



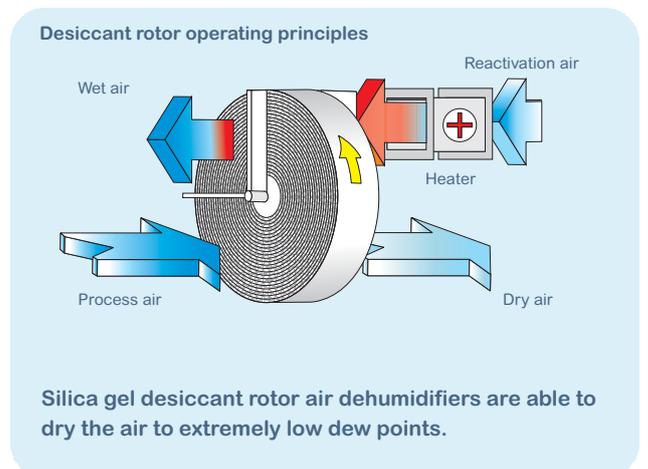
## Humidity control in ice rinks

When attending a sporting event, we expect to find the most comfortable environment possible.

Air humidity control is an increasingly important requirement for this type of building, and ice rinks are undoubtedly the sports buildings most in need of this control..

The employment of desiccant rotor air dehumidifiers in ice rinks prevents annoying mists and condensations, which can even cause light rain on spectators.

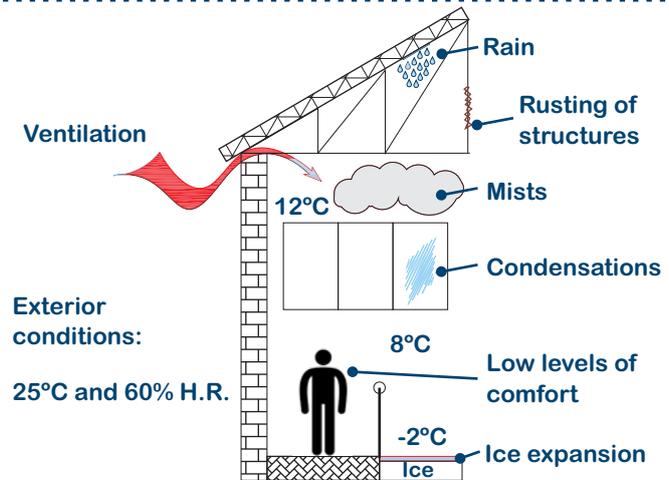
Other major benefits include the prevention of the corrosion of the structure of the building and reduced energy consumption.





**The origin of the problem**

The exterior air passing through the building as involuntary ventilation has a higher dew (condensation) point than the interior temperatures, which generates the phenomena shown in the diagram to the right.



**Solution: Dehumidification**

The following table shows ambient humidity conditions required to prevent the above-mentioned problems.

Air temperature	Place	Problem	Maximum humidity content
-4°C to -1°C	Ice rink	Ice expansion	2,7 to 3,5 g/kg
6°C to 8°C	1 m above the ice rink	Mist formation	5,7 to 6,7 g/kg
10°C to 12°C	Occupied Environment	Rusting	4,6 to 5,2 g/kg
		Mould and bacteria	6 to 7 g/kg
		Condensation	7,6 to 8,7 g/kg
13°C to 15°C	Ceiling	Rusting	5,6 to 6,4 g/kg
		Rain	9,3 to 10,6 g/kg

The selected dehumidifier must have sufficient drying capacity to compensate for the excess humidity brought in by the **Ventilation** in the given environmental operating conditions.



DFRA Series for typical installations



DFRB-D Series for small rinks



DFRC Series for temporary applications

Fisair has a wealth of experience in environmental humidity control and an extensive commercial network for after-sales technical assistance. For further information, please do not hesitate to contact us using one of the methods given below.