

# TCG 135 N

The TCG 135 N is a CNC special-purpose horizontal lathe designed for reprofiling of wheels and brake discs used in rail vehicles. The machine tool enables to perform turning and burnishing of outboard & inboard journals, axle, conical or curvilinear surfaces.



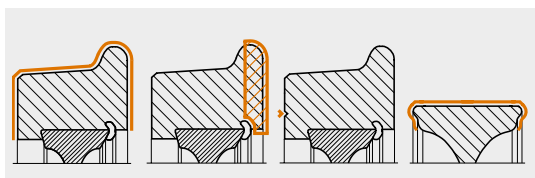
Horizontal Lathe for Wheelsets / Axle Lathe



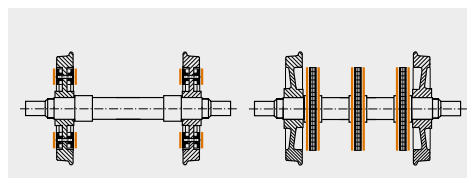
- Machine major body elements made as extremely rigid, heavily ribbed box-type, high grade grey iron castings providing maximum vibration-damping capabilities during cutting process
- Main drive powered by AC motor of continuously variable rotation rates providing high productivity and quality of wheelset 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

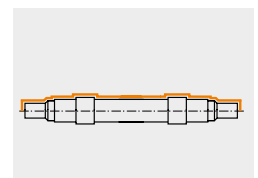
Wheels



Brake discs



Axle



TECHNICAL SPECIFICATIONS		TCG 135 N
<b>Wheelset geometry</b>		
Track gauge	mm	1435 <sup>(1)</sup>
Max. wheel tread diameter (before machining)	mm	1250
Min. wheel tread diameter (after machining)	mm	600
Max. width of wheel rim	mm	145
Min. / Max. length of wheelset axle	mm	2800 <sup>(2) (3)</sup>
Max. weight of wheelset	×10 kN	3
<b>Machine tool parameters</b>		
Max. working feed rate	mm / min	1000
Max. travel rate of saddles	mm / min	5000
Power of main drive motor	kW	40
Total power installed (standard execution)	kW	60
<b>Machine tool overall dimensions and weight</b>		
Machine tool overall dimensions:		
• Length	mm	10350
• Width	mm	6700
• Height	mm	3400
Approximate weight of machine tool	×10 kN	16 <sup>(3)</sup>
<b>Machine tool accuracies</b>		
Difference in diameters between two wheels of the same wheelset	mm	≤ 0.20
Radial run-out of wheel tread	mm	≤ 0.20
Axial run-out of wheel inner faces	mm	≤ 0.10
Accuracy of profile machining	mm	≤ 0.20 <sup>(4)</sup>
Roughness of wheel profile surface after machining, Ra	μm	≤ 12.5
Roughness of brake disc surface after machining, Ra	μm	≤ 3.2
Roughness of axle surface after machining, Ra	μm	≤ 1.25
<sup>(1)</sup> – Another track gauge to be agreed upon. Multi-gauge version available. <sup>(2)</sup> – For track gauge of 1435 mm and standard execution. <sup>(3)</sup> – Other length of wheelset axles to be agreed upon. <sup>(4)</sup> – 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.