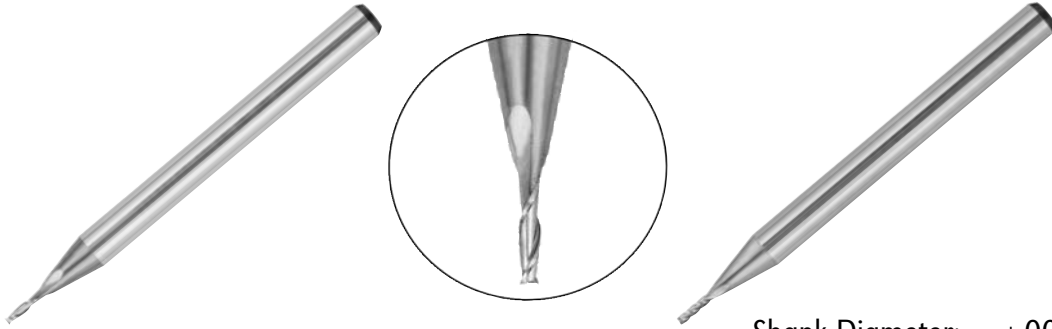




BPS® End Mills

Miniature 2 & 4 Flute, Square End



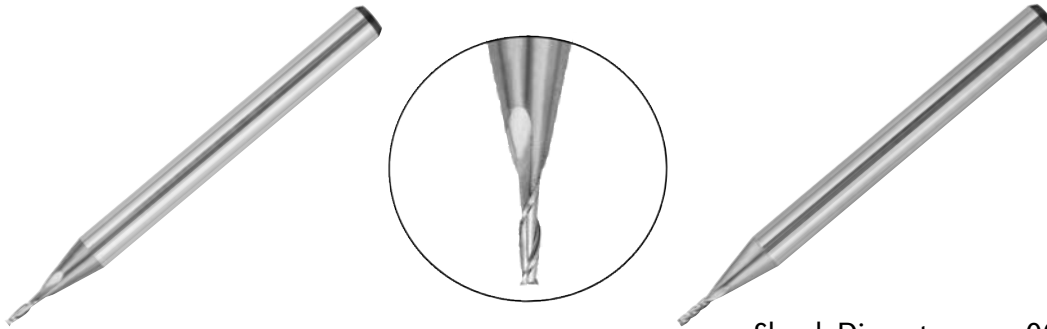
Shank Diameter: $+0.0000/-0.0005$ "
Cutting Diameter: ± 0.0005 "

2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B10-005-2 B10-006-2 B10-007-2 B10-008-2 B10-009-2 B10-010-2	B10-005-4 B10-006-4 B10-007-4 B10-008-4 B10-009-4 B10-010-4	.005 .006 .007 .008 .009 .010	1/8	1-1/2	.015 .018 .021 .024 .027 .030
B10-011-2 B10-012-2 B10-013-2 B10-014-2 B10-015-2 B10-016-2	B10-011-4 B10-012-4 B10-013-4 B10-014-4 B10-015-4 B10-016-4	.011 .012 .013 .014 .015 .016	1/8	1-1/2	.033 .036 .039 .042 .045 .048
B10-017-2 B10-018-2 B10-019-2 B10-020-2 B10-021-2 B10-022-2	B10-017-4 B10-018-4 B10-019-4 B10-020-4 B10-021-4 B10-022-4	.017 .018 .019 .020 .021 .022	1/8	1-1/2	.051 .054 .057 .060 .063 .066
B10-023-2 B10-024-2 B10-025-2 B10-026-2 B10-027-2 B10-028-2	B10-023-4 B10-024-4 B10-025-4 B10-026-4 B10-027-4 B10-028-4	.023 .024 .025 .026 .027 .028	1/8	1-1/2	.069 .072 .075 .078 .081 .084
B10-029-2 B10-030-2 B10-031-2 B10-032-2 B10-033-2 B10-034-2	B10-029-4 B10-030-4 B10-031-4 B10-032-4 B10-033-4 B10-034-4	.029 .030 .031 .032 .033 .034	1/8	1-1/2	.087 .090 .093 .096 .099 .102
B10-035-2 B10-036-2 B10-037-2 B10-038-2 B10-039-2 B10-040-2	B10-035-4 B10-036-4 B10-037-4 B10-038-4 B10-039-4 B10-040-4	.035 .036 .037 .038 .039 .040	1/8	1-1/2	.105 .108 .111 .114 .117 .120



BPS® End Mills

Miniature 2 & 4 Flute, Square End



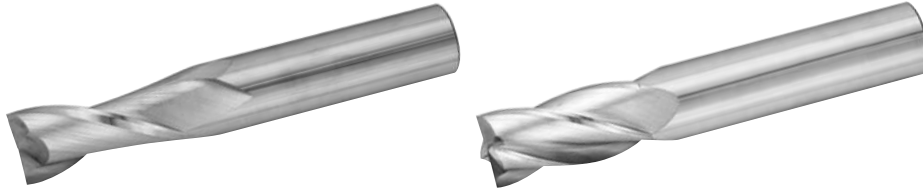
Shank Diameter: $+0.0000/-0.0005$ "
Cutting Diameter: ± 0.0005 "

2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B10-041-2 B10-042-2 B10-043-2 B10-044-2 B10-045-2 B10-046-2	B10-041-4 B10-042-4 B10-043-4 B10-044-4 B10-045-4 B10-046-4	.041 .042 .043 .044 .045 .046	1/8	1-1/2	.123 .126 .129 .132 .135 .138
B10-047-2 B10-048-2 B10-049-2 B10-050-2 B10-051-2 B10-052-2	B10-047-4 B10-048-4 B10-049-4 B10-050-4 B10-051-4 B10-052-4	.047 .048 .049 .050 .051 .052	1/8	1-1/2	.141 .144 .147 .150 .153 .156
B10-053-2 B10-054-2 B10-055-2 B10-056-2 B10-057-2 B10-058-2	B10-053-4 B10-054-4 B10-055-4 B10-056-4 B10-057-4 B10-058-4	.053 .054 .055 .056 .057 .058	1/8	1-1/2	.159 .162 .165 .168 .171 .174
B10-059-2 B10-060-2 B10-061-2 B10-062-2 B10-063-2 B10-064-2	B10-059-4 B10-060-4 B10-061-4 B10-062-4 B10-063-4 B10-064-4	.059 .060 .061 .062 .063 .064	1/8	1-1/2	.177 .180 .183 .186 .189 .192
B10-065-2 B10-070-2 B10-075-2 B10-080-2 B10-085-2 B10-090-2	B10-065-4 B10-070-4 B10-075-4 B10-080-4 B10-085-4 B10-090-4	.065 .070 .075 .080 .085 .090	1/8	1-1/2	.195 .210 .225 .240 .255 .270
B10-095-2 B10-100-2 B10-105-2 B10-110-2 B10-115-2 B10-120-2	B10-095-4 B10-100-4 B10-105-4 B10-110-4 B10-115-4 B10-120-4	.095 .100 .105 .110 .115 .120	1/8	1-1/2	.285 .300 .315 .330 .345 .360



BPS® End Mills

Regular Length, Single End 2 & 4 Flute, Square End



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

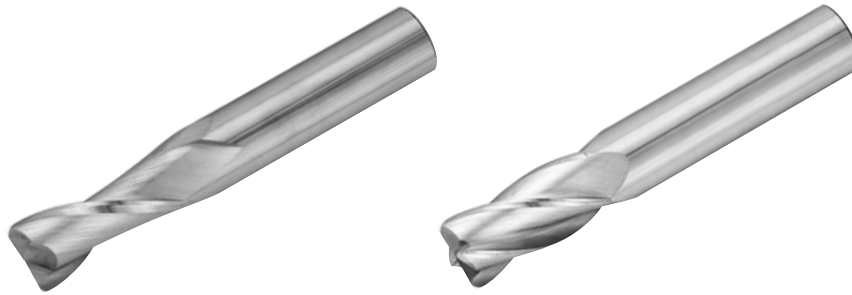
2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B15-031-2 B15-046-2 B15-062-2 B15-078-2 B15-093-2 B15-109-2 B15-125-2	B15-031-4 B15-046-4 B15-062-4 B15-078-4 B15-093-4 B15-109-4 B15-125-4	1/32 3/64 1/16 5/64 3/32 7/64 1/8	1/8	1-1/2	1/8 1/8 1/4 1/4 3/8 3/8 1/2
B15-140-2 B15-156-2 B15-171-2 B15-187-2 B15-203-2 B15-218-2 B15-234-2 B15-250-2	B15-140-4 B15-156-4 B15-171-4 B15-187-4 B15-203-4 B15-218-4 B15-234-4 B15-250-4	9/64 5/32 11/64 3/16 13/64 7/32 15/64 1/4	3/16 3/16 3/16 3/16 1/4 1/4 1/4 1/4	2 2 2 2 2-1/2 2-1/2 2-1/2 2-1/2	9/16 9/16 9/16 5/8 5/8 5/8 3/4 3/4
B15-265-2 B15-281-2 B15-296-2 B15-312-2 B15-328-2 B15-343-2 B15-359-2 B15-375-2	B15-265-4 B15-281-4 B15-296-4 B15-312-4 B15-328-4 B15-343-4 B15-359-4 B15-375-4	17/64 9/32 19/64 5/16 21/64 11/32 23/64 3/8	5/16 5/16 5/16 5/16 3/8 3/8 3/8 3/8	2-1/2	3/4 3/4 13/16 13/16 1 1 1 1
B15-390-2 B15-406-2 B15-421-2 B15-437-2 B15-453-2 B15-468-2 B15-484-2 B15-500-2	B15-390-4 B15-406-4 B15-421-4 B15-437-4 B15-453-4 B15-468-4 B15-484-4 B15-500-4	25/64 13/32 27/64 7/16 29/64 15/32 31/64 1/2	7/16 7/16 7/16 7/16 1/2 1/2 1/2 1/2	2-3/4 2-3/4 2-3/4 2-3/4 3 3 3 3	1
B15-562-2 B15-625-2 B15-687-2 B15-750-2 B15-875-2 B15-001-2	B15-562-4 B15-625-4 B15-687-4 B15-750-4 B15-875-4 B15-001-4	9/16 5/8 11/16 3/4 7/8 1	9/16 5/8 3/4 3/4 7/8 1	3-1/2 3-1/2 4 4 4 4	1-1/4 1-1/4 1-1/2 1-1/2 1-1/2 1-1/2

TiN, TiCN & TiAlN Coated, Long Length & Extra Long Length End Mills Also Available



BPS® End Mills

Regular Length, Single End 2 & 4 Flute, Corner Radius



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

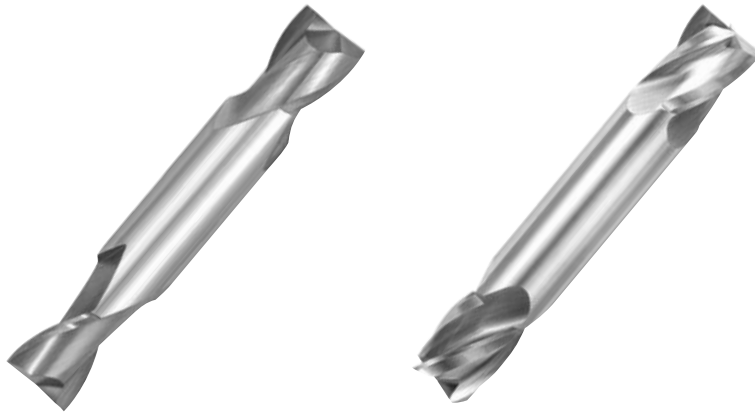
2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMETER	SHANK DIAMETER	OVERALL LENGTH	FLUTE LENGTH	CORNER RADIUS
B12-22-015 B12-22-020	B12-24-015 B12-24-020	1/8	1/8	1-1/2	1/2	.015 .020
B12-32-015 B12-32-020 B12-32-030	B12-34-015 B12-34-020 B12-34-030	3/16	3/16	2	5/8	.015 .020 .030
B12-42-015 B12-42-020 B12-42-030 B12-42-045	B12-44-015 B12-44-020 B12-44-030 B12-44-045	1/4	1/4	2-1/2	3/4	.015 .020 .030 .045
B12-52-015 B12-52-020 B12-52-030 B12-52-045	B12-54-015 B12-54-020 B12-54-030 B12-54-045	5/16	5/16	2-1/2	13/16	.015 .020 .030 .045
B12-62-015 B12-62-020 B12-62-030 B12-62-045	B12-64-015 B12-64-020 B12-64-030 B12-64-045	3/8	3/8	2-1/2	1	.015 .020 .030 .045
B12-82-015 B12-82-020 B12-82-030 B12-82-045 B12-82-060	B12-84-015 B12-84-020 B12-84-030 B12-84-045 B12-84-060	1/2	1/2	3	1	.015 .020 .030 .045 .060

TiN, TiCN & TiAlN Coated, Other Sizes & Radii Also Available



BPS® End Mills

Stub Length, Double End 2 & 4 Flute, Square End



Shank Diameter: +.0000/-.0005"
Cutting Diameter: +.000/-0.002"

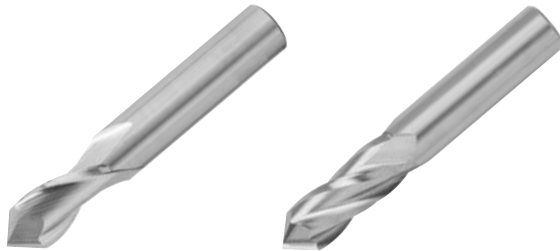
2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMETER	SHANK DIAMETER	OVERALL LENGTH	FLUTE LENGTH
B23-031-2	B23-031-4	1/32	1/8	1-1/2	1/16
B23-046-2	B23-046-4	3/64			1/8
B23-062-2	B23-062-4	1/16			1/8
B23-078-2	B23-078-4	5/64			1/8
B23-093-2	B23-093-4	3/32			3/16
B23-109-2	B23-109-4	7/64			3/16
B23-125-2	B23-125-4	1/8			1/4
B23-140-2	B23-140-4	9/64			3/16
B23-156-2	B23-156-4	5/32	3/16	2	5/16
B23-171-2	B23-171-4	11/64	3/16	2	5/16
B23-187-2	B23-187-4	3/16	3/16	2	3/8
B23-203-2	B23-203-4	13/64	1/4	2-1/2	1/2
B23-218-2	B23-218-4	7/32	1/4	2-1/2	1/2
B23-234-2	B23-234-4	15/64	1/4	2-1/2	1/2
B23-250-2	B23-250-4	1/4	1/4	2-1/2	1/2
B23-281-2	B23-281-4	9/32	5/16	2-1/2	1/2
B23-312-2	B23-312-4	5/16	5/16	2-1/2	1/2
B23-343-2	B23-343-4	11/32	3/8	2-1/2	9/16
B23-375-2	B23-375-4	3/8	3/8	2-1/2	9/16
B23-437-2	B23-437-4	7/16	7/16	2-3/4	5/8
B23-500-2	B23-500-4	1/2	1/2	3	5/8

TiN, TiCN & TiAlN Coated End Mills Also Available



BPS® End Mills

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

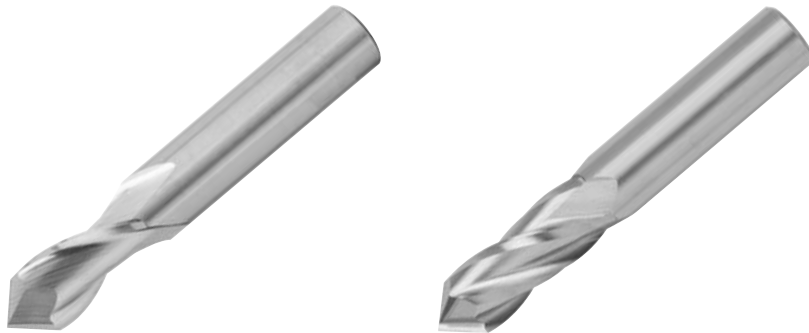


Shank Diameter: +.0000/-.0005"
 Cutting Diameter: Up to 1/2" +.000/-.002"
 Over 1/2" +.000/-.003"

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



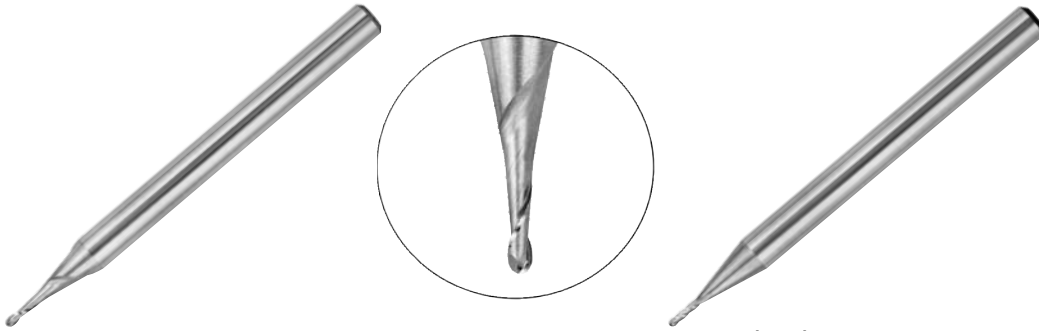
2-FLUTE, 90° TOOL NO.	4-FLUTE, 90° TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B35-125-290 B35-187-290 B35-250-290	B35-125-490 B35-187-490 B35-250-490	1/8 3/16 1/4	1/8 3/16 1/4	1-1/2 2 2-1/2	1/2 5/8 3/4
B35-312-290 B35-375-290 B35-437-290	B35-312-490 B35-375-490 B35-437-490	5/16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



BPS® End Mills

Miniature 2 & 4 Flute, Ball End



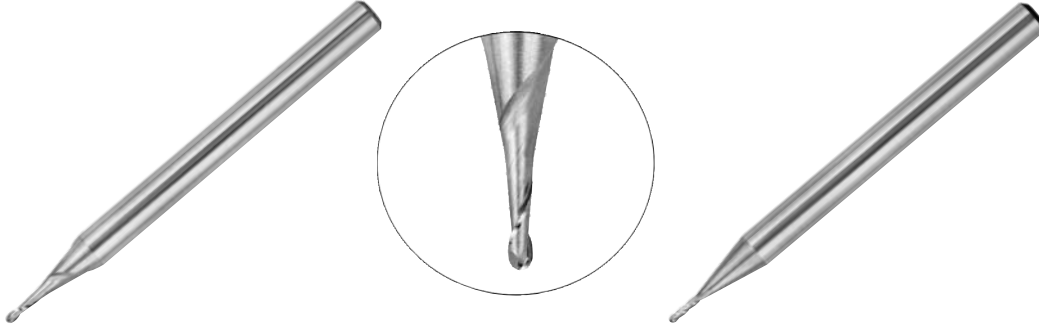
Shank Diameter: $+0.0000/-0.0005$ "
Cutting Diameter: ± 0.0005 "

2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMETER	SHANK DIAMETER	OVERALL LENGTH	FLUTE LENGTH
B11-010-2	B11-010-4	.010	1/8	1-1/2	.030
B11-011-2	B11-011-4	.011			.033
B11-012-2	B11-012-4	.012			.036
B11-013-2	B11-013-4	.013			.039
B11-014-2	B11-014-4	.014			.042
B11-015-2	B11-015-4	.015	1/8	1-1/2	.045
B11-016-2	B11-016-4	.016			.048
B11-017-2	B11-017-4	.017			.051
B11-018-2	B11-018-4	.018			.054
B11-019-2	B11-019-4	.019			.057
B11-020-2	B11-020-4	.020	1/8	1-1/2	.060
B11-021-2	B11-021-4	.021			.063
B11-022-2	B11-022-4	.022			.066
B11-023-2	B11-023-4	.023			.069
B11-024-2	B11-024-4	.024			.072
B11-025-2	B11-025-4	.025	1/8	1-1/2	.075
B11-026-2	B11-026-4	.026			.078
B11-027-2	B11-027-4	.027			.081
B11-028-2	B11-028-4	.028			.084
B11-029-2	B11-029-4	.029			.087
B11-030-2	B11-030-4	.030	1/8	1-1/2	.090
B11-031-2	B11-031-4	.031			.093
B11-032-2	B11-032-4	.032			.096
B11-033-2	B11-033-4	.033			.099
B11-034-2	B11-034-4	.034			.102
B11-035-2	B11-035-4	.035	1/8	1-1/2	.105
B11-036-2	B11-036-4	.036			.108
B11-037-2	B11-037-4	.037			.111
B11-038-2	B11-038-4	.038			.114
B11-039-2	B11-039-4	.039			.117
B11-040-2	B11-040-4	.040	1/8	1-1/2	.120
B11-041-2	B11-041-4	.041			.123
B11-042-2	B11-042-4	.042			.126
B11-043-2	B11-043-4	.043			.129
B11-044-2	B11-044-4	.044			.132



BPS® End Mills

Miniature 2 & 4 Flute, Ball End



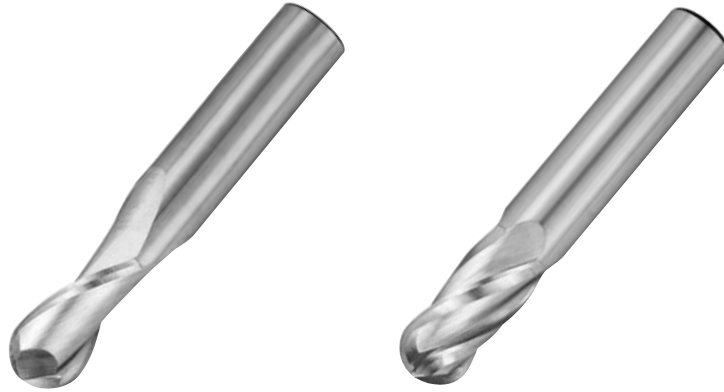
Shank Diameter: $+0.0000/-0.0005$ "
Cutting Diameter: ± 0.0005 "

2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B11-045-2	B11-045-4	.045	1/8	1-1/2	.135
B11-046-2	B11-046-4	.046			.138
B11-047-2	B11-047-4	.047			.141
B11-048-2	B11-048-4	.048			.144
B11-049-2	B11-049-4	.049			.147
B11-050-2	B11-050-4	.050	1/8	1-1/2	.150
B11-051-2	B11-051-4	.051			.153
B11-052-2	B11-052-4	.052			.156
B11-053-2	B11-053-4	.053			.159
B11-054-2	B11-054-4	.054			.162
B11-055-2	B11-055-4	.055	1/8	1-1/2	.165
B11-056-2	B11-056-4	.056			.168
B11-057-2	B11-057-4	.057			.171
B11-058-2	B11-058-4	.058			.174
B11-059-2	B11-059-4	.059			.177
B11-060-2	B11-060-4	.060	1/8	1-1/2	.180
B11-061-2	B11-061-4	.061			.183
B11-062-2	B11-062-4	.062			.186
B11-063-2	B11-063-4	.063			.189
B11-064-2	B11-064-4	.064			.192
B11-065-2	B11-065-4	.065	1/8	1-1/2	.195
B11-070-2	B11-070-4	.070			.210
B11-075-2	B11-075-4	.075			.225
B11-080-2	B11-080-4	.080			.240
B11-085-2	B11-085-4	.085			.255
B11-090-2	B11-090-4	.090	1/8	1-1/2	.270
B11-095-2	B11-095-4	.095			.285
B11-100-2	B11-100-4	.100			.300
B11-105-2	B11-105-4	.105			.315
B11-110-2	B11-110-4	.110			.330
B11-115-2	B11-115-4	.115			.345
B11-120-2	B11-120-4	.120			.360



BPS® End Mills

Regular Length, Single End 2 & 4 Flute, Ball End



Shank Diameter: +.0000/-.0005"
 Cutting Diameter: Up to 1/2" +.000/-0.002"
 Over 1/2" +.000/-0.003"

2-FLUTE TOOL NO.	4-FLUTE TOOL NO.	CUTTING DIAMTER	SHANK DIAMTER	OVERALL LENGTH	FLUTE LENGTH
B16-031-2	B16-031-4	1/32	1/8	1-1/2	1/8
B16-046-2	B16-046-4	3/64			1/8
B16-062-2	B16-062-4	1/16			1/4
B16-078-2	B16-078-4	5/64			1/4
B16-093-2	B16-093-4	3/32			3/8
B16-109-2	B16-109-4	7/64			3/8
B16-125-2	B16-125-4	1/8			1/2
B16-140-2	B16-140-4	9/64			3/16
B16-156-2	B16-156-4	5/32	3/16	2	9/16
B16-171-2	B16-171-4	11/64	3/16	2	9/16
B16-187-2	B16-187-4	3/16	3/16	2	5/8
B16-203-2	B16-203-4	13/64	1/4	2-1/2	5/8
B16-218-2	B16-218-4	7/32	1/4	2-1/2	5/8
B16-234-2	B16-234-4	15/64	1/4	2-1/2	3/4
B16-250-2	B16-250-4	1/4	1/4	2-1/2	3/4
B16-281-2	B16-281-4	9/32	5/16	2-1/2	3/4
B16-312-2	B16-312-4	5/16	5/16	2-1/2	13/16
B16-343-2	B16-343-4	11/32	3/8	2-1/2	1
B16-375-2	B16-375-4	3/8	3/8	2-1/2	1
B16-406-2	B16-406-4	13/32	7/16	2-3/4	1
B16-437-2	B16-437-4	7/16	7/16	2-3/4	1
B16-500-2	B16-500-4	1/2	1/2	3	1
B16-562-2	B16-562-4	9/16	9/16	3-1/2	1-1/4
B16-625-2	B16-625-4	5/8	5/8	3-1/2	1-1/4
B16-750-2	B16-750-4	3/4	3/4	4	1-1/2
B16-001-2	B16-001-4	1	1	4	1-1/2

TiN, TiCN & TiAlN Coated, Long Length & Extra Long Length Ball End Mills Also Available