



**Inspection and Test Equipment** 



# **Inspection Testing**

Hodge Clemco supplies equipment for testing the surface properties shown in the table below.

Surface Cleanliness			
MILL SCALE	Mill Scale on a steel substrate can lead to accelerated corrosion. To determine if there is any Mill Scale present, spray a fine mist of Copper Sulphate solution onto an area. The steel will turn a bright copper colour whilst any mill scale particles will show as black spots.	Copper Sulphate Test Kit	
STANDARDS OF SURFACE FINISH	A pictorial test illustrating rust grades prior to blasting and the degree of surface cleanliness after blasting. The preparation is then given a coding, e.g. Sa 2½	Standards Wall Chart	
Surface Profile			
SURFACE COMPARATOR	The roughness of the surface to be assessed (ISO 7079) is compared to the different areas on the comparator by visual examination and if necessary by scraping with a finger nail.	Grit or Shot Comparator	
MANUAL REPLICA GAUGE	Rubbing Replica tape with a blunt instrument against the blasted surface replicates the same profile achieved on the blast piece. Subsequently the dial micrometer can provide the profile reading of the surface.	Manual Dial Micrometer	
DEFELSKO REPLICA TAPE READER	Measures and records peak-to-valley surface profile height with improved accuracy using Replica Tape.	PosiTector® RTR Probe (Replica Tape Reader)	
SURFACE PROFILE NEEDLE GAUGE	Measures and records peak-to-valley surface profile heights by the needle reaching the bottom of the troughs on the surface profile. Several readings are usually recommended with this method, and an average taken.	PosiTector® SPG Probe (Surface Profile Gauge)	
Environment Conditions			
DEW POINT METERS	It is essential when applying a coating to measure and record the climate conditions as these can indicate whether it is permissible to apply coatings in the conditions faced. Relative humidity and dew point are specifically important.	PosiTector® DPM Probe (Dew Point Meter)	
Salt Contamination			
SURFACE SALTS	Colourless soluble salts may be present in pits within the substrate after blast cleaning, which can accelerate corrosion. Using the bresle patch testing method in accordance to ISO 8502-6 and 8502-9, the concentration of soluble salts can be measured and recorded.		

# PosiTector SmartLink

Wirelessly connect PosiTector probes to your smart device.

PosiTector SmartLink accepts PosiTector 6000, SPG, RTR-H, and DPM probes easily converting to a coating thickness gauge, surface profile gauge or dew point meter.



SmartLink comes complete with free PosiTector App, AAA batteries, protective rubber holster, belt clip, wrist strap, instructions, two year warranty. Probes purchased separately.



Coating Thickness			
WET FILM THICKNESS (WFT)	By placing a WFT Comb Gauge perpendicular to the wet coated surface, the WFT is indicated between the wet and dry tooth once removed.	WFT Comb Gauge	
DRY FILM THICKNESS (DFT)	Dry film thickness is the single most important measurement made during the application and inspection of protective coatings. This gauge is the economical test method for measuring dry coating thickness on metal substrates.	PosiTest® DFT Gauge (Dry Film Thickness)	
COATING THICKNESS - ALL METALS	The comprehensive coating thickness probe for <b>all metal</b> substrates. Rugged, fully electronic coating thickness probe that uses magnetic and eddy current principles to measure coating thickness on both ferrous and non-ferrous metals, accurately and quickly.	PosiTector® 6000 Series Probes	
COATING THICKNESS - NON-METALS	The comprehensive probe for measuring the coating thickness of <b>non-metal</b> substrates. Non-destructively measures a wide variety of applications using proven ultrasound technology.		
Pinhole/Porosity			
HOLIDAY DETECTION	An operation to detect any holes/holidays in a coating or wrapping. Inclusions in coating often lead to coating failures and can accelerate the occurrence of corrosion.	PosiTest® LPD (Low-voltage Pinhole Detector)	
Ultrasonic Wall Thickness			
WALL THICKNESS	Measures the wall thickness of a range of different materials to help determine the physical state of the substrate without having to remove the coating first. Determine whether the wall is deteriorating, perhaps corroding away, simply and effectively.	PosiTector® UTG Probe (Ultrasonic Thickness Gauge)	
Adhesion			
PULL-OFF ADHESION (DOLLY TEST)	Adhesion failures more often occur between the uncoated substrate and the primer due to inadequate wetting of the substrate which may be as a result of insufficient surface preparation, insufficient dust removal after surface preparation or contamination. The <b>PosiTest® AT series</b> calculates the adhesion of coatings to metal, wood, concrete and other rigid substrates through measuring the force required to pull a specified test diameter of coatings or material away from its substrate using hydraulic pressure.	PosiTest® AT Series (Adhesion Tester)	



# **PosiSoft Solutions**

4 Free Ways to vierw and repoirt your data

PosiSoft.net - Web-based

PosiSoft Desktop - PC/Mac

PosiSoft USB Drive - Gauge-based

PosiTector App - Mobile





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# Defelsko PosiTector

### Standard PosiTector Body

- Storage of 250 readings per probe in one batch.
- · USB port for downloading stored readings.

# PosiTector 6000

**Coating Thickness Gauges** measure on all metal substrates. Select from a variety of measurement ranges and probe styles including cabled probes, micro probes and the new *XtremeSeries* for measuring on hot or rough surfaces.





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## **PosiTector DPM**

**Dew Point Meters** measure and record climatic conditions including relative humidity, air temperature, surface temperature, dew point temperature and the difference between surface and dew point temperatures. Ideal for surface preparation as required by ISO 8502-4. Select from built-in, cabled and anemometer probes.





#### PosiTector 200

**Ultrasonic Coating Thickness Gauges** measure coatings over wood, concrete, plastics and more non-destructively. Advanced models measure up to 3 individual layer thicknesses in a multi-layer system and feature a graphic readout for detailed analysis of the coating system.

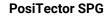


# PosiTector SST

**Souble Salt Testers** measure the concentration of soluble salts on metal surfaces. Features include an intuitive step-by-step interface that guides users through the Bresle method and automatic computation of surface density of salt.

#### **Advanced PosiTector Body**

- Storage of 1000,000 readings un up to 1,000 batches or sub batches.
- USB port for downloading stored readings.
- · Wifi technology.
- Bluetooth 4.0 low energy technology.
- Live on-screen charting.
- · Batch annotation with QWERTY keyboard.



**Surface Profile Gauges** measure and record peak-to-valley surface profile heights on blasted metal, concrete and textured coatings with a depth micrometer fitted with a fine pointed probe. Includes a more durable Alumina wear face and two cabled probe versions, one for measuring the profiles of textured coatings.







#### PosiTector RTR

Replica Tape Readers measure and record surface profile parameters using replica tape. The PosiTector® RTR digitally measures peak-to-valley surface profile height. The PosiTector® RTR 3D additionally displays high-resolution 3D surface imagery and common 2D/3D parameters such as Ra, Rz, Sq and Spd.

## PosiTector SHD

Shore Hardness Durometers measure the hardness of non-metallic materials. Features include user adjustable measurement time with on-screen countdown to confirm to international standards, internal memory, on-screen statistics and an electronic "maximum" reading indicator. Available in two models – Type A and Type D.

#### PosiTector UTG

**Ultrasonic Thickness Gauges** measure the wall thickness of materials such as steel, plastic and more. Choose from Corrosion or Multiple-Echo probes. Multiple-Echo probes feature thru-paint capability. Advanced models include raw A-scan with adjustable gain and B-scan.

#### Also available

**PosiTector IRT** Infrared Thermometer . **PosiTector BHI** BArcol Hardness Impressor.

# **Testing Equipment**

#### Standards of Surface Finishing

The surface under examination is visually compared with high quality photographs in the ISO 8501-1 standard both before and after blasting. This section of the standard is pictorial and shows rust grades prior to blasting and the degree of surface cleanliness afterwards. The preparation is then given a coding, e.g. Sa 2½ which can be interpreted using the **Standards Wall Chart**.



## **Surface Comparator**

The roughness of the surface to be assessed (ISO 7079) is compared to the different areas on the **Surface Comparator** by visual examination and if necessary by scraping with a finger nail (never with the skin as this will contaminate the blast). Available in two styles: Grit and Shot.



## Wet Film Thickness (WFT)

The wet film thickness is taken immediately after a coating has been applied so that any deviation from the specified thickness range can be immediately rectified while the paint is still wet, thereby reducing the amount of dried coatings which are outside the specified thickness tolerances.

The wet film thickness may be found by using a **WFT Comb Gauge**. Available in a range of sizes and in a variety of materials, the comb is a simple but effective tool to use. Place the comb perpendicular to the coating applied for a moment. When removed the wet film thickness is indicated between the wet and dry tooth.



#### PosiTest DFT

The **PosiTest® DFT** (Dry Film Thickness) is a digital coating thickness gauge for all metal substrates. It is the economical choice that retains the uncompromising quality of **DeFelsko®** coating thickness and inspection instruments. Providing fast and repeatable measurements, with rates of over 60 readings per minute. Available in two models: Ferrous and Combo.



#### PosiTest LPD Kit

The **PosiTest® LPD Kit** is a Low-Voltage Pinhole Detector for metal and concrete substrates; detects holidays, pinholes and other discontinuities in coatings. With a thickness range of 0-500 µm, and conforming to international standards including ISO, ASTM and NACE, this light ergonomic design is the ideal LPD. Easy-to-use interface with bright, multi-function LEDs, audibly and visibly alerts when flaws are detected. Available in two kits: Basic and Complete.



#### **Posi Test AT**

The **PosiTest® AT** is the pull-off adhesion tester that calculates the adhesion of coatings to metal, wood, concrete and other rigid substrates through measuring the force required to pull a specified test diameter of coatings or material away from its substrate using hydraulic pressure. Available in both Manual and Automatic models.



## **Abrasive Test Sieves**

Selecting the correct or most suitable abrasive for your application is an important consideration of blasting. Equally important is the size of the grit or media that you select, as this contributes greatly towards the surface profile and cleanliness that can be achieved. Therefore we highly recommend that you regularly take samples of your working mix, especially in a recyclable system such as a blast-room, to inspect firstly the sizing of your abrasive, but to also ensure your grit-cleaning recovery system is working as efficiently as it should be. This can easily be carried out by using the correct certified Test Sieves. Certified sieves available including



## **PosiTector SST Abrasive Kit**

ASTM E11 and ISO 3310.

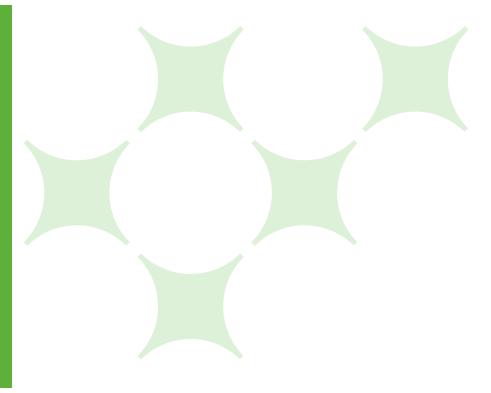
Use the **PosiTector® SST Abrasive Test Kit** to measure the concentration of soluble salts in blast cleaning abrasives with ease and simplicity. The standard test method for conductimetric analysis of water-soluble ionic contamination of abrasives, conforming to ASTM D4940. For use with the **PosiTector® SST** or any existing conductivity meter.





#### Manufacturers of:

Blast Rooms
Blast Cabinets
IBIX Blast Machines
EnviraSponge Systems
Spares
PPE
Bespoke Equipment
Recyclable Abrasives
Expenable Abrasives
Paint Spray Equipment
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