

# Stasys 218

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## Key features:

- 2400 W AES power handling
- Optimally damped, minimal mass cabinet
- 2 x 4" voice coil 18" low frequency drivers
- 18 mm birch plywood construction

## Applications:

- Large scale touring



The Stasys 218 is a double 18" reflex loaded, low frequency enclosure built around traditional principles but designed with Stasys philosophy and attention to detail.

In order to extract the maximum performance from the design, the heart of the 218's 18 mm birch plywood enclosure was subjected to the same resonance mapping procedures as all other Stasys low frequency models. This practice has dictated the type of materials used around the enclosure, optimised the brace positioning, and minimised destructive nodal conditions. All of this creates structurally superior housing with minimum mass, the least possible cabinet coloration and vastly increased output.

Transducer selection and integration is also critical when it comes to reflex enclosure design, so exhaustive comparative testing and evaluation led to the new 18" transducer with a high excursion 4" voice coil. The sonic properties of differing cone and surround combinations were studied, as well as differing coil topographies. Flux intensities and out of band abnormalities were also manipulated until the perfect combination was achieved.

The marriage of a technologically advanced enclosure with esoteric transducer performance applied with superlative tuning techniques has resulted in a phenomenal package with state-of-the-art performance that has well and truly left tradition behind.

## Specifications

Frequency response	32 Hz - 200 Hz $\pm$ 3 dB
Efficiency <sup>1</sup>	101 dB 1W/1m
Crossover points	70 Hz - 160 Hz, 24 dB/oct
Nominal impedance	4 $\Omega$
Power handling <sup>2</sup>	2400 W AES
Maximum output <sup>3</sup>	134 dB cont, 140 dB peak
Driver configuration	2 x 18" LF
Dispersion	Array dependent
Connectors	2 x 4-pole speakON™ NL4
Weight	86 kg (189.6 lbs)
Enclosure	18 mm birch plywood
Finish	Textured 'TourCoat' polyurea
Grille	Perforated steel with foam filter

<sup>1</sup> Measured in half space <sup>2</sup> AES2 - 1984 compliant <sup>3</sup> Calculated

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## Architectural specifications

The loudspeaker system shall be of the sub bass type consisting of two high power 18" (457.2 mm) direct radiating, reflex loaded, low frequency (LF) transducers in a rectangular enclosure.

The low frequency transducer shall be constructed on a cast aluminium frame, with a treated paper cone, long excursion 101.6 mm (4") voice coil, wound with copper wires on a high quality voice coil former and a neodymium magnet for high power handling and long-term reliability.

Performance specifications for a typical production unit shall be as follows: the usable bandwidth shall be 32 Hz to 200 Hz ( $\pm 3$  dB) and have a maximum on axis SPL of 134 dB continuous (140 dB peak) measured at 1 m using IEC265-5 pink noise. Power handling shall be 2400 W AES at a rated impedance of 4  $\Omega$  with pressure sensitivity of 101 dB measured at 1W/1m. The

system shall be powered by its own dedicated power amplification module with DSP management. The wiring connection shall be via two Neutrik speakON™ NL4 (one for input and one for loop-out to another speaker), to allow for pre-wiring of the connector before installation.

The enclosure shall be constructed from a 18 mm multi-laminate birch plywood finished in a textured polyurea and shall contain fixture points for a pressed weather-resistant, powder coated steel grille with foam filter to protect the low frequency transducer. The cabinet shall have four handles (two per side) for efficient manual handling. External dimensions of (H) 586 mm x (W) 1020 mm x (D) 775 mm (23.1" x 40.2" x 30.5"). Weight shall be 86 kg (189.6 lbs).

The loudspeaker system shall be a Void Acoustics Stasys 218.

