CLEAN OIL
BRIGHT IDEAS

Hydraulic Oil
Water Turbine Control System

CJC™ Application Study

Application Study written by:

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Polska

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CUSTOMER
Zespół Elektrowni Wodnych **NIEDZICA S.A.**
(Water Power Plants Group Niedzica S.A.)

THE SYSTEM
Control system of Water Turbine CKD BLANSKO.
System capacity:
10,000 L of turbine oil TU 46.

THE PROBLEM
Mechanical contamination of oil, oil oxidation by-products, risk of excessive water content, the necessity of periodical cleaning and drying the oil with a centrifuge.

THE SOLUTION
CJC™ Filter Separator PTU3 27/108 MZ-EPW has been applied. The filter is equipped with 4 **CJC™ Filter Inserts BLAT 27/27** of 3 μm absolute filtration ability, with 4 L dirt holding capacity per insert (including solid particles and oxidation by-products).

Additionally, the automatic dehydration unit on the CJC™ Filter Separator removes the free water from the system.

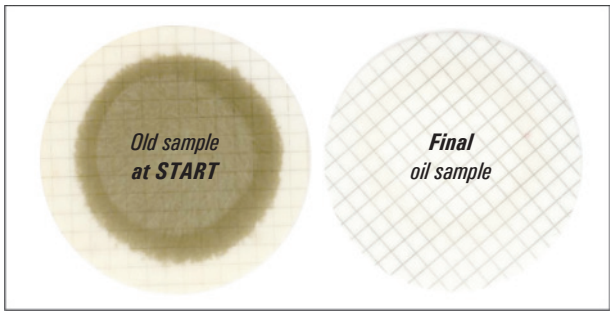
THE TEST
The work of the CJC Unit was observed for three months under normal conditions. The unit was off-line connected to the hydraulic system tank.

THE RESULT
During the test period the contamination level was reduced from 15/13/8 to 13/12/7 according to ISO standard, while at the same time water content was maintained on a stable, low level. The expected prolongation of the oil life time as well as the increased durability of hydraulic ele-

COMMENTS
Mr. Eugeniusz Kiełtyka,
Mechanical Department Manager:
CJC™ Filter Separator is not only very simple to operate, but it also allows us to fully eliminate the usage of a centrifuge. Moreover I am very satisfied with the results.

CJC™ Filter Separator PTU3 27/108 MZ

OIL SAMPLES



THE RESULT

	Start	After 49 days	After 97 days
ISO 4406	15/13/08	13/12/08	13/12/07
Particles > 2 μm	24,714	4,961	4,230
Particles > 5 μm	7,922	2,284	2,150
Particles > 15 μm	157	237	97
Water, ppm	26.3	15.0	28.8

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