

# SURFACE GRINDING MACHINE

**ASG Series**

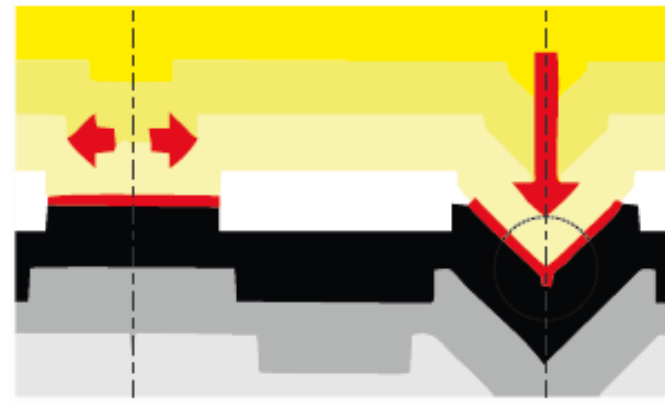
[www.angstrommachines.in](http://www.angstrommachines.in)

## Surface Grinder

# A QUALITY SURFACE GRINDER DESIGNED FOR PRECISION AND ACCURACY

### ANGSTROM FOR RELIABILITY AND LOGETIVITY

- Precision of 90° in all three axes is achieved and preserved.  
90 ° transversal, 90 ° relieve to longitudinal axes and maintaining of 90 ° at each grinding height! That means a parallel displacement when changing grinding height, small or large amounts.
- Scraped and turcite coated guideways to provide excellent vibration absorption and a high-quality grinding surface pattern.
- Highest rigidity and grinding performance for high productivity and material removal rate
- All three axes moving directions is via V and FLAT ways, ensuring highest precision in all axes.

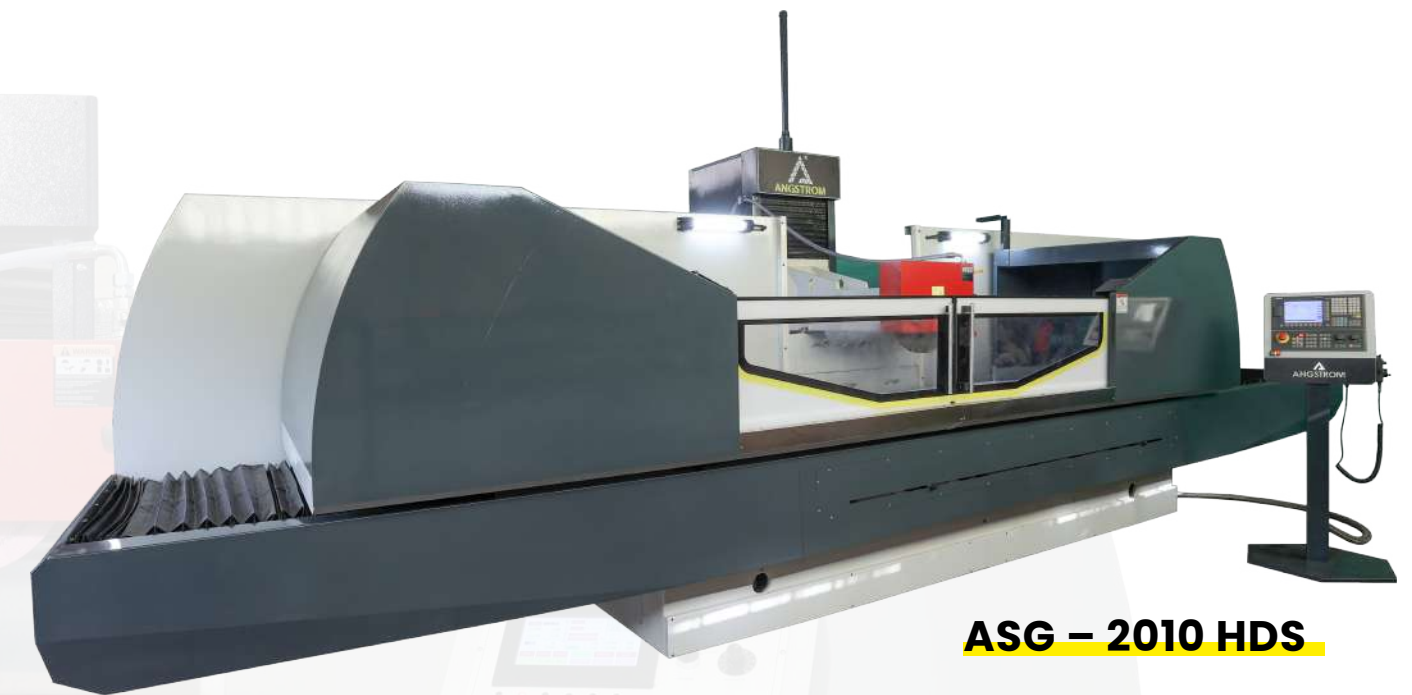


### BENEFIT OVERVIEW

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



**ASG – 6030 AHD**



**ASG – 2010 HDS**

- 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.
- No moving parts are outside from machine enclosure; X axis dogs are also fixed while machine running. (optional – CE norm guarding)
- A wide range of models to choose starting from 600x300mm to 2000x1000mm size.

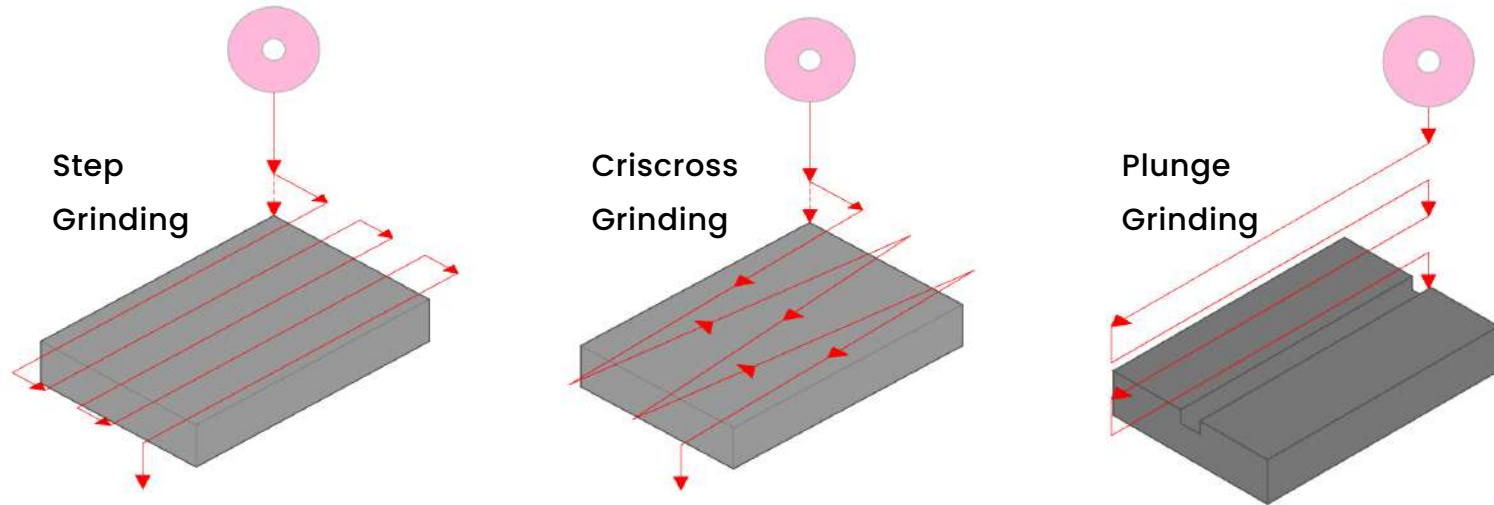
# COMPUTERISED CONTROL WITH GRINDING PARAMETERS



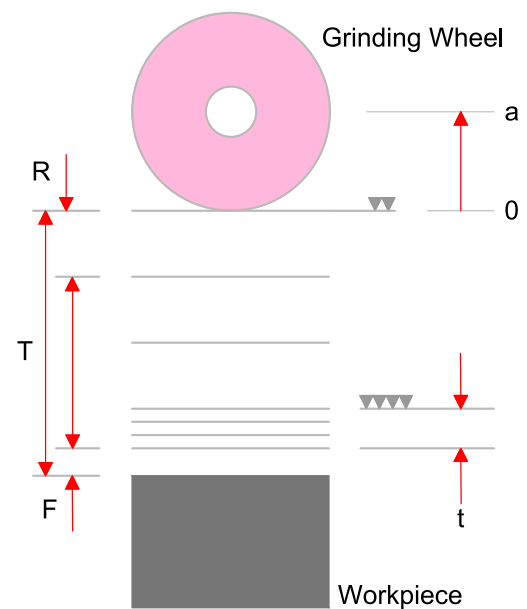
## CONTROL SYSTEM FEATURES

- 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

## VERSATILE GRINDING CAPABILITIES



## 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)

# ACCESSORIES

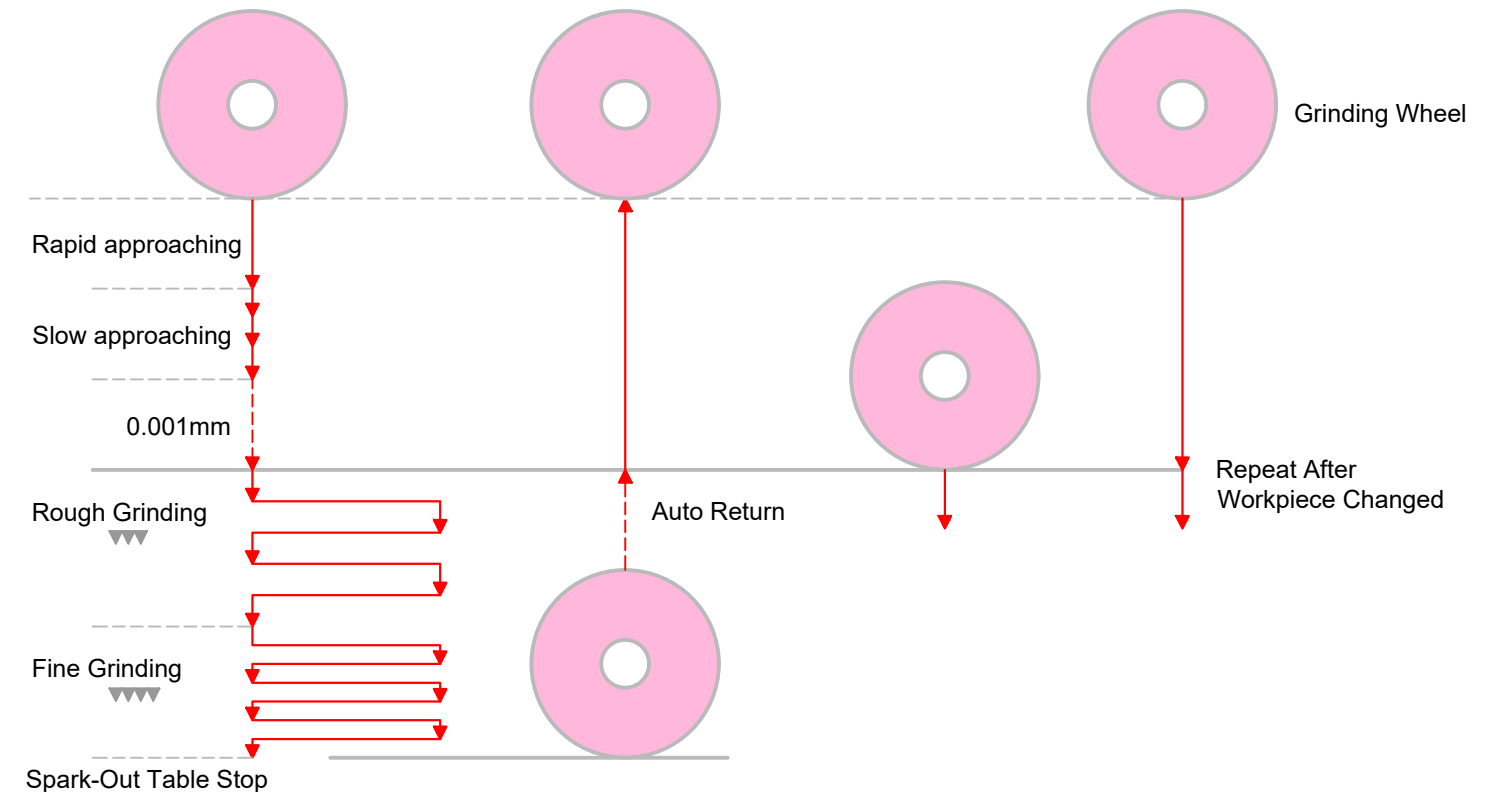
## STANDARD ACCESSORIES

- 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
- Variable spindle speed
- 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

## AUTOMATIC GRINDING CYCLE



SPECIFICATION	UNIT	ASG-6030AHD	ASG-6030HDS	ASG-8040HDS	ASG-1150HDS	ASG-1360HDS	ASG-1570HDS	ASG-2010HDS
<b>CAPACITY</b>								
Grinding Area ( L x W )	mm	600 X 300	600 X 300	800 X 400	1100 X 500	1300 X 600	1500 X 700	2000 X 1000
Longitudinal Travel ( X Axis )	mm	650	650	850	1050	1350	1550	2050
Cross Travel ( Z Axis )	mm	310	310	410	510	610	730	1050
Spindle Centre to Table Surface	mm	400	400	530	530	650	850	900
Max Load on Table ( Without EM Chuck )	kg	275	275	550	650	750	1000	1500
<b>SPINDLE AND GRINDING WHEEL</b>								
Spindle Power	kw	3.7	3.7	3.7	5.5	7.5	11	11
Spindle Cone ( Max Diameter )	mm	36	36	36	45	45	60	75
Grinding Wheel Size ( OD X W X ID)	mm	300 X 40 X 76.2	300 X 40 X 76.2	300 X 40 X 76.2	350 X 50 X 127	350 X 65 X 127	400 X 100 X 127	500 X 100 X 203.2
<b>FFED AND TRAVERSE</b>								
Table Speed ( Longitudinal )	m/min	1 ~ 28	1 ~ 28	1 ~ 28	1 ~ 28	1 ~ 22	1 ~ 22	1 ~ 22
Vertical Rapid Traverse Rate	mm/min	300	300	300	300	300	300	300
Cross rapid Traverse Rate	mm/min	10 ~ 1200	10 ~ 2000	10 ~ 2000	10 ~ 2000	10 ~ 2000	10 ~ 2000	10 ~ 2000
Least Count for Vertical Feed	mm	0.001	0.001	0.001	0.001	0.001	0.001	0.001
<b>DRIVE</b>								
Longitudinal ( X Axis )	-	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic	Hydraulic
Vertical ( Y axis )	-	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew
Cross ( Z axis )	-	Induction Motor & Ballscrew	Ac Servo Motor & Ballscrew	Ac Servo Motor & Ballscrew	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	3320 X 2330	3320 X 2330	3800 X 2500	5300 X 2500	6000 X 2960	6880 X 3395	8000 X 4500
Machine Height ( Max )	mm	2275	2275	2575	2655	2775	3422	3600
Net Weight	kg	2500	2500	4000	5000	6000	8500	10000
Input Power Source	-	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz	415V AC, 3Ph, 50Hz
Total Connected Load	kW/Amps	6/18	6/18	8/25	10/32	14/44	18/56	24/75

### ASG – 6030AHD

- ASG – 6030AHD
- Longitudinal axis is hydraulic with proximity sensor and valve
- Vertical axis with AC servo motor operated by MPG and Rapid Up/Down Switch
- Cross axis with AC induction motor, feed controlled via potentiometer

### ASG – 6030HDS ~ 2010HDS

- Longitudinal axis is hydraulic with proximity sensor and valve
- Vertical axis and cross axis with AC servo motor operated by MPG and Rapid Up/Down Switch and fwd/rev switch respectively.
- Cross axis adjustment with software limit switch

# EXTRA ACCESSORIES



**Electro-Magnetic Chuck**



**Paper Band Filtration**



**Magnetic Separator**



**Variable Frequency Drive**



**Focus Lamp**



**Electro-Magnetic Chuck**



**EM Sine Vice**



**Wheel Balancing Stand**



**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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