Brønderslev Church has just reopened after a major renovation. New parish, a new extension to the church and an update of the old church room has been done in the renovation. They also took out all the old church benches and made a stone brick flat floor instead and the whole rebuilding project costed approximately DKK 24 million. Pulpit, sacrament benches, baptismal font and chairs are now mobile and can be moved out of the church room, and that allows the church to be used for many different religious and cultural events. In connection to the renovation, the church has also gotten improved acoustics and the installation of a new sound system as well as info screens and a projector solution at the altar so that churchgoers can better follow the ecclesiastical speeches. Brønderslev Church chose AV CENTER Aalborg as their partner to advise around and install the extensive AV installation.

**Bose MSA-12 speaker installation**

Six of the church’s granite pillars have Bose MSA12X active panaray speakers with built-in amplifiers installed. The DSP technology in these speakers means that the speakers can be placed vertically, in alignment with and close to the column, yet manage to focus the sound towards the chairs and the audience. The audio control that the audience receives is the direct sound from the speaker rather than the reflected sound from the room, resulting in better sound and higher speech intelligibility. Two subwoofers are connected to the speakers so that the sound system also can be used for music.

Sales Manager Tim H. Christensen of AV CENTER Aalborg says:

“The church ward council has been very far-sighted and innovative in their thoughts around the re-building of the church. They have really reflected on how the church space can be used and has stayed open to what technology that best can support their needs. They announced early on that they wanted to end up with a church room that is as flexible as possible. This, after all, makes some great demands on, for example, the sound system when it must be fixed. We found a great solution in collaboration with our partner Bose Professional and we went for speakers where the sound could easily be controlled and steered.”

**Advice on the acoustics of the church**

In collaboration with Bose, AV-Center suggested that a Modeler® design should be made so that the church could be sure that the acoustics would be preserved. Since early calculations showed a high reverberation, it was recommended to the church that they contact an acoustician.
This has resulted in dampening acoustic surfaces on the sidewalls and at the altar, and it has really tamed the acoustics in the church. The acoustic surfaces are beautifully integrated as well as the eight 55” Sony info screens that sit on the side walls down the church.

Info screens such as hymn boards and for viewing camera images
The info screens can act as hymn boards, display the hymn text, or display images from the two WHD pantilist cameras mounted in the church. The cameras have various pre-programmed presets, for example, focusing on the pastor, the baptismal front and the organist. During worship, the cameras will be substantially used to display image via the Panasonic laser projector, which sits mid-high up under the vault. The projector then shoots a picture onto the canvas that sits above the altar.

**Focus on user-friendly applications**
Throughout the process, focus has been on making audio, camera and video content as user-friendly as possible. A Bose Matrix is the central nerve in the system, and unique presets are added to each performance with equalizer settings for the wireless Sennheiser headset microphones. The sound system can therefore be operated via an iPad with simple faders and mute buttons for the various audio channels. During church actions, the church servant will control cameras and the prepared video content will be run from a PC.

Henrik Frost from AV CENTER Aalborg who has been project manager at the AV installation says:

“We have made operation and execution so user-friendly that everyone can participate and operate the equipment. The reaction from church staff is that it’s easy to go to. It has been an incredibly exciting task and it has been nice for us to be involved right from the start of the building process.”

**AV equipment for multi venue space and café**
AV CENTER Aalborg has also installed AV equipment in the new multi-room and in the new “Cafe Mill Garden”. The multi venue space has a Panasonic projector, motor canvas and a smaller sound system, and in the cafe there is a 75” screen which can show the activity in the church. A booking system for all the meeting and teaching rooms rooms has also been set up, so that you can see the booking of all rooms controlled from the church’s own calendar system via a small touch screen. There is also a telephone loop that covers all rooms in the church.

Henning Krabbe, chairman of the building committee and member of the ward council, says:

“Our headline for the entire project has been that we would like to lower the mental and physical door threshold to the church. The large canvas in the church choir means that you as a churchgoer are in it all and can see it all. It compensates for the flat floor that we have chosen in the church for the sake of walking and the flexibility of the church. When I do a tour of the church, I like to put some music on, and it sounds fantastic. AV CENTER has been very conscientious and keen on solving the challenges faces, and the outcome of it all is amazing.”

www.pro.bose.com
www.avcenter.dk
www.broenderslevkirke.dk.