

FARO®

Leap ST® Handheld 3D Scanner

An advanced
metrology-grade
3D scanner
featuring multiple
operating modes

Measure any
surface or part
– small to large –
with maximum
versatility

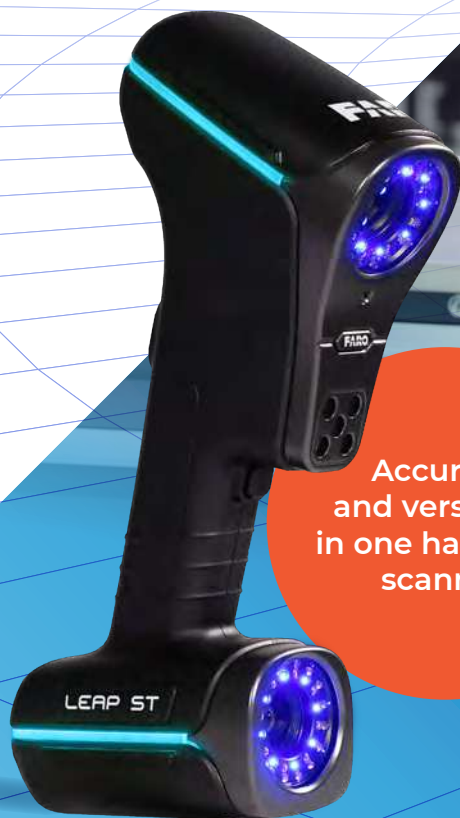


FARO® Leap ST

A Leap Forward in Handheld Scanning for Manufacturing and 3D Metrology Applications

For over four decades FARO® has helped transform the world of precision measurement. By replacing bulky CMMs and analog tools with FARO arms, manufacturers have accelerated measurement setup, sped up inspections, and produced more accurate results.

As handheld scanners gain prominence, Leap ST establishes itself as the solution for faster time to quality data with the flexibility to optimize speed of data capture with the accuracy of the scan. Streamlined setup, five operating modes, and the ability to scan almost any surface or geometry, Leap ST will lead the way in this groundbreaking transformation.



Accuracy
and versatility
in one handheld
scanner



Benefits

Accurate Results in Less Time, With Less Delay

With its exceptional area coverage and five modes of operation, Leap ST minimizes setup time and allows you to start capturing large surfaces, fine details, or deep geometries with less delay. Combined with an excellent data rate and the ability to use each mode separately or in combination with one another, you can scan parts in less time with the detail and accuracy needed.

Maximum Versatility

Leap ST is designed to adapt to your growing needs with maximum versatility. The five modes allow for large part scanning, as well as complex, harder-to-access parts like deep holes and fine details common in an engine chassis, eliminating the need for additional metrology devices. The scanner is directly compatible with leading metrology software but can also be used with the available software development kit (SDK).

Fast Setup, Accurate Results

Eliminate the need to move your part or bulky equipment. Save time and increase confidence in your results with the ability to scan a wide variety of parts and assemblies. With less time needed to prepare the part before scanning and to restore it to its original pre-preparation state, users can scan more parts faster, leading to greater throughput.

Trust Your Results

All Leap ST scanners meet the highest standards of accuracy and reliability. Certified according to the rigorous VDI/VDE 2634 standard, Leap ST ensures precise measurements that you can trust. Backed by ISO 17025 accredited calibration laboratories, this cutting-edge technology guarantees traceable and repeatable results.

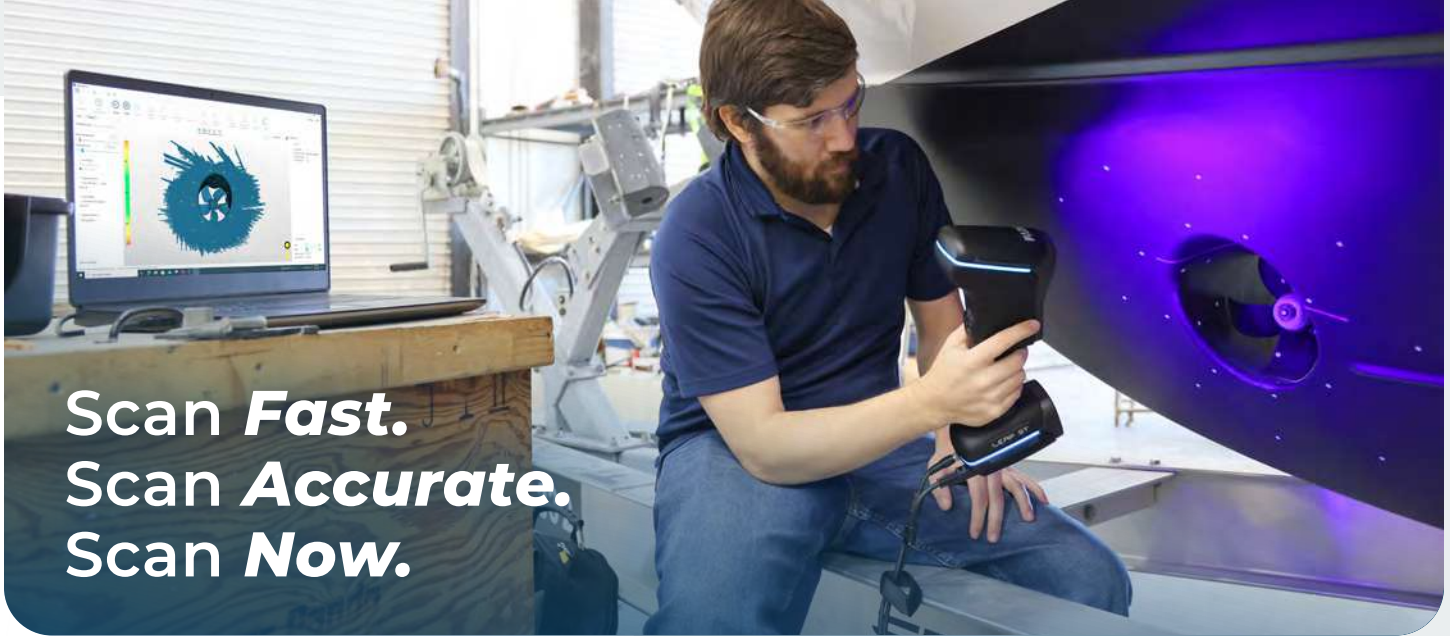
Scan Faster

The optical configuration allows for a larger distance between targets, saving you time applying targets to your parts. The seamless switch between operating modes, directly on the device, enables users to continuously capture exactly what is needed without pausing the scan and go back to the computer.

HIGHLIGHTS

- Ensure reliable measurement with the versatility to select from five operating modes
- Accelerate inspection without sacrificing accuracy
- Inspect more parts without increasing your cost-of-quality
- Catch more defects to reduce scrap and maximize production uptime
- Gather more data on production process trends to optimize quality





Scan *Fast*.
Scan *Accurate*.
Scan *Now*.

5 Scanning Modes

Leap ST* represents a major advancement in handheld 3D metrology technology.

Designed as a compact, portable device, Leap ST can operate in five modes, offering versatility that benefit a wide variety of workflow applications and industries, ranging from aerospace and automotive to transportation equipment and metals fabrication and many more.

This unique adaptability ensures quick setup with fast time to data and high data quality.

Intuitive design makes Leap ST accessible to all skill levels



Ultra-fast Scanning

Thirty-four laser lines enable fast coverage and greatly aid in identifying part features; best suited for small to medium-sized parts.



Hyper Fine Scanning

Seven parallel laser lines allow high-resolution features to be added to a dataset, ideal for highly complex geometries or for larger scale scans where high resolution is required on a specific area/feature.



Photogrammetry

While traditional photogrammetry requires several accessories, everything you need to perform photogrammetry with FARO Leap ST is inside the box, scale bars included.



Deep Hole Scanning

Inspect challenging features and focus the unique laser line on geometries of interests in hard-to-reach areas. Ideal for any part with holes to be inspected to the maximum allowable depth.



Large-area Scanning

Eleven parallel infrared laser lines can best be used to scan medium to large parts where only large features need to be inspected, or a first rough scan of a large part is required.

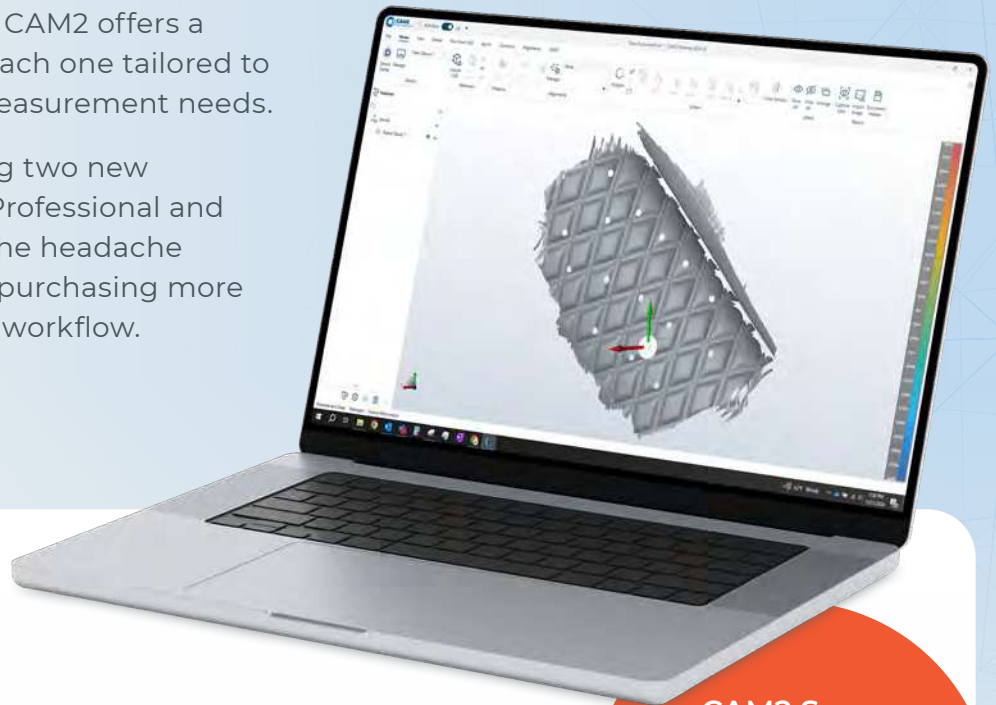
*ST: Stereo Triangulation

Software Compatibility

FARO CAM2® is the brand's powerful, intuitive and application-focused 3D measurement software platform.

Designed to enable users to fulfill their quality assurance and inspection tasks, CAM2 offers a portfolio of software offerings, each one tailored to meet specific manufacturing measurement needs.

This level of modularity, featuring two new software offerings, CAM2 Scan Professional and Expert, means users can avoid the headache and challenges associated with purchasing more software beyond their intended workflow.



CAM2 Scan Professional is the software package designed for laser scanning devices only

1

Cost Savings

Due to the modularity of the solution, customers pay only for a software license that fits their needs.

2

Streamlined Operation

Users benefit from a dedicated solution for their 3D measurement device without additional software clutter.

3

All-mode Integration

One software is fully compatible with all five Leap ST operating modes.



Specifications

| Scan Mode | |
|------------------------------|--|
| Ultra-fast Scanning | 34 blue laser lines |
| Hyper Fine Scanning | 7 blue parallel laser lines |
| Large-area Scanning | 11 parallel infrared laser lines |
| Deep Hole Scanning | 1 blue laser line |
| Volume Accuracy | |
| Work Alone* | 0.015 mm + 0.030 mm/m (0.0006 in + 0.00036 in/ft) |
| Work With 1 m Reference Bar* | 0.015 mm + 0.020 mm/m (0.0006 in + 0.00024 in/ft) |
| Photogrammetry System | |
| Scanning Area | 3760 mm x 3150 mm (148.0 in x 124.0 in) |
| Depth of Field | 2500 mm (98.4 in) |

* Based on the VDI/VDE 2634 Part 3 standard

| Technical Specifications | |
|-----------------------------|--------------------------------------|
| Accuracy | Up to 0.020 mm (0.0008 in) |
| Scanning Rate up To | 4,150,000 measurement/s |
| Scanning Area up To | 1440 mm x 860 mm (57.0 in x 33.9 in) |
| Laser Class | CLASS II (eye-safe) |
| Resolution up To | 0.010 mm (0.0004 in) |
| Stand-off Distance | 300 mm (11.8 in) |
| Depth of Field up To | 925 mm (36.4 in) |
| Output Formats | .asc, .igs, .txt, .stl |
| Operating Temperature Range | Minus 10° C - 40° C (14° F - 104° F) |
| Interface Mode | USB 3.0 |



Are You Ready To Make the Leap?

Leap ST, with its maximized versatility and five modes of independent or complementary operation, is poised to become a market leader in this fast-growing subset of advanced metrology measurement tools.



FARO Leap ST is an advanced handheld 3D scanner for the manufacturing industry that ensures fast time to data and exceptional versatility.

Make The Leap Today!

Local operations around the world. Go to [FARO.com](https://www.faro.com) to learn more.

Revised: 1/9/2025