



KEY FEATURES

- Horn-loaded long-throw subwoofer
- 1000W - 18" woofer in light-weight aluminium chassis
- Symmetrical loading design
- Skid-lock system for safe stacking
- WaveShaper design for improved throw
- 36mm woofer mounting board
- Speakon NL8 connectors with link
- Mach SafeCoat scratch resistant surface
- 18mm, 13 ply Birch

DESIGN CONCEPT

The Ballister Sub is designed to work in long-throw applications together with very high output top-boxes such as line arrays or large traditional arrays. Traditional sub-bass designs in this product category are often high-Q designs with limited bandwidth and the need for heavy EQ'ing. Through EQ'ing, a flat frequency response can be achieved, but as a consequence, distortion and power compression is increased and the impulse response deteriorates. In order to achieve a more natural and musical bass response, the Ballister Sub is designed as a broadband subwoofer that combines very high output with a low-Q design. The result is a highly nuanced, defined and musical sub-bass reproduction with very high sound pressure.

In order to achieve high output in a low-Q design, emphasis has been placed on optimising drive unit efficiency and horn path length within the desired cabinet dimensions and minimizing power compression. In addition, research into the creation of eddy currents at the horn flare exit has resulted in the design of a special WaveShaper. The WaveShaper improves throw and mechanical stability of the cabinet as well as optimises coupling and directivity control when multiple subs are stacked.

The Ballister Sub is built around a special 18" woofer. Cooling and coil design of the unit builds on new techniques and materials such as carbon fibre. Highly efficient heat management enables the 4" coil to handle the same amount of power as a large 5" coil while maintaining advantages of a lightweight design and therefore obtaining very high sensitivity. Power compression is extraordinarily low and the power handling is a solid 1kW AES. Special chassis and surround design has allowed the use of a cone with 10% larger cone area than traditional 18" designs. The 0.128 sq. metre cone adds 1 dB to the output of the drive unit itself. Loaded in the Ballister cabinet, the driver is capable of delivering 135 dB continuous output. The woofer weighs in at only 10 kg and keeps the weight of the

Ballister Sub to a low 72kg. Ballister is an easy 2-man lift and can be stacked four-high without the use of lifting equipment.

A special symmetrical loading design has been made to ensure that air pressure is uniform throughout the cone area. This approach enables the drive unit to maintain a perfect piston movement even at maximum excursion, thus maintaining clarity and reliability at maximum SPL. For extra stability, the drive unit is mounted in a 1.5" (36mm) thick mounting board.

Semi-recessed wheels are integrated in the back for easy transport and do not take up extra space when the Ballister is loaded in a truck. A special skid-lock system ensures easy and safe stacking. The cabinet is built of 18mm, 13 ply hardwood, screwed, glued and coated with the Mach SafeCoat. The special grill design further reinforces the stability of the cabinet. Speakon NL8 terminals with link option are used for fast and easy connection. The Ballister Sub is designed as a half horn. When paired with a second Ballister Sub, it forms a double-sided horn with extended sub frequency response and improved throw.

SPECIFICATIONS

Woofer:	18"
Power handling, AES:	1000 watt
Power handling, peak:	4000 watt
Sensitivity 1w/1m:	105dB
Impedance:	8 ohm
Maximum SPL, continues:	135 dB
Maximum SPL, peak:	141 dB
Frequency range +1/-3dB:	49-160 Hz
Frequency range +1/-3dB (8 pcs.):	39-160Hz
Recommended amplifier:	1400 watt into 8 ohm

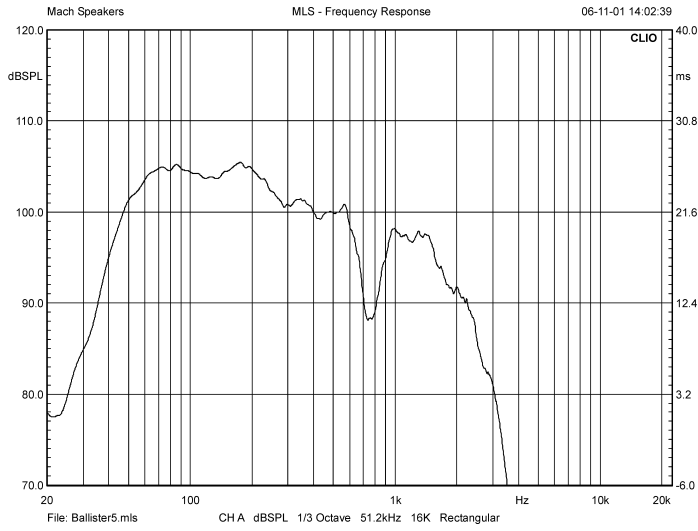
Weight & Measurements:

Dimensions (HxWxD):	93,6x59x83 / (36.9x23.2x32.7 in)
Weight:	72 kg / (158 lbs)
Finish:	Black SafeCoat coating
Grille:	2 mm. steel with foam backing
Input connectors:	2 x recessed Speakon® NL8

ARCHITECTURAL SPECIFICATIONS

The loudspeaker system shall be a horn-loaded subwoofer with an AES power handling of 1000 watt and a frequency response from 49-200Hz. The loudspeaker system shall have a sensitivity of 105 dB at 1 watt/1 meter and a maximum continues output of 135 dB. The loudspeaker system shall have one 18" woofer with a 4" voice coil. The woofer shall have an 8-ohm load. The enclosure shall be constructed of 18mm Plywood, protected with the SafeCoat surface, equipped with a skid lock system and wheels integrated in the back. It shall have dual recessed Speakon NL8 connectors. It shall be 93.6cm(36.8in) high, 59cm(23.2in) wide and 85cm(33.5in) deep with a weight of 72kg(158.4lbs). The loudspeaker system shall be the Mach Ballister Sub.

FREQUENCY RESPONSE



IMPEDANCE RESPONSE

