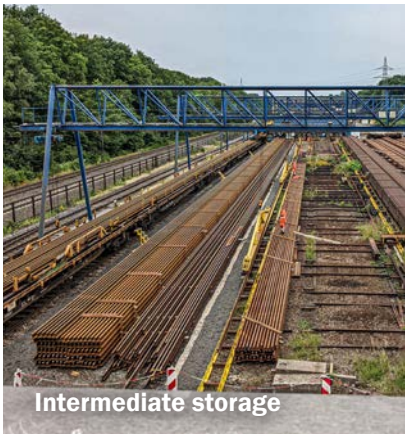

ROBEL
RAIL LOGISTICS
ROREXS
Putting rails on the track quickly,
safely, and in rolling-plant quality
www.robel.com

YOUR TASK.
OUR CHALLENGE.

Transporting rails often poses numerous challenges, especially on routes with tight radii, since rails have to follow the course of the curve. It is crucial to observe the yield points during the unloading process to avoid structural damage to the steel and to ensure the safety of subsequent rail traffic. When loading rails for the purpose of reusing them, it is important to secure and store them properly to prevent damage and ensure their longevity.


Rolling plant


Intermediate storage


Construction site

FOR OPTIMUM RAIL QUALITY

The challenge in rail transport is to observe yield strengths and bending limits in order to avoid damage, such as deformation, cracks, or other structural impairments.

ROREXS unloads rails in perfect rolling-plant quality and also offers the following advantages:

- Easy handling of the rails
- Short unloading times
- Suitable for long rails
- High transport capacity





ROBEL RAIL LOGISTICS

ROBEL offers a comprehensive end-to-end solution for the entire rail life cycle in the field of rail logistics. This includes transporting rails from the rolling plant to an intermediate storage and from there to the construction site, as well as replacing damaged or worn rails. One example of this is the reuse of rails from high-speed tracks for use on the secondary track, which saves resources and protects the environment. At the same time, this ensures the longevity of the rail infrastructure and enables smooth and reliable rail transport.

ROBEL also provides rail treatment with its state-of-the-art rail milling trains.
Visit **www.railtreatment.de** for more information.

THE COMPLETE SOLUTION

- High occupational safety
- Automation options
- Simple system handling
- Optimized work processes facilitate communication between driver and operator
- Enables transfer travel even on tight radii (80 m)

All relevant machine information at a glance

The ROBEL cloud application RONNECTED makes it possible to retrieve machine data and processing results from any location at any time.
Visit **robel.com** for more information.





UP FOR ANY TASK

THREE COMPONENTS. ONE SYSTEM.

ROREX SYSTEM

RAIL LOADING TRAIN



ROMAN
Rail manipulator

- Loads and unloads the rails safely onto and from the transport unit
- Secures the rails with rail clamps during loading and unloading
- Equipped with an independent hydrostatic drive
- Offers a protected, ergonomically designed working area with two control stations
- Precise positioning of the long rails in the track bed



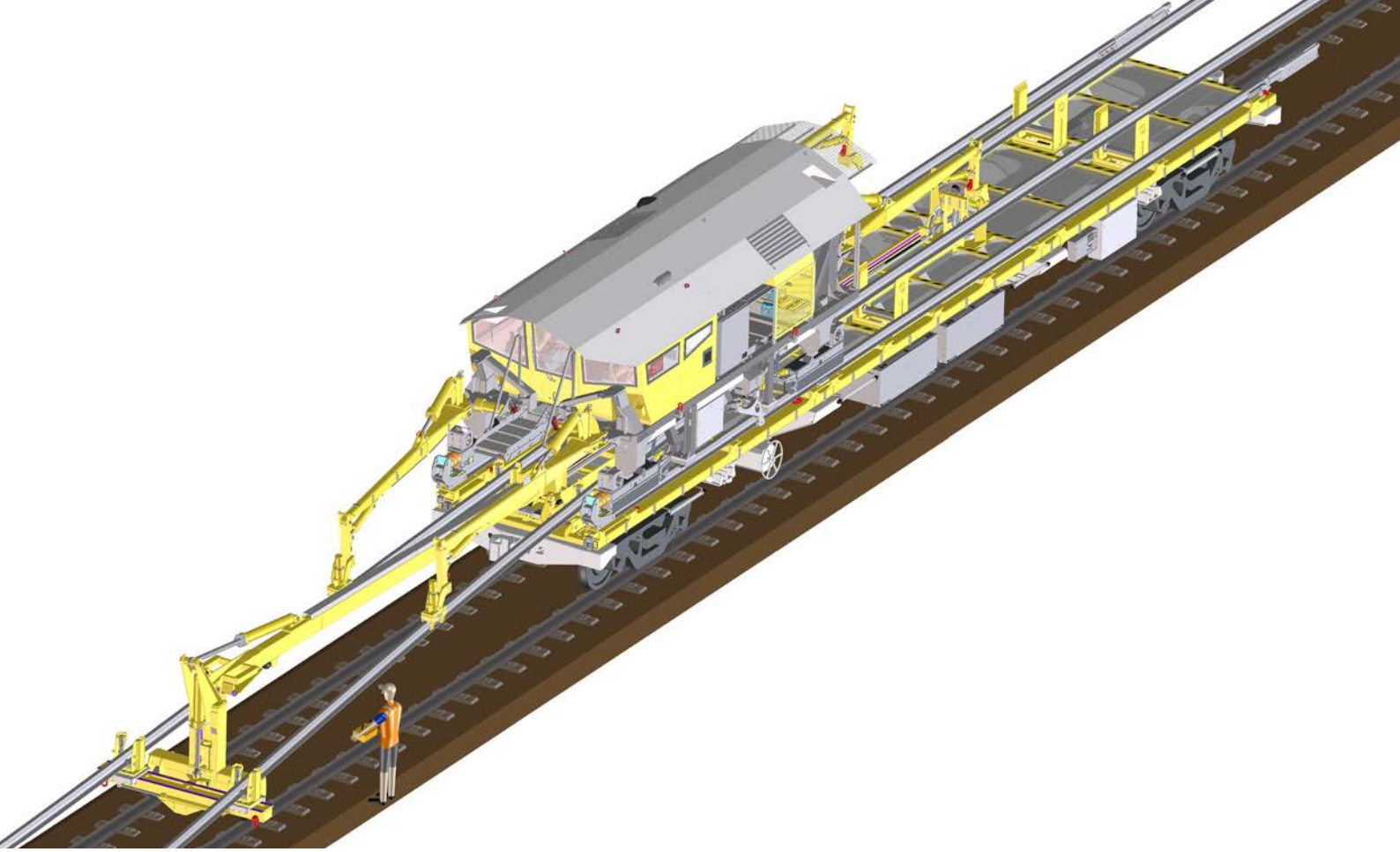
ROCHUTE
Two-sided chute wagon unit

- Guides the rails safely and gently during the loading and unloading process
- Positions the rails exactly where they need to go, inside or outside the running rails
- Saves time thanks to optional reversing device, eliminating the need for shunting manoeuvres



ROTRANS
Transport unit

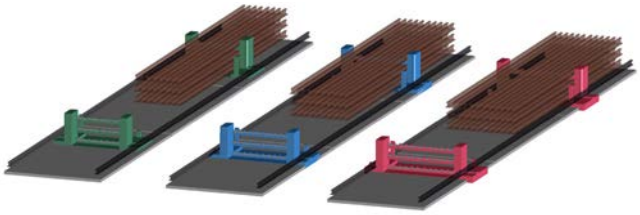
- Guides the rails safely during transport
- Fixes the rails using clamping racks
- Multi-row support frames are located at a defined distance from the rail storage
- Length compensation for the crane rails when passing through curves
- Baffle walls at both ends provide additional safety



THE ROREX SYSTEM IN DETAIL

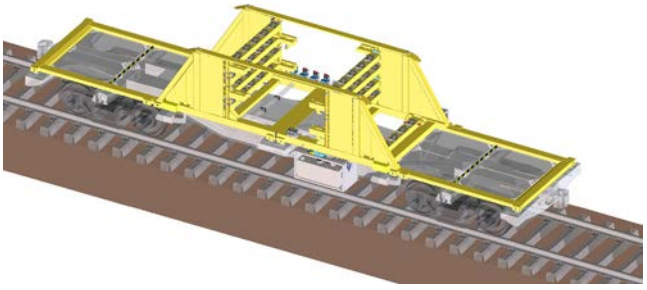
FAST. SECURE. EFFICIENT.

The ROREX system allows for efficient handling when loading and unloading rails. This enables a seamless rail logistics process, including the supply and removal of rails. The reduction of individual work steps significantly reduces complexity while increasing efficiency.



RAIL CAPACITY

- Variable number of rails: between 8 and 50
- Rail length between 30 and 500 m possible
- Compatible with a wide range of rail profiles



LOAD SECURING

The rails are held in place by the clamping racks. The baffle walls provide additional safety.

- Exceptional operational safety for operating staff and nearby infrastructure
- Each rail is individually clamped to ensure maximum safety and flexibility
- The operators work from a protected workstation in the manipulator



FLEXIBLE WORKING

The reversing device on the chute wagon and the quick-change function of the satellite make it easy to work on one or both sides.

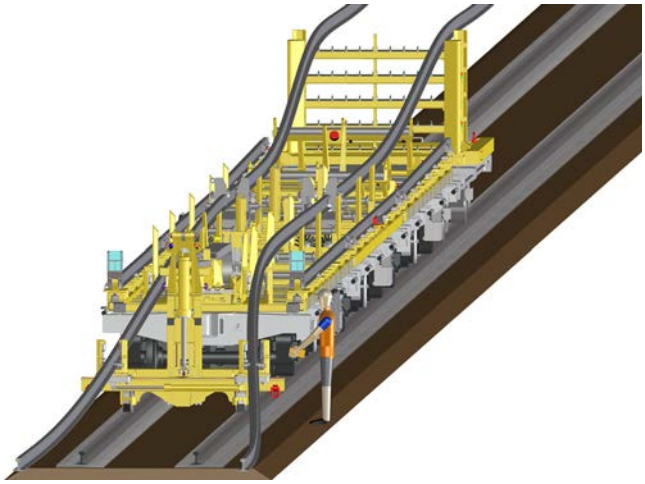
- Guaranteed flexibility when aligning the unit on the construction site
- Reduced organizational and logistical effort
- Minimized consequences for planning errors



TRANSPORT SYSTEM

The mounted structures for working can be based on container wagons in order to retain the authorization of the trailers and can be easily attached thanks to a standardized interface.

- Guaranteed compatibility with 40- and 60-foot trailers
- Simple authorization processes



RAIL GUIDING SYSTEM

Optimally protected rails throughout the entire logistics process.

- Observes yield points and minimizing bending stresses during loading and unloading
- Reduces surface damage by mounting the rails on support rollers with wheel flanges to reduce friction
- Precise and variable placement of the rails inside and outside the track using a positioning satellite
- Protection against tilting of the rail with universal roller head

NEW

AVAILABLE IN A MANUAL OR AUTOMATIC VERSION

Manual: simple, low complexity, cost-effective, low maintenance requirements, high availability, sturdy

Automatic: safe, high level of ergonomics, great comfort, faster work process, small number of staff required



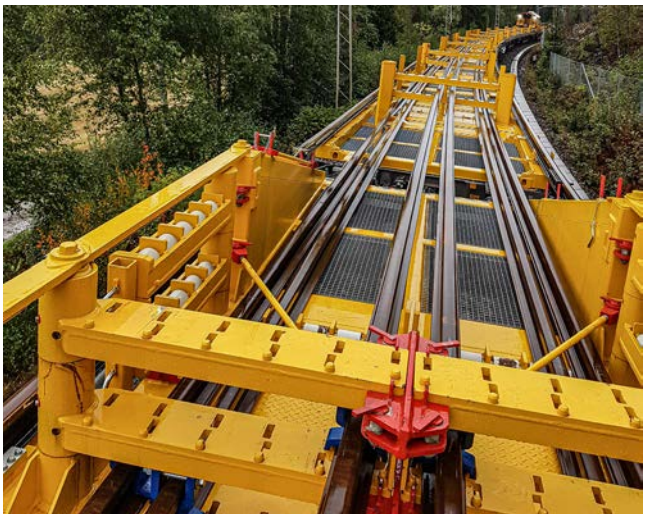


ROREX system | Customer: Bane NOR

LOADING AND UNLOADING OF LONG RAILS WHILE FOCUSING ON OPERATOR SAFETY

- Universal load-bearing rollers guide the rail during loading and unloading and prevent it from tilting
- Two-sided chute wagon
  - Loading and unloading is possible from both sides
  - Observing yield strengths and minimizing bending stresses
- Clamping racks secure each rail individually
- Integrated lighting of the workstation
  - Additional occupational safety
  - No external lamps necessary
- Equipment for length compensation allows travel on curved track
- Reversing device for the rail manipulator enables operation in both directions of travel

TECHNICAL DATA	ROREXS
Maximum rail length	120 m
Transport capacity	30 rails
Smallest curve for transfer travel	150 m
Smallest curve for loading and unloading	300 m
Maximum superelevation for loading and unloading	150 mm
Loading and unloading on uphill or downhill gradients up to	40 ‰



HIGHLIGHT

Automatic multi-row support frame

- Automatic slewing is activated from a safe position via remote control
- Manual emergency operation is also possible
- Possible to stack long rails on 3 levels, up to 10 rails per layer

Further information about the machine and the company can be found at **robel.com**



ROTRANS | Customer: RailPro

RELIABLE, FLEXIBLE, AND QUICKLY READY FOR USE

- Manually slewable support frame
  - Possible to stack long rails on 3 levels
  - Up to 10 rails per layer
- Wheel-flange rollers with ball bearing that support easy movement of the rail during loading and unloading
- Two clamping racks per unit, one at the front and one at the rear
  - Each rail is individually secured
  - Unloading is possible on both sides
- Track for the rail manipulator along the entire transport unit
- Equipment for length compensation allows travel on curved track
- Combine up to 3 ROTRANS units

TECHNICAL DATA	ROTRANS
Minimum rail length	15 m
Maximum rail length per transport unit	120 m
Rail-length extension stage 1 with one coupled additional transport unit	up to 240 m
Rail-length extension stage 2 with two coupled additional transport units	up to 360 m
Transport capacity for rails	30 rails
Smallest curve for transfer travel	150 m
Smallest curve for loading and unloading	300 m
Maximum superelevation for loading and unloading	150 mm
Loading and unloading on uphill or downhill gradients up to	40 ‰



HIGHLIGHT
Frame design

- Assembly of the individual modules on a flat wagon with container interface
- Final assembly, commissioning, and test phase could be completed at the customer's site in a very short time thanks to "Plug & Play"
- No modification necessary
- Predictable and low authorization costs

Further information about the machine and the company can be found at **robel.com**



PLASSER ROBEL SERVICES

With over 270 employees at our locations in Munich, Opladen and Freilassing, PRS provides the exact full service you need. We take care of the entire life cycle of your Plasser & Theurer and ROBEL rail-bound vehicles and machines. With our ECM I-IV responsibility, we guarantee the safe and efficient execution of our services.

We are your point of contact for the certified reconditioning of wheelsets and bogies of all brands. To help you keep your costs down and protect the environment, we offer a retrofit service designed to ensure your proven machine stays operational for up to 20 additional years – without the need for re-approval.

In the meantime, we will be happy to provide you with one of our rental machines. Of course, we keep essential original spare parts in stock, which our customer service team will install on site 24/7. We also offer a range of upgrades to maximise your efficiency. Whatever you need to keep your construction sites running, we are your **full-service partner** for railway construction machines.



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Visit **pr-services.com** for more information about Plasser Robel Services

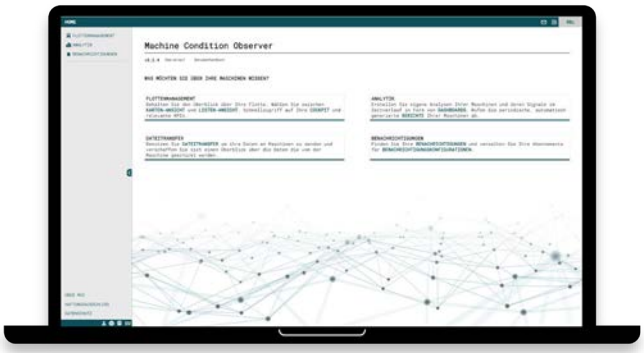
DIGITAL SOLUTIONS

ROBEL integrates forward-looking topics into its services. Consistent digitalization of all processes - from the way machines work to monitoring and data processing - increases efficiency and transparency. At the same time, it provides an answer to demographic change and the opportunity to make the best possible use of skilled workers.



CONNECTIVITY SOLUTION
RONNECTED | Datamatic

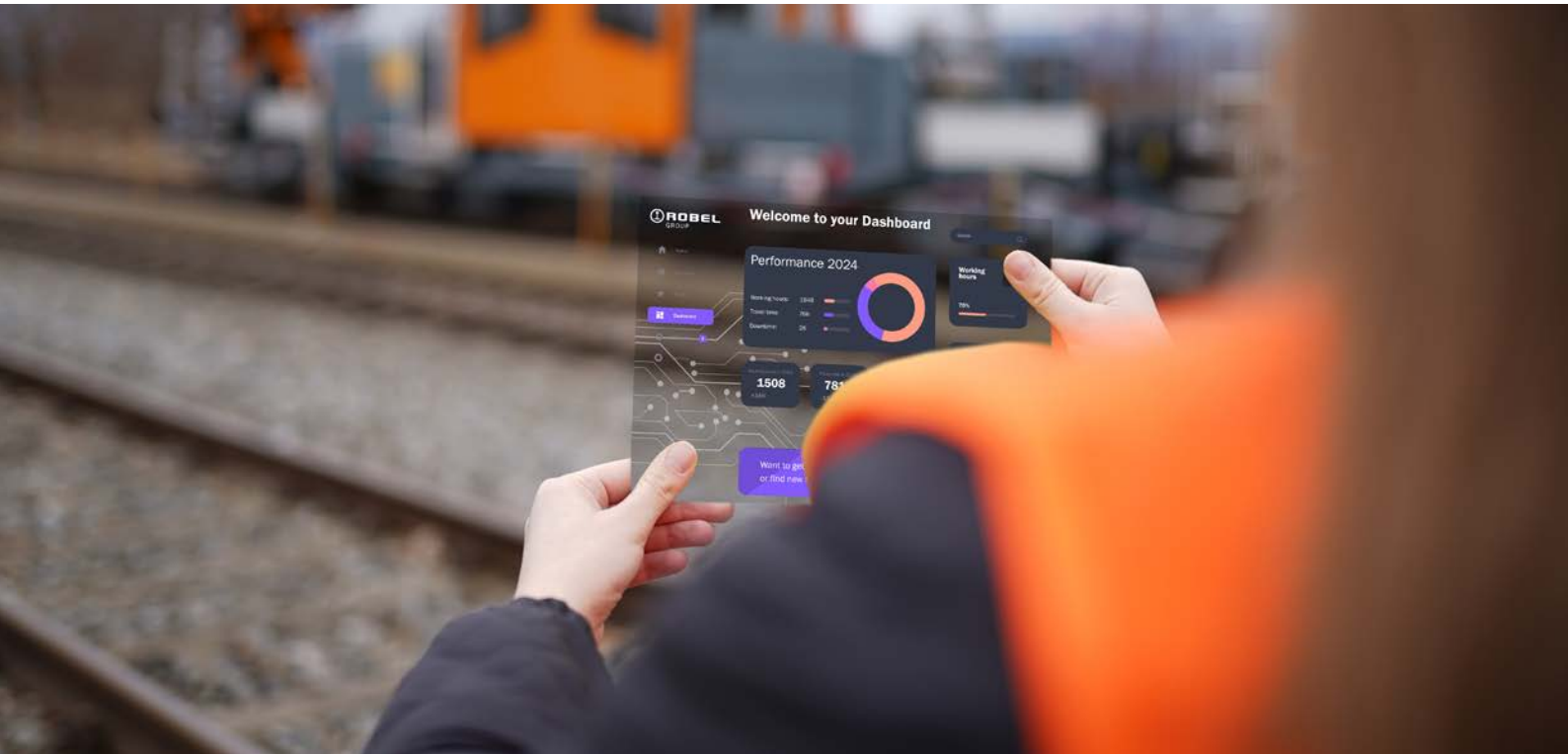
- User-friendly, configurable web platform
- All relevant machine information at a glance
- Fleet management & tracking
- Online maintenance plan, notifications and reporting



SOFTWARE SOLUTIONS
Measuring data analysis

- Contact-based longitudinal profile measurement for measuring the rail surface
- Sensor-based measuring system for detecting rail defects using eddy current
- Laser-based cross-section measurement to determine the wear reserve both as pre- and post-measuring

Visit **vogelundploetscher.de** for more information on Vogel & Plötscher measuring technologies





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