

Sound Advice for Churches

Nick Colleran learned the importance of sound quality in the 1970s while he was performing in churches and recording gospel albums. Colleran and his wife, Becky, began helping churches solve the acoustic problems they encountered as worship sounds shifted from organ to electronic and string music. Since 1997, as co-owners of Richmond, Virginia-based Acoustics First®, the Collerans have helped churches all around the country improve their sanctuary sound by designing and selling a full line of acoustical products.

The first step in improving sound is a sound survey. “We’ll help you understand the kinds of sounds you’re creating,” says Colleran. Information for the survey includes the style of worship, the type of music

sound waves and prevent echoes. Acoustics First also sells a line of plain acoustical fabric wall coverings. Absorbers are usually hung on walls or used as ceiling baffles. According to Colleran, installing absorbers is the first step in solving sound quality problems in most churches.

Barriers are high-density, mass-loaded materials used to keep sound from moving through walls or ceilings. Colleran notes that barrier products are often used to keep the nursery quiet or to prevent choir sounds from reaching the office.

Diffusers are devices used to diffuse or spread sound, but also preserve the sound in the room. Some diffusers have a rounded or polycylindrical shape and work best when placed in corners or on the ceiling. Acoustics First sells several types of diffusers including



played, and whether your sanctuary is multipurpose—perhaps hosting Friday night basketball games. “Since a large part of our business is the church market, we have expertise with all denominations and can handle everything from traditional music to high-energy praise bands.”

For churches that are fortunate enough to have a savvy audio technician available, Acoustics First will work directly with that person to improve sound. In other cases, an Acoustics First independent dealer will be the lead person helping with sound quality issues.

The folks at Acoustics First pay close attention to sound volume levels. A room acts differently at low sound levels than at high sound levels. For example, the sound from a vocalist with a guitar might not reach the back wall, whereas the sound coming from a pipe organ echoes throughout the room. It’s also important to know the direction sound comes from, so they will want to know which direction the pastor faces during the service, and where the choir is placed—at the front, back, or side of the sanctuary.

Colleran reviews pictures of the sanctuary to understand the size of the room and to look for columns, lofts, or other architectural features that affect sound. He’ll want to know if the church is planning any physical changes to the space. “Even something as simple as painting the woodwork can change a room’s sound dynamics,” he says.

Once the sound quality needs are defined, Acoustics First or your local dealer applies the scientific principles of sound waves to design your solution. They usually recommend a combination of three different types of products to improve church acoustics: absorbers, barriers, and diffusers.

Absorbers are foam or fabric-covered fiberglass panels used to absorb

the patented Art Diffuser® line. “These diffusers come in wood or plastic forms resembling block structures,” says Colleran. “They are especially effective at equalizing sound in recording environments.”

Acoustics First distributes several lines of absorbers, diffusers, and barriers in many standard sizes, finishes, and colors. While standard products are suitable for many applications, custom-made products are sometimes recommended to achieve the maximum effect. Since Acoustics First manufactures products, custom requirements are no problem at all, although they will often add to cost and delivery time. A church might choose a custom product designed to blend in perfectly with their architecture and décor.

Installation of acoustical products is often the easiest part of correcting an acoustic problem. Acoustics First or the dealer will give exact instructions on where to place panels and baffles in your sanctuary. Some churches choose to let the local dealer handle installation, but other churches rely on staff members or volunteers to do the job. The panels can be easily attached to the walls with z-clips, Velcro™, or glue.

Acoustics First continues to visually enhance its sound products while keeping prices as low as possible. Safety is always a top concern—all of Acoustic First’s products meet stringent fire codes, especially the core materials and fabric used in absorbing panels.

Whether you’re looking to install a full production studio or trying to figure out why the folks in the middle pews can’t hear the sermon, Acoustics First is prepared to meet the challenge. As Colleran points out, “Our goal is to help churches avoid all the mistakes we made when we were first starting out.”

—Kathy Crosett