

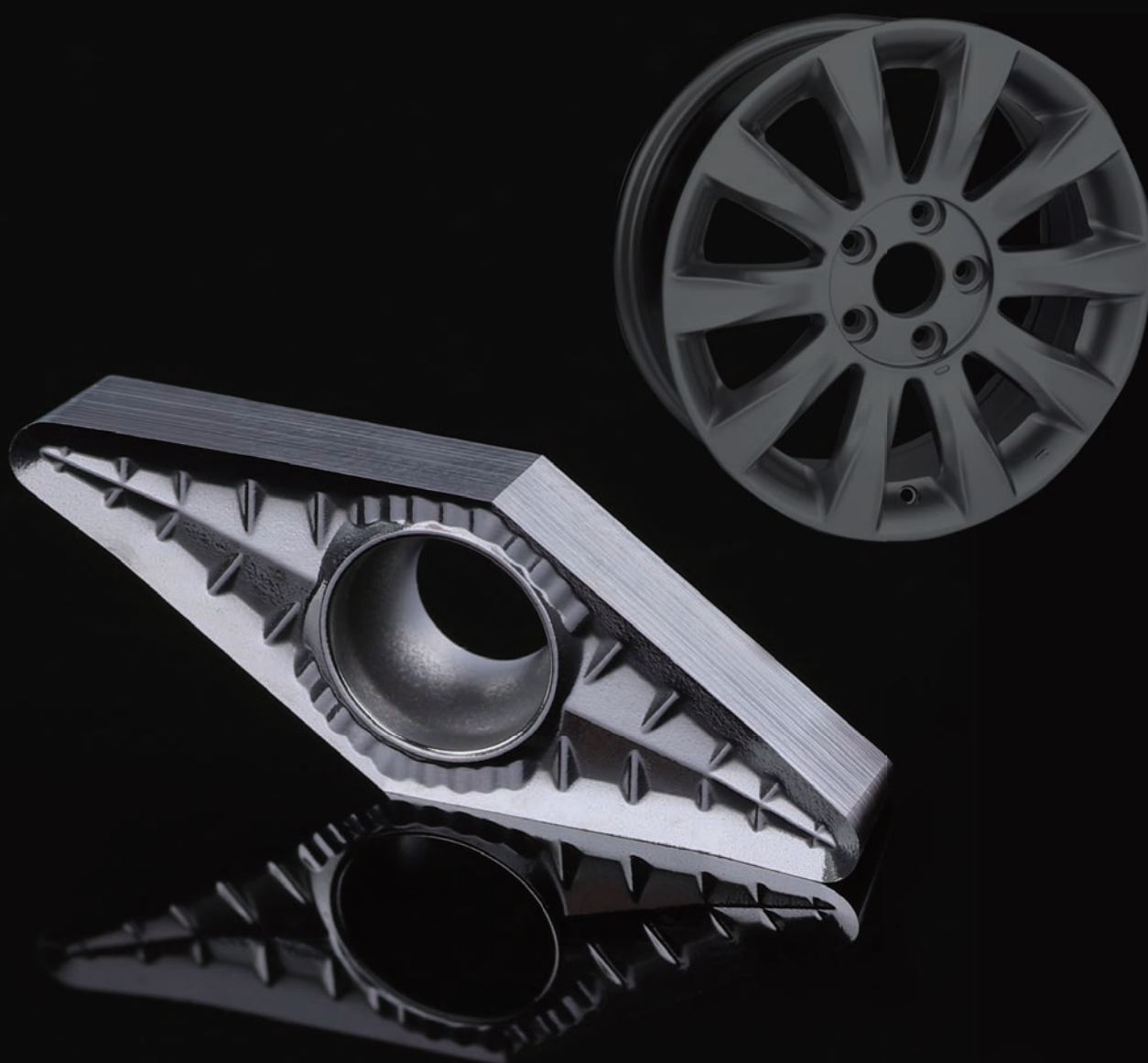
EAS4CUT

December 2024

EV211A

**NEW
PRODUCT!**

Uncoated turning grade for non-ferrous materials



EASycut is launching a new uncoated turning grade with a new geometry. The new FE3 geometry is for positive inserts with optimized chip breaker design for non-ferrous materials. The big positive rake angle can reduce the built up edge in machining aluminum materials and it can also reduce the cutting force.

In addition, the insert top surface is polished which can improve the chip control and evacuation, and further reduce the built up edge.

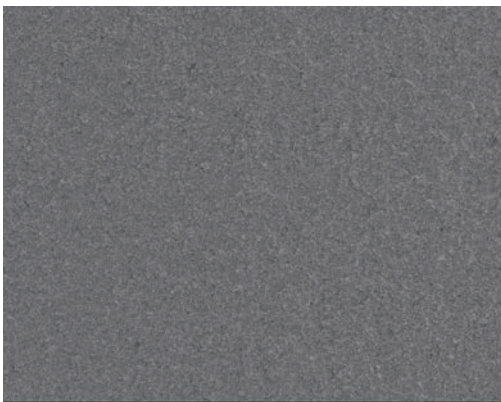
The sharp insert cutting edge is suitable for small depth of cut.

The new uncoated turning grade EV211A has a substrate with high hardness, excellent wear resistance and anti-adhesion.

This grade combined with FE3 geometry can get longer tool life, improve surface finish and minimize the burrs during non-ferrous material machining. It's the ideal choice for aluminum alloy machining.

EV211A grade feature

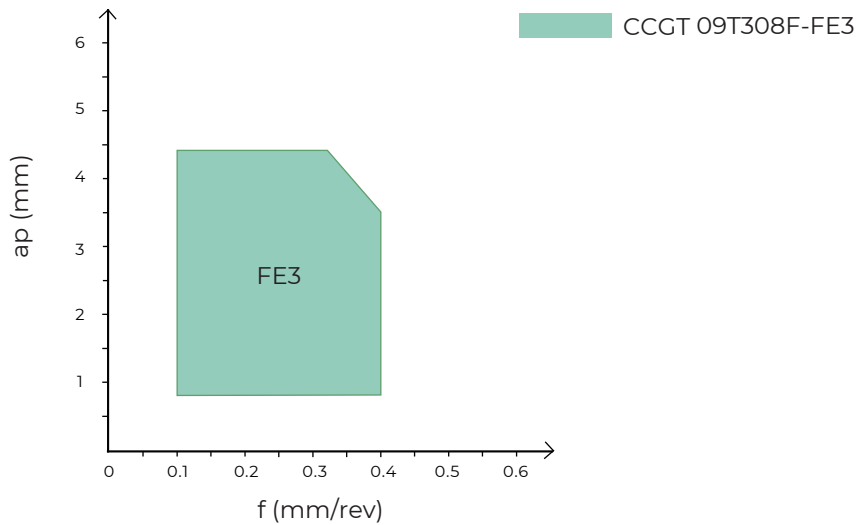
Uncoated grade
ISO range: N05-N15



<micro structure>

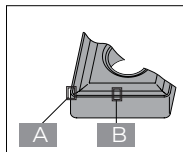
- High hardness and good toughness combined uncoated grade
- General turning of non-ferrous materials such as aluminum and copper alloy
- Excellent wear resistance
- For aluminum high speed turning

Geometry application range



Chip breaker Features

Positive insert



Chip breaker	Edge Shape		Application
FE3			• Big positive rake angle reduces the cutting force and ensures good chip control and evacuation during machining with big cutting depth. • Polished surface can minimize built up edge and get better surface finish.
			• Positive insert. • For finishing to semi-finishing machining. • First choice for aluminum machining.

Recommended cutting speed for different materials

Material	Silicon content	Cutting speed (Vc: m/min)
Aluminum and aluminum alloys	<6%	200~950
Die-casting aluminum with Silicon	>6%	100~500

The recommended cutting speed is for normal cutting conditions. The actual cutting speed could be adjusted based on the actual machining conditions, including rigidity of the machine, fixture, coolant and etc.

Case stories

Component: Wheel

Material: Aluminum alloy (A3567)

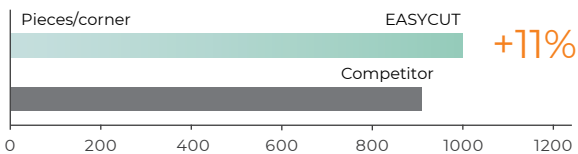
Insert: VCGT 160412F-FE3 EV211A

Competitor: VCGT 160412

Cutting Parameters: Vc = 600 m/min, f = 0.25 mm/r, ap = 0.8 mm

Wet cutting

Operations: external turning, face turning



Component: Conductor part

Material: Aluminum alloy

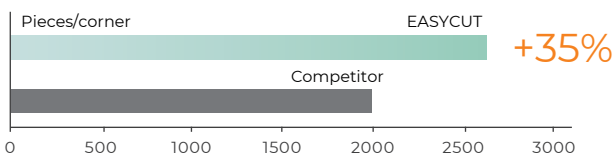
Insert: CCGT 09T304F-FE3 EV211A

Competitor: CCGX 09T304

Cutting Parameters: Vc = 122 m/min, f = 0.25 mm/r, ap = 0.5 mm

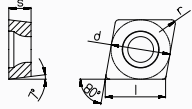
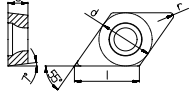
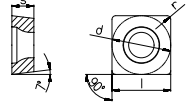
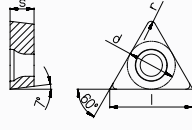
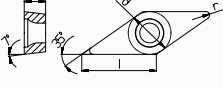
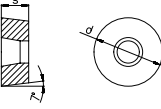
Wet cutting

Operation: external turning



Inserts

Positive insert

Insert	Product code	Recommended cutting parameters		Dimension(mm)				Uncoated	Geometry
		Feed (mm/rev)	ap (mm)	d	l	s	r	EV211A	
	CCGT 060204F-FE3	0.05-0.20	0.32-2.9	6.35	6.45	2.38	0.4	●	
	09T302F-FE3	0.02-0.10	0.16-4.4	9.525	9.67	3.97	0.2	●	
	09T304F-FE3	0.05-0.20	0.32-4.4	9.525	9.67	3.97	0.4	●	
	09T308F-FE3	0.10-0.40	0.64-4.4	9.525	9.67	3.97	0.8	●	
	120404F-FE3	0.05-0.20	0.32-5.8	12.7	12.9	4.76	0.4	●	
	120408F-FE3	0.10-0.40	0.64-5.8	12.7	12.9	4.76	0.8	●	
	DCGT 070202F-FE3	0.02-0.10	0.16-3.5	6.35	7.75	2.38	0.2	●	
	070204F-FE3	0.05-0.20	0.32-3.5	6.35	7.75	2.38	0.4	●	
	11T302F-FE3	0.02-0.10	0.16-5.2	9.525	11.62	3.97	0.2	●	
	11T304F-FE3	0.05-0.20	0.32-5.2	9.525	11.62	3.97	0.4	●	
	11T308F-FE3	0.10-0.40	0.64-5.2	9.525	11.62	3.97	0.8	●	
	SCGT 09T308F-FE3	0.10-0.40	0.64-4.3	9.525	9.525	3.97	0.8	●	
	TCGT 110204F-FE3	0.05-0.20	0.32-5.0	6.35	11.0	2.38	0.4	●	
	16T304F-FE3	0.05-0.20	0.32-7.4	9.525	16.5	3.97	0.4	●	
	16T308F-FE3	0.10-0.40	0.64-7.4	9.525	16.5	3.97	0.8	●	
	VCGT 110302F-FE3	0.02-0.10	0.16-2.8	6.35	11.07	3.18	0.2	●	
	110304F-FE3	0.05-0.20	0.32-2.8	6.35	11.07	3.18	0.4	●	
	160404F-FE3	0.05-0.20	0.32-4.2	9.525	16.61	4.76	0.4	●	
	160408F-FE3	0.10-0.40	0.64-4.2	9.525	16.61	4.76	0.8	●	
	160412F-FE3	0.14-0.60	0.96-4.2	9.525	16.61	4.76	1.2	●	
	220530F-FE3	0.36-1.50	2.40-5.5	12.7	22.1	5.56	3.0	●	
	RCGT 0803MOF-FE3	0.10-1.00	0.70-3.3	8.0	-	3.18	4.0	○	
	1003MOF-FE3	0.20-1.30	0.90-4.0	10.0	-	3.18	5.0	○	
	10T3MOF-FE3	0.20-1.30	0.90-4.0	10.0	-	3.97	5.0	○	

● Stocked ○ Non-stocked