# AH99-12T-BSG

# 12" 2-Way Stadium Horn System 90° x 90°



#### Installation

A heavy-duty stainless steel "C" style mounting bracket is included with the AH99-12T-BSG to allow easy mounting to most any flat surface. Three drop forge eyebolts are also pre-installed (2-front of horn plus 1-rear for "pull-up") for suspension mounting via load rated wire rope. (Use caution when suspending any object overhead. Refer to installation manual for more details).

The AH948-ST includes a weather resistant 7 pole terminal block connector on the underside of the speaker for ease of hook-up. This terminal block includes connection points for internal 70.7V transformer with taps settings of 7.5, 15, 30, and 60 watts and  $8\Omega$  connection for transformer bypass.

### **Features**

- Heavy Duty Mounting Bracket (Included) Allows for Easy Installation to Most Any Flat Surface
- Three Forged Eyebolts Included for Suspended Installation
- 200 Watts Power Handling
- Constant Directivity Design Offers Controlled Coverage of 90° Horizontal by 90° Vertical (2kHz Octave Band)
- Driver Compliment Includes 12" Cast Frame Woofer with a Concentrically Mounted 1" Exit Compression Driver Coupled to a 90° H x 90°V HF Horn
- Easy, Weather Resistant Connection Via a Convenient Recessed Terminal Block Located on the Bottom of the Loudspeaker
- Includes a Built-In, High Efficiency 60 Watts 70.7V Transformer
- Efficiency Rating of 101dB (1 W/1 M)
- Maximum Output of 126dB (Rated Power @ 1 M)

#### **Applications**

Atlas Sound model AH99-12T-BSG stadium horn is ideal for directional sound distribution where full range reproduction, maximum intelligibility, and high sound pressure levels are required. Applications include football stadiums, sports arenas, baseball fields, convention centers, and auditoriums.

Weather resistant construction features of the AH99-12T-BSG include a multiple screen configuration to prevent moisture from damaging internal components.

A perforated aluminum screen covers the large horn mouth, a secondary screen is in place forward of the high frequency driver, and a third tightly perforated screen protects the 12" cast frame woofer.





## **Specifications**

**Power Rating** 200 watts

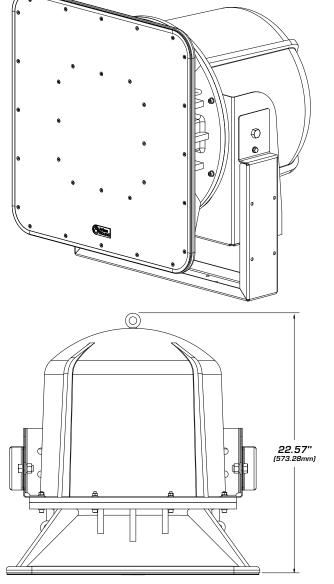
Sensitivity 1 W / 1 M 101dB SPL (70Hz to 17kHz 1/3 octave bands)

80Hz - 15kHz (±5dB) Frequency Response

Dispersion 90° x 90° Impedance 8Ω Nominal

**Transformer Taps** 7.5, 15, 30, & 60 watts Height 25.68" (652.27mm) Width 22.06" (560.32mm) 22.57" (573.28mm) 87 lbs (39.5kg)

Depth Shipping Weight **Driver Type** 1" HF and 12" LF



# **Architect & Engineer Specifications**

Loudspeaker shall be Atlas Sound Model AH99-12T-BSG or approved equal.

The loudspeaker system shall be a horn-loaded, 2-way design with a 12 inch paper cone and moisture resistant coating.

The loudspeaker system shall include a 12", horn loaded, cast frame woofer and an integral, concentrically mounted 1" exit compression driver coupled to a constant directivity high frequency horn. The three pole (18dB/octave) dividing network shall have a crossover frequency of 1.6kHz. The dividing network shall include a poly switch protection circuit for the high-frequency component.

The loudspeaker system shall be capable of providing a sound dispersion angle of 90° horizontal by 90° vertical in the 2kHz octave band.

Rated power shall be 200 watts RMS based on EIA Standard RS-426B.\*

Enclosure shall be UV-resistant, steel reinforced, low pressure injection molded fiberglass and shall include a 3 stage multiple mesh filter system for weather and rodent resistance: to include a 20GA perforated aluminum screen on front mouth assembly, a 100x100 weave stainless steel mesh between HF horn and HF driver and a 100x100 weave stainless steel mesh over 12" woofer. The loudspeaker shall include a stamped and formed, 2mm stainless steel powder coated mounting bracket assembly for surface mounting and (3) M8 drop forged eyebolts for suspension mounting two at the front and one at the rear to allow the speaker system to be suspended and aimed using rated wire rope.

Sensitivity shall be 101dB SPL (80Hz to 15kHz in 1/3 octave bands) measured at a distance of one meter on axis with a one watt input half space (2.83V).

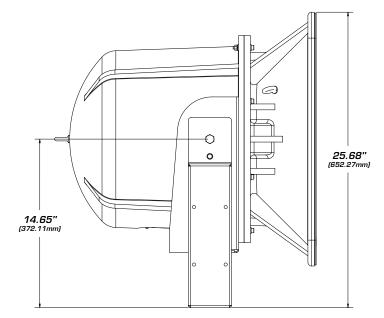
Overall frequency response shall be 80Hz to 15kHz (±5dB).

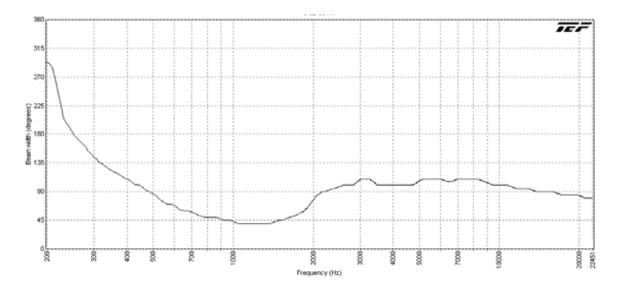
The input section located on the bottom rear of the loudspeaker shall be via 7 position screw down terminal strip internally configured to allow input to an internally mounted 70.7V transformer with 7.5, 15, 30, & 60 watts taps and a by-pass jumper direct coupled to the speaker for nominal  $8\Omega$  operation. The system connections shall be protected from the elements by a screw affixed weather resistant cover.

Dimensions shall be: Height: 25.68" (652.27mm) Width: 22.06" (560.32mm)

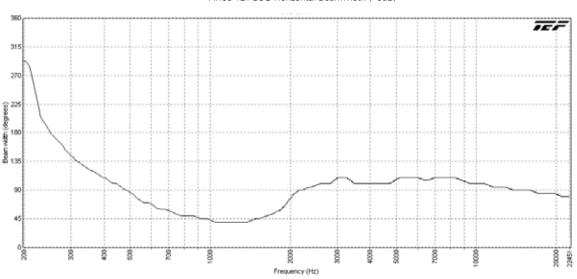
Depth: 22.57" (573.28mm) Weight: 87 lbs (39.5kg)

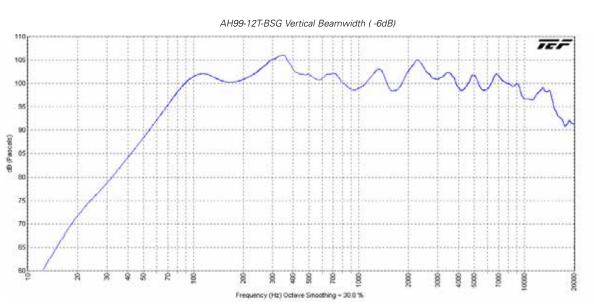
\*EIA test spectrum is applied for eight hours. (This procedure provides a rigorous test of both thermal and mechanical failure modes.)





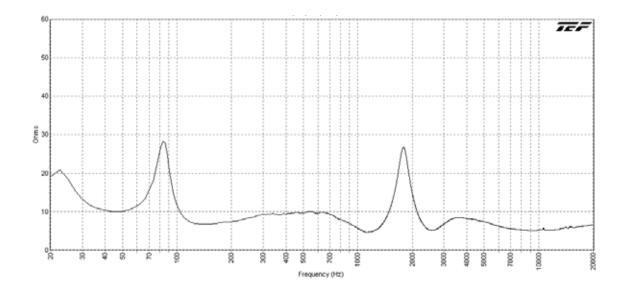
AH99-12T-BSG Horizontal Beamwidth ( -6dB)



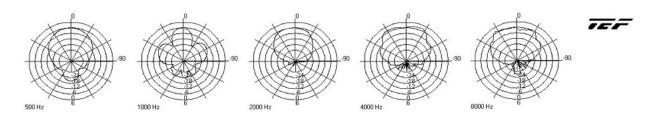


AH99-12T-BSG Frequency Response

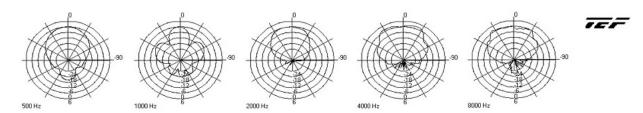




AH99-12T-BSG Impedance (ohms) vs. Frequency



AH99-12T-BSG Horizontal Polars (Normalized To Zero On Axis) (-6dB)



AH99-12T-BSG Vertical Polars (Normalized To Zero On Axis) (-6dB)