



Description

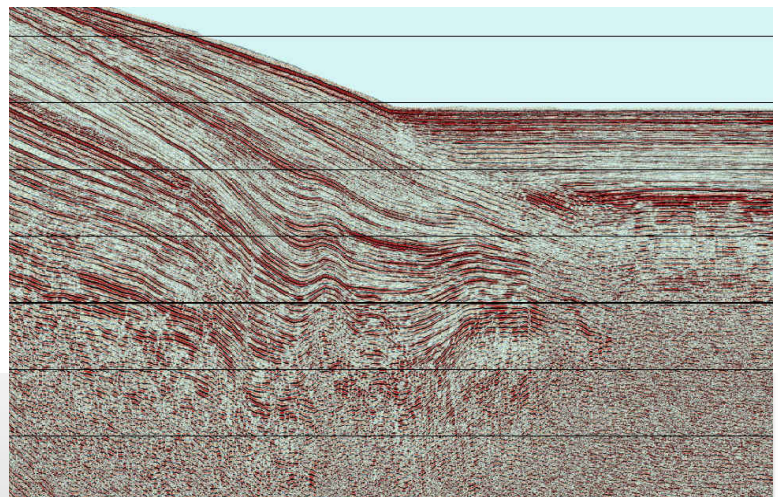
Introducing the ultimate in marine seismic fidelity: the **GeoEel Solid™** from Geometrics. Built on our experience and success with the popular GeoEel™ digital streamer, the GeoEel Solid combines superior electronics with a patented solid active section design that delivers higher-quality data than ever before.

The GeoEel Solid digital hydrophone streamer is the smallest diameter solid design available. At only 44.5 mm, the GeoEel Solid is easy to deploy, easy to transport and easily shipped by air. The 100% solid construction, coupled with our proprietary polymer hydrophone design, eliminates bulge waves and other cable-borne noise, yielding very low towing noise at lower frequencies than any liquid streamer.

The GeoEel Solid communicates via 100 mbs Ethernet with the Geometrics CNT-2 controller, running field-proven acquisition software that is used on over 70 installations worldwide. And the GeoEel Solid is designed by Geometrics, known for over 40 years as an industry leader in rugged, reliable and well-supported instrumentation.

Features & Benefits

- **Light and easy to handle:** only 44.5 mm diameter, up to 240 channels in 8-channel sections. **Hand-deployable up to 400m.**
- **100% solid construction:** bulge waves are a thing of the past
- **Digital sections:** better quality data, less time deploying and troubleshooting
- **Full-featured yet simple:** no 30-day training program required
- **Wide bandwidth for more applications:** samples at 1/8 to 2 ms for petroleum, engineering or sub-bottom profiling
- **Environmentally friendly and non-flammable:** solid polyurethane, easily ships by air, **no oil to spill**
- **Free software upgrades forever:** no yearly licensing fees
- **No costly topside hardware required:** uses any PC and standard Ethernet



Data courtesy Fugro Consultants, Inc.

GeoEel Solid™

Digital Solid Streamer

A/D Converter Modules

Channels:	8 per A/D module
Sample intervals:	1/8, 1/4, 1/2, 1, 2 ms
Bandwidth:	5 Hz to 3 KHz
Programmable gain:	0 dB, 8 dB, 18 dB, 30 dB, 42 dB
Anti-alias filter:	Set by sample interval, down 135 dB at stop-band
Maximum input range:	1.59V _{rms}
Resolution:	24 bits including sign
Input impedance:	126.8K Ohms, paralleled by 2.4 nF
Dynamic range:	120dB Typical @ 1ms
Common mode rejection:	>110 dB
Record length:	Up to 32,768 samples
Dead time:	Up to 256 samples
Continuous recording mode:	Available, with GPS synchronization
Noise floor:	0.3 µV at 2 ms
QC tests:	Leakage and capacitance of hydrophone elements, noise, offset, harmonic distortion and gain similarity
Power consumption:	600 mW/channel
Calibration oscillator:	100 Hz, 0.3 µV to 600 mV _{rms}
Dimensions:	44 mm diameter x 330 mm long
Weight:	900 g
Packaging material:	Titanium
Connectors:	41-pin custom Glenair

Hydrophone Sections

Number of channels:	8 per section
Hydrophones per group:	8 (typical; up to 12 upon request)
Group sensitivity:	-194 ± 1.5 dB re 1 V/mPa
Low cut filter:	7 ± 0.5 Hz (100m) 11 ± 1 Hz (25 and 50m)
Hydrophone type:	Proprietary polymer
Diameter:	44.5 mm
Weight:	~156 kg / 100m
Strain member:	Zylon
Working load:	635 kg
Minimum bend radius:	75 cm
Bird coil:	Up to 2 per section

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Innovation • Experience • Results

TECHNICAL SPECIFICATIONS

Tow Cable

Electrical conductors:	10 twisted-pair shielded
Weight:	0.5 kg/m
Strain member:	Kevlar
Working load:	565 Kg
Diameter:	18.5 mm

Stretch and Vibration Isolation Sections

Length:	10, 25 or 50 meters
Diameter:	41 mm (stretch) or 44.5 mm (isolation)
Ballast fluid:	Gel (stretch only)
Stretch ratio:	Approximately 15% for stretch section
Bird coil:	Up to 2 per section (vib section only)
Working load:	565 kg
Strain member:	Vectran

Streamer Power Supply Unit

Power Requirements:	115/230 VAC, 3/1.5 Amp max, 50/60 Hz
Voltage to Streamer:	36-60 VDC
I/O Communications:	I/O Communications: 100Base TX Fast Ethernet, IEEE 802.3 compliant
Trigger Requirements:	Isolated input, positive or negative TTL
Testing:	Cable leakage and resistance
Optional Auxiliary Inputs:	8 analog channels with 24-bit resolution
Ethernet Connection:	RJ-45
Trigger Connection:	BNC



Photo courtesy JAMSTEC, Yokosuka, Japan

Controller

PC-based, running Geometrics CNT-2 software. Multiple shot and gather windows, bar graph noise displays, windows for shot timing, gun energy, brute stack, tape status, spectral analysis. Auto-switching between storage devices, dual tape writing. Supports multiple printers. Full log kept of all parameter changes. Integrates navigation, gun, and bird data into SEG-D or SEG-Y header.

Updated 12/1/11
Specifications subject to change without notice