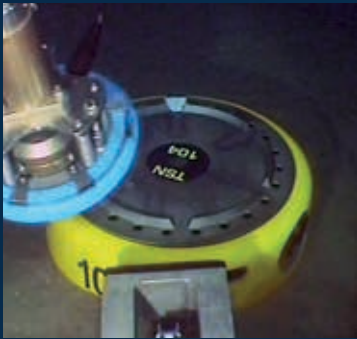


# Trilobit™

## Ocean Bottom Node Acquisition System



### FEATURES AND BENEFITS

- ▶ Deck handling system ensures safety and reliability
- ▶ Modular design which can be configured for any suitable ROV support vessel and facilitates transportation anywhere in the world as standard cargo
- ▶ Compact and integrated design with rigid bottom base plate that provides improved coupling to the seafloor, enhancing stability and reducing noise
- ▶ Optical modem communication between the node and the ROV ensures that the unit is reliably recording data after deployment and enables synchronization of the clock on the seabed

### Fully Autonomous Multicomponent Seabed Seismic System

Ocean Bottom Seismic (OBS) node technology images blind spots of conventional acquisition methods. The nodes are cable-free, firmly coupled to the seafloor, and suitable for both extremely congested and open water areas.

### The Trilobit

Long-endurance, compact 4-component OBS node with integral recording system and power supply for up to 104 days continuous data recording. The Trilobit provides maximum vector fidelity with a rigid bottom face plate giving excellent coupling to the seafloor. Its low profile enhances noise reduction and stability.

### TRILOBIT GENERAL SPECIFICATIONS

#### Physical

Weight in air: 54 kg  
Weight in water: 28 kg  
Diameter: 590 mm  
Height: 195 mm

#### Operational/Environment

Max operating depth: 3000 m

Battery capacity: From 54 to 104 days at 5°C depending on Battery Technology (Alkaline or Lithium)

#### Sensor

Hydrophone: HTI -96 Min, 3.6 Hz @ (-3dB)  
Geophone configuration: Galperin  
Geophone type: Sensor SM-6, SM-6/O B14, 14 Hz (-3dB)  
Omnidirectional 0.7 Shunted damping  
Tilt sensor: 3 Axis MEMS calibrated horizontal axes,  
Range +/-90 deg @ 1 deg, +/- 0.5 deg

#### Data Recording System

Recording start: Pre-programmable  
Seismic channels recorded: 4  
Sample rates: 1 ms, 2 ms, 4 ms

**Recording Capabilities:** Compact flash storage media 64 GB, 120 Days @ 32 bit recording resolution, 2ms sampling, with zero loss data compression

**Please Note:** In many cases, the recording time is limited by battery life, not memory capacity: 54 days for Alkaline & 104 days for Lithium

**Time Synchronisation:** GPS derived time pulse, via ROV fiber link, Latency 20 microsecond, Jitter +/-5 microsecond

**Clock Stability:** Clock skew: +/-1.7 ms/day  
Clock aging: 0.43 ms/day,  
Max drift after correction 2.6 ms/month