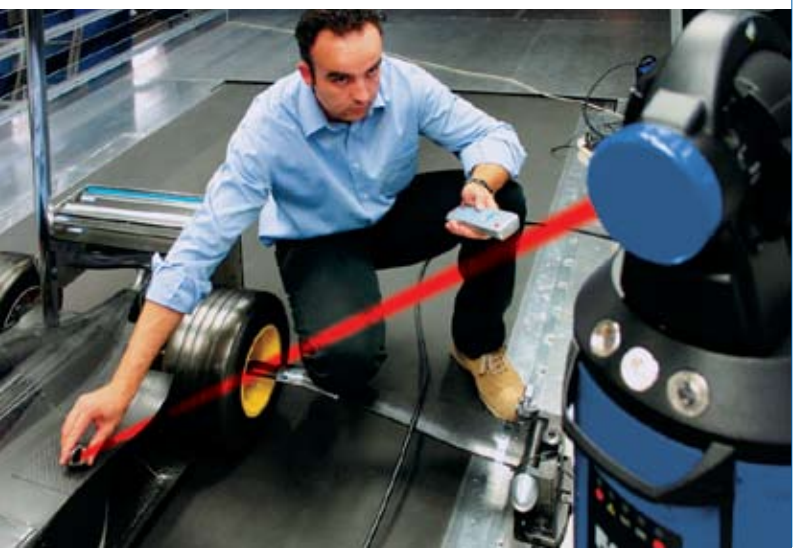
LASER TRACKER X

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 230-ft. diameter range, achieves 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.

- 230-foot range
- Up to .001" accuracy
- Automated Compensation
- Instant-On Laser
- XtremeADM instant beam acquisition

Most Common Applications

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



A XtremeADM

B SelfComp

C Smart Warm-Up

D Integrated Weather Station

E Versatile Mounting Options

F Spherically Mounted Retroreflectors

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

B Automatically compensates to quickly ensure high accuracy

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

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

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

F Certified Precision Probes

FARO® LASER TRACKER X

System Specifications

Head size 11 x 21.8 in (280 x 554 mm)

Head weight 44 lbs (20 kg)

Controller size 6 x 7 x 11 in (160 x 180 x 280 mm)

Controller weight 12 lbs (5 kg)

Range

Horizontal envelope +/- 270°

Vertical envelope +75 to -50

Minimum working range 0 m

Maximum working range 230-ft. (70 m) diameter

Environmental

Altitude -700 to 2,450 meters

Humidity 0 to 95% non-condensing

Operating Temperature 5°F to 122°F (-15°C to 50°C)

Distance Measurement Performance*

Resolution 0.5µm

Sample rate 10,000 samples/sec

Accuracy 10µm + 0.4µm/m

RO Parameter 10 µm

Angle Measurement Performance*

Angular accuracy 18µm + 3µm/m

Maximum angular velocity 180°/sec

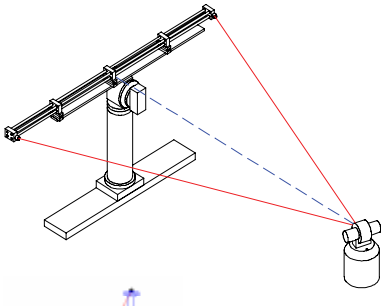
Optional Precision Level Accuracy +/- 2 arcseconds

- **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.*

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 to 5 m	0.011
2 to 10 m	0.013
2 to 20 m	0.017
2 to 30 m	0.021
2 to 35 m	0.023

"The FARO Laser Tracker has already saved us hundreds of hours in the development process."
— Eclipse Aviation

Certified ISO 9001 by BVQI ANAB ACCREDITED

GSA Contract Holder

www.faro.com

800.736.0234

LABORATORY ACCREDITATION BUREAU

ISO-17025 : 2005

ACCREDITED
Certificate # L1147

Global Sales Offices: USA • Germany • France • United Kingdom • Spain • Italy • Netherlands • Poland • Singapore • China • Japan • India • Brazil

FARO, THE MEASURE OF SUCCESS, FAROARM, XTREMEADM and SCANARM are registered trademarks and trademarks of FARO Technologies, Inc. © 2007 FARO Technologies, Inc. All Rights Reserved.

04REF201-033.pdf Revised: 6/5/07