Liquid End Sheet

LE-30S/ LE-32S / LE-36S

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 your metering pump.

Note: See parts list for materials of construction

A. INSTALLING INJECTION CHECK VALVE

1. The purpose of the injection check valve is to prevent backflow from the treated line.
2. A ½" NPT female fitting with sufficient depth will accept the injection check valve.
3. To insure correct seating of the ball inside the injection check valve, the injection check valve should be installed upwards (vertically) into bottom of the pipe.

B. CONNECTING DISCHARGE TUBING

NOTE: *Cut tubing to length needed for discharge line.*

1. Route tubing from the injection check valve to the metering pump, making sure it does not touch hot or sharp surfaces, or is bent so sharply that it kinks.
2. Slide the small end of the coupling nut onto tubing.
3. Push tubing on the valve housing nozzle so that tubing flares out and butts up against valve housing and will not go any further.
4. Slide the coupling nut to the threads and engage. While pushing the tubing on to the valve housing nozzle, tighten the coupling nut by hand until tubing is held securely in place.

Excessive force will crack or distort fittings.
DO NOT USE PIPE WRENCH.

C. CONNECTING SUCTION TUBING

1. Cut suction tubing to a length so that the foot valve hangs just above the bottom of the solution container. Maximum recommended vertical suction lift is 5 ft (1.5 m).
2. Follow same procedure in connecting suction tubing to suction valve and foot valve (see **B. Connecting Discharge Tubing**).

D. PRIMING

1. Connect pressure relief tubing to pressure relief port on the four function valve.
2. Route tubing to solution reservoir and anchor with a plastic tie. Do not submerge tubing in solution.
3. Correct position of relief and anti-syphon knobs are: anti-syphon arrow must be vertical (word "anti-syphon" is upright). Relief arrow must be horizontal (word "relief" is upright).

NOTE: *At injection pressures below 25 psi (1.75 kg/cm^2) a slight buzzing noise may be made by the anti-syphon valve during each stroke of the metering pump. This is normal.*

4. Start pump. Set at 80% speed and 100% stroke.
5. When solution begins to flow through the return tubing, rotate relief arrow to the vertical position.
6. The pump is now primed.

NOTE:

*(a) Pump is normally self-priming if suction lift is not 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 (**D. Priming**) are followed.*

*(b) If the pump does not self prime, remove discharge valve housing and ball and pour water or solution slowly into discharge port until head is filled. Follow step **D. Priming** thereafter.*

E. DEPRESSURIZING DISCHARGE LINE

1. It is possible to depressurize the 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 injection check valve, it should be closed. Be certain relief tubing from the four function valve is connected and run to solution reservoir.

2. Rotate both anti-syphon and relief arrows so they are in a horizontal position.
3. The discharge line is now depressurized.
4. 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.

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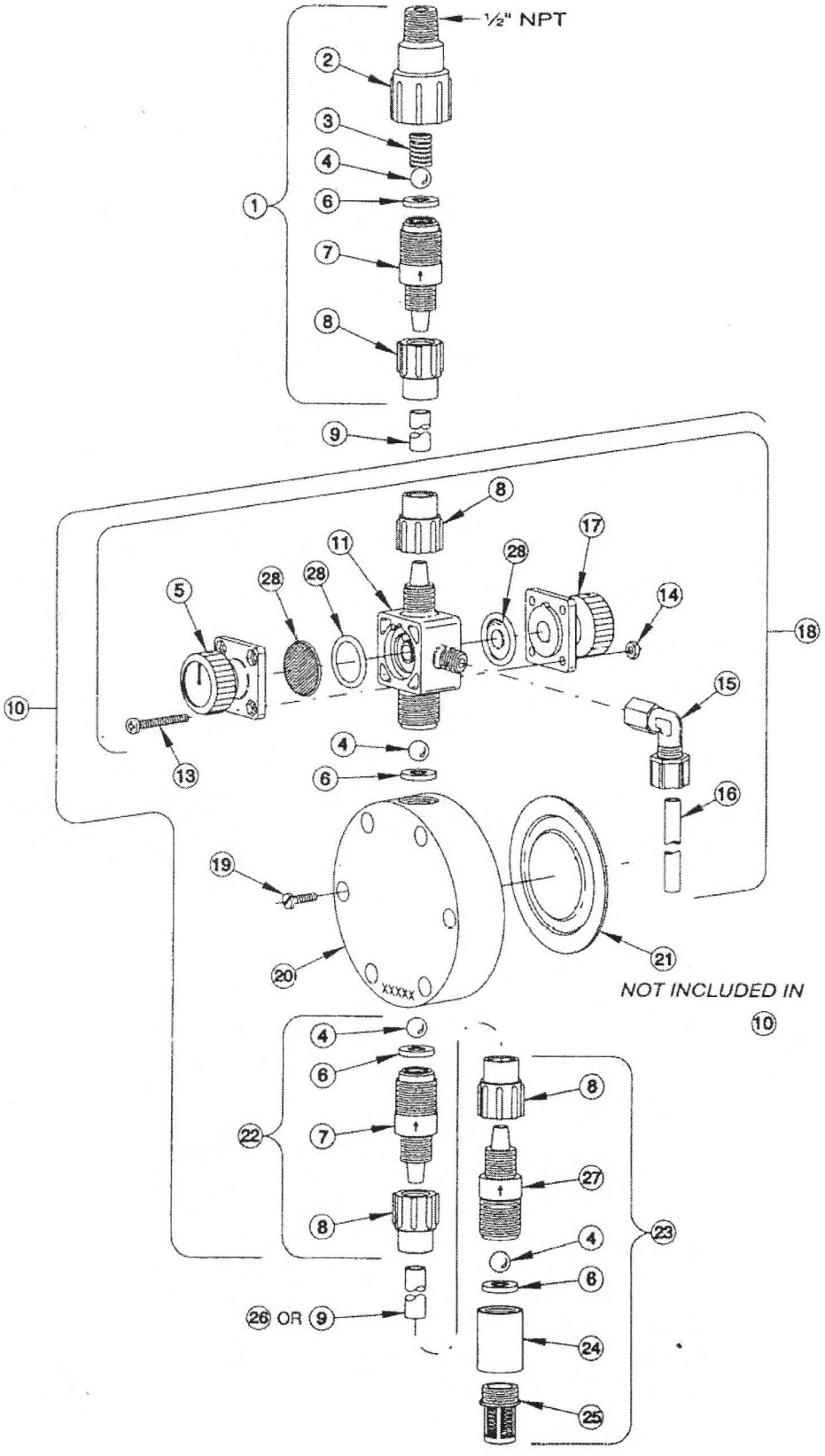
NQA ISO9001 REGISTERED COMPANY

Replaces same of Rev. H 7/96
1253.I 9/97

KEY NO.	PART NO.	DESCRIPTION	QUANTITY		
			LE-30S	LE-32S	LE-36S
1	26713	Injection Check Valve Assembly	1		1
	33481	Injection Check Valve Assembly		1	
2	25108	Injector Fitting	1		1
	31936	Injector Fitting, PVDF		1	
3	10339*	Spring PVDF	1	1	1
4	10138*	Ball, Ceramic .500"	4	4	4
5	34615	Cap Assembly, Anti-Syphon	1	1	1
6	25128*	Seal Ring	4	4	4
7	10206	Valve Seat, PVC .500"	2		2
	31937	Valve Seat, PVDF		2	
8	10411	Coupling Nut	4	4	4
9	10142-10	Tubing, Polyethylene, .5" O.D.	1		
	10142-16	Tubing, Polyethylene, .5" O.D.		1	1
10	27884	Head Assembly, LE-30S, Acrylic	1		
	33478	Head Assembly, LE-32S, PVDF		1	
	27902	Head Assembly, LE-36S, PVC			1
11	34610	Valve Body, ASM, PVDF	1	1	1
13	34679	Screw, 10-24 x 1 5/8"	4	4	4
14	10143	Nut, 10-24	4	4	4
15	10587	Elbow Connector, Polypropylene	1	1	1
16	10342-10	Return Tubing, Polyethylene, .375" O.D.	1	1	1
17	32115	Cap Assembly, Relief	1	1	1
18	34626	Anti-Syphon Valve Assembly	1	1	1
19	10340	Screw, 10-24 x 3/4", S.S.	4	4	4
20	25718	Head, 6.0 SI, Acrylic	1		
	32234	Head, 6.0 SI, PVDF		1	
	25905	Head, 6.0 SI, PVC			1
21	25719*	Liquifram™, 6.0 SI, PTFE Face	1	1	1
22	25412	Suction Valve Assembly	1		1
	33482	Suction Valve Assembly		1	
23	25977	Foot Valve Assembly	1		1
	33480	Foot Valve Assembly		1	
24	25600	Foot Valve Seat, Polypropylene	1	1	1
25	10123	Strainer, Polypropylene	1	1	1
26	10141-06	Tubing, Vinyl, .5" O.D.	1		
27	10273	Valve Housing, PVC	1		1
	31938	Valve Housing, PVDF		1	
28	34613	Seal Repair Kit	1	1	1
	32293	Suction Tubing Straightener (not shown)	1	1	1

* Parts included in Spare Parts Kit SP-U6


½" NPT
NOT INCLUDED IN
10
OR

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