



**ANGSTROM**



# ROTARY SURFACE GRINDING MACHINE

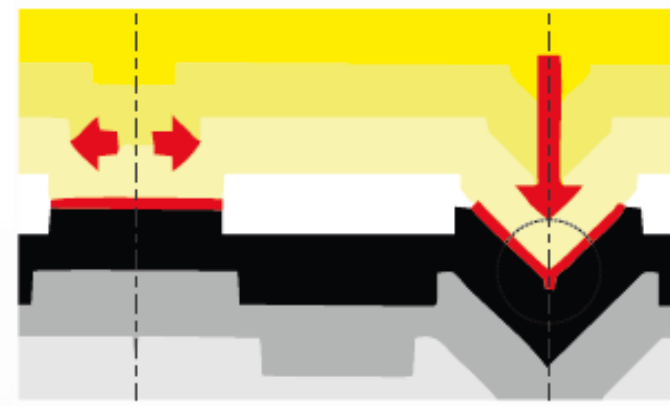
**Omega Series**

[www.angstrommachines.in](http://www.angstrommachines.in)

# A QUALITY ROTARY SURFACE GRINDER DESIGNED FOR PRECISION AND ACCURACY

## ANGSTROM FOR RELIABILITY AND LONGEVITY

- The rotary design combines the column with a precision rotary table
- The grinding spindle is horizontal to the rotary axis
- This model is highly suited for high precision grinding applications with round symmetry work-piece.
- Precision of 90° in all Vertical and Cross is achieved and preserved
- HScraped and turcite coated guideways to provide excellent vibration absorption and a high-quality grinding surface pattern.
- Vertical and Cross axes moving directions is via V and FLAT ways, ensuring highest precision in all axes.
- Grinding spindle with two pairs of pre-loaded precision bearing in front and one pair in rear for high rigidity and to achieve high MRR
- The cross axis has direct driven ball-screw by servo motor to achieve position accuracy.
- A wide range of models to choose starting from diameter 600mm to 1600mm size.



## BENEFIT OVERVIEW

- Good Cost-Performance Ratio
- Long-term Precision
- Proven Components
- Comfortable Controls
- Easy to Operate



**OMEGA – 800**

# COMPUTERISED CONTROL WITH GRINDING PARAMETERS



## CONTROL SYSTEM FEATURES

- Very Comfortable and Easy to Operate
- Automatic Vertical Infeed with Dressing Amount Compensation
- Fully Automatic Grinding Cycle with Dressing Cycles
- Easy Operation via Touchscreen
- Large and Clear Color Screen
- Electronic Handwheel, Usable in Vertical - and cross axis

# ACCESSORIES

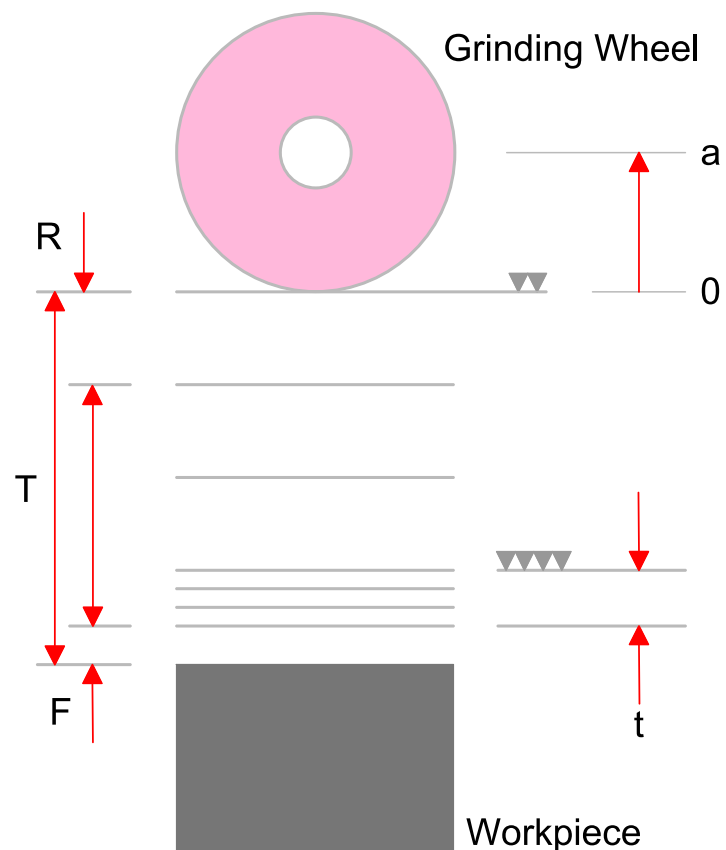
## STANDARD ACCESSORIES

- Grinding wheel
- Grinding wheel flange
- Wheel balancing arbor
- Grinding wheel clamping / extraction bolt
- Table mounted single point diamond dresser
- Machine levelling base
- Coolant system

## OPTIONAL ACCESSORIES

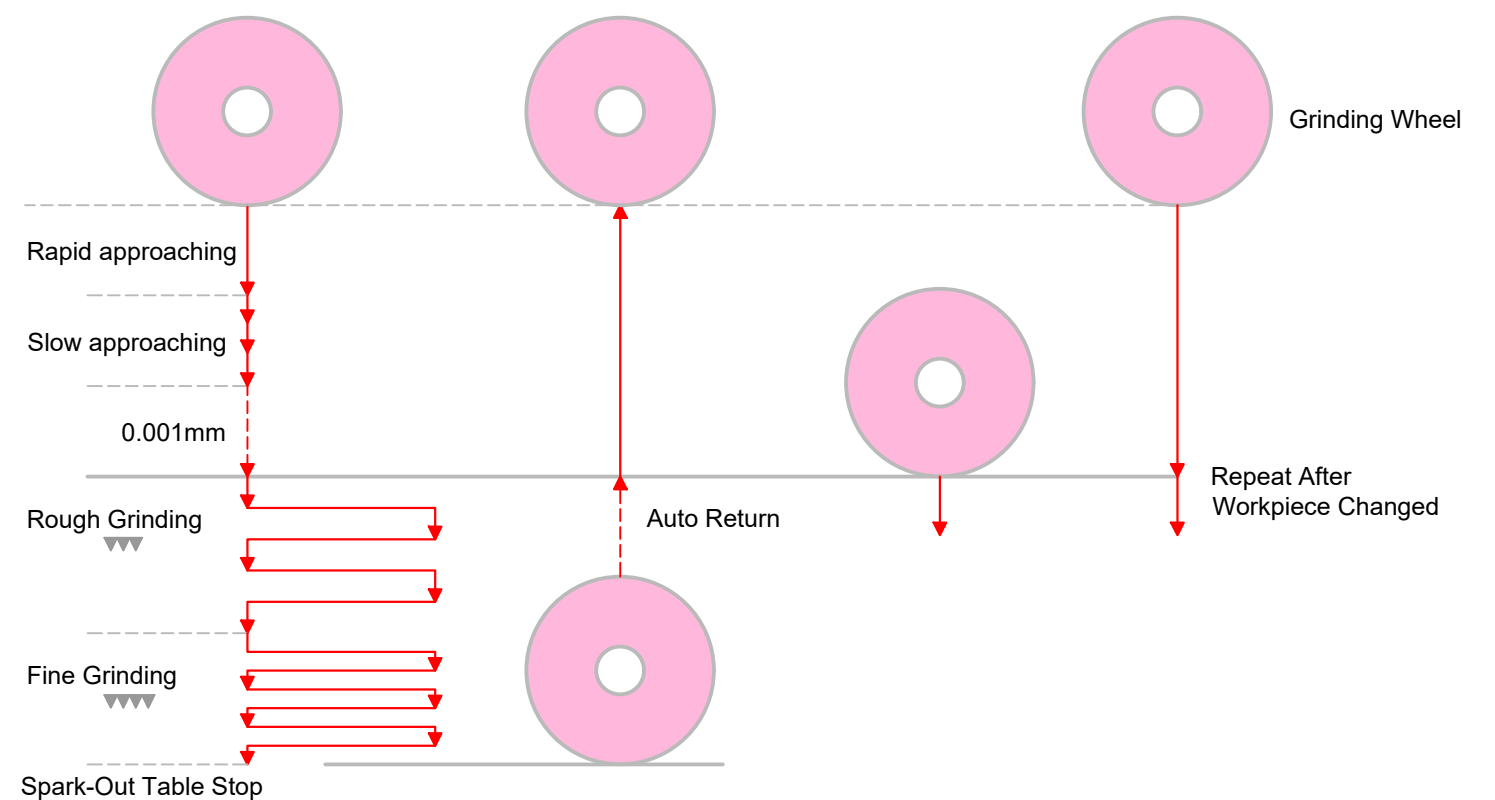
- Electromagnetic chuck with controller
- Auto paper band filtration unit
- Auto magnetic separator
- Combined paper band & Magnetic separator
- Wheel balancing stand
- Precision sine vice
- Tool maker vice
- Radius & Angle dresser

## DIAGRAMMATIC FEED INSTRUCTION



- T:- Total Stroke Removal: 0.001mm~9.999mm
- R:- Rough Stroke Per Cut: 0.001mm~0.1mm
- F:- Total Fine Stroke Removal:0.001mm~9.99mm
- t:- Fine Stroke Per Cut:0.001mm~0.050mm
- a:- Spindle Retraction:-0.0mm~9.999mm ("a" position above zero point)

## AUTOMATIC GRINDING CYCLE



SPECIFICATION	UNIT	OMEGA 600	OMEGA 800	OMEGA 1000	OMEGA 1600
<b>CAPACITY</b>					
Grinding Area (Diameter )	mm	Ø600	Ø800	Ø1000	Ø1600
Cross Travel ( Z Axis )	mm	510	610	710	1010
Spindle Centre to Table Surface	mm	500	600	700	800
Max Load on Table ( Without EM Chuck )	kg	400	500	800	1000
<b>SPINDLE AND GRINDING WHEEL</b>					
Spindle Power	KW/HP	5.5/7.5	7.5/11	11/15	11/15
Spindle Cone ( Max Diameter )	mm	45	45	60	75
Grinding Wheel Size ( OD X W X ID)	mm	350 x 50 x 127	350 x 50 x 127	400 x 100 x 127	500 x 100 x 203.2
<b>FFED AND TRAVERSE</b>					
Table Speed ( Infinitely Variable)	RPM	10 ~ 60	10 ~ 60	10 ~ 60	10 ~ 30
Vertical Rapid Traverse Rate	mm/min	300	300	300	300
Cross rapid Traverse Rate	mm/min	2000	2000	2000	200
Least Count for Vertical Feed	mm	0.001	0.001	0.001	0.001
<b>DRIVE</b>					
Rotary ( B Axis )	-	Induction Motor With Gear Box	Induction Motor With Gear Box	Induction Motor With Gear Box	Induction Motor With Gear Box
Rotary Motor Power	KW/HP	2.2/3.0	3.7/5.5	5.5/7.5	7.5/10
Vertical ( Y axis )	-	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew
Cross ( Z axis )	-	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew
<b>GENERAL</b>					
Floor Space ( L X W )	mm	2000 x 2300	2200 X 2750	2700 X 2900	4500 X 3500
Machine Height ( Max )	mm	2200	2300	2500	2900
Net Weight	kg	4000	6000	9000	15000
Input Power Source	-	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz
Total Connected Load	kW/Amps	12/30	14/44	22/65	24/75

# EXTRA ACCESSORIES



**Electro-Magnetic Chuck**



**Paper Band Filtration**



**Magnetic Separator**



**Variable Frequency Drive**



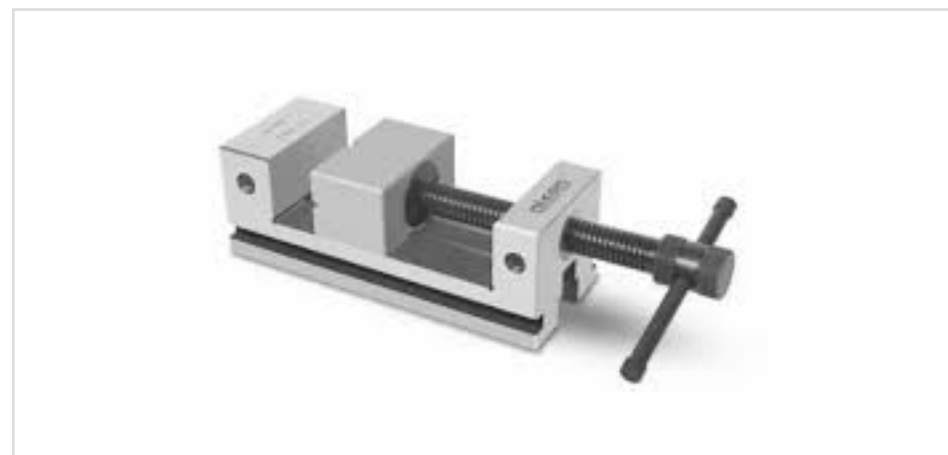
**Focus Lamp**



**Paper band + Magnetic separator Combined**



**EM Sine Vice**



**Tool Marker Vice**



**Precision Sine Vice**

# ANGSTROM PRODUCTS

- ▶ Surface Grinding Machine
- ▶ Rotary Surface Grinding
- ▶ Special Purpose/Profile Grinding Machine
- ▶ Vertical Spindle Grinding Machine
- ▶ Creep Feed Grinding Machine

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