When you are out in the field, you need a fast and versatile instrument. Leica Nova MS60 is the world’s first MultiStation, helping you perform all required surveying tasks with just one instrument. The MS60 can be used as a total station without any compromise and offers the option to scan with a speed of up 30,000 points per second. Benefit from digital imaging and GNSS connectivity. Master your projects by performing point cloud analysis directly in the field – such as flatness analysis or as-built checks in the Inspect Surface app – and by automatically measuring your instrument height with the AutoHeight feature. Seamlessly transfer your data with Leica Exchange into Leica Infinity to manage, process, analyse and quality check it.

LEICA NOVA MS60 MULTISTATION: MASTER YOUR PROJECTS WITH THE ULTIMATE ALL-ROUNDER

- **Surfaces and volumes in construction and mining**: spoil heaps and stock piles, DTM creation and checking surfaces, material thickness, blast faces and ground levels.
- **Analysis of complex structures and objects within plant, marine and utility projects**: dimensional control, as-built and record keeping.
- **Measuring buildings and structures**: bridge condition/clearance analysis, BIM and as-built.
- **Façade, elevations and heritage work**: creation of traditional façade deliverables, 3D models and photographic documentation.
- **Traditional topographic surveys for surveying and mapping**: creation of traditional deliverables like 2D maps or 3D models.
- **Enhanced prism monitoring with scanning**: 24/7 automatic mm-level measurements of surfaces like roads, buildings, dams and tunnels with real-time messages in case of detected movements.

- when it has to be right
Leica Nova MS60 MultiStation

**ANGLE MEASUREMENT**
Accuracy 1 Hz and V
- Absolute, continuous, quadruple
  - 1" (0.3 mgon)

**DISTANCE MEASUREMENT**
Range / Accuracy / Measurement time
- Prism (GPR1, GPH1P) 1.5m to >10,000m / 1mm + 1.5ppm / typ. 1.5s
- Single (any surface) 1.5m to 2,000m / 2mm + 2ppm / typ. 1.5s
Measurement technology
- Wave Form Digitising
  - Coaxial, visible red laser, dot size 8mm x 20mm @ 50m

**SCANNING**
Scan Rate / Maximum Scan Speed
- 30,000 Hz
- 30,000 points per second
Max. Range / Range noise
- 1 sigma
  - 30 kHz mode: 60m / 3mm @ 50m
  - 8 kHz mode: 150m / 1.5mm @ 50m
  - 1 kHz mode: 300m / 1.0mm @ 50m
  - 1 Hz mode: 1,000m / 0.6mm @ 50m
Scan data
- 3D point cloud including true colour, intensity and signal-to-noise data
Scan duration
- Full dome scan 400gon x 155gon: Resolution 50mm @ 15m, duration: 12mins
- Band Scan 400gon x 50gon: Resolution 12.5mm @ 50m, duration: 45mins

**IMAGING**
Overview and telescope camera
- Resolution / Frame rate
  - 5 MPx CMOS / up to 20 fps
- Field of view (overview / telescope)
  - 19.4° / 1.5°

**MOTORISATION**
Direct drives based on Piezo technology
- Rotation speed / Time to change face: Maximum 400 gon (360°) per s / typically 2.9s

**AUTOMATIC AIMING - ATRplus**
Target aiming range / Target locking range
- Circular prism (GPR1, GPH1P): 1,500m / 1,000m
- 360° prism (GRZ4, GRZ122): 1,000m / 1,000m
Accuracy / Measurement time
- ATRplus angle accuracy Hz, V
  - 1" (0.3 mgon) / typically 2.5s

**POWERSEARCH**
Range / Search time
- Circular prism (GPR1, GPH1P): 300m / typically 5s
- 360° prism (GRZ4, GRZ122): 300m / typically 5s

**GUIDE LIGHT (EGL)**
Working range / Accuracy
- 5–150m / typically 5cm @ 100m

**GENERAL**
Operating system / Field software
- Windows EC7 / Leica Captivate and its apps, supports onsite and realtime decisions
Processor
- TI OMAP4430 1GHz Dual-core ARM® Cortex™-A9 MPCore™
Autofocus telescope
- Magnification / Focus Range: 30 x / 1.7m to infinity
AutoHeight Module
- Distance accuracy
  - 1.0 mm (1 Sigma)
- Distance range
  - 0.7 m to 2.7 m
Display and keyboard
- 5" (inch), WVGA, colour, touch, both faces
  - 37 keys, illumination
Operation
- 3x endless drives, 1x Servofocus drive, 2x Autofocus keys, user-definable SmartKey
Power management
- Exchangeable Lithium-Ion battery: Up to 9h, internal charging capability
Data storage
- Internal memory / Memory card
  - 2 GB / SD card 1 GB or 8 GB
Interfaces
- RS232, USB, Bluetooth®, WLAN
Weight
- MultiStation including battery: 7.7kg
Environmental specifications
- Working temperature range
  - –20°C to +50°C
- Dust & Water (IEC 60529) / Blowing rain
  - IP65 / MIL-STD-810G, Methods 506.5 i and 507.5
- Humidity
  - 95%, non-condensing

1 Standard deviation ISO 17123-3
2 Overcast, no haze, visibility about 40km, no heat shimmer
3 1.5m to 3,000m for 360° prisms (GRZ4, GRZ122)
4 Object in shade, sky overcast, Kodak Gray Card (90% reflective)
5 Standard deviation ISO 17123-4
6 Distance > 500m: Accuracy 4mm + 2ppm, Measurement time typically 4s
7 Object in shade, sky overcast, uninterrupted visibility, static target object, Kodak Gray Card (90% reflective)

Integrate with LOC8 – Lock & Locate
For more information visit: leica-geosystems.com/LOC8

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Leica Geosystems AG
Heinrich-Wild-Strasse
9435 Heerbrugg, Switzerland
+41 71 727 31 31

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Laser radiation, avoid direct eye exposure.
Class 3R laser product in accordance with IEC 60825-1:2014.

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