

Chapter Composition of Grooving and Parting Tools

- ◆ In this chapter, products are classified and arranged by machining type as follows: External grooving tools → Parting tools → Face grooving tools → Internal grooving tools
- ◆ In the machining type, tools are arranged by product series.
- ◆ In the internal grooving tools, tools are arranged in order of sizes of minimum grooving diameter.

Catalog Numbers are shown.

Typical application
Main application of the tool is illustrated.

Applicable range of groove width
Applicable range of groove depth

Tool size in combination of shank and blade

Series name and application

Number of corners of applicable insert
Structure of tool

Illustration of tooling condition
Note the rotating direction of the workpiece and the setting direction of the toolholder.

Machinable starting diameter range for each tool

My-T G series for external grooving
CGWS-WG

Width: 3.0~5.0mm Max. Groove Depth: <12.0~<13.0mm 2 Corners

External grooving
CGWS R/L-WG

Right hand (R) shown.

Toolholders (Blade type)

Shank and blade ass'y Cat. No.	Shank	Blade	Parts
CGWSR/L2020-W30GR/L	W30GR/L	CGWSR/L2020	W30GR/L
CGWSR/L2525-W30GR/L	W30GR/L	CGWSR/L2525	W30GR/L
CGWSR/L2020-W40GR/L	W40GR/L	CGWSR/L2020	W40GR/L
CGWSR/L2525-W40GR/L	W40GR/L	CGWSR/L2525	W40GR/L
CGWSR/L2020-W50GR/L	W50GR/L	CGWSR/L2020	W50GR/L
CGWSR/L2525-W50GR/L	W50GR/L	CGWSR/L2525	W50GR/L

My-T G series for Face Grooving
CGWS

Width: 3.0~5.0mm Max. Groove Depth: <13.0~<22.0mm 1 Corner

Face grooving
CGWS R/L

Right hand (R) shown. The dashed line shows 20 mm square shank tool.

Shank: Right hand
Blade: Right hand

Shank: Left hand
Blade: Left hand

Toolholders (S: Vertical type)

Dimensions of the products
Individual Cat. No. of shank and blade
(Only for exchangeable blade type)
The blade is needed for each groove width. The shank is compatible for various grooving widths.

Cat. No. of applicable inserts
Dimensions of applicable inserts

My-T G series for external grooving
CGWS-WG
CGWS-WG-L

Applicable inserts

For general parting off and grooving

Cat. No.	Grades	Dimensions (mm)
WGE20	W30GR/L	20 4.7 0.2
WGE30	W30GR/L	30 5.7 0.2
WGE40	W30GR/L	40 5.7 0.2
WGE50	W30GR/L	50 5.7 0.2

For traversing

Cat. No.	Grades	Dimensions (mm)
WTR20	W30GR/L	20 4.7 0.2
WTR30	W30GR/L	30 5.7 0.2
WTR40	W30GR/L	40 5.7 0.2
WTR50	W30GR/L	50 5.7 0.2

For parting off (with hand)

Cat. No.	Grades	Dimensions (mm)
WGE20R/L	W30GR/L	20 4.7 0.2
WGE30R/L	W30GR/L	30 5.7 0.2
WGE40R/L	W30GR/L	40 5.7 0.2
WGE50R/L	W30GR/L	50 5.7 0.2

Right hand (R) shown.

For profiling

Cat. No.	Grades	Dimensions (mm)
WGR30	W30GR/L	30 5.7 0.2
WGR40	W30GR/L	40 5.7 0.2
WGR50	W30GR/L	50 5.7 0.2

Parts
(Blade type)

Cat. No.	Clamping screw	Blade	Whetstone
CGWSR/L2020-W30GR/L	CHMS-16	CSHB-6	P-4

Standard cutting conditions

Work materials	Recommended cutting speed v _c (m/min)	Feed f (mm/min)			
		2	3	4	5
Low carbon steels (JIS S45C)	TY125 80~200	0.08~0.20	0.08~0.25	0.07~0.27	0.07~0.30
Alloy steels (JIS S50C)	NS730 100~200	0.08~0.20	0.08~0.25	0.07~0.27	0.07~0.30
Medium carbon steels (JIS S55C)	TY125 80~180	0.08~0.20	0.08~0.25	0.07~0.27	0.07~0.30
Alloy steels (JIS S55C)	NS730 80~180	0.08~0.20	0.08~0.25	0.07~0.27	0.07~0.30
High carbon steels (JIS S55C)	TY125 80~150	0.08~0.20	0.08~0.25	0.07~0.27	0.07~0.30
Alloy steels (JIS S55C)	NS730 80~150	0.08~0.20	0.08~0.25	0.07~0.27	0.07~0.30
Stainless steels	GH730 50~120	0.04~0.10	0.04~0.14	0.04~0.14	0.04~0.14
Grey and ductile cast irons	TY125 80~200	0.08~0.20	0.08~0.25	0.07~0.27	0.07~0.30
	GH730 50~120	0.04~0.10	0.04~0.14	0.04~0.14	0.04~0.14

Note: For diameter compensation values in traversing, see page 6-39.

Replacement parts

Reference pages of relating items
Cat. No. of applicable inserts

Combined Cat. No. of shank and blade

Standard cutting conditions
Cutting speeds by work material and feed ranges by machining type are shown.

Symbols of stock status

Ordering information

- When ordering the toolholder, please specify Cat. No. and quantity.
Example: **CTER2020-4T25... 1 piece.**
- When ordering a combined set of the shank and blade, please individually specify their Cat. No. and quantity.
Example: **CGWSR2525... 1 piece.**
30S5065R... 1 piece.
 - Standard packing quantity of toolholders and blades is 1 piece.
 - Blade clamping screws are packing with shank.
- When ordering inserts for grooving and parting tools, please specify Cat. No., grade, and quantity.
Example: **DGS3-020 AH725... 10 pieces.**
 - Standard packing quantity of inserts is 10 pieces.

Guidance

■ Designation system for TungCut	6-2
■ Features of TungCut	6-3
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■ Features of My-T series	6-10
■ Grooving tools overview	6-12
■ Selection guide for grooving tools	6-14
■ Guideline for ordering special inserts of TungCut	6-94

6 Grooving and parting tools

Products

■ External grooving tools

● TungCut series	D□□ / S□□ inserts	1, 2 corners insert	6-19
● My-T G series	WGE, WGT, WGR inserts	2 corners insert, blade type	6-26
● My-T G series	WGE, WGT, WGR inserts	2 corners insert, mono block type	6-28
● My-T G series	GE, GT, GR inserts	1 corner insert, blade type	6-30
● My-T G series	GE, GT, GR inserts	1 corner insert, mono block type	6-32
● My-T CGD series (precision type)	CGD inserts	2 corners insert, blade type	6-34
● My-T FLEX series (For traverse feed)	FLEX inserts	2 corners insert, blade type	6-36
● Grooving tools	CTD inserts	2 corners insert, mono block type	6-39

● Grooving tools	GBR/L inserts	3 corners insert, mono block type	6-40
● O-ring and lock ring grooving tools	GOR/L, GLR/L inserts	3 corners insert, mono block type	6-42
● Grooving tools	XGR/L inserts	2 corners insert, blade type	6-43
● J-series grooving tools for small lathes	JVGR/L inserts	2 corners insert, mono block type	6-44
● J-series grooving tools for small lathes	JTGR/L inserts	3 corners insert, mono block type	6-44

■ Parting tools

● TungCut series	DG□ / SG□ inserts	1, 2 corners insert	6-46
● My-T G series	GE inserts	1 corner insert, mono block type	6-50
● Grooving tools	CTR/L, CTN inserts	1 corner insert, tool block type	6-52
● Parting blades SCTH type			6-54
● J-series parting tools for small lathes	JXGR/L inserts	2 corners insert, mono block type	6-54
● J-series parting tools for small lathes	JCCR/L inserts	2 corners insert, mono block type	6-55
● J-series parting tools for small lathes	JCGN inserts	2 corners insert, mono block type	6-55

■ Face grooving tools

● TungCut series	DTX / DTF inserts	2 corners insert	6-56
● My-T G series, S-type	GE, GF, GT, GR inserts	1 corner insert, blade type	6-61
● My-T G series, T-type	GE, GF, GT, GR inserts	1 corner insert, blade type	6-64
● My-T FLEX series (For traverse feed)	FLEX inserts	2 corners insert, blade type	6-67
● GX type grooving tools	GX inserts	2 corners insert, blade type	6-68
● CFGS type grooving tools, S-type	FGC inserts	1 corner insert, blade type	6-69
● CFGT type grooving tools, T-type	FGC inserts	1 corner insert, blade type	6-71

■ Internal grooving tools

● TungCut series	DT□ inserts	2 corners insert	6-75
● Grooving tools (bore dia. ø8 ~)	GR/L inserts	1 corner insert, mono block type	6-78
● Grooving tools (bore dia. ø20 ~)	GIR/L inserts	2 corners insert, mono block type	6-80
● My-T G series (bore dia. ø25 ~)	GE, GN, GT, GR inserts	1 corner insert, mono block type	6-81
● Grooving tools (bore dia. ø35 ~)	GBL/R inserts	3 corners insert, mono block type	6-82
● Grooving tools (bore dia. ø55 ~)	XGL/R inserts	2 corners insert, blade type	6-84
● My-T FLEX series (bore dia. ø80 ~)	FLEX inserts	2 corners insert, blade type	6-85

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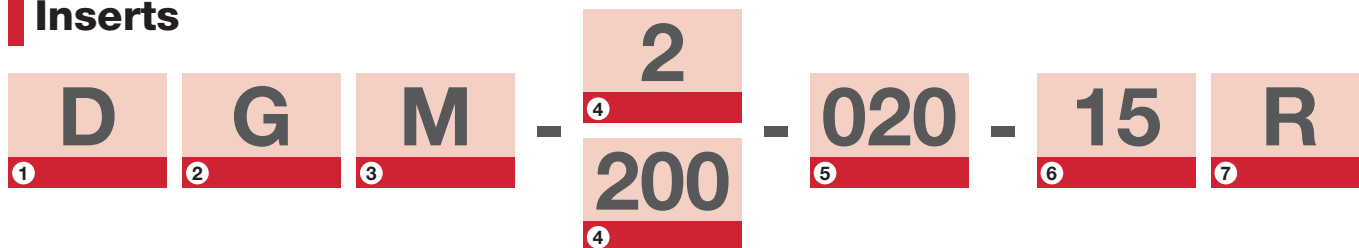
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Designation System for TungCut

Inserts



1 Number of edge	
D	Double corners
S	Single corner

2 Application	
T	Traversing & grooving
G	Grooving

3 For use	
M	Grooving
S	Grooving (sharpness)
E	External
I	Internal
F	Face grooving
A	Aluminium
IU	Internal Undercut
R	Round for profiling
X	Multi purpose

4 Groove width (mm)	
2	2 (molded)
200	2.00 (ground)

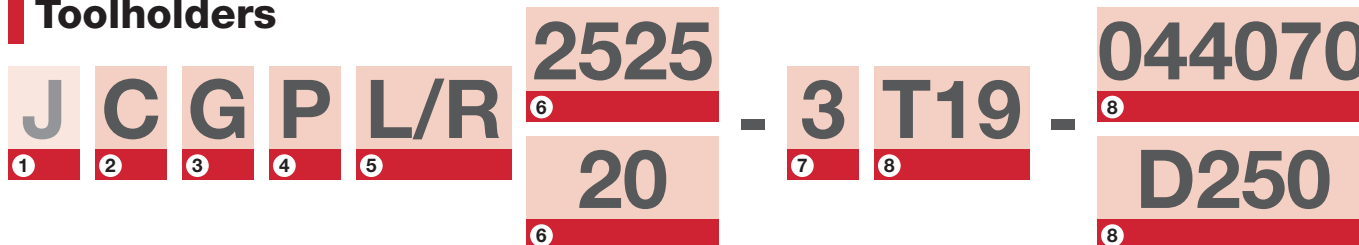
5 Corner Radius (mm)	
002	0.02
020	0.2

6 Front Angle	
4	4°
6	6°
8	8°
15	15°

7 Hand of tool	
L	left
R	right

6

Toolholders



1 J series	
J	For small lathe

2 Clamp on	
C	Clamp on

3 For use	
T	Traversing & grooving
G	Grooving
A	Adapter
H	Holder

4 For use	
P	Parting & Grooving
E	External
I	Internal
F	Facing
FV	Holder (Horizontal)
S	Holder (Vertical)

5 Hand of tool	
L	left
R	right

6 Shank size (mm)	
2525	25 (height) x 25 (width)
20	ø20 (shank dia)
	20 (shank height)

7 Groove width (mm)	
2	2
3	3
4	4

8 Overhang (mm)	
T19	19
T25	25

9 Bore.dia. (mm)	
044070	44 ~ 70 (Facing)
D250	ø250 ~

Insert application

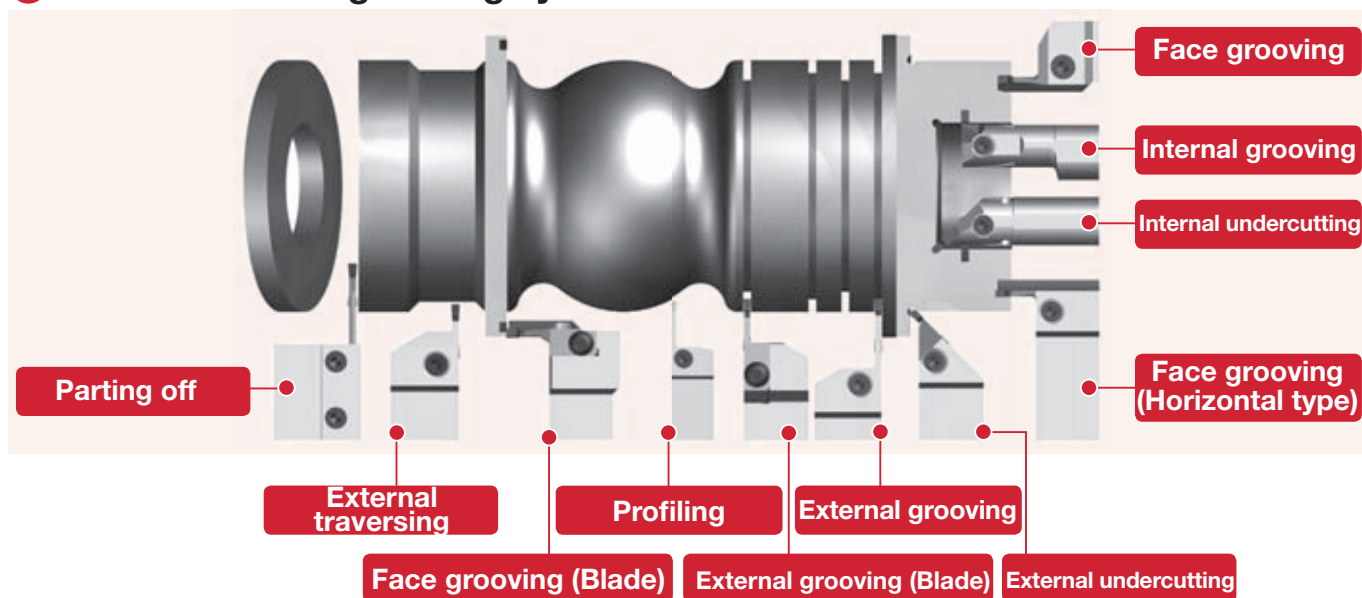
Insert	Application						
	Grooving			Parting off	Traversing		
	External	Internal	Face		External	Internal	Face
DGS / SGS	●		●	●			
DGM / SGM	●		●	●			
DTE	●		●		●		●
DGE	●						
DTX	●	●	●	●	●	●	●
DTI		●				●	
DTF			●				●
DTR	●				●		
DTIU	● (Undercutting)	● (Undercutting)					
DTA					● (AI wheel machining)	● (AI wheel machining)	

Multifunctional system for diverse grooving needs !



● Suited to a wide variety of grooving operations

● Multi-functional grooving system

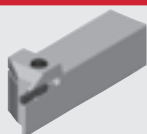


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Parting and Grooving Tools

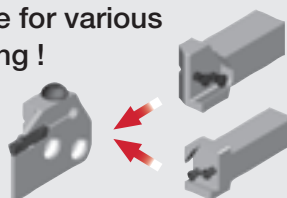
Mono block toolholders

High rigidity !



Blades with shank holders

Available for various machining !



Blades with tool blocks

Suitable for large diameter machining !



● Standard cutting conditions

Work materials	Hardness	Cutting speed: Vc (m/min)		
		AH725	GH130	TH10
Steels S45C, SCM435 etc. (C45, 34CrMo4 etc.)	< 300 HB	50 ~ 180	40 ~ 150	—
Stainless steels SUS303, SUS304 etc. (X10CrNiS18-9 etc.)	< 200 HB	50 ~ 120	50 ~ 120	—
Grey cast irons, Ductile cast irons FC250, FCD450 etc. (GG25, GGG45 etc.)	—	—	50 ~ 180	—
Aluminium alloys (Si < 12%)	—	—	—	100 ~ 500
Titanium alloys (Ti-6Al-4V etc.)	< 40 HRC	20 ~ 80	20 ~ 80	—

Inserts

External grooving and parting off

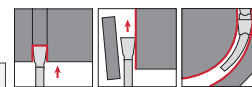
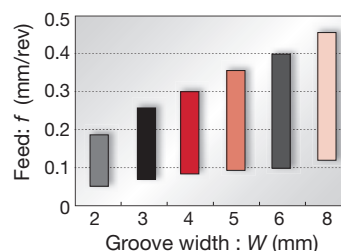
DGM type (2 corners) SGM type (1 corner)



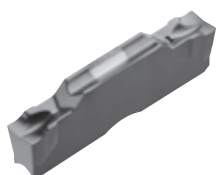
1st choice for external grooving and parting-off

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

Standard feed



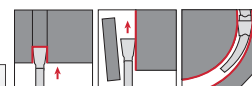
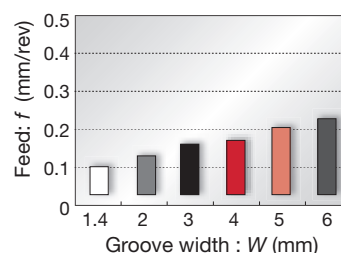
DGS type (2 corners) SGS type (1 corner)



Lower cutting force and superior sharpness

- Unique designed edge and chipbreaker
- Handed insert available

Standard feed



External, face grooving and traversing

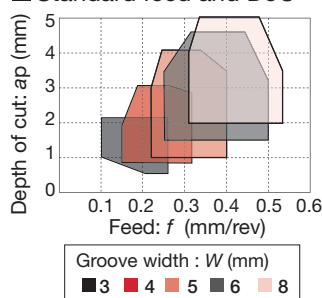
DTE type (2 corners)



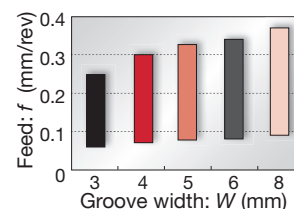
For general purpose

- Unique breaker makes chips shorter
- Molded and ground insert available

Standard feed and DoC

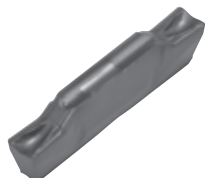


Standard feed



External, internal, face grooving and traversing

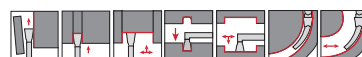
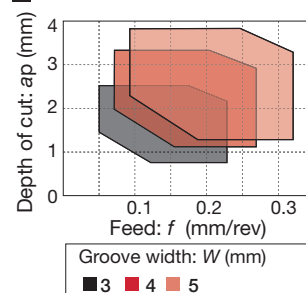
DTX type (2 corners)



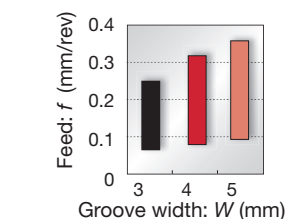
Multi-functional type

- Well balanced sharpness and strength
- Multi functional insert

Standard feed and DoC



Standard feed



External grooving

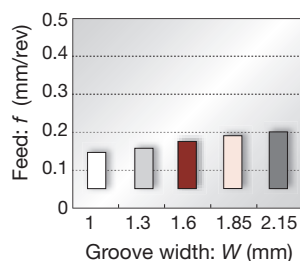
DGE type (2 corners)



For high accurate and shallow groove

- Excellent chip control

Standard feed



Profiling and undercutting

DTR type (2 corners)

Molded



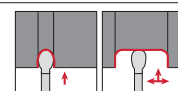
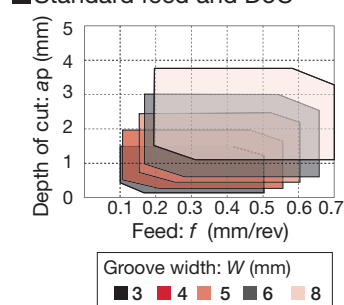
Ground



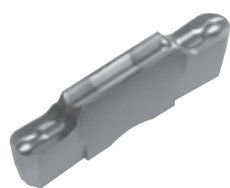
Full radius type

- Excellent chip control
- Molded and ground insert available

Standard feed and DoC



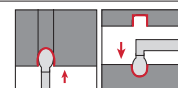
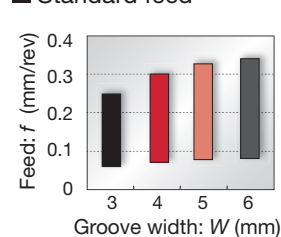
DTIU type (2 corners)



Full radius type

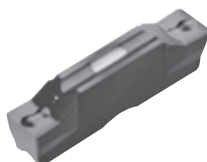
- Excellent chip control
- For undercutting

Standard feed



Internal grooving and traversing

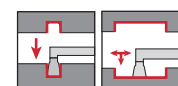
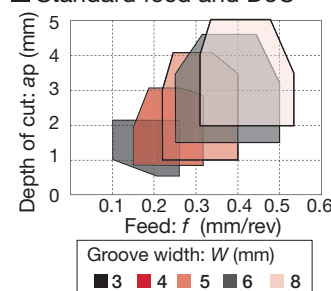
DTI type (2 corners)



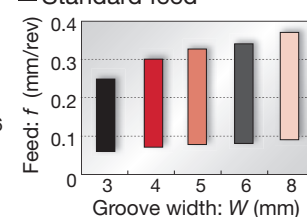
1st choice for internal grooving

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

Standard feed and DoC

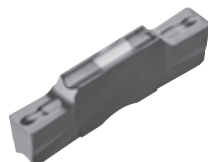


Standard feed



Face grooving and traversing

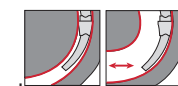
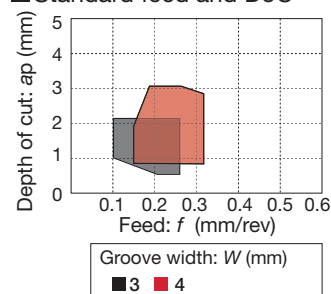
DTF type (2 corners)



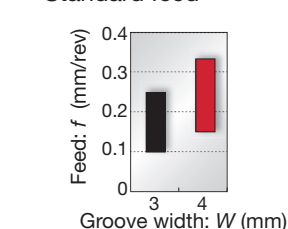
1st choice for face grooving

- Unique chipbreaker makes chips shorter
- Handed insert

Standard feed and DoC



Standard feed



Aluminium wheel machining

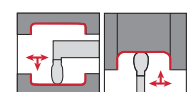
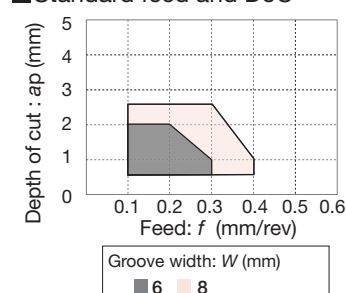
DTA type (2 corner)



Full radius type

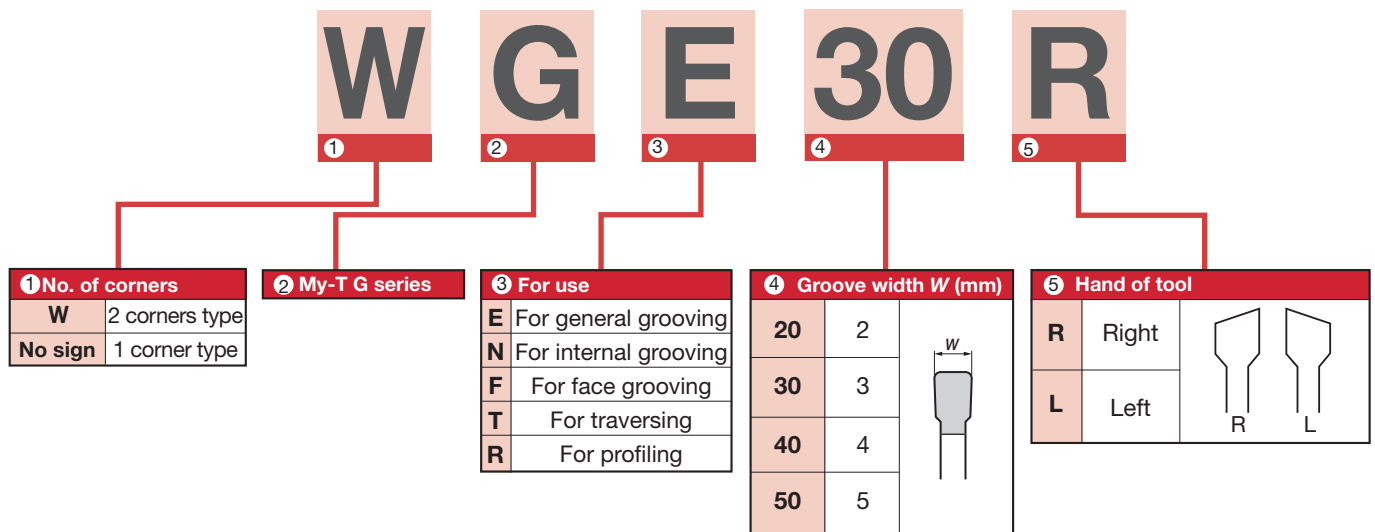
- Excellent chip control
- For aluminium wheel profiling
- Ground insert

Standard feed and DoC

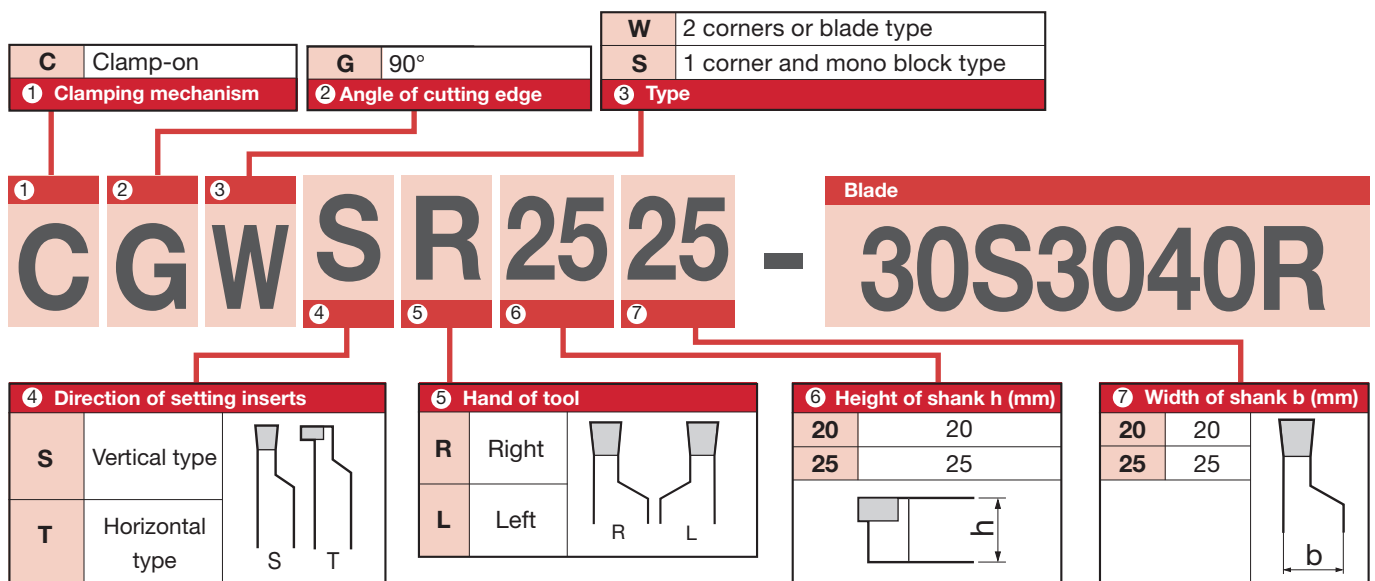


Designation System for My-T G series

Inserts



Toolholders for external and face grooving



Blades for external and face grooving

W	2 corners type
No sign	1 corner type

0	No. of corners
----------	----------------

1	Groove width W (mm)
----------	-----------------------

2	Application
----------	-------------

5	Hand of tool
----------	--------------

6	
----------	--

Blade for external grooving: **W 30 G R -L**

Blade for face grooving: **30 S 30 40 R**

2	Groove depth D (mm)
----------	-----------------------

Symbol	Groove width	Groove depth
S	3	10
D	3	14
S	4	14
D	5	22

3	Min. bore dia. d_1 (mm)
----------	---------------------------

4	Max. bore dia. d_2 (mm)
----------	---------------------------

Toolholders for internal grooving

S	Steel shank
----------	-------------

1	Shank material
----------	----------------

2	Diameter of shank (mm)
----------	------------------------

3	Length of shank L (mm)
----------	--------------------------

7	Hand of tool
----------	--------------

1 S 20 R - C G T R 30

4	Clamping mechanism
----------	--------------------

5	Angle of cutting edge
----------	-----------------------

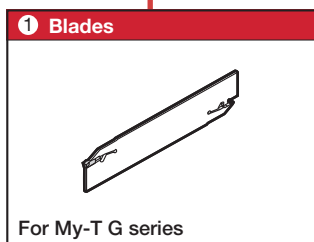
6	Direction of setting inserts
----------	------------------------------

8	Groove width W (mm)
----------	-----------------------

Designation System for My-T G series

Blades for parting off

CCH 32 - 30



2 Height of blades h (mm)

32	32	

3 Groove width W (mm)

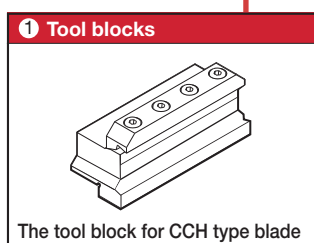
30	3	
40	4	
50	5	

6

Parting and Grooving Tools

Tool blocks

CCBS 20 - 32



2 Height of tool blocks h (mm)

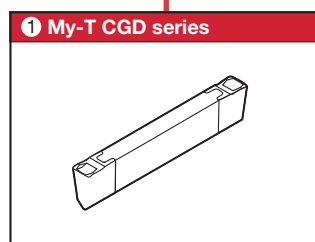
20	20	
25	25	
32	32	

3 Height of blades h (mm)

32	32	

TAC Inserts

CGD 300



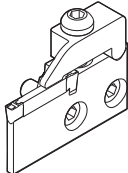
2 Groove width W (mm)

200	2	
300	3	
400	4	
500	5	
600	6	
700	7	
800	8	

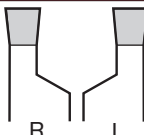
Blades for external and face grooving

CGD R 3

1 My-T CGD series



2 Hand of tool

R	Right	
L	Left	

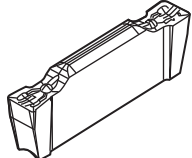
3 Groove width W (mm)

2	2	
3	3	
4	4	
5	5	
6	6	

TAC Inserts

FLEX 30 R

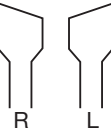
1 My-T FLEX series



2 Groove width W (mm)

30	3	
40	4	
50	5	

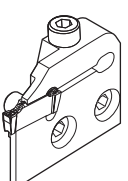
3 Hand of tool

R	Right	
L	Left	

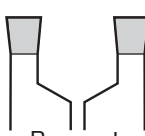
Blades for external and face grooving

FL R 3 GP

1 For My-T FLEX series



2 Hand of tool

R	Right	
L	Left	

3 Groove width W (mm)

3	3	
4	4	
5	5	

4 Operation

GP	For external grooving
NP	For internal grooving
TP	For face grooving

Features of My-T series

My-T G series

For aluminium

GE-AL Width: 2.0 ~ 4.0 mm

Reduce cutting force and chip welding due to the combination of sharp chipbreaker and fine grain cemented carbide.

For internal grooving

GN Width: 3.0 ~ 5.0 mm

Lower cutting resistance and better cutting action than GE type. Used for internal grooving when problems with chip control and chattering occur.

For face grooving

GF Width: 3.0 ~ 5.0 mm

Larger width of chipbreaker than GE type and with good chip control. Used for face grooving when problems with chip control and chattering occur.

For traversing

WGT•GT Width: 3.0 ~ 5.0 mm

Lower cutting resistance and better cutting action for traversing. Suitable for external, internal grooving and extending face slots etc

For profiling

WGT•GR

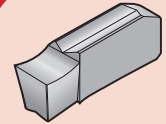
Width: 3.0 (1.5R) ~ 5.0 (2.5R) mm

Lower cutting resistance and better chip control for profiling.

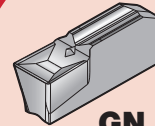
For parting off

WGE R/L•GE R/L Width: 3.0 ~ 5.0 mm

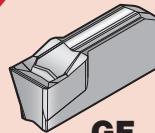
A chipbreaker with good chip control for parting off. These inserts are effective to minimize burr generation when workpiece is cut off.



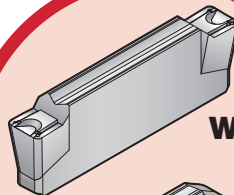
GE-AL



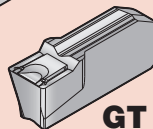
GN



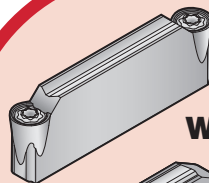
GF



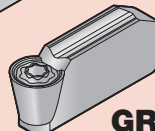
WGT



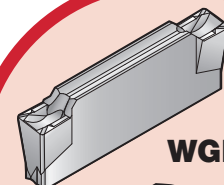
GT



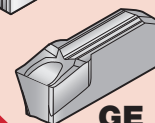
WGR



GR



WGE R/L



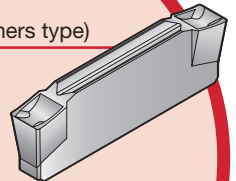
GE R/L

1st choice

WGE (Two corners type)

Width: 2.0 ~ 5.0 mm

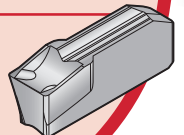
- ◆External grooving
- ◆Parting off



GE

Width: 2.0 ~ 5.0 mm

- ◆External grooving
- ◆Internal grooving
- ◆Face grooving
- ◆Parting off



My-T G series

■WGE, GE type inserts almighty chipbreaker

- Excellent chip control for external grooving, internal grooving and face grooving.

■Specialist of grooving

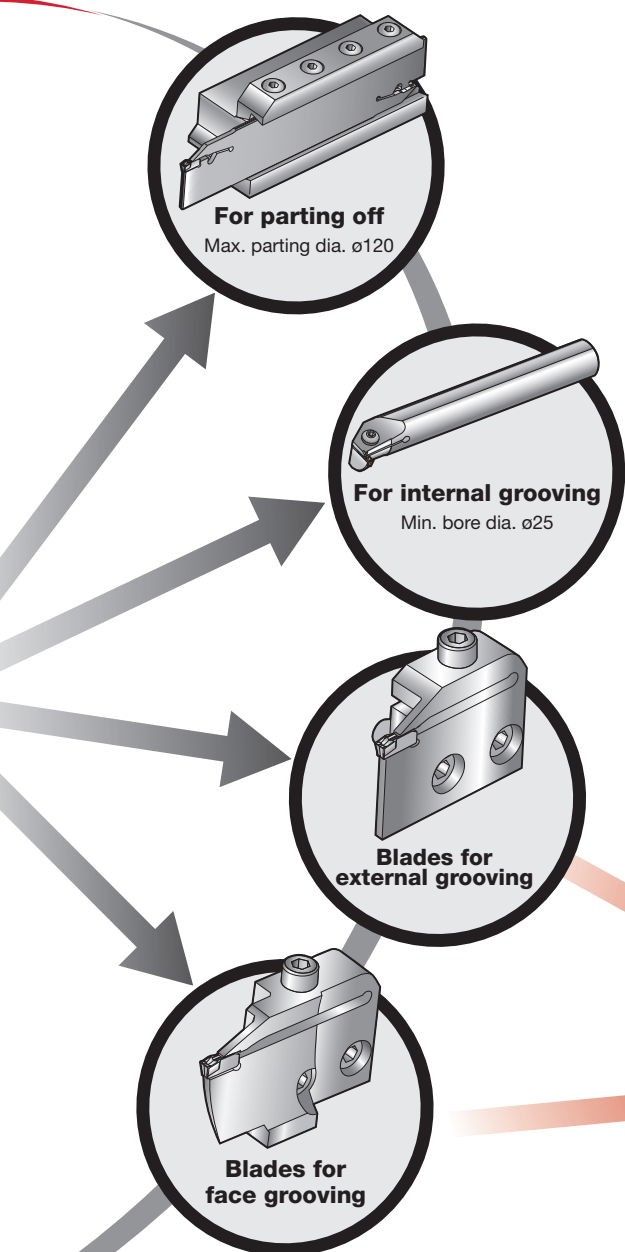
- GN type for internal grooving, GF type for face grooving, WGT, GT type for traversing and WGR, GR type for profiling.
- Min. bore dia: $\phi 25$ mm for internal grooving, $\phi 30$ mm for face grooving.
- Possible to reduce cost by tool concentration
- Interchangeable blades fit into all toolholder systems of My-T G series.

My-T CGD series

- Two corners type inserts.
- G-class inserts which excels in accuracy of cutting edge width, can perform precision grooving.

My-T FLEX series

- Two corners type inserts. Multi type toolholders allowing traversing.
- Excellent chatter resistance and good chip control characteristics allow the use of these tools in a wide range of machining operations.

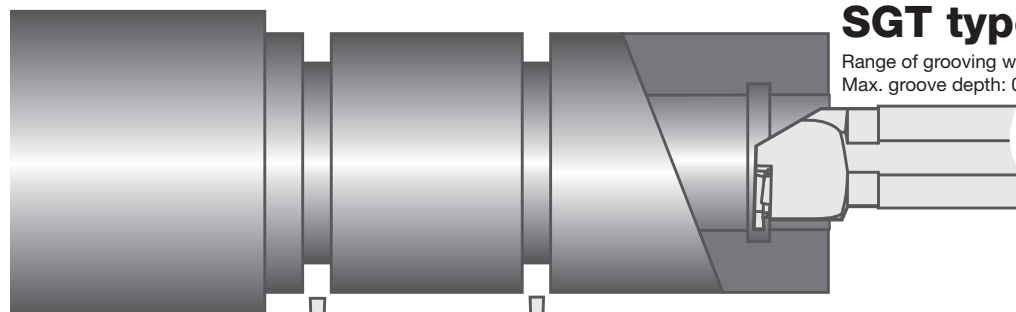


Width: 2.0 ~ 8.0 mm

*Toolholders for 7 mm and 8 mm groove widths are mono block type.

Width: 3.0 ~ 5.0 mm

Three Corners type Grooving Tools TGTS, TGTT, and SGT type series



SGT type

➤ 6-88

Range of grooving widths: 0.33 ~ 4.5 mm
Max. groove depth: 0.8 ~ 5.0 mm

TGTS type

Range of grooving widths: 0.33 ~ 4.5 mm
Max. groove depth: 0.8 ~ 5.0 mm

➤ 6-46

- For Steels
AH710 "Flash-Coat" PVD coating
NS730 "Super fine" Cermet
- For non-ferrous metals
KS05F fine grained cemented carbide

TGTT type

➤ 6-46

Range of grooving widths: 0.33 ~ 4.5 mm
Max. groove depth: 0.8 ~ 5.0 mm

Cutting edge geometries

	GB type	GB-R type
Grooving shape	Normal groove (Square)	Full radius groove (Round)
Range of groove widths	0.33 mm ~ 4.5 mm	1.0 mm (0.5R) ~ 4.0 mm (2R)

J series for small lathes

External Grooving

	JSVGR/L ➤ 6-50	JSTGR/L ➤ 6-50	JS-TGL3 ➤ 6-50
Groove width:	0.33 ~ 2.0 mm	0.33 ~ 3.0 mm	0.33 ~ 3.0 mm
Groove depth:	0.7 ~ 5.5 mm	0.7 ~ 2.6 mm	0.7 ~ 2.6 mm

Parting and External Grooving

JSXGR/L ➤ 6-60	JCGSSR/L ➤ 6-56	JCCWSR/L ➤ 6-61	JCGWSR/L ➤ 6-61
Groove width: 0.7 ~ 2.0 mm Parting dia: < ø9 ~ 12	Groove width: 2.0 mm Parting dia: < ø20 ~ 32	Groove width: 2.0 mm Parting dia: < ø20	Groove width: 2.0 mm Parting dia: < ø20

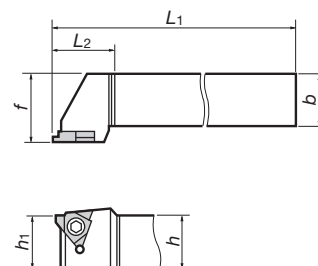
External Grooving / Face Grooving

Inserts for o-ring grooving and lock-ring grooving

SGT type External Grooving

GOR/L Inserts for O-ring grooving
GLR/L Inserts for lock-ring grooving

▶ 6-48

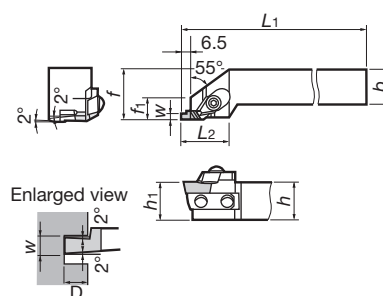


For general grooving

GX type External, Face, and Internal Grooving

Tungaloy original style grooving tools

External Grooving ▶ 6-49
Face Grooving ▶ 6-74
Internal grooving ▶ 6-90

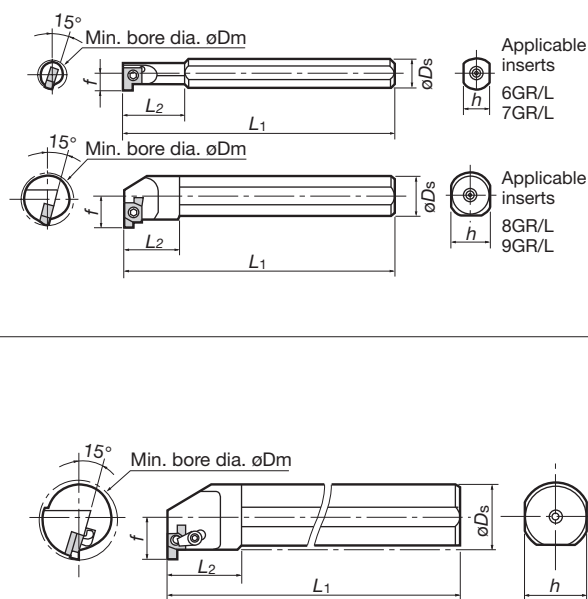


For general grooving

SNG / CNG type Internal Grooving

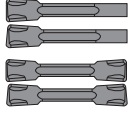
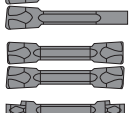
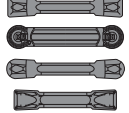
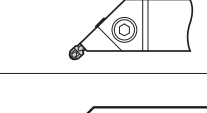
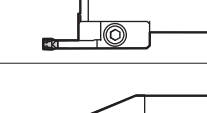
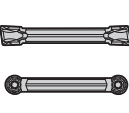
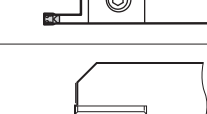
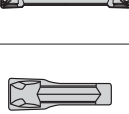
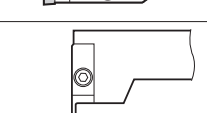
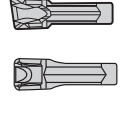
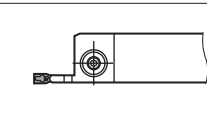
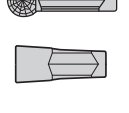
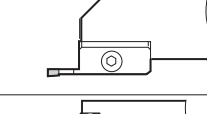
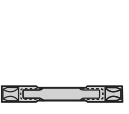
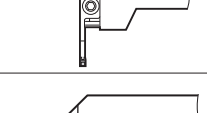
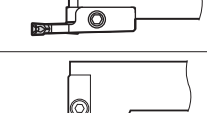
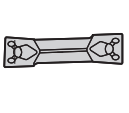
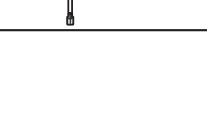
Special tools for internal grooving.
Applicable grooving widths: 1 ~ 3.5 mm
Min. machining dia: ø8mm
Available in both steel shank for general use and
carbide shank for anti chattering requirements.

▶ 6-84



Selection Guide of Tools

External Grooving

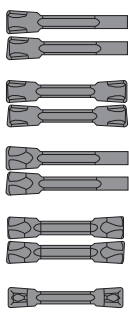
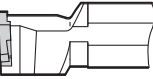
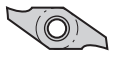
Appli.	Type	Appearance	Shape	Groove depth	Groove width
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TungCut	CTER/L ▶ 6-21	Mono block 		36	2 8
	CAER/L ▶ 6-23	Blade 		20	3 6
	JCTER/L ▶ 6-22	Mono block 		Max. parting off dia. $\phi 32$	1.4 3
	CGEUR/L ▶ 6-22	Mono block 		3.4	3 6
My-T series	CGWS-WG ▶ 6-28	Blade 		13	3 5
	CGWS-W ▶ 6-30	Mono block 		13	3 5
	CGWS-G ▶ 6-32	Blade 		12	2 5
	CGWT-G ▶ 6-32	Blade 		12	3 5
	CGSS ▶ 6-34	Mono block 		16	2 5
	CGWS-CGD ▶ 6-36	Blade 		21	2 8
	CGWT-CGD ▶ 6-36	Blade 		19.5	2 6
	CGWS-FLGP ▶ 6-38	Blade 		14	3 5
	CGWT-FLGP ▶ 6-38	Blade 		14	3 5

External Grooving

Appl.	Type	Appearance	Shape	Groove depth	Groove width
My-T series	CGWS-WG-L Deep Grooving 6-28	Blade		21.5	2 5
	CGWS-W-L Deep Grooving 6-30	Mono block		21.5	2 5
	CGSS-D Deep Grooving 6-34	Mono block		25	3 5
TetraCut	STC 6-42			6.4	0.5 3.18
GTGN	CE 6-44			1.8	1 2.25
	B-CE 6-44			1.8	1 2.25
Special tools	TGTS 6-46			5	0.33 4.5
	TGTT 6-46			5	0.33 4.5
	GX-E 6-49			6	1 4.5
	SGT 6-48			4	1.15 4.2
	CTW 6-41			20	3 5

Selection Guide of Tools

External Grooving

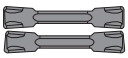
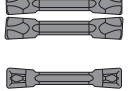
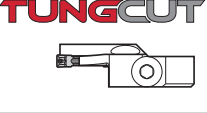
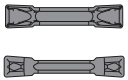
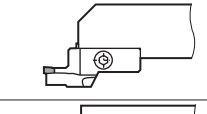
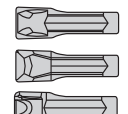
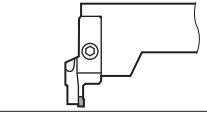
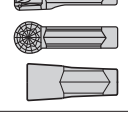
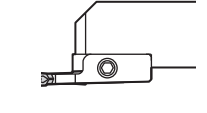
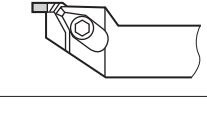
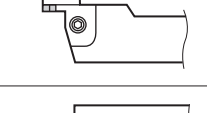
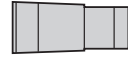
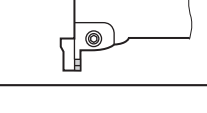
Appli.	Type	Appearance	Shape	Groove depth	Groove width
				10 20 30 40 50 (mm)	2 4 6 8 10 (mm)
J series	JCTER/L ▶ 6-22	J-SERIES 		 16	 1.4 3
	JSTG ▶ 6-50	J-SERIES 		 2.6	 0.33 3
	JS-TGL3 ▶ 6-50	J-SERIES 		 2.6	 0.33 3
	JSVG ▶ 6-50	J-SERIES 		 5.5	 0.33 2

Selection Guide of Tools

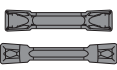
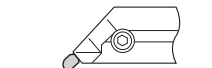
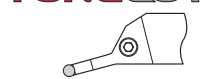
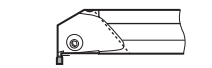
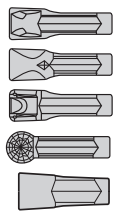
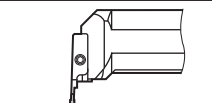
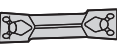
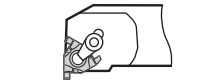
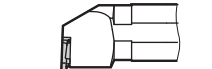
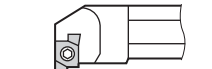
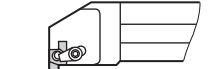
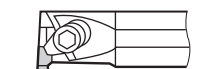
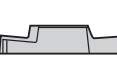
Parting off

Appli.	Type	Appearance	Shape	Groove depth	Groove width
				10 20 30 40 50 (mm)	2 4 6 8 10 (mm)
TungCut	CGER/L 6-52			Max. parting off dia. $\phi 29 \sim 55$	1.4 4
	CGP 6-53			Max. parting off dia. $\phi 26 \sim 160$	1.4 8
	JCTER/L 6-52			Max. parting off dia. $\phi 32$	1.4 3
My-T series	JCGSS 6-56			Max. parting off dia. $\phi 20 \sim 32$	2
	CCH 6-56			Max. parting off dia. $\phi 100 \sim 120$	3 5
Special tools	CTH 6-58			Max. parting off dia. $\phi 100$	3 6
	CTS 6-59			Max. parting off dia. $\phi 50$	3 6
	SCTH 6-60				3 6
J series	JCTER/L 6-52			Max. parting off dia. $\phi 82$	1.4 3
	JSXG 6-60			6	0.7 2.0
	JCGSS 6-56			Max. parting off dia. $\phi 20 \sim 32$	2
	JCCWS 6-61		Neutral (JCCN200F) With hand (JCCR/L200F)	Max. parting off dia. $\phi 20$	2
	JCGWS 6-61		Neutral (JCGN200F) With hand (JCGN200FR/L)	Max. parting off dia. $\phi 20$	2

Face grooving

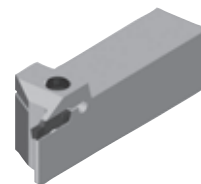
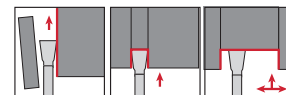
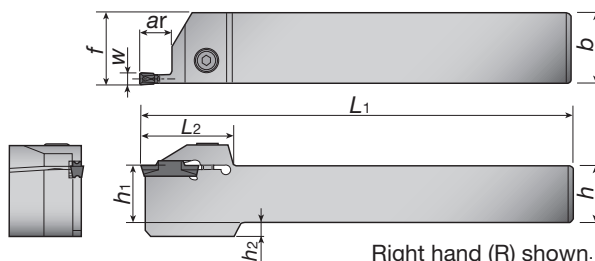
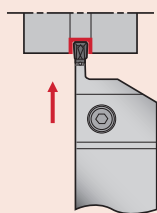
Appli.	Type	Appearance	Shape	Groove depth	Groove width
				10 20 30 40 50 (mm)	2 4 6 8 10 (mm)
TungCut	CTFR/L ▶ 6-62	Mono block 		25	3 6
	CTFVR/L ▶ 6-63	Mono block 		20	3 6
	CAFR/L ▶ 6-64	Blade 		25	3 6
My-T series	CGWS- ●S● ●D● ▶ 6-67	Blade 		22	3 5
	CGWT- ●S● ●D● ▶ 6-70	Blade 		22	3 5
	CGWS-FLTP ▶ 6-73	Blade 		6	5
Special tools	GX-F ▶ 6-74			6	1 4.5
	CFGs ▶ 6-75			26	3 8
	CFGT ▶ 6-77			26	3 8

Internal grooving

Appli.	Type	Appearance	Shape	Groove depth	Groove width
TungCut	CTIR/L 6-81	Mono block 		10	3 8
	CGIUR/L 6-81	Mono block 		2.8	3 6
	CTER/L-15A 6-82	Mono block 		30	6 8
	CGIUR/L-15A 6-82	Mono block 		85	6 8
My-T series	CGT 6-87			6	3 5
	CGWT-FLNP 6-93			10	3
GTGN	CN 6-88			1.8	1 2.25
Special tools	SGT 6-90			2.5	0.33 4.5
	SNG 6-84			3	1 3.5
	CNG 6-84			5	1 5
	GX-I 6-92			6	1 4.5
	CGX 6-86			5.3	1 5

Width
2.0~8.0mmMax. Groove Depth
≤ 8.0mm, ≤ 36.0mm1, 2
Corners

Grooving / traversing



Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		*Max. groove depth ar (mm)	Dimensions (mm)								Inserts	Parts	
		R	L		h ₁	b	h	L ₁	**f	W	h ₂	L ₂		Clamping screw	Wrench
2	CTER/L1616-2T08	●	●	8	16	16	16	110	16.1	2	4	33	DGM/SGM DGS/SGS	CM5x0.8x16-A	P-4
	CTER/L2020-2T08	●	●	8	20	20	20	125	20.1	2	-	33		CM5x0.8x20-A	
	CTER/L2525-2T08	●	●	8	25	25	25	150	25.1	2	-	33		CM5x0.8x25-A	
	CTER/L1616-2T12	●	●	12	16	16	16	110	16.1	2	4	32		CM5x0.8x16-A	
	CTER/L2020-2T12	●	●	12	20	20	20	125	20.1	2	-	32		CM5x0.8x20-A	
	CTER/L2525-2T12	●	●	12	25	25	25	150	25.1	2	-	32		CM5x0.8x25-A	
	CTER/L1616-2T17	●	●	17	16	16	16	110	16.1	2	4	37		CM5x0.8x16-A	
	CTER/L2020-2T17	●	●	17	20	20	20	125	20.1	2	-	37		CM5x0.8x20-A	
	CTER/L2525-2T17	●	●	17	25	25	25	150	25.1	2	-	37		CM5x0.8x25-A	
3	CTER/L1616-3T09	●	●	9	16	16	16	110	16.3	3	4	32	DGM/SGM DGS/SGS	CM5x0.8x16-A	P-4
	CTER/L2020-3T09	●	●	9	20	20	20	125	20.3	3	-	32		CM5x0.8x20-A	
	CTER/L2525-3T09	●	●	9	25	25	25	150	25.3	3	-	32		CM5x0.8x25-A	
	CTER/L1616-3T20	●	●	20	16	16	16	110	16.3	3	4	38.5		CM5x0.8x16-A	
	CTER/L2020-3T20	●	●	20	20	20	20	125	20.3	3	-	38.5		CM5x0.8x20-A	
	CTER/L2525-3T20	●	●	20	25	25	25	150	25.3	3	-	38.5		CM5x0.8x25-A	
	CTER/L2525-3T25	●	●	25	25	25	25	150	25.3	3	-	44.5		CM5x0.8x25-A	
4	CTER/L1616-4T10	●	●	10	16	16	16	110	16.5	4	4	32	DGE DTX DTE DTR DTA	CM6x1x16-A	P-5
	CTER/L2020-4T10	●	●	10	20	20	20	125	20.5	4	-	32		CM6x1x20-A	
	CTER/L2525-4T10	●	●	10	25	25	25	150	25.5	4	-	32		CM6x1x25-A	
	CTER/L1616-4T25	●	●	25	16	16	16	110	16.5	4	4	45		CM6x1x16-A	
	CTER/L2020-4T25	●	●	25	20	20	20	125	20.5	4	-	45		CM6x1x20-A	
	CTER/L2525-4T25	●	●	25	25	25	25	150	25.5	4	-	45		CM6x1x25-A	
	CTER/L3232-4T25	●	●	25	32	32	32	170	32.5	4	-	45		CM6x1x25-A	
5	CTER/L2020-5T12	●	●	12	20	20	20	125	20.6	5	-	37		CM6x1x20-A	P-6
	CTER/L2525-5T12	●	●	12	25	25	25	150	25.6	5	-	37		CM6x1x25-A	
	CTER/L2525-5T32	●	●	32	25	25	25	150	25.5	5	-	56		CM6x1x25-A	
	CTER/L3232-5T32	●	●	32	32	32	32	170	32.5	5	-	56		CM6x1x25-A	
6	CTER/L2020-6T12	●	●	12	20	20	20	125	20.6	6	-	37		CM8x1.25x20-A	P-6
	CTER/L2525-6T12	●	●	12	25	25	25	150	25.6	6	7	37			
	CTER/L2525-6T32	●	●	32	25	25	25	150	25.5	6	7	56			
	CTER/L3232-6T32	●	●	32	32	32	32	170	32.5	6	-	56			
8	CTER/L2525-8T16	●	●	16	25	25	25	150	26.1	8	7	47		CM8x1.25x20-A	P-6
	CTER/L2525-8T25	●	●	25	25	25	25	150	26.1	8	7	47			
	CTER/L3232-8T25	●	●	25	32	32	32	170	33.1	8	-	47			
	CTER/L2525-8T36	●	●	36	25	25	25	150	26.1	8	7	60			
	CTER/L3232-8T36	●	●	36	32	32	32	170	33.1	8	-	60			

* When depth is deeper than insert length, 1 corner type is recommended.

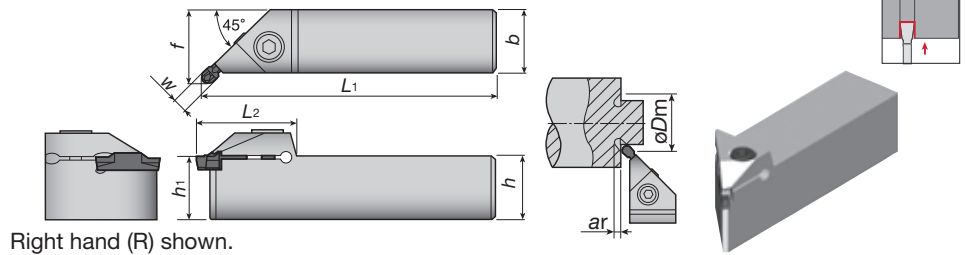
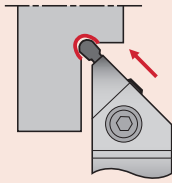
** "f" value in the above table is calculated with groove width "W" shown in the table.

● : Stocked items.

CGEUR/L

Width
3.0~6.0mmMax. Groove Depth
≤ 2.8mm, ≤ 3.4mm2
Corners

External undercutting



Right hand (R) shown.

Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. groove depth ar (mm)	Dimensions (mm)							Inserts	Parts	
		R	L			b	h	L1	*f	W	h1	L2		Clamping screw	Wrench
3	CGEUR/L1616-3T02	●	●	32	2.8	16	16	110	19.3	3	16	30	DTIU	CM5x0.8x16-A	P-4
	CGEUR/L2020-3T02	●	●	32	2.8	20	20	125	23.3	3	20	30			
	CGEUR/L2525-3T02	●	●	32	2.8	25	25	150	28.3	3	25	30			
4	CGEUR/L1616-4T02	●	●	32	2.8	16	16	110	19.5	4	16	31		CM6x1x16-A	P-5
	CGEUR/L2020-4T02	●	●	32	2.8	20	20	125	23.5	4	20	31		CM6x1x20-A	
	CGEUR/L2525-4T02	●	●	32	2.8	25	25	150	28.5	4	25	31		CM6x1x25-A	
5, 6	CGEUR/L2525-6T03	●	●	34	3.4	25	25	150	28.9	6	25	35		CM6x1x25-A	P-5

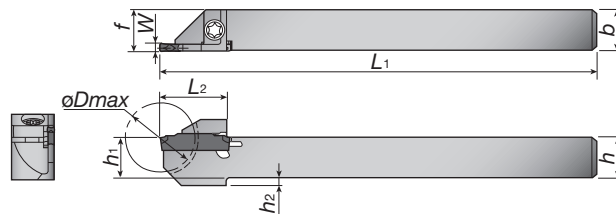
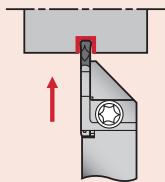
* "f" value in the above table is calculated with groove width "W" shown in the table.

JCTER/L

Width
1.4~3.0mmMax. dia.
≤ 20.0mm, ≤ 32.0mm1, 2
Corners

For small lathes

Grooving / traversing



Right hand (R) shown.

Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Max. dia. øDmax (mm)	Dimensions (mm)								Inserts	Parts	
		R	L		h ₁	b	h	L ₁	*f	W	h ₂	L ₂		Clamping screw	Wrench
1	JCTER/L1010-1.4T10	●	●	20	10	10	10	125	10.2	1.4	-	18	DGS1.4-016	CSHB-4-A	T-15F
	JCTER/L1212-1.4T12	●	●	24	12	12	12	125	12.2	1.4	-	19.5			
	JCTER/L1414-1.4T12	●	●	24	14	14	14	125	14.2	1.4	-	19.5			
	JCTER/L1616-1.4T16	●	●	32	16	16	16	125	16.2	1.4	-	24			
2	JCTER/L1010-2T10	●	●	20	10	10	10	125	10.1	2	2	19	DGM/SGM DGS/SGS	CSHB-4-A	T-15F
	JCTER/L1212-2T12	●	●	24	12	12	12	125	12.1	2	2	19			
	JCTER/L1414-2T12	●	●	24	14	14	14	125	14.1	2	-	19			
	JCTER/L1616-2T16	●	●	32	16	16	16	125	16.1	2	-	24			
3	JCTER/L1212-3T12	●	●	24	12	12	12	125	12.3	3	-	19	DGE DTE	CSHB-4-A	T-15F
	JCTER/L1616-3T16	●	●	32	16	16	16	125	16.3	3	-	24			
	JCTER/L2020-3T16	●	●	32	20	20	20	125	20.3	3	-	24			

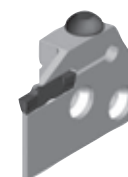
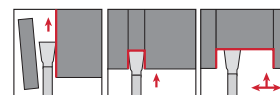
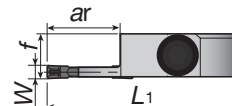
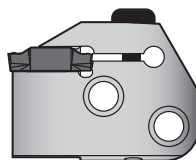
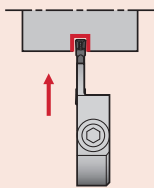
* "f" value in the above table is calculated with groove width "W" shown in the table.

● : Stocked items.

CAER/L

Width
3.0~6.0mmMax. Groove Depth
≤16.0mm, ≤20.0mm1, 2
Corners

Grooving / traversing



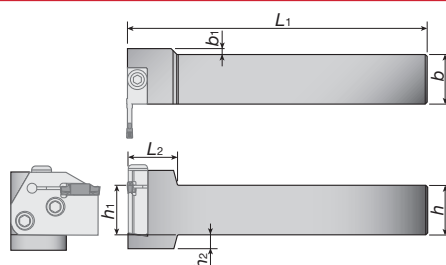
Right hand (R) shown.

Blades (For general purpose)

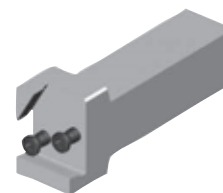
Insert seat size	Cat. No.	Stock		*Max. groove depth ar (mm)	Dimensions (mm)			Inserts	Shank	Parts	
		R	L		L ₁	f	W			Clamping screw	Wrench
3	CAER/L-3T16	●	●	16	45	10.4	3	DGS/SGS DGM/SGM DTX DTE DTR	CHFVR/L CHSR/L	BHM6-20-A	P-4
4	CAER/L-4T16	●	●	16	45	10.5	4				
5	CAER/L-5T20	●	●	20	49	10.5	5				
6	CAER/L-6T20	●	●	20	49	10.5	6				

CHFVR/L

Horizontal type



Right hand (R) shown.



Toolholders for blades

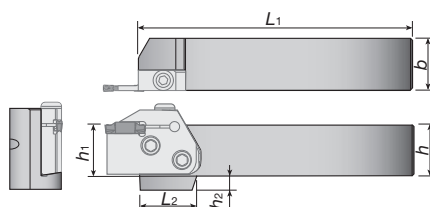
Cat. No.	Stock		Dimensions (mm)							Blades	Parts	
	R	L	h ₁	b	h	L ₁	b ₁	h ₂	L ₂		Clamping screw	Wrench
CHFVR/L2020	●	●	20	20	20	150	8	12	25	CAER/L CAFR/L	CSHB-6-A	P-4
CHFVR/L2525	●	●	25	25	25	150	3	7	25			
CHFVR/L3232	●	●	32	32	32	170	-	-	25			

Combination of blade and toolholder

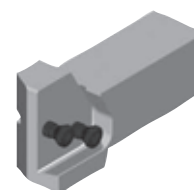
Toolholders	Blades			
	CAER□□□	CAEL□□□	CAFR□□□	CAFL□□□
CHFVR***		●	●	
CHFVL***	●			●

CHSR/L

Vertical type



Right hand (R) shown.



Toolholders for blades

Cat. No.	Stock		Dimensions (mm)						Blades	Parts	
	R	L	h_1	b	h	L_1	h_2	L_2		Clamping screw	Wrench
CHSR/L2020	●	●	20	20	20	133	12	35	CAER/L CAFR/L	CSHB-6-A	P-4
CHSR/L2525	●	●	25	25	25	133	7	28			
CHSR/L3232	●	●	32	32	32	153	-	28			

Combination of blade and toolholder

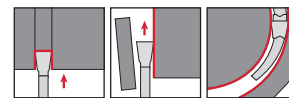
Toolholders	Blades			
	CAER□□□	CAEL□□□	CAFR□□□	CAFL□□□
CHSR***	●			●
CHSL***		●	●	

● : Stocked items.

Applicable inserts

● Notation of "insert seat size"

Seat size and grooving width are different. Seat size measure is for the specification of the setting insert. Please note this point.



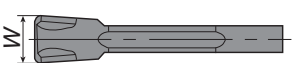
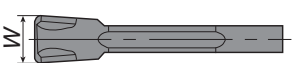
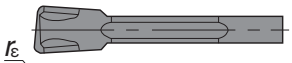
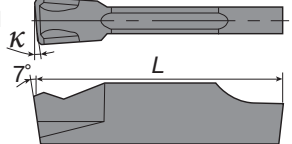
DGM

External grooving and parting off, 2 corners

		Insert seat size	Cat. No.	Grades				Dimensions (mm)				
				Coated								
				AH725		GH130						
				R	L	R	L	W±0.05	r _E	L	h	κ
Neutral		2	DGM2-020	●		●		2	0.2	20	5	-
			DGM2-020-6R/L	●	●	●	●	2	0.2	20	5	6°
DGM2-020-8R/L	●		●	●	●	2	0.2	20	5	8°		
DGM2-020-15R/L	●		●	●	●	2	0.2	20	5	15°		
DGM2-002-15R/L	●		●	●	●	2	0.02	19.6	5	15°		
Left hand		3	DGM3-020			●		3	0.2	20	5	-
			DGM3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
DGM3-002-6R/L	●		●	●	●	3	0.02	19.6	5	6°		
DGM3-020-15R/L	●		●	●	●	3	0.2	20	5	15°		
Right hand			4	DGM4-030			●		4	0.3	20	5
		DGM4-030-4R/L		●	●	●	●	4	0.3	20	5	4°
		DGM4-030-15R/L		●	●	●	●	4	0.3	20	5	15°
5	DGM5-030				●		5	0.3	25	5.5	-	
	DGM5-030-4R	●			●		5	0.3	25	5.5	4°	
6	DGM6-030			●		6	0.3	25	5.5	-		
8	DGM8-040			●		8	0.4	30	6.7	-		

SGM

External deep grooving and parting off, 1 corner

		Insert seat size	Cat. No.	Grades				Dimensions (mm)				
				Coated								
				AH725		GH130						
				R	L	R	L	W±0.05	r _ε	L	h	κ
Neutral		2	SGM2-020	●		●		2	0.2	20	5	-
	SGM2-020-6R/L		●	●	●	●	2	0.2	20	5	6°	
Left hand		3	SGM3-020			●		3	0.2	20	5	-
			SGM3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
			SGM3-020-15R/L	●	●	●	●	3	0.2	20	5	15°
Right hand		4	SGM4-030			●		4	0.3	20	5	-
			SGM4-030-4R/L	●	●	●	●	4	0.3	20	5	4°
		5	SGM5-030			●		5	0.3	25	5.5	-
		6	SGM6-030			●		6	0.3	25	5.5	-

DGS

External grooving and parting off, 2 corners

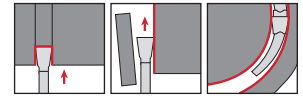
	Insert seat size	Cat. No.	Grades				Dimensions (mm)						
			Coated										
			AH725		GH130		$W \pm 0.05$	r_{ϵ}	L	h	κ		
			R	L	R	L							
Neutral		1	DGS1.4-016	●		●		1.4	0.16	16	4.3	-	
Left hand		2	DGS2-020		●		●		2	0.2	20	5	-
		DGS2-020-6R/L	●	●	●	●	2	0.2	20	5	6°		
		DGS2-002-6R/L	●	●	●	●	2	0.02	19.6	5	6°		
		DGS2-020-15R/L	●	●	●	●	2	0.2	20	5	15°		
		DGS2-002-15R/L	●	●	●	●	2	0.02	19.6	5	15°		
Right hand		3	DGS3-020		●		●		3	0.2	20	5	-
		DGS3-020-6R/L	●	●	●	●	3	0.2	20	5	6°		
		DGS3-002-6R/L	●	●	●	●	3	0.02	19.6	5	6°		
		DGS3-020-15R/L	●	●	●	●	3	0.2	20	5	15°		
		DGS3-002-15R/L	●	●	●	●	3	0.02	19.6	5	15°		
		4	DGS4-030		●		●		4	0.3	20	5	-
		DGS4-030-4R/L	●	●	●	●	4	0.3	20	5	4°		
		5	DGS5-030		●		●		5	0.3	25	5.5	-
		6	DGS6-030		●		●		6	0.3	25	5.5	-

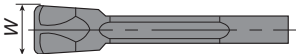
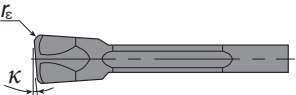
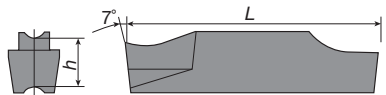
* For special inserts of TungCut, please refer to page 6-94.

● : Stocked items.

SGS

External deep grooving and parting off, 1 corner

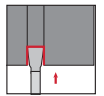


Neutral	
	W
Left hand	
Right hand	
	r_e
	κ
	
	T
	L
	h

Insert seat size	Cat. No.	Grades				Dimensions (mm)				
		Coated								
		AH725		GH130		$W \pm 0.05$	r_e	L	h	κ
		R	L	R	L					
2	SGS2-020	●		●		2	0.2	20	5	-
	SGS2-020-6R/L	●	●	●	●	2	0.2	20	5	6°
	SGS2-020-15R/L	●	●	●	●	2	0.2	20	5	15°
3	SGS3-020		●		●	3	0.2	20	5	-
	SGS3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
	SGS3-002-6R/L	●	●	●	●	3	0.02	19.8	5	6°
	SGS3-020-15R/L	●	●	●	●	3	0.2	20	5	15°
	SGS3-002-15R/L	●	●	●	●	3	0.02	19.8	5	15°
4	SGS4-030		●		●	4	0.3	20	5	-
5	SGS5-030		●		●	5	0.3	25	5.5	-
6	SGS6-030		●		●	6	0.3	25	5.5	-

DGE

External grooving (Ground), 2 corners

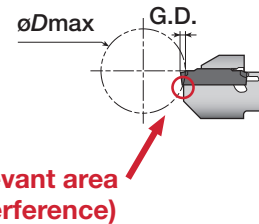


	Insert seat size	Cat. No.	Grades		Dimensions (mm)				
Coated			W±0.02	r _E ±0.05	L ₁	L	h		
AH725								GH130	
	2	DGE100-000	●	●	1	0	2.5	20	5
		DGE130-000	●	●	1.3	0	2.5	20	5
		DGE160-010	●	●	1.6	0.1	2.5	20	5
		DGE185-010	●	●	1.85	0.1	3.5	20	5
		DGE215-015	●	●	2.15	0.15	3.5	20	5

● Caution for DGE

ϕD_{max} is limited as shown in picture in right according to groove depth, G.D. Please refer to the following table. G.D. = Groove depth

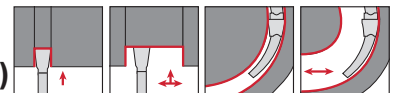
Cat. No.	Max. groove depth	ϕD_{max}				
		G.D. = 1	G.D. = 1.5	G.D. = 2	G.D. = 2.5	G.D. = 3
DGE100-000	2	∞	18.6	11.5	-	-
DGE130-000					-	-
DGE160-010					-	-
DGE185-010	3	∞	18.6	11.5	8.8	7
DGE215-015					8.8	7



Relevant area (Interference)

DTE

External, face grooving and traversing (Ground)



	Insert seat size	Cat. No.	Grades			Dimensions (mm)			
			Coated		Cermet	$W \pm 0.02$	$r_e \pm 0.05$	L	h
			AH725	GH130	NS530				
	3	DTE265-015	●	●	★	2.65	0.15	20	5
		DTE300-020	●	●	★	3	0.2	20	5
		DTE300-040	●	●	★	3	0.4	20	5
		DTE315-015	●	●	★	3.15	0.15	20	5
	4	DTE400-040	●	●	★	4	0.4	20	5
		DTE400-080	●	●	★	4	0.8	20	5
		DTE415-015	●	●	★	4.15	0.15	20	5
		DTE478-055	●	●	★	4.78	0.55	25	5.5
	5	DTE500-040	●	●	★	5	0.4	25	5.5
		DTE500-080	●	●	★	5	0.8	25	5.5
		DTE515-015	●	●		5.15	0.15	25	5.5
		DTE600-080	●	●		6	0.8	25	5.5
	6	DTE600-120	●	●		6	1.2	25	5.5
		DTE800-080	●	●		8	0.8	30	6.7
	8	DTE800-120	●	●		8	1.2	30	6.7

● : Stocked items

★ : Available in 2013

* For special inserts of TungCut, please refer to page 6-94.

CTER/L, JCTER/L, CAER/L inserts

Applicable inserts

● Notation of "insert seat size"

Seat size and grooving width are different. Seat size measure is for the specification of the setting insert. Please note this point.



DTE

External, face grooving and traversing (Molded)

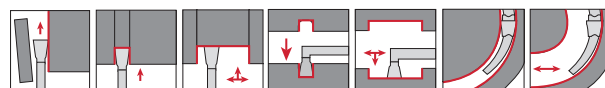
	Insert seat size	Cat. No.	Grades			Dimensions (mm)			
			Coated		Cermet	$W \pm 0.05$	r_E	L	h
			AH725	GH130	NS530				
3	3	DTE3-040	●	●	★	3	0.4	20	5
4	4	DTE4-040	●	●	★	4	0.4	20	5

6

Parting and Grooving Tools

DTX

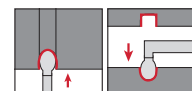
External, internal, face grooving and traversing



	Insert seat size	Cat. No.	Grades		Dimensions (mm)			
			Coated		$W \pm 0.05$	r_E	L	h
			AH725	GH130				
3	3	DTX3-030	●	●	3	0.3	20	5
4	4	DTX4-040	●	●	4	0.4	20	5
5	5	DTX5-040	●	●	5	0.4	25	5.5

DTR

Profiling and undercutting (Ground)



	Insert seat size	Cat. No.	Grades		Dimensions (mm)			
			Coated		$W \pm 0.02$	r_E	L	h
			AH725	GH130				
3	3	DTR300-150	●	●	3	1.5	20	5
4	4	DTR400-200	●	●	4	2	20	5
5	5	DTR478-239	●	●	4.78	2.39	25	5.5
		DTR500-250	●	●	5	2.5	25	5.5
6	6	DTR600-300	●	●	6	3	25	5.5

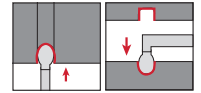
Profiling and undercutting (Molded)

	Insert seat size	Cat. No.	Grades		Dimensions (mm)			
			Coated		$W \pm 0.05$	r_E	L	h
			AH725	GH130				
3	3	DTR3-150	●	●	3	1.5	20	5
4	4	DTR4-200	●	●	4	2	20	5
5	5	DTR5-250	●	●	5	2.5	25	5.5
6	6	DTR6-300	●	●	6	3	25	5.5
8	8	DTR8-400	●	●	8	4	30	6.7

● : Stocked items

★ : Available in 2013

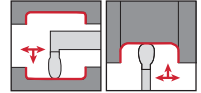
* For special inserts of TungCut, please refer to page 6-94.



DTIU

Profiling and undercutting (Ground)

Insert seat size	Cat. No.	Grades		Dimensions (mm)			
		Coated		$W \pm 0.02$	r_ϵ	L	h
		AH725	GH130				
3	DTIU300-150	●	●	3v	1.5	20	5
4	DTIU400-200	●	●	4	2	20	5
5	DTIU500-250	●	●	5	2.5	25	5.5
6	DTIU600-300	●	●	6	3	25	5.5



DTA

Aluminium wheel machining (Ground)

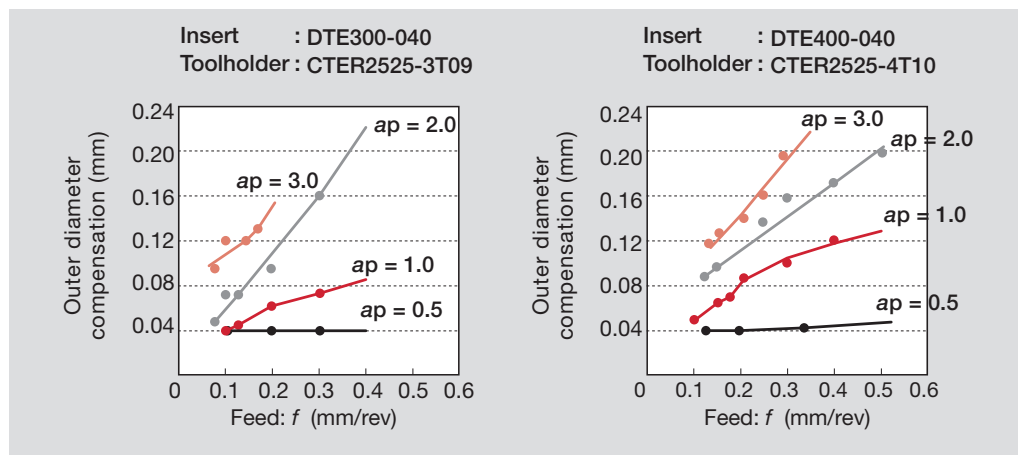
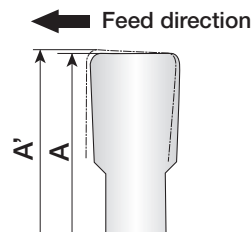
Insert seat size	Cat. No.	Grades		Dimensions (mm)				
		Carbide		$W \pm 0.02$	r_ϵ	L	h	A
		TH10						
6	DTA600-300	●		6	3	25	5.5	7°
8	DTA800-400	●		8	4	30	6.7	10°

● : Stocked items.

* For special inserts of TungCut, please refer to page 6-94.

Notice in “traversing”

When traversing, the insert is pushed by the directional cutting force feed. As a result of this condition the diameter of the workpiece may change. (See picture on right) In such cases, trial cutting is essential to measure the actual diameter. For your reference, the compensated values (SAMPLES) are shown in the following graph.



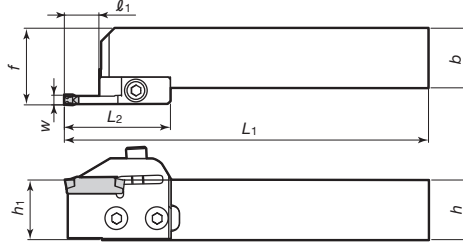
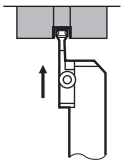
CGWS-WG

Width
3.0~5.0mmMax. Groove Depth
≤ 12.0mm, ≤ 13.0mm2
Corners

Blade type

External grooving

CGWS R/L-WG



Right hand (R) shown.

Toolholders (Blade type)

Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)							Parts			
		R	L			h ₁	b	h	L ₁	f	ℓ ₁	L ₂	Shank	Stock R L	Blade set	Stock R L
3	CGWSR/L2020-W30GR/L	●	●	WGE30 WGE30R/L WGT30 WGR30	12	20	20	20	150.5	26.9	13.5	43.5	CGWSR/L2020	●	W30G R/L	●
	CGWSR/L2525-W30GR/L	●	●			25	25	25		31.9			CGWSR/L2525	●		
4	CGWSR/L2020-W40GR/L	●	●	WGE40 WGE40R/L WGT40 WGR40	13	20	20	20	151.5	26.9	14.5	44.5	CGWSR/L2020	●	W40G R/L	●
	CGWSR/L2525-W40GR/L	●	●			25	25	25		31.9			CGWSR/L2525	●		
5	CGWSR/L2020-W50GR/L	●	●	WGE50 WGE50R/L WGT50 WGR50	13	20	20	20	151.5	26.9	14.5	44.5	CGWSR/L2020	●	W50G R/L	●
	CGWSR/L2525-W50GR/L	●	●			25	25	25		31.9			CGWSR/L2525	●		

My-T G series for external grooving

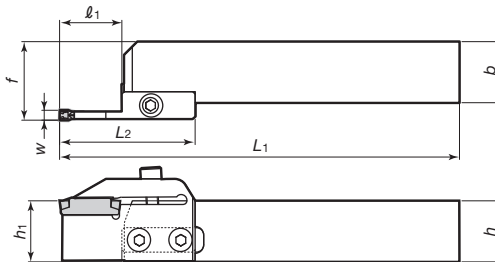
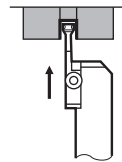
CGWS-WG-L

Width
2.0~5.0mmMax. Groove Depth
≤ 15.0mm, ≤ 21.5mm2
Corners

Blade type

External deep grooving

CGWS R/L-WG-L



Deep Grooving

Right hand (R) shown.

Toolholders (Blade type)

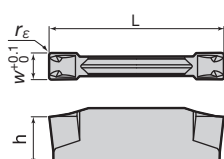
Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)							Parts			
		R	L			h ₁	b	h	L ₁	f	ℓ ₁	L ₂	Shank	Stock R L	Blade set	Stock R L
2	CGWSR/L2020-W20GR/L-L	●	●	WGE20 WGE20R/L	15	20	20	20	153.5	26.7	16.5	46.5	CGWSR/L2020	●	W20G R/L-L	●
	CGWSR/L2525-W20GR/L-L	●	●			25	25	25		31.7			CGWSR/L2525	●		
3	CGWSR/L2020-W30GR/L-L	●	●	WGE30 WGE30R/L WGT30 WGR30	16.5 16.5 16.5 17.5	20	20	20	157.5	26.9	20.5	50.5	CGWSR/L2020	●	W30G R/L-L	●
	CGWSR/L2525-W30GR/L-L	●	●			25	25	25		31.9			CGWSR/L2525	●		
4	CGWSR/L2020-W40GR/L-L	●	●	WGE40 WGE40R/L WGT40 WGR40	21 21 21 21.5	20	20	20	162.5	26.9	25.5	55.5	CGWSR/L2020	●	W40G R/L-L	●
	CGWSR/L2525-W40GR/L-L	●	●			25	25	25		31.9			CGWSR/L2525	●		
5	CGWSR/L2020-W50GR/L-L	●	●	WGE50 WGE50R/L WGT50 WGR50	21	20	20	20	162.5	26.9	25.5	55.5	CGWSR/L2020	●	W50G R/L-L	●
	CGWSR/L2525-W50GR/L-L	●	●			25	25	25		31.9			CGWSR/L2525	●		

- Notes:
- Max. groove depth may differ by using inserts.
 - When ordering, Shank and blade ass'y Cat. No. or Shank and Blade set are required.
 - When using a right or left hand blade set, the right hand blade set is used with right hand shank and the left hand blade set is used with left hand shank.

● : Stocked items.

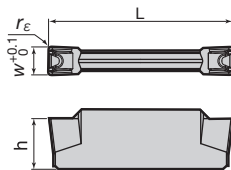
Applicable inserts

For general parting off and grooving



Cat. No.	Grades			Dimensions (mm)			
	Coated		Cermet	W	L	h	r _E
	T9125	GH730					
WGE20	●	●	●	2	20	4.7	0.2
WGE30	●	●	●	3		5.5	
WGE40	●	●	●	4	25	5.7	
WGE50	●	●	●	5		5.9	

For traversing



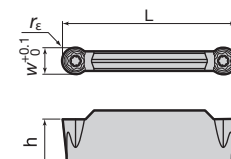
Cat. No.	Grades			Dimensions (mm)			
	Coated		Cermet	W	L	h	r _E
	T9125	GH730					
WGT30	●	●	●	3	20	5.5	0.4
WGT40	●	●	●	4	25	5.7	
WGT50	●	●	●	5		5.9	

For parting off
(with hand)

Right hand (R) shown.

Cat. No.	Grades						Dimensions (mm)							
	Coated				Cermet		W	L	h	r _E				
	T9125		GH730		NS730									
	R	L	R	L	R	L								
WGE20R/L			●	●	●	●	2	20	4.7	0.2				
WGE30R/L			●	●	●	●	3		5.5					
WGE40R/L			●	●	●	●	4	25	5.7					
WGE50R/L			●	●	●	●	5		5.9					

For profiling



Cat. No.	Grades			Dimensions (mm)			
	Coated		Cermet	W	L	h	r _E
	T9125	GH730					
WGR30	●	●	●	3	20	5.5	1.5
WGR40	●	●	●	4	25	5.7	2.0
WGR50		●	●	5		5.9	2.5

Parts

(Blade type)

Cat. No.	Clamping screw	Blade fixing screw	Wrench
CGWSR/L□□□□-□□WGR/L			
CGWSR/L□□□□-□□WGR/L-L	CHHM5-18	CSHB-6	P-4

Standard cutting conditions

Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels Alloy steels (~ HB150)	T9125	80 ~ 200
	NS730	100 ~ 200
	GH730	50 ~ 180
Medium carbon steels Alloy steels (HB150 ~ 250)	T9125	80 ~ 180
	NS730	80 ~ 180
	GH730	50 ~ 150
High carbon steels Alloy steels (HB250 ~)	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 150
	GH730	50 ~ 120
Grey and ductile cast irons	T9125	80 ~ 200
	GH730	50 ~ 180

Operation	Feed: f (mm/rev)			
	Groove width W: (mm)			
	2	3	4	5
Grooving (WGE□□)	0.06 ~ 0.20	0.06 ~ 0.25	0.07 ~ 0.27	0.07 ~ 0.30
Parting off (WGE□□R/L)	0.04 ~ 0.10	0.04 ~ 0.14	0.04 ~ 0.14	0.04 ~ 0.14
Traversing (WGT□□)	—	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
Profiling (WGR□□)	—	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3

Note: For diameter compensation values in traversing, see page 6-39.

● : Stocked items.

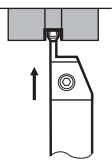
CGWS-W

Width
3.0~5.0mmMax. Groove Depth
≤ 12.0mm, ≤ 13.0mm2
Corners

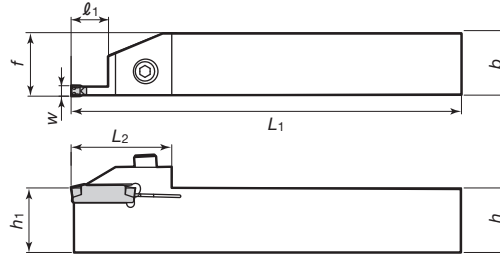
Mono block without offset

External grooving

CGWS R/L-W



● Without offset



Right hand (R) shown.

Toolholders (Mono block type)

Groove width W (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						
		R	L			h ₁	b	h	L ₁	f	ℓ ₁	L ₂
3	CGWSR/L1616-W30	●		WGE30 WGE30R/L WGT30 WGR30	12	16	16	16	125	16.4	13.5	34
	CGWSR/L2020-W30	●	●			20	20	20		20.4		
	CGWSR/L2525-W30	●				25	25	25		25.4		
4	CGWSR/L2020-W40	●		WGE40 WGE40R/L WGT40 WGR40	13	20	20	20	150	20.4	14.5	39
	CGWSR/L2525-W40	●				25	25	25		25.4		
5	CGWSR/L2020-W50	●	●	WGE50 WGE50R/L WGT50 WGR50	13	20	20	20		20.4		
	CGWSR/L2525-W50		●			25	25	25		25.4		

My-T G series for external grooving

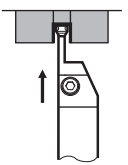
CGWS-W-L

Width
2.0~5.0mmMax. Groove Depth
≤ 15.0mm, ≤ 21.5mm2
Corners

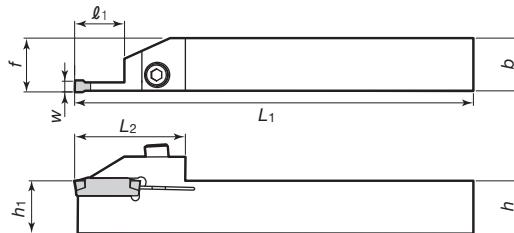
Mono block without offset

External deep grooving

CGWS R/L-W-L



● Without offset



Deep Grooving

Right hand (R) shown.

Toolholders (Mono block type)

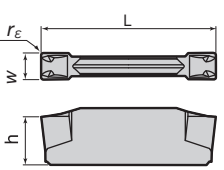
Groove width W (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						
		R	L			h ₁	b	h	L ₁	f	ℓ ₁	L ₂
2	CGWSR/L1616-W20-L	●		WGE20 WGE20R/L	15	16	16	16	125	16.2	16.5	37
	CGWSR/L2020-W20-L	●	●			20	20	20		20.2		
	CGWSR/L2525-W20-L	●	●			25	25	25		25.2		
3	CGWSR/L1616-W30-L	●		WGE30 WGE30R/L WGT30 WGR30	16.5	16	16	16	125	16.4	20.5	42
	CGWSR/L2020-W30-L	●	●		16.5	20	20	20		20.4		
	CGWSR/L2525-W30-L	●	●		17.5	25	25	25		25.4		
4	CGWSR/L2020-W40-L	●		WGE40 WGE40R/L WGT40 WGR40	21	20	20	20	150	20.4	25.5	42
	CGWSR/L2525-W40-L	●			21	25	25	25		25.4		
5	CGWSR/L2020-W50-L	●	●	WGE50 WGE50R/L WGT50 WGR50	21.5	20	20	20		20.4		
	CGWSR/L2525-W50-L	●	●		21	25	25	25		25.4		

Note: ● Max. groove depth may differ by using inserts.

● : Stocked items.

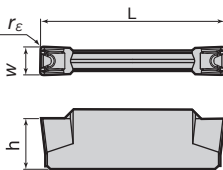
Applicable inserts

For general parting off and grooving



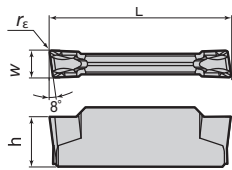
Cat. No.	Grades			Dimensions (mm)			
	Coated		Cermet	w	L	h	r _E
	T9125	GH730	NS730				
WGE20	●	●	●	2	20	4.7	0.2
WGE30	●	●	●	3		5.5	
WGE40	●	●	●	4	25	5.7	
WGE50	●	●	●	5		5.9	

For traversing



Cat. No.	Grades			Dimensions (mm)			
	Coated		Cermet	w	L	h	r _E
	T9125	GH730	NS730				
WGT30	●	●	●	3	20	5.5	0.4
WGT40	●	●	●	4	25	5.7	
WGT50	●	●	●	5		5.9	

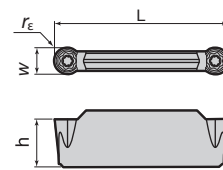
For parting off (with hand)



Right hand (R) shown.

Cat. No.	Grades			Dimensions (mm)			
	Coated		Cermet	w	L	h	r _E
	T9125	GH730	NS730				
WGE20R/L	●	●	●	2	20	4.7	0.2
WGE30R/L	●	●	●	3		5.5	
WGE40R/L	●	●	●	4	25	5.7	
WGE50R/L	●	●	●	5		5.9	

For profiling



Cat. No.	Grades			Dimensions (mm)			
	Coated		Cermet	w	L	h	r _E
	T9125	GH730	NS730				
WGR30	●	●	●	3	20	5.5	1.5
WGR40	●	●	●	4	25	5.7	2.0
WGR50	●	●	●	5		5.9	2.5

Parts

(Mono block type)

Cat. No.	Clamping screw	Wrench
CGWSR/L□□□□-□□-W		
CGWSR/L□□□□-□□-W-L		
	CHHM5-18	P-4

Standard cutting conditions

Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels Alloy steels (~ HB150)	T9125	80 ~ 200
	NS730	100 ~ 200
	GH730	50 ~ 180
Medium carbon steels Alloy steels (HB150 ~ 250)	T9125	80 ~ 180
	NS730	80 ~ 180
	GH730	50 ~ 150
High carbon steels Alloy steels (HB250 ~)	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 150
	GH730	50 ~ 120
Grey and ductile cast irons	T9125	80 ~ 200
	GH730	50 ~ 180

Operation	Feed: f (mm/rev)			
	Groove width: W (mm)			
	2	3	4	5
Grooving (WGE□□)	0.06 ~ 0.20	0.06 ~ 0.25	0.07 ~ 0.27	0.07 ~ 0.30
Parting off (WGE□□R/L)	0.04 ~ 0.10	0.04 ~ 0.14	0.04 ~ 0.14	0.04 ~ 0.14
Traversing (WGT□□)	-	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
Profiling (WGR□□)	-	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3

Note: For diameter compensation values in traversing, see page 6-39.

● : Stocked items.

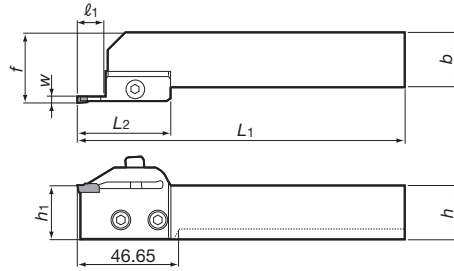
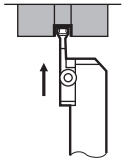
CGWS-G

Width
2.0~5.0mmMax. Groove Depth
≤ 12.0mm1
Corner

S: Vertical type

External grooving

CGWS R/L-G



Right hand (R) shown.
The dashed line shows 20 mm-square shank tools.

Toolholders (S: Vertical type)

Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)							Parts			
		R	L			h_1	b	h	L_1	f	ℓ_1	L_2	Shank	Stock R L	Blade set	Stock R L
2	CGWSR/L2020-20GR/L	●	●	GE20	12	20	20	20	150.2	26.8	13.15	43.15	CGWSR/L2020	●	20GR/L	●
	CGWSR/L2525-20GR/L	●	●	GE20-AL		25	25	25		31.8			CGWSR/L2525	●		
3	CGWSR/L2020-30GR/L	●	●	GE30	12	20	20	20		27			CGWSR/L2020	●	30GR/L	●
	CGWSR/L2525-30GR/L	●	●	GE30R/L GT30 GR30 GE30-AL		25	25	25		32			CGWSR/L2525	●		
4	CGWSR/L2020-40GR/L	●	●	GE40	12	20	20	20		27.1			CGWSR/L2020	●	40GR/L	●
	CGWSR/L2525-40GR/L	●	●	GE40R/L GT40 GR40 GE40-AL		25	25	25		32.1			CGWSR/L2525	●		
5	CGWSR/L2020-50GR/L	●	●	GE50	12	20	20	20		27.2			CGWSR/L2020	●	50GR/L	●
	CGWSR/L2525-50GR/L	●	●	GE50R/L GT50 GR50		25	25	25		32.2			CGWSR/L2525	●		

Notes: • When ordering, Shank and blade ass'y Cat. No. or Shank and Blade-set are required.
• When using a right or left hand blade-set, the right hand blade-set is used with right hand shank and the left hand blade-set is used with left hand shank.

My-T G series for external grooving

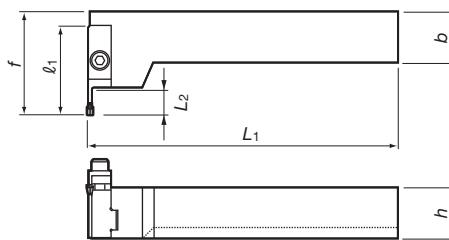
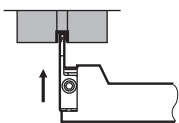
CGWT-G

Width
3.0~5.0mmMax. Groove Depth
≤ 12.0mm1
Corner

T: Horizontal type

External grooving

CGWT R/L-G



Right hand (R) shown.
The dashed line shows 20 mm-square shank tools.

Toolholders (T: Horizontal type)

Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						Parts											
		R	L			b	h	L ₁	f	ℓ ₁	L ₂	Shank	Stock		Blade set	Stock							
													R	L		R	L						
3	CGWTR/L2020-30GL/R			GE30 GE30R/L	12	20	20	150	49.9	43.15	12.9	CGWTR/L2020	●	●	30GL/R	●	●						
	CGWTR/L2525-30GL/R			GT30 GR30 GE30-AL		25	25					CGWTR/L2525	●	●									
4	CGWTR/L2020-40GL/R			GE40 GE40R/L	12	20	20	150.1				49.9	43.15	12.9	CGWTR/L2020	●	●	40GL/R	●	●			
	CGWTR/L2525-40GL/R			GT40 GR40 GE40-AL		25	25								CGWTR/L2525	●	●						
5	CGWTR/L2020-50GL/R			GE50 GE50R/L	12	20	20	150.2							49.9	43.15	12.9	CGWTR/L2020	●	●	50GL/R	●	●
	CGWTR/L2525-50GL/R			GT50 GR50		25	25											CGWTR/L2525	●	●			

Notes: • When ordering, Shank and blade ass'y Cat. No. or Shank and Blade-set are required.
• When using a right or left hand blade-set, the right hand blade-set is used with left hand shank and the left hand blade-set is used with right hand shank.

● : Stocked items.

Applicable inserts

For general parting off and grooving

Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GE20		●	●	●	2	10	3.5	0.2
GE30	●	●	●	●	3		4.0	
GE40	●	●	●	●	4		4.5	
GE50	●	●	●	●	5		4.5	

For traversing

Technical drawing of a turning tool with a cutting insert. The top view shows a cylindrical tool with a cutting insert of width $W_{0.1}$ and length L . The bottom view shows the tool's profile with height h and a rounded nose radius r_E .

Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r_E
	T9125	GH730	NS530	NS730				
GT30		●	●	●	3	10	3.5	0.4
GT40		●	●	●	4		4.0	
GT50	●	●	●	●	5	12	4.5	

Right hand (R) shown.

Cat. No.	Grades						Dimensions (mm)							
	Coated				Cermet		W	L	h	r_E				
	T9125		GH730		NS730									
	R	L	R	L	R	L								
GE30R/L			●	●	●	●	3	10	3.5	0.2				
GE40R/L			●	●	●	●	4		4.0					
GE50R/L			●	●	●	●	5	12	4.5					

For aluminium and non-ferrous metals

Cat. No.	Grades		Dimensions (mm)			
	Uncoated		W	L	h	r _E
	KS05F					
GE20-AL	●		2	10	3.5	0.2
GE30-AL	●		3		4.0	
GE40-AL	●		4		4.5	

For profiling

Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GR30		●	●	●	3	10	3.5	1.5
GR40	●	●	●	●	4		4.0	2.0
GR50	●	●	●	●	5		4.5	2.5

Parts

(Blade type)

Cat. No.	Clamping screw	Blade fixing screw	Wrench
CGWSR/L□□□□-□□WGR/L			
CGWSR/L□□□□-□□WGR/L-L	CHHM5-18	CSHB-6	P-4

Standard cutting conditions

Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels	T9125	80 ~ 200
	NS730	100 ~ 200
	GH730	50 ~ 180
Alloy steels (~ 150HB)	T9125	80 ~ 180
	NS730	80 ~ 180
	GH730	50 ~ 150
Medium carbon steels	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Alloy steels (150 ~ 250HB)	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
High carbon steels	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Alloy steels (250HB ~)	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 200
	NS730	50 ~ 180
	GH730	200 ~ 300
Grey and ductile cast irons	T9125	80 ~ 200
	NS730	50 ~ 180
Aluminium alloys, Non-ferrous metals	KS05F	200 ~ 300

Operation	Feed: f (mm/rev)			
	Groove width: W (mm)			
	2	3	4	5
Grooving (GE□□)	0.06 ~ 0.20	0.06 ~ 0.25	0.07 ~ 0.27	0.07 ~ 0.30
Parting off (GE□□R/L)	0.04 ~ 0.10	0.04 ~ 0.14	0.04 ~ 0.14	0.04 ~ 0.14
Traversing (GT□□)	-	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
Profiling (GR□□)	-	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3
Grooving for Aluminium alloys (GE□□-AL)	0.03 ~ 0.1	0.03 ~ 0.1	0.03 ~ 0.1	-

Note: For diameter compensation values in traversing, see page 6-39.

● : Stocked items.

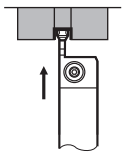
CGSS

Width
2.0~5.0mmMax. Groove Depth
≤ 12.0_{mm}, ≤ 16.0_{mm}1
Corner

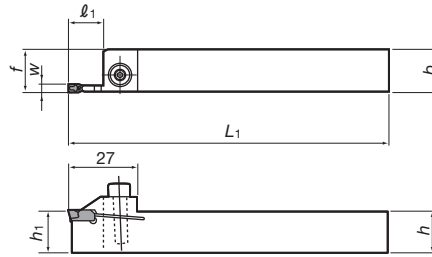
Mono block without offset

External grooving

CGSS R/L



● Without offset



Right hand (R) shown.

Toolholders (Mono block type)

Groove width W (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)					
		R	L			h ₁	b	h	L ₁	f	ℓ ₁
2	CGSSR/L1616-20	●	●	GE20 GE20-AL	16	16	16	16	125	16.2	17
	CGSSR/L2020-20	●	●			20	20	20	150	20.2	
	CGSSR/L2525-20	●	●			25	25	25	150	25.2	
3	CGSSR/L1616-30	●	●	GE30 GE30R/L GT30 GR30 GE30-AL	12	16	16	16	125	16.5	13.5
	CGSSR/L2020-30	●	●			20	20	20	150	20.5	
	CGSSR/L2525-30	●	●			25	25	25	150	25.5	
4	CGSSR/L1616-40			GE40 GE40R/L GT40 GR40 GE40-AL	12	16	16	16	125	16.6	
	CGSSR/L2020-40	●	●			20	20	20	150	20.6	
	CGSSR/L2525-40	●	●			25	25	25	150	25.6	
5	CGSSR/L1616-50			GE50 GE50R/L GT50 GR50	12	16	16	16	125	16.7	
	CGSSR/L2020-50	●	●			20	20	20	150	20.7	
	CGSSR/L2525-50	●	●			25	25	25	150	25.7	

My-T G series for external grooving

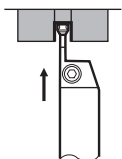
CGSS-D

Width
3.0~5.0mmMax. Groove Depth
≤ 22.0_{mm}, ≤ 25.0_{mm}1
Corner

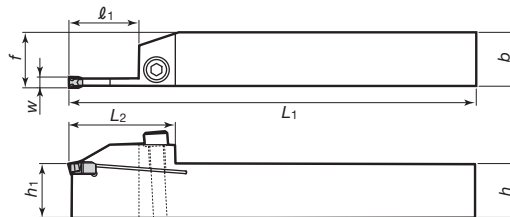
Mono block without offset

External deep grooving

CGSS R/L-D



● Without offset



Deep Grooving

Right hand (R) shown.

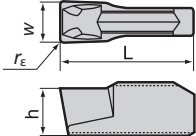
Toolholders (Mono block type)

Groove width W (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						
		R	L			h ₁	b	h	L ₁	f	ℓ ₁	L ₂
3	CGSSR/L1616-30D	●	●	GE30 GE30R/L GE30-AL	22	16	16	16	125	16.5	23	36.2
	CGSSR/L2020-30D	●	●			20	20	20	150	20.5		
	CGSSR/L2525-30D	●	●			25	25	25	150	25.5		
4	CGSSR/L1616-40D			GE40 GE40R/L GE40-AL	25	16	16	16	125	16.6	26	39.5
	CGSSR/L2020-40D	●	●			20	20	20	150	20.6		
	CGSSR/L2525-40D	●	●			25	25	25	150	25.6		
5	CGSSR/L1616-50D			GE50 GE50R/L	25	16	16	16	125	16.7		
	CGSSR/L2020-50D	●	●			20	20	20	150	20.7		
	CGSSR/L2525-50D	●	●			25	25	25	150	25.7		

● : Stocked items.

Applicable inserts

For general parting off and grooving



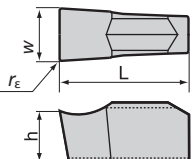
Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GE20		●	●	●	2	10	3.5	0.2
GE30	●	●	●	●	3		4.0	
GE40	●	●	●	●	4		4.5	
GE50	●	●	●	●	5		4.5	

For parting off
(with hand)

Right hand (R) shown.

Cat. No.	Grades						Dimensions (mm)			
	Coated				Cermet		W	L	h	r _E
	T9125	GH730		NS730						
	R	L	R	L	R	L				
GE30R/L			●	●	●	●	3	10	3.5	0.2
GE40R/L			●	●	●	●	4		4.0	
GE50R/L			●	●	●	●	5	12	4.5	

For aluminium and non-ferrous metals



Cat. No.	Grades		Dimensions (mm)			
	Uncoated		W	L	h	r _E
	KS05F					
GE20-AL	●		2	10	3.5	0.2
GE30-AL	●		3		4.0	
GE40-AL	●		4		4.5	

Standard cutting conditions

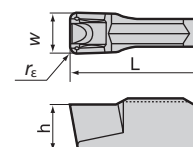
Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels	T9125	80 ~ 200
	NS730	100 ~ 200
	GH730	50 ~ 180
Medium carbon steels	T9125	80 ~ 180
	NS730	80 ~ 180
	GH730	50 ~ 150
High carbon steels	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 150
	GH730	50 ~ 120
Grey and ductile cast irons	T9125	80 ~ 200
	GH730	50 ~ 180
Aluminium alloys, Non-ferrous metals	KS05F	200 ~ 300

Operation	Feed: f (mm/rev)			
	Groove width: W (mm)			
	2	3	4	5
Grooving (GE□□)	0.06 ~ 0.20	0.06 ~ 0.25	0.07 ~ 0.27	0.07 ~ 0.30
Parting off (GE□□R/L)	0.04 ~ 0.10	0.04 ~ 0.14	0.04 ~ 0.14	0.04 ~ 0.14
Traversing (GT□□)	-	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
Profiling (GR□□)	-	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3
Grooving for Aluminium alloys (GE□□-AL)	0.03 ~ 0.1	0.03 ~ 0.1	0.03 ~ 0.1	-

Note: For diameter compensation values in traversing, see page 6-39.

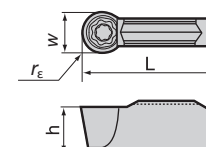
● : Stocked items.

For traversing



Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GT30		●	●	●	3	10	3.5	0.4
GT40		●	●	●	4		4.0	
GT50	●	●	●	●	5		4.5	

For profiling



Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GR30		●	●	●	3	10	3.5	1.5
GR40	●	●	●	●	4		4.0	2.0
GR50	●	●	●	●	5		4.5	2.5

Parts

(Mono block type)

Cat. No.	Clamping screw	Wrench
		
CGSSR/L□□□□-□□	CHHM5-18	P-4
CGSSR/L□□□□-□□-D		

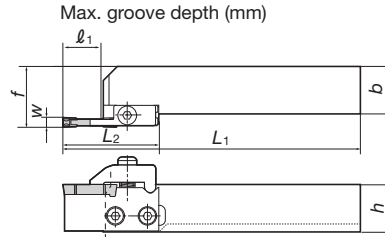
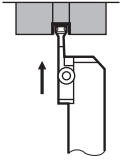
CGWS-CGD

Width
2.0~8.0mmMax. Groove Depth
≤ 16.0mm, ≤ 21.6mm2
Corners

S: Vertical type

External grooving

CGWS R/L



Right hand (R) shown.
The dashed line shows 20 mm square shank tools.

Toolholders (S: Vertical type)

Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Max. parting off dia. (mm)	Dimensions (mm)					Parts				
		R	L				b	h	L ₁	f	L ₂	Shank	Stock R L	Blade set	Stock R L	
2	CGWSR/L2020-CGDR/L2	●	●	CGD200	16	35	20	20	152	26.45	45	CGWSR/L2020	●	CGDR/L2	●	
	CGWSR/L2525-CGDR/L2		●				25	25		31.45		CGWSR/L2525	●			
3	CGWSR/L2020-CGDR/L3		●	CGD300	21.6	46	20	20	157.6	26.45	50.6	CGWSR/L2020	●	CGDR/L3	●	●
	CGWSR/L2525-CGDR/L3	●					25	25		31.45		CGWSR/L2525	●			
4	CGWSR/L2020-CGDR/L4	●	●	CGD400	21.6	46	20	20	157.6	26.65	50.6	CGWSR/L2020	●	CGDR/L4	●	
	CGWSR/L2525-CGDR/L4	●	●				25	25		31.65		CGWSR/L2525	●			
5	CGWSR/L2020-CGDR/L5	●	●	CGD500	21.6	46	20	20	157.6	26.95	50.6	CGWSR/L2020	●	CGDR/L5	●	
	CGWSR/L2525-CGDR/L5		●				25	25		31.95		CGWSR/L2525	●			
6	CGWSR/L2020-CGDR/L6	●	●	CGD600	21.6	46	20	20	157.6	27.1	50.6	CGWSR/L2020	●	CGDR/L6		●
	CGWSR/L2525-CGDR/L6	●	●				25	25		32.1		CGWSR/L2525	●			
7-8	CGWSR/L2525-8	●		CGD700	21.6	50			150	26.35	-	-		-		
	CGWSR/L3232-8	●		CGD800			32	32	170	33.35		-		-		

Notes: • When ordering, Shank and blade ass'y Cat. No. or Shank and Blade-set are required.
• When using a right or left hand blade-set, the right hand blade-set is used with right hand shank and the left hand blade-set is used with left hand shank.

My-T CGD series for external grooving

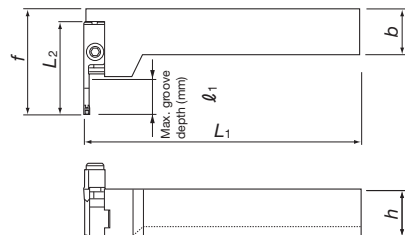
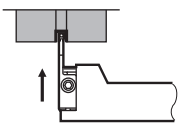
CGWT-CGD

Width
2.0~6.0mmMax. Groove Depth
≤ 13.5mm, ≤ 19.5mm1
Corner

T: Horizontal type

External grooving

CGWT R/L



Max. parting off dia. is
different to CGWSR/L type.
Right hand (R) shown.
The dashed line shows
20 mm square shank tools.

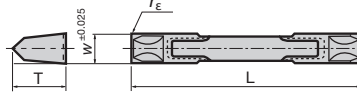
Toolholders (T: Horizontal type)

Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Max. parting off dia. (mm)	Dimensions (mm)					Parts				
		R	L				b	h	L ₁	f	L ₂	Shank	Stock R L	Blade set	Stock R L	
2	CGWTR/L2020-CGDL/R2			CGD200	13.5	27	20	20	149.4	51.75	45	CGWTR/L2020	●	CGDL/R2	●	
	CGWTR/L2525-CGDL/R2						25	25				CGWTR/L2525	●			
3	CGWTR/L2020-CGDL/R3			CGD300	19.5	39	20	20	149.4	57.35	50.6	CGWTR/L2020	●	CGDL/R3	●	●
	CGWTR/L2525-CGDL/R3						25	25				CGWTR/L2525	●			
4	CGWTR/L2020-CGDL/R4			CGD400	19.5	39	20	20	149.6	57.35	50.6	CGWTR/L2020	●	CGDL/R4	●	
	CGWTR/L2525-CGDL/R4						25	25				CGWTR/L2525	●			
5	CGWTR/L2020-CGDL/R5			CGD500	19.5	39	20	20	149.9	57.35	50.6	CGWTR/L2020	●	CGDL/R5	●	
	CGWTR/L2525-CGDL/R5						25	25				CGWTR/L2525	●			
6	CGWTR/L2020-CGDL/R6			CGD600	19.5	39	20	20	150.1	57.35	50.6	CGWTR/L2020	●	CGDL/R6		●
	CGWTR/L2525-CGDL/R6						25	25				CGWTR/L2525	●			

Notes: • When ordering, Shank and blade ass'y Cat. No. or shank and blade-set are required.
• When using a right or left hand blade-set, the right hand blade-set is used with left hand shank and the left hand blade-set is used with right hand shank.

● : Stocked items.

Applicable inserts

				Dimensions (mm)		Cat. No.	Grades			
							Coated	Cermet		Uncoated
								GH330	NS530	
$W \pm 0.025$	L	T	r_E							
2	20	3.25	0.2	CGD200	●	●		●		
3	28.6	6.3		CGD300	●	●		●		
4				CGD400	●	●		●		
5				CGD500	●	●		●		
6				CGD600	●	●		●		
7		8.5		CGD700	●	●		●		
8				CGD800	●	●		●		

Note: When ordering special sizes (2.0~8.5 mm), please contact us.

Packing : 5pcs.

Parts

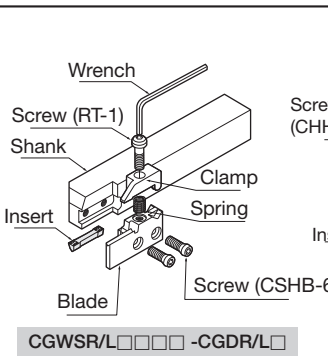


Diagram illustrating the assembly of the CGWSR/L tool. The components shown are: Wrench, Screw (RT-1), Shank, Clamp, Spring, Insert, Blade, and Screw (CSHB-6). The assembly is shown in a disassembled state, with the wrench positioned to tighten the screw (RT-1) into the shank, which is secured by the clamp and spring. The insert is shown being inserted into the blade, which is secured by the screw (CSHB-6).

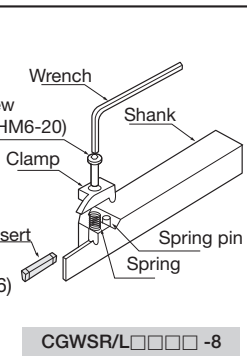
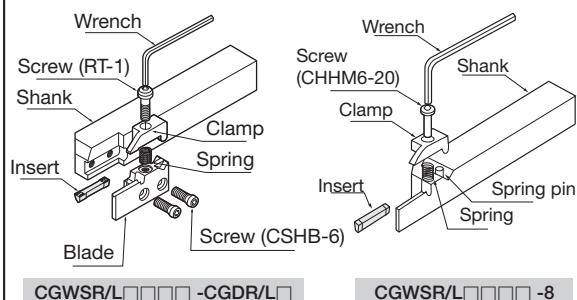


Diagram illustrating the assembly of the CGWSR/L tool. The components shown are: Wrench, Shank, Spring pin, Clamp, Spring, Insert, and Blade. The assembly is shown in a disassembled state, with the wrench positioned to tighten the screw (RT-1) into the shank, which is secured by the clamp and spring. The insert is shown being inserted into the blade, which is secured by the screw (CSHB-6).

Cat. No.	Parts						Applicable insert				
	Blade	Clamp	Clamping screw	Spring pin	Spring	Wrench					
CGDR/L2	TCR/L2	CCR/L2	CSHB-6 (2 pieces) RT-1 (1 piece)	-	BP-9	P-4	CGD200				
CGDR/L3	TCR/L3	CCR/L3					CGD300				
CGDR/L4	TCR/L4	CCR/L4					CGD400				
CGDR/L5	TCR/L5	CCR/L5					CGD500				
CGDR/L6	TCR/L6	CCR/L6	CHHM6-20	5x14AW	BP-9	P-5	CGD600				
CGWSR/L2525-8	-	CCR/L8					CGD700				
CGWSR/L3232-8							CGD800				



Standard cutting conditions

Operation	Cutting speed v_c (m/min)	Groove width: W (mm)						
		Feed: f (mm/rev)						
		2	3	4	5	6	7	8
Grooving Low carbon steels	100 ~ 200	0.08 ~ 0.20	0.08 ~ 0.25	0.08 ~ 0.25	0.08 ~ 0.25	0.08 ~ 0.25	0.08 ~ 0.25	0.08 ~ 0.25
Grooving Medium carbon steels				0.08 ~ 0.30	0.08 ~ 0.30	0.08 ~ 0.30	0.08 ~ 0.30	0.08 ~ 0.30
Parting off	100 ~ 150	0.08 ~ 0.15	0.08 ~ 0.15	0.08 ~ 0.15	0.08 ~ 0.15	0.08 ~ 0.15	0.08 ~ 0.15	0.08 ~ 0.15

● : Stocked items.

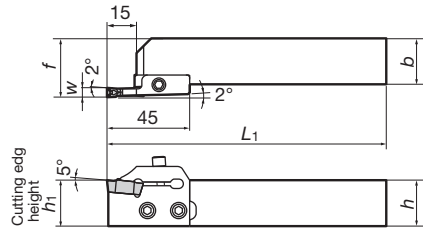
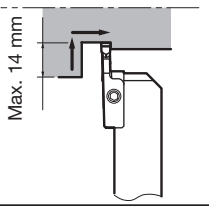
CGWS-FL

Width
3.0~5.0mmMax. Groove Depth
≤ 10.0_{mm}, ≤ 14.0_{mm}2
Corners

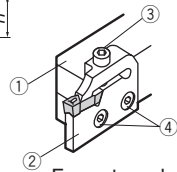
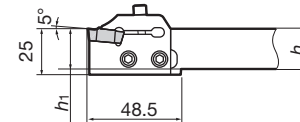
S: Vertical type

External grooving

CGWS R/L



2020 shank type shown



Right hand (R) shown.

Toolholders (S: Vertical type)

Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Shank ①	Stock		Blade set ②	Stock	
		R	L			h ₁	b	h	L ₁	f		R	L		R	L
3	CGWSR/L2020-FLR/L3GP	●	●	FLEX30R/L	10	20	20	20	152	27	CGWSR/L2020	●	●	FLR/L3GP	●	●
4	CGWSR/L2020-FLR/L4GP	●	●	FLEX40R/L	12									FLR/L4GP	●	●
5	CGWSR/L2020-FLR/L5GP	●	●	FLEX50R/L	14									FLR/L5GP	●	●
3	CGWSR/L2525-FLR/L3GP	●	●	FLEX30R/L	10	25	25	25	152	32	CGWSR/L2525	●	●	FLR/L3GP	●	●
4	CGWSR/L2525-FLR/L4GP	●	●	FLEX40R/L	12									FLR/L4GP	●	●
5	CGWSR/L2525-FLR/L5GP	●	●	FLEX50R/L	14									FLR/L5GP	●	●

Notes: • When ordering, Shank and blade ass'y Cat. No. or Shank and Blade-set are required.

• When using a right or left hand blade-set, the right hand blade-set is used with right hand shank and the left hand blade-set is used with left hand shank.

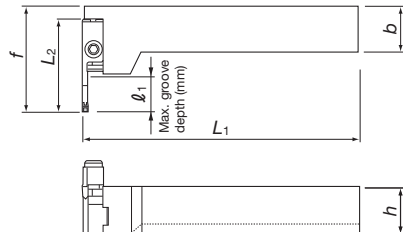
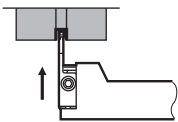
CGWT-FL

Width
3.0~5.0mmMax. Groove Depth
≤ 10.0_{mm}, ≤ 14.0_{mm}2
Corners

T: Horizontal type

External grooving

CGWT R/L



Right hand (R) shown.

Toolholders (T: Horizontal type)

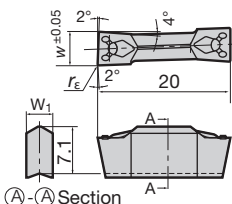
Groove width W (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Shank	Stock		Blade set	Stock	
		R	L			b	h	L ₁	f	L ₂		R	L		R	L
3	CGWTR/L2020-FLL/R3GP	●	●	FLEX30L/R	10	20	20	150	52	45	CGWTR/L2020	●	●	FLL/R3GP	●	●
4	CGWTR/L2020-FLL/R4GP	●	●	FLEX40L/R	12									FLL/R4GP	●	●
5	CGWTR/L2020-FLL/R5GP	●	●	FLEX50L/R	14									FLL/R5GP	●	●
3	CGWTR/L2525-FLL/R3GP	●	●	FLEX30L/R	10	20	20	150	52	45	CGWTR/L2525	●	●	FLL/R3GP	●	●
4	CGWTR/L2525-FLL/R4GP	●	●	FLEX40L/R	12									FLL/R4GP	●	●
5	CGWTR/L2525-FLL/R5GP	●	●	FLEX50L/R	14									FLL/R5GP	●	●

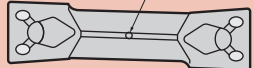
Notes: • When ordering, Shank and blade ass'y Cat. No. or Shank and Blade-set are required.

• When using a right or left hand blade-set, the right hand blade-set is used with left hand shank and the left hand blade-set is used with right hand shank.

● : Stocked items.

Applicable inserts

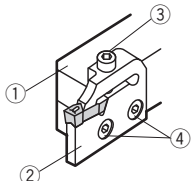
	Dimensions (mm)			Hand	Cat. No.	Grades		
	W	r _ε	W ₁			Coated	Cermet	Uncoated
						T9125	NS530	UX30
	3	0.4	2.15	R	FLEX30R		●	
				L	FLEX30L		●	
	4		3.1	R	FLEX40R		●	
				L	FLEX40L		●	
	5		4	R	FLEX50R	●	●	●
				L	FLEX50L	●	●	●



Left hand inserts are identified with a recessed dot.

Note: ● When using a right or left insert, the right hand insert is used with right hand blade-set and the left hand insert is used with left hand bladeset.

Parts

	Cat. No.	Clamping screw ^③	Blade fixing screw ^④	Wrench
				
		CHHM5-18	CSHB-6	P-4

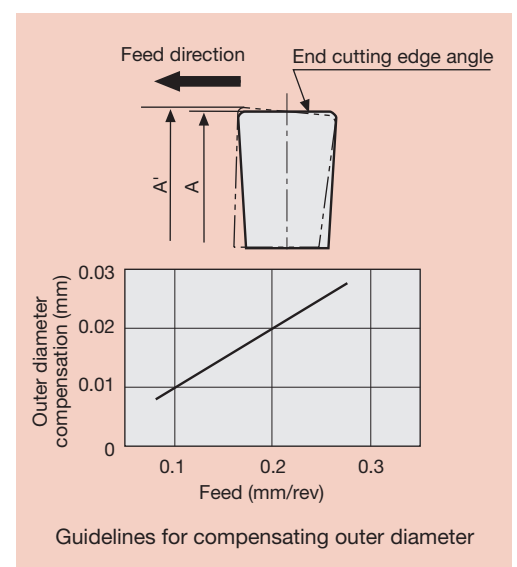
Standard cutting conditions

Insert grades	Insert Cat. No.	Grooving		Lateral feed machining			Coolant
		Cutting speed V _c (m/min)	Feed f (mm/rev)	Cutting speed V _c (m/min)	Feed f (mm/rev)	Depth of cut a _p (mm)	
Coated T9125	FLEX50R/L	80 ~ 150	0.05 ~ 0.3	80 ~ 250	0.1 ~ 0.3	1.0 ~ 2.5	Necessary
Cermet NS530	FLEX30R/L	80 ~ 200	0.05 ~ 0.2	80 ~ 200	0.1 ~ 0.2	0.8 ~ 1.5	
	FLEX40R/L		0.05 ~ 0.25			0.8 ~ 2.0	
	FLEX50R/L		0.05 ~ 0.3		0.1 ~ 0.3	1.0 ~ 2.5	
Uncoated UX30	FLEX50R/L	60 ~ 150	0.05 ~ 0.3	60 ~ 150	0.1 ~ 0.3	1.0 ~ 2.5	

Notes: ● The cutting conditions given above are based on cutting medium carbon steel (S48C, 200HB).
● When the 20 mm square shank tools are used, machining should be performed at approximately 80% of the values shown above.

Cautionary Notes

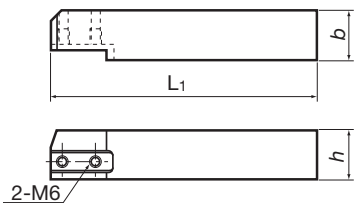
- When performing OD machining, the tool point must be set at a right angle to the axial direction of the work.
- When replacing an insert, the replacement should be made only after completely removing any chips or other foreign matter from the tool clamping area on the holder by using compressed air, etc.
- Never tighten the insert mounting screws when an insert has not been installed since doing so can deform the screws and prevent the future installation of an insert.
- Flex-Tool has mechanism in which the end cutting edge angle is formed by accepting a cutting force. In external grooving, there is a possibility that if the cutting conditions (feed and depth of cut) are set too high, the programmed diameter will not be achieved. To prevent this problem, it is necessary to perform a compensation in the program by an amount that is equal to the amount A'-A that is shown in the drawing on the right. The values of compensation corresponding to the feeds are also shown in the graph.



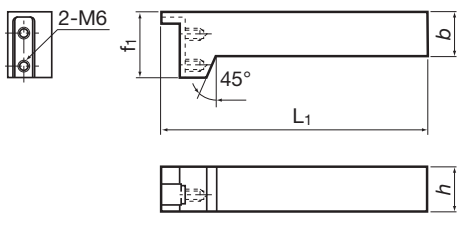
● : Stocked items.

My-T series, Shank

S: Vertical type

	Cat. No.		Stock		Dimensions (mm)			
	R	L	b	h	L ₁	f ₁		
CGWSR/L2020	●	●	20	20	137	–		
CGWSR/L2525	●	●	25	25	137	–		

T: Horizontal type

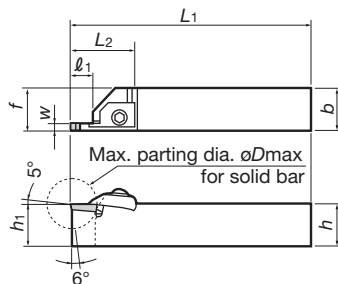
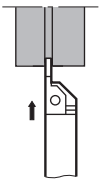
	Cat. No.		Stock		Dimensions (mm)			
	R	L	b	h	L ₁	f ₁		
CGWTR/L2020	●	●	20	20	150	37		
CGWTR/L2525	●	●	25	25	150	37		

CTW

Width
3.0~5.0mmMax. Groove Depth
≤ 14.0mm, ≤ 20.0mm2
Corners

For parting off and grooving

CTW R/L



Right hand (R) shown.

Groove width W (mm)	Cat. No.	Stock		Applicable insert	Groove depth (mm)	Dimensions (mm)						
		R	L			øD _{max}	h ₁	b	h	L ₁	L ₂	f
3	CTWR/L2020-3	●	●	CTD3	14	32	20	20	20	150	41	20.25
	CTWR/L2525-3	●	●				25	25	25			25.25
4	CTWR/L2020-4	●	●	CTD4			20	20	20			20.25
	CTWR/L2525-4	●	●				25	25	25			25.25
5	CTWR/L2525-5	●	●	CTD5	20	42					46	25.25

Applicable Inserts

	Insert Cat. No.	Grade		Dimensions (mm)					
		Coated							
		AH725		W±0.1	L	H ₁	H ₂	r _ε	
	CTD3	●		3	20	4.3	4	0.2	
	CTD4	●		4		5.3	5		
	CTD5	●		5	25	6.3	6		

Package qty : 5pcs.

Parts

Cat. No.	Parts								
	① Clamp	② Clamping screw	③ Clamp pusher	④ Washer	Wrench				
CTWR/L2020-3	CTC-3R/L	CTS-M6	BP-360	CDW6	P-4				
CTWR/L2525-3									
CTWR/L2020-4	CTC-4R/L								
CTWR/L2525-4									
CTWR/L2525-5	CTC-5R/L								

Standard cutting conditions

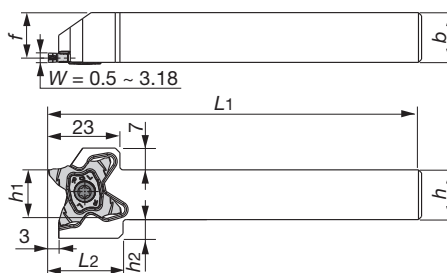
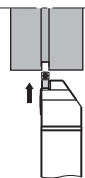
Operation (Work materials)		Cutting speed v _c (m/min)	Feed: f (mm/rev)		
			CTD3	CTD4	CTD5
Grooving	Low carbon steels	100 ~ 150	0.08 ~ 0.25	0.08 ~ 0.25	0.08 ~ 0.25
	Medium carbon steels		0.08 ~ 0.25	0.08 ~ 0.3	0.08 ~ 0.3
Parting off		100 ~ 150	0.08 ~ 0.15		

● : Stocked items.

Width
0.5~3.18mmMax. groove
depth
≤ 6.4mm4
Corners

External grooving

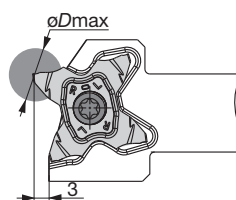
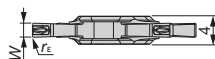
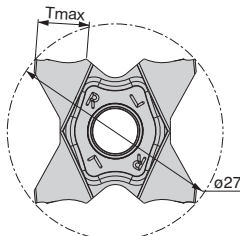
STC R/L



Right hand (R) shown.

Cat. No.	Stock		Dimensions (mm)							Parts		Wrench 
	R	L	h ₁	b	h	L ₁	f	h ₂	L ₂	Screw		
										R	L	
STCR/L1010-27	●	●	10	10	10	120	8.5	9.5	24	SR 16-212-01397L	SR 16-212-01397	T-2010/5
STCR/L1212-27	●	●	12	12	12	120	10.5	8	24	SR 16-212-01397L	SR 16-212-01397	
STCR/L1616-27	●	●	16	16	16	120	14.5	6	24	SR 16-212-01397L	SR 16-212-01397	
STCR/L2020-27	●	●	20	20	20	120	18.5	2	24	SR 16-212-01397L	SR 16-212-01397	
STCR/L2525-27	●	●	25	25	25	135	23.5	-	-	SR 16-212-01397L	SR 16-212-01397	

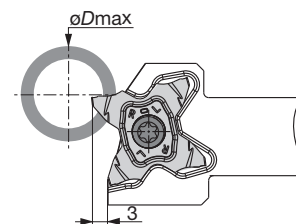
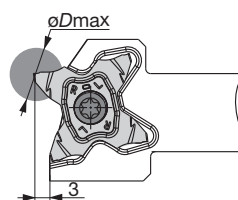
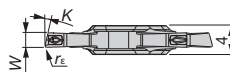
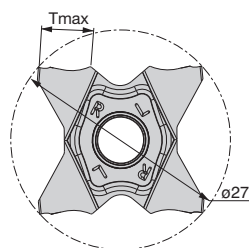
Insert

4 cornered
insert for
grooving and
parting off

Right hand (R) shown.

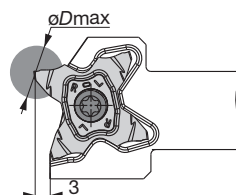
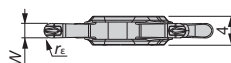
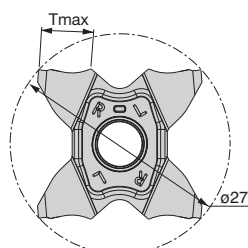
Cat. No.	Stock	Dimensions (mm)				Relation of groove depth (T) and Max. diameter (øDmax)													
	Coating	Cutting edge width W ± 0.02 (mm)	Corner radius r _ε	Max. grooving depth Tmax	Max. parting off diameter (solid bar)	T≤1.0	T≤2.0	T≤3.0	T≤3.5	T≤4.0	T≤4.5	T≤5.0	T≤5.5	T≤5.7	T≤6.0	T≤6.2	T≤6.4		
	AH725																		
TCS27-050-000	●	0.50	0.00	1.0	2.0	∞	-	-	-	-	-	-	-	-	-	-	-	-	
TCS27-050-004	●	0.50	0.04	2.5	5.0	∞	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-075-010	●	0.75	0.10	2.5	5.0	∞	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-080-000	●	0.80	0.00	1.6	3.2	∞	-	-	-	-	-	-	-	-	-	-	-	-	
TCS27-100-006	●	1.00	0.06	3.5	7.0	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	
TCS27-100-010	●	1.00	0.10	3.5	7.0	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	
TCS27-104-000	●	1.04	0.00	2.0	4.0	∞	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-120-000	●	1.20	0.00	2.0	4.0	∞	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-125-010	●	1.25	0.10	3.5	7.0	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	
TCS27-125-020	●	1.25	0.20	3.5	7.0	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	
TCS27-140-000	●	1.40	0.00	2.0	4.0	∞	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-147-000	●	1.47	0.00	2.5	5.0	∞	∞	-	-	-	-	-	-	-	-	-	-	-	
TCS27-150-010	●	1.50	0.10	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	
TCS27-150-020	●	1.50	0.20	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	
TCS27-157-015	●	1.57	0.15	3.0	6.0	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-170-010	●	1.70	0.10	3.0	6.0	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-175-010	●	1.75	0.10	3.0	6.0	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-175-020	●	1.75	0.20	3.0	6.0	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-178-018	●	1.78	0.18	3.0	6.0	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-185-020	●	1.85	0.20	3.0	6.0	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-196-015	●	1.96	0.15	3.0	6.0	∞	∞	∞	-	-	-	-	-	-	-	-	-	-	
TCS27-200-010	●	2.00	0.10	6.4	12.8	∞	∞	∞	600	280	180	130	105	85	60	50	30	-	
TCS27-200-020	●	2.00	0.20	6.4	12.8	∞	∞	∞	600	280	180	130	105	85	60	50	30	-	
TCS27-222-015	●	2.22	0.15	3.5	7.0	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	
TCS27-230-020	●	2.30	0.20	3.5	7.0	∞	∞	∞	600	-	-	-	-	-	-	-	-	-	
TCS27-239-015	●	2.39	0.15	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	
TCS27-247-020	●	2.47	0.20	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	
TCS27-250-010	●	2.50	0.10	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	
TCS27-250-030	●	2.50	0.30	5.7	11.4	∞	∞	∞	600	280	180	130	50	35	-	-	-	-	
TCS27-270-010	●	2.70	0.10	6.2	12.4	∞	∞	∞	600	280	180	135	105	95	85	78	-	-	
TCS27-287-020	●	2.87	0.20	6.2	12.4	∞	∞	∞	600	280	180	135	105	95	85	78	-	-	
TCS27-300-000	●	3.00	0.00	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	
TCS27-300-020	●	3.00	0.20	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	
TCS27-300-030	●	3.00	0.30	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	
TCS27-300-040	●	3.00	0.40	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	55	-	
TCS27-315-015	●	3.15	0.15	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	68	-	
TCS27-318-020	●	3.18	0.20	6.4	12.8	∞	∞	∞	600	280	180	135	105	95	85	78	68	-	

● : Stocked items / Packing Quantity = 5 pcs.

Insert**4 cornered
& handed
inserts for
parting off**

Right hand (R) shown.

Cat. No.	Stock	Dimensions (mm)				Max. parting off dia. øDmax (mm)	
	Coating	Cutting edge width $W \pm 0.02$ (mm)	Corner radius r_ϵ	Max. grooving depth T_{max}	Front edge angle K	Solid bar	Tube
	AH725						
TCS27-100-15R/L	●	1.00	0.06	3.5	15°	7.0	600
TCS27-150-6R/L	●	1.50	0.06	5.7	6°	11.4	35
TCS27-150-15R/L	●	1.50	0.06	5.7	15°	11.4	35
TCS27-200-6R/L	●	2.00	0.10	6.4	6°	12.8	30
TCS27-200-15R/L	●	2.00	0.10	6.4	15°	12.8	30

**4 cornered
inserts with
full radius for
grooving and
profiling**

Right hand (R) shown.

Cat. No.	Stock	Dimensions (mm)			Relation of groove depth (T) and Max. diameter (øDmax)											
	Coating	Cutting edge width $W \pm 0.02$ (mm)	Corner radius r_ϵ	Max. parting off diameter (solid bar) T_{max}	Max. diameter (øDmax)											
	AH725				$T \leq 1.0$	$T \leq 2.0$	$T \leq 3.0$	$T \leq 3.5$	$T \leq 4.0$	$T \leq 4.5$	$T \leq 5.0$	$T \leq 5.5$	$T \leq 5.7$	$T \leq 6.0$	$T \leq 6.2$	$T \leq 6.4$
TCS27-157-079	●	1.57	0.79	3.0	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-200-100	●	2.00	1.00	3.0	∞	∞	∞	-	-	-	-	-	-	-	-	-
TCS27-239-120	●	2.39	1.20	5.7	∞	∞	∞	600	280	180	130	50	35	-	-	-
TCS27-300-150	●	3.00	1.50	6.4	∞	∞	∞	600	280	180	135	105	95	85	78	55

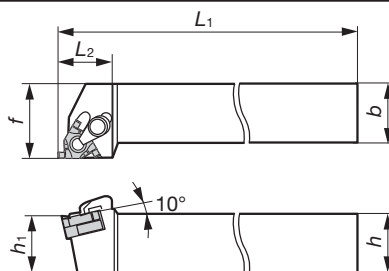
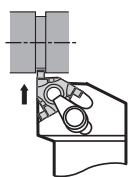
● : Stocked items / Packing Quantity = 5 pcs.

Standard cutting conditions

Work materials	Grades	Cutting speed V_c (m/min)	Feed: f (mm/rev)			Depth of cut for profiling (with full radius insert) a_p (mm)
			Grooving, Parting off	Parting off (with hand)	Profiling (with full radius insert)	
Steels (S45C / C45 etc.)	AH725	100 ~ 200	0.05 ~ 0.15	0.04 ~ 0.12	0.05 ~ 0.10	Max 0.5
Alloy steels (SCM435 / 34CrMo4 etc.)		50 ~ 180				
Stainless steels (SUS304 / X5CrNi18-9 etc.)		50 ~ 150				
Grey cast irons (FC250 / 250 / GG25 etc.)		50 ~ 180				
Ductile cast irons (FCD400 / 400-15 / GGG400 etc.)		50 ~ 120				
Titanium alloys (Ti-6Al-4V etc.)		30 ~ 60				

External grooving

CE R/L



* When using the GTGN insert, the exclusive shim shown in the table must be used. Exclusive shim should be ordered separately.

Right hand (R) shown.

Steel shank Screw-on, clamp-on type

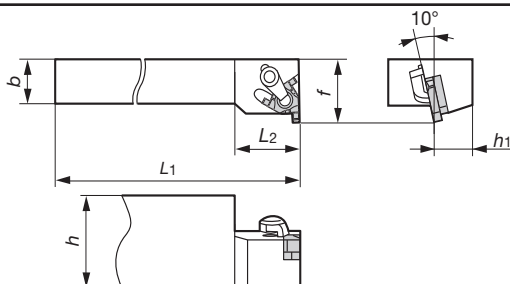
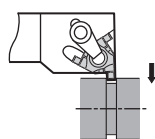
Cat. No	Stock	Dimensions (mm)						Insert	Shim *
		<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>L</i> ₂	<i>h</i> ₁	<i>f</i>		
CER1212H16DT	●	12	12	100	24	12	16	GTGN-16ER/IL□□□	G16ER/IL-DT
CEL1212H16DT	●	12	12	100	24	12	16	GTGN-16EL/IR□□□	G16EL/IR-DT
CER1616H16DT	●	16	16	100	24	16	20	GTGN-16ER/IL□□□	G16ER/IL-DT
CEL1616H16DT	●	16	16	100	24	16	20	GTGN-16EL/IR□□□	G16EL/IR-DT
CER2020K16DT	●	20	20	125	24	20	25	GTGN-16ER/IL□□□	G16ER/IL-DT
CEL2020K16DT	●	20	20	125	24	20	25	GTGN-16EL/IR□□□	G16EL/IR-DT
CER2525M16DT	●	25	25	150	28	25	32	GTGN-16ER/IL□□□	G16ER/IL-DT
CEL2525M16DT	●	25	25	150	28	25	32	GTGN-16EL/IR□□□	G16EL/IR-DT

Steel shank Clamp-on type

Cat. No	Stock	Dimensions (mm)						Insert	Shim *
		<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>L</i> ₂	<i>h</i> ₁	<i>f</i>		
CER3232P16T	●	32	32	170	32	32	40	GTGN-16ER/IL□□□	G16ER/IL-S

External grooving

B-CE R/L



* When using the GTGN insert, the exclusive shim shown in the table must be used. Exclusive shim should be ordered separately.

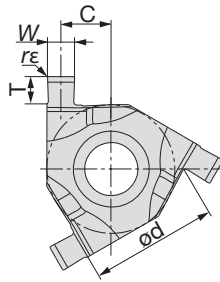
Right hand (R) shown.

Steel shank Clamp-on type for gang tooling lathe

Cat. No	Stock	Dimensions (mm)						Insert	Shim *
		<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>L</i> ₂	<i>h</i> ₁	<i>f</i>		
B-CER16M16	●	32	16	150	24	16	22	GTGN-16ER/IL□□□	G16ER/IL-S
B-CEL16M16	●	32	16	150	24	16	22	GTGN-16EL/IR□□□	G16EL/IR-S

Shim

Cat. No.	Toolholder		Insert
	Type	External	
G16ER/IL-DT	Screw-on Clamp-on	CER□□□□□16DT	GTGN-16ER/IL□□□
G16EL/IR-DT		CEL□□□□□16DT	GTGN-16EL/IR□□□
G16ER/IL-S	Clamp-on	B-CER16M16, CER3232P16T	GTGN-16ER/IL□□□
G16EL/IR-S		B-CEL16M16	GTGN-16EL/IR□□□



Right hand (R) shown.

Insert size	Groove width $W \pm 0.03$ (mm)	Cat. No.	Grade	Dimensions (mm)				Shim	
			Coated SH730	ϕd	Max. groove depth T	r_ϵ	Center of width C	Dual method clamp type; Screw-on/ Clamp-on	Clamp-on type
16	1.00	GTGN-16ER/IL100	●	9.525	1.25	0.1	4.22	G16ER/IL-DT	G16ER/IL-S
	1.20	GTGN-16ER/IL120	●		1.30		4.12		
	1.40	GTGN-16ER/IL140	●		1.50		4.02		
	1.70	GTGN-16ER/IL170	●		1.70		3.87		
	1.95	GTGN-16ER/IL195	●		1.70		3.75		
	2.25	GTGN-16ER/IL225	●		1.80		3.60		
16	1.00	GTGN-16EL/IR100	●	9.525	1.25	0.1	4.22	G16EL/IR-DT	G16EL/IR-S
	1.20	GTGN-16EL/IR120	●		1.30		4.12		
	1.40	GTGN-16EL/IR140	●		1.50		4.02		
	1.70	GTGN-16EL/IR170	●		1.70		3.87		
	1.95	GTGN-16EL/IR195	●		1.70		3.75		
	2.25	GTGN-16EL/IR225	●		1.80		3.60		

Note: GTGN insert is applicable for both external and internal grooving, but the hand of tool is opposite in external and internal machining. Shim for GTGN is exclusive to each type of toolholders

Packing quantity = 10 pcs

Cat. No	Clamp set	Shim screw	Clamping screw	Wrench
CER/L1212H16DT	CSP16	DTS5-3.5	CSTB-3.5ST	T-15F P-3.5
CER/L1616H16DT				
CER/L2020K16DT				
CER/L2525M16DT				
CER/L3232P16T		-	-	T-15F
B-CER/L16M16				

Standard cutting conditions

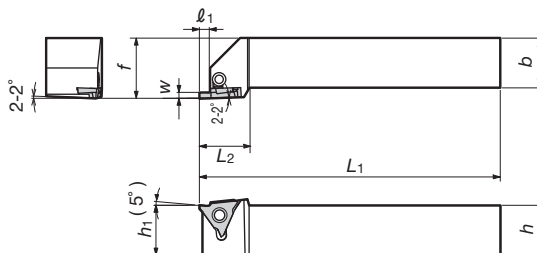
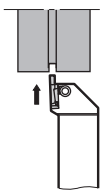
Work materials	Grades	Cutting speed V_c (m/min)	Feed f (mm/rev)
Steels S45C, SCM440 etc. (C45, 42CrMo4 etc.)	SH730	50 - 150	0.05 - 0.10
Stainless steels SUS304, SUS316 etc. (X5CrNi18-9, X5CrNiMo17-12-2 etc.)		30 - 150	0.05 - 0.10
Heat-resistant alloys, Titanium alloys etc. (Ti-6Al-4V etc.)		30 - 100	0.05 - 0.10

TGTS

Width
0.33~4.5mmMax. Groove Depth
≤ 2.0mm, ≤ 5.0mm3
Corners

External grooving

TGTS R/L



Right hand (R) shown.

Groove width W (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						
		R	L			L1	L2	h1	f	h	b	l1
0.33 ~ 2.5	TGTSR/L2020K16	●	●	GBR/L32□□□	2.5	125	25	20	25	20	20	2.8
0.33 ~ 2.5	TGTSR/L2525M16	●	●	GBR/L32□□□	2.5	150	25	25	30	25	25	2.8
1.0 ~ 1.45	TGTSR/L2020K22-1	●	●	GBR/L43125 ~ 145 GBR/L43050R	2	125	25	20	25	20	20	2.5
1.5 ~ 2.3	TGTSR/L2020K22-2	●	●	GBR/L43150 ~ 230 GBR/L43075R ~ 100R	3.5	125	25	20	25	20	20	4.1
2.5 ~ 4.5	TGTSR/L2020K22-3	●	●	GBR/L43250 ~ 450 GBR/L43125R ~ 200R	5	125	25	20	25	20	20	5.4
1.25 ~ 1.45	TGTSR/L2525M22-1	●	●	GBR/L43125 ~ 145 GBR/L43050R	2	150	25	25	30	25	25	2.5
1.5 ~ 2.3	TGTSR/L2525M22-2	●	●	GBR/L43150 ~ 230 GBR/L43075R ~ 100R	3.5	150	25	25	30	25	25	4.1
2.5 ~ 4.5	TGTSR/L2525M22-3	●	●	GBR/L43250 ~ 450 GBR/L43125R ~ 200R	5	150	25	25	30	25	25	5.4

Note: ● When using a right or left hand insert, the right hand insert is used with right hand toolholder and the left hand insert is used with left hand toolholder.

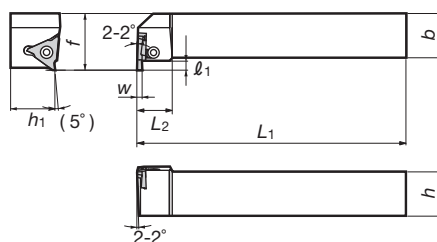
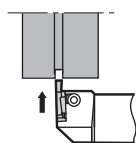
Three corners TGTT · TGTT-type Toolholders

TGTT

Width
0.33~4.5mmMax. Groove Depth
≤ 2.0mm, ≤ 5.0mm3
Corners

External grooving

TGTT R/L



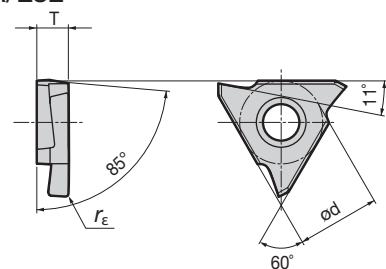
Right hand (R) shown.

Groove width W (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						
		R	L			L1	L2	h1	f	h	b	l1
0.33 ~ 2.5	TGTTT/L2020K16	●	●	GBL/R32□□□	2.5	125	20	20	27	20	20	2.8
0.33 ~ 2.5	TGTTT/L2525M16	●	●	GBL/R32□□□	2.5	150	20	25	32	25	25	2.8
1.0 ~ 1.45	TGTTT/L2020K22-1	●	●	GBL/R43125 ~ 145 GBL/R43050R	2	125	20	20	27	20	20	2.5
1.5 ~ 2.3	TGTTT/L2020K22-2	●	●	GBL/R43150 ~ 230 GBL/R43075R ~ 100R	3.5	125	20	20	27	20	20	4.1
2.5 ~ 4.5	TGTTT/L2020K22-3	●	●	GBL/R43250 ~ 450 GBL/R43125R ~ 200R	5	125	20	20	27	20	20	5.4
1.25 ~ 1.45	TGTTT/L2525M22-1	●	●	GBL/R43125 ~ 145 GBL/R43050R	2	150	20	25	32	25	25	2.5
1.5 ~ 2.3	TGTTT/L2525M22-2	●	●	GBL/R43150 ~ 230 GBL/R43075R ~ 100R	3.5	150	20	25	32	25	25	4.1
2.5 ~ 4.5	TGTTT/L2525M22-3	●	●	GBL/R43250 ~ 450 GBL/R43125R ~ 200R	5	150	20	25	32	25	25	5.4

Note: ● When using a right or left hand insert, the right hand insert is used with left hand toolholder and the left hand insert is used with right hand toolholder.

Applicable Inserts

GBR/L32

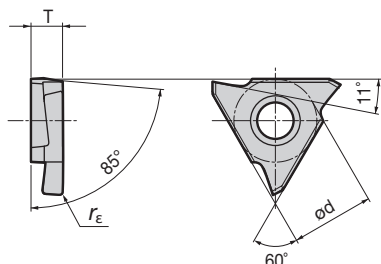


Right hand (R) shown.

Dimensions (mm)					Insert Cat. No.	Grades					
$W^{\pm 0.025}$	Max. groove depth	r_{ϵ}	ϕd	T		Coated		Cermet		Uncoated	
						AH710		NS730		KS05F	
						R	L	R	L	R	L
0.33	0.8	0.03	9.525	3.18	GBR/L32033	●	●	●	●	●	
0.5	1.2	0.05			GBR/L32050	●	●	●	●	●	
0.75	2	0.05			GBR/L32075	●	●	●	●	●	
0.95	2	0.05			GBR/L32095	●	●	●	●	●	
1	2	0.05			GBR/L32100	●	●	●	●	●	
1.25	2	0.2			GBR/L32125	●	●	●	●	●	
1.45	2	0.2			GBR/L32145	●	●	●	●	●	
1.5	2	0.2			GBR/L32150	●	●	●	●	●	
2	2.5	0.2			GBR/L32200	●	●	●	●	●	
2.5	2.5	0.2			GBR/L32250	●	●	●	●	●	

● : Stocked items.

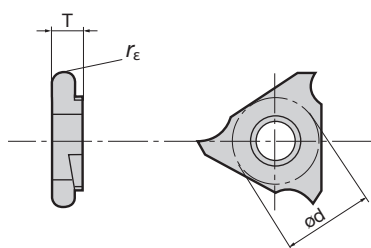
GBR/L43



Right hand (R) shown.

Dimensions (mm)					Cat. No.	Grades					
						Coated		Cermet		Uncoated	
$W_{\pm 0.025}$	Max. groove depth	r_{ϵ}	ϕd	T		AH710	NS730	KS05F			
						R	L	R	L	R	L
1.25	2	0.2	12.7	4.76	GBR/L43125	●	●	●	●	●	
1.45	2	0.2	12.7	4.76	GBR/L43145	●	●	●	●	●	
1.5	3.5	0.2	12.7	4.76	GBR/L43150	●	●	●	●	●	
1.75	3.5	0.2	12.7	4.76	GBR/L43175	●	●	●	●	●	
1.85	3.5	0.2	12.7	4.76	GBR/L43185	●	●	●	●	●	
2	3.5	0.2	12.7	4.76	GBR/L43200	●	●	●	●	●	
2.3	3.5	0.2	12.7	4.76	GBR/L43230	●	●	●	●	●	
2.5	5	0.3	12.7	4.76	GBR/L43250	●	●	●	●	●	
2.65	5	0.3	12.7	4.76	GBR/L43265	●	●	●	●	●	
2.8	5	0.3	12.7	4.76	GBR/L43280	●	●	●	●	●	
3	5	0.3	12.7	4.76	GBR/L43300	●	●	●	●	●	
3.3	5	0.3	12.7	4.76	GBR/L43330	●	●	●	●	●	
3.5	5	0.3	12.7	4.76	GBR/L43350	●	●	●	●	●	
4	5	0.4	12.7	4.76	GBR/L43400	●	●	●	●	●	
4.3	5	0.4	12.7	4.76	GBR/L43430	●	●	●	●	●	
4.5	5	0.4	12.7	4.76	GBR/L43450	●	●	●	●	●	

GBR/L43-R (Radius)



Right hand (R) shown.

Dimensions (mm)					Cat. No.	Grades					
$W_{\pm 0.025}$	Max. groove depth	r_{ϵ}	ϕd	T		Coated		Cermet		Uncoated	
						AH710		NS730		KS05F	
						R	L	R	L	R	L
1	2	0.5	12.7	4.76	GBR/L43050R	●	●	●	●	●	●
1.5	3.5	0.75			GBR/L43075R	●	●	●	●	●	●
2	3.5	1			GBR/L43100R	●	●	●	●	●	●
2.5	5	1.25			GBR/L43125R	●	●	●	●	●	●
3	5	1.5			GBR/L43150R	●	●	●	●	●	●
4	5	2			GBR/L43200R	●	●	●	●	●	●

● : Stocked items.

Standard cutting conditions

Work materials	Hardness	Recommended grade	Cutting speed: v_c (m/min)	Feed: f (mm/rev)
Carbon steels, Alloy steels (JIS S45C, SCM415, etc.)	150 - 240HB	NS730	150 (100-200)	0.1 (0.02-0.25)
		AH710	100 (60-150)	0.15 (0.05-0.25)
Stainless steels (JIS SUS304, etc.)	≤240HB	AH710	80 (60-150)	0.10 (0.05-0.15)
Cast irons (JIS FC250, etc.)	Tensile strength ≤350 N/mm ²	AH710	100 (60-150)	0.10 (0.05-0.15)
Non-ferrous metals (Aluminium, etc.)	—	KS05F	250 (200-300)	0.10 (0.05-0.15)

Parts

TGTS-type

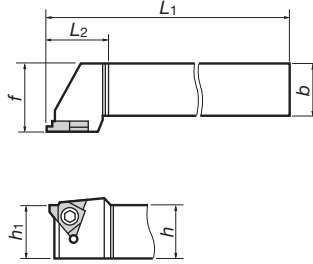
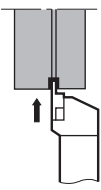
Cat. No.	Parts		
	Wedge	Clamping screw	Wrench
TGTSR/L2020K16	CP900	MCS520-2.5	P-2.5
TGTSR/L2525M16			
TGTSR/L2020K22-1	CP910		
TGTSR/L2020K22-2			
TGTSR/L2020K22-3			
TGTSR/L2525M22-1			
TGTSR/L2525M22-2			
TGTSR/L2525M22-3			

TGTT-type

Cat. No.	Parts		
	Wedge	Clamping screw	Wrench
TGTTR/L2020K16	CP900	MCS520-2.5	P-2.5
TGTTR/L2525M16			
TGTTR/L2020K22-1	CP910		
TGTTR/L2020K22-2			
TGTTR/L2020K22-3			
TGTTR/L2525M22-1			
TGTTR/L2525M22-2			
TGTTR/L2525M22-3			

External grooving

SGT R/L

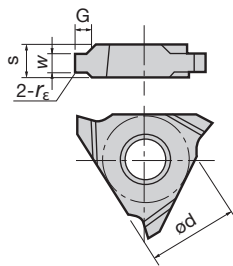


Right hand (R) shown.

Cat. No.	Stock		Applicable inserts	Dimensions (mm)						Clamping screw	Wrench
	R	L		h_1	b	h	L_1	L_2	f		
SGTR/L1616-3	●		GLR/L3□□□	16	16	16	100	20	20	CSTB-4	T-15F
SGTR/L2020-3	●	●		20	20	20	125		25		
SGTR/L2525-3	●	●		25	25	25	150		32		
SGTR/L2020-4	●	●	GLR/L4□□□ GOR/L4□□□	20	20	20	125	30	25	CSTB-5	T-20F
SGTR/L2525-4	●	●		25	25	25	150		32		
SGTR/L3232-4				32	32	32	170		40		

Applicable Inserts

GOR/L (O-ring)

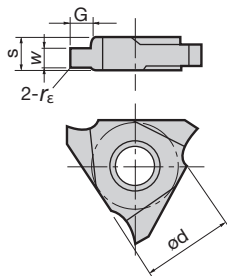


Right hand (R) shown.

Dimensions (mm)			Insert Cat. No.	Grades						Dimensions (mm)	
				Cermet				Uncoated			
				NS530				UX30			
$W_{+0.1/-0.05}$	G	r_E		R	L	R	L	R	L	ød	s
2.5	1.5	0.4	GOR/L4190	●				●		12.7	4.76
3.2	2		GOR/L4240	●				●			
4.1	2.5		0.7	GOR/L4310	●				●		
External grooves for JIS O-ring for static and dynamic use, nominal sizes: P3 ~ P10, P10A ~ P22, and G25 ~ G145.											

External grooves for JIS O-ring for static and dynamic use, nominal sizes: P3 ~ P10, P10A ~ P22, and G25 ~ G145.

GLR/L (Lock-ring)



Right hand (R) shown.

Dimensions (mm)			Insert Cat. No.	Grades						Dimensions (mm)	
				Cermet				Uncoated			
				NS530				UX30			
$W_{+0.1/-0.05}$	G	r_{ϵ}		R	L	R	L	R	L	ød	s
1.15	1.5	0.1	GLR/L3115	●	●			●	●	9.525	3.18
1.35			GLR/L3135	●	●			●			
1.65	2		GLR/L3165	●				●			
1.75			GLR/L3175	●				●	●		
1.9	2.5		GLR/L3190								
1.95			GLR/L3195	●	●			●	●		
2.2	3		GLR/L3220	●	●			●	●		
2.7			GLR/L3270	●				●	●		
JIS C-type retaining rings for shaft, nominal sizes: 10 ~ 80. JIS E-type retaining rings for shallow grooves, nominal sizes: 10 ~ 24. JIS C-type retaining rings for shaft, nominal sizes: 20 ~ 80.											
1.15	1.5	0.1	GLR/L4115	●				●		12.7	4.76
1.35			GLR/L4135	●	●			●			
1.65	2		GLR/L4165	●				●			
1.75			GLR/L4175	●				●			
1.9	2.5		GLR/L4190	●	●						
1.95			GLR/L4195	●	●			●			
2.2	3.5		GLR/L4220	●	●			●	●		
2.7			GLR/L4270	●				●			
3.2	4	GLR/L4320	●	●			●	●			
4.2		GLR/L4420	●	●			●	●			
JIS C-type retaining rings for shaft, nominal sizes: 10 ~ 120. JIS E-type retaining rings for shallow grooves, nominal sizes: 10 ~ 24. JIS C-type retaining rings for shaft, nominal sizes: 20 ~ 200.											

JIS C-type retaining rings for shaft, nominal sizes: 10 ~ 80.
JIS E-type retaining rings for shallow grooves, nominal sizes: 10 ~ 24.
JIS C-type retaining rings for shaft, nominal sizes: 20 ~ 80.

Standard cutting conditions

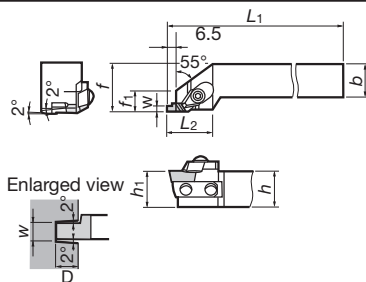
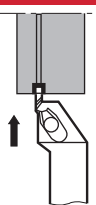
Grades	Cutting speed V_C (m/min)	Feed: f (mm/rev)		
		$W < 2$ mm	$W = 2 \sim 4$ mm	$W > 4$ mm
NS530	80 ~ 200	0.05 ~ 0.1	0.08 ~ 0.2	0.08 ~ 0.25
UX30	60 ~ 150			

● : Stocked items.

Width
1.0~4.5mmMax. Groove Depth
≤ 1.5mm, ≤ 6.0mm2(1)
Corners

External grooving

GX-R/LE



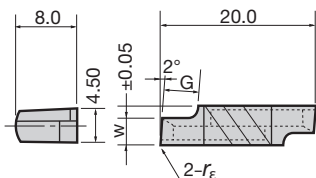
Right hand (R) shown.

Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						
	R	L			h_1	b	h	L_1	L_2	f	f_1
GX-2020R/LE	●	●	XGR/L63□□	6	20	20	20	125	35	25	15
GX-2525R/LE	●	●			25	25	25	150		32	

Note: ● Max.groove width and max. groove depth shown in the above table are the values when the insert having the largest cutting edge width is used.

Inserts

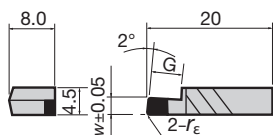
XGR/L



Right hand (R) shown.

Dimensions (mm)				Insert Cat. No.	Grades							
					Cermet		Uncoated					
$W \pm 0.05$	Max.groove depth	G	r_ϵ		NS530		TH10	UX30	TX10S			
					R	L	R	L	R	L	R	L
1	1.5	1.8	0	XGR/L6310S								
			0.2	XGR/L6310-02	●	●	●	●	●	●	●	
1.5	2.3	2.5	0	XGR/L6315S								
			0.2	XGR/L6315-02	●	●	●	●	●	●	●	
2	3	3.2	0	XGR/L6320S								
			0.2	XGR/L6320-02	●	●	●	●	●	●	●	●
2.5	3.8	3.9	0	XGR/L6325S								
			0.2	XGR/L6325-02	●	●	●	●	●	●	●	●
3	4.5	4.6	0	XGR/L6330S								
			0.2	XGR/L6330-02	●	●	●	●	●	●	●	●
3.5	5.3	5.4	0	XGR/L6335S								
			0.2	XGR/L6335-02	●	●	●	●	●	●	●	●
4	6	6.1	0	XGR/L6340S								
			0.2	XGR/L6340-02	●	●	●	●	●	●	●	●
4.5			0	XGR/L6345S								
			0.2	XGR/L6345-02	●	●	●	●	●	●	●	●

XGR/L-QBN



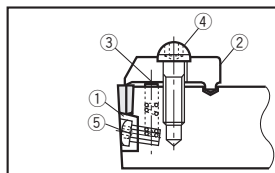
Right hand (R) shown.

Dimensions (mm)				Insert Cat. No.	T-CBN		
W±0.05	Max.groove depth	G	r _ε		BX360		
					R	L	
1	1.5	2.5	0.2	XGR/L6310S-QBN			
1.5	2.3			XGR/L6315S-QBN	●		
2	3			XGR/L6320S-QBN	●		
2.5	3.8			XGR/L6325S-QBN	●		
3	4.5			XGR/L6330S-QBN	●		
3.5	5.3			XGR/L6335S-QBN	●		
4	6			XGR/L6340S-QBN	●		
4.5				6.1	XGR/L6345S-QBN	●	

Note: ● When using a right or left hand insert, the right hand insert is used with right hand toolholder and the left hand insert is used with left hand toolholder.

“BX360”: 1-insert packing

Parts



Cat. No.	Parts				
	① Shim	Clamp set	④ Clamping screw	⑤ Shim screw	Wrench
GX-2020R/LE	SL-6R/L	CP81A (② Clamp CP81 ③ Pusher BP-3 Spring)	RT-1	BHM4-8	P-4
GX-2525R/LE	SL-1R/L				

Standard cutting conditions

Work materials	Grades	Cutting speed v_c (m/min)	Feed: f (mm/rev)		
			$W < 2$ mm	$W = 2 \sim 4$ mm	$W > 4$ mm
Carbon steels	NS530	80 ~ 200	0.05 ~ 0.1	0.08 ~ 0.2	0.08 ~ 0.25
	TX10S	60 ~ 150			
	UX30				
Cast irons , Light alloys	TH10	60 ~ 150	0.05 ~ 0.1	0.08 ~ 0.2	0.08 ~ 0.25
Hardened steels	BX360	50 ~ 180	0.05 ~ 0.15	0.05 ~ 0.15	0.05 ~ 0.15

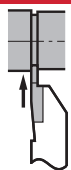
● : Stocked items.

JSVG

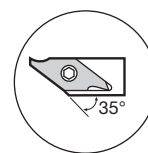
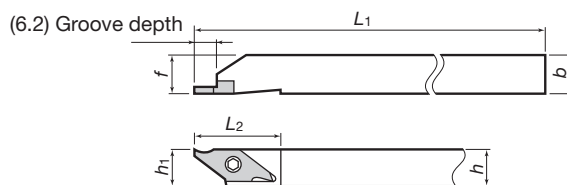
Width
0.33~2.0mmMax. Groove Depth
≤ 0.7 mm, ≤ 5.5mm2
Corners

External grooving

JSVG R/L



(Two corners type)



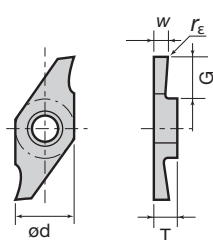
C-type

Right hand (R) shown.

Cat. No.	Stock		Applicable inserts	Dimensions (mm)						Clamping screw	Wrench	
	R	L		h	b	L ₁	L ₂	h ₁	f			
JSVGR/L1010K-C	●	●	JVGR/L□□□F	10	10	125	23	10	10	CSTB-3S	T-9F	(T-9L)
JSVGR/L1212K-C	●	●		12	12			12	12			
JSVGR/L1616K	●	●		16	16			16	16			

Note: Parts in parenthesis are optional parts.

Applicable inserts JVGR-type inserts (sharp edges)



Right hand (R) shown.

Cat. No.	Dimensions (mm)						Grade					
	ød	T	W ^{+0.05} ₀	G	Max. groove depth	r _ε	Coated		Cermet		Uncoated	
							R	L	R	L	R	L
JVGR/L033F	7.94	3.18	0.33	0.8	0.7	0	●		●		●	
JVGR/L050F			0.5	1.2	1.1		●		●		●	
JVGR/L075F			0.75	2	1.9		●		●		●	
JVGR/L095F			0.95				●		●		●	
JVGR/L100F			1	6	5.5		●		●	●	●	●
JVGR/L125F			1.25	5.5	5		●		●		●	
JVGR/L150F			1.5				●		●	●	●	●
JVGR/L200F			2	6	5.5		●		●		●	

J series for Small Lathes

JSTG

Width
0.33~2.0mmMax. Groove Depth
≤ 0.7 mm, ≤ 5.5mm3
Corners

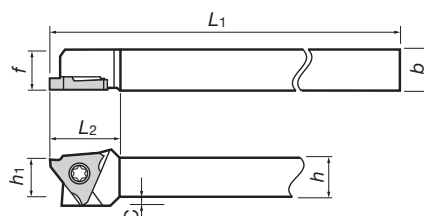
External grooving

JSTG R/L



(Three corners type)

Can be wrenched from back side with double socket torx screw.



Right hand (R) shown.

Cat. No.	Stock		Applicable inserts	Dimensions (mm)						Clamping screw	Wrench	
	R	L		h	b	L ₁	L ₂	h ₁	f			
JSTGR/L1010K3	●	●	JTGR/L3□□□(F)	10	10	125	18.5	10	10	CSTB-4SD	T-8F	(T-8L)
JSTGR/L1212K3	●	●		12	12			12	12			
JSTGR/L1616K3	●	●		16	16			16	16			

Note: Parts in parenthesis are optional parts.

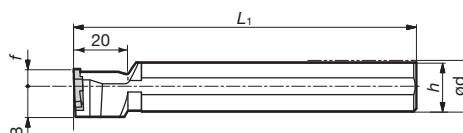
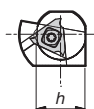
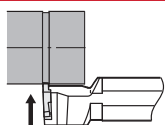
J series for Small Lathes

JS-TGL3

Width
0.33~2.0mmMax. Groove Depth
≤ 0.7 mm, ≤ 5.5mm3
Corners

External grooving

JS-TGL3



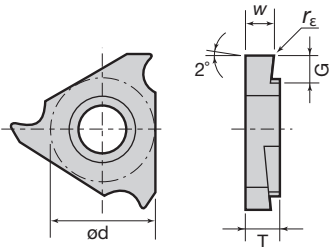
Left hand (L) shown.

Cat. No.	Stock	Applicable inserts	Dimensions (mm)						Clamping screw	Wrench
			ød	f	L ₁	L ₂	h	B		
JS19K-TGL3	●	JTGR3□□□(F)	19.05	6	125	-	18	11.5	CSTB-4S	T-15F
JS20K-TGL3	●		20				19			
JS22K-TGL3	●		22				21			
JS25K-TGL3	●		25.4	10			24	12.7		

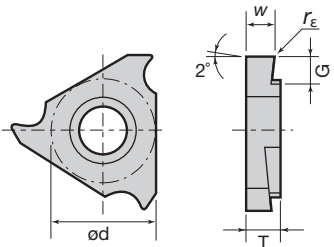
● : Stocked items.

Applicable inserts

JTG-type inserts (With sharp edges)

	Cat. No.	Dimensions (mm)						Grades					
		ød	T	$W_0^{+0.05/0}$	G	Max. groove depth	r_E	Coated		Cermet		Uncoated	
								J740	NS530	TH10			
								R	L	R	L	R	L
 Right hand (R) shown.	JTGR/L3033F	9.525	3.18	0.33	0.8	0.7	0.03	●	●	●	●	●	●
	JTGR/L3043F			0.43	1.2	1.1		●	●	●	●	●	●
	JTGR/L3050F			0.5				●	●	●	●	●	●
	JTGR/L3065F			0.65				●	●	●	●	●	●
	JTGR/L3075F			0.75	2	1.9		●	●	●	●	●	●
	JTGR/L3080F			0.8				●	●	●	●	●	●
	JTGR/L3085F			0.85			0.05	●	●	●	●	●	●
	JTGR/L3095F			0.95				●	●	●	●	●	●
	JTGR/L3100F			1				●	●	●	●	●	●
	JTGR/L3110F			1.1				●	●	●	●	●	●
	JTGR/L3120F			1.2				●	●	●	●	●	●
	JTGR/L3125F			1.25	2.2	2.1		●	●	●	●	●	●
	JTGR/L3130F			1.3				●	●	●	●	●	●
	JTGR/L3140F			1.4				●	●	●	●	●	●
	JTGR/L3145F			1.45				●	●	●	●	●	●
	JTGR/L3150F			1.5				●	●	●	●	●	●
	JTGR/L3175F			1.75				●	●	●	●	●	●
	JTGR/L3180F			1.8				●	●	●	●	●	●
	JTGR/L3200F			2			2.6	●	●	●	●	●	●
	JTGR/L3225F			2.25				●	●	●	●	●	●
	JTGR/L3250F			2.5	2.7			●	●	●	●	●	●
	JTGR/L3275F			2.75				●	●	●	●	●	●
	JTGR/L3300F			3				●	●	●	●	●	●

JTG-type inserts (With honed edges)

	Cat. No.	Dimensions (mm)						Grades					
		ød	T	$W_0^{+0.05/0}$	G	Max. groove depth	r_E	Coated		Coatedcermet		Uncoated	
								J740	J530	TH10			
								R	L	R	L	R	L
 Right hand (R) shown.	JTGR/L3033	9.525	3.18	0.33	0.8	0.7	0.03						
	JTGR/L3050			0.5	1.2	1.1							
	JTGR/L3075			0.75									
	JTGR/L3095			0.95	2.0	1.9							
	JTGR/L3100			1			0.05			●	●		
	JTGR/L3125			1.25						●	●		
	JTGR/L3145			1.45	2.2	2.1				●	●		
	JTGR/L3150			1.5						●	●		
	JTGR/L3175			1.75						●	●		
	JTGR/L3200			2						●	●		
	JTGR/L3250			2.5	2.7	2.6				●	●		

Standard cutting conditions for J series grooving tools

Grade	Work materials	Cutting speed: v_c (m/min)	Feed: f (mm/rev)
J740	General steels Stainless steels Free-cutting steels	10-50-100	0.01-0.05-0.1
NS530 J530	General steels Stainless steels	50-80-150	0.01-0.05-0.1
TH10	Aluminium alloys, copper alloys, etc.	10-80-200	0.01-0.05-0.1
	Difficult-to-cut materials, titanium alloys, etc.	10-20-30	0.01-0.05-0.1

● : Stocked items.

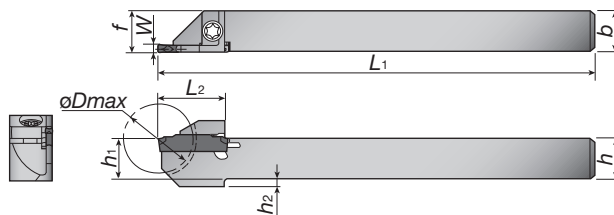
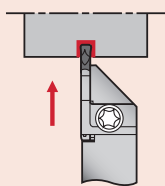
TUNGCUT Parting off

JCTER/L

Width
1.4~3.0mmMax. parting off dia.
≤20.0mm, ≤32.0mm1, 2
Corners

For small lathes

Parting off / grooving



Right hand (R) shown.



Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Max. dia. øDmax (mm)	Dimensions (mm)								Inserts	Parts	
		R	L		h ₁	b	h	L ₁	*f	W	h ₂	L ₂		Clamping screw	Wrench
1	JCTER/L1010-1.4T10	●	●	20	10	10	10	125	10.2	1.4	-	18	DGS1.4-016	CSHB-4-A	T-15F
	JCTER/L1212-1.4T12	●	●	24	12	12	12	125	12.2	1.4	-	19.5			
	JCTER/L1414-1.4T12	●	●	24	14	14	14	125	14.2	1.4	-	19.5			
	JCTER/L1616-1.4T16	●	●	32	16	16	16	125	16.2	1.4	-	24			
2	JCTER/L1010-2T10	●	●	20	10	10	10	125	10.1	2	2	19	DGM/SGM DGS/SGS	CSHB-4-A	T-15F
	JCTER/L1212-2T12	●	●	24	12	12	12	125	12.1	2	2	19			
	JCTER/L1414-2T12	●	●	24	14	14	14	125	14.1	2	-	19			
	JCTER/L1616-2T16	●	●	32	16	16	16	125	16.1	2	-	24			
3	JCTER/L1212-3T12	●	●	24	12	12	12	125	12.3	3	-	19	DGE DTE	CSHB-4-A	T-15F
	JCTER/L1616-3T16	●	●	32	16	16	16	125	16.3	3	-	24			
	JCTER/L2020-3T16	●	●	32	20	20	20	125	20.3	3	-	24			

* "f" value in the above table is calculated with groove width "W" shown in the table.

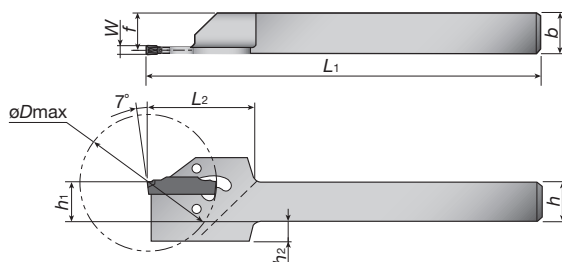
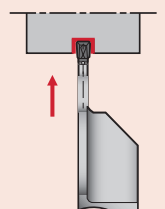
Note: Please refer to the inserts "DGE" and "DTE" on page 6-25.

TUNGCUT Parting off

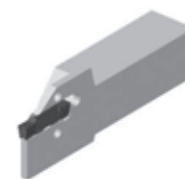
CGER/L

Width
1.4~4.0mmMax. Groove Depth
≤9.7mm, ≤20.3mm1, 2
Corners

Parting off / deep grooving



Right hand (R) shown.



Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Max. dia. øDm (mm)		Max. groove depth ar (mm)	Dimensions (mm)								Inserts	Parts
		R	L	DGS/M	SGS/M		h ₁	b	h	L ₁	*f	W	h ₂	L ₂		Wrench
1	CGER/L2020-1.4T14	●	●	29	29	9.7	20	20	20	125	20.2	1.4	-	30	DGS1.4-016	CRW23
2	CGER/L1212-2T17	●	●	35	35	11.8	12	12	12	150	12.1	2	6	30	DGM/SGM	CRW33
	CGER/L1616-2T17	●	●	35	35	11.8	16	16	16	150	16.1	2	2	30		
	CGER/L2020-2T17	●	●	35	35	9.8	20	20	20	125	20.1	2	-	30		
3	CGER/L1212-3T19	●	●	38	40	12	12	12	12	150	12.3	3	6	30	DGS/SGS	CRW33
	CGER/L1616-3T19	●	●	38	45	14.9	16	16	16	150	16.3	3	2	30		
	CGER/L2020-3T19	●	●	38	45	13.2	20	20	20	125	20.3	3	-	30		
4	CGER/L2020-4T19	●	●	38	55	20.3	20	20	20	125	20.4	4	-	32		CRW33

* "f" value in the above table is calculated with groove width "W" shown in the table.

● : Stocked items.

Parting off / deep grooving

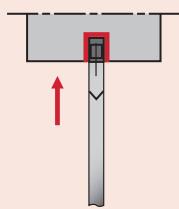


Fig. 1

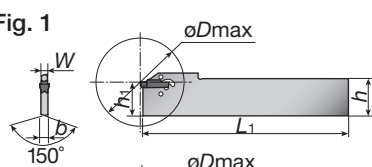


Fig. 2

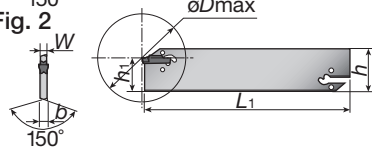
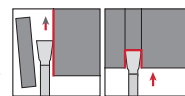
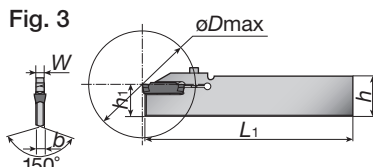


Fig. 3



Blades

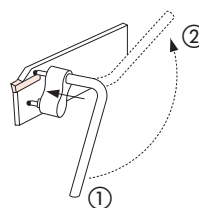
Insert seat size	Cat. No.	Stock	*Max. parting off dia. øDm (mm)	Dimensions (mm)					Inserts	Parts		Shape
				h ₁	b	h	L ₁	W		Clamping screw	Wrench	
1	CGP26-1.4S	●	26	21.4	1	26	150	1.4	DGS1.4-016	-	CRW23	Fig. 1
	CGP32-1.4D	●	26	24.8	1	32	150	1.4		-	CRW23	Fig. 2
2	CGP26-2S	●	40	21.4	1.8	26	150	2	SGM	-	CRW33	Fig. 1
	CGP32-2D	●	50	24.8	1.8	32	150	2		-	CRW33	Fig. 2
3	CGP26-3S	●	50	21.4	2.4	26	150	3	SGS	-	CRW33	Fig. 1
	CGP32-3D	●	100	24.8	2.4	32	150	3		-	CRW33	Fig. 2
4	CGP26-4S	●	80	21.4	3.2	26	150	4	SGS	-	CRW33	Fig. 1
	CGP32-4D	●	100	24.9	3.2	32	150	4		-	CRW33	Fig. 2
	CGP45-4D	●	120	38.1	3.2	45	150	4		-	CRW33	Fig. 2
5	CGP32-5D	●	120	24.9	4	32	150	5		-	CRW33	Fig. 2
6	CGP32-6D	●	120	24.9	5.2	32	150	6		-	CRW33	Fig. 2
8	CGP32-8S-CL	●	80	24.9	6.2	32	150	8		CM4x0.7x20-M0-A	P-3	Fig. 3

Caution

Wrench, CRW□□, should be ordered separately.

Newly developed wrench

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

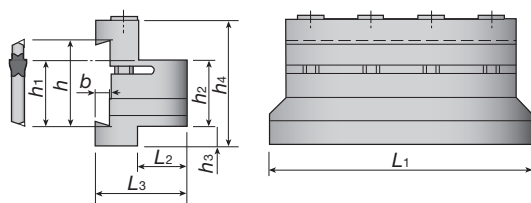


① → ② : unclamp
② → ① : clamp

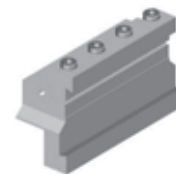
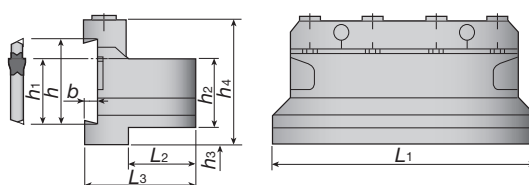
TUNG CUT Parting off CTBF / CTBU

Deep grooving / parting off

CTBF type



CTBU type



Tool block for CGP blades

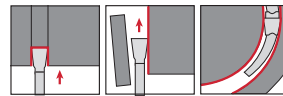
Cat. No.	Stock	Dimensions (mm)									Blade	Parts		
		h ₁	b	h	L ₁	h ₂	h ₃	h ₄	L ₂	L ₃		Clamping screw	Clamp	Wrench
CTBF25-45	●	38.1	5.5	45	110	25	25	66	22	40	CGP	CM6x1.0x40-A	-	P-5
CTBF32-45	●	38.1	5.5	45	120	32	18	66	28	45		CM6x1.0x40-A	-	
CTBU20-26	●	21.4	4	26	86	20	9	43	21	38		CM6x30-S	CT-86	
CTBU25-26	●	21.4	4	26	110	25	5	45	23	42		CM6x30-S	CT-100	
CTBU20-32	●	24.8	5.3	32	100	20	13	50	19	38		CM6x30-S	CT-105	
CTBU25-32	●	24.8	5.3	32	110	25	8	50	23	42		CM6x30-S	CT-110	
CTBU32-32	●	24.8	5.3	32	110	32	5	54	29	48		CM6x30-S	CT-110	

● : Stocked items.

Applicable inserts

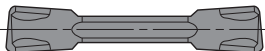
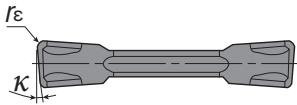
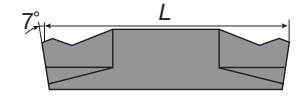
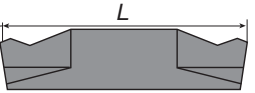
● Notation of "insert seat size"

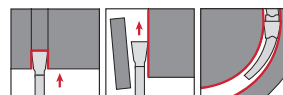
Seat size and grooving width are different. Seat size measure is for the specification of the setting insert. Please note this point.



DGM

External grooving and parting off, 2 corners

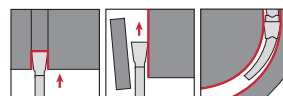
		Insert seat size	Cat. No.	Grades				Dimensions (mm)				
				Coated								
				AH725		GH130		W±0.05	r _E	L	h	κ
				R	L	R	L					
Neutral		2	DGM2-020	●		●		2	0.2	20	5	-
Left hand			DGM2-020-6R/L	●	●	●	●	2	0.2	20	5	6°
			DGM2-020-8R/L	●	●	●	●	2	0.2	20	5	8°
			DGM2-020-15R/L	●	●	●	●	2	0.2	20	5	15°
			DGM2-002-15R/L	●	●	●	●	2	0.02	19.6	5	15°
Right hand		3	DGM3-020			●		3	0.2	20	5	-
			DGM3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
			DGM3-002-6R/L	●	●	●	●	3	0.02	19.6	5	6°
			DGM3-020-15R/L	●	●	●	●	3	0.2	20	5	15°
		4	DGM4-030			●		4	0.3	20	5	-
			DGM4-030-4R/L	●	●	●	●	4	0.3	20	5	4°
			DGM4-030-15R/L	●	●	●	●	4	0.3	20	5	15°
		5	DGM5-030			●		5	0.3	25	5.5	-
			DGM5-030-4R	●		●		5	0.3	25	5.5	4°
		6	DGM6-030			●		6	0.3	25	5.5	-
		8	DGM8-040			●		8	0.4	30	6.7	-



SGM

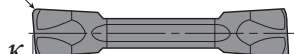
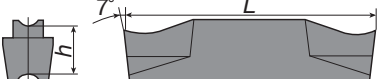
External deep grooving and parting off, 1 corner

		Insert seat size	Cat. No.	Grades				Dimensions (mm)				
				Coated								
				AH725		GH130		W±0.05	r _ε	L	h	κ
				R	L	R	L					
Neutral		2	SGM2-020	●		●		2	0.2	20	5	-
			SGM2-020-6R/L	●	●	●	●	2	0.2	20	5	6°
Left hand		3	SGM3-020		●		●	3	0.2	20	5	-
			SGM3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
Right hand		4	SGM4-030		●		●	4	0.3	20	5	15°
			SGM4-030-4R/L	●	●	●	●	4	0.3	20	5	4°
		5	SGM5-030		●		●	5	0.3	25	5.5	-
			SGM6-030		●		●	6	0.3	25	5.5	-



DGS

External grooving and parting off, 2 corners

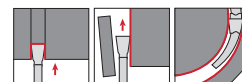
		Insert seat size	Cat. No.	Grades				Dimensions (mm)				
				Coated								
				AH725		GH130		W±0.05	r _ε	L	h	κ
				R	L	R	L					
Neutral		1	DGS1.4-016	●		●		1.4	0.16	16	4.3	-
Left hand		2	DGS2-020	●		●		2	0.2	20	5	-
			DGS2-020-6R/L	●	●	●	●	2	0.2	20	5	6°
			DGS2-002-6R/L	●	●	●	●	2	0.02	19.6	5	6°
			DGS2-020-15R/L	●	●	●	●	2	0.2	20	5	15°
			DGS2-002-15R/L	●	●	●	●	2	0.02	19.6	5	15°
Right hand		3	DGS3-020	●		●		3	0.2	20	5	-
			DGS3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
			DGS3-002-6R/L	●	●	●	●	3	0.02	19.6	5	6°
			DGS3-020-15R/L	●	●	●	●	3	0.2	20	5	15°
			DGS3-002-15R/L	●	●	●	●	3	0.02	19.6	5	15°
		4	DGS4-030	●		●		4	0.3	20	5	-
			DGS4-030-4R/L	●	●	●	●	4	0.3	20	5	4°
		5	DGS5-030	●		●		5	0.3	25	5.5	-
		6	DGS6-030	●		●		6	0.3	25	5.5	-

* For special inserts of TungCut, please refer to page 6-94.

● : Stocked items.

SGS

External deep grooving and parting off, 1 corner



Neutral Left hand Right hand	Insert seat size	Cat. No.	Grades				Dimensions (mm)				
			Coated		Cement		$W \pm 0.05$	r_e	L	h	κ
			AH725	GH130	NS530						
	2	SGS2-020	●	●			2	0.2	20	5	-
		SGS2-020-6R/L	●	●	●	●	2	0.2	20	5	6°
		SGS2-020-15R/L	●	●	●	●	2	0.2	20	5	15°
	3	SGS3-020	●	●			3	0.2	20	5	-
		SGS3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
		SGS3-002-6R/L	●	●	●	●	3	0.02	19.8	5	6°
		SGS3-020-15R/L	●	●	●	●	3	0.2	20	5	15°
	4	SGS4-030	●	●			4	0.3	20	5	-
	5	SGS5-030	●	●			5	0.3	25	5.5	-
	6	SGS6-030	●	●			6	0.3	25	5.5	-

DGE

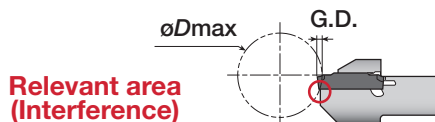
External grooving (Ground), 2 corners



	Insert seat size	Cat. No.	Grades				Dimensions (mm)				
			Coated		Cement		$W \pm 0.02$	$r_e \pm 0.05$	L_1	L	h
			AH725	GH130	NS530						
	2	DGE100-000	●	●			1	0	2.5	20	5
		DGE130-000	●	●			1.3	0	2.5	20	5
		DGE160-010	●	●			1.6	0.1	2.5	20	5
		DGE185-010	●	●			1.85	0.1	3.5	20	5
		DGE215-015	●	●			2.15	0.15	3.5	20	5

● Caution for DGE

ϕD_{max} is limited as shown in following according to groove depth, G.D. Please refer to the right table.

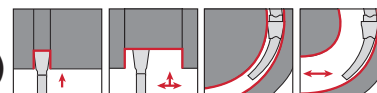


G.D. = Groove depth

Cat. No.	Max. groove depth	ϕD_{max}				
		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	∞	18.6	11.5	8.8	7
DGE215-015						

DTE

External, face grooving and traversing (Ground)



	Insert seat size	Cat. No.	Grades				Dimensions (mm)			
			Coated		Cement		$W \pm 0.02$	$r_e \pm 0.05$	L	h
			AH725	GH130	NS530					
	3	DTE265-015	●	●	★		2.65	0.15	20	5
		DTE300-020	●	●	★		3	0.2	20	5
		DTE300-040	●	●	★		3	0.4	20	5
		DTE315-015	●	●	★		3.15	0.15	20	5
	4	DTE400-040	●	●	★		4	0.4	20	5
		DTE400-080	●	●	★		4	0.8	20	5
		DTE415-015	●	●	★		4.15	0.15	20	5
		DTE478-055	●	●	★		4.78	0.55	25	5.5
	5	DTE500-040	●	●	★		5	0.4	25	5.5
		DTE500-080	●	●	★		5	0.8	25	5.5
		DTE515-015	●	●			5.15	0.15	25	5.5
		DTE515-015	●	●			5.15	0.15	25	5.5
	6	DTE600-080	●	●			6	0.8	25	5.5
		DTE600-120	●	●			6	1.2	25	5.5
	8	DTE800-080	●	●			8	0.8	30	6.7
		DTE800-120	●	●			8	1.2	30	6.7

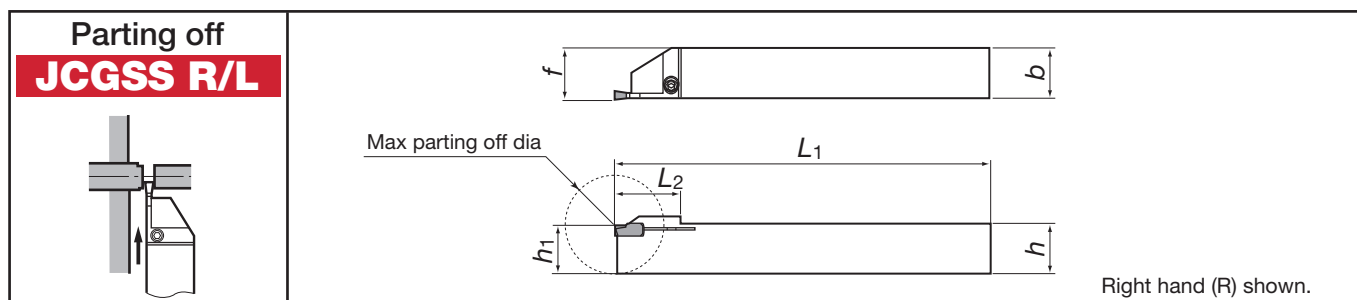
External, face grooving and traversing (Molded)

	Insert seat size	Cat. No.	Grades				Dimensions (mm)			
			Coated		Cement		$W \pm 0.05$	r_e	L	h
			AH725	GH130	NS530					
	3	DTE3-040	●	●	★		3	0.4	20	5
	4	DTE4-040	●	●	★		4	0.4	20	5

* For special inserts of TungCut, please refer to page 6-94.

● : Stocked items
★ : Available from 2013

JCGSS

Width
2.0mmMax. parting off dia.
≤φ20.0_{mm}, ≤φ32.0_{mm}1
Corner

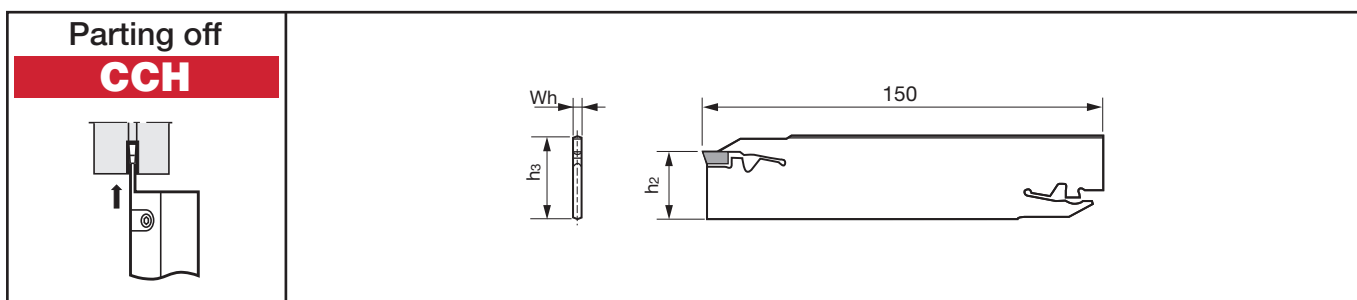
Toolholders for parting off on small lathes

Groove width W (mm)	Cat. No.	Stock		Applicable inserts	Max. parting off dia. (mm)	Dimensions (mm)					
		R	L			b	h	h ₁	L ₁	f	L ₂
2	JCGSSR/L1010-20	●	●	GE20 GE20-AL	20	10	10	10	125	10.2	15
	JCGSSR/L1212-20	●	●		25	12	12	12		12.2	19
	JCGSSR/L1616-20	●	●		32	16	16	16		16.2	22.5

6

My-T G series for Parting off

CCH

Width
3.0~5.0mmMax. parting off dia.
≤φ100_{mm}, ≤φ120_{mm}1
CornerBlades for parting off
Tool blocks

Blades for parting off

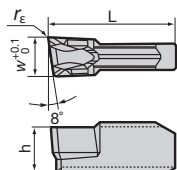
Groove width W (mm)	Cat. No.	Stock	Applicable inserts	Max. parting off dia. (mm)	Dimensions (mm)		
					Wh	h ₂	h ₃
3	CCH32-30	●	GE30 GE30R/L GE30-AL	100	2.2	24.6	31.31
4	CCH32-40	●	GE40 GE40R/L GE40-AL		3.2	24.47	31.04
5	CCH32-50	●	GE50 GE50R/L	120	4.2	24.33	30.77

Tool blocks

Cat. No.	Stock	Suitable blade	Overhang ad (mm)	Dimensions (mm)			
				h ₁	ℓ	h	h ₀
CCBS20-32	●	CCH32-□□	Groove width W = 3 ~ 4: 50 W = 5: 60	20	38	20	13
CCBS25-32	●			25	42	25	8
CCBS32-32	●			32		32	5

Applicable inserts

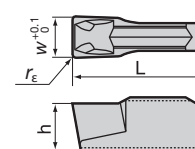
For parting off
(With hand)



Right hand (R) shown.

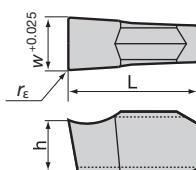
Cat. No.	Grades						Dimensions (mm)			
	Coated				Cermet					
	T9125		GH730		NS730		W	L	h	r _E
	R	L	R	L	R	L				
GE30R/L			●	●	●	●	3	10	3.5	0.2
GE40R/L			●	●	●	●	4		4.0	
GE50R/L			●	●	●	●	5	12	4.5	

For General
parting off and
Grooving



Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GE20	●	●	●	●	2	10	3.5	0.2
GE30	●	●	●	●	3		4.0	
GE40	●	●	●	●	4			
GE50	●	●	●	●	5	12	4.5	

For aluminium
and non-ferrous
metals



Cat. No.	Grades	Dimensions (mm)			
	Uncoated	W	L	h	r _E
	KS05F				
GE20-AL	●	2	10	3.5	0.2
GE30-AL	●	3		4.0	
GE40-AL	●	4			

Parts

Cat. No.	Clamping screw	Wrench
JCGSSR/L□□□□-□□	CSTB-3	T-9F

Parts

Cat. No.	Wedge	Screw	Wrench for screw	Wrench for tool block
CCH□□-□□				
CCBS□□-□□	CC-32	CM6x25	P-5	CTL-2

Standard cutting conditions

Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels Alloy steels (~ 150HB)	T9125	80 ~ 200
	NS730	100 ~ 200
	GH730	50 ~ 180
Medium carbon steels Alloy steels (150 ~ 250HB)	T9125	80 ~ 180
	NS730	80 ~ 180
	GH730	50 ~ 150
High carbon steels Alloy steels (250HB ~)	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 150
	GH730	50 ~ 120
Grey and ductile cast irons	T9125	80 ~ 200
	GH730	50 ~ 180
Aluminium alloys, Non-ferrous metals	KS05F	200 ~ 300

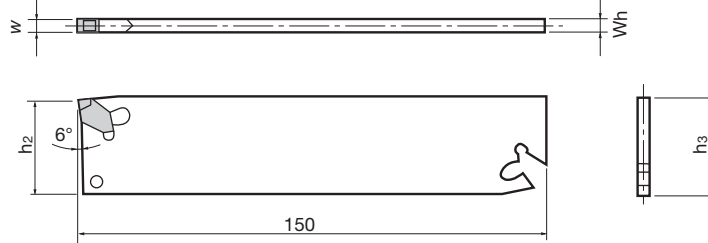
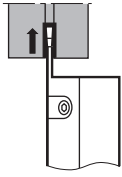
Operation	Feed: f (mm/rev)			
	Groove width: W (mm)			
	2	3	4	5
Parting off (GE□□R/L)	—	0.04 ~ 0.14	0.04 ~ 0.14	0.04 ~ 0.14
Grooving, Parting off (GE□□)	0.05 ~ 0.14	0.05 ~ 0.15	0.05 ~ 0.16	0.05 ~ 0.17
Grooving, Parting off for Aluminium alloys (GE□□-AL)	0.03 ~ 0.1	0.03 ~ 0.1	0.03 ~ 0.1	—

● : Stocked items.

Width
3.0~6.0mmMax. parting off dia.
≤ø100mm1
CornerBlades for parting off
Tool blocks

Parting off

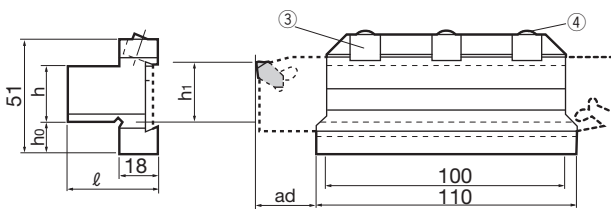
CTH



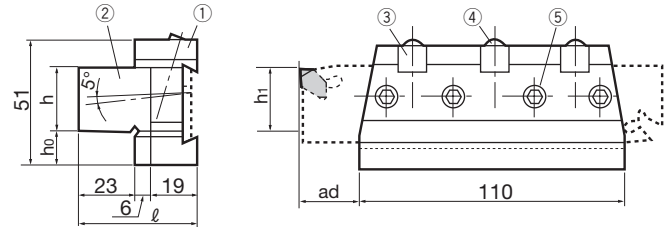
Groove width W (mm)	Blade Cat. No.	Stock	Applicable inserts	Max. parting off dia. (mm)	Dimensions (mm)		
					Wh	h ₂	h ₃
3	CTH32-3	●	CT□3□	100	2.2	30.27	32.24
4	CTH32-4	●	CT□4□		3.2	30.13	31.97
5	CTH32-5	●	CT□5□		4.2	30	31.7
6	CTH32-6	●	CT□6□		5.2	29.87	31.44

Tool blocks

One piece type CTBN



Two piece type CTBS



Tool block Cat. No.	Stock	Applicable blades	Overhang ad (mm)	Dimensions (mm)			
				h ₁	l	h	h ₀
CTBN20-32	●	CTH32-3 CTH32-4 CTH32-5 CTH32-6	50	20.2	38	20	19.56
CTBN25-32	●			25.2		25	14.56
CTBN32-32	●			32.2		32	7.56
CTBS20-32	●			20.2	48	20	19.36
CTBS25-32	●			25.2		25	14.36
CTBS32-32	●			32.2		32	7.36

Parts

Tool block Cat. No.	Parts						
	①Main body	②Base	③Wedge	④Wedge clamping screw	⑤Hex. socket head screw	Wrench	Insert extractor
CTBN20-32	-	-	CTW-2	NDS-8S	-	P-4	CTL-2
CTBN25-32							
CTBN32-32							
CTBS20-32	CTB-32	CB-20	CTW-2	DS-8	M5×15		
CTBS25-32		CB-25					
CTBS32-32		CB-32					

Standard cutting conditions for CTH, CTS

Operation / Work materials		Cutting speed v _c (m/min)	Feed: f (mm/rev)				
			CTN3	CTN4	CTN5	CTN6	CTR/L□
Grooving	Low carbon steels	100 ~ 150	0.08 ~ 0.25	0.08 ~ 0.25	0.08 ~ 0.25	0.08 ~ 0.3	-
	Medium carbon steels			0.08 ~ 0.3	0.08 ~ 0.3		
	Cast irons, Light alloys	100 ~ 200	-	-	-	-	0.1 ~ 0.3
Parting off	Low carbon steels	100 ~ 150	0.08 ~ 0.2	0.08 ~ 0.2	0.08 ~ 0.2	0.08 ~ 0.2	0.08 ~ 0.15
	Medium carbon steels						
	Cast irons, Light alloys	100 ~ 200	-	-	-	-	0.1 ~ 0.3

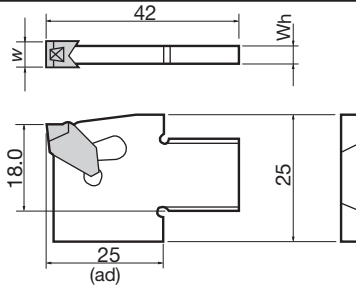
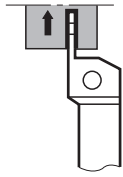
Note: When using CTS type (blade type) toolholders, reduce the values given in the table by 80 %.

● : Stocked items.

Width
3.0~6.0mmMax. parting off dia.
≤ø50mm1
CornerBlades for parting off
Tool blocks

Parting off

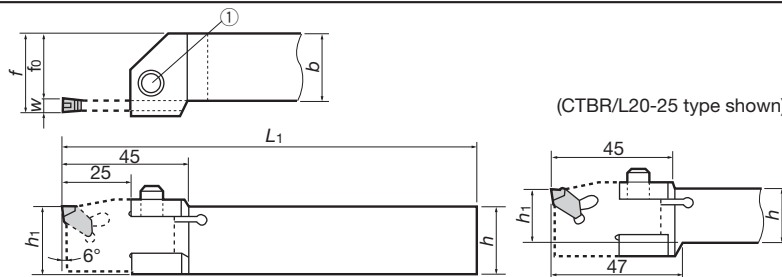
CTS R/L



Right hand (R) shown.

Groove width W (mm)	Blade Cat. No.	Stock		Applicable inserts	Overhang ad (mm)	Dimensions (mm)	
		R	L			Wh	
3	CTSR/L25-3	●	●	CT□3□	Max. 25	2.2	
4	CTSR/L25-4	●	●	CT□4□		3.2	
5	CTSR/L25-5	●	●	CT□5□		4.2	
6	CTSR/L25-6	●	●	CT□6□		5.2	

Toolholders



(CTBR/L20-25 type shown)

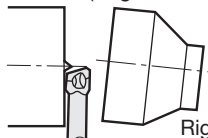
Right hand (R) shown.

Groove width W (mm)	Cat. No.	Stock		Applicable blade	Overhang (mm) ad	Dimensions (mm)						Parts	
		R	L			h ₁	h	b	L ₁	f ₀	f	① Clamping screw	Wrench
3	CTBR/L20-25	●	●	CTSR/L25-3	Max.25 Max.cut off dia. ø50	20.2	20	25	150	19.6	22.6	M6×20	P-5
4		●	●	CTSR/L25-4							23.6		
3		●	●	CTSR/L25-3							27.6		
4	CTBR/L25-25	●	●	CTSR/L25-4	Max.25 Max.cut off dia. ø50	25.2	25	25	150	24.6	28.6	M6×20	P-5
5		●	●	CTSR/L25-5							29.6		
6		●	●	CTSR/L25-6							30.6		

Inserts for CTH, CTS, and SCTH type parting off toolholders

CTN	Dimensions (mm) W±0.2 r _E	Cat. No.	Grades								
			Coated T313W			Uncoated TX40			Uncoated TH10		
			N	R	L	N	R	L	N	R	L
	3 0.2	CTN3	●			●					
		CTN3K							●		
		CTR/L3		●	●		●				
		CTR/L3K								●	●
		CTN4	●			●					
		CTN4K							●		
	4 0.2	CTR/L4		●	●						
		CTR/L4K								●	●
		CTN5	●								
		CTN5K							●		
		CTR/L5		●							
		CTR/L5K								●	
	5 0.3	CTN6	●								
		CTN6K							●		
		CTR/L6									
		CTR/L6K									
		CTN6									
		CTN6K									

Chuck side (Regular revolution)



Right hand (CTR)

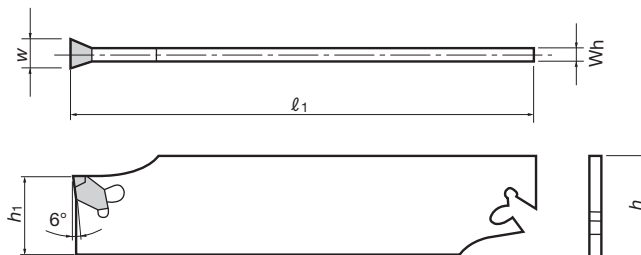
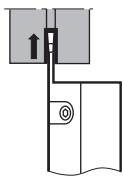
- Notes:
- Right hand and left hand inserts are effective to minimize burr generation when workpiece is cut off.
 - CT□□K type inserts with positive rake and sharp cutting edge are suitable for parting off and grooving of light alloys and cast irons.

● : Stocked items.
▲ : Shortly unavailable

Width
3.0~6.0mm1
Corner

Parting off

SCTH



Blades for parting off

Cat. No.	Stock	Dimensions (mm)					Applicable tool block Cat. No.		Applicable inserts
		W	h ₁	W _h	h	ℓ			
SCTH26-3		3	21.16	2.2	25.35	110	SGTB R/L 25-6,	SGTBN16-5	CT□3□
SCTH26-4		4	21.05	3.2	25.14		SGTBN19-5,	SGTBU20-5	CT□4□
SCTH32-3		3	24.8	2.2	31.41	150	SGTBN19-6,	SGTBN25-6	CT□3□
SCTH32-4		4	24.66	3.2	31.14		SGTBN32-6,	SGTBU20-6	CT□4□
SCTH32-5		5	24.53	4.2	30.87		SGTBU25-6,	SGTBU32-6	CT□5□
SCTH32-6		6	24.39	5.2	30.61		SGTBU32-25-6,	SGTBK32-9	CT□6□

Note: These blades are compatible only with the tool blocks shown in the above table.

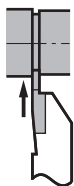
J series for Small Lathes

JSXG

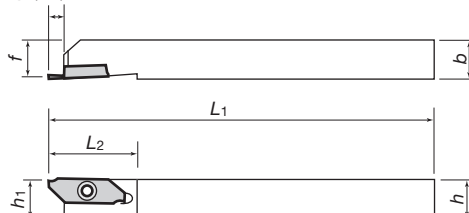
Width
0.7~2.0mmMax. dia.
≤ 4.5mm, ≤ 6.0mm2
Corners

Parting off • Grooving

JSXG R/L

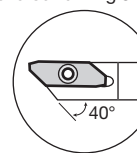


(Two corners type) (6.5)



Can be wrenched from back side with double socket torx screw.

JSXG type toolholders are also used for front-turning JXF type inserts and reverse-turning JXR type inserts.



C-type

Right hand (R) shown.

Cat. No.	Stock		Applicable inserts	Dimensions (mm)						Parts		
	R	L		h	b	L ₁	L ₂	h ₁	f	Clamping screw	Wrench	
JSXGR/L1010K8-C	●	●	JXGR/L8□□□	10	10	125	29	10	9.9	CSTB-4SD	T-8F	(T-8L)
JSXGR/L1212K8-C	●	●		12	12			12	11.9			
JSXGR/L1616K8	●	●		16	16			16	15.9			
JSXGR/L2020K8	●	●		20	20			20	19.9			
JSXGR/L2525K8	●	●		25	25			25	24.9			

Applicable inserts

JXG-type inserts (With sharp edges and cutting direction)

Cat. No.	Dimensions (mm)						Grades										
	ød	T	W ^{+0.025}	θ	Max. groove depth	r _ε	Coated	Coated cermet		Cermet				Uncoated			
							J740	J530			NS530				TH10		
							R	L	R	L	R	L	R	L	R	L	
JXGR/L8070FA	8	3.97	0.7	15°	4.5	0	●	●					●	●		●	●
JXGR/L8070FA-005						0.05	●										
JXGR/L8100FA			1		6	0	●	●				●	●		●	●	
JXGR/L8100FA-005						0.05	●										
JXGR/L8100FA45			4.5		4.5	0	●					●			●		
JXGR/L8100FA45-005						0.05	●										
JXGR/L8120FA			1.2		6	0	●	●				●	●		●	●	
JXGR/L8150FA			1.5			0	●	●				●	●		●	●	
JXGR/L8150FA-005			5		0.05	●											
JXGR/L8150FA50			1.8		6	0	●					●			●		
JXGR/L8150FA50-005						0.05	●										
JXGR/L8180FA			2	0°	6	0	●	●				●	●		●	●	
JXGR/L8180FA-005						0.05	●										
JXGR/L8200FA			2		6	0	●	●				●	●		●	●	
JXGR/L8200FA-005						0.05	●										
JXGR/L8200FN			2		6	0	●	●				●	●		●	●	
JXGR/L8200FN-005						0.05	●										

Right hand (R) shown.

Right hand (R) shown.

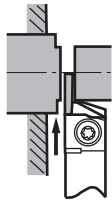
● : Stocked items.

JCCWS

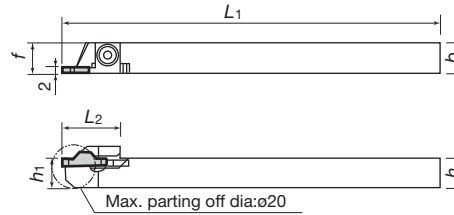
Width
~ 2.0mmMax. parting off dia.
≤ø20.0mm2
Corners

Parting off

JCCWS R/L



(Two corners type)



Right hand (R) shown.

Cat. No.	Stock		Applicable inserts	Dimensions (mm)							Parts		
	R	L		h	b	L ₁	L ₂	h ₁	f	Max. parting off dia.	Clamping screw	Wrench	
JCCWSR/L1010K2	●	●	JCC□200F	10	10	125	19	10	10	ø20	CSTB-4S	T-15F	(T-15L)
JCCWSR/L1212K2	●	●		12	12			12	12				
JCCWSR/L1616K2	●	●		16	16			16	16				
JCCWSR/L2020K2	●	●		20	20			20	20				
JCCWSR/L2525K2	●	●		25	25			25	25				

■ Applicable inserts JCC-type inserts (With sharp edges)

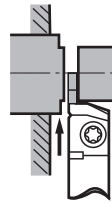
Cat. No.	Dimensions (mm)					r_E	θ	Grades											
	T	W	L					Coated			Coated cermet			Cermet			Uncoated		
								J740	J530		NS530						TH10		
								R	L	R	L	R	L	R	L	R	L	R	L
JCCN200F	4.8	2	15			0	-	●	●									●	
JCCN200F-005						0.05		●	●										
JCCR/L200F						0	15°	●	●	●	●							●	●
JCCR/L200F-005						0.05		●	●										

JCGWS

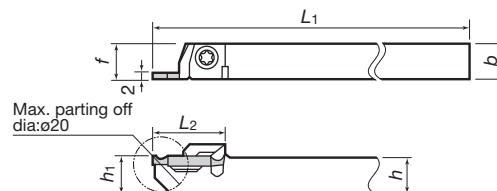
Width
~ 2.0mmMax. parting off dia.
≤ø20.0mm2
Corners

Parting off

JCGWS R/L



(Two corners type)



Right hand (R) shown.

Cat. No.	Stock		Applicable inserts	Dimensions (mm)							Parts		
	R	L		h	b	L ₁	L ₂	h ₁	f	Max. parting off dia.	Clamping screw	Wrench	
JCGWSR/L1010K2	●	●	JCGN200□	10	10	125	20	10	10	ø20	CSTB-4S	T-15F	(T-15L)
JCGWSR/L1212K2	●	●		12	12			12	12				
JCGWSR/L1616K2	●	●		16	16			16	16				

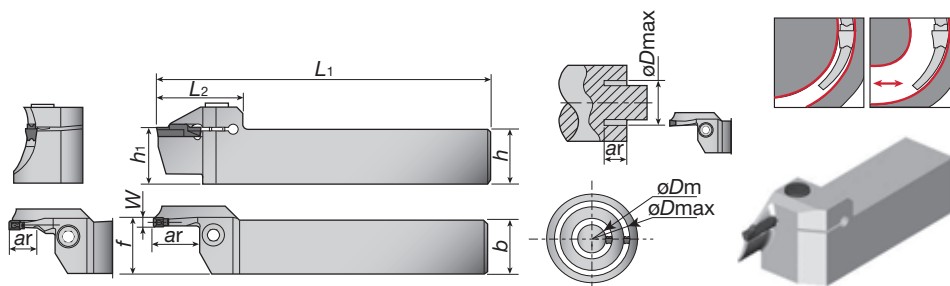
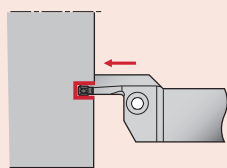
■ Applicable inserts JCG-type inserts (With sharp edges)

Cat. No.	Dimensions (mm)					r_E	θ	Grades											
	T	W	L					Coated			Coated cermet			Cermet			Uncoated		
								J740	J530		NS530						TH10		
								R	L	R	L	R	L	R	L	R	L	R	L
JCGN200F	3	2	20	0.05				●	●									●	
JCGN200FR/L								●	●	●	●							●	●

● : Stocked items.

Width
3.0~6.0mmMax. Groove Depth
≤10.0mm, ≤25.0mm2
Corners

Face grooving / traversing



Toolholders (Mono block type)

Right hand (R) shown.

Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. dia. øDm (mm)	Max. groovedepth ⁽¹⁾ ar (mm)	Dimensions (mm)						Inserts ⁽⁴⁾	Parts		
		R	L				h ₁	b	h	L ₁	f ⁽³⁾	W		L ₂	Clamping screw	Wrench
3	CTFR/L2525-3T10-024035	●	●	24	35	10	25	25	25	150	25.5	3	38	DTF / DTX	CM6x1x25-A	P-5
	CTFR/L2525-3T10-029040	●	●	29	40	10	25	25	25	150		3	38			
	CTFR/L2525-3T10-034050	●	●	34	50	10	25	25	25	150		3	38	DTF / DTX / DTE / DGM / DGS		
	CTFR/L2525-3T15-044070	●	●	44	70	15	25	25	25	150		3	38			
	CTFR/L2525-3T15-064100	●	●	64	100	15	25	25	25	150		3	38			
4	CTFR/L2525-4T10-022036	●	●	22	36	10	25	25	25	150	25.6	4	39	DTF / DTX	CM6x1x25-A	P-5
	CTFR/L2525-4T20-028042	●	●	28	42	20 ⁽²⁾	25	25	25	150		4	39			
	CTFR/L2525-4T20-034050	●	●	34	50	20 ⁽²⁾	25	25	25	150		4	39	DTF / DTX / DTE / DGM / DGS		
	CTFR/L2525-4T20-042070	●	●	42	70	20	25	25	25	150		4	39			
	CTFR/L2525-4T20-062120	●	●	62	120	20	25	25	25	150		4	39			
	CTFR/L2525-4T20-112200	●	●	112	200	20	25	25	25	150		4	39			
5	CTFR/L2525-5T25-050080	●	●	50	80	25	25	25	25	150	25.6	5	49	DTX /DTE / DGM / DGS	CM8x1.25x25-A	P-6
	CTFR/L2525-5T25-070110	●	●	70	110	25	25	25	25	150		5	49			
	CTFR/L2525-5T25-100150	●	●	100	150	25	25	25	25	150		5	49			
	CTFR/L2525-5T25-140200	●	●	140	200	25	25	25	25	150		5	49			
6	CTFR/L2525-6T25-048070	●	●	48	70	25	25	25	25	150	25.6	6	49	DTE / DGM / DGS	CM8x1.25x25-A	P-6
	CTFR/L2525-6T25-058100	●	●	58	100	25	25	25	25	150		6	49			
	CTFR/L2525-6T25-088180	●	●	88	180	25	25	25	25	150		6	49			
	CTFR/L2525-6T25-168400	●	●	168	400	25	25	25	25	150		6	49			

(1) When depth is deeper than insert length, 1 corner type is recommended.

(2) When DTF insert is installed, Max. "ar" should be 15 mm.

(3) "f" value in the above table is calculated with groove width "W" shown in the table.

Caution

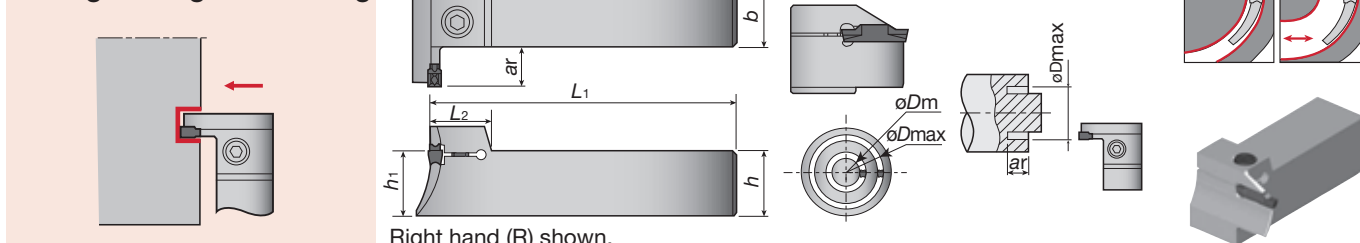
In DTF and DTX insert types, seat size "6" inserts are not available. When 6 size insert is required, the DTE, DGM or DGS type is recommended.

(4) Min. diameter øDm of DTE, DGS and DGM insert

Inserts	øDm (mm)	Note
DTE 3 / DGS 3 / DGM 3	ø44	When diameter is smaller than øDm, DTF or DTX type insert is recommended.
DTE 4 / DGS 4 / DGM 4	ø42	

● : Stocked items.

Face grooving / traversing



Right hand (R) shown.

Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. dia. øDm (mm)	*Max. groove depth ar (mm)	Dimensions (mm)						Inserts ⁽⁴⁾	Parts	
		R	L				<i>h</i> ₁	<i>b</i>	<i>h</i>	<i>L</i> ₁	<i>W</i>	<i>L</i> ₂		Clamping screw	Wrench
3	CTFVR/L2525-3T10-024035	●	●	24	35	10	25	25	25	150	3	18	DTF / DTX	CM5x0.8x25-A	P-4
	CTFVR/L2525-3T10-029040	●	●	29	40	10	25	25	25	150	3	18			
	CTFVR/L2525-3T10-034050	●	●	34	50	15	25	25	25	150	3	18	DTF / DTX / DTE / DGM / DGS		
	CTFVR/L2525-3T15-044060	●	●	44	60	10	25	25	25	150	3	18			
	CTFVR/L2525-3T15-054085	●	●	54	85	15	25	25	25	150	3	18			
4	CTFVR/L2525-4T12-022040	●	●	22	40	12	25	25	25	150	4	18.5	DTF / DTX	CM6x1x25-A	P-5
	CTFVR/L2525-4T15-032050	●	●	32	50	15	25	25	25	150	4	18.5			
	CTFVR/L2525-4T15-042060	●	●	42	60	15	25	25	25	150	4	18.5	DTF / DTX / DTE / DGM / DGS		
	CTFVR/L2525-4T15-052085	●	●	52	85	15	25	25	25	150	4	18.5			
5	CTFVR/L2525-5T20-050080	●	●	50	80	20	25	25	25	150	5	22	DTX / DTE / DGM / DGS	CM8x1.25x25-A	P-6
	CTFVR/L2525-5T20-070110	●	●	70	110	20	25	25	25	150	5	22			
	CTFVR/L2525-5T20-100150	●	●	100	150	20	25	25	25	150	5	22			
	CTFVR/L2525-5T20-140200	●	●	140	200	20	25	25	25	150	5	22			
6	CTFVR/L2525-6T20-048085	●	●	48	85	20	25	25	25	150	6	22	DTE / DGM / DGS	CM8x1.25x25-A	P-6
	CTFVR/L2525-6T20-073150	●	●	73	150	20	25	25	25	150	6	22			
	CTFVR/L2525-6T20-138250	●	●	138	250	20	25	25	25	150	6	22			

Caution

In DTF and DTX insert types, seat size “6” inserts are not available. When 6 size insert is required, the DTE, DGM or DGS type is recommended.

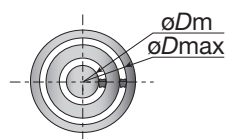
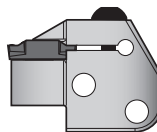
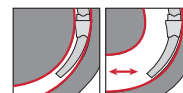
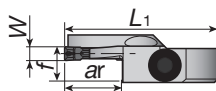
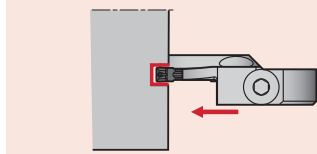
(4) Min. diameter øDm of DTE, DGS and DGM insert

Inserts	øDm (mm)	Note
DTE 3 / DGS 3 / DGM 3	ø44	When diameter is smaller than øDm, DTF or DTX type insert is recommended.
DTE 4 / DGS 4 / DGM 4	ø42	

● : Stocked items.

Width
3.0~6.0mmMax. Groove Depth
≤12.0mm, ≤25.0mm2
Corners

Face grooving and traversing



Right hand (R) shown.

Blades

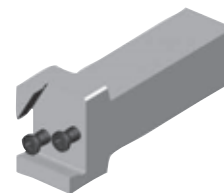
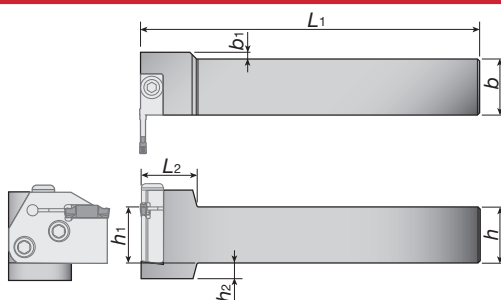
Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. dia. øDm (mm)	Max. groove depth ar (mm)	Dimensions (mm)			Inserts ⁽³⁾	Shank	Parts	
		R	L				L ₁	f ⁽²⁾	W			Clamping screw	Wrench
3	CAFR/L-3T12-040055	●	●	40	55	12	45	10.4	3	DTF	CHFVR/L CHSR/L	BHM6-20-A	P-4
	CAFR/L-3T12-055075	●	●	55	75	12	45	10.4	3				
	CAFR/L-3T12-075100	●	●	75	100	12	45	10.4	3				
	CAFR/L-3T12-100140	●	●	100	140	12	45	10.4	3				
	CAFR/L-3T12-140200	●	●	140	200	12	45	10.4	3				
4	CAFR/L-4T16-050070	●	●	50	70	16	45	10.5	4	DTF DTE DTX DGS DGM		BHM6-20-A	P-4
	CAFR/L-4T16-070100	●	●	70	100	16	45	10.5	4				
	CAFR/L-4T16-100150	●	●	100	150	16	45	10.5	4				
	CAFR/L-4T16-150250	●	●	150	250	16	45	10.5	4				
5	CAFR/L-5T20-055080	●	●	55	80	20	49	10.5	5	DTF DTE DTX DGS DGM		BHM6-20-A	P-4
	CAFR/L-5T20-080120	●	●	80	120	20	49	10.5	5				
	CAFR/L-5T20-120180	●	●	120	180	20	49	10.5	5				
	CAFR/L-5T20-180300	●	●	180	300	20	49	10.5	5				
	CAFR/L-5T20-300000	●	●	300	∞	20	49	10.5	5				
6	CAFR/L-6T25-060090	●	●	60	90	25 ⁽¹⁾	55	10.5	6	DTF DTE DTX DGS DGM		BHM6-20-A	P-4
	CAFR/L-6T25-090150	●	●	90	150	25 ⁽¹⁾	55	10.5	6				
	CAFR/L-6T25-150250	●	●	150	250	25 ⁽¹⁾	55	10.5	6				
	CAFR/L-6T25-250400	●	●	250	400	25 ⁽¹⁾	55	10.5	6				

(1) When depth is deeper than insert length, 1 corner type is recommended.

(2) "f" value in the above table is calculated with groove width "W" shown in the table.

(3) For Min. diameter øDm of DTE, DGS and DGM insert, please refer to "Caution" on previous page.

Horizontal type



Right hand (R) shown.

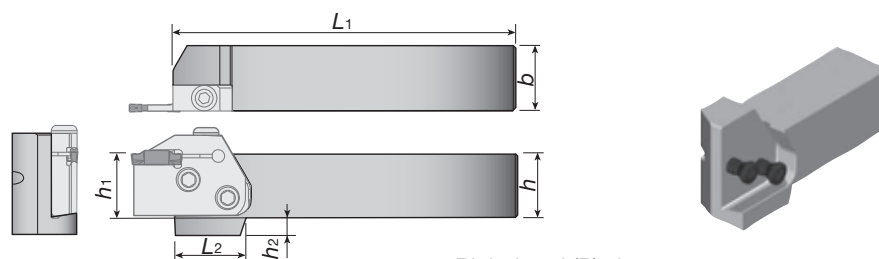
Toolholders for blades

Cat. No.	Stock		Dimensions (mm)							Blades	Parts	
	R	L	h1	b	h	L1	b1	h2	L2		Clamping screw	Wrench
CHFVR/L2020	●	●	20	20	20	150	8	12	25	CAER/L CAFR/L	CSHB-6-A	P-4
CHFVR/L2525	●	●	25	25	25	150	3	7	25			
CHFVR/L3232	●	●	32	32	32	170	-	-	25			

Combination of blade and toolholder

Toolholders	Blades			
	CAER□□□	CAEL□□□	CAFR□□□	CAFL□□□
CHFVR***		●	●	
CHFVL***	●			●

● : Stocked items.



Right hand (R) shown.

Toolholders for blades

Cat. No.	Stock		Dimensions (mm)						Blades	Parts	
	R	L	h_1	b	h	L_1	h_2	L_2		Clamping screw	Wrench
CHSR/L2020	●	●	20	20	20	133	12	35	CAER/L	CSHB-6-A	P-4
CHSR/L2525	●	●	25	25	25	133	7	28	CAFR/L		
CHSR/L3232	●	●	32	32	32	153	-	28			

Combination of blade and toolholder

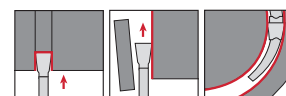
Toolholders	Blades			
	CAER□□□	CAEL□□□	CAFR□□□	CAFL□□□
CHSR***	●			●
CHSL***		●	●	

CTFR/L, CTFVR/L, CAFR/L inserts

Applicable inserts

● Notation of "insert seat size"

Seat size and grooving width are different. Seat size measure is for the specification of the setting insert. Please note this point.



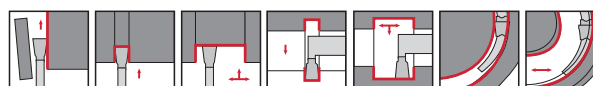
DGM

External grooving and parting off, 2 corners

	Insert seat size	Cat. No.	Grades Coated				Dimensions (mm)				
			AH725		GH130		$W \pm 0.05$	r_ϵ	L	h	κ
			R	L	R	L					
Neutral Left hand Right hand	2	DGM2-020	●	●	●	●	2	0.2	20	5	-
		DGM2-020-6R/L	●	●	●	●	2	0.2	20	5	6°
		DGM2-020-8R/L	●	●	●	●	2	0.2	20	5	8°
		DGM2-020-15R/L	●	●	●	●	2	0.2	20	5	15°
		DGM2-002-15R/L	●	●	●	●	2	0.02	19.6	5	15°
	3	DGM3-020	●	●	●	●	3	0.2	20	5	-
		DGM3-020-6R/L	●	●	●	●	3	0.2	20	5	6°
		DGM3-002-6R/L	●	●	●	●	3	0.02	19.6	5	6°
		DGM3-020-15R/L	●	●	●	●	3	0.2	20	5	15°
	4	DGM4-030	●	●	●	●	4	0.3	20	5	-
		DGM4-030-4R/L	●	●	●	●	4	0.3	20	5	4°
		DGM4-030-15R/L	●	●	●	●	4	0.3	20	5	15°
	5	DGM5-030	●	●	●	●	5	0.3	25	5.5	-
		DGM5-030-4R	●	●	●	●	5	0.3	25	5.5	4°
	6	DGM6-030	●	●	●	●	6	0.3	25	5.5	-
		DGM8-040	●	●	●	●	8	0.4	30	6.7	-

DTX

External, internal, face grooving and traversing



	Insert seat size	Cat. No.	Grades Coated		Dimensions (mm)			
			AH725		$W \pm 0.05$	r_ϵ	L	h
			R	L				
	3	DTX3-030	●	●	3	0.3	20	5
		DTX4-040	●	●	4	0.4	20	5
		DTX5-040	●	●	5	0.4	25	5.5

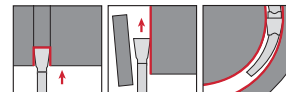
● : Stocked items.

* For special inserts of TungCut, please refer to page 6-94.

CTFR/L, CTFVR/L, CAFR/L inserts

DGS

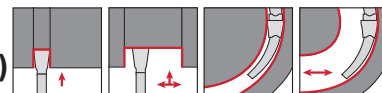
External grooving and parting off, 2 corners

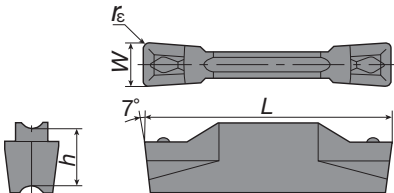


Neutral	W	Insert seat size	Cat. No.	Grades				Dimensions (mm)				
				Coated		Cermets		W±0.05	r _ε	L	h	κ
				AH725	GH130	AH725	GH130					
Left hand	r _ε	7°	1	DGS1.4-016	●	●	●	1.4	0.16	16	4.3	-
			2	DGS2-020	●	●	●	2	0.2	20	5	-
Right hand	κ	7°	2	DGS2-020-6R/L	●	●	●	2	0.2	20	5	6°
			2	DGS2-002-6R/L	●	●	●	2	0.02	19.6	5	6°
	L	7°	2	DGS2-020-15R/L	●	●	●	2	0.2	20	5	15°
			2	DGS2-002-15R/L	●	●	●	2	0.02	19.6	5	15°
	h	7°	3	DGS3-020	●	●	●	3	0.2	20	5	-
			3	DGS3-020-6R/L	●	●	●	3	0.2	20	5	6°
	L	7°	3	DGS3-002-6R/L	●	●	●	3	0.02	19.6	5	6°
			3	DGS3-020-15R/L	●	●	●	3	0.2	20	5	15°
	h	7°	3	DGS3-002-15R/L	●	●	●	3	0.02	19.6	5	15°
			4	DGS4-030	●	●	●	4	0.3	20	5	-
	L	7°	4	DGS4-030-4R/L	●	●	●	4	0.3	20	5	4°
			5	DGS5-030	●	●	●	5	0.3	25	5.5	-
	h	7°	6	DGS6-030	●	●	●	6	0.3	25	5.5	-

DTE

External, face grooving and traversing (Ground)



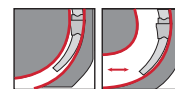
		Insert seat size	Cat. No.	Grades			Dimensions (mm)			
				Coated		Cermet	W±0.02	r _ε ±0.05	L	h
				AH725	GH130					
3	DTE265-015	●	●	★	2.65	0.15	20	5		
	DTE300-020	●	●	★	3	0.2	20	5		
	DTE300-040	●	●	★	3	0.4	20	5		
	DTE315-015	●	●	★	3.15	0.15	20	5		
4	DTE400-040	●	●	★	4	0.4	20	5		
	DTE400-080	●	●	★	4	0.8	20	5		
	DTE415-015	●	●	★	4.15	0.15	20	5		
5	DTE478-055	●	●	★	4.78	0.55	25	5.5		
	DTE500-040	●	●	★	5	0.4	25	5.5		
	DTE500-080	●	●	★	5	0.8	25	5.5		
	DTE515-015	●	●		5.15	0.15	25	5.5		
6	DTE600-080	●	●		6	0.8	25	5.5		
	DTE600-120	●	●		6	1.2	25	5.5		
8	DTE800-080	●	●		8	0.8	30	6.7		
	DTE800-120	●	●		8	1.2	30	6.7		

External, face grooving and traversing (Molded)

	Insert seat size	Cat. No.	Grades			Dimensions (mm)			
			Coated		Cermet	W±0.05	r ϵ	L	h
			AH725	GH130	NS530				
3	DTE3-040	●	●	★	3	0.4	20	5	
4	DTE4-040	●	●	★	4	0.4	20	5	

DTF

Face grooving and traversing



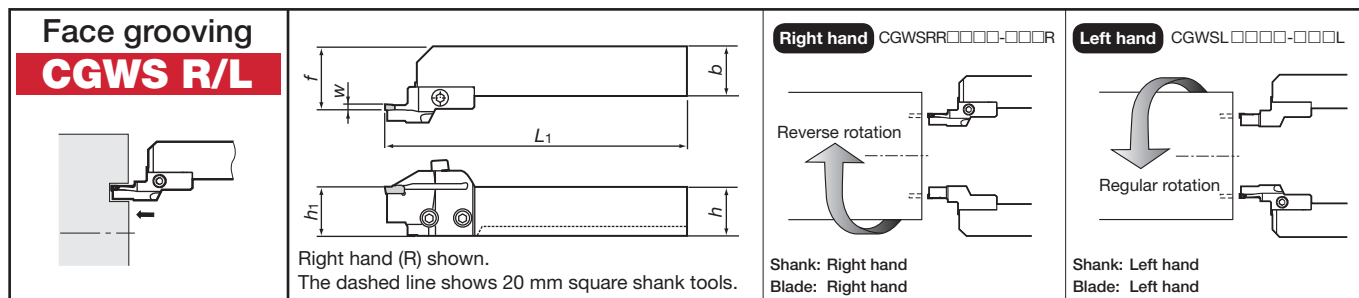
Right hand	W	Insert seat size	Cat. No.	Grades				Dimensions (mm)				
				Coated		Cermets		W±0.05	r _ε	L	h	L ₁
				AH725	GH130	AH725	GH130					
	r _ε	7°	3	DTF3-040-R/L	●	●	●	3	0.4	20	5	16
			4	DTF4-040-R/L	●	●	●	4	0.4	20	5	16

Note: ● Apply right hand inserts to right hand holders and left hand inserts to left hand holders.

* For special inserts of TungCut, please refer to page 6-94.

● : Stocked items

★ : Available from 2013



Toolholders (S: Vertical type)

Groove width W (mm)	Min. bore dia. ϕD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)					Parts				
			R	L			h_1	b	h	L_1	f	Shank	Stock R L	Blade set		Stock R L
3	30 ~ 40	CGWSR/L2020-30S3040R/L			GE30	10	20	20	20	152.5	27	CGWSR/L2020	● ●	30S3040R/L	● ●	
	40 ~ 50	CGWSR/L2020-30S4050R/L												30S4050R/L	● ●	
	50 ~ 65	CGWSR/L2020-30S5065R/L												30S5065R/L	● ●	
	65 ~ 90	CGWSR/L2020-30S6590R/L												30S6590R/L	● ●	
	90 ~ 150	CGWSR/L2020-30S90150R/L												30S90150R/L	● ●	
	150 ~ 500	CGWSR/L2020-30S150500R/L												30S150500R/L	● ●	
	30 ~ 40	CGWSR/L2525-30S3040R/L			GE30-AL	10	25	25	25	152.5	32	CGWSR/L2525	● ●	30S3040R/L	● ●	
	40 ~ 50	CGWSR/L2525-30S4050R/L												30S4050R/L	● ●	
	50 ~ 65	CGWSR/L2525-30S5065R/L												30S5065R/L	● ●	
	65 ~ 90	CGWSR/L2525-30S6590R/L												30S6590R/L	● ●	
	90 ~ 150	CGWSR/L2525-30S90150R/L												30S90150R/L	● ●	
	150 ~ 500	CGWSR/L2525-30S150500R/L												30S150500R/L	● ●	
	30 ~ 40	CGWSR/L2020-30D3040R/L			GE30	14	20	20	20	160.5	27	CGWSR/L2020	● ●	30D3040R/L		
	40 ~ 50	CGWSR/L2020-30D4050R/L												30D4050R/L		
	50 ~ 65	CGWSR/L2020-30D5065R/L												30D5065R/L		
	65 ~ 90	CGWSR/L2020-30D6590R/L												30D6590R/L		
	90 ~ 150	CGWSR/L2020-30D90150R/L												30D90150R/L		
	150 ~ 500	CGWSR/L2020-30D150500R/L												30D150500R/L		
	30 ~ 40	CGWSR/L2525-30D3040R/L			GE30-AL	14	25	25	25	160.5	32	CGWSR/L2525	● ●	30D3040R/L		
	40 ~ 50	CGWSR/L2525-30D4050R/L												30D4050R/L		
	50 ~ 65	CGWSR/L2525-30D5065R/L												30D5065R/L		
	65 ~ 90	CGWSR/L2525-30D6590R/L												30D6590R/L		
	90 ~ 150	CGWSR/L2525-30D90150R/L												30D90150R/L		
	150 ~ 500	CGWSR/L2525-30D150500R/L												30D150500R/L		
4	35 ~ 45	CGWSR/L2020-40S3545R/L			GE40	14	20	20	20	152.5	27	CGWSR/L2020	● ●	40S3545R/L	● ●	
	45 ~ 55	CGWSR/L2020-40S4555R/L			GF40									40S4555R/L	● ●	
	55 ~ 80	CGWSR/L2020-40S5580R/L			GT40									40S5580R/L	● ●	
	80 ~ 140	CGWSR/L2020-40S80140R/L			GR40									40S80140R/L	● ●	
	140 ~ 500	CGWSR/L2020-40S140500R/L			GE40-AL									40S140500R/L	● ●	

Notes: ● When ordering, Shank and Blade set are required.

● When using a right or left hand blade set, the right hand blade set is used with right hand shank and the left hand blade set is used with left hand shank.

● : Stocked items.

Groove width W (mm)	Min. bore dia. ϕD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)					Parts						
			R	L			h_1	b	h	L_1	f	Shank		Stock R L		Blade set		Stock R L
4	35 ~ 45	CGWSR/L2525-40S3545R/L			GE40	14	25	25	25	152.5	32	CGWSR/L2525	●	●	40S3545R/L		●	
	45 ~ 55	CGWSR/L2525-40S4555R/L			GF40										40S4555R/L		●	
	55 ~ 80	CGWSR/L2525-40S5580R/L			GT40										40S5580R/L		●	
	80 ~ 140	CGWSR/L2525-40S80140R/L			GR40										40S80140R/L		●	
	140 ~ 500	CGWSR/L2525-40S140500R/L		GE40-AL	40S140500R/L											●		
	35 ~ 45	CGWSR/L2020-40D3545R/L			GE40	22	20	20	20	160.5	27	CGWSR/L2020	●	●	40D3545R/L		●	
	45 ~ 55	CGWSR/L2020-40D4555R/L													GF40	40D4555R/L		
	55 ~ 80	CGWSR/L2020-40D5580R/L													GT40	40D5580R/L		●
	80 ~ 140	CGWSR/L2020-40D80140R/L													GR40	40D80140R/L	●	●
	140 ~ 500	CGWSR/L2020-40D140500R/L		GE40-AL											40D140500R/L		●	
	35 ~ 45	CGWSR/L2525-40D3545R/L			GE40-AL	22	25	25	25	160.5	32	CGWSR/L2525	●	●	40D3545R/L	●	●	
	45 ~ 55	CGWSR/L2525-40D4555R/L													40D4555R/L	●	●	
	55 ~ 80	CGWSR/L2525-40D5580R/L													40D5580R/L	●	●	
	80 ~ 140	CGWSR/L2525-40D80140R/L													40D80140R/L	●	●	
	140 ~ 500	CGWSR/L2525-40D140500R/L													40D140500R/L	●	●	
5	35 ~ 45	CGWSR/L2020-50S3545R/L			GE50	14	20	20	20	152.5	27	CGWSR/L2020	●	●	50S3545R/L	●	●	
	45 ~ 55	CGWSR/L2020-50S4555R/L													50S4555R/L	●	●	
	55 ~ 75	CGWSR/L2020-50S5575R/L													50S5575R/L	●	●	
	75 ~ 130	CGWSR/L2020-50S75130R/L													50S75130R/L	●	●	
	130 ~ 500	CGWSR/L2020-50S130500R/L													50S130500R/L	●	●	
	35 ~ 45	CGWSR/L2525-50S3545R/L			GR50	14	25	25	25	152.5	32	CGWSR/L2525	●	●	50S3545R/L	●	●	
	45 ~ 55	CGWSR/L2525-50S4555R/L													50S4555R/L	●	●	
	55 ~ 75	CGWSR/L2525-50S5575R/L													50S5575R/L			
	75 ~ 130	CGWSR/L2525-50S75130R/L													50S75130R/L	●	●	
	130 ~ 500	CGWSR/L2525-50S130500R/L													50S130500R/L			
	35 ~ 45	CGWSR/L2020-50D3545R/L			GE50	22	20	20	20	160.5	27	CGWSR/L2020	●	●	50D3545R/L			
	45 ~ 55	CGWSR/L2020-50D4555R/L													50D4555R/L	●		
	55 ~ 75	CGWSR/L2020-50D5575R/L													50D5575R/L	●	●	
	75 ~ 130	CGWSR/L2020-50D75130R/L													50D75130R/L			
	130 ~ 500	CGWSR/L2020-50D130500R/L													50D130500R/L		●	
	35 ~ 45	CGWSR/L2525-50D3545R/L			GR50	22	25	25	25	160.5	32	CGWSR/L2525	●	●	50D3545R/L	●	●	
	45 ~ 55	CGWSR/L2525-50D4555R/L													50D4555R/L	●	●	
	55 ~ 75	CGWSR/L2525-50D5575R/L													50D5575R/L	●	●	
	75 ~ 130	CGWSR/L2525-50D75130R/L													50D75130R/L	●	●	
	130 ~ 500	CGWSR/L2525-50D130500R/L													50D130500R/L	●	●	

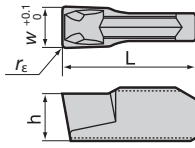
Notes: ● When ordering, Shank and Blade set are required.

- When using a right or left hand blade set, the right hand blade set is used with right hand shank and the left hand blade set is used with left hand shank.

● : Stocked items.

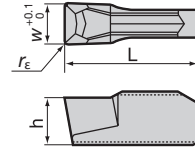
Applicable inserts

For face grooving



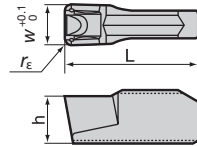
Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GE30	●	●	●	●	3	10	3.5	0.2
GE40	●	●	●	●	4	10	4.0	0.2
GE50	●	●	●	●	5	12	4.5	0.2

For face grooving
(Improved chip control)



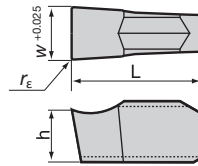
Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GF30	●	●	●	●	3	10	3.5	0.2
GF40	●	●	●	●	4	10	4.0	0.2
GF50	●	●	●	●	5	12	4.5	0.2

For face traversing



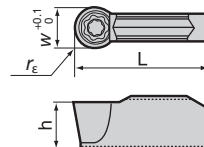
Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GT30		●	●	●	3	10	3.5	0.4
GT40		●	●	●	4	10	4.0	0.4
GT50	●	●	●	●	5	12	4.5	0.4

For face grooving of
aluminium alloys and
non-ferrous metals



Cat. No.	Grades	Dimensions (mm)			
	Uncoated	W	L	h	r _E
	KS05F				
GE30-AL	●	3	10	3.5	0.2
GE40-AL	●	4		4.0	

For face profiling
(Full radius)



Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GR30		●	●	●	3	10	3.5	1.5
GR40	●	●	●	●	4	10	4.0	2.0
GR50	●	●	●	●	5	12	4.5	2.5

Parts

Cat. No.	Clamping screw	Blade fixing screw	Wrench
CGWSR/L□□□□- □□S/D□□□□R/L			
	S:CHHM5-18 D:CM5×0.8×16	CSHB-6	P-4

Example: CGWSR2020-30 S 3040R

S:CHHM5-18
D:CM5×0.8×16

Standard cutting conditions

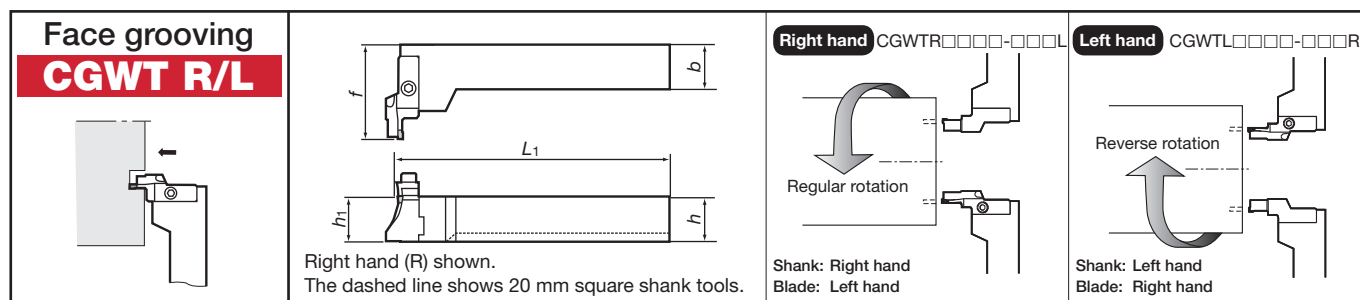
Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels Alloy steels (~150HB)	T9125	80 ~ 200
	NS730	100 ~ 200
	GH730	50 ~ 180
Medium carbon steels Alloy steels (150 ~ 250HB)	T9125	80 ~ 180
	NS730	80 ~ 180
	GH730	50 ~ 150
High carbon steels Alloy steels (250HB ~)	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 150
	GH730	50 ~ 120
Grey and ductile cast irons	T9125	80 ~ 200
	GH730	50 ~ 180
Aluminium alloys, Non-ferrous metals	KS05F	200 ~ 300

Operation	Feed: f (mm/rev)		
	Groove width: W (mm)		
	3	4	5
Face grooving (GE□□)	0.06 ~ 0.22	0.06 ~ 0.24	0.07 ~ 0.26
Face grooving (GF□□)	0.04 ~ 0.25	0.05 ~ 0.26	0.05 ~ 0.30
Face traversing (GT□□)	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
Face traversing (GR□□)	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3
Face grooving for aluminium alloys (GE□□-AL)	0.03 ~ 0.1	0.03 ~ 0.1	—

Notes: • For diameter compensation values in traversing, see page 6-39.

• For occurrence of vibrations in face traversing, set the feed to the lower side of the values show in the above table.

● : Stocked items.



Toolholders (T: Horizontal type)

Groove width W (mm)	Min. bore dia. ϕD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)					Parts					
			R	L			h_1	b	h	L_1	f	Shank	Stock R L	Blade set	Stock R L		
3	30 ~ 40	CGWTR/L2020-30S3040L/R			GE30	10	20	20	20	150	52.25	CGWTR/L2020	● ●	30S3040L/R	● ●		
	40 ~ 50	CGWTR/L2020-30S4050L/R												30S4050L/R	● ●		
	50 ~ 65	CGWTR/L2020-30S5065L/R												30S5065L/R	● ●		
	65 ~ 90	CGWTR/L2020-30S6590L/R												30S6590L/R	● ●		
	90 ~ 150	CGWTR/L2020-30S90150L/R												30S90150L/R	● ●		
	150 ~ 500	CGWTR/L2020-30S150500L/R												30S150500L/R	● ●		
	30 ~ 40	CGWTR/L2525-30S3040L/R			GF30		10	25	25	25	150	52.25	CGWTR/L2525	● ●	30S3040L/R	● ●	
	40 ~ 50	CGWTR/L2525-30S4050L/R													30S4050L/R	● ●	
	50 ~ 65	CGWTR/L2525-30S5065L/R													30S5065L/R	● ●	
	65 ~ 90	CGWTR/L2525-30S6590L/R													30S6590L/R	● ●	
	90 ~ 150	CGWTR/L2525-30S90150L/R													30S90150L/R	● ●	
	150 ~ 500	CGWTR/L2525-30S150500L/R													30S150500L/R	● ●	
	30 ~ 40	CGWTR/L2525-30S3040L/R			GT30	10		25	25	25	150	52.25	CGWTR/L2525	● ●	30S3040L/R	● ●	
	40 ~ 50	CGWTR/L2525-30S4050L/R													30S4050L/R	● ●	
	50 ~ 65	CGWTR/L2525-30S5065L/R													30S5065L/R	● ●	
	65 ~ 90	CGWTR/L2525-30S6590L/R													30S6590L/R	● ●	
	90 ~ 150	CGWTR/L2525-30S90150L/R													30S90150L/R	● ●	
	150 ~ 500	CGWTR/L2525-30S150500L/R													30S150500L/R	● ●	
	30 ~ 40	CGWTR/L2525-30S3040L/R			GE30-AL		10	25	25	25	150	52.25	CGWTR/L2525	● ●	30S3040L/R	● ●	
	40 ~ 50	CGWTR/L2525-30S4050L/R													30S4050L/R	● ●	
	50 ~ 65	CGWTR/L2525-30S5065L/R													30S5065L/R	● ●	
	65 ~ 90	CGWTR/L2525-30S6590L/R													30S6590L/R	● ●	
	90 ~ 150	CGWTR/L2525-30S90150L/R													30S90150L/R	● ●	
	150 ~ 500	CGWTR/L2525-30S150500L/R													30S150500L/R	● ●	
30 ~ 40	CGWTR/L2020-30D3040L/R			GE30	14	20		20	20	150	60.25	CGWTR/L2020	● ●	30D3040L/R			
40 ~ 50	CGWTR/L2020-30D4050L/R													30D4050L/R			
50 ~ 65	CGWTR/L2020-30D5065L/R													30D5065L/R			
65 ~ 90	CGWTR/L2020-30D6590L/R													30D6590L/R			
90 ~ 150	CGWTR/L2020-30D90150L/R													30D90150L/R			
150 ~ 500	CGWTR/L2020-30D150500L/R													30D150500L/R			
30 ~ 40	CGWTR/L2525-30D3040L/R			GF30		14	25	25	25	150	60.25	CGWTR/L2525	● ●	30D3040L/R			
40 ~ 50	CGWTR/L2525-30D4050L/R													30D4050L/R			
50 ~ 65	CGWTR/L2525-30D5065L/R													30D5065L/R			
65 ~ 90	CGWTR/L2525-30D6590L/R													30D6590L/R			
90 ~ 150	CGWTR/L2525-30D90150L/R													30D90150L/R			
150 ~ 500	CGWTR/L2525-30D150500L/R													30D150500L/R			
30 ~ 40	CGWTR/L2525-30D3040L/R			GT30	14		25	25	25	150	60.25	CGWTR/L2525	● ●	30D3040L/R			
40 ~ 50	CGWTR/L2525-30D4050L/R													30D4050L/R			
50 ~ 65	CGWTR/L2525-30D5065L/R													30D5065L/R			
65 ~ 90	CGWTR/L2525-30D6590L/R													30D6590L/R			
90 ~ 150	CGWTR/L2525-30D90150L/R													30D90150L/R			
150 ~ 500	CGWTR/L2525-30D150500L/R													30D150500L/R			
30 ~ 40	CGWTR/L2525-30D3040L/R			GR30		14	25	25	25	150	60.25	CGWTR/L2525	● ●	30D3040L/R			
40 ~ 50	CGWTR/L2525-30D4050L/R													30D4050L/R			
50 ~ 65	CGWTR/L2525-30D5065L/R													30D5065L/R			
65 ~ 90	CGWTR/L2525-30D6590L/R													30D6590L/R			
90 ~ 150	CGWTR/L2525-30D90150L/R													30D90150L/R			
150 ~ 500	CGWTR/L2525-30D150500L/R													30D150500L/R			
30 ~ 40	CGWTR/L2525-30D3040L/R			GE30-AL	14		25	25	25	150	60.25	CGWTR/L2525	● ●	30D3040L/R			
40 ~ 50	CGWTR/L2525-30D4050L/R													30D4050L/R			
50 ~ 65	CGWTR/L2525-30D5065L/R													30D5065L/R			
65 ~ 90	CGWTR/L2525-30D6590L/R													30D6590L/R			
90 ~ 150	CGWTR/L2525-30D90150L/R													30D90150L/R			
150 ~ 500	CGWTR/L2525-30D150500L/R													30D150500L/R			
4	35 ~ 45	CGWTR/L2020-40S3545L/R				GE40	14	20	20	20	150	52.25	CGWTR/L2020	● ●	40S3545L/R	●	
	45 ~ 55	CGWTR/L2020-40S4555L/R				GF40									40S4555L/R	●	
	55 ~ 80	CGWTR/L2020-40S5580L/R				GT40									40S5580L/R	●	
	80 ~ 140	CGWTR/L2020-40S80140L/R				GR40									40S80140L/R	●	
	140 ~ 500	CGWTR/L2020-40S140500L/R				GE40-AL									40S140500L/R	●	

Notes: ● When ordering, Shank and Blade set are required.

● When using a right or left hand blade set, the right hand blade set is used with left hand shank and the left hand blade set is used with right hand shank.

● : Stocked items.

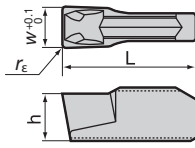
Groove width W (mm)	Min. bore dia. ϕD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)					Parts							
			R	L			h_1	b	h	L_1	f	Shank	Stock R L	Blade set	Stock R L				
4	35 ~ 45	CGWTR/L2525-40S3545L/R			GE40	14	25	25	25	150	52.25	CGWTR/L2525	●	●	40S3545L/R		●		
	45 ~ 55	CGWTR/L2525-40S4555L/R			GF40										40S4555L/R				
	55 ~ 80	CGWTR/L2525-40S5580L/R			GT40										40S5580L/R		●		
	80 ~ 140	CGWTR/L2525-40S80140L/R			GR40										40S80140L/R	●	●		
	140 ~ 500	CGWTR/L2525-40S140500L/R			GE40-AL										40S140500L/R		●		
	35 ~ 45	CGWTR/L2020-40D3545L/R			GE40	22	20	20	20	150	60.25	CGWTR/L2020	●	●	40D3545L/R	●	●		
	45 ~ 55	CGWTR/L2020-40D4555L/R													GF40	40D4555L/R		●	
	55 ~ 80	CGWTR/L2020-40D5580L/R													GT40	40D5580L/R		●	
	80 ~ 140	CGWTR/L2020-40D80140L/R													GR40	40D80140L/R		●	
	140 ~ 500	CGWTR/L2020-40D140500L/R													GE40-AL	40D140500L/R		●	
	35 ~ 45	CGWTR/L2525-40D3545L/R			GE40-AL		25	25	25	150	60.25	CGWTR/L2525	●	●	40D3545L/R	●	●		
	45 ~ 55	CGWTR/L2525-40D4555L/R													40D4555L/R	●	●		
	55 ~ 80	CGWTR/L2525-40D5580L/R													40D5580L/R	●	●		
	80 ~ 140	CGWTR/L2525-40D80140L/R													40D80140L/R	●	●		
	140 ~ 500	CGWTR/L2525-40D140500L/R													40D140500L/R	●	●		
5	35 ~ 45	CGWTR/L2020-50S3545L/R			GE50	14	20	20	20	150	52.25	CGWTR/L2020	●	●	50S3545L/R	●	●		
	45 ~ 55	CGWTR/L2020-50S4555L/R													GF50	50S4555L/R		●	
	55 ~ 75	CGWTR/L2020-50S5575L/R													GT50	50S5575L/R		●	
	75 ~ 130	CGWTR/L2020-50S75130L/R													GR50	50S75130L/R		●	
	130 ~ 500	CGWTR/L2020-50S130500L/R													50S130500L/R		●		
	35 ~ 45	CGWTR/L2525-50S3545L/R			GE50		22	25	25	25	150	60.25	CGWTR/L2525	●	●	50S3545L/R	●	●	
	45 ~ 55	CGWTR/L2525-50S4555L/R														GF50	50S4555L/R		●
	55 ~ 75	CGWTR/L2525-50S5575L/R														GT50	50S5575L/R		●
	75 ~ 130	CGWTR/L2525-50S75130L/R														GR50	50S75130L/R		●
	130 ~ 500	CGWTR/L2525-50S130500L/R														50S130500L/R		●	
	35 ~ 45	CGWTR/L2020-50D3545L/R			GE50	22		20	20	20	150	60.25	CGWTR/L2020	●	●	50D3545L/R			
	45 ~ 55	CGWTR/L2020-50D4555L/R														GF50	50D4555L/R	●	
	55 ~ 75	CGWTR/L2020-50D5575L/R														GT50	50D5575L/R	●	●
	75 ~ 130	CGWTR/L2020-50D75130L/R														GR50	50D75130L/R		
	130 ~ 500	CGWTR/L2020-50D130500L/R														50D130500L/R		●	
	35 ~ 45	CGWTR/L2525-50D3545L/R			GE50		25	25	25	150	60.25	CGWTR/L2525	●	●	50D3545L/R	●	●		
	45 ~ 55	CGWTR/L2525-50D4555L/R													GF50	50D4555L/R	●	●	
	55 ~ 75	CGWTR/L2525-50D5575L/R													GT50	50D5575L/R	●	●	
	75 ~ 130	CGWTR/L2525-50D75130L/R													GR50	50D75130L/R	●	●	
	130 ~ 500	CGWTR/L2525-50D130500L/R													50D130500L/R	●	●		

Notes: ● When ordering, Shank and Blade set are required.

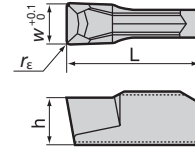
- When using a right or left hand blade set, the right hand blade set is used with left hand shank and the left hand blade set is used with right hand shank.

● : Stocked items.

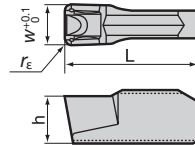
Applicable inserts

For face
grooving

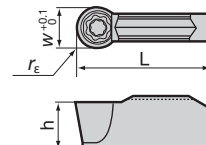
Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GE30	●	●	●	●	3	10	3.5	0.2
GE40	●	●	●	●	4	10	4.0	0.2
GE50	●	●	●	●	5	12	4.5	0.2

For face grooving
(Improved chip control)

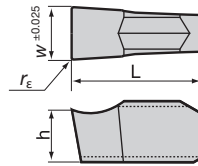
Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GF30	●	●	●	●	3	10	3.5	0.2
GF40	●	●	●	●	4	10	4.0	0.2
GF50	●	●	●	●	5	12	4.5	0.2

For face
traversing

Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GT30		●	●	●	3	10	3.5	0.4
GT40		●	●	●	4	10	4.0	0.4
GT50	●	●	●	●	5	12	4.5	0.4

For face profiling
(Full radius)

Cat. No.	Grades				Dimensions (mm)			
	Coated		Cermet		W	L	h	r _E
	T9125	GH730	NS530	NS730				
GR30		●	●	●	3	10	3.5	1.5
GR40	●	●	●	●	4	10	4.0	2.0
GR50	●	●	●	●	5	12	4.5	2.5

For face grooving of
aluminium alloys and
non-ferrous metals

Cat. No.	Grades	Dimensions (mm)			
	Uncoated	W	L	h	r _E
	KS05F				
GE30-AL	●	3	10	3.5	0.2
GE40-AL	●	4		4.0	

Parts

Cat. No.	Clamping screw	Blade fixing screw	Wrench
CGWTR/L□□□□- □□S/D□□□□L/R	S:CHHM5-18 D:CM5×0.8×16	CSHB-6	P-4

Example: CGWTR2020-30 S 3040L

S:CHHM5-18
D:CM5×0.8×16

Standard cutting conditions

Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels	T9125	80 ~ 200
Alloy steels (~ 150HB)	NS730	100 ~ 200
	GH730	50 ~ 180
Medium carbon steels	T9125	80 ~ 180
Alloy steels (150 ~ 250HB)	NS730	80 ~ 180
	GH730	50 ~ 150
High carbon steels	T9125	80 ~ 150
Alloy steels 250HB	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 150
	GH730	50 ~ 120
Grey and ductile cast irons	T9125	80 ~ 200
	GH730	50 ~ 180
Aluminium alloys, Non-ferrous metals	KS05F	200 ~ 300

Operation	Feed: f (mm/rev)		
	Groove width: W (mm)		
	3	4	5
Face grooving (GE□□)	0.06 ~ 0.22	0.06 ~ 0.24	0.07 ~ 0.26
Face grooving (GF□□)	0.04 ~ 0.25	0.05 ~ 0.26	0.05 ~ 0.30
Face traversing (GT□□)	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
Face traversing (GR□□)	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3
Face grooving for aluminium alloys (GE□□-AL)	0.03 ~ 0.1	0.03 ~ 0.1	—

Notes: • For diameter compensation values in traversing, see page 6-39.

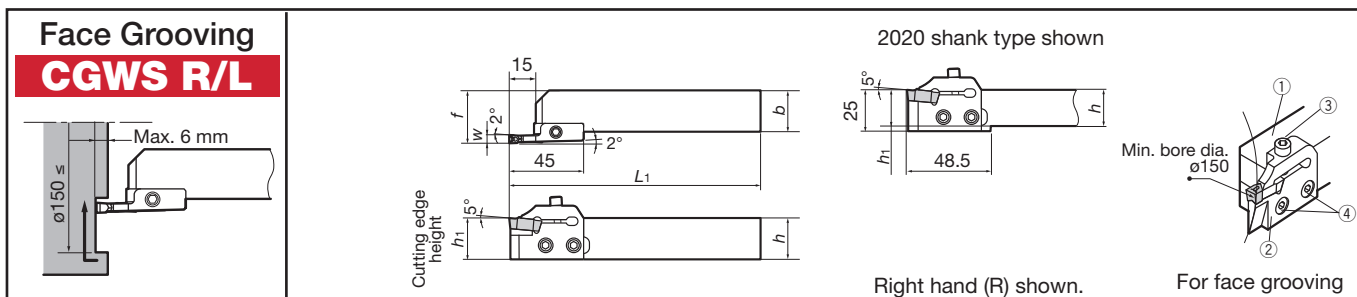
• For occurrence of vibrations in face traversing, set the feed to the lower side of the values show in the above table.

● : Stocked items.

CGWS-FL

Width
5mmMax. Groove Depth
≤ 6.0mm2
Corners

S: Vertical type



Toolholders (S: Vertical type)

Groove width w (mm)	Min. bore dia. φD (mm)	Max. groove depth (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Dimensions (mm)					Parts				
				R	L		b	h	L ₁	h ₁	f	Shank①	Stock	Blade set	Stock	
5	>150	6	CGWSR/L2020-FLR/L5TP	●	●	FLEX50R/L	20	20	152	20	27	CGWSR/L2020	●	●	FLR/L5TP	●
			CGWSR/L2525-FLR/L5TP	●	●	FLEX50R/L	25	25		25	32	CGWSR/L2525	●	●		

Notes: • When ordering, Shank and blade ass'y Cat. No. or Shank and Blade set are required.

• When using a right or left hand blade set, the right hand blade set is used with right hand shank and the left hand blade set is used with left hand shank.

Applicable inserts

Right hand (R) shown.	Dimensions (mm)				Cat. No.	Grades			Left hand inserts are identified with a recessed dot.
	W	r _E	W ₁	Hand		Coated	Cermet	Uncoated	
						T9125	NS530	UX30	
	5	0.4	4	R	FLEX50R	●	●	●	
				L	FLEX50L	●	●	●	

Note: • When using a right or left hand blade set, the right hand blade set is used with right hand shank and the left hand blade set is used with left hand shank.

Parts

Cat. No.	Clamping screw③	Blade fixing screw④	Wrench
CGWSR/L□□□□-FLR/L□TP	CHHM5-18	CSHB-6	P-4

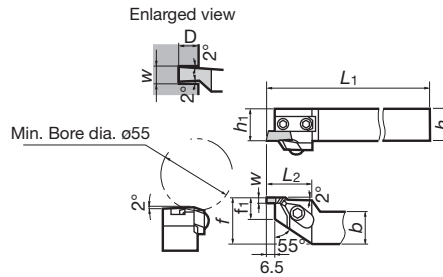
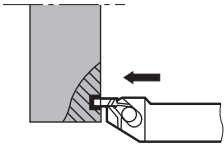
Cautionary Notes

- When facing, the operation should proceed from the OD toward the center in order to prevent tool breakage.
- When facing, depth of cut and feed should be performed at approximately 70% of the values shown above.

● : Stocked items.

Face grooving

GX-R/LF



Right hand (R) shown.

Min. bore dia. ϕD (mm)	Max. groove width (mm)	Max. groove depth (mm)	Cat. No.	Stock		Applicable inserts	Dimensions (mm)						
				R	L		h_1	b	h	L_1	L_2	f	f_1
55	4.5	6	GX-2020R/LF			XNL/R63□□	20	20	20	125	35	25	15
			GX-2525R/LF	●	●		25	25	25	150		32	

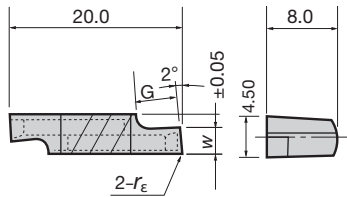
Note: ● When using a right or left hand insert, the right hand insert is used with left hand toolholder and the left hand insert is used with right hand toolholder.

Note: Max. groove width and max. groove depth shown in the above table are the values when the insert with the largest cutting edge width is used.

6

Inserts

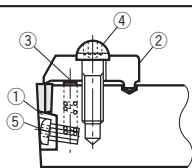
XNR/L



Left hand (L) shown.

Dimensions (mm)				Cat. No.	Grades									
					Cermet				Uncoated					
									NS530		TH10		UX30	
					W±0.05	Max.groove depth	G	r _E	R	L			R	L
1	1.5	1.8	0	XNR/L6310S										
			0.2	XNR/L6310-02	●	●			●	●				
1.5	2.3	2.5	0	XNR/L6315S										
			0.2	XNR/L6315-02	●	●			●	●			●	
2	3	3.2	0	XNR/L6320S										
			0.2	XNR/L6320-02	●	●			●	●			●	●
2.5	3.8	3.9	0	XNR/L6325S										
			0.2	XNR/L6325-02	●	●			●	●				
3	4.5	4.6	0	XNR/L6330S										
			0.2	XNR/L6330-02	●	●			●	●			●	●
3.5	5.3	5.4	0	XNR/L6335S										
			0.2	XNR/L6335-02	●	●			●	●				
4	6	6.1	0	XNR/L6340S										
			0.2	XNR/L6340-02	●	●			●	●			●	●
0			XNR/L6345S											
0.2			XNR/L6345-02	●	●			●	●					

Parts



Cat. No.	Parts				
	① Shim	Clamp set	④ Clamping screw	⑤ Shim screw	Wrench
GX-2020R/LF	SL-8R/L	CP81A (② Clamp CP81 ③ Pusher BP-3 Spring)	RT-1	BHM4-8	P-4
GX-2525R/LF	SL-3R/L				

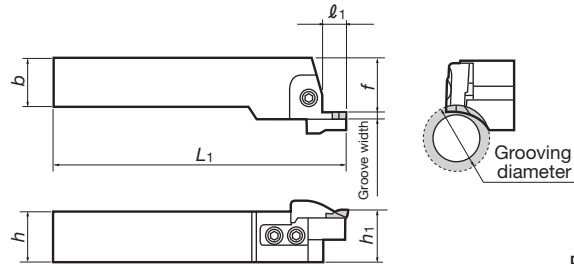
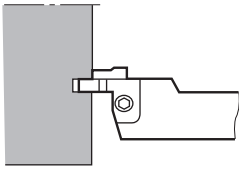
● : Stocked items.

CFGS

Width
3.0~8.0mmMax. Groove Depth
≤10.0mm, ≤26.0mm1
Corner

Face grooving

CFGS R/L



Right hand (R) shown.

■ Groove width: 3 mm

Groove width W (mm)	Min. bore dia. øD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set			
			R	L			h ₁	b	h	L ₁	f	Shank	Blade	Clamp	Other parts
3	30 ~ 40	CFGSR/L2020-3SA	●	●	FGC3	10	21	20	20	125	22	CFGSR/L2020	FBR/L25-3SA	CFG-3SR/L	All components
	40 ~ 50	CFGSR/L2020-3SB	●	●									FBR/L25-3SB		
	50 ~ 60	CFGSR/L2020-3SC	●	●									FBR/L25-3SC		
	60 ~ 80	CFGSR/L2020-3SD	●	●									FBR/L25-3SD		
	80 ~ 120	CFGSR/L2020-3SE	●	●			20.5						FBR/L25-3SE		
	120 ~ 200	CFGSR/L2020-3SF	●	●									FBR/L25-3SF		
	200 ~ 500	CFGSR/L2020-3SG					20	FBR/L25-3SG							
	30 ~ 40	CFGSR/L2525-3SA	●	●			26	25	25	150	29	CFGSR/L2525	FBR/L25-3SA		
	40 ~ 50	CFGSR/L2525-3SB	●	●									FBR/L25-3SB		
	50 ~ 60	CFGSR/L2525-3SC	●	●									FBR/L25-3SC		
	60 ~ 80	CFGSR/L2525-3SD	●	●									FBR/L25-3SD		
	80 ~ 120	CFGSR/L2525-3SE	●	●			25.5						FBR/L25-3SE		
	120 ~ 200	CFGSR/L2525-3SF											FBR/L25-3SF		
	200 ~ 500	CFGSR/L2525-3SG					25	FBR/L25-3SG							

■ Groove width: 4 mm

Groove width W (mm)	Min. bore dia. øD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max.groove depth (mm)	Dimensions (mm)					Components of set			
			R	L			h ₁	b	h	L ₁	f	Shank	Blade	Clamp	Other parts
4	30 ~ 40	CFGSR/L2020-4SA	●	●	FGC4	10	21	20	20	125	21	CFGSR/L2020	FBR/L25-4SA	CFG-4SR/L	All components
	40 ~ 50	CFGSR/L2020-4SB	●	●									FBR/L25-4SB		
	50 ~ 60	CFGSR/L2020-4SC	●	●									FBR/L25-4SC		
	60 ~ 80	CFGSR/L2020-4SD	●	●									FBR/L25-4SD		
	80 ~ 120	CFGSR/L2020-4SE	●	●			20.5						FBR/L25-4SE		
	120 ~ 200	CFGSR/L2020-4SF											FBR/L25-4SF		
	200 ~ 500	CFGSR/L2020-4SG					20	FBR/L25-4SG							
	30 ~ 40	CFGSR/L2525-4SA	●	●			26	25	25	150	28	CFGSR/L2525	FBR/L25-4SA		
	40 ~ 50	CFGSR/L2525-4SB	●	●									FBR/L25-4SB		
	50 ~ 60	CFGSR/L2525-4SC	●	●									FBR/L25-4SC		
	60 ~ 80	CFGSR/L2525-4SD	●	●									FBR/L25-4SD		
	80 ~ 120	CFGSR/L2525-4SE		●									FBR/L25-4SE		
	120 ~ 200	CFGSR/L2525-4SF											FBR/L25-4SF		
	200 ~ 500	CFGSR/L2525-4SG											25		
4	30 ~ 40	CFGSR/L2020-4DA			FGC4	20							21	20	
	40 ~ 50	CFGSR/L2020-4DB					FBR/L25-4DB								
	50 ~ 60	CFGSR/L2020-4DC					FBR/L25-4DC								
	60 ~ 80	CFGSR/L2020-4DD					FBR/L25-4DD								
	80 ~ 120	CFGSR/L2020-4DE					20.5						FBR/L25-4DE		
	120 ~ 200	CFGSR/L2020-4DF											FBR/L25-4DF		
	200 ~ 500	CFGSR/L2020-4DG					20	FBR/L25-4DG							
	30 ~ 40	CFGSR/L2525-4DA	●	●			26	25	25	160	28	CFGSR/L2525	FBR/L25-4DA		
	40 ~ 50	CFGSR/L2525-4DB	●	●									FBR/L25-4DB		
	50 ~ 60	CFGSR/L2525-4DC	●	●									FBR/L25-4DC		
	60 ~ 80	CFGSR/L2525-4DD	●	●									FBR/L25-4DD		
	80 ~ 120	CFGSR/L2525-4DE	●	●									FBR/L25-4DE		
	120 ~ 200	CFGSR/L2525-4DF											FBR/L25-4DF		
	200 ~ 500	CFGSR/L2525-4DG											25	FBR/L25-4DG	

- Notes: ● Right hand toolholders are used in regular rotation.
 ● Left hand toolholders are used in reverse rotation.
 ● When using these face grooving toolholders, right hand ones use a right hand bladeset and left hand ones are left hand bladeset.

● : Stocked items.

CFGS

Width
3.0~8.0mmMax. Groove Depth
≤10.0mm, ≤26.0mm1
Corner

Groove width: 5 mm

Groove width W (mm)	Min. bore dia. ϕ D (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set				
			R	L			h_1	b	h	L_1	f	Shank	Blade	Clamp	Other parts	
5	30 ~ 40	CFGSR/L2020-5SA	●	●	FGC5	12	21	20	20	127	20	CFGSR/L 2020	FBR/L25-5SA	CFG- 5SR/L	All components	
	40 ~ 50	CFGSR/L2020-5SB	●	●									FBR/L25-5SB			
	50 ~ 60	CFGSR/L2020-5SC	●	●									FBR/L25-5SC			
	60 ~ 80	CFGSR/L2020-5SD	●	●			20.5	20	20	127	20		FBR/L25-5SD			
	80 ~ 120	CFGSR/L2020-5SE	●	●									FBR/L25-5SE			
	120 ~ 200	CFGSR/L2020-5SF					20	20	20	127	20		FBR/L25-5SF			
	200 ~ 500	CFGSR/L2020-5SG											FBR/L25-5SG			
	30 ~ 40	CFGSR/L2525-5SA	●	●			26	25	25	152	27	CFGSR/L 2525	FBR/L25-5SA			
	40 ~ 50	CFGSR/L2525-5SB	●	●									FBR/L25-5SB			
	50 ~ 60	CFGSR/L2525-5SC	●	●									FBR/L25-5SC			
60 ~ 80	CFGSR/L2525-5SD	●	●	25.5	25	25	152	27	20	FBR/L25-5SD						
80 ~ 120	CFGSR/L2525-5SE	●	●							FBR/L25-5SE						
120 ~ 200	CFGSR/L2525-5SF			20	25	25	152	27	20	FBR/L25-5SF						
200 ~ 500	CFGSR/L2525-5SG									FBR/L25-5SG						
5	30 ~ 40	CFGSR/L2020-5DA			FGC5	22	21	20	20	137	20	CFGSR/L 2020	FBR/L25-5DA	CFG- 5DR/L		
	40 ~ 50	CFGSR/L2020-5DB											FBR/L25-5DB			
	50 ~ 60	CFGSR/L2020-5DC											FBR/L25-5DC			
	60 ~ 80	CFGSR/L2020-5DD					20.5	20	20	137	20		FBR/L25-5DD			
	80 ~ 120	CFGSR/L2020-5DE											FBR/L25-5DE			
	120 ~ 200	CFGSR/L2020-5DF					20	20	20	137	20		FBR/L25-5DF			
	200 ~ 500	CFGSR/L2020-5DG											FBR/L25-5DG			
	30 ~ 40	CFGSR/L2525-5DA	●	●			26	25	25	162	27	CFGSR/L 2525	FBR/L25-5DA			
	40 ~ 50	CFGSR/L2525-5DB	●	●									FBR/L25-5DB			
	50 ~ 60	CFGSR/L2525-5DC	●	●									FBR/L25-5DC			
	60 ~ 80	CFGSR/L2525-5DD		●			25.5	25	25	162	27		20			FBR/L25-5DD
	80 ~ 120	CFGSR/L2525-5DE	●	●												FBR/L25-5DE
	120 ~ 200	CFGSR/L2525-5DF					25	25	25	162	27		20			FBR/L25-5DF
	200 ~ 500	CFGSR/L2525-5DG														FBR/L25-5DG

Groove width: 6 mm

Groove width W (mm)	Min. bore dia. ϕ D (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set			
			R	L			h_1	b	h	L_1	f	Shank	Blade	Clamping screw	Other parts
6	40 ~ 50	CFGSR/L2020-6SB			FGC6	14	21					CFGSR/L 2020	FBR/L25-6SB	CFG- 6SR/L	All components
	50 ~ 60	CFGSR/L2020-6SC									FBR/L25-6SC				
	60 ~ 80	CFGSR/L2020-6SD									FBR/L25-6SD				
	80 ~ 120	CFGSR/L2020-6SE									FBR/L25-6SE				
	120 ~ 200	CFGSR/L2020-6SF									FBR/L25-6SF				
	200 ~ 500	CFGSR/L2020-6SG					20					FBR/L25-6SG			
	40 ~ 50	CFGSR/L2525-6SB	●				26					FBR/L25-6SB			
	50 ~ 60	CFGSR/L2525-6SC	●	●								FBR/L25-6SC			
	60 ~ 80	CFGSR/L2525-6SD	●	●			25.5	25	25	154	26	CFGSR/L 2525	FBR/L25-6SD		
	80 ~ 120	CFGSR/L2525-6SE	●	●									FBR/L25-6SE		
120 ~ 200	CFGSR/L2525-6SF								FBR/L25-6SF						
200 ~ 500	CFGSR/L2525-6SG			25					FBR/L25-6SG						
6	40 ~ 50	CFGSR/L2020-6DB			FGC6	24	21						CFGSR/L 2020	FBR/L25-6DB	
	50 ~ 60	CFGSR/L2020-6DC										FBR/L25-6DC			
	60 ~ 80	CFGSR/L2020-6DD					20.5	20	20	139	19	FBR/L25-6DD			
	80 ~ 120	CFGSR/L2020-6DE										FBR/L25-6DE			
	120 ~ 200	CFGSR/L2020-6DF										FBR/L25-6DF			
	200 ~ 500	CFGSR/L2020-6DG					20						FBR/L25-6DG		
	40 ~ 50	CFGSR/L2525-6DB					26						FBR/L25-6DB		
	50 ~ 60	CFGSR/L2525-6DC											FBR/L25-6DC		
	60 ~ 80	CFGSR/L2525-6DD					25.5	25	25	164	26	CFGSR/L 2525	FBR/L25-6DD		
	80 ~ 120	CFGSR/L2525-6DE											FBR/L25-6DE		
	120 ~ 200	CFGSR/L2525-6DF											FBR/L25-6DF		
	200 ~ 500	CFGSR/L2525-6DG					25							FBR/L25-6DG	

Groove width: 8 mm

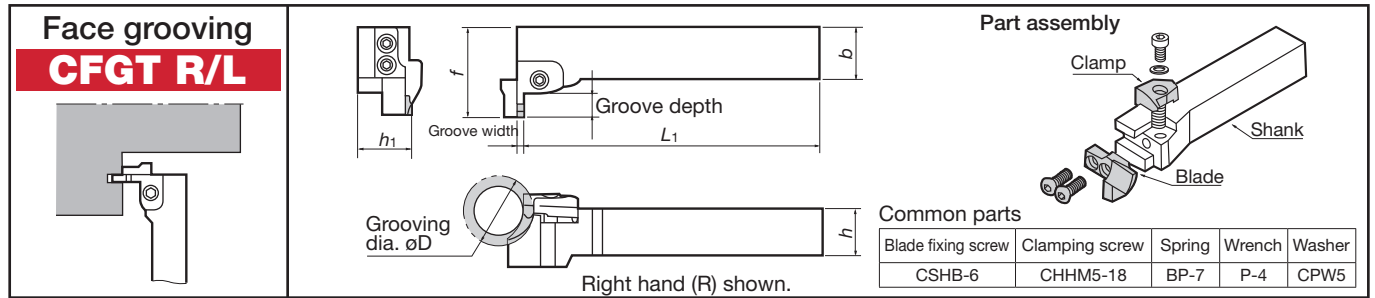
Groove width W (mm)	Min. bore dia. ϕ D (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set			
			R	L			h_1	b	h	L_1	f	Shank	Blade	Clamp	Other parts
8	60 ~ 80	CFGSR/L3232-8SD	●	●	FGC8	16	32.5	32	32	170	24.5	CFGSR/L 3232	FBR/L32-8SD	CFG- 8SR/L	All components
	80 ~ 120	CFGSR/L3232-8SE	●	●									FBR/L32-8SE		
	120 ~ 200	CFGSR/L3232-8SF					FBR/L32-8SF								
	200 ~ 500	CFGSR/L3232-8SG					FBR/L32-8SG								
8	60 ~ 80	CFGSR/L3232-8DD			FGC8	26	32.5	32	32	180	24.5	CFGSR/L 3232	FBR/L32-8DD	CFG- 8DR/L	
	80 ~ 120	CFGSR/L3232-8DE											FBR/L32-8DE		
	120 ~ 200	CFGSR/L3232-8DF					FBR/L32-8DF								
	200 ~ 500	CFGSR/L3232-8DG					FBR/L32-8DG								

- Notes: • Right hand toolholders are used in regular rotation.
 • Left hand toolholders are used in reverse rotation.
 • When using these face grooving toolholders, right hand ones use a right hand bladeset and left hand ones are left hand bladeset.

- Each toolholder set includes all components.

● : Stocked items.

CFGT

Width
3.0~8.0mmMax. Groove Depth
≤10.0mm, ≤26.0mm1
Corner

■ Groove width: 3 mm

Groove width W(mm)	Min. bore dia. ϕD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set			
			R	L			h_1	b	h	L_1	f	Shank	Blade	Clamp	Other parts
3	30 ~ 40	CFGTR/L2020-3SA	●	●	FGC3	10	21	20	20	122	44	CFGTR/L 2020	FBR/L25-3SA	CFG- 3SR/L	All components
	40 ~ 50	CFGTR/L2020-3SB	●	●									FBR/L25-3SB		
	50 ~ 60	CFGTR/L2020-3SC	●	●									FBR/L25-3SC		
	60 ~ 80	CFGTR/L2020-3SD	●	●									FBR/L25-3SD		
	80 ~ 120	CFGTR/L2020-3SE	●	●			20.5	20	20	122	44	CFGTR/L 2020	FBR/L25-3SE		
	120 ~ 200	CFGTR/L2020-3SF	●	●									FBR/L25-3SF		
	200 ~ 500	CFGTR/L2020-3SG					20	25	25	147	44	CFGTR/L 2525	FBR/L25-3SG		
	30 ~ 40	CFGTR/L2525-3SA		●			26						FBR/L25-3SA		
	40 ~ 50	CFGTR/L2525-3SB	●	●									FBR/L25-3SB		
	50 ~ 60	CFGTR/L2525-3SC		●			25.5						FBR/L25-3SC		
	60 ~ 80	CFGTR/L2525-3SD	●	●									FBR/L25-3SD		
	80 ~ 120	CFGTR/L2525-3SE	●	●			25						FBR/L25-3SE		
	120 ~ 200	CFGTR/L2525-3SF											FBR/L25-3SF		
	200 ~ 500	CFGTR/L2525-3SG					FBR/L25-3SG								

■ Groove width: 4 mm

Groove width W(mm)	Min. bore dia. ϕD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set			
			R	L			h_1	b	h	L_1	f	Shank	Blade	Clamping screw	Other parts
4	30 ~ 40	CFGTR/L2020-4SA	●	●	FGC4	10	21	20	20	121	44	CFGTR/L 2020	FBR/L25-4SA	CFG- 4SR/L	All components
	40 ~ 50	CFGTR/L2020-4SB	●	●									FBR/L25-4SB		
	50 ~ 60	CFGTR/L2020-4SC	●	●									FBR/L25-4SC		
	60 ~ 80	CFGTR/L2020-4SD	●	●			20.5	20	20	121	44	CFGTR/L 2020	FBR/L25-4SD		
	80 ~ 120	CFGTR/L2020-4SE	●	●									FBR/L25-4SE		
	120 ~ 200	CFGTR/L2020-4SF					20	20	20	121	44	CFGTR/L 2020	FBR/L25-4SF		
	200 ~ 500	CFGTR/L2020-4SG											FBR/L25-4SG		
	30 ~ 40	CFGTR/L2525-4SA	●	●			26	25	25	146	44	CFGTR/L 2525	FBR/L25-4SA		
	40 ~ 50	CFGTR/L2525-4SB	●	●									FBR/L25-4SB		
	50 ~ 60	CFGTR/L2525-4SC	●	●									FBR/L25-4SC		
	60 ~ 80	CFGTR/L2525-4SD	●	●			25.5	25	25	146	44	CFGTR/L 2525	FBR/L25-4SD		
	80 ~ 120	CFGTR/L2525-4SE		●									FBR/L25-4SE		
	120 ~ 200	CFGTR/L2525-4SF					25	25	25	146	44	CFGTR/L 2525	FBR/L25-4SF		
	200 ~ 500	CFGTR/L2525-4SG											FBR/L25-4SG		
4	30 ~ 40	CFGTR/L2020-4DA			FGC4	20	21	20	20	121	54	CFGTR/L 2020	FBR/L25-4DA	CFG- 4DR/L	All components
	40 ~ 50	CFGTR/L2020-4DB											FBR/L25-4DB		
	50 ~ 60	CFGTR/L2020-4DC											FBR/L25-4DC		
	60 ~ 80	CFGTR/L2020-4DD					20.5	20	20	121	54	CFGTR/L 2020	FBR/L25-4DD		
	80 ~ 120	CFGTR/L2020-4DE											FBR/L25-4DE		
	120 ~ 200	CFGTR/L2020-4DF					20	20	20	121	54	CFGTR/L 2020	FBR/L25-4DF		
	200 ~ 500	CFGTR/L2020-4DG											FBR/L25-4DG		
	30 ~ 40	CFGTR/L2525-4DA		●			26	25	25	146	54	CFGTR/ L2525	FBR/L25-4DA		
	40 ~ 50	CFGTR/L2525-4DB		●									FBR/L25-4DB		
	50 ~ 60	CFGTR/L2525-4DC	●	●									FBR/L25-4DC		
	60 ~ 80	CFGTR/L2525-4DD		●			25.5	25	25	146	54	CFGTR/ L2525	FBR/L25-4DD		
	80 ~ 120	CFGTR/L2525-4DE	●	●									FBR/L25-4DE		
	120 ~ 200	CFGTR/L2525-4DF					25	25	25	146	54	CFGTR/ L2525	FBR/L25-4DF		
	200 ~ 500	CFGTR/L2525-4DG											FBR/L25-4DG		

- Notes:
- Right hand toolholders are used in regular rotation.
 - Left hand toolholders are used in reverse rotation.
 - When using these face grooving toolholders, right hand ones use a right hand bladeset and left hand ones are left hand bladeset.
 - Each toolholder set includes all components.

● : Stocked items.

CFGT

Width
3.0~8.0mmMax. Groove Depth
≤10.0mm, ≤26.0mm1
Corner

■ Groove width: 5 mm

Groove width W(mm)	Min. bore dia. øD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set			
			R	L			h ₁	b	h	L ₁	f	Shank	Blade	Clamping screw	Other parts
5	30 ~ 40	CFGTR/L2020-5SA	●	●	FGC5	12	21	20	20	120	46	CFGTR/L 2020	FBR/L25-5SA	CFG- 5SR/L	All components
	40 ~ 50	CFGTR/L2020-5SB	●										FBR/L25-5SB		
	50 ~ 60	CFGTR/L2020-5SC	●	●									FBR/L25-5SC		
	60 ~ 80	CFGTR/L2020-5SD	●	●			20.5						FBR/L25-5SD		
	80 ~ 120	CFGTR/L2020-5SE	●	●									FBR/L25-5SE		
	120 ~ 200	CFGTR/L2020-5SF					20						FBR/L25-5SF		
	200 ~ 500	CFGTR/L2020-5SG											FBR/L25-5SG		
	30 ~ 40	CFGTR/L2525-5SA		●			CFGTR/L 2525					FBR/L25-5SA			
	40 ~ 50	CFGTR/L2525-5SB	●	●								FBR/L25-5SB			
	50 ~ 60	CFGTR/L2525-5SC	●	●								FBR/L25-5SC			
	60 ~ 80	CFGTR/L2525-5SD	●	●				25.5	FBR/L25-5SD						
	80 ~ 120	CFGTR/L2525-5SE	●	●					FBR/L25-5SE						
	120 ~ 200	CFGTR/L2525-5SF						25	FBR/L25-5SF						
	200 ~ 500	CFGTR/L2525-5SG							FBR/L25-5SG						
5	30 ~ 40	CFGTR/L2020-5DA			FGC5	22	21	20	20	120	56	CFGTR/L 2020	FBR/L25-5DA	CFG- 5DR/L	
	40 ~ 50	CFGTR/L2020-5DB											FBR/L25-5DB		
	50 ~ 60	CFGTR/L2020-5DC											FBR/L25-5DC		
	60 ~ 80	CFGTR/L2020-5DD					20.5						FBR/L25-5DD		
	80 ~ 120	CFGTR/L2020-5DE											FBR/L25-5DE		
	120 ~ 200	CFGTR/L2020-5DF					20						FBR/L25-5DF		
	200 ~ 500	CFGTR/L2020-5DG											FBR/L25-5DG		
	30 ~ 40	CFGTR/L2525-5DA	●	●			CFGTR/L 2525					FBR/L25-5DA			
	40 ~ 50	CFGTR/L2525-5DB	●	●								FBR/L25-5DB			
	50 ~ 60	CFGTR/L2525-5DC	●	●								FBR/L25-5DC			
	60 ~ 80	CFGTR/L2525-5DD	●	●				25.5	FBR/L25-5DD						
	80 ~ 120	CFGTR/L2525-5DE	●	●					FBR/L25-5DE						
	120 ~ 200	CFGTR/L2525-5DF						25	FBR/L25-5DF						
	200 ~ 500	CFGTR/L2525-5DG							FBR/L25-5DG						

■ Groove width: 6 mm

Groove width W(mm)	Min. bore dia. øD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set								
			R	L			h ₁	b	h	L ₁	f	Shank	Blade	Clamping screw	Other parts					
6	40 ~ 50	CFGTR/L2020-6SB			FGC6	14	21	20	20	119	48	CFGTR/L 2020	FBR/L25-6SB	CFG- 6SR/L	All components					
	50 ~ 60	CFGTR/L2020-6SC											FBR/L25-6SC							
	60 ~ 80	CFGTR/L2020-6SD											FBR/L25-6SD							
	80 ~ 120	CFGTR/L2020-6SE					20.5						FBR/L25-6SE							
	120 ~ 200	CFGTR/L2020-6SF											FBR/L25-6SF							
	200 ~ 500	CFGTR/L2020-6SG					20						FBR/L25-6SG							
	40 ~ 50	CFGTR/L2525-6SB	●	●			26					CFGTR/L 2525	FBR/L25-6SB							
	50 ~ 60	CFGTR/L2525-6SC	●										FBR/L25-6SC							
	60 ~ 80	CFGTR/L2525-6SD	●	●									FBR/L25-6SD							
	80 ~ 120	CFGTR/L2525-6SE	●	●			25.5	25	25	144	48		FBR/L25-6SE							
	120 ~ 200	CFGTR/L2525-6SF											FBR/L25-6SF							
	200 ~ 500	CFGTR/L2525-6SG					25						FBR/L25-6SG							
6	40 ~ 50	CFGTR/L2020-6DB			FGC6	24	21	20	20	119	58	CFGTR/L 2020	FBR/L25-6DB	CFG- 6DR/L						
	50 ~ 60	CFGTR/L2020-6DC											FBR/L25-6DC							
	60 ~ 80	CFGTR/L2020-6DD											20.5						FBR/L25-6DD	
	80 ~ 120	CFGTR/L2020-6DE					FBR/L25-6DE													
	120 ~ 200	CFGTR/L2020-6DF					20						FBR/L25-6DF							
	200 ~ 500	CFGTR/L2020-6DG											FBR/L25-6DG							
	40 ~ 50	CFGTR/L2525-6DB					26					CFGTR/ L2525	FBR/L25-6DB							
	50 ~ 60	CFGTR/L2525-6DC											FBR/L25-6DC							
	60 ~ 80	CFGTR/L2525-6DD					25.5						FBR/L25-6DD							
	80 ~ 120	CFGTR/L2525-6DE											FBR/L25-6DE							
	120 ~ 200	CFGTR/L2525-6DF					25						FBR/L25-6DF							
	200 ~ 500	CFGTR/L2525-6DG											FBR/L25-6DG							

■ Groove width: 8 mm

Groove width W(mm)	Min. bore dia. øD (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Components of set								
			R	L			h ₁	b	h	L ₁	f	Shank	Blade	Clamping screw	Other parts					
8	60 ~ 80	CFGTR/L3232-8SD	●		FGC8	16	32.5	32	32	162	50	CFGTR/L3232	FBR/L32-8SD	CFG-8SR/L	All components					
	80 ~ 120	CFGTR/L3232-8SE	●	●									FBR/L32-8SE							
	120 ~ 200	CFGTR/L3232-8SF					32						FBR/L32-8SF							
	200 ~ 500	CFGTR/L3232-8SG											FBR/L32-8SG							
8	60 ~ 80	CFGTR/L3232-8DD			FGC8	26	32.5	32	32	162	60	CFGTR/L3232	FBR/L32-8DD	CFG-8DR/L						
	80 ~ 120	CFGTR/L3232-8DE											FBR/L32-8DE							
	120 ~ 200	CFGTR/L3232-8DF					32						FBR/L32-8DF							
	200 ~ 500	CFGTR/L3232-8DG											FBR/L32-8DG							

Notes: ● Right hand toolholders are used in regular rotation.
 ● Left hand toolholders are used in reverse rotation.

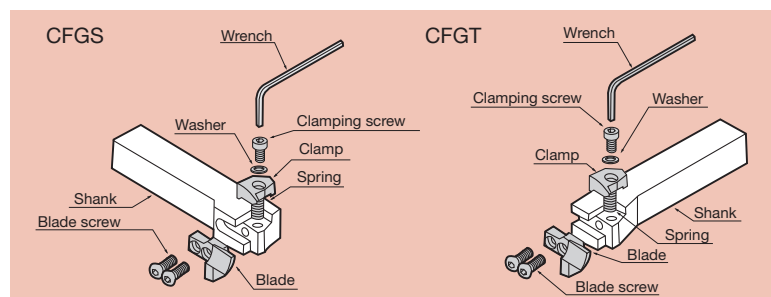
● When using these face grooving toolholders, right hand ones use a right hand bladeset and left hand ones are left hand bladeset.
 ● Each toolholder set includes all components.

● : Stocked items.

CFGS / CFGT

All components

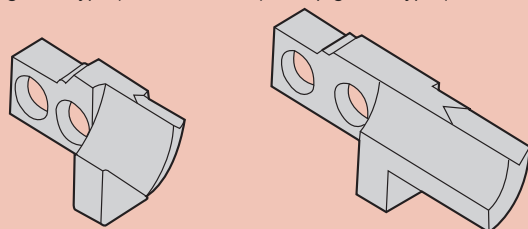
Blade fixing screw	Clamping screw	Spring	Wrench	Washer
				
C5HB-6	CHHM5-18	BP-7	P-4	CPW5



Blades and clamps

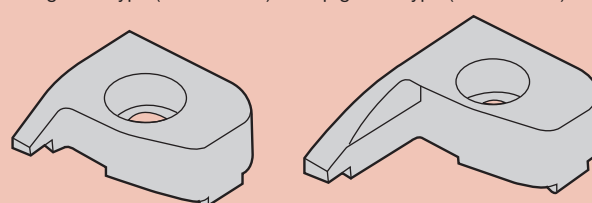
Blade

Shallow groove type (FBR/L□□-□□□) Deep groove type (FBR/L□□-□□□)



Clamp

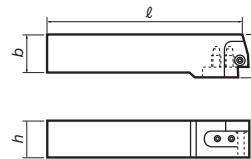
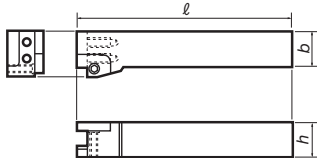
Shallow groove type (CFG-□SR/L) Deep groove type (CFG-□DR/L)



Min. bore dia. ϕD (mm)	Groove depth (mm)	Groove width W (mm)	Blade			Clamp		
			Cat. No.	Stock		Cat. No.	Stock	
30 ~ 40	10	3	FBR/L25-3SA	●	●	CFG-3SR/L	●	●
40 ~ 50			FBR/L25-3SB	●	●			
50 ~ 60			FBR/L25-3SC	●	●			
60 ~ 80			FBR/L25-3SD	●	●			
80 ~ 120			FBR/L25-3SE	●	●			
120 ~ 200			FBR/L25-3SF					
200 ~ 500			FBR/L25-3SG					
30 ~ 40	10	4	FBR/L25-4SA	●	●	CFG-4SR/L	●	●
40 ~ 50			FBR/L25-4SB	●	●			
50 ~ 60			FBR/L25-4SC	●	●			
60 ~ 80			FBR/L25-4SD	●	●			
80 ~ 120			FBR/L25-4SE	●	●			
120 ~ 200			FBR/L25-4SF					
200 ~ 500			FBR/L25-4SG					
30 ~ 40	20	4	FBR/L25-4DA	●	●	CFG-4DR/L	●	●
40 ~ 50			FBR/L25-4DB	●	●			
50 ~ 60			FBR/L25-4DC	●	●			
60 ~ 80			FBR/L25-4DD	●	●			
80 ~ 120			FBR/L25-4DE	●	●			
120 ~ 200			FBR/L25-4DF					
200 ~ 500			FBR/L25-4DG					
30 ~ 40	12	5	FBR/L25-5SA	●	●	CFG-5SR/L	●	●
40 ~ 50			FBR/L25-5SB	●	●			
50 ~ 60			FBR/L25-5SC	●	●			
60 ~ 80			FBR/L25-5SD	●	●			
80 ~ 120			FBR/L25-5SE	●	●			
120 ~ 200			FBR/L25-5SF					
200 ~ 500			FBR/L25-5SG					

Min. bore dia. ϕD (mm)	Groove depth (mm)	Groove width W (mm)	Blade			Clamp		
			Cat. No.	Stock		Cat. No.	Stock	
30 ~ 40	22	5	FBR/L25-5DA	●	●	CFG-5DR/L	●	●
40 ~ 50			FBR/L25-5DB	●	●			
50 ~ 60			FBR/L25-5DC	●	●			
60 ~ 80			FBR/L25-5DD	●	●			
80 ~ 120			FBR/L25-5DE	●	●			
120 ~ 200			FBR/L25-5DF					
200 ~ 500			FBR/L25-5DG					
40 ~ 50	14	6	FBR/L25-6SB	●	●	CFG-6SR/L	●	●
50 ~ 60			FBR/L25-6SC	●	●			
60 ~ 80			FBR/L25-6SD	●	●			
80 ~ 120			FBR/L25-6SE	●	●			
120 ~ 200			FBR/L25-6SF					
200 ~ 500			FBR/L25-6SG					
40 ~ 50	24	6	FBR/L25-6DB	●	●	CFG-6DR/L	●	●
50 ~ 60			FBR/L25-6DC	●	●			
60 ~ 80			FBR/L25-6DD	●	●			
80 ~ 120			FBR/L25-6DE	●	●			
120 ~ 200			FBR/L25-6DF					
200 ~ 500			FBR/L25-6DG					
60 ~ 80	16	8	FBR/L32-8SD	●	●	CFG-8SR/L	●	●
80 ~ 120			FBR/L32-8SE	●	●			
120 ~ 200			FBR/L32-8SF					
200 ~ 500			FBR/L32-8SG					
60 ~ 80	26	8	FBR/L32-8DD	●	●	CFG-8DR/L	●	●
80 ~ 120			FBR/L32-8DE	●	●			
120 ~ 200			FBR/L32-8DF					
200 ~ 500			FBR/L32-8DG					

Shank

CFGS	CFGT	Cat. No.	Stock		Dimensions (mm)			Parts
			R	L	h	b	ℓ	
		CFGSR/L2020	●	●	20	20	114.25	All components
		CFGSR/L2525			25	25	139.25	
		CFGSR/L3232	●		32	32	153.25	
		CFGTR/L2020	●	●	20	20	125.75	All components
		CFGTR/L2525		●	25	25	150.75	
		CFGTR/L3232	●	●	32	32	170.75	

● : Stocked items.

CFGS / CFGT

Inserts

	Dimensions (mm)			Cat. No.	Grades			
	$w \pm 0.1$	L	H		Coated	Cermet		Uncoated
					T313V	NS530		UX30
	3	10	4.29	FGC3	●	●		
	4	10	4.5	FGC4	●	●		
	5	12	5.5	FGC5	●	●		
	6	14	6.5	FGC6				●
	8	16	8	FGC8				●

Grade selection guide

Grades	Main applications	P group				K group			
		01	10	20	30	01	10	20	30
UX30	Low to medium speed cutting of steel, cast steel, cast iron and stainless steel								
NS530	Medium to high speed cutting of steel and alloy steel, with satisfactory surface finish								
T313V	Low to high speed cutting of steel, cast steel, cast iron and stainless steel Standard cutting conditions								

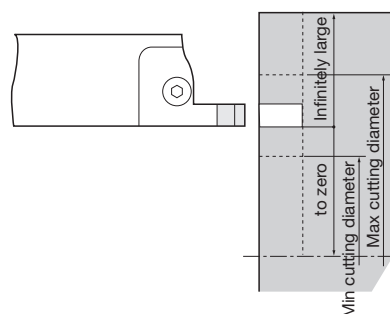
Standard cutting conditions

Work material : General carbon steel, JIS S45C Cutting fluid: Water soluble cutting fluid	Groove width: W (mm)				
	3	4	5	6	8
Cutting speed v_c (m/min)	70 ~ 150	70 ~ 150	70 ~ 120	70 ~ 120	50 ~ 100
Feed f (mm/rev)	0.05 ~ 0.15	0.05 ~ 0.2	0.05 ~ 0.15	0.05 ~ 0.15	0.05 ~ 0.1

- Notes:
- Above cutting conditions are applied to the shallow groove type (groove depth 10 ~ 16 mm).
 - In the case of a deep groove type (groove depth 20~26 mm), apply 60~70% of above cutting conditions.
 - The use of water soluble cutting fluid is recommended to discharge chips, protect the finished surface, and prevent chipping.

Notes on cutting diameter

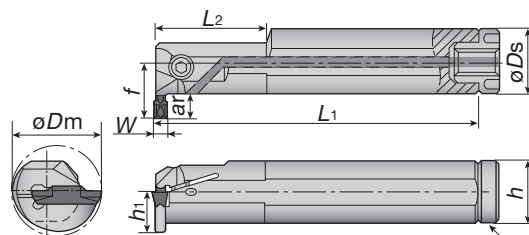
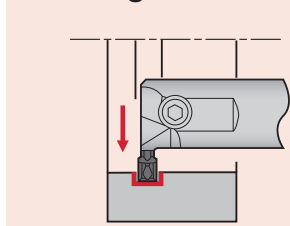
- SA~SG types can widen the groove outward infinitely after grooving from the minimum to maximum diameter.
- SF and SG types can widen the groove inward to minimum zero after grooving from the minimum to maximum diameter. (See the figure)
- SA~SE types can not be used to widen the groove more inward from the minimum diameter.



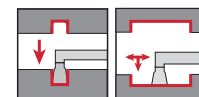
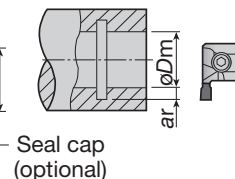
● : Stocked items.

Width
3.0~8.0mmMax. Groove Depth
≤4.0mm, ≤10.0mm2
Corners

Grooving and traversing



Right hand (R) shown.



Toolholders (Mono block type)

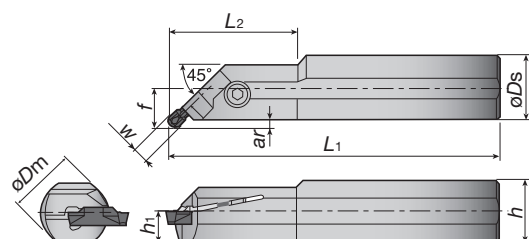
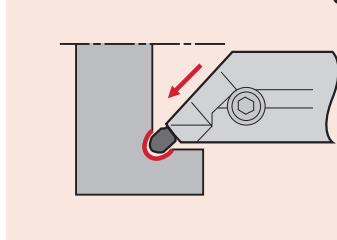
Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. groove depth ar (mm)	Dimensions (mm)							Inserts	Parts			
		R	L			øDs	h ₁	h	*L ₁	f	W	L ₂		Clamping screw	Wrench	Seal cap	Internal screw
3	CTIR/L20-3T06-D250	●	●	25	6	20	9	18	160	15.8	3	40	DTI DTX	CM5x0.8x12-A	P-4	CA-20	M6
	CTIR/L25-3T05-D250	●	●	25	5.1	25	11.5	23	200	17.5	3	40		CM5x0.8x16-A		CA-25	R1/8"
	CTIR/L25-3T08-D320	●	●	32	8	25	11.5	23	200	21.5	3	40				CA-32	
	CTIR/L32-3T10-D400	●	●	40	10	32	15	30	250	27	3	60				CA-32	
4	CTIR/L20-4T06-D250	●	●	25	6	20	9	18	160	15.8	4	40		CM5x0.8x12-A	P-4	CA-20	M6
	CTIR/L25-4T08-D320	●	●	32	8	25	11.5	23	200	21.5	4	40		CM5x0.8x16-A		CA-25	R1/8"
	CTIR/L32-4T04-D310	●	●	31	4	32	15	30	250	20.8	4	60				CA-32	
	CTIR/L32-4T10-D400	●	●	40	10	32	15	30	250	27	4	60				CA-32	
5	CTIR/L25-5T05-D310	●	●	31	5	25	11.5	23	200	17.3	5	60		CM6x1x16-A	P-5	CA-25	R1/8"
	CTIR/L32-5T10-D400	●	●	40	10	32	15	30	250	27	5	60		CM6x1x20-A		CA-32	
6	CTIR/L32-6T04-D310	●	●	31	4	32	15	30	250	20.8	6	60		CM6x1x20-A	P-5	CA-32	R1/8"
	CTIR/L32-6T10-D400	●	●	40	10	32	15	30	250	27	6	60					
8	CTIR/L32-8T05-D370	●	●	37	5	32	15	30	250	21.3	8	60		CM6x1x25-A	P-5	CA-32	R1/8"
	CTIR/L40-8T05-D420	●	●	42	5.8	40	19	38	300	25.8	8	65				CA-40	

* "L₁" value in the above table is calculated with groove width "W" shown in the table.

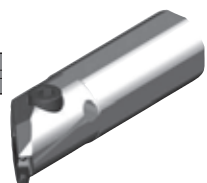
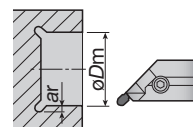
● : Stocked items.

Width
3.0~6.0mmMax. Groove Depth
≤2.86mm2
Corners

Internal undercutting



Right hand (R) shown.



Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. groove depth ar (mm)	Dimensions (mm)						Inserts	Parts			
		R	L			øDs	h1	h	L1	*f	W		L2	Clamping screw	Wrench	
3	CGIUR/L20-3T02-D380	●	●	38	2.8	20	9.5	19	160	12.8	3	-	DTIU	CM5x0.8x12-A	P-4	
	CGIUR/L25-3T02-D380	●	●	38	2.8	25	11.5	23	200	14.8	3	40		CM5x0.8x16-A		
4	CGIUR/L20-4T02-D380	●	●	38	2.8	20	9.5	19	160	12.9	4	-				CM6x1x16-A
	CGIUR/L25-4T02-D460	●	●	46	2.8	25	11.5	23	200	14.9	4	40				
5, 6	CGIUR/L25-6T02-D460	●	●	46	2.8	25	11.5	23	200	15.2	6	-				

* "f" value in the above table is calculated with groove width "W" shown in the table.

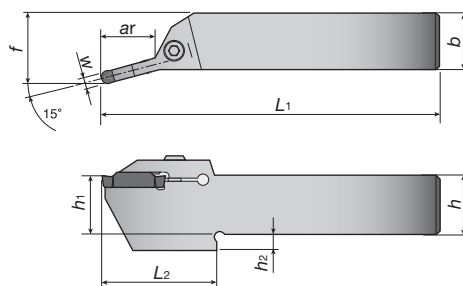
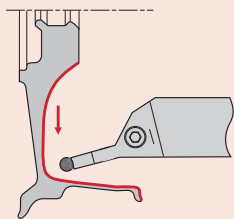
● : Stocked items.

Width
6.0~8.0mm

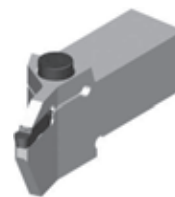
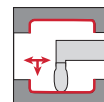
Max. Groove Depth
≤ 30mm

2
Corners

For aluminium wheel machining



Right hand (R) shown.



■ Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Max. groove depth ar (mm)	Dimensions (mm)							Inserts	Parts	
		R	L		<i>h</i> ₁	<i>b</i>	<i>h</i>	<i>h</i> ₂	<i>L</i> ₁	<i>W</i>	<i>L</i> ₂		Clamping screw	Wrench
6	CTER/L2525-6T25-15A	●	●	25	25	25	25	7	150	6	50.5	DTA	CM6x1x25-A	P-5
8	CTER/L2525-8T30-15A	●	●	30	25	25	25	7	150	8	55			

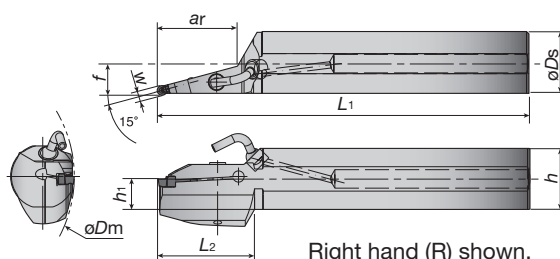
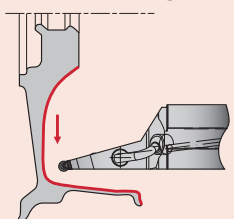
TUNGCUT Internal Grooving
CGIUR/L-15A

Width
6.0~8.0mm

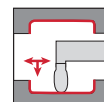
Max. Groove Depth
≤ 85mm

2
Corners

For aluminium wheel machining



Right hand (R) shown.



■ Toolholders (Mono block type)

Insert seat size	Cat. No.	Stock		Min. dia. øDm (mm)	Max. groove depth ar (mm)	Dimensions (mm)						Inserts	Parts				
		R	L			øDs	h ₁	h	L ₁	f	W		L ₂	Clamping screw	Wrench	Seal cap	Internal screw
6	CGIUR/L40-6T50-D160-15A	●	●	160	50	40	19	38.5	320	19.7	6	60	DTA	CM6x1x25-A	P-5	CA-40	R1/8"
8	CGIUR/L40-8T83-D160-15A	●	●	160	83	40	19	38.5	320	20.5	8	85					
6	CGIUR/L50-6T85-D200-15A	●	●	200	85	50	23.5	48.5	350	25.2	6	85					
8	CGIUR/L50-8T85-D200-15A	●	●	200	85	50	23.5	48.5	350	25.9	8	85					

■ Nozzle parts

Coolant pipe	Coolant nozzle
PNZ5	CNZ125

Applicable inserts

● Notation of "insert seat size"

Seat size and grooving width are different. Seat size measure is for the specification of the setting insert. Please note this point.

DTX		External, internal, face grooving and traversing					
Insert seat size	Cat. No.	Grades		Dimensions (mm)			
		Coated		W±0.05	r _E	L	h
		AH725	GH130				
3	DTX3-030	●	●	3	0.3	20	5
4	DTX4-040	●	●	4	0.4	20	5
5	DTX5-040	●	●	5	0.4	25	5.5

DTI		Internal grooving and traversing (Ground)					
Insert seat size	Cat. No.	Grades		Dimensions (mm)			
		Coated		W±0.02	r _E ±0.05	L	h
		AH725	GH130				
3	DTI300-040	●	●	3	0.4	20	5
4	DTI400-040	●	●	4	0.4	20	5
	DTI400-080	●	●	4	0.8	20	5
5	DTI500-040	●	●	5	0.4	25	5.5
	DTI500-080	●	●	5	0.8	25	5.5
6	DTI600-080	●	●	6	0.8	25	5.5
	DTI600-120	●	●	6	1.2	25	5.5
8	DTI800-080	●	●	8	0.8	30	6.7
	DTI800-120	●	●	8	1.2	30	6.7

Internal grooving and traversing (Molded)

Insert seat size	Cat. No.	Grades		Dimensions (mm)			
		Coated		W±0.05	r _E	L	h
		AH725	GH130				
3	DTI3-040	●	●	3	0.4	20	5
4	DTI4-040	●	●	4	0.4	20	5

DTIU		Profiling and undercutting (Ground)					
Insert seat size	Cat. No.	Grades		Dimensions (mm)			
		Coated		W±0.02	r _E	L	h
		AH725	GH130				
3	DTIU300-150	●	●	3	1.5	20	5
4	DTIU400-200	●	●	4	2	20	5
5	DTIU500-250	●	●	5	2.5	25	5.5
6	DTIU600-300	●	●	6	3	25	5.5

DTA

Aluminium wheel machining (Ground)

Insert seat size	Cat. No.	Grades	Dimensions (mm)					
		Carbide	W±0.02	r _E	L	h	A	
		TH10						
6	DTA 600-300	●	6	3	25	5.5	7°	
8	DTA 800-400	●	8	4	30	6.7	10°	

● : Stocked items.

* For special inserts of TungCut, please refer to page 6-94.

SNG

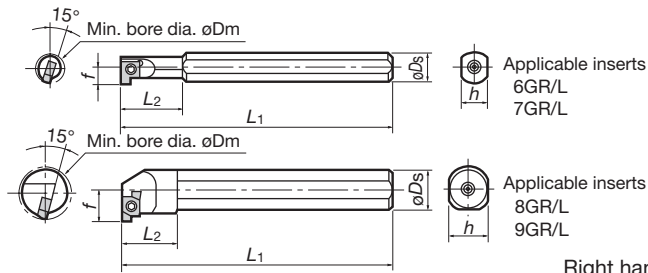
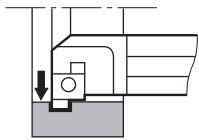
Width
1.0~3.5mmMax. Groove Depth
≤1.5mm, ≤3.0mm1, 2
Corners

Screw-on type

Internal grooving

SNG R/L

Screw-on type



Right hand (R) shown.

Max. groove width (mm)	Min. bore dia. øD _m (mm)	Shank material	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)					Parts	
				R	L			øD _s	f	L ₁	L ₂	h	Clamping screw	Wrench
2	8	Steel	SNGR/L08H06	●	●	6GR/L□□□	1.5	8	4.7	100	18	7	CSTB-2L040	T-6F
	10		SNGR/L08H07	●	●	7GR/L□□□			5.8		23		CSTB-2.2S	T-7F
	12		SNGR/L10K07	●	●			10	6.8	125	29	9	CSTB-2.2	
3.5	14		SNGR/L10K08	●	●	8GR/L□□□	2		7.6		15			
	16		SNGR/L12M08	●	●			12	8.6	150	18	11		
3.5	20		SNGR/L16Q09	●	●	9GR/L□□□	3	16	11.6	180	20	15	CSTB-2.5L080	T-8F
	24		SNGR/L20R09	●	●			20	13.6	200	25	18		
2	8	Carbide	SNGR/L08K06SC	●	●	6GR/L□□□	1.5	8	4.7	125	28	7	CSTB-2L040	T-6F
	10		SNGR/L08K07SC	●	●	7GR/L□□□			5.8		35		CSTB-2.2S	T-7F
	12		SNGR/L10M07SC	●	●			10	6.8	150	45	9	CSTB-2.2	
3.5	14		SNGR/L10M08SC	●	●	8GR/L□□□	2	10	7.6					
	16		SNGR/L12Q08SC	●	●			12	8.6	180		11		
3.5	20		SNGR/L16R09SC	●	●	9GR/L□□□	3	16	11.6	200		15	CSTB-2.5L080	T-8F

SNG • CNG-type Toolholders for internal grooving

CNG

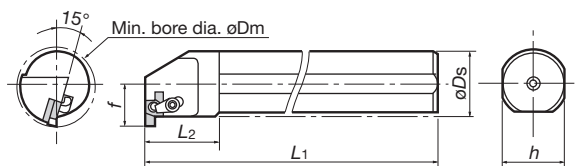
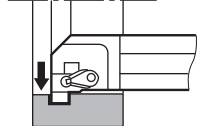
Width
1.0~5.0mmMax. Groove Depth
≤5.0mm2
Corners

Clamp-on type

Internal grooving

CNG R/L

Clamp-on type



Right hand (R) shown.

Max. groove width (mm)	Min. bore dia. øD _m (mm)	Shank material	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)					Parts			
				R	L			øD _s	f	L ₁	L ₂	h	Clamp	Shim	Clamping screw	Wrench
5	32	Steel	CNGR/L25S15	●	●	15GR/L□□□	5	25	18.1	250	30	23	CSP22	SGSR/L151	DTS5-3.5	T-20F
	40		CNGR/L32T15	●	●			32	22.1	300	35	30				
	48		CNGR/L40U15	●	●			40	26.1	350	45	38				

Optional parts for CNG type toolholders

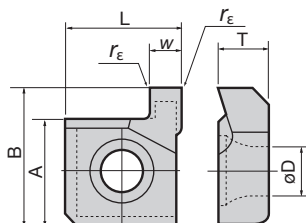
When using as a screw-on type, use the following parts.

	Toolholder Cat. No.	Clamping screw	Wrench
	CNGR/L25S15	CSTB-3.5L	T-15F
	CNGR/L32T15		
	CNGR/L40U15		

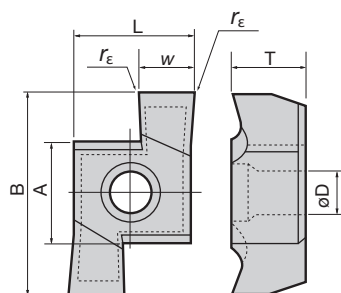
● : Stocked items.

■ Inserts (SNG•CNG type)

- One corner type
6GR/L□□□
7GR/L□□□



- Two corners type
8GR/L□□□
9GR/L□□□
15GR/L□□□



Right hand (R) shown.

■ Inserts for general grooving

Max. groove depth (mm)	Groove width $w \pm 0.025$ (mm)	Insert Cat. No.	Grades								Dimensions (mm)					
			Cermet				Uncoated									
			NS530				TH10		UX30		A	B	T	øD	L	r_E
			R	L	R	L	R	L	R	L						
1.5	1	6GR/L100	●				●		●	●	4.76	6.44	2.34	2.3	5.56	0.2
	1.5	6GR/L150	●				●	●	●	●						
	2	6GR/L200	●	●			●	●	●	●						
	1	7GR/L100	●				●		●		5.56	7.36	3.08	2.58		
	1.5	7GR/L150	●				●		●							
	2	7GR/L200	●	●			●	●	●	●						
2	1	8GR/L100									5.56	10.16	3.87	2.58	6.15	
	1.5	8GR/L150	●	●			●		●							
	2	8GR/L200	●	●			●	●	●							
	2.5	8GR/L250	●				●	●	●	●						
	3	8GR/L300	●	●			●	●	●	●						
	3.5	8GR/L350	●	●			●		●		6.35	12.95	4.66	2.86	7.74	
1.5	1	9GR/L100														
2	1.5	9GR/L150	●	●			●		●	●						
3	2	9GR/L200	●	●			●	●	●	●						
	2.5	9GR/L250	●	●			●		●	●						
	3	9GR/L300	●	●			●	●	●	●						
	3.5	9GR/L350	●	●			●		●	●						
1.5	1	15GR/L100									9.2	20.8	5.1	4.8	10.8	
2	1.5	15GR/L150														
3	2	15GR/L200	●				●		●							
	2.5	15GR/L250	●				●		●							
	3	15GR/L300	●				●		●	●						
	3.5	15GR/L350	●	●			●		●							
4	4	15GR/L400	●				●		●							
	4.5	15GR/L450	●	●			●	●	●							
5	5	15GR/L 500	●	●			●		●							

■ Inserts for lock-ring grooves (made to order)

Max. groove depth (mm)	Groove width $w \begin{smallmatrix} +0.10 \\ -0.05 \end{smallmatrix}$ (mm)	Insert Cat. No.	Grades								Dimensions (mm)					
			Cermet				Uncoated									
			NS530				TH10		UX30		A	T	øD	L	r	
R	L	R	L	R	L	R	L									
1.5	1.15	6GR/L115									4.76	2.34	2.3	5.56	0.1	
	1.35	6GR/L135														
	1.15	7GR/L115														
	1.35	7GR/L135									5.56	3.08	2.58	5.56		
	1.75	7GR/L175														
	1.35	8GR/L135														
	1.75	8GR/L175									5.56	3.87	2.58	6.15		
2	1.95	8GR/L195														
1.5	1.75	9GR/L175														
2	1.95	9GR/L195									6.35	4.66	2.86	7.74		
	2.2	9GR/L220														
	2.7	9GR/L270														
1.5	1.75	15GR/L175														
2	1.95	15GR/L195									9.2	5.1	4.8	10.8		
	2.2	15GR/L220														
	2.7	15GR/L270														
3	3.2	15GR/L320														
3.5	4.2	15GR/L420														

- Inserts for lock-ring grooves are made to order.

Notes: ● When using a right or left hand insert, the right hand insert is used with right hand toolholder and the left hand insert is used with left hand toolholder.

● Standard cutting conditions

Work materials	Cutting speed: V_c (m/min)	Feed: f (mm/rev)
Medium carbon steels (S45C)	40 ~ 150	0.05 ~ 0.15
Cast irons, Light alloys	60 ~ 200	0.05 ~ 0.15

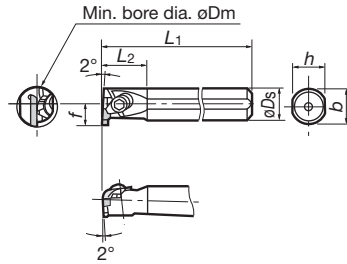
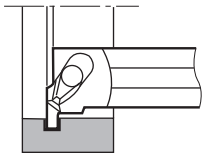
Notes: ● Cutting conditions shown left are a guideline only.

- When grooving close to the minimum bore diameter or with long reach conditions, reduce the conditions shown left by approximately 50 %.
- To help chip evacuation, use water-soluble cutting fluid. The fluid should be applied sufficiently to the cutting point. When using without cutting fluid, reduce both the cutting speeds and feeds shown on the left by 50 % at least.

● : Stocked items.

Internal grooving

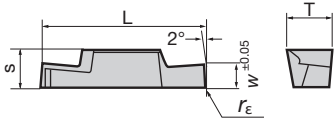
CGX R/L



Right hand (R) shown.

Groove width (mm)	Min. bore dia.(mm) <i>øD_m</i>	Shank material	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						Parts	
				R	L			<i>øD_s</i>	<i>f</i>	<i>L₁</i>	<i>L₂</i>	<i>h</i>	<i>b</i>	Clamping screw	Wrench
1 ~ 3	20	Steel	CGXR/L0016	●	●	GIR/L52□□	3	16	11.3	150	24	15	15.5	CSW-0	P-2.5
	24		CGXR/L0020	●	●			20	13.3	180	30	18	19		
1 ~ 5	32		CGXR/L0025	●	●	GIR/L63□□	5.3	25	18	200	38	23	24	CSW-2	P-4
	40		CGXR/L0032	●	●			32	23	250	48	30	31		
	48		CGXR/L0040	●	●			40	27	300	60	37	38.5		
1 ~ 3	20	Carbide	CGXR/L16SC	●	●	GIR/L52□□	3	16	11.3	200	24	15	—	CSW-0	P-2.5

Inserts

	Dimensions (mm)						Cat. No.	Grades					
								Cermet				Uncoated	
	NS530				TH10								
	s	T	L	r _ε	w±0.05	Max. Groove depth		R	L			R	L
	3.5	4.5	15	0.2	1	1.5	GIR/L5210-02	●	●			●	●
				0			GIR/L5210						
				0.2	1.5	2.3	GIR/L5215-02	●	●			●	●
				0			GIR/L5215						
				0.2	2	3	GIR/L5220-02	●	●			●	●
				0			GIR/L5220						
				0.2	2.5	3	GIR/L5225-02	●	●			●	●
				0			GIR/L5225						
				0.2	3	3	GIR/L5230-02	●	●			●	●
				0			GIR/L5230						
	5.5	6.5	24	0.2	1	1.5	GIR/L6310-02	●	●			●	●
				0			GIR/L6310						
				0.2	1.5	2.3	GIR/L6315-02	●	●			●	●
				0			GIR/L6315						
				0.2	2	3	GIR/L6320-02	●	●			●	●
				0			GIR/L6320						
				0.2	2.5	3.8	GIR/L6325-02	●	●			●	●
				0			GIR/L6325						
				0.2	3	4.5	GIR/L6330-02	●	●			●	●
				0			GIR/L6330						
				0.2	3.5	5.3	GIR/L6335-02	●	●			●	●
				0			GIR/L6335						
				0.2	4.0	5.3	GIR/L6340-02	●	●			●	●
				0			GIR/L6340						
				0.2	4.5	5.3	GIR/L6345-02	●	●			●	●
				0			GIR/L6345						
				0.2	5	5.3	GIR/L6350-02	●	●			●	●
				0			GIR/L6350						

Note: ● When using a right or left hand insert, the right hand insert is used with right hand toolholder and the left hand insert is used with left hand toolholder.

Standard cutting conditions (External & internal grooving)

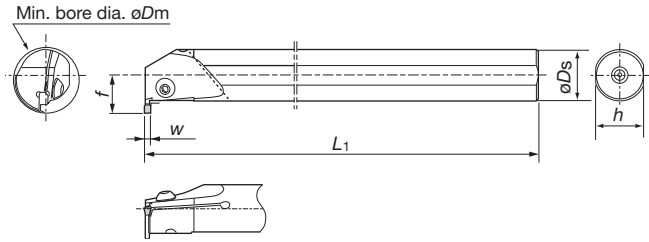
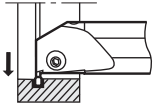
Work materials	Grades	Cutting speed v _c (m/min)	Feed: f (mm/rev)		
			W < 2 mm	W = 2 ~ 4 mm	W > 4 mm
Carbon steels	NS530	80 ~ 150	0.05 ~ 0.1	0.08 ~ 0.15	0.08 ~ 0.2
Cast irons, Light alloys	TH10	60 ~ 150	0.05 ~ 0.1	0.08 ~ 0.15	0.08 ~ 0.2

● : Stocked items.

Width
3.0~5.0mmMax. Groove Depth
≤3.5mm, ≤6.0mm1
Corner

Internal grooving

CGT R/L

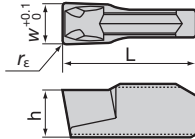


Right hand (R) shown.

Groove width w (mm)	Min. bore dia. øD _m (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)			
			R	L			øD _s	f	L ₁	h
3	25	S20Q-CGTR/L30	●	●	GE30,GN30,GT30	3.5	20	14.5	180	18
	32	S25R-CGTR/L30	●	●	GR30,GE30-AL	5	25	18.5	200	23
4	32	S25R-CGTR/L40	●	●	GE40,GN40,GT40	5	32	23	250	30
	40	S32S-CGTR/L40	●	●	GR40,GE40-AL	6	32	23	250	30
5	32	S25R-CGTR/L50	●	●	GE50,GN50	5	25	18.5	200	23
	40	S32S-CGTR/L50	●	●	GT50,GR50	6	32	23	250	30

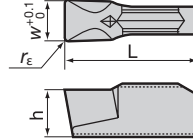
Applicable inserts

For general grooving



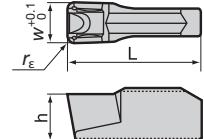
Cat. No.	Grades				Dimensions (mm)			
	Coated	Cermet			w	L	h	r _E
GE30	●	●	●	●	3	10	3.5	0.2
GE40	●	●	●	●	4	10	4.0	0.2
GE50	●	●	●	●	5	12	4.5	0.2

For internal grooving



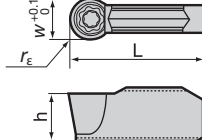
Cat. No.	Grades				Dimensions (mm)			
	Coated	Cermet			w	L	h	r _E
GN30	●	●	●	●	3	10	3.5	0.2
GN40	●	●	●	●	4	10	4.0	0.2
GN50	●	●	●	●	5	12	4.5	0.2

For internal traversing



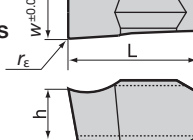
Cat. No.	Grades				Dimensions (mm)			
	Coated	Cermet			w	L	h	r _E
GT30	●	●	●	●	3	10	3.5	0.4
GT40	●	●	●	●	4	10	4.0	0.4
GT50	●	●	●	●	5	12	4.5	0.4

For internal profiling



Cat. No.	Grades				Dimensions (mm)			
	Coated	Cermet			w	L	h	r _E
GR30	●	●	●	●	3	10	3.5	1.5
GR40	●	●	●	●	4	10	4.0	2.0
GR50	●	●	●	●	5	12	4.5	2.5

For aluminium and non-ferrous metals



Cat. No.	Grades				Dimensions (mm)			
	Uncoated				w	L	h	r _E
GE30-AL	●				3	10	3.5	0.2
GE40-AL	●				4	10	4.0	0.2

Parts

Cat. No.	Clamping screw	Wrench
S□□□-CGTR/L□□	BHM5-14	P-3

● : Stocked items.

Standard cutting conditions

Work materials	Recommended grade	Cutting speed v _c (m/min)
Low carbon steels Alloy steels (~ HB150)	T9125	80 ~ 200
	NS730	100 ~ 200
	GH730	50 ~ 180
Medium carbon steels Alloy steels (HB150 ~ 250)	T9125	80 ~ 180
	NS730	80 ~ 180
	GH730	50 ~ 150
High carbon steels Alloy steels (HB250 ~)	T9125	80 ~ 150
	NS730	80 ~ 150
	GH730	50 ~ 120
Stainless steels	T9125	80 ~ 150
	GH730	50 ~ 120
Grey and ductile cast irons	T9125	80 ~ 200
	GH730	50 ~ 180
Aluminium alloys, Non-ferrous metals	KS05F	200 ~ 300

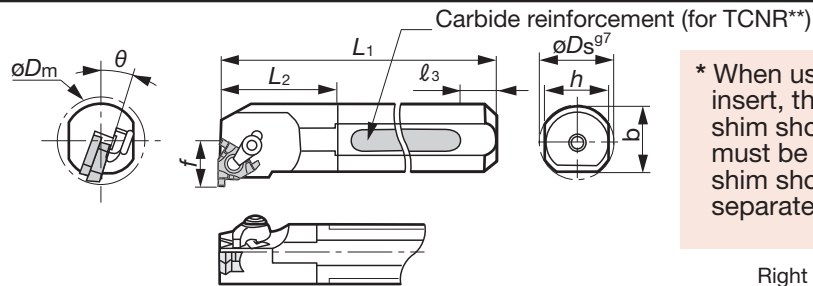
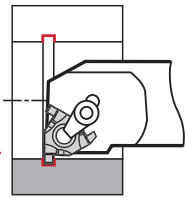
Operation	Feed: f (mm/rev)		
	Groove width: W (mm)		
	3	4	5
Internal Grooving (GE□□)	0.04 ~ 0.14	0.05 ~ 0.15	0.05 ~ 0.16
Internal Grooving (GN□□)	0.04 ~ 0.16	0.05 ~ 0.18	0.05 ~ 0.20
Internal Traversing (GT□□)	ap = 0.5 ~ 1.5 f = 0.06 ~ 0.2	ap = 0.5 ~ 2.0 f = 0.06 ~ 0.25	ap = 0.5 ~ 2.5 f = 0.06 ~ 0.27
Internal Traversing (GR□□)	ap = 0.5 ~ 1.4 f = 0.05 ~ 0.25	ap = 0.5 ~ 1.5 f = 0.05 ~ 0.26	ap = 0.5 ~ 1.6 f = 0.05 ~ 0.3
Internal Grooving for Aluminium alloys (GE□□-AL)	0.03 ~ 0.1	0.03 ~ 0.1	—

Notes: ● For diameter compensation values in traversing, see page 6-39.

- For occurrence of vibrations in traversing, set the feed to the lower side of the values show in the above table.

Internal grooving

CN R/L



* When using the GTGN insert, the exclusive shim shown in the table must be used. Exclusive shim should be ordered separately.

Right hand (R) shown.

Tsuguri-Ichiban with carbide reinforcement Screw-on, clamp-on type

Cat. No	Stock	Dimensions (mm)								θ	Insert	Shim *
		Min. bore dia. ϕD_m	ϕD_s	f	L_1	L_2	ℓ_3	h	b			
TCNR0020R16DT	●	24	20	14	200	30	49	18	-	15°	GTGN-16EL/IR□□□	G16EL/IR-DT
TCNR0025S16DT	●	29	25	16.5	250	38	64	23	-	15°	GTGN-16EL/IR□□□	G16EL/IR-DT

Steel shank Clamp-on type

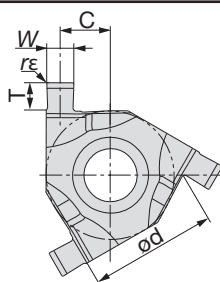
Cat. No	Stock	Dimensions (mm)								θ	Insert	Shim *
		Min. bore dia. ϕD_m	ϕD_s	f	L_1	L_2	ℓ_3	h	b			
CNR0020P16	●	24	20	14	170	30	-	18	19	15°	GTGN-16EL/IR□□□	G16EL/IR-S
CNL0020P16	●	24	20	14	170	30	-	18	19	15°	GTGN-16ER/IL□□□	G16ER/IL-S
CNR0025R16	●	29	25	16.5	200	38	-	23	24	15°	GTGN-16EL/IR□□□	G16EL/IR-S
CNL0025R16	●	29	25	16.5	200	38	-	23	24	15°	GTGN-16ER/IL□□□	G16ER/IL-S
CNR0032S16	●	37	32	20.1	250	48	-	30	31	15°	GTGN-16EL/IR□□□	G16EL/IR-S
CNL0032S16	●	37	32	20.1	250	48	-	30	31	15°	GTGN-16ER/IL□□□	G16ER/IL-S

● : Stocked items

Cat. No	Clamp set	Shim screw	Clamping screw	Wrench
TCNR/L0020R16DT				
TCNR/L0025S16DT				
CNR/L0020P16		-	-	T-15F
CNR/L0025R16				
CNR/L0032S16				

Shim

Cat. No.	Toolholder		Insert
	Type	Internal	
G16ER/IL-DT	Screw-on Clamp-on	TCNL□□□□□16DT	GTGN-16ER/IL□□□
G16EL/IR-DT		TCNR□□□□□16DT	GTGN-16EL/IR□□□
G16ER/IL-S	Clamp-on	CNL□□□□□16	GTGN-16ER/IL□□□
G16EL/IR-S		CNR□□□□□16	GTGN-16EL/IR□□□



Right hand (R) shown.

Insert size	Groove width $W \pm 0.03$ (mm)	Cat. No.	Grade	Dimensions (mm)				Shim	
			Coated SH730	ϕd	Max. groove depth T	r_ϵ	Center of width C	Dual method clamp type; Screw-on/ Clamp-on	Clamp-on type
16	1.00	GTGN-16ER/IL100	●	9.525	1.25	0.1	4.22	G16ER/IL-DT	G16ER/IL-S
	1.20	GTGN-16ER/IL120	●		1.30		4.12		
	1.40	GTGN-16ER/IL140	●		1.50		4.02		
	1.70	GTGN-16ER/IL170	●		1.70		3.87		
	1.95	GTGN-16ER/IL195	●		1.70		3.75		
	2.25	GTGN-16ER/IL225	●		1.80		3.60		
16	1.00	GTGN-16EL/IR100	●	9.525	1.25	0.1	4.22	G16EL/IR-DT	G16EL/IR-S
	1.20	GTGN-16EL/IR120	●		1.30		4.12		
	1.40	GTGN-16EL/IR140	●		1.50		4.02		
	1.70	GTGN-16EL/IR170	●		1.70		3.87		
	1.95	GTGN-16EL/IR195	●		1.70		3.75		
	2.25	GTGN-16EL/IR225	●		1.80		3.60		

Note: GTGN insert is applicable for both external and internal grooving, but the hand of tool is opposite in external and internal machining. Shim for GTGN is exclusive to each type of toolholders

Packing quantity = 10 pcs

Standard cutting conditions

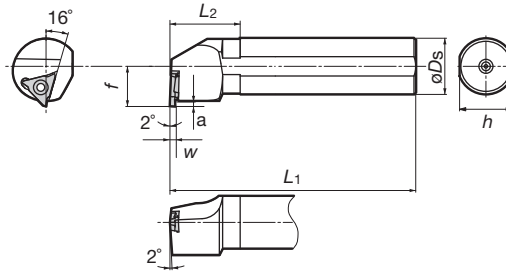
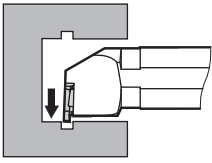
Work materials	Grades	Cutting speed V_c (m/min)	Feed f (mm/rev)
Steels S45C, SCM440 etc. (C45, 42CrMo4 etc.)	SH730	50 - 150	0.05 - 0.10
Stainless steels SUS304, SUS316 etc. (X5CrNi18-9, X5CrNiMo17-12-2 etc.)		30 - 150	0.05 - 0.10
Heat-resistant alloys, Titanium alloys etc. (Ti-6Al-4V etc.)		30 - 100	0.05 - 0.10

Width
0.33~4.5mmMax. Groove Depth
≤0.8mm, ≤2.5mm3
Corners

Screw-on type

Internal grooving

SGT R/L



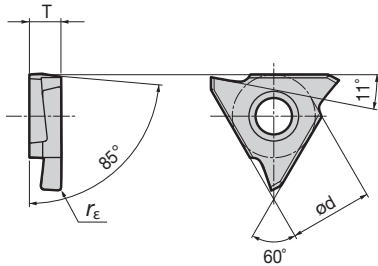
Right hand (R) shown.

Groove width W (mm)	Min. bore dia. øD _m (mm)	Cat. No.	Applicable inserts	Max. groove depth (mm)	Stock		Dimensions (mm)					
					R	L	L ₁	L ₂	f	øD _s	h ₁	a
0.33 ~ 2.5	ø35	S25R-SGTR/L16	GBL/R32□□□	2	●	●	200	30	17.5	25	23	2.5
1.25 ~ 4.5	ø40	S32S-SGTR/L22	GBL/R43□□□(R)	2.5	●	●	250	30	23	32	30	3.0

Note: When using a right or left hand insert, the right hand insert is used with left hand toolholder and the left hand insert is used with right hand toolholder.

Applicable inserts

GBL/R32

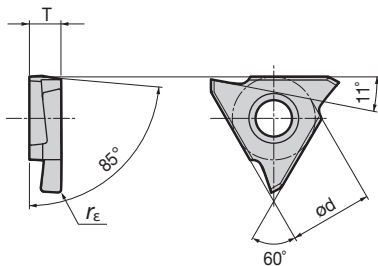


Right hand (R) shown.

Dimensions (mm)					Insert Cat. No.	Grades					
W ^{±0.025}	Max. groove depth (mm)	r _ε	ød	T		Coated		Cermet		Uncoated	
						AH710		NS730		KS05F	
						R	L	R	L	R	L
0.33	0.8	0.03	9.525	3.18	GBL/R32033	●	●	●	●	●	●
0.5	1.2	0.05			GBL/R32050	●	●	●	●	●	●
0.75	2	0.05			GBL/R32075	●	●	●	●	●	●
0.95	2	0.05			GBL/R32095	●	●	●	●	●	●
1	2	0.05			GBL/R32100	●	●	●	●	●	●
1.25	2	0.2			GBL/R32125	●	●	●	●	●	●
1.45	2	0.2			GBL/R32145	●	●	●	●	●	●
1.5	2	0.2			GBL/R32150	●	●	●	●	●	●
2	2.5	0.2			GBL/R32200	●	●	●	●	●	●
2.5	2.5	0.2			GBL/R32250	●	●	●	●	●	●

Note: S25R-SGTR/L16 Max. groove depth = 2.0 mm

GBL/R43

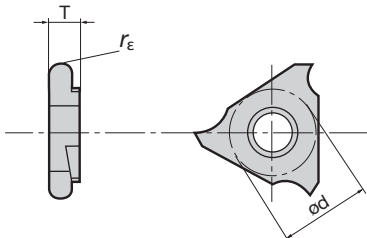


Right hand (R) shown.

Dimensions (mm)					Insert Cat. No.	Grades					
W ^{±0.025}	Max. groove depth (mm)	r _ε	ød	T		Coated		Cermet		Uncoated	
						AH710		NS730		KS05F	
						R	L	R	L	R	L
1.25	2	0.2	12.7	4.76	GBL/R43125	●	●	●	●	●	
1.45	2	0.2	12.7	4.76	GBL/R43145	●	●	●	●	●	
1.5	3.5	0.2	12.7	4.76	GBL/R43150	●	●	●	●	●	
1.75	3.5	0.2	12.7	4.76	GBL/R43175	●	●	●	●	●	
1.85	3.5	0.2	12.7	4.76	GBL/R43185	●	●	●	●	●	
2	3.5	0.2	12.7	4.76	GBL/R43200	●	●	●	●	●	
2.3	3.5	0.2	12.7	4.76	GBL/R43230	●	●	●	●	●	
2.5	5	0.3	12.7	4.76	GBL/R43250	●	●	●	●	●	
2.65	5	0.3	12.7	4.76	GBL/R43265	●	●	●	●	●	
2.8	5	0.3	12.7	4.76	GBL/R43280	●	●	●	●	●	
3	5	0.3	12.7	4.76	GBL/R43300	●	●	●	●	●	
3.3	5	0.3	12.7	4.76	GBL/R43330	●	●	●	●	●	
3.5	5	0.3	12.7	4.76	GBL/R43350	●	●	●	●	●	
4	5	0.4	12.7	4.76	GBL/R43400	●	●	●	●	●	
4.3	5	0.4	12.7	4.76	GBL/R43430	●	●	●	●	●	
4.5	5	0.4	12.7	4.76	GBL/R43450	●	●	●	●	●	

Note: S25R-SGTR/L16 Max. groove depth = 2.5 mm

● : Stocked items.

GBL/R43-R	Dimensions (mm)					Insert Cat. No.	Grades					
	$W_{\pm 0.025}$	Max. groove depth (mm)	r_{ϵ}	ϕd	T		Coated		Cermet		Uncoated	
							AH710		NS730		KS05F	
							R	L	R	L	R	L
	1	2	0.5	12.7	4.76	GBL/R43050R	●	●	●	●	●	●
	1.5	3.5	0.75			GBL/R43075R	●	●	●	●	●	●
	2	3.5	1			GBL/R43100R	●	●	●	●	●	●
	2.5	5	1.25			GBL/R43125R	●	●	●	●	●	●
	3	5	1.5			GBL/R43150R	●	●	●	●	●	●
	4	5	2			GBL/R43200R	●	●	●	●	●	●

Note: S25R-SGTR/L16 Max. groove depth = 2.5 mm

Standard cutting conditions

Work materials	Hardness	Recommended grade	Cutting speed: v_c (m/min)	Feed: f (mm/rev)
Carbon steels, Alloy steels (JIS S45C, SCM415, etc.)	150-240HB	NS730	150 (100-200)	0.1 (0.02-0.25)
		AH710	100 (60-150)	0.15 (0.05-0.25)
Stainless steels (JIS SUS304, etc.)	< 240HB	AH710	80 (60-150)	0.10 (0.05-0.15)
Cast irons (JIS FC250, etc.)	Tensile strength $\leq 350 \text{ N/mm}^2$	AH710	100 (60-150)	0.10 (0.05-0.15)
Non-ferrous metals (Aluminium, etc.)	—	KS05F	250 (200-300)	0.10 (0.05-0.15)

Parts

SGT-type for internal grooving

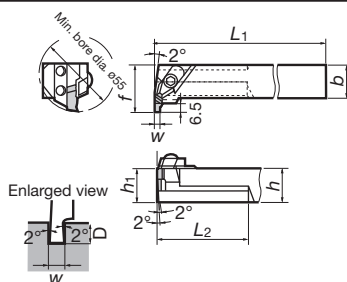
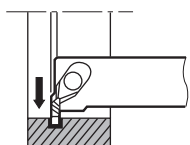
Cat. No.	Parts	
	Clamping screw	Wrench
S25R-SGTR/L16	CSTB-4S	T-15F
S32S-SGTR/L22	CSTB-5S	T-20F

● : Stocked items.

Width
1.0~4.5mmMax. Groove Depth
≤1.5mm, ≤6.0mm2,1
Corners

Internal grooving

GX-R/LI



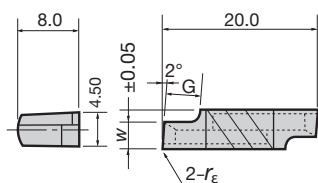
Right hand (R) shown.

Max. groove width W (mm)	Min. bore dia. øDm (mm)	Cat. No.	Stock		Applicable inserts	Max. groove depth (mm)	Dimensions (mm)						
			R	L			h_1	b	h	L_1	L_2	f	f_1
4.5	55	GX-2020R/LI			XGL/R63□□	6	20	20	20	160	60	35	-
		GX-2525R/LI	●	●			25	25	25	200	70		

Note: ● Max. groove width and max. groove depth shown in the above table are the values when the insert with the largest cutting edge width is used.

Inserts

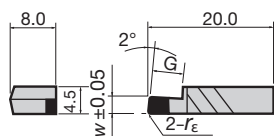
XGR/L



Right hand (R) shown.

Dimensions (mm)				Cat. No.	Grades									
					Cermet				Uncoated					
					NS530				TH10		UX30		TX10S	
W±0.05	Max.Groove depth	G	r _E		R	L			R	L	R	L	R	L
1	1.5	1.8	0	XGR/L6310S										
			0.2	XGR/L6310-02	●	●			●	●	●	●	●	
1.5	2.3	2.5	0	XGR/L6315S										
			0.2	XGR/L6315-02	●	●			●	●	●	●	●	
2	3	3.2	0	XGR/L6320S										
			0.2	XGR/L6320-02	●	●			●	●	●	●	●	●
2.5	3.8	3.9	0	XGR/L6325S										
			0.2	XGR/L6325-02	●	●			●	●	●	●	●	●
3	4.5	4.6	0	XGR/L6330S										
			0.2	XGR/L6330-02	●	●			●	●	●	●	●	●
3.5	5.3	5.4	0	XGR/L6335S										
			0.2	XGR/L6335-02	●	●			●	●	●	●	●	●
4	6	6.1	0	XGR/L6340S										
			0.2	XGR/L6340-02	●	●			●	●	●	●	●	●
4.5			0	XGR/L6345S										
			0.2	XGR/L6345-02	●	●			●	●	●	●	●	●

XGR/L-QBN



Right hand (R) shown.

Dimensions (mm)				Cat. No.	T-CBN	
$W \pm 0.05$	Max. Groove depth	G	r_ϵ		BX360	
1	1.5	2.5	0.2	XGR/L6310S-QBN		
1.5	2.3			XGR/L6315S-QBN	●	
2	3			XGR/L6320S-QBN	●	
2.5	3.8			XGR/L6325S-QBN	●	
3	4.5			XGR/L6330S-QBN	●	
3.5	5.3			XGR/L6335S-QBN	●	
4	6			XGR/L6340S-QBN	●	
4.5				XGR/L6345S-QBN	●	

Note: ● When using a right or left hand insert, the right hand insert is used with left hand toolholder and the left hand insert is used with right hand toolholder.

Packing Quantity=1pc.

Parts

Cat. No.	Parts				
	① Shim	Clamp set	④ Clamping screw	⑤ Shim screw	Wrench
GX-2020R/LI	SL-7R/L	CP81B (② Clamp CP81 ③ Pusher BP-0 Spring)	RT-1	BHM4-8	P-4
GX-2525R/LI	SL-2R/L			BHM3-8	

Standard cutting conditions

Work materials	Grades	Cutting speed v_c (m/min)	Feed f (mm/rev)		
			$W \leq 2$ mm	$W = 2 \sim 4$ mm	$W \geq 4$ mm
Carbon steels	NS530	80 ~ 200	0.05 ~ 0.1	0.08 ~ 0.2	0.08 ~ 0.25
	TX10S	60 ~ 150			
	UX30				
Cast irons, Light alloys	TH10	60 ~ 150	0.05 ~ 0.1	0.08 ~ 0.2	0.08 ~ 0.25
Hardened steels	BX360	50 ~ 180	0.05 ~ 0.15	0.05 ~ 0.15	0.05 ~ 0.15

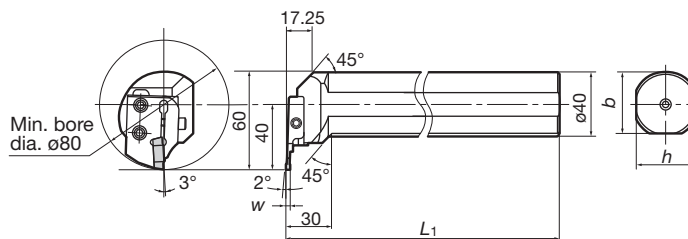
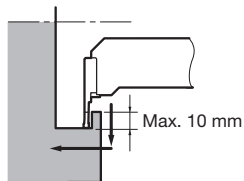
● : Stocked items.

Width
3.0mmMax. Groove Depth
≤ 10.0mm2
Corners

T: Horizontal type

Internal Grooving

CGWT R/L



Right hand (R) shown.

Toolholders (T: Horizontal type)

Groove width <i>W</i> (mm)	Min. bore dia. ϕD_m (mm)	Shank and blade ass'y Cat. No.	Stock		Applicable insert	Max. groove depth (mm)	Dimensions (mm)					Parts					
			R	L			<i>f</i>	<i>h</i>	<i>b</i>	<i>L</i> ₁	<i>ℓ</i>	Shank①	Stock		Blade set②	Stock	
													R	L		R	L
3	80	CGWTR/L0040-FLL/R3NP	●	●	FLEX30L/R	10	–	37.5	37	180	–	CGWTR/L0040	●	●	FLL/R3NP	●	●

Notes: • Special shank of blade for FLEX type.

- When using a right or left hand blade set, the right hand blade set is used with left hand shank and the left hand blade set is used with right hand shank.

Applicable inserts

Right hand (R) shown.

Left hand inserts are identified with a recessed dot.

Dimensions (mm)				Cat. No.	Grades		
					Coated	Cermet	
W	r _E	W ₁	Hand		T9125	NS530	
3	0.4	2.15	R	FLEX30R		●	
			L	FLEX30L		●	

Note: • When using a right or left insert, the right hand insert is used with right hand blade set and the left hand insert is used with left hand bladeset.

Parts

Cat. No.	Clamping screw	Blade fixing screw	Wrench
CGWTR/L0040-FLL/R3NP	CHHM5-18	CSHB-6	P-4

● : Stocked items.

Guideline for ordering special inserts

Specially designed inserts are available upon request.

● Acceptable specification

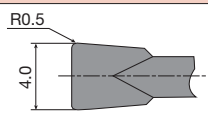
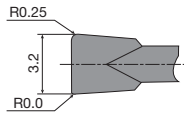
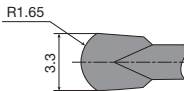
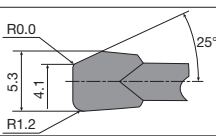
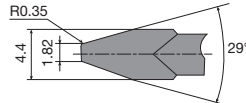
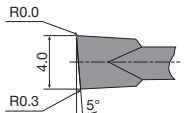
- Specialized inserts must be manufactured from the main insert styles shown below.
- **AH725, GH130** and the **TH10** grades are available.
- ✂ Please contact Tungaloy for more details.

External grooving & traversing		External grooving & traversing	Profiling & undercutting	
DTE (Ground)	DGE (Ground)	DTI (Ground)	DTR (Ground)	DTIU (Ground)
				

● Designation system for special inserts (sample)

DTE	320	- 000R-025L	AH725
① Main style of insert	② Max. width of insert	③ Additional codes	④ Grade

● Sample of shape

Shape	Samples of designation	Notes
	DTE400-050 GH130	Main style: DTE type Special corner radius
	DTE320-000R025L AH725	Main style: DTE type Special corner radius, asymmetric type
	DTR330-165 TH10	Main style: DTR type Full radius type with special insert width
	DTE530-120R-25LA TH10	Main style: DTE type Special figure of groove, asymmetric type
	DTE440-035-29A TH10	Main style: DTE type Special figure of groove
	DTE400-030R-005RA TH10	Main style: DTE type Right handed insert with special angle and corner radius.

