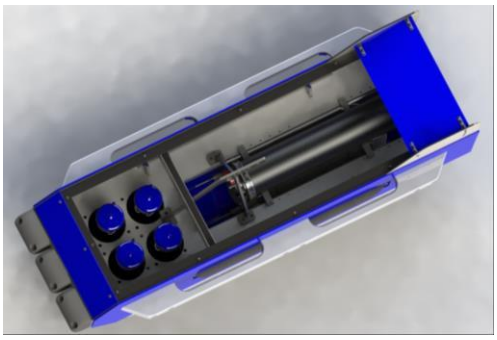
HMS-665 Multi-Sonar Tow System

Sub-bottom Profiling System with Combined CHIRP/CW Side Scan Sonar

Fully Integrated, Cost-effective, Compact Solution

The HMS-625 Multi-Sonar Tow System is designed for applications that require high resolution side scan and sub-bottom imagery in depths of up to 6,000m. This combined side scan and sub-bottom survey tool offers a fully digital platform capable of collecting high resolution CHIRP or CW side scan with sub-bottom data, as well as a range of customer selected sensor data. The long range, high resolution side scan and sub-bottom CHIRP data along with the ancillary sensor capability provide the surveyor with a cost effective solution over multiple system and sensor surveys resulting in savings in both instrument cost and survey time.



Single Workstation

- *CHIRP/CW side scan sonar, operating at 100/400 KHz simultaneously, allows 1,200 meter or greater swath, with resolution equivalent to much higher frequency systems at longer ranges.*
- *CHIRP/CW based sub-bottom profiler, operating in the 1 to 10 KHz region, allows for extended sediment penetration with greatly improved resolution over conventional CW systems.*
- *Range, Gain, TVG, Pulse Width, and other programmable parameters are under user friendly software GUI control.*
- *Integrated CHIRPceiver True 24-bit data acquisition.*

Rugged Tow System

- *A fully integrated digital platform with high performance CHIRP side scan and sub-bottom transducer arrays, digital multiplexor, subsea electronics, and RS-232 and power ports for optional sensors.*
- *Ruggedized, stable tow vehicle includes pitch, roll and heading sensors, optional position responder / transponder, plus other customer selected sensors.*
- *Broadband CHIRP match filter processing, combined with a narrow side scan sonar horizontal radiation pattern provides optimal cross-track and along track resolution.*
- *Horizontal beam width of 1° at 100 KHz and .3° at 400 KHz*
- *Tow System will operate in depths up to 3,000 meters and features low-maintenance construction*

SYSTEM SPECIFICATIONS

TOWFISH

Sonar Frequency	100 / 400 KHz
Maximum Operating Depth	3,000 meters
Range	25 to Over 600 meters on each channel
Range Settings	25 to 750m in 12 steps
Side Scan CHIRP frequency Range	Simultaneous 100 KHz and 400 KHz CHIRP or CW
Side Scan Transducers	Multi-element array, dual channel 100 / 400 KHz, Horizontal beam width of 1° at 100 KHz and .3° at 400 KHz; Vertical beam 60°
Sub-Bottom Transducer	2X2 Transmit projector array; dipole dual hydrophone array; 30° conical radiation pattern
Frequency Resolution Processing	Selectable CHIRP bands from 1 KHz to 10 KHz (2 KW output), synchronous with side scan Calibrated transmit waveform stored in memory; CHIRP or CW signal processing True 24-bit data acquisition
Standard Sensors	Fully calibrated Precision Pressure Sensor Module, Heading, Pitch, and Roll
Optional Input	Magnetometer input optionally available
Construction	Stainless steel, polyethylene
Length	203 cm (80 inches)
Width x Height	83 cm (32.5 in) x 69 cm (27 in)
Weight in air	Approximately 290 Kg (640 lbs.)

TOPSIDE DATA ACQUISITION COMPUTER

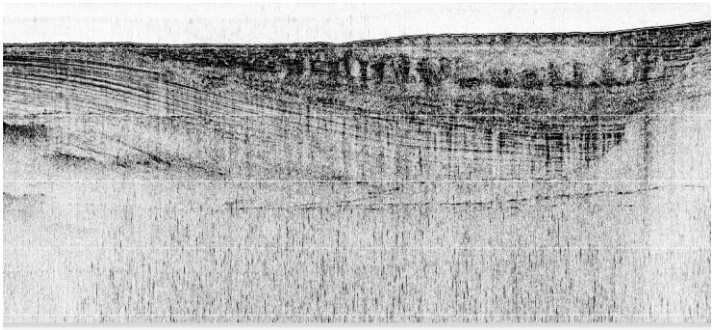
Operating System	MS Windows OS
Storage	Large internal hard drive, writeable CD/DVD
Network Interface	100/1000 base T Ethernet (compatible with ADSL communication interface)
I/O Ports	Four (4) RS-232 serial I/O ports
Display	20" Flat Panel LCD Display with video output for second display

TOPSIDE TRANSCEIVER

Power Supply	Auto-sensing 100-240 VAC; output 380 VDC maximum
Network Interface	Ethernet
Dimensions	2U Rack Mount 48.3 cm (19 inches)

CABLES

Deck Cable (Kevlar)	75 meter coax
Armored Tow Cable	Coax up to 6,000m maximum



SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

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Falmouth Scientific, Inc.
33 Jonathan Bourne Drive, Pocasset MA 02559-0326 USA
sales@falmouth.com • Tel: +1-508-564-7640 • Fax: +1-508-564-7643 • **www.falmouth.com**