Established in 1912, Saint Elizabeth Catholic Church has served the needs of San Francisco’s Catholic population for over a century. To accommodate the ever-growing number of parishioners seeking to worship at Saint Elizabeth, a new church building was constructed in 1962. Designed with great care, the interior of the building features many beautiful elements, including statuary, wooden pews, stone floors, and vaulted ceilings. Unfortunately, these features created numerous auditory problems for those attending services.

“It’s really common for parishioners to complain to the priest that they cannot hear, but most of the time, what they mean is that they cannot understand,” said Tony Belo, an audio engineer who designs and tunes sound systems for Catholic churches. “The audio system is plenty loud — it’s loud enough for a rock band. It’s the reverberation that’s the problem.”

During the very first mass after the install, the priest asked for feedback. All he said afterward was, ‘Tony, it’s night and day. Night and day.’
SOLUTION

After installing close to 30 sound systems in Catholic churches, Belo has determined the optimal loudspeakers and DSP system for these acoustically challenging spaces. For loudspeakers, his go-to is Biamp’s Desono ENT-FR column line source loudspeakers, Nexia DSP, and Community ALC-3202D amplified loudspeaker controllers.

The Desono ENT-FR column offers superior performance in an aesthetically pleasing enclosure. The scalable design supports a wide variety of applications, from a single unit to floor-to-ceiling arrays of any length, minimizing sound reflections and reverberation while increasing speech intelligibility in the process. The system’s ability to allow installers to place the center of the vertical system lobe symmetrically or asymmetrically about the vertical axis of the column array is a major competitive advantage. A wide range of mounting brackets is available to fit nearly every installation.

At St. Elizabeth’s, Belo created a design utilizing two ENT-FR speakers on either side of the church and mounting brackets that fulfilled the priest’s request for a clean, minimal install. “The performance is very good. Plus, Biamp makes sure I have all the data and engineering measurements that I need. Because I can see the pattern of how it performs in different frequency spectrums, I know how to design and direct it — and they really conform to these patterns,” said Belo. “The results are predictable.”

Belo also mentioned Biamp’s customer support as a primary reason for his support of the brand. “If I have questions, I can call them any time,” he said. “They have been so helpful, providing valuable information that has made my work easy.”

CONCLUSION

Thanks to Tony Belo’s expertise and dedication, Saint Elizabeth now has an audio system capable of overcoming the murky acoustics that have long plagued the building, allowing parishioners to receive music and spoken word messages as intended. “I’m very happy with the quality of these solutions,” Belo said regarding the Biamp products that made this result possible. “They’ve become a standard for my design, which builds in some equipment redundancy for the church.”

Those who attend Saint Elizabeth noticed an immediate difference. “During the very first mass after the install, the priest asked for feedback. All he said afterward was, ‘Tony, it’s night and day. Night and day.’”