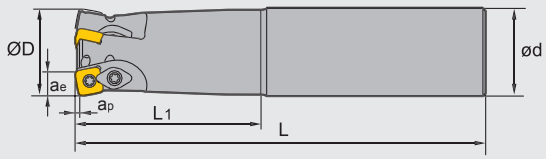
High feed milling cutters

XMR01 P M K S

S-type insert, straight shank



Specification of tools

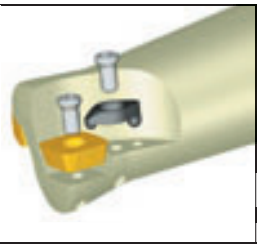
Type		Stock	Basic dimensions(mm)						Number of teeth Z	Weight (kg)
			ØD	a_p	a_e	L_1	L	ød		
XMR01	-020-G20-SD06-02	▲	20	0.8	4.45	50	130	20	2	0.26
	-020-G20-SD06-02CL	△	20	0.8	4.45	100	180	20	2	0.364
	-020-G20-SD06-02CXL	△	20	0.8	4.45	130	250	20	2	0.522
	-025-G25-SD06-03	▲	25	0.8	4.45	60	140	25	3	0.46
	-025-G25-SD06-03CL	△	25	0.8	4.45	120	200	25	3	0.670
	-025-G25-SD06-03CXL	△	25	0.8	4.45	130	250	25	3	0.850
	-025-G25-SD09-02	▲	25	1.4	6.88	60	140	25	2	0.5
	-025-G25-SD09-02CL	△	25	1.4	6.88	120	200	25	2	0.636
	-025-G25-SD09-02CXL	△	25	1.4	6.88	180	300	25	3	0.980
	-032-G32-SD09-03	▲	32	1.4	6.88	90	150	32	3	0.8
	-032-G32-SD09-03CL	△	32	1.4	6.88	120	200	32	3	1.006
	-032-G32-SD09-03CXL	△	32	1.4	6.88	180	300	32	3	1.551
	-035-G32-SD09-03	▲	35	1.4	6.88	70	150	32	3	0.8
	-035-G32-SD09-03CL	△	35	1.4	6.88	120	200	32	3	1.037
	-035-G32-SD09-03CXL	△	35	1.4	6.88	180	300	32	3	1.582
	-032-G32-SD12-02	▲	32	1.8	8.77	90	150	32	2	0.8
	-032-G32-SD12-02CL	△	32	1.8	8.77	120	200	32	2	1.002
	-032-G32-SD12-02CXL	△	32	1.8	8.77	180	300	32	2	1.547
	-040-G40-SD12-03	▲	40	1.8	8.77	70	150	40	3	1.3
	-040-G40-SD12-03CL	△	40	1.8	8.77	70	250	40	3	2.118
	-040-G40-SD12-03CXL	△	40	1.8	8.77	70	300	40	3	2.579
	-040-G40-SD15-02	▲	40	2.2	11.7	70	200	40	2	1.6
	-040-G40-SD15-02CL	△	40	2.2	11.7	70	250	40	2	2.061
	-040-G40-SD15-02CXL	△	40	2.2	11.7	70	300	40	2	3.522

▲Stock available △Make-to-order

XMR01-020-G20-SD06QL-02CL/CXL
Standard toolholder sery — Long sery — Extended sery

Spare parts

Tool type	Screw	Clamp Screw	Clamp	Wrench	
XMR01□□-SD06□□	I60M2.2×5.5	--	--	WT07IP	--
XMR01□□-SD09□□	I60M3.5×08TT	I60M4×8.4	WD-204	WT10IP	WT15IP
XMR01□□-SD12□□	I60M4×8.4			WT15IP	
XMR01□□-SD15□□	I60M5×13		WD-208	WT20IP	--

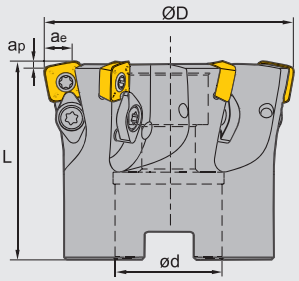


Tools code key B24–B25
Grade selection guide B19–B23
Technical data B234–B240

High feed milling cutters

XMR01 P M K S

S type insert milling cutter



Specification of tools

Type		Stock	Basic dimensions(mm)					Number of teeth Z	Type of coupling	Weight (kg)
			ØD	a_p	a_e	L	ød			
XMR01	**-050-A22-SD06-07C**	▲	50	0.8	5.8	40	22	7	A	0.36
	-063-A22-SD06-10C	▲	63	0.8	5.8	40	22	10	A	0.53
	-063-A27-SD06-10C	▲	63	0.8	5.8	50	27	10	A	0.57
	-050-A22-SD09-04C	▲	50	1.4	8.8	40	22	4	A	0.3
	-063-A22-SD09-06C	▲	63	1.4	8.8	40	22	6	A	0.5
	-063-A27-SD09-06C	▲	63	1.4	8.8	50	27	6	A	0.6
	-063-A22-SD12-05C	▲	63	1.8	11.7	40	22	5	A	0.5
	-063-A27-SD12-05C	▲	63	1.8	11.7	50	27	5	A	0.6
	-080-A27-SD12-05C	▲	80	1.8	11.7	50	27	5	A	0.9
	-100-B32-SD12-06	▲	100	1.8	11.7	50	32	6	B	1.8
	-080-A27-SD15-05C	▲	80	2.2	14	50	27	5	A	0.78
	-080-A32-SD15-05	▲	80	2.2	14	50	32	5	A	0.72
	-100-B32-SD15-07	▲	100	2.2	14	50	32	7	B	1.2
	-125-B40-SD15-09	▲	125	2.2	14	63	40	9	B	2.9
	-160-B40-SD15-12	▲	160	2.2	14	63	40	12	B	4.4

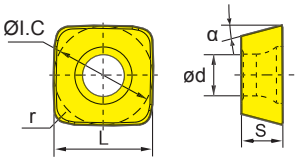
▲Stock available △Make-to-order

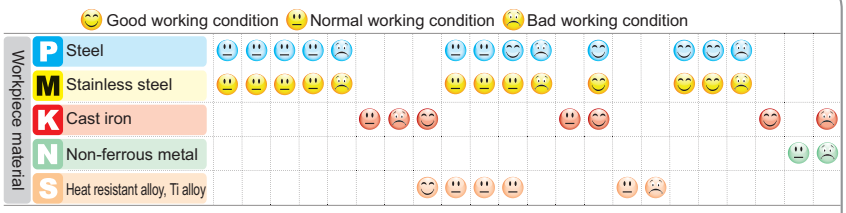
Spare parts

Tool type	Screw	Clamp Screw	Clamp	Wrench	
XMR01□□-SD06□□	I60M2.2×5.5	--	--	WT07IP	--
XMR01□□-SD09□□	I60M3.5×08TT	I60M4×8.4	WD-204	WT10IP	WT15IP
XMR01□□-SD12□□	I60M4×8.4			WT15IP	
XMR01□□-SD15□□	I60M5×13		WD-208	WT20IP	--

Tools code key B24–B25
Grade selection guide B19–B23
Technical data B234–B240

Selection of inserts





Insert shape	Type	Basic dimensions(mm)						CVD Coating						PVD Coating									Cermet		Cemented carbide			
		ØI.C	L	r	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YB9320	YBG302	YBG152	YBG252	YBS203	YBS303	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	**SDMT06T208-DM**	6.35	6.35	0.8	2.58	2.5	15°		★			★						●	○				●						
	SDMT09T312-DM	9.525	9.525	1.2	3.97	4.0	15°		★			★						●	○										
	SDMT120412-DM	12.7	12.7	1.2	4.76	4.4	15°		★			★					★	●	○										
	SDMT150520-DM	15.875	15.875	2.0	5.56	5.5	15°		★			★					●	●	○										
	**SDMT06T208-PM**	6.35	6.35	0.8	2.58	2.5	15°		★		○						●						●						
	SDMT09T312-PM	9.525	9.525	1.2	3.97	4.0	15°		★		●						●												
	SDMT120412-PM	12.7	12.7	1.2	4.76	4.4	15°		★		●						●												
	SDMT150520-PM	15.875	15.875	2.0	5.56	5.5	15°		★		●						●												
	**SDMT06T208-NM**	6.35	6.35	0.8	2.58	2.5	15°				●												●						
	SDMT09T312-NM	9.525	9.525	1.2	3.97	4.0	15°				○											○	○						
	SDMT120412-NM	12.7	12.7	1.2	4.76	4.4	15°				○							○				○	○						
	SDMT150520-NM	15.875	15.875	2.0	5.56	5.5	15°				●							●					●						

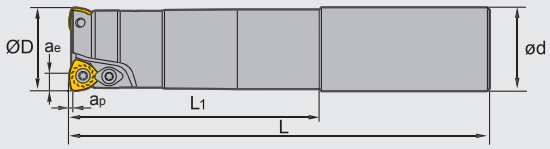
★Recommended grade (always stock available) ●Available grade (always stock available) ○Make-to-order

Chipbreaker introduction:
-PM chipbreaker has sharp cutting edge, it is more suitable for machining with power shortage and for relatively adhesive materials, such as stainless steel and Ti alloy, etc.
-DM chipbreaker has blunt cutting edge and is relatively suitable for machining of hard materials such as hardened steel and cast iron, etc.

High feed milling cutters

XMR01 P M K

W-type insert, straight shank



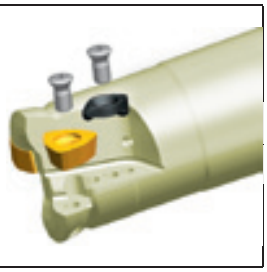
Specification of tools

Type		Stock	Basic dimensions(mm)						Number of teeth Z	Weight (kg)
			ØD	a_p	a_e	L_1	L	ød		
XMR01	-020-G20-WP05-02-M	△	20	1.5	3.8	50	130	20	2	0.2
	-020-G20-WP05-02-L	△	20	1.5	3.8	100	180	20	2	0.3
	-020-G20-WP05-02-XL	△	20	1.5	3.8	130	250	20	2	0.8
	-025-G25-WP06-02-M	△	25	1.5	4.35	60	140	25	2	0.4
	-025-G25-WP06-02-L	△	25	1.5	4.35	120	200	25	2	0.6
	-025-G25-WP06-02-XL	△	25	1.5	4.35	180	300	25	2	1.0
	-032-G32-WP06-03-M	△	32	1.5	4.35	70	150	32	3	0.8
	-032-G32-WP06-03-L	△	32	1.5	4.35	120	200	32	3	1.0
	-032-G32-WP06-03-XL	△	32	1.5	4.35	180	300	32	3	1.6
	-040-G32-WP06-03-M	△	40	1.5	4.35	50	150	32	3	0.9
	-040-G32-WP06-03-L	△	40	1.5	4.35	50	250	32	3	1.5
	-040-G32-WP06-03-XL	△	40	1.5	4.35	50	300	32	3	1.8
	-040-G32-WP08-02-M	△	40	1.5	5.66	50	150	32	2	0.9
	-040-G32-WP08-02-L	△	40	1.5	5.66	50	250	32	2	1.5
	-040-G32-WP08-02-XL	△	40	1.5	5.66	50	300	32	2	1.9
	-050-G32-WP09-02-M	△	50	3.0	6.8	50	150	32	2	1.9
	-050-G32-WP09-02-L	△	50	3.0	6.8	50	250	32	2	2.5

▲Stock available △Make-to-order

Spare parts

Tool type	Clamp/Insert screw	Clamp	Wrench	
				
XMR01□□-WP05□□	I60M3.5×6.5	--	WT10P	--
XMR01□□-WP06□□	I60M4×8.4		WT15P	
XMR01□□-WP08□□	I60M5×13	WD-208	--	WT20IT
XMR01□□-WP09□□				

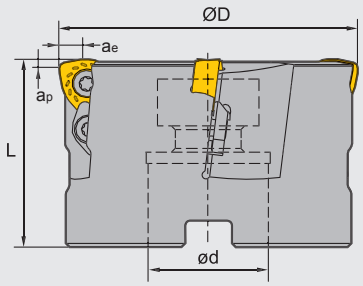


Tools code key B24–B25
Grade selection guide B19–B23
Technical data B234–B240

High feed milling cutters

XMR01 P M K

W-type insert, arbor mounting



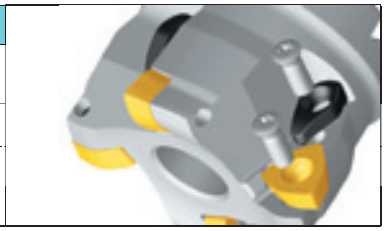
Specification of tools

Type		Stock	Basic dimensions(mm)					Number of teeth Z	Type of coupling	Weight (kg)
			ØD	a_p	a_e	L	ød			
XMR01	**-050-A22-WP06-04**	△	50	1.5	4.35	40	22	4	A	0.4
	-050-A22-WP08-03	△	50	1.5	5.66	50	22	3	A	0.4
	-063-A22-WP08-04C	△	63	1.5	5.66	50	22	4	A	0.7
	-063-A27-WP08-04C	△	63	1.5	5.66	50	27	4	A	0.7
	-080-A27-WP08-05C	△	80	1.5	5.66	63	27	5	A	1.5
	-100-B32-WP08-06	△	100	1.5	5.66	63	32	6	B	2.2
	-125-B40-WP08-07	△	125	1.5	5.66	63	40	7	B	3.5
	-160-B40-WP08-08	△	160	1.5	5.66	63	40	8	B	6.0
	-063-A22-WP09-03C	△	63	3.0	6.8	50	22	3	A	0.7
	-080-A27-WP09-04C	△	80	3.0	6.8	63	27	4	A	1.4
	-100-B32-WP09-05	△	100	3.0	6.8	63	32	5	B	2.1
	-125-B40-WP09-06	△	125	3.0	6.8	63	40	6	B	3.7
	-160-B40-WP09-07	△	160	3.0	6.8	63	40	7	B	6.3

▲Stock available △Make-to-order

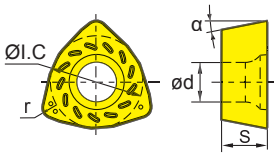
Spare parts

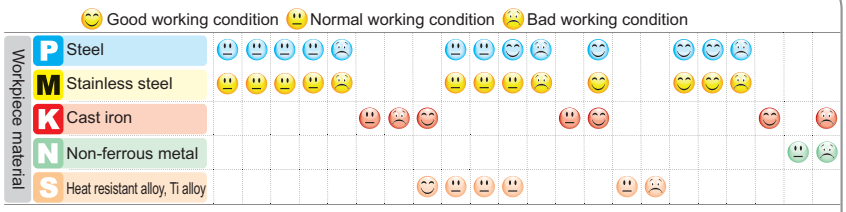
Tool type	Clamp/Insert screw	Clamp	Wrench	
				
XMR01□□-WP06□□	I60M4×8.4	--	WT15S	--
XMR01□□-WP08□□	I60M5×13	WD-208	--	WT20IT
XMR01□□-WP09□□	I60M5×13	WD-208	--	



Tools code key B24–B25
Grade selection guide B19–B23
Technical data B234–B240

Selection of inserts



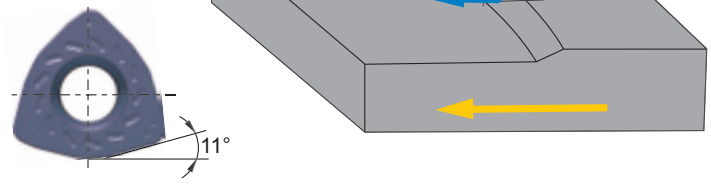


Insert shape	Type	Basic dimensions(mm)					CVD Coating							PVD Coating									Cermet		Cemented carbide			
		ØI.C	r	S	ød	α	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YB9320	YBG302	YBG152	YBG252	YBS203	YBS303	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	**WPGT050315ZSR**	7.94	1.5	3.5	4.0	11°		★		●	●																	
	WPGT060415ZSR	9.525	1.5	4.2	4.4	11°		★		●	●					●												
	WPGT080615ZSR	12.85	1.5	6.35	5.5	11°		★		●	●					●												
	WPGT090725ZSR	15.00	2.5	7	5.5	11°		★		●	●					●												
	**WPGT050315ZSR-PM**	7.94	1.5	3.5	4.0	11°		★			●					●												
	WPGT060415ZSR-PM	9.525	1.5	4.2	4.4	11°		★			●					●					○							
	WPGT080615ZSR-PM	12.85	1.5	6.35	5.5	11°		★			●					●					○							
	WPGT090725ZSR-PM	15.00	2.5	7.00	5.5	11°		★			●					●												

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

Chipbreaker introduction:
-PM chipbreaker has sharp cutting edge, it is more suitable for machining with power shortage and for relatively adhesive materials, such as stainless steel and Ti alloy, etc.
General chipbreaker has blunt cutting edge and is relatively suitable for machining of hard materials such as hardened steel and cast iron, etc.

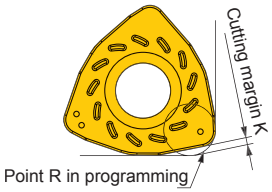
XMR01 series milling tools

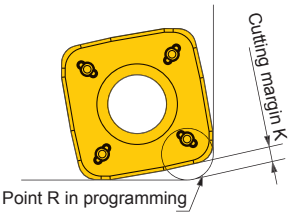


The main feature of high feed tools is to resolve the major cutting force to the axial direction, greatly reducing the radial cutting force, thus improve tool's vibration resistance. In addition, this structure can effectively reduce vibration in long-overhang milling operation.

Approximate R in machining program

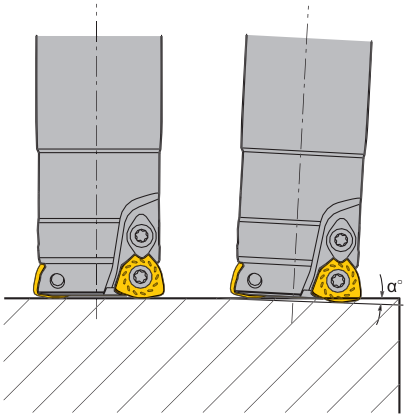
Applicable insert	Approximate R(mm)	Cutting margin K(mm)
WPGT050315ZSR/-PM	2	0.5
WPGT060415ZSR/-PM	2.5	0.7
WPGT080615ZSR/-PM	2.5	0.7
WPGT090725ZSR/-PM	4.5	1.2
SDMT06T208-DM/-PM/NM	1.6	0.5
SDMT09T312-DM/-PM/NM	2.5	0.87
SDMT120412-DM/-PM/NM	4.0	0.93
SDMT150520-DM/-PM/NM	4.0	1.38



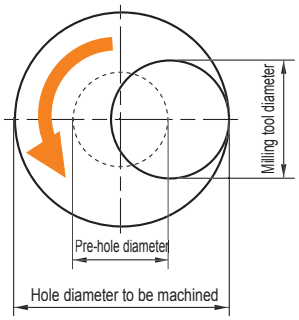


Different machining styles

■ Ramp machining



■ Helical interpolation milling



- Reduce the feed rate in ramp and helical machining operations.
- Set the axial feed rate below 0.2mm/rev in drilling operation.
- Be careful ! Long chips may fly off in drilling operation.
- The cutting depth of each rotation must not exceed the maximum cutting depth (a_p).
- The S-type insert can be used for plunge milling in addition to the machining operations mentioned above.

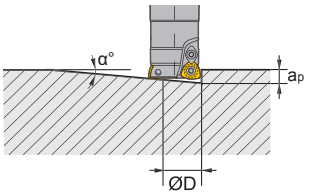
Selection guide for XMR01 series

XMR01 series tools (with SD□□ inserts) have perfect edge strength and good economical efficiency, advantageous in face milling.

XMR01 series tools (with WP□□ inserts) has good capability of chip removal, proficient in cavity milling.

Ramp milling, helical interpolation milling

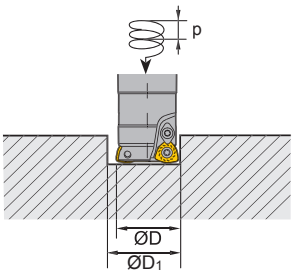
● Ramp milling



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

α:Plunge angle

● Helical interpolation milling



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

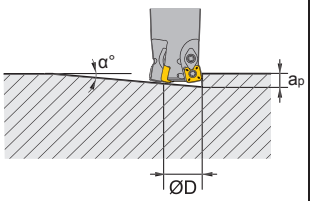
α:Helix angle

Insert	Diameter ØD(mm)	Ramp milling		Helical interpolationmilling	
		Max.cutting depth a_p(mm)	Max.plunge angle α°	Min.diameter $ØD_1$(mm)	Max.diameter (mm)
WP**05**	20	1.5	12	24	37
WP**06*	25	1.5	8.8	31	47
	32	1.5	5	45	61
	40	1.5	3.2	61	77
	50	1.5	2.8	81	97
WP**08*	40	1.5	9	52	77
	50	1.5	5.4	71	97
	63	1.5	4.3	97	123
	80	1.5	2.9	131	157
	100	1.5	2.1	171	197
	125	1.5	1.3	221	247
	160	1.5	1.1	291	317
WP**09*	50	3.0	7.2	70	96
	63	3.0	4.5	96	122
	80	3.0	2.8	130	156
	100	3.0	2.2	170	196
	125	3.0	1.6	220	246
	160	3.0	1.2	290	316

Reduce the feed rate when plunging and circular milling.
For drilling operations (axial) set the feed rate under 0.2mm.
"Attention"—drilling can produce long chips.

Ramp milling, helical interpolation milling

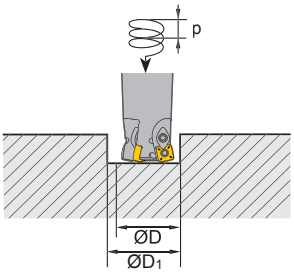
● Ramp milling



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

α:Plunge angle

● Helical interpolation milling



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

α:Helix angle

Insert	Diameter ØD(mm)	Ramp milling		Helical interpolationmilling	
		max.cutting depth a_p(mm)	max.cutting depth α°	min.diameter $ØD_1$(mm)	max. diameter(mm)
SD**06**	20	0.8	3.6	30	38
	25	0.8	2.8	40	48
	32	0.8	1.6	52	60
	40	0.8	1.1	70	78
	50	0.8	0.8	90	98
	63	0.8	0.7	114	122
SD**09**	25	1.4	6.5	34	48
	32	1.4	4.5	48	62
	35	1.4	3.6	54	68
	50	1.4	1.8	84	98
	63	1.4	1.3	110	124
SD**12**	32	1.8	10.4	44	60
	40	1.8	5.7	60	76
	50	1.8	3.5	80	96
	63	1.8	2.5	106	122
	80	1.8	1.6	140	156
	100	1.8	1.2	180	196
SD**15**	40	2.2	7.3	54	76
	80	2.2	1.4	134	156
	100	2.2	1.0	174	196
	125	2.2	0.9	234	246
	160	2.2	0.6	304	316

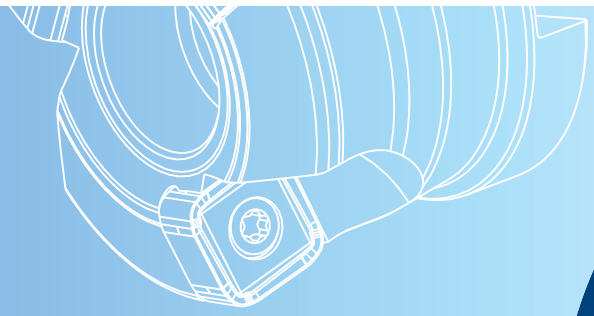
Reduce the feed rate when plunging and circular milling.
For drilling operations (axial) set the feed rate under 0.2mm.
"Attention"—drilling can produce long chips.

Recommended cutting parameters

Workpiece material		Hardness HB	Insert grade	Cutting speed (m/min)	Ø25		Ø30/32/35	
					Axial cutting depth	Feed rate per tooth	Axial cutting depth	Feed rate per tooth
P	Soft steel Carbon Steel	≤HB180 HB180-280	YBC302 YBM351 YBM253 YBG205 YB9320	170(120-220) 150(100-200)	0.6~1.5	0.6~1.2	0.6~1.2	0.5~1.4
P	Alloy steel Alloy tool steel	HB280-350	YBC302 YBM351 YBM253 YBG205 YB9320	130(80-180)	0.4~1.2	0.6~1.2	0.4~1.0	0.5~1.4
P	pre-hardened steel	≤HRC35	YBC302 YBM351 YBM253 YBG205 YB9320	120(80-160)	0.4~1.0	0.5~1.0	0.4~1.0	0.5~1.0
M	Stainless steel	≤HB270	YBM351 YBM253	120(80-160)	0.6~1.0	0.6~1.0	0.8~1.2	0.8~1.2
			YBG205 YB9320	120(80-190)				
K	Common cast iron	Tensile strength ≤350MPa	YBG302	150(100-200)	0.6~1.0	0.6~1.4	0.6~1.2	0.6~1.6
K	Nodular cast iron	Tensile strength ≤800MPa	YBG302	120(80-160)	0.4~0.8	0.5~1.2	0.4~1.0	0.5~1.4
S	Difficult-to-machine materials	≤400	YBS203	80(60-120)	0.6~1.0	0.6~1.0	0.8~1.2	0.8~1.2
			YBS303	60(45-110)	0.4~0.8	0.4~0.8	0.4~1.0	0.4~0.8

Recommended cutting parameters

Workpiece material		Hardness HB	Insert grade	Cutting speed (m/min)	Ø40		Ø50/63		Ø80/100	
					Axial cutting depth	Feed rate per tooth	Axial cutting depth	Feed rate per tooth	Axial cutting depth	Feed rate per tooth
P	Soft steel Carbon Steel	≤HB180 HB180-280	YBC302 YBM351 YBM253 YBG205 YB9320	170(120-220) 150(100-200)	0.6~1.5	0.8~1.5	0.6~1.5	0.8~1.5	0.6~1.5	0.5~1.5
P	Alloy steel Alloy tool steel	HB280-350	YBC302 YBM351 YBM253 YBG205 YB9320	130(80-180)	0.4~1.2	0.6~1.5	0.4~1.3	0.6~1.5	0.4~1.3	0.5~1.5
P	pre-hardened steel	≤HRC35	YBC302 YBM351 YBM253 YBG205 YB9320	120(80-160)	0.4~1.0	0.5~1.0	0.4~1.3	0.5~1.0	0.4~1.3	0.5~1.0
M	Stainless steel	≤HB270	YBM351 YBM253	120(80-160)	0.8~1.2	0.8~1.2	1.1~1.5	0.9~1.3	1.0~1.5	0.8~1.3
			YBG205 YB9320	120(80-190)						
K	Common cast iron	Tensile strength ≤350MPa	YBG302	150(100-200)	0.6~1.5	0.8~1.6	0.6~1.5	0.8~1.7	0.6~1.5	0.6~1.7
K	Nodular cast iron	Tensile strength ≤800MPa	YBG302	120(80-160)	0.4~1.2	0.6~1.4	0.6~1.3	0.6~1.5	0.4~1.3	0.5~1.5
S	Difficult-to-machine materials	≤400	YBS203	80(60-120)	0.8~1.2	0.6~1.0	1.1~1.5	0.6~1.2	1.0~1.5	0.4~1.2
			YBS303	60(45-110)	0.4~1.0	0.4~1.0	0.6~1.2	0.6~1.0	0.4~1.0	0.4~0.8



After reasonable calculation and optimization, the axial and radial inclination angles effectively reduce the machining resistance of the tool.

The whole cutting tool can realize stable processing with excellent impact resistance and strong vibration resistance.

Screw clamping achieves high positioning accuracy and good economy.

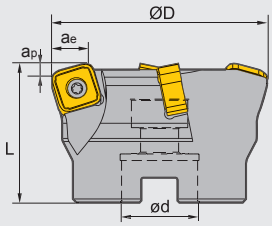
XMR03 Series of High Feed Milling Cutter

1. 8 cutting edges on both sides achieve economical and cost-effective machining.
2. Large rake angle design, low cutting resistance, special edge shape and tool combination achieve a large chip space, leading to excellent chip removal performance.
3. Due to the good versatility, it can be used for large-feed processing of various steels, as well as processing viscous materials such as stainless steel and titanium alloy.
4. 4×2=8 cutting edges

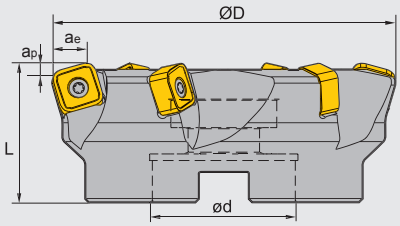
High feed milling cutters

XMR03 P M

A-type coupling



B-type coupling



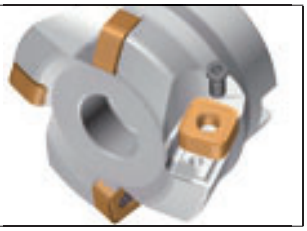
Specification of tools

Type		Stock	Basic dimensions(mm)					Number of teeth Z	Type of coupling	Weight (kg)
			ØD	a_{pmax}	a_e	L	ød			
XMR03 Coarse pitch	**-050-A22-SN12-03**	▲	50	1.8	9.8	40	22	3	A	0.289
	-063-A22-SN12-04	▲	63	1.8	9.8	40	22	4	A	0.482
	-080-A27-SN12-05	▲	80	1.8	9.8	50	27	5	A	1.014
	-100-B32-SN12-06	▲	100	1.8	9.8	50	32	6	B	1.45
	-125-B40-SN12-07	▲	125	1.8	9.8	63	40	7	B	2.7
Close pitch	**-050-A22-SN12-04**	△	50	1.8	9.8	40	22	4	A	0.319
	-063-A22-SN12-05	△	63	1.8	9.8	40	22	5	A	0.512
	-080-A27-SN12-06	△	80	1.8	9.8	50	27	6	A	1.044
	-100-B32-SN12-07	△	100	1.8	9.8	50	32	7	B	1.48
	-125-B40-SN12-08	△	125	1.8	9.8	63	40	8	B	2.73
Extra close pitch	**-050-A22-SN12-05**	△	50	1.8	9.8	40	22	5	A	0.354
	-063-A22-SN12-06	△	63	1.8	9.8	40	22	6	A	0.547
	-080-A27-SN12-07	△	80	1.8	9.8	50	27	7	A	1.079
	-100-B32-SN12-08	△	100	1.8	9.8	50	32	8	B	1.435
	-125-B40-SN12-09	△	125	1.8	9.8	63	40	9	B	2.765

▲Stock available △Make-to-order

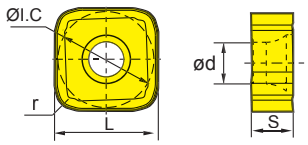
Spare parts

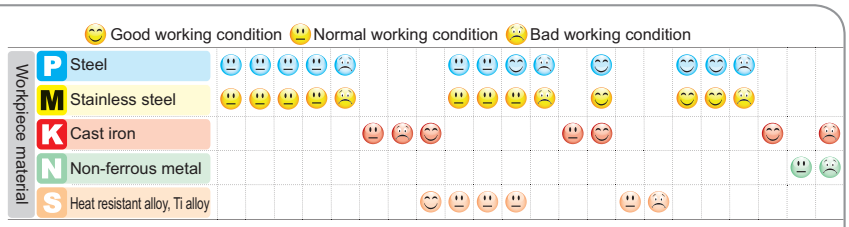
Tool type	Insert screw	Wrench
		
XMR03□□-SD12□□	I60M4×10	WT15IP



Tools code key B24–B25
Grade selection guide B19–B23
Technical data B234–B240

Selection of inserts





Insert shape	Type	Basic dimensions(mm)					CVD Coating							PVD Coating								Cermet		Cemented carbide			
		L	ØI.C	r	S	ød	YBC301	YBC302	YBM251	YBM253	YBM351	YBD152	YBD252	YBG102	YBG202	YBG205	YB9320	YBG302	YBG152	YBG252	YBS203	YBS303	YNG151	YNG151C	YC30S	YD051	YD101	YD201
	**SNGU120620-GM**	12.7	12.7	2.0	5.6	4.4				●						●	●										

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

Recommended cutting parameters

Workpiece material		Hardness HB	Insert grade	Cutting speed (m/min)	Ø50/63		Ø80/125	
					Axial cutting depth	Feed rate per tooth	Axial cutting depth	Feed rate per tooth
P	Soft steel, carbon steel	≤HB180 HB180-280	YB9320 YBM253 YBG205	170(120-220) 150(100-200)	0.6~1.5	0.5~1.5	0.6~1.5	0.6~1.5
P	Alloy steel, alloy tool steel	HB280-350	YB9320 YBM253 YBG205	130(80-180)	0.4~1.3	0.5~1.5	0.4~1.3	0.6~1.5
P	Pre-hardened steel	≤HRC35	YB9320 YBM253 YBG205	120(80-160)	0.4~1.3	0.5~1.0	0.4~1.3	0.5~1.0
M	Stainless steel	≤HB270	YBM253	120(80-160)	0.4~1.5	0.4~1.2	0.4~1.5	0.5~1.3
			YBG205 YB9320	120(80-190)				

XMR03series milling cutter processing case

Workpiece：718H(HRC 34)

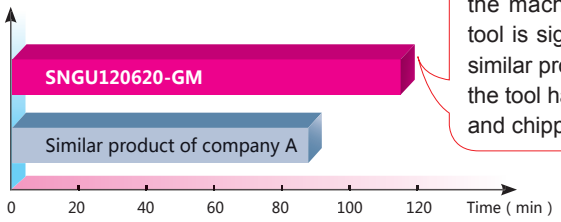
Toolholder：XMR03-050-A22-SN12-03

Insert：SNGU120620-GM/YB9320

Cutting parameter：

Vc=142m/min， fz=1.25mm/z，

ap=0.8mm



Under the same circumstances, the machining life of our XMR03 tool is significantly better than the similar product of company A , and the tool has better wear resistance and chipping resistance.