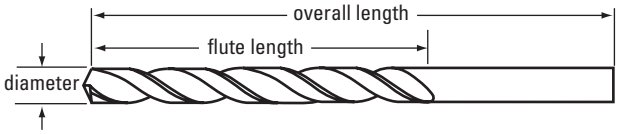
Fast Spiral
Style 120B

Features/Benefits:
- Fast helix and wide flutes provide excellent chip ejection.
- Taper length provides longer overall length and flute length for deeper drilling.
- Peck cycles may be appropriate for deep-hole drilling.
- Manufactured from premium high-speed steel.
- 118° point.
- Bright finish standard from stock; alternate coatings available as stock modifications.

Application Information:
- carbon steel
- alloy steel
- non-ferrous materials including aluminum, copper, and plastics

Style 120B Bright



INCH SIZES

Drill Diameter				Overall Length		Flute Length		Style 120B
Fraction	Wire/Let	Decimal	mm	Inch	mm	Inch	mm	Bright
	60	.0400	1.02	2.2500	57.15	1.1250	28.58	50270
3/64		.0469	1.19	2.2500	57.15	1.1250	28.58	50103
	55	.0520	1.32	3.0000	76.20	1.7500	44.45	50265
	54	.0550	1.40	3.0000	76.20	1.7500	44.45	50264
	53	.0595	1.51	3.0000	76.20	1.7500	44.45	50263
1/16		.0625	1.59	3.0000	76.20	1.7500	44.45	50104
	51	.0670	1.70	3.7500	95.25	2.0000	50.80	50261
	50	.0700	1.78	3.7500	95.25	2.0000	50.80	50260
	49	.0730	1.85	3.7500	95.25	2.0000	50.80	50259
	48	.0760	1.93	3.7500	95.25	2.0000	50.80	50258
5/64		.0781	1.98	3.7500	95.25	2.0000	50.80	50105
	47	.0785	1.99	4.2500	107.95	2.2500	57.15	50257
	46	.0810	2.06	4.2500	107.95	2.2500	57.15	50256
	45	.0820	2.08	4.2500	107.95	2.2500	57.15	50255
	44	.0860	2.18	4.2500	107.95	2.2500	57.15	50254
	43	.0890	2.26	4.2500	107.95	2.2500	57.15	50253
	42	.0935	2.37	4.2500	107.95	2.2500	57.15	50252
3/32		.0938	2.38	4.2500	107.95	2.2500	57.15	50106
	41	.0960	2.44	4.6250	117.48	2.5000	63.50	50251
	40	.0980	2.49	4.6250	117.48	2.5000	63.50	50250
	39	.0995	2.53	4.6250	117.48	2.5000	63.50	50249
	38	.1015	2.58	4.6250	117.48	2.5000	63.50	50248
	37	.1040	2.64	4.6250	117.48	2.5000	63.50	50247
	36	.1065	2.71	4.6250	117.48	2.5000	63.50	50246
7/64		.1094	2.78	4.6250	117.48	2.5000	63.50	50107
	35	.1100	2.79	5.1250	130.18	2.7500	69.85	50245
	33	.1130	2.87	5.1250	130.18	2.7500	69.85	50243

continued on next page

Fast Spiral (continued)
Style 120B

INCH SIZES

Drill Diameter				Overall Length		Flute Length		Style 120B
Fraction	Wire/Let	Decimal	mm	Inch	mm	Inch	mm	Bright
	32	.1160	2.95	5.1250	130.18	2.7500	69.85	50242
	31	.1200	3.05	5.1250	130.18	2.7500	69.85	50241
1/8		.1250	3.18	5.1250	130.18	2.7500	69.85	50108
	30	.1285	3.26	5.3750	136.53	3.0000	76.20	50240
	29	.1360	3.45	5.3750	136.53	3.0000	76.20	50239
9/64		.1406	3.57	5.3750	136.53	3.0000	76.20	50109
	27	.1440	3.66	5.3750	136.53	3.0000	76.20	50237
	26	.1470	3.73	5.3750	136.53	3.0000	76.20	50236
5/32		.1562	3.97	5.3750	136.53	3.0000	76.20	50110
	21	.1590	4.04	5.7500	146.05	3.3750	85.73	50231
	20	.1610	4.09	5.7500	146.05	3.3750	85.73	50230
11/64		.1719	4.37	5.7500	146.05	3.3750	85.73	50111
	16	.1770	4.50	5.7500	146.05	3.3750	85.73	50226
	15	.1800	4.57	5.7500	146.05	3.3750	85.73	50225
3/16		.1875	4.76	5.7500	146.05	3.3750	85.73	50112
	11	.1910	4.85	6.0000	152.40	3.6250	92.08	50221
	10	.1935	4.91	6.0000	152.40	3.6250	92.08	50220
	8	.1990	5.05	6.0000	152.40	3.6250	92.08	50218
	7	.2010	5.11	6.0000	152.40	3.6250	92.08	50217
13/64		.2031	5.16	6.0000	152.40	3.6250	92.08	50113
	3	.2130	5.41	6.0000	152.40	3.6250	92.08	50213
7/32		.2188	5.56	6.0000	152.40	3.6250	92.08	50114
	1	.2280	5.79	6.1250	155.58	3.7500	95.25	50211
15/64		.2344	5.95	6.1250	155.58	3.7500	95.25	50115
1/4	E	.2500	6.35	6.1250	155.58	3.7500	95.25	50116
5/16		.3125	7.94	6.3750	161.93	4.0000	101.60	50120
3/8		.3750	9.53	6.7500	171.45	4.2500	107.95	50124
7/16		.4375	11.11	7.2500	184.15	4.6250	117.48	50128
1/2		.5000	12.70	7.7500	196.85	4.7500	120.65	50132

TECH TIP

Peck Feeding

Drilling of holes 2 to 3 diameters deep can usually be accomplished with one step. When the need arises to drill 4, 5, or more diameters deep, it becomes much more difficult to evacuate chips, especially with non-coolant hole drills. The deeper the hole, the greater the tendency of the chips to becomes jammed in the flutes preventing coolant from reaching the drill tip. This buildup of heat at the drill tip will eventually result in premature failure.

This problem can be overcome by introducing a peck cycle. In a peck cycle, the entire drill is periodically withdrawn from the hole to remove chips, and then re-inserted in the hole to drill a small distance and withdrawn drill again until the full hole depth is reached. The first 2 diameters can usually be drilled before initiating a peck drilling cycle. Obviously, peck feeding would not be very efficient for any kind of production work.

The use of coolant hole drills and high-pressure coolant systems will in most cases eliminate the need for peck drilling. Special purpose drills, including parabolic flute forms can also be used to drill deeper holes without peck drilling.