

Oil condition monitoring of compressor lubrication



RESULTS

- Save up to \$250,000 by avoiding failures and the associated costs of replacement parts and repairs
- Monitor real-time changes in lubricant viscosity that can happen between regular oil lab analysis intervals.
- Achieve repeatability measurements of better than 1% of the reading



APPLICATION

Online oil condition monitoring of compressor lubrication oil in process applications

CHALLENGE

Scroll compressors use two interleaved spiral vanes to move and compress fluids and gases. Typically found in intermediate and end-product applications, scroll compressors are valued for reliability and smooth operation.

Lubrication oil seals the compressor from leaks, lubricates moving parts, and manages temperature during operation. The condition of lubricant oil is a critical factor in extending a compressor's bearing life and overall reliability. While the goal is a lubricant with a long useful life, harsh environments, contaminants, and humidity in the refinery's external environment can greatly reduce lube oil's usable lifespan.

A range of compressor failures can result from improper or contaminated lubrication. Bearings, both rotary and thrust, can fail, which in turn causes wear on the rotor assembly. Replacing bearings is less costly than a total rebuild or replacement, but the plant faces downtime, either way. Monitoring and managing lubricant viscosity can prevent costly breakdowns due to bearing failure.

SOLUTION

Monitoring lube oil viscosity is the best way to prevent bearing wear and prevent compressor failure. While some plants may monitor as infrequently as once a month, rapid changes in viscosity can happen — and the results can be severe.

The unpredictability of viscosity change means monthly viscosity checks are not enough to prevent bearing failure and subsequent plant downtime. Cambridge Viscosity's VISCOpro 2000 monitors real-time changes in lubricant viscosity that can happen between regular oil lab analysis intervals. This is particularly effective in high value equipment in processes where the costs of failure are high. This preventative approach is an ideal way to ensure bearing life and minimize costs associated with unscheduled downtime.

For more information about the VISCOpro 2000, visit us online at www.paclp.com.

PAC Corporate Headquarters
8824 Fallbrook Drive
Houston, TX 77064
United States
Telephone: 281.940.1803
pacsales@pacpl.com

