



C-BASS

VLF Sound Source

POWERFUL, COMPACT, VERSATILE

OVERVIEW

C-BASS is a family of very low frequency (VLF) electrodynamic sound projectors. These powerful projectors are less expensive, lighter, smaller, more efficient, and have a broader bandwidth than their peers. C-BASS makes possible applications that were previously impractical.

The omni-directional C-BASS can be used individually or in arrays to produce high-power sources with or without directivity.

CONCEPT OF OPERATIONS

- Diver deterrents to protect marine assets
- VLF ASW systems
- VLF calibration source
- AUV-based target emulation
- Underwater navigation/GPS by providing a network of beacons
- Acoustic and health monitoring
- VLF communication systems with a range exceeding 1,000 km.



FEATURES

- C-BASS is built on four stock diameters but scalable architecture allows for custom designs
- Higher resonances have greater depth capability without pressure compensation
- Active/passive pressure compensation can support operation at 100s or 1,000s of meters depth
- Dryside/wetside VLF power amplifiers optimized for C-BASS
- Electromagnetic motors designed with intrinsic heat dissipation

OPTIONS

- Resonance can be varied for a particular diameter
- An active/passive pressure compensation system is required for larger diameters and is optional for smaller diameters
- Optional GeoSpectrum amplifier allows for continuous operation at full power
- Digital or analogue control electronics.

C-BASS VLF Sound Source

SPECIFICATIONS

Series	M72-225	M72-325	M72-500	M72-1000
Diameter	8.5 in	12.9 in	18 in	38 in
Mass	8 kg	20 kg	100 kg	300 kg
Thickness	7 in	7 in	8 in	8 in
SPL at f_{res} [dB re 1 μ Pa @ 1 m, continuous]	175 dB	180 dB	190 dB	195 dB
Efficiency at f_{res}	10%	10%	9%	6%
Depth Rating Without Pressure Compensation	30-100 m	10-60 m	5-30 m	—
Depth Rating With Active/Passive Pressure Comp.	>1,000 m	>1,000 m	>1,000 m	>1,000 m
Resonant Frequencies	250-500 Hz	160-400 Hz	75-200 Hz	15-100 Hz

COMPONENTS

- Dryside/wetside VLF power amplifiers
- Digital or analogue control electronics
- Cables
- Power supplies
- Tow bodies.

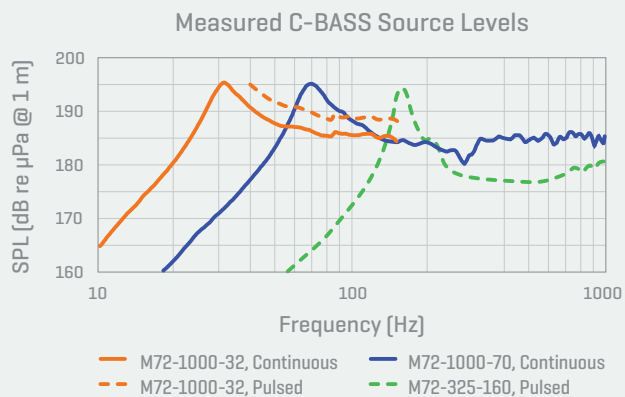
M72-1000



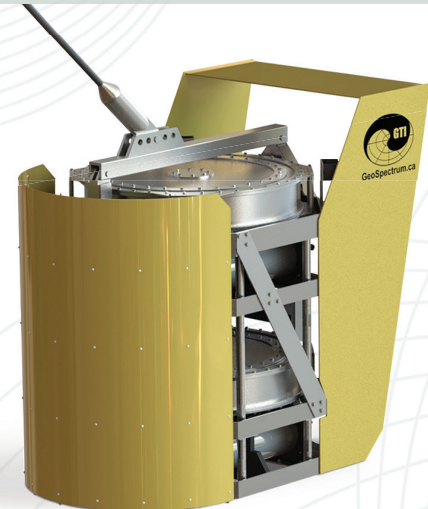
M72-325



M72-225



TOW BODY



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