

UBF 112 N

The UBF 112 N Above Floor Wheel Lathe is CNC double-saddle special-purpose lathe designed for reprofiling railway rolling stock wheelsets with axle boxes, gears and brake discs, operating in roll-in roll-out system.



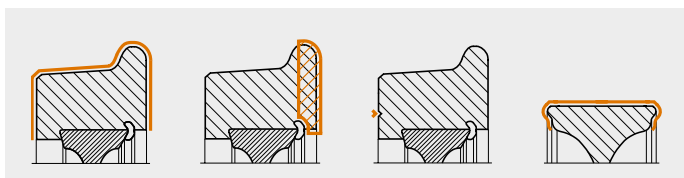
Roll-in Roll-Out / Chuck Type



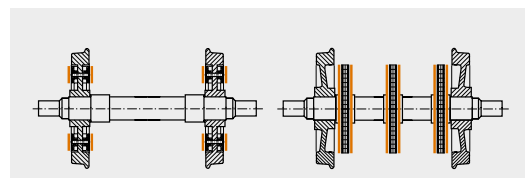
- Machine major body elements made as extremely rigid, heavily ribbed box type, high grade grey iron castings providing maximum vibration-damping capabilities during cutting process
- Main drive powered by two AC motors of continuously variable rotation rates providing high productivity and quality of wheelset machining
- Automatic and reliable touch-type profile wear measurement
- Versatile equipment and wide programming options guarantee precise machining of even unusual wheel profiles
- Multi-track gauge version available

Available Machining Operations

Wheels



Brake discs



TECHNICAL SPECIFICATIONS
UBF 112 N
Wheelset geometry

Track gauge	mm	1435 ⁽¹⁾	
Version ⁽²⁾		A	B
Max. wheel tread diameter (before machining)	mm	1120	1250
Min. wheel tread diameter (after machining)	mm	700	850
Max. width of wheel rim	mm	145	
Min. / Max. length of wheelset axle	mm	1910 / 2360 ⁽³⁾ ⁽⁴⁾	
Max. weight of wheelset	×10 kN	3	

Machine tool parameters

Max. chip cross-section (for each saddle)	mm ²	10 ⁽⁵⁾	
Max. working feed rate	mm / min	1000	
Max. travel rate of saddles	mm / min	5000	
Max. rate of continuously variable rotation of main drive:			
• Profile machining	rpm	45	
• Brake discs facing	rpm	72	
Number of main drive motors	pcs	2	
Power of each main drive motor	kW	28	
Total power installed (standard execution)	kW	100	

Machine tool overall dimensions and weight

Machine tool overall dimensions:

• Length	mm	3000	
• Width	mm	7220 ⁽³⁾	
• Height	mm	2620 ⁽³⁾	
Workshop floor surface demand	mm	15500 × 6500	
Approximate weight of machine tool	×10 kN	36 ⁽³⁾	

Machine tool accuracies

Difference in diameters between two wheels of the same wheelset	mm	≤ 0.15	
Radial run-out of wheel tread	mm	≤ 0.10	
Axial run-out of wheel inner faces	mm	≤ 0.10	
Accuracy of profile machining	mm	≤ 0.15 ⁽⁶⁾	
Roughness of wheel profile surface after machining, Ra	μm	5 to 20	
Roughness of brake disc surface after machining, Ra	μm	2.5 to 3.2	

⁽¹⁾ – Another track gauge to be agreed upon. Multi-gauge version available.

⁽²⁾ – Range of clamping diameter – to be selected by Purchaser.

⁽³⁾ – For track gauge of 1435 mm and standard execution.

⁽⁴⁾ – Other length of wheelset axles to be agreed upon.

⁽⁵⁾ – Wheel material – Steel: Hardness ≤ 270 HB, Tensile strength ≤ 950 N/mm².

⁽⁶⁾ – Measured with machine tool measuring system or clearance between profile gauge and wheel profile surface.

Some of the above data can be altered to meet the Customer requirements.
Above data are subject to change due to product development, without prior notice.