

Munters delivers year-round total climate control

Flygstaden Archives, Sweden



Located in Soderhamn, Sweden the 188-hectare Halsinge F15 airbase was transformed into Flygstaden, a First Class Industrial Park (FCIP).

There are approximately forty companies operating in the former military buildings, including the archives for the Swedish Employment Service, which keep files and documents for its offices all over Sweden. The archive location is constantly expanding, 23 people are employed here to keep track of more than 43,000 meters of shelves.

Years of cooperation with Munters

The archive has been using desiccant dehumidifiers to control archive climate since they moved to the Flygstaden industrial park.

Subject to the regulations from the National Archives of Sweden, it has to maintain constant climate conditions all year round between 18°C ($\pm 2^\circ\text{C}$) and 30-40% RH ($\pm 5\%$ RH).

Two Munters desiccant dehumidifiers, MXT2100 and ML1350, have been operating next to the archives' AHU and humidification system to enable full climate control for document preservation.

Case study

- Air treatment document preservation, Flygstaden, Sweden

Advantages:

Munters ML Plus system offers:

- Complete temperature and humidity control
- Constant climate around the year
- Only one unit - small footprint
- Just one supplier and one after sales service partner



Expansion required new equipment

When the archive expanded by 500 m² in 2012 contractor Stefan Kring, Plätteteknik Söderhamn, contacted Munters to design the next dehumidification system.

Thanks to ongoing Munters product development the ML Plus system had been developed in the nine years since the last system was installed. It's a complete system for controlling both temperature and humidity.

This system was a perfect fit for the archive since outdoor climate conditions require both a dehumidifier and a humidifier to fulfil aforementioned climate requirement.

ML Plus - a modern concept with numerous options

The ML Plus system is a modular system, designed and configured according to individual customer need, with nominal airflows from 180-3,000 m³/h. (Operating airflow up to 5,500m³/h).

The ML Plus system can combine dehumidification and humidification, pre- and post-cooling and heating offers a variety of filter options and different regeneration sources such as electricity, steam and gas.

The central part of the system is the ML dehumidifier, which is known as a reliable and robust workhorse that's been produced by Munters for more than 20 years.

The modules selected are all mounted on a common base frame that allows final assembly and testing at the factory before delivery. Not only is the ML Plus system a tailor-made solution based on standard modules, it also has a small footprint with only one supplier and after-sales contact.



Per Ericsson (middle), Head of the archive with Lars Linderdahl and Stefan Käck from Flygstaden in front of the new MLT1400 Plus system, securing a constant and fully controlled climate in the archive around during the entire year.

Ideal solution for irreplaceable documents

When introduced to the ML Plus system Stefan Kring and Head of the archive Per Eriksson were convinced that this new concept would be the ideal solution.

Munters designed a MLT 1400 Plus system consisting of a dehumidifier, humidifier (evaporative humidifier type FA5), post-cooler (6.5KW) and post-heater (8.4KW).

The cold and long Swedish winter creates a need for humidifying (2,5kg/h) while the humid summer period requires removal of up to five kilos of water per hour.

The system is controlled by a Siemens Climatix controller, offering easy control and adjustment from a panel on the unit or remote via ModBus.

The nominal air flow of this ML Plus system in Flygstaden is 1,400m³. By using the newest and most energy efficient fans and motors combined with an internal heat recovery purge to minimize the energy used for rotor regeneration this ML Plus system is a modern climate control solution that is environmentally friendly.

Thanks to Munters air-handling solutions, all documents stored at the archive can last forever without being affected by humidity-related problems.

Munters climate control secures:

- Constant and fully controlled conditions all year round
- No mold or mildew
- No cardboard packaging material softening
- No paper material destruction

Would you like to find out if Munters has a solution for your company too? If so, please visit our website, www.munters.com

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