

ENGINEERING
TOMORROW

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effect

Case story

Effective performance in sportive centre Adler-Arena

Indoor skating complex Adler-Arena.
Sochi. 2012.



At first sight the Adler-Arena is a majestic building which was designed to look like an ice berg and built in order to host speed skating events at the 2014 Winter Olympics in Sochi, Russia. This speed skating venue in oval shape is one of the world's fastest ice skating rinks and with Danfoss' help it also became an Olympic showcase of energy efficiency.

The 2014 Winter Olympic Park is located in Sochi, the only large Russian city that lies in a subtropical climate zone and enjoys around 300 sunny days a year. It is surrounded by local natural features and the sports venues were designed to make the utmost use of it, including Adler-Arena. Skating Centre's walls along the skating rink sides are made as transparent as possible so spectators can admire the amazing Black Sea coast and scenic Caucasus Mountains.

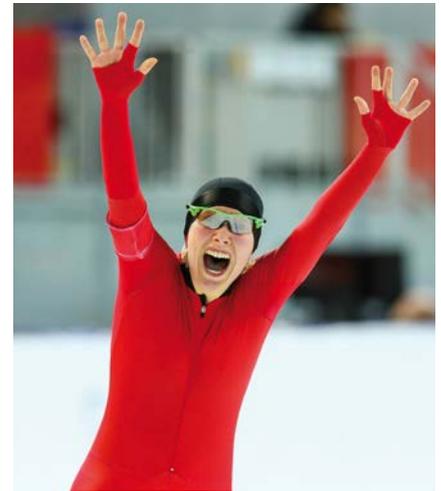
Indoor skating complex Adler-Arena was built during the preparations for the Winter Olympic Games of 2014 in Sochi. Before the official start of Olympics this place hosted a number of major sport events, which have shown that the complex is ready for the main speed skating competition.

Advanced engineering systems for effective and reliable performance

Adler-Arena is a unique 400-meter oval sports venue on 20.3 thousand square metres. It has two ice tracks, a central arena and tribunes that can welcome 8000 spectators. When hosting such a majestic event it is important to think about indoor climate for speed skating athletes and also people cheering on tribunes. And with Danfoss' help Adler-Arena was ready for its Olympic debut.

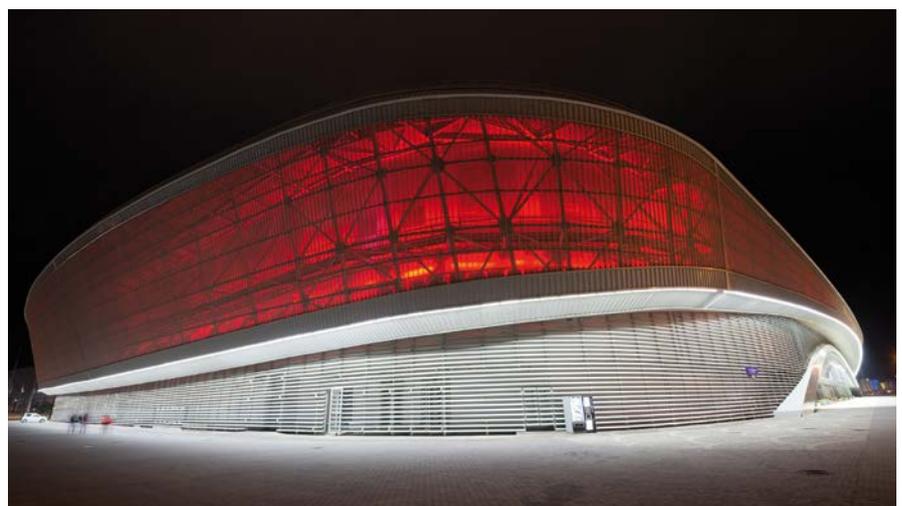
Control of the air supply helped to separate zone of the ice track and the tribune area. The air temperature in the tribunes is 3-4 degrees higher than the ice track's temperature. This represents a true added value for people from all over the world who came to see speed skating events.

Adler-Arena is divided into 3 blocks. The central unit includes a cover of special construction which is overlapping ice arena and tribune. Second and the third block are located at the end of building, those are technical blocks. Danfoss heat unit is installed there; it provides the building with heating, ventilation, conditioning



and cooling. In this process we also used Danfoss thermostatic equipment and different types of valves.

The Danfoss' ability to provide complex solution which includes all internal equipment and the heat unit was a very important point for the client and prime contractor. By being able to offer such an advanced solution by ourselves we also decreased a possibility of communication problems between different elements of the system.



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