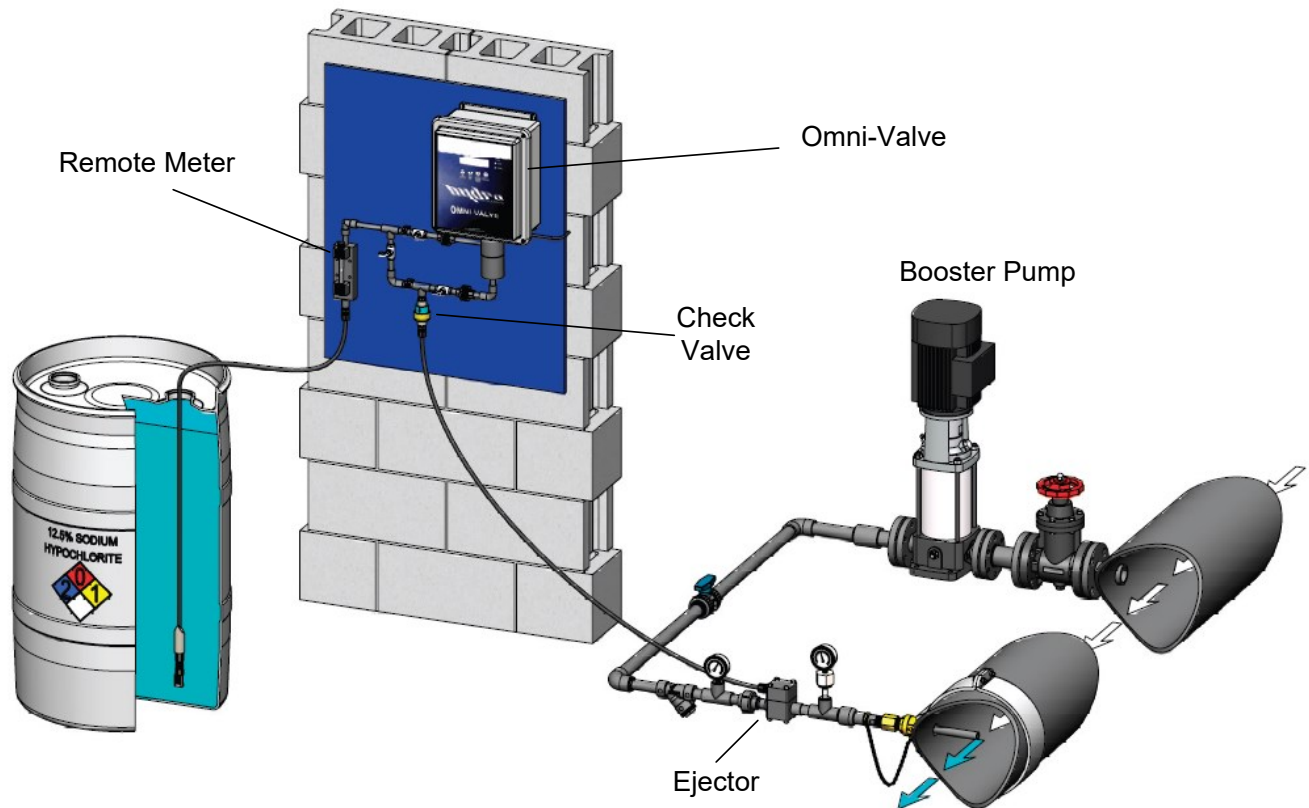




Series LF Liquid Vacuum Feed Systems

The Series LF Liquid Chemical Feeders are a family of fully vacuum operated, chemical solution feed systems, consisting of the following components: a chemical flow meter tube, fully automatic feed rate control valve with optional bypass piping arrangement, ejector and back flow prevention device. Available for various liquid chemicals including Sodium Hypochlorite, Hydrochloric Acid, Sodium Bisulfate, Liquid Ammonia Solution, Sulfuric Acid, Peracetic Acid, Alum, PAC, and others. Various material options are available.

Consult the factory for system sizing and material selection decisions.



Safety of Vacuum Systems

Hydro Instruments' liquid feed systems offer an all vacuum design for the injection of liquid chemicals. Traditional dosing pumps pressurize the chemical feed lines which presents the risk of a pressurized chemical leak. The Hydro Instruments Series LF draws the chemical through the line under vacuum; therefore greatly reducing the risks of a chemical leak.

Specific Chemical Applications and Material Selection

Consult the factory, your local Hydro Instruments sales representatives and Hydro Instruments Liquid Feed Materials Selection Guide document for material options and chemical resistance information for various chemical solutions.



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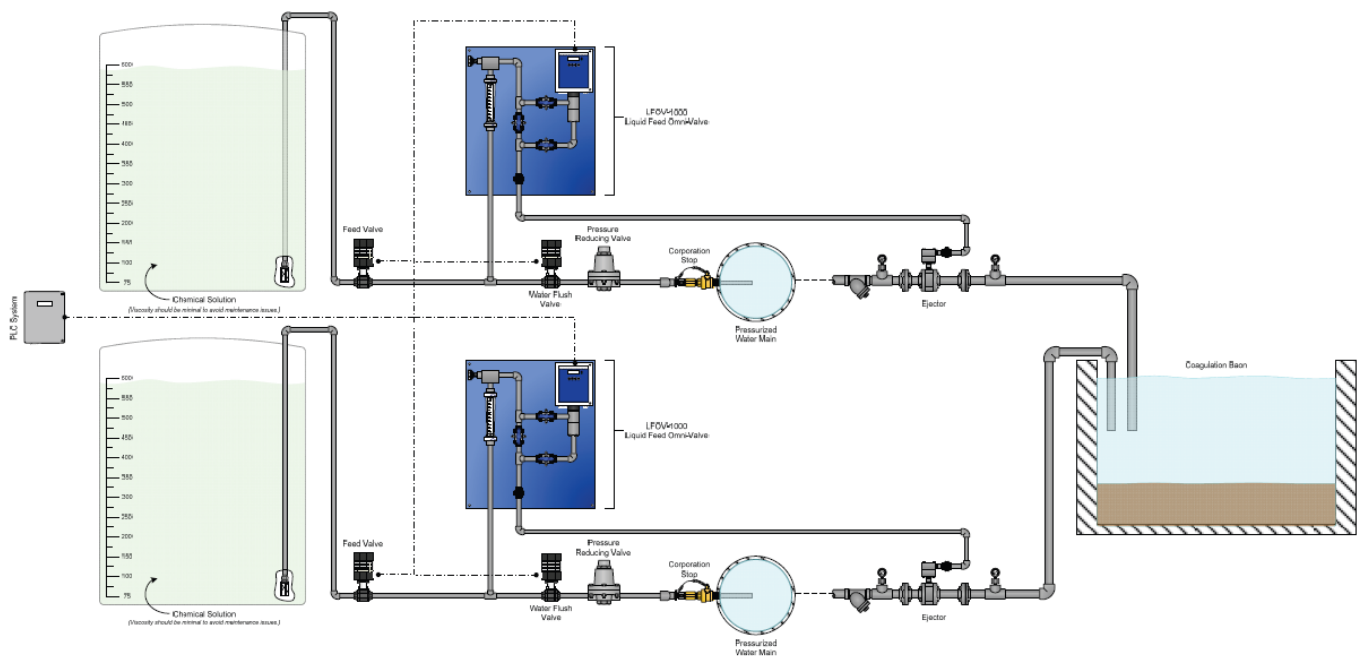
Operation

Water flow supplied to a Venturi nozzle in the Hydro Instruments ejector assembly creates a vacuum which draws the chemical from the storage drum. Feed rate is visually monitored with a chemical flow meter tube and controlled with a valve. Vacuum is required to open a spring loaded, normally closed check valve in the ejector assembly. This prevents backflow of water into the storage drum. A secondary check valve is recommended for additional protection.

The Omni-Valve includes a self flushing feature where it can be set to periodically move to full open position and return to feeding position. This helps to prevent clogging of the v-notch.

Liquid Vacuum Feed Systems for Alum / PAC Solutions

Premixed neat liquid solution feed system layout



Durability

Solid machined parts are precision made of only the highest quality and most chemically resistant materials. Several material options are available for selection dependent on chemical compatibility. The innovative design and minimal number of moving parts guarantee simple operation, maximum durability and minimal maintenance.

Reliability

- Chemical flows under vacuum to avoid pressurized chemical leaks.
- System will not vapor lock
- Provides visual indication of actual chemical feed rate
- Automatic feed rate control and self flushing feature for stable feed rate control

