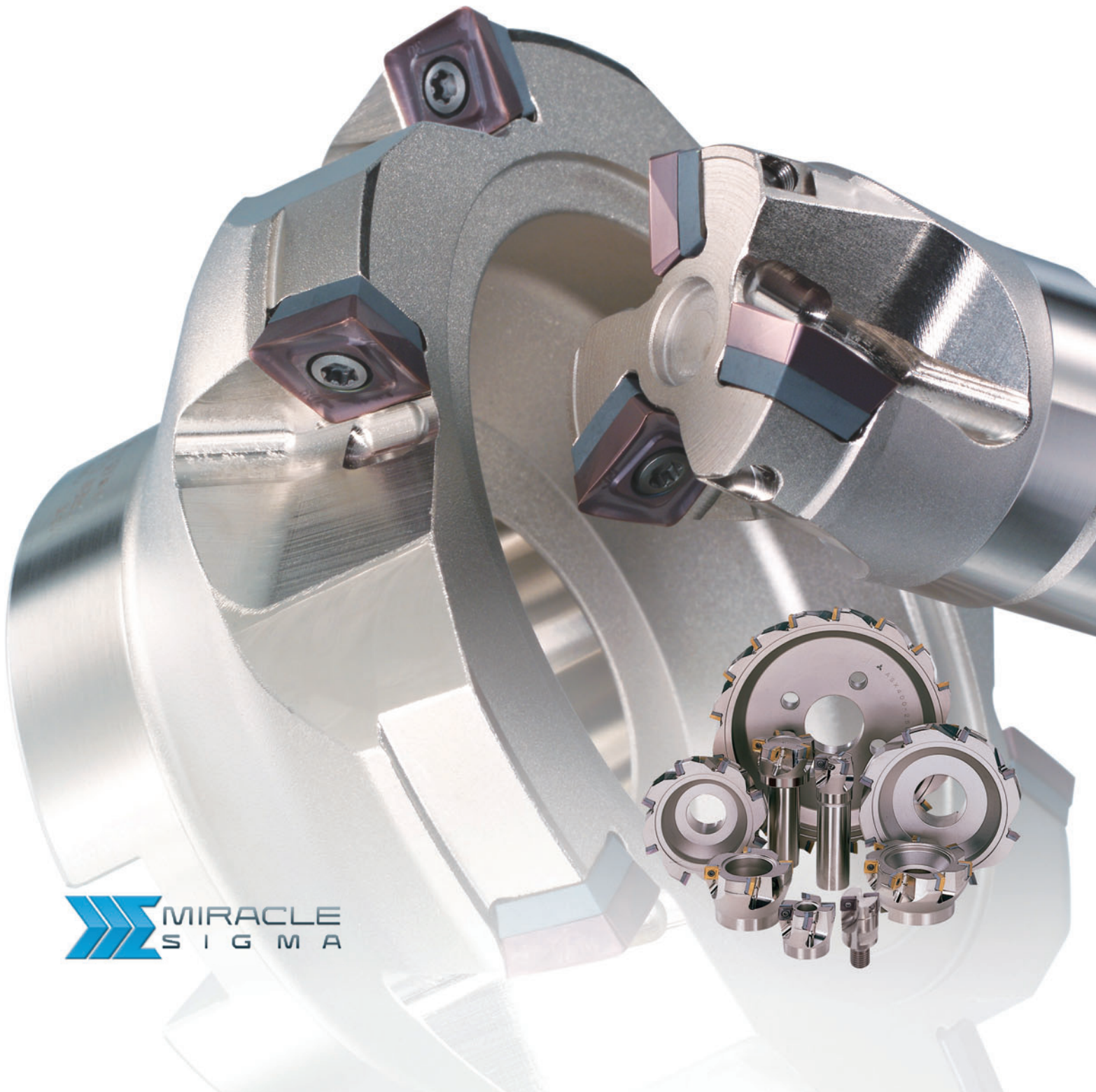


Screw-on Insert type Shoulder Milling Cutter

ASX400

New coated grades now included

For stable shoulder milling even under heavy loads.



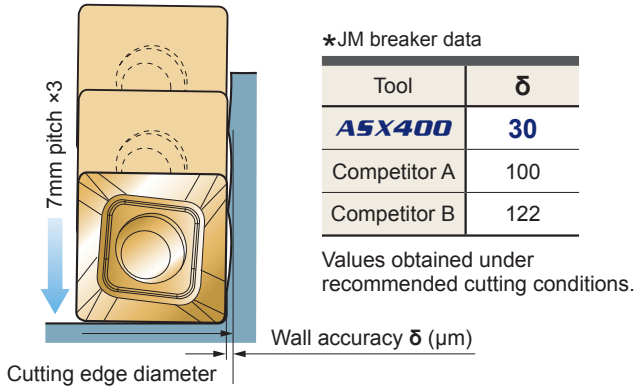
Screw-on Insert type Shoulder Milling Cutter

ASX400

Features

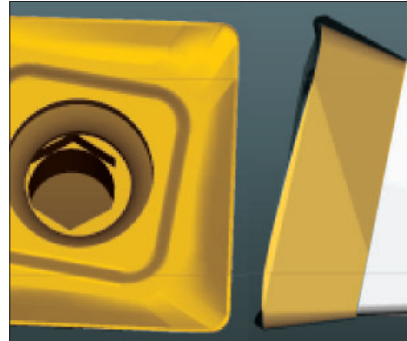
HIGH ACCURACY

Due to the curved edge and high accuracy body and insert, accurate surface finishes on walls and good surface finishes on faces can be achieved.



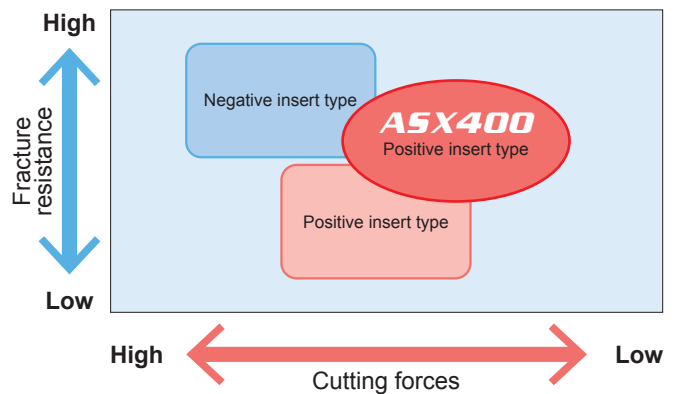
LOW RESISTANCE

Due to the 3D design of the cutting edge and a large rake angle, high cutting edge sharpness has been achieved with reduced cutting resistance.



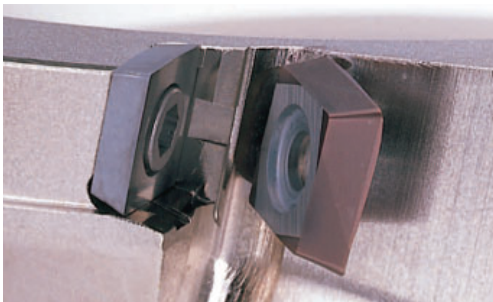
	Cutting forces	Fracture resistance	Cutting heat
ASX400	Low	Low	Low
Negative triangular insert type	High	High	High

ASX is a well-balanced cutter for positive insert type that improves fracture resistance and reduces cutting resistance. Effective for when workpiece with small thickness is cut and when heat generation is needed to suppress because of low cutting resistance, and ideal for finish cutting.



HIGH RELIABILITY

Uses a carbide shim and Mitsubishi's proprietary Anti-Fly-Insert (A.F.I) to prevent the inserts from moving when machining. Additionally the clamp screw uses TORXPLUS®, for high clamping force ensuring high reliability.



EASY TO USE

Employs a screw on type mechanism, therefore inserts can easily be loaded. Additionally when indexing the insert, it is not necessary to remove the screw completely.

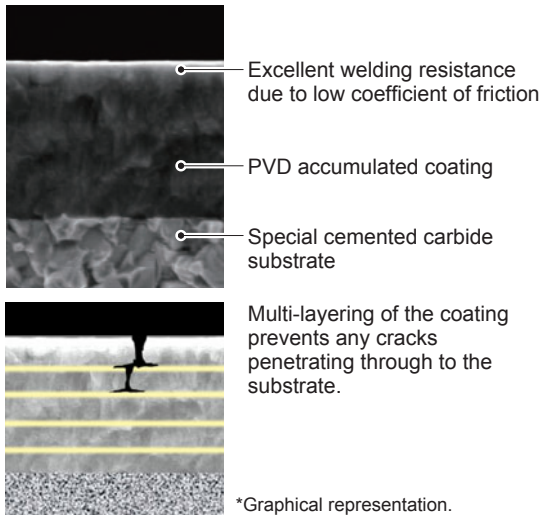


INSERT GRADES FOR A WIDE RANGE OF MATERIALS

NEW

MP6100, MP7100, MP9100 - With accumulated Al-Ti-Cr-N based PVD coating

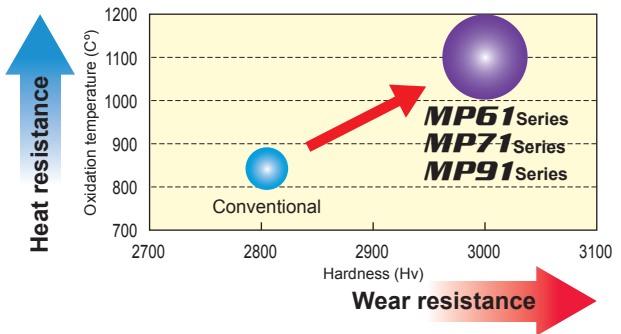
PVD coatings have properties such as toughness, low coefficient of friction and excellent welding, wear and heat resistance. This results in tough, precision grades such as MP6100, MP7100 and MP9100.



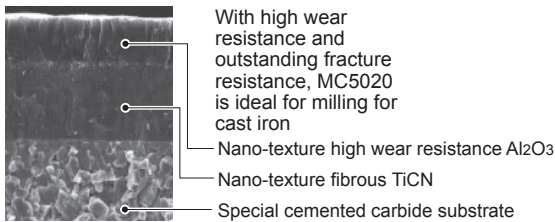
*Graphical representation.

TOUGH-Σ Technology

A fusion of the separate coating technologies; PVD and multi-layering realises extra toughness.



Super diamond coated **MC5020**



Coefficient of friction

	Work Material	Grade	Coefficient of friction		
			Measured at 600 degrees		
			S55C	SUS304	Ti-6Al-4V
P	Carbon Steel, Alloy Steel	MP6100	0.4		
M	Stainless Steel	MP7100		0.5	
S	Titanium Alloy, Heat Resistant Alloy	MP9100			0.3
	Conventional		0.7	0.7	0.7

Due to low coefficient of friction compared to conventional products, thereby achieving excellent adhesion resistance.

Super diamond coated **F7030**

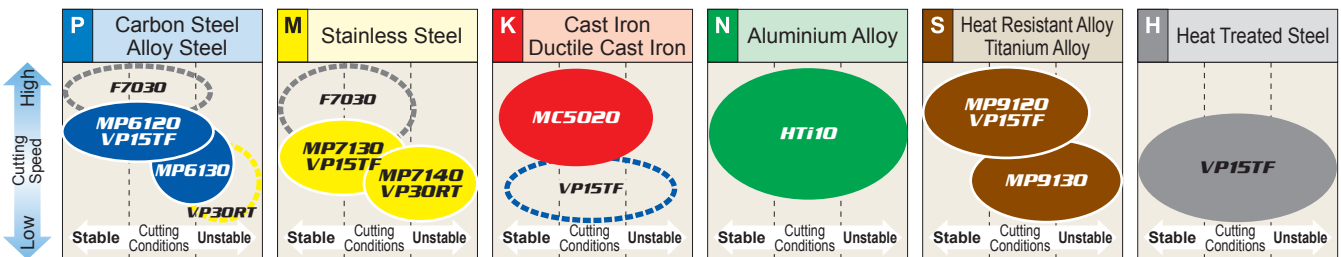
Enables high performance machining of both steel and stainless steels in both dry and wet cutting.

MIRACLE[®] coated **VP15TF**

Stable machining properties are enabled when the coating is combined with a high wear and fracture resistant carbide substrate.

MIRACLE[®] coated **VP30RT**

Ideal for heavy interrupted cutting of stainless and general steels because of the excellent fracture resistance properties.



(Note) When machining steel or stainless steel where the emphasis is on surface finish, use cermet grade NX4545.
 Stable Cutting : Continuous cutting, Constant depth of cut, Pre-machined securely clamped component cutting
 Unstable Cutting : Heavy interrupted, Irregular depth of cut, Low clamping rigidity cutting

CHIPBREAKERS FOR A WIDE RANGE OF APPLICATIONS

JL For finish to light cutting	JM For light to semi heavy cutting	JH For medium to heavy cutting	FT For heavy and interrupted cutting	JP For aluminium alloys
High accuracy insert with ground-finished periphery. Large rake angle for low cutting resistance.	High accuracy M class insert. For a wide range of workpiece materials and cutting conditions.	High accuracy M class insert. Strong cutting edge for high fracture resistance.	High accuracy M-class insert. Nose radius of 2.0mm has improved fracture resistance. Strong main cutting edge allows heavy cutting and heavy interrupted cutting. Stable cutting performance.	High accuracy insert with ground-finished periphery. Large rake angle and mirror-finished rake face for sharp cutting performance and high welding resistance.

Screw-on Insert type Shoulder Milling Cutter

SHOULDER MILLING

<GENERAL CUTTING>

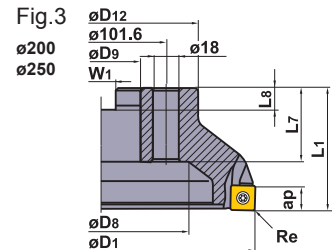
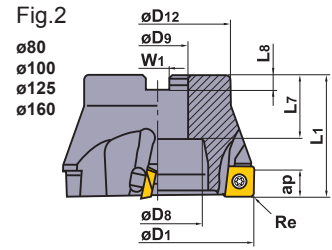
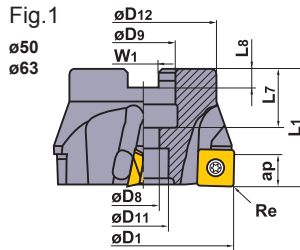


ASX400

- P
- M
- K
- N
- S
- H



- High tolerance M-class inserts.
- Economical 4 cutting edge inserts.
- Curved cutting edge and high rigidity holder.
- Screw-on type.



C H:0°
A.R:+11° T:-9°--11°
R.R:-9°--11° I:+11°

ARBOR TYPE

Right hand tool holder only.

Type	Order Number	Stock R	Number of Teeth	Dimensions(mm)									Tool Weight (kg)	Max. Depth of Cut ap (mm)	Type (Fig.)
				D1	L1	D9	L7	D8	D12	W1	L8	D11			
Coarse Pitch	ASX400-050A03R	●	3	50	40	22	20	11	41	10.4	6.3	17	0.3	10	1
	ASX400-063A04R	●	4	63	40	22	20	11	50	10.4	6.3	17	0.5	10	1
	ASX400R08004C	●	4	80	50	25.4	26	38	60	9.5	6	—	1.0	10	2
	ASX400R10005D	●	5	100	50	31.75	32	45	70	12.7	8	—	1.5	10	2
	ASX400R12506E	●	6	125	63	38.1	35	60	80	15.9	10	—	2.5	10	2
	ASX400R16008F	●	8	160	63	50.8	38	90	100	19.1	11	—	4.0	10	2
	ASX400R20010K	●	10	200	63	47.625	35	135	160	25.4	14.22	—	7.0	10	3
	ASX400R25012K	●	12	250	63	47.625	35	180	210	25.4	14.22	—	12.0	10	3
Fine Pitch	ASX400-050A04R	●	4	50	40	22	20	11	41	10.4	6.3	17	0.3	10	1
	ASX400-063A05R	●	5	63	40	22	20	11	50	10.4	6.3	17	0.5	10	1
	ASX400R08006C	●	6	80	50	25.4	26	38	60	9.5	6	—	1.0	10	2
	ASX400R10007D	●	7	100	50	31.75	32	45	70	12.7	8	—	1.5	10	2
	ASX400R12508E	●	8	125	63	38.1	35	60	80	15.9	10	—	2.5	10	2
	ASX400R16012F	●	12	160	63	50.8	38	90	100	19.1	11	—	4.0	10	2
	ASX400R20016K	●	16	200	63	47.625	35	135	160	25.4	14.22	—	7.0	10	3
	ASX400R25018K	●	18	250	63	47.625	35	180	210	25.4	14.22	—	12.0	10	3

SPARE PARTS

Tool Holder Number		*	*		
	Shim	Shim Screw	Clamp Screw	Wrench (Insert)	Wrench (Shim)
ASX400	STASX400N	WCS503507H	TPS35	TIP15T	HKY35R

* Clamp Torque (N · m) : WCS503507H=5.0, TPS35=3.5

● : Inventory maintained in Japan.



For metric arbor

The cutter bore diameter D₉ is indicated in millimetres.

Fig.1
ø50
ø63

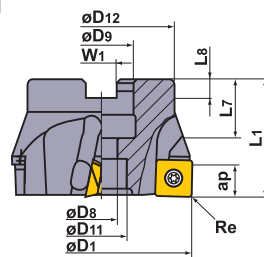


Fig.2
ø80
ø100
ø125

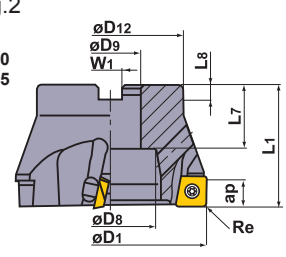


Fig.3
ø160

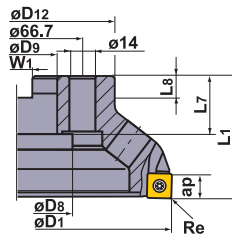
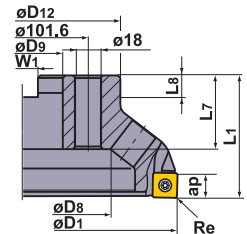


Fig.4
ø200
ø250



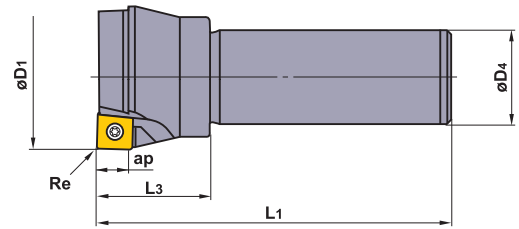
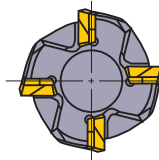
C H:0°
A.R:+11° T:-9°--11°
R.R:-9°--11° I:+11°

ARBOR TYPE

Right hand tool holder only.

Type	Order Number	Stock R	Number of Teeth	Dimensions(mm)									Tool Weight (kg)	Max. Depth of Cut ap (mm)	Type (Fig.)
				D1	L1	D ₉	L7	D ₈	D ₁₂	W ₁	L ₈	D ₁₁			
Coarse Pitch	ASX400-050A03R	●	3	50	40	22	20	11	41	10.4	6.3	17	0.3	10	1
	ASX400-063A04R	●	4	63	40	22	20	11	50	10.4	6.3	17	0.5	10	1
	ASX400-080B04R	●	4	80	50	27	29	38	60	12.4	7	—	0.9	10	2
	ASX400-100B05R	●	5	100	50	32	32	45	70	14.4	8	—	1.4	10	2
	ASX400-125B06R	●	6	125	63	40	32	60	80	16.4	9	—	2.3	10	2
	ASX400-160C08R	●	8	160	63	40	29	56	100	16.4	9	—	3.6	10	3
	ASX400-200C10R	●	10	200	63	60	32	135	160	25.7	14.22	—	6.3	10	4
	ASX400-250C12R	●	12	250	63	60	32	180	210	25.7	14.22	—	10.8	10	4
Fine Pitch	ASX400-050A04R	●	4	50	40	22	20	11	41	10.4	6.3	17	0.3	10	1
	ASX400-063A05R	●	5	63	40	22	20	11	50	10.4	6.3	17	0.5	10	1
	ASX400-080B06R	●	6	80	50	27	29	38	60	12.4	7	—	0.9	10	2
	ASX400-100B07R	●	7	100	50	32	32	45	70	14.4	8	—	1.4	10	2
	ASX400-125B08R	●	8	125	63	40	32	60	80	16.4	9	—	2.2	10	2
	ASX400-160C12R	●	12	160	63	40	29	56	100	16.4	9	—	3.5	10	3
	ASX400-200C16R	●	16	200	63	60	32	135	160	25.7	14.22	—	6.2	10	4
	ASX400-250C18R	●	18	250	63	60	32	180	210	25.7	14.22	—	10.7	10	4
Extra Fine Pitch	ASX400-050A05R	●	5	50	40	22	20	11	41	10.4	6.3	17	0.3	10	1
	ASX400-063A06R	●	6	63	40	22	20	11	50	10.4	6.3	17	0.5	10	1
	ASX400-080B08R	●	8	80	50	27	29	38	60	12.4	7	—	0.9	10	2
	ASX400-100B10R	●	10	100	50	32	32	45	70	14.4	8	—	1.4	10	2
	ASX400-125B12R	●	12	125	63	40	32	60	80	16.4	9	—	2.1	10	2
	ASX400-160C15R	●	15	160	63	40	29	56	100	16.4	9	—	3.4	10	3
	ASX400-200C19R	●	19	200	63	60	32	135	160	25.7	14.22	—	6.2	10	4
	ASX400-250C22R	●	22	250	63	60	32	180	210	25.7	14.22	—	10.5	10	4

Screw-on Insert type Shoulder Milling Cutter








SHANK TYPE

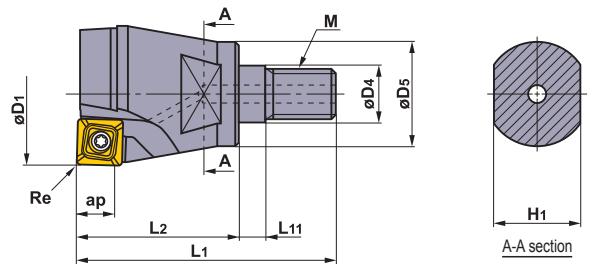
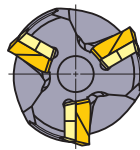
Right hand tool holder only.

Type	Order Number	Stock	Number of Teeth	Dimensions(mm)				
		R		D1	L1	D4	L3	ap
Coarse Pitch	ASX400R403S32	●	3	40	125	32	40	10
	ASX400R503S32	●	3	50	125	32	40	10
	ASX400R634S32	●	4	63	125	32	40	10
	ASX400R804S32	●	4	80	125	32	40	10
Fine Pitch	ASX400R504S32	●	4	50	125	32	40	10
	ASX400R635S32	●	5	63	125	32	40	10
	ASX400R806S32	●	6	80	125	32	40	10

SPARE PARTS






Tool Holder Number		 *	 *		
	Shim	Shim Screw	Clamp Screw	Wrench (Insert)	Wrench (Shim)
ASX400	STASX400N	WCS503507H	TPS35	TIP15T	HKY35R

* Clamp Torque (N · m) : WCS503507H=5.0, TPS35=3.5



SCREW-IN TYPE

Right hand tool holder only.

Order Number	Stock	Coolant Hole	Number of Teeth	Dimensions (mm)										Tool Weight (kg)		 *	 *		
	R			D1	D4	D5	L1	L2	L11	H1	M	ap	Shim		Shim Screw	Clamp Screw	Wrench (Insert)	Wrench (Shim)	
ASX400R322AM1640	●	○	2	32	17	29	63	40	6	24	M16	10	0.3	—	WCS503507H	TPS35	TIP15T	HKY35R	
ASX400R403AM1645	●	○	3	40	17	29	68	45	6	24	M16	10	0.3	STASX400N	WCS503507H	TPS35	TIP15T	HKY35R	

* Clamp Torque (N · m) : WCS503507H=5.0, TPS35=3.5

● : Inventory maintained in Japan. (10 inserts in one case)

INSERTS WITH BREAKER

Work Material	P	Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Cutting Conditions : ● : Stable Cutting ● : General Cutting ✦ : Unstable Cutting				
	M	Stainless Steel	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		Honing : E : Round F : Sharp T : Chamfer			
Application	Shape	Order Number	Class	Honing	Coated										Cermet	Carbide	Dimensions (mm)				Geometry		
					F7030	MC5020	MP6120	MP6130	MP7130	MP7140	MP9120	MP9130	VP15TF	VP30RT			NX4545	HT10	D1	S1		F1	Re
Finish—Light Cutting	JL Breaker	SOET12T308PEER-JL	E	E	●	●	●	●	●	●	●	●	●	●	●	●	●	●	12.7	3.97	1.4	0.8	
	JM Breaker	SOMT12T308PEER-JM	M	E	●	●	●	●	●	●	●	●	●	●	●	●	●	●	12.7	3.97	1.4	0.8	
Light—Semi-Heavy Cutting	JH Breaker	SOMT12T308PEER-JH	M	E	●	●	●	●	●	●	●	●	●	●	●	●	●	●	12.7	3.97	1.4	0.8	
	FT Breaker	SOMT12T320PEER-FT	M	E	●	●					●	●	●						12.7	3.97	0.5	2.0	
Medium—Heavy Cutting	JH Breaker	SOMT12T308PEER-JH	M	E	●	●	●	●	●	●	●	●	●	●	●	●	●	●	12.7	3.97	1.4	0.8	
Heavy Interrupted Cutting	FT Breaker	SOMT12T320PEER-FT	M	E	●	●					●	●	●						12.7	3.97	0.5	2.0	
For Aluminium Alloy	JH Breaker	SOMT12T308PEER-JH	M	E	●	●	●	●	●	●	●	●	●	●	●	●	●	●	12.7	3.97	1.4	0.8	
	JP Breaker	SOGT12T308PEFR-JP	G	F													●		12.7	3.97	1.4	0.8	

WIPER INSERTS

Shape	Order Number	Class	Honing	Cermet	Carbide	Dimensions (mm)					Geometry
				NX2525	HT105T	L1	L2	S1	F1	Re	
	WOEW12T308PEER8C	E	E		●	12.5	13.2	3.97	8	0.8	
	WOEW12T308PETR8C	E	T	●		12.5	13.2	3.97	8	0.8	

Screw-on Insert type Shoulder Milling Cutter

RECOMMENDED CUTTING CONDITIONS

Work Material	Hardness	Grade	Cutting Speed (SFM)	Finish—Light Cutting		Light—Semi-Heavy Cutting		Medium—Heavy Cutting		
				Feed per Tooth (mm/tooth)	Breaker	Feed per Tooth (mm/tooth)	Breaker	Feed per Tooth (mm/tooth)	Breaker	
P Mild Steel	≤180HB	F7030	280 (210—350)	0.18 (0.08—0.28)	JL	0.20 (0.10—0.30)	JM	0.25 (0.10—0.35)	JH	
		MP6120 VP15TF	250 (200—300)	0.18 (0.08—0.28)	JL	0.20 (0.10—0.30)	JM	0.25 (0.10—0.35)	JH FT	
		MP6130	240 (190—290)	0.18 (0.08—0.28)	JL	0.20 (0.10—0.30)	JM	0.25 (0.10—0.35)	JH	
		VP30RT	230 (180—280)	0.18 (0.08—0.28)	JL	0.20 (0.10—0.30)	JM	0.25 (0.10—0.35)	JH	
		NX4545	180 (130—230)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	—	—	
	Carbon Steel Alloy Steel	180—280HB	F7030	250 (200—300)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	0.20 (0.10—0.30)	JH
			MP6120 VP15TF	220 (170—270)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	0.20 (0.10—0.30)	JH FT
			MP6130	180 (150—230)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	0.20 (0.10—0.30)	JH
			VP30RT	150 (120—180)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	0.20 (0.10—0.30)	JH
			NX4545	150 (120—180)	0.13 (0.06—0.20)	JL	0.15 (0.10—0.25)	JM	—	—
280—350HB		F7030	180 (130—230)	0.13 (0.06—0.20)	JL	0.15 (0.10—0.25)	JM	0.18 (0.10—0.28)	JH	
		MP6120 VP15TF	140 (100—180)	0.13 (0.06—0.20)	JL	0.15 (0.10—0.25)	JM	0.18 (0.10—0.28)	JH FT	
		MP6130	120 (90—150)	0.13 (0.06—0.20)	JL	0.15 (0.10—0.25)	JM	0.18 (0.10—0.28)	JH	
		VP30RT	100 (80—160)	0.13 (0.06—0.20)	JL	0.15 (0.10—0.25)	JM	0.18 (0.10—0.28)	JH	
		NX4545	100 (80—160)	0.10 (0.05—0.15)	JL	0.13 (0.10—0.20)	JM	—	—	
M Stainless Steel	≤270HB	MP7130 VP15TF	220 (170—270)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	0.20 (0.10—0.30)	JH FT	
		MP7140 VP30RT	200 (150—250)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	0.20 (0.10—0.30)	JH	
		NX4545	150 (120—180)	0.15 (0.07—0.23)	JL	0.18 (0.10—0.28)	JM	—	—	
K Cast Iron Ductile Cast Iron	Tensile Strength ≤450MPa	MC5020	200 (150—250)	—	—	0.20 (0.10—0.30)	JM	0.25 (0.10—0.35)	JH FT	
		VP15TF	180 (130—230)	0.18 (0.10—0.28)	JL	0.20 (0.10—0.30)	JM	0.25 (0.10—0.35)	JH FT	
N Aluminium Alloy	—	HTi10	650 (300—1000)	0.15 (0.10—0.20)	JP	0.20 (0.10—0.30)	JP	0.30 (0.20—0.40)	JP	
S Titanium Alloy	—	MP9120 VP15TF	50 (40—60)	0.12 (0.05—0.20)	JL	0.15 (0.05—0.20)	JM	0.18 (0.10—0.28)	JH FT	
		MP9130	45 (30—55)	0.10 (0.05—0.20)	JL	0.15 (0.05—0.20)	JM	0.18 (0.10—0.28)	JH FT	
	Heat Resistant Alloy	—	MP9120 VP15TF	40 (20—50)	0.12 (0.05—0.20)	JL	0.15 (0.05—0.20)	JM	0.18 (0.10—0.28)	JH FT
			MP9130	35 (15—45)	0.10 (0.05—0.20)	JL	0.15 (0.05—0.20)	JM	0.18 (0.10—0.28)	JH FT
H Hardened Steel	40—55HRC	VP15TF	80 (60—100)	0.08 (0.04—0.13)	JL	0.10 (0.05—0.15)	JM	0.12 (0.07—0.17)	JH FT	

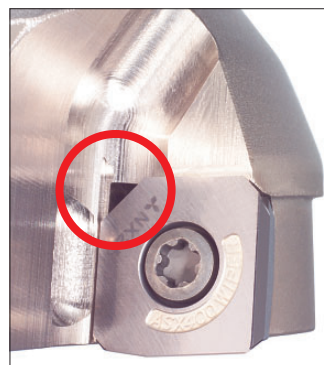
● Revolution (min⁻¹)=(1000 x Cutting Speed)÷(3.14 x φD₁) ● Table Feed (mm/min)=Feed per Tooth x Number of Teeth x Cutter Revolution

INSTRUCTIONS FOR USING INSERTS

Instructions for use of the JP breaker

- The JP breaker has sharp cutting edges. Wear gloves when handling.
- When machining aluminium alloy, welding to the cutting edge tends to occur, often leading to insert failure. To prevent this, wet cutting is recommended.

Instructions for use of wiper inserts

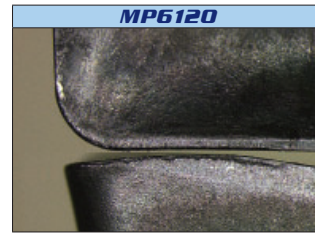
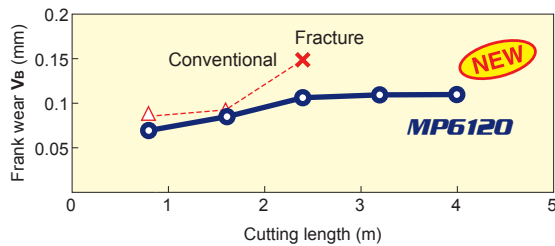


- Wiper inserts for the ASX400 are single-cornered.
- When installing the wiper insert, place the insert so that the small chamfer is located as shown.
- The peripheral cutting edge of the wiper insert does not protrude as far as standard inserts. This may cause extra wear on the insert behind the wiper.

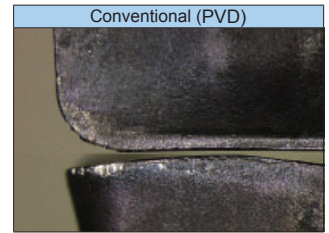
Cutting Performance

Alloy Steel

Wear Resistance



Cutting length 4.0m



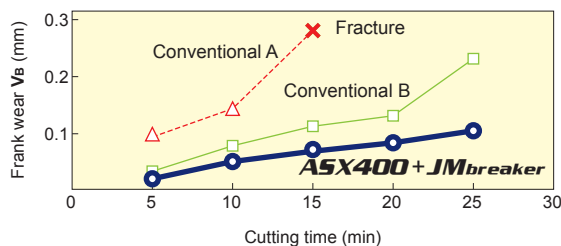
Cutting length 2.4m

<Cutting conditions>

Workpiece : SCM440 Feed per tooth : 0.15mm/tooth
 Tool : ASX400-063A05R Axial depth of cut : 3mm
 Insert : SOET12T308PEER-JM Radial depth of cut : 50mm
 Cutting speed : 200m/min Dry cutting

General Steel

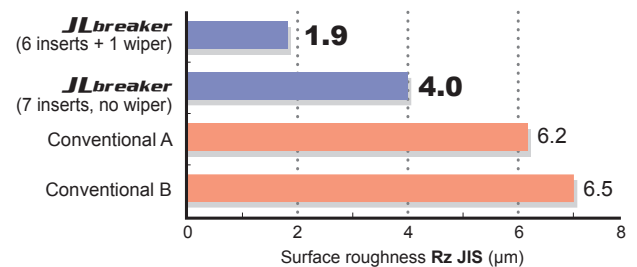
Wear Resistance



<Cutting conditions>

Workpiece : S55C Cutting speed : 200m/min
 Tool : ASX400R12506E Feed per tooth : 0.2mm/tooth
 Insert : SOMT12T308PEER-JM Axial depth of cut : 3mm
 Grade : VP15TF Radial depth of cut : 50mm
 Down cut, Dry cutting, 1 insert

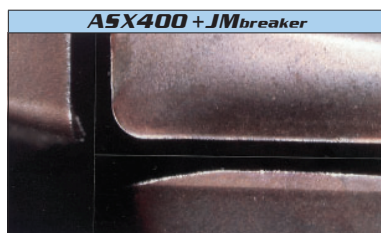
Surface Roughness



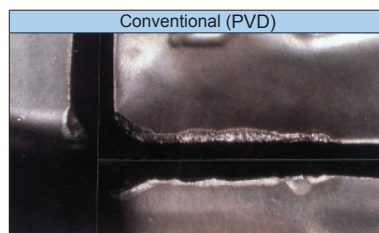
<Cutting conditions>

Workpiece : S55C Cutting speed : 150m/min
 Tool : ASX400R10007D Feed per tooth : 0.1mm/tooth
 Insert : SOET12T308PEER-JL Axial depth of cut : 1mm
 Grade : WOEW12T308PETR8C Radial depth of cut : 50mm
 Down cut, Dry cutting, All inserts

Heat Treated Steel



Cutting length 1.7m



Cutting length 0.15m

<Cutting conditions>

Workpiece : SKD61(53HRC)
 Tool : ASX400R503S32
 Insert : SOMT12T308PEER-JM
 Grade : VP15TF
 Cutting speed : 75m/min
 Feed per tooth : 0.15mm/tooth
 Axial depth of cut : 5mm
 Radial depth of cut : 10mm
 Down cut, Dry cutting, 1 insert

Aluminium Alloy

Tool	Wall accuracy (µm)	Base surface finish RzJIS (µm)	Results
ASX400	15	3	Stable machining. Low cutting power.
Conventional A	40	12	Large welding and unstable machining.
Conventional B	51	9	Large cutting power and vibration.

<Cutting conditions>

Workpiece : A6061
 Tool : ASX400R404S32
 Insert : SOGT12T308PEFR-JP
 Grade : HTi10
 Cutting speed : 750m/min
 Feed per tooth : 0.1mm/tooth
 Axial depth of cut : 7mmx3times
 Radial depth of cut : 3mm
 Down cut, Wet cutting, All inserts

Screw-on Insert type Shoulder Milling Cutter

Cutting Performance

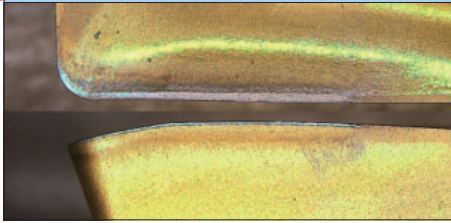
Stainless steel machining

Fracture resistance is improved by the effect of PVD multilayer coating.

Fracture Resistance

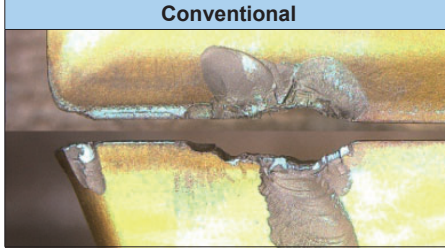
NEW

MP7130 JM breaker



Cutting length :1.0m

Conventional



Cutting length :0.5m

<Cutting conditions>

Workpiece : SUS304
 Tool : ASX400R12508E
 Insert : SOMT12T308PEER-JM
 Cutting speed : 120m/min
 Feed : 0.15mm/tooth
 Depth of cut : ap=6mm ae=16mm
 Wet cutting

Heat resistant alloy

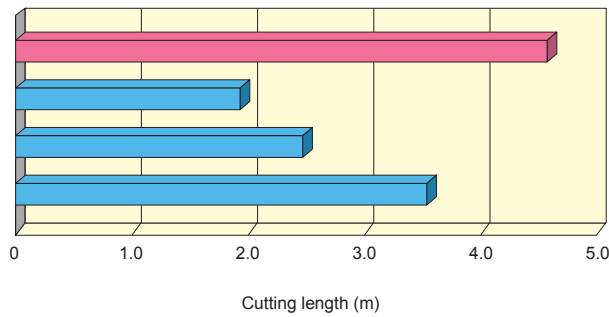
NEW

ASX400 + JM breaker

Conventional A

Conventional B

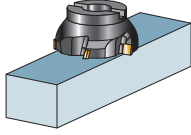
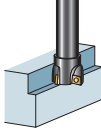
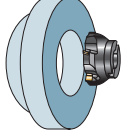
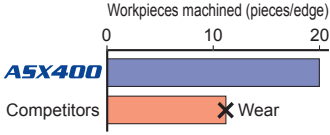
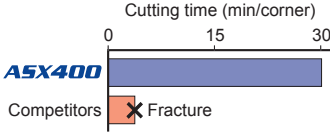
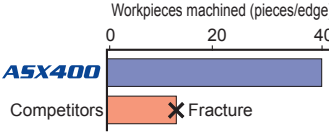
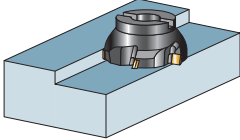
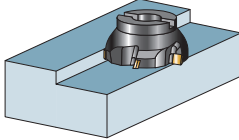
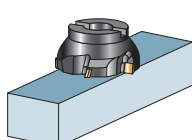
Conventional C



<Cutting conditions>

Workpiece : Ti-6Al-4V
 Tool : ASX400-063A04R
 Insert : SOMT12T308PEER-JM
 Grade : MP9120
 Cutting speed : 60m/min
 Feed per tooth : 0.1mm/tooth
 Axial depth of cut : 8mm
 Radial depth of cut : 6mm
 Wet cutting

APPLICATION EXAMPLES

Cutter Body		ASX400R16012F	ASX400R635S32	ASX400R10005D
Insert (Grade)		SOMT12T308PEER-JM (F7030)	SOMT12T308PEER-JM (VP15TF)	SOMT12T308PEER-JM (VP30RT)
Workpiece		SCM440 	SKD61 (52HRC) 	SUS316L 
Component		Machine parts	Mold material	Valve parts
Cutting Conditions	Cutting Speed (m/min)	250	100	150
	Feed (mm/tooth)	0.15	0.1	0.15
	Axial depth of cut (mm)	3	4 x 4pass	4
	Radial depth of cut (mm)	120	20	40-100
Coolant		Dry cutting	Dry cutting	Dry cutting
Results		<p>Workpieces machined (pieces/edge)</p> 	<p>Cutting time (min/corner)</p> 	<p>Workpieces machined (pieces/edge)</p> 
Cutter Body		ASX400-050A04R	ASX400-050A05R	ASX400-050A04R
Insert (Grade)		SOMT12T308PEER-JM (MP6120)	SOMT12T308PEER-JM (MP6130)	SOMT12T308PEER-JM (MP7130)
Workpiece		S45C  NEW	SCM440  NEW	SUS316  NEW
Component		Machine parts	Machine parts	Structural component
Cutting Conditions	Cutting Speed (m/min)	152	180	88
	Feed (mm/tooth)	0.15	0.2	0.1
	Axial depth of cut (mm)	3.8	1.8	≤2
	Radial depth of cut (mm)	6.2	31.75	≤2
Coolant		Dry cutting	Wet cutting	Wet cutting
Results		MP6120 achieves 3 times longer tool life compared to conventional cutters.	MP6130 achieves 1.3 times longer tool life with suppressed chipping compared to conventional cutters.	MP7130 can continue machining without fracture.



Screw-on Insert type Shoulder Milling Cutter

ASX400

For Your Safety

●Don't handle inserts and chips without gloves. ●Please machine within the recommended application range and exchange expired tools with new ones in advance of breakage. ●Please use safety covers and wear safety glasses. ●When using compounded cutting oils, please take fire precautions. ●When attaching inserts or spare parts, please use only the correct wrench or driver. ●When using rotating tools, please make a trial run to check run-out, vibration and abnormal sounds etc.

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(Tools specifications subject to change without notice.)