

# ICE- AND CURLING RINKS



- Pleasant indoor air
- Avoid condensation
- High quality ice

## Humidity problems in ice rinks

At ice- and curling rinks the ice has to be of as high quality as possible, while maintaining a pleasant indoor climate. The easiest way to achieve this is to regulate the humidity on the premises using a dehumidifier.

An ice rink works like an enormous cooling element. When doors are opened and closed, warmer air comes in and condensation forms, mainly on the ceiling. Drops of condensation can then drip down onto the surface of the rink and cause uneven areas. If the atmosphere is too damp, there is a risk of corrosion damage and mould, and it also makes the indoor air cold, damp and unpleasant for people. Humid air can cause mist inside the ice rink, which leads to the ice having to be washed down frequently. Humidity problems at ice rinks can be resolved by installing a dehumidifier and so reducing the ambient humidity to the required level.

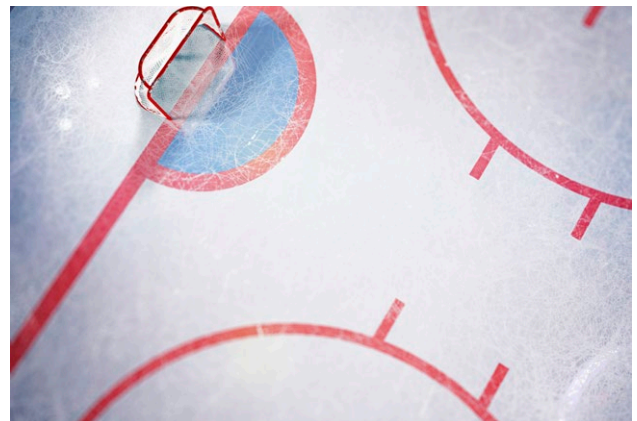
## Curling rinks

High quality ice rinks which are particularly well prepared are necessary for curling. At curling rinks, controlling the atmosphere according to the dew point of the air is necessary instead of regulating the relative humidity.

When outdoor air penetrates into a curling rink, it has to be dealt with by a dehumidifier; otherwise the moisture will freeze onto the surface of the ice. If the moisture does freeze onto the surface of the ice, the ice becomes "rough" and is not good enough for curling to be played on it.

## There is a simple solution

Installing a dehumidifier will allow you to avoid the problems caused by humidity. Seibu Giken DST dehumidifiers require no special maintenance. The unit you should select depends on the size of the premises.



## References

**Czech:** Ice-Rink Domažlice, Ice-Rink Krnov

**Finland:** Are Kupitaan Halli, Jakääänin Jäähalli

**Italy:** Curling hall till OS, Palaghiaccio Canazei, Palaghiaccio Merano

**Russia:** Moscow Icehockey rink

**Sweden:** Frölunda Hockey Arena, Leksands ishall, Skogshallen, Storumans ishall, Tornedalium, Vallentuna ishall, Vänersborgs Arena, Åkersberga ishall, Ånge ishall

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*World leaders in dehumidification.*

## Example of an DST dehumidifier installation

# Oasen's ice rink

Kungälv is a little town with almost 16,000 inhabitants, situated outside of Gothenburg. Even though it is a small town, they have an exorbitantly big interest in sports. Oasens ice rink is located in the heart of the town and was opened in the autumn of 1995.

Oasens ice rink is unique, it has ice in the rink 365 days of the year. The ice rink is being used by different sports teams and schools for figure skating, ice hockey and ice skating. These various activities are taking place from early morning until late in the evening. This contributes to a high pressure on the ice rink, and a good climate is a must for keeping the hall and ice at a good quality.

If an ice rink doesn't get dehumidified condensation can form, often on the ceiling where it's cold. Then it can drip down on the ice which causes indentations and a poor-quality ice surface. Moisture can cause products such as steel to rust and the equipment not to dry properly. When a non-dehumidified hall is filled with an audience fogging can occur, which both greatly affects the indoor climate and makes it hard to see well. The main problem



**Oasens ice rink in Kungälv**

with Oasens ice rink was that condensation formed on the plexiglass around the rink and their equipment did not dry. They also had problems with extra moisture in the hall during events when the number of spectators in attendance was around 7,500. They wanted a solution that gave them a good environment with low energy costs.

Fuktbehandling AB had the honor to deliver a Seibu Giken DST dehumidifier during the summer of 2016 which solved their moisture and ventilation problems. The unit is a custom made Flexisorb unit that will regulate both the moisture and the ventilation at the hall. The moisture is controlled via the dew point, which means that the humidity in the hall is kept so that condensation will never occur. The air quality is continuously measured so that the unit knows if it should let in more or less fresh air.

DST's Flexisorb dehumidifier will keep Oasens ice rink free from moisture and ventilation problems for plenty of years. After 10 years DST's dehumidifier still maintains 90% of its original capacity.



**An installed DST Flexisorb dehumidifier in Oasens ice rink ventilation room**

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