Leica ScanStation 2
Exceptional Speed, Outstanding Versatility

- when it has to be **right**

Leica Geosystems

Leica ScanStation 2

A New Level of Versatility and Speed in Laser Scanners

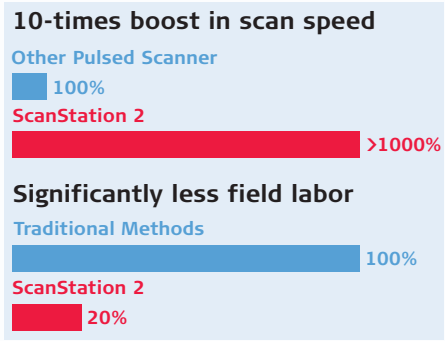
With a 10-times boost in maximum instantaneous scan speed and the full freedom and accuracy of a total station, Leica ScanStation 2 has lifted laser scanning to the next level. This speed and productivity boost builds on the already industry-leading versatility of the ScanStation™ class of laser scanner to make High-Definition Surveying™ (HDS™) profitable for even more as-built and topographic survey projects.

A New Level of Speed and Productivity

For many as-built and topographic surveys, laser scanners have already proven to significantly reduce field labor compared to traditional methods. ScanStation 2's jump-step increase in pulsed scan speed further slashes these costs – field labor is now as little as one-fifth of that of traditional methods for many projects.

Dramatically faster scanning also lets users:

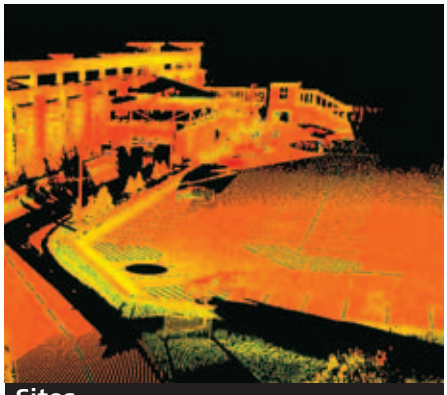
- Collect data in tighter time windows
- Reduce time spent in hazardous locations
- Provide project results faster
- Collect even more complete data
- "Squeeze in" additional service requests from clients



A New Level of Versatility for Laser Scanning

Infrastructure

ScanStation 2 extends the benefits of safe, cost-effective road surveys from urban and multi-lane roads & intersections to 2-lane roads & intersections.



Sites

Using ScanStation 2 for topographic surveys of small sites and sites up to hundreds of acres cuts initial survey costs and reduces site re-visits.

Buildings

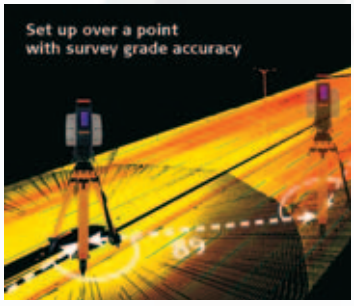
Small buildings and tall buildings can be cost-effectively surveyed, both inside and out. Digital photos can be overlaid for added realism.

- **Very-High Speed, Pulsed Laser**
  Excellent range, up to 10-times faster than other pulsed scanners, and capable of single point surveying
- **Integrated High-Resolution Camera**
  For fast scene selection and compelling, auto-rectified photo overlays
- **HI Marks, Tribrach Mount, Carry Handle, and QuickScan™ Button**
  Standard procedures and accessories make ScanStation 2 easy to learn
- **Advanced Timing Electronics**
  Integrated with a patented microchip laser to deliver accurate, low-noise distance measurements

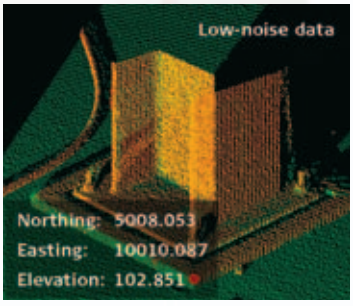
- **X-function Compatibility**
  Interoperable with Leica System 1200
- **Advanced Scripting Controls**
  SmartScan™ firmware allows automated sequencing of scans and unattended operation
- **Integrated, Dual-Axis Level Compensator**
  For survey-grade traversing and stakeout
- **External Bubble Level**
  Conveniently located on back of rotating scan head

A New Level of As-built & Topographic Surveying ... And More

1. Full Field-of-view
One of its four (4) fundamental total station features, the full dome field-of-view lets users capture overhead, vertical, horizontal, and sub-level geometry with equal ease.



2. Survey-grade Dual-axis (Tilt) Compensation
Like a total station, users can setup ScanStation 2 over control, traverse, resection, and even stakeout and point with it.



3. Survey-grade Accuracy
As part of the ScanStation instrument category, ScanStation 2 delivers survey-grade accuracy for each point. Ultra-fine scanning with a small beam at long range also enables optimal project control & registration.

4. Excellent Range
ScanStation 2's detection range (300 m @ 90 % reflectivity), high accuracy, small beam, and ultra-fine scanning combine for a "useful range" that addresses many typical sites.

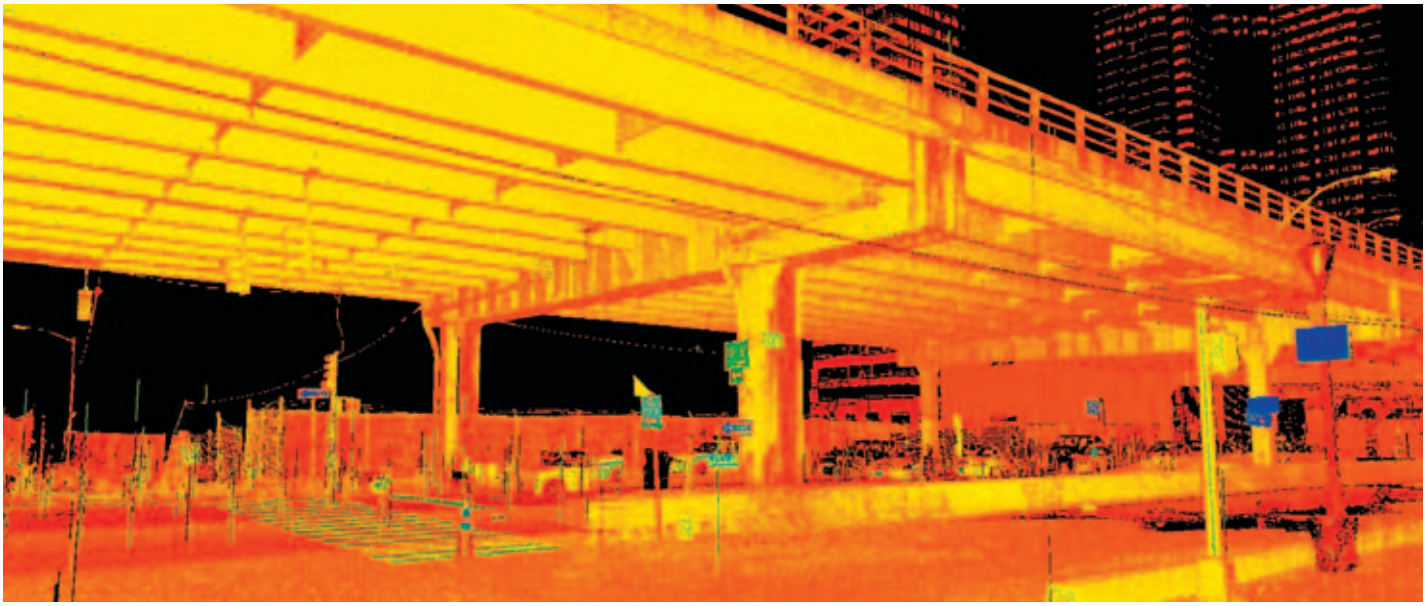
Leica ScanStation 2 Performance Specifications		
Instrument type	Pulsed, dual-axis compensated, very-high speed laser scanner, with survey-grade accuracy, range, and field-of-view	
User interface	Notebook or Tablet PC	
Camera	Integrated high-resolution digital camera	
Accuracy of single measurement	Position*	6 mm
	Distance*	4 mm
	Angle (horizontal/vertical)	60 µrad/60 µrad (3.8 mgon/3.8 mgon) **
Laser spot size	From 0 – 50 m: 4 mm (FWHH-based); 6 mm (Gaussian-based)	
Modeled surface precision/noise	2 mm **	
Target acquisition	2 mm std. deviation	
Dual-axis compensator	Resolution 1", dynamic range +/- 5'	
Data integrity monitoring	Periodic self-check during operation and start-up	
Laser scanning system	Range	300 m @ 90 %; 134 m @18 % albedo
	Scan rate	Maximum instantaneous: up to 50,000 points/sec Average: dependent on specific scan density and field-of-view
	Scan density	< 1 mm max, through full range; fully selectable horizontal and vertical spacing; single point dwell capability
Laser class	3R (IEC-60825-1), visible green	
Lighting	Fully operational between bright sunlight and complete darkness	
Power supply	36 V; AC or DC; hot swappable	

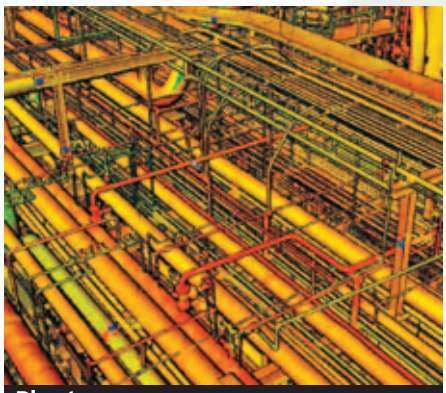
Specifications subject to change without notice

See Leica ScanStation 2 Product Specifications for full technical data

* At 50 m range, one sigma

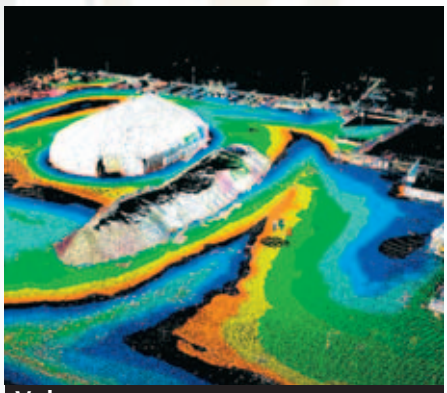
** One sigma





Plants

From a single vessel to entire plants and factories – accurate as-built data makes retrofit projects and maintenance/operations go more smoothly.



Volumes

With its high scan speed, 300 m (max) reflectorless range, and survey accuracy, ScanStation 2 is more cost-effective, more precise and safer for many pile and pit surveys.

Variety

ScanStation 2 provides unobtrusive, fast and complete surveys for a wide range of accident scenes, archaeology sites, heritage structures, and more.

Whether you're designing a modification to a complex refinery piping system, surveying a site or documenting a historic building, you need reliable measurements. High-Definition Surveying scanning systems and software by Leica Geosystems provide you with exact data of what's there.

When your as-built information has to be right, rely on Leica Geosystems, the company that professionals trust for their scanning solutions. Leica Geosystems is best known for pioneering scanning technology with trustworthy, total solutions: versatile, accurate laser scanners, industry standard point cloud software, and a full complement of accessories, training and support.

Precision, quality and service from Leica Geosystems.

When it has to be right.

TQM
ISO 9001 / ISO 14001

Total Quality Management – Our commitment to total customer satisfaction

Ask your local Leica Geosystems dealer for more information about our TQM program.

Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1

Leica ScanStation 2
Product information and specifications

Leica HDS6000
Product information and specifications

Leica Cyclone 5.8 MODEL, SURVEY
Product information

Leica Cyclone 5.8 REGISTER
Product information

Leica Cyclone 5.8 SCAN
Product information

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Heerbrugg, Switzerland
www.leica-geosystems.com/hds

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