

THE NEW VALUE FRONTIER



CERATIP®

KYOCERA Cutting Tools

CP149-1-E

Grooving

Traversing

KIGM-V Type

Multi-Function Internal Grooving Toolholder

Lower jaw strength is increased by optimizing insert length and insert installation angle.

Coolant hole to supply coolant to inner groove.

Chip Control Improvement

Conventional holder (KIGM type)

NEW

KIGM-V

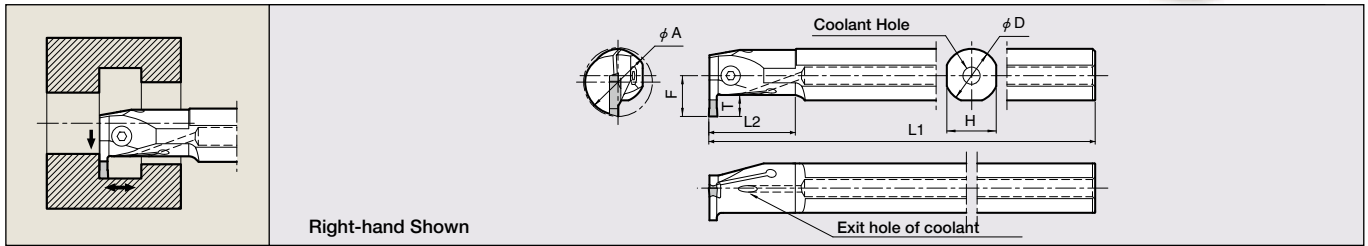
KIGM will be converted to KIGM-V.

Stable Cutting when Internal Grooving and Traversing

- Holder strength is greatly improved.
- Chip control performance is improved.
- Excellent chip control due to coolant hole



■KIGM-V



Toolholder Dimension

Description	Stock		Min. Cutting Dia.	Dimension (mm)						Width (mm)		Spare Parts				Applicable Insert	
	R	L		φA	φD	H	L1	L2	F	T	MIN.	MAX.	Screw		Wrench		
													GS-50	—	—		LW-3
KIGM ^R /L	●	●	20	16	15	150	25	11.5	5.5	3.0	3.0	GS-50	—	—	LW-3	GMM3015-04V GMM3015-15VR	
	●	●	25	20	18	180	32	14.5	6.0			—	SB-5TR	LTW-20	—		
	●	●	32	25	23	200	40	19	8.0			—	SB-5TR	LTW-20	—		
	●	●	32	25	23	200	40	19	8.5	4.0	5.0	—	SB-5TR	LTW-20	—	GMM4020-04V GMM5020-08V GMM4020-20VR GMM5020-25VR	
	●	●	40	32	29	220	50	23.5	11.0			—	SB-5TR	LTW-20	—		

● : Standard Stock

Insert Dimension

Shape	Description	Dimension (mm)					Angle θ	Insert Grade				
		W	R	L	H	M		Cermet	CVD Coated	PVD Coated	Carbide	
								TN90	CR9025	PR915	PR930	KW10
 Emphasizing on Chip evacuation-M Class	GMM 3015-04V	3.0	0.4	15.5	4.3	2.3	—	●	●	●	●	●
	GMM 4020-04V	4.0	0.4	20		3.3		●	●	●	●	●
	GMM 5020-08V	5.0	0.8	20		4.2		●	●	●	●	●
 Full R groove-Copying-M Class	GMM 3015-15VR	3.0	1.5	15.5	4.3	2.3	—	●	●	—	●	●
	GMM 4020-20VR	4.0	2.0	20		3.3		—	●	—	●	●
	GMM 5020-25VR	5.0	2.5	20		4.2		—	●	—	●	●

● : Standard Stock

Recommended Cutting Conditions

Workpiece Material	Recommended Insert Grade (Cutting Speed)					Grooving			Traversing			Remarks
	Cermet	CVD Coated	PVD Coated		Carbide	Width (mm)			Width (mm)			
	TN90	CR9025	PR915	PR930	KW10	3.0	4.0	5.0	3.0	4.0	5.0	
	Feed Rate (mm/rev)			Feed Rate (mm/rev)								
Carbon Steel (SxxC)	100-180	80-160	80-160	80-160	—	0.05-0.15	0.07-0.15	0.07-0.15	0.10-0.20	0.15-0.25	0.15-0.25	Coolant
Alloy Steel (SCM)	80-160	70-140	70-140	70-140	—	0.05-0.15	0.07-0.15	0.07-0.15	0.10-0.20	0.15-0.25	0.15-0.25	
Stainless Steel (SUS304)	70-130	60-120	60-120	60-120	—	0.05-0.15	0.07-0.15	0.07-0.15	0.10-0.20	0.15-0.25	0.15-0.25	
Cast Iron (FC,FCD)	—	—	—	—	70-120	0.05-0.20	0.10-0.20	0.15-0.20	0.10-0.20	0.15-0.25	0.15-0.25	
Aluminum	—	—	—	—	200-400	0.05-0.20	0.08-0.25	0.10-0.25	0.10-0.20	0.15-0.25	0.15-0.25	
Brass	—	—	—	—	100-160	0.05-0.15	0.08-0.20	0.10-0.25	0.10-0.20	0.15-0.25	0.15-0.25	

Case Studies

SCM415		KIGM4032B-4V GMM4020-04V (PR915)		Conventional	
<ul style="list-style-type: none"> •Sleeve •V = 170m/min •d = ~6.5mm •f = 0.1~0.15mm/rev •WET •GMM4020-04V (PR915) 		200 pcs/edge		100 pcs / edge	•KIGM-V doubled the parts per edge compared with conventional tool by increased chip control, reduced cutting resistance and increased holder strength. Evaluation from the user