

Automatized Wheel Line

With 4 gantries every 4 minutes one finished wheel



Industry

Railway



Processes

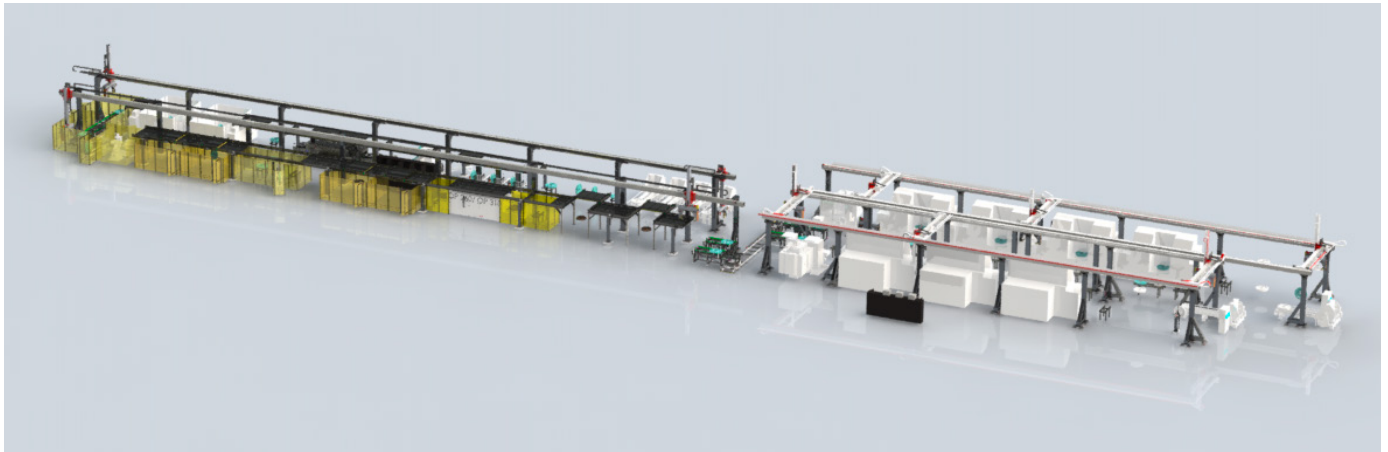
Loading and unloading of processing and testing machines for railway wheels



Key Data

- Workpiece: Railway wheel with up to **1000 kg**
- Güdel key technology:
 - 2 × 3-axis gantry FP-7
 - 2 × 2-axis gantry ZP-7
 - 10 × Servomotor wheel gripper
 - 5 × Tilting table with chain conveyor for wheel stacks
 - 20 × Storage spaces
 - Floor conveyor technology
 - 4 × Controls area
 - Complete safety fence
 - Assembly and commissioning

The gripper holds the wheel in front of the forged text reading station



Layout of the wheel line automation



Process Description

The core processes of railway wheel production are forging, heat treatment, mechanical processing and testing of the wheels. To ensure the required material throughput and the necessary traceability of the manufacturing stages, those processing steps have to be interlinked by an advanced automation technology.

100'000 wheels per year

Two FP-7 and two ZP-7 automatize the machining and testing line. One wheel is completed in less than 4 minutes, which realizes a production capacity of 100'000 wheels per year.

Two FPs serving 7 turning machines and 2 drilling machines

The FPs serve the turning machines, flipping the wheels 180° after half of the

processing time so that the wheels can be completely machined on both sides. To ensure the traceability, the number engraved on the wheels will be read by the Güdel system to ensure that the correct piece is located in the process. Two different types of wheels can be handled through the whole line simultaneously.

Two ZPs interlink the test line

In the test line, each wheel goes through 6 testing processes as well as marking, washing and painting. At the end of the test line, the wheels are stacked and prepared for further transport to the end customer.

Güdel Technologie

- Automation of production and testing lines of railway wheels, axles and wheelsets
- 2-axis & 3-axis gantries, grippers, floor conveyors
- Buffer and storage systems
- Reading and marking systems
- Sequence and process optimization for maximum output of the machines
- Worldwide production, assembly and customer services



Güdel Germany GmbH

We, Güdel Germany, a subsidiary of Güdel Group AG with headquarter in Langenthal, Switzerland, are a solution provider for industrial automation. We are specialized in robotics applications, automation solutions and prime care. We support our customers along the complete journey from sales over design, assembly, commissioning to after-sales. With high speed, high precision, heavy payload, maximal availability and reliability all in one, Güdel is your global partner for your individual automation solutions.

Contact

Güdel Germany GmbH
 Industriepark 107
 74706 Osterburken, Deutschland
 Telefon: +49 6291 6446 0
 gudel.com

[Online contact form](#)