The FaroArm

The world's best-selling measurement arm

FARO®

The FaroArm®

One step closer to perfection

Versatile

Three models: Quantum, Platinum and Fusion. FARO offers diverse mounting options and accessories tailored to your specific needs, making the FaroArm a simple solution for even the most difficult measurement tasks.

Cost effective

With performance that rivals large and costly fixed-bed coordinate measuring machines (CMMs), scrap and other costs can be reduced to a minimum.

Flexible

The FaroArm's lightweight construction, wireless *Bluetooth*® data transfer capabilities, and integrated battery enable measurements to be taken wherever you need them.

Precise

Built-in temperature sensors enable highly accurate measurements without the need for air-conditioned rooms, delivering unmatched consistency of performance and accuracy up to 0.016mm (0.0006in).

FARO is the market leader in portable computer-aided measurement systems. The FaroArm enables highly precise 3D measurements of both large and small parts while in production. With three models offering 6 or 7 axes of rotation, the FaroArm is as accurate as large, expensive fixed-bed coordinate measuring machines (CMMs), but it is portable and much easier to use. These are just some of the reasons why the FaroArm is the world's best-selling measurement arm.

Simple to use

The FaroArm's outstanding ergonomics as well as its internal counterbalance makes daily work much easier. And thanks to the intuitive hardware and software, no extensive metrology training is necessary to use it.

Compatible and expandable

A laser scanning attachment can be easily added to the FaroArm turning it into a non-contact measurement solution. Large parts can also be measured with the FaroArm in combination with a FARO Laser Tracker, providing even greater measurement range.

The FaroArm

Measure everywhere

The flexibility of the FaroArm enables it to tackle multiple applications under one roof, allowing for quality improvements across all your processes resulting in time and production costs savings.

1

Incoming inspection

Supplier parts can be inspected directly upon arrival using the FaroArm.

2

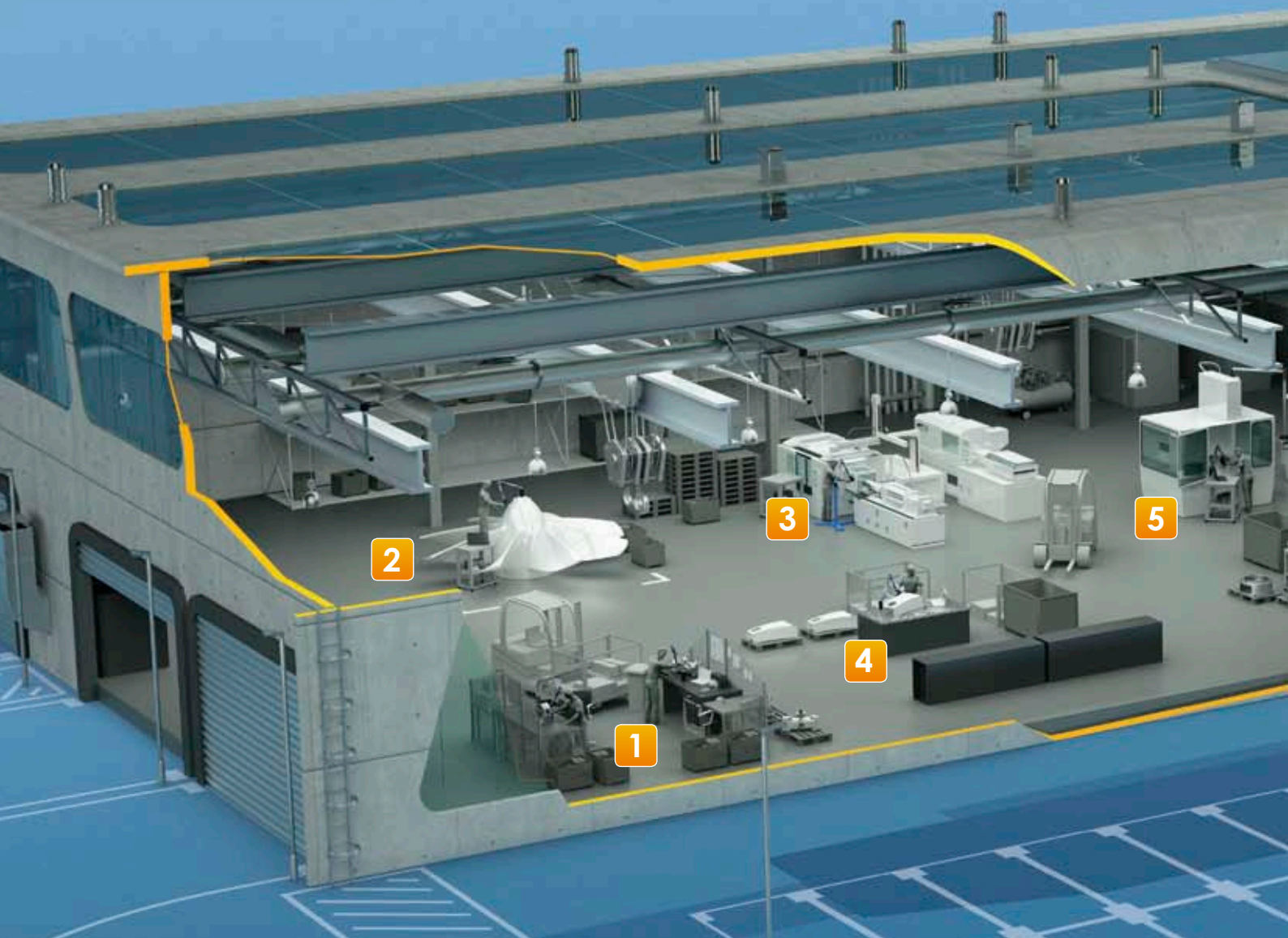
Inspection of large parts

Many parts are too large or heavy to be inspected by traditional measurement equipment. The FaroArm can be taken almost anywhere and can be mounted next to or on the part to be measured for fast and accurate results.

3

Machine alignment

Positioning of machines, fixtures and parts is crucial to the quality of finished products. The FaroArm can be mounted next to the manufacturing equipment to quickly and repeatedly verify tool alignment.



4

CAD comparison

Measurements captured with the FaroArm can be compared to nominal CAD data to instantly detect deviations. Soft, deformable and complex shapes can be easily scanned to verify features, 3D surfaces and 2D cross sections.

5

On-machine inspection

During the production process you can measure your parts directly on the machine, without the downtime resulting from tool setup or quality room inspections.

7

8

6

6

Dimensional inspection

Angles, prismatic features, distances, geometric and positional tolerances are easily checked with the FaroArm and the intuitive user interface of the CAM2 Q measurement software.

7

Reverse engineering/prototyping

Objects can be quickly scanned, digitized and converted to CAD models for rapid prototyping, as-built documentation or reproduction.

8

Measurement room inspection

Measurement bottlenecks can be reduced by using the FaroArm alongside traditional measurement equipment in environmentally controlled inspection rooms.

The FaroArm
Technical data

Features

For all measurement tasks
Multiple arm lengths with either 6 or 7 axes of rotation to handle all of your inspection needs

Measure anywhere
Due to its rugged design and integrated temperature compensation

High precision*
Up to 0.016mm (0.0006in)

Wireless data transfer
Up to 10m (30ft) using *Bluetooth*®

FaroArm Quantum

16µm

Model	Repeatability[1]	Accuracy[2]
6ft (1.8m)	0.0006in (0.016mm)	0.0009in (0.023mm)
8ft (2.4m)	0.0007in (0.018mm)	0.0010in (0.025mm)
10ft (3.0m)	0.0013in (0.032mm)	0.0018in (0.046mm)
12ft (3.7m)	0.0017in (0.043mm)	0.0024in (0.060mm)

FaroArm Platinum

20µm

Model	Repeatability[1]	Accuracy[2]
6ft (1.8m)	0.0008in (0.020mm)	0.0011in (0.029mm)
8ft (2.4m)	0.0010in (0.025mm)	0.0014in (0.036mm)
10ft (3.0m)	0.0017in (0.043mm)	0.0024in (0.061mm)
12ft (3.7m)	0.0024in (0.061mm)	0.0034in (0.086mm)

*Detailed technical specifications can be found at www.faroarm.faro.com. 1) Repeatability = Single point articulation performance test. 2) Accuracy = Volumetric maximum deviation.

FARO offers a wide range of options to suit your production needs. The FaroArm is available in three models – with up to five different working volumes and either six or seven axes.

Depending on your accuracy and measuring volume requirements, we provide the best solution for a wide range of applications including: alignment, calibration, inspection, reverse engineering, as-built documentation and CAD-to-part comparison.

One hand operation
Patented internal counterbalancing to reduce fatigue

Unrestricted mobility
Thanks to its low-weight composite material construction and integrated battery

FaroArm Fusion

36µm

Model	Repeatability[1]	Accuracy[2]
6ft (1.8m)	0.0014in (0.036mm)	0.0020in (0.051mm)
8ft (2.4m)	0.0017in (0.043mm)	0.0024in (0.061mm)
10ft (3.0m)	0.0029in (0.074mm)	0.0041in (0.104mm)
12ft (3.7m)	0.0041in (0.104mm)	0.0058in (0.147mm)

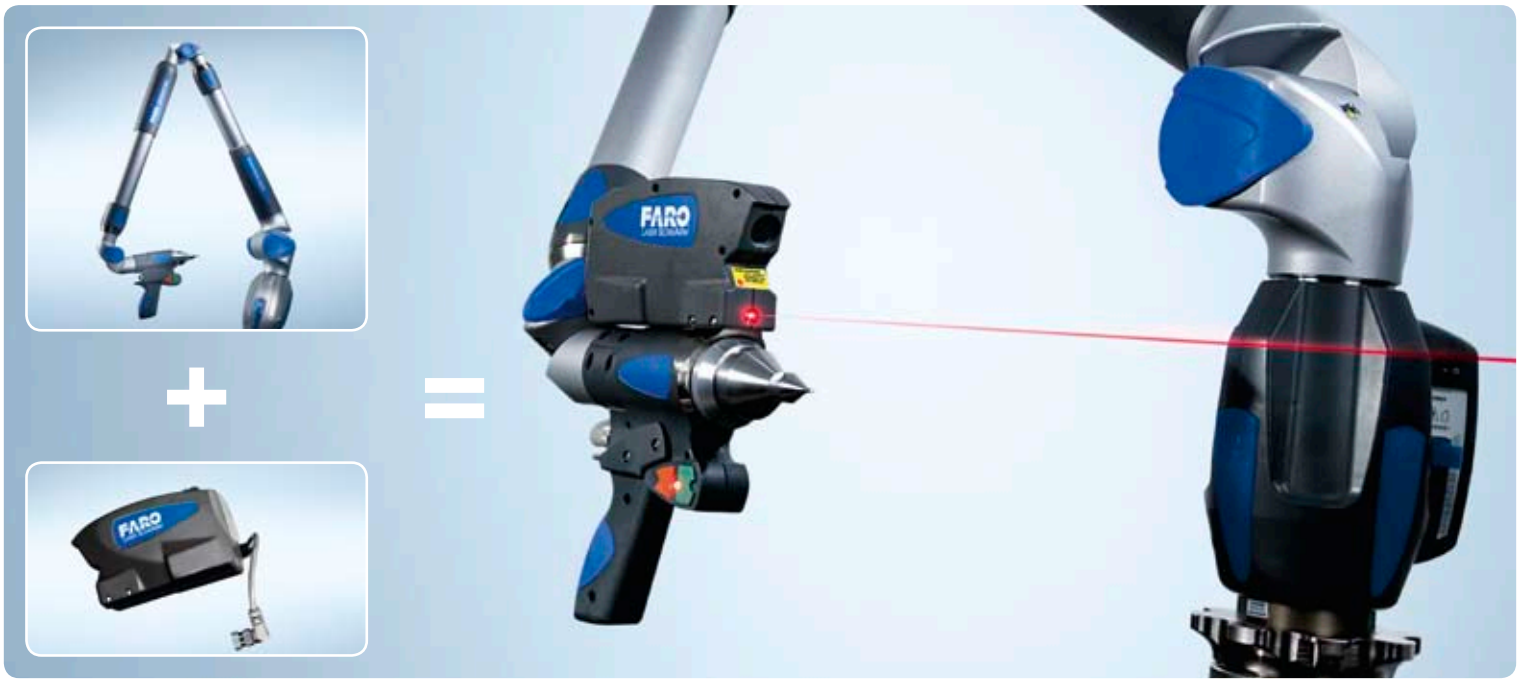
Typical applications

- 3D Modeling
- Alignment
- Assembly Inspection
- Calibration
- Mold Inspection
- Geometry Checks
- On-Machine Inspection (OMI)
- Part Inspection
- CAD-to-Part Comparison
- Rapid Prototyping
- Retrofitting
- Reverse Engineering
- Surface Inspection
- Tool Setup & Positioning

The FARO Laser ScanArm®

Non-contact measurement and scanning

The FARO Laser Line Probe (LLP) combines with the FaroArm to form the FARO Laser ScanArm — a fully integrated seven-axis contact/non-contact measurement device. Unlike other scanning systems, the ScanArm's hard probe and LLP can digitize interchangeably without having to remove either component. Measurements can be done with or without contact with the object, ensuring workflow is uninterrupted by software or hardware adjustments.



FARO Laser ScanArm

Precise*
The Laser ScanArm offers an accuracy of up to 0.054mm (0.0021in)

Integrated design
With its internal electronics and no external cables, measurements can be carried out everywhere – without restricting the arm's infinite rotation capabilities

Simple and ergonomic handling
Its low weight and ease-of-use enable fatigue-free work

Compatible
The scanning attachment can be used with every 7-axis FaroArm and is compatible with a wide range of FARO and third party software applications

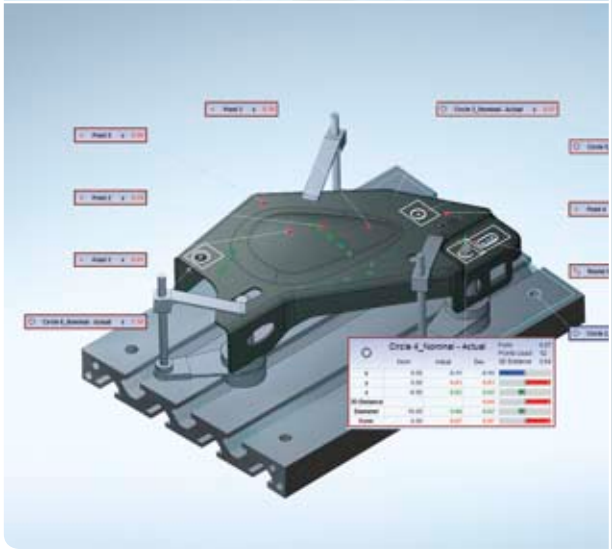
Typical applications
3D modelling, assembly inspection, certification, documentation, freeform surface measurement, inspection of deformable objects, part inspection, CAD-to-Part comparison, rapid prototyping, reproductions, reverse engineering

*Detailed technical specifications can be found at www.faroarm.faro.com

FaroArm software

Visualization of data made easy

Software plays an integral part in the measurement process. The FaroArm and the CAM2® Q software were jointly designed to offer an easy-to-use interface to facilitate your measurements. Depending on your application needs, the FaroArm also works with a wide range of third party software solutions.



FARO CAM2 Q Software

Simple, efficient and versatile

FARO CAM2 Q is the fastest and most efficient software for 3D measurements. Simplified user interface and workflow allow users to start measuring in no time. With CAM2 Q, users can now simultaneously connect several devices to one computer automatically, allowing you to measure large parts without moving the measurement equipment.

CAM2 Q offers powerful customisation features: You can simply define how you want to measure and add or change features in any order you like – thus following your own manufacturing workflow. Quick measurement reports can be generated automatically.

Software options

The FaroArm.

As with all FARO hardware, the FaroArm can be used together with numerous third party solutions.

Some of our software partners:

Geomagic®, PolyWorks®, PowerINSPECT® (Delcam), Metrologic®, Verisurf®, Tezet®, HighRES®, Spatial Analyzer®

Accessories for the FaroArm

Expand your possibilities

In addition to the FaroArm hardware and software, we also offer a broad range of supplementary equipment and accessories: probes, mounting options, tripods, measurement tables, computer, cables, adapters, tools, protective covers and transport cases.

Mounting options

Mount it where you need it

FARO offers diverse mounting options that allow for easy setup and ensure high flexibility when working with the FaroArm. Some of our most popular models are:

Mobile tripod:
Designed specifically for the FaroArm, the tripod features retractable wheels and can be easily folded for 'on-the-go' measurements.

Magnetic mount:
The magnetic mount lets you quickly set up the FaroArm on measurement plates, tools, or any metallic surface; even on the part itself.

Granite rolling cart:
The granite surface gives a solid work area for high accuracy metrology. Wheels on the heavy duty cart allow you to move it anywhere you need it. It also features arm mounting rings and a toe clamp kit for part fixturing.

Probes

The right probe for the right job

A wide selection of probes is available in different lengths and sizes for every measurement task.

Use standard hard probes for most applications. Use touch trigger probes for soft or flexible parts.

Customer service

Training and worldwide service

FARO has worldwide customer support offices. Thus we can offer training and on-site services close to our customers. We are also ISO 9001:2001 certified and ISO-17025 laboratory registered.

Training

Courses for your employees

A measurement system is only as good as its user. That's why FARO offers training courses and workshops to ensure your operators make the most out of our products' features and benefits.

Whether you require basic or advanced training, we adapt our courses to the individual needs of the participants. Training is carried out in small groups at FARO or – if you wish – at your facility to guarantee the individual attention our customers deserve.

Customer service

Always there for you

On the phone:
Our customer service staff is available from 8am to 8pm from Monday to Friday. Toll free **800.736.2771**
Email: **support@faro.com**

Online:
Tips and tricks are accessible in our Online Support Center where you can also ask questions. Further information can be found at www.faro.com/supportcenter.

On-site:
Our applications engineers will help you on-site.

Advantages of the service contract

The service contract includes maintenance, inspection and calibration of your FaroArm by our experts.

FARO's customers

References from around the world

"The FaroArm has given us measurement capability that would not be possible with a fixed CMM."

Lee Moffett, JSF Engineer, BAE Samlesbury

FARO's mission is to enable our customers' products and processes to be the best in the world. Our customers include automotive manufacturers and their suppliers, companies from the aerospace sector, tool and mold making, mechanical engineering, metalworking, heavy equipment, consumer goods, power generation enterprises, countless small businesses, public authorities, and monument conservation firms. In total we care for more than 9,000 customers.





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