ST Supertec

The Finest Solution

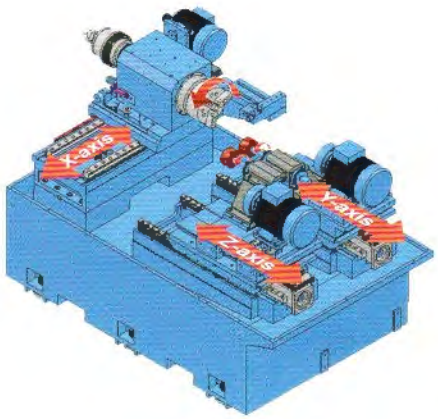
PRECISION CYLINDRICAL COMPLEX CNC GRINDER

ST Supertec

EGM-500CNC

EGM-500CNC (Twin spindles)

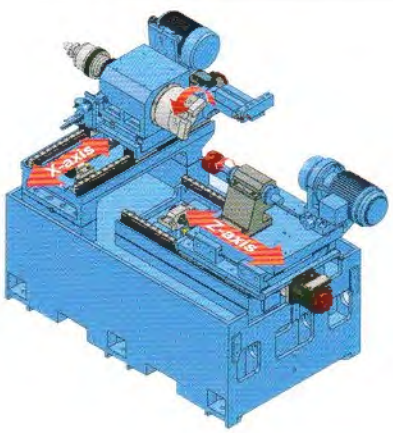
- Twin grinding spindles configuration
- Available to mount with turning spindle assembly (opt.)
- Max. grinding depth 7.8"
- FANUC Oi-TD CNC control
- Full enclosed splash guard
- X, Y, Z Axis travel 15.3" / 13.8"+7.8" / 13.8"+7.8"



The Finest Solution

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 11.8"/15.7"+4"
- Max. grinding depth 5.9"
- Fanuc CNC control
- Semi-enclosed splash guard



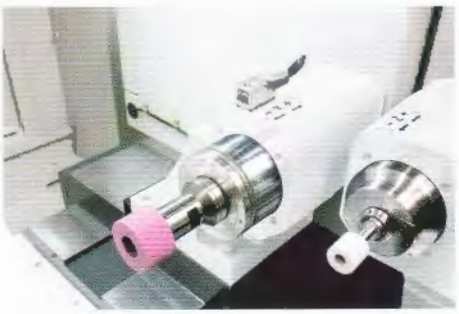
EGI-150-A

Machine Construction

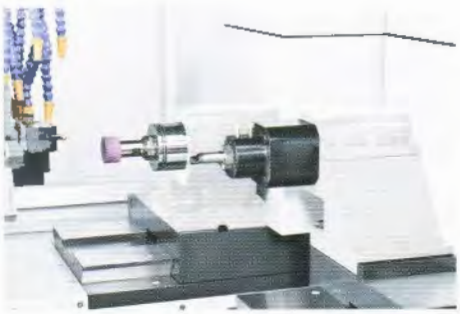
EGM-500CNC (Twin spindles)

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".



<Twin grinding spindle>



<Grinding spindle + turning spindle assembly>

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

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 0.0001".

(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.

<End Face Grinding Head>

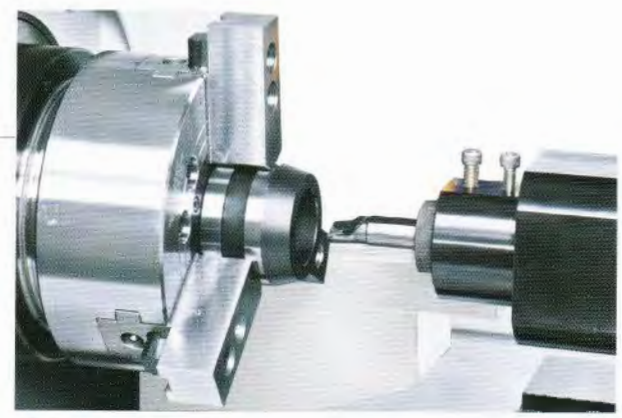
<Single grinding spindle>

Touch Screen

Used to control motor current in various grinding conditions.

CNC Control FANUC- FANUC Oi-TD CNC Control

- Powerful funtions provide various parameter setting for multi-face grinding.
- Maximum 16 faces grinding in one set up of workpiece.



Turning spindle

Turning spindle is installed in the grinding spindle housing.

SBS Balance System

Model SB-5500

High Speed, High Precision Grinding Wheel Spindle

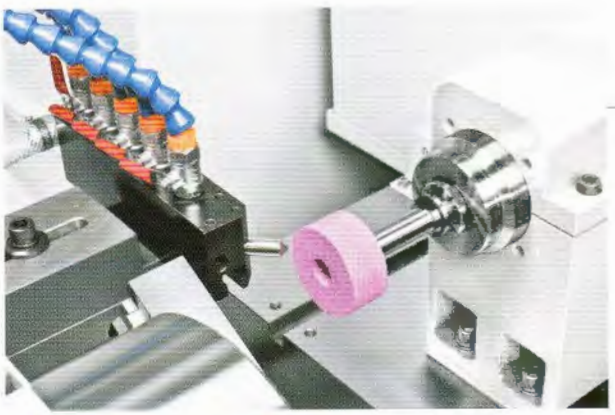
- Spindle speeds available:
  10,000 / 20,000 / 30,000 / 40,000 / 50,000 rpm.
- The grinding wheel rotation is driven by Siemens motor and controlled by a frequency inverter, providing variable speed change.
- The grinding wheel spindle runs in angular contact ball bearings to present outstanding axial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

Features

Features

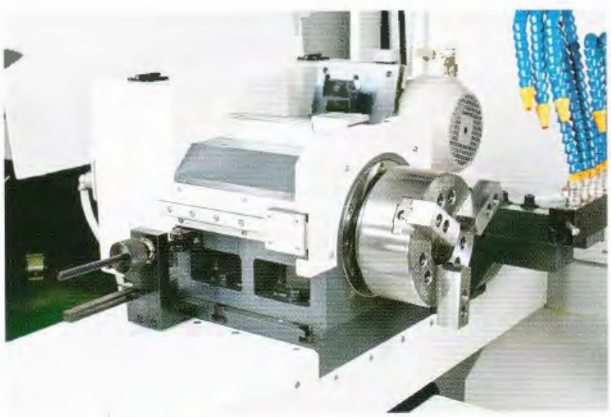
Auto Lubricator System

- The automatic lubricator provides automatic lubrication to all ballscrews and linear guideways, ensuring better performance



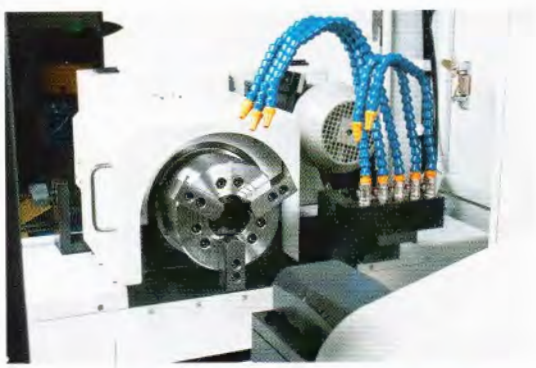
Wheel Dressing Device

- 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.



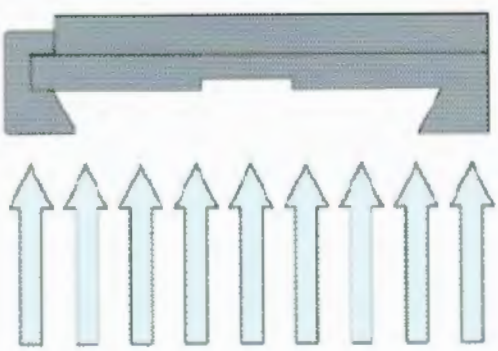
Workhead

- The workhead can be swiveled -5° ~ +15° for grinding tapered surfaces.
- 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 3-Jaw Chuck

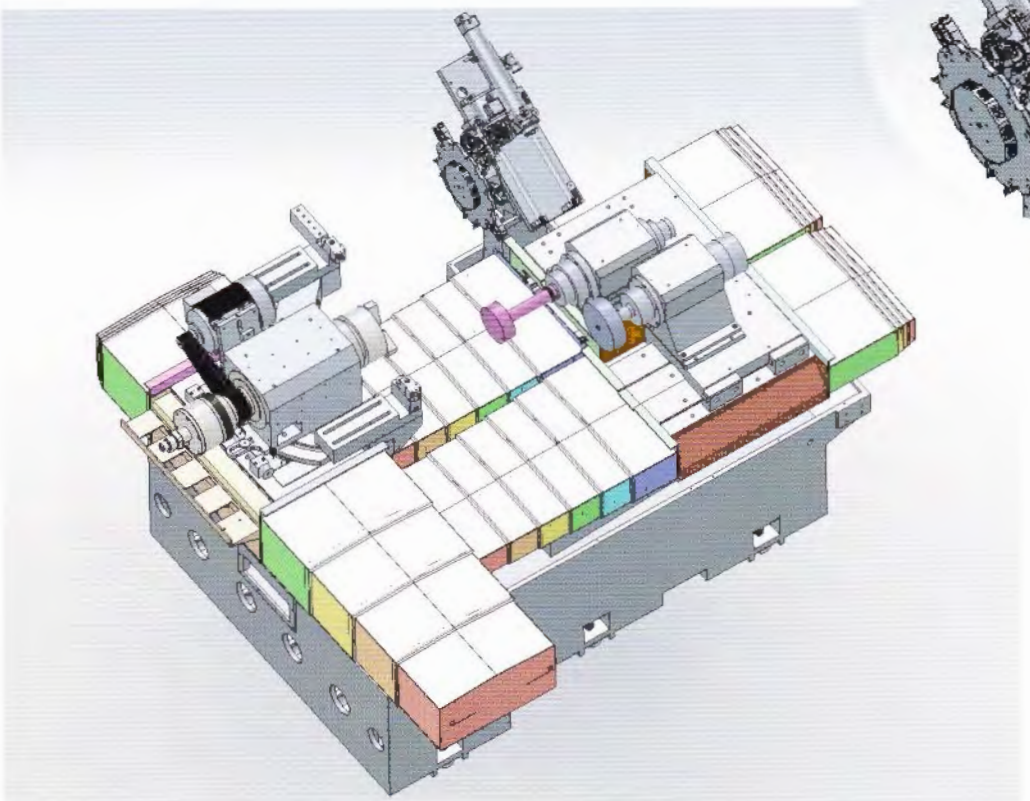
- The workhead is fitted with a 8" hydraulic three-jaw chuck for clamping workpiece.

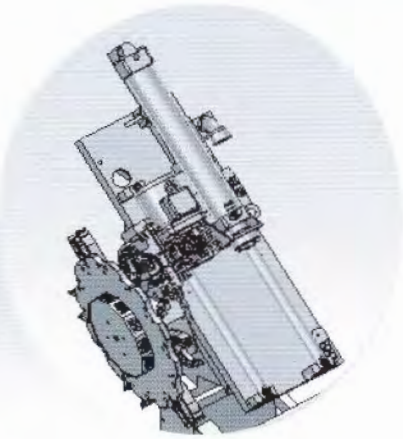


Air Assisted Floating Slideways on Y, Z Axis

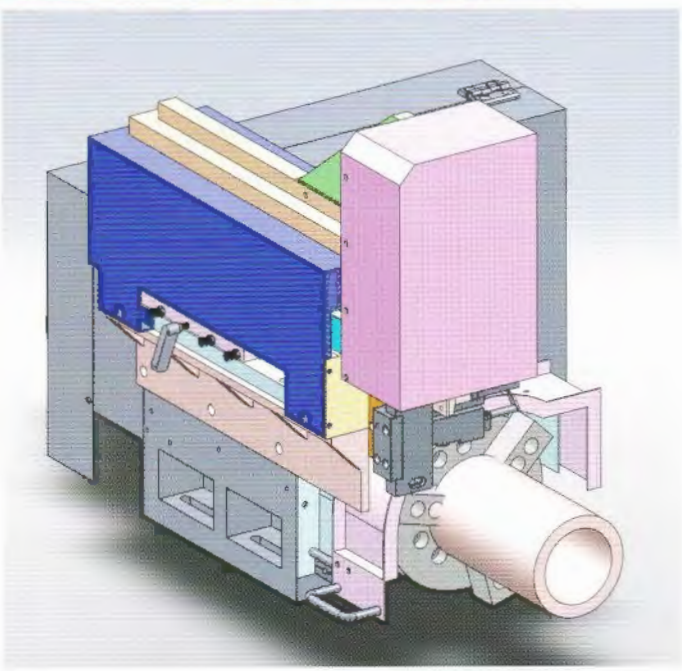
- The dovetailed slideways on Y, Z Axis are designed with air assisted floating system that makes Y, Z Axis movement smooth.

Tool Magazine
EGM-500CNC

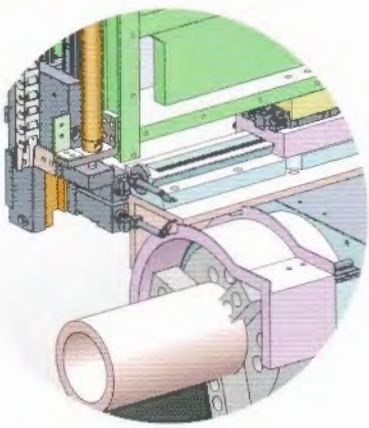




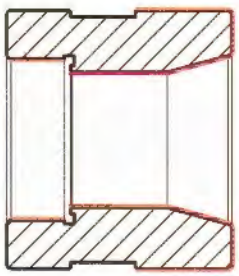
ID Gauging Device
EGM-500CNC&GI-150A&B

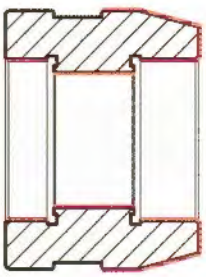


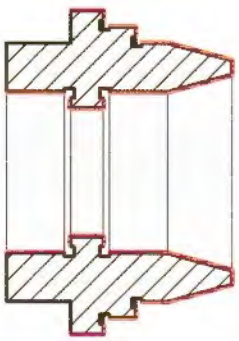
OPTIONAL

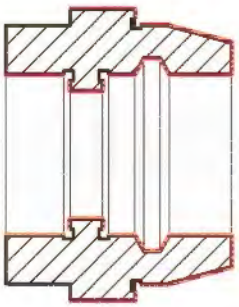


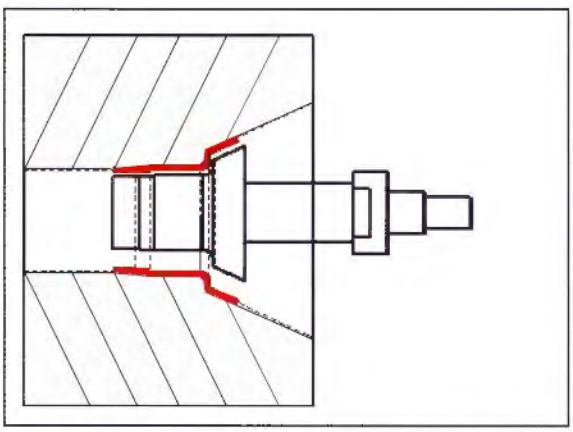
Grinding Examples



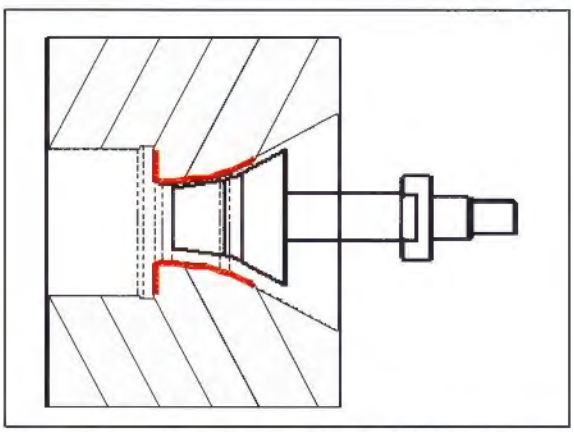








Forming Grrinding (With CBN Wheel)



Forming Grrinding (With CBN Wheel)

Standard Accessories

Standard accessories	EGM-500	EGI-150CNC-A	EGI-150CNC-B
CNC control	•	•	•
Hydraulic chuck	•	•	•
Rotary cylinder	•	•	•
Work light	•	•	•
Tool box	•	•	•
Automatic lubricator	•	•	•
Coolant tank & pump	•	•	•
Grinding spindle on Y-axis	•		
Grinding spindle on Z-axis	•	•	•
Three-color warning light	•	•	•
Diamond wheel dressing kit			
Foundation bolts amd blocks	•	•	•
Fully enclosed splash guard	•		
Semi-enclosed splash guard		•	•

Standard Accessories

Standard accessories	EGM-500	EGI-150CNC-A	EGI-150CNC-B
Frequency inverter for X-axis workhead motor	•	•	•
Frequency inverter for Y-axis workhead motor	•		
Frequency inverter for Z-axis workhead motor	•	•	•
End face grinding spindle &built-in type spindle			•
Heat exchanger for electrical cabinet	•	•	•
Machine and control operation manual	•	•	•

Model		EGM-500CNC	EGI-150CNC-A	EGI-150CNC-B
Grinding Capacity	Grinding diameter range	Ø0.16" ~ Ø12.6"	Ø0.16" ~ Ø9.4"	Ø0.16" ~ Ø7.8"
	Max. grinding depth	7.8"	5.9"	5.9"
	Swing over table	13.7"	15"	15"
	Swing over splash guard	Ø12.6"	Ø12.6"	Ø7.8"
Control System	Control	FANUC	FANUC	FANUC
Workhead	Spindle speed	0 ~ 1000rpm	0 ~ 1000 rpm	0 ~ 1000 rpm
	X Axis feed rate	394 in/min	394in/min	394in/min
	X Axis travel	15.3"	11.8"	11.8"
	Min. unit of X Axis movement	0.0001"	0.0001"	0.0001"
	Workhead swiveling angle	-5° ~ +30°	-5° ~ +15°	-5° ~ +15°
Table	Max. feed rate of Y / Z Axis	394/394in/min	Z: 394 in/min	Z: 394 in/min
	Y / Z Axis travel	13.7"+7.8"/13.7"+7.8"	Z:15.7"+3.9"	Z:15.7"+3.9"
	Min. unit of Y / Z Axis movement	0.0001"/0.0001"	0.0001"/0.0001"	0.0001"/0.0001"
	Distance from wheel center to floor	41.7"	41.7"	41.7"
Hydraulic System	Hyd. Oil tank capacity	7.5 gal.	7.5 gal.	7.5 gal.
Cooling System	Coolant tank capacity	50 gal.	37.5 gal.	37.5 gal.
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: 1.2Kw / Z:1.2 Kw	X: 1.2Kw / 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	1 gal.	0.5gal.	0.5gal.
	Machine dimensions (L x W x H)	98"x83"x77"	87"X91"X67"	87"X91"X67"
	Machine weight	10,450 lbs.	6600 lbs.	6600 lbs.

*Specifications and design are subject to change without prior notice. *

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