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## **Specifications of the Model LF-10 Chemical Solution Feed System** **Specification LF-10**

HYDRO CHEMICAL SOLUTION FEED SERIES LF for 0.5 to 10 Gal/Hr Capacity

### **1.01 GENERAL**

#### **1.01.1 Completeness**

The system shall be complete with all components, equipment, and appurtenances.

#### **1.01.2 Quality Assurance**

All materials and components shall be new and unused of first quality by well-known manufacturers. Inferior materials or components shall not be allowed.

### **1.02 MANUFACTURER**

The manufacturer shall be Hydro Instruments, Perkasie, PA, USA or approved equal. The chemical solution feed system shall be the Hydro Instruments Model LF-10.

### **1.03 CHEMICAL SOLUTION FEED SYSTEM**

#### **1.03.1 General**

1. The chemical solution feed system shall be vacuum operated.
2. The system shall have a feed capacity of 0.5, 1, 4, or 10 gallons per hour.
3. The system shall convey the chemical solution under vacuum from the chemical storage drum to the ejector assembly.
4. The system shall be constructed of materials suitable for the appropriate chemical solution.

#### **1.03.2 Overflow to drain**

1. The chemical storage drum should be installed with a 1" PVC overflow pipe connected to an appropriate drain. This is a safety precaution to prevent the possibility of spillage of the chemical solution in the event of back flow of water into the chemical storage drum.

### 1.03.3 Secondary Check Valve

1. One secondary check valve will be supplied as a safety precaution in the event of failure of the primary check valve that is located in the Ejector.
2. For maximum corrosion resistance, all wetted parts shall be constructed of PTFE (Teflon), Viton A or Hastelloy C-276.
3. This check valve shall be spring loaded and normally closed.
4. This check valve shall require the presence of a vacuum to allow feed of the chemical solution in the appropriate direction only.

### 1.03.4 Remote Liquid Flow Meter

1. The one (1) liquid flow meter shall be provided to indicate the flow rate.
2. The flow meter shall be suitable for wall mounting.
3. This flow meter shall be equipped with a control valve for manual feed rate adjustment.
4. Flow meter tubes shall indicate chemical solution flow rates up to 0.5, 1, 4, or 10 gallons per hour and down to a minimum of 1/20 of the maximum value.

### 1.03.5 Ejector

1. The one (1) ejector shall be water operated venturi nozzle type. The ejector shall provide the operating vacuum for the system.
2. The ejector shall incorporate a spring loaded, normally closed check valve to prevent the backflow of water into the chemical storage drum.
3. The check valve shall be suitable for backpressures up to a minimum of 100 psi.
4. Ejector check valve shall automatically close upon the loss of vacuum in the Ejector.