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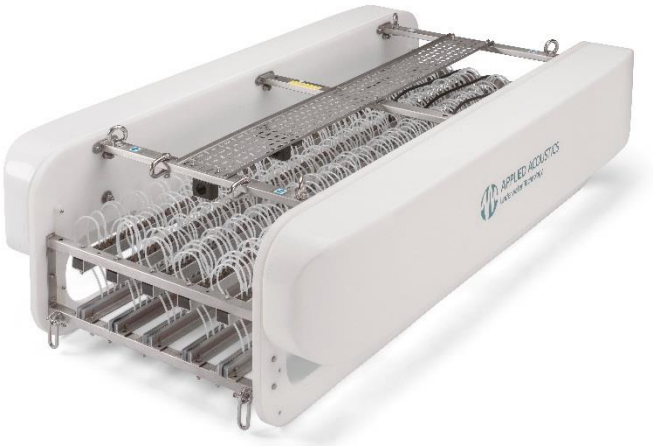
Dura-Spark, Seismic Sound Source



Key Features

- Long life, durable electrodes
- Pulse stability
- High resolution sub-bottom data, up to 25cm.
- Operator selectable source depth
- Tip array selection from on board junction box

Applications

- High and Ultra-High Resolution geophysical surveys
- Single and multi-channel acquisition
- Water depths of 5 to >1000m

The Dura-Spark has been designed to provide a stable, repeatable sound source for sub-bottom geophysical surveys. The long life, durable electrodes produce a consistent pulse signature and keep operational maintenance to a minimum. This provides increased survey efficiency and equipment reliability as the sparker tips rarely need replacement.

The Dura-Spark is based on the CAT300 catamaran, providing a stable platform whilst under tow. The catamaran has robust solid floatation and is easily deployed from all survey vessels.

The Dura-Spark consists of 3 or 5 arrays of 80 tips allowing the operator to tune the source from the vessel to their application. This flexibility together with selectable source depth allows the source to be used in both shallow and deep waters.

The typical operational bandwidth of the Dura-Spark is 300Hz to 1.2kHz. When coupled with the CSP-N Seismic Power Supply the system offers 2000J/s peak discharge rate, as well as industry leading design and safety standards.

Dura-Spark Technical Specification

PHYSICAL

Dimensions	1700mm (L) 490mm (H) 660mm (W) frame/876mm (W) including floats
Weight	Dura-Spark 240 60kg Dura-Spark 400 70kg
Connector	RMK 1/0 complete with locking collar

ELECTRICAL INPUT

Dura-Spark 240	1000J, 5J per tip to minimise bubble collapse component 1250J Maximum
Dura-Spark 400	2000J, 5J per tip to minimise bubble collapse component 2400J Maximum

SOUND OUTPUT

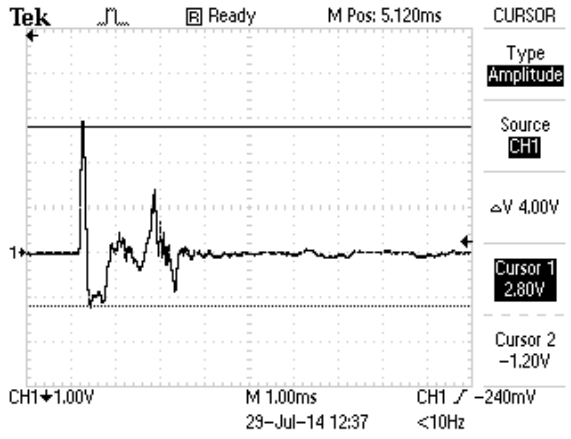
Sound Output	Dura-Spark 240; 223dB re 1uPa at 1m (Typical) Dura-Spark 400; 226dB re 1uPa at 1m (Typical)
Pulse Length	0.5 to 1.5ms depending on power
Number of Tips	240 Max total. 3 x 80 Operator selected; 80 (1 x 80) or 160 (2 x 80) or 240 (3 x 80) 400 Max total 5 x 80 Operator selected; 80 (1 x 80) or 240 (3 x 80) or 400 (5 x 80)

COMPATIBILITY

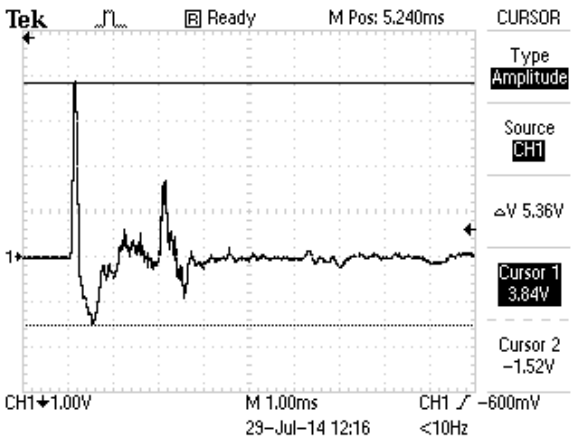
Source	Seismic Power Supply	HV Cable
Dura-Spark 240	CSP-N 1200 Negative	HVC-3500
Dura-Spark 400	CSP-N 2400 Negative	HVC-3500

TYPICAL PULSE SIGNATURES

Dura Spark 240 Typical Pulse Signature at 1000J recorded @ 2m



Dura Spark 400 Typical Pulse Signature at 2400J recorded @ 2m



APPLIED ACOUSTICS
Underwater Technology

Due to continual product improvement, specification information may be subject to change without notice.
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