

((This is a Master, Edit for Specific Application))

Pulsafeeder Inc. –Pulsatron E-Plus Series Metering Pumps (for flow rates up to 25 gph)

PART 1 – GENERAL

1.01 GENERAL

This specification covers the supply, installation, and testing of completely functional metering pump feed systems including all necessary accessories and appurtenances as shown on the drawings and described herein. A single chemical metering pump manufacturer shall be responsible for supplying all components of the metering pump feed system.

1.02 QUALITY ASSURANCE

For the purpose of establishing quality assurance, experience, and system reliability, the products described herein are based on those metering pumps manufactured by Pulsafeeder Inc. All pumps shall be shop tested for capacity and pressure with water prior to shipment.

1.03 WARRANTY

The chemical metering pump manufacturer shall provide a two-year warranty on the electronic circuit board the mechanical drive.

PART 2 – PRODUCTS

2.01 GENERAL

Manufacturers:

1. Pulsafeeder Inc.
2. Pre-approved equal

2.02 DESCRIPTION

A. The chemical metering pump(s) shall be a simplex, solenoid-driven, reciprocating, mechanically actuated diaphragm style. The output shall be rated “Hot” (at operating temperature) and shall be adjustable while the pump is in operation. To prevent damage to pump from over heating, the solenoid shall have automatic reset thermal overload protection. For overpressure conditions, pump shall automatically stop pulsating when discharge pressure exceeds pump pressure by not more than 35% when pump is set at maximum stroke length. The pump drive shall be encased in a water resistant housing constructed of a chemically resistant glass filled polyester.

B. The power supply shall be ___ VAC, ___ Hz, single phase. The circuit board is to automatically compensate for supply voltage variations within 10% of the rated voltage such that the frequency of the pump remains constant.

C. The liquid end shall be physically separated from the drive unit by a back plate with weep hole creating an air gap. An NTR natural rubber seal shall prevent contamination of the solenoid if the primary diaphragm fails. The diaphragm shall be constructed of a Hypalon backed with metal insert, Teflon faced and fabric reinforced.

2.03 LIQUID END ((SELECT ONE))

The liquid end shall be glass filled polypropylene with ((Hypalon/Viton/TFE)) seals, with bleed valve assembly, including return tubing up to 240 gpd. The suction and discharge valves come in either single or double ball check valves dependent on seal selection. ((TFE seal double ball, Hypalon/Viton single ball))

Or

The liquid end shall be PVC with ((Hypalon/Viton/TFE)) seals, with bleed valve assembly (exception 250 psig), including return tubing up to 240 gpd. The suction and discharge valves come in either single or double ball check valves dependent on seal selection. ((TFE seal double ball, Hypalon/Viton single ball)) Bleed Valve is not included for 250 psig selections.

Or

The liquid end shall be Styrene-Acrylonite (SAN) with ((Hypalon/Viton/TFE)) seals, with bleed valve assembly, including return tubing up to 240 gpd. The suction and discharge valves come in either single or double ball check valves dependent on seal selection. ((TFE seal double ball, Hypalon/Viton single ball))

Or

The liquid end shall be Polyvinylidene Fluoride (PVDF) with ((Hypalon/Viton/TFE)) seals, with bleed valve assembly, including return tubing up to 240 gpd. The suction and discharge valves shall be of the double ball check design

Or

The liquid end shall be constructed of 316 stainless steel with ((Hypalon/Viton/TFE)) seals. The suction and discharge valves shall be of the double ball check design.

2.04 CONTROLS

- A. Stroke length control shall be manually adjusted between 100% and 0% with a stroke adjustment knob with a locking mechanism for desired setting. Frequency can be manually adjusted between 12.5-125 strokes per minute.
- B. Optionally, the 4-20mA input allows the pump to be controlled via an analog signal to proportionally adjust the frequency via the 4-20mA. Control cables are included with metering pump.
- C. Optionally the external pace input allows the pump to be controlled by dry contact pulse signals at a 1:1 ratio. Control cables are included with metering pump.
- D. The Stop function, which is included with either the 4-20mA option or the external pace option allows an external volt free contact closure to cause the pump operation to stop, in either manual or automatic mode, and illuminate a red indicator light on the pump control panel. The pump shall resume normal operation when the contact opens.

2.06 APPLICATION

- A. Quantity:
- B. Chemical Service:
- C. Capacity (US gph):
- D. Backpressure (psig):
- E. Suction Conditions:
- F. Discharge Conditions:

END OF SECTION