



GAS CHLORINATOR

Models 210/220/250

Dual scale metering tubes are provided with the following maximum capacities.

Minimum feed rate is 1/20th of maximum

Capacities

Model 210 - 4, 10, 25, 50 or 100 PPD
(75, 200, 500, 900 or 2000 gms/hr)

Model 220 - 250 PPD (5 kg/hr)

Model 250 - 500 PPD (10 kg/hr)

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 in the vacuum regulator.

The system is automatic. It will turn off and on as the ejector water supply is turned off and on and will return to the pre-set flow rate.

EJECTOR REQUIREMENTS

The standard ejector is designed to withstand static back pressure up to 200 psig (14.1 g/cm²).

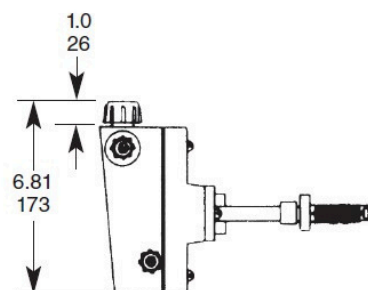
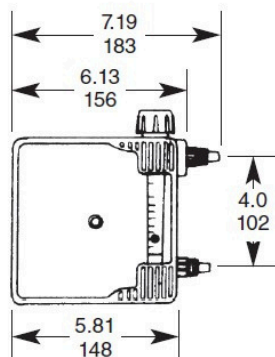
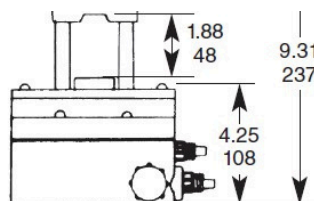
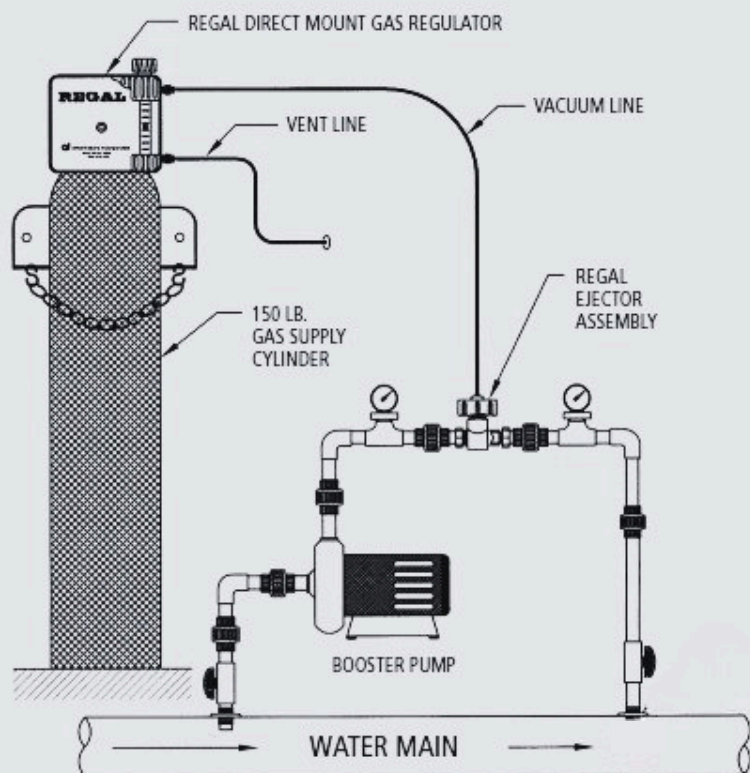
The amount of water required to operate the ejector depends upon the chlorine feed rate, water back pressure and water supply pressure available. Generally, the higher the chlorine flow and higher back pressure, the greater the water flow is required.

The **principal use** of the REGAL Gas Chlorinator is used 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 Chlorinator incorporates the very best available materials with the **latest technology** in design and construction, to reduce maintenance, simplify construction and improve operation.

The REGAL Gas Chlorinator is a **vacuum-operated**, solution feed type, designed for mounting directly on a chlorine cylinder valve or for mounting on wall manifold or ton container adaptor, REGAL Model TAY-200. The chlorine flow rate is manually adjusted and is regulated by a spring opposed diaphragm regulator which also contains the safety shut-off valve. Vacuum is provided by a highly efficient water operated ejector which is close coupled with the chlorine outlet. The ejector assembly contains a back flow check valve.

REGAL ALL VACUUM GAS CHLORINATION SYSTEM



*May be mounted on TAY-200 Ton Container Adaptor

OPERATION

The chlorinator is clamped on the chlorine cylinder valve. The ejector assembly is normally attached to the solution outlet at the point of injection). A vacuum line connects the ejector to the chlorinator.

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 outlet 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.

GENERAL SPECIFICATIONS

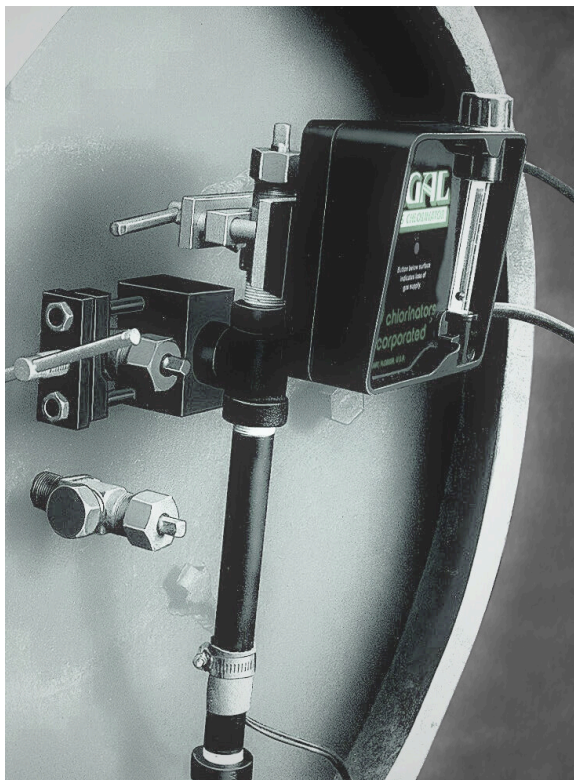
The Chlorinator(s) shall be of the REGAL Model 200 Series manufactured by Regal Systems, Inc. DBA Chlorinators located in Stuart, Florida with capacities ranging from 4 to 500 lbs/24 hours (PPD). It will be a vacuum operated solution feed type and mount directly on the chlorine cylinder valve by means of a positive yoke type clamp having an integral tightening screw with slide-bar handle.

All regulating, metering, flow adjusting and safety functions shall be incorporated in the cylinder mounted 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 connected directly to the chlorine solution diffuser. The assembly shall consist of a single piece venturi-recovery throat to prevent mis-alignment; also, a back flow check valve with ball to prevent water from entering the gas system. The check valve shall be of positive, tight shut-off, unitized design not requiring springs or diaphragms for tight closing.

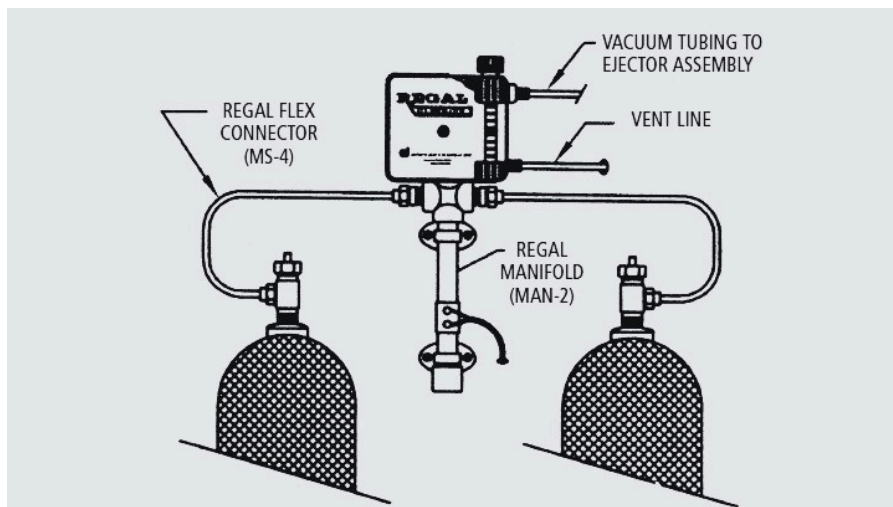


ADDITIONAL INSTALLATION OPTIONS**TON CONTAINER INSTALLATION**

The chlorinator is mounted onto the TAY-200 adaptor valve using its own cylinder mounting yoke and a lead sealing gasket. This then becomes an integral assembly for direct ton container mounting, and it is not necessary to remove the chlorinator from the TAY-200 adaptor unless servicing is required on the chlorinator. The TAY-200 adaptor has a high strength yoke-clamp with integral tightening handle, which fits directly over the upper valve (chlorine gas outlet valve) of a ton container. The adaptor inlet is designed to align correctly with the container valve outlet, and a lead gasket is used to seal this connection. A liquid trap with external heater is located below the inlet to contain and evaporate the small amount of liquid chlorine that may come out of the container when the valve is first opened.

**VERTICAL WALL MOUNTED INSTALLATION**

Flexible connection lines are included with each manifold assembly. The assemblies are also available for single, two, three or four cylinder systems. Contact our office for both pricing and availability for systems involving more than four cylinders.



MODEL 210

CONTENTS GUIDE

Available Maximum Feed Rates: 4, 10, 25, 50, 100 lbs/24 hrs, (75, 200, 500, 900, 2000 gms/hr)

Standard Package and Instructions Includes:

<u>Qty:</u>	<u>Part #</u>	<u>Description</u>
1	A-820	Vacuum Regulator with 3/8" vent and vacuum fittings
1	A-930	Ejector Assembly including nozzle**, high/low pressure check valve, and 3/8" vacuum fitting
25 FT	VT-1	3/8" vent and vacuum tubing
10	G-201	Lead cylinder gaskets
1	Z-296	Rate valve tool
1	Z-297	Vent line bug screen

OPTIONAL EJECTORS:

- High Pressure Ejector **A-920**
- Low Pressure Ejector **A-921**
- Dual Check Valve Ejector **A-940**
- Dual Check Valve Ejector **A-950**

UPGRADE OPTIONS:

- Fittings and Tubing Size 1/2" or 5/8"

Approximate Shipping Weight: 9 lbs.

MODEL 220

Available Maximum Feed Rates: 250 lbs/24 hrs, (5000 gms/hr)

Standard Package and Instructions Includes:

<u>Qty:</u>	<u>Part #</u>	<u>Description</u>
1	A-822	Vacuum Regulator with 1/2" vent and 1/2" vacuum fittings
1	A-930	Ejector Assembly includes nozzle**, high/low pressure check valve, and 1/2" vacuum fitting
25 FT	VT-2	1/2" vent and vacuum tubing
10	G-201	Lead cylinder gaskets
1	Z-296	Rate valve tool
1	Z-297	Vent line bug screen

OPTIONAL EJECTORS

WITH 1/2" FITTINGS:

- High Pressure Ejector **A-922**
- Low Pressure Ejector **A-923**
- Dual Check Valve Ejector **A-940**
- Dual Check Valve Ejector **A-950**

UPGRADE OPTIONS:

- Fittings and Tubing Size 5/8"

Approximate Shipping Weight: 9 lbs.

MODEL 250

Available Maximum Feed Rates: 500 lbs/24 hrs, (10kg/hr)

Standard Package and Instructions Includes:

<u>Qty:</u>	<u>Part #</u>	<u>Description</u>
1	A-825	Vacuum Regulator with 5/8" vent and vacuum fittings
1	A-925	Ejector Assembly includes nozzle**, high/low pressure check valve, and 5/8" vacuum fitting
25 FT	VT-3	5/8" vent and vacuum tubing
10	G-201	Lead cylinder gaskets
1	Z-296	Rate valve tool
1	Z-297	Vent line bug screen

OPTIONAL EJECTORS

WITH 5/8" FITTINGS:

- Low Pressure Ejector **A-926**
- Dual Check Valve Ejector **A-940**
- Dual Check Valve Ejector **A-950**

Approximate Shipping Weight: 10 lbs.

OPTIONAL ACCESSORIES: Wall-Mounting Manifold Assembly and Direct Ton Container Mounting Adaptor (TAY-200)