

Grooving Tool Holders

GND Type

Expansion



6 Types of
Chipbreakers



SUMITOMO

CARBIDE - CBN - DIAMOND

Grooving Tool Holders GND Type



Characteristics

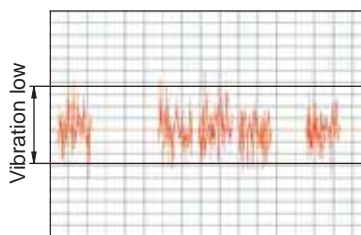
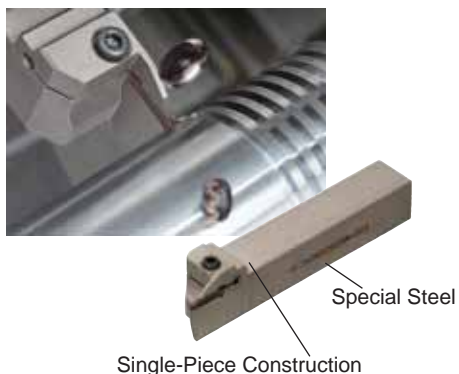
- **Wide range of application processes**
Applicable for grooving, turning, copying, facing, boring and cut-off.
- **Achieving stable tool life**
An array of chipbreakers improves the efficiency in chip control and prevents unexpected damages caused by chip jamming. The new CG-chipbreaker is ideal for cut-off.
- **Achieving smooth cutting and high efficiency machining**
Holders utilizing one-piece body construction made of special steel, reduce vibration by 30% during machining as compared to conventional types.
- **Achieving high precision grooving widths with moulded inserts**
Grooving insert width tolerance of $\pm 0,03\text{mm}$ over the entire range

Product Range – Holders

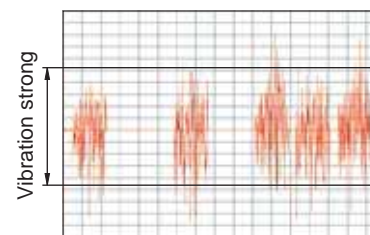
Application	Series	Shape	Grooving Width (mm)								Grooving Depth (mm)	Work Diameter (mm)	
			2	3	4	5	6	7	8				
External Grooving	GNDM Straight		3								12		
				4	5	6	7	8			18		
	GNDMS L-Style		3								10		
				4	5						12		
External Grooving	GNDL Straight		2	3							20		
				4	5	6	7	8			25		
	GNDLS L-Style		2	3							16		
				4	5	6					18		
Face Grooving	GNDF Straight		3								12	Ø35	
				3							18	Ø55	
				4							18	Ø50	
				4	5	6					23	Ø40	
Internal Grooving	GNDI Straight		2	3	4	5					6	Ø min. 32	
				2	3	4	5					10	Ø min. 40
				3	4	5	6					11	Ø min. 50

Eliminates Vibration

Stable machining with high rigidity body design reduces vibration by 30% as compared to conventional models.



GND Type



Conventional Tool

Work Material: 15CrMo5
 Holder: GNDL R2525M 220
 Insert: GCM N2002 GG
 Cutting Conditions: $v_c=100\text{m/min}$, $f=0,1\text{mm/rev}$, $a_p=20\text{mm}$, wet

Grooving Tool Holders GND Type

■ Inserts



■ Chipbreaker Series

Grooving/Turning	Grooving/Cut-Off	Cut-Off (Handed)	Copying
 MG Type	 GG Type	 CG Type	 RG Type
 ML Type Low Feed Type	 GL Type Low Feed Type		

■ Excellent Chip Control

Grooving ⇨ Stable chip control



GND Type
(GG Type Chipbreaker)



Conventional Tool

Work Material: 15CrMo5
Holder: GNDM R2525M 312
Insert: GCM N3002 GG (AC530U)
Cutting Conditions: $v_c=100\text{m/min}$, $f=0,15\text{mm/rev}$, $a_p=12,0\text{mm}$, wet

Turning ⇨ Fine, short chips produced during side turning



GND Type
(ML Type Chipbreaker)



Conventional Tool

Work Material: 15CrMo5
Holder: GNDM R2525M 312
Insert: GCM N3002 ML (AC530U)
Cutting Conditions: $v_c=100\text{m/min}$, $f=0,1\text{mm/rev}$, $a_p=0,5\text{mm}$, wet



GND Type
(RG Type Chipbreaker)



Conventional Tool

Work Material: 15CrMo5
Holder: GNDM R2525M 312
Insert: GCM N3015 RG (AC530U)
Cutting Conditions: $v_c=100\text{m/min}$, $f=0,13\text{mm/rev}$, $a_p=1,0\text{mm}$, wet



GND Type
(RG Type Chipbreaker)



Conventional Tool

Work Material: 15CrMo5
Holder: GNDM R2525M 312
Insert: GCM N3015 RG (AC530U)
Cutting Conditions: $v_c=100\text{m/min}$, $f=0,15\text{mm/rev}$, $a_p=0,1\text{mm}$, wet

■ Improved Machining Precision

Our precision sintering technology delivers $\pm 0,03\text{mm}$ accuracy for all grooving widths (from 2,0 to 6,0mm).

■ Substantially Improved Machining Efficiency

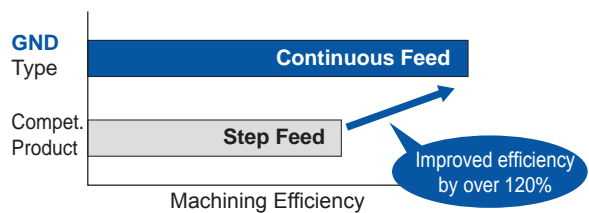
Outstanding chip control performance eliminates necessity of step feed.



GND Type
(GG Type Chipbreaker)



Conventional Tool

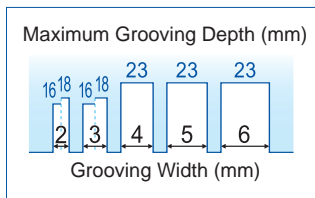
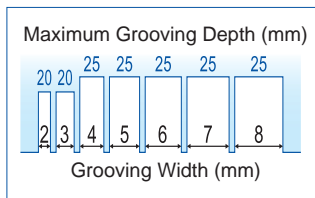
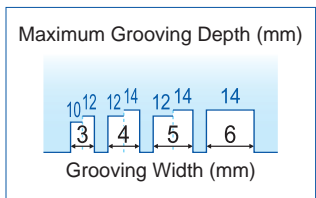
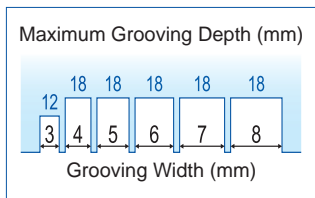
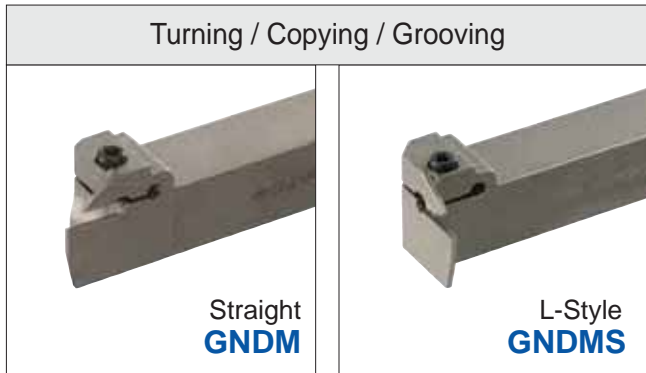
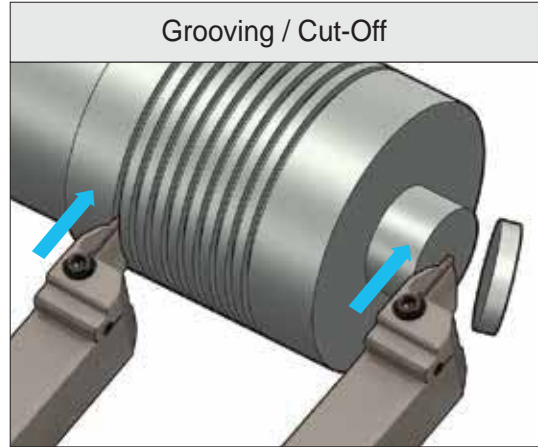
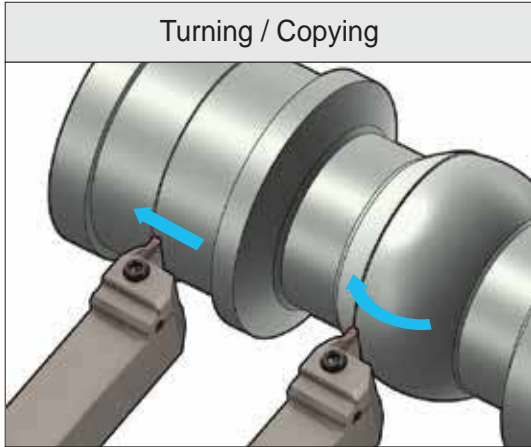


Work Material: 42CrMo4
Holder: GNDL R2525M 320
Insert: GCM N3002 GG (AC530U)
Cutting Conditions: $v_c=90\text{m/min}$, $f=0,1\text{mm/rev}$, wet

Grooving Tool Holders GND Type

GND Type Holder Selection Guide

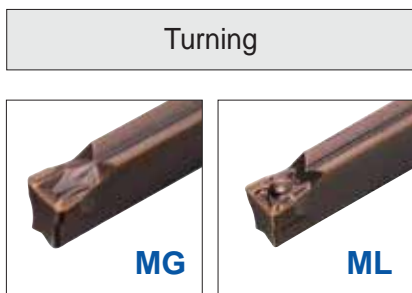
For External Machining



Perfect for turning, copying and grooving.

Perfect for grooving and cut-off applications. Handles deep grooving with ease.

GND Type Chipbreaker Selection



Standard insert for turning

For low-feed chip management

First choice for grooving

For low-feed chip management

Ideal for cut-off applications

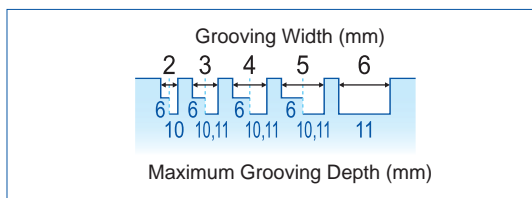
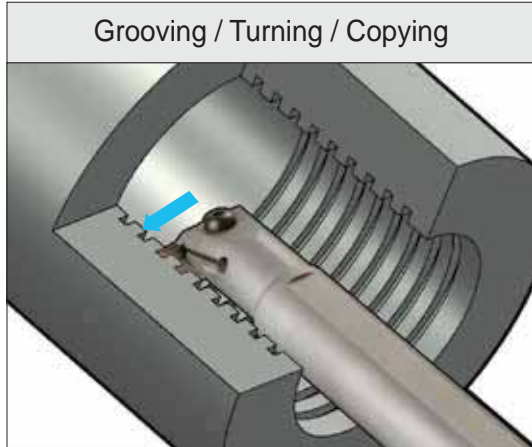
Perfect for copying

If chips are long when using GG and GL chipbreakers for grooving, chip management can be improved by using MG or ML type chipbreakers.

Grooving Tool Holders GND Type

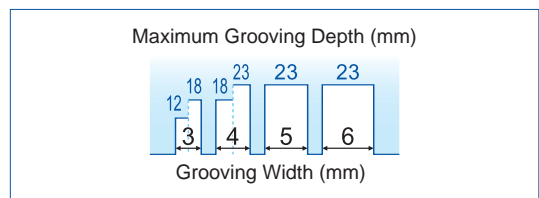
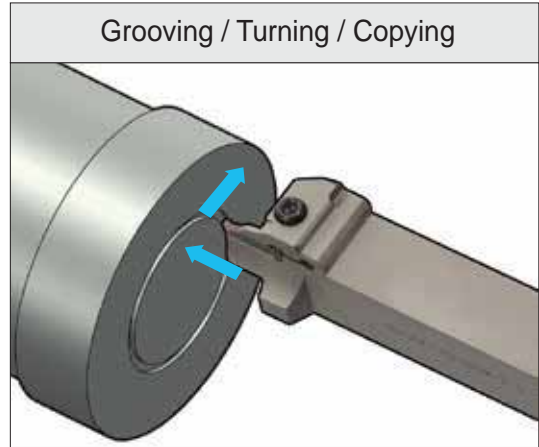
■ GND Type Holder Selection Guide

For Internal Machining



One holder for all internal machining processes.

For Face Machining



Separate holder for face machining processes.

■ GND Type Chipbreaker Selection

Turning



Standard insert for turning



For low-feed chip management

Grooving



First choice for grooving



For low-feed chip management

Copying



Perfect for copying

If chips are long when using GG and GL chipbreakers for grooving, chip management can be improved by using MG or ML type chipbreakers.

Grooving Tool Holders GND Type

Chipbreaker Selection Guide

Groov. Width (mm)	Recommended Cutting Conditions		Nose Radius (mm)	Inserts
	Grooving	Turning		
2,0			0,2	GCM N2002 GG GCM N2002 GL GCM R/L2002 CG05
				3,0
4,0			0,4 GCM N3004 MG GCM N3004 GG	
			5,0	
4,0				
			5,0	
5,0				
			5,0	
5,0				
			5,0	
5,0				
			5,0	

Grooving Tool Holders GND Type

Chipbreaker Selection Guide

Groov. Width (mm)	Recommended Cutting Conditions		Nose Radius (mm)	Inserts					
	Grooving	Turning							
6,0	Chipbreaker MG ML GG GL CG RG			0,2	GCM N6002 GG GCM N6002 GL				
				0,4	GCM N6004 ML GCM N6004 GG				
				0,8	GCM N6008 MG				
				3,0	GCM N6030 RG				
				7,0	Chipbreaker MG ML GG GL CG RG			0,2	GCM N7004 GL
								0,4	GCM N7004 ML GCM N7004 GG
0,8	GCM N7008 MG								
3,5	GCM N7035 RG								
8,0	Chipbreaker MG ML GG GL CG RG							0,2	GCM N8004 GL
								0,4	GCM N8004 ML GCM N8004 GG
				0,8	GCM N8008 MG				
				4,0	GCM N8040 RG				

Recommended Cutting Conditions

● Grooving /Cut-Off

Breaker	Feed Rate (mm/rev)						
	MG	ML	GG	GL	RG	CG	
Grooving Width (mm)	2,0	-	-	0,05 - 0,25	0,03 - 0,15	-	0,05 - 0,20
	3,0	0,08 - 0,20	0,03 - 0,15	0,10 - 0,30	0,05 - 0,18	0,05 - 0,15	0,08 - 0,25
	4,0	0,10 - 0,25	0,05 - 0,20	0,15 - 0,35	0,08 - 0,22	0,10 - 0,20	0,10 - 0,30
	5,0	0,12 - 0,30	0,08 - 0,25	0,20 - 0,40	0,10 - 0,25	0,15 - 0,25	-
	6,0	0,15 - 0,35	0,10 - 0,30	0,20 - 0,45	0,12 - 0,30	0,20 - 0,30	-
	7,0	0,18 - 0,40	0,12 - 0,35	0,20 - 0,50	0,15 - 0,35	0,25 - 0,35	-
	8,0	0,20 - 0,45	0,15 - 0,40	0,20 - 0,55	0,18 - 0,40	0,35 - 0,40	-

● Turning

Breaker	MG		ML		RG		
	Feed Rate (mm/rev)	Depth of Cut* (mm)	Feed Rate (mm/rev)	Depth of Cut* (mm)	Feed Rate (mm/rev)	Depth of Cut* (mm)	
Grooving Width (mm)	3,0	0,08 - 0,25	0,3 - 1,5	0,05 - 0,18	0,4 - 1,5	0,10 - 0,40	0,3 - 1,2
	4,0	0,10 - 0,30	0,5 - 2,0	0,05 - 0,20	0,4 - 2,0	0,15 - 0,45	0,6 - 1,6
	5,0	0,12 - 0,35	0,8 - 2,5	0,08 - 0,25	0,5 - 2,5	0,20 - 0,50	0,8 - 2,0
	6,0	0,15 - 0,40	1,0 - 3,0	0,10 - 0,30	0,5 - 3,0	0,30 - 0,60	1,0 - 2,2
	7,0	0,18 - 0,45	1,2 - 3,5	0,12 - 0,35	0,7 - 3,5	0,35 - 0,65	1,2 - 2,5
	8,0	0,20 - 0,50	1,5 - 4,0	0,15 - 0,40	0,7 - 4,0	0,35 - 0,70	1,5 - 3,0

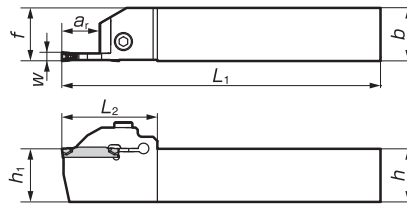
* Depth of cut for turning and profiling

Grooving Tool Holders GND Type

External Multi-Purpose Type (Grooving, Turning, Copying)

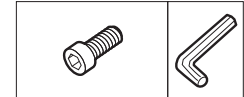


Use the multi-purpose copying insert for turning (wide grooves).



Above figures show right hand tools.

Spare Parts

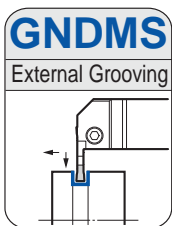


Holders

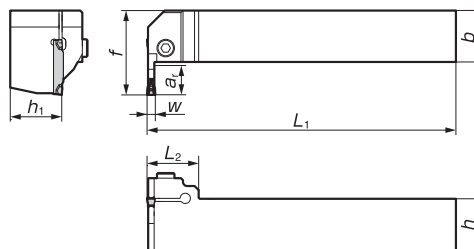
Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	Torque (Nm)	Spanner
	R	L	h	b	L ₁	f	h ₁	L ₂						
GNDM R/L 2020 K 312	●	●	20	20	125	20	20	36,6	3,0	12	GCM □300○-□□	BX0520	5,0	LH040
GNDM R/L 2020 K 418	●	●	20	20	125	20	20	45,0	4,0	18	GCM □400○-□□			
GNDM R/L 2020 K 518	●	●	20	20	125	20	20	45,0	5,0	18	GCM N500○-□□			
GNDM R/L 2020 K 618	●	●	20	20	125	20	20	45,0	6,0	18	GCM N600○-□□			
GNDM R/L 2525 M 312	●	●	25	25	150	25	25	36,6	3,0	12	GCM □300○-□□			
GNDM R/L 2525 M 418	●	●	25	25	150	25	25	45,0	4,0	18	GCM □400○-□□			
GNDM R/L 2525 M 518	●	●	25	25	150	25	25	45,0	5,0	18	GCM N500○-□□			
GNDM R/L 2525 M 618	●	●	25	25	150	25	25	45,0	6,0	18	GCM N600○-□□			
GNDM R/L 3225 P 312	□	□	32	25	170	25	32	36,6	3,0	12	GCM □300○-□□			
GNDM R/L 3225 P 418	□	□	32	25	170	25	32	45,0	4,0	18	GCM □400○-□□			
GNDM R/L 3225 P 518	□	□	32	25	170	25	32	45,0	5,0	18	GCM N500○-□□			
GNDM R/L 3225 P 618	□	□	32	25	170	25	32	45,0	6,0	18	GCM N600○-□□			
GNDM R/L 3225 P 718	□	□	32	25	170	25	32	50,0	7,0	18	GCM N700○-□□			
GNDM R/L 3225 P 818	□	□	32	25	170	25	32	50,0	8,0	18	GCM N800○-□□			
GNDM R/L 3232 P 312	●	●	32	32	170	32	32	36,6	3,0	12	GCM □300○-□□	BX0520	6,0	LH050
GNDM R/L 3232 P 418	●	●	32	32	170	32	32	45,0	4,0	18	GCM □400○-□□			
GNDM R/L 3232 P 518	●	●	32	32	170	32	32	45,0	5,0	18	GCM N500○-□□			
GNDM R/L 3232 P 618	●	●	32	32	170	32	32	45,0	6,0	18	GCM N600○-□□			
GNDM R/L 3232 P 718	●	●	32	32	170	32	32	50,0	7,0	18	GCM N700○-□□			
GNDM R/L 3232 P 818	●	●	32	32	170	32	32	50,0	8,0	18	GCM N800○-□□			

Select holders and inserts with the same grooving width (w).

External L-Styled (Side Cut) Multi-Purpose Type (Grooving, Turning, Copying)

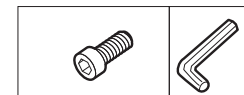


Use the multi-purpose copying insert for turning (wide grooves).



Above figures show right hand tools.

Spare Parts



Holders

Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	Torque (Nm)	Spanner
	R	L	h	b	L ₁	f	h ₁	L ₂						
GNDMS R/L 2020 K 312	●	●	20	20	125	32	20	25	3,0	10	GCM □300○-□□	BX0520	5,0	LH040
GNDMS R/L 2020 K 412	●	●	20	20	125	34	20	25	4,0	12	GCM □400○-□□			
GNDMS R/L 2020 K 512	●	●	20	20	125	34	20	25	5,0	12	GCM N500○-□□			
GNDMS R/L 2525 M 312	●	●	25	25	150	39	25	25	3,0	12	GCM □300○-□□			
GNDMS R/L 2525 M 414	●	●	25	25	150	41	25	25	4,0	14	GCM □400○-□□			
GNDMS R/L 2525 M 514	●	●	25	25	150	41	25	25	5,0	14	GCM N500○-□□			
GNDMS R/L 2525 M 614	●	●	25	25	150	41	25	25	6,0	14	GCM N600○-□□			

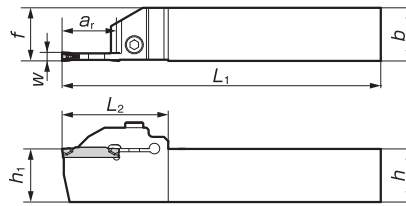
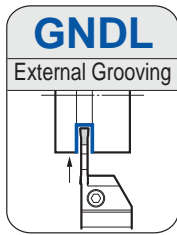
Select holders and inserts with the same grooving width (w).

● Euro stock

□ Delivery on request

Grooving Tool Holders GND Type

External Deep Grooving and Cut-Off



Above figures show right hand tools.

Spare Parts

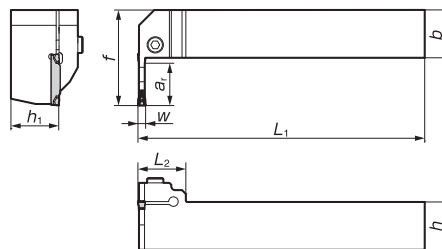
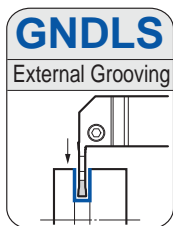


Holders

Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	Torque (Nm)	Spanner
	R	L	h	b	L ₁	f	h ₁	L ₂						
GNDL R/L 2020 K 220	●	●	20	20	125	20	20	44,5	2,0	20	GCM □2000-□□	BX0520	5,0	LH040
GNDL R/L 2020 K 320	●	●	20	20	125	20	20	44,5	3,0	20(18)	GCM □3000-□□			
GNDL R/L 2020 K 425	●	●	20	20	125	20	20	50,0	4,0	25(23)	GCM □4000-□□			
GNDL R/L 2020 K 525	●	●	20	20	125	20	20	50,0	5,0	25(23)	GCM N5000-□□			
GNDL R/L 2020 K 625	●	●	20	20	125	20	20	50,0	6,0	25(23)	GCM N6000-□□			
GNDL R/L 2525 M 220	●	●	25	25	150	25	25	44,5	2,0	20	GCM □2000-□□			
GNDL R/L 2525 M 320	●	●	25	25	150	25	25	44,5	3,0	20(18)	GCM □3000-□□			
GNDL R/L 2525 M 425	●	●	25	25	150	25	25	50,0	4,0	25(23)	GCM □4000-□□			
GNDL R/L 2525 M 525	●	●	25	25	150	25	25	50,0	5,0	25(23)	GCM N5000-□□			
GNDL R/L 2525 M 625	●	●	25	25	150	25	25	50,0	6,0	25(23)	GCM N6000-□□			
GNDL R/L 3225 P 320	□	□	32	25	170	25	32	44,5	3,0	20(18)	GCM □3000-□□	BX0620	6,0	LH050
GNDL R/L 3225 P 425	□	□	32	25	170	25	32	50,0	4,0	25(23)	GCM □4000-□□			
GNDL R/L 3225 P 525	□	□	32	25	170	25	32	50,0	5,0	25(23)	GCM N5000-□□			
GNDL R/L 3225 P 625	□	□	32	25	170	25	32	50,0	6,0	25(23)	GCM N6000-□□			
GNDL R/L 3225 P 725	□	□	32	25	170	25	32	50,0	7,0	25(23)	GCM N7000-□□			
GNDL R/L 3225 P 825	□	□	32	25	170	25	32	50,0	8,0	25(23)	GCM N8000-□□			
GNDL R/L 3232 P 320	●	●	32	32	170	32	32	44,5	3,0	20(18)	GCM □3000-□□			
GNDL R/L 3232 P 425	●	●	32	32	170	32	32	50,0	4,0	25(23)	GCM □4000-□□			
GNDL R/L 3232 P 525	●	●	32	32	170	32	32	50,0	5,0	25(23)	GCM N5000-□□			
GNDL R/L 3232 P 625	●	●	32	32	170	32	32	50,0	6,0	25(23)	GCM N6000-□□			
GNDL R/L 3232 P 725	●	●	32	32	170	32	32	50,0	7,0	25(23)	GCM N7000-□□			
GNDL R/L 3232 P 825	●	●	32	32	170	32	32	50,0	8,0	25(23)	GCM N8000-□□			

Select holders and inserts with the same grooving width (w). Dimensions in parentheses are for applications that use copying inserts (RG type breakers).

External L-Styled (Side Cut) Grooving



Above figures show right hand tools.

Spare Parts



Holders

Cat. No.	Stock		Dimensions (mm)						Grooving Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	Torque (Nm)	Spanner
	R	L	h	b	L ₁	f	h ₁	L ₂						
GNDLS R/L 2020 K 216	●	●	20	20	125	38	20	25	2,0	16	GCM □2000-□□	BX0520	5,0	LH040
GNDLS R/L 2020 K 316	●	●	20	20	125	38	20	25	3,0	16	GCM □3000-□□			
GNDLS R/L 2525 M 218	●	●	25	25	150	45	25	25	2,0	18	GCM □2000-□□			
GNDLS R/L 2525 M 318	●	●	25	25	150	45	25	25	3,0	18	GCM □3000-□□			
GNDLS R/L 2525 M 423	●	●	25	25	150	50	25	25	4,0	23	GCM □4000-□□			
GNDLS R/L 2525 M 523	●	●	25	25	150	50	25	25	5,0	23	GCM N5000-□□			
GNDLS R/L 2525 M 623	●	●	25	25	150	50	25	25	6,0	23	GCM N6000-□□			

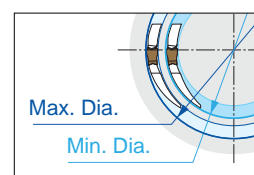
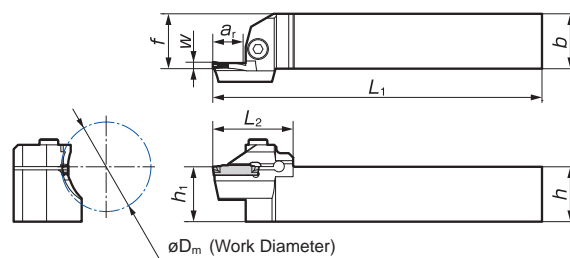
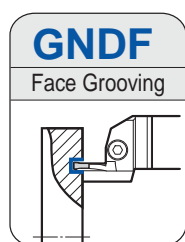
Select holders and inserts with the same grooving width (w).

● Euro stock

□ Delivery on request

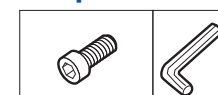
Grooving Tool Holders GND Type

Face Grooving



Work diameters in the stock indicate external diameters of face grooving.

Spare Parts



Above figures show right hand tools.

■ Holders

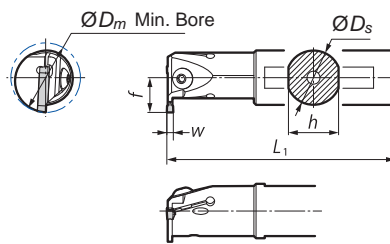
Cat. No.	Stock		Dimensions (mm)						Work Dia. (mm)	Groov. Width (mm)	Max. Cut-off Dia. (mm)	Applicable Insert	Cap Screw	Torque (N·m)	Spanner
	R	L	h	b	L ₁	f	h ₁	L ₂							
GNDF R/L 2020 K 312-035	●	●	20	20	125	20	20	35,6	35 ~ 45	3,0	12	GCM N300O-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 312-040	●	●	20	20	125	20	20	35,6	40 ~ 55	3,0	12				
GNDF R/L 2020 K 318-050	●	●	20	20	125	20	20	41,6	50 ~ 70	3,0	18				
GNDF R/L 2020 K 318-065	●	●	20	20	125	20	20	41,6	65 ~ 100	3,0	18				
GNDF R/L 2020 K 318-090	●	●	20	20	125	20	20	41,6	90 ~ 150	3,0	18				
GNDF R/L 2020 K 318-140	●	●	20	20	125	20	20	41,6	140 ~ 200	3,0	18				
GNDF R/L 2020 K 318-180	●	●	20	20	125	20	20	41,6	180 ~ 300	3,0	18				
GNDF R/L 2020 K 418-040	●	●	20	20	125	20	20	41,6	40 ~ 55	4,0	18	GCM N400O-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 423-050	●	●	20	20	125	20	20	46,6	50 ~ 70	4,0	23				
GNDF R/L 2020 K 423-065	●	●	20	20	125	20	20	46,6	65 ~ 90	4,0	23				
GNDF R/L 2020 K 423-085	●	●	20	20	125	20	20	46,6	85 ~ 130	4,0	23				
GNDF R/L 2020 K 423-125	●	●	20	20	125	20	20	46,6	125 ~ 200	4,0	23				
GNDF R/L 2020 K 423-180	●	●	20	20	125	20	20	46,6	180 ~ 300	4,0	23				
GNDF R/L 2020 K 423-280	●	●	20	20	125	20	20	46,6	280 ~ 1000	4,0	23				
GNDF R/L 2020 K 523-050	●	●	20	20	125	20	20	46,6	50 ~ 70	5,0	23	GCM N500O-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 523-065	●	●	20	20	125	20	20	46,6	65 ~ 90	5,0	23				
GNDF R/L 2020 K 523-085	●	●	20	20	125	20	20	46,6	85 ~ 130	5,0	23				
GNDF R/L 2020 K 523-125	●	●	20	20	125	20	20	46,6	125 ~ 200	5,0	23				
GNDF R/L 2020 K 523-180	●	●	20	20	125	20	20	46,6	180 ~ 300	5,0	23				
GNDF R/L 2020 K 523-280	●	●	20	20	125	20	20	46,6	280 ~ 1000	5,0	23				
GNDF R/L 2020 K 623-050	●	●	20	20	125	20	20	46,6	50 ~ 75	6,0	23	GCM N600O-□□	BX0520	5,0	LH040
GNDF R/L 2020 K 623-070	●	●	20	20	125	20	20	46,6	70 ~ 110	6,0	23				
GNDF R/L 2020 K 623-100	●	●	20	20	125	20	20	46,6	100 ~ 200	6,0	23				
GNDF R/L 2020 K 623-180	●	●	20	20	125	20	20	46,6	180 ~ 300	6,0	23				
GNDF R/L 2020 K 623-280	●	●	20	20	125	20	20	46,6	280 ~ 1000	6,0	23				
GNDF R/L 2525 M 312-035	●	●	25	25	150	25	25	35,6	35 ~ 45	3,0	12				
GNDF R/L 2525 M 312-040	●	●	25	25	150	25	25	35,6	40 ~ 55	3,0	12				
GNDF R/L 2525 M 318-050	●	●	25	25	150	25	25	41,6	50 ~ 70	3,0	18				
GNDF R/L 2525 M 318-065	●	●	25	25	150	25	25	41,6	65 ~ 100	3,0	18				
GNDF R/L 2525 M 318-090	●	●	25	25	150	25	25	41,6	90 ~ 150	3,0	18				
GNDF R/L 2525 M 318-140	●	●	25	25	150	25	25	41,6	140 ~ 200	3,0	18				
GNDF R/L 2525 M 318-180	●	●	25	25	150	25	25	41,6	180 ~ 300	3,0	18				
GNDF R/L 2525 M 418-040	●	●	25	25	150	25	25	41,6	40 ~ 55	4,0	18	GCM N400O-□□	BX0520	5,0	LH040
GNDF R/L 2525 M 423-050	●	●	25	25	150	25	25	46,6	50 ~ 70	4,0	23				
GNDF R/L 2525 M 423-065	●	●	25	25	150	25	25	46,6	65 ~ 90	4,0	23				
GNDF R/L 2525 M 423-085	●	●	25	25	150	25	25	46,6	85 ~ 130	4,0	23				
GNDF R/L 2525 M 423-125	●	●	25	25	150	25	25	46,6	125 ~ 200	4,0	23				
GNDF R/L 2525 M 423-180	●	●	25	25	150	25	25	46,6	180 ~ 300	4,0	23				
GNDF R/L 2525 M 423-280	●	●	25	25	150	25	25	46,6	280 ~ 1000	4,0	23				
GNDF R/L 2525 M 523-050	●	●	25	25	150	25	25	46,6	50 ~ 70	5,0	23	GCM N500O-□□	BX0520	5,0	LH040
GNDF R/L 2525 M 523-065	●	●	25	25	150	25	25	46,6	65 ~ 90	5,0	23				
GNDF R/L 2525 M 523-085	●	●	25	25	150	25	25	46,6	85 ~ 130	5,0	23				
GNDF R/L 2525 M 523-125	●	●	25	25	150	25	25	46,6	125 ~ 200	5,0	23				
GNDF R/L 2525 M 523-180	●	●	25	25	150	25	25	46,6	180 ~ 300	5,0	23				
GNDF R/L 2525 M 523-280	●	●	25	25	150	25	25	46,6	280 ~ 1000	5,0	23				
GNDF R/L 2525 M 623-050	●	●	25	25	150	25	25	46,6	50 ~ 75	6,0	23	GCM N600O-□□	BX0520	5,0	LH040
GNDF R/L 2525 M 623-070	●	●	25	25	150	25	25	46,6	70 ~ 110	6,0	23				
GNDF R/L 2525 M 623-100	●	●	25	25	150	25	25	46,6	100 ~ 200	6,0	23				
GNDF R/L 2525 M 623-180	●	●	25	25	150	25	25	46,6	180 ~ 300	6,0	23				
GNDF R/L 2525 M 623-280	●	●	25	25	150	25	25	46,6	280 ~ 1000	6,0	23				

Select holders and inserts with the same grooving width (w).

● Euro stock

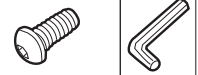
Grooving Tool Holders GND Type

Internal Grooving



Above figures show right hand tools.

Spare Parts



Holders

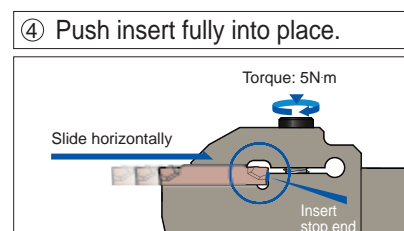
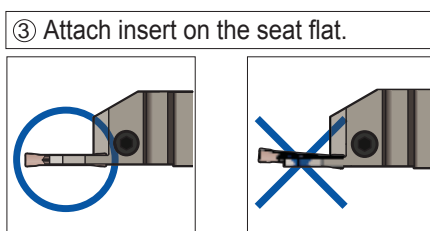
Cat. No.	Stock		Dimensions (mm)				Min. Bore (mm)	Groov. Width (mm)	Max. Groov. Depth (mm)	Applicable Insert	Cap Screw	Torque (Nm)	Spanner
	R	L	ØDs	h	L1	f							
GNDI R/L 2532 T 206	●	●	25	23	200	16	32	2,0	6	GCM N2000-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 210	●	●	32	30	250	26	40	2,0	10	GCM N2000-□□	BH0616	6,0	LH040
GNDI R/L 2532 T 306	●	●	25	23	200	16	32	3,0	6	GCM N3000-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 310	●	●	32	30	250	26	40	3,0	10	GCM N3000-□□	BH0616	6,0	LH040
GNDI R/L 4050 T 311	●	●	40	38	300	31	50	3,0	11	GCM N3000-□□	BH0516	5,0	LH030
GNDI R/L 2532 T 406	●	●	25	23	200	19	32	4,0	6	GCM N4000-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 410	●	●	32	30	250	26	40	4,0	10	GCM N4000-□□	BH0616	6,0	LH040
GNDI R/L 4050 T 411	●	●	40	38	300	31	50	4,0	11	GCM N4000-□□	BH0516	5,0	LH030
GNDI R/L 2532 T 506	●	●	25	23	200	19	32	5,0	6	GCM N5000-□□	BH0516	5,0	LH030
GNDI R/L 3240 T 510	●	●	32	30	250	26	40	5,0	10	GCM N5000-□□	BH0616	6,0	LH040
GNDI R/L 4050 T 511	●	●	40	38	300	31	50	5,0	11	GCM N5000-□□	BH0516	5,0	LH030
GNDI R/L 4050 T 611	●	●	40	38	300	31	50	6,0	11	GCM N6000-□□	BH0616	6,0	LH040

Select holders and inserts with the same grooving width (w).

● Euro stock

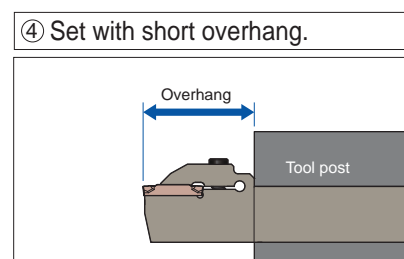
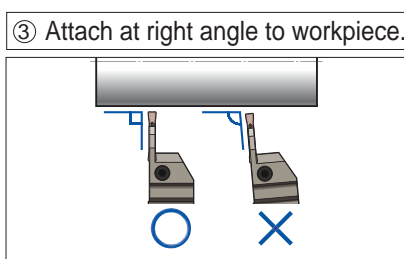
Notes on how to Attach Inserts

- Remove any foreign particles or oil from the insert seat before attaching the insert.
- Ensure the seat location is clean and free of damage.
- Slide the insert level over its seat.
- Push the insert with its opposite end (the holder side) firmly against the insert stop end.
- The recommended tightening torque is 5N·m. Tightening above the recommended torque may damage the insert or the holder which could cause injury and other accidents.



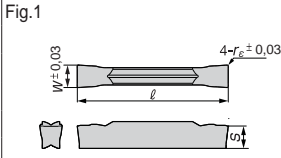
Notes on how to Apply Holders

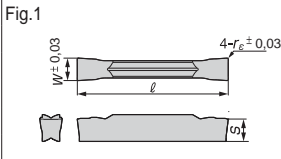
- Remove any foreign particles or oil from the tool post before attaching the holder.
- Ensure the seat location is clean and free of damage.
- Attach the holder so that the insert is perpendicular to the workpiece.
- Set holder with shortest possible overhang.

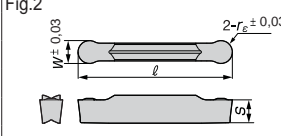


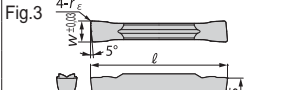
Grooving Tool Holders GND Type

■ Inserts – GCM Type

Grooving / Turning	Shape	Cat. No.	Coated Carbide		Dimensions (mm)				Pcs./Pack.	Fig.
			AC530U	AC830P	W	r _ε	ℓ	S		
Fig.1 	MG Breaker General Type	GCM N3004 MG	●	●	3,0	0,4	21,1	3,8	5	1
		GCM N4008 MG	●	●	4,0	0,8	26,4	4,0		
		GCM N5008 MG	●	●	5,0	0,8	26,4	4,1		
		GCM N6008 MG	●	●	6,0	0,8	26,4	4,5		
		GCM N7008 MG	●	●	7,0	0,8	28,75	5,5		
	GCM N8008 MG	●	●	8,0	0,8	28,75	6,0			
	ML Breaker Low Feed Type	GCM N3002 ML	●	●	3,0	0,2	21,1	3,8	5	1
		GCM N4004 ML	●	●	4,0	0,4	26,4	4,0		
		GCM N5004 ML	●	●	5,0	0,4	26,4	4,1		
		GCM N6004 ML	●	●	6,0	0,4	26,4	4,5		
GCM N7004 ML		●	●	7,0	0,4	28,75	5,5			
GCM N8004 ML	●	●	8,0	0,4	28,75	6,0				

Grooving / Cut-Off	Shape	Cat. No.	Coated Carbide		Dimensions (mm)				Pcs./Pack.	Fig.		
			AC530U	AC830P	W	r _ε	ℓ	S				
Fig.1 	GG Breaker General Type	GCM N2002 GG	●	●	2,0	0,2	21,1	3,6	5	1		
		GCM N3002 GG	●	●	3,0	0,2	21,1	3,8				
		GCM N4002 GG	●	●	4,0	0,2	26,4	4,0				
		GCM N5002 GG	●	●	5,0	0,2	26,4	4,1				
		GCM N6002 GG	●	●	6,0	0,2	26,4	4,5				
		GCM N3004 GG	●	●	3,0	0,4	21,1	3,8			5	
		GCM N4004 GG	●	●	4,0	0,4	26,4	4,0				
		GCM N5004 GG	●	●	5,0	0,4	26,4	4,1				
		GCM N6004 GG	●	●	6,0	0,4	26,4	4,5				
		GCM N7004 GG	●	●	7,0	0,4	28,75	5,5				
	GCM N8004 GG	●	●	8,0	0,4	28,75	6,0					
	GL Breaker Low Feed Type	GCM N2002 GL	●	●	2,0	0,2	21,1	3,6	5	1		
		GCM N3002 GL	●	●	3,0	0,2	21,1	3,8				
		GCM N4002 GL	●	●	4,0	0,2	26,4	4,0				
GCM N5002 GL		●	●	5,0	0,2	26,4	4,1					
GCM N6002 GL	●	●	6,0	0,2	26,4	4,5						
GCM N7004 GL	●	●	7,0	0,4	28,75	5,5						
GCM N8004 GL	●	●	8,0	0,4	28,75	6,0						

Copying	Shape	Cat. No.	Coated Carbide		Dimensions (mm)				Pcs./Pack.	Fig.
			AC530U	AC830P	W	r _ε	ℓ	S		
Fig.2 	RG Breaker General Type	GCM N3015 RG	●	●	3,0	1,5	21,1	3,8	5	2
		GCM N4020 RG	●	●	4,0	2,0	26,4	4,0		
		GCM N5025 RG	●	●	5,0	2,5	27,2	4,1		
		GCM N6030 RG	●	●	6,0	3,0	27,5	4,5		
		GCM N7035 RG	●	●	7,0	3,5	29,05	5,5		
		GCM N8040 RG	●	●	8,0	4,0	29,05	6,0		

Cut-Off (Handed)	Shape	Cat. No.	Coated Carbide		Dimensions (mm)				Pcs./Pack.	Fig.
			AC530U	AC830P	W	r _ε	ℓ	S		
Fig.3 	CG Breaker General Type	GCM R/L2002 CG05	●	●	2,0	0,2	21,1	3,6	5	3
		GCM R/L3002 CG05	●	●	3,0	0,2	21,1	3,8		
		GCM R/L4002 CG05	●	●	4,0	0,2	26,4	4,0		

Drawing shows a right hand tool.

● Euro stock

■ Recommended Cutting Conditions

Work Material	P Free Cutting Steel	P Carbon Steel/Alloy Steel	K Cast Iron	M Stainless Steel	N Brass
Coated Carbide	AC530U AC830P	AC530U AC830P	AC530U AC830P	AC530U AC830P	AC530U AC830P
Cutting Speed (m/min)	50 ~ 200 80 ~ 200	50 ~ 200 80 ~ 200	50 ~ 200 80 ~ 200	50 ~ 150 70 ~ 150	70 ~ 300 -

Grooving Tool Holders GND Type

Identification Details – Holders

G N D M R 25 25 M - 3 12 (- 0 3 5)

① Series Symbol: GND
② Application: Chart 2
③ Holder Design: Chart 3
④ Shank Height: Chart 4
⑤ Shank Width: Chart 5
⑥ Shank Length: Chart 6
⑦ Insert Width: Chart 7
⑧ Max. Grooving Depth: Chart 8
⑨ Min. Machining Dia. (mm)

Symbol	Application
M	External Multi-Purpose (Grooving / Turning / Copying)
L	External Deep Grooving / Cut-Off
MS	External L-Styled (Side Cut) Multi-Purpose (Grooving / Turning / Copying)
LS	External L-Styled (Side Cut) Deep Grooving
I	Internal Multi-Purpose (Grooving / Turning / Copying)
F	Face Grooving

Symbol	Direction
R	Right
L	Left

Symbol	Height (mm)
20	20
25	25
32	32

Symbol	Width (mm)
20	20
25	25
32	32

Symbol	Length (mm)
K	125
M	150
P	170

Symbol	Groov. Width (mm)
2	2,0
3	3,0
4	4,0
5	5,0
6	6,0
7	7,0
8	8,0

Symbol	Groov. Depth (mm)
10	10
12	12
18	18
20	20
23	23
25	25

To ensure maximum rigidity, use the multi-purpose type holder to machine the maximum grooving depth.

Identification Details – Inserts

G C M N 30 02 - G G

① Series Symbol: Grooving
② Tolerance: M Class
③ Front Relief Angle: C: 7°
④ Insert Design: Chart 4
⑤ Insert Width: Chart 5
⑥ Nose Radius: Chart 6
⑦ Chipbreaker: Chart 7

Symbol	Direction
N	Neutral
R	Right Hand
L	Left Hand

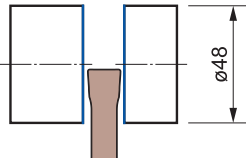
Symbol	Groov. Width (mm)
20	2,0
30	3,0
40	4,0
50	5,0
60	6,0
70	7,0
80	8,0

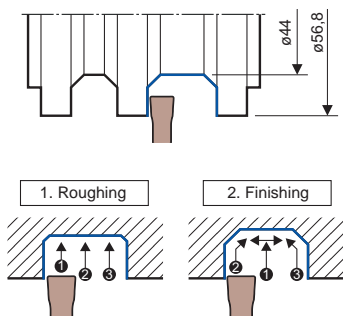
Symbol	R (mm)
02	0,2
04	0,4
08	0,8
15	1,5
20	2,0
25	2,5
30	3,0

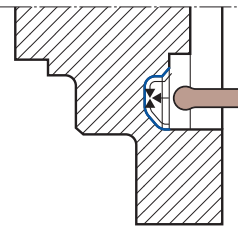
Symbol	Application
MG	Multi-Purpose: General Feed
ML	Multi-Purpose: Low Feed
GG	Grooving: General Feed
GL	Grooving: Low Feed
CG	Cut-Off
RG	Copying: General Feed

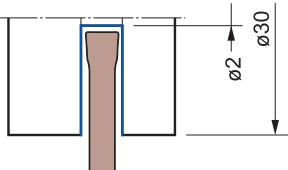
Grooving Tool Holders GND Type

Application Examples

X40CrVMo5-1, (45-48HRC), Machine Part, Cut-Off	
	Targets: - Higher rigidity - Vibration reduction - Chip control - High reliability
	Holder: GNDL R2525M 425 Insert: GCM N4002 GG Grooving width: 4mm Cutting conditions: $v_c = 50\text{m/min}$ $f = 0,03\text{mm/rev}$ wet
Stable machining free of vibration! Excellent chip control using the GND type. No more unexpected breakage!	

20Cr4, Gear Shaft, Grooving / Pocketing	
	Targets: - Higher rigidity - Vibration reduction - Chip control
	Holder: GNDM R2020K 518 Insert: GCM N5008 MG Grooving width: 5mm Cutting conditions: $v_c = 150\text{m/min}$ $f = 0,1\text{mm/rev}$ wet
Stable machining free of vibration! Excellent chip control using the GND type.	

20CrMo5, Automotive Part, Face Profiling	
	Targets: - Higher rigidity - Vibration reduction - Chip control - Wear resistance performance
	Holder: GNDL R2525M 423-125 Insert: GCM N4020 RG Grooving width: 4mm Cutting conditions: $v_c = 200\text{m/min}$ $f = 0,14\text{mm/rev}$ wet
Stable machining free of vibration! Excellent chip control using the GND type.	

X5CrNi1810, Measuring Instrument, Grooving	
	Targets: - Higher rigidity - Vibration reduction - Chip control - Chip evacuation
	Holder: GNDL R2525M 320 Insert: GCM N3002 GG Grooving width: 3mm Cutting conditions: $v_c = 60\text{m/min}$ $f = 0,025\text{mm/rev}$ wet
Stable machining free of vibration! Excellent chip control using the GND type.	



(Germany)
 SUMITOMO ELECTRIC Hartmetall GmbH
 Siemensring 84, D - 47877 Willich
 Tel. +49(0)2154 4992-0, Fax +49(0)2154 41072
 e-Mail: Info@SumitomoTool.com
 Internet: www.sumitomoTool.com



(UK and Ireland)
 SUMITOMO ELECTRIC Hardmetal Ltd.
 Summerleys Road, Princes Risborough
 Buckinghamshire HP27 9PW, UK
 Tel. +44(0)1844 342081, Fax: +44(0)1844 342415
 e-Mail: enquiries@sumitomo-hardmetal.co.uk
 Internet: www.sumitomo-hardmetal.co.uk



Distributed by: