



# MiniProf

## Profiling Rail wear

The **MiniProf Rail** provides you with an easy and portable tool to monitor your rail profiles. The fast operation of the **MiniProf** reduces your exposure on the track.

The **MiniProf Rail** is a unique aid for rail grinding operations, providing instant information on metal removal and grinding stone tilt.

The instant and precise calculation of wear parameters enables you to optimise your maintenance. The **MiniProf Rail** is just as useful in the quality control of new rails.



## Rail

The MiniProf Rail instrument is an easy-to-use, lightweight and handheld tool for monitoring cross sectional profiles of the rail. It is attached magnetically to the top of the railhead, using the opposite rail as reference through a telescopic rod.

The instrument can be used on many different types of tracks, including grooved rails, and measures gauge and cant.

A perpendicular device can be mounted on the telescopic rod to ensure a correct alignment with the rail resulting in a better profile and an even shorter exposure.

## Switch

The MiniProf Switch add-on extends a standard MiniProf Rail instrument to measure multiple profiles. It is attached magnetically and can optionally use a telescopic rod for reference to the opposite rail.

With the instrument, each rail in a switch or crossing is measured individually and then combined automatically using positional data from the Switch add-on.

The result is a measurement containing all profiles placed relative to each other allowing measures to be taken between them.

## TwinHead Rail

The normal single head MiniProf Rail instrument is extended to a TwinHead Rail with a fixed beam between two heads. The system is magnetically attached to rails in the track.

The TwinHead is efficient to obtain maximum accuracy when joint profiles are measured without moving the instrument.

The system is ideal for interaction studies between wheels and rails. Applications for a TwinHead are: Contact studies, Optimisation of wheel-rail contact, Steering/curve negotiation. Plug-in for calculating Equivalent Conicity is available.

### MiniProf features

- Magnetic attachment of instrument
- High precision titanium design
- USB connection to instrument
- Embedded battery for PDA and extended use\*
- Shock and water resistant transport case
- Calculation of wear parameters
- Comparison with reference profiles
- Open ASCII file format
- 500-800 points per profile

\*) Battery is optional and only available on USB type instruments

Note: MiniProf is patented under the following patent numbers: 166972 in Denmark, 0569469 in Europe, 3154332 in Japan and 5351411 in USA. The European patent covers the following countries: Austria, Belgium, Switzerland/Liechtenstein, Germany, Spain, France, Great Britain, Italy, The Netherlands and Sweden.

### Specifications

- Accuracy Better than  $\pm 54 \mu\text{m}$
- Repeatability  $\pm 20 \mu\text{m}$
- Weight 0.8 kg
- Speed
  - Measuring rate 10000 points/sec.
  - Profile scanning <5 sec.
  - Processing <1 sec.\*
- Profile file size 20-30 kb/profile\*\*
- Power consumption
  - Standby 0.5 mA
  - In use 110 mA

\*) Processing speed depends on computer. Especially PDA's will be slower.

\*\*) Size depends on configuration and optional compression

### Related products



MiniProf Wheel



MiniProf Brake



Rail Extensions

#### Contact information:

Greenwood Engineering A/S  
H. J. Holst Vej 3-5C  
DK-2605 Brøndby, Denmark

Phone : +45 3636 0200  
Fax : +45 3636 0001  
Web : www.greenwood.dk  
E-mail : miniprof@greenwood.dk

#### Agent / Distributor: