



**CLEAN OIL
BRIGHT IDEAS**

Application Study
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Gear Oil Cooling Tower Gearbox - Power Plant

CJC™ Application Study

CUSTOMER

Major UK Power Plant

THE SYSTEM

Cooling Tower Gearbox
Oil type: Esso Spartan EP 220
Oil volume: 50 L

THE PROBLEM

The cooling tower gearbox suffered with high levels of particle, water and oil degradation/oxidation contamination causing frequent and unscheduled gearbox overhauls.

The contamination levels on start of project were deemed high for this application.

THE SOLUTION

CJC™ Fine Filter HDU 15/25 PV - DEH1 with a pump flow of 45 L/hr was installed in a weather proof housing external to the cooling tower gearbox.

The filter was fitted with a **CJC™ Filter Insert BG 15/25** (3 micron) with large dirt holding capacity.

THE RESULT

The CJC™ Fine Filter has reduced the contamination level from ISO 20/19/16 to ISO14/13/10 and reduced the total weight of the contamination from 0.73 to 0.46 gr/L.

Although moisture level was acceptable, the level was reduced from 62 ppm to 26 ppm.

By reducing the levels of contamination, **life extension of the components can be as much as 4 times**, helping to extend the overhaul period of each gearbox.

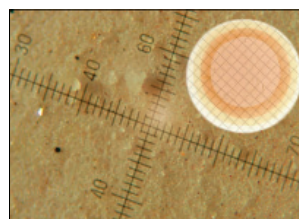


Cooling Tower Gearbox at the Power Station

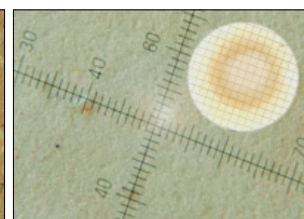


CJC™ Fine Filter HDU 15/25 PV

OIL SAMPLE



Oil Sample - BEFORE



Oil Sample - AFTER

THE RESULT

	Oil Sample BEFORE CJC™ Filtration 07.12.2007	Oil Sample AFTER CJC™ Filtration 31.01.2008
Particles > 2 µm	527210	13606
Particles > 5 µm	263208	7958
Particles > 15 µm	38951	875
ISO Code, Class 4407	20/19/16	14/13/10
Water, PPM	65	26

Filtrex Services, NL