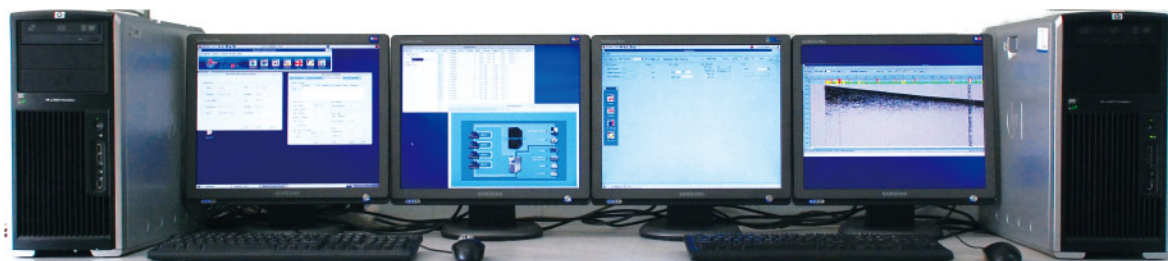




## HQI-Seis Towing seismic acquisition system

HQI-Seis towing seismic acquisition system is designed by COSL which the first towing acquisition system in China. The COSL having completely independent intellectual property rights.

Currently, HQI-Seis has been employed in several survey and geophysical vessels of COSL. In 2009, HQI-Seis has used in engineering survey vessel of cosl, and has completed dozens of field surveys; In the years 2012-2014, HQI-Seis has used in geophysical vessels of cosl, and has completed a plurality of 2D and 3D collection.



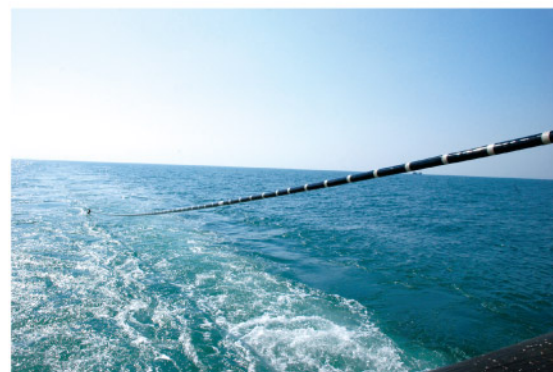
### >>Performance

- Support 2000 seismic channels in one streamer@Sample rate 0.5ms
- Support 16 streamers
- Support IBM3592/ Disk array/Hard disk/ removable storage
- Record format SEG-D8058
- Channel spacing 3.125m、6.25m、12.5m
- Seismic data transfer rate 163Mbps
- Working depth  $\geq 100$  meters

ALWAYS DO BETTER

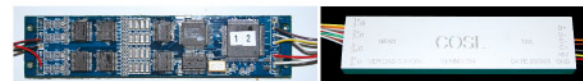
## HQI-Seis seismic streamer section

The seismic streamer section is an important part of HQI-Seis Towing seismic acquisition system to acquainting, processing and transmitting seismic signals.



### >>Performance

- The section is symmetrical, no direction
- The Hydrophone may be grouped or not
- The section can be filled with kerosene or solid gel
- Sections are compatible with ION's and COSL's towed streamer positioning and controlling system
- Kevlar provides high-tensile strength and predictable elongation for long tow configurations
- Titanium-metal components for lighter weight, excellent durability, and resistance to corrosion



### >>Specifications

Channel spacing	3.125m、6.25m、12.5m	Pre-amp gain	0-36dB@6dB Step
Hydrophone	COSL-Type I、COSL-Type III	Channel-to-channel gain accuracy	$\pm 1\%$
Operating depth	$\geq 100\text{m}$	FSK coils	2
Sensitivity	20V/bar	Section length	99.75m
Sampling accuracy	24bit	Active section-diameter	56mm
Sampling rate	0.25、0.5、1、2、4ms	Bend radius	0.6m
Dynamic range	$\geq 115\text{dB}@1\text{ms}$	In seawater	1 Kg buoyant@0°C in 25ppm salinity
Input noise with shorted input	$< 2\mu\text{V RMS}$	Maximum safe working load	45KN
THD	$\leq 110\text{dB}$	Breaking load	90KN
Internal crosstalk	$\geq 100\text{dB}$	Operating temperature	-10°C~50°C
Common-mode rejection	$\geq 100\text{dB}$	Storage temperature	-20°C~70°C

ALWAYS DO BETTER

## HQI-Seis Record System

HQI-Seis recoding system is based on Ethernet Network. The hardware part includes master workstation, DQ workstation, data process module, streamer power supply, raid, tape drive, plotter, printer etc. This system has been realized underwater streamer power supply and control, seismic data receiving, processing display, storage, and drawing.



### >>Specification

- Support 16 streamer data acquisition and record
- Max 4000 channels@1ms
- Seismic data transfer rate 11.52Mbytes/s per streamer
- Support 0.25, 0.5 1, 2, 4ms sampling rate
- Writing speed  $\geq 120\text{Mbytes/s}$  on RAID
- Writing speed  $\geq 10\text{Mbytes/s}$  on tape
- Real-time seismic display refresh rate  $> 24\text{frames/s}$
- Streamer supply voltage 380VDC



### >>Performance

- Provide power management, parameter setting, On/Offline setting, work mode switch, trigger mode switch, recording, drawing, diagnostic, IQC etc
- Provide power remote control, overvoltage, overcurrent, earth leakage protection
- Provide system monitoring, including real-time seismic data monitoring, recording status monitoring, connecting status monitoring, power status monitoring
- Provide logging function, support for collecting logs, operation logs, error logs recording and browsing
- Provide diagnosis for underwater circuit
- Support tape, RAID, local hard disk, removable hard disk storage
- Support monitoring quality of seismic data on real time
- Support drawing seismic sections
- Support playing back seismic data

ALWAYS DO BETTER