

# West Jefferson Medical Center

*Healthcare Solutions • Marrero, Louisiana*

## **About West Jefferson Medical Center**

WJMC is a not-for-profit community hospital located in Marrero, Louisiana, on the West bank of Jefferson Parish and only 10 minutes from downtown New Orleans. WJMC has 400 medical staff members and 2000 employees dedicated to continuously improving the health of its community through cost-effective, quality patient care and excellent customer service. In recent years WJMC has been named among the best hospitals in the United States and among the best hospitals to work at.



## **Building Summary**

451-bed, full service community hospital founded in 1956



*A Trane CDQ™ unit. WJMC is also equipped with Trane CenTraVac™ chillers, a Tracer Summit™ building automation system and Trane air handling units.*

### Systems Installed

The Trane CDQ™ (Cool, Dry, Quiet) desiccant dehumidification system provides:

- Improved dehumidification energy efficiency with air as dry as 30 grains per pound
- Quiet operation with up to 10 dBA attenuation in every octave band
- Increased cooling coil latent (dehumidification) capacity
- Warmer chilled water temperatures
- Decreased need for reheat
- Lower unit cooling sensible heat ratios
- Decreased required cooling capacity when dehumidifying.
- No need for exhaust air as a requirement

## Making Miracles Possible

Few HVAC applications are more critical than in healthcare. Trane recently helped West Jefferson Medical Center (WJMC) attain precise temperature and humidity control for its new CyberKnife™ robotic surgery system using Trane's new CDQ™ (Cool, Dry, Quiet) desiccant dehumidification system.

## Challenge

WJMC recently installed the revolutionary CyberKnife robotic surgery system. This new robotic surgery combines image guidance technology and computer controlled robotics to enable delivery of high doses of radiation with sub-millimeter precision. Thanks to this accuracy, multiple areas of the body can be treated non-invasively including the brain, spine, lung, prostate, liver and pancreas. The system does require, however, very precise control of operating room temperature and humidity. In Louisiana, where outdoor relative humidity is seldom 50 percent or less, this is a major HVAC challenge. Ronny Gann, WJMC Director of Facilities Management, said, "After installing the CyberKnife system we realized that we did not have adequate humidity control. We needed a solution quickly!"

## Solution

Gann asked Tim Goatley at Trane's New Orleans office for assistance. "We called on Trane because we've had a long, successful facilities management relationship with them." Goatley

realized that the project was an ideal application for Trane's new CDQ™ system. This desiccant dehumidification product is ideal for facilities requiring lower dew point settings and can increase cooling coil capacity by 20 to 300 percent. Chilled water temperatures can be set higher, saving energy and eliminating reheat or exhaust air. Standard air conditioning coils have limited dehumidification capacity. The air dew point can not be lower than the coil temperature —the dew point barrier. The CDQ unit breaks this dew point barrier using an energy recovery desiccant wheel that transfers humidity from the supply air to the return air or mixed air. As a result, the cooling coil can remove up to 200 percent more moisture per hour!

## Results

Since installation of the CDQ system, Gann has had no complaints whatsoever from the surgical staff. WJMC surgeons and patients can now take advantage of the CyberKnife system benefits whenever needed without humidity concerns. Ronny Gann said, "Trane performed admirably. They had one weekend to get the CDQ equipment installed and it was to be up and running by 7:00 a.m. on Monday morning. Actually, the installation was completed on Sunday afternoon!"



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