



## YVM - 04

### CNC VERTICAL TURNING & BORING MACHINE

CNC VERTICAL TURNING & BORING MACHINE is extremely rigid, and precision machine especially capable of

- Railway wheel front and back plate profile machining, hub boring and facing, rim front and back facing, tread and flange profile turning and various grooving operations.
- Various drilling & tapping operation as well as oil ejection hole can be drilled on a railway wheel using an optional live spindle.
- General purpose boring, taper boring, taper turning, facing operation on different components like brake discs, axle box etc.

Machine can also be configured for any other component as per customer requirements.

Dedicated control software with customised HMI Screens takes care of various safety measures for easy & safe operations as well as displays fault messages. Provision of remote maintenance support from HYT Headquarter is also available. Easy and quick access to parts requiring maintenance attention results in faster maintenance of machine.



## FOLLOWING OPTIONS ARE AVAILABLE ON REQUEST

- Moving cross rail
- Automatic tool changer with more than 12 tools
- Double RAM
- Live spindle with 'C' Axis for table rotation for milling & drilling operation
- Specialised component loading, unloading and flipping system as per customer requirements.
- Tooled up proposal for specific components
- Axle wheel seat measuring station
- Automatic wheel bore measurement system
- Tool wear monitoring system
- Integration of machine within the continuous production line as per customer requirements.

## LEADING PARAMETER

### TECHNICAL DATA OF MACHINE

○ Turning/ Swing Diameter	:	1600 mm
○ Table Diameter	:	1400 mm
○ Table Speed	:	From 3 to 300 rpm
○ Turning Height	:	600 mm
○ Vertical Travel of the ram head	:	700 mm
○ Table drive motor capacity	:	45 kw
○ Horizontal Travers of ram head	:	+900/-50 mm
○ Rapid Travers Rate	:	8000 mm/min
○ Ram Cross Section	:	200 x 200 mm or 250 x 250 mm
○ Surface Finish While Boring	:	Ra 0.8 Micron
○ Surface Finish While Turning	:	Ra 1.6 Micron
○ Surface Finish While Facing	:	Ra 1.6 Micron

Machine Accuracies As per ISO : 3655

Vertical & Horizontal Travel of Ram Laser Calibrated as per VDI DGQ 3441

**Above Parameter can be suitably customized to meet specific requirement.**

## UNIQUE PROPOSITION

- Load-bearing structures are made from high-strength, close-grained cast iron for stability and efficient vibration damping.
- Table supported on large diameter thrust bearing and tapered roller bearing for maximum rigidity and accuracies.
- Three jaw self-centering, hydraulic chuck.
- 12 Station Automatic Tool Changer.
- Hardened and ground box guideways / Linear Motion guideways as per application requirements.
- Secondary measurement for X and Z axis as per accuracy requirements.
- Machine Enclosure with lockable sliding doors for Operator protection.
- CNC Systems with single Operator Panel & Operator - friendly customised HMI Screens.
- Chip conveyor system.

## OTHER PRODUCTS

CNC Tandem Underfloor Wheel Lathe | CNC Underfloor (Pit) Wheel Lathe | CNC Portal Wheel Lathe Machine  
CNC Surface Wheel Lathe | CNC Axle Journal & Burnishing Lathe.

## HYT ENGINEERING COMPANY PVT. LTD.

Economical Rolling Stock Maintenance



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