

# Texas Ice Rink Is First to Install Munters FreeDry™ Chilled Water (CW) Dehumidification System

The first FreeDry™ CW unit, an all electric, non-gas fired, desiccant dehumidification system was installed in 2008 on Chaparral Ice Rink at Northcross Mall in Austin, TX. A \$50 million renovation project to restore the shopping complex included the tearing down of its 33-year-old ice rink. Under new ownership, \$1.9 million was spent to rebuild the 16,000 square-foot rink, giving general partner Charles Collins the opportunity to install a more efficient, environmentally friendly dehumidification system.

## The New Rink

Chaparral Ice Rink operates on an average of 20 hours a day, 7 days a week, 365 days a year with activities varying from hockey, figure skating, ice dance, individual practice times and group events. It is critical that the facility's dehumidification system is low maintenance, fulfills ventilation requirements, insures a quality ice surface for skaters and a comfortable indoor environment for customers, all while saving on operating costs.

When ice rinks are not properly dehumidified, fog, stalagmites and puddles form creating an overall unsafe ice surface for skaters. Condensation will drip from overhead beams onto the ice and spectators. Consequently, condensation and high moisture levels, not only put a rink at risk of structural damage, but also requires them to inefficiently operate their refrigeration plant at lower temperatures.



The Chaparral Ice rink in Austin, TX was the first rink to install the all new Munters FreeDry™ system over a year ago. The rink realized substantial energy savings with the more energy efficient technology.

## CASE STUDY:

Chaparral Ice Rink - Northcross



## BENEFITS

- High-Quality Ice Surface
- Reduced Energy Costs
- Increased Player Safety
- No Fog
- Reduced Maintenance Cost
- Improved Occupant Comfort



Tom Backman of BMIL Technologies recommended the FreeDry™ system as a perfect economic fit for the Chaparral Ice Rink at Northcross.

“FreeDry™ eliminated the cost of natural gas from the equation, making it easier to justify going with this new technology to dehumidify,” said Backman.

Munters new FreeDry™ technology combines advanced low temperature desiccant technology with refrigeration based cooling for unequaled moisture removal capacity and 60% lower annual operating costs. Utilizing the benefit of both technologies provides an extremely energy efficient arena dehumidification system which delivers properly conditioned dry air without the need for natural gas.

Instead of using natural gas, this patented system uses the waste heat from the refrigeration plant to regenerate the desiccant wheel and to heat the arena. FreeDry™ easily maintains indoor humidity levels even under the most extreme summer conditions.

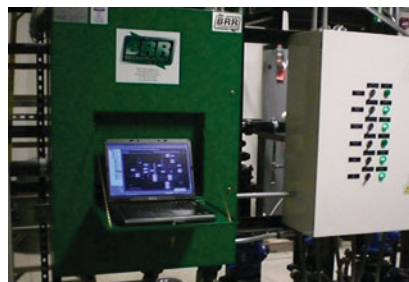
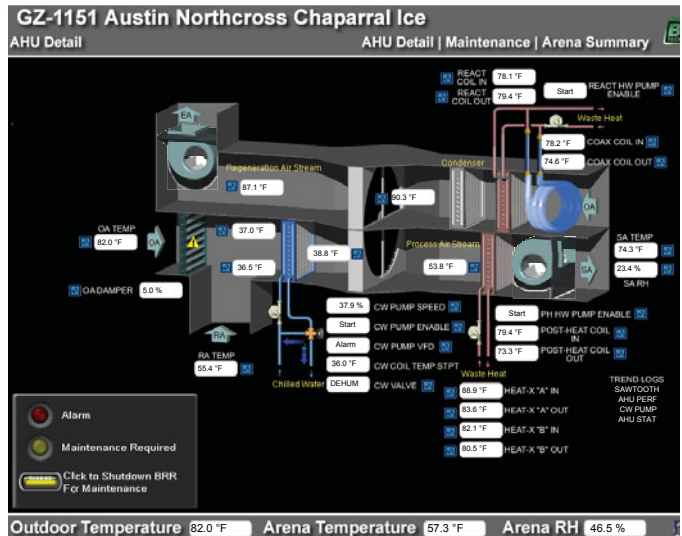
### A sustainable result

What makes FreeDry™ a more sustainable solution is that it operates without natural gas. Therefore FreeDry™ saves the Chaparral Ice Rink nearly 36,000 therms of natural gas that would typically be burned per year with a traditional gas fired desiccant system.



The FreeDry™ unit on the roof of the Chaparral Ice Rink.

Collins selected R-404A to be used in the chiller for zero ozone depletion potential (ODP). These benefits reduce the CO<sub>2</sub> impact on the environment while further reducing operating costs.



(Left) FreeDry™ was equipped with controls that interface with the Internet for remote monitoring. (Directly Above:) A screenshot of the controller.

Collins previously owned gas fired desiccant systems and has always been pleased with their effectiveness. Now after seeing the results of the the new FreeDry™ technology, he is confident in his decision to switch.

“We’ve never done a single rink with this technology but, we’re realizing a substantial savings in energy.” Collins said.

In addition to FreeDry™ being a more “green” solution for the Chaparral Ice Rink, the system has since provided unmatched dehumidification and superior ice quality and conditions for the facility.

“Hockey players don’t complain... we would hear if the conditions were bad.” Collins said. “When people come in from out of town [to skate] we get compliments on our ice and how nice it is and part of that is proof of our dehumidifier. [To] people that have called for a reference, I say if you can afford it, it’s what you should get.”

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