

PREDICT in cement production

Customer: LafargeHolcim



CYTROCONNECT SOLUTIONS MEETS CEMENT PRODUCTION

Successful start in the cement industry

The optimization of production processes plays an important role in strong competition. That is why predictive maintenance is considered more often. Our intelligent solution for this - CytroConnect Solutions – is the first of its kind in the cement production in the Philippines.

The production of cement is a complex process. In recent years, the industry has developed more and more into a high-tech sector.

CytroConnect Solutions improves cement production in the Philippines

Lafarge Holcim's challenge was to monitor the key indicators of the hydraulically operated clinker cooler with CytroConnect Solutions in order to detect possible failures in good time.

The clinker cooler is an essential component of the cement production. If it stops working, the entire production must stop within 5 minutes. Therefore, the sensors on the hydraulic system were installed in such a way that they send the essential physical quantities to the CytroConnect Solutions platform for analysis. Employees of Lafarge Holcim will receive regular reports about the system behavior of their machine.

Intercoastal, Rexroth's service partner in the Philippines, interprets the information provided by CytroConnect Solutions and gives recommendations for action to the maintenance technicians on site.

For the CytroConnect Solutions team it is a good start in the cement sector. The implementation of Online Diagnostic Network will be subsequently rolled out to other plants in the region.

AT A GLANCE

Customer: LafargeHolcim Ltd

Location: Bulacan, Philippines

Current status:

August 2018 implementation CytroConnect Solutions

Oct 2018 anomaly detection

Further planning:

CytroConnect Solutions will be implemented in further plants in 2020

Decisive motivation to buy:

More information about the behavior of own system and plannable maintenance

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LAFARGE HOLCIM LTD.

Business activities:

Suppliers of cement and aggregates + ready-mix concrete and asphalt including services

Industry:

Cement industry

Employees:

80,000

Headquarters:

Switzerland

Technical implementation: Used software and hardware

MONITORED COMPONENTS		INTEGRATED PARAMETERS
HPU Main pumps	Pump 1, 2, 3, 4	<ul style="list-style-type: none"> discharge pressure case drain pressure case drain flow case drain temperature
	Motor 1, 2, 3, 4	<ul style="list-style-type: none"> current motor L1 current motor L2 current motor L3
Cooling unit	Water side	<ul style="list-style-type: none"> cooling water flow cooling water inlet & outlet temperature cooling water inlet pressure
	Oil side	<ul style="list-style-type: none"> oil temperature after heat exchanger circulation oil pressure before & after heat exchanger circulation oil flow before heat exchanger
	Circulation filter	<ul style="list-style-type: none"> left & right circulation filter clogging pressure
Tank	Oil	<ul style="list-style-type: none"> tank/oil level oil tank temperature main supply line pressure
	Oil contamination	<ul style="list-style-type: none"> particel size 04/06/14/21 temperature humidity
	pressure filters	<ul style="list-style-type: none"> discharge filter P1, P2, P3, P4 clogg indicator P1, P2, P3, P4
Grates 1-3		<ul style="list-style-type: none"> grate monitor supply (grate 1) under grate pressure - CCR (grate 1) SPM signal from CCR (grate 1, 2, 3) actual stroke per minute (grate 1, 2, 3)
	Cylinder left / right	<ul style="list-style-type: none"> pressure bottom & rod side shuttle pressure position transmitter
	Valve left / right	<ul style="list-style-type: none"> command value to & from card pilot & main valve feedback

STATEMENT OF OUR CUSTOMER LAFARGE HOLCIM

Now we are able to learn much more about our own equipment than we did before. We can predict, we can see the health of the machine. We will install it to other hydraulic units within our business. With CytroConnect Solutions, we can be more proactive in capturing all the data of the equipment and make better decisions.