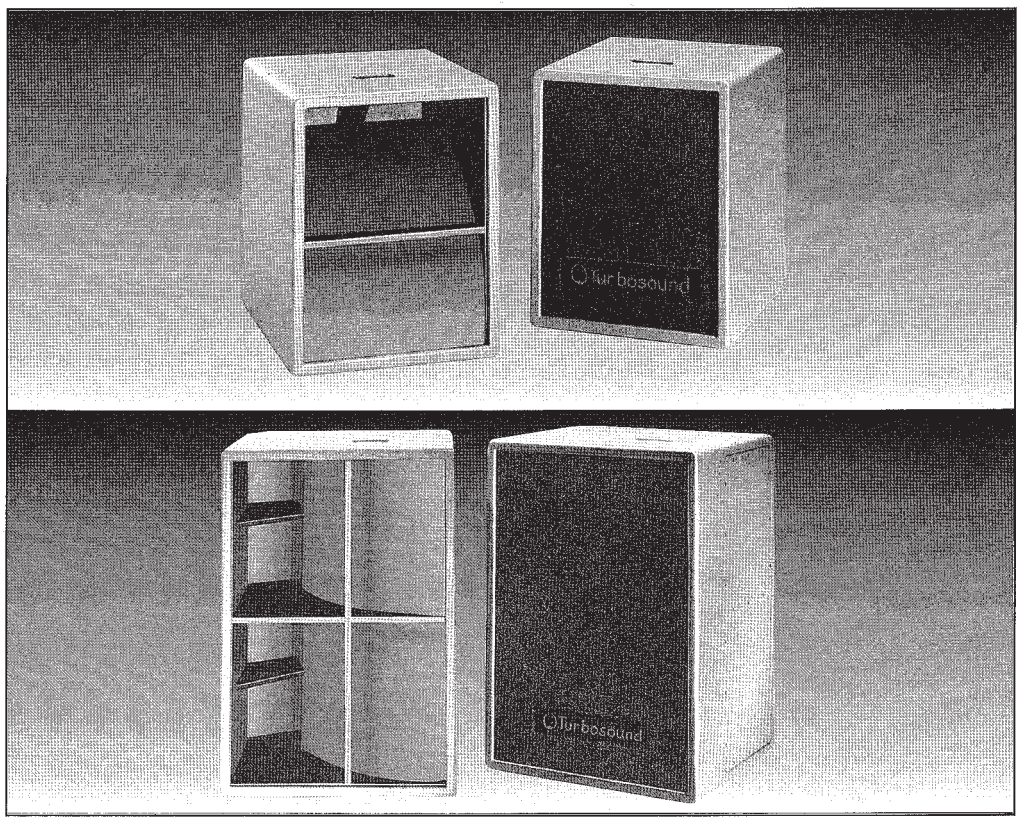
Turbosound®

ENGINEERING INFORMATION

TSE SERIES



TSE–115/215

LOW-FREQUENCY LOUDSPEAKER ENCLOSURES

The TSE-115 and TSE-215 are low-frequency, professional loudspeaker enclosures incorporating Turbosound's patented loading principles. They are modules designed to cover low and low-mid frequencies (50 – 500Hz) in primary sound reinforcement systems and form part of a series of complementary enclosures principally intended for sound contracting.

The enclosures incorporate the TurboBass™ device, which is a unique design, covered worldwide by Principle Patents. The device employs a high-velocity partial horn-loading technique, giving precise cone control and providing remarkable levels of low and low-mid frequency projection from a compact enclosure.

These enclosures are capable of excellent electrical to acoustic power conversion (TSE–115: 101dB at 1W/1m; TSE-215:104dB at 1W/1m) and can develop peak sound pressure levels of 129dB for the TSE-115 and 135dB for the TSE-215. It is the result of meticulous study which compelled Turbosound to re-evaluate established design parameters. The unique developments which followed have enabled Turbosound engineers to construct low-frequency enclosures which produce high sound-pressure levels with very low distortion and power compression. The TSE-115 and TSE-215 enclosures both operate without depending on compensating electronics to match or correct for component disparities.

A range of load-certified flying and mounting hardware is available as standard stock items. This allows simple installation and orientation of the enclosures; from a single enclosure up to a 360° point-source cluster. Refer to the Flying and Lifting section for detailed information.

The TSE Series comprises seven fully compatible modular enclosures. Each one is designed to address a specific sound reinforcement situation and to defeat the acoustic problems presented to it. The result: a dedicated system producing natural sound from an unusually compact range of enclosures

Please refer to the Product Range Catalogue and individual Engineering Information sheets for further information.

FEATURES
Unprecedented Low-Frequency Response
Compact Enclosure Design
Universal Flying & Mounting System

APPLICATIONS
Sound Contracting
Main PA Systems
Point-source Clusters

TSE – 115
ARCHITECTURAL & DESIGN ENGINEERS SPECIFICATIONS

The loudspeaker shall be of the mono-amped, low-frequency type, consisting of one 381mm (15") low-frequency loudspeaker loaded with a patented TurboBass™ device.

Performance specifications of a typical production unit shall meet or exceed the following:

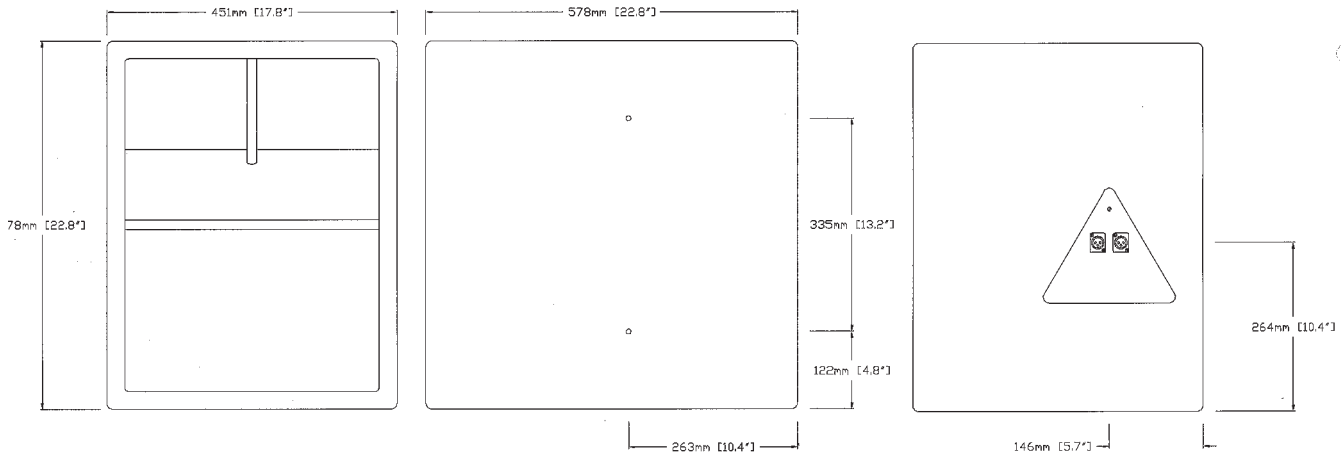
Frequency response, measured with a swept-sine wave input, shall be flat within ±4dB from 65 – 350Hz. Nominal impedance shall be 8 ohms. Power handling shall be 250 Watts RMS, 500 Watts program. Sensitivity measured with 1 Watt input at 1 meter distance on-axis, mean averaged over stated bandwidth, shall be 101dB. Maximum SPL (Peak), measured with music program input at stated amplifier power, shall be 129dB.

Dimensions: 578mm H × 451mm W × 578mm D
22 3/4" H × 17 3/4" W × 22 3/4" D
Weight: 26·1kg (58lb.)

Total enclosure volume shall not exceed 0·1507 cu. meters (5⅓ cu. ft.). The loudspeaker system shall be the Turbosound TSE-115. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance/size specifications are equalled or exceeded.

A complete flying and arraying hardware system shall be available, comprising a range of load-certified components. The system shall be modular and have the facility of installing a single enclosure up to a 360° point-source array.

DIMENSIONS



TSE-115

TSE – 215
ARCHITECTURAL & DESIGN ENGINEERS SPECIFICATIONS

The loudspeaker shall be of the mono-amped, low-frequency type, consisting of two 381mm (15") low-frequency loudspeakers loaded with patented TurboBass™ devices.

Performance specifications of a typical production unit shall meet or exceed the following:

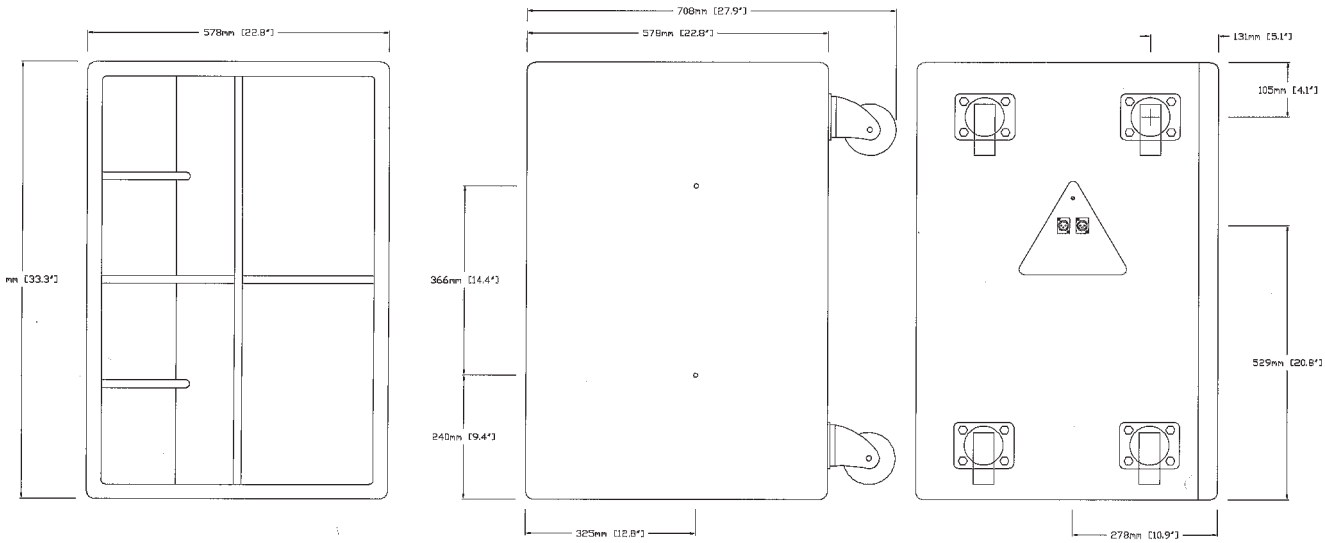
Frequency response measured with a swept-sine wave input shall be flat within ±4dB from 60 – 500Hz. Nominal impedance shall be 4 ohms. Power handling shall be 500 Watts RMS, 1000 Watts program. Sensitivity measured with 1 Watt input at 1 meter distance on-axis, mean averaged over stated bandwidth, shall be 104dB. Maximum SPL (Peak), measured with music program input at stated amplifier power, shall be 135dB.

Dimensions: 845 mm H × 578 mm W × 578 mm D
33 1/4" H × 22 5/8" W × 22 7/8" D
Weight: 42kg (92·6lbs)

Total enclosure volume shall not exceed 0·289 cu. meters ($9^{15}/_{16}$ cu. ft.). The loudspeaker system shall be the Turbosound TSE-215. No other loudspeaker shall be acceptable unless submitted data from an independent test laboratory verify that the above combined performance/size specifications are equalled or exceeded.

A complete flying and arraying hardware system shall be available, comprising a range of load-certified components. The system shall be modular and have the facility of installing a single enclosure up to a 360° point-source array.

DIMENSIONS



TSE-215

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bosound operate a policy of continuous research and development. The)lementation of new materials and/or production methods will always equal or eed the published specifications which are subject to change without notice.

D/Microsetting by *CADenza*, Charlwood England.
ıted in England.

TBOTEC08 - (Ver 2.0)

TURBOSOUND PATENT INFORMATION: TurboBass™ device; TurboMid™ device; V-Series devices (V-2™); Australia 515,535; Canada 1,076,033; Japan X113424/77; U.K. 1,592,246 1,598,310 & 8,614,434; U.S.A. 4,215,761 RE32,183 & 4,882,562; West Germany P2742600/2. Worldwide patents pending on the TurboConcentric™ device. Other patents pending.

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