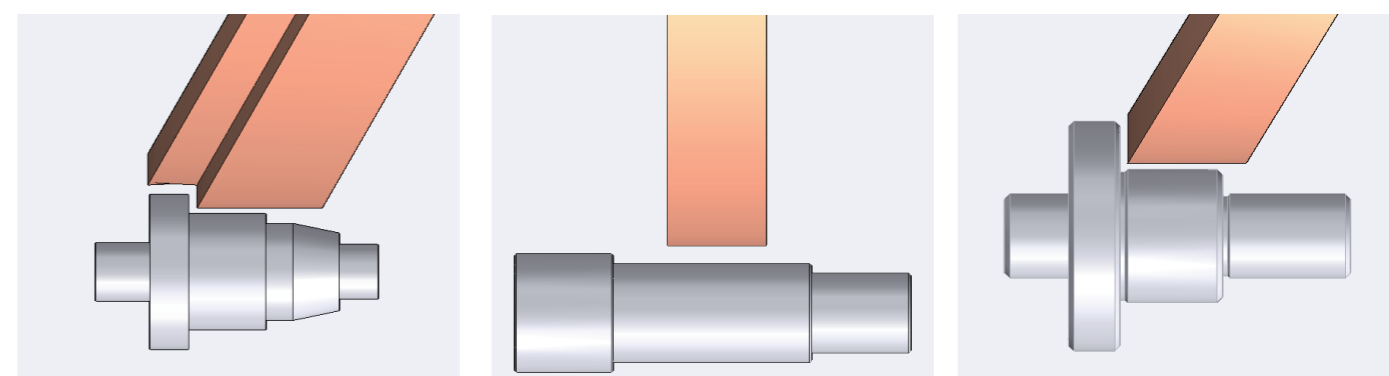


## CNC Cylindrical Grinder *Supra Series*

Supra Series Printed in Taiwan EI'06/2022 en



Grinder Professionals

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E-tech Machinery Grinder Professional

**Machine Features and  
Wheel Dressing Cycle**

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**1**

**Structure Features**

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**3**

**Specification: EGP Series**

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**5**

**Specification: EGA Series**

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**7**



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# 1 EGP Supra Series CNC Cylindrical Grinder

EGP Series grinders are designed for high precision, high efficiency, and user-friendly operation. They are suitable for various applications including but not limited to automotive, aerospace, transmission parts, gear shafts, spindles, hydraulic and pneumatic parts, medical instrument, tooling, job shop and mold industries.

## Features

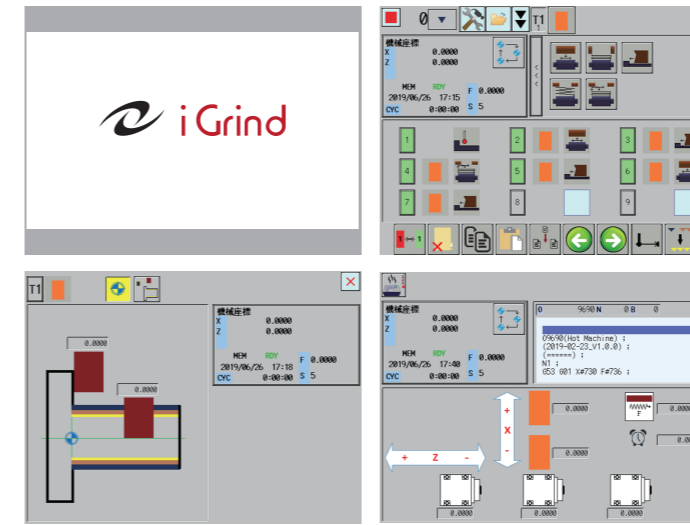
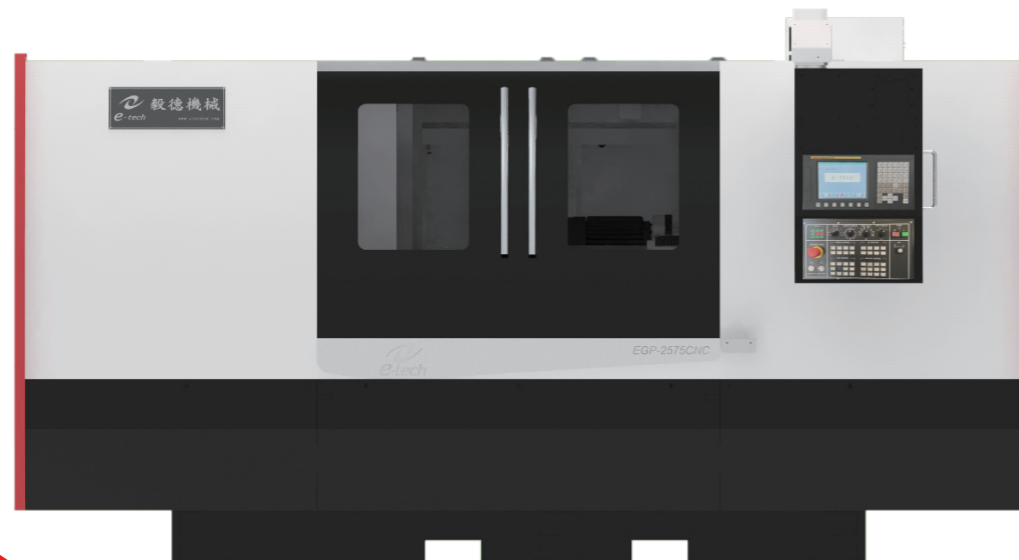
- Supra series is a series of CNC cylindrical grinder with great grinding capacity, designing for high efficiency and energy saving. Although the weight is less than 4 tons, with Ø455 grinding wheel, the grinding performance toward smaller, thinner, and lighter workpiece is effective and reliable, such as ballscrews and spindle or shafts with longer diameter-length ratio. Distance between centers is designed with 500mm, center height is 130mm, and the maximum weight load capacity is 100kg.

## iGrind CNC Controller

- e-tech Machinery carry on the developing iGRIND software. The total graphic conversational software overcomes the language barrier, high technical level requirement toward GM codes, shorten the training time for beginners and conventional users, helping users to put their hands on the machine within the shortest amount of time. With such user-friendly settings, multiple and complete grinding cycles and paths, we can efficiently achieve various operation. Moreover, we can also combine with all kinds of measuring accessories, automatic system, and so on ....

## Modular Automation Application

- e-tech is good at helping customer increasing productivity. Combining our lightweight design, modularized operation, automatic system, and experience, we can offer complete automatic solution toward smaller workpiece to increase grinding efficiency and stabilize the finish accuracy.

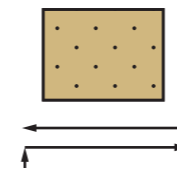


- OD Grinding / End Face Grinding / Form Grinding
- Form Dressing w/Auto Compensation
- Multiple Section Grinding Sequences
- Setup Parameter Storage
- Graphic Parameter Instruction

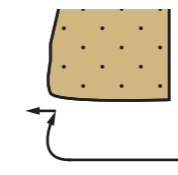
## Wheel Dressing Cycle

### Plunge Type

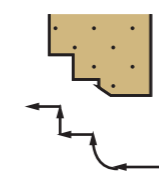
Straight - Parallel



LHS Radius and Concave below

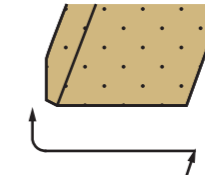


Steps Wheel (option) (Under 15 points)

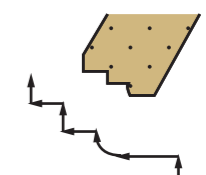


### Angular Type

Wheel with radius



Steps Wheel (option) (Under 15 points)



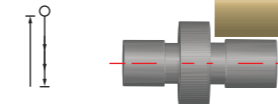
Remarks :

1. Max. 5 types of wheel profile can be saved.
2. Dressing condition can set rough, mediate and fine dressing
3. Machine with ID attachment, setup has to be done by manual.

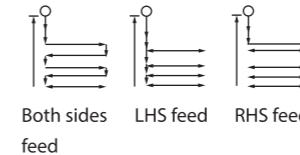
## Grinding Cycle

### Plunge Type

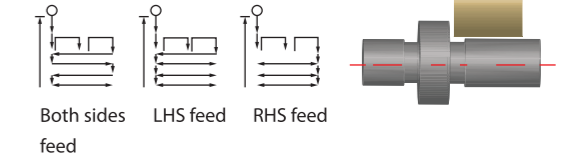
1. Plunge grinding



2. Traverse grinding

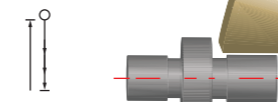


3. Plunge And Traverse grinding

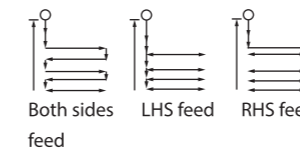


### Angular Type

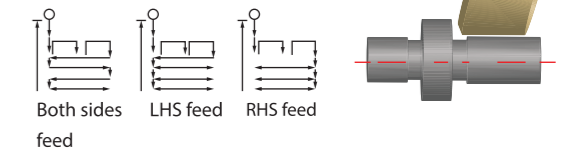
1. Plunge grinding



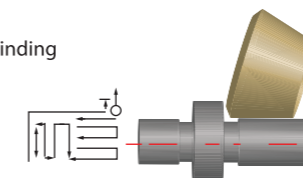
2. Traverse grinding



3. Plunge And Traverse grinding



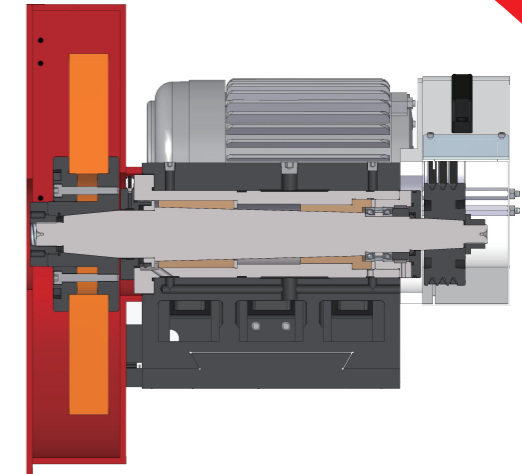
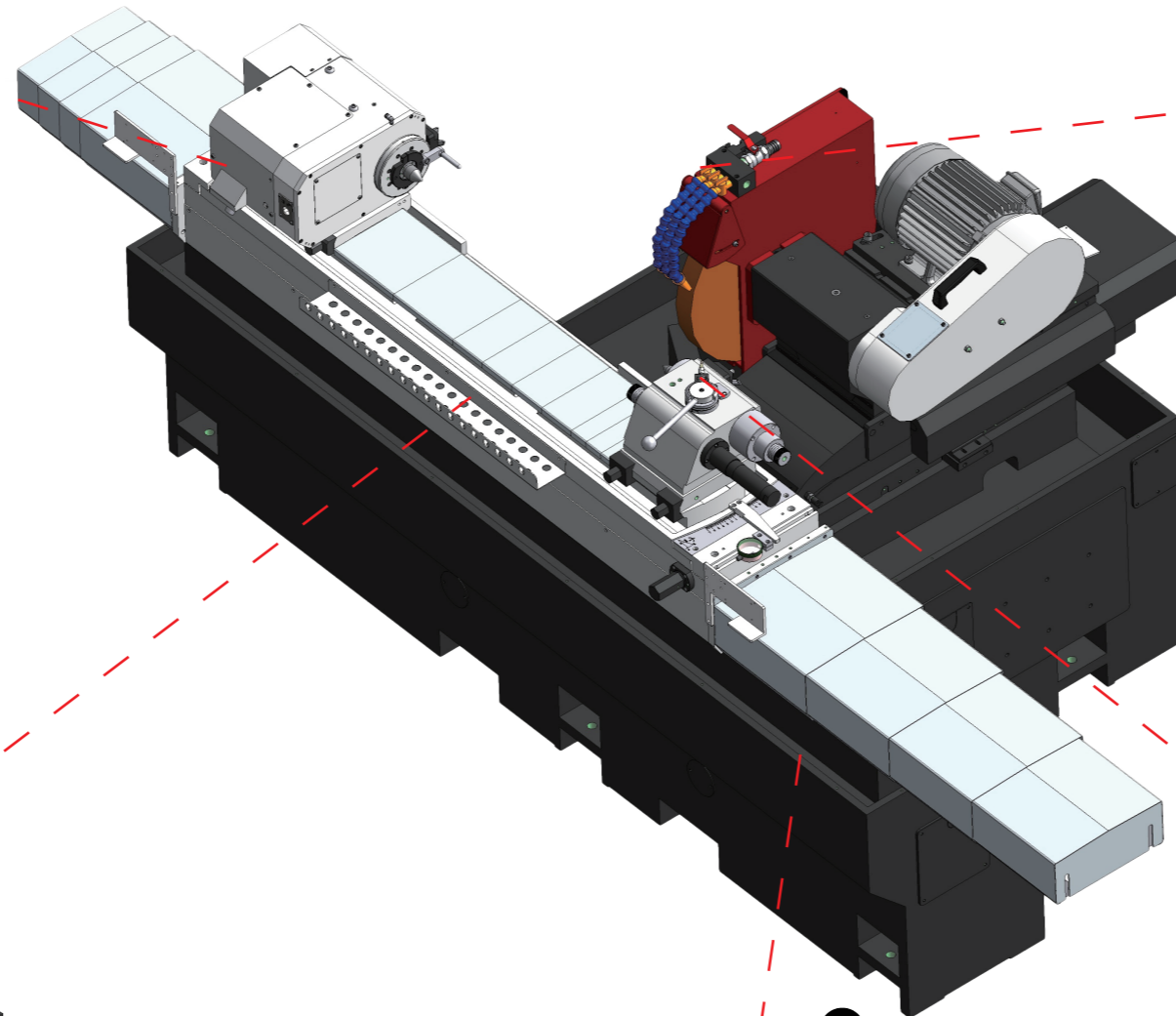
4. OD +End Face Grinding





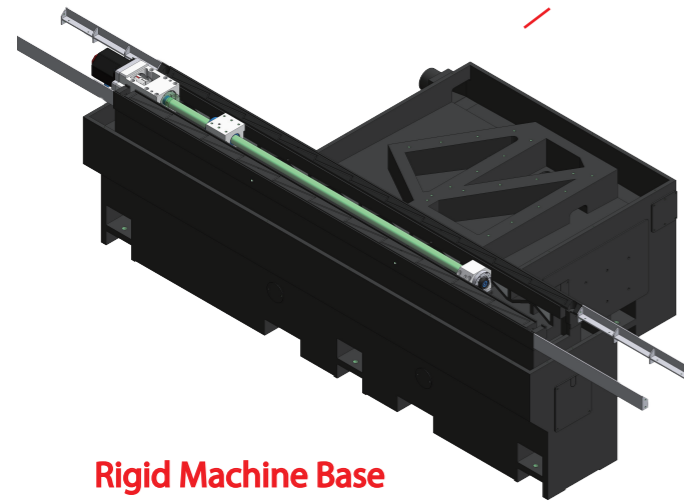
**Work Head**

NN bearing designed work spindle offers heavy duty load capacity, optimal rotation accuracy, and high rigidity. The servo motor drive offers steady speed and torque during the grinding operation. A positive air purge system keeps grinding swarf and coolant out of the work head, thus it prolongs its life.



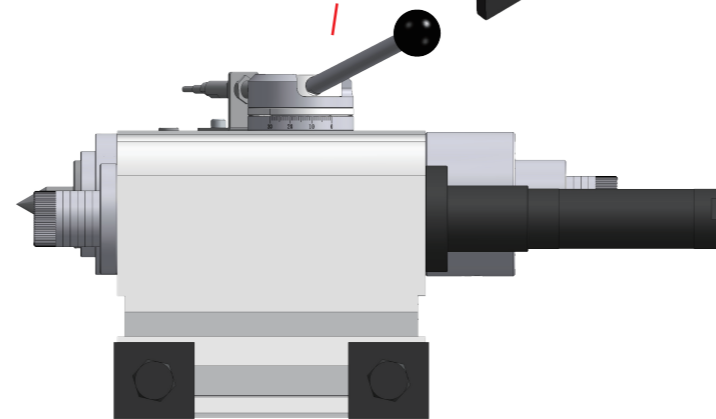
**Wheel head Spindle Bearing Options:**

- Standard — Contact Bearing Type Spindle is easy to maintain, environmentally friendly and minimizes thermal growth issues.
- Optional — Hydrodynamic Babbit Bearing Type Spindle applies SNCM220 super alloy steel with multiple heat treatments makes the surface hardness of spindle up to HRC 62. These features ensure maximum cutting capability and best part finish performance in the grinding operation.



**Rigid Machine Base**

The machine based is designed to ensure the table is fully supported on both ends. The heavily ribbed box-type base is made of Meehanite casting, providing excellent rigidity and stability of the machine.

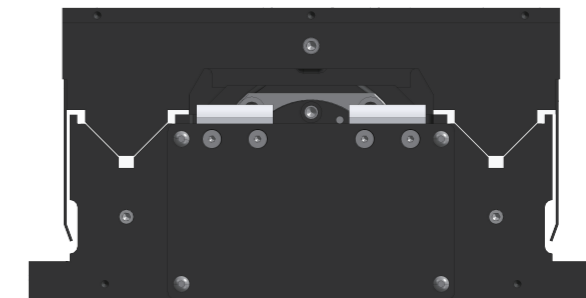


**Tail Stock**

A coolant nozzle is installed on the top of the tailstock for cooling the center tip. An air floating devise allows for smoother movement and protection of the table.

An optional tailstock quill travel of 75mm helps to load/unload the workpiece with ease. The quill is oil-bathed to ensure smooth movement.

An optional tailstock taper adjustment feature allows the operator to easily adjust for taper error.

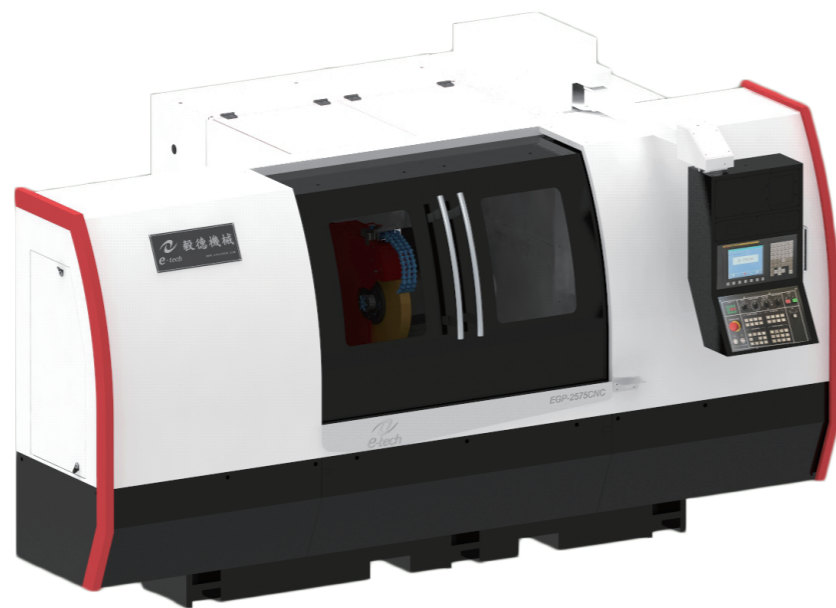
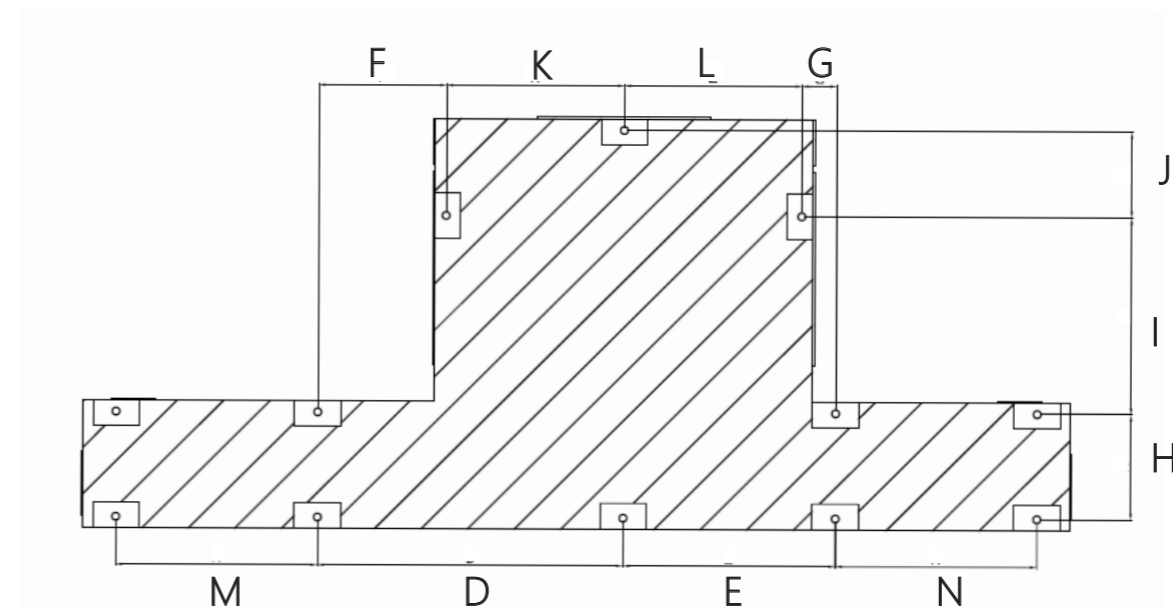
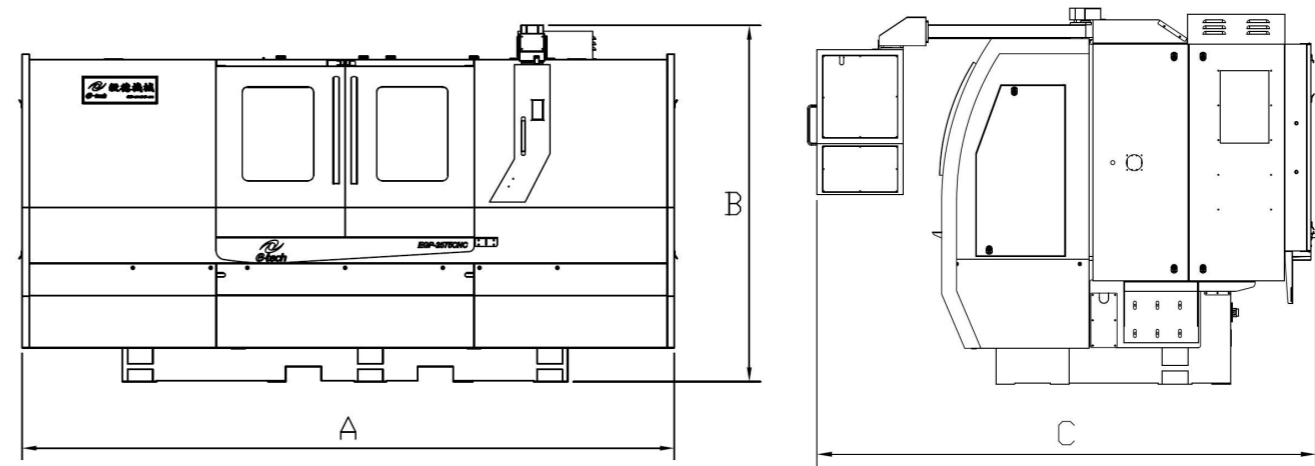


**X-axis Guideway**

The hand scraped Double V guideways provide maximum support to the wheel head for greater stability and grinding capacity. This design insures superior accuracy over the life of the machine.

Model		EGP-2550	EGP-2575	EGP-25100		
Grinding	Swing over table	mm	Ø250	Ø250	Ø250	
	Capacity	Distance between centers	mm	500	750	1000
		Max. grinding diameter	mm	Ø230	Ø230	Ø230
	Max. load held between center	kg	80	100	100	
	Center distance between spindle & slide table	mm	130	130	130	
Grinding Wheel	Diameter x Width x Bore	mm	Ø455x50xØ127 (5") Opt.Ø455x50xØ152.4 (6")			
	Motor rated power / max. torque	kW/Nm	3.75/13	3.75/13	3.75/13	
	Wheel speed	rpm	1400	1400	1400	
Workhead	Swiveling angle	deg	90	90	90	
	Spindle speed (infinite variable)	rpm	10 ~ 600	10 ~ 600	10 ~ 600	
		Motor rated power / max. torque	kW	0.75	1	1
	Center taper	-	MT3(Opt.MT4)	MT3(Opt. MT4)	MT3(Opt. MT4)	
	Spindle type	-	Fixed or Rotary	Fixed or Rotary	Fixed or Rotary	
	Diameter of bore	mm	Ø20	Ø20	Ø20	
	Tailstock	Quill travel	mm	25	25	25
		Center taper	-	MT3(Opt.MT4)	MT3(Opt. MT4)	MT3(Opt. MT4)
	X Axis	Travel	mm	200	200	200
		Max. rapid feedrate	m / min	6	6	6
Heidenhain linear scale resolution		um	0.05	0.05	0.05	
Min. increment		mm	0.0001	0.0001	0.0001	
Servo motor rated power		kW	1.2(F) / 1.5(M)	1.2(F) / 1.5(M)	1.2(F) / 1.5(M)	
Z Axis	Travel	mm	750	1000	1250	
	Swiveling angle	deg	±7	±6	±5	
	Max. rapid feedrate	m / min	8	8	8	
	Min. increment	mm	0.0001	0.0001	0.0001	
	Servo motor rated power	kW	1.2(F) / 1.5(M)	1.58(F) / 2.2(M)	1.8(F) / 2.2(M)	
Motor	Hydraulic pump	kW	0.38	0.38	0.38	
	Lubrication pump	kW	0.2	0.2	0.2	
	Slideway lube motor	kW	0.2	0.2	0.2	
	Coolant pump	kW	0.2	0.2	0.2	
Machine	Net Weight (semi-enclosed splash guard)	kg	3100	3500	3900	
	Gross Weight	kg	3800	4200	4600	
	Size	kg	3170 x 2500 x 2050	3670 x 2500 x 2050	4200 x 2500 x 2050	

Size



EGP	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2550	3160	2000	2750	850	566	309	26	320	599	261	541	540	None	None
2575	3660	2000	2750	1292	1008	751	468	320	599	261	541	540	None	None
25100	4170	2000	2750	929	645	388	105	320	599	261	541	540	613	613

EGA	A	B	C	D	E	F	G	H	I	J	K	L	M	N
2550	3160	2000	2750	850	566	309	26	320	599	261	541	540	None	None
2575	3660	2000	2750	1292	1008	751	468	320	599	261	541	540	None	None
25100	4170	2000	2750	929	645	388	105	320	599	261	541	540	613	613

Model			EGA-2550	EGA-2575	EGA-25100
Grinding	Swing over table	mm	Ø250	Ø250	Ø250
Capacity	Distance between centers	mm	500	750	1000
	Max. grinding diameter	mm	Ø230	Ø230	Ø230
	Max. grinding length - dresser on workhead side	mm	350	600	850
	Max. grinding length - dresser on tailstock side (Opt.)	mm	500	750	1000
	Max. load held between center	kg	80	100	100
	Center distance between spindle and slide table	mm	130	130	130
	Grinding	Grinding wheel infeed angle	deg	60*	60*
Wheel	Diameter x Width x Bore	mm	Ø455x50xØ127 (5") Opt.Ø510x50xØ152.4 ( 6")		
	Motor rapied power / max. torque	kW/Nm	3.75/13	3.75/13	3.75/13
	Wheel speed	rpm	1400	1400	1400
	Work Head	Swiveling angle	deg	90	90
Work Head	Spindle speed (infinite variable)	rpm	10 ~ 600	10 ~ 600	10 ~ 600
	Motor rated power / max. torque	kW	0.75	1	1
	Center taper	-	MT3(Opt.MT4)	MT3(Opt. MT4)	MT3(Opt. MT4)
	Center working	-	Fixed or live	Fixed or live	Fixed or live
	Diameter of bore	mm	Ø20	Ø20	Ø20
	Tailstock	Quill travel	mm	25	25
X Axis	Cente taper	-	MT3(Opt.MT4)	MT3(Opt.MT4)	MT3(Opt.MT4)
	Travel	mm	200	200	200
	Max. rapid feedrate	m / min	6	6	6
	Heidenhain linear scale resolution	um	0.05	0.05	0.05
	Min. increment	mm	0.0001	0.0001	0.0001
	Servo motor rated power	kW	1.2(F) / 1.5(M)	1.2(F) / 1.5(M)	1.2(F) / 1.5(M)
Z Axis	Travel	mm	750	1000	1250
	Swiveling angle	deg	±7	±6	±5
	Max. rapid feedrate	m / min	8	8	8
	Min. increment	mm	0.0001	0.0001	0.0001
Motor	Servo motor rated power	kW	1.2(F) / 1.5(M)	1.58(F) / 2.2(M)	1.8(F) / 2.2(M)
	Hydraulic pump	HP	0.38	0.38	0.38
	Lubrication pump	HP	0.2	0.2	0.2
	Slideway lube motor	HP	0.2	0.2	0.2
Machine	Coolant pump	HP	0.2	0.2	0.2
	Net Weight (semi-enclosed splash guard)	kg	3100	3500	3900
	Gross Weight	kg	3800	4200	4600
	Size	kg	3170 x 2500 x 2050	3670 x 2500 x 2050	4200 x 2500 x 2050

## Standard Accessories

Infinite variable workhead w/servo motor	Standard coolant tank 140L
Diamond Dresser and Stand	MPG handwheel 2 Axes control
Automatic wheel speed change (15 steps)	Touch probe (for EGA series only)
Carbide tip center	LED working light
X Axis linear scale (resolution 0.05 um)	Tools and Tool Box
Levelling bolts and blocks	Electricity cabinet w/ heat exchanger
Operation manual and part lists	Semi-enclosed splash guard
Fanuc CNC Controller (0i TF)	Wheel Extractor
Grinding Wheel + Wheel Flange	4-color indication signal light
Standard oil cooler (cooling fan)	Electrical wiring diagram

\* E-tech reserves the right to change specifications without notice

## Optional Accessories

BS VM25 Integration system (OD gauging+ crash & gap control + dynamic balance system)	FANUC 0i-TF i-Grind program Mitsubishi controller (M80) i-Grind program
BS VM15 Integration system (OD gauging+ crash & gap control)	Electrical cabinet air conditioner Internal grinding attachment (for EGP series only)
Hydraulic tailstock (w/ foot pedal)	Workhead upgrade to MT4/MT5 Tailstock upgrade to MT4/MT5
Z Axis linear scale (resolution 0.05 um)	Automatic 3-jaw hydraulic chuck CE standard electrical cabinet
Manual grinding wheel balance system (vibrator)	Transformer Workpiece carrier
Grinding wheel dynamic (balance system)	Full-enclosed splash guard Workpiece supporting seat, 2pc / set
Wheel spindle lubrication oil cooler for hydrodynamic spindle	2 Point Steady Rest 3-point steady rest
Gap & crash control device	3-jaw scroll chuck 4-jaw scroll chuck
Safety door lock	
Workhead spindle adjustment arbor	
Auto gauging device	
Coolant system with magnetic separator & paper filter	
Coolant system with magnetic separator	
Coolant system with paper filter	
Oil & mist collecting system	
Spare grinding wheel flange	
Full-Carbide center tip	

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