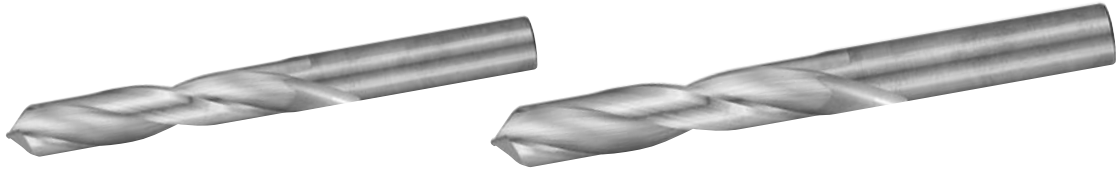




**Twist Drills
118° Drillpoint**



Suitable for non-ferrous alloys, cast iron, plastics, aluminum, and highly abrasive materials.

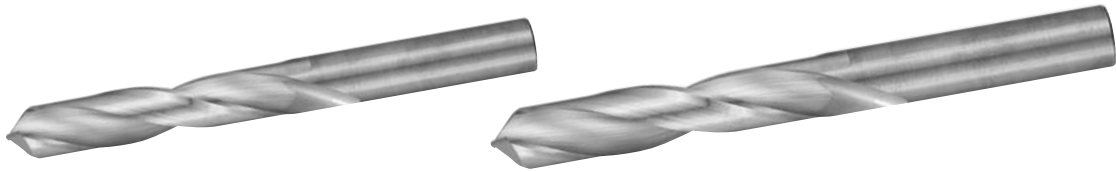
Cutting Diameter: $+0.0000/-0.0005$ "

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B30-0135 B30-0145 B30-0156 B30-0160 B30-0180	80 79 1/64 78 77	.0135 .0145 .0156 .0160 .0180	1-1/4	3/16
B30-0200 B30-0210 B30-0225 B30-0240 B30-0250 B30-0260	76 75 4 73 72 71	.0200 .0210 .0225 .0240 .0250 .0260	1-1/4	1/4 1/4 1/4 1/4 5/16 5/16
B30-0280 B30-0292 B30-0310 B30-0312 B30-0320 B30-0330	70 69 68 1/32 67 66	.0280 .0292 .0310 .0312 .0320 .0330	1-1/4 1-1/4 1-1/4 1-1/2 1-1/2 1-1/2	1/2
B30-0350 B30-0360 B30-0370 B30-0380 B30-0390 B30-0394 B30-0400 B30-0410 B30-0420 B30-0430	65 64 63 62 61 1.0 mm 60 59 58 57	.0350 .0360 .0370 .0380 .0390 .0394 .0400 .0410 .0420 .0430	1-1/2	5/8 5/8 5/8 5/8 5/8 5/8 3/4 3/4 3/4 3/4
B30-0465 B30-0469 B30-0520 B30-0550 B30-0591 B30-0595 B30-0625 B30-0635 B30-0670	56 3/64 55 54 1.5 mm 53 1/16 52 51	.0465 .0469 .0520 .0550 .0591 .0595 .0625 .0635 .0670	1-1/2	3/4

TiN & TiAlN Coated Twist Drills Also Available



**Twist Drills
118° Drillpoint**



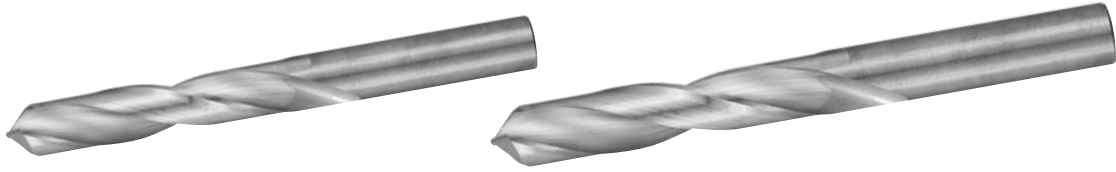
Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B30-0700	50	.0700	1-3/4	7/8
B30-0730	49	.0730		
B30-0760	48	.0760		
B30-0781	5/64	.0781		
B30-0785	47	.0785		
B30-0787	2.0 mm	.0787		
B30-0810	46	.0810		
B30-0820	45	.0820		
B30-0860	44	.0860	2	1
B30-0890	43	.0890	2	
B30-0935	42	.0935	2	
B30-0938	3/32	.0938	2	
B30-0960	41	.0960	2	
B30-0980	40	.0980	2	
B30-0984	2.5 mm	.0984	2-1/4	
B30-0995	69	.0995	2-1/4	
B30-1015	38	.1015		
B30-1040	37	.1040		
B30-1065	36	.1065		
B30-1094	7/64	.1094		
B30-1100	35	.1100		
B30-1110	34	.1110		
B30-1130	33	.1130		
B30-1160	32	.1160		
B30-1181	3.0 mm	.1181		
B30-1200	31	.1200		
B30-1250	1/8	.1250		
B30-1285	30	.1285		
B30-1360	29	.1360		2-1/2
B30-1378	3.5 mm	.1378		
B30-1405	28	.1405		
B30-1406	9/64	.1406		
B30-1440	27	.1440		
B30-1470	26	.1470		
B30-1495	25	.1495		
B30-1520	24	.1520		
B30-1540	23	.1540		
B30-1562	5/32	.1562		
B30-1570	22	.1570		
B30-1575	4.0 mm	.1575		
B30-1590	21	.1590		
B30-1610	20	.1610		

TiN & TiAlN Coated Twist Drills Also Available



Twist Drills
118° Drillpoint



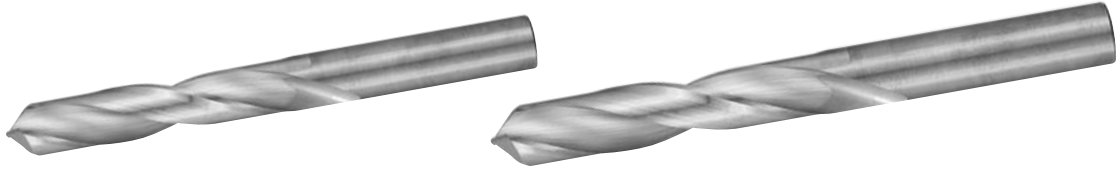
Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B30-1660	19	.1660	2-3/4	1-5/8
B30-1695	18	.1695		
B30-1719	11/64	.1719		
B30-1730	17	.1730		
B30-1770	16	.1770		
B30-1772	4.5 MM	.1772		
B30-1800	15	.1800		
B30-1820	14	.1820		
B30-1850	13	.1850		
B30-1875	3/16	.1875		
B30-1890	12	.1890		
B30-1910	11	.1910		
B30-1935	10	.1935		
B30-1960	9	.1960		
B30-1969	5.0 mm	.1969		
B30-1990	8	.1990		
B30-2010	7	.2010		
B30-2031	13/64	.2031		
B30-2040	6	.2040		
B30-2055	5	.2055		
B30-2090	4	.2090		
B30-2130	3	.2130		
B30-2165	5.5 mm	.2165		
B30-2188	7/32	.2188		
B30-2210	2	.2210		
B30-2280	1	.2280		
B30-2340	A	.2340	3-1/4	2
B30-2344	15/64	.2344		
B30-2362	6.0 mm	.2362		
B30-2380	B	.2380		
B30-2420	C	.2420		
B30-2460	D	.2460		
B30-2500	1/4 E	.2500		
B30-2559	6.5 mm	.2559		
B30-2570	F	.2570		
B30-2610	G	.2610	3-1/2	2-1/4
B30-2656	17/64	.2656		
B30-2660	H	.2660		
B30-2720	I	.2720		
B30-2756	7.0 mm	.2756		
B30-2770	J	.2770		
B30-2810	K	.2810		
B30-2812	9/32	.2812		
B30-2900	L	.2900		

TiN & TiAlN Coated Twist Drills Also Available



Twist Drills
118° Drillpoint



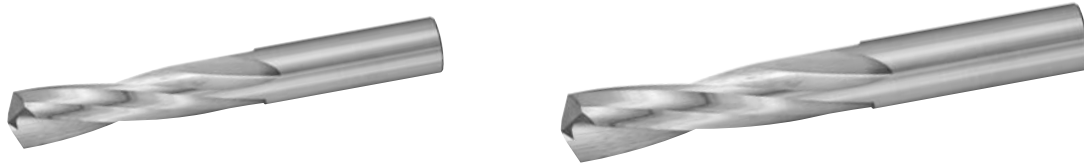
Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B30-2950 B30-2953 B30-2969 B30-3020 B30-3125 B30-3150 B30-3160 B30-3230	M 7.5 mm 19/64 N 5/16 8.0 mm O P	.2950 .2953 .2969 .3020 .3125 .3150 .3160 .3230	3-3/4	2-3/8
B30-3281 B30-3320 B30-3346 B30-3390 B30-3438 B30-3480 B30-3543	21/64 Q 8.5 mm R 11/32 S 9.0 mm	.3281 .3320 .3346 .3390 .3438 .3480 .3543	4	2-1/2
B30-3580 B30-3594 B30-3680 B30-3740 B30-3750 B30-3770	T 23/64 U 9.5 mm 3/8 V	.3580 .3594 .3680 .3740 .3750 .3770	4-1/4	2-3/4
B30-3860 B30-3906 B30-3937 B30-3970 B30-4040 B30-4062 B30-4130 B30-4134 B30-4219 B30-4331 B30-4375	W 25/64 10.0 mm X Y 13/32 Z 10.5 mm 27/64 11.0 mm 7/16	.3860 .3906 .3937 .3970 .4040 .4062 .4130 .4134 .4219 .4331 .4375	4-1/2	2-7/8
B30-4528 B30-4531 B30-4688 B30-4724 B30-4844 B30-4921 B30-5000	11.5 mm 29/64 15/32 12.0 mm 31/64 12.5 mm 1/2	.4528 .4531 .4688 .4724 .4844 .4921 .5000	4-3/4	3

TiN & TiAlN Coated Twist Drills Also Available



**Stub Drills
135° Drillpoint**



Suitable for stainless steel, tool steel, titanium and nickel alloys.

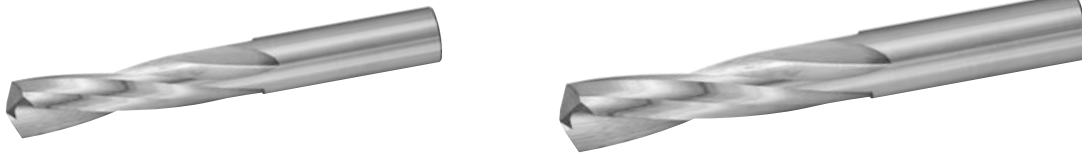
Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B31-0312	1/32	.0312	1-1/2	1/2
B31-0465	56	.0465	1-1/2	1/2
B31-0469	3/64	.0469	1-1/2	1/2
B31-0520	55	.0520	1-1/2	1/2
B31-0550	54	.0550	1-1/2	1/2
B31-0595	53	.0595	1-1/2	1/2
B31-0625	1/16	.0625	1-5/8	5/8
B31-0635	52	.0635	1-11/16	11/16
B31-0670	51	.0670		
B31-0700	50	.0700		
B31-0730	49	.0730		
B31-0760	48	.0760		
B31-0781	5/64	.0781		
B31-0785	47	.0785	1-3/4	3/4
B31-0810	46	.0810		
B31-0820	45	.0820		
B31-0860	44	.0860		
B31-0890	43	.0890		
B31-0935	42	.0935		
B31-0938	3/32	.0938		
B31-0960	41	.0960	1-13/16	13/16
B31-0980	40	.0980		
B31-0995	39	.0995		
B31-1015	38	.1015		
B31-1040	37	.1040		
B31-1065	36	.1065		
B31-1094	7/64	.1094		
B31-1100	35	.1100	1-7/8	7/8
B31-1110	34	.1110		
B31-1130	33	.1130		
B31-1160	32	.1160		
B31-1200	31	.1200		
B31-1250	1/8	.1250		

TiAlN Coated Stub Drills Also Available



**Stub Drills
135° Drillpoint**



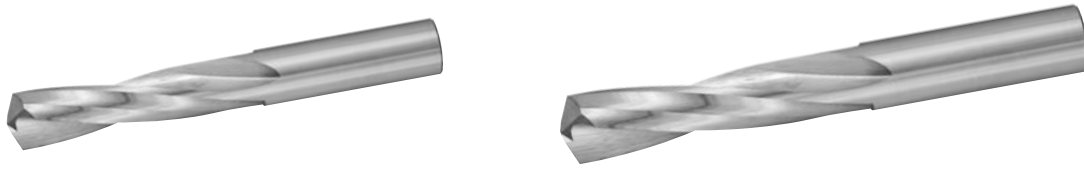
Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B31-1285 B31-1360 B31-1405 B31-1406	30 29 28 9/64	.1285 .1360 .1405 .1406	1-15/16	15/16
B31-1440 B31-1470 B31-1495 B31-1520 B31-1540 B31-1562	27 26 25 24 23 5/32	.1440 .1470 .1495 .1520 .1540 .1562	2-1/16	1
B31-1570 B31-1590 B31-1610 B31-1660 B31-1695 B31-1719	22 21 20 19 18 11/64	.1570 .1590 .1610 .1660 .1695 .1719	2-1/8	1-1/16
B31-1730 B31-1770 B31-1800 B31-1820 B31-1850 B31-1875	17 16 15 14 13 3/16	.1730 .1770 .1800 .1820 .1850 .1875	2-3/16	1-1/8
B31-1890 B31-1910 B31-1935 B31-1960 B31-1990 B31-2010 B31-2031	12 11 10 9 8 7 13/64	.1890 .1910 .1935 .1960 .1990 .2010 .2031	2-1/4	1-3/16
B31-2040 B31-2055 B31-2090 B31-2130 B31-2188	6 5 4 3 7/32	.2040 .2055 .2090 .2130 .2188	2-3/8	1-1/4
B31-2210 B31-2280 B31-2340 B31-2344	2 1 A 15/64	.2210 .2280 .2340 .2344	2-7/16	1-5/16

TiAlN Coated Stub Drills Also Available



Stub Drills 135° Drillpoint



Cutting Diameter: +.0000/-.0005"

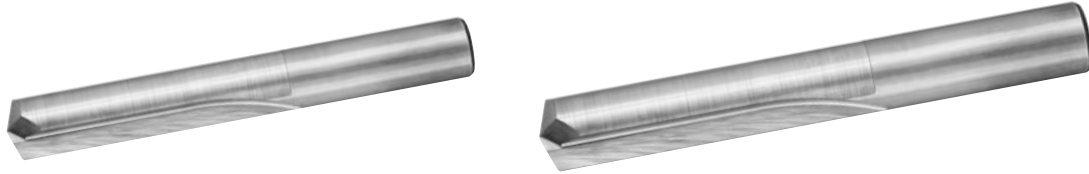
TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B31-2380 B31-2420 B31-2460 B31-2500	B C D 1/4 E	.2380 .2420 .2460 .2500	2-1/2	1-3/8
B31-2570 B31-2610 B31-2656 B31-2660 B31-2720 B31-2770 B31-2810 B31-2812	F G 17/64 H I J K 9/32	.2570 .2610 .2656 .2660 .2720 .2770 .2810 .2812	2-5/8 2-5/8 2-5/8 2-11/16 2-11/16 2-11/16 2-11/16 2-11/16	1-7/16 1-7/16 1-7/16 1-1/2 1-1/2 1-1/2 1-1/2 1-1/2
B31-2900 B31-2950 B31-2969 B31-3020 B31-3125	L M 19/64 N 5/16	.2900 .2950 .2969 .3020 .3125	2-3/4 2-3/4 2-3/4 2-13/16 2-13/16	1-9/16 1-9/16 1-9/16 1-5/8 1-5/8
B31-3160 B31-3230 B31-3281 B31-3320 B31-3390 B31-3438	O P 21/64 Q R 11/32	.3160 .3230 .3281 .3320 .3390 .3438	2-15/16 2-15/16 2-15/16 3 3 3	1-11/16
B31-3480 B31-3580 B31-3594 B31-3680 B31-3750	S T 23/64 U 3/8	.3480 .3580 .3594 .3680 .3750	3-1/16 3-1/16 3-1/16 3-1/8 3-1/8	1-3/4 1-3/4 1-3/4 1-13/16 1-13/16
B31-3770 B31-3860 B31-3906 B31-3970 B31-4040 B31-4062	V W 25/64 X Y 13/32	.3770 .3860 .3906 .3970 .4040 .4062	3-1/4 3-1/4 3-1/4 3-5/16 3-5/16 3-5/16	1-7/8 1-7/8 1-7/8 1-15/16 1-15/16 1-15/16
B31-4130 B31-4219 B31-4375 B31-4531 B31-4688 B31-4844 B31-5000	Z 27/64 7/16 29/64 15/32 31/64 1/2	.4130 .4219 .4375 .4531 .4688 .4844 .5000	3-3/8 3-3/8 3-7/16 3-9/16 3-5/8 3-11/16 3-3/4	2 2 2-1/16 2-1/8 2-1/8 2-3/16 2-1/4

TiAlN Coated Stub Drills Also Available



Straight Flute Drills

140° Drillpoint



Suitable for work hardened and abrasive materials.

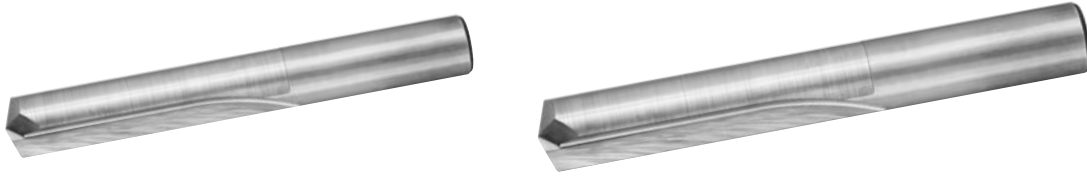
Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B32-0312	1/32	.0312	1-1/2	1/2
B32-0465	56	.0465	1-1/2	1/2
B32-0469	3/64	.0469	1-1/2	1/2
B32-0520	55	.0520	1-1/2	1/2
B32-0550	54	.0550	1-1/2	1/2
B32-0595	53	.0595	1-1/2	1/2
B32-0625	1/16	.0625	1-5/8	5/8
B32-0635	52	.0635	1-11/16	11/16
B32-0670	51	.0670		
B32-0700	50	.0700		
B32-0730	49	.0730		
B32-0760	48	.0760		
B32-0781	5/64	.0781		
B32-0785	47	.0785	1-3/4	3/4
B32-0810	46	.0810		
B32-0820	45	.0820		
B32-0860	44	.0860		
B32-0890	43	.0890		
B32-0935	42	.0935		
B32-0938	3/32	.0938		
B32-0960	41	.0960	1-13/16	13/16
B32-0980	40	.0980		
B32-0995	39	.0995		
B32-1015	38	.1015		
B32-1040	37	.1040		
B32-1065	36	.1065		
B32-1094	7/64	.1094		
B32-1100	35	.1100	1-7/8	7/8
B32-1110	34	.1110		
B32-1130	33	.1130		
B32-1160	32	.1160		
B32-1200	31	.1200		
B32-1250	1/8	.1250		



Straight Flute Drills

140° Drillpoint



Cutting Diameter: +.0000/-.0005"

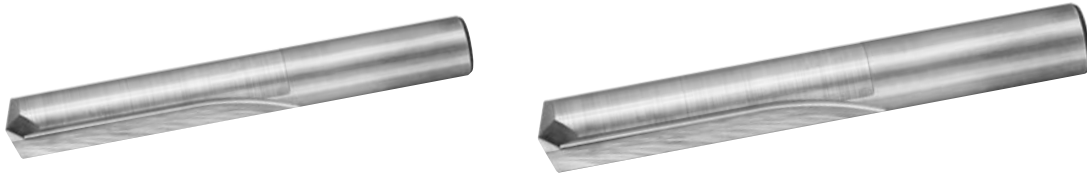
TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B32-1285 B32-1360 B32-1405 B32-1406	30 29 28 9/64	.1285 .1360 .1405 .1406	1-15/16	15/16
B32-1440 B32-1470 B32-1495 B32-1520 B32-1540 B32-1562	27 26 25 24 23 5/32	.1440 .1470 .1495 .1520 .1540 .1562	2-1/16	1
B32-1570 B32-1590 B32-1610 B32-1660 B32-1695 B32-1719	22 21 20 19 18 11/64	.1570 .1590 .1610 .1660 .1695 .1719	2-1/8	1-1/16
B32-1730 B32-1770 B32-1800 B32-1820 B32-1850 B32-1875	17 16 15 14 13 3/16	.1730 .1770 .1800 .1820 .1850 .1875	2-3/16	1-1/8
B32-1890 B32-1910 B32-1935 B32-1960 B32-1990 B32-2010 B32-2031	12 11 10 9 8 7 13/64	.1890 .1910 .1935 .1960 .1990 .2010 .2031	2-1/4	1-3/16
B32-2040 B32-2055 B32-2090 B32-2130 B32-2188	6 5 4 3 7/32	.2040 .2055 .2090 .2130 .2188	2-3/8	1-1/4
B32-2210 B32-2280 B32-2340 B32-2344	2 1 A 15/64	.2210 .2280 .2340 .2344	2-7/16	1-5/16



BPS® Drills

Straight Flute Drills

140° Drillpoint

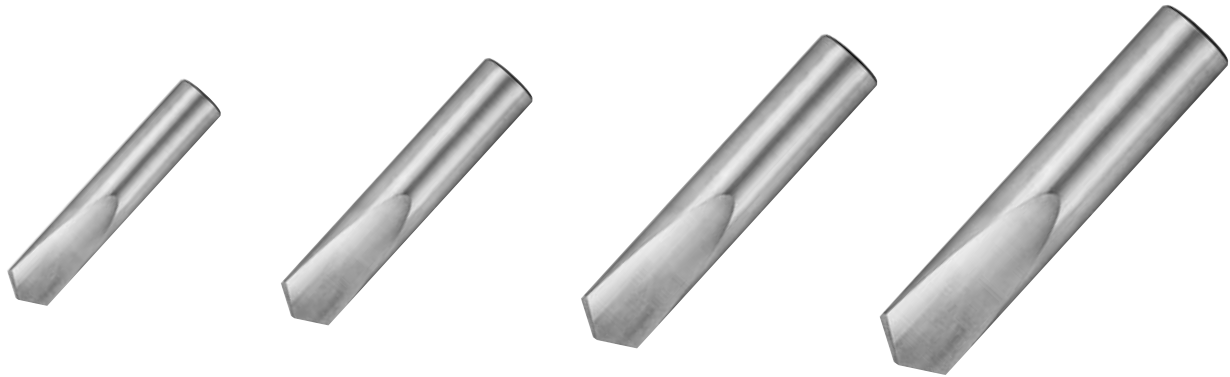


Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	DECIMAL EQUIVALENTS	OVERALL LENGTH	FLUTE LENGTH
B32-2380 B32-2420 B32-2460 B32-2500	B C D 1/4 E	.2380 .2420 .2460 .2500	2-1/2	1-3/8
B32-2570 B32-2610 B32-2656 B32-2660 B32-2720 B32-2770 B32-2810 B32-2812	F G 17/64 H I J K 9/32	.2570 .2610 .2656 .2660 .2720 .2770 .2810 .2812	2-5/8 2-5/8 2-5/8 2-11/16 2-11/16 2-11/16 2-11/16 2-11/16	1-7/16 1-7/16 1-7/16 1-1/2 1-1/2 1-1/2 1-1/2 1-1/2
B32-2900 B32-2950 B32-2969 B32-3020 B32-3125	L M 19/64 N 5/16	.2900 .2950 .2969 .3020 .3125	2-3/4 2-3/4 2-3/4 2-13/16 2-13/16	1-9/16 1-9/16 1-9/16 1-5/8 1-5/8
B32-3160 B32-3230 B32-3281 B32-3320 B32-3390 B32-3438	O P 21/64 Q R 11/32	.3160 .3230 .3281 .3320 .3390 .3438	2-15/16 2-15/16 2-15/16 3 3 3	1-11/16
B32-3480 B32-3580 B32-3594 B32-3680 B32-3750	S T 23/64 U 3/8	.3480 .3580 .3594 .3680 .3750	3-1/16 3-1/16 3-1/16 3-1/8 3-1/8	1-3/4 1-3/4 1-3/4 1-13/16 1-13/16
B32-3770 B32-3860 B32-3906 B32-3970 B32-4040 B32-4062	V W 25/64 X Y 13/32	.3770 .3860 .3906 .3970 .4040 .4062	3-1/4 3-1/4 3-1/4 3-5/16 3-5/16 3-5/16	1-7/8 1-7/8 1-7/8 1-15/16 1-15/16 1-15/16
B32-4130 B32-4219 B32-4375 B32-4531 B32-4688 B32-4844 B32-5000	Z 27/64 7/16 29/64 15/32 31/64 1/2	.4130 .4219 .4375 .4531 .4688 .4844 .5000	3-3/8 3-3/8 3-7/16 3-9/16 3-5/8 3-11/16 3-3/4	2 2 2-1/16 2-1/8 2-1/8 2-3/16 2-1/4



**Spade Drills
118° Drillpoint**



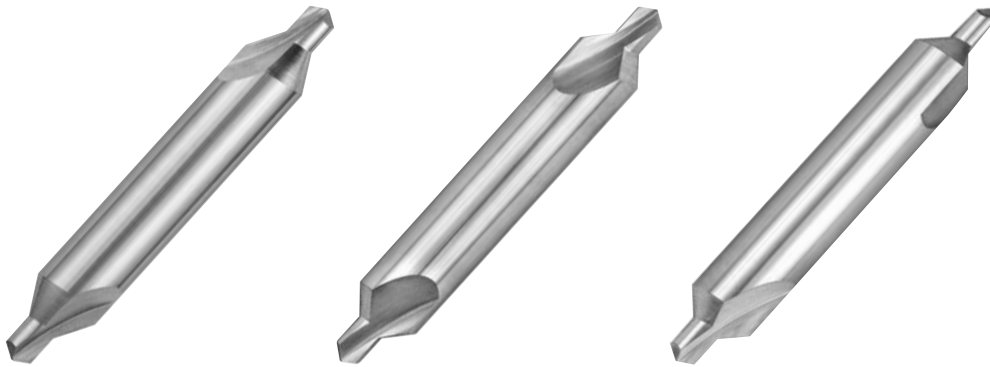
Suitable for thin sheet applications and spot drilling.

Cutting Diameter: +.0000/-.0005"

TOOL NUMBER	SIZE	OVERALL LENGTH	FLUTE LENGTH
B33-031 B33-046 B33-062 B33-093 B33-109 B33-125	1/32 3/64 1/16 3/32 7/64 1/8	1-1/2	3/16 7/32 5/16 7/16 7/16 1/2
B33-140 B33-156 B33-171 B33-187 B33-218 B33-250	9/64 5/32 11/64 3/16 7/32 1/4	2	1/2 9/16 9/16 11/16 11/16 11/16
B33-281 B33-312 B33-343 B33-375 B33-406 B33-437 B33-468 B33-500	9/32 5/16 11/32 3/8 13/32 7/16 13/32 1/2	2-1/2 2-1/2 2-1/2 2-1/2 2-3/4 2-3/4 3 3	7/8 7/8 15/16 1-1/8 1-1/8 1-3/16 1-3/16 1-3/16



Center Drills
60°, 82°, & 90°



Cutting Diameter: Up to 7/32" +.002/-.000"
 Over 7/32" +.003/-.000"

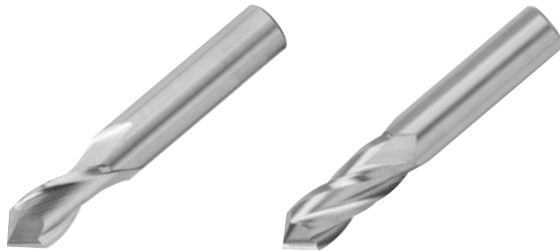
60° TOOL NUMBER	82° TOOL NUMBER	90° TOOL NUMBER	SIZE	DRILL DIAMETER	SHANK DIAMETER	OVERALL LENGTH
B40-025-60	B40-025-82	B40-025-90	00	.025	1/8	1-1/2
B40-031-60	B40-031-82	B40-031-90	0	1/32	1/8	1-1/2
B40-046-60	B40-046-82	B40-046-90	1	3/64	1/8	1-1/2
B40-078-60	B40-078-82	B40-078-90	2	5/64	3/16	1-7/8
B40-109-60	B40-109-82	B40-109-90	3	7/64	1/4	2
B40-125-60	B40-125-82	B40-125-90	4	1/8	5/16	2-1/8
B40-187-60	B40-187-82	B40-187-90	5	3/16	7/16	2-3/4
B40-218-60	B40-218-82	B40-218-90	6	7/32	1/2	3
B40-250-60	B40-250-82	B40-250-90	7	1/4	5/8	3-1/4
B40-312-60	B40-312-82	B40-312-90	8	5/16	3/4	3-1/2

TiN Coated Center Drills Also Available



BPS® End Mills

Drillpoint End Mills 2 & 4 Flute, 60°, & 90° Drillpoint

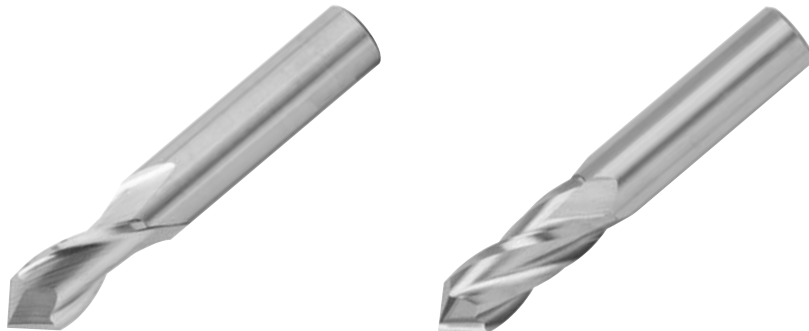


Shank Diameter: +.0000/-.0005"
 Cutting Diameter: Up to 1/2" +.000/-.002"
 Over 1/2" +.000/-.003"

Multipurpose tool for Drilling, Milling, Spotting, Chamfering, and Countersinking.

2-FLUTE, 60° TOOL NO.	4-FLUTE, 60° TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B35-125-260 B35-187-260 B35-250-260	B35-125-460 B35-187-460 B35-250-460	1/8 3/16 1/4	1/8 3/16 1/4	1-1/2 2 2-1/2	1/2 5/8 3/4
B35-312-260 B35-375-260 B35-437-260	B35-312-460 B35-375-460 B35-437-460	5/16 3/8 7/16	5/16 3/8 7/16	2-1/2 2-1/2 2-3/4	13/16 1 1
B35-500-260 B35-625-260 B35-750-260	B35-500-460 B35-625-460 B35-750-460	1/2 5/8 3/4	1/2 5/8 3/4	3 3-1/2 4	1 1-1/4 1-1/2

TiAlN Coated Drill Mills Also Available



2-FLUTE, 90° TOOL NO.	4-FLUTE, 90° TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B35-125-290 B35-187-290 B35-250-290	B35-125-490 B35-187-490 B35-250-490	1/8 3/16 1/4	1/8 3/16 1/4	1-1/2 2 2-1/2	1/2 5/8 3/4
B35-312-290 B35-375-290 B35-437-290	B35-312-490 B35-375-490 B35-437-490	5/16 3/8 7/16	5/16 3/8 7/16	2-1/2 2-1/2 2-3/4	13/16 1 1
B35-500-290 B35-625-290 B35-750-290	B35-500-490 B35-625-490 B35-750-490	1/2 5/8 3/4	1/2 5/8 3/4	3 3-1/2 4	1 1-1/4 1-1/2

TiAlN Coated Drill Mills Also Available