

# Pioneer

CASE STUDY

## ROYAL ANTWERP FOOTBALL CLUB

BELGIUM

Legendary Belgian football club partners with Pioneer Pro Audio to create a new match day experience for fans.





# ROYAL ANTWERP FOOTBALL CLUB

## BELGIUM

“

When you have famous DJs and you want to entertain the fans before and after the game, it’s important that you have a great sound system.

”

Patrick Decuyper | CEO and shareholder | RAFC

When Patrick Decuyper took over as CEO and majority shareholder at Royal Antwerp Football Club (RAFC) in 2015, his goal was not only to improve the team’s performance in the league, but also to transform the match day experience at the club’s Bosuilstadion. “Football has changed from just a game to an experience,” he explains. “Before the games we have entertainment and DJs, and after the match it’s party time.”

But there was a problem: the stadium’s sound system was outdated and had deteriorated beyond use. “It was so old, we could have put it next to the trophies in the club museum,” chuckles Serge Van Hove, Head of Marketing at RAFC, adding: “We weren’t able to speak through the microphone to the fans – they couldn’t hear anything in parts of the stadium. We had to change something and we had to do it fast.”

### INSTALLATION AT A GLANCE

<b>TRIBUNE 1</b> <ul style="list-style-type: none"><li>• XY-152 15-inch full range speaker x 10</li><li>• XY-118S 18-inch bass reflex subwoofer x 2</li><li>• XY-81 8-inch full range speaker x 2</li><li>• Powersoft K2 DSP x 2</li><li>• Powersoft K3 DSP x 1</li><li>• Powersoft M30 x 1</li></ul>	<b>TRIBUNE 3</b> <ul style="list-style-type: none"><li>• XY-152 15-inch full range speaker x 4</li><li>• Powersoft K3 DSP x 1</li></ul> <b>TRIBUNE 4</b> <ul style="list-style-type: none"><li>• XY-81-W 8-inch full range speaker x 12</li><li>• Powersoft K2 DSP x 2</li></ul> <b>KWADRO</b> <ul style="list-style-type: none"><li>• XY-101 10-inch full range speaker x 2</li><li>• XY-115S 15-inch bass reflex subwoofer x 1</li><li>• Powersoft M50Q x 1</li></ul>	<b>ATRIUM</b> <ul style="list-style-type: none"><li>• XY-101 10-inch full range speaker x 6</li><li>• XY-215S 15-inch bass reflex subwoofer x 2</li><li>• XY-81 8-inch full range speaker (DJ booth) x 2</li><li>• Powersoft K2 DSP x 1</li><li>• Powersoft M50Q x 1</li><li>• Powersoft M20DSP x 1</li></ul> <b>EXECUTIVE LOUNGE</b> <ul style="list-style-type: none"><li>• XY-101 10-inch full range speaker x 4</li><li>• XY-115S 15-inch bass reflex subwoofer x 2</li><li>• XY-81 8-inch full range speaker (DJ Booth) x 2</li><li>• Powersoft M50Q x 1</li><li>• Powersoft M20DSP x 1</li></ul>
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# THE CHALLENGE

## A NEW KIND OF STADIUM SOUND

Originally built in 1923, the Bosuilstadion holds 14,000 spectators, but they're not your average football fans. RAFC's supporters are known as the loudest in Belgium and the old PA system was inaudible over their singing. The club's management team asked Pioneer Pro Audio to fix the problem. But, as conversations progressed, the idea came about to do something unusual for an outdoor stadium: create a sound system that would achieve crystal-clear audio for announcements at high volume and a nightclub-like sound when DJs played music before and after matches. "We needed to deliver the full range of audio signal as opposed to just the mid and high you're normally used to in a football stadium," explains Pioneer Pro Audio's Manager, Alex Barrand.

The dual objectives of the system presented a number of challenges. "When you go to a football stadium, they usually have long-throw sound systems. That's OK for announcements, but it's just not good enough to play music on," explains Kristian Van Haute, Pioneer Pro Audio's Country Manager in Belgium. Together, he and Barrand needed to assemble a system that would work for both purposes, giving even coverage in each stand without sound drifting onto the pitch and avoiding delays that can occur in outdoor set-ups. Installation would be tricky, too, as the stadium's age meant that safely hanging heavy speakers from the roof wouldn't be easy.

“  
At first, we just wanted the ability to speak to the fans but once we started talking with Pioneer Pro Audio, it evolved into a high-quality full sound system which would let us create a party in the stadium.  
”

Serge Van Hove | Head of Marketing | RAFC









# THE SOLUTION

## A BESPOKE INSTALLATION

“We run an AES loop all the way around the stadium, allowing a pure digital signal to run in a continuous loop. There’s no jitter, there’s no jumping around of signal, so it’s purely clean.”

Alex Barrand | Manager | Pioneer Pro Audio

Using acoustic simulation software, the Pioneer Pro Audio team was able to measure the intelligibility of the system before a single box was installed. This gave the club’s management team the reassurance that announcements would be heard clearly by every fan in the Bosuilstadion.

The plan was to mostly use double clusters of the 15-inch XY-152 box throughout the stadium. The largest stand, where the most vocal supporters sit, would have the most speakers. And it needed them as it’s not only the biggest area to fill, but some parts are also exposed to the elements. “We used six clusters of two 152s, allowing 120-degree dispersion across that whole area per cluster array,” explains Barrand. “That allowed us to really push the levels out to the right areas dedicated to the hard-core fans.”

Due to health and safety laws, only accredited companies can install suspended speakers at a stadium in Belgium. The Pioneer Pro Audio team enlisted the help of local installers Kick, who were able to handle the job and get the work certified. “We lasered all the metalwork and made custom brackets for the clusters to comply with the law,” says Karel Geukens, who oversaw the process. “We also took great care to make sure things like the right types of bolts were used and safety chains were secured properly, and that nothing exceeded rules on maximum weights,” he adds. And, although the XY Series speakers are moisture resistant as standard, Kick also made a custom weatherproof backing for each box to stop rainwater from entering at the terminal.

The RAFC project also included installing sound systems in three hospitality rooms around the stadium, two of which have custom-made DJ booths. A two-tiered area of business seats, which are separated from the regular seats by a glass screen, has its own set-up, too. Sound from the crowd is mixed with the announcements and music played inside the stadium, broadcasting to the highest paying ticket holders behind the glass.

Powersoft amplifiers drive the entire sound system, with the K Series being the natural choice for the outdoor areas due to the capacity it gives to route the AES signal through a CAT-5 connection, hence significantly decreasing cabling costs. The AES signal is backed up by an analogue system, which will kick in, switching the amps to analogue mode, if the digital signal fails in any area of the stadium.





# THE RESULT

## A UNIQUE STADIUM EXPERIENCE

I haven't been to another stadium where the sound is so warm; it's actually like you're in a nightclub.

Serge Van Hove | Head of Marketing | RAFC



Recalling his reaction on hearing the finished system for the first time, RAFC's Decuyper says: "It was a surprise, not only for myself, but also for the fans. They weren't expecting such a quality, full sound." And Van Hove remembers: "The bass was really intense and I could see people dancing in the main stand where all the business clients are. If you see people moving from one leg to another, that's a good thing."

But it's not just the staff and supporters who've been impressed by the new system, says Decuyper. "In the past, DJs ignored us when we invited them to play here. Now they're proud to be here because they know that the system works perfectly and that the fans will hear it loud and clear."

With the new system in place, everyone in the crowd can hear announcements clearly, even above the loudest fans in the country. Van Hove describes the sound as, "warm, but also crisp and clear. You can hear everything", but perhaps the biggest compliment comes from Decuyper when he says: "I think the team who created this system have the same goal. They want to deliver quality and that's something you see in the team and that's something you hear through the sound."



#### About AlphaTheta Corporation (former company name: Pioneer DJ Corporation)

AlphaTheta EMEA Limited is the subsidiary of AlphaTheta Corporation responsible for sales and marketing in EMEA. For more than 20 years, the Pioneer DJ brand has been a market leader in the design and production of innovative DJ equipment and software. The company works closely with DJs and clubs to deliver next generation products that inspire and shape the global dance music community and has recently launched a new range of musical instruments for production and live performances. Its portfolio includes brands such as TORAIZ, Pioneer Pro Audio and Pioneer DJ Radio as well as social platforms KUVVO and DJsounds. AlphaTheta Corporation is a privately held company headquartered in Yokohama, Japan, and is led by President and CEO Yoshinori Kataoka.

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