

Leica Absolute Tracker ATS600

Key features

The ATS600 revolutionises big-scale measurement for large surfaces by bridging the gap between point-by-point measurement and advanced laser scanning.

Delivering three times the accuracy of leading terrestrial scanners, it integrates seamlessly into established metrology workflows, providing immediate on-site results without post-processing.

Fast



Direct scanning

- 3D surface inspection without reflectors – simply select the area of interest and a point cloud is automatically generated
- Align the point cloud using reflector measurement for the highest accuracy
- Dedicated line and ring scan measurement profiles for specific applications
- Uniform grid scanning for any surface using 3D vector alignment



PowerLock

Interrupted line of sight is automatically re-established with no user interaction.



Reflectorless build and inspection

Enables the fast adjustment of tools and the assembly of large parts without the need for a reflector.

Easy



Overview camera

Integrated camera to control the tracker and define the scanning regions.



Panorama display

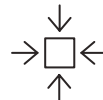
Create an automatic panorama display image to simplify scan area management.



Orient-to-gravity function

Allows for measurement with the Z-axis aligned to gravity – ideal for levelling and alignment tasks.

Portable



Compact and lightweight design

Small, portable design allows easy transport and on-site use without sacrificing accuracy.



Battery-powered operation

Hot-swappable batteries ensure uninterrupted operation in various locations.



Built-in WiFi

Cable-free setup simplifies workflow integration and remote communication.



Durable construction

IP54-certified protection ensures long-lasting performance in harsh environments.

Scalable



Automation-ready

Mount the ATS600 on a mobile autonomous vehicle for fully automated inspection.



Large volume

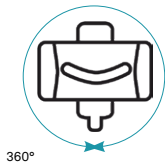
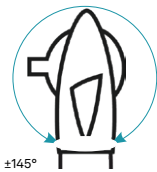
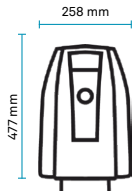
Measure within a volume up to 160 metres (120 metres reflectorless) in diameter.



Technical specifications

General information	Tracker size weight	477 x 258 x 239 mm 14.2 kg
	Controller size weight	249 x 148 x 59 mm 1.65 kg
	3D measurement range	0.8 to 80 m 1.5 to 60 m (direct scanning)
	Scan rate	1000 Hz
	Laser class	Class 2
	Overview Camera	5MP
Environmental	Operating temperature	0°C to +40°C
	Relative humidity	max. 95% non-condensing
	Operating elevation	-700 m to +5500 m
	Dust water	IP54
Interface	Cable	Cat6
	Wireless	WLAN (IEEE 802.11n)
Power management	Battery type	Lithium-ion battery swappable
	Typical battery runtime (single charge)	6 hours
	Mains	AC power supply
Accuracy	Angular performance $E_{\text{two-face,MPE}}^1$	$\pm 15 \mu\text{m} + 6 \mu\text{m/m}$
	Absolute Distance Meter eADM ¹	$\pm 75 \mu\text{m} + 3 \mu\text{m/m}$
	Length measurement $E_{\text{distance,MPE}}^{1,2}$	$\pm 21 \mu\text{m} + 8.5 \mu\text{m/m}$
	Absolute accuracy ³	$< \pm 300 \mu\text{m}$
	Range noise ⁴	$< \pm 80 \mu\text{m}$
	Inclination sensor	$\pm 1.0 \text{ arcsec}$
	Orient to gravity U_z	$\pm 15 \mu\text{m} + 8 \mu\text{m/m}$

¹ Maximum Permissible Error (MPE) specifications in accordance with ISO 10360-10:2021 using Leica 1.5" Red Ring Reflectors (RRR).
² In accordance with ISO 10360-10:2021 for distances above 10 m.
³ Maximum deviation (MPE) of the absolute position of a plane (78% albedo), at a distance of 1.5 to 30 metres, 0 to $\pm 45^\circ$ incidence angle, Area Scan profile.
⁴ Standard deviation (1 σ) of a best-fit plane, at a distance of 1.5 to 30 metres, standard measurement mode, target aligned.



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