

FARO Laser ScanArm® V3



Improved Accuracy*

New V3 Laser Line Probe with 30% higher accuracy

Enhanced Material Scanning

Improved scanning of dark and reflective surfaces without coating

Smaller, Lightweight Design*

V3 Laser Line probe is over 30% lighter and smaller

50% Faster Warm-up Time*

Start capturing the highest quality data in half the time

Fully Integrated 7-Axis Scanning

No need for interface box or external wiring

Wireless Scanning

Laser Line Probe is fully compatible with the FaroArm's **Bluetooth®** technology

Ergonomic, Removable Handle

Provides comfortable stress-free usage

*When compared to the FARO Laser Line Probe V2.

Higher Accuracy. Enhanced Performance. Lighter Weight

The all-new FARO Laser ScanArm V3 is ideal for inspection, point cloud-to-CAD comparison, rapid prototyping, reverse engineering, and 3D modeling. Users can hard-probe measure simple point variations, then laser scan sections for larger volumes of data – without the wasted time of adding/removing attachments, untangling cabling, or importing data from another CMM. Compatible with Geomagic, Polyworks, Rapidform and many other 3rd-party software programs, the ScanArm empowers you to bring top-quality products to market more quickly.

Most Common Applications

Aerospace: Reverse Engineering, Certification, Part Inspection

Automotive: Tool Building & Certification, Alignment, Part Inspection

Metal Fabrication: OMI, First article inspection, Periodic Part Inspection

Molding/Tool & Die: Mold and Die Inspection, Prototype Part Scanning

Features

- ▶ Scanhead positioned for better ergonomics and unobstructed hard probing
- ▶ Use Laser and Hard Probes seamlessly
- ▶ Laser scan up to 19,200 points/second
- ▶ No intermediary software running in the background

Laser Line Probe V3 Specifications

Accuracy: ±.0014" (±35µm)
Repeatability: .0014" (35µm, 2σ)
Stand-off: 3.75" (95mm)
Depth of Field: 3.35" (85mm)
Effective Scan width: Near Field 1.34" (34mm)
Far Field 2.36" (60mm)

Points per line: 640 points/line
Scan Rate: 30 frames/second
30fps x 640points/line = 19,200 points/sec.
LASER: 660nm, CDRH Class II/IEC Class 2M
Weight: 370g

Performance Specifications (Non-Contact)

Model	6 ft. (1.8 m)	8 ft. (2.4 m)	10 ft. (3.0 m)	12 ft. (3.7 m)
Fusion	.0032 in. (.081 mm)	.0034 in. (.086 mm)	.0049 in. (.124 mm)	.0063 in. (.159 mm)
Platinum	.0024 in. (.061 mm)	.0026 in. (.065 mm)	.0034 in. (.087 mm)	.0043 in. (.108 mm)
Quantum	.0021 in. (.054 mm)	.0022 in. (.055 mm)	.0029 in. (.074 mm)	.0034 in. (.086 mm)

Performance Specifications (Contact)

Model (Range)	Single Point Articulation Performance Test (Max-Min)/2			Volumetric Maximum Deviation			FaroArm Weight		
	Fusion	Platinum	Quantum	Fusion	Platinum	Quantum	Fusion	Platinum	Quantum
7 axis									
6 ft. (1.8 m)	.0018 in. (.046 mm)	.0010 in. (.026 mm)	.0007 in. (.019 mm)	±.0025 in. (±.064 mm)	±.0015 in. (±.037 mm)	±.0011 in. (±.027 mm)	21 lbs. (9.5 kg)	21 lbs. (9.5 kg)	21 lbs. (9.5 kg)
8 ft. (2.4 m)	.0020 in. (.051 mm)	.0012 in. (.030 mm)	.0008 in. (.020 mm)	±.0028 in. (±.071 mm)	±.0017 in. (±.043 mm)	±.0012 in. (±.028 mm)	21.5 lbs. (9.75 kg)	21.5 lbs. (9.75 kg)	21.5 lbs. (9.75 kg)
10 ft. (3.0 m)	.0035 in. (.089 mm)	.0020 in. (.052 mm)	.0015 in. (.039 mm)	±.0049 in. (±.124 mm)	±.0029 in. (±.073 mm)	±.0022 in. (±.055 mm)	22 lbs. (9.98 kg)	22 lbs. (9.98 kg)	22 lbs. (9.98 kg)
12 ft. (3.7 m)	.0049 in. (.124 mm)	.0029 in. (.073 mm)	.0020 in. (.051 mm)	±.0069 in. (±.175 mm)	±.0041 in. (±.103 mm)	±.0028 in. (±.072 mm)	22.5 lbs. (10.21 kg)	22.5 lbs. (10.21 kg)	22.5 lbs. (10.21 kg)

FaroArm Test Methods - (Test methods are a subset of those given in the B89.4.22 standard.)

Single Point Articulation Performance Test (Max-Min)/2: The probe of the FaroArm is placed within a conical socket, and individual points are measured from multiple approach directions. Each individual point measurement is analyzed as a range of deviations in X, Y, Z. This test is a method for determining articulating measurement machine repeatability.

Volumetric Maximum Deviation: Determined by using traceable length artifacts, which are measured at various locations and orientations throughout the working volume of the FaroArm. This test is a method for determining articulating measurement machine accuracy.

Hardware Specifications

Operating Temp range: 10°C to 40°C (50°F to 104°F)
Temperature Rate: 3°C/5min. (5.4°F/5min.) Max
Operating Humidity range: 0 - 95%, noncondensing
Power Supply: Universal worldwide voltage
85-245VAC,
50/60 Hz

Certifications: MET (UL, CSA Certified) • CE Compliance • Directive 93/68/EEC, (CE Marking) • Directive 89/336/EEC, (EMC) • FDA CDRH, Subchapter J of 21 CFR 1040.10 Electrical Equipment for Measurement, Control & Lab Use
EN 61010-1:2001, IEC 60825-1, EN 61326
Electromagnetic Compatibility (EMC)
EN 55011, EN 61000-3-2, EN 61000-3-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11

