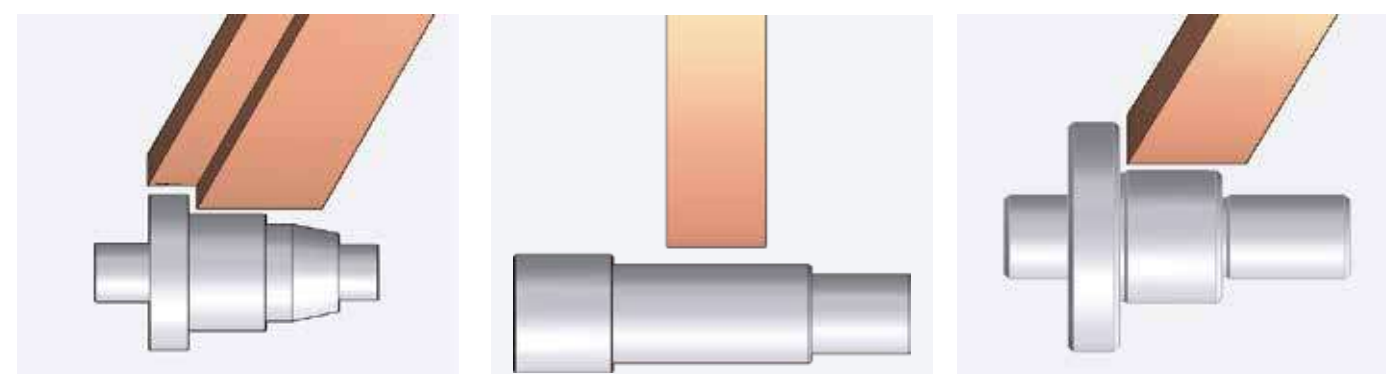


CNC Cylindrical Grinder

Rhino Series



Grinder Professionals

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watch more



e-tech Machinery Grinder Professional

Features & Wheel Dressing Cycle 1

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1 EGP Rhino Series CNC Cylindrical Grinder

EGP Series grinders are designed for high precision, high efficiency, and ease of operation. They are suitable for various applications including but not limited to automatic, aerospace, medical instrument, tooling, job shop and mold industries.

Features

For heavy-duty grinding applications, e-tech has strengthened and expanded its machine lineup into the Heavy-Duty Series. This upgraded design increases the base span by 33% and the dovetail span by 38%, significantly enhancing workpiece load capacity and stabilizing center-of-gravity support during grinding. These improvements greatly increase workload capacity and reinforce force resistance, ensuring superior performance under high-gravity grinding conditions.

The workhead is equipped with a thru-hole spindle featuring an MT5 taper, offering excellent rigidity. With a maximum load capacity of 400kg, this series is designed to handle the most demanding grinding operations.

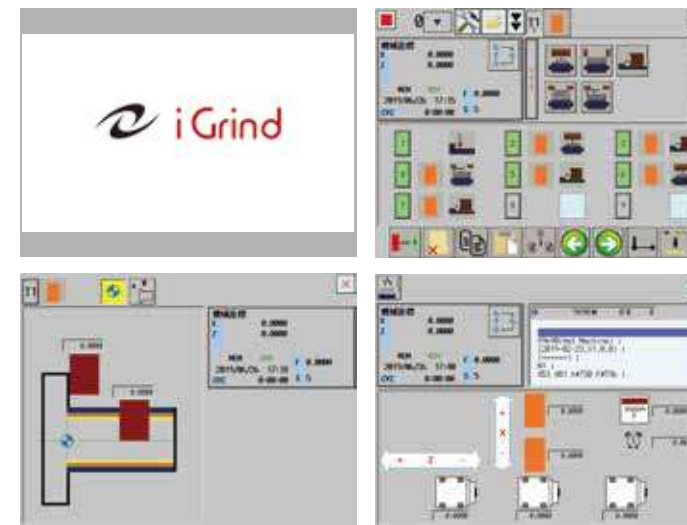
iGrind CNC Controller

Continuing years of software development, e-tech Machinery integrates i-Grind to the Rhino Series. Designed for simplicity and ease of use, i-Grind enables efficient and intuitive operation, allowing users to set up and grind various components with precision and convenience.

Additionally, the software seamlessly supports a wide range of measuring systems and even fully automated processing solutions, enhancing both versatility and productivity.

Modular Automation Application

e-tech specializes in enhancing customer productivity by delivering innovative grinding solutions. 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.

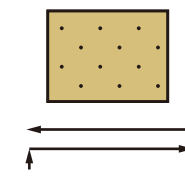


- OD Grinding / End Face Grinding / Form Grinding
- Form Dressing w/Auto Compensation
- Multiple Section Grinding Sequences
- Setup Parameter Storage
- Graphic Parameter Instruction

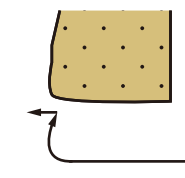
Wheel Dressing Cycle

Plunge Type

Straight – Parallel



LHS Radius and Concave below

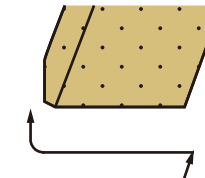


Steps Wheel (option)
(Under 15 points)

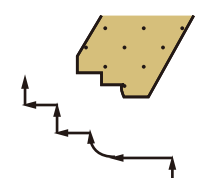


Angular Type

Wheel with radius



Steps Wheel (option)
(Under 15 points)



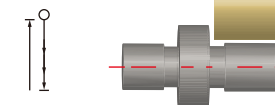
Remarks :

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.

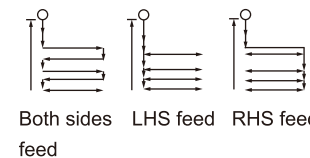
Grinding Cycle

Plunge Type

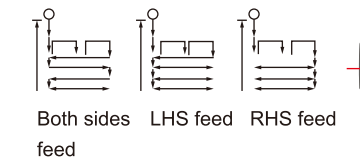
1. Plunge grinding



2. Traverse grinding

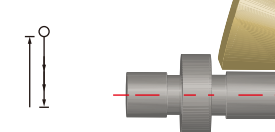


3. Plunge And Traverse grinding

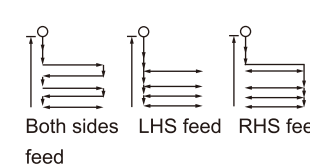


Angular Type

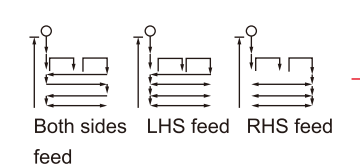
1. Plunge grinding



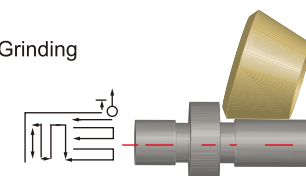
2. Traverse grinding

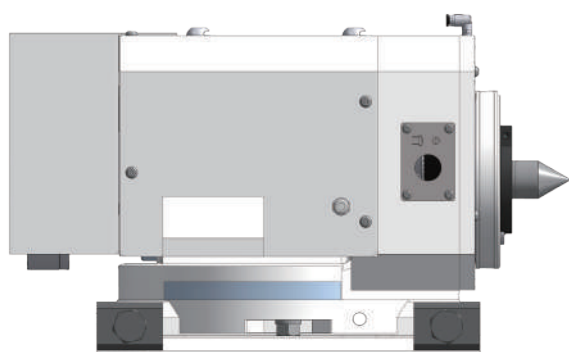


3. Plunge And Traverse grinding



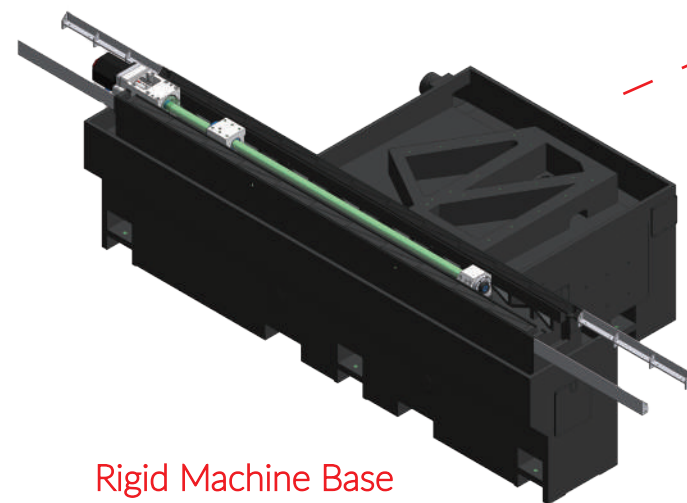
4. OD +End Face Grinding





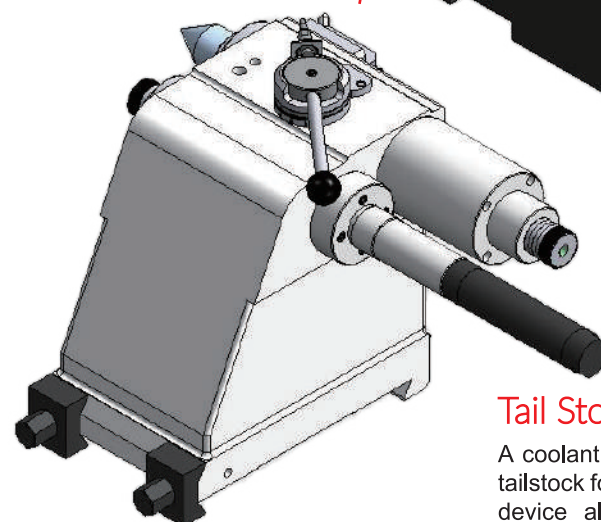
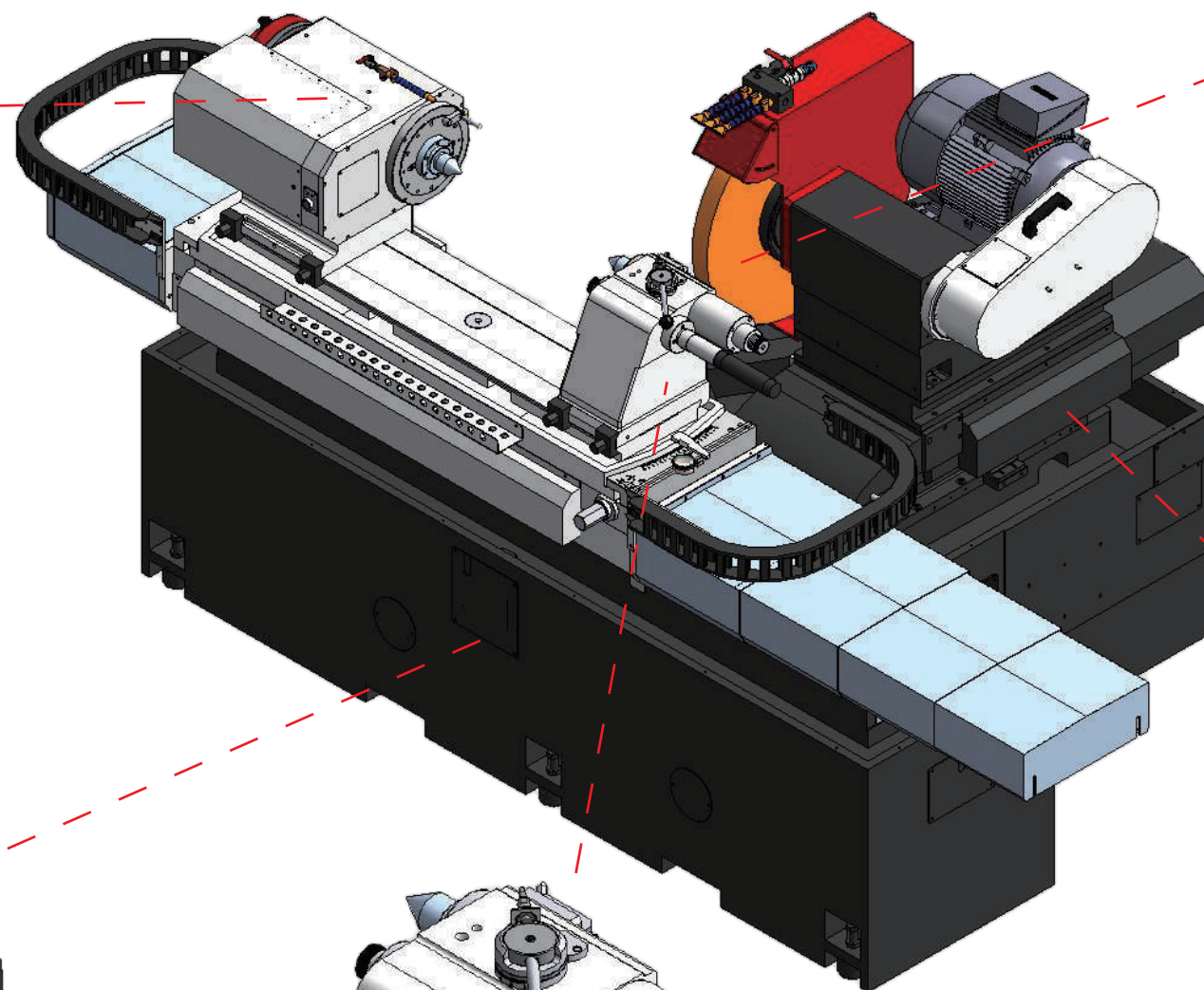
Work Head

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.



Rigid Machine Base

The machine base 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. And we add 33% linear way block span to support the workpiece's center of gravity when it grinding.

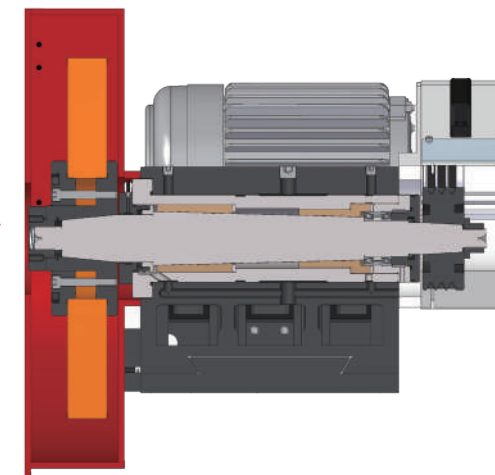


Tail Stock

A coolant nozzle is installed on the top of the tailstock for cooling the center tip. An air floating device allows for smoother movement and protection of the table. We added 38% dovetail span to support for heavy workpieces.

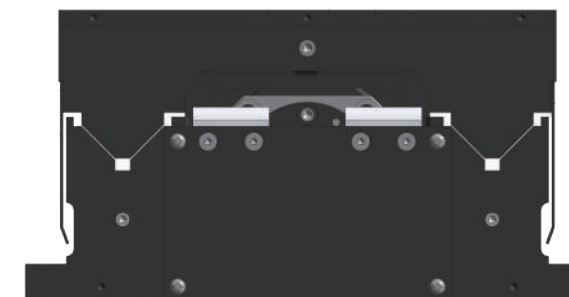
An optional tailstock quill travel of 75mm helps to load/unload the workpiece with ease. The quill is oil-bathed to ensure smooth movement.

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



Wheel head Spindle Bearing Options

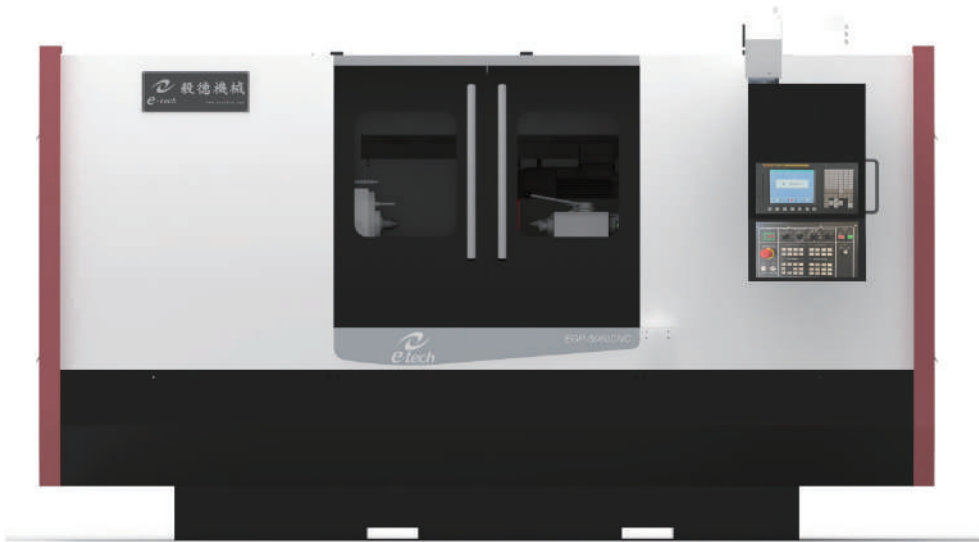
- Standard — Contact Bearing Type Spindle is easy to maintain, environmentally friendly and minimizes thermal growth issues.
- Optional — Hydrodynamic Babbitt Bearing Type Spindle applies SNM220 super alloy steel with multiple heat treatments makes the surface hardness of spindle up to HRC 62. These features ensure maximum cutting capability and best part finish performance in the grinding operation.



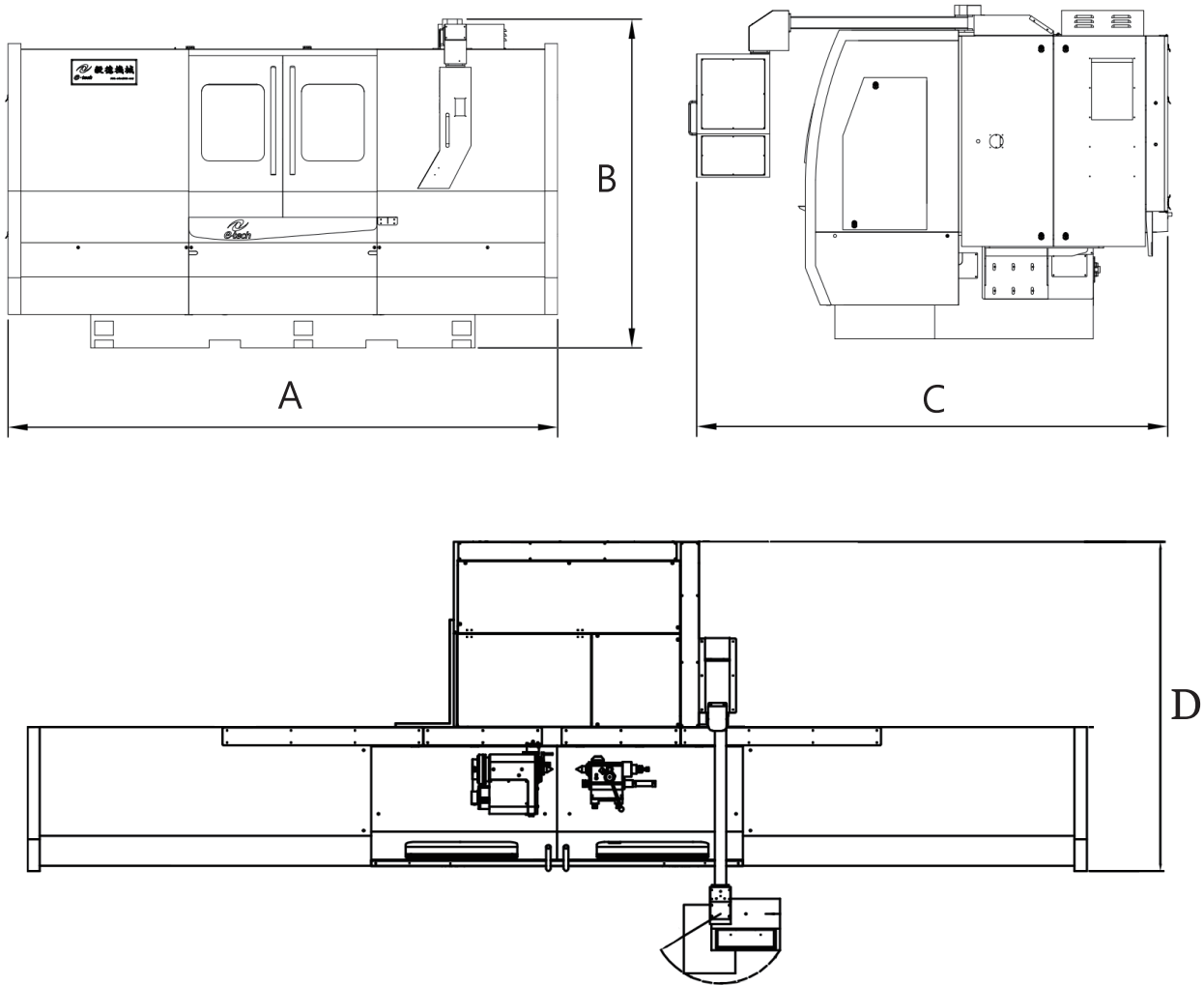
X-axis Guideway

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

Model			EGP-5060CNC	EGP-50100CNC	EGP-50150CNC	EGP-50200CNC	EGP-50250CNC	EGP-50300CNC
Grinding Capacity	Swing over table	mm	Ø500	Ø500	Ø500	Ø500	Ø500	Ø500
	Distance between centers	mm	600	1000	1500	2000	2500	3000
	Max. grinding diameter	mm	Ø480	Ø480	Ø480	Ø480	Ø480	Ø480
	Max. load held between center	kg	150	150	150	250	250	1000
	Center distance between spindle & slide table	mm	255	255	255	255	255	255
Grinding Wheel	Diameter x Width x Bore	mm	Ø510x50-100xØ152.4(6") Opt. Ø610x50-100xØ203.2 (8")					
	Motor rated power / max. torque	kW/Nm	7.5/49 (Opt. 11/71)					
	Wheel speed	rpm	1250 (Opt. 1650)					
Workhead	Swiveling angle	deg	90	90	90	90	90	-
	Spindle speed (infinite variable)	rpm	10 ~ 600	10 ~ 600	10 ~ 600	10 ~ 600	10 ~ 600	10 ~ 600
	Motor rated power / max. torque	kW	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	5.5
	Center taper	-	MT4 (Opt. MT5)	MT4 (Opt. MT5)	MT4 (Opt. MT5)	MT4 (Opt. MT5)	MT4 (Opt. MT5)	MT5 (Opt. MT6)
	Spindle type	-	Fixed or Rotary					
	Diameter of bore	mm	Ø23 (Opt. Ø65)	Ø23 (Opt. Ø65)	Ø23 (Opt. Ø65)	Ø23 (Opt. Ø65)	Ø23 (Opt. Ø65)	Ø65
Tailstock	Quill travel	mm	25 (Opt. 50/75)	25 (Opt. 50/75)	50 (Opt. 75)	50 (Opt. 75)	75	75
	Cente taper	-	MT4 (Opt. MT5)					
X Axis	Travel	mm	350	350	350	350	350	350
	Max. rapid feed rate	m / min	6	6	6	6	6	6
	Linear scale resolution	um	0.05	0.05	0.05	0.05	0.05	0.05
	Min. increment	mm	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Servo motor rated power	kW	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)
Z Axis	Travel	mm	850	1250	1850	2450	3050	3600
	Swiveling angle	deg	±9	±7	±5	±5	±3	±3
	Max. rapid feed rate	m / min	10	10	10	10	10	10
	Min. increment	mm	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Servo motor rated power	kW	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	2.5(F) / 3.5(M)	2.5(F) / 3.5(M)	2.5(F) / 3.5(M)	2.5(F) / 3.5(M)
Motor	Hydraulic pump	kW	0.38	0.38	0.38	0.38	0.38	0.38
	Coolant pump	kW	0.2	0.2	0.2	0.2	0.2	0.2
	Hydrodynamic grinding wheel spindle lubrication pump	kW	0.2	0.2	0.2	0.2	0.2	0.2
	Coolant pump	kW	0.2	0.2	0.2	0.2	0.2	0.2
Machine	Net Weight (semi-enclosed splash guard)	kg	6000	6300	6700	6900	7300	7700
	Gross Weight	kg	6800	7100	7500	7700	8100	8500
	Size	mm	3510x2920x2100	4310x2920x2100	5610x2920x2100	7130x2920x2100	8560x2850x1800	10060x2850x1800



Machine Size



Unit : mm

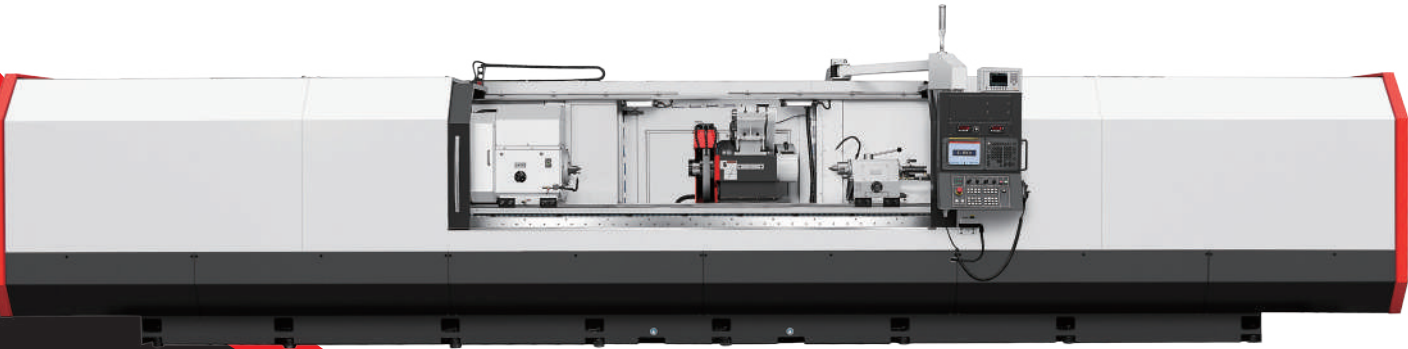
EGP	A	B	C	D
EGP-5060	3500	2095	2750	2207
EGP-50100	4300	2095	2750	2207
EGP-50150	5600	2095	2750	2207
EGP-50200	7120	2095	2820	2212
EGP-50250	8574	2093	3005	2239
EGP-50300	10025	2095	2850	2212

EGA	A	B	C	D
EGA-5060	3500	2095	2750	2207
EGA-50100	4300	2095	2750	2207
EGA-50150	5600	2095	2600	2207
EGA-50200	7055	2095	2665	2212
EGA-50250	8574	2095	2665	2239
EGA-50300	10225	2095	2850	2212

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Specification-Angular Type

Model			EGA-5060CNC	EGA-50100CNC	EGA-50150CNC	EGA-50200CNC	EGA-50250CNC	EGA-50300CNC
Grinding Capacity	Swing over table	mm	Ø500	Ø500	Ø500	Ø500	Ø500	Ø500
	Distance between centers	mm	600	1000	1500	2000	2500	3000
	Max. grinding diameter	mm	Ø480	Ø480	Ø480	Ø480	Ø360	Ø360
	Max. grinding length - dresser on workhead side	mm	450	850	1350	1850	2350	2850
	Max. grinding length - - dresser on tailstock side (Opt.)	mm	600	1000	1500	2000	2500	3000
	Max. load held between center	kg	150	150	150	250	250	1000
	Center distance between spindle and slide table	mm	255	255	255	255	255	255
	Grinding wheel infeed angle	deg.	60	60	60	60	60	60
	Diameter x Width x Bore	mm			Ø510x50-100xØ152.4(6") Opt. Ø610x50-100xØ203.2(8")			
	Motor rapied power / max. torque	kW/Nm			7.5/49 (Opt. 11/71)			
WorkHead Swiveling angle	Wheel speed	rpm			1250 (Opt. 1650)			
	Swiveling angle	deg.	90	90	90	90	90	90
	Spindle speed (infinite variable)	rpm	10 ~ 600	10 ~ 600	10 ~ 600	10 ~ 600	10 ~ 600	10 ~ 600
	Motor rated power / max. torque	kW	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	1.3 (Opt. 1.8)	5.5
	Center taper	-			MT4 (Opt. MT5)			
	Center working	-			Fixed or Live			
	Diameter of bore	mm	Ø23 (Opt.Ø65)	Ø23 (Opt.Ø65)	Ø23 (Opt.Ø65)	Ø23 (Opt.Ø65)	Ø23 (Opt.Ø65)	Ø65
	Quill travel	mm	25 (Opt. 50/75)	25 (Opt. 50/75)	50 (Opt. 75)	50 (Opt. 75)	75	75
	Cente taper	-			MT4 (Opt. MT5)			
	Travel	mm	270	270	270	270	270	350
X Axis	Max. rapid feed rate	m/min	6	6	6	6	6	6
	Linear scale resolution	um	0.05	0.05	0.05	0.05	0.05	0.05
	Min. increment	mm	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Servo motor rated power	kW	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)
	Travel	mm	850	1250	1850	2450	3050	3600
Z Axis	Swiveling angle	deg.	±9	±7	±5	±5	±3	±3
	Max. rapid feed rate	m/min	10	10	10	10	10	10
	Min. increment	mm	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Servo motor rated power	kW	1.8(F) / 2.2(M)	1.8(F) / 2.2(M)	2.5(F) / 3.5(M)	2.5(F) / 3.5(M)	2.5(F) / 3.5(M)	2.5(F) / 3.5(M)
	Hydraulic pump	kW	0.38	0.38	0.38	0.38	0.38	0.38
Motor	Hydrodynamic GW spindle	-						
	lubrication pump	kW	0.2	0.2	0.2	0.2	0.2	0.2
	Guide way lubrication pump	kW	0.2	0.2	0.2	0.2	0.2	0.2
	Coolant pump	kW	0.2	0.2	0.2	0.2	0.2	0.2
	Net Weight	kg	5800	6100	6500	6900	7300	7700
Machine	(semi-enclosed splash guard)	-						
	Gross Weight	kg	6600	6900	7300	7700	8100	8500
	Size	mm	3510x2920x2100	4310x2920x2100	5610x2920x2100	7130x2920x2100	8055x2920x2100	10060x2920x2100



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Standard / Optional Accessories

Standard Accessories

Infinite variable workhead w/servo motor	Standard coolant tank 140L
Fanuc CNC Controller (0i TF Plus) /(Opt.Mitsubishi M80)	MPG handwheel 2 Axes control
Carbide center tip (MT3/C10)	Automatic lubrication system
Diamond Dresser and Stand	Roller type balancing stand/arbor
Automatic wheel speed change (15 steps)	LED working light
X Axis Heidenhain/Mitsubishi linear scale (resolution 0.05 um)	Tools and Tool Box
Levelling bolts and blocks	Electricity cabinet w/ heat exchanger
Operation manual and part lists	Wheel extractor
Grinding wheel + Wheel flange	4-color indication signal light
Full-enclosed splash guard	Electrical wiring diagram

* e-tech reserves the right to change specifications without notice

Optional Accessories

FANUC 0i-TF Plus iGrind program	BS VM15 Integration system
Mitsubishi controller (M80) iGrind program	(OD gauging+ crash & gap control)
Electrical cabinet air conditioner	Hydraulic tailstock (w/ foot pedal)
Workhead upgrade to MT4 (EGP-2520CNC only)	Z Axis Heidenhain/Mitsubishi linear scale (resolution 0.05 um)
Tailstock upgrade to MT4 (EGP-2520CNC only)	Manual grinding wheel balance system (vibrator)
Roller type balancing stand/ arbor	Gap & crash control device
CE standard electrical cabinet	Safety door lock
Automation with robot arm	Automatic gauging device
Touch probe	Coolant system with magnetic separator & paper filter
Transformer	Coolant system with magnetic separator
Workpiece carrier	Coolant system with paper filter
Workpiece supporting seat, 2pc / set (EGP-2520CNC only)	Oil & mist collecting system
2 Point Steady Rest (EGP-2520CNC only)	Spare grinding wheel flange
3-jaw scroll chuck (EGP-2520CNC only)	Full-carbide center tip

* e-tech reserves the right to change specifications without notice