

The Millennium Stadium

Cardiff

Enhancing the match day experience



Project Brief

Vaughan Sound Installations (VSI) has worked with the Millennium Stadium historically on a number of installation projects; this includes teaming up with Security Centres to install a new fire telephone system. More recently, VSI in conjunction with CUK Audio, Baldwin

Boxall and the Welsh Rugby Union (WRU) completed a major refurbishment of the stadium's audio system. Essentially the client brief was to deliver an economic, cost-effective solution with the emphasis on improving the systems operation and performance.



Client Overview

Since opening in June 1999, the Millennium Stadium has welcomed, on average, over 1.3 million visitors per year. The stadium boasts the first fully-retractable roof in the UK and is a leading venue for multi-purpose, multi-faceted events.

"VSI were absolutely delighted to be invited to tender and subsequently win the contract to refurbish the audio system at the Millennium Stadium. To meet the contractual deadlines the project was very demanding but in the end incredibly rewarding."

Paul Adams

The PAI Group Managing Director

Technical Solutions

The WRU chose VSI to refurbish and maintain the stadium's audio system. In order to deliver best value commercially and technically VSI entered into collaboration with CUK Audio to co-ordinate and integrate the new audio solution. Community Loudspeakers are internationally recognised in the arena of sport stadia. As a result of this partnership, audio quality, intelligibility and overall coverage have been vastly improved. Additionally, in the eventuality of an emergency evacuation VSI have incorporated the new audio system with the stadium's life safety system.

The existing Community M4 and EM 280 horns were reconfigured and reinforced by the addition of R6 Bass bins around the pitch perimeter. Powersoft K series and DC amplifiers were installed to power the front end supplemented by the original crest amplifiers. Powersoft LQ-2804 & Q-4002 amplifiers were utilised to improve the Community WET2V8 under balcony delays.

Behind the scenes, the Baldwin Boxall Vigil EVAS network router and controller monitors distribution between each of the stadium's six racks and interfaces with the fire alarm system. A new mimic display touch-screen is installed in the stadium's control room for match day operation together with a zoned BVRD microphone in the security room. A new enhanced data network cable links the distributed racks throughout the stadium. Processing within the main stadium bowl is provided by dual BSS Soundweb BLU 80 processors in each of the rack locations. The existing 100 v line circuits have all been reconfigured and interfaced with the new system to vastly improve communication throughout.

Along with the new audio system, the Millennium Stadium has undergone major technological improvements carried out by the technology services company CAE. These improvements have transformed the match-day experience, making the Millennium Stadium one of the most technologically advanced stadiums in the UK.

The installation of two 90 square metre LED big screens for each end of the pitch and over four hundred high-definition LCD screens around the concourse and in hospitality suites were included.

Control of all communication systems in the stadium have also been consolidated to

work alongside the latest TV, video and audio production support systems to create a new in-house broadcasting channel. 'WRU TV' allows live, behind-the-scenes and pre-recorded footage to be screened around the stadium, enhancing the match experience for fans.

Separately, Security Centres were awarded the contract to upgrade the stadium's existing fire alarm system and approached VSI to design and install the fire telephone system. To this end, Omnicare by Baldwin Boxall was specified and installed.

Outcome

VSI in conjunction with CUK Audio have successfully delivered an audio solution that has not only improved the quality of sound but compliments the Stadium's existing communication systems. The new intuitive solution allows the audio to be easily controlled and monitored from one area.

The £3million refurbishment project was undertaken primarily as part of the preparations for the Millennium stadium to host the eight football preliminaries during the 2012 London Olympics.

Key Products

- Baldwin Boxall Vigil EVAS
- BSS Soundweb BLU 80 & 100
- Community R6 Bass Horns
- Powersoft K Series Amplifiers
- Powersoft DC and LQ range of Amplifiers
- Baldwin Boxall Omnicare System



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