



# BOZSIK ARENA

Deployed AV systems include the whole audio of the building - grandstand and football field audio, Digital Signage and full control system, internal communication platforms, and local AV equipment for the press conference room.

The entire sound system of the building is based on the digital DANTE™ protocol. It is controlled by a Crestron CP3 digital signal processor, which is still capable of real-time, uncompressed, high-quality audio channels on CAT-6 cable. A standard gigabit Ethernet network has been built for the system. This design is very flexible to test, easy to modify and expand, so the building's audio system timeless and flexible as well and adaptable to the changing needs. The purpose of the sound system is to provide live or streamed information in the stands, as well as high-quality transmission of music. The broadband, high-performance, high-

We won the AV design and implementation of the Bozsik Arena in 2020 which adorns in red and black colors of the Kispest Honvéd Football Club. The stadium can accommodate up to 8000 visitors and our installed systems provide high-quality information and entertainment for football, sports, cultural and other events. We had the opportunity to build the complete AV system through of an electrical weak current partner company and we are more than delighted to be able to fulfill all the technical requirements.

pressure speakers are weatherproof- provided by MAG Audio for the stadium. The 42 pcs of AIR-152-IP speakers were placed with the roof structure of the stands, and the amplifiers were installed close to the speakers to achieve the lowest possible signal loss.

We have integrated several speakers into the public areas as well as in all places where visitors may present in larger numbers. The system covers stairwells, corridors, access gates and all other public areas, with the exception of additional external car parks and areas around the stadium. The aim of the system is to inform the visitors of the facility, to provide background music to the selected zones, and to supplement the fire alarm system, and to broadcast evacuation warnings. In the design and construction of

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the sound system, we took into account the need to ensure adequate sound pressure and speech intelligibility in the open stand and in the areas delimiting the other sides, in addition to the background noise generated by the fans and the audience. During testing, the speech intelligibility measured in the empty stadium was STI  $PA \geq 0.64$  at a sound pressure of 81.4 dBA. The direct sound pressure was 103dBA in the range of 125Hz to 5,000Hz - this was produced by the system for more than 1 minute without overheating, distortion and failure.

During an evacuation process, the background music broadcast is silenced as broadcast of evacuation or other emergency information messages has priority. A Contacta HLD7 loop has been built into the counter at the cashier, where is a desktop microphone is connected, so the salesman can communicate directly with hearing-impaired visitors. To facilitate the work of the operators and to facilitate internal communication, an intercom system operates in the building. A Digital Signage system has also been set up to schedule the playback of previously created visual content and deliver it to viewers.



- Ottocanali 12K4 DSP + DANTE professional amplifier
- Crestron TSW-760 control panel with CP3 control processor
- Audac XMP44 modular player
- MAG Audio AIR-152-IP high performance speaker
- AMTECH RA662700 rack cabinet
- RSH-462 high power funnel speaker
- Audac SMA 350 + ANI22 DSP Dante professional PA amplifier
- Audac PMQ 600 + ANI44 DSP Dante professional PA amplifier
- Audac PMQ 480 + ANI44 DSP DANTE digital amplifier
- Audac PMQ 240 + ANI44 DANTE mixing amplifier
- Audac MFA 216 + ANI44 DANTE mixing amplifier
- Audio Technica ATND8677a + U857Q microphone
- Crestron TSW-560 touch screen
- Audac CENA506 / W speaker
- AMC iSpeak 5 side wall speaker
- Audac WX302 speaker
- AMC HQ30 speaker
- Screenline Inceiling screen

## DEVICE LIST