

3D Mechanical Scanning Sonar

BlueView's BV5000-1350 and BV5000-2250 3D mechanical scanning sonar create high-resolution imagery of underwater areas, structures, and objects. With the touch of a button, these new 3D mechanical scanning sonar create 3D point clouds of an underwater scene with minimal training required. The compact, lightweight units are easily deployed on a tripod or an ROV. The scanning sonar head and integrated mechanical pan and tilt mechanism generate both sector scans and spherical scan data. For the first time, get 3D laser-like scanning capabilities underwater, even in low and zero visibility conditions and seamless integration with traditional laser scan imagery.



APPLICATIONS

- 3D site survey
- 3D structure inspection
- Rig decommissioning
- Bridge inspections
- Underwater metrology

BENEFITS

- Easy, one touch scan function
- 3D mosaic imaging without position info
- Easily combined with laser scan imagery
- Compact size fits into tight spaces
- Operates in low & zero visibility conditions

FEATURES

- 2 model options (1.35 & 2.25 MHz)
- Standard Ethernet/RS485 interface
- Easy Windows based software
- Leica Cyclone data compatible
- Sector & Spherical Scans

Inclusions

Included	BV5000-1350	BV5000-2250
Hardware	<ul style="list-style-type: none"> • MB1350-45 Sonar • Pan & Tilt w/ mounting hardware • Sonar, Pan & Tilt junction box • Shipping case • Accessory kit* 	<ul style="list-style-type: none"> • MB2250-45 Sonar • Pan & Tilt w/ mounting hardware • Sonar, Pan & Tilt junction box • Shipping case • Accessory kit*
Software	<ul style="list-style-type: none"> • RS485 to USB drivers • ProScan 1.3 (or current) • MeshLab (included w/ ProScan) 	<ul style="list-style-type: none"> • RS485 to USB drivers • ProScan 1.3 (or current) • MeshLab (included w/ ProScan)
Manuals	<ul style="list-style-type: none"> • BV5000 User Handbook • Quick Start Guide 	<ul style="list-style-type: none"> • BV5000 User Handbook • Quick Start Guide
Warranty	<ul style="list-style-type: none"> • 1 year 	<ul style="list-style-type: none"> • 1 year

*Accessory kit includes: Retract-A-Bit Hex Driver; 7 ft. Cat 5 Ethernet Cable; 15 ft. Sonar/Pan & Tilt Cable; 2 m USB Cable; 15A US Power Cord; RS485 to USB driver CD; ProScan 1.3 (or current) + MeshLab CD

BV5000

Options

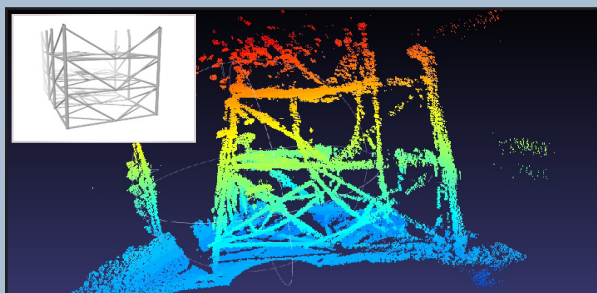
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Optional	BV5000-1350 & BV5000-2250
Hardware	<ul style="list-style-type: none"> • 15 ft. Sonar, Pan & Tilt Cable (1 included w/ BV5000 Accessory Kit) • 200 ft. Sonar, Pan & Tilt Cable Assembly (needed for tripod and fixed mount systems) • 4 ft. Sonar, Pan & Tilt Cable Whip Kit w/ Wiring Diagram (needed for ROV mount systems) • EXC500 Ethernet Extender Kit (includes 500 ft. Cable Assembly)
Software	<ul style="list-style-type: none"> • Leica Cyclone Register • Leica Cyclone Model • Leica Cyclone Register Customer Care Package (CCP) • Leica Cyclone Model Customer Care Package (CCP)
Manuals	<ul style="list-style-type: none"> • Cyclone/BlueView (ships with Cyclone software)
Training	<ul style="list-style-type: none"> • On-Site "Getting Started" hardware/Software (per day) • Leica Cyclone "On-Site" Training (2-day)
Warranty	<ul style="list-style-type: none"> • BV5000-1350 Extended Warranty (per year) • BV5000-2250 Extended Warranty (per year)

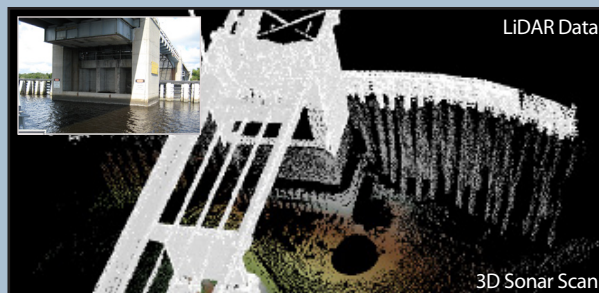
Specifications

	BV5000-1350	BV5000-2250
Sonar & Software		
Sector/Spherical Scan Area (°)	45 - 360	45 - 360
Sonar Field of View (°)	45 x 1	45 x 1
Update Rate (Hz)	Up to 40	up to 40
Frequency (MHz)	1.35	2.25
Maximum Range	30 m (98 ft.)	10 m (32 ft.)
Optimum Range	1 - 20 m (3.2 - 65 ft.)	0.5 - 7 m (1.6 - 23 ft.)
Number of Beams	256	256
Beam Width (°)	1 x 1	1 x 1
Beam Spacing (°)	0.18	0.18
Time Resolution	0.015 m (0.59 in.)	0.010 m (0.39 in.)
Data Output Format	.son, .off and .xyz files	.son, .off and .xyz files
Mechanical		
Size (L x W x H in inches)	10.5 x 9.2 x 15.4	8.9 x 8.6 x 15.4
Weight in Air/Water(lbs.)	21.7/8.2	19.1/6.0
Depth Rating	300 m (1,000 ft.) / 4,000 m (13,123 ft.)	300 m (1,000 ft.) / 4,000 m (13,123 ft.)
Coms (Sonar/Pan & Tilt)	Ethernet/RS485	Ethernet/RS485
Power Consumption (W)	45 max.	45 max.
Power Requirement (V DC)	20- 29	20- 29

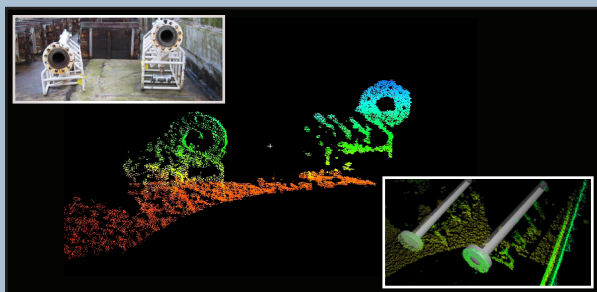
High resolution 3D imagery made easy for a wide variety of underwater applications. Visit www.blueview.com to view our collection of 3D sonar case studies, movies and imagery.



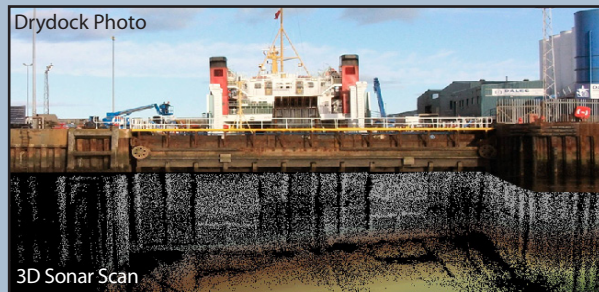
Detailed 3D Structure Inspection - on demand point cloud generation delivers new levels of data quality with less work.



Full View Imagery - easily add underwater details to above-water laser scan data for full, detailed 3D viewing of structures, objects and sites.

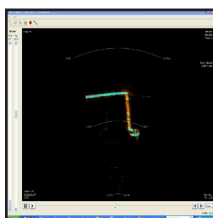


Modeling, Rendering, and Object Identification - improve efficiency and save time by using common laser scanning measurement techniques underwater.

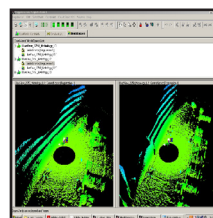


High Resolution Mapping & Imaging - quickly create high-resolution 3D maps and images of underwater scenes for accurate analysis and effective planning.

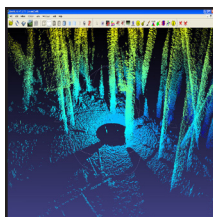
Software



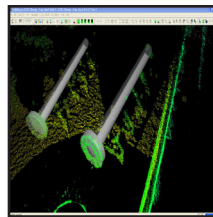
ProScan
BlueView's real-time scan control, monitoring, and post processing software. Exports industry standard point clouds. Comes standard with BV5000 systems.



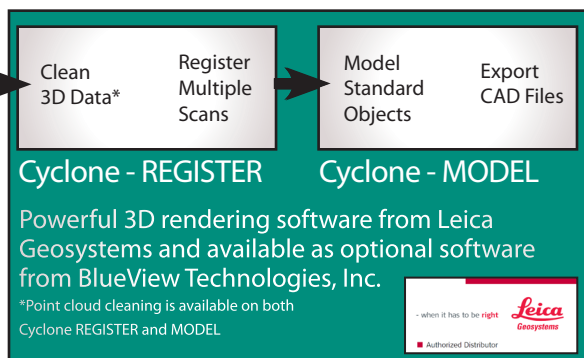
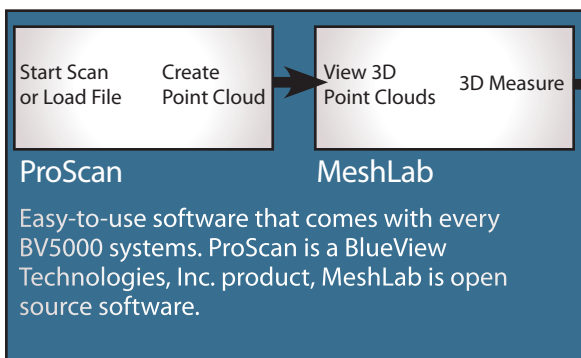
Cyclone-REGISTER
Leica Geosystems' software used to quickly clean 3D data and combine multiple scans together. Optional software for BV5000 systems.



MeshLab
An easy-to-use point cloud viewer with point-to-point measurement capabilities. Included with BV5000 systems.



Cyclone-MODEL
Leica Geosystems' software used to model standard components and export a CAD file. Optional software for BV5000 systems.



BV5000 3D Mechanical Scanning Sonar

Diagrams

DIAGRAM OF BV5000-1350

Dimensions are in inches

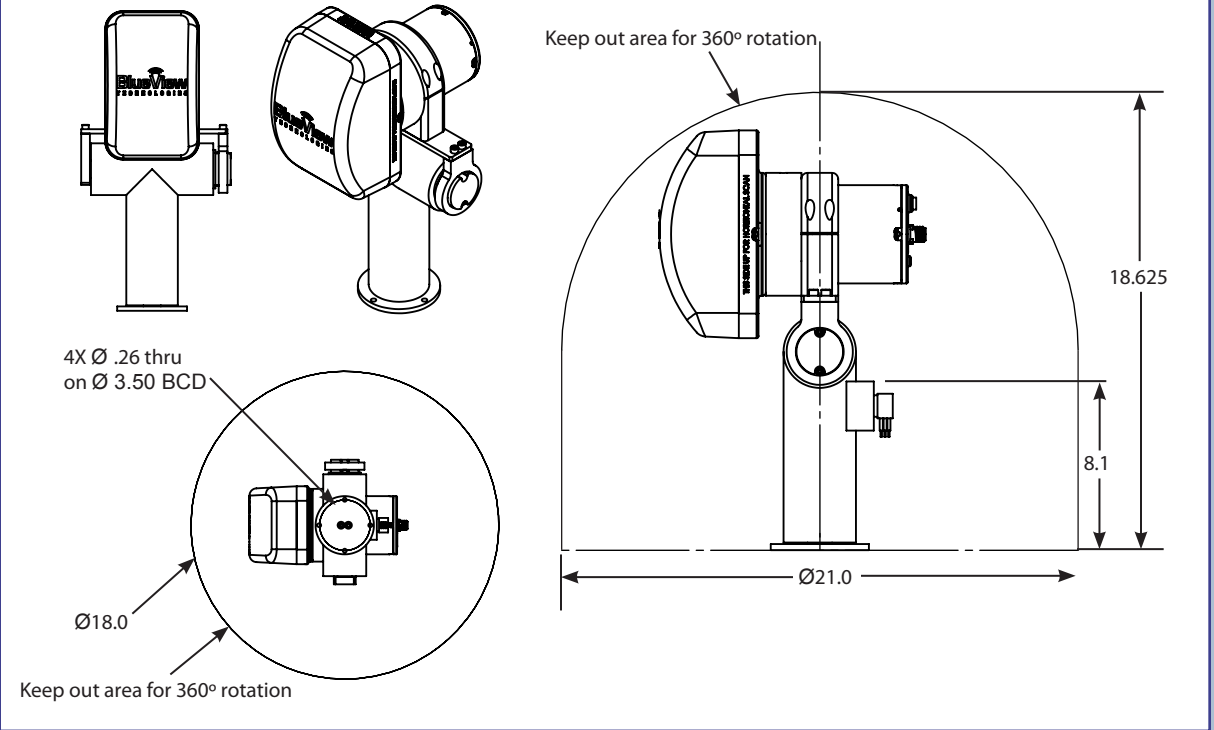


DIAGRAM OF BV5000-2250

Dimensions are in inches

