



# CNC CYLINDRICAL GRINDERS



www.hilifegroup.com



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 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) & INFEED 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 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**

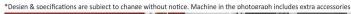
- Tail Stock is of single piece construction which provides maximum rigidity and stability.
- Clearance setting facility for Tailstock quill.
- Interlocks provided for Tailstock open / close check & part clamp check.
- Hydraulic Actuation & Micro Taper Correction facility is optional.

## **AUTOMATION & OPTIONAL ACCESSORIES**

- Robotic pick & place loading system, Auto loader Gantry.
- In-process gauge, Flagging 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, LM Guideways for In-feed slide, Fume extractor, Wheel loading device.

## **TECHNICAL SPECIFICATIONS**

GENERAL		
Swing over table	mm	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 - 375
Spindle Nose taper	MT	5
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 / 12.5 / 15
TAILSTOCK	MT	4/5







## **RANGE OF OTHER MACHINES**

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



## HI-LIFE MACHINE TOOLS LIMITED

I.T.I. Kubernagar Road, Naroda, AHMEDABAD - 382 340 (Guj) India. **Phone:** +91-79-2282 1615, 2282 1632 **Cell:** +91-98980 83890

Web: www.hilifegroup.com | Email: info@hilifegroup.com | An ISO 9001:2008 Certified Co.

# 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 **C** € mark
- An ISO 9001: 2015 certified Company







## FEW CUSTOMERS ....







































## **HI-LIFE MACHINE TOOLS LIMITED**

I.T.I. Kubernagar Road, Naroda, AHMEDABAD - 382 340 (Guj) India. **Phone**: +91-79-2282 1615, 2282 1632 | **Cell**: +91-98980 83890

Web: www.hilifegroup.com | Email: info@hilifegroup.com | An ISO 9001:2008 Certified Co.