OIL FILTRATION SYSTEMS

# CJC™ Application Study

## Hydraulic Oil - Steel Rolling Mill, Roll Force System

INDUSTRY


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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% (3700 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.

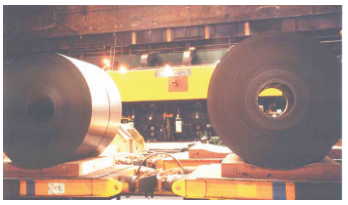
### THE SOLUTION

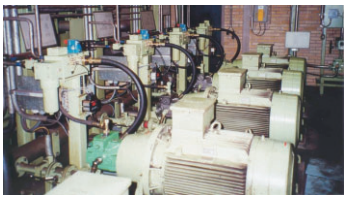
A **CJC™ FilterSeparator PTU3 27/108 MZ-EPW** with a pump flow rate of 960 l/h was installed for continuous circulation of the oil tank. The unit utilizes four off **CJC™ FilterInsert BLAT 27/27** (3 µm absolute) and a **CJC™ Coalescing element** for water separation.

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

### THE RESULT

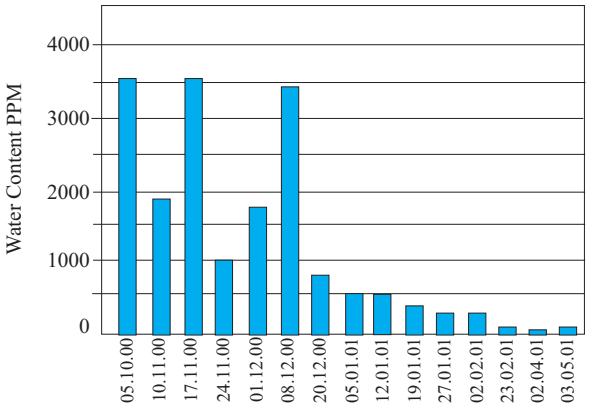
The CJC™ FilterSeparator reduced the water content down to 74 ppm and diminished the solid particles content to ISO code 12/11/6. The incidental damage of a leaking cooler was also neutralized as the separator removed the water as soon as it entered the tank.





*CJC™ PTU3 27/108*

Water Content in Oil




### THE RESULT

| Date | Water Content PPM | ISO |
|---|---|---|
| **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.*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