



Gear Oil Cement Mill, Finish Grinding Mill (FGM), Gearbox

CJC™ Application Study

CUSTOMER

Republic Cement Iligan, Inc. (ex Lafarge Republic Inc.), Iligan Plant, Philippines.

SYSTEM

Finish grinding mill (FGM) No. 1, gearbox
Oil type: ISO VG 320, gear oil
Oil volume: 2,400 Litres

PROBLEM

Republic Cement Iligan plant maintenance team is doing quarterly oil analyses on their machines to observe their oil and machine wear condition. On December, the analysis revealed that their finish mill no. 1 gearbox contained large amounts of wear elements and was heavily contaminated with cement dust. Due to operational demand, they could not afford to stop production to carry out an oil change.

SOLUTION

CJC™ Fine Filter unit 27/108 with CJC™ Fine Filter insert was installed for fine filtration and oil care.
Filter material: 100% renewable raw material
Filtration degree: 3 µm (micron) up to 1 µm (micron)
Dirt holding capacity: approx. 8 kg
Water holding capacity: approx. 3.6 L

RESULT

After only 3 weeks of continuous oil filtration, wear elements and solid contaminants were removed and oil cleanliness level was improved significantly. The production could proceed without oil-related breakdowns.

BENEFITS FOR COMPANY AND ENVIRONMENT

The improved oil cleanliness level not only has a positive impact on lifetime of oil and components but also simultaneously improves machine reliability and therefore ensures a higher productivity of the mill. Decrease in costs and increase in turnover due to less production stops influence the company profit in a positive way.

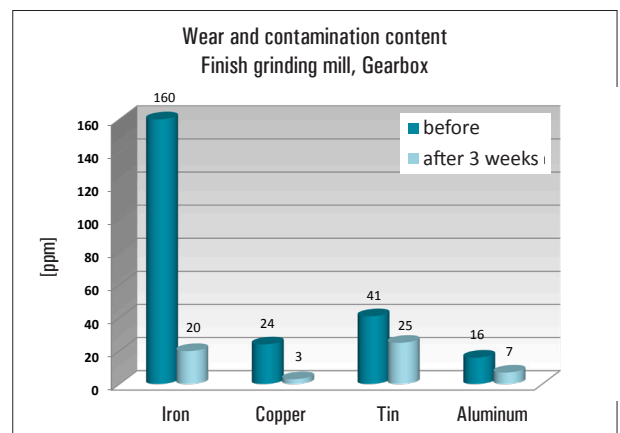
Only by the avoided oil change (2,400 litres) the saving amounts to approx. EUR 7,142,- (oil and personnel costs, loss of production). In addition maintenance costs drop (spare parts, inline filters, man power).

The drastically declined amount of waste oil simultaneously reduces the CO₂ emission. Thermal disposal of waste oil causes approx. 2.6 kg of the harmful greenhouse gas CO₂ per litre. This means each avoided oil change protects the environment against approx. 6,240 kg CO₂.



Republic Cement Iligan, Inc. - Gearbox of finish grinding mill no. 1 with installed CJC™ Fine Filter unit 27/108.

RESULT



	BEFORE fine filtration	AFTER 3 weeks fine filtration with CJC™
Iron, ppm	160	20
Copper, ppm	24	3
Tin, ppm	41	25
Aluminum, ppm	16	7

COMMENT

Mr. Joseph Janerol, Methods Manager:

"As we are satisfied with the performance of the CJC Offline Oil Filtration, is contemplating to the purchase of further CJC Offline Oil Filtration Unit."