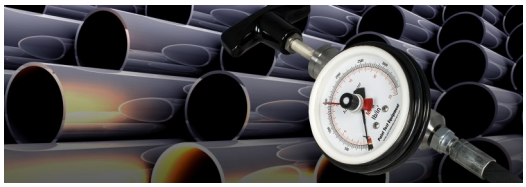
Data Sheet / Instructions

Pinhole Detector



Paint Test Equipment

Coating Thickness **POROSITY** **Adhesion** **Inspection Kit** **Surface Roughness** **Surface Cleanliness** **Gloss**

International Standards

ISO 29601 **ASTM D 5162-A**

ISO 8289 **ASTM G6**

ASTM G62-A

Pinhole Detector

ISO 29601: Paints and varnishes.
Corrosion protection by protective paint systems.
Assessment of porosity in a dry film.

ISO 8289: Vitreous and porcelain enamels.
Low voltage test for detecting and locating defects.

The Pinhole Detector uses the wet sponge principle to detect through-pinholes, cracks and damaged areas on non-conductive coatings on conductive substrates.
These flaws would eventually lead to corrosion and premature failure of the coating.

Operation is by a wet sponge, moistened with a wetting agent, being moved over the coating.
The wetting agent penetrates any pinhole and makes a conductive path through to the substrate.

The Pinhole Detector detects this conductive path and indicates that a pinhole has been detected by sounding an audible alarm and giving a visual warning by a red flashing indicator.

The Pinhole Detector has test voltages of 9 Volts, 67.5 Volts and 90 Volts, which are easily selectable.

The Calibration Certificate with traceability to UKAS is an optional extra.
The Certificate is supplied as hard copy and is available online through the Calibration Portal (under Browse Categories) on our website.
The Calibration Portal lists all your equipment calibrated by Paint Test Equipment, showing the renewal dates and enabling Calibration Certificates to be viewed at any time.

Supplied in an industrial foam-filled Carrying Case with 150mm Sponge Assembly and 5m Earth Cable.

Pinhole Detector Specifications

Part No	Range	Maximum Test Thickness 9V	Maximum Test Thickness 67.5V	Maximum Test Thickness 90V	Accuracy	Sponge Size	Cal Cert Part No
S3002	9V/67.5V/90V	300µm (12mils)	500µm (20mils)	500µm (20mils)	1%	150 x 100 x 30mm	NS002

Pinhole Detector Accessories and Spares					
Part No	**Product**	**Size Metric**	**Size Imperial**	**Extension Size**	**Information**
SA002	Extension Rod	500mm	20″		To extend Sponges for applications where a long reach is required.
SA003	Extension Rod	1000mm	40″		
SA601	Circular Sponge and Assembly	50mm	2″	200mm / 8″	Circular Sponges for the testing of internal diameter of pipes.
SA602	Circular Sponge and Assembly	100mm	4″	200mm / 8″	
SS004	Spare Earth Cable	5m			To connect instrument to the test.
SS005	Spare Sponge Assembly	150mm		200mm / 8″	Cellulose Sponge for general testing.

Operation

Safety

Safety precautions must be strictly adhered to whilst using the Pinhole Detector.

The Pinhole Detector must not be used in any area which could have a combustible or flammable atmosphere, as the test voltage can cause a spark and an explosion could occur.

All items under test must have a secure connection to earth or ground.

Testing

If the coating has been applied recently, it should be cured in accordance with the manufacturer's instructions before testing.
In the absence of manufactures instructions the coating should be cured for at least 10 days.

The surface of the coating should be free of oil, dirt and other contaminants before testing.

Connect the plugs on the Pinhole Detector Handle and Earth Cable to the colour-coded sockets on the base of the instrument.

Connect the Earth Cable to the base metal of the item under test.
It is essential that the base metal of the item being tested is also connected to a true earth.

Switch the Pinhole Detector on and select the test voltage of 9V, 67.5V or 90V using the mode keypad.
The test voltage should normally be 90V.
A test voltage of 9V can be used for coatings with a mean thickness of up to 300µm.

Wet the Sponge with water containing a wetting agent.
Squeeze the Sponge so that the excess water is removed and the Sponge does not drip.

Place the Sponge on the coating to be tested and move over the full area of the coating, ensuring a wet interface is maintained between the Sponge and the surface.

If a pinhole is detected, the water will make a conductive path through the pinhole in the coating to the metal substrate, the alarm will sound and the red flashing fault indicator will illuminate.
The flaw can now be marked for repair and further testing can be resumed.

To switch the Pinhole Detector off, press the mode keypad until the selectable voltages indicators are not illuminated.

Replacing Battery

When the battery requires replacement, the red Lo Bat indicator will illuminate.
To replace, remove the cover located on the rear of the instrument.
Replace with an alkaline PP3 battery, ensuring correct polarity.

Paint Test Equipment is a global leader in the manufacture of specialist test equipment specifically for the industrial painting and coating industries for the protection of steel assets from corrosion, mainly in the oil, renewables and steel construction sectors. With over 30 years experience and extensive knowledge in delivering practical and cost effective solutions in supporting our customers with world class products for corrosion prevention.

Prevention of corrosion on steel is essential to extend the asset lifetime, optimise performance and minimise downtime for expensive maintenance work. Using Paint Test Equipments technologies and innovations in our unrivalled portfolio of products ensures that industrial coatings are applied to the highest achievable quality standards of ISO compliance.

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