

CNC External Cylindrical Grinders

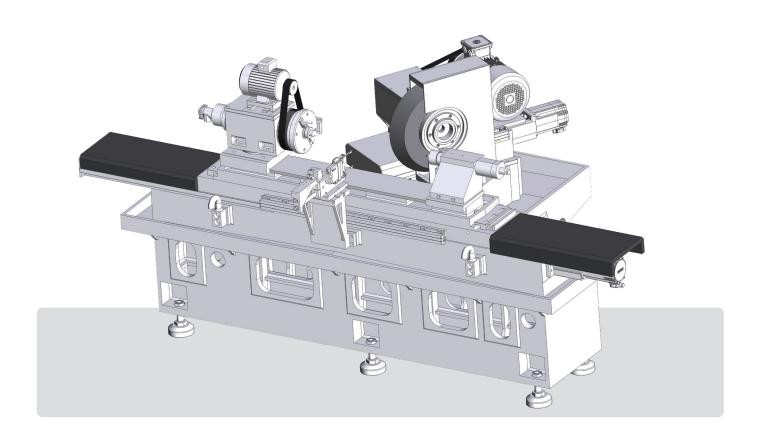
(Straight & Angular)

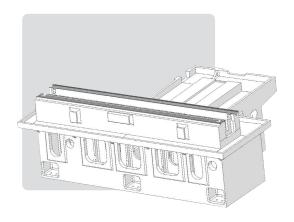


EG/AG SERIES CNC External Cylindrical Grinders



OVERVIEW





BASE AND GUIDE WAYS

The Machine bed is made of one-piece close special graded grain cast iron box structure design with optimum ribbing provides high static and vibration free dynamic rigidity to the machine. Artificial stress reliving process carried for more dimensional stability.

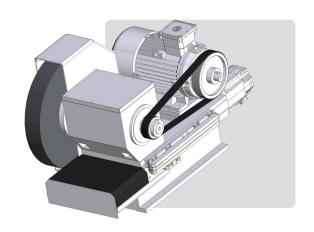
Precision hand scraped V-Flat guide ways for Z-axis and cross roller slide for X-axis with centralised lubrication system for X and Z axis.

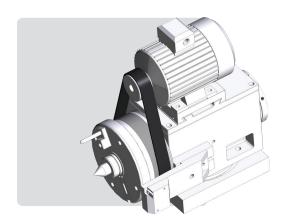
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WHEEL HEAD

Machine is equipped with cartridge type wheel spindle with precision match pair sets of angular contact bearing for smooth performance while material cutting. Spindle is driven by induction motor and transmitted by poly V belt. Wheel head is available with *Straight* and *Angular* approach.



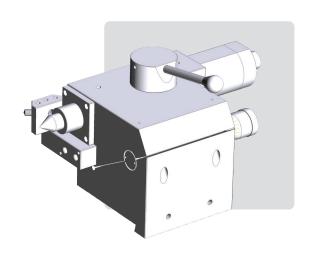


WORK HEAD

Work head spindle is made of case-hardened alloy steel and runs with precision angular contact and ball bearing for live and stationery center with MT-4(5) taper. The drive to the work head is by induction motor via VFD to control job rpm for Grinding. The work head can be swivelled for taper grinding by chuck clamping as optional.

TAIL STOCK

Hydraulic operated tail stock can accept MT-4(5) taper as a standard and work as dead center as per models mentioned in specification. Manual operated tail stock available as optional. Tail stock with micro taper adjustment is also available as optional.



DRESSER UNIT

Dresser unit is mount on tail stock unit for production line as standard. Dresser unit is also available on work head as an optional requirement. Various type of dresser available as optional such as roll dresser unit / rotary disc type/ servo operated radius dresser.

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COOLANT

Generous coolant supply is provided with electrical pump fitted on separate tank according to model. Different filtration option available as additional accessories.

ENCLOSURE

Model EG/AG - 450/600 are with Full enclosure. EG/AG - 800/1000/1200 are with Half enclosure.

ELECTRICALS

The machine is supplied with all electrical suitable for 3Ø, 415 V Ac, 50 Hz cycle. The motors are approved & reputed brand make with IE2 standard. The electrical panel with A.C. is mounted on one side of the machine. Operating panel is located nearest to working area for easy reach of the operator.

APPLICATIONS





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STANDARD FEATURES

CONTROLLER SPECIFICATION & FEATURES

- Two Axis CNC External Grinder with Siemens 808D as standard.
- Dedicated Programs with Plunge, Travers Grinding and Dressing Cycles.
- G code / M code compatibility with other NC builders.
- · Laser calibrated axis for high precise positioning Accuracy and Repeatability.
- Single Touch Point Logic for Multi Diameter.
- Total 17+1 Touch Point Feasibility.
- · Individual Wear Correction Feasibility.
- Single Wear Correction for All Diameter Processing without IPG.
- Skip Dressing Cycles.
- Pitch error & Back Lash compensation.
- Electronic hand wheel.
- Inch/Metric switchable.
- Auto Programmable Centralise Lubrication Unit.
- · AC Servo axis for Drive.

OPTIONAL ACCESSORIES

- Siemens 828D Advance / Fanuc Oi-TF Controller
- · Mitsubishi / Delta PLC
- Servo Controlled C axis (Work Head) with 6 NM
- Linear Glass Scale (for single or both axis). **
- Magnetic Separator.
- Paper band with Magnetic Coolant Separator.
- Roll Dressing attachment with Spindle (without Diamond Roll).
- Rotary Disc type Dresser.
- Servo controlled Radius Dresser.
- Pedal Operated Hydraulic Chuck.
- Manual Operated Tailstock.
- Tail Stock with Micro Taper Adjustment (Manual/Hydraulic)
- Swivelled type Workhead
- 10 Hp Induction motor for Wheel head
- VFD for Wheel head with manual potentiometer
- To maintain CSS, VFD required for Wheel head and Work Head with Servo as 3rd Axis in lieu of standard.
- Two Point Steady Rest
- Single Dia. In-Process Gauge.
- Multi Dia. In-process Gauge.
- Flagging probe.
- · Dynamic wheel balancer.
- Gap N Crash Unit.
- Auto loading-unloading system (Based on component Structure).
- 25 KVa Servo Voltage Stabilizer.

^{**} For Glass Scale Siemens 828D / Fanuc OiTF controller is mandatory.

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SPECIFICATION

MODEL EG / AG

DESCRIPTION	UNIT	450	600	800	1000	1200				
CAPACITY										
SWING OVER TABLE	mm	300								
ADMIT BETWEEN CENTRES	mm	450	600	800	1000	1200				
WORK HEAD CENTER HEIGHT*	mm	150 (200)								
GRINDING DIAMETER MAX (O.D.)	mm	275								
GRINDING DIAMETER MIN (O.D.)	mm	5 15								
MAX. WEIGHT OF JOB BETWEEN CENTER	kg	120								
WHEEL HEAD										
GRINDING WHEEL SIZE (OD X ID X WIDTH)	mm	500 X 203 X 40 (80)								
SPINDLE DIMENSION	mm	Ø150 X 355								
SPINDLE SIZE	mm	Ø70								
SPINDLE SPEED	rpm	1600 / 3500 (33~45 MPS)								
SPINDLE MOTOR POWER	kw/hp	5.5 / 7.5 (7.5 / 10)								
MIN. INCREMENT ON DIAMETER	mm	0.001								
WORK HEAD										
TAPER BORE	mm	MT-4 (MT-3 / 5)								
SPINDLE SPEED	rpm	30-500								
SPINDLE MOTOR POWER	kw/hp	0.75/1								
CROSS TABLE (X-AXIS)										
X-AXIS STROKE	mm	250								
RAPID FEED RATE	mtr/ min	5								
MINIMUM RESOLUTION	mm	0.001								
SERVO MOTOR TORQUE	Nm	8								
BALL SCREW	mm	Ø32 X 5								
GUIDE WAYS TYPE CROSS ROLLER	mm	15 X 15								

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SPECIFICATION

MODEL EG / AG

DESCRIPTION	UNIT	450	600	800	1000	1200				
LONGITUDINAL TABLE (Z-AXIS)										
Z-AXIS STROKE	mm	550	700	900	1100	1300				
MAX. SWIVEL OF TABLE	deg(°)	+7° / -2°								
RAPID FEED RATE	mtr/ min	10								
MINIMUM RESOLUTION	mm	0.001								
SERVO MOTOR TORQUE	Nm	8								
BALL SCREW	mm	Ø32 X 10		Ø40 X 10						
GUIDE WAYS TYPE	_	V AND FLAT TURCITE								
TAILSTOCK										
CENTER TAPER	mm	MT-4 (MT-3 / 5)								
QUILL TRAVEL	mm	30								
QUILL DIA.	mm	Ø 60								
HYDRAULIC UNIT										
TANK CAPACITY	litre	50								
MOTOR POWER	kw/hp	0.37 / 0.5								
PUMP CAPACITY	lpm	4								
GENERAL										
OPERATION VOLTAGE	volts	415V, 3PH, AC 50HZ								
TOTAL POWER REQUIRED	kw/hp	12 / 16								
FLOOR SPACE	mm	2750 X 2000 (FULL ENC LOSER)*	3020 X 2000 (FULL ENC LOSER)*	3500 X 2500 (HALF ENC LOSER)*	3950 X 2500 (HALF ENC LOSER)*	4500 X 2500 (HALF ENC LOSER)*				
MACHINE WEIGHT(APPROX.)	kg	3350*	3600*	4411*	4840*	4950*				

NOTE:

Minimum and Maximum grinding diameter as specified above may vary based on specific requirement. Work head spindle is with Live and Dead center operating provision.

Features and Specification may vary as specific job requirement.

Colour as shown in picture may not match

Machine Guard May Change as per Job Specification and Accessary used.

() Optional Accessories. * May vary.

Admit between center, Grinding length, Wheel utilisation will change depending upon swivel angle. Please discuss suitability to your requirement before ordering to us.

As a part of Continuous Improvement Process, design and specification subjected to change without prior notice and information



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