



Applications

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



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.

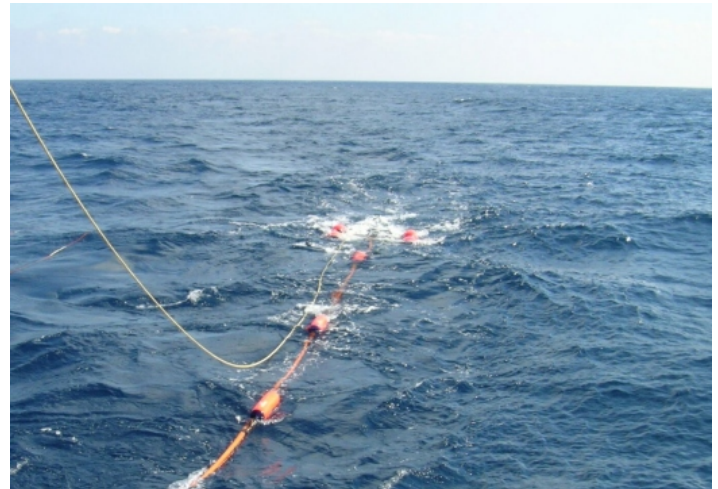
You don't need to trim tips during the survey. There is no need to have any stock of consumables.

Fresh Water Sparkers

If you need to conduct projects in rivers or lakes for example, you may be interested in our fresh water sparker systems

Operational Features

- designed for the portable 7.5 kJ or the 16 kJ Ocean Depth Power supplies
- Very hi-res marine seismic source
- Vertical resolution up to 30 cm
- Water depths from 2 to 2500 m
- Penetration to 400 ms below seabed
- Overall performance depending on acoustic characteristics of vessel, geology and acquisition conditions



INNOVATIVE Preserving Electrode Mode

The Geo-Source 800 has been designed for operation with the Geo-Spark 6 kJ 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**

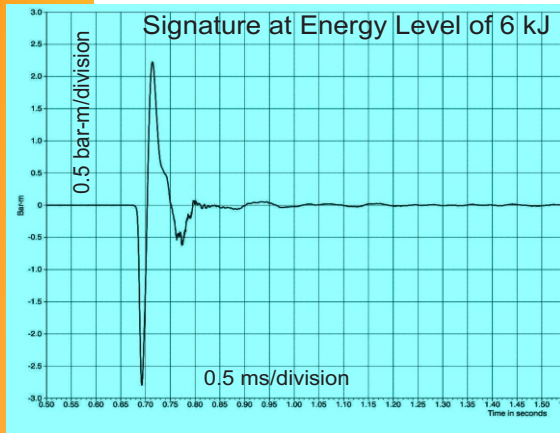
The Preserving Electrode Mode **reduces the tip wear to practically zero**. You can shoot day after day, week after week, month after month with practically **NO tip maintenance**.

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.

Examples of Records

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



HV Power / Tow Cable

The Geo-Source 800 is towed by a very high quality, Kevlar-reinforced, **coaxial** power / tow cable, with a stainless steel Kellum towing grip. This very sturdy, special HV cable contains **4 x 10 mm²** inner leads (negative) plus a **40 mm²** outer braiding (ground). It is designed to have a very low self-inductance in order to preserve the high dI/dt pulse output of the Geo-Spark power supply.

The wet side of the cable is terminated with four special HV connectors to the electrode modules and a ground connector to the frame of the sparker.

Coaxial Cable = 100 % Safety + Zero Electric Interference

The coaxial structure of the HV power cable provides 100 % safety and reduces all electromagnetic interference to the absolute minimum.

HV Cable Power Winch plus

Rotating High Voltage Contacts

The power winch with remote control and variable speed allows easy and safe deployment of the sparker source.

The two axial HV connectors enable you to operate the winch **without disconnecting the deck lead**.

Using the patch panel you can connect or disconnect the electrode modules **without recovering the source to deck**.

Control of all Sparker Parameters

The advanced Geo-Source design gives total control of:

- Energy (Joule) per tip
- Number of tips actively in use
- Source depth and geometry

- The effective source depth can be fine tuned by the adjustable floats. This feature is essential in order to optimise the constructive interference between the primary pulse and surface ghost. Typical source depth is 20 cm below surface (floats pointing at four o'clock)

- The electrode modules are evenly spaced in a planar array of 1.00 m x 2.00 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 electrode.

- Each tip has an exposed tip surface of 1.4 mm², suitable for maximum 10 (ten) Joules per tip.

- Four individually powered electrode modules of 200 tips each allow to distribute the energy over 200, 400, 600 or 800 tips.

- The most common configuration of the Geo-Spark 7.5 kJ PPS consists of four electrode modules (800 tips). This configuration gives an excellent pulse over the 2500 - 7500 Joules power range.
- At energy levels below 2500 Joules however, a configuration consisting of only two electrode modules is recommended.

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