

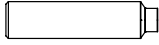
# Micro



Bright Finish



External Coolant



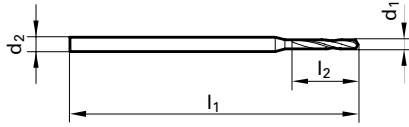
Reinforced Straight Shank

Speeds & Feeds  
information pg 431

# Series 303

**Micro-Precision, LH helix**  
**Cobalt, Micro-Precision (Type N), 118° point,**  
**reinforced straight shank, LH 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					
0.0051			1.000	25.00	0.80	9003030001300
0.0055			1.000	25.00	0.80	9003030001400
0.0059		97	1.000	25.00	0.80	9003030001500
0.0063		96	1.000	25.00	1.10	9003030001600
0.0067		95	1.000	25.00	1.10	9003030001700
0.0071		94	1.000	25.00	1.10	9003030001800
0.0073			1.000	25.00	1.10	9003030001850
0.0075		93	1.000	25.00	1.10	9003030001900
0.0077			1.000	25.00	1.50	9003030001950
0.0079		92	1.000	25.00	1.50	9003030002000
0.0083		91	1.000	25.00	1.50	9003030002100
0.0085			1.000	25.00	1.50	9003030002150
0.0087		90	1.000	25.00	1.50	9003030002200
0.0089			1.000	25.00	1.50	9003030002250
0.0091		89	1.000	25.00	1.50	9003030002300
0.0094		88	1.000	25.00	1.50	9003030002400
0.0096			1.000	25.00	1.90	9003030002450
0.0098		87	1.000	25.00	1.90	9003030002500
0.0100			1.000	25.00	1.90	9003030002550
0.0102			1.000	25.00	1.90	9003030002600
0.0104			1.000	25.00	1.90	9003030002650
0.0106		86	1.000	25.00	1.90	9003030002700
0.0110		85	1.000	25.00	1.90	9003030002800
0.0114		84	1.000	25.00	1.90	9003030002900
0.0116			1.000	25.00	1.90	9003030002950
0.0118			1.000	25.00	1.90	9003030003000
0.0122		83	1.000	25.00	2.40	9003030003100
0.0126		82	1.000	25.00	2.40	9003030003200
0.0130		81	1.000	25.00	2.40	9003030003300
0.0134		80	1.000	25.00	2.40	9003030003400
0.0138			1.000	25.00	2.40	9003030003500
0.0142			1.000	25.00	2.40	9003030003600
0.0146		79	1.000	25.00	2.40	9003030003700
0.0150			1.000	25.00	2.40	9003030003800
0.0154			1.000	25.00	3.00	9003030003900
0.0157	1/64		1.000	25.00	3.00	9003030004000
0.0161		78	1.000	25.00	3.00	9003030004100
0.0165			1.000	25.00	3.00	9003030004200
0.0169			1.000	25.00	3.00	9003030004300
0.0173			1.000	25.00	3.00	9003030004400
0.0177			1.000	25.00	3.00	9003030004500
0.0181		77	1.000	25.00	3.00	9003030004600
0.0185			1.000	25.00	3.00	9003030004700
0.0189			1.000	25.00	3.00	9003030004800
0.0193			1.000	25.00	3.40	9003030004900
0.0197			1.000	25.00	3.40	9003030005000
0.0201		76	1.000	25.00	3.40	9003030005100
0.0205			1.000	25.00	3.40	9003030005200
0.0207			1.000	25.00	3.40	9003030005250
0.0209		75	1.000	25.00	3.40	9003030005300
0.0211			1.000	25.00	3.90	9003030005350
0.0213			1.000	25.00	3.90	9003030005400
0.0215			1.000	25.00	3.90	9003030005450
0.0217			1.000	25.00	3.90	9003030005500

Diameter (d1)		Wire / letter	d2 mm	l1 mm	l2 mm	EDP #	
Dec. inch	Fract. inch						
0.0219			1.000	25.00	3.90	9003030005550	
0.0220			1.000	25.00	3.90	9003030005600	
0.0222			1.000	25.00	3.90	9003030005650	
0.0224		74	1.000	25.00	3.90	9003030005700	
0.0228			1.000	25.00	3.90	9003030005800	
0.0232			1.000	25.00	3.90	9003030005900	
0.0236			1.000	25.00	3.90	9003030006000	
0.0240		73	1.000	25.00	4.20	9003030006100	
0.0244			1.000	25.00	4.20	9003030006200	
0.0248			1.000	25.00	4.20	9003030006300	
0.0252		72	1.000	25.00	4.20	9003030006400	
0.0256			1.000	25.00	4.20	9003030006500	
0.0260		71	1.000	25.00	4.20	9003030006600	
0.0264			1.000	25.00	4.20	9003030006700	
0.0266			1.000	25.00	4.80	9003030006750	
0.0268			1.000	25.00	4.80	9003030006800	
0.0272			1.000	25.00	4.80	9003030006900	
0.0276			1.000	25.00	4.80	9003030007000	
0.0280		70	1.000	25.00	4.80	9003030007100	
0.0283			1.000	25.00	4.80	9003030007200	
0.0287			1.000	25.00	4.80	9003030007300	
0.0291		69	1.000	25.00	4.80	9003030007400	
0.0295			1.000	25.00	4.80	9003030007500	
0.0299			1.000	25.00	5.30	9003030007600	
0.0303			1.000	25.00	5.30	9003030007700	
0.0307			1.000	25.00	5.30	9003030007800	
0.0311	1/32	68	1.000	25.00	5.30	9003030007900	
0.0315			1.500	25.00	5.30	9003030008000	
0.0319		67	1.500	25.00	5.30	9003030008100	
0.0323			1.500	25.00	5.30	9003030008200	
0.0327			1.500	25.00	5.30	9003030008300	
0.0331		66	1.500	25.00	5.30	9003030008400	
0.0335			1.500	25.00	5.30	9003030008500	
0.0339			1.500	25.00	6.00	9003030008600	
0.0343			1.500	25.00	6.00	9003030008700	
0.0346			1.500	25.00	6.00	9003030008800	
0.0350		65	1.500	25.00	6.00	9003030008900	
0.0354			1.500	25.00	6.00	9003030009000	
0.0358		64	1.500	25.00	6.00	9003030009100	
0.0360			1.500	25.00	6.00	9003030009150	
0.0362			1.500	25.00	6.00	9003030009200	
0.0366			1.500	25.00	6.00	9003030009300	
0.0368			1.500	25.00	6.00	9003030009350	
0.0370		63	1.500	25.00	6.00	9003030009400	
0.0374			1.500	25.00	6.00	9003030009500	
0.0378			1.500	25.00	6.80	9003030009600	
0.0382		62	1.500	25.00	6.80	9003030009700	
0.0386			1.500	25.00	6.80	9003030009800	
0.0390		61	1.500	25.00	6.80	9003030009900	
0.0394			1.000	1.500	25.00	6.80	9003030010000
0.0396			1.005	1.500	25.00	6.80	9003030010050
0.0398			1.010	1.500	25.00	6.80	9003030010100
0.0402		60	1.020	1.500	25.00	6.80	9003030010200
0.0406			1.030	1.500	25.00	6.80	9003030010300

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

# Series 303

## Speeds & Feeds information pg 431

Diameter (d1)							
Dec. inch	Fract. inch	Wire / letter	mm	d2 mm	l1 mm	l2 mm	EDP #
0.0409		59	1.040	1.500	25.00	6.80	9003030010400
0.0413			1.050	1.500	25.00	6.80	9003030010500
0.0417			1.060	1.500	25.00	6.80	9003030010600
0.0421		58	1.070	1.500	25.00	7.60	9003030010700
0.0425			1.080	1.500	25.00	7.60	9003030010800
0.0429		57	1.090	1.500	25.00	7.60	9003030010900
0.0433			1.100	1.500	25.00	7.60	9003030011000
0.0437			1.110	1.500	25.00	7.60	9003030011100
0.0441			1.120	1.500	25.00	7.60	9003030011200
0.0453			1.150	1.500	25.00	7.60	9003030011500
0.0461			1.170	1.500	25.00	7.60	9003030011700
0.0465		56	1.180	1.500	25.00	7.60	9003030011800
0.0469	3/64		1.190	1.500	25.00	8.50	9003030011900
0.0472			1.200	1.500	25.00	8.50	9003030012000
0.0480			1.220	1.500	25.00	8.50	9003030012200

Diameter (d1)							
Dec. inch	Fract. inch	Wire / letter	mm	d2 mm	l1 mm	l2 mm	EDP #
0.0492			1.250	1.500	25.00	8.50	9003030012500
0.0500			1.270	1.500	25.00	8.50	9003030012700
0.0508			1.290	1.500	25.00	8.50	9003030012900
0.0512			1.300	1.500	25.00	8.50	9003030013000
0.0520		55	1.320	1.500	25.00	8.50	9003030013200
0.0524			1.330	1.500	25.00	9.50	9003030013300
0.0531			1.350	1.500	25.00	9.50	9003030013500
0.0535			1.360	1.500	25.00	9.50	9003030013600
0.0551		54	1.400	1.500	25.00	9.50	9003030014000
0.0728		49	1.850	2.000	30.00	11.80	9003030018500

### Alternative Drill Series:

#226 HSS, GT100, LH helix, 3xD, 118 pt, Bright/Steam Oxide > 6.00