



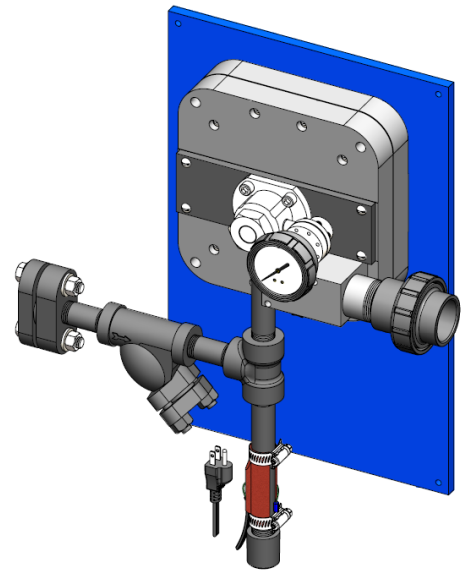
Series 3000 High Capacity Vacuum Regulators

Hydro Instruments has been manufacturing the highest quality, longest lasting and most reliable gas chlorination equipment since 1978. Our equipment is manufactured in the USA using only the highest quality materials for both chemical resistance and physical durability.

Hydro Instruments constructs its products using parts that are precision machined from the best materials for gas service.

Capacity & Features

- Up to 10,000 PPD (200 Kg/h) Cl₂ or SO₂
Also available for Ammonia NH₃ and Carbon Dioxide CO₂
- Panel mounted for easy installation
- Diaphragm protected compound gauge with 2.5" (63mm) dial, 30"Hg-0-300PSI (20 bar)
- 3/4" or 1" 2-bolt flange gas inlet connection; gas inlet can be facing right or left
- PVC union vacuum connection
- Optional flow meter and flow indicator accessories are available
- Optional Y-strainer in gas inlet piping
- Integral pressure relief



Benefits

Hydro Instruments' Series 3000 vacuum regulators are backed by a 3-year product warranty and a lifetime warranty on the PVC machined bodies. Bodies are machined from solid PVC stock for maximum wall thickness and strength—guaranteed not to crack or warp.

Connected to the pressurized gas supply line of every Series 3000 vacuum regulator is a diaphragm protected compound gauge able to read 0-30" Hg vacuum and 0-300 PSI (20 bar) pressure. This gauge allows the operator to quickly see the pressure condition of the vacuum regulators gas supply line.

The Series 3000 vacuum regulators have a large gas filter screen immediately before the inlet valve assembly. This filter is easily accessible from the front of the vacuum regulator.

An improved conical vent plug design prevents misalignment of parts during assembly and allows the diaphragm assembly to more securely engage the inlet valve assembly, decreasing the likelihood of harmonic vibration.



Specifications

1. General

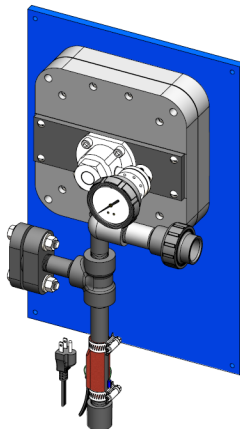
- A. The vacuum regulator shall be a vacuum operated, solution feed type for dispensing chlorine gas from a chlorine gas pressure manifold.
- B. The vacuum regulator shall have a chlorine gas feed capacity of up to 10,000 pounds per day (200 kg/hr).
- C. The vacuum regulator shall be constructed of materials suitable for wet or dry chlorine gas service.

2. Vacuum Regulator

- A. The vacuum regulator shall include the following:
 1. Panel for wall mounting.
 2. 2.5" dial, diaphragm protected compound vacuum/pressure gauge with Tantalum diaphragm and Hastelloy-C process connection.
 3. A ¾" or 1" FPT 2-bolt flange for connection to a gas manifold.
 4. Drip-leg with 25 Watt heater.
 5. Sch.80 PVC union vacuum connection.
- B. The vacuum regulator body parts shall be constructed of solid machined PVC material for maximum durability and cracking resistance.
- C. The vacuum regulator shall have a spring-opposed diaphragm assembly, using a two layer Halar diaphragm, which controls vacuum and closes tight upon loss of vacuum.
- D. All vacuum regulator springs shall be made of Tantalum alloy.
- E. The vacuum regulator inlet safety valve stem shall be constructed of solid Silver and shall seal against a machined PTFE valve seat.
- F. The vacuum regulator shall incorporate a dedicated pressure relief (vent) valve with separate ports for chlorine feed and chlorine vent. The vent valve shall open to relieve pressure at 1 PSI or less.
- G. Connections shall be provided for tubing vented gas away from the pressure relief (vent) port of the vacuum regulator to atmosphere outside the building or to scrubber intake. The outside end of the vent tubing shall be equipped with an insect screen.
- H. The vacuum regulator shall be equipped with a Silver screen type inlet filter to remove particulate matter from the gas before it enters the inlet safety valve.

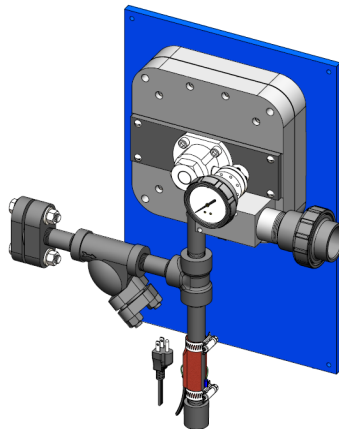
VRH-2000-CL2

Up to 3000 PPD (60 Kg/h)
 Vacuum
 Connection: 1" PVC union



VRH-8000-CL2

Up to 8000 PPD (160 Kg/h)
 Vacuum
 Connection: 1.5" PVC union



VRH-10000-CL2

Up to 10,000 PPD (200 Kg/h)
 Vacuum
 Connection: 2" PVC union

