



Vogel & Plötscher

PART OF **ROBEL**  
GROUP

# Track measuring devices

Accuracy made in Germany

Track & switch inspection



Track geometry



Rail condition



MessReg CTS II





Vogel & Plötscher's product portfolio includes analogue and digital systems for measuring tracks and switches, rail condition and track geometry.

From the initial idea to the finished product: As a full-service provider with a high level of vertical integration, all components of the measurement technology solutions are realised in-house. Electronics, software and programming are also developed at Vogel & Plötscher. Flexible production structures enable customised solutions as needed.

**The result: Highest precision, maximum reliability and efficiency.**



# Track & switch inspection



**RCA**  
Track gauge and cant measuring device

**Application:** Analogue measuring device for switches and tracks to determine

- track gauge – 56 ½"
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance

Imperial & metric version

Additional equipment options available.  
e. g. fiberglass version



**RCS**  
Track gauge and cant measuring device

**Application:** Analogue measuring device for tracks to determine

- track gauge – 56 ½"
- cant

Imperial & metric version

Additional equipment options available.  
e. g. fiberglass version



**RCFF**  
Track gauge and cant measuring device

**Application:** Analogue measuring device for tracks equipped with spring-loaded mechanism and locking block to determine

- track gauge – 56 ½"
- cant

Imperial & metric version

Additional equipment options available.  
e. g. fiberglass version



# Track & switch inspection



## RCAD

### Switch gauge and cant measuring device

**Application:** Digital measuring device for switches and tracks to determine

- track gauge – 56 ½"
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance

Imperial & metric version

Optional: Measuring data storage and data transfer via Bluetooth (version RCAD-BT5).

Additional equipment options available.  
e. g. fiberglass version



## MessReg PTP II

### Switch inspection system

**Application:** Digital system with measurements being captured point by point incl. outdoor tablet and evaluation software for switches and tracks to measure

- track gauge – 56 ½"
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance
- twist

Imperial & metric version

Additional equipment options available.  
e. g. fiberglass version



## MessReg CDM

### Track and switch inspection system

**Application:** Digital and mobile measuring system incl. outdoor notebook and evaluation software for automatic and continuous capture of

- track gauge – 56 ½"
- cant
- flangeway clearance
- check rail gauge
- back-to-back distance
- twist
- distance
- flangeway depth (optional)

Imperial & metric version

Additional equipment options available.



## HMG

### Frog geometry measuring system

**Application:** Digital measuring system incl. outdoor notebook and evaluation software to identify and evaluate

- running surface geometry of single (free-standing) frogs



## GG 718

### Template for stock rail and switch blade

**Application:** Analogue device to check the

- wear of the switch blade



## MessReg CTS II

### Track measuring system

**Application:** Digital and mobile measuring system incl. outdoor tablet and evaluation software for automatic and continuous capture of

- track gauge – 56 ½"
- cant
- twist
- distance

Imperial & metric version

Optional: GPS connection





# Rail condition



## SKM

### Rail head wear measuring device

**Application:** Analogue measuring device to check

- rail height
- wear of the running edge

Imperial & metric version



## PML

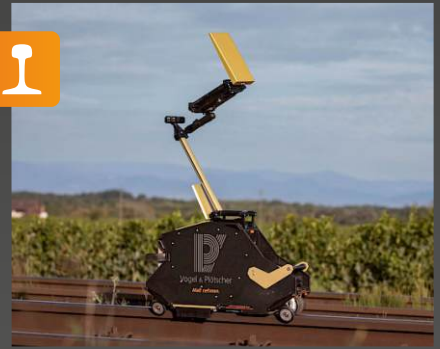
### Laser-based transverse profile measuring system

**Application:** Digital and portable measuring system incl. outdoor tablet and evaluation software to determine

- rail transverse profile
- metal removal

Imperial & metric version

Measuring system and evaluation according to EN 13231-2:2020.



## RSCM

### Rail surface inspection system

**Application:** Digital, mobile inspection system incl. outdoor tablet for detection of rail near-surface defects down to 7 mm, such as

- pitting / metal loss
- rolling contact fatigue (RCF)
- head checks
- squats

Imperial & metric version

Measuring system and evaluation according to EN 61000-6-4:2017 and DB Ril 821.2007V03-36.



## RM 1200 D

### Longitudinal profile measuring system (portable)

**Application:** Digital measuring system incl. outdoor tablet and evaluation software to capture

- rail longitudinal profile (corrugation)
- welding joints

Imperial & metric version

Measuring system and evaluation according to EN 13231-2:2020 and DB Ril 824.8310:2017.



## RMF 1100

### Longitudinal profile measuring system (mobile)

**Application:** Digital measuring system incl. outdoor notebook and software for automatic and continuous capture of

- rail longitudinal profile (corrugation)
- welding joints

Imperial & metric version

Measuring system and evaluation according to EN 13231-2:2020 and DB Ril 824.8310:2017.



## RM 150HR

### Measuring system for rail surface quality

**Application:** Digital and portable measuring system incl. outdoor tablet and evaluation software to determine the

- rail surface quality index [QI]

Imperial & metric version

Measuring system and evaluation according to EN 13231-2:2020.



# Track geometry



## VIG 1300

### Sighting and levelling device

**Application:** Measuring device with Leica optics

- sighting to determine along-track height
- levelling to determine track height



## WM

### Measuring bars for versines „Wuppertaler method“

**Application:** Analogue device to measure the

- versines



## PFIA 1

### General-purpose versine measuring device

**Application:** Analogue measuring device to enable the

- versine measurement inside and outside of a curved track



## SQUARE

### Track square

**Application:** Analogue and separable measuring device to support and check the

- alignment of sleepers



## POINT

### Fixed point measuring device

**Application:** Analogue measuring device to

- measure the distances between fixed points (i.e. signal post, concrete walls, etc) to the track
- check individual level values using an appropriate measuring gauge



## SA 75

### Track clearance measuring device

**Application:** Analogue measuring device to measure the

- distance from two tracks towards each other
- distance and the height difference from one track to a fixed point





# Track geometry



## PLAT

### Platform distance gauge

**Application:** Analogue device to measure the

- distances from center of track or inner rail edge to the platform
- height difference from top of rail to the platform edge or to the top of ramps

Imperial & metric version



## MUL

### Measuring device for lower structure clearance

**Application:** Analogue device to measure

- the lower structure clearance at bridges and platforms
- frost damages at level crossings



## THIRD

### Third rail gauge

**Application:** Analogue fiberglass device manufactured from non-conductive fiberglass to measure the third rail with the following track parameters

- track gauge – 56 ½"
- clearance from third rail to the track
- height difference from the third rail to the track

Imperial & metric version

# Integrated measuring technology



## ROMILL

### Complete solution for rail maintenance

**Application:** Rail treatment system combining the latest milling, grinding, and measuring technology. Measurements include

- rail transverse profile
- rail longitudinal profile (corrugation)
- rail defects



## ROSPECT

### Modular inspection platform

**Application:** Inspection vehicle for automatic

- detection of rail defects via eddy current and ultrasonic
- measurement of
  - rail longitudinal profile (corrugation)
  - track geometry via MessReg IMU (Inertial Measurement Unit)
  - rail transverse profile
  - ground penetration radar



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