WIRELESS OPTICAL TRACKING METROLOGY SYSTEM

FreeScan Trak ProW

Wireless 3D Dynamic Tracking & Scanning System with Expanded Range

TRACK SMARTER, EXPAND FURTHER



A wireless optical tracking and scanning system for large parts. The FreeTrak W tracker follows the TE25W scanner in real time out to 8.6 m, so nothing gets stuck to the part. It scans up to 5,500,000 points per second at up to 0.023 mm, runs on battery power, and the optional FreeProbe adds contact probing.

0.023 mm	8.6 m	5.5 M
ACCURACY	MAX. TRACKING DISTANCE	POINTS / SEC

- **Ultra-Wide Measuring Range**
- **No Markers Fast-Paced Scanning**
- **Wireless Scanning Wherever You Go**
- **Video Photogrammetry**
- **Tested in ISO 17025 Lab**



A mining haul truck scanned outdoors. The FreeTrak W on its tripod tracks the TE25W, and the operator follows progress on a tablet. No cables, no mains power.

Wireless Tracking for Large Parts

The FreeScan Trak ProW is the wireless member of the FreeScan Trak Pro series. It keeps marker-free scanning and metrology-grade accuracy, runs on battery power with no cables, and adds a longer tracking range and a larger scanning volume for big measuring jobs.

FreeTrak W. Tracking bar that locates the scanner in real time, with a built-in status screen.

TE25W. Wireless handheld laser scanner, tracked with no markers on the part.

FreeProbe (optional). Contact probing in the same tracking volume.



A large machine casting scanned from one tripod position. The tracker stands meters from the part and still follows the scanner.



Scanning a weathered truck body with no targets on it. The tracker finds the TE25W in real time while the operator checks the tablet.

Ultra-Wide Measuring Range

The FreeTrak W tracks the scanner up to 8.6 m away, for a single-station tracking volume of 206.7 m³. That means far fewer leapfrog moves, where the tracker is relocated and re-referenced, on large parts.

No Markers, Fast Scanning

The FreeTrak W recognizes and positions the TE25W in real time, so no reference markers go on the part. Setup is shorter, the workflow is simpler, and data comes in at up to 5,500,000 points per second.

Three Laser Modes

The TE25W switches between three laser modes to suit the surface, from fast coverage of large areas to fine detail and deep pockets.

50	laser lines high-speed scan	**7**	parallel lines detailed scan	**1**	single line deep pockets

Wireless Scanning Wherever You Go

Built-in computing modules capture and process data on board, so results come fast on site. A built-in wireless module removes cables and extra devices while it streams scan data in real time.



Integrated wireless: a van scanned at the curb, with no cable between scanner, tracker and PC.



Flexible power: the TE25W in hand. Its external power bank keeps the scanner light for long sessions.



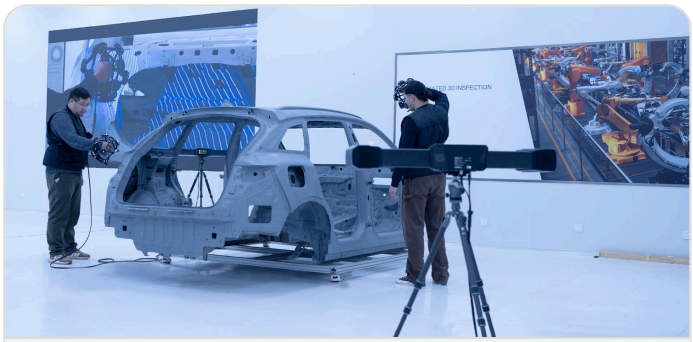
Real-time display: the FreeTrak W screen shows connection status, temperature, tracking distance and range.



The VPG calibration rod set on a car-body sill. The tracker's video checks it in real time, so no coded targets go on the part.

Video Photogrammetry (VPG)

SHINING 3D's patented video photogrammetry replaces coded markers. A calibration rod and real-time video checks keep volumetric accuracy consistent and speed up setup on large objects.



Two operators scan one car body at once. A second tracker stands behind the car, so the systems cover the whole part together.

Customized Measurement Solutions

Multiple systems can work together on one job. Each adds tracking range, so very large objects get full-field coverage quickly and accurately.



Live scan data on a wall screen while the car body is scanned, so the operator sees gaps before moving on.

Advanced Software

Data quality view. Check marker quality during VPG and data completeness while you scan.

Intelligent resolution. Mesh density follows the part's curvature for sharper detail.

AI feature recognition. Round and square holes are detected and measured.

Inspection module. Built in and certified by PTB for full-size inspection.



FreeProbe touching off a feature inside a car body, an area the scanner's laser cannot see.

FreeProbe (Optional)

The FreeProbe measures geometric features quickly with no mesh. Use it for hidden areas the scanner cannot reach. Ergonomic grip, sturdy build, a multifunction button, and it works with mainstream inspection software.

Certified Accuracy: ISO/IEC 17025 Laboratory

The accuracy numbers in this brochure are lab results. Every Trak ProW is acceptance-tested to VDI/VDE 2634 Part 3 and ISO 10360 in SHINING 3D's ISO/IEC 17025 accredited accuracy lab, and ships with an inspection report and a calibration certificate traceable to international standards. That is the record your quality manager and your customer's auditor will ask to see.



Large-volume hall: reference scale bars set the traceable length standard for volumetric accuracy tests.



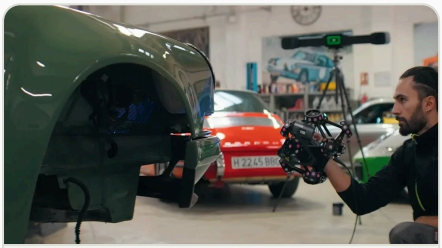
Long-range rail: tracking distance and working range checked along a calibrated track.



Calibration benches: each system is verified to VDI/VDE 2634 Part 3 and ISO 10360 before it ships.

Proven Across Industries

Where the Trak ProW works: large, heavy or fixed parts, indoors or out, that can't go to a CMM.



Automotive restoration: a classic car body scanned in the workshop, with no markers on the paint.



Plant equipment: motors, piping and a vessel measured where they stand on the plant floor.



Heavy industry: laser lines on weathered, rusted steel, scanned outdoors without targets.

Specifications

Specification	FreeTrak W (tracker)	TE25W (scanner)
Accuracy	0.023 mm (0.0009 in)	
Volumetric accuracy (based on measuring range)	15.6 m³ (3.5 m): 0.046 mm · 45 m³ (5 m): 0.063 mm 76 m³ (6 m): 0.088 mm · 128 m³ (7.2 m): 0.127 mm	
Volumetric accuracy with VPG	0.044 mm + 0.012 mm/m (extension volume) (0.0017 in + 0.00014 in/ft)	
Max. tracking range	8.6 m from the tracking bar (28.2 ft) 206.7 m³ single-station tracking volume	
Scan speed	Up to 5,500,000 points/s	
Resolution	0.01 – 10 mm (0.0004 – 0.39 in)	
High-speed scan	—	Included (50 laser lines)
Detailed scan	—	Included (7 parallel laser lines)
Deep-pocket scan	—	Included (1 laser line)
Weight	8.2 kg (18.1 lb)	1.47 kg (3.2 lb)
Power	Battery-powered wireless operation; external power bank for the TE25W	
Display	Built-in screen: connection status, operating temperature, tracking distance and range	—
Connection	Wireless & wired mode (fiber optic)	
Certifications	CE, FCC, RoHS, WEEE, KC, FDA, UKCA, IP50, TELEC, TiSAX	
Acceptance test	VDI/VDE 2634 Part 3 & ISO 10360 (tested in an ISO/IEC 17025 accredited accuracy lab)	

VDI/VDE 2634 PART 3 · ISO 10360 · ISO/IEC 17025 ACCREDITED LAB · IP50 · TISAX

See it on your parts.

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