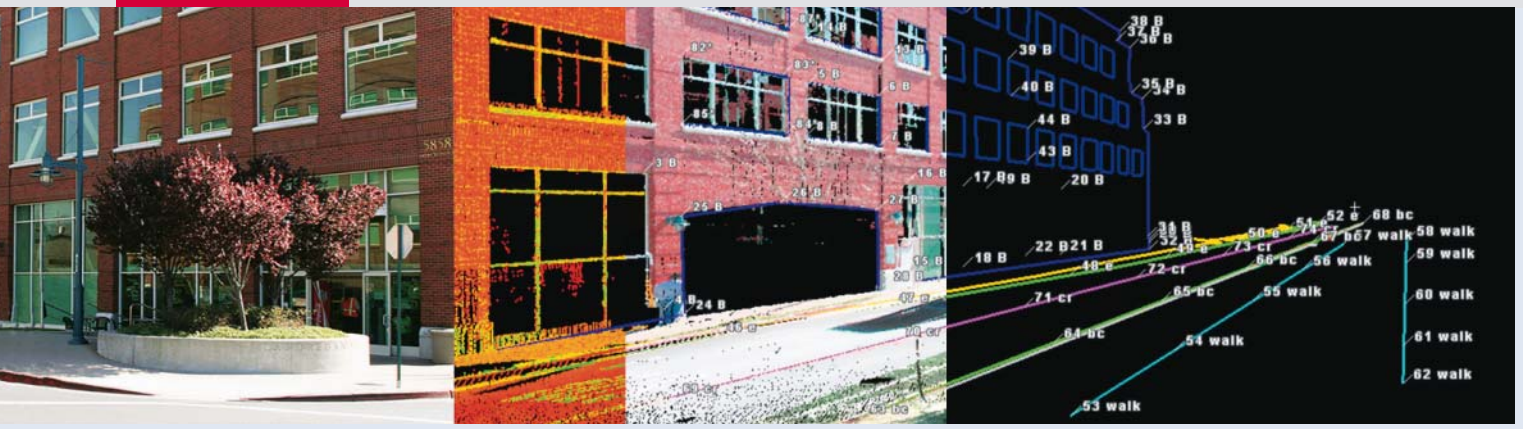


Leica ScanStation
**A new class
of laser scanner**



- when it has to be **right**

Leica
Geosystems



Leica ScanStation

A new class of laser scanner

Scan with all the freedom, friendliness and accuracy of a total station. Leica ScanStation represents a new class of laser scanner.

Why does Leica ScanStation represent a "new category" of scanner?

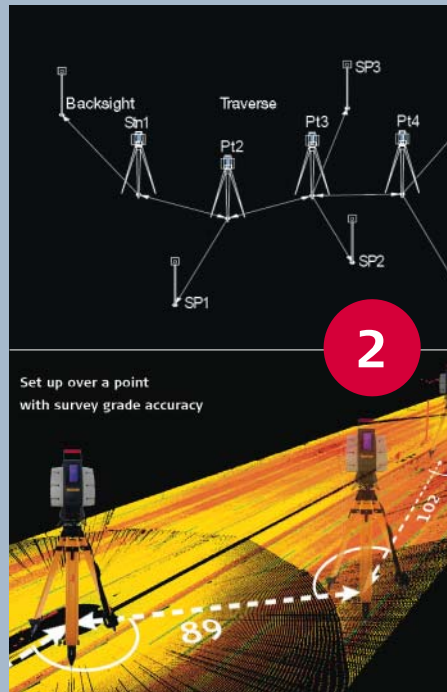
ScanStation™ is the first instrument to combine all 4 of these critical total station™ features in 1 scanner:



1

1. Full Field-of-View

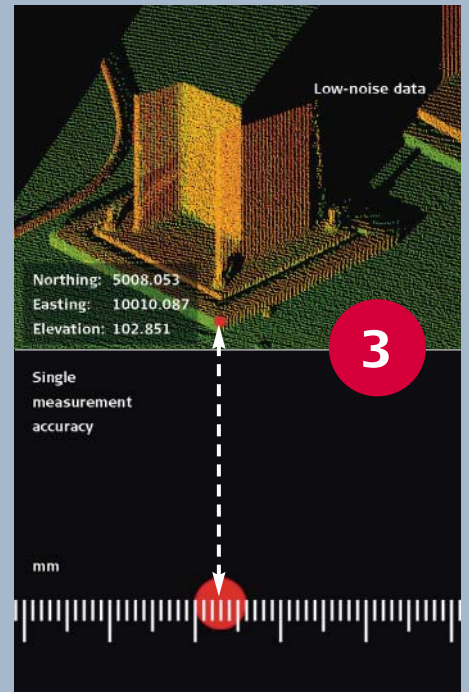
Scanners capture ceilings, undersides of bridges, elevated pipe racks, tall facades, columns and towers. The field-of-view of a total station isn't restricted. Surveyors and other professionals shouldn't have to settle for a scanner with a restricted field-of-view, either.



2

2. Survey-grade dual-axis (tilt) compensation

For greater flexibility and freedom, ScanStation users can traverse from control with survey-grade accuracy. ScanStation uses the exact same dual-axis (tilt) compensator as that used in Leica total stations.



3

3. Survey-grade point accuracy

While some scanners require "averaging" to approach survey-grade accuracy, ScanStation delivers survey-grade accuracy for each individual measurement. ScanStation's ultra-fine point spacing at long range also lets users take optimal advantage of scan targets for unsurpassed project control and registration accuracy.

Leica ScanStation

In addition to its four critical total station features, Leica ScanStation offers a host of other advantages for surveyor friendliness, productivity and versatility. The bottom line is the ability to apply High-Definition Surveying™ (HDS™) even more profitably for everyday as-built and topographic surveys.

■ **High-speed laser**
Fast scanning reduces the time needed for high-density scans

■ **X-function compatibility**
Interoperable with Leica System 1200



■ **Integrated dual-axis compensator**
For survey-grade traversing



■ **Integrated high-resolution camera**
For faster scene selection and compelling, automatically rectified photo overlays

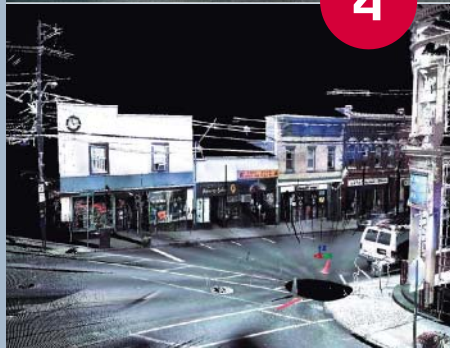
■ **Advanced scripting controls**
SmartScan™ firmware allows automated sequencing of scans and unattended operation

■ **HI marks, tribrach mount, carry handle, and QuickScan button**
Standard procedures and accessories make ScanStation easy to learn and use

■ **External bubble level**
Conveniently located on the back side of the moving scan head



4



4. Excellent practical, useful distance
ScanStation's range of approx. 300 m for 90% reflectivity surfaces and 134 m for 18% reflectivity surfaces addresses the vast majority of typical sites for reflectorless instruments. ScanStation's high accuracy, narrow beam, and fine-scanning capability provide excellent useful range for achieving survey-grade results.

Key Leica ScanStation Performance Specifications

Instrument type	Pulsed, dual-axis compensated, 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 4,000 points/sec Average: dependent on specific scan density and field-of-view
	Scan density	1.2 mm max, through full range; fully selectable horizontal & vertical point spacing
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	
Power consumption	<80 W, avg.	
Turret rotation	Direct drive, brushless; cable-free	
Temperature	Operation: 0° C to + 45° C; Storage: - 25° C to + 65° C	
Data exchange	Import	Cyclone native IMP object database format, Cyclone Object Exchange (COE) format, ASCII point data (XYZ, SVY, PTS, PTX, TXT); DXF, Leica X-function DBX, LandXML, ZFS, ZFC, 3DD
	Export	ASCII point data (XYZ, SVY, PTS, PTX, TXT); DXF, Leica X-function DBX, LandXML

Specifications subject to change without notice *At 50 m range, one sigma **One sigma
See Leica ScanStation Product Specifications for full technical data

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.

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Total Quality Management – our commitment to total customer satisfaction.

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

CLASS 3R LASER PRODUCT (IEC)
 Nd: YAG λ DBLD 532 nm,
 0.2 μJ at 0.25 ns, < 1 mW avg.



Leica ScanStation
 Product specifications



Leica HDS3000
 Product information and specifications



Leica HDS4500
 Product information and specifications



Leica Cyclone 5.5 MODEL, SURVEY
 Product information



Leica Cyclone 5.5 REGISTER
 Product information

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