

# Specification Sheet

## Series E

### GENERAL

Chemical metering pumps shall be positive displacement, Liquifram type pumps that are UL and CUL approved. Pumps shall be equipped with UL listed, Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F and G Drive Assembly. Output volume shall be adjustable while pumps are in operation from zero to maximum capacity of:

E70 — 1.3 GPH	( 4.9 l/h )
E71 — 2.5 GPH	( 9.5 l/h )
E72 — 4.0 GPH	(15.1 l/h )
E73 — 8.0 GPH	(30.0 l/h )
E74 — 20.0 GPH	(76.0 l/h )

### SERIES E7

Adjustment shall be by means of readily accessible dial knobs, one for changing stroke length and the other for changing stroke frequency. Both knobs are to be located opposite the liquid handling end.

Control of Series E7 metering pump shall be selectable between internal and external pulsing by means of a stroke frequency knob. When this knob is rotated to its fully counter-clockwise position, the external pulse mode shall be engaged.

Chemical metering pumps shall be capable, without a hydraulically backed diaphragm, of injecting chemicals against pressures up to:

E70 — 300 psig	(20.7 Bar)
E71 — 150 psig	(10.3 Bar)
E72 — 100 psig	( 6.9 Bar)
E73 — 60 psig	( 4.1 Bar)
E74 — 25 psig	( 1.7 Bar)

### DRIVE

The pump drive shall be totally enclosed with no exposed moving parts. Pump drives shall be UL listed Class I, Groups C and D and Class II, Division 1, Groups E, F and G. Solid state electronic pulser shall be fully encapsulated with no exposed printed circuit etch and with quick connect terminals at least 3/16" (4.75 mm) wide. Electronics shall be housed in chemical resistant enclosure at the rear of the pump for maximum protection against chemical spillage. Average electrical power consumption shall not exceed 44 watt hours per hour under full speed and maximum pressure conditions. Pump weight shall not exceed 41 lbs (18.6 kg).

### AUTOMATIC PRESSURE RELIEF

To eliminate need for pressure relief valve, Liquifram shall automatically stop pulsating when discharge pressure exceeds pump pressure rating by not more than 35%.

### MATERIAL

Chemical metering pump housing shall be of urethane painted cast aluminum and urethane painted cast iron. All exposed fasteners shall be stainless steel. Chemical metering pump valves shall be ball type, with ceramic balls<sup>1</sup>. Valve seat and seal ring shall be renewable by replacing only the combination seat-seal ring<sup>2</sup> or cartridge valve assembly. Pump head shall be of transparent acrylic<sup>3</sup> material capable of resisting the pumped chemical. Fittings and connections at pump head shall be PVC<sup>4</sup>.

### CHECK VALVE AND TUBING

A total of 16 ft (4.9 m) of polyethylene tubing<sup>5</sup> shall be provided per pump complete with compressing connections. A foot valve with integral one piece strainer shall be provided for the suction line, and an injection check/back pressure<sup>6</sup> valve with 1/2" NPT male connection for the injection point. The injection check valve shall incorporate a dilating orifice which inhibits accumulation of crystalline deposits.

### NOTES:

1. Type 316 stainless steel or PTFE may be specified.
2. Hypalon, PTFE or Polyprel<sup>®</sup> may be specified.
3. PVDF, PVC, polypropylene, or Type 316 stainless steel may be specified.
4. PVDF, Polypropylene or Type 316 stainless steel may be specified.
5. 6 ft (1.8 m) of vinyl suction tubing may be specified in place of polyethylene for the suction side only. 1/4" or 1/2" male pipe thread may be specified.
6. Combination pressure relief-anti-syphon valve may be specified.
7. High viscosity liquid ends may also be specified.



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Dimensions shown are maximum for largest liquid end available. These dimensions vary depending on the Liquid End selected.

