

FARO Laser Tracker X



[A] XtremeADM

Acquires the beam instantly with fast, high-accuracy Absolute Distance Measurement

[B] SelfComp

Automatically compensates to quickly ensure high accuracy

[C] Integrated Weather Station

The Integrated Weather Station is part of the full featured standard equipment

[D] Smart Warm-Up

Newly expanded operating temperature, along with Active Thermal Compensation make it ready for all environments

[E] Versatile Mounting Options

Mounts vertically, horizontally or upside down, providing versatility in tight or congested shop areas

[F] Spherically Mounted Retroreflectors

Certified Precision Probes

Xtreme Measurement Range!

The FARO Laser Tracker X is a portable, contact measurement system that uses laser technology to accurately measure large parts and machinery across a wide range of industrial applications. It has a 70m (230-ft.) diameter range, achieves 0.025mm (0.001") 3-D single-point accuracy, and is rugged enough for the shop-floor environment. The system measures 3-D coordinates with its laser by following a mirrored spherical probe. High-accuracy, angular encoders — along with XtremeADM — Absolute Distance Measurement, reports the 3-D position of the probe in real-time.

Most Common Applications

- Aerospace:** Inspection & Certification, Automated Assembly Systems
- Automotive:** Tool Certification and Repeatability, Reverse Engineering
- Tool & Die:** Master Molds, Tool Setup, Composite Tooling
- Heavy Equipment:** In-Process/Large Part Inspection, Installation and Alignment

Features

- ▶ 70m (230-foot) range
- ▶ Up to 0.025mm (0.001") accuracy
- ▶ Automated Compensation
- ▶ Instant-On Laser
- ▶ XtremeADM instant beam acquisition

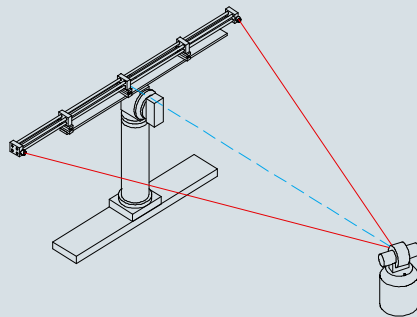
FARO Laser Tracker X

Applications

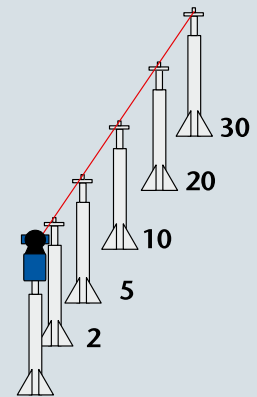


Point-to-Point Typical Accuracy*

| Horizontal Scale Bar Measurement | |
|----------------------------------|-------|
| Range (m) | (mm) |
| 2 | 0.032 |
| 5 | 0.046 |
| 10 | 0.068 |
| 20 | 0.110 |
| 30 | 0.153 |
| 35 | 0.174 |



| In-Line Distance Measurement | |
|------------------------------|-------|
| Length (m) | (mm) |
| 2 - 5 | 0.011 |
| 2 - 10 | 0.013 |
| 2 - 20 | 0.017 |
| 2 - 30 | 0.021 |
| 2 - 35 | 0.023 |



System Specifications

Head size: 280 x 554 mm (11 x 21.8 in)
 Head weight: 20 kg (44 lbs)
 Controller size: 160 x 180 x 280 mm (6 x 7 x 11 in)
 Controller weight: 5 kg (12 lbs)

Range

Horizontal envelope: +/- 270°
 Vertical envelope: +75° to -50°
 Minimum working range: 0m
 Maximum working range: 70m (230-ft.) diameter

Environmental

Altitude: -700 to 2,450 meters
 Humidity: 0 to 95% non-condensing
 Operating Temperature: -15°C to 50°C (5°F to 122°F)

Distance Measurement Performance*

Resolution: 0.5µm
 Sample rate: 10,000 samples/sec
 Accuracy: 10µm + 0.4µm/m
 R0 Parameter: 10µm

Angle Measurement Performance*

Angular accuracy: 18µm + 3µm/m
 Maximum angular velocity: 180°/sec
 Optional Precision Level Accuracy: +/- 2 arcseconds

- * Typical Accuracy shown is half the Maximum Permissible Error (MPE) and variation in air temperature is not included. MPE and all accuracy specifications are calculated per ASME B89.4.19 Standard.
- * Specifications, descriptions, and technical data may be subject to change.



**ISO-17025 : 2005
 ACCREDITED
 Certificate # L1147**

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