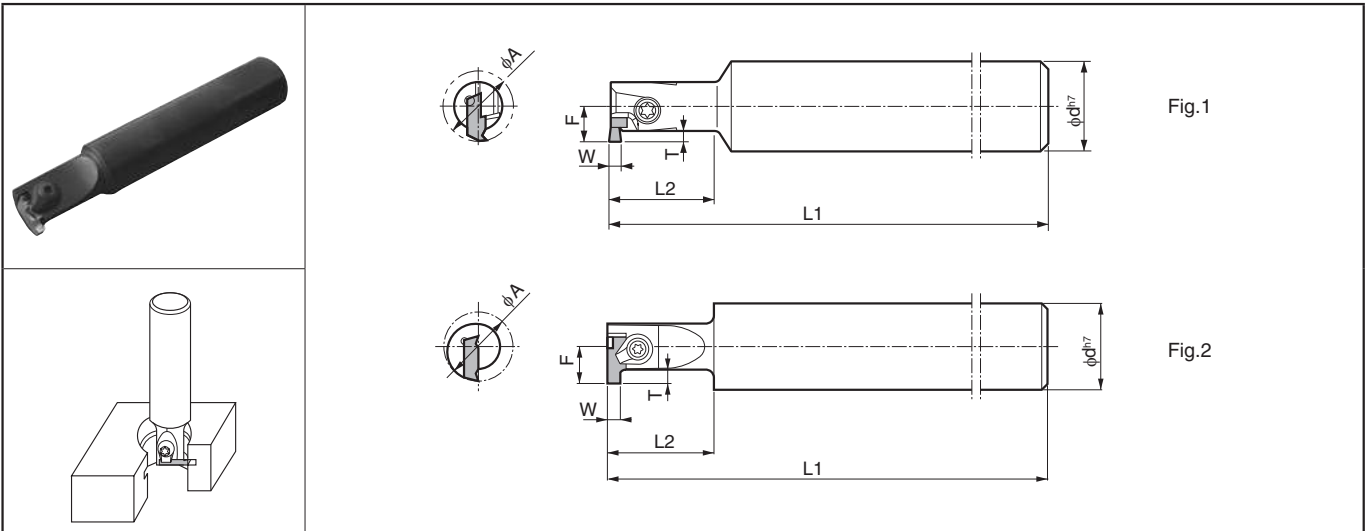


# Grooving End Mill MGI

## MGI



### Toolholder Dimensions

Description	Std.	Min. Bore Dia.	Dimension (mm)					Edge Width	Drawing	Spare Parts			Applicable Inserts ● M193
			φA	φd	L1	L2	F			T	W	Clamp Set	
<b>MGI</b>	1420-1SS	● 14	20	100	20	6.8	2.2	1.0-3.0	Fig.1	-	SB-4065TR	FT-15	GVR...-020SS
	1620-1S	● 16								25	7.8	-	SB-4085TR
	2020-1A	● 20	110	30	9.8	2.2	1.0-3.4	Fig.2	CPS-5F	-	FT-15	GVR...-020A	
	2220-1B	● 22										11	2.8
	3225-1C	● 32	25	120	35	16	5.5 (4.5)	2.8-4.0	Fig.2	CPS-6F	-	LW-3	GVR...-020B
	4025-1C	● 40											40
												GVR...-020C	

• Dimension T shows available grooving depth.

• GVR280-020C, GVR300-020C is available to the groove depth up to 4.5mm.

• GVR430-500-020C can be installed to MGI3225-1C and 4025-1C, but not recommended for steel machining because of toolholder's rigidity.

### Recommended Cutting Conditions

Workpiece Material	fz (mm/t)	Recommended Insert Grades (Cutting Speed Vc: m/min)					
		Cermet			MEGA COAT	PVD Coated Carbide	Carbide
		TN90	TC40N	TC60M	PR1225	PR930	KW10
Carbon Steel	0.05~0.15	★ 120~200	☆ 120~200	☆ 100~180	★ 80~150	☆ 80~150	-
Alloy Steel	0.05~0.15	★ 120~200	☆ 120~200	☆ 100~180	★ 80~150	☆ 80~150	-
Mold Steel	0.03~0.12	★ 100~180	☆ 100~180	☆ 80~150	★ 60~130	☆ 60~130	-
Stainless Steel	0.03~0.12	☆ 100~180	☆ 100~180	★ 80~150	★ 60~130	☆ 60~130	-
Cast Iron	0.05~0.2	★ 100~150	☆ 100~150	-	-	-	★ 80~150
Non-ferrous Metals	0.05~0.2	-	-	-	-	-	★ 100~300

• Use down-cut machining.

★ : 1st Recommendation ☆ : 2nd Recommendation

M

Milling

Inserts

Lead Angle  
45°/20°

Lead Angle  
15°

Lead Angle  
0°

High Feed

Multi-Function

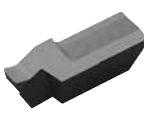
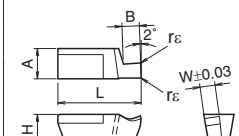

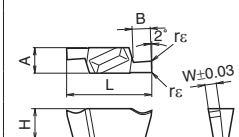
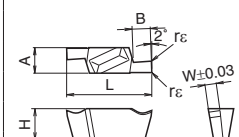
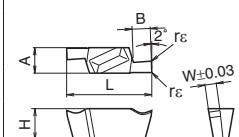
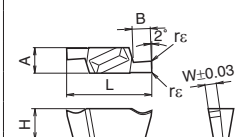
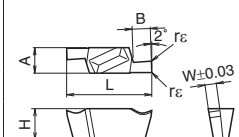
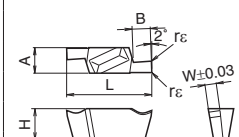
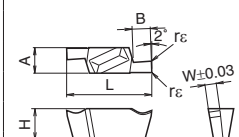
Slot Mill

Ball-nose  
Radius

Others

● : Std. Item

● Applicable Inserts

Insert	Description	Dimension (mm)						Insert Grades										
		W	B	r <sub>ε</sub>	A	L	H	Cermet			MEGA COAT	PVD Coated Carbide	Carbide					
								TN90	TC40N	TC60M	PR1225	PR930	KW10					
Handed Insert shows Right-hand																		
 1-edge		GVR 100-020SS	1.00	2.3	0.2	3.6	9	3.0	●		●	●	●	●				
		GVR 125-020SS	1.25						●		●	●	●	●				
		GVR 145-020SS	1.45						●		●	●	●	●				
		GVR 200-020SS	2.00						●		●	●	●	●				
		GVR 250-020SS	2.50						●		●	●	●	●				
		GVR 300-020SS	3.00						●		●	●	●	●				
	 2-edge		GVR 100-020A	1.00	2.3	0.2	4.0	12	5.0	●	●	●	●	●	●			
			GVR 125-020A	1.25						●	●	●	●	●				
			GVR 145-020A	1.45						●	●	●	●	●				
			GVR 185-020A	1.85						●	●	●	●	●				
			GVR 200-020A	2.00						●	●	●	●	●				
			GVR 250-020A	2.50						●	●	●	●	●				
			GVR 300-020A	3.00						●	●	●	●	●				
			GVR 340-020A	3.40						●	●	●	●	●				
		GVR 145-020B	1.45	2.8	0.2	4.5	15	5.5	●	●	●	●	●	●				
		GVR 185-020B	1.85						●	●	●	●	●					
	GVR 200-020B	2.00	3.2	●					●	●	●	●						
	GVR 230-020B	2.30		●					●	●	●	●						
	GVR 250-020B	2.50	4.2	●					●	●	●	●						
	GVR 280-020B	2.80		●					●	●	●	●						
	GVR 300-020B	3.00	4.5	0.2	5.8	21	6.5	●	●	●	●	●						
	GVR 340-020B	3.40						5.5	●	●	●	●	●					
	GVR 400-020B	4.00							●	●	●	●	●					
	GVR 280-020C	2.80						6.3	●	●	●	●	●					
	GVR 300-020C	3.00							●	●	●	●	●					
	GVR 340-020C	3.40							●	●	●	●	●					
	GVR 400-020C	4.00							●	●	●	●	●					
GVR (430-020C)	4.30	●	●	●	●	●												
	GVR (460-020C)	4.60	4.2	1.50	4.5	15	5.5	●		●	●	●						
	GVR (500-020C)	5.00						●		●	●	●						
		GVR 200-100AR						2.00	2.3	1.25	4.0	12	5.0			●	●	●
		GVR 250-125AR						2.50								●	●	●
		GVR 300-150AR						3.00	3.2	1.00	4.5	15	5.5			●	●	●
GVR 200-100BR		2.00	●		●	●	●											
 2-edge Full-R	GVR 300-150BR	3.00	4.2	1.50				●		●	●	●						

· Only Right-hand insert is applicable.

● : Std. Item

