

EXCELLENT SPEECH INTELLIGIBILITY IN THE HAMBURG MICHEL WITH BEAM STEERING TECHNOLOGY FROM PAN ACOUSTICS



Pan Acoustics is delighted to be part of a major project in the heart of Hamburg, successfully implemented by its sales partner PROTONES: the installation of a state-of-the-art sound reinforcement system in the main church of St Michaelis - better known as "Michel". As one of the Hanseatic city's most famous landmarks, St Michael's is not only a place of worship, but also a venue for concerts, readings and cultural events.

In order to meet these diverse acoustic requirements, the existing sound technology was completely modernised - with the highest standards of sound quality, speech intelligibility and architectural integration.

Precise technology for a sensitive environment

The special challenge lay in the combination of stateof-the-art audio technology and the sensitive handling of a listed building. Among other things, active line source speakers with beam steering from our Pan Beam series were used, which now ensure even sound coverage in the Michel.

"The systems stand for excellent sound fidelity, directional dispersion and maximum efficiency - ideal prerequisites for the acoustically complex architecture of a church interior with a long reverberation time and large volume," reports Arne Sumfleth, Technical Manager at PROTONES, who oversaw the planning and installation and implemented the project together with Michael Hünteler, Sales Manager DACH region at Pan Acoustics. This ensured precise sound reinforcement throughout the entire nave - regardless of seating position or event format.

The new system also provides a reliable, powerful sound basis for musical performances - such as organ concerts, classical ensembles or choirs.

The special feature: The active Pan Beam systems do



not require a fan, which is particularly advantageous for classical concerts as the speakers do not generate any annoying background noise. "And since the loud-speaker housing is made entirely of aluminium, no additional fire load is introduced into the listed building," says Michael Hünteler, citing a further advantage of the system.

Intensive preparation: planning with foresight

The project was preceded by a detailed planning phase. A customised concept was developed in close consultation with the parish, the heritage conservation authority and other involved parties. This included several on-site appointments, acoustic measurements and systematic listening tests. This planning phase was essential, not only to determine the optimum system positions, but also to avoid disrupting the ongoing operation of the church.

Church services, tourist tours and cultural events had to be able to continue throughout the duration of the project. Thanks to precise scheduling, clearly defined work steps and close coordination with all trades, the installation was able to take place without any major restrictions for visitors or the church community.





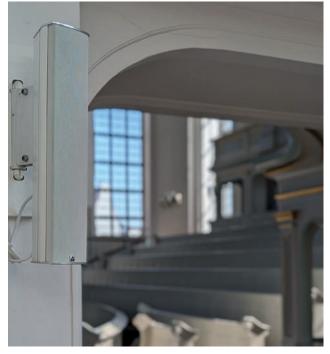
SPECIALIST FOR CHURCH SOUND REINFORCEMENT

Particular attention was paid to the visual restraint of the technology. The Pan Beam systems were installed in such a way that they blend harmoniously into the overall historical appearance of the church - almost invisible to the audience, but with a clearly audible effect.

Pan Acoustics has many years of experience in realising sophisticated audio projects in churches around the world. The combination of technological innovation, customised solutions and respect for cultural heritage makes the company a sought-after partner for sound reinforcement in sacred spaces - from small churches to large, expansive cathedrals.

THE MOST IMPORTANT KEY DATA

Special features	Listed traditional church
The challenge	Speech intelligibility with challenging acoustics
Used product series	Pan Beam series with 10 year warranty
Installation partner	PROTONES GmbH & Co. KG



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