

L-Acoustics Syva resolves audio challenges for Åbo Svenska Teater



Syva delivers even coverage for historic theatre's highly reflective auditorium

TURKU, Finland – June 2020 – Åbo Svenska Teater, a Swedish speaking theatre in the heart of Turku, is the oldest still functioning theatre in Finland. Exuding 19th century glamour, the venue is known for hosting high-end plays and musicals such as Les Misérables, Hair, and The Rocky Horror Show. This April, the theatre's audio system was brought bang up-to-date with the installation of L-Acoustics Syva, which has solved the theater's complex acoustical challenges.

The system was delivered in March and originally scheduled for installation in May. However, when the theatre was shuttered and all performances cancelled due to the pandemic, it was decided to use the hiatus productively and install the system ahead of time, made possible by the theatre's team performing the installation themselves.

Pauli Molnár of L-Acoustics Certified Provider Distributor, Audico, has a long history with the theatre. In 1991, he had worked there as a followspot operator and assistant to the lighting designer. "I got to know the team there very well and I had known the sound guys even before that," he says. "The same two guys, Olli-Pekka Lepovouri and Jouni Haavisto, have worked there ever since."

In Autumn, Lepovouri and Haavisto approached Molnár with the challenge of upgrading their existing PA system. They knew they had a challenge of combining aesthetic of the the Mozart-era architecture with modern technology, and the visual aspect of the system was as important to the team as the electronic and acoustical properties of the sound system. They had already heard about L-Acoustics Syva, and were interested by its exceptional sound and remarkably fluid form.

"They follow the current trends and knew that Syva ticked a lot of boxes," Molnár continues. "When we demoed the system, they liked every aspect of Syva so much they decided to base their new system around it."



The 500-seat auditorium comprises stalls and two balconies. Syva, with its DOSC waveguides, J-shaped progressive curvature and +5 and -21 degree dispersion, which is optimised for ultra-wide horizontal coverage with extended throw capability, provided the ideal solution. Three separate stereo pairs of Syva were installed,

each pair addressing a separate layer of the audience, along with a single central sub, the configuration providing consistent coverage for the entire area.

X4i provide front fill – attached invisibly to the front of the stage lip – and additional fill for the sides. Two further X4i sit under the second balcony to provide fill for the first balcony. Two Syva low are hung centrally from the proscenium. The entire system is driven by three LA4X amplifier controllers.

The theatre's metal workshop built custom brackets, which were attached to a bar on the proscenium that allows adjustment for height and azimuth angle. The bottom Syva is positioned to avoid the balcony overhang, as there are hard reflecting walls which create extremely difficult acoustics.

"The theatre's auditorium has a very challenging geometry," says Molnár. "It's like a parabolic reflector. This has always made things really difficult because, no matter at what angle you approach the audience, the audio will always hit the walls and come back to the audience in the middle of the stalls. In the end, we identified one unique position for the bottom two Syva, which allows for even coverage without exciting the façade of the balcony."

By avoiding the balcony overhang and positioning this particular Syva under the box, a much better result was



"There are still reflections present, but they are much more controlled than before," says Molnár. "The high frequencies don't interact at all between the stalls and the balconies. During the calibration process it became clear that the balconies are all listening to their own system, which is exactly what we wanted. The central woofer takes care of the low end all round."

The theatre is scheduled to resume rehearsals in July in anticipation of a new show in August.

"The team at Åbo Svenska Teater is extremely pleased with their new sound system," concludes Molnár. "They are currently prepping to re-open the venue to the public in September and cannot wait to share the improved



experience with performers and audiences.”