




The Probe

KK&S INSTRUMENTS - April / June 2014 Issue



9 Individual Transmit/Receive Channels
A & B Scan Display and Recording
Self-Testing Function on Probes
GPS Location System
DAC on All Probes

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Front Page – Siui RailRover

The RailRover - Digital Ultrasonic Flaw Detector from Siui, their latest rail test Instrument.

Features of the RailRover Digital Ultrasonic Flaw Detector:

The RailRover Digital Ultrasonic Flaw Detector has 9 individual ultrasonic transmit/receive channels for rail testing and an independent hand held channel for defect confirmation, sizing and manual inspection of the weld or rail foot.



Specifications:

- Channels: 9 + 1
- PRF: 400Hz
- Detection Range: 0-300mm
- Dynamic Range: > 16dB (normal); 2-6dB (suppression)
- Horizontal Linearity Error: < 0.5%
- Vertical Linearity Error: <3%
- Attenuation Range: 10dB +/- 1dB
- Gain Error: <1dB for each 12dB
- Working Voltage: DC12V @ 8W
- Tank Capacity: 20 litres
- Weight (tank MT): 28kg
- Dimensions (LxWxH): 750 x 350 x 800mm

RailRover Display:

Three test modes to choose from; single A scan, multiple A scan & A+B scan. Press one button to switch freely among scan types. All modes have storage and recording function. The images can be replayed directly in the RailRover or saved to a micro SD card.

RailRover Memory:

RailRover can save up to 4GB data files. Each file includes Data, Time, Operator ID, Defect Location, Rail Size & Distance. Alternatively it can store continuous recording using A or B scan format, via a micro SD card.

RailRover GPS:

RailRover can record the testing time, location, working time, speed and walking distance. All this information can be recorded and downloaded to a PC. This information can be printed as a report for direct maintenance.



1: Optional Probe Brush



2: Flaws Detected by the RailRover

**For further features or a price, reply to this email or contact us on
02 88503755 or www.kks.com.au**

Special . FREE Offer

Special April Offer

Purchase any Ultrasonic Cleaner from the “UNISONICS” Australian Made FXP range during April and receive your choice between:

- **1 box of Ultrasonic Enzymatic Tablets – RRP \$66.00**
OR
- **1 Jewellery Cleaner – RRP \$99.00**



= FREE



OR

= FREE



UNISONICS
AUSTRALIA
ULTRASONIC CLEANING

For orders reply to this email or contact us on 02 88503755 or www.kks.com.au

News – LED Borescope & B Scan Thickness Gauge

Henke-Sass, Wolf introduces their new LED Ecoscope which offers outstanding image quality, super-bright illumination, compact design and all at an affordable price.

The super-bright miniature LED at the lens illuminates dark corners. The extremely long service life of the LED means that replacing it is unnecessary. The brightness can be adjusted, so adapting the light intensity to suit different applications is no problem. A powerful lithium-ion battery enables independent operation. Like all Henke-Sass, Wolf endoscopes, the device can also be extended into a complete video-endoscope using the HSW video kit.



Only **\$1,995.00**

Specs: Diameter: 9 mm & 5 mm Working length: 275 mm 350 mm (9mm), (5mm) Direction of view 90°

The latest ultrasonic thickness gauge CTS-59 is released by SIUI.

To keep pace with the leading technology and the market requirements, CTS-59 is the high-end thickness gauge combining the latest techniques, innovative design and complete inspection requirements. The SIUI CTS-59 is suitable for a wide range of applications, especially corrosion inspection.

Only **\$2,990.00** inc. Full Kit

- A or B Scan modes
- Coating Measurement
- Multi layer Measurement
- Portrait or Landscape Screen
- Large 125mm Colour Screen
- 24 Month Warranty (6 Mth Battery / Probes)
- One, Two or Zero point Calibrations
- Single or Double crystal probe usage
- Small Size 105 x 180 x 42mm



Like to get one? Contact us on!

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Application – Ferrite Content

Measurement of the ferrite content in (duplex) steel and weld seams

Components found in industrial plants – whether chemical, energy, petrochemical or other – are often subject to heat, aggressive agents and high pressure. These conditions demand steel types that are extremely corrosion and acid resistant even at high temperatures. When austenitic steels are used, it is important to make sure the ferrite content of the weld seams is within strict norms, because only the optimal ferrite content can ensure the best corrosion protection. For this reason some industries have set standards, specifications and regulations for ferrite content.



Fig.1: Measuring the ferrite content of a weld seam with FERITSCOPE® Helmut Fischer FMP30 and the probe FGAB1.3-Fe

During the welding of joints on e.g. boilers and pipelines made of austenitic steel, the heat causes modifications in the crystal lattice structure which lead to the formation of ferrite. Weld seams that are poor in ferrite do not have as much yield strength, but too much ferrite reduces their fracture toughness ductility and corrosion resistance, so it is important that the welding process produces just the right amount.

With duplex steel in particular, the ferrite content in the heat affected zone can easily deviate from the target values, either due to unsuitable filler materials or through incorrect heat input or cooling during the welding. Only onsite spot measurements can provide assurance that the processing did not change the ferrite content at the expense of crucial mechanical or corrosion-resistance properties.

To meet these requirements FISCHER has developed the handheld FERITSCOPE® FMP30 instrument, which measures the ferrite content using the magnetic induction method and displays it either as percent ferrite content or as a WRC (Welding Research Council) ferrite number. The FERITSCOPE® FMP30 can be outfitted with a variety of probes in special shapes such as axial, angled or for measuring inside centre holes and pipes.



Fig.2: Highest corrosion protection is required, for example, for pipelines and boilers in the chemical or petrochemical industry

The HELMUT FISCHER FERITSCOPE® FMP30 allows for reliable and precise determination of the ferrite content in percent or as a WRC ferrite number and is still THE ONLY ACCURATE FERITSCOPE % & FN ON THE MARKET

Have any questions or like further details, contact us now !

Ph 02 88503755 - contact@kks.com.au - www.kks.com.au