

**ANGSTROM**

Surface & Profile Grinding



## ABOUT US

We, at Angstrom Machines LLP are producing surface and profile grinding machines.

Our product line includes surface, profile and creep-feed grinding machines.

Today, our experienced staff, particularly in the areas of technology and applications, guarantee a continuous advancement in the development of grinding procedures.

## ADVANTAGES

- Good cost-performance ratio
- Long-term precision
- Comfortable controls
- Easy to operate
- Proven components

## THE MACHINE WITH A VIEW

The concept of the machine follows the principle of absolute separation of the three machine axes. This principle makes this machine perfectly suitable for prototype and small volume production. Highest geometrical precision and an attractive price makes this machine line so appealing. This machine is completely manufactured in INDIA and meets the highest quality standards (DIN 8632). Quick and uncomplicated manual grinding (adjusting and fitting) is as easy as finish grinding in automatic mode. The complete features of the basic machine make the purchase of machine a very economical investment.

The basic machine is fully equipped with everything required to grind. A coolant flushing system with table rinse hose to clear the work area, a wheel flange, a grinding wheel, an electro-magnetic chuck for work piece clamping and all required media are included.

Optionally, this model can be equipped for profile grinding tasks.

## MACHINE CONCEPT

### Table Drive

- Hydraulic Cylinder

### Guide ways

- V / flat guides

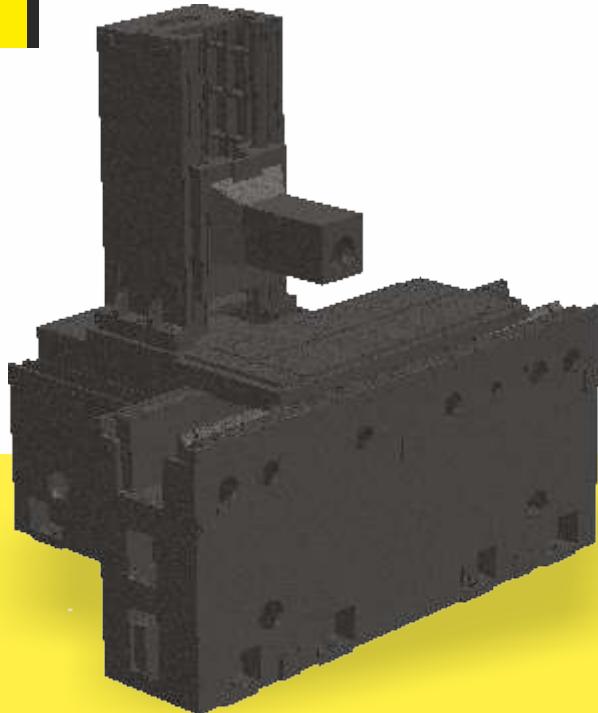
### Control System

- MITSUBISHI/SIEMENS/FANUC

### Additional Features

- Auto Wheel Dressing
- Variable Spindle Speed

## DESIGN



### STRUCTURE

The modular platform concept with high-grade components made of cast iron is thermal and vibration optimized using 3D-CAD and finite element analysis. Selected components guarantee high precision and long life.

### DESIGN ADVANTAGES

The “T” shape main bed holds the whole moving column the grinding torque being stable nevertheless the transverse position of the grinding wheel which gives you perfect Criss-Cross Grinding.

#### SPINDLE



Grinding spindle with two pairs of pre-loaded precision bearings at front for high rigidity and to achieve high MRR.

#### BALL SCREW



High graded recirculation ball screw for silent axes operation.

#### DIRECT DRIVEN BALL SCREW



The Cross axis has direct driven ball screw by servo motors to achieve high position accuracy for and ease of maintenance.

#### CE NORMS MACHINE ENCLOSURE

- 1) No moving parts are outside from machine enclosure, X axis dogs are also fixed while machine is running.
- 2) Open on right side to provide unobstructed view of the work piece.

#### LONGER GUIDE WAYS

It means minimum axes deflection even at high cutting forces.

SPECIFICATION	UNIT	8040	1150	1360	1570
<b>CAPACITY</b>					
Grinding Area ( L x W )	mm	800 X 400	1100 X 500	1300 X 600	1500 X 700
Longitudinal Travel ( X Axis )	mm	850	1150	1350	1550
Cross Travel ( Z Axis )	mm	400	510	630	730
Spindle Centre to Table Surface	mm	530	530	650 (Opt-800)	650 (Opt-800)
<b>SPINDLE AND GRINDING WHEEL</b>					
Spindle Power	kW	4	5.5 (Opt-7.5)	7.5 (Opt-11)	11
Spindle Cone (Max Diameter)	mm	36	45	45 (Opt-60)	60
Grinding Wheel	mm	300 x 50 x 76.2	355 x 65 x 127	355 x 65 x 127	400 x 100 x 127
<b>GENERAL</b>					
Floor Space (L X W)	mm	3400x2300	4700x2600	5600x2800	6400x3000
Machine Height (Max)	mm	2400	2500	2500	2500
Net Weight	Kg	3500	5500	6500	8000
Input Power Source		220V AC/24V DC	220V AC/24V DC	220V AC/24V DC	220V AC/24V DC
Total Connected Load	kW	9	12	15	18

\* All values are approximated & may change depending on selected options. \* All information is subject to change.

## PROFILE & CREEP-FEED GRINDING

Solution for Wild Range of Application

- ▶ Aeronautical Component
- ▶ Auto Mobile Component
- ▶ Tool Room Component

## BENEFIT OVERVIEW

- ▶ Fast oscillation with short over travel and precise positioning through linear motor table drive.
- ▶ Wear free and quiet linear drive.
- ▶ High acceleration and deceleration of main axis.
- ▶ Folding 3-way dressing unit
- ▶ Solid construction with large grinding widths.
- ▶ High power & Rigid spindle.
- ▶ High power coolant filtration system.
- ▶ Various dressing device options.
- ▶ Large variety of options available.

## CONTROLLER : NC



Fully touchscreen HMI for convenient operation.



No extra manual switches which allows smaller operating box. Traverse & plunge cycle for different types of application.



Auto dressing which increase productivity, reduces fatigue to operator.



## CNC

SIEMENS 828D as controller or any other equivalent. Macro enable programming to ease of machine operating.

Wide range of applications can be done



Connecting Rod



Rack & Pinion teeth



Serration



VDI Tool Holder



Spline Shaft



Turbine Blade



Turbine Wheel



Rocker Arm



**START UP**  
Commissioning  
Warranty extension



**QUALIFICATION**  
Training  
Production support



**PREVENTION**  
Maintenance  
Inspection

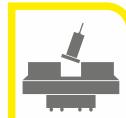
#### SERVICE



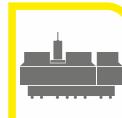
Customer service  
Customer consultation  
HelpLine  
Remote service



**MATERIAL**  
Spare parts  
Replacement parts  
Accessories



**REBUILT**  
Machine overhaul  
Assembly overhaul



**RETROFIT**  
Modifications  
Retrofits  
Machine trade-in

#### STANDARD ACCESSORIES

- Electromagnetic chuck with controller
- Grinding wheel
- Grinding wheel flange
- Wheel balancing arbor
- Grinding wheel clamping / extraction bolt
- Table mounted single point diamond dresser
- Machine leveling base
- Coolant system

#### OPTIONAL ACCESSORIES

- Variable spindle speed
- Auto paperband filtration unit
- Auto magnetic separator
- Combined paperband & Magnetic separator
- Wheel balancing stand
- Precision sine vice
- Tool maker vice
- Radius & Angle dresser
- Dust collector



**ANGSTROM**

Mfg. of surface & profile grinding

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