

HITTING THE RIGHT NOTE

T.G Baker has installed an innovative Nexo PA/VA system at Molineux, the football league's first stadium.

Sound and communication specialist integrators **T.G.Baker** have transformed the entertainment experience for **Wolverhampton Wanderers FC** fans.

The company has updated the public address/voice alarm (PA/VA) system at **Molineux Stadium** in Wolverhampton with a **NEXO** solution that has made "a massive difference" without blowing the budget.

Molineux Stadium, home ground of Wolves since 1889, was the first stadium ever built for the **Football League**.

It was one of the first grounds in the UK to install floodlights, and one of the founding hosts for European club games in the 1950s.

Now owned by **Fosun International**, a Chinese conglomerate and international investment company, this 31,000-capacity stadium continues to innovate, as befits a club that sits at the top of the **EFL Championship**.

Called in by Steve Sutton, Wolves Head of Operations, the T.G.Baker team was asked to design and install a new audio system for entertainment and PA/VA alarm.

"Our old system was 24 years old, and well past its recommended working life," said Sutton. "Our new owners

and Laurie Dalrymple, our Managing Director, were very keen to deliver a top-class programme of entertainment on match days."

DYNAMIC AUDIO

Match days at Wolves feature a dynamic programme pre-game and at half-time, with live pitchside interviews with footballers and pundits, and more recently a full pyrotechnic display, synced to audio.

"All of this was limited by the capability of the loudspeakers," explained Sutton. "We were getting many complaints, not least from our frustrated DJs."

T.G.Baker, the Glasgow and Blackburn-based audio specialists, has a substantial track record in specifying stadium sound reinforcement systems, with more than 20 venues on their reference list.

For Molineux Stadium, project manager Andrew Plunkett had established that a full line array solution, while desirable, did not fit with the project budget, and was looking for a point-source solution. For the first time, he included NEXO on the list of options.

"We set up a 5-way listening test for the MD and the club's commercial and marketing managers. All models were on the pitch, and we played the music programme that they use on match



days. The NEXO PS15-R2 model was a unanimous choice for intelligibility and even coverage, but also because it has great low-end, eliminating the need for sub-bass cabinets. The listening panel all agreed that there was something different about the NEXO box – it just delivered more of everything”.

Designed on NEXO’s proprietary NS-1 prediction and modelling software package, the Wolves system uses the PS15-R2 loudspeaker model across three stands (the fourth, the Stan Cullis stand was rebuilt in 2012 and its existing audio provision was maintained).

INDUSTRY FIRST

Although NEXO is a world-leading manufacturer of stadium line-array solutions, this is the first time a complete football stadium has been equipped with the single 15-inch 2-way PS model, with incremental savings for the budget because of the relatively small number of amplifiers required.

The cost-effective PS15-R2 cabinets are fixed to the roof of each stand, 34

in total, throwing over 20–25 metre distances yet giving impressively even coverage with clarity.

The whole system is powered by just six NXAMP4x4 amplifiers, distributed over three locations.

“All programme audio elements are distributed over a Dante network, while flexible routing is carried out from a laptop in the DJ studio running a topographical control page” explains Plunkett.

“Zoning in each stand provides independent control over audio levels, which can be tailored to the demographic profiles, like the noisy hard-core fan base, the family enclosure and the long-standing season ticket holders who tend to be older. Also, if the wings of the stadium are empty, music can be turned down in these areas without affecting the safety announcements.

“Most importantly, we needed to ensure that the system was suitable for use with the VA system, so the NEXO NXAMPS have also had a special

firmware version designed with life safety systems in mind. The VA uses its own routers and proprietary network in a monitored system, which takes full, automatic priority over the event-day programme, while the NXAMPS monitor the loudspeaker lines for faults and report back to the VA”

Sutton reported that there are measurable improvements as a result of the new installation.

“Our MD places a high value on fan engagement, and in fact he was instrumental in calling for the new system. We can now deliver a much more professional entertainment programme, especially in the crucial five minutes before kick-off; consequently, we can see fans coming into the stadium earlier than before. Sound is subjective, but, in my opinion, it’s made a massive difference since the NEXO system went live.” ■

