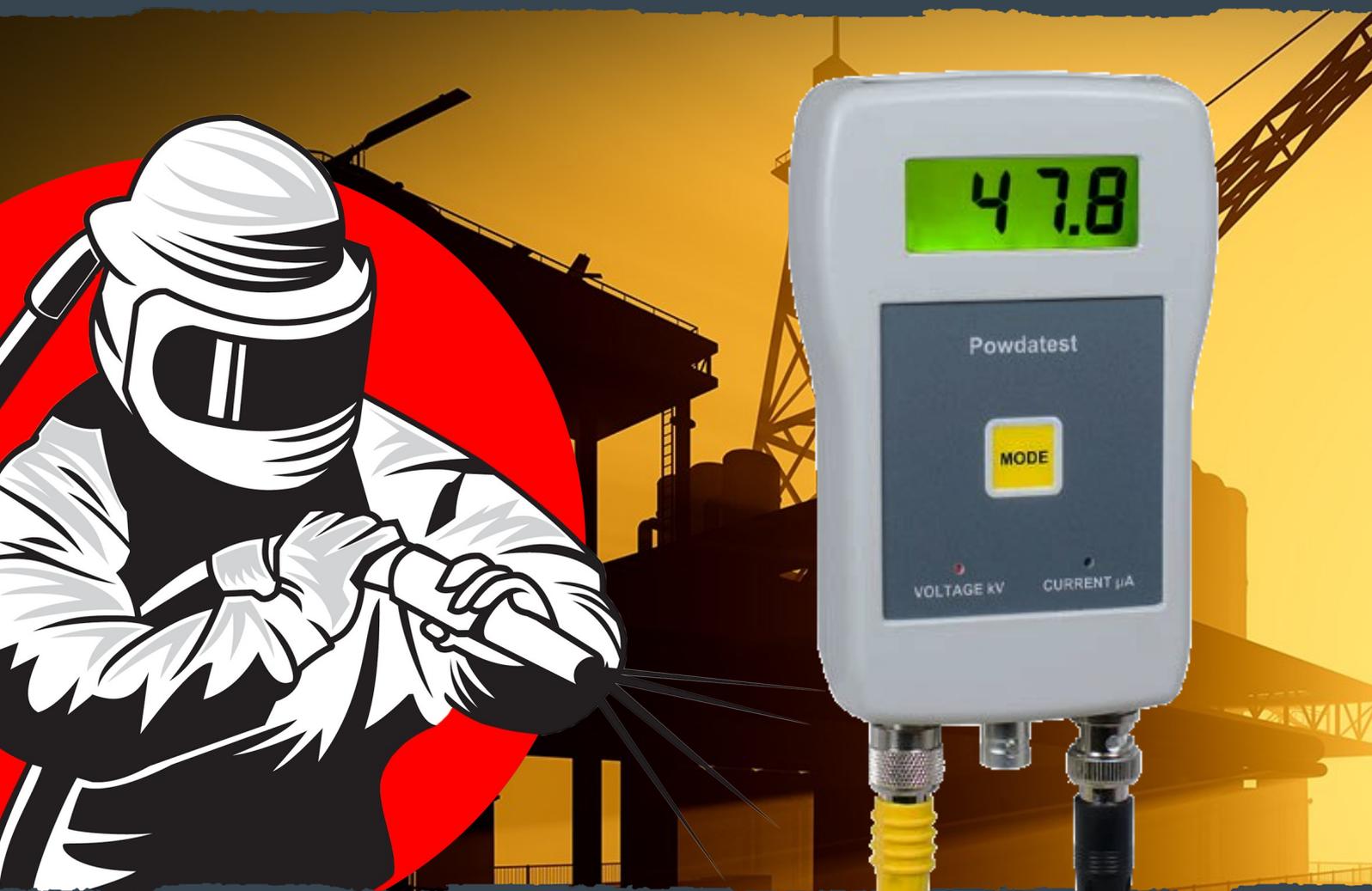


# *Paint Test Equipment*

Powdatest



**Electrostatic Gun Meter**

# Powdatest



## Information

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

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 enables 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.

# Powdatest

## Specification

Accuracy:  $\pm 1$

Resolution: Voltage 0.1kV. Current 0.1 $\mu$ A.

## Supply

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

The Calibration Certificate with traceability to UKAS is an optional extra.

## Ordering Information

E2001	Powdatest Electrostatic Gun High Voltage Meter 0–100kV/0–200 $\mu$ A
NE001	Powdatest Calibration Certificate
ES001	Spare Powdatest High Voltage Probe
ES002	Spare Powdatest Earth Cable 5m



# Operation

## Safety



**Safety precautions must be strictly adhered to whilst using the Powdatest.**

**The Powdatest must be operated by responsible and trained personnel who are in good health and do not suffer from any cardiac conditions.**

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

**The Powdatest must have a secure connection to earth or ground when measuring voltage**

## Voltage Measurement

Connect the Earth Cable to the threaded TNC connector on the Powdatest.

Connect the High Voltage Probe via the connecting cable to the outside right-hand side BNC connector.

Ensure the Earth Cable is securely connected to earth or ground.

Switch the Powdatest on by pressing the Mode button. The red voltage kV indicator will illuminate and the display will register approximately 00.0. Holding the High Voltage Probe handle only, place the tip of the High Voltage Probe onto the high voltage to be measured. The Powdatest will display this voltage and will also show its polarity – for example, if the display shows -46.6 the voltage has a negative charge.

To obtain the electrostatic gun potential, press the gun's On switch whilst it contains no powder.

Always keep the High Voltage Probe glass surface clean, as dirt or other contaminants could affect the measurement accuracy.

To clean the glass, use a small amount of methylated spirit on a clean duster. Do not use any other type of cleaning agent.

To switch the Powdatest off, press the Mode button twice when in voltage mode. The Powdatest will automatically switch itself off after approximately 10 minutes from switch on.

# Operation

## Current Measurement

Ensure that the object to be sprayed is insulated from earth.

Connect the Current Test Cable (BNC to croc clips) to the centre BNC connector on the Powdatest.

Connect the black croc clip to a good earth connection. Connect the red croc clip to the object (in the Powdatest picture, the centre BNC socket not connected is the current socket).

Switch the Powdatest on by pressing the Mode button twice. The green  $\mu\text{A}$  indicator will illuminate.

Commence spraying the object. The Powdatest will now display the current between the object and earth. This current will be high initially and reduce as the coating is applied.

To switch the Powdatest off, press the Mode button once when in current mode.

## Current Measurement

When Lo Bat appears on the display, the battery Requires replacement.

To replace, remove the cover located on the rear of the instrument. Replace with an alkaline PP3 battery, ensuring correct polarity.



# About Us

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. We have over 30 years experience and extensive knowledge in delivering practical 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 Equipment products ensures that industrial coatings are applied to the highest achievable quality standards of ISO compliance.

We supply small, medium and multinational companies with the full range of technologies and innovations in our unrivalled portfolio of products for our customers to grow their business and enhance profits through cost effective corrosion management equipment.

Paint Test Equipment is committed to providing proactive and innovative solutions to meet customer requirements for the highest quality, user friendly inspection equipment. Paint Test Equipment is the partner of choice.

Paint Test Equipment reserves the right to alter specifications without prior notice.  
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## ***Paint Test Equipment***

3-4 The Courtyard  
Greenfield Farm Estate  
Congleton, Cheshire  
CW12 4TR, England

[www.paint-test-equipment.com](http://www.paint-test-equipment.com)

Tel: +44 (0)1260 275614

e-mail: [sales@paint-test-equipment.com](mailto:sales@paint-test-equipment.com)