



# *Grinder Professionals*

*Precision Cylindrical Complex CNC Grinder*



## *e-tech Machinery, Inc.*

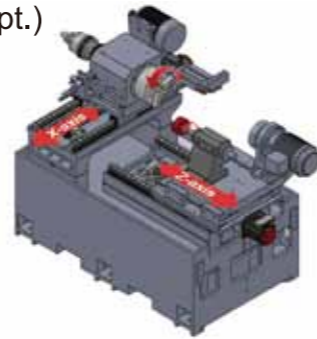
No.48, Ln.960, Fengzhou Rd., Shengang Dist.,  
Taichung City 429, Taiwan, R.O.C  
Tel: 886-4-2535-2756 Fax: 886-4-2535-2765  
<http://www.etechnachinery.com.tw>  
E-mail: [info@etechnachinery.com.tw](mailto:info@etechnachinery.com.tw)

## *e-tech Machinery, Inc. USA.*

6435 Alondra Blvd.  
Paramount, CA 90723  
Tel: 562 220-1675 Fax: 562 220-1677  
<http://www.etechnachinery.com.tw>  
E-mail: [info@etechnachinery.com.tw](mailto:info@etechnachinery.com.tw)

## EGI-150CNC-A (Single Spindle) EGI-150CNC-B (End face grinding spindle)

- Single grinding spindle configuration
- Available to mount with turning spindle assembly (opt.)
- Available to mount with end face grinding head (optional for EGI-150-CNC-B)
- X, Z axis travel 300 / 400 + 100mm
- Max. grinding depth 150mm
- Fanuc CNC control
- Semi-enclosed splash guard



## EGM-500CNC (Twin spindles)

- Twin grinding spindles configuration
- Available to mount with turning spindle assembly (opt.)
- Max. grinding depth 200mm
- FANUC Oi-TD CNC control
- Full enclosed splash guard
- X, Y, Z Axis travel 390 / 350+200 / 350+200 mm



<Single grinding spindle>



<End Face Grinding Head>  
(optional)

- The end face grinding head travel is driven by a hydraulic cylinder, and feed is controlled by a servo motor.
- 10,000 rpm built-in type wheel spindle.
- The wheel spindle is dynamically balanced to under G 1.0 for minimum vibration.

### Massive Machine Structure The Ultimate of Rigidity and stability

- NSK Linear Ways & Ball Screws  
The X, Z axis all equip high quality NSK linear ways and ball screws to achieve the highest accuracy and rigidity.
- High Quality Cast Iron  
The structural parts are manufactured from high quality FC30 cast iron, tempered and stress relieved for outstanding machining accuracy and stability.
- Massive Base  
The massive base is rib reinforced according to dynamic principle, resulting in exceptional stability.
- Servo Motors Drive  
X, Z axis movements are driven by servo motors with minimum setting unit of 0.001 mm.



<Grinding spindle +  
turning spindle assembly>



<Twin grinding spindle>

### Optimal Structure Design High Stability, High Rigidity

- NSK Linear Ways & Ball Screws  
The X, Y, Z axis all equip high quality NSK linear ways and ball screws to achieve the highest accuracy and rigidity.
- High Quality Cast Iron  
The structural parts are manufactured from high quality FC30 cast iron, tempered and stress relieved for outstanding machining accuracy and stability.
- Massive Base  
The massive base is rib reinforced according to dynamic principle, resulting in exceptional stability.
- Servo Motors Drive  
X, Y, Z axis movements are driven by servo motors with minimum setting unit of 0.0001 mm.

# CNC Control FANUC

## FANUC Oi-TD CNC Control

Powerful functions provide various parameter setting for multi-face grinding.  
Maximum 16 faces grinding in one setup of workpiece.



**Touch-Sensing Screen**  
It is used for controlling motor current in various grinding conditions. Also, provide sensing grinding function.

EGM-500CNC

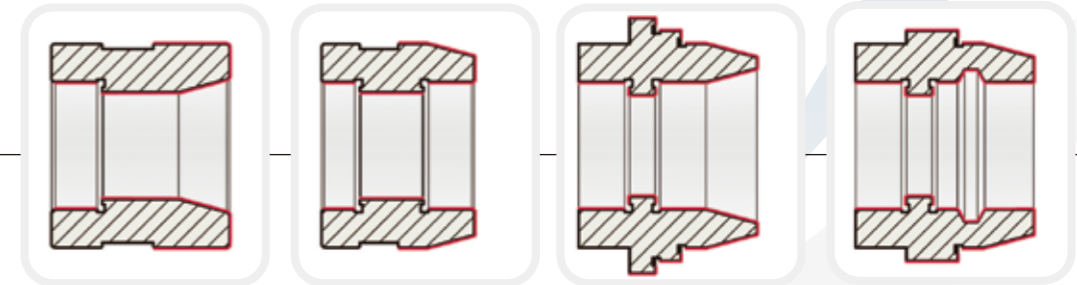
EGI-150CNCA

EGI-150CNCB

Perfect accuracy and quality



Grinding examples



## SBS Balance System Model SB-5500



Turning spindle is installed on the grinding spindle seat.





#### Automatic Lubricator

- The automatic lubricator provides automatic lubrication to all ballscrews and linear guideways, ensuring smooth motions of transmission mechanisms.



#### High Speed, High Precision Grinding Wheel Spindle

- Choice of spindle speeds: 10,000 / 20,000 / 30,000 / 40,000 / 50,000 rpm.
- The grinding wheel rotation is driven by Siemens motor and controlled by a frequency inverter, providing variable speed change.
- The grinding wheel spindle runs in angular contact ball Bearings to present outstanding axial and radial loading Resistance.



#### Wheel Dressing Device

- The multi-function wheel dressing device is suitable for dressing grinding wheel to perform internal / external end surfaces, internal / external tapered surfaces and internal / external diameter grinding.
- The wheel dressing device is mounted securely to achieve maximum stability during dressing.



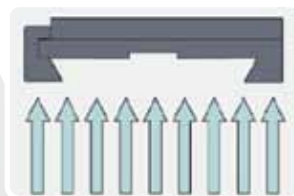
#### Workhead

- The workhead can be swiveled  $-5^{\circ} \sim +15^{\circ}$  for grinding tapered surface.
- The workhead rotation is driven by Siemens motor and controlled by a frequency inverter, providing variable speed change.
- The workhead spindle runs in roller veering and angular Contact ball bearing to exhibit outstanding axial and radial loading resistance.
- The wordhead movement is driven by a servo motor.



#### Hydraulic Three Jaw Chuk

- The workhead is fitted with a 8" hydraulic three-jaw chuck for clamping workpiece.



#### Air Floating Slideways on Y, Z Axis

- The dovetailed slideways on Y, Z Axis are designed with air floating type, that makes Y, Z Axis movement smooth.

## EGI Surface Machine Specifications

Model		EGM-500CNC	EGI-150CNC-A	EGI-150CNC-B
Grinding	Grinding diameter range	Ø4 ~ Ø320mm	Ø4 ~ Ø240mm	Ø4 ~ Ø200mm
	Max. grinding depth	200 mm	150 mm	150 mm
Capacity	Swing over table	Ø350 mm	Ø 380 mm	Ø380 mm
	Swing over splash guard	Ø320 mm	Ø320 mm	Ø200 mm
Control System	Control	FANUC	FANUC	FANUC
	Spindle speed	0 ~ 1000	0 ~ 1000	0 ~ 1000
Workhead	X Axis feed rate	10 m/min	10 m/min	10 m/min
	X Axis travel	390 mm	300 mm	300 mm
	Min. unit of X Axis movement	0.0001 mm	0.001 mm	0.001 mm
	Workhead swiveling angle	$-5^{\circ} \sim +30^{\circ}$	$-5^{\circ} \sim +15^{\circ}$	$-5^{\circ} \sim +15^{\circ}$
Table	Max. feed rate of Y / Z Axis	10 / 10 m/min	Z: 10 m/min	Z: 10 m/ min
	Y / Z Axis travel	350+200 / 350+200 mm	Z: 400+100 mm	Z: 400+100 mm
	Min. unit of Y / Z Axis movement	0.0001 / 0.0001 mm	Z: 0.001 mm	Z: 0.001 mm
	Distance from wheel center to floor	1060 mm	1060 mm	1060 mm
Hydraulic System	Hyd. Oil tank capacity	30 L	30 L	30 L
Cooling System	Coolant tank capacity	200 L	150 L	150 L
Drive Motor	Hyd. Pump motor	0.75 Kw (1HP)	0.75 Kw (1HP)	0.75 Kw (1HP)
	Coolant pump	0.18 Kw (1/4HP)	0.18 Kw (1/4HP)	0.18 Kw (1/4HP)
	X / Y / Z Axis servo motor	1.6 / 1.6 / 1.6 Kw	X: 1.2 Kw / Z:1.2 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)	2.2, 2P (3HP) / 4.5 (6HP)
	Workhead motor	2.2 Kw, 4P (3HP)	2.2 Kw, 4P (3HP)	2.2 Kw, 4P (3HP)
Other	Automatic lubricator	4 L	2 L	2 L
	Machine dimensions (L x W x H)	2500 x 2100 x 1950 mm	2200 x 2300 x 1700 mm	2200 x 2300 x 1700 mm
	Machine weight	4750 KG	3000 KG	3000 KG

■ Specifications and design characteristic are change without prior notice.

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