

HDS8800
Complete Laser Scanning System
for Mine Surveying



- when it has to be **right**

Leica
Geosystems

HDS8800 Mine Scanning System

Laser scanner, Software and Support for Mine Surveying ... from the Global Leader in Laser Scanning Solutions

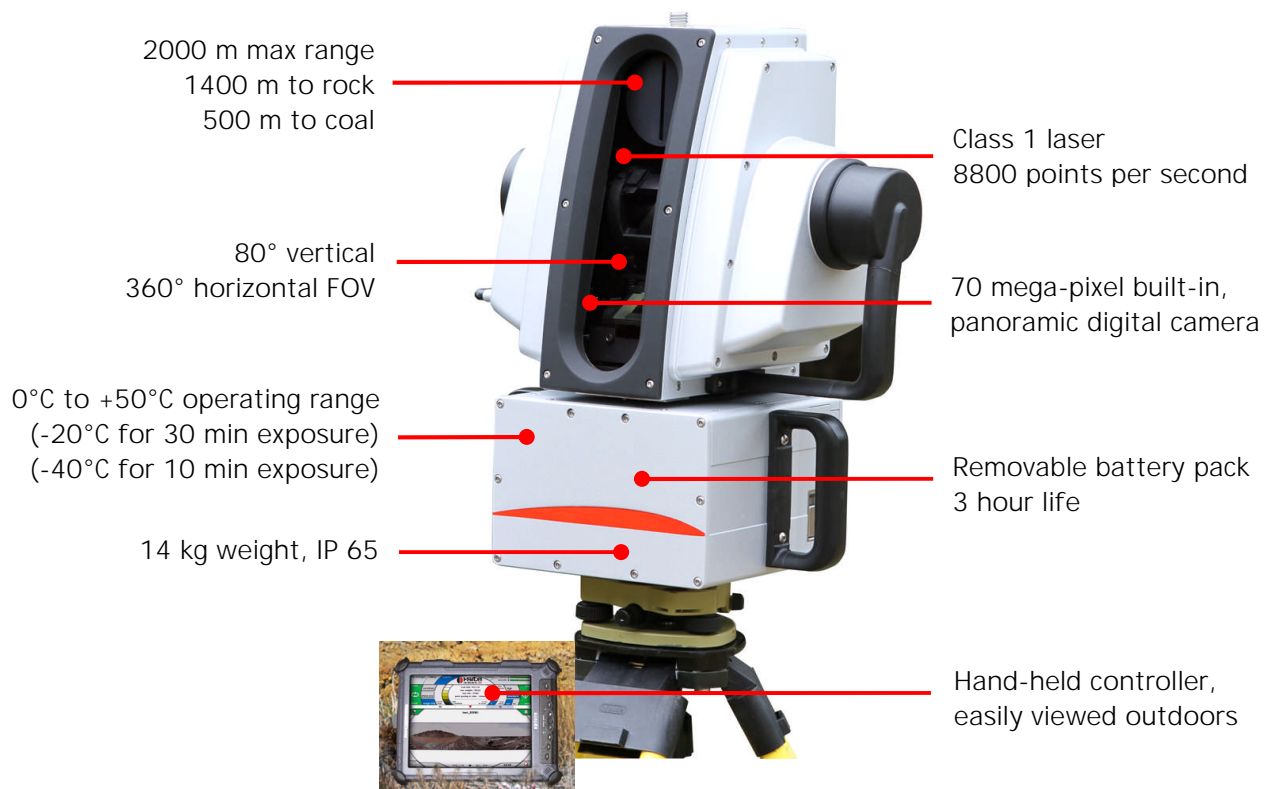
The HDS8800 mine scanning system offers all the benefits of laser scanning in a convenient, easy-to-learn and highly productive package. It's High-Definition Surveying™ (HDS™) for the mining industry.

- Faster
- Safer
- More accurate volumes and contours
- Less intrusive

A complete, integrated system

- ✓ Easy-to-use, highly productive laser scanner
- ✓ Easy-to-use, rugged field data collector
- ✓ Easy-to-learn office software specifically designed for mine surveyors
- ✓ Leica-quality training, support and warranty

Full photographic detail makes it easier and more efficient to analyze the mine scene. A high-resolution, panoramic camera image is taken while scanning and automatically rendered over the laser scan data. There is no separate camera, calibration or alignment.



Portable, surveyor-friendly instrument

- Fast, long range scanner
- Motorized backsight telescope
- Automatic, digital tilt compensation
- Embedded, high-resolution, panoramic, colour camera
- Removable, long-life battery

Use traditional survey workflows

- Standard instrument setup
- Stationing
- GPS data integration

Intuitive, Mining-Specific Software

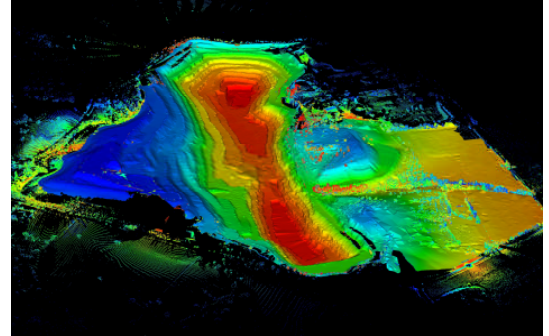
Key software features

Included with the system, the scanning and processing software features a complete set of tools for mining.

- Powerful 3D graphics interface
- Colour and intensity data display
- Windows™ style data browser
- Registration
- Modelling (2D, 3D)
- Exporting
- Volumes, surface calculations
- Contours
- Sections
- Face maps
- 3D scene models
- Building footprints and elevations

Use the stand-alone office software for

- Stockpile and excavation reconciliations
- Bucket, truck and shovel volumes
- Open pit and quarry surveys
- Tailings dam measurements
- Bulk material profiles within silos
- Geologic mapping



Unique Low Temperature Scanning Capability



The scanner is capable of operating at temperatures as low as -40 deg-C for short periods

- No special equipment or additional accessories required
- Maximum exposure times are as follows:
 - -20 deg-C allows 30 mins scanning time
 - -40 deg-C allows 10 mins scanning time
- Typical scan time is 10 mins
- This low temperature capability allows the scanner to function in even the most extreme locations

HDS8800 Vehicle System

Robust vehicle mounting system allows rapid deployment of the scanner to greatly increase productivity

- Data and power cables directly feed from vehicle to scanner
- Quick mounting and unmounting system without the need to reconnect cables
- Increased height improves line-of-sight over undulating ground
- Safer site survey practices
- Increased productivity for reduced field crews



World Class Leica Geosystems Training & Support

Leica Geosystems is one of the world's largest manufacturers and developers of surveying and measurement instruments and software. For 3D laser scanning, Leica Geosystems is by far the industry leader, with more scanners and software users than all other manufacturers combined.

One key reason for the popularity of Leica Geosystems products is our renowned global service, support, and training. Training, for example, includes both on-site and classroom training by industry experts. In addition, Leica Geosystems strong user community (thousands of laser scanning customers) provides an additional resource network for customers.

Key HDS8800 Performance Specifications

General		Electrical	
Instrument type	Compact, pulsed, high-speed laser scanner with mining grade accuracy, range and field-of-view	Data transfer	Ethernet cable to rugged PC
User Interface	External rugged tablet PC customised for use with system	Data storage	Rugged PC
Scanner drive	Servo motor	Compensator	Built-in tilt compensator 20" resolution
Data storage	External rugged PC	Level Indicator	External bubble 30" divisions, 20' bubble
Camera	Integrated 70 mega pixel digital camera	Mounting	Tribrach
Laser Scanning System		Environmental	
Type	1545 nm Near-IR Pulse	Battery Type	Integrated NiMH rechargeable and removable
Laser class	1 (IEC 60825-1:2007)	Duration	3 hours
Range*	2.5 m -2000 m 1400 m to 80 % albedo (rock) 500 m to 10 % albedo (coal)	Operating temp.	0 °C to +50 °C -20 °C to +50 °C for 30 min exposure -40 °C to +50 °C for 10 min exposure
Scan rate	8,800 points per second	Protection class	IP 65 (IEC 60529)
Divergence	+ 0.25 mrad	Physical	
Accuracy		Dimensions	455 x 246 x 378 mm
Range**	10 mm to 200 m 20 mm to 1000 m	Weight	14 kg (without battery)
Angle	+/- 0.01 °	Field Computer (Included)	
Repeatability**	8 mm	Software for Scanning and Post-Processing (Included)	
Field-of-view		Scan Control, Registration, Modelling (2D, 3D), Exporting, Volumes, Surfaces, Contours, Sections, Face Maps, 3D Scene Models, Building Footprints and Elevations	
Horizontal	360 °	Ordering Information	
Vertical	80 °	Contact Leica Geosystems or authorized representatives	
Aiming/Sighting	Built-in, motorised telescope (14 x) Additional co-aligned 650 nm (red) laser pointer		

All specifications are subject to change without notice. Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1. Windows is a registered trademark of Microsoft Corporation. Other trademarks and trade names are those of their respective owners.

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Heerbrugg, Switzerland
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