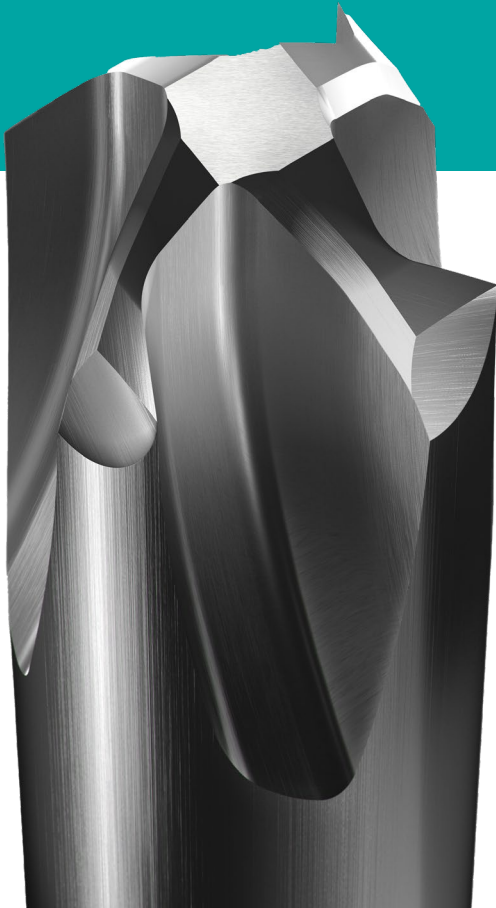


# XEBEC Burrless Chamfering Cutter™

World's first V-shaped tool makes a finished chamfer in a single pass



## ■ Extended tool life

2 to 10 times the tool life of conventional straight edge chamfering tools.

## ■ High feed rates

Multi-blade design enables higher feed rates for faster cutting and shorter cycle times.

## ■ Variety of materials

Burr-free chamfering with steel, stainless steel, cast iron, heat-resistant alloys, non-ferrous metals, plastics, composite materials, and wood.

## ■ Improved positional accuracy

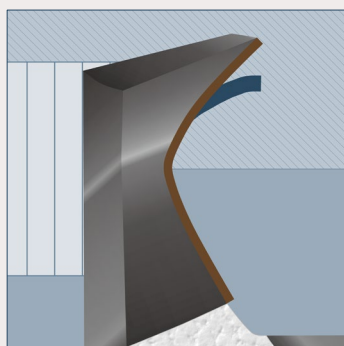
Flat tool tip prevents rounding and chipping, reducing tool length measurement errors and improving positional accuracy.

## Breaking the chip without burring

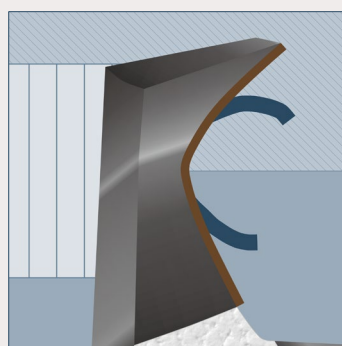
Straight-edged chamfering and deburring tools leave small secondary burrs on the top and bottom edges of the chamfer. This is due to material flowing to the outer edge of the chamfer when the chip is broken.

The Burrless Chamfering Cutter directs material from the top and bottom edges to the center of the chamfer area. The V-shaped blade cuts the top and bottom edges first, before cutting through the center to break the chip.

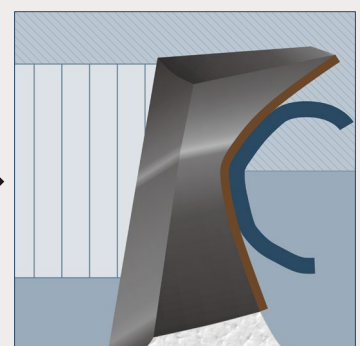
1. Cut top edge



2. Cut bottom edge



3. Cut through center



## Coated and non-coated types

A heat-resistant AlTiCrN coating is used for hard materials, including superalloys. An extremely sharp, uncoated version is used for non-ferrous metals, plastics, and composite materials.

Length (mm)	Shank dia. (mm)	Depth of cut (max., mm)	Chamfer angle	Blades	Chamfer size
50	φ6	1	45 deg.	3	C0.3 - C0.6
60	φ6	2	45 deg.	4	C0.7 - C1.5



## Initial machining parameters

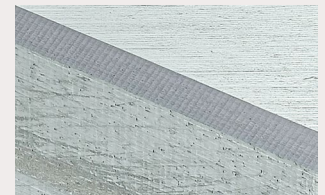
Length (mm)	Type	Material	Cutting speed (m/min)	Rotational speed (min-1)	Feed rate (mm/min)	Feed per tooth (mm/t)
50	Coated	Steel	60 - 100	12,000	1,800	0.05
		Stainless steel	40 - 80	9,000	1,350	0.05
		64 titanium	45 - 60	8,000	1,200	0.05
		Inconel	20 - 30	4,000	600	0.05
	Uncoated	Aluminum alloy	200 - 300	40,000	6,000	0.05
		Plastic	60 - 100	12,000	1,800	0.05
60	Coated	Steel	60 - 100	6,300	1,260	0.05
		Stainless steel	40 - 80	4,800	960	0.05
		64 titanium	45 - 60	4,000	800	0.05
		Inconel	20 - 30	2,000	400	0.05
	Uncoated	Aluminum alloy	200 - 300	20,000	4,000	0.05
		Plastic	60 - 100	6,300	1,760	0.07

## Machining examples

### Aluminum



Fine burrs after face milling

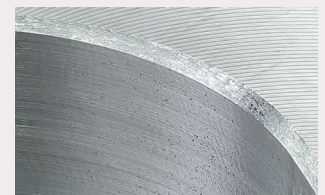


Finished chamfer (single pass)

### Stainless Steel



Large burrs after face milling



Finished chamfer (single pass)