



CASE STUDY Huawei Technologies



Telecom company reduces energy costs by 62% with Advantix

Huawei Technologies reduced its heating and cooling energy costs by 62% with two Advantix Systems units. The units were installed in Huawei's Shanghai facility clean room and resulted in a 3.5 month ROI as compared with installing a traditional A/C.

BACKGROUND

Huawei Technologies is a leader in providing next-generation telecommunication networks. Its products and solutions have been deployed in over 100 countries and have served 45 of the world's top 50 telecom operators, as well as one third of the world's population. Huawei's product portfolio covers mobile, broadband, core network, transmission network, data communication, terminals and services.

One of the company's production facilities is located in the Song Jiang industrial park. Song Jiang is a duty free entity

located in the suburbs of Shanghai and considered to be one of the most successful industrial parks in China.

CHALLENGE

The clean room at Huawei's Song Jiang facility is used for the testing of semiconductor devices, which requires strict humidity levels and excellent air quality. To satisfy these requirements, a significant amount of fresh air is introduced into the facility.

Shanghai has a humid, sub-tropical climate with thunderstorms throughout the summer. Because of this warm, damp weather, which lasts for approximately four months of the year, Huawei's facility experienced high energy costs from conditioning the clean room. Additionally, the standard A/C unit, in place at the time, did not have the precise humidity control necessary for the testing facility.



ADVANTIX SOLUTION

Concerned with the environmental and financial costs of employing a standard A/C system, Huawei management decided to implement Advantix Systems' liquid desiccant technology at its production facility in the Song Jiang industrial park.

The installation consisted of 2 DT-3400 units, configured to deliver fresh, pre-filtered air to standard A/C units. Combined, the systems deliver a fixed air capacity of 6,785 cfm to condition a total footprint of 172 sq. ft.

The comparable standard A/C equipment would have used a total of 85 kW, split three ways: 45 kW to chill the water, 29 kW to re-heat the air to the design point, and the remaining 11 kW would have been required for the rest of the system.

Alternatively, the DuTreat system requires a total of just 53 kW to run both units.

The result of the installation was a 62% energy cost savings and a 3.5 month ROI as compared with costs associated with installing the traditional A/C system.

"We are extremely impressed with the energy savings we've seen from the Advantix unit. The system has enabled us to tightly control humidity in our facility while saving us money," said Facility Director Zheng.

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Facility Director Zheng
Huawei Technologies

HOW IT WORKS

Advantix Systems' cooling & dehumidification systems are based on liquid desiccant's natural removal of moisture from air. This non-toxic, brine solution cools, dehumidifies, and cleans the air without ever needing to be replaced and without exiting the system. When heated, the liquid desiccant releases the moisture back outside in the form of warm vapor, eliminating condensation from any point in the system. Liquid desiccant is also a natural disinfectant, eliminating bacteria, microorganisms, and odor from the air in just one pass.



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