

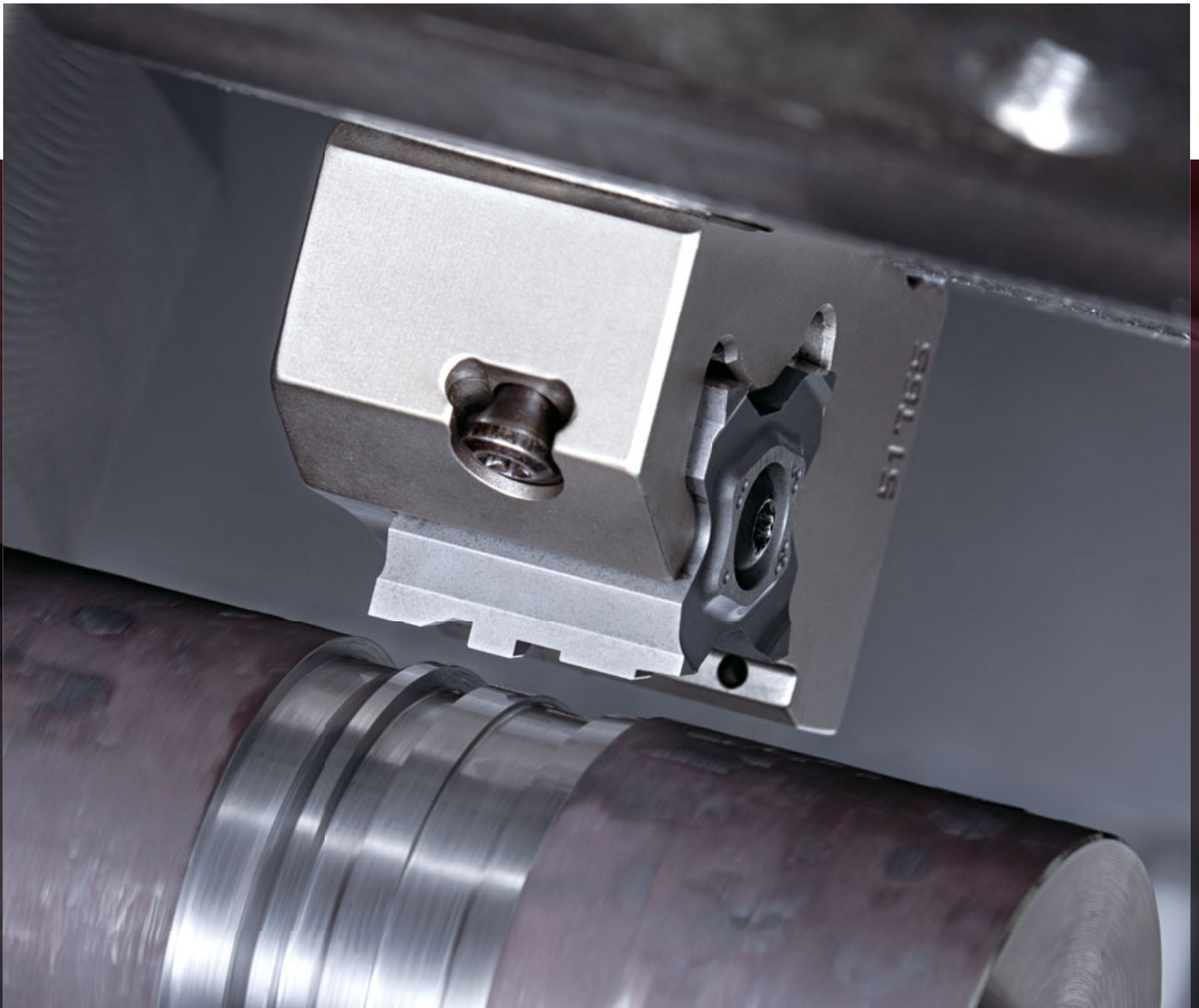


High precision grooving tool

**TETRA**<sup>ORCE</sup>**FCUT**

Tungaloy Report No. 416S5-G

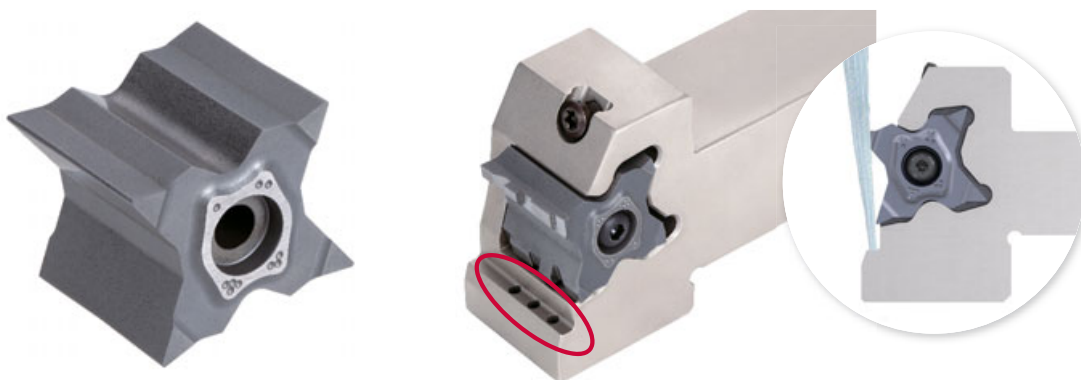
## Wide cutting-edge inserts and dedicated toolholders for profile grooves



## ■ 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.

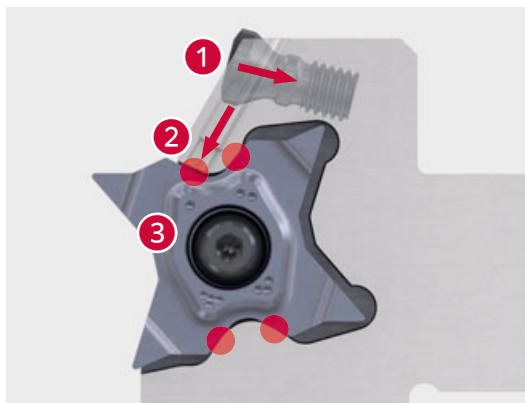
- Insert blanks in 3 different grooving widths: 10, 15 and 20 mm for TetraForce-Cut 27 type
- Custom shaped inserts can be requested based on customers part drawing specifications
- Smart clamping holder design for stable and robust mounting of wide grooving inserts
- High-pressure internal coolant toolholder: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



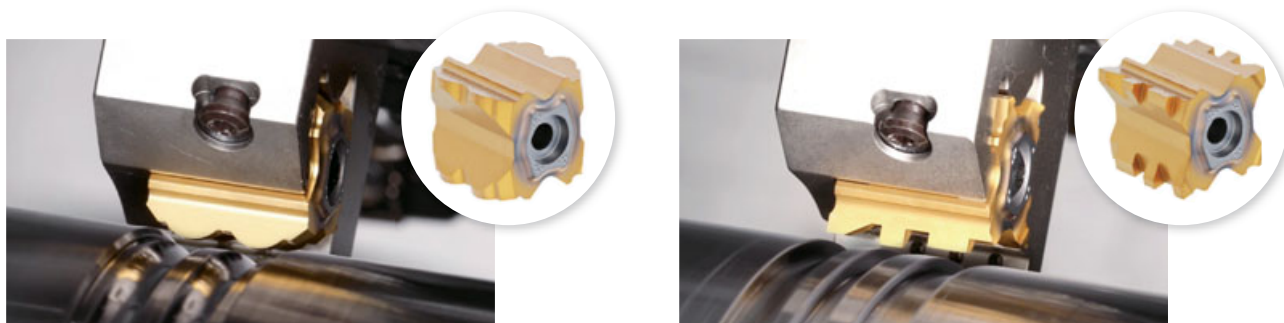
Blank for wide profile grooving

## ■ 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

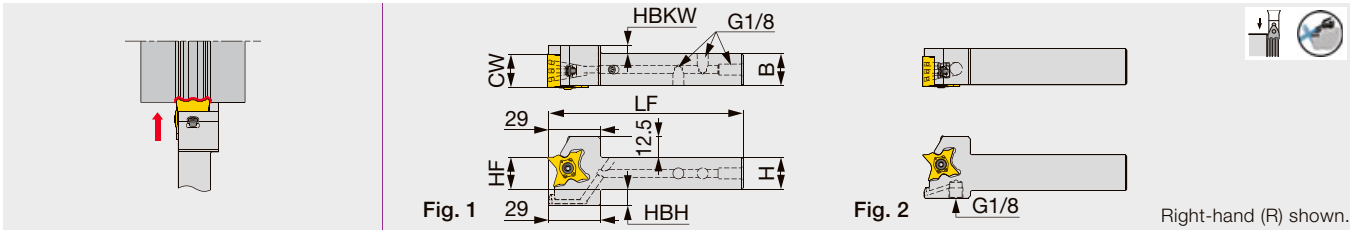


# TOOLHOLDER

## STCR/L-27W-CHP

Tube connection

External profile grooving toolholder, with high pressure coolant capability



Designation	CW	H	B	LF	HF	HBH	HBKW	Insert	Torque*	Fig.
STCR/L2020-27W10-CHP	10.5	20	20	120	20	13	-	TCGB27W10	2.2	1
STCR/L2020-27W15-CHP	15.5	20	20	120	20	13	-	TCGB27W15	2.2	1
STCR/L2020-27W20-CHP	20.5	20	20	120	20	13	5	TCGB27W20	2.2	1
STCR/L2525-27W10-CHP	10.5	25	25	135	25	8	-	TCGB27W10	2.2	2
STCR/L2525-27W15-CHP	15.5	25	25	135	25	8	-	TCGB27W15	2.2	2
STCR/L2525-27W20-CHP	20.5	25	25	135	25	8	-	TCGB27W20	2.2	2

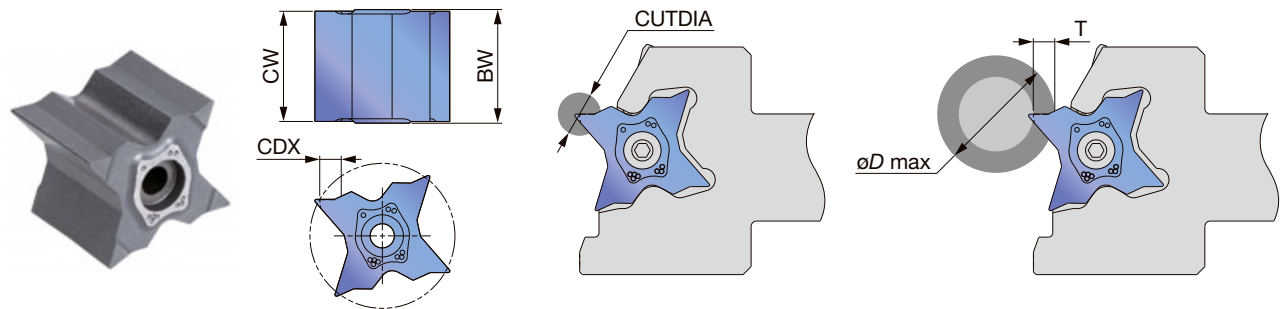
Torque\*: Recommended clamping torque (N·m)

### SPARE PARTS

Designation	Clamping pin	Pin screw	Wrench 1	Clamping screw	Wrench 2	Coolant plug	Wrench 3
STCR/L2020-27W10-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X16-D7	P-2.5	PLUGG1/8-6.5TL360	P-5
STCR/L2020-27W15-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X20-D7	P-2.5	PLUGG1/8-6.5TL360	P-5
STCR/L2020-27W20-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X23-D7	P-2.5	PLUGG1/8-6.5TL360	P-5
STCR/L2525-27W10-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X16-D7	P-2.5	-	-
STCR/L2525-27W15-CHP	PIN-TQ-W-T	TS40F120A	T-15F	BH M4X0.7X20-D7	P-2.5	-	-
STCR/L2525-27W20-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	BW	Uncoated		Relation of groove depth (T) and Max. diameter (øD max)											
			TH10	CDX	CUTDIA											
						T ≤ 3	T ≤ 3.5	T ≤ 4	T ≤ 4.5	T ≤ 5	T ≤ 5.5	T ≤ 5.7	T ≤ 6	T ≤ 6.2	T ≤ 6.4	
TCGB27W10	10.5	11.1	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55	
TCGB27W15	15.5	16.1	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55	
TCGB27W20	20.5	21.1	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55	

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

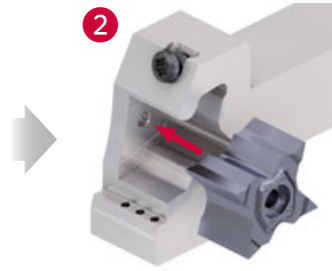
1 piece per package

● : Line up

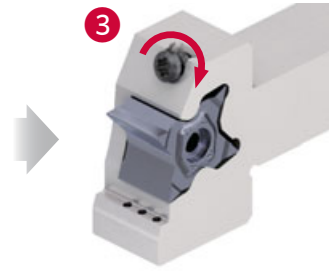
## How to mount the insert



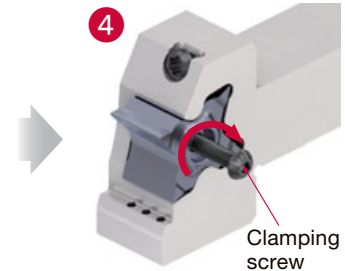
Loosen the pin screw by rotating it two full turns counterclockwise.



Mount the insert in the holder.



Tighten the pin screw by rotating it clockwise.



Install the insert clamping screw and rotate clockwise to tighten.



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