

L-Acoustics brings medieval church into 21st Century



A place of worship has existed at the site of Martinikerk (Martini Church), in the heart of the Dutch city of Groningen, since the year 1,000. The present building harks back to the 13th Century roots of a larger church, constructed in Romano-Gothic style, traces of which are still present in its stunning architecture, including round windows and decorative brickwork in the north and south façade of the nave. In 1975, the Martiniekerk Foundation was formed to take care of the church, setting out a three-fold objective: to ensure it continued as place of Sunday worship, to maintain the building, and to generate income for that purpose. Its most recent project was to revamp the audio system, which now benefits from the installation of L-Acoustics Syva.

The Foundation makes full use of the church's beautiful appearance and ample capacity – its seating area measures 1200m² and the height of the hall extends to between 14 and 17m – and has established it as a versatile and unique venue for conferences, dinners, anniversaries and lectures. It also hosts concerts for up to 1,200 people; Its forthcoming schedule includes Canadian pianist Vicky Chow, English singer / songwriter Tom Rosenthal and Irish singer / songwriter Luka Bloom, as well as Bach recitals and a series of lunchbreak concerts, exhibitions, weddings and, of course, its regular Sunday services, which include services held in both Dutch and English.

However, with a reverb time of over six seconds, poor intelligibility was a constant issue. An installed system of digitally steerable arrays from ten years ago resulted in a growing number of complaints from members of the congregation that the overall sound quality was poor and very unnatural. As events, particularly those held by the University of Groningen, included more multimedia content, there was a corresponding increase in demand for a better sound system.



“Additional systems were rented in, but most of the time they didn’t solve the problem,” explains Jan Ten Kampe from AV-i audiovisueel adviesbureau, who designed and specified the new system. “The University in particular demanded an adequate sound system for their events and, because of the issues at Martinikerk, were thinking about choosing another location. This was when I was approached to look at this challenging project.”

It was obvious to Ten Kampe that a system with better control was needed, one that delivered for both speech and music, but it also had to respect the building’s architecture and work with restricted rigging options. He knew the pool of suitable systems was limited.

“The majority of systems that work well in acoustical environments such as this are those with digital processing which can create the special coverage needed,” Ten Kampe continues. “From my experience, these so-called beam steering systems can perform pretty well on intelligibility but fall short on their musical performance.”

At the time Ten Kampe and his team started looking at the project, L-Acoustics had just introduced Syva to the market. They realised that the pristine audio quality and 140° horizontal dispersion of Syva would deliver great coverage across the room, whilst the narrow, 26° vertical dispersion would focus the sound where it was needed, keeping it off the hard, reverberant surfaces of the building. After a demonstration of Syva, Ten Kampe was convinced it was the right solution for Martinikerk.

At first both the church and the University were reserved about the idea and even a bit sceptical, Ten Kampe recalls: “It was hard for them to believe that a few relatively small loudspeakers could do the job. I suggested that we set up a demo system and, since had still been receiving complaints, they embraced my offer to install it for them.”

With assistance from L-Acoustics Application Engineer Gert Wiersema, the loudspeaker manufacturer’s Dutch Certified Provider distributor, Audiobizz, provided a system comprising four Syva which the church could use for a few weeks during which two major events were being held, both with audiences of over 1,000. The defining moment for the system was during the grant of an honorary doctorate to Ban Ki-Moon, with every word of the ceremony for the former Secretary General of the United Nations crystal clear.

The church was convinced and gave Ten Kampe the go ahead to install Syva. The installation was carried out by dB audiovisueel Groningen, led by Bert-Wietze Dijk. The Syva cabinets were mounted using custom

mounting hardware to ensure correct fitting on the church's pillars, with special attention paid to positioning them at the optimum height.

"The system is pretty simple," says Ten Kampe. "Just a pair of Syva as the front of house system and a pair used as a delayed system, and just one LA4X to power them all. Sometimes less really is more!"

dB audiovisueel also installed a digital controller together with a dual 8 x 8 matrix / DSP to take care of different settings for signal routing, EQ and delay, allowing the church to choose from a number of presets via a touch panel control system or iPad to correspond with different seating configurations.



Martinikerk's manager, Jan Haak, shares a story that underscores the fidelity of the new system: "The organ of the Martinikerk is rather imposing, is very well known and attracts organ lovers from around the world. On weekdays, the church is open to the public and we now often hear comments from the visitors about how beautiful the organ sounds. In fact, they are listening to a recording of the organ played over the Syva system. The fact that they can't tell the difference is proof to us that Syva is doing exactly what we want it to."

"The outcome is overwhelming," concludes Ten Kampe. "For the first time, both intelligibility and musical performance are very good. The church is very happy and instead of complaints about the sound, they get

compliments.”

