

## Crate washer - Nozzle protection

### Carlsberg, Fredericia Denmark



#### Background:

Existing coarse manual filter screens caused too many interruptions, blocked nozzles and insufficient cleanliness of the beer crates at Carlsberg. The crate washing machine at Carlsberg in Fredericia is in operation 24 hours from Monday to Thursday. The screen filter was blocked one or two times per shift and as a result, the unfiltered fluid containing dirt, label sediment, metal and fibres entered the nozzles in the spray bars. Nozzles got blocked quite fast and crates were not thoroughly cleaned. Manual overhauls of the machine and the spray bars had to be performed every weekend.

Carlsberg decided to change the coarse filter screen and to invest in automatic self-cleaning BOLLFILTERs for nozzle protection.

#### Description of the solution

Before entering the crate washing machine several crates are simultaneously lifted from a pallet onto two conveyor bands, then flipped upside down to empty for large deposits. Hereafter the crates enter the pre-wash zone. Here crates are sprayed to remove labels, dirt, metal and other sediments. Then followed by the rinsing zone where final washing is performed.

Two automatic filters Type 6.18 with a total of 300 m<sup>3</sup>/h have been installed for two years and showed great results. They filtrate the full circulated flow in the crate washing machine in each of the two treatment zones and cleanse water with high fibrous content.

#### Advantages and added value for the customer:

- No more blockages in the nozzles
- Cleaner crates without any residual labels
- No downtime in daily shifts
- Better overall condition of the crate washing machine
- Satisfied operators / BOLLFILTER's operate without supervision

**Client** Carlsberg

**System** 1 x BOLLFILTER automatic Type 6.18 DN100 - 500µm  
1 x BOLLFILTER automatic Type 6.18 DN200 - 500µm



Crates at Carlsberg



BOLLFILTER installed on crate washer



BOLLFILTER Automatic Type 6.18



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**Filtration of caustic for crate washer**