

THIALF'S NEW ICE RINK: SUSTAINABLE, FAST AND 'SUPER-TIGHT'

The ice conditions of the new ice rink and the indoor climate of the completely renovated Thialf skating arena are sustainably controlled by Priva Blue ID.

- > Sustainable systems for perfectly conditioned ice.
- > Residual heat from the ice plant heats the entire complex.
- > From 800,000 m³ of gas each year to 0!
- > 5,100 solar cells on the roof.

Friday, December 11 2015 was the first day of the ISU World Cup in Heerenveen, an exciting day for the Thialf skating arena: the first big competition on the completely new race track. On the outside, the Thialf building has undergone a dramatic transformation. On the inside, at first sight nothing has changed. The most important change for the skaters is scarcely visible, if at all: the brand new ice rink with new, sustainable systems that ensure perfectly conditioned ice. And by using the residual heat from the ice plant to heat the entire complex, the new Thialf has also become extremely energy-efficient.

Competition hall

Over the past few months Warmtebouw Utrecht, together with the main contractor Heddes, who were responsible for the construction work, have put in a monumental effort to replace the complete plant for and in the ice rink. The freezer system, the water treatment, the air treatment and the transfer of heat and cold; everything has been replaced. The old rink was dismantled and equipped with new underfloor cooling, while underfloor heating has been installed in the inner area and alongside the rink. The air management system has also been addressed with new air treatment units and air supply from the plant duct around the rink floor and, with a temporary facility, also from the ceiling.

Energy-efficient ice plant

The engineering rooms have also been completely renovated. New cooling machines, that work optimally and are energy-efficient with Warmtebouw's exciting new automatic control system, cool the ice rink while at the same time providing the required heat.

Whereas the old Thialf contained 24 central heating boilers, now all the necessary heat is obtained from the ice plant. Together with a heat pump and geothermal energy, this forms the beating heart of a

sustainable and gasless Thialf.

The best ice for each part of the track

The new classification into track segments means that the ice master can ensure optimum ice quality for each part of the track. Straights, inner and outer corners, approaches and exits to corners, short-track, beginners' rink and the old ice hockey stadium – everything can be adjusted separately and optimally, so that no more energy needs to be consumed than is absolutely necessary. Energy consumption is now less than half of what it was before the renovation.

The test

After all the hard work in a very wet season, and especially a massive sprint finish at the end, starting in late January 2016 the systems were tested and the first layer of ice was made. In spite of the unusually warm and humid weather, much less mopping than usual was required, according to Beert Boomsma, ice master at Thialf. As he recently said in an interview, he was given 'an ultra-tight layer of ice'.