A COLLECTION OF GLOBAL AUDIO SOLUTION REFERENCES

# FOR SPORTS VENUES

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"With our wide product portfolio and a proven track record, we can satisfy all sports venues' stakeholders – no matter how complex the requirements are."

Oliver Sahm, Director of Application Support

## **INTRO**

Modern sound reinforcement solutions are based upon multi-functional, multi-domain integration and networking concepts. From the parking lots to the VIP suites, from the concourses to the front-of-house system, professional sound is delivered with maximum intelligibility and clarity.

The ideals of Electro-Voice and Dynacord are to provide solutions for small, medium and large system applications. With regard to audio quality and intuitive operation, we also utilize our OMNEO media networking architecture. This architecture is built upon open public standards supporting today's protocols like Dante audio networking and AES70 control. It is future proof for new norms, and with its additional functions it provides the highest levels of system reliability and redundancy.

Our team of experienced application engineers around the world is ready to support our clients in the selection, design and implementation of our products in their sports venue projects. These solutions are based upon extensive experience, while helping to ensure an optimal total cost of ownership and utilizing our environmentally friendly product portfolio.

Oliver Sahm, Director of Application Support

"The new EV sound system checked all our boxes with a greatly improved listening experience throughout the arena. We are also very happy to have improved flexibility of use to fit our varied types and sizes of shows and events."

Spectra's A.J. Johnson, Production Manager for Wells Fargo Arena



# WELLS FARGO ARENA

Des Moines, Iowa USA

MULTI-PURPOSE ARENA - 16,980 SEATS

#### Main system equipment

XLD line-array loudspeakers

EVID-S compact surface-mount loudspeakers

**IPX** series amplifiers

#### System summary

To tame the acoustic challenges of this asymmetric venue, the integrator built a system around Electro-Voice XLD line arrays, which incorporate a unique approach to horizontal steering. The entire system is powered by Dynacord IPX series multi-channel DSP networked amplifiers with Dante and OCA networking for audio redundancy, remote monitoring and remote control. The end result is a system that accurately reproduces music and the voice of the announcer – as captured by an Electro-Voice RE20 microphone.







"We've used this system for every type of event at AT&T Stadium, and it's amazing how flexible it is. After 10 years, we're happy to say everything still looks and sounds new, and you can't ask for more than that."

Gary French, Audio Engineer in Charge for the Dallas Cowl



**Dallas, Texas USA** 

MULTI-PURPOSE ARENA – 80,000 SEATS, EXPANDABLE TO A TOTAL CAPACITY OF 105,000

#### Main system equipment

- X-Line line-array loudspeakers
- XLCi line-array loudspeakers

TG series amplifiers

NetMax N8000 system controller

#### System summary

It takes a powerful yet nuanced system to deliver great sound to every corner of the world's largest covered stadium, which is why the home of the Dallas Cowboys chose EV line arrays and Dynacord-engineered amplifiers and system controllers. A major upgrade that expanded the number of line-array cabinets in the upper levels was completed in 2019.







"The Dolphins team are pleased to report that the system has exceeded their performance expectations while meeting budget and timing requirements. The system is at its best when the stadium is full, enhancing the fan experience with clear, effortless coverage, and rising to the occasion to amplify crowd energy in big moments."



# HARD ROCK STADIUM

Miami, Florida USA

MULTI-PURPOSE ARENA - 74,767 SEATS

#### Main system equipment

XLCi line-array loudspeakers

EVF-S series front-loaded loudspeakers

- EVH-D series horn-loaded loudspeakers
- ZX1i compact surface-mount loudspeakers
- EVID-C series ceiling loudspeakers
- NetMax N8000 system controller

#### System summary

More than 3000 EV loudspeakers ensure that this stadium lives up to its name! To keep the main bowl rocking, XLCi line arrays are matched with X-Line Advance Install dual-18" subs. EV sound provides seamless coverage to all seating areas, concourses, offices and public areas.



"We're manufacturer agnostic. It's my job to find the best product for the application, regardless of brand. For outdoor venues where you have to worry about bleed-out noise being disruptive to the neighborhood, I've found Electro-Voice EVH and EVF speakers to be a great choice."

CUMMIN

COLAB

CHS

Kent Stevenson, Sales Engineer Electronic Design Company (EDC) of Minneapolis

CHS FIELD Saint Paul, Minnesota USA

CHS FIELD

OFFLER IT

BASEBALL PARK - 7,210 SEATS

#### Main system equipment

EVF-S series front-loaded loudspeakers

EVH-S series horn-loaded loudspeakers

EVID series ceiling and compact surface-mount loudspeakers

#### System summary

EVH horn-loaded loudspeakers mounted on the light poles cover the entire field, augmented by EVF and EVID fills in the main seating areas. EVID 6.2 loudspeakers bring sound to spectators seated on the lawn beyond the far side of the outfield.



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The combination of Electro-Voice and Dynacord not only meets the challenges inherent to the world's loudest sport, it also delivers to the audience and the racing drivers the authentic, powerful sound of the event, to feel the speed and passion of the F1 Shanghai.

# SHANGHAI INTERNATIONAL CIRCUIT Shanghai, China

MOTORSPORT CIRCUIT - 200,000 SEATS

#### Main system equipment

EVH-D series horn-loaded loudspeakers

**IPX** series amplifiers

#### System summary

To cut through the extremely loud roar of the racetrack with powerful, clear audio quality, the main grandstand's loudspeakers were upgraded to Electro-Voice EVH models. Arrays of EVH two-way horn-loaded loudspeakers, powered by Dynacord IPX series multi-channel DSP amplifiers, provide seamless coverage and high intelligibility – even in reverberant areas – effectively solving the sound reinforcement challenges posed by such events as F1 races.





"The goal was a sound pressure level of 110 dB, with a difference of less than 6 dB, across all areas of the stadium. From past experience we knew that Electro-Voice speakers would deliver."

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Alexandru Tican, Gerom International's Technical Director

## ION-OBLEMENCO STADIUM Craiova, Romania

SOCCER STADIUM - 30,983 SEATS

#### Main system equipment

EVH-D series horn-loaded loudspeakers

CPS series amplifiers

Dx46 system controller

#### System summary

Stadionul Ion Oblemenco in the Romanian city of Craiova boasts a comprehensive Electro-Voice sound system. EVH-1152D 15" two-way horn-loaded loudspeakers are the perfect choice to ensure consistent sound quality and seamless coverage across every seat.



UN IVERSITATEA CRAIOVA ECHIPA TA - Campioana unei mari iubir





"The DSP amplifiers of the Dynacord IPX series were the ideal choice for the Berlin Olympic Stadium. They pack more power with significantly less rack space and consume much less power, while full IP networking makes the stadium ready for any challenge."

Frank Neubauer, Technical Director of the Olympic Stadium

## OLYMPIC STADIUM

Berlin, Germany

MULTI-PURPOSE STADIUM - 74,475 SEATS

#### Main system equipment

XLC-DVX line-array loudspeakers

**IPX** series amplifiers

#### System summary

The current sound system in the historic Berlin Olympic Stadium was installed during a complete renovation in 2004. In 2018, the Electro-Voice XLC line arrays were upgraded with DVX components that increase both sound output and intelligibility. Newly installed Dynacord IPX multi-channel DSP amplifiers with Eco Rail Technology greatly reduce energy consumption and cost. IPX amplifiers also make it possible to implement redundant Dante audio networks.







Celtic Park is an awesome stadium, and one of the loudest places I've ever been for a match. The club wanted a state-of-the-art emergency notification system, and wanted to integrate that with an audio system that would provide clear sound for every seat in the house.
It's a challenging project, but the combined solution of Bosch and Electro-Voice works perfectly."

Vic Swain, engineering director for PEL

# CELTIC PARK

Glasgow, Scotland

SOCCER STADIUM - 60,411 SEATS

#### Main system equipment

EVH-D series horn-loaded loudspeakers

EVF-S series front-loaded loudspeakers

#### System summary

Electro-Voice EVF and EVH loudspeakers aimed at the areas above the seats improve coverage, clarity and fidelity within the main bowl of the stadium. The Electro-Voice loudspeakers are amplified, monitored and controlled remotely with Dynacordengineered matrix controllers and amplifiers. The integration of the front-of-house system with a Bosch voice-alarm system represents a commitment to both comfort and safety.



# MORE REFERENCES FROM AROUND THE WORLD

#### TCU SCHOLLMAIER ARENA

USA, Fort Worth BASKETBALL ARENA – 8500 SEATS Read the full story <u>HERE</u>

#### SUZHOU OLYMPIC SPORTS CENTER

#### China, Suzhou.Jiang Su

MULTI-PURPOSE SPORTS STADIUM – 45,000 SEATS Multi-Purpose Stadium - 13,000 seats Read the full story <u>HERE</u>

#### CADILLAC CENTER

China, Beijing BASKETBALL ARENA – 18,000 SEATS Read the full story <u>HERE</u>

### GRÜNWALDER STADIUM Germany, Munich

SOCCER STADIUM – 15,000 SEATS Read the full story <u>HERE</u>

# FOSHAN INTERNATIONAL SPORTS & PERFORMANCE CENTER

#### China, Guang Dong

BASKETBALL ARENA – 15,000 SEATS Read the full story <u>HERE</u>

#### TEDDY (KOLLEK) STADIUM

#### Israel, Jerusalem

SOCCER STADIUM – 34,000 SEATS Read the full story <u>HERE</u>

#### KARBALA OLYMPIC STADIUM

#### Iraq, Karbala

SOCCER STADIUM – 30,000 SEATS Read the full story <u>HERE</u>

#### YI SUN-SIN STADIUM

#### Korea, Asan

MULTI-PURPOSE SPORTS STADIUM – 17,376 SEATS Read the full story <u>HERE</u>

See the latest references on our websites <u>electrovoice.com</u> and <u>dynacord.com</u>

North America Global HQ Bosch Security Systems, Inc. Burnsville, MN +1-952-884-4051 Asia Pacific Regional HQ Robert Bosch (SEA) Pte Ltd Singapore +65 6571 2808 Latin America Regional HQ Robert Bosch, Limitada Security Systems Campinas, SP, Brasil +55 19 2103-4282 Europe Regional HQ Bosch Sicherheitssysteme GmbH (EVI Audio GmbH) Straubing, Germany +49 9421 706-0 China Regional HQ Bosch (Shanghai) Security Systems Ltd. IBP, Changning District Shanghai, P.R. China 400-8310-669

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