



# MÁV Central Rail and Track Inspection Ltd.

## Diagnostic instruments

### TrackScan

The TrackScan ME 4 track geometry and turnout measuring device is an easily operated track diagnostics instrument that is suitable for the measurement of track gauge, superelevation, distortion of the track, alignment, sinking as well as check-rail gauge and flangeway of turnouts. With the measuring prism installed onto the instrument and with the measuring station performing measuring of the prism the device is suitable for accurate geodesic survey of the track centre.



### Rail Stress Diagnostic System (RSDS)

RSDS system is applied in many countries to determine the neutral temperature of the continuously welded rail tracks. The use of the system requires minimum two measurements in the track where the temperature difference is at least 7°C. The RSDS system is compatible with every rail type and the measurements can be executed in new and used tracks as well.

With the improvement of the device and an old process (so called side pull) - used by The Hungarian Railway - the MAV KfV Kft. (MÁV CRTI Ltd.) worked out the reliable method of the RSDS system where on-site calibration is required.

The essence of the method is: the calibration on the product-type of the rail to be measured is executed by the RSDS-C device (bottom picture) on-site in the rail track.

The necessity of these measures is depending on the condition and the stress of the track (whether it is identical or not): if it changes the execution of the side pull process can be practical.



## **GF04 - Rolling Contact Fatigue Crack Measuring Device**

The GF04 device is suitable for rolling contact fatigue crack measurement. The four probes (with changeable stands) of the device - working on eddy current principle - scan the rail surface to be examined.

The measuring results are displayed continuously on the computer of the device. The measured data is represented in real time in time diagram and in vector plan as well. During the operation the operator can sign certain specific areas in the measuring results with marker.



## **HCscan - Hand-operated eddy current device**

HC Scan is suitable for measuring the errors of the rails caused by rolling contact fatigue and for controlling the grinding activity that corrects the errors. The simple and expedient design of the device makes the HC Scan effective to quick detecting of the HC errors and determination of the damage level.



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