

FARO Edge and ScanArm HD Features, Benefits & Technical Specifications

FARO





The world's most innovative measurement arm

As the industry leader, FARO once again raises the bar in portable measurement with the revolutionary FARO Edge. The Edge is the most advanced, state-of-the-art FaroArm® ever introduced.

The Edge features "SmartArm" technology with the first ever integrated personal measurement assistant. With its built-in touchscreen and on-board operating system, the Edge revolutionizes portable metrology by providing stand-alone basic measurement capability.

To compliment the power and precision of the Edge, the FARO Laser Line Probe attachment creates the revolutionary Edge ScanArm® HD, providing unparalleled non-contact measurement capabilities.

The ScanArm HD is the latest advancement in FARO's Laser Line Probe product line and provides point cloud capture with rapid speed, superior resolution and high accuracy — all in a compact, lightweight and easy-to-use system. New functionalities allow users to seamlessly scan across diverse surface materials regardless of contrast, reflectivity or part complexity without any special coatings or target placement.

The FARO Edge ScanArm HD combines the convenience of a FaroArm with the power of a Laser Line Probe creating the world's most affordable, high performance contact/non-contact portable measurement system.

How the Edge works

It is easy to understand how the FaroArm works. First, there is a probe at the end of the FaroArm that takes measurement points on command. These probes can be exchanged with other probes depending on the surface or material being measured. A user simply clicks a button on the end of the FaroArm to record a point and special encoders compute the exact position of the probe within a three-dimensional space. This point is recorded in the software and the user moves on to take another measurement.

Features of the Edge

Intuitive On-Board Measurement System

- Built-in touchscreen computer
- QuickTools
- Personalized settings
- On-board diagnostics
- Laptop-free basic measurements

Ergonomics

- Reduced user supported weight
- Better distribution and balance

Multi-Function Handle Port

- Quick-change handle
- Seamless and interchangeable accessory integration
- Expandable capability

Smart Sensor Technology

- Stress sensors warn against excessive external loads
- Temperature Sensors correct for thermal changes
- Tilt/Motion Sensors detect setup problems

Connectivity

- *Bluetooth*, Wi-Fi, USB, and Ethernet ready
- Multiple device management through networking



Features & Benefits of the ScanArm HD

Rapid Scanning Speed

- The extra wide scan stripe and fast frame rate boosts productivity by increasing coverage and reducing scanning time.

High Definition Data

- Intricate components can be captured in fine detail as a result of the 2,000 actual points per scanline the new blue laser featuring noise reduction technology.

Scan Challenging Materials

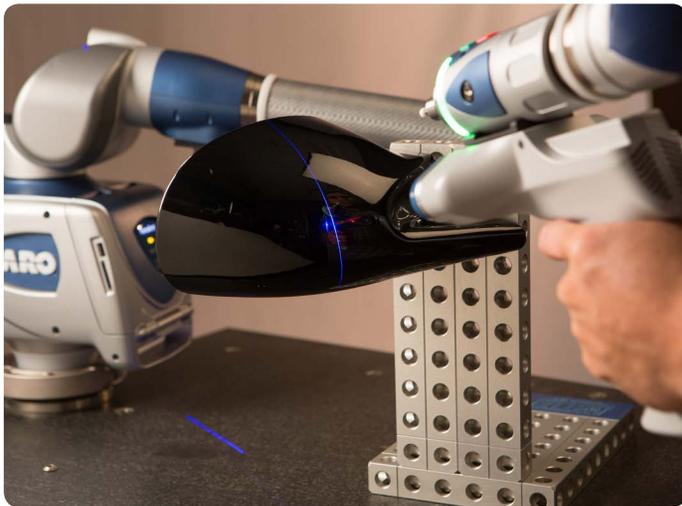
- Seamlessly scan across diverse surface materials regardless of contrast, reflectivity or part complexity without any special coatings as a result of the improved HDR (High Dynamic Range) Mode and advanced software algorithms.

Compact, Lightweight, and Simple to Use

- Dramatically reduce required training time with the new crosshair feature and existing LED Rangefinder functionality which provides real-time scanning feedback.
- The small size and friendly user-interface result in a versatile and intuitive tool.

Highly Accurate and Repeatable

- Reliable, repeatable and highly accurate measurement data is delivered with confidence as a result of superior optical performance.



Benefits to the end user

- Improved reliability and capability
- Quick measurements without a computer
- Diagnose setup issues affecting performance
- Enhanced ergonomics, less fatigue
- Simplified user experience

Benefits to the company

- Reduced measurement times
- Generate automatic reporting
- Increased productivity and efficiency
- Meet quality standards
- Deliver products more quickly

FARO Edge and ScanArm HD

www.faro.com/edge

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Specifications

1.8m (6ft) Measuring Range

Volumetric Accuracy: $\pm 0.034\text{mm}$ ($\pm 0.0013\text{in}$)
Single Point Repeatability: $.024\text{mm}$ ($.0009\text{in}$)
Weight: 10.7kg (23.6lbs)

2.7m (9 ft) Measuring Range

Volumetric Accuracy: $\pm 0.041\text{mm}$ ($\pm 0.0016\text{in}$)
Single Point Repeatability: $.029\text{mm}$ ($.0011\text{in}$)
Weight: 10.9kg (24.1lbs)

3.7m (12 ft) Measuring Range

Volumetric Accuracy: $\pm 0.091\text{mm}$ ($\pm 0.0035\text{in}$)
Single Point Repeatability: $.064\text{mm}$ ($.0025\text{in}$)
Weight: 11.3kg (24.9lbs)

Laser Line Probe Specifications

Accuracy: $\pm 25\mu\text{m}$ ($\pm 0.001\text{in}$)
Repeatability: $25\mu\text{m}$, 2σ ($.001\text{in}$)
Stand-off: 115mm (4.5in)
Depth of Field: 115mm (4.5in)
Effective Scan width: Near Field 80mm (3.1in), Far Field 150mm (5.9in)
Points per line: 2,000 points/line
Minimum Point Spacing: $40\mu\text{m}$ ($.0015\text{in}$)
Scan Rate: 280 frames/second, 280fps x 2,000 points/line = 560,000 points/sec
Laser: Class 2M
Weight: 485g (1.1lb)

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)
Power Supply: Universal worldwide voltage, 100-240VAC, 47 to 63 Hz



GSA Contract Holder

Meets OSHA requirements, NRTL Listed, MET-C Listed, Complies with Electronic Code of Federal Regulations 47 CFR PART 15 and 21 CFR 1040 Performance standards For Light-Emitting Products.

Complies with the following EC Directives: 93/68/EEC CE Marking; 2004/108/EC Electrical Equipment; 1999/5/EC R&TTE Directive; 2011/65/EU RoHS2; 2002/96/EC WEEE; 2006/66/EC WEEE; 2006/66/EC Batteries and Accumulators; 2006/95/EC Low Voltage Directive; 2009/125/EC Ecodesign requirement

Conforms to the following standards: EN 61010-1:2010 / CSA-C22.2 No. 61010-1; EN 61326-1:2006; IEC 60825-1 ed3.0 (2014):2007; FDA (CDRH) 21 CFR 1040.10 / ANSI Z136.1-2007; IEEE 802.11 b/g; FCC Part 15 Subpart C / IC RSS-210 and ESTI EN 300/301 (WLAN and Bluetooth); UN T1-T8; Japanese Radio Law MPT No. 37 Ordinance (MIC classification WW)

Patents: 5402582, 5611147, 5794356, 6366831, 6606539, 6904691, 6925722, 6935036, 6973734, 6988322, 7017275, 7032321, 7043847, 7051450, 7069664, 7269910, 7735234, 7784194, 7804602, 7881896, RE42055, RE42082

Volumetric Accuracy or Volumetric Maximum Deviation: Determined by using 20 traceable lengths measured at locations and orientations throughout the working volume of the FaroArm as specified by the ASME B89.4.22-2004 standard. This test is a method for determining articulated arm accuracy.

Accuracy and repeatability specified at Full Field of View (FOV)

Single Point Repeatability or 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 as specified by ASME the B89.4.22-2004 standard. Each individual point measurement is analyzed as a range of deviations in X, Y, Z.

FaroArm test methods are a subset of those given in the B89.4.22 standard. For more details and complete specifications please visit our website.



For more information call 800.736.0234
or visit www.faro.com/edge