INSTRUMENTS 600 Emlen Way

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# Hydro Pressurized Chlorine Gas Manifolds Specification - Manifolds

### 1.01 GENERAL

A pressurized Chlorine gas manifold shall be used to connect two or more gas cylinders for feed through a common header valve.

## 1.02 MANIFOLDS

### 1.02.1 Materials of Construction

- 1. <u>Pipe</u> <sup>3</sup>/<sub>4</sub>" seamless carbon steel, Grade A, Schedule 80, Type S, ASTM A-106.
- 2. Fittings ¾" forged steel, 3000 pound CWP, Grade A-105
- 3. Drip Leg Heaters 25 Watt, one per drip leg
- 4. <u>Flexible Connectors</u> 6 ft. total length (standard), 3/8" OD copper tube, <sup>3</sup>/<sub>4</sub>"-14 FNPT brass connectors, silver soldered and cadmium plated.

### 1.02.2 Isolation Valves, Header Valves & Flexible Connectors

- 1. Connection to the gas cylinder valve shall be made by means of an isolating valve assembly. Use of this isolating valve assembly during cylinder change out shall prevent the need to draw down the entire pressure manifold. (1)
- 2. The manifold header valve shall allow isolation of the flexible connector and isolating valve assembly from the manifold for maintenance or replacement. (2)
- 3. The flexible connectors are supplied coiled and may need to be stretched from the isolating valve assembly to the pressure manifold header valve.

### 1.02.3 Drip Leg Heaters

1. The use of drip leg heaters will assist in evaporation of trapped liquid chlorine and help prevent reliquification of gaseous chlorine in the manifold. (3)

### SAFETY NOTES:

Extreme care must be taken with pressurized chlorine gas manifolds. Corrosion prevention should be paramount in the maintenance of manifolds. Inspections should be routinely conducted at least once per year to ensure manifolds remain safe and older manifolds should be replaced whenever their integrity comes into doubt.

(1) Keep isolation valves closed when replacing cylinders.

(2) Keep header valves, isolation valves and/or tank valves closed when replacing flexible connectors.

(3) Ambient temperature around ton containers should be maintained above 55°F (12°C).