Metric Rail Grinder – Rail grinding for metre-gauge networks

Flexible and cost-effective maintenance for tram, mainline and mountain railways

Product description

Precision grinding extends rail service life.

The quality of the rail surface and rail head profile has a significant impact on ride comfort, noise emissions and the service life of the track. Surface defects such as corrugation, waves or other profile deviations increase dynamic loads at the wheel-rail interface and lead to greater maintenance requirements for the track superstructure.

The Metric Rail Grinder was developed specifically for the cost-effective maintenance of metre-gauge networks. The compact road-rail machine can be quickly placed on and removed from the track, enabling efficient operation even during short track possessions. It is suitable for tram, mainline and mountain railways with gradients of up to 60‰ and can process both Vignole and grooved rails.

In addition to removing corrugation and surface defects, the Metric Rail Grinder removes rust and mill scale from newly laid rails and enables targeted corrections to the rail head profile.

Technology

- Ten high-performance grinding stations: The separate, two-axle grinding module is equipped with ten powerful grinding stations.
- Integrated measuring systems: High-frequency laser systems and sensors measure the transverse and longitudinal profiles of both rails in real time. Corrugation, waves and profile deviations are immediately visible. The rail head profile can be compared live with the target profile.
- Quality control before and after grinding: Transverse and longitudinal profile measurements can be recorded and assigned to the respective track kilometre reference. This allows the rail quality to be documented before and after grinding and the grinding result to be checked immediately.
- High-performance dust extraction: An integrated extraction system with multiple filter cartridges, automatic filter cleaning and an internal fire damper ensures clean and safe operation.
- Flexible road-rail technology: A compact road-rail truck serves as the carrier vehicle, towing vehicle, energy source and control unit. The separate grinding module is transported to the work site on the truck and unloaded directly onto the track.

Your benefits

- Fast and flexible: Short on- and off-tracking times thanks to road-rail technology enable efficient operation even during short track possessions.
- Longer rail service life: Targeted removal of corrugation, waves and surface defects reduces wear and helps maintain rail quality over the long term.
- Less noise and greater ride comfort: Optimised rail surfaces and rail head profiles reduce unwanted wheel-rail interactions and improve ride comfort.
- Grinding and measuring in a single operation: Integrated laser and measurement technology enables live monitoring of the grinding result as well as a documented before-and-after comparison.
- Versatile: Suitable for tram, mainline and mountain railways with gradients of up to 60‰ under its own traction, as well as for Vignole and grooved rails.
- Clean and safe operation: A high-performance dust extraction system reduces emissions generated during the grinding process.

Contact

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