



Vogel & Plötscher

RM 150HR

Rail surface quality measurement [QI]



- Highly accurate measurements
- Proof of quality acc. to EN 13231-2:2020
- Automated measurement procedure



RM 150HR

The re-profiling of rails leads to characteristic machining features on rail surfaces. Depending on their nature and intensity, these characteristics have different effects e.g. to the noise level on the track. Therefore, the quality of the rail surface is quite important and also an objective criterion of re-profiling works.

The Quality index

The Quality Index [QI] has been introduced to provide a standardized, international system for measuring rail surface quality. The metrological determination of the quality index is challenging and requires highly accurate measurement technology. Rail quality measurements have to identify smallest irregularities on the rail surface, even below 10 mm wavelength that is typical for corrugation.

Accepted proof

The high-resolution surface measuring system RM 150HR fulfills these specific requirements, providing an impressive level of repeatability. The rail running surface is scanned over a distance of 150 mm using three measuring pins arranged in parallel. The measurement is performed with a sampling rate of 0.1 mm while the data are displayed in real time. The fully automated measurement procedure takes no more than a few seconds, after which the inspection result (=classification according to the Quality Index) is displayed immediately.

The RM 150HR comes complete with a powerful MiniPad tablet, designed for outdoor use and equipped with our own specially-developed software, as well as a tough storage case with built-in rollers for easy transport.

Technical data

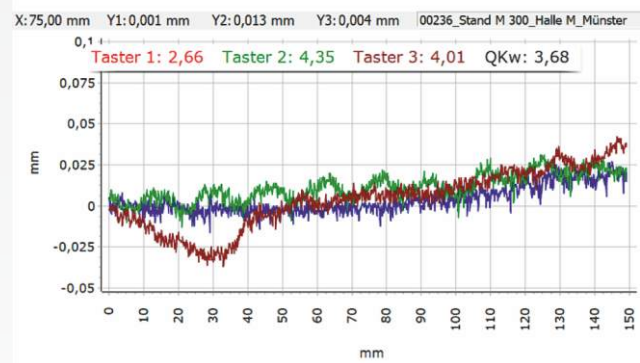
Measurement resolution:	0,1 µm
Sampling rate:	0,1 mm
Measurement length:	150 mm
Measurement height:	up to 1,0 mm
Rail running surface:	20 mm
Length of the support arm:	1454 mm
Dimensions Weight	
> RM 150HR:	~ 556 x 210 x 234 mm 13,2 kg
> Case:	~ 660 x 490 x 335 mm 10 kg



RM 150HR with modular support arm



RM 150HR in its transport case



Evaluation | RMHRcatcher software

Key features

- + Accepted measurement and proof of the rail surface quality [QI]
- + Quality evaluation and classification in compliance with EN 13231-2:2020 and DB Ril 824.8310
- + 3-fold parallel sampling of the rail profile
- + Powerful outdoor tablet computer
- + Approved by DB