

ACV Schematic

LEAD FREE*

S116-5 (Globe)

Pressure Sustaining or Backpressure Control Valve with Hydraulic Check Feature

Features

- Throttles open when upstream pressure is above setpoint
- Throttles closed when upstream pressure is below setpoint
- Hydraulic Check Feature prevents flow reversal
- Adjustable Closing Speed
- When installed between two pressure zones acts as Pressure Sustaining Valve
- When installed on discharge of a pump acts as Backpressure Control Valve
- Setpoint is adjustable

Standard Components

- 1 — Main Valve (Single Chamber)
- 2 — Pressure Sustaining Control
- 3 — Adjustable Closing Speed
- 4 — Check Valve
- X — Isolation Cocks

Options and Accessories

- FC Flo-Clean Strainer (Standard 1¼" – 4")
- Y Y-Strainer (Replaces Flo-Clean)
- AOS Adjustable Opening Speed (Standard 1¼" – 4")
- P Position Indicator
- L Limit Switch

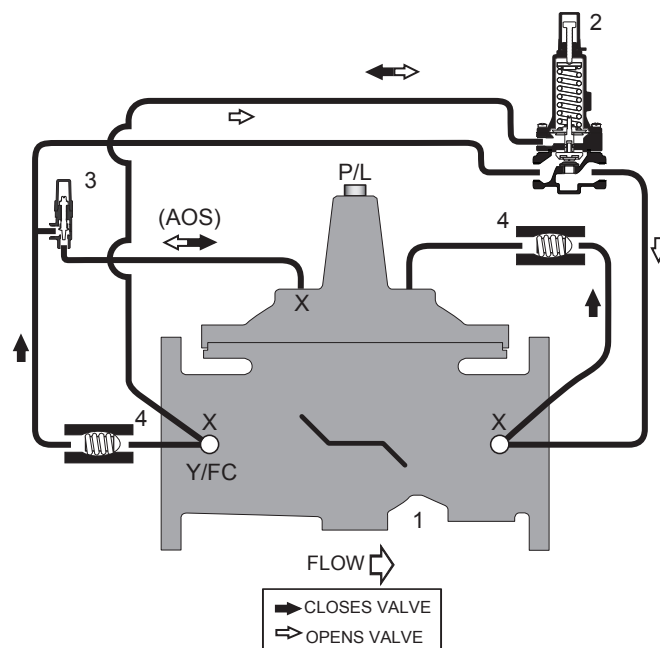
Operation

The ACV Combination Backpressure or Sustaining Control Valve with Hydraulic Check Feature is designed to permit flow when upstream pressure is above the adjustable setpoint of the control pilot, and throttle toward closed when upstream pressure falls below the adjustable setpoint, and close drip-tight when downstream pressure becomes greater than upstream pressure.

It is controlled by a normally closed control pilot designed to: 1) Open (allowing fluid out of the main valve cover chamber) when upstream pressure is above the adjustable setpoint, and, 2) Close (allowing fluid to fill the main valve cover chamber) when upstream pressure is below the adjustable setpoint. An increase in upstream pressure causes the valve to modulate toward an open position. A decrease in upstream pressure causes the valve to modulate toward a closed position.

If downstream pressure becomes greater than upstream pressure, downstream pressure is admitted to the main valve cover chamber, closing the valve and preventing reversal of flow. Normal backpressure or sustaining operation resumes when upstream pressure exceeds downstream pressure.

When the valve is installed "in line" on the discharge of a pump, it acts as Backpressure Control Valve. When pump discharge pressure falls below the pilot setting, the valve modulates toward a closed position, increasing backpressure against the pump. The valve should be



specified to include the optional opening speed control when used for Backpressure applications.

When the Model valve is located "in line" connecting two distribution zones, the valve acts as a Pressure Sustaining Control Valve. When pressure in the upstream zone falls below the pilot setting, the valve modulates toward a closed position, sustaining pressure in the upstream zone. The valve will close, if necessary, until upstream pressure is above the pilot setting. The valve should be specified to include the optional opening speed control and position indicator when used for Pressure Sustaining applications.

***The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.**

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

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