



**topone**

# **ID OD SERIES**

## **CNC Internal Grinder**

## **CNC Cylindrical Grinder**

**Producing intricately shaped parts with complex geometries for precise and detailed results.**

- Exceptional versatility, seamlessly handling a diverse range of materials and applications.
- Precision meets perfection, achieving specific dimensions and maintaining stringent tolerances.
- Experience heightened productivity.



# Grinder Series

## TIG- 150 CNC internal grinder



The machine is mainly used for grinding tube and shaft inner diameter processing.

Main structure is high rigidity to ensure stable positioning accuracy and repeatability of the machine.



The workhead spindle uses super-precision match sets P4 class back-to-back bearings.  
Guaranteed highest precision and stability.

Workhead spindle nose A2-5 which is convenient for the conversion of the clamping device, and is equipped with an air curtain device to prevent the cutting fluid from being sucked in.

Main frame made by meehanite cast iron with tempered and stress relief.

Fully enclosed sheet metal equipment.

Equipped with oil mist systems.

Maintenance-free cooling filter system adopts paper belt filter.

Additional magnetic filter system for cooling system pre-filtration.

120 liter cooling water tank 40L/min cooling liquid processing capacity.

Cooling and flushing for workpiece grinding.

Grinding spindle adopts constant torque high frequency electric spindle.

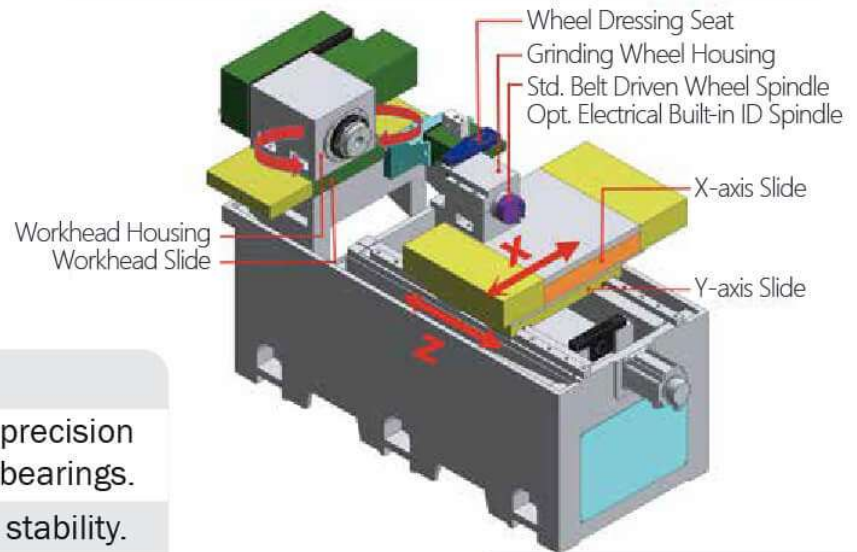
Grinding wheel constant linear velocity ( $V_c$ ) grinding function.

The grinding wheel dressing device is installed on the workhead frame.

The grinding wheel seat is equipped with two-way single-point diamond pen holder.

Grinding wheel is automatic dressing.

Central automatic quantitative lub system.



Standard configuration with advanced and reliable Fanuc Oi-series control system.

10.4" clear color LCD large screen.

Opt. Economical and reliable PC-Base control system with 15" large screen.

Easy to operate with touch screen.

Easy-to-learn Mars system conversational programming.



Fully automatic grinding cycle, wheel dressing cycle program.

Electronic hand wheel for X-axis and Z-axis movement.

X-axis and Z-axis adopt hand scraping "V" and "flat" guide way.

X-axis and Z-axis adopt high-precision pre-tension ball screw.

Z-axis and x-axis movements are driven by AC servo motors.

# Grinder Series

## TOG- 2550 Precision CNC cylindrical grinder



Standard configuration with advanced and reliable Fanuc Oi-series control system.

10.4" clear color LCD large screen.

Opt. Economical and reliable PC-Base control system with 15" large screen.

Easy to operate with touch screen.

Easy-to-learn Mars system conversational programming.



Fully automatic grinding cycle, wheel dressing cycle program.

Electronic hand wheel for X-axis and Z-axis movement.

X-axis and Z-axis adopt hand scraping "V" and "flat" guide way.

X-axis and Z-axis adopt high-precision pre-tension ball screw.

Z-axis and x-axis movements are driven by AC servo motors.  
Opt. Linear optical scale x-axis way

Ensure precise positioning and dimensional accuracy

The workhead spindle uses ultra-precision back-to-back bearings to ensure the highest precision and stability

The workhead spindle and tailstock adopt standard Morse taper  
Opt. End face measurement touch probe, diameter measuring instrument, etc. according to your request



The grinding wheel bearing adopts special hydrostatic bearing, which features high speed, no metal friction, no heat generation, deformation free, shock absorption, long life and high precision.



Main frame made by meehanite cast iron with tempered and stress relief.

Fully enclosed sheet metal equipment.

Oil mister.

Maintenance-free cooling filter system adopts paper belt filter.

Additional magnetic filter system for cooling system pre-filtration.

120 liter cooling water tank 40L/min cooling liquid processing capacity.

Cooling and flushing for workpiece grinding.

Grinding spindle adopts constant torque high frequency electric spindle.

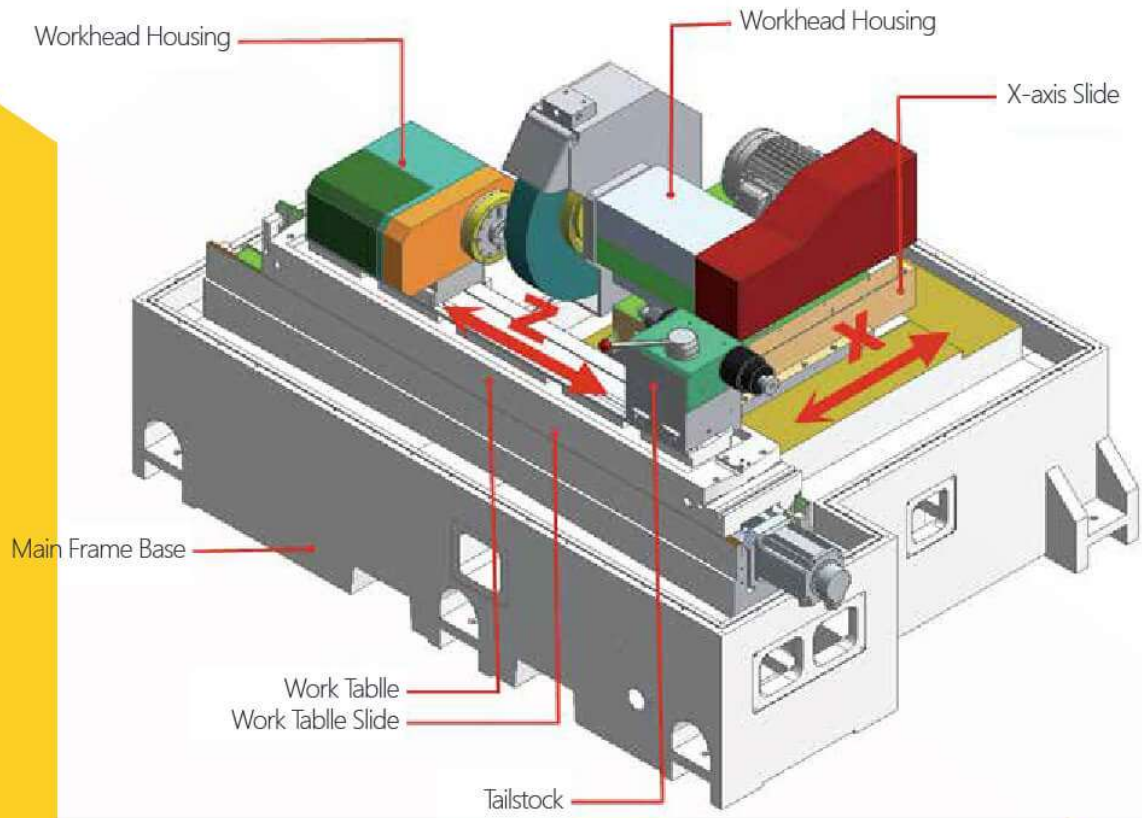
Grinding wheel constant linear velocity (Vc) grinding function.

The grinding wheel dressing device is installed on the workhead frame.

The grinding wheel seat is equipped with two-way single-point diamond pen holder.

Grinding wheel is automatic dressing.

Central automatic quantitative lub system.



# TIG- Series CNC internal grinder

Specification TIG- 150			
Grinding capacity	ID Grinding Range	mm	ø4~ø200
	Max. Grinding Depth	mm	150
	Max. Swing to Dresser	mm	ø200
	Swing of Chick Cover	mm	ø260
	Chuck Type	inch	6"
	Max. Loading	kg	30
	Workhead	Spindle Speed	rpm
Swiveling Angle			C.W. 15° ~ C.CW. 5°
Servo Motor		kw	1.2
Spindle bore		mm	ø52
X-axis	Max. Travel	mm	200
	Rapid Feeding Rate	m/min	10
	Min. Increment Infeed	mm	0.001
	Servo Motor	kw	1.2
Y-axis	Max. Travel	mm	400
	Min. Travel	mm	100
	Rapid Feeding Rate	m/min	10
	Min. Increment Infeed	mm	0.001
	Servo Motor	kw	1.2
ID Wheelhead	Max Spindle Speed	rpm	8000~30000
	Spindle Motor	mm	90
	Servo Motor	HP	2 (2P) / 3 (2P)(OPT.)
Machine Weight/Size	Net Weight	kg	3200
	L x W x H	mm	2300 x 2200 x 2000

\*Top-One Machinery reserves the right to make any modifications if necessary.\*



# TOG- Series CNC cylindrical grinder

## Specification TOG- 2550

Grinding capacity	Table Max. Swing Range	mm	ø250
	Distance between centers	mm	500
	Max. Grinding Diameter	mm	ø250
	Max. Load between centers	kg	80
Workhead (X-axis)	Feed angle		90°
	Rapid Feeding Speed	m/min	3
	Infeed Travel	mm	150
	Min. Increment Infeed	mm	0.001
Grinding wheel	Diameter x Width x Bore	mm	ø455 x 25~50 x ø127
	Wheel Speed	rpm	1500
	Max. peripheral speed	m/min	2100
Workhead	Spindle Speed (Variable)	rpm	50~500
	Center Taper		MT#3
	Spindle Type		Fixed/Movable
	Diameter of Bore	mm	ø20
Tailstock	Quill Travel	mm	25
	Center Taper		MT#3
Machine Weight/Size	Net Weight	kg	3300
	L x W x H	mm	2990 x 1750 x 2050

\*Top-One Machinery reserves the right to make any modifications if necessary.\*





TOP-ONE Machinery Co., Ltd.

## Get In Touch

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