



KLEIN
MARINE SYSTEMS



KLEIN SYSTEM 4000

Simultaneous - Dual Frequency - Multi-Purpose - Shallow Or Deep Water

Klein's next generation Single Beam Side Scan Sonar is purpose built to meet the demanding requirements for long range's, deep-water operations and optimized shallow water performance. Condensing our 50 years of design knowledge into a system that combines Klein's iconic imaging with unprecedented towing options and range performance for unsurpassed search and survey efficiency.

Klein BLUE TECHNOLOGY™ represents innovations in transducer, signal conditioning and processing design producing unmatched image quality and range performance. These enhancements also allow for motion tolerant performance in heavy sea states where vessel motion impacts tow fish stability. Klein BLUE design optimization achieves a new level of acoustic performance for our workhorse Klein 4000 System.

Key Features

- Dual Simultaneous Frequency
- Variable Transmit Power
- CHIRP
- Smart Telemetry
- Depth Performance
- Hydrodynamic Design
- Easy Operation
- Ergonomic Design

What the SYSTEM 4000 can do for you.

Salvage/Wreck hunters: Whether you work in deep sea salvage or are looking for a historical wreck the System 4000 is without equal at long ranges minimizing your search effort.

Rental Companies: Unknown customer capabilities of cables and winches are a thing of the past with Klein's Smart Telemetry technologies' ability to adapt to any limitations and to still provide a system that works. Both keel weight and depressor wing options are available.

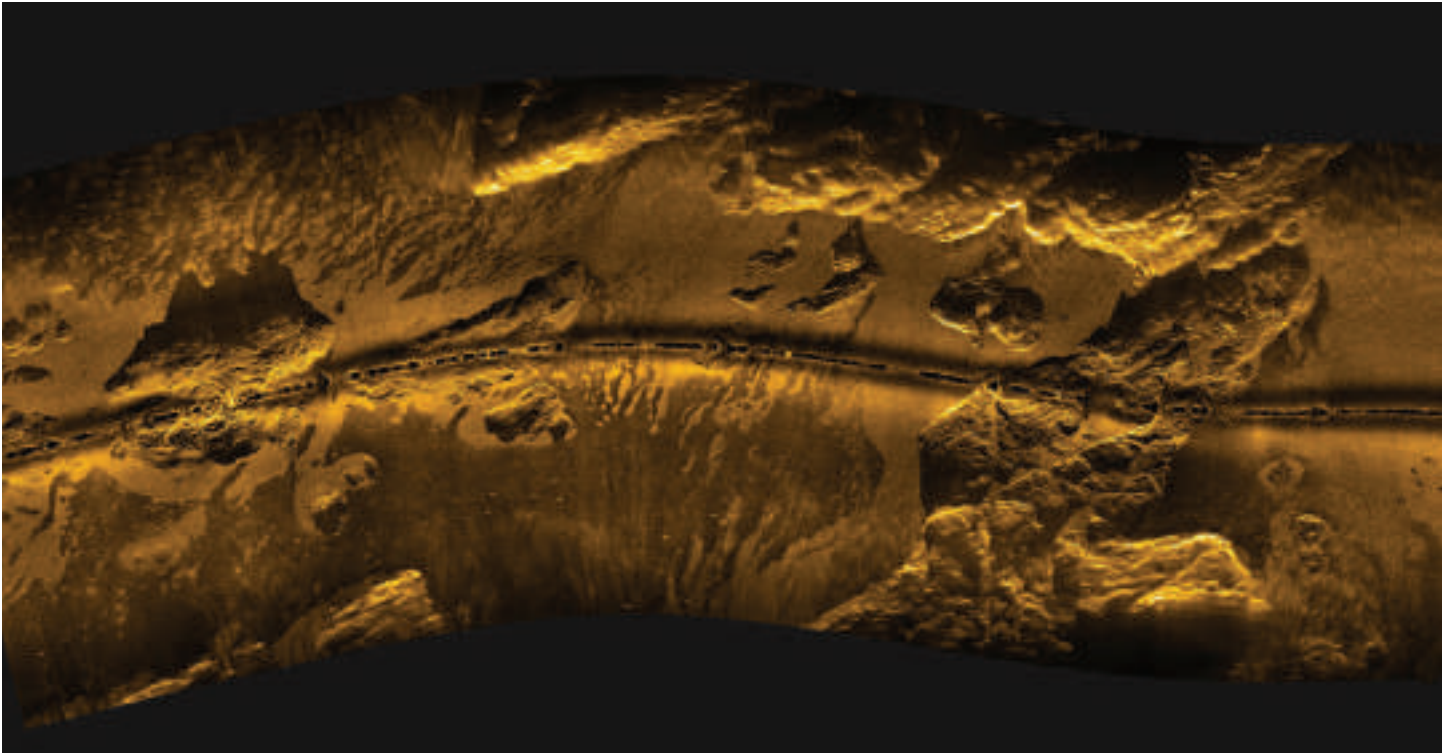
Surveyors: For pipeline and communication cable site survey or in support of a hydrographic survey the versatility of the 4000 system shines through.



Side Scan Sonar Specifications	
Technology	Single Beam
Frequency	100 kHz/400 kHz (Dual Simultaneous)
Pulse Type	FM CHIRP
Horizontal Beam Width	1° @ 100 kHz 0.3° @ 400 kHz
Vertical Beam Width	50°
Across Track Resolution	9.6 cm @ 100 kHz 2.4 cm @ 400 kHz
Maximum Operating Range (Per Side)	600 m @ 100 kHz 200 m @ 400 kHz
Vertical Beam Center	Tilted down 25° from horizontal
Output Data Format	Klein SDF (Sonar Data Format) XTF (Extended Triton Format) Both or Selectable

Towfish Construction	
Towfish	Electro-Polished 316 Stainless Steel
Body Length	1.42 m (56 in)
Outer Diameter	8.9 cm (3.5 in)
Weight (in air/in water)	32 kg (70 lbs) / 16.8 kg (37 lbs)
Maximum Depth Rating	2000 m
Standard Towfish Sensors & Accessories	Heading, Roll and Pitch Sensor Depth (Pressure) Sensor, 0-2000 m Water Temperature Sensor: 0-35° C Safety Cable
Towfish Options	<ul style="list-style-type: none"> • Multiple Keel Weights • K-Wing I • K-Wing II • Responder Interface • Magnetometer Interface • Power Fail Emergency Pinger Interface

	4000-SP	4000-RM
Transceiver Processing Unit (TPU)	Splash Proof (IP-65) 50.8 cm (20 in) x 40.6 cm (16 in) x 19.05 cm (7.5 in)	19 in rack mount, 2U
Input Voltage	12 Vdc or 110/220 Vac (50-60Hz)	110/220 Vac (50/60 Hz)
Workstation PC	Laptop Computer with SonarPro® installed (Ruggedized options available)	19 in rack mount PC, 21.5 in LCD monitor, keyboard and mouse with SonarPro® installed



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Klein Marine is deeply committed to customer support. We are currently servicing valued customers in 80 countries, and relying on a network of competent International Representatives to meet and exceed the service needs of our customers around the world. We provide 24 hour / 7 day a week support.