FARO® Products

Portable systems for measurement and 3D documentation

FARO













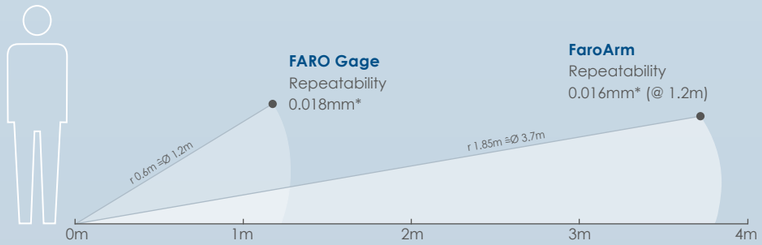
About FARO

www.faro.com

Pioneer for portable measurement

FARO develops portable devices for 3D measurement, inspection, imaging and surveying. Our focus is on simplifying our customers' work with tools and empowering them to dramatically reduce on-site measuring time and eliminate costly errors. As the pioneer in portable measurement, we have re-invented measuring: instead of carrying your parts to the measuring machine our systems can be deployed just where they are needed. With FARO you have 3D measurement peace of mind.

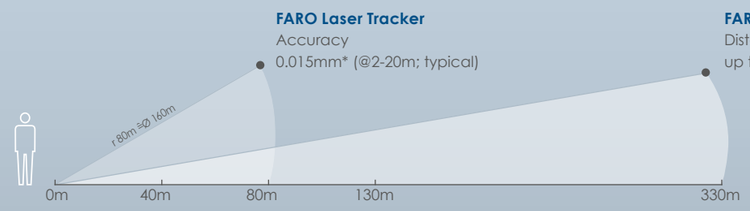
The right product for every measurement task



The **FARO Gage** enables measurements right on the machine producing your part. With its 1.2m (48") working volume, it is the 'mount-it-to-where-you-make-it', truly portable, cost-effective, 3D, minimal-training gages for machinists.

The **FaroArm** renders traditional CMMs, hand tools and other portable CMMs obsolete. It is available in different arm lengths and is ideal for inspection, reverse engineering and CAD-to-part-analysis of parts, fixtures and assemblies.

The first fully integrated laser scanner on FARO's patented seven-axis arm. The FaroArm combined with the **Laser Line Probe** is perfect for reverse engineering and can inspect to CAD and records up to 560,000 points per second.



The **FARO Laser Tracker** is a portable 3D measurement system for large volume which uses laser technology and Absolute Distance Meter (ADM & IFM) to effectively and accurately measure large parts, tooling and machinery.

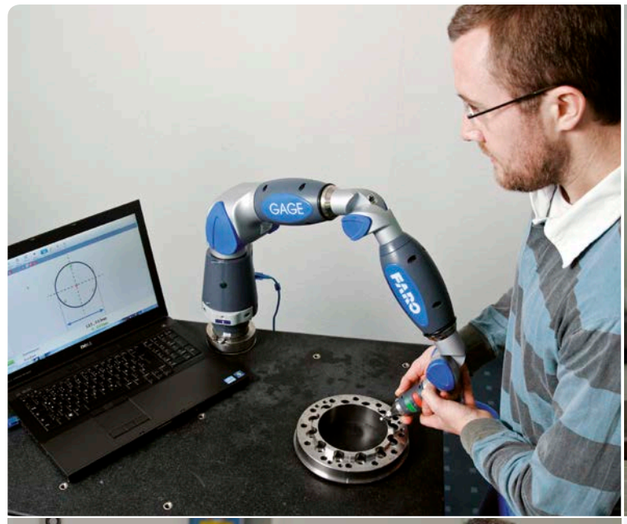
The **FARO Laser Scanner** is a portable non-contact measurement system to accurately capture 3D data. The system rotates 360° and measures everything within its line of sight with a scan rate of up to 976,000 points per seconds.

FARO is certified according to ISO 9001 and accredited according to ISO/IEC 17025:2005.

*Depending on the measuring instrument different accuracy test methods have been used. ** Ranging error is defined as a systematic measurement error at around 10m and 25m, one sigma.

FARO® Gage

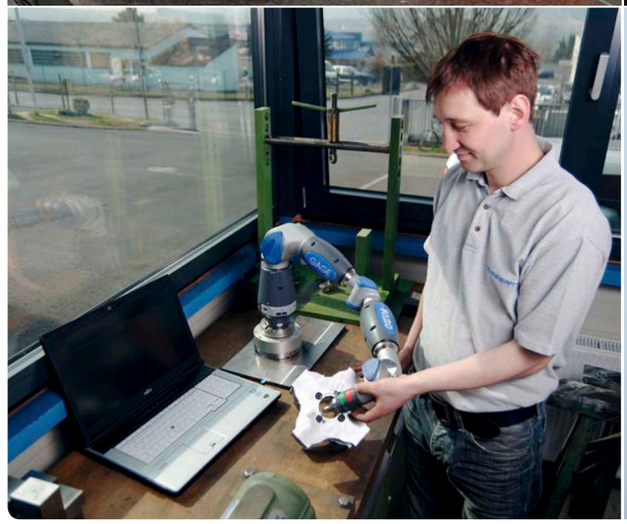
www.faro.com/gage











Typical applications

Aerospace: Repair & refit

Tool & Die: Master roulds, tool setup

Automotive: Engine components, braking components, hydraulics and castings

Castings & Mould Making: Pre-cast mould, composite tooling

For the latest specifications please visit www.faro.com

FARO® Gage

www.faro.com/gage

Your personal CMM

FARO Gage is a high-precision, portable 3D coordinate measurement system with a working range of 1.2m and a measurement accuracy of 0.018mm. A variety of attachment options enable rapid deployment directly at the workplace or in a processing centre. The Gage is now equipped with the Bluetooth® wireless technology. Users can now inspect, then transmit data up to 10m (30 feet) away – even through walls – without having to use cables.



Benefits

User friendliness
Replaces traditional hand tools and thus eliminates individual operator variability

Productivity
Increases productivity with reduced measurement and inspection times

Mobility
Mount and measure parts in manufacturing process

Wireless data transfer
Connectivity through Bluetooth up to 10m (30ft) using Bluetooth® and Ethernet-ready* options

Quality
Meets quality standards with automatic computer-generated reports

Performance specifications

18µm

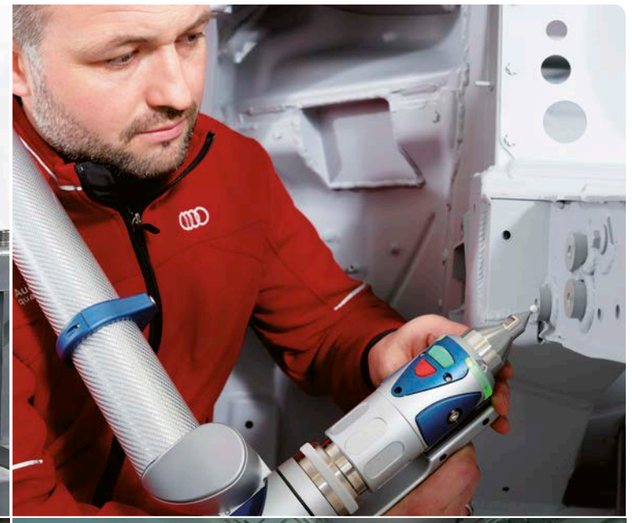
Measurement range (m/ft)		Repeatability* (mm/inch)	Accuracy** (mm/inch)	Weight (kg/lbs)
Gage	1.2 (4)	0.018 (0.0007)	±0.025 (±0.001)	9.1 (20.0)

*Repeatability = Single point articulation performance test. **Accuracy = Volumetric maximum deviation. Performance specifications according to B89.4.22 (According to VDI/VDE 2617 Part 9 on request).

FaroArm®

www.faro.com/faroarm











Typical applications

Aerospace: Alignment, tooling & mould certification, part inspection

Automotive: Tool building & certification, alignment, part inspection

Metal Fabrication: OMI, first article inspection, periodic part inspection

Moulding/Tool & Die: Mould and die inspection, prototype part scanning

For the latest specifications please visit www.faro.com

FARO® Edge

www.faro.com/faroarm

The world's most innovative measurement arm

The Edge is the most advanced, state-of-the-art FaroArm ever introduced. It is the first ever smart measurement arm featuring an integrated personal measurement assistant. With its built-in touchscreen and on-board operating system, the Edge revolutionizes portable metrology by providing standalone basic measurement capability. The FARO Edge simplifies the user experience with improved performance, portability, and reliability. Improve production, quality, and reverse engineering processes by rapidly verifying or scanning parts with confidence and accuracy using the FARO Edge.



Benefits

Ergonomics
Improved weight distribution and balance, for reduced strain and ease-of-use.

Multi-probe capability
Including standard, touch, FARO iProbes, and custom probes.

Smart sensor technology
Warn against excessive external loads, correct for thermal variations and detect possible setup problems.

Smart connectivity
Through Bluetooth®, WLAN, USB, and Ethernet ready options. Enables multiple device management through enhanced networking.

On-board measurement system
Built-in touchscreen computer for laptop-free basic measurements. On-board diagnostics and easy-to-setup measurement routines.

Performance specifications

24µm

x7
7

Measurement range (m/inch)		Repeatability* (mm/inch)	Accuracy** (mm/inch)	FaroArm weight (kg/lbs)
		7 axes	7 axes	7 axes
Edge	1.8 (6)	0.024 (0.0009)	±0.034 (±0.0013)	10.7 (23.6)
Edge	2.7 (9)	0.029 (0.0011)	±0.041 (±0.0016)	10.9 (24.1)
Edge	3.7 (12)	0.064 (0.0025)	±0.091 (±0.0035)	11.3 (24.9)

*Repeatability = Single point articulation performance test. **Accuracy = Volumetric maximum deviation. Performance specifications according to B89.4.22 (According to VDI/VDE 2617 Part 9 on request).

FARO® Prime

www.faro.com/faroarm

Best accuracy, best value portable CMM

Available in five working lengths and 6-axis configuration, the FARO Prime delivers the highest FaroArm accuracy at an amazing value. Equipped with Bluetooth® technology, the Prime eliminates the need to tether the device to a laptop. An extended-use battery and composite material construction ensure shop floor durability, day after day. Together, these features make the FARO Prime the ideal solution for basic measurements in inspection, reverse engineering, CAD-to-part analysis and for anything else where a high-accuracy, hard-probing measurement solution is needed.



Benefits

Extended-use battery
Integrated extended-use battery provides true 'measure anywhere' capability.

Bluetooth® wireless operation
Inspect and digitize wirelessly up to 10m (30ft.) away.

Internal counterbalancing
Internal counterbalancing provides comfortable stress-free usage.

Multi-probe capability
Including various ball diameters, custom extensions and optional touch sensitive probe.

Temperature & overload sensors
Located in each joint, they allow the arm to "feel" and react to thermal variations and improper handling for maximum accuracy.

Performance specifications

16µm

x6
6

Measurement range (m/inch)		Repeatability* (mm/inch)	Accuracy** (mm/inch)	FaroArm weight (kg/lbs)
		6 axes	6 axes	6 axes
Prime	1.2 (4)	0.016 (0.000)	±0.023 (±0.0009)	9.1 (20.0)
Prime	1.8 (6)	0.019 (0.0007)	±0.027 (±0.0011)	9.3 (20.5)
Prime	2.4 (8)	0.024 (0.0009)	±0.034 (±0.0013)	9.5 (21.0)
Prime	3.0 (10)	0.042 (0.0017)	±0.059 (±0.0023)	9.75 (21.5)
Prime	3.7 (12)	0.060 (0.0024)	±0.085 (±0.0033)	9.98 (22.0)

For the latest specifications please visit www.faro.com

FaroArm® Fusion

www.faro.com/faroarm

Quality without compromise

To make your products and processes the best in the world, there isn't another portable CMM that combines the recision, durability, technology and cost-effectiveness of the FaroArm Fusion. The Fusion is the economical, all-in-one portable tool for performing inspections, tool certification, CAD-to-part analysis, or reverse engineering.



Benefits

Universal 3.5" quick mount
Offers 'Mount-it-where-you-make-it' convenience and less downtime.

Auto sleep mode
Automatically turns off unit to save energy and extend component life.

Bluetooth® wireless operation
Inspect and digitize wirelessly up to 10m (30ft.) away.

Multi-probe capability
Including various ball diameters, curved and extended probes.

Internal counterbalancing
Internal counterbalancing provides comfortable stress-free usage.

Performance specifications

36µm

6

7

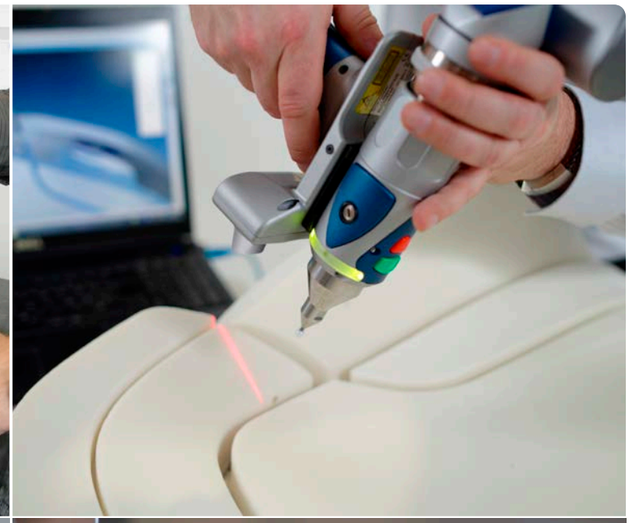
Measurement range (m/ft)		Repeatability* (mm/inch)		Accuracy** (mm/inch)		FaroArm weight (kg/lbs)	
		6 axes	7 axes	6 axes	7 axes	6 axes	7 axes
Fusion	1.8 (6)	0.036 (0.001)	0.046 (0.0018)	±0.051 (±0.0020)	±0.064 (±0.0025)	9.3 (20.5)	9.5 (21.0)
Fusion	2.4 (8)	0.043 (0.0017)	0.051 (0.0020)	±0.061 (±0.0024)	±0.071 (±0.0028)	9.5 (21.0)	9.75 (21.5)
Fusion	3.0 (10)	0.074 (0.0029)	0.089 (0.0035)	±0.104 (±0.0041)	±0.124 (±0.0049)	9.75 (21.5)	9.98 (22.0)
Fusion	3.7 (12)	0.104 (0.0041)	0.124 (0.0049)	±0.147 (±0.0058)	±0.175 (±0.0069)	9.98 (22.0)	10.21 (22.5)

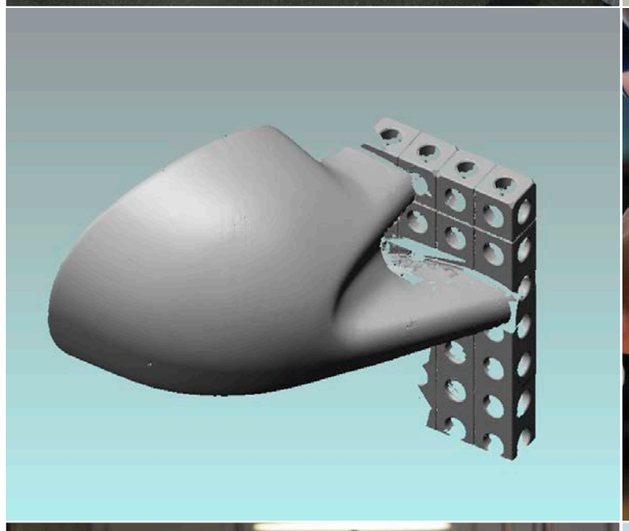
*Repeatability = Single point articulation performance test. **Accuracy = Volumetric maximum deviation. Performance specifications according to B89.4.22 (According to VDI/VDE 2617 Part 9 on request).

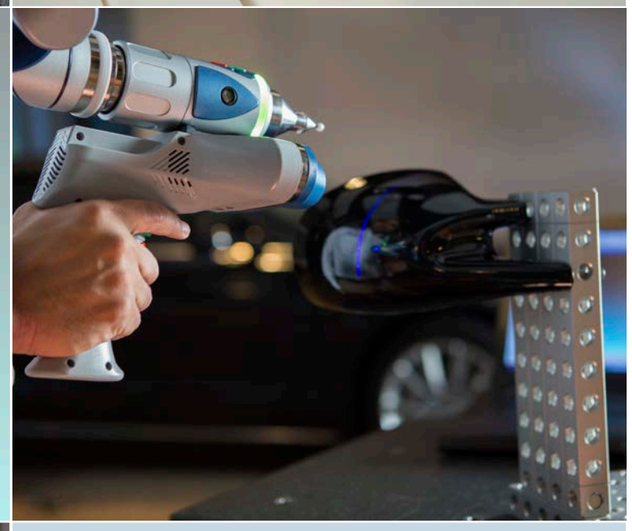
FARO ScanArm

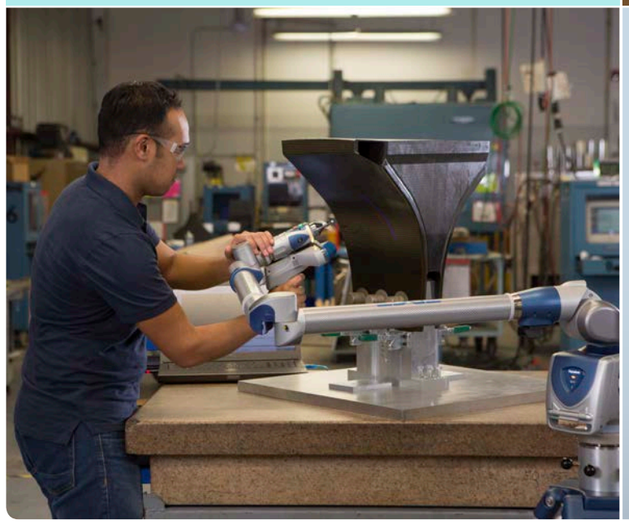
www.faro.com/scanarm











Typical applications

Aerospace: Reverse engineering, certification, part inspection

Automotive: Tool building & certification, alignment,
part inspection

Metal Fabrication: OMI, first article inspection, periodic part inspection

Moulding/Tool & Die: Mould and die inspection, prototype part scanning

For the latest specifications please visit www.faro.com

FARO® Edge ScanArm HD

www.faro.com/scanarm

High speed performance meets HD data clarity

The FARO Edge ScanArm HD combines the flexibility and the functionalities of a FARO Edge measuring Arm with the high-definition Laser Line Probe HD creating a powerful contact/non-contact portable measurement system ideal for challenging applications in different industries. The Edge ScanArm HD provides point cloud capture with rapid speed, superior resolution and high accuracy — all in a compact and easy-to-use system.



Benefits

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

Compact and simple to use
Dramatically reduce required training time with the new cross-hair 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

Scan challenging materials
Seamlessly scan across diverse surface materials regardless of contrast, reflectivity or part complexity without any special coatings

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

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

Performance specifications

Accuracy	±25µm (±0.0008")
Repeatability	25µm, 2σ (0.01")
Stand-off	115mm (4.5")
Depth of field	115mm (4.5")
Effective scan width	Near field 80mm (3.1") Far field 150mm (5.9")
Points per line	2,000 points/line
Minimum point spacing	40µm, (0.0015")
Scan rate	280 frames/second, 280fps x 2,000 points/line = 560,000 points/second
Laser	Class 2M
Weight	485g (1.1lbs.)

FARO® Edge ScanArm ES

www.faro.com/scanarm

Lightweight and small scanning solution

The FARO Edge ScanArm ES combines the flexibility and the functionalities of a FARO Edge measuring Arm with the smallest Laser Line Probe on the market, the FARO Laser Line Probe ES. It's the ideal device for all the users that are looking for an efficient and user friendly solution for probing and scanning tasks enabling to capture materials with challenging surfaces. The FARO Edge ScanArm ES delivers a good performance at a very competitive price in the industry for a handheld laser scanning system.



Benefits

Ergonomic handling
The low weight (222,4g) of the Laser Line Probe and the ergonomic handle design enable ensure fatigue-free work for operators

Automatic scanning optimization
Software algorithms automatically adjust the scanning parameters for a wide variety of surfaces

Complete Measurement Solution
Use laser and hard probes seamlessly to inspect freeform surfaces, increasing the efficiency of inspection processes

Wireless scanning
The FARO Laser Line Probe ES is fully compatible with the Bluetooth®, Wi-Fi, USB, and Ethernet ready technologies used in the FARO Edge

Performance specifications

Accuracy	±35µm (±0.0014")
Repeatability	35µm, 2σ (0.0014")
Stand-off	80mm (3.15")
Depth of field	85mm (3.35")
Effective scan width	Near field 53mm (2.09") Far field 90mm (3.5")
Points per line	752 points/line
Scan rate	60 frames/second x 752 points/line = 45,120 points/second
Laser	660nm, CDRH Class II/IEC Class 2M
Weight	222.4g (0.49lbs.)

For the latest specifications please visit www.faro.com

FARO® Laser ScanArm V3

www.faro.com/scanarm

All in one measurement system

The FARO Laser ScanArm V3 combines the FaroArm Fusion with the Laser Line Probe V3. It's the perfect device for all the users that are looking for a single, convenient solution for probing and scanning tasks of simple surfaces. The FARO Laser ScanArm V3 is a ideal entry level all in one solution which fits perfectly to many surface inspection applications.



Benefits

Complete measurement solution
Use laser and hard probes seamlessly to inspect freeform surfaces, increasing the efficiency of inspection processes

Fully integrated scanning
No need for interface box or external wiring

Removable Laser Line Probe
The Laser Line Probe can be removed for better tactile measurement handling

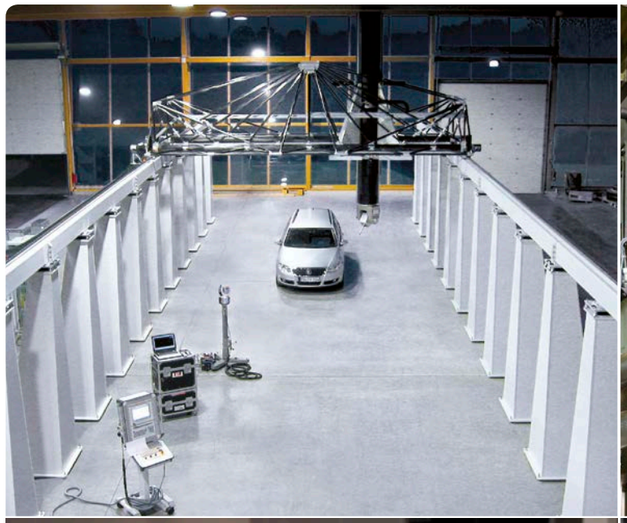
Wireless scanning
The Laser Line Probe is fully compatible with the Blue-tooth® technology used in the FaroArm Fusion

Performance specifications

Accuracy	±35µm (±0.0014")
Repeatability	35µm, 2σ (0.0014")
Stand-off	95mm (3.75")
Depth of field	85mm (3.35")
Effective scan width	Near field 34mm (1.34") Far field 60mm (2.36")
Points per line	640 points/line
Scan rate	30 frames/second x 640points/line = 19,200 points/second
Laser	660nm, CDRH Class II/IEC Class 2M
Weight	370g (0.82lbs.)

FARO® Laser Tracker

www.faro.com/lasertracker











Typical applications

Alignment: Real-time measurement confirms tolerances and validates design

Installation: Reduce wear and tear on mechanical parts

Part Inspection: Digital record of actual vs nominal data

Tool Building: Full volumetric accuracy tests

Reverse Engineering: Acquire high accuracy digital scan data

Robotic & Machine Guidance: Automation simplifies complex drilling and probing applications

FARO® Laser Tracker Vantage

www.faro.com/lasertracker

Productivity by design

The FARO Vantage is the most complete laser tracking solution. It is an extremely accurate, portable coordinate measuring machine that enables you to build products, optimize processes, and deliver solutions by measuring quickly, simply and precisely. The Vantage is the smallest and lightest FARO Laser Tracker ever built, making it incredibly easy-to-use and transport between job sites. TruADM is FARO's 5th generation patented ADM system which uses predictive algorithms to compensate for the acceleration and velocity of a moving target.



Benefits

Efficiency
The long range allows to perform effective measurements of up to 160m*. Integrated WLAN means no need to plug the device into the laptop computer.

Versatile usage
With the new IP52 rating you can measure in challenging surroundings. Integrated weather station maintains the highest accuracy in adverse conditions.

Easy-to-use
Measuring around complex tooling and structures is easier with the new SmartFind function permitting the tracker to aim the beam back to the target by gesturing to the device.

Portability
Lighter and smaller form factor as well as the innovative travel case system make it easy to move the device between the job-sites.

Point-to-Point accuracy

In-Line distance measurement*								
Length (m/ft)		2-5 (6.6-16.4)	2-10 (6.6-32.8)	2-20 (6.6-65.6)	2-30 (6.6-98.4)	2-40 (6.6-131.2)	2-60 (6.6-196.9)	2-80** (6.6-262.5)
Distance (m/ft)		3 (9.8)	8 (26.2)	18 (59)	28 (91.9)	38 (124.7)	58 (190.3)	78 (255.9)
ADM	MPE (mm/in)	0.018 (0.0007)	0.022 (0.0009)	0.03 (0.0012)	0.038 (0.0015)	0.046 (0.0018)	0.062 (0.0025)	0.078 (0.0031)
	Typical (mm/in)	0.009 (0.0004)	0.011 (0.0004)	0.015 (0.0006)	0.019 (0.0008)	0.023 (0.0009)	0.031 (0.0012)	0.039 (0.0015)

Horizontal scale bar measurement (2.3m)*								
Range (m/ft)		2 (6.6)	5 (16.4)	10 (32.8)	20 (65.6)	30 (98.4)	40 (131.2)	60 (196.9)	80** (262.5)
ADM	MPE (mm/in)	0.044 (0.0017)	0.064 (0.0025)	0.099 (0.0039)	0.17 (0.0067)	0.24 (0.0095)	0.311 (0.0122)	0.453 (0.0178)	0.594 (0.0234)
	Typical (mm/in)	0.022 (0.0009)	0.032 (0.0013)	0.049 (0.0019)	0.085 (0.0033)	0.12 (0.0047)	0.156 (0.0061)	0.226 (0.0089)	0.297 (0.0117)

*MPE and all accuracy specifications are calculated per ASME B89.4.19 - 2006. Variation in air temperature is not included. Specifications, descriptions, and technical data may be subject to change.

FARO® TrackArm

www.faro.com/lasertracker

World's most complete laser tracking solution

The FARO TrackArm is the most versatile portable 3D measurement system. It brings together the long range and high accuracy capabilities of FARO's Laser Tracker with the flexibility and consistency of the FaroArm. Best of all, the FaroArm and Laser Tracker are stand-alone portable CMMs that can be used independently or in combination to create the multipurpose FARO TrackArm system.



Benefits

Versatility
Seamless combination of two portable CMMs into one complete large volume solution.

No line of sight limitations
6DOF capabilities with no hidden point restrictions.

Stand-alone capability
Each system can also be used independently when needed, improving efficiency.

Cost effective
Large volume measurement at a fraction of the cost of comparable system.

Ease of use
Quickly synchronize devices by collecting points in space.

Wireless freedom
Ultimate portability with cable-free operation.

TrackArm specifications

Typical measurement performance	80µm + 5 µm/m
Accuracy up to:	
FaroArm (Prime)	0.016mm
FARO Vantage	0.015mm @ 2-20m*
Tracker range	80m
TruADM instant beam acquisition	
6-Degrees-of-Freedom Probe	

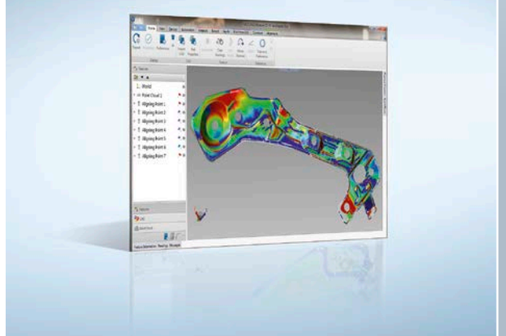
**With selected targets

For the latest specifications please visit www.faro.com

FARO® CAM2® Measure 10

www.faro.com/measure10





A New Dimension in Point Cloud

Software for FaroArm, FARO ScanArm and FARO Laser Tracker

FARO CAM2 Measure 10 fulfils the customer need of a single, intuitive solution for tactile measurement, scanning and point cloud management. Features like the Live Colour Scan, Point Cloud Registration, Cross Section Analysis and TrackArm Positioning provide great benefits to our users whether they are measuring with tactile or non-contact devices.

Live Colour Scan

Users can quickly scan free-form parts and check their quality in real time. The software provides immediate feedback with different colours deviations from the CAD model during the scanning process, supporting an easy and prompt identification of inconsistencies.

Point Cloud Registration

Users can merge two or more spatially disjointed point clouds from a common part. This is very useful when the user has to move an already scanned part to a new position for scanning from a different side, or move the scanning device to a new location and scan from there without the need to reference the new device's position.

Cross Section Analysis

This feature allows for the 2D analysis of scan data over a well-defined area of the CAD. Users can extract dimensions for analysis, add markers to define locations where labels will show deviations and set the best view for reporting.

TrackArm Positioning

The TrackArm system enables users to measure with a FaroArm or ScanArm over a larger volume, using the Laser Tracker to accurately determine the position of the arm.



Software options

Compatible with numerous software solutions

All FARO measurement systems can be used in conjunction with a broad range of third party software.

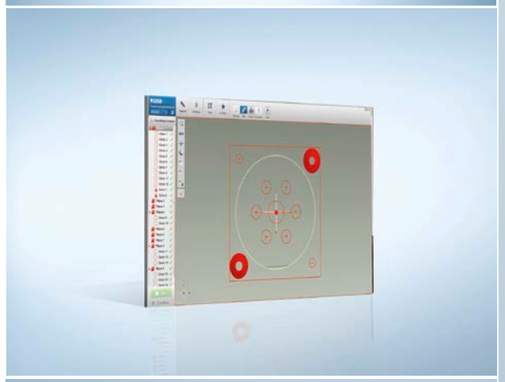
Some of our software partners

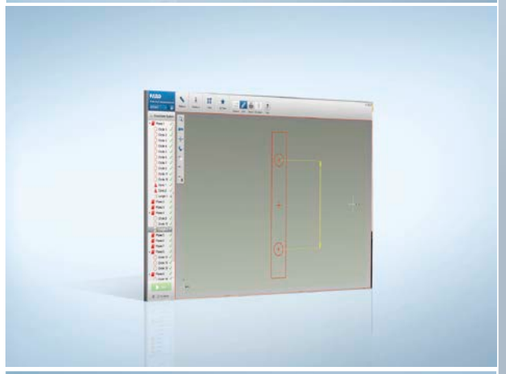
Aberlink, Carl Zeiss, Delcam, Dynalog, Geomagic, InnovMetric Software, INUS Technology & Rapidform, metaio, Metrologic, Metromec, New River Kinematics, Robert McNeel & Associates (Rhino3d), Q-DAS, SolidWorks, TeZet, Verisurf Software

CAM2® SmartInspect

www.faro.com/smartinspect









Measurement software for everybody

Engineered for simplicity, FARO's CAM2 SmartInspect is the perfect software for any user that is looking for non-CAD based inspection. The software design is simple and intuitive.Even users without any 3D metrology background can be easily trained.

Software versions

Basic: Picture-based measurements

Combine real pictures of your component with every measurement process providing the user an image-based support for measurement guidance.

Pro: Picture-based and Live on screen 3D view measurements

Interactions with the live view provide an intuitive platform to creating the necessary dimensions and constructions that cannot be measured directly to support the measurement process.

Additional features

Smart suggestion box

Suggestions are always available to the user on what he can do next with the objects that he has selected. This allows new users to get hints on the capabilities which are available to them while Expert users can exploit this feature to speed up their workflow.

Repeated part measurement

Once a part has been measured, the measurement can be repeated with a single click. Using the Image View mode, the second measurement can be performed by any user.

QuickTool import

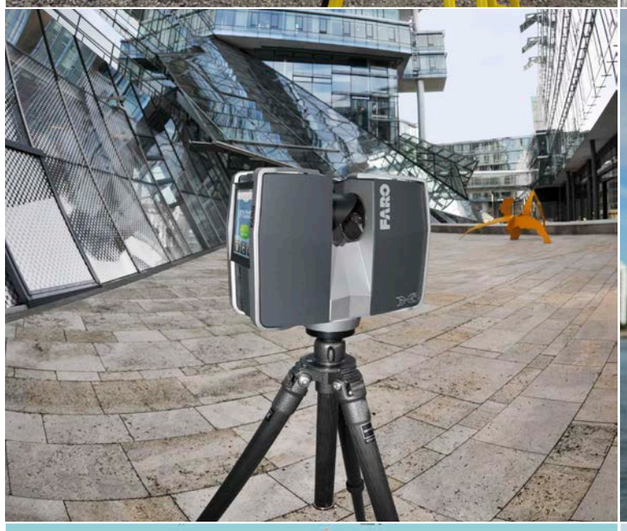
The QuickTools functionality permits to import and use QuickTools programs generated in the FARO CAM2 Measure 10 software.

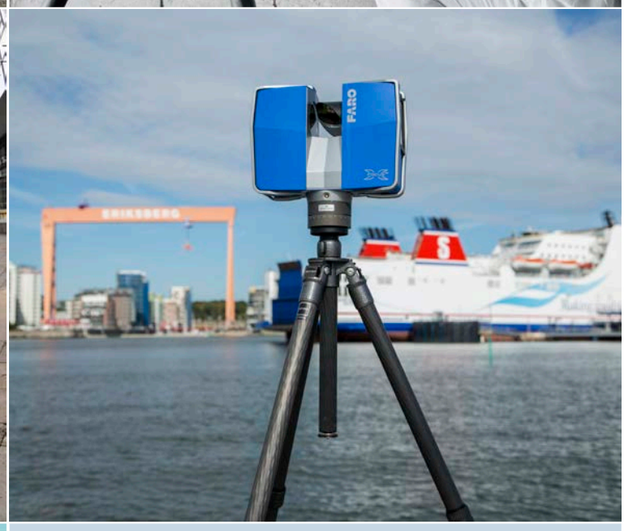
FARO® Laser Scanner Focus^{3D}

www.faro.com/focus











Typical applications

Architecture, BIM, Civil Engineering and Surveying: Excavation control, deformation control, façade inspection, structural analysis and maintenance, free-form components inspection, construction progress monitoring

Process Industry and Digital Factory: Conversions and extensions, offsite production, asset management, site supervision

Inspection and Reverse Engineering: Interior fixtures and fittings, manufacturing documentation, quality control

Other Applications: Heritage, forensics and accident reconstruction, shipbuilding, tunnel & mining, facility management, CGI. automation & mobile mapping

FARO® Laser Scanner Focus^{3D}

www.faro.com/focus

Powerful and Truly Mobile Scanning in 3D

The FARO Laser Scanner Focus^{3D} is the perfect instrument for all kinds of 3D documentation and surveying projects. The technology behind enables the user to quick create of accurate three-dimensional colour images – so-called point clouds – of large buildings, components, excavations, building sites or crime scenes, etc.

The Focus^{3D} X-product line is small and portable and offers two various scanning ranges - 130m and 330m, integrated GPS for easy positioning of scans, exceptional ease of use, high scanning speed and excellent image quality - even in colour. It also has an intuitive touch screen display and an integrated long-life & quick-charge battery.





Benefits

Small and compact
The Focus^{3D} is the smallest and most compact laser scanner ever built.

Scanning in direct sunlight possible
Extreme flexibility to perform scanning projects every time, everywhere. Even in the brightest sunlight.

WLAN
WLAN remote control permits you to start, stop, view or download scans at a distance.

Stand-alone solution
The ultraportable design combined with SD card storage and powerful built-in battery allows for operation without any external device.

Multi-Sensor
The integrated Compass, GPS, the Height Sensor and the Dual Axis Compensator dramatically minimize manual efforts.

Performance specifications

Model	Range	Integrated colour camera	Measurement speed	Ranging error	Ranging noise	Multi-Sensor
Focus^{3D} X 330	0.6 – 330m	Up to 70 mio. pixel	up to 976,000 points/second	±2mm*	@10m – raw data: 0.3mm @90% refl. @25m – raw data: 0.3mm @90% refl.	GPS Compass Height Sensor Dual Axis Compensator
Focus^{3D} X 130	0.6 – 130m					

* Ranging error is defined as a systematic measurement error at around 10m and 25m, one sigma.

For the latest specifications please visit www.faro.com

Software for 3D documentation

www.faro.com/focus



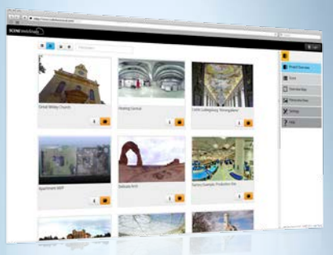
SCENE software

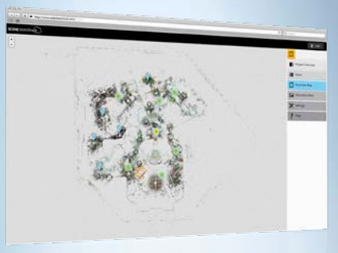
SCENE is specifically designed for all FARO laser scanners. The software processes and manages scanned data both efficiently and easily by using the automatic object recognition and scan registration.

SCENE is an extremely user-friendly software that allows scans to be automatically combined. The resulting point cloud can be viewed in three dimensions. All the scans are available in colour and as high-contrast intensity images.

Features

- Automated target-less scan registration
- SCENE WebShare Cloud integration
- Super-crisp visualisationi, improved colour balancing
- Easy processing of large scan projects
- Homogenisation of point clouds
- Plug-ins in 3D App Center for extended funcionality





SCENE WebShare Cloud

Data sharing without limits

With SCENE WebShare Cloud, FARO offers a comprehensive service to provide users with simple access to 3D documentation. Neither technical training nor specialist skills in 3D laser scanning are necessary to work with the intuitive user interface.

Digital data, such as 3D documentation, often has to be available to many different project partners. Previously, users having their own internet server, could use SCENE WebShare to present their laser scan projects to clients an project partners. Now FARO goes considerably further, offering the SCENE WebShare Cloud solution, a hosting service with various packages at different prices.

www.webshare cloud.com



3D App Center for Laser Scanning Apps

FARO's 3D App Center offers you best-in-class stand-alone and plug-in apps for your laser scanning applications.

3D-app-center.faro.com

You are in good hands

www.faro.com



Accessories

Expand your possibilities

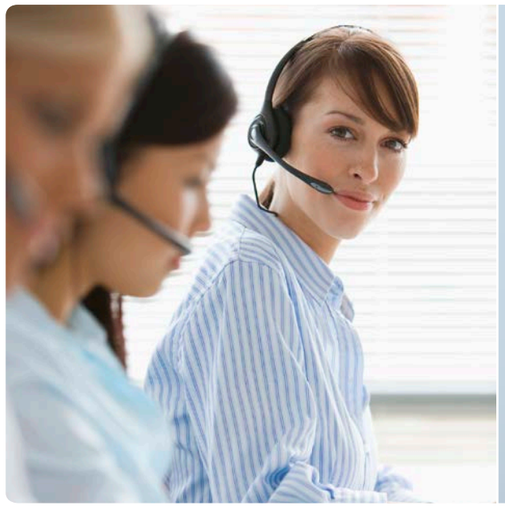
In addition to our hardware and software, we also offer a broad range of supplementary equipment and accessories: probes, targets (SMR), mounting options, tripods, measurement tables, computers, cables, adapters, tools, protective covers, transport cases and many more.



Training

For your employees

A measurement system is only as good as its user. FARO offers training courses and workshops to show you how our products are employed most efficiently.
Depending on your knowledge level we offer basic or advanced training. Training is carried out in small groups at FARO or – if you wish – at your facilities.



Customer service

Always there for you

Phone: Our customer service staff are available from 8am to 5pm (CEST) from Monday to Friday. Free call number: 00 800 3276 7378
E-Mail: support@faroeurope.com
Online-Support Center: www.faro.com/support
On-site: Our application engineers will help you on-site.

Service contract

The service contract includes maintenance, inspection and calibration by our experts. In addition, customers with a service contract will receive a 10% discount on all accessories and free re-certification, repair and advice.



FARO webinars

Hear from industry experts on emerging trends in 3D documentation, advancements in 3D metrology and portable CMMs and best practices without ever leaving the office. If you are unable to attend any of our live webinars, they are all recorded and uploaded as podcasts here and are searchable by broadcast date.
Check it out on our website: www.faro.com/webinar

General information

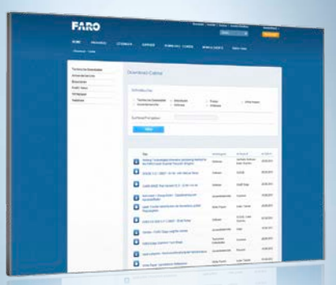
www.faro.com



Product videos

Our FARO videos speak louder than words and highlight all the great features of every single FARO product. Watch in seconds how to measure complex parts in production or document a challenging surveying task. All videos are available in several European languages.
Watch the video online at: www.faro.com





Things to know & important links

Fairs & Roadshows

Find out about upcoming events to meet the FARO team.
www.faro.com/uk/events
www.faro.com/distribution/events

Get a free demo!

We measure your parts on-site and show you how measuring tasks can be solved with portable 3D systems.
www.faro.com/demo

White papers

Improve your knowledge about measurement and 3D documentation.
www.faro.com/whitepaper

Subscribe to the monthly e-newsletter

E-Newsletter to receive interesting news and tips & tricks on how to measure more efficiently.
www.sc.faro-europe.com

Social media links

Visit us @

www.facebook.com/faroeu
www.youtube.com/farogb
www.linkedin.com/company/faro-europe-gmbh-&-co-kg
www.twitter.com/faroeurope
www.xing.com/companies/faroeuropegmbh
www.blog.faro-europe.com

FARO's customers

References from all over the world

"The FARO Gage is able to replace over 80% of the measurement capability of hand tools and rewrites the rules of inspection." Dave Allan, Quality Engineer at Michell Bearings

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 mould 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 15,000 customers.

mtu
GE
faurecia
BMW
Pratt & Whitney
A United Technologies Company
BOSCH
Invented for life
ABB
SIEMENS
Volkswagen
ZF
TRUMPF
FUJITSU
Audi
Mercedes-Benz

FARO Offices



Global Headquarters
FARO Technologies Inc.
250 Technology Park
Lake Mary, FL 32746
USA
info@faro.com

European Headquarters
FARO Europe GmbH & Co. KG
Lingwiesenstrasse 11/2
70825 Korntal-Münchingen
Germany
info@faroeurope.com

Faro Technologies UK Ltd
9-10 The Cobalt Centre
Siskin Parkway East
Middlemarch Business Park
Coventry, CV3 4PE
United Kingdom
uk@faroeurope.com

Distribution (EMEA)
FARO Swiss Holding GmbH
Wiesengasse 20
8222 Beringen
Switzerland
distribution@faroeurope.com
www.faro.com/distributors
Tel: +49 7150 9797 400

www.faro.com/products

Freecall: 00 800 3276 7253

Revised: 13 Oct. 2014 © FARO 2014

FARO® Scanner Freestyle^{3D}
Efficiency in your hands



FARO® Freestyle3D

3D HANDHELD SCANNER

The new FARO Scanner Freestyle3D, a handheld scanner for professionals provides a fast and easy to use scanning solution with verifiable accuracy of the 3D colour scan data.

The Freestyle3D is the only industrial-grade handheld device allowing you to scan all kinds of surfaces and environments. With its versatile design, small size, and light weight it can be used flexibly to easily perform scanning tasks especially in hard to reach areas or narrow spaces.

Moreover, the 3D handheld device maximises your productivity offering fast data acquisition, real-time visualisation and the largest scan volume on the market. With this the scan time in the field is reduced enormously during the point cloud acquisition as well as with the processing of your scan results.

The 3D scan data can easily be imported into all commonly used software solutions for architecture, accident reconstruction, civil engineering, construction, facility management, forensics or industrial manufacturing.



INTUITIVE PLUG AND PLAY SYSTEM

The Freestyle3D provides highest productivity in the field since no warm up times are required.

REAL TIME POINT CLOUD VISUALIZATION

The real-time point cloud visualization supports the intuitive data acquisition, even for inexperienced users.

LIGHTWEIGHT INDUSTRIAL GRADE DEVICE

The Freestyle3D is the only industrial grade handheld device with IP 5X rating and weighs only 0.98Kg.

3D DOCUMENTATION SOLUTION

The user can combine seamlessly results from the Focus3D with Freestyle3D results.

Architecture & Interior Design



ARCHITECTURE & INTERIOR DESIGN

Industries such as construction, civil engineering, interior design and BIM demand on reliable, fast and accurate data. Information and spatial reference are essential through all phases of surveying and construction projects.

FARO's Scanner Freestyle^{3D} offers the user an ideal solution, smoothing the workflow, making processes faster and more efficient, delivering accurate data and satisfying statutory requirements.

APPLICATIONS

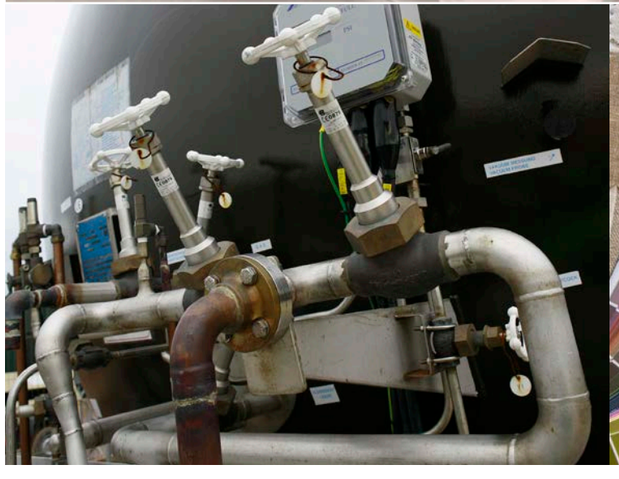
Measurements of complex structures and objects: The device can be used to cover areas that the FARO Focus^{3D} is unable to easily obtain. Areas such as voids above suspended ceilings, down vertical shafts, and around objects that require higher accuracy and density, that are complex and would require too many setups with the Focus. Some examples of these complex objects would be mechanical equipment like chillers, engines, HVAC units, and elevator pumps.

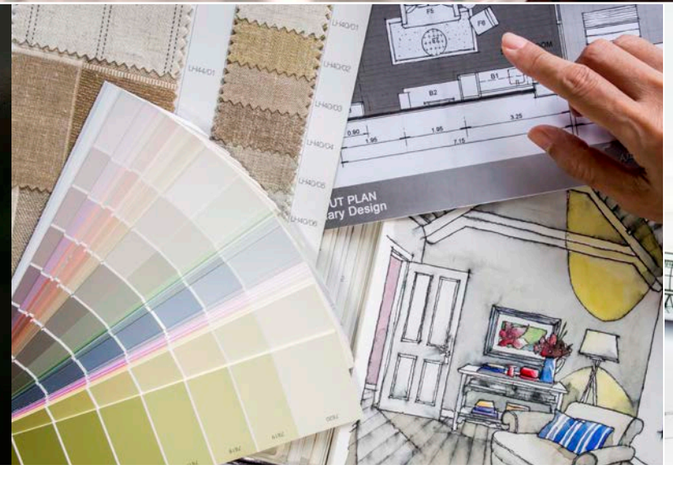
Project supervision: Whenever there are restorations, renewals, renovations or reconstructions, there is a need for close monitoring of the individual project phases to meet the project's requirements.

Deformation monitoring: With the Freestyle^{3D} you can determine if the surveyed structure or object is changing shape or moving.

Quality control: Precise laser scanning ensures that the final as-built condition fit design intent and minimises the chance of potential problems.

Enhancement to FARO Focus^{3D} scans in larger projects: Great tool to complete/enhance Focus^{3D} scans where we could find shadows or would need too many scans.







BENEFITS

Time-saving, simple and complete recording of the current condition of surveying or as built environment

Real-time, digital 3D data capture

Best productivity in the field, since no warm up times are required

Best ROI on the market

Restoration & 3D Modelling



RESTORATION & 3D MODELLING

With the Freestyle^{3D}, FARO provides conservators, civil engineers and 3D artists with an efficient tool for rapid, seamless and precise documentation of the current status of buildings and building assets of every kind.

Weighing just under one kilogram, the Freestyle^{3D} scanner is ideal for mobile usage on the building site. It records building shells, areas above ceilings, architectural features (ornate mouldings) and areas of buildings in 3D – completely, quickly and cost-effectively.

APPLICATIONS

Area construction progress monitoring: Seamless capture and monitoring of construction progress for legal and technical documentation.

Built environment: Precise geometrical recording of existing properties as the basis for conversions or extensions.

Free-form components inspection: Precise dimensional check of complex components such as free-form shape elements.

Deformations control: Documentation of deformation processes and monitoring of countermeasures.

Reverse engineering: Copies of products and components for which no construction plans and/or CAD data are available.

Restoration & Conservation: Creation of 3D models for restoring purposes preserving the original building substance and protection of historical/archaeological material and inventory.







BENEFITS

Revolutionary price/performance ratio

Provides architects, interior designers or building owners with an intuitive option to capture almost any structure in a highly accurate point cloud

After processing, all the data can be exported to all commonly used CAD programs

Simple variance comparison in the construction process and in the case of final building inspections

Seamless integration with Focus^{3D} laser scan data

Cost-efficient, quick and accurate 3D capture of as-built geometry

Construction & Facility Management



CONSTRUCTION & FACILITY MANAGEMENT

The handheld scanner Freestyle^{3D} offers quick and reliable 3D documentation data. The scan data can be used for building management, collision detection for retrofits, as-built documentation for CAD modelling and other plant design tasks.

Through the real-time visualization of the captured 3D point cloud directly on the tablet, the intuitive user interface and the light weight (less than 1Kg) of the scanner, the data acquisition process can be fast and easily done even by inexperienced users.

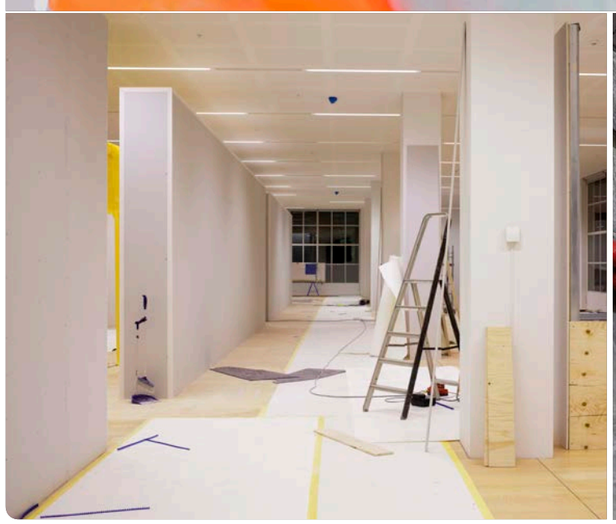
APPLICATIONS

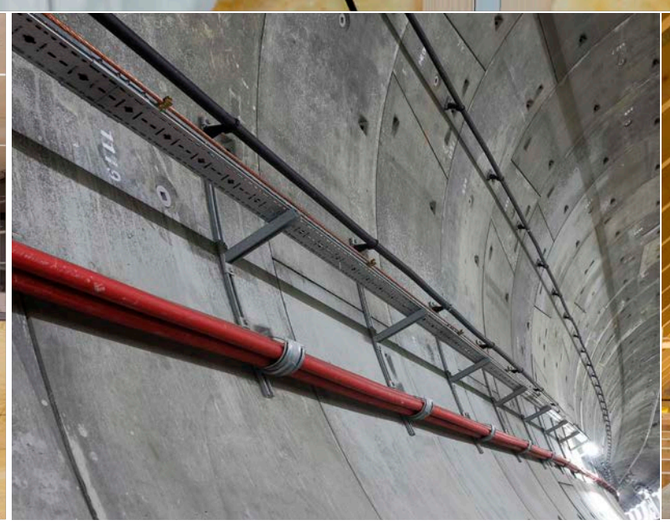
Documentation: The Freestyle^{3D} accurately records the asset data that is needed by Facility Managers – be it the structural situation on a production plant or the building services equipment in an office block.

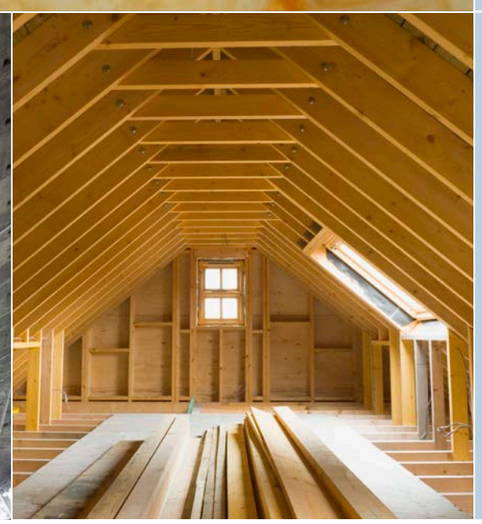
Planning of structural alterations: The scan data provides an accurate three-dimensional model of the actual status of the building. As a result Facility Managers can run through the usage options for rooms and installations even before planning actually begins.

Re-planning of technical modifications: Changes to technical equipment, such as pipes, air ducts and electrical supply lines, can be depicted and checked in advance in the virtual model. This offers a stable basis for re-planning.

Reconstruction: Detailed 3D data for reconstruction of lost appearance of components of historical sites or archaeological objects.







BENEFITS

Intuitive Plug and Play system. The Freestyle^{3D} provides highest productivity in the field since no warm up times are required.

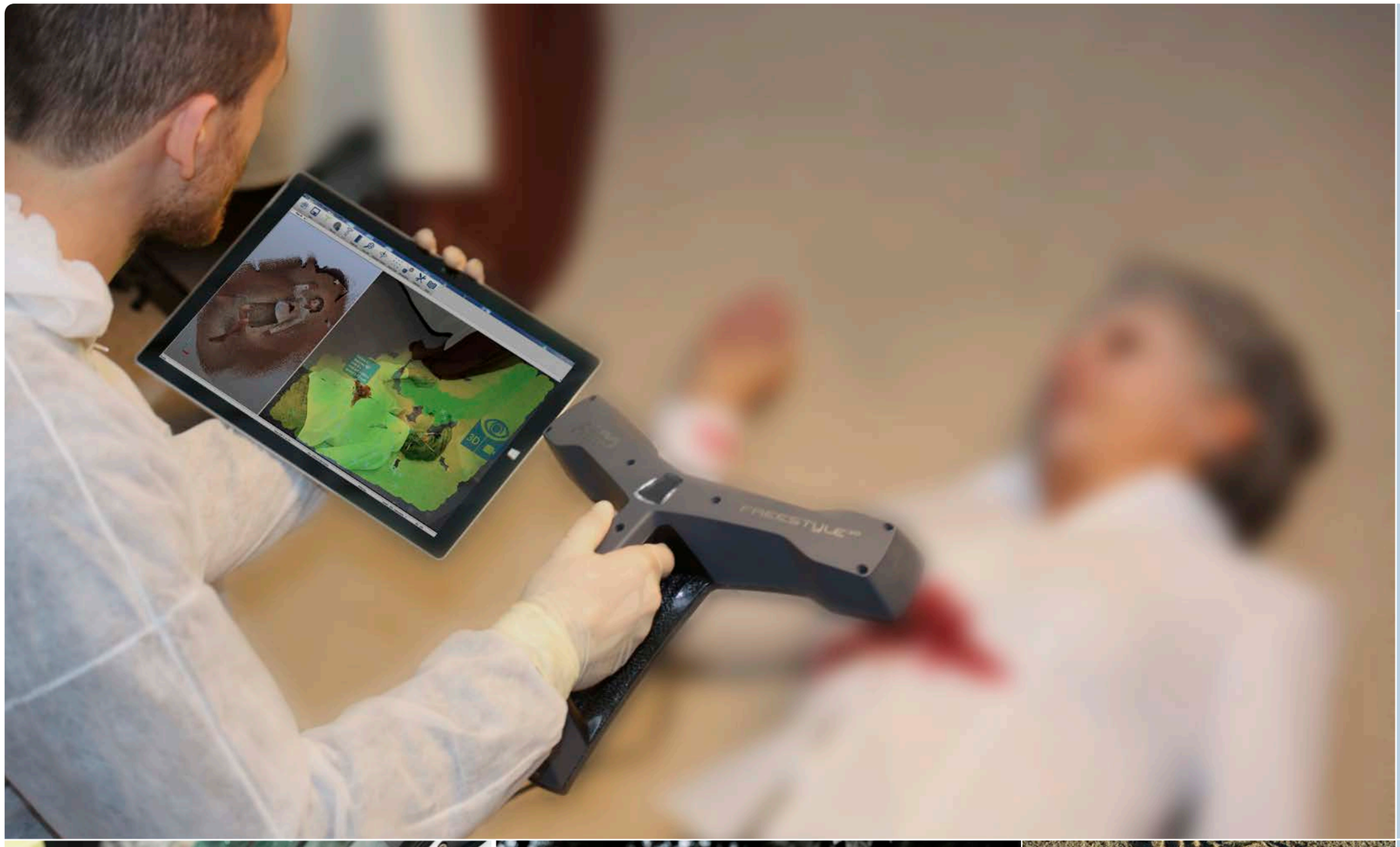
Lightweight industrial grade device. The Freestyle^{3D} is the only industrial grade handheld device with IP 5X rating and weighs only 0.98Kg.

After processing, all the data can be exported to all commonly used CAD programs.

Digital 3D capturing of complex forms of historic material and inventory at a high level of detail.

Seamless integration with Focus^{3D} laser scan data.

Forensic



FORENSIC

With FARO´s Freestyle^{3D} the entire crime scene can easily be captured, high detailed and extremely fast. With this digital data forensics teams can acquire the whole crime scene, reconstruct it and share it with other departments without losing evidence quality over years.

The Freestyle^{3D} captures effortlessly almost any surface type in a wide range of environments by simply pointing the FARO Freestyle^{3D} towards the surface or the object.

APPLICATIONS

Crime scenes investigation & analysis: Complex and timely investigations made easier and faster.

Digital proof collection: Quick and accurate capture of evidences, scan data of objects and evidence found at the scene.

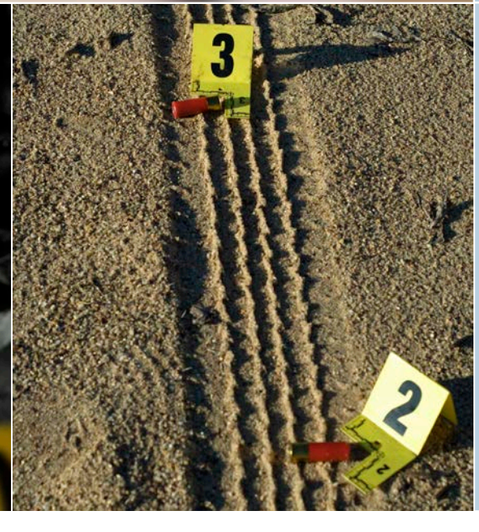
Process integration: The Freestyle^{3D} can be used by combining traditional investigative methods with cutting-cutting-edge laser scanning technology for better results.

Accessibility: With the digital data captured, specialists can investigate the whole crime scene, reconstruct it and share it with other departments without losing evidence quality.

Fire Investigation: Detailed fire scene acquisition.







BENEFITS

Revolutionary price/performance ratio

FARO certified accuracy in capturing process

Seamless integration with Focus^{3D} laser scan data

High detailed, extremely fast data acquisition

Accident Reconstruction



ACCIDENT RECONSTRUCTION

Investigators in law enforcement industry depend on reliable, fast and accurate data. Information and spatial reference are essential through all phases of investigation.

FARO's Scanner Freestyle^{3D} offers an ideal solution, smoothing the workflow, making processes faster and more efficient, delivering accurate data and satisfying statutory requirements.

Weighing just less than one kilogram, the Freestyle^{3D} scanner is ideal for mobile usage on the accident scenes or in fire investigation.

APPLICATIONS

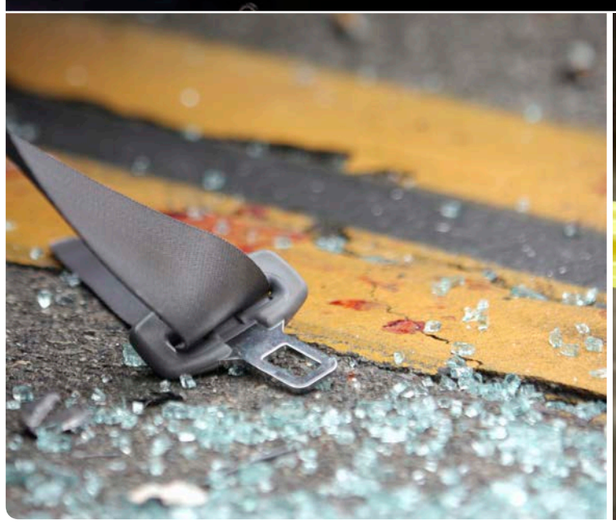
Traffic accident investigation & analysis: Handling, investigating and analysing road incidents is fast and reliable using the FARO Freestyle^{3D}.

Passive safety of cars: Reducing consequences of accidents with laser scanner tested passive safety systems can be vital for passenger survival.

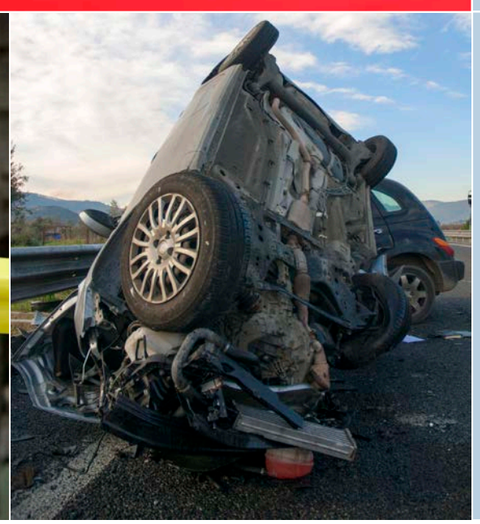
Collision reconstruction: Complex and timely investigations are made easier and faster with the Freestyle^{3D}.

Digital proof collection: The Freestyle^{3D} is used for quick and accurate capturing of evidences and provides scan data of objects found on-site.

Digital accessibility: With the digital data captured, police and investigators can enter the whole crime scene digitally, reconstruct it and share it with other departments without loosing evidence quality.







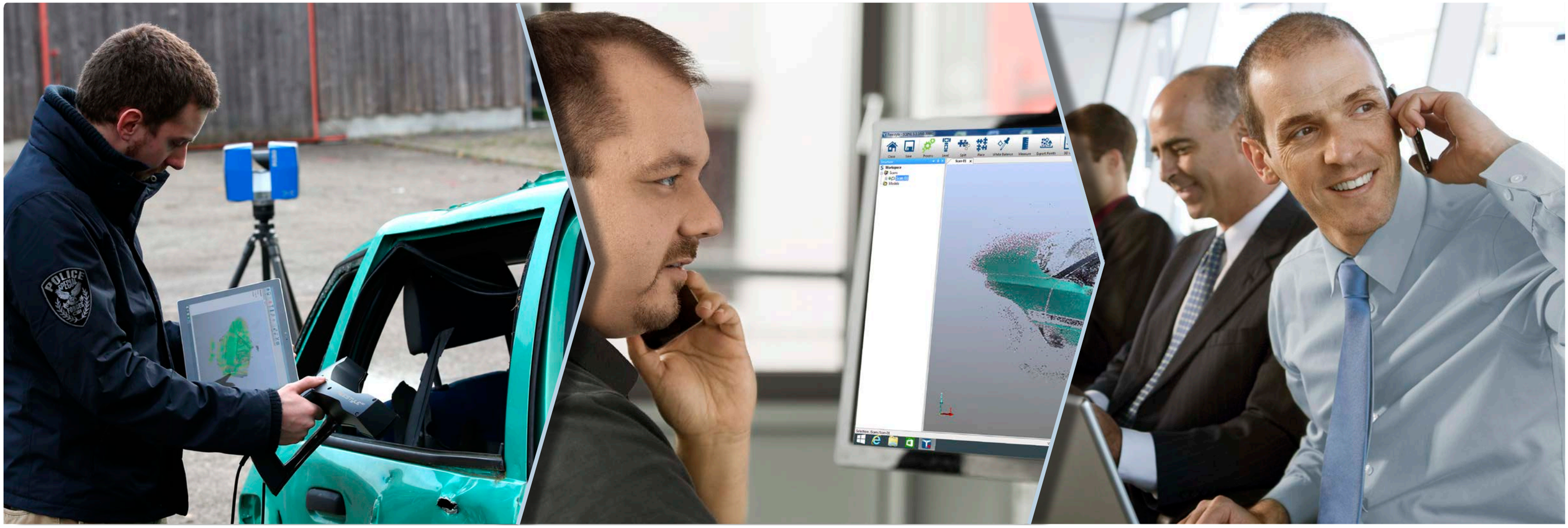
BENEFITS

Export functionality to several law enforcement diagramming software solutions

Time-saving, simple and complete recording of the current accident sites

Real-time, digital 3D data capture and analysis of materials, volumes, structures

3D Documentation Workflow



INDUSTRY LEADING FARO WORKFLOW IN 3D DOCUMENTATION

Simplify the workflow even in your most complex scanning projects with the new Freestyle3D integration. Scan full scenes with FARO's Laser Scanner Focus3D X 130 or X 330. Add even more details and capturings by the brand new FARO Freestyle3D.

Now you can capture points in areas where a positioning of a laser scanner isn't possible or when high details from different angles are needed. Point clouds are edited with the powerful FARO SCENE software. With its unique automated scan placement, scanning on site is even faster and processing easier. Share your results securely via WebShare Cloud and collaborate worldwide with your project- and business partners.

STEP 1 - SCAN

Setup the FARO Laser Scanner Focus3D. Acquire scan data of any environment under almost any weather condition.

Add additional detail in your point clouds by capturing data with the brand new FARO Freestyle3D.

STEP 2 - PROCESS

Process and merge point clouds in FARO SCENE. You can instantly perform measurements, calculate volumes and add annotations to your scan data. The powerful automatic features of SCENE will speed up editing and give you a never before seen software experience.

STEP 3 - COLLABORATE

Your processed scan data can be shared quickly and securely via the FARO hosted WebShare Cloud service with colleagues, project- and business partners.



FARO® LASER SCANNER FOCUS3D X 330

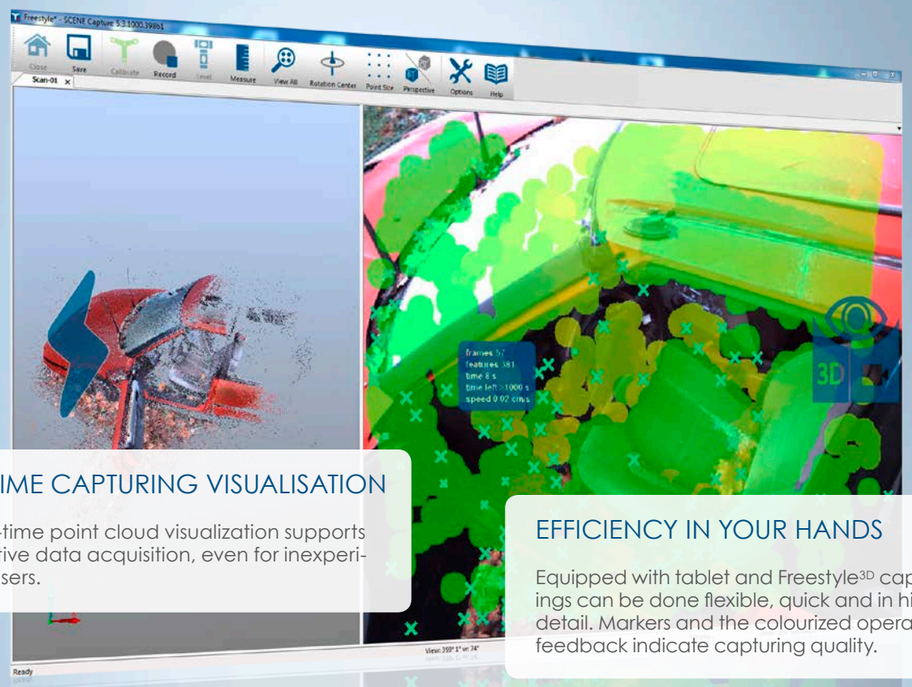
The new FARO Focus3D X 330 a high-speed 3D scanner with extra long range. The Focus3D X advances into entirely new dimensions: it can scan objects up to 330 meters away even in direct sunlight.
With its integrated GPS receiver, the laser scanner is able to correlate individual scans in post-processing making it ideal for surveying based applications.



FARO® LASER SCANNER FOCUS3D X 130

The ultra-portable Focus3D X 130 enables fast, straightforward, and accurate measurements up to 130 metres. The 3D scan data can easily be imported into all commonly used software solutions for accident reconstruction, architecture, civil engineering, construction, forensics or industrial manufacturing.

SCENE



REAL-TIME CAPTURING VISUALISATION

The real-time point cloud visualization supports the intuitive data acquisition, even for inexperienced users.

EFFICIENCY IN YOUR HANDS

Equipped with tablet and Freestyle3D capturings can be done flexible, quick and in high detail. Markers and the colourized operator feedback indicate capturing quality.



SUPPORTED LANGUAGES

FARO knows the value of localized software applications. Therefore FARO Capture, FARO Process and FARO SCENE are essentially delivered with following language packs.

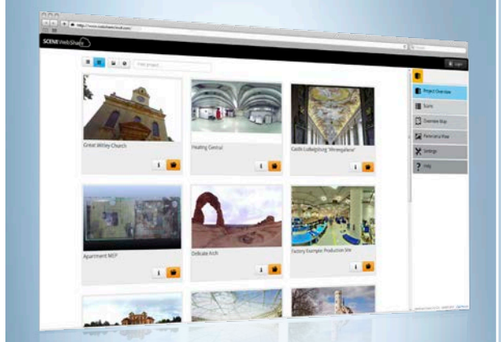
FARO PROCESS

The software supports you in data processing and generates automatically the best result of your captured data.

EXPORT TO FARO SCENE

After the highly efficient processing is finalized, you can start editing your data in the powerful FARO SCENE software. With SCENE you have several export options to various CAD programs.

SCENE WebShare Cloud & App Center





DATA SHARING WITHOUT LIMITS

With SCENE WebShare Cloud, FARO offers a comprehensive service to provide users with simple access to 3D documentation. Neither technical training nor specialist skills in 3D laser scanning are necessary to work with the intuitive user interface.

Digital data, such as 3D documentation, often has to be available to many different project partners. Previously, users had their own internet server, could use SCENE WebShare to present their laser scan projects to clients and project partners. Now FARO goes considerably further, offering the SCENE WebShare Cloud solution, a hosting service with various packages at different prices.

Features

- Easy data sharing and collaboration
- Best possible security level
- Minimal set up and maintenance effort
- Persistent measurements & annotations
- Hosting service offered by FARO
- Support for mobile devices

www.webshare cloud.com

Our offer	Getting Started	Small Enterprise	Medium Enterprise	Large Enterprise
Storage	50GB	100GB	200GB	500GB
Downloads / month	50GB	100GB	200GB	500GB
Assigned users	10	25	50	100



APP CENTER

The FARO 3D App Center!

In the 3D App Center you will find software dedicated to the FARO 3D Documentation world. The shop is divided into two main categories: Stand-alone apps and plug-in apps.

3D-app-center.faro.com

Accessories



RUGGEDIZED PELI™ CASE FOR TRANSPORT

The waterproof and extremely sturdy Pelicase, with lots of compartments for important accessories, stores besides the FARO® Freestyle3D device, the Microsoft® Surface Pro 3 and the carbon calibration plate.

The ultra high impact copolymer polypropylene is extremely strong and flexible against external impacts. Stainless steel pins are used in hinges, latches and handles to prevent corrosion.



CALIBRATION PLATE

The FARO® Freestyle3D comes with a full carbon calibration plate. This plate can be used for in-field calibration, whenever needed.

The in-field calibration gives any operator the opportunity to ensure high accuracy scan data in any environment or surrounding condition. With the calibration plate FARO provides the user with the opportunity to determine and verify that the device is within the expected specifications.



MICROSOFT® SURFACE PRO 3 TABLET

It's a tablet and laptop all in one device
Barely tipping the scales at 798 g, the 12-inch Surface Pro 3 has all the power and performance of a premium laptop in a thin and lightweight design.

12 Inch ClearType Full HD Plus Touch Display
Pre-loaded with Windows 8.1 Pro
Wireless: Wi-Fi 802.11ac/802.11 a/b/g/n
Two 5MP HD cameras, front and rear-facing
Up to 9 hours battery life

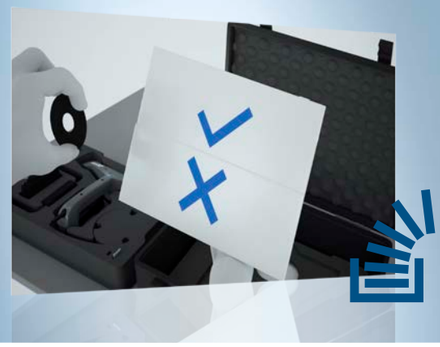


1.5M USB 3.0 EXTENSION CABLE

This USB extension cable is suitable, when you have to bridge a wider distance between tablet and Freestyle3D.

The USB extension cable meets all USB specification and comes with up to 5Gbit/s transmission speed. It complies with fully rated cable specifications reducing electromagnetic/radio frequency interference (EMI/RFI).

You are in good hands



LEARN MORE

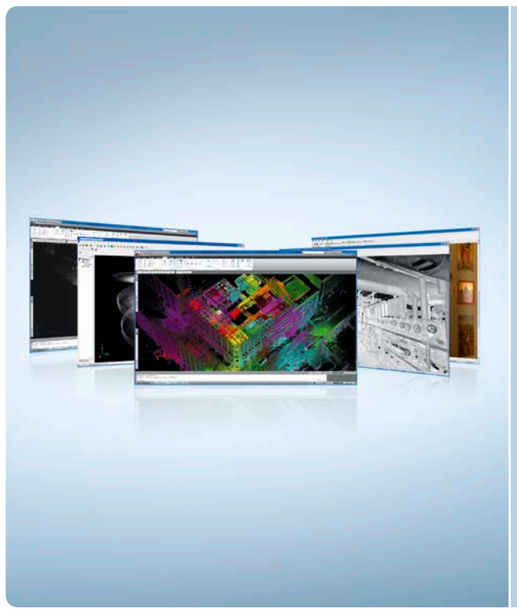
The Freestyle3D has an intuitive control concept, enabling even inexperienced users to get started straight away. Valuable tips and suggestions are to be found in the tutorial section which is stored on the tablet. However we also offer workshops, seminars and training courses for specific applications and tasks. In these, we teach you how you can use your Freestyle3D even more efficiently.



WORLDWIDE CUSTOMER SERVICE & SUPPORT

Phone: Our customer service staff is available from 8am to 5pm (CEST) from Monday to Friday.
Free call number: 00 800 3276 7378
E-Mail: support@faroeurope.com
Online-Support Center: www.faro.com/support
On-site: Our application engineers will help you on-site.

Worldwide service and support from local FARO facilities with hotline support, calibration and repair services for professionals. If you like to add an additional service contract you will receive a 10% discount on all accessories and free re-certification, and on-call advice.



SOFTWARE COMPATIBILITY

The Freestyle3D and it's SCENE software are compatible with the most common CAD software applications. SCENE can be used to export scan data to over 50 common software solutions, such as:

- General CAD: AutoCAD, Microstation, Rhino
- Plant construction: AVEVA PDMS, Intergraph PDS, AutoCAD Plant 3D, Microstation, Rhino
- Architecture: AutoCAD Architecture, REVIT
- Civil engineering / Surveying: AutoCAD Civil 3D, PolyWorks Surveyor, Carlson, Microsurveys
- Heritage: 3D Reconstructor
- Quality control: Geomagic Qualify, PolyWorks Inspector, Rapidform XOV
- Forensics: AutoCAD, SCENE Forensics
- Reverse engineering: Geomagic Studio, PolyWorks Modeler, Rapidform XOR
- Tunnelling: RR Tunnel, TMS
- Visualization: Pointools

FARO Offices



Global Headquarters
FARO Technologies Inc.
250 Technology Park
Lake Mary, FL 32746
USA
info@faro.com

European Headquarters
FARO Europe GmbH & Co. KG
Lingwiesenstrasse 11/2
70825 Korntal-Münchingen
Germany
info@faroeurope.com
Tel: +49 7150 9797 400

FARO Technologies UK Ltd
9-10 The Cobalt Centre
Siskin Parkway East
Middlemarch Business Park
Coventry, CV3 4PE
United Kingdom
uk@faroeurope.com

Distribution (EMEA)
FARO Swiss Holding GmbH
Wiesengasse 20
8222 Beringen
Switzerland
distribution@faroeurope.com
www.faro.com/distributors

www.faro.com/freestyle3D

Free Call: 00 800 3276 7253

Revised: 07 Jan. 2015 © 2015 FARO