

Malmö University



CUSTOMER BENEFITS

- Innovative approach to conserving and recycling energy
- Implemented energy-saving technology that monitors heating, ventilation, lighting, access control, security and university wall clocks
- Interoperability with third-party applications
- Safe, comfortable learning environment
- Ability to minimize operational costs without compromising indoor environment

PROJECT AT A GLANCE

Project Type:

Building Management, Security

Location:

Malmö, Sweden



Founded in 1998, Malmö University is Sweden's newest establishment for higher education. Its main areas of study include international migration and ethnic relations, health and science, arts and communications, and teacher education. The University's innovative approach to conserving and recycling energy coupled with the need to provide a safe, comfortable learning environment, required a versatile building management solution from TAC® to keep all systems running smoothly.

The 12,000 m² Gäddan 8 Building, constructed at a cost of 127 million SEK, was the second building to be erected on Malmö University's new campus. Eager to practice what its courses preached, Gäddan 8 employs a number of innovative, environmentally friendly building strategies. For example, solar energy to heat water and flooring is stored in the building's own heavy structure, which acts as a heat accumulator.

Additional heat energy is recovered by taking full advantage of the large glass-roofed light well. Water from a nearby canal cools refrigeration units. Such ingenious thinking called for an equally ingenious Building Management System to fully realize potential energy and cost savings.

The Challenge

Because of the University's focus on environmental and social educational issues, it was vital that the energy-saving technology TAC installed be the most advanced possible. The Building Management System would need to control many natural sources of energy, heating and cooling as well as creative recycling solutions. Lecture halls, classrooms, study areas and a restaurant each required individual monitoring and control capabilities for optimal comfort levels. To ensure student safety and protect premises, the building needed a non-obtrusive, yet highly sensitive, alarm system supported by flexible access control.

EDUCATION PROFILE

Students have high expectations when they select a college or university. They require a quality education and campus experience at a reasonable cost. State-of-the-art facilities, safety and security are of primary concern. In order to meet rising expectations within this cost-sensitive market, colleges and universities must invest wisely in their facilities as a strategic asset to recruit students and attract faculty and staff.

TAC has proven experience in working with higher educational facilities to take advantage of building management solutions that maximize energy efficiency and performance. This leads to a reduction in operating costs and enables the reallocation of saved resources to new programs for students within the same budget.

The Solution

Malmö University chose a solution that included a LONWORKS® networking system incorporating over 800 nodes controlling heating, ventilation, access control, security, lighting and wall clocks. A TAC Vista™ front-end monitors all LONWORKS® installations, and 300 TAC Xenta™ controllers regulate HVAC functions and classroom lighting.

Occupancy sensors adjust lighting in lecture rooms automatically according to occupancy, ensuring energy savings when rooms are not in use. Security alarms and access systems are controlled with a combination of time schedules, presence detectors, smartcards and codes for maximum flexibility.

Finally, carbon dioxide sensors positioned throughout the building determine air quality and feed the information back to the main ventilation system to ensure optimum building comfort.

The Bottom Line

Malmö University's decision to utilize TAC Vista and a LONMARK®-based system is the only solution that allows the full integration of diverse third-party products necessary for total interoperability. It also guarantees the most intelligent use of resources in all of the building subsystems. Malmö University now boasts better energy and costs savings, increased security and more efficient use of resources.

On October 1st, 2009, TAC became the Buildings Business of its parent company Schneider Electric. This document reflects the visual identity of Schneider Electric, however there remains references to TAC as a corporate brand in the body copy. As each document is updated, the body copy will be changed to reflect appropriate corporate brand changes. All brand names, trademarks and registered marks are the property of their respective owners.

Schneider Electric One High Street, North Andover, MA 01845 USA Telephone: +1 978 975 9600 Fax: +1 978 975 9674 www.schneider-electric.com/buildings