

## LE-20PMX, LE-76PMX, LE-86PMX LIQUID HANDLING ASSEMBLIES

### CAUTION

When pumping solutions make certain that all tubing is securely attached to the fittings. 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: See parts list for materials of construction**

#### A. FLOODED SUCTION (PREFERRED METHOD)

1. Mount the pump 12" above floor with the head extending beyond the mounting so that suction tubing curves gently away from the pump to prevent kinking.
2. Install a 1/2" or 3/4" shut off valve. Leave at least 3/4" clear way through the valve into the reservoir. This is necessary to stop flow from reservoir while servicing the pump.
3. Install the barbed connector (one of two supplied) into the valve. Attach the 15/16" O.D. vinyl tubing to the barbed connector. Secure with the hose clamp provided. Use the shortest length of suction tubing practical.
4. Connect the other end of the suction tubing to the barbed suction fitting at the pump. Secure it with the hose clamp provided.

3. If tubing curl is a problem, fabricate 1" PVC pipe as a tube straightener. For ease of removal, the pipe should be slightly longer than the depth of the barrel.
4. Place the tubing straightener over suction tubing and lower into the barrel.

#### C. PRIMING

#### B. SUCTION LIFT (PUMP SITTING ON BARREL: MAXIMUM LIFT 3.5 FT.)

1. Connect suction tubing to the barbed suction fitting on the pump. Secure it with the hose clamp provided.
2. Cut tubing so it will only reach within 1" of the bottom of the barrel.
1. The pump is shipped pre-primed with water. If the pump has lost its water prime, pre-prime with water, using 100% stroke and 50% speed setting.
2. Make final installation except for the injection connection at far end of tubing.
3. Open the valve in suction line (if installed).
4. Set the pump at 100% stroke length and 50% speed. Start the pump.
5. After all air is expelled from the head, connect tubing at the far end to the connector. Open the valve at injection point (if installed). Adjust the discharge rate to the desired amount using the longest stroke and slowest speed practical.
6. If difficulty is experienced on initial prime, apply vacuum to discharge tubing by suitable means, such as a hand suction pump. This should not recur after pump is primed with a viscous liquid.



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**NOTE:**  
 Threaded connections into pump head are 1"-12 straight threads. Do not use Teflon tape. These joints are sealed by seal ring valve seats (Item 6 on exploded view).

KEY NO.	PART NO.	DESCRIPTION	QUANTITY		
			LE-20PMX	LE-76PMX	LE-86PMX
1	30069	Injection Check Valve Assembly	1	1	1
2	25106	Injector Fitting P.P.	1	1	1
4	25402	Ball, S.S. .500"	3	3	3
6	10128	Seal Ring, Hypalon	3	3	3
7	25106	Valve Seal, Polypropylene	1	1	1
8	10411	Coupling Nut, Polypropylene	2	2	2
9	10142 -10	Tubing, Polystyrene, .5" O.D.	1	1	1
10	30077	Head Assembly, LE-20PMX	1	0	0
10	30070	Head Assembly, LE-76PMX	0	1	0
10	30074	Head Assembly, LE-86PMX	0	0	1
11	30072	Discharge Valve Assembly	1	1	1
12	25605	Valve Housing, UHMWPE	1	1	1
13	30071	Suction Valve Assembly	1	1	1
14	10340	Screw, 10-24 x 3/4" S.S.	4	4	4
15	10524 -3	Head, 3.0 Acrylic	1	0	0
15	25540	Head, 1.8 Acrylic	0	1	0
15	25550	Head, 0.9 Acrylic	0	0	1
16	31419	Liquifram, 3.0 Fluorofilm	1	0	0
16	31420	Liquifram, 1.8 Fluorofilm	0	1	0
16	30917	Liquifram, 0.9 Fluorofilm	0	0	1
17	25558	Spring, S.S.	1	1	1
18	25649	Valve Seal, Polypropylene, Barbed	1	1	1
19	25651 -3.5	Tubing, Vinyl, 938" O.D.	1	1	1
20	25650	Connector, Barbed, 1/2" NPT	1	1	1
21	25652	Hose Clamp	2	2	2
22	26558	Plug, 1/4" NPT PVC	1	1	1

