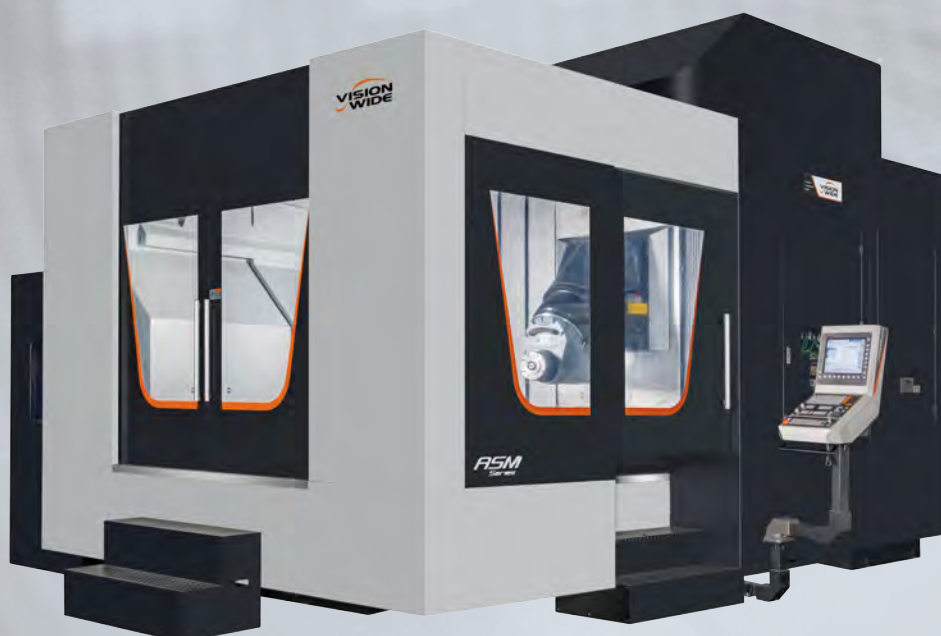
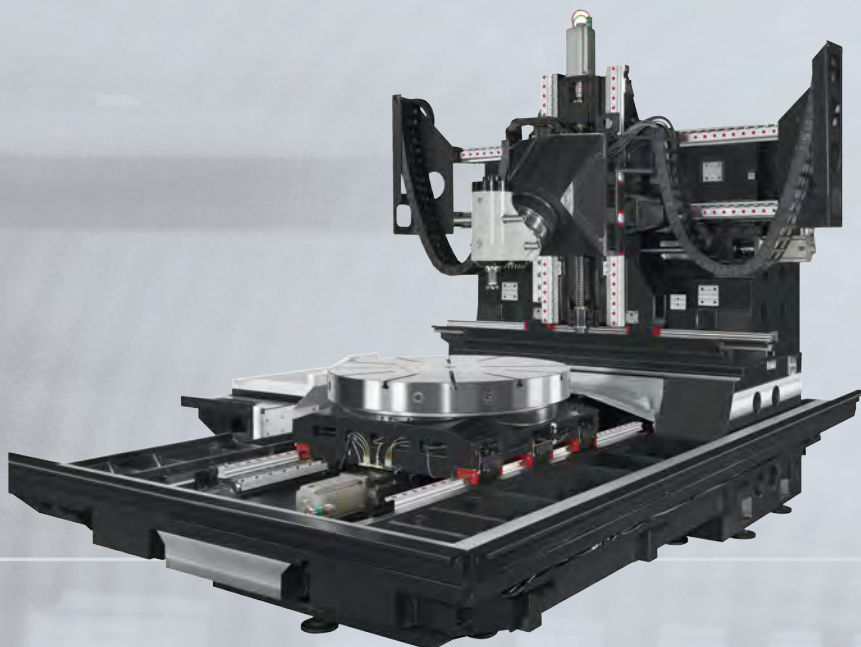




5-axis Universal Machining Center



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 center to table (Horizontal)	mm	150~1,200	150~1,200	50~1,100	50~1,100
Cutting feed rate (X/Y/Z)	m/min	24	24	24	24
Rapid traverse (X/Y/Z)	m/min	40	40	40	40/40/24
Rotary Table					
Table diameter	mm	Φ 1,000	Φ 1,200	Φ 1,500	Φ 1,500
Table load	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
Universal Head					
Model		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 (Milling)					
Spindle speed	rpm	10,000	10,000	10,000	7,000
Spindle power (S1/ S6)	kW	34/43	34/43	34/43	42/53
Spindle torque(S1/ S6)	Nm	162 / 205	162/205	162 / 205	396/506
Spindle taper		HSK-A100	HSK-A100	HSK-A100	HSK-A100
Tool Magazine					
Capacity	pcs	40/60/119	40/60/119	40/60/119	40/60/119
Max tool diameter* tool length	mm	Φ 125x400	Φ 125x400	Φ 125x400	Φ 125x400
Max tool weight	kg	20	20	20	20
Accuracy (Test result of linear scale)					
Positioning accuracy (ISO-230-2 & VDI3441)	X/Y/Z	mm	P:0.006	P:0.006	P:0.006
	B/C	sec	P: ± 5"	P: ± 5"	P: ± 5"
Repeatability (ISO-230-2 & VDI3441)	X/Y/Z	mm	Ps:0.0055	Ps:0.0055	Ps:0.0055
	B/C	sec	P: ± 3"	P: ± 3"	P: ± 3"
Others					
Space dimension (LxWxH)	m	8.5x7.0x4.5	8.5x7.3x4.5	9.6x7.8x4.8	9.6x7.8x4.8
Machine net weight	Ton	33	34	40	41
Power requirement	KVA	130	130	130	130
Pneumatic requirement	kg/cm ²	6	6	6	6
Opt for APC					
Distance from spindle nose to table (Vertical)	mm	210~1,260	210~1,260	-85~965	-100~950
Distance from spindle center to table (Horizontal)	mm	150~1,200	150~1,200	-150~900	-150~900
Space dimension (LxWxH)	m	10x7.0x4.5	10x7.3x4.5	12x8x4.8	12x8x4.8
Machine net weight	Ton	38	39	50	50

※ 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 center to table (Horizontal)	mm	150~1,200	150~1,200	50 ~1,100	50 ~1,100
Cutting feed rate (X/Y/Z)	m/min	24	24	24	24
Rapid traverse (X/Y/Z)	m/min	40	40	40	40/40/24
Rotary Table					
Table diameter	mm	Φ 1,000	Φ 1,200	Φ 1,500	Φ 1,500
Table load	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
Universal Head					
Model		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 (Milling)					
Spindle speed	rpm	10,000	10,000	10,000	7,000
Spindle power (S1/ S6)	kW	42/53	42/53	42/53	42/53
Spindle torque(S1/ S6)	Nm	201/253	201/253	201/253	396/506
Spindle taper		HSK-T100	HSK-T100	HSK-T100	HSK-T100
Tool Magazine					
Capacity	pcs	40/60/119	40/60/119	40/60/119	40/60/119
Max tool diameter* tool length	mm	Φ 125x400	Φ 125x400	Φ 125x400	Φ 125x400
Max tool weight	kg	20	20	20	20
Accuracy (Test result of linear scale)					
Positioning accuracy (ISO-230-2 & VDI3441)	X/Y/Z	mm	P:0.006	P:0.006	P:0.006
	B/C	sec	P: ± 5"	P: ± 5"	P: ± 5"
Repeatability (ISO-230-2 & VDI3441)	X/Y/Z	mm	Ps:0.0055	Ps:0.0055	Ps:0.0055
	B/C	sec	P: ± 3"	P: ± 3"	P: ± 3"
Others					
Space dimension (LxWxH)	m	8.5x7x4.45	8.5x7.3x4.5	9.6x7.8x4.8	9.6x7.8x4.8
Machine net weight	Ton	33	34	40	41
Power requirement	KVA	130	130	130	130
Pneumatic requirement	kg/cm ²	6	6	6	6
Opt for APC					
Distance from spindle nose to table (Vertical)	mm	120~1,170	120~1,170	-180~870	-100~950
Distance from spindle center to table (Horizontal)	mm	150~1,200	150~1,200	-150~900	-150~900
Space dimension (LxWxH)	m	10x7.0x4.5	10x7.3x4.5	12x8x4.8	12x8x4.8
Machine net weight	Ton	38	39	50	50

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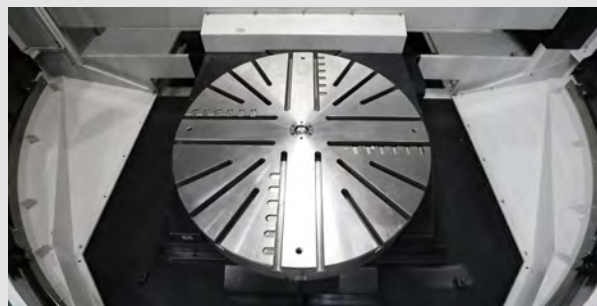
Auto Workpiece Coordinate Measurement & Spindle Clamping / Unclamping Switch



Auto Tool Length Measurement



Pedal Above Chip Groove



Rotary APC & Compound Type Rotary Table

Standard Accesories and Functions

- 1 HEIDENHAIN TNC640 Controller
- 2 10,000 rpm/HSK-A100 (Milling)
- 3 HEIDENHAIN DCM(Dynamic Collision Monitoring)
- 4 Universal Head self-monitoring protection system:
B/C rotating motor overloading protection
Spindle and motor overloading protection
Spindle cutting vibration protection
Spindle overloading protected by software
- 5 45° universal head rotation error mechanism chain correction
- 6 Spindle and structure temperature thermal compensation system
- 7 Spindle cooling system
- 8 Spindle nose ring and side cutting coolant device
- 9 Air blast through spindle
- 10 Cutting fluid cooling system
- 11 XYZ axis linear scale feedback
- 12 XYZ-axis travel hard limits protection
- 13 Centralized auto Lubrication System
- 14 Independent lubrication oil collector
- 15 Wash gun and pneumatic interface
- 16 Enclosed sheet metal guard with roof
- 17 40T tools magazine with vertical ATC
- 18 Screw type chip conveyor on table sides
- 19 Caterpillar type chip conveyor / Water tank
- 20 Swiveling arm type operation panel
- 21 Air conditioning for electrical cabinet
- 22 Working lamp
- 23 Operation cycle finish and alarm light
- 24 Movable manual pulse generator
- 25 RJ45 interface
- 26 Switch for tool clamping / unclamping
- 27 Remove monitoring software-standard
- 28 Auto power off function
- 29 Z-axis retract function at power failure
- 30 Foundation pads and bolts kits
- 31 Adjustment tool and tool kits
- 32 Technical manuals
(operation, maintenance manual and circuit diagram)

Optional Accesories and Functions

- 1 SIEMENS ONE Controller
- 2 24,000 rpm/HSK-A63 (Milling)
10,000 rpm/HSK-T100 (Milling and Turning)
- 3 7,000 rpm/HSK-A100
(Milling, ASM-1612G only)
7,000 rpm/HSK-T100
(Milling and Turning, ASM-1612GFD only)
- 4 Coolant through spindle system 20 / 60bar
- 5 The interface of coolant through spindle
- 6 Coolant through spindle system and air through spindle
- 7 Air through spindle ring
- 8 Oil skimmer
- 9 Oil mist cooling device
- 10 Oil mist recycle device
- 11 Spin window
- 12 Helical bladed screw conveyor on table sides
- 13 Chip clean flushing device on table side grooves
- 14 Chip clean flushing device at roof
- 15 Dual belt type chip conveyor / Water tank
- 16 Chip cart
- 17 60/119T tools magazine with vertical ATC
- 18 Auto tool length measurement
- 19 Auto workpiece coordinate measurement
- 20 XYZ-axis absolute pulse coder feedback
- 21 XYZ-axis independent manual pulse generator
- 22 Remote monitoring software-standard
- 23 Smart feedrate machining function
- 24 Transformer
- 25 Transformer and voltage stabilizer
- 26 Auto warm up
- 27 APC(Auto Pallet Change Device) to exchange table
(limited to APC for ASM-1012/1212)
- 28 Wraparound monolithic stairs