

# Grinder Professionals Cylindrical Grinder EGP series



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# Cylindrical Grinder

e-tech Machinery Inc. introduces EGP series Cylindrical grinders, available in manual infeed (M/H models) and automatic infeed (NC models). The EGP series offers a range of 200/250/320/380/380/450mm swing and a choice of 500/600/1000/1500/2000mm center distance for various grinding solutions. The application is further extended with the optional swing down internal grinding attachment.

All models feature a Meehaite box-type machine bed, hydrostatic guideways for work table, a variable speed work-head, a separate hydraulic system, a 3 HP/EGP-2550(for EGP 20) or 7.5HP/EGP32 and above (4P) (EGP 25) spindle motor with a cartridge type spindle, and an automatic lubrication system for superior grinding precision and productivity.

NC models are equipped with user friendly PLC control panel with a menu-driven LCD touch screen. Operators need only to select desired grinding cycle and then input setting data to perform automatic grinding cycle. An optional overhead parallel dresser with automatic compensation system to reduce cycle time and obtain better surface finish.



Surface Grinding

Shoulder Grinding

## Feature







## Workhead

The study rigid-designed workhead equipped with precision bearing is electronically controlled giving variable spindle speeds workhead swivels 90  $^{\circ}$  counterclockwise to 30  $^{\circ}$  clockwise for various grinding operation. A combination live and dead-type spindle allows for quick change over from center to chuck operation or vice versa.

## Tailstock

The design of the tailstock is both rigid and robust. Housed in a cast body, the hardened alloy steel sleeve is designed to carry a MT3 center or optional MT4 center. An optional hydraulic tailstock with foot pedal is available for easy loading and unloading of parts. The spring force of the sleeve can be modified through the adjusting switch.

## Wheelhead

Wheel head infeed system (The double V guideways) is hand scraped and Turcite coated, utilizing an automatic lubrication system, a precision ball screw, and AC servo motor. This combination allows smooth movement of the wheel head and delivers superior positioning accuracy and repeatability..

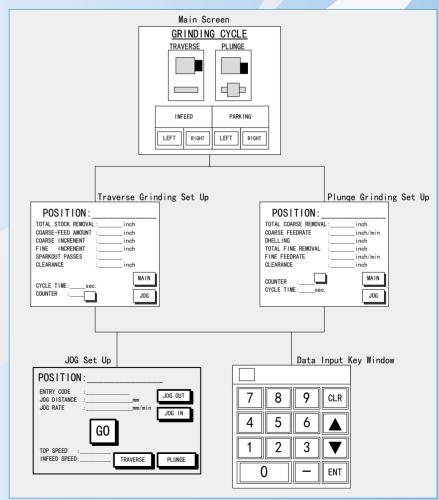
## PLC Control uses a menu-driven LCD touch screen technology for simple operation. (NC Models noly)

## Step1

Choose the following functions:
Grinding Mode Selection
Infeed selection
Table Parking Selection
Jog setting or Next Screen

## Step2

Fill in the blanks to set total stock removal, total fine grinding aomunt, rough increment, fine increment, spark-out passes, and reset distance, then press cycle start to complete the automatic grinding cycle.





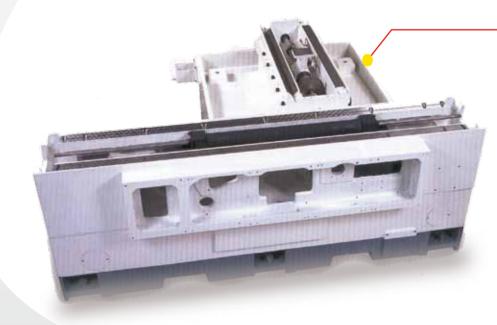
# Cylindrical Grinder

EGP 32 SERIES





## Feature



## Machine Base

The heavily ribbed box-type machine bed is made of Meehanite castings, with outstanding rigidity and stability. Optimal distance between guideways spam offers excellent table supports to increase Z axis positioning accuracy and durability.

## Feature



#### Workhead

The study rigid-designed workhead equipped with precision bearing is electronically controlled giving variable spindle speeds workhead swivels 90 ° counterclockwise to 30 ° clockwise for various grinding operation. A combination live and dead-type spindle allows for quick change over from center to chuck operation or vice versa.



#### Tailstock

The design of the tailstock is both rigid and robust. Housed in a cast body, the hardened alloy steel sleeve is designed to carry a MT4 center or optional MT5 center. An optional hydraulic tailstock with foot pedal is available for easy loading and unloading of parts. The spring force of the sleeve can be modified through the adjusting switch.



## Wheelhead infeed system (NC TYPE)

Wheel head infeed system (The double V guideways) is hand scraped and Turcite coated, utilizing an automatic lubrication system, a precision ball screw, and AC servo motor. This combination allows smooth movement of the wheel head and delivers superior positioning accuracy and repeatability.



## Wheel spindle

A combination of hydrostatic and hydrodynamic bearings, surrounded by a high pressure oil film, eliminates metal-to-metal contact to provide high rigidity as well as high vibration damping performance. A pressure switch interlock prevents spindle start-up until oil pressure is established. This pressure switch interlock also stops the spindle if oil pressure fails. Both features ensure high accuracy and longer spindle life.



#### Worktable

A rigid table with box-type construction travels on a cushion of oil with no metal to metal contact for better accuracy and longer way life. An automatic force lubrication system operates continuously to ensure smooth movement and consistency. A swiveling table dial indicator enables rapid cylindrical corrections and taper grinding applications. The table is fully supported in the full travel to avoid overhang.

All specifications and feature are subject to change without notice.



## Standard Accessories



Leveling screws w/blocks



Balancing arbor



Grinding wheel w/flange



MT3/MT4 Center



Wheel balancing stand



Wheel extractor

Balancing arbor				
Wheel extractor				
Grinding wheel w/flange				
Tool box w/adjusting tools				
Diamond dresser(fixed on table)				
Operation manual with parts list				
Variable speeds workhead				
Dial gauge				
Splash guard				
Coolant system				
Auto lube system				
Carbide tip centers				
Leveling screws w/blocks				
Halogen Light				
Wheel Balancing Stand				

## Optional Accessories



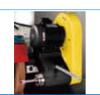






Roller type balancing stand







Angle Dressing Attachment





Centrifugal separator



2&3-Point Steady Rest



Micro Wheel Dresser



Hydraulic tailstock w/ foot peda



Auto Sizing Device

4	Jaw independent chuck+Fixed back plate
A	Adjustable back plate
5	C collet closer
5	C collets (4-20mm)
F	Radius dressing attachment
Α	Angle dressing attachment
2	P-Point steady rest
3	3-Point steady rest
	Digital readout
F	Roller type balancing stand
S	Spare grinding wheel
S	Spare wheel flange
Λ	flicro wheel dresser
(	Overhead parallel dressing attachment
(	Overhead dresser w/auto compensation system
H	łydraulic tailstock w /foot pedal
٨	AT5 taper on workhead & tailstock
	Dynamic wheel balance system
C	Coolant system w/magnetic separator & paper filter
A	auto compensation dressing attachment
C	Chiller
lr	nternal grinding attachment
٧	/ariable speeds
(	Centrifugal separator
A	Auto Sizing Device

## CYLINDRICAL GRINDER SPECIFICATIONS

Unit:mm

DESCRIPTION	MODEL	EGP 2050M/NC	EGP 2550H/NC	EGP 32	/ EGP38 / EGP45-	60 / 100 / 150 / 20	00H / NC		
	Distance between centers	500	500	600	1000	1500	2000		
General	Swing over table	Ø220	Ø260	Ø320 / Ø380 / Ø450					
capacity	Max. grinding diameter	Ø200	Ø250	Ø300 / Ø360 / Ø430					
	Max. load held between centers	80	Okgs	150 kgs					
Grinding	Diameter X width X bore	Ø355 x 38 x Ø127		Ø405 x 50 x Ø127					
wheel	Spindle speed (60HZ / 50HZ)	1620 / 1960	1800	1650					
	Swivelling angel(R&L)	Fixed	± 30°	± 30°					
	Infeed travel	160	135	245					
	Hand feed travel	160	90	200					
Wheelhead	Top slide travel			180					
	Automatic rapid travel		45						
	Auto increment infeed (NC model)	Ø0.001 ~ Ø0.999							
	Handwheel per graduation	Ø0.005		Ø0.004					
	Handwheel per revolution		Ø2						
	Swivelling angel(R&L)	±	45° 90°						
Workhead	Center taper	MT 3 (	(opt. 5C)	MT 4 (opt. MT5, 5C)					
	Spindle speed	150 / 264 356 / 480 rpm		30 ~ 350 rpm (variable speeds)					
Tailstock	Center taper	N	IT 3	MT 4 (opt. MT5)					
	Quill travel		25						
	Swivelling angel(R&L)	<u>+</u>	± 8°		± 7°	± 5°	±3°		
Table	Traverse speed	80 / 140 / 230	30 ~ 7000 mm / min						
	Handwheel per revolution	9	10						
	Spindle speed	14000rpm or 25000 rpm	12000 / 18000 rpm or 25000 rpm						
I 4 I	Max. grinding bore	Ø24~70	Ø30 ~ 100 or Ø20 ~ 50						
Internal grinding	Max. grinding length	70	110 or 55						
5	Max. chucking length	275	315						
	Max. chucking diameter	Ø110	Ø150						
	Wheel spindle motor	3 HP (4P)	5 HP (4P)	7.5 HP (4P)					
	Workhead spindle motor	1 /2 H	HP (4P) 2 HP (4P)						
Motor	Coolant pump	1 / 8 HP (4P)		1 / 4 HP (2P)					
	Hvdraulic pump	-	2 HP (4P)						
	Internal grinding motor	1 / 2HP (2P)			2 HP (4P)				
	Net weight	1850 kgs	2800 kgs	3500 kgs	3600 kgs	4700 kgs	6000 kgs		
Machine	Gross weight	2250 kgs	3200 kgs	4000 kgs	4700 kgs	5600 kgs	6780 kgs		
	Packing dimension (L x W x H)	2270 x 2270 x 1880	2280 x 2280 x1940	3030 x 2250 x 2030	3030 x 2250 x 2030	4030 x 2250 x 2030	5220 x 2250 x 2		