



**CLEAN OIL  
BRIGHT IDEAS**

**Application Study  
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# Hydraulic Oil Grundfos, Hydraulic Presses

## CJC™ Application Study

### CUSTOMER

Grundfos A/S, Bjerringbro, Denmark  
Contact person: Mr. Per Lunddorf,  
Maintenance Manager

### THE SYSTEM

Grundfos has approx. 60 hydraulic presses, with an average of 1500 litres of hydraulic oil. The presses are from 80 ton to 500 ton, and equipped with 8 µm in-line filters.

### THE PROBLEM

Until 2005 Grundfos had five service people working only with repair of hydraulic presses that were "out of service" due to unplanned breakdowns caused by oil related problems. The oil was filled with oxidation by-products creating daily problems for the presses.

### THE SOLUTION

In 2005, Grundfos decided to install CJC™ Fine Filters on all hydraulic presses, after having tested several different types of filters and methods.

Grundfos installed various types of CJC™ Filters, of which the main part consisted of:

- CJC™ Fine Filters LG 15/25 L with
- CJC™ Filter Inserts BG 15/25
- CJC™ Fine Filters HDU 27/27 P with
- CJC™ Filter Inserts B 27/27

The filters remove particles, water, and oil degradation/oxidation products and are 3 µm absolute filters.

### FINANCIAL BENEFITS

The five service people now undertake planned service on the presses, which increases the productivity significantly, and results in an important reduction of costs relating to failing hydraulic components and unplanned breakdowns.

### ENVIRONMENTAL BENEFITS

Grundfos can use the same hydraulic oil for much longer periods, and a cleaner oil results in an improved atmosphere for the employees.

### THE RESULT

The CJC™ Fine Filters have been in operation for 1-4 years now, and in average Grundfos now has only 1 unplanned stop per month caused by oil related problems. The five service people can now concentrate on planned maintenance.



Mr. Per Lunddorf, Grundfos A/S, next to the CJC™ Fine Filter LG 15/25 L



The submerged pump for the hydraulic press **BEFORE** CJC™ Filtration



The pump **AFTER** CJC™ Filtration

### THE RESULT

	<b>BEFORE with 8 µm in-line Filters</b>	<b>AFTER 1 month with CJC™ Filters</b>
Particles > 4 µm	1,443,178	6,774
Particles > 6 µm	298,680	2,204
Particles > 14 µm	17,893	356
ISO Code	21/19/15	13/12/9

### COMMENTS

**Mr. Per Lunddorf, Maintenance Manager, Grundfos A/S**  
We are very satisfied with the results after installing CJC™ Fine Filters on our hydraulic presses, and all new machines are immediately equipped with CJC™ Fine Filters.