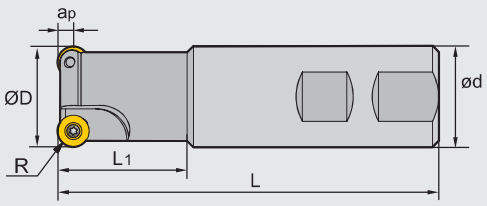
Face milling tools

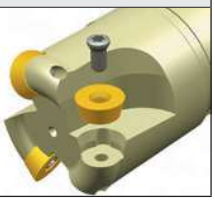
FMR03

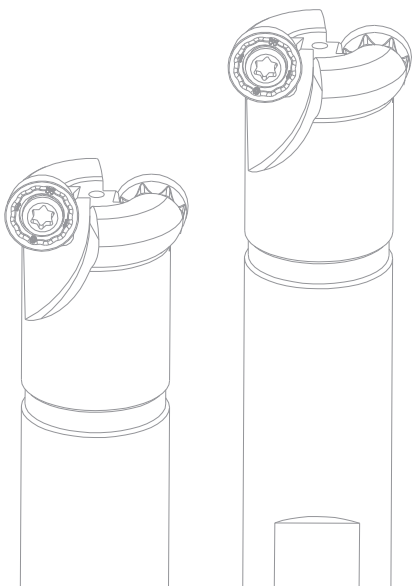


Specification of tools

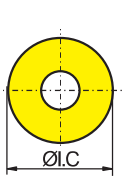
Type		Dimensions(inch)						
		ØD	R	ød	L_1	L	a_{pmax}	Z (Number of teeth)
FMR03	-1.00″-XP1.00″ -RD08-02	1.00	0.157	1.00	1.75	4.00	0.157	2
	-1.25″-XP1.25″ -RD10-02	1.25	0.197	1.25	2.50	4.75	0.197	2
	-1.50″-XP1.25″ -RD12-03	1.50	0.236	1.25	2.50	4.75	0.236	3
	-2.00″-XP1.25″ -RD12-03	2.00	0.236	1.25	2.50	4.75	0.236	3

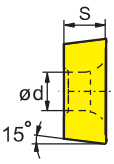
Spare parts

Diameter ØD	Insert specifrication	Insert screw	Wrench	Sketch of installation
				
Ø1.00″	RDKW0803MO	I60M3×7	WT09IP	
Ø1.25″	RDKW10T3MO	I60M4×10	WT15IP	
Ø1.50″~Ø2.00″	RDKW1204MO			



Selection of inserts





Insert shape	Type	Dimensions(inch)			Coated grade														Cermet		Cemented carbide			
		ØI.C	S	ød	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YB9320	YBG302	YBG152	YBG252	YBS203	YBS303	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	RDKW0803MO	0.315	0.125	0.134				○				●	●		○										
	RDKW10T3MO	0.394	0.156	0.173				●				●	●												
	RDKW1204MO	0.472	0.186	0.173		●		●				●	●		●										
	RDKT10T3MO-NM	0.394	0.156	0.173									○					○	○						

● Always stock available ○ Produce according to order

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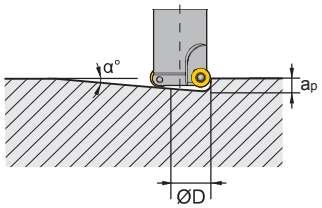
Recommended cutting parameters

Workpiece material		Hardness HB	Insert grade	Cutting parameters	
				V(SFPM)	f(IPT)
P	Low-carbon steel、Soft steel	≤180	YBM251	900(700-1200)	0.008(0.003-0.018)
			YBM351 YBG302	700(600-1000)	0.01(0.006-0.018)
			YBG202	900(650-1200)	0.008(0.004-0.018)
	High-carbon steel、Alloy steel	180-280	YBM251	800(650-1000)	0.008(0.003-0.018)
			YBM351 YBG302	650(500-1000)	0.01(0.006-0.018)
			YBG202	800(600-1200)	0.008(0.004-0.018)
	Alloy tool steel	280-350	YBM251	700(600-1000)	0.008(0.003-0.018)
			YBM351 YBG302	600(500-800)	0.01(0.006-0.018)
			YBG202	700(550-1100)	0.008(0.003-0.018)
M	Stainless steel	≤270	YBM251	500(400-800)	0.008(0.004-0.018)
			YBM351	500(300-700)	0.01(0.004-0.018)
			YBG202 YBG205	500(350-900)	0.008(0.004-0.018)
K	Cast iron	180-250	YBG302	700(400-1000)	0.008(0.004-0.018)
S	High-temperature alloy	≤400	YBS203 YBS303	300(200-400)	0.006(0.004-0.012)

Ramp milling, helical interpolation milling

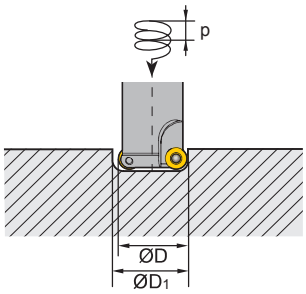
● Ramp milling



$$L_m = \frac{a_p}{\tan\alpha}$$

α:Plunge angle

● Helical interpolation milling



$$P = \tan\alpha \times \pi \times D_1$$

α:Helix angle

Insert	Diameter ØD(in)	Max.cutting depth ap(in)	Max.cutting depth α°	Min.length L_m(in)	Min.diameter $ØD_1$(in)	Max.diameter (in)
RD**08**	1.00"	0.157	8.8	1.016	1.634	0.157
RD**10**	1.25"	0.197	8.4	1.340	2.126	0.197
RD**12**	1.50"	0.236	10.3	1.300	2.677	0.236
	2.00"	0.236	7.1	1.890	3.465	0.236

Reduce the feed rate when plunging and circular milling.
"Attention"—drilling can form long chips.

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