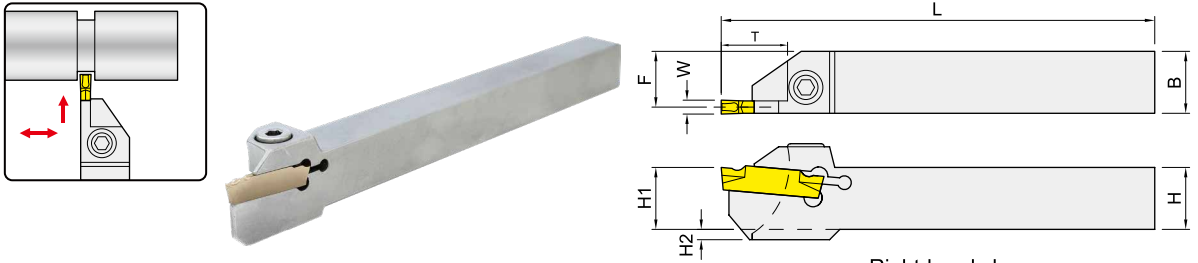


**KGM Grooving Tools (Depth < 20mm)**

KGM 外徑切槽刀 (切深 < 20mm)

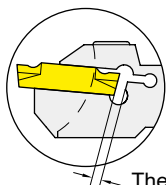
**External Tool Holder Specifications 外徑刀桿規格**



Right-hand shown

Insert Brand : Winstar, Kyocera, ...

Order No.	Dimensions (mm)						W (mm)		Inserts	Screw	Wrench	
	H (H1)	B	L	F	T	H2	min	max				
IKGM <sup>R</sup> / <sub>L</sub> 1212K1.5L10	12	12	125	11.4	10	2	1.5	2.0	GMM2020..	IHTM416	IPL30	
IKGM <sup>R</sup> / <sub>L</sub> 1616K1.5L10	16	16	125	15.4	10	-	1.5	2.0		IHTMT520	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2020K1.5L10	20	20	125	19.4	10	-	1.5	2.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2525M1.5L10	25	25	150	24.4	10	-	1.5	2.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 1212K2TL10	12	12	125	11.1	10	2	2.0	3.0	GMM2020.. GMM2520.. GMM3020..	IHTM416	IPL30	
IKGM <sup>R</sup> / <sub>L</sub> 1616K2TL10	16	16	125	15.1	10	-	2.0	3.0		IHTMT520	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2020K2TL10	20	20	125	19.1	10	-	2.0	3.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2525M2TL10	25	25	150	24.1	10	-	2.0	3.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 1212K2TL13	12	12	125	11.1	13	3	2.0	3.0		IHTM420	IPL30	
IKGM <sup>R</sup> / <sub>L</sub> 1616K2TL13	16	16	125	15.1	13	-	2.0	3.0		IHTMT520	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2020K2TL13	20	20	125	19.1	13	-	2.0	3.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2525M2TL13	25	25	150	24.1	13	-	2.0	3.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 1212K2TL17	12	12	125	11.1	17	4	2.0	3.0		IHTM420	IPL30	
IKGM <sup>R</sup> / <sub>L</sub> 1616K2TL17	16	16	125	15.1	17	-	2.0	3.0		IHTMT520	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2020K2TL17	20	20	125	19.1	17	-	2.0	3.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2525M2TL17	25	25	150	24.1	17	-	2.0	3.0		IHTMT525	IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 1616K3TL16	16	16	125	14.8	16	-	3.0	4.0		GMM3020..	IHTMT520	IETL25
IKGM <sup>R</sup> / <sub>L</sub> 2020K3TL16	20	20	125	18.8	16	-	3.0	4.0			IHTMT525	IETL25
IKGM <sup>R</sup> / <sub>L</sub> 2525M3TL16	25	25	150	23.8	16	-	3.0	4.0			IHTMT525	IETL25
IKGM <sup>R</sup> / <sub>L</sub> 1616K3TL20	16	16	125	14.8	20	4	3.0	4.0			IHTMT525	IETL25
IKGM <sup>R</sup> / <sub>L</sub> 2020K3TL20	20	20	125	18.8	20	-	3.0	4.0	IHTMT525		IETL25	
IKGM <sup>R</sup> / <sub>L</sub> 2525M3TL20	25	25	150	23.8	20	-	3.0	4.0	IHTMT525		IETL25	
IKGMR3232P3TL20	32	32	170	30.8	20	-	3.0	4.0	IHTMT525		IETL25	

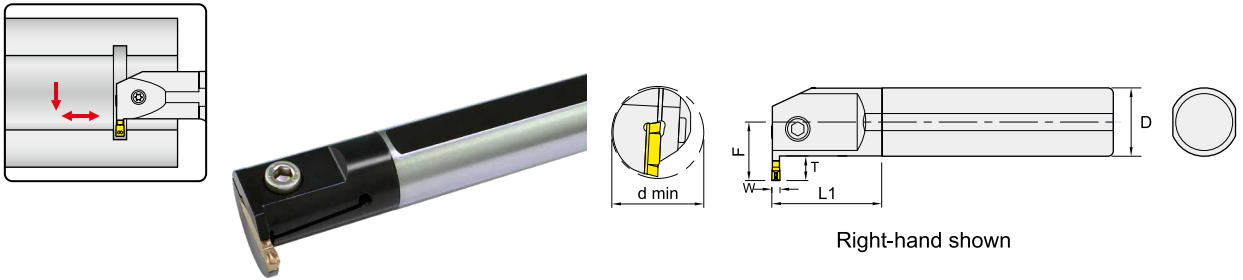


The GMM□□□□R□□□□ inserts need to be installed 0.5~1mm away from the bottom.

**KIGM Grooving Tools (Depth < 9mm)**

KIGM 內徑切槽刀 (切深 < 9mm)

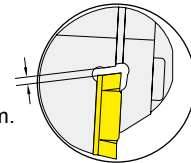
**Internal Tool Holder Specifications 內徑刀桿規格**



Insert Brand : Winstar, Kyocera, ...

Order No.	Dimensions (mm)							Inserts	Screw	Wrench
	D	L	L1	F	T	W	d min			
IKIGMRS20Q3T07	20	180	35	17	7	3	28	GMM3020..	IHTM516	IPL40
IKIGMRS25R3T09	25	200	40	21.5	9	3	35		IHTMT520	IETL25

The GMM3020R03 inserts need to be installed 0.5~1mm away from the bottom.



**Recommended Cutting Conditions 建議切削數據**

Working Material	Vc (m/min)	Parting off, fr (mm/rev)		Grooving, fr (mm/rev)	
		Cutting Width (w)			
		2	3	2	3
Carbon Steel / Alloy Steel	80 ~ 200	0.02 ~ 0.14	0.03 ~ 0.21	0.04 ~ 0.08	0.06 ~ 0.12
Stainless Steel	60 ~ 140	0.02 ~ 0.10	0.03 ~ 0.15	0.04 ~ 0.06	0.06 ~ 0.09
Cast Iron	80 ~ 200	0.04 ~ 0.14	0.06 ~ 0.21	0.04 ~ 0.08	0.06 ~ 0.12
High Temperature Alloy	50 ~ 100	0.02 ~ 0.06	0.03 ~ 0.09	0.02 ~ 0.04	0.03 ~ 0.06

Turning

## Insert Specifications 刀片規格



Insert	Dimensions (mm)						Fig.	Chipbreaker 斷屑槽	
	w	r	l	h	m	k°		MR	For high feed cutting 適合高進給加工
GMM2020	2.0	0.20	20	4.3	1.5	-	1		
GMM2020R06	2.0	-	20	4.3	1.5	6°	2		
GMM2020R15	2.0	-	20	4.3	1.5	15°	2		
GMM2020L15	2.0	-	20	4.3	1.5	15°	3		
GMM2520	2.5	0.20	20	4.3	1.9	-	1		
GMM2520R06	2.5	-	20	4.3	1.9	6°	2		
GMM2520R15	2.5	-	20	4.3	1.9	15°	2		
GMM2520L15	2.5	-	20	4.3	1.9	15°	3		
GMM3020	3.0	0.25	20	4.3	2.3	-	1		
GMM3020R06	3.0	-	20	4.3	2.3	6°	2		
GMM3020R15	3.0	-	20	4.3	2.3	15°	2		
GMM3020L15	3.0	-	20	4.3	2.3	15°	3		

Fig. 1

Fig. 2

Fig. 3

## Insert Designation 刀片型號

Insert	Order No.	Code-Chipbreaker-Grade	Working Material					
			P	M	K	N	S	H
	IGMM2020MR33TX	GMM2020-MR-CX33TX	●	●	●		●	●
	IGMM2020MR43TX	GMM2020-MR-CX43TX	●	●	●		○	
	IGMM2520MR33TX	GMM2520-MR-CX33TX	●	●	●		●	●
	IGMM3020MR33TX	GMM3020-MR-CX33TX	●	●	●		●	●
	IGMM2020R06MR33TX	GMM2020R06-MR-CX33TX	●	●	●		●	●
	IGMM2020R06MR43TX	GMM2020R06-MR-CX43TX	●	●	●		○	
	IGMM2520R06MR33TX	GMM2520R06-MR-CX33TX	●	●	●		●	●
	IGMM3020R06MR33TX	GMM3020R06-MR-CX33TX	●	●	●		●	●
	IGMM2020R15MR33TX	GMM2020R15-MR-CX33TX	●	●	●		●	●
	IGMM2020L15MR33TX	GMM2020L15-MR-CX33TX	●	●	●		●	●
	IGMM2020R15MR43TX	GMM2020R15-MR-CX43TX	●	●	●		○	
	IGMM2020L15MR43TX	GMM2020L15-MR-CX43TX	●	●	●		○	
	IGMM2520R15MR33TX	GMM2520R15-MR-CX33TX	●	●	●		●	●
	IGMM2520L15MR33TX	GMM2520L15-MR-CX33TX	●	●	●		●	●
	IGMM3020R15MR33TX	GMM3020R15-MR-CX33TX	●	●	●		○	●
	IGMM3020L15MR33TX	GMM3020L15-MR-CX33TX	●	●	●		○	●

\* CX33TX for General cutting.  
CX43TX for Interrupted cutting.