

FP-7 & ZP-7

Automated gantry systems for the safe handling of hot railway wheels during heat treatment



FP-7 with 4 carriages pick up 4 glowing wheels

Customer

Leading manufacturer in railroad and rail vehicle construction

Industry

Rail vehicle construction / heavy industry

Application

Loading and unloading of heat treatment furnaces and hardening machines for railway wheels

Technology

**2 × FP-7 3-axis gantry
2 × ZP-7 Linear axis
6 × Special gripper for hot wheels
1 × Servomotor wheel gripper
2 × 4-fold lifting tables controls**

Location

India

Customer Benefit

Safe handling in restricted time frames

Process reliability in hot and dirty environment

Employee protection and a more ergonomic environment

Fully automated process from hardening to final stacking

Single-variety stack formation for efficient onward conveying

Max. Workpiece weight

725 kg

Max. Workpiece temperature

950 °C

Güdel Technologie

1x FP-7 with 1x wide-span bridge, moving support and 4 independently moving carriages
2 × ZP-7 Linear axis
6 × Special gripper hot wheels
1 × Servomotor wheel gripper
2 × 4-fold lifting tables
4 Control areas
Safety enclosure
Assembly & commissioning



Scan QR code for
product details



FP-7 with 4 hot wheel grippers



Wheel station for stack formation

Safe handling under extreme conditions

When forging and heat treating railway wheels, every second counts. Only precise handling within tight time windows keeps process temperatures constant and ensures product quality. Güdel's gantry systems reliably grip the red-hot wheels, withstand extreme radiant heat, and ensure a continuous material flow – even under the toughest conditions.

One FP-7 serves four hardening machines

The 3-axis gantry simultaneously removes the heated wheels at the exit of the heating furnace. Each wheel is placed in the corresponding hardening machine in less than 30 seconds. After hardening, the system automatically transports the wheels to the next heat treatment furnace with precise positioning.

Two ZP-7 for heat treatment up to final stacking

The two linear gantries handle the loading and unloading of the heat treatment furnaces. Supported by quadruple lifting tables, a synchronous material flow is ensured. At the end of the line, the wheels are sorted by type and prepared for transport – safely, efficiently, and traceably.

Güdel Germany GmbH
Industriepark 107
74706 Osterburken
Germany
Phone +49 6291 6446 0
info@de.gudel.com

gudel.com
automation on track

Güdel is an international Swiss industrial company founded in 1954. As a world-leading provider of industrial automation solutions, Güdel is a one-stop shop for its customers, offering everything from high-precision machine components to turnkey automation solutions in the automotive, rail, logistics and machine tool markets.

Innovation, quality and modularity: these define Güdel's technology. The Güdel Group, which has been family-owned since it was founded, employs around 1000 people at more than 20 locations worldwide.