



OIL FILTRATION SYSTEMS

# CJC™ Application Study

## Hot Oil - Hot Oil Plant in the Food Industry



### INDUSTRY

*Application Study  
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### CUSTOMER

Daloon in Nyborg, Denmark.

### THE SYSTEM

Hot-oil plant, which is often utilized within the food processing industry for processing and heating of food ingredients.

### THE PROBLEM

Hot-oil is difficult to keep clean and often contains large quantities of dirt and oxidation residue. This is mainly caused by the very high process temperature of 280°C which also breaks down additives, reduces the flashpoint, thus increasing the risk of self-ignition. Dirt in the hot-oil plant negatively affects the system, through fluctuating heat emittance increased energy consumption in daily use.

### THE SOLUTION

C.C. Jensen A/S has developed a **CJC™ FineFilter HP 27/108** which depth filters the oil, removing the dirt from the plant.

As 280°C hot oil cannot be depth filtered, the temperature in the hot-oil plant must be reduced to below 150°. This can be done in periods of production stop, week-ends, during down-time or maintenance overhauls, when the CJC™ Fine Depth Filter cleans the oil of dirt and oxidation residue.

### THE RESULT

The positive and immediate effect of the depth filtration is a more homogenous heat distribution and lower energy consumption. At the same time the removal of the oxidation residue restores the high flash point.

The fine filter is connected directly to the existing hot-oil system, via a built-in thermostwitch, which automatically starts and stops the filter unit.



*Hot-oil is used in the production at Daloon in Nyborg, Denmark*



*For depth filtering of hot-oil plants, a new type CJC™ Fine Filter is developed, which can resist the high pressure in the system. The model is an HP 27/108 and is presently in operation at Daloon, filtering two huge boilers, each containing approx. 7,000 litres of hot-oil.*



*Oil samples - before and after filtration.*

