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Margaret Court Arena

John Alekna of Marshall Day Acoustics

By Jason Allen
Margaret Court Arena, in Melbourne Park, started life in 1988 as an open air tennis court known as Show Court One. Thanks to the $700 million Melbourne Park Masterplan, the outdoor court was brought inside with a retractable roof, just in time for the 2015 Australian Open, and renamed after the legendary Margaret Court, winner of more Grand Slam titles than any other tennis player in history. It now boasts a capacity of 7,500, and hosts not only tennis, basketball and netball, but a huge range of concerts by international and local touring acts.
In The Zone

With as many solutions to stadium sound as there are stadia, we asked John Alekna why the Electro-Voice EVH Series were the way to go at Margaret Court. “The EVH Series were chosen because they deliver controlled coverage in each seating zone. A line array wouldn’t have had the right pattern or be as cost effective, the directivity of front loaded boxes wouldn’t have delivered adequate intelligibility and the retractable roof precluded a centre cluster. We wanted a punchy sound to get over the crowd noise, and the EVH’s horn loading means they’re good at providing direct sound in reverberant spaces. The EVH range has a large range of coverage angles, so there are different loudspeakers that suit different areas.”

Far from a straightforward installation, integration of the PA into the building’s emergency systems and the physical limitations of the roof meant there were some tricky problems to solve. “There was a requirement to cover the court, mainly for evacuation, as it tied into the EWIS,” John continued. “We had put end-of-line monitoring on the bowl system to meet the statutory
**Installation Case Study**

The Bowl Roof Open

"The EVH’s horn loading means they’re good at providing direct sound in reverberant spaces."

- John Alekna

Custom bracketry

All Systems Go

Vocia’s signal network backbone is run on the tried-and-true CobraNet platform, but that didn’t stop a little bit of CobraNet’s modern replacement, Dante, from sneaking into the building. “We supplied a digital mixing desk, a Yamaha QL5, for the control room,” Graham added. “Sporting clients like basketball use it to mix their events, while concerts bring their own production. The QL5 is currently patched into the bowl PA system via analogue cabling, but it has a Dante interface built-in. We’ve installed a complete structured cable network in the bowl for productions coming in with Dante gear.”

Sennheiser radio microphones, Denon CD players, Crestron control and hearing augmentation from Listen round out the system. And what was the hardest element of the install? “Because the bowl loudspeaker design was very precise in the units used and their coverage angles, we had to have customised brackets fabricated to hang them from the roof trusses,” Graham elaborated. “At one point, we had six 90 foot cherry pickers working. It was difficult to get the boxes hanging on the brackets at the right angles to conform to the EASE plot, but we got there in the end. Bosch came in and assisted with tuning, alignment, and measurement. Everything’s on the network, you can drop in anything and connect it to anywhere, and it’s all run really well.”

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