POV SERIES

General

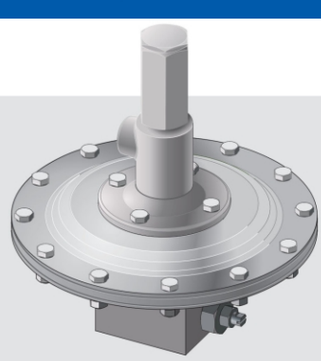
- Pressure and/or vacuum relief valves are used on dangerous oil, gas or petrochemical storage tanks and other process vessels or systems to prevent structural damage due to excess internal pressure or vacuum.
- Pilot-operated pressure/vacuum relief valves work best for applications with a high amount of backpressure or fluctuating backpressure.
  - Opting for modulating pilots allows the piston to lift only as high as is needed, venting off just enough pressure to prevent cycling (a common side effect of backpressure that can cause undue wear to valve parts).
- Pilot operation is also recommended for equipment where low accumulation rates are required or when the set pressure level needs to be close to the operating pressure level.
  - As pressure increases, the pilot maintains its seal tightly, allowing reliable operation closer to the set point for pack line, without product leakage.
  - Pilot-operated pressure/vacuum relief valves can work at an operating pressure of up to 98% of set pressure.
- Although their initial investment price tends to be higher, pilot-operated pressure/vacuum relief valves are much smaller than their spring-loaded counterparts, making them easier to install, maintain, and repair.

Features

PILOT OPERATED	• Ease of precision settings • Only the pilot needs to be set • Lower profile and weight than spring operated models for high settings • Remote pilot sensing option allows the pilot to sense the true system pressure • Remote or manual blowdown available
EXTRA TIGHT SEAL	• Main valve remains tight to set pressure
FULL FLOW	• Full open at 10% overpressure
SNAP-ACTION OR MODULATING ACTION	• Modulating action conserves product since valve opening is proportional to overpressure. • Noise is reduced since the valve only opens fully when required.
SOFT SEATED	• Soft seats seal tight to conserve product and minimize valve wear which improves reliability
TOP ENTRY	• Reduces maintenance costs since the valve can be completely serviced without removal from its mounting

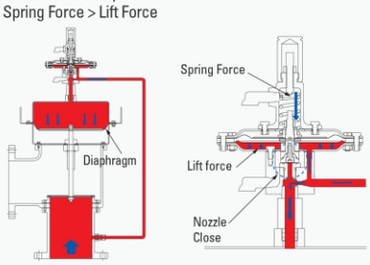
Technical details

- Size: 2" (DN 50) through 12" (DN 300)
- Material: Standard body materials are carbon steel, stainless steel, aluminum
- Pressure: from 2.0 inchW.C to 15 psig
- Vacuum: from 7.0 inchW.C to 12 psig
- Temperature: Supply Media Temperature range from -160°C to 150°C
- ISO 9001 Certified manufacturing process



Valve Close Condition

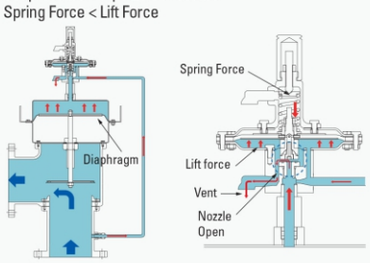
Set Pressure > Pipe Line Pressure
Spring Force > Lift Force



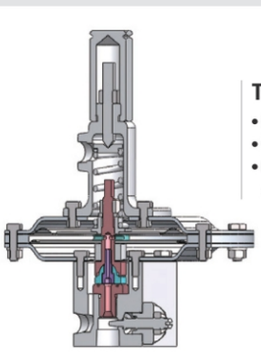
1) When the pipe pressure is smaller than the setting pressure of the valve.
2) Since the lift force is smaller than the setting spring force.
3) The valve disc will be closed by applying pressure to the upper dome.

Valve Open Condition

Set pressure < Pipe Line Pressure
Spring Force < Lift Force



1) When the pipe pressure is larger than the setting pressure of the valve.
2) Since the lift force is larger than the setting spring force.
3) The valve disc will be opened by the pilot nozzle to vent.



Technical details

- Pressure relief
- Vacuum relief
- Combination pressure and vacuum relief

Applications

- Oil & Gas - Upstream (E & P), Midstream(LNG) and downstream(refining)
- Oil & Gas pipeline & compression stations(Oil & Gas)
- Chemical & petrochemical production
- Conventional power plant
- Cryogenic storage tanks
- LNG/LPG ships