

Dura-Spark UHD 400+400 Seismic Sound Source



Key features

- Long life, durable electrodes
- Pulse stability
- High resolution sub-bottom data, up to 25cms
- Dual 400 tip arrays, 30cm separation
- Adjustable tow depth
- Single low loss cable
- Tip array selection from on board junction box
- Array Flip-Flop fire capability
- Bubble forming utilising Fire-Delay functionality
- GNSS receiver option (101G MiniPod) High and Ultra-High Resolution geophysical surveys
- Single and multi-channel acquisition
- Water depths of 5 to >1000m

Applications

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

Dura-Spark UHD 400+400 Overview

The Dura-Spark UHD 400+400 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 400 + 400 consists of 2 decks of 400 tips that allow the operator to tune the source from the vessel to its application. Each deck can be fired independently by its seismic power supply, in flip flop mode, combined with fire

delays or a split fire delay. Utilising the fire delay functionality the signatures from the 2 decks can be combined to bubble form the sound source signature. This flexibility, together with selectable source depth, allows the sound source to be used in both shallow and deep waters for multiple seismic data gathering applications.

The typical operational bandwidth of the Dura-Spark UHD 400+400 is 300Hz to 1.2kHz. When coupled with the CSP-SNV Seismic Power Supply the system offers 4000J/s peak discharge rate, as well as industry leading design and safety standards.

Technical Specification

PHYSICAL

Dimensions	Length 1806mm Height 710mm frame Width 650mm frame, 1450mm including floatation
Weight	160kg (typical), excluding cable
Connector	RMK 1/0 complete with locking collar

ELECTRICAL INPUT (PER 400 TIP DECK)

400 tip configuration	2000J, 5J per tip to minimise bubble collapse component, 2400J maximum
240 tip configuration	1000J, 5J per tip to minimise bubble collapse component, 1250J Maximum
Operating voltage	3000–4000V
Maximum number of tips	800 (2x 400 (each 400 = 5 x 80))
Power Supply	CSP–Nv 1200, CSP–Nv 2400, CSP–SNv 1250
HV Supply Cable	HVC–3502

SOUND OUTPUT

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

TYPICAL PULSE SIGNATURES AT 600J (LOWER DECK)

