



**CLEAN OIL  
BRIGHT IDEAS**

**Application Study  
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# Honing Oil / Lapping Oil Production of Sealing Rings for Hydraulic Systems

## CJC™ Application Study

### CUSTOMER

Trelleborg Sealing Solutions (former GNL), Modena plant, Italy.

### THE SYSTEM

Lapping of sealing rings for hydraulic systems. Lapping is a machining operation process used for creating surfaces with very low roughness values. The process requires use of low viscosity oil mixed with abrasive powders.

**Oil volume:** Approx 300 L/day  
**Oil type:** Honing/Lapping Oil  
Viscosity 4 cSt at 40°C

### THE PROBLEM

In order to reuse the oil it is necessary to completely remove the abrasive particles from previous lapping as well as all the oil degradation products, such as oxidation by-products.

These fine particles do not settle even after several days and if the reused oil is not clean enough, problems may occur during lapping.

### THE SOLUTION

A CJC™ Fine Filter HDU 27/54 MZ (MZ-3.0) equipped with two CJC™ Filter Inserts B 27/27, 180 L/h flow rate.

First oil is settling in a dirty tank and then the upper layer is transferred to a clean tank via the CJC™ Fine Filter.

### THE RESULTS

By a single pass through the filter the oil is cleaned so effectively that it more than fulfils the cleanliness requirements for further lapping use. The ISO Code level went from 17/15/12 down to 14/13/10 in only 15 days.

The service life of the filter inserts proved to be very satisfactory for the customer; more than 10 m³ of oil were processed through each set of filter inserts.

### COMMENTS

**Eng. Carlo Calvietti Technical Manager:**  
"The CJC™ Fine Filter allows us to bring back the oil condition to a level comparable to or better than new oil - an important fact that guarantees a continuous high quality of our products. We also use less oil than before, achieving savings on the purchase of new oil and on the waste disposal".

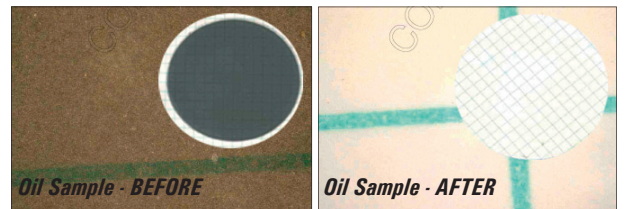


*Sealing rings for hydraulic systems produced by Trelleborg Sealing Solutions in their Modena plant*



*CJC™ Fine Filter HDU 27/54 MZ operating, dirty and clean oil tanks are clearly visible*

### OIL SAMPLE



### THE RESULT

	BEFORE CJC™ Filtration	AFTER CJC™ Filtration
ISO 4406	17/15/12	14/13/10
Water, PPM	460	80