DeFelsko® Catalog - Fall 2011

Coating Thickness Gages and Inspection Instruments











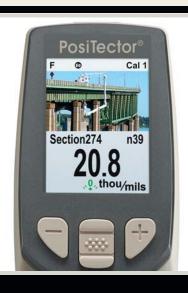


DeFelsko®

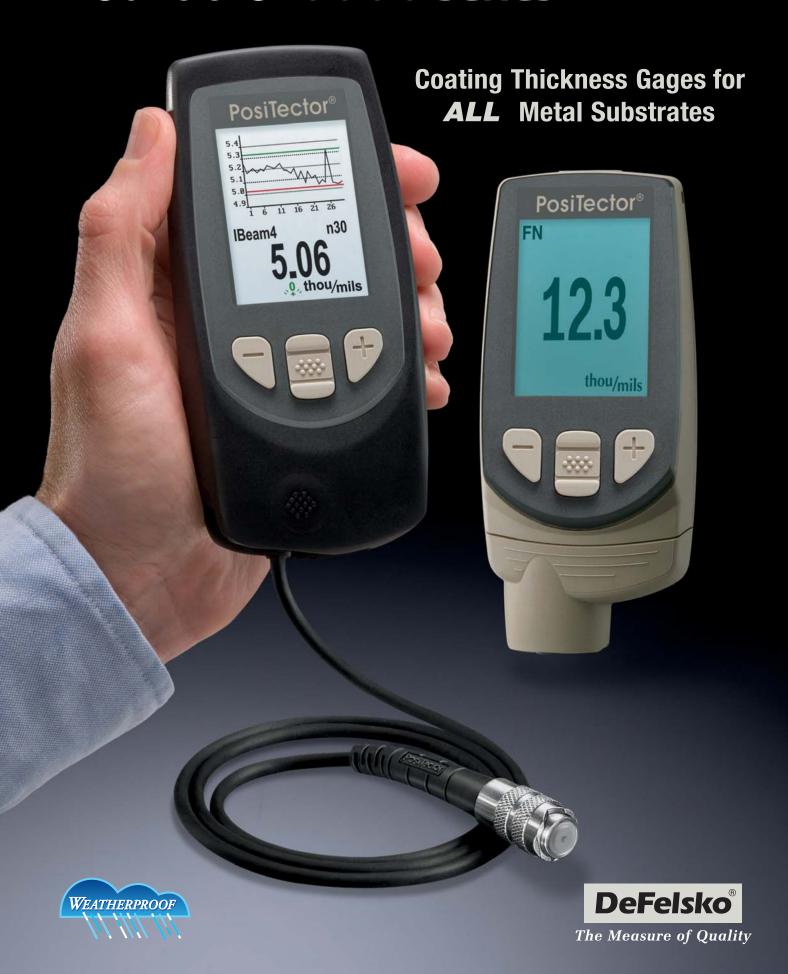
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PosiTector® 6000 Series



PosiTector 6000 Series

All Gages Feature...

Simple

- Ready to measure—no calibration adjustment required for most applications
- Enhanced one-handed menu navigation
- Flashing display—ideal in a noisy environment
- RESET feature instantly restores factory settings

Durable

- Solvent, acid, oil, water and dust resistant—weatherproof
- Wear-resistant probe tip
- Shock-absorbing, protective rubber holster with belt clip
- Two year warranty on gage body AND probe

Accurate

- Certificate of Calibration showing traceability to NIST included
- Built-in temperature compensation ensures measurement accuracy
- Hi-RES mode increases displayed resolution for use on applications that require greater precision
- Conforms to national and international standards including ISO and ASTM

Versatile

- Fully interchangeable probes are compatible with ALL gage bodies
- Multiple Calibration adjustment options including 1 point, 2 point, known thickness, average zero
- Selectable display languages
- Hi Contrast backlit display for bright or dark environments
- Flip display enables right-side-up viewing
- Extended cables available (up to 75 m/250 ft) for remote measuring
- Uses alkaline or rechargeable batteries (built-in charger)

Powerful

- Continually displays/updates average, standard deviation, min/max thickness and number of readings while measuring
- HiLo alarm audibly and visibly alerts when measurements exceed user-specified limits
- FAST mode—faster measurement speed for quick inspection
- USB port for fast, simple connection to a PC and to supply continuous power. USB cable included
- USB mass storage—stored readings and graphs can be accessed using universal PC/Mac web browsers or file explorers.
 No software required
- Every stored measurement is date and time stamped
- Software updates via web keep vour gage current
- Connects to PosiTector.net (see far right panel)

Probes available for a variety of applications



For measuring paint, powder, etc. on all metals...



...and for measuring galvanizing, plating, anodizing and more.

Gage Selection...

Select Substrate

- F for ferrous metals (steel and cast iron)
- **N** for non-ferrous metals (aluminum, copper, etc.)
- FN for all metal substrates—Gage automatically recognizes the substrate and takes a measurement

Select Standard or Advanced Features

Standard Models

Includes ALL features as shown on left plus...

- Monochrome display
- Storage of 250 readings—stored readings can be viewed or downloaded

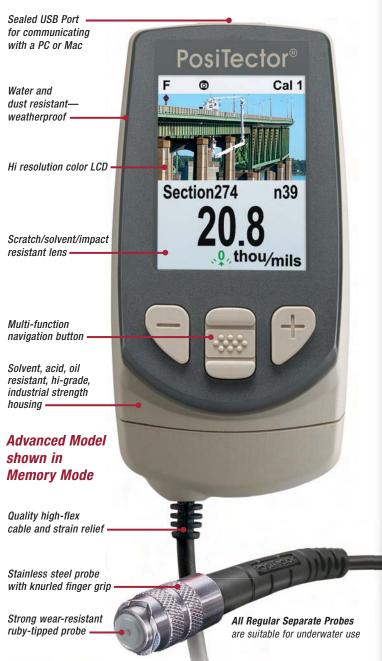
Advanced Models

Includes ALL features as shown on left plus...

- Hi Contrast reversible color LCD
- Storage of 100,000 readings in up to 1,000 batches and sub-batches
- Onscreen help, real time graphing, picture prompting and batch notes
- Data transfer via USB to a PC or via Bluetooth Wireless Technology to a PC or printer
- Scan mode—take continuous readings without lifting the probe
- Multiple stored calibration adjustments for measuring on a variety of substrate conditions
- SSPC PA2 feature determines if film thickness over a large area conforms to user-specified min/max levels
- PSPC 90/10 feature determines if a coating system complies with an IMO performance standard for protective coatings



Rugged Features...





- Generate reports and graphs with annotations and user selected images
- Share measurement data with authorized users via a secure login from any computer and most web enabled devices
- Export data to XML and text files
- Visit www.defelsko.com/PosiTectorNET for a demonstration



Standard model shown in Statistics Mode with shock-absorbing, protective rubber holster



High-Range Probes for thick coatings, e.g. fire proofing, tank linings, etc.



Flip Display enables right-side-up viewing

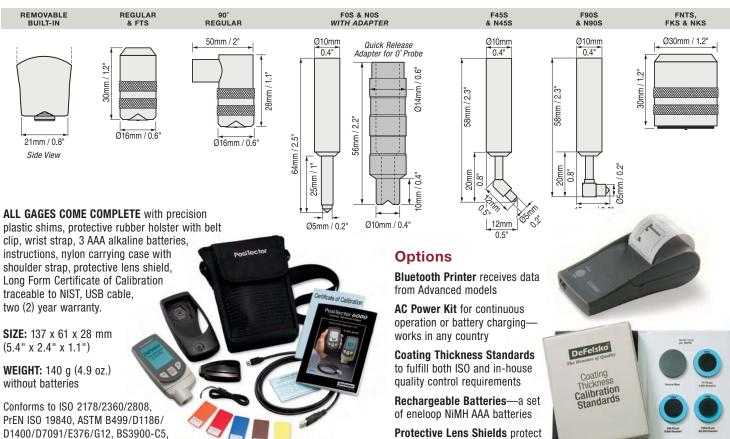


Microprobe series for small parts and hard-to-reach areas

PosiTector® 6000 Series ORDERING		Removab and Regula	t popular le Built-in ar Separate models	90° Regular probe for tight spots	Ideal for anodized aluminum	anodized smallest probes for small parts		Removable Built-in and Separate probes for thick protective coatings; epoxy, rubber, intumescent fire proofing and more			
GUIDE											
Non-Magnetic Coatings over FERROUS Metals	Standard	F1	FS1	FRS1		F0S1	F45S1	F90S1	FT1	FTS1	FKS1
(Steel and Iron)	Advanced	F3	FS3	FRS3		F0S3	F45S3	F90S3	FT3	FTS3	FKS3
Non-Conductive Coatings on NON-FERROUS Metals	Standard	N1	NS1	NRS1	NAS1	NOS1	N45S1	N90S1			NKS1
(Aluminum, Copper, etc.)	Advanced	N3	NS3	NRS3	NAS3	NOS3	N45S3	N90S3			NKS3
Combination	Standard	FN1	FNS1	FNRS1						FNTS1	
ALL METALS	Advanced	FN3	FNS3	FNRS3						FNTS3	
Range			0 – 60 mils 0 – 1500 μn		Ferrous: 0 – 45 mils and 0 – 1150 µm Non-Ferrous: 0 – 25 mils and 0 – 625 µm		0 – 250 mils 0 – 6 mm		0 – 500 mils 0 – 13 mm		
Acquiroou*			$\pm (0.05 \text{ mils} + 1\%) 0 - 2 \text{ mils}$ $\pm (0.1 \text{ mils} + 1\%) > 2 \text{ mils}$		$\pm (0.02 \text{ mils} + 1\%) \ 0 - 4 \text{ mils}$ $\pm (0.1 \text{ mils} + 3\%) > 4 \text{ mils}$		$\pm (0.5 \text{ mil} + 1\%) \ 0 - 100 \text{ mils}$ $\pm (0.5 \text{ mil} + 3\%) > 100 \text{ mils}$		±(1 mil + 3%) 0 – 500 mils		
Accuracy*			n + 1%) 0 – m + 1%) >		±(0.5 μm + 1%) 0 – 100 μm ±(2 μm + 3%) > 100 μm				%) 0 – 2.5 mm 3%) > 2.5 mm	±(0.02 mm + 3%) 0 - 13 mm	
Matching DeFels Calibration Stand			STDS1 STDA1				DS2 DA2		STI	OP1	STDP5

^{*}Accuracies are stated as a fixed value plus a percentage of the gage's actual reading. EXTENDED CABLES available for underwater or remote measuring. Specify length when ordering.

Probe Details





SSPC-PA2 and others

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the display from overspray



PosiTest® DFT Coating Thickness Gage

Ideal for...

- Powder Coaters
- Paint Applicators
- Coating Inspectors
- Painting Contractors
- Automotive Refinishers

2 Models...

Ferrous for STEEL **Combo** for ALL METALS





simply measures



Features

- Fast, repeatable measurements
- No calibration required for most applications
- ZERO feature for rough or curved surfaces
- Handy RESET feature when no zero reference is available
- Strong, wear-resistant, ruby-tipped probe
- Unique FLIP Display enables right-side-up viewing in any position
- Audible and visible measurement indication
- V-groove in probe for positioning on cylindrical parts
- Mils/Microns switchable

Basic instructions on the back of each gage

■ Built-in wrist strap for added convenience and safety

2 Year Warranty



Unique FLIP Display enables right-side-up viewing in any position

Specifications

Measurement Range	0 – 40 mils	0 – 1000 μm
Accuracy	±(0.1 mils + 3%)	±(2µm + 3%)
Size	4 x 1.5 x 0.9 in.	100 x 38 x 23 mm
Weight	2.5 oz.	70 g



Conforms to: ISO 2178/2360/2808.

prEN ISO 19840, ASTM B244/B499/B659/D1186/D1400/D7091/E376/G12, BS3900-C5, SSPC-PA2 and others. Certificate of Calibration traceable to NIST available.

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PosiTest® Accurate & Dependable

For the non-destructive measurement of non-magnetic coatings (paint, enamel, galvanizing, metalizing, plating, etc.) on STEEL







Stable design with additional tail-end support. No annoying rocking during measurement.



PosiTest® Accurate & Dependable

For the non-destructive measurement of non-magnetic coatings (paint, enamel, galvanizing, metalizing, plating, etc.) on STEEL

ACCURATE

- Certificate of Calibration showing traceability to N.I.S.T. included with every gage
- Matching Calibration Standards and Procedures available for every model
- Highly wear resistant Carbide Probe for longest life and continuous accuracy
- Remove center of dial cover for easy calibration adjustment
- Conforms to national and international standards

DURABLE

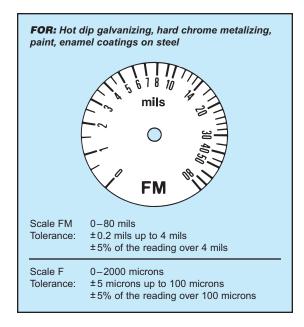
- Extra rugged housing, not affected by mechanical shock, water, acid or solvents
- Unique overall design, fully supported, positive positioning, no pivoting tendencies during measurement
- Can be used fully supported or with only the front probe area contacting the surface
- Functions on a permanent rare-earth cobalt magnet
- No batteries/electronics
- 2 year warranty

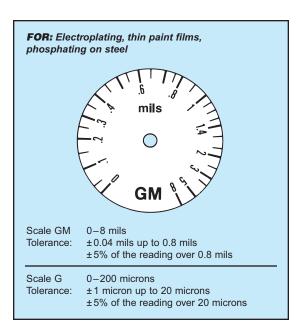
EASY TO USE

- Positive visual and audible indicators to designate when thickness reading is established
- "V" grooves in probe housing and Gage base allow correct positioning on cylindrical objects
- Compact, lightweight, precisely balanced, independent of gravity can be used in any position
- GO/NO-GO button can be pre-set for rapid measurement
- Probe contact and dial rotation all in a one-finger operation
- Furnished with wrist strap and instructions in a high quality leather case with belt loops for your convenience



Carbide measuring probe for long life.







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Web: www.defelsko.com



PosiPen®

Coating Thickness Gage



Measures non-magnetic coatings such as paint, enamel, plating, hot-dip galvanizing on steel.

Ideal for measuring on small, hot or hard-to-reach surfaces.







PosiPen® Coating Thickness Gage

Measures non-magnetic coatings such as paint, enamel, plating, hot-dip galvanizing on steel.

PosiPen has a very small, unique magnet which can be placed with pin-point accuracy on extremely small parts, and on peaks and valleys.

Used for:

- Small, hot or hard-to-reach surfaces
- Spot Checks conveniently fits in a shirt pocket
- Hot Sprayed Coatings

Ideal for:

- Refineries, petrochemical plants
- Platers electroplating, chrome, zinc, galvanizing
- Powder coaters

Simple

- Easy-to-Use
- Lightweight easy to carry, just like a ball point pen

Durable

- No batteries/Electronics
- Rugged not affected by mechanical shock, acid, oil, water and dust

Accurate

- No user adjustment required
- Certificate of Calibration traceable to NIST included
- Highly wear resistant probe tip for long life and continuous accuracy



Temperature -150° F to + 450° F -100° C to + 230° C

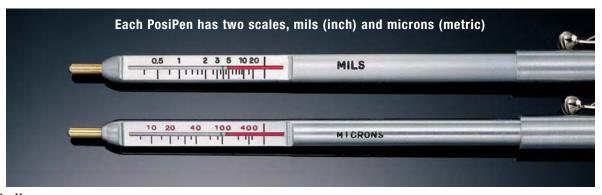
Conforms to National and International Standards including ASTM D7091/B499, ISO 2808 and others

Tolerance +/-10% and 0.1 mil +/-10% and 2.5 microns

Gage comes complete with leather pouch, instructions, Certificate of Calibration traceable to NIST, two (2) year warranty.

Triple Indicator: compensates for gravity

- 1. Use the red/silver joining line when the Gage is horizontal (walls).
- 2. Use the **green line** when the Gage is pointing straight down (green/ground).
- 3. Use the **blue line** when the Gage is pointing straight up (blue/sky).



Easy to Use:

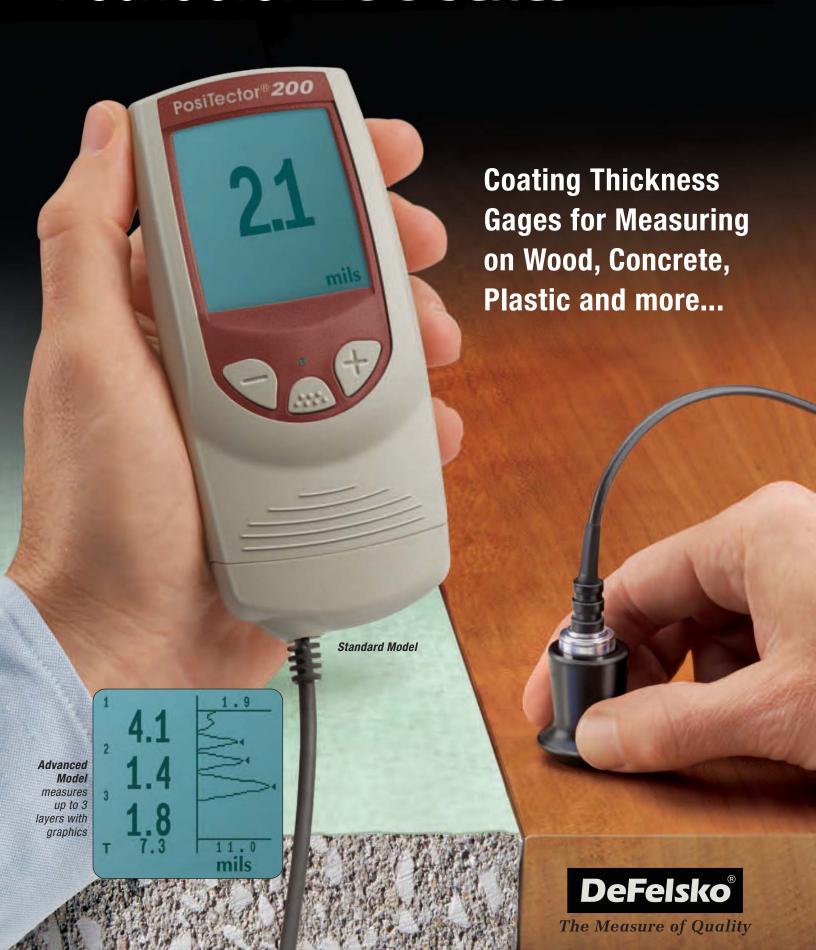
Place the tip of the PosiPen on the coated surface and allow the magnet to contact. Pull the PosiPen straight from the object to be measured while keeping close watch on the appropriate indicator. Note the reading when the magnet releases.

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PosiTector® 200 Series



PosiTector 200 Series

Non-destructively measures a wide variety of applications using proven ultrasound technology. Measures the thickness of coatings over concrete, wood, composite materials and more.

All Gages Feature...

Simple

- Ready to measure no adjustment required to measure most coatings
- One-handed menu navigation
- Bi-color indicator light ideal in a noisy environment
- RESET feature instantly restores factory settings

Durable

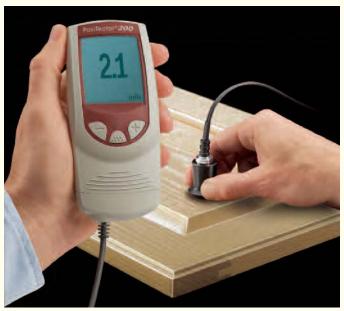
- Solvent, acid, oil, water and dust resistant meets or exceeds IP5X
- Scratch/Solvent resistant display suitable for harsh environments
- Shock-absorbing, protective rubber holster with belt clip
- Two year warranty on both gage body and probe

Accurate

- Responsive transducers provide fast, accurate readings (up to 40 readings/minute)
- Proven non-destructive ultrasonic technique conforms to ASTM D6132 and ISO 2808
- Certificate of Calibration showing traceability to NIST included

Versatile

- Continually displays/updates average, standard deviation, and number of readings while measuring
- Internal memory stores up to 10,000 readings in up to 1000 batches
- Built-in clock to date and time stamp each stored measurement
- USB, IR and serial output options for simple communication with printers and PCs
- Backlit display for dim or dark environments
- Mils/Microns switchable
- Selectable display languages



Standard model measuring total coating thickness on wood

Select Standard or Advanced

Standard models measure the total thickness of a coating system.

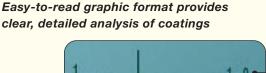
Advanced models measure total thickness of a coating system or up to 3 individual layer thicknesses in a multi-layer system. Also features graphic readout for detailed analysis of the coating system.

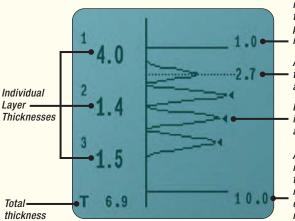
Advanced Model Graphic Display



Advanced models toggle between graphic readout and statistical data displays.







Adjust lower measuring limit to improve performance on rough surfaces.

Adjust cursor to identify additional echoes

Each distinct interface appears as a peak on the graph

Adjust upper measuring limit to improve resolution and eliminate unwanted reflections

Tough **NEW** Features



Options

PosiSoft® for Windows® analysis software



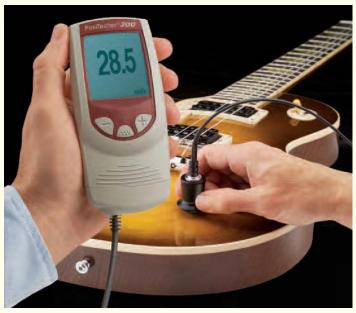
- Downloads stored readings to a PC
- Allows entry of notes and annotations
- Prints and displays basic charts and histograms
- Exports to a document or spreadsheet
- Includes USB cable
- Free updates

IR Printer receives data from all models via wireless infrared.

Coating Thickness Standards fulfill both ISO and in-house quality control requirements.

AC Power Cable for continuous operation.

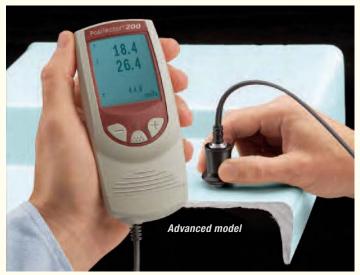




Measure paint, varnish, lacquer, etc. on wood products including cabinetry, furniture, flooring, windows and more.



Measure thick protective coatings on concrete flooring, pipes, containment structures and more.



Measure protective finish topcoats over epoxy resin – commonly found in automotive, marine and aviation applications.

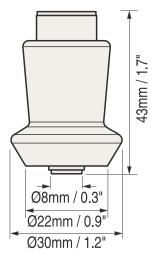
Visit www.defelsko.com/applications.htm to view Coating Inspection Application Notes.

SPECIFICATIONS

PosiTector® 200 Model	B/Std	B/Adv	C/Std	C/Adv
Measures Total Thickness	V	V	V	V
Measures Individual Layers		V		V
Graphic Display		V		V
Typical Applications	Polymer coatings on wood, plastic, etc.		Thicker coatings on concrete, fiberglass, etc.	
Range*) microns 40 mils		0 microns 0 mils
Accuracy			3% of reading) % of reading)	
Minimum Individual Layer Thickness**	13 microns 0.5 mils			50 microns 2 mils
Thickness Standard	DeFelsk	o STDA3	DeFelsk	o STDP6

^{*}Range limits apply to polymer coatings only. **For multiple layer applications only. Dependent on material being measured.

Probe Details



ALL GAGES COME COMPLETE with probe, precision plastic shims, protective rubber holster with belt clip, couplant, 3 AAA batteries, instructions, nylon carrying case with shoulder strap, Certificate of Calibration traceable to NIST, two (2) year warranty.

SIZE: 146 x 64 x 31 mm





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PosiTector PC V Powder Checker

Non-contact Uncured Powder Thickness Gage



Affordably measures uncured powder coatings using non-contact ultrasonic technology to automatically calculate and display a predicted cured thickness.





PosiTector PC Powder Checker

Non-contact coating thickness gage measures uncured powder and predicts cured thickness.

Simple

- Hand-held, battery operated
- No calibration adjustment required for most powders
- Thickness results appear on both base unit and probe
- Bi-color indicator light—ideal in a noisy environment

Durable

- Solvent, acid, oil, water and dust resistant—ideal for powder coating environments
- Shock-absorbing, protective rubber holster with belt loop and magnetic mount for easy storage
- Replaceable screen protects the probe
- Two year warranty on both base unit and probe

Accurate

- Conforms to ASTM D7378
- Advanced new technology allows measurement on small tubes, odd shapes and moving parts
- Easy calibration adjustment options improve accuracy on unusual powders or substrates

Versatile

- Wireless probe communicates with base unit up to 10m away (30 feet).
 No cable to risk disturbing applied powder
- Selectable display languages
- Backlit displays for dim or dark environments
- Long battery life—uses standard alkaline batteries

Powerful

- Continually displays/updates basic statistics including min/max and average
- USB Mass Storage of 1,000 readings in up to 100 batches
- Built-in IR port for printing stored results to an optional wireless printer
- USB port for fast and easy connection to a PC and to supply continuous power
- No download software required—gage generates formatted reports with measurement summaries and charts
- Live measurement results can be sent to a data collector or spray booth controller



Specifications				
Range	20-110 μm (0.8-4.3 mils)			
Resolution	1 μm (0.05 mils)			
Accuracy	±5 μm (±0.2 mil)			
Measurement Time	2-5 seconds			
Measurement Distance to Powder	18 mm (0.75 inch)			
Measurement Area	2 mm (0.08 inch)			

BASE UNIT

Size: 146 x 64 x 31 mm (5.75" x 2.5" x 1.2") Weight: 165 g (5.8 oz.) without batteries

PROB

Size: 222 x Ø50 mm (8.75" x Ø2.0") Weight: 272 g (9.6 oz.) without batteries







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Web: www.defelsko.com

PosiTest® Pull-Off Adhesion Tester

Measures adhesion of coatings to metal, wood, concrete and other substrates – revolutionary self-alignment feature and pull rate indicator.



DeFelsko®

The Measure of Quality

Pull-Off Adhesion Tester



Both Models Feature...

Simple

- Portable requires no external power source ideal for lab and field use
- Pull Rate Indicator allows operator to easily monitor and adjust the rate of pull in accordance with international test methods
- Easily select dolly sizes, change measurement units or store readings, with the touch of a button
- Conversion charts not required tester automatically calculates pressure based on dolly size
- Inexpensive, single-use dollies eliminate cleaning for re-use and can be kept as a permanent record
- Each kit comes with everything needed for testing

Durable

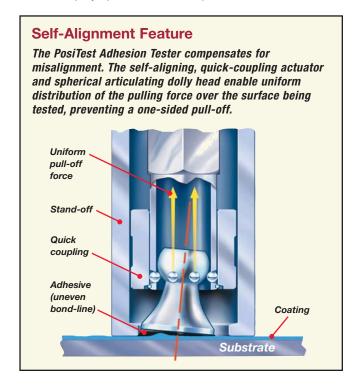
- Environmentally sealed enclosure weatherproof, dustproof and shockproof – meets or exceeds IP65
- Can be used in any position
- Rugged carrying case
- Two year warranty

Accurate

- Every PosiTest Adhesion Tester pressure system is calibrated and certified to ±1% accuracy using NIST traceable load cell
- Self-aligning aluminum dolly enables accurate measurements on smooth or uneven surfaces
- Hi-grade, industrial pressure sensor ensures continued accuracy
- Conforms to national and international standards including ASTM D4541/D7234, ISO 4624/16276-1, AS/NZS 1580.408.5 and others

Versatile

- Internal Memory stores maximum pull-off pressure, rate of pull, test duration and dolly size for up to 200 pulls
- Optional PosiSoft® software available for downloading
- 10, 14, 20 or 50 mm dollies maximize capability and measurement resolution across a wide range of bond strengths
- LCD displays pressure value in psi or MPa

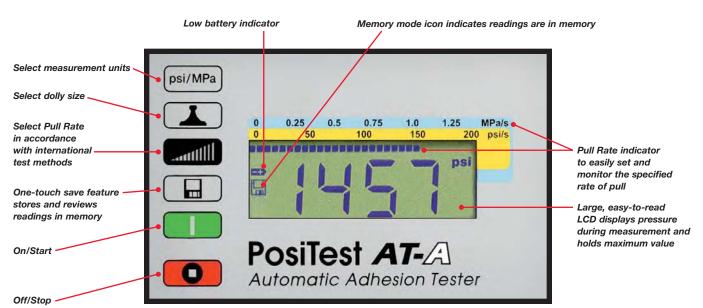




PosiTest® AT-A Automatic Adhesion Tester

- Electronically controlled hydraulic pump automatically applies smooth and continuous pull-off pressure at a user-specified rate
- Test with the simple push of a button. No twisting, pumping or cranking. No valves to close, needles to reset, or scales to adjust
- User selectable pull rates ensure compliance with international test methods for a variety of industries including metal, wood and concrete
- Built-in rechargeable batteries perform over 200 tests per charge. Continue testing with AC power while batteries recharge. Supplied with universal AC Adapter







Specifications

Dolly Size (mm)*	20 mm		
Resolution 1 psi (0.01 MPa)			
Accuracy	± 1% Full Scale		
Adhesion Strength**	0 - 3000 psi (0 - 20 MPa)		

*Additional dolly sizes available to meet specific measuring needs contact supplier for details. **Varies with dolly size

Both Kits include: Adhesion tester with digital display, built-in rechargeable NiMH batteries with charger, 20 mm aluminum test dollies (20), abrasive pad, cutting tool, adhesive with mixing sticks and palettes, cotton swabs, instruction booklet and video, Certificate of Calibration traceable to NIST, two-year warranty, and sturdy, lightweight carrying case

Kit Weight (with case): 13 lbs / 6 kg

Carrying Case Dimensions: L - 17 in / 43 cm x W - 13 in / 33 cm x H - 6 in / 15 cm



50 mm Accessory Kit

- Ideal for lower bond strength finishes such as coatings on wood, concrete and plastic
- Larger surface area of dolly provides improved low range precision and repeatability
- Range 0 500 psi (0 3.5 MPa)
- Includes 50 mm stand-off, 50 mm hole saw and 50 mm aluminum test dollies (12)

Drilling Template for 20 mm and 50 mm Dollies

■ Drilling template and drill bits to isolate test area, ideal for thicker coatings on concrete

Adhesive Kit

■ Additional adhesive, mixing sticks, palettes and cotton swabs

PosiSoft® for Windows® analysis software

- Displays pressure, rate, test duration and dolly size for up to 200 pulls
- Calculates max, min, mean and standard deviation
- Prints and displays basic charts and histograms
- Real time graphing of individual pulls for a more detailed analysis of applied pressure over time (AT Manual only)
- Allows entry of notes and annotations
- Exports to a document or spreadsheet
- Multi-language support including English, German, Italian, Spanish and French
- Includes USB cable
- Free updates



Dollies

■ Additional supplies of 10, 14, 20 and 50 mm dollies





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PosiTector® DPM Dew Point Meter

Outdoors & Indoors

PosiTector® B₂ 73.5 ↓ %RH 26.5 Ta 29.9 1 Ts Td 21.4 8.5 1 Ts-Td

Measures and records climatic conditions including:

Relative humidity, air temperature, surface temperature, dew point temperature and difference between surface and dew point temperatures. Ideal for surface preparation as required by ISO 8502-4.



Standard model shown with separate probe

DeFelsko® The Measure of Quality

PosiTector® **Dew Point Meter**

A New Level of Confidence for painting contractors & inspectors.

Simple

- Enhanced one-handed menu navigation
- No need to consult complex tables or use a slide rule calculator
- Audio and visual alarm indicates when climate conditions are unsuitable for painting
- All readings are constantly updated and displayed simultaneously
- RESET feature instantly restores factory settings

Durable

- Rugged, outdoor/indoor instrument
- Solvent, acid, oil, water and dust resistant weatherproof
- Shock-absorbing, protective rubber holster with belt clip
- Two year warranty on body and probe

Accurate

- Fast response precision sensors provide accurate, repeatable readings with high reliability and long term stability
- Smart Trend[™] indicators identify rising, falling or stable readings
- Certificate of Calibration showing traceability to NIST included
- Conforms to national and international standards including ISO and ASTM

Versatile

- Internal Memory stores datasets with the simple touch of a button
- Auto Log Mode automatically records 5 parameters at user selected time intervals. Ideal for unattended operation.
- Every stored reading is date and time stamped
- Field calibratable
- Celsius/Fahrenheit switchable
- Selectable display languages
- Hi Contrast backlit display for bright or dark environments
- Flip display enables right-side-up viewing
- Uses alkaline or rechargeable batteries (built-in charger)

Powerful

- Universal body accepts all PosiTector DPM, 6000, and SPG probes
- Hold function freezes the display allowing readings to be manually recorded
- USB port for fast, simple connection to a PC and to supply continuous power. USB cable included
- USB mass storage stored readings and graphs can be accessed using universal PC/Mac web browsers or file explorers. No software required
- Software updates via web keep your instrument current
- Connects to PosiTector.net (see far right panel)

D

MEASURES

RH - relative humidity

Ta – air temperature

Ts - surface temperature

CALCULATES

Td - dew point temperature

 T_S-T_d – the difference between surface and dew point temperatures

Gage Selection...

Select Standard or Advanced Features

Standard Models

Includes ALL features as shown on left plus...

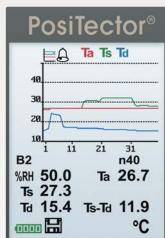
- Monochrome display
- Storage of 2,500 datasets (RH, Ta, Ts, Td, Ts-Td). Stored readings can be viewed or downloaded
- Auto Log Mode automatically records all 5 parameters at user selected time intervals. Runs unattended on batteries for up to 50 hours or continuously via USB

Advanced Models

Includes ALL features as shown on left plus...

- Hi Contrast reversible color LCD
- Storage of 20,000 datasets (RH, Ta, Ts, Td, Ts-Td) in up to 1,000 batches and sub-batches. Stored readings can be viewed or downloaded
- Auto Log Mode automatically records all 5 parameters at user selected time intervals. Data can be streamed via USB or Bluetooth at each interval. Runs unattended on batteries for up to 8 months or continuously via USB
- On screen help, real time graphing, picture prompting, and batch notes
- Data transfer via USB to a PC or via Bluetooth Wireless Technology to a PC or printer
- User defined limits for all parameters with visible and audible warnings
- Wet Bulb temperature can be displayed
- Trend Charts graph readings in real-time

Advanced model display shown in Memory Mode with real-time graphing



Select from 2 Probe Styles

Built-in Probe

■ Includes built-in surface temperature sensor

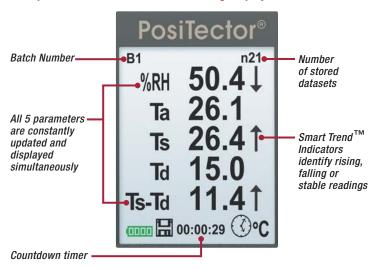
Separate Probe

- Includes magnetic surface temperature sensor with armored cable. Ideal for unattended auto logging during work shift or at night
- Includes magnetic mount for rubber holster to attach the instrument onto steel structures
- Accepts other optional K-type sensors

Tough Features...



Example of Advanced model with Auto Log Display







Universal body accepts all PosiTector® **DPM**, 6000 and **SPG** probes





- Hand-held Surface Temperature Sensor for spot checking hard-to-reach surfaces
- Self-adhering Surface Temperature Sensor sticks to solid materials including aluminum, wood, concrete, etc. Ideal for unattended monitoring
- Liquid Temperature Sensor general purpose sensor with stainless steel shaft



Analyze uploaded readings using a web browser from anywhere – jobsite or head office.

Accessories

Bluetooth™ Printer receives data from Advanced models

Rechargeable Batteries – a set of encloop NIMH AAA batteries

AC Power Kit for continuous operation or battery charging –works in any country

Protective Lens Shields protect the display from overspray

Probe Style	Built-in	Separate
Ordering Guide		
Standard	DPM1	DPMS1
Advanced	DPM3	DPMS3

Specifications	ecifications Range		Resolution
	–40° to 80° C	± 0.5° C	0.1° C
Surface	80° to 190° C	± 1.5° C	0.1 C
Temperature	–40° to 175° F	± 1° F	0.1° F
	175° to 375° F	± 3° F	0.1 F
Air	–40° to 80° C	± 0.5° C	0.1° C
Temperature	–40° to 175° F	10° to 175° F ± 1° F	
Humidity 0 to 100%		± 3%	0.1%

All Instruments Come Complete with humidity, air and surface temperature sensors, protective rubber holster with belt clip, wrist strap, 3 AAA alkaline batteries, instructions, nylon carrying case with shoulder strap (Built-in probe models), hard shell carrying case (Separate probe models), protective lens shield, Long Form Certificate of Calibration traceable to NIST, USB cable, two (2) year warranty.

Size: 159 x 61 x 31 mm (6.25 x 2.4 x 1.2 in.) **Weight:** 150 g (5.3 oz.) without batteries

Conforms to ISO 8502-4, BS 7079-B4, ASTM D3276 and US Navy NSI 009-32, IMO PSPC, SSPC-PA7 and others





PosiTector® UTG Ultrasonic Thickness Gage



PosiTector® Ultrasonic Thickness Gages

All Gages Feature...

Simple

- Large, easy-to-read, graphics LCD with multilingual support
- One-handed menu navigation
- Pre-programmed velocities simply select from a list of common materials or enter your own with ease
- Bi-color indicator light ideal in a noisy environment
- RESET feature instantly restores factory settings

Durable

- Solvent, acid, oil, water and dust resistant meets or exceeds IP5X
- Scratch/Solvent resistant display suitable for harsh environments
- Shock-absorbing, protective rubber holster with belt clip
- Two (2) year warranty on both gage body and probe

Accurate

- Precision transducers provide fast, accurate readings
- Certificate of Calibration showing traceability to NIST included with every gage
- Conforms to national and international standards including ASTM E797

Versatile

- HiLo Alarm dual-tone alarm and bi-color indicator light audibly and visibly alerts when measurements exceed operator selected limits
- Internal memory stores up to 10,000 readings in up to 1,000 batches
- Built-in Clock date and time stamps each stored measurement
- USB and IR ports for downloading to a PC, printer or data collector
- Single or two point adjustment
- Inch/mm switchable
- Backlit display for dim or dark environments
- Selectable display languages





Flip Display enables right-side-up viewing whether the gage is in your hand, on your belt or on a work table

Select from Two Models

UTG Std model measures the wall thickness of materials such as steel, plastic and more. Ideal for measuring the effects of corrosion or erosion on tanks, pipes or any structure where access is limited to one side.

- 5 MHz dual element transducer
- Scan Mode measurement rate of 20 readings per second with on-screen min and max for quick inspection over a large area

Example of Scan Mode Display (UTG Std only)



UTG ME model features Thru-Paint capability to quickly and accurately measure the metal thickness of a painted structure without having to remove the coating. The most accurate method to measure remaining wall thickness of a painted structure because it automatically disregards the coating, lowering inspection time and expense. Also ideal for measuring on sandblasted materials or other applications requiring a more durable wear face.

- 5 MHz contact probe with wear resistant Alumina probe tip
- Multiple Echo technique averages 3 or more echoes for accurate and reliable readings
- Toggle easily between
 - **-Multiple Echo** mode to eliminate coating thickness, and...
 - -Single Echo mode to detect pits and flaws, and to increase the measurement range
- Built-in temperature compensation ensures measurement accuracy



Tough NEW Features



UTG Std Probe



UTG ME Probe



Choose the right model for your application



UTG Std measures the remaining wall thickness of steel, and more due to the effects of corrosion and erosion.



UTG ME Thru-Paint model measures the metal thickness of a painted structure without having to remove the coating.



Visit www.defelsko.com/applications.htm to view Inspection Application Notes

SPECIFICATIONS

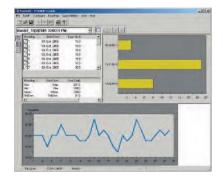
PosiTector UTG Model	UTG Std	UTG ME	
Probe Type	5 MHz dual element	5 MHz contact	
Mode	Single Echo	Single Echo	Multiple Echo
Measurement Range*	Measurement Range* 0.040" to 5.000" 1.00 to 125.00 mm		0.100 to 2.500" 2.50 to 60.00 mm
Thru-Paint Capability	no	no	yes
Measurement Rate - Normal	6 readings/sec	3 readings/sec	
Measurement Rate - Scan	20 readings/sec	n/a	
Resolution	0.001" / 0.01 mm	0.001" / 0.01 mm	
Accuracy	±0.001" / ±0.03 mm	±0.001" / ±0.03 mm	

^{*}Measurement range is for carbon steel and depends upon surface condition, temperature and material.

Options

PosiSoft® for Windows® analysis software

- Allows entry of notes and annotations
- Prints and displays basic charts and histograms
- Exports to a document or spreadsheet
- Includes USB cable
- Free updates



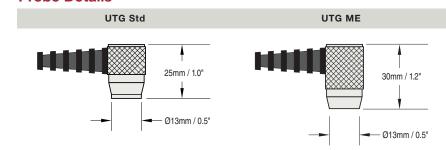
Calibration Test Block (shown on front) to fulfill both ISO and in-house quality control requirements.

AC Power Cable for continuous operation.

IR Printer receives data from all models via wireless infrared.



Probe Details





Conforms to ASTM E797





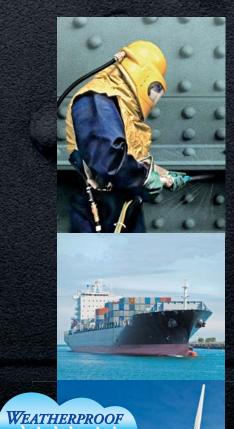
PosiTector SPG Surface Profile Gage



PosiTector®
R
2.3
thou/mils

SPG

Measures and records peak to valley surface profile height



DeFelsko[®]
The Measure of Quality

PosiTector Surface Profile Gage

All Gages Feature...

Simple

- Fast measurement rate of over 50 readings per minute ideal for quickly and accurately measuring large surface areas
- Enhanced one-handed menu navigation
- RESET feature instantly restores factory settings

Durable

- Solvent, acid, oil, water and dust resistant weatherproof
- 60° angle tungsten carbide tip for long life and continuous accuracy – field replaceable
- Rugged, outdoor/indoor instrument ideal for field or shop use
- Shock-absorbing, protective rubber holster with belt clip
- Two year warranty on body and probe

Accurate

- Built-in temperature compensation ensures measurement accuracy
- Certificate of Calibration showing traceability to NIST included
- Glass zero plate and metal shim included
- Conforms to national and international standards including ISO and ASTM

Versatile

- Universal gage body accepts ALL PosiTector SPG, DPM and 6000 probes
- 30° angle interchangeable probe tip available for special applications
- Selectable display languages
- Hi Contrast backlit display for bright or dark environments
- Flip display enables right-side-up viewing
- Uses alkaline or rechargeable batteries (built-in charger)

Powerful

- Continually displays/updates average, standard deviation, min/max thickness and number of readings
- HiLo alarm audibly and visibly alerts when measurements exceed user-specified limits
- Every stored measurement is date and time stamped
- USB port for fast, simple connection to a PC and to supply continuous power. USB cable included
- USB mass storage stored readings and graphs can be accessed using universal PC/Mac web browsers or file explorers. No software required
- Software updates via web keep your gage current
- Connects to PosiTector.net

PosiTector <i>SPG</i> Ordering Guide				
Standard	SPG1			
Advanced	SPG3			
Range	0 – 500 μm (0 – 20 mils)			
Accuracy	± (5 μm + 5%) ± (0.2 mil + 5%)			

Select Standard or Advanced Features

Standard Model

Includes ALL features as shown on left plus...

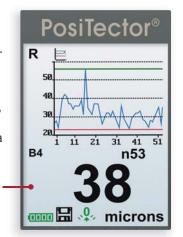
- Monochrome display
- Storage of 250 readings—stored readings can be viewed or downloaded

Advanced Model

Includes ALL features as shown on left plus...

- Hi Contrast reversible color LCD
- Storage of 100,000 readings in up to 1,000 batches and sub-batches
- SmartBatchTM allows entry of userdefined parameters and criteria to comply with various standards and test methods
- On screen help, real time graphing, picture prompting and batch notes
- Data transfer via USB to a PC or via
 Bluetooth Wireless Technology to a PC or printer

Advanced model display shown in Memory Mode with real-time graphing



Accessories

- Replacement Tungsten Carbide Probe Tips –
 2 angles available 60° or 30°, includes replacement tool
- Bluetooth® Printer receives data from Advanced Models
- AC Power Kit for continuous operation or battery charging works in any country
- Rechargeable Batteries a set of eneloop NiMH AAA batteries
- Protective Lens Shields protect the display from overspray

All Gages Come Complete with glass zero plate, metal shim, protective rubber holster with belt clip, wrist strap, 3 AAA alkaline batteries, instructions, nylon carrying case with shoulder strap, protective lens



Conforms to ASTM D4417-B, AS 3894.5-C (with optional 30° tip angle), U.S. Navy NSI 009-32, SANS 5772 and others







DeFelsko Coating Thickness Standards

Certified coating thickness standards are ideal for verifying the accuracy and operation of coating thickness gages and are an important component in fulfilling both ISO and in-house quality control requirements.

Many organizations require verification of gage accuracy at the test site each time a coating thickness gage is put into service and at frequent intervals during use. Ideal for this purpose, DeFelsko certified coating thickness standards have measured values traceable to a National Metrology Institution.

Certified Coated Metal Plates and Polystyrene Blocks

- Used to verify the accuracy and operation of any Type 1 (mechanical) and Type 2 (electronic) magnetic, eddy-current or ultrasonic coating thickness gage
- Ideal for use in the calibration lab, in the field or on the factory floor
- Standards with steel or aluminum substrates consist of 4 plates mounted in a protective binder
- Polystyrene thickness standards consist of 4 blocks supplied in a rugged acrylic storage box
- Individually serialized for traceability to NIST or PTB includes a Certificate of Calibration
- Certified and labeled in both Metric and Imperial units

Plate Diameter: 38 mm (1.5") Measurement Diameter: 25 mm (1")

Polystyrene Blocks: 38 x 70 mm (1.5" x 2.75")







Order		Α	pproxima	te Thickne	ess	Coating/	
Code	Code Ideal for		Plate 2	Plate 3	Plate 4	Substrate	Accuracy
S1	PosiTector 6000 F, FS, FRS, FN, FNS, FNRS PosiTest F & FM	0	75 µm 3 mils	250 µm 10 mils	1500 µm 60 mils	Enova on	
S2	PosiTector 6000 F0S, F45S, F90S PosiTest DFT Ferrous & Combo	0	75 µm 3 mils	250 µm 10 mils	1000 µm 40 mils	Epoxy on Steel (Ferrous)	+/- 0.43 µm +/- 0.017 mil
S3	PosiTest G & GM PosiPen A, B & C	0	15 μm 0.6 mils	40 µm 1.6 mils	100 µm 4 mils	(Ferrous)	
A1	PosiTector 6000 N, NS, NRS, FN, FNS, FNRS	0	75 µm 3 mils	250 µm 10 mils	1500 µm 60 mils	Epoxy on	
A2	PosiTector 6000 NAS, N0S, N45S, N90S PosiTest DFT Combo	0	75 µm 3 mils	250 µm 10 mils	500 μm 20 mils	\ -	+/- 0.43 µm +/- 0.017 mil
А3	PosiTector 100B, 200, 200B	75 µm 3 mils	125 µm 5 mils	250 µm 10 mils	500 μm 20 mils	Ferrous)	
P1	PosiTector 6000 FT, FTS, NTS, FNTS	375 µm 15 mils	2 mm 80 mils	4.5 mm 185 mils	6.5 mm 250 mils		
P2	PosiTector 6000 FHS, NHS, EOC	2.5 mm 100 mils	6.5 mm 250 mils	13 mm 500 mils	19 mm 750 mils		+/- (2.5 µm +
P3	PosiTector 100C	375 μm 15 mils	1.5 mm 60 mils	2.5 mm 100 mils	4.5 mm 185 mils	Polystyrene	0.05% of thickness)
P4	PosiTector 100D	1.5 mm 60 mils	2.5 mm 100 mils	4.5 mm 185 mils	6.5 mm 250 mils	Blocks	+/- (0.1 mil + 0.05% of
P5	PosiTector 6000 FKS, NKS	1.5 mm 60 mils	2.5 mm 100 mils	6.5 mm 250 mils	12 mm 480 mils		thickness)
P6	PosiTector 200C	375 μm 15 mils	1.5 mm 60 mils	2.5 mm 100 mils	3 mm 125 mils		



DeFelsko Plastic Shims

- Simulate a coating over a particular substrate material or shape.
 Gage performance can be conveniently verified on a regular basis as required by some international test methods
- For use with all Type 2, electronic coating thickness gages
- Protects the probe from damage or premature wear when placed over hot or abrasive surfaces
- Can be placed on top of soft or tacky coating films to obtain thickness measurements without the gage probe depressing the coating film

Certified Plastic Shims

- Certified shims provide an economical alternative to Coated Metal Plates but have a reduced accuracy
- Each shim is packaged in its own protective plastic pouch
- Certificate of Calibration showing traceability to NIST is included with each shim or set of shims
- Certified and labeled in both Metric and Imperial units



Non-Certified Plastic Shims

- Provide a quick operational check of the instrument by allowing the user to perform practice measurements
- Can be used to protect the probe when measuring on tacky, rough or hot surfaces
- Labeled in both Metric and Imperial units
- Available as a set of 5 (below)

Approximate Thickness	Color	Accuracy
25 μm (1 mil)	Orange	+/- 20%
50 μm (2 mils)	Red	+/- 10%
125 μm (5 mils)	Blue	+/- 5%
250 μm (10 mils)	Brown	+/- 5%
500 μm (20 mils)	Yellow	+/- 5%



Steel and aluminum zero plates are available

Order Code	Approximate Thickness	Color	Accuracy
CS1	25 μm (1 mil)	Orange	+/- 2 μm (+/- 0.08 mils)
CS2	50 μm (2 mils)	Red	
CS3	75 μm (3 mils)	Green	
CS5	125 μm (5 mils)	Blue	
CS10	250 μm (10 mils)	Brown	
CS20	500 μm (20 mils)	Yellow	
CS40	1000 µm (40 mils)	White	
CS60	1500 µm (60 mils)	Black	
CSS	Complete set of 8		



A package of 5 non-certified shims is included with all DeFelsko electronic coating thickness gages (Type 2).

Note: Shims are generally not acceptable for use with Type 1, magnetic pull-off gages such as the PosiTest FM/GM and PosiPen.





DeFelsko®

DeFelsko Corporation, a U.S. manufacturer of coating thickness gages and inspection instruments, has been providing **Simple**, **Durable and Accurate** gages since 1966.

Our state-of-the-art facility in Ogdensburg, New York houses research, manufacturing, sales, service, and shipping departments. Every gage is inspected under our strict quality guidelines.

In addition to high product quality we are proud to offer the **DeFelsko Advantage**:

Technical Support

Our highly trained technical support team is dedicated to solving problems quickly. Call or email our technical department for all questions including order status, sales, technical, quality & calibration, accounting, shipping or general information.

Fast Service

Our service department's goal is to evaluate your gage and contact you within one (1) day of our receiving the gage in for service or calibration.

On-Site Manufacturing

All parts are available on-site which gives us the ability to repair gages quickly and ship most gages within one day anywhere in the world.

DeFelsko[®]

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