

WORLD'S
FINEST
GRINDING
TECHNOLOGY
**CYLINDRICAL
GRINDERS**

shardamachines.com

SHARDATM
SINCE 1970



SHARDA MECHANIC WORKS PVT. LTD.

was grounded in 1970.

Formerly known as **AMBA PETLAR.**

SHARDA MECHANIC WORKS PVT. LTD. is one of the leading manufacturer and exporter of Cylindrical Grinding machines since 1970. SHARDA is a family owned company with third generation running the business making it dynamically energised. The manufacturing plant is spread over an area of 76,500 sq. ft. We have more than 15000+ machines installed to date.

SHARDA majorly manufactures a variety of External, Internal, Universal and Special Purpose Cylindrical Grinding Machines in CNC, PLC and Hydraulic versions since 1970. Also, SHARDA manufactures customisable Cylindrical Grinding machines according to the requirement of the customer. The machine shop is equipped with Planning, boring, turning, drilling, milling, grinding machines etc. SHARDA focusses on providing solution based on customer preference which is why it is a technology-driven, customer focussed solution provider. SHARDA promises a 'POINT TO POINT PERFECTION' in the field of grinding technology.

All the machines are drafted and well-outlined using latest software for 3Dmodelling such as 'Solid Works'. A well-managed and experienced team of employees makes SHARDA systematic and efficient. We have more than 3000 satisfied customers all over the world, majorly in INDIA.

INFRASTRUCTURE

SHARDA is extended over an area of 76,500 sq. ft. SHARDA encompasses a state-of -the-art in-house facilities to ensure a better quality product. We have divided our infrastructure in sections like: research & development, production, sales & marketing, quality testing. The machine manufactured not only meets stringent criteria but also exceeds it.

QUALITY

The aim of quality control is solely to maintain the efficiency and accuracy of machines. At SHARDA, QC works by finding defects in the machine and correcting them before delivering them to the client. Therefore, we are committed to detailed checking of systems and programs thereby improving the quality of the product and services in order to achieve customer satisfaction.

REGISTERED WITH

IMTMA : Indian Machine Tools Manufacturers Association

MTMA : Machine Tools Manufacturers Associations



INDUSTRIES WE SERVE!

Committed to cater to the diverse requirements of our clients



AVIATION



MINING



AGRICULTURE



TOOLS



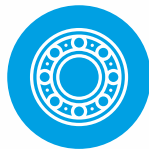
DEFENCE



DRILL



HEALTH



BEARING



AUTOMOBILE



MARINE



CEMENT



GARAGE



MEDICAL



FASTENER



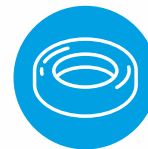
VALVE



TEXTILE



MOTOR



RUBBER

CNC EXTERNAL

CYLINDRICAL GRINDING MACHINE
(STRAIGHT / ANGULAR)

ECG SERIES

SHARDATM
SINCE 1970



MACHINE BASE

The machine base is manufactured of one piece close grained graded cast iron. Box type design, heavily reinforced with ribs, provides high rigidity and stability.

MACHINE GUIDE WAYS

- V & Flat guide ways precisely hand scrapped for Cross (X-Axis) & Table slides (Z-Axis) with turcite coating which gives stick slip free movement.
- Excellent vibrations damping and high positioning accuracy, which insures better lubrications and longer life of guide ways.
- The X-Axis can be equipped with linear measuring system, depending upon requirements (Optional).

WORK HEAD

- Dead Centres as standard, live cum dead centres as optional
- Easy belt tensioning arrangement.
- Special arrangements provided in front to avoid entry of coolant inside work head.

WHEEL HEAD

- Cartridge type grinding wheel spindle operating at 45 m/s cutting speed & with precision anti friction bearings. Constant Cutting Speed of grinding wheel though variable speed drive (Optional)
- Robust wheel head with anti-friction bearings is maintenance free has good thermal stability.

TAIL STOCK

- Rigid design and facility for adjusting Tail stock quill clearance.
- Hydraulic actuation (Optional)
- Micro correction attachment for taper setting ± 0.040 (Optional)
- **Robust design of machine elements with high reliability and easy maintainability.**

- The ECG Series is developed for grinding of mass and batch production of medium and heavy size components. This machine offers a cost effective solution for external cylindrical grinding application with straight or angular wheel head option.

OPTIONAL ACCESSORIES

AUTOMATIC IN-PROCESS GAUGE

IPG automatically and continuously measures the diameter being ground and compares the actual size to pre-set values. Confirming the diameter to the accurate dimension.

FLAGGING

Detects the end face position on work piece, reduces idle time and ensure safety.

DYNAMIC BALANCING SYSTEM

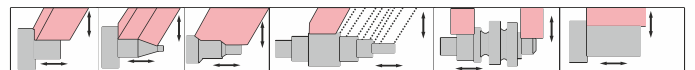
Dynamically compensates the imbalance of grinding wheel. Balancing system improve the surface finish and geometry of the work piece.

GAP ELIMINATOR / CRASH CONTROL

This device will automatically detect the setting up or machining condition occurs, the grinding wheel will rapidly retract for safety.

LINER SCALE FOR X AND Z AXIS

GIVES ACTUAL SLIDE MOVEMENT FEEDBACK TO CNC SYSTEM UP TO SUBMICRON LEVEL,



SPECIFICATION



DISCRIPTION	UNIT	500	800	1000	1250
Capacity					
Swing over Table	mm	300	300	300	300
Admit Between Centres	mm	500	800	1000	1250
Maximum Grinding Diameter	mm	200	200	200	200
Maximum weight of job between centres	kg	80	80	80	80

WHEEL SLIDE (X-AXIS)

(STRAIGHT / ANGULAR)

Guide Ways Type		V & Flat (LM Guide)*	V & Flat (LM Guide)*	V & Flat (LM Guide)*	V & Flat (LM Guide)*
Rapid Feed Rate	m/min	7	7	7	7
Resolution of X-AXIS	mm	0.001	0.001	0.001	0.001

LONGITUDE TABLE (Z-AXIS)

Guide Ways Type		V and Flat	V and Flat	V and Flat	V and Flat
Rapid Feed Rate	m/min	7	7	7	7
Resolution of Z-AXIS	mm	0.001	0.001	0.001	0.001

WHEEL HEAD

Spindle Design		Cartridge type with Anti friction bearings			
Grinding Wheel Diameter	mm	500 / 600*			
Grinding Wheel Width	mm	50 / 80 / 120			
Surface Speed	m/s	45	45	45	45
Motor Power	kW	5.5 / 7.5*	5.5 / 7.5*	5.5 / 7.5*	5.5 / 7.5*

WORK HEAD

Spindle Nose Taper	MT	5	5	5	5
Spindle Speed	rpm	50-500	50-500	50-500	50-500

TAIL STOCK

Spindle Nose Taper	MT	4	4	4	4
Quill Travel	mm	40	40	40	40
Taper Correction (Optional)	mm	± 0.040	± 0.040	± 0.040	± 0.040

CONTROL SYSTEM

FANUC / SIEMENS / MITSUBISHI

General					
Operation Voltage	Volts	415 + /- 10% AC 3 Phase			
Floor Space (Without Coolant Tank)	mm	2900 X 1700	3500 X 1700	3900 X 1700	4400 X 1700
Floor Space (With Coolant Tank)	mm	2900 X 2500	3500 X 2500	3900 X 2500	4400 X 2500

NOTE: • All marked “ * ” values / items are optional at extra price.

- Since continuous development is taking place, design and specifications are subject to change without prior notice and information.
- Colour shown in picture may not match with actual colour due to printing limitations.
- Available machines shown may vary depending on optional equipment or periodic design changes.



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