CJC™ Application Study
Hydraulic Oil - Steel Rolling Mill, Roll Force System

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™ Filter Insert 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.

*) Leaking cooler.