

难削材加工用球鼻铣刀
RadiusMill for Exotic Alloys

SEC-波刃圆刀片铣刀RSX型

SEC-Wave RadiusMill RSX Series 第2版

采用大前角设计和高刚性刀体 实现低阻力、低振动加工

Low cutting resistance and Low vibration machining has been achieved with High rake edge design + High rigidity body

采用难削材加工用材质“ACM100/ACM200/ACM300”，可靠性高
采用定位机构，大幅提高操作性能

High reliability achieved with ACM100/ACM200/ACM300 adopted for exotic alloy machining.
Significant operability improvements made with a positioning mechanism adopted.



P M K N S H

SEC-Wave RadiusMill RSX SERIES

难削材加工用球鼻铣刀 SEC-波刃圆刀片铣刀 RSX型

采用锋利度和刚性均优异的刀体设计,用在夹紧刚性较低的设备上也能实现稳定的加工

此外,采用不锈钢和难削材加工用材质 ACM系列,加工不锈钢、镍铬铁耐热耐蚀合金时的使用寿命长 大幅提高加工难削材时的可靠性

The SEC-Wave RadiusMill RSX Series for exotic alloy machining has a body designed to ensure both sharp performance and high rigidity, thus achieving stable machining even if it is applied to equipment with low clamp rigidity. A long life is ensured for the machining of metals, such as stainless steel and Inconel, with the adoption of the ACM Series ideal stainless steel and exotic alloy machining. Significant reliability improvements have been made in processing exotic alloy machining.

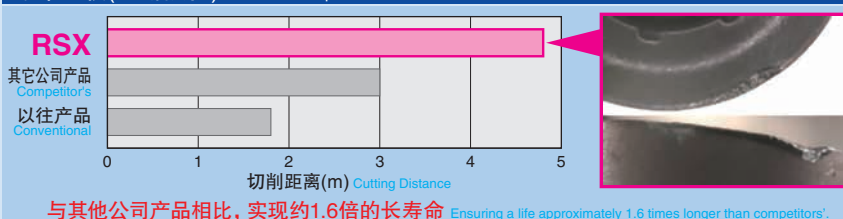
系列构成 Series

类型 Type	刀片尺寸 Insert Size	型号 Cat. No.	外径(mm) External Diameter										
			φ25	φ32	φ40	φ50	φ52	φ63	φ66	φ80	φ100	φ125	φ160
套式 Shell Type	标准 Standard	10 RSX 10000 RS			●	●	●	●	●	○	○		
		12 RSX 12000 RS/R			●	●	●	●	●	○	○		
		16 RSX 16000 RS/R			●	●	●	●	●	○	○	○	
	密齿型 Fine Pitch	10 RSXF 10000 RS			●	●	●	●	●	○	○		
		12 RSXF 12000 RS/R			●	●	●	●	●	○	○		
		16 RSXF 16000 RS/R			●	●	●	●	●	○	○	○	○
带柄型 Shank Type	标准 Standard	10 RSX 10000 ES	●	●									
		12 RSX 12000 ES	●	●									
		10 RSXF 10000 ES	●	●									
	密齿型 Fine Pitch	12 RSXF 12000 ES	●	●									
		10 RSX 10000 M	●	●									
		12 RSX 12000 M	●	●	●								
模块式 Modular Type	标准 Standard	10 RSX 10000 M	●	●									
	密齿型 Fine Pitch	10 RSXF 10000 M	●	●									
		12 RSXF 12000 M	●	●	●								

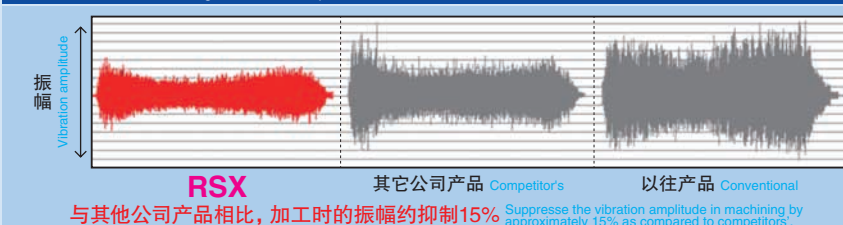
●: 仅公制备有库存 ○: 公制/英制均备有库存 ○: 公制/英制均为接单生产 无记号: 不生产
● mark: Only metric models are in stock, ○ mark: Both metric and inch models are in stock, ○ mark: Both metric and inch models are manufactured by order, Blank: Not manufactured

切削性能 Cutting Performance

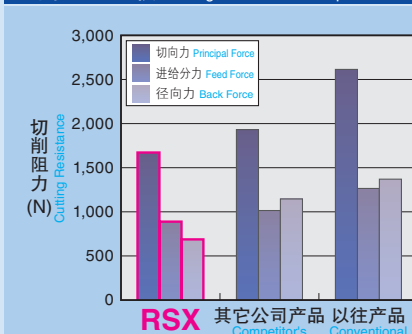
寿命比较(耐崩损性) Tool Life Comparison (Fracture Resistance)



切削振动比较 Cutting Vibration Comparison



切削阻力比较 Cutting Resistance Comparison

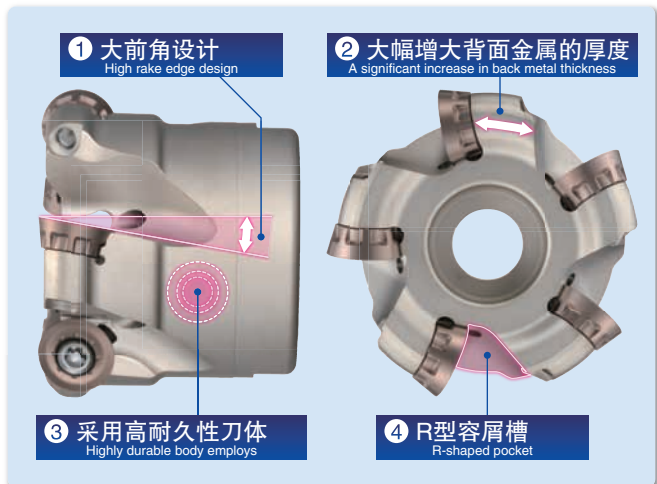


被削材: SUS304 使用工具: φ50
Work Material Tool
切削条件: $V_c = 200\text{m/min}$, $f_z = 0.5\text{mm/t}$
Cutting Conditions
 $a_p = 2.0\text{mm}$, $a_e = 10.0\text{mm}$ Wet

● 低阻力、低振动设计 Low-resistance, low-vibration design

采用超大前角和高刚性刀体设计，
实现低阻力、低振动加工

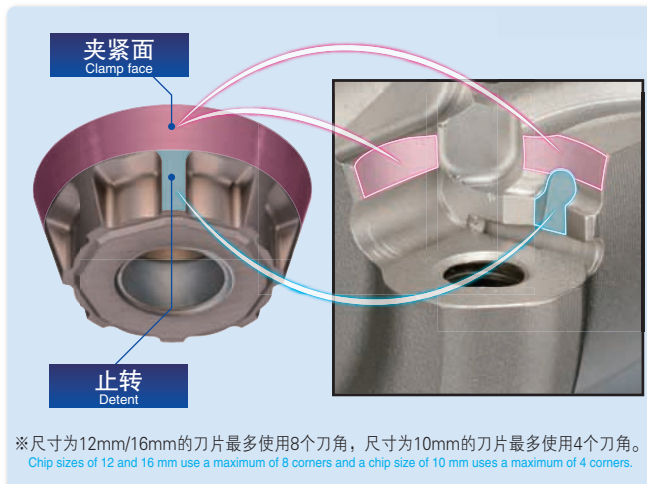
Low cutting resistance and Low vibration machining has been achieved with
Super High rake edge design + High rigidity body



● 高操作性能 High operability

采用独创的定位机构，精度和操作性能均较高，
可轻松对切削刃进行控制。

Ease of corner control has been achieved with the adoption of a unique positioning
mechanism that is highly precise and highly operable.



● 稳定、长寿命 Stable and long tool life

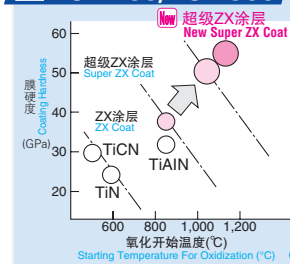
采用难削材加工用材质ACM系列，使用寿命长，
大幅提高加工难削材时的可靠性。

A long life is ensured with the adoption of the ACM Series and significant
improvements have been made in processing exotic alloy machining.

被削材 Work Material	耐磨损性 Wear Resistance	耐崩损性 Fracture Resistance
M 不锈钢 Stainless Steel	ACM100 ACM200 ACM300	
S 难削材 Exotic Alloy	ACM100 ACM200 ACM300	

材质牌号上下角的C、P表示涂层种类。
The letters "C" and "P" at either end of each grade indicate coating type.
▽: CVD ▲: PVD 无记号: 无涂层
Blank: Uncoated

ACM100/ACM300

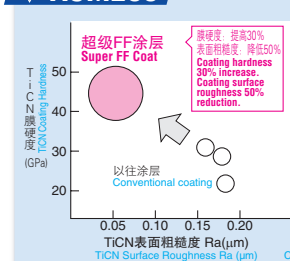


NEW Super ZX Coat

- 与以往产品相比，涂层膜的硬度提高40%，氧化开始温度提高200°C。
- 实现以往产品1.5倍以上的高速、高效率加工。
- 在同一切削条件下，实现以往产品2倍以上的长寿命。

- The product series with a coating film hardness approximately 40% higher and an oxidation onset temperature 200°C higher than conventional products.
- Enables machining at least 1.5 times faster and more efficiently than conventional products.
- A product life at least twice as long as that of conventional products achieved under the same machining conditions.

ACM200



Super FF Coat

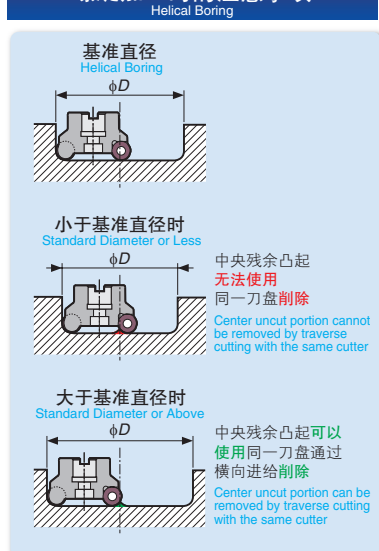
- 凭借涂层膜的平滑化及应力控制技术，实现了优异的耐崩刃性。
- 通过涂层膜的高硬化，实现以往产品1.5倍以上的高速、高效率加工。
- 在同一切削条件下，实现以往产品2倍以上的长寿命。

- Excellent chipping resistance achieved by technology for coating film smoothing and film stress control.
- The product series with an increase in coating film hardness enables machining at least 1.5 times faster and more efficiently than conventional products.
- A product life at least twice as long as that of conventional products achieved under the same machining conditions.

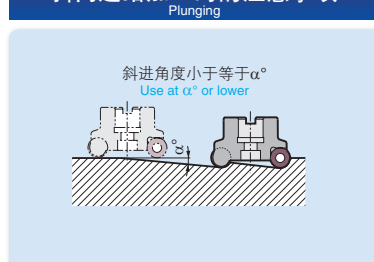
● 多种加工用途 Various machining use

可高效进行模具的凹模铣削、斜向进给加工、螺旋加工等多种加工。
Various types of processing, such as mold engraving, slant milling and helical processing, highly efficiently.

螺旋加工时的注意事项 Helical Boring



斜向进给加工时的注意事项 Plunging



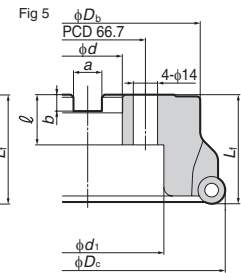
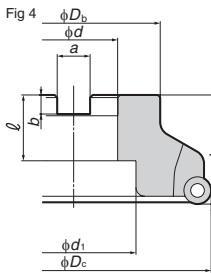
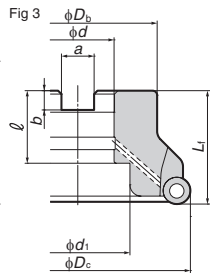
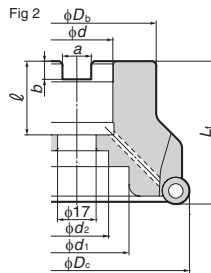
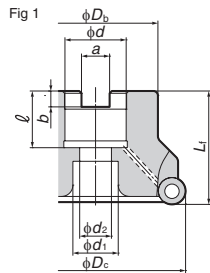
螺旋和斜向进给加工的推荐值 Recommended Values for Helical and Plunging

刀片型号 Insert Cat. No.	螺旋加工(mm) Helical Work Dia. ϕD				斜向进给加工 Taper Max. Ramping Angle
	铣刀外径 Cutter External Diameter ϕD_c	最小直径 Min.	基准直径 Standard	最大直径 Max.	$\alpha^\circ(\max)$
RDET10...	25	33.0	40	49	10°30'
	32	46.0	54	63	6°45'
	40	62.0	70	79	4°30'
	50	82.0	90	99	3°15'
	52	86.0	94	103	3°10'
RDET12...	32	41.5	52	63	12°30'
	40	57.5	68	79	8°00'
	50	77.5	88	99	5°30'
	52	81.5	92	103	5°15'
	63	103.5	114	125	4°00'
	66	109.5	120	131	3°45'
	80	137.5	148	159	2°50'
RDET16...	100	177.5	188	199	2°10'
	63	96.0	110	125	6°00'
	80	130.0	144	159	4°10'
	100	170.0	184	199	3°00'
	125	220.0	234	249	2°20'

RSX(F)10000R/12000R/16000R(S)型

New

不锈钢和镍铬铁耐热耐蚀合金等难削材切削用
Milling for stainless steel, Die steel and Hard-to-cut material



■ 主体 Body (RSX10000RS) 适用刀片 A=10mm Insert: A=10mm Series

型 号		库 存	尺 寸(mm) Dimensions									刃数	重量	Fig
Cat. No.			ϕD_c	ϕD_b	L_1	ϕd	a	b	ℓ	ϕd_1	ϕd_2			
公制	RSX 10040RS	●	40	34	40	16	8.4	5.6	18	14	9	4	0.2	1
	10050RS	●	50	40	40	22	10.4	6.3	20	18	11	5	0.3	1
	10052RS	●	52	40	40	22	10.4	6.3	20	18	11	5	0.4	1

■ 主体 Body (RSXF10000RS) 密齿型 Fine Pitch Type 适用刀片 A=10mm Insert: A=10mm Series

公制 Metric	型 号 Cat. No.	库存 Stock	ϕD_c	ϕD_p	L_1	ϕd	a	b	l	ϕd_1	ϕd_2	刃数 No. of Teeth	重量 (kg) Weight	Fig
公制 Metric	RSXF 10040RS	●	40	34	40	16	8.4	5.6	18	14	9	5	0.2	1
	10050RS	●	50	40	40	22	10.4	6.3	20	18	11	6	0.3	1
	10052RS	●	52	40	40	22	10.4	6.3	20	18	11	6	0.3	1

■ 主体 Body (RSX12000R/RS) 适用刀片 A=12mm Insert: A=12mm Series

公制 Metric	型 号 Cat. No.	库存 Stock	ϕD_c	ϕD_p	L_1	ϕd	a	b	l	ϕd_1	ϕd_2	刃数 No. of Teeth	重量 (kg) Weight	Fig
公制 Metric	RSX 12040RS	●	40	32	40	16	8.4	5.6	18	13.5	9	3	0.2	1
	12050RS	●	50	40	40	22	10.4	6.3	20	18	11	4	0.3	1
	12052RS	●	52	40	40	22	10.4	6.3	20	18	11	4	0.3	1
	12063RS	●	63	40	40	22	10.4	6.3	20	18	11	5	0.4	1
	12066RS	●	66	55	50	27	12.4	7.0	25	20	14	6	0.7	1
	12080RS	●	80	55	50	27	12.4	7.0	25	20	14	6	1.0	1
	12100RS	●	100	70	50	32	14.4	8.5	32	46	-	6	1.4	3
英制 Inch	RSX 12080R	●	80	55	50	25.4	9.5	6.0	25	20	13	6	1.0	1
	12100R	●	100	70	63	31.75	12.7	8.0	32.5	46	28	6	1.9	2

■ 主体 Body (RSXF12000R/RS) 密齿型 Fine Pitch Type 适用刀片 A=12mm Insert: A=12mm Series

公制 Metric	型 号 Cat. No.	库存 Stock	ϕD_c	ϕD_p	L_1	ϕd	a	b	l	ϕd_1	ϕd_2	刃数 No. of Teeth	重量 (kg) Weight	Fig
公制 Metric	RSXF 12040RS	●	40	32	40	16	8.4	5.6	18	13.5	9	4	0.2	1
	12050RS	●	50	40	40	22	10.4	6.3	20	18	11	5	0.3	1
	12052RS	●	52	40	40	22	10.4	6.3	20	18	11	5	0.3	1
	12063RS	●	63	40	40	22	10.4	6.3	20	18	11	6	0.4	1
	12066RS	●	66	55	50	27	12.4	7.0	25	20	14	7	0.7	1
	12080RS	●	80	55	50	27	12.4	7.0	25	20	14	7	0.9	1
	12100RS	●	100	70	50	32	14.4	8.5	32	46	-	10	1.3	3
英制 Inch	RSXF 12080R	●	80	55	50	25.4	9.5	6.0	25	20	13	7	1.0	1
	12100R	●	100	70	63	31.75	12.7	8.0	32.5	46	28	10	1.8	2

■ 主体 Body (RSX16000R/RS) 适用刀片 A=16mm Insert: A=16mm Series

公制 Metric	型 号 Cat. No.	库存 Stock	ϕD_c	ϕD_p	L_1	ϕd	a	b	l	ϕd_1	ϕd_2	刃数 No. of Teeth	重量 (kg) Weight	Fig
公制 Metric	RSX 16063RS	●	63	50	40	22	10.4	6.3	20	18	11	4	0.5	1
	16080RS	●	80	55	50	27	12.4	7.0	25	20	14	5	0.9	1
	16100RS	●	100	70	50	32	14.4	8.5	32	46	-	6	1.3	3
	16125RS	●	125	80	63	40	16.4	9.5	29	52	29	6	2.6	1
英制 Inch	RSX 16080R	●	80	55	50	25.4	9.5	6.0	25	20	13	5	0.9	1
	16100R	●	100	70	63	31.75	12.7	8.0	32.5	46	28	6	1.8	2
	16125R	●	125	80	63	38.1	15.9	10.0	35.5	55	30	6	2.7	1

■ 主体 Body (RSXF16000R/RS) 密齿型 Fine Pitch Type 适用刀片 A=16mm Insert: A=16mm Series

公制 Metric	型 号 Cat. No.	库存 Stock	ϕD_c	ϕD_p	L_1	ϕd	a	b	l	ϕd_1	ϕd_2	刃数 No. of Teeth	重量 (kg) Weight	Fig
公制 Metric	RSXF 16063RS	●	63	50	40	22	10.4	6.3	20	18	11	5	0.4	1
	16080RS	●	80	55	50	27	12.4	7.0	25	20	14	6	0.8	1
	16100RS	●	100	70	50	32	14.4	8.5	32	46	-	7	1.3	3
	16125RS	●	125	80	63	40	16.4	9.5	29	52	29	8	2.5	1
	16160RS	●	160	130	63	40	16.4	9.5	29	88	-	10	4.8	5
英制 Inch	RSXF 16080R	●	80	55	50	25.4	9.5	6.0	25	20	13	6	0.8	1
	16100R	●	100	70	63	31.75	12.7	8.0	32.5	46	28	7	1.7	2
	16125R	●	125	80	63	38.1	15.9	10.0	35.5	55	30	8	2.6	1
	16160R	●	160	100	63	50.8	19.0	11.0	38	72	-	10	4.3	4

刀体不含刀盘。选择刀盘时，请确认夹头安装尺寸(ϕd)。
Inserts are not included. Check the collet attachment size (ϕd) when selecting the cutter.

*紧固到主体 $\phi 80$ 、 $\phi 100$ mm规格的刀柄上时，请使用JIS B1176 “内六角螺栓” ($\phi 80 \rightarrow M12 \times 30 \sim 35$ mm、 $\phi 100 \rightarrow M16 \times 40 \sim 45$ mm)。
Please use JIS B1176 hexagonal bolt ($\phi 80: M12 \times 30$ to 35mm, $\phi 100: M16 \times 40$ to 45mm) for securing $\phi 80/\phi 100$ cutter to the arbour.



■ 刀片/零件 Insert / Parts



■ 型号的称呼方法 Identification Details

RSX

F

12 040 R S

①
型式记号
Cutter Series

②
密齿型
Fine Pitch Type

③
刀片尺寸
Insert Size

④
铣刀直径
Cutter

⑤
方向
Direction

⑥
公制规格
Metric

●: 标准库存品 无记号: 接单生产产品
●: Standard stock item Blank: Made to order item

RSX(F)10000ES/12000ES型

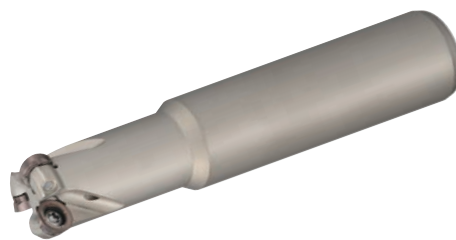
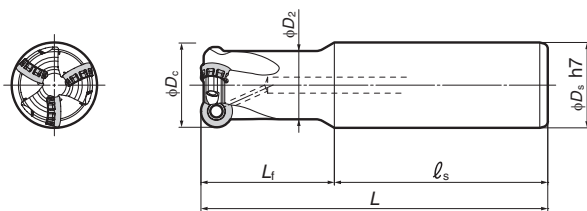
New

不锈钢和镍铬铁耐热耐蚀合金等难削材切削用
Milling for stainless steel, Die steel and Hard-to-cut material

前角 Rake Angl	径向 Radial	-5° ~ -8°
轴向 Axial	轴向 Axial	10°

5mm	6mm
(10000ES型)	(12000ES型)

P	M	K	N	S	H
钢 Steel	不锈钢 Stainless Steel	铸铁 Cast Iron	非铁合金 Non-Ferrous Alloy	钛合金 Titanium Alloy	难削材 Hard-to-cut Material



■ 主体 (RSX10000ES) 适用刀片 A=10mm
Body Insert: A=10mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSX 10025ES	●	ϕD_c 25 ϕD_s 25 ϕD_2 20.3 L_f 50 l_s 80 L 130	2	0.4
10032ES	●	ϕD_c 32 ϕD_s 32 ϕD_2 27.1 L_f 50 l_s 80 L 130	3	0.7

■ 主体 (RSX12000ES) 适用刀片 A=12mm
Body Insert: A=12mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSX 12032ES	●	ϕD_c 32 ϕD_s 32 ϕD_2 25.6 L_f 50 l_s 80 L 130	2	0.7

■ 主体 (RSXF10000ES) 密齿型 适用刀片 A=10mm
Body Fine Pitch Type Insert: A=10mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSXF 10025ES	●	ϕD_c 25 ϕD_s 25 ϕD_2 20.3 L_f 50 l_s 80 L 130	3	0.4
10032ES	●	ϕD_c 32 ϕD_s 32 ϕD_2 27.1 L_f 50 l_s 80 L 130	4	0.7

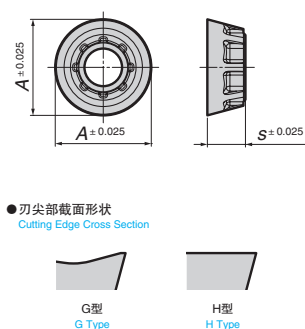
■ 主体 (RSXF12000ES) 密齿型 适用刀片 A=12mm
Body Fine Pitch Type Insert: A=12mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSXF 12032ES	●	ϕD_c 32 ϕD_s 32 ϕD_2 25.6 L_f 50 l_s 80 L 130	3	0.7

■ 刀片 Inserts

材质分类 Grade	涂层 Coated Carbide	尺寸 Dimensions	适用铣刀 Applicable Cutters
高速、轻切削 High Speed / Light	MS	ACM100	RSX(F)10000RS 型
通用切削 General Purpose	MS	ACM200	RSX(F)10000ES 型
粗切削 Roughing	MS	ACM300	RSX(F)12000R/RS 型
			RSX(F)12000ES 型
			RSX(F)16000R/RS 型

M 不锈钢 Stainless Steel S 难削材 Exotic Alloy



■ 零件 Parts

适用铣刀 Applicable Cutters	扳手 Wrench	螺钉 Screw	推荐紧固 扭矩(N·m) Recommended Tightening Torque(N·m)
RSX(F)10000R/RS/ES 型	TRDR15IP	BFTX03584IP	3.0
RSX(F)12000R/RS/ES 型		BFTX04091P	3.0
RSX(F)16000R/RS/ES 型	TRDR20IP	BFTX05111P	5.0

已附带防烧结剂SUMI-P。

Anti-seizure cream SUMI-P included in the package

■ 型号的称呼方法 Identification Details

RSX	F	10 025	ES
① 型式记号 Cutter Series	② 密齿型 Fine Pitch Type	③ 刀片尺寸 Insert Size	④ 铣刀直径 Cutter
			⑤ 立铣刀式 Endmill Type

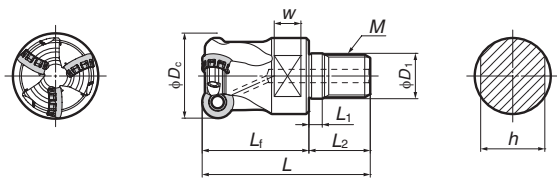
■ 推荐切削条件 Recommended Cutting Conditions

ISO	被削材 Work Material		硬度 Hardness	切削速度 v_c (m/min) 下限值-推荐值-上限值 Cutting Speed v_c (m/min) Min.-Optimum-Max.	进给量 f_z (mm/t) 下限值-推荐值-上限值 Feed Rate f_z (mm/t) Min.-Optimum-Max.	刀片 材质 Grade	
M	不锈钢 Stainless Steel	Cr 类 Cr Based	铁素体系类 Ferrite system	200HB	150 - 180 - 200	0.15-0.25-0.35	ACM300
		Cr 类 Cr Based	马氏体系类 Martensitic	200-330HB	80 - 120 - 180	0.15-0.25-0.35	ACM300
		Cr 类 Cr Based	奥氏体系类 Austenitic	200HB	150 - 180 - 200	0.15-0.25-0.35	ACM300
		Cr+Ni 类 Cr+Ni Based	双相(奥氏体、铁素体)类 Two phase(Austenitic, ferrite) system	230-270HB	80 - 120 - 180	0.15-0.25-0.35	ACM200
		Cr+Ni 类 Cr+Ni Based	沉淀硬化类 Precipitation hardening	330HB	60 - 100 - 160	0.15-0.25-0.35	ACM200
S	钛 Titanium	耐热合金 Heat-resistant alloy	Ni基材料类 Ni based material system	250-350HB	20 - 30 - 40	0.10-0.20-0.30	ACM100
		纯钛(99.5%) Pure titanium	(Rm400)	60 - 80 - 100	0.10-0.20-0.30	ACM200	
		$\alpha+\beta$ 合金类 $\alpha+\beta$ alloy system	(Rm1050)	40 - 50 - 60	0.10-0.20-0.30		

● 标准库存品
● Standard stock item

RSX(F)10000M/12000M型

New

SEC-模块式刀具
SEC-Modular Tools

前角 Rake Angl	径向 Radial	-5° ~ -8°	5mm	6mm	P	M	K	N	N	S	H
轴向 Axial	轴向 Axial	10°	(10000M型)	(12000M型)	钢	不锈钢	铸铁	非铁	铝	难削材	高速钢
					Steel	Stainless Steel	Cast Iron	Non-Ferrous Metal	Aluminum	Exotic Alloy	High Speed Steel

■ 刀头 (RSX10000M) 适用刀片 A=10mm
Body Insert: A=10mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSX 10025M12Z2	●	25 12.5 M12 56 35 5 21 10 19	2	0.1
RSX 10032M16Z3	●	32 17.0 M16 63 40 5 23 10 24	3	0.2

■ 刀头 (RSX12000M) 适用刀片 A=12mm
Body Insert: A=12mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSX 12032M16Z2	●	32 17.0 M16 63 40 5 23 10 24	2	0.2
12040M16Z3	●	40 17.0 M16 63 40 5 23 10 24	3	0.3

■ 刀头 (RSXF10000M) 密齿型 适用刀片 A=10mm
Body Fine Pitch Type Insert: A=10mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSXF 10025M12Z3	●	25 12.5 M12 56 35 5 21 10 19	3	0.1
RSXF 10032M16Z4	●	32 17.0 M16 63 40 5 23 10 24	4	0.2

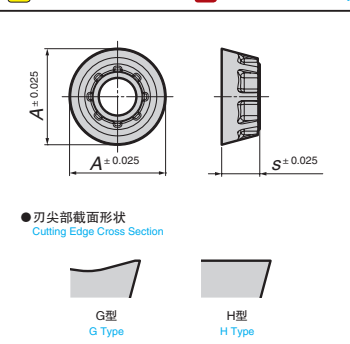
■ 刀头 (RSXF12000M) 密齿型 适用刀片 A=12mm
Body Fine Pitch Type Insert: A=12mm Series

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions	刃数 No. of Teeth	重量 (kg) Weight
RSXF 12032M16Z3	●	32 17.0 M16 63 40 5 23 10 24	3	0.2
12040M16Z4	●	40 17.0 M16 63 40 5 23 10 24	4	0.3

■ 刀片 Inserts

材质分类 Grade	涂层 Coated Carbide	尺寸 Dimensions	适用铣刀 Applicable Cutters
适用加工 Application	高速、轻切削 High Speed / Light	MS	RSX(F)10000M 型
通用切削 General Purpose	MS	MS	RSX(F)12000M 型
粗切削 Roughing	MS	MS	
型 号 Cat. No.	涂层 Coated Carbide	尺寸 Dimensions	适用铣刀 Applicable Cutters
RDET 10T3M0EN-G	●	10 3.97	RSX(F)10000M 型
10T3M0EN-H	●	10 3.97	
RDET 1204M0EN-G	●	12 4.76	RSX(F)12000M 型
1204M0EN-H	●	12 4.76	

■ 不锈钢 Stainless Steel S 难削材 Exotic Alloy



■ 零件 Parts

适用铣刀 Applicable Cutters	扳手 Wrench	螺钉 Screw	推荐紧固扭矩(N·m) Recommended Tightening Torque(N·m)
RSX(F)10000R/RS/ES 型	TRDR15IP	BFTX03584IP	3.0
RSX(F)12000R/RS/ES 型		BFTX0409IP	3.0

已附带防锈剂SUMI-P。
Anti-seizure cream SUMI-P included in the package.■ SEC-模块式刀具专用刀柄(硬质合金刀柄/钢刀柄)
Special Arbors for SEC-Modular Tools

(Carbide Arbor / Steel Arbor)

硬质合金刀柄
Carbide Arbor钢刀柄
Steel Arbor

■ 硬质合金刀柄 Carbide Arbor

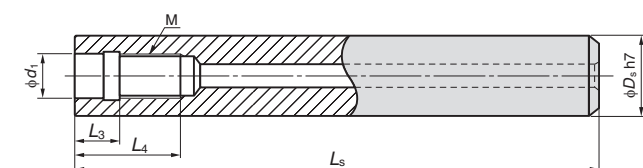
型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions
MA 23M12L200C	●	M12 12.5 23 200 10 22 235
MA 23M12L250C	●	M12 12.5 23 250 10 22 285
MA 25M12L200C	●	M12 12.5 25 200 10 22 235
MA 25M12L250C	●	M12 12.5 25 250 10 22 285
MA 28M16L200C	●	M16 17.0 28 200 10 24 240
MA 28M16L300C	●	M16 17.0 28 300 10 24 340
MA 32M16L200C	●	M16 17.0 32 200 10 24 240
MA 32M16L300C	●	M16 17.0 32 300 10 24 340

● 安装尺寸 Set Dimensions

●: 标准库存产品
●: Standard stock item

■ 型号的称呼方法 Identification Details

RSX	F	10 025	M12	Z3
① 型式记号 Cutter Series	② 密齿型 Fine Pitch Type	③ 刀片尺寸 Insert Size	④ 铣刀直径 Cutter	⑤ 安装螺钉直径 Mounting Screw Size
				⑥ 刃数 No. of Teeth



■ 钢刀柄 Steel Arbor

型 号 Cat. No.	库存 Stock	尺寸(mm) Dimensions
MA 25M12L200S	●	M12 12.5 25 200 10 22 235
MA 32M16L200S	●	M16 17.0 32 200 10 24 240

■ 型号的称呼方法 Arbor Identification

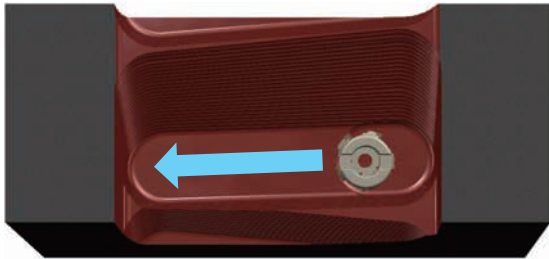
MA	23	M12	L200	C
① 型式记号 Cutter Series	② 柄径 Shank Diameter	③ 安装螺钉直径 Mounting Screw Size	④ 刀柄全长 Arbor Length	⑤ 材质 Material
				(C: 硬质合金 Carbide S: 钢 Steel)

■ 推荐紧固扭矩(N·m) Recommended Tightening Torque

螺钉规格 Screw Size	紧固扭矩规定值 Recommended Tightening Torque (N·m)	刀具尺寸 Tool Dimensions
M12	80	W 10 h 19
M16	90	W 10 h 24



■ 使用实例 Application Example

● 发电机零件 / X12 Generator parts 	刀具 Tool	对象 Comparison	RSX型 RSX Type	其它公司产品 Comp's
		刀体 Body	RSXF12050RS	φ50铣刀 Cutter
		刀片 Insert	RDET1204M0EN-G	φ12
		外径 Diameter (mm)	φ 50	φ50
		刃数 No. of Teeth	5	5
		刀片材质 Grade	ACM300(PVD)	(CVD)
	切削 条件 Cutting Conditions	切削速度 Cutting Speed (m/min)	300	300
		每刃进给量 Feed (mm/t)	0.35	0.35
		轴向切深 Axial Cutting Depth (mm)	2.0	2.0
		径向切深 Cutting Width (mm)	50.0	50.0
	结果 Results	Dry/Wet	气冷 Air Brow	气冷 Air Brow
		与其他公司产品相比，寿命提高约1.2倍 Ensuring a life approximately 1.2 times longer than competitors'.		

● 发电机零件 / X22 Generator parts 	工具 Tool	对象 Comparison	RSX型 RSX Type	其它公司产品 Comp's
		刀体 Body	RSX12050RS	φ50铣刀 Cutter
		刀片 Insert	RDET1204M0EN-G	φ12
		外径 Diameter (mm)	φ50	φ50
		刃数 No. of Teeth	5	5
		刀片材质 Grade	ACM300(PVD)	(CVD)
	切削 条件 Cutting Conditions	切削速度 Cutting Speed (m/min)	300	300
		每刃进给量 Feed (mm/t)	0.3	0.3
		轴向切深 Axial Cutting Depth (mm)	2.0	2.0
		径向切深 Cutting Width (mm)	50.0	50.0
	结果 Results	Dry/Wet	气冷 Air Brow	气冷 Air Brow
		与其他公司产品相比，寿命提高约1.2倍 Ensuring a life approximately 1.2 times longer than competitors'.		



● 加工时会出现高温切屑飞散、排出切屑过长等情况，请使用安全罩壳及防护眼镜等防护具，并务必注意防火、防灾。

● Very hot or lengthy chips may be discharged while the machine is in operation. Therefore, machine guards, safety goggles or other protective covers must be used. Fire safety precautions must also be considered.

◆安全使用注意事项◆

● 使用时请务必小心锋利刀尖。
● 使用方法错误、使用条件不当，会造成刀具崩损、飞散，请在推荐的范围内使用。

● Please handle with care as this product has sharp edges.
● Improper cutting conditions or mis-handling of the tool may result in breakages or projectiles. Therefore, please use the tool within its recommended conditions.

● 使用非水溶性切削油的情况下，为防止火灾意外，请配置自动灭火装置。

● When using non-water soluble cutting oil, precautions against fire must be taken and please ensure that a fire extinguisher is placed near the machine.



住友电工硬质合金株式会社

住友电工硬质合金贸易(上海)有限公司

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