

Product catalogue

Absolute Tracker systems and accessories

Version 2.0





This catalogue contains the complete range of products and accessories available for Absolute Tracker systems from Hexagon. Whatever the industry or application, the Absolute Tracker has a solution. All of our products and accessories offer the same premium quality and practical design you would expect from a Swiss made product.



| shop.hexagonmi.com

Hexagon's Manufacturing Intelligence online shop offers a streamlined search, order and delivery service for a wide range of accessories and spare parts in many countries worldwide.

- Quickly find the right inspection solution with the shop's state-of-the-art search function (filter by price, radius, thread and other criteria to pinpoint the exact product required).
- Fast UPS dispatch.
- Easy bulk purchase via CSV file uploads.
- Convenient payment on account or by credit card.

Whether you're buying single items or in bulk, shop.hexagonmi.com takes the time and stress out of securing the measuring equipment you need.

Please direct any questions about Hexagon products or accessories to an authorised local sales representative to receive guidance and assistance in making an appropriate purchasing decision.

Important note

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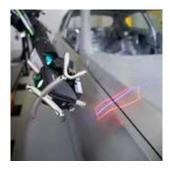


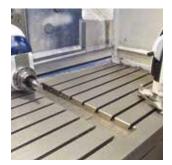


















Applications

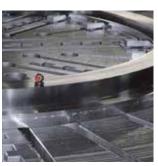
Inspection

Build and adjust

Reverse engineering



















Machine alignement Optimisation of manufacturing proces





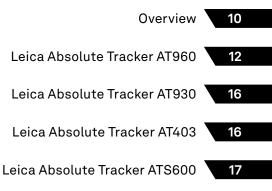








Absolute Tracker systems



The Absolute Tracker

LEICA ABSOLUTE TRACKER

Swiss Technology

XAGON

The foundation of absolute accuracy

The unmatched productivity and portability of the Absolute Tracker range is founded on innovative technologies that make it the pinnacle of high-performance metrology on the move.

Absolute accuracy

- The Absolute Interferometer (AIFM) combines the accuracy of an absolute distance meter (ADM) with the speed of an interferometer
- Scanning accuracy to within as little as 50 microns
- Reflector single-point accuracy to within 20 microns
- Patented Absolute Encoders ensure angular accuracy performance with no referencing before use
- Systems calibrated in ISO 170250-certified laboratories for accuracy specified in line with ISO 10360-10 standard

Absolute productivity

- Non-contact measurement data collected at up to 1.2 million points and 300 lines per second
- Orient-to-Gravity for levelling and alignment tasks
- Ultra-large measurement volumes of up to 320 metres in diameter
- Real-time architecture with dynamic performance delivers 1000 Hertz data rate
- Hidden-point measurement with a wireless probe can reduce measurement process time by up to 80 percent

Absolute reliability

- Integrated MeteoStation environmental monitoring unit
- IEC-certified IP54 sealed unit for challenging environments
- Wide operating temperature range of -15 to 45 degrees Celsius
- Integrated mini variozoom delivers a constant field of view in any light conditions
- Full 24-month factory warranty and guaranteed ten years of serviceability

Absolute portability

- All-in-one integrated design
- Built-in WiFi with true access point functionality
- Portable design weighing as little as 7.3 kilograms
- Independent hot-swappable battery power supply
- Convenient flight cases for simple transportation

Our laser trackers

A tracker for every application

Laser trackers come in a range of shapes and sizes and are based on various technological foundations. These are ours, and together they represent a wider range of application solutions than is offered by any other manufacturer.

Leica Absolute Tracker AT960

The flagship of the Absolute Tracker range, offering full 6DoF measuring functionality capable of powering both manual and automated inspection and production systems.

Leica Absolute Tracker AT930

Our premium 3D tracker, for high-accuracy reflector measurements that can support a range of applications.

Leica Absolute Tracker ATS600

The groundbreaking direct scanning laser tracker, delivering metrology-grade measurement from a distance of up to 60 metres.

Leica Absolute Tracker AT403

An ultra-long-range tracker with a high portability factor, designed for rugged use in the most challenging measurement environments.



Leica Absolute Tracker AT960

Key features





Overview camera

High-resolution display with live view and multiple zoom levels with no reduction in image quality



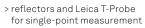
PowerLock

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



Multifunctionality

Compatible with:







> automated robotic installations



Real-time data output

1000 Hz low-latency Ethercat data transfer with the optional Real-Time Feature Pack



Hot-swappable battery power

Quick and easy cable-free setup in almost any location



Orient-to-gravity function

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





Built-in WiFi

For simple set up and communication with the PC and remote control operation



Large volume

Measure within a volume up to 160 metres in diameter



IP54 protection

IEC-certified sealed unit guarantees ingress protection against dust and other contaminants



ISO certification

System traceability certified in line with ISO 17025



Real-time remote monitoring

Compatibility with HxGN SFx | Asset Management, the leading solution for of Industry 4.0 asset performance management

GPS location service

Possibility to track location of the Absolute Tracker anywhere in the world, even when it is switched off.

Leica Absolute Tracker AT960

576865



Leica Absolute Tracker AT960-SR

Short-range 6DoF laser tracker system based on Absolute Interferometer. Reflector measurement range up to 6 m, with probing range up to 5 m.

The system consists of:

- 6DoF laser tracker unit AT960-SR
- Calibration Certificate Metrology Gold (827624)
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red Ring Reflector 1.5"" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty*
- HxGN SFx | Asset Management PRO 12-month subscription
- GPS Location Add-on for SFx Asset Management 12-month subscription**

576864

Leica Absolute Tracker AT960-MR

Mid-range 6DoF laser tracker system based on Absolute Interferometer. Reflector measurement range up to 20 m, with probing range up to 10 m.

The system consists of:

- 6DoF laser tracker unit AT960-MR
- Calibration Certificate Metrology Gold (827624)
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red Ring Reflector (RRR) 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty*
- HxGN SFx | Asset Management PRO 12-month subscription
- GPS Location Add-on for SFx Asset Management 12-month subscription**

Leica Absolute Tracker AT960

576863 Leica Absolute Tracker AT960-LR

Long-range 6DoF laser tracker system based on Absolute Interferometer. Reflector measurement range up to 80 m, with probing range up to 20 m.

The system consists of:

- 6DoF laser tracker unit AT960-LR
- Calibration Certificate Metrology Gold (827624)
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red Ring Reflector (RRR) 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty*
- HxGN SFx | Asset Management PRO 12-month subscription
- GPS Location Add-on for SFx Asset Management 12-month subscription**

576862 Leica Absolute Tracker AT960-XR

Extended-range 6DoF laser tracker system based on Absolute Interferometer. Reflector measurement range up to 80 m, with probing range up to 30 m.

The system consists of:

- 6DoF laser tracker unit AT960-XR
- Calibration Certificate Metrology Gold (827624)
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red Ring Reflector (RRR) 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty*
- HxGN SFx | Asset Management PRO 12-month subscription
- GPS Location Add-on for SFx Asset Management 12-month subscription**



*The 24-month factory warranty period is conditional on the performance of annual maintenance and recertification. **Available in specific countries and for a limited perid.

Leica Absolute Tracker AT930 | AT403

576861

576361



Leica Absolute Tracker AT930

3D laser tracker system based on Absolute Interferometer. Reflector measurement range up to 80 m.

The system consists of:

- 3D laser tracker unit, AT930
- Calibration Certificate Metrology Gold (827624)
- MTC51 AT930/AT960/ATS600 Transport Container (576891)
- AT Controller (576871)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red Ring Reflector 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty*
- HxGN SFx | Asset Management PRO 12-month subscription
- GPS Location Add-on for SFx Asset Management 12-month subscription**



Leica Absolute Tracker AT403

3D laser tracker system based on Absolute Distance Meter. Reflector measurement range up to 160 m, with probing measurement range up to 10 m.

The system consists of:

- 3D laser tracker unit, AT403
- AT Controller
- MCS17 Sensor Cable
- GDF31-I Tribrach
- MCA15 Ext. Temperature Sensor
- Red Ring Reflector (RRR) 1.5"
- AT400 IR Remote Control
- LAN Cable 5 m
- MSI26 Universal Stand Adaptor
- 2 GEB242 Batteries
- GKL311 Charger Pro 3000
- AC Adaptor
- MTC75 AT40x Transport Container
- Calibration Certificate Metrology
- Quick Guide
- Compensation SW
- 24-month warranty*

Leica Absolute Tracker ATS600

576971



Leica Absolute Tracker ATS600

Laser tracker system with direct scanning capability. Direct scanning distance range up to 60 m, reflector distance range up to 80 m.

The system consists of:

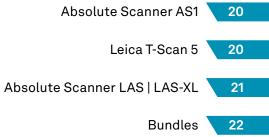
- Scanning laser tracker unit ATS600
- Calibration Certificate Metrology Gold (878571)
- MTC51 AT930/960/ATS600 Transport Container (576891)
- ATS Controller (576981)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red Ring Reflector (RRR) 1.5" (575784)
- MAC87 Reference Sphere d=90 mm (576947)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover (827057)
- 24-month warranty*
- HxGN SFx | Asset Management PRO 12-month subscription
- GPS Location Add-on for SFx Asset Management 12-month subscription**

*The 24-month factory warranty period is conditional on the performance of annual maintenance and recertification.

**Available in specific countries



Scanning solutions



Absolute Scanner AS1 | Leica T-Scan 5

577366

576187



Absolute Scanner AS1 Kit

High-speed 3D laser scanner for arm and tracker, manual and automated

The system consists of:

- Absolute Scanner AS1 (577367), incl. Certificate
- Absolute Positioner AP21 (577369)
- MAP102 Grip (577370)
- AT Connect Box CB21 (577377)
- MCA110 Positioner Sensor Cable 10 m (577379)
- MCA24 Battery Cable 0.75 m (576876)
- MCA114 Trigger/Probe Cable 0.75 m (855240)
- MCA115 LAN-cable RJ-45 Cat6 0.75 m (577384)
- MAC133 Reference Sphere d=25.4 mm (577401)
- MAP116 Positioner Horizontal Holder (577385)
- MAP117 Positioner Clip Support (577386)
- MSI26 Universal ATC Stand Fixture (576895)
- MTC118 Absolute Scanner Trolley Case (577387)
- 24-Month Warranty*

Compatibility: AT960



Leica T-Scan 5

3D laser line scanner for AT960 systems.

The system consists of:

- 3D laser scanner unit T-Scan 5 incl. transport- ation case
- Scanner Sensor Cable 10 m
- Scanner Controller (Rev.2.0)
- MPS21 Power Supply Unit (576873)
- MCA47 Trigger/Probe Cable 2m (576903)
- LAN-cable RJ-45 2 m
- MAP39 Horizontal Scanner Holder (576188)
- MAC41 Reference Sphere d=50 mm (576190)
- T-Collect Interface Software

Compatibility: AT960

Absolute Scanner LAS | LAS-XL

576908

576943



Leica Absolute Scanner LAS

3D laser line scanner for AT960 systems.

The system consists of:

- 3D laser scanner unit LAS
- LASC-211 Scanner Controller (576909)
- MCA62 Scanner Sensor Cable 10 m (576911)
- MPS21 Power Supply Unit (576873)
- LAN-cable RJ-45 5 m (575899)
- MCA47 Trigger/Probe Cable 2 m (576903)
- MAC64 Reference Sphere d=30 mm (576913)
- MAC74 Reference Sphere Support (576923)
- MAP65 Horizontal Holder (576914)
- MTC61 LAS Transport Case (576910)

Compatibility: AT960



Leica Absolute Scanner LAS-XL

3D laser tracker system based on Absolute Distance Meter. Reflector measurement range up to 160 m, with probing measurement range up to 10 m.

The system consists of:

- 3D laser scanner unit LAS-XL
- LASC-211 Scanner Controller (576909)
- MCA63 Scanner Sensor Cable 20 m (576912)
- MPS21 Power Supply Unit (576873)
- LAN-cable RJ-45 5 m (575899)
- MCA47 Trigger/Probe Cable 2 m (576903)
- MAC87 Reference Sphere d=90 mm (576947)
- MAP65 Horizontal Scanner Holder (576914)
- MTC85 LAS-XL Trolley Case (576944)

Compatibility: AT960

Scanner bundles



6012677

Leica Absolute Tracker AT960-SR and T-Scan 5 Bundle

Short-range 6DoF Absolute Tracker system bundled with Leica T-Scan 5. Reflector measurement range up to 6 m and scanning range up to 5 m.

The system consists of:

- Leica Absolute Tracker AT960-SR (576865)
- Leica T-Scan 5 (576187)

576864

Leica Absolute Tracker AT960-SR and LAS Bundle

Short-range 6DoF Absolute Tracker system bundled with Leica Absolute Scanner LAS laser scanner. Reflector measurement range up to 6 m and scanning range up to 5 m.

The system consists of:

- Leica Absolute Tracker AT960-SR (576865)
- Leica Absolute Scanner LAS (576908)



6013319

Leica Absolute Tracker AT960-SR and LAS-XL Bundle

Short-range 6DoF Absolute Tracker system bundled with Leica Absolute Scanner LAS-XL laser scanner. Reflector measurement range up to 6 m and scanning range up to 5 m.

The system consists of:

- Leica Absolute Tracker AT960-SR (576865)
- Leica Absolute Scanner LAS-XL (576943)

Scanner bundles

576955



Absolute Scanner Bundle (LAS + LAS-XL)

Pair of complemetary 3D laser line scanners for AT960 systems.

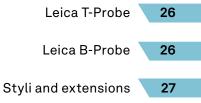
Bundle consists of:

- Leica Absolute Scanner LAS (576908) and Leica Absolute Scanner LAS-XL (576943)
- LASC-211 Scanner Controller
- MCA63 Scanner Sensor Cable 20 m
- MPS21 Power Supply Unit
- LAN-cable RJ-45 5 m and MCA47 Trigger/Probe Cable 2 m
- MAC87 Reference Sphere d=90 mm and MAC64 Reference Sphere d=30 mm
- 2x MAP65 Horizontal Scanner Holder and MAC74 Reference Sphere Support
- MTC90 LAS/LAS-XL Trolley Case

Compatibility: AT960



Probing solutions



Leica T-Probe | B-Probe



Leica T-Probe III

Portable wireless probing system for AT960 systems. A light-weight measurement probe with configurable function buttons allows measurements in small and large measurement volumes with minimal preparation time. The measurement range of the T-Probe is up to 30 metres in all directions.

The system consists of:

- Wireless probing sensor T-Probe (576186) incl. certificate and transport case
- T-Probe Stylus Adaptor –M5 (576212)
- Ruby Ball Stylus d=6 mm -M5 (576221)
- 2x Stylus Tool for M5 Threaded Styli (576225)
- MAC34 T-Probe Stylus Compensation Tool (576899)
- T-Probe Battery Charger (734195)
- 2x T-Probe Spare Battery (575983)

Compatibility: AT960



Leica B-Probe

576511

Entry-level portable wireless probing solution for AT40x systems.

The system consists of:

- Leica B-Probe
- steel ball stylus 0.5"
- stylus compensation tool
- stylus tool
- micro-USB cable
- Calibration certificate
- 4 AAA batteries
- transportation case

Compatibility: AT40x

Styli and extensions

576211

576212



576231 T-Probe styli kit

Recommended styli kit for Leica T-Probe and Leica B-Probe

The kit consists of:

- Scribe Stylus r=0.1 mm M2 (576219)
- Ruby Ball Stylus d=3 mm M5 (576220)
- Ruby Ball Stylus d=6 mm M5 (576221)
- Ceramic Hemispherical Stylus d=0.5 in, M5 (576143)
- Ceramic Hemispherical Stylus d=1.5 in, M5 (576144)
- Stylus Extension 100 mm M5 carbon fibre stem d=20 mm (576213)
- Stylus Extension 200 mm M5 carbon fibre stem d=20 mm (576214)
- Stylus Extension 40 mm M5 carbon stem d=11 mm (576217)
- 2x T-Probe Stylus Adaptor M5 (576212)
- 2x Stylus Tool for M2-M3 Threaded Styli (576223)
- 2x Stylus Tool for M5 Threaded Styli (576225)
- Stylus Adaptor M5-M2 (576226)
- T-Probe Styli Kit Case for Standard Configuration (576211)



T-Probe Styli Kit Case for Standard Configuration

Only case included. Accessories to be ordered separately.



T-Probe Stylus Adaptor - M5 Precision quick release adaptor for T-Probe styli to remove and attach styli without recalibration. The stylus adaptor has built-in intelligence supporting stylus self-identification.



Stylus Extension

576213	100 mm ·	- M5 - ca	rbon	fibre -	stem d=20 mm

- 576214 200 mm - M5 - carbon fibre - stem d=20 mm 576215 400 mm - M5 - carbon fibre - stem d=20 mm
- 576216 600 mm - M5 - carbon fibre - stem d=20 mm
- 576217 40 mm - M5 - carbon fibre - stem d=11 mm 576218
 - 100 mm M5 carbon fibre stem d=11 mm

Styli and extensions

	576219	Scribe Stylus - r=0.1 mm - M2 Compatibility: AT960
100	576220	Ruby Ball Stylus - d=3 mm - M5 Compatibility: AT960
	576221	Ruby Ball Stylus - d=6 mm - M5 Compatibility: AT960
91	576248	Cylindrical Stylus 22.5 mm - d=3 mm - M2 Compatibility: AT960
	576222	Edge Stylus M5 Comes with edge sphere 0.5", magnetic stylus M5 and compensation sphere 0.5". Compatibility: AT960
	576223	Stylus Tool for M2 and M3 Threaded Styli Compatibility: AT960
	576224	Stylus Tool for M4 Threaded Styli Compatibility: AT960
	576225	Stylus Tool for M5 Threaded Styli Compatibility: AT960, AT403

Styli and extensions

	576226	M5/M2 Stylus Adaptor An adaptor for connecting M2-threaded styli to a M5 connector. Compatibility: AT960
	576227	M5/M4 Stylus Adaptor An adaptor for connecting M4-threaded styli to a M5 connector. Compatibility: AT960
3	576228	M4/M5 Stylus Adaptor An adaptor for connecting M5-threaded styli to a M4 connector. Compatibility: AT960
		Ceramic Hemispherical Compatibility: AT960
8	576143 576144	Stylus d=0.5" - M5 Stylus d=1.5" - M5
	576403	Punch Tool - M5 A stylus used for punching scribe lines on an object for the next manufacturing process.
	576408	Punch Tool Replacement Tip Replacement Tip for Punch Tool - M5 (576403).
	577356	90Deg. Adapter for T-Probe 90-degree adaptor with M5f/M5m thread. Compatible with all M5 stylus and CFK extensions. Used for 90-degree stylus configurations with Leica T-Probe.
C.	576514	Steel Ball Stylus M5 d=0.5" - L=55 mm



Automation solutions

Leica T-Mac 32

Accessories 34

Leica T-Mac



T-Mac Basic TMC30-B

T-Mac is a specific developed sensor using Hexagon's 6DoF technology to extend product offering. T-Mac is designed to be used in combination with robots and large machines especially for positioning with high accuracy. T-Mac has the possibility to mount it on a robot or machine and the housing already has 4 reflector nests included. These reflector positions can be used to establish a local coordinate system for object orientation or robot alignment. As an option a tool exchange interface from Sandvick can be adapted.

The system consists of:

- T-Mac basic TMC30-B (576400) including certificate and transportation case

- T-Probe cable - 20 m (575973)



T-Mac Inspect TMC30-I

The T-Mac is a 6DoF machine control probe for use with the Absolute Tracker AT900 series trackers and T-Cam's. The TMC30-I is the deluxe version of the probe for machine positioning, alignment, calibration and all inspection tasks (such as touch trigger).

The system consists of:

- T-Mac Inspect TMC30-I (576410) including certificate and transportation case - T-Probe Cable, 20 m (575973)

Note: The T-Mac Inspect cable must be ordered separately (10 m - 576509, 30 m - 576510).

Compatibility: AT930, AT960

576404 T-Mac Update Kit Basic to Inspect

This Kit allows older T-Mac's to be upgraded in order to be used in new inspection systems.

The Upgrade Kit only contains the internal hardware to convert a TMC30 to a TMC30-I, no additional cables or interfaces are included.

Please contact service to make sure that the existing T-Mac is capable of receiving this upgrade

Note: T-Mac Inspect cable must be ordered separately.

Compatibility: AT930, AT960

Leica T-Mac

576396

576398

576397



Leica T-Mac Multiface TMC30-M

The T-Mac Multiface is a 6DoF machine control probe for use with any 6 DoF laser tracker. The TMC30-M is the multiface version of the TMC30-I for machine positioning, alignment, calibration and all inspection tasks (such as touch trigger measurement).

The system consists of:

- TMC30-M sensor, including certificate and transportation case
- Leica T-Probe cable 20 m (575973)

Note: T-Mac Inspect cable (576509, 576510) must be ordered separately.

Compatibility: AT960



T-Mac Frame TMC30-F

The T-Mac Frame TMC30-F is a configurable 6DoF machine control probe for use with any Hexagon 6 DoF Lasertracker. The TMC30-F can be used to create customised multisided probe configurations with anywhere from 1 to 4 frames (faces). The T-Mac Frame TMC30-F can be used to extend angular measuring range of the T-Mac Frame TMC30-F Starter Kit (576397) or an existing T-Mac Basic TMC30-B (576400) or T-Mac Inspect TMC30-I (576410). For TMC30-B or TMC30-I the Frame extension interface for T-Mac (5003434) is needed (orderable from Laser Tracker Service Unterentfelden, Switzerland, please contact ps.ch@hexagonmetrology.com).

The system consists of:

- T-Mac Frame TMC30-F (576398) incl. certificate and cardboard transportation box
- Connection Cable T-Mac/CPU Box, 0.6 m or 1.8 m (804823, 804824)

Note: The T-Mac Frame TMC30-F does NOT include a mount for touch trigger inspection device. Please refer to 576395 Upgrade TMC30-F to Inspect.

Compatibility: AT960

T-Mac Frame TMC30-F Starter Kit

The T-Mac Frame TMC30-F Starter Kit is a configurable 6DoF machine control probe for use with any Hexagon 6 DoF Laser tracker. The T-Mac TMC30-F Starter Kit can be used to create customised multisided probe configurations with anywhere from 1 to 4 frames (faces). To the T-Mac Frame TMC30-F Starter Kit up to 3 additional T-Mac Frames TMC30-F (576398) can be connected in addition.

The system Kit consists of:

- T-Mac Frame TMC30-F (576398) incl. certificate and cardboard transportation box
- CPU Box for TMC30-F (805143)
- T-Probe Cable, 20 m (575973)
- Connection Cable T-Mac/CPU Box, 0.6 m or 1.8 m (804823, 804824).

Compatibility: AT960



Accessories for automation solutions

576406

576964





Automation Interface Controller

The Automation Interface Controller provides handling capabilities of up to four laser trackers and multiple measurement devices such as T-Mac, T-Scan or external trigger source. Its digital I/O interface allows for bidirectional communication to a robotic or machine controller.

Includes: Product CD, power cable and 5 m LAN cable (575899).

Compatibility: AT930, AT960

Automation Switch Controller MAA99

The Automation Switch Controller (ASC) is a device for automatically switching the probe and probe/trigger cable from one tracker to another and/or from one target to another. The ASC provides four pairs of probe and probe/trigger sockets for laser tracker connections and four pairs of probe and probe/trigger sockets for target (probe) connections. The ASC is a device that enables the use of multiple laser trackers and accessories in any combination, for example a Leica T-Scan 5 or Leica T-Mac could be connected to different laser trackers to optimise accessibility. Sample setup with two laser trackers and two T-Scan systems: the connection between a T-Scan system and a laser tracker is a simple probe/trigger cable. If two T-Scan systems and two laser trackers are used simultaneously, each laser tracker can only measure on the T-Scan that is physically connected to its controller by a probe/trigger cable. If it is required that each of the laser trackers in such a system be able to measure with each of the scanners, an ASC is needed.

Compatibility: AT960

576872 RTFP-EC Real Time Feature Pack - EtherCAT

The Real Time Feature Pack (RTFP) for AT930/960 Absolute Tracker (AT Controller) is designed to provide cyclic measurement data in real-time over the EtherCAT industrial fieldbus protocol. The RTFP acts as a slave in the external automation bus system.

Note: The RTFP can be fitted in the factory or service Unterentfelden only.

Compatibility: AT930, AT960

T-Scan CFK-Extension

To scan hidden areas based on external mounted T-Mac frames. It includes the mechanical interface to mount a T-Scan 5 and all mounting adapters for a T-Mac TMC30 starter kit and 3 additional T-Mac TMC30 frames. These frames have to be ordered separately.

 576959
 T-Scan CFK-Extension 400

 576960
 T-Scan CFK-Extension 550

 576961
 T-Scan CFK-Extension 700





Accessories for automation solutions

1

	577373	Interface Adaptor AP21 - MAA105 Consisting of: - MAA105 Interface Adaptor AP21 (577373) - Torque wrench 2.0 Nm (928792) - Screw Set 8 x M4 x 14 12.9 ISO 4762 - MAA Autom. Adaptor Instruction Sheet-EN (939299) Compatibility: AT960, AS1
	577374	Straight Adapter - 139 mm - MAA106 Consisting of: - MAA106 Straight Adaptor - 139 mm (577374) - MAA Autom. Adaptor Instruction Sheet-EN (939299) Compatibility: AT960, AS1
	577375	45° Adaptor - 67 mm - MAA107 Consisting of: - MAA107 45° Adaptor - 67 mm (577375) - Screw Set 3 x M4 x 25 ISO 4762 - MAA Autom. Adaptor Instruction Sheet-EN (939299) Compatibility: AT960, AS1
	577376	ToolChanger/Robot Flange - MAA108 Consisting of: - MAA108 ToolChanger/Robot Flange (577376) - Screw Set 8 x M4 x 10 ISO 4762 - MAA Autom. Adaptor Instruction Sheet-EN (939299) Compatibility: AT960, AS1
0.0 0 0 0 0	577378	Top Hat Rail Adaptor - MAA109 Adaptor can carry the following articles: - AT Connect Box CB21 (577377) - AT Controller (576871) - MPB25 Battery (576875), MPB100 Battery (576965) - MAS71 Power Supply Unit Fixture (576920) Adaptor is compatible with the following top hat rails: - IEC/EN 60715 - 35 × 7.5 and IEC/EN 60715 - 35 × 15

Compatibility: AT960, AS1

Accessories for automation solutions



Automation GigE-Data Cable

Cable for connecting the Automation Signal Splitter GigE/Probe (577396) to a robot adaptor and tool changer. The cable is equipped with M12 x-coded male plugs. To extend the cable length a MCA128 Automation M12 Gender Changer - F (577397) is required (to be ordered separately). The maximum supported cable length is 80 m with up to maximum 6 plug connections. The cable is green.

MCA119 - 10 m MCA120 - 30 m MCA121 - 50 m

577388

577389

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577394

Compatibility: AT960, AS1



Automation Probe-Data Cable

Cable for connecting the Automation Signal Splitter GigE/Probe (577396) to a robot adaptor and tool changer. The cable is equipped with M12 x-coded male plugs. To extend the cable length a MCA128 Automation M12 Gender Changer - F (577397) is required (to be ordered separately). The maximum supported cable length is 80 m with up to maximum 6 plug connections. The cable is black.

577391	MCA122 - 10 m
577392	MCA123 - 30 m
577393	MCA124 - 50 m

Compatibility: AT960, AS1



Automation GigE-Data Cable MCA125 - 0.5 m

Cable for connecting the tool changer (robot side) and the robot adaptor (577371, 577372). The cable is equipped with M12 x-coded male plugs. The cable has a length of 0.5 m and is green.

Compatibility: AT960, AS1



Automation Probe-Data Cable MCA126 - 0.5 m

Cable for connecting the tool changer (robot side) and the robot adaptor (577371, 577372). The cable is equipped with M12 x-coded male plugs. The cable has a length of 0.5 m and is black.

Compatibility: AT960, AS1

Accessories for automation solutions

577397

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Automation M12 Gender Changer – F MCA128

Gender Changer connects any of the Automation GigE- or Probe-Data Cables (577388-577395). It's used to extend the cable configuration. The two Automation M12 Gender Changer - F have M12 x-coded female sockets and are delivered with a wall bracket.

Compatibility: AT960, AS1



Automation Robot I/O Cable

Cable for connecting the AT Connect Box CB21 (577377) with the robot or NC machine controller. The cable has a Lemo Type B plug (CB21 side) and 19 open wires - labelled (robotic side).

MCA129 - 20 m MCA130 - 50 m

Compatibility: AT960, AS1

The automation accessories shown in this catalogue are only a selection of the larger range of solutions offered.

For detailed system configurations (e.g. machine adaptors, cables, etc.), please contact your local commercial operation or system integrator.

Accessories for automation solutions

\bigcirc	576192	Automation Trigger Cable MCA37 - 2 m The MCA37 Automation Trigger cable connecting the T-Scan 5 Controller to the Automation Interface Controller (576406). Compatibility: AT960, T-Scan 5
\bigcirc	576193	T-Scan Sensor Extension Cable MCA38 - 10 m Cable providing an extension of 10 m, resulting in a total T-Scan 5 cable length configuration of 20 m (10 m + 10 m). Compatibility: AT960, T-Scan 5
Q	576194	T-Scan Controller Automation Cable MCA42 - 2 m Cable, length 2 m, for connecting the T-Scan 5 Controller (819828) to the Automation Interface Controller (576406). Compatibility: AT960, T-Scan 5
Q	576196	Automation Sensor Cable MCA44 - 10 m The MCA44 Automation Sensor Cable 10 m connecting the T-Scan 5 or T-Mac Inspect (22pin T-Scan ODU-female connector) to the Automation Interface Controller (576406) or to the Automation Multiplex Box (576407). Compatibility: AT960, T-Scan 5, T-Mac
\bigcirc	576928 576197	T-Scan Sensor Automation CableCable for connecting the T-Scan 5 (T-Scan ODU-female connector) to the T-Scan 5 Controller (819828).Note: The MCA76 can also be used as a T-Scan Sensor Extension Cable.MCA76 - 30m MCA45 - 50 mCompatibility: AT960, T-Scan 5

Accessories for automation solutions

	576509 576510	T-Mac Inspect TMC30-I Cable For connecting the TMC30-I to the Automation Interface Controller 576406 or MUX box 576407 directly. 10 m 30 m
		Automation Robot Cable For Connecting the Automation Interface Controller 576406 to the Robotic or NC Machine controller.
	576505 576506	20 m 50 m
	576878	Automation Trigger/Probe Y-Cable MCA48 The MCA48 connecting the AT960 Tracker Controller with the Automation Interface Controller (576406). The y-ends of the cable must be extended with the standard T-Probe Cable (575972, 575973, 576185) and Trigger Cable (576507, 576508) > to be ordered separately.
· ·		Automation Interface Cable connecting the Automation Interface Controller (576406) to the Automation Multiplex Box (576407).
	576929 576879	MCA77 - 30 m MCA49 - 50 m
	576931	T-Mac cable MCA78 - 1.0 m

T-Mac cable MCA78 - 1.0 m

with ODU connector (male sensor side)



Mounting solutions

Tracker mounting solutions

Scanner holders

6009768

576881

576954



Stand Set MST27

Set consists of

- MST27 Stand Tube Extension (576881)

- Absolute Tracker Stand (575997)

Note: 235-5 Instrument Adaptor 577261 (3.5" to 5/8" thread) from Brunson required to mount AT40x sensors (not included).

Compatibility: AT403, AT930, AT960, ATS600



Stand Tube Extension MST27 Designed for AT930/960 or ATS600 systems. Fits on the Absolute Tracker Stand (575997) (to be ordered separately).

Compatibility: AT930, AT960, ATS600



575997 Absolute Tracker Stand Equipped with three levelling screws and shock absorbing wheels.



Adjustable Stand Extensions

The adjustable column, also called the "intermediate tube" turns the Portable Metrology Tripod MST36 (576901) into an adjustable stand. Employs a hand-wheel-driven worm gear for up-and-down adjustment of the column. The collar may then be clamped to avoid any inadvertent movement. An Adaptor on top of the intermediate tube provides a standard external 3½"-8 thread for mounting instruments or other adaptors.

The adjustable column adds an additional 494 mm of height.

576901

576904

577261



Portable Metrology Tripod MST36

Collapsible tripod with carbon legs designed for Absolute Tracker and Absolute Arms.

Tripod consists of:

- Integrated bulls eye level and 1 kit of pad feet

- Instrument adaptor for AT930/960 or Absolute Arm (3.5"x8 thread) and for AT40x (5/8" thread)

- 3 integrated fixture positions for AT Controllers (576871, 576368) or MPB25, battery external Li-Ion 37V/8.1Ah (576875)

Adjustable height: 83 - 118 cm | Weight: 14.2 kg

Compatibility: AT403, AT930, AT960, ATS600

Tripod Wheel Assembly Kit MAS52 Offers additional portability for the MST36 Tripod (576901). The wheels are engaged and disengaged simply by unlocking the telescoping leg and rotating it, putting the wheel in an upper or lower position.

Note: The wheel options must be installed at the factory and should be ordered together with the tripod.

576919 Tripod Levelling Kit MAS70

Used on MST36 Tripod (576901) to establish a gravity-based coordinate system when measurements require a 3D device. Installation requires a simple hand adjustment to insert the levelling screw above the point or pad foot on each leg. The compact design adds only 17 mm of leg length in the retracted position while providing a large 19 mm precision adjustment range.

Sold in sets of 3 | Weight: 0.3 kg each

Note: Wheel Assembly Kit (576904) will not operate with the Tripod Levelling it installed.



Instrument Adapter 235-5

For instruments with 5/8"-11 mount requirements: converts a 3½"-8 standard external instrument thread on any stand or adaptor into a 5/8"-11 external thread to accommodate most theodolites or other instruments.

Effective height: 27.7 mm (vertical distance between the lower interface surface and the top, on which the instrument would rest). Internal thread: $3'_2$ "-8

Material: stainless steel | Weight: approx. 1.36 kg

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Power Supply Unit Fixture MAS71

Fixture to hold a power supply unit by attaching to the stand, keeping the power supply off the ground. Holds the following power supply units: - MPS21 Power Supply Unit (576873)

- AC/DC Adapter 15V (773058)

A0/D0 Adapter 100 (770000)

Attaches to following stands/fixtures: MST27 Stand Tube Extension (576881), MST36 Portable Metrology Tripod Carbon (576901), MSI26 Universal ATC Stand Fixture (576895)



576895 Universal ATC Stand Fixture MSI26 Universal stand fixture for AT Controller with reusable Velcro strap (0.52 m). Compatible with AT Controller (576871, 576368), ATS Controller (576981), MPB25, Battery external Li-Ion 37V/8.1Ah (576875)

Stand Adaptor MAS12 Fits on the AT Stand Extension (576337). The Stand Adaptor is designed in such way that the tilting axis of the AT40x is at the same height as the AT901 when used on the AT Stand Extension (576337).

Compatibility: AT403

576337 AT Stand Extension Base stand extension for AT laser trackers. The AT Stand Extension does not include the AT Quick Release Mount (576338), which is already integrated with any AT901. The AT Stand Extension can be extended either with the Stand Extension 380 mm (575998) or Stand Extension 180 mm (575999)

Compatibility: TM6100A, AT403



Tribrach PRO - light grey

576352 GDF321-I without Optical Plummet 576353 GDF322-I with Optical Plummet

Compatibility: TM6100A, AT403

Ser	417677	Measuring slide (single direction) GMT5 with maximum working range 40 mm; least count 0.01 mm. Compatibility: TM6100A, AT403
	417678	Adapter set GAD12 for mounting GMT5 translation stage onto any Leica tribrach; includes tribrach to mount instrument; typical adapter set for theodolites and total stations. Compatibility: TM6100A, AT403
	417679	Adapter set GAD13 for mounting GMT5 translation stage onto 5/8" thread; includes adapter plate with 5/8" thread to mount instruments; typical adapter set for levels. Compatibility: TM6100A, AT403
	576952	Levelling Unit MAL93 Used to support the fine levelling process for the Orient-to-Gravity setup. Equipped with two fine-adjust elements (90°-oriented) to adjust the laser tracker's inclination. The MAL93 can be mounted on any compatible instrument stand with a 3.5"x8 thread. The AT Quick Release Mount (576338) is attached to the upper MAL93 interface to fix the laser tracker in place. Compatibility: AT930, AT960, ATS600 (reduced motor servo control loop parameters are required)
2	576338	AT Quick Release Mount For mounting an AT9x0 or AT901 system on the AT Stand Extension (576337), AT Mounting Plate (576336) or any other compatible instrument stand with 3.5"x8 thread adaptor.

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Aluminium Tripod AT08

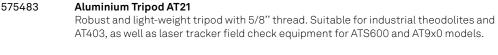
Light-weight tripod with 3.5"x8 thread for increased portability. Suitable for all Absolute Tracker systems and Absolute Arm systems up to 3.5 m length. The tripod interface is compatible with the AT Quick Release Mount (576338).

Tripod height (working position): 815 mm (fixed) Dimensions: 25 x 25 x 100 cm (folded) | Weight: 12 kg

Note: 235-5 Instrument Adaptor 577261 (3.5" to 5/8" thread) from Brunson required to mount AT40x sensors (not included).

Compatibility: AT403, AT930, AT960





Instrument height: 1.4 - 2.1 m | Weight: 11 kg

Compatibility: AT403, TM6100A



Aluminium Tripod AT28

Robust and light-weight tripod with 5/8" thread and adjustable centre column. Suitable for industrial theodolites and AT403, as well as laser tracker field check equipment for ATS600 and AT9x0 models.

Instrument height: 1.4 - 2.8 m | Weight: 12 kg

Compatibility: AT403, TM6100A



Tripod Adaptor

To be used for various alignment or compensation measurements. Thread for tripod 5/8"". Bore hole 12 mm (supports 577104/577208, not included)

Compatibility: AT403, AT930, AT960, ATS600

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AT Base Plate Type A

AT Base Plate Type B

Base plate with non-adjustable pointed-tip feet for AT40x, AT930/AT960 and ATS600 sensor series. Adaptation 5/8" thread and borehole pattern for Quick Release Adaptor. Quick Release Adaptor not included. All stainless-steel finish. Plate height: approx. 40 mm | Weight: 9 kg.

Base plate with adjustable machine feet for levelling for AT40x, AT930/960 and ATS600 sensor series. Adaptation 5/8" thread and borehole pattern for Quick Release Adaptor. Type B is delivered with non-slip rubber-type machine feet.

Quick Release Adaptor not included. All stainless-steel finish.

Compatibility: AT403, AT930, AT960, ATS600

Plate height: approx. 60 mm | Weight: 10 kg.

Compatibility: AT403, AT930, AT960, ATS600





AT Base Plate Type C Base plate with adjustable machine feet for levelling for AT40x, AT930/AT960 and ATS600 sensor series. Adaptation 5/8" thread and borehole pattern for Quick Release Adaptor. Type C is delivered with stainless-steel type machine feet. Quick Release Adaptor not included. All stainless-steel finish. Plate height: approx. 60 mm | Weight: 10 kg.

Compatibility: AT403, AT930, AT960, ATS600



AT Base Plate Type D

Base plate with adjustable machine feet for levelling for AT40x, AT930/AT960 and ATS600 systems. Adaptation 5/8" thread and borehole pattern for Quick Release Adaptor. Type D is delivered with pointed-tip feet. Quick Release Adaptor not included. All stainless-steel finish. Plate height: approx. 60 mm | Weight: 9.5 kg.

Compatibility: AT403, AT930, AT960, ATS600



Pointed Screw Kit for AT Base Plates - 80 mm Conversion kit with pointed-tip feet for Base Plate Types B and C. Stainless steel.

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	576336	AT Mounting Plate Allows for mounting Absolute Tracker systems onto machine beds. Does not include AT Quick Release Mount (576338). Compatibility: AT930, AT960, ATS600
	576339	AT Magnetic Mount Allows for mounting Absolute Tracker systems onto a magnetic surface. Does not include AT Quick Release Mount (576338) and AT Mounting Plate (576336). Compatibility: AT930, AT960, ATS600
<u>1 m × m × m[÷ n);</u>	576897	Rack Fixture MAA32 ATC 19" Designed to hold the AT Controller of the AT930/960 series or ATS Controller of the ATS600 in standard 19"-rack systems.
	576940	 Wall Mount Fixture 0°/180° MAS80 Fixture for upright or inverted adaptation of Absolute Tracker systems onto concrete walls or structures. Adaptation of Leica Quick Release for AT930/960 or ATS600, or 5/8" thread for AT40x sensors. Integrated safety lever for Quick Release handle. Fixture contents: MAS80 Wall Mount Set of screws for adaptation of Quick Release and washers and heavy duty anchors for concrete walls Set of cable ties for sensor cables 5/8" threaded bolt for AT40x sensors Compatibility: AT403, AT930, AT960, ATS600
	576941	Wall Mount Fixture 35° MAS81 Fixture for inclined installation of AT930/960/ATS600 sensors onto concrete walls or structures. Adaptation of Leica Quick Release for AT930/960/ATS600 systems. Integrated safety lever for Quick Release handle. Fixture Content: - MAS81 Wall Mount - Set of screws for adaptation of Quick Release, washers and heavy duty anchors for concrete walls

- Set of cable ties for sensor cables

Compatibility: AT930, AT960, ATS600

Scanner holders

576189

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Vertical Scanner Holder MAM40	
For holding the scanner at a vertical orientation. Mounts to the MMC31 Metrology	
Measurement Cart (576181).	

Note: Not compatible with MMC91 Absolute Tracker Measurement Cart (576950)

Compatibility: T-Scan 5



576188	Horizontal Scanner Holder MAP39				
	For holding the Leica T-Scan 5 scanner at a horizontal orientation.				
	Compatibility: T-Scan 5				



Horizontal Positioner Holder MAP116
Horizontal Positioner holds the Absolute Positioner AP21 with its sensor attached in a
safety position.

Compatibility: AS1



Positioner Clip Support MAP117
Positioner Clip clips to the MAP102 Grip and holds the Absolute Positioner AP21 with
its sensor attached in a temporary position.

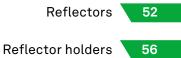
Compatibility: AS1



576914 Horizontal Scanner Holder MAP65 For holding the scanner at a horizontal orientation.



Reflectors and holders



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575784



Red Ring Reflector (RRR) - 1.5" Stainless steel, surface-hardened, magnetic corner-cube reflector with removable ring, protective cover for optics and certificate. Delivered in wooden box.

Compatibility: AT403, AT930, AT960, ATS600



576311	Red Ring Reflector (RRR) - 7/8"				
	Stainless steel, hardened, magnetic corner-cube reflector with removable ring,				
	protective cover for optics and certificate. Delivered in wooden box.				

Compatibility: AT403, AT930, AT960, ATS600



575739	Red Ring Reflector (RRR) - 0.5"			
	Stainless steel, surface-hardened, magnetic, corner-cube reflector with removable			
	ring, protective cover for optics and certificate. Delivered in wooden box.			

Compatibility: AT403, AT930, AT960, ATS600



Break Resistant Reflector (BRR) - 1.5" Stainless steel, surface-hardened, magnetic reflector with collar protection cover for optics and certificate. Delivered in wooden box.

Compatibility: AT403, AT930, AT960, ATS600

Specifications and packs availability page 54.

576244



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Tooling Ball Reflector (TBR) - 0.5"

Stainless steel, surface-hardened, magnetic, glass prism reflector with removable ring, protection cover for optics and certificate. Delivered in a wooden box.

Compatibility: AT403, AT930, AT960



Reflectors for Fixed Installation (RFI) - 0.5", 5-pack. Pack of 5 stainless steel, surface-hardened, magnetic glass prism reflectors in a wooden box.

Compatibility: AT403, AT930, AT960, ATS600



576962 Super CatEye Reflector (SCE) Stainless steel, surface-hardened, magnetic reflector with ultra-wide acceptance angle of ±75° from vertical around a full 360-degree field of view. Includes reflector with optical protection cover, certificate and product storage box.

Compatibility: AT930, AT960



Super Cateye Reference Target (SCRT)

Aluminium with samarium-cobalt magnet reflector with ultra-wide acceptance angle of $\pm 75^{\circ}$ from vertical around a full 360-degree field of view, embedded in a magnetic target base with magnetic shielding for transportation and storage. Mechanical adaptation of the SCRT can be established using the 6 mm M4 centre bore hole. Note: A valid Super CatEye Reflector 1.5" (576962) compensation is required for the corresponding Absolute Tracker system prior to the use of an SCRT (576966).

Compatibility: AT930, AT960

	Reference	Quantity	Radius	Centring of optics	Roundness (ball)	Acceptance angle	Weight
Red Ring Reflector (RRR) - 1.5"	575784 576241 576242 576243	1 pc. 2 pcs. 5 pcs. 10 pcs.	19.05 mm ±0.0025 mm	< ±0.003 mm	≤0.003 mm	±30°	170 g
Red Ring Reflector (RRR) - 7/8"	576311 576312 576313 576314	1 pc. 2 pcs. 5 pcs. 10 pcs.	11.1125 mm ± 0.0025 mm	< ±0.003 mm	≤0.003 mm	±30°	35 g
Red Ring Reflector (RRR) - 0.5"	575739 576238 576239 576240	1 pc. 2 pcs. 5 pcs. 10 pcs.	6.35 mm ± 0.0025 mm	< ±0.003 mm	≤0.003 mm	±30°	6 g
Break Resistant Reflector (BRR) - 1.5"	576244	1рс.	19.05 mm ± 0.0025 mm	< ± 0.010 mm	< ± 0.0015 mm	±30°	195 g
Tooling Ball Reflector (TBR) - 0.5"	576234 576235 576236	1 pc. 5 pcs. 10 pcs.	6.35mm: ± 0.004mm	< ± 0.01mm	< ± 0.003mm	w/ ring ≤ ± 22° w/out ring ≤ ± 50°	7 g
Reflectors for Fixed Installation (RFI) - 0.5"	575848 576246	5 pcs. 10 pcs.	6.35 mm	not applicable	not applicable	≤ ± 50°	3 g
Super CatEye Reflector (SCE)	576962	1pc.	19.05 mm ±0.0025 mm	< ±0.005 mm	≤ 0.003 mm	±75°	106 g
Super Cateye Reference Target (SCRT)	576966	1 pc.	-	not applicable	not applicable	±75°	84 g



Surface Reflector Kit

Kit includes:

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641762

- Surface reflector with lanyard
- Pin-Point Stylus (603182)
- 3 mm Ruby-Ball Stylus (603193)
- Edge Stylus (603188/575423)
- Manual (724251)

Compatibility: AT403, AT930, AT960, ATS600



Mini prism GMP104 with L-bar, for fixed installations.

Compatibility: AT930, AT960, ATS600

Star .	576142	Light Duty Magnetic Holder for 0.5" Reflectors Small magnetic mount designed for holding small and light reflectors in place. Compatibility: AT403, AT930, AT960, ATS600
	576249	 MAT22 Pass Point Target Kit Kit includes: 8 x non-magnetic target base to be affixed with hot glue. 5x neodymium magnetic target base with magnetic shield for transportation and storage. Delivered in case with spare cutout for CCR 1.5" reflector (not included), dimensions 250x200x70 mm, weight with targets 1.1 kg. Compatibility: AT403, AT930, AT960, ATS600
50	576850 576851	Magnetic NORS Reflector Support for 1.5" Reflectors (RRR/BRR) Magnetic support designed for holding larger reflectors in place. 1 pc. 5 pcs. Compatibility: AT403, AT930, AT960, ATS600
	576402	Reflector Mount Can be mounted on a tripod or fix-installed at a stable location to establish nominal distances for comparison measurements. To support 0.5" and 1.5" corner-cube reflectors, magnetic reflector holders versions 576073 and 576096 are recommended. Compatibility: AT403, AT930, AT960, ATS600
	575940	Roller Alignment Kit Kit for performing roller alignments with laser tracker and TPS systems. The kit is delivered in a dedicated hard case and comprises: - 2 floor base plates - 2 centering pins with magnetic adaptor for 1.5" target - 1 roller adaptor - 1 magnetic adaptor for 1.5" target Compatibility: AT930, AT960, ATS600, AT403, TDRA6000

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577357

577362



7	Adaptor for inner diameters AID15 with adjustable magnetic base
	Supports 1.5" reflectors only. For diameters 200 mm and larger. M8 thread for
	adaptation of CFK Extension Rod 650 mm.

Compatibility: AT930, AT960, ATS600



577339	Adaptor for inner diameters AID78 with adjustable magnetic base
	Supports 7/8" reflectors only. For diameters 100 mm and larger. M8 thread for adaptation of CFK Extension Rod 650 mm.

Compatibility: AT930, AT960, ATS600



CFK Extension Rod

CFK rod extension, 650 mm with M8 m/f thread for adapters AID15/78. Maximum number of recommended segments 3 x 650 mm.

Compatibility: AT930, AT960, ATS600



577358 Adaptor for outer diameters AOD15 with adjustable magnetic base.

Supports 1.5" reflectors only. Pin feet positions inter-changeable for smaller and larger object diameters.

Compatibility: AT930, AT960, ATS600



3-Point Reflector Support (3PRS)

Special accessory with three-point support when probing with a 1.5 in reflector. The 3PRS reflector support will immediately stabilise the reflector position during a measurement process. Lower point RMS and maximum accuracy can be achieved compared to conventional 'hand-held' reflector measurements.

Compatibility: AT930, AT960, ATS600

	576052	Heavy Duty Magnetic Holder for tooling ball reflectors 0.5" Compatibility: AT403, AT930, AT960
	576102	Foundation Reflector Holder 1.5"
0.00	576104	Lanyard Set (full) For safe handling of 1.5" and 7/8" Red-Ring Reflectors. Offers everything required to secure the reflector either to the wrist or to many of the magnetic target holder. Two target holder collars provided (1.6" and 2.0" diameter). Compatibility: AT403, AT930, AT960, ATS600
P20)	576105	Lanyard Set (partial) For safe handling of 1.5" and 7/8" Red-Ring Reflectors. Offers everything required to secure the reflector to the wrist. Compatibility: AT403, AT930, AT960, ATS600
8 2	576131	Double Vector for TBR Shank A Ø 0.2500" Compatibility: AT403, AT930, AT960
10	576134	Tripod Reflector Holder 1.5"

		Reference	Offset	Shank	Body	Material
Ţ	Reflector Holder 1.5"	577001 577002 577003 577101 577102 577103 577104 577120	24 mm 24 mm 25 mm 25 mm 25 mm 25 mm 1.0000"	Ø 6 mm Ø 8 mm Ø 12 mm Ø 6 mm Ø 8 mm Ø 10 mm Ø 12 mm Ø 0.2500"	Ø 25.4 mm Ø 1.000"	Stainless steel
Ð		577125 577126 577127 577128	24 mm 25 mm 1.0000" 24 mm	shankless shankless shankless shankless	Ø 40.64 mm Ø 40.64 mm Ø 1.60000" Ø 40.64 mm	Stainless steel Magnetic base
	Edge Reflector	577129 577130 577135	25 mm 1.0000" 24 mm	shankless shankless	ø 40.64 mm ø 1.60000"	Stainless steel
I.	Holder 1.5"	577136 577137	25 mm 1.0000"	-	-	Stainless steel
	Reflector Holder 0.5"	577201 577202 577203 577204 577205 577206 577207 577208 577209 577209 577210	10 mm 10 mm 10 mm 10 mm 12 mm 12 mm 12 mm 0.3125" 0.5000"	Ø 5 mm Ø 6 mm Ø 8 mm Ø 10 mm Ø 6 mm Ø 8 mm Ø 12 mm Ø 0.2500" Ø 0.2500"	 Ø 12.7 mm Ø 12.7 mm Ø 0.75" Ø 0.75" Ø 12.7 mm Ø 12.7 mm Ø 0.75" Ø 0.5000" Ø 0.5000" Ø 12.7 mm 	Stainless steel
		577220 577221 577222	10 mm 12 mm 0.5000"	shankless shankless shankless	ø 12.7 mm ø 12.7 mm ø 0.500"	Magnetic base Stainless steel
₩ 🏵	Reflector Holder 7/8"	577303 577304 577305 577322 577330 577334 577336 577337	0.75" 0.75" 0.75" 20 mm 20 mm 20 mm 20 mm 20 mm	0.25" 0.375" 0.5" 6 mm 8 mm 10 mm 12 mm shankless	0.88" 0.88" 0.88" 22.2 mm 22.2 mm 22.2 mm 22.2 mm 22.2 mm	Stainless steel Stainless steel Stainless steel Stainless steel Stainless steel Stainless steel Stainless steel
		577337	20 mm	Shankless	22.2 mm	Magnetic base, stainless steel



577140 Reflector Holder Drift Nest 1.5" Offset 1.0000", Aluminium

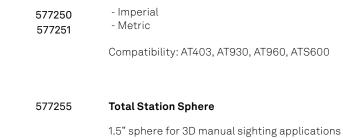


577230 Reflector Holder 0.5" Drift Nest Offset 0.5000", Stainless Steel



577235 Reflector Holder 0.5" Target Corner Offset 0.5000", Stainless Steel





E	577259	1.5" to 0.5" Adaptor To be able to use a 0.5" refector in a 1.5" nest. Compatibility: AT403, AT930, AT960
ک	577310	Reflector Holder 7/8" Offset 0.7500",Shankless, Body 0.88", Magnetic Base, Stainless Steel
2	577311	Tripod Reflector Holder 7/8"
	577312	Drift Nest 7/8",Offset 0.700", Aluminium
	577359	1.5" to 7/8" adaptor To be able to use a 7/8" reflector in a 1.5" nest
		Edge Reflector Holder 7/8" Stainless Steel
	577302 577321	Offset 0.7500" Offset 20 mm



Cables and batteries

64

and the second se	576875	Battery External Li-Ion 37V/8.1Ah MPB25 External chargeable li-ion battery for AT930/960 or ATS600 Absolute Tracker models. Connects to AT/ATS Controller. Built-in charger technology – MPS21 Power Supply Unit (576873) required for charging, to be ordered separately (included as standard as part of the standard laser tracker configuration). MSI26 Universal ATC Stand Fixture (576895), to be ordered separately, required to mount the battery on a stand/tripod.
		Battery specifications: 37 V / 8.1 Ah / 299 Wh Typical operation time: 6-8 hrs
tttt o		Compatibility: AT930, AT960, ATS600



576965	Battery External Li-Ion 36V/2.5Ah MPB100
	External abargaphia Lina battary far ATO20/060

External chargeable li-ion battery for AT930/960 or ATS600 Absolute Tracker models. Connects to AT/ATS Controller. Built-in charger technology – MPS21 Power Supply Unit (576873) required for charging, to be ordered separately (included as standard as part of the standard laser tracker configuration). MSI26 Universal ATC Stand Fixture (576895), to be ordered separately, required to mount the battery on a stand/tripod.

Battery specifications: 36 V / 2.5 Ah / 90 Wh Typical operation time: 2-3 hrs

Compatibility: AT930, AT960, ATS600



Battery Cable MCA24 - 0.75 m

The battery cable supports a multi-case.

- Connects MPB25/MPB100 battery to the AT Controller/ATS Controller of the AT930/960/ATS600 Absolute Tracker
- Connects 2 MPB25/MPB100 batteries in a daisy chain charging setup
- Connects MPB25/100 battery to the AT Connect Box CB21
- Connects the AT Controller to the AT Connect Box CB21

Compatibility: AT930, AT960, ATS600

576876



576874

Battery Hard Case MTC29

Hard battery case that can hold:

- 2x MPB25 Battery External Li-Ion 37V/8.1Ah (576875)

- or
- 2x MPB100 Battery external Li-Ion 36V/2.5Ah (576965)
- 1x MPS21 Power Supply Unit (576873)
- 2x MCA24 Battery Cable 0.75 m (576876)
- 2x MSI26 Universal Stand Fixture (576895)

Empty hard case only. Accessories to be ordered separately.

Compatibility: AT930, AT960, ATS600



6009769 Batter

Battery Set MPB25

Portable laser tracker power and charging package. Set includes:

- 2x MPB25 Battery External Li-Ion 37V/8.1Ah (576875) Battery Specifications: 37V / 8.1Ah / 299.7Wh
- 1x MPS21 Power Supply Unit (576873)
- 2x MCA24 Battery Cable 0.75 m (576876)
- 2x MSI26 Universal Stand Fixture (576895)
- 1x MTC29 Battery Hard Case (576874)

Compatibility: AT930, AT960, ATS600



Battery Set MPB100

Portable laser tracker power and charging package. Set includes:

- 2x MPB100 Battery External Li-Ion 36V/2.5Ah (576965) Battery Specifications: 36 V / 2.5 Ah / 90 Wh
- 1x MPS21 Power Supply Unit (576873)
- 2x MCA24 Battery Cable 0.75 m (576876)
- 2x MSI26 Universal Stand Fixture (576895)
- 1x MTC29 Battery Hard Case (576874)

Compatibility: AT930, AT960, ATS600

	575983	T-Probe Replacement Battery
		Compatibility: AT960
	734195	T-Probe Battery Charger
		Compatibility: AT960
(T)	799185	Charger Pro 3000 GKL311 Basic charger for one Li-ion battery. Suitable for GEB211, GEB212, GEB221, GEB222, GEB241, GEB242, GEB331 and GEB361. AC adaptor included.
		Compatibility: TM6100A, AT403
TITT	799187	Charger Pro 5000 GKL341 Professional charger to charge up to 4x Li-lon batteries GEB241 and GEB242, AC adaptor included.
		Compatibility: TM6100A, AT403
	793975	Lithium-Ion Battery GEB242 Rechargeable 14.8V/5.8Ah battery.
		Compatibility: TM6100A, AT403
	576873	Power Supply Unit MPS21 Power supply for AT930/960 or ATS600 laser trackers. Connects to AT Controller (576871) or ATS Controller (576981). Input 80-264 VAC to output 48 VDC. For indoor use only.
		The Power Supply Unit is compatible with - AT Controller (576871) - MPB25 Battery external Li-Ion 37V/8.1Ah (576875) - LASC-211 Controller unit (576909) - AT Connect Box CB21 (577377) The MPS21 is delivered with a country based power cord.

Compatibility: AT930, AT960, ATS600



576886 576887

576885

577361



Sensor Cable

Cable for connecting AT Controller to AT930/960 or ATS Controller to ATS600.

MCS12 - 10 m MCS13 - 30 m

Compatibility: AT930, AT960, ATS600

External Temperature Sensor

Accessory for AT930/960 or ATS600 for measuring external air and/or object temperatures. It connects to the AT Controller or ATS Controller. The temperature sensor is configured with a 2, 10 or 30 m cable and has a square 8 x 8 x 42 mm tip with a borehole ø4.2 mm to fix it to the object.

Temperature range: -20 to +80°C Temperature accuracy: ± 0.3°C

576888	MCA18 - 2 m
576889	MCA19 - 10 m
576890	MCA20 - 30 m

Compatibility: AT930, AT960, ATS600



Sensor Cable MCS11 - 1.5 m Connects AT Controller to AT930/960 or ATS Controller to ATS600.

Compatibility: AT930, AT960, ATS600



Temperature Probe Holder

Temperature Probe Holder with magnetic base for object temperature probes of AT40x, AT930, AT960 and ATS600 sensor types.





575899	LAN-Cable RJ-45 Cat6 MCA134 - 5 m
	Connects tracker system and application computer.

Compatibility: AT403, AT930, AT960, ATS600

Elbow Sensor Cable

Connects the AT930/960 to the AT Controller or the ATS600 to the ATS Controller. Tracker-side has a 90-degree elbow plug, which enables tracker setup at a minimum height above the mounting surface (e.g. on a machine bed).

576956	MCS96 - 1.5 m
576957	MCS96 - 10 m
576958	MCS96 - 30 m

Compatibility: AT930, AT960, ATS600



Scanner Sensor Cable

Connects LAS (576908) or LAS-XL (576943) to LASC-211 Scanner Controller (576909).

576911	MCA63 - 10 m
576912	MCA62 - 20 m
576945	MCA62 - 30 m

Compatibility: AT960



576903 Trigger/Probe Cable MCA47 - 2 m

Connects AT Controller to AT Connect Box CB21 (577377) or to T-Scan 5 (576187) and LASC-211 Scanner Controller (576909) for the LAS/LAS-XL.

Compatibility: AT960



Positioner Sensor Cable

Cable for connecting the Absolute Positioner AP21 (577368) with the AT Connect Box CB21 (577377).

577379MCA110 - 10 m577380MCA111 - 20 m

	576876	 Battery Cable MCA24 - 0.75 m The Battery Cable supports a multi-case. Connects MPB25/MPB100 battery to the AT Controller/ATS Controller of the AT930/960/ATS600 Absolute Tracker Connects 2 MPB25/MPB100 batteries in a daisy chain charging setup Connects MPB25/100 battery to the AT Connect Box CB21 Connects the AT Controller to the AT Connect Box CB21 Compatibility: AT930, AT960, ATS600
Ŵ	855240 576903 873553	Trigger/Probe Cable MCA114 Connects AT Controller to AT Connect Box CB21 (577377) or to T-Scan 5 (576187) and LASC-211 Scanner Controller (576909) for the LAS/LAS-XL. MCA114 - 0.75 m MCA47 - 2 m MCA113 - 15 m
	577384	Compatibility: AT960 LAN-cable RJ-45 Cat6 MCA115 - 0.75 m Connects AT Controller to AT Connect Box CB21 (577377). Compatibility: AT960
	575899	LAN-cable RJ-45 Cat6 MCA134 - 5 m Connects tracker system and application computer. Compatibility: AT403, AT930, AT960, ATS600
	577396	Autom. Signal Splitter GigE/Probe MCA127

Cable junction for separating GigE and probe data. The splitter is equipped with M12 x-coded female sockets. The sockets are colour coded green/black for GigE/Probe cables. The splitter plugs into the scanner socket of the AT Connect Box CB21 (577377).



Cable T-Probe

Reserve or replacement cable for the T-Probe.

57597210 m57597320 m57618550 m

\bigcirc		External Temperature Sensor External NTC temperature sensor that connects to the AT Controller 400 or the standalone AT MeteoStation. Tip is square shaped, 8 x 8 x 40 mm with a borehole d=4.2 mm for fixing it to the object. It can be used as an air-and/or object-sensor. Parameters: Temperature range: -20°C to +50 °C Temperature accuracy: ± 0.2°C
	576350 576351	MCA15 - 2 m MCA14 - 10m
		Compatibility: AT403
\bigcirc	576376	Sensor Cable MCS17 - 1.8 m Compatible with Absolute Tracker AT40x to AT Controller 400. Compatibility: AT403
		Sensor Cable
\mathbf{O}	576356 576357	MCS82 - 5 m MCS83 - 10 m
		Compatibility: AT403
	576513	USB-to-micro-USB cable for B-Probe For firmware-upgrade via PC.



Compensations and field checks 74

576893



Invar Reference Bar MAC55, 1000 mm

Low thermal expansion length reference bar provides a stable length for use during laser tracker or scanner jobs. Can be directly placed on the floor/table (3-point feet). Includes supports 0.5", 7/8" and 1.5" reflectors, certificate, case with contour-cut foam.

- Bar length uncertainty: +/-0.007 mm
- Weight: 1.45 kg (3.86 kg with case)

Compatibility: AT403, AT930, AT960



576894	6DoF Compensation Kit MAC23 For on-site compensations of the integrated 3D and 6DoF Absolute Tracker system components. Consists of tripod interface (5/8" thread), compensation frame and light-duty magnetic holder for tooling ball reflectors 0.5". For the process a Red-Ring Reflector 0.5" (575739) and a T-Probe cable is required (20 m, 575973) – to be ordered separately. Compatibility: AT403, AT930, AT960
576913	MAC64 Reference Sphere MAC64 - d=30 mm Reference artefact designed for field checks and alignments of LAS laser scanner. Includes certificate. - Diameter: 30 mm - Material: aluminum - Roundness: 0.030 mm - Weight: 1200 g
576923	Compatibility: AT960 Reference Sphere Support MAC74

Support designed to hold the MAC64 Reference Sphere d=30 mm (576913). Has a central UNC 5/8"-11 thread compatible with MST36 (576901), AT21 (575483), AT28 (575484) tripods, as well as 2 universal 7 mm boreholes.

576947



Reference Sphere MAC87 - d=90 mm

Reference artefact designed for field checks and alignments of scanning systems.

Consists of:

- Aluminium reference sphere, with support
- Diameter: 90 mm
- Sphericity/roundness: 0.030 mm
- Weight: 1200 g
- Certificate

The included Reference Sphere Support has a central UNC 5/8"-11 thread, which is compatible with our stands (MST36, AT21, AT28), as well as 2 universal 7 mm bore holes.

Compatibility: AT960

	6010685	Reference Sphere Set MAC64 - d=30 mm Set consists of: - MAC64 Reference Sphere - d=30 mm (576913) - MAC77 Reference Sphere Support (576923) Note: The Reference Sphere Support has a central UNC 5/8"-11 thread, which is compatible with our stands (MST36,AT21, AT28), as well as 2 universal 7 mm bore holes.
	576190	Compatibility: AT960 Reference Sphere MAC41 - d=50 mm
		Reference sphere with magnetic base designed for field checks and alignments of T-Scan 5 laser scanners. Compatibility: AT960
-	575980	T-Probe Compensation Kit For on-site compensation of Leica T-Probe. Comes with T-Probe reference frame, wedge tool, tripod screw and light duty magnetic holder for 0.5" Red Ring Reflectors. Requires additional 0.5" Red Ring Reflector (corner cube) for compensation process. The T-Probe compensation kit fits into the T-Cam compensation kit shipping container.

. 19-	576899	T-Probe Stylus Compensation Tool MAC34 The MAC34 is used for on-site T-Probe Stylus compensations of various styli configurations. The MAC34 can be extended for Shank-Stylus with the T-Probe Stylus Shank Compensation Tool (576247). Compatibility: AT960
	576900	Magnetic Device MAC35 for MAC34 For use with MAC34 T-Probe Stylus Compensation Tool (576899). Holds to any magnetic surface. Magnetic force can be switched on and off. The MAC34 T-Probe Stylus Compensation Tool must be ordered separately. Compatibility: AT960
-12-	576247	T-Probe Stylus Shank Compensation Tool MAC57 Accessory for compensating cylindrical probe styli. Must be mounted on the MAC34 T-Probe Stylus Compensation Tool (576899), which must be ordered separately. Compatibility: AT960
	577401	 Reference Sphere MAC133 - d=25.4 mm The Reference Sphere is designed for field checks and alignments of scanning systems. Diameter: 25.4 mm Material: Tungsten carbide with matte finish Certificate and base plate included Base plate has a central UNC 5/8"-11 thread, which is compatible with tripods (576901 MST36, 575483 AT21, 575484 AT28). In addition there are 2 universal 7 mm bore holes. Note: The sphere is already included in the AS1 Kit Compatibility: AT960
1.0	576512	B-Probe Stylus Compensation Tool

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576898

Optical Cleaning Kit MAT33

Does away with solvents, harsh cleaning products and messy lens tissues that can leave ugly and problematic smears that ruin measurement quality. Suitable for cleaning AT930/960 or ATS600 sensor optics as well as reflectors.

The kit includes:

- 1x Dust ex blower (167119)
- 2x Cleaning Tissues (771349)
- 8x Cleaning Swabs, large (758346)
- 5x Cotton Swabs, small (724954)
- 1x Cleaning Brush (822420)
- 1x Cleaning Kit Bag (821236)

Compatibility: AT403, AT930, AT960, ATS600



576401 Mirror Tool

Used to measure distances between 2 points with a laser tracker using only the interferometer. This basic set includes holders for 0.5" and 1.5" reflectors (2 units each, version 576073 and 576096). This tool can also be used to generate nominal distance values for the planned VDI/VDE standard.

Compatibility: AT403, AT930, AT960, ATS600



Other accessories

- Measurement cart 80
- Transport case and container 81
 - Further accessories 84

Measurement cart



576950

Absolute Tracker Measurement Cart MMC91

Cart is compatible with AT930/960 or ATS600. Contains a flexible shelf system for installation controllers, UPS and computers. Controller and computer compartment is temperature regulated (built-in fan). Cart can be used like a regular measuring cart or reconfigured to a shuttle cart. Drawers equipped with preconfigured foam inlays for storing AT930/960 or ATS600, scanners, reflectors and reflector supports, as well as Leica T-Probe, styli and extensions. The main cart desktop can be extended with a foldable side-table.

The cart consists of:

- Measurement Cart with shelf compartment, drawers and lockable wheels
- 2x belt with snap hook and quick-connect buckle to fix tracker and/or stands on shuttle rail
- Power strip (US or EU version)
- 5x drawer inlays
- Velcro straps for controller and computer fixation
- USB-fan with USB extension cable
- Mechanical interface for forklift manipulations
- Cable Drum

Cart compartment and drawers are lockable with a key system (2 keys included). Dimensions L=1.20 m, W=0.70 m, H=1.10 m.

Compatibility: AT930, AT960, ATS600

Metrology Cart Modification Kit MMC31

Kit for modifying a standard metrology cart to fit various laser tracker and laser scanner systems.

Kit includes:

- Installation manual
- Drawer with foam inlay for scanner devices
- Scanner controller shelf with Velcro tapes for controllers and power supplies
- Foam inlay for AT930/960 and ATS600 sensors
- Set of installation material

The modification kit is compatible with the MMC31 Measurement Metrology Cart (576896) only.



576953

576942

Dust Cover MAM94

Cover compatible with the following measurement carts: MMC91 (576950) and MMC31 (576896).



Transport case and container

576891

576922



AT930/AT960/ATS600 Transport Container MTC51

Standard transportation case to fit various laser tracker systems and accessories. The transport container can hold:

- Absolute Tracker AT930/AT960 (576861-576865) or ATS600 (576971)
- AT Controller (576871) or ATS Controller (576981)
- MPS21 Power Supply Unit (576873)
- MCS11 Sensor Cable 1.5 m (576885)
- AT Quick Release Mount incl. Mandrel (576338)
- MCA18 External Temperature Sensor 2 m (576888)
- Red-Ring Reflector (RRR) 1.5" (575784)
- MSI26 Universal Stand Fixture (576895)
- MAT33 Optical Cleaning Kit (576898)
- Protective Sensor Cover

Empty transport container only. Accessories to be ordered separately. Dimensions: L=62.5 cm, W=50 cm, H=36.6 cm (L=24.60", W=19.70", H=14.40")

Compatibility: AT930, AT960, ATS600



LAS Trolley Case MTC73

The trolley case can hold:

- LAS laser scanner (576908)
- LASC-211 Scanner Controller (576909)
- MCA62 Scanner Sensor Cable 10 m (576911)
- MPS21 Power Supply Unit (576873)
- LAN-cable RJ-45 5 m (575899)
- MCA47 T-Scan Trigger/Probe Cable 2 m (576903)
- MAC64 Reference Sphere d=30 mm (576913)
- MAC74 Reference Sphere Support (576923)
- MAP65 Horizontal Scanner Holder (576914)
- MAV67 Scanner Controller Feet Set (576915)
- T-Probe III (576186)
- T-Probe Styli Kit (576231)
- MPB25 Battery external Li-Ion 37V/8.1Ah (576875)

Empty trolley case only. Accessories to be ordered separately. Dimensions: L=62.5 cm, W=50 cm, H=36.6 cm (L=24.60", W= 19.70", H=14.40")

Transport case and container



576910

LAS Transport Case MTC61

The transport case can hold:

- LAS laser scanner (576908)
- LASC-211 Scanner Controller (576909)
- MCA62 Scanner Sensor Cable 10 m (576911)
- Power Supply Unit (576873)
- LAN-cable RJ-45 5 m (575899)
- MCA47 T-Scan Trigger/Probe Cable 2 m (576903)
- MAC64 Reference Sphere d=30 mm (576913)
- MAP65 Horizontal Scanner Holder (576914)
- MAV67 Scanner Controller Feet Set (576915)

Empty transport container only. Accessories to be ordered separately. Dimensions: L=49.6 cm, W=33.0 cm, H=25.6 cm (L=19.53", W= 12.99", H=10.08")

Compatibility: AT960



576949

LAS/LAS-XL Trolley Case MTC90

The trolley case can hold:

- LAS-XL laser scanner (576943)
- LAS-20-8 laser scanner (576908)
- LASC-211 Scanner Controller (576909)
- MCA63 Scanner Sensor Cable 20 m (576912)
- MPS21 Power Supply Unit (576873)
- LAN-cable RJ-45 5 m (575899)
- MCA47 T-Scan Trigger/Probe Cable 2 m (576903)
- 2x MAP65 Horizontal Holder (576914)
- MAC64 Reference Sphere Set d=30 mm (6010685)
- MAC87 Reference Sphere d=90 mm (576947)
- MPB25 Battery External Li-Ion 37V/8.1A (576875)
- Leica T-Probe III (576186)
- Reflector case

Empty trolley case only. Accessories to be ordered separately. Dimensions: L=62.5 cm, W=50 cm, H=36.6 cm (L=24.60"", W= 19.70"", H=14.40"")

Transport case and container





577387

LAS-XL Trolley Case MTC85

The trolley case can hold:

- LAS-XL laser scanner (576943)
- LASC-211 Scanner Controller (576909)
- MCA63 Scanner Sensor Cable 20 m (576912)
- MPS21 Power Supply Unit (576873)
- LAN-cable RJ-45 5 m (575899)
- MCA47 T-Scan Trigger/Probe Cable 2 m (576903)
- MAC87 Reference Sphere d=90 mm (576947)
- MAP65 Horizontal Scanner Holder (576914)

Empty trolley case only. Accessories to be ordered separately. Dimensions: L=49.6 cm, W=33.0 cm, H=25.6 cm (L=19.53"", W= 12.99"", H=10.08"")

Compatibility: AT960

Absolute Scanner Trolley Case MTC118

The trolley case can hold:

- Absolute Scanner AS1 (577367), incl. Certificate
- Absolute Positioner AP21 (577369)
- MAP102 Grip (577370)
- AT Connect Box CB21 (577377)
- MCA110 Positioner Sensor Cable 10 m (577379)
- MCA24 Battery Cable 0.75 m (576876)
- MCA114 Trigger/Probe Cable 0.75 m (855240)
- MCA115 LAN-cable RJ-45 Cat6 0.75 m (577384)
- MAC133 Reference Sphere d=25.4 mm (577401)
- MAP116 Positioner Horizontal Holder (577385)
- MSI26 Universal ATC Stand Fixture (576895)
- MAP117 Positioner Clip Support (577386)

Empty trolley case only. Accessories to be ordered separately. Dimensions: L=53.8 cm, W=40.6 cm, H=26.9 cm (L=21.20", W= 16.00", H=10.60")

Compatibility: AT960, Absolute Scanner AS1

576520 AT40x Trolley Case MTC56

Trolley case/shipping container for AT40x systems (not included) and optional accessories (not included). Suitable for AT40x systems with GKL311 Charger Pro 3000 (799185) and MSI26 Universal Stand Adaptor (576895).

Compatibility: AT403

833516 Backpack for Container GVP716





Further accessories



576921

575757

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576379

Sensor Aperture MAV72

Redirects air movements around sensor optics to improve measurement data quality.

Compatibility: AT960



Wireless RF Control Wireless Radio Frequency Remote Control (2.4GHz), 4 custom programmable buttons, up to 45 m/150ft Range, USB interface, compatible with Windows XP or higher (32bit/64bit).

Compatibility: AT403, AT930, AT960, ATS600



575965	Wireless IR Control
	4 custom programmable buttons, up to 20 m/65ft range, USB interface, compatible with Windows XP or higher (32bit/64bit).

Compatibility: AT403, AT930, AT960, ATS600



AT Remote Control 400 Wireless infrared control unit compatible with Absolute Tracker AT40x systems.

Content: Remote control unit 2x AAA-batteries.

Further accessories



874298

Surface Sample Tool

Demonstrating and comparing scanning sensors on difficult materials is now possible. Use the Surface Sample Tool to demonstrate the capability of our scanning devices. The Surface Sample Tool consist of 12 different surface sample materials: metal coated Aramide fibre with clear coat finish, black felt textile, white car paint 2K/clear coat, black car paint 2K/clear coat, red car paint 2K/clear coat, yellow car paint 2K/clear coat, carbon fibre flat finish (grinded), green car paint 2K/clear coat, carbon fibre gloss finish (prepreg), blue car paint 2K/clear coat, carbon fibre gloss finish (clear coated) and chrome plated.

Dimensions: 290 x 150 x 13 mm, weight: 620 g



Leica ATS Controller Controller for the ATS

Controller for the ATS600 scanning laser tracker. MPS21 Power Supply Unit (576873) and MSI26 Universal ATC Stand Fixture (576895) must be ordered separately.

Compatibility: ATS600

AT Controller 400

576871

Compatibility: AT403

AT Controller The AT Controller is compatible with Leica Absolute Tracker AT930/AT960 series. The 576873 MPS21 Power Supply Unit and 576895 MSI26, Universal ATC Stand Fixture has to be ordered separately.



Industrial theodolites

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576372

TM6100A Motorized Industrial Theodolite

With pan focal telescope, build-in autocollimation eyepiece and GUS29 internal target. Including user manual, upright container and Calibration Certificate "Gold".

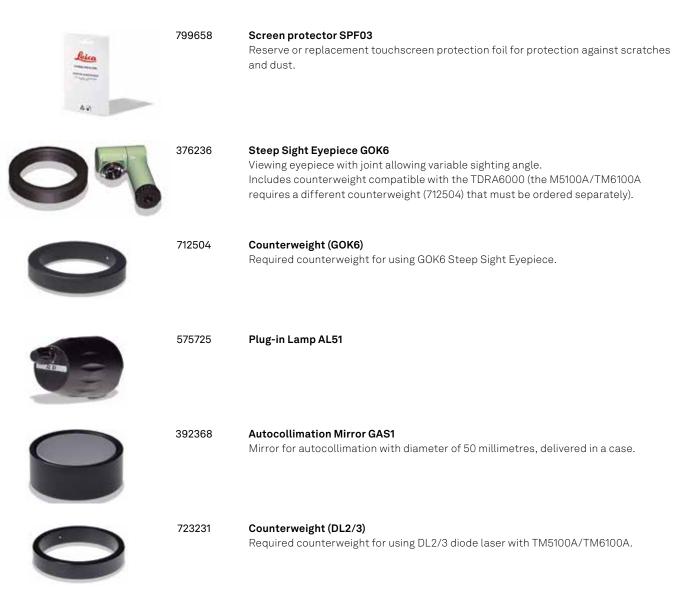


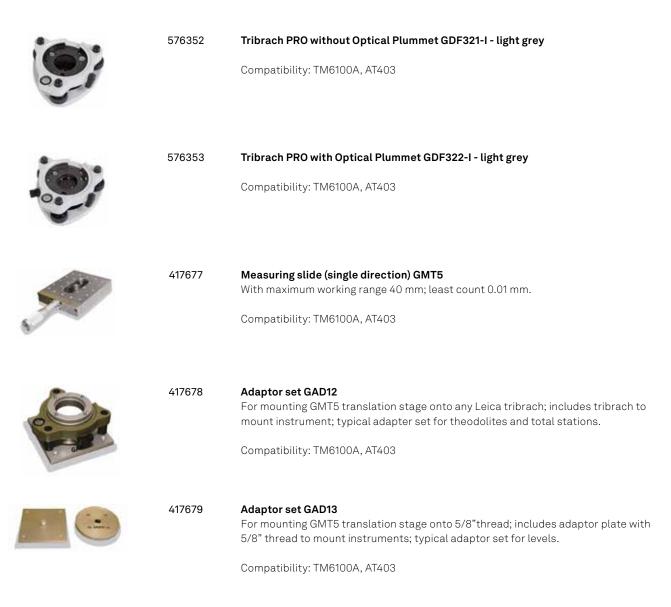
576528 Optional Second Keyboard GTS39 Additional keyboard with touchscreen and colour display. Fits to telescope position 2 (factory fitted). Must be configured with a new instrument and cannot be ordered separately.



308838 Eyepiece FOK53

Viewing eyepiece with 44x magnification at 10 m. Optically adjusted and fitted in factory (only to be ordered with new instrument).





Â	575483	Aluminium Tripod AT21 Robust and light-weight tripod with 5/8" thread. Suitable for industrial theodolites and AT403, as well as laser tracker field check equipment for ATS600 and AT9x0 models. Instrument height: 1.4 - 2.1 m, weight: 11 kg
Å	575484	Aluminium Tripod AT28 Robust and light-weight tripod with 5/8" thread and adjustable centre column. Suitable for industrial theodolites and AT403, as well as laser tracker field check equipment for ATS600 and AT9x0 models. Instrument height: 1.4 - 2.8 m, weight: 12 kg
	575498	Tripod bracket in order to attach accessories (battery, DL2 intensity regulator, Radio Modem) to AT21/28 tripods.
	296632	Telescopic Tripod with Accessories GST20 Robust, well-established tripod for general use. Suitable for levels, lasers, Total Stations and GPS. Extendible 180 cm (5.9ft), weight 6.4 kg (14.1lb) Compatibility: TM6100A, AT403
	332200	Tripod Base GST4 For setting up GST tripods on smooth surfaces. Compatibility: TM6100A, AT403



	793975	Lithium-Ion Battery GEB242 Rechargable 14.8V/5.8Ah battery. Compatibility: TM6100A, AT403
Contraction of the second seco	774437	Charger GEV242 for GEB371 external battery for indoor use only, input 100V-240VAC 50-60HZ, output 24VDC, cable with 5-pin Lemo to connect to battery.
T	799185	Charger Pro 3000 GKL311 Basic charger for one Li-ion battery. Suitable for GEB211, GEB212, GEB221, GEB222, GEB241, GEB242, GEB331 and GEB361. AC adaptor included. Compatibility: TM6100A, AT403
TET	799187	Charger Pro 5000 GKL341 Professional charger to charge up to 4x Li-Ion batteries GEB241 and GEB242, AC adaptor included. Compatibility: TM6100A, AT403
	905305	External Battery Li-Ion GEB373 13V, 289Wh. Quick Guide and User Manual, mutlilingual included

	575427	T-LINK Interface Power supply unit for TPS, for indoor use only. Input 94-265VAC to output 12VDC. Connects up to 4 TPS6000 instruments or up to 8 TPS5000 instruments.
\bigcirc	576521	Power cable GEV286-I 20 m Connects TPS6000 instrument with power supply T-Link/GEV270 or external battery GEB371.
I	800497	Cable spool for 20 m/40 m cables (without cable)
	576388	USB adapter RS232 serial
\bigcirc	574834	Cable to connect DL2/3 and intensity regulator.
\bigcirc	527497	Data cable GEV86 - 20 m Connects DL2/3 intensity regulator or TPS5000 instrument to external power supply T-LINK/GEV270 or external battery GEB371.
\bigcirc	576387	Power Cable GEV64-I - 1.2 m connects TM6100A with DL2/3 intensity regulator.

	6013373	TPS6000 Interface Set Consists of: GDF321-I Industrial Tribrach w/o opt. Plummet GKL341 Professional Charger 5000, MCF256 Compact Flash Card, GEV269 Data Transfer Cable Lemo1 / USB
	806093	Serial data transfer cable GEV267 - 2.0 m converter cable USB to serial (Lemo to USB connector), connects TPS02/06+/09+/11/12/15/DNA/TPS5000 to PC. PC driver included on CD.
	807696	Power supply GEV270 for TPS5000/TPS6000 for indoor use only, Input 100 - 240V AC to output 13.8V DC, with connection for power cables. Requires GEV219, GEV220 or GEV286-I power cable to connect TPS6000 instrument.
\bigcirc	758469	Power cable GEV219 - 1.8 m Connects TPS6000 instrument with power supply GEV270 or external battery GEB371.
	759257	Y-Cable GEV220 - 2.0 m Connect TPS6000 instrument to PC (9-pin RS232 serial) and power supply GEV270 or external battery GEB371.
\bigcirc	733282	Data transfer cable GEV162 - 2.8 m Connects TPS6000 instrument to PC for data transfer, firmware upload etc., Lemo 1 to 9-pin RS232 serial connector.
	806095	Serial data transfer cable GEV269 - 2.0 m Connects TPS6000 instrument to PC for data transfer, firmware upload etc., converter cable USB to serial (Lemo 1 to USB A connector), PC driver included on CD.
	758513	Adapter cable TPS6000 (Lemo 0 - Lemo 1)

-	707525	Lemo Canon converter GK1 30°, for PC
5-		Compact Flash card
\checkmark	733257 745995	MCF256 - 256 MB MCF1000 - 1 GB
	767895	USB card reader MCR7 for SD- and CF-cards
	733258	Compact Flash PC Card adapter MCFAD1
\bigcirc	409678	Data cable GEV521.8 m Connects DL2/3 intensity regulator to external power supply T-LINK/GEV270 or external battery GEB371.
	571549	Targets on self-adhesive-foils Black/white, ø 23 mm with concentric circles, 48 pieces on one sheet.
	574681	Target for orientation measurements, magnetic.
	800742	Scale bar - 0.9 m Carbon fibre, incl. Producer Certificate, in carrying case.

Driving the tools of high-end inspection

Hexagon is the largest software developer in the metrology industry and offers a wide range of individually customisable software packages. Hardware solutions from Hexagon support this with a foundation of cross-platform compatibility, designed for perfect functionality with both the many advanced platforms developed in-house and the best third-party programs on the market.



Application Software

Hexagon software

98

Third-party software

104

Inspire

User-friendly measurement software for portable probing and scanning

Inspire is the next generation inspection software for all portable probing and scanning devices. Inspire is a new software package that makes measurement simple and the complex possible. With one simple interface, Inspire works with laser tracker for probing and scanning applications. Intuitive and easy to use, Inspire software is a comprehensive solution that makes measurement simple, saves time, and ultimately improves productivity.

Inspire capabilities

- Measure
- Align
- Assemble/Build
- Analyse
- Report
- Scan and Probe
- Mesh
- Instrument networking
- Advanced Scripting
- CAD Import

Single Seat Licence includes all hardware interfaces and supports IGES, STEP, STL, CATIA, Solidworks, NX, ProEngineer, Inventor and Parametric CAD import. Training classes available at additional cost and updates for 1 year. Inspire provided with licence code.





SpatialAnalyzer®

Powerful and traceable measurement and analysis software

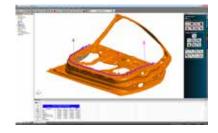


SpatialAnalyzer® (SA) is a powerful, traceable and easy to use metrology and analysis software package, tailored for Hexagon's Manufacturing Intelligence portable CMM family.

SA offers a vast number of benefits, including:

- Intuitive, state of the art graphical environment.
- Interfaces to all Hexagon Manufacturing Intelligence portable CMMs.
- All common CAD exchange and native formats.
- Advanced analysis and processing and unique alignment techniques.
- Easy multiple-instrument station bundling.
- True GD&T and feature checks.
- Numerous reporting options.
- Measurement uncertainty calculation.
- Unified Spatial Metrology Network to achieve the ideal instrument network.
- Integrated Modern Scripting Language to automate complete workflows.
- Multiple language support.
- Free SA Viewer to share SA job files easily.

SpatialAnalyzer® makes metrology easy.



PC-DMIS Portable

User-friendly measurement software for portable probing and scanning

Portable measurement devices have changed the way operations are monitored, making it possible to take measurements and analyse the results directly where parts are made and assembled. PC-DMIS Portable provides the tools needed to more effectively monitor operations and identify minor issues before they turn into costly problems.

PC-DMIS CAD++ Probing

Includes LMS license + all Portable interface (ROY-I-PORTABLE) + XACT GD&T + IGES / DXF / DWG / STEP203 / STEP 214 / VDAFS / XYZIJK / DES and DMISI/O translators and updates for 1 year

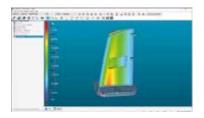
PC-DMIS CAD++ Scanning

Includes LMS license + All Portable interfaces (ROY-I-PORTABLE) + Hexagon Scanning Probe Interface + Scanning Auto Features + Full COP support + XACT GD&T + IGES / DXF / DWG / STEP203 / STEP 214 / VDAFS / XYZIJK / DES and DMISI/O translators and updates for 1 year.

PC-DMIS CAD++ Scanning/Mesh

Includes LMS license + all Portable interfaces (ROY-I-PORTABLE) + Hexagon Scanning Probe Interface + Scanning Auto Features + Full COP support + XACT GD&T, IGES / DXF / DWG / STEP203 / STEP 214 / VDAFS / XYZIJK / DES and DMISI/O translators + STL Mesh Creation and Inspection and updates for 1 year.





hexagonmi.com Manufacturing Intelligence 101

Application software

VISI Reverse

The shortcut from 3D scan to manufacturing

VISI Reverse, an intuitive module that can be added to the mold and stamping industry leader VISI application from Hexagon, combines hybrid modelling CAD functionality with 3D scan data processing abilities so that easily customers can create fully compatible editable solid models starting from digitized/scanned data.

Features at a glance:

- Direct import of point cloud from scanning device
- Automatic mesh creation / cleaning / smoothing
- Dynamic wireframe grid construction
- Automatic surface creation

Powerful and Flexible. VISI Reverse is born to import unlimited scanned data directly from Hexagon portable devices such as the Absolute Arm or the Leica Absolute tracker, or from a generic CSV file format and to convert these data point clouds into a usable mesh, a fully editable geometrical model or a hybrid model.

REcreate

The reverse engineering software that perfectly combines powerful capability wit an optimal user experience.

REcreate takes the complexity out of reverse engineering to create a smarter, faster and more flexible design and production environment for modelling new products and for repairing or replacing parts.

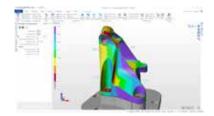
Making sophisticated design simple

Highly flexible, REcreate stands apart from traditional reverse engineering software by incorporating a CAD system that can create 2D drawings as well as CAD models. REcreate fits into any existing production workflow and is versatile enough to be used as a standalone product, working with machines that don't use CAM data, or as part of an end-to-end CAD to CAM solution. Other key functionalities include direct modelling, which makes it easy for users to form the shape the require.

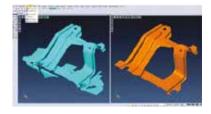
A full range of reverse engineering applications

The ease-of-use and interoperability of REcreate make it simple for users to capture data by connecting directly to scanning devices or importing mesh, solid, surface or point cloud data. They can model designs in a single environment using a full array of modelling data and manufacture using CAD/CAM – as well as validate quality. And they can start at whichever point in the reverse engineering process that best suits their needs.









TRAC-CHECK

For check of large machine tools according to traceable standards

For large machine tools (> 5 m) it is also possible to use a laser tracker from Hexagon to check machine accuracy according to standards by the software ETALON TRAC-CHECK.

ETALON TRAC-CHECK software solution

Innovative measuring software to ensure machine tools meet international standards for precision

The ETALON system uses multilateration, a spatial measurement technique deployed by satellite navigation systems, to increase measurement speeds and ensure the highest levels of accuracy when calibrating, compensating and verifying machine tools. The speed and precision of multilateration means manufacturers can reduce measurement times by up to 80% compared to conventional laser interferometers, thereby securing results in one to two hours instead of one to two days.

ETALON TRAC-CAL | TRAC-CHECK uses a single self-tracking laser interferometer either from ETALON or the Leica Absolute Tracker AT930/960. This makes measurements more accurate and traceable, while reducing the maintenance and recalibration costs.



Application software

RoboDyn

For check of robot according to traceable standards

Innovative software solution delivering full calibration and performance testing functionality for industrial robotic systems.

The RoboDyn robot calibration and inspection system delivers complete robotic control, making it simple to get the most out of the precision, flexibility and intelligence automated systems have to offer.

With the ability to calculate robot base alignment and tool centre point offsets as well as directly correct and compensate for robot parameters, the RoboDyn software is the perfect tool for improving absolute positioning and performance of robotics. Designed to meet the demands of the ISO 9283 standard, RoboDyn guarantees accuracy and reliability throughout automated operations.

Simple and easy to use, RoboDyn allows for on-the-spot modification of robot models, followed by fast recalibration. Coming alongside the full capability for offline simulation, RoboDyn has the potential to transform process productivity across manufacturing, installation, testing and logistics areas.

For static and dynamic data acquisition, RoboDyn requires use in conjunction with a quality Leica Absolute Tracker featuring precision, speed, large measurement range, portability and the capacity for 6DoF measurement.



Third-party software

PolyWorks[®]

Polyworks is a software solution for high-end point cloud inspection and reverse engineering applications.

Whether you are casting, milling, molding or stamping, you can rely on PolyWorks to provide a complete solution for your process. The PolyWorks software suite is available as a complete package or - with regard to the two main applications - as a point cloud inspection or reverse engineering package.

PolyWorks®, developed by InnovMetric Software Inc, Canada, is a solution for high-end point cloud inspection and reverse engineering applications.

Metrolog X4

The global 3D inspection software is a standard for measuring applications in automotive, aerospace and the general precision industry.

Metrolog X4 interfaces to the Absolute Trackers, the "Walk-Around" Leica T-Probe, the Leica T-Scan and the Absolute Scanner AS1. In addition, more than 50 interfaces for CMMs and PCMMs are available. The graphical visualisation provides direct interfaces for virtual any neutral and native CAD format. A powerful feature-based measurement tool, a complete GD&T engine, customizable reporting and a simple and fast programming language, support and simplify your sophisticated assembly and inspection processes. Metrolog X4 is available in 19 languages.

Metrolog X4, developed by Metrologic Group of Europe, the global 3D inspection software is a standard for measuring applications in automotive, aerospace and the general precision industry.



MetrologX⁴

DM Works

DMWorks is a software package for automated applications comprised of different modules. It allows the creation of a measurement cell, the running of simulations, the generation of robot paths and even control of a measurement cell.

DMWorks-LSA (Leica Scan Automation):

- General purpose virtual measurement simulation and robot offline programming software for multiple LSA systems
- Accurately arrange and create virtual measurement workcell by aligning all devices to minimise position errors between virtual and physical systems
- Generate optimised robot scanning path for each measurement feature with robot motion simulation.

LSA-Controller

- Integrated measurement control and operation software for one specific LSA system
- Collect and display real-time scanned point cloud data that can be transferred for analysis
- Provides a simple procedure for system recovery when system error occurs

LSA - Simulator

- OLP simulator for one specific LSA system
- Virtual measurement simulation
- Virtual measurement workcell alignment
- Offline robot programming

Silma / X4-iRobot

Silma is the advanced simulation software package from Metrologic which enables the creation of part program offlines, to check for risk of collision and path optimization. The Metrolog X4 i-Robot is the software package which runs the robot and measurement program in a single package, providing reports in a single software platform.







HxGN | SFx Asset Management

HxGN SFx | Asset Management The smart choice for smart manufacturing

Real-time performance data in a centralised user-friendly dashboard, now as standard

HxGN SFx | Asset Management delivers a simple, accurate and reliable way to monitor and analyse how key assets are performing via a centralised, user-friendly dashboard, whether on a single site or distributed across multiple locations around the world.

This future-proof solution provides manufacturers with easy and intuitive access to important information in real-time to allow for better informed decision making. Smart measurement and smart monitoring are the future of smart manufacturing.

- Monitor and manage device status, usage and performance.
- Securely access information from anywhere in real time.
- Identify production bottlenecks and other sources of inefficiency.
- Receive customisable critical event notifications.
- Easily locate individual or fleets of portable assets with GPS tracking.
- Track assets across a single site or at multiple worldwide locations.



The SFx Asset Management solution is fully compatible with AT960, AT930 and ATS600 Absolute Tracker models. Every model in the Absolute Tracker range now includes a year's subscription to HxGN SFx | Asset Management PRO and a free GPS location add-on as standard.





World-class products to rely on

Drawing on decades of research and development experience, laser tracker technology from Hexagon's Manufacturing Intelligence division is built on a long history of outperforming technological innovation. Deriving quality from experience to drive productivity is what keeps Hexagon in front and able to deliver first-class solutions for industries around the world.

That's why every major laser tracker product in this brochure comes with a 24-month factory warranty as standard, as well as a guaranteed 10 years of serviceability through official Hexagon service channels.

World-class support delivered locally

The international presence of Hexagon guarantees comprehensive aftersales support and services across the globe. With the largest dedicated service team of any metrology equipment manufacturer and an emphasis on locally delivered solutions, Hexagon is unmatched from service, repair, certification and calibration through operator training and software maintenance and upgrades.



World-class service made simple

Hexagon offers a wide range of support services extending well beyond the point of purchase. Delivered by experienced and skilled engineers at ISO-certified laboratories, local Hexagon Precision Centres or even on-site to minimise downtime, our after-sales portfolio is the most complete on the market.

- Maintenance and warranty plans that ensure equipment availability
- Trouble-free usage and minimal downtime
- Preferred hotline access at no additional cost
- Access to professional advice whenever needed

Customer Care Packages 🔯

Owners of the Hexagon laser tracker products featured in this brochure also have the opportunity to invest in a Customer Care Package designed to ensure equipment remains in top condition and can be relied on for accurate measurement results throughout a lifetime of use.

Customer Care Packages include a selection of the following benefits, depending on the tier chosen.

	Platinum	Gold	Silver	Bronze
Planned annual service	✓	✓	✓	✓
Customer hardware support	~	~	\checkmark	\checkmark
Annual maintenance and recertification	~	~	\checkmark	
Remote connected assistance	\checkmark	\checkmark		
Repair parts and labour	~			
Customised local benefits	\checkmark	\checkmark	\checkmark	✓

For complete details of the benefits of each level of Customer Care Package, please contact a local Hexagon representative.



Hexagon is a global leader in sensor, software and autonomous solutions. We are putting data to work to boost efficiency, productivity, and quality across industrial, manufacturing, infrastructure, safety, and mobility applications.

Our technologies are shaping urban and production ecosystems to become increasingly connected and autonomous – ensuring a scalable, sustainable future.

Hexagon's Manufacturing Intelligence division provides solutions that utilise data from design and engineering, production and metrology to make manufacturing smarter. For more information, visit hexagonmi.com.

Learn more about Hexagon (Nasdaq Stockholm: HEXA B) at hexagon.com and follow us @HexagonAB.

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