

Figure 1

The “Stop-Check” piston can be incorporated into any GA Industries differential piston control valve including “Electric Check” pump control valves, altitude valves, pressure reducing or sustaining valves and cut-in valves. The “stop-check” closes upon pressure reversal, independent of the pilot controls, to prevent reverse flow through the valve should inlet pressure fall below outlet pressure.

The standard piston is one piece but the stop-check piston is made from two pieces – the stop-check piston and a free floating “baffle plate.” As long as the flow is moving in a forward direction the piston and the baffle plate operate together, the same as a standard piston. However, if inlet pressure falls below outlet pressure while the valve is open, the baffle plate will quickly fall to the seat independently of the piston to check and prevent reverse flow.

Figure 1 illustrates the valve under normal “forward flow” conditions . Both the piston and baffle plate are held open by the flow.

Figure 2 shows the baffle plate in the closed position (although the piston is still open) due to the inlet pressure falling below the outlet pressure.. Although a pressure reversal has occurred, flow does not go backwards through the valve.

When used in Electric Check pump control valves *instead* of the emergency solenoid, the stop-check piston will not allow ANY reverse flow. However, since it’s an uncontrolled closure a rapid flow reversal can result in “slam.” When used in ADDITION to the emergency solenoid, the stop-check can provide redundancy on power outage in the event the emergency solenoid does not close the valve.

Stop-check pistons are often used in single-acting altitude valves as well as pressure reducing, sustaining, flow control and cut-in valves to prevent reverse flow through the valve should the inlet pressure fall below the outlet pressure while the valve is open.

For proper and reliable operation, control valves with stop check pistons should be installed with the indicator rod pointed vertically up.

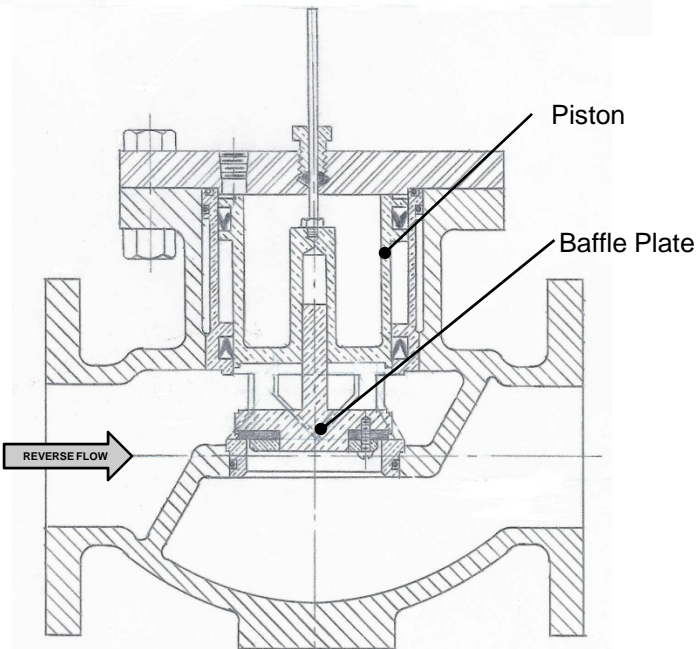


Figure 2

GA INDUSTRIES, LLC , A Zurn Company	
DATE	12/31/08
STOP CHECK PISTON	
SCP-1	