Keeping the Customer First

Tungaloy Report TE0105-E5

Grooving system

MY-T

The flexible tool concept

MY-T Grooving system

NEW

Flexibility for highly economic machining

Features

When developing the new My-T grooving system Tungaloy's priority was to produce a tool with highly economic flexible application for modern machining processes.
The modular system of the My-T concept gives way for a great variety of applications such as external and internal grooving, facing, traversing, parting and profiling. The unique basic mould of the directly sintered insert enables the use in all different My-T tool holder systems. Consequently the universal application of all different chipreakers GE, GF, GT and GR is granted. The biggest advantage is thus optimal adjustment to special requirements in different machining processes. The inserts are equipped with a prism at top and bottom which grants for extremely stable clamping in the tool holder system. Unstable cutting conditions are reduced to a minimum.

NEW

My-T grooving system: Benefits / Applications

Modular system

Only one tool holder for various applications
- parting and grooving
- facing

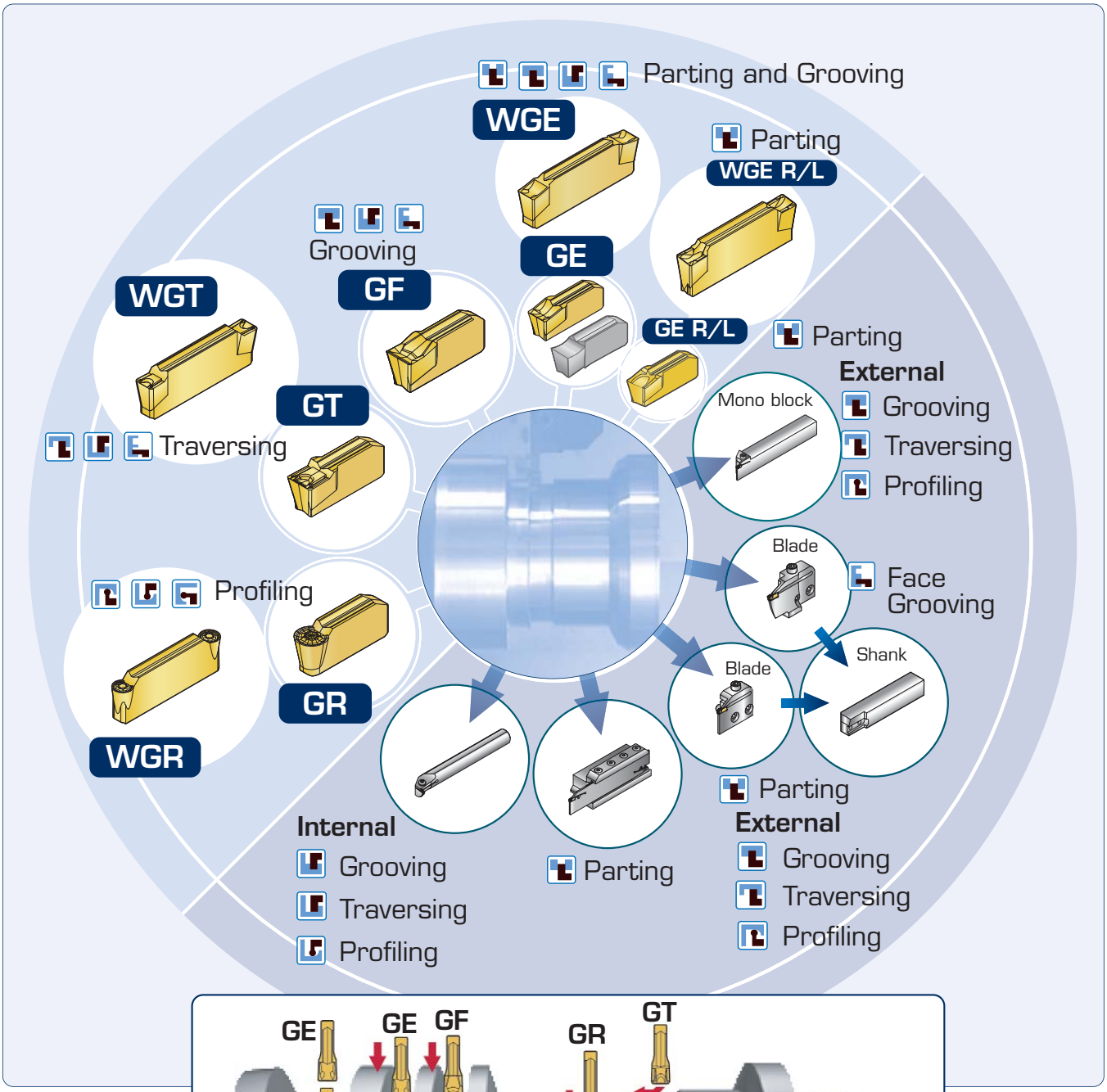
Prism clamping mechanism

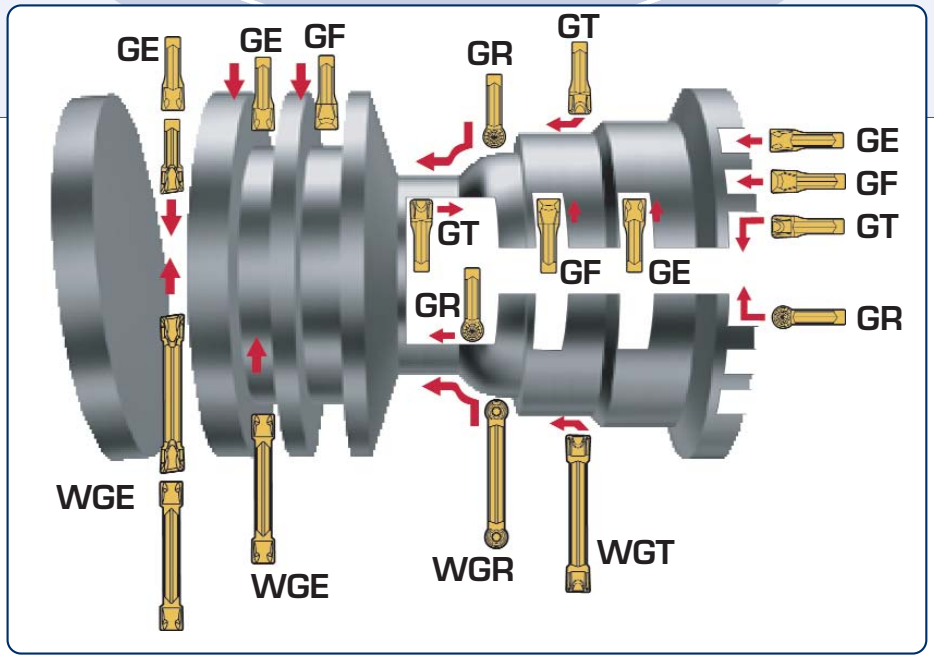
Double prism clamping system for stable clamping of the insert

- Parting
- Grooving
  - external
  - internal
  - facing
- Traversing
  - external
  - internal
  - facing
- Profiling
  - external
  - internal
  - facing

Directly sintered inserts reduce tool costs

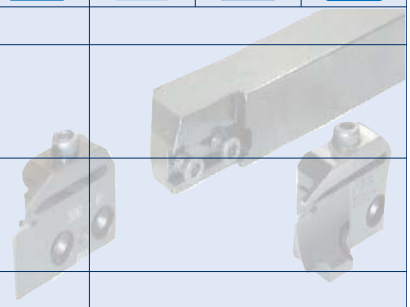
Concept


Parting and Grooving
WGE
Parting
WGE R/L
Grooving
GF
GE
GE R/L
Parting
External
Grooving
Traversing
Profiling
Mono block
WGT
GT
Traversing
Blade
Face
Grooving
Profiling
Shank
Blade
GR
WGR
Parting
External
Grooving
Traversing
Profiling
Parting
Internal
Grooving
Traversing
Profiling


GE
GE
GF
GR
GT
GE
GF
GT
GR
GT
GF
GE
GR
WGE
WGE
WGR
WGT

Applications

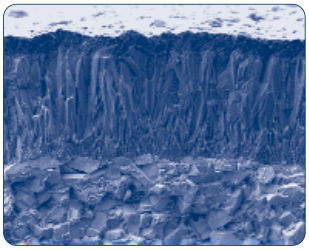
Applications		Parting	Grooving			Traversing			Profiling		
			External	Internal	Facing	External	Internal	Facing	External	Internal	Facing
Inserts type	Grooving width (mm)										
WGE* *	2	●	●								
GE* *	3	●		●							
	4										
	5										
WGE* *R/L	3	●									
GE* *R/L	4										
	5										
GE* *-AL	2	●	●								
	3	●		●							
	4										
GF* *	3			●							
	4										
	5										
WGT* *	3						●				
GT* *	4										
	5										
WGR* *	R1.5									●	
GR* *	R2.0										
	R2.5										



Grade

T9025 (P20; MT-CVD)

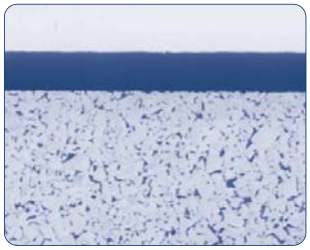
P K



- Wear resistant grade
- High speed cutting
- For steels and cast irons
- Best suited for grooving and external grooving

GH730 (P30 - P40; PVD)

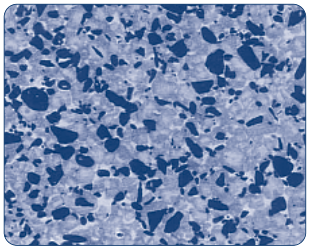
P M



- Break and wear resistant grade
- Low and medium cutting speed
- For steels and stainless steels
- Best suited for parting

NS530 (Cermet)

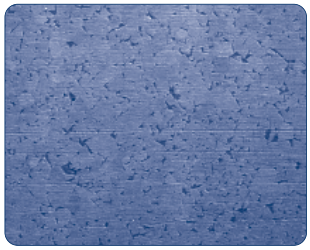
P K



- Extremely wear resistant grade
- High speed cutting
- For steels and cast irons
- Extremely smooth surface quality
- Best suited for grooving and traversing

KS05F (Carbide)

N



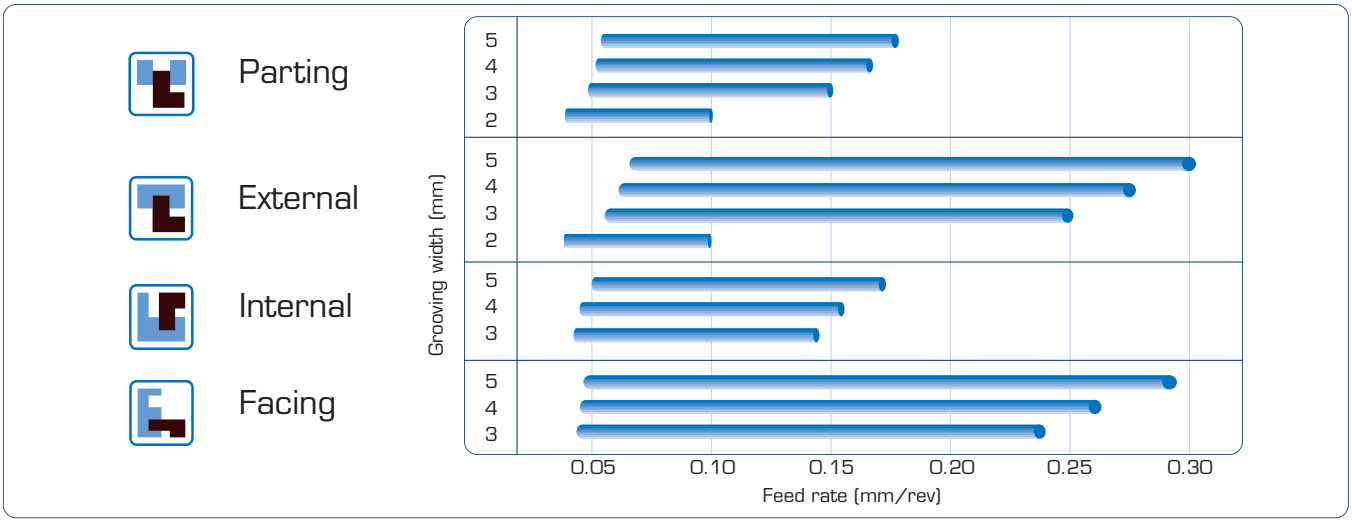
- For aluminium alloys and non-ferrous metals
- Micro grain carbide
- For extremely sharp cutting edges

Grade selection

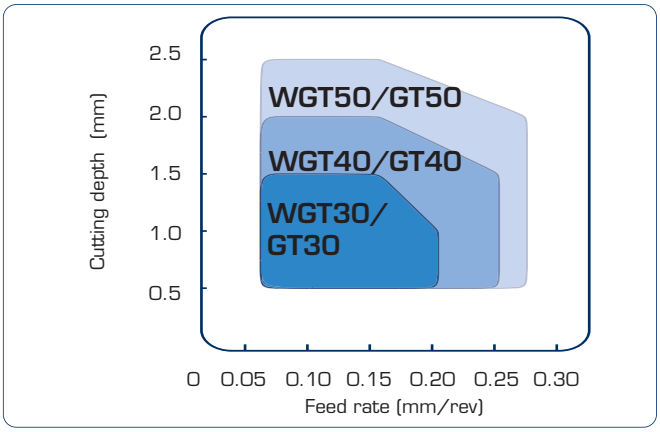
	Work materials	Cutting speed (m/min) 0 100 200 300
P	• Low carbon steels Ck10, St42 etc.	T9025 GH730 NS530
P	• Alloy steels C45, 42CrMo4 etc.	T9025 GH730 NS530
P	• High carbon steels 40NiCrMo6 etc.	T9025 GH730 NS530
M	• Stainless steels X5CrNi18-10 etc.	T9025 GH730
K	• Cast irons GG25, GGG40 etc.	T9025 GH730
N	• Aluminium alloys • Non-ferrous metals	KS05F

Standard cutting parameter

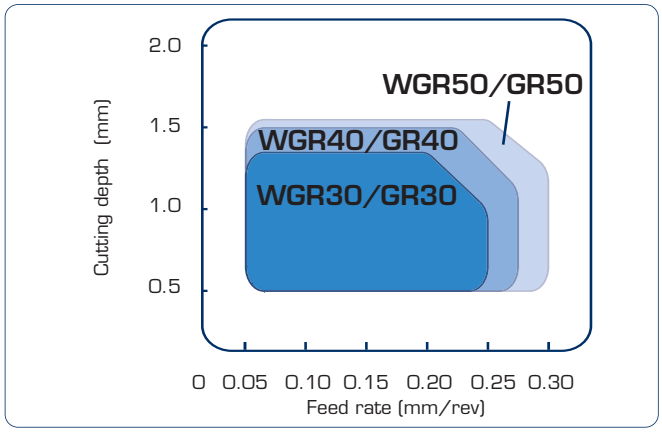
Parting and grooving with WGE/GE, GF type



Traversing with WGT/GT type



Profiling with WGR/GR type

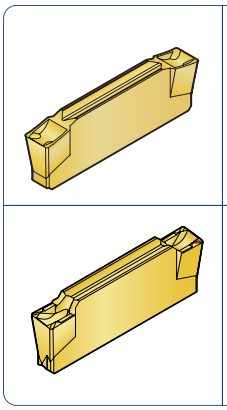


Inserts

Parting and Grooving

WGE 2-corner type

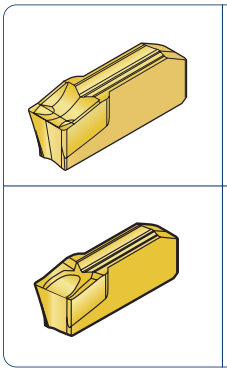
● Standard stock in Europe



Item code	Dimensions (mm)				Grade	
	W	L	h	R	Coated	
					T9025	GH730
WGE20	2	20	4.7	0.2	●	●
WGE30	3	20	5.5		●	●
WGE40	4	25	5.7		●	●
WGE50	5	25	5.9		●	●
WGE20R/L	2	20	4.7		●	●
WGE30R/L	3	20	5.5		●	●
WGE40R/L	4	25	5.7		●	●
WGE50R/L	5	25	5.9		●	●

WGE**R/L : only for parting
Right hand (R) shown

GE 1-corner type



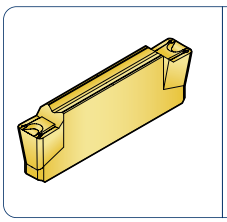
Item code	Dimensions (mm)				Grade		
	W	L	h	R	Coated		Cermet
					T9025	GH730	NS530
GE20	2	10	3.5	0.2	●	●	●
GE30	3	10	3.5		●	●	●
GE40	4	10	4.0		●	●	●
GE50	5	12	4.5		●	●	●
GE30R/L	3	10	3.5		●	●	
GE40R/L	4	10	4.0		●	●	
GE50R/L	5	12	4.5		●	●	

GE**R/L : only for parting
Right hand (R) shown

Traversing

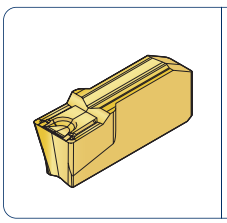
WGT 2-corner type

● Standard stock in Europe



Item code	Dimensions (mm)				Grade	
	W	L	h	R	Coated	
					T9025	GH730
WGT30	3	20	5.5	0.4	●	●
WGT40	4	25	5.7		●	●
WGT50	5	25	5.9		●	●

GT 1-corner type

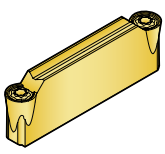


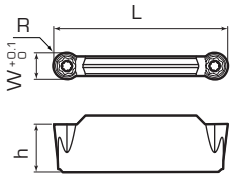
Item code	Dimensions (mm)				Grade		
	W	L	h	R	Coated		Cermet
					T9025	GH730	NS530
GT30	3	10	3.5	0.4	●	●	●
GT40	4	10	4.0		●	●	●
GT50	5	12	4.5		●	●	●

Profiling

WGR 2-corner type

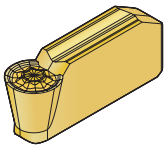
● Standard stock in Europe

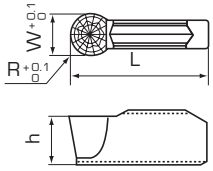




Item code	Dimensions (mm)				Grade	
	W	L	h	R	Coated	
					T9025	GH730
WGR30	3	20	5.5	1.5	●	●
WGR40	4	20	5.7	2.0	●	●
WGR50	5	25	5.9	2.5	●	●

GR 1-corner type



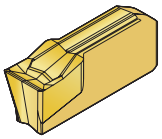


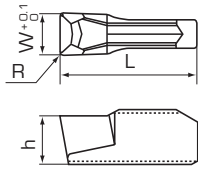
Item code	Dimensions (mm)				Grade		
	W	L	h	R	Coated		Cermet
					T9025	GH730	NS530
GR30	3	10	3.5	1.5	●	●	●
GR40	4	10	4.0	2.0	●	●	●
GR50	5	12	4.5	2.5	●	●	●

Grooving and Facing

GF

● Standard stock in Europe



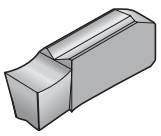


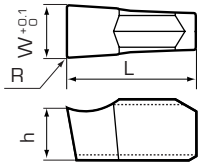
Item code	Dimensions (mm)				Grade		
	W	L	h	R	Coated		Cermet
					T9025	GH730	NS530
GF30	3	10	3.5	0.2	●	●	●
GF40	4	10	4.0		●	●	●
GF50	5	12	4.5		●	●	●

Grooving - Aluminium

GE-AL

❍ Standard stock in Japan





Item code	Dimensions (mm)				Grade
	W	L	h	R	Carbide
					KS05F
GE20-AL	2	10	3.5	0.2	❍
GE30-AL	3	10	3.5		❍
GE40-AL	4	10	4.0		❍

Feed f (mm/rev) = 0.03 - 0.10

Toolholder

Parting and External operations

CGWS R/L

● Standard stock in Europe

Monoblock for 2-corner inserts

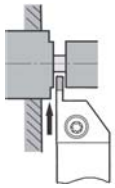


Fig. 1

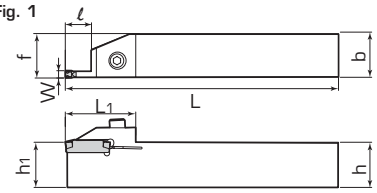
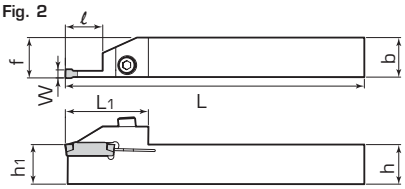


Fig. 2



Right hand (R) shown

Grooving width W (mm)	Grooving depth (mm)	Item code	Stock R	Stock L	Insert	Dimensions (mm) b	h	h1	f	L	L1	ℓ	Screw	Wrench	Fig.
2	15	CGWSR/L1616-W20-L	●	●	WGE20	16	16	16	16.2	125	37	16.5	CHHM5-18	P-4	2
		CGWSR/L2020-W20-L	●	●	WGE20R/L	20	20	20	20.2	150					
		CGWSR/L2525-W20-L	●	●		25	25	25	25.2						
3	12	CGWSR/L1616-W30	●	●	WG*30	16	16	16	16.4	125	34	13.5			1
		CGWSR/L2020-W30	●	●	WGE30R/L	20	20	20	20.4	150					
		CGWSR/L2525-W30	●	●		25	25	25	25.4						
	16.5	CGWSR/L1616-W30-L	●	●		16	16	16	16.4	125	37	20.5			2
		CGWSR/L2020-W30-L	●	●		20	20	20	20.4	150					
		CGWSR/L2525-W30-L	●	●		25	25	25	25.4						
4	13	CGWSR/L2020-W40	●	●	WG*40	20	20	20	20.4	150	39	14.5			1
		CGWSR/L2525-W40	●	●	WGE40R/L	25	25	25	25.4						
	21	CGWSR/L2020-W40-L	●	●		20	20	20	20.4		42	25.5			2
		CGWSR/L2525-W40-L	●	●		25	25	25	25.4						
5	13	CGWSR/L2020-W50	●	●	WG*50	20	20	20	20.4	150	39	14.5			1
		CGWSR/L2525-W50	●	●	WGE50R/L	25	25	25	25.4						
	21	CGWSR/L2020-W50-L	●	●		20	20	20	20.4		42	25.5			2
		CGWSR/L2525-W50-L	●	●		25	25	25	25.4						

WGE**R/L: only for parting

CGSS R/L

● Standard stock in Europe

Monoblock for 1-corner inserts

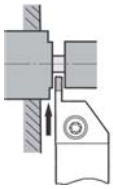


Fig. 1

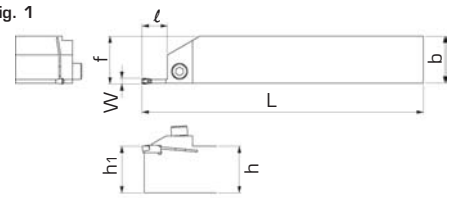
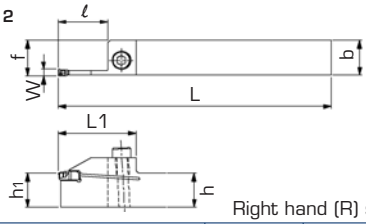


Fig. 2



Right hand (R) shown

Grooving width W (mm)	Grooving depth (mm)	Item code	Stock R	Stock L	Insert	Dimensions (mm) b	h	h1	f	L	L1	ℓ	Screw	Wrench	Fig.
2	16	CGSSR/L1616-20	●	●	GE20	16	16	16	16.2	125	-	17.0	CHHM5-18	P-4	1
		CGSSR/L2020-20	●	●		20	20	20	20.2	150					
		CGSSR/L2525-20	●	●		25	25	25	25.2						
3	12	CGSSR/L1616-30	●	●	G*30 GE30R/L	16	16	16	16.5	125	-	13.5			
		CGSSR/L2020-30	●	●		20	20	20	20.5	150					
		CGSSR/L2525-30	●	●		25	25	25	25.5						
	22	CGSSR/L1616-30D	●	●		16	16	16	16.5	125	36.2	23.0			2
		CGSSR/L2020-30D	●	●		20	20	20	20.5	150					
		CGSSR/L2525-30D	●	●		25	25	25	25.5						
4	12	CGSSR/L1616-40			G*40 GE40R/L	16	16	16	16.6	125	-	13.5			1
		CGSSR/L2020-40	●	●		20	20	20	20.6	150					
		CGSSR/L2525-40	●	●		25	25	25	25.6						
	25	CGSSR/L1616-40D				16	16	16	16.6	125	39.5	26.0			2
		CGSSR/L2020-40D	●	●		20	20	20	20.6	150					
		CGSSR/L2525-40D	●	●		25	25	25	25.6						
5	12	CGSSR/L1616-50			G*50 GE50R/L	16	16	16	16.7	125	-	13.5			1
		CGSSR/L2020-50	●	●		20	20	20	20.7	150					
		CGSSR/L2525-50	●	●		25	25	25	25.7						
	25	CGSSR/L1616-50D				16	16	16	16.7	125	39.5	26.0			2
		CGSSR/L2020-50D	●	●		20	20	20	20.7	150					
		CGSSR/L2525-50D	●	●		25	25	25	25.7						

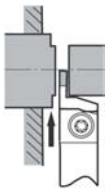
GE**R/L: only for parting

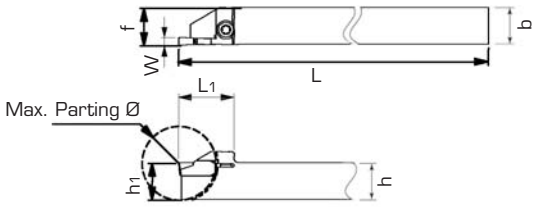
Parting and External grooving

JCGSS R/L

● Standard stock in Europe

J-type holder





Right hand (R) shown

Grooving width W (mm)	Max. Parting Ø (mm)	Item code	Stock	Insert	Dimensions (mm) b	h	h1	f	L	L1	Screw	Wrench
2	20	JCGSSR/L1010-20	●	GE20	10	10	10	10.2	125	15	CSTB-3	T-9F
	25	JCGSSR/L1212-20	●		12	12	12	12.2	125	19		
	32	JCGSSR/L1616-20	●		16	16	16	16.2	125	22.5		

Parting and External operations

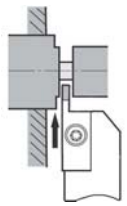
Replacement parts for:
CGWS R/L
CGWT R/L

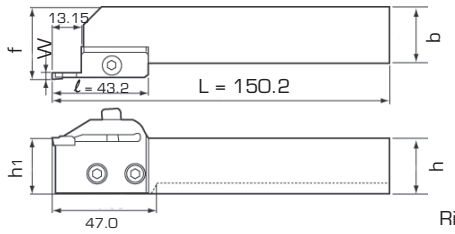
Replacement parts		
Screw	Screw for blade	Wrench
CHHM5-18	CSHB-6	P-4

CGWS R/L

● Standard stock in Europe
GE**R/L: only for parting

Vertical type





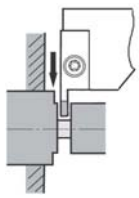
Right holder, right blade shown
Broken line shows shank size 20 mm

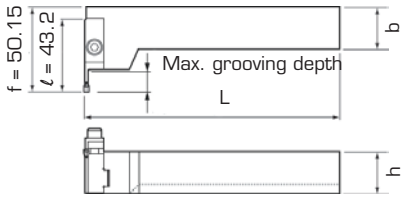
Grooving width W (mm)	Grooving depth (mm)	Item code	Stock R	Stock L	Inserts	Dimensions (mm) b	h	h1	f	Parts Holder	Stock R	Stock L	Blade	Stock R	Stock L
2	12	CGWSR/L2020-20GR/L	●	●	GE20	20	20	20	26.8	CGWSR/L2020	●	●	20GR/L	●	●
		CGWSR/L2525-20GR/L	●	●		25	25	25	31.8	CGWSR/L2525	●	●		●	●
3	12	CGWSR/L2020-30GR/L	●	●	G*30	20	20	20	27.0	CGWSR/L2020	●	●	30GR/L	●	●
		CGWSR/L2525-30GR/L	●	●	GE30R/L	25	25	25	32.0	CGWSR/L2525	●	●		●	●
4	12	CGWSR/L2020-40GR/L	●	●	G*40	20	20	20	27.1	CGWSR/L2020	●	●	40GR/L	●	●
		CGWSR/L2525-40GR/L	●	●	GE40R/L	25	25	25	32.1	CGWSR/L2525	●	●		●	●
5	12	CGWSR/L2020-50GR/L	●		G*50	20	20	20	27.2	CGWSR/L2020	●	●	50GR/L	●	●
		CGWSR/L2525-50GR/L	●		GE50R/L	25	25	25	32.2	CGWSR/L2525	●	●		●	●

CGWT R/L

GE**R/L: only for parting

Horizontal type





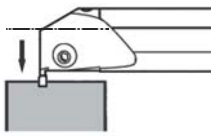
Right holder, left blade shown
Broken line shows shank size 20 mm

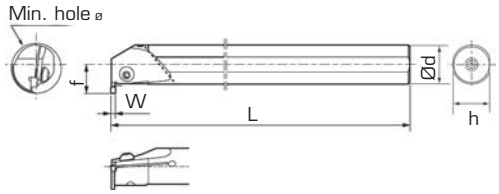
Grooving width W (mm)	Grooving depth (mm)	Item code	Stock R	Stock L	Inserts	Dimensions (mm) b	h	L	Parts Holder	Stock R	Stock L	Blade	Stock R	Stock L
3	12	CGWTR/L2020-30GL/R			G*30	20	20	150.3	CGWTR/L2020	●	●	30GL/R	●	●
		CGWTR/L2525-30GL/R			GE30R/L	25	25		CGWTR/L2525	●	●		●	●
4	12	CGWTR/L2020-40GL/R			G*40	20	20	150.4	CGWTR/L2020	●	●	40GL/R	●	●
		CGWTR/L2525-40GL/R			GE40R/L	25	25		CGWTR/L2525	●	●		●	●
5	12	CGWTR/L2020-50GL/R			G*50	20	20	150.5	CGWTR/L2020	●	●	50GL/R	●	●
		CGWTR/L2525-50GL/R			GE50R/L	25	25		CGWTR/L2525	●	●		●	●

Internal operations

S* * *-CGT R/L

● Standard stock in Europe



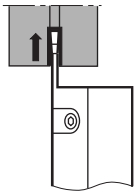


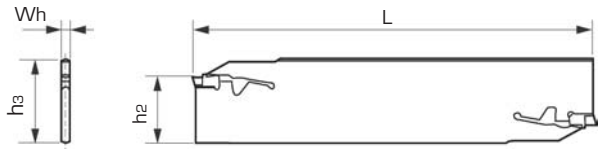
Right hand (R) shown

Grooving width W (mm)	Min. hole Ø (mm)	Grooving depth (mm)	Item code	Stock R	Stock L	Inserts	Dimensions (mm) Ød	f	L	h	Screw	Wrench
3	Ø 25	3.5	S20Q-CGTR/L30	●	●	G*30	20	14.5	180	18	BHM5-14	P-3
	Ø 32	5	S25R-CGTR/L30	●	●		25	18.5	200	23		
4	Ø 32	5	S25R-CGTR/L40	●	●	G*40	25	18.5	200	23		
	Ø 40	5	S32S-CGTR/L40	●	●		32	23.0	250	30		
5	Ø 32	6	S25R-CGTR/L50	●	●	G*50	25	18.5	200	23		
	Ø 40	6	S32S-CGTR/L50	●	●		32	23.0	250	30		

Parting

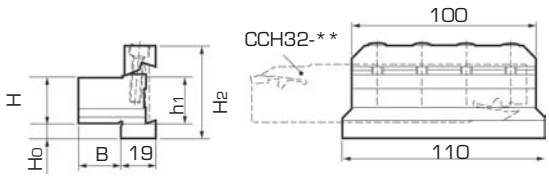
CCH* *-* *





Grooving width (mm)	Item code Blade	Stock	Inserts	Max. Parting Ø (mm)	Dimensions (mm) Wh	h2	h3	L	Wrench for inserts
3	CCH26-30	●	GE30 (R/L)	70	2.2	21.40	24.86	110	CTL-2
4	CCH26-40	●	GE40 (R/L)	70	3.2	21.26	24.59	110	
5	CCH26-50	●	GE50 (R/L)	70	4.2	21.13	24.32	110	
3	CCH32-30	●	GE30 (R/L)	100	2.2	24.60	31.31	150	
4	CCH32-40	●	GE40 (R/L)	100	3.2	24.47	31.04	150	
5	CCH32-50	●	GE50 (R/L)	120	4.2	24.33	30.77	150	

CCBS* *-32



Item code Block	Stock	Blade	Dimensions (mm) h1	B	H	H0	H2	Wedge	Screw	Wrench
CCBS20-32	●	CCH32-* *	20.2	19	20	13	49.9	CC-32	CM6X25	P-5
CCBS25-32	●		25.2	23	25	8	49.9			
CCBS32-32	●		32.2	23	32	5	53.9			

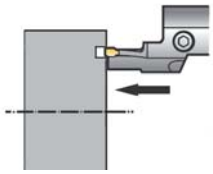
Facing

*Screw...
CGWSR****-**S****R
CGWSR****-**D****R

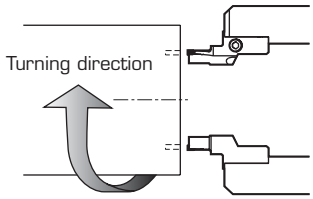
Replacement parts			
Screw		Screw for blade	Wrench
S	CHHM5-18	CSHB-6	P-4
D	CM5X0.8X16		

CGWS R/L

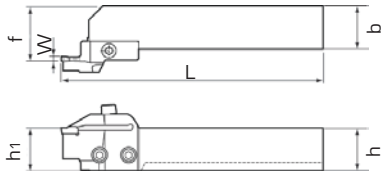
Vertical type



CGWSR****-*******R

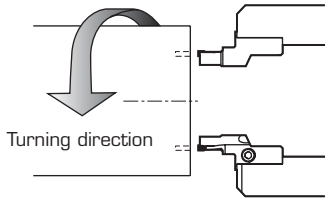


Right hand (R)
Right holder, right blade shown



Right holder, right blade shown
Broken line shows shank size 20 mm

CGWSL****-*******L



Left hand (L)
Left holder, left blade shown

Grooving width W (mm)	Groove-Ø (mm)	Grooving depth (mm)	Holder set	Stock R	Stock L	Inserts	Dimensions (mm) b	h	h1	f	L	Parts Item code Holder	Stock R	Stock L	Item code Blade	Stock R	Stock L
3	30-40	10	CGWSR/L2020-30S3040R/L			G*30	20	20	20	27	152.5	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			G*30	25	25	25	32	152.5	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	●	●
4	35-45	14	CGWSR/L2020-40S3545R/L			G*40	20	20	20	27	152.5	CGWSR/L2020	●	●	40S3545R/L	●	●
	45-55		CGWSR/L2020-40S4555R/L												40S4555R/L	●	●
	55-80		CGWSR/L2020-40S5580R/L												40S5580R/L	●	●
	80-140		CGWSR/L2020-40S80140R/L												40S80140R/L	●	●
	140-500		CGWSR/L2020-40S140500R/L												40S140500R/L	●	●

● Standard stock in Europe

Grooving width W (mm)	Groove-Ø (mm)	Grooving depth (mm)	Holder set	Stock R	Stock L	Inserts	Dimensions (mm) b	h	h1	f	L	Parts: Item code Holder	Stock R	Stock L	Item code Blade	Stock R	Stock L
4	35-45	14	CGWSR/L2525-40S3545R/L			G*40	25	25	25	32	152.5	CGWSR/L2525	●	●	40S3545R/L	●	●
	45-55		CGWSR/L2525-40S4555R/L												40S4555R/L	●	●
	55-80		CGWSR/L2525-40S5580R/L												40S5580R/L	●	●
	80-140		CGWSR/L2525-40S80140R/L												40S80140R/L	●	●
	140-500		CGWSR/L2525-40S140500R/L												40S140500R/L	●	●
4	35-45	22	CGWSR/L2020-40D3545R/L			G*40	20	20	20	27	160.5	CGWSR/L2020	●	●	40D3545R/L	●	●
	45-55		CGWSR/L2020-40D4555R/L												40D4555R/L	●	●
	55-80		CGWSR/L2020-40D5580R/L												40D5580R/L	●	●
	80-140		CGWSR/L2020-40D80140R/L												40D80140R/L	●	●
	140-500		CGWSR/L2020-40D140500R/L												40D140500R/L	●	●
	35-45		CGWSR/L2525-40D3545R/L			G*40	25	25	25	32	160.5	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	14	CGWSR/L2020-50S3545R/L			G*50	20	20	20	27	152.5	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			G*50	25	25	25	32	152.5	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	●	●
5	35-45	22	CGWSR/L2020-50D3545R/L			G*50	20	20	20	27	160.5	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			G*50	25	25	25	32	160.5	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	●	●

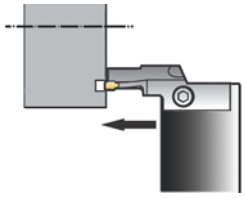
Facing

*Screw...
CGWTR****-**S****L
CGWTR****-**D****L

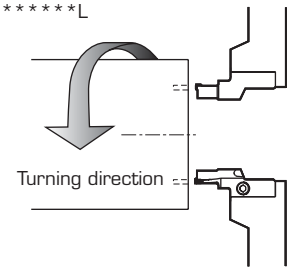
Replacement parts			
Screw		Screw for blade	Wrench
S	CHHM5-18	CSHB-6	P-4
D	CM5X0.8X16		

CGWT R/L

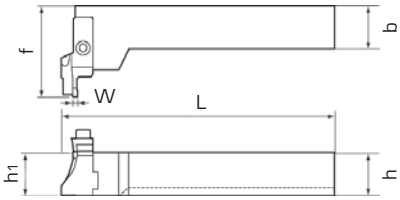
Horizontal type



CGWTR****-*******L

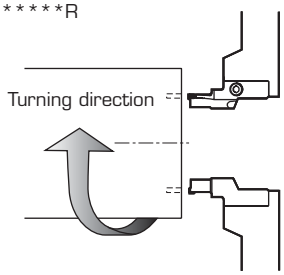


Right hand (R)
Right holder, left blade shown



Right holder, left blade shown
Broken line shows shank size 20 mm

CGWTL****-*******R



Left hand (L)
Left holder, right blade shown

Grooving width W (mm)	Groove-Ø (mm)	Grooving depth (mm)	Holder set	Stock R	Stock L	Inserts	Dimensions (mm) b	h	h1	f	L	Parts Item code Holder	Stock R	Stock L	Item code Blade	Stock R	Stock L
3	30-40	10	CGWTR/L2020-30S3040L/R			G*30	20	20	20	52.5	150	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			G*30	25	25	25	52.5	150	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	●	●
4	35-45	14	CGWTR/L2020-40S3545L/R			G*40	20	20	20	52.5	150	CGWTR/L2020	●	●	40S3545L/R	●	●
	45-55		CGWTR/L2020-40S4555L/R												40S4555L/R	●	●
	55-80		CGWTR/L2020-40S5580RL/R												40S5580L/R	●	●
	80-140		CGWTR/L2020-40S80140L/R												40S80140L/R	●	●
	140-500		CGWTR/L2020-40S140500L/R												40S140500L/R	●	●

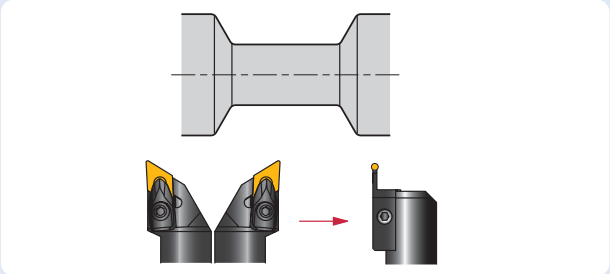
● Standard stock in Europe

Grooving width W (mm)	Groove-Ø (mm)	Grooving depth (mm)	Holder set	Stock R	Stock L	Inserts	Dimensions (mm) b	h	h1	f	L	Parts: Item code Holder	Stock R	Stock L	Item code Blade	Stock R	Stock L
	35-45		CGWTR/L2525-40S3545L/R												40S3545L/R	●	●
	45-55		CGWTR/L2525-40S4555L/R												40S4555L/R	●	●
4	55-80	14	CGWTR/L2525-40S5580L/R			G*40	25	25	25	52.5	150	CGWTR/L2525	●	●	40S5580L/R	●	●
	80-140		CGWTR/L2525-40S80140L/R												40S80140L/R	●	●
	140-500		CGWTR/L2525-40S140500L/R												40S140500L/R	●	●
	35-45		CGWTR/L2020-40D3545L/R												40D3545L/R	●	●
	45-55		CGWTR/L2020-40D4555L/R												40D4555L/R	●	●
	55-80		CGWTR/L2020-40D5580L/R			G*40	20	20	20	60.5	150	CGWTR/L2020	●	●	40D5580L/R	●	●
	80-140		CGWTR/L2020-40D80140L/R												40D80140L/R	●	●
	140-500		CGWTR/L2020-40D140500L/R												40D140500L/R	●	●
4	35-45	22	CGWTR/L2525-40D3545L/R												40D3545L/R	●	●
	45-55		CGWTR/L2525-40D4555L/R												40D4555L/R	●	●
	55-80		CGWTR/L2525-40D5580L/R			G*40	25	25	25	60.5	150	CGWTR/L2525	●	●	40D5580L/R	●	●
	80-140		CGWTR/L2525-40D80140L/R												40D80140L/R	●	●
	140-500		CGWTR/L2525-40D140500L/R												40D140500L/R	●	●
	35-45		CGWTR/L2020-50S3545L/R												50S3545L/R	●	●
	45-55		CGWTR/L2020-50S4555L/R												50S4555L/R	●	●
	55-75		CGWTR/L2020-50S5575L/R			G*50	20	20	20	52.5	150	CGWTR/L2020	●	●	50S5575L/R	●	●
	75-130		CGWTR/L2020-50S75130L/R												50S75130L/R	●	●
5	130-500	14	CGWTR/L2020-50S130500L/R												50S130500L/R	●	●
	35-45		CGWTR/L2525-50S3545L/R												50S3545L/R	●	●
	45-55		CGWTR/L2525-50S4555L/R												50S4555L/R	●	●
	55-75		CGWTR/L2525-50S5575L/R			G*50	25	25	25	52.5	150	CGWTR/L2525	●	●	50S5575L/R	●	●
	75-130		CGWTR/L2525-50S75130L/R												50S75130L/R	●	●
	130-500		CGWTR/L2525-50S130500L/R												50S130500L/R	●	●
	35-45		CGWTR/L2020-50D3545L/R												50D3545L/R	●	●
	45-55		CGWTR/L2020-50D4555L/R												50D4555L/R	●	●
	55-75		CGWTR/L2020-50D5575L/R			G*50	20	20	20	60.5	150	CGWTR/L2020	●	●	50D5575L/R	●	●
	75-130		CGWTR/L2020-50D75130L/R												50D75130L/R	●	●
	130-500		CGWTR/L2020-50D130500L/R												50D130500L/R	●	●
5	35-45	22	CGWTR/L2525-50D3545L/R												50D3545L/R	●	●
	45-55		CGWTR/L2525-50D4555L/R												50D4555L/R	●	●
	55-75		CGWTR/L2525-50D5575L/R			G*50	25	25	25	60.5	150	CGWTR/L2525	●	●	50D5575L/R	●	●
	75-130		CGWTR/L2525-50D75130L/R												50D75130L/R	●	●
	130-500		CGWTR/L2525-50D130500L/R												50D130500L/R	●	●

Application detail

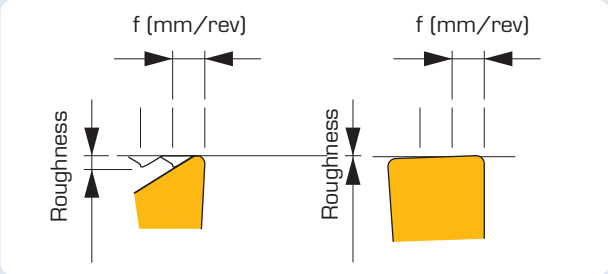
An example of tool integration in Traverse feed machining

Previously, this operation has been carried out by using two external profiling tools, one left and one right hand. By switching to My-T series tooling, the number of tools required could be reduced to only one tool (GT type for traverse feeding or GR type for profiling).



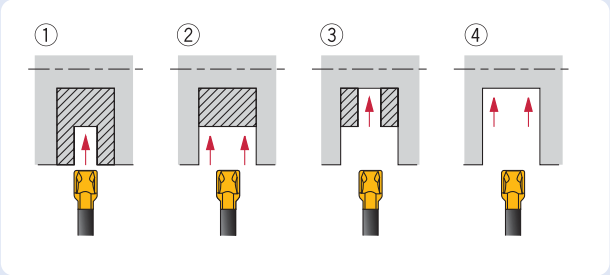
Comparison of surface roughness (conventional tool vs. GT insert)

because the tip of GT-type insert slightly tilts during machining and acts like a wiper cutting edge, it can produce a better surface finish than when using a conventional insert.



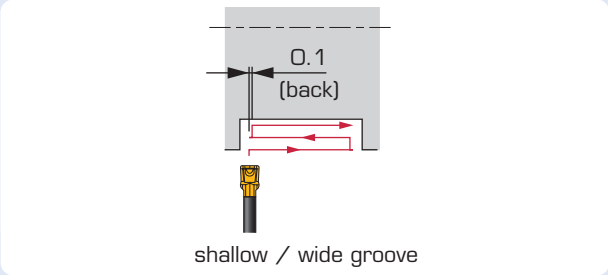
Method of deep grooving

When deep grooving, the procedures shown at right are recommended.



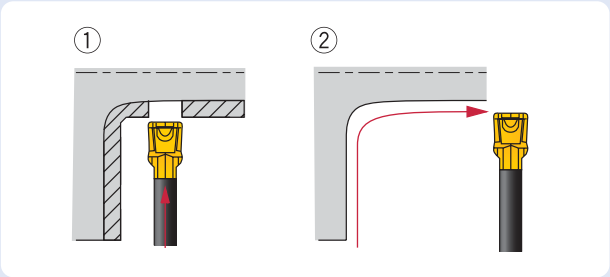
Machining of various grooves

When machining a constricted portion of a cylindrical workpiece, choose the suitable method depending on the width and depth of the groove to be machined.



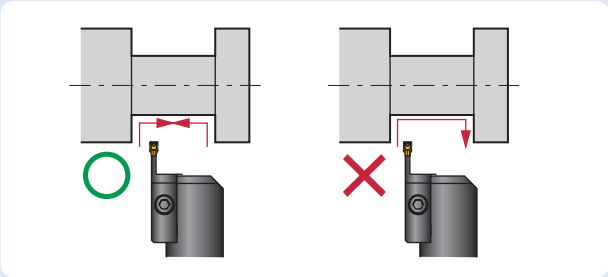
Chamfering and rounding-off at bottom corner of groove

When chamfering or rounding-off at the bottom corner of a groove, the procedures shown in the figure at the right are recommended.



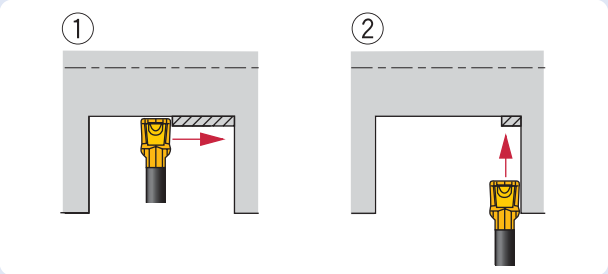
Method of finishing double-sided walls

When finishing both sides of a groove by using GT-type inserts, retract feed mode should be avoided. You should machine both side walls by plunging and then machine the bottom of the groove by traversing the tool.



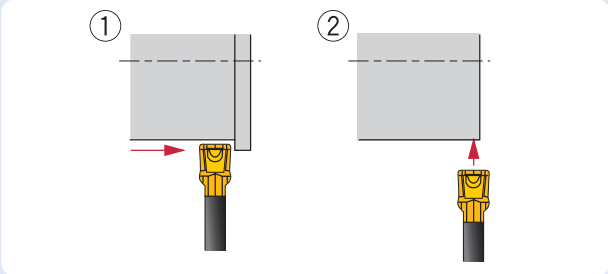
Machining method of groove bottom close to a shoulder

When machining the bottom surface of a groove by traverse feeding, chip recutting can occur close to the wall. Stop the feed short of the wall (remaining width less than front edge width of insert), and then remove the remaining stock by plunging.



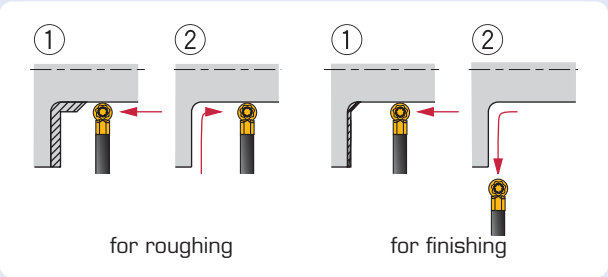
Comparison of surface roughness

When machining the outer diameter of a workpiece by traverse feeding, a ring like material can be produced as shown in the figure at right. In this case, stop the feed short of the work end. (Remaining width to be less than the front edge width of insert) andd then remove the remaining stock by plunging.



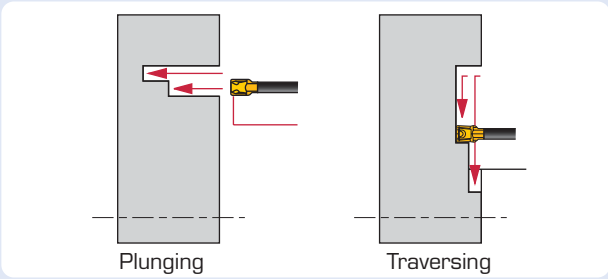
Method of machining with full radius insert

When machining a groove wall by using a full-radius insert, plunge cut is recommended for roughing and retract feeding is possible for finishing. Cutting depth should be smaller than 5 % of insert radius.



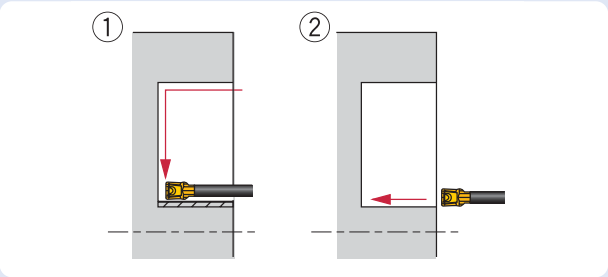
Method of widening groove width of face groove

When widening the width of a face groove, choose the blade to fit to the largest diameter, and then enlarge the width inward.



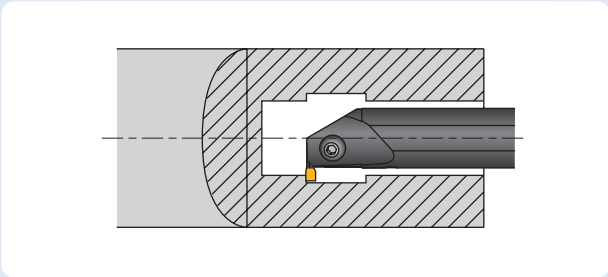
Method of face profiling

When profiling a face groove, the tool should be fed from outer diameter towards the centre. The inner wall of the groove should be machined by plunging.

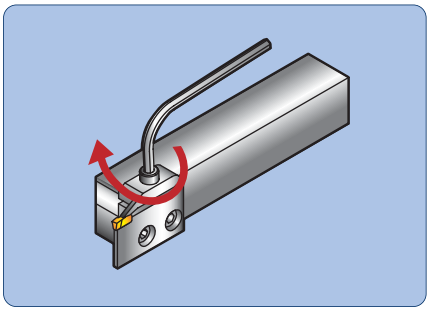


Method of widening groove width of internal groove

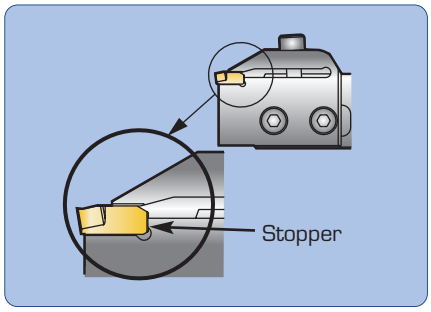
When widening the groove width of an internal groove, the method used should be basically the same as that of external grooving.



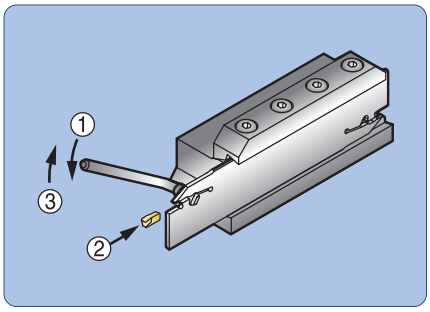
Cautionary point in use



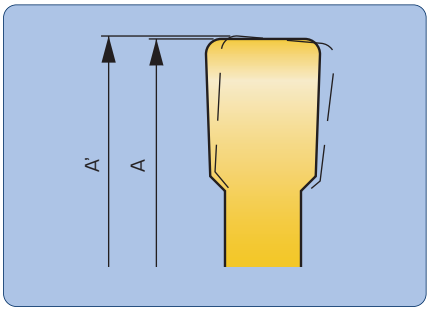
Recommended tightening torque of the clamp screw is 4 to 5 Nm.



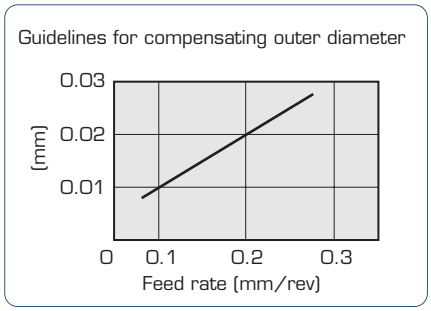
Place insert by hand into the pocket until rear stop.

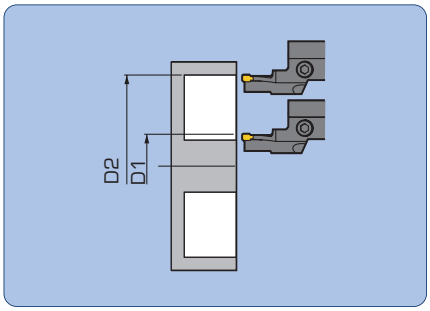


1. Place wrench into the specified hole of the blade and push it down.
2. Place insert by hand into the pocket until rear stop.
3. Push wrench upward until insert is firmly clamped.



In traverse feed machining, the tip of the tool can be elastically deformed. At extreme cutting conditions, the diameter of the workpiece may exceed programmed dimensions. Dimensional compensation of the outer diameter as shown in the right diagram have to be taken into consideration when programming (example: medium carbon steel).





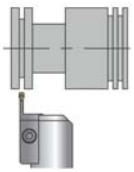
When face grooving, the blade diameter should match the machinable diameter of the workpiece. The applicable blades are shown in this brochure. In the left figure, D2 shows the machinable maximum diameter and D1 the machinable minimum diameter. This limitation only applies to grooving operations.

Trouble shooting

Trouble / Counter measures	Stringy chips (Grooving)	Stringy chips (Turning)	Chatter	Poor surface finish	Out of tolerance	Excessive insert wear	Insert breakage
Increase feed rate	●	●	●				
Reduce feed rate				●		●	●
Increase cutting depth		●					
Reduce cutting depth			●	●		●	●
Increase cutting speed				●			
Reduce cutting speed	●	●	●		●	●	●
Use Cermet grade				●			
Use coated grade							●
Use step feed	●						
Use coolant				●		●	
Check compensation for tool deformation					●		
Check tool failure				●	●		
Choose optimum chipbeaker	●	●	●	●	●	●	●
Shorten tool overhang			●				
Use both cutting edges equally						●	●

Practical examples

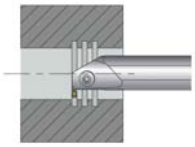
External grooving



Insert:	GE50 (T9025)
Cutting speed:	160 m/min
Grooving width:	5 mm
Feed rate:	0.2 mm/rev
Work material:	15CrMo5
Coolant:	Emulsion

Result:
Stable cutting conditions at higher feed rate led to 20% increase in productivity.

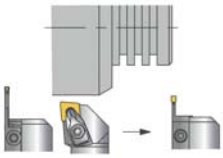
Internal grooving



Insert:	GE40 (NS530)
Cutting speed:	120 m/min
Grooving width:	4 mm
Feed rate:	0.1 mm/rev
Work material:	Ck45
Coolant:	Emulsion

Result:
Tool life was increased and thus productivity increased by 25%

External traversing



Insert: GT50 (T9025)

- External traversing

Cutting speed:	150 m/min
Grooving depth:	2 mm
Feed rate:	0.2 mm/rev

- External grooving

Cutting speed:	150 m/min
Grooving width:	5 mm
Feed rate:	0.1 mm/rev

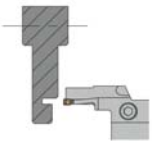
Result:
Conventional machining with 2 tools (for grooving + external traversing) is replaced by machining with 1 tool only

Parting

Insert:	GE30 (T9025)
Cutting speed:	100 m/min
Grooving width:	3 mm
Feed rate:	0.1 mm/rev
Work material:	Ck45
Coolant:	Emulsion

Result:
Cutting off position became stable and My-T achieved 50% increase in productivity.

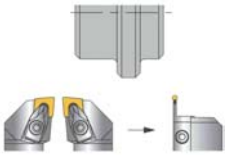
Face grooving



Insert:	GE50 (T9025)
Cutting speed:	115 m/min
Grooving width:	5 mm
Feed rate:	0.13 mm/rev
Work material:	X5CrNi189
Coolant:	Emulsion

Result:
Customer succeeded to improve chip control and thus productivity increased by 40%.

External profiling



-External grooving (r, l)

Insert:	GR50 (T9025)
Cutting speed:	150 m/min
Grooving width:	4 mm
Feed rate:	0.25 mm/rev
Work material:	Ck45
Coolant:	Emulsion

Result:
My-T Concept requires 1 tool only instead of 2 toolholders in conventional machining operations.

MY-T Grooving system

Tungaloy Europe GmbH
Elisabeth-Selbert-Str. 3
D - 40764 Langenfeld
Tel. +49 (0 21 73) 9 04 20 - 0
Fax +49 (0 21 73) 9 04 20 - 18
e-mail: info@tungaloy.de
www.tungaloy-eu.com

Tungaloy Italia S.p.A.
Via E. Andolfato, 10
I - 20126 MILANO
Tel. +39 (02) 25 20 12-1
Fax +39 (02) 25 20 12-65
e-mail: info@tungaloy.it
www.tungaloy-eu.com

Tungaloy France S.a.r.l.
6, Avenue des Andes
F - 91952 COURTABOEUF CEDEX
Tel. +33 (01) 64 86 43 00
Fax +33 (01) 69 07 78 17
e-mail: info@tungaloy.fr
www.tungaloy-eu.com

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