

HIGH FLYING SAVINGS AND SUSTAINABILITY

A COMMERCIAL FACILITY
ENERGY UPGRADE

Dubai Airport Free Zone Authority (DAFZA)

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“The DAFZA upgrade project has produced significant savings in both energy and lifecycle costs.”

Rajmohan Govindarajan
Manager - Building Systems and Solutions - MEA Armstrong Fluid Technology

Armstrong's Design Envelope Sensorless 4380 pumps are pipe-mounted, with integrated intelligent controls for space-saving installation and superior energy performance. Design Envelope is a demand-based intelligent control solution that monitors system conditions, and dynamically adjusts equipment operation to match system demand.

Background

Armstrong has completed an upgrade project for the Dubai Airport Free Zone Authority (DAFZA), involving the provision of Armstrong Design Envelope 4380 Pumps, with Sensorless, integrated intelligent controls.

Originally established in 1996, DAFZA is seen as one of the most prestigious and advanced freezones in the region. Its purpose is to provide support and facilities for those seeking to do business in Dubai.

Following a walk-through audit, Armstrong provided recommended Design Envelope Sensorless 4380 pumps, and the Pump Manager subscription service. Installed to enhance the energy optimisation provided by the site's existing BMS, the new Design Envelope pumps reduced energy consumption markedly. Over a four-month period between February and May 2019, the new pumps yielded 1,265 Kwh savings - a 40% reduction in energy consumption compared to the same period in 2018.

In addition to the energy savings, Armstrong's Pump Manager service will help to improve long-term performance of the site's HVAC system. Armstrong Pump Manager is a cloud-based application that leverages the embedded intelligence and connectivity available through Armstrong Design Envelope. Pump Manager will, for example, report issues such as excessive vibration, a broken coupling, risk of cavitation or a dead head should they occur, or conditions such as

impeller imbalance, bearing failure, seal failures and shaft misalignment that would impact on operation of the pump if undetected.

Rajmohan Govindarajan, Manager - Building Systems and Solutions- MEA for Armstrong Fluid Technology said: “The DAFZA team challenged us to achieve even more ambitious sustainability targets for their facilities. The resulting upgrade project has enabled the site to achieve significant cost and energy savings, throughout the entire lifecycle of the HVAC system that might not, otherwise, have been possible. We admire the vision and commitment to sustainability of the DAFZA team, and we're proud to have been chosen to collaborate with them on this important project.”

Tech-info

- 1x Design Envelope iECM 4380 4kW pump
- Pump Manager - Active Performance Management service

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