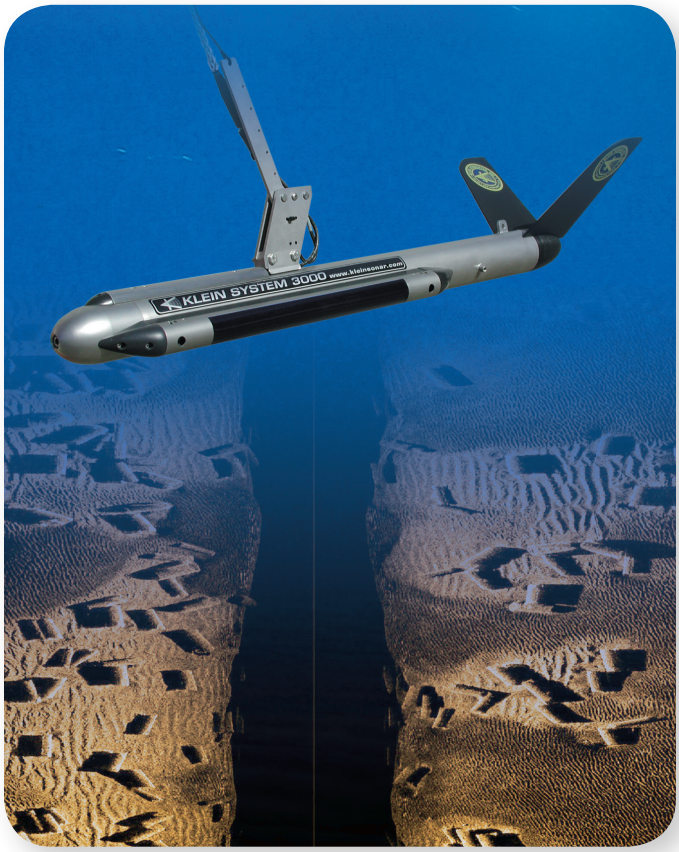
SYSTEM 3000 SIDE SCAN SONAR

DUAL-FREQUENCY SINGLE BEAM SONAR

Digital Side Scan Sonar:

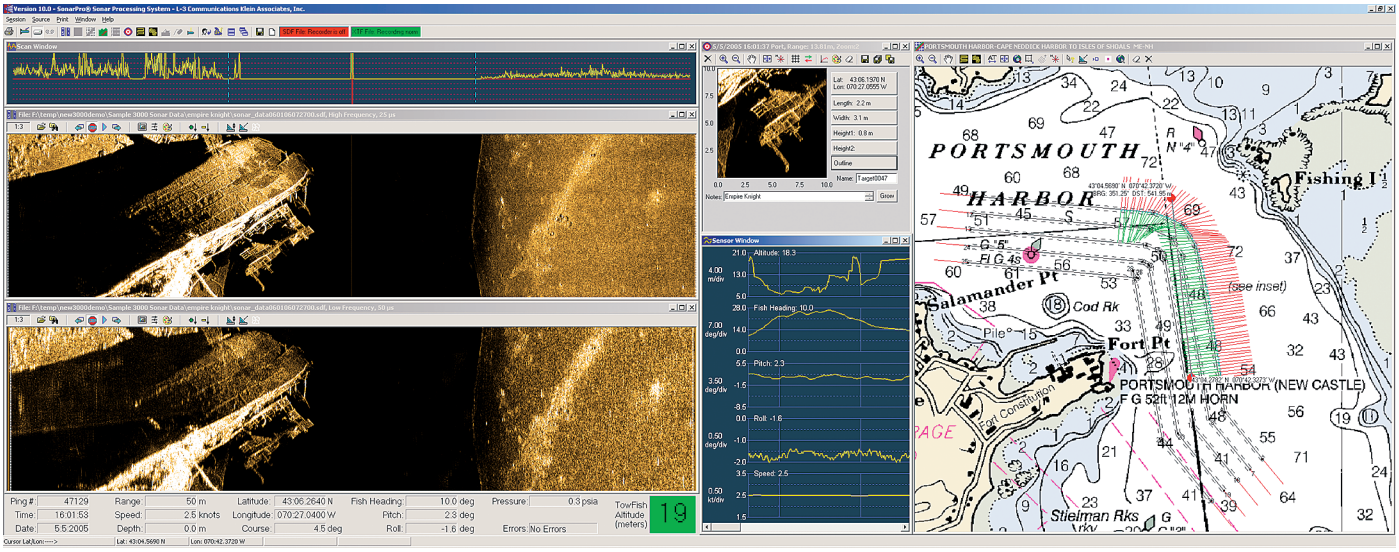
The Klein System 3000 presents the latest technology in digital side scan sonar imaging. The simultaneous dual-frequency operation is based on new transducer designs, as well as the high-resolution circuitry recently developed for the Klein multi-beam focused sonar. The System 3000 performance and price is directed to the commercial, institutional and governmental markets.



Key Features:

- Advanced signal processing and transducers produce superior imagery
- Cost-effective, affordable
- PC-based operation with SonarPro® software, dedicated to Klein sonars
- Small, lightweight and simple designs - easy to run and maintain
- Easily adapted to ROV's and custom towfish
- Meets IHO & NOAA Survey specifications

The Difference Is In The Image



SYSTEM 3000 SIDE SCAN SONAR

DUAL-FREQUENCY SINGLE BEAM SONAR

Specifications:

System 3000 Towfish	
Frequencies	100 kHz (132 kHz, ± 1% actual) 500 kHz (445 kHz, ± 1% actual)
Transmission Pulse	Tone burst, operator-selectable from 25 to 400 µsecs; Independent pulse controls for each frequency
Beams	Horizontal: 0.7° @ 100 kHz 0.21° @ 500 kHz Vertical: 40°
Beam Tilt	5°, 10°, 15°, 20°, 25° down, adjustable
Range Scales	15 settings - 25 to 1,000 meters
Maximum Range	600 m @ 100 kHz 150 m @ 500 kHz
Depth Rating	1,500 m standard; other options available
Construction	Stainless Steel
Body Length	122 cm (48 in)
Body Diameter	8.9 cm (3.5 in)
Weight	29 kg (63.9 lbs) in air
Standard Sensors	Roll, Pitch, Heading
Options	Magnetometer, pressure sensor, acoustic positioning, sub-bottom profiler

Transceiver Processor Unit (TPU)	
Operating System	VxWorks® with custom application
Basic Hardware	Splash-Proof 2 (SP2) TPU
Outputs	100 Base-Tx, Ethernet LAN
Navigation Input	NMEA 0183
Power	120 watts @ 120/240 VAC, 50/60 Hz (includes towfish)
Interfacing	Interfaces to all major sonar data processors
Options	19-in rack mount TPU

Tow Cable
Klein offers a selection of coaxial, Kevlar® reinforced, lightweight cables, and interfaces to fiber optic cables. All cables come fully terminated at the towfish end.

Klein Sonar Workstation	
Operating System	Windows
Sonar Software	SonarPro®
Data Format	SDF or XTF or both, selectable
Data Storage	Internal Hard Drive, CD/DVD-RW
Hardware	Industrial PC
Options	Optional Waterproof Laptops

SonarPro® Software	
Custom-developed software by users and for users of Klein Side Scan Sonar Systems operating on Windows 7. Field-proven for many years. SonarPro® is a modular package combining ease of use with advanced sonar features.	
Basic Modules	Main program, data display, information, target management, navigation, data recording & playing, and sensor display.
Multiple Display Windows	Permits multiple windows to view different features as well as targets in real-time or in playback modes. Multi-windows for sonar channels, navigation, sensors, status monitors, targets, etc.
Survey Design	Quick and easy survey set up with ability to change parameters, set tolerances, monitor actual coverage and store settings.
Target Management	Independant windows permitting mensuration, logging, comparisons, filing, classification, positioning, time & survey target layers, and feature enhancements. Locates target in navigation window.
Sensor Window	Displays all sensors in several formats (includes some alarms) and responder set up to suit many frequencies and ping rates.
Networking	Permits multiple, real time processing workstations via a LAN including “master and slave” configurations.
“Wizards”	To help operator set up various manual and default parameters.
Data Comparisons Real Time	Target and route comparisons to historical data.

This technical data and software is considered as Technology Software Publically Available (TSPA) as defined in Export Administration Regulations (EAR) Part 734.7-11. Specifications subject to change without notice. SonarPro® is a registered trademark of Klein Marine Systems, Inc. Cleared for public release. Data, including specifications, contained within this document are summary in nature and subject to change at any time without notice at Klein Marine Systems’ discretion. Call for latest revision. All brand names and product names referenced are trademarks, registered trademarks, or trade names of their respective holders. Rev 07/18

KLEIN *MARINE SYSTEMS, INC.*
11 Klein Drive • Salem, New Hampshire 03079
Tel: 603.893.6131 • Fax: 603.893.8807 • Email: sales@kleinmarinesystems.com
www.kleinmarinesystems.com