

### OIL FILTRATION SYSTEMS



Application Study written by Bryan Holden C.C. Jensen Ltd. (U.K.)

# CJC<sup>TM</sup> Application Study

# Control Oil System on Hydro Turbine

THE SYSTEM A Boving Control System on Hydro Turbine with 3,000 litres of oil ESSO FM 68.

# THE PROBLEM

An environmentally friendly vegetable oil has a faster oxidation process than a standard mineral oil; thus, making clean and dry oil even more important than normal.

The particle content in the oil was very high causing problems with mechanical parts and reducing oil lifetime.

# THE SOLUTION

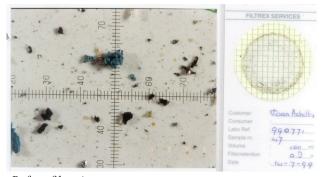
A **CJC<sup>TM</sup> Filter Separator** type PTU3 27/108 MZ-EPW. The unit is equiped with 4 CJC<sup>TM</sup> Filter Inserts type BLAT 27/27 with a filtration ratio of 3  $\mu$ m absolute. The dirt holding capacity is 4 ltr. per element. Futhermore the CJC<sup>TM</sup> Filter Separator is capable of separating free water from the oil.

#### THE RESULT

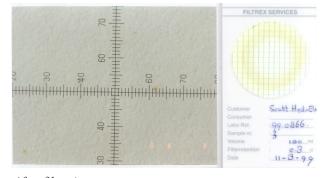
The achieved reduction from an ISO code 20/19/17 to 12/11/8 will give the machines component a life increase of 8 times!

## REFERENCES

More than 300 CJC<sup>™</sup> Filters are operating on Hydro Turbines, installed in Sweden, Scotland, Norway, Germany, Switzerland and Spain.



Before filtration



After filtration

#### THE RESULTS

DATE	June 30	July 14	July 21	July 30
Particles > 2 $\mu$ m	627,284	5,027	4,970	2,565
Particles > 5 $\mu$ m	377,104	3,224	2,906	1,374
Particles > 15 $\mu$ m	111,596	813	701	183
ISO Code	20/19/17	13/12/10	13/12/10	12/11/8
Water, ppm	325	498	318	332

#### Jim Currie, Norson Services:

"The CJC Fine Filter is very easy to use; I have been very satisfied with the results obtained".



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