

# Information Sheet

## AutoPrime™ Valve



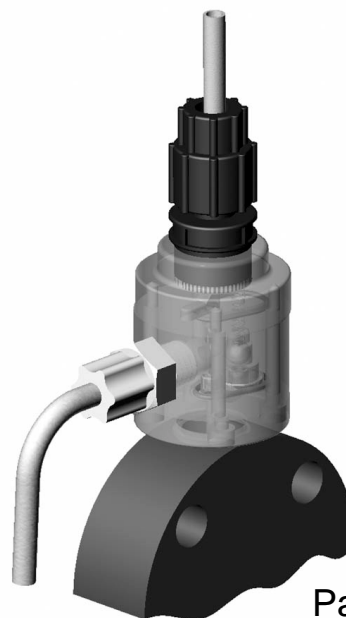
### Features:

- Automatic Priming
- Anti-Siphon  
(Air Gap Device)
- One Valve for Multiple Applications
- Automatically Regulates Pump Output
- Field Retrofittable - All LiquiPro Liquid Ends
- Vertical Discharge Design

LMI's AutoPrime valve allows for constant removal of vapors and gasses inherent with Sodium Hypochlorite or Hydrogen Peroxide. The valve keeps the pump primed automatically and functions as an air gap anti-siphon valve. In addition, pump output is regulated by venting the discharge to atmosphere during each stroke, eliminating the need for a back pressure device.

*Note: AutoPrime valve will recirculate approximately 10-20% of discharge material back to the supply. Pump output should be adjusted accordingly.*

*NSF Approval Pending.*



Part #38538

### Specifications:

	ml/stroke	max. pump output
<b>Flow Range:</b>	0.08 - 5.0	8.0 gph (30.0 l/h)

**Stroke Rate:** 5 - 100 per minute

**Stroke Length:** 30 - 100%

**Max. Pressure:** 250 psi

### Materials:

**Body and Caps:** Acrylic

**Balls and Seat:** Ceramic, Viton, PVC and Polyprel

**Spring:** Hastelloy C

**Fasteners:** 316 Stainless Steel



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Replaces same of Rev. A 3/02  
1962.B 4/02

# Instruction Sheet

## AutoPrime Valve

### Installation:

1. Remove the discharge valve or multi-function valve on the discharge side of the pump head.
2. Be sure the o-ring seal at the bottom of the AutoPrime valve is in place.
3. Install the AutoPrime valve by screwing it into the head clockwise until it bottoms firmly. DO NOT USE A PIPE WRENCH OR TOOLS TO TIGHTEN.
4. Connect the return line tubing to the AutoPrime valve. Route the tubing back to the solution reservoir taking care not to submerge the tubing in the solution. NOTE: THE TUBING MUST BE VENTED TO ATMOSPHERE IN ORDER FOR THE VALVE TO FUNCTION PROPERLY.
5. Connect all other suction and discharge tubing prior to start up.
6. Set pump settings (stroke and speed) to 100% and start the pump.
7. The pump is primed when solution begins to exit the return line.

### Operation:

The new valve consists of four functional elements. They are the *vent check valve*, the *discharge check valve*, the *anti-siphon check valve* and the *return line*.

1. **Vent Check Valve** - Provides constant removal of the gases generated when using such fluids as Sodium Hypochlorite or Hydrogen Peroxide as they are drawn into the suction line of the pump. If the pump remains idle for a length of time upon re-start, the vent check valve will allow gases to escape around the valve and into the vent/return line, re-priming the pump. Once re-primed, a maximum of 20% of the pumped solution escapes into the return line.
2. **Discharge Check Valve** - Once the vent check valve is seated, the internal pressure inside the pump head will open the discharge check valve, which is spring loaded. This will allow the fluid to exit the AutoPrime valve to discharge. The valve design regulates the output at lower pressures, preventing over pumping and eliminating the need for a back pressure device.
3. **Anti-Siphon Check Valve** - In addition, the valve contains an anti-siphon feature that opens the valve to atmosphere, should a vacuum be introduced above the AutoPrime outlet discharge valve, creating an air-gap condition through the vent/return line, rather than from the solution supply.
4. **Return Line** - This is the tubing that **MUST** be connected to the vent port of the vent check valve. The tubing **MUST** be routed back to the solution source to allow the re-pumping of the vented solution. The end of the tubing **MUST** be positioned above the highest fluid level in the reservoir to allow the anti-siphon feature of the AutoPrime to function properly.

