

The Probe

KK&S INSTRUMENTS - October / December 2013 Issue



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Front Page – FMP Range

Coating Thickness Measurement Instruments FMP10, FMP20, FMP30 and FMP40.
The Flexible Solution for Your Measurement Applications



DELTASCOPE® FMP10 or FMP30

For the measurement of non-ferromagnetic metal coatings, e.g., chrome, copper, zinc, as well as paint, lacquer, enamel or plastic coatings on steel and iron.

ISOSCOPE® FMP10 and FMP30

For the measurement of paint, lacquer or plastic coatings as well as anodic coatings applied to non-ferromagnetic metal substrates.

DUALSCOPE® FMP20 and FMP40

Due to automatic substrate material recognition and the integration of both measurement methods, these universal instruments are capable of measuring numerous coatings both on steel and iron and on non-ferromagnetic metals. Through the use of both measurement methods, duplex coatings (lacquer/zinc) on steel can be measured in one measuring procedure and the lacquer and zinc coatings can be displayed separately.

FMP – 10 & 20

- Non-destructive coating thickness measurement.
- Automatic probe recognition
- Automatic substrate material recognition (FMP20)
- USB interface
- Statistical display; mean, standard deviation, min, max.
- Simple adjustment to the geometry of the specimen
- Delivery with PC software FISCHER DataCenter

Typical fields of application
Paint manufacturing and processing
Electroplating plants
Final inspection of goods
Anodizing plants

FMP – 30 & 40

- Non-destructive coating thickness measurement.
- Automatic substrate material recognition (FMP40)
- Memory for up to 20,000 readings
- Up to 100 calibrated applications
- Structuring of the readings in up to 4,000 blocks.
- Graphical presentation.
- Input for tolerance limits & process indices cp and cpk
- Acoustic & visual tolerance limits.
- Delivery with PC software FISCHER DataCenter

Typical fields of application
Automotive industry
Paint manufacturing and processing
Laboratories
Test institutes
Aeronautics industry

Coating Thickness Material Analysis Microhardness Material Testing

fischer

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

Special . Free Calibration

**Purchase a FMP Coating Thickness Gauge
& Get FREE Calibration!**

A Saving of up to -

\$525.00 OFF

October 1st to December 20th



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

News - Hardness Tester

New Sonic GmbH - SonoDur – Made in Germany

The better Way of Hardness Testing
Standardized, robust, simple, fast and precise.

UCI-Method (Ultrasonic Contact Impedance):

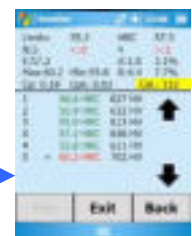
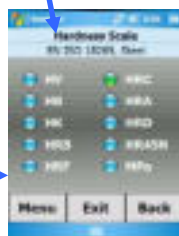
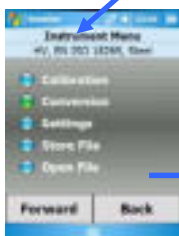
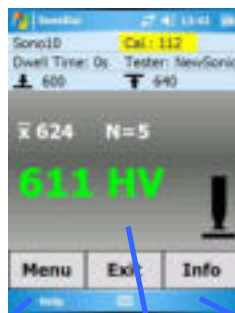
The indentation produced by the Vickers diamond is displayed instantaneously. The loading is done via motor or by hand against a spring. Hardness is calculated when the defined test load is reached. This corresponds to the indentation surface after unloading despite the the test was under load. UCI-Hardness testing is standardized according to ASTM A 1038, DIN 50159-1/-2 and described in VDI/VDE guidelines 2616 Part 1.

Probe identification and test condition with calibration, penetration time, name of operator, upper and lower tolerance gates

Test results with actual measurement value (green = o.k., red = out of tolerance), average and number of tests done

Probe Symbol: Indication of probe position and penetration time after reaching the test force with count down. Manual initiation of measurement cycle by touching the probe symbol

Instrument control: Menu = device menu Exit = Change over to "measurement" or "end of test" resp. Info = Indication of settings and results



Easy menu structure, actual conversions into other hardness scales according to norm and depending on probe used

INFO-Key: All settings and results at a glance where individual false measurements can be corrected at any time

Have any questions or like a price, contact us on -

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Application – Porosity

Porosity testing on pipelines and offshore structures

Ensuring the long-term protection of parts exposed to the extremely harsh conditions found in offshore environments requires intact anti-corrosion coatings. Any void, gap or pore in the coating can significantly shorten the lifetime of protected components. To control the quality of these crucial coatings, porosity testing is mandatory.

Basically all offshore structures – such as ships, oil rigs, cranes, containers and pipelines (including fittings, valves, etc.) – are surface coated to shield them from the harsh environmental conditions found at sea. Because even a tiny pinhole can spoil the protective function, it is necessary to rigorously inspect the coating for integrity. But the most careful visual observation still cannot detect all the pores, cracks and thin spots (less than specified thickness) that can form during the coating process. High-voltage porosity testing is the only truly reliable way to inspect the corrosion-protection coatings on all kinds of offshore structures; the device commonly used for this is often called a “holiday detector”.



Fig.1: Virtually all metal structures in offshore use, such as ships, cranes and containers, wear a protective coating that needs to be inspected to ensure that it can withstand the extreme conditions

The test method is based on the fact that all electrically insulating coating materials have a much higher disruptive strength than air does. High voltage is applied using for example a brush-like electrode which is moved across the surface of the specimen. In the case of a defect (pore, scratch, etc.), a spark-over occurs, which is indicated acoustically and optically by the system.

FISCHER's new POROSCOPE® instrument is specifically designed to fulfil the requirements for coating inspection in offshore environments. The measurement head HV40 (with a voltage range of 8-40 kV) even allows for the testing of thick coatings.



Fig.2: Oil platforms require robust protection against the elements

The portable HV 40 is a sturdy, metal-clad instrument designed for practical application on rugged jobsites. The high voltage is generated inside the probe head, improving both operator safety and ease of use: it eliminates the need to drag long, bulky HV-insulated cables across wet ship decks and tanks – which also makes the instrument far less sensitive to moisture.

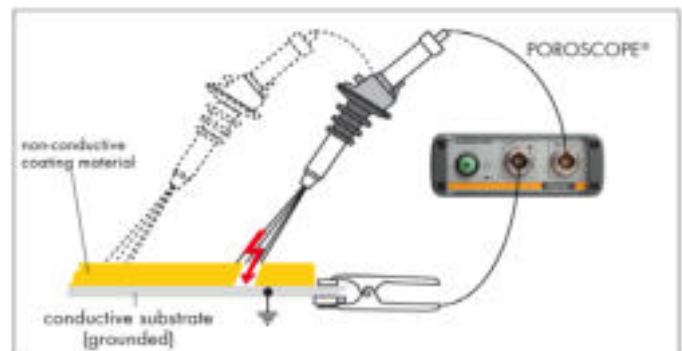


Fig.3: Schematic of how the POROSCOPE® works

The performance of the corrosion protection on any metal structure in an offshore environment is critical to its performance and longevity. The new FISCHER POROSCOPE® HV40 is perfectly suited for the porosity testing required in this field.

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

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