



MODEL 2101

HIGH CAPACITY GAS CHLORINATOR

The principal use of the REGAL Gas Chlorinator is to chlorinate water, wastewater and industrial process water with gas chlorine. The simple, efficient design has made REGAL Gas Chlorinators the industry standard. Built with heavy duty corrosion resistant parts, REGAL Chlorinators provide safe, long-lasting service.

The REGAL Model 2101 Gas Chlorinators are totally vacuum-operated solution feed type, for high chlorine gas feed rates up to 2000 pounds per 24 hours (40 kg/hr). REGAL Model 2101 Chlorinators are modular in design allowing placement of the vacuum regulator at or near the chlorine storage area, while locating the flow metering and control panel where convenient to the operator. The Chlorinators are of the vacuum operated solution-feed type, designed for mounting directly on a chlorine manifold header valve. A highly efficient, water operated, vacuum-producing ejector assembly also contains a back flow check valve. Chlorine gas flow rate is regulated by a spring opposed diaphragm regulator which is also the safety shut-off valve. All components are connected by safe vacuum piping. Should vacuum be interrupted for any reason anywhere in the system the safety shut-off/inlet valve immediately closes, shutting off the chlorine supply from the pressurized source.

FEATURES

- Fewer parts, simpler design for less down time, easier maintenance and lower costs, year after year.
- Materials that stand up to ultraviolet degradation and chlorine attack...wet or dry.
- **Limited Warranty for the life of the chlorinator** on vital parts...diaphragm and inlet spring against corrosion.
- Combined O-ring/diaphragm sealing of the front and back body parts helps prevent air leaks into the system and eliminates the need for special tightening tools.
- Inlet safety valve "capsule" allows easy removal with minimal disassembly for inspection or cleaning with no special tools.



CAPACITIES

Dual scale metering tubes with maximum capacities of 1000 and 2000 pounds per 24 hours of chlorine gas with corresponding metric scales of 20 and 40 kilograms per hour. The minimum feed rate is 1/20th of maximum for each metering tube.

FLOW RATE ADJUSTMENT

Manually adjustable by means of a flow rate control valve located at the top of the flow meter. Flow rate is then regulated by a special spring-opposed diaphragm operated valve. The system is automatic. It will go off and on as the ejector water is turned off and on and will return to the pre-set flow rate.

EJECTOR REQUIREMENTS

Model 2101 Gas Chlorinators are tested to give the best operation in the system being treated. Generally, the amount of water (GPM) required to operate the ejector depends upon the chlorine flow rate, the ejector back pressure, and the water supply pressure which is available. In all cases, the minimum pressure differential and water flow for your installation should be determined prior to installation and start up.

OPERATION

The vacuum regulator is clamped on the header valve of a chlorine cylinder or ton container manifold. The ejector assembly is either wall mounted or supported by rigid pipe. A chlorine flow meter/rate valve panel is located between these two units and a vacuum line connects the three components.

Water, under pressure is forced through the ejector nozzle which creates a strong vacuum in the ejector body. This pulls gas into the ejector through a special back-flow check valve and then into the nozzle outlet. The gas mixes with the ejector water and is discharged through the diffuser into the water being treated.

The ejector vacuum is transmitted back to the chlorinator through the vacuum line; then through the rate valve and the flow meter and to the back of the diaphragm. With sufficient vacuum, the diaphragm moves backward, opening the spring loaded inlet regulating valve to allow chlorine to enter from the cylinder.

The chlorine passes through the flow rate indicating meter, flow rate adjusting valve and to the ejector.

SPECIFICATIONS

The chlorinator shall be a vacuum-operated, solution-feed type, for mounting directly on the auxiliary header valve of a wall manifold. It shall be REGAL Model 2101 manufactured by Chlorinator Incorporated, Stuart, Florida and shall have a maximum capacity of 2000 pounds per 24 hours (40kg/hr).

The Model 2101 Gas Chlorinator shall consist of the following components: One (1) remote mounted vacuum regulator, one (1) wall mounted chlorine gas flow meter panel with rate valve, and one (1) ejector/check valve assembly. The vacuum regulator shall mount on the wall manifold auxiliary header valve by means of a positive yoke type clamp, having an integral tightening screw with slide bar handle. All metallic bolts shall mate with metallic threaded nut or inserts. Plastic mating threads for metallic bolts shall not be acceptable.

All vacuum regulating and safety functions, including a pressure-relief (vent), shall be incorporated in the manifold or ton container mounted vacuum regulator unit. The inlet safety shut-off/vacuum regulating valve shall be of capsulated construction, easily removable as a unit from the outlet side of the yoke for ease of inspection, cleaning or maintenance.

Vacuum shall be created by an ejector assembly constructed of corrosion resistant plastic. The assembly shall consist of a fixed throat, orifice type nozzle; also, a spring loaded back check valve to prevent water from entering the gas system.

All materials used in REGAL Gas Chlorinators have been carefully chosen for their excellent corrosion-resistant, ultra-violet resistant properties plus their ability to withstand stresses far greater than will be encountered in actual use.

CONTENTS GUIDE MODEL 2101

1 each Model A-2821 Vacuum Regulator with 5/8" Vent and 1" NPT Vacuum Fittings

1 each Model A-2551 (1000 PPD) or A-2552 (2000 PPD) Remote Meter Panel with 1" NPT Vacuum Fittings (For Wall Mounting)

1 each Model A-2920 (1000 PPD) or A-2922 (2000 PPD) Ejector Assembly including Nozzle, Back Pressure Check Valve and 1" NPT Vacuum Fitting

25' VT-3, 5/8" Vent and Vacuum Tubing

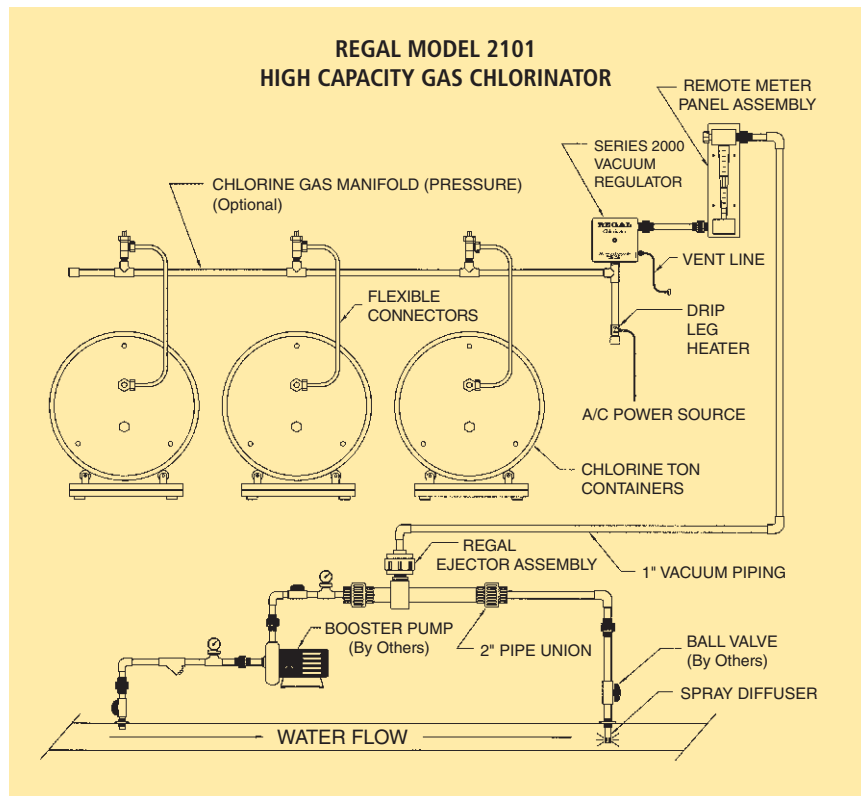
10 each G-201 Lead Cylinder Gaskets

1 each Z-296 Rate Valve Tool

1 each Z-297 Vent Line Bug Screen

Approximate Shipping Weight: 23 lbs

NOTE: No interconnecting vacuum piping is included.



VACUUM REGULATOR DIMENSIONS

Model 2101
Vacuum Regulator Manifold Mounted
1000/2000 PPD (20/40 Kg/Hr)

