Proactive care for your reciprocating compressors

Reciprocating compressors play an essential role in many key industrial processes in the oil and gas industry. An advanced condition monitoring system can help prevent unscheduled downtime, improve overall maintenance costs and increase performance, safety and reliability.

Baker Hughes Bently Nevada reciprocating compressor condition monitoring solution continues a legacy of over 40 years, our expertise proven by an installed base of more than 1,000 reciprocating compressors.

Our machinery diagnostic engineers help you reach your safety and efficiency goals, increasing uptime, while reducing operation and maintenance costs.

Turnkey solutions

We will design, build and install an engineered solution for you, and then our highly trained and certified team will commission, configure and test it.

In-depth machine health analysis

A worldwide team of machinery diagnostic experts is available 24/7 to assist you, providing proactive asset health information, analyzing compressor data and performing root cause analysis on malfunctions.

Services and total solution packages (Supporting service agreements)

To help you get the most from our installed condition monitoring solution, we back it up with a full array of support services. Our total solution packages can boost the reliability and efficiency of your reciprocating machinery—and help you make informed maintenance decisions.

We offer training to plant personnel on all aspects of system use and maintenance, from instrumentation basics to in-depth mechanical and thermodynamic data analysis. These services can be tailored in a Supporting Service Agreement, ensuring our availability anytime you need us.
Machinery diagnostics—supporting services

The mechanical and thermodynamic behavior of your reciprocating compressors is analyzed by our machinery diagnostics experts. Malfunctions on valves, piston rings, and rider bands are analyzed as well as vibration on running gear components.

Training

Understanding the vibration and performance behavior of your machinery is the key to asset optimization. To achieve this we offer tailored training:

• Instrumentation and monitoring systems operation and maintenance: training for instrumentation engineers that provides basic knowledge of the Bently Nevada 3500 system and components, operation and troubleshooting procedures

• System 1* for reciprocating compressor "Getting Started" course: hands-on training on system usage, data management and interpretation to enable trainees to analyze malfunctions and use of supporting data for root cause analysis

• Reciprocating compressor monitoring and diagnostics: reciprocating compressor components, mechanics, performance theory, and recip-specific diagnostic techniques. Illustrates several failure patterns through hands-on workshops at our RecipKit and actual case histories. Designed for system users to understand the compression process and interpret vibration readings of reciprocating compressors

Our machinery diagnostic services (MDS) can be provided either remotely or onsite, on call, periodically, or continuously.

This includes:

• Startup, commissioning and operational assistance: data analysis, system optimization (hardware and software), fine tuning of settings and customization of data visualization and management (based on actual operating and user needs)

• Alarm and event management (daily, weekly, 24/7): “real-time” disposition of alarms to indicate machine problems, process problems or instrumentation problems

• Baseline audits (onsite/remote): asset “baseline” and report for diagnostic and alarming purposes, so that data is available for ongoing diagnostics, reducing nuisance alarms or missed warnings

• Periodic audits (onsite/remote): asset audit diagnostic report that assesses machine condition, provides recommended actions and, where applicable, performs root cause analysis