



HYT ENGINEERING COMPANY PVT. LTD.



YSL - 21

CNC SURFACE WHEEL LATHE

CNC Surface Wheel Lathe is suitable for low production requirement. It is suitable for independent re-profiling, inside & outside facing of new or worn-out wheels when disassembled from railways vehicles. It is also capable of machining the brake discs.

Manually assisted loading & unloading, wheel profile & diameter measurement, machining process and easy to understand interactive HMI screens enables machine very easy to operate.

Rigid bed, Headstock with wheel set drive at one end with tailstock support at other end and single tool carriages enables machining of one wheel at a time.

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.

This machine integrates both Industry 4.0 and Industry 5.0 features.



LEADING PARAMETER

TECHNICAL DATA OF MACHINE

○ Main Motor Capacity	:	1 x 22
○ Cutting Speed while Profiling	:	25 to 80 m/min
○ Tool Post Feed for Wheel Profiling	:	0.1 to 3.5 mm/rev
○ Tool Post Rapid Speed for Both Axes	:	3000 mm/min
○ Max. Chip Cross Section while Profiling	:	10 mm ²
○ Floor to Floor Cycle Time/Wheel Set	:	50-60 min
○ Supply Voltage	:	415V AC, 50 Hz**

** Special Electrical Supply can be considered, if required.
For Higher Productivity, YSL-08 & YPL-01, YPL-02 Models are available.
Single Tool Post.

ACCURACIES OF WHEEL SET (Wheel Profiling)

○ Difference in Dia. of Both Wheels	:	<0.5 mm
○ Accuracy of Wheel Profile when Compared with Standard Gauge	:	<0.3 mm
○ Radial Run Out of Wheel	:	<0.3 mm
○ Axial Run Out of Wheel	:	<0.3 mm
○ Profile Surface Finish	:	<12.5 µm Ra

UNIQUE PROPOSITION

- Load-bearing structures are made from high-strength, close-grained cast iron for stability and efficient vibration damping.
- System for measuring wheel profile and diameter to optimize cutting depth economically.
- CNC Systems with Operator – friendly customized HMI Screens.
- Hardened and ground box guideways for headstock and Tool Carriages for maximum rigidity.
- Extremely rigid and durable spindle assemblies.
- 3 Jaw synchronized, powered chuck for heavy duty machining.
- Machine Enclosure Optional.
- Machine operation by single operator panel with good visibility of machining process.
- Heavy duty chip conveyor & chip Shredder / crusher for effective evacuation of chips.

OTHER PRODUCTS

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

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Economical Rolling Stock Maintenance



Work: Plot No. 29/10, 29/10/1, 29/10/2, D - II Block, MIDC, Chinchwad,
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