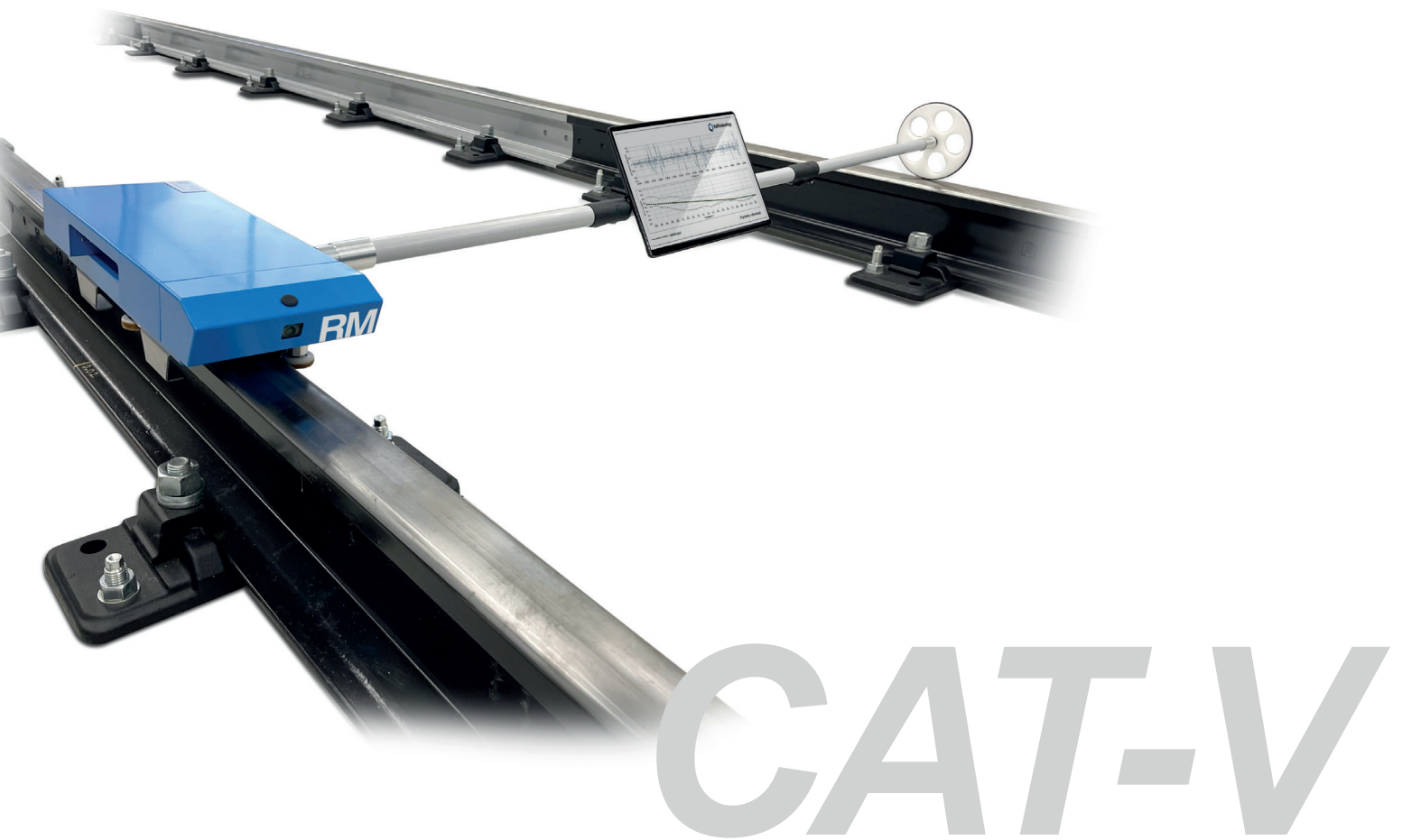


RAIL MEASURING TECHNOLOGY
WHEN ACCURATE MEASUREMENTS MATTER



***RM CAT-V Corrugation Analysis Trolley
with integrated Vision system
Rail corrugation and acoustic roughness
measuring trolley for tracks and switches,
Suitable for vignola and grooved rails***

Product description:

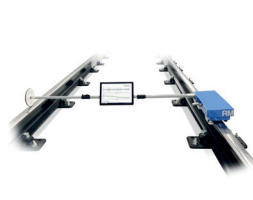
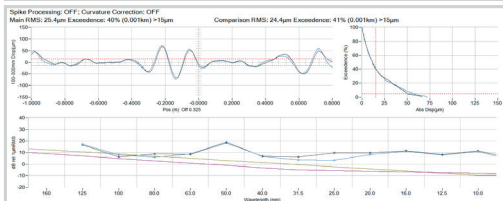
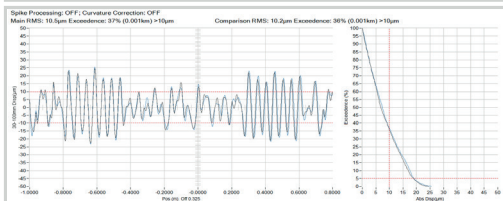
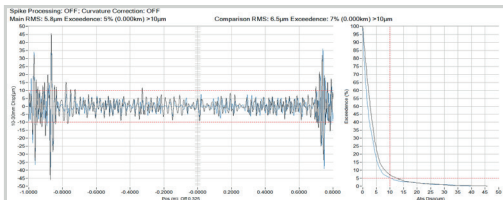
Rail surface irregularities of the order of microns (0.001mm) in amplitude are important in the generation of wheel/rail rolling noise and vibrations. The CAT-V portable rail measuring trolleys are easy to carry and set up and are suitable for obtaining continuous longitudinal measurements of irregularities on the rail surface and capturing high resolution images from the rail head

Applications:

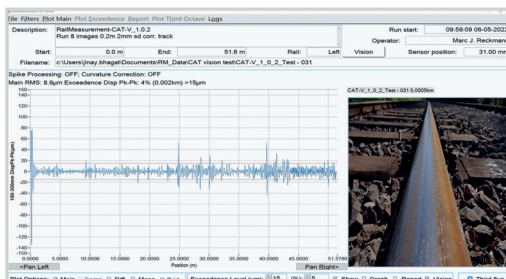
- Monitoring of rail quality
- Detection of corrugation and acoustic roughness
- Detection and classification of both short and long waves
- Assessment of mobile rail treatment results e.g. rail grinding and milling
- Visual assessment of rail condition

Main characteristics:

- Measurements that are highly accurate and repeatable
- Relatively simple installation and setup
- Contact measurement system using inertial sensors
- Suitable for any track gauge
- User friendly software for acquisition and review of measurement data
- Operation through notebook or tablet pc
- Robust yet light weight design
- Extensive product support



Typical calibration curves: CAT and CMM measurements of a 1.8m section of a calibration beam.



CAT-V reporting software showing rail roughness results with associated rail images.

TECHNICAL DATA CAT TROLLEY

Interval at which data are saved	1 or 2 mm	
Measuring speed	3 - 4 kph	Walking speed
Precision of measurements	0.01 µm (0.00001 mm)	Displacement
Accuracy	0.2 µm RMS 10 - 30 mm 0.5 µm RMS 30 - 100 mm 2 µm RMS 100 - 300 mm	
Data storage requirements	With vision ~ 900Mb per KM of rail w/o vision ~2Mb per KM of rail	
Output compatibility	EN 13231-2 2020 and equivalents EN ISO 3095:2013 EN 15610	
Output	Raw and filtered displacements, moving average amplitudes, percentage exceedances, one third octave spectra	Vision report
Image quality	Color or B&W Option for saving images or video	
Image offset and frequency	Offset 0.5m Image frequency 2,3 or 5 images per meter	
Wavelength filters	10 - 30, 30 - 100, 100 - 300, 300 - 1000, 1000 - 3000, 30 - 300, 300 - 3000 mm	
Battery	Instrument runs of Toughbook or Notebook battery	
Weight	~8 kg	
Dimensions	13 cm x 52 cm x 23 cm (CAT-V only) 32 cm x 61 cm x 52 cm (CAT-V in transport case)	