

Excellence in Grinding ... since 1972

CNC CYLINDRICAL GRINDERS



www.hilifegroup.com

CNC CYLINDRICAL

GRINDING MACHINE

STRAIGHT | ANGULAR | TWIN WHEEL



HI-LIFE MACHINE TOOLS LIMITED, established in the year 1972, is one of the leading manufacturer & exporter of CNC & Hydraulic Grinding Machines in India. SWIFT Series CNC Cylindrical Grinders are new generation machines, defining precision with high speed grinding. These machines offer a cost effective solution with outstanding accuracy & a quick setup change feature. Straight, Angular & Twin Wheel options available.

SALIENT FEATURES

GENERAL

- Simultaneous control of 2 Axis & 1 spindle (work head) thru CNC.
- Multi-diameter grinding in Plunge, Traverse, Taper, Radius & Profile with Face grinding.
- User friendly, menu driven grinding cycles provided with screens.
- SAS - Smart Attention assist System & maintenance planner monitors the status of consumable items & generates alarm to avoid sudden down time of machine.
- Completely enclosed, TPM friendly, machine guarding provided. (Optional - Partial guarding).
- Advanced ergonomic machine design provides good visibility of grinding process & easy reach of all controls.
- Automatic programmable centralized lubrication system.

MACHINE BED, TABLE (Z- AXIS) & INFEEED SLIDE (X- AXIS)

- One piece, high quality graded cast iron machine bed having excellent damping characteristics, ensures outstanding surface quality of ground work piece.
- Heavily ribbed, box structure design machine bed provides high static and dynamic rigidity as well as stability.
- TURCITE-B coated Work head table and Infeed slide ways move on precise V & Flat guideways with stick slip free movement. Extra wide guideways of Table and Infeed slide to withstand high cutting load.
- Precision ballscrew directly coupled to digital AC Servo motor moves X & Z axis and guarantee high positioning & repeat accuracy.
- SS telescopic guard and special bellows protect guideways from coolant and dust.

WORK HEAD

- Rigid, dead centre Work Head with variable speed through CNC controller.
- CNC controlled Constant Surface Speed (CSS) of work piece.
- Special sealing arrangement provided in front to avoid entry of coolant inside work head.

WHEEL HEAD

- Cartridge type modular Grinding wheel spindle operating at 45 m/s cutting speed and with precision Anti friction bearings.
- Constant cutting speed of Grinding wheel even as the wheel diameter gets reduced, through variable speed drive.
- Robust wheel head with Antifriction bearings is maintenance free, has good thermal stability, very low vibration & no oil hassle.
- CONFIGURATION: Straight wheel or Angular wheel or Twin wheel.

WHEEL DRESSING

- Tailstock or Work head mounted Diamond dresser with CNC dressing for generating various profiles.
- Automatic Dressing with auto compensation through CNC.

TAILSTOCK

- Tail Stock is of single piece construction which provides maximum rigidity and stability.
- Clearance adjustment facility for Tailstock quill.
- Interlocks provided for Tailstock open / close check & part clamp check.
- Hydraulic Actuation & Micro Taper Correction facility is optional.

AUTOMATION & OPTIONAL ACCESSORIES

- Robotic pick & place loading system, Auto loader Gantry.
- In-process gauge, Flagger device, Width control In-process gauge, Automatic Wheel Balancing system, Gap eliminator & Crash control system, Auto Door opening / closing, Work head Orientation, Linear Glass scale for axis, Antifriction Guideways for In-feed slide, Diamond disc / Roll dressing device, Fume extractor, Wheel loading device.

TECHNICAL SPECIFICATIONS

GENERAL		
Swing over table	mm	300 / 400 / 500
Max. Grinding Length	mm	300 / 500 / 800 / 1000 / 1250 / 1500
CNC SYSTEM		SIEMENS / FANUC
Rapid Feed rate (X & Z axis)	mm/min	7000
Min. Incremental Feed (X & Z axis)	mm	0.001
Feed Servo motor torque	Nm	6 / 11
Max. Swivel of Table (Z axis)	Deg	- 2 to +7
WORK HEAD		
Speed Range (stepless)	rpm	20 - 500 (with CSS feature)
Spindle Nose taper	MT	4 / 5
GRINDING WHEEL HEAD (Straight Wheel)		
Grinding Wheel Diameter	mm	400 / 450 / 500 / 600
Grinding Wheel Width	mm	50 / 63 / 120
Wheel Surface Speed	m/sec	33 / 45
Motor Power	hp	5 / 7.5 / 10 / 15 / 20
GRINDING WHEEL HEAD (Angular Wheel)		
Grinding Wheel Configuration	ANGULAR	30 deg.
Grinding Wheel Diameter	mm	500 / 600
Grinding Wheel Width	mm	63 / 80 / 100 / 150
Wheel Surface Speed	m/sec	45
Motor Power	hp	7.5 / 10 / 15 / 20
GRINDING WHEEL HEAD (Twin Wheel)		
Grinding Wheel Diameter	mm	450 / 500 / 600
Grinding Wheel Width	mm	80 / 120 / 160
Wheel Surface Speed	m/sec	33 / 45
Motor Power	hp	10 / 15 / 20
TAILSTOCK	MT	4 / 5

*Design & specifications are subject to change without notice. Machine in the photograph includes extra accessories.



RANGE OF OTHER MACHINES

- Centreless Grinding Machine - CNC/Hydraulic
- Cylindrical Grinding Machine - Hydraulic
- Internal Grinding Machine - CNC/Hydraulic
- Robotic Automation for Grinding Machines

ABOUT HI-LIFE

- Established in **1972** (48 years old Company)
- Ranked amongst the **TOP** manufacturers of Grinding machines, in India
- More than **3000 satisfied Customers** worldwide
- Direct Exports to **15 Countries** across the Globe
- **75%** of orders received are REPEAT orders from existing Customers
- Sales & Service offices in **10** major cities of India
- **State-of-art** manufacturing facilities spread over more than **45,000** sq. feet, with CNC machines
- Standard room equipped with **latest Metrology equipments**
- **Fast Delivery, Excellent Accuracy, Reliability & Performance**
- Machines available with **CE** mark
- An **ISO 9001 : 2015** certified Company



FEW CUSTOMERS



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