

MOV Diagnostics Program

Enhancing Device Health, Performance, and Reliability with Proactive Diagnostics.

Why MOV diagnostics?

Our MOV Diagnostics Program provides a targeted approach to identifying outage scope. By generating a detailed health report that evaluates both actuator and valve performance, we can pinpoint which assets require repair. This method minimizes unexpected scope growth and discovery items, allowing for more accurate budgeting and planning.

Benefits include:

- Non-Intrusive
- Fast, easy and accurate
- Improved plant efficiency through optimal valve performance
- Decreased unscheduled, unexpected and non-budgeted repairs by detecting problem valves prior to failure
- Lower repair costs by focusing only on valves that require maintenance
- Ensures proper parts are available and on-hand
- Predictable outage cost and performance



Common findings through MOV Diagnostics

- Loose stem nut retainers
- Broken stem nut retainers
- % of Stem Nut Wear
- Degraded and damaged actuator bearings
- Actuator limit switches not properly set
- Degraded motors
- Internal valve damage
- Bent valve stem
- Actuator gearbox degradation and damage
- Degraded & malfunctioning electrical components
- Torque & Thrust output lower/higher than designed
- Incorrect actuator sizing

Tracking & Trending: Custom Reports

Data taken from preventative maintenance activities, diagnostic results, repair reports and operational history is inputted into our central database and used for trending identification. Custom reports are generated to help identify root cause failure points and detect early performance issues before they create expensive operational challenges.

For more information, contact your Control Southern Account Manager, Services Team Leader or
(770) 495-3100
info@controlsouthern.com
www.controlsouthern.com

24/7 Emergency Services

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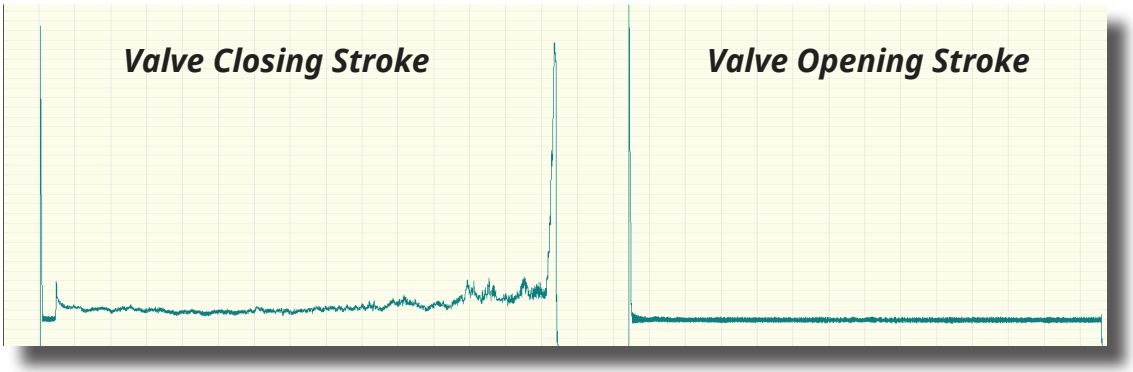
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Examples of Diagnostic Findings

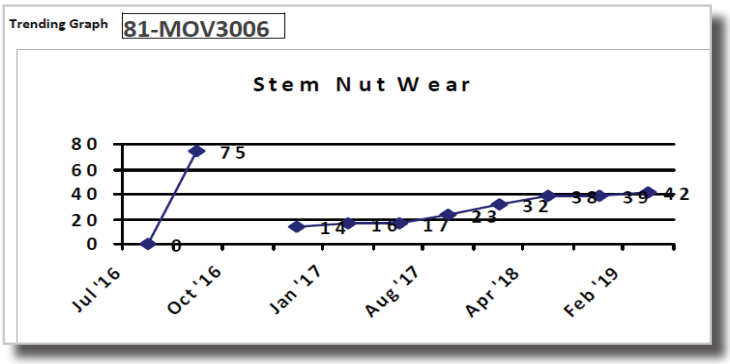
Degraded Actuator Bearing

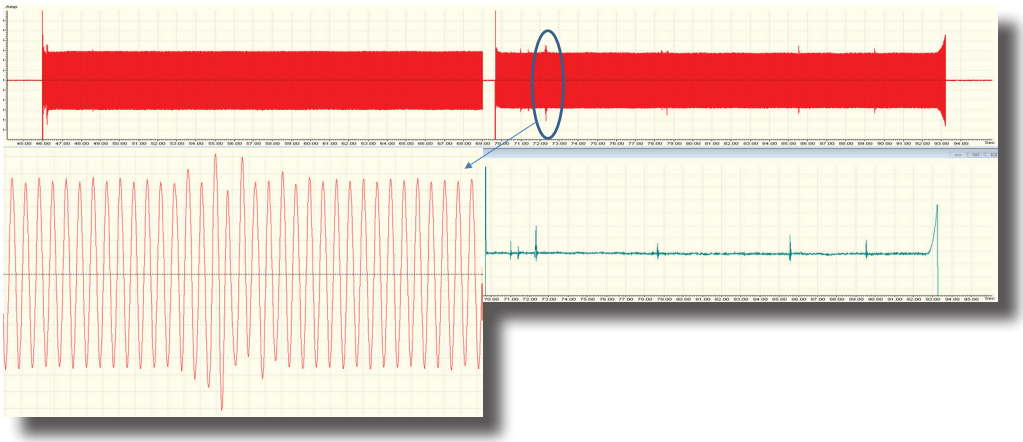


The graph above represents motor power trace. You can see as the valve is closing, the graph has multiple spikes throughout the stroke. The open side is smooth (as expected). This is an indication of upper drive sleeve bearing wear or damage. This indication enables planned maintenance activities prior to loss of operation.

Stem Nut Wear

The graph to the right represents stem nut wear trended over time. This can confirm stem nut health or the need to plan scheduled maintenance prior to loss of safe operation.





Degraded Contactor

These two graphs (red) are motor current being read on “B phase.” The (blue) is the RMS trace - this is the average motor current cleaned up for analysis. This is used to determine contactor health/degradation prior to loss or operation, enabling scheduled maintenance.

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