



**CODEVINTEC**

Tecnologie per le Scienze della Terra e del Mare

45° 27' 39.384" N  
9° 07' 30.145" E

## 3400 Sub-Bottom Profiling System



**The system generates high resolution images of the sub-bottom stratigraphy in oceans, lakes, and rivers and provides excellent penetration in various bottom types.**

### **Applications**

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- > Geological surveys
- > Environmental site investigations
- > Sediment classification
- > Buried pipeline & cable surveys
- > Archeological surveys
- > Mining/dredging surveys
- > Map, measure & classify sediment layers within the sea floor



## 3400 Sub-bottom profiling system

Building on the long running success of the EdgeTech sub-bottom profiler product line, the EdgeTech 3400 provides users many enhancements to current sub-bottom profiler systems.

The 3400 is a wideband Frequency Modulated (FM) sub-bottom profiler utilizing EdgeTech's proprietary Full Spectrum CHIRP technology.

The EdgeTech 3400 comes in a dual 2-16 kHz transducer configuration. The towfish is configured with new PVDF receiver arrays segmented for standard sub-bottom profiling operations or a unique "pipeliner" mode for optimal location and imaging of buried pipelines.

**The system offers Real-Time Reflection Coefficient Measurements. This unique ability of the EdgeTech Sub-Bottom Profiler system allows users the ability to collect complex 'analytic' data using linear system architecture to measure sediment reflection and analyze sediment type determination.**

Additionally, the system has discrete transmit and receive channels allowing for continuous data collection resulting in a high ping rate particularly important for construction and pipeline surveys.

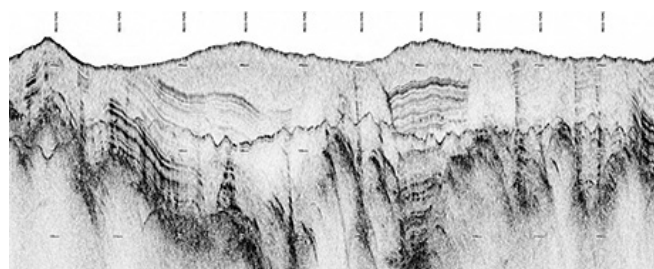
The topside configuration can support higher power configurations using an external amplifier. The newly designed towfish can either be towed behind a vessel or pole mounted over the side of the vessel.

The EdgeTech 3400 Sub-bottom Profiling System comes as a complete package and includes a towfish, cable and a topside processor (configurable as a portable or rackmount topside) running EdgeTech's DISCOVER sub-bottom acquisition & processing software.

The 3400 can also be interfaced to 3rd party software.

### Features

- > Enhanced Sub-bottom PVDF receivers
- > Sub-bottom mode or pipeliner mode
- > Dual 2-16 kHz transducers
- > Pole-mount or tow options
- > Digital receiver on towfish with Ethernet telemetry and power
- > Reduced diameter tow cable
- > Real-time pitch, roll, heave and depth sensors
- > Surface echo attenuation
- > Pulse library tailored for different survey applications
- > Data display in multi-frequency bands water use





## 3400 Sub-Bottom Profiling System – Key Specifications

### Towfish

Frequency Range	2 - 16 kHz
Vertical Resolution	6 -10 cm (3 - 4 inches)
Penetration (typical)	
In coarse calcareous sand	6 m (20 feet)
In clay	80 m (262 feet)
Transmission Type	Full Spectrum® FM Signal (CHIRP)
Length/Width/ Height	114 x 55 x 30 cm (45 x 21 x12 inches)
Weight in Air	90 kg (198 lbs)
Weight in Water	53 kg (116 lbs)
Depth Rating	100 m
Tow Cable Length	50 m (maximum length)

### Topside Interface

Hardware	Rugged, portable splash proof enclosure (or Rackmounted)
Operating System	Windows® 10
Display (Optional)	Splash resistant semi-rugged laptop
File Format	Native JSF, SEG-Y & XTF
Input/Output	Ethernet
Power Input	120/220 VAC Auto sensing

### Pole Mount Configuration

Length/Width/Height	114 x 55 x 39 (45 x 21 x15.35 inches)
Weight in Air	84 kg (185 lbs) – pole mounted configuration
Weight in Water	47 kg (103 lbs) – pole mounted configuration
Deck Cable Length	20 m (50 max)

### Tow cable

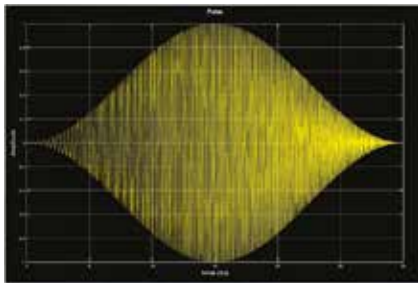
Cable Diameter	14.9 mm (0.587 in)
Min. Bending Radius	15 cm (6 inches)



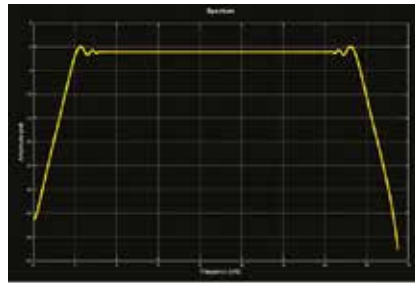




## 3400 Sub-Bottom Profiler – Top 10 Features



1. CHIRP Transmission



2. Wide Band Signal

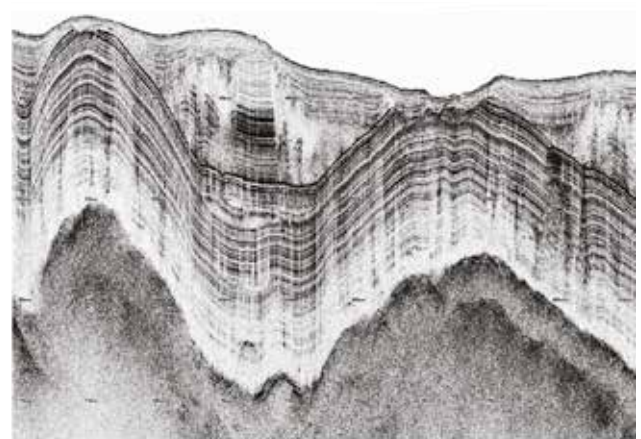


3. Impulse Response  
Calibrated Pulses



4. Large Multi-Channel Hydrophone can be configured in "Pipe Line Finder Mode"

5. Dual Transmitters



6. Surface Echo Rejection

7. Simultaneous Transmit and Receive



8. Pole Mount and Towed Deployments



9. Rugged-Durable Construction  
Compact-Portable System



10. Ingrated, Depth, Pitch, Roll,  
Heading and Heave Sensors