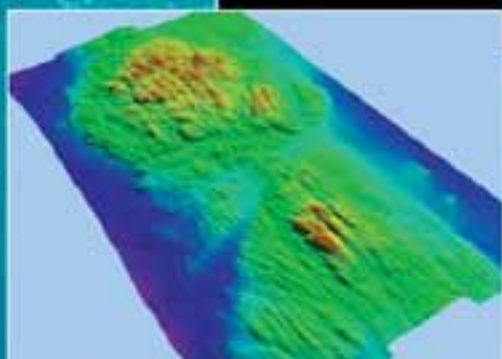
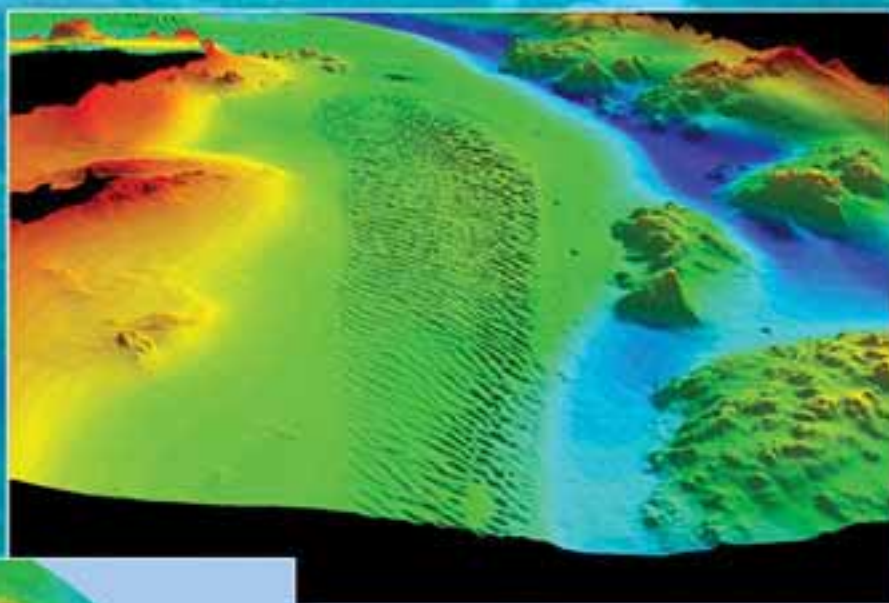




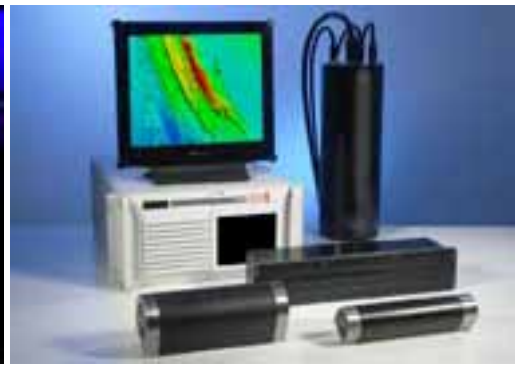
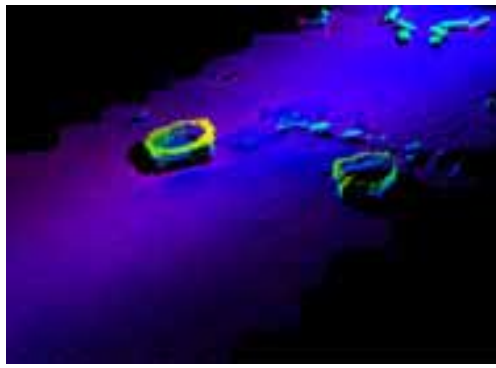
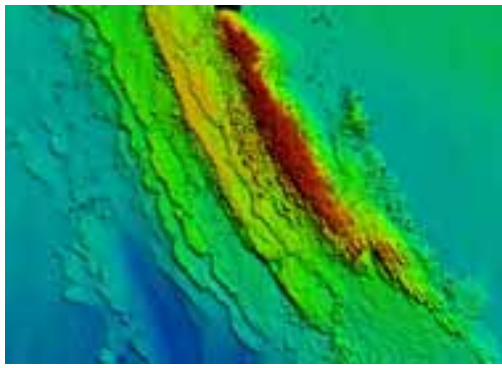
# 7000 Series

Advanced Multibeam Sonar System



SeaBat





## RESON's 7000 Series

RESON pioneered the world's first true wideband multibeam echosounder featuring true delay beamforming and dynamic focusing with the industry standard SeaBat 8000 series product line in 1995. RESON's second generation wideband SeaBat 7000 series was launched recently.

The SeaBat 7000 series is a sophisticated, highly modular platform that allows rapid product development at minimal cost to respond to application demands. Designed to incorporate several state-of-the-art technologies, the 7000 series main advantages include:

- True time-delay beamforming
- Deeper water usage
- Longer range capability, using exceptionally low-noise receivers
- Flexibility – can be tailored to specific applications more easily
- Beam data recording capability
- AUV configuration available

With the development of the SeaBat 7000 series, RESON has taken the leadership role in advancing Commercial-off-the-Shelf (COTS) multibeam echosounders and imaging sonar solutions.

## SeaBat 7125

### Another technological breakthrough in high quality performance

With unparalleled resolution and installation flexibility, the SeaBat 7125 is ideal for a great variety of hydrographic, offshore, military and scientific bathymetric and imaging applications from a surface vessel, ROV, or AUV to 6000m depth.

The SeaBat 7125 system is available in either a single and/or dual frequency (200/400kHz) configuration, where the receiver covers a 128° swath with a typical depth range of 200m for (400kHz) or 500m for (200kHz). The dual frequency configurations offer depth ratings of either 400m or 6000m. Bathymetry, Sidescan and Snippets backscatter output is standard with the SeaBat 7125 system.

Optional equi-distant or equi-angular beam spacing across the entire swath is selectable by the operator to provide uniform sounding density and maximize usable outer swath. Limited beamformed water column data may be stored on the hard drive. An optional external RAID array combined with high-speed data export allow full bandwidth data to be collected.

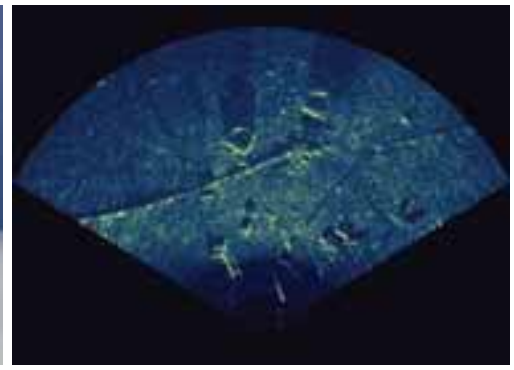
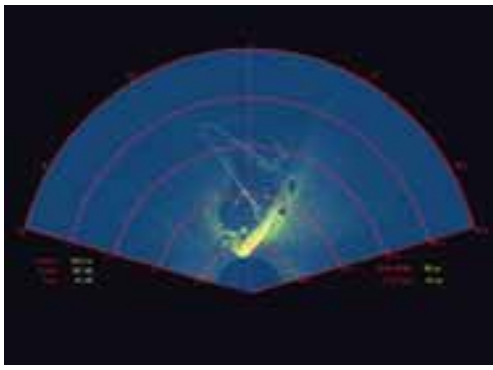
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### Additional features of the SeaBat 7125 include:

- Full Array Calibration
  - AUV Configuration
  - Fiber-Optic Conversion
  - Automatic Mode Operation
  - 400m Depth Rated (6000m option)
  - Mounting Brackets
  - Beam Data Recording & High Speed Export
  - (includes 1 TB external RAID array)
- 

### Applications:

- General Hydrographic Surveying
  - Harbour and River Surveys
  - Marine Archaeology
  - Flood Damage Assessment
  - ROV Site Surveys
  - Pipe Line Route Surveys
  - Pipe Line Inspection
  - Bridge Abutment Surveys
  - Obstacle Avoidance
  - Dredging Surveys
  - Fisheries Management
-



## SeaBat 7128

### A high resolution, shallow or deep water underwater imaging system

The SeaBat 7128 forward looking sonar is ideal for a great variety of underwater imaging applications on a surface vessel, ROV or AUV platform in shallow water and to 6000m.

The SeaBat 7128 is available in either a single and/or dual frequency (200/400kHz) configuration. The system provides a 128° x 27° field of view with a typical range of 200m for (400kHz) or 500m for (200kHz). A depth rating of 6000m is optionally provided.

The SeaBat 7128 provides the user with superior resolution and image quality, with 256 focused 0.5° beams and a high ping rate of up to 48Hz.

The system when mounted on an ROV can be used during challenging intervention operations, such as maneuvering within complex structures. The SeaBat 7128 system is not affected by siltation in the water column, this technology is an excellent navigation tool when an ROV operates in zero visibility because operators can observe the type and location of obstacles faces the ROV in realtime. Limited beamformed water column data may be stored on the hard drive. An optional external RAID array combined with high-speed data export allow full bandwidth data to be collected.

The SeaBat 7128 makes full use of Commercial-off-the-Shelf (COTS) hardware and software to increase cost-effectiveness with a well defined path for future upgrades and expansion.

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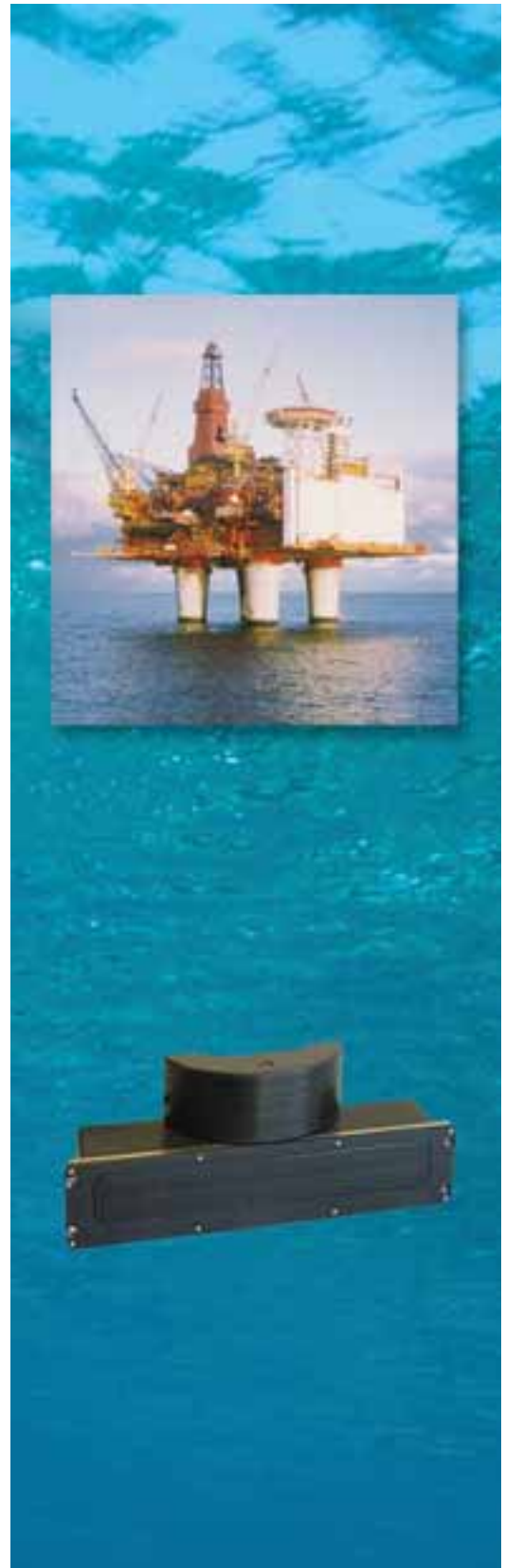
#### Additional features of the SeaBat 7128 include:

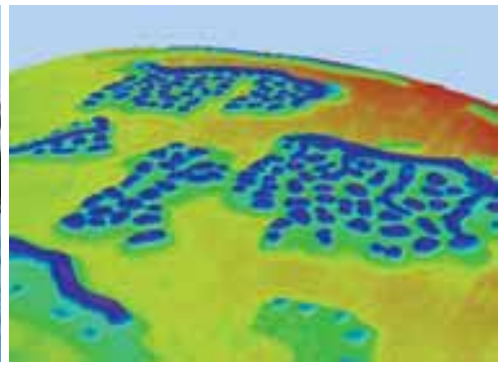
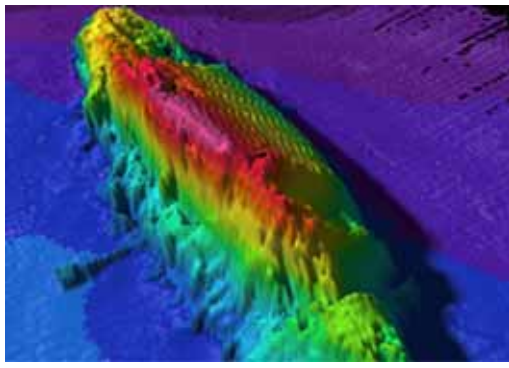
- Optional Fiber-Optic Conversion for ROV Installations
- Mounting, Bracket with Fairing
- AUV Configuration
- Beam Data Recording & High Speed Export (includes 1TB external RAID array)

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#### Applications:

- |                                     |                       |
|-------------------------------------|-----------------------|
| • Pipe Line Installation and Burial | • Condition Surveys   |
| • Leakage Detection                 | • Revetment Surveys   |
| • Jack-up Re-entry Operations       | • Dam Inspection      |
|                                     | • Water Side Security |





## SeaBat 7111

### RESON's portable mid-water depth multibeam echosounder system

The SeaBat 7111 provides bathymetry, Sidescan and Snippets backscatter output and Automatic Mode Operation as part of standard system configuration. This multibeam echosounder is suitable for the generation of high resolution hydrographic charts exceeding international standards in water depths from 3 to 1000m. Operating at 100kHz, the system forms 201 high-density equi-angle or 301 equi-distant beams to cover a total receive sector of 150°.

The SeaBat 7111 transducer array is comprised of a cylindrical receive array and a linear transmitter array, mounted together on a support cradle that provides mounting points to the vessel. Lightweight and portable, the array can be installed temporarily over the side of a vessel of opportunity, a first for a system in this frequency range.

Equi-distant or equi-angular beam spacing across the entire swath is selectable by the operator to provide uniform sounding density and maximize usable outer swath. Data output includes bathymetry, sidescan, snippets and beamformed water column data.

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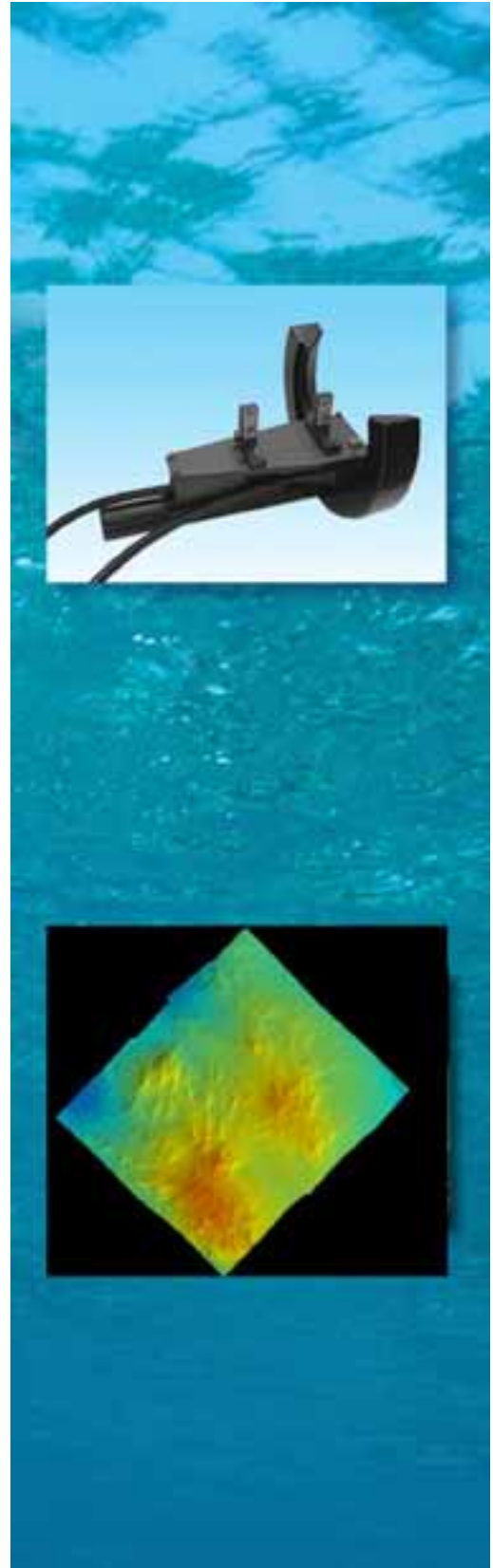
#### Additional features of the SeaBat 7111 include:

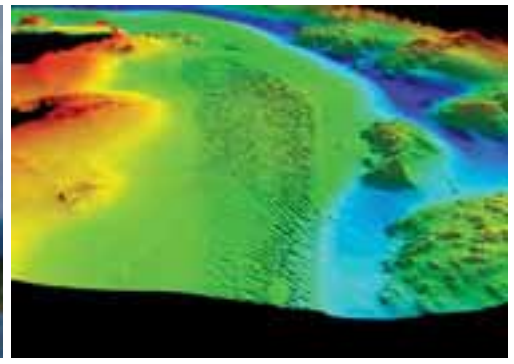
- 30m Transducer Cable Length
- Beam Data Recording & High Speed Export (includes 1TB external RAID array)
- Absorption profile input

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#### Applications:

- General Hydrographic Surveys
  - EEZ Mapping Projects
  - Dredging Surveys
  - Fisheries Management
- 





## SeaBat 7150

### A truly integrated, modular dual frequency design

The SeaBat 7150 system provides the user with the ultimate in resolution, performance and system expandability. The system can be configured for either 12kHz and/or 24kHz operation, providing a choice of both ultra high resolution in shallow water and extended range in deeper waters. The modular design allows the user to increase system resolution to job or budget, simply by adding individual array elements.

Standard features include increased receive beams for greater sounding density, automatic mode operation, transmit and receive beam focusing, equi-distant and equi-angular beam spacing, pitch and roll stabilization, yaw compensation using multiping.

### Additional features of the SeaBat 7150 include:

- Absorption Profile Input
- Full System Calibration
- Beam Data Recording & High Speed Export (includes 1 TB external RAID array)
- Mounting Frame

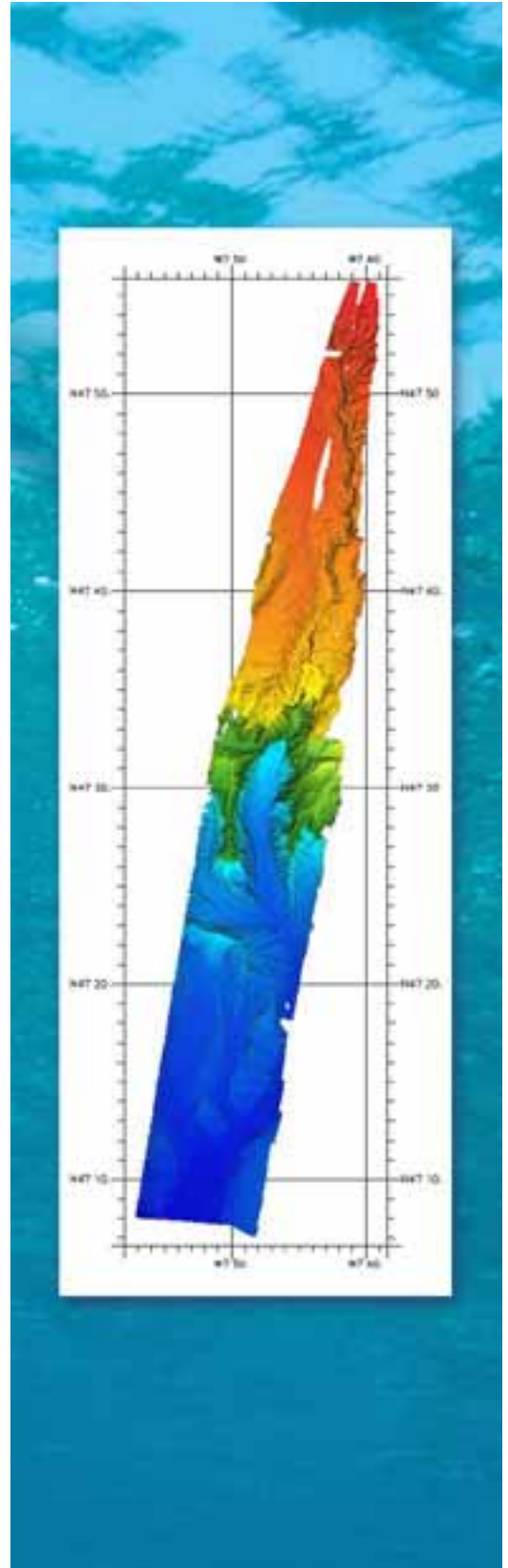
### The 7-P processor offers:

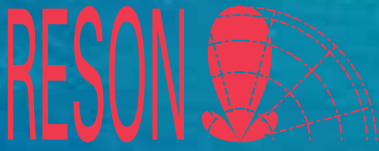
- Beamforming
- System Control
- Operator Interface
- Sensor Interface

The 7-P is a high performance Sonar Processor that manages data flow and signal processing using a state-of-the-art FPGA architecture. The 7-P provides a Windows®-based GUI user interface, allowing system configuration, control, data output, storage and built-in test environment (BITE) displays to assist the operator.

### Applications:

- General Hydrographic Surveying
- EEZ Mapping Projects
- Cable Route Surveys
- Scientific Research





## Other RESON products

In addition to our range of multibeam echosounders, RESON offers complete underwater acoustic solutions: singlebeam echosounders, transducers and hydrophones, data acquisition and presentation software for hydrographic surveys, offshore oil and gas industries, dredging, pipe-cable laying, and security.



## About RESON

Since its founding in 1976, RESON has grown from a national transducer supplier to a global manufacturer of multidisciplinary underwater acoustic systems. With corporate headquarters in Denmark and seven offices around the world, RESON is today a leading company within high quality singlebeam and multibeam systems as well as transducers and hydrophones. Thirty percent of RESON's staff are qualified engineers working within R&D and production.

## Provider of World Class Quality Underwater Acoustic Products

Quality is an inherent company goal for RESON worldwide. RESON A/S, Denmark is certified according to the Quality Management System ISO 9001:2000. In accordance with this certification, all incoming and outgoing inspections are carried out on all materials and products by qualified inspectors in compliance with documented specifications.

Throughout development and production, RESON A/S holds full traceability on all products. All products issued from RESON have been calibrated. A Certificate of Conformance can be provided upon request.

## Highly Qualified Technical Service and a Strong Field Support

RESON's highly effective field support is backed by a comprehensive inventory of spare parts, available worldwide for local customer assistance.

We currently offer training programs featuring; system installation, operation, maintenance and service. In addition, we can supply customers with preventative service programs.

## PDS2000

PDS2000 survey software and related hydrographic equipment have made RESON a highly desirable and respected partner for customers in the dredging and hydrographic sectors.

*For detailed information visit our website [www.reson.com](http://www.reson.com) or contact your local RESON office.*



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