

DiC TOOLS

A Brand by Dedicated Impex Co.



SOLID CARBIDE CUTTING TOOLS

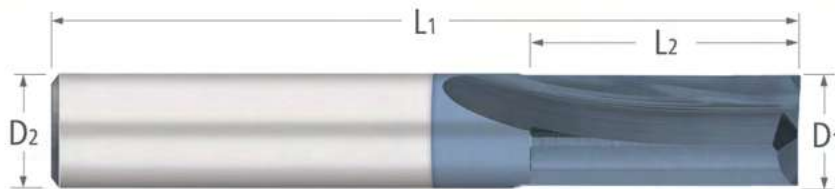
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2 Flute - Square Straight End Mill

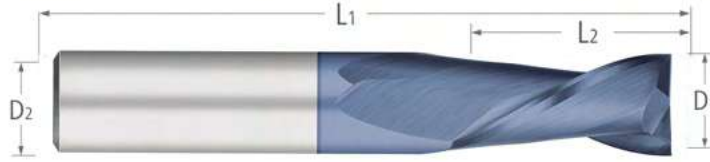


- Straight flute design for cutting high Rc materials
- Offered in regular length styles
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

CUTTER DIA.	SHANK DIA.	LOC	OAL
D1	D2 (h6)	L2	L1
1/8	1/8	1/2	1-1/2
3/16	3/16	5/8	2
1/4	1/4	3/4	2-1/2
5/16	5/16	13/16	2-1/2
3/8	3/8	1	2-1/2
7/16	7/16	1	2-3/4
1/2	1/2	1-1/4	3

D1	D2 (h6)	L2	L1
5/8	5/8	1-1/4	3-1/2
3/4	3/4	1-1/2	4
1	1	1-1/2	4

2 Flute - Square 30° Helix End Mill

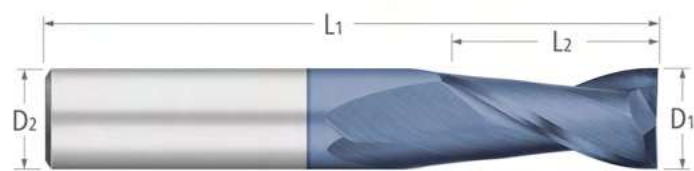


- Offered in stub, regular, long, and extra long length styles
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/64	1/8	.023	1-1/2
	1/8	1/32	1-1/2
1/32	1/8	1/16	1-1/2
	1/8	1/8	1-1/2
3/64	1/8	3/32	1-1/2
	1/8	1/8	1-1/2
1/16	1/8	1/8	1-1/2
	1/8	1/4	1-1/2
5/64	1/8	1/8	1-1/2
	1/8	1/4	1-1/2
3/32	1/8	3/16	1-1/2
	1/8	3/8	1-1/2
7/64	1/8	3/8	1-1/2

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/8	1/8	1/4	1-1/2
	1/8	1/2	1-1/2
	1/8	3/4	2-1/4
	1/8	1	3
9/64	3/16	9/16	2
5/32	3/16	5/16	2
	3/16	9/16	2
11/64	3/16	5/8	2
3/16	3/16	3/8	2
	3/16	5/8	2
	3/16	3/4	2-1/2
	3/16	1-1/8	3
13/64	1/4	5/8	2-1/2
7/32	1/4	7/16	2
	1/4	5/8	2-1/2
15/64	1/4	3/4	2-1/2
1/4	1/4	1/2	2
	1/4	3/4	2-1/2
	1/4	1	4
	1/4	1-1/8	3
	1/4	1-1/2	4
	1/4	1-1/2	6

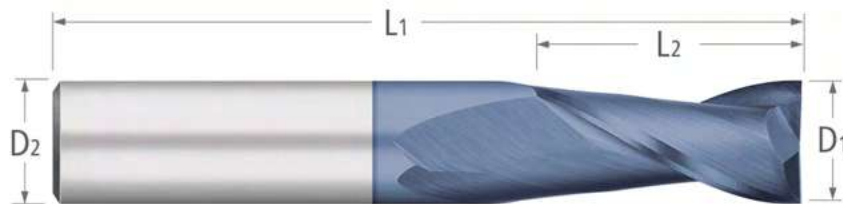
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CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
17/64	5/16	3/4	2-1/2
9/32	5/16	3/4	2-1/2
19/64	5/16	13/16	2-1/2
5/16	5/16	1/2	2
	5/16	13/16	2-1/2
	5/16	1-1/8	3
	5/16	1-5/8	4
21/64	3/8	1	2-1/2
11/32	3/8	1	2-1/2
23/64	3/8	1	2-1/2
3/8	3/8	5/8	2
	3/8	1	2-1/2
	3/8	1	4
	3/8	1-1/8	3
	3/8	1-1/2	6
	3/8	1-3/4	4
25/64	7/16	1	2-3/4
13/32	7/16	1	2-3/4
27/64	7/16	1	2-3/4
7/16	7/16	5/8	2-1/2
	7/16	1	2-3/4
	7/16	2	4
	7/16	3	6
29/64	1/2	1	3
15/32	1/2	1	3
31/64	1/2	1	3
1/2	1/2	5/8	2-1/2
	1/2	1	3
	1/2	1	4
	1/2	1-1/2	6
	1/2	2	4
	1/2	3	6

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
9/16	9/16	1-1/4	3-1/2
5/8	5/8	3/4	3
	5/8	1-1/4	3-1/2
	5/8	2-1/4	5
	5/8	3	6
3/4	3/4	1	3
	3/4	1-1/2	4
	3/4	2-1/4	5
	3/4	3	6
7/8	7/8	1-1/2	4
	7/8	2-1/4	5
	7/8	3	6
	7/8	3	6
1	1	1-1/4	3-1/2
	1	1-1/2	4
	1	2-1/4	5
	1	3	6

2 Flute - Square 30° Helix - NC Tolerance End Mill



- Excellent for keyways
- Tight tolerance for precision machining
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/16	1/8	3/16	1-1/2
3/32	1/8	3/8	1-1/2
1/8	1/8	1/2	1-1/2
5/32	3/16	9/16	2
3/16	3/16	5/8	2
7/32	1/4	5/8	2-1/2
1/4	1/4	3/4	2-1/2
9/32	5/16	3/4	2-1/2
5/16	5/16	13/16	2-1/2
3/8	3/8	1	2-1/2
7/16	7/16	1	2-3/4
1/2	1/2	1	3
5/8	5/8	1-1/4	3-1/2
3/4	3/4	1-1/2	4
1	1	1-1/2	4

2 Flute - Regular Length End Mill



- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 2 flute design for slotting.
- Solid carbide

Mill Diameter	Shank Diameter	Length of Cut	Overall Length
1.0	4	3	50
1.5	4	4	50
2.0	4	6	50
2.5	4	8	50
3.0	4	9	50
4.0	4	11	50
5.0	6	13	50
6.0	6	16	50
7.0	8	16	60
8.0	8	19	60
9.0	10	19	60
9.0	10	25	75
10.0	10	25	75
12.0	12	30	75
14.0	14	32	75
14.0	16	45	100
16.0	16	32	100
16.0	16	45	100
18.0	18	32	100
18.0	20	45	100
20.0	20	38	100
20.0	20	45	100

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

2 Flute - Long Length End Mill



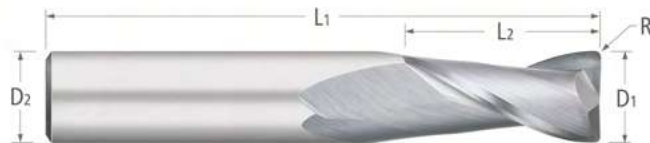
- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 2 flute design for slotting.
- ▶ Solid carbide

(Unit) : mm

Mill Diameter	Shank Diameter	Length of Cut	Overall Length
1.0	4	5	75
1.0	6	5	75
1.5	4	6	75
1.5	6	6	75
2.0	4	9	75
2.0	6	9	75
2.5	4	12	75
2.5	6	12	75
3.0	4	12	75
3.0	6	12	75
4.0	4	16	75
4.0	6	16	75
5.0	6	20	75
6.0	6	20	75
8.0	8	20	100
10.0	10	25	100
12.0	12	30	100
14.0	16	75	150
16.0	16	75	150
20.0	20	75	150

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

2 - Flute Corner Radius 30° Helix End Mill



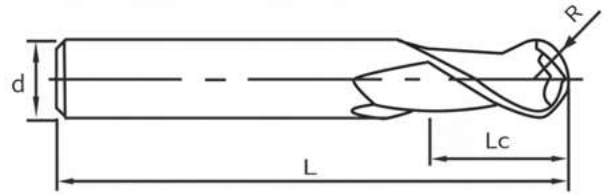
- Offered in stub, regular, and long length styles
- Corner radius for increased edge strength
- Solid carbide

CUTTER DIA.	SHANK DIA.	RADIUS	LOC	OAL
D ₁	D ₂ (h6)	R	L ₂	L ₁
1/8	1/8	.005	1/4	1-1/2
	1/8	.005	1/2	1-1/2
	1/8	.010	1/4	1-1/2
	1/8	.010	1/2	1-1/2
	1/8	.015	1/4	1-1/2
	1/8	.015	1/2	1-1/2
	1/8	.020	1/4	1-1/2
	1/8	.020	1/2	1-1/2
	1/8	.030	1/4	1-1/2
	1/8	.030	1/2	1-1/2
3/16	3/16	.005	3/8	2
	3/16	.005	5/8	2
	3/16	.010	3/8	2
	3/16	.010	5/8	2
	3/16	.015	3/8	2
	3/16	.015	5/8	2
	3/16	.020	3/8	2
	3/16	.020	5/8	2
	3/16	.030	3/8	2
	3/16	.030	5/8	2
1/4	1/4	.005	1/2	2
	1/4	.005	3/4	2-1/2
	1/4	.005	1-1/2	4
	1/4	.010	1/2	2
	1/4	.010	3/4	2-1/2
	1/4	.010	1-1/2	4
	1/4	.015	1/2	2
	1/4	.015	3/4	2-1/2
	1/4	.015	1-1/2	4
	1/4	.020	1/2	2
	1/4	.020	3/4	2-1/2
	1/4	.020	1-1/2	4
	1/4	.030	1/2	2
	1/4	.030	3/4	2-1/2
	1/4	.030	1-1/2	4
	1/4	.060	1/2	2
	1/4	.060	3/4	2-1/2
	1/4	.060	1-1/2	4
5/16	5/16	.030	13/16	2-1/2
	5/16	.060	13/16	2-1/2



CUTTER DIA.	SHANK DIA.	RADIUS	LOC	OAL
D ₁	D ₂ (h6)	R	L ₂	L ₁
3/8	3/8	.015	5/8	2
	3/8	.015	1	2-1/2
	3/8	.015	1-3/4	4
	3/8	.030	5/8	2
	3/8	.030	1	2-1/2
	3/8	.030	1-3/4	4
	3/8	.060	5/8	2
	3/8	.060	1	2-1/2
	3/8	.060	1-3/4	4
	3/8	.125	5/8	2
	3/8	.125	1	2-1/2
	3/8	.125	1-3/4	4
1/2	1/2	.015	1	3
	1/2	.015	2	4
	1/2	.030	1	3
	1/2	.030	2	4
	1/2	.060	1	3
	1/2	.060	2	4
	1/2	.125	1	3
	1/2	.125	2	4
D ₁	D ₂ (h6)	R	L ₂	L ₁
5/8	5/8	.060	1-1/4	3-1/2
	5/8	.125	1-1/4	3-1/2
3/4	3/4	.030	1-1/2	4
	3/4	.060	1-1/2	4
	3/4	.125	1-1/2	4
1	1	.030	1-1/2	4
	1	.060	1-1/2	4
	1	.125	1-1/2	4

2 - Flute Carbide Ball Nose End Mill



Standard Length

Cut Dia.	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	d	L		
3	6	3	50	2	30°
1	2	4	50	2	30°
1.5	3	4	50	2	30°
2	4	4	50	2	30°
2.5	5	4	50	2	30°
3	6	4	50	2	30°
4	8	4	50	2	30°
5	10	5	50	2	30°
6	12	6	50	2	30°
7	14	8	60	2	30°
8	16	8	60	2	30°
9	18	10	75	2	30°
10	20	10	75	2	30°
11	22	12	75	2	30°
12	24	12	75	2	30°
14	28	14	100	2	30°
16	32	16	100	2	30°
18	36	18	100	2	30°
20	40	20	100	2	30°

Extended Length

Cut Dia.	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	d	L		
3	6	3	75	2	30°
3	6	3	100	2	30°
4	8	4	75	2	30°
4	8	4	100	2	30°
5	10	5	75	2	30°
5	10	5	100	2	30°
6	12	6	75	2	30°
6	12	6	100	2	30°
6	12	6	150	2	30°
8	16	8	75	2	30°
8	16	8	100	2	30°
8	16	8	150	2	30°
10	20	10	100	2	30°
10	20	10	150	2	30°
12	24	12	100	2	30°
12	24	12	150	2	30°
14	28	14	150	2	30°
16	32	16	150	2	30°
18	36	18	150	2	30°
20	40	20	150	2	30°

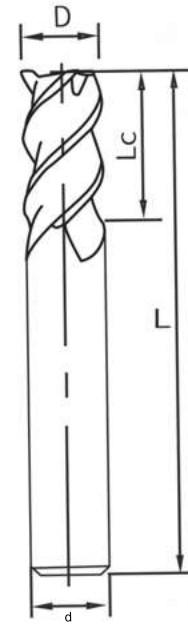
2,3 Flute Carbide End Mill for Aluminum

2/3 Flutes Standard Length

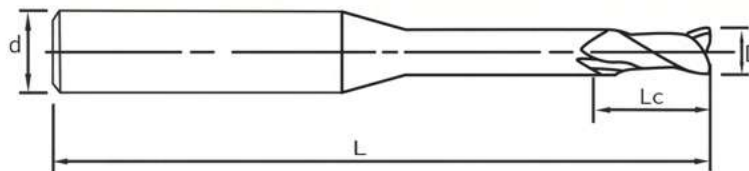
Cut Dia. D	Cut Lgth. Lc	Shank Dia. d	Overall Lgth. L	Flutes	Helix Angle
3	9	3	50	2/3	45°
1	3	4	50	2/3	45°
1.5	5	4	50	2/3	45°
2	6	4	50	2/3	45°
2.5	8	4	50	2/3	45°
3	9	4	50	2/3	45°
3.5	12	4	50	2/3	45°
4	12	4	50	2/3	45°
5	15	5	50	2/3	45°
2	6	6	50	2/3	45°
3	9	6	50	2/3	45°
4	12	6	50	2/3	45°
5	15	6	50	2/3	45°
6	18	6	50	2/3	45°
7	21	8	60	2/3	45°
8	24	8	60	2/3	45°
9	27	10	75	2/3	45°
10	30	10	75	2/3	45°
11	33	12	75	2/3	45°
12	36	12	75	2/3	45°
14	35	14	80	2/3	45°
14	45	14	100	2/3	45°
16	45	16	100	2/3	45°
18	45	18	100	2/3	45°
20	45	20	100	2/3	45°

2/3 Flutes Extended Length

Cut Dia. D	Cut Lgth. Lc	Shank Dia. d	Overall Lgth. L	Flutes	Helix Angle
3	15	3	75	2/3	45°
3	15	3	100	2/3	45°
4	20	4	75	2/3	45°
4	25	5	100	2/3	45°
5	20	5	75	2/3	45°
5	25	5	100	2/3	45°
6	30	6	75	2/3	45°
6	30	6	100	2/3	45°
6	40	6	150	2/3	45°
8	35	8	75	2/3	45°
8	40	8	100	2/3	45°
8	50	8	150	2/3	45°
10	40	10	100	2/3	45°
10	50	10	150	2/3	45°
12	45	12	100	2/3	45°
12	60	12	150	2/3	45°
14	60	14	150	2/3	45°
16	60	16	150	2/3	45°
18	60	18	150	2/3	45°
20	70	20	150	2/3	45°



2 - Flute Long Neck Short Flutes Square End Mill



Material: Solid Carbide

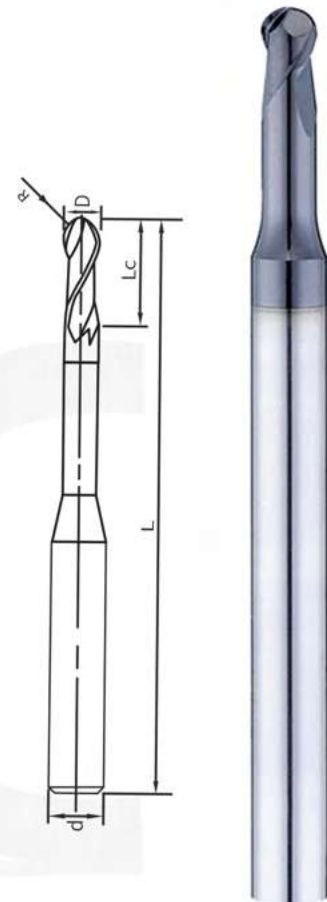
HRC45, 2/3 Flutes						
Cut Dia.	Cut Lgth.	Effective Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	Lgth.	d	L		
0.2	0.3	1	4	50	2	35°
0.2	0.3	2	4	50	2	35°
0.3	0.6	1	4	50	2	35°
0.3	0.6	2	4	50	2	35°
0.3	0.6	3	4	50	2	35°
0.4	0.6	2	4	50	2	35°
0.4	0.6	3	4	50	2	35°
0.4	0.6	4	4	50	2	35°
0.4	0.6	6	4	50	2	35°
0.5	0.8	2	4	50	2	35°
0.5	0.8	3	4	50	2	35°
0.5	0.8	4	4	50	2	35°
0.5	0.8	5	4	50	2	35°
0.5	0.8	6	4	50	2	35°
0.5	0.8	8	4	50	2	35°
0.6	1	2	4	50	2	35°
0.6	1	3	4	50	2	35°
0.6	1	4	4	50	2	35°
0.6	1	5	4	50	2	35°
0.6	1	6	4	50	2	35°
0.6	1	8	4	50	2	35°
0.7	1	3	4	50	2	35°
0.7	1	4	4	50	2	35°
0.7	1	5	4	50	2	35°
0.7	1	6	4	50	2	35°
0.7	1	8	4	50	2	35°
0.7	1	10	4	50	2	35°
0.8	1.2	3	4	50	2	35°
0.8	1.2	4	4	50	2	35°
0.8	1.2	5	4	50	2	35°
0.8	1.2	6	4	50	2	35°
0.8	1.2	8	4	50	2	35°
0.8	1.2	10	4	50	2	35°
1	2	5	4	50	2	35°
1	2	6	4	50	2	35°
1	2	8	4	50	2	35°
1	2	10	4	50	2	35°
1	2	12	4	50	2	35°
1	2	14	4	50	2	35°
1	2	16	4	50	2	35°
1	2	20	4	50	2	35°



2 - Flute Long Neck Short Flutes Ball Nose End Mill

HRC 55, 65 2 Flutes

Cut D ia.	Cut Lgth.	Effective Lgth.	Shank D ia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	Lgth.	d	L		Angle
0.1	0.3	1	4	50	2	35°
0.1	0.3	2	4	50	2	35°
0.15	0.6	1	4	50	2	35°
0.15	0.6	2	4	50	2	35°
0.15	0.6	3	4	50	2	35°
0.2	0.6	2	4	50	2	35°
0.2	0.6	3	4	50	2	35°
0.2	0.6	4	4	50	2	35°
0.2	0.6	6	4	50	2	35°
0.25	0.8	2	4	50	2	35°
0.25	0.8	3	4	50	2	35°
0.25	0.8	4	4	50	2	35°
0.25	0.8	5	4	50	2	35°
0.25	0.8	6	4	50	2	35°
0.25	0.8	8	4	50	2	35°
0.3	1	2	4	50	2	35°
0.3	1	3	4	50	2	35°
0.3	1	4	4	50	2	35°
0.3	1	5	4	50	2	35°
0.3	1	6	4	50	2	35°
0.3	1	8	4	50	2	35°
0.4	1.2	3	4	50	2	35°
0.4	1.2	4	4	50	2	35°
0.4	1.2	5	4	50	2	35°
0.4	1.2	6	4	50	2	35°
0.4	1.2	8	4	50	2	35°
0.4	1.2	10	4	50	2	35°
0.5	2	5	4	50	2	35°
0.5	2	6	4	50	2	35°
0.5	2	8	4	50	2	35°
0.5	2	10	4	50	2	35°
0.5	2	12	4	50	2	35°
0.5	2	14	4	50	2	35°
0.5	2	16	4	50	2	35°
0.5	2	20	4	50	2	35°
0.75	3	6	4	50	2	35°
0.75	3	8	4	50	2	35°
0.75	3	10	4	50	2	35°
0.75	3	12	4	50	2	35°
0.75	3	14	4	50	2	35°
0.75	3	16	4	50	2	35°
0.75	3	20	4	50	2	35°
1	4	8	4	50	2	35°
1	4	10	4	50	2	35°
1	4	12	4	50	2	35°
1	4	14	4	50	2	35°
1	4	16	4	50	2	35°
1	4	20	4	50	2	35°
1.5	5	12	4	50	2	35°
1.5	5	16	4	50	2	35°
1.5	5	20	4	50	2	35°
1.5	5	12	6	50	2	35°
1.5	5	16	6	50	2	35°
1.5	5	20	6	50	2	35°
1.5	5	26	6	75	2	35°
1.5	5	30	6	75	2	35°
2	6	16	6	50	2	35°
2	6	20	6	50	2	35°
2	6	26	6	75	2	35°
2	6	30	6	75	2	35°



3 - Flute Square 30° Helix End Mill



- Offered in stub, regular, long, and extra long length styles
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/64	1/8	.023	1-1/2
	1/8	1/32	1-1/2
1/32	1/8	1/16	1-1/2
	1/8	1/8	1-1/2
3/64	1/8	3/32	1-1/2
	1/8	1/8	1-1/2
1/16	1/8	1/8	1-1/2
	1/8	1/4	1-1/2
5/64	1/8	1/8	1-1/2
	1/8	1/4	1-1/2
3/32	1/8	3/16	1-1/2
	1/8	3/8	1-1/2
7/64	1/8	3/8	1-1/2

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/8	1/8	1/4	1-1/2
	1/8	1/2	1-1/2
	1/8	3/4	2-1/4
	1/8	1	3
9/64	3/16	9/16	2
5/32	3/16	5/16	2
	3/16	9/16	2
11/64	3/16	5/8	2
3/16	3/16	3/8	2
	3/16	5/8	2
	3/16	3/4	2-1/2
	3/16	1-1/8	3
13/64	1/4	5/8	2-1/2
7/32	1/4	7/16	2
	1/4	5/8	2-1/2
15/64	1/4	3/4	2-1/2
1/4	1/4	1/2	2
	1/4	3/4	2-1/2
	1/4	1	4
	1/4	1-1/8	3
	1/4	1-1/2	4
	1/4	1-1/2	6
17/64	5/16	3/4	2-1/2
9/32	5/16	3/4	2-1/2
19/64	5/16	13/16	2-1/2

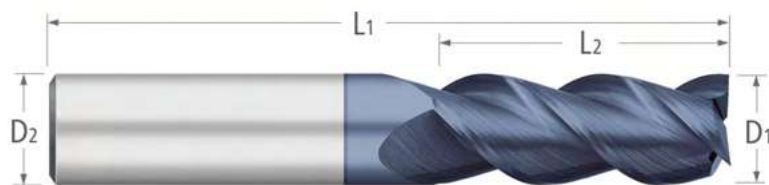
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CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
5/16	5/16	1/2	2
	5/16	13/16	2-1/2
	5/16	1-1/8	3
	5/16	1-5/8	4
21/64	3/8	1	2-1/2
11/32	3/8	1	2-1/2
23/64	3/8	1	2-1/2
3/8	3/8	5/8	2
	3/8	1	2-1/2
	3/8	1	4
	3/8	1-1/8	3
	3/8	1-1/2	6
	3/8	1-3/4	4
25/64	7/16	1	2-3/4
13/32	7/16	1	2-3/4
27/64	7/16	1	2-3/4
7/16	7/16	5/8	2-1/2
	7/16	1	2-3/4
	7/16	2	4
	7/16	3	6
29/64	1/2	1	3
15/32	1/2	1	3
31/64	1/2	1	3
1/2	1/2	5/8	2-1/2
	1/2	1	3
	1/2	1	4
	1/2	1-1/4	3
	1/2	1-1/2	6
	1/2	2	4
	1/2	3	6

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
9/16	9/16	1-1/4	3-1/2
5/8	5/8	3/4	3
	5/8	1-1/4	3-1/2
	5/8	2-1/4	5
	5/8	3	6
3/4	3/4	1	3
	3/4	1-1/2	4
	3/4	2-1/4	5
	3/4	3	6
	3/4	4	7
7/8	7/8	1-1/2	4
	7/8	2-1/4	5
	7/8	3	6
1	1	1-1/4	3-1/2
	1	1-1/2	4
	1	2-1/4	5
	1	3	6
	1	4	7

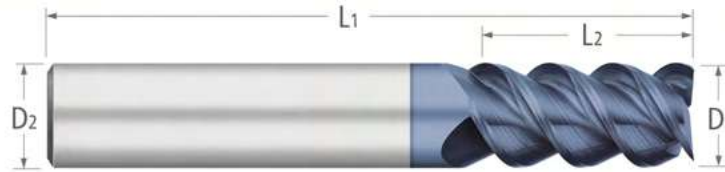
3 - Flute Square 45° Helix End Mill



- Engineered to slot and profile at increased speed and feed rates
- Optimized shearing action for excellent part finish
- Proven performance in stainless steels and similar alloys
- 45° helix for faster chip removal and a better finish
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/8	1/8	1/4	1-1/2
	1/8	1/2	1-1/2
3/16	3/16	3/8	2
	3/16	5/8	2
1/4	1/4	1/2	2-1/2
	1/4	3/4	2-1/2
5/16	5/16	1/2	2
	5/16	13/16	2-1/2
3/8	3/8	5/8	2
	3/8	1	2-1/2
1/2	1/2	5/8	2-1/2
	1/2	1-1/4	3
D ₁	D ₂ (h6)	L ₂	L ₁
5/8	5/8	3/4	3
	5/8	1-5/8	3-1/2
3/4	3/4	1	3
	3/4	1-5/8	4

3 - Flute Square 60° Helix End Mill



- "High shear" geometry for slotting and profiling
- Proven performance in high-temp alloys such as Inconel, hastelloy, waspalloy, and titanium
- 60° helix for improved surface finish
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

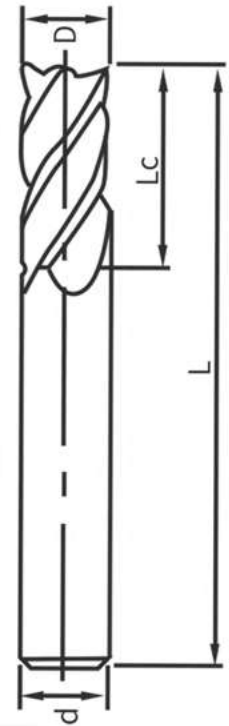
CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/8	1/8	1/2	1-1/2
3/16	3/16	5/8	2
1/4	1/4	3/4	2-1/2
5/16	5/16	13/16	2-1/2
3/8	3/8	1	2-1/2
1/2	1/2	1-1/4	3

D ₁	D ₂ (h6)	L ₂	L ₁
5/8	5/8	1-5/8	3-1/2
3/4	3/4	1-5/8	4

4 - Flute Flat End Mill

Standard Length					
Cut Dia.	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	d	L		
3	8	3	50	2/4	35°
1	3	4	50	2/4	35°
1.5	4	4	50	2/4	35°
2	6	4	50	2/4	35°
2.5	7	4	50	2/4	35°
3	8	4	50	2/4	35°
3.5	10	4	50	2/4	35°
4	10	4	50	2/4	35°
5	13	5	50	2/4	35°
2.5	7	6	50	2/4	35°
3	8	6	50	2/4	35°
3.5	10	6	50	2/4	35°
4	10	6	50	2/4	35°
4.5	12	6	50	2/4	35°
5	13	6	50	2/4	35°
6	15	6	50	2/4	35°
7	18	8	60	2/4	35°
8	20	8	60	2/4	35°
9	23	10	75	2/4	35°
10	25	10	75	2/4	35°
11	28	12	75	2/4	35°
12	30	12	75	2/4	35°
14	35	14	80	2/4	35°
14	45	14	100	2/4	35°
16	45	16	100	2/4	35°
18	45	18	100	2/4	35°
20	45	20	100	2/4	35°

Extended Length					
Cut Dia.	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	d	L		
3	12	3	75	2/4	35°
3	12	3	100	2/4	35°
4	16	4	75	2/4	35°
4	20	4	100	2/4	35°
5	20	5	75	2/4	35°
5	25	5	100	2/4	35°
6	20	6	75	2/4	35°
6	30	6	100	2/4	35°
6	40	6	150	2/4	35°
8	25	8	75	2/4	35°
8	35	8	100	2/4	35°
8	50	8	150	2/4	35°
10	40	10	100	2/4	35°
10	50	10	150	2/4	35°
12	45	12	100	2/4	35°
12	55	12	150	2/4	35°
14	60	14	150	2/4	35°
16	60	16	150	2/4	35°
18	60	18	150	2/4	35°
20	70	20	150	2/4	35°



Continue...

Standard Length					
Cut Dia.	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	d	L		
3	8	3	50	4	35°
1	3	4	50	4	35°
1.5	4	4	50	4	35°
2	6	4	50	4	35°
2.5	7	4	50	4	35°
3	8	4	50	4	35°
4	10	4	50	4	35°
5	13	5	50	4	35°
5	13	6	50	4	35°
6	15	6	50	4	35°
7	18	8	60	4	35°
8	20	8	60	4	35°
10	25	10	75	4	35°
12	30	12	75	4	35°
14	35	14	80	4	35°
14	45	14	100	4	35°
16	45	16	100	4	35°
18	45	18	100	4	35°
20	45	20	100	4	35°

Extended Length					
Cut Dia.	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D	Lc	d	L		
4	16	4	75	4	35°
4	20	4	100	4	35°
5	20	5	75	4	35°
5	25	5	100	4	35°
6	20	6	75	4	35°
6	30	6	100	4	35°
6	40	6	150	4	35°
8	25	8	75	4	35°
8	35	8	100	4	35°
8	50	8	150	4	35°
10	40	10	100	4	35°
10	50	10	150	4	35°
12	45	12	100	4	35°
12	55	12	150	4	35°
14	60	14	150	4	35°
16	60	16	150	4	35°
18	60	18	150	4	35°
20	70	20	150	4	35°



4 - Flute Regular Length End Mill



- ▶ Suitable for dry milling applications at high temperatures.
- ▶ Excellent high-performance end mills.
- ▶ 4 flute allows for better work piece finishes.
- ▶ Solid carbide

(Unit) : mm

Mill Diameter	Shank Diameter	Length of Cut	Overall Length
1.0	4	3	50
1.5	4	4	50
2.0	4	6	50
2.5	4	8	50
3.0	4	9	50
4.0	4	11	50
5.0	6	13	50
6.0	6	16	50
7.0	8	16	60
8.0	8	19	60
9.0	10	19	60
9.0	10	25	75
10.0	10	25	75
12.0	12	30	75
14.0	14	32	75
14.0	16	45	100
16.0	16	32	100
16.0	16	45	100
18.0	20	45	100
20.0	20	38	100
20.0	20	45	100

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

4 - Flute Long Length End Mill



- Suitable for dry milling applications at high temperatures.
- Excellent high-performance end mills.
- 4 flute allows for better work piece finishes.
- Solid carbide

(Unit) : mm

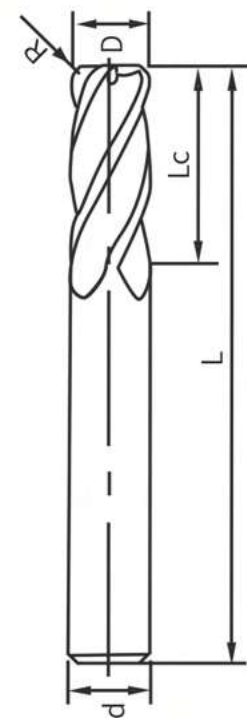
Mill Diameter	Shank Diameter	Length of Cut	Overall Length
1.0	4	5	75
1.0	6	5	75
1.5	4	6	75
1.5	6	6	75
2.0	4	9	75
2.0	6	9	75
2.5	4	12	75
2.5	6	12	75
3.0	4	12	75
3.0	6	12	75
4.0	4	16	75
4.0	6	16	75
5.0	6	20	75
6.0	6	20	75
8.0	8	20	100
10.0	10	25	100
12.0	12	30	100
14.0	16	75	150
16.0	16	75	150
20.0	20	75	150

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

4 - Flute HRC 45, 55 Carbide Corner Radius End Mill

Standard Length						
Cut Dia.	R	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D		Lc	d	L		
4	0.5	10	4	50	4	35°
4	1	10	4	50	4	35°
5	0.5	13	5	50	4	35°
5	1	13	5	50	4	35°
6	0.5	15	6	50	4	35°
6	1	15	6	50	4	35°
8	0.5	20	8	60	4	35°
8	1	20	8	60	4	35°
8	2	20	8	60	4	35°
8	3	20	8	60	4	35°
10	0.5	25	10	75	4	35°
10	1	25	10	75	4	35°
10	2	25	10	75	4	35°
10	3	25	10	75	4	35°
12	0.5	30	12	75	4	35°
12	1	30	12	75	4	35°
12	2	30	12	75	4	35°
12	3	30	12	75	4	35°

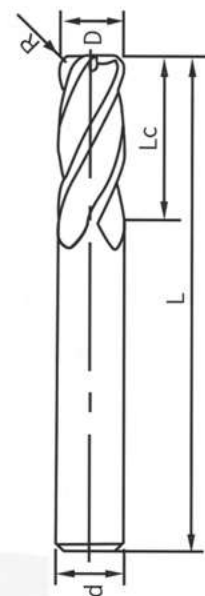
Extended Length						
Cut Dia.	R	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D		Lc	d	L		
4	0.5	16	4	75	4	35°
4	1	16	4	75	4	35°
4	0.5	20	4	100	4	35°
4	1	20	4	100	4	35°
5	0.5	20	5	75	4	35°
5	1	20	5	75	4	35°
5	0.5	25	5	100	4	35°
5	1	25	5	100	4	35°
6	0.5	20	6	75	4	35°
6	1	20	6	75	4	35°
6	0.5	30	6	100	4	35°
6	1	30	6	100	4	35°
6	0.5	40	6	150	4	35°
6	1	40	6	150	4	35°
8	0.5	25	8	75	4	35°
8	1	25	8	75	4	35°
8	0.5	35	8	100	4	35°
8	1	35	8	100	4	35°
8	0.5	50	8	150	4	35°
8	1	50	8	150	4	35°
10	0.5	40	10	100	4	35°
10	1	40	10	100	4	35°
10	0.5	50	10	150	4	35°
10	1	50	10	150	4	35°
12	0.5	45	12	100	4	35°
12	0.5	55	12	150	4	35°
12	1	45	12	100	4	35°
12	1	55	12	150	4	35°



4 - Flute HRC 60, 65 Carbide Corner Radius End Mill

Standard Length						
Cut Dia.	R	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D		Lc	d	L		
4	0.5	10	4	50	4	35°
4	1	10	4	50	4	35°
5	0.5	13	5	50	4	35°
5	1	13	5	50	4	35°
6	0.5	15	6	50	4	35°
6	1	15	6	50	4	35°
8	0.5	20	8	60	4	35°
8	1	20	8	60	4	35°
8	2	20	8	60	4	35°
8	3	20	8	60	4	35°
10	0.5	25	10	75	4	35°
10	1	25	10	75	4	35°
10	2	25	10	75	4	35°
10	3	25	10	75	4	35°
12	0.5	30	12	75	4	35°
12	1	30	12	75	4	35°
12	2	30	12	75	4	35°
12	3	30	12	75	4	35°

Extended Length						
Cut Dia.	R	Cut Lgth.	Shank Dia.	Overall Lgth.	Flutes	Helix Angle
D		Lc	d	L		
4	0.5	16	4	75	4	35°
4	1	16	4	75	4	35°
4	0.5	20	4	100	4	35°
4	1	20	4	100	4	35°
5	0.5	20	5	75	4	35°
5	1	20	5	75	4	35°
5	0.5	25	5	100	4	35°
5	1	25	5	100	4	35°
6	0.5	20	6	75	4	35°
6	1	20	6	75	4	35°
6	0.5	30	6	100	4	35°
6	1	30	6	100	4	35°
8	0.5	25	8	75	4	35°
8	1	25	8	75	4	35°
8	0.5	35	8	100	4	35°
8	1	35	8	100	4	35°
10	0.5	40	10	100	4	35°
10	1	40	10	100	4	35°
12	0.5	45	12	100	4	35°
12	1	45	12	100	4	35°



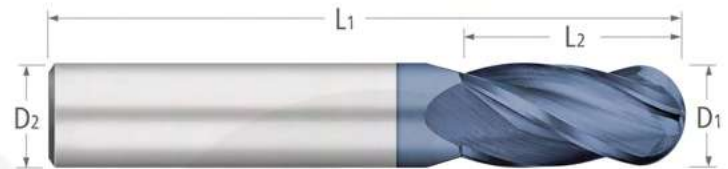
End Mill Type	Workpiece Material	Carbon Steel	Alloy Steel	Cast Iron	Aluminum Alloy	Copper Alloy	Stainless Steel	Hardened Steel
HRC 60°		✓	✓	✓			✓	✓
HRC 65°		✓	✓	✓			✓	✓

4 - Flute Ball 30° Helix End Mill

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1/64	1/8	.023	1-1/2
	1/8	1/32	1-1/2
1/32	1/8	1/16	1-1/2
	1/8	1/8	1-1/2
3/64	1/8	3/32	1-1/2
	1/8	1/8	1-1/2
1/16	1/8	1/8	1-1/2
	1/8	1/4	1-1/2
5/64	1/8	1/8	1-1/2
	1/8	1/4	1-1/2
3/32	1/8	3/16	1-1/2
	1/8	3/8	1-1/2
7/64	1/8	3/8	1-1/2

D ₁	D ₂ (h6)	L ₂	L ₁
1/8	1/8	1/4	1-1/2
	1/8	1/2	1-1/2
	1/8	3/4	2-1/4
	1/8	1	3
9/64	3/16	9/16	2
5/32	3/16	5/16	2
	3/16	9/16	2
11/64	3/16	5/8	2
3/16	3/16	3/8	2
	3/16	5/8	2
	3/16	3/4	2-1/2
	3/16	1-1/8	3
13/64	1/4	5/8	2-1/2
7/32	1/4	7/16	2
	1/4	5/8	2-1/2
15/64	1/4	3/4	2-1/2
1/4	1/4	1/2	2
	1/4	3/4	2-1/2
	1/4	1	4
	1/4	1-1/8	3
	1/4	1-1/2	4
	1/4	1-1/2	6
17/64	5/16	3/4	2-1/2
9/32	5/16	3/4	2-1/2

- Offered in stub, regular, long, and extra long length styles
- TiN coating provides improved performance in a wide variety of materials, and generally used in applications with lower cutting speeds
- Solid carbide
- AlTiN coating offers increased wear and heat resistance



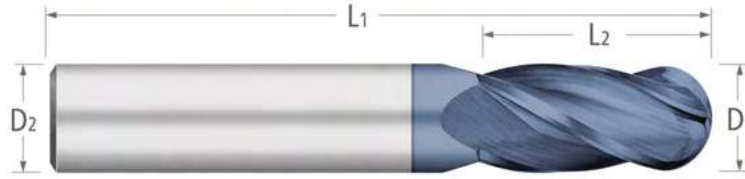
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CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
19/64	5/16	13/16	2-1/2
5/16	5/16	1/2	2
	5/16	13/16	2-1/2
	5/16	1-1/8	3
	5/16	1-5/8	4
21/64	3/8	1	2-1/2
11/32	3/8	1	2-1/2
23/64	3/8	1	2-1/2
3/8	3/8	5/8	2
	3/8	1	2-1/2
	3/8	1	4
	3/8	1-1/8	3
	3/8	1-1/2	6
	3/8	1-3/4	4
	3/8	1-3/4	4
25/64	7/16	1	2-3/4
13/32	7/16	1	2-3/4
27/64	7/16	1	2-3/4
7/16	7/16	5/8	2-1/2
	7/16	1	2-3/4
	7/16	2	4
	7/16	3	6
29/64	1/2	1	3
15/32	1/2	1	3
31/64	1/2	1	3
1/2	1/2	5/8	2-1/2
	1/2	1	3
	1/2	1	4
	1/2	1-1/2	6
	1/2	2	4
	1/2	3	6

CUTTER DIA.	SHANK DIA.	LOC	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
9/16	9/16	1-1/4	3-1/2
5/8	5/8	3/4	3
	5/8	1-1/4	3-1/2
	5/8	2-1/4	5
	5/8	3	6
3/4	3/4	1	3
	3/4	1-1/2	4
	3/4	2-1/4	5
	3/4	3	6
	3/4	4	7
	3/4	4	7
7/8	7/8	1-1/2	4
	7/8	2-1/4	5
	7/8	3	6
1	1	1-1/4	3-1/2
	1	1-1/2	4
	1	2-1/4	5
	1	3	6
	1	4	7
	1	4	7

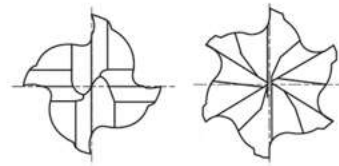
4 - Flute Ball 30° Helix End Mill (Metric)



- Regular length for versatility
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

CUTTER DIA.	SHANK DIA.	LENGTH OF CUT	OAL
D ₁	D ₂ (h6)	L ₂	L ₁
1.0 mm	3 mm	3 mm	38 mm
1.5 mm	3 mm	4.5 mm	38 mm
2.0 mm	3 mm	6.3 mm	38 mm
2.5 mm	3 mm	9.5 mm	38 mm
3.0 mm	3 mm	12 mm	38 mm
3.5 mm	4 mm	12 mm	50 mm
4.0 mm	4 mm	14 mm	50 mm
4.5 mm	6 mm	16 mm	50 mm
5.0 mm	6 mm	16 mm	50 mm
5.5 mm	6 mm	16 mm	50 mm
6.0 mm	6 mm	19 mm	50 mm
6.5 mm	8 mm	19 mm	63 mm
7.0 mm	8 mm	19 mm	63 mm
7.5 mm	8 mm	19 mm	63 mm
8.0 mm	8 mm	20 mm	63 mm
9.0 mm	10 mm	22 mm	75 mm
10.0 mm	10 mm	22 mm	75 mm
11.0 mm	12 mm	25 mm	75 mm
12.0 mm	12 mm	25 mm	75 mm
14.0 mm	14 mm	32 mm	89 mm
16.0 mm	16 mm	32 mm	89 mm
18.0 mm	18 mm	38 mm	100 mm
20.0 mm	20 mm	38 mm	100 mm
25.0 mm	25 mm	38 mm	100 mm

4 & 6 - Flute 45° Helix Short Length End Mill



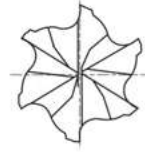
- High speed cutting and finish milling with high feed rate.
- Excellent surface finishes.
- Application in high speed machining, wet and dry cutting condition.
- Solid carbide

(Unit) : mm

Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute
1.0	4	3	45	4
1.5	4	4	45	4
2.0	4	6	45	4
2.5	4	8	45	4
3.0	4	8	50	4
4.0	4	11	50	4
5.0	6	13	50	6
6.0	6	16	50	6
8.0	8	19	60	6
10.0	10	22	75	6
12.0	12	26	75	6
14.0	14	30	90	6
16.0	16	32	100	6
18.0	18	38	100	6
20.0	20	38	100	6

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

6 - Flute 45° Helix Long Length End Mill



- ▶ High speed cutting and finish milling with high feed rate.
- ▶ Excellent surface finishes.
- ▶ Application in high speed machining, wet and dry cutting conditions.
- ▶ Solid carbide

(Unit) : mm

Mill Diameter	Shank Diameter	Length of Cut	Overall Length
6.0	6	25	80
8.0	8	35	90
10.0	10	45	100
12.0	12	50	100
16.0	16	65	150
20.0	20	70	150

Mill Dia. Tolerance(mm)	Shank Dia. Tolerance
0~-0.03	h6

Solid Carbide 2 - Flute Drill

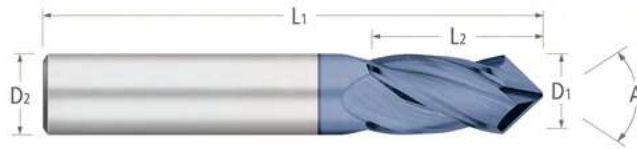


- Versatile tool engineered for drilling, chamfering, countersinking, spotting, and profiling applications
- Offered in 60°, 90°, and 120° point angles
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

INCLUDED ANGLE	CUTTER DIAMETER	LENGTH OF CUT	SHANK DIAMETER	OVERALL LENGTH
A	D1	L2	D2 (h6)	L1
60°	1/32	1/8	1/8	1-1/2
	1/16	3/16	1/8	1-1/2
	3/32	3/8	1/8	1-1/2
	1/8	1/2	1/8	1-1/2
	3/16	5/8	3/16	2
	1/4	3/4	1/4	2-1/2
	5/16	13/16	5/16	2-1/2
	3/8	1	3/8	2-1/2
	7/16	1	7/16	2-3/4
	1/2	1	1/2	3
90°	1/32	1/8	1/8	1-1/2
	1/16	3/16	1/8	1-1/2
	3/32	3/8	1/8	1-1/2
	1/8	1/2	1/8	1-1/2
	3/16	5/8	3/16	2
	1/4	3/4	1/4	2-1/2
	5/16	13/16	5/16	2-1/2
	3/8	1	3/8	2-1/2
	7/16	1	7/16	2-3/4
	1/2	1	1/2	3
120°	1/32	1/8	1/8	1-1/2
	1/16	3/16	1/8	1-1/2
	3/32	3/8	1/8	1-1/2
	1/8	1/2	1/8	1-1/2
	3/16	5/8	3/16	2
	1/4	3/4	1/4	2-1/2
	5/16	13/16	5/16	2-1/2
	3/8	1	3/8	2-1/2
	7/16	1	7/16	2-3/4
	1/2	1	1/2	3
A	D1	L2	D2 (h6)	L1
60°	5/8	1-1/4	5/8	3-1/2
	3/4	1-1/2	3/4	4
90°	5/8	1-1/4	5/8	3-1/2
	3/4	1-1/2	3/4	4
120°	5/8	1-1/4	5/8	3-1/2
	3/4	1-1/2	3/4	4



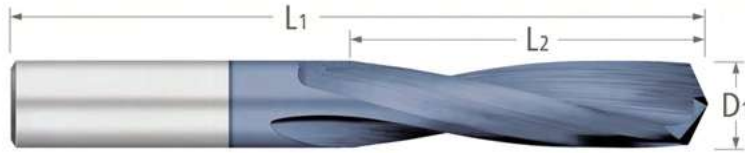
Solid Carbide 4 - Flute Drill



- Versatile tool engineered for drilling, chamfering, countersinking, spotting, and profiling applications
- Offered in 60°, 90°, and 120° point angles
- Solid carbide
- ALTiN coating offers increased wear and heat resistance

INCLUDED ANGLE	CUTTER DIAMETER	LENGTH OF CUT	SHANK DIAMETER	OVERALL LENGTH
A	D ₁	L ₂	D ₂ (h6)	L ₁
60°	1/32	1/8	1/8	1-1/2
	1/16	3/16	1/8	1-1/2
	3/32	3/8	1/8	1-1/2
	1/8	1/2	1/8	1-1/2
	3/16	5/8	3/16	2
	1/4	3/4	1/4	2-1/2
	5/16	13/16	5/16	2-1/2
	3/8	1	3/8	2-1/2
	7/16	1	7/16	2-3/4
	1/2	1	1/2	3
90°	1/32	1/8	1/8	1-1/2
	1/16	3/16	1/8	1-1/2
	3/32	3/8	1/8	1-1/2
	1/8	1/2	1/8	1-1/2
	3/16	5/8	3/16	2
	1/4	3/4	1/4	2-1/2
	5/16	13/16	5/16	2-1/2
	3/8	1	3/8	2-1/2
	7/16	1	7/16	2-3/4
	1/2	1	1/2	3
120°	1/32	1/8	1/8	1-1/2
	1/16	3/16	1/8	1-1/2
	3/32	3/8	1/8	1-1/2
	1/8	1/2	1/8	1-1/2
	3/16	5/8	3/16	2
	1/4	3/4	1/4	2-1/2
	5/16	13/16	5/16	2-1/2
	3/8	1	3/8	2-1/2
	7/16	1	7/16	2-3/4
	1/2	1	1/2	3
A	D ₁	L ₂	D ₂ (h6)	L ₁
60°	5/8	1-1/4	5/8	3-1/2
	3/4	1-1/2	3/4	4
90°	5/8	1-1/4	5/8	3-1/2
	3/4	1-1/2	3/4	4
120°	5/8	1-1/4	5/8	3-1/2
	3/4	1-1/2	3/4	4

Solid Carbide 135° Split Point Stub Length Drills



- Stub length for increased rigidity
- 135° split point (diameters < .125" are not split)
- AlTiN coating offers increased wear and heat resistance
- Solid carbide

DRILL DIAMETER dec. equiv. size		FLUTE LENGTH	OAL
D ₁		L ₂	L ₁
.0313	1/32	3/8	1-1/2
.0400	#60	3/8	1-1/2
.0410	#59	3/8	1-1/2
.0420	#58	3/8	1-1/2
.0430	#57	3/8	1-1/2
.0465	#56	3/8	1-1/2
.0469	3/64	3/8	1-1/2
.0520	#55	13/32	1-1/2
.0550	#54	13/32	1-1/2
.0595	#53	13/32	1-1/2
.0625	1/16	13/32	1-1/2
.0635	#52	7/16	1-1/2
.0670	#51	7/16	1-1/2
.0700	#50	7/16	1-1/2
.0730	#49	7/16	1-1/2
.0760	#48	7/16	1-1/2
.0781	5/64	7/16	1-1/2
.0785	#47	1/2	1-1/2
.0810	#46	1/2	1-1/2
.0820	#45	1/2	1-1/2
.0860	#44	1/2	1-1/2
.0890	#43	1/2	1-1/2
.0935	#42	1/2	1-1/2
.0938	3/32	1/2	1-1/2
.0960	#41	5/8	2
.0980	#40	5/8	2
.0995	#39	5/8	2
.1015	#38	5/8	2
.1040	#37	5/8	2
.1065	#36	5/8	2
.1094	7/64	5/8	2
.1100	#35	3/4	2
.1110	#34	3/4	2
.1130	#33	3/4	2
.1160	#32	3/4	2
.1200	#31	3/4	2
.1250	1/8	3/4	2
.1285	#30	3/4	2

Continue...

DRILL DIAMETER dec. equiv. size		FLUTE LENGTH	OAL
D ₁		L ₂	L ₁
.1360	#29	3/4	2
.1405	#28	3/4	2
.1406	9/64	3/4	2
.1440	#27	7/8	2
.1470	#26	7/8	2
.1495	#25	7/8	2
.1520	#24	7/8	2
.1540	#23	7/8	2
.1563	5/32	7/8	2
.1570	#22	7/8	2
.1590	#21	7/8	2
.1610	#20	7/8	2
.1660	#19	7/8	2
.1695	#18	7/8	2
.1719	11/64	7/8	2
.1730	#17	7/8	2
.1770	#16	7/8	2
.1800	#15	7/8	2
.1820	#14	7/8	2
.1850	#13	7/8	2
.1875	3/16	7/8	2
.1890	#12	1-1/8	2-1/2
.1910	#11	1-1/8	2-1/2
.1935	#10	1-1/8	2-1/2
.1960	#9	1-1/8	2-1/2
.1990	#8	1-1/8	2-1/2
.2010	#7	1-1/8	2-1/2
.2031	13/64	1-1/8	2-1/2
.2040	#6	1-1/8	2-1/2
.2055	#5	1-1/8	2-1/2
.2090	#4	1-1/8	2-1/2
.2130	#3	1-1/8	2-1/2
.2188	7/32	1-1/8	2-1/2
.2210	#2	1-1/4	2-1/2
.2280	#1	1-1/4	2-1/2
.2340	A	1-1/4	2-1/2
.2344	15/64	1-1/4	2-1/2
.2380	B	1-1/4	2-1/2
.2420	C	1-1/4	2-1/2
.2460	D	1-1/4	2-1/2
.2500	1/4	1-1/4	2-1/2
.2500	E	1-1/4	2-1/2
.2570	F	1-1/4	2-1/2
.2610	G	1-1/4	2-1/2
.2656	17/64	1-1/4	2-1/2
.2660	H	1-1/4	2-1/2
.2720	I	1-1/4	2-1/2

Continue...

DRILL DIAMETER dec. equiv. size		FLUTE LENGTH	OAL
D ₁		L ₂	L ₁
.2770	J	1-1/4	2-1/2
.2810	K	1-1/4	2-1/2
.2813	9/32	1-1/4	2-1/2
.2900	L	1-1/4	2-1/2
.2950	M	1-1/4	2-1/2
.2969	19/64	1-1/4	2-1/2
.3020	N	1-1/4	2-1/2
.3125	5/16	1-1/4	2-1/2
.3160	O	1-3/8	3
.3230	P	1-3/8	3
.3281	21/64	1-3/8	3
.3320	Q	1-3/8	3
.3390	R	1-3/8	3
.3438	11/32	1-3/8	3
.3480	S	1-3/8	3
.3580	T	1-3/8	3
.3594	23/64	1-3/8	3
.3680	U	1-3/8	3
.3750	3/8	1-3/8	3
.3770	V	1-3/8	3
.3860	W	1-3/8	3
.3906	25/64	1-3/8	3
.3970	X	1-3/8	3
.4040	Y	1-3/8	3
.4063	13/32	1-3/8	3
.4130	Z	1-3/8	3
.4219	27/64	1-3/8	3
.4375	7/16	1-3/8	3
.4531	29/64	1-3/8	3
.4688	15/32	1-3/8	3
.4844	31/64	1-3/8	3
.5000	1/2	1-3/8	3

Solid Carbide Straight Shank Drill (Jobber Series)



Drill Diameter h7	Shank Diameter h6	Flute Length	Overall Length
1.00	1.00	12	34
1.10	1.10	14	36
1.20	1.20	16	38
1.30	1.30	16	38
1.40	1.40	18	40
1.50	1.50	18	40
1.60	1.60	20	43
1.70	1.70	20	43
1.80	1.80	22	46
1.90	1.90	22	46
2.00	2.00	24	49
2.10	2.10	24	49
2.20	2.20	27	53
2.30	2.30	27	53
2.40	2.40	30	57
2.50	2.50	30	57
2.60	2.60	30	57
2.70	2.70	33	61
2.80	2.80	33	61
2.90	2.90	33	61
3.00	3.00	33	61
3.10	3.10	36	65
3.20	3.20	36	65
3.30	3.30	36	65
3.40	3.40	39	70

Drill Diameter h7	Shank Diameter h6	Flute Length	Overall Length
3.50	3.50	39	70
3.60	3.60	39	70
3.70	3.70	39	70
3.80	3.80	43	75
3.90	3.90	43	75
4.00	4.00	43	75
4.10	4.10	43	75
4.20	4.20	43	75
4.30	4.30	47	80
4.40	4.40	47	80
4.50	4.50	47	80
4.60	4.60	47	80
4.70	4.70	47	80
4.80	4.80	52	86
4.90	4.90	52	86
5.00	5.00	52	86
5.10	5.10	52	86
5.20	5.20	52	86
5.30	5.30	52	86
5.40	5.40	57	93
5.50	5.50	57	93
5.60	5.60	57	93
5.70	5.70	57	93
5.80	5.80	57	93
5.90	5.90	57	93

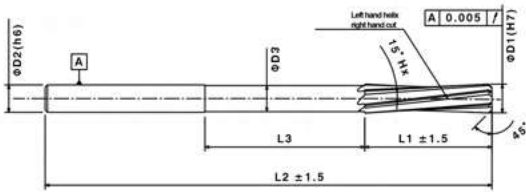
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Drill Diameter h7	Shank Diameter h6	Flute Length	Overall Length
6.00	6.00	57	93
6.10	6.10	63	101
6.20	6.20	63	101
6.30	6.30	63	101
6.40	6.40	63	101
6.50	6.50	63	101
6.60	6.60	63	101
6.70	6.70	63	101
6.80	6.80	69	109
6.90	6.90	69	109
7.00	7.00	69	109
7.10	7.10	69	109
7.20	7.20	69	109
7.30	7.30	69	109
7.40	7.40	69	109
7.50	7.50	69	109
7.60	7.60	75	117
7.70	7.70	75	117
7.80	7.80	75	117
7.90	7.90	75	117
8.00	8.00	75	117
8.10	8.10	75	117
8.20	8.20	75	117
8.30	8.30	75	117
8.40	8.40	75	117
8.50	8.50	75	117
8.60	8.60	81	125
8.70	8.70	81	125
8.80	8.80	81	125
8.90	8.90	81	125
9.00	9.00	81	125
9.10	9.10	81	125
9.20	9.20	81	125

Drill Diameter h7	Shank Diameter h6	Flute Length	Overall Length
9.30	9.30	81	125
9.40	9.40	81	125
9.50	9.50	81	125
9.60	9.60	87	133
9.70	9.70	87	133
9.80	9.80	87	133
9.90	9.90	87	133
10.00	10.00	87	133
10.10	10.10	87	133
10.20	10.20	87	133
10.30	10.30	87	133
10.40	10.40	87	133
10.50	10.50	87	133
10.60	10.60	87	133
10.70	10.70	94	142
10.80	10.80	94	142
10.90	10.90	94	142
11.00	11.00	94	142
11.10	11.10	94	142
11.20	11.20	94	142
11.30	11.30	94	142
11.40	11.40	94	142
11.50	11.50	94	142
11.60	11.60	94	142
11.70	11.70	94	142
11.80	11.80	94	142
11.90	11.90	101	151
12.00	12.00	101	151
12.10	12.10	101	151
12.20	12.20	101	151
12.30	12.30	101	151
12.40	12.40	101	151
12.50	12.50	101	151

Drill Diameter h7	Shank Diameter h6	Flute Length	Overall Length
12.60	12.60	101	151
12.70	12.70	101	151
12.80	12.80	101	151
12.90	12.90	101	151
13.00	13.00	101	151
13.10	13.10	101	151
13.20	13.20	101	151
13.30	13.30	108	160
13.40	13.40	108	160
13.50	13.50	108	160
13.60	13.60	108	160
13.70	13.70	108	160
13.80	13.80	108	160
13.90	13.90	108	160
14.00	14.00	108	160
14.25	14.25	114	169
14.50	14.50	114	169
14.75	14.75	114	169
15.00	15.00	114	169
15.25	15.25	120	178
15.50	15.50	120	178
15.75	15.75	120	178
16.00	16.00	120	178
17.00	17.00	125	184
18.00	18.00	130	191
19.00	19.00	135	198
20.00	20.00	140	205

Solid Carbide Multi Flute Reaming Tools



Spiral Flute

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
1.5	16	16	1.4	57	3	4
1.95	16	16	1.7	57	3	4
1.96	16	16	1.7	57	3	4
1.97	16	16	1.7	57	3	4
1.98	16	16	1.7	57	3	4
1.99	16	16	1.7	57	3	4
2.0	16	16	1.8	57	3	4
2.01	16	16	1.8	57	3	4
2.02	16	16	1.8	57	3	4
2.03	16	16	1.8	57	3	4
2.04	16	16	1.8	57	3	4
2.05	16	16	1.8	57	3	4
2.95	16	16	2.7	65	3	4
2.96	16	16	2.7	65	3	4
2.97	16	16	2.7	65	3	4
2.98	16	16	2.7	65	3	4
2.99	16	16	2.7	65	3	4
3.0	16	20	2.5	65	3	4
3.01	16	20	2.51	65	3	4
3.02	16	20	2.52	65	3	4
3.03	16	20	2.53	65	3	4
3.04	16	20	2.54	65	3	4
3.05	16	20	2.55	65	3	4
3.1	16	20	2.6	65	3	4
3.2	16	20	2.7	65	3	4
3.3	19	20	2.8	65	3	4
3.35	19	20	2.85	65	3	4
3.4	19	20	2.9	70	3	4
3.45	19	20	2.95	70	3	4
3.55	19	20	3.05	70	3	4
3.6	19	20	3.1	70	3	4
3.65	19	20	3.15	70	3	4

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
3.7	19	25	3.2	70	4	4
3.75	19	25	3.25	75	4	4
3.8	19	25	3.3	75	4	4
3.9	19	25	3.4	75	4	4
3.95	19	25	3.45	75	4	4
3.96	19	25	3.46	70	4	4
3.97	19	25	3.47	70	4	4
3.98	19	25	3.48	70	4	4
3.99	19	25	3.49	70	4	4
4.0	19	25	3.5	75	4	4
4.01	19	25	3.51	70	4	4
4.02	19	25	3.52	70	4	4
4.03	19	25	3.53	70	4	4
4.04	19	25	3.54	70	4	4
4.05	19	25	3.55	75	4	4
4.1	22	25	3.6	75	4	4
4.15	22	25	3.65	75	4	4
4.2	22	25	3.7	75	4	4
4.25	22	25	3.75	80	4	4
4.3	22	25	3.8	80	4	4
4.35	22	25	3.85	80	4	4
4.4	22	25	3.9	80	4	4
4.45	22	25	3.95	80	4	4
4.5	22	25	4	80	4	4
4.55	22	25	4.05	80	4	4
4.6	22	25	4.1	80	4	4
4.65	22	25	4.15	80	5	6
4.7	22	25	4.2	80	5	6
4.74	7/8"	25	4.24	2-3/4"	5	6
4.75	22	25	4.25	80	5	6
4.8	22	29	4.3	86	5	6
4.85	22	29	4.35	86	5	6

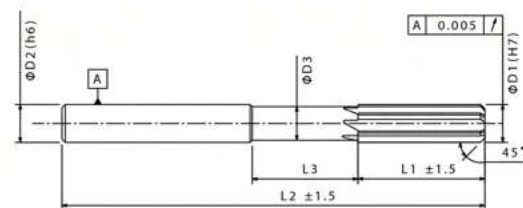
Continue...

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
4.9	25	29	4.4	85	5	6
4.95	25	29	4.45	86	5	6
4.96	25	29	4.46	86	5	6
4.97	25	29	4.47	86	5	6
4.99	25	29	4.49	86	5	6
5.0	25	29	4.5	86	5	6
5.01	25	29	4.51	86	5	6
5.02	25	29	4.52	86	5	6
5.03	25	29	4.53	86	5	6
5.04	25	29	4.54	86	5	6
5.05	25	29	4.55	86	5	6
5.1	25	29	4.6	86	5	6
5.15	25	29	4.65	86	5	6
5.2	25	29	4.7	86	5	6
5.25	25	29	4.75	86	5	6
5.3	25	29	4.8	86	5	6
5.35	25	29	4.85	86	5	6
5.4	25	33	4.9	93	5	6
5.45	25	33	4.95	93	5	6
5.5	25	33	5	93	5	6
5.55	25	33	5.05	93	5	6
5.6	25	33	5.1	93	5	6
5.65	25	33	5.15	93	6	6
5.7	25	33	5.2	93	6	6
5.75	25	33	5.25	93	6	6
5.8	25	33	5.3	93	6	6
5.85	25	33	5.35	93	6	6
5.9	25	33	5.4	93	6	6
5.95	25	33	5.45	93	6	6
5.96	25	33	5.46	93	6	6
5.97	25	33	5.47	93	6	6
5.98	25	33	5.48	93	6	6
5.99	25	33	5.49	93	6	6

Continue...

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
6.0	25	33	5.5	93	6	6
6.01	25	33	5.51	93	6	6
6.02	25	33	5.52	93	6	6
6.03	25	33	5.53	93	6	6
6.04	25	33	5.54	93	6	6
6.05	25	33	5.55	93	6	6
6.06	25	33	5.56	93	6	6
6.1	29	36	5.6	101	6	6
6.13	29	36	5.63	101	6	6
6.2	29	36	5.7	101	6	6
6.25	29	36	5.75	101	6	6
6.3	29	36	5.8	101	6	6
6.4	29	36	5.9	101	6	6
6.5	29	36	6	101	6	6
6.95	29	36	6.45	101	6	6
6.96	29	36	6.46	101	6	6
6.97	29	36	6.47	101	6	6
6.98	29	36	6.48	101	6	6
6.99	29	36	6.49	101	6	6
7.0	29	36	6.5	101	6	6
7.98	32	40	7.48	117	8	6
8.01	32	40	7.51	117	8	6
8.03	32	40	7.53	117	8	6
8.0	32	40	7.5	117	8	6
8.5	32	40	8	117	8	6
9.0	32	40	8.5	117	9	6
9.5	32	40	9	117	9	6
10.0	38	50	9.5	133	10	6
10.5	38	50	10	133	10	6
11.0	38	50	10.5	133	11	6
11.5	38	50	11	133	11	6
12.0	38	50	11.5	133	12	6

Solid Carbide Multi Flute Reaming Tools



Straight Flute

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
1.5	16	16	1.4	57	3	4
1.95	16	16	1.7	57	3	4
1.96	16	16	1.7	57	3	4
1.97	16	16	1.7	57	3	4
1.98	16	16	1.7	57	3	4
1.99	16	16	1.7	57	3	4
2.0	16	16	1.8	57	3	4
2.01	16	16	1.8	57	3	4
2.02	16	16	1.8	57	3	4
2.03	16	16	1.8	57	3	4
2.04	16	16	1.8	57	3	4
2.05	16	16	1.8	57	3	4
2.95	16	16	2.7	65	3	4
2.96	16	16	2.7	65	3	4
2.97	16	16	2.7	65	3	4
2.98	16	16	2.7	65	3	4
2.99	16	16	2.7	65	3	4
3.0	16	20	2.5	65	3	4
3.01	16	20	2.51	65	3	4
3.02	16	20	2.52	65	3	4
3.03	16	20	2.53	65	3	4
3.04	16	20	2.54	65	3	4
3.05	16	20	2.55	65	3	4
3.1	16	20	2.6	65	3	4
3.2	16	20	2.7	65	3	4
3.3	19	20	2.8	65	3	4
3.35	19	20	2.85	65	3	4
3.4	19	20	2.9	70	3	4
3.45	19	20	2.95	70	3	4
3.55	19	20	3.05	70	3	4
3.6	19	20	3.1	70	3	4
3.65	19	20	3.15	70	3	4

Continue...

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
3.7	19	25	3.2	70	4	4
3.75	19	25	3.25	75	4	4
3.8	19	25	3.3	75	4	4
3.9	19	25	3.4	75	4	4
3.95	19	25	3.45	75	4	4
3.96	19	25	3.46	70	4	4
3.97	19	25	3.47	70	4	4
3.98	19	25	3.48	70	4	4
3.99	19	25	3.49	70	4	4
4.0	19	25	3.5	75	4	4
4.01	19	25	3.51	70	4	4
4.02	19	25	3.52	70	4	4
4.03	19	25	3.53	70	4	4
4.04	19	25	3.54	70	4	4
4.05	19	25	3.55	75	4	4
4.1	22	25	3.6	75	4	4
4.15	22	25	3.65	75	4	4
4.2	22	25	3.7	75	4	4
4.25	22	25	3.75	80	4	4
4.3	22	25	3.8	80	4	4
4.35	22	25	3.85	80	4	4
4.4	22	25	3.9	80	4	4
4.45	22	25	3.95	80	4	4
4.5	22	25	4	80	4	4
4.55	22	25	4.05	80	4	4
4.6	22	25	4.1	80	4	4
4.65	22	25	4.15	80	5	6
4.7	22	25	4.2	80	5	6
4.74	7/8"	25	4.24	2-3/4"	5	6
4.75	22	25	4.25	80	5	6
4.8	22	29	4.3	86	5	6
4.85	22	29	4.35	86	5	6

Continue...

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
4.9	25	29	4.4	85	5	6
4.95	25	29	4.45	86	5	6
4.96	25	29	4.46	86	5	6
4.97	25	29	4.47	86	5	6
4.99	25	29	4.49	86	5	6
5.0	25	29	4.5	86	5	6
5.01	25	29	4.51	86	5	6
5.02	25	29	4.52	86	5	6
5.03	25	29	4.53	86	5	6
5.04	25	29	4.54	86	5	6
5.05	25	29	4.55	86	5	6
5.1	25	29	4.6	86	5	6
5.15	25	29	4.65	86	5	6
5.2	25	29	4.7	86	5	6
5.25	25	29	4.75	86	5	6
5.3	25	29	4.8	86	5	6
5.35	25	29	4.85	86	5	6
5.4	25	33	4.9	93	5	6
5.45	25	33	4.95	93	5	6
5.5	25	33	5	93	5	6
5.55	25	33	5.05	93	5	6
5.6	25	33	5.1	93	5	6
5.65	25	33	5.15	93	6	6
5.7	25	33	5.2	93	6	6
5.75	25	33	5.25	93	6	6
5.8	25	33	5.3	93	6	6
5.85	25	33	5.35	93	6	6
5.9	25	33	5.4	93	6	6
5.95	25	33	5.45	93	6	6
5.96	25	33	5.46	93	6	6
5.97	25	33	5.47	93	6	6
5.98	25	33	5.48	93	6	6
5.99	25	33	5.49	93	6	6

Continue...

D1	L1	L3	D3	L2	D2	z
mm	mm	mm	mm	mm	mm	mm
6.0	25	33	5.5	93	6	6
6.01	25	33	5.51	93	6	6
6.02	25	33	5.52	93	6	6
6.03	25	33	5.53	93	6	6
6.04	25	33	5.54	93	6	6
6.05	25	33	5.55	93	6	6
6.06	25	33	5.56	93	6	6
6.1	29	36	5.6	101	6	6
6.13	29	36	5.63	101	6	6
6.2	29	36	5.7	101	6	6
6.25	29	36	5.75	101	6	6
6.3	29	36	5.8	101	6	6
6.4	29	36	5.9	101	6	6
6.5	29	36	6	101	6	6
6.95	29	36	6.45	101	6	6
6.96	29	36	6.46	101	6	6
6.97	29	36	6.47	101	6	6
6.98	29	36	6.48	101	6	6
6.99	29	36	6.49	101	6	6
7.0	29	36	6.5	101	6	6
7.98	32	40	7.48	117	8	6
8.01	32	40	7.51	117	8	6
8.03	32	40	7.53	117	8	6
8.0	32	40	7.5	117	8	6
8.5	32	40	8	117	8	6
9.0	32	40	8.5	117	9	6
9.5	32	40	9	117	9	6
10.0	38	50	9.5	133	10	6
10.5	38	50	10	133	10	6
11.0	38	50	10.5	133	11	6
11.5	38	50	11	133	11	6
12.0	38	50	11.5	133	12	6

Solid Carbide Straight Cut Router Bit - Single Flute

Shank Dia.	Cutting Dia.	Cutting Length	Overall Length
1/4"	1/16"	3/16"	1-1/2"
1/4"	1/16"	5/16"	1-1/2"
1/4"	3/32"	5/16"	1-1/2"
1/4"	1/8"	3/8"	1-1/2"
1/4"	5/32"	5/8"	1-1/2"
1/4"	3/16"	1/2"	1-1/2"
1/4"	7/32"	3/4"	2"
1/4"	1/4"	3/4"	2"
1/4"	1/4"	1"	2-1/2"
1/4"	1/4"	1"	3"
5/16"	5/16"	1"	2-1/2"



Solid Carbide Straight Cut Router Bit - Two Flute



Cutting Dia.	Cutting Length	Overall Length
1/4" SHANK		
1/8"	1/4"	2"
1/8"	3/8"	1-1/2"
1/8"	3/8"	2"
5/32"	3/8"	1-1/2"
5/32"	5/8"	1-1/2"
5/32"	5/8"	2"
3/16"	3/8"	2"
3/16"	1/2"	1-1/2"
3/16"	1/2"	2"
3/16"	5/8"	2"
7/32" / 5.5mm	3/4"	2"
1/4"	1/2"	2"
1/4"	3/4"	2"
1/4"	1"	2-1/2"
1/4"	1"	3"

Cutting Dia.	Cutting Length	Overall Length
5/16" SHANK		
5/16"	1"	2-1/2"
3/8" SHANK		
3/8"	1"	2-1/2"
3/8"	1-1/4"	3"
1/2" SHANK		
7/32" / 5.5mm	3/4"	2-3/4"
15/64" / 6mm	3/4"	2-3/4"
1/4"	3/4"	2-3/4"
1/4"	1"	3"
5/16"	1"	3"
3/8"	1"	3"
3/8"	1-1/4"	3"
1/2"	1"	3"
1/2"	1-1/4"	3"
1/2"	1-1/2"	3-1/2"

Solid Carbide Roughing Spiral Router Bit

Cutting Dia.	Cutting Length	Overall Length
3/8" SHANK		
3/8"	3/4"	2-1/2"
3/8"	1"	2-1/2"
3/8"	3/4"	3"
3/8"	1"	3"
3/8"	1-1/4"	3"
1/2" SHANK		
1/2"	1-1/4"	3"
1/2"	1-5/8"	3-1/2"
1/2"	2-3/16"	4"
5/8" SHANK		
5/8"	2"	4"
3/4" SHANK		
3/4"	2"	4"
3/4"	3-1/4"	6"



Solid Carbide Spiral Router Bit - Up Cut

Cutting Dia.	Cutting Length	Overall Length
1/4" SHANK		
1/8"	1/2"	2"
5/32"	5/8"	2"
3/16"	3/4"	2-1/2"
7/32"	3/4"	2-1/2"
1/4"	3/4"	2-1/2"
1/4"	1"	2-1/2"
5/16" SHANK		
5/16"	1"	2-1/2"
3/8" SHANK		
3/8"	3/4"	2-1/2"
3/8"	1"	2-1/2"
3/8"	1-1/4"	3"
1/2" SHANK		
1/4"	3/4"	3"
1/4"	1"	3-1/4"
9/32"	1"	3"
5/16"	1"	3"
3/8"	3/4"	3"
3/8"	1-1/4"	3"
7/16"	1-1/4"	3"
1/2"	1"	3"
1/2"	1-1/4"	3"
1/2"	1-1/2"	3-1/2"
1/2"	2"	4"
5/8" SHANK		
5/8"	1-1/2"	3-1/2"
5/8"	2"	4"
3/4" SHANK		
3/4"	1-1/2"	4"
3/4"	2"	4"
3/4"	3"	5"
3/4"	3"	6"



Solid Carbide Spiral Router Bit - Down Cut

Cutting Dia.	Cutting Length	Overall Length
1/4" SHANK		
1/8"	1/2"	2"
5/32"	5/8"	2"
3/16"	3/4"	2-1/2"
7/32"	3/4"	2-1/2"
1/4"	3/4"	2-1/2"
1/4"	1"	2-1/2"
5/16" SHANK		
5/16"	1"	2-1/2"
3/8" SHANK		
3/8"	3/4"	2-1/2"
3/8"	1"	2-1/2"
3/8"	1-1/4"	3"
1/2" SHANK		
1/4"	3/4"	3"
1/4"	1"	3-1/4"
9/32"	1"	3"
5/16"	1"	3"
3/8"	3/4"	3"
3/8"	1-1/4"	3"
7/16"	1-1/4"	3"
1/2"	1"	3"
1/2"	1-1/4"	3"
1/2"	1-1/2"	3-1/2"
1/2"	2"	4"
5/8" SHANK		
5/8"	1-1/2"	3-1/2"
5/8"	2"	4"
3/4" SHANK		
3/4"	1-1/2"	4"
3/4"	2"	4"
3/4"	3"	5"
3/4"	3"	6"



Solid Carbide Double Flute Compression Router Bit

Shank Dia.	Cutting Dia.	Cutting Length	Overall Length
1/4"	1/8"	1/2"	2-1/2"
1/4"	1/4"	1"	2-1/2"
3/8"	3/8"	1"	2-1/2"
3/8"	3/8"	1-1/4"	3"
3/8"	3/8"	1-1/4"	3"
1/2"	1/2"	1-1/4"	3"
1/2"	1/2"	1-1/4"	3"
1/2"	1/2"	1-1/2"	3-1/2"
1/2"	1/2"	1-5/8"	3-1/2"
1/2"	1/2"	1-5/8"	3-1/2"
1/2"	1/2"	2"	4"
1/2"	1/2"	2-1/4"	5-1/2"
5/8"	5/8"	1-1/2"	4"
3/4"	3/4"	1-1/2"	4"
3/4"	3/4"	2"	5"

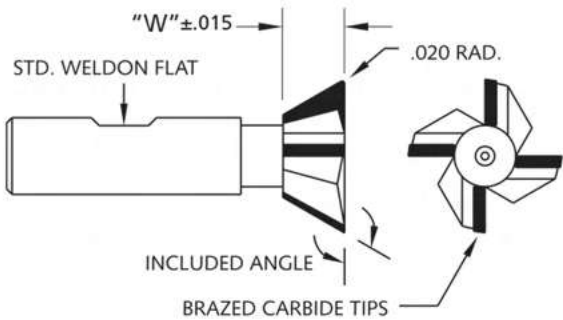
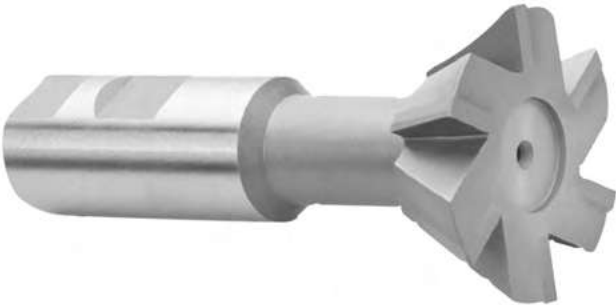


Solid Carbide Chipbreaker Router Bit



Shank Dia.	Cutting Dia.	Cutting Length	Overall Length
1/2"	1/2"	1-1/4"	3"
1/2"	1/2"	1-1/2"	3-1/2"
1/2"	1/2"	2"	4"

Dovetail Milling Cutters

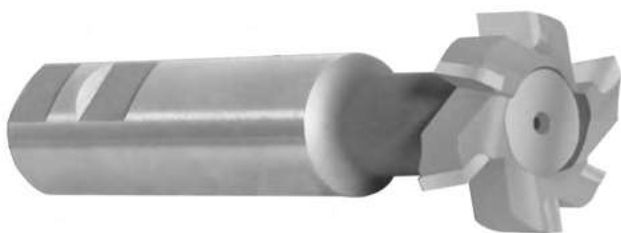


Tolerance on Angle: +/- 1/4° (15min.)

Standard Width Tolerance ±.0150

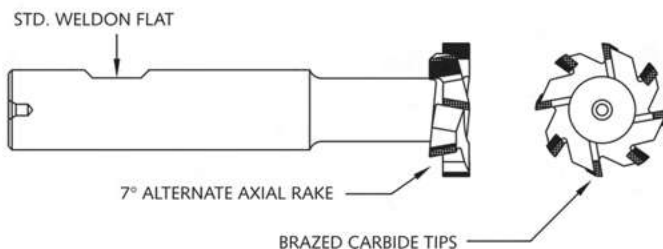
Cutter Dia.	Included Angle	Cutter Width	Shank Dia.	Overall Length	No. of Teeth
1/8"	45°	.040"	1/4"	2"	2
3/16"		3/64"			
1/4"		1/16"			
3/8"		1/8"	3/8"	2-1/8"	3
1/2"		5/32"		2-1/4"	
3/4"		1/4"			
1"		5/16"	1/2"	2-1/2"	4
1-1/4"		5/16"	5/8"	2-3/4"	
1-1/2"		1/2"	3/4"	3-1/4"	
2"		5/8"	1"	4-1/4"	6
2-1/2"		3/4"	1-1/4"	4-3/8"	
3"		1"		4-1/2"	
1/8"	60°	1/16"	1/4"	2"	2
3/16"		3/32"			
1/4"		1/8"			
3/8"		3/16"	3/8"	2-1/8"	3
1/2"		7/32"		2-1/4"	
3/4"		1/4"			
1"		3/8"	1/2"	2-1/2"	4
1-1/4"		1/2"	5/8"	2-3/4"	
1-1/2"		5/8"	3/4"	3-1/4"	
2"		3/4"	1"	4-1/4"	6
2-1/2"		7/8"	1-1/4"	4-3/8"	
3"		1-1/8"		4-1/2"	

T - Slot Milling Cutters



Tolerances:

Dia. + 0/-0.010 Width + 0/-0.005



Bolt Size	Cutter Dia.	Cutter Width	Neck Dia.	Overall Length	Shank Dia.	Undercut Length	No. of Teeth
1/4"	9/16"	15/64"	17/64"	2-19/32"	1/2"	35/64"	6
5/16"	21/32"	17/64"	21/64"	2-11/16"		39/64"	
3/8"	25/32"	21/64"	13/32"	3-1/4"	3/4"	55/64"	
1/2"	31/32"	25/64"	17/32"	3-7/16"		63/64"	
5/8"	1-1/4"	31/64"	21/32"	3-15/16"	1"	1-9/64"	
3/4"	1-15/32"	5/8"	25/32"	4-7/16"		1-1/2"	
1"	1-27/32"	53/64"	1-1/32"	4-13/16"	1-1/4"	1-43/64"	8
1-1/4"	2-7/32"	1-3/32"	1-7/32"	5-3/8"		1-31/32"	
1-1/2"	2-21/32"	1-11/32"	1-17/32"	5-29/32"		2-1/8"	

Small Keyseat Cutters

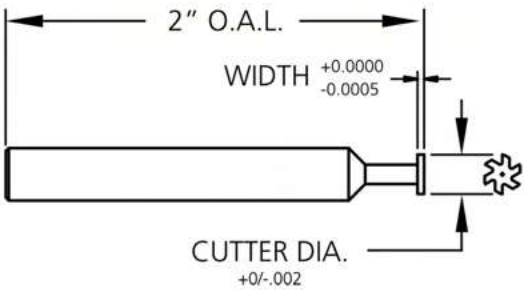
» SOLID CARBIDE - STRAIGHT TOOTH

- » Smaller than Standard Sizes
- » Large Selection of Sizes
- » CNC Precision Ground
- » C2 Micrograin Standard

Diameter Tolerances:

Up to 3/8" + 0 /-.002

Standard Width Tolerance -.0005



Cutter Dia.	Width	Shank	Neck Dia.	Neck Length	No. of Teeth
1/8"	1/64"	1/4"	1/16"	5/32"	4
	1/32"				
	1mm				
	3/64"				
	1/16"				
3/16"	1/64"	1/4"	3/32"	1/4"	6
	1/32"				
	1mm				
	3/64"				
	1/16"				
1/4"	1/64"	3/8"	5/32"	1/4"	8
	1/32"				
	1mm				
	3/64"				
	1/16"				
5/16"	1/64"	3/8"	3/16"	1/4"	8
	1/32"				
	1mm				
	3/64"				
	1/16"				
3/8"	2mm	3/8"	3/16"	1/4"	8
	3/32"				
	1/64"				
	1/32"				
	1mm				
	3/64"	3/8"	3/16"	1/4"	8
	1/16"				
	2mm				
	3/32"				
	1/8"				



Keyseat Cutters

» SOLID CARBIDE / SOLID CARBIDE HEAD STRAIGHT TOOTH - PVD COATED

- » Right Hand Cut
- » 1/2" Dia. Shank
- » 2" Under Head Length
- » 1/2" Thru 1" Carbide Head on Steel Shank
- » 1-1/8" Thru 1-1/2" Solid Carbide

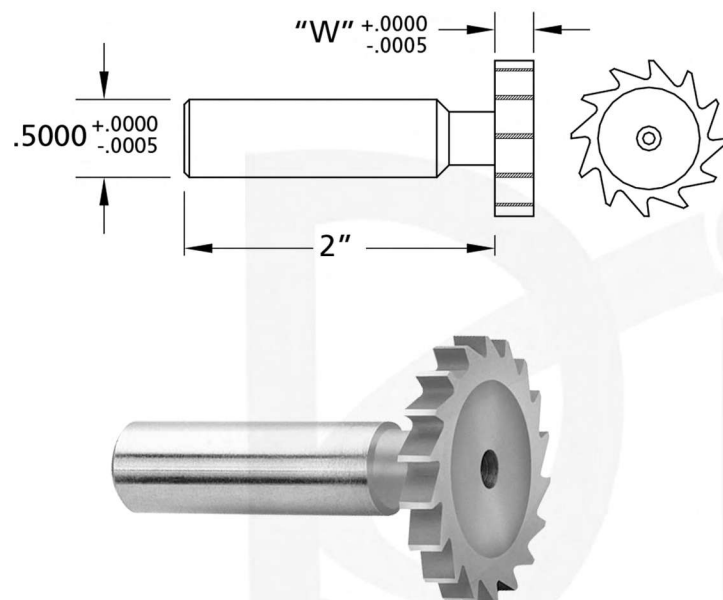
Diameter Tolerances:

Up to 3/4" + .010 /+.015

7/8" to 1-1/8" + .012 /+.017

1-1/4" to 1-1/2" + .015 /+.020

Standard Width Tolerance -.0005



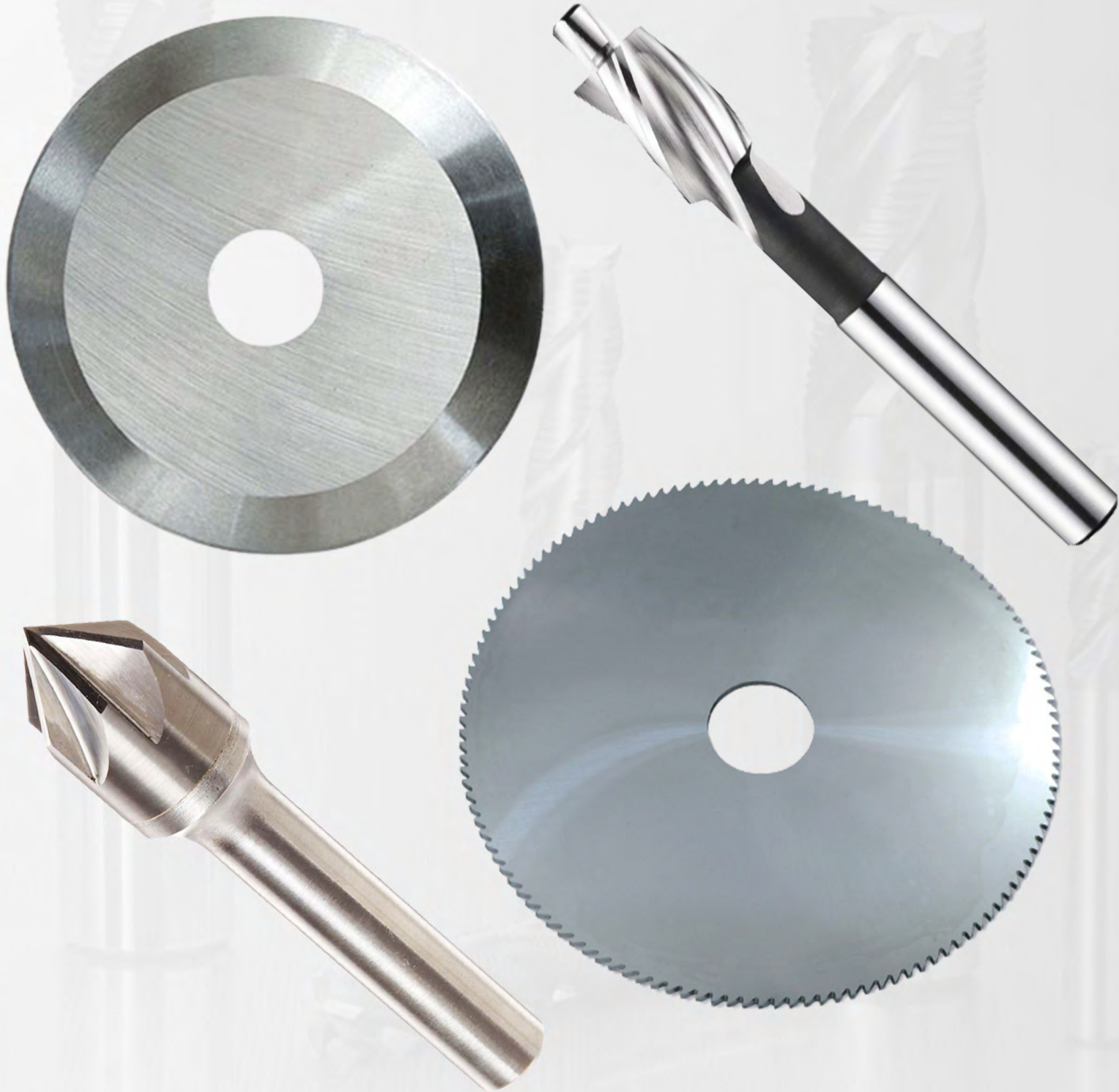
Diameter	Width	Neck Diameter	No. of Teeth
1/2"	1/16"	0.218*	10
	3/32"	0.218*	
	1/8"	0.218*	
5/8"	3/32"	0.250	
	1/8"	0.250	
	5/32"	0.281	
3/4"	3/16"	0.281	12
	1/4"	0.281	
	5/32"	0.250	
7/8"	3/16"	0.281	
	7/32"	0.312	
	1/4"	0.312	
1"	3/16"	0.312	12
	7/32"	0.312	
	1/4"	0.312	
	5/16"	0.343	
	3/8"	0.343	

1-1/8"	3/16"	0.343	14
	7/32"	0.343	
	1/4"	0.375	
	5/16"	0.375	
1-1/4"	3/16"	0.343	
	7/32"	0.343	
	1/4"	0.375	
	5/16"	0.437	
1-3/8"	3/8"	0.468	
	1/4"	0.401	
	5/16"	0.468	
1-1/2"	3/8"	0.468	
	1/4"	0.435	
	5/16"	0.468	
	3/8"	0.468	

Standard types: TiN, TiAlN, AlTiN, TiCN.

Additional coatings on request: TiAlSiN, ZrN, CrN or AlCrN

Other Solid Carbide Tools



Note : Can be made in standard and Custom sizes.

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