

ENCHLOR

SERIES E6000 Gas Pressure Feeders

- **Superior materials of construction**
Hastelloy rate valve, corrosion-resistant yoke, tantalum springs
- **Reliable: Over 25 years of experience**
- **Versatility: Open Channel or Pipeline**
Ejector diffuser available for open channel feed with Porous stone diffuser or pipeline addition with fine hole spray
- **Ease of maintenance: Simplicity of design**
- **Portable: Emergency and stand-by operation**

Enchlor Inc. produces the direct gas-pressure chlorinator for applications where electricity, used to operate a booster pump, and water pressure, required for ejector vacuum operation, are unavailable. The series 6000's machined construction provides portable, manual control for emergency standby chlorination. Easy to install, for indoor or outdoor installation, each Series 6000 feeder is factory-tested and need no field adjustment prior to start-up. Six flowmeter capacities provide versatility in meeting gas flow requirements. The regulator mounts directly to the container cylinder valve by means of a yoke clamp to provide optimum safety. A choice of check valve/diffuser assemblies for pipeline, clearwell or open channel application has been designed to aid chlorine gas absorption.

Principle of Operation

Chlorine gas at cylinder pressure enters the regulator through the inlet valve and filter assembly where the pressure is reduced and controlled to approximately 20 psig (1.4 bar). The gas then moves through the inlet pressure-regulating valve, chlorine gas flowmeter and manually controlled rate valve to the check valve/diffuser assembly. The pressure causes the check valve to open, and gas enters the water or process fluid through a porous stone diffuser or fine spray diffuser. (See Figure 1) A pressure relief valve is contained within the chlorinator to prevent excessive pressure build-up in the system.



A manual exhaust valve, installed in the pressure line between the chlorinator and the check valve is used to exhaust the pressure from the system prior to removing the chlorinator from the cylinder. Both the relief valve and pressure exhaust valve must be relieved to a safe place.

A Series 6000 gas feeder system consists of a pressure regulator, chlorine gas flowmeter, flow control rate valve, gas filter assembly, excess pressure relief valve, manual exhaust valve, diffuser/check valve assembly and pressure and vent tubing to make a complete system.

Flowmeter: For capacities 40 PPD (0.75 kg/h), the minimum feed capacity for every gas flowmeter is 1/20 the of the maximum capacity and 1/10 the maximum capacity for capacities 15 PPD (280 g/h) and below. Accuracy is within $\pm 4\%$ of maximum flowmeter capacity.

Maximum Back Pressure: 10 psig (0.7 bar)

Recommended Gas Pressure Line: 25 ft. (8 m)

Mounting: Direct cylinder only

Check Valve-Diffuser Assembly:

1. Check valve with 3/4" NPT male thread for connection to pipeline. Diffuser has fine hole for spray applications.
2. Check valve with 2" diameter porous stone diffuser recommended for clearwell or open channel applications. A double stone arrangement is supplied with 100 PPD (2 kg/h) units.
3. Depth of water at point of application- The check valve-diffuser should be at least 4 feet (1 meter) below water level. In general, the higher the feed rate, the greater should be the depth, up to a maximum of 23 feet (7 meters). It is possible that some chlorine gas will not be completely absorbed in the water and may escape from the surface. Chlorine gas absorption is influenced by temperature, quality of water or wastewater, gas bubble size and other factors. Always choose the deepest point to ensure the best possible absorption.

Accuracy: $\pm 4\%$ of maximum flowmeter capacity

Repeatability: $\pm 1\%$

Shipping Weight: 13 lbs. (6 kgs)

Standard Equipment:

1. Cylinder mounted pressure regulator with gas flowmeter, rate valve and gas filter assembly.
2. Manual exhaust valve.
3. 50' (15 m) 3/8" polyethylene pressure and vent tubing.
4. 12 lead gaskets.
5. One set of spare parts.
6. Check valve with porous stone diffuser or check valve with fine-hole spray diffuser.

Gas Flowmeter Capacities:

100 PPD (2 kg/h) 75 PPD (1.4 kg/h) 40 PPD (0.75 kg/h) 15 PPD (280 g/h) 6 PPD (120 g/h) 2 PPD (50 g/h) Pressure and Vent Connections: 3/8" (Vent from regulator [1] and exhaust valve [1])

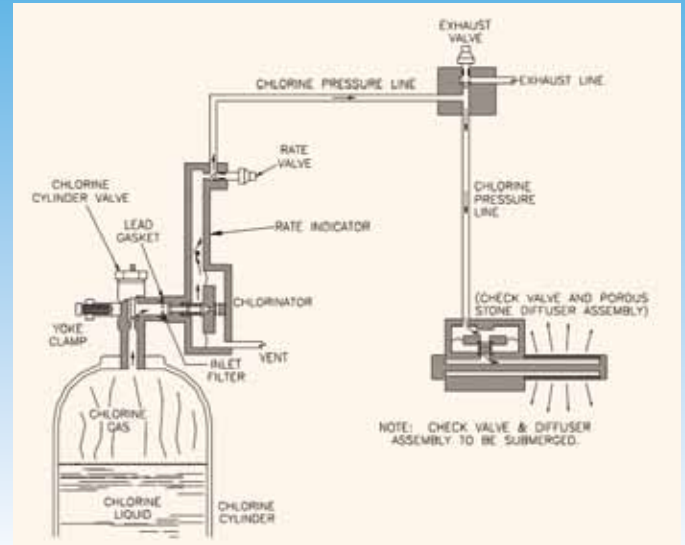


Figure 1

