PosiTector® *RTR* 3D
Replica Tape Reader

3D

Measures and records surface profile parameters using replica tape
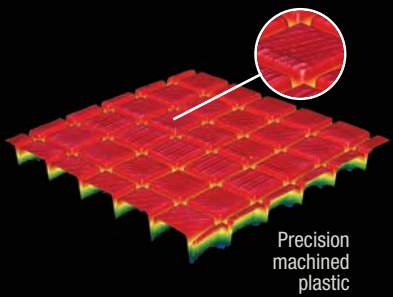
Precision machined plastic
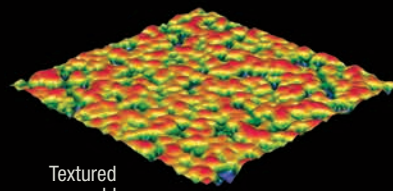
Textured mold

Shot blasted steel
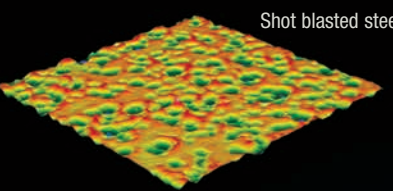
PosiTector®

XC

Ra   6.3
Rt   35.8
Rpc 14.0 #/cm

microns

*For use with **OPTICAL Grade** Testex™ Press-O-Film™ Replica Tape*

Advanced model shown

DeFelsko®
The Measure of Quality

Bluetooth®   WiFi   Available on the App Store

PosiTector® RTR 3D

All Gages Feature...

Simple

- Measures peak height (H$_L$) and common 2D/3D profile parameters such as Ra, Rz, Sq, Spd and more (see inset below)
- Enhanced one-handed menu navigation
- RESET feature instantly restores factory settings

Durable

- Solvent, acid, oil, water and dust resistant—weatherproof
- Rugged indoor/outdoor instrument—ideal for field or laboratory use; flat curved or irregular surfaces
- Shock-absorbing, protective rubber holster with belt clip
- Two year warranty on gage body AND probe

Accurate

- Certificate of Calibration (containing Ra and Rt measurements) showing traceability to an accredited national laboratory included
- Conforms to national and international standards including ISO and ASTM

Versatile

- PosiTector body accepts all PosiTector RTR, 6000, 200, SPG, DPM, SST, SHD and UTG probes easily converting from a surface profile gage to a coating thickness gage, dew point meter, soluble salt tester, Shore hardness durometer or ultrasonic wall thickness gage
- Selectable display languages
- High contrast LCD with backlit display
- Flip Display enables right-side-up viewing
- Uses alkaline or rechargeable batteries (built-in charger)

Powerful

- Calculates and records all fourteen 2D and 3D parameters (below) with each measurement
- Screen Capture—save screen images for record keeping and review
- Sealed 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.
- Every stored measurement is date and time stamped
- Includes PosiSoft suite of software for viewing and reporting data
- Apply short and long cutoff filters and discard lengths to optimize the analysis for a specific application
- Orient the 2D trace between horizontal, vertical and diagonal (XY, YX)

2D Parameters – 'R' – Profile Parameters

R$_a$	Roughness Average
R$_q$	Root mean square roughness
R$_p$	Maximum Profile Peak Height
R$_v$	Maximum Profile Valley Depth
R$_t$	Total Profile Height
R$_z$	Average Maximum Height of the Profile
R$_{pc}$	Peak Count per unit length

3D Parameters – 'S' – Height/Amplitude

H	Average maximum peak-to-valley height
S$_a$	Average roughness
S$_q$	Root mean square roughness
S$_z$	Maximum area peak-to-valley height
S$_p$	Maximum area peak height
S$_v$	Maximum valley depth
S$_{pd}$	Areal peak density

XC   λs=0 λc=0.8

Ra 6.3   H$_L$ 65
Sa 6.9   S$_{pd}$ 82
microns

Typical display of the Advanced model

Optical Grade Tape is required for measuring 2D/3D parameters

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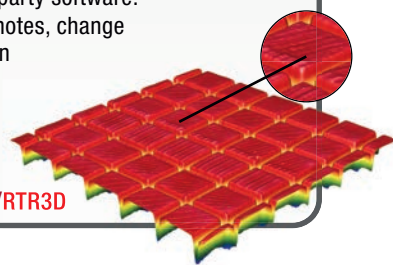## Select Standard or Advanced Features

Standard Models

Includes ALL features as shown on left plus...

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

Advanced Models

Includes ALL features as shown on left plus...

- Storage of 100,000 readings in up to 1,000 batches
- Live graphing of measurement data
- Download high resolution Surface Data Files (.SDF) for analysis in the included PosiSoft or third-party software
- Generates two dimensional (2D) and three dimensional (3D) thumbnail images. Ideal for inclusion into reports and confirming consistent blasting results.
- WiFi technology wirelessly synchronizes with PosiSoft.net and downloads software updates
- ✦ Bluetooth® 4.0 Technology for data transfer to a mobile device running the PosiTector App or optional portable printer. **BLE API** available for integration into third-party software.
- Onscreen Batch annotation—add notes, change batch names and more with built-in QWERTY keyboard

For a complete comparison of the Standard and Advanced features visit www.defelsko.com/RTR3D

Ordering Guide	Peak Height/2D/3D
Standard	RTR3D1
Advanced	RTR3D3
Probe Only	PRBRTR3D

Measuring Range (H)	20 – 115 µm	0.8 – 4.5 mils
Measuring Range (Rt)	10 – 115 µm	0.4 – 4.5 mils
Minimum Roughness (Ra)	2 µm	0.08 mil/80 µin
Accuracy (H)	± 5 µm	± 0.2 mil
Accuracy (Rt)*	± (5 µm + 5%)	± (0.2 mil+ 5%)
Accuracy (Ra)*	± (0.25 µm + 5%)	± (0.01 mil + 5%)
Anvil Pressure	1.1 Newtons	110 grams-force
Anvil Size	Ø6.25 mm	Ø0.25 inch
Field of View	3.8 x 3.8 mm	0.149 x 0.149 inch
Lateral Sampling	3.7 µm	0.145 mil
Vertical Resolution	100 nm - 2D/3D 10 nm - SDF	3.93 µin - 2D/3D 0.393 µin - SDF
Resolution	0.1 µm	0.01 mil

* When measured using Optical Grade X-Coarse Replica Tape

ALL GAGES COME COMPLETE with one roll of Optical Grade X-Coarse tape, stainless steel burnishing tool, burnishing ball, 5 cleaning cards, check shim(s), replica tape holder, microfiber cleaning cloth, 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 (containing Ra and Rt values) traceable to an accredited national laboratory, USB cable, PosiSoft Software, two (2) year warranty on body and probe.

Conforms to ASME B46, ASTM D4417, ISO 8503-5, NACE SP287, SSPC-PA 17, SSPC-SP5, SP6, SP10, SP11-87T and others.