About Tallahassee Single Day Surgery Center

TSDSC strives to provide the most cost-effective surgical care in the area, and an independent, pleasant and convenient workplace for physicians and staff. TSDS is a free-standing ambulatory surgical center performing surgery in these specialties: General Surgery, Dentistry/Oral Surgery, Gynecology, Ophthalmology, Otolaryngology, Orthopedics, Plastic/Reconstructive Surgery, Podiatry and Urology.

“Because we now have better humidity control, the air conditioning runs less which will save significant energy costs. The entire project was very well worth it.”
— Elizabeth Trikardos, TSDSC Director of Nursing

Building Type

14,600 Square-feet single-day surgery center.

Project Team

• HinesHartman Consulting Engineers, Tallahassee
• Vause Mechanical Contractors, Tallahassee
A Cool, Dry, Quiet Operation
Trane recently helped Tallahassee Single Day Surgery Center solve temperature and humidity problems.

Challenge
Summer heat and humidity in Florida are extreme. Meeting strict ventilation, humidity and temperature requirements of a surgery center, without excessive energy use to cool and dehumidify outdoor air is difficult.
TSDSC had 14-year-old rooftop air conditioners that gave unreliable, poor temperature and humidity control.

Solution
Mike Hartman and Matt Scaringe of HinesHartman Consulting Engineers worked with Trane Account Manager Don Frye to design a custom rooftop air conditioning unit fitted with Trane’s new CDQ™ (Cool, Dry, Quiet) unit—an energy-efficient humidity control solution that Trane developed using Type III desiccant.
The advantage is that it uses return air—the lowest grade heat available—to regenerate the desiccant. While alternative solutions such as gas-fired units use new energy at 140-200 degrees, the CDQ system desiccant operates at 75 degrees, for 20 to 25 percent greater efficiency. Standard air conditioners have limited dehumidification capacity since dewpoint cannot be less than coil temperature. The CDQ technology lowers the dewpoint barrier five to 15 degrees without needing additional energy to subcool and reheat air. Scaringe discovered an additional cost benefit of the CDQ product. “Without the CDQ unit we would have had to increase TSDSC’s electrical distribution capacity. With the CDQ unit, TSDSC avoided more than $135,000 in additional work.”

Results
Vause Mechanical Contractors had the system installed and providing cool, dry air for the surgery center in only 10 days. The CDQ unit is efficient and quiet, providing up to 10 dB attenuation in every octave band. Trane is also providing comprehensive maintenance services.

TSDSC Director of Nursing Elizabeth Trikardos said, “We now have much better control of operating room temperature and humidity. We can keep humidity at 40 to 42 percent or lower and keep temperatures wherever the surgeons want. Tracer Summit is a great system. We can easily monitor and adjust operating room conditions. We let Trane’s local office monitor our systems — they can often resolve a problem without sending a technician.”

From integrated comfort systems to systems management and climate controls, Trane ensures your building environment is right so you can run your business better.