



## LIQUIPRO™ 4-Function Valve For 300/400/700/800/900 Series Cartridge Valve Type Liquid Ends

### Anti-Syphon

A positive diaphragm-type anti-syphon function makes it possible to meter liquids “down hill”.

### Back Pressure

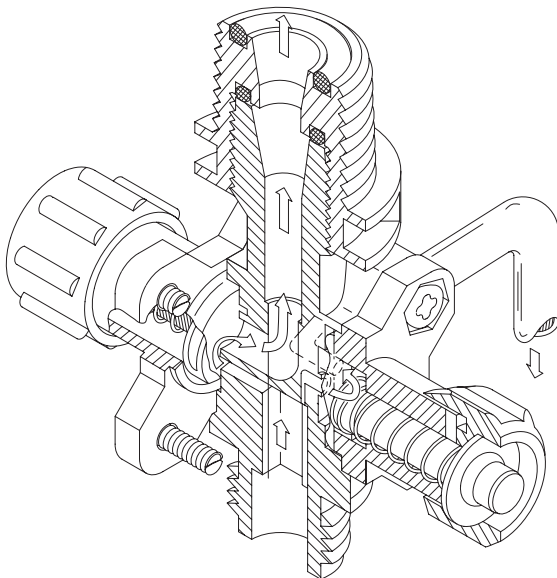
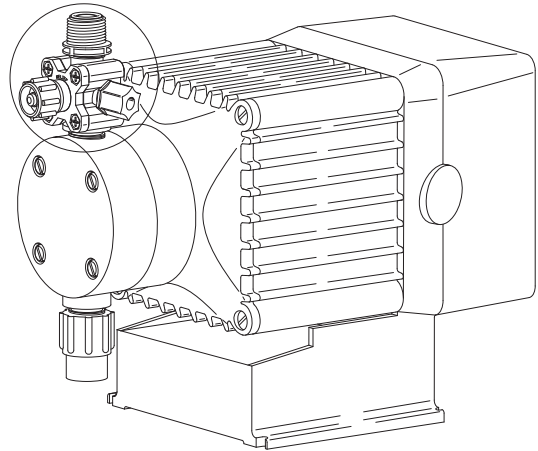
Supplies approximately 20 psi (1.4 Bar) back pressure to prevent over-pumping when little or no system pressure is present.

### Priming — Pressure Release

This function makes it easy to depressurize the discharge line without loosening tubing or fittings. It also allows you to prime your LMI pump while it is connected to a pressurized line.

### Pressure Relief Function

Provides protection against excessive system pressure.



### Model Numbers

Valve Number	Wetted Materials			Max Pressure
	Body	Diaphragm	O-Ring	
50651	PVDF	FLUOROFILM™	POLYPREL®	150 PSI (10 Bar)
50652			PTFE	
50653			POLYPREL®	250 PSI (17 Bar)
50655			PTFE	

All valves sold as separate accessories are supplied with universal tubing adapter. For tubing connection, order one of the following kits:

### Connection Kits

Kit #	LMI Tubing Size	Contents
77378	3 x 6 mm	1 Knob, 1 Ferrule
77379	6 x 8 mm	1 Knob, 1 Ferrule Insert, 1 Sleeve
77380	9 x 12 mm	
77382	1/4"	1 Knob, 1 Ferrule
77383	3/8"	1 Knob, 1 Ferrule Insert, 1 Sleeve
77384	1/2"	

# Instruction Sheet

## LIQUIPRO™ 4-Function Valve

For 300/400/700/800/900 Series Cartridge Valve Type Liquid Ends

### METHOD OF OPERATION

This valve cannot be used on an AUTOPRIME™ liquid end.

To mount to a pump, remove the existing discharge fitting or valve. Within the discharge fitting or valve, you will find one or two cartridges. If there are two cartridges of the same length, discard one of them. If there are two cartridges of different lengths, discard the shorter one. Install the remaining cartridge, with its o-ring, into the pump head. Screw 4-function valve into head.

#### A. PRIMING

1. Connect return tubing to (relief) port.
2. Route tubing to solution tank. Be sure the end of tubing is above the maximum solution level (Do not submerge tubing in solution).
3. Turn Black Pressure Relief Knob 1/4 turn to open.
4. Set pump at 80% speed and 100% stroke. Start pump. When solution begins to flow through translucent return tubing, the pump is primed.
5. Stop pump. Turn Black Pressure Relief Knob 1/4 turn to close.

#### NOTE:

(a) Pump is normally self-priming if suction lift is no more than 5 ft (1.5 m), valves in the pump are wet with water (pump is shipped from factory with water in pump head) and the above steps (A1 through A4) are followed.

(b) If the pump does not self prime, remove 4-function valve and Discharge Cartridge Valve, and pour water or solution slowly into discharge port until it is filled. Replace Cartridge Valve, and follow steps A1 through A4 thereafter.

#### B. DEPRESSURIZING DISCHARGE LINE

1. It is possible to depressurize discharge line and pump head without removal of tubing or loosening of fittings.

Be sure injection check valve is properly installed and is operating. If a gate valve or globe has been installed, downstream of the injection check valve, it should be closed. Be certain return tubing is connected and run to solution supply tank.

2. Turn Black Pressure Relief Knob 1/4 turn to open.
3. Pull Yellow Anti-Syphon Knob to open.
4. Solution should exit the return tubing. The discharge line is now depressurized.
5. Release Yellow Anti-Syphon Knob and turn Black Pressure Knob 1/4 turn to close.
6. If injection check valve is of higher elevation than pump head, disconnecting tubing at injection check valve end will allow air to enter and cause solution to drain back to tank.

