

THE DEBRECEN COMPETITION SWIMMING POOL

INTEGRATING SOUND AND WATER SPORTS

A COMMUNITY CASE STUDY - SEPTEMBER, 2008

ABOUT THE FACILITY

Swimming is hugely popular in Hungary. The nation of 10 million people captured three silver medals in swimming at the 2008 Summer Olympic Games, as well as its third consecutive gold medal in water polo. The Debrecen Competition Swimming Pool gives Hungarian athletes and their fans an elite modern facility to enjoy the sport. Located in Debrecen, Hungary's second-largest city, this venue hosted the European Short Course Swimming Championships in December 2007.

The facility, which opened in October 2006 and holds 1,300 spectators, features a 50-meter competition pool. It also includes a 25-meter training pool, Jacuzzi, Finnish sauna, and outdoor pool with thermal water. Retractable moving walls enable the main pool to resize to 33 or 25 meters.



THE SOUND SYSTEM

The Debrecen Competition Swimming Pool presented many challenges for Interton Electroacoustics Ltd., the Budapest-based company which designed and installed their system. Materials such as concrete, glass, water, and tiles make swimming pools extremely reverberant. And since important announcements get made during swimming competitions, speech intelligibility played a major role in selecting the right sound system for the main pool.

"The first challenge was to convince the customer that a special centralized (or point source) system was going to provide a very good result, much better than a distributed one," said Geza Balogh Jr., the Technical Manager for Interton.

Debrecen also required high sound pressure levels to overcome background noise from spectators, and weather resistance due to the high humidity from swimming pools. Balogh knew that the many features of Community's R2 loudspeakers made them a perfect fit. "Their weather resistant design is obviously a key requirement in a swimming pool. The extremely high sensitivity and high output were a big



advantage, because only six loudspeakers were enough to provide such a high SPL. Three-way construction ensures high quality audio, and finally it was quite easy to form a special column out of six R2's, thanks to the shape of the speaker."

SOUND SYSTEM (CONTINUED)

Adding to the project's complexity, Interton had to design and manufacture the loudspeaker bracket system to hang this special R2 cluster. These six loudspeakers are driven by three QSC PLX3102 amplifiers, and the system is controlled by a DBX DriveRack 260. Interton also provided Debrecen with four Community R.5-94 loudspeakers for a mobile system. Due to their weather resistant design, the R.5 loudspeakers can be set up around the swimming pool, and other outdoor or indoor locations. The compact R.5-94's high sensitivity and high power made them ideal for this solution.

Debrecen has hosted several competitions in the past year and received excellent comments on the system, according to Balogh. "We got the biggest compliments last year, during the 11th European Short Course Swimming Championship. The organizers remarked that the sound reinforcement was excellent, the sound was clear, and the speech intelligibility was by far the best compared to previous venues."

EQUIPMENT HIGHLIGHTS

- Six Community R2 loudspeakers (2 R2-94, 4 R2-52)
- Three QSC PLX3102 amplifiers
- DBX DriveRack 260
- Soundcraft LX7ii-24 mixer
- TOA WM-4000 series wireless microphones

THE LOUDSPEAKERS

There is a Community R-Series for every installation. Highly weather resistant for outdoor applications, but appropriate for indoor use as well, the R-Series offers exceptional voice clarity and sound projection capability.



R2



R.5

Community's R-Series Application Guide profiling over twenty indoor and outdoor installations can be downloaded from www.communitypro.com. The Application Guide shows how to overcome common acoustical challenges using R-Series and provides model recommendations for common applications such as sports venues, convention centers and warehouses.

Community's All-Weather/All-Purpose product brochure featuring WET and R-Series can also be downloaded from www.communitypro.com.

*Community has been a leading supplier of professional loudspeaker systems since 1968.
Headquartered in Chester, Pennsylvania,
Community distributes its products to over fifty countries on six continents.*

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