



CLEAN OIL  
BRIGHT IDEAS

Application Study  
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BIANOR

## CJC™ Application Study

### CUSTOMER

BIANOR sp. z o.o. produces high quality plastic components for Philips, BOSCH-SIEMENS, and Whirlpool, using 40 Plastic Injection Moulding Machines, each operating 8,000 hours a year.

### THE SYSTEM

STORK Plastic Injection Moulding Machine SXEP4000- 3500.  
Tank volume 875 L.  
Hydraulic oil RANDOHM46 from Texaco.

### THE PROBLEM

The plastic injection moulding machines produce critical components for customers. The target for downtime due to repair on each machine was set to less than 4 hours per year. Oil analysis showed high resin contamination. Oil replacement and chemical tank cleaning used to be a common practise, but the oil's chemical and physical characteristic (the additive package) was still intact for further use.

### THE SOLUTION

A CJC™ Fine Filter LG 15/25 L with a 300 L/h pump was chosen, using a CJC™ BG 15/25 Filter Insert.

### THE TEST

Oil cleanliness level at start-up accounted for ISO code 15/14/8. After 3 months of operation the CJC™ Fine Filter, the contamination level was stabilised and oil cleanliness was improved to ISO 12/11/7.

### THE RESULT

- The improved oil cleanliness results in faster machine cycles and a life extension factor of 3 for system components.
- The removal of micro particles and resins has resulted in an average time of 2.5 years between unplanned stops, which is an impressive result, when comparing to one accident a month before installation of the CJC™ Fine Filter.

# Hydraulic Oil STORK Plastic Injection Moulder



The plastic injection moulding machine at BIANOR with the CJC™ Fine Filter LG 15/25 installed

### OIL SAMPLES

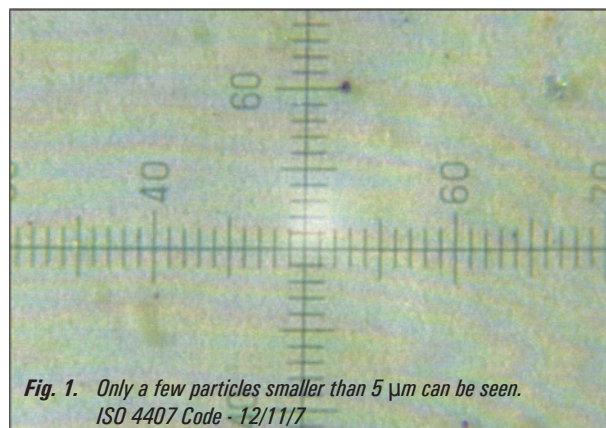


Fig. 1. Only a few particles smaller than 5 µm can be seen.  
ISO 4407 Code - 12/11/7

### THE RESULT

Particles	Samples No 1	Samples No 2
> 2 µm	28,622	2,461
> 5 µm	11,617	1,196
> 15 µm	230	72
ISO Code	15/14/8	12/11/7

Tabl. 1. Number of particles in 100 ml of tested oil  
Samples collected in a 3 months period

### COMMENTS

Maintenance costs have been significantly reduced due to reduced down-time. Furthermore, there has been no need for removing resin deposits from the proportional valves and no leaking has been reported.