



OIL MAINTENANCE
INDUSTRY

Application Study

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AZULIBER 1, S.L.



AZULIBER
FÁBRICA DE AZULEJOS, ARCILLAS ATOMIZADAS
CERAMIC TILES FACTORY, ATOMIZED CLAYS

2005

Hydraulic Oil Sacmi Ceramic Press

CJC™ Application Study

THE CUSTOMER

AZULIBER 1 is a company engaged in the manufacture of atomised ceramic and clay tiling.

THE SYSTEM

AZULIBER 1 has 4 SACMI presses in its tiling plant. The press has a hydraulic system for regulating the speed of the piston cycles. The system is permanently pressurised at 2.0 bar and the hydraulic system is centralised in a 1,000 litre tank, with a working pressure of > 300 bar. The oil is a CEPSA GRES 2000.

THE PROBLEM

The presses work in a dusty and hot environment at rapid pressing cycles with a significant accumulation of particles in the system.

The contamination of the hydraulic oil can result in a drastic reduction in the useful life of the press components, causing internal wear of the valves and pump, malfunction in the pressing process, and consequently production shutdowns.

The oil was very contaminated with metal particles, sediments of particles smaller than 3 micron, and resins formed by the high oxidation of the oil that had given it a black appearance.

AZULIBER had to change the oil every year due to the impurities that blocked the proportional valves and other components, causing failures.

THE SOLUTION

AZULIBER 1 installed a CJC™ Fine Filter HDU 15/25 PV-Y with a CJC™ Filter Insert BG 15/25 behind the ENEA air coolers of a Sacmi PH 2000 press to continuously clean and dry the oil. A 120 L/h flow volume eliminated > 3 µm particles, resins, silt, and water.

The oil had an excessively high acidity level. However, 4 months after the installation of the CJC™ Fine Filter the acidity had been reduced to an acceptable level and the contamination of wear particles from an abnormal level to a controlled level.

Currently the oil is being maintained at a cleanliness level, which will considerably extend the service life of the hydraulic components compared with the situation prior to the installation of the CJC™ Fine Filter.

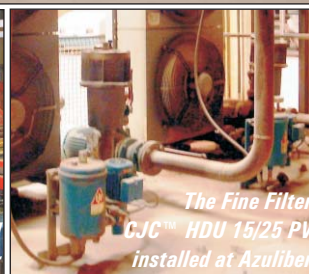
Oxidation by-products in the oil have also been eliminated, thus prolonging the life time of the oil and postponing replacement.



The company Azuliber 1

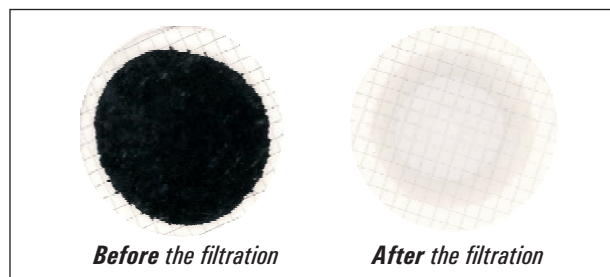


Mr. José Luis Maeso and Mr. Manuel Pintor



The Fine Filter CJC™ HDU 15/25 PV installed at Azuliber

OIL SAMPLES



Before the filtration

After the filtration

THE RESULT

	Before	After 3 months
ISO Code	23/21/18	16/15/10
Particles 2 µm	Not countable	36,196
Water, ppm	552.8	392.5
Acid, TAN. Mg. KOH/g	1.407	0.92
Colour of membrane	Black	Brown

COMMENTS

These filters were installed because they make it possible to work continuously with an oil in optimum conditions, which has resulted directly in the proper operation of all types of valves and equipment. It should also be noted that the life time of the oil has been prolonged, making fewer oil changes necessary, leading to economic savings and the generation of fewer residues for the environment.

José Luis Maeso, AZULIBER 1.