

UTC ICE RINK GAINS BIG ENERGY SAVINGS WITH A RETROFIT FEATURING SOLSTICE® N40 (R-448A)

The ice rink got the reliability and performance improvement it needed while also greatly reducing its environmental impact.

Case Study

**JOE POLONSKY, OWNER,
UTC ICE SPORTS CENTER:**

“The performance and price are great. The system is so efficient now that it works much less to produce quality ice. I’m very happy with the switch to Solstice N40.”

Honeywell

OVERVIEW

When one of the rink's three compressors failed, owner Joe Polonsky saw an opportunity to improve energy efficiency while also utilizing a refrigerant that's significantly better for the environment.

The rink's contractor recommended the forward-thinking move of replacing the failed compressor with a new one utilizing Honeywell Solstice® N40 (R-448A) refrigerant. The change dramatically lowered both the rink's energy costs and environmental impact.

MEETING TODAY'S NEEDS WITH AN EYE ON THE FUTURE

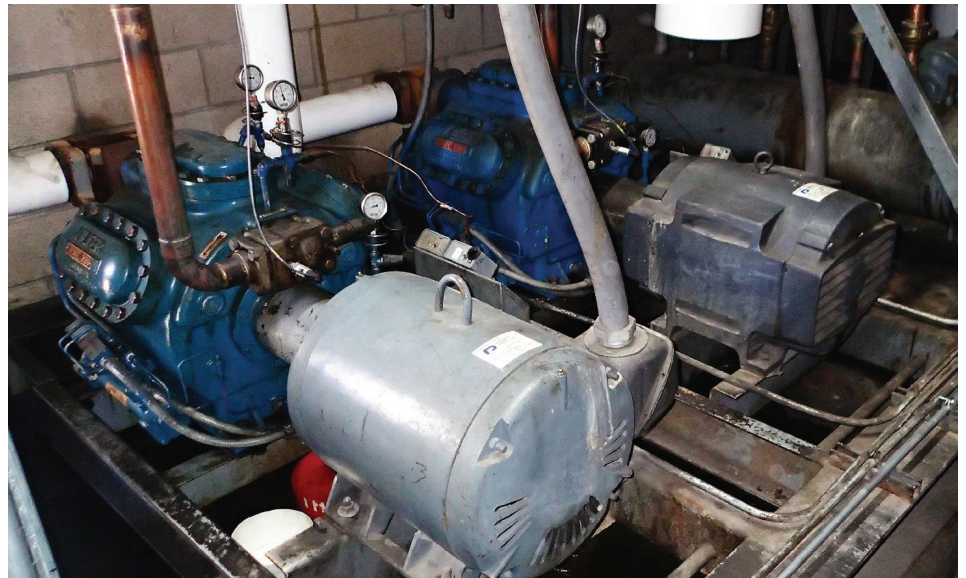
Operating in the San Diego area since the mid-1970's, the UTC Ice Sports Center is a popular gathering spot for recreational skating, hockey, birthday parties and more. From the beginning, the rink has utilized a system of three compressors to handle the demands of maintaining the ice in the Southern California heat.

"Sometimes in the winter, the third one might shut off for a while," said Joe Polonsky, the rink's owner. "But most of the time, all three were running."

Polonsky had the old compressors overhauled "once or twice over the years, but then one completely failed. There's never a good time for that to happen, but this was in the late spring, right before the summer heat." Immediate help was needed, and Polonsky turned to his longtime refrigeration contractor, Diversified Thermal Services.

AN OPPORTUNITY TO DO MORE

Mike Taeubel, Vice President of Service for Diversified Thermal Services, knew he could probably overhaul the broken compressor once again, but he also knew that would be a temporary solution at best. Not only is R-22 refrigerant being phased out and will no longer be produced after this year, it would also be much more cost-efficient for his



customer to invest in a new compressor that would save energy and maintenance costs over the long term. Plus, it would be a much more reliable solution.

"They gave me options," said Polonsky, "but Mike's recommendation of a new compressor made the most sense to me. And then when he explained about how the new Solstice N40 refrigerant was a lot better for the environment than what I'd been using, that settled it."

"It was just a smart decision all around," notes Taeubel. "They'd gain reliability and efficiency with the new compressor, and they'd lower their environmental impact with the R-448A."

DOWNTIME-FREE RETROFIT

Knowing that R-22 is being phased out, Taeubel had learned about Solstice N40, or R-448A, from Gary Parker, Refrigeration Product Manager at Refrigeration Supplies Distributor. "We've been distributing Honeywell refrigerants since the fifties," said Parker, "and the Solstice N40 is a real leap forward. For retrofits, it has similar characteristics to R-22, so for the most part the existing controls can be used. The capacity is excellent for heat transfer performance. And, of course, from an environmental standpoint, it has the lowest GWP available."



“It was a super-smooth project,” adds Taeubel. “We didn’t need any special equipment, which is something you always worry about when using a new product. The entire installation was fast, simple and painless. Everything worked beautifully.”

Polonsky was pleased with the installation as well. “They were able to keep the other compressors operating throughout, so we never had to close down. And then when they brought the new compressor online with the new refrigerant, wow, what a difference! In the hottest months, sometimes the second compressor kicks in for a little while, but I don’t think the third compressor has needed to run at all.”

THE RIGHT CHOICE FOR YEARS TO COME

Customers are always looking to improve system performance, but as Taeubel notes, the desire to reduce environmental impact – the reason behind the phaseout of R-22 – is stronger than ever. “More and more customers are bringing it up, and that’s fantastic. It’s great to have solutions like the R-448A where we can tell those customers, ‘yes, you’ll get the efficiency you need, and you’ll also get the environmental benefits you want.’ It’s definitely the direction refrigeration is headed.”



HONEYWELL SOLSTICE N40 REFRIGERANT (R-448A)

Solstice N40 is an HFO blend ideal for ice rink refrigeration retrofits and new systems.

- Performance similar to R-22
- Lower GWP than R-22 for long-term regulatory compliance
- Nonflammable (ASHRAE A1) for safer, seamless integration
- Non-ozone-depleting
- No thermal expansion valve changes, eliminating most retrofit costs



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