



SECTOR: Hospitals & Clinics

CLIENT: Bornholm Hospital

LOCATION: Denmark

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MAJOR ENERGY SAVINGS IN THE VENTILATION OPERATION

BORNHOLM'S HOSPITAL PUTS CAMFIL HI-FLO XLT TO A TEST TO SEE IF IT COULD HANDLE THE PRESSURE

BUSY HOSPITAL FOR LOCALS AND TOURISTS

Bornholm Hospital is located in Rønne on Bornholm and is a local hospital for the inhabitants of Bornholm and Ertholmene as well as for the many tourists who visit the islands every year. Bornholms Hospital, part of the Capital Region's hospital system, employs approximately 570 full-time employees and in 2018 had almost 7,000 admissions and around 65,000 outpatient visits.

As a place for disease treatment and recovery, good and healthy air quality in hospitals is extremely important, and therefore many resources are used to maintain and optimize ventilation systems in the Danish hospitals. In addition, dedicated staff are often employed to take care of it and monitor the entire process.

HIGH DIFFERENTIAL PRESSURES AND OPERATIONAL DISTURBANCES

The operations department at Bornholms Hospital experienced major problems with

excessively high differential pressures and operational disturbances in their ventilation system. The ventilation units located on the roof of the hospital are exposed to sea mist, haze and moisture in the air, and the moisture affected the installed bag filters so much that the air had difficulty passing the filters. The operations department therefore often received an alert on their CTS system that there were problems with a too high differential pressure, which required immediate action and filter change.

This caused the operations department to react and contact Camfil to hear if the problem could be solved. The ventilation filters already installed had synthetic media bags, so Camfil suggested their best bag filter Hi-Flo XLT, which has an optimized design for high performance and fiberglass media bags. Hi-Flo XLT is a high-quality ventilation filter that maintains a healthy indoor climate and at the same time saves energy and money.



Indgangen til Bornholms Hospital i Rønne.

PUT TO THE TEST

The operations department decided to test Camfil's Hi-Flo XLT felt with a trial run on four ventilation systems on the roof of one department. The selected plants - VE01, VE02, VE03 and VE04 - are completely identical units, all having an air volume of 11,000 m³/h, exactly the same operating times, and they also share the same suction chamber. The units also operate around the clock, seven days a week all year round.

In order to have as valid data as possible, the “old” kind of bag filters were installed in units VE01 and VE02 and Hi-Flo XLT bag filters in units VE03 and VE04. The test was carried out over a period of four months, and during that period the operations department was able to demonstrate an energy saving of as much as 36% and significantly fewer operational disturbances.

GREAT ENERGY SAVINGS

The energy savings amount to approx. DKK 20,000 per year per unit. The conversion of the filters has also resulted in fewer filter changes, lower CO2 emissions and an improved air quality to protect patients and staff.

The overwhelmingly good results have led Bornholms Hospital to change all ventilation filters in the units on the roof to Hi-Flo XLT, which, according to Bornholms Hospital's own calculations, will provide an energy saving of around DKK 100,000.



One of the ventilation systems at Bornholm's hospital.

FACTS ABOUT HI-FLO XLT

Hi-Flo XLT bag filters are energy-effective ventilation filters with unique performance and a wide range of application areas. Via optimized design, the filters have been developed for high filtration efficiency with the lowest possible energy consumption.

