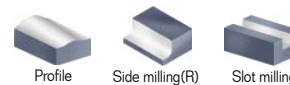
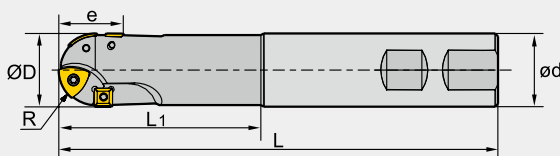


Profile milling tools

**BMR01** P M K

Weldon shank



Specification of tools

Type	Stock	Basic dimensions(mm)						Applicable inserts				Weight (kg)
		R	ØD	e	ød	L	L1	Type	Quantity	Type	Quantity	
BMR01 -020-XP20-S	▲	10	20	20	20	125	50	ZDET08T2CYR10	2	SPMT060304	2	0.3
-020-XP20-M	▲	10	20	20	20	150	75	ZDET08T2CYR10	2	SPMT060304	2	0.3
-020-XP20-L	▲	10	20	20	20	200	100	ZDET08T2CYR10	2	SPMT060304	2	0.4
-025-XP25-S	▲	12.5	25	23	25	150	70	ZDET1103CYR12.5	2	SPMT060304	2	0.5
-025-XP25-M	▲	12.5	25	23	25	175	95	ZDET1103CYR12.5	2	SPMT060304	2	0.6
-025-XP25-L	▲	12.5	25	23	25	200	100	ZDET1103CYR12.5	2	SPMT060304	2	0.7
-032-XP32-S	▲	16	32	31	32	175	85	ZDET13T3CYR16	2	SDMT090308	2	0.9
-032-XP32-M	▲	16	32	31	32	200	100	ZDET13T3CYR16	2	SDMT090308	2	1.1
-032-XP32-L	▲	16	32	31	32	250	150	ZDET13T3CYR16	2	SDMT090308	2	1.4
-040-XP40-S	▲	20	40	41	40	175	85	ZPNT2204CY(R20)	3	SPMT120408	2	1.4
-040-XP40-M	▲	20	40	41	40	200	100	ZPNT2204CY(R20)	3	SPMT120408	2	1.7
-040-XP40-L	▲	20	40	41	40	250	150	ZPNT2204CY(R20)	3	SPMT120408	2	2.1
-050-XP40-S	▲	25	50	45	40	200	100	ZPNT2204CY(R25)	3	SPMT120408	2	1.8
-050-XP40-M	▲	25	50	45	40	300	100	ZPNT2204CY(R25)	3	SPMT120408	2	2.8
-063-XP40-S	▲	31.5	63	52	40	200	100	ZPNT2204CY(R31)	4	SPMT120408	2	3.0
-063-XP40-M	▲	31.5	63	52	40	300	100	ZPNT2204CY(R31)	4	SPMT120408	2	3.5

▲Stock available

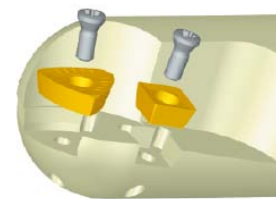
△Make-to-order

Indexable
milling tools

Profile milling tools

Spare parts

Diameter ØD	Screw	Wrench	
			
Ø20-Ø25	I43M2.5×5.7	WT07IP	--
Ø32	I43M4×8	--	WT15IS
Ø40-Ø63	I43M5×11	--	WT20IS



Tools code key

B22-B23

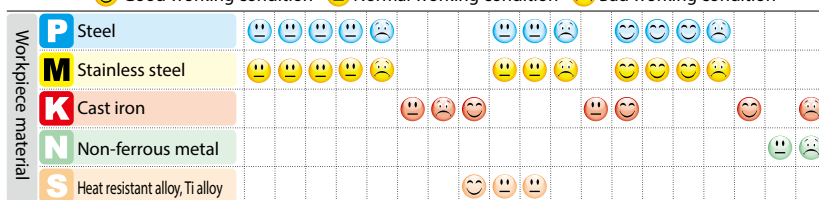
Grade selection guide

B18-B21

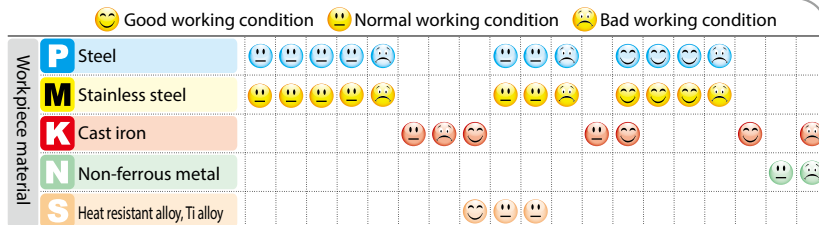
Technical data

B192-B198

😊 Good working condition 😐 Normal working condition 😞 Bad working condition



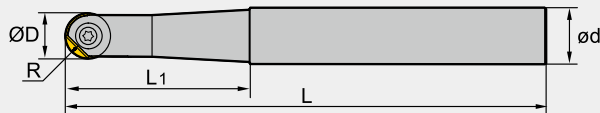
★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order



★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Workpiece material		Hardness HB	Insert grade	Cutting parameters	
				V(m/min)	f(mm/z)
P	Low-carbon steel、 Soft steel	≤180	YBM251	180(120-220)	0.25(0.1-0.4)
			YBG302	160(120-220)	0.25(0.1-0.4)
	High-carbon steel、 Alloy steel	180-280	YBM251	150(100-200)	0.2(0.1-0.4)
			YBG302	120(100-200)	0.2(0.1-0.4)
	Alloy tool steel	280-350	YBM251	100(80-150)	0.2(0.1-0.3)
			YBG302	100(80-150)	0.2(0.1-0.3)
M	Stainless steel	≤270	YBM251	100(80-150)	0.2(0.1-0.3)
			YBG302	100(80-150)	0.2(0.1-0.3)
K	Cast iron	180-250	YBG302	150(100-180)	0.3(0.2-0.5)

Profile milling tools

**BMR02** **P** **M** **K**

Specification of tools

Type	Stock	Basic dimensions(mm)					Weight (kg)
		R	ØD	ød	L	L ₁	
BMR02 -012-G16-S	▲	6	12	16	110	40	0.1
-012-G16-M	▲	6	12	16	130	50	0.2
-012-G16-L	▲	6	12	16	160	50	0.2
-016-G20-S	▲	8	16	20	140	45	0.3
-016-G20-M	▲	8	16	20	170	65	0.3
-016-G20-L	▲	8	16	20	200	65	0.4
-020-G25-S	▲	10	20	25	160	60	0.5
-020-G25-M	▲	10	20	25	200	80	0.6
-020-G25-L	▲	10	20	25	240	80	0.8

▲Stock available

△Make-to-order

Indexable
milling tools

Profile milling tools

Spare parts

Diameter ØD	Screw	Wrench	
Ø12	I70M4×10TT	WT15IS	
Ø16	I70M5×12TT	WT20IS	
Ø20	I70M5×16TT	WT20IS	

Tools code key

B22-B23

Grade selection guide

B18-B21

Technical data

B192-B198

Workpiece material

	P Steel	M Stainless steel	K Cast iron	N Non-ferrous metal	S Heat resistant alloy, Ti alloy
①	😬 😬 😬 😬				
②	😬 😬 😬	😬 😬 😬			
③		😊 😊 😊	😬 😬 😬		
④		😊 😊 😊	😊 😊		
⑤			😊 😊		😊 😊 😊
⑥				🙄 🙄	
⑦					😬 😬 😬

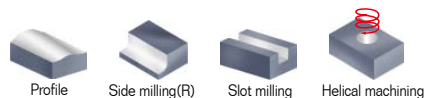
Insert shape	Type	Basic dimensions(mm)				CVD Coating				PVD Coating				Cermet	Cemented carbide									
		ØI.C	L	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	ROHX1203	12	8.5	3	4													○						
	ROHX1604	16	11.3	4	5													○						
	ROHX2005	20	14.1	5	5													○						

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Profile milling tools

B 114

Profile milling tools

**BMR03** **P** **M** **K**

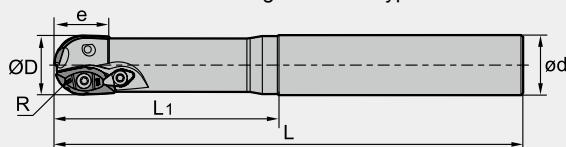
A type(Ø30-Ø40)



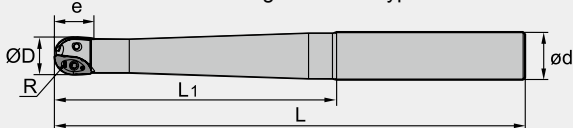
B type(Ø16-Ø25)



straight shank A type



straight shank B type



Specification of tools

Type	Stock	Basic dimensions(mm)						Number of teeth Z	Weight (kg)	Type	Clamp
		R	ØD	Ød	L	L ₁	e				
BMR03 -016-G20-S	▲	8	16	20	150	70	16	2	0.3	B	—
-016-G20-M	▲	8	16	20	180	80	16	2	0.4	B	
-020-G25-S	▲	10	20	25	180	80	20	2	0.5	B	
-020-G25-M	▲	10	20	25	200	100	20	2	0.6	B	
-020-G25-L	▲	10	20	25	250	150	20	2	0.7	B	
-020-G25-XL	▲	10	20	25	300	110	20	2	1.0	B	
-025-G25-S	▲	12.5	25	25	180	80	25	2	0.6	B	
-025-G25-M	▲	12.5	25	25	200	100	25	2	0.7	B	
-025-G25-L	▲	12.5	25	25	250	110	25	2	0.8	B	
-025-G25-XL	▲	12.5	25	25	300	120	25	2	1.0	B	
-030-G32-S	△	15	30	32	200	120	30	2	1.0	A	WD-208
-030-G32-M	▲	15	30	32	250	150	30	2	1.3	A	
-030-G32-L	▲	15	30	32	300	200	30	2	1.6	A	
-030-G32-XL	△	15	30	32	350	200	30	2	1.9	A	
-032-G32-S	▲	16	32	32	200	120	32	2	1.1	A	
-032-G32-M	▲	16	32	32	250	150	32	2	1.4	A	
-032-G32-L	▲	16	32	32	300	200	32	2	1.6	A	CBH5R1
-032-G32-XL	△	16	32	32	350	200	32	2	2.0	A	
-040-G40-S	△	20	40	40	200	120	40	2	1.6	A	
-040-G40-M	▲	20	40	40	250	150	40	2	2.0	A	
-040-G40-L	▲	20	40	40	300	200	40	2	2.5	A	
-040-G40-XL	△	20	40	40	350	200	40	2	3.0	A	

▲Stock available △Make-to-order

Indexable
milling tools

Profile milling tools

Tools code key

B22-B23

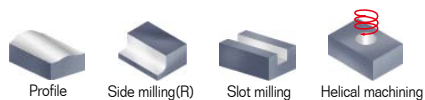
Grade selection guide

B18-B21

Technical data

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Profile milling tools

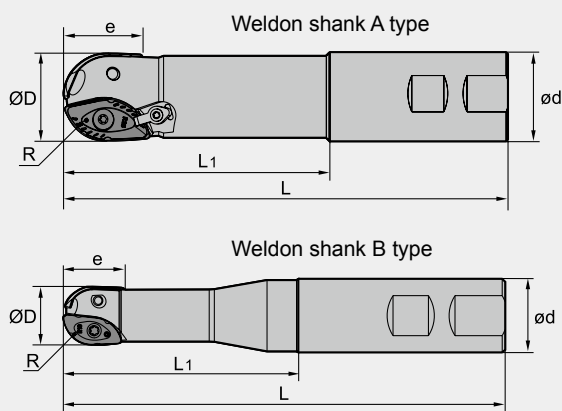


BMR03 P M K

A type(Ø30-Ø50)



B type(Ø16-Ø25)

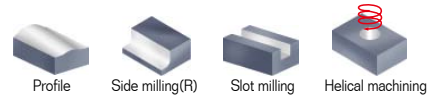


Specification of tools

Type	Stock	Basic dimensions(mm)						Number of teeth Z	Weight (kg)	Type	Clamp
		R	ØD	ød	L	L1	e				
BMR03 -016-XP20-M	▲	8	16	20	111	60	16	2	0.2	B	--
-020-XP25-M	▲	10	20	25	127	70	20	2	0.3	B	
-020-XP25-L	▲	10	20	25	150	80	20	2	0.4	B	
-025-XP25-M	▲	12.5	25	25	137	80	25	2	0.4	B	
-025-XP25-L	▲	12.5	25	25	200	100	25	2	0.6	B	
-030-XP32-M	▲	15	30	32	161	100	30	2	0.8	A	WD-208
-030-XP32-L	▲	15	30	32	250	150	30	2	1.3	A	
-032-XP32-M	▲	16	32	32	161	100	32	2	0.8	A	
-032-XP32-L	▲	16	32	32	250	120	32	2	1.3	A	
-040-XP40-M	▲	20	40	40	175	100	40	2	1.3	A	CBH5R1
-040-XP40-L	▲	20	40	40	250	120	40	2	2.0	A	
-050-XP50-M	▲	25	50	50	200	100	50	2	2.5	A	
-050-XP50-L	▲	25	50	50	250	150	50	2	3.1	A	

▲Stock available △Make-to-order

Profile milling tools

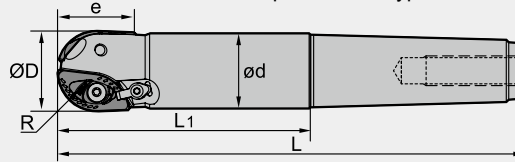
**BMR03** **P** **M** **K**

A type(Ø30-Ø50)

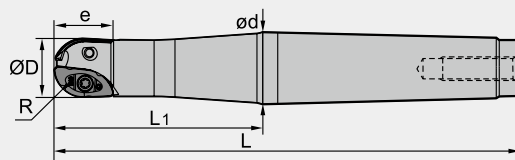


B type(Ø20-Ø25)

Morse taper shank A type



Morse taper shank B type



➤ Specification of tools

Type	Stock	Basic dimensions(mm)						Number of teeth Z	Weight (kg)	Type	Clamp
		R	ØD	ød	L	L1	e				
BMR03 -020-MT3-M	▲	10	20	18.7	156	70	20	2	0.4	B	--
-020-MT3-L	△	10	20	18.7	186	100	20	2	0.4	B	
-025-MT3-M	▲	12.5	25	23.5	156	70	25	2	0.4	B	
-025-MT3-L	△	12.5	25	23.5	186	100	25	2	0.4	B	
-030-MT4-M	▲	15	30	28.2	189	70	30	2	0.8	A	WD-208
-030-MT4-L	△	15	30	28.2	229	120	30	2	1.0	A	
-032-MT4-M	▲	16	32	29.2	179	70	32	2	0.9	A	
-032-MT4-L	△	16	32	29.2	209	100	32	2	0.9	A	
-040-MT4-M	▲	20	40	36.9	199	100	40	2	1.0	A	CBH5R1
-040-MT5-L	▲	20	40	36.9	226	90	40	2	1.8	A	
-040-MT5-XL	▲	20	40	36.9	256	120	40	2	2.0	A	
-050-MT5-M	▲	25	50	46.8	236	100	50	2	2.2	A	
-050-MT5-L	▲	25	50	46.8	286	150	50	2	2.9	A	

▲Stock available

△Make-to-order

Indexable
milling tools

Profile milling tools

Tools code key

B22-B23

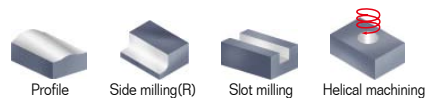
Grade selection guide

B18-B21

Technical data

B192-B198

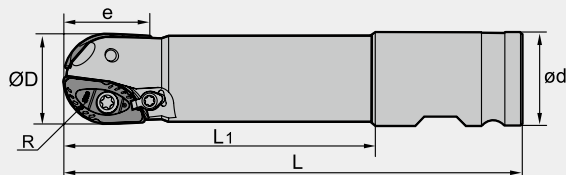
Profile milling tools



BMR03 P M K



Compound shank



Specification of tools

Type	Stock	Basic dimensions(mm)						Number of teeth Z	Weight (kg)	Clamp
		R	ØD	ød	L	L1	e			
BMR03 -040-XPX-M	▲	20	40	50.8	250	170	40	2	1.3	CBH5R1
-040-XPX-L	▲	20	40	50.8	300	220	40	2	3.1	
-040-XPX-XL	▲	20	40	50.8	350	270	40	2	3.5	
-050-XPX-M	▲	25	50	50.8	250	170	50	2	3.1	
-050-XPX-L	▲	25	50	50.8	300	200	50	2	3.8	
-050-XPX-XL	▲	25	50	50.8	350	270	50	2	4.4	

▲ Stock available

△ Make-to-order

Spare parts

Diameter ØD	Clamp	Screw	Wrench	
				
Φ16	--	I60M2.5×6.5	--	WT07P
Φ20	--	I60M3.5×08TT		WT10IP
Φ25	--	I60M4×10		WT15S
Φ30	WD-208	I60M5×13	WT20IT	--
Φ32	WD-208	I60M5×13		
Φ40	CBH5R1	I43M6×16	WT25IT	
Φ50	CBH5R1	I43M8×21	WT25IT	
		I43M6×16	WT30IT	

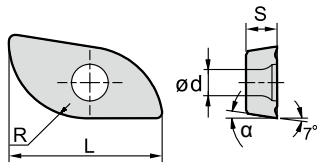


Tools code key
B22-B23

Grade selection guide
B18-B21

Technical data
B192-B198

Selection of inserts



😊 Good working condition 😐 Normal working condition 😞 Bad working condition

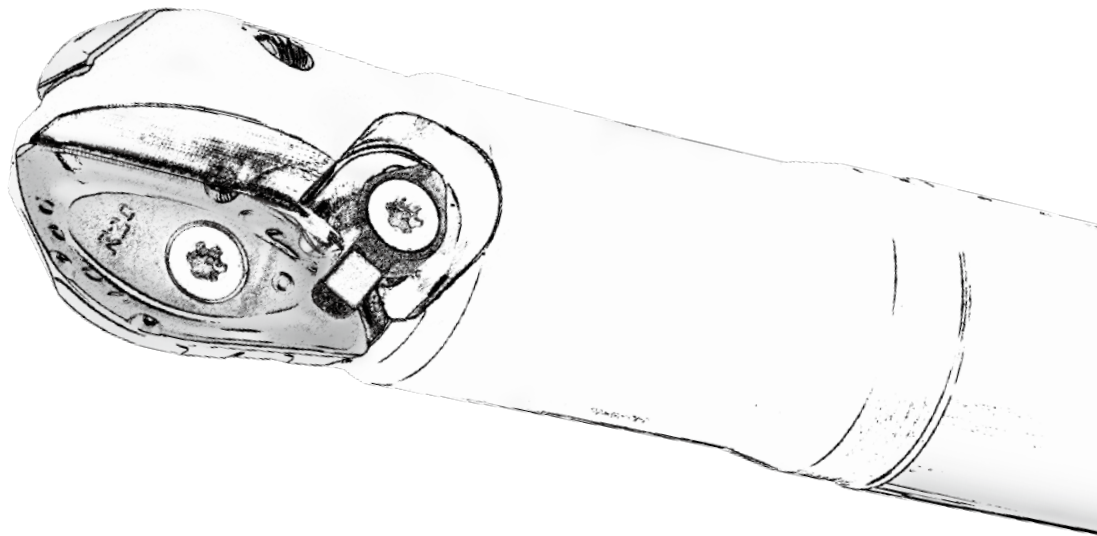
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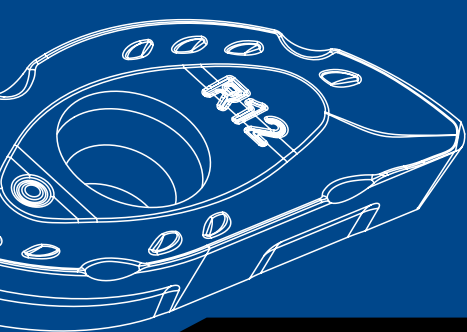
Insert shape	Type	Basic dimensions(mm)						CVD Coating						PVD Coating				Cermet		Cemented carbide						
		R	ød	S	α	L	Applicable tools	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YBG302	YBG152	YBG252	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	XPHT16R0803-GM	8	3.1	3.18	9°	16	Φ16										★									
	XPHT20R10T3-GM	10	4.0	3.97	9°	20	Φ20											★								
	XPHT25R1204-GM	12.5	4.7	4.76	9°	25	Φ25											★								
	XPHT30R1506-GM	15	5.8	6.35	11°	30	Φ30											★								
	XPHT32R1606-GM	16	5.8	6.35	9°	32	Φ32											★								
	XPHT40R2007-GM	20	6.7	7.94	9°	40	Φ40											★								
	XPHT50R2507-GM	25	9.2	7.94	9°	50	Φ50											★								

★ Recommended grade (always stock available) ● Available grade (always stock available) ○ Make-to-order

Indexable milling tools

Profile milling tools



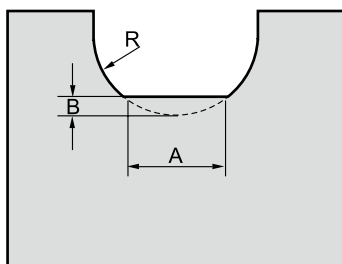


BMR03

series ball nose end milling tools

- The unique chipbreaker and big rake angle can effectively control the curling and flowing direction of chips and reduce the cutting force, improving workpiece surface quality and tool life.
- After precise grinding of periphery and locating surface, the insert can sufficiently ensure the shape accuracy of cutting edge and the precision of installation and location, improving installation security and workpiece precision after machining.
- The concave structure of the flank can effectively enhance the strength of cutting edge and prevent scraping between the clearance face and workpiece surface. Therefore, it improves the workpiece surface quality and prolongs the life of insert.
- The designs of cutting edge over center and a large negative rake angle make it possible to cut vertically, thus anti-breakage capability is enhanced.
- The rough ball nose milling cutters with large diameter adopt the top and hole clamping style, so insert clamping becomes more firm and stable. The machining is also highly efficient even under poor conditions such as long overhang and large vibration, etc.
- The adapter types include straight shank, Weldon shank, Morse taper shank and combination shank.

Slot shape after machining



R	A	B
08	1.7	0.09
10	2.2	0.12
12.5	3.0	0.18
15	3.9	0.20
16	3.5	0.22
20	3.6	0.24
25	3.8	0.26

Cautions:

The insert edge should correspond to the locating face of insert pocket in the tool. Don't install the wrong side up.

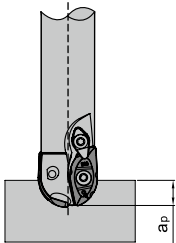
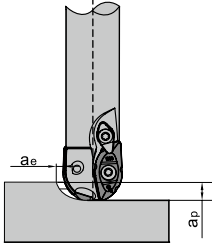
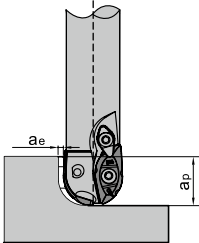
Before screwing down the insert, confirm the good connection between insert and insert pocket.

Select and adjust the cutting parameters according to machine power and machining conditions.

If vibration occurs in the machining process, cutting speed should be reduced properly.



► Recommended cutting parameters **Diameter Ø16**

Operations						
Workpiece material	Cutting parameters	Machining of slot	Side milling (slight)		Side milling (deep)	Insert grade
Medium carbon steel Hardness 150~250HB	V(m/min)	150~220	150~220	150~220	150~220	YBG302
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	4	4	8	16	
	a _e (mm)	--	3	4	1.5	
Alloy steel Hardness 150~280HB	V(m/min)	100~150	100~150	100~150	100~150	
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	4	4	8	16	
	a _e (mm)	--	3	4	1.5	
Die steel Hardness 150~255HB	V(m/min)	80~120	80~120	80~120	80~120	
	F _z (mm/z)	0.1~0.3	0.1~0.3	0.1~0.3	0.1~0.3	
	a _p (mm)	4	4	8	16	
	a _e (mm)	--	3	4	1.5	
Hardened steel Hardness 40~50HRC	V(m/min)	80~100	80~100	80~100	--	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	--	
	a _p (mm)	4	4	8	--	
	a _e (mm)	--	2	3	--	
Gray cast iron Hardness 160~260HB	V(m/min)	250~300	250~300	250~300	250~300	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	4	4	8	16	
	a _e (mm)	--	3	4	1.5	
Nodular cast iron Hardness 170~300HB	V(m/min)	200~250	200~250	200~250	200~250	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	4	4	8	16	
	a _e (mm)	--	3	4	1.5	

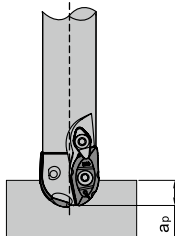
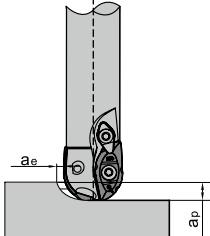
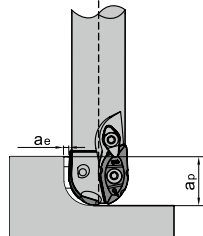
Note: 1. Parameters in the table shall be adjusted according to the rigidity of the machine or workpiece.

2. Wind cooling to be preferred.

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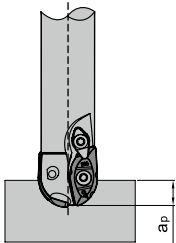
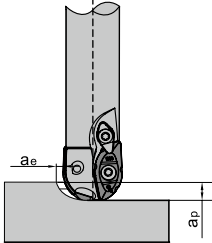
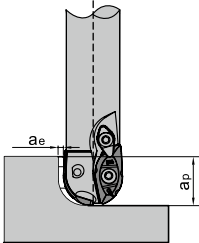
➤ Recommended cutting parameters Diameter Ø20

Operations						
Workpiece material	Cutting parameters	Machining of slot	Side milling (slight)		Side milling (deep)	Insert grade
Medium carbon steel Hardness 150~250HB	V(m/min)	150~220	150~220	150~220	150~220	YBG302
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	5	5	10	20	
	a _e (mm)	--	4	5	2	
Alloy steel Hardness 150~280HB	V(m/min)	100~150	100~150	100~150	100~150	
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	5	5	10	20	
	a _e (mm)	--	4	5	2	
Die steel Hardness 150~255HB	V(m/min)	80~120	80~120	80~120	80~120	
	F _z (mm/z)	0.1~0.3	0.1~0.3	0.1~0.3	0.1~0.3	
	a _p (mm)	5	5	10	20	
	a _e (mm)	--	4	5	2	
Hardened steel Hardness 40~50HRC	V(m/min)	80~100	80~100	80~100	--	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	--	
	a _p (mm)	5	5	10	--	
	a _e (mm)	--	4	5	--	
Gray cast iron Hardness 160~260HB	V(m/min)	250~300	250~300	250~300	250~300	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	5	5	10	20	
	a _e (mm)	--	4	5	2	
Nodular cast iron Hardness 170~300HB	V(m/min)	200~250	200~250	200~250	200~250	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	5	5	10	20	
	a _e (mm)	--	4	5	2	

Note: 1. Parameters in the table shall be adjusted according to the rigidity of the machine or workpiece.

2. Wind cooling to be preferred.

► Recommended cutting parameters Diameter Ø25

Operations						
Workpiece material	Cutting parameters	Machining of slot	Side milling (slight)		Side milling (deep)	Insert grade
Medium carbon steel Hardness 150~250HB	V(m/min)	150~220	150~220	150~220	150~220	YBG302
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	6	6	12.5	25	
	a _e (mm)	--	5	6.5	3	
Alloy steel Hardness 150~280HB	V(m/min)	100~150	100~150	100~150	100~150	
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	6	6	12.5	25	
	a _e (mm)	--	5	6.5	3	
Die steel Hardness 150~255HB	V(m/min)	80~120	80~120	80~120	80~120	
	F _z (mm/z)	0.1~0.3	0.1~0.3	0.1~0.3	0.1~0.3	
	a _p (mm)	6	6	12.5	25	
	a _e (mm)	--	5	6.5	3	
Hardened steel Hardness 40~50HRC	V(m/min)	80~100	80~100	80~100	--	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	--	
	a _p (mm)	6	6	12.5	--	
	a _e (mm)	--	5	6.5	--	
Gray cast iron Hardness 160~260HB	V(m/min)	250~300	250~300	250~300	250~300	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	6	6	12.5	25	
	a _e (mm)	--	5	6.5	3	
Nodular cast iron Hardness 170~300HB	V(m/min)	200~250	200~250	200~250	200~250	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	6	6	12.5	25	
	a _e (mm)	--	5	6.5	3	

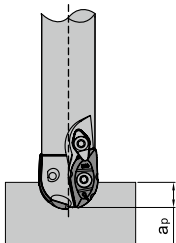
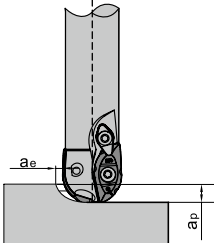
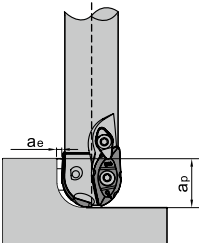
Note: 1. Parameters in the table shall be adjusted according to the rigidity of the machine or workpiece.

2. Wind cooling to be preferred.

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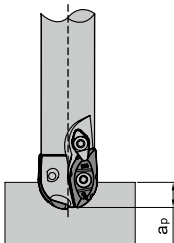
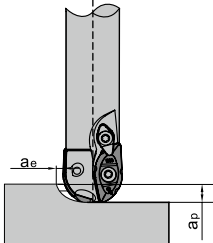
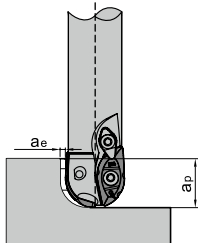
➤ Recommended cutting parameters Diameter Ø30, Ø32

Operations						
Workpiece material	Cutting parameters	Machining of slot	Side milling (slight)		Side milling (deep)	Insert grade
Medium carbon steel Hardness 150~250HB	V(m/min)	150~220	150~220	150~220	150~220	YBG302
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	10	10	16	28	
	a _e (mm)	--	6	9	6	
Alloy steel Hardness 150~280HB	V(m/min)	100~150	100~150	100~150	100~150	
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	10	10	16	28	
	a _e (mm)	--	6	9	6	
Die steel Hardness 150~255HB	V(m/min)	80~120	80~120	80~120	80~120	
	F _z (mm/z)	0.1~0.3	0.1~0.3	0.1~0.3	0.1~0.3	
	a _p (mm)	10	10	16	28	
	a _e (mm)	--	6	9	6	
Hardened steel Hardness 40~50HRC	V(m/min)	80~100	80~100	80~100	--	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	--	
	a _p (mm)	10	10	16	--	
	a _e (mm)	--	6	9	--	
Gray cast iron Hardness 160~260HB	V(m/min)	250~300	250~300	250~300	250~300	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	10	10	16	28	
	a _e (mm)	--	6	9	6	
Nodular cast iron Hardness 170~300HB	V(m/min)	200~250	200~250	200~250	200~250	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	10	10	16	28	
	a _e (mm)	--	6	9	6	

Note: 1. Parameters in the table shall be adjusted according to the rigidity of the machine or workpiece.

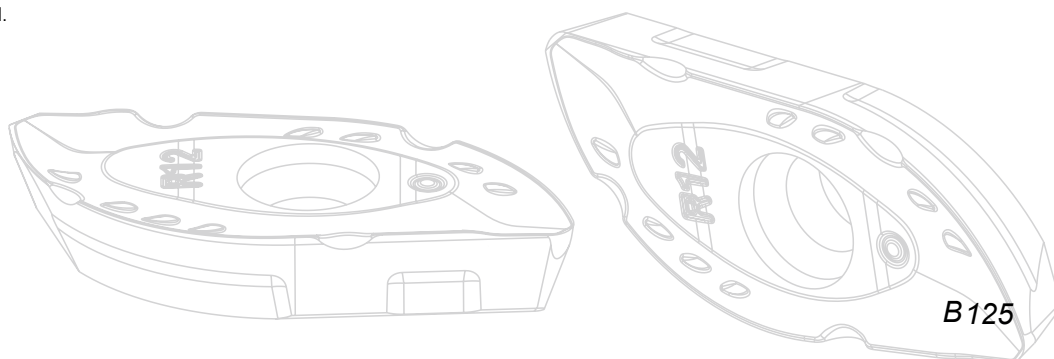
2. Wind cooling to be preferred.

► Recommended cutting parameters **Diameter Ø40**

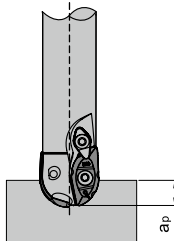
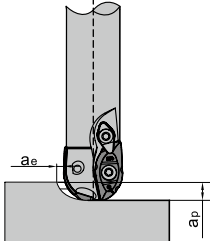
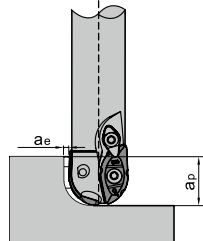
Operations						
Workpiece material	Cutting parameters	Machining of slot	Side milling (slight)		Side milling (deep)	Insert grade
Medium carbon steel Hardness 150~250HB	V(m/min)	150~220	150~220	150~220	150~220	YBG302
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	12	10	20	35	
	a _e (mm)	--	8	12	8	
Alloy steel Hardness 150~280HB	V(m/min)	100~150	100~150	100~150	100~150	
	F _z (mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	a _p (mm)	12	10	20	35	
	a _e (mm)	--	8	12	8	
Die steel Hardness 150~255HB	V(m/min)	80~120	80~120	80~120	80~120	
	F _z (mm/z)	0.1~0.3	0.1~0.3	0.1~0.3	0.1~0.3	
	a _p (mm)	12	10	20	35	
	a _e (mm)	--	8	12	8	
Hardened steel Hardness 40~50HRC	V(m/min)	80~100	80~100	80~100	--	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	--	
	a _p (mm)	12	10	20	--	
	a _e (mm)	--	8	12	--	
Gray cast iron Hardness 160~260HB	V(m/min)	250~300	250~300	250~300	250~300	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	12	10	20	35	
	a _e (mm)	--	8	12	8	
Nodular cast iron Hardness 170~300HB	V(m/min)	200~250	200~250	200~250	200~250	
	F _z (mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	a _p (mm)	12	10	20	35	
	a _e (mm)	--	8	12	8	

Note: 1. Parameters in the table shall be adjusted according to the rigidity of the machine or workpiece.

2. Wind cooling to be preferred.



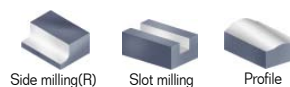
► Recommended cutting parameters Diameter Ø50

Operations						
Workpiece material	Cutting parameters	Machining of slot	Side milling (slight)		Side milling (deep)	Insert grade
Medium carbon steel Hardness 150~250HB	V(m/min)	150~220	150~220	150~220	150~220	YBG302
	Fz(mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	ap(mm)	15	10	25	40	
	ae(mm)	--	10	15	10	
Alloy steel Hardness 150~280HB	V(m/min)	100~150	100~150	100~150	100~150	
	Fz(mm/z)	0.1~0.4	0.1~0.4	0.1~0.4	0.1~0.4	
	ap(mm)	15	10	25	40	
	ae(mm)	--	10	15	10	
Die steel Hardness 150~255HB	V(m/min)	80~120	80~120	80~120	80~120	
	Fz(mm/z)	0.1~0.3	0.1~0.3	0.1~0.3	0.1~0.3	
	ap(mm)	15	10	25	40	
	ae(mm)	--	10	15	10	
Hardened steel Hardness 40~50HRC	V(m/min)	80~100	80~100	80~100	--	
	Fz(mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	--	
	ap(mm)	15	10	25	--	
	ae(mm)	--	10	15	--	
Gray cast iron Hardness 160~260HB	V(m/min)	250~300	250~300	250~300	250~300	
	Fz(mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	ap(mm)	15	10	25	40	
	ae(mm)	--	10	15	10	
Nodular cast iron Hardness 170~300HB	V(m/min)	200~250	200~250	200~250	200~250	
	Fz(mm/z)	0.08~0.15	0.08~0.15	0.08~0.15	0.08~0.15	
	ap(mm)	15	10	25	40	
	ae(mm)	--	10	15	10	

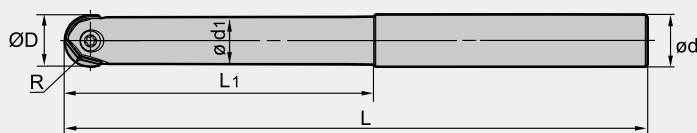
Note: 1. Parameters in the table shall be adjusted according to the rigidity of the machine or workpiece.

2. Wind cooling to be preferred.

Profile milling tools

**BMR04** **P** **M** **K**

Straight shank with straight neck



Specification of tools

Type	Stock	Basic dimensions(mm)						Weight (kg)
		R	ØD	ød	ød1	L1	L	
BMR04 -012-G12-M	▲	6	12	12	11	35	125	0.1
-012-G12-L	△	6	12	12	11	45	150	0.1
-016-G16-M	▲	8	16	16	14	40	150	0.2
-016-G16-L	△	8	16	16	14	55	180	0.3
-020-G20-M	▲	10	20	20	18	65	180	0.4
-020-G20-L	△	10	20	20	18	100	250	0.6
-025-G25-M	▲	12.5	25	25	23	70	200	0.7
-025-G25-L	△	12.5	25	25	23	100	250	0.9
-030-G32-M	▲	15	30	32	27	130	250	1.2
-030-G32-L	△	15	30	32	27	150	300	1.5
-032-G32-M	▲	16	32	32	29	80	250	1.4
-032-G32-L	△	16	32	32	29	109	300	1.7

▲Stock available △Make-to-order

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Profile milling tools

Tools code key

B22-B23

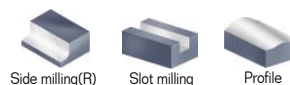
Grade selection guide

B18-B21

Technical data

B192-B198

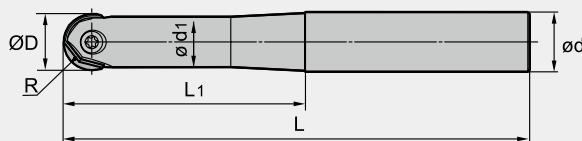
Profile milling tools



BMR04 P M K



Straight shank with taper neck



Specification of tools

Type	Stock	Basic dimensions(mm)						Weight (kg)
		R	ØD	ød	ød1	L1	L	
BMR04 -012-G16-M	▲	6	12	16	11	50	125	0.2
-012-G16-L	△	6	12	16	11	60	150	0.2
-016-G20-M	▲	8	16	20	14	60	150	0.3
-016-G20-L	△	8	16	20	14	80	180	0.3
-020-G25-M	▲	10	20	25	18	75	180	0.6
-020-G25-L	△	10	20	25	18	85	200	0.6
-025-G32-M	▲	12.5	25	32	23	90	200	1.0
-025-G32-L	△	12.5	25	32	23	110	250	1.3
-030-G40-M	▲	15	30	40	27	110	250	2.0
-030-G40-L	△	15	30	40	27	125	300	2.4
-032-G40-M	▲	16	32	40	29	110	250	2.0
-032-G40-L	△	16	32	40	29	125	300	2.4

▲ Stock available △ Make-to-order

Indexable milling tools

Profile milling tools

Tools code key
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