



# IntelliRail

**Comprehensive Diagnostic Products For Monitoring  
Rolling Stock, Track and Overhead Equipment**

**Automated Wheel Profile Measurement System (AWPMS)**

## Automated Wheel Profile Measurement System

IntelliRail's Wheel Profile Measurement System (IntelliWPMS) is an automated wayside system that leverages lasers and cameras to provide accurate data on wheel parameters, including the wheel profile, wheel diameter and back-to-back gauge measurement in a wheelset. The lasers and cameras work together to grab thousands of images of the wheel's surface to create a visual profile of the wheel. This graphical representation is shared with the customer to provide an easy way to identify variations from the standard parameters.



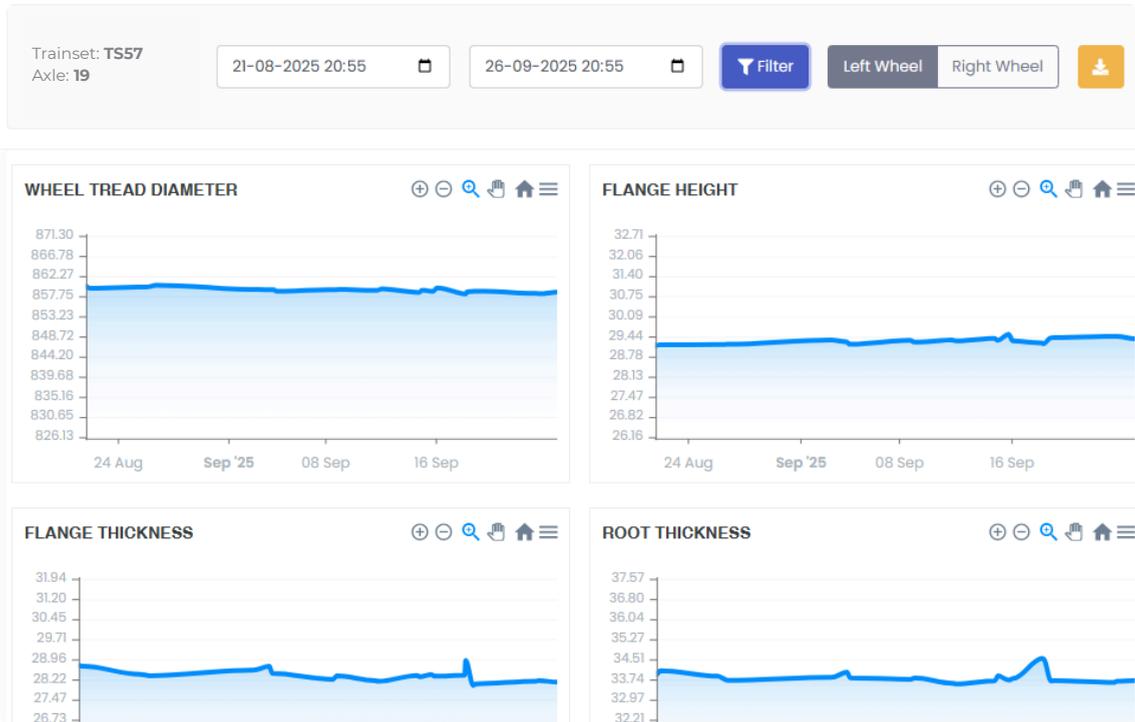
*IntelliWPMS installed at Charkop Depot of Mumbai Metro*

### Salient Features of IntelliWPMS

- No-contact measurement eliminates physical contact and ensures the safety of both the train and the equipment.
- High accuracy measurements of ~0.5 mm for wheel profile parameters and wheel diameter.
- High-speed data capturing and processing to power real-time monitoring of train operations.
- Zero to minimal civil work required for installation.
- Proprietary Edge-computing-based data analysis for accurate measurements.
- Cloud-based reporting for fast, easy and real-time updates of your rolling stock.

### Trend Analysis

IntelliWPMS provides trend analysis of wheel parameters to provide easy to understand and actionable information. Through this system, regular wear and tear or damage to the wheels can be identified early so that proactive repair or replacement decisions can be made. This not only extends the life of the most expensive asset of the railways and metro systems, but also leads to significant cost savings.



Trend Analysis View of Critical Parameters for Left Wheel of an Axle

## Make in India, Make for the World

IntelliWPMS is a one-of-its-kind system in India that has been designed to be world-class, aligning perfectly with the government's Make in India, Make for the World objective and IntelliRail's vision of helping make the Indian Railways and Metro systems future-ready.

## About IntelliRail

A brand of NouvoRail Tech Private Limited, IntelliRail provides next-gen measurement and monitoring solutions for the Railways and Metro systems. It designs, develops, manufactures, and maintains Machine Vision and Machine Learning powered integrated diagnostic products that increase asset availability, reduce maintenance costs and improve efficiency of the asset maintenance process.