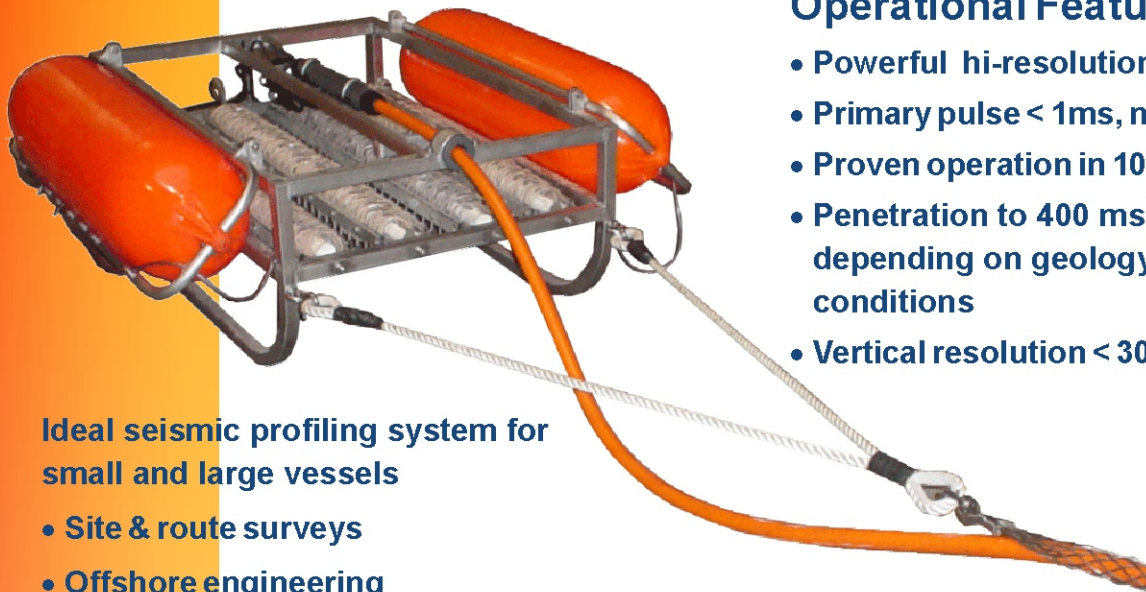




Geo-Source 200 - 400

Marine Multi-Tip Sparker System



Ideal seismic profiling system for small and large vessels

- Site & route surveys
- Offshore engineering
- Mineral exploration
- Oceanographic research



Operational Features

- Powerful hi-resolution seismic source
- Primary pulse < 1ms, no ringing
- Proven operation in 1000 m water depth
- Penetration to 400 ms below seabed, depending on geology and survey conditions
- Vertical resolution < 30 cm

INNOVATIVE Preserving Electrode Mode

The innovative Geo-Source 200 has been designed for operation with the Geo-Spark 1000 pulsed power supply (PPS) using the patented **Preserving Electrode Mode**. This mode uses a **NEGATIVE** electric discharge pulse instead of a positive pulse.

(Please note that this negative pulse is NOT the same as the simple reversal of the positive polarity of a 'standard' power supply.)

Maintenance free electrodes **5 year** guarantee

The Preserving Electrode Mode **reduces the tip wear to practically zero**. You can shoot day after day, week after week, month after month with practically **NO tip maintenance**.

Always a stable acoustic pulse

Zero tip wear is essential for the **acoustic repeatability** of the pulse, which depends largely on a constant, unaltered electrode surface and tip insulation.

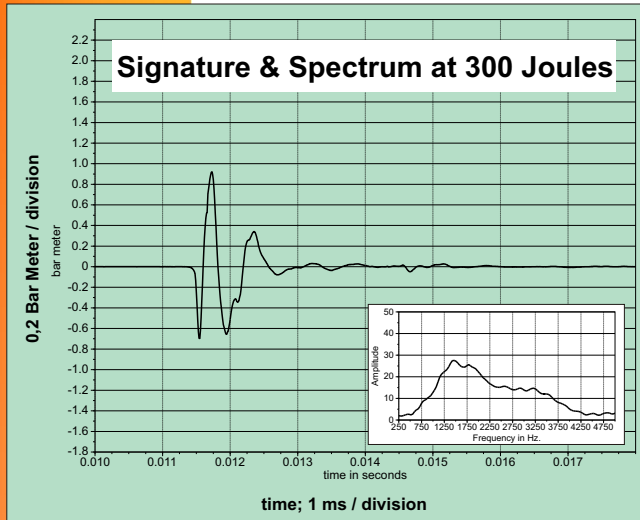
Efficient & Cost Effective

With the Geo-Spark HV power supplies you will save a lot of time and money, since the electrodes do NOT burn off like in all other systems.

You don't need to trim tips during the survey. There is no need to have any stock of consumables.

Examples of Records

To see examples of our sparker records, please visit the 'Downloads' page on our website: www.geo-spark.com



Source Geometry

The electrode modules are evenly spaced in a planar array of 0.75 m x 1.00 m. This geometry not only enhances the downward projection of the acoustic energy, it also reduces the primary pulse length, since all tips are perfectly in phase.

Control of Source Parameters 400 tips

The advanced Geo-Source 200 design gives you total control of:

Source depth, Joules per tip, Number of tips in use, and Electrode configuration.

- Two floats provide a stable towing configuration and insure the proper depth of the electrode tips. This is critical to achieve constructive interference between the primary pulse and its own sea-surface reflection (surface ghost).
- Four individually powered electrode modules of 50 or 100 tips each allow you to distribute the energy from the Geo-Spark power supply over 50, 100....., up to 400 tips. (Each tip has an exposed surface area of 1.4 mm².)
- **200 tips**, the classic 200 tip configuration is normally used with the Geo-Spark 1000 PPS and consists of four 50-tip electrode modules. This configuration gives an excellent hi-res pulse over the 100 to 500 J power range.
- **400 tips**, for higher energies above 1000 J, and in particular with the Geo-Spark 2000, we recommend a 400 tip configuration with 4 x 100-tip electrode modules

Coaxial High Voltage (HV) Power/Tow Cable

The Geo-Source 200 is towed by a very high quality, Kevlar-reinforced, coaxial power/tow cable with stainless steel kellum grip. This dedicated high voltage (HV) cable contains **4 x 10 mm²** inner cores (negative) plus a **40 mm²** braiding (ground-referenced). It is designed to have a very low self-inductance to preserve the high dI/dt pulse output of the Geo-Spark 1000 PPS.

The coaxial structure of the HV cable reduces the electromagnetic interference to the absolute minimum.



The wet end of the cable is terminated with four special HV connectors to the electrode modules and a ground connector to the frame. Connecting or disconnecting the cable to the Geo-Source 200 takes only 10 minutes; so you can work on, or handle, the sparker and the HV cable as independent units.

The dry end of the cable is terminated at the Geo-Source 200 patch panel, which allows you to select the number of electrode arrays in use