



# BALAJI HARD CHROME

#473/D4, Behind Rotary Udyog,  
13TH Cross 4<sup>TH</sup> Phase, Peenya  
Industrial Area, Bengaluru-560058  
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# Bar Peeling Machine



○ **Technical Specification & Construction of the machine:**

- **Head Stock:** This is a rigid casting containing a revolving main spindle driven through 'V' belts and shifting gears from the main motor. A cutter head is fixed to the main spindle. The head is designed to hold a cutting tool and also rollers for polishing the work. The spindle speeds can be varied by means of changed gears
- **Feed Gear Box:** This is also a rigid casting. The feed rollers are operated by a motor through 'V' belts and worm gear. The rollers feed the bar against the revolving cutter head. The feed rate of the bar is varied through dimmer stat. All the shafts are mounted on bearings. Worm and worm gears are oil lubricated and bearings and gears are grease lubricated
- **Bed:** This is a cast iron base on which the feed gear box and head stock assemblies are mounted. The main motor is fixed on the left rear wall of the bed and feed gear box motor on the right rear side of the bed. Passage is provided for the chip and coolant flow
- **Cutter Head:** This is a cast steel part. Three polishing rollers (HCHCr) and one carbide tool are fixed. The entire assembly is bolted to a face plate which in turn is threaded (clock – wise) to the main spindle. The cutter head will rotate with the main spindle while the bar is fed longitudinally
- **Coolant System:** Constant flow of mineral based cutting oil is splattered on cutter head to cool the tool and rollers
- **Input & Output Carriages:** For supporting and preventing the rotation of the bar, input and output carriages are provided with the machine

|                             |   |
|-----------------------------|---|
| MODEL:TM- 45                | KW / RPM / Volts                                |
| Motor for Cutting Head:     | 7.5 KW/1500 R.P.M./415 V A.C.                   |
| Motor for Feeding Gear Box: | 2.2 KW /1500 R.P.M/220 V D.C.                   |
| Coolant Pump Motor:         | 0.18 KW./2800 R.P.M/415 V A.C.                  |
| Hydraulic Power Pack Motor: | 0.75 KW.X 2 /1500 R.P.M/415 V                   |
| Control Panel:              | Centralized operational console with interlocks |

## Round Bar Straightening Machines

### Machine Features

- **Main Drive:** A single motor drive is provided for both work roll. The drive is taken from the motor through V belt drives. The Main Drive reduction gearboxes are totally enclosed and splash lubricated from the oil bath in the gearbox case. The gears are manufactured from steel through hardened. All shafts rotate in heavy-duty roller bearings.
- **Rolls:** Rolls are manufactured from High Carbon high Chrome Steel, through hardened or Chilled Steel and ground. Rolls fixed on two shafts operate in heavy duty P.B. Bushes' Seals are provided to exclude dirt and lubricating solutions. Hand operated force lubricating pump will be provided with the machine.
- **Rolls Adjustment:** Provision is made to allow for horizontal setting of both the rolls to such the size of bars. This adjustment is through gears by means of Hand Wheel.



# Hard Chrome Plated Rods

- Material Grade: CK45/EN8/EN8-D/EN-19/EN24  
OD tolerance: f7/f8  
Chrome thickness: min 25-30microns  
Hardness of chrome layer: 900HV minimum  
Surface roughness: Ra0.2um max  
Straightness: 0.3mm/mtr  
Roundness: 1/2 of tolerance

sizes available

- Ø14 Ø30 Ø45 Ø70 Ø100 Ø150
- Ø16 Ø32 Ø50 Ø75 Ø105 Ø160
- Ø20 Ø35 Ø56 Ø80 Ø110 Ø180
- Ø22 Ø36 Ø60 Ø85 Ø120 Ø200
- Ø25 Ø38 Ø63 Ø90 Ø125 Ø220
- Ø28 Ø40 Ø65 Ø95 Ø140 Ø240

# Induction Hardened & Hard Chrome Plated Rods

Material Grade: CK45/EN8/EN8-D/EN19/EN24

OD tolerance: f7 /f8

Chrome thickness: min 25-30microns

Hardness of chrome layer: 900HV minimum

Surface roughness: Ra0.2um max

Case depth: 1~3mm

Hardness of case depth: 55HRC(+/-5)

Straightness: 0.3mm/mtr

Roundness: 1/2 of tolerance

sizes available

- Ø30 Ø50 Ø80 Ø120 Ø200
- Ø32 Ø56 Ø85 Ø130 Ø220
- Ø35 Ø60 Ø90 Ø140
- Ø28 Ø63 Ø95 Ø150
- Ø40 Ø70 Ø100 Ø160
- Ø45 Ø75 Ø110 Ø180