PosiTector® RTR

Replica Tape Reader

Digital spring micrometer measures and records peak to valley surface profile height using replica tape



For use with Testex™ Press-O-Film™ Replica Tape



PosiTector RTR

All Gages Feature...

Simple

- One-handed menu navigation
- RESET feature instantly restores factory settings
- Automatically subtracts the 50.8 µm (2 mil) incompressible substrate from all readings
- Minimizes inspector workload by reducing the number of replicas needed to ensure accuracy

Durable

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

Accurate

- Measures height (H) and linearized height (H_I) (see green inset)
- Certificate of Calibration showing traceability to NIST included
- Check Shim provided to verify accuracy
- Conforms to national and international standards including ISO and ASTM

Versatile

- PosiTector body accepts all PosiTector RTR, 6000, SPG, DPM, UTG and 200 probes easily converting to a coating thickness gage, surface profile gage, dew point meter or ultrasonic wall thickness gage
- Mils/Microns switchable
- Selectable display languages
- High 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 height and number of readings
- Every stored measurement is date and time stamped
- Screen Capture—record and save screen images into memory for record keeping and review
- USB port for fast, simple connection to a PC and to supply continuous power. USB cable included.
- PosiSoft USB Drive—stored readings and graphs can be accessed using universal PC/Mac web browsers or file explorers. No software required
- Software updates via the internet keep your gage current
- Connects to PosiSoft.net (see far right panel)

Gage Selection...

Select Standard or Advanced Features

Standard Models

Includes ALL features as shown on left plus...

- Monochrome display with transflective technology enhances sunlight readability
- Storage of 250 readings—stored readings can be viewed or downloaded

Advanced Models

Includes ALL features as shown on left plus...

- High contrast reversible color LCD
- Storage of 100,000 readings in up to 1,000 batches
- Real time graphing, picture prompting and more
- Batch annotation—add notes and change batch names with onscreen QWERTY keyboard
- WiFi technology wirelessly synchronizes with PosiSoft.net, downloads software updates and connects with mobile devices for expanded functionality
- Data transfer via USB to a PC or via Bluetooth Wireless Technology to a PC or printer



Advanced model display shown in Memory Mode



Test Surface Cleaning Putty included

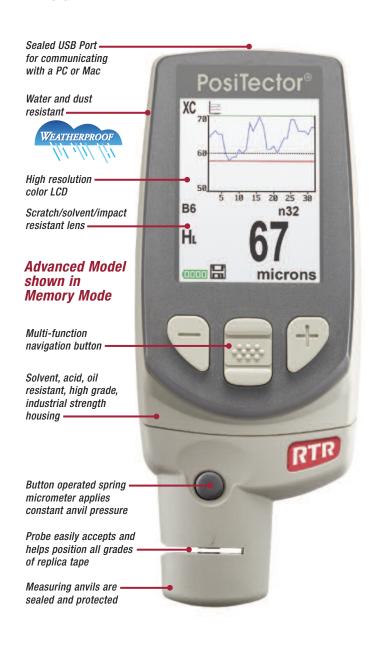


Stainless Steel Burnishing Tool ensures consistency



Align probe arrows with tape positioning dots

Rugged Features...





PosiSoft USB Drive Connect to a PC/Mac using the supplied USB cable to access and print stored readings, graphs, photos, notes and screen captures. No software or internet connection required.

PosiSoft.net A web-based application offering secure centralized management of PosiTector readings. Access your data from any web-connected device.

PosiSoft.net

35.8

Synchronize,

. Share, Report,

Export, Archive

PosiSoft Software

Desktop software for downloading, viewing and printing your measurement data

PosiSoft Mobile

Access readings, graphs, capture photos

and update annotations through WiFi enabled devices such as tablets, smart phones and computers. (Advanced models only)



Linearized Profile Height Measurement (H_L)

Two grades of Testex Press-0-Film replica tape, "Coarse" and "X-Coarse," are available to span the primary range of surface profiles for the coatings and linings industry—20 to 115 μ m/0.8 to 4.5 mils.

An unfortunate characteristic of replica tape is that conventional spring micrometer measurements are most accurate near the middle of each grade's range and least accurate at the outer ends of each grade's range. That is why two other grades, Coarse Minus (<20 $\mu\text{m}/0.8$ mils) and X-Coarse Plus (>115 $\mu\text{m}/4.5$ mils), are used to check and, if necessary, adjust measurements at the upper and lower ends of the primary range.

Inside the primary range, Coarse and X-Coarse tape share a 38–64 µm (1.5–2.5 mils) "overlap" region. Measurements with conventional micrometers require a complicated and time consuming procedure of averaging one reading using Coarse grade and one reading using X-Coarse grade to achieve reasonable accuracy.

With a single measurement, the PosiTector RTR produces a more accurate peak-to-valley height measurement H $_{\rm L}$ from Coarse or X-Coarse tapes that has been adjusted for their non-linearity. There is no need to average two or more replicas from different grades of tape AND there is no need to subtract the 50.8 $\mu m/2$ mils of incompressible polyester substrate. The advantages are a reduction in measurement uncertainty,

inspector workload, likelihood of error, and the number of replicas needed by inspectors to assure accuracy.

The PosiTector RTR can also display a height value (H) that is comparable to what conventional analog spring micrometers would display after the 50.8 µm/2 mils of incompressible polyester substrate has been subtracted.

PosiTector RTR Ordering Guide	
Standard	H1
Advanced	H3
Range	20–115 μm 0.8 – 4.5 mils
Accuracy (H)	±5 μm ±0.2 mil
Resolution	1 μm 0.1 mil
Anvil Diameter	Ø6.3 mm Ø0.25 in
Anvil Pressure	110 grams-force 1.1 Newtons



PosiTector bodies accept all 6000, 200, DPM, UTG, SPG and RTR probes



Testex Press-O-Film Replica Tape

Replica Tape provides a simple way to obtain an impression of a surface for analysis. It consists of a layer of crushable plastic micro foam affixed to a 50.8 µm (2 mil) incompressible polyester film. When compressed against a roughened surface, the foam collapses and acquires an impression, or reverse replica, of the surface. It is available in a number of grades to accommodate measurements in different profile ranges.

Placing the compressed tape (replica) into the PosiTector RTR gives a measure of the average maximum peak-to-valley height of the surface roughness profile.

The gage automatically subtracts the thickness of the polyester substrate from all measurements.

ALL GAGES COME COMPLETE with stainless steel burnishing tool, cleaning card (5), check shim, surface cleaning putty, protective rubber holster with belt clip, wrist strap, 3 AAA alkaline batteries, instructions, nylon carrying case with shoulder strap, protective lens shield, Long Form Certificate of Calibration traceable to NIST, USB cable, two (2) year warranty.

Replica Tape sold separately

SIZE: 152 x 61 x 28 mm (6" x 2.4" x 1.1") **WEIGHT:** 140 g (4.9 oz.) without batteries

Conforms to ASTM D4417, ISO 8503-5, NACE RP287, SSPC-PA 17,

SSPC-SP5, SP6, SP10, SP11-87T and others

Options

Testex Press-O-Film Replica Tape Coarse and X-Coarse grades

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 encloop NiMH AAA batteries

Protective Lens Shields protect the display from overspray

Replacement Stainless Steel Burnishing Tool

Replacement Cleaning Cards (20)—to clean the residual adhesive and debris from the anvils

Replacement Surface Cleaning Putty (5)—to clean the test surface Replacement Check Shim—to verify accuracy



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