

# Your mobile measuring room ZEISS T-SCAN





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# A mobile measuring room for intuitive 3D data capturing

The modular T-SCAN system is your fast way forward: Capture 3D data without any part preparation. Its perfectly matched components – the hand-held T-SCAN laser scanner, the optical tracking system T-TRACK and the touch probe T-POINT – form an intuitive and highly precise 3D metrology solution. In combination with the software ZEISS INSPECT, it reaches a new dimension in coordinate measuring technology.





## A modular all-in-one concept

The modular all-in-one concept and complete laser scanning solution offers maximum flexibility for a large variety of applications and surfaces.

## Early detection of deviations

Save time and money: This mobile measuring solution can be used on the shop floor and allows a very intuitive way to analyse, measure and obtain a digital twin.

## A guided software workflow

The system T-SCAN is equipped with the software ZEISS INSPECT. See progress on the monitor in real-time and get guided through scanning, probing and inspecting.





# A mobile system with two options

Combine a hand-held laser scanner and a touch probe with the optical tracking system of your choice: the established ZEISS T-TRACK 20 for large measuring volumes of up to 20 m<sup>3</sup> or the ZEISS T-TRACK 10 for a smaller measuring volume and higher accuracy.

## ZEISS T-SCAN

Hand-held 3D laser scanner



## ZEISS T-POINT

Hand-held touch probe for single points



## ZEISS T-TRACK 10

Optical tracker with a measuring volume of 10 m<sup>3</sup>



## ZEISS T-TRACK 20

Optical tracker with a measuring volume of 20 m<sup>3</sup>





## ZEISS T-SCAN

# Easy data capture with a hand-held laser scanner

The hand-held T-SCAN scanner captures 3D data fast and intuitively. Thanks to the ergonomic design, it enables effortless scanning. With its lightweight and compact sensor housing, the device is ideally suited for capturing data even in the most difficult-to-reach areas.





## ZEISS T-TRACK 20

# Measure in any dimension

The measuring system ZEISS T-TRACK 20 offers a measuring volume of 20 m<sup>3</sup>. Measure parts of up to 4 m in length in just one single setup. Using the system is easy to learn. You can capture 3D data efficiently, accurately and fast. Just put a part into its tracking volume and you are ready to measure – no preparation of reference points is needed. The traceable accuracy guarantees reproducible and reliable measuring results.







## ZEISS T-TRACK 10

# Measure with high accuracy

The measuring system T-SCAN 10 with the T-TRACK 10 offers a measuring volume of 10m<sup>3</sup>. It allows you to measure parts of up to 2.5 m in length in just one single setup. Thanks to highly reliable ZEISS optical components it is a perfect fit for applications which require higher accuracy.





## ZEISS T-POINT

# Fast point measurements

The touch probe T-POINT is the perfect solution for single-point measurements on object areas such as (trimmed) edges and standard geometries or optically hard-to-reach areas. It captures the selected measuring positions quickly and reliably. The device can be used with conventional measuring probes which can be replaced easily and quickly.





# High process reliability

ZEISS T-SCAN operates with ZEISS INSPECT, the all-in-one software solution and well established standard in 3D metrology. Measurements and inspection can be performed in the software including a parametric workflow where all process steps are traceable. A software-guided scanning and probing process that simplifies and speeds up your workflow.

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# Fast and highly precise 3D scanning

Outstanding technical features, such as the high dynamic range for scanning of various object surfaces, innovative camera technology and high quality ZEISS optics as well as a fast data rate, allow for a smooth scanning process and precise measuring results.

# Dynamic referencing

Capture 3D data with high precision, even on moving objects – with the dynamic referencing function you perform your measurements independently of component movements and difficult ambient conditions, including vibrations.



# A wide range of applications

## Quality control / inspection

- Nominal / actual comparison of CAD
- Boundary / edge extraction  
(sheet metal parts)
- Inspection of complex welded structures
- Shop floor inspection

## Tool and mold making

- Tool reconstruction
- Scan data for generating machining paths
- Actual capture following tool approval
- Capture of complex component dynamics,  
e.g. during a clamping procedure

## Product development and design

- High dynamic range to scan all kinds of surfaces
- Scanning of design models for  
CAD downstream processing and documentation
- Gage and fixture setup
- Fast capture of reference geometries  
and specified areas







# Technical Data

## ZEISS T-SCAN hand-held laser scanner

### Type / ZEISS T-SCAN

Measuring depth	+/- 50 mm
Line width	Up to 125 mm
Mean working distance	150 mm
Line frequency	Up to 330 Hz
Data rate	210,000 points/second
Weight	1100 g
Sensor dimensions (incl. handle and IR pins)	300 x 170 x 150 mm
Cable length	10 m
Mean point distance	0.075 mm
Laser class (IEC 60825-1:2014)	Class 2M (eye-safe)
Software	ZEISS INSPECT





# Technical Data

## ZEISS T-TRACK 10

### Type / ZEISS T-TRACK 10

Measuring distance: object-camera	2.0 m – 4.50 m
Measuring volume	10 m <sup>3</sup>
Field of view	Up to 2894 mm x 2324 mm
Measuring rate	Up to 2.8 kHz
Weight	18.5 kg
Dimensions	1150 x 180 x 150 mm
Software	ZEISS INSPECT
Traceable accuracy	Yes
Accuracy	0.033 mm + 0.033 mm/m

## ZEISS T-TRACK 20

### Type / ZEISS T-TRACK 20

Measuring distance: object-camera	2.0 m – 6.0 m
Measuring volume	20 m <sup>3</sup>
Field of view	Up to 3200 mm x 2500 mm
Measuring rate	Up to 2.8 kHz
Weight	18.5 kg
Dimensions	1150 x 180 x 150 mm
Software	ZEISS INSPECT
Traceable accuracy	Yes
Accuracy	0.04 mm + 0.04 mm/m





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