

FLIR Thermal Cameras Offer Value in Under-Pressure SA Construction Sector

While the South African economy may be expanding at a snail's pace, things are starting to look more promising in the local construction industry. A recent media headline, for example, indicated that the tide may be turning for SA construction sector.

"The building industry is an exceptionally cyclical one and has shown little or no growth for the past decade," that's according to Philip Smerkovitz, Managing Director of thermal imaging, instrumentation and automation specialist, TeleEye SA. "However, there is exceptional value on offer for local and overseas firms seeking an earnings boost from the South African construction industry."

Mr Smerkovitz adds that TeleEye SA has seen significant interest expressed of late in FLIR thermal imaging cameras that monitor the condition and performance of cement kilns. "Because it's impossible to imagine the building industry without cement, this local interest in world-leading thermal imaging systems may point to a revival of the South African construction sector," explained Mr Smerkovitz.

Fixed thermal imaging cameras developed by FLIR Systems and distributed by TeleEye SA allow for non-contact temperature monitoring of cement production facilities at a reasonable cost and with due consideration for worker safety. Alarms can be triggered by selecting areas within cement kilns for maximum or minimum temperature thresholds or changes in temperature. Multiple areas can be monitored simultaneously for critical changes.

Cement production is a complex process of blending limestone with other components in large rotary furnaces. These furnaces are critical production assets in any cement production plant. By heating the kiln contents to an astonishing 1 500 degrees Celsius, there is always a risk of overheating. Fortunately, thermal imaging cameras from FLIR Systems are available to monitor the intricate heating process within cement kilns on a round-the-clock basis.

"Cement production operators are able to prevent damage to expensive kiln shells by relying on the affordable yet high-quality FLIR A-Series thermal imaging cameras to make potentially dangerous hotspots clearly visible," says Mr Smerkovitz. The cameras and the associated software can monitor and process data from several kilns at once. FLIR thermal cameras provide exactly the detailed thermal data that is needed for this type of construction-based operation.

Briefly, rotary kilns are long pipes five metres in width and up to 90 metres long where flames heat the raw constituents of cement at tremendous temperatures. The outer steel shell of the kiln needs to be maintained at a certain temperature to ensure longevity of these pricey cement plant facilities. Thanks to thermal imaging cameras, the steel kiln shell can be continuously-monitored for early-warning 'hot spots' indicative of shell failure.

A-Series thermal cameras from FLIR can also alert operators to unusually low temperatures inside cement kilns that may indicate interior cement coatings are getting too thick. Furnace operators can reduce the temperature of the burners or

even shut the system down completely to prevent the huge costs associated with severe kiln damage.

“Cement is one of the most useful mineral products in the world. It is especially key in a developing country like South Africa that looks to construction to, quite literally, build the foundations that will power our future growth. Thermal imaging technology that enables construction to take place more efficiently on the African continent is especially valuable,” concludes Mr Smerkovitz