

Soluble Salt Meter



The SSM is a patented design that provides a hand held, automated method for detection of soluble salts on magnetizable surfaces. The SSM combines surface salt extraction and conductivity measurement in one tool, allowing convenient and ergonomic operation. The hand held design provides a self-contained, easily transportable, unit for soluble salt measurements. The SSM and supplied fluid dispenser allow for quick and accurate injection of deionised water, automatic extraction of surface salts and conductivity measurement. The SSM is complete with a backlit LCD display and easy to follow on screen instructions. Up to a 1000 measurements can be stored in the internal memory. This data can be downloaded to any PC and exported in Microsoft® Excel file format for use in any Coating Technical File (CTF) using the supplied software.

The SSM is developed as a direct replacement for the Bresle patch inspection method (ISO 8502-6). It has been validated in accordance with NACE standard SP0508-2008 and has demonstrated equivalence to ISO 8502-9 (the field method for the conductometric determination of soluble salts).

The Soluble Salt Meter kit is supplied in a carry case and includes:

- R** Soluble Salt Meter type HED7263901 for flat surfaces.
- R** Additional measuring heads for curved surfaces (optional)
- R** 3ml fixed volume fluid dispenser
- R** Container for deionised water
- R** Flexible plastic tubing to interconnect SSM and dispenser
- R** Universal AC adapter to charge the Li-ion battery of the SSM
- R** CD with SSMLink software and manual
- R** USB connection cable
- R** 4 sachets of 84 $\mu\text{S}/\text{cm}$ validation fluid
- R** Syringe to inject validation fluid into the SSM
- R** 3 spare seals



The SSM performs a measurement cycle in five easy steps:

- 1) Attach SSM to surface
- 2) Inject deionized water into SSM with one press of the dose bottle
- 3) Press "Start": SSM automatically agitates solution, takes a measurement, displays the result on the LCD screen and stores the data in memory.
- 4) Remove SSM and wipe remaining water from surface
- 5) Clean meter by flushing with deionised water

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The Soluble Salt Meter (SSM) is developed specifically to replace the Bresle Patch in US Navy and IMO test protocols. The SSM exactly duplicates the Bresle Patch process but with a higher accuracy and reproducibility. Measurements are automated and there are no consumables. The complete test sequence requires less than a minute.

In comparison to the Bresle Patch the SSM:

- ; cuts sampling and inspection time
- ; low costs per sample. No consumables.
- ; extracts surface salts more reliably for more accurate readings
- ; minimizes operator error through automatic metered water injection and electronic recording of measurements
- ; improves safety by eliminating the need for syringe with needles
- ; Does not leave sticky residue on the substrate
- ; is paperless with measurement data capture
- ; interfaces via USB with a PC or laptop
- ; supports export of data for use in any Coating Technical File

Specifications

Standards

Equivalent to ISO Standard 8502-9 (Field method for the conductometric determination of water-soluble salts; The Bresle method) in accordance with NACE SP0508-2008.

Measurement Area Attachment Method

1250 mm²(circular) fixed footprint
Magnetic with silicone seal (no effect on surface quality; proven to seal over deep pits)

Water Injection Method Dose

Automated, with simple press of fixed volume dispenser
3 ± 0.05 ml

Measurement Process Steps

5

Total Process Time

60 seconds (Measurement to Measurement)

Measurement Range

0-100 µS/cm

Resolution

1 µS/cm

Measurement Accuracy

± 3 µS/cm

Surface Temperature Range

5 - 50 °C (41 - 122 °F)

Temperature probe accuracy

± 0,3 °C (± 0,54 °F)

Diameter of curvature:

- Standard measuring head
- Measuring head 1
- Measuring head 2
- Measuring head 3

>= 44 inch / 1100mm
26 <=> 42 inch / 650 <=> 1050mm
14 <=> 24 inch / 350 <=> 600 mm
8 <=> 12 inch / 200 <=> 300 mm

Readout

µS/cm or mg/m²

Memory

Holds up to 1000 measurements
(10 batches of up to 100 measurements each)

Connectivity

via USB with PC or laptop

Power Supply

Lithium-ion rechargeable battery

IP Rating

IP54

Dimensions (Instrument only)

21 x 10 x 8 cm

Weight (Instrument only)

780 gr.