



PRODUCT

- CNC Double Column Machining Center
- CNC Double Column High Speed Machining Center
- CNC Double Column 5-Face Machining Center
- CNC Double Column 5-Axis Machining Center
- CNC Double Column CrossRail Machining Center
- CNC Moving Column Horizontal Machining Center
- CNC High Precision Grinding Machine
- CNC Vertical Grinding Machine



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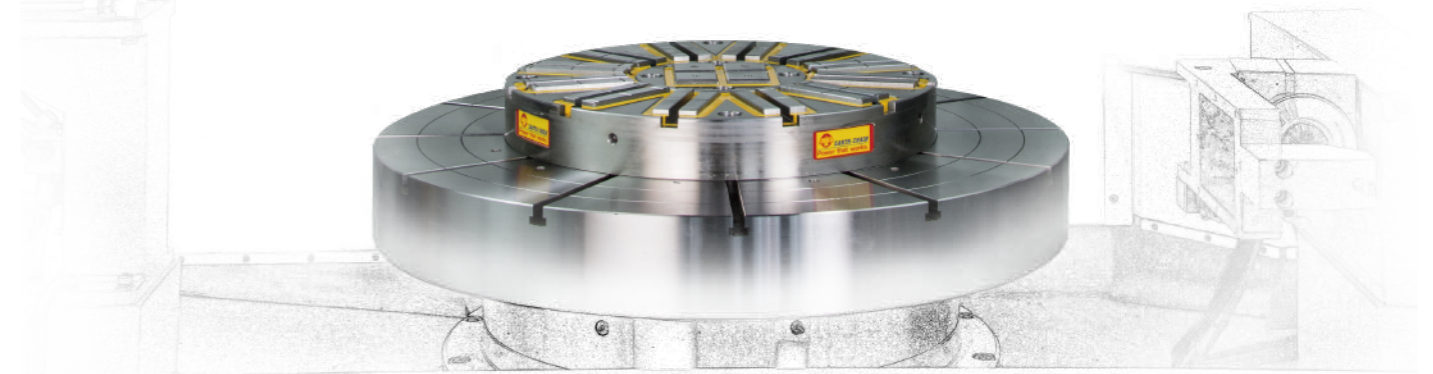


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SVG SERIES

CNC Vertical Grinding Machine



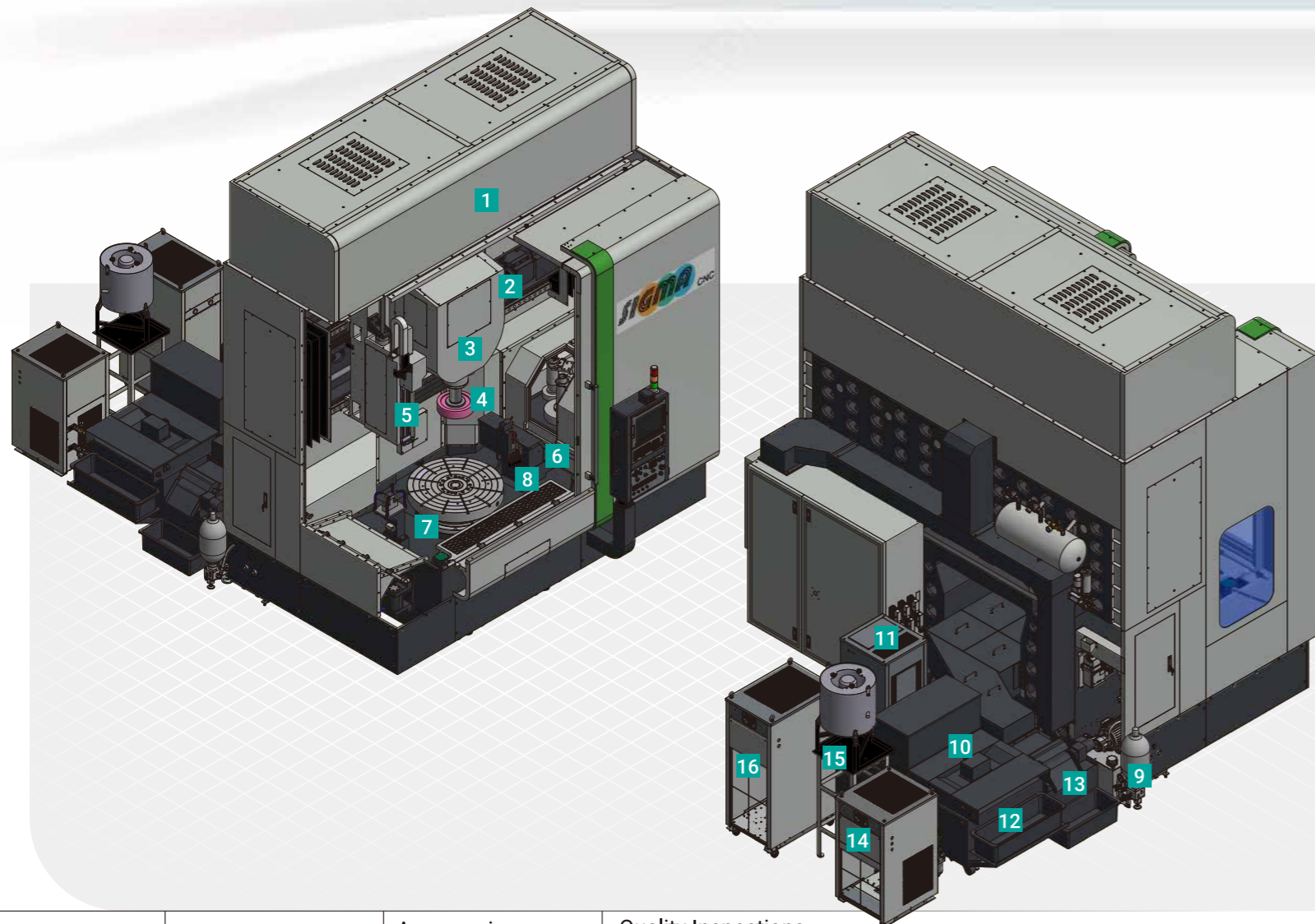
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CNC VERTICAL GRINDING MACHINE

SVG-E600/800/1200

- High Precision
- High Stability
- High Rigidity
- High Efficiency
- Safety and Aesthetic design

The vertical cylindrical grinding machine has a highly rigid gantry structure design and is covered with a fully enclosed safety guard. It can be equipped with FANUC controller, Mitsubishi controller, and Syntec controller; It has SIGMA conversational programming functions that easy to understand and easy for operators use. Suitable for grinding the normal & heavy round workpieces' internal & external cylindrical and end faces.



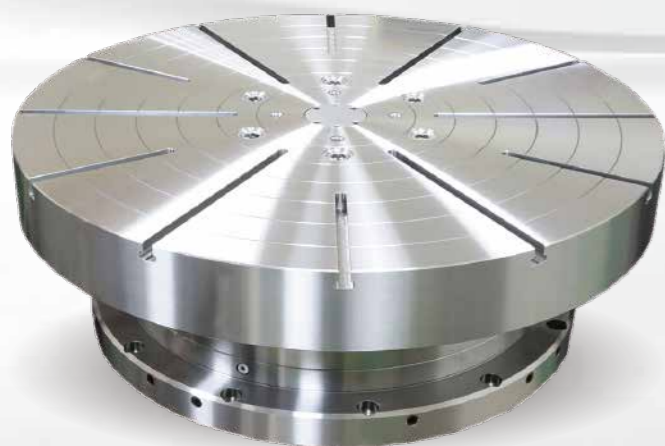
Main features · Peripheral equipment

- 1 Fully enclosed safety guarding (standard)
- 2 X \ Z-axis linear scale feedback (resolution 0.1 μ m)
- 3 2 angle positions for grinding spindle (0° / 22.5°)
- 4 Grinding spindle, 15KW, max. 10000rpm, HSK-A100
- 5 Auto touch workpiece probe system ID/OD (optional)
- 6 Disc type automatic tool changing system (HSK-A100)
- 7 Hydrostatic rotary table (\varnothing 600 / \varnothing 800 / \varnothing 1200) Belt drive (standard), direct drive (optional)
- 8 Dressing diamond pens (standard), Electrical dressing unit (optional)
- 9 hydraulic unit for hydrostatic bearing
- 10 Coolant tank unit
- 11 Coolant tank temperature control unit
- 12 Paper filter unit
- 13 Magnet separator unit
- 14 Grinding spindle cooling unit
- 15 Oil mist collector
- 16 Hydrostatic system temperature control unit

Contents	Features	Accessories & Human Interface	Quality Inspections & Specifications
	1 - 2	3 - 4	5 - 6

ACCESSORIES

Hydrostatic revolution table & workpiece spindle



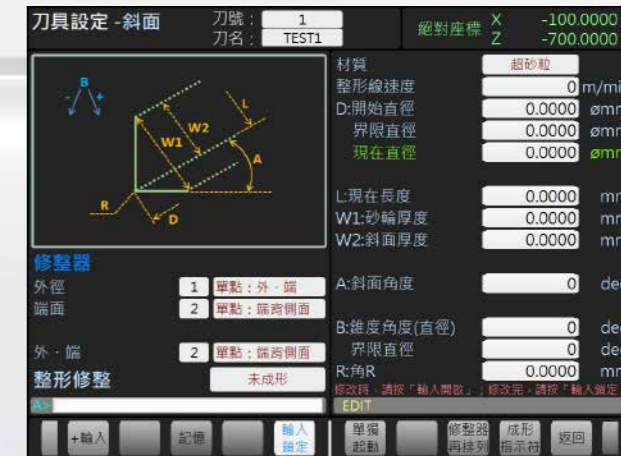
- High rigidity design, under high loading conditions, the table maintains Axial & Radial Running accuracy less than 1 μm.
- High damping, good anti-seismic resistance, and extremely high operating stability.
- When grinding hard and brittle materials, it can inhibit the occurrence of cracks and improve processing efficiency and production yield.
- Low friction torque, wear-free, low noise.

HUMAN INTERFACE



Home Page

SIGRID-conversational programming functions



Wheel type setting



Disc type automatic tool changing system (HSK-A100, 6 Tools)



Tool Magazine setting



Grinding conditions setting

- Dressing diamond pens (standard)
- Electrical dressing unit included diamond wheel (optional)

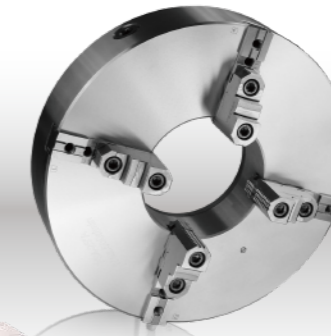


Auto touch workpiece probe system (Optional, Renishaw, UK)

Fixtures Applications



3 jaws Scroll chuck



4 jaws Scroll chuck



Permanent magnetic blocks



Electro-Permanent magnetic chuck

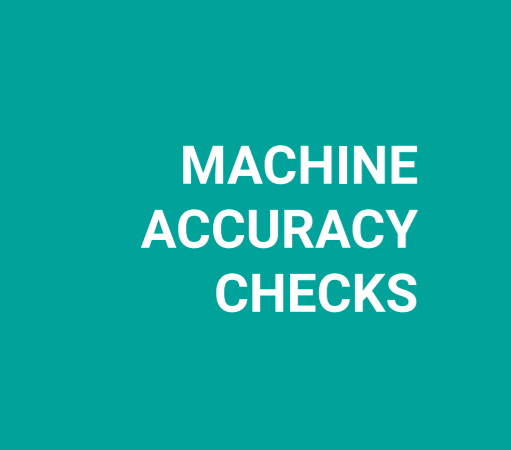
QUALITY INSPECTIONS



MATERIALS CHECK



MACHINE ACCURACY CHECKS



LASER INSPECTION



Vertical Grinding Samples



ID cylindrical grinding



2-axes simultaneous OD cylindrical grinding (slop 5 degrees)



OD cylindrical grinding (grinding spindle at 22.5 degrees)

SPECIFICATIONS

Item	Unit	SVG-E600	SVG-E800	SVG-E1200
Range of grinding internal diameter	mm	Ø50~Ø600	Ø50~Ø800	Ø50~Ø1200
Range of grinding external diameter	mm	Ø850	Ø1050	Ø1250
Work spindle swing	mm	Ø850 (Max.)	Ø1050 (Max.)	Ø1250 (Max.)
Grinding length <ID>	mm	325 (Ø250 or less) , 400 (Ø250 or more, tool length 250) , 485 (Ø250 or more, tool length 350)		
Grinding length <OD>	mm	400 (OD surface grinding, tool length 250), 500 (OD Surface grinding, tool length 350), 150 (angular grinding for same. dia).		
X axis travel	mm	1400	1600	1800
Z axis travel	mm	700		
Rapid feed rate of X axis	mm/min	0~10000		
Rapid feed rate of Z axis	mm/min	0~10000		
Min. input increment	mm	0.0001		
Work table size	mm	Ø600	Ø800	Ø1200
Height from work table to workpiece top	mm	600 (Including fixture)		
T-slot distance		60° x 6	30° x 12	
T-slot amount	pcs	6	12	
T-slot width	mm	12		22
Work table load capacity	kg	400	1000	5000
Distance from grinding spindle nose to table	mm	325		
Revolution of work table	rpm	5~250	5~200	5~100
Work table power	KW	3.7 / 7.5 KW (cont. / 30 min.)		
Grinding spindle taper		HSK-A100		
Grinding spindle speed	rpm	100 ~ 10000		
Grinding spindle power(rated)	KW	15		
Grinding spindle positions	angle	0° / 22.5° (2 positions)		
Outer dia. of grinding wheel	mm	Ø45 ~ Ø305		
Thickness of grinding wheel	mm	max. 75		
Dressing spindle speed	rpm	max. 12000		
Dressing fixed shaft size	mm	Ø40 x 35L		
Dressing spindle power	KW	3.7		
Power requirement	KVA	55	60	65
CNC controllers		Fanuc, Mitsubishi, Syntec		
Machine height	mm	4100	4100	4100
Floor space	mm	4700 x 4900	4900 x 5000	5100 x 5100
Machine weight (approx.)	kg	13500	14000	15000

Note : The manufacturer reserves the right to modify the design, specifications, mechanisms, etc. to improve the performance of the machine without notice. All the specifications shown above are just for reference.

Standard Accessories

- 1.Grinding spindle(Built-in motor 15/18.5KW), HSK-A100, Max. 10000 rpm, include air blow for dust-proof resistance
- 2.Linear scale feedback for X、Z-axis (resolution 0.1um)
- 3.Dressing diamond pens, 2 points
- 4.Oil mist collector
- 5.Coolant cooling equipment (included water cooler)
- 6.Disc type auto Tool changing magazine (HSK-A100, 6T)
- 7.Full splash guarding with top roof
- 8.Auto greasing unit for X/Z axes
- 9.Program end & alarm lamp and Led work light
- 10.Hand wheel control (M.P.G.)
- 11.Interface RJ-45
- 12.Foundation screws & leveling bolts
- 13.Tool kit
- 14.Machine operation manuals
- 15.Controller operation manual & electric diagram
- 16.Machine accuracy test report

Optional accessories

- 1.Electrical dressing unit include diamond wheel
- 2.Auto touch workpiece probe system (Renishaw LP2)
- 3.Auto touch workpiece probe system (Renishaw MP250)
- 4.Electro-Permanent magnetic chuck
- 5.Permanent magnetic blocks (3 pieces, 6 pieces)
- 6.Scroll chuck (3 jaws / 4 jaws)
- 7.Spindle monitoring system