

Natural gas desiccant heating system

Year 'round comfort, efficiency

Blake Ice Arena Hopkins, MN

- Desiccant system with supplemental heat
- Single-wheel, 8,000 CFM
- 17,000-ft² ice rink

Mechanical engineer:

NewMech Companies, Inc.
St. Paul, Minnesota

"We needed a system that would pay for itself... Adding six months of additional revenue per year has accomplished that."

– Pat Stockhaus

*Director of building and grounds,
Blake Ice Arena*



Blake Ice Arena in Hopkins

When customers of Blake Ice Arena in Hopkins, Minnesota, wanted year 'round ice skating, the arena delivered with the help of innovative technology. They equipped the facility with an Englehart / I.C.C. DESI-AIR natural gas desiccant dehumidification/heating unit, the first of its type to be installed in Minnesota.

For 28 years, the Blake facility was open only during the cooler months. In summer, when students typically have time to develop their skating skills, ice was not available; the skating facility was closed.

"Moisture is a big problem for ice rinks in Minnesota during summer," explained Pat Stockhaus, director of building and grounds for the arena. "As a result, many area rinks are forced to shut down during the most humid months of the year."

Heat and humidity

"Our rink is drier and more comfortable for everyone winter and summer, no matter what the outside weather is. One summer we even had a Hollywood movie crew in here filming scenes for the sequel to The Mighty Ducks. Despite being exposed to hot outside temperatures as filming equipment was brought in and out, the building stayed dry and cool," Stockhaus said.

CenterPoint Energy engineer Frank Balistreri adds, "The unit contributes to harder and better quality ice – a high priority at any ice facility." The desiccant material adsorbs moisture from the air before it can condense on the ice surface. The drier air cools more easily, while reducing strain on the ice-making equipment.



The DESI-AIR natural gas desiccant system / heating unit controls moisture to extend months of operation and increase revenue for Blake Ice Arena.

The desiccant material is regenerated using heat from the DESI-AIR's own integrated natural gas-fired boiler. This same boiler also warms the seating area, using recovered heat from regenerating the desiccant.

The benefits made it a clear choice over the competition

The natural gas DESI-AIR provided:

- Year 'round ice skating
- Reduced energy use
- Greater comfort for visitors
- Longer life for the facility

Year 'round comfort is good for business

Todd Burkhart, Blake's ice arena manager, added, "We get lots of calls for use of the arena during summer." The facility was able to add many new summer programs with its energy efficient, year 'round operation. Burkhart credits the natural gas DESI-AIR unit for the increase in business.