



Atlas Heavy
Duty Double Ended AFWL

Above Floor (Surface) Wheel Lathes

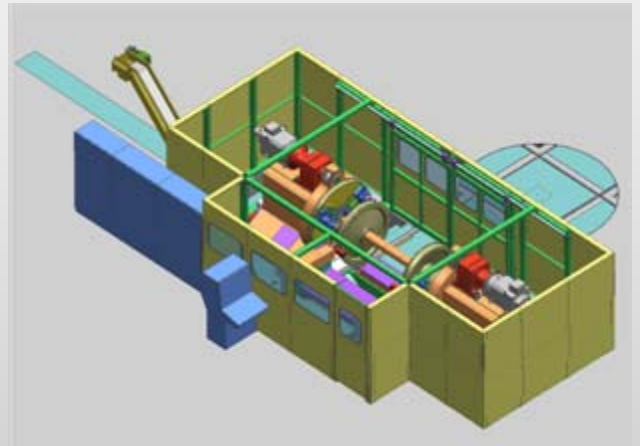
The Atlas Rail Above Wheel Lathes (AFWL) are designed to re-profile wheel sets for a wide range of rolling stock once removed from the vehicle. It is a proven design of heavy construction designed for many years of use, and is in service with many rail operators around the world.

The AFWL is a single base, fully automated, CNC machine that provides high levels of accuracy. The machine is built to re-profile wheels of varying diameters and axle lengths and is capable of accommodating the majority of the differing types of gear wheels, pulleys, brake discs and bearing axle boxes to be found in the rail industry.

The AFWL in its standard configuration can accommodate different types of rolling stock by examining the loaded wheelset and applying any one of a number of pre-configured profiles. The basic machine is capable of measuring:

- Profile measurement
- Wheel Diameter
- Total Radial Run-out
- Flange Height
- Flange Thickness
- Flange Angle (qR dimension)
- Wheelset back-to-back dimension
- Wheel wobble

For more information regarding these units and other railway workshop equipment, please contact Atlas Rail



Atlas AF4000 Double Ended AFWL



Atlas Light Duty Single Ended AFWL



A Division of Marand Precision Engineering

Specifications

General Parameters

Space requirement	8,500L x 4,405W x 2,280H
Weight	38,000kg
Main Spindle Motors	51/77 kW x 5000 RPM
Hydraulic Motor	7.5kW
Lubrication Motor	70W
Toolslide Motors	3.3 kW x 3000 RPM
Headstock Traverse Motor	4.9kW x 3000 RPM

Machine Speeds

Spindle Speed Range	6 – 32 RPM / 0-80metres/min
Toolslide Feed Range	0-3000mm/min
Feed Rate – Variable	0 - 4mm/rev
Rapid Feed Rate	3000mm/min

Machining Parameters

Track Gauge	1676mm
Range of wheel diameters	780 - 1250mm
Range of tyre widths	125 - 145mm
Axle lengths	1850 - 2800mm
Maximum Axle Weight	3000kg
Maximum Depth Of Cut	10mm (20mm on diameter reduction)
Wheel Hardness Maximum Condition	125 kg/mm ² , Hard spots up to 450 BHN
Driver Axial Stroke	60mm
Chute Stroke	535mm
Headstock Traverse	600mm Max
Wheel Lift Traverse	300mm Max
Diameter Slide Traverse	300mm

Accuracy

Tread Roundness	0.1mm
Difference of diameter same axle	0.25mm
Profile Precision	<0.2mm
Surface Roughness	N10 or 12.5µm
Measuring Accuracy of Diameter System	0.08mm
Measure Accuracy Profile Measuring System	0.08mm

Cycle Times

Mount wheelset	1.5 min
Input wheel set ID/general data	1.0 min
Set up wheelset on the machine center line	1.7 min
Pre-measuring of worn wheel set	2.6 min
Start machining	6.3 min
Post-measurement of wheel set	0.4 min
Unload wheel set	2.1 min
Total time	15.6 min