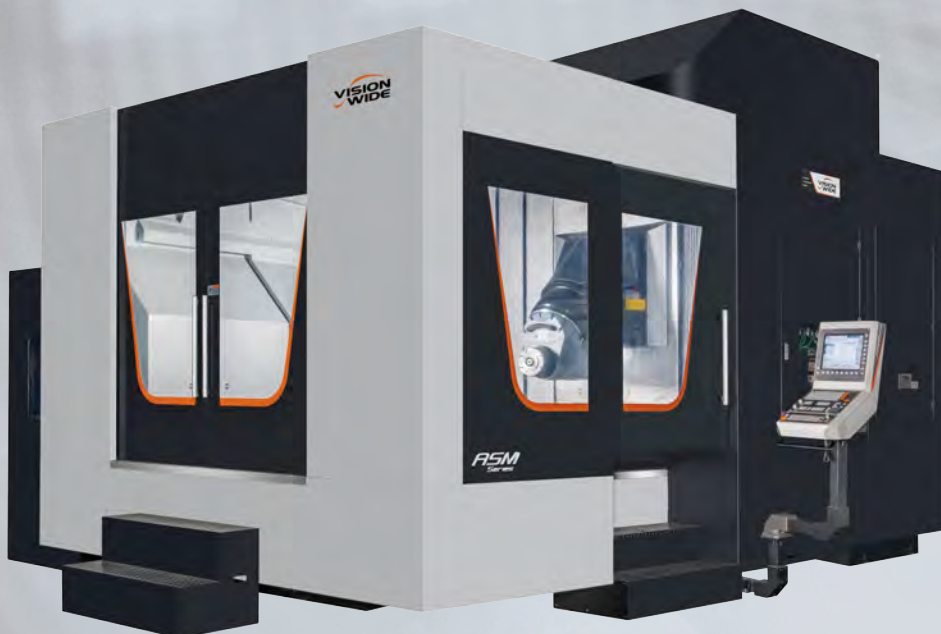
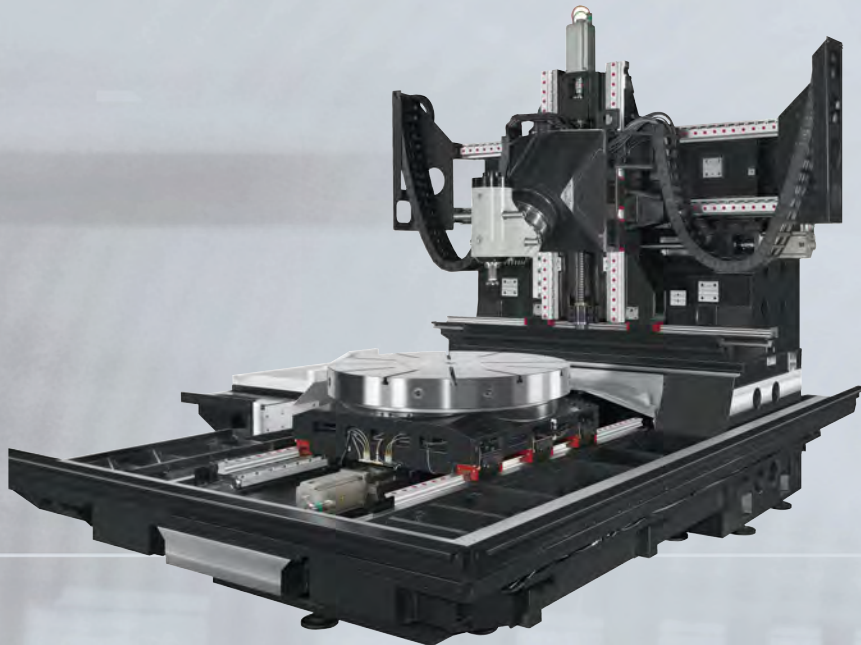


ASM

SERIES

5-axis Universal Machining Center



Accuracy

Positioning Accuracy: P 0.006mm
Repeatability Accuracy: Ps 0.0055mm

Speedy

40 m/min Rapid traverse
24 m/min Cutting feedrate
0.3G Acceleration

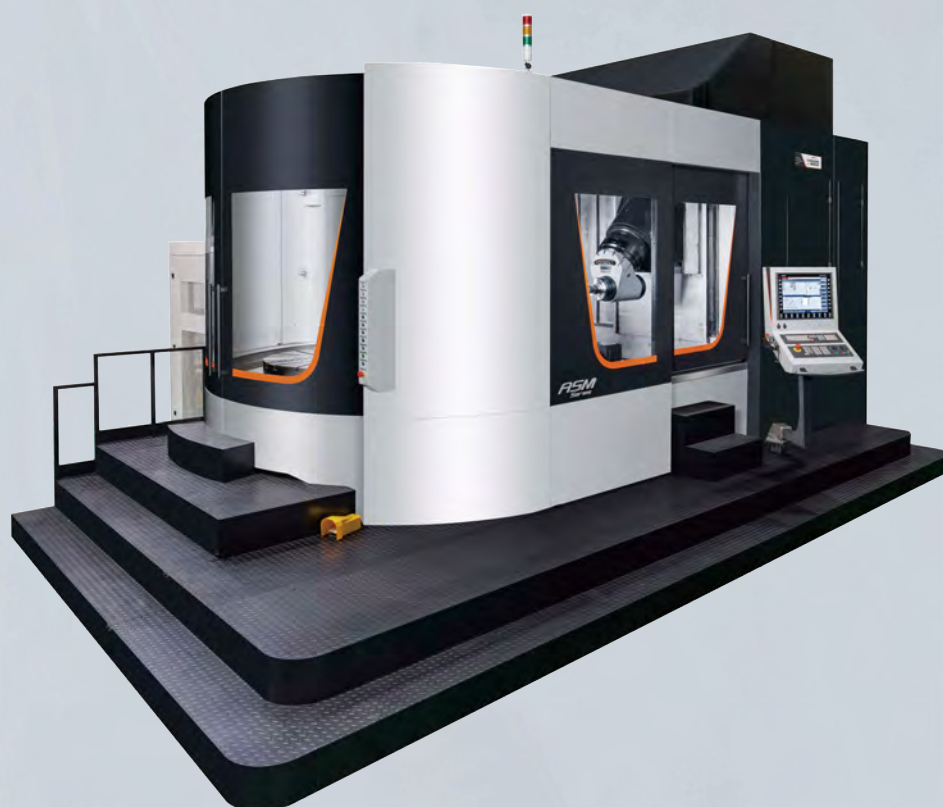
Max. Power

Universal 5-axis
34/43kW power

Multi-Task Solution Provider

- V/H 5 Axis Synchronized Motion.
- Mill-Turn Machining.
- APC- Automatic Pallet Changer.
- 40/ 60/ 119T Automatic Tool Change.
- Auto Geometric Precision Correction.
- Full-time Precision Thermal Compensation.
- Auto Tool Length Diameter Measurement.
- Auto Warming-Up System.
- 5,000cc/min Chip Removal Capability.

5-Axis
Machining



ASM Series | Specification

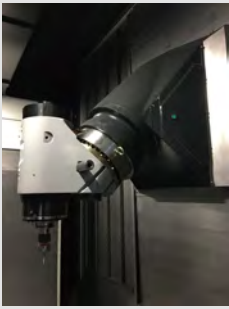
Model	Unit	ASM-1012	ASM-1212	ASM-1612	ASM-1612G	
Travel						
X travel	mm	1,000	1,250	1,620	1,620	
Y travel	mm	1,260	1,260	1,260	1,260	
Z travel	mm	1,050	1,050	1,050	1,050	
Distance from spindle nose to table (vertical)	mm	210~1,260	210~1,260	115~1,165	100~1,150	
Distance from spindle nose to table (horizontal)	mm	150~1,200	150~1,200	50~1,100	50~1,100	
Universal Head						
Milling Table						
Table diameter	mm	Ø 1,000	Ø 1,200	Ø 1,500	Ø 1,500	
Table load (central area)	kg	2,000	2,000	3,000	3,000	
Table speed	rpm	50	50	40	40	
Min. division accuracy	"	0.001	0.001	0.001	0.001	
Rated torque	Nm	2,120	2,120	2,120	2,120	
Max. torque	Nm	3,460	3,460	3,460	3,460	
Braking torque	Nm	6,900	6,900	10,000	10,000	
Max. workpiece dimension	mm	Ø 1,250	Ø 1,250	Ø 1,500	Ø 1,500	
45° Universal Head						
Product No.	-	CM-21X-01-10	CM-21X-01-10	CM-21X-01-10	CG-30X-01-07	
Swiveling range	°	-30~+180	-30~+180	-30~+180	-30~+180	
Max. speed	rpm	80	80	80	30	
Min. division accuracy	"	±0.001	±0.001	±0.001	±0.001	
Rated torque	Nm	900	900	900	1,611	
Max. torque	Nm	1,679	1,679	1,679	3,136	
Braking torque	Nm	4,000	4,000	4,000	5,500	
Spindle						
Spindle speed	rpm	10,000	10,000	10,000	7,000	
Spindle power (cont. / 30 min.)	kW	34/43	34/43	34/43	42/53	
Spindle torque (cont. / 30 min.)	Nm	162 / 205	162 / 205	162 / 205	396 / 506	
Spindle taper	-	HSK-A100	HSK-A100	HSK-A100	HSK-A100	
Feed						
Cutting feed rate (X/Y/Z)	mm	24 / 24 / 24	24 / 24 / 24	24 / 24 / 24	24 / 24 / 24	
Rapid traverse (X/Y/Z)	mm	40 / 40 / 40	40 / 40 / 40	40 / 40 / 40	40 / 40 / 24	
Feeding acceleration (X/Y/Z)	m/s ²	3 / 3 / 4	3 / 3 / 4	3 / 3 / 4	3 / 3 / 4	
ATC						
Tool magazine capacity	pcs	40 / 60 (Opt.) / 119 (Opt.)	40 / 60 (Opt.) / 119 (Opt.)	40 / 60 (Opt.) / 119 (Opt.)	40 / 60 (Opt.) / 119 (Opt.)	
Max. tool size (full / next pockets empty)	mm	Ø125 / Ø 250	Ø125 / Ø 250	Ø125 / Ø 250	Ø125 / Ø 250	
Max. tool length	mm	400	400	400	400	
Max. tool weight	kg	20	20	20	20	
Tool change time (C to C)	sec	25	25	25	25	
Tool change time (T to T)	sec	9	9	9	9	
Accuracy						
Positioning accuracy (ISO-230-2 & VDI 3441)	X/Y/Z	mm	P 0.006	P 0.006	P 0.006	P 0.006
	B	sec	±2	±2	±2	±2
	C	sec	±5	±5	±5	±5
Repeatability (ISO-230-2 & VDI 3441)	X/Y/Z	mm	Ps 0.0055	Ps 0.0055	Ps 0.0055	Ps 0.0055
	B	sec	±2	±2	±2	±2
	C	sec	±3	±3	±3	±3
General						
Power requirement	kVA	130	130	130	130	
Pneumatic requirement	kg/cm ²	6	6	6	6	
Machine net weight	kg	33,000	34,000	40,000	41,000	
Floor space (L x W x H)	m	8.5 x 7.0 x 4.45	8.5 x 7.25 x 4.45	9.6 x 7.8 x 4.8	9.6 x 7.8 x 4.8	
Opt. for APC						
Distance from spindle nose to table (vertical)	mm	210~1,260	210~1,260	-85~965	-100~950	
Distance from spindle nose to table (horizontal)	mm	150~1,200	150~1,200	-150~900	-150~900	
Machine net weight	kg	38,000	39,000	50,000	50,000	
Floor Space (L x W x H)	m	10 x 7.0 x 4.45	10 x 7.25 x 4.45	12 x 8.0 x 4.8	12 x 8.0 x 4.8	

※ All specifications and designs are subject to change without notice.

ASM FD Series | Specification

Model	Unit	ASM-1012 FD	ASM-1212 FD	ASM-1612 FD	ASM-1612G FD	
Travel						
X travel	mm	1,000	1,250	1,620	1,620	
Y travel	mm	1,260	1,260	1,260	1,260	
Z travel	mm	1,050	1,050	1,050	1,050	
Distance from spindle nose to table (vertical)	mm	120~1,170	120~1,170	120~1,070	100~1,150	
Distance from spindle nose to table (horizontal)	mm	150~1,200	150~1,200	50~1,100	50~1,100	
Universal Head						
Milling Table						
Table diameter	mm	Ø1,000	Ø1,200	Ø1,500	Ø1,500	
Table load (central area)	kg	2,000	2,000	3,000	3,000	
Table speed	rpm	500	500	500	500	
Min. division accuracy	°	0.001	0.001	0.001	0.001	
Rated torque	Nm	2,150	2,150	4,490	4,490	
Max. torque	Nm	3,520	3,520	7,890	7,890	
Braking torque	Nm	6,900	6,900	10,000	10,000	
Max. workpiece dimension	mm	Ø1,250	Ø1,250	Ø1,500	Ø1,500	
45° Universal Head						
Product No.	-	CM21X-04-10T	CM21X-04-10T	CM21X-04-10T	CG-30X-02-07T	
Swiveling range	°	-30~+180	-30~+180	-30~+180	-30~+180	
Max. speed	rpm	80	80	80	24	
Min. division accuracy	°	±0.001	±0.001	±0.001	±0.001	
Rated torque	Nm	900	900	900	1,824	
Max. torque	Nm	1,679	1,679	1,679	3,548	
Braking torque	Nm	4,000	4,000	4,000	5,500	
Spindle						
Spindle speed	rpm	10,000	10,000	10,000	7,000	
Spindle power (cont. / 30 min.)	kW	42/53	42/53	42/53	42/53	
Spindle torque (cont. / 30 min.)	Nm	201/253	201/253	201/253	396 / 506	
Spindle taper	-	HSK-T100	HSK-T100	HSK-T100	HSK-T100	
Feed						
Cutting feed rate (X/Y/Z)	mm	24 / 24 / 24	24 / 24 / 24	24 / 24 / 24	24 / 24 / 24	
Rapid traverse (X/Y/Z)	mm	40 / 40 / 40	40 / 40 / 40	40 / 40 / 40	40 / 40 / 24	
Feeding acceleration (X/Y/Z)	m/s ²	3 / 3 / 4	3 / 3 / 4	3 / 3 / 4	3 / 3 / 4	
ATC						
Tool magazine capacity	pcs	40 / 60 (Opt.) / 119 (Opt.)	40 / 60 (Opt.) / 119 (Opt.)	40 / 60 (Opt.) / 119 (Opt.)	40 / 60 (Opt.) / 119 (Opt.)	
Max. tool size (full / next pockets empty)	mm	Ø125 / Ø150	Ø125 / Ø250	Ø125 / Ø250	Ø125 / Ø250	
Max. tool length	mm	400	400	400	400	
Max. tool weight	kg	20	20	20	20	
Tool change time (C to C)	sec	25	25	25	25	
Tool change time (T to T)	sec	9	9	9	9	
Accuracy						
Positioning accuracy (ISO-230-2 & VDI 3441)	X/Y/Z	mm	P 0.006	P 0.006	P 0.006	P 0.006
	B	sec	±2	±2	±2	±2
	C	sec	±5	±5	±5	±5
Repeatability (ISO-230-2 & VDI 3441)	X/Y/Z	mm	Ps 0.0055	Ps 0.0055	Ps 0.0055	Ps 0.0055
	B	sec	±2	±2	±2	±2
	C	sec	±3	±3	±3	±3
General						
Power requirement	kVA	130	130	130	130	
Pneumatic requirement	kg/cm ²	6	6	6	6	
Machine net weight	kg	33,000	34,000	40,000	41,000	
Floor space (L x W x H)	m	8.5 x 7.0 x 4.45	8.5 x 7.25 x 4.45	9.6 x 7.8 x 4.8	9.6 x 7.8 x 4.8	
Opt. for APC						
Distance from spindle nose to table (vertical)	mm	120~1,170	120~1,170	-180~870	-100~950	
Distance from spindle nose to table (horizontal)	mm	150~1,200	150~1,200	-150~900	-150~900	
Machine net weight	kg	38,000	39,000	50,000	50,000	
Floor Space (L x W x H)	m	10 x 7.0 x 4.45	10 x 7.25 x 4.45	12 x 8.0 x 4.8	12 x 8.0 x 4.8	

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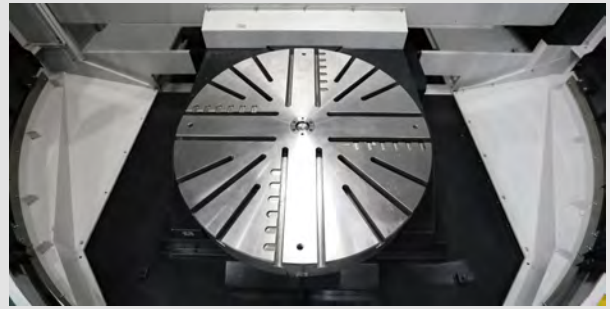
Auto Workpiece Coordinate Measurement & Spindle Clamping / Unclamping Switch



Auto Tool Length Measurement



Pedal Above Chip Groove



Rotary APC & Compound Type Rotary Table

Standard Accesories and Functions

- 1 HEIDENHAIN TNC 640 Controller
- 2 Z axis travel 1,050 mm
- 3 CM21X-01-10 / 10,000 rpm / HSK-A100
- 4 Dynamic collision monitoring
- 5 45° universal head central monitoring protection system:
 - B/C axis rotating motor overloading protection
 - Spindle and motor overloading protection
 - Spindle overloading protected by software
- 6 45° universal head rotation error mechanism chain correction
- 7 Spindle and structure thermal compensation syetem
- 8 Air blast through spindle
- 9 Spindle cooling system
- 10 Button for tool clamping
- 11 Spindle nose ring cutting coolant system
- 12 Universal head external cutting coolant system
- 13 Wash gun and pneumatic interface
- 14 Cutting fluid cooling system
- 15 Centralized auto lubrication system
- 16 Independent lubrication oil collector for 3 axes
- 17 Enclosed sheet metal guard (with roof)
- 18 Horizontal chain type magazine 40 tools
- 19 Screw type chip conveyor on table sides
- 20 Steel belt chip conveyor / water tank
- 21 Swiveling operation panel
- 22 Movable manual pulse generator
- 23 Air conditioner for electrical cabinet
- 24 X/Y/Z axis linear scale
- 25 CNC simulation
- 26 Auto power off function
- 27 Tool axis retract function at power failure
- 28 RJ45 interface
- 29 Working lamp
- 30 Operation cycle finish and alarm light
- 31 Remote monitoring software (standard)
- 32 Foundation pads and bolts kits
- 33 Adjustment tool and tool kits
- 34 Technical manuals
(operation, maintenance manual and circuit diagram)

Optional Accesories and Functions

- 1 SIEMENS ONE Controller
- 2 CG30X-01-07 / 7,000 rpm / HSK-A100
- 3 HF29X-01-24 / 24,000 rpm / HSK-A63
- 4 CM21X-04-10T / 10,000 rpm / HSK-T100
- 5 CG30X-02-07T / 7,000 rpm / HSK-T100
- 6 Spindle cutting vibration protection device
- 7 Air through spindle ring
- 8 Coolant through spindle system 20 / 60 bar
- 9 Coolant through spindle system 20 / 60 bar and air through spindle 6 bar
- 10 The interface of coolant through spindle
- 11 Oil skimmer
- 12 Oil mist cooling device (MQL)
- 13 Chip clean flushing device at roof
- 14 Coolant chiller
- 15 Horizontal chain type magazine 60 / 119 tools
- 16 Helical blade screw conveyor on table sides
- 17 Chip clean flushing device on table side grooves
- 18 Drum filter chip conveyor / water tank
- 19 Dual belt type chip conveyor / water tank
- 20 Chip cart
- 21 Auto workpiece measurement
- 22 Auto tool length measurement
- 23 Adaptive feed control (AFC)
- 24 Auto warm up
- 25 Oil mist recycle device
- 26 Remote monitoring software (professional)
- 27 Spin window
- 28 CE regulation

※ For the specification of each model, please contact our sales representatives.