

**DEUBLIN**®

Instructions for  
Installation and Maintenance

# Installation Instruction

**040-569**

For

**DEUBLIN Union**

**925-400-000**

Issue: Oct.19.2011

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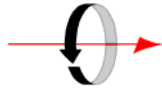
**DEUBLIN Company**

2050 Norman Drive West. Waukegan, IL 60085 USA

Phone 847 689 8600 • Fax 847 689 8690

www.deublin.com • e-mail : customerservice@deublin.com

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**1. CROSS-SECTIONAL DRAWINGS**

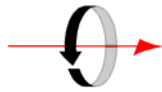
- 1.1 925- 400-000 Rotary Union**
- 1.2 925- 350 Auxiliary Equipment**
- 1.3 925- 275 Pumping Unit**

**2. PRINCIPLE OF OPERATION**

- 2.1 Water as Barrier Fluid**
- 2.2 Compound Coagulum Accumulation**

**3. SYSTEM SET-UP**

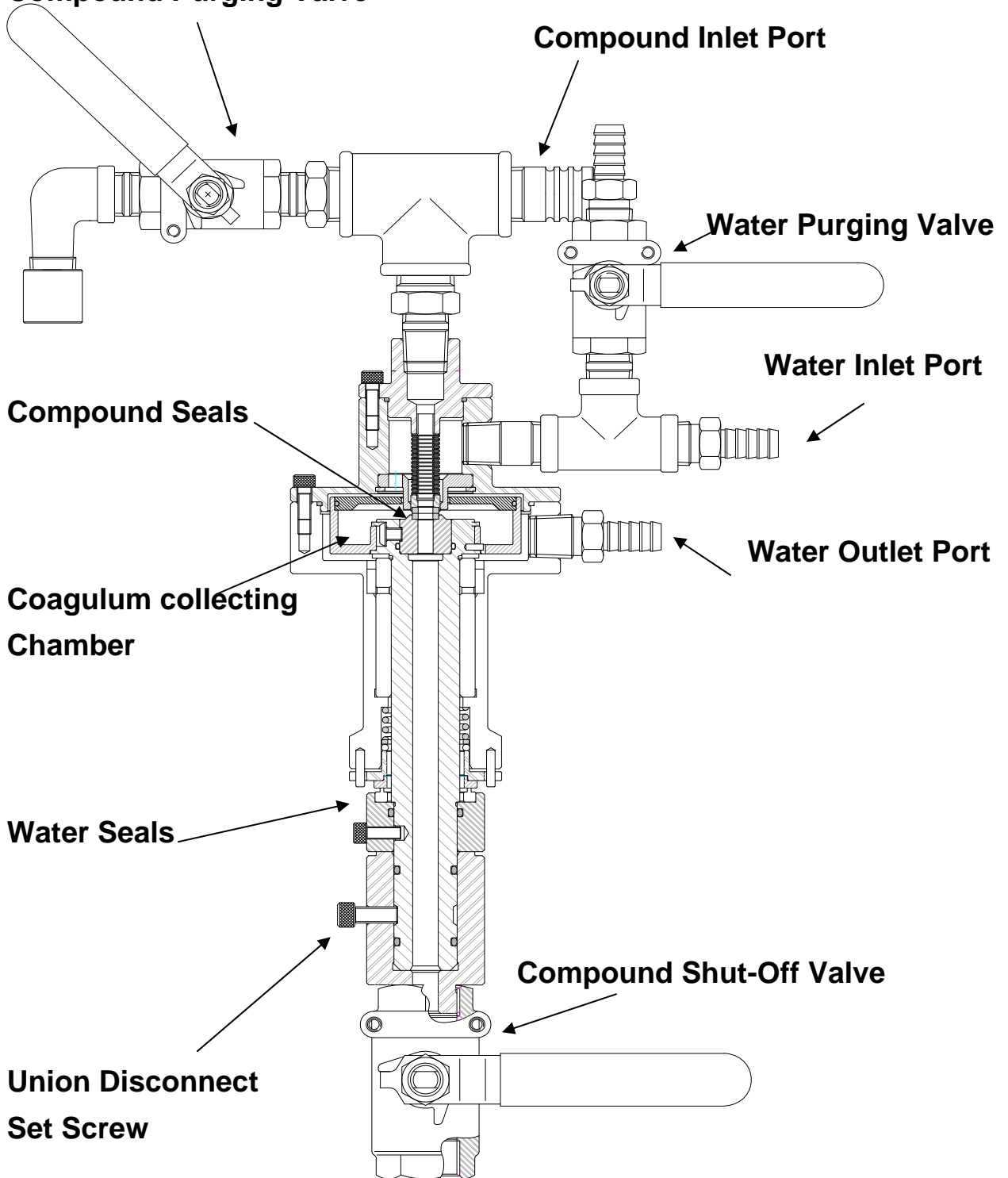
- 3.0 Filling Pumping Unit with Distilled Water and Ammonia**
- 3.1 Filling the System with Water**
- 3.2 Squeeze Rubber Bladder with Water Pressure**
- 3.3 Purging Water System from entrapped residual Air**
- 3.4 Relieve residual Water Pressure from the System**
- 3.5 Finish Water System Preparation**
- 3.6 Purging Compound Passages**
- 3.7 Delivering Compound to the Can Liner**



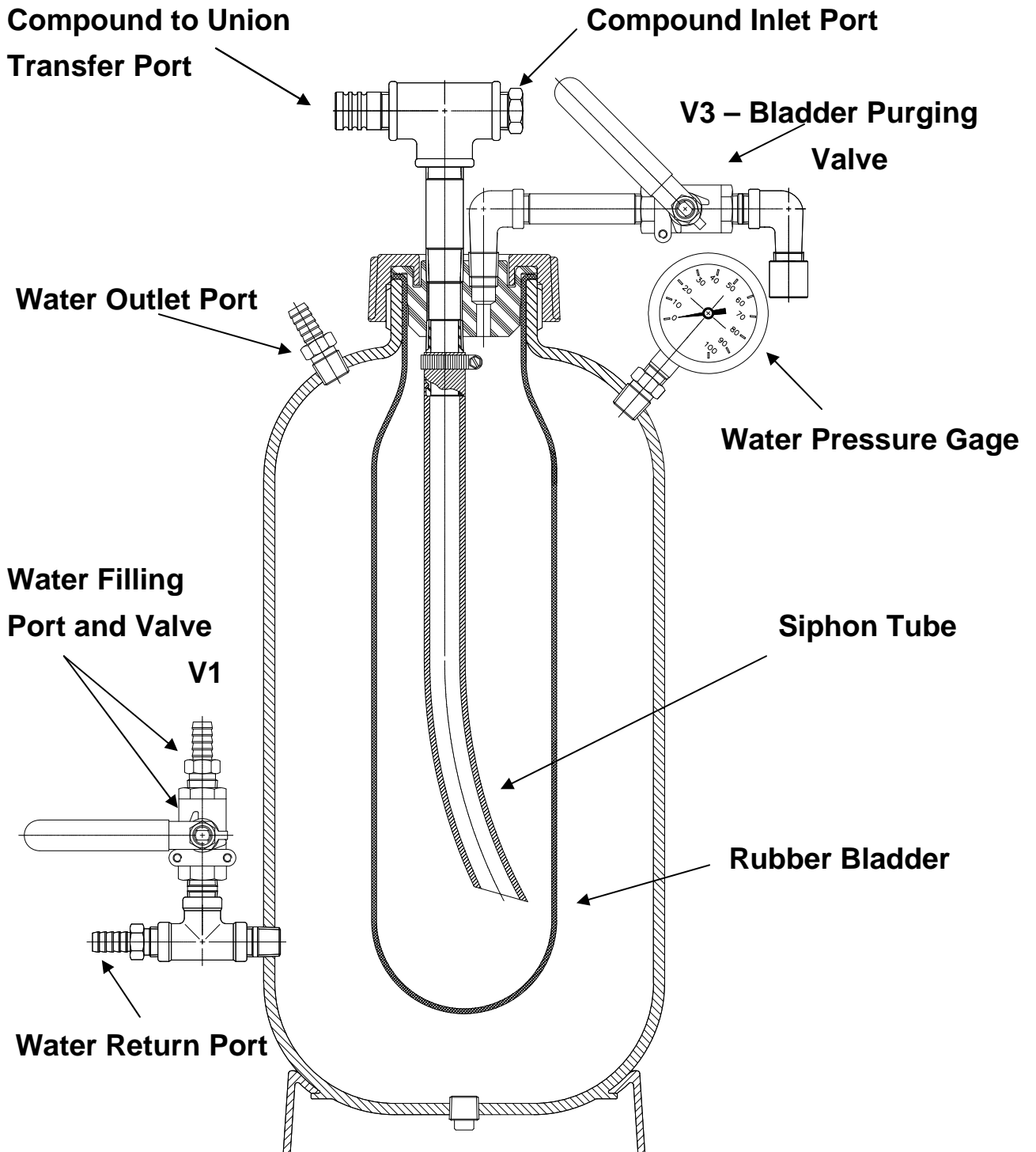
**1. CROSS-SECTIONAL DRAWINGS**

**1.1 925- 400-000 Rotary Union**

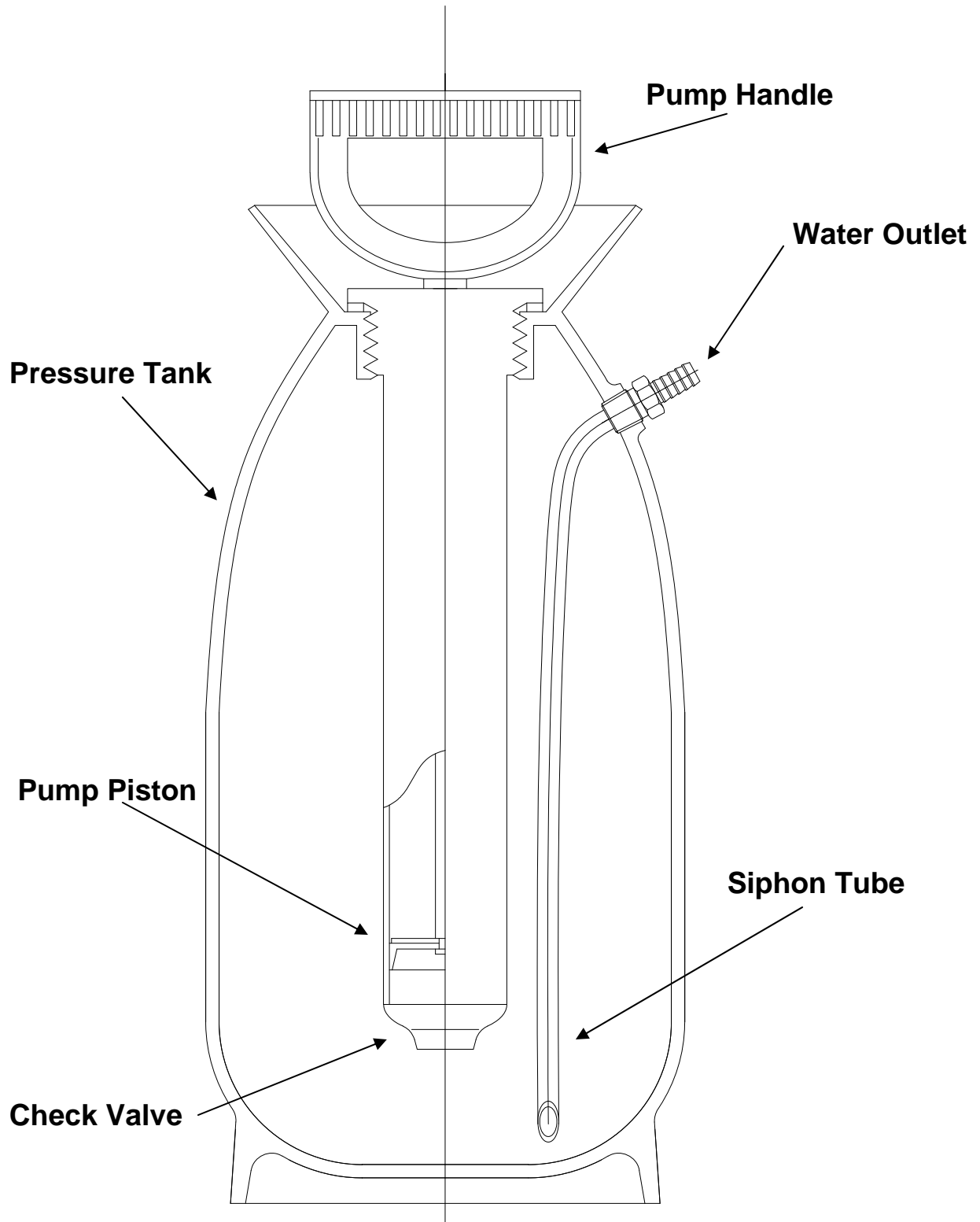
**Compound Purging Valve**

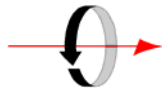


**1.2 925- 350 Auxiliary Equipment**



## 1.2 925- 275 Pumping Unit





## 2. PRINCIPLE OF OPERATION

### 2.1 Water as Barrier Fluid

This system is designed to operate on the principle of double seal with water as barrier fluid. Pressure gage on the water tank indicates that the barrier fluid is pressurized and can perform its functions which are as follow;

- provide pressure balance to prevent internal seal leakage
- provide cooling to the internal seals and bushing bearing
- lubricate external water seal and bushing bearing
- prevent air access to the internal seals and compound solidification

#### **Warning**

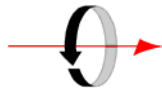
If the system loses water due to some leakage or is incorrectly filled and purged water pressure could be smaller than the compound pressure. Massive leakage of compound into the water circulation area could occur causing premature union failure.

### 2.2 Compound Coagulum Accumulation

Even with water pressure exactly equal to the pressure of compound some small amount of compound could gradually penetrate between the internal seals. This compound will have form of small flakes of coagulated rubber. Union has coagulum collecting chamber mounted on top of the rotor. Centrifugal force should keep particles of compound inside of the chamber and prevent them from circulating in the system.

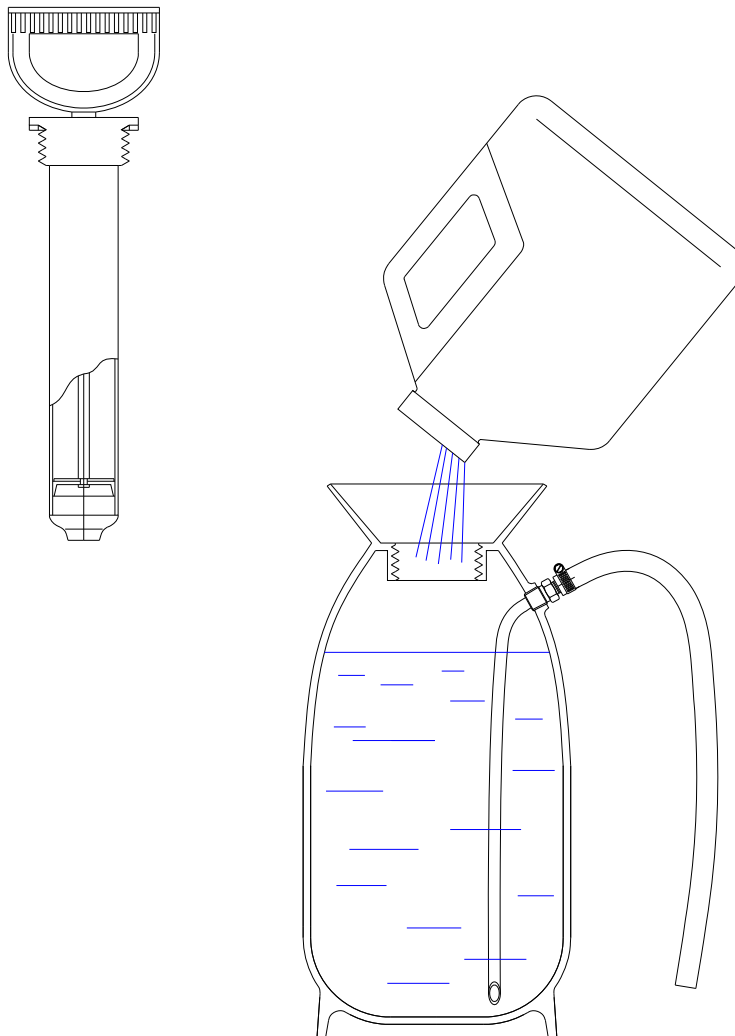
#### **Warning**

For long trouble free operation of the system it is necessary from time to time to perform routine partial disassembly and cleaning of internal parts of the union according to separate instruction (E.I. 032-3006). During this process the compound coagulum particles can be removed from the collecting chamber. Without this process the chamber can get overfilled causing coagulum penetration to the water system and premature union failure.



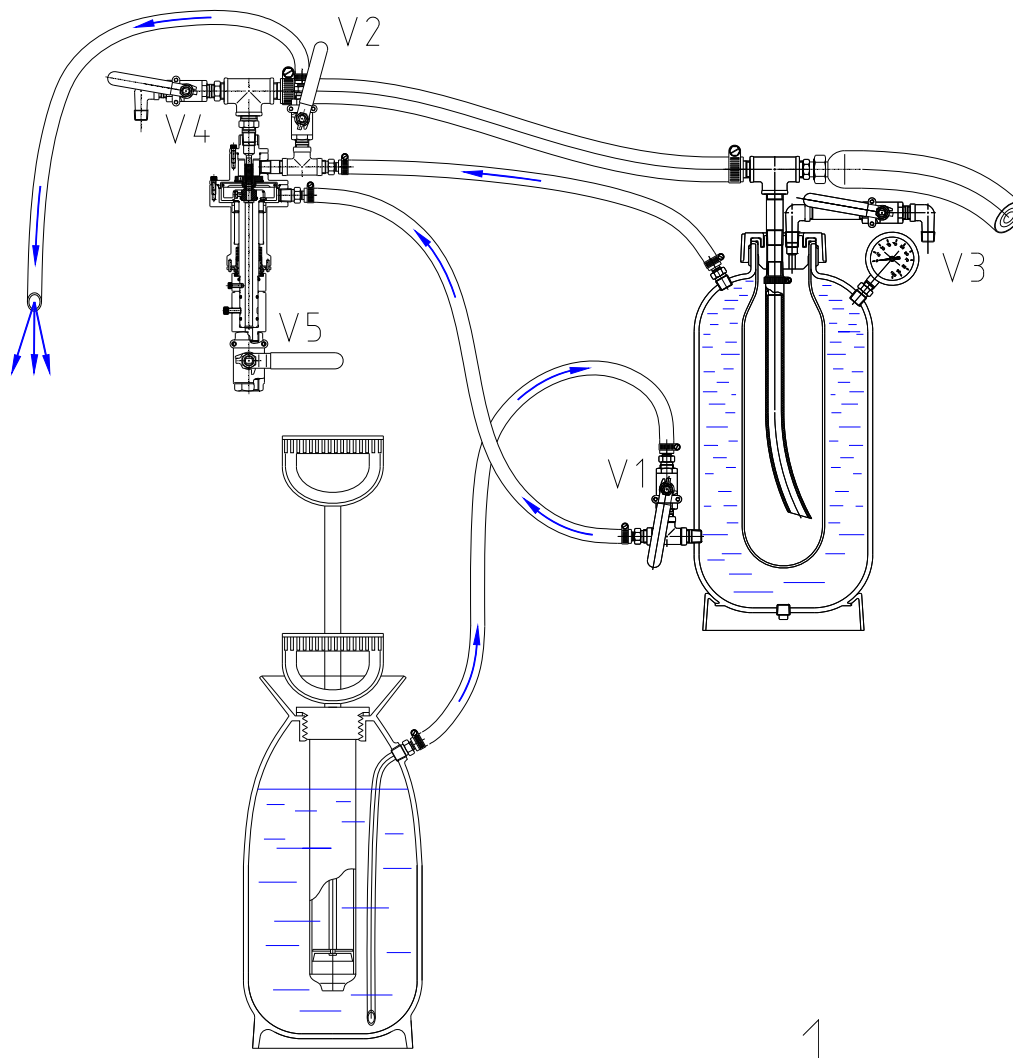
### 3.0 Filling Pumping Unit with Distilled Water with addition of Ammonia

- unscrew hand pump from the container
- fill the tank with distilled or de-ionized water and add a little Ammonia (2 Oz/Gal)
- replace hand pump and tighten it
- connect outlet hose to the Water Filling Port on the Auxiliary Equipment Tank Valve V1 shown on Page 8



### 3.1 Filling the System with Water

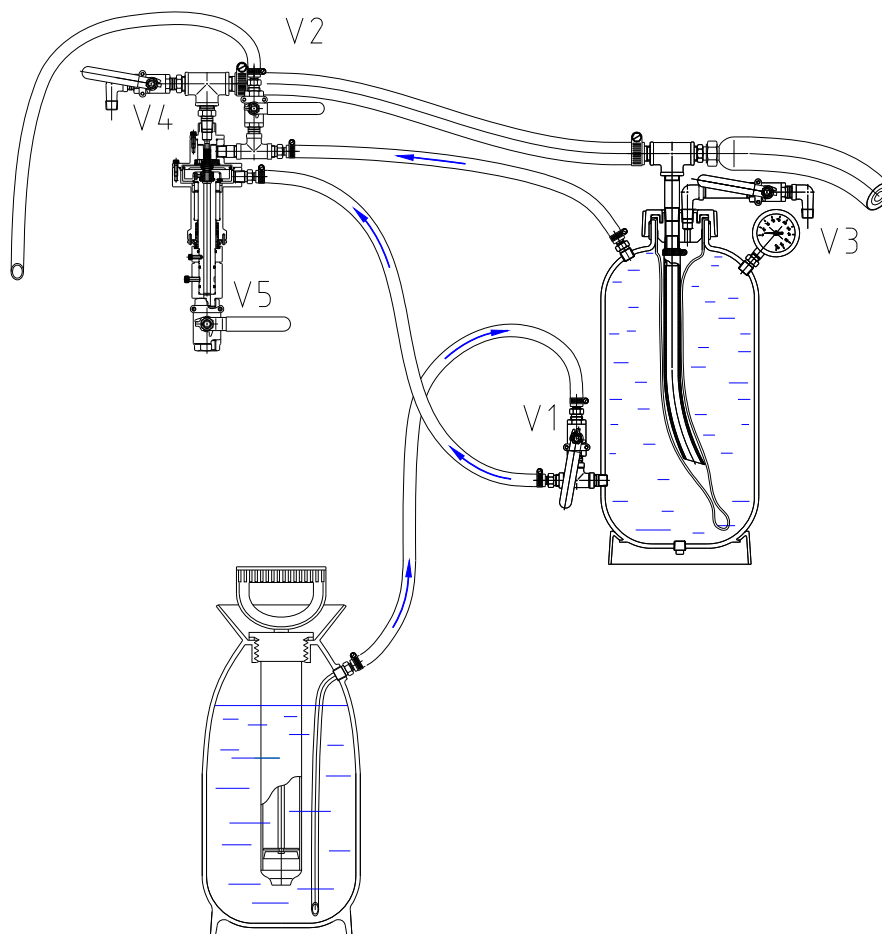
- open valves V1, V2, V3, V4, and close V5
- using hand pump transfer water from Pumping Unit into the Auxiliary Tank
- continue until no Air Bubbles come from drain hose attached to Valve V2
- if water runs out of pumping unit close Valve V1 and refill Pumping Unit as described on Page 7 and then open V1 and continue filling the System





### 3.2 Squeeze Rubber Bladder with Water Pressure

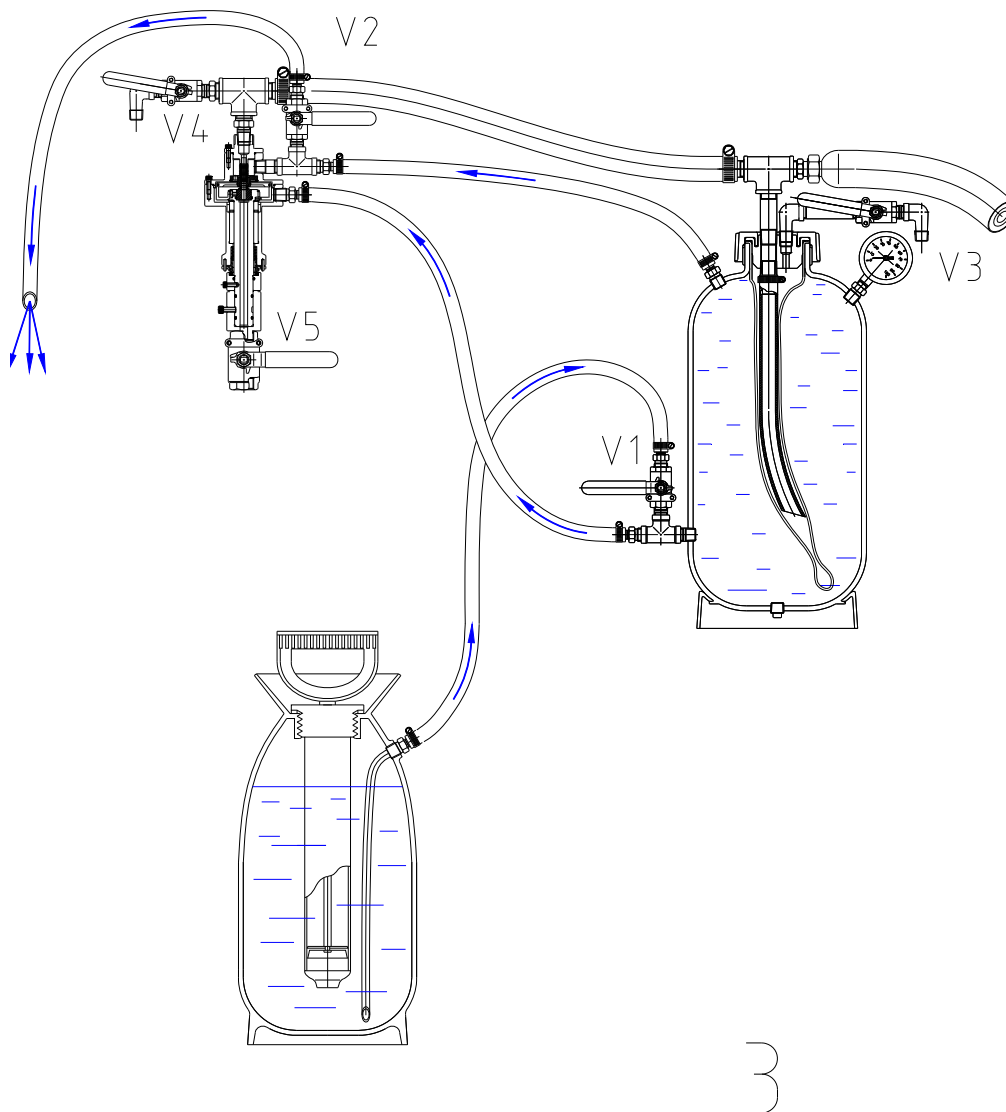
- temporarily close Valve V2 and continue pumping water until pressure gage on Auxiliary Tank reads 3 to 5 PSI
- if the system was previously filled with Compound some amount of Compound might drain the from Valves V3 and V4
- Bladder needs to be completely squeezed by water pressure at which point drainage of residual compound from Valve V3 and V4 will stop



2

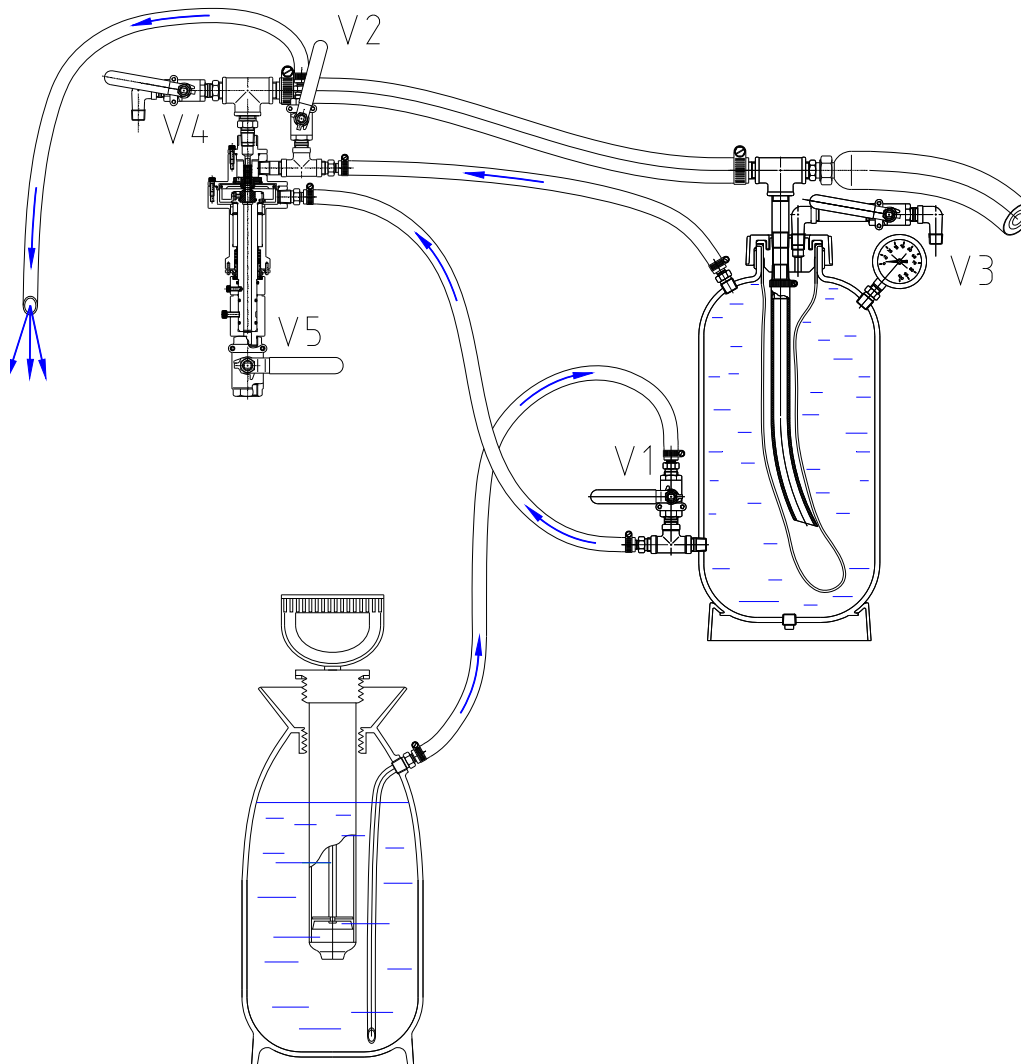
### 3.3 Purging Water System from entrapped residual Air

- close Valve V1 and for a brief moment open Valve V2, rapid pressure drop in the Water Tank will blow out all the residual Air Bubbles that might be entrapped in the system
- close Valve V2 and for a brief moment open and close Valve V1 allowing water pressure to build up again (3 to 5 PSI)
- open Valve V2 for a brief moment observing if no additional Air Bubbles come out of the drain hose
- repeat above sequence of operations again (if necessary) until no Air is present



### 3.4 Relieve residual Water's Pressure from the System

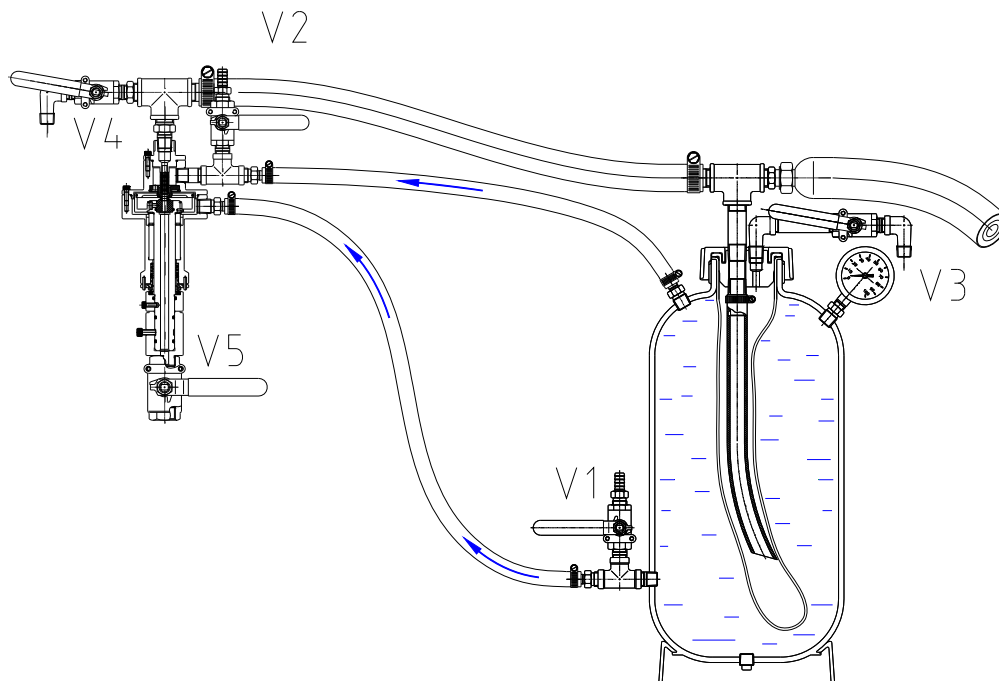
- close Valve V1 and depressurize Pumping Unit by unscrewing Hand Pump
- for a brief moment open Valve V2 and allow pressure of water in the Auxiliary tank to drop to zero allowing the Rubber Bladder to get relaxed from being squeezed by water pressure



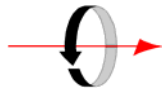
4

### 3.5 Finish Water System Preparation

- close Valve V2 and disconnect Drain Hose
- disconnect Pumping Unit from the Fitting of Valve V1

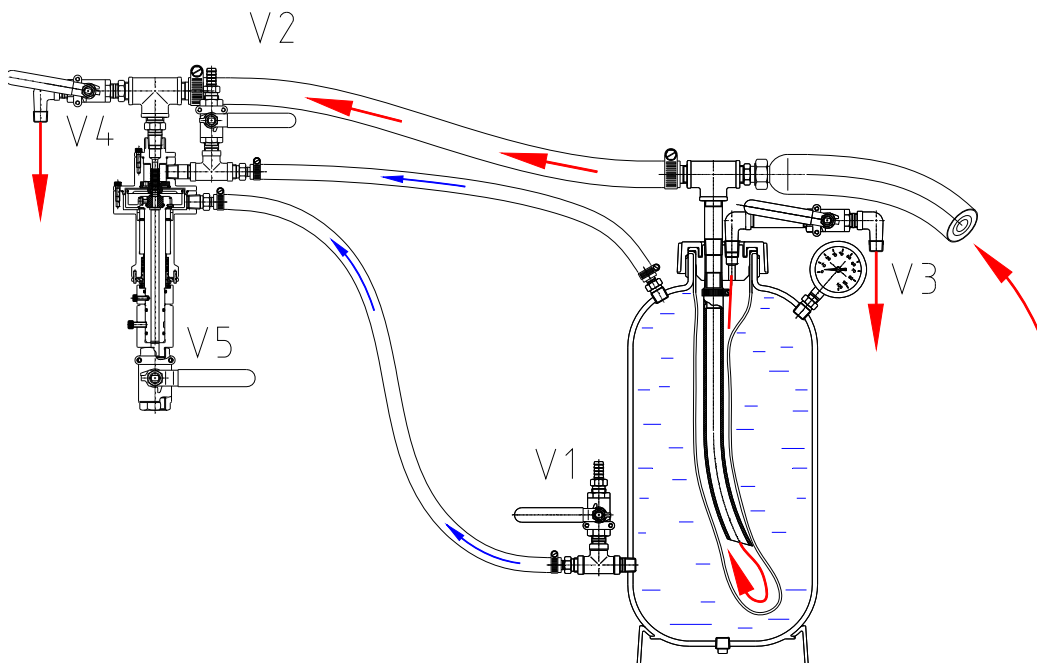


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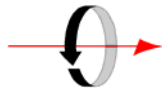


### 3.6 Purging Compound Passages

- gradually deliver Compound into the System and allow all residual Air to escape thru Valves V3 and V4
- with only pure Compound coming out Valves V3 and V4 can be closed and outlet ports secured by Pipe Caps to prevent solidification of Compound in the pipe elbows

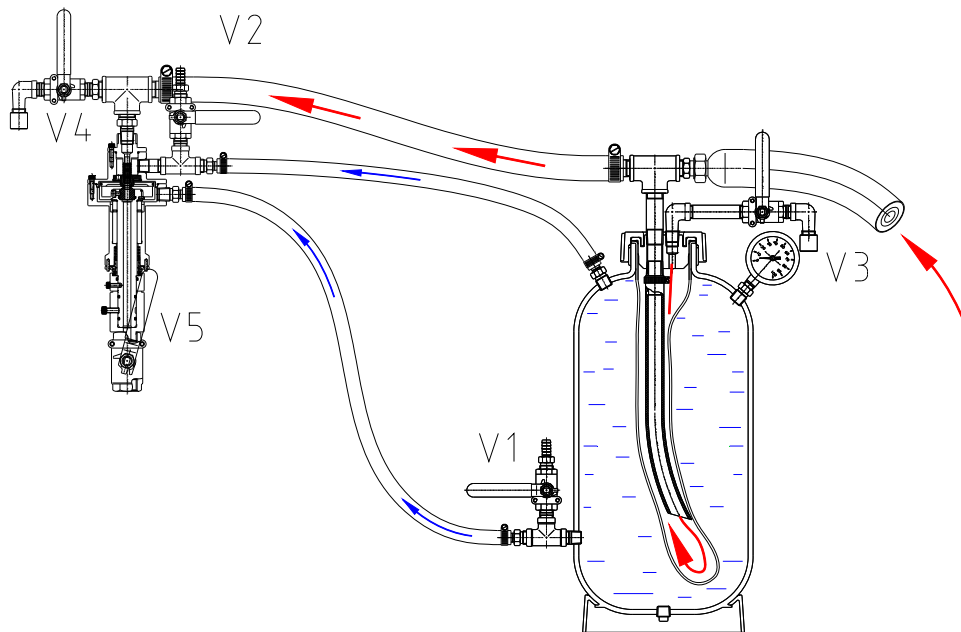


6



### 3.7 Delivering Compound to the Can Liner

- adjust full pressure of Compound delivered to the System
- gradually open Valve V5 allowing compound to enter the Can Liner.
- purge all flexible hoses that deliver compound to the nozzles



7

**System is now ready for operation.**