

# LE-30HV

## LIQUID HANDLING ASSEMBLY

### CAUTION

When pumping chemicals 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 when working on or near chemical metering pump.

**NOTE: See parts list for materials of construction**

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

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

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

1. Connect suction tubing to barbed suction fitting on pump. Secure with hose clamp provided.
2. Cut tubing so it will only reach within 1" of bottom of barrel.
3. If tubing curl is a problem fabricate 1" Polypropylene pipe as tube straightener (pipe should be slightly longer than depth of barrel for ease of removal.)
4. Place tubing straightener over suction tubing and lower into barrel.

#### C. CONNECTING DISCHARGE TUBING

1. Make sure tubing is cut off squarely.
2. Slide coupling nut onto tubing.
3. Push tubing over discharge valve so that tubing flares out and reaches shoulder (if tubing is stiff from cold, dip end in hot water).

4. Slide coupling nut down until threads are engaged. While tightening coupling nut by hand maintain pressure on tubing towards valve nozzle until tubing is held securely in place.

5. Route tubing to discharge point making sure it does not touch hot surfaces, sharp surfaces, or is bent so sharply that it kinks.

6. The injection check valve should always be installed as close as possible to the point of chemical injection, at the very end of the tubing run. A 1/2" NPT female fitting with sufficient depth will accept the injection check valve.

7. To insure correct seating of the ball inside the check valve, the injection check valve should be installed with flow direction upwards.

8. Connect tubing to injection valve as in steps 1 thru 4 above.

#### D. PRIMING

1. Pump is shipped pre-primed with water. If pump has lost its water prime, pre-prime with water using 100% stroke and 50% speed setting.
2. Make final installation except for injection connection at far end of tubing.
3. Open valve in suction line if installed.
4. Set pump at 100% stroke length and 50% speed. Start pump.
5. After all air is expelled from head, connect tubing at far end to connector. Open valve at injection point if installed. Adjust discharge rate to desired amount using longest stroke and slowest speed practical.
6. If difficulty is experienced on initial prime apply vacuum to discharge tubing by suitable means, such as hand suction pump. This should not reoccur 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).

Maximum pump pressure rating is reduced by 25 psi (1.7 bar) with back pressure spring installed.

**Do not remove back pressure spring if pressure at injection point is less than 20 psi (1.4 bar).**

KEY NO.	PART NO.	DESCRIPTION	QTY.
1	25663	Injection Check Valve Assembly	1
2	25108	Injector Fitting	1
4	25042*	Ball, Stainless Steel	3
6	10128*	Seal Ring, Teflon	3
7	25106	Valve Seat, Polypropylene	1
8	10211	Coupling Nut, Polypropylene	2
9	10142-10	Tubing, Polyethylene, .5" O.D.	1
10	31569	Head Assembly, LE-30HV	1
11	27052	Discharge Valve Assembly	1
12	25554	Valve Housing, Polypropylene	1
13	27053	Suction Valve Assembly	1
14	10340	Screw, 10-24 x 3/4" S.S.	6
15	25718-3	Head, 6.0 High Viscosity	1
16	25719*	Liquifram, 6.0 Teflon Face	1
17	25558	Spring, Stainless Steel	2
18	25649	Valve Seat, Polypropylene, Barbed	1
19	25651-3.5	Tubing, Vinyl, .938" O.D.	1
20	25650	Connector, Barbed, 1/2" NPT	1
21	25652	Hose Clamp	2

\* Parts included in Spare Parts Kit SP-U6

