

Micro



Bright Finish



External Coolant



Reinforced Straight Shank

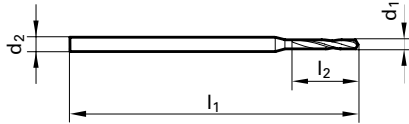
Speeds & Feeds
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Series 301

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)		d2	l1	l2	EDP #
Dec. inch	Fract. inch / Wire / letter				
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	1.000	25.00	0.80	9003010001500
0.0061		1.000	25.00	1.10	9003010001550
0.0063	96	1.000	25.00	1.10	9003010001600
0.0067	95	1.000	25.00	1.10	9003010001700
0.0069		1.000	25.00	1.10	9003010001750
0.0071	94	1.000	25.00	1.10	9003010001800
0.0075	93	1.000	25.00	1.10	9003010001900
0.0077		1.000	25.00	1.50	9003010001950
0.0079	92	1.000	25.00	1.50	9003010002000
0.0081		1.000	25.00	1.50	9003010002050
0.0083	91	1.000	25.00	1.50	9003010002100
0.0087	90	1.000	25.00	1.50	9003010002200
0.0089		1.000	25.00	1.50	9003010002250
0.0091	89	1.000	25.00	1.50	9003010002300
0.0093		1.000	25.00	1.50	9003010002350
0.0094	88	1.000	25.00	1.50	9003010002400
0.0096		1.000	25.00	1.90	9003010002450
0.0098	87	1.000	25.00	1.90	9003010002500
0.0100		1.000	25.00	1.90	9003010002550
0.0102		1.000	25.00	1.90	9003010002600
0.0104		1.000	25.00	1.90	9003010002650
0.0106	86	1.000	25.00	1.90	9003010002700
0.0108		1.000	25.00	1.90	9003010002750
0.0110	85	1.000	25.00	1.90	9003010002800
0.0114	84	1.000	25.00	1.90	9003010002900
0.0116		1.000	25.00	1.90	9003010002950
0.0118		1.000	25.00	1.90	9003010003000
0.0120		1.000	25.00	2.40	9003010003050
0.0122	83	1.000	25.00	2.40	9003010003100
0.0124		1.000	25.00	2.40	9003010003150
0.0126	82	1.000	25.00	2.40	9003010003200
0.0128		1.000	25.00	2.40	9003010003250
0.0130	81	1.000	25.00	2.40	9003010003300
0.0134	80	1.000	25.00	2.40	9003010003400
0.0136		1.000	25.00	2.40	9003010003450
0.0138		1.000	25.00	2.40	9003010003500
0.0140		1.000	25.00	2.40	9003010003550

Diameter (d1)		d2	l1	l2	EDP #
Dec. inch	Fract. inch / Wire / letter				
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, TiAlN