

IMMACOLATA E SAN MARTINO A MONTUGHI



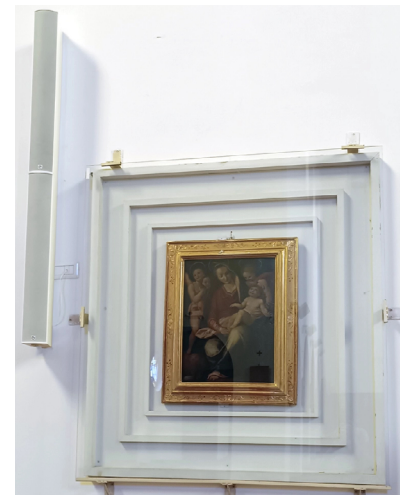
IMMACOLATA E SAN MARTINO A MONTUGHI CASE STUDY

Immacolata e San Martino a Montughi Installs AtlasIED Aimline Loudspeakers for an Improved Worship Experience

Ranked as one of the most beautiful cities in the world, Florence, Italy, is home to nearly 100 churches. Along via Paoletti stands the Immacolata e San Martino a Montughi, a Catholic house of worship constructed in 1936. Typical of many church designs, the vaulted ceilings, stone construction, solid wood pews, and long nave contributed to unsatisfactory reverberation, making it hard for parishioners to hear and understand the liturgy. Dynamic beam steering loudspeakers from AtlasIED are perfect for installations requiring highly targeted audio solutions.

The Immacolata e San Martino a Montughi was closed for an extensive restoration of the nave, and it was officially reopened in October 2023. However, no audio upgrades were implemented during the restoration, and the speech intelligibility issue present prior to the upgrades persisted. Church staff contacted Guido Guidi, a local AV consultant, to recommend a solution that would enable better intelligibility and a better worship experience along the 30-meter-long nave.

The project's primary objective was to ensure clear sound coverage throughout the nave, which was difficult given the structural and reverberation challenges typical of such spaces. As in any audio project, speech intelligibility directly correlates with comprehension: the clearer the sound, the better the understanding.



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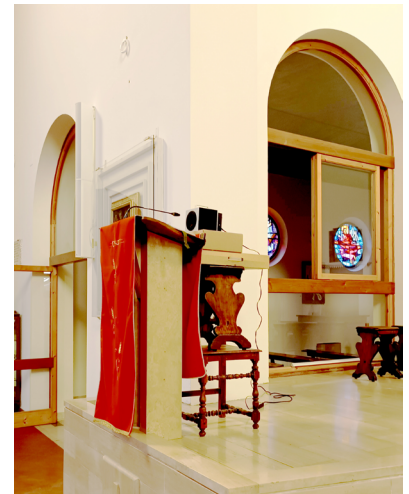
"With the help of [Leading Technologies](#) [AtlasIED's Italian distributor], I was quickly able to arrange an on-site demonstration, with ALX-D loudspeakers positioned along the sides of the nave," said Guidi. "We conducted listening tests with the parish priest and some parishioners, comparing the new setup with the old system, and carried out STI measurements directly on-site. In this case, the combination of rapid setup and accurate simulations was undoubtedly one of our strengths."

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— **Guido Guidi**
AV Consultant

Guidi installed [Aimline ALX-16D digitally steerable arrays](#) in the sanctuary to improve speech intelligibility and provide even front-to-back coverage. Designed for applications with problematic acoustics, the combination of advanced steering algorithms, powerful DSP, and efficient amplification in the Aimline Series gives system designers a unique set of tools for controlling sound in large, acoustically challenging, highly reverberant spaces. Aimline loudspeakers precisely control directivity in the vertical axis, resulting in optimal coverage and the best possible

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AND PROVIDE EVEN FRONT-TO-BACK
COVERAGE**



direct-to-reverberant ratio for enhanced intelligibility. Acoustic output is precisely aimed at the audience, significantly reducing reflections from hard surfaces. Additionally, the diminutive narrow cabinets and discreet mounting hardware seamlessly blend into architecturally sensitive spaces like the church's sanctuary.

"Given the need for controlled directivity sound lines — and the constraints imposed on loudspeaker placement — the ALX-16D models immediately proved to be a great fit," said Guidi. "We also upgraded the original processor and cables to take advantage of the Dante connection, which made the installation process remarkably fast."

"Considering the results and the system's outstanding performance, I will definitely keep Aimline and AtlasIED in mind for future projects."

— Guido Guidi
AV Consultant

The new system has significantly improved the acoustic experience, ensuring superior speech intelligibility even in the most distant points of the nave and resolving the reverberation problems that characterized the previous system.

Although indirect, feedback from the parishioners was overwhelmingly positive. Father Don Maurizio commented, "The fact that no one made remarks about the functioning of the new system is already a very good sign," and was particularly enthusiastic about how quickly the installation was completed.

"Considering the results and the system's outstanding performance, I will definitely keep Aimline and AtlasIED in mind for future projects with similar needs or challenges," said Guidi. "I will especially consider this brand for high-profile projects that demand reliable, high-quality sound systems."

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AtlasIED PRODUCTS USED IN THIS PROJECT INCLUDE:

[ALX-16D](#)