

HEALTHCARE SAVINGS

A COMMERCIAL
FACILITY CASE STUDY

Books Store

Center
e-Store

ORION
UNIVERSITY

The installation provided dramatic energy savings from the outset. Further savings are being realized as control systems are integrated, and as the work of analytics and fine-tuning continues.

“Once we did the calculations, we could see the energy savings were compelling”

Raimundo Ribeiro
Project Leader

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A Mixed-use facility installation

Design Envelope technology provides intelligent, Sensorless variable-speed control of pumps for leading efficiency and energy savings.

Background

The new Orion Business and Health Complex in the capital city of Goiânia, Brazil, north of Sao Paulo, is the largest health complex in the region. At 44 floors and flying a giant, 500 sq ft Brazilian flag, the building can be seen from a distance of 10 km in any direction. The medical center houses 664 clinics to help patients with a wide range of health issues including Cardiology, Immunology, Nutrition, Physiotherapy, Dermatology and Neurosurgery. The complex also includes a convention centre with meeting rooms for 600 people, and a five-star Clarion hotel 160 rooms. The adjacent shopping mall includes 59 stores and restaurants, a spa, 1400 parking spaces, and a rooftop helipad. The complex was conceived and built to help people from all over Brazil, and around the world.

Armstrong was invited to work with project managers early in the design process. The decision to use Design Envelope pumps was based on the combination of built-in intelligence, Wi-Fi connectivity, Sensorless variable speed capabilities for demand-based control and excellent local support. Construction began in March 2014.

23 large Design Envelope pumps were installed in the first phase, accompanied by high-quality accessories, valves and suction guides. On-board intelligence and Wi-Fi compatibility supported integration with other systems in the facility. Performance Management solutions provide impressive performance tracking capabilities for the engineering team and facilities management.

Sensorless Design Envelope technology delivers a host of savings for the new systems. Energy savings are realized through variable speed flow, intelligent pump sequencing, part-load operation, demand-based intelligent control, built-in performance tracking, and compatibility with standard communication protocols.

Reflecting on the success of the installation, Raimundo Ribeiro, Project Leader commented, “Once we did the calculations, we could see the energy savings were compelling. The installation has provided dramatic energy savings. With further integration of control systems plus additional commissioning and analytics work, the efficiencies continue to improve.”

Tech-info

23 Design Envelope pumps

- Suction Guides
- Flo-Trex Valves