



SECTOR: Steel Construction

CLIENT: BSB Industry

LOCATION: Denmark

DATE: January 2023

BSB INDUSTRY

A VENTILATION SYSTEM CAN GREATLY BENEFIT FROM A PRE-FILTER WHEN DUST IS THE PROBLEM

BSB Industry makes i.a. cutting work and steel structures, including anchor cages for the wind turbine industry. Anchor cages are used to anchor the wind turbine tower to the foundation of onshore wind turbines.

At the factory in Lunderskov, thermal cutting processes such as oxygen cutting, plasma cutting and CNC machining are carried out, and all processes are associated with individual ventilation process. In addition, a general ventilation system has also been installed to mainly handle dust from daily activities such as truck driving and employee activity, as well as metal dust from the cutting processes in the large hall.

The thorough air filtration is something BSB Industry takes very seriously. It is a must in a production - both to comply with the working environment regulations and to ensure the health and well-being of employees, as well as the equipment

and products. Moreover, thorough air filtration is needed to comply with the stricter requirements for production air that is sent out in the atmosphere and therefore, to surrounding neighbours.

BIG FILTER COSTS

Nevertheless, Allan Nielsen, Maintenance Manager at BSB Industry, experienced that the fine filters in the ventilation system turned black from dust and dirt despite several air quality measurements with correct values.

This meant that a whole set of bag filters in the ventilation system had to be replaced approx. every 5 to 6 weeks, which quickly became a costly affair both in filter costs and in maintenance time.

Allan therefore contacted the company Jeroso, which was already involved in the maintenance of BSB's process ventilation system, to find a solution to the problem.



A small version of an anchor cage.

Jeroso approached the task methodically, using the method of exclusion. After inspecting the ventilation system and checking the filter cartridges in the air pollution control system for holes, it was found that the ventilation system could greatly benefit from a pre-filter to capture the majority of the problematic dust that was now clogging the final filters at the cross exchanger in the ventilation system.

THE SOLUTION

Jeroso contacted Camfil, who, in collaboration with Jeroso and BSB, found that the best solution would be another air pollution control system, which should be connected directly to the ventilation system as a pre-filter. Camfil therefore supplied a Gold Series X-Flo dust collection system with HemiPleat eXtreme flame retardant filter cartridges and an ACDC cleaning control system, that automatically controls the cleaning of the filter cartridges.

Camfil's system has been installed for a period of time and it has proven to solve the problem. The fine filters do not get dirty as quickly as before and therefore do not need to be replaced often. The ACDC control panel controls the automatic pulse cleaning based on the differential pressure in the filters and only pulses

when the filters are dirty, which saves compressed air and energy.

"In my opinion, Camfil's Gold Series X-Flo system is more compact and the compressed air cleaning is less noisy, so it is not necessary to install noise reduction for the sake of the neighbours. I am very satisfied with the system, and it is not necessarily the last thing we acquire."

– ALLAN NIELSEN, MAINTENANCE MANAGER AT BSB INDUSTRY

The only thing that they need to have an eye on is when the collection container at the facility must be emptied. BSB Industry has thus succeeded in reducing significant costs for replacement of end filters and maintenance.



The ACDC (Camfil APC Advanced Control) control panel is designed to act as the intelligent centerpiece of the dust collection system.



GOLD SERIES X-FLO

The GSX dust collection system effectively collects dust while maintaining a low pressure drop. You get maximum air volume and dust collection regardless of the size of the room. The GSX dust collector uses cross-flow technology and has a unique baffle system to create a uniform air flow that, together with effective filter cleaning, extends the life of your filters. The filter cartridges last longer and require fewer replacements, reducing total cost of ownership (TCO.) GSX dust collection systems are ideal for most industrial applications where fine, fibrous and heavy dust and fumes are produced.

ABOUT BSB INDUSTRY

BSB Industry started in Lunderskov in 2000 and has gradually expanded to have factories in both Denmark and Poland, spread over 20,000 square metres. The total of 250 employees make total solutions within steel, stainless steel and aluminium. The key words for development at BSB Industry are versatility, customer satisfaction and world-class quality.