



CLEAN OIL
BRIGHT IDEAS

Hydraulic Oil Steel Rolling Mill, Roll Force System

CJC™ Application Study

Application Study
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2001



CUSTOMER

CORUS Packaging Plus, IJmuiden, Netherlands.
(Formerly known as Hoogovens IJmuiden.)

THE SYSTEM

(270 bar) A hydraulic servo system for the roll force operation used on the cold rolling mill no. 11.
System capacity: 6,000 litres of Hydran BE 32 oil.

THE PROBLEM

Prior to the installation of the CJC™ Filter, a vacuum purifier had been connected to the system. However, the water content in the oil was still 0.37% (3,700 ppm), thus causing serious problems to the hydraulic system. Furthermore, the system suffered from a high particle contamination (ISO code 18/17/15), 45% of which had been formed through oxidation of the oil.

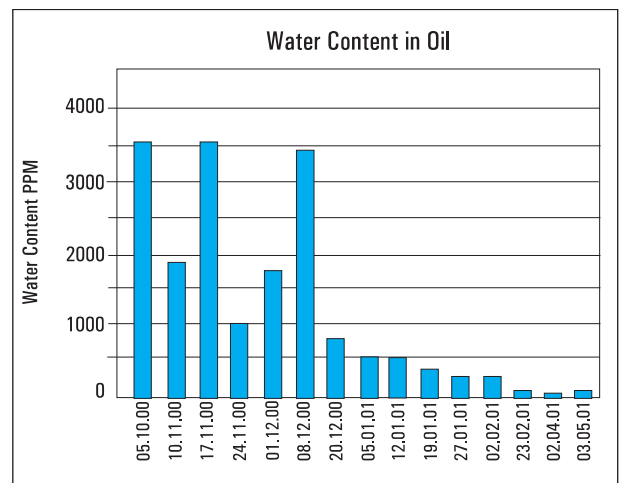
THE SOLUTION

A CJC™ Filter Separator PTU3 27/108 MZ-EPW with a pump flow rate of 960 L/h was installed for continuous circulation of the oil tank. The unit utilizes 4 of CJC™ Filter Insert BLAT 27/27 (3 µm absolute) and a CJC™ Coalescing element for water separation.

The purpose of installing the CJC™ Filter Separator was to continuously maintain a low water content, and remove solid particles and oxidation residuals (resins).

THE RESULT

The CJC™ Filter Separator reduced the water content down to 74 ppm and diminished the solid particles content to ISO code 12/11/6. The incidental damage of a leaking cooler was also neutralized as the separator removed the water as soon as it entered the tank.



THE RESULT

Date	Water Content PPM	ISO Code
05.10.00	3,650	18/17/15
24.11.00	1,041	15/14/10
08.12.00 *)	3,462	15/14/11
20.12.00	810	14/13/10
03.05.01	74	12/11/6

*) Leaking cooler