

Dallas Stars

CASE STUDY



One-stop solution enables fast construction of seasonal outdoor skating rink; provides high-quality ice, even as temperatures warm; helps increase revenues by \$50,000.

Challenge

Seeking to provide area residents and visitors with a new type of holiday activity, the City of Farmers Branch and the Dallas Stars made plans to create a seasonal, recreational ice skating rink. The venue would be constructed on a 100 percent outdoor site, unshaded from rain, sun and temperatures that ranged from the low 30s to the high 70s. To create and maintain a quality ice surface that would be available for use throughout the season, the Dallas Stars facility team sought a system that would be reliable and redundant. With the chiller plant to be located close to the rink, quiet operation was also important to maintain a pleasant environment for skaters. In order to be ready for its November opening, the construction project needed to be completed in just three months.

Solution

The Dallas Stars began researching solutions for the new ice rink. Aware of the tight timeframe, Trane immediately met with the organization's facilities team to gather a complete understanding of the group's objectives and designed an intricate package to meet their requirements. The Trane proposal offered a complete solution that utilized the technical knowledge of its engineering team, unique equipment solutions, project management guidance, and the expertise of its local service team. After reviewing competitive proposals, the Dallas Stars selected Trane as their project partner.

"We liked the comprehensive proposal offered by Trane," said Mark Servaes, general manager, StarCenter-Farmers Branch, Dallas Stars Hockey. "Plus, they came highly recommended."

Creating a unique solution for fast installation

The Dallas Stars facilities team began by grading the land so the ice surface would be level. Trane moved forward to design an all-inclusive mobile chiller plant that would be elevated to keep it out of the mud of the new construction site. Trane engineers considered equipment options, evaluating each selection to ensure it was sized correctly to provide the performance needed to maintain quality ice without shielding. The service team fabricated the system on a pad, mounted to a trailer that could be moved into its final placement. Factory-installed features, including a pre-wired, factory-tested pump package, buffer tank, flow switch and water strainer helped to speed installation.

"Constructing an outdoor ice rink was brand new to us, so we did our research."

- Don Fernandes, Facilities Manager, Star Center-Farmers Branch, Dallas Stars Hockey

DALLAS STARS

Texas

PROJECT HIGHLIGHTS

CHALLENGE

100 percent unshaded site, with temperatures reaching the high 70s

Reliable, redundant, quiet system

Three-month construction deadline

SOLUTION

One-stop solution including engineering, equipment, account management and service support

Two temporary 120-ton Trane CGAM air-cooled scroll chillers

CALMAC® IceMat® rink floors

RESULTS

Met three-month construction deadline; IceMat floor installed in one day

Seasonal ice rink offered performance, redundancy, reliability, quiet operation

\$50,000 increase in revenue



Dallas Stars

CASE STUDY

Providing efficient, reliable, quiet operation

The Tracer® SC BAS provides Commercial Facilities Services with control over comfort and energy efficiency of the Oklahoma City office buildings. Facility managers use the BAS to meet tenant scheduling requirements, monitor system operations, establish setpoints, control humidity levels and ensure optimal building operations, helping to improve efficiency, increase comfort and reduce energy costs. Accessible from most PCs, tablets, and smart phones, the web-based Tracer SC BAS allows building operators the convenience and flexibility to control building systems when offsite, and eliminates the need for a dedicated computer and onsite building manager.

Offering high-quality, leak-free, flexible flooring

The system included fifteen 63 ft IceMat® flooring panels from CALMAC®, a portfolio of Trane, for the 6,363 sq ft ice rink; a 600 gallon buffer tank, which utilizes a 45 percent glycol solution; and a 30 HP vertical inline pump. Ideal for temporary or permanent rinks, the set up circulates glycol through the flooring tubes, and as the mats cool, sprays water mist on the rink, which freezes within hours to cover the mats. Engineered to meet stringent standards, the mats create a smooth surface for ice skaters. In addition, the IceMats are made of high-quality materials making them corrosion-resistant, leak-free and pressure-capable, and are backed by a three-year limited warranty. CALMAC IceMat rink floors also provide a greater heat-exchange surface area than conventional indirect or direct refrigeration piping systems, enabling the mats to make high quality ice even when air temperatures are high.

The prefabricated, easy-to-install IceMat floors unroll much like a carpet, helping to lower construction costs. With each mat modular in design, the CALMAC® IceMat® rink floors offer the Dallas Stars the flexibility to increase or decrease the size of the outdoor rink at any time.

Results

The Dallas Stars and Trane constructed the first-ever outdoor arena in Farmers Branch, Texas, providing high-quality ice even when temperatures reached the mid-70s. With Trane engineers accurately predicting performance needed, the temporary Trane chillers provided the redundancy desired for reliable operation of the arena, with low noise levels to maintain the pleasant entertainment environment. The all-inclusive mobile chiller plant and easy-to-install CALMAC IceMat floors enabled the Dallas Stars to open the seasonal ice rink in time for the holidays.

“Once the system was up and running, it was flawless. Plus, I don’t think the chillers used more than 140-tons at any one time,” said Fernandes. “The chillers were really quiet. They were located close to the rink and they were no noisier than a home air-conditioning unit.”

“We plan to construct the rink again next year. It was well used by the community and visitors. Plus, we increased revenues by about \$50,000,” said Servaes. “We had a good relationship with our account team and a true business partnership with Trane. We never felt we were working alone on the project.”



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Dallas Stars Hockey

About Dallas Stars Farmers Branch Ice Skating Rink

Located outside the StarCenter, the Dallas Stars ice skating facility is the first-ever outdoor rink in Farmers Branch. The rink, open from late-November through mid-January, offers public skating, youth and adult open hockey and freestyle skating sessions. In addition to its regular schedule, the ice rink hosts events such as Skating Under the Stars, an evening activity destined to be a new holiday tradition in Farmers Branch.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.com or tranetechnologies.com.

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