NEW PRODUCT NEWS

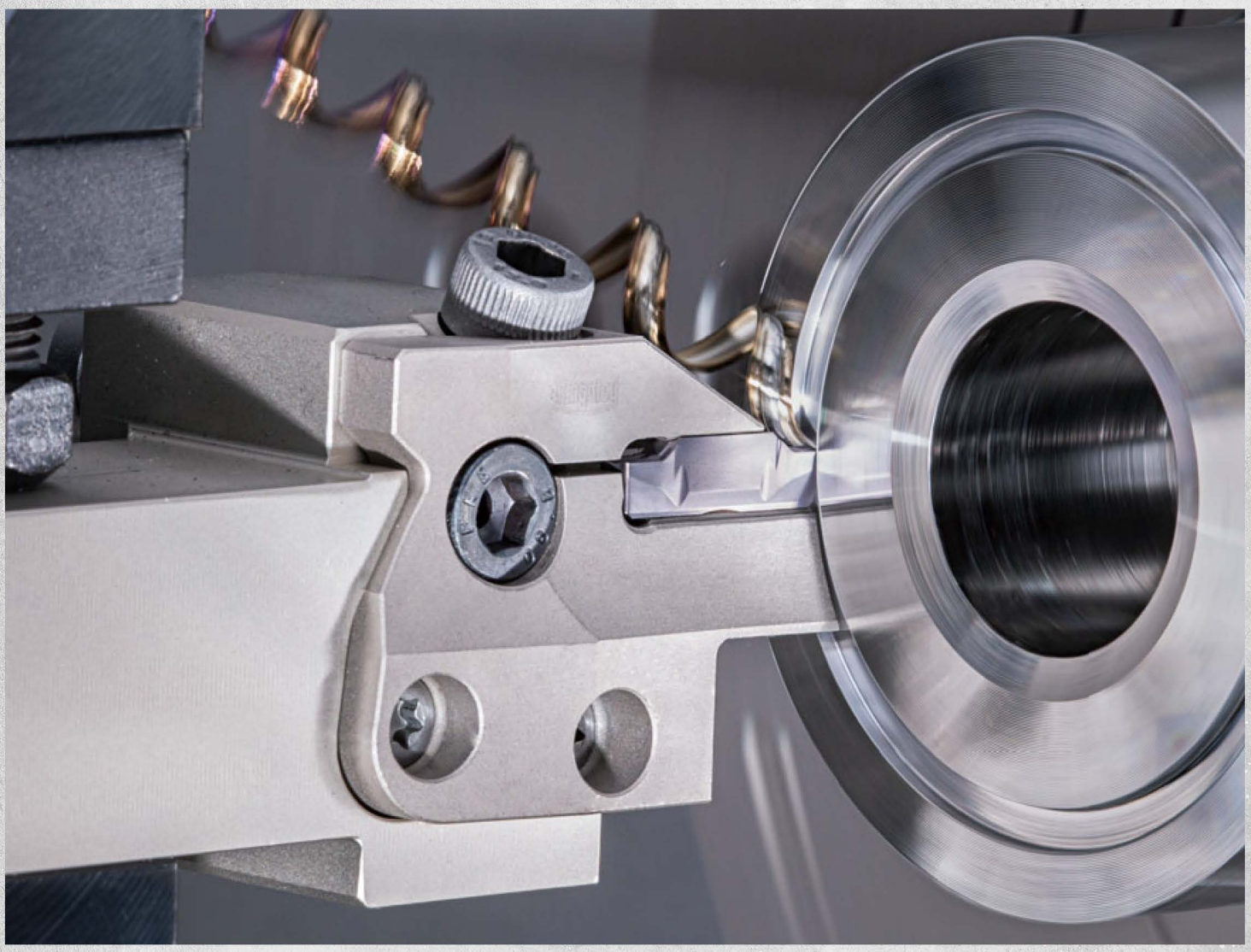
mgt
MEGA TECH METALWORK

Tungaloy Report No. 391-G

Grooving and parting-off tool

TUNGSHORTCUT / TUNGCUT

New Tung Modular System adapters for face grooving applications with external coolant



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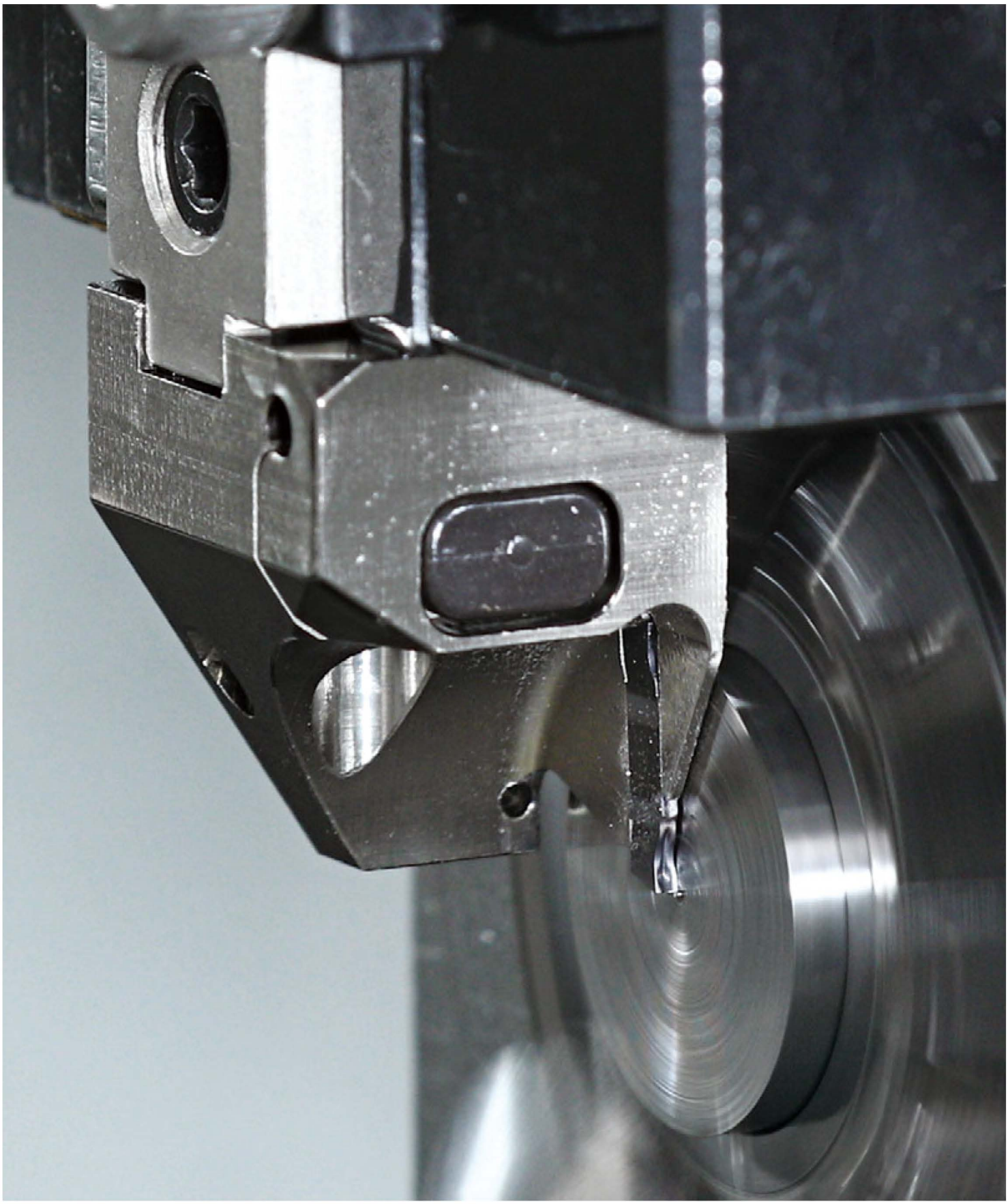
TUNGALOY ADDFORCE ACCELERATED LINES

NEW PRODUCT NEWS

Tungaloy Report No. 391-G

mgt
MEGA TECH METALWORK



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mgt MEGA TECH METALWORK

TUNGSHORTCUT / TUNGCUT

Multi-functional tool series offering a wide range of grades, geometries and holder variations for **maximum performance with minimum tool investments**

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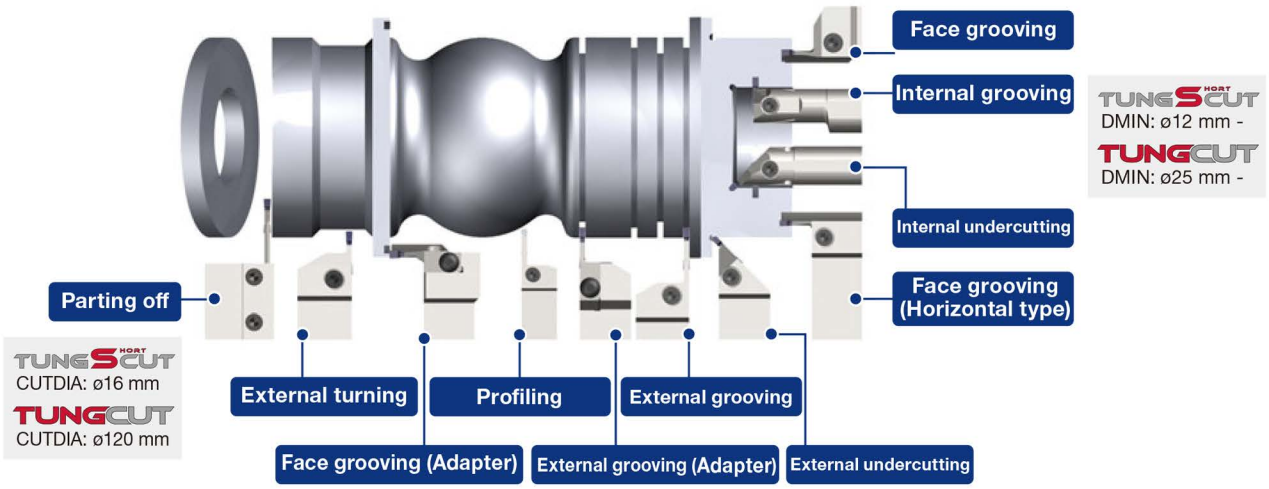
TUNGALOY ADDFORCE ACCELERATED LINES

TUNGSCUT / TUNGCUT

Multi-functional grooving tool series with excellent versatility

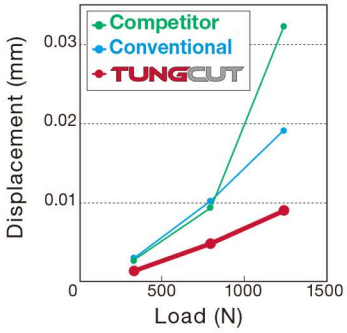


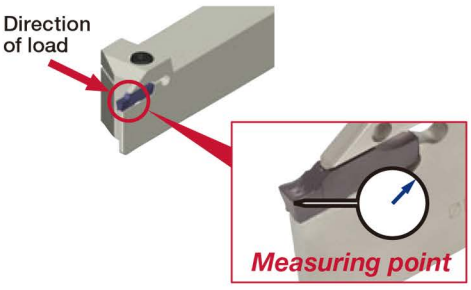
For stable tool life and accuracy

Clamping system

Stable and safe contact areas

Minimizes cutting edge displacement





NEW PRODUCT NEWS

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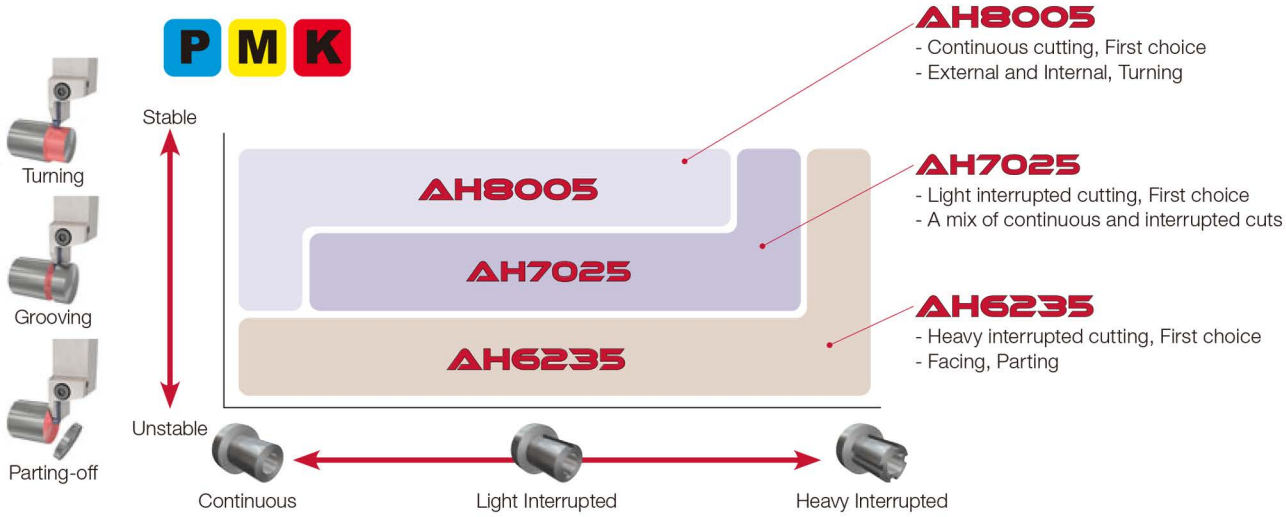
MEGA TECH METALWORK

Grade selection system



GRADES

AH8005 P M K S
- First choice for external, internal, and side-turning, continuous cuts

AH7025 P M K S
- First choice for light interrupted cuts or a mix of continuous and interrupted cuts
- New PVD coating with high Al content provides excellent adhesion strength
- Improved wear and chipping resistance

AH6235 P M K
- First choice for heavy interrupted cuts, as well as parting and facing applications

SH7025 P M
- The latest grade for high surface finishing quality and process security

AH725 P M S
- General purpose PVD grade for high fracture resistance

T515 K
- First recommended grade for cast iron
- Exellent wear resistance in high speed machining

T9225 P
- Suitable for steel machining at high speeds
- New CVD coating and substrate deliver an outstanding balance of wear and chipping resistance

NS9530 P
- Advanced cermet for finish cutting of steel
- Innovative grade with incredible fracture and high wear resistance

GH130 P M K
- Recommended for interrupted machining
- TiCNO PVD coating layer with high wear resistance
- High hardness wear resistance

AH905 S
- Remarkable for machining of heat resistant alloys
- Exclusive coating layer improves adhesion strength and wear resistance

KS05F N S
- Recommended for non-ferrous materials and titanium

TH10 N
- Recommended for non-ferrous materials

DX160 N
- PCD grade for non-ferrous metals

BXA10 H
- Coated CBN grade designed for turning hardened steel parts

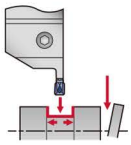
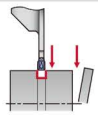
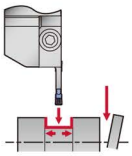
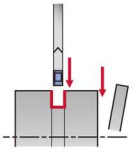
BX360 H
- CBN grade for grooving of hardened steel

NEW PRODUCT NEWS

Tungaloy Report No. 391-G

MEGA TECH METALWORK

TUNGSHORTCUT / TUNGCUT Quick Guide

Application		Designation	Tool type	CW (mm)	CDX (mm)	Max. parting dia.: CUTDIA (mm)	Shank sizes	Product details
External grooving turning, and parting		**CTER/L-CHP**	Screw clamp, for high pressure coolant	2 - 6	17 - 25	-	20 x 20 mm, 25 x 25 mm	
		CTER/L	Screw clamp	2 - 8	8 - 36	-	16 x 16 mm - 32 x 32 mm	
		JCTER/L-CHP	Screw clamp, for high pressure coolant, small swiss-type CNC machines	2	-	ø25, ø32	12 x 12 mm - 20 x 20 mm	
		JCTER/L	Screw clamp, small swiss-type CNC machines	1.4 - 3	-	ø20 - ø42	10 x 10 mm - 20 x 20 mm	
		JTTER/L	Side clamping, small swiss-type CNC machines	1.2	-	ø12 - ø20	10 x 10 mm - 16 x 16 mm	
		JTTER/L-S	Side clamping, for sub spindle, small swiss-type CNC machines	1.2	-	ø12 - ø20	10 x 10 mm - 16 x 16 mm	
		QC-JTTER/LS-CHP	Modular head, Side clamping, for high pressure coolant, small swiss-type CNC machines	0.8 - 1	-	ø16	10 x 12 mm - 12 x 12 mm	
		QC-JT/CTER/L-CHP	Modular head, Side clamping / Screw clamp, for high pressure coolant, small swiss-type CNC machines	1.2 - 3	-	ø12 - ø32	10 x 12 mm - 16 x 16 mm	JTTER/L JCTER/L
		**CGER/L**	Self clamp, small swiss-type CNC machines	1.4 - 4	9.7 - 20.3	ø29 - ø55	12 x 12 mm - 20 x 20 mm	
		**CAER/L-CHP**	Adapter type, screw clamp, for high pressure coolant	2 - 8	16 - 25	-	20 x 20 mm, 25 x 25 mm	
		CAER/L-MD	Adapter type, screw clamp	2 - 8	16 - 25	-	20 x 20 mm, 25 x 25 mm	
		CAER/L	Adapter type, screw clamp	3 - 6	16, 20	-	20 x 20 mm - 32 x 32 mm	
		**CGP-CHP**	Self clamp	2 - 6	-	ø50 - ø110	25 x 25 mm	
		CGP	Self clamp	1.4 - 8	-	ø26 - ø120	20 x 20 mm - 32 x 32 mm	
		CHGP	Self clamp	2 - 4	-	ø52, ø82	20 x 20 mm, 25 x 25 mm	

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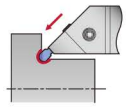
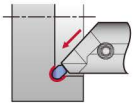
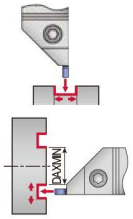
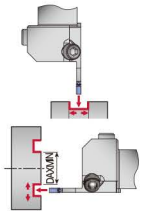
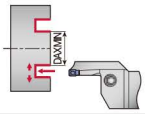
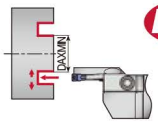
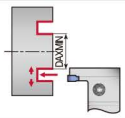
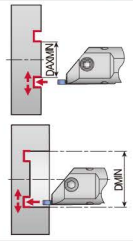
TUNGALOY ADDFORCE ACCELERATED LINES

NEW PRODUCT NEWS

Tungaloy Report No. 391-G

mgt MEGA TECH METALWORK

Application		Designation	Tool type	CW (mm)	CDX (mm)	Min. face grooving dia.: DAXMIN (mm)	Min. bore dia.: DMIN (mm)	Shank sizes	Product details
External and internal undercutting		**CGEUR/L**	Screw clamp	3 - 6	2.8, 3.4	-	-	16 x 16 mm - 25 x 25 mm	
		**CGIUR/L**	Screw clamp	3 - 6	2.8	-	-	ø20 mm - ø25 mm	
External and face grooving, and turning		**CTEFR/L**	Screw clamp	2 - 6	4.8	ø20 -	-	20 x 20 mm, 25 x 25 mm	
		**CAEFR/L-CHP**	Adapter type, screw clamp, for high pressure coolant	2 - 6	4.8	ø20 -	-	20 x 20 mm - 25 x 25 mm	
Face grooving and turning		**CTFR/L**	Screw clamp	3 - 6	10 - 25	ø22 -	-	25 x 25 mm	
		CAFR/L-CHP	Adapter type, screw clamp, for high pressure coolant	3 - 6	12 - 25	ø40 -	-	20 x 20 mm - 32 x 32 mm	
		New **CAFR/L-MD**	Adapter type, screw clamp	3 - 6	12 - 25	ø40 -	-	20 x 20 mm - 32 x 32 mm	
		CAFR/L	Adapter type, screw clamp	3 - 6	12 - 25	ø40 -	-	20 x 20 mm - 32 x 32 mm	
		**CTFVR/L**	Screw clamp	3 - 6	10 - 20	ø22 -	-	25 x 25 mm	
Face grooving, internal face grooving and turning		**CTIFR/L**	Screw clamp	2 - 6	5.5	ø20 -	ø26.3 -	ø25 mm - ø32 mm	

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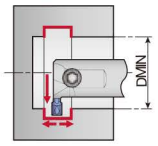
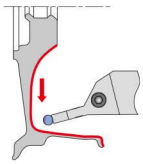
TUNGALOY ADDFORCE ACCELERATED LINES

NEW PRODUCT NEWS

Tungaloy Report No. 391-G

MEGA TECH METALWORK

TUNGSHORTCUT / TUNGCUT Quick Guide

Application		Designation	Tool type	CW (mm)	CDX (mm)	Min. face grooving dia.: DAXMIN (mm)	Min. bore dia.: DMIN (mm)	Shank sizes	Product details
Internal grooving and turning		**CTIR/L**	Screw clamp	2 - 8	4 - 10	-	ø25 -	ø16 mm - ø40 mm	
		CTIRS**	Screw clamp	2, 3	3 - 6	-	ø12 -	ø10 mm - ø16 mm	
		S-CTIRS-H	Modular head, screw clamp, for high pressure coolant	2, 3	6, 7	-	ø32, ø40	ø25 mm, ø32 mm	
		S-CTIR/L-H	Modular head, screw clamp, for high pressure coolant	2 - 4	13, 17	-	ø52, ø62	ø32 mm - ø60 mm	
Profiling		**CTER/L-15A**	Screw clamp	6, 8	25, 30	-	-	25 x 25 mm	
		CGIUR/L-15A	Screw clamp	6, 8	50 - 85	-	ø160, ø200	ø40 mm, ø50 mm	

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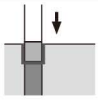
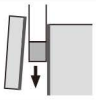
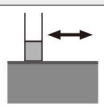
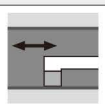
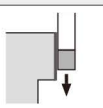
TUNGALOY ADDFORCE ACCELERATED LINES

INSERT APPLICATION

Insert	Application						
	Grooving			Parting	Turning		
	External	Internal	Face		External	Internal	Face
							
DGM / SGM	●	●	●	●			
DGS / SGS	●	●	●	●			
DGG	●	●	●	●			
DGL	●	●	●	●			
DGE	●						
DTM	●	●	●	●	●	●	●
DTE	●	●	●		●	●	●
DTX	●	●	●	●	●	●	●
DTR / STR					●	●	●
DTIU	● Undercutting	● Undercutting	● Undercutting				
DTI		●				●	
DGIM / DGIS		●					
DTF			●				●
DTA					● Al wheel machining	● Al wheel machining	
SGN	●	●	●	●			
STX	●	●	●	● Hardened steel	●	●	●
DTV					●	●	
DGS*S		●		●			
DTR*S		●				●	
STV*S						●	

Insert	Application		
	High feed turning		
	External	Internal	Face
			
STH	●	●	●

NEW PRODUCT NEWS

Tungaloy Report No. 391-G

mgt MEGA TECH METALWORK

TUNGSHORTCUT

Double-ended short inserts

Modular head designed specifically for parting applications in Swiss machines

1 Modular head system with high pressure through-coolant

- Minimum tool overhang thanks to the new parting insert that is only 9 mm in length.
- Reduced downtime with quick tool changeovers thanks to the ModuMini-Turn modular system.

MODUMINITURN

CW = 0.8, 1 mm
CUTDIA = 16 mm

2 Thin inserts for 0.8 and 1 mm groove widths

- Reduces material wastes during parting operations.
- Provides consistent chip control and high-quality surface finish during low feed operations.
- Allows users to choose the optimal grade at all times based on their machining parameters.

DGS**S-003

AH725

- Lightly-honed cutting edge
- Extremely resistant to edge chipping
- Allows increased feeds and speeds

DGS**SF-003

SH7025

- Sharp cutting edge
- Light cutting with little resistance
- High surface finishing quality

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TUNGALOY ADDFORCE ACCELERATED LINES

NEW PRODUCT NEWS

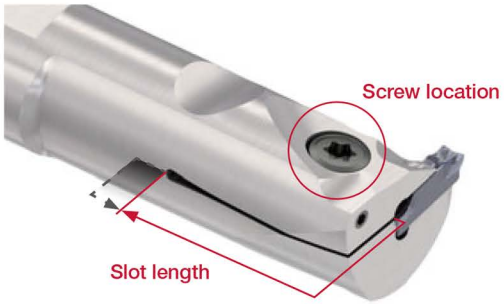
Tungaloy Report No. 391-G

MEGA TECH METALWORK

High rigidity toolholder for internal groove turning operations

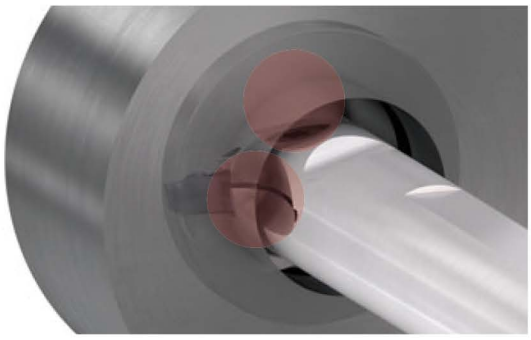
1 Improved chatter resistance

Optimized screw location and slot length enhances insert clamping capability.



2 Effective chip evacuation

Chip pocket and flute are designed to promote smooth chip evacuation.



3 Internal coolant system

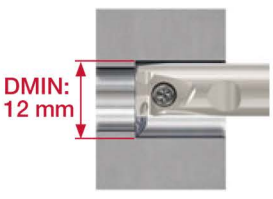
Precision coolant delivered from the top to the cutting point for best performance and smooth chip evacuation.

4 Produces various profiles

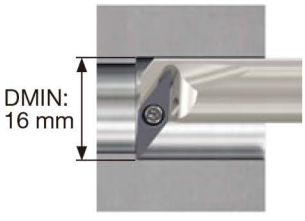
- Offered in the shape of a grooving insert with 35° inserts for profiling are now available, the new insert allows complex profiling without tool interference, which is not possible with conventional ISO turning inserts.
- Suitable for internal profiling of DMIN:12 mm

Push turning (towards the spindle)

TUNGSHORT CUT STV



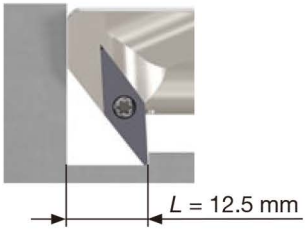
ISO insert V type



Pull turning (away from the spindle)

TUNGSHORT CUT STV

ISO insert V type



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TUNGALOY ADDFORCE ACCELERATED LINES

MEGA TECH METALWORK

TUNGSHORT CUT

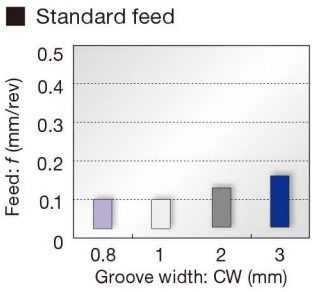
CHIPBREAKER GUIDE

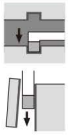
Internal grooving and parting

DGS*S type (2 corners)

Lower cutting force and superior sharpness

Uniquely designed edge and chipbreaker
CW = 0.8 - 3 mm





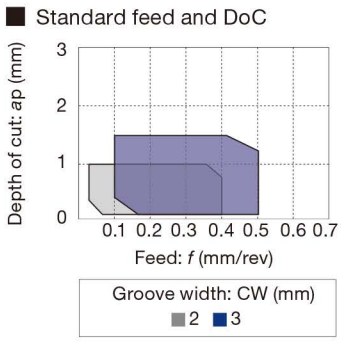
Profiling and undercutting

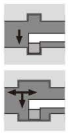
DTR*S type (2 corners)

Full radius type

- Provides effective chip control during profile turning application
- Molded inserts available

CW = 2 - 3 mm





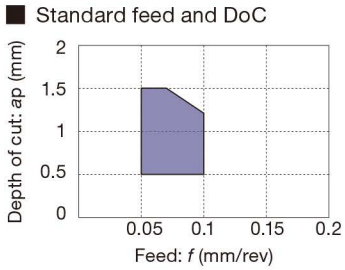
Profiling

STV*S type (1 corner)

Full radius type

Incorporating excellent cutting edge integrity and chip control, JS chipbreaker provides process security during profile turning, in which chip control is typically challenging.

■ Note:
Depending on the depth of cut and cutting direction, the insert support may require modification to avoid tool collision.



STANDARD CUTTING CONDITIONS

DGS*S, DTR*S

ISO	Workpiece material	Hardness	Grade	Cutting speed *Vc* (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	AH7025, AH725, SH7025	50 - 180
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	AH7025, AH725, SH7025	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	AH7025	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	AH7025	50 - 120
S	Superalloys Inconel718, etc.	< HRC 40	AH7025	20 - 60
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	AH7025	20 - 80

Please see page 12 for feed: *f* (mm/rev).

STV*S

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	Low carbon steel S15C, SS400, etc. C15E4, E275A, etc.	AH725	50 - 180	0.05 - 0.1
	Carbon steel, Alloy steel S55C, SCM440, etc. C55, 42CrMo4, etc.	AH725	50 - 180	0.05 - 0.1
	Free cutting steel SUH22, SUH23, etc.	AH725	50 - 180	0.05 - 0.1
M	Stainless steel SUS304, etc. X5CrNi18-9, etc.	AH725	50 - 120	0.05 - 0.1
K	Grey cast iron FC250, etc. 250, etc.	AH725	50 - 180	0.05 - 0.1
	Ductile cast iron FCD450, etc. 450-10S, etc.	AH725	50 - 120	0.05 - 0.1
S	Superalloys Inconel718, etc.	AH725	20 - 80	0.05 - 0.1
	Titanium alloys Ti-6Al-4V, etc.	AH725	20 - 80	0.05 - 0.1

NEW PRODUCT NEWS

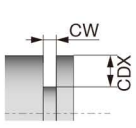
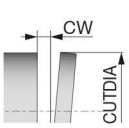
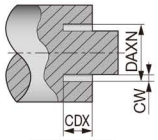
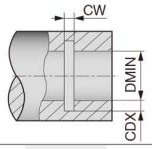
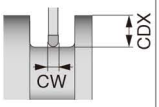
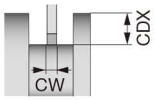
Tungaloy Report No. 391-G

mgt MEGA TECH METALWORK

TUNGCUT

Versatile groove turning tools — the first choice for all your grooving needs

1 Application ranges

External grooving		Parting		Face grooving			Internal grooving			Profiling (Full-R)		Turning	
													
CW (mm)	CDX (mm)	CW (mm)	CUTDIA (mm)	CW (mm)	CDX (mm)	DAXN (mm)	CW (mm)	CDX (mm)	DMIN (mm)	CW (mm)	CDX (mm)	CW (mm)	CDX (mm)
1.2 - 8	35	1.2 - 8	120	2 - 6	25	25	2 - 8	10	25	2 - 8	35	2 - 8	35

2 Toolholder variation

Monoblock toolholder
Shank sizes:
10 x 10 - 32 x 32 mm,
ø16 – ø40 mm

MODUMINITURN
Exchangeable head system for reduced changeover time. Designed for the use in Swiss machines.

BOREMEISTER
Exchangeable head system allowing long overhang for up to 14xD for internal machining.

TUNGFEEDBLADE
Blade + tool block system for high feed applications requiring tool rigidity.

TUNGMODULARSYSTEM
Adapter + TungCap toolholder

3 Extensive insert lineup

- Available for CW= 1.2 - 8 mm
- Various grades are offered, including CBN, for all material groups, such as non-ferrous metals and hardened steel parts.

Member IMC Group Tungaloy INDUSTRY 4.0

TUNGALOY ADDFORCE ACCELERATED LINES

NEW PRODUCT NEWS

Tungaloy Report No. 391-G

mgt MEGA TECH METALWORK

Modular tooling system for high productivity

- Highly rigid insert clamping provides stability in all OD and face grooving processes.
- Internal and external coolant adapters are interchangeable on the same holder.
- Modular tooling provides customers with reduced cycle time and tool cost.

TUNGMODULAR SYSTEM adapters and shank holders

External grooving adapters

Internal coolant

External coolant

Face grooving adapters

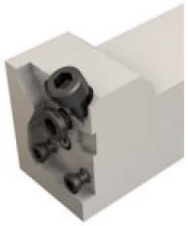
Internal coolant

New

External coolant

Parallel

Sizes: 20 x 20 mm
25 x 25 mm
New 32 x 32 mm



Perpendicular

Sizes: 20 x 20 mm
25 x 25 mm
New 32 x 32 mm

Shanks (Internal coolant)

Parallel

Sizes: C3, C4, C5, C6

Perpendicular

Sizes: C3, C4, C5, C6

TungCap toolholders (Internal coolant)

Member IMC Group Tungaloy INDUSTRY 4.0

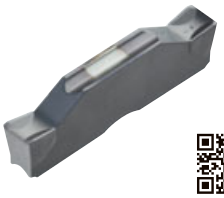
TUNGALOY ADDFORCE ACCELERATED LINES

TUNGCUT

CHIPBREAKER GUIDE

External/internal grooving and parting

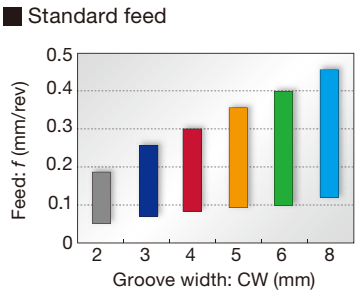
DGM type (2 corners)
SGM type (1 corner)

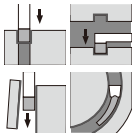


1st choice for grooving and parting

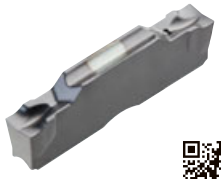
- Smooth chip evacuation
- Well-designed edge with high strength
- Handed insert available

CW = 2 - 8 mm





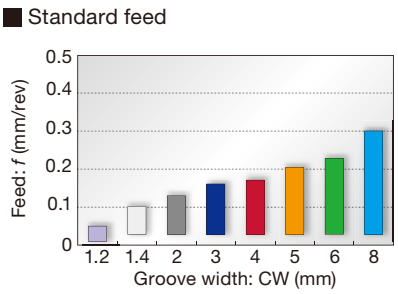
DGS type (2 corners)
SGS type (1 corner)

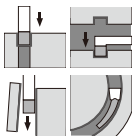


Lower cutting force and superior sharpness

- Unique-designed edge and chipbreaker
- Handed insert available

CW = 1.2 - 8 mm



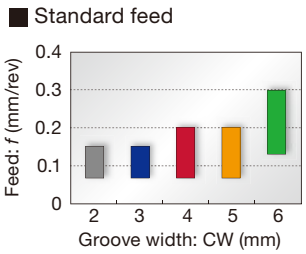


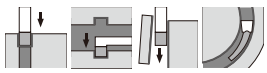
DGL type (2 corners)

1st choice for mild steel

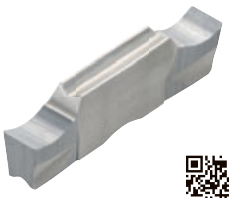
- Chipbreaker with excellent chip control at low feed
- Suitable for mild steel, which often presents challenges in chip control

CW = 2 - 6 mm





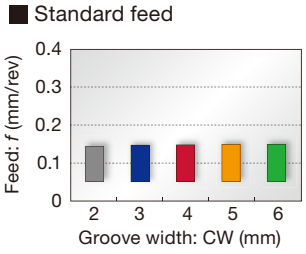
DGG type (2 corners)



For non-ferrous materials and titanium

- Chipbreaker with low cutting force
- Sharp cutting edge that prevents vibration and delivers fine surface finish

CW = 2 - 6 mm

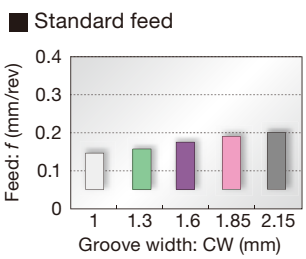


DGE type (2 corners)

For high accurate and shallow groove

Excellent chip control

CW = 1 - 2.15 mm



Scan the QR code for product details and dimensions.

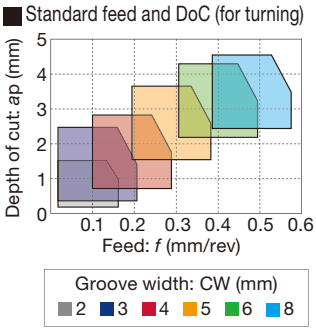
External/internal/face grooving and turning

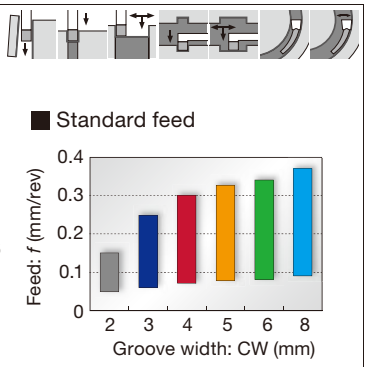
DTM type (2 corners)

General purpose

- 1st choice for grooving and turning
- Suitable for light to medium cutting
- Excellent chip control in machining steel, alloy steel, stainless steel, and heat-resistant alloy

CW = 2 - 8 mm



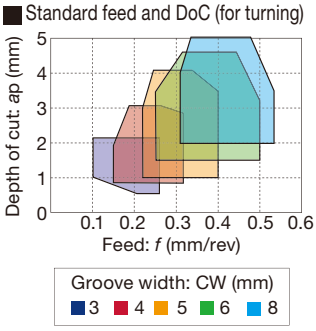


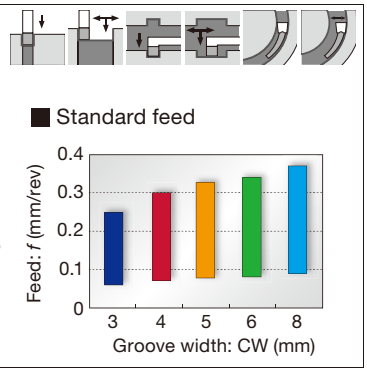
DTE type (2 corners)

General purpose

- Unique chipbreaker makes chips shorter
- Molded and ground inserts available

CW = 2.65 - 8 mm



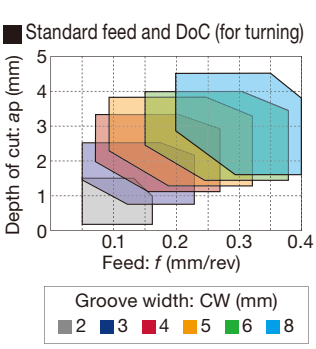


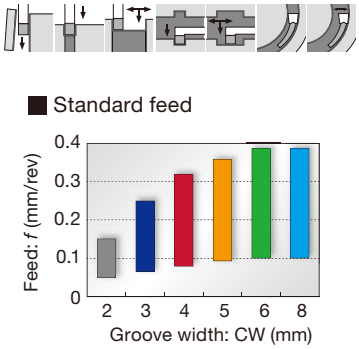
DTX type (2 corners)

Multi-functional type

- Well balanced sharpness and strength
- Multi-functional insert

CW = 2 - 8 mm

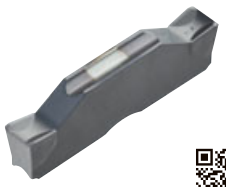




Scan the QR code for product details and dimensions.

Internal grooving

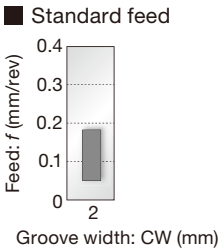
DGIM type (2 corners)



2 mm insert width only (For general purpose)

- Unique chipbreaker for excellent chip control
- Excellent fracture resistance due to optimum land on the cutting edge
- For general applications on steels & stainless steels

CW = 2 mm

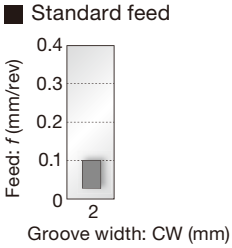


DGIS type (2 corners)

2 mm insert width only (Lower cutting force)

- Lower cutting force
- Excellent fracture resistance due to optimum land on the cutting edge
- Applicable for low carbon steels & stainless steels

CW = 2 mm



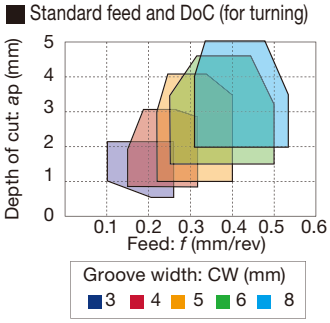
Internal grooving and turning

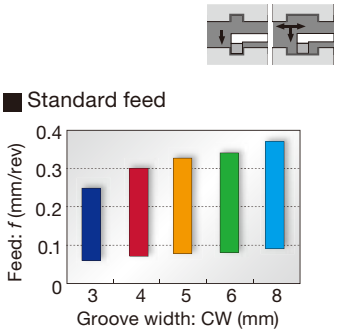
DTI type (2 corners)

For general purpose I.D. grooving

- Unique chipbreaker makes chips shorter
- Molded and ground inserts available

CW = 3 - 8 mm





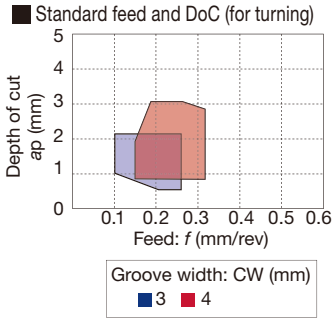
Face grooving and turning

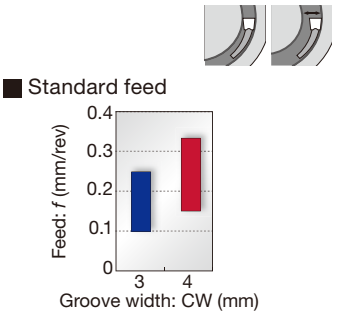
DTF type (2 corners)

For face grooving

- 1st choice for face grooving
- Unique chipbreaker makes chips shorter

CW = 3, 4 mm

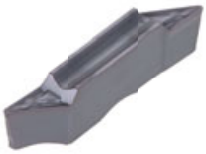




Scan the QR code for product details and dimensions.

Profiling

DTV type (2 corners)



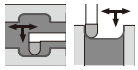
35° nose angle for profiling

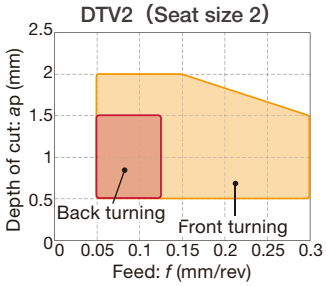
- Produces various profiles
- Excellent chip control

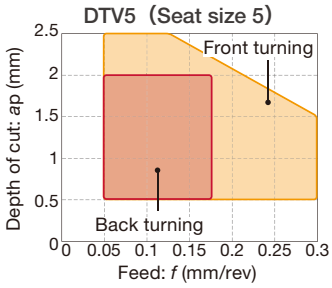
CW = 1.85, 4.5 mm

■ Note:
Depending on the depth of cut and cutting direction, the insert support may require modification to avoid tool collision.

■ Standard feed and DoC







Profiling and undercutting

DTR type (2 corners) STR type (1 corner)

Molded
DTR, STR

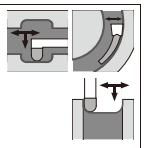
Ground
DTR

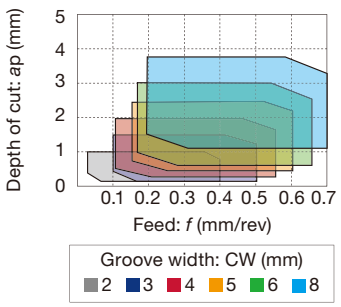
Full radius type

- Excellent chip control
- Molded and ground inserts available

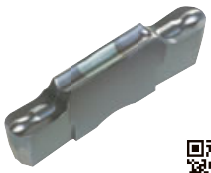
CW = 2 - 8 mm

■ Standard feed and DoC (for turning)





DTIU type (2 corners)

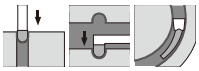


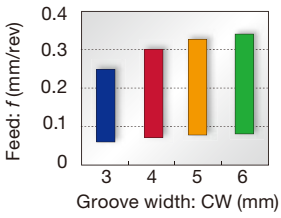
Full radius type

Excellent chip control for undercutting

CW = 3 - 6 mm

■ Standard feed and DoC





Scan the QR code for product details and dimensions.

Aluminium wheel machining

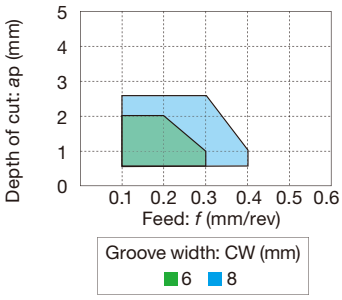
DTA type (2 corners)

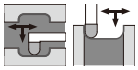
Full radius type

- Excellent chip control
- For aluminium wheel profiling
- Ground insert

CW = 6, 8 mm

■ Standard feed and DoC (for turning)





External/internal/face grooving and turning of hardened steel

STX type (1 corner)

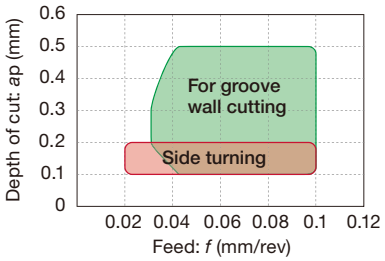
For hardened steel cutting

- Grooving insert with 3D chipbreaker for hardened steel parts. Provides excellent chip control
- High tolerance width for finishing

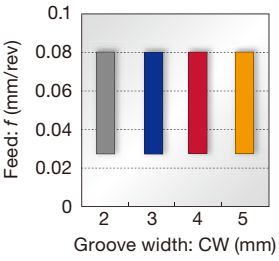
CW = 2 - 5 mm
(Tol. : ±0.025 mm)

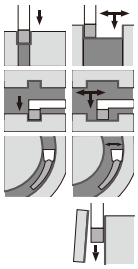
■ Standard feed and DoC

■ For groove wall cutting and side turning

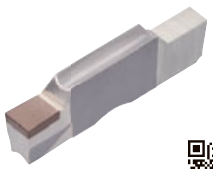


■ For grooving





SGN type (1 corner)

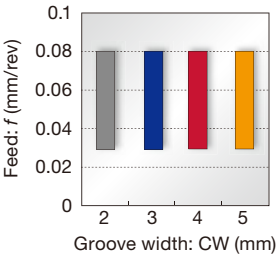


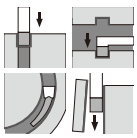
For hardened steel cutting

- Optimum cutting edge shape for grooving of hardened steels
- High tolerance width for finishing

CW = 2 - 5 mm
(Tol. : ±0.025 mm)

■ Standard feed





Scan the QR code for product details and dimensions.

External profiling of hardened steel

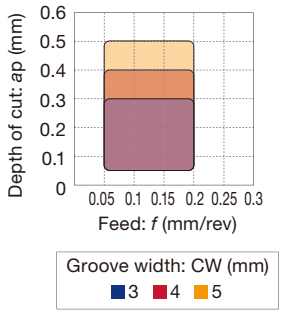
STR type (1 corner)

Full radius type

Profile insert with 3D chipbreaker that delivers excellent chip control during hard part turning.
CW = 3 - 5 mm

Note: This insert is not recommended for use in grooving applications.

■Standard feed and DoC



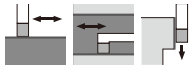
High feed external/internal/face turning of hardened steel

STH type (1 corner)

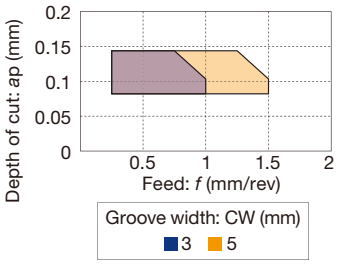
For high feed turning of hardened steel parts

High efficiency machining using light D.O.C. and increased feeds
CW = 3, 5 mm

Note: This insert is not recommended for use in grooving applications.



■Standard feed and DoC (for turning)



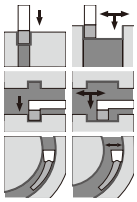
External/internal/face grooving and turning of non-ferrous metal parts

STX type (1 corner)

For external/internal/face grooving and turning

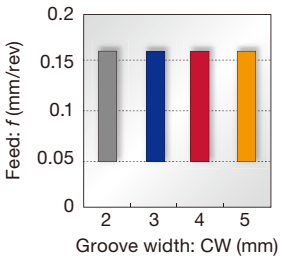
- PCD insert with excellent chip control for grooving and turning of non-ferrous metal parts.
- Integrated 3D chipbreaker and unique chip guiding feature ensure reliable chip control in various applications.
- Available in the right- or left-handed geometry depending on the toolholder or chuck mounting.

CW = 2 - 5 mm

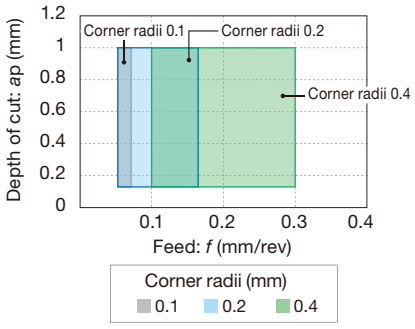


■Standard feed and DoC

■For grooving



■For turning



Scan the QR code for product details and dimensions.

TUNGCUT

STANDARD CUTTING CONDITIONS

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (m/min)
P	Steel S45C, SCM435, etc. C45, 34CrMo4, etc.	< 300 HB	First choice	AH7025, AH725	50 - 180
		< 300 HB	Wear resistance	T9225, AH8005	80 - 300
		< 300 HB	Impact resistance	AH6235, GH130	50 - 120
		< 300 HB	Surface quality	NS9530	80 - 220
M	Stainless steel SUS303, SUS304, etc. X10CrNiS18-9, X5CrNi18-9, etc.	< 200 HB	First choice	AH7025, AH725	50 - 120
		< 200 HB	Wear resistance	AH8005	50 - 120
		< 200 HB	Impact resistance	AH6235, GH130	50 - 120
K	Grey cast iron FC250, etc. 250, etc.	-	First choice	T515	150 - 700
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 180
	Ductile cast iron FCD450, etc. 450-10S, etc.	-	First choice	T515	150 - 300
		-	Impact resistance	AH8005, AH7025, AH6235, GH130	50 - 120
N	Aluminium alloys Si < 12%	-	First choice	TH10	100 - 500
		-	First choice	KS05F	100 - 600
S	Superalloys Inconel718, etc.	< HRC 40	First choice	AH8005	20 - 60
		< HRC 40	Impact resistance	AH7025, AH725, AH6235	20 - 40
	Titanium alloys Ti-6Al-4V, etc.	< HRC 40	First choice	KS05F	20 - 100
		< HRC 40	Impact resistance	AH7025, AH725	20 - 80

Please see page 16 - 21 for feed: *f* (mm/rev).

DTV

ISO	Workpiece material	Grade	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
P	Low carbon steel S15C, SS400, etc. C15E4, E275A, etc.	AH7025	50 - 180	0.05 - 0.3
	Carbon steel, Alloy steel S55C, SCM440, etc. C55, 42CrMo4, etc.	AH7025	50 - 180	0.05 - 0.3
	Free cutting steel SUH22, SUH23, etc.	AH7025	50 - 180	0.05 - 0.3
M	Stainless steel SUS304, X5CrNi18-9, etc.	AH7025	50 - 120	0.05 - 0.3
K	Grey cast iron FC250, etc. 250, etc.	AH7025	50 - 180	0.05 - 0.3
	Ductile cast iron FCD450, etc. 450-10S, etc.	AH7025	50 - 120	0.05 - 0.3
S	Titanium alloys Ti-6Al-4V, etc.	AH7025	20 - 80	0.05 - 0.3
	Superalloys Inconel718, etc.	AH7025	20 - 80	0.05 - 0.3

STX

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (m/min)
H	External grooving	> 50 HRC	First choice	BX360	80 - 150
	Groove wall cutting				
	Side turning				
	Internal grooving	> 50 HRC	First choice	BX360	80 - 120
	Face grooving				

ISO	Workpiece material	Grade	Operation	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)	Depth of cut *ap* (mm)
N	Aluminium alloys Si ≤ 12%	DX160	Grooving	200 - 2000	0.05 - 0.15	-
		DX160	Turning	200 - 2000	0.07 - 0.3	< 1
	Aluminium alloys Si ≥ 12%	DX160	Grooving	200 - 1500	0.05 - 0.15	-
		DX160	Turning	200 - 1500	0.07 - 0.3	< 1
	Copper and copper alloys	DX160	Grooving	200 - 1500	0.05 - 0.15	-
		DX160	Turning	200 - 1500	0.07 - 0.3	< 1
	Carbon / Graphites	DX160	Grooving	200 - 500	0.05 - 0.15	-
		DX160	Turning	200 - 500	0.07 - 0.3	< 1
	Ceramic	DX160	Grooving	100 - 200	0.02 - 0.1	-
		DX160	Turning	100 - 200	0.02 - 0.1	< 1
	Tungsten carbide (HRA80 - 95)	DX160	Grooving	5 - 30	0.02 - 0.1	-
		DX160	Turning	5 - 30	0.02 - 0.1	0.02 - 0.2

SGN

ISO	Grade	Edge preparation	Workpiece condition	Cutting speed *Vc* (m/min)	Feed *f* (mm/rev)
H	BX360	No symbol	Continuous	80 - 150	0.03 - 0.08
		-S	Light interrupted	50 - 120	0.03 - 0.08
		-H	Heavy interrupted	40 - 100	0.03 - 0.06

STR

ISO	Workpiece material	Hardness	Priority	Grade	Cutting speed *Vc* (m/min)
H	External profiling	> 50 HRC	First choice	BXA10	80 - 180

STH

ISO	Grade	CW	Application	Cutting speed *Vc* (m/min)	Depth of cut *ap* (mm)	Feed *f* (mm/rev)
H	BXA10	3	External turning	100 - 230	0.08 - 0.12	0.4 - 1
			Face turning	100 - 230	0.08 - 0.12	0.4 - 0.8
		5	External turning	100 - 230	0.08 - 0.12	0.5 - 1.5
			Face turning	100 - 230	0.08 - 0.12	0.5 - 0.8

TUNGCUT

GUIDELINE FOR ORDERING SPECIAL INSERTS

Specially designed inserts are available upon request.

Acceptable specification

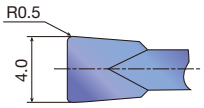
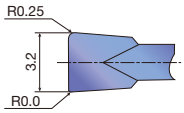
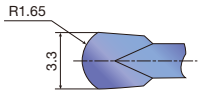
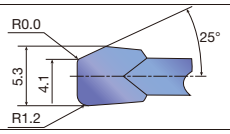
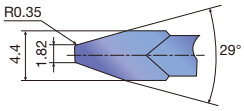
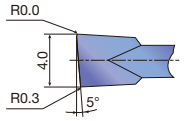
Special inserts are manufactured from the base insert styles shown below.
Please contact Tungaloy for more details.

External grooving & turning			Internal grooving & turning	Profiling & undercutting	
DTE (Ground)	**DGE (Ground)**	**SGG (Ground)**	**DTI (Ground)**	**DTR (Ground)**	**DTIU (Ground)**
					

Designation system for special inserts (sample)

DTE	320	-	000R-025L	AH725
❶ Main style of insert	❷ Max. width of insert		❸ Additional codes	❹ Grade

Shape samples

Shape	Samples of designation	Note
	**DTE400-050 AH7025**	Base style: DTE type Special corner radius
	**DTE320-000R 025L AH725**	Base style: DTE type Special corner radius, asymmetric type
	**DTR330-165 T515**	Base style: DTR type Full radius type with special insert width
	**DTE530-120R-25LA T9225**	Base style: DTE type Special figure of groove, asymmetric type
	**DGG440-035-29A KS05F**	Base style: DTE type Special figure of groove
	**DTE400-030R-005RA NS9530**	Base style: DTE type Right handed insert with special angle and corner radius.

mgt
MEGA TECH METALWORK

Expedited delivery service for special grooving insert

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 of 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

TUNGCUT

Special width & corner radii

With chamfer edges

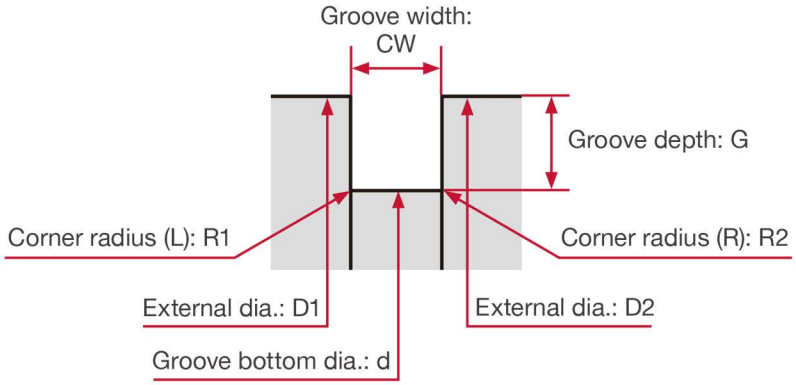
DGN Chipbreaker

DTE Chipbreaker

	Grade		
	Coated carbide		Cermet
	AH7025	AH725	NS9530
DGN200	•	•	•
DGN300	•	•	•
DGN400	•	•	•
DGN500	•	•	•
DGN600	•	•	•
DTE300	•	•	•
DTE400	•	•	•
DTE500	•	•	•
DTE600	•	•	•
DTE800	•	•	

TUNGCUT

Special width & corner radii



TUNGCUT

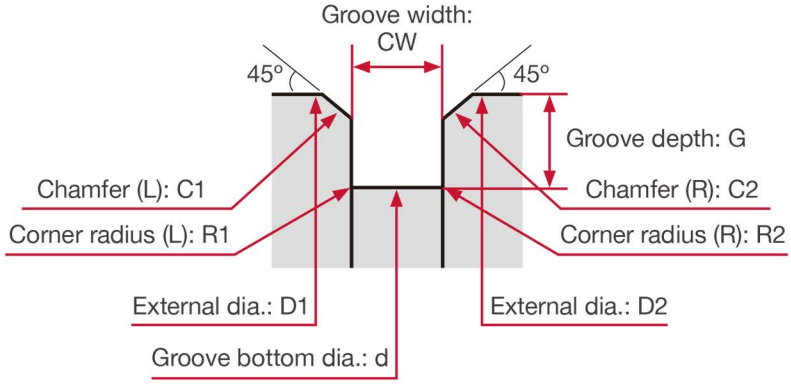
Edge type	Insert blank	Seat size	Groove width (CW)	Max. groove depth (G)	Corner radii (R1 / R2)	Toolholder
A	DGN* DTE*	2 - 6	0.5 - 0.74 mm	- 1.5 mm	0 or 0.05 - W/2 (Full radius is available)	CTEFR/L
			0.75 - 0.99 mm	- 1.8 mm		
			1 - 1.49 mm	- 2.5 mm		
			1.5 - 6 mm	- 4.8 mm		
B	DGN300/DTE300	3	2.65 - 3 mm	Up to holder (Max.18 mm)		CTER/L
	DGN400/DTE400	4	3.3 - 4 mm			
	DGN500/DTE500	5	4.2 - 5 mm	Up to holder (Max.28 mm)		CTEFR/L
	DGN600/DTE600	6	5.2 - 6 mm			
	DTE800	8	6.4 - 8 mm			CTER/L

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

Edge type A

Edge type B

Grooving & chamfering



TUNGCUT

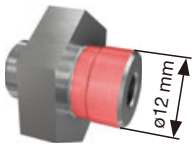
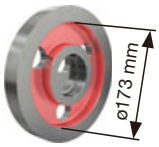
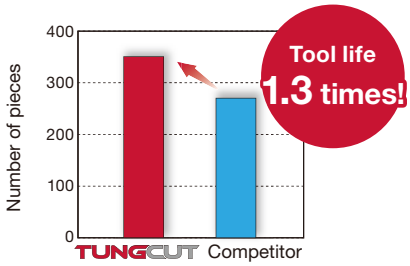
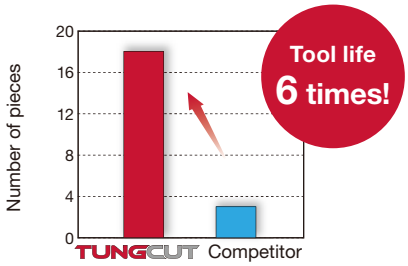
Insert blank	Seat size	Groove width (CW)	Max. groove depth (G)	Corner radii (R1 / R2)	Toolholder
DGN200 DGN300 DGN400 DGN500 DGN600	2 - 6	1 - 4.8 mm	1 - 4 mm	0 or 0.05 - W/2 (Full radius is available)	CTEFR/L CTEFR/L (Modified)

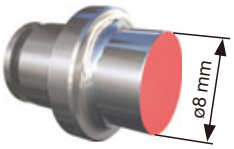
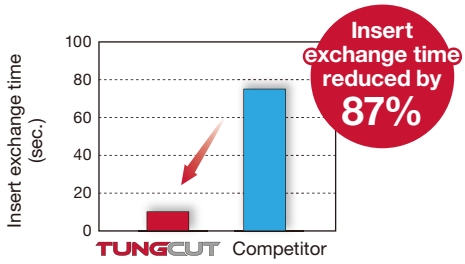
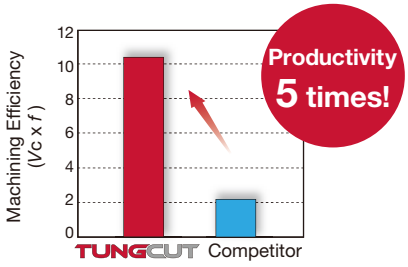
*Tolerances of the insert are based on the standard item.

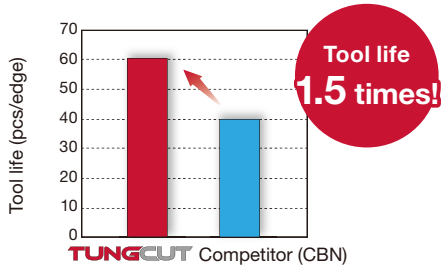
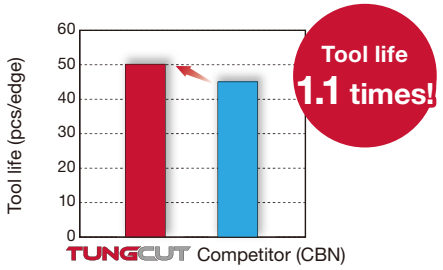
Max. width of chamfer is 0.5 mm.

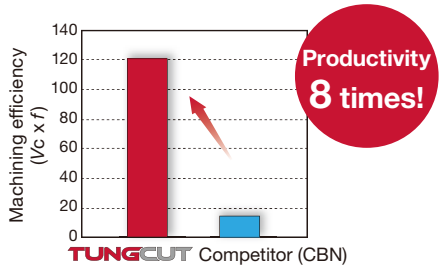
Some combinations of a groove width, depth, a corner radius(R), and chamfer may not be manufacturable.

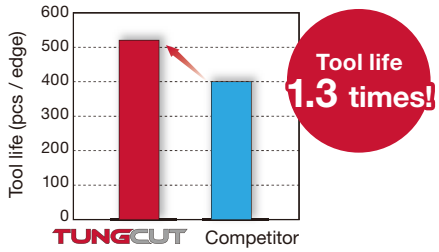
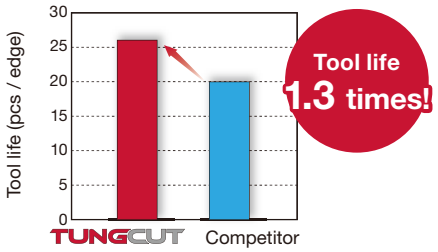
PRACTICAL EXAMPLES

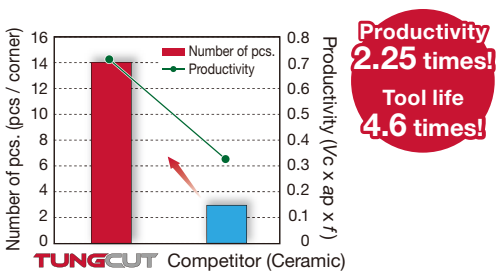
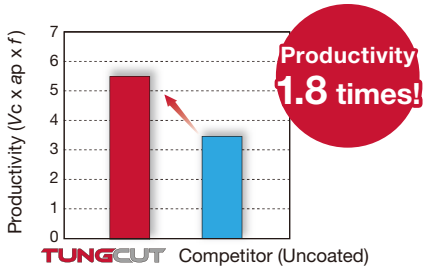
	Workpiece type	Hexagonal bushing	Distributor block
	Toolholder	CTER2020-3T12	CAFR6T25-150250-CHP
	Insert	DGM3-020	DTR6-300
	Grade	AH6235	AH8005
	Workpiece material	SS400 / E275A	Stainless steel
		 P	 M
Cutting conditions	Grooving width : CW (mm)	3	6
Cutting conditions	Cutting speed : Vc (m/min)	65	170
Cutting conditions	Feed : f (mm/rev)	0.06	0.1
Cutting conditions	Cutting edge depth : CDX (mm)	5	20
Cutting conditions	Machining	External grooving	Face grooving
Cutting conditions	Coolant	Wet	Wet
	Results	 **TungCut**, with its extremely tough AH6235 grade insert, provided 1.3 times tool life increase, while eliminating edge chipping during the machining of interrupted O.D. grooving operation.	 **TungCut** and **TungModularSystem** provided rigid insert clamping and coolant-through capability, allowing significant tool life increase.

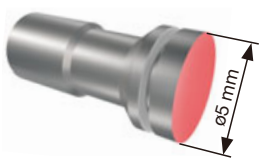
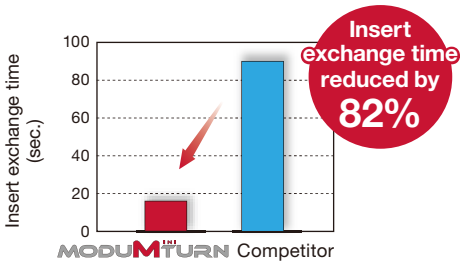
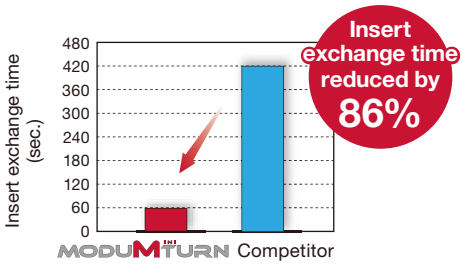
	Workpiece type	Pneumatic part	Bolt parts
	Toolholder	JTTER1010H1.2D12	CHGP82-4T / CHTBR2525-82
	Insert	DGS1.2-003	SGS4-030
	Grade	AH725	AH7025
	Workpiece material	SUS304 / X5CrNi18-9	S45C / C45
		 M	 P
Cutting conditions	Grooving width : CW (mm)	1.2	4
Cutting conditions	Cutting speed : Vc (m/min)	50	70
Cutting conditions	Feed : f (mm/rev)	0.02	0.15
Cutting conditions	Cutting edge depth : CDX (mm)	4	25
Cutting conditions	Machining	Parting-off	Parting-off
Cutting conditions	Coolant	Wet	Wet
	Results	 The innovative Side Clamp insert clamping method eliminated the need for removing the entire tool from the tool post, reducing tool change time by 87%.	 **TungFeed-Blade** doubled tool life, while also increasing feed rate 5 times when used with the high rigidity CHTBR holder.

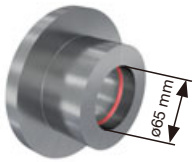
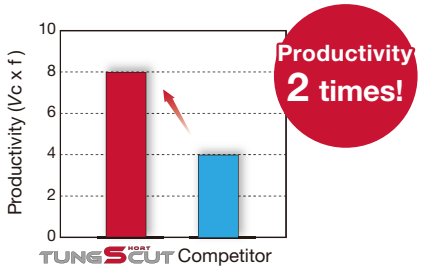
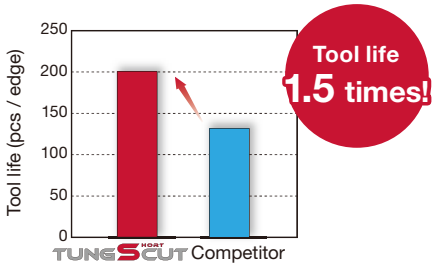
Workpiece type		Cutting Tool	Shaft
Toolholder		CTER2525-4T10	CTER2525-3T09
Insert		SGN400-020-H	SGN300-020-H
Grade		BX360	BX360
Workpiece material		Hardened steel (46 - 51HRC)	20MnCr5 (55 - 58HRC)
		 H	 H
Cutting conditions	Grooving width : CW (mm)	4	3
	Cutting speed : Vc (m/min)	79 - 135	50
	Feed : f (mm/rev)	0.11	0.05
	Machining	External grooving, interrupted cuts	External grooving, interrupted cuts
	Coolant	Dry	Dry
Results		 **TungCut CBN** provided excellent fracture resistance during heavy interrupted cutting, achieving 1.5 times tool life increase over the competitor.	 **TungCut CBN** provided excellent fracture resistance during the machining of spline shafts, extending tool life over the competitor.

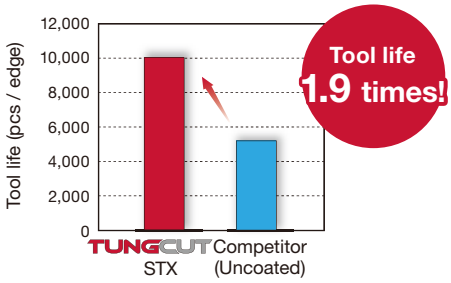
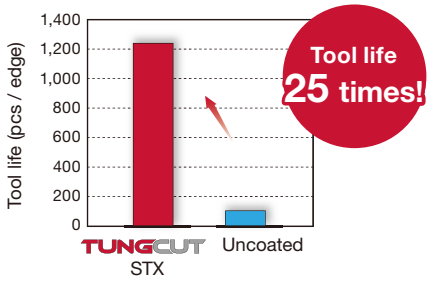
Workpiece type		Shaft	Shaft
Toolholder		CTER2525-3T25	CTER2525-3T09
Insert		STH300-SR	STH300-SR
Grade		BXA10	BXA10
Workpiece material		SUJ2 / B1 (60HRC)	SKD11 / X153CrMoV12 (60 - 64HRC)
		 H	 H
Cutting conditions	Cutting speed : Vc (m/min)	150	120
	Feed : f (mm/rev)	0.8	1
	Depth of cut : ap (mm)	0.1 x 3 passes	0.055 x 91 passes
	Machining	External turning	External turning
	Coolant	Wet	Wet
Results		 **TungCut CBN** enabled 8x higher feed rate than ISO insert.	5 mm stock had to be removed by external turning. **TungCut CBN** provided a high feed rate of 1 mm/rev., providing significantly reduced machining time.

Workpiece type		**Piston head**	**Shaft**
Toolholder		CTEL2525-5T12	CTER2525-4T10
Insert		STX500-020	STX400-020
Grade		BX360	BX360
Workpiece material		SCM415 (50-60HRC) 	SKD61 / X40CrMoV5-1 (58-62HRC) 
Cutting conditions	**Groove width : CW (mm)**	5	4
	Cutting speed : *Vc* (m/min)	97 - 106 (for groove walls), 79 (for side-turning)	120
	Feed : *f* (mm/rev)	0.03 (for groove walls), 0.08 (for side-turning)	0.06 (for groove walls), 0.1 (for side-turning)
	Machining	External grooving, wall cutting, and side turning	External grooving, wall cutting, and side turning
	Coolant	Dry	Wet
Results		 **TungCut CBN tipped STX** insert provided excellent chip control, while eliminating nesting of chips. As a result, tool life increased by 1.3 times.	 **TungCut CBN tipped STX** insert provided excellent chip control, while eliminating bird nesting of chips. As a result, tool life increased by 1.3 times.

Workpiece type		**Roll**	**Crush cut knife**
Toolholder		CTER2525-3T12	CTEL2020-3T09
Insert		STR300-HP	STR300-HP
Grade		BXA10	BXA10
Workpiece material		SKD11 / X153CrMoV12 (62 - 64HRC) 	SUJ2 / 100Cr6 (61 HRC) 
Cutting conditions	**Groove width : CW (mm)**	3	3
	Cutting speed : *Vc* (m/min)	180	180
	Feed : *f* (mm/rev)	0.08	0.07
	Machining	External profile turning	External profile turning
	Coolant	Wet	Dry
Results		 **TungCut** provided 2.25x productivity and 4.6x tool life over the competitor's ceramic insert.	 **TungCut** achieved 1.8x productivity over the competitor's uncoated carbide insert.

Workpiece type		Part for camera	Torsion bar
Shank		QC-1212X-CHP	QC-1012H-CHP
Head		QC12-JTTEL1.2D20-CHP	QC10-JTTER1.4D16-CHP
Insert		DGS1.2-003	DGS1.4-016
Grade		AH725	AH7025
Workpiece material		SUS303 / X10CrNiS18-9	Alloy steel
		 M	 P
Cutting conditions	Cutting speed : *Vc* (m/min)	45	85
	Feed : *f* (mm/rev)	0.03	0.08
	Machining	Parting-off (CW = 1.2 mm)	Parting
	Coolant	Wet	Wet
Results		 Thanks to **ModuMini-Turn** quick change system, insert change time was reduced by 82%.	 Using **ModuMini-Turn** modular tooling system eliminated time-consuming external coolant subassembly and provided 86% shorter insert change time.

Workpiece type		Oil hydraulic equipment parts	Flywheel
Toolholder		CTIR10-S2T03-D120	CTIR16S2T06-D200
Insert		STV2S-020-35L-JS	DGS2S-010
Grade		AH725	AH7025
Workpiece material		SUS316 / X5CrNiMo17-12-3	SCr420 / 20Cr4
		 P	 P
Cutting conditions	Groove width : CW (mm)	-	2
	Cutting speed : *Vc* (m/min)	80	100
	Feed : *f* (mm/rev)	0.1	0.2
	Depth of cut : *ap* (mm)	1	-
	Machining	Internal turning	Internal grooving
	Coolant	Wet	Wet
Results		 **TungShortCut** STV insert eliminated chip clogging thanks to its excellent chip control, enabling a higher feed rate than the competitors solid carbide boring bar.	 **TungShortCut** provided superior chip evacuation, eliminating chip jamming. As a result, 1.5x tool life.

Workpiece type		Casing	Aerospace pump parts
Toolholder		CTER2525-2T12	CTER2525-2T08
Insert		STX200R-020	STX200L-020
Grade		DX160	DX160
Workpiece material		ADC12	A6061
		 N	 N
Cutting conditions	Groove width : CW (mm)	2	2
	Cutting speed : Vc (m/min)	Grooving: 200, Creating wide grooves: 300	350
	Feed : f (mm/rev)	Grooving: 0.1, Creating wide grooves: 0.08	0.05
	Machining	External grooving	External grooving
	Coolant	Wet	Wet
Results		 **TungCut STX** insert with PCD tip provides superior chip control during grooving and turning operations and longer tool life over competitor inserts.	 **TungCut STX** insert with PCD tip provides superior chip control during grooving operations and longer tool life over competitor carbide inserts.

TECHNICAL REFERENCE

Compensation of tool length

Cutting performance

TUNGMODULAR SYSTEM

How to install and remove the adapter and insert

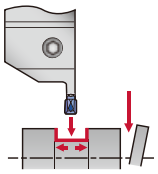
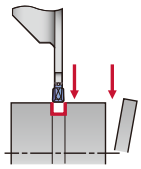
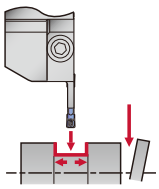
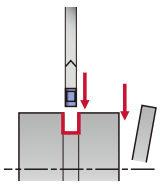
TUNGTJET VDN

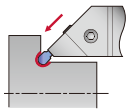
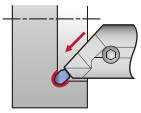
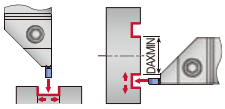
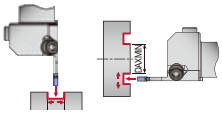
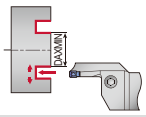
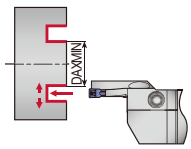
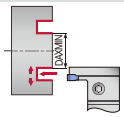
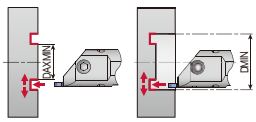
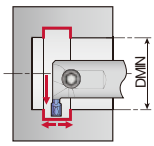
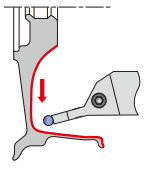
Tube connection | Direct connection

Parts for coolant hose

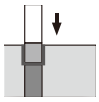
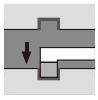
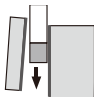
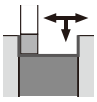
For more information

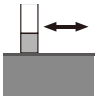
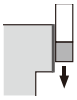
TUNGSHORTCUT / TUNGCUT Quick Guide

Application		Designation	Tool type	CW (mm)	CDX (mm)	Max. parting dia.: CUTDIA (mm)	Shank sizes	Page
External grooving turning, and parting		**CTER/L-CHP**	Screw clamp, for high pressure coolant	2 - 6	17 - 25	-	20 x 20 mm, 25 x 25 mm	36
		CTER/L	Screw clamp	2 - 8	8 - 36	-	16 x 16 mm - 32 x 32 mm	34
		JCTER/L-CHP	Screw clamp, for high pressure coolant, small swiss-type CNC machines	2	-	ø25, ø32	12 x 12 mm - 20 x 20 mm	51
		JCTER/L	Screw clamp, small swiss-type CNC machines	1.4 - 3	-	ø20 - ø42	10 x 10 mm - 20 x 20 mm	50
		JTTER/L	Side clamping, small swiss-type CNC machines	1.2	-	ø12 - ø20	10 x 10 mm - 16 x 16 mm	51
		JTTER/L-S	Side clamping, for sub spindle, small swiss-type CNC machines	1.2	-	ø12 - ø20	10 x 10 mm - 16 x 16 mm	52
		QC-JTTER/LS-CHP	Modular head, Side clamping, for high pressure coolant, small swiss-type CNC machines	0.8 - 1	-	ø16	10 x 12 mm - 12 x 12 mm	17
		QC-JT/CTER/L-CHP	Modular head, Side clamping / Screw clamp, for high pressure coolant, small swiss-type CNC machines	1.2 - 3	-	ø12 - ø32	10 x 12 mm - 16 x 16 mm	49
		**CGER/L**	Self clamp, small swiss-type CNC machines	1.4 - 4	9.7 - 20.3	ø29 - ø55	12 x 12 mm - 20 x 20 mm	52
		**CAER/L-CHP**	Adapter type, screw clamp, for high pressure coolant	2 - 8	16 - 25	-	20 x 20 mm, 25 x 25 mm	38
		CAER/L-MD	Adapter type, screw clamp	2 - 8	16 - 25	-	20 x 20 mm, 25 x 25 mm	38
		CAER/L	Adapter type, screw clamp	3 - 6	16, 20	-	20 x 20 mm - 32 x 32 mm	60
		**CGP-CHP**	Self clamp	2 - 6	-	ø50 - ø110	25 x 25 mm	57
		CGP	Self clamp	1.4 - 8	-	ø26 - ø120	20 x 20 mm - 32 x 32 mm	55
		CHGP	Self clamp	2 - 4	-	ø52, ø82	20 x 20 mm, 25 x 25 mm	53

Application		Designation	Tool type	CW (mm)	CDX (mm)	Min. face grooving dia.: DAXMIN (mm)	Min. bore dia.: DMIN (mm)	Shank sizes	Page
External and internal undercutting		**CGEUR/L**	Screw clamp	3 - 6	2.8, 3.4	-	-	16 x 16 mm - 25 x 25 mm	58
		**CGIUR/L**	Screw clamp	3 - 6	2.8	-	-	ø20 mm - ø25 mm	59
External and face grooving, and turning		**CTEFR/L**	Screw clamp	2 - 6	4.8	ø20 -	-	20 x 20 mm, 25 x 25 mm	37
		**CAEFR/L-CHP**	Adapter type, screw clamp, for high pressure coolant	2 - 6	4.8	ø20 -	-	20 x 20 mm - 25 x 25 mm	38
Face grooving and turning		**CTFR/L**	Screw clamp	3 - 6	10 - 25	ø22 -	-	25 x 25 mm	47
		**CAFR/L-CHP**	Adapter type, screw clamp, for high pressure coolant	3 - 6	12 - 25	ø40 -	-	20 x 20 mm - 32 x 32 mm	39
		New **CAFR/L-MD**	Adapter type, screw clamp	3 - 6	12 - 25	ø40 -	-	20 x 20 mm - 32 x 32 mm	40
		CAFR/L	Adapter type, screw clamp	3 - 6	12 - 25	ø40 -	-	20 x 20 mm - 32 x 32 mm	61
		**CTFVR/L**	Screw clamp	3 - 6	10 - 20	ø22 -	-	25 x 25 mm	48
Face grooving, internal face grooving and turning		**CTIFR/L**	Screw clamp	2 - 6	5.5	ø20 -	ø26.3 -	ø25 mm - ø32 mm	46
Internal grooving and turning		**CTIR/L**	Screw clamp	2 - 8	4 - 10	-	ø25 -	ø16 mm - ø40 mm	44
		CTIRS**	Screw clamp	2, 3	3 - 6	-	ø12 -	ø10 mm - ø16 mm	16
		S-CTIRS-H	Modular head, screw clamp, for high pressure coolant	2, 3	6, 7	-	ø32, ø40	ø25 mm, ø32 mm	17
		S-CTIR/L-H	Modular head, screw clamp, for high pressure coolant	2 - 4	13, 17	-	ø52, ø62	ø32 mm - ø60 mm	45
Profiling		**CTER/L-15A**	Screw clamp	6, 8	25, 30	-	-	25 x 25 mm	58
		CGIUR/L-15A	Screw clamp	6, 8	50 - 85	-	ø160, ø200	ø40 mm, ø50 mm	59

INSERT APPLICATION

Insert	Application							Page
	Grooving			Parting	Turning			
	External	Internal	Face		External	Internal	Face	
								
DGM / SGM	●	●	●	●				18, 19
DGS / SGS	●	●	●	●				20, 21
DGG	●	●	●	●				22
DGL	●	●	●	●				22
DGE	●							23
DTM	●	●	●	●	●	●	●	23
DTE	●	●	●		●	●	●	24
DTX	●	●	●	●	●	●	●	25
DTR / STR					●	●	●	28, 29, 33
DTIU	● Undercutting	● Undercutting	● Undercutting					30
DTI		●				●		26, 27
DGIM / DGIS		●						25, 26
DTF			●				●	27
DTA					● Al wheel machining	● Al wheel machining		30
SGN	●	●	●	●				32
STX	●	●	●	● Hardened steel	●	●	●	31
DTV					●	●		28
DGS*S		●		●				15
DTR*S		●				●		15
STV*S						●		16

Insert	Application			Page
	High feed turning			
	External	Internal	Face	
				
STH	●	●	●	33

NEW PRODUCT NEWS

mgt MEGA TECH METALWORK

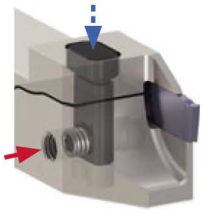
Tungaloy Report No. 391-G

Reduced downtime with new side clamp toolholder

- Easy insert changes by locking/unlocking from the side.
- Swift insert changes are possible while the toolholder remains on the machine, allowing significantly reduced setup time.

TUNGCUT Side Clamp toolholder

Clamping pin



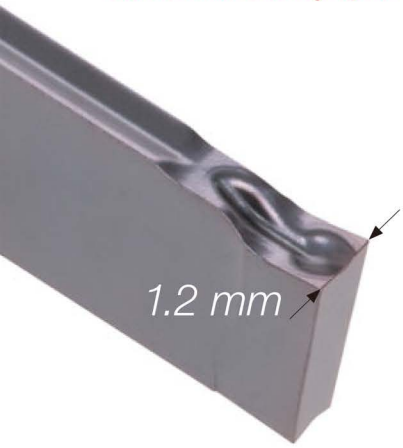
As the grub screw is tightened, the clamping pin moves downward to clamp the insert securely.

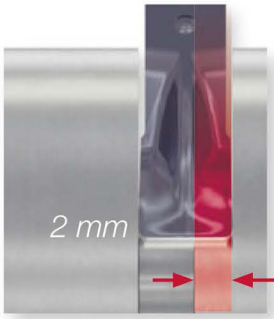
Conventional

Not enough room for a key to operate the screw. The entire tool has to be removed from the machine for insert change.

1.2 mm wide insert - the perfect solution for material cost reduction

Saves material by up to 40% by volume when compared with existing 2 mm wide insert.





40% cost cut!

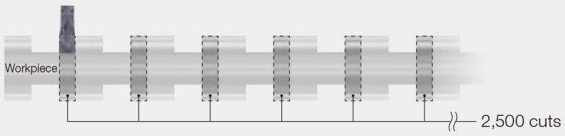
When swapped with 1.2 mm wide insert

Ex.) Lengths of materials wasted after 2,500 cuts by using 1.2 mm insert vs 2 mm insert:

New With 1.2 mm insert → 2,500 cuts x 1.2 mm/cut = **3,000 mm**

With 2 mm insert → 2,500 cuts x 2 mm/cut = **5,000 mm**

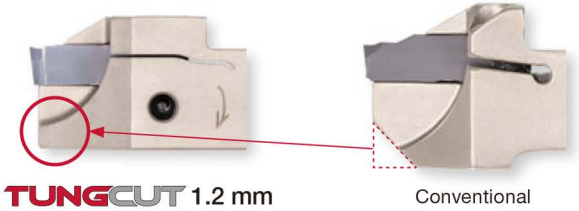
1.2 mm wide insert can save a 2,000 mm long bar stock worth of materials!!



Robust tool design

Easy workpiece positioning after every cut-off

The robust toolholder design withstands repeating bar feeder pressures, allowing the toolholder to be used for workpiece positioning.



TUNGCUT 1.2 mm Conventional

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TUNGALOY ADDFORCE ACCELERATED LINES

NEW PRODUCT NEWS

Tungaloy Report No. 391-G

mgt MEGA TECH METALWORK

TUNGCUT

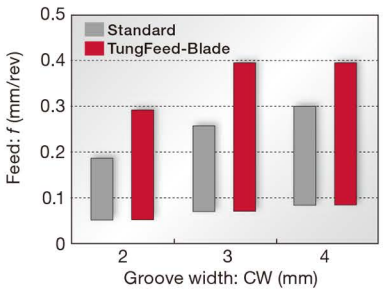
Strong holder design ensures excellent stability and productivity during demanding applications

- The support blade is designed to eliminate chatter during machining, providing better surface finish and straightness of the groove.
- Each blade has three insert seats for tool economy.

- The holder has two contact faces for enhanced rigidity.

DGM type (2 corners)
SGM type (1 corner)

■ Enhanced feed vs. conventional blade

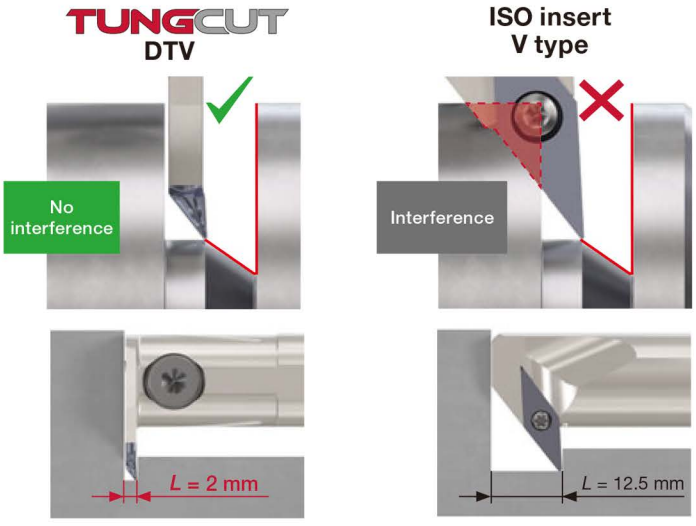


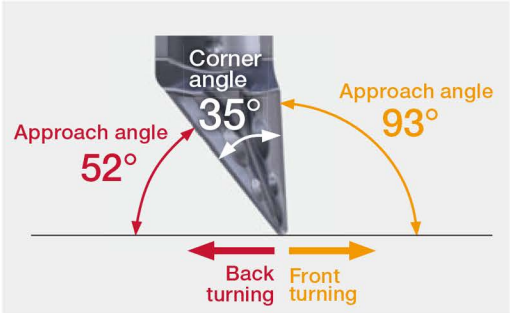
Enables high feed machining when used with high rigidity holders

DTV insert featuring 35° nose angle for profile turning applications

Produces various profiles

Offered in the shape of a grooving insert, the new insert allows complex profiling without tool interference, which is not possible with conventional ISO turning inserts.





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TUNGALOY ADDFORCE ACCELERATED LINES

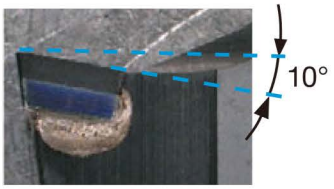
PCD insert with 3D chipbreaker for grooving and groove-turning of non-ferrous metal parts

STX type

Promotes efficient machining while eliminating bird-nesting of chips

Edge preparation:

Sharp cutting edge eliminates burr generation, creating superior surface quality.



Rake angle for light cutting action

Carbide body: Chip guiding feature

The unique groove feature guides chips away from the cutting zone.

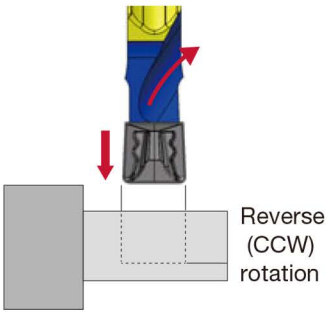
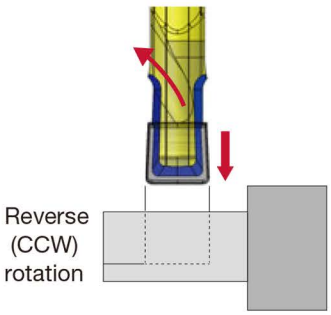
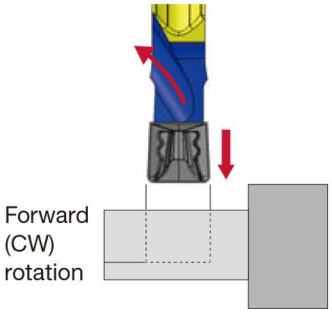
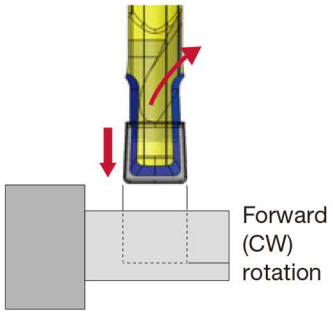
Left-hand Right-hand

PCD tip: with 3D chipbreaker

Promotes good chip control when creating a wide groove or groove-turning.

Optimized chip evacuation for the right- and left-hand inserts

Optimal insert handedness can always be used regardless of the toolholder or chuck mounting

Hand	Insert (facing up)	Insert (facing down)
Left-hand		
Right-hand		

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MEGA TECH METALWORK

TUNGCUT

Chip control

■ Grooving

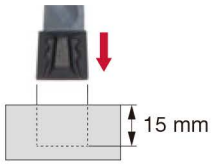
STX insert (with chipbreaker)

Competitor (with no chipbreaker)

STX insert, thanks to its optimized chip guide groove, allows smooth chip evacuation, while eliminating bird nest.

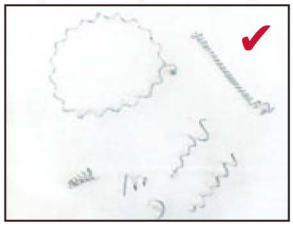
N

Insert : STX200L-020 DX160
Toolholder : CTEL2525-2T17
Workpiece material : A5056
Cutting speed : *Vc* = 500 m/min
Feed : *f* = 0.15 mm/rev
Depth of cut : *ap* = 15 mm
Coolant : Wet

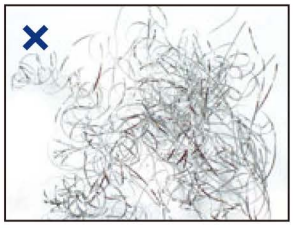


■ Creating wide grooves

STX insert (with chipbreaker)



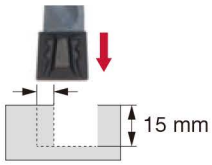
Competitor (with no chipbreaker)



STX insert provides excellent chip control during cutting of a wide groove thanks to integrated 3D chipbreaker.

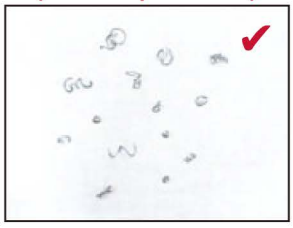
N

Insert : STX200L-020 DX160
Toolholder : CTEL2525-2T17
Workpiece material : A5056
Cutting speed : *Vc* = 500 m/min
Feed : *f* = 0.15 mm/rev
Depth of cut : *ap* = 0.7 mm
Coolant : Wet

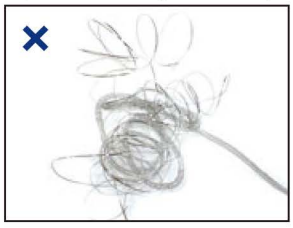


■ Turning

STX insert (with chipbreaker)



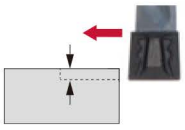
Competitor (with no chipbreaker)



STX insert provides excellent chip control during groove-turning thanks to integrated 3D chipbreaker.

N

Insert : STX200L-020 DX160
Toolholder : CTEL2525-2T17
Workpiece material : A5056
Cutting speed : *Vc* = 500 m/min
Feed : *f* = 0.15 mm/rev
Depth of cut : *ap* = 0.5 mm
Coolant : Wet



NEW PRODUCT NEWS

Tungaloy Report No. 391-G

mgt MEGA TECH METALWORK

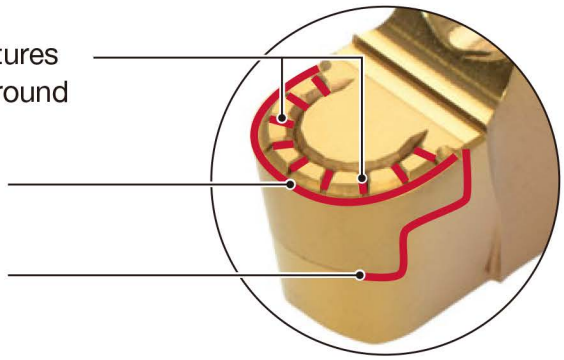
CBN tipped profiling insert with 3D chipbreaker for hardened steel parts

STR type

Eliminate chip bird nesting during hard part turning

STR inserts WAVYJOINT

- **TungCut** full radius inserts with HP chipbreaker features chip former that is integrated into the rake face all around the cutting edge, eliminating chip nesting
- The geometry is designed to reduce cutting loads, eliminating chatter generation during machining
- Secure bondage between the CBN tip and insert enabled with WavyJoint technology



Chip control

STR insert (with chipbreaker)

Competitor (with no chipbreaker)

H

Insert	: STR300-HP BXA10
Toolholder	: CTEL2525-3T09
Workpiece material	: SUJ2 / B1 (60 - 62HRC)
Cutting speed	: *Vc* = 120 m/min
Feed	: *f* = 0.2 mm/rev
Depth of cut	: *ap* = 0.15 mm
Application	: External profiling, continuous
Coolant	: Dry

STR insert provided better chip control.

mgt MEGA TECH METALWORK

TUNGCUT

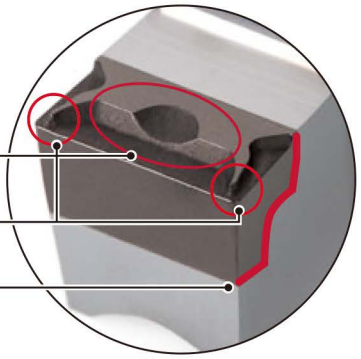
CBN tipped grooving insert with 3D chipbreaker for hardened steel parts

STX type

No more concerns with chip bird-nesting during grooving of hardened steel parts

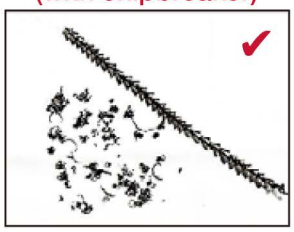
STX inserts WAVYJOINT

- Functions during grooving processes
- Functions during groove wall cutting and side turning
- Secure bondage between the CBN tip and insert enabled with WavyJoint technology

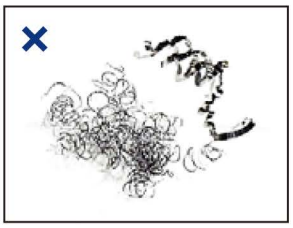


■ Chip control

STX insert (with chipbreaker)



Competitor (with no chipbreaker)



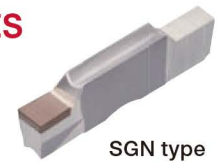
H

Insert	: STX300-020 BX360
Toolholder	: CTEL2525-3T09
Workpiece material	: SCM415 (60-62HRC)
Cutting speed	: *Vc* = 120 m/min
Feed	: *f* = 0.05 mm/rev
Depth of cut	: *ap* = 0.3 mm
Application	: O.D. grooving and wall cutting, continuous
Coolant	: Wet

STX insert provided better chip control.

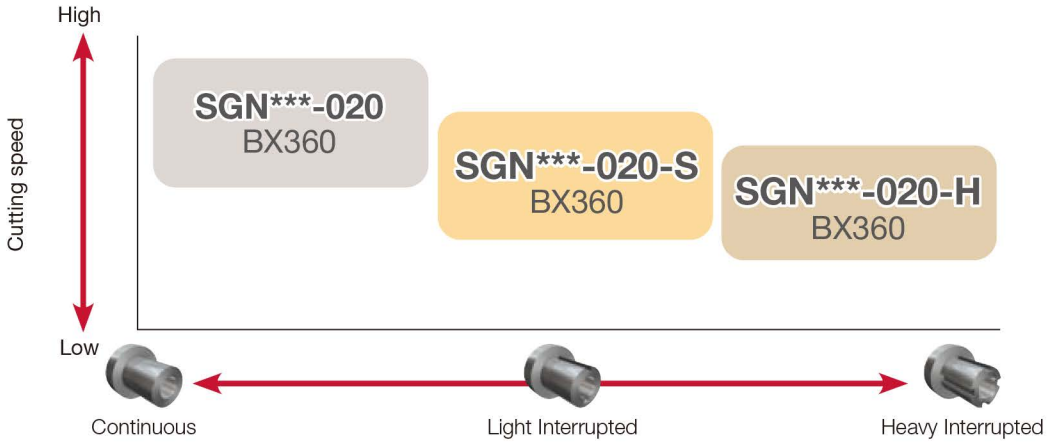
mgt
MEGA TECH METALWORK

CBN inserts for grooving applications of hardened steel parts

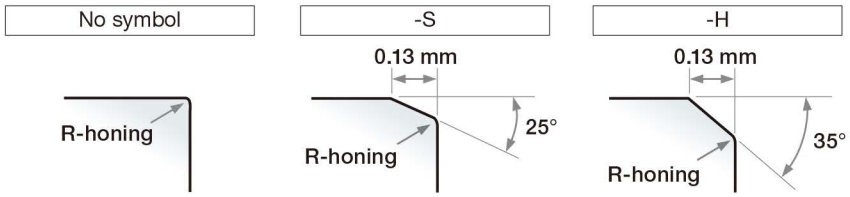


SGN type

Three standard types of edge preparations are available according to the cutting conditions

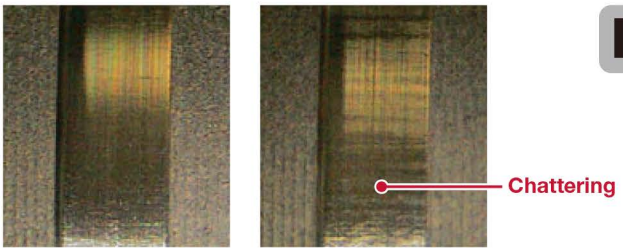


Edge preparations



CUTTING PERFORMANCE

Continuous grooving



SGN300-020
BX360

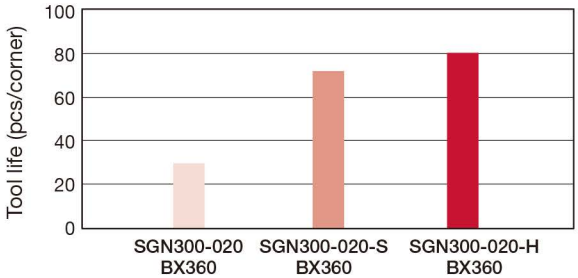
SGN300-020-S
BX360

H

Toolholder : CTEL2525-3T
Workpiece material : SCM420 (58HRC)
Cutting speed : *Vc* = 150 m/min
Feed : *f* = 0.05 mm/rev
Coolant : Wet

Inserts without edge preparation symbol recommended for continuous grooving.

Heavy interrupted grooving



H

Toolholder : CTEL2525-3T
Workpiece material : SCM435 (58HRC)
Cutting speed : *Vc* = 100 m/min
Feed : *f* = 0.05 mm/rev
Coolant : Dry

-H type edge preparation recommended for heavy interrupted grooving.

mgt MEGA TECH METALWORK

TUNGCUT

CBN insert for high feed turning of hardened steel parts


STH type

Innovative insert design for turning

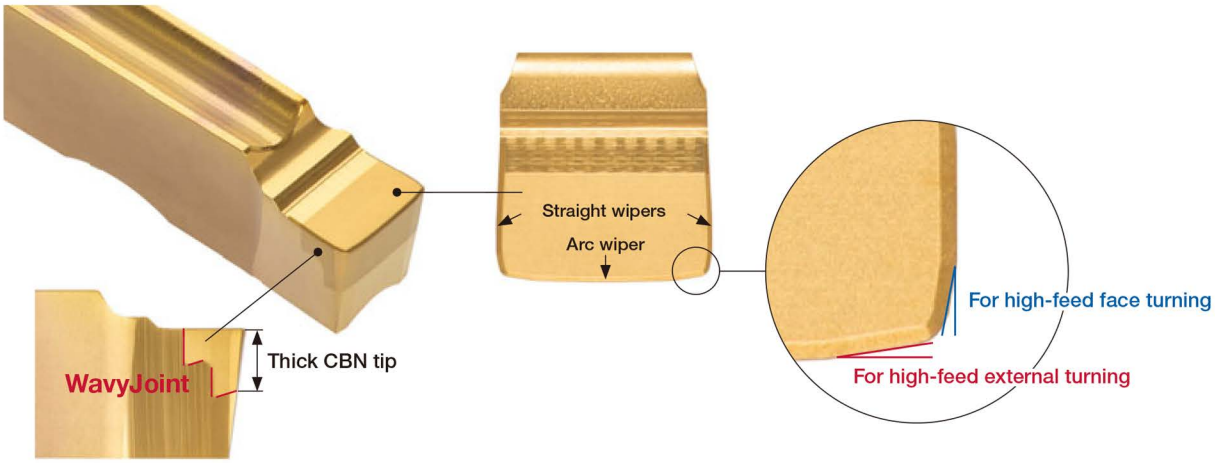
Optimized cutting edge geometry for high feed turning

- Turning insert in the shape of a grooving insert—This innovative design allows the cutting edge to have longer wipers than traditional ISO wiper inserts, providing superior surface finishing in high feed machining.
- Front and side cutting edges form small entry angles that generate a chip thinning effect during machining at a high feed rate.

Note: When used for grooving, the insert will not produce square corners at the groove bottom due to its cutting edge profile with an arc wiper.

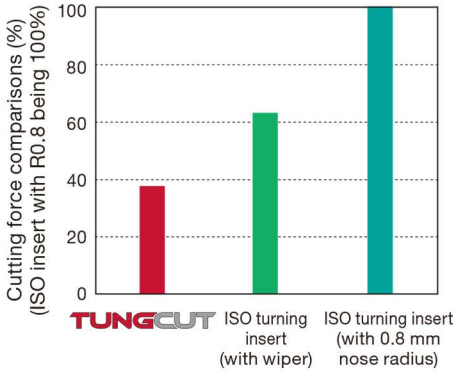
WavyJoint technology for enhanced brazing

- WavyJoint technology provides enhanced CBN tip and carbide insert bonding. A thick CBN tip dissipates the heat accumulated on the cutting edge during high feed machining, preventing the CBN tip from de-brazing.



Low cutting force

Optimized for high feed machining, the cutting edge creates thin chips, generating lower cutting forces than ISO inserts.



H

Insert	: STH500-SR BXA10
	: 2QP-CNGA120408WL BXA10
	: 2QP-CNGA120408 BXA10
Holder	: CTEL2525-5T12
	: ACLNL2525M12-A
Workpiece material	: SCM415 (60HRC)
Cutting speed	: *Vc* = 150 m/min
Feed	: *f* = 0.9 mm/rev
Depth of cut	: *ap* = 0.1 mm
Application	: External turning, continuous cut
Coolant	: Wet

High productive machining (for external turning)

An arc wiper on the front cutting edge provides superior surface finish when external turning at high feed rates.

	Feed: *f* (mm/rev)					
	0.1	0.3	0.6	0.9	1.2	1.5
TUNGCUT	✓	✓	✓	✓	✓	✓
ISO turning insert (with wiper)	✓	✓	×	×	×	×
ISO turning insert (with 0.8 mm nose radius)	✓	×	×	×	×	×

✓ Rz = less than 3.2 µm
× Rz = 3.2 µm or greater

H

Insert	: STH500-SR BXA10
	: 2QP-CNGA120408WL BXA10
	: 2QP-CNGA120408 BXA10
Holder	: CTEL2525-5T12
	: ACLNL2525M12-A
Workpiece material	: SCM415 (60HRC)
Cutting speed	: *Vc* = 150 m/min
Feed	: *f* = 0.1 - 1.5 mm/rev
Depth of cut	: *ap* = 0.1 mm
Application	: External turning, continuous cut
Coolant	: Wet

High productive machining (for face turning)

Straight wipers on the side cutting edges provides superior surface finish when face turning at high feed rates.

	Feed: *f* (mm/rev)					
	0.1	0.3	0.6	0.9	1.2	1.5
TUNGCUT	✓	✓	✓	×	×	×
ISO turning insert (with wiper)	✓	✓	×	×	×	×
ISO turning insert (with 0.8 mm nose radius)	✓	×	×	×	×	×

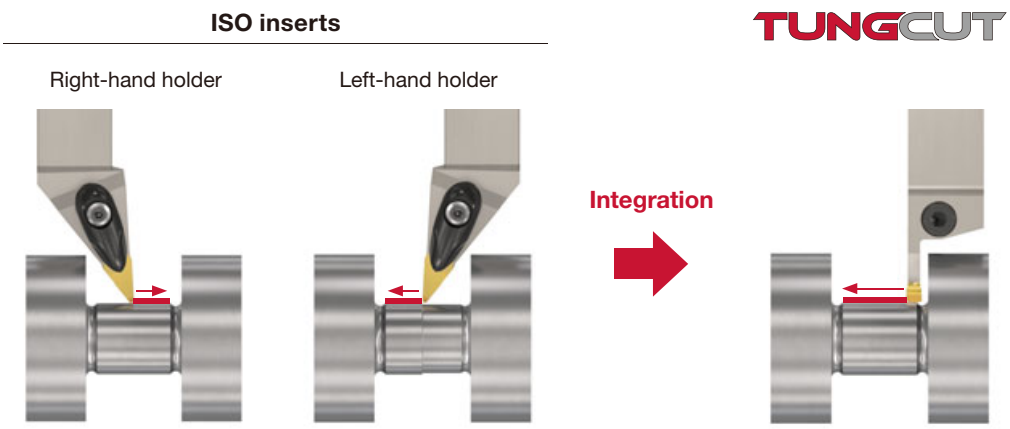
✓ Rz = less than 3.2 µm
× Rz = 3.2 µm or greater

H

Insert	: STH500-SR BXA10
	: 2QP-CNGA120408WL BXA10
	: 2QP-CNGA120408 BXA10
Holder	: CTEL2525-5T12
	: ACLNL2525M12-A
Workpiece material	: SCM415 (60HRC)
Cutting speed	: *Vc* = 120 m/min
Feed	: *f* = 0.1 - 1.5 mm/rev
Depth of cut	: *ap* = 0.1 mm
Application	: Face turning, continuous cut
Coolant	: Wet

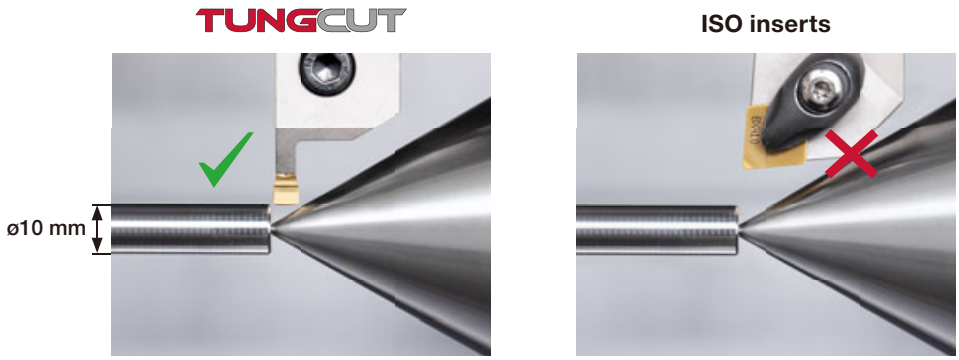
Integration of machining processes

To avoid tool interference, conventional turning method with ISO inserts requires two passes with two different turning holders. Using **TungCut CBN** insert with a grooving toolholder enables the machining processes to be integrated in a single machining pass.



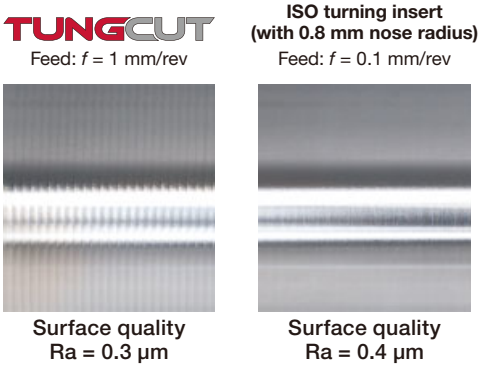
Minimum tool interference

TungCut insert is positioned perpendicular to the workpiece center axis. This minimizes tool interference when entering the cut from the tail stock side, making it easy to machine small diameter shafts.



CAUTIONS WHEN TURNING WITH TUNGCUT

Since the wiper geometry consists of a long arc, **TungCut CBN** insert provides wavy surface finishing, despite the results with excellent Ra values.

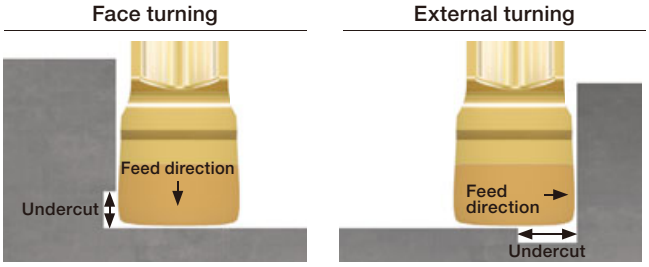


H

Insert	: STH500-SR BXA10
	: 2QP-CNGA120408 BXA10
Holder	: CTEL2525-5T12
	: ACLNL2525M12-A
Workpiece material	: SCM415 (60HRC)
Cutting speed	: *Vc* = 150 m/min
Feed	: *f* = 0.1, 1 mm/rev
Depth of cut	: *ap* = 0.1 mm
Application	: External turning, continuous cut
Coolant	: Wet

Due to the wiper geometry, ensure machine is programmed so that the wiper section of the cutting edge completely passes over the workpiece edge when external turning or face turning, otherwise, material will be left uncut on the workpiece. When cutting towards the wall or bottom, provide proper undercutting, as listed below, at the wall or bottom to eliminate uncut material.

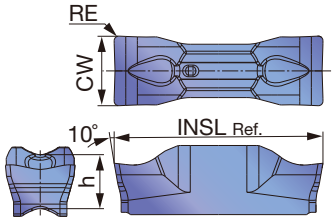
Designation	CW±0.025	Application	Minimum undercutting required (mm)
STH300-SR	3	External	1.5
		Face	0.4
STH500-SR	5	External	2.5
		Face	0.7



INSERT

DGS*S

Internal grooving and parting



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

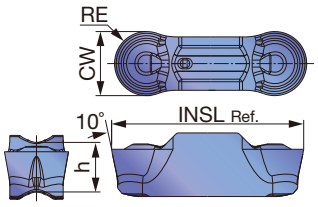
★ : First choice

Designation	Seat size	CW±0.05	RE	Coated AH7025	Coated AH725	Coated SH7025	INSL	h
DGS080S-003	S0.8	0.8	0.03		●		9	2.2
DGS080SF-003	S0.8	0.8	0.03			●	9	2.2
DGS100S-003	S1	1	0.03		●		9	2.2
DGS100SF-003	S1	1	0.03			●	9	2.2
DGS2S-010	S2	2	0.1	●			9	2.2
DGS3S-020	S3	3	0.2	●			9	2.2

●: Line up

DTR*S

Profiling and undercutting



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

★ : First choice

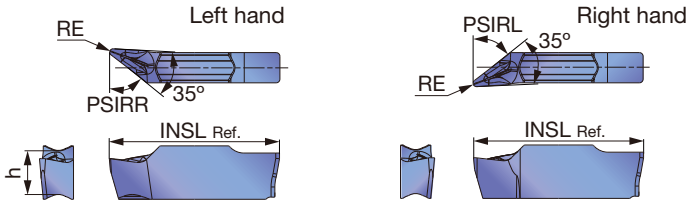
Designation	Seat size	CW±0.05	RE	Coated AH7025	INSL	h
DTR2S-100	S2	2	1	●	9	2.2
DTR3S-150	S3	3	1.5	●	9	2.2

●: Line up

Reference pages: Toolholders → P16, 17

STV*S

Profiling



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

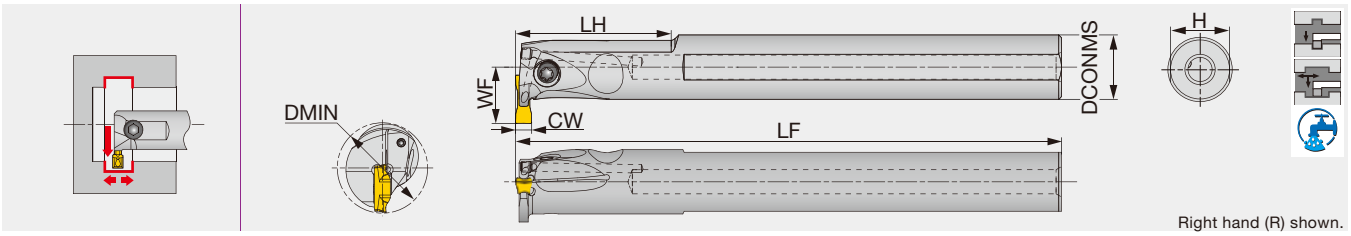
★ : First choice

Designation	Seat size	Right hand	Left hand	RE	Coated AH725	INSL	h	PSIRR	PSIRL
STV2S-020-35R-JS	S2	✓		0.2	●	9	2.2	0°	52°
STV2S-020-35L-JS	S2		✓	0.2	●	9	2.2	52°	0°

●: Line up

CTIR**S

Internal grooving and turning toolholder



Right hand (R) shown.

Designation	CW	DMIN	Seat size	CDX	DCONMS	H	LF (1)	LH	WF	Insert	Torque*
CTIR10S2T03-D120	2	12	S2	3	10	9	100	22	8.4	D/S**2S...	1.3
CTIR12S2T04-D160	2	16	S2	4	12	11	100	28	10.5	D/S**2S...	2.3
CTIR16S2T06-D200	2	20	S2	6	16	15	110	36	14.5	D/S**2S...	3.5
CTIR12S3T04-D160	3	16	S3	4	12	11	100	28	10.5	D**3S...	2.3
CTIR16S3T06-D200	3	20	S3	6	16	15	110	36	14.5	D**3S...	3.5

(1) LF is calculated with the groove width CW in the above table.
*Torque: Recommended clamping torque (N·m)

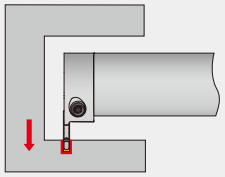
SPARE PARTS

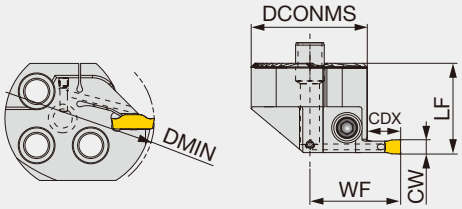
Designation	Clamping screw	Wrench
CTIR10S2T03-D120	CSTB-2.5L080	T-8F
CTIR12S*T04-D160	CSTB-3.5D	T-9F
CTIR16S*T06-D200	CSTB-4	T-15F

S-CTIRS-H

BOREMEISTER

Exchangeable boring head, for internal grooving





Right hand (R) shown.

Designation	CW	CDX	DMIN	DCONMS	Seat size	LF(1)	WF	Shank	Insert
S25-CTIRS2T06D320-H	2	6	32	25	S2	19	19	D25	D/S**2S...
S32-CTIRS2T07D400-H	2	7	40	32	S2	23	23.5	D32	D/S**2S...
S25-CTIRS3T06D320-H	3	6	32	25	S3	19	19	D25	D**3S...
S32-CTIRS3T07D400-H	3	7	40	32	S3	23	23.5	D32	D**3S...

(1) The LF value is true when the insert with the same CW as indicated in the matching line is mounted in the pocket.

Related Items

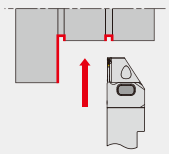
SPARE PARTS

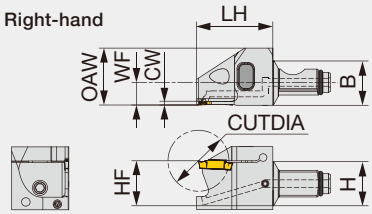

Designation	Clamping screw	Wrench
S25-CTIRS*T06D320-H	CM3X0.5X6	P-2.5
S32-CTIRS*T07D400-H	CM5X0.8X8	P-4

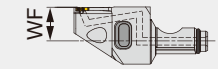
QC10/12-JTTER/LS-CHP

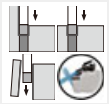
MODUMINI TURN

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









Designation	CW	Seat size	CUTDIA	H	B	LH	HF	WF (1)	OAW	Shank	Torque*
QC10-JTTER/LS0.8D16-CHP	0.8	S0.8	16	10	10	17	10	5/8	13	QC-1012...	1.5
QC10-JTTER/LS1D16-CHP	1	S1	16	10	10	17	10	5/8	13	QC-1012...	1.5
QC12-JTTER/LS0.8D16-CHP	0.8	S0.8	16	12	12	19.5	12	6/9	15	QC-12...	1.5
QC12-JTTER/LS1D16-CHP	1	S1	16	12	12	19.5	12	6/9	15	QC-12...	1.5

(1) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque (N·m)

Related Items

SPARE PARTS



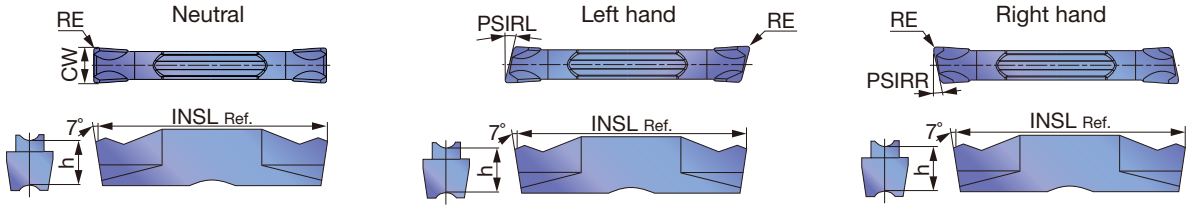

Designation	Clamping screw	Clamping pin	Wrench	O-ring
QC10-JTTER/LS...	SSM3.5x0.35	PIN-SL-TC	P-2F	ORSS-0353.5X1.0NBR70
QC12-JTTER/LS...	SSM3.5x0.35	PIN-SL-TC	P-2F	ORSS-0454.5X1.0NBR70

Reference pages: Inserts → P15, 16

INSERT

DGM

External/internal grooving and parting



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

★ : First choice
☆ : Second choice

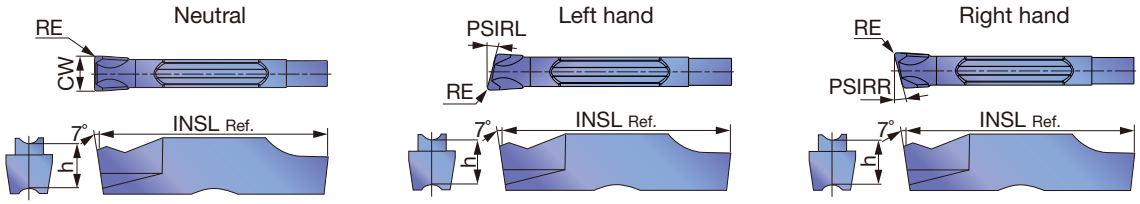
Designation	Seat size	HAND	CW±0.05	RE	T9225	AH8005	AH7025	AH6235	AH905	AH725	GH130	NS9530	KS05F	INSL	h	PSIRL	PSIRR
DGM2-020	2	N	2	0.2	●	●	●	●		●	●	●	●	20	5	0°	0°
DGM2-020-6R	2	R	2	0.2			●	★		●	●			20	5	0°	6°
DGM2-020-6L	2	L	2	0.2			●	★		●	●			20	5	6°	0°
DGM2-020-8R	2	R	2	0.2			●	★		●	●			20	5	0°	8°
DGM2-020-8L	2	L	2	0.2			●	★		●	●			20	5	8°	0°
DGM2-020-15R	2	R	2	0.2			●	★		●	●			20	5	0°	15°
DGM2-020-15L	2	L	2	0.2			●	★		●	●			20	5	15°	0°
DGM2-002-15R	2	R	2	0.02						●	●			19.35	5	0°	15°
DGM2-002-15L	2	L	2	0.02						●	●			19.35	5	15°	0°
DGM2.39-020	2	N	2.39	0.2		●	●	●						20	5	0°	0°
DGM3-020	3	N	3	0.2	●	●	●	●	●	●	●	●	●	20	5	0°	0°
DGM3-020-6R	3	R	3	0.2			●	★		●	●			20	5	0°	6°
DGM3-020-6L	3	L	3	0.2			●	★		●	●			20	5	6°	0°
DGM3-002-6R	3	R	3	0.02						●	●			19.45	5	0°	6°
DGM3-002-6L	3	L	3	0.02						●	●			19.45	5	6°	0°
DGM3-020-15R	3	R	3	0.2			●	★		●	●			20	5	0°	15°
DGM3-020-15L	3	L	3	0.2			●	★		●	●			20	5	15°	0°
DGM3.18-020	3	N	3.18	0.2		●	●	●						20	5	0°	0°
DGM4-030	4	N	4	0.3	●	●	●	●	●	●	●	●	●	20	5	0°	0°
DGM4-030-4R	4	R	4	0.3			●	★		●	●			20	5	0°	4°
DGM4-030-4L	4	L	4	0.3			●	★		●	●			20	5	4°	0°
DGM4-030-15R	4	R	4	0.3			●	★		●	●			20	5	0°	15°
DGM4-030-15L	4	L	4	0.3			●	★		●	●			20	5	15°	0°
DGM4.76-040	5	N	4.76	0.4		●	●	●						25	5.5	0°	0°
DGM5-030	5	N	5	0.3	●	●	●	●	●	●	●	●	●	25	5.5	0°	0°
DGM5-030-4R	5	R	5	0.3			●	★		●	●			25	5.5	0°	4°
DGM6-030	6	N	6	0.3	●	●	●	●	●	●	●		●	25	5.5	0°	0°
DGM6.35-040	6	N	6.35	0.4		●	●	●						25	5.5	0°	0°
DGM8-040	8	N	8	0.4	●	●	●	●		●	●		●	30	6.7	0°	0°

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

SGM

External/internal deep grooving and parting



		AH8005	AH7025	AH6235	AH725	GH130	KS05F
P	Steel	★	★	★	☆	☆	
M	Stainless	★	★	★	☆	★	
K	Cast iron	★	★	★		☆	☆
N	Non-ferrous						☆
S	Superalloys	★	★		☆		★
H	Hard materials						

★ : First choice
☆ : Second choice

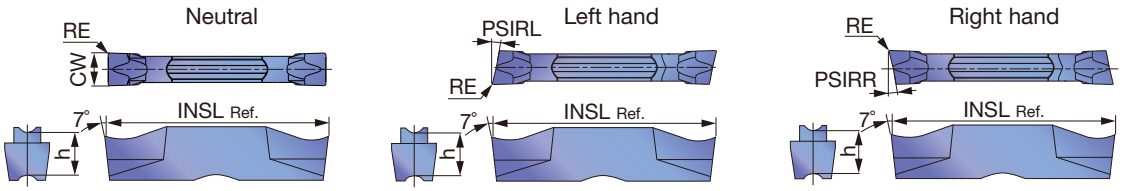
Designation	Seat size	HAND	CW±0.05	RE	Coated					Uncoated	INSL	h	PSIRL	PSIRR
					AH8005	AH7025	AH6235	AH725	GH130	KS05F				
SGM2-020	2	N	2	0.2	●	●	●	●	●	●	20	5	0°	0°
SGM2-020-6R	2	R	2	0.2		●	★	●	●		20	5	0°	6°
SGM2-020-6L	2	L	2	0.2		●	★	●	●		20	5	6°	0°
SGM3-020	3	N	3	0.2	●	●	●	●	●	●	20	5	0°	0°
SGM3-020-6R	3	R	3	0.2		●	★	●	●		20	5	0°	6°
SGM3-020-6L	3	L	3	0.2		●	★	●	●		20	5	6°	0°
SGM3-020-15R	3	R	3	0.2		●	★	●	●		20	5	0°	15°
SGM3-020-15L	3	L	3	0.2		●	★	●	●		20	5	15°	0°
SGM4-030	4	N	4	0.3	●	●	●	●	●	●	20	5	0°	0°
SGM4-030-4R	4	R	4	0.3		●	★	●	●		20	5	0°	4°
SGM4-030-4L	4	L	4	0.3		●	★	●	●		20	5	4°	0°
SGM5-030	5	N	5	0.3	●	●	●	●	●	●	25	5.5	0°	0°
SGM6-030	6	N	6	0.3	●	●	●	●	●	●	25	5.5	0°	0°
SGM8-040	8	N	8	0.4	●	●	●			●	30	6.7	0°	0°

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DGS

External/internal grooving and parting



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

★ : First choice
☆ : Second choice

Designation	Seat size	HAND	CW±0.05	RE	Coated						Cermet		Uncoated				INSL	h	PSIRL	PSIRR
					T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530		KS05F							
DGS1.2-003	0.9	N	1.2	0.03					●								16	4.7	0°	0°
DGS1.4-005	1	N	1.4	0.05					●								16	4.3	0°	0°
DGS1.4-010	1	N	1.4	0.1					●								16	4.3	0°	0°
DGS1.4-016	1	N	1.4	0.16			●	★	●	●							16	4.3	0°	0°
DGS2-005	2	N	2	0.05					●								20	5	0°	0°
DGS2-010	2	N	2	0.1					●								20	5	0°	0°
DGS2-020	2	N	2	0.2	●	●	●	●	●	●	●		●				20	5	0°	0°
DGS2-020-6R	2	R	2	0.2			●	★	●	●							20	5	0°	6°
DGS2-020-6L	2	L	2	0.2			●	★	●	●							20	5	6°	0°
DGS2-002-6R	2	R	2	0.02					●	●							19.5	5	0°	6°
DGS2-002-6L	2	L	2	0.02					●	●							19.5	5	6°	0°
DGS2-020-15R	2	R	2	0.2			●	★	●	●							20	5	0°	15°
DGS2-020-15L	2	L	2	0.2			●	★	●	●							20	5	15°	0°
DGS2-002-15R	2	R	2	0.02					●	●							19.5	5	0°	15°
DGS2-002-15L	2	L	2	0.02					●	●							19.5	5	15°	0°
DGS2.39-020	2	N	2.39	0.2		●	●	●									20	5	0°	0°
DGS3-020	3	N	3	0.2	●	●	●	●	●	●	●		●				20	5	0°	0°
DGS3-020-6R	3	R	3	0.2			●	★	●	●							20	5	0°	6°
DGS3-020-6L	3	L	3	0.2			●	★	●	●							20	5	6°	0°
DGS3-002-6R	3	R	3	0.02					●	●							19.45	5	0°	6°
DGS3-002-6L	3	L	3	0.02					●	●							19.45	5	6°	0°
DGS3-020-15R	3	R	3	0.2			●	★	●	●							20	5	0°	15°
DGS3-020-15L	3	L	3	0.2			●	★	●	●							20	5	15°	0°
DGS3-002-15R	3	R	3	0.02					●	●							19.45	5	0°	15°
DGS3-002-15L	3	L	3	0.02					●	●							19.45	5	15°	0°
DGS3.18-020	3	N	3.18	0.2		●	●	●									20	5	0°	0°
DGS4-030	4	N	4	0.3	●	●	●	●	●	●	●		●				20	5	0°	0°
DGS4-030-4R	4	R	4	0.3			●	★	●	●							20	5	0°	4°
DGS4-030-4L	4	L	4	0.3			●	★	●	●							20	5	4°	0°
DGS4.76-040	5	N	4.76	0.4		●	●	●									25	5.5	0°	0°
DGS5-030	5	N	5	0.3	●	●	●	●	●	●	●		●				25	5.5	0°	0°
DGS6-030	6	N	6	0.3	●	●	●	●	●	●			●				25	5.5	0°	0°
DGS6.35-040	6	N	6.35	0.4		●	●	●									25	5.5	0°	0°
DGS8-040	8	N	8	0.4		●	●	●					●				30	6.7	0°	0°

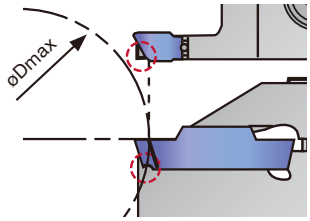
★ : Will be released in November 2025
● : Line up

Caution

The tool will interfere with the workpiece when grooving larger diameters than øDmax.

Designation	øDmax (mm)
DGM2-002-15R/L	28
DGM3-002-15R/L	29
DGM4-030-15R/L	30
SGM3-020-15R/L	103

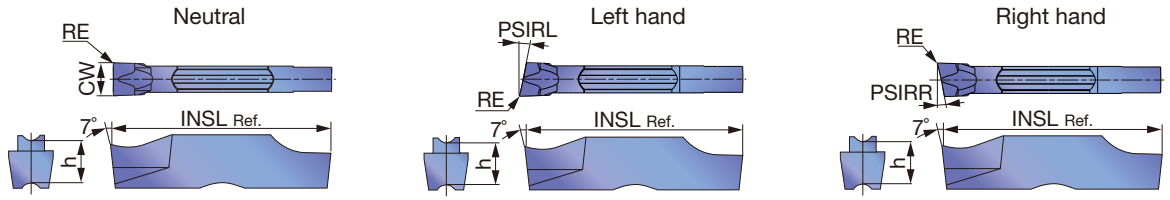
Designation	øDmax (mm)
DGS2-002-15R/L	28
DGS3-002-15R/L	29
SGS3-020-15R/L	103
SGS3-002-15R/L	34



Reference pages: Toolholders → P34 - 63

SGS

External/internal deep grooving and parting



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

★ : First choice
☆ : Second choice

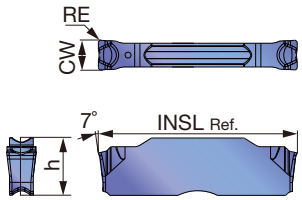
Designation	Seat size	HAND	CW±0.05	RE	AH8005	AH7025	AH6235	AH725	GH130	KS05F	INSL	h	PSIRL	PSIRR
SGS2-020	2	N	2	0.2	●	●	●	●	●	●	20	5	0°	0°
SGS2-020-6R	2	R	2	0.2		●	★	●	●		20	5	0°	6°
SGS2-020-6L	2	L	2	0.2		●	★	●	●		20	5	6°	0°
SGS2-020-15R	2	R	2	0.2		●	★	●	●		20	5	0°	15°
SGS2-020-15L	2	L	2	0.2		●	★	●	●		20	5	15°	0°
SGS3-020	3	N	3	0.2	●	●	●	●	●	●	20	5	0°	0°
SGS3-020-6R	3	R	3	0.2		●	★	●	●		20	5	0°	6°
SGS3-020-6L	3	L	3	0.2		●	★	●	●		20	5	6°	0°
SGS3-002-6R	3	R	3	0.02				●	●		19.8	5	0°	6°
SGS3-002-6L	3	L	3	0.02				●	●		19.8	5	6°	0°
SGS3-020-15R	3	R	3	0.2		●	★	●	●		20	5	0°	15°
SGS3-020-15L	3	L	3	0.2		●	★	●	●		20	5	15°	0°
SGS3-002-15R	3	R	3	0.02				●	●		19.8	5	0°	15°
SGS3-002-15L	3	L	3	0.02				●	●		19.8	5	15°	0°
SGS4-030	4	N	4	0.3	●	●	●	●	●	●	20	5	0°	0°
SGS5-030	5	N	5	0.3	●	●	●	●	●	●	25	5.5	0°	0°
SGS6-030	6	N	6	0.3	●	●	●	●	●	●	25	5.5	0°	0°
SGS8-040	8	N	8	0.4	●	●	●				30	6.7	0°	0°

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DGL

External/internal grooving and parting



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

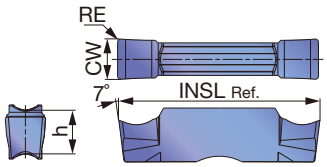
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated			INSL	h
				AH8005	AH7025	AH6235		
DGL2-020	2	2	0.2	●	●	●	20	5
DGL3-025	3	3	0.25	●	●	●	20	5
DGL4-030	4	4	0.3	●	●	●	20	5
DGL5-030	5	5	0.3	●	●	●	25	5.5
DGL6-080	6	6	0.8	●	●	●	25	5.5

●: Line up

DGG

External/internal grooving and parting (for high precision)



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

★ : First choice
☆ : Second choice

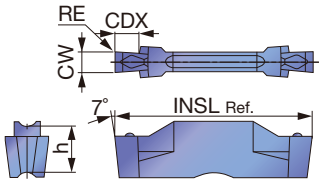
Designation	Seat size	CW±0.02	RE	Coated			Cermet	Uncoated	INSL	h
				AH8005	AH7025	AH6235	NS9530	KS05F		
DGG200-020	2	2	0.2	★	●	★	●	●	20	5
DGG300-020	3	3	0.2	★	●	★	●	●	20	5
DGG400-040	4	4	0.4	★	●	★	●	●	20	5
DGG500-040	5	5	0.4	★	●	★	●	●	25	5.5
DGG600-040	6	6	0.4	★	●	★	●	●	25	5.5

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DGE

External grooving (for high precision)



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

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated					Cermet					CDX	INSL	h
				AH8005	AH7025	AH6235	AH725	GH130	NS9530							
DGE100-000	2	1	0				●	●	●					2.5	20	5
DGE130-000	2	1.3	0				●	●	●					2.5	20	5
DGE160-010	2	1.6	0.1	★	●	★	●	●	●					2.5	20	5
DGE185-010	2	1.85	0.1	★	●	★	●	●	●					3.5	20	5
DGE215-015	2	2.15	0.15	★	●	★	●	●	●					3.5	20	5

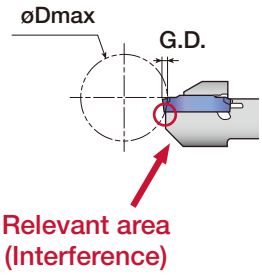
★ : Will be released in November 2025
● : Line up

Caution

øDmax is limited as shown in the picture to the right according to the groove depth, G.D. Please refer to the following table.

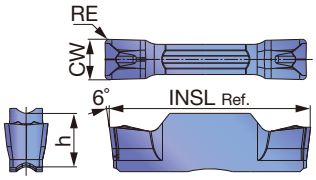
G.D = Groove depth

Designation	Max. groove depth (mm)	øDmax (mm)				
		G.D. = 1	G.D. = 1.5	G.D. = 2	G.D. = 2.5	G.D. = 3
DGE100-000	2	∞	18.6	11.5	-	-
DGE130-000						
DGE160-010						
DGE185-010	3				8.8	7
DGE215-015						



DTM

External/internal/face grooving and turning



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

★ : First choice
☆ : Second choice

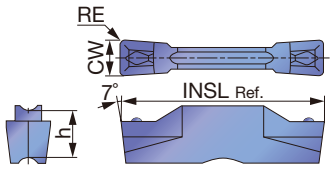
Designation	Seat size	CW±0.05	RE	Coated										INSL	h
				AH8005	AH7025	AH6235									
DTM2-020	2	2	0.2	●	●	●								20	5
DTM3-030	3	3	0.3	●	●	●								20	5
DTM4-040	4	4	0.4	●	●	●								20	5
DTM4-080	4	4	0.8	●	●	●								20	5
DTM5-080	5	5	0.8	●	●	●								25	5.5
DTM6-080	6	6	0.8	●	●	●								25	5.5
DTM8-080	8	8	0.8	●	●	●								30	6.7

●: Line up

Reference pages: Toolholders → P34 - 63

DTE

External/internal/face grooving and turning (for high precision)



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

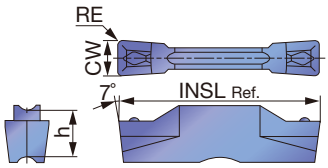
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated							Cermet						INSL	h
				T9225	AH8005	AH7025	AH6235	AH725	GH130		NS9530							
DTE265-015	3	2.65	0.15	●	★	●	★	●	●		●						20	5
DTE300-020	3	3	0.2	●	★	●	★	●	●		●						20	5
DTE300-040	3	3	0.4	●	★	●	★	●	●		●						20	5
DTE315-015	3	3.15	0.15	●	★	●	★	●	●		●						20	5
DTE400-040	4	4	0.4	●	★	●	★	●	●		●						20	5
DTE400-080	4	4	0.8	●	★	●	★	●	●		●						20	5
DTE415-015	4	4.15	0.15	●	★	●	★	●	●		●						20	5
DTE478-055	5	4.78	0.55	●	★	●	★	●	●		●						25	5.5
DTE500-040	5	5	0.4	●	★	●	★	●	●		●						25	5.5
DTE500-080	5	5	0.8	●	★	●	★	●	●		●						25	5.5
DTE515-015	5	5.15	0.15	●	★	●	★	●	●								25	5.5
DTE600-080	6	6	0.8	●	★	●	★	●	●								25	5.5
DTE600-120	6	6	1.2	●	★	●	★	●	●								25	5.5
DTE800-080	8	8	0.8	●	★	●	★	●	●								30	6.7
DTE800-120	8	8	1.2	●	★	●	★	●	●								30	6.7

★ : Will be released in November 2025
● : Line up

DTE

External/internal/face grooving and turning



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

★ : First choice
☆ : Second choice

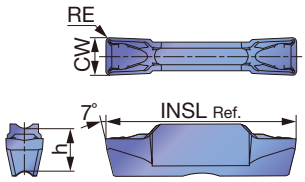
Designation	Seat size	CW±0.05	RE	Coated							Cermet						INSL	h
				T9225	T515	AH8005	AH7025	AH6235	AH725	GH130	NS9530							
DTE3-020	3	3	0.2			●	●	●									20	5
DTE3-040	3	3	0.4	●	●	●	●	●	●	●	●						20	5
DTE4-040	4	4	0.4	●	●	●	●	●	●	●	●						20	5
DTE4-080	4	4	0.8			●	●	●									20	5
DTE5-040	5	5	0.4		●	●	●	●									25	5.5
DTE5-080	5	5	0.8			●	●	●									25	5.5
DTE6-080	6	6	0.8		●	●	●	●									25	5.5

● : Line up

Reference pages: Toolholders → P34 - 63

DTX

External/internal/face grooving and turning



		T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530	KS05F
P	Steel	★	★	★	★	☆	☆	★	
M	Stainless		★	★	★	☆	★		
K	Cast iron		★	★	★		☆	☆	☆
N	Non-ferrous								☆
S	Superalloys		★	★		☆			★
H	Hard materials								

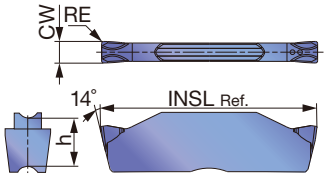
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet	Uncoated	INSL	h
				T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530	KS05F		
DTX2-020	2	2	0.2		●	●	●				●	20	5
DTX3-030	3	3	0.3	●	●	●	●	●	●	●	●	20	5
DTX4-040	4	4	0.4	●	●	●	●	●	●	●	●	20	5
DTX5-040	5	5	0.4	●	●	●	●	●	●	●	●	25	5.5
DTX6-080	6	6	0.8		●	●	●	●	●		●	25	5.5
DTX8-080	8	8	0.8		●	●	●				●	30	6.7

● : Line up

DGIM

Internal grooving



		T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530
P	Steel	★	★	★	★	☆	☆	★
M	Stainless		★	★	★	☆	★	
K	Cast iron		★	★	★		☆	☆
N	Non-ferrous							
S	Superalloys		★	★		☆		
H	Hard materials							

★ : First choice
☆ : Second choice

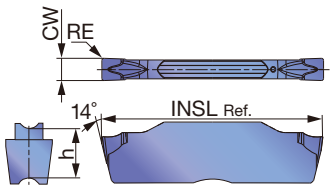
Designation	Seat size	CW±0.05	RE	Coated						Cermet	INSL	h
				T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530		
DGIM2-020	2	2	0.2	●	★	●	★	●	●	●	20	5

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DGIS

Internal grooving



		T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530
P	Steel	★	★	★	★	☆	☆	★
M	Stainless		★	★	★	☆	★	
K	Cast iron		★	★	★		☆	☆
N	Non-ferrous							
S	Superalloys		★	★		☆		
H	Hard materials							

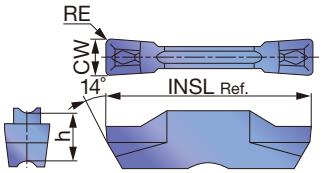
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet	INSL	h
				T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530		
DGIS2-020	2	2	0.2	●	★	●	★	●	●	●	20	5

★ : Will be released in November 2025
● : Line up

DTI

Internal grooving and turning (for high precision)



		T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530
P	Steel	★	★	★	★	☆	☆	★
M	Stainless		★	★	★	☆	★	
K	Cast iron		★	★	★		☆	☆
N	Non-ferrous							
S	Superalloys		★	★		☆		
H	Hard materials							

★ : First choice
☆ : Second choice

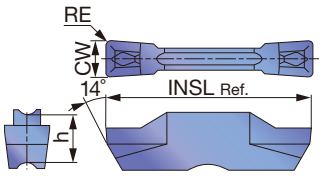
Designation	Seat size	CW±0.02	RE	Coated						Cermet	INSL	h
				T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530		
DTI300-040	3	3	0.4	●	★	●	★	●	●	●	20	5
DTI400-040	4	4	0.4	●	★	●	★	●	●	●	20	5
DTI400-080	4	4	0.8	●	★	●	★	●	●	●	20	5
DTI500-040	5	5	0.4	●	★	●	★	●	●	●	25	5.5
DTI500-080	5	5	0.8	●	★	●	★	●	●	●	25	5.5
DTI600-080	6	6	0.8	●	★	●	★	●	●		25	5.5
DTI600-120	6	6	1.2	●	★	●	★	●	●		25	5.5
DTI800-080	8	8	0.8	●	★	●	★	●	●		30	6.7
DTI800-120	8	8	1.2	●	★	●	★	●	●		30	6.7

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DTI

Internal grooving and turning



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

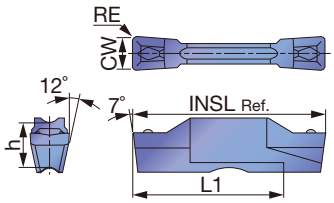
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated						Cermet						INSL	h
				T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530							
DTI3-040	3	3	0.4	●	★	●	★	●	●	●						20	5
DTI4-040	4	4	0.4	●	★	●	★	●	●	●						20	5

★ : Will be released in November 2025
● : Line up

DTF

Face grooving and turning



Right hand (R) shown.

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

★ : First choice
☆ : Second choice

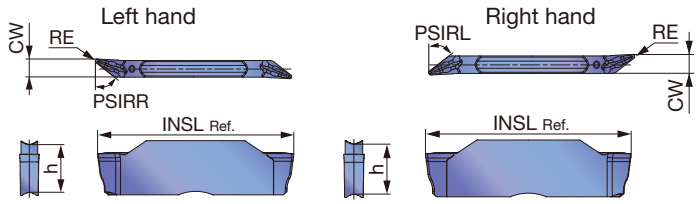
Designation	Seat size	HAND	CW±0.05	RE	Coated						Cermet						INSL	h	L1
					T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530								
DTF3-040-R	3	R	3	0.4	●	★	●	★	●	●	●						20	5	16
DTF3-040-L	3	L	3	0.4	●	★	●	★	●	●	●						20	5	16
DTF4-040-R	4	R	4	0.4	●	★	●	★	●	●	●						20	5	16
DTF4-040-L	4	L	4	0.4	●	★	●	★	●	●	●						20	5	16

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DTV

Profiling



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

★ : First choice

Designation	R/L	Seat size	CW±0.05	RE	Coated	INSL	h	PSIRR	PSIRL
					AH7025				
DTV2-020-35L-PS	L	2	1.85	0.2	●	20	5	52°	0°
DTV2-020-35R-PS	R	2	1.85	0.2	●	20	5	0°	52°
DTV5-020-35L-PS	L	5	4.5	0.2	●	25	5.5	52°	0°
DTV5-020-35R-PS	R	5	4.5	0.2	●	25	5.5	0°	52°
DTV5-040-35L-PS	L	5	4.5	0.4	●	25	5.5	52°	0°
DTV5-040-35R-PS	R	5	4.5	0.4	●	25	5.5	0°	52°

Recommended toolholder: CAEFR/L or CTEFR/L
Note: For toolholders other than the above, the insert support may require modification to avoid tool collision.

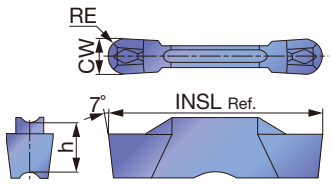
●: Line up

For Internal grooving

Insert	Seat size	Min. diameter DMIN
DTV	2	25
DTV	5	40

DTR

Profiling and undercutting (for high precision)



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

★ : First choice
☆ : Second choice

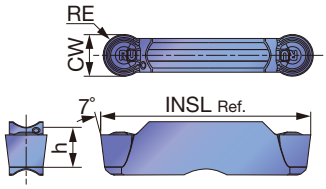
Designation	Seat size	CW±0.02	RE	Coated						Cermet			INSL	h
				T9225	AH8005	AH7025	AH6235	AH725	GH130	NS9530				
DTR300-150	3	3	1.5	●	★	●	★	●	●	●			20	5
DTR400-200	4	4	2	●	★	●	★	●	●	●			20	5
DTR478-239	5	4.78	2.39	●	★	●	★	●	●	●			25	5.5
DTR500-250	5	5	2.5	●	★	●	★	●	●	●			25	5.5
DTR600-300	6	6	3	●	★	●	★	●	●				25	5.5

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DTR

Profiling and undercutting



		T9225	AH8005	AH7025	AH6235	AH905	AH725	GH130	NS9530	KS05F
P	Steel	★	★	★	★		☆	☆	★	
M	Stainless		★	★	★		☆	★		
K	Cast iron		★	★	★	☆		☆	☆	☆
N	Non-ferrous									☆
S	Superalloys		★	★		★	☆			★
H	Hard materials									

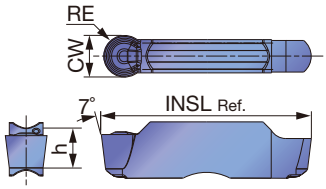
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.05	RE	Coated							Cermet	Uncoated	INSL	h
				T9225	AH8005	AH7025	AH6235	AH905	AH725	GH130	NS9530	KS05F		
DTR2-100	2	2	1		●	●	●					●	20	5
DTR3-150	3	3	1.5	●	●	●	●	●	●	●	●	●	20	5
DTR4-200	4	4	2	●	●	●	●	●	●	●	●	●	20	5
DTR5-250	5	5	2.5	●	●	●	●	●	●	●	●	●	25	5.5
DTR6-300	6	6	3	●	●	●	●		●	●		●	25	5.5
DTR8-400	8	8	4	●	●	●	●		●	●		●	30	6.7

● : Line up

STR

Profiling and undercutting



		AH8005	AH7025	AH6235	KS05F
P	Steel	★	★	★	
M	Stainless	★	★	★	
K	Cast iron	★	★	★	☆
N	Non-ferrous				☆
S	Superalloys	★	★		★
H	Hard materials				

★ : First choice
☆ : Second choice

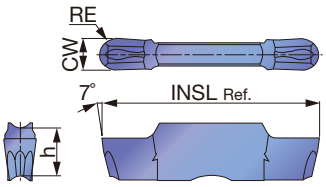
Designation	Seat size	CW±0.05	RE	Coated			Uncoated	INSL	h
				AH8005	AH7025	AH6235	KS05F		
STR2-100	2	2	1	●	●	★	●	20	5
STR3-150	3	3	1.5	●	●	★	●	20	5
STR4-200	4	4	2	●	●	★	●	20	5
STR5-250	5	5	2.5	●	●	★	●	25	5.5
STR6-300	6	6	3	●	●	★	●	25	5.5
STR8-400	8	8	4	●	●	★	●	30	6.7

★ : Will be released in November 2025
● : Line up

Reference pages: Toolholders → P34 - 63

DTIU

Profiling and undercutting (for high precision)



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

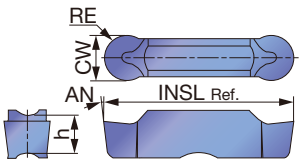
★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.02	RE	Coated								INSL	h
				AH8005	AH7025	AH6235	AH725	GH130					
DTIU300-150	3	3	1.5	★	●	★	●	●				20	5
DTIU400-200	4	4	2	★	●	★	●	●				20	5
DTIU500-250	5	5	2.5	★	●	★	●	●				25	5.5
DTIU600-300	6	6	3	★	●	★	●	●				25	5.5

★ : Will be released in November 2025
● : Line up

DTA

Aluminium wheel machining (for high precision)



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

★ : First choice
☆ : Second choice

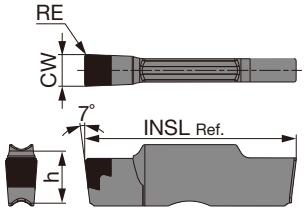
Designation	Seat size	CW±0.02	RE	Uncoated								INSL	h	AN
				TH10										
DTA600-300	6	6	3	●								25	5.5	7°
DTA800-400	8	8	4	●								30	6.7	10°

●: Line up

Reference pages: Toolholders → P34 - 63

STX

External/internal/face grooving and turning



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

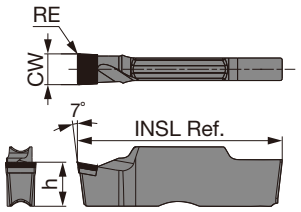
★ : First choice

Designation	Seat size	CW±0.025	RE	CBN	INSL	h
				BX360		
STX200-020	2	2	0.2	●	20	5
STX300-020	3	3	0.2	●	20	5
STX400-020	4	4	0.2	●	20	5
STX500-020	5	5	0.2	●	25	5.5

●: Line up

STX

External/internal/face grooving and turning



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

★ : First choice

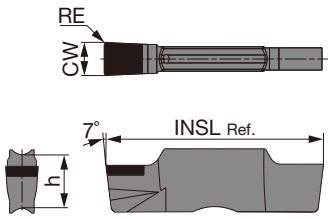
Designation	Seat size	HAND	CW±0.05	RE	PCD	INSL	h
					DX160		
STX200R-010	2	R	2	0.1	●	20	5
STX200L-010	2	L	2	0.1	●	20	5
STX200R-020	2	R	2	0.2	●	20	5
STX200L-020	2	L	2	0.2	●	20	5
STX300R-020	3	R	3	0.2	●	20	5
STX300L-020	3	L	3	0.2	●	20	5
STX400R-020	4	R	4	0.2	●	20	5
STX400L-020	4	L	4	0.2	●	20	5
STX400R-040	4	R	4	0.4	●	20	5
STX400L-040	4	L	4	0.4	●	20	5
STX500R-020	5	R	5	0.2	●	25	5.5
STX500L-020	5	L	5	0.2	●	25	5.5
STX500R-040	5	R	5	0.4	●	25	5.5
STX500L-040	5	L	5	0.4	●	25	5.5

●: Line up

Reference pages: Toolholders → P34 - 63

SGN

External/internal/face grooving



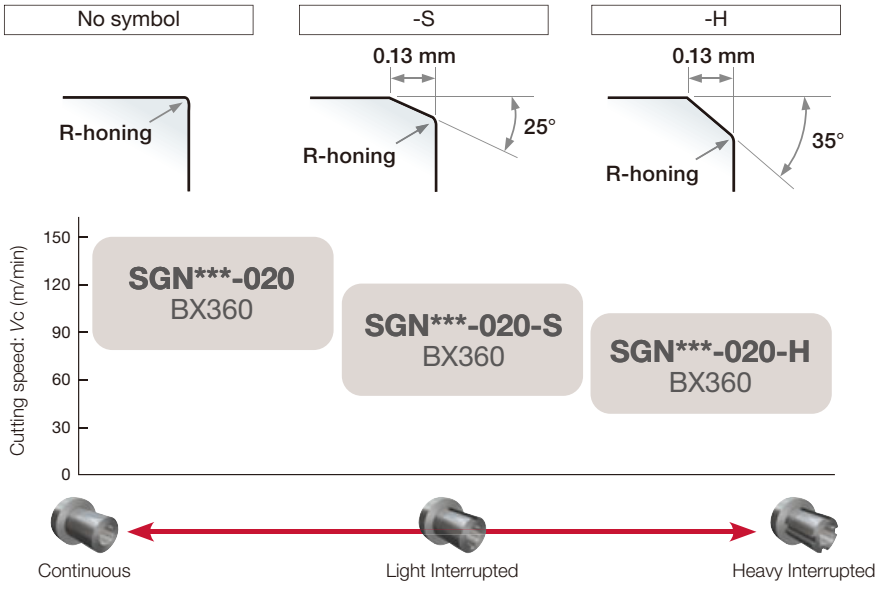
P	Steel	
M	Stainless	
K	Cast iron	
N	Non-ferrous	
S	Superalloys	
H	Hard materials	★

★ : First choice
☆ : Second choice

Designation	Seat size	CW±0.025	RE	CBN	INSL	h	Condition		
				BX360			Continuous	Light interrupted	Heavy interrupted
SGN200-020	2	2	0.2	●	20	5	○		
SGN200-020-S	2	2	0.2	●	20	5		○	
SGN200-020-H	2	2	0.2	●	20	5			○
SGN300-020	3	3	0.2	●	20	5	○		
SGN300-020-S	3	3	0.2	●	20	5		○	
SGN300-020-H	3	3	0.2	●	20	5			○
SGN400-020	4	4	0.2	●	20	5	○		
SGN400-020-S	4	4	0.2	●	20	5		○	
SGN400-020-H	4	4	0.2	●	20	5			○
SGN500-020-S	5	5	0.2	●	25	5.5		○	
SGN500-020-H	5	5	0.2	●	25	5.5			○

●: Line up

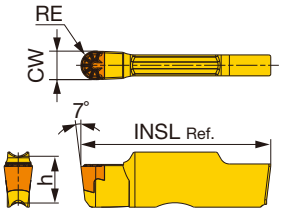
Edge preparations



Reference pages: Toolholders → P34 - 63

STR

Profiling



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

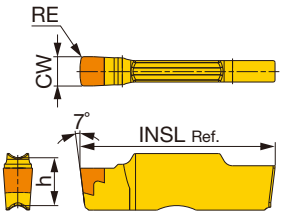
★ : First choice

Designation	Seat size	CW±0.05	RE	CBN BXA10	INSL	h
STR300-HP	3	3	1.5	●	20	5
STR400-HP	4	4	2	●	20	5
STR500-HP	5	5	2.5	●	20	5.5

●: Line up

STH

High feed external/internal/face turning



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

★ : First choice

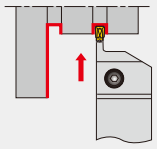
Designation	Seat size	CW±0.025	RE	CBN BXA10	INSL	h
STH300-SR	3	3	0.3	●	20	5
STH500-SR	5	5	0.3	●	25	5.5

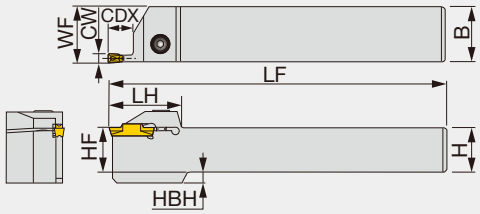
●: Line up

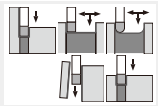
Reference pages: Toolholders → P34 - 63

CTER/L

External grooving, parting and turning toolholder







Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	HBH	Torque*
CTER/L1616-2T08	2	2	8	16	16	110	33	16	16.1	4	5
CTER/L2020-2T08	2	2	8	20	20	125	33	20	20.1	-	5
CTER/L2525-2T08	2	2	8	25	25	150	33	25	25.1	-	5
CTER/L1616-2T12	2	2	12	16	16	110	32	16	16.1	4	5
CTER/L2020-2T12	2	2	12	20	20	125	32	20	20.1	-	5
CTER/L2525-2T12	2	2	12	25	25	150	32	25	25.1	-	5
CTER/L1616-2T17	2	2	17	16	16	110	37	16	16.1	4	5
CTER/L2020-2T17	2	2	17	20	20	125	37	20	20.1	-	5
CTER/L2525-2T17	2	2	17	25	25	150	37	25	25.1	-	5
CTER/L2525-2T20	2	2	20	25	25	150	38.5	25	25.1	-	5
CTER/L1616-3T09	3	3	9	16	16	110	32	16	16.3	4	5
CTER/L2020-3T09	3	3	9	20	20	125	32	20	20.3	-	5
CTER/L2525-3T09	3	3	9	25	25	150	32	25	25.3	-	5
CTER/L1616-3T12	3	3	12	16	16	110	32	16	16.3	4	5
CTER/L2020-3T12	3	3	12	20	20	125	32	20	20.3	-	5
CTER/L2525-3T12	3	3	12	25	25	150	32	25	25.3	-	5
CTER/L1616-3T20	3	3	20	16	16	110	38.5	16	16.3	4	5
CTER/L2020-3T20	3	3	20	20	20	125	38.5	20	20.3	-	5
CTER/L2525-3T20	3	3	20	25	25	150	38.5	25	25.3	-	5
CTER/L2525-3T25	3	3	25	25	25	150	44.5	25	25.3	-	5
CTER/L1616-4T10	4	4	10	16	16	110	32	16	16.5	4	8.5
CTER/L2020-4T10	4	4	10	20	20	125	32	20	20.5	-	8.5
CTER/L2525-4T10	4	4	10	25	25	150	32	25	25.5	-	8.5
CTER/L2020-4T15	4	4	15	20	20	125	33	20	20.5	-	8.5
CTER/L2525-4T15	4	4	15	25	25	150	33	25	25.5	-	8.5
CTER/L1616-4T25	4	4	25	16	16	110	45	16	16.5	4	8.5
CTER/L2020-4T25	4	4	25	20	20	125	45	20	20.5	-	8.5
CTER/L2525-4T25	4	4	25	25	25	150	45	25	25.5	-	8.5
CTER/L3232-4T25	4	4	25	32	32	170	45	32	32.5	-	8.5
CTER/L2020-5T12	5	5	12	20	20	125	37	20	20.6	-	8.5
CTER/L2525-5T12	5	5	12	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T17	5	5	17	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T20	5	5	20	25	25	150	37	25	25.6	-	8.5
CTER/L2525-5T32	5	5	32	25	25	150	56	25	25.6	-	8.5
CTER/L3232-5T32	5	5	32	32	32	170	56	32	32.6	-	8.5
CTER/L2020-6T12	6	6	12	20	20	125	37	20	20.6	-	12
CTER/L2525-6T12	6	6	12	25	25	150	37	25	25.6	7	12
CTER/L2525-6T16	6	6	16	25	25	150	39	25	25.6	7	12
CTER/L2525-6T20	6	6	20	25	25	150	41	25	25.6	7	12
CTER/L2525-6T25	6	6	25	25	25	150	47	25	25.6	7	12
CTER/L2525-6T32	6	6	32	25	25	150	56	25	25.6	7	12
CTER/L3232-6T32	6	6	32	32	32	170	56	32	32.6	-	12
CTER/L2525-8T16	8	8	16	25	25	150	47	25	26.1	7	12
CTER/L2525-8T25	8	8	25	25	25	150	47	25	26.1	7	12
CTER/L3232-8T25	8	8	25	32	32	170	47	32	33.1	-	12
CTER/L3232-8T32	8	8	32	32	32	170	56	32	33.1	-	12
CTER/L2525-8T36	8	8	36	25	25	150	60	25	26.1	7	12
CTER/L3232-8T36	8	8	36	32	32	170	60	32	33.1	-	12

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

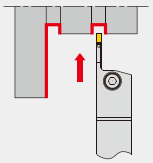
Designation	Clamping screw	Wrench
CTER/L1616-2T08	CM5X0.8X16-A	P-4
CTER/L2020-2T08	CM5X0.8X20-A	P-4
CTER/L2525-2T08	CM5X0.8X25-A	P-4
CTER/L1616-2T12	CM5X0.8X16-A	P-4
CTER/L2020-2T12	CM5X0.8X20-A	P-4
CTER/L2525-2T12	CM5X0.8X25-A	P-4
CTER/L1616-2T17	CM5X0.8X16-A	P-4
CTER/L2020-2T17	CM5X0.8X20-A	P-4
CTER/L2525-2T17	CM5X0.8X25-A	P-4
CTER/L2525-2T20	CM5X0.8X25-A	P-4
CTER/L1616-3T09	CM5X0.8X16-A	P-4
CTER/L2020-3T09	CM5X0.8X20-A	P-4
CTER/L2525-3T09	CM5X0.8X25-A	P-4
CTER/L1616-3T12	CM5X0.8X16-A	P-4
CTER/L2020-3T12	CM5X0.8X20-A	P-4
CTER/L2525-3T12	CM5X0.8X25-A	P-4
CTER/L1616-3T20	CM5X0.8X16-A	P-4
CTER/L2020-3T20	CM5X0.8X20-A	P-4
CTER/L2525-3T20	CM5X0.8X25-A	P-4
CTER/L2525-3T25	CM5X0.8X25-A	P-4
CTER/L1616-4T10	CM6X1X16-A	P-5
CTER/L2020-4T10	CM6X1X20-A	P-5
CTER/L2525-4T10	CM6X1X25-A	P-5
CTER/L2020-4T15	CM6X1X20-A	P-5
CTER/L2525-4T15	CM6X1X25-A	P-5
CTER/L1616-4T25	CM6X1X16-A	P-5
CTER/L2020-4T25	CM6X1X20-A	P-5
CTER/L2525-4T25	CM6X1X25-A	P-5
CTER/L3232-4T25	CM6X1X25-A	P-5
CTER/L2020-5T12	CM6X1X20-A	P-5
CTER/L2525-5T12	CM6X1X25-A	P-5
CTER/L2525-5T17	CM6X1X25-A	P-5
CTER/L2525-5T20	CM6X1X25-A	P-5
CTER/L2525-5T32	CM6X1X25-A	P-5
CTER/L3232-5T32	CM6X1X25-A	P-5
CTER/L2020-6T12	CM8X1.25X20-A	P-6
CTER/L2525-6T12	CM8X1.25X25-A	P-6
CTER/L2525-6T16	CM8X1.25X25-A	P-6
CTER/L2525-6T20	CM8X1.25X25-A	P-6
CTER/L2525-6T25	CM8X1.25X25-A	P-6
CTER/L2525-6T32	CM8X1.25X25-A	P-6
CTER/L3232-6T32	CM8X1.25X25-A	P-6
CTER/L2525-8T16	CM8X1.25X25-A	P-6
CTER/L2525-8T25	CM8X1.25X25-A	P-6
CTER/L3232-8T25	CM8X1.25X25-A	P-6
CTER/L3232-8T32	CM8X1.25X25-A	P-6
CTER/L2525-8T36	CM8X1.25X25-A	P-6
CTER/L3232-8T36	CM8X1.25X25-A	P-6

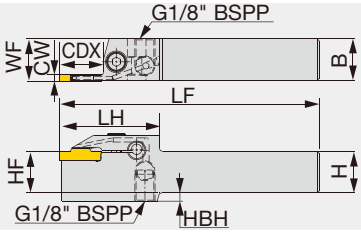
Reference pages: Inserts → P18 - 33

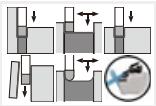
CTER/L-CHP

Tube connection

External grooving and parting toolholder, with high pressure coolant capability







Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	HBH	Torque*
CTER/L2020-2T17-CHP	2	2	17	20	20	125	45	20	20.1	4	5.5
CTER/L2525-2T17-CHP	2	2	17	25	25	150	45	25	25.1	-	5.5
CTER/L2020-3T20-CHP	3	3	20	20	20	125	48	20	20.3	4	5.5
CTER/L2525-3T20-CHP	3	3	20	25	25	150	48	25	25.3	-	5.5
CTER/L2525-3T25-CHP	3	3	25	25	25	150	51	25	25.3	-	5.5
CTER/L2525-4T25-CHP	4	4	25	25	25	150	55	25	25.5	-	8
CTER/L2525-5T20-CHP	5	5	20	25	25	150	49	25	25.58	-	8
CTER/L2525-6T20-CHP	6	6	20	25	25	150	52	25	25.58	7	12

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

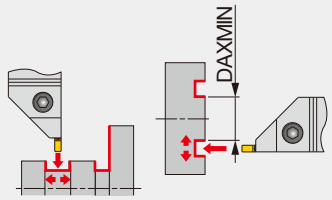
SPARE PARTS

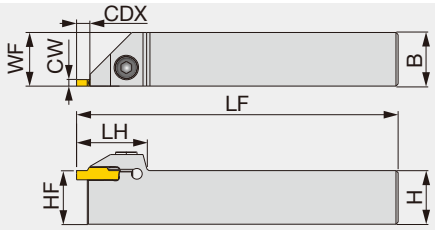
Designation	Clamping screw	Wrench
CTER/L2020-2T17-CHP	CM5x0.8x20-A	P-4
CTER/L2525-2T17-CHP	CM5x0.8x25-A	P-4
CTER/L2020-3T20-CHP	CM5x0.8x20-A	P-4
CTER/L2525-3T20-CHP	CM5x0.8x25-A	P-4
CTER/L2525-3T25-CHP	CM5x0.8x25-A	P-4
CTER/L2525-4T25-CHP	CM6x1x16-A	P-5
CTER/L2525-5T20-CHP	CM6x1x16-A	P-5
CTER/L2525-6T20-CHP	CM8x1.25x20-A	P-6

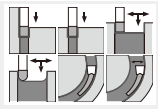
Reference pages: Inserts → P18 - 33, Parts for coolant hose → P64

CTEFR/L

External face grooving and turning toolholder







Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Torque*
CTEFR/L2020-4T04	4	2, 3, 4	4.8	20	20	125	33	20	20.5	8.5
CTEFR/L2525-4T04	4	2, 3, 4	4.8	25	25	150	33	25	25.5	8.5
CTEFR/L2020-6T04	6	5, 6	4.8	20	20	125	37	20	20.6	8.5
CTEFR/L2525-6T04	6	5, 6	4.8	25	25	150	37	25	25.6	8.5

Use the right-hand insert for the right-hand holder with DTF insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CTEFR/L2020-4T04	CM6X1X20-A	P-5
CTEFR/L2525-4T04	CM6X1X25-A	P-5
CTEFR/L2020-6T04	CM6X1X20-A	P-5
CTEFR/L2525-6T04	CM6X1X25-A	P-5

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

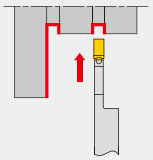
Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

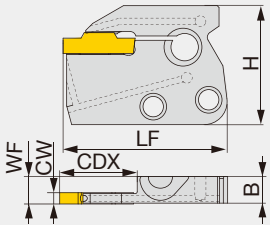
Reference pages: Inserts → P18 - 33

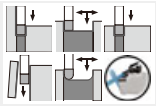
CAER/L-CHP

TUNGMODULAR SYSTEM

External grooving and parting adapter, with high pressure coolant capability







Right hand (R) shown.

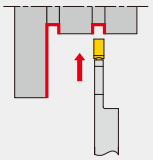
Designation	CW	Seat size	CDX	H	B	LF	WF (1)
CAER/L-2T16-CHP	2	2	16	33	7.2	41.5	7.3
CAER/L-2T20-CHP	2	2	20	33	7.2	45.5	7.3
CAER/L-3T16-CHP	3	3	16	33	7.2	41.5	7.4
CAER/L-3T20-CHP	3	3	20	33	7.2	45.5	7.5
CAER/L-4T16-CHP	4	4	16	33	7.2	41.5	7.7
CAER/L-4T20-CHP	4	4	20	33	7.2	45.5	7.7
CAER/L-5T20-CHP	5	5	20	33	7.2	46.3	7.8
CAER/L-6T20-CHP	6	6	20	33	7.2	46.3	7.8
CAER/L-8T25-CHP	8	8	25	33	7.2	51.1	8.3

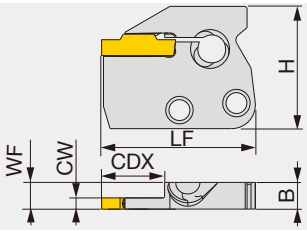
When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
(1) WF is calculated with the groove width (CW) in the above table.

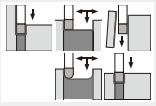
CAER/L-MD

TUNGMODULAR SYSTEM

External grooving and parting adapter







Right hand (R) shown.

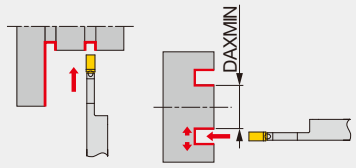
Designation	CW	Seat size	CDX	H	B	LF	WF (1)
CAER/L-2T16-MD	2	2	16	33	7.2	41.5	7.3
CAER/L-3T16-MD	3	3	16	33	7.2	41.5	7.4
CAER/L-4T16-MD	4	4	16	33	7.2	41.5	7.7
CAER/L-5T20-MD	5	5	20	33	7.2	46.3	7.8
CAER/L-6T20-MD	6	6	20	33	7.2	46.3	7.8
CAER/L-8T25-MD	8	8	25	33	7.2	51.1	8.3

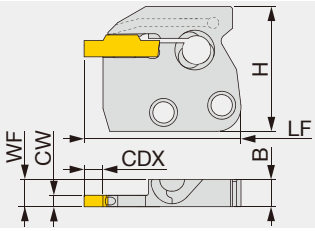
(1) WF is calculated with the groove width (CW) in the above table.

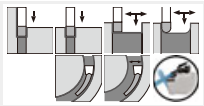
CAEFR/L-CHP

TUNGMODULAR SYSTEM

Face and external grooving adapter, with high pressure coolant capability







Right hand (R) shown.

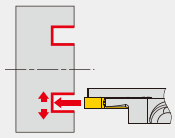
Designation	CW	Seat size	CDX	H	B	LF	WF (1)
CAEFR/L-4T04-CHP	4	2,3,4	4.8	33	7.2	41.5	7.7
CAEFR/L-6T04-CHP	6	5,6	4.8	33	7.2	46.3	7.8

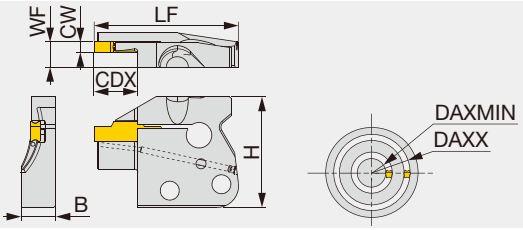
Use the right-hand insert for the right-hand holder with DTF insert.
(1) "WF" value is calculated with groove width "CW" shown in the table.

Reference pages: Inserts → P18 - 33, Shanks and toolholders → P41 - 43

CAFR/L-CHP

Face grooving and turning adapter, with high pressure coolant capability





Right hand (R) shown.

Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	WF (1)
CAFR/L-3T12-040055-CHP	3	40	55	3	12	33	10.2	43	7.5
CAFR/L-3T12-055075-CHP	3	55	75	3	12	33	10.2	43	7.5
CAFR/L-3T12-075100-CHP	3	75	100	3	12	33	10.2	43	7.5
CAFR/L-3T12-100140-CHP	3	100	140	3	12	33	10.2	43	7.5
CAFR/L-3T12-140200-CHP	3	140	200	3	12	33	10.2	43	7.5
CAFR/L-4T16-050070-CHP	4	50	70	4	16	33	10.2	43	8
CAFR/L-4T16-070100-CHP	4	70	100	4	16	33	10.2	43	8
CAFR/L-4T16-100150-CHP	4	100	150	4	16	33	10.2	43	8
CAFR/L-4T16-150250-CHP	4	150	250	4	16	33	10.2	43	8
CAFR/L-5T20-055080-CHP	5	55	80	5	20	33	10.2	47	8.5
CAFR/L-5T20-080120-CHP	5	80	120	5	20	33	10.2	47	8.5
CAFR/L-5T20-120180-CHP	5	120	180	5	20	33	10.2	47	8.5
CAFR/L-5T20-180300-CHP	5	180	300	5	20	33	10.2	47	8.5
CAFR/L-5T20-300000-CHP	5	300	∞	5	20	33	10.2	47	8.5
CAFR/L-6T25-060090-CHP	6	60	90	6	25	33	10.2	52	9
CAFR/L-6T25-090150-CHP	6	90	150	6	25	33	10.2	52	9
CAFR/L-6T25-150250-CHP	6	150	250	6	25	33	10.2	52	9
CAFR/L-6T25-250400-CHP	6	250	400	6	25	33	10.2	52	9

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
(1) WF is calculated with the groove width (CW) in the above table.

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → P18 - 33, Shanks and toolholders → P41 - 43

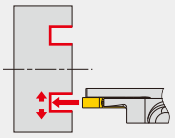
New

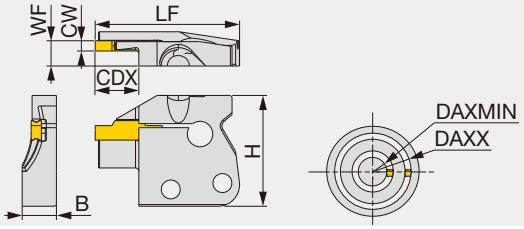
TUNGCUT

CAFR/L-MD

TUNGMODULAR SYSTEM

Face grooving and turning adapter





Right hand (R) shown.

Designation	HAND	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	WF (1)
CAFR-3T12-040055-MD	R	3	40	55	3	12	33	10.2	43	7.5
CAFL-3T12-040055-MD	L	3	40	55	3	12	33	10.2	43	7.5
CAFR-3T12-055075-MD	R	3	55	75	3	12	33	10.2	43	7.5
CAFL-3T12-055075-MD (2)	L	3	55	75	3	12	33	10.2	43	7.5
CAFR-3T12-075100-MD	R	3	75	100	3	12	33	10.2	43	7.5
CAFL-3T12-075100-MD	L	3	75	100	3	12	33	10.2	43	7.5
CAFR-3T12-100140-MD	R	3	100	140	3	12	33	10.2	43	7.5
CAFL-3T12-100140-MD	L	3	100	140	3	12	33	10.2	43	7.5
CAFR-3T12-140200-MD	R	3	140	200	3	12	33	10.2	43	7.5
CAFL-3T12-140200-MD	L	3	140	200	3	12	33	10.2	43	7.5
CAFR-4T16-050070-MD	R	4	50	70	4	16	33	10.2	43	8
CAFL-4T16-050070-MD	L	4	50	70	4	16	33	10.2	43	8
CAFR-4T16-070100-MD	R	4	70	100	4	16	33	10.2	43	8
CAFL-4T16-070100-MD (2)	L	4	70	100	4	16	33	10.2	43	8
CAFR-4T16-100150-MD	R	4	100	150	4	16	33	10.2	43	8
CAFL-4T16-100150-MD (2)	L	4	100	150	4	16	33	10.2	43	8
CAFR-4T16-150250-MD	R	4	150	250	4	16	33	10.2	43	8
CAFL-4T16-150250-MD (2)	L	4	150	250	4	16	33	10.2	43	8
CAFR-5T20-055080-MD	R	5	55	80	5	20	33	10.2	47	8.5
CAFL-5T20-055080-MD (2)	L	5	55	80	5	20	33	10.2	47	8.5
CAFR-5T20-080120-MD (2)	R	5	80	120	5	20	33	10.2	47	8.5
CAFL-5T20-080120-MD (2)	L	5	80	120	5	20	33	10.2	47	8.5
CAFR-5T20-120180-MD	R	5	120	180	5	20	33	10.2	47	8.5
CAFL-5T20-120180-MD	L	5	120	180	5	20	33	10.2	47	8.5
CAFR-5T20-180300-MD	R	5	180	300	5	20	33	10.2	47	8.5
CAFL-5T20-180300-MD (2)	L	5	180	300	5	20	33	10.2	47	8.5
CAFR-5T20-300000-MD	R	5	300	∞	5	20	33	10.2	47	8.5
CAFL-5T20-300000-MD	L	5	300	∞	5	20	33	10.2	47	8.5
CAFR-6T25-060090-MD (2)	R	6	60	90	6	25	33	10.2	52	9
CAFL-6T25-060090-MD (2)	L	6	60	90	6	25	33	10.2	52	9
CAFR-6T25-090150-MD	R	6	90	150	6	25	33	10.2	52	9
CAFL-6T25-090150-MD	L	6	90	150	6	25	33	10.2	52	9
CAFR-6T25-150250-MD	R	6	150	250	6	25	33	10.2	52	9
CAFL-6T25-150250-MD (2)	L	6	150	250	6	25	33	10.2	52	9
CAFR-6T25-250400-MD (2)	R	6	250	400	6	25	33	10.2	52	9
CAFL-6T25-250400-MD (2)	L	6	250	400	6	25	33	10.2	52	9

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
(1) WF is calculated with the groove width (CW) in the above table.
(2) Non-stocked products (to be supplied on request)

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

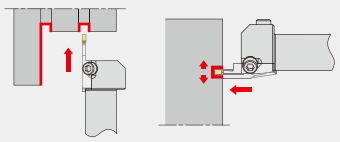
Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

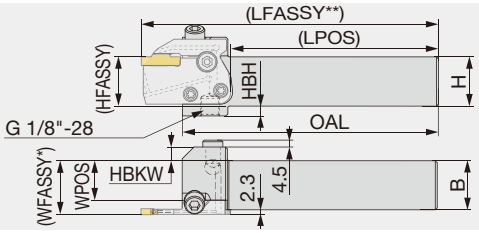
Reference pages: Inserts → P18 - 33, Shanks and toolholders → P41 - 43

CHSR/L-CHP

TUNGMODULAR SYSTEM **Tube connection**

Shank for adapter, with high pressure coolant capability





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

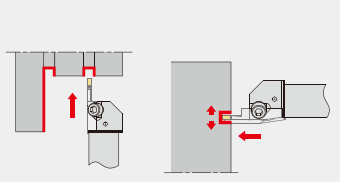
Designation	H	B	OAL	LPOS	WPOS	HBKW	HFASSY	HBH	Torque*
CHSR/L2020-CHP	20	20	130	105.5	15.1	12	20	10	6.5
CHSR/L2525-CHP	25	25	130	105.5	20.1	7	25	5	6.5
New CHSR/L3232-CHP	32	32	140	115.5	27.1	-	32	-	6.5

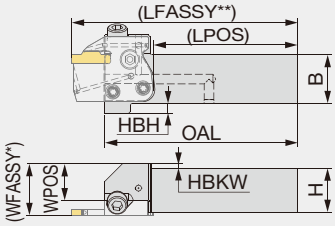
WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
Depend on the adapter type, the value of LFASSY or WFASSY may change.
Torque*: Recommended clamping torque (N·m)
Applicable for 30 MPa coolant
Please see General catalog 2023 - 2024 vol.5 page **L053** for instructions on installing and removing the adapter or the insert.

CHSR/L-CHP-MC

TUNGMODULAR SYSTEM **Direct connection**

Shank for adapter, with high pressure coolant capability





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

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

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
Depend 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 General catalog 2023 - 2024 vol.5 page **L053** 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	HW 5.0	OR 5X1N	PLUGG1/8ISO1179
CHSR/L**-CHP-MC	SR M5-04451	T-20/5	SR M6X12DIN6912	SR M6X20-XT	HW 5.0	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

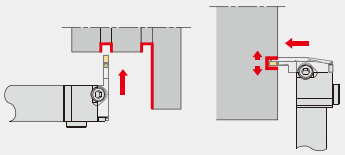
Shank	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP, -MD	CAFL**-CHP, -MD	CAEFR**-CHP	CAEFL**-CHP
CHSR**-CHP (-MC)	●			●	●	
CHSL**-CHP (-MC)		●	●			●

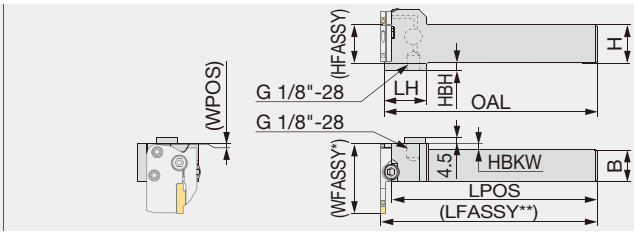
● : Corresponding

Reference pages: Inserts → P18 - 33, Adapters → P38 - 40, Parts for coolant hose → P64

CHFVR/L-CHP

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	Torque*
CHFVR/L2020-CHP	20	20	140	28	135.1	0.5	5	20	10	6.5
CHFVR/L2525-CHP	25	25	140	28	135.1	0.5	-	25	5	6.5
New CHFVR/L3232-CHP	32	32	150	-	145.1	7.3	-	32	-	6.5

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
Depend 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 General catalog 2023 - 2024 vol.5 page L053 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	HW 5.0	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	External grooving adapter		Face grooving adapter		External and face grooving adapter	
	CAER**-CHP, -MD	CAEL**-CHP, -MD	CAFR**-CHP, -MD	CAFL**-CHP, -MD	CAEFR**-CHP	CAEFL**-CHP
CHFVR**-CHP		●	●			●
CHFVL**-CHP	●			●	●	

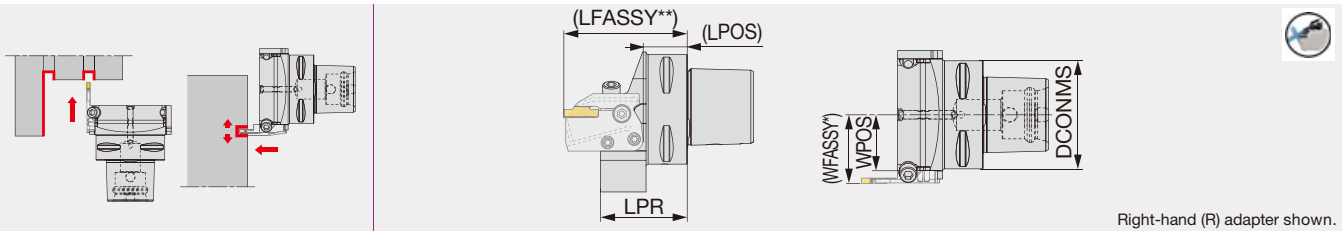
● : Corresponding

Reference pages: Inserts → P18 - 33, Adapters → P38 - 40, Parts for coolant hose → P64

C*CHSN-CHP

TUNGMODULAR SYSTEM **Direct connection**

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



Right-hand (R) adapter shown.

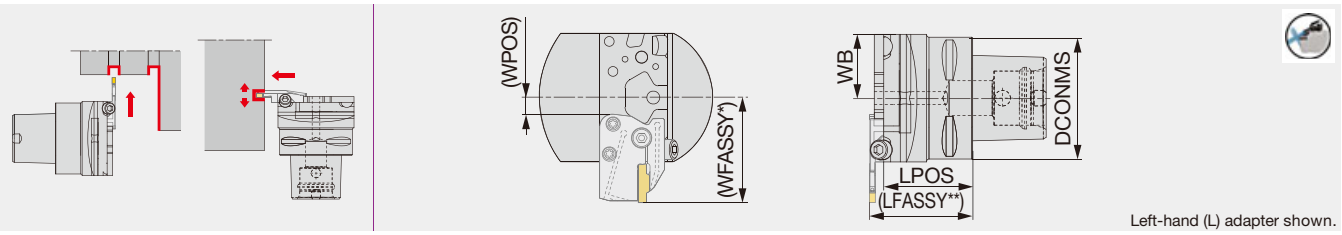
Designation	DCONMS	LPR	LPOS	WPOS	Torque*
C3CHSN19045-CHP	32	45	17.5	18.5	6.5
C4CHSN21047-CHP	40	46.5	21.5	21	6.5
C5CHSN26047-CHP	50	47	22.5	26	6.5
C6CHSN33050-CHP	63	50	24.5	32.5	6.5

WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
Depend 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 General catalog 2023 - 2024 vol.5 page **L053** for instructions on installing and removing the adapter or the insert.

C*CHFVN-CHP

TUNGMODULAR SYSTEM **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	Torque*
C3CHFVN26040-CHP	32	40	26	1.5	6.5
C4CHFVN26046-CHP	40	46	26	1.5	6.5
C5CHFVN26046-CHP	50	46	26	1.5	6.5
C6CHFVN33046-CHP	63	46	33	8.5	6.5

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
Depend 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 General catalog 2023 - 2024 vol.5 page **L053** 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	HW 5.0	OR 5X1N

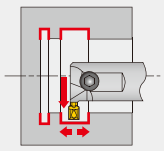
Recommended clamping torque (N·m)

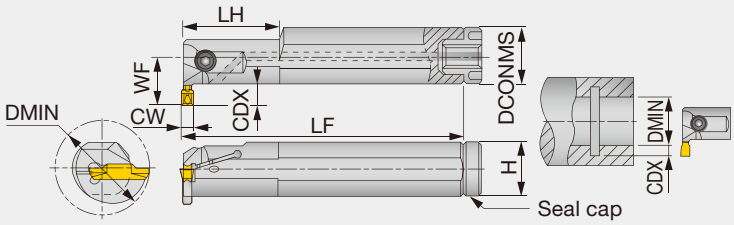
Clamping screw	Torque (N·m)
SR M5-04451	2.5
SR M6X12DIN6912	6.5
SR M6X20-XT	6.5

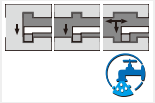
Reference pages: Inserts → P18 - 33, Adapters → P38 - 40

CTIR/L

Internal grooving and turning toolholder







Right hand (R) shown.

Designation	CW	DMIN	Seat size	CDX	DCONMS	H	LF (1)	LH	WF	Insert	Torque*
CTIR/L16-2T08-D250	2	25	2	8	16	14	125	-	16.5	DGIM..., DGIS..., DTX...	5
CTIR/L20-2T06-D250	2	25	2	6	20	18	160	40	15.8	DGIM..., DGIS..., DTX...	5
CTIR/L20-3T06-D250	3	25	3	6	20	18	160	40	15.8	DTI..., DTX...	5
CTIR/L25-3T05-D250	3	25	3	5.1	25	23	200	40	17.5	DTI..., DTX...	5
CTIR/L25-3T08-D320	3	32	3	8	25	23	200	40	21.5	DTI..., DTX...	5
CTIR/L32-3T10-D400	3	40	3	10	32	30	250	60	27	DTI..., DTX...	5
CTIR/L20-4T06-D250	4	25	4	6	20	18	160	40	15.8	DTI..., DTX...	5
CTIR/L25-4T08-D320	4	32	4	8	25	23	200	40	21.5	DTI..., DTX...	5
CTIR/L32-4T04-D310	4	31	4	4	32	30	250	60	20.8	DTI..., DTX...	5
CTIR/L32-4T10-D400	4	40	4	10	32	30	250	60	27	DTI..., DTX...	5
CTIR/L25-5T05-D310	5	31	5	5	25	23	200	60	17.3	DTI..., DTX...	8.5
CTIR/L32-5T10-D400	5	40	5	10	32	30	250	60	27	DTI..., DTX...	8.5
CTIR/L32-6T04-D310	6	31	6	4	32	30	250	60	20.8	DTI..., DTX...	8.5
CTIR/L32-6T10-D400	6	40	6	10	32	30	250	60	27	DTI..., DTX...	8.5
CTIR/L32-8T05-D370	8	37	8	5	32	30	250	60	21.3	DTI..., DTX...	8.5
CTIR/L40-8T05-D420	8	42	8	5.8	40	38	300	65	25.8	DTI..., DTX...	8.5

(1) LF is calculated with the groove width CW in the above table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS



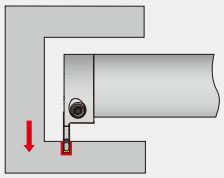
Designation	Clamping screw	Wrench	Seal cap	Thread type for connection
CTIR/L16-2T08-D250	CM5X0.8X10-A	P-4	CA-16	M6
CTIR/L20-2T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L20-3T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L25-3T05-D250	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L25-3T08-D320	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L32-3T10-D400	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L20-4T06-D250	CM5X0.8X12-A	P-4	CA-20	M6
CTIR/L25-4T08-D320	CM5X0.8X16-A	P-4	CA-25	R1/8"
CTIR/L32-4T04-D310	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L32-4T10-D400	CM5X0.8X16-A	P-4	CA-32	R1/8"
CTIR/L25-5T05-D310	CM6X1X16-A	P-5	CA-25	R1/8"
CTIR/L32-5T10-D400	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-6T04-D310	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-6T10-D400	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L32-8T05-D370	CM6X1X20-A	P-5	CA-32	R1/8"
CTIR/L40-8T05-D420	CM6X1X25-A	P-5	CA-40	R1/8"

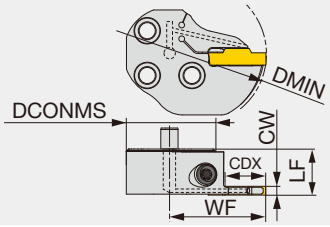
When using the inserts that are not in the above

INSERT	Groove width CW	Min. diameter DMIN
DGM / DGS / SGN / DGL / DTM	2	50
DGM / DGS / SGN / DGL / DTM	3	50
DGM / DGS / SGN / DTM / DGL	4	50
DGM / DGS / DTM / DGL	5	60
DGM / DGS / DTM / DGL	6	60
DGM / DGS / DTM	8	70
DTE / DGG	3	40
DTE / DGG	4	40
DTE / DGG	5	50
DTE / DGG	6	50
DTE / DGG	8	62
DTR	2	45
DTR	3	38
DTR	4	38
DTR	5	43
DTR	6	46
DTR	8	56

Reference pages: Inserts → P18 - 33

Exchangeable boring head, for internal grooving





Right hand (R) shown.

Designation	CW	CDX	DMIN	DCONMS	Seat size	LF(1)	WF	Shank
S32-CTIR/L-2T13D520-H	2	13	52	32	2	16	33.5	D/G32
S40-CTIR/L-2T17D620-H	2	17	62	40	2	16	39.5	D/G40, D50, D60
S32-CTIR/L-3T13D520-H	3	13	52	32	3	16	33.5	D/G32
S40-CTIR/L-3T17D620-H	3	17	62	40	3	16	39.5	D/G40, D50, D60
S32-CTIR/L-4T13D520-H	4	13	52	32	4	16	33.5	D/G32
S40-CTIR/L-4T17D620-H	4	17	62	40	4	16	39.5	D/G40, D50, D60

(1) The LF value is true when the insert with the same CW as indicated in the matching line is mounted in the pocket.
DMIN for a 50 mm shank is equal to the requested head size plus 10 mm. For a 60 mm shank, the DMIN is the requested head size plus 20 mm.

Related Items

SPARE PARTS

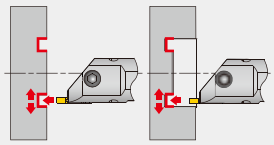


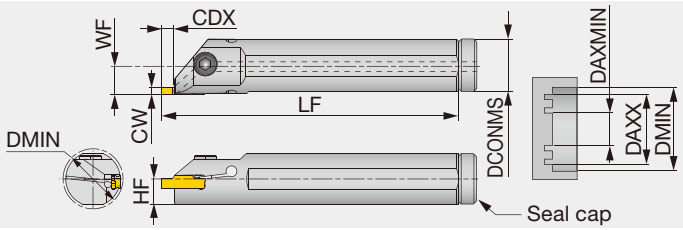
Designation	Clamping screw	Grip	Torx bit
S**-CTIR/L...	CSTB-5	H-TB2W	BT20S

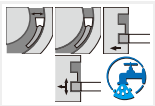
Reference pages: Inserts → P18 - 33

CTIFR/L

External/Internal face grooving and turning toolholder







Right hand (R) shown.

Designation	CW	Seat size	CDX	DCONMS	LF	HF	WF (1)	Torque*
CTIFR/L25-4T05-D270	4	2, 3, 4	5.5	25	200	11.5	13.3	5
CTIFR/L32-4T05-D340	4	2, 3, 4	5.5	32	250	15	16.8	5
CTIFR/L25-5T05-D270	6	5, 6	5.5	25	200	11.5	13.3	5
CTIFR/L32-5T05-D340	6	5, 6	5.5	32	250	15	16.8	5

Use the right-hand insert for the right-hand holder with DTF insert.
(1) WF is calculated with the groove width CW in the above table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS



Designation	Clamping screw	Wrench	Seal cap
CTIFR/L25-4T05-D270	CM6X1X16-A	P-5	CA-25
CTIFR/L32-4T05-D340	CM6X1X20-A	P-5	CA-32
CTIFR/L25-5T05-D270	CM6X1X16-A	P-5	CA-25
CTIFR/L32-5T05-D340	CM6X1X20-A	P-5	CA-32

Seat size	Min. machining dia.: DMIN	
	DCONMS = 25 mm	DCONMS = 32 mm
2	299	299
3	26.3	33.3
4	26.8	33.8
5	26.3	33.3
6	26.8	33.8

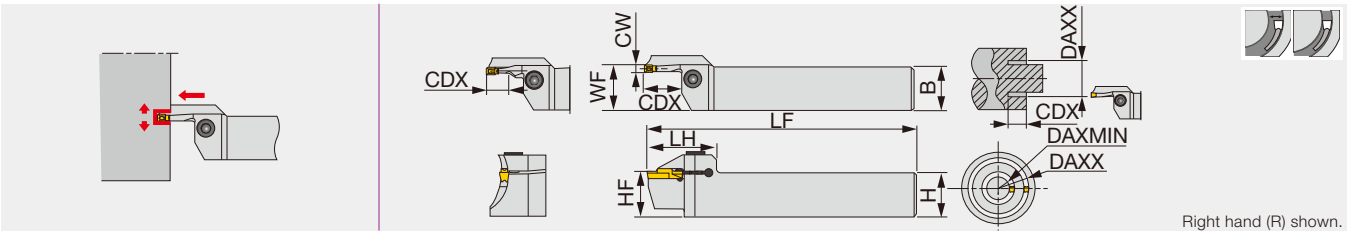
Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	2	295
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTX / DTM / DTR	2	295
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → P18 - 33

CTFR/L

Face grooving and turning toolholder



Right hand (R) shown.

Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Torque*
CTFR/L2525-3T10-024035	3	24	35	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T10-029040	3	29	40	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T10-034050	3	34	50	3	10	25	25	150	38	25	25.5	5
CTFR/L2525-3T15-044070	3	44	70	3	15	25	25	150	38	25	25.5	5
CTFR/L2525-3T15-064100	3	64	100	3	15	25	25	150	38	25	25.5	5
CTFR/L2525-4T10-022036	4	22	36	4	10	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-028042	4	28	42	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-034050	4	34	50	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-042070	4	42	70	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-062120	4	62	120	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-4T20-112200	4	112	200	4	20	25	25	150	39	25	25.6	5
CTFR/L2525-5T25-050080	5	50	80	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-070110	5	70	110	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-100150	5	100	150	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-5T25-140200	5	140	200	5	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-048070	6	48	70	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-058100	6	58	100	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-088180	6	88	180	6	25	25	25	150	49	25	25.6	12
CTFR/L2525-6T25-168400	6	168	400	6	25	25	25	150	49	25	25.6	12

When depth is deeper than (insert length - 1.5 mm), 1 corner type is recommended.
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
(1) WF is calculated with the groove width (CW) in the above table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS


Designation	Clamping screw	Wrench
CTFR/L2525-3T - 4T...	CM6X1X25-A	P-5
CTFR/L2525-5T - 6T...	CM8X1.25X25-A	P-6

INSERT

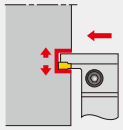
Designation	Seat size	Insert
CTFR/L2525-3T10-024035	3	DTF, DTX
CTFR/L2525-3T10-029040	3	DTF, DTX
CTFR/L2525-3T10-034050	3	DTF, DTX
CTFR/L2525-3T15-044070	3	DTF, DTX, DTR, DTE, DGG, DTM
CTFR/L2525-3T15-064100	3	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DGL, DTM
CTFR/L2525-4T10-022036	4	DTF, DTX
CTFR/L2525-4T20-028042	4	DTF, DTX, DTR
CTFR/L2525-4T20-034050	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFR/L2525-4T20-042070	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-4T20-062120	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-4T20-112200	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFR/L2525-5T25-...	5	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFR/L2525-6T25-...	6	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN

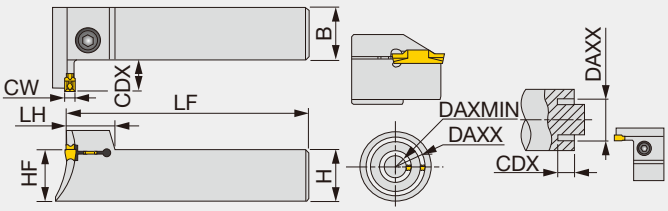
Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → P18 - 33

CTFVR/L

Face grooving and turning perpendicular toolholder





Right hand (R) shown.

Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	LH	HF	Torque*
CTFVR/L2525-3T10-024035	3	24	35	3	10	25	25	150	18	25	5
CTFVR/L2525-3T10-029040	3	29	40	3	10	25	25	150	18	25	5
CTFVR/L2525-3T10-034050	3	34	50	3	10	25	25	150	18	25	5
CTFVR/L2525-3T15-044060	3	44	60	3	15	25	25	150	18	25	5
CTFVR/L2525-3T15-054085	3	54	85	3	15	25	25	150	18	25	5
CTFVR/L2525-4T12-022040	4	22	40	4	12	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-032050	4	32	50	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-042060	4	42	60	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-4T15-052085	4	52	85	4	15	25	25	150	18.5	25	8.5
CTFVR/L2525-5T20-050080	5	50	80	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-070110	5	70	110	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-100150	5	100	150	5	20	25	25	150	22	25	12
CTFVR/L2525-5T20-140200	5	140	200	5	20	25	25	150	22	25	12
CTFVR/L2525-6T20-048085	6	48	85	6	20	25	25	150	22	25	12
CTFVR/L2525-6T20-073150	6	73	150	6	20	25	25	150	22	25	12
CTFVR/L2525-6T20-138250	6	138	250	6	20	25	25	150	22	25	12

When depth is deeper than (insert length - 1.5 mm), 1 corner type is recommended
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench
CTFVR/L2525-3T...	CM5X0.8X25-A	P-4
CTFVR/L2525-4T...	CM6X1X25-A	P-5
CTFVR/L2525-5T..., 6T...	CM8X1.25X25-A	P-6

INSERT

Designation	Seat size	Insert
CTFVR/L2525-3T10-024035	3	DTF, DTX
CTFVR/L2525-3T10-029040	3	DTF, DTX
CTFVR/L2525-3T10-034050	3	DTF, DTX, DTR
CTFVR/L2525-3T15-044060	3	DTF, DTX, DTR
CTFVR/L2525-3T15-054085	3	DTF, DTX, DTE, DGG, DTR, DTM
CTFVR/L2525-4T12-022040	4	DTF, DTX, DTR
CTFVR/L2525-4T15-032050	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFVR/L2525-4T15-042060	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFVR/L2525-4T15-052085	4	DTF, DTX, DTE, DGG, DGM, DGS, DTR, SGN, DTM, DGL
CTFVR/L2525-5T20-...	5	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL, SGN
CTFVR/L2525-6T20-...	6	DTX, DTE, DGG, DGM, DGS, DTR, DTM, DGL

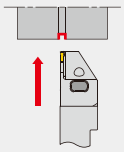
Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

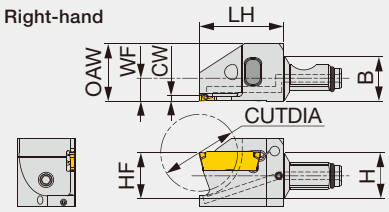
Reference pages: Inserts → P18 - 33

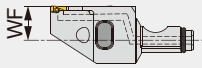
QC10/12-JTTER/L-CHP

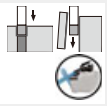
MODUMINI TURN

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









Designation	CW	Seat size	CUTDIA	H	B	LH (1)	HF	WF (2)	OAW	Shank	Torque*
QC10-JTTER/L1.2D12-CHP	1.2	0.9	12	-	-	17/19	10	5/8	13	QC-1012...	1.5
QC10-JTTER/L1.4D16-CHP	1.4	1	16	-	-	19	10	5/8	13	QC-1012...	1.5
QC12-JTTER/L1.2D20-CHP	1.2	0.9	20	12	12	22	12	6/9	15	QC-12...	1.5
QC12-JTTER/L1.4D20-CHP	1.4	1	20	12	12	22	12	6/9	15	QC-12...	1.5
QC12-JTTER/L2D20-CHP	2	2	20	12	12	22	12	6/9	15	QC-12...	1.5

(1) The first value before "/" indicates the LH for the right-hand holder and the second value after "/" for the left-hand holder.
(2) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque (N·m)

Related Items

SPARE PARTS

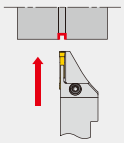


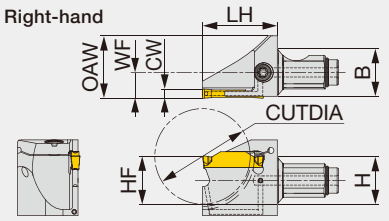

Designation	Clamping screw	Clamping pin	Wrench	O-ring
QC10-JTTER/L...	SSM3.5x0.35	PIN-SL-TC	P-2F	ORSS-0353.5X1.0NBR70
QC12-JTTER/L...	SSM3.5x0.35	PIN-SL-TC	P-2F	ORSS-0454.5X1.0NBR70

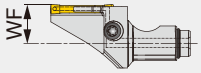
QC16-JCTER/L-CHP

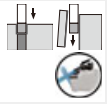
MODUMINI TURN

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









Designation	CW	Seat size	CUTDIA	H	B	LH	HF	WF (1)	OAW	Shank	Torque*
QC16-JCTER/L1.2D20-CHP	1.2	0.9	20	16	16	24.5	16	8/12	20	QC-16...	3
QC16-JCTER/L1.4D20-CHP	1.4	1	20	16	16	24.5	16	8/12	20	QC-16...	3
QC16-JCTER/L2D20-CHP	2	2	20	16	16	24.5	16	8/12	20	QC-16...	3
QC16-JCTER/L2D26-CHP	2	2	26	16	16	24.5	16	8/12	20	QC-16...	3
QC16-JCTER/L2D32-CHP	2	2	32	16	16	24.5	16	8/12	20	QC-16...	3
QC16-JCTER/L3D26-CHP	3	3	26	16	16	24.5	16	8/12	20	QC-16...	3
QC16-JCTER/L3D32-CHP	3	3	32	16	16	24.5	16	8/12	20	QC-16...	3

(1) "WF" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque (N·m)

Related Items

SPARE PARTS

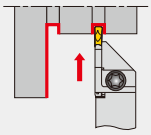


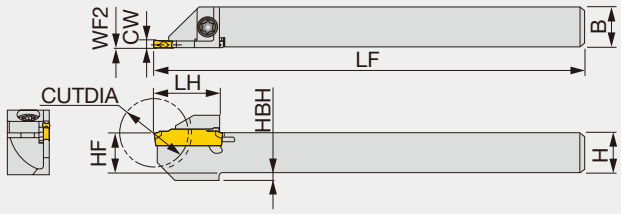
Designation	Clamping screw	Wrench	O-ring
QC16-JCTER/L...	CSHB-4-A	T-15F	ORSS-0757.5X1.0NBR70

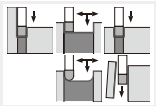
Reference pages: Inserts → P18 - 33

JCTER/L

External grooving and parting toolholder, for Swiss lathes







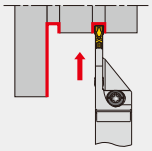
Right hand (R) shown.

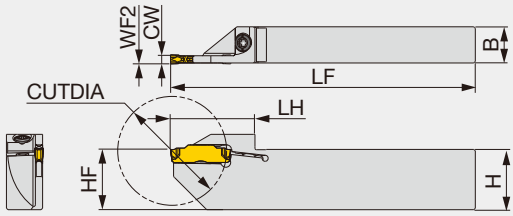
Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JCTER/L1010X1.4T10	1.4	1	20	10	10	120	18	10	0.2/10.2	-	3
JCTER/L1212F1.4T12	1.4	1	24	12	12	85	19.5	12	0.2/12.2	-	3
JCTER/L1212X1.4T12	1.4	1	24	12	12	120	19.5	12	0.2/12.2	-	3
JCTER/L1414-1.4T12	1.4	1	24	14	14	125	19.5	14	0.2/14.2	-	3
JCTER/L1616X1.4T16	1.4	1	32	16	16	120	24	16	0.2/16.2	-	3
JCTER/L1010X2T10	2	2	20	10	10	120	19	10	0.1/10.1	2	3
JCTER/L1212F2T12	2	2	24	12	12	85	19	12	0.1/12.1	2	3
JCTER/L1212X2T12	2	2	24	12	12	120	19	12	0.1/12.1	2	3
JCTER/L1414-2T12	2	2	24	14	14	125	19	14	0.1/14.1	-	3
JCTER/L1616X2T16	2	2	32	16	16	120	24	16	0.1/16.1	-	3
JCTER/L1212F3T12	3	3	24	12	12	85	19	12	0.3/12.3	2	3
JCTER/L1212X3T12	3	3	24	12	12	120	19	12	0.3/12.3	2	3
JCTER/L1616X3T16	3	3	32	16	16	120	24	16	0.3/16.3	-	3
JCTER/L2020H3T16	3	3	32	20	20	100	24	20	0.3/20.3	-	3

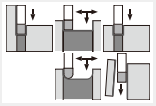
(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

JCTER/L2012

External grooving and parting toolholder, for Swiss lathes, with 20 mm shank height







Right hand (R) shown.

Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	Torque*
JCTER/L2012H2T18	2	2	36	20	12	100	25	20	0.1/12.1	3
JCTER/L2012H3T21	3	3	42	20	12	100	28	20	0.3/12.3	3

(1) "WF2" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

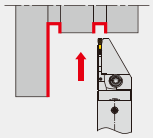
Designation	Clamping screw	Wrench
JCTER/L...	CSHB-4-A	T-15F

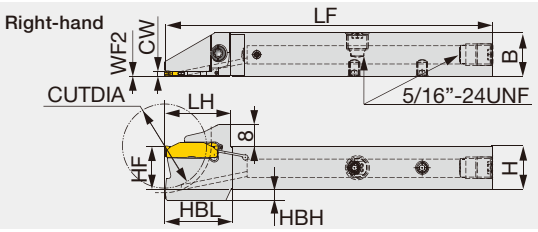
Reference pages: Inserts → P18 - 33

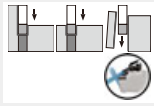
JCTER/L-CHP

Direct connection

External grooving and parting toolholder, with high pressure coolant capability







Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	HBL	Torque*
JCTER/L1212X2T12-CHP	2	2	25	12	12	120	24.7	12	0/12	5	24.7	3
JCTER/L1616X2T12-CHP	2	2	25	16	16	120	24.7	16	0/16	1	24.5	3
JCTER/L1616X2T16-CHP	2	2	32	16	16	120	24.7	16	0/16	4	24.7	3
JCTER/L2020X2T16-CHP	2	2	32	20	20	120	24.7	20	0/20	-	-	3

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

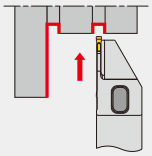


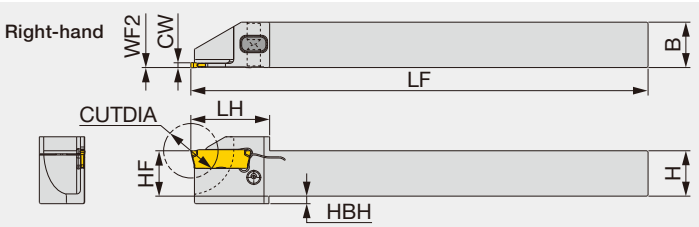



Designation	Clamping screw	Wrench 1	Coolant plug	Wrench 2	DirectJet plug	Wrench 3
JCTER/L...	CSHB-4-A	T-15F	SR 5/16UNF TL360	P-4	SSHM4-6-TB	P-2

JTTER/L

External grooving and parting toolholder, for Swiss lathes





Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JTTER/L1010H1.2D12	1.2	0.9	12	10	10	100	17	10	0/10	-	1.5
JTTER/L1212F1.2D16	1.2	0.9	16	12	12	85	19	12	0/12	-	1.5
JTTER/L1212X1.2D16	1.2	0.9	16	12	12	120	19	12	0/12	-	1.5
JTTER/L1212X1.2D20	1.2	0.9	20	12	12	120	21	12	0/12	2	1.5
JTTER/L1616X1.2D20	1.2	0.9	20	16	16	120	21	16	0/16	-	2

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

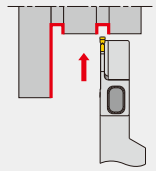


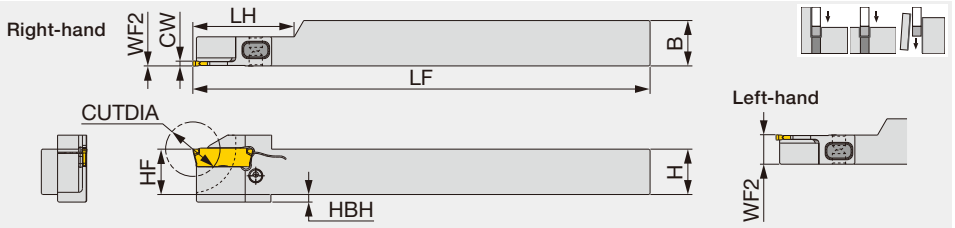
Designation	Clamping screw	Clamping pin	Wrench
JTTER/L1010...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1212...	SSM3.5x0.35	PIN-SL-TC	P-2F
JTTER/L1616...	SR M5-24145-RL	PIN-32121	P-2.5F

Reference pages: Inserts → P18 - 33, Parts for coolant hose → P64

JTTER/L-S

External grooving and parting toolholder, for Swiss lathes (for sub spindle)





Designation	CW	Seat size	CUTDIA	H	B	LF	LH	HF	WF2(1)	HBH	Torque*
JTTER/L1010H1.2D12-S	1.2	0.9	12	10	10	100	22.8	10	0/7.7	-	1.5
JTTER1212F1.2D16-S (2)	1.2	0.9	16	12	12	85	22.8	12	0	-	1.5
JTTER/L1212X1.2D16-S	1.2	0.9	16	12	12	120	26.8	12	0/7.7	-	1.5
JTTER/L1212X1.2D20-S	1.2	0.9	20	12	12	120	26.8	12	0/7.7	2	1.5
JTTER/L1616X1.2D20-S	1.2	0.9	20	16	16	120	26.8	16	0/7.7	-	1.5

(1) "WF2" value is calculated with groove width "CW" shown in the table. The first value before "/" indicates the WF2 for the right-hand holder and the second value after "/" for the left-hand holder.
(2) No clamping screw from the insert side.
Torque*: Recommended clamping torque (N·m)

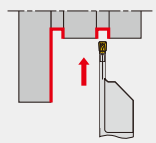
SPARE PARTS

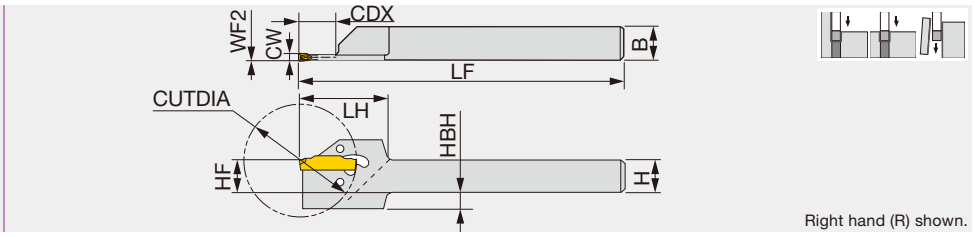


Designation	Clamping screw	Clamping pin	Wrench
JTTER/L**-S	SSM3.5x0.35	PIN-SL-TC	P-2F

CGER/L

External deep grooving and parting toolholder, for Swiss lathes





Right hand (R) shown.

Designation	CW	Seat size	CUTDIA(1)	CDX	H	B	LF	LH	HF	WF2 (2)	HBH
CGER/L2020-1.4T14	1.4	1	29/29	9.7	20	20	125	31	20	0.2/20.2	-
CGER/L1212-2T17	2	2	35/35	11.8	12	12	150	31	12	0.1/12.1	6
CGER/L1616-2T17	2	2	35/35	11.8	16	16	150	31	16	0.1/16.1	2
CGER/L2020-2T17	2	2	35/35	9.8	20	20	125	31	20	0.1/20.1	-
CGER/L1212-3T19	3	3	38/40	12	12	12	150	31	12	0.3/12.3	6
CGER/L1616-3T19	3	3	38/45	14.9	16	16	150	31	16	0.3/16.3	2
CGER/L2020-3T19	3	3	38/45	13.2	20	20	125	31	20	0.3/20.3	-
CGER/L2020-4T19	4	4	38/55	20.3	20	20	125	33	20	0.4/20.4	-

Wrench (CRW**) is not included. Please order it separately. Insert is clamped by the elastic deformation of the upper jaw. (P55)
(1) DG*/SG* maximum parting diameter will depend on the insert.
(2) "WF2" value is calculated with groove width "CW" shown in the table.

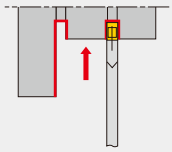
SPARE PARTS

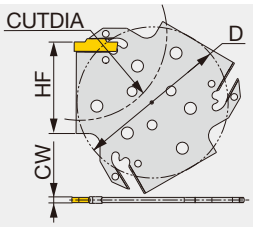
Designation	Wrench (Option)
CGER/L2020-1.4T14	CRW23
CGER/L****-2T17 - 4T19	CRW33

Reference pages: Inserts → P18 - 33

CHGP

Parting-off and external grooving blade





Designation	CW	Seat size	CUTDIA	HF	D
CHGP52-2T	2	2	52	27	48.3
CHGP52-3T	3	3	52	27	48.3
CHGP82-3T	3	3	82	42	69.3
CHGP82-4T	4	4	82	42	69.3

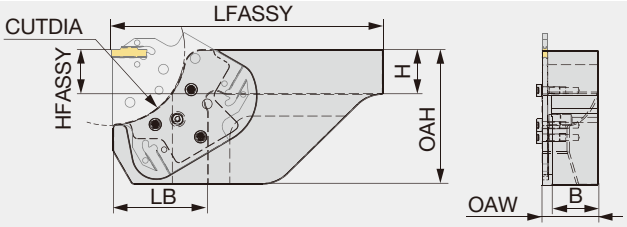
When depth is deeper than insert length - 1.5mm, 1 corner type is recommended.

SPARE PARTS

Designation	Wrench (Option)
CHGP...	CRW33

CHTBR/L

Tool block for CHGP blade



Right hand (R) shown.

Designation	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB
CHTBR/L2020-52	52	20	20.5	100	20	50	26.5	37
CHTBR/L2525-52	52	25	25.5	125	25	50	31.5	37
CHTBR/L2020-82	82	20	20.5	140	20	75	26.5	53
CHTBR/L2525-82	82	25	25.5	150	25	75	31.5	53

Note: The blade clamping screw heads protrude out for as much as 3.1 mm over the insert cutting edge point.
Maintain the clearance from the chucking device to avoid interference.

SPARE PARTS

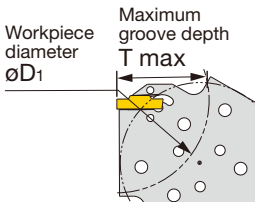


Designation	Clamping screw	Grip	Torx bit
CHTBR/L...	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7

Maximum groove depth (T max) as function of workpiece diameter (øD1)

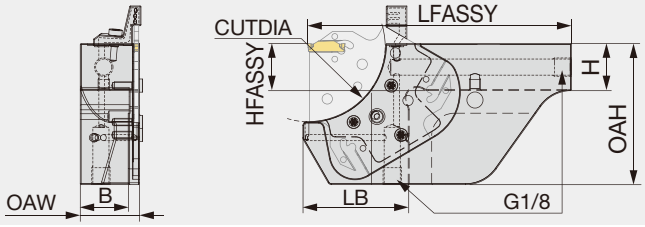
Designation	øD1																	
CHTBR/L****-52	53	54	55	56	58	60	62	65	68	72	78	84	92	102	115	133	159	198
CHTBR/L****-82	104	108	112	116	121	127	134	142	151	162	176	192	212	237	270	313	375	468
T max	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

Designation	øD1											
CHTBR/L****-82	83	84	85	86	87	89	90	92	94	96	98	101
T max	34	33	31	30	29	28	27	26	25	24	23	22



Reference pages: Inserts → P18 - 33

Tool block for QSG/CHGP blade, with high pressure coolant capability



Right hand (R) shown.

Designation	CUTDIA	H	B	LFASSY	HFASSY	OAH	OAW	LB	Blade
CHTBR/L2020-52-CHP	52	20	20.5	100	20	50	26.5	40.5	CHGP52
CHTBR/L2525-52-CHP	52	25	25.5	123	25	50	31.5	40.5	CHGP52
CHTBR/L2020-82-CHP	82	20	20.5	126	20	75	26.5	56.5	CHGP82
CHTBR/L2525-82-CHP	82	25	25.5	139	25	75	31.5	56.5	CHGP82

The blade clamping screw heads protrude out for as much as 3.1 mm over the insert cutting edge point.
Maintain the clearance from the chucking device to avoid interference.

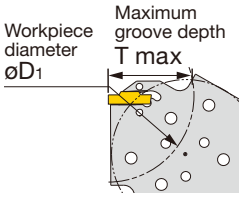
SPARE PARTS

Designation	Clamping screw	Grip	Torx bit	Coolant plug	Nozzle	O-ring
CHTBR***-CHP	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7	PLUGG1/8-6.5TL360	CNZHR20	ORSS-0454.5X1.0NBR70
CHTBL***-CHP	SR ISO 14580 M4X10	SW6-SD	BLDT20/S7	PLUGG1/8-6.5TL360	CNZHL20	ORSS-0454.5X1.0NBR70

Maximum groove depth (T max) as function of workpiece diameter (øD1)

Designation	øD1																	
CHTBR/L****-52-CHP	52	53	53	54	55	56	58	59	61	64	67	70	74	79	86	94	104	118
CHTBR/L****-82-CHP	97	100	103	106	109	113	118	123	129	136	144	153	164	178	194	214	239	272
T max	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4

Designation	øD1												
CHTBR/L****-82-CHP	83	83	84	84	85	86	87	88	89	90	92	93	95
T max	34	33	32	31	30	29	28	27	26	25	24	23	22



Reference pages: Inserts → P18 - 33, Blade → P53, Parts for coolant hose → P64

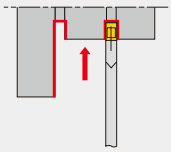


Fig.1

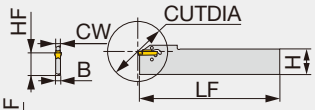


Fig.2

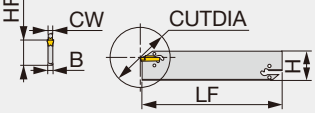
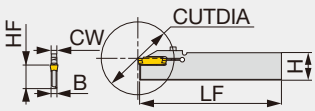
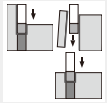


Fig.3





Designation	CW	Seat size	CUTDIA	H	B	LF	HF	Fig.	Torque*
CGP26-1.4S	1.4	1	26	26	1	150	21.4	1	-
CGP32-1.4D	1.4	1	26	32	1	150	24.8	2	-
CGP26-2S	2	2	40	26	1.8	150	21.4	1	-
CGP32-2D	2	2	50	32	1.8	150	24.8	2	-
CGP26-3S	3	3	50	26	2.4	150	21.4	1	-
CGP32-3D	3	3	100	32	2.4	150	24.8	2	-
CGP26-4S	4	4	80	26	3.2	150	21.4	1	-
CGP32-4D	4	4	100	32	3.2	150	24.9	2	-
CGP45-4D	4	4	120	45	3.2	150	38.1	2	-
CGP32-5D	5	5	120	32	4	150	24.9	2	-
CGP32-6D	6	6	120	32	5.2	150	24.9	2	-
CGP32-8S-CL	8	8	80	32	6.2	150	24.9	3	3

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.
Wrench (CRW...) is not included. Please order it separately.
*Torque: Recommended clamping torque (N·m)

SPARE PARTS

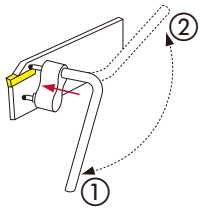


Designation	Clamping screw	Wrench	Wrench (Optional)
CGP**-1.4*	-	-	CRW23
CGP**-2/3/4/5/6	-	-	CRW33
CGP32-8S-CL	CM4X0.7X20-M0-A	P-3	-

Caution

Newly developed clamp

Insert is clamped by the elastic deformation of upper jaw.
Low clamping stress increases the stability and tool life.

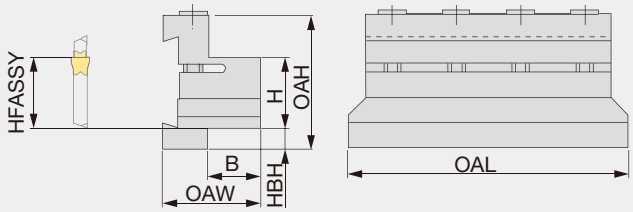


①→②: unclamp
②→①: clamp

Reference pages: Inserts → P18 - 33, Tool block → P56

CTBF

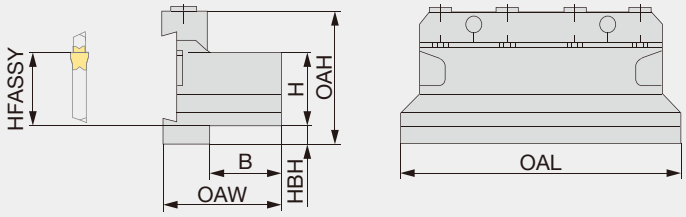
Tool block for CGP blade, mono block



Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBF25-45	25	22	110	25	25	66	40	CGP45...
CTBF32-45	32	28	120	32	18	66	45	CGP45...

CTBU

Tool block for CGP blade



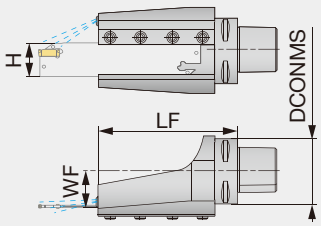
Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU20-26	20	21	86	20	9	43	38	CGP26...
CTBU25-26	25	23	110	25	5	45	43	CGP26...
CTBU20-32	20	19	100	20	13	50	38	CGP32...
CTBU25-32	25	23	110	25	8	50	42	CGP32...
CTBU32-32	32	29	110	32	5	54	48	CGP32...

SPARE PARTS

Designation	Clamp	Clamping screw	Wrench
CTBF...	-	CM6X1.0X40-A	P-5
CTBU20-26	CT-86	CM6X30-S	P-5
CTBU25-26	CT-105	CM6X30-S	P-5
CTBU20-32	CT-100	CM6X30-S	P-5
CTBU25-32	CT-110	CM6X30-S	P-5
CTBU32-32	CT-110	CM6X30-S	P-5

C-TBK-R/L

Toolholder with TungCap connection for parting-off blade



Right hand (R) shown.

Designation	DCONMS	WF	LF	H
C6TBK-32R/L	63	32	138	32

Applicable for 3 MPa coolant

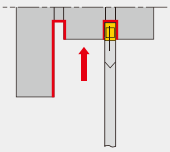
SPARE PARTS

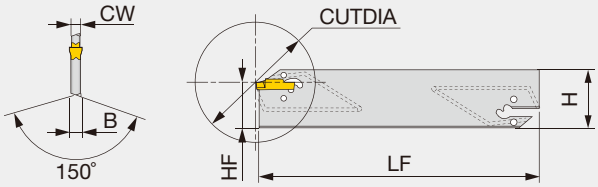
Designation	Clamp	Clamping screw	Wrench	Coolant parts
C6TBK-32R/L	BK32-9WEDG	SRM6X16DIN912-12.9	HW 5.0	EZ125

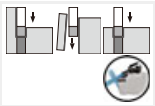
Reference pages: Inserts → P18 - 33, Blade → P55

CGP32-CHP

External deep grooving and parting blade, with high pressure coolant capability







Designation	CW	Seat size	CUTDIA	H	B	LF	HF
CGP32-2D-CHP	2	2	50	32	1.8	150	24.8
CGP32-3D-CHP	3	3	90	32	2.5	150	24.8
CGP32-4D-CHP	4	4	90	32	3.2	150	24.9
CGP32-5D-CHP	5	5	110	32	4	150	24.9
CGP32-6D-CHP	6	6	110	32	5.2	150	24.9

When depth is deeper than (insert length - 1.5mm), 1 corner type is recommended.
Wrench (CRW...) is not included. Please order it separately.

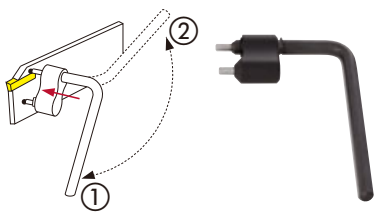
SPARE PARTS

Designation	Sealing screw	Wrench (Optional)
CGP32-*D-CHP	SGC 340	CRW33

Caution

Newly developed clamp

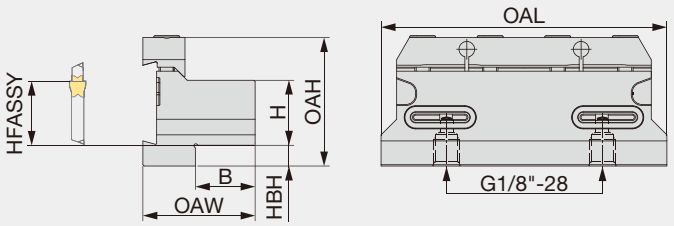
Insert is clamped by the elastic deformation of upper jaw.
Low clamping stress increases the stability and tool life.



①→②: unclamp
②→①: clamp

CTBU-CHP

Tool block for CGP-CHP blade, with high pressure coolant capability



Designation	H	B	OAL	HFASSY	HBH	OAH	OAW	Blade (Optional)
CTBU25-32-CHP	25	23	110	25	8	50	43.2	CGP32-*D-CHP

Applicable for 14 MPa coolant

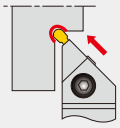
SPARE PARTS

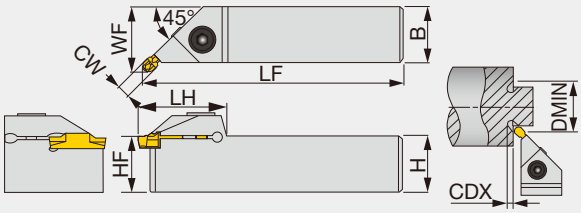
Designation	Clamping screw	Clamp	Wrench	O-ring
CTBU25-32-CHP	SRM6X16DIN912-12.9	CT-110	P-5	OR 14X2.5N N

Reference pages: Inserts → P18 - 33, Parts for coolant hose → P64

CGEUR/L

External 45° undercutting toolholder





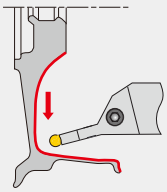
Right hand (R) shown.

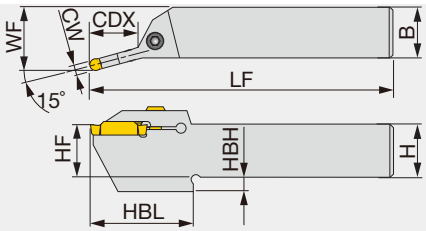
Designation	CW	DMIN	Seat size	CDX	H	B	LF	LH	HF	WF (1)	Insert	Torque*
CGEUR/L1616-3T02	3	32	3	2.8	16	16	110	30	16	19.3	DTIU...	5
CGEUR/L2020-3T02	3	32	3	2.8	20	20	125	30	20	23.3	DTIU...	5
CGEUR/L2525-3T02	3	32	3	2.8	25	25	150	30	25	28.3	DTIU...	5
CGEUR/L1616-4T02	4	32	4	2.8	16	16	110	31	16	19.5	DTIU...	8.5
CGEUR/L2020-4T02	4	32	4	2.8	20	20	125	31	20	23.5	DTIU...	8.5
CGEUR/L2525-4T02	4	32	4	2.8	25	25	150	31	25	28.5	DTIU...	8.5
CGEUR/L2525-6T03	6	34	5, 6	3.4	25	25	150	35	25	28.9	DTIU...	8.5

(1) "WF" value is calculated with groove width "CW" shown in the table.
Torque*: Recommended clamping torque (N·m)

CTER/L-15A

Square shank toolholder for profiling aluminium wheel





Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	HF	WF	HBH	HBL	Insert	Torque*
CTER/L2525-6T25-15A	6	6	25	25	25	150	25	32.2	7	50.5	DTA...	5
CTER/L2525-8T30-15A	8	8	30	25	25	150	25	32.9	7	55	DTA...	5

Torque*: Recommended clamping torque (N·m)

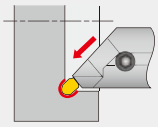
SPARE PARTS

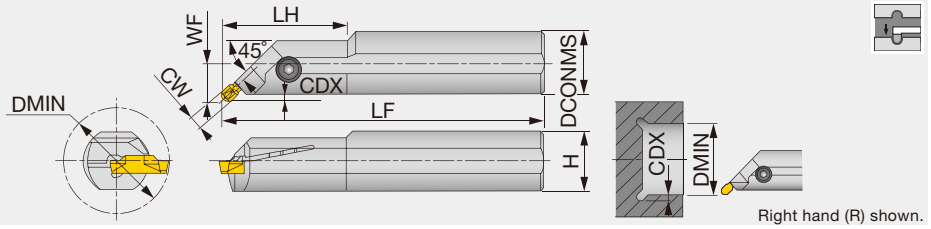
Designation	Clamping screw	Wrench
CGEUR/L****-3T02	CM5X0.8X16-A	P-4
CGEUR/L1616-4T02	CM6X1X16-A	P-5
CGEUR/L2020-4T02	CM6X1X20-A	P-5
CGEUR/L2525-...	CM6X1X25-A	P-5
CTER/L2525*-15A	M8X1.25X25	P-5

Reference pages: Inserts → P18 - 33

CGIUR/L

Internal 45° undercutting toolholder





Right hand (R) shown.

Designation	CW	DMIN	Seat size	CDX	DCONMS	H	LF	LH	WF (1)	Insert	Torque*
CGIUR/L20-3T02-D380	3	38	3	2.8	20	19	160	-	12.8	DTIU...	5
CGIUR/L25-3T02-D380	3	38	3	2.8	25	23	200	40	14.8	DTIU...	5
CGIUR/L20-4T02-D380	4	38	4	2.8	20	19	160	-	12.9	DTIU...	5
CGIUR/L25-4T02-D460	4	46	4	2.8	25	23	200	40	14.9	DTIU...	5
CGIUR/L25-6T02-D460	6	46	5, 6	2.8	25	23	200	-	15.2	DTIU...	8.5

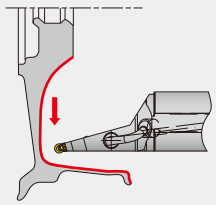
(1) WF is calculated with the groove width CW in the above table.
Torque*: Recommended clamping torque (N·m)

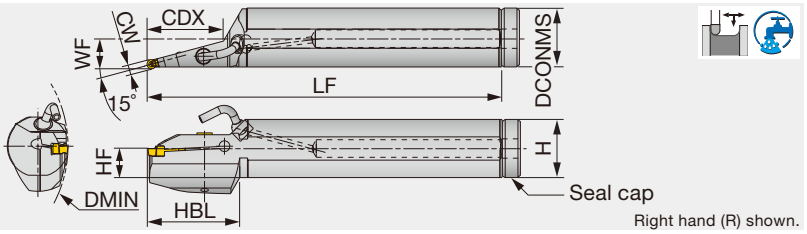
SPARE PARTS

Designation	Clamping screw	Wrench
CGIUR/L20-3T02-D380	CM5X0.8X12-A	P-4
CGIUR/L25-3T02-D380	CM5X0.8X16-A	P-4
CGIUR/L20-4T02-D380	CM5X0.8X12-A	P-4
CGIUR/L25-4T02-D460	CM5X0.8X16-A	P-4
CGIUR/L25-6T02-D460	CM6X1X16-A	P-5

CGIUR/L-15A

Round-shank toolholder for profiling aluminium wheel





Right hand (R) shown.

Designation	CW	DMIN	Seat size	CDX	DCONMS	H	WF	LF	HF	HBL	Insert	Seal cap	Torque*
CGIUR/L40-6T50-D160-15A	6	160	6	50	40	38.5	19.7	320	19	60	DTA...	CA-40	5
CGIUR/L40-8T83-D160-15A	8	160	8	83	40	38.5	20.5	320	19	85	DTA...	CA-40	5
CGIUR/L50-6T85-D200-15A	6	200	6	85	50	48.5	25.2	350	23.5	85	DTA...	-	5
CGIUR/L50-8T85-D200-15A	8	200	8	85	50	48.5	25.9	350	23.5	85	DTA...	-	5

Torque*: Recommended clamping torque (N·m)

SPARE PARTS

Designation	Clamping screw	Wrench	Seal cap
CGIUR/L**-15A	CM6X1X25-A	P-5	CA-40

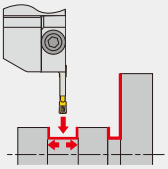
NOZZLE

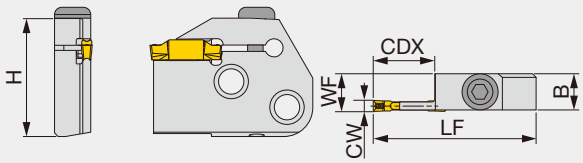
Coolant pipe	Coolant nozzle
PNZ5	CNZ125

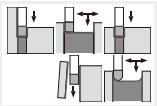
Reference pages: Inserts → P18 - 33

CAER/L

External grooving, parting and turning adapter







Right hand (R) shown.

Designation	CW	Seat size	CDX	H	B	LF	WF	Torque*
CAER/L-3T16	3	3	16	32.7	10	45	10.4	5
CAER/L-4T16	4	4	16	32.7	10	45	10.5	5
CAER/L-5T20	5	5	20	32.7	10	49	10.5	5
CAER/L-6T20	6	6	20	32.7	10	49	10.5	5

Torque*: Recommended clamping torque (N·m)
Not compatible with TungModularSystem
When groove depth is larger than insert length - 1.5 mm, please use 1-cornered insert.

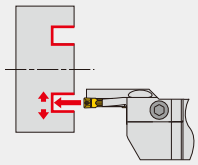
SPARE PARTS

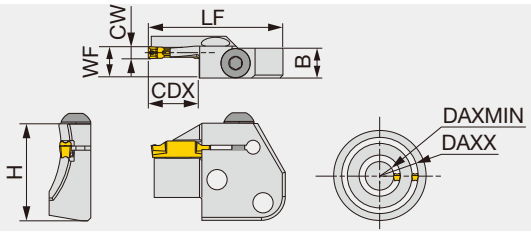
Designation	Clamping screw	Wrench
CAER/L...	BHM6-20-A	P-4

Reference pages: Inserts → P18 - 33, Shanks and toolholders → P62, 63

CAFR/L

Face grooving and turning adapter





Right hand (R) shown.

Designation	CW	DAXMIN	DAXX	Seat size	CDX	H	B	LF	WF (1)	Torque*
CAFR/L-3T12-040055	3	40	55	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-055075	3	55	75	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-075100	3	75	100	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-100140	3	100	140	3	12	32.7	10	45	10.4	5
CAFR/L-3T12-140200	3	140	200	3	12	32.7	10	45	10.4	5
CAFR/L-4T16-050070	4	50	70	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-070100	4	70	100	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-100150	4	100	150	4	16	32.7	10	45	10.5	5
CAFR/L-4T16-150250	4	150	250	4	16	32.7	10	45	10.5	5
CAFR/L-5T20-055080	5	55	80	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-080120	5	80	120	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-120180	5	120	180	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-180300	5	180	300	5	20	32.7	10	49	10.5	5
CAFR/L-5T20-300000	5	300	∞	5	20	32.7	10	49	10.5	5
CAFR/L-6T25-060090	6	60	90	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-090150	6	90	150	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-150250	6	150	250	6	25	32.7	10	55	10.5	5
CAFR/L-6T25-250400	6	250	400	6	25	32.7	10	55	10.5	5

When groove depth is larger than (insert length - 1.5 mm), please use 1-cornered insert.
Max. groove depth will be 15 mm with DTF insert.
Use the right-hand insert for the right-hand holder with DTF insert.
Not compatible with TungModularSystem
(1) WF is calculated with the groove width (CW) in the above table.
Torque*: Recommended clamping torque (N·m)

SPARE PARTS

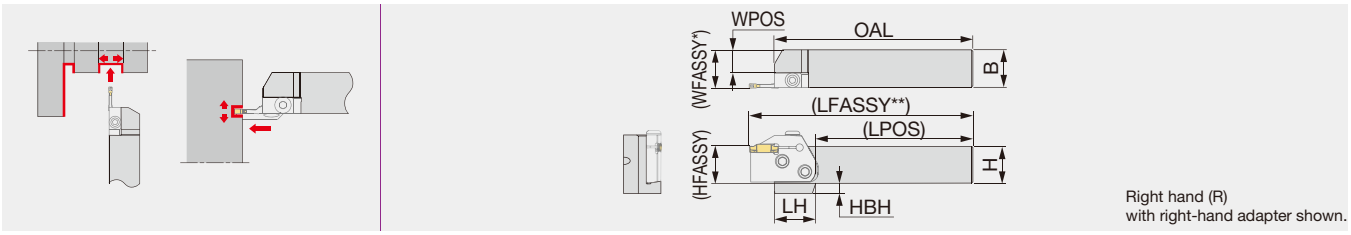
Designation	Clamping screw	Wrench
CAFR/L...	BHM6-20-A	P-4

Insert	Groove width CW	Face grooving Min. machining dia. DAXMIN
DGM / DGS / SGN / DGL	3	92
DGM / DGS / SGN / DGL	4	37
DGM / DGS / SGN / DGL	5	60
DGM / DGS / DGL	6	57
DTE / DGG / DTM	3	62
DTE / DGG / DTM	4	42
DTE / DGG / DTM	5	64
DTE / DGG / DTM	6	61
DTR	3	44
DTR	4	32
DTR	5	48
DTR	6	48
DTX	3	22
DTX	4	20
DTX	5	20
DTX	6	23
DTF	3	20
DTF	4	20

Reference pages: Inserts → P18 - 33, Shanks and toolholders → P62, 63

CHSR/L

Shank for adapter



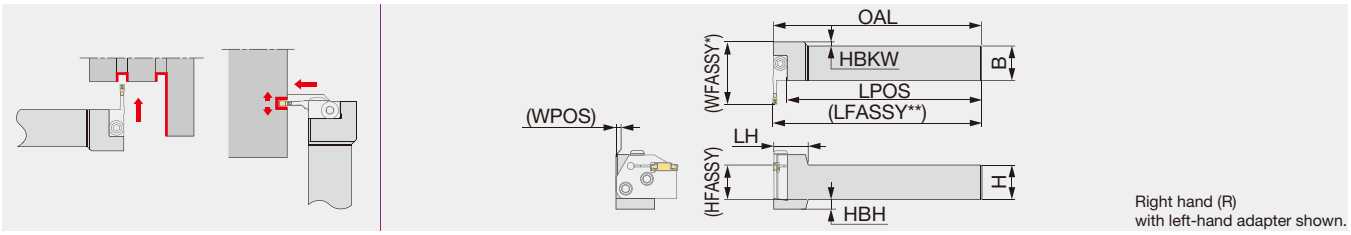
Right hand (R)
with right-hand adapter shown.

Designation	H	B	OAL	LPOS	LH	WPOS	HFASSY	HBH
CHSR/L2020	20	20	133	105	35	10	20	12
CHSR/L2525	25	25	133	105	28	15	25	7
CHSR/L3232	32	32	153	125	-	22	32	-

WFASSY* : Shank (WPOS) + adapter (WF)
LFASSY** : Shank (LPOS) + adapter (LF)
Depend on the adapter type, the value of LFASSY or WFASSY may change.
Not compatible with TungModularSystem

CHFVR/L

Shank for adapter, perpendicularly mounted



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

Designation	H	B	OAL	LPOS	LH	WPOS	HBKW	HFASSY	HBH
CHFVR/L2020	20	20	150	140	25	0	8	20	12
CHFVR/L2525	25	25	150	140	25	0	3	25	7
CHFVR/L3232	32	32	170	160	25	4	-	32	-

WFASSY* : Shank (WPOS) + adapter (LF)
LFASSY** : Shank (LPOS) + adapter (WF)
Depend on the adapter type, the value of LFASSY or WFASSY may change.
Not compatible with TungModularSystem

SPARE PARTS


Designation	Clamping screw	Wrench
CH**R/L...	CSHB-6-A	P-4

Combination of adapter and shank

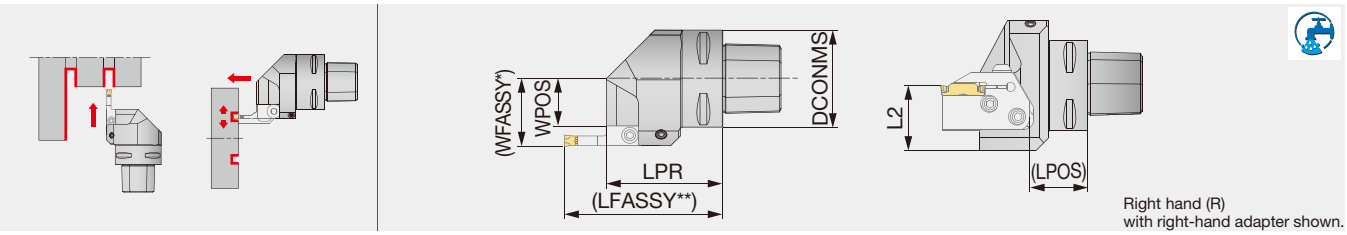
Shank	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
CHSR...	●			●
CHSL...		●	●	
CHFVR...		●	●	
CHFVL...	●			●

● : Corresponding

Reference pages: Inserts → P18 - 33, Adapters → P60, 61

C-CHSR/L

Toolholder with TungCap connection for adapter



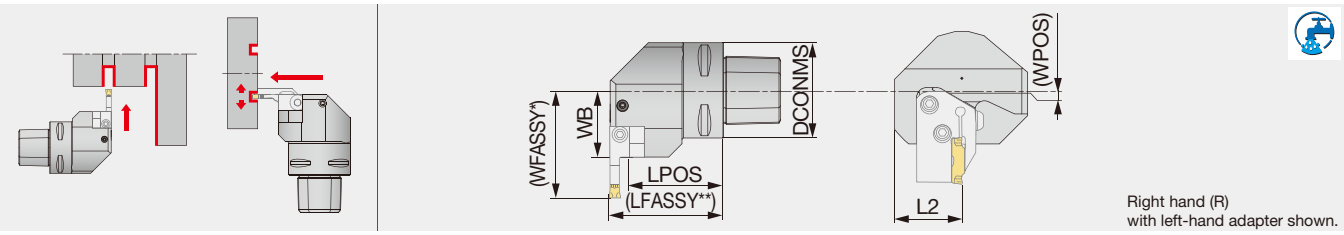
Right hand (R)
with right-hand adapter shown.

Designation	DCONMS	LPR	LPOS	L2	WPOS
C3CHSR/L22050N	32	50	22.1	35	11.5
C4CHSR/L27050N	40	50	22.1	36	16.5
C5CHSR/L35060N	50	60	32.1	36	24.5
C6CHSR/L45065N	63	65	32.1	41	34.5

WFASSY* : Toolholder (WPOS) + adapter (WF)
LFASSY** : Toolholder (LPOS) + adapter (LF)
Depend on the adapter type, the value of LFASSY or WFASSY may change. If needed, the coolant direction can be adjusted by the nozzle.
Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

C-CHFVR/L

Toolholder with TungCap connection for adapter, perpendicularly mounted



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

Designation	DCONMS	LPOS	L2	WB	WPOS
C3CHFVR/L22040N	32	32.5	35	22	-5.9
C4CHFVR/L27050N	40	42.5	36	27	-0.9
C5CHFVR/L35060N	50	49.5	36	35	7.1
C6CHFVR/L45065N	63	54.5	41	45	17.1

WFASSY* : Toolholder (WPOS) + adapter (LF)
LFASSY** : Toolholder (LPOS) + adapter (WF)
Depend on the adapter type, the value of LFASSY or WFASSY may change. If needed, the coolant direction can be adjusted by the nozzle.
Applicable for 7 MPa coolant. Not compatible with TungModularSystem.

SPARE PARTS

Designation	Coolant parts	Clamping screw	Wrench
C3CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C4CH**R/L...	SATZ-M8X1-M3	CSHB-6-A	P-4
C5CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4
C6CH**R/L...	SATZ-M10X1-M5	CSHB-6-A	P-4

Combination of adapter and toolholder

Toolholder	External grooving adapter		Face grooving adapter	
	CAER...	CAEL...	CAFR...	CAFL...
C*CHSR...	●			●
C*CHSL...		●	●	
C*CHFVR...		●	●	
C*CHFVL...	●			●

● : Corresponding

Reference pages: Inserts → P18 - 33, Adapters → P60, 61

PARTS FOR COOLANT HOSE

Connecting hose

Fig.1

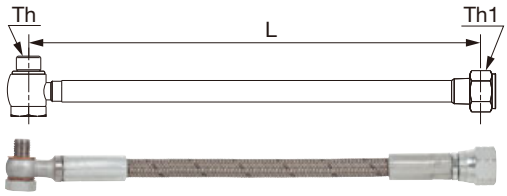
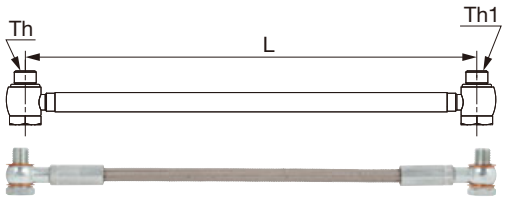
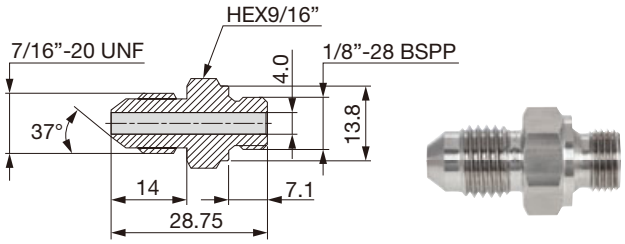


Fig.2



Designation	Length L	Screw Th	Screw Th1	Max. pressure (Mpa)	Fig.
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

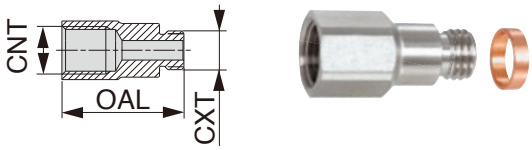


Designation
CHP-NIPPLE-G1/8-7/16UNF

Seal washer

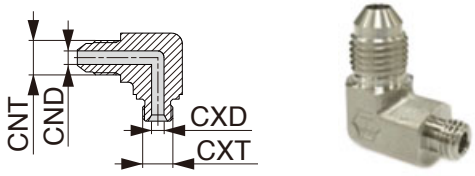
Designation	øD	ød	W
CHP-COPPER-SEAL1/8	15	10	1
CHP-COPPER-SEAL5/16	11.9	8.15	1.35
CHP-COPPER-SEAL5/16-2.5	9.4	8	2.5

Connector for small lathe with seal washer



Designation	CNT	CXT	OAL
CHP-CONECTOR5/16-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

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

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