ADTSOLUTION

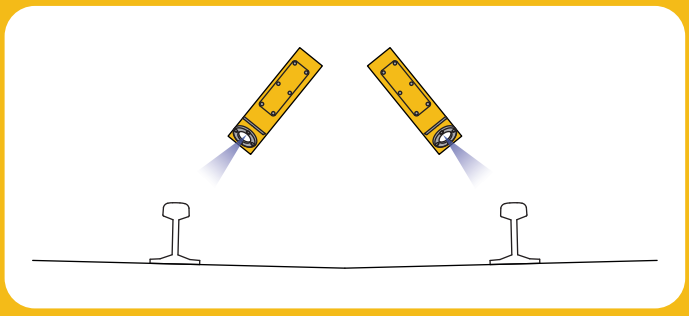
# RPMS

## Rail Profile Measurement System

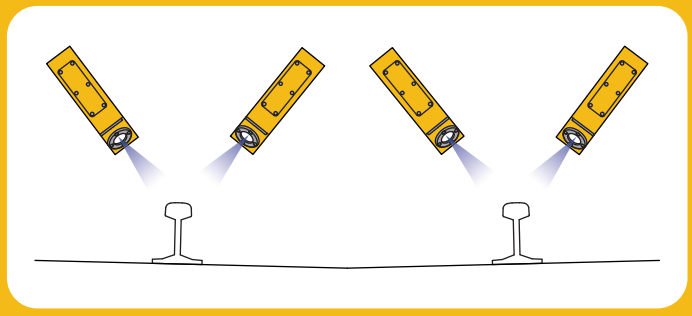
High-Precision Rail Profile scan
for Inspection and Grinding Operations

**The ADTS Rail Profile Measurement System is an optical-based diagnostic solution for assessing rail profile wear with high accuracy and without physical contact. It is suitable for both stand-alone inspection operations and integration on grinding machines.**

## Configurations



Rail Profile Measure System (RPMS):
Captures only the inner profile of each rail. Suitable for grinding applications and track geometry monitoring, this standard configuration offers a cost-effective solution for core rail maintenance tasks.



Full Rail Profile Measurement System:
Captures both inner and outer rail profiles using four sensor units (two per rail). Designed for use on grinding machines and in track geometry monitoring, this configuration delivers full-profile coverage and high-precision diagnostics.

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## Grinding Integration

The system can be installed on rail grinding machines to provide:

- **Continuous monitoring** of the rail profile before and after grinding
- **Real-time feedback** on rail shape changes during operations
- Simultaneous use with corrugation system for combined transverse and wave wear analysis

Laser triangulation–based vision system

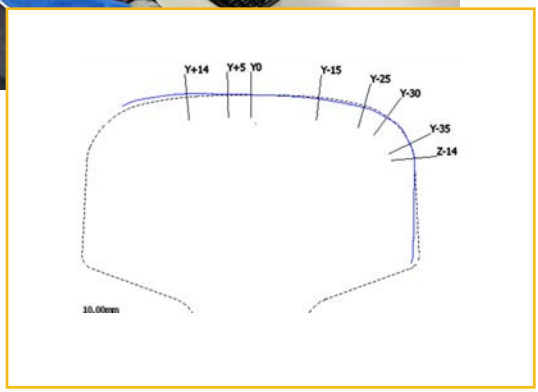
Metric correlation via connection with the vehicle's encoder

Operator-friendly interface with real-time visual feedback

| Performances | |
|---|---|
| Max Sampling Frequency | **Up to 350 fps** |
| Environment Temperature | **-20°C to +60°C** |
| Accuracy | **± 0,1 mm** |
| Laser Class | **3B, 450 nm** |

## Data and Output

All measurement data and rail profiles are processed and displayed in real time from the operator's cabin.
Profiles are continuously compared to reference shapes to support predictive maintenance and optimize grinding efficiency.

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