



Specifications for the Hydro Model VRH-10000-CL2
Vacuum Regulator
Specification VRH-10000-CL2

1.01 GENERAL

1.01.1 Completeness

The system shall be complete with all components, equipment, and appurtenances.

1.01.2 Quality Assurance

All materials and components shall be new and unused of first quality by well-known manufacturers. Inferior materials or components shall not be allowed.

1.02 MANUFACTURER

The manufacturer shall be Hydro Instruments, Telford, PA, USA or approved equal. The vacuum regulator shall be Hydro Instruments Model VRH-10000-CL2.

1.03 SPECIFICATIONS

1.03.1 General

1. The vacuum regulator shall be a vacuum operated, solution feed type for dispensing chlorine gas from a chlorine gas pressure manifold.
2. The vacuum regulator shall have a chlorine gas feed capacity of not less than 10000 pounds per day (200 kg/hr).
3. The vacuum regulator shall be constructed of materials suitable for wet or dry chlorine gas service.
4. The vacuum outlet connection shall be a 2" Schedule 80 PVC threaded Union.

1.03.2 Vacuum Regulator

1. The vacuum regulator shall include a panel for wall mounting, a drip leg with 25 Watt heater, and a diaphragm protected pressure gauge. It shall include a ¾" inlet Union Flange for connection to the outlet of the chlorine gas manifold. It shall also include a steel y-strainer filter with Monel screen.
2. The vacuum regulator body parts shall be constructed of solid machined PVC material for maximum durability and cracking resistance.

3. The vacuum regulator shall have a spring-opposed diaphragm assembly, which controls vacuum and closes tight upon loss of vacuum.
4. Vacuum regulator springs shall be made of Tantalum alloy.
5. The vacuum regulator inlet safety valve stem shall be constructed of solid silver and shall seal against a PTFE valve seat.
6. The regulator shall incorporate a pressure relief (vent) valve with separate ports for chlorine feed and chlorine vent.
7. Connections shall be provided for tubing vented gas away from the pressure relief (vent) port of the vacuum regulator to atmosphere outside the building. The outside end of the vent tubing shall be equipped with an insect screen.
8. The 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.
9. The regulator shall include a tantalum diaphragm protected, pressure gauge that will indicate if there is chlorine gas pressure at the vacuum regulator inlet.