



Geo-Source 200 Light Weight Marine Multi-Tip Sparker System



Applications

- Small vessel surveys
- Site & route surveys
- Offshore engineering
- Mineral exploration
- Sand searches
- Oceanographic research



Examples of Records

To see examples of our sparker records, please visit the 'Downloads' page on our website:

www.geo-spark.com

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.

Operational Features

- Specially designed for small vessel surveys,
- Can be handled by one person
- Water depths from 2 to 500 m
- Penetration to 200 - 300 ms below seabed depending on geology
- Vertical resolution up to 20- 30 cm
- Overall performance depending on acoustic characteristics of vessel, geology and acquisition conditions

INNOVATIVE Preserving Electrode Mode

The Geo-Source 200 light weight is designed for operation with the Geo-Spark 1000 Pulsed Power Supply using the "Preserving Electrode Mode". This patented concept consists of using a NEGATIVE electric discharge pulse, instead of a positive electric discharge pulse.

Note that working with a negative pulse is NOT the same thing as reversing the polarity of an antique power supply, which is generating a positive pulse.

Maintenance free Electrodes

5 year guarantee

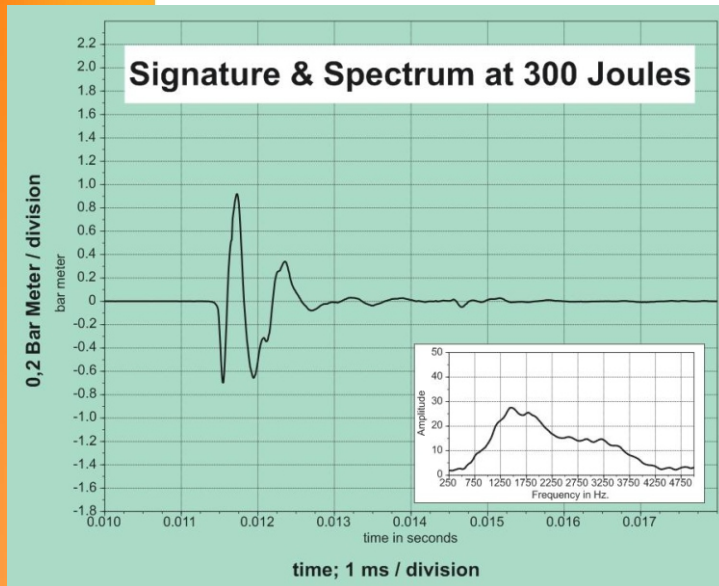
The Preserving Electrode Mode reduces the tip wear to practically **zero**. You can shoot day after day, week after week, month after month with practically **NO tip maintenance**.

Optimum Acoustic Repeatability

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



Electrode tip after three years of operation



Control of All Sparker Parameters

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

- Source depth and geometry
- Joules per tip
- Number of tips actively in use

- The effective source depth is set to 15 - 20 cm below the surface. A constant source depth at 1/4 of the wavelength is essential in order to optimize the constructive interference between the primary pulse and surface ghost.
- The electrode modules are evenly spaced in a planar array of 0.50 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.
- Two electrode modules of 100 tips each allow the distribution of energy from the Geo-Spark 1000 PPS over 100 or 200 tips.
- Each tip has an exposed surface of 1.4 mm², suitable for maximum 10 Joules per tip.
- The standard electrode configuration with the Geo-Spark 1000 consists of 2 electrode modules of 100 tips each. This configuration gives an excellent pulse over the 100 - 1000 Joule power range.
- For the highest resolution it is recommended to set the energy output < 400 Joule. This power is usually sufficient in water depths to 300 m

Flexible & floating HV tow cable

A flexible, floating power/tow cable with a standard length of 25 m plus 6 m jumpers to the PS is available for small vessel operations.

This dedicated coaxial HV cable contains 4 leads of 6 mm² plus outer braiding of 24 mm²

It is designed to have a low self-inductance in order to preserve the high dI/dt pulse output of the Geo-Spark 1000.

The wet side of the cable is terminated with two special HV connectors to the electrode modules and a ground connector to the frame. Connecting or disconnecting the cable to the Geo-Source 200 L takes not more than ten minutes. The cable weights only 35 kg and is easy to handle by one person.



Also compatible with standard HV Power cable on cable reel with axial contacts

The Geo-Source 200 L is also compatible with the cable for the Geo-Source 800 and 200, and can also be towed by the standard (40 mm² plus 4 x 10 mm²) power cable on the dedicated cable reel with axial rotating contacts.

