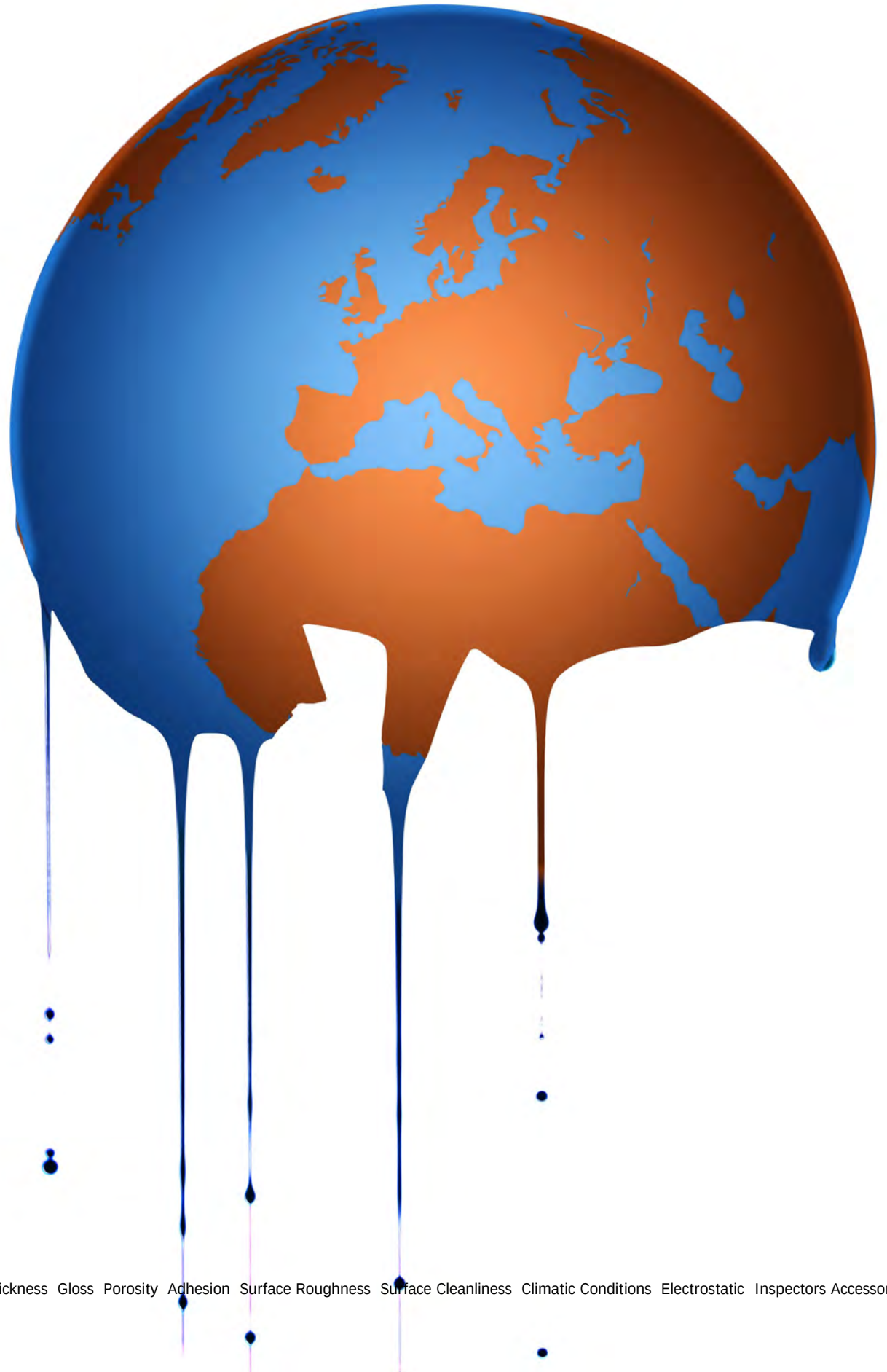
Paint Test Equipment



Coating Thickness Gloss Porosity Adhesion Surface Roughness Surface Cleanliness Climatic Conditions Electrostatic Inspectors Accessories

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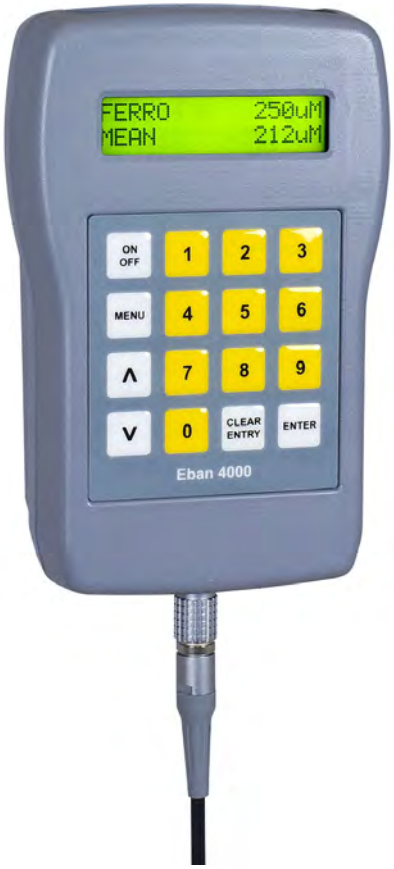


Complies with International Standards

Ferrous Models	Non-Ferrous Models	Ferrous & Non-Ferrous
ISO 2178	ISO 2360	ASTM E 376
ISO 2808-6Aa	ISO 2808-6Ba	All of the Ferrous and Non-Ferrous list
BS 5411-11	BS 5411-3	
BS 3900-C5-6Aa	BS 3900-C5-6Ba	
BS EN ISO 1461	BS 5599	
ASTM B 499	ASTM D 1400	
DIN 5098	ASTM B 244	
prEN ISO 19840	DIN 50984	

Eban 4000

The Eban 4000 Coating Thickness Meter easily measures all coatings on metallic substrates using the magnetic induction or eddy current principles, ensuring the correct coating thickness has been applied.

One of the most advanced Coating Thickness Meters on the market, the Eban 4000 uses up-to-date technology and offers a small, portable instrument incorporating all the required user functions.

Available in models of Standard and Top. All functions are easily accessible through a menu-driven back-lit display.

Standard Models

Calibration
Calibrate on any blasted profile or shape of substrate using the Calibration Foils supplied.

Calibration Memories
The calibration settings for different substrates and shapes can be stored and recalled when required, saving time on recalibration.

Statistics
Continually shows Mean, Number of Readings, Max/Min, Coefficient of Variation and Standard Deviation.

Hi/Lo Limits
Pass and fail with audible and visual alarm.

Metric/Imperial
Select the measurement units that you require.

Top Models

All the functions of Standard Models plus the following:

Batching
Measurements that are taken can be stored into batches which incorporate batch number, unique job number, and date and time. You can also go back to previous batches and look at the statistics and add or cancel readings from previous batches.

Download
Allows all measurements, statistics and out-of-limit readings to be downloaded to a computer either by batch number or job number into Microsoft Word or Excel. Your company name can appear on every download if required.

Calibration Certificates having traceability to UKAS are available for both the Eban 4000 and the Calibration Foils.

All models are supplied with flexible lead Measuring Probes, set of 8 Calibration Foils, Zero Disks and foam-filled Carrying Case. Top Models also come with USB Download Cable and Download Software.

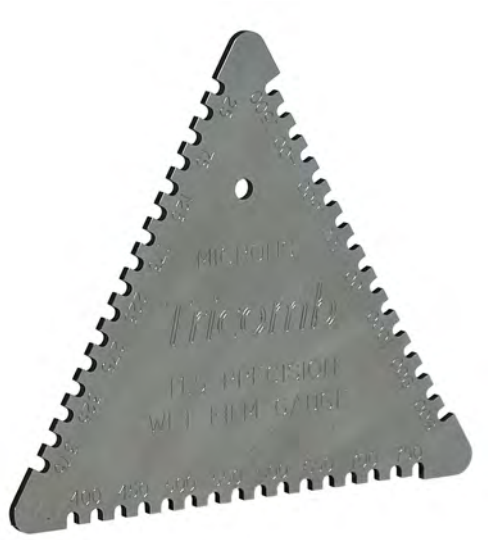
Eban 4000 Probe Specifications

Probe	Probe Diameter	Working Headroom	Minimum Convex Radius	Minimum Concave Radius	Minimum Sample Area
Ferrous Straight 0–1000µm	9mm / 360mils	75mm / 3″	4mm / 160mils	25mm / 1″	4mm / 160mils
Ferrous Right Angle 0–1000µm	9mm / 360mils	40mm / 1.5″	4mm / 160mils	25mm / 1″	4mm / 160mils
Ferrous Straight 0–2000µm / 0–5mm	15mm / 600mils	75mm / 3″	10mm / 400mils	50mm / 2″	10mm / 400mils
Ferrous Straight 0–20mm	50mm / 2″	150mm / 6″	100mm / 4″	500mm / 20″	100mm / 4″
Non-Ferrous Straight 0–1000µm	10mm / 400mils	75mm / 3″	5mm / 200mils	25mm / 1″	5mm / 200mils
Non-Ferrous Right Angle 0–1000µm	10mm / 400mils	40mm / 1.5″	5mm / 200mils	25mm / 1″	5mm / 200mils
Non-Ferrous Straight 0–2000µm	10mm / 400mils	75mm / 3″	5mm / 200mils	25mm / 1″	5mm / 200mils

Eban 4000 Specifications

Part No	Probe Type	Model Type	Substrate	Range Metric	Range Imperial	Resolution Metric	Resolution Imperial	Accuracy	Cal Cert Part No	Foil Cert Part No
C4001	Straight	Standard	Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4002	Right Angle	Standard	Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4003	Straight	Standard	Ferrous	0–2000µm 0–5mm	0–80mils 0–200mils	1µm 0.01mm	0.1mil	±1 to 3%	NC001	NC002
C4004	Straight	Standard	Ferrous	1–20mm	40–800mils	0.1mm	0.1mil	±1 to 5%	NC001	NC002
C4005	Straight	Standard	Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4006	Right Angle	Standard	Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4007	Straight	Standard	Non-Ferrous	0–2000µm	0–80mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4008	Straight	Standard	Ferrous and Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4009	Right Angle	Standard	Ferrous and Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4010	Straight	Standard	Ferrous and Non-Ferrous	F 0–2000µm F 0–5mm N 0–2000µm	0–80mils 0–200mils 0–80mils	1µm 0.01mm 1µm	0.1mil	±1 to 3%	NC001	NC002
C4101	Straight	Top	Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4102	Right Angle	Top	Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4103	Straight	Top	Ferrous	0–2000µm 0–5mm	0–80mils 0–200mils	1µm 0.01mm	0.1mil	±1 to 3%	NC001	NC002
C4104	Straight	Top	Ferrous	1–20mm	40–800mils	0.1mm	0.1mil	±1 to 5%	NC001	NC002
C4105	Straight	Top	Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4106	Right Angle	Top	Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4107	Straight	Top	Non-Ferrous	0–2000µm	0–80mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4108	Straight	Top	Ferrous and Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4109	Right Angle	Top	Ferrous and Non-Ferrous	0–1000µm	0–40mils	1µm	0.1mil	±1 to 3%	NC001	NC002
C4110	Straight	Top	Ferrous and Non-Ferrous	F 0–2000µm F 0–5mm N 0–2000µm	0–80mils 0–200mils 0–80mils	1µm 0.01mm 1µm	0.1mil	±1 to 3%	NC001	NC002

Ferrous models will measure all non-ferromagnetic coatings on steel and iron.
Non-Ferrous models will measure all non-conductive, non-ferromagnetic coatings on conductive Non-Ferrous substrates.



Complies with International Standards	
ISO 2808-7B	ASTM D 4414-A
BS 3900-C5-7B	NF T30-125

Tricomb Stainless

The Tricomb Wet Film Gauge ensures the quality control of the paint thickness while the coating is still wet. Very useful on non-metallic substrates where the coating can only be measured destructively when dry.

The Tricomb is precision machined in stainless steel, ensuring that the highest accuracy of wet film thickness measurement is always obtained.

The wide measurement range and high resolution of measurement will ensure that the Tricomb will cater for all of the wet film measurements that the user requires.

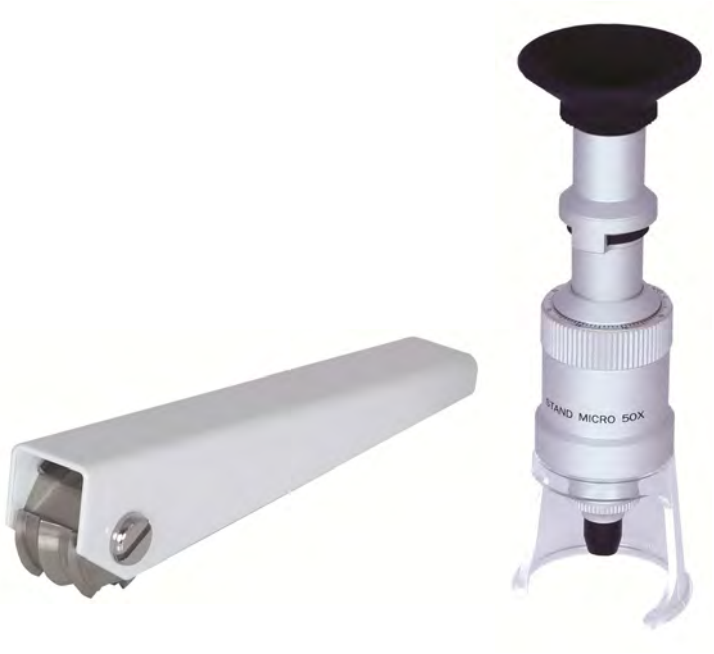
Easy to use, place the Tricomb into the paint so it touches the substrate. Then remove the Tricomb. The coating thickness can now be observed by looking at the base of the teeth. The gauge can then be easily cleaned with solvents.

All gauges have dual Micron and Thou / Mil scales.

CE

Tricomb Specifications

Part No	Range Metric	Range Imperial	Number of Teeth	Range of Teeth	Conformance Cert Part No
W2001	25–1500µm	1–59mils	45	25, 50, 75, 100, 125, 150, 175, 200, 225, 250, 275, 300, 375, 400, 425, 450, 475, 500, 525, 550, 575, 600, 625, 650, 675, 700, 725, 750, 800, 850, 900, 950, 1000, 1050, 1100, 1150, 1200, 1250, 1300, 1350, 1400, 1450, 1500µm	NWC001
W1003	50–5000µm	2–100mils	45	50, 100, 150, 200, 250, 300, 350, 400, 450, 500, 550, 600, 650, 700, 750, 800, 850, 900, 950, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1700, 1800, 1900, 2000, 2100, 2200, 2300, 2400, 2500, 2600, 2700, 2800, 2900, 3000, 3100, 3200, 3300, 3400, 3500, 3750, 4000, 4250, 4500, 4750, 5000µm	NWC001



Complies with International Standards	
ISO 2808-5B	ASTM D 4138
BS EN 3900-CS-5B	

Paint Evaluation Tool

A precision instrument that gives an exact measurement of the paint thickness on virtually all substrates, for example, coatings on Concrete, Plastic, Wood, etc. Individual coats can also be measured in multiple-coated applications.

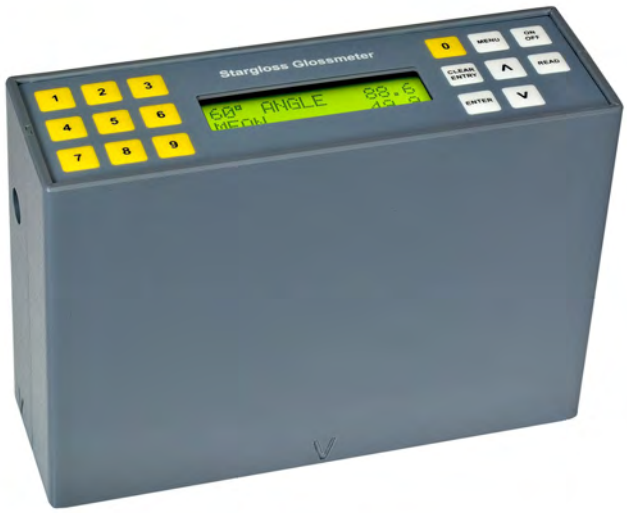
The Paint Evaluation Tool has a precision-ground, hardened steel cutting head incorporating three cutting angles, catering for coatings from 2µm to 2000µm (0.1mil to 79mils).

Measurements are made by dragging the cutting edge of the selected cutter across the coating, ensuring the cutter penetrates through to the substrate. Using the Microscope, measure one side of the angled cut with the graticule to get the exact coating thickness.

Supplied with Microscope, Pen Light and foam-filled Carrying Case.

Paint Evaluation Tool Specifications

Part No	Substrate	Range Angle 5.7°	Range Angle 26.6°	Range Angle 45°	Resolution Angle 5.7°	Resolution Angle 26.6°	Resolution Angle 45°	Conformance Cert Part No
D1002	Any Substrate	2–200µm 0.1–7.9mils	10–1000µm 0.5–39mils	20–2000µm 1–79mils	2µm 0.1mil	10µm 0.5mil	20µm 1mil	NC001



Complies with International Standards	
ISO 2813	ASTM D 584
ISO 7668	ASTM D4039
BS 6161-12	DIN 67530
BS 3900-D5	AS 1580-602.2
ASTM D 523	ECCA T2
ASTM D 1455	

Stargloss

Gloss and Haze measurement is essential where an aesthetic appearance of the coating finish is required and to ensure uniformity of the surface finish.

The gloss value is determined by directing a light, which has a similar wavelength to the human eye, at the test surface and measuring the amount of specular reflection. Gloss is measured with angles of 60° and 20°. The 60° angle is universal for all applications. The 20° angle gives improved differentiation of measurement on high-gloss coatings above 70 gloss units.

Haze measurement is required where high-gloss surfaces have a low reflection contrast. The Haze measurement is the difference between readings taken with the 20° and 60° angles, complying with International Standard ASTM D4039. The Stargloss will automatically calculate the Haze reading. The Haze function is only available on combined 60°/20° models.

Small and portable, the Stargloss is one of the most advanced Gloss Meters available. By using tungsten halogen lamps and optical filters the light source has a similar spectro-response to the human eye, giving true human photo-optic performance, which is essential for ensuring exact compliance to International Standards. Optical bench accuracy and stability are obtained by the optics being set in a precision-engineered aluminium block.

Available in models of Standard and Top. All functions are easily accessible through a menu-driven back-lit display.

Standard Models

Calibration
Calibrate on the supplied Gloss Standard or any other value Gloss Standard.

Statistics
Continually shows Mean, Number of Readings, Max / Min, Coefficient of Variation and Standard Deviation.

Hi / Lo Limits
Pass and fail with audible and visual alarm.

Top Models

All the functions of the Standard Model plus the following:

Batching
Measurements that are taken can be stored into batches which incorporate batch number, unique job number, and date and time. You can also go back to previous batches and look at the statistics and add or cancel readings from previous batches.

Download
Allows all measurements, statistics and out-of-limit readings to be downloaded to a computer either by batch number or job number into Microsoft Word or Excel. Your company name can appear on every download if required.

Stargloss Specifications

Part No	Model Type	Angle	Range	Resolution	Repeatability	Accuracy	Cal Cert Part No	Standard Cert Part No
G2001	Standard	60°	0–100GU	0.1GU	0.2GU	±1%	NG001	NG002
G2002	Standard	60°/20°/Haze	0–100GU 0–100HU	0.1GU 0.1HU	0.2GU 0.2HU	±1%	NG001	NG002
G2101	Top	60°	0–100GU	0.1GU	0.2GU	±1%	NG001	NG002
G2102	Top	60°/ 20°/Haze	0–100GU 0–100HU	0.1GU 0.1HU	0.2GU 0.2HU	±1%	NG001	NG002

Calibration Certificates having traceability to BAM are available for both the Stargloss and the Calibration Standard.

All models are supplied in an Industrial Foam-Filled Carrying Case with Gloss Standard and Charger. Top Models also come with USB Download Cable and Download Software.

Operation

Switch On / Off

To switch the Stargloss on, press the On / Off keypad for approximately 1 second. The display will show the last reading taken. The instrument will automatically switch off after approximately 5 minutes if no readings have been taken. The instrument can also be switched off by pressing the On / Off keypad again.

Taking Readings

Observe the location of the oval measuring hole (25mm x 12mm) located on the base of the instrument, which is the location where the gloss readings will be made. The location is identified by the arrows on the front and each side of the case. Place the Stargloss onto the object to be measured and press the Read keypad. The reading will be held on the display until another reading has been taken. Always ensure that the surface being measured is flat, and large enough to cover the oval measuring hole.

Readings on the same surface can vary if the light angle onto the surface is changed (the light source is from the left when looking at the front of the Stargloss).

Menu

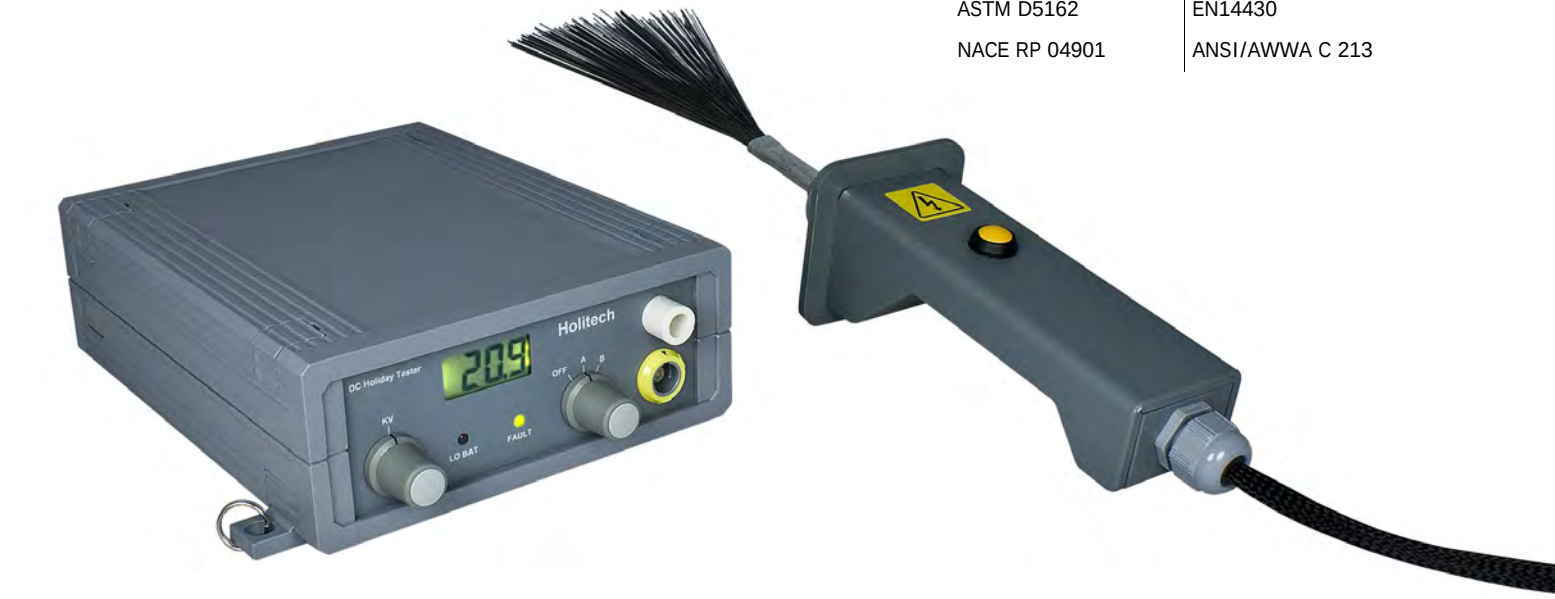
All functions are accessed through a menu-driven display in the categories shown below. To scroll through the menus use the up and down arrows and enter where you see the arrow symbol on the right of the display. When you are in the Menu and you want to exit, press the Menu button again and the instrument will revert back to normal measurement mode.

Angle

This function is only available on combined 20 / 60 / Haze models. On Stargloss Top Models with batching turned on, when the angle is being changed there will be a request for Enter Job No, as different angles cannot be contained in the same batch.

Select 60°	The 60° angle is universal for all applications.
Select 20°	The 20° angle gives improved differentiation of measurement on high-gloss coatings above 70 gloss units.
Select Haze	Haze measurement is required where high-gloss surfaces have a low reflection contrast.

Complies with International Standards	
ISO 2746	NACE RP 0274
BS 1344-11	NACE RP 0188
ASTM G 6	JIS G3491
ASTM G 62	JIS G3492
ASTM D4787	AS 3894.1
ASTM D5162	EN14430
NACE RP 04901	ANSI/AWWA C 213



Holitech

The Holitech is a DC Holiday Tester that tests and detects pinholes and flaws in insulated coatings on conductive substrates. Where coatings have to provide an effective safeguard against corrosion, it is essential that any pinholes or flaws that will eventually lead to corrosion are detected at the earliest possible stage, preferably immediately after the coating application.

Operation is by a test voltage being applied to the coating by moving a brush electrode across the surface and where there is either a pinhole or flaw, the voltage will spark through the coating, a red indicator will flash and an audible alarm will sound. The detected flaw can be marked for subsequent repair, and testing resumed for the remaining surface area.

The Holitech is a compact and lightweight instrument, which can easily be carried by the operator with the supplied Neck Strap.

The test voltage is of high impedance, allowing for safe testing, and does not damage or cause burn marks to the coating.

Calibration Certificates are available with traceability to UKAS.

Coatings on concrete as well as steel and iron substrates can be tested.

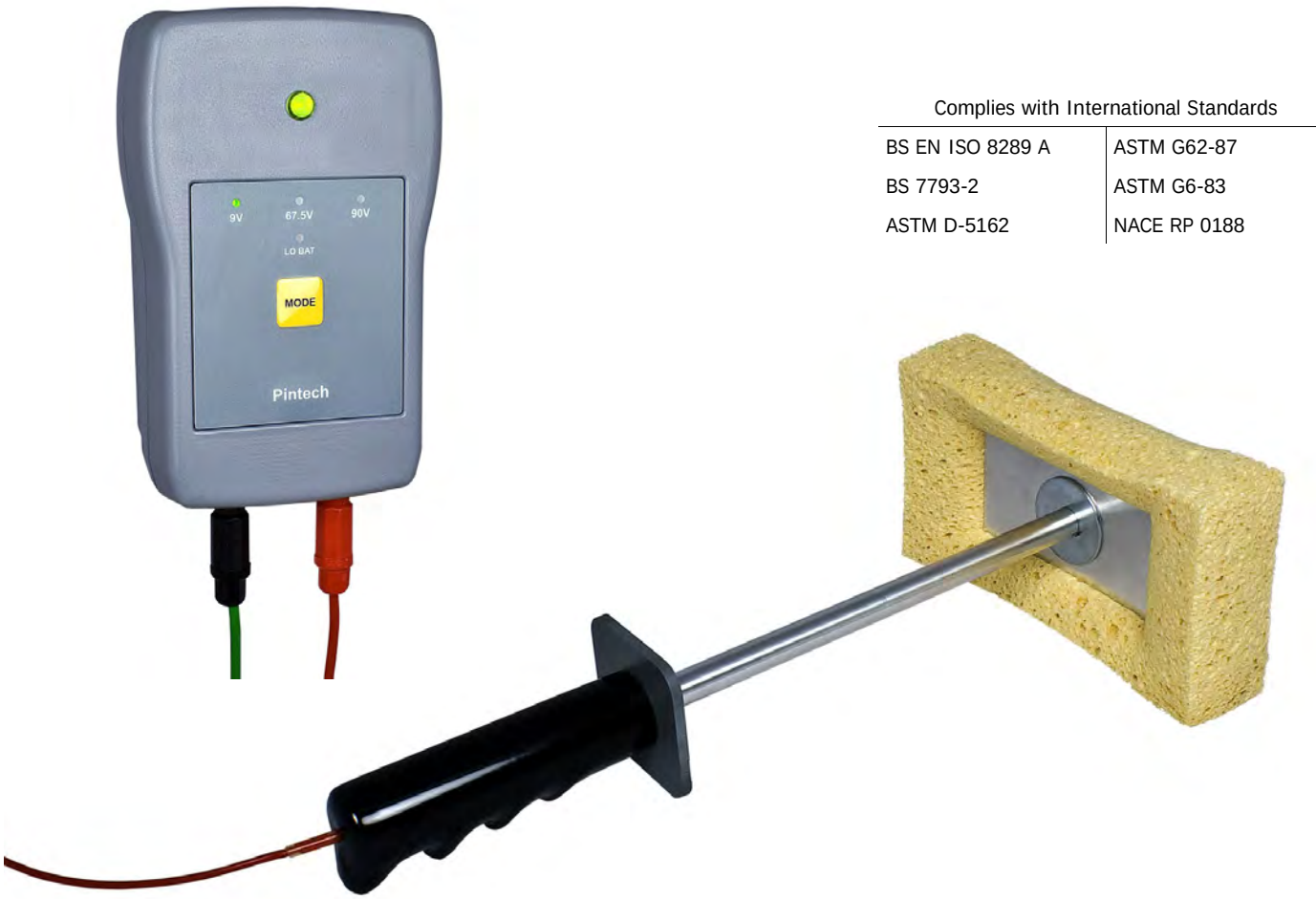
All models are supplied with High Voltage Probe, Band Brush, Earth Cable, Neck Strap and foam-filled Carrying Case.

Holitech Specifications

Part No	Range	Approximate Maximum Test Thickness	Resolution	Accuracy	Cal Cert Part No
S4001	0.5–6kV	1500µm (60mils)	0.01kV	±1%	NS001
S4002	1–20kV	5000µm (200mils)	0.1kV	±1%	NS001
S4003	1–30kV	7500µm (300mils)	0.1kV	±1%	NS001

Holitech Accessories

Part No	Product	Size Metric	Size Imperial	Extension Size	Information
SA002	Extension Rod	500mm	20″		To extend electrodes for applications where a long reach is required.
SA003	Extension Rod	1000mm	40″		
SA502	Broad Brush 45° Angle	200mm	8″	200mm / 8″	Brass-filled Brushes for the testing of coatings on large flat areas.
SA503	Broad Brush 45° Angle	500mm	20″	200mm / 8″	
SA505	Conductive Rubber 180° In Line	200mm	8″	200mm / 8″	Conductive Rubber Electrodes for the testing of coatings on large flat areas.
SA515	Conductive Rubber 180° In Line	450mm	18″	200mm / 8″	
SA506	Conductive Rubber Right Angle	200mm	8″	200mm / 8″	
SA507	Conductive Rubber Right Angle	450mm	18″	200mm / 8″	
SA302	Circular Brush and Assembly	51mm	2″	200mm / 8″	Brass-filled Circular Brushes for the testing of coatings on the internal diameter of pipes. All Brushes come complete with the connector assembly.
SA303	Circular Brush and Assembly	76mm	3″	200mm / 8″	
SA304	Circular Brush and Assembly	102mm	4″	200mm / 8″	
SA306	Circular Brush and Assembly	152mm	6″	200mm / 8″	
SA308	Circular Brush and Assembly	203mm	8″	200mm / 8″	
SA310	Circular Brush and Assembly	254mm	10″	200mm / 8″	
SA312	Circular Brush and Assembly	305mm	12″	200mm / 8″	
SA404	Rolling Spring	102mm	4″	Order SA490	3/4″ phosphor bronze Rolling Spring for the testing of coatings on the external diameter of pipes. All Rolling Springs require the SA490 Rolling Spring Connector Assembly. One assembly can be used on multiple Rolling Springs. The SA491 Rolling Spring Pusher Assembly is suitable for larger Rolling Springs, to assist the travel of the spring along the pipe.
SA406	Rolling Spring	152mm	6″	Order SA490	
SA408	Rolling Spring	203mm	8″	Order SA490	
SA410	Rolling Spring	254mm	10″	Order SA490	
SA412	Rolling Spring	305mm	12″	Order SA490	
SA414	Rolling Spring	356mm	14″	Order SA490	
SA416	Rolling Spring	406mm	16″	Order SA490	
SA418	Rolling Spring	457mm	18″	Order SA490	
SA420	Rolling Spring	508mm	20″	Order SA490	
SA424	Rolling Spring	610mm	24″	Order SA490	
SA430	Rolling Spring	762mm	30″	Order SA490	
SA436	Rolling Spring	914mm	36″	Order SA490	
SA442	Rolling Spring	1067mm	42″	Order SA490	
SA448	Rolling Spring	1220mm	48″	Order SA490	
SA490	Rolling Spring Connector Assembly			200mm / 8″	
SA491	Rolling Spring Pusher Assembly			200mm / 8″	
SA101	Earth Cable	10m			Larger testing area Earth Cables.



Complies with International Standards	
BS EN ISO 8289 A	ASTM G62-87
BS 7793-2	ASTM G6-83
ASTM D-5162	NACE RP 0188

Pintech

The Pintech is a multi-voltage Pinhole Detector that 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 Pintech 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 flaw can now be marked for repair and further testing can be resumed.

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

Calibration Certificates are available with traceability to UKAS.

Supplied with 150mm Broad Sponge Assembly, 5m Earth Cable and foam-filled Carrying Case.

Pintech 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

Pintech Accessories

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″	
SA701	Flat Sponge and Assembly	200mm	8″	200mm / 8″	For coatings on large flat areas.
SA102	Earth Cable	10m			Larger testing area Earth Cables.

Operation

Safety

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

The Pintech 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

Connect the plugs on the Pintech handle and earth cable to the colour-coded sockets on the base of the instrument. Fit the sponge assembly to the Pintech handle.

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.

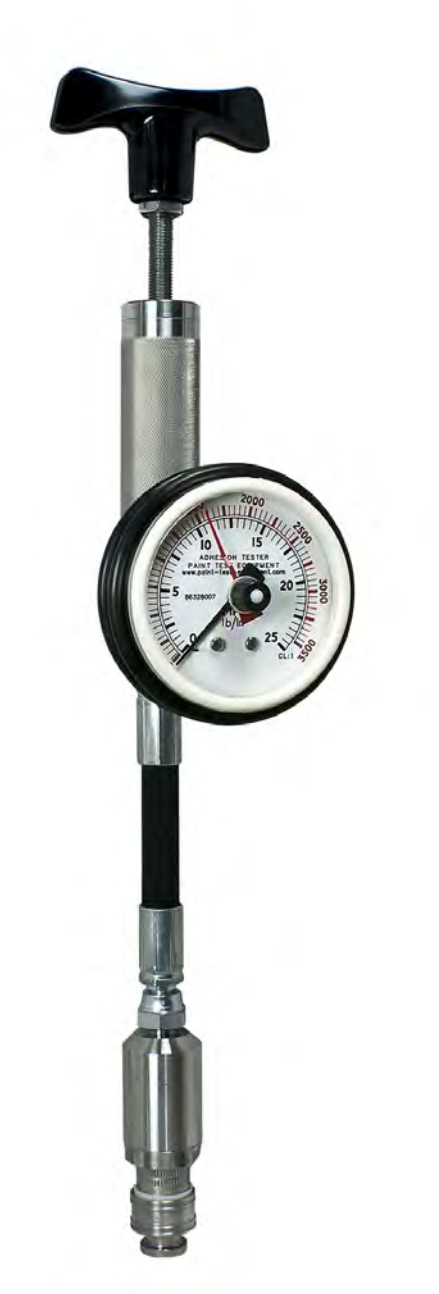
Switch the Pintech on and select the test voltage of 9V, 67.5V or 90V using the Mode keypad. Wet the sponge with water containing a wetting agent, then place the sponge on the coating to be tested and move over the full area of the coating. If a pinhole is detected, the water will make a conductive path 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 Pintech 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.

CE



HATE

The HATE Hydraulic Adhesion Tester is one of the most accurate and versatile adhesion testers currently available. It measures the adhesion bond strength of applied coatings with ease. and precision.

The adhesion is measured by the tensile pull on a Dolly glued to the coating surface. The force is applied through the centre of the Dolly by a hydraulically loaded pin. This ensures an exactly central point-loading of the force.

Adhesion values are recorded by a pressure gauge giving a 1:1 pressure reading. This is made possible as the net surface area of the Dolly is equal to the surface area of the hydraulic piston bore. Pressure reacted by the Dolly is the same as the pressure in the bore and is transmitted directly to the pressure gauge. The maximum value achieved at pull-off is recorded by a reset needle that is easily read on the large scale of the pressure gauge.

Connection to the stainless steel Dolly is easily made with a snap-on connector. The pressure gauge is swivel-mounted allowing testing in any position. This is significant as coating breakdown invariably starts at positions that were difficult to reach during surface preparation and application.

The HATE can test both external and internal surfaces of pipes. Because the load reacts internally within the Dolly, curved surfaces of pipes can be easily tested. To obtain a uniform tensile load, curved Dollies machined to match the diameter under test need to be used. External diameters as small as 25mm (1″) and internal diameters as small as 150mm (6″) can be tested.

Ensures effective quality control with a non-destructive capability. To allow the specification minimum to be proven, the Dolly can be removed using the heated Dolly remover supplied. If necessary, the Dolly can be left in place for testing during service as part of a planned maintenance programme.

Supplied in a Industrial Foam-Filled Carrying Case with 5 Flat Dollies, Adhesive and Dolly Remover.

Complies with International Standards

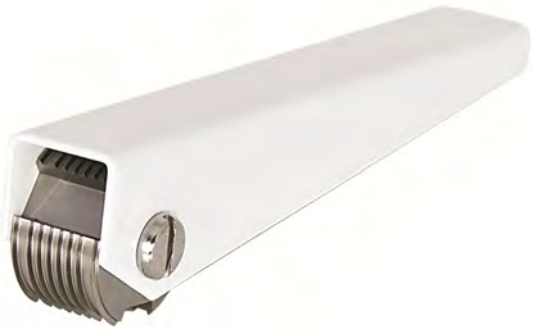
ISO 16276-1	ASTM D 4541
ISO 4624	NF T30-606

HATE Specifications

Part No	Head Type	Operating Range PSI	Operating Range MPa	Accuracy	Cal Cert Part No
X1003	Standard	0–2600	0–18	±1%	NX001
X1004	Right Angle	0–2600	0–18	±1%	NX001

HATE Accessories

Part No	Product	Pipe Size Metric	Pipe Size Imperial	Use with HATE Model	Information
XA201	Concave Dolly	51mm	2″	X1003 / X1004	For external pipe testing.
XA202	Concave Dolly	76mm	3″	X1003 / X1004	
XA203	Concave Dolly	102mm	4″	X1003 / X1004	
XA204	Concave Dolly	152mm	6″	X1003 / X1004	
XA205	Concave Dolly	203mm	8″	X1003 / X1004	
XA206	Concave Dolly	254mm	10″	X1003 / X1004	
XA207	Concave Dolly	305mm	12″	X1003 / X1004	
XA208	Concave Dolly	356mm	14″	X1003 / X1004	
XA209	Concave Dolly	406mm	16″	X1003 / X1004	
XA210	Concave Dolly	457mm	18″	X1003 / X1004	
XA211	Concave Dolly	508mm	20″	X1003 / X1004	
XA212	Concave Dolly	610mm	24″	X1003 / X1004	
XA213	Concave Dolly	762mm	30″	X1003 / X1004	
XA214	Concave Dolly	914mm	36″	X1003 / X1004	
XA215	Convex Dolly	152mm	6″	X1004	For internal pipe testing.
XA216	Convex Dolly	203mm	8″	X1004	
XA217	Convex Dolly	254mm	10″	X1004	
XA218	Convex Dolly	305mm	12″	X1004	
XA219	Convex Dolly	356mm	14″	X1004	
XA220	Convex Dolly	406mm	16″	X1004	
XA221	Convex Dolly	457mm	18″	X1004	
XA222	Convex Dolly	508mm	20″	X1003 / X1004	
XA223	Convex Dolly	610mm	24″	X1003 / X1004	
XA224	Convex Dolly	762mm	30″	X1003 / X1004	
XA225	Convex Dolly	914mm	36″	X1003 / X1004	
XA101	Flat Dolly			X1003 / X1004	For flat substrate testing.



Complies with International Standards	
BS 3900 E6	DIN EN ISO NF 2409
ASTM D3359	ECCA T-6

Cross Hatch Cutter

The Cross Hatch Cutter allows an assessment to be made of the adhesion resistance of coatings to separation from substrates when a right-angled lattice pattern is cut into the coating and penetrates through to the substrate.

The coating thickness determines the Cutter size used. The 1mm Cutter is suitable for coatings under 60 microns. The 2mm Cutter is suitable for coatings over 60 microns.

Simple operation, each Cross Hatch Cutter has 6 cutting blades spaced either 1mm or 2mm apart. Make one cutting pass through to the substrate. This makes 6 cuts in the coating. A second pass at 90° makes a square lattice pattern. Apply Adhesive Tape over the cut lattice section and within 5 minutes remove Tape. Classify the cut area with the Viewing Lens according to the relevant national standard classification guide.

Multiple coatings can be tested for the assessment of the resistance to separation of individual layers of the coating from each other.

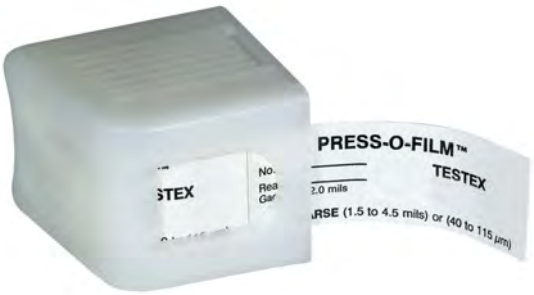
The hardened tool steel cutting blades are precision-ground with 6 cutting sides, so that when one cutting side becomes blunt there are a further 5 cutting sides to use.

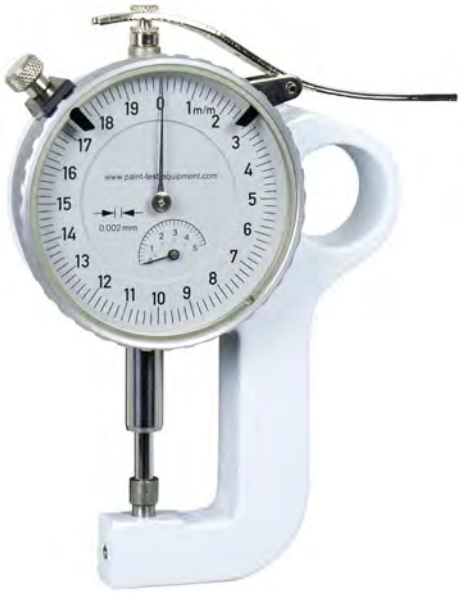
Supplied in a foam-filled Carrying Case.

The Cross Hatch Cutter is also available in a Test Kit, comprising Adhesion Test Tape (25mm) and a x3 Illuminated Magnifier.

Cross Hatch Cutter Specifications

Part No	Cutter Size Metric	Cutter Size Imperial	Coating Thickness	Number of Teeth	Conformance Cert Part No
X2001	1mm	40mils	Under 60µm	8	NXC01
X2002	2mm	80mils	Over 60µm	8	NXC01
X2003	Cross Hatch Cutter Kit (1mm Blade)				NXC01
X2004	Cross Hatch Cutter Kit (2mm Blade)				NXC01
XA001	Adhesion Test Tape 25mm (1″) 60m Roll (ISO2409)				NXC03
XA002	Adhesion Test Tape 50mm (2″) 60m Roll (ISO2409)				NXC03





Complies with International Standards	
ISO DIS 8503-3	ASTM D 4417-C
BS 7079-C5	NACE RP 0287-95

Testex Tape

A unique replica technique and a simple snap gauge makes possible accurate, low-cost blast-surface profile measurements. Testex makes surface replicas easy to obtain and produces average maximum peak-to-valley readings that ensure optimum blasting effectiveness. Replicas can be retained for future needs.

The accuracy of Testex measurements is due to an innovative two-level film that can produce virtually exact replicas of the abrasive blasted surfaces. The film is available in two different thickness grades to cover the most common range of blasted profiles.

Measurements can be taken in internal pipe diameters and grooves, which are locations that are not accessible using conventional stylus devices.

Easy to use, remove the protective paper from the tape and place firmly on the blasted surface. Apply moderate pressure with the Burnishing Tool over the circular cut-out in the tape. Remove the tape. The replica is now ready for measurement using the Testex Gauge.

The Testex Gauge is used to measure the Testex replica and determine the average maximum peak-to-valley height of the blasted profile.

Measurements are made by firstly zeroing the gauge on 50µm (2mils). This is to allow for the film backing. Place the replicated area between the anvils and gently lower the moveable anvil onto the film. The reading can now be taken, giving you the average peak-to-valley height of the blasted profile.

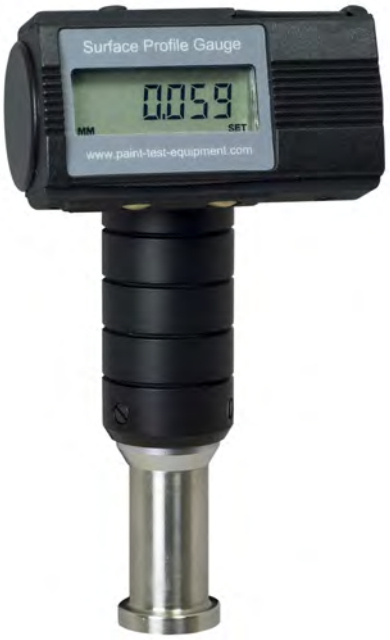
Calibration Certificates having traceability to UKAS are available.

Supplied in a foam-filled Carrying Case with Burnishing Tool.

The Testex is available in a Test Kit, comprising 2 rolls of X Coarse Testex (specify if you require other grades), Testex Gauge and Burnishing Tool.

Testex Specifications

Part No	Grade	Range Metric	Range Imperial	Number of Tests	Conformance Cert Part No
R1001	Coarse	20–50µm	0.8–2.0mils	50	NRC02
R1002	X Coarse	40–115µm	1.5–4.5mils	50	NRC02
R1004	Testex Gauge (metric)				NR001
R2004	Testex Gauge (imperial)				NR001
R2001	Testex Kit (metric)				NR001
R2002	Testex Kit (imperial)				NR001



Complies with International Standards	
ASTM D 4417-B	SABS 772

Surface Profile Gauge

The Surface Profile Gauge allows the peak-to-valley height of a blast-cleaned surface to be accurately measured in accordance with the ASTM D4417 Standard.

A simple-to-use Surface Profile Gauge, offering a high resolution of 1µm (0.1mils).

The blasted profile is measured very quickly and with a high degree of accuracy by operating the instrument as follows: Place the Profile Gauge on the glass plate and zero the instrument. Now place the gauge on the blasted profile. The foot sits on top of the peaks and the sharp stylus travels to the bottom of the valleys allowing the gauge to display the peak-to-valley height.

In addition to blasted profile evaluation, this gauge can also be used for pitting and cavity depths caused by corrosion.

Readings are switchable between metric and imperial.

Calibration Certificates having traceability to UKAS are available.

Supplied in a foam-filled Carrying Case with Glass Zero Disk.

Surface Profile Gauge Specifications

Part No	Range Metric	Resolution	Accuracy	Cal Cert Part No
R1006	0–1000µm 0–40mils	1µm 0.1mils	±2%	NR002

Complies with International Standards	
ISO 8503-1	ASTM D 4417-A
ISO 8503-2	

Surface Comparator

A precision Nickel Comparator Plate that conforms to International Standard ISO 8503 and ASTM D4417 for grit and shot-blast surface roughness comparison measurement.

When steel has been blast-cleaned, the surface consists of random irregularities with peaks and valleys that are not easily characterised. Experts have recommended that the profile should be identified as dimpled (shot-blast) or angular (grit-blast), and that they should be graded as Fine, Medium or Coarse with each grade being defined by limits specified in ISO 8503. These characteristics are considered to give sufficient distinguishing features for most painting requirements.

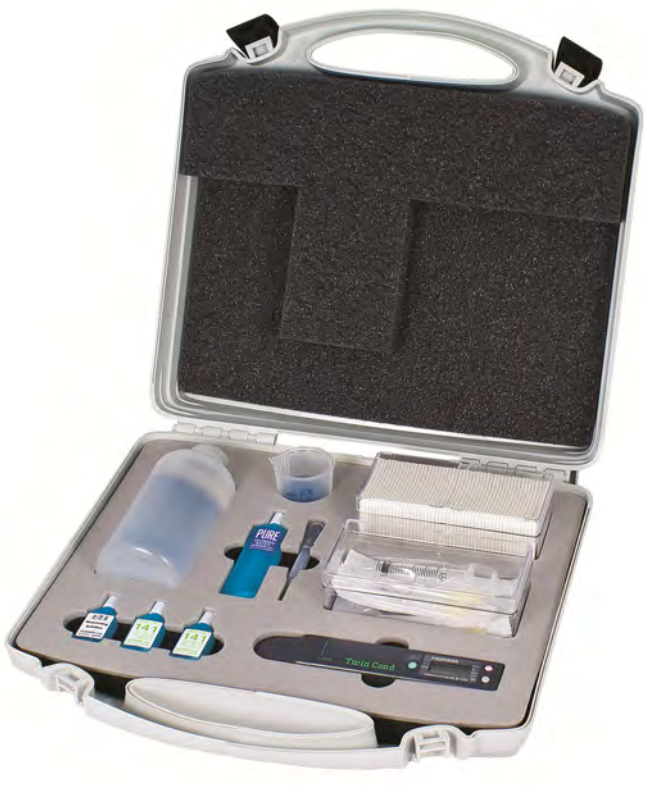
Easy to use, place the Comparator against an area of the test surface. Compare in turn the four sectors of the Comparator against the test surface using the x10 Illuminated Magnifier, placed so that the test surface is viewed simultaneously with a segment of the Comparator. The nearest profile to the Comparator determines the grade.

The different grades are defined as follows: Fine-grade profiles equal to segment 1 and up to but excluding segment 2; Medium-grade profiles equal to segment 2 and up to but excluding segment 3; and Coarse-grade profiles equal to segment 3 and up to but excluding segment 4.

Supplied in a Protective Wallet.

Surface Comparator Specifications

Part No	Model Type	Section Profiles Metric	Section Profiles Imperial	Conformance Cert Part No
R2006	Grit	25µm, 60µm, 100µm, 150µm	1mils, 2.4mils, 4mils, 6mils	NRC01
R2007	Shot	25µm, 40µm, 70µm, 100µm	1mils, 1.6mils, 2.8mils, 4mils	NRC01
RA001	x10 Illuminated Magnifier (for viewing the Surface Comparator)			



Complies with International Standards	
ISO 8502-6	ISO 8502-9

Bresle Test

Many coatings fail due to salts such as chlorides and sulphates contaminating the surface prior to the coating application. This contamination can be tested quickly and simply using the Bresle Test.

The Bresle Patches used in the Bresle Kit are manufactured to the highest quality with materials that contain no chlorides, and are guaranteed to adhere to blast-cleaned surfaces and not leak.

Easy to use, pour 10mls of distilled water into the beaker and determine the conductivity using the Conductivity Meter. Take a Bresle Patch and apply to the test surface. Fill the syringe with 2.5mls of test water and insert through the adhesive foam into the test chamber. Inject the contents, then extract back into the syringe. Repeat ten cycles of injecting and extracting, then transfer the test water back into the beaker. Measure the test water with the Conductivity Meter and deduct the initial conductivity reading from the result. Multiply the readings by 0.4 to give the quantity of salts in µg/cm² also known as ppm, or by 4 for the quantity of salts µg/m².

The maximum permissible surface density of salts on the steel surface prior to surface treatment depends on the type of paint to be applied and what the finished material or product is to be used for. Surface treatment specifications must, therefore, state the highest permissible surface density of salts for each particular application.

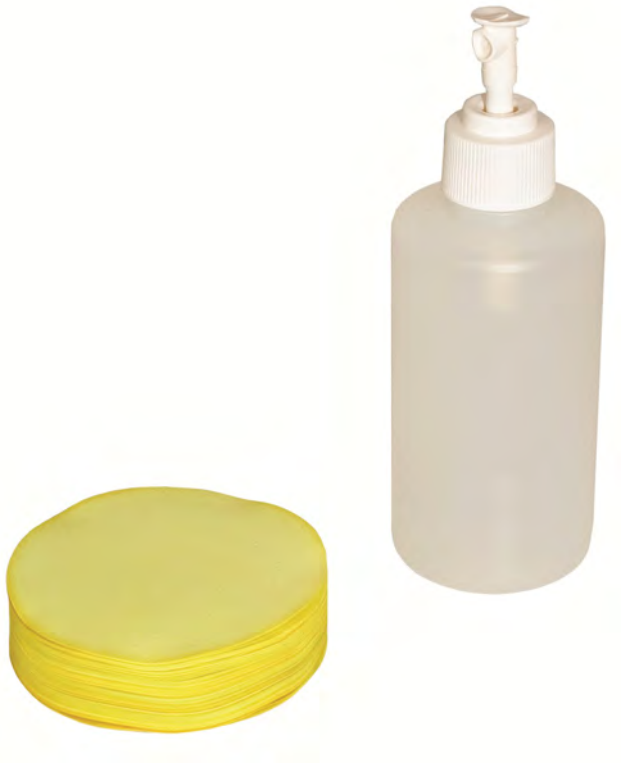
Additional packs of Bresle Patches can be purchased to carry out further tests using this kit.
When high adhesion strength patches are required for testing on very corroded or coarse-grade blasted steel, the Bresle Patches Plus are available as an alternative to the standard Bresle patches.

Calibration Certificates traceable to UKAS are available for the Conductivity Meter, and Conformance Certificates are available for the Bresle Patches.

Supplied with 50 Bresle Patches, Conductivity Meter, Calibration Solution, 3 x 5ml Syringes, 25ml Beaker, 250ml Distilled Water and foam-filled Carrying Case.

Bresle Test Kit Specifications

Part No	Patches Supplied	Conductivity Meter Range	Conductivity Meter Resolution	Conductivity Meter Accuracy	Conductivity Solution Cal Cert Part No	Bresle Patch Conformance Cert
P2004	50	0–199µS/cm 0.20–1.99mS/cm	1µS/cm 0.01mS/cm	±2%	NP001	NPC04
PS001	Bresle Patches (pack of 50) Standard Adhesion					NPC04
PS002	Bresle Patches Plus (pack of 50) High Adhesion					NPC04



Complies with International Standards	
ISO 8502-1	BS 5493

Potassium Ferricyanide Test

The Potassium Ferricyanide Test will enable detection of any water-soluble iron salts that form at the bottom of rust pits after blast-cleaning. If these salts are present, they rapidly induce corrosion.

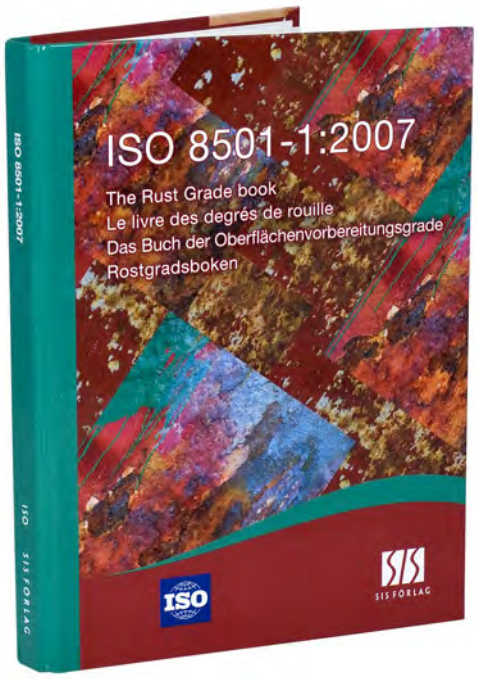
The test involves the reaction of soluble ferrous iron salts with potassium ferricyanide to form ferric hexacyano ferrate, which is commonly known as Prussian blue. The relatively high tinting strength of Prussian blue enables the reaction to be used as a very sensitive test on ferrous irons.

Simply spray a film of deionised water on an area of the blast-cleaned steel. The test paper is then held against the surface for about 10 seconds. Any soluble iron salts present are drawn out of the rust pits by capillary action and react with the potassium ferricyanide to form blue spots. The presence of blue spots on the test paper indicates that the surface should be re-blasted.

Supplied with 100 Potassium Ferricyanide Test Papers, Deionised Water Spray Bottle, Plastic Gloves and Carrying Case.

Potassium Ferricyanide Test

Part No	Papers Supplied	Paper Diameter	Conformance Cert Part No
P3001	100	95mm	NPC04
PS102	Spare Test Papers		NPC04



Complies with International Standards	
ISO 8501-1	SIS SS 05 59 00

Rust Grade Book

The ISO 8501-1 Rust Grade Book contains reference photographs representative of different rust grades and preparation grades that are used to specify the quality of surface preparation.

The Rust Grade Book identifies four levels (designated as rust grades) of mill scale and rust that are commonly found on surfaces of uncoated erected steel and steel held in stock. It also identifies certain degrees of visual cleanliness (designated as preparation grades) after surface preparation of uncoated steel surfaces and of steel surfaces after overall removal of any previous coating. These levels of visual cleanliness are related to the common methods of surface cleaning that are used prior to painting.

Intended to be a tool for the visual assessment of rust grades and of preparation grades, it includes 28 representative photographic examples.

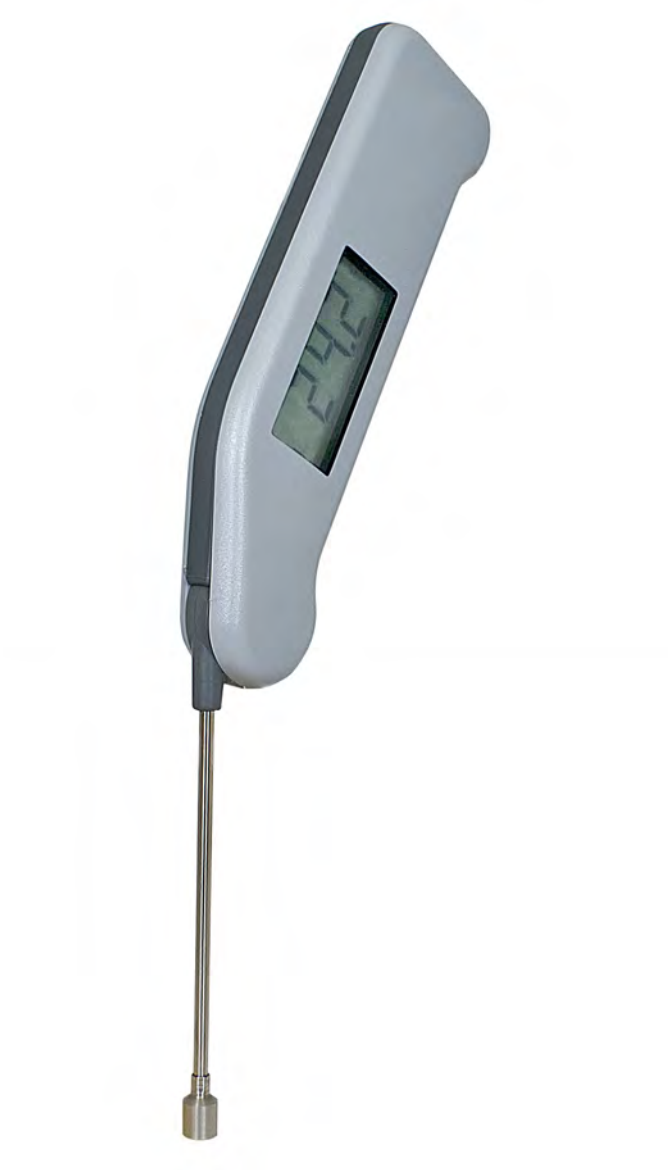
Contains high quality colour pictures of the blast-cleaning surface grades of Sa1, Sa2, Sa2.5 and Sa4, together with detailed descriptions.

Incorporates pictures from the Swedish Standard SIS SS 05 59 00.

Prepared by ISO (International Organization for Standardization).

Rust Grade Book Specifications

Part No	Compiled by	Translation
U1007	ISO	English, French, German, Swedish.



Digital Thermometer

The Digital Thermometer allows the measurement of the substrate temperature to be immediately measured. This ensures that the substrate can be maintained at a temperature sufficiently above the dew point to prevent moisture forming on the uncoated surface.

Designed for reliability and ease of use, the Digital Thermometer has a clear digital display which will give a precise read-out of the temperature.

Styled to fit into the palm of the hand, this pocket-sized Digital Thermometer incorporates a rigid stainless steel ribbon surface contact probe, which conveniently folds back through 180 degrees into the side of the instrument when not in use.

Incorporates an auto-power on/off facility: unfolding the probe turns the instrument on and automatically switches off after five minutes, maximizing the battery life.

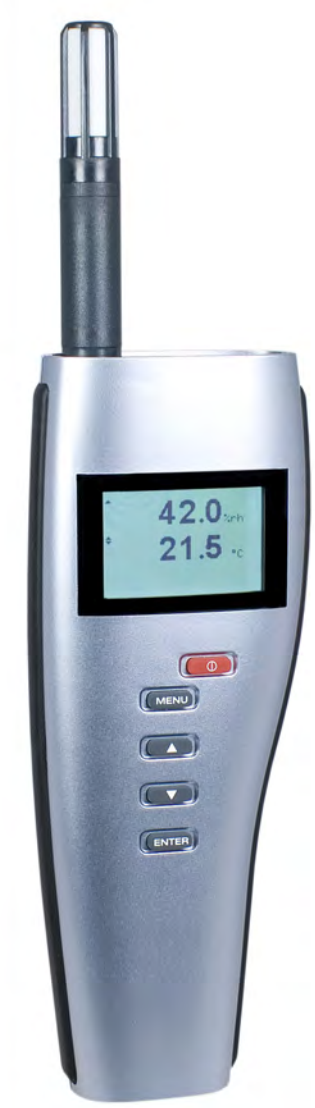
Calibration Certificates are available traceable to UKAS.

Supplied in a Protective Pouch.

CE

Digital Thermometer Specifications

Part No	Product	Range RH%	Range Temperature	Accuracy	Cal Cert Part No
T2003	Digital Thermometer	-50 to 300°C	1°C	±1%	NT003
T2004	Digital Thermometer	-50 to 572°F	1°F	±1%	NT003



RH% Dewpoint Meter

The RH% Dewpoint Meter allows the determination of the relative humidity, dew point and air temperature before the application of a coating. Specifications usually detail that the relative humidity and the dew point temperature must be strictly adhered to, and that the surface temperature is monitored.

The RH% Dewpoint Meter measures both relative humidity and air temperature and computes and displays the dew point temperature on the clear, backlit graphic display.

Universally recognised as one of the best dewpoint meters available in terms of accuracy, reliability and functions, with long-term stability and accuracy of 1%rh.

The polyethylene filter on the sensor provides sensor protection against dust and high air velocity and is able to withstand exposure to condensation without affecting the calibration.

Calibration Certificates having traceability to UKAS are available.

Supplied in a foam-filled Carrying Case.

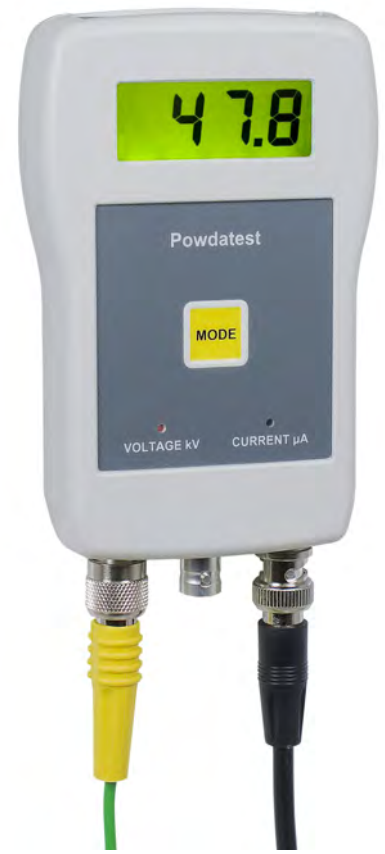
Complies with International Standards

BS 7079-B4	ISO 8502-4

RH% Dewpoint Meter Specifications

Part No	Range rh%	Range Temperature	Resolution rh%	Resolution Temperature	Accuracy rh% / Temp	Accuracy Temperature	Cal Cert Part No
H2005	0–100%	-10 to 60°C 14 to 140°F	0.1%	0.1°C 0.2°F	±1%	±1%	NH001

Powdatest



The Powdatest Electrostatic High Voltage Meter is a precision instrument that measures both electrostatic spray gun high voltages and discharge currents.

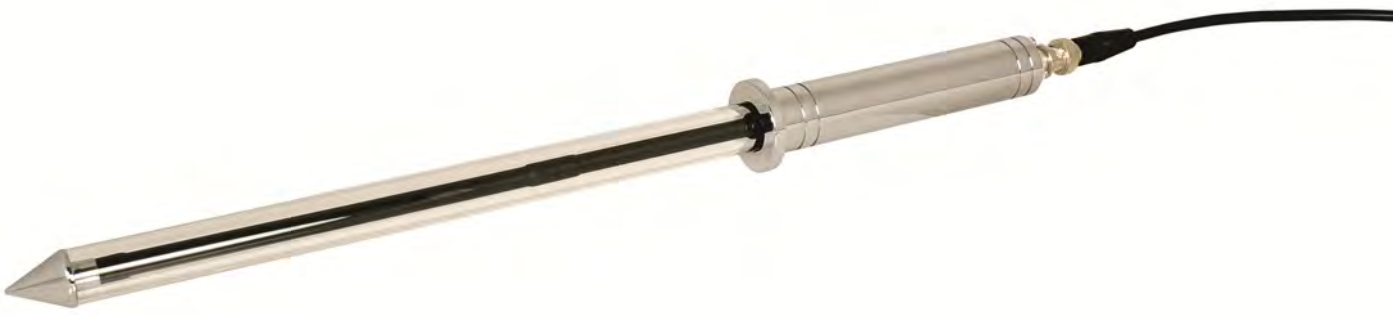
With the Powdatest, any electrostatic sprayer can now quickly measure the voltage at the spray gun tip. This corona point is where the electrostatic voltage must be maintained at the correct voltage. The spray gun high voltage can be up to 100kV and can be either a positive or negative charge. Using the Powdatest, the actual gun voltage can be quickly and accurately measured.

There can be many reasons why the spray gun voltage may not be correct: poor calibration, dirt and grease contamination, poor cable connections, and cable breakages, all of which could affect the actual gun voltage but not be shown on the spray equipment displays. The Powdatest offers a safe, simple and quick test to establish the correct voltage and is particularly useful for multi-gun systems.

The ability to accurately measure the discharge current during spraying is very important. The Powdatest will allow the operator to determine the optimum gun position and to detect the amount of powder applied before back-ionisation occurs. This is useful to allow spray gun systems with a set discharge current control to be quickly and easily tested.

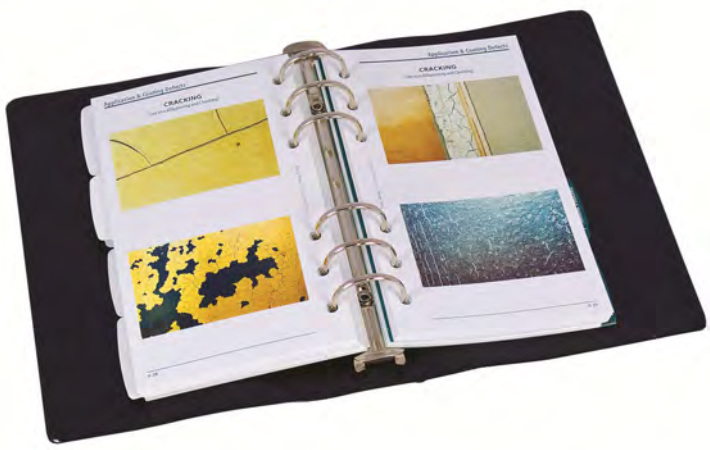
Calibration Certificates having traceability to UKAS are available.

Supplied with High Voltage Measuring Probe, Current Test Cable, Earth Cable and foam-filled Carrying Case.



Powdatest Specifications

Part No	Range Voltage	Range Current	Resolution Voltage	Resolution Current	Accuracy	Cal Cert Part No
E2001	0–100kV	0–200µA	0.1kV	0.1µA	1%	NE001



Fitz's Atlas

The Fitz's Atlas is a handy manual illustrating a range of coating defects. It provides the user with a greater understanding of the defect and gives advice on probable causes, prevention and repair.

With the aid of the Fitz's Atlas the user can gain an insight into the coatings industry and the pitfalls to watch out for. The manual is ideal for on-site assessment surveys as well as defect analysis for future recoating, specification review work and writing reports.

Compiled by coating and corrosion specialists who understand coatings and their application, it provides a comprehensive and invaluable reference for anybody who uses or encounters paint coatings, their defects and failures.

Containing more than 100 colour images of 64 coating defects and providing a clear and concise description, it highlights possible causes, advises on prevention and suggests appropriate repair procedures in assessing the degree of breakdown and the potential areas in need of repair.

In addition, the Fitz's Atlas contains sections on the following:

Welding Faults
Welding faults and resurface conditions that may be encountered and need to be addressed prior to the application of any coating system.

Surface Preparation
Two sections deal specifically with surface preparation, giving guidance notes and standard quality images for both dry abrasive blast-cleaning and pressure water-jetting.

Marine Fouling
Following the main pictorial reference of coating defects, a section deals specifically with marine fouling.

Appendix
An appendix provides useful formulae, coating breakdown scales and a reference guide to certain types of coating and coating compatibility.

Fitz's Atlas Specifications

Part No	Compiled by	Translation
U1005	Brendan Fitzsimons	English

Complies with International Standards	
ISO 2178	ASTM D 4414-A
ISO 2808-6Aa	NF T30-125
BS 5411-11	ISO DIS 8503-3
BS 3900-C5-6Aa	BS 7079-C5
BS EN ISO 1461	ASTM D 4417-C
ASTM B 499	NACE RP 0287-95
DIN 5098	BS 7079-B4
prEN ISO 19840	ISO 8502-4
ISO 2808-7B	ISO 8502-6
BS 3900-C5-7B	ISO 8502-9

Paint Inspection Kit

The Paint Inspection Kit is an essential piece of equipment for all industrial painters, enabling them to have all the necessary equipment to ensure that industrial paint coating is correctly applied throughout the coating process.

Supplied in an Industrial Foam-Filled Carrying Case, ensuring that all the equipment is easily available and transportable.

The Paint Inspection Kit is supplied with the following equipment:

Eban 4000 Coating Thickness Meter (C4001)
Measures all coatings on steel and iron substrates using the magnetic induction principle, ensuring the correct coating thickness has been applied. Other models of the Eban 4000 can be supplied. Please ask for details.

Testex Tape (R1002) and Testex Gauge (R1004)
A unique replica technique and a simple snap gauge make possible accurate blast-surface profile measurements. Testex makes surface replicas easy to obtain and produces average maximum peak-to-valley readings that ensure optimum blasting effectiveness. Replicas can be retained for future needs.

Tricomb Wet Film Gauge (W2001)
Ensures the quality control of the paint thickness while the coating is still wet. Applying too much coating can be expensive.

Digital Thermometer (T2003)
Allows the measurement of the substrate temperature to be taken immediately. This ensures that the substrate can be maintained at a temperature sufficiently above the dew point to prevent moisture forming on the uncoated surface.

RH% Dewpoint Meter (H2005)
Allows the determination of the relative humidity, dew point and air temperature before the application of a coating. Specifications usually detail that the relative humidity and the dew point temperature must be strictly adhered to, and that the surface temperature is monitored.

Bresle Test (P2004)
Many coatings fail due to salts such as chlorides and sulphates contaminating the surface prior to the coating application. This contamination can be tested quickly and simply using the Bresle Test.

Paint Inspection Kit Specifications

Part No	Metric / Imperial	Cal Cert Part No
K3001	Metric	NK002
K3002	Imperial	NK002

www.paint-test-equipment.com

Paint Test Equipment
Worldwide Instruments

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