Precision Cylindrical Complex CNC Grinder

EGM series
EG I series

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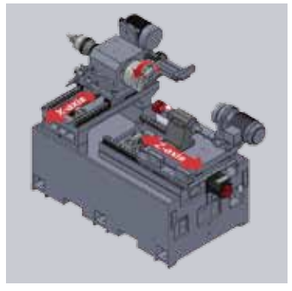
EGI-150CNC Precision Cylindrical Complex Grinder

■ Single grinding spindle configuration. The body structure is manufactured from high quality, tempered, stressed relieved F30 cast iron for outstanding machining accuracy and stability.
■ The massive base is rib reinforced according to the principle of mechanics, resulting in exceptional stability.
■ The grinding spindle and the workhead rotation is driven by Siemens motor and controlled by a frequency inverter, providing infinitely variable speed change.
■ The workhead spindle runs in roller bearing and angular contact ball bearing to exhibit outstanding axial and radial loading resistance.
■ The multi-function wheel dressing device is suitable for dressing grinding wheel to perform internal/external end surface, internal/external tapered surface and internal/external diameter grinding.
■ The workhead movement is driven by a servo motor, can be swiveled-5° ~ +15° for grinding tapered surface.
■ The workhead is fitted with 8” hydraulic three-jaw chick for clamping workpiece.
■ The automatic lubricator provides automatic lubrication to ballscrews and linear guideways, ensuring smooth motions of transmission mechanisms.



X, Z axis travel 300/400+100 mm

■ “+100mm” is the moving distance of the wheelhead by manual operation.
■ The X, Z axis are all equipped with high quality NSK linear guides and ballscrews for achieve the highest accuracy and rigidity.
■ X, Z axis movements are driven by servo motors with minimum setting unit of 0.001 mm.

Single grinding spindle

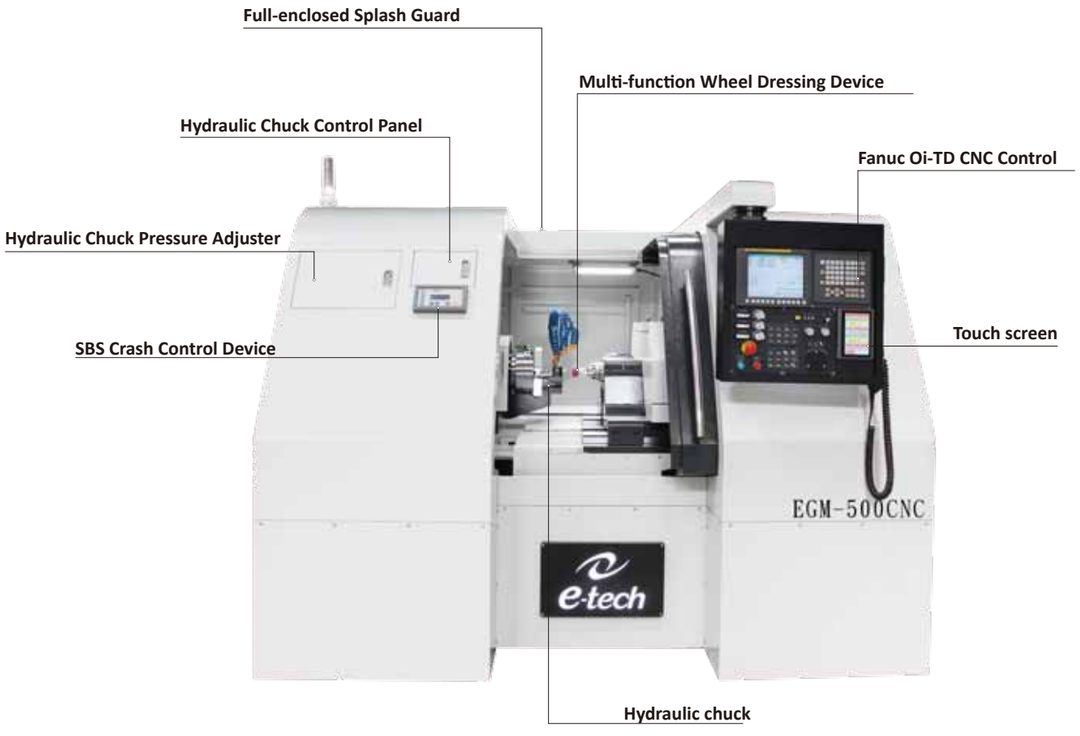
■ The wheel spindle is dynamically balanced to under G1.0 for minimum vibration.
■ Choice of spindle speeds: 10000/20000/30000/40000/50000 rpm (opt.).
■ Turning spindle assembly, endface grinding head are available.
■ Built-in type spindle is available.

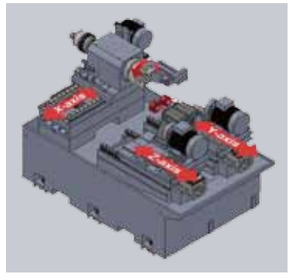
Endface grinding head (opt.)

■ Single grinding spindles configuration with 10000 rpm built-in type spindle.
■ The endface grinding head travel is driven by a hydraulic cylinder and feed is controlled by a servo motor.

EGM-500CNC Precision Cylindrical Complex Grinder

■ Dual grinding spindles configuration. The massive base is rib reinforced according to the principle of mechanics, resulting in exceptional stability.
■ Powerful Fanuc Oi-TD CNC control provides various parameter settings for multi-face grinding. Maximum 16 faces grinding in one setup.
■ The touch screen is designed to control motor current in various grinding conditions and provide sensing grinding function.
■ The dovetail slideways on Y, Z axis are designed with air cushion allowing smooth movement across Y and Z axis.
■ The grinding wheel and workpiece rotation is driven by Siemens motor and controlled by a frequency inverter, providing infinitely variable speed change.
■ The wheelhead and the workhead spindle run in roller bearing and angular contact ball bearing to exhibit outstanding axial and radial loading capacity.
■ The multi-function wheel dressing device is suitable for dressing grinding wheel to perform internal/external end surface, internal/external tapered surface and internal/external diameter grinding.
■ The workhead movement is driven by a servo motor, can be swiveled-5° ~+15° for grinding tapered surface.





X, Y, Z axis travel 390/350+200/350+200 mm

■ “+200mm” is the moving distance of grinding head by manual operation.
■ The X, Y, Z axis are all equipped with high quality NSK linear guides and ballscrews for the highest accuracy and rigidity.
■ X, Y, Z axis movements are driven by servo motors with minimum setting unit of 0.0001 mm.

Dual grinding spindles

■ Dual grinding spindles configuration with the maximum grinding depth 200 mm.
■ Choice of spindle speeds: 10000/20000/30000/40000/50000 rpm (opt.).

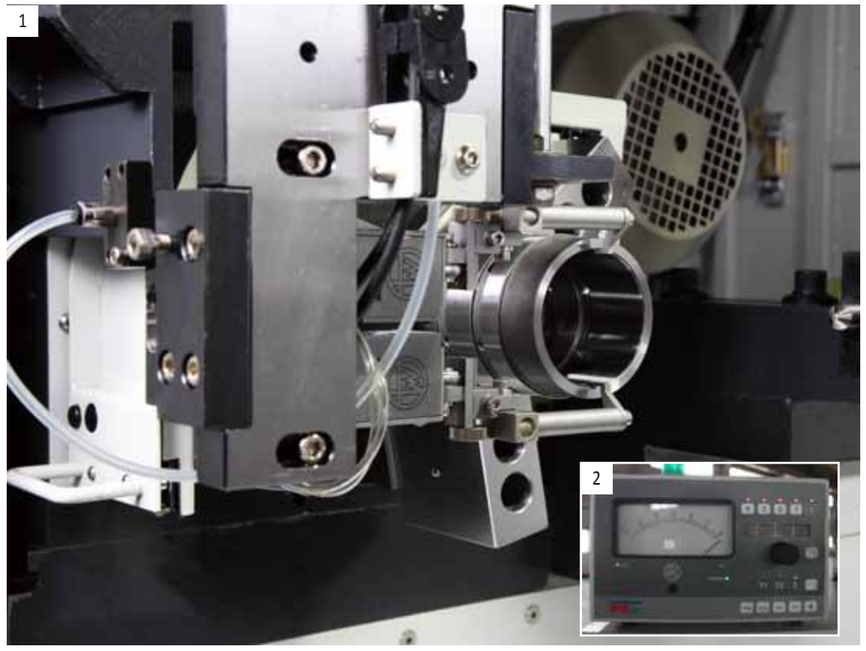
Grinding spindle & turning spindle assembly

■ Turning assembly is available.
■ Turning spindle is installed on the grinding spindle seat. It is available to process soft-jaw or workpieces with out heat treatment.

Automatic System

Automatic system is available to choose from various attachments, such as auto sizing device, in-line gaging, crash control device and automatic load/unload system. Through the automatic grinding system, technician can learn how the process proceeds and respond with most appropriate adjustment to fulfill high quality, high efficiency and lower the cost of the production.

■ Auto sizing device can prevent the workpiece from over cutting and ensure the size, surface precision while shorteningtime of process.
■ In-line gaging can ensure the tolerance to be kept within specification and reduce human interference to raise the efficiency while maintaining continuity of the production.
■ Crash control device can prevent the improper crash from grinding wheel and workpiece, properly control the feeding speed by closely monitoring the contact point of grinding wheel and workpiece.



|1|In-line gaging (opt.) |2|In-line gaging controller (opt.)|3|Safty guard of grinding wheel (opt.) |4|auto sizing device (opt.)

Specifications		**EGM-500CNC**	**EGI-150CNC**
Grinding Capacity	Grinding diameter range	Ø4-Ø320 mm	Ø4-Ø240 mm
	Max. grinding depth	200 mm	150 mm
	Swing over table	Ø350 mm	Ø380 mm
	Swing over splash guard	Ø320 mm	Ø320 mm
Control System	Control	Fanuc	Fanuc
Workhead	Spindle speed	0-1000 rpm	0-1000 rpm
	X-axis feed rate	10 m/min	10 m/min
	X-axis travel	390 mm	300 mm
	Min. unit of X-axis movement	0.001 mm	0.001 mm
	Work head swiveling angle	-5˚ ~ +30˚	-5˚ ~ +15˚
Table	Max. feedrate of Y/Z-axis	10/10 m/min	Z: 10 m/min
	Y/Z-axis travel	350+200/350+200 mm	Z: 400+100 mm
	Min. unit of Y/Z-axis movement	0.001/0.001 mm	0.001/0.001 mm
	Distance from wheel center to floor	1060 mm	1060 mm
Hydraulic system	Hyd. oil tank capacity	30L	30L
Cooling system	Coolant tank capacity	200L	150L
Drive Motor	Hyd. pump motor	0.75 kw (1HP)	0.75 kw (1HP)
	Coolant pump	0.18 kw (1/4 HP)	0.18 kw (1/4 HP)
	X/Y/Z-axis servo motor	1.6/1.6/1.6 kw	X: 1.2 kw/ Z: 1.2 kw
	Grinding wheel motor (B1/B2)(KW)	2.2, 2P (3HP)/2.2, 2P (3HP)	B1: 2.2, 2P (3HP)
	Workhead motor	2.2 kw, 4P (3HP)	2.2 kw, 4P (3HP)
Others	Automatic lubricator	4L	2L
	Machine dimensions (LxWxH)	2500x2100x1950 mm	2200x2300x1700 mm
	Machine weight	4750 kg	3000 kg

* E-Tech reserves the right to change specifications and design characteristics without prior notice.

Standard Accessories	**EGM-500CNC**	**EGI-150CNC**
CNC control	●	●
Frequency inverter for X-axis workhead motor	●	●
Frequency inverter for Y-axis workhead motor	●	-
Frequency inverter for Z-axis workhead motor	●	●
Grinding spindle on Y-axis	●	-
Grinding spindle on Z-axis	●	●
End face grinding spindle & built-in type spindle	(opt.)	(opt.)
Hydraulic chuck	●	●
Rotary cylinder	●	●
Three-color warning light	●	●
Working light	●	●
Tool Box	●	●
Automatic lubricator	●	●
Coolant tank & pump	●	●
Heat exchanger for electrical cabinet	●	●
Diamond wheel dressing kit	●	●
Foundation bolts and blocks	●	●
Machine and control operation manual	●	●
Full-enclosed splash guard	●	(opt.)
Semi-enclosed splash guard	-	●