



ADVANSOR

a **DOVER** company

STEELX AND
CHILLER MODULES

SWEDEN

**50% LESS ENERGY
CONSUMPTION IN
SVEG CURLINGHALL**

Sveg Curlinghall, Sweden

STABLE TEMPERATURE,
GREAT PERFORMANCE AND
50% LESS ENERGY
CONSUMPTION WITH
**ADVANSOR STEELX AND
CHILLER MODULES.**

When Nichlas Amdisen Pedersen and Conny Andersson visited the curling ice arena in Sveg, Sweden, they were excited to see the result of Advansor's SteelX installment after one year of it's set-up.

They had a talk with Stefan Ståhlström who is the responsible contractor from Frys & Kylservice, and Erik Olof Bergman, technical manager of the curling ice hall. It turned out: Advansor's SteelX was able to realize not only a stable temperature and is convincing with a great performance - the refrigeration system also leads to a 50% lower energy consumption.

Read and learn more about the successful installation and the project itself on the following pages.

The image shows the exterior of a dark blue wooden building, likely a curling hall, with a snow-covered roof and ground. Two signs are mounted on the wall: a white sign with blue text that reads 'CURLING' and a blue sign with white text that reads 'SKOOGSHALLEN'.

CURLING

SKOOGSHALLEN

THE SVEG CURLING HALL HAS BEEN
EQUIPPED WITH A STEELX AND CHILLER
MODULES FROM ADVANSOR.
WITH A SUCCESSFUL RESULT.



Background

THE STARTING POINT

A year ago, the curling ice arena was supposed to be renovated - and also equipped with a new refrigeration system due to certain difficulties with the refrigeration system used back then.

What sort of refrigeration has been used before?

The arena was refrigerated by a HFC-chiller at approximately 300 kW. While using this kind of chiller, salty brine water circulated beneath the ice surface.

Because of the restrictions the HFC-chiller contained, such as an inefficient performance as well as a reduced life-time, contractors decided to take the step to sustainable and well-performing CO₂ based refrigeration by using the SteelX and an integrated Chiller Module from Advansor. The SteelX comes as a robust rack with ultrahigh quality. The Chiller Modules provide a modular and compact solution and a flexible and easy installation.

How did it go

INSTALLATION

After the removal of the previous unit, the new refrigeration system of Advansor was put into operation: Filled with CO₂ the new rack and the Chiller Module were able to prove their performance right away.

Only two days after the installation of the Advansor SteelX and the Chiller Module, the curling arena was iced again. After a minimal process of finetuning the heat recovery as well as the air heater's airflow, a perfect temperature balance in the arena was realized.

While the refrigeration system had been changed, the ground pipes were released and cleaned from the brine and recharged with ammonia water.

Stefan Ståhlström and Erik Olof Bergman both ensured a faultless installation in collaboration with the start-up assistance from the Advansor support team.



FACTS

Unit	SteelX 3x0
Evaporator	Flooded Vahterus
Capacity	167 kW @ -12°C
Heatrecovery	Alfa Laval AXP52-100 100% recovery
Gascooler	Güntner 2 fans
Capacity	242kW@ +20°C tAmb



Modular and compact

ADVANSOR CHILLER MODULES

- Easy installation.
- Broad capacity.
- Available for many different fluids.
- Safe and well-proven design.
- Delivered with a tested control panel and expansion valves.

MORE THAN
600 kW



Robust and high quality

ADVANSOR STEELX

- Coil in receiver.
- Solid welded frame.
- Fully customizable demanded by various applications.
- Low service cost.
- The most elaborate scope of options and energy saving features.

kW MAX
400
at 35°



One year later

BENEFITS

Experiences show an extraordinary performance according to Erik Olof Bergmann.

The results show an increased stability within the temperature of the ice - it is constant at -4°C . On top of this, the temperature in the room stays consistently at $+5^{\circ}\text{C}$ which is $+7$ degrees higher than before.

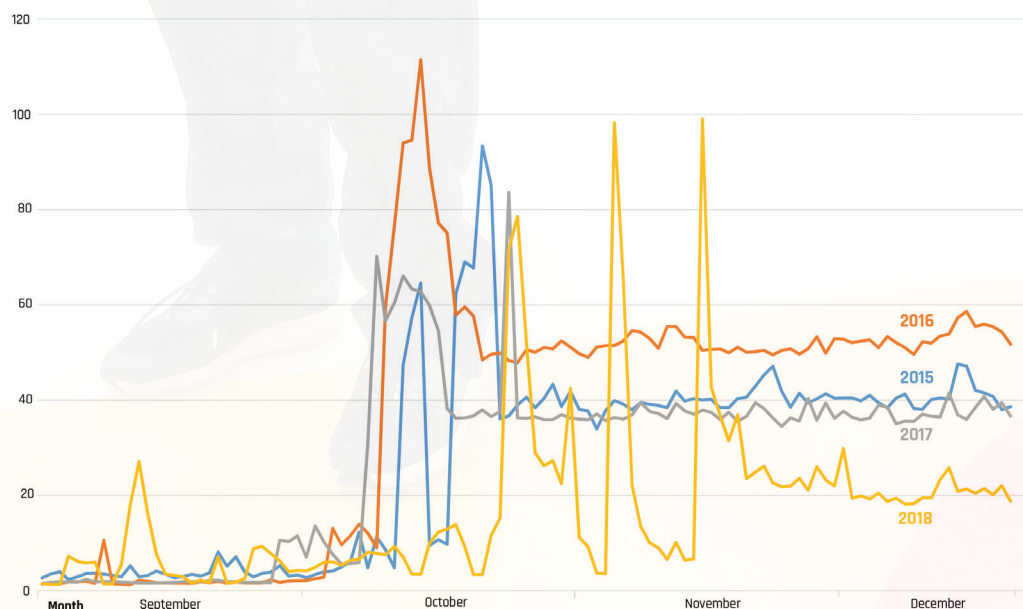
The most successful achievement a year after installation is the immensely reduced energy consumption of 50%.

"The performance is
extraordinary.

The energy consumption is now

50%
lower."

Total amount of highest
measurements (2015-2018)



CREDITS



Stefan Ståhlström
Frys & Kylservice



Erik Olof Bergmann
Technical manager at
Sveg Curlinghall



Conny Andersson
Regional Manager
Scandinavia



Morgan Magnusson
Country Manager
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Nichlas Pedersen
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