



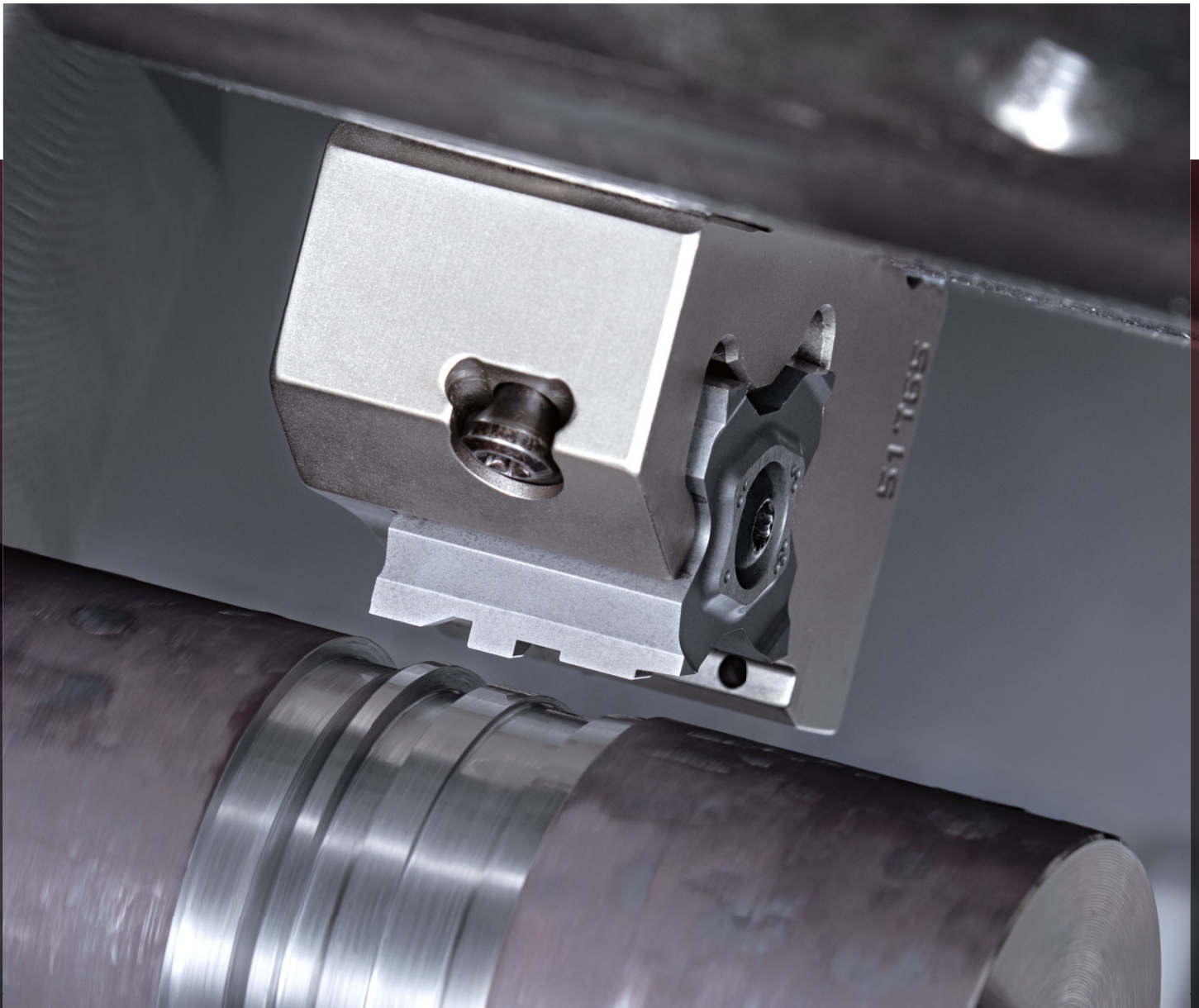
For more information

High precision grooving tool

TETRA^{ORCE}**FCUT**

Tungaloy Report No. 416S5-US

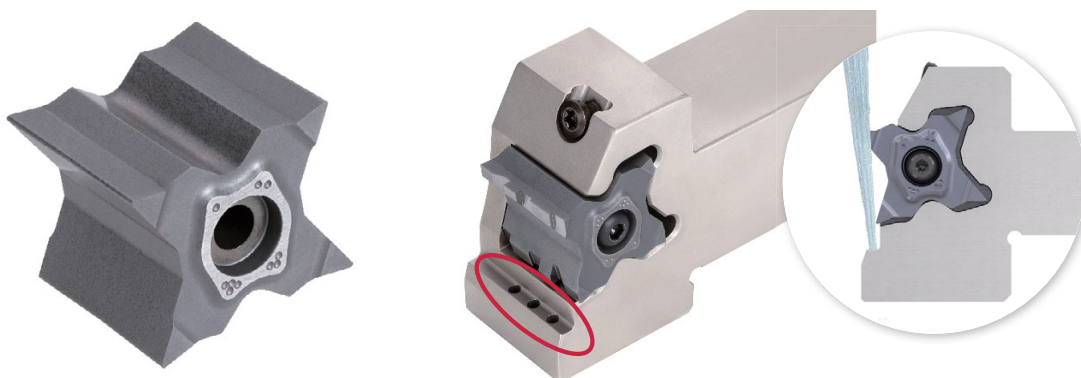
Wide cutting-edge inserts and dedicated toolholders for profile grooves



■ Economical custom profile grooving tools with four wide cutting edges

Multiple production steps, conventionally required to form a complex profile, can be combined into a single process, enabling reduced cycle time and minimized downtime.

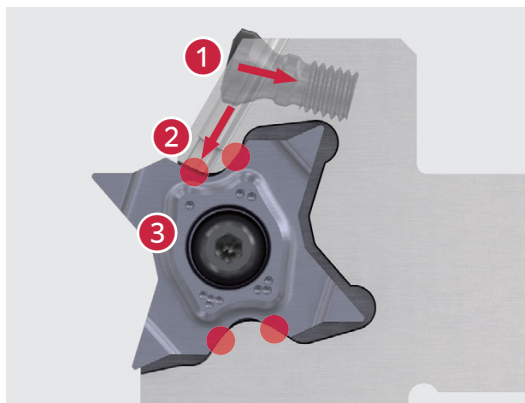
- Insert blanks in 3 different grooving widths: 10 (0.413"), 15 (0.610") and 20 mm (0.807") for TetraForce-Cut 27 type
- Custom shaped inserts can be requested based on customers part drawing specifications
- Smart clamping holder design for stable and robust mounting of wide grooving inserts
- High-pressure internal coolant toolholder: 20x20 mm (0.750"), 25x25 mm (1.000")



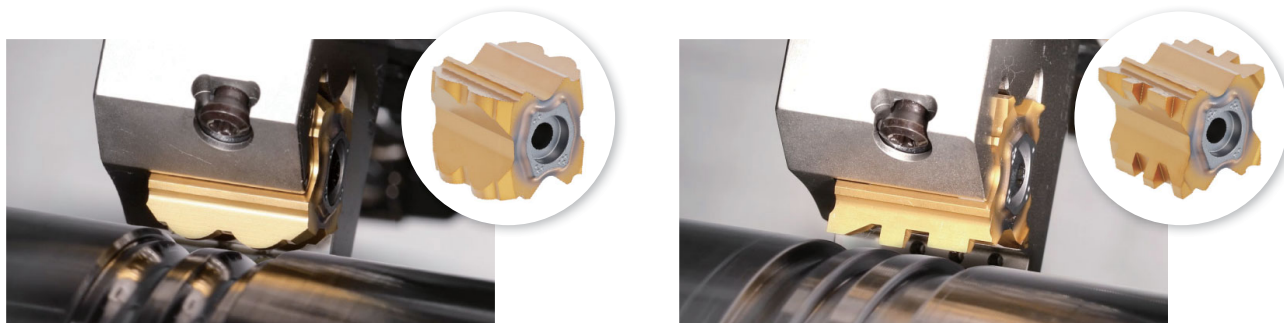
Blank for wide profile grooving

■ Smart insert clamping

- 1 The screw pushes the pin downward as tightened
- 2 The pin descends so that it pushes down the insert
- 3 Securely fix the insert in place by providing support at four points within the pocket, effectively preventing the screw from loosening due to cutting forces during machining



■ Reference for custom profile grooving inserts with wide cutting edges

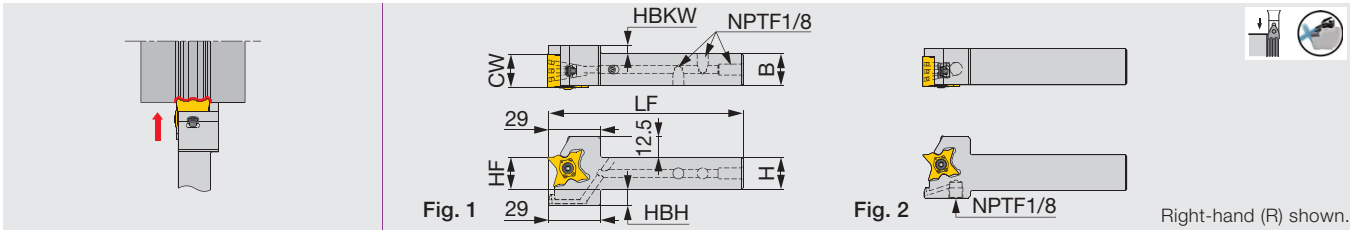


TOOLHOLDER

STCR/L-27W-CHP

Tube connection

External profile grooving toolholder, with high pressure coolant capability



Inch	CW	H	B	LF	HF	HBH	HBKW	Insert	Torque	Fig.
STCR/L12-27W10-CHP	0.413	0.750	0.750	5.000	0.750	0.512	-	TCGB27W10	1.62	1
STCR/L12-27W15-CHP	0.610	0.750	0.750	5.000	0.750	0.512	-	TCGB27W15	1.62	1
STCR/L12-27W20-CHP	0.807	0.750	0.750	5.000	0.750	0.512	0.197	TCGB27W20	1.62	1
STCR/L16-27W10-CHP	0.413	1.000	1.000	5.500	1.000	0.315	-	TCGB27W10	1.62	2
STCR/L16-27W15-CHP	0.610	1.000	1.000	5.500	1.000	0.315	-	TCGB27W15	1.62	2
STCR/L16-27W20-CHP	0.807	1.000	1.000	5.500	1.000	0.315	-	TCGB27W20	1.62	2

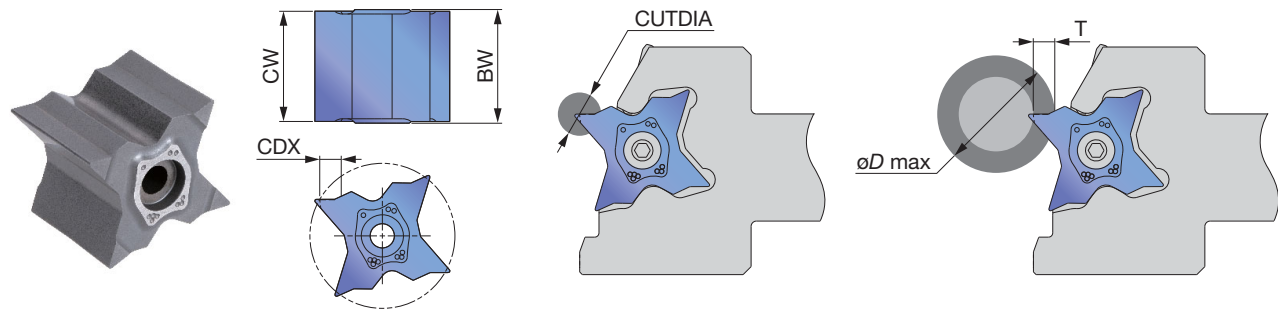
Torque: Recommended clamping torque (lbs-ft)

SPARE PARTS

Designation	Clamping pin	Pin screw	Wrench 1	Clamping screw	Wrench 2	Coolant plug	Wrench 3
STCR/L12-27W10-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X16-D7	P-2.5	PLUGG1/8-6.5TL360	P-5
STCR/L12-27W15-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X20-D7	P-2.5	PLUGG1/8-6.5TL360	P-5
STCR/L12-27W20-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X23-D7	P-2.5	PLUGG1/8-6.5TL360	P-5
STCR/L16-27W10-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X16-D7	P-2.5	-	-
STCR/L16-27W15-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X20-D7	P-2.5	-	-
STCR/L16-27W20-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X23-D7	P-2.5	-	-

INSERT

TCGB27W (Blank for wide profile grooving)



P	Steel	★		
M	Stainless	★		
K	Cast iron	★		
N	Non-ferrous	★		
S	Superalloys			
H	Hard materials			

★ : First choice

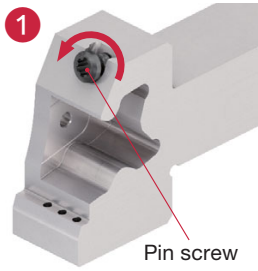
Designation	CW±0.1 (mm)	CW±0.1 (in)	BW (in)	Uncoated		Relation of groove depth (T) and Max. diameter (øD max) (in)										
				TH10	CDX (in)	CUTDIA (in)	T≤0.118	T≤0.138	T≤0.157	T≤0.177	T≤0.197	T≤0.217	T≤0.224	T≤0.236	T≤0.244	T≤0.252
							●	●	●	●	●	●	●	●	●	●
TCGB27W10	10.5	0.413	0.437	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCGB27W15	15.5	0.610	0.634	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165
TCGB27W20	20.5	0.807	0.831	●	0.252	0.504	∞	23.622	11.024	7.087	5.315	4.134	3.740	3.346	3.071	2.165

These are blanks (semi-finished products) for wide profile grooving inserts that can be tailored.

1 piece per package

● : Line up

How to mount the insert



1
Pin screw
Loosen the pin screw by rotating it two full turns counterclockwise.



2
Mount the insert in the holder.



3
Tighten the pin screw by rotating it clockwise.



4
Clamping screw
Install the insert clamping screw and rotate clockwise to tighten.



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