

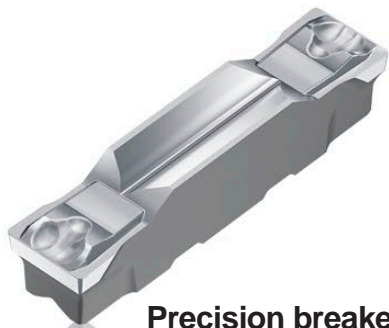
Grooving System

# GY Series

New CBN  
insert  
expansion

## Grooving Revolution

Diverse tools provide wide range of applications.



Precision breaker  
**MF breaker**



New coated CBN grade  
**BC8110**



Groove width of 1.5mm  
**GS/GM breaker**



Mono block  
For Swiss style lathes



Mono block  
For external grooving



Holder and blades  
for recessing



Groove width of 8mm

# Product offering for the GY Series



## Holder for small lathes

Insert width .059" – .128" 1.5 – 3.24mm

- |                               |                                  |
|-------------------------------|----------------------------------|
| <input type="checkbox"/> 3/8" | <input type="checkbox"/> 10mm    |
| <input type="checkbox"/> 1/2" | <input type="checkbox"/> 12mm    |
| <input type="checkbox"/> 5/8" | <input type="checkbox"/> 16mm    |
| <input type="checkbox"/> 3/4" | <input type="checkbox"/> 12x20mm |

> P9, P11

R/L  
**70**  
ITEMS



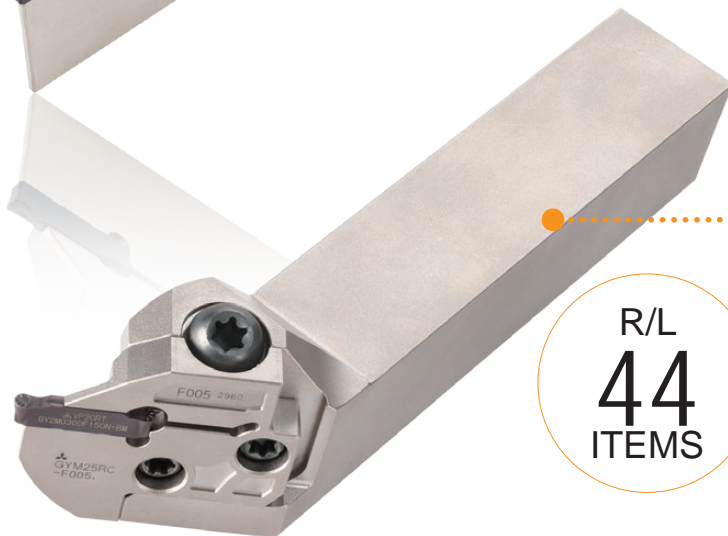
## Mono-block type holder with zero offset between the holder and cutting edge

Insert width 2.0 – 6.35mm

- |           |
|-----------|
| 20mmx20mm |
| 25mmx25mm |

> P13, P15

R/L  
**64**  
ITEMS



## For recessing

Insert width .079" – .250" 2.0 – 6.35mm

- |                               |                               |
|-------------------------------|-------------------------------|
| <input type="checkbox"/> 3/4" | <input type="checkbox"/> 20mm |
| <input type="checkbox"/> 1"   | <input type="checkbox"/> 25mm |

> P19, P21

R/L  
**44**  
ITEMS



**MF breaker**  
**For finishing,**  
**O-ring and Circlip groove**

Ground insert for multifunctional machining

Insert width

.079"-.250" **X** 4 grades

> P7

112  
ITEMS



**NEW**

**BC8110**  
**Coated CBN grade**

Inserts available for  
groove widths from 1.5mm to 8mm.

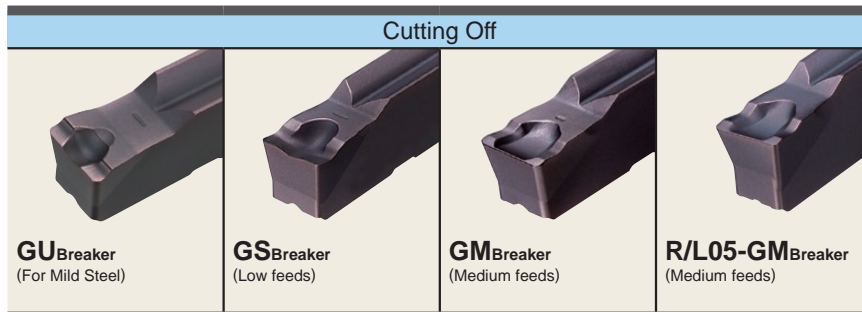
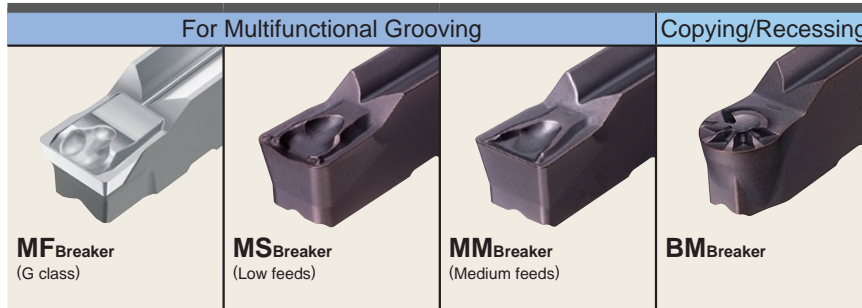
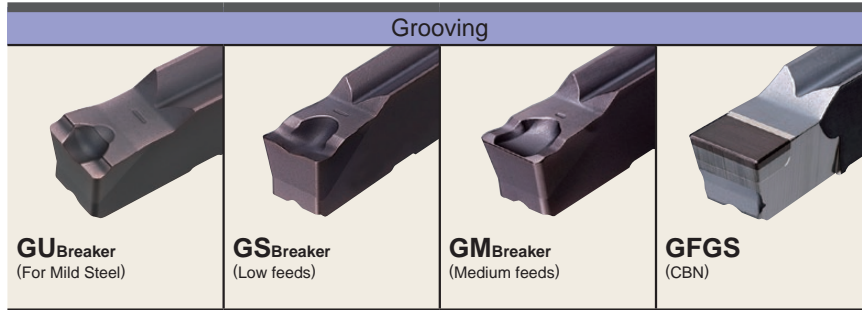
9  
ITEMS



INSERT

● A WIDE SELECTION OF INSERTS

● Breaker system



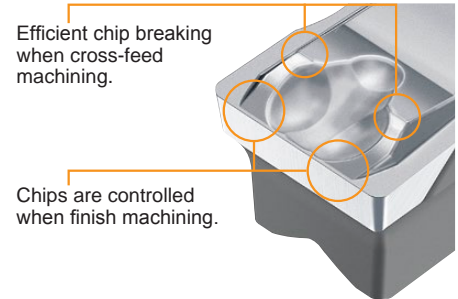
● Selection of groove widths



● Different corner radii available



● MF Breaker



● INSERT GRADE

Work Material Machining Condition	P Steel	M Stainless Steel	K Cast Iron	S Heat resistant Alloy / Titanium Alloy	H Hardened steel
	<p>Stable</p> <p>↑</p> <p>Machining Condition</p> <p>↓</p> <p>Unstable</p>	<p><b>NX2525</b></p> <p><b>MY5015</b></p> <p><b>VP10RT</b></p> <p><b>VP20RT</b></p>	<p><b>VP10RT</b></p> <p><b>VP20RT</b></p>	<p><b>MY5015</b></p> <p><b>VP10RT</b></p> <p><b>VP20RT</b></p>	<p><b>VP10RT</b></p> <p><b>RT9010</b></p> <p><b>VP20RT</b></p>

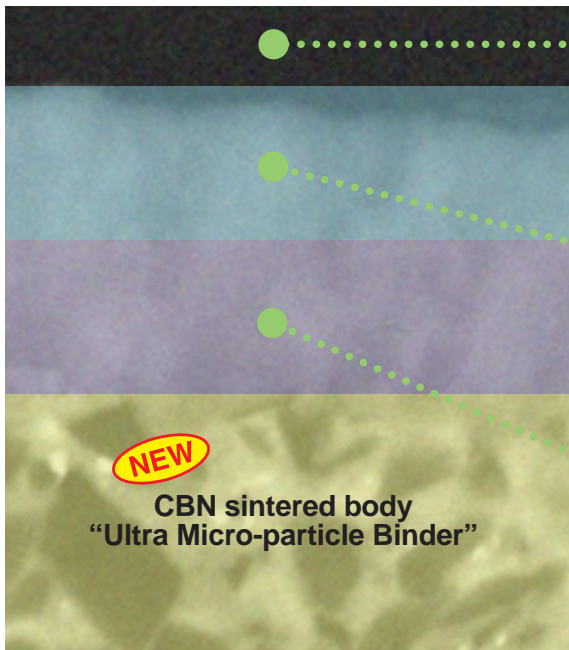
Note1) VP20RT is the first recommended grade for materials other than hardened steel.  
 Note2) For VP10RT, VP20RT and MY5015, wet cutting is recommended.

# Coated CBN Grade for Grooving Hardened Steel

# BC8110

Longer tool life with a coated CBN grade when grooving hardened steels.

## Newly developed special PVD coating



### Prevention of welding

Peeling of the coating is prevented by improving welding resistance.

**NEW**

### TiAlSiN Coating

Improved wear and chipping resistance.

### TiAlN Coating

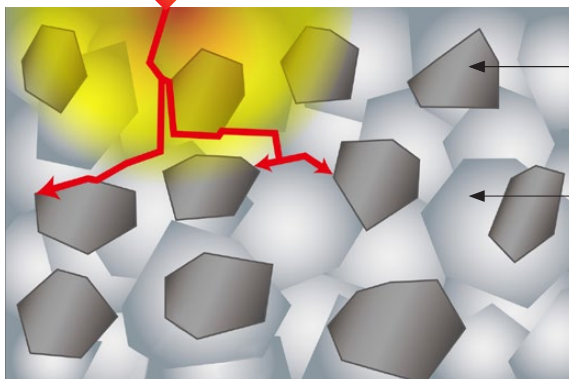
Improved adhesion to the CBN surface provides increased peeling resistance.

## The newly developed "Ultra Micro-particle Binder" prevents sudden fracture

Dispersal of the new Ultra Micro-particle Binder in BC8110 prevents linear crack development that can cause sudden fracturing.

Cutting resistance

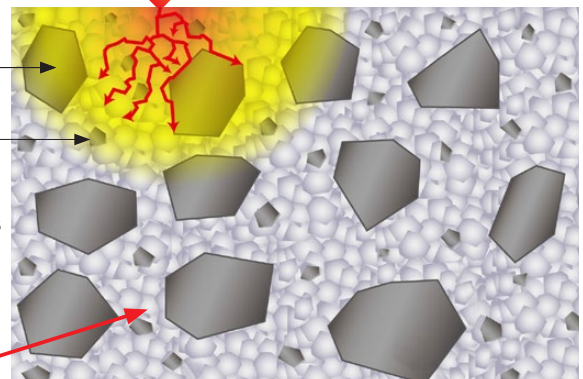
Forces are dispersed in a linear direction can cause sudden fracturing.



Conventional

Cutting resistance

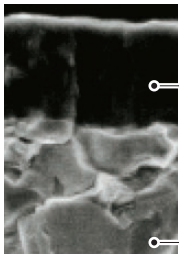
Forces are dispersed radially help to prevent sudden fracturing.



"Ultra Micro-particle Binder"

**BC8110**

## VP20RT (1st Recommendation)

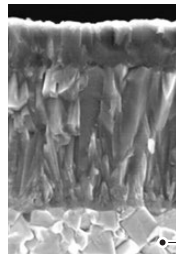


● PVD coated grade suitable for a wide range of applications. The combination of a special tough cemented carbide substrate with MIRACLE coating provides an excellent balance of wear and fracture resistance.

MIRACLE Coating

Carbide substrate (HRA90.5)

## MY5015

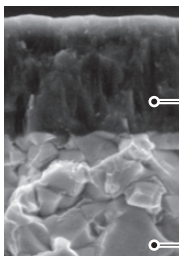


● MY5015 is a CVD coated grade with excellent wear resistance even at high temperatures. It provides longer tool life when machining cast and ductile cast irons. Also suitable for high speed continuous cutting of steels.

CVD Coated Carbide

Carbide substrate

## VP10RT (2nd Recommendation)



● PVD coated grade with a cemented carbide substrate harder than VP20RT. For use on difficult to cut materials and for extending tool life.

MIRACLE Coating

Carbide substrate (HRA92.0)

## RT9010

● First recommended grade for titanium alloys. It is not recommended for use on non-ferrous alloys.

## NX2525

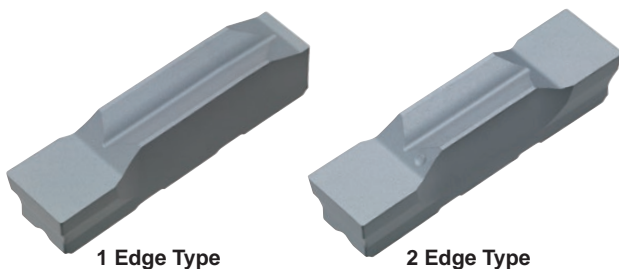
● NX2525, a cermet grade for finish machining of steels and for good surface finishes at lower cutting speeds.

## MB8025

● MB8025 is a sintered CBN grade for hardened steel.

## ● BLANK INSERTS

● Blank inserts for custom grinding



1 Edge Type

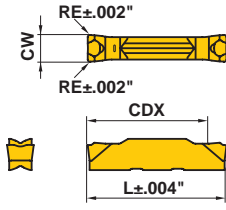
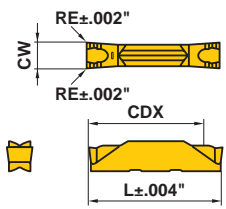
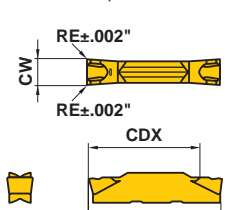
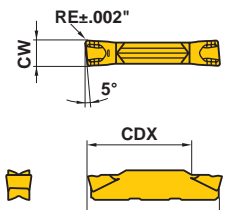
2 Edge Type

\* Blank inserts to be ground by customers.

## RT9010/RT9020 for blank insert

● First recommendation for blank inserts is RT9020 due to the tougher carbide substrate that is suitable for a wider range of applications. RT9010 has a harder substrate than RT9020 and is ideal for longer tool life on stable cutting applications. Both grades are recommended to have a coating applied that is suitable for the required application.

# INSERTS

Applications	Geometry	Order Number	Stock								Seat Size	Dimensions (inch)					
			Coated		Cermet		Carbide		CBN			CW		RE	CDX	L	
			VP10RT	VP20RT	MY5015	NX2525	RT9010	RT9020	BC8110	MB8025		Grooving Width	Tolerance				
For Grooving / Cutting off	<b>GU Breaker</b> (For mild steel) 	GY2M0200D020N-GU	●	●	●						D	.079	±.0012	.008	.776	.815	
		GY2M0239E020N-GU	●	●	●						E	.094	±.0012	.008	.780	.815	
		GY2M0250E020N-GU	●	●	●						E	.098	±.0012	.008	.768	.815	
		GY2M0300F030N-GU	●	●	●						F	.118	±.0012	.012	.760	.815	
		GY2M0318F030N-GU	●	●	●						F	.125	±.0012	.012	.760	.815	
		GY2M0400G030N-GU	●	●	●						G	.157	±.0016	.012	.953	1.010	
		GY2M0475H040N-GU	●	●	●						H	.187	±.0016	.016	.953	1.010	
		GY2M0500H040N-GU	●	●	●						H	.197	±.0016	.016	.953	1.010	
		GY2M0600J040N-GU	●	●	●						J	.236	±.0016	.016	.953	1.010	
		GY2M0635J040N-GU	●	●	●						J	.250	±.0016	.016	.953	1.010	
	<b>GS Breaker</b> (Low feeds) 	GY2M0150C010N-GS	●	●	●						C	.059	±.0012	.004	.528	.579	
		GY2M0200D020N-GS	●	●	●						D	.079	±.0012	.008	.736	.815	
		GY2M0239E020N-GS	●	●	●						E	.094	±.0012	.008	.728	.815	
		GY2M0250E020N-GS	●	●	●						E	.098	±.0012	.008	.728	.815	
		GY2M0300F020N-GS	●	●	●						F	.118	±.0012	.008	.728	.815	
		GY2M0318F020N-GS	●	●	●						F	.125	±.0012	.008	.728	.815	
		GY2M0400G020N-GS	●	●	●						G	.157	±.0016	.008	.941	1.010	
		GY2M0475H030N-GS	●	●	●						H	.187	±.0016	.012	.941	1.010	
		GY2M0500H030N-GS	●	●	●						H	.197	±.0016	.012	.945	1.010	
		GY2M0600J030N-GS	●	●	●						J	.236	±.0016	.012	.949	1.010	
	GY2M0635J030N-GS	●	●	●						J	.250	±.0016	.012	.949	1.010		
	GY2M0800K030N-GS	●	●	●						K	.315	±.0016	.012	1.146	1.201		
	<b>GM Breaker</b> (Medium feeds) 	GY2M0150C020N-GM	●	●	●						C	.059	±.0012	.008	.547	.579	
		GY2M0200D020N-GM	●	●	●						D	.079	±.0012	.008	.764	.815	
		GY2M0239E020N-GM	●	●	●						E	.094	±.0012	.008	.764	.815	
		GY2M0250E020N-GM	●	●	●						E	.098	±.0012	.008	.764	.815	
		GY2M0300F030N-GM	●	●	●						F	.118	±.0012	.012	.764	.815	
		GY2M0318F030N-GM	●	●	●						F	.125	±.0012	.012	.764	.815	
		GY2M0400G030N-GM	●	●	●						G	.157	±.0016	.012	.961	1.010	
		GY2M0475H040N-GM	●	●	●						H	.187	±.0016	.016	.957	1.010	
GY2M0500H040N-GM		●	●	●						H	.197	±.0016	.016	.957	1.010		
GY2M0600J040N-GM		●	●	●						J	.236	±.0016	.016	.957	1.010		
GY2M0635J040N-GM	●	●	●						J	.250	±.0016	.016	.957	1.010			
GY2M0800K050N-GM	●	●	●						K	.315	±.0016	.020	1.154	1.201			
For Cutting off	<b>R/L05-GM Breaker</b>  Right hand insert shown.	GY2M0200D020R05-GM	●	●							D	.079	±.0012	.008	.768	.819	
		GY2M0200D020L05-GM	●	●							D	.079	±.0012	.008	.768	.819	
		GY2M0250E020R05-GM	●	●								E	.098	±.0012	.008	.768	.820
		GY2M0250E020L05-GM	●	●								E	.098	±.0012	.008	.768	.820
		GY2M0300F030R05-GM	●	●								F	.118	±.0012	.012	.768	.821
		GY2M0300F030L05-GM	●	●								F	.118	±.0012	.012	.768	.821
		GY2M0400G030R05-GM	●	●								G	.157	±.0016	.012	.965	1.018
		GY2M0400G030L05-GM	●	●								G	.157	±.0016	.012	.965	1.018
		GY2M0500H040R05-GM	●	●								H	.197	±.0016	.016	.965	1.022
		GY2M0500H040L05-GM	●	●								H	.197	±.0016	.016	.965	1.022

● : Inventory maintained. (10 inserts in one case) (CBN inserts are available in 1 piece in one case.)



# GROOVING SYSTEM

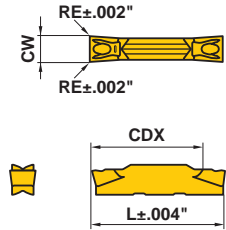
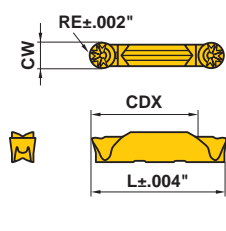
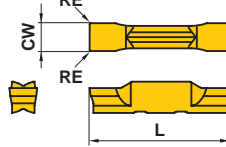
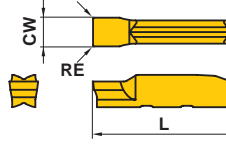
## INSERTS

Applications	Geometry	Order Number	Stock								Seat Size	Dimensions (inch)								
			Coated		Cermet		Carbide		CBN			CW		RE	CDX	L				
			VP10RT	VP20RT	MY5015	NX2525	RT9010	RT9020	BC8110	NEW MB8025		Grooving Width	Tolerance							
For Grooving	<b>Flat Top</b> (For Hardened material) 	<b>GY1G0200D020N-GFGS</b>								●	●	D	.079	±.0012	.008	—	.815			
		<b>GY1G0239E020N-GFGS</b>									●	●	E	.094	±.0012	.008	—	.815		
		<b>GY1G0250E020N-GFGS</b>									●	●	E	.098	±.0012	.008	—	.815		
		<b>GY1G0300F020N-GFGS</b>									●	●	F	.118	±.0012	.008	—	.815		
		<b>GY1G0318F020N-GFGS</b>									●	●	F	.125	±.0012	.008	—	.815		
		<b>GY1G0400G020N-GFGS</b>									●	●	G	.157	±.0012	.008	—	1.010		
		<b>GY1G0475H020N-GFGS</b>									●	●	H	.187	±.0012	.008	—	1.010		
		<b>GY1G0500H020N-GFGS</b>									●	●	H	.197	±.0012	.008	—	1.010		
		<b>GY1G0600J020N-GFGS</b>									●		J	.236	±.0012	.008	—	1.010		
For Multifunctional Grooving	<b>MF Breaker</b> (Finishing) 	<b>GY2G0200D020N-MF</b>	●	●	●	●						D	.079	±.0008	.008	.768	.829			
		*1 <b>GY2G0224D015N-MF</b>	●	●	●	●							D	.088	±.0008	.006	.780	.829		
		<b>GY2G0239E020N-MF</b>	●	●	●	●							E	.094	±.0008	.008	.756	.829		
		<b>GY2G0250E020N-MF</b>	●	●	●	●							E	.098	±.0008	.008	.764	.829		
		*1 <b>GY2G0274E020N-MF</b>	●	●	●	●							E	.108	±.0008	.008	.776	.829		
		<b>GY2G0300F020N-MF</b>	●	●	●	●							F	.118	±.0008	.008	.768	.829		
		<b>GY2G0300F040N-MF</b>	●	●	●	●							F	.118	±.0008	.016	.760	.829		
		<b>GY2G0318F020N-MF</b>	●	●	●	●							F	.125	±.0008	.008	.768	.829		
		<b>GY2G0318F040N-MF</b>	●	●	●	●							F	.125	±.0008	.016	.760	.829		
		*1 <b>GY2G0324F020N-MF</b>	●	●	●	●							F	.128	±.0008	.008	.768	.829		
		<b>GY2G0400G020N-MF</b>	●	●	●	●							G	.157	±.0008	.008	.980	1.022		
		<b>GY2G0400G040N-MF</b>	●	●	●	●							G	.157	±.0008	.016	.972	1.022		
		<b>GY2G0400G080N-MF</b>	●	●	●	●							G	.157	±.0008	.031	.957	1.022		
		*1 <b>GY2G0424G020N-MF</b>	●	●	●	●							G	.167	±.0008	.008	.980	1.022		
		<b>GY2G0475H020N-MF</b>	●	●	●	●							H	.187	±.0008	.008	.961	1.022		
		<b>GY2G0475H040N-MF</b>	●	●	●	●							H	.187	±.0008	.016	.953	1.022		
		<b>GY2G0475H080N-MF</b>	●	●	●	●							H	.187	±.0008	.031	.937	1.022		
		<b>GY2G0500H020N-MF</b>	●	●	●	●							H	.197	±.0008	.008	.961	1.022		
		<b>GY2G0500H040N-MF</b>	●	●	●	●							H	.197	±.0008	.016	.953	1.022		
		<b>GY2G0500H080N-MF</b>	●	●	●	●							H	.197	±.0008	.031	.937	1.022		
		*1 <b>GY2G0524H020N-MF</b>	●	●	●	●							H	.206	±.0008	.008	.961	1.022		
		<b>GY2G0600J020N-MF</b>	●	●	●	●							J	.236	±.0008	.008	.961	1.022		
		<b>GY2G0600J040N-MF</b>	●	●	●	●							J	.236	±.0008	.016	.953	1.022		
		<b>GY2G0600J080N-MF</b>	●	●	●	●							J	.236	±.0008	.031	.937	1.022		
		*1 <b>GY2G0631J020N-MF</b>	●	●	●	●							J	.248	±.0008	.008	.961	1.022		
		<b>GY2G0635J020N-MF</b>	●	●	●	●							J	.250	±.0008	.008	.961	1.022		
		<b>GY2G0635J040N-MF</b>	●	●	●	●							J	.250	±.0008	.016	.953	1.022		
		<b>GY2G0635J080N-MF</b>	●	●	●	●							J	.250	±.0008	.031	.937	1.022		
		<b>MS Breaker</b> (Low feeds)		<b>GY2M0200D020N-MS</b>	●	●	●	●						D	.079	±.0012	.008	.752	.815	
				<b>GY2M0250E020N-MS</b>	●	●	●	●							E	.098	±.0012	.008	.752	.815
				<b>GY2M0300F020N-MS</b>	●	●	●	●							F	.118	±.0012	.008	.756	.815
				<b>GY2M0300F040N-MS</b>	●	●	●	●							F	.118	±.0012	.016	.744	.815
				<b>GY2M0400G020N-MS</b>	●	●	●	●							G	.157	±.0016	.008	.953	1.010
<b>GY2M0400G040N-MS</b>	●			●	●	●							G	.157	±.0016	.016	.941	1.010		
<b>GY2M0500H040N-MS</b>	●			●	●	●							H	.197	±.0016	.016	.941	1.010		
<b>GY2M0500H080N-MS</b>	●			●	●	●							H	.197	±.0016	.031	.925	1.010		
<b>GY2M0600J040N-MS</b>	●			●	●	●							J	.236	±.0016	.016	.941	1.010		
<b>GY2M0600J080N-MS</b>	●			●	●	●							J	.236	±.0016	.031	.925	1.010		
<b>GY2M0800K080N-MS</b>	●			●	●	●							K	.315	±.0016	.031	1.122	1.201		

\*1 Groove width corresponding to the circlip.

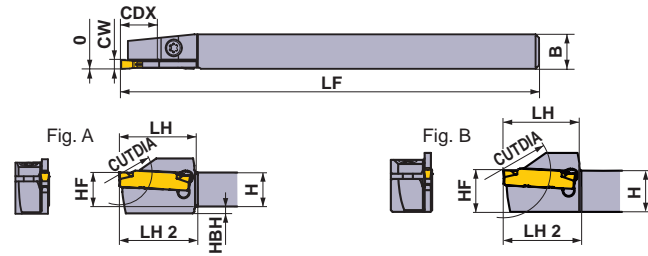
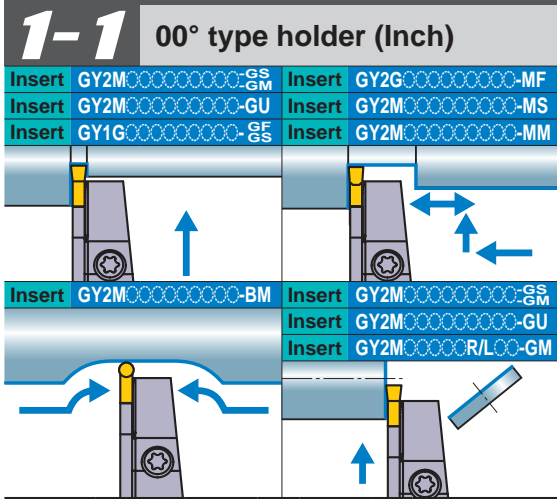
● : Inventory maintained. (10 inserts in one case) (CBN inserts are available in 1 piece in one case.) ★ : Inventory maintained in Japan.



Applications	Geometry	Order Number	Stock								Seat Size	Dimensions (inch)						
			Coated		Cermet		Carbide		CBN			CW		RE	CDX	L		
			VP10RT	VP20RT	MY5015	NX2525	RT9010	RT9020	BC8110	MB8025		Grooving Width	Tolerance					
For Multifunctional Grooving	<b>MM Breaker</b> (Medium feeds) 	GY2M0200D020N-MM	●	●	●	●						D	.079	±.0012	.008	.752	.815	
		GY2M0250E020N-MM	●	●	●	●							E	.098	±.0012	.008	.752	.815
		GY2M0300F020N-MM	●	●	●	●							F	.118	±.0012	.008	.752	.815
		GY2M0300F040N-MM	●	●	●	●							F	.118	±.0012	.016	.744	.815
		GY2M0300F080N-MM	●	●	●	●							F	.118	±.0012	.031	.728	.815
		GY2M0400G020N-MM	●	●	●	●							G	.157	±.0016	.008	.949	1.010
		GY2M0400G040N-MM	●	●	●	●							G	.157	±.0016	.016	.941	1.010
		GY2M0400G080N-MM	●	●	●	●							G	.157	±.0016	.031	.925	1.010
		GY2M0500H040N-MM	●	●	●	●							H	.197	±.0016	.016	.941	1.010
		GY2M0500H080N-MM	●	●	●	●							H	.197	±.0016	.031	.925	1.010
		GY2M0600J040N-MM	●	●	●	●							J	.236	±.0016	.016	.941	1.010
		GY2M0600J080N-MM	●	●	●	●							J	.236	±.0016	.031	.925	1.010
		GY2M0800K080N-MM	●	●	●	●							K	.315	±.0016	.031	1.122	1.201
		GY2M0800K120N-MM	●	●	●	●							K	.315	±.0016	.047	1.106	1.201
For Copying / Reversing	<b>BM Breaker</b> 	GY2M0200D100N-BM	●	●	●	●						D	.079	±.0012	.039	.768	.815	
		GY2M0250E125N-BM	●	●	●	●							E	.098	±.0012	.049	.760	.815
		GY2M0300F150N-BM	●	●	●	●							F	.118	±.0012	.059	.748	.823
		GY2M0318F159N-BM	●	●	●	●							F	.125	±.0012	.063	.744	.823
		GY2M0400G200N-BM	●	●	●	●							G	.157	±.0016	.079	.921	1.016
		GY2M0475H238N-BM	●	●	●	●							H	.187	±.0016	.094	.902	1.016
		GY2M0500H250N-BM	●	●	●	●							H	.197	±.0016	.098	.898	1.016
		GY2M0600J300N-BM	●	●	●	●							J	.236	±.0016	.118	.886	1.020
		GY2M0635J318N-BM	●	●	●	●							J	.250	±.0016	.125	.878	1.020
		GY2M0800K400N-BM	●	●	●	●							K	.315	±.0016	.157	1.043	1.213
Blank	<b>2 Edge Type</b> 	GY2B0220D020N				★	★	★				D	.087	±.0039	.008	—	.829	
		GY2B0270E020N				★	★	★					E	.106	±.0039	.008	—	.829
		GY2B0340F020N				★	★	★					F	.134	±.0039	.008	—	.829
		GY2B0420G020N				★	★	★					G	.165	±.0039	.008	—	1.024
		GY2B0520H020N				★	★	★					H	.205	±.0039	.008	—	1.024
		GY2B0655J020N				★	★	★					J	.258	±.0039	.008	—	1.024
		GY2B0655J020N				★	★	★					J	.258	±.0039	.008	—	1.024
	<b>1 Edge Type</b> 	GY1B0220D020N				★	★	★					D	.087	±.0039	.008	—	.827
		GY1B0270E020N				★	★	★					E	.106	±.0039	.008	—	.827
		GY1B0340F020N				★	★	★					F	.134	±.0039	.008	—	.827
		GY1B0420G020N				★	★	★					G	.165	±.0039	.008	—	1.020
		GY1B0520H020N				★	★	★					H	.205	±.0039	.008	—	1.020
		GY1B0655J020N				★	★	★					J	.258	±.0039	.008	—	1.020
		GY1B0655J020N				★	★	★					J	.258	±.0039	.008	—	1.020

\*2 Blank inserts to be ground by customers.

# GY SERIES (EXTERNAL GROOVING for Swiss style lathes)





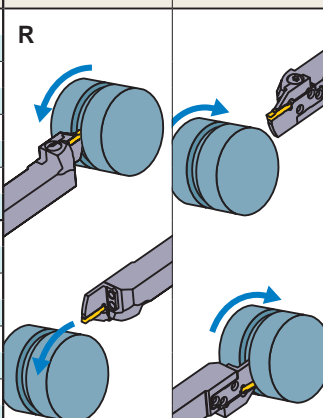
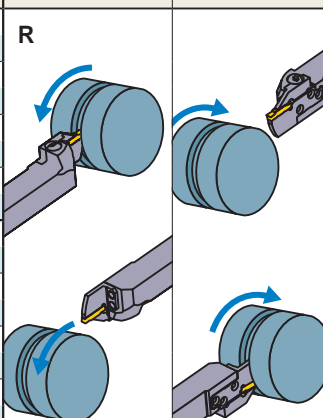
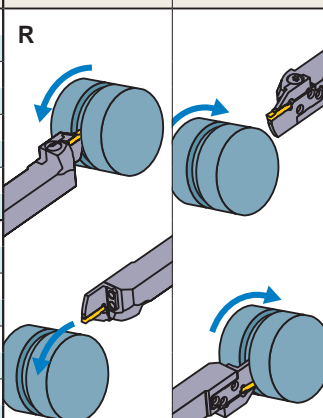
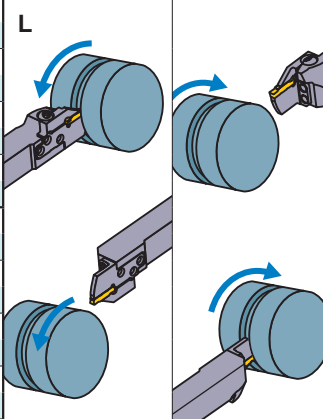
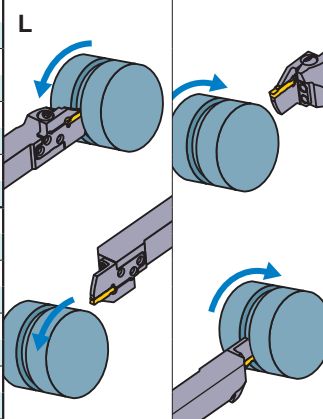
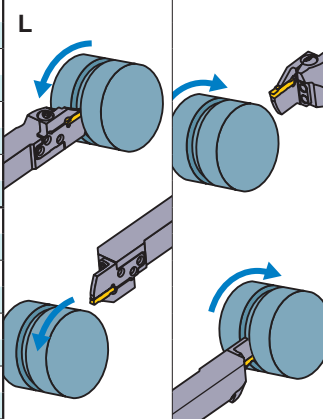
Right hand tool holder shown.

Seat Size	CW (inch)	CDX (inch) *4	CUTDIA (inch)	Type	Hand (R/L)	Order Number		Fig.
						Holder	Stock	
C	.059	.433	.866	Mono Block	R	<b>GYSRUS06B00-C11</b>	●	A
				Mono Block	L	<b>GYSLUS06B00-C11</b>	●	A
		.512	1.024	Mono Block	R	<b>GYSRUS08B00-C13</b>	●	B
				Mono Block	L	<b>GYSLUS08B00-C13</b>	●	B
		.669 *1	1.338 *2	Mono Block	R	<b>GYSRUS10B00-C17</b>	●	B
				Mono Block	L	<b>GYSLUS10B00-C17</b>	●	B
D	.079 .088	.433	.866	Mono Block	R	<b>GYSRUS06B00-D11</b>	●	A
				Mono Block	L	<b>GYSLUS06B00-D11</b>	●	A
		.512	1.024	Mono Block	R	<b>GYSRUS08B00-D13</b>	●	B
				Mono Block	L	<b>GYSLUS08B00-D13</b>	●	B
		.669 *1	1.338 *2	Mono Block	R	<b>GYSRUS10B00-D17</b>	●	B
				Mono Block	L	<b>GYSLUS10B00-D17</b>	●	B
E	.094 .098 .108	.433	.866	Mono Block	R	<b>GYSRUS06B00-E11</b>	●	A
				Mono Block	L	<b>GYSLUS06B00-E11</b>	●	A
		.512	1.024	Mono Block	R	<b>GYSRUS08B00-E13</b>	●	B
				Mono Block	L	<b>GYSLUS08B00-E13</b>	●	B
		.669 *1	1.338 *2	Mono Block	R	<b>GYSRUS10B00-E17</b>	●	B
				Mono Block	L	<b>GYSLUS10B00-E17</b>	●	B
.787 *1	1.574 *2	Mono Block	R	<b>GYSRUS12B00-E17</b>	●	B		
		Mono Block	L	<b>GYSLUS12B00-E17</b>	●	B		
F	.118 .125 .128	.512	1.024	Mono Block	R	<b>GYSRUS08B00-F13</b>	●	B
				Mono Block	L	<b>GYSLUS08B00-F13</b>	●	B
		.669 *1	1.338 *2	Mono Block	R	<b>GYSRUS10B00-F17</b>	●	B
				Mono Block	L	<b>GYSLUS10B00-F17</b>	●	B
		.787 *1	1.574 *2	Mono Block	R	<b>GYSRUS12B00-F17</b>	●	B
				Mono Block	L	<b>GYSLUS12B00-F17</b>	●	B
		Mono Block	R	<b>GYSRUS10B00-F20</b>	●	B		
		Mono Block	L	<b>GYSLUS10B00-F20</b>	●	B		
		Mono Block	R	<b>GYSRUS12B00-F20</b>	●	B		
		Mono Block	L	<b>GYSLUS12B00-F20</b>	●	B		

\*1 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages 6 to 8.  
 \*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages 6 to 8.  
 \*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.  
 \*4 The maximum groove depth is limited by the workpiece diameter. For details, please refer to page 25.

## SPARE PARTS

Holder Number		
	Clamp Screw	Wrench
<b>GYSR/LUS06B00-11</b>	CS350990T (Clamp Torque : 22 lbf-in)	TKY10R
<b>GYSR/LUS08B00-13</b>		
<b>GYSR/LUS10B00-18</b>	TS4SBL (Clamp Torque : 31 lbf-in)	TKY15R
<b>GYSR/LUS12B00-17</b>		

Dimensions (inch) *3								Cutting Mode	
H	B	LF	LH	LH 2	HF	HBH		Clockwise	Counterclockwise
.375	.375	4.500	.866	.620	.375	.125			
.375	.375	4.500	.866	.620	.375	.125			
.500	.500	4.500	.866	.620	.500	—			
.500	.500	4.500	.866	.620	.500	—			
.625	.625	4.500	1.063	.638	.625	—			
.625	.625	4.500	1.063	.638	.625	—			
.750	.750	4.500	1.102	.638	.750	—			
.750	.750	4.500	1.102	.638	.750	—			
.375	.375	4.500	.866	.899	.375	.125			
.375	.375	4.500	.866	.899	.375	.125			
.500	.500	4.500	.866	.899	.500	—			
.500	.500	4.500	.866	.899	.500	—			
.625	.625	4.500	1.063	.918	.625	—			
.625	.625	4.500	1.063	.918	.625	—			
.750	.750	4.500	1.102	.878	.750	—			
.750	.750	4.500	1.102	.878	.750	—			
.375	.375	4.500	.866	.901	.375	.125			
.375	.375	4.500	.866	.901	.375	.125			
.500	.500	4.500	.866	.901	.500	—			
.500	.500	4.500	.866	.901	.500	—			
.625	.625	4.500	1.063	.920	.625	—			
.625	.625	4.500	1.063	.920	.625	—			
.750	.750	4.500	1.102	.880	.750	—			
.750	.750	4.500	1.102	.880	.750	—			
.625	.625	4.500	1.220	.920	.625	—			
.625	.625	4.500	1.220	.920	.625	—			
.750	.750	4.500	1.220	.880	.750	—			
.750	.750	4.500	1.220	.880	.750	—			
.500	.500	4.500	.866	.903	.500	—			
.500	.500	4.500	.866	.903	.500	—			
.625	.625	4.500	1.063	.925	.625	—			
.625	.625	4.500	1.063	.925	.625	—			
.750	.750	4.500	1.102	.885	.750	—			
.750	.750	4.500	1.102	.885	.750	—			
.625	.625	4.500	1.220	.925	.625	—			
.625	.625	4.500	1.220	.925	.625	—			
.750	.750	4.500	1.220	.885	.750	—			
.750	.750	4.500	1.220	.885	.750	—			

### Select an Insert

Seat Size	Insert Number
<b>C</b>	<b>GY00150C0000-Breaker</b>
<b>D</b>	<b>GY00200/0224D0000-Breaker</b>
<b>E</b>	<b>GY00239/0250/0274E0000-Breaker</b>
<b>F</b>	<b>GY00300/0318/0324F0000-Breaker</b>

### For Grooving/Cutting off > P6, P7

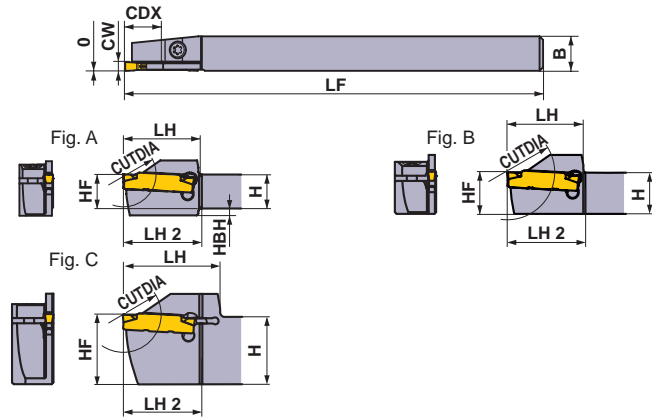
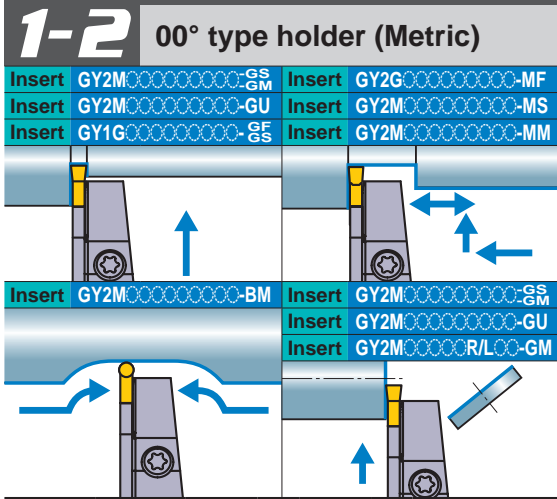
Seat Size	Breaker	GU	GS	GM	05-GM	GFGS
		Neutral	Neutral	Neutral	Hand	Neutral
<b>C</b>	.059", 1.50mm		●	●		
<b>D</b>	.079", 2.00mm	●	●	●	●	●
<b>E</b>	.094", 2.39mm	●	●	●		●
	.098", 2.50mm	●	●	●	●	●
<b>F</b>	.118", 3.00mm	●	●	●	●	●
	.125", 3.18mm	●	●	●		●

### For Multifunctional Grooving > P7, P8

Seat Size	Breaker	MF	MS	MM	BM
					Ball nose
<b>D</b>	.079", 2.00mm	●	●	●	●
	.088", 2.24mm	●			
<b>E</b>	.094", 2.39mm	●			
	.098", 2.50mm	●	●	●	●
	.108", 2.74mm	●			
<b>F</b>	.118", 3.00mm				●
	RE .008"	●	●	●	
	RE .016"	●	●	●	
	RE .031"			●	
	.125", 3.18mm				●
	RE .008"	●			
RE .016"	●				
.128", 3.24mm	●				

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING for Swiss style lathes)





Right hand tool holder shown.

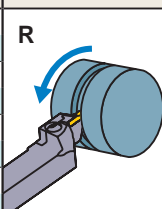
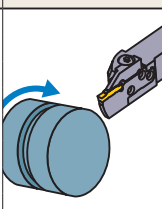
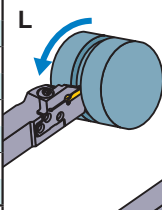
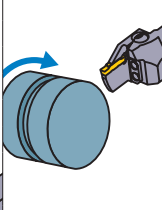
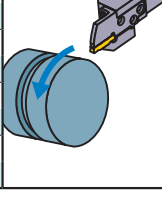
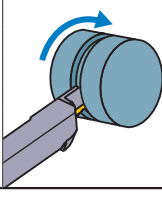


Seat Size	CW (mm)	CDX (mm) *4	CUTDIA (mm)	Type	Hand (R/L)	Order Number		Fig.
						Holder	Stock	
C	1.50	11	22	Mono Block	R	<b>GYSR1010JX00-C11</b>	●	A
				L	<b>GYSL1010JX00-C11</b>	●	A	
		13	26	Mono Block	R	<b>GYSR1212JX00-C13</b>	●	B
				L	<b>GYSL1212JX00-C13</b>	●	B	
17 *1	34 *2	Mono Block	R	<b>GYSR1616JX00-C17</b>	●	B		
		L	<b>GYSL1616JX00-C17</b>	●	B			
18 *1	36 *2	Mono Block	R	<b>GYSR2012JX00-C18</b>	●	C		
		L	<b>GYSL2012JX00-C18</b>	●	C			
D	2.00 2.24	11	22	Mono Block	R	<b>GYSR1010JX00-D11</b>	●	A
				L	<b>GYSL1010JX00-D11</b>	●	A	
		13	26	Mono Block	R	<b>GYSR1212JX00-D13</b>	●	B
				L	<b>GYSL1212JX00-D13</b>	●	B	
17	34	Mono Block	R	<b>GYSR1616JX00-D17</b>	●	B		
		L	<b>GYSL1616JX00-D17</b>	●	B			
18	36	Mono Block	R	<b>GYSR2012JX00-D18</b>	●	C		
		L	<b>GYSL2012JX00-D18</b>	●	C			
E	2.39 2.50 2.74	11	22	Mono Block	R	<b>GYSR1010JX00-E11</b>	●	A
				L	<b>GYSL1010JX00-E11</b>	●	A	
		13	26	Mono Block	R	<b>GYSR1212JX00-E13</b>	●	B
				L	<b>GYSL1212JX00-E13</b>	●	B	
17	34	Mono Block	R	<b>GYSR1616JX00-E17</b>	●	B		
		L	<b>GYSL1616JX00-E17</b>	●	B			
18	36	Mono Block	R	<b>GYSR2012JX00-E18</b>	●	C		
		L	<b>GYSL2012JX00-E18</b>	●	C			
F	3.00 3.18 3.24	11	22	Mono Block	R	<b>GYSR1010JX00-F11</b>	●	A
				L	<b>GYSL1010JX00-F11</b>	●	A	
		13	26	Mono Block	R	<b>GYSR1212JX00-F13</b>	●	B
				L	<b>GYSL1212JX00-F13</b>	●	B	
17	34	Mono Block	R	<b>GYSR1616JX00-F17</b>	●	B		
		L	<b>GYSL1616JX00-F17</b>	●	B			
18	36	Mono Block	R	<b>GYSR2012JX00-F18</b>	●	C		
		L	<b>GYSL2012JX00-F18</b>	●	C			

\*1 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages 6 to 8.  
 \*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages 6 to 8.  
 \*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH and LH 2 values may vary.  
 \*4 The maximum groove depth is limited by the workpiece diameter. For details, please refer to page 25.



## SPARE PARTS

Holder Number		
	Clamp Screw	Wrench
<b>GYSR/L1010JX00-11</b>	CS350990T (Clamp Torque : 22 lbf-in)	TKY10R
<b>GYSR/L1212JX00-13</b>		
<b>GYSR/L2012JX00-18</b>		
<b>GYSR/L1616JX00-17</b>	TS4SBL (Clamp Torque : 31 lbf-in)	TKY15R

Dimensions (mm) *3								Cutting Mode	
H	B	LF	LH	LH 2	HF	HBH		Clockwise	Counterclockwise
10	10	120	22	16	10	2	<b>R</b> 		
10	10	120	22	16	10	2			
12	12	120	22	16	12	—			
12	12	120	22	16	12	—			
16	16	120	27	17	16	—			
16	16	120	27	17	16	—			
20	12	120	28	16	20	—	<b>L</b> 		
20	12	120	28	16	20	—			
10	10	120	22	23	10	2			
10	10	120	22	23	10	2			
12	12	120	22	23	12	—			
12	12	120	22	23	12	—			
16	16	120	27	24	16	—	<b>L</b> 		
16	16	120	27	24	16	—			
20	12	120	28	23	20	—			
20	12	120	28	23	20	—			
10	10	120	22	23	10	2			
10	10	120	22	23	10	2			
12	12	120	22	23	12	—	<b>L</b> 		
12	12	120	22	23	12	—			
16	16	120	27	24	16	—			
16	16	120	27	24	16	—			
20	12	120	28	23	20	—			
20	12	120	28	23	20	—			

### Select an Insert

Seat Size	Insert Number
<b>C</b>	<b>GY00150C0000-Breaker</b>
<b>D</b>	<b>GY00200/0224D0000-Breaker</b>
<b>E</b>	<b>GY00239/0250/0274E0000-Breaker</b>
<b>F</b>	<b>GY00300/0318/0324F0000-Breaker</b>

### For Grooving/Cutting off > P6, P7

Seat Size	Breaker	GU	GS	GM	05-GM	GFGS
		Neutral	Neutral	Neutral	Hand	Neutral
<b>C</b>	.059", 1.50mm		●	●		
<b>D</b>	.079", 2.00mm	●	●	●	●	●
<b>E</b>	.094", 2.39mm	●	●	●		●
	.098", 2.50mm	●	●	●	●	●
<b>F</b>	.118", 3.00mm	●	●	●	●	●
	.125", 3.18mm	●	●	●		●

### For Multifunctional Grooving > P7, P8

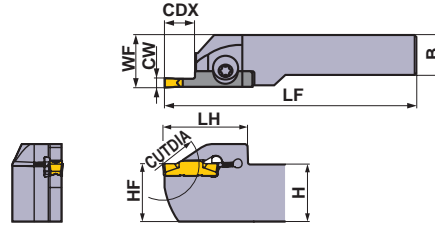
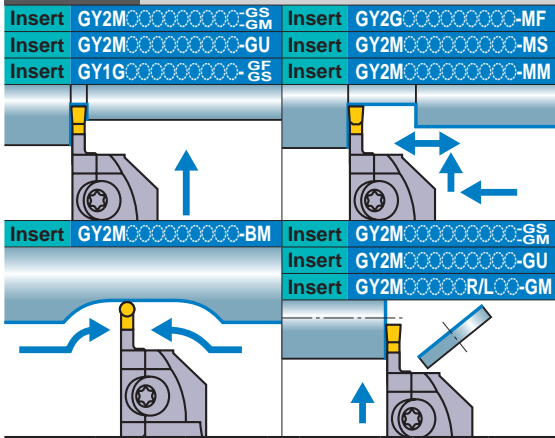
Seat Size	Breaker	MF	MS	MM	BM
					Ball nose
<b>D</b>	.079", 2.00mm	●	●	●	●
	.088", 2.24mm	●			
<b>E</b>	.094", 2.39mm	●			
	.098", 2.50mm	●	●	●	●
	.108", 2.74mm	●			
<b>F</b>	.118", 3.00mm				●
	RE 0.2mm	●	●	●	
	RE 0.4mm	●	●	●	
	RE 0.8mm			●	
	.125", 3.18mm				●
<b>F</b>	RE 0.2mm	●			
	RE 0.4mm	●			
	.128", 3.24mm	●			

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING)

## 1-1 00° type holder (Inch)

(Note 1) For modular blades and holders, please order separately.  
 (Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.






Right hand tool holder shown.

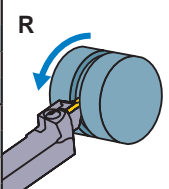
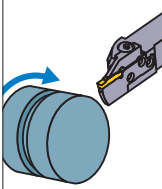
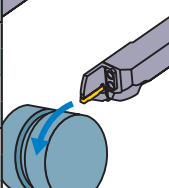
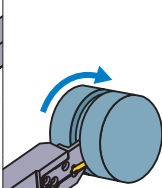
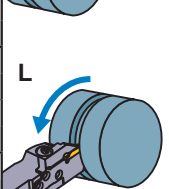
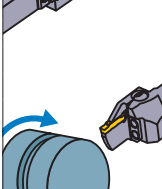
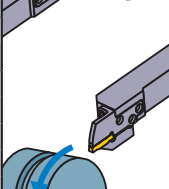
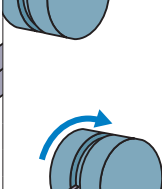
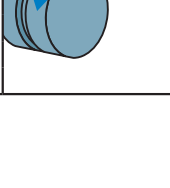
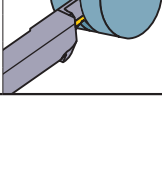




Seat Size	CW (inch)	CDX (inch)	CUTDIA (inch)	Hand (R/L)	Order Number	
					Holder	Stock
D	.079 .088	.236	.472	R	GYQRUS16D00-D06	●
				L	GYQLUS16D00-D06	●
	.787	1.575	R	GYQRUS16D00-D20	●	
			L	GYQLUS16D00-D20	●	
E	.094 .098	.236	.472	R	GYQRUS16D00-E06	●
				L	GYQLUS16D00-E06	●
	.108	.787	1.575	R	GYQRUS16D00-E20	●
				L	GYQLUS16D00-E20	●
F	.118 .125	.236	.472	R	GYQRUS16D00-F06	●
				L	GYQLUS16D00-F06	●
	.128	.787	1.575	R	GYQRUS16D00-F20	●
				L	GYQLUS16D00-F20	●
G	.157 .167	.315	.630	R	GYQRUS16D00-G08	●
				L	GYQLUS16D00-G08	●
	.984	1.969	R	GYQRUS16D00-G25	●	
			L	GYQLUS16D00-G25	●	
H	.187 .197	.315	.630	R	GYQRUS16D00-H08	●
				L	GYQLUS16D00-H08	●
	.206	.984	1.969	R	GYQRUS16D00-H25	●
				L	GYQLUS16D00-H25	●
J	.236 .248	.315	.630	R	GYQRUS16D00-J08	●
				L	GYQLUS16D00-J08	●
	.250	.984	1.969	R	GYQRUS16D00-J25	●
				L	GYQLUS16D00-J25	●

\*1 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages 6 to 8.  
 \*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages 6 to 8.  
 \*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.  
 \*4 The maximum groove depth is limited by the workpiece diameter. For details, please refer to page 25.

● : Inventory maintained.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

SPARE PARTS			
Holder Number	 Clamp Screw	 Blade Screw 5 pcs.	 Wrench *
GYQR/LUS○○○○○○○○○○	①HSC05030 (Clamp Torque : 62 lbf-in)	—	HKY40R
GYHR/LUS○○○○○○○○-M20R/L	②GY06013M (Clamp Torque : 53 lbf-in)	TS407 (Clamp Torque : 31 lbf-in)	①TKY30R ②TKY15D
GYHR/LUS○○○○○○○○-M25R/L		TS55 (Clamp Torque : 44 lbf-in)	①TKY30R ②TKY25D

	Dimensions (inch) *3						Cutting Mode	
	H	B	LF	LH	HF	WF	Clockwise	Counterclockwise
	1.000	1.000	6.000	1.417	1.000	1.006		
	1.000	1.000	6.000	1.417	1.000	1.006		
	1.000	1.000	6.000	1.614	1.000	1.004		
	1.000	1.000	6.000	1.614	1.000	1.004		
	1.000	1.000	6.000	1.417	1.000	1.008		
	1.000	1.000	6.000	1.417	1.000	1.008		
	1.000	1.000	6.000	1.614	1.000	1.004		
	1.000	1.000	6.000	1.614	1.000	1.004		
	1.000	1.000	6.000	1.417	1.000	1.012		
	1.000	1.000	6.000	1.417	1.000	1.012		
	1.000	1.000	6.000	1.614	1.000	1.010		
	1.000	1.000	6.000	1.614	1.000	1.010		
	1.000	1.000	6.000	1.614	1.000	1.014		
	1.000	1.000	6.000	1.614	1.000	1.014		
	1.000	1.000	6.000	1.811	1.000	1.014		
	1.000	1.000	6.000	1.811	1.000	1.014		
	1.000	1.000	6.000	1.614	1.000	1.014		
	1.000	1.000	6.000	1.614	1.000	1.014		
	1.000	1.000	6.000	1.811	1.000	1.014		
	1.000	1.000	6.000	1.811	1.000	1.014		

Select an Insert

Seat Size	Insert Number
D	GY○○0200/0224D○○○○○-Breaker
E	GY○○0239/0250/0274E○○○○○-Breaker
F	GY○○0300/0318/0324F○○○○○-Breaker
G	GY○○0400/0424G○○○○○-Breaker
H	GY○○0475/0500/0524H○○○○○-Breaker
J	GY○○0600/0631/0635J○○○○○-Breaker

For Grooving/Cutting off > P6, P7

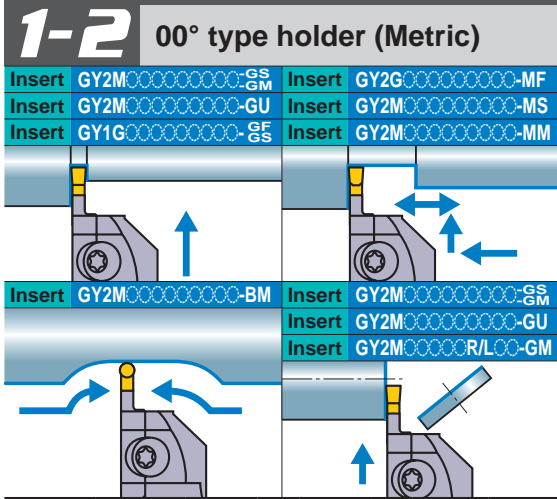
Seat Size	Breaker	GU	GS	GM	05-GM	GFGS
		Neutral	Neutral	Neutral	Hand	Neutral
D	.079", 2.00 mm	●	●		●	●
E	.094", 2.39 mm	●	●	●		●
E	.098", 2.50 mm	●	●	●	●	●
F	.118", 3.00 mm	●	●	●	●	●
F	.125", 3.18 mm	●	●	●		●
G	.157", 4.00 mm	●	●	●	●	●
H	.187", 4.75 mm	●	●	●		●
H	.197", 5.00 mm	●	●	●	●	●
J	.236", 6.00 mm	●	●	●		
J	.250", 6.35 mm	●	●	●		

For Multifunctional Grooving > P7, P8

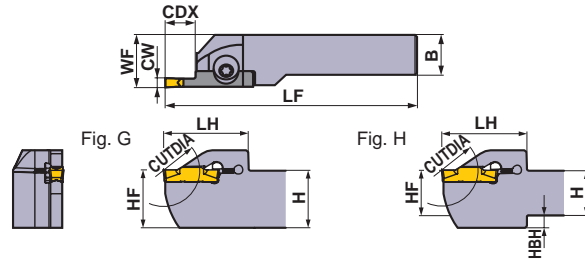
Seat Size	Breaker	MF	MS	MM	BM
					Ball nose
D	.079", 2.00 mm	●	●	●	●
D	.088", 2.24 mm	●			
E	.094", 2.39 mm	●			
E	.098", 2.50 mm	●	●	●	●
E	.108", 2.74 mm	●			
F	.118", 3.00 mm	●	●	●	●
F	.125", 3.18 mm	●			●
F	.128", 3.24 mm	●			
G	.157", 4.00 mm	●	●	●	●
G	.167", 4.24 mm	●			
H	.187", 4.75 mm	●			●
H	.197", 5.00 mm	●	●	●	●
H	.206", 5.24 mm	●			
J	.236", 6.00 mm	●	●	●	●
J	.248", 6.31 mm	●			
J	.250", 6.35 mm	●			●
	Ball nose				◇

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING)



(Note 1) For modular blades and holders, please order separately.  
 (Note 2) Please use right hand modular blade for right hand holder and left hand modular blade for left hand holder.



Right hand tool holder shown.




Seat Size	CW (mm)	CDX (mm)	CUTDIA (mm)	Hand (R/L)	Order Number		Fig.
					Holder	Stock	
D	2.00 2.24	6	12	R	GYQR2020K00-D06	●	G
				L	GYQL2020K00-D06	●	G
	18 20	36	R	GYQR2525M00-D06	●	G	
			L	GYQL2525M00-D06	●	G	
		40	R	GYQR2020K00-D18	●	G	
			L	GYQL2020K00-D18	●	G	
F	3.00 3.18 3.24	6	12	R	GYQR2020K00-F06	●	G
				L	GYQL2020K00-F06	●	G
	18 20	36	R	GYQR2525M00-F06	●	G	
			L	GYQL2525M00-F06	●	G	
		40	R	GYQR2020K00-F18	●	G	
			L	GYQL2020K00-F18	●	G	
G	4.00 4.24	8	16	R	GYQR2020K00-G08	●	G
				L	GYQL2020K00-G08	●	G
	25	50	R	GYQR2525M00-G08	●	G	
			L	GYQL2525M00-G08	●	G	
		50	R	GYQR2020K00-G25	●	H	
			L	GYQL2020K00-G25	●	H	
H	4.75 5.00 5.24	8	16	R	GYQR2525M00-G25	●	G
				L	GYQL2525M00-G25	●	G
	25	50	R	GYQR2020K00-H08	●	G	
			L	GYQL2020K00-H08	●	G	
		50	R	GYQR2525M00-H08	●	G	
			L	GYQL2525M00-H08	●	G	
J	6.00 6.31 6.35	8	16	R	GYQR2020K00-H25	●	H
				L	GYQL2020K00-H25	●	H
	25	50	R	GYQR2525M00-H25	●	G	
			L	GYQL2525M00-H25	●	G	
		50	R	GYQR2020K00-J08	●	G	
			L	GYQL2020K00-J08	●	G	
50	50	R	GYQR2525M00-J08	●	G		
		L	GYQL2525M00-J08	●	G		
	50	R	GYQR2020K00-J25	●	H		
		L	GYQL2020K00-J25	●	H		
50	50	R	GYQR2525M00-J25	●	G		
		L	GYQL2525M00-J25	●	G		

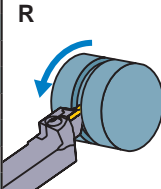
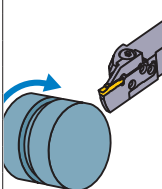
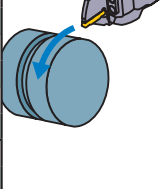
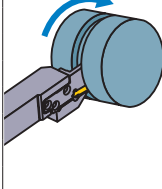
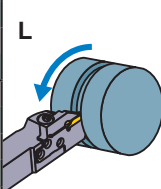
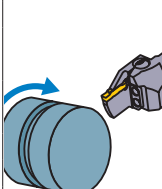
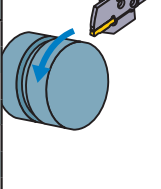
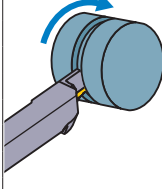
\*1 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages 6 to 8.  
 \*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages 6 to 8.  
 \*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

● : Inventory maintained.



★ Wrench : ① : Clamp Screw, ② : Blade Screw

SPARE PARTS			
Holder Number	 Clamp Screw	 Blade Screw 5 pcs.	 Wrench *
GYQR/L○○○○○○○○○○○○○○○○○○	①HSC05030 (Clamp Torque : 62 lbf-in)	—	HKY40R
GYHR/L○○○○○○○○○○M20R/L	②GY06013M (Clamp Torque : 53 lbf-in)	TS407 (Clamp Torque : 31 lbf-in)	①TKY30R ②TKY15D
GYHR/L○○○○○○○○○○M25R/L		TS55 (Clamp Torque : 44 lbf-in)	①TKY30R ②TKY25D

	Dimensions (mm) *3							Cutting Mode	
	H	B	LF	LH	HF	WF	HBH	Clockwise	Counterclockwise
	20	20	125	36	20	20.15	—		
	20	20	125	36	20	20.15	—		
	25	25	150	36	25	25.15	—		
	25	25	150	36	25	25.15	—		
	20	20	125	39	20	20.10	—		
	20	20	125	39	20	20.10	—		
	25	25	150	41	25	25.15	—		
	25	25	150	41	25	25.15	—		
	20	20	125	36	20	20.30	—		
	20	20	125	36	20	20.30	—		
	25	25	150	36	25	25.30	—		
	25	25	150	36	25	25.30	—		
	20	20	125	39	20	20.25	—		
	20	20	125	39	20	20.25	—		
	25	25	150	41	25	25.25	—		
	25	25	150	41	25	25.25	—		
	20	20	125	41	20	20.35	—		
	20	20	125	41	20	20.35	—		
	25	25	150	41	25	25.35	—		
	25	25	150	41	25	25.35	—		
	20	20	125	46	20	20.35	4		
	20	20	125	46	20	20.35	4		
	25	25	150	46	25	25.35	—		
	25	25	150	46	25	25.35	—		
	20	20	125	41	20	20.35	—		
	20	20	125	41	20	20.35	—		
	25	25	150	41	25	25.35	—		
	25	25	150	41	25	25.35	—		
	20	20	125	46	20	20.35	4		
	20	20	125	46	20	20.35	4		
	25	25	150	46	25	25.35	—		
	25	25	150	46	25	25.35	—		
	20	20	125	41	20	20.35	—		
	20	20	125	41	20	20.35	—		
	25	25	150	41	25	25.35	—		
	25	25	150	41	25	25.35	—		
	20	20	125	46	20	20.35	4		
	20	20	125	46	20	20.35	4		
	25	25	150	46	25	25.35	—		
	25	25	150	46	25	25.35	—		
	20	20	125	46	20	20.35	4		
	20	20	125	46	20	20.35	4		
	25	25	150	46	25	25.35	—		
	25	25	150	46	25	25.35	—		

Select an Insert

Seat Size	Insert Number
D	GY○○0200/0224D○○○○○-Breaker
E	GY○○0239/0250/0274E○○○○○-Breaker
F	GY○○0300/0318/0324F○○○○○-Breaker
G	GY○○0400/0424G○○○○○-Breaker
H	GY○○0475/0500/0524H○○○○○-Breaker
J	GY○○0600/0631/0635J○○○○○-Breaker

For Grooving/Cutting off > P6, P7

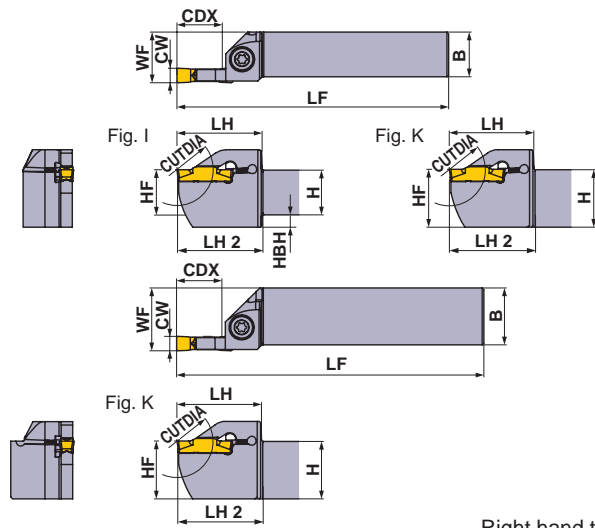
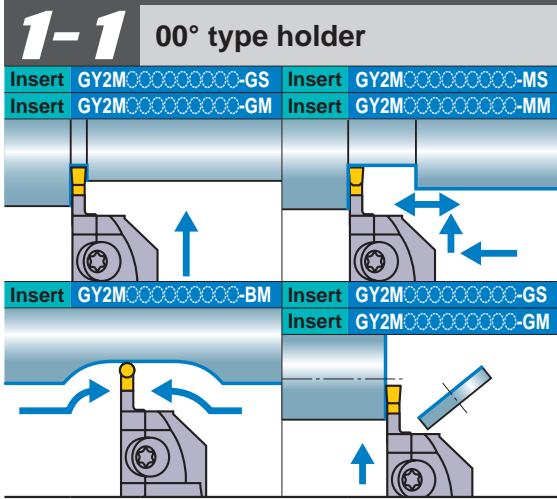
Seat Size	Breaker	GU	GS	GM	05-GM	GFGS
		Neutral	Neutral	Neutral	Hand	Neutral
D	CW	.079", 2.00 mm	●	●		●
		.094", 2.39 mm	●	●	●	●
E	CW	.098", 2.50 mm	●	●	●	●
		.118", 3.00 mm	●	●	●	●
F	CW	.125", 3.18 mm	●	●	●	●
		.157", 4.00 mm	●	●	●	●
G	CW	.187", 4.75 mm	●	●	●	●
		.197", 5.00 mm	●	●	●	●
H	CW	.236", 6.00 mm	●	●	●	●
		.250", 6.35 mm	●	●	●	●

For Multifunctional Grooving > P7, P8

Seat Size	Breaker	MF	MS	MM	BM
					Ball nose
D	CW	.079", 2.00 mm	●	●	●
		.088", 2.24 mm	●		
E	CW	.094", 2.39 mm	●		
		.098", 2.50 mm	●	●	●
F	CW	.108", 2.74 mm	●		
		.118", 3.00 mm	●	●	●
G	CW	.125", 3.18 mm	●		●
		.128", 3.24 mm	●		
H	CW	.157", 4.00 mm	●	●	●
		.167", 4.24 mm	●		
J	CW	.187", 4.75 mm	●		●
		.197", 5.00 mm	●	●	●
J	CW	.206", 5.24 mm	●		
		.236", 6.00 mm	●	●	●
J	CW	.248", 6.31 mm	●		
		.250", 6.35 mm	●		●
	Ball nose				◇

● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL GROOVING)



Right hand tool holder shown.

Seat Size	CW (inch)	CDX (inch)	CUTDIA (inch)	Hand (R/L)	Order Number		Fig.	Dimensions (inch) *3							
					Holder	Stock		H	B	LF	LH	LH 2	HF	WF	HBH
K	.315	.984 *1	1.968 *2	R	<b>GYPRUS16D00-K25</b>	●	I	1.000	1.000	6.000	1.850	1.875	1.000	1.161	.260
				L	<b>GYPLUS16D00-K25</b>	●	I	1.000	1.000	6.000	1.850	1.875	1.000	1.161	.260
				R	<b>GYPRUS20D00-K25</b>	●	K	1.250	1.250	7.000	1.850	2.875	1.250	1.377	—
				L	<b>GYPLUS20D00-K25</b>	●	K	1.250	1.250	7.000	1.850	2.875	1.250	1.377	—

Seat Size	CW (mm)	CDX (mm)	CUTDIA (mm)	Hand (R/L)	Order Number		Fig.	Dimensions (mm) *3							
					Holder	Stock		H	B	LF	LH	LH 2	HF	WF	HBH
K	8.00	25 *1	50 *2	R	<b>GYPR2525M00-K25</b>	●	I	25	25	150	47	48	25	28	7
				L	<b>GYPL2525M00-K25</b>	●	I	25	25	150	47	48	25	28	7
				R	<b>GYPR3225P00-K25</b>	●	J	32	25	170	47	48	32	28	—
				L	<b>GYPL3225P00-K25</b>	●	J	32	25	170	47	48	32	28	—
				R	<b>GYPR3232P00-K25</b>	●	K	32	32	170	47	48	32	35	—
				L	<b>GYPL3232P00-K25</b>	●	K	32	32	170	47	48	32	35	—

\*1 The maximum groove depth varies according to the insert used. Please refer to the maximum groove depth of inserts on pages 6 to 8.  
 \*2 The maximum cut off diameter (CUTDIA) varies according to the insert used. The cut off diameter is double the maximum groove depth (CDX) of inserts on pages 6 to 8.  
 \*3 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, LH 2 and WF values may vary.

## Select an Insert

Seat Size	Insert Number
K	<b>GY○○0800K○○○○-Breaker</b>

For Grooving/Cutting off > P6, P7		GU	GS	GM	05-GM	GFGS
Seat Size	Breaker	Neutral	Neutral	Neutral	Hand	Neutral
	CW	Neutral	Neutral	Neutral	Hand	Neutral
K	.315", 8.00mm	●	●	●		

For Multifunctional Grooving > P7, P8		MF	MS	MM	BM
Seat Size	Breaker				Ball nose
	CW				Ball nose
K	.315", 8.00mm		●	●	●
	RE .031"		●	●	
	RE .047"			●	

● : Gauge insert shown dimensions

● : Inventory maintained.

## SPARE PARTS

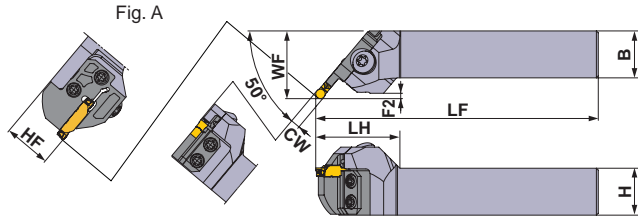
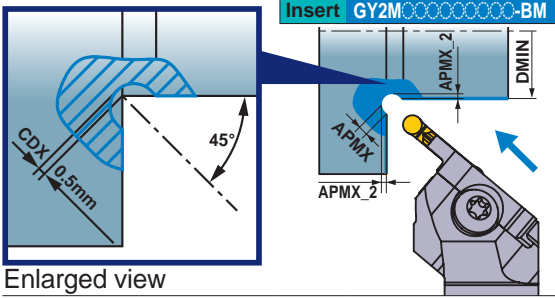
Holder Number		
	Clamp Screw	Wrench
<b>GYPR/L○○○○○○○○00-K25</b>	GY06013M (Clamp Torque : 53 lbf-in)	TKY30R



# GY SERIES (EXTERNAL RECESSING)

## 3-1 50° type holder (Inch)

(Note 1) For modular blades and holders, please order separately.  
 (Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.

Seat Size	CW (inch)	CDX (inch)	DMIN (inch)	APMX (inch)	APMX_2 (inch)	Type	Hand (R/L)	Order Number				Fig.
								Holder	Stock	Modular Blade	Stock	
D	.079 .088		1.181	.059	.025	Modular	R	GYHRUS12C50-M20L	●	GYM20LC-D005	●	A
							L	GYHLUS12C50-M20R	●	GYM20RC-D005	●	A
						Modular	R	GYHRUS16D50-M25L	●	GYM25LC-D005	●	A
							L	GYHLUS16D50-M25R	●	GYM25RC-D005	●	A
E	.094 .098 .108			.069	.028	Modular	R	GYHRUS12C50-M20L	●	GYM20LC-E005	●	A
							L	GYHLUS12C50-M20R	●	GYM20RC-E005	●	A
						Modular	R	GYHRUS16D50-M25L	●	GYM25LC-E005	●	A
							L	GYHLUS16D50-M25R	●	GYM25RC-E005	●	A
F	.118 .125 .128	.020		.082	.032	Modular	R	GYHRUS12C50-M20L	●	GYM20LC-F005	●	A
							L	GYHLUS12C50-M20R	●	GYM20RC-F005	●	A
						Modular	R	GYHRUS16D50-M25L	●	GYM25LC-F005	●	A
							L	GYHLUS16D50-M25R	●	GYM25RC-F005	●	A
G	.157 .167			.098	.037	Modular	R	GYHRUS12C50-M20L	●	GYM20LC-G005	●	A
							L	GYHLUS12C50-M20R	●	GYM20RC-G005	●	A
						Modular	R	GYHRUS16D50-M25L	●	GYM25LC-G005	●	A
							L	GYHLUS16D50-M25R	●	GYM25RC-G005	●	A
H	.187 .197 .206		.787	.113	.041	Modular	R	GYHRUS12C50-M20L	●	GYM20LC-H005	●	A
							L	GYHLUS12C50-M20R	●	GYM20RC-H005	●	A
						Modular	R	GYHRUS16D50-M25L	●	GYM25LC-H005	●	A
							L	GYHLUS16D50-M25R	●	GYM25RC-H005	●	A
J	.236 .248 .250			.144	.051	Modular	R	GYHRUS16D50-M25L	●	GYM25LC-J005	●	A
							L	GYHLUS16D50-M25R	●	GYM25RC-J005	●	A




\*1 Blades for external and face grooving cannot be used since it interferes with work materials.

\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, WF and F2 values may vary.

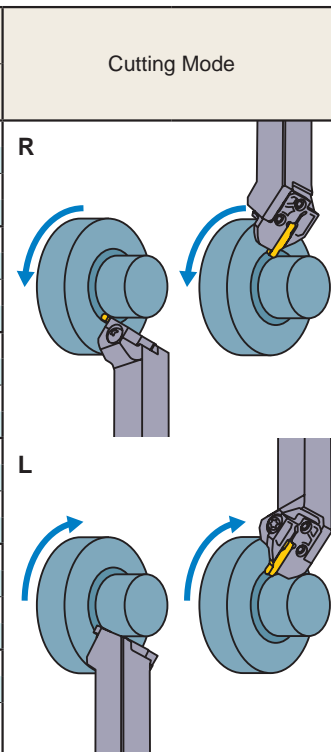
● : Inventory maintained.



★ Wrench : ① : Clamp Screw, ② : Blade Screw

SPARE PARTS			
Holder Number		 5 pcs.	
	Clamp Screw	Blade Screw	Wrench *
GYHR/LUS12C50-M20R/L	GY06013M (Clamp Torque : 53 lbf-in)	TS407 (Clamp Torque : 31 lbf-in)	①TKY30R ②TKY25D
GYHR/LUS16D50-M25R/L		TS55 (Clamp Torque : 44 lbf-in)	①TKY30R ②TKY25D

	Dimensions (inch) *2						
	H	B	LF	LH	HF	WF	F2
	.750	.750	5.007	1.632	.750	1.232	.076
	.750	.750	5.007	1.632	.750	1.232	.076
	1.000	1.000	6.007	1.819	1.000	1.357	.076
	1.000	1.000	6.007	1.819	1.000	1.357	.076
	.750	.750	5.003	1.628	.750	1.241	.084
	.750	.750	5.003	1.628	.750	1.241	.084
	1.000	1.000	6.003	1.815	1.000	1.366	.084
	1.000	1.000	6.003	1.815	1.000	1.366	.084
	.750	.750	5.000	1.625	.750	1.250	.094
	.750	.750	5.000	1.625	.750	1.250	.094
	1.000	1.000	6.000	1.813	1.000	1.375	.094
	1.000	1.000	6.000	1.813	1.000	1.375	.094
	.750	.750	4.989	1.614	.750	1.265	.109
	.750	.750	4.989	1.614	.750	1.265	.109
	1.000	1.000	5.989	1.802	1.000	1.390	.109
	1.000	1.000	5.989	1.802	1.000	1.390	.109
	.750	.750	4.980	1.605	.750	1.281	.125
	.750	.750	4.980	1.605	.750	1.281	.125
	1.000	1.000	5.980	1.792	1.000	1.406	.125
	1.000	1.000	5.980	1.792	1.000	1.406	.125
	1.000	1.000	5.978	1.791	1.000	1.429	.148
	1.000	1.000	5.978	1.791	1.000	1.429	.148



Select an Insert

Insert Number
GY2M○○○○○○○○N-BM

For Multifunctional Grooving > P7, P8		
Seat Size	Breaker	BM
	CW	Ball nose
D	.079", 2.00mm	●
E	.098", 2.50mm	●
F	.118", 3.00mm	●
	.125", 3.18mm	●
G	.157", 4.00mm	●
H	.187", 4.75mm	●
	.197", 5.00mm	●
J	.236", 6.00mm	●
	.250", 6.35mm	●

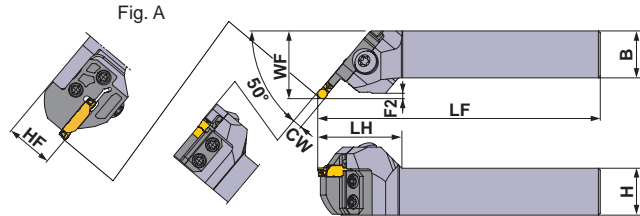
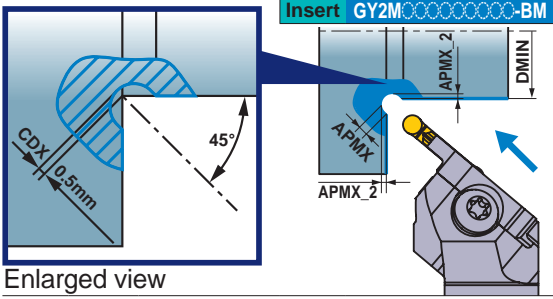
● : Gauge insert shown dimensions

# GY SERIES (EXTERNAL RECESSING)

## 3-2 50° type holder (Metric)

(Note 1) For modular blades and holders, please order separately.

(Note 2) Please use left hand modular blade for right hand holder and right hand modular blade for left hand holder.



Right hand tool holder shown.




Seat Size	CW (mm)	CDX (mm)	DMIN (mm)	APMX (mm)	APMX_2 (mm)	Type	Hand (R/L)	Order Number				Fig.
								Holder	Stock	Modular Blade	Stock	
D	2.00	0.5	30	1.5	0.646	Modular	R	<b>GYHR2020K50-M20L</b>	●	<b>GYM20LC-D005</b>	●	A
						L	<b>GYHL2020K50-M20R</b>	●	<b>GYM20RC-D005</b>	●	A	
Modular	R			<b>GYHR2525M50-M25L</b>	●	<b>GYM25LC-D005</b>	●	A				
	L			<b>GYHL2525M50-M25R</b>	●	<b>GYM25RC-D005</b>	●	A				
E	2.50			1.75	0.72	Modular	R	<b>GYHR2020K50-M20L</b>	●	<b>GYM20LC-E005</b>	●	A
						L	<b>GYHL2020K50-M20R</b>	●	<b>GYM20RC-E005</b>	●	A	
Modular	R			<b>GYHR2525M50-M25L</b>	●	<b>GYM25LC-E005</b>	●	A				
	L			<b>GYHL2525M50-M25R</b>	●	<b>GYM25RC-E005</b>	●	A				
F	3.00 3.18			2	0.793	Modular	R	<b>GYHR2020K50-M20L</b>	●	<b>GYM20LC-F005</b>	●	A
						L	<b>GYHL2020K50-M20R</b>	●	<b>GYM20RC-F005</b>	●	A	
Modular	R			<b>GYHR2525M50-M25L</b>	●	<b>GYM25LC-F005</b>	●	A				
	L			<b>GYHL2525M50-M25R</b>	●	<b>GYM25RC-F005</b>	●	A				
G	4.00	2.5	0.939	Modular	R	<b>GYHR2020K50-M20L</b>	●	<b>GYM20LC-G005</b>	●	A		
				L	<b>GYHL2020K50-M20R</b>	●	<b>GYM20RC-G005</b>	●	A			
Modular	R	<b>GYHR2525M50-M25L</b>	●	<b>GYM25LC-G005</b>	●	A						
	L	<b>GYHL2525M50-M25R</b>	●	<b>GYM25RC-G005</b>	●	A						
H	4.75 5.00	2.88	1.049	Modular	R	<b>GYHR2020K50-M20L</b>	●	<b>GYM20LC-H005</b>	●	A		
				L	<b>GYHL2020K50-M20R</b>	●	<b>GYM20RC-H005</b>	●	A			
Modular	R	<b>GYHR2525M50-M25L</b>	●	<b>GYM25LC-H005</b>	●	A						
	L	<b>GYHL2525M50-M25R</b>	●	<b>GYM25RC-H005</b>	●	A						
J	6.00 6.35	3.5	1.232	Modular	R	<b>GYHR2525M50-M25L</b>	●	<b>GYM25LC-J005</b>	●	A		
				L	<b>GYHL2525M50-M25R</b>	●	<b>GYM25RC-J005</b>	●	A			

\*1 Blades for external and face grooving cannot be used since it interferes with work materials.

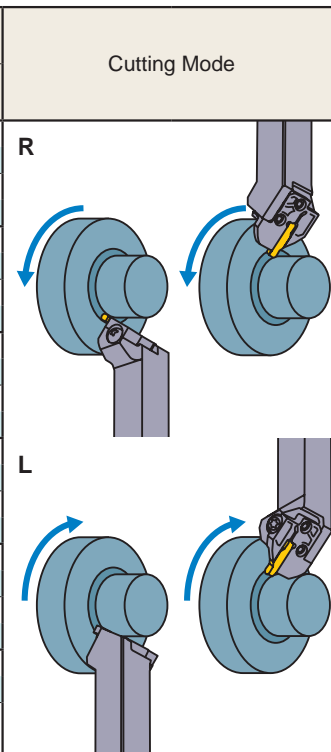
\*2 Dimensions shown are when the gauge insert is used. If other insert geometries are used then LF, LH, WF and F2 values may vary.

● : Inventory maintained.

★ Wrench : ① : Clamp Screw, ② : Blade Screw

SPARE PARTS			
Holder Number		 5 pcs.	
	Clamp Screw	Blade Screw	Wrench *
<b>GYHR/L2020K50-M20R/L</b>	GY06013M (Clamp Torque : 53 lbf-in)	TS407 (Clamp Torque : 31 lbf-in)	①TKY30R ②TKY25D
<b>GYHR/L2525M50-M25R/L</b>		TS55 (Clamp Torque : 44 lbf-in)	①TKY30R ②TKY25D

	Dimensions (mm) *2						
	H	B	LF	LH	HF	WF	F2
	20	20	125	40	20	32	1.6
	20	20	125	40	20	32	1.6
	25	25	150	45	25	35	1.6
	25	25	150	45	25	35	1.6
	20	20	125	40	20	32	1.8
	20	20	125	40	20	32	1.8
	25	25	150	45	25	35	1.8
	25	25	150	45	25	35	1.8
	20	20	125	40	20	32	2.0
	20	20	125	40	20	32	2.0
	25	25	150	45	25	35	2.0
	25	25	150	45	25	35	2.0
	20	20	125	40	20	32	2.4
	20	20	125	40	20	32	2.4
	25	25	150	45	25	35	2.4
	25	25	150	45	25	35	2.4
	20	20	125	40	20	33	2.8
	20	20	125	40	20	33	2.8
	25	25	150	45	25	36	2.8
	25	25	150	45	25	36	2.8
	25	25	150	44	25	36	3.4
	25	25	150	44	25	36	3.4



Select an Insert

Insert Number
GY2M○○○○○○○○N-BM

For Multifunctional Grooving > P7, P8		
Seat Size	Breaker	BM
	CW	Ball nose
D	.079", 2.00mm	●
E	.098", 2.50mm	●
F	.118", 3.00mm	●
	.125", 3.18mm	●
G	.157", 4.00mm	●
H	.187", 4.75mm	●
	.197", 5.00mm	●
J	.236", 6.00mm	●
	.250", 6.35mm	●

● : Gauge insert shown dimensions

**RECOMMENDED CUTTING SPEED (SFM) [For External Grooving]**

Work Material	Hardness	Grade	Cutting Speed (SFM)						
			165	330	490	655	820	985	
P Mild Steel Carbon Steel Alloy Steel	≤160HB	VP20RT		330		720			
		VP10RT		360		755			
		NX2525		295		690			
		160–280HB	VP20RT		260		590		
			VP10RT		295		620		
			MY5015		360		820		
	280HB≤	VP20RT		195		460			
		VP10RT		230		490			
		MY5015		295		690			
		NX2525		180		440			
		M Stainless Steel	≤270HB	VP20RT		195		460	
			VP10RT		230		490		
K Gray Cast Iron Ductile Cast Iron	Tensile Strength ≤300MPa	VP20RT		260		590			
		VP10RT		295		620			
		MY5015		460		985			
	Tensile Strength ≤800MPa	VP20RT		195		460			
		VP10RT		230		490			
		MY5015		295		690			
S Heat Resistant Alloy Titanium Alloy	—	VP20RT	100	195					
		VP10RT	130	230					
		RT9010	130	230					
H Hardened steel	50HRC≤	BC8110/ MB8025		260	395				

(Note 1) VP20RT is the first recommended grade for materials other than hardened steel.

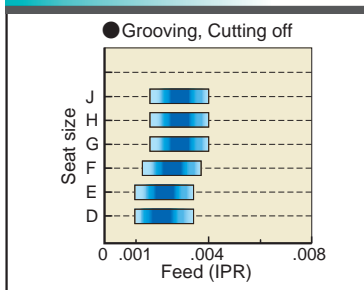
(Note 2) For VP10RT, VP20RT and MY5015, wet cutting is recommended.

**RECOMMENDED CUTTING CONDITIONS [For External Grooving]**

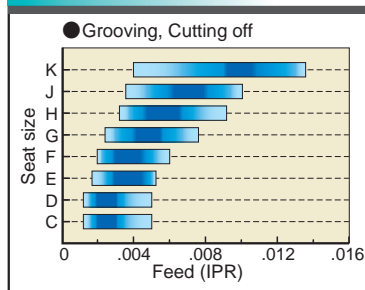
\*Below are the recommended cutting conditions when using the modular type holder GYHR/L2525M00/90-M25R/L with the modular blade GYM25R/LA-○○○.

**Recommended feed rate and depth of cut**

**GU BREAKER**

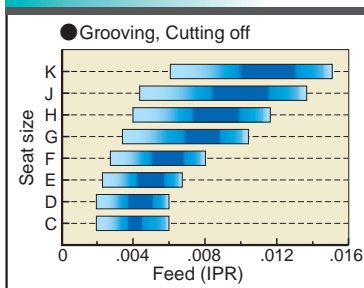


**GS BREAKER**

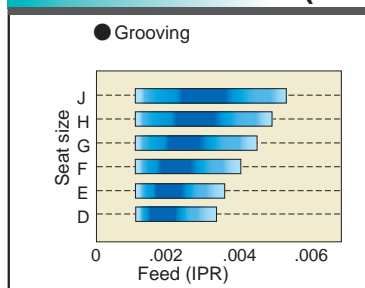


■ : 1st recommended area

**GM BREAKER**



**FLAT TOP GFGS (CBN)**



Seat Size	
Insert Width	
C	.059", 1.50mm
D	.079", 2.00mm
	.088", 2.24mm
E	.094", 2.39mm
	.098", 2.50mm
F	.108", 2.74mm
	.118", 3.00mm
G	.125", 3.18mm
	.128", 3.24mm
H	.157", 4.00mm
	.167", 4.24mm
J	.187", 4.75mm
	.197", 5.00mm
K	.206", 5.24mm
	.236", 6.00mm
K	.248", 6.31mm
	.250", 6.35mm
K	.315", 8.00mm

## MF BREAKER

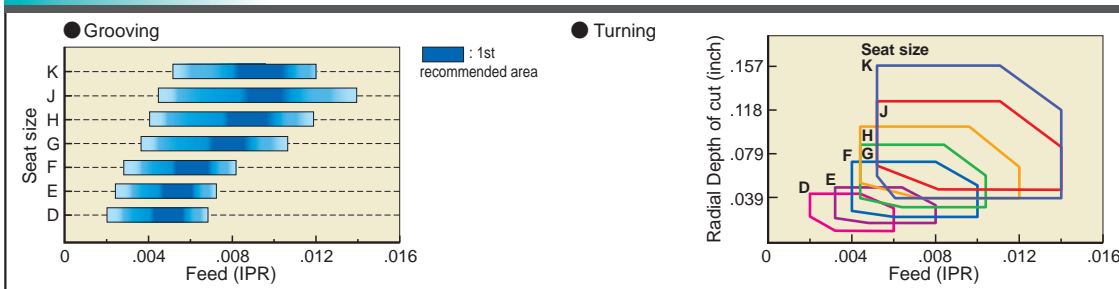


Seat Size	Insert Width
C	.059", 1.50mm
D	.079", 2.00mm .088", 2.24mm
E	.094", 2.39mm .098", 2.50mm .108", 2.74mm
F	.118", 3.00mm .125", 3.18mm .128", 3.24mm
G	.157", 4.00mm .167", 4.24mm
H	.187", 4.75mm .197", 5.00mm .206", 5.24mm
J	.236", 6.00mm .248", 6.31mm
K	.250", 6.35mm .315", 8.00mm

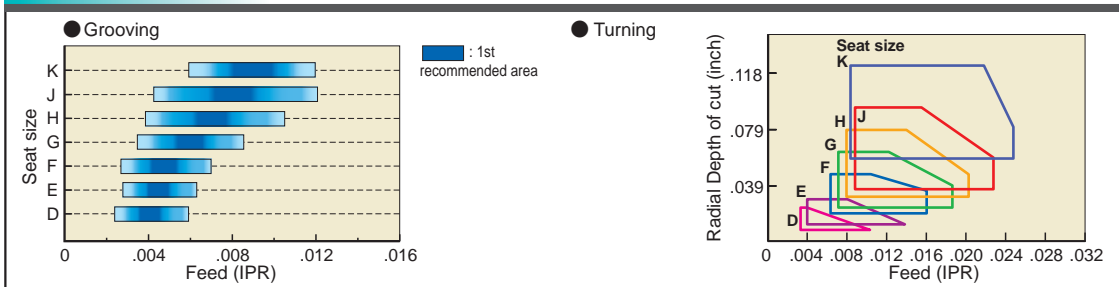
## MS BREAKER



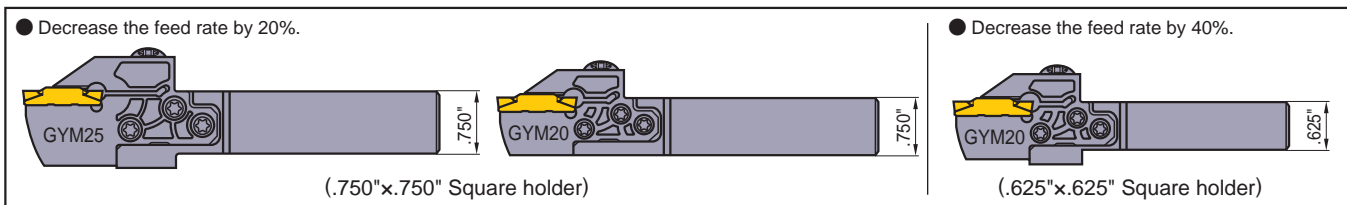
## MM BREAKER



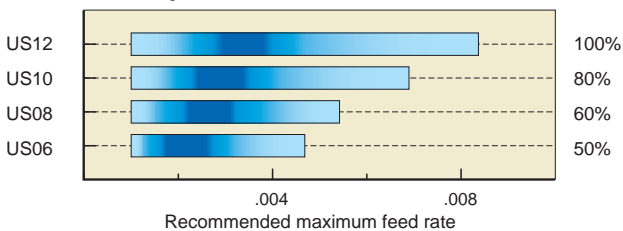
## BM BREAKER



(Note) When using a combination as shown below, decrease the recommended feed rate by 20% and 40% respectively.



## For Swiss style lathes mono block holder



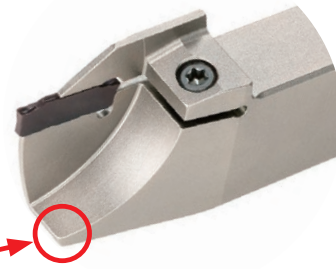
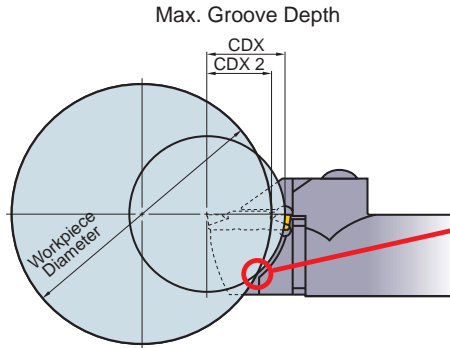
Please refer to the tables above of recommended cutting conditions for external grooving. Apply the percentage ratio shown of each shank size to the values in those tables.



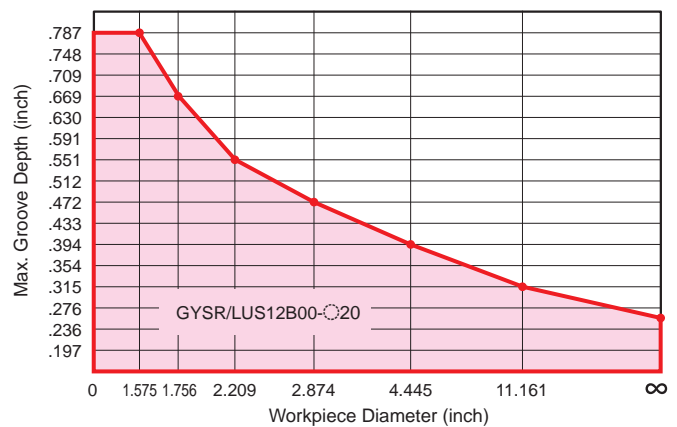
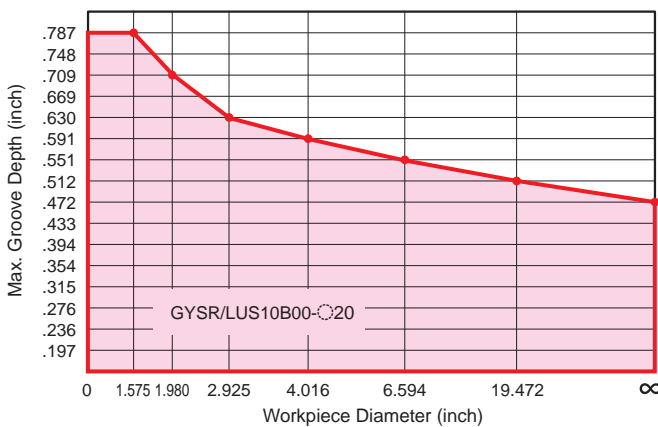
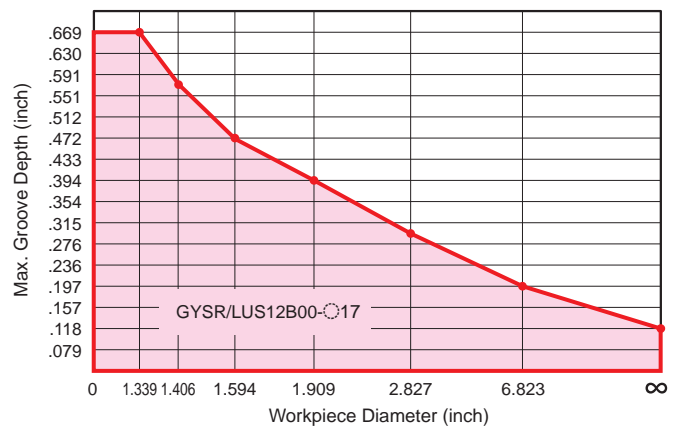
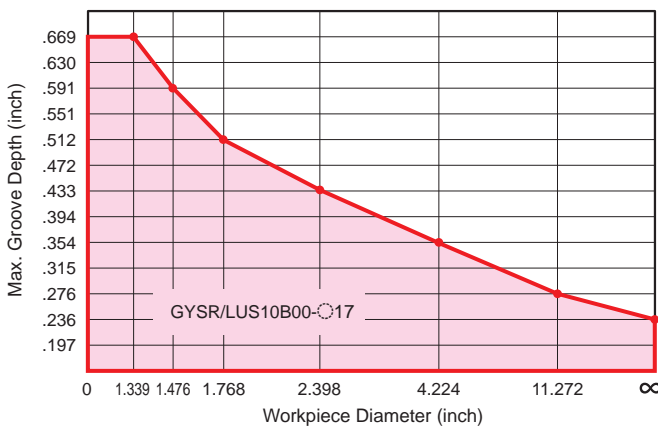
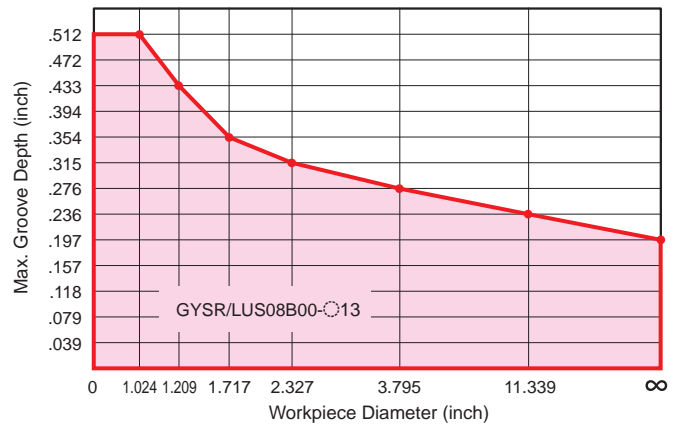
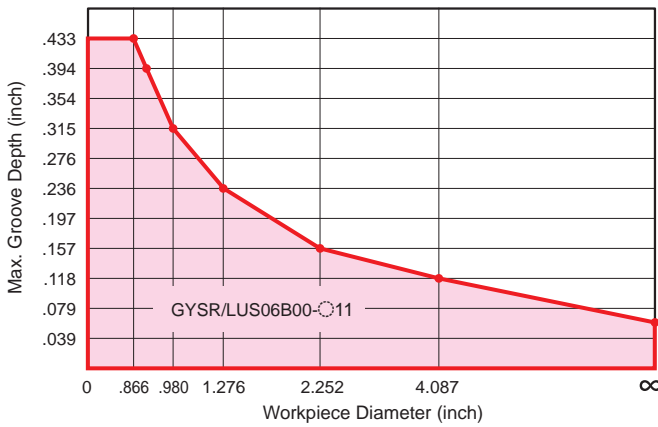
## LIMITATION OF THE MAXIMUM GROOVE DEPTH [For External Grooving]

### •For Swiss style lathes mono block holder

The maximum groove depth is limited by the workpiece diameter.

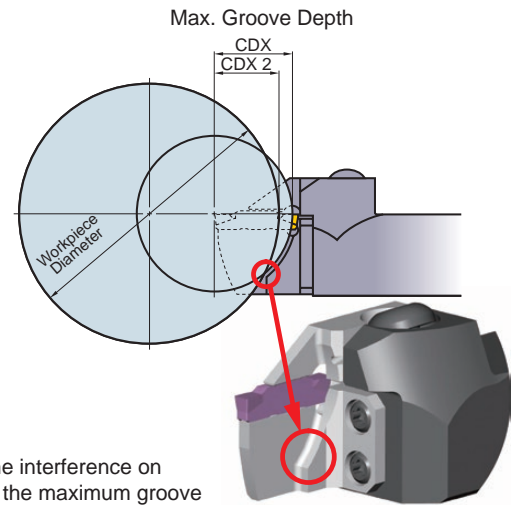
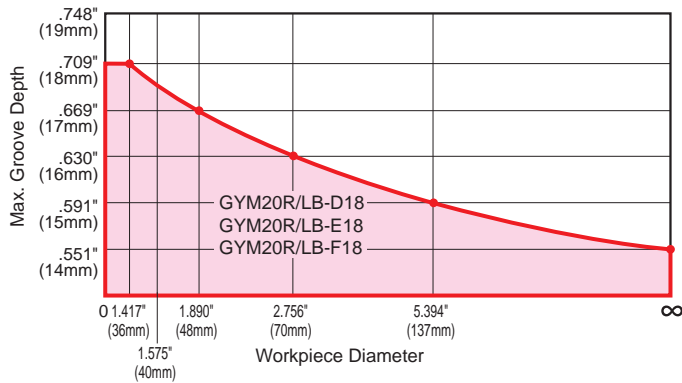


Due to the interference on this part, the maximum groove depth is limited by the workpiece diameter.



## LIMITATION OF THE MAXIMUM GROOVE DEPTH [For External Grooving]

- **When using the modular blade GYM<sup>®</sup>OR/LA-<sup>○</sup><sup>○</sup><sup>○</sup>**  
The maximum groove depth is not limited by the workpiece diameter.
- **When using the modular blade GYM<sup>®</sup>OR/LB-<sup>○</sup><sup>○</sup><sup>○</sup>**  
The maximum groove depth is limited by the workpiece diameter.



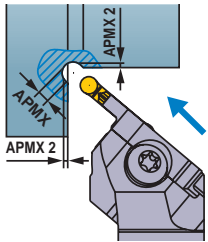
Due to the interference on this part, the maximum groove depth is limited by the workpiece diameter.

## RECOMMENDED CUTTING SPEED (SFM) [For External Recessing]

Work Material	Hardness	Grade	Cutting Speed (SFM)					
			165	330	490	655	820	
P Mild Steel	≤180HB	VP20RT		260	590			
		VP10RT		295	620			
	180–280HB	VP20RT	195	460				
		VP10RT	230	490				
		MY5015		295	690			
		NX2525	180	440				
		280–350HB	VP20RT	165	360			
			VP10RT	195	395			
MY5015			260	525				
NX2525	150	345						
M Stainless Steel	≤350HB	VP20RT	165	360				
		VP10RT	195	395				
K Gray Cast Iron	Tensile Strength ≤350MPa	VP20RT	195	460				
		VP10RT	230	490				
		MY5015		295	690			
	Ductile Cast Iron	Tensile Strength ≤800MPa	VP20RT	165	360			
			VP10RT	195	395			
			MY5015		260	525		
S Titanium Alloy	—	VP20RT	100	195				
		VP10RT	130	230				
	Heat Resistant Alloy	—	VP20RT	100	195			
			VP10RT	130	230			

(Note 1) VP20RT is the first recommended grade for materials other than hardened steel.  
 (Note 2) For VP10RT, VP20RT and MY5015, wet cutting is recommended.

## DISTANCE FROM THE WORKPIECE TO THE RECESS DEPTH

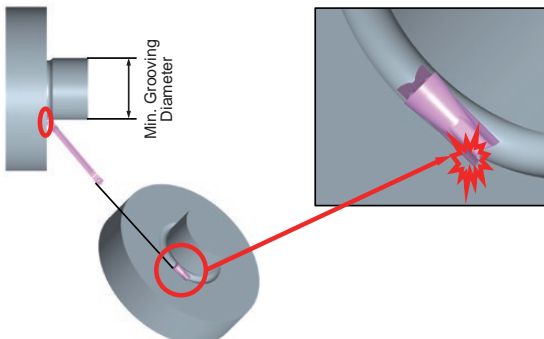


Grooving Width CW	Recessing Depth APMX	Distance workpiece to the recess depth APMX 2
.079", 2.00mm	.059", 1.50mm	.025", 0.646mm
.098", 2.50mm	.069", 1.75mm	.028", 0.720mm
.118", 3.00mm	.079", 2.00mm	.031", 0.793mm
.125", 3.18mm	.082", 2.09mm	.032", 0.819mm
.157", 4.00mm	.098", 2.50mm	.037", 0.939mm
.187", 4.75mm	.113", 2.88mm	.041", 1.049mm
.197", 5.00mm	.118", 3.00mm	.043", 1.086mm
.236", 6.00mm	.138", 3.50mm	.049", 1.232mm
.250", 6.35mm	.145", 3.68mm	.051", 1.283mm

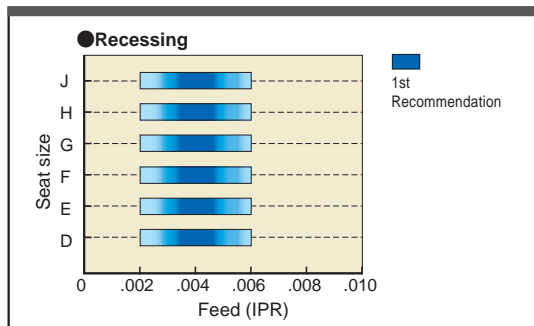
## BM BREAKER

### Minimum grooving diameter

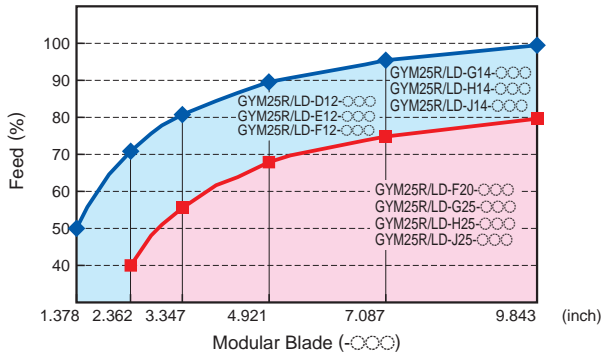
Ensure the tool is suitable for the diameter being machined. Refer to the Min. Grooving Diameter as shown in the table on the first page to avoid a collision with the workpiece as shown below.



### Recommended feed rate and depth of cut



## RELATIONSHIP BETWEEN THE MODULAR BLADE AND FEED PER ROTATION [For Face Grooving]



(Note) Adjust the feed per rotation in the cutting conditions to the percentage shown in the table above.

## RECOMMENDED CUTTING SPEED (SFM) [For Face Grooving]

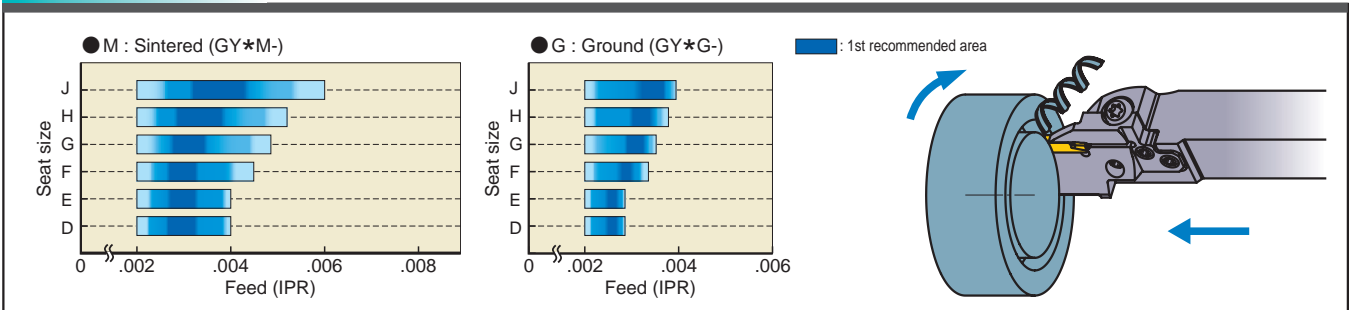
Work Material	Hardness	Grade	Cutting Speed (SFM)					
			165	330	490	655	820	985
P Mild Steel	≤160HB	VP20RT		260	590			
		VP10RT		295	620			
		NX2525	230	560				
	Carbon Steel Alloy Steel	160–280HB	VP20RT	195	460			
			VP10RT	230	490			
			MY5015	295	690			
		280HB≤	VP20RT	165	360			
			VP10RT	195	395			
			MY5015	260	525			
M Stainless Steel	≤270HB	VP20RT	165	360				
		VP10RT	195	395				
K Gray Cast Iron	Tensile Strength ≤300MPa	VP20RT	195	460				
		VP10RT	230	490				
		MY5015	295	690				
	Ductile Cast Iron	Tensile Strength ≤800MPa	VP20RT	165	360			
			VP10RT	195	395			
			MY5015	260	525			
S Heat Resistant Alloy Titanium Alloy	—	VP20RT	100	195				
		VP10RT	130	230				
		RT9010	130	230				
H Hardened steel	50HRC≤	BC8110/ MB8025	195	330				

(Note 1) VP20RT is the first recommended grade for materials other than hardened steel.

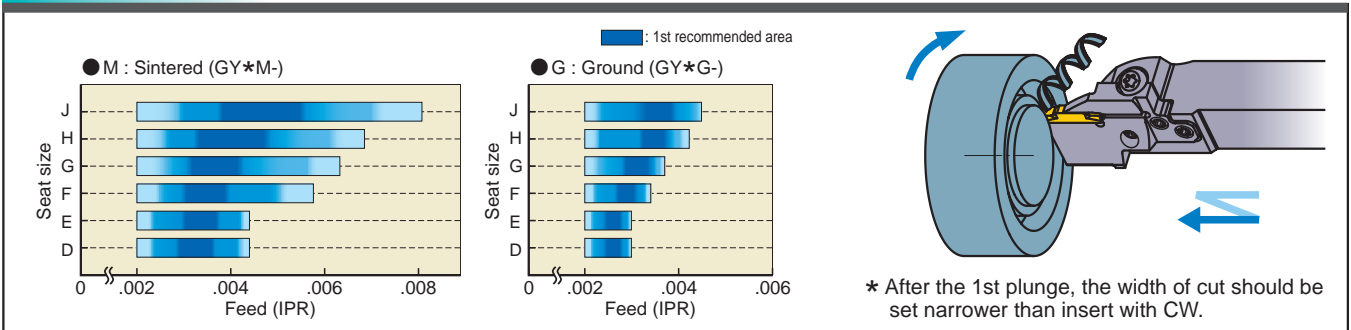
(Note 2) For VP10RT, VP20RT and MY5015, wet cutting is recommended.

RECOMMENDED CUTTING CONDITIONS [For Face Grooving]

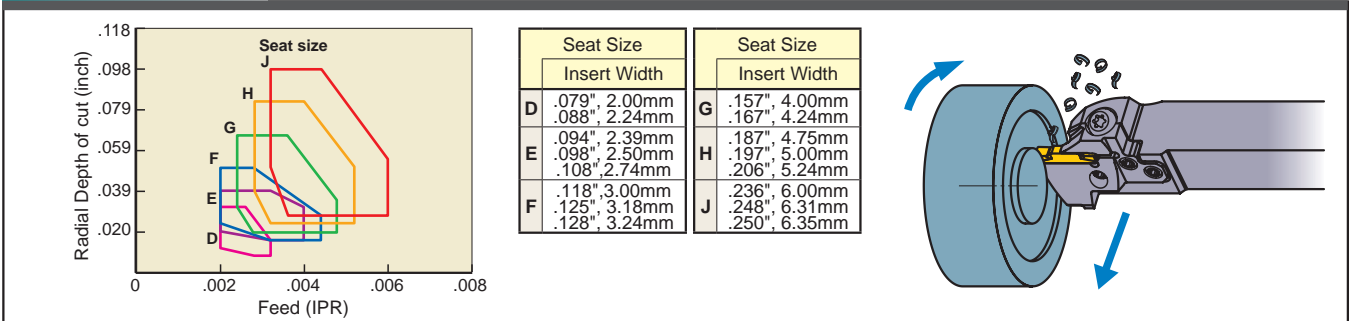
GROOVING



PLUNGING



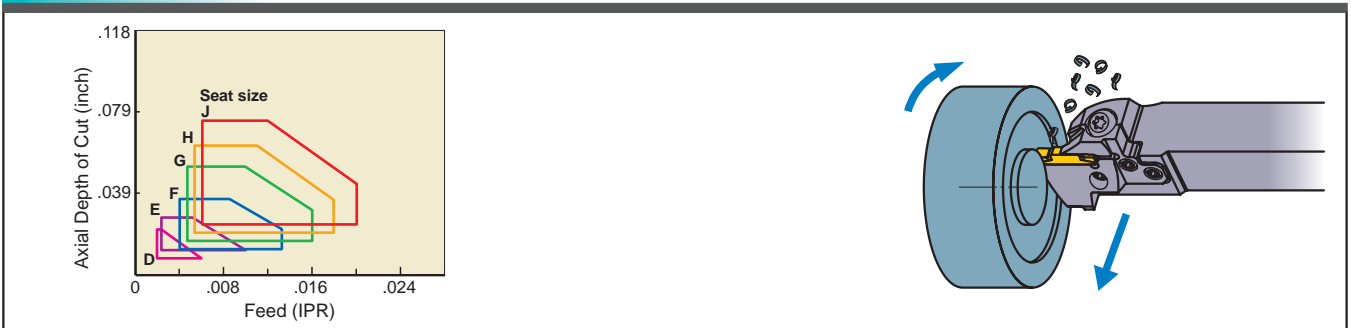
TRAVERSE MACHINING (MF BREAKER)



TRAVERSE MACHINING (MM/MS BREAKER)



TRAVERSE MACHINING (BM BREAKER)





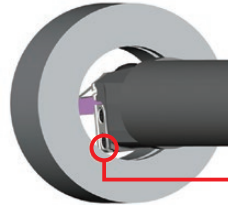
## LIMITATION OF THE MAXIMUM GROOVE DEPTH [For Internal Grooving]

### •When using the mono block type

The maximum groove depth is not limited by the cutting diameter.

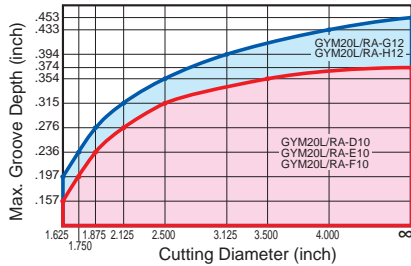
### •When using the modular blade type

The maximum groove depth is limited by the cutting diameter.

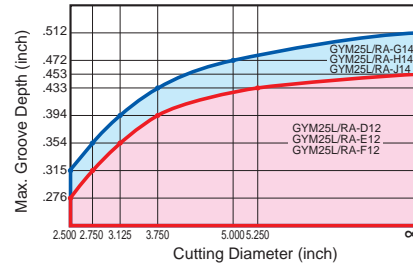


Due to interference of this part, the maximum groove depth is limited by the cutting diameter.

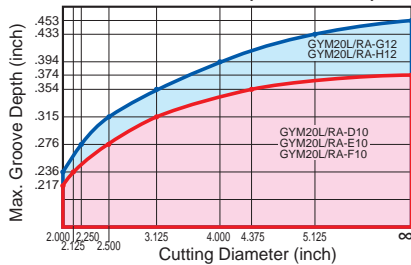
Shank Diameter=1.250inch (GYM20 Blade)



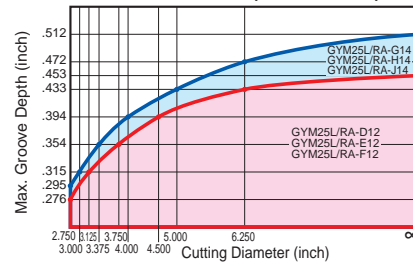
Shank Diameter=1.500inch (GYM25 Blade)



Shank Diameter=1.500inch (GYM20 Blade)



Shank Diameter=2.000inch (GYM25 Blade)



## RECOMMENDED CUTTING SPEED (SFM) [For Internal Grooving]

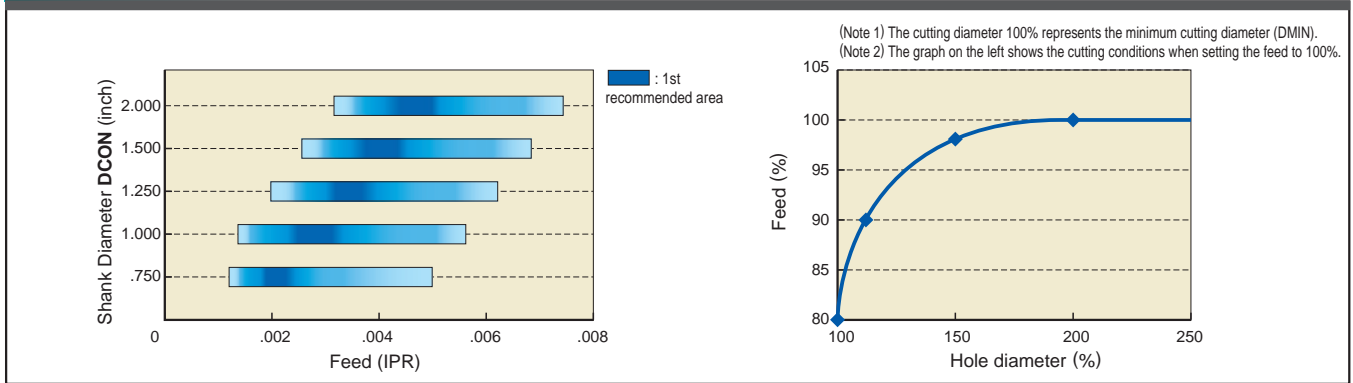
Work Material	Hardness	Grade	Cutting Speed (SFM)						
			165	330	490	655	820	985	
P Mild Steel	≤160HB	VP20RT		260	590				
		VP10RT		295	620				
		NX2525		230	560				
	Carbon Steel Alloy Steel	160–280HB	VP20RT		195	460			
			VP10RT		230	490			
			MY5015		295	690			
		280HB≤	NX2525		180	440			
			VP20RT		165	360			
M Stainless Steel	≤270HB	VP10RT		195	395				
		VP20RT		165	360				
K Gray Cast Iron	Tensile Strength ≤300MPa	VP20RT		195	460				
		VP10RT		230	490				
		MY5015		295	690				
	Ductile Cast Iron	Tensile Strength ≤800MPa	VP20RT		165	360			
			VP10RT		195	395			
			MY5015		260	525			
S Heat Resistant Alloy Titanium Alloy	—	VP20RT		100	195				
		VP10RT		130	230				
		RT9010		130	230				
H Hardened steel	50HRC≤	BC8110/ MB8025		195	330				

(Note 1) VP20RT is the first recommended grade for materials other than hardened steel.

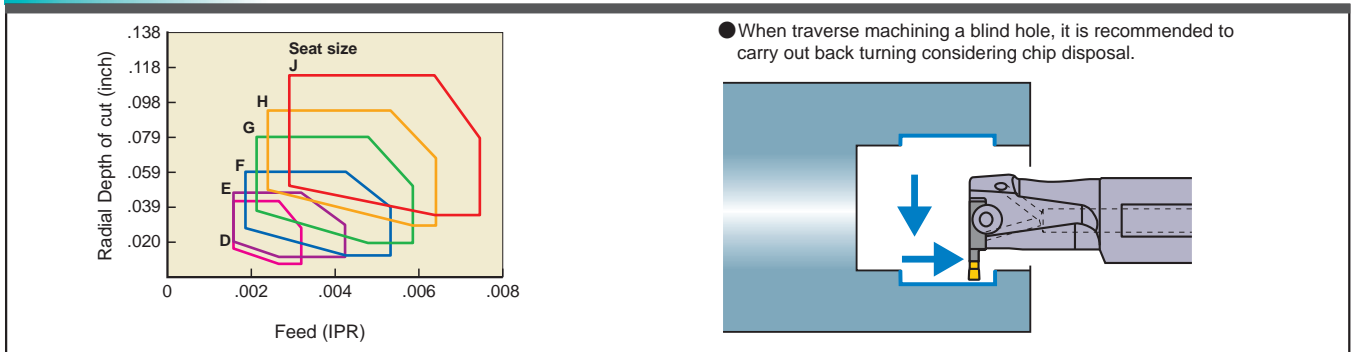
(Note 2) For VP10RT, VP20RT and MY5015, wet cutting is recommended.

## RECOMMENDED CUTTING CONDITIONS [For Internal Grooving]

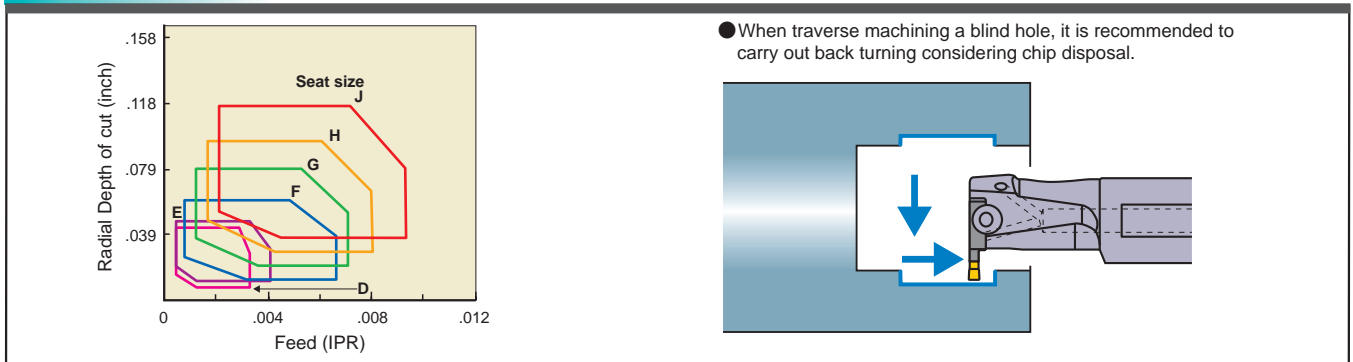
### GROOVING



### TRAVERSE MACHINING (MF BREAKER)

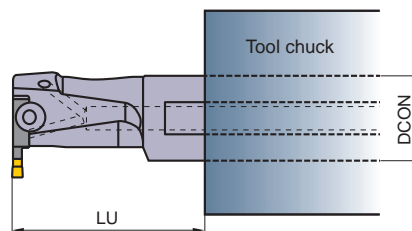


### TRAVERSE MACHINING (MM/MS BREAKER)



(Note) The above cutting conditions are for when using the tool overhang (LU) 1.6-2.0 times larger than the shank diameter (DCON). (L/D=1.6-2.0)  
 When using L/D larger than 2.0, reduce the cutting conditions.

Seat Size	Insert Width	
	D	.079", 2.00mm
E	.094", 2.39mm	.108", 2.74mm
F	.118", 3.00mm	.125", 3.18mm
G	.157", 4.00mm	.167", 4.24mm
H	.187", 4.75mm	.197", 5.00mm
J	.236", 6.00mm	.248", 6.31mm



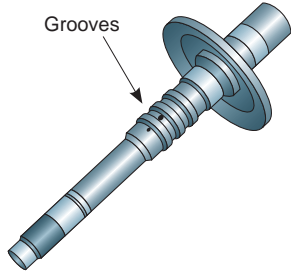
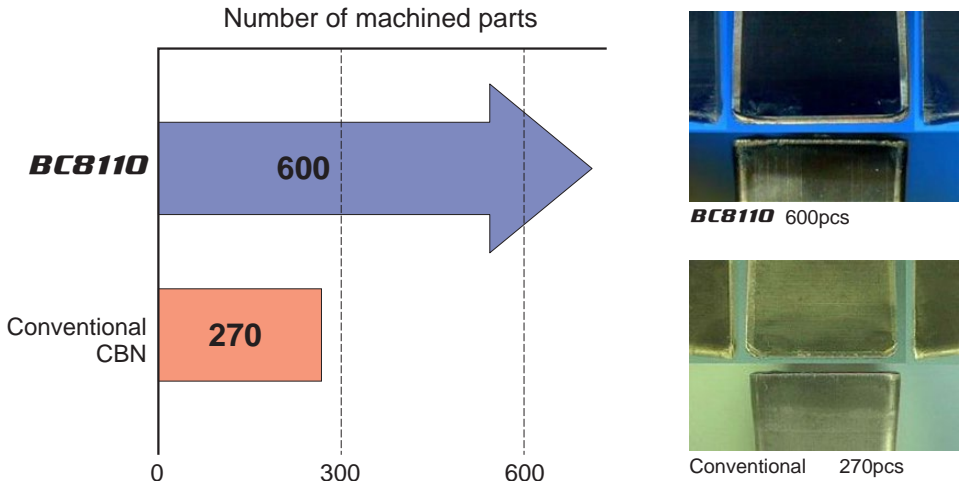
# Memo

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A series of horizontal dotted lines for writing, spanning the width of the page.

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## APPLICATION EXAMPLE

Tool		<b>GY1G0200D020N-GFGS</b>	
Workpiece			
Component		Input shaft	
Cutting Conditions	Cutting Speed (SFM)	425	
	Feed (IPR)	.004	
	Depth of Cut (inch)	.005 (Depth of groove: .087 inch)	
Cutting mode		Wet	
Results		<p style="text-align: center;">Number of machined parts</p> 	

### For your safety

●Don't touch breakers and chips without gloves. ●Please machine within recommended application range, and exchange expired tools with new parts in advance. ●Please use safety cover and wear safety glasses. ●When using compounded cutting oils, please take fire prevention. ●When attaching chips or spare parts, please use the attached wrench or driver. ●When using tools in revolution machining, please make a trial run to check run-out, vibration, abnormal sounds etc.

## MITSUBISHI MATERIALS CORPORATION

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