



ООО "Современные Технологии НС"

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Modular micro diameter milling cutter

- Optimum chip rolling effect
- Precision grinding blade
- Strong blessing power
- Increase the strength of cutter bar





Modular micro diameter milling cutter

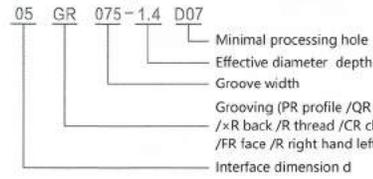
NEW!
The world's smallest modular groove cutter

Features and uses

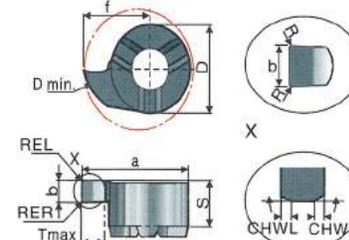
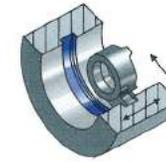
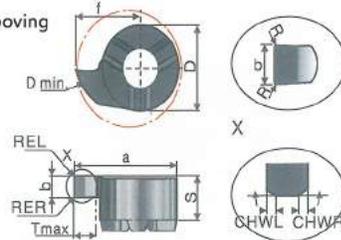
- Tooth link design, strong holding force, very suitable for small hole product processing.
- Precision grade grinding blade to achieve the best chip rolling effect.
- The same tool holder can realize the interchangeability of various processing methods.
- Minimum groove diameter up to 5.5mm.
- The eccentric design of the neck of the cutter body greatly improves the strength of the cutter body. The same cutter body can use both left-type and right-type blades.
- The non-eccentric design tool holder can realize both turning processing and milling processing.
- The alloy anti-vibration series tool holder is added to meet different processing requirements.

Grooving (GR)	Grooving, copying and boring (GR)	Boring (PR)	Boring and copying (PR)
Boring and copying (QR)	Back boring (XR)	Chamfering (CR)	Thread (IR)
Inner face grooving (FNR)	Step face grooving (FER)	Inner circular end face grooving (ZNR)	Step end face circular grooving (ZER)

Specification writing method



Grooving



Unit: mm

Order number	D	Ring width	W(b) ^{0.02}	Tmax	REL/RER	CHWL/CHWR	S	f	a	Dmin	HP630M		HD10		
											R	L			
RBMB-04GR050-1.0D055	4	1.1	0.5	1.0	-	0.03	2.6	3.2	5.2	5.5	●	/	○		
04GR070-1.0D055			0.7	1.0	-	0.03	2.6	3.2	5.2	5.5	●	/	○		
04GR100-1.0D055			1.0	1.0	-	0.04	2.6	3.2	5.2	5.5	●	/	○		
04GR150-1.0D055			1.5	1.0	-	0.04	2.6	3.2	5.2	5.5	●	/	○		
04GR200-1.0D055			2.0	1.0	-	0.04	2.6	3.2	5.2	5.5	●	/	○		
04GR100-1.4D06			1.0	1.4	-	0.04	2.6	3.7	5.7	6.0	6.0	●	/	○	
04GR120-1.4D06			1.2	1.4	-	0.04	2.6	3.7	5.7	6.0	6.0	●	/	○	
04GR150-1.4D06			1.5	1.4	-	0.04	2.6	3.7	5.7	6.0	6.0	●	/	○	
04GR200-1.4D06			2.0	1.4	-	0.04	2.6	3.7	5.7	6.0	6.0	●	/	○	
04GR100-2.3D07			1.0	2.3	-	0.04	2.6	4.7	6.7	7.0	7.0	●	/	○	
04GR150-2.3D07	1.5	2.3	-	0.04	2.6	4.7	6.7	7.0	7.0	●	/	○			
04GR200-2.3D07	2.0	2.3	-	0.04	2.6	4.7	6.7	7.0	7.0	●	/	○			
05GR/L050-1.4D07	5	1.6	0.5	1.4	-	0.04	3.3	4.3	6.8	7.0	●	○	○		
05GR/L075-1.4D07			0.7	0.75	1.4	-	0.04	3.3	4.3	6.8	7.0	●	○	○	
05GR/L083-1.4D07			0.8	0.83	1.4	-	0.04	3.3	4.3	6.8	7.0	●	○	○	
05GR/L093-1.4D07			0.9	0.93	1.4	-	0.04	3.3	4.3	6.8	7.0	●	○	○	
05GR/L100-1.4D07			1.0	1.4	-	0.04	3.3	4.3	6.8	7.0	7.0	●	○	○	
05GR/L120-1.4D07			1.1	1.2	1.4	-	0.04	3.3	4.3	6.8	7.0	●	○	○	
05GR/L140-1.4D07			1.3	1.4	1.4	-	0.04	3.3	4.3	6.8	7.0	●	○	○	
05GR/L150-1.4D07			1.5	1.4	-	0.04	3.3	4.3	6.8	7.0	7.0	●	○	○	
05GR/L170-1.4D07			1.7	1.4	-	0.04	3.3	4.3	6.8	7.0	7.0	●	○	○	
05GR/L200-1.4D07			2.0	1.4	-	0.04	3.3	4.3	6.8	7.0	7.0	●	○	○	
05GR/L100-2.3D08	7	0.7	1.0	2.3	-	0.04	3.3	5.2	7.7	8.0	●	○	○		
05GR/L150-2.3D08			1.5	2.3	-	0.04	3.3	5.2	7.7	8.0	8.0	●	○	○	
05GR/L200-2.3D08			2.0	2.3	-	0.04	3.3	5.2	7.7	8.0	8.0	●	○	○	
05GR/L100-2.8D09			1.0	2.8	-	0.04	3.3	5.8	8.3	8.8	8.8	●	○	○	
05GR/L150-2.8D09			1.5	2.8	-	0.04	3.3	5.8	8.3	8.8	8.8	●	○	○	
05GR/L200-2.8D09			2.0	2.8	-	0.04	3.3	5.8	8.3	8.8	8.8	●	○	○	
05GR/L250-2.8D09			2.5	2.8	-	0.04	3.3	5.8	8.3	8.8	8.8	●	○	○	
05GR/L300-2.8D09			3.0	2.8	-	0.04	3.3	5.8	8.3	8.8	8.8	●	○	○	
07GR/L075-2.0D10			7	0.7	0.75	2.0	-	0.04	3.5	6.0	9.5	10.0	●	○	○

Order example: RBMB-05GR200-2.3D08 HP6300M Backhand RBMB-05GL ● Standard inventory ○ Non-standard inventory

1. For tools that are not in standard stock and have deeper grooves and smaller limit sizes, please contact the supplier to see if they can meet the requirements by repairing and sharpening the tool inserts and tool bar;

2. RBMB-05/07/09/11** full system can be customized backhand and non-standard size inserts;

3. If you have special requirements for R value of tool tip, please contact the supplier;

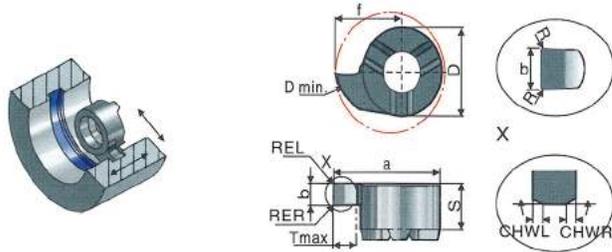
4. During processing, please use the thicker tool holder, a tool holder with internal cooling function is recommended.

Unit: mm

Order number	D	Ring width	W(b) ^{0.02}	Tmax	REL/RER	CHWL/CHWR	S	f	a	Dmin	HP630M		HD10	
											R	L		
RBMB-07GR/L083-2.0D10	7	0.7	0.8	0.83	2.0	-	0.04	3.5	6.0	9.5	10.0	●	○	○
07GR/L093-2.0D10			0.9	0.93	2.0	-	0.04	3.5	6.0	9.5	10.0	●	○	○
07GR/L100-2.0D10			1.0	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L120-2.0D10			1.20	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L140-2.0D10			1.40	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L150-2.0D10			1.50	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L170-2.0D10			1.70	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L200-2.0D10			2.00	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L250-2.0D10			2.50	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L300-2.0D10			3.00	2.0	-	0.04	3.5	6.0	9.5	10.0	10.0	●	○	○
07GR/L100-3.0D11	9	0.9	1.00	3.0	-	0.04	3.5	7.0	10.5	11.0	●	○	○	
07GR/L150-3.0D11			1.50	3.0	-	0.04	3.5	7.0	10.5	11.0	11.0	●	○	○
07GR/L200-3.0D11			2.00	3.0	-	0.04	3.5	7.0	10.5	11.0	11.0	●	○	○
07GR/L250-3.0D11			2.50	3.0	-	0.04	3.5	7.0	10.5	11.0	11.0	●	○	○
07GR/L300-3.0D11			3.00	3.0	-	0.04	3.5	7.0	10.5	11.0	11.0	●	○	○
07GR/L100-3.5D12			1.00	3.5	-	0.04	3.5	7.5	11.0	12.0	12.0	●	○	○
07GR/L150-3.5D12			1.50	3.5	-	0.04	3.5	7.5	11.0	12.0	12.0	●	○	○
07GR/L200-3.5D12			2.00	3.5	-	0.04	3.5	7.5	11.0	12.0	12.0	●	○	○
07GR/L250-3.5D12			2.50	3.5	-	0.04	3.5	7.5	11.0	12.0	12.0	●	○	○
07GR/L300-3.5D12			3.00	3.5	-	0.04	3.5	7.5	11.0	12.0	12.0	●	○	○
09GR/L100-4.0D14	9	0.9	1.00	4.0	-	0.04	4.7	9.0	13.5	14.0	●	○	○	
09GR/L120-4.0D14			1.20	4.0	-	0.04	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L140-4.0D14			1.40	4.0	-	0.04	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L150-4.0D14			1.50	4.0	-	0.04	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L170-4.0D14			1.70	4.0	-	0.04	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L200-4.0D14			2.00	4.0	-	0.04	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L250-4.0D14			2.50	4.0	-	0.04	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L300-4.0D14			3.00	4.0	-	0.04	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L200-R0.2D14			2.00	4.0	0.2	-	4.7	9.0	13.5	14.0	14.0	●	○	○
09GR/L100-5.5D16			1.00	5.5	-	0.04	4.7	10.5	15.0	16.0	16.0	●	○	○
09GR/L150-5.5D16	1.50	5.5	-	0.04	4.7	10.5	15.0	16.0	16.0	●	○	○		

Same as B064

● Standard inventory ○ Non-standard inventory

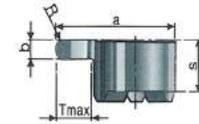
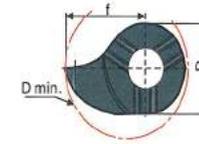
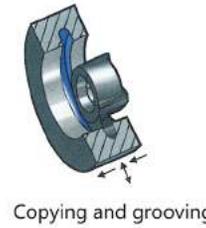


Unit: mm

Order number	D	Ring width	W(b) ^{±0.02}	Tmax	REL/RER	CHWL/CHWR	S	f	a	Dmin	HP630M		HD10	
											R	L		
RBMB-09GR/L200-5.5D16	9	1.1	2.0	5.5	-	0.04	4.7	10.5	15.0	16.0	●	●	○	
09GR/L250-5.5D16			2.5	5.5	-	0.04	4.7	10.5	15.0	16.0	●	○	○	
09GR/L300-5.5D16			3.0	5.5	-	0.04	4.7	10.5	15.0	16.0	●	●	○	
09GR/L150-R0.2D16			1.5	5.5	0.2	-	4.7	10.5	15.0	16.0	●	○	○	
09GR/L200-R0.2D16			2.0	5.5	0.2	-	4.7	10.5	15.0	16.0	●	○	○	
09GR/L250-R0.2D16			2.5	5.5	0.2	-	4.7	10.5	15.0	16.0	●	○	○	
09GR/L300-R0.2D16			3.0	5.5	0.2	-	4.7	10.5	15.0	16.0	●	○	○	
09GR/L100-6.5D17			1.0	6.5	-	0.04	4.7	11.5	16.0	17.0	●	○	○	
09GR/L150-6.5D17			1.5	6.5	-	0.04	4.7	11.5	16.0	17.0	●	○	○	
09GR/L200-6.5D17			2.0	6.5	-	0.04	4.7	11.5	16.0	17.0	●	●	○	
09GR/L250-6.5D17		2.5	6.5	-	0.04	4.7	11.5	16.0	17.0	●	○	○		
09GR/L300-6.5D17		3.0	6.5	-	0.04	4.7	11.5	16.0	17.0	●	●	○		
11GR/L100-4.3D16		11	1.3	1.0	4.3	-	0.04	5.3	10.2	15.7	16.0	○	○	○
11GR/L120-4.3D16				1.1	4.3	-	0.04	5.3	10.2	15.7	16.0	○	○	○
11GR/L140-4.3D16				1.3	4.3	-	0.04	5.3	10.2	15.7	16.0	○	○	○
11GR/L150-4.3D16				1.5	4.3	0.2	-	5.3	10.2	15.7	16.0	●	○	○
11GR/L170-4.3D16				1.6	4.3	0.2	-	5.3	10.2	15.7	16.0	●	○	○
11GR/L200-4.3D16			2.0	4.3	0.2	-	5.3	10.2	15.7	16.0	●	○	○	
11GR/L250-4.3D16			2.5	4.3	0.2	-	5.3	10.2	15.7	16.0	●	○	○	
11GR/L300-4.3D16			3.0	4.3	0.2	-	5.3	10.2	15.7	16.0	●	○	○	
11GR/L400-4.3D16	4.0		4.3	0.2	-	5.3	10.2	15.7	16.0	●	○	○		
11GR/L150-6.0D18	1.5		6.0	0.2	-	5.3	12.0	17.5	18.0	●	○	○		
11GR/L200-6.0D18	2.0	6.0	0.2	-	5.3	12.0	17.5	18.0	●	○	○			
11GR/L250-6.0D18	2.5	6.0	0.2	-	5.3	12.0	17.5	18.0	●	○	○			
11GR/L300-6.0D18	3.0	6.0	0.2	-	5.3	12.0	17.5	18.0	●	○	○			
11GR/L400-6.0D18	4.0	6.0	0.2	-	5.3	12.0	17.5	18.0	●	○	○			
11GR/L150-8.0D20	1.5	8.0	0.2	-	5.3	14.0	19.5	20.0	●	○	○			
11GR/L200-8.0D20	2.0	8.0	0.2	-	5.3	14.0	19.5	20.0	●	○	○			
11GR/L250-8.0D20	2.5	8.0	0.2	-	5.3	14.0	19.5	20.0	●	○	○			
11GR/L300-8.0D20	3.0	8.0	0.2	-	5.3	14.0	19.5	20.0	●	○	○			
11GR/L400-8.0D20	4.0	8.0	0.2	-	5.3	14.0	19.5	20.0	●	○	○			

Same as B064

● Standard inventory ○ Non-standard inventory

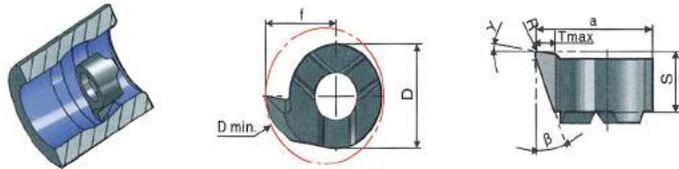


Copying and grooving

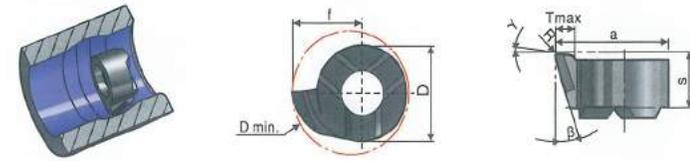
Unit: mm

Order number	D	W(b) ^{±0.02}	Tmax	R	S	f	a	Dmin	HP630M		HD10	
									R	L		
RBMB-04GR100-R0.50D06	4	1.0	1.4	0.50	2.6	3.70	5.7	6.0	●	/	○	
04GR150-R0.75D06			1.5	0.75	2.6	3.70	5.7	6.0	●	/	○	
04GR200-R1.00D06			2.0	1.00	2.6	3.70	5.7	6.0	●	/	○	
04GR100-R0.50D07			1.0	2.3	0.50	2.6	4.70	6.7	7.0	●	/	○
04GR150-R0.75D07			1.5	2.3	0.75	2.6	4.70	6.7	7.0	●	/	○
04GR200-R1.00D07			2.0	2.3	1.00	2.6	4.70	6.7	7.0	●	/	○
05GR/L100-R0.50D07			1.0	1.4	0.50	3.3	4.30	6.8	7.0	●	○	○
05GR/L150-R0.75D07			1.5	1.4	0.75	3.3	4.30	6.8	7.0	●	○	○
05GR/L200-R1.00D07	5	2.0	1.4	1.00	3.3	4.30	6.8	7.0	●	○	○	
05GR/L100-R0.50D08			1.0	2.3	0.50	3.3	5.30	7.7	8.0	●	○	○
05GR/L150-R0.75D08			1.5	2.3	0.75	3.3	5.30	7.7	8.0	●	○	○
05GR/L200-R1.00D08			2.0	2.3	1.00	3.3	5.30	7.7	8.0	●	○	○
05GR/L100-R0.50D09			1.0	2.8	0.50	3.3	5.80	8.3	9.0	●	○	○
05GR/L150-R0.75D09			1.5	2.8	0.75	3.3	5.80	8.3	9.0	●	○	○
05GR/L200-R1.00D09			2.0	2.8	1.00	3.3	5.80	8.3	9.0	●	○	○
07GR/L100-R0.50D10			7	1.0	2.0	0.50	3.5	6.00	9.5	10.0	●	○
07GR/L150-R0.75D10	1.5	0.75			3.5	6.00	9.5	10.0	●	○	○	
07GR/L200-R1.00D10	2.0	1.00			3.5	6.00	9.5	10.0	●	○	○	
07GR/L300-R1.50D10	3.0	1.50			3.5	6.00	9.5	10.0	●	○	○	
07GR/L100-R0.50D11	1.0	3.0			0.50	3.5	7.00	10.5	11.0	●	○	○
07GR/L150-R0.75D11	1.5	3.0			0.75	3.5	7.00	10.5	11.0	●	○	○
07GR/L200-R1.00D11	2.0	3.0			1.00	3.5	7.00	10.5	11.0	●	○	○
07GR/L300-R1.50D11	3.0	3.0			1.50	3.5	7.00	10.5	11.0	●	○	○
07GR/L100-R0.50D12	1.0	3.5			0.50	3.5	7.50	11.0	12.0	●	○	○
07GR/L150-R0.75D12	1.5	3.5			0.75	3.5	7.50	11.0	12.0	●	○	○
07GR/L200-R1.00D12	2.0	3.5			1.00	3.5	7.50	11.0	12.0	●	○	○

Example order: rbmb-04GR100-R0.50D06 HP630M Left hand L non - standard accepted ● Standard inventory ○ Non-standard inventory



Boring



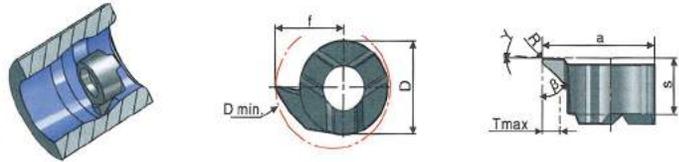
Boring and copying

Order number	D	Tmax	γ	β	R	S	f	a	Dmin (mm)	HP630M	
										R	L
RBMB- 04PR-R0.2-D055	4	0.8	8	18	0.2	2.6	3.0	5.0	5.5	●	/
05PR/L-R0.2-D065	5	1.0	8	18	0.2	3.3	3.6	6.1	6.5	●	○
07PR/L-R0.2-D10	7	2.0	8	18	0.2	3.5	6.0	9.5	10.0	●	○
09PR/L-R0.2-D14	9	4.0	8	18	0.2	4.7	8.7	13.2	13.8	●	○

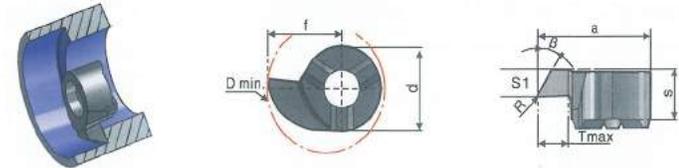
Example of order :RBMB-05PR-R0.2-D065 HP630M Left hand L non - standard accepted ● Standard inventory ○ Non-standard inventory

Order number	D	Tmax	γ	β	R	S	f	a	Dmin (mm)	HP630M	
										R	L
RBMB- 04PR-R0.2-D06-CBN	4	0.8	8	18	0.2	2.6	3.0	5.0	5.5	○	/
05PR/L-R0.2-D07-CBN	5	1.0	8	18	0.2	3.3	3.6	6.1	6.5	○	○
07PR/L-R0.2-D10-CBN	7	2.0	8	18	0.2	3.5	6.0	9.5	10.0	○	○
09PR/L-R0.2-D14-CBN	9	4.0	8	18	0.2	4.7	8.7	13.2	13.8	○	○

Order example :RBMB-05PR-R0.2-DO7-CBN HP630M Left hand L non-standard accepted ● Standard inventory ○ Non-standard inventory



Copying and boring



Back boring

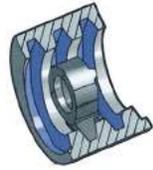
Order number	D	Tmax	γ	β	R	S	f	a	Dmin (mm)	HP630M	
										R	L
RBMB- 04QR-R0.2-1.4D06	4	1.4	3	47	0.2	2.6	3.7	5.7	6.0	●	/
05QR/L-R0.2-1.5D07	5	1.5	3	47	0.2	3.3	4.3	6.8	7.0	●	○
05QR/L-R0.2-2.5D09		2.5	3	47	0.2	3.3	5.5	8.5	9.0	●	○
07QR/L-R0.2-2.0D10	7	2.0	3	47	0.2	3.5	6.0	9.5	10.0	●	○
07QR/L-R0.2-3.5D12		3.5	3	47	0.2	3.5	7.5	11.0	12.0	●	○
09QR/L-R0.2-4.0D14	9	4.0	3	47	0.2	4.7	9.0	13.5	14.0	●	○
09QR/L-R0.2-6.0D16		6.0	3	47	0.2	4.7	11.0	15.5	16.0	●	○
11QR/L-R0.2-4.0D16	11	4.0	3	47	0.2	5.3	10.0	15.5	16.0	○	○
11QR/L-R0.2-8.0D20		8.0	3	47	0.2	5.3	14.0	19.5	20.0	○	○

Example of order :RBMB-05QR-R0.2-1.5D07 HP630M Left hand L non - standard accepted ● Standard inventory ○ Non-standard inventory

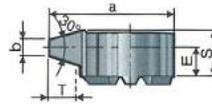
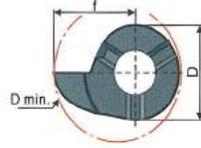
Note: Other β/R inserts can be customized according to actual machining requirements in order to meet different copying requirements.

Order number	D	Tmax	β	R	S1	S	f	a	Dmin (mm)	HP630M	
										R	L
RBMB- 04XR-R0.2-1.4D06	4	1.4	30	0.2	2.3	2.6	3.7	5.7	6.0	●	/
05XR/L-R0.2-1.5D07	5	1.5	30	0.2	2.3	3.3	4.3	6.8	7.0	○	○
05XR/L-R0.2-2.5D09		2.5	30	0.2	2.3	3.3	5.5	8.5	9.0	●	○
07XR/L-R0.2-2.0D10	7	2.0	30	0.2	2.6	3.5	6.0	9.5	10.0	○	○
07XR/L-R0.2-3.5D12		3.5	30	0.2	2.6	3.5	7.5	11.0	12.0	●	○
09XR/L-R0.2-4.0D14	9	4.0	30	0.2	3.0	4.7	9.0	13.5	14.0	●	○
09XR/L-R0.2-6.0D16		6.0	30	0.2	3.0	4.7	11.0	15.5	16.0	○	○
11XR/L-R0.2-4.0D16	11	4.0	30	0.2	3.5	5.3	10.0	15.5	16.0	○	○
11XR/L-R0.2-8.0D20		8.0	30	0.2	3.5	5.3	14.0	19.5	20.0	○	○

Order example :RBMB-05XR-R0.2-1.5D07 HP630M Left hand L non-standard accepted ● Standard inventory ○ Non-standard inventory

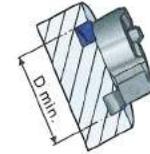


Threading

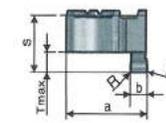
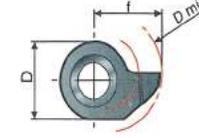


Order number	D	Pitch	E	T	b	Helix angle	S	f	a	Dmin (mm)	HP630M	
											R	L
RBMB- 05IR/L15TR-07R	5	TR10X1.5	2.9	0.90	0.47	3.0	3.3	4.3	6.8	7.0	○	○
05IR/L20TR-08R		TR10X2 TR11X2 TR12X2	2.7	1.25	0.60	3.5	3.3	4.7	7.2	8.0	●	○
05IR/L30TR-08R		TR11X3 TR12X3	2.4	1.75	0.96	5.0	3.3	5.0	7.5	8.0	●	○
07IR/L30TR-10R	7	TR14X3 TR22X3 TR26X3 TR28X3	2.7	1.75	0.96	5.0	3.5	6.2	9.7	10.0	●	○
07IR/L40TR-11R		TR16X4 TR18X4 TR20X4	2.2	2.25	1.33	4.5	3.5	6.7	10.2	11.0	●	○
09IR/L40TR-14R	9	TR18X4 TR20X4	2.2	2.25	1.33	4.5	4.7	8.0	12.5	14.0	●	○
09IR/L50TR-14R		TR22X5 TR24X5 TR26X5 TR28X5	3.55	2.75	1.69	4.5	4.7	9.0	13.5	14.0	●	○
11IR/L40TR-15R	11	TR18X4 TR20X4	4.0	2.25	1.33	4.5	5.3	9.0	14.5	15.0	●	○
11IR/L50TR-16R		TR22X5 TR24X5 TR26X5 TR28X5	3.6	2.75	1.69	4.5	5.3	10.0	15.5	16.0	●	○
11IR/L60TR-16R		TR30X6 TR36X6	3.3	3.50	1.92	4.5	5.3	10.2	15.7	16.0	●	○

Example of order :RBMB-05IR15TR-07R HP630M Left Hand L, non-standard accepted ● Standard inventory ○ Non-standard inventory

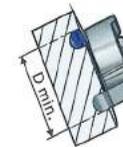


Face groove

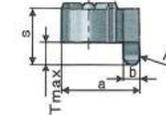
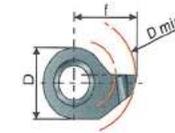


Order number	D	Tmax	b	R	S	f	a	Dmin (mm)	HP630M	
									R	L
RBMB- 09FNRB1.0-1.5D14	9	1.5	1.0	-	8.2	9.0	13.5	14.0	●	○
09FNRB1.0-3.0D14		3.0	1.0	-	8.2	9.0	13.5	14.0	●	○
09FNRB1.5-3.0D14		3.0	1.5	0.2	8.2	9.0	13.5	14.0	●	○
09FNRB2.0-3.0D14		3.0	2.0	0.2	8.2	9.0	13.5	14.0	●	○
09FNRB3.0-3.0D14		3.0	3.0	0.2	8.2	9.0	13.5	14.0	●	○
09FNRB2.0-5.0D14		5.0	2.0	0.2	10.2	9.0	13.5	14.0	●	○
09FNRB3.0-5.0D14		5.0	3.0	0.2	10.2	9.0	13.5	14.0	●	○
09FNRB3.0-6.0D14		6.0	3.0	0.2	11.2	9.0	13.5	14.0	●	○

Example of order :RBMB-09FNRB1.0-3.0D14 HP630M, non-standard is accepted ● Standard inventory ○ Non-standard inventory

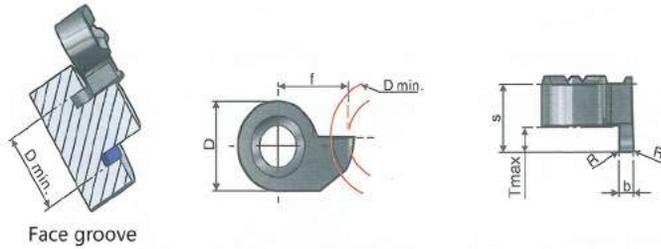


End face, circular groove



Order number	D	Tmax	b	R	S	f	a	Dmin (mm)	HP630M	
									R	L
RBMB- 09ZNR-R0.50-1.5D14	9	1.5	1.0	0.50	8.2	9.0	13.5	14.0	●	○
09ZNR-R0.75-3.0D14		3.0	1.5	0.75	8.2	9.0	13.5	14.0	●	○
09ZNR-R1.00-3.0D14		3.0	2.0	1.00	8.2	9.0	13.5	14.0	●	○
09ZNR-R1.50-3.0D14		3.0	3.0	1.50	8.2	9.0	13.5	14.0	●	○
09ZNR-R1.00-5.0D14		5.0	2.0	1.00	10.2	9.0	13.5	14.0	●	○
09ZNR-R1.50-5.0D14		5.0	3.0	1.50	10.2	9.0	13.5	14.0	●	○
09ZNR-R1.50-6.0D14		6.0	3.0	1.50	11.2	9.0	13.5	14.0	●	○

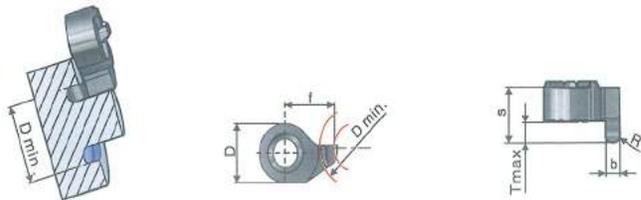
Example of order :RBMB-09ZNRB-R0.50-1.5D14 HP630M, non-standard is accepted ● Standard inventory ○ Non-standard inventory



Face groove

Order number	D	Tmax	b	R	S	f	Dmin (mm)	HP630M
RBMB- 09FERB1.0-1.5D12	9	1.5	1.0	-	8.2	7.0	12.0	●
09FERB1.0-3.0D12		3.0	1.0	-	8.2	7.0	12.0	○
09FERB1.5-3.0D12		3.0	1.5	0.2	8.2	7.5	12.0	●
09FERB2.0-3.0D12		3.0	2.0	0.2	8.2	8.0	12.0	●
09FERB3.0-3.0D12		3.0	3.0	0.2	8.2	9.0	12.0	●
09FERB2.0-5.0D12		5.0	2.0	0.2	10.2	8.0	12.0	●
09FERB3.0-5.0D12		5.0	3.0	0.2	10.2	9.0	12.0	●
09FERB3.0-6.0D12		6.0	3.0	0.2	11.2	9.0	12.0	●

Example of order :RBMB-09FERB2.0-3.0D12 HP630M, non-standard is accepted ● Standard inventory ○ Non-standard inventory



End face, circular groove

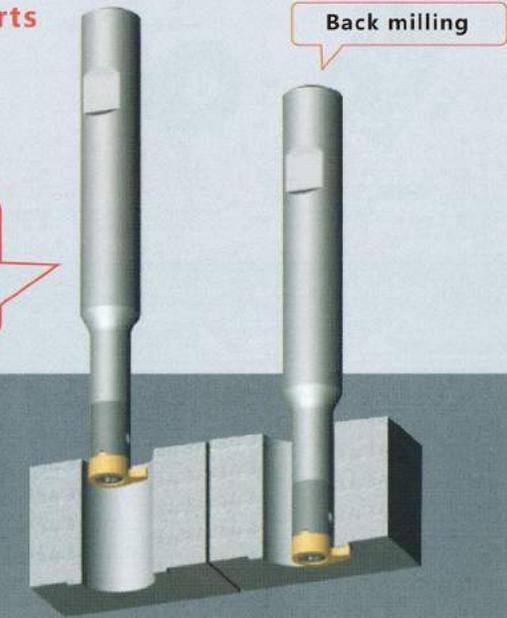
Order number	D	Tmax	b	R	S	f	Dmin (mm)	HP630M
RBMB- 09ZER-R0.50-1.5D14	9	1.5	1.0	0.50	8.2	7.0	12.0	○
09ZER-R0.75-3.0D14		3.0	1.5	0.75	8.2	7.5	12.0	○
09ZER-R1.00-3.0D12		3.0	2.0	1.00	8.2	8.0	12.0	○
09ZER-R1.50-3.0D12		3.0	3.0	1.50	8.2	9.0	12.0	○
09ZER-R1.00-5.0D12		5.0	2.0	1.00	10.2	8.0	12.0	○
09ZER-R1.50-5.0D12		5.0	3.0	1.50	10.2	9.0	12.0	○
09ZER-R1.50-6.0D12		6.0	3.0	1.50	11.2	9.0	12.0	○

Example of order :RBMB-09ZER-R1.00-3.0D12 HP630M, non-standard is accepted ● Standard inventory ○ Non-standard inventory

Milling applications of modular inserts

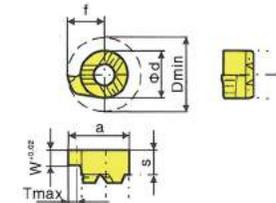
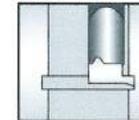
- Groove milling
- Back boring
- Chamfer
- Boring

Advance the tool through the hole in case the tool is off-center when the spindle is stopped.



Size switching example

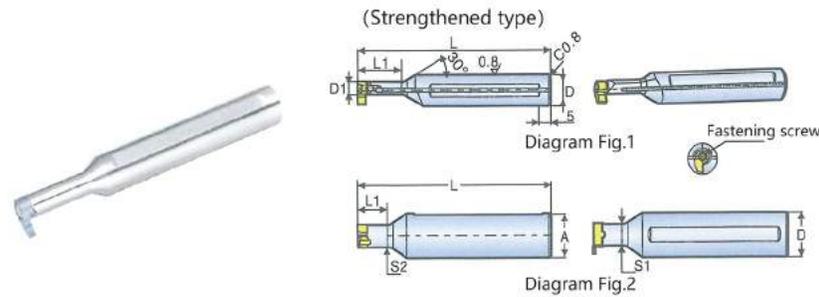
Inner bore



Order number	d	W+0.02	ar(Tmax)	a	f	S	Z	Dmin	HP630M
RBMB- 04GR050-1.0D055	4	0.5	1.0	5.2	3.2	2.6	1	6.6	●
04GR070-1.0D055	4	0.7	1.0	5.2	3.2	2.6	1	6.6	●
04GR100-1.0D055	4	1.0	1.0	5.2	3.2	2.6	1	6.6	●
04GR150-1.0D055	4	1.5	1.0	5.2	3.2	2.6	1	6.6	●
04GR200-1.0D055	4	2.0	1.0	5.2	3.2	2.6	1	6.6	●

Milling groove processing: minimum theoretical diameter of hole entry = $f \cdot 2 + 0.2$. For other insert sizes, please see the parameters of keyhole module inserts for details. ● Standard inventory ○ Non-standard inventory

Note: When machining with modular single-edge blade, do not use the enhanced tool holder



Order number	D	S1	S2	L1	L	A	Suitable inserts			Type/internal cooling	Inventory
RBMB- H16-20-07R	16	7.0	7.0	20	120	15	RBMB-07	CSTB3.0	T10	Fig.2/无	●
H16-30-09R	16	9.0	9.0	30	120	15	RBMB-09	CSTB4.0	T15	Fig.2/无	●
H20-40-11R	20	11.0	11.0	40	130	19	RBMB-11	CSTB5.0	T20	Fig.2/无	●
H12-18-05ST	12	5.0	6.7	18	80	11	RBMB-05	CSTB2.2	T6	Fig.1/无	●
H16-20-07ST	16	7.0	8.5	20	120	15	RBMB-07	CSTB3.0	T10	Fig.1/无	●
H16-30-09ST	16	9.0	11.0	30	120	15	RBMB-09	CSTB4.0	T15	Fig.1/无	●
H20-40-11ST	20	11.0	13.5	40	130	19	RBMB-11	CSTB5.0	T20	Fig.1/无	●
H12-16-04ST-N	12	4.0	5.2	16	80	11	RBMB-04	CSTB1.8	T6	Fig.1/有	●
H12-18-05ST-N	12	5.0	6.7	18	80	11	RBMB-05	CSTB2.2	T6	Fig.1/有	●
H16-20-07ST-N	16	7.0	8.5	20	120	15	RBMB-07	CSTB3.0	T10	Fig.1/有	●
H16-30-09ST-N	16	9.0	11.0	30	120	15	RBMB-09	CSTB4.0	T15	Fig.1/有	●
H20-40-11ST-N	20	11.0	13.5	40	130	19	RBMB-11	CSTB5.0	T20	Fig.1/有	●

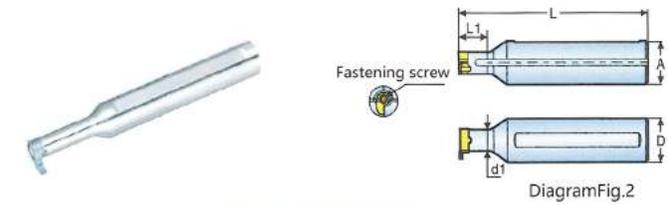
Order example :MG-H16-18-05ST-N

● Standard inventory ○ Non-standard inventory

Note :ST-N is the reinforced internal cooling type, ST is the ordinary reinforced type, both eccentric design can not be used for milling.

Recommended for internal cooling, tip cooling significantly improves chip removal and tool life.

Solid carbide tool holder



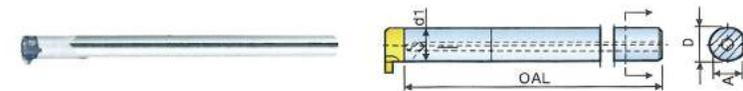
Order number	D	d1	L1	L	A	Suitable inserts			Type/internal cooling	Inventory
RBMB- E12-28-05	12	5	28	90	11	RBMB-05	CSTB2.2	T6	Fig.2/In stock	●
E12-36-05	12	5	36	100	11	RBMB-05	CSTB2.2	T6	Fig.2/In stock	○
E12-33-07	12	7	33	90	11	RBMB-07	CSTB3.0	T10	Fig.2/In stock	●
E12-49-07	12	7	49	110	11	RBMB-07	CSTB3.0	T10	Fig.2/In stock	○
E12-45-09	12	9	45	110	11	RBMB-09	CSTB4.0	T15	Fig.2/In stock	●
E12-56-09	12	9	56	120	11	RBMB-09	CSTB4.0	T15	Fig.2/In stock	○
E12-45-11	12	11	45	110	11	RBMB-11	CSTB5.0	T20	Fig.2/In stock	●
E12-80-11	12	11	80	150	11	RBMB-11	CSTB5.0	T20	Fig.2/In stock	●

1. Fig.1 The eccentrically reinforced design of the tool bar cannot be used as a rotary tool; ● Standard inventory ○ Non-standard inventory

Fig.2 When the tool bar is used as a rotary tool, pay attention to the change of the minimum hole diameter of the blade, the theoretical minimum hole diameter = P*2+0.2

2. When using ST-enhanced tool holders for non-standard inserts, please pay attention to the S2 size, whether there is interference with the required processing size

Solid carbide shank type



Order number	φ D	φ d1	L1	OAL	A	Suitable inserts			Internal cooling	Inventory
RBMB- E04-00-04	4	4	/	95	3.8	RBMB-05	CSTB1.8	T6	In stock	●
E05-00-05	5	5	/	95	4.7	RBMB-05	CSTB2.2	T6	In stock	●
E07-00-07	7	7	/	95	6.6	RBMB-07	CSTB3.0	T10	In stock	●
E09-00-09	9	9	/	125	8.5	RBMB-09	CSTB4.0	T15	In stock	●
E11-00-11	11	11	/	125	11.5	RBMB-11	CSTB5.0	T20	In stock	●

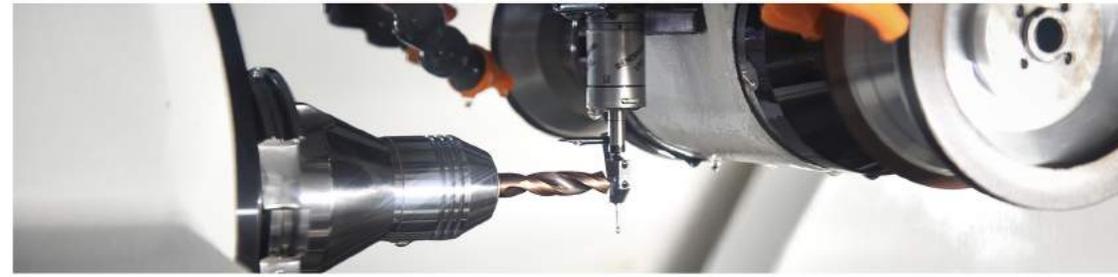
Note: The L length of the new product of individual models has an appropriate increase compared with the old product, which can be used as a milling tool holder

● Standard inventory ○ Non-standard inventory

Modular Small Hole tool Parameters

Recommended material, cutting speed V_c [m/min], feed f [mm/rev] and maximum depth of cut.

Material	Material	Brinell hardness	HP630M			Maximum depth of cut in radial direction (mm)
			Vc[M/min]			
			Thread Boring	Grooving	Boring	
P Steel	Unalloyed steel	Low Carbon (C=0.1-0.25%)	125	40-210	40-180	0.30-0.50
		Medium carbon (C=0.25-0.55%)	150	40-180	40-170	0.30-0.50
		High carbon (C=0.55-0.85%)	170	40-170	40-160	0.25-0.35
	low alloy steel (Alloying elements ≤5%)	Non-hardening	180	40-90	40-155	0.28-0.45
		Hardening	275	40-150	40-160	0.25-0.45
		Hardening	350	40-140	40-190	0.25-0.40
	High alloy steel (Alloying elements >5%)	Anneal	200	40-130	40-115	0.20-0.30
		Hardening	325	40-110	40-100	0.18-0.30
Cast steel	Low-alloy steel (alloying elements ≤5%)	200	40-170	40-170	0.20-0.30	
	High alloy steel Alloying elements >5%	225	40-120	40-130	0.17-0.30	
M Stainless steel	Stainless steel ferrite	Non-hardening	200	40-170	40-180	0.22-0.34
		Hardening	330	40-170	40-180	0.21-0.32
	Stainless steel austenitic	Austenite	180	140-40	40-140	0.25-0.40
		Super austenite	200	40-140	40-140	0.17-0.26
	Stainless steel ferritic casting	Non-hardening	200	40-140	40-140	0.25-0.37
		Hardening	330	40-140	40-140	0.17-0.26
	Stainless steel austenitic	Austenite	200	40-120	40-120	0.20-0.30
		Hardening	330	40-120	40-120	0.17-0.26
K Iron casting	Malleable cast iron	Ferrite (short chips)	130	40-130	40-120	0.25-0.37
		Pearlite (long chips)	230	40-120	40-100	0.20-0.30
	Gray cast iron	Low tensile strength	180	40-130	40-100	0.22-0.34
		High tensile strength	260	40-100	40-100	0.20-0.30
	Nodular cast iron	Ferrite	160	40-125	40-100	0.15-0.25
		Pearlite	260	40-90	40-90	0.20-0.30
N(K) Non-iron metal	Aluminum alloy - forging	Untimely	60	40-250	40-400	0.60-1.00
		Aging	100	40-180	40-400	0.50-0.90
	Aluminium alloy	Casting	75	40-400	40-400	0.50-0.90
		Cast and aged	90	40-280	40-200	0.40-0.60
	Aluminium alloy	Casting silicon content 13-22%	130	40-150	40-200	0.50-0.90
	Copper and Copper alloys	Brass	90	40-210	40-200	0.60-1.00
Bronze and lead-free copper		100	40-210	40-200	0.50-0.90	
S(M) Heat resistance Heat resistant materials	High temperature alloy	Annealed (iron-based)	200	20-45	20-40	0.12-0.22
		Aging (iron-based)	280	20-30	20-30	0.10-0.20
		Annealed (nickel or cobalt based)	250	15-20	15-20	0.08-0.20
		Aging (nickel or cobalt based)	350	10-15	10-15	0.08-0.20
	Titanium alloy	Purity 99.5 titanium 99.5 Ti	400Rm	40-140	70-120	0.10-0.20
		α+β alloy	1050Rm	20-50	20-50	0.10-0.20



Benefit from regrinding tools in original factory quality

Royi regrinding services make a significant contribution to reducing your production costs. At an attractive price-performance ratio, you get Royi tools in original factory quality and in the same quality as new.



Original Groove

Cutting edge geometries are very complex. In order to restore it to its original state, Royi also made full use of her own superior professional skills in the renovation process.

original coating

Coatings play a vital role in tool performance. Only Royi can coat tools with the original process.

original tolerance

The tolerances and quality standards followed during regrinding are the same as in the production of new tools. To ensure this, Royi employs state-of-the-art measuring equipment.

regrinding range

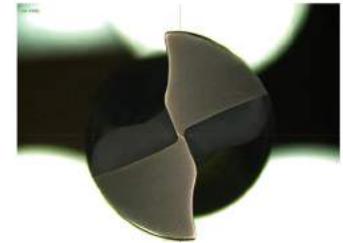
- regrinding range
- Solid carbide drills and milling cutters
- Solid carbide non-standard drill and non-standard milling cutter
- Efficient Solid Carbide Reamer
- Solid carbide thread milling cutter

50% cost saving

Tools are often disposed of prematurely - although Royi can recondition them to original factory quality many times. You benefit from reduced costs, stable machining processes and constant tool life: The Royi reconditioning center reconditions your tools. This can save you up to 50 % on tool costs!



Before regrinding



After regrinding

