



APPLICATION SPOTLIGHT—Oil & Gas



Improve
Reliability



Reduce
Downtime



Improve
Efficiency

INSPECTING MOTORS, PUMPS, AND VALVES PREVENT DOWNTIME WITH THERMAL IMAGING

THE CUSTOMER'S CHALLENGE

A motor breakdown, pump failure, or bad valve is always a critical issue in the oil and gas supply chain. They may result in pollution, product or energy loss, and shutdown of equipment or a production line. Vibration analysis is the most common technique to detect faults in rotating equipment such as unbalance, misalignment, or bearing issues. This inspection method requires the maintenance professional to collect vibration measurements on every single piece of equipment, which can be time consuming.

A SOLUTION

Thermal imaging technology makes it easier to identify where there may be a risk of a mechanical issue. It enables inspectors to easily scan for hot spots to see which motor or pump is overheating, and complete vibration measurements on those parts to save time and money. A thermal imager, such as the FLIR E8-XT, allows the maintenance team to quickly detect overheating that may lead to a failure. It can also be used to inspect valves for improper operation. A closed valve will always have a warmer or colder temperature at the inlet, depending on the temperature of the fluid inside. When the valve is opened or leaking, the temperature of the pipe from the outlet will also be up or down. A digital multimeter or clamp meter, such as the FLIR DM93 or FLIR CM74 with VFD and inrush mode, can be used to take electrical measurements to control electrical circuits and connections.

THE RESULTS

Through regular thermal inspections, oil and gas plants can rapidly locate hot spots and detect temperature issues in motors and pumps. Electrical issues and problems with connections are visible in thermal inspections, and valve failures are easy to identify. After each inspection campaign, visual and thermal images of the defective component may be stored and reported with a diagnostic failure and corrective action request, set per level of priority.

For more information about FLIR in the oil and gas industry or to schedule a product demonstration visit:

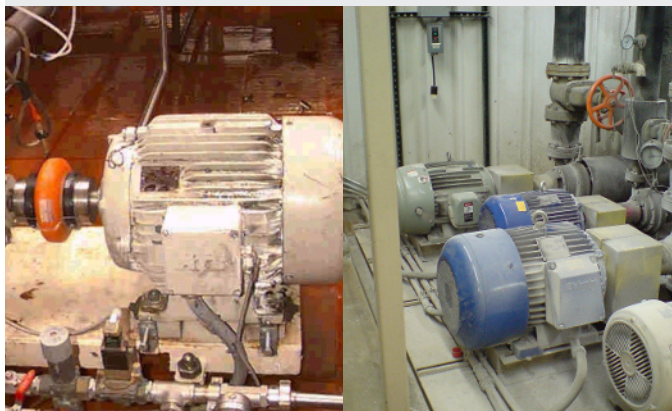
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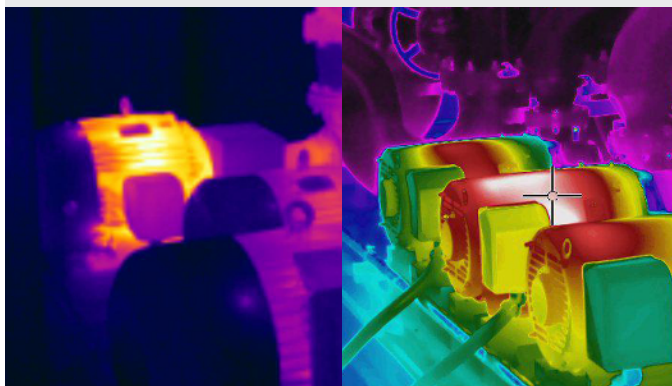
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Motor, pump, and valve inspections are an important part of predictive maintenance programs to avoid an unplanned shutdown.



Thermal imaging makes it easier to identify hot spots on pumps and motors, indicating overheating that may lead to a failure.

