

VALICAL SERIES

CNC Vertical Internal · End face · External Composite Grinder



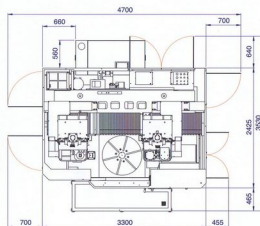
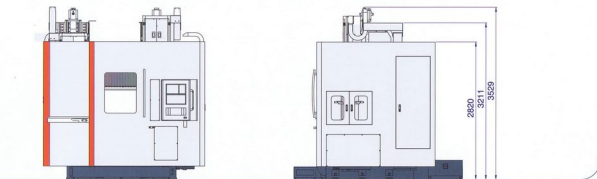
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Specification

Model	VIG-8060D	
Capacity	Internal Grinding Range (Z/R axis)	mm ø50-ø800 / ø30-ø70
	Max. External Grinding Diameter	mm Max. ø800
	Z axis Max. External Grinding Depth	mm 550
	Z axis Max. Internal Grinding Diameter	mm ø50-ø250
Traverse	B axis Max. Internal Grinding Depth	mm ø250-ø800
	B axis Max. Internal Grinding Depth	mm 250
	Max. Workpiece Swivel	mm ø850
	Max. Workpiece Length	mm 600
	Max. Workpiece Load	kg 700
	X axis Longitudinal Traverse	mm 1000
	A axis Longitudinal Traverse	mm 900
	Z axis Vertical Traverse	mm 650
Grinding Spindle	B axis Vertical Traverse	mm 400
	Z axis External Grinding Wheel Spindle Speed	rpm 2000-10000
	Z axis External Grinding Wheel Diameter	mm ø45-ø200
	Z axis External Grinding Wheel Nose Hole Type	BBT, 50
	B axis Internal Grinding Wheel Spindle Speed	rpm 10000-30000
	Z axis Internal Grinding Wheel Diameter	mm ø45-ø100
	B axis Internal Grinding Wheel Diameter	mm ø22-ø60
	Z axis Internal Grinding Wheel Spindle Nose Hole Type	BBT, 50
	B axis Internal Grinding Wheel Nose Hole Type	Direct Mounting
	Work Spindle Speed	rpm 12-200
Work Table	Work Table Size (Face plate)	mm ø800
	Screw Nut size for T-Groove	M20
	Work Chuck Size (Optional)	ø450 (18")
	X/Z (R) axis rapid traverse	M/min 10
Infeed	X/Z (R) axis cutting speed	mm/min 0-4000
	X/Z (R) micro movement/each graduation(1/100/1000)	mm 0.001 / 0.01 / 0.1
	X/Z (R) axis min. setting unit	mm 0.001
	X/Z (R) axis guideway type	Linear Guideway
	Auto Wheel Change Number	pcs 6
	ATC	Staircase Type
Motor	Wheel Spindle Nose Tool Holder Type	BBT, 50
	Wheel Auto Change Type	X/Z axis servo movement
	External Grinding Wheel Spindle Motor	kw 7.5
	Internal Grinding Wheel Spindle Motor	kw 13
	Work Spindle Motor	kw 7.5
	Coolant Pump Motor	kw 2.6
Tank Capacity	Dressing Device Hydraulic Pump Motor	kw 0.75
	Lubrication System Motor	w 20
	Hydraulic Oil Lubricator Tank	L 24
	Auto Electric Lubricator Tank	L 6
Power Supply	Oil Cooler Tank	L 15
	Pneumatic Tank	L 30
	Coolant Tank	L 300
	Power	380V 45KVA (36 kw)
Machine Dimensions	L x W x H	mm 3500x3200x3600
	Net Weight	kg 16,000
Control System	Model	Mitsubishi M70



STANDARD ACCESSORIES

- Fully enclosed splash guard 1 set
- CNC Controller Mitsubishi M 70 G with PC-MC conversation software 1 set
- Single point diamond dresser 1 set
- Hydraulic oil Lubricator system 1 set
- Coolant system 1 set
- Electric system 1 set
- Full-close loop digital scale 1 set
- Tools and Tools box 1 set
- 2000-10,000 R.P.M. Spindle for Model: 8060/8060D 1 set
- 10,000-30,000 R.P.M. Built-in Spindle for Model: 8060D 1 set
- Oil-cool system for wheel spindle 1 set
- ATC system (Auto. Tool Change system, Max Install 6 Tools) 1 set
- Standard BBT, 50 Tool 4 sets
- 800mm Face plate 1 set

OPTIONAL ACCESSORIES

- BBT, 50 Tool (Individual design)
- Probe Auto. measuring gauge
- Built-in type Grinding wheel spindle (30,000-75,000 R.P.M.)
- Diamond roller dressing device
- Oil mist collector
- Magnetic coolant separator
- Paper filter
- Coolant with oil mist separator
- Current gap anti-bump system
- Workpiece clamping fixture



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CONCERTO OF HIGH ACCURACIES AND PRODUCTION

Lead your gaze to the technical art pattern

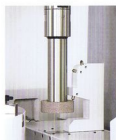
CNC vertical internal & external composite grinder subverted your understanding of traditional grinding technology. With great originality, it combined with research, design and manufacture experiences in order to upgrade the grinding accuracies and work efficiency. It also offered the benefits with lower investment cost for industry. With practical design, it offered the machine body with best rigidity and better performance stability. The working efficiency shown its design is better than other grinder makers. It is praised pretty highly especially when need automatic mass production process.



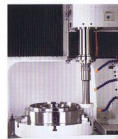
Left side (B axis) grinding wheel spindle
Use motor built-in type 30,000rpm spindle and cooling system is oil-cool type. With independent slider movement, it is easily for smaller diameter grinding process and help to meet the requirement for internal & external grinding.



Touch probe system
Equip in the tool holder BBT. 50 and put in ATC, it can easily use the grinding spindle as a standard to measure & modify the workpiece home position at the same time.



Hydraulic slide dressing device
During grinding process, this hydraulic slide dressing device can move to interior position. Only when need to dress the wheel, just move it to the dressing position. This helps to expand the grinding wheel working space. It can also equip the Diamond roller type dressing device (optional).



Right side (Z axis) grinding wheel spindle

Use 10,000rpm spindle and drive by Mitsubishi spindle motor SJ-PP11-01(B112F). Spindle interior cooling system is oil-cool type. Tool holder is BBT. 50 type. It is easy to change tools by using ATC for expanding functional grinding process.

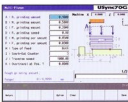


Electric cabinet

Electric components are with high quality and meet CE norms to make sure work stability. It equips with heat exchanger to control in normal temperature.



Auto. tool change system (ATC)
Equip with 6 nos. tool stands & use tool holder BBT. 50 type. It is easy to equip the suitable grinding wheels at the same time. The auto. tool change system helps to change different grinding wheels easily and can reach the best grinding efficiency.



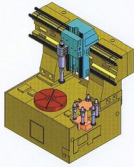
The guide user-friendly control system

The Mitsubishi M70 controller is with guide user-friendly control panel frame. The operator can easily be guided to use different kinds of grinding modes when need to arrange the grinding program.

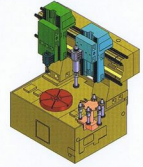
One Machine with Multi-Module Design

For External & Internal Grinding

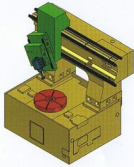
Model : VIG-8060 (Single Spindle)



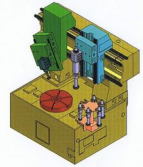
Model : VIG-8060D (Double Spindles)



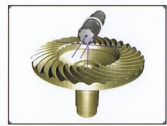
Model : VIG-8060A
(Single Spindle Bevelled type)



Model : VIG-8060AD
(Double Spindles with one Bevelled type)

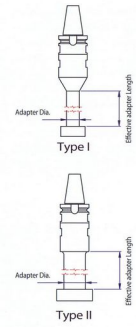


VIG-8060A & VIG-8060AD with bevelled type spindle design which can swivel 0°~15° & equipped with **Hypoid Gears** to offer more benefits.



Item \ Swivel Device	Hypoid Gears		Worm Shaft & Worm Gear
	Without Encoder	With Encoder	
Division Accuracy	± 8 arc-sec	± 5 arc-sec	± 25 arc-sec
Division Repeat Accuracy	± 1.5 arc-sec	± 1 arc-sec	± 2 arc-sec
Adjust Backlash	Need not		Need to adjust frequently
Durable	Long		Short

Wheel Adapter Type (Tool Holder)



Wheel Adapter Type	Adapter Dia. (mm)	Effective adapter Length(mm)	Wheel Size (mm)	Min Hole Dia. x Max Depth (mm)	
I	ø 45	160	ø 65x40	ø 70x180	
		235	ø 75x40	ø 80x180	
	ø 55	175	ø 65x40	ø 70x255	
		250	ø 75x40	ø 80x255	
II	ø 75	175	ø 80x45	ø 90x200	
		250	ø 90x45	ø 100x200	
		ø 85	175	ø 80x45	ø 90x275
			250	ø 90x45	ø 100x275
	ø 85	225	ø 100x50	ø 110x205	
		300	175	ø 125x50	ø 135x205
			225	ø 100x50	ø 110x280
		300	ø 125x50	ø 135x280	

Honeycomb type machine structure

To assure the best possible rigidity and stability. The machine structure is manufactured from high-quality Meehanite cast iron, heat treated and stress relieved for outstanding stability without deformation. X, Z, A, B axes are equipped with special cross roller type linear guideways, featuring extra heavy loading capability. To achieve an optimal structure design.

