

NEW PRODUCT NEWS

T-CLAMP
ULTRA



New Specialized Chip Breaker Line for Specific Materials Launched



KEY POINT

TaeguTec has introduced a new T-CLAMP chip breaker product line focused on specific workpiece materials.

Two new chip breaker types: **TDUF** and **TDV** inserts

The **TDUF** chip breaker's unique shape is specifically designed for the machining of chrome-nickel alloy steel, low carbon steel and offers exceptional performance when machining bearing steel. Performance wise, the new insert demonstrates excellent chip control in low feed cutting conditions during machining.

For excellent performance in both stainless steel and mild steel machining, the **TDV** insert is especially suited because of its sharp cutting edges and wide chip grooves which generates a low cutting load during operations. The result is excellent chip segmenting, which prevents the occurrence of built-up-edges. As such, the **TDV** chip breaker is the perfect solution for small diameter workpieces, as well as tubes, because of superior chip control under low feed cutting conditions resulting in excellent tool life. The **TDV** line has one further advantage, it also generates a precision flat bottom surface in grooving applications.

TDUF Insert Features

- Suitable for the machining of chrome-nickel alloy steel and low carbon steel
- Exceptional performance in bearing steel machining
- Specialized for low feed cutting conditions
- Excellent chip control

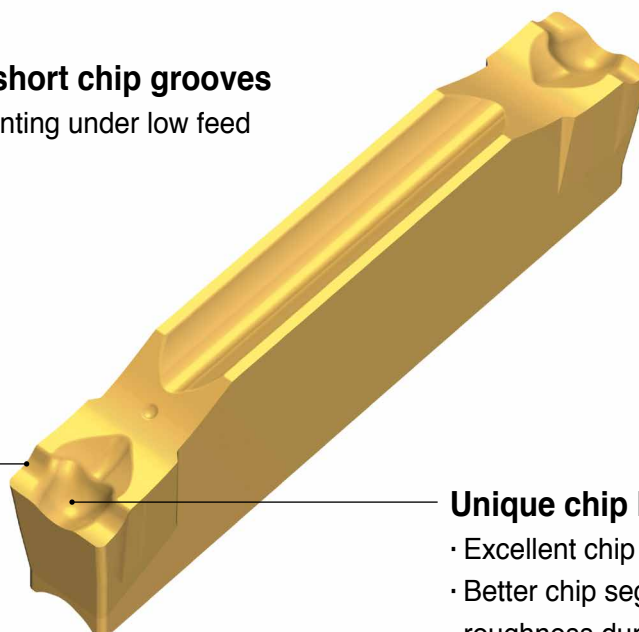
TDV Insert Features

- Sharp cutting edges and a wide chip groove that generates low cutting load during operations
- Superior chip segmenting power, which reduces built-up-edges
- Excellent performance in stainless steel and mild steel machining
- Optimally designed for small size workpieces, and tubes, in low feed cutting conditions
- Capable of precision flat surfaces during grooving

TDUF Insert

Sharp edges and short chip grooves

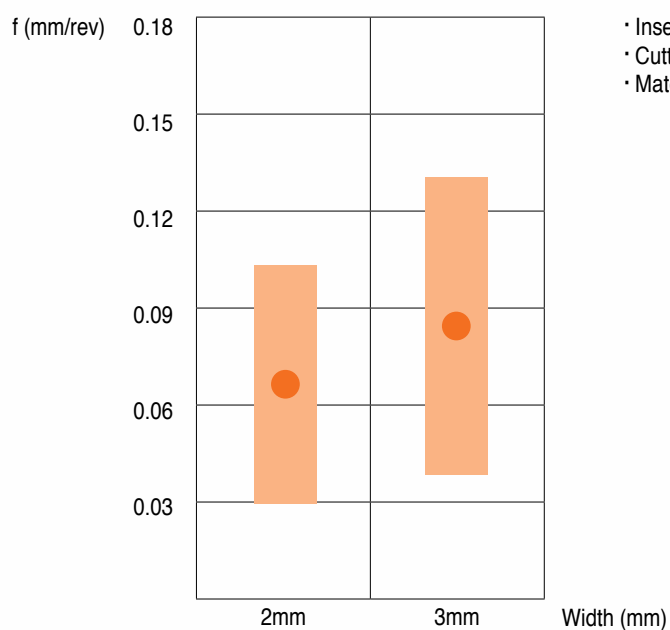
- Superior chip segmenting under low feed cutting conditions



Unique chip breaker shape

- Excellent chip control
- Better chip segmenting and good surface roughness during grooving







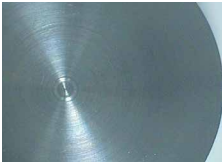
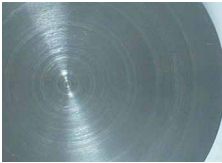
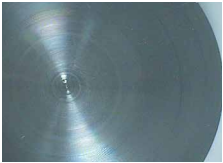
TDUF Insert Recommended Feed Range



- Insert: TDUF
- Cutting speed (V): 120 m/min
- Material: DIN 1.3505 (HB 150 ~ 180)










TDUF chip segmenting and surface roughness comparison test 1

Bearing steel (DIN 1.3505), cutting speed=120 m/min

	TDUF 2		Competitor A		Competitor B	
feed (mm/rev)	0.03	0.05	0.03	0.05	0.03	0.05
Chip						
Surface	feed=0.03(mm/rev) 		feed=0.03(mm/rev) 		feed=0.03(mm/rev) 	

TDUF chip segmenting comparison test 2

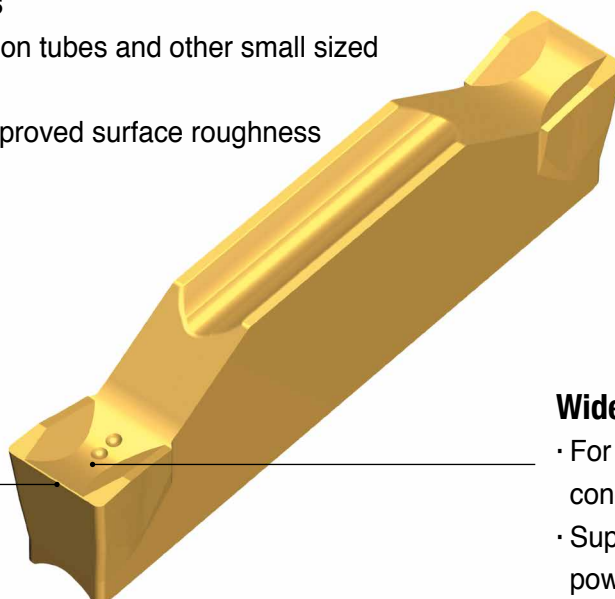
Low carbon steel (AISI 1020), cutting speed=150 m/min

	TDUF 2			Competitor A			Competitor B		
feed (mm/rev)	0.03	0.05	0.08	0.03	0.05	0.08	0.03	0.05	0.08
Chip									

TDV Insert

Sharp cutting edges

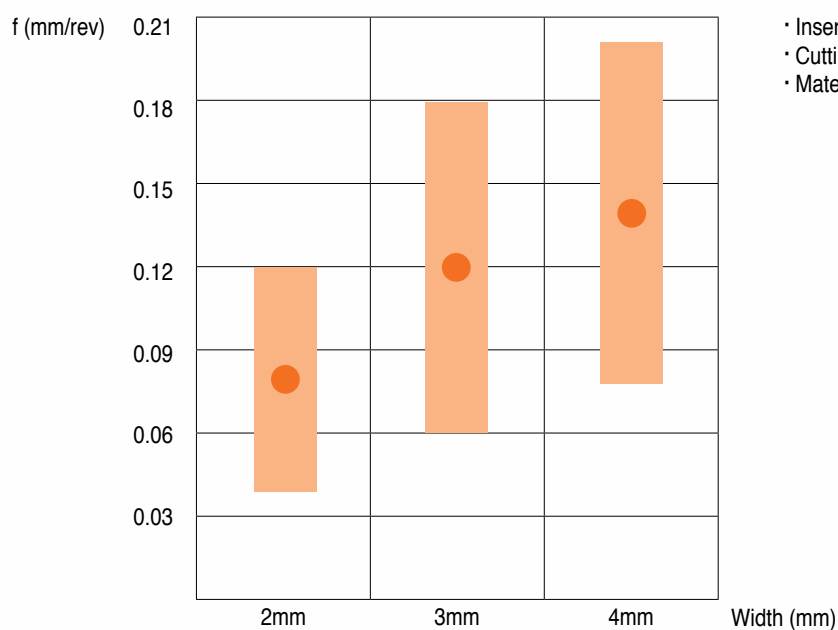
- Low cutting resistance on tubes and other small sized components
- Minimal burring and improved surface roughness



Wide chip groove

- For medium-low feed cutting conditions
- Superior chip segmenting power

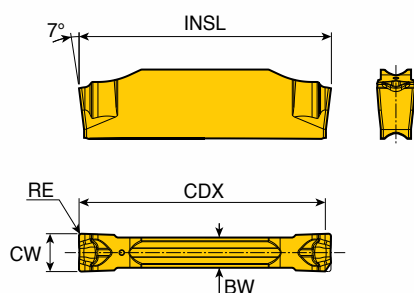
TDV Insert Recommended Feed Range




- Insert: TDV
- Cutting speed (V): 100 m/min
- Material: AISI 304 (HB 150 ~ 180)

TDUF

Double ended inserts for parting and grooving with UF type chip breaker



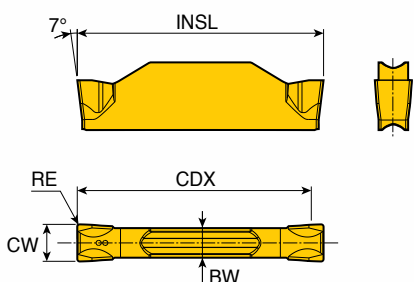
Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
2	2	0.2	1.5	20	19
3	3	0.2	2.4	20	19

Insert	Designation	Insert seat size	Feed (mm/rev)	Coated	
				TT9080	
	TDUF 2	2	0.03-0.11	●	
	3	3	0.04-0.13	●	


●: Standard item

TDV

Double ended inserts for parting and grooving with V type chip breaker



Size	Dimension (mm)				
	CW	RE	BW	INSL	CDX
2	2	0.2	1.7	20	19
3	3	0.2	2.4	20	19
4	4	0.3	3.0	20	19

Insert	Designation	Insert seat size	Feed (mm/rev)	Coated	
				TT9080	TT8020
	TDV 2	2	0.04-0.12	●	●
	3	3	0.06-0.18	●	●
	4	4	0.08-0.20	●	●

●: Standard item