

# SUPERIOR

## VacuFeed

### Model VF-1C & VF-1NH

### *VacuFeed Vacuum Liquid Chemical Feed System*

The SUPERIOR™ patented VacuFeed™ Vacuum Liquid Chemical Feed System solves chemical feed problems with SUPERIOR design. Using state-of-the-art technology to create a trouble free, SUPERIOR chemical feed system, VacuFeed assures constant metering of chemicals, such as Sodium Hypochlorite (bleach) and Calcium Hypochlorite (granular chlorine) solutions, or Aqueous Ammonia into water or wastewater treatment systems, swimming pools, and many other industrial processes.

All components operate under a safe, vacuum condition which prevents chemicals from continuing to feed into the atmosphere in the event of a breakage. A spring opposed diaphragm vacuum regulator controls the liquid flow rate and also acts as a safety shut-off valve which prevents any backflow of water or chemicals into the chemical storage tank. The design eliminates any possibility of "air binding" when gasses infiltrate the system, or when "offgassing" occurs.

The SUPERIOR™ VacuFeed Vacuum Liquid Chemical Feed System represents the most modern design technology, coupled with the very best materials available, to create an outstanding, user-friendly piece of equipment. It has been designed and patented with SUPERIOR safety in mind.

**WARNING!**  
OUR COMPETITORS DON'T  
WANT YOU TO READ THIS!



**Patented  
Technology!**

#### **Standard features include:**

- Capacities: 0-2, 0-5, 0-10, 0-25 gallons per hour
- Steady chemical feeding
- Repeatable feed rates in start-stop operations
- Excellent mixing of chemical with water
- Consistent high accuracy feed rate, with visual indication of feed rates and chemical flow at all times
- Easy to use
- Safe
- No "air binding" when gasses enter the system
- Easy to maintain, with no special tools required
- Triple bypass check valve virtually eliminates backflow into chemical storage tank



***Chemical Injection Technologies, Inc.***

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#### **Models available**

##### **Model VF-1C**

**Sodium hypochlorite (bleach),  
Calcium hypochlorite solution  
(from granular chlorine bleach)**

##### **Model VF-1NH**

**Aqueous ammonia**

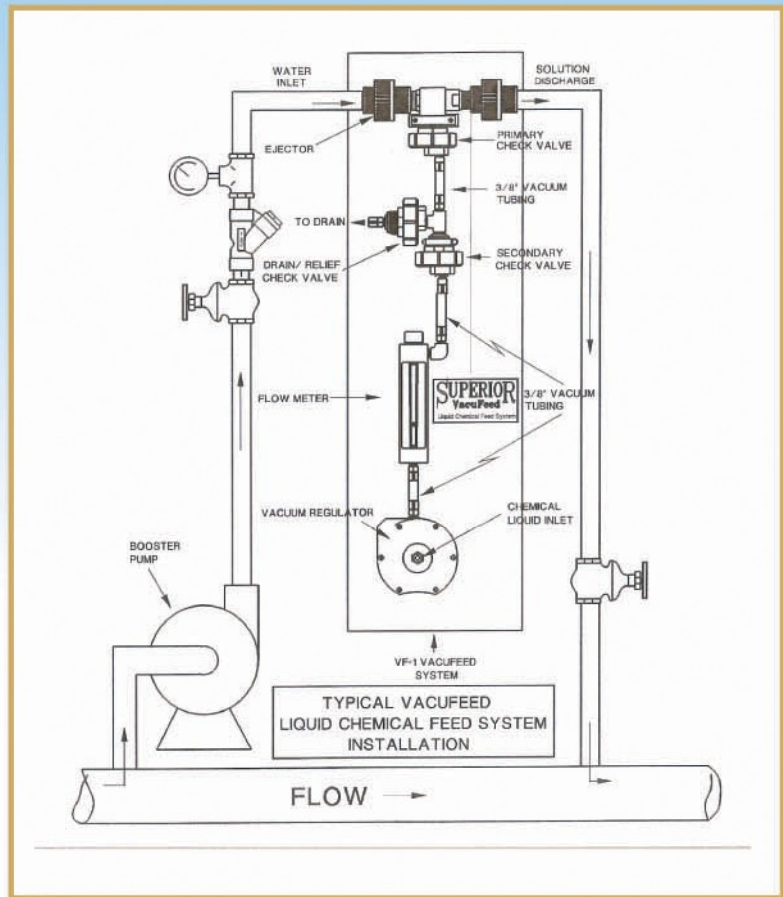
## Specifications

The SUPERIOR VacuFeed Model VF-1C and VF-1NH is manufactured by Chemical Injection Technologies, Inc., Ft. Pierce, Florida and has a maximum liquid flow rate of \_\_\_\_\_ gallons per hour (l/hr) of liquid chemical feed and shall be equipped with a liquid flow meter of \_\_\_\_\_ gallons per hour (l/hr). The system shall be constructed of materials designed to withstand the effects of bleach, chlorine & ammonia.

The liquid chemical feed system is of a modular design, consisting of a vacuum regulator, flow meter/rate valve panel, ejector/check valve assembly, secondary check valve, and pressure relief/drain valve. Each of these assemblies shall be capable of being individually removed for maintenance or service without removing the entire liquid feed system.

The flow rate meter has a flow rate control valve made of fluoroplastic material which is inert to the corrosive effects of chemical being fed. Design shall provide for full closing of the rate valve without engaging the control surfaces, to prevent damage.

Vacuum shall be created by a fixed-throat venturi/ejector system connected directly to the chemical solution diffuser. A dual high-pressure/low-pressure check valve system shall prevent water from entering the liquid feed system. The ejector assembly shall be capable of withstanding water pressure up to 300 PSIG (20.7) Bars.



**A unique "Triple Bypass" check valve system prevents pressurized water from entering the liquid metering system, virtually eliminating any possibility of backflow into the chemical storage tank.**

The system shall incorporate a spring opposed diaphragm vacuum regulator which maintains a preset vacuum upstream of the flow meter/rate control valve panel. The vacuum regulator inlet valve shall close tight upon loss of operation vacuum, and allow start/stop operation without change in the liquid flow changes in chemical storage tank levels, by variations in ejector supply water pressures, or by variations in ejector back pressure.



**Chemical Injection Technologies, Inc.**

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