

# Press Release

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## Electro-Voice and DYNACORD in the new Rudolf-Harbig Stadium in Dresden

December 2009  
ST/SEC-MKT

- ▶ Capable of accommodating up to 32,000 spectators, the new Rudolf-Harbig Stadium in Dresden meets the highest international standards – both as a sports arena and as a pro audio installation
- ▶ Hesse & Partner of Rostock worked with EVI Audio's Technical Support Team to design and install a world-class sound system featuring DYNACORD ELA and Electro-Voice equipment

**Straubing / Dresden, December 2009** In the new Rudolf-Harbig Stadium, the city of Dresden – and its third division football team, SG Dynamo Dresden – possesses one of the most modern and attractive stadiums in Germany. The arena was opened in mid-September after slightly less than two years' construction, and boasts a capacity of over 32,000 spectators, a VIP area capable of accommodating just under 1,200 guests, and a customer-friendly infrastructure. The new building, erected on the site of the old Dynamo Stadium in Dresden's *Volkspark*, cost around 46 million euros — a budget that left the planners and organizers plenty room for a state-of-the-art stadium design. Already, barely two months since the opening of the new arena, their decision has been vindicated, as the stadium has not only proved a magnificent setting for SG Dynamo Dresden's home games but also impressed FIFA authorities enough for them to sanction it as a venue for the FIFA Women's World Cup in 2011 and the Women's Under-20 World Championships the following year.

As was the case with Berlin's Olympic Stadium and the Allianz Arena in Munich, the two major showplaces of German stadium design, the planners attached great importance to the quality of the audio systems installed at Rudolf-Harbig Stadium. After putting the installation out to tender and assessing presentations by a number of rival companies, the clients opted for the solution proposed by the Rostock-based sound company Hesse & Partner. In cooperation with Warnemünde-based Meissner — the two firms had already worked successfully together on the AWD Arena in Hannover and Hansa Rostock's Ostsee Stadium — Hesse & Partner convinced the decision-makers with a combination of ELA equipment from DYNACORD and pro audio systems from Electro-Voice. EP Meissner's team of electricians handled the loudspeaker installations and the

customer-implemented wiring whilst Hesse & Partner supplied the control centres prior to connecting and commissioning the entire system. This, incidentally, is the first stadium system ever to feature the new DSA8405 multi-channel amplifier from DYNACORD with its integrated RCM-810 remote-control modules.

The nerve-centre of the system is a main control centre equipped with three 19-inch racks; this is complemented by a secondary control centre on the other side of the stadium equipped with two 19-inch racks (details below). The two control centres are linked via an Electro-Voice NetMax N8000 using fibre optic cable; the control data is transmitted via Ethernet and the audio data by CobraNet. An analogue backup system for control and supervision contacts offers additional security. In the new main grandstand's Business Club, a touch panel allows audio signal selection and volume control. This panel is also fully integrated into the audio control network via the IRIS-Net software platform.

### **Homogeneous coverage, outstanding intelligibility**

Despite the presence of state-of-the-art sound reinforcement equipment proven in countless installations, the Dresden installation nonetheless posed a considerable challenge to Hesse & Partner in the shape of a single steep bank of seats running around the playing area. As a result, wherever in the roof the loudspeaker enclosures were mounted, they would need to provide coverage over a wide vertical angle; moreover, it was also necessary to fly all the enclosures parallel from a single rail running round the front edge of the roof. "Since the enclosures are aimed variously at the top, the middle and the bottom of the seating area, the configuration is somewhat unusual in appearance," explains Oliver Sahn, Director of EVI Audio's Technical Support Team, "but it's the result of careful analysis and testing using the simulation software EASE 4.2. Furthermore, the ADA planning bureau in Berlin corroborated the results we had obtained, squared the theoretical loudspeaker positions with the given facts, and, subsequent to the commissioning, performed the acoustic tuning and documentation of the level of quality level obtained." The evenness of the coverage and the level of intelligibility provided by the seventy-eight Electro-Voice FRX+PI series enclosures was manifestly obvious not only from the acoustic measurements but also to anyone listening to the system in action at the opening ceremony on September 15<sup>th</sup>, when not one of the show acts (which included Roland Kaiser) felt it necessary to use any additional sound reinforcement equipment, the installed system being perfectly adequate to the needs of every one of them. "This is a concept that points the way ahead," says Oliver Sahn. "Electro-Voice, a name already famous for its reproduction of the spoken word, also delivers genuine full-range performance for speech and music. And DYNACORD with the PROMATRIX

system is regarded as the market leader in the field of high-quality ELA systems. Both brands, in fact, have long traditions in ELA and pro sound. Our networking in these fields is unique. We have set a new standard in stadium sound."

### **Main and Sub Control Stations**

#### **Main station**

DYNACORD PROMATRIX ELA control centre (2400 watts total power)

1 x Electro-Voice NetMax N8000 controller

Ethernet switches

USV

12 x DYNACORD DSA8405 amplifiers with RCM-810 modules

#### **Sub station**

1 x Electro-Voice NetMax N8000 controller

Ethernet switches

USV

10 x DYNACORD DSA8405 amplifiers with RCM-810 modules

#### **About the DSA8405 amplifier**

The DSA8405 amplifier from DYNACORD is notable for its innovative technology, its high output with extreme efficiency and its possible integration into an IRIS-Net network. It also offers a unique degree of flexibility thanks to the Variable Load Drive (VLD) of its RCM-810 modules. VLD allows every channel to be configured individually to deliver its maximum power of 500 watts into any load from two ohms to ten ohms.

#### **About the Rudolf-Harbig Stadium**

For over a hundred years, the site now occupied by the Rudolf-Harbig Stadium in Dresden has been the scene of great sporting occasions, the earliest recorded in 1896, but the association of the venue with the great German athlete of the 1930s, Rudolf-Harbig, only dates back to 1951 when the stadium was renamed in his honour. In 1971, when Dresden formed part of the old German Democratic Republic, the venue was renamed Dynamo Stadium, but despite extensive modernisation in 1990, by 2007 it was considered obsolete and torn down. The new Rudolf-Harbig Stadium is Germany's largest single-tier sports venue and boasts a capacity of 32,066 spectators — 19,502 in the main seating area, standing room for a further 11,055 and accommodation for 1,170 in the VIP area. There are just under 700 parking spaces and racks for 184 bicycles. The first sold-out event to be held in the stadium was the official reopening on the 15<sup>th</sup> September, when first division team Schalke 04 defeated the hosts Dynamo

Dresden 3:1. The celebrations also included a laser show and live music from Roland Kaiser and closed with a firework display.

**snapshot, dj/gm, 4<sup>th</sup> December 2009**

**Press photo: PM\_EVI\_1209\_StadionDresden\_1.jpg**



Meets the most modern standards: the new Rudolf-Harbig Stadium is one of the nine venues selected for the FIFA Women's World Cup 2011 in Germany

**Press photo:** PM\_EVI\_1209\_StadionDresden\_2.jpg



Providing sound reinforcement for the largest single-tier stadium in Germany:  
Electro-Voice FRX-PI series loudspeakers

**Press photo:** PM\_EVI\_1209\_StadionDresden\_3.jpg



Seats 32,000 spectators in comfort: the Rudolf-Harbig Stadium in Dresden

Press photo: PM\_EVI\_1209\_StadionDresden\_5.jpg



Power in the main control room: PROMATRIX and – for the first time in a stadium – DSA8405 amplifiers from DYNACORD

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