

SYMBOL DESCRIPTIONS

KAPR (Cutting Edge Angle) List

15°
KAPR 15°

30°
KAPR 30°

35°
KAPR 35°

42°
KAPR 42°

45°
KAPR 45°

50°
KAPR 50°

60°
KAPR 60°

75°
KAPR 75°

86°
KAPR 86°

90°
KAPR 90°

94°
KAPR 94°

R
KAPR R

- : Inventory maintained.
- ▲ : Inventory maintained.
To be replaced by new products.
- : Non stock, produced to order only.

Application

 Face Milling

 Chamfer Milling

 Shoulder Milling with R

 Face Milling Near the Wall

 Shoulder Milling

 Wall Milling

 Slot Milling

 Step Milling

 Pocket Milling

 Slot Milling with R

 Copy Milling

 T-Slot Milling

 Spot Milling

 Helical Drilling

M

INDEXABLE MILLING

Accuracy



Finish Cutting



Medium Cutting



Rough Cutting

Work Material Range

1st Recommendation



2nd Recommendation



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LIST OF CUTTING EDGE DIAMETER TOLERANCES

Cutter Type	Cutting Edge Diameter Tolerance (mm)	Cutter Type	Cutting Edge Diameter Tolerance (mm)
AJX	−0.1 −0.4	BXD4000 Arbor Type	−0.1 −0.4
APX3000 Arbor Type	−0.1 −0.4	BXD4000 Shank Type	−0.1 −0.2
APX3000 Shank Type	−0.1 −0.2	CBJP	0 −0.3
APX3000 Long Cutting Edge Type	−0.1 −0.3	CBMP	0 −0.3
APX4000 Arbor Type	−0.1 −0.4	OCTACUT	0 −0.3
APX4000 Shank Type	−0.1 −0.2	PMC	±0.05
APX4000 Long Cutting Edge Type	−0.1 −0.3	PMF	0 −0.3
AQX	−0.1 −0.3	PMR	0 −0.3
ARP Arbor Type	−0.1 −0.3	SPX	−0.1 −0.3
ARP Shank Type	−0.1 −0.2	SRF	0 −0.027
ARX	−0.05 −0.15	SRM	−0.05 −0.15
ASX400	0 −0.3	SUF	0 −0.02
AXD4000 Arbor Type	−0.1 −0.4	TSMP	−0.1 −0.3
AXD4000 Shank Type	−0.1 −0.2	VFX5, VFX6 Shell Type	−0.1 −0.3
AXD7000 Arbor Type	−0.1 −0.4	VOX400	−0.1 −0.4
AXD7000 Shank Type	−0.1 −0.2	VPX Arbor Type	−0.1 −0.3
BAP300	0 −0.3	VPX Shank Type	−0.1 −0.2
BRP	−0.1 −0.3	WJX	−0.1 −0.3

Note 1) Cutting edge diameter tolerance when the gauge insert is set.

Note 2) When setting the insert available, the insert tolerance is added to the above tolerance.

(Tolerance when setting the insert for SRF.)

MAXIMUM ALLOWABLE REVOLUTION FOR CUTTER

Diameter (mm)	WSX445		ASX445		AOX445		ASX400		SE515	
	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)
40	19000	3.5	—	—	—	—	—	—	—	—
50	17000	3.5	18000	3.5	13000	8	18000	3.5	—	—
63	15000	3.5	16000	3.5	12000	8	16000	3.5	—	—
80	14000	3.5	14000	3.5	11000	8	14000	3.5	—	—
100	12000	3.5	13000	3.5	9300	8	13000	3.5	9300	8
125	11000	3.5	12000	3.5	8300	8	12000	3.5	8100	8
160	9500	3.5	10000	3.5	7200	8	10000	3.5	7000	8
200	8500	3.5	9000	3.5	6400	8	9000	3.5	—	—
250	7500	—	8000	3.5	—	—	8000	3.5	—	—
315	6500	—	6500	3.5	—	—	—	—	—	—

Diameter (mm)	FMAX		V10000		NF10000		SG20		AHX640W	
	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)
40	30000	—	—	—	—	—	—	—	—	—
50	30000	3.5	—	—	—	—	—	—	—	—
63	27000	3.5	25000	3.5	—	—	—	—	—	—
80	24500	3.5	22300	3.5	16000	8.5	8200	8.5	8900	6
100	22000	3.5	20000	3.5	14000	8.5	7000	8.5	7800	6
125	19600	3.5	17800	3.5	12000	8.5	6100	8.5	6600	6
160	—	—	—	—	—	—	5300	8.5	5300	6
200	—	—	—	—	—	—	—	—	4100	6
250	—	—	—	—	—	—	—	—	2900	6
315	—	—	—	—	—	—	—	—	1700	6































Diameter (mm)	AXD4000		AXD7000		BXD4000		VPX200		VPX300	
	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)	Max. Allowable Revolution (min ⁻¹)	Clamp Torque (N • m)
16	—	—	—	—	—	—	37900	1.0	—	—
18	—	—	—	—	—	—	35300	1.0	—	—
20	15000	1.5	—	—	15000	4	33200	1.0	—	—
22	—	—	—	—	—	—	31400	1.0	—	—
25	49000	1.5	—	—	38000	4	29000	1.0	24100	3.0
28	48500	1.5	—	—	—	—	27200	1.0	22500	3.0
30	—	—	—	—	—	—	26000	1.0	21500	3.0
32	48000	1.5	41000	3.5	33000	4	25100	1.0	20600	3.0
35	45000	1.5	—	—	31000	4	23800	1.0	19500	3.0
40	41000	1.5	36000	3.5	29000	4	22000	1.0	17900	3.0
50	35000	1.5	30000	3.5	24000	4	19200	1.0	15500	3.0
63	30000	1.5	25000	3.5	21000	4	16700	1.0	13400	3.0
80	27000	1.5	23000	3.5	19000	4	—	—	11500	3.0
100	23000	1.5	19000	3.5	16000	4	—	—	—	—
125	20000	1.5	16000	3.5	14000	4	—	—	—	—
160	—	—	—	—	—	—	—	—	—	—

Note 1) All values shown on this chart are based on the insert being properly seated in pocket and torqued to the recommended values.

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CLASSIFICATION

Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
For General Cutting WSX445 	5	<ul style="list-style-type: none"> ● Unique design both sides insert. ● Sudden fracture & welding prevention function. ● Highly efficient chip discharge. 	Ø40 — Ø315		M018
For General Cutting ASX445 	6	<ul style="list-style-type: none"> ● Precision inexpensive moulded type 20° positive insert. ● Screw-on type. ● A wide range of chip breakers. ● High rigidity due to carbide shim. 	Ø50 — Ø315		M030
For General Cutting AHX440S 	3	<ul style="list-style-type: none"> ● Heptagonal double sided insert. ● Economical 14 cutting edge inserts. ● Multi insert design for high feed machining. 	Ø40 — Ø160		M036 M038
For High Feed Cutting AHX475S 	1.6	<ul style="list-style-type: none"> ● Heptagonal double sided insert. ● Economical 14 cutting edge inserts. ● Multi insert design for high feed machining. ● With through coolant holes. 	Ø50 — Ø160		M036 M043
For General Cutting AHX640S 	6	<ul style="list-style-type: none"> ● Heptagonal double sided insert. ● Economical 14 cutting edge inserts. ● Multi insert design for high feed machining. 	Ø63 — Ø200		M036 M046
For High Feed Cutting for Cast Iron AHX640W 	6	<ul style="list-style-type: none"> ● Heptagonal double sided insert. ● Economical 14 cutting edge inserts. ● Multi insert design for high feed machining. 	Ø80 — Ø315		M054
For High Efficiency Cutting for Cast Iron AOX445 	8	<ul style="list-style-type: none"> ● Solid CBN octagonal double sided insert. ● Economical 16 cutting edge inserts. (When the depth of cut is 3mm) ● For high efficiency roughing through to finishing. ● Easy operation and cleansing. 	Ø63 — Ø160		M060
For Heavy Cutting SE515 	11.5	<ul style="list-style-type: none"> ● 20° positive insert. ● High rake angle. ● High rigidity due to carbide shim. 	Ø100 — Ø160		M062
For Difficult-to-cut Materials SG20 	8	<ul style="list-style-type: none"> ● 30° positive insert. ● High rake angle. ● Round shape insert with a strong cutting edge. ● Suitable for difficult - to - cut materials. 	Ø80 — Ø160		M064
For High-efficiency Finishing of Aluminium Alloys FMAX 	3	<ul style="list-style-type: none"> ● Feed Maximum (FMAX) milling cutter for ultra efficient and accurate finishing. ● With through coolant holes. 	Ø40 — Ø160		M066

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Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
High Feed Finishing for Aluminium Alloy V10000  	1.5	<ul style="list-style-type: none"> ● Insert with PCD. ● Light weight, strong aluminium alloy cutter body. ● Anti-Fly insert mechanism enables high speed milling. ● Adjustable cutting edge run-out function. 	Ø63 — Ø125	N	M070
High Speed Finishing for Aluminium Alloy and Cast Iron NF10000  	PCD 4.0 CBN 1.0	<ul style="list-style-type: none"> ● Suitable for light alloy and cast iron finishing. ● Adjustable cutting edge run-out function. 	Ø80 — Ø125	K N	M072
High Feed Finishing FF3000  	0.3	<ul style="list-style-type: none"> ● 11° positive insert. ● 1000—3000mm/min high feed machining. ● For finishing of steel machining. ● Adjustable cutting edge run-out function. 	Ø125 — Ø250	P M K N	M074
High Feed Cutting for Cast Iron FP490  	0.5	<ul style="list-style-type: none"> ● 11° positive insert. ● Suitable for cast iron finishing. ● Multi-insert design. ● For high feed cutting. ● Easy tool exchange. 	Ø80 — Ø500	K	M262
High Feed Cutting for Cast Iron FP590  	0.5	<ul style="list-style-type: none"> ● 11° positive insert. ● Suitable for cast iron finishing. ● Multi-insert design. ● For high feed cutting. ● Easy tool exchange. 	Ø125 — Ø500	K	M264
High Feed Cutting for Aluminium FE404  	9	<ul style="list-style-type: none"> ● 21° positive insert. ● High rake and relief angle. ● Multi-insert design. ● Suitable for light alloy machining. ● Easy tool exchange. 	Ø100 — Ø500	N	M266
Multi Functional Milling WJX 	2	<ul style="list-style-type: none"> ● Negative inserts. ● Stable clamp with dovetail structure. ● Suitable for high feed machining. ● Special insert design with 6 cutting edges. ● With through coolant holes. 	Ø50 — Ø160	P M K S H	M172
Multi Functional Milling AJX 	2	<ul style="list-style-type: none"> ● 15° positive insert. ● High rigidity double clamp structure. ● Suitable for high feed machining. ● Special insert design with 3 cutting edges. ● With through coolant holes. 	Ø50 — Ø160	P M K S H	M162
Multi Functional Milling of Difficult-to-cut Materials ARP  	5 6	<ul style="list-style-type: none"> ● Run-out does not occur easily when changing sections. ● Solid clamping system. ● Standardized stock of extra fine pitch. ● With through coolant holes. 	Ø40 — Ø100	M S	M186
Multi Functional Milling BRP  	6 8	<ul style="list-style-type: none"> ● 11° positive insert. ● Round shape insert with a strong cutting edge. ● Wide range of tools available. ● Suitable for mould machining. 	Ø40 — Ø100	P M K S H	M198













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Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
Multi Functional Milling OCTACUT  42° KAPR	7 9	<ul style="list-style-type: none"> ● 20° positive insert. ● For octagonal and round type inserts. ● Multi functional machining. 	Ø40 — Ø160	<div>P M K</div> <div>H</div>	M181
For Cast Iron VOX400  90° KAPR	10	<ul style="list-style-type: none"> ● Vertical inserts with high strength cutting edge. ● Economical 8 cutting edge inserts. ● Screw-on type. 	Ø50 — Ø250	<div>K</div>	M076
For General Cutting ASX400  90° KAPR	10	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through air & coolant holes. 	Ø50 — Ø250	<div>P M K</div> <div>N S H</div>	M080
For Multi Functional Cutting APX3000  90° KAPR	10	<ul style="list-style-type: none"> ● Low cutting force insert. ● High accuracy, high quality vertical wall. ● With through air & coolant holes. 	Ø32 — Ø100	<div>P M K</div> <div>N S H</div>	M097
For Multi Functional Cutting APX4000  90° KAPR	15	<ul style="list-style-type: none"> ● Low cutting force insert. ● High accuracy, high quality vertical wall. ● With through air & coolant holes. 	Ø40 — Ø160	<div>P M K</div> <div>S H</div>	M103
Multi Functional Milling for High Efficiency Machining NEW VPX200  90° KAPR	8	<ul style="list-style-type: none"> ● Special insert design with 4 cutting edges. ● High precision, high quality insert cutting edge with finishing blade. ● With through coolant holes. 	Ø32 — Ø63	<div>P M K</div> <div>N S H</div>	M112
Multi Functional Milling for High Efficiency Machining NEW VPX300  90° KAPR	11	<ul style="list-style-type: none"> ● Special insert design with 4 cutting edges. ● High precision, high quality insert cutting edge with finishing blade. ● With through coolant holes. 	Ø40 — Ø80	<div>P M K</div> <div>N S H</div>	M124
Aluminium Alloy to Difficult-to-cut Material Cutting AXD4000  90° KAPR	14.8 15.5	<ul style="list-style-type: none"> ● Low resistance chipbreaker. ● Low resistance insert and high rigidity design for excellent performance. ● For high-speed machining. ● Multi-functional machining. ● With through coolant holes. 	Ø40 — Ø125	<div>P N S</div>	M135
Aluminium Alloy to Difficult-to-cut Material Cutting AXD7000  90° KAPR	20.4 21	<ul style="list-style-type: none"> ● Low resistance chipbreaker. ● Low resistance insert and high rigidity design for excellent performance. ● For high-speed machining. ● Multi-functional machining. ● With through coolant holes. 	Ø50 — Ø125	<div>P N S</div>	M142
Aluminium Alloy to Difficult-to-cut Material Cutting BXD4000  90° KAPR	15	<ul style="list-style-type: none"> ● Curved cutting edge and high rigidity holder produce high wall accuracy. ● Low resistance insert and high rigidity design for excellent performance. ● With through coolant holes to ensure smooth chip discharge. ● For high-speed machining. ● With through coolant holes. 	Ø40 — Ø125	<div>P M N</div> <div>S H</div>	M150

CLASSIFICATION OF SIDE CUTTER

Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
VAS400 Side Cutter  	11.4 12.2	<ul style="list-style-type: none"> ● Insert with 4 cutting edges secure clamping. ● Excellent sharpness with low cutting resistance insert. ● Holders can load all corner R. <p>*Cutter bodies are only available through special orders.</p> 	Ø80 — Ø160	P K	M090
VAS500 Side Cutter  	15.4 16.2	<ul style="list-style-type: none"> ● Insert with 4 cutting edges secure clamping. ● Excellent sharpness with low cutting resistance insert. ● Holders can load all corner R. <p>*Cutter bodies are only available through special orders.</p> 	Ø100 — Ø200	P K	M092
VOS400 Side Cutter  	10	<ul style="list-style-type: none"> ● For cast iron. ● Cutter body with high-rigidity design. ● Innovative vertical insert. ● Economical 8 cutting edge inserts. <p>*Cutter bodies are only available through special orders.</p> 	Ø80 — Ø160	K	M094
ASX400 Side Cutter  	10	<ul style="list-style-type: none"> ● High-precision non-grinding insert. ● Economical 4 cutting edge inserts. ● Excellent wall surface precision with curved cutting edges and high-precision body. <p>*Cutter bodies are only available through special orders.</p> 	Ø80 — Ø160	P M K	M095































CLASSIFICATION OF BORE BORING TOOLS









































Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
BMR  	—	<ul style="list-style-type: none"> ● Double positive breaker. ● 12-corner type with right hand. ● Body with peripheral cutting edge run-out regulator. <p>*Cutter bodies are only available through special orders.</p>	—	K	M260

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Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
WSX445 	5	<ul style="list-style-type: none"> ● Unique design both sides insert. ● Sudden fracture & welding prevention function. ● Highly efficient chip discharge. ● With through coolant holes. 	Ø40 — Ø80		M022
ASX445 	6	<ul style="list-style-type: none"> ● Precision inexpensive moulded type 20° positive insert. ● Screw-on type. ● A wide range of chip breakers. ● High rigidity due to carbide shim. 	Ø50 — Ø80		M032
AOX445 	8	<ul style="list-style-type: none"> ● Solid CBN octagonal double sided insert. ● Economical 16 cutting edge inserts. (when the depth of cut is 3mm) ● For high efficiency roughing through to finishing. ● Easy operation and cleansing. 	Ø50 — Ø63		M060
AJX 	2	<ul style="list-style-type: none"> ● 13° and 15° positive inserts. ● High rigidity double clamp structure. ● Suitable for high feed machining. ● Special insert design with 3 cutting edges. ● With through coolant holes. 	Ø16 — Ø63		M164
ASX400 	10	<ul style="list-style-type: none"> ● High tolerance M-class inserts. ● Economical 4 cutting edge inserts. ● Curved cutting edge and high rigidity holder. ● Screw-on type. 	Ø40 — Ø80		M082
VPX200 	8	<ul style="list-style-type: none"> ● Special insert design with 4 cutting edges. ● High precision, high quality insert cutting edge with finishing blade. ● With through coolant holes. 	Ø16 — Ø50		M110
VPX300 	11	<ul style="list-style-type: none"> ● Special insert design with 4 cutting edges. ● High precision, high quality insert cutting edge with finishing blade. ● With through coolant holes. 	Ø25 — Ø50		M122
APX3000 	10	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through coolant holes. 	Ø12 — Ø63		M096
APX3000 Long Cutting Edge 	28 55	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. 	Ø20 — Ø40		M202
APX3000 Shell Type 	37 46	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through coolant holes. 	Ø40 Ø50		M203
































Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
BAP300  	9	<ul style="list-style-type: none"> ● 11° positive insert. ● Inserts with wiper edges produce optimal finished surface. ● Multi insert design for high feed machining. 	Ø10 — Ø63		M086
BAP300 Long Cutting Edge  	25 51	<ul style="list-style-type: none"> ● 11° positive insert. ● Inserts with wiper edges produce optimal finished surface. ● Multi insert design for high feed machining. 	Ø20 — Ø40		M210
APX4000  	15	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through air & coolant holes. 	Ø25 — Ø63		M102
APX4000 Long Cutting Edge  	56 84	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through air & coolant holes. 	Ø40 Ø50		M206
APX4000 Shell Type  	42 56	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through coolant holes. 	Ø50 Ø63		M207
AXD4000  	14.8 15.5	<ul style="list-style-type: none"> ● Low resistance chipbreaker. ● Low resistance insert and high rigidity design for excellent performance. ● For high-speed machining. ● Multi-functional machining. ● With through coolant holes. 	Ø20 — Ø40		M134
AXD7000  	20.4 21	<ul style="list-style-type: none"> ● Low resistance chipbreaker. ● Low resistance insert and high rigidity design for excellent performance. ● For high-speed machining. ● Multi-functional machining. ● With through coolant holes. 	Ø32 — Ø50		M142
BXD4000  	15	<ul style="list-style-type: none"> ● Curved cutting edge and high rigidity holder produce high wall accuracy. ● Low resistance insert and high rigidity design for excellent performance. ● With through coolant holes to ensure smooth chip discharge. ● For high-speed machining. ● With through coolant holes. 	Ø20 — Ø40		M152
AQX  	7.4 55	<ul style="list-style-type: none"> ● The center bottom cutting edge enables drilling without previously formed hole. ● With through coolant holes. 	Ø16 — Ø50		M154
ARP  	5 6	<ul style="list-style-type: none"> ● Run out does not occur easily when changing sections. ● Solid clamping system. ● Standardized stock of extra fine pitch. ● With through coolant holes. 	Ø25 — Ø50		M188

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Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
ARX  	2.5 3.5	<ul style="list-style-type: none"> ● 15° positive, high tolerance M-class insert. ● Effective for various machining applications. ● With through coolant holes. 	Ø10 — Ø25		M192
WJX  	2	<ul style="list-style-type: none"> ● Multi functional milling. ● Negative inserts. ● Stable clamp with dovetail structure. ● Suitable for high feed machining. ● Special insert design with 6 cutting edges. ● With through coolant holes. 	Ø50		M175
OCTACUT  	7 9	<ul style="list-style-type: none"> ● 20° positive insert. ● For octagonal and round type inserts. ● Multi-functional machining. 	Ø32 — Ø63		M180
BRP  	4 5	<ul style="list-style-type: none"> ● 11° positive insert. ● Round shape insert with a strong cutting edge. ● Wide range of tools available. ● Suitable for mould machining. 	Ø12 — Ø63		M196
DCCC  	27 93	<ul style="list-style-type: none"> ● Different helical flute angles prevents chattering. 	Ø25 — Ø50		M212
SPX  	72 261	<ul style="list-style-type: none"> ● Low cutting resistance due to the use of wavy inserts. ● Suitable for heavy cutting due to holder rigidity. 	Ø50 — Ø63		M215
SPX Shell Type  	58	<ul style="list-style-type: none"> ● Low cutting resistance due to the use of wavy inserts. ● Suitable for heavy cutting due to holder rigidity. 	Ø63 Ø80		M216
VFX5  	26 75	<ul style="list-style-type: none"> ● High performance titanium alloy milling. ● High rigidity design. ● Highly reliable clamping mechanism. ● With through coolant holes. 	Ø40 — Ø80		M220
VFX6  	31 90	<ul style="list-style-type: none"> ● High performance titanium alloy milling. ● High rigidity design. ● Highly reliable clamping mechanism. ● With through coolant holes. 	Ø63 — Ø100		M224
SRF/SRB  	5.5 17	<ul style="list-style-type: none"> ● S-shaped cutting edge provides sharpness similar to that of solid ball nose end mills. ● Highly accurate corner radius tolerance allows for high precision finishing. ● Carbide shank type available. 	Ø10 — Ø32		M228

Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
SUF  	1.5 5.2	<ul style="list-style-type: none"> ● Highly accurate corner radius tolerance allows for high precision finishing. ● Seamless gash. 	Ø10 — Ø32		M232
SRM2  	12 44	<ul style="list-style-type: none"> ● Suitable for roughing to semi-finishing of small and medium moulds. ● High rigidity body design. ● Low resistance chipbreaker. ● Through coolant hole type. 	Ø16 — Ø30		M236
SRM2 Ø40/Ø50  	54 63	<ul style="list-style-type: none"> ● Best for roughing of moulds. ● Low resistance chipbreaker. ● Highly rigid body. 	Ø40 Ø50		M244
CESP·CFSP·CGSP    	5.9 10.2	<ul style="list-style-type: none"> ● Covers 5 cutting modes. ● Excellent sharpness with 11° positive inserts. ● 30°, 45° and 60° chamfer series. 	Ø8 — Ø32		M246
TSMP  	11 18	<ul style="list-style-type: none"> ● T-groove order number 14, 18 and 22 are available. ● 86° rhombic shape 11° positive insert. ● Shoulder milling and inversed spot facing are also possible. 	Ø25 — Ø40		M248
CBJP·CBMP  	—	<ul style="list-style-type: none"> ● Capable of spot facing machining, boring and interpolation. ● For seat machining of hexagon socket head bolt (M8-M30). ● 86° rhombic shape 11° positive insert. 	Ø14 — Ø48		M250
KSMG 	1.2 4.5	<ul style="list-style-type: none"> ● Side face grooving tool for machining centers. ● The minimum cutting diameter is Ø25mm for internal grooving. ● For groove widths of 1.25mm — 6.0mm. 	Ø25 Ø40		M252
PMF 	0.1	<ul style="list-style-type: none"> ● 2 directional cutting with large overhang. ● Excellent straightness. ● Excellent wall accuracy. 	Ø50 — Ø80		M256
PMR 	11	<ul style="list-style-type: none"> ● 2 directional cutting with large overhang. ● Horizontal feed cutting and oblique cutting are also possible. ● Unique shape of curved edge gives high rigidity and low resistance. 	Ø50 — Ø80		M258
















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INDEXABLE MILLING

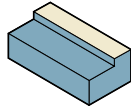
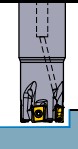
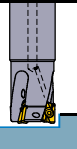
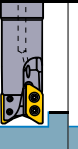

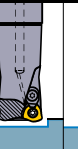

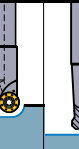
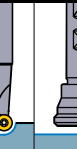
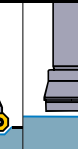
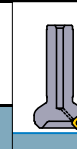
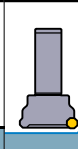

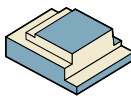

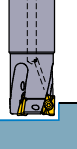
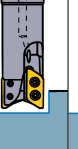

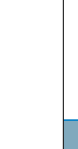

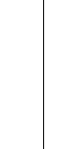
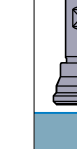

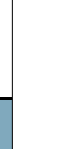


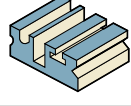


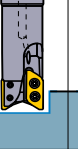

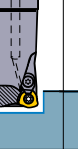
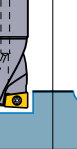

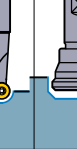

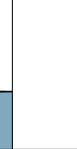


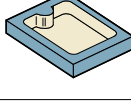




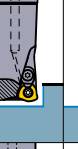

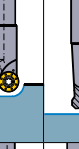
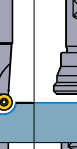




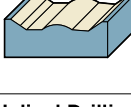


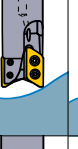

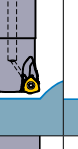
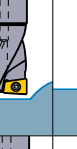
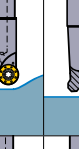
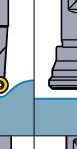




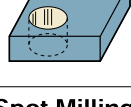


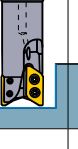

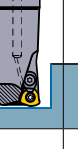

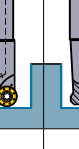
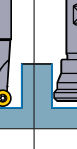
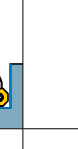






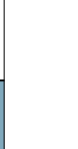


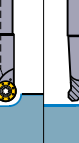
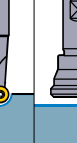

CLASSIFICATION OF SCREW-IN TOOLS

Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
ASX400  	10	<ul style="list-style-type: none"> ● High tolerance M-class inserts. ● Economical 4 cutting edge inserts. ● Curved cutting edge and high rigidity holder. ● Screw-on type. ● With through coolant holes. 	Ø32 — Ø40		M083
APX3000  	10	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through air & coolant holes. 	Ø16 — Ø40		M098
APX4000  	15	<ul style="list-style-type: none"> ● High accuracy, high quality vertical wall. ● Low cutting force insert. ● With through air & coolant holes. 	Ø25 — Ø40		M104
AQX  	7.4 18	<ul style="list-style-type: none"> ● The center bottom cutting edge enables drilling without previously formed hole. ● With through coolant holes. 	Ø16 — Ø40		M156
VPX200  	8	<ul style="list-style-type: none"> ● Special insert design with 4 cutting edges. ● High precision, high quality insert cutting edge with finishing blade. ● With through coolant holes. 	Ø16 — Ø40		M111
VPX300  	11	<ul style="list-style-type: none"> ● Special insert design with 4 cutting edges. ● High precision, high quality insert cutting edge with finishing blade. ● With through coolant holes. 	Ø25 — Ø40		M123
AJX 	2	<ul style="list-style-type: none"> ● 13° and 15° positive inserts. ● High rigidity double clamp structure. ● Suitable for high feed machining. ● Special insert design with 3 cutting edges. ● With through coolant holes. 	Ø16 — Ø40		M166
ARP  	5 6	<ul style="list-style-type: none"> ● Run-out does not occur easily when changing sections. ● Solid clamping system. ● With through coolant holes. 	Ø25 — Ø40		M189
ARX  	3	<ul style="list-style-type: none"> ● 15° positive, high tolerance M-class insert. ● Effective for various machining applications. ● With through air & coolant holes. 	Ø16 — Ø25		M193

CLASSIFICATION OF SCREW-IN TOOLS

Product Name · Shape	APMX (mm)	Features	Cutter Dia. (mm)	Work Material	Page
SRF/SRB  	9 17	<ul style="list-style-type: none"> ● S-shaped cutting edge provides sharpness similar to that of solid ball nose end mills. ● Highly accurate corner radius tolerance allows for high precision finishing. ● Carbide shank type available. ● With through coolant holes. 	Ø16 — Ø32		M229
SUF  	2.1 5.2	<ul style="list-style-type: none"> ● Highly accurate corner radius tolerance allows for high precision finishing. ● Seamless gash. ● With through coolant holes. 	Ø16 — Ø32		M233
SRM2  	12 44	<ul style="list-style-type: none"> ● Suitable for roughing to semi-finishing of small and medium moulds. ● High rigidity body design. ● Low resistance chipbreaker. ● With through coolant holes. 	Ø16 — Ø32		M238
PMC 	1.5 3.5	<ul style="list-style-type: none"> ● For under-cutting trimmed part of press mould. ● 2 directional cutting with large overhang. ● With through coolant holes. 	Ø25 — Ø40		M254

CLASSIFICATION

Product Name	Multi Functional Type								General Type				
	VPX200 VPX300 <div>NEW</div>	APX3000 APX4000	AXD4000 AXD7000	BXD4000	AJX WJX <div>NEW</div>	AQX	ARX	ARP BRP	OCTACUT	ASX400	ASX445 WSX445	AOX445	
Cutting Mode	<div><div></div><div></div></div> <div>M110 M122</div>	<div><div></div><div></div></div> <div>M096 M102</div>	<div><div></div><div></div></div> <div>M134 M142</div>	<div><div></div></div> <div>M152</div>	<div><div></div><div></div></div> <div>M164 M175</div>	<div><div></div></div> <div>M154</div>	<div><div></div></div> <div>M192</div>	<div><div></div><div></div></div> <div>M188 M196</div>	<div><div></div></div> <div>M180</div>	<div><div></div></div> <div>M082</div>	<div><div></div><div></div></div> <div>M032 M022</div>	<div><div></div></div> <div>M060</div>	
Face Milling													
Shoulder Milling													
Slot Milling													
Pocket Milling													
Copy Milling													
Helical Drilling													
Spot Milling													
Chamfer Milling													
Radius Milling													

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INDEXABLE MILLING