

Dura-Spark UHD Seismic Sound Source



Key features

- Long life, durable electrodes
- Pulse stability
- High resolution sub-bottom data, up to 25 cm
- Adjustable tow depth
- Tip array selection from onboard junction box
- Inter array: Flip-Flop capability
- Inter array: Fire-Delay capability
- GNSS receiver option (101G MiniPod)
- 240 tip and 400 tip versions

Applications

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

Dura-Spark UHD Overview

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

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

Technical Specification

PHYSICAL

Dimensions	Length 1854 mm Height 400 mm frame, 555 mm including floatation Width 650 mm frame, 1465 mm including floatation
Weight	130 kg (max)
Connector	RMK 1/0 complete with locking collar

ELECTRICAL INPUT

Typical operating energy (400 tip)	2000 J, 5 J per tip to minimise bubble collapse component, 2400 J maximum
Typical operating energy (240 tip)	1000 J, 5 J per tip to minimise bubble collapse component, 1250 J Maximum
Operating voltage	3000 - 4000 V
Maximum number of tips	400 (5 x 80), 240 (3 x 80)
Power Supply	CSP-Nv 1200, CSP-Nv 2400, CSP-SNv 1250
HV Supply Cable	HVC-3502
Junction Box	HVJ-3004

SOUND OUTPUT

Source level	226 dB re 1 μ Pa at 1m (typical)
Pulse length	0.5 to 1.5 ms Dependent on power applied

TYPICAL PULSE SIGNATURE AT 800 J

