



Troubleshooting Vickers Proportional Flow & Pressure Controls

Vickers proportional flow and pressure control valves are common throughout industrial and mobile hydraulic systems, regulating flow rate or downstream pressure in proportion to an electrical command signal. When one starts misbehaving, the cause isn't always the valve itself — a few checks up front can save time before assuming a full rebuild is needed.

Verify the Command Signal First

Confirm the command signal actually reaching the valve's coil or electronics matches what the controller intends to send — correct current or voltage range, correct polarity, and no signal loss along the cable run. A damaged cable or an upstream controller issue can produce symptoms that look identical to a failed proportional control.

Distinguish Flow Drift from Pressure Drift

A proportional flow control that drifts off its set point under varying load often points to spool wear or contamination affecting the metering edge. A pressure control that drifts under stable flow more often points to a worn or fouled pilot section or a compensator spring issue. Identifying which type of drift you're seeing narrows the likely cause considerably before any teardown.

Check for Contamination-Driven Sticking

Proportional flow and pressure controls operate on tighter internal clearances than standard flow control valves, making them more sensitive to particulate contamination. Hesitation, sticking, or a delayed response to command changes is frequently a contamination issue rather than a worn or damaged component, and it's worth checking system filtration before assuming the valve needs replacement.

Inspect the Solenoid or Proportional Coil

Where the valve uses a proportional solenoid to modulate flow or pressure, check for a coil that draws current but produces inconsistent or reduced force — a common sign of winding degradation from heat cycling. This symptom can closely mimic a mechanical sticking issue, which is why



isolating the coil's actual force output matters before condemning the valve body.

When a Bench-Level Repair Makes Sense

If command signal, contamination, and coil performance all check out and the flow or pressure control issue persists, the valve likely needs bench-level diagnostics rather than continued field troubleshooting. Performance Servo tests these valves under simulated load against OEM specification, so the repair targets the actual failure rather than replacing a part that was never the problem.

If your Vickers proportional flow or pressure control is drifting or responding inconsistently, [Performance Servo](#) can bench-test it and confirm the real point of failure before any repair work begins.