FLIR APPLICATION STORY

FLIR SYSTEMS

The ICI facility in Runcorn, U.K.

Cooled and uncooled thermal imaging, the perfect combination at ICI

The management at ICI attaches considerable importance to its condition-monitoring programme. It has proven beneficial in the promotion of safe process systems, the reduction of environmental incidents, the decrease of energy costs, the enhancement of plant reliability and the reduction of operating costs.

Central to the infrared programme is a FLIR Systems ThermaCAM™ thermal imaging camera. Purchased two years ago it has proven its worth time and time again. One recent example was the detection of a major fault with a transformer that could have resulted in the loss of power to the entire facility. A large team of Manweb engineers had to be deployed to rectify the problem but, thanks to early fault detection with the Flir Systems camera, a potential incident was averted.

The success of the IR programme has led to plans for its expansion. But without further investment, both manpower and resources would be increasingly under strain. So, a second technician has been appointed within the Reliability Support Group and a second FLIR Systems camera has been added to its inventory.
The new camera is a ThermaCAM PM 595 model whose uncooled technology complements the existing cooled camera perfectly.

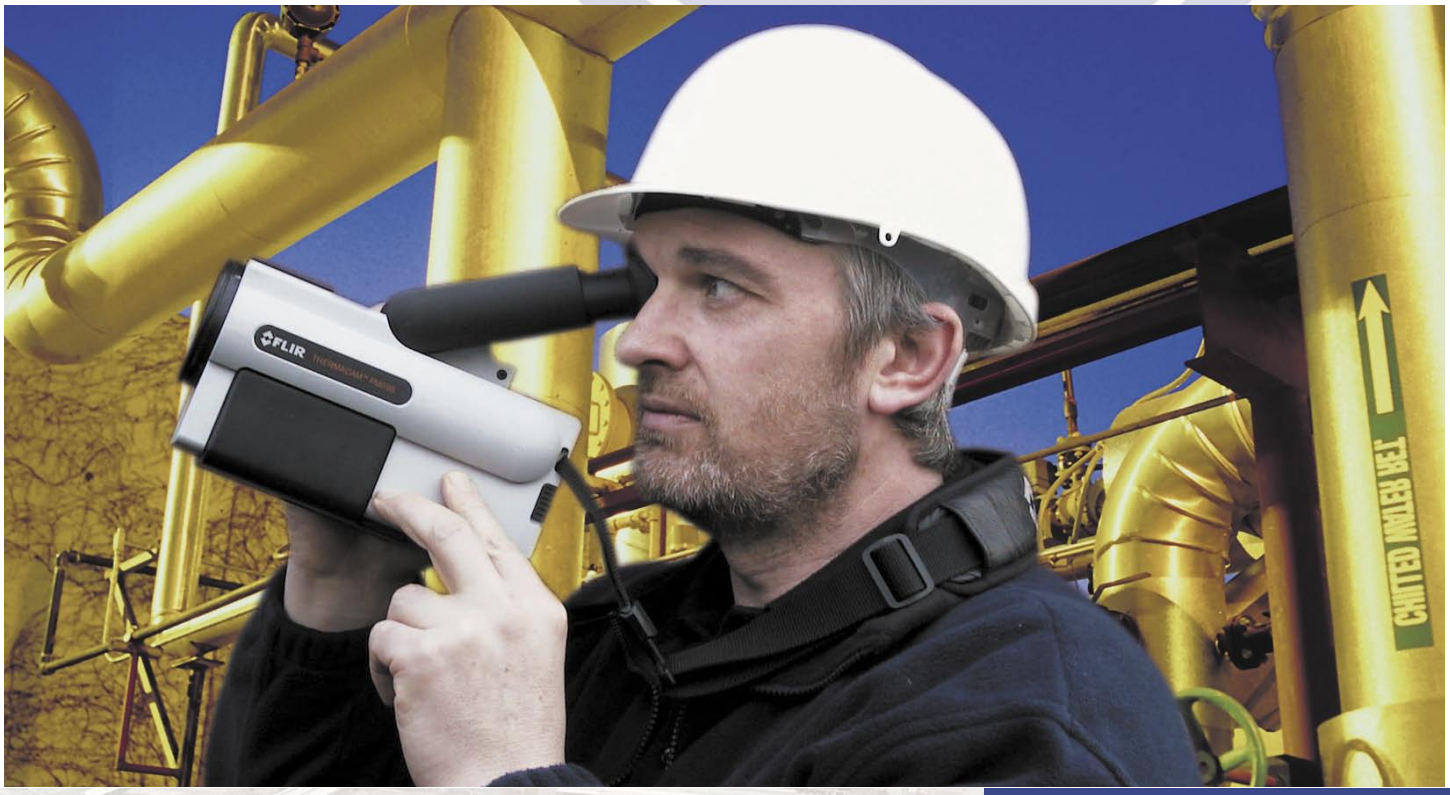
A cooled and an uncooled camera, the perfect combination
"Our first camera has been required to operate in harsh chemical environments on most working days," explains Condition Monitoring Technician, Austin Dunne.
" So our primary reason for purchasing a second camera was to ensure that we wouldn't be without this vital piece of equipment during routine maintenance for example."

However, the distinct cooled and uncooled technologies have also been found to have distinct areas of excellence. "On applications that require analysis of close temperature spans, the cooled camera is the preferred instrument," continues Austin Dunne. "Thanks to its long-wave operation, the uncooled camera is less affected by solar radiation and is therefore more suited to outside work. It also has the flexibility of wide temperature ranges and is less sensitive to the effects of high magnetic fields."
As a result low temperature applications are being carried out by the cooled ThermaCAM PM 250. Outdoor surveys and higher temperature work, and in particular imaging applications near cellrooms, transformers and rectifiers, are now the preserve of the uncooled ThermaCAM PM 595.

For ICI, the investment in the latest thermal imaging technology was certainly important but so too was accurate temperature measurement, high image quality and system reliability.

The combination of both cooled an uncooled technologies provides the best in all areas and will ensure the company continues to enjoy the benefits of maximum plant utilisation.

Austin Dunne, Condition Monitoring Technician at ICI demonstrates his latest ThermaCAM™



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