



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 1,500 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 Filter units 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 Filter units 15/25 with CJC™ Fine Filter inserts BG 15/25
Dirt holding capacity: approx. 1.1 kg
Water absorption capacity: approx. 400 mL
- CJC™ Fine Filter units 27/27 with CJC™ Fine Filter inserts B 27/27
Dirt holding capacity: approx. 2 kg
Water absorption capacity: approx. 0.9 mL

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

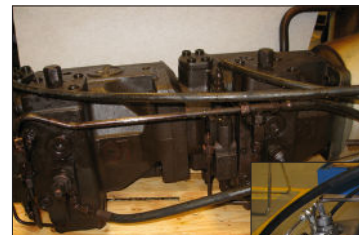
Grundfos can use the same hydraulic oil for much longer periods, and a cleaner oil results in an improved atmosphere for the employees.

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 unit 15/25



The submerged pump for the hydraulic press
BEFORE CJC™ Filtration



The pump
AFTER CJC™ Filtration

THE RESULT

	BEFORE with 8 µm in-line Filters	AFTER 1 month with CJC™ Filters
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

*) Further information on cleanliness classes are available on request.

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.