

NEW PRODUCT NEWS

mgt
MEGA TECH
METALWORK

Tungaloy Report No. 416-G

Grooving and parting-off tool

TETRAMINI CUT / TETRAFORCE CUT

**Introducing TCX - a new CBN insert with a 3D chipbreaker
Now available: 16-size CHP holder with TetraForce-Cut, Plus
new groove width and corner radius options with TetraMini-Cut**





TETRAMINI-CUT / TETRAFORCE-CUT



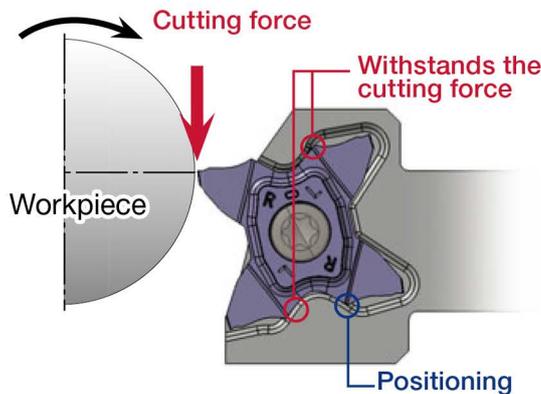
Leading grooving lines, **TetraMini-Cut** and **TetraForce-Cut** offer ground inserts with a robust clamping structure for exceptional stability and repeatability

TETRAMCUT / TETRAFCUT

Multi-purpose grooving insert with economical 4 cutting edges

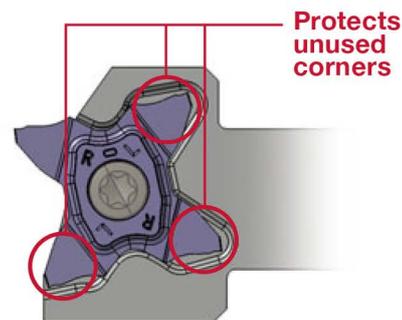
Unique 3-point clamping system

The unique pocket design provides accurate indexing repeatability of the cutting edge height.



The insert pocket protects all unused cutting edges

Strong and stable clamping design protects unused insert corners from damage during operation.



■ Provides increased productivity in external turning, parting, face grooving, thread turning, and custom profiling applications

External grooving / Parting-off

P13 -, P43 -



TETRAMCUT
TETRAFCUT

Groove width: 0.33 - 4 mm
Max grooving depth: - 10 mm

Face grooving

P25 -



TETRAMCUT

Groove width: 0.5 - 2.5 mm
Max grooving depth: - 3 mm
Minimum grooving diameter: ø6 mm

Threading

P36 -



TETRAMCUT

Partial profile
Thread angle: 55, 60°
Full profile
ISO, UN, UNJ, W

Wide profile grooving

P56 -



TETRAFCUT

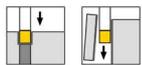
Max. width: - 20 mm
Max. depth: - 6.4 mm

TETRAMCUT 18

P7 -

- Available with 3D chipbreaker for excellent chip control
- 3 different types of chipbreakers each with dedicated edge preparation
- Full profile threading inserts are added. Thread pitch : 0.5 mm to 1.5 mm
- CBN insert is also available with 3D chipbreaker
- Through-coolant supply system (tool code suffix "-CHP") to ensure high efficient machining

External grooving /Parting-off



Groove width: 0.33 - 3 mm
Max grooving depth: - 3.5 mm



TCG18/TCP18/
TCP18-F

TCS18

TCL18

Face grooving



Groove width: 0.5 - 2.5 mm
Max grooving depth: - 3 mm
Minimum grooving diameter: ϕ 6 mm



TCF18

New

Threading



Partial profile

55° Thread angle: Pitch = 8 - 28TPI
60° Thread angle: Pitch = 0.4 - 3 mm

Full profile

ISO: Pitch = 0.5 - 1.5 mm
UN: Pitch = 16 - 32 TPI
UNJ: Pitch = 28 - 32 TPI
W: Pitch = 11 - 28 TPI



TCT18

Widening external grooves



Groove width: 1 - 3 mm
Max cutting depth: - 3.5 mm



1QP-TCX18

TETRAFORCE 27

P41 -

- Available with 3D chipbreaker for excellent chip control
- Through-coolant supply system (tool designation suffix "-CHP") to ensure high efficient machining

External grooving /Parting-off



Groove width: 0.5 - 3.18 mm
Max grooving depth: - 6.4 mm



TCL27

TCS27

TCM27

TCG27

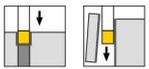
TETRAMCUT / TETRAFORCE

TETRAFORCE 38

P48, 54

- Unique insert clamping method provides high repeatability and stability for effective deep grooving and parting applications
- Light cutting geometry ensures consistent chip control for reduced chatter
- Efficient multi-edged insert solution for OD grooving and parting applications exceeding 6.4 mm in cutting depth
- Economical 4-edge insert
- Precision coolant delivery ensures effective chip removal during deep grooving

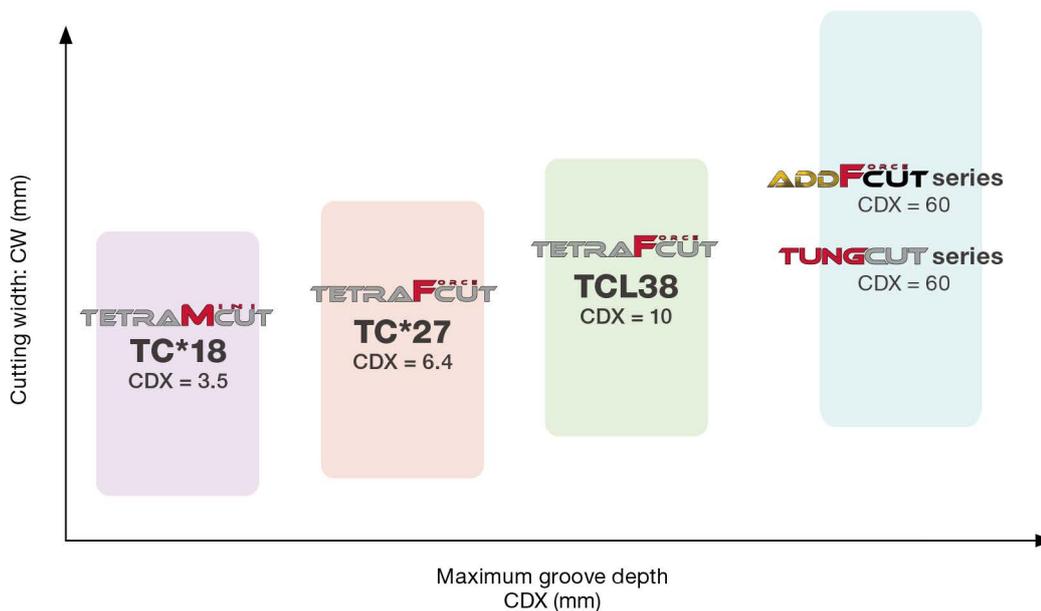
External grooving /Parting-off



Groove width: 1.5 - 4 mm
Max grooving depth: - 10 mm



TCL38



TETRAMCUT

Available with 3D chipbreaker for excellent chip control. An extensive lineup covers a broad range of grooving applications from small to general size parts

- An expanded range of tools allows for an easy selection of the ideal insert
- The same toolholder for both grooving and threading

Grooving

TCL18

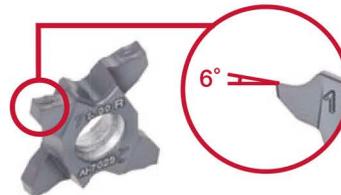
(With 3D chipbreaker for low cutting force)



- The chipbreaker incorporates a dimple-like recess on the rake face to facilitate smooth chip flow with light cutting action
- The chipbreaker ensures low cutting force, providing reliable chip flow at low feed rates

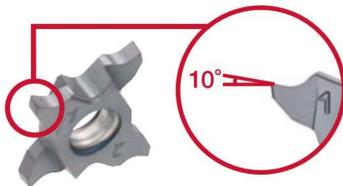
TCS18

(With 3D chipbreaker for general purpose)



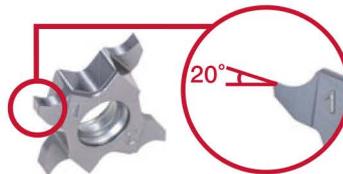
- The chipbreaker incorporates a dimple-like recess on the rake face to facilitate smooth chip flow with light cutting action

TCG18



- Optimized rake angle and edge preparation enhances fracture resistance, allowing for smooth cutting
- Available in Grade AH8005, AH7025, or AH6235

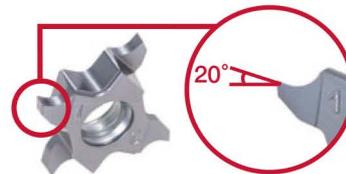
TCP18 (Lightly honed edge)



- A large rake angle ensures smooth cutting for excellent surface finish
- The insert in grade AH725 features a tough edge preparation for high resistance to fracture

New

TCP18-F (Sharp edge)



- High quality surface finish and precision thanks to the sharp cutting edge
- Achieves a quality level comparable to cermet
- An extremely hard coating layer on grade SH7025 provides sharp cutting edges, making it perfect for small part grooving
- Introducing groove width and corner radius

New

For hardened steel parts - widening external grooves

1QP-TCX18

(3D chipbreaker)



- Incorporates 3D chipbreaker for superior chip control
- Available from as small as CW = 1 mm, RE = 0.1 mm
- Single edged CBN insert

Face grooving

TCF18



- Sharp cutting edge and strong insert retention allow high surface quality
- DAXN from 6 mm

Threading

TCT18



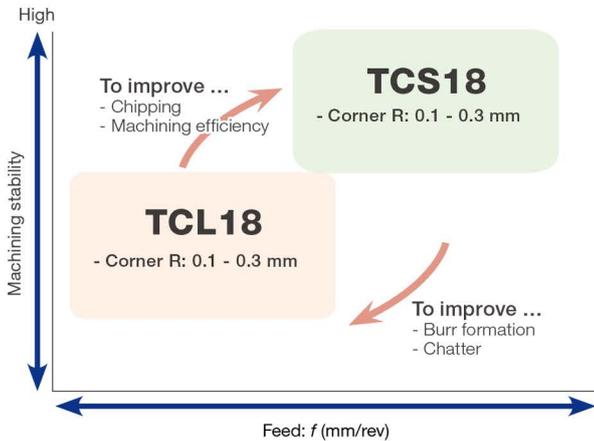
Full-profile insert

- Full profile inserts for burr-less threading are available
Pitch : 0.5 - 1.5 mm.
- Sharp cutting edge for reduced cutting load, improving thread surface quality
- Suitable for thread pitches ranging from 0.4 mm to 3 mm

TETRAMCUT

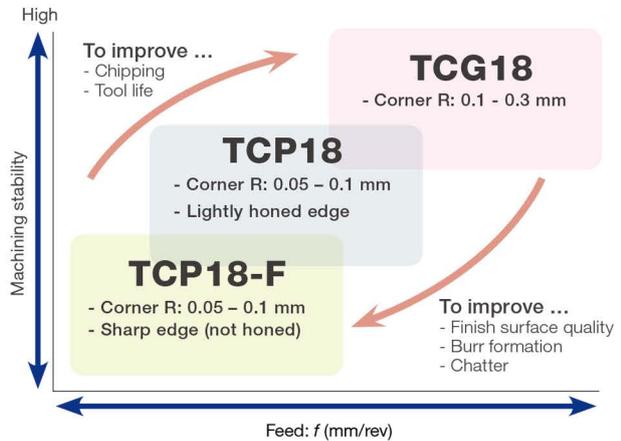
NEW SELECTION SYSTEM

3D chipbreakers



- 2 styles of 3D chipbreakers are available as standard for reliable chip control.
- TCS: general-purpose chipbreaker, TCL: for applications where low feed rate is essential

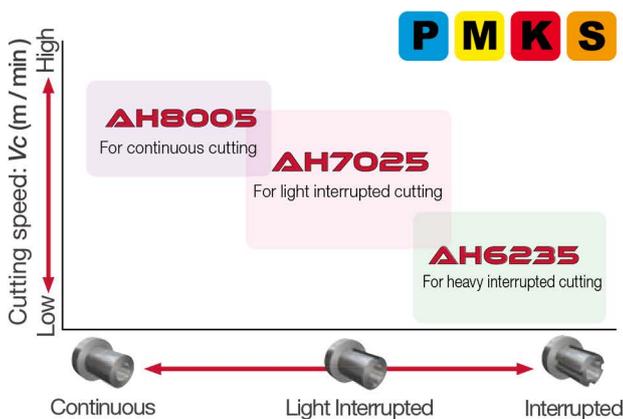
Ground-to-form chipbreakers



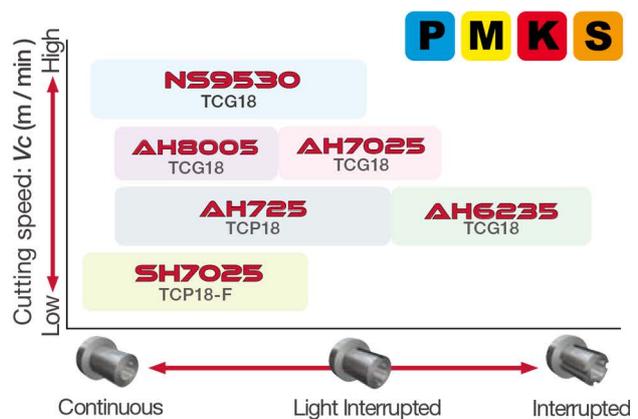
- Choose the best of all three insert types according to the machining requirements
- A variety of widths and corner radii are available in all three insert types

APPLICATION AREA

3D chipbreakers



Ground-in chipbreaker

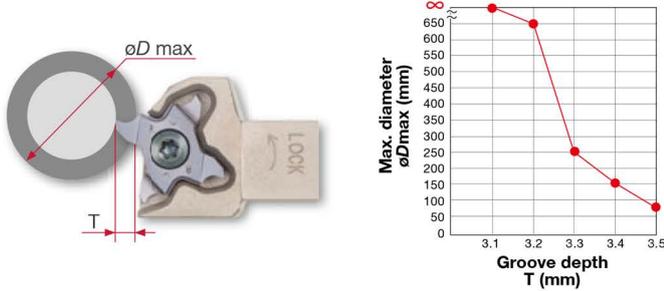


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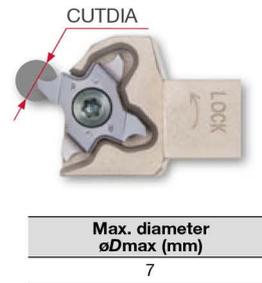
PRECISION GROOVING & THREADING

Grooving

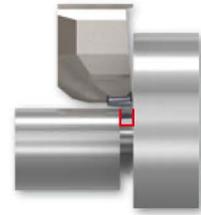
Groove depth capacity and Dmax. capacity



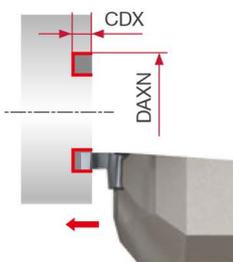
Dmax. parting-off



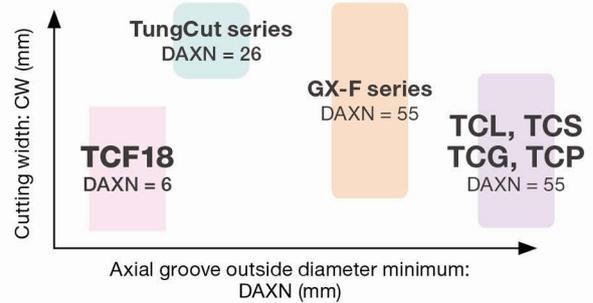
Machining next to shoulder



Minimum diameter for face grooving

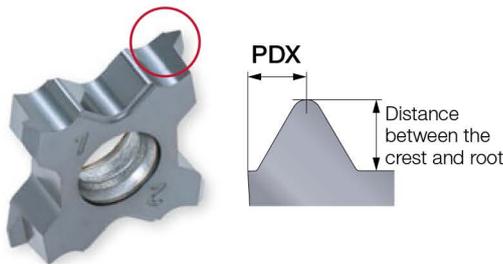


	Minimum face diameter DAXN (mm)	Maximum groove depth CDX (mm)
TCF	6	3
TCL, TCS, TCG, TCP	65	3

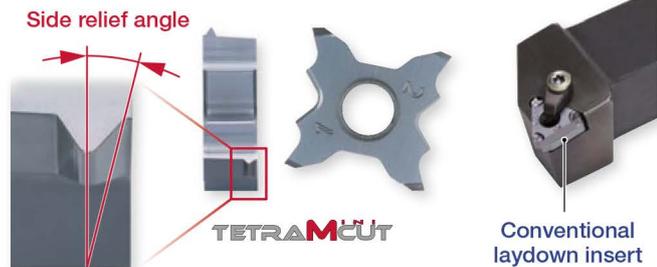


Threading

1 Excellent accessibility to the wall, minimize incomplete threads



2 The side relief angle eliminates the need for shim adjustment, unlike a 16ER laydown insert



Shim adjustment is required to accommodate an increase in lead angle

3 High accessibility to the center lathe

TETRAMCUT
M16x1



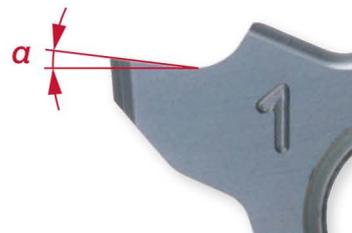
Insert: TCT18R-60N-020

Conventional
M24x1



Insert: 16ER10ISO

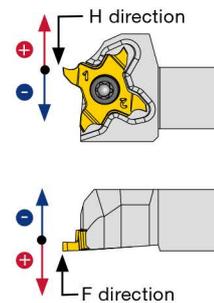
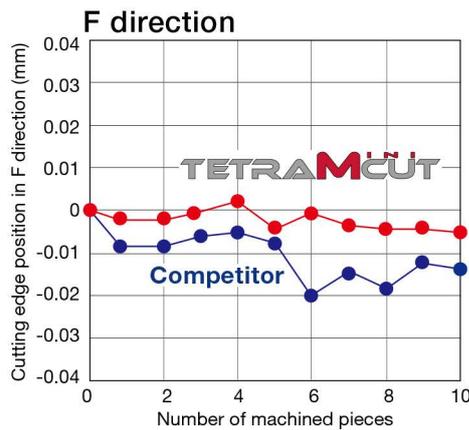
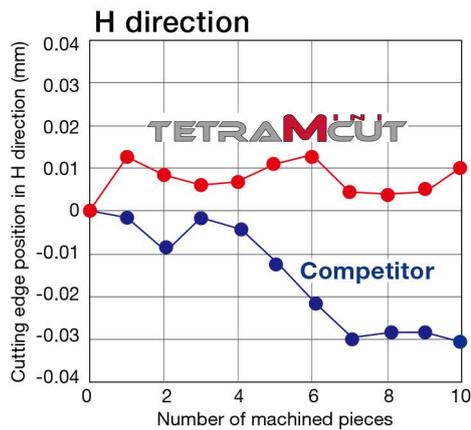
4 The insert features a positive rake angle on the tool holder, allowing light cutting and accurate threading operations



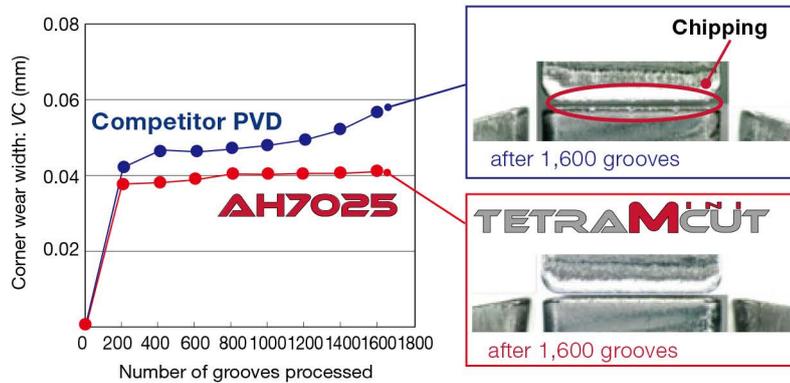
TETRAMCUT

CUTTING PERFORMANCE

■ Tool rigidity



■ Tool life



- P** Toolholder : STCR2525Z18
 Insert : TCG18R200-020 AH7025
 Workpiece material : SCM440 / 42CrMo4
 Cutting speed : $V_c = 180$ m/min
 Feed : $f = 0.07$ mm/rev
 Groove width : 2 mm
 Groove depth : 2.5 mm

■ Chip control

P 3D chipbreaker TCL18

Toolholder : STCR2525Z18
Insert : TCL18R200-020 AH7025
Workpiece material : SCM415

Cutting speed: Vc (m/min)	150				
		0.03	0.05	0.07	0.1
Feed: f (mm/rev)					



P 3D chipbreaker TCS18

Toolholder : STCR2525Z18
Insert : TCS18R200-020 AH7025
Workpiece material : SCM415

Cutting speed: Vc (m/min)	150				
		0.05	0.07	0.1	0.12
Feed: f (mm/rev)					



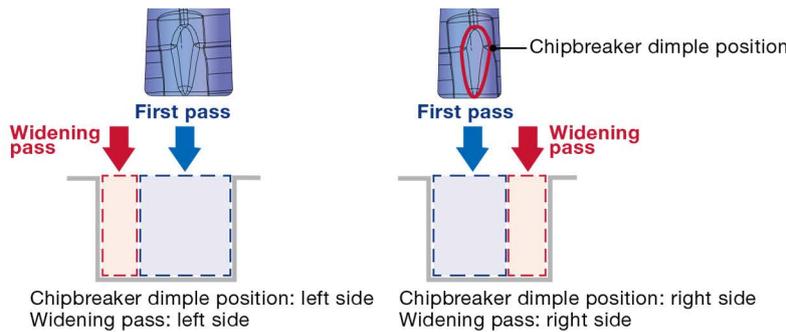
P Ground-in chipbreaker TCG18

Toolholder : STCR2525Z18
Insert : TCG18R200-020 AH7025
Workpiece material : SCM415

Cutting speed: Vc (m/min)	150				
		0.03	0.05	0.07	0.1
Feed: f (mm/rev)					

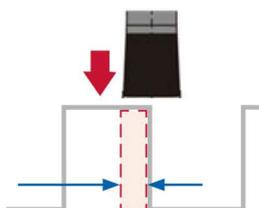


Chipbreaker dimple position may be different depending on the groove width.
In widening, it is recommended that the chipbreaker dimple position is close to the widening pass.

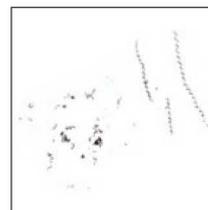


New

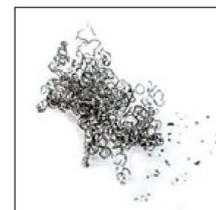
H 3D chipbreaker 1QP-TCX18



Toolholder : STCL2525Z18
Insert : 1QP-TCX18L200-020 BX360
Workpiece material : SCM415H (61HRC)
Cutting speed : Vc = 100 m/min
Feed : f = 0.05 mm/rev
Depth of cut : ae = 0.2 mm
Groove depth : 3.5 mm
Machining : For widening external grooves
Coolant : Wet



TCX
(with chipbreaker)



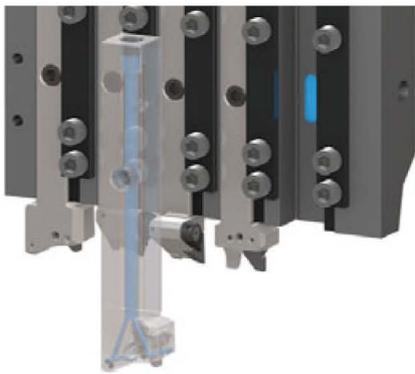
Competitor
(without breaker)

TETRAMCUT

TUNGTURN

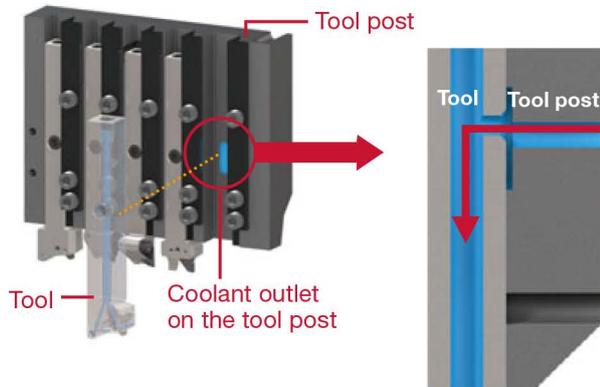
- Tube-less design streamlines tool setup
- Through-coolant supply enables high productivity

Direct connection



No need for coolant tube setup.
Eliminates chip entanglement on tubes
and streamlines tool replacements.

Coolant is supplied from the tool post directly to the tools



S Titanium alloy: External turning (Ti-6Al-4V)

Material : Ti-6Al-4V
Holder : STCR1212X18-CHP
Insert : TCP18R200F-010 SH7025
Cutting speed : $V_c = 100$ m/min
Feed rate : $f = 0.05$ mm/rev
Groove width : 2 mm
Groove depth : 2.5 mm
Coolant type : Oil

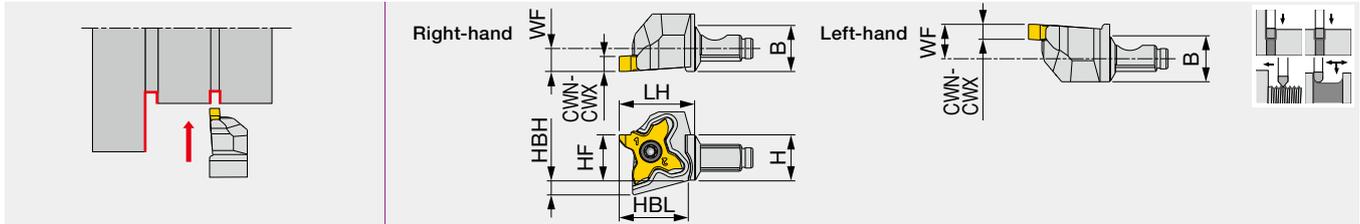
TETRAMCUT	TUNGTURN 7 MPa	TUNGTURN 1.5 MPa	External coolant at normal pressure (at 1.5 MPa)

MODULAR HEADS

QC12-STCR/L

MODUM^{INI}TURN

Modular head for external grooving and threading



Designation	CWN	CWX	H	B	LH (1)	HF	HBH	HBL (1)	WF	Insert	Torque*	Shank
QC12-STCR/L18	0.33	3.18	12	12	19.5/21	12	3.9	17.9/18.3	6/9	TC*18R/L...	1.2	QC-12...

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

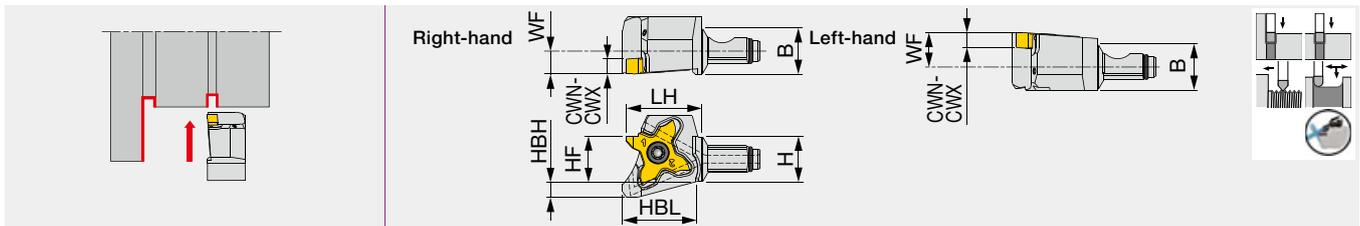
(1) The first value before "/" indicates for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N·m)

QC12/16-STCR/L-CHP

MODUM^{INI}TURN

Modular head for external grooving and threading, with high pressure coolant capability



Designation	CWN	CWX	H	B	LH	HF	HBH	HBL	WF (1)	Insert	Torque*	Shank
QC12-STCR/L18-CHP	0.33	3.18	12	12	21	12	4.2	19.3	6/9	TC*18R/L...	1.2	QC-12...
QC16-STCR/L18-CHP	0.33	3.18	16	16	21	16	-	-	8/13	TC*18R/L...	1.2	QC-16...

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

(1) The first value before "/" indicates for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N·m)

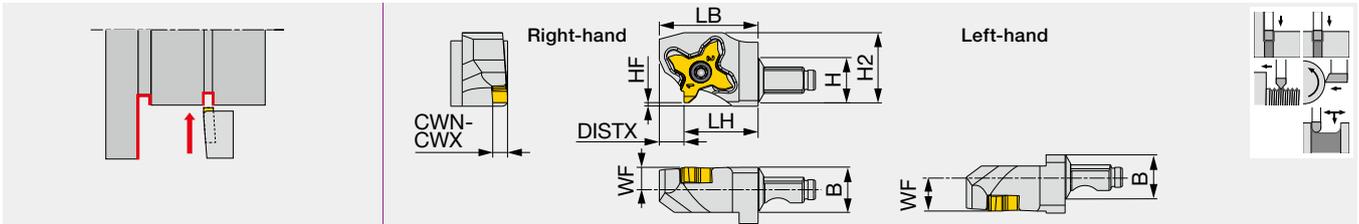
SPARE PARTS



Designation	Clamping screw	Wrench	O-ring
QC12-STCR18	CSTC-4L100DL	T-1008/5	-
QC12-STCL18	CSTC-4L100DR	T-1008/5	-
QC12-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70
QC16-STCR18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0757.5X1.0NBR70
QC16-STCL18-CHP	CSTC-4L100DR	T-1008/5	ORSS-0757.5X1.0NBR70

QC12-STCR/L-Y

Y-axis turning modular head for external grooving and threading



Designation	CWN	CWX	H	B	LH	HF	WF ⁽¹⁾	LB	H2	DISTX	Insert	Torque*	Shank
QC12-STCR/L18-Y	0.33	3.18	12	12	19.5	0	6/9	26	18.6	6.5	TC*18R/L...	1.2	QC-12...

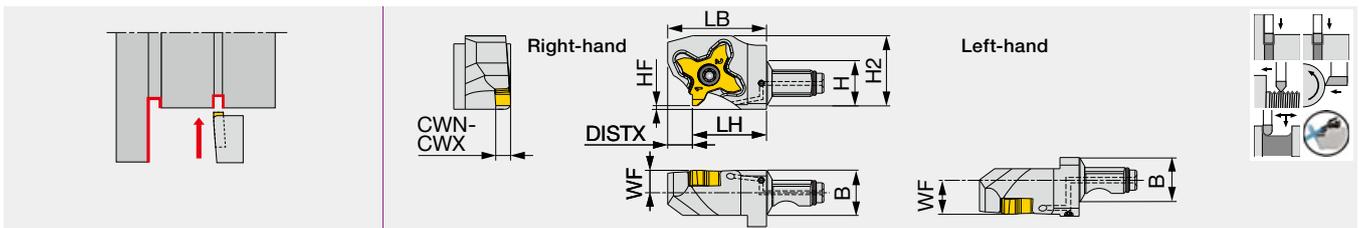
The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

(1) The first value before "/" indicates for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N·m)

QC12/16-STCR/L-Y-CHP

Y-axis turning modular head for external grooving and threading, with high pressure coolant capability



Designation	CWN	CWX	LH	HF	WF ⁽¹⁾	LB	H2	DISTX	Insert	Torque*	Shank
QC12-STCR/L18-Y-CHP	0.33	3.18	19.5	0	6/9	26	18.6	6.5	TC*18R/L...	1.2	QC-12...
QC16-STCR/L18-Y-CHP	0.33	3.18	21	0	8/13	27.5	18.6	6.5	TC*18R/L...	1.2	QC-16...

Through-coolant head

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

(1) The first value before "/" indicates for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

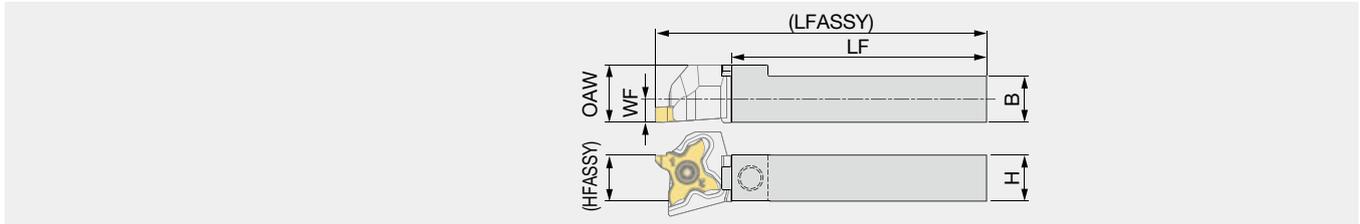
Designation	Clamping screw	Wrench	O-ring
QC12-STCR18-Y	CSTC-4L100DL	T-1008/5	-
QC12-STCL18-Y	CSTC-4L100DR	T-1008/5	-
QC12-STCR18...	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70
QC12-STCL18...	CSTC-4L100DR	T-1008/5	ORSS-0454.5X1.0NBR70
QC16-STCR18...	CSTC-4L100DL	T-1008/5	ORSS-0757.5X1.0NBR70
QC16-STCL18...	CSTC-4L100DR	T-1008/5	ORSS-0757.5X1.0NBR70

SHANKS

MODUM^{INI}TURN

QC-1212

Shank for modular heads



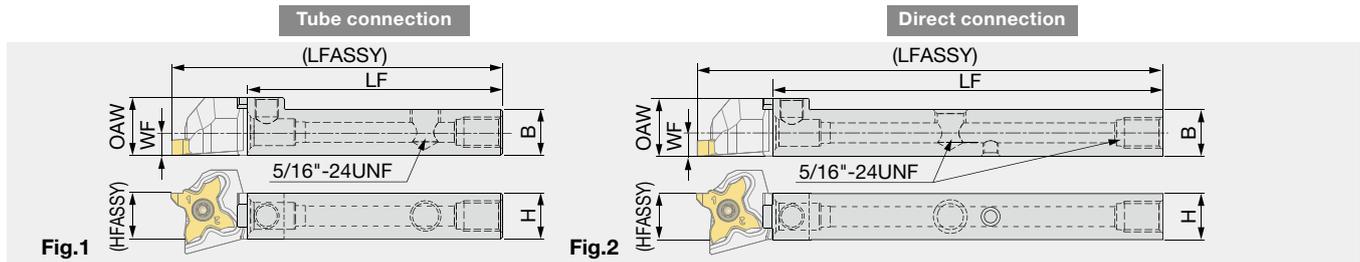
Designation	H	B	WFASSY	LF	OAW	HFASSY	LFASSY ⁽¹⁾	Torque*	Head
QC-1212F	12	12	0	65	15	12	85	3	QC12...
QC-1212X	12	12	0	100	15	12	120	3	QC12...

(1) The size is true when the modular head with LH = 19.5 mm is mounted.
Torque*: Recommended clamping torque (N·m)

QC-1212/1616-CHP

MODUM^{INI}TURN

Shank for modular heads, with high pressure coolant capability



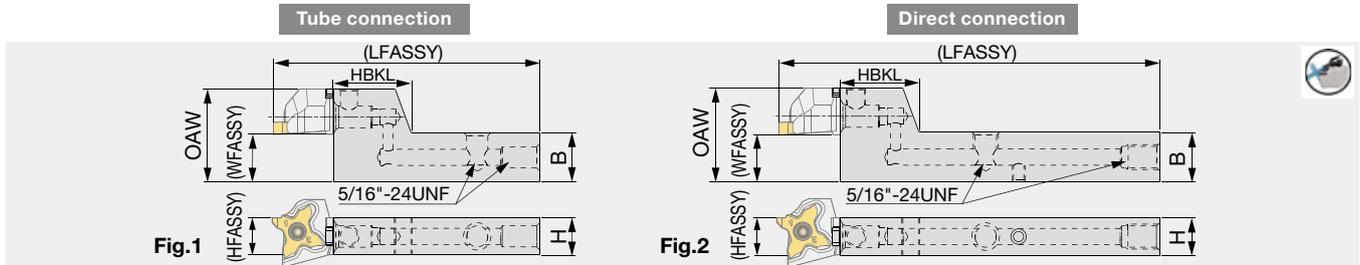
Designation	H	B	LF	WFASSY	OAW	HFASSY	LFASSY ⁽¹⁾	Torque*	Head	Fig.
QC-1212F-CHP	12	12	65	0	15	12	85	3	QC12...	1
QC-1212X-CHP ^(*)	12	12	100	0	15	12	120	3	QC12...	2
QC-1616X-CHP ^(*)	16	16	99	0	20	16	120	8.5	QC16...	2

Through-coolant shank
(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.
(1) The size is true when the modular head with LH = 19.5 mm is mounted.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS						
Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
QC-1212*	SRM6X0.5-26977	P-3	-	-	-	-
QC-1212F-CHP	SRM6X0.5-26977	P-3	SR5/16UNF TL360	P-4	-	-
QC-1212X-CHP	SRM6X0.5-26977	P-3	SR5/16UNF TL360	P-4	SSHM4-6-TB	P-2
QC-1616X-CHP	SRM8X0.5	P-5	SR 5/16UNF TL360	P-4	SSHM4-6-TB	P-2

QC-1216/1620-F15-CHP

Stepped-head shank for modular heads, with high pressure coolant capability



Designation	H	B	LF	OAW	WFASSY	HFASSY	LFASSY ⁽¹⁾	HBKL	Torque*	Head	Fig.
QC-1216F-F15-CHP	12	16	65	30	15	12	85	25	3	QC12...	1
QC-1216X-F15-CHP ⁽¹⁾	12	16	100	30	15	12	120	25	3	QC12...	2
QC-1620X-F15-CHP	16	20	99	35	15	16	120	30	8.5	QC16...	2

(*) : Compatible to the direct internal coolant supply system without the use of external coolant hose.

(1) The size is true when the modular head with LH = 19.5 mm is mounted.

Torque* : Recommended clamping torque (N-m)

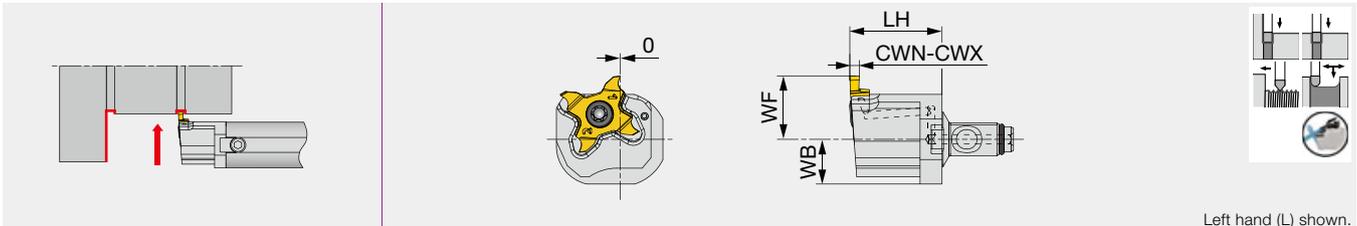
SPARE PARTS						
Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
QC-1216F-F15-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	-	-
QC-1216X-F15-CHP	SRM6X0.5-26977	P-3	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
QC-1620X-F15-CHP	SRM8X0.5	P-5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

MODULAR HEADS

QR12-STCL-CHP

MODUM^{INI}TURN

Modular head for external grooving and threading, with high pressure coolant capability



Designation	CWN	CWX	LH	WF	WB	Insert	Torque*	Shank
QR12E-STCL18-CHP	0.33	3.18	19.5	11.5	7	TC*18R...	1.2	A16*-QR12
QR12G-STCL18-CHP	0.33	3.18	19.5	13.5	8	TC*18R...	1.2	A19/20*-QR12

Use left-hand toolholders (L) with right-hand inserts (R).
Torque*: Recommended clamping torque (N-m)

SPARE PARTS

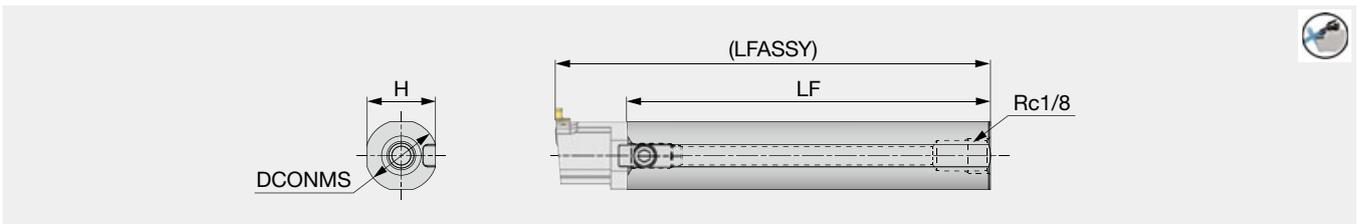
Designation	Clamping screw	Wrench	O-ring
QR12*-STCL18-CHP	CSTC-4L100DL	T-1008/5	ORSS-0454.5X1.0NBR70

SHANKS

A-QR12

MODUM^{INI}TURN

Round shank for modular heads, with high pressure coolant capability



Designation	DCONMS	LF	H	LFASSY ⁽¹⁾	Torque*	Head
A16F-QR12	16	65	15	85	3	QR12C/E...
A16X-QR12	16	100	15	120	3	QR12C/E...
A19G-QR12	19.05	70	18	90	3	QR12D/G...
A19X-QR12	19.05	100	18	120	3	QR12D/G...
A20G-QR12	20	70	19	90	3	QR12D/G...
A20X-QR12	20	100	19	120	3	QR12D/G...

(1) The size is true when the modular head with LH = 19.5 mm is mounted.
Torque*: Recommended clamping torque (N-m)

SPARE PARTS

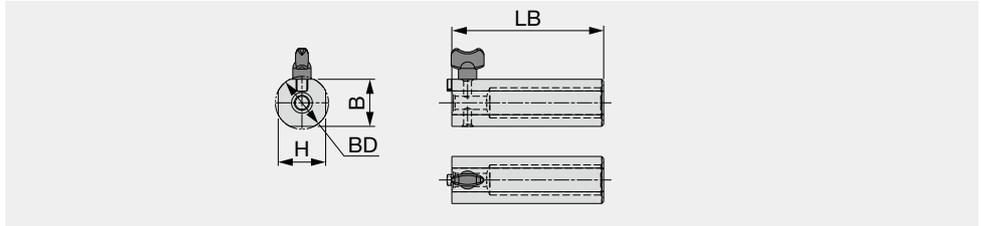
Designation	Clamping screw	Wrench 1	Wrench 2 (Optional)
A**-QR12	SRM6X0.5-26977	P-3	(P-3B)

When the screw cannot be accessed with a P-3 key due to little space between the adjacent tool, use P-3B key (sold separately) with the ball-head instead.

ACCESSORY

QC-12/16D28EXC

Modular head holder for insert change



Designation	BD	LB	H	B	Head
QC-12D28EXC	28	80	25	25	QC12...
QC-16D28EXC	28	80	25	25	QC16...

Note: This is a dedicated modular-head holder designed to facilitate insert changes. Do not use this holder for machining as it may cause damages to tool, workpiece, machine, and possible human injury.

SPARE PARTS



Designation	Fixing screw
QC-12D28EXC	KNOBM5X10
QC-16D28EXC	KNOBM5X10



ModuMini-Turn modular heads are small. When it is difficult to change inserts while holding the modular head with fingers, use the dedicated holder to facilitate insert changes.

QC12/16-STOPPER

Protective plug for shank

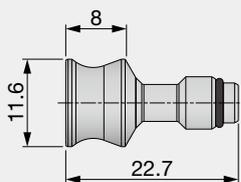


Fig. 1

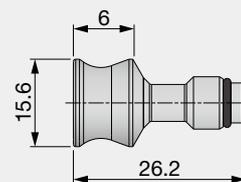


Fig. 2

Designation	Fig.	Shank
QC12-STOPPER	1	QC-12...
QC16-STOPPER	2	QC-16...

SPARE PARTS



Designation	O-ring
QC12-STOPPER	ORSS-0454.5X1.0NBR70
QC16-STOPPER	ORSS-0757.5X1.0NBR70

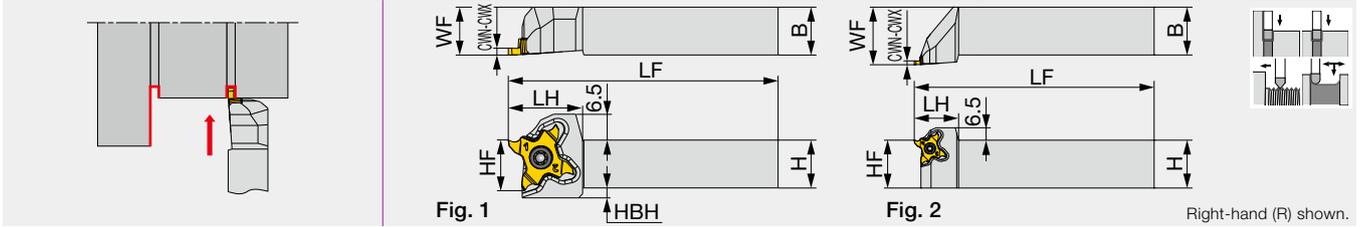


Attach the plug to the shank to protect the coupling surface from chips, as well as prevent coolant leakage during machining

TOOLHOLDER

STCR/L-18

External grooving and threading toolholder



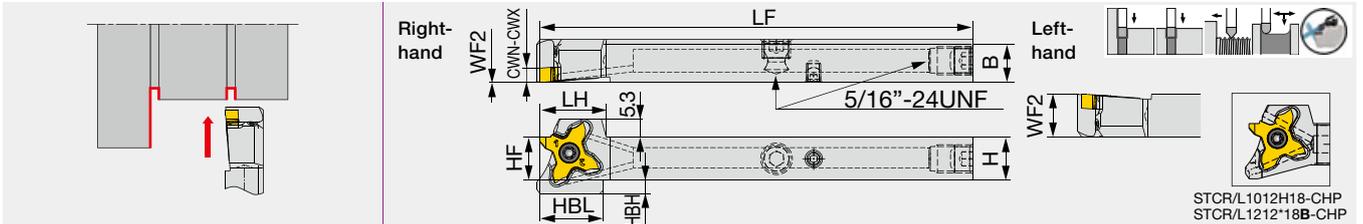
Designation	CWN	CWX	H	B	LF	LH	HF	WF	HBH	Insert	Torque*	Fig.
STCR/L1010X18	0.33	3.18	10	10	120	18.5	10	10	4.5	TC*18R/L...	1.2	1
STCR/L1212F18	0.33	3.18	12	12	85	18.5	12	12	2.5	TC*18R/L...	1.2	1
STCR/L1212X18	0.33	3.18	12	12	120	18.5	12	12	2.5	TC*18R/L...	1.2	1
STCR/L1616X18	0.33	3.18	16	16	120	18.5	16	16	-	TC*18R/L...	1.2	1
STCR/L2020H18	0.33	3.18	20	20	100	18.5	20	20	-	TC*18R/L...	1.2	1
STCR/L2020X18	0.33	3.18	20	20	120	23	20	25	-	TC*18R/L...	1.2	2
STCR/L2525Z18	0.33	3.18	25	25	135	23	25	30	-	TC*18R/L...	1.2	2

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).
Torque*: Recommended clamping torque (N·m)

STCR/L-18-CHP

Direct connection

External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF2 ⁽¹⁾	HBH	Insert	Torque*
STCR/L1012H18-CHP	0.33	3.18	10	12	100	17.1	17.1	10	0/12	4	TC*18R/L...	1.2
STCR/L1212X18B-CHP	0.33	3.18	12	12	120	18.5	17.5	12	0/12	4	TC*18R/L...	1.2
STCR/L1616X18-CHP	0.33	3.18	16	16	120	18.5	-	16	0/16	0	TC*18R/L...	1.2

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).
(1) The first value before "/" indicates for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque (N·m)

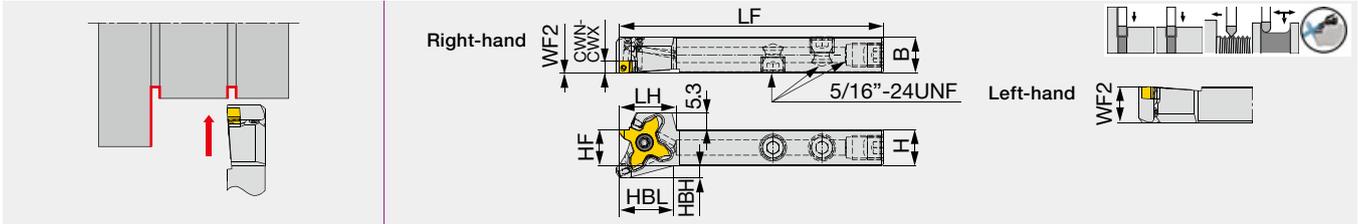
SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR**18	CSTC-4L100DL	T-1008/5	-	-	-	-
STCL**18	CSTC-4L100DR	T-1008/5	-	-	-	-
STCL**18-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR**18-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2

STCR/L-18-CHP

Tube connection

External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF2 ⁽¹⁾	HBH	Insert	Torque*
STCR/L1212F18B-CHP	0.33	3.18	12	12	85	18.5	17.5	12	0/12	4	TC*18R/L...	1.2

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

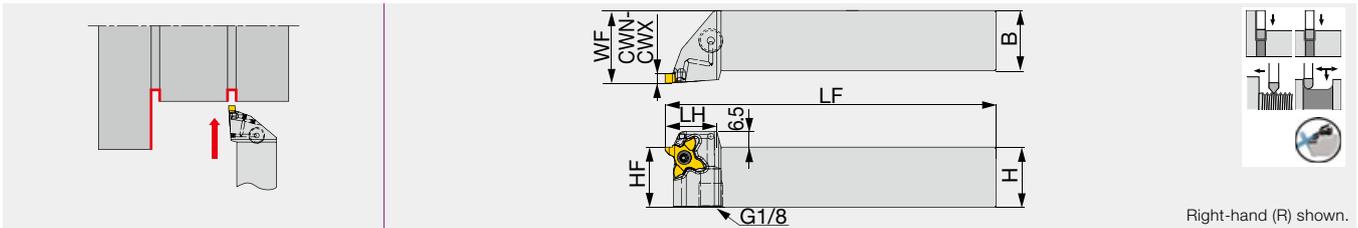
(1) The first value before "/" indicates for the right-hand holder and the second value after "/" for the left-hand holder.

Torque*: Recommended clamping torque (N·m)

STCR/L-18-CHP

Tube connection

External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L2020X18-CHP	0.33	3.18	20	20	120	23	-	20	25	-	TC*18R/L...	1.2
STCR/L2525Z18-CHP	0.33	3.18	25	25	135	23	-	25	30	-	TC*18R/L...	1.2

The right hand insert (R) is used for the right hand toolholders (R), and the left hand insert (L) is used for the left hand toolholders (L).

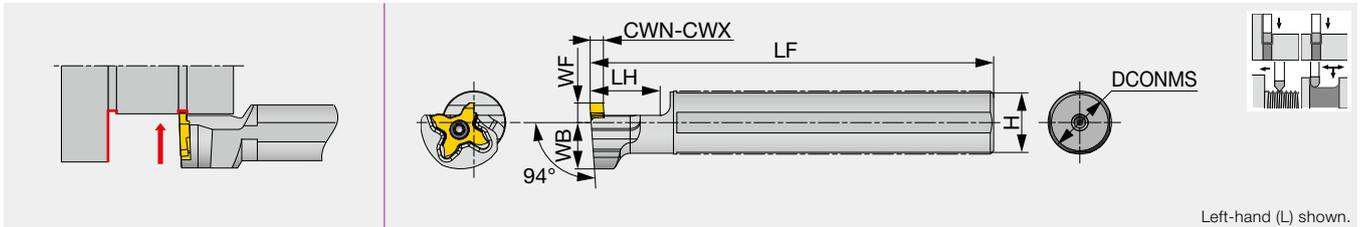
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench	Coolant plug	Wrench
STCL**F18B-CHP	CSTC-4L100DR	T-1008/5	SR5/16UNFTL360	P-4
STCR**F18B-CHP	CSTC-4L100DL	T-1008/5	SR5/16UNFTL360	P-4
STCL**18-CHP	CSTC-4L100DR	T-1008/5	-	-
STCR**18-CHP	CSTC-4L100DL	T-1008/5	-	-

JS-STCL18

External grooving and threading toolholder with round shank



Left-hand (L) shown.

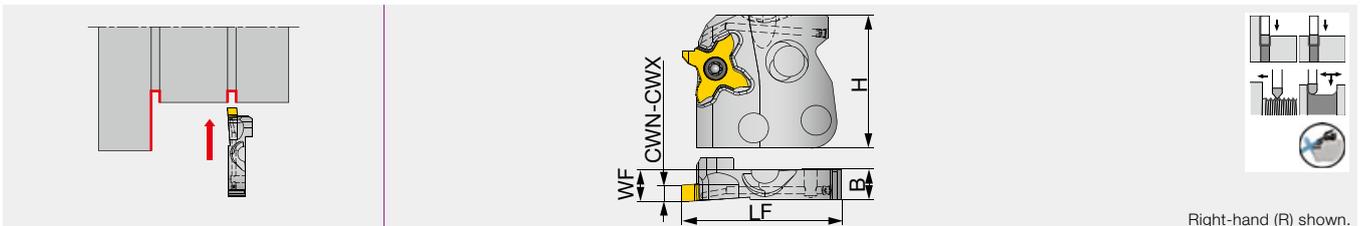
Designation	CWN	CWX	DCONMS	LF	LH	H	WB	WF	Insert	Torque*
JS14H-STCL18	0.33	3.18	14	100	20	13	14	6	TC*18R...	1.2
JS159F-STCL18	0.33	3.18	15.875	85	20	15	14	6	TC*18R...	1.2
JS16F-STCL18	0.33	3.18	16	85	20	15	14	6	TC*18R...	1.2
JS19G-STCL18	0.33	3.18	19.05	90	20	18	14	6	TC*18R...	1.2
JS19X-STCL18	0.33	3.18	19.05	120	20	18	14	6	TC*18R...	1.2
JS20G-STCL18	0.33	3.18	20	90	20	19	14	6	TC*18R...	1.2
JS20X-STCL18	0.33	3.18	20	120	20	19	14	6	TC*18R...	1.2
JS22X-STCL18	0.33	3.18	22	120	20	21	12.25	10	TC*18R...	1.2
JS25H-STCL18	0.33	3.18	25	100	20	24	12.25	10	TC*18R...	1.2
JS254X-STCL18	0.33	3.18	25.4	120	20	24	12.25	10	TC*18R...	1.2

The left hand toolholder (STCL...) is used with the right hand inserts (TC*18R...)
Torque*: Recommended clamping torque (N·m)

STCAR/L18-CHP

TUNG M^{COOLANT} SYSTEM

External grooving and threading adapter, with high pressure coolant capability



Right-hand (R) shown.

Designation	CWN	CWX	WF	H	LF	B	Insert	Torque*
STCAR/L18-CHP	0.33	3.18	7.5	33	38	7.2	TC*18R/L...	1.2

Use the right hand insert (R) with the right hand adapter (R). Use the left hand insert (L) with the left hand adapter (L).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

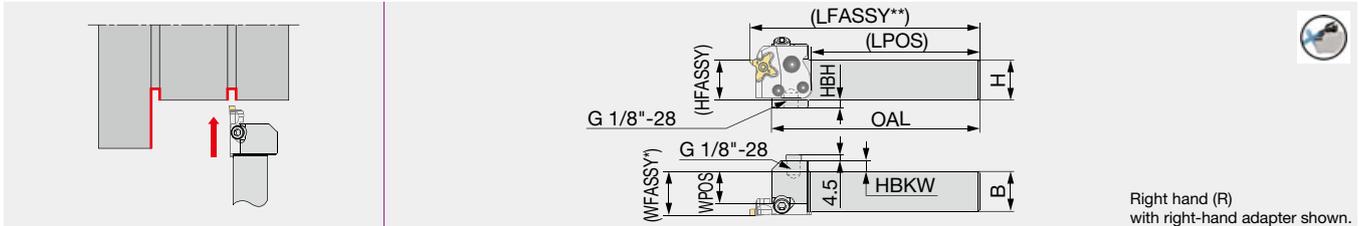


Designation	Clamping screw	Wrench
JS**STCL18	CSTC-4L100DL	T-1008/5
STCAL18-CHP	CSTC-4L100DR	T-1008/5
STCAR18-CHP	CSTC-4L100DL	T-1008/5

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability



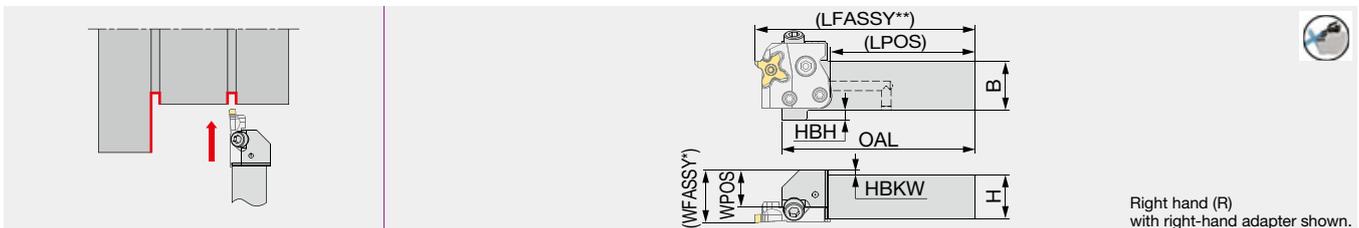
Designation	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L18-CHP	6.5
CHSR/L3232-CHP	32	32	140	115.5	27.1	-	32	-	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)
 LFASSY** : Shank (LPOS) + adapter (LF)
 Depending on the adapter type, the value of LFASSY or WFASSY may change.
 Torque*: Recommended clamping torque (N·m)
 Applicable for 30 MPa coolant
 Please see P58 for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	STCAR/L18-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	STCAR/L18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)
 LFASSY** : Shank (LPOS) + adapter (LF)
 Depending on the adapter type, the value of LFASSY or WFASSY may change.
 Torque*: Recommended clamping torque (N·m)
 Applicable for 30 MPa coolant
 Please see P58 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L**-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

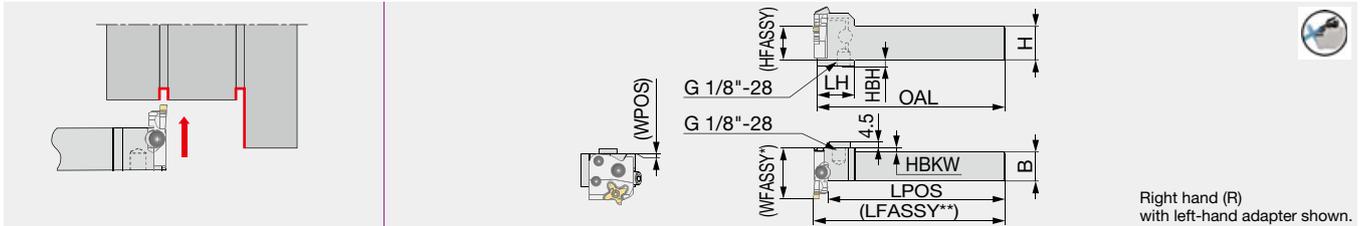
Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

CHFVR/L-CHP

Tube connection

Shank for perpendicularly-mounted adapter, with high pressure coolant capability



Right hand (R)
with left-hand adapter shown.

Designation	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R18-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	-	25	5	STCAL/R18-CHP	6.5
CHFVR/L3232-CHP	32	32	150	-	145.1	7.3	-	32	-	STCAL/R18-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

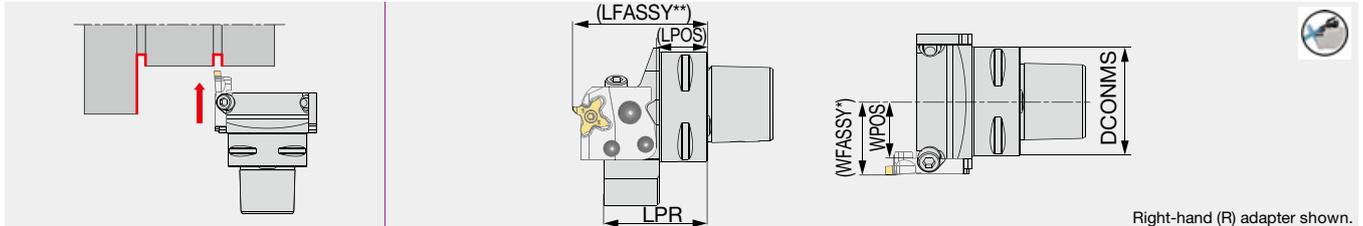
Shank	Adapter	
	STCAR18-CHP	STCAL18-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

Designation	DCONMS	LPR	LPOSS	WPOS	Adapter (Option)	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L18-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L18-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L18-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L18-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (WF)

LFASSY** : Toolholder (LPOS) + adapter (LF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

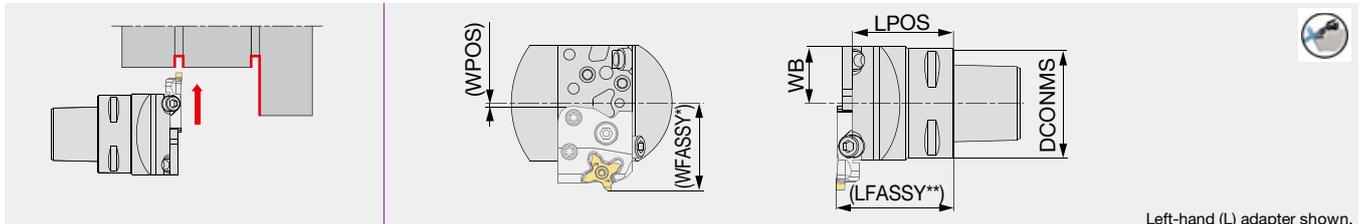
Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Designation	DCONMS	LPOSS	WB	WPOS	Adapter (Option)	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L18-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L18-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L18-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L18-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)

LFASSY** : Toolholder (LPOSS) + adapter (WF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

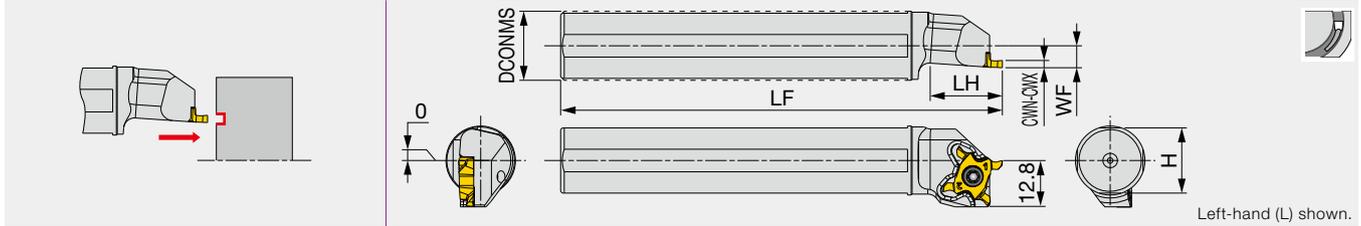
Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

JS-STCFL18

Face grooving toolholder with round shank

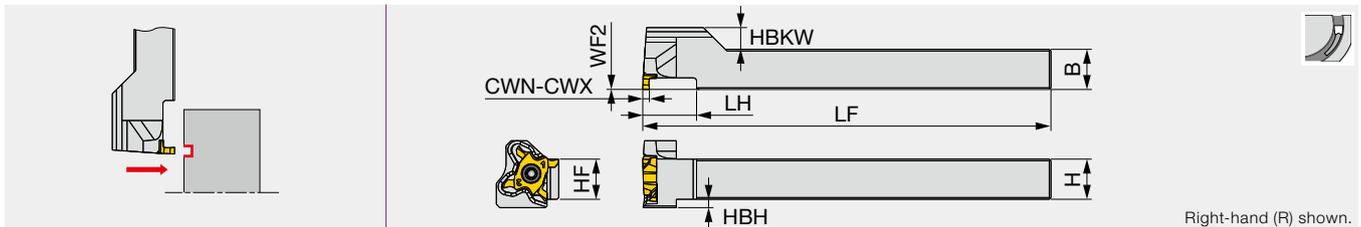


Designation	CWN	CWX	DCONMS	LF	LH	H	WF	Insert	Torque*
JS16F-STCFL18	0.5	2.5	16	85	20	15	6	TCF18L...	1.2
JS19G-STCFL18	0.5	2.5	19.05	90	20	18	6	TCF18L...	1.2
JS19X-STCFL18	0.5	2.5	19.05	120	20	18	6	TCF18L...	1.2
JS20G-STCFL18	0.5	2.5	20	90	20	19	6	TCF18L...	1.2
JS20X-STCFL18	0.5	2.5	20	120	20	19	6	TCF18L...	1.2
JS22X-STCFL18	0.5	2.5	22	120	20	21	6	TCF18L...	1.2
JS25H-STCFL18	0.5	2.5	25	100	20	24	6	TCF18L...	1.2
JS254X-STCFL18	0.5	2.5	25.4	120	20	24.5	6	TCF18L...	1.2

The left hand insert (L) is used for the left hand toolholders (L).
Torque*: Recommended clamping torque (N·m)

STCFVR-18

Face grooving toolholder with square shank



Designation	CWN	CWX	H	B	LF	LH	HF	WF2	HBKW	HBH	Insert	Torque*
STCFVR1010H18	0.5	2.5	10	10	100	12	10	0	8.5	4.5	TCF18L...	1.2
STCFVR1212F18	0.5	2.5	12	12	85	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1212X18	0.5	2.5	12	12	120	16	12	0	6.5	2.5	TCF18L...	1.2
STCFVR1616X18	0.5	2.5	16	16	120	20	16	0	2.5	0	TCF18L...	1.2

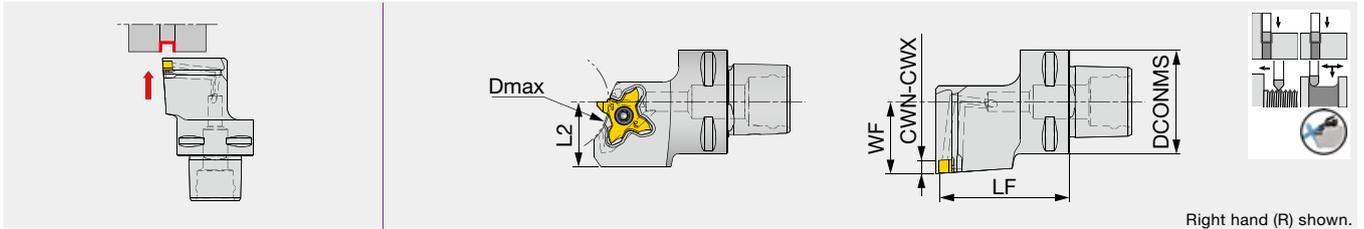
The left hand insert (L) is used for the right hand toolholders (R).
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
JS**-STCFL18 / STCFVR**18	CSTC-4L100DR	T-1008/5

C-STCR/L-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	DCONMS	LF	L2	WF	Dmax	Insert	Torque*
C3STCR/L22040-18-CHP	0.33	3	32	40	20	22	32	TC*18R/L...	1.2
C4STCR/L27050-18-CHP	0.33	3	40	50	25	27	75 ⁽¹⁾	TC*18R/L...	1.2

Applicable for 14 MPa coolant

Use the right hand insert (TC*18R...) with the right hand holder (STCR...). Use the left hand insert (TC*18L...) with the left hand holder (STCL...).

(1) The value for 3.5 mm groove depth. Dmax varies according to the grooving depth required. Please see P9 for more detail.

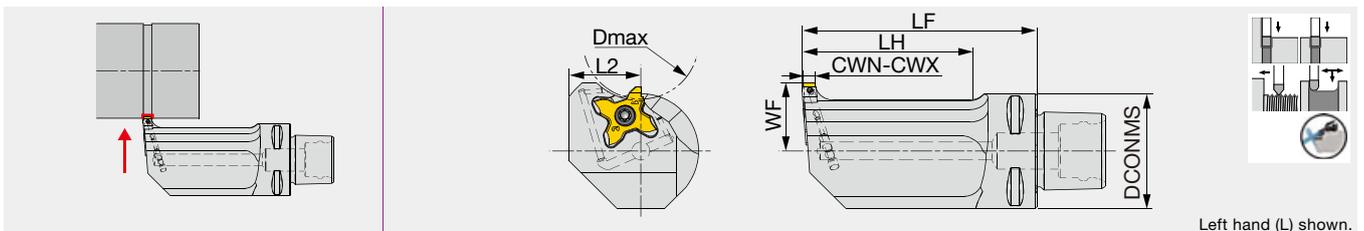
Torque*: Recommended clamping torque (N-m)

SPARE PARTS

Designation	Clamping screw	Wrench
C*STCL**-18-CHP	CSTC-4L100DR	T-1008/5
C*STCR**-18-CHP	CSTC-4L100DL	T-1008/5

C-STCFL-18-CHP

External grooving and threading toolholder, with high pressure coolant capability



Designation	CWN	CWX	DCONMS	LF	LH	L2	WF	Dmax	Insert	Torque*
C3STCFL18040-18-CHP	0.33	3	32	40	21.5	20	18	32	TC*18R...	1.2
C3STCFL18065-18-CHP	0.33	3	32	65	46.5	20	18	32	TC*18R...	1.2

Applicable for 14 MPa coolant

Use the right hand insert (TC*18R...) with the left hand holder (STCFL...).

Torque*: Recommended clamping torque (N-m)

SPARE PARTS

Designation	Clamping screw	Wrench
C*STCL**-18-CHP	CSTC-4L100DR	T-1008/5
C*STCR**-18-CHP, C3STCFL**-18-CHP	CSTC-4L100DL	T-1008/5

STANDARD LINEUP OF TETRAMINI-CUT GROOVING INSERTS

New

New

Groove width CW (mm)	Corner rad. RE (mm)	TCL18R/L (With 3D chipbreaker for low cutting force)			TCS18R/L (With 3D chipbreaker for general purpose)			TCG18R/L				TCP18R/L (Lightly honed edge)		TCP18R/L-F (Sharp edge)			TCF18L			1QP-TCX18R/L (3D chipbreaker)		
		AH8005	AH7025	AH6235	AH8005	AH7025	AH6235	AH8005	AH7025	AH6235	NS9530	AH725		SH7025	SH725		SH7025	SH725		BX360		
0.33	0.05											●		●	●							
0.43	0.05											●		●	●							
0.5	0.05											●		●	●		●	●				
0.53	0.05													★								
0.75	0.05											●		●	●							
0.8	0.05													★								
0.95	0.05											●		●	●							
1	0.05													●	●		●	●				
	0.1				●	●	●	●	●	●	●	●		●	●					●		
1.2	0.05													●	●							
	0.1				●	●	●	●	●	●	●	●		●	●							
1.25	0.05													●	●							
	0.1				●	●	●	●	●	●	●	●		●	●							●
	0.2				●	●	●	●	●	●	●	●		●	●							●
1.3	0.2				●	●	●	●	●	●	●											
1.4	0.1				●	●	●	●	●	●	●	●		●	●							
	0.2				●	●	●	●	●	●	●	●		●	●							
1.45	0.05													●	●							
	0.1				●	●	●	●	●	●	●	●										
	0.2				●	●	●	●	●	●	●	●										
1.5	0.05													●	●		●	●				
	0.1	●	●	●	●	●	●	●	●	●	●	●		●	●							
	0.2	●	●	●	●	●	●	●	●	●	●	●		★								●
1.6	0.2				●	●	●	●	●	●	●	●										
1.7	0.2				●	●	●	●	●	●	●	●										
1.75	0.05																					
	0.1				●	●	●	●	●	●	●	●	●	●	●							
	0.2	●	●	●	●	●	●	●	●	●	●	●		●	●							
1.85	0.2				●	●	●	●	●	●	●	●										
1.95	0.2				●	●	●	●	●	●	●	●										
2	0.05													●	●		●	●				
	0.1	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
	0.2	●	●	●	●	●	●	●	●	●	●	●		★								●
2.25	0.2				●	●	●	●	●	●	●	●										
2.3	0.2				●	●	●	●	●	●	●	●										
2.5	0.1				●	●	●	●	●	●	●	●	●	●	●		●	●		●	●	
	0.2				●	●	●	●	●	●	●	●	●		★							●
	0.3	●	●	●	●	●	●	●	●	●	●	●	●									
2.65	0.3				●	●	●	●	●	●	●	●										
2.8	0.3				●	●	●	●	●	●	●	●										
3	0.1	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
	0.2	●	●	●	●	●	●	●	●	●	●	●		★								●
	0.3	●	●	●	●	●	●	●	●	●	●	●										

For standard threading inserts of TetraMini-Cut, please see P36

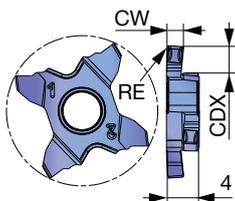
★ : Will be released in December 2025

● : New product

● : Line up

INSERT

TCL18R/L (3D chipbreaker)



Right-hand (R) shown.

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

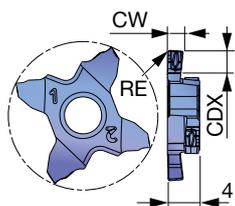
★ : First choice

Designation	HAND	CW±0.02	RE	Coated			CDX
				AH8005	AH7025	AH6235	
TCL18R150-010	R	1.5	0.1	●	●	●	3.5
TCL18L150-010	L	1.5	0.1	●	●	●	3.5
TCL18R150-020	R	1.5	0.2	●	●	●	3.5
TCL18L150-020	L	1.5	0.2	●	●	●	3.5
TCL18R175-020	R	1.75	0.2	●	●	●	3.5
TCL18L175-020	L	1.75	0.2	●	●	●	3.5
TCL18R200-010	R	2	0.1	●	●	●	3.5
TCL18L200-010	L	2	0.1	●	●	●	3.5
TCL18R200-020	R	2	0.2	●	●	●	3.5
TCL18L200-020	L	2	0.2	●	●	●	3.5
TCL18R250-030	R	2.5	0.3	●	●	●	3.5
TCL18L250-030	L	2.5	0.3	●	●	●	3.5
TCL18R300-010	R	3	0.1	●	●	●	3.5
TCL18L300-010	L	3	0.1	●	●	●	3.5
TCL18R300-020	R	3	0.2	●	●	●	3.5
TCL18L300-020	L	3	0.2	●	●	●	3.5
TCL18R300-030	R	3	0.3	●	●	●	3.5
TCL18L300-030	L	3	0.3	●	●	●	3.5

5 pieces per package

● : Line up

TCS18R/L (3D chipbreaker)



Right-hand (R) shown.

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

★ : First choice

Designation	HAND	CW±0.02	RE	Coated			CDX
				AH8005	AH7025	AH6235	
TCS18R100-010	R	1	0.1	●	●	●	2
TCS18L100-010	L	1	0.1	●	●	●	2
TCS18R120-010	R	1.2	0.1	●	●	●	2
TCS18L120-010	L	1.2	0.1	●	●	●	2

5 pieces per package

● : Line up

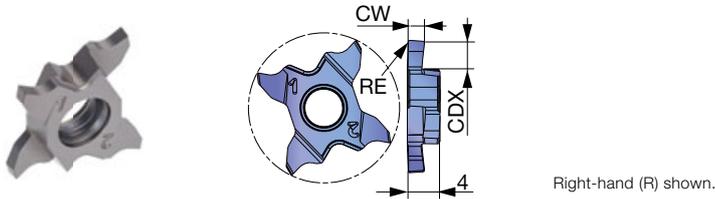
P	Steel	★	★	★
M	Stainless	★	★	★
K	Cast iron	★	★	★
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

★ : First choice

Designation	HAND	CW±0.02	RE	Coated			CDX
				AH8005	AH7025	AH6235	
TCS18R125-010	R	1.25	0.1	●	●	●	2
TCS18L125-010	L	1.25	0.1	●	●	●	2
TCS18R125-020	R	1.25	0.2	●	●	●	2
TCS18L125-020	L	1.25	0.2	●	●	●	2
TCS18R130-020	R	1.3	0.2	●	●	●	3.5
TCS18L130-020	L	1.3	0.2	●	●	●	3.5
TCS18R140-010	R	1.4	0.1	●	●	●	3.5
TCS18L140-010	L	1.4	0.1	●	●	●	3.5
TCS18R140-020	R	1.4	0.2	●	●	●	3.5
TCS18L140-020	L	1.4	0.2	●	●	●	3.5
TCS18R145-010	R	1.45	0.1	●	●	●	3.5
TCS18L145-010	L	1.45	0.1	●	●	●	3.5
TCS18R150-010	R	1.5	0.1	●	●	●	3.5
TCS18L150-010	L	1.5	0.1	●	●	●	3.5
TCS18R150-020	R	1.5	0.2	●	●	●	3.5
TCS18L150-020	L	1.5	0.2	●	●	●	3.5
TCS18R160-020	R	1.6	0.2	●	●	●	3.5
TCS18L160-020	L	1.6	0.2	●	●	●	3.5
TCS18R170-020	R	1.7	0.2	●	●	●	3.5
TCS18L170-020	L	1.7	0.2	●	●	●	3.5
TCS18R175-010	R	1.75	0.1	●	●	●	3.5
TCS18L175-010	L	1.75	0.1	●	●	●	3.5
TCS18R175-020	R	1.75	0.2	●	●	●	3.5
TCS18L175-020	L	1.75	0.2	●	●	●	3.5
TCS18R185-020	R	1.85	0.2	●	●	●	3.5
TCS18L185-020	L	1.85	0.2	●	●	●	3.5
TCS18R195-020	R	1.95	0.2	●	●	●	3.5
TCS18L195-020	L	1.95	0.2	●	●	●	3.5
TCS18R200-010	R	2	0.1	●	●	●	3.5
TCS18L200-010	L	2	0.1	●	●	●	3.5
TCS18R200-020	R	2	0.2	●	●	●	3.5
TCS18L200-020	L	2	0.2	●	●	●	3.5
TCS18R225-020	R	2.25	0.2	●	●	●	3.5
TCS18L225-020	L	2.25	0.2	●	●	●	3.5
TCS18R230-020	R	2.3	0.2	●	●	●	3.5
TCS18L230-020	L	2.3	0.2	●	●	●	3.5
TCS18R250-010	R	2.5	0.1	●	●	●	3.5
TCS18L250-010	L	2.5	0.1	●	●	●	3.5
TCS18R250-020	R	2.5	0.2	●	●	●	3.5
TCS18L250-020	L	2.5	0.2	●	●	●	3.5
TCS18R250-030	R	2.5	0.3	●	●	●	3.5
TCS18L250-030	L	2.5	0.3	●	●	●	3.5
TCS18R265-030	R	2.65	0.3	●	●	●	3.5
TCS18L265-030	L	2.65	0.3	●	●	●	3.5
TCS18R280-030	R	2.8	0.3	●	●	●	3.5
TCS18L280-030	L	2.8	0.3	●	●	●	3.5
TCS18R300-010	R	3	0.1	●	●	●	3.5
TCS18L300-010	L	3	0.1	●	●	●	3.5
TCS18R300-020	R	3	0.2	●	●	●	3.5
TCS18L300-020	L	3	0.2	●	●	●	3.5
TCS18R300-030	R	3	0.3	●	●	●	3.5
TCS18L300-030	L	3	0.3	●	●	●	3.5

5 pieces per package
● : Line up

TCG18R/L



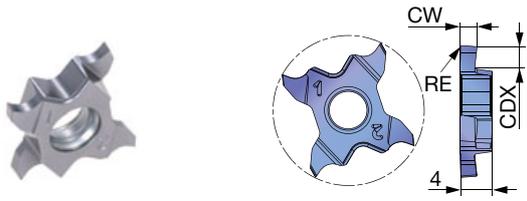
P	Steel	★	★	★	★				
M	Stainless	★	★	★					
K	Cast iron	★	★	★	★				
N	Non-ferrous								
S	Superalloys	★	★						
H	Hard materials								

★ : First choice

Designation	HAND	CW±0.02	RE	Coated				Cermet				CDX	
				AH8005	AH7025	AH6235	NS9530						
TCG18R100-010	R	1	0.1	●	●	●	●						2
TCG18L100-010	L	1	0.1	●	●	●	●						2
TCG18R120-010	R	1.2	0.1	●	●	●	●						2
TCG18L120-010	L	1.2	0.1	●	●	●	●						2
TCG18R125-010	R	1.25	0.1	●	●	●	●						2
TCG18L125-010	L	1.25	0.1	●	●	●	●						2
TCG18R125-020	R	1.25	0.2	●	●	●	●						2
TCG18L125-020	L	1.25	0.2	●	●	●	●						2
TCG18R130-020	R	1.3	0.2	●	●	●	●						2
TCG18L130-020	L	1.3	0.2	●	●	●	●						2
TCG18R140-010	R	1.4	0.1	●	●	●	●						3.5
TCG18L140-010	L	1.4	0.1	●	●	●	●						3.5
TCG18R140-020	R	1.4	0.2	●	●	●	●						3.5
TCG18L140-020	L	1.4	0.2	●	●	●	●						3.5
TCG18R145-010	R	1.45	0.1	●	●	●	●						3.5
TCG18L145-010	L	1.45	0.1	●	●	●	●						3.5
TCG18R145-020	R	1.45	0.2	●	●	●	●	●					3.5
TCG18L145-020	L	1.45	0.2	●	●	●	●	●					3.5
TCG18R150-010	R	1.5	0.1	●	●	●	●						3.5
TCG18L150-010	L	1.5	0.1	●	●	●	●						3.5
TCG18R150-020	R	1.5	0.2	●	●	●	●	●					3.5
TCG18L150-020	L	1.5	0.2	●	●	●	●	●					3.5
TCG18R160-020	R	1.6	0.2	●	●	●	●						3.5
TCG18L160-020	L	1.6	0.2	●	●	●	●						3.5
TCG18R170-020	R	1.7	0.2	●	●	●	●						3.5
TCG18L170-020	L	1.7	0.2	●	●	●	●						3.5
TCG18R175-010	R	1.75	0.1	●	●	●	●						3.5
TCG18L175-010	L	1.75	0.1	●	●	●	●						3.5
TCG18R175-020	R	1.75	0.2	●	●	●	●	●					3.5
TCG18L175-020	L	1.75	0.2	●	●	●	●	●					3.5
TCG18R185-020	R	1.85	0.2	●	●	●	●	●					3.5
TCG18L185-020	L	1.85	0.2	●	●	●	●	●					3.5
TCG18R195-020	R	1.95	0.2	●	●	●	●						3.5
TCG18L195-020	L	1.95	0.2	●	●	●	●						3.5
TCG18R200-010	R	2	0.1	●	●	●	●	●					3.5
TCG18L200-010	L	2	0.1	●	●	●	●	●					3.5
TCG18R200-020	R	2	0.2	●	●	●	●	●					3.5
TCG18L200-020	L	2	0.2	●	●	●	●	●					3.5

5 pieces per package
● : Line up

TCP18R/L (lightly honed edge)



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

★ : First choice

Designation	HAND	CW±0.02	RE	Coated							CDX
				AH725							
TCP18R033-005	R	0.33	0.05	●							0.8
TCP18L033-005	L	0.33	0.05	●							0.8
TCP18R043-005	R	0.43	0.05	●							1.2
TCP18L043-005	L	0.43	0.05	●							1.2
TCP18R050-005	R	0.50	0.05	●							1.2
TCP18L050-005	L	0.50	0.05	●							1.2
TCP18R075-005	R	0.75	0.05	●							2
TCP18L075-005	L	0.75	0.05	●							2
TCP18R095-005	R	0.95	0.05	●							2
TCP18L095-005	L	0.95	0.05	●							2
TCP18R100-010	R	1	0.1	●							2
TCP18L100-010	L	1	0.1	●							2
TCP18R120-010	R	1.2	0.1	●							2
TCP18L120-010	L	1.2	0.1	●							2
TCP18R125-010	R	1.25	0.1	●							2
TCP18L125-010	L	1.25	0.1	●							2
TCP18R140-010-35	R	1.4	0.1	●							3.5
TCP18L140-010-35	L	1.4	0.1	●							3.5
TCP18R145-010	R	1.45	0.1	●							2
TCP18L145-010	L	1.45	0.1	●							2
TCP18R145-010-35	R	1.45	0.1	●							3.5
TCP18L145-010-35	L	1.45	0.1	●							3.5
TCP18R150-010	R	1.5	0.1	●							2
TCP18L150-010	L	1.5	0.1	●							2
TCP18R150-010-35	R	1.5	0.1	●							3.5
TCP18L150-010-35	L	1.5	0.1	●							3.5
TCP18R175-010	R	1.75	0.1	●							2
TCP18L175-010	L	1.75	0.1	●							2
TCP18R175-010-35	R	1.75	0.1	●							3.5
TCP18L175-010-35	L	1.75	0.1	●							3.5
TCP18R200-010	R	2	0.1	●							2.5
TCP18L200-010	L	2	0.1	●							2.5
TCP18R200-010-35	R	2	0.1	●							3.5
TCP18L200-010-35	L	2	0.1	●							3.5
TCP18R250-010	R	2.5	0.1	●							2.5
TCP18L250-010	L	2.5	0.1	●							2.5
TCP18R250-010-35	R	2.5	0.1	●							3.5
TCP18L250-010-35	L	2.5	0.1	●							3.5
TCP18R300-010	R	3	0.1	●							2.5
TCP18L300-010	L	3	0.1	●							2.5
TCP18R300-010-35	R	3	0.1	●							3.5
TCP18L300-010-35	L	3	0.1	●							3.5

5 pieces per package
● : Line up

STANDARD CUTTING CONDITIONS

TCL18R/L, TCS18R/L (3D chipbreaker), TCG18R/L, TCG18R/L (Full R)

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed: f (mm/rev)		
				TCL18	TCS18	TCG18
P	Carbon steel S45C / C45, etc.	AH8005	100 - 300	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
		AH7025	100 - 200			
		AH6235	80 - 120			
		NS9530	120 - 250			
	Alloy steel SCM435 / 34CrMo4, etc.	AH8005	80 - 250	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
		AH7025	50 - 180			
AH6235		50 - 100				
M	Stainless steel SUS304 / X5CrNi18-9, etc.	NS9530	100 - 200	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
		AH8005	100 - 150			
		AH7025	80 - 120			
K	Grey cast iron FC250 / 250, etc.	AH6235	50 - 120	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
		AH8005	80 - 250			
		AH7025	50 - 180			
	Ductile cast iron FCD400 / 400-15, etc.	NS9530	50 - 180	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
		AH8005	80 - 180			
		AH7025	50 - 120			
S	Titanium alloys Ti-6Al-4V, etc.	AH6235	50 - 80	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
		NS9530	50 - 180			
	Superalloys Inconel718, etc.	AH8005	40 - 60	0.03 - 0.12	0.04 - 0.16	0.04 - 0.14
		AH7025	20 - 50			

TCP18R/L (lightly honed edge) / TCP18R/L-F (sharp edge)

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Carbon steel S45C / C45, etc.	SH7025	80 - 180	0.01 - 0.08
		AH725	80 - 180	0.03 - 0.1
	Alloy steel SCM435 / 34CrMo4, etc.	SH7025	80 - 180	0.01 - 0.08
		AH725	80 - 180	0.03 - 0.1
M	Stainless steel SUS304 / X5CrNi18-9, etc.	SH7025	50 - 120	0.01 - 0.08
		AH725	50 - 120	0.03 - 0.1
K	Grey cast iron FC250 / 250, etc.	AH725	50 - 180	0.03 - 0.1
		SH7025	50 - 180	0.01 - 0.08
	Ductile cast iron FCD400 / 400-15, etc.	AH725	50 - 180	0.03 - 0.1
		SH7025	50 - 180	0.01 - 0.08
S	Titanium alloys Ti-6Al-4V, etc.	SH7025	30 - 80	0.01 - 0.08
		AH725	30 - 80	0.03 - 0.1
	Superalloys Inconel718, etc.	SH7025	20 - 60	0.01 - 0.08
		AH725	20 - 60	0.03 - 0.1

TCF18L (Face grooving)

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Carbon steel S45C / C45, etc.	SH7025	30 - 100	0.01 - 0.04
	Alloy steel SCM435 / 34CrMo4, etc.	SH7025	30 - 100	0.01 - 0.04
M	Stainless steel SUS304 / X5CrNi18-9, etc.	SH7025	30 - 100	0.01 - 0.04
K	Grey cast iron FC250 / 250, etc.	SH7025	30 - 100	0.01 - 0.04
	Ductile cast iron FCD400 / 400-15, etc.	SH7025	30 - 100	0.01 - 0.04
S	Titanium alloys Ti-6Al-4V, etc.	SH7025	20 - 40	0.01 - 0.04
	Superalloys Inconel718, etc.	SH7025	10 - 30	0.01 - 0.04

New 1QP-TCX18R/L (Widening external grooves)

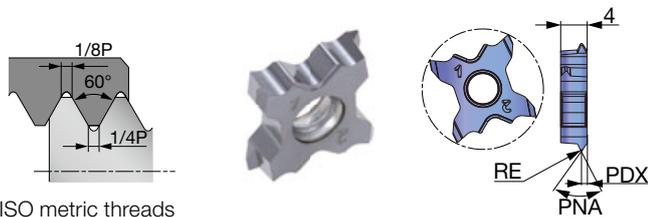
ISO	Workpiece materials	Hardness	Grades	Cutting speed Vc (m/min)	Feed: f (mm/rev)		Depth of cut: ae (mm)	
					RE = 0.1	RE = 0.2	RE = 0.1	RE = 0.2
H	Hard material · Hardened steel SCM435 / 34CrMo4, SUJ2 / B1 etc.	> 50 HRC	BX360	80 - 150	0.02 - 0.05	0.03 - 0.1	0.15 - 0.3	0.15 - 0.5

Expanded product lineup

Thread type	Partial		Full profile				
	60°	55°	ISO	UN	W		UNJ
	ISO metric threads	Whitworth threads	ISO metric threads	Unified national threads series	Whitworth threads	British standard parallel pipe	Unified inch screw threads
	Unified national threads series		Coarse and fine	60° inch threads	British standard whitworth, British standard fine	55° inch thread	
M, UN, UNC, UNF, UNEF, UNS	G, BSP, PF, BSPP	M	UN, UNR, UNC, UNRC, UNF, UNRF, UNEF, UNREF, UNS, UNRS	BSW, BSF, W	G, BSP, PF, BSPP	UNJ, UNJC, UNJF, UNEF, UNJS	
TETRAMCUT Threading insert	●	●	●	●	●	●	●

INSERTS

TCT18FR/R-ISO (Full profile threading insert)



ISO metric threads
(General purpose)

Right-hand (R) shown.

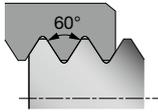
P Steel	★	★	★					
M Stainless	★	★	★					
K Cast iron	★	★	★					
N Non-ferrous								
S Superalloys	★	★	★					
H Hard materials								

★ : First choice

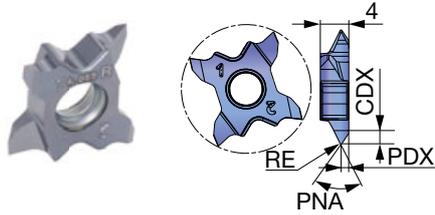
Designation	HAND	RE	Coated			Pitch	PDX	PNA
			SH7025	SH725	AH725			
TCT18FR-05ISO	R	0.06	●	●		0.5	0.35	60°
TCT18FR-07ISO	R	0.09	●	●		0.7	0.45	60°
TCT18FR-075ISO	R	0.09	●	●		0.75	0.5	60°
TCT18FR-08ISO	R	0.1	●	●		0.8	0.5	60°
TCT18R-10ISO	R	0.13			●	1	0.6	60°
TCT18R-125ISO	R	0.17			●	1.25	0.7	60°
TCT18R-15ISO	R	0.2			●	1.5	0.8	60°

5 pieces per package
● : Line up

TCT18FR/R/L (Threading insert)



60° thread angle
(General purpose)



Right-hand (R) shown.

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

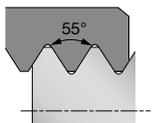
★ : First choice

Designation	HAND	RE	Coated			Pitch min	Pitch max	PDX	CDX	PNA
			SH7025	SH725	AH725					
TCT18FR-60A-005	R	0.05	●	●		0.4	1	0.6	0.99	60°
TCT18FR-60A-010	R	0.1	●	●		1	2	1	1.63	60°
TCT18R-60N-010	R	0.1			●	0.8	3	1.6	2.67	60°
TCT18L-60N-010	L	0.1			●	0.8	3	1.6	2.67	60°
TCT18R-60N-020	R	0.2			●	1.5	3	1.6	2.57	60°
TCT18L-60N-020	L	0.2			●	1.5	3	1.6	2.57	60°

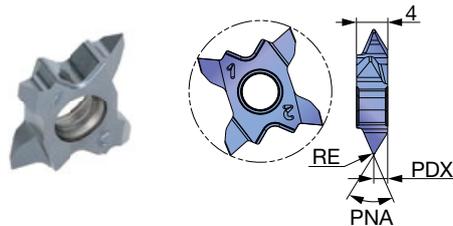
5 pieces per package

● : Line up

TCT18R/L-55 (Threading insert)



55° thread angle
(General purpose)



Right-hand (R) shown.

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

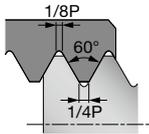
★ : First choice

Designation	HAND	RE	Coated			TPI	PDX	PNA
			AH8015					
TCT18R-55N-010	R	0.1	●			28 - 8	1.6	55°
TCT18L-55N-010	L	0.1	●			28 - 8	1.6	55°
TCT18R-55N-020	R	0.2	●			16 - 8	1.6	55°
TCT18L-55N-020	L	0.2	●			16 - 8	1.6	55°

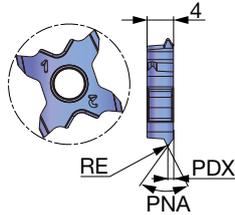
5 pieces per package

● : Line up

TCT18R-UN (Full profile threading insert)



Unified
(General purpose)



Right-hand (R) shown.

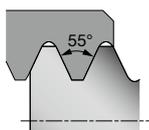
P Steel	★								
M Stainless	★								
K Cast iron	★								
N Non-ferrous									
S Superalloys	★								
H Hard materials									

★ : First choice

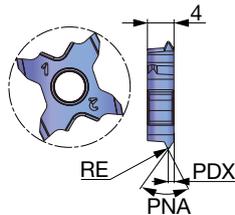
Designation	HAND	RE	Coated							TPI	PDX	PNA
			AH8015									
TCT18R-32UN	R	0.1	●							32	0.5	60°
TCT18R-28UN	R	0.12	●							28	0.55	60°
TCT18R-24UN	R	0.13	●							24	0.65	60°
TCT18R-20UN	R	0.16	●							20	0.75	60°
TCT18R-18UN	R	0.18	●							18	0.8	60°
TCT18R-16UN	R	0.2	●							16	0.9	60°

5 pieces per package
● : Line up

TCT18R-W (Full profile threading insert)



Whitworth, Parallel
pipe thread



Right-hand (R) shown.

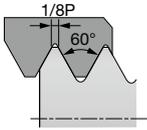
P Steel	★								
M Stainless	★								
K Cast iron	★								
N Non-ferrous									
S Superalloys	★								
H Hard materials									

★ : First choice

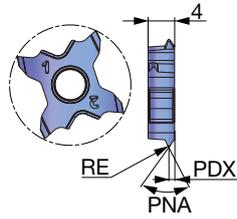
Designation	HAND	RE	Coated							TPI	PDX	PNA
			AH8015									
TCT18R-28W	R	0.11	●							28	0.6	55°
TCT18R-19W	R	0.17	●							19	0.8	55°
TCT18R-14W	R	0.23	●							14	1.05	55°
TCT18R-11W	R	0.29	●							11	1.3	55°

5 pieces per package
● : Line up

TCT18R-UNJ (Full profile threading insert)



UNJ
(Aerospace industry)



Right-hand (R) shown.

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

Designation	HAND	RE	Coated							TPI	PDX	PNA
			AH8015									
TCT18R-32UNJ	R	0.13	●							32	0.5	60°
TCT18R-28UNJ	R	0.15	●							28	0.55	60°

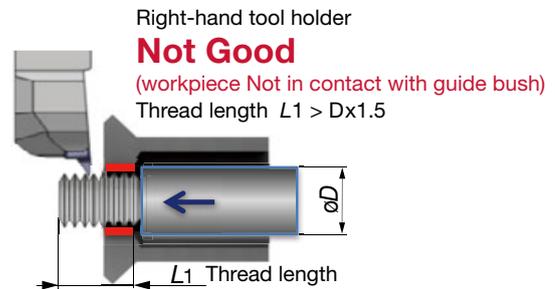
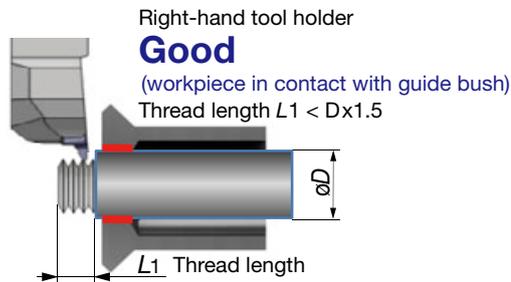
5 pieces per package
● : Line up

STANDARD CUTTING CONDITIONS

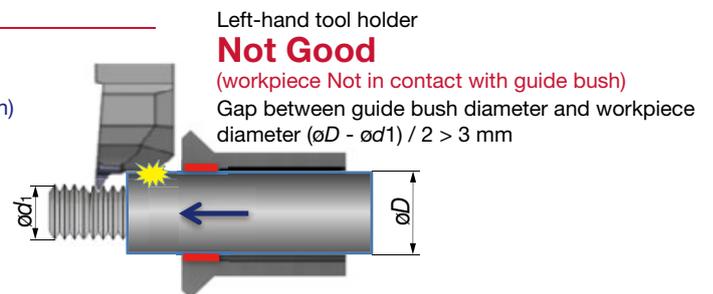
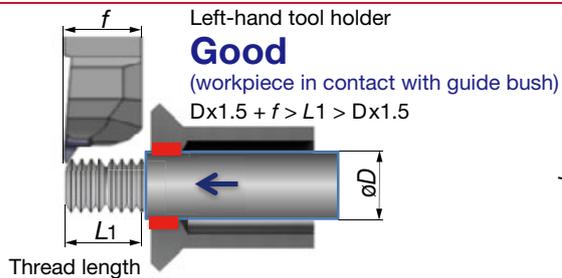
TCT18R/L / TCT18FR

ISO	Workpiece material	Hardness	Grade	Cutting speed Vc (m/min)
P	Steel / Alloy steel S45C, SCM440, etc. C45, 42CrMoS4, etc.	< 200HB	AH8015	80 - 180
			AH725	60 - 150
			SH7025	60 - 150
		> 200HB	AH8015	60 - 160
			AH725	60 - 150
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	-	AH8015	50 - 130
		-	AH725	50 - 80
		-	SH7025	50 - 80
K	Cast iron FC250, FC300, etc. 250, 300, etc.	-	AH8015	60 - 150
		-	AH725	50 - 100
		-	SH7025	50 - 100
S	Superalloys Ti-6Al-4V, Inconel718, etc.	-	AH8015	20 - 80
		-	AH725	20 - 80
		-	SH7025	20 - 80

Cautions when machining in guide bushing



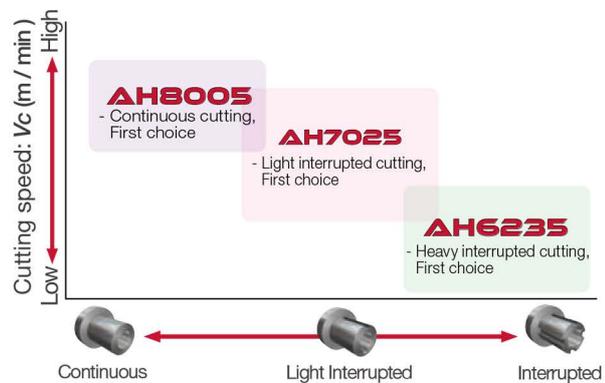
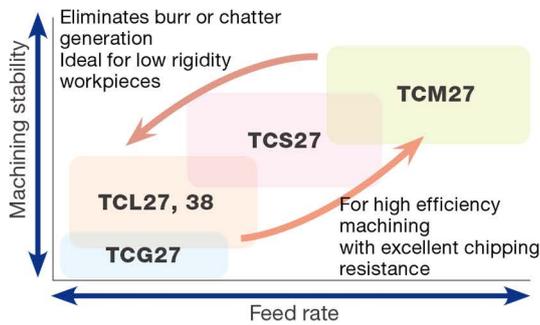
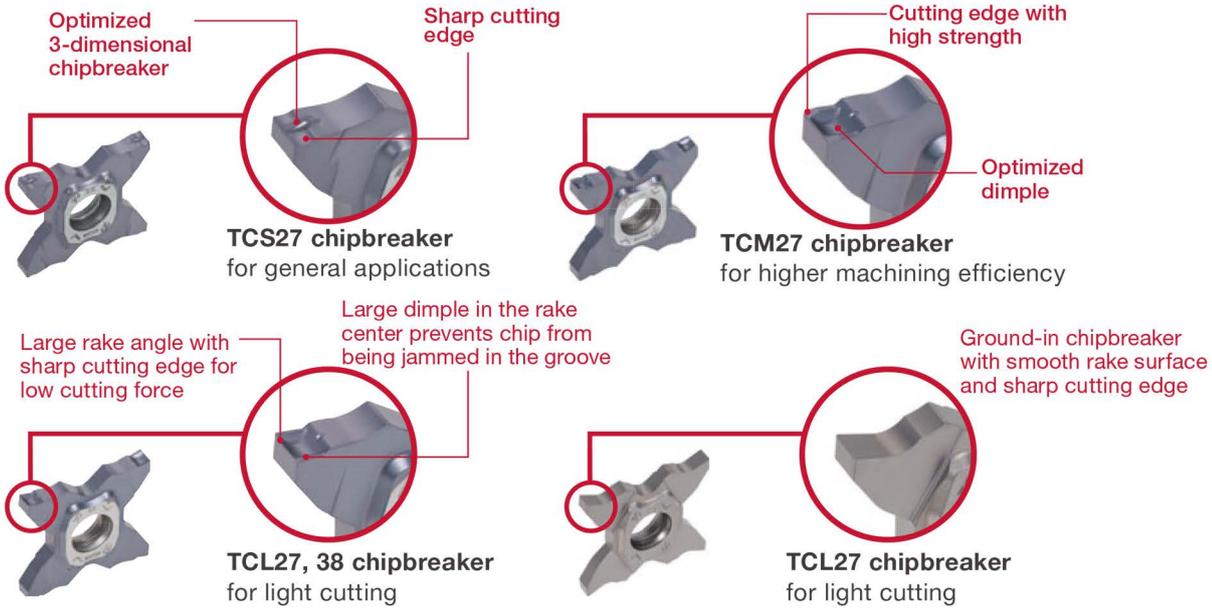
Threading operation following back-turning



TETRAFORCE

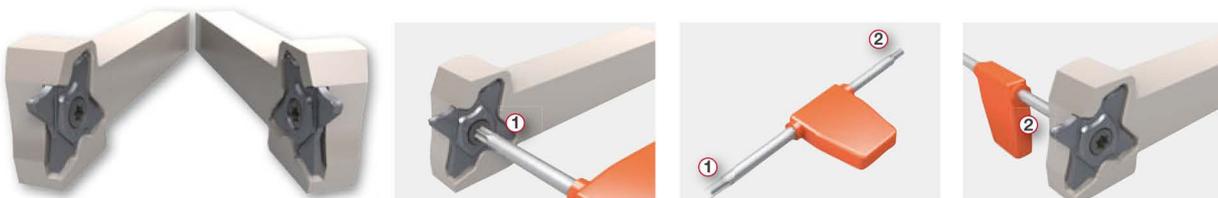
INNOVATIVE INSERTS

- Suitable for precision grooving or parting-off in general machining including small parts
- Four types of chipbreakers available for TC*27 inserts

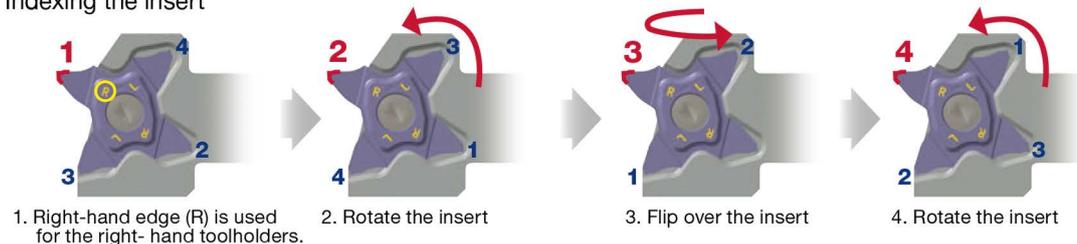


The same insert can be mounted on either the right- or left-hand holder

Insert can be clamped either from front or back side of the holder



Indexing the insert



Tungaloy Report No. 416-G

CUTTING PERFORMANCE

P 3D chipbreaker
TCL27, 38
Toolholder : STCL2525-27
Insert : TCL27-200-020 AH7025
Workpiece material: SCM415

Cutting speed: Vc (m/min)	150				
		0.05	0.07	0.1	0.12
Feed: f (mm/rev)					



P 3D chipbreaker
TCS27
Toolholder : STCL2525-27
Insert : TCS27-200-020 AH7025
Workpiece material: SCM415

Cutting speed: Vc (m/min)	150				
		0.07	0.1	0.12	0.15
Feed: f (mm/rev)					



P 3D chipbreaker
TCM27
Toolholder : STCL2525-27
Insert : TCM27-200-020 AH7025
Workpiece material: SCM415

Cutting speed: Vc (m/min)	150				
		0.1	0.12	0.15	0.2
Feed: f (mm/rev)					

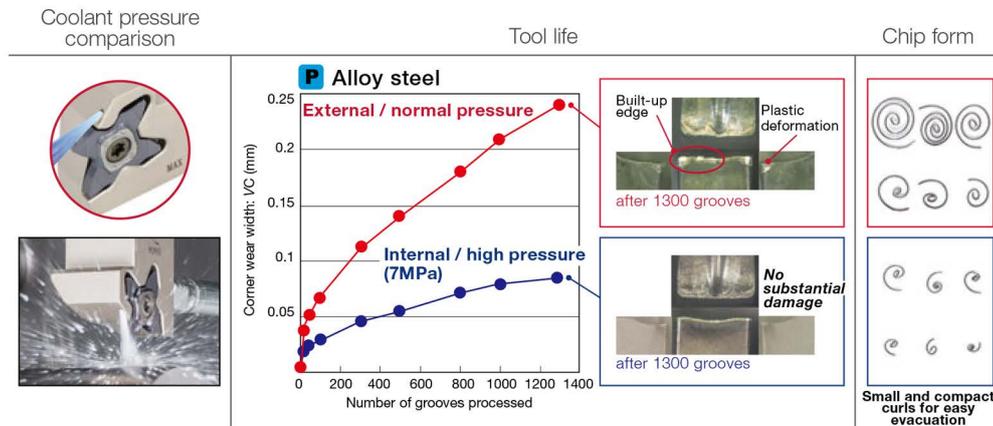


P Ground-in chipbreaker
TCG27
Toolholder : STCL2525-27
Insert : TCG27-200-020 NS9530
Workpiece material: SCM415

Cutting speed: Vc (m/min)	150				
		0.03	0.05	0.07	0.1
Feed: f (mm/rev)					



Benefits of using high pressure coolant



Toolholder : STCR2525-27-CHP
Insert : TCS27-200-020 AH7025
Workpiece material : SCM440 / 42CrMo4
Cutting speed : Vc = 180 m/min
Feed : f = 0.12 mm/rev
Groove width : 2 mm
Groove depth : 5 mm

CHP type toolholders for high-pressure coolant

The coolant is supplied to the cutting edge providing good chip control and long tool life.

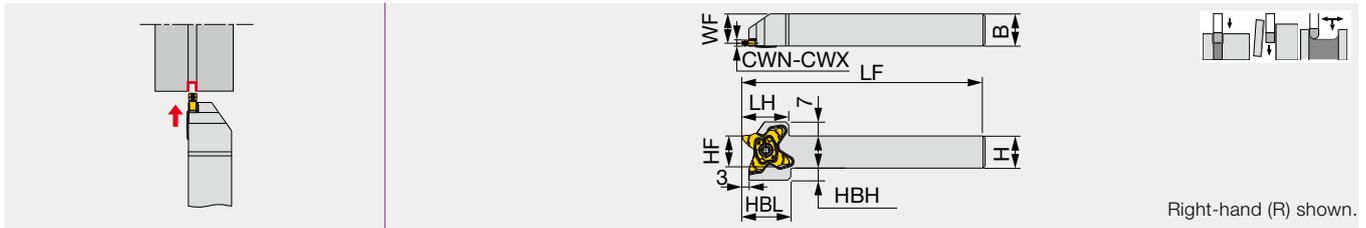
New Expansion of CHP 16 square shank toolholder.



TOOLHOLDER

STCR/L-27

External toolholders for grooving, parting



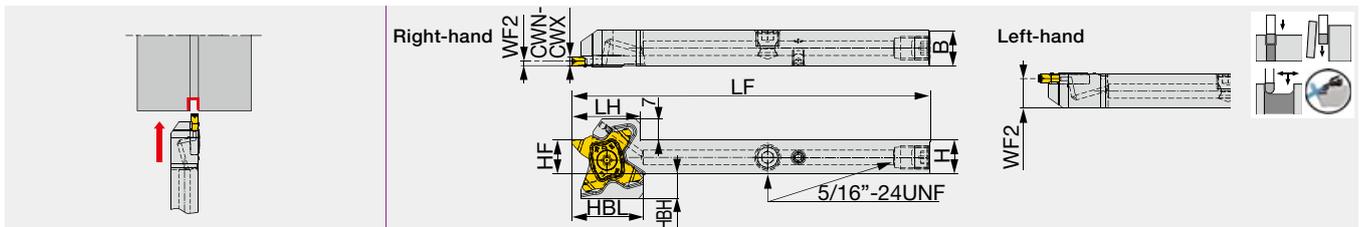
Designation	CWN	CWX	H	B	LF	LH	HBL	HF	WF	HBH	Insert	Torque*
STCR/L1010-27	0.5	3.18	10	10	120	23	24	10	8.5	9.5	TC*27...	2.5
STCR/L1212-27	0.5	3.18	12	12	120	23	24	12	10.5	8	TC*27...	2.5
STCR/L1616-27	0.5	3.18	16	16	120	23	24	16	14.5	6	TC*27...	2.5
STCR/L2020-27	0.5	3.18	20	20	120	23	24	20	18.5	2	TC*27...	2.5
STCR/L2525-27	0.5	3.18	25	25	135	23	-	25	23.5	-	TC*27...	2.5

Torque*: Recommended clamping torque (N-m)

STCR/L-27-CHP

Direct connection

External grooving and parting toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HF	WF2	HBH	HBL	Insert	Torque*
STCR/L1212-27-CHP	0.5	3.18	12	12	120	23	12	1.5/10.5	8	24	TC*27...	2.5
New STCR/L1616-27-CHP	0.5	3.18	16	16	120	23	16	1.5/14.5	4	24	TC*27...	2.5

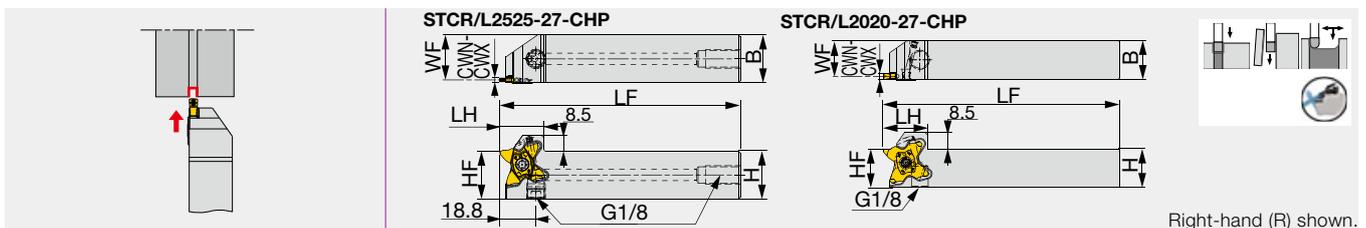
New: Will be released in November 2025.

- Make sure to avoid tool interferences when used on Swiss machines
Torque*: Recommended clamping torque (N-m)

STCR/L-27-CHP

Tube connection

External grooving and parting toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	LH	HF	WF	Insert	Torque*
STCR/L2020-27-CHP	0.5	3.18	20	20	120	23	20	18.5	TC*27...	2.5
STCR/L2525-27-CHP	0.5	3.18	25	25	125	23	25	23.5	TC*27...	2.5

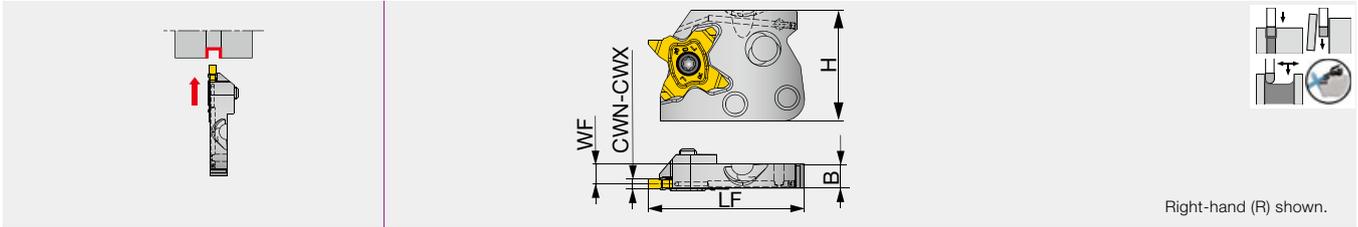
Torque*: Recommended clamping torque (N-m)

SPARE PARTS

Designation	Screw	Wrench	Coolant plug	Wrench	DirectJet plug	Wrench
STCR*-27, STCR2020-27-CHP	SR16-212-01397L	T-2010/5	-	-	-	-
STCL*-27, STCL2020-27-CHP	SR16-212-01397	T-2010/5	-	-	-	-
STCR1212-27-CHP, STCR1616-27-CHP	SR16-212-01397L	T-2010/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCL1212-27-CHP, STCL1616-27-CHP	SR16-212-01397	T-2010/5	SR5/16UNFTL360	P-4	SSHM4-6-TB	P-2
STCR2525-27-CHP	SR16-212-01397L	T-2010/5	PLUGG1/8-6.5TL360	-	-	-
STCL2525-27-CHP	SR16-212-01397	T-2010/5	PLUGG1/8-6.5TL360	-	-	-

STCAR/L27-CHP

External grooving and parting adapter, with high pressure coolant capability



Right-hand (R) shown.

Designation	CWN	CWX	WF	H	LF	B	Insert	Torque*
STCAR/L27-CHP	0.5	3.18	6	33	46	7.2	TC*27...	2.5

Torque*: Recommended clamping torque (N·m)

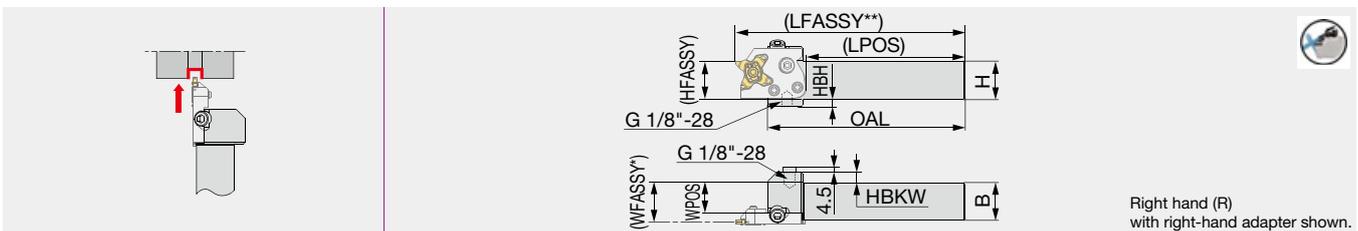
SPARE PARTS

Designation	Screw	Wrench
STCAR27-CHP	SR16-212-01397L	T-2010/5
STCAL27-CHP	SR16-212-01397	T-2010/5

CHSR/L-CHP

Tube connection

Shank for adapter, with high pressure coolant capability



Right hand (R) with right-hand adapter shown.

Designation	H	B	OAL	LPOS	WPOSS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	STCAR/L27-CHP	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	STCAR/L27-CHP	6.5
CHSR/L3232-CHP	32	32	140	115.5	27.1	-	32	-	STCAR/L27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L*-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

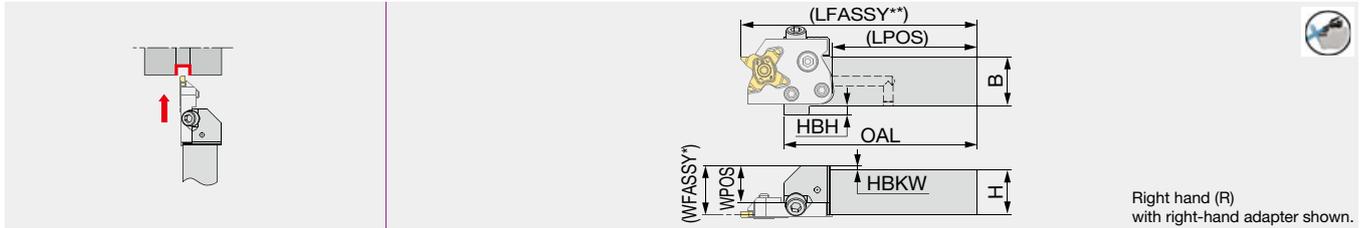
Shank	Adapter	
	STCAR27-CHP	STCAL27-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

CHSR/L-CHP-MC

Direct connection

Shank for adapter, with high pressure coolant capability



Designation	H	B	OAL	LPOS	WPOS	HBKW	HBH	Adapter (Option)	Torque*
CHSR/L2020-CHP-MC	20	20	98	73.5	14	6	10	STCAR/L27-CHP	6.5
CHSR/L2525-CHP-MC	25	25	98	73.5	19	-	5	STCAR/L27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (WF)

LFASSY** : Shank (LPOS) + adapter (LF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHSR/L*-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	-

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

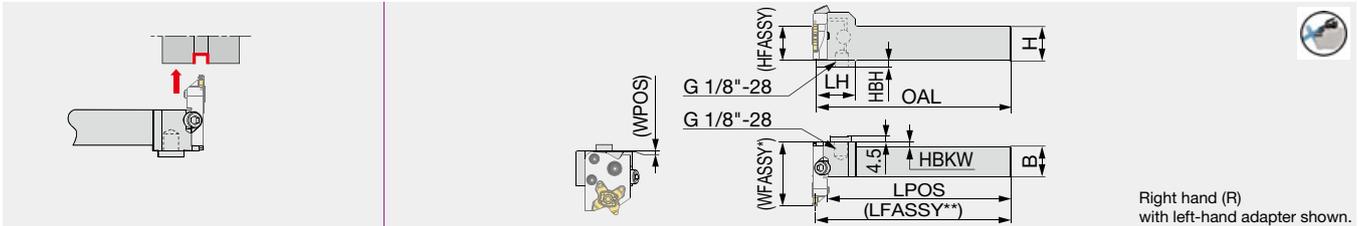
Shank	Adapter	
	STCAR27-CHP	STCAL27-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

CHFVR/L-CHP

Tube connection

Shank for perpendicularly-mounted adapter, with high pressure coolant capability



Right hand (R)
with left-hand adapter shown.

Designation	H	B	OAL	LH	LPOS	WPOS	HBKW	HFASSY	HBH	Adapter (Option)	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	STCAL/R27-CHP	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	-	25	5	STCAL/R27-CHP	6.5
CHFVR/L3232-CHP	32	32	150	-	145.1	7.3	-	32	-	STCAL/R27-CHP	6.5

WFASSY* : Shank (WPOS) + adapter (LF)

LFASSY** : Shank (LPOS) + adapter (WF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring	Plug
CHFVR/L...	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N	PLUGG1/8ISO1179

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

Combination of adapter and shank

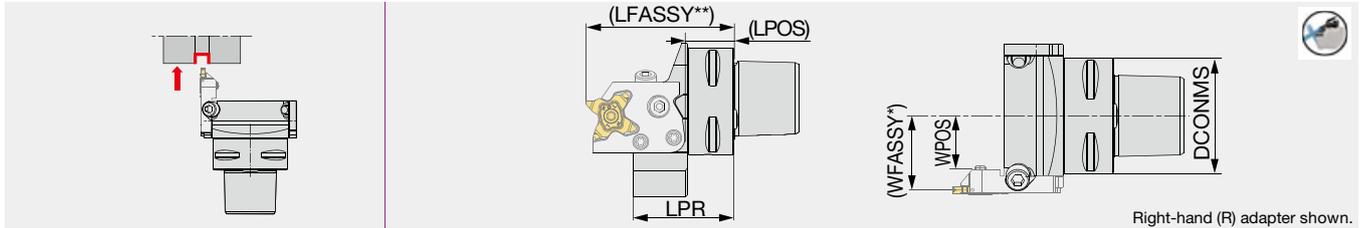
Shank	Adapter	
	STCAR27-CHP	STCAL27-CHP
CHSR**-CHP (-MC)	●	
CHSL**-CHP (-MC)		●
CHFVR**-CHP		●
CHFVL**-CHP	●	

● : Corresponding

C*CHSN-CHP

Direct connection

Toolholder with TungCap connection, for adapter, with high pressure coolant capability



Right-hand (R) adapter shown.

Designation	DCONMS	LPR	LPOS	WPOS	Adapter (Option)	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	STCAR/L27-CHP	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	STCAR/L27-CHP	6.5
C5CHSN26047-CHP	50	47	22.5	26	STCAR/L27-CHP	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	STCAR/L27-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (WF)

LFASSY** : Toolholder (LPOS) + adapter (LF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

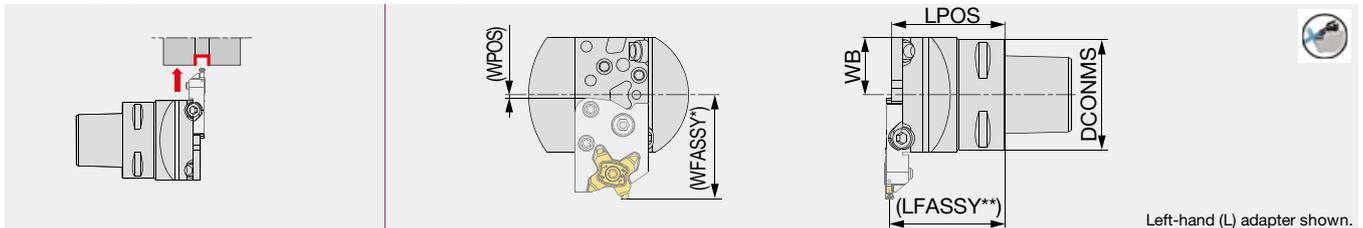
Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

Direct connection

Toolholder with TungCap connection, for perpendicularly-mounted adapter, with high pressure coolant capability



Left-hand (L) adapter shown.

Designation	DCONMS	LPOS	WB	WPOS	Adapter (Option)	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	STCAR/L27-CHP	6.5
C4CHFVN26046-CHP	40	46	26	1.5	STCAR/L27-CHP	6.5
C5CHFVN26046-CHP	50	46	26	1.5	STCAR/L27-CHP	6.5
C6CHFVN33046-CHP	63	46	33	8.5	STCAR/L27-CHP	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)

LFASSY** : Toolholder (LPOS) + adapter (WF)

Depending on the adapter type, the value of LFASSY or WFASSY may change.

Torque*: Recommended clamping torque (N·m)

Applicable for 30 MPa coolant

Please see P58 for instructions on installing and removing the adapter or the insert.

SPARE PARTS

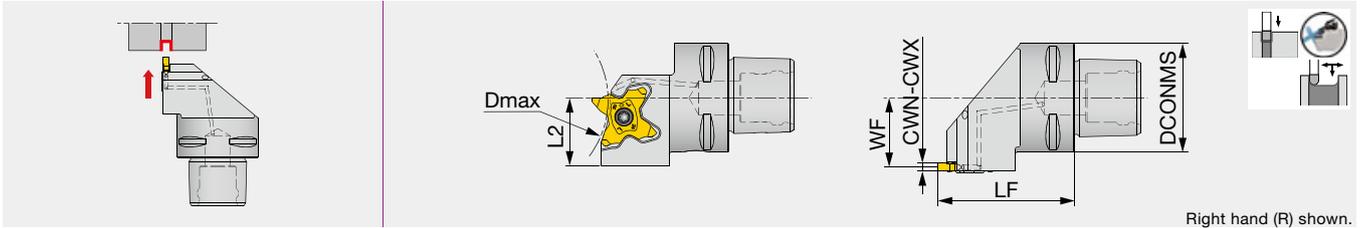
Designation	Clamping screw 1	Wrench 1	Clamping screw 2	Clamping screw 3	Wrench 2	O-ring
C*CH**N***-CHP	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW5.0	OR 5X1N

Recommended clamping torque (N·m)

Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

C-STCR/L-27-CHP

External grooving and parting toolholder, with high pressure coolant capability



Right hand (R) shown.

Designation	CWN	CWX	DCONMS	LF	L2	WF	Dmax	Insert	Torque*
C4STCR/L27050-27-CHP	0.5	3.18	40	50	25	25.5	68 ⁽¹⁾	TC*27...	2.5

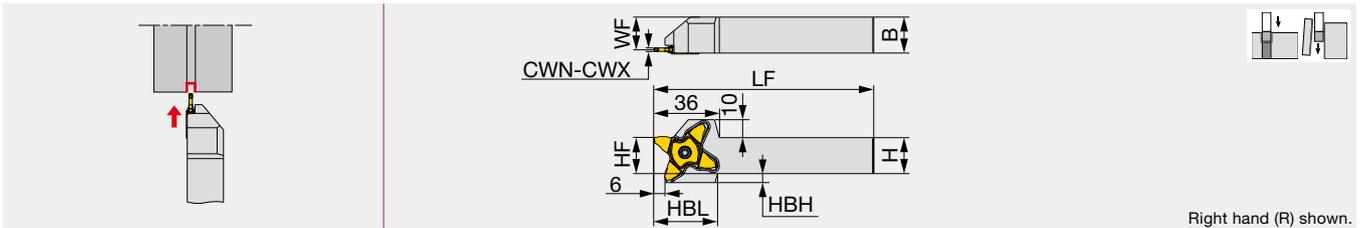
Applicable for 14 MPa coolant

(1) The value for 6.4 mm groove depth. Dmax varies according to the grooving depth required.

Torque*: Recommended clamping torque (N·m)

STCR/L-38

External grooving and parting toolholder



Right hand (R) shown.

Designation	CWN	CWX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
STCR/L2020-38	1.5	4	20	20	120	20	18.1	5	35	TCL38...	2.5
STCR/L2525-38	1.5	4	25	25	135	25	23.1	-	-	TCL38...	2.5
STCR/L3232-38	1.5	4	32	32	135	32	30.1	-	-	TCL38...	2.5

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

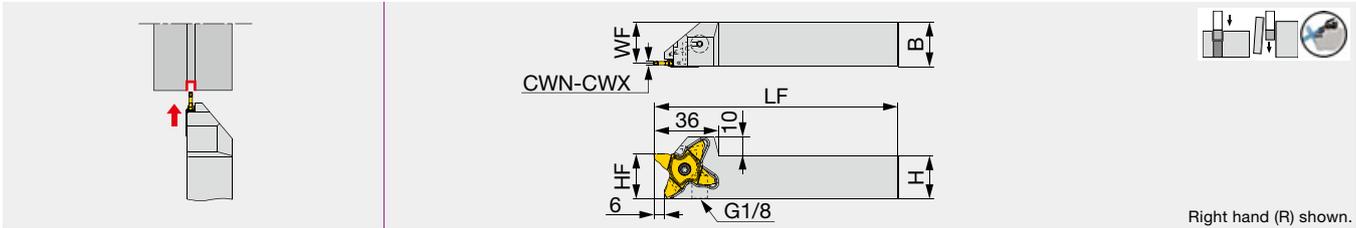


Designation	Screw	Wrench
C4STCR27050-27-CHP	SR16-212-01397L	T-2010/5
C4STCL27050-27-CHP	SR16-212-01397	T-2010/5
STCR...	SR16-212-01397L	T-2010/5
STCL...	SR16-212-01397	T-2010/5

STCR/L-38-CHP

Tube connection

External grooving and parting toolholder, with high pressure coolant capability



Designation	CWN	CWX	H	B	LF	HF	WF	Insert	Torque*
STCR/L2525-38-CHP	1.5	4	25	25	135	25	23.1	TCL38...	2.5

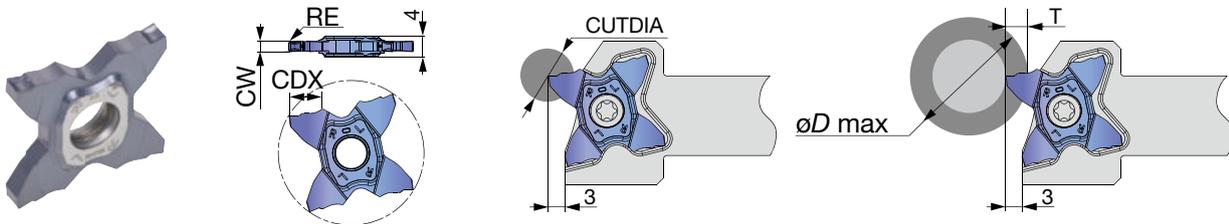
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Screw	Wrench
C4STCR27050-27-CHP	SR16-212-01397L	T-2010/5
C4STCL27050-27-CHP	SR16-212-01397	T-2010/5

INSERTS

TCL27 (3D chipbreaker)



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

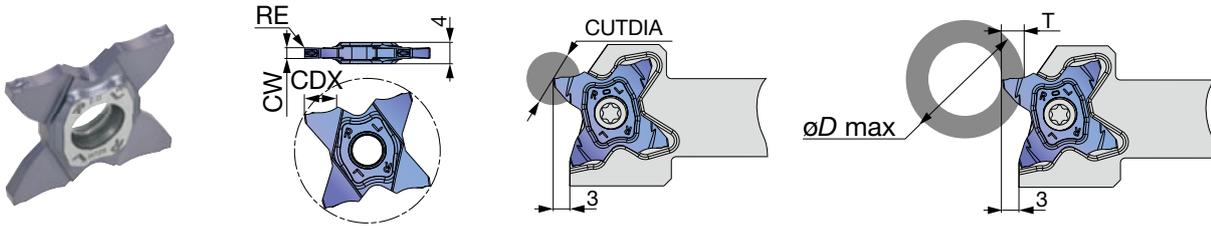
★ : First choice

Designation	CW±0.02	RE	Coated			CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH8005	AH7025	AH6235			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
			TCL27-150-015	1.5	0.15			●	●	●	5.7	11.4	∞	600	280	180	130
TCL27-200-020	2	0.2	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCL27-250-020	2.5	0.2	●	●	●	6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCL27-300-020	3	0.2	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55

5 pieces per package

●: Line up

TCS27 (3D chipbreaker)



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

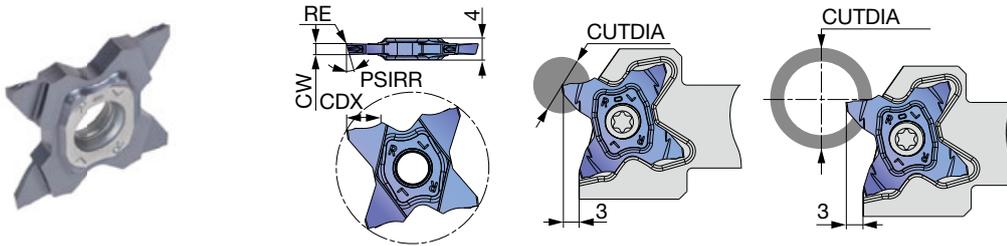
★ : First choice

Designation	CW±0.02	RE	Coated			CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)												
			AH8005	AH7025	AH6235			T≤1	T≤2	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	
			●	●	●			∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞
TCS27-050-000	0.5	0	●	●	●	1	2	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-050-004	0.5	0.04	●	●	●	2.5	5	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-075-010	0.75	0.1	●	●	●	2.5	5	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-080-000	0.8	0	●	●	●	1.6	3.2	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-100-006	1	0.06	●	●	●	3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-100-010	1	0.1	●	●	●	3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-104-000	1.04	0	●	●	●	2	4	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-120-000	1.2	0	●	●	●	2	4	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-125-010	1.25	0.1	●	●	●	3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-125-020	1.25	0.2	●	●	●	3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-140-000	1.4	0	●	●	●	2	4	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-147-000	1.47	0	●	●	●	2.5	5	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-150-010	1.5	0.1	●	●	●	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-150-020	1.5	0.2	●	●	●	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-157-015	1.57	0.15	●	●	●	3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-170-010	1.7	0.1	●	●	●	3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-175-010	1.75	0.1	●	●	●	3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-175-020	1.75	0.2	●	●	●	3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-178-018	1.78	0.18	●	●	●	3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-185-020	1.85	0.2	●	●	●	3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-196-015	1.96	0.15	●	●	●	3	6	∞	∞	∞	-	-	-	-	-	-	-	-	-	
TCS27-200-010	2	0.1	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	130	105	85	60	50	30	
TCS27-200-020	2	0.2	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	130	105	85	60	50	30	
TCS27-222-015	2.22	0.15	●	●	●	3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-230-020	2.3	0.2	●	●	●	3.5	7	∞	∞	∞	600	-	-	-	-	-	-	-	-	
TCS27-239-015	2.39	0.15	●	●	●	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-247-020	2.47	0.2	●	●	●	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-250-010	2.5	0.1	●	●	●	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-250-030	2.5	0.3	●	●	●	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	
TCS27-270-010	2.7	0.1	●	●	●	6.2	12.4	∞	∞	∞	600	280	180	135	105	95	85	78	-	
TCS27-287-020	2.87	0.2	●	●	●	6.2	12.4	∞	∞	∞	600	280	180	135	105	95	85	78	-	
TCS27-300-000	3	0	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-300-020	3	0.2	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-300-030	3	0.3	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-300-040	3	0.4	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	
TCS27-315-015	3.15	0.15	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	68	
TCS27-318-020	3.18	0.2	●	●	●	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	68	

5 pieces per package

●: Line up

TCS27-R/L (3D chipbreaker)



Right hand (R) shown.

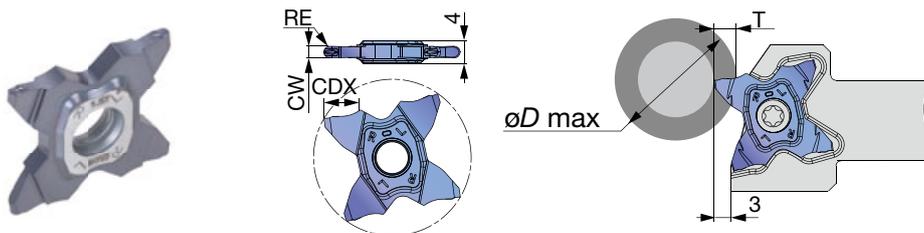
P	Steel	★	★	★
M	Stainless	★	★	★
K	Cast iron	★	★	★
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

★ : First choice

Designation	HAND	CW±0.02	RE	Coated			CDX	PSIRL	PSIRR	Max. parting off dia. CUTDIA	
				AH8005	AH7025	AH6235				Solid bar	Tube
				●	●	●					
TCS27-100-15R	R	1	0.06	●	●	●	3.5	0°	15°	7	600
TCS27-100-15L	L	1	0.06	●	●	●	3.5	15°	0°	7	600
TCS27-150-6R	R	1.5	0.06	●	●	●	5.7	0°	6°	11.4	35
TCS27-150-6L	L	1.5	0.06	●	●	●	5.7	6°	0°	11.4	35
TCS27-150-15R	R	1.5	0.06	●	●	●	5.7	0°	15°	11.4	35
TCS27-150-15L	L	1.5	0.06	●	●	●	5.7	15°	0°	11.4	35
TCS27-200-6R	R	2	0.1	●	●	●	6.4	0°	6°	12.8	30
TCS27-200-6L	L	2	0.1	●	●	●	6.4	6°	0°	12.8	30
TCS27-200-15R	R	2	0.1	●	●	●	6.4	0°	15°	12.8	30
TCS27-200-15L	L	2	0.1	●	●	●	6.4	15°	0°	12.8	30

5 pieces per package
●: Line up

TCS27 (3D chipbreaker, Full R)



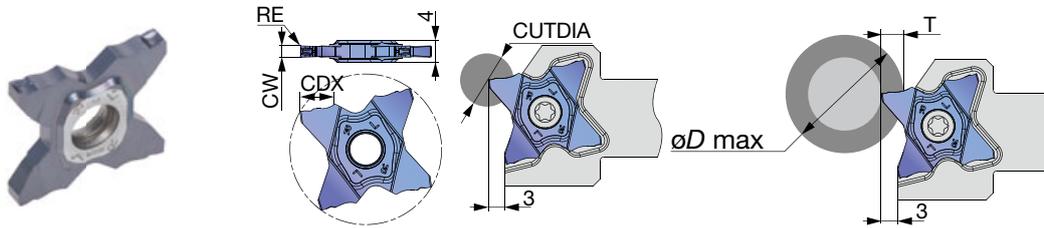
P	Steel	★	★	★
M	Stainless	★	★	★
K	Cast iron	★	★	★
N	Non-ferrous			
S	Superalloys	★	★	
H	Hard materials			

★ : First choice

Designation	CW±0.02	RE	Coated			CDX	Relation of groove depth (T) and Max. diameter (øD max)										
			AH8005	AH7025	AH6235		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	
			●	●	●		∞	-	-	-	-	-	-	-	-	-	-
TCS27-157-079	1.57	0.79	●	●	●	3	∞	-	-	-	-	-	-	-	-	-	-
TCS27-200-100	2	1	●	●	●	3	∞	-	-	-	-	-	-	-	-	-	-
TCS27-239-120	2.39	1.2	●	●	●	5.7	∞	600	280	180	130	50	35	-	-	-	-
TCS27-300-150	3	1.5	●	●	●	6.4	∞	600	280	180	135	105	95	85	78	55	-

5 pieces per package
●: Line up

TCM27 (3D chipbreaker)



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

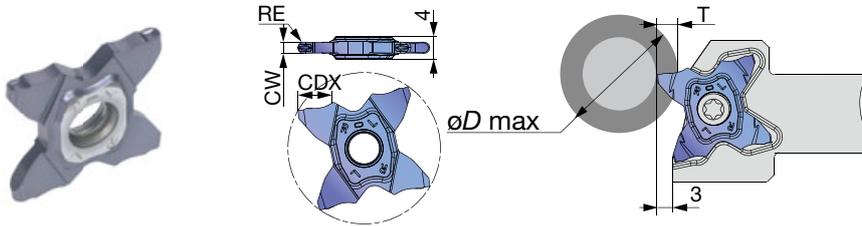
★ : First choice

Designation	CW±0.02	RE	Coated				CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH8005	AH7025	AH6235	AH725			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
									●	●	●	●	●	●	●	●	●	●
TCM27-150-010	1.5	0.1	●	●	●		5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-150-020	1.5	0.2	●	●	●		5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-157-015	1.57	0.15	●	●	●		3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-170-010	1.7	0.1	●	●	●		3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-175-010	1.75	0.1	●	●	●		3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-175-020	1.75	0.2	●	●	●		3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-178-018	1.78	0.18	●	●	●		3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-185-020	1.85	0.2	●	●	●		3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-196-015	1.96	0.15	●	●	●		3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-200-010	2	0.1	●	●	●		6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCM27-200-020	2	0.2	●	●	●		6.4	12.8	∞	600	280	180	130	105	85	60	50	30
TCM27-222-015	2.22	0.15	●	●	●		3.5	7	∞	600	-	-	-	-	-	-	-	-
TCM27-230-020	2.3	0.2	●	●	●		3.5	7	∞	600	-	-	-	-	-	-	-	-
TCM27-239-015	2.39	0.15	●	●	●		5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-247-020	2.47	0.2	●	●	●		5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-250-010	2.5	0.1	●	●	●		5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-250-030	2.5	0.3	●	●	●		5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-270-010	2.7	0.1	●	●	●		6.2	12.4	∞	600	280	180	135	105	95	85	78	-
TCM27-287-020	2.87	0.2	●	●	●		6.2	12.4	∞	600	280	180	135	105	95	85	78	-
TCM27-300-000	3	0	●	●	●		6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-300-020	3	0.2	●	●	●		6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-300-030	3	0.3	●	●	●		6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-300-040	3	0.4	●	●	●		6.4	12.8	∞	600	280	180	135	105	95	85	78	55
TCM27-315-015	3.15	0.15	●	●	●		6.4	12.8	∞	600	280	180	135	105	95	85	78	68
TCM27-318-020	3.18	0.2	●	●	●		6.4	12.8	∞	600	280	180	135	105	95	85	78	68

5 pieces per package

●: Line up

TCM27 (3D chipbreaker, Full R)



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

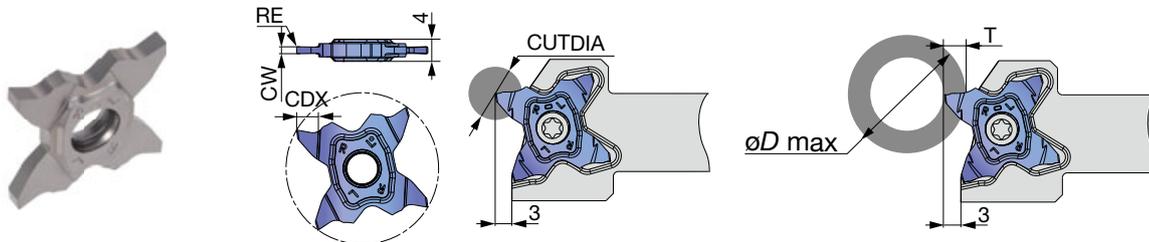
★ : First choice

Designation	CW±0.02	RE	Coated			CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			AH8005	AH7025	AH6235			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
			TCM27-157-079	1.57	0.79			●	●	●	3	6	∞	-	-	-	-
TCM27-200-100	2	1	●	●	●	3	6	∞	-	-	-	-	-	-	-	-	-
TCM27-239-120	2.39	1.2	●	●	●	5.7	11.4	∞	600	280	180	130	50	35	-	-	-
TCM27-300-150	3	1.5	●	●	●	6.4	12.8	∞	600	280	180	135	105	95	85	78	55

5 pieces per package

● : Line up

TCG27



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

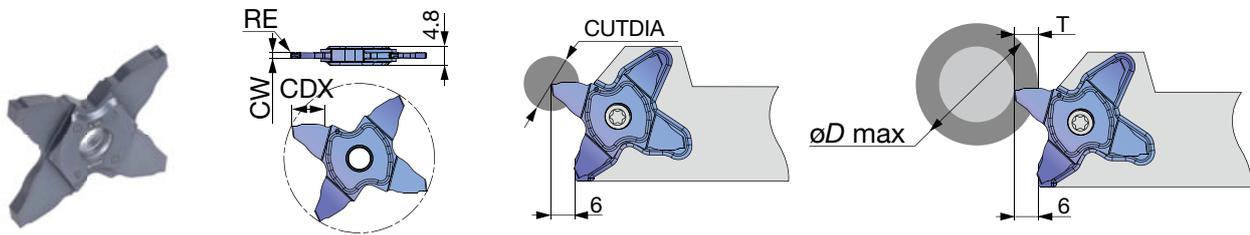
★ : First choice

Designation	CW±0.02	RE	Cermet		CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			NS9530				T≤3	T≤3.5	T≤4	T≤5	T≤5.5	T≤5.7	T≤6	T≤6.2	T≤6.4	
			TCG27-125-020	1.25			0.2	●		3.5	7	∞	600	-	-	-
TCG27-150-020	1.5	0.2	●		5.7	11.4	∞	600	280	130	50	35	-	-	-	-
TCG27-175-020	1.75	0.2	●		5.7	11.4	∞	600	280	130	50	35	-	-	-	-
TCG27-200-020	2	0.2	●		6.4	12.8	∞	600	280	130	105	85	60	50	30	
TCG27-230-020	2.3	0.2	●		6.4	12.8	∞	600	280	130	105	85	60	50	30	
TCG27-250-030	2.5	0.3	●		6.4	12.8	∞	600	280	130	105	85	60	50	30	
TCG27-265-030	2.65	0.3	●		6.4	12.8	∞	600	280	130	105	85	60	50	30	
TCG27-280-030	2.8	0.3	●		6.4	12.8	∞	600	280	130	105	95	85	78	55	
TCG27-300-030	3	0.3	●		6.4	12.8	∞	600	280	135	105	95	85	78	55	

5 pieces per package

● : Line up

TCL38 (3D chipbreaker)



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

★ : First choice

Designation	CW±0.02	RE	Coated		CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)					
			AH7025				T ≤ 5	T ≤ 6	T ≤ 7	T ≤ 8	T ≤ 9	T ≤ 10
TCL38-150-020	1.5	0.2	●		9	18	∞	950	315	190	45	-
TCL38-200-020	2	0.2	●		9	18	∞	950	315	190	45	-
TCL38-300-020	3	0.2	●		10	20	∞	950	315	190	130	50
TCL38-400-030	4	0.3	●		10	20	∞	950	315	190	130	50

5 pieces per package

● : Line up

STANDARD CUTTING CONDITIONS

TCL27, TCS27, TCM27, TCG27, TCL38

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed: f (mm/rev)						Depth of cut for profiling (with full radius insert)	
				Grooving, Parting off				Profiling (with full radius insert)			
				TCL	TCS	TCM	TCG	TCS	TCM		
P	Carbon steel S45C / C45, etc.	AH8005	100 - 300	0.03 - 0.12	0.05 - 0.15	0.05 - 0.25	0.03 - 0.1	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
		AH7025	100 - 200								
		AH6235	80 - 120								
		NS9530	120 - 250								
	Alloy steel SCM435 / 34CrMo4, etc.	AH8005	80 - 250	0.03 - 0.12	0.05 - 0.15	0.05 - 0.25	0.03 - 0.1	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
		AH7025	50 - 180								
		AH6235	50 - 100								
		NS9530	100 - 200								
M	Stainless steel SUS304 / X5CrNi18-9, etc.	AH8005	100 - 150	0.03 - 0.12	0.05 - 0.15	0.05 - 0.2	0.03 - 0.1	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
		AH7025	80 - 120								
		AH6235	50 - 120								
K	Grey cast iron FC250 / 250, etc.	AH8005	80 - 250	0.03 - 0.12	0.05 - 0.15	0.05 - 0.25	0.03 - 0.1	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
		AH7025	50 - 180								
		AH6235	50 - 100								
		NS9530	50 - 180								
	Ductile cast iron FCD400 / 400-15, etc.	AH8005	80 - 180	0.03 - 0.12	0.05 - 0.15	0.05 - 0.2	0.03 - 0.1	0.04 - 0.12	0.05 - 0.1	0.05 - 0.15	0.5
		AH7025	50 - 120								
		AH6235	50 - 80								
		NS9530	50 - 180								
S	Titanium alloys Ti-6Al-4V, etc.	AH8005	50 - 70	0.03 - 0.12	0.05 - 0.15	0.05 - 0.15	0.03 - 0.1	0.04 - 0.12	0.05 - 0.1	0.05 - 0.1	0.5
		AH7025	30 - 60								
	Superalloys Inconel718, etc.	AH8005	40 - 60	0.03 - 0.12	0.05 - 0.15	0.05 - 0.15	0.03 - 0.1	0.04 - 0.12	0.05 - 0.1	0.05 - 0.1	0.5
		AH7025	20 - 50								

TETRAFORCE CUT

■ 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.

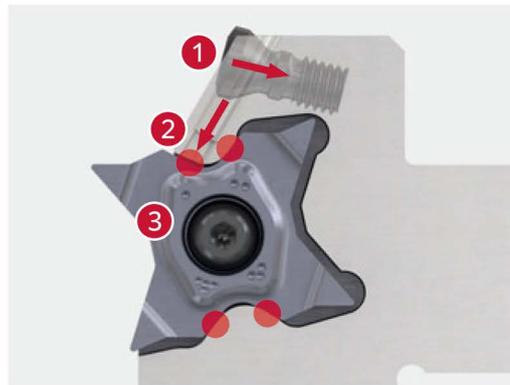
- Insert blanks in 3 different grooving widths: 10, 15 and 20 mm for TetraForce-Cut 27 type
- Custom shaped inserts can be requested based on customers part drawing specifications
- Smart clamping holder design for stable and robust mounting of wide grooving inserts
- High-pressure internal coolant toolholder: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



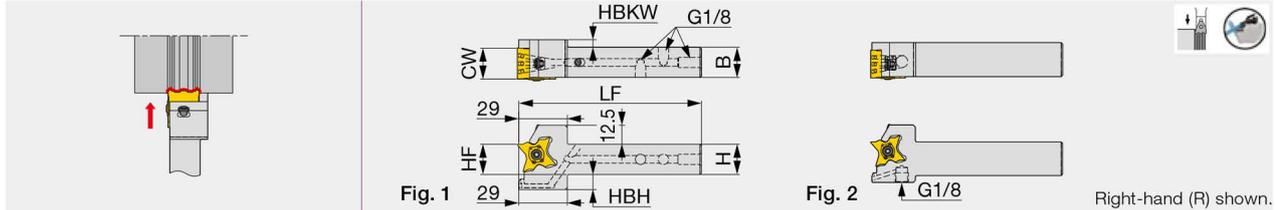
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TOOLHOLDER

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

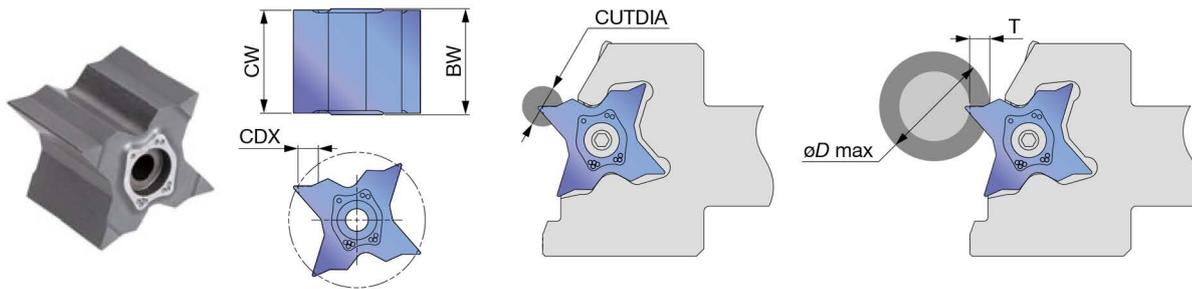
Torque*: Recommended clamping torque (N·m)

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		CDX	CUTDIA	Relation of groove depth (T) and Max. diameter (øD max)									
			TH10				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

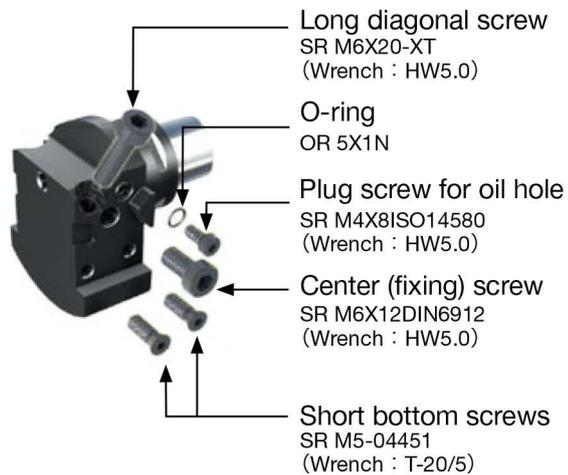
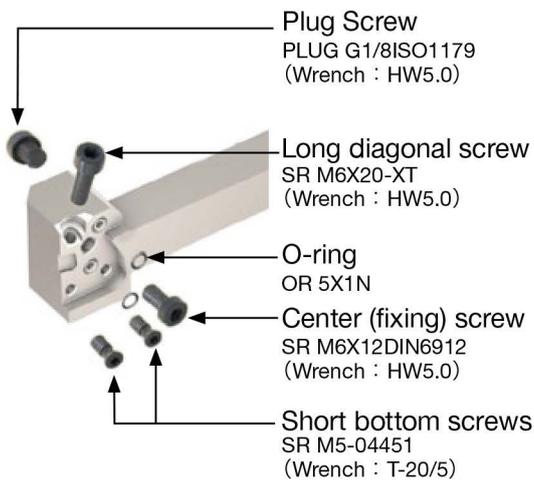
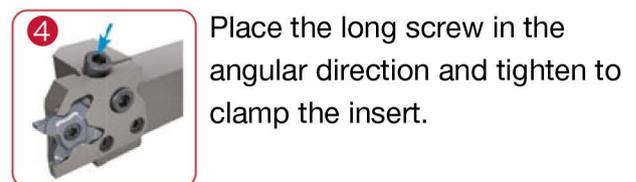
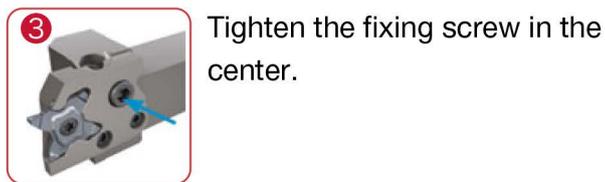
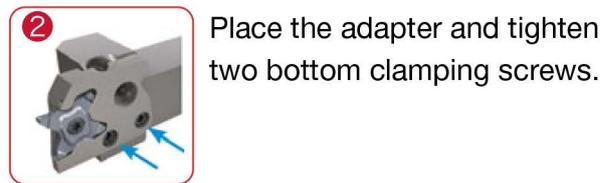
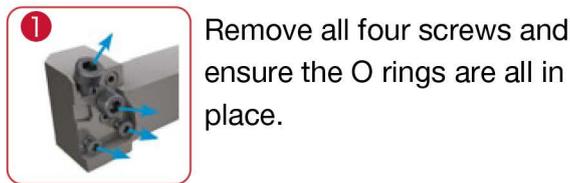
● : Line up

TETRAMCUT / TETRAFCUT

INSTRUCTIONS FOR ADAPTER ASSEMBLY

TUNGALOY **MODULAR** SYSTEM

Adapter assembly



► All parts listed here are included in the tool holder.

Tungaloy Report No. 416-G

PARTS FOR COOLANT HOSE

Connecting hose

Fig.1

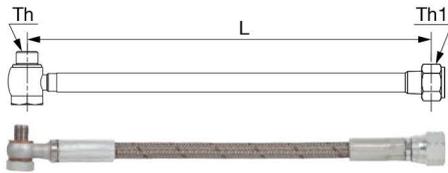
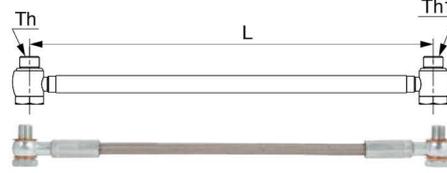
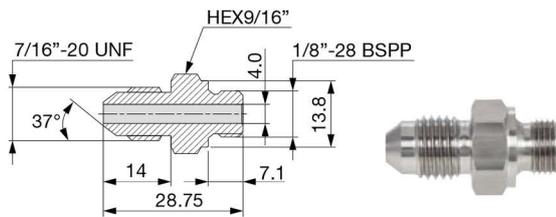


Fig.2



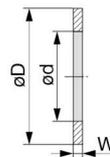
Designation	Length L	Th	Screw		Max. pressure (MPa)	Fig.
			Th1	Th1		
CHP-HOSE-G1/8-7/16-200BS	200	G1/8"-28 BSPP	7/16"-20 UNF		26	1
CHP-HOSE-G1/8-7/16-250BS	250	G1/8"-28 BSPP	7/16"-20 UNF		26	1
CHP-HOSE-5/16-7/16-200BS	200	5/16"-24UNF	7/16"-20 UNF		20	1
CHP-HOSE-5/16-G1/8-200BS	200	5/16"-24UNF	G1/8"-28 BSPP		20	1
CHP-HOSE-G1/8-G1/8-200BB	200	G1/8"-28 BSPP	G1/8"-28 BSPP		26	2
CHP-HOSE-G1/8-G1/8-250BB	250	G1/8"-28 BSPP	G1/8"-28 BSPP		26	2

Connector



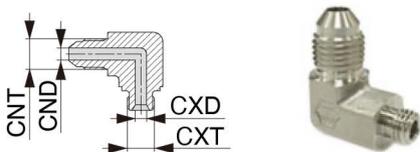
Designation
CHP-NIPPLE-G1/8-7/16UNF

Seal washer

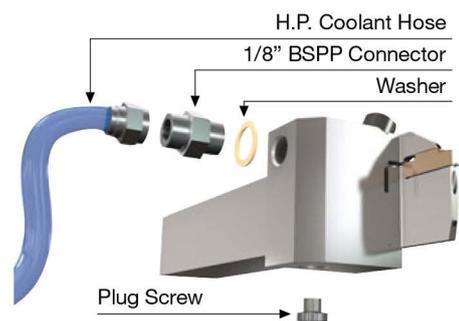


Designation	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11.9	8.15	1.35
CHP-COPPER-SEAL5/16-2.5	9.4	8	2.5

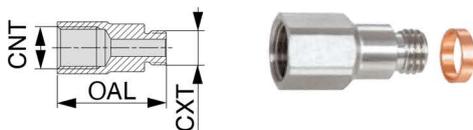
Connector elbow



Designation	CNT	CND	CXT	CXD
CHP-ELBOW-90-G1/8-7/16UNF	7/16"-20 UNF	4.4	1/8"-28 BSPP	4
CHP-ELBOW-90-5/16-7/16UNF	7/16"-20 UNF	4.4	5/16"-24 UNF	4



Connector for small lathe with seal washer



Designation	CNT	CXT	OAL
CHP-CONNECTOR5/16-G1/8	G1/8"-28 BSPP	5/16"-24 UNF	25
CHP-CONNECTOR-G1/8-R1/8	G1/8"-28 BSPP	R1/8"-28 BSPT	25

TETRAMCUT / TETRAFORCE

Expedited delivery service for special grooving insert

* CBN is excluded

Expedited delivery service for special grooving inserts is rendered under the following lead time and quantity terms. Please note that this service is applicable only for the order for an initial test batch; a repeat order is to be placed through the regular ordering process.

ORDER
3 - 15 pcs.



LEAD TIME
from the point of order receipt
(excluding transportation)

COATED INSERT
4 weeks

NON-COATED INSERT
3 weeks



DELIVERY



TETRAMCUT

18 size

Special width
& corner radii

With chamfer
edges



TETRAFORCE

27 size

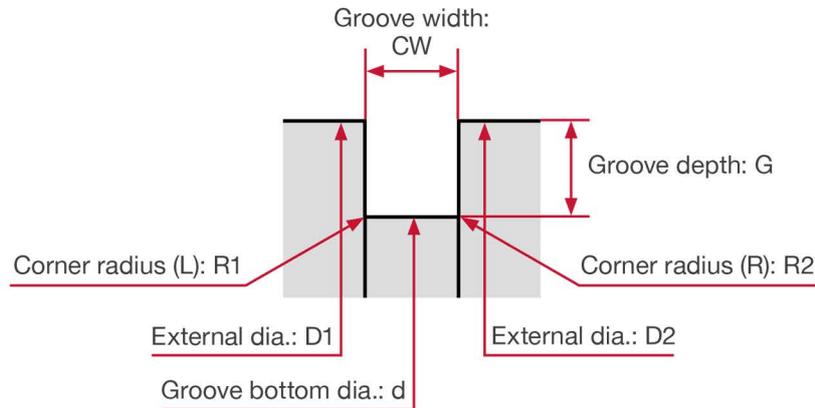
Special width
& corner radii

With chamfer edges



Tungaloy Report No. 416-G

SPECIAL WIDTH & CORNER RADII



TETRAMCUT

Groove width (CW)	Max. groove depth (G)	Corner radii (R1 / R2)	Toolholder
0.33 - 0.49 mm	- 1 mm	0	STCR/L****-18
0.50 - 0.74 mm	- 2 mm	0 or 0.05 - CW/2	
0.75 - 3.18 mm	- 2.5 mm	(Full radius is available)	

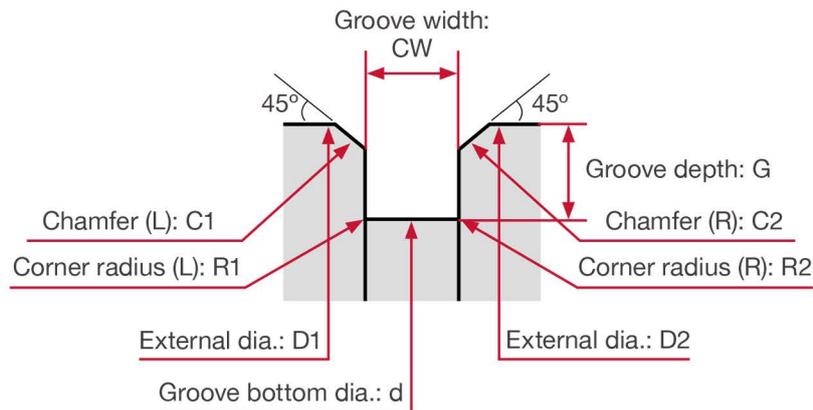
*Tolerances of the insert are based on the standard item.

TETRAFORCE

Groove width (CW)	Max. groove depth (G)	Corner radii (R1 / R2)	Toolholder
0.33 - 0.49 mm	- 1 mm	0	STCR/L****-27
0.50 - 0.99 mm	- 2.5 mm	0 or 0.05 - CW/2	
1.0 - 1.49 mm	- 3.5 mm	(Full radius is available)	
1.50 - 1.99 mm	- 5.7 mm		
2.00 - 3.18 mm	- 6.4 mm		

*Tolerances of the insert are based on the standard item.

GROOVING & CHAMFERING



TETRAMCUT

Groove width + chamfer width (CW+2C)	Max. groove depth (G)	Corner radii (R1 / R2)	Toolholder
0.5 - 3.5 mm	0.50 - 2 mm	0 or 0.05 - CW/2	STCR/L****-18

*Tolerances of the insert are based on the standard item.

Max. width of chamfer is 0.5 mm.

Some combinations of a groove width, depth, a corner radius(R), and chamfer may be unable to be manufactured.

TETRAFORCE

Groove width + chamfer width (CW+2C)	Max. groove depth (G)	Corner radii (R1 / R2)	Toolholder
0.5 - 3 mm	0.50 - 3 mm	0 or 0.05 - CW/2	STCR/L****-27

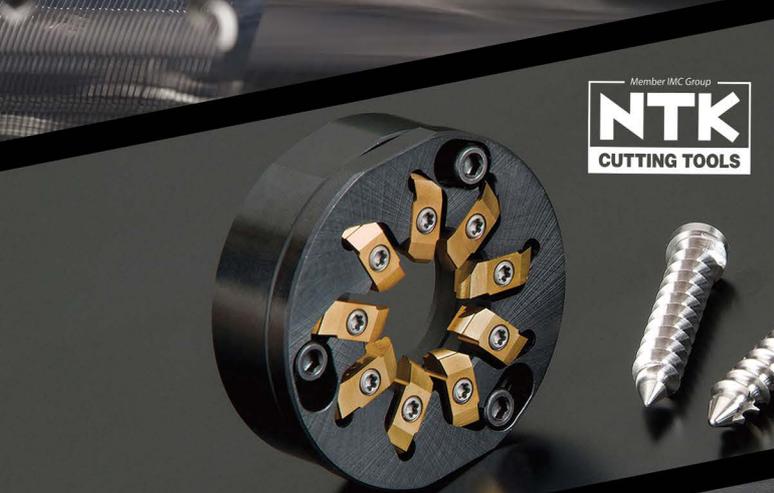
*Tolerances of the insert are based on the standard item.

Max. width of chamfer is 0.5 mm.

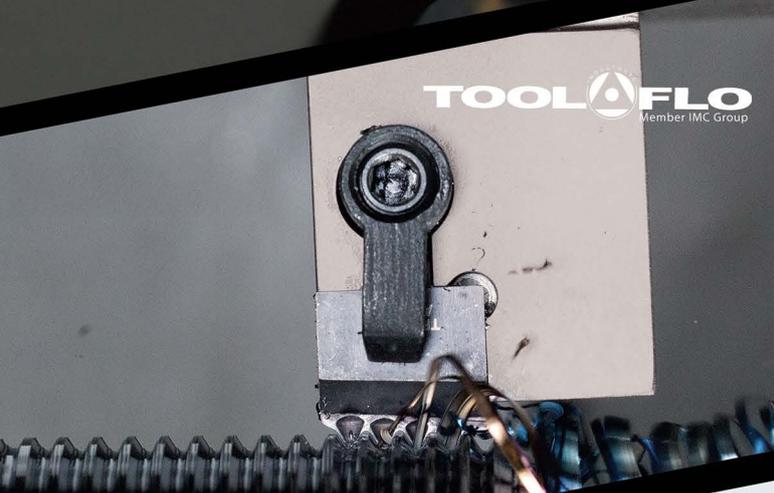
Some combinations of a groove width, depth, a corner radius(R), and chamfer may be unable to be manufactured.



TaeguTec
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NTK
CUTTING TOOLS



TOOL FLO
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Member IMC Group
Tungaloy



SLOKY[®]

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METALWORK**

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For more information

