.500	25.00	7.60	9003010011000
0.0437			1.110	1.500	25.00	7.60	9003010011100
0.0441			1.120	1.500	25.00	7.60	9003010011200
0.0445			1.130	1.500	25.00	7.60	9003010011300
0.0449			1.140	1.500	25.00	7.60	9003010011400
0.0453			1.150	1.500	25.00	7.60	9003010011500
0.0457			1.160	1.500	25.00	7.60	9003010011600

Diameter (d1)		Wire / letter	d2 mm	l1 mm	l2 mm	EDP #	
Dec. inch	Fract. inch						
0.0461			1.170	1.500	25.00	7.60	9003010011700
0.0463			1.175	1.500	25.00	7.60	9003010011750
0.0465		56	1.180	1.500	25.00	7.60	9003010011800
0.0469	3/64		1.190	1.500	25.00	8.50	9003010011900
0.0472			1.200	1.500	25.00	8.50	9003010012000
0.0476			1.210	1.500	25.00	8.50	9003010012100
0.0480			1.220	1.500	25.00	8.50	9003010012200
0.0484			1.230	1.500	25.00	8.50	9003010012300
0.0488			1.240	1.500	25.00	8.50	9003010012400
0.0492			1.250	1.500	25.00	8.50	9003010012500
0.0496			1.260	1.500	25.00	8.50	9003010012600
0.0498			1.265	1.500	25.00	8.50	9003010012650
0.0500			1.270	1.500	25.00	8.50	9003010012700
0.0504			1.280	1.500	25.00	8.50	9003010012800
0.0508			1.290	1.500	25.00	8.50	9003010012900
0.0512			1.300	1.500	25.00	8.50	9003010013000
0.0516			1.310	1.500	25.00	8.50	9003010013100
0.0520		55	1.320	1.500	25.00	8.50	9003010013200
0.0524			1.330	1.500	25.00	9.50	9003010013300
0.0528			1.340	1.500	25.00	9.50	9003010013400
0.0531			1.350	1.500	25.00	9.50	9003010013500
0.0539			1.370	1.500	25.00	9.50	9003010013700
0.0543			1.380	1.500	25.00	9.50	9003010013800
0.0547			1.390	1.500	25.00	9.50	9003010013900
0.0551		54	1.400	1.500	25.00	9.50	9003010014000
0.0555			1.410	1.500	25.00	9.50	9003010014100
0.0559			1.420	1.500	25.00	9.50	9003010014200
0.0563			1.430	1.500	25.00	9.50	9003010014300
0.0567			1.440	1.500	25.00	9.50	9003010014400
0.0571			1.450	1.500	25.00	9.50	9003010014500
0.0575			1.460	2.000	30.00	9.50	9003010014600
0.0579			1.470	2.000	30.00	9.50	9003010014700
0.0591			1.500	2.000	30.00	9.50	9003010015000
0.0602			1.530	2.000	30.00	10.60	9003010015300
0.0610			1.550	2.000	30.00	10.60	9003010015500
0.0626	1/16		1.590	2.000	30.00	10.60	9003010015900
0.0630			1.600	2.000	30.00	10.60	9003010016000
0.0634		52	1.610	2.000	30.00	10.60	9003010016100
0.0650			1.650	2.000	30.00	10.60	9003010016500
0.0669		51	1.700	2.000	30.00	10.60	9003010017000
0.0673			1.710	2.000	30.00	11.80	9003010017100
0.0681			1.730	2.000	30.00	11.80	9003010017300
0.0687			1.745	2.000	30.00	11.80	9003010017450
0.0689			1.750	2.000	30.00	11.80	9003010017500
0.0699			1.775	2.000	30.00	11.80	9003010017750
0.0709			1.800	2.000	30.00	11.80	9003010018000
0.0720			1.830	2.000	30.00	11.80	9003010018300
0.0724			1.840	2.000	30.00	11.80	9003010018400
0.0728		49	1.850	2.000	30.00	11.80	9003010018500
0.0748			1.900	2.000	30.00	11.80	9003010019000
0.0756			1.920	2.000	30.00	13.20	9003010019200

Alternative Drill Series:

- #660 Cobalt, Type N, 4xD, 118 pt, TiN
- #6400 Carbide, Type N, 4xD, 140 pt, Super-A
- #3899 Carbide, Type N, 5xD, 130 point, TiAN