Martin Audio Announces First Constant Curvature Array and 3D Prediction Software

Martin Audio has unveiled two major developments: the company's first constant curvature array, TORUS, and the introduction of new 3D prediction and optimisation software, DISPLAY 3. Both were formally showcased for the first time online at a recent 'virtual' launch event.

For applications that typically require a throw between 15-30m (50-100ft), a full-blown line array is not always practical, optimal or affordable. Conversely, a point source solution may not be sufficient in coverage and SPL.

TORUS is a constant curvature array designed to fill that gap, combining optimised coverage, SPL profile and cost efficiency.

However, Dom Harter, managing director, said, "It is much more than just another constant curvature array. TORUS was in development for three years in an exhaustive bid to further the acoustic concept and performance achievable.

"Typically, constant curvature arrays have adjustable horizontal dispersion but their performance can vary considerably in terms of tonality and effectiveness of coverage when different dispersions are selected. Equally, many lack sufficient sensitivity in the mid-band frequency, critically important for voice projection and clarity. They also can suffer from comb filtering. TORUS fundamentally addresses these areas and more."

Each TORUS cabinet is designed for a flexible horizontal dispersion pattern and this can be manually adjusted between 90°, 60° or 75° (asymmetrical) via the unique Dynamic Horn Flare. This not only moves and locks the waveguide but also adjusts the horn mouth, including the low diffraction termination into the baffle, to ensure correct geometry and optimal performance in each of those settings.

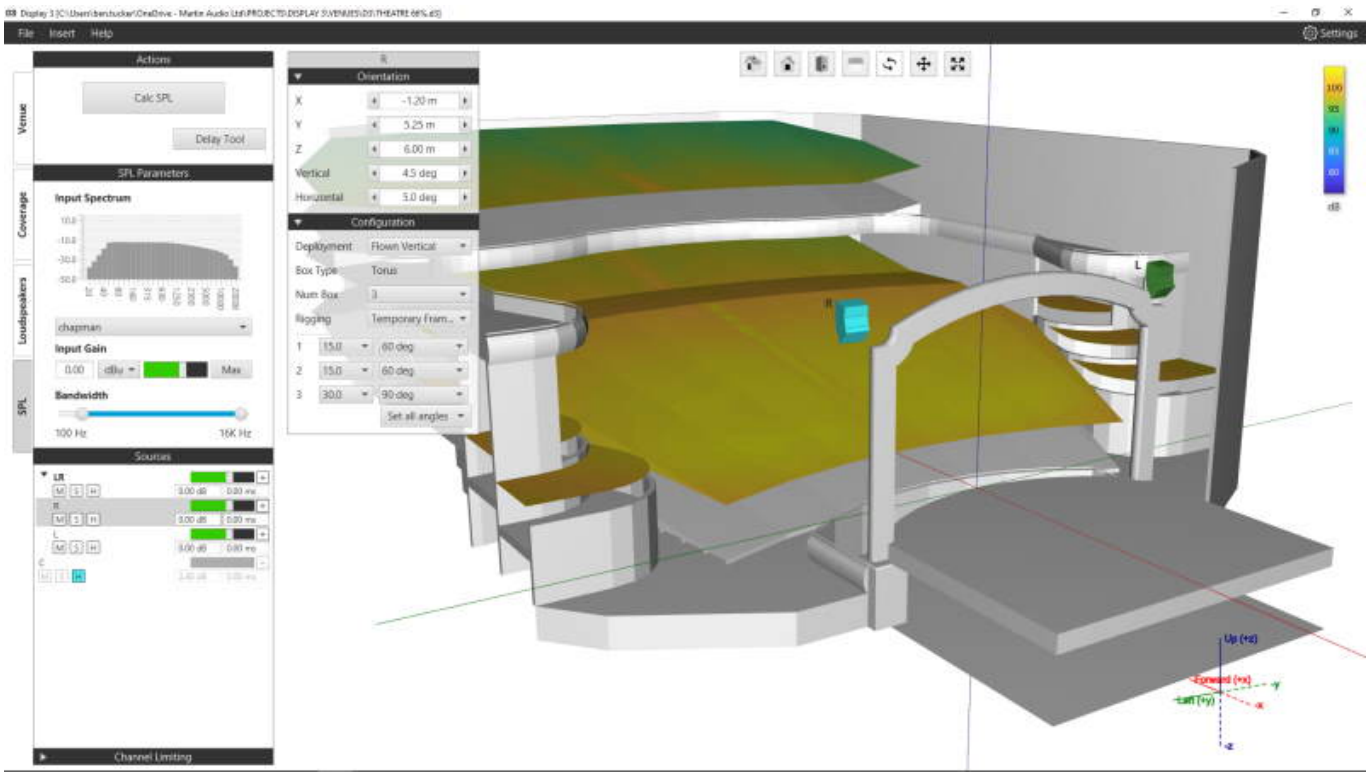
The Dynamic Horn Flare is moved by a rotating mechanism accessible from the front grille so is easy and intuitive, while leaving the grille design to be both smart and fully protective of the drivers within.

A vertical pattern of either 15° or 30° is achieved via two separate cabinet types: T1215 and T1230, respectively. These cabinets can also be combined to fit venue and coverage requirements.

TORUS features a phase plug mounted in front of the 12” neodymium driver to increase mid-band sensitivity, and along with three 1.4” HF polymer dome neodymium compression drivers, the sonic performance is not compromised even when driven at higher SPL.

TORUS is also the first product to take full advantage of DISPLAY 3, Martin Audio’s all new prediction and optimisation software, and the second big announcement from the event.

DISPLAY 3 is set to be a powerful tool for both live and installation projects. It works seamlessly with Sketchup for sophisticated venue modelling, or allows for more simple venue and shape creation. Initially, DISPLAY 3 will natively support prediction and optimisation of TORUS, with line arrays being imported from DISPLAY 2. Over time, however, DISPLAY 3 will incorporate all Martin Audio line array, point source, ceiling and subwoofer solutions for a complete self-contained system design and prediction platform.



Summing up, Harter said, “These two major announcements show both the resilience and the ambition of the company. Through the pandemic we had a proactive approach with the continuation of R&D investment and the belief that companies that consistently add value to their customers will have a brighter future. The introduction of TORUS enables Martin Audio to compete in more applications and DISPLAY 3 will develop further to be a leading 3D design and prediction software that enhances the working lives of installation and live event professionals.”

TORUS will start shipping worldwide from April and similarly, DISPLAY 3 will have a public release at that time.

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