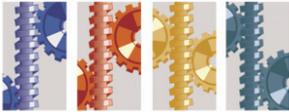




OIL FILTRATION SYSTEMS

CJC™ Application Study

Lube oil system - Labelling machine



INDUSTRY

Application Study written by
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CUSTOMER

Carlsberg Breweries A/S, Denmark

THE SYSTEM

Krone Topmatic labelling machine with three 20 ltr. lube oil systems per machine. Oil type Mobil SHC 630 (ISO VG 220).

THE PROBLEM

The necessary, periodical cleaning of the machines caused dirt and water to ingress the oil to an extent that monthly oil changes was required.

THE SOLUTION

Prior to the test a **CJC™ Filter Separator** was installed, type PTU2 27/27 PM-EH1 (with preheater and automatic water discharger) using **CJC™ BLAT 27/27 Filter Insert** (3 µm absolute). Dirt holding capacity approx. four litres.

THE TEST

Oil sample #1 was drawn directly from the bottom drain of the lube oil system some four weeks after the last oil change. The analysis, performed by Filtrex Services, Holland, proved strongly contaminated with metal, sand and plastic particles, and the water content was much too high. Filtrex Services recommended a cleaning or a change of the oil.

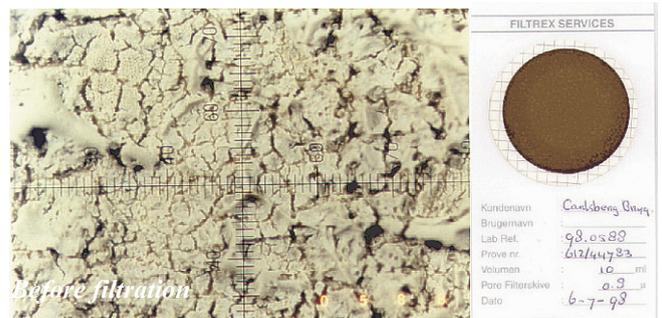
Oil sample #2 was drawn after 24 hours of continuous CJC™ filtration. The particle count had been reduced to a level way below that of new oil and the water content had been reduced from 40.000 ppm to 172 ppm. Filtrex Services assessed the oil as suitable for further use.

THE RESULT

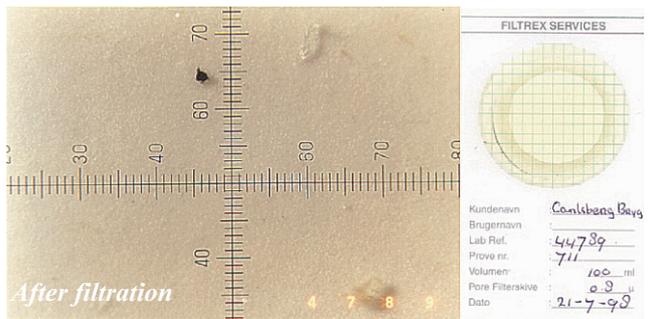
Today, the oil is drained from the labelling machines once every 6 weeks and is replaced - not with a new oil, but with dry and clean oil from the CJC™ filter unit. The average particle and water content in the oil has been reduced considerably with a minimum of oil waste.



Labelling machine at Carlsberg Breweries A/S



Before filtration



After filtration

RESULT

Particle count before filtration	Particle count after filtration
ISO 24/20	ISO 13/10
Water content before filtration	Water content after filtration
40.000 ppm	172 ppm

COMMENTS

Mr. Per Simonsen, Carlsberg Breweries:

"Not only do we save money because we purchase less new oil but we also - which is more important - save the environment from large amounts of waste oil ."



C.C. JENSEN

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