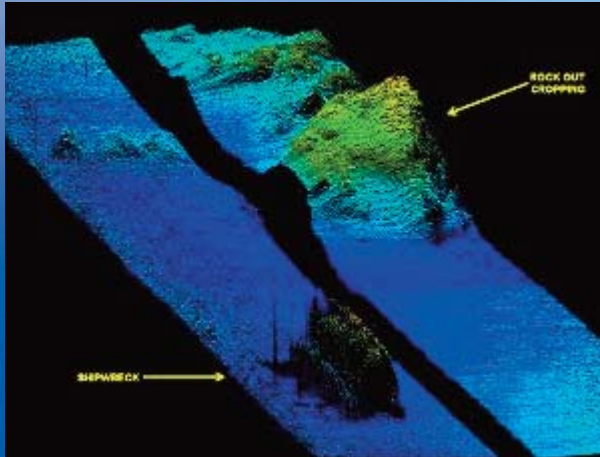


KLEIN BATHY 5000 V2

THE KLEIN DISCRIMINATOR....IHO QUALITY BATHYMETRY & HIGH RESOLUTION SIDE SCAN IN ONE SYSTEM PROVIDING UNMATCHED PERFORMANCE



BATHYMETRY DATA

The KLEIN BATHY 5000 V2 System is a hydrographic survey system which has the ability to simultaneously collect IHO quality swath bathymetry and high resolution multi-beam side scan sonar data in a co-registered and geo-referenced data set.

The BATHY 5000 V2 is the only product in its class to provide frequency modulated (FM) chirp processing for both bathymetry and side scan providing high resolution with extended range performance.

The wide swath bathymetry performance provides a 2X survey coverage advantage over traditional multi beam echo-sounders in shallow water (40m or less) and the multi beam side scan has the capability of producing 10cm resolution side scan in the High Resolution Mode.

The dual functionality of the BATHY 5000 V2 effectively allow two surveys to be accomplished in one pass saving significant ship time and expense.

KEY FEATURES & BENEFITS

- "Best in Class" Bathymetry Accuracy & Repeatability
 - IHO SP-44, Special Order
- High Resolution multi beam Side Scan Imagery
- Bathymetry Coverage of 12 times water depth
- Co-registered Geo-referenced Swath Bathymetry & Side Scan Data
- Multiple Mounting Options
- Supports Industry Standard Interfaces & Data Formats
- Easy Installation & Operation

OPTIONS

- Klein Motion Sensor
- Surface Sound Velocimeter
- CTD Sensor
- Hull Mount Installation Kit

APPLICATIONS

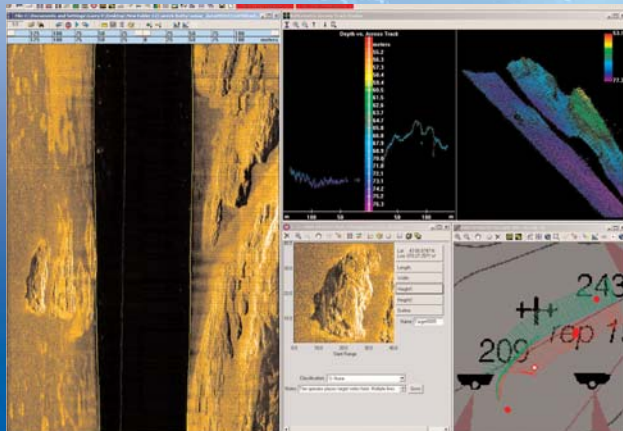
In addition to Hydrographic Surveys, the BATHY 5000 V2 is ideal for Port and Harbor security applications. Shallow water IED detection demands high resolution images that are only achievable with multi-beam side scan sonar technology and the additional co-registered bathymetric topographic mapping capability provides the ability to more accurately geo-position bottom objects which, in the case of IED detection, makes them far easier to return to for verification/prosecution.

Other applications for the KLEIN BATHY 5000 V2 System include:

- Dredging and construction surveys
- Inspection of underwater infrastructures
- Fisheries habitat mapping
- Rapid Environmental Assessment (REA)
- Mapping and debris search of Harbors, Inland waterways and shipping channels
- Archaeology surveys



KLEIN BATHY 5000 V2



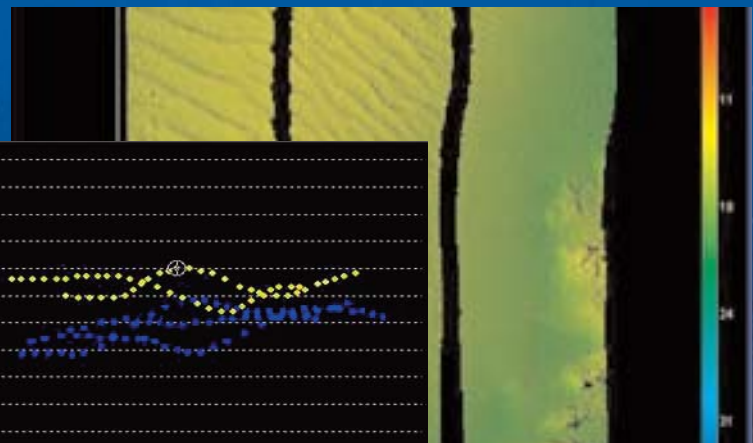
SYSTEM CONFIGURATION

The Klein Bathy 5000 V2 System is specifically designed as a portable, shallow water system which can be deployed easily in an over the side or bow mounted configuration. This system consists of the following components:

- Sonar Head Unit
- Transceiver Processing Unit
- SonarPro Workstation



SYSTEM SPECIFICATIONS	
Deployment Method	Over the side or Hull mount
Max Water Depth below Transducer	50 m
Frequency	455 kHz
Pulse Length	FM Maximum 16 msdc (Chirp)
Input Voltage	115 / 220 VAC, 50/60 kHz
Power	120 W
Sonar Head Dimensions	64" x 7" x 6"
TPU Dimensions:	Rack Mount, 3U x 20"
SonarPro Workstation Dimensions	Rackmount, 2U x 19"
Swath Bathymetry Specifications	
Maximum Swath for Bathymetry	10-12 times water depth
Resolution (Along Track)	40 cm at 70 m, increasing to 100 cm at 150 m
Resolution (Across Track)	5.5 cm
Bathymetric Data Output	SDF, GSF & XYZ
Side Scan Sonar Specifications	
Swath Range	
Number of Beams	5 Port & 5 Starboard
Resolution (Along Track)	10 cm at 38 m, 20 cm at 75 m, increasing to 36 cm at 150 m and 50 cm at 250 m (in the Reconnaissance Mode)
Resolution (Across Track)	3.75 cm



Accuracies demonstrated by the KLEIN BATHY 5000 V2 System meet IHO SP-44 Special Order Standards for Hydrographic Surveys

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L-3 Klein stands behind its products and we understand the need for experienced and responsive technical support. Our service engineers are available 24/7 to support your needs.

L-3. Headquartered in New York City, L-3 Communications employs over 64,000 people worldwide and is a prime contractor in aircraft modernization and maintenance, C³ISR (Command, Control, Communications, Intelligence, Surveillance and Reconnaissance) systems and government services. L-3 is also a leading provider of high technology products, subsystems and systems.

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