RIEGL VZ-2000i

Based on a future-oriented, innovative new processing architecture, internet connectivity, and *RIEGL's* latest waveform processing LiDAR technology the *RIEGL* VZ-2000i Long Range 3D Laser Scanning System combines proven user friendliness in the field with fast and high accurate data acquisition.

The processing architecture enables execution of different background tasks (such as point cloud registration, geo-referencing, orientation via integrated Inertial Measurement Unit, etc.) on-board in parallel to the simultaneous acquisition of scan data and image data. *RIEGL's* unique Waveform-LiDAR technology enables such high speed, long range, high accuracy measurements even in poor visibility and demanding multi-target situations and delivers reliable data even in harsh environments like open-pit mining.

RIEGL VZ®-2000i

Long Range, Very High Speed 3D Terrestrial Laser Scanning System

Typical Applications

• Topography and Mining • Natural Hazard Surveying • Construction Site Monitoring • Archeology & Cultural Heritage Documentation • City Modeling • Tunnel Surveying • Civil Engineering • Research

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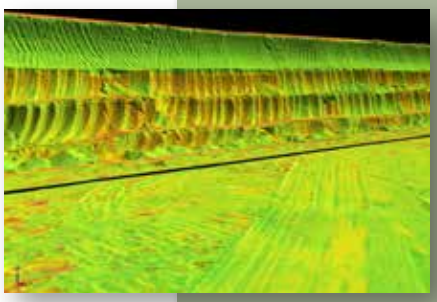
RIEGL LMS GmbH, Austria | *RIEGL USA Inc.* | *RIEGL Japan Ltd.* | *RIEGL China Ltd.* | *RIEGL Australia Pty Ltd.*

RIEGL VZ-2000i Main Features

- range up to 2,500 m, accuracy 5 mm
- high quality point cloud colorization based on image data acquired simultaneously during scanning, integration of various cameras possible
- orientation sensor for pose estimation
- advanced flexibility through support of external peripherals and accessories, e.g. integrated GNSS unit for high accurate RTK solution, SIM Card slot for 3G/4G LTE, WLAN, LAN, USB
- cloud connectivity via LAN, Wi-Fi, and 3G/4G LTE
- easy to operate even in harsh environments (protection class IP64)
- fully compatible with the *RIEGL* VMZ Hybrid Mobile Laser Mapping System
- RiSCAN PRO standard processing software (included), RiMINING software package offering an optimized workflow for open-pit mining (optional)

RIEGL VZ-2000i
underground 3D laser scanning in caves

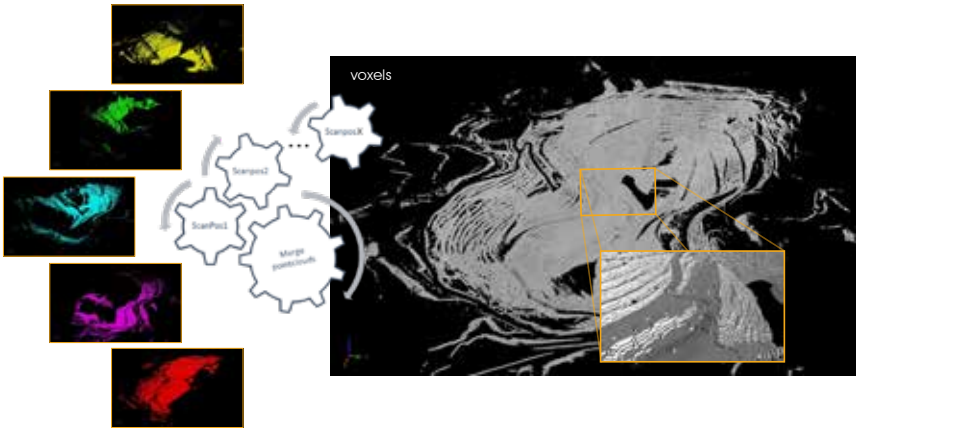
RIEGL VZ-2000i longe range scan data



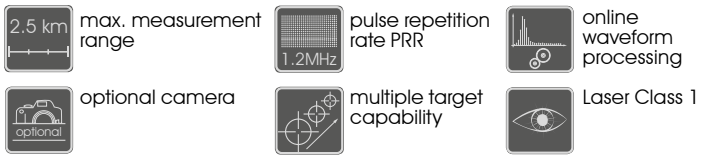
RIEGL VZ-2000i
monitoring in open-pit mining

Automatic On-board Registration

The innovative processing architecture of the VZ-2000i offers automatic on-board registration including voxel extraction and merging of scan positions in the background to fasten the registration in open-pit mine surveying.



RIEGL VZ-2000i Technical Data



Laser Pulse Repetition Rate PRR (peak)	**50 kHz**	**100 kHz**	**300 kHz**	**600 kHz**	**1,200 kHz**
Max. Effective Measurement Rate (meas./sec)	21,000	42,000	125,000	250,000	500,000
Max. Measurement Range (ρ ≥ 90 %)	2,500 m	1,850 m	1,100 m	800 m	600 m
Max. Measurement Range (ρ ≥ 20 %)	1,300 m	950 m	540 m	380 m	290 m
Minimum Range	2 m	1.5 m	1.5 m	1.0 m	1.0 m
Accuracy / Precision	5 mm / 3 mm				
Field of View (FOV)	100° vertical / 360° horizontal				
Eye Safety Class	Laser Class 1 (eyesafe)				
Main Dimensions (width x height) / **Weight**	206 mm x 308 mm / 9.8 kg				

Further details to be found on the current *RIEGL* VZ-2000i Data Sheet.

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