CHAMPION )

## Cobalt Roughing End Mills List No. 609

Single End / Multi Flute / M42 Cobalt



Description: Radius form cutting edges where each flute cuts shorter and thicker chips that can be carried away from the work easily. Rapid chip removal allows these mills to make deep cuts and remove large amounts of stock with less horsepower than conventional mills.

**Application:** Profiling and slotting of steel alloys, stainless steel and non-ferrous materials. Good for finishing in all materials.

EDP No./ Diameter	Shank Diameter	Flute Length	Overall Length	No. of Flutes
609-1/2x3	1/2	1-1/4	3-1/4	4
609-5/8x3	5/8	1-5/8	3-3/4	4
609-3/4x3	3/4	1-5/8	3-7/8	4
609-3/4x5	3/4	3	5-1/4	4
609-1x4	1	2	4-1/2	5
609-1x6	1	4	6-1/2	5
609-1-1/4x4	1-1/4	2	4-1/2	5

Shank Diameter	Flute Length	Overall Length	No. of Flutes
1-1/4	4	6-1/2	5
1-1/4	2	4-1/2	6
1-1/4	4	6-1/2	6
2	4	7-3/4	8
2	6	9-3/4	8
2	8	11-3/4	8
	Diameter 1-1/4 1-1/4 1-1/4 2 2	Diameter         Length           1-1/4         4           1-1/4         2           1-1/4         4           2         4           2         6	Diameter         Length         Length           1-1/4         4         6-1/2           1-1/4         2         4-1/2           1-1/4         4         6-1/2           2         4         7-3/4           2         6         9-3/4

## (CHAMPION)

## Long End Mills List No. 608

Single End / Multi Flute / HSS / Long Length / Right Hand Helix



**Description:** For deep milling and profiling applications. Have a length of cut two to three times that of a standard end mill.

Application: Profile & slotting of copper alloys, cast irons, alloy steels & tool steel. Good for finishing in all materials

EDP No. / Diameter	Shank Diameter	Flute Length	Overall Length	No. of Flutes	EDP No. / Diameter	Shank Diameter	Flute Length	Overall Length	No. of Flutes
608-1/4x3/8	3/8	1-1/4	3-1/16	4	608-1x1	1	4	6-1/2	4
608-5/16x3/8	3/8	1-3/8	3-1/8	4	608-1-1/8x1	1	4	6-1/2	6
608-3/8x3/8	3/8	1-1/2	3-1/4	4	608-1-1/4x1	1	4	6-1/2	6
608-7/16x1/2	1/2	1-3/4	3-3/4	4	608-1-1/4x1-1/4	1-1/4	4	6-1/2	6
608-1/2x1/2	1/2	2	4	4	608-1-1/2x1	1	4	6-1/2	6
608-5/8x5/8	5/8	2-1/2	4-5/8	4	608-1-1/2x1-1/4	1-1/4	4	6-1/2	6
608-3/4x3/4	3/4	3	5-1/4	4	608-1-3/4x1-1/4	1-1/4	4	6-1/2	6
608-7/8x7/8	7/8	3-1/2	5-3/4	4	608-2x1-1/4	1-1/4	4	6-1/2	8



## Extra Long End Mills List No. 620

Single End / Multi Flute / HSS / Extra Long / Non-Center Cut



**Description:** For deep milling and face milling applications. Series 620 end mills have a length of cut three to four times that of a standard end mill.

Application: Profile & slotting of copper alloys, cast irons, alloy steels & tool steel. Good for finishing in all materials.

EDP No. / Diameter	Shank Diameter	Flute Length	Overall Length	No. of Flutes	EDP No. / Diameter	Shank Diameter	Flute Length	Overall Length	No. of Flutes
620-1/4x3/8	3/8	1-3/4	3-9/16	4	620-3/4x3/4	3/4	4	6-1/4	4
620-5/16x3/8	3/8	2	3-3/4	4	620-7/8x7/8	7/8	5	7-1/4	4
620-3/8x3/8	3/8	2-1/2	4-1/4	4	620-1x1	1	6	8-1/2	4
620-1/2x1/2	1/2	3	5	4	620-1-1/4x1-1/4	1-1/4	6	8-1/2	6
620-5/8x5/8	5/8	4	6-1/8	4	620-1-1/2x1-1/4	1-1/4	8	10-1/2	6