



**W-510 SERIES
WALL MOUNTED GAS CHLORINATOR
SPECIFICATIONS**

Scope:

This specification describes the W-510 series wall mounted gas chlorinator as manufactured by Modern Process Systems, Inc.

Description:

The chlorination system shall be of the vacuum operated, solution feed type. The gas feeder shall have a maximum capacity of 500 PPD of chlorine gas and shall initially be supplied with an integrally mounted rotameter of ____ PPD. The vacuum regulator shall be wall mounted with a flexible connector between the chlorine gas supply and the vacuum regulator.

Design:

The gas feeder shall provide for conveying the gas under vacuum from the vacuum regulator to the injector assembly to insure complete system safety. The gas feeder shall be constructed of materials that are resistant to corrosion from chlorine. The rate of gas feed shall be set manually and shall remain constant until manually changed. Rate valves and rate valve seats of silver shall not be required. A differential pressure regulator shall not be required for gas flow control. The gas feeder shall be convertible to automatic control by insertion of a motorized control valve in the vacuum line to receive a signal from appropriate control equipment.

Components:

The vacuum regulator shall be wall mounted with a flexible connector between the chlorine gas supply and the vacuum regulator. Optional cartridge type heater shall be easily installed if required. Vacuum shall be controlled by a spring-opposed diaphragm, which shall close tight upon loss of vacuum. The vacuum regulating diaphragm assembly shall be self-centering in re-assembly, using no special tools, to insure proper seating with the chlorine inlet valve. The vacuum regulator shall be equipped with a clearly visible loss of gas indicator. All vacuum sealing surfaces shall be sealed with viton o-rings in addition to diaphragm material. Use of o-rings other than viton shall not be acceptable. The gas rotameter shall be an integral part of the vacuum regulator. The gas rotameter will indicate the flow to a minimum of 1/20 maximum feed. Accuracy of the rotameter will be +/- 4%. Pressure will be prevented from building up in the system by means of a spring-loaded, diaphragm actuated pressure relief valve located within the vacuum regulator. The gas will vent at the vacuum regulator. Use of a separate external pressure relief valves will not be acceptable. The injector assembly will receive all gas and injector water and discharge the resulting solution to the point of application. The injector shall be equipped with a double-seated diaphragm and ball check valve assembly, which will prevent water from backing up into the vacuum regulator. A loss of water supply shall automatically shut off the gas flow. The diffuser shall be open-end type with 1" ID hose connection for ease of field installation. The system shall be W-510 series as manufactured by Modern Process Systems, Inc. or pre-approved equal.