



RAIL PERFORMANCE MONITORING

A unique service for advanced rail maintenance management.

Description

As an OEM (Original Equipment Manufacturer), voestalpine Railway Systems has accumulated long-standing expertise regarding inspection and monitoring of its railway infrastructure components. Thus we are happy to provide a unique rail monitoring service to our worldwide customers in order to support advanced maintenance managers in achieving a step change from corrective to condition-based or even predictive rail maintenance. Globally active technical experts of voestalpine Railway Systems create customer value in collaborative projects in terms of rail life-cycle management.

Customer value

- » Significant extension of rail service lifetime through:
 - » Early detection and evaluation of rolling contact fatigue defects
 - » Determination of optimal rail maintenance intervention points
 - » Support with the implementation of customized rail maintenance strategies and plans
 - » Wheel-rail interface optimization
 - » Demonstration of performance for LCC optimized product selection
- » Total rail life-cycle cost (LCC) savings of up to 80%



SPECIALIZED IN RAIL MEASUREMENT TECHNOLOGY

Technical description

In a first step a customized selection of heavy-duty track segments take place in order to determine the main rail damage mechanisms. In the following, the rail deterioration progress is monitored in several missions as a function of load. Finally the results of a Rail Performance Monitoring provide an essential basis for the development and implementation of customized rail maintenance strategies.

Methodology

- » Determination of vertical and horizontal rail wear progress
- » Determination of rail corrugation growth
- » Detection and evaluation of rolling contact fatigue defects (e.g. head checks, squats)
- » Determination of head check growth
- » Detection and evaluation of inner rail defects

Example – Monitoring mission in a Metro track

