



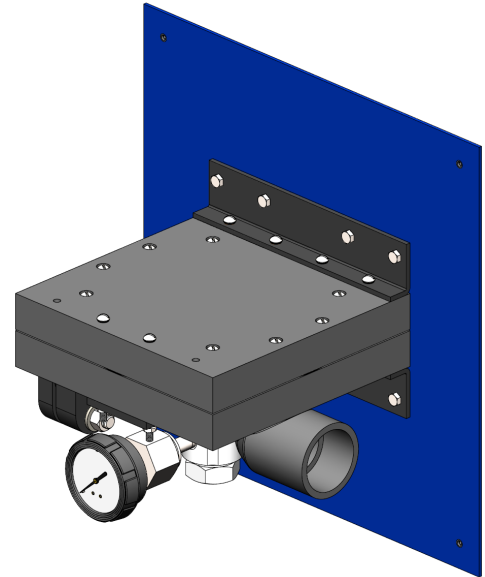
## WR-10000 High Capacity Vacuum Regulator

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 use with chlorine and sulfur dioxide gas service.

### Capacity & Features

- Up to 10,000 PPD (200 Kg/h) Cl<sub>2</sub> or SO<sub>2</sub>
- Panel mounted
- Available in right facing or left facing orientation
- Diaphragm protected, 2.5" (63mm) dial, 30" Hg-0-300 PSI / 20 Bar compound gauge
- Large silver screen filter (4in<sup>2</sup> size)
- 3/4" or 1" manifold union gas inlet connection
- 2" PVC vacuum connection
- Optional drip-leg & heater attachment
- Optional flow indicator attachment



### Benefits

The WR-10000 is backed by a 3-year product warranty and a lifetime warranty on 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 WR-10000 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 WR-10000 has an enlarged 4in<sup>2</sup> filter screen. This large filter is vertically positioned such that contaminants will fall down and away from the vacuum regulators inlet valve. The filter is easily accessible from the underside of the vacuum regulator.

A horizontally oriented and symmetrically balanced diaphragm assembly provides smooth operation without the concern 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 not less than 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 a panel for wall mounting.
- B. The vacuum regulator shall include a diaphragm protected compound vacuum/pressure gauge with Tantalum diaphragm and Hastelloy-C process connection.
- C. The pressurized steel inlet piping shall include a ¾" or 1" inlet Union Flange for connection to the outlet of the chlorine gas manifold.
- D. The vacuum outlet shall be 2" Schedule 80 PVC socket.
- E. The vacuum regulator body parts shall be constructed of solid machined PVC material for maximum durability and cracking resistance.
- F. 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.
- G. All vacuum regulator springs shall be made of Tantalum alloy.
- H. The vacuum regulator inlet safety valve stem shall be constructed of solid Silver and shall seal against a machined PTFE valve seat.
- I. 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.
- J. 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.
- K. 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. The silver filter screen shall have an effective area of 4 square inches or larger for longer life between servicing. The inlet filter shall be designed so that the clean out filter cap shall be at the bottom and impurities will fall down to the cap for easy cleaning.
- L. The vacuum regulator can optionally be provided with a drip leg with 25 Watt heater in either 24VDC, 115VAC, or 230VAC.