

### CYLINDRICAL GRINDER - AMT HYDRAULIC CYLINDRICAL GRINDING MACHINE



# **SALIENT FEATURES**

### **MACHINE BED**

- The 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 guide ways of V-Flat construction are precisely hand scrapped.
  - The work head table as well as grinding wheel head slideways are coated with "TURCITE-B" linear
- bearing material which gives stick
  - slip free movements, excellent vibration damping and high repetitive positioning accuracy.

Continuous automatic lubrication system provided for guide ways. Centralized 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 swiveled to facilitate taper grinding.

Work head spindle can be locked for grinding between centers or it can be rotated with the driving

plate to carry work holding

fixtures like collet, face plate or chuck.

#### WHEEL HEAD

Wheel head spindle is made of special alloy steel, specially heart treated, ground and lapped to

achieve high dimensional stability and

long life.

Spindle runs in precision White metal bush bearings, which give very high accuracy and excellent

surface finish to the work piece.

#### **INFEED SYSTEM**

Infeed system comprises of hardened and ground feed screw, 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 wheel head slide.

#### **TAILSTOCK**

- Tailstock is of single piece construction for maximum rigidity.
- Hydraulic actuation of Tailstock can be offered as optional.

### **AUTOMATIC GRINDING CYCLE (Optional)**

Single lever operated Automatic Plunge and Traverse grinding cycles.

Cycle operates as Work head & coolant ON-Rapid approach-Auto feed-Spark off-Rapid retraction and

infeed hand wheel to starting

position-Work head & Coolant OFF.

Amount of infeed, infeed rate and spark off time are adjustable.

### **DWELL**

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

# **INTERNAL GRINDING ATTACHEMENT (Optional)**

Internal grinding attachment with its independent drive motor is hinged on the wheel head and can be quickly lowered into grinding

position.

Variety of Internal Grinding spindles can be offered.

#### **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.

### **ELECTRICALS**

Electrical/Electronic controls are contained in separate control cabinet, outside the machine, making it proof and provide easy

#### maintenance.

### **OPTIONAL**

Stepless variable workspeed, 200 mm centre height in lieu of 150 mm & Inprocess Guage.

MODEL		HL 300/150	HL 500/150-U	HL 800/150- U	HL 1000/200	HL 1250/200	HL 1500/200
Centre height	mm	150	150	150	150	150	150
Max. grinding length	mm	300	500	300	300	300	300
Max. swivel of table	deg	± 8	± 8	± 8	± 7	± 6	± 5
Table speed inf. variable	m/min	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
Grinding Wheel (d x w)	mm	300x25	350x40	350x40	400x40	400x40	500x40
Wheel head rapid approach	mm	-	50	50	50	50	50
Wheel head swivel	deg	-	± 60	± 60	-	-	-
No.of work head speeds		3	4	4	8	8	8
Work head swivel	deg	± 90	± 90	± 90	± 90	± 90	± 90
Work head centre	MT	4	4	4	4	4	5
Tail stock centre	MT	3	3	3	4	4	4
Internal Grinding Spindle	mm	Ø60x250	Ø60x250	Ø60x250	Ø80x250	Ø80x250	Ø80x250

### **Standard Accessories**

# **Optional Accessories**



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