



# Mobile SLAM **Explosion-Proof** 3D Laser Scanner



**Mine-used  
Intrinsic Safety**

Precision Level (cm)  
Rotating Single Lidar



**Mine-used  
Modeling**

Precision Level (mm)  
Rotating Single Lidar

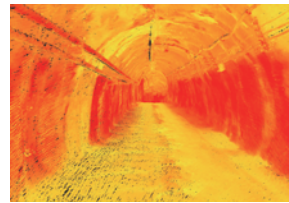
The RM and RM+ are widely used in plenty of industries, such as shaft coal mines, hazardous chemical enterprises, and other explosionproof scenes, to obtain the point clouds of the mine roadway and shaft. The Mine-used Modeling RM+(mm) can also automatically generate 3D Mesh Models to establish the digital twin platform of the factory facilities, and to provide the 3D organic drawings for the digital transformation of hazardous chemical enterprises.

# Mobile SLAM Explosion-proof 3D Laser Scanner

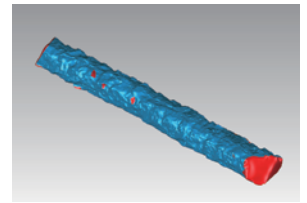
Model	Mine-used Intrinsic Safety-RM		Mine-used Modeling-RM+	
	RM-32	RM-300	RM+32	RM+300
Laser Channels	32	32	32	32
Measure Range	120m	300m	120m	300m
Points per Second	640,000pts/s	640,000pts/s	640,000pts/s	640,000pts/s

Parameter	Mine-used Intrinsic Safety-RM	Mine-used Modeling-RM+
Relative Accuracy	1cm	mm level
Absolute Accuracy	3cm	3cm
5A Criteria of Surveying & Mapping	√	√
Repeatability Accuracy	2cm	2cm
Horizontal & Vertical Accuracy Error	0.015°	0.005°
Point Cloud Density	10,000 pts/m <sup>2</sup>	250,000 pts/m <sup>2</sup>
Point Cloud Thickness	1cm	2mm
Moving Objects Removal	√	√
Point Cloud Colorization	√	√
Accuracy Report	√	√
GCP Inserting Instruction	√	√
LiRF	×	√
3D Mesh Models	×	√
Model Fomats	las	las/obj/osgb
CA Type	Intrinsic Safety	Intrinsic Safety
IP Rating	IP54	IP54
Accuracy Garantee	Full Lifecycle Auto-Calibration	

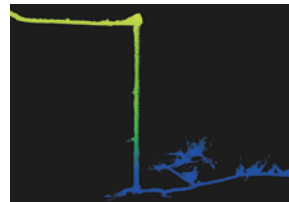
## Use Cases



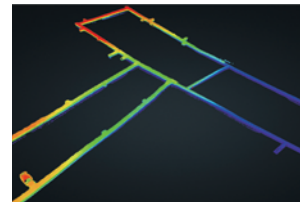
Coal Mine Roadway Point Clouds



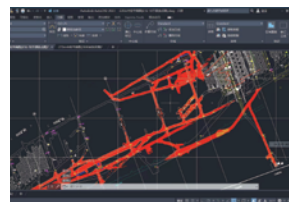
Roadway 3D Mesh Models



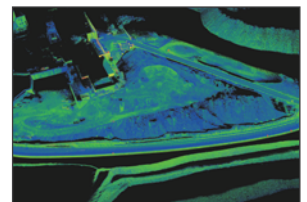
450m Shaft Point Clouds



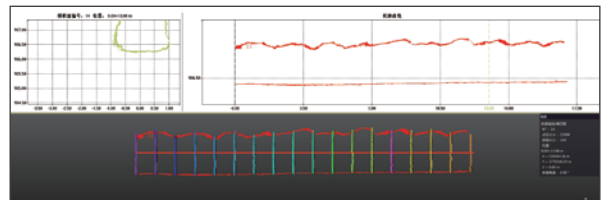
Base Map



Surface-Underground Contrast Plan



Coal Yard Point Clouds



Roadway Crosssection Analysis

