The Martin Audio Wavefront W8L is a line array system which combines innovative horn loading techniques with line array technology to produce a very powerful line array with maximum dynamic impact. It is a 3-way, full-range system and may be used without subwoofers for many applications. Where very low frequency extension is required, a W8L array will integrate seamlessly with the Martin Audio WSX folded-horn subwoofer in a fully horn-loaded 4-way configuration.

The low frequency section of the W8L comprises a horn loaded 15" (380mm) / 4" (100mm) voice coil driver that is reflex loaded to extend the LF output to below the natural cut-off point of the horn. This Hybrid™ technique marries the very high efficiency of horn loading with the extended low frequency response of a reflex enclosure.

The mid-horn of the W8L utilises 2 x 8" (200mm) / 2" (50mm) coil drivers to produce 108dB at 1metre for a 1W input. The twin 8" (200mm) mid-horn geometry and short, toroidal ‘donut’ phase plug work together to maintain a low curvature wavefront and wide 90° horizontal coverage pattern of the mid frequencies right up to the 2.5kHz crossover point.

The W8L’s HF section comprise three 1" (25mm) exit compression drivers that couple very smooth horizontal HF pattern control with the high efficiency (113dB/W) required for very longthrow applications.

The proprietary rigging system of the W8L is quick to deploy and allows a wide range of array curvatures to be achieved as called up by the ViewPoint™ array optimisation software. W8L columns are hinged at the front for gapfree HF coverage. Inter-cabinet angles from, 0° to 7.5°, are set by a rotating splay bar at the rear of the enclosure. The 7.5° maximum splay angle allows tight curvature at the bottom of the array, obviating the need for dedicated downfills. All cabinet rigging hardware is integral and remains captive in transit.

W8L systems are designed to be powered by Martin Audio MA4.2s power amplifiers.
W8L
High performance three-way line array enclosure

W8L Horizontal Magnitude in dB SPL/2.83V at 1 meter

W8L. Horizontal Beamwidth

W8L. Vertical Beamwidth
W8L
High performance three-way line array enclosure

overall dimensions

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The loudspeaker system shall be of the three-way horizontally formatted line array type. The low frequency section shall consist of one 15" (380mm) cone transducer, horn and reflex loaded in a Hybrid™ bass system. The mid frequency section shall consist of two 8" (200mm) cone drivers coupled to a constant directivity horn using toroidal phase devices. The high frequency section shall consist of three 1" (25mm) exit HF compression drivers mounted on vertically coupled waveguides with a constant directivity horn. The enclosure shall be constructed of heavily braced multilaminate plywood with all flying hardware integral and captive. The loudspeaker shall be operated with a separate dedicated electronic controller.

Performance of the loudspeaker system with its electronic controller shall meet or exceed the following criteria:

- Frequency response measured 1 metre on axis shall be 50Hz-18kHz ±3dB.
- High frequency dispersion at -6dB points shall be 90˚H x 7.5˚V.
- Power handling shall be 700W AES, 2800W peak LF, 400W AES, 1600W peak MF, 200W AES, 800W peak HF.
- Rated impedance shall be 8 ohms LF/MF/HF.
- Maximum SPL measured at 1 metre on axis shall be 136dB continuous, 142dB peak.
- Dimensions (W) 1314mm x (H) 490mm x (D) 755mm (51.7ins x 19.3ins x 29.7ins).
- Weight 127kg (279lbs).

The loudspeaker system shall be the Martin Audio W8L.