

# LE-217 LE-257 LE-277 LE-297 LIQUID HANDLING ASSEMBLIES

## CAUTION

When pumping solutions, make certain that all fittings are securely attached. It is recommended that tubing or pipe lines be shielded to prevent possible injury in case of rupture or accidental damage. Always wear protective clothing and face shield when working on or near metering pump.

**Note:** All valves must be installed so that flow direction arrows point upward.

## A. INSTALLING INJECTION CHECK VALVE

(Optional - Not included with standard pump.)

1. The injection check valve should always be installed as close as possible to the point of solution injection.

2. Purpose of spring loaded injection check valve is to prevent backflow from *treated line* and to prevent syphoning or overpumping of solution.

3. A 1/4" NPT female fitting with sufficient depth will accept the injection/anti-syphon valve.

## B. CONNECTING DISCHARGE PIPE

**NOTE:** Use 316 S.S. pipe or corrosion resistant tubing with a minimum I.D. of .250". Pipe or tubing pressure rating must exceed pump's maximum pressure rating.

1. Discharge valve has a 1/4" NPT male outlet and must be installed so that flow direction arrows point upward. A 1/4" union should be connected to both discharge and suction valves so that the metering pump may be removed without disturbing piping.

*It is required that Teflon tape be used on tapered pipe threads so that there is a leakproof seal without overtightening of fittings. See illustration on reverse.*

## MATERIALS OF CONSTRUCTION

Fittings	316 S.S. 1/4" NPT M
Inj. Check Valve	316 S.S./303 S.S./ Hastelloy C (1/4" NPT M)
Balls	316 S.S.
Head	316 S.S.
Liquifram	Fluorofilm

## C. CONNECTING SUCTION PIPE

1. Using the same size and material pipe as used on discharge line, cut suction pipe to required length.

2. It is required that Teflon tape be used on tapered pipe threads so that there is a leakproof seal without overtightening of fittings. Suction side leaks are invisible, but if present will cause pump to suck in air during each suction stroke.

3. Maximum vertical suction lift is 5 ft. (1.5m).

## D. PRIMING

1. Plug in or switch on the pump.

2. While the pump is running, set the speed knob at 80% and the stroke knob at 100%.

**Note:** If the pump is equipped with a pressure control knob, turn the knob fully clockwise .

3. The suction tubing will begin to fill with solution from the tank.

4. Once the solution begins to exit the pump head on the discharge side, **SHUT THE PUMP OFF.** (If pump is not equipped with an on/off switch, unplug the pump.)

5. The pump is now primed.

**Note:** If the pump does not self prime, remove the fitting on the discharge side of the pump head. Remove the ball and pour solution into the port until the head is filled. Replace the ball and discharge valve and follow priming steps above.



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KEY NO.	PART NO.	DESCRIPTION	LE-217 (3.0 SI)	LE-257 (0.5 SI)	LE-277 (1.8 SI)	LE-297 (0.9 SI)
1*	32514	Injection Check Valve Asm	(1)	(1)	(1)	(1)
2	32519	Head Asm., LE-217	1	-	-	-
	32516	Head Asm., LE-257	-	1	-	-
	32518	Head Asm., LE-277	-	-	1	-
	32517	Head Asm., LE-297	-	-	-	1
3	32509	Head, 3.0 SI 316 SS	1	-	-	-
	32506	Head, 0.5 SI 316 SS	-	1	-	-
	32508	Head, 1.8 SI 316 SS	-	-	1	-
	32507	Head, 0.9 SI 316 SS	-	-	-	1
4*	32515	Check Valve Asm., 316 SS	2 (1)	2 (1)	2 (1)	2 (1)
5	31419	Liquifram, 3.0 SI, Fluorofilm	1	-	-	-
	30916	Liquifram, 0.5 SI, Fluorofilm	-	1	-	-
	31420	Liquifram, 1.8 SI, Fluorofilm	-	-	1	-
	30917	Liquifram, 0.9 SI, Fluorofilm	-	-	-	1
6+	10340	Screw, 10-24 x .75 PH SS	4	4	4	4

\* Quantities shown in ( ) indicate optional valve assemblies not included with standard Liquid Handling Assemblies.

+ For use with LMI Series M Metering Pumps, order part number 30856, Screw, 10-24 x 1.5 PH SS, 4 ea.

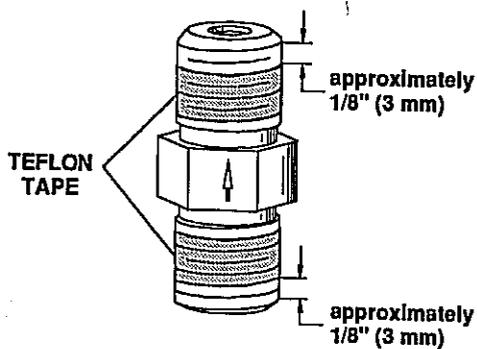
FITTINGS WITH PIPE OR TUBING - CUSTOMER SUPPLIED -

† All connections are 1/4" NPT M.

Teflon tape is required on all 1/4" NPT M fittings to insure a tight seal.

All valves must be installed so that the flow direction arrow points upward.

APPY TEFLON TAPE AS SHOWN HERE



FITTINGS WITH PIPE OR TUBING - CUSTOMER SUPPLIED -

OPTIONAL FOOT VALVE

OPTIONAL INJECTION CHECK VALVE

NOTE: Spring loaded Injection Check Valve - opening pressure is approximately 20 psi (1.4 bar)

5 NOT INCLUDED IN 2

