

**50**  
years of

GRINDING  
EXCELLENCE  
Since 1972...

**hi-life**   
grinding machines

**CYLINDRICAL**

**GRINDING MACHINE**



[www.hilifegroup.com](http://www.hilifegroup.com)

**HI-LIFE MACHINE TOOLS LIMITED**, established in the year 1972, is a leading manufacturer and exporter of CNC and Hydraulic Grinding Machines in India. 'HI-LIFE' Cylindrical Grinding Machines have been designed to cater customer requirements of high accuracy, productivity and reliability of performance. These machines are suitable for production and tool-room applications.

## SALIENT FEATURES

### MACHINE BED

- Machine bed is of one piece, close grained, graded cast iron.
- Box Structure design, heavily reinforced with ribs, provides high rigidity and stability.

### MACHINE GUIDEWAYS

- Machine guideways of V-Flat construction are precisely hand scrapped.
- Work head table and Grinding wheel slideways are coated with "TURCITE-B" linear bearing material which gives stick slip free movement, excellent vibration damping and high positioning accuracy.
- Continuous automatic lubrication provided for table guideways. Centralised lubrication system is also provided, for efficient and positive lubrication of other moving parts.

### WORK HEAD

- The machine has a rigid Universal Work Head, which can be swivelled to facilitate taper grinding.
- Work head spindle can be locked for grinding between centres or it can be rotated with the driving plate to carry work holding fixtures like chuck, collet or face plate.

### WHEEL HEAD

- Wheel head spindle is made of special alloy steel, specially heat treated, ground and lapped to achieve high dimensional stability and long life.
- Spindle runs in precision Hydrodynamic White metal bearings, which give very high accuracy and excellent surface finish to the work piece.
- Hi-speed Cartridge type grinding wheel operating at 45 m/second cutting speed with precision Anti-Friction bearings, is optional.

### ELECTRICAL

- Electrical / Electronic controls are contained in separate control cabinet, outside the machine, making it moisture proof and provides easy maintenance.

### HYDRAULICS

- Hydraulic power pack with solenoid valves is housed outside the machine.
- Extremely good thermal stability is achieved in the machine by isolating the hydraulic unit.

### INFEEED SYSTEM

- Infeed system comprises of hardened and ground feed screw with dual support, which ensures high positioning accuracy and repeatability.
- Specially designed nut having backlash adjustment is provided.
- Automatic infeed at table reversal.
- Hydraulically operated Rapid approach/Retraction of Grinding wheel slide.

### TAILSTOCK

- Tailstock is of single piece construction for maximum rigidity.
- Hydraulic Actuation & Micro Taper correction facility is optional.

### DWELL

- Electronic dwelling arrangement provided for effective End grinding operation. Separate timers for left and right ends.

### AUTOMATIC GRINDING CYCLE (Optional)

- Single button operated Automatic Plunge and Traverse grinding cycles.
- Cycle operates as: Work head & Coolant ON - Rapid approach - Rough feed - Fine feed - Spark off - Rapid retraction and infeed hand wheel turns back to starting position - Work head & Coolant OFF.
- Amount of infeed, infeed rate and spark off time are adjustable. Left /right both ends feed selection available during traverse grinding.

### INTERNAL GRINDING ATTACHMENT (Optional)

- Internal grinding attachment (swing down type) with its independent drive motor is provided on the wheel head and can be quickly lowered into grinding position.
- Variety of Internal Grinding spindles can be offered.

### OPTIONAL

- Hi-speed Cartridge type Grinding wheel spindle with precision Anti-friction bearings, Work head with Anti-friction bearings, Variable Workspeed & Wheel speed, Inprocess Gauging system, Ballscrew for infeed slide, LM guideways for infeed slide & IOT solutions for Industry 4.0.

### RANGE OF OTHER MACHINES

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

MODEL		HL 300/150	HL 500/150	HL 800/150	HL 1000/200	HL 1250/200	HL 1500/200	HL 1700/200
Swing over table	mm	300 / 400	300 / 400	300 / 400	400 / 500	400 / 500	400 / 500	400 / 500
Max. Grinding length	mm	300	500	800	1000	1250	1500	1700
Max. swivel of table	deg	±8	±8	±8	±7	±6	±5	±5
Table speed - stepless	m/min	0.1 - 4	0.1 - 4	0.1 - 4	0.1 - 4	0.1 - 4	0.1 - 4	0.1 - 4
Dwell at reversals	sec	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60	0 - 60
Grinding wheel diameter	mm	350 / 400	350 / 400	350 / 400	400 / 500	400 / 500	400 / 500	400 / 500
Grinding wheel width	mm	40 / 50	40 / 50 / 60	40 / 50 / 60	40 / 50 / 80	40 / 50 / 80	40 / 50 / 80	40 / 50 / 80
Automatic Infeed on dia. (opt.)	mm	0-1	0-1	0-1	0-1	0-1	0-1	0-1
Wheel head rapid approach	mm	50	50	50	50	50	50	50
Wheel head swivel (opt.)	deg	±60	±60	±60	±60	±60	±60	±60
Wheel head motor power	hp	5	5 / 7.5	5 / 7.5	5 / 7.5	5 / 7.5	5 / 7.5	5 / 7.5
No. of work head speeds		4 / 8	4 / 8	4 / 8	8	8	8	8
Work head swivel	deg	0-90	0-90	0-90	0-90	0-90	0-90	0-90
Work head centre	MT	4 / 5	4 / 5	4 / 5	4 / 5	4 / 5	4 / 5	4 / 5
Tailstock centre	MT	3 / 4	3 / 4	3 / 4	4 / 5	4 / 5	4 / 5	4 / 5
Internal grinding spindle (opt.)	mm	Ø 60 x 250	Ø 60 x 250	Ø 60 x 250	Ø 80 x 250	Ø 80 x 250	Ø 80 x 250	Ø 80 x 250

( ) or / Optional, # ABC

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





## ABOUT HI-LIFE ....

- Established in **1972**
- 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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