

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

Pulsafeeder Inc. –Chem-Tech Series XP Peristaltic Metering Pumps (for flow rates up to 80 gpd / 3.3 gph)

PART 1 – GENERAL

1.01 GENERAL

This specification covers the supply, installation, and testing of completely functional peristaltic 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 and on the mechanical drive.

PART 2 – PRODUCTS

2.01 GENERAL

Manufacturers:

1. Pulsafeeder Inc.
2. No approved equal

2.02 DESCRIPTION

- A.** The chemical metering pump(s) shall be simplex style, shaded pole motor driven peristaltic tube style. To prevent damage to pump from overheating, the motor shall have automatic reset thermal overload protection.
- B.** The pump shall have a 3 position power switch capable of: 1) stopping the pump, 2) running the pump continuously in normal operation and 3) intermittently running the pump only when depressed to facilitate the tube changing process.

- C. Optional Configuration of 2.02B – The pump shall have the ability to operate at flows less than maximum via a turndown adjustment which provides from 5% to 100% range in 1% increments. The adjustment must be completely electronic and reduce the output by de-energizing the motor for a portion of a 2 second cycle; i.e.: 50% flow results in 1 second on and 1 second off. No mechanical disengagement mechanisms (clutches, etc.) are allowed.
- D. The system connections shall be made via a dual connection fitting at both the suction and discharge connections. This fitting shall accept 1/4" OD tubing, or 3/8"NPTF piping fittings.
- E. The pump drive shall be encased in weather resistant housing constructed of a chemically resistant glass filled ABS material, and be rated to NEMA 3R specifications.
- F. The pump controls must be protected by a see through polycarbonate cover which is removable and can be latched in place for operation
- G. The power supply shall be ___VAC, ___Hz, single phase. The drive system is to automatically compensate for supply voltage variations within 10% of the rated voltage such that the frequency of the pump remains constant.
- H. The liquid end shall be physically attached to the drive unit by fasteners which will retain the 'pump head' in place while tube replacement is performed. The cover plate retention screws shall be capable of being worked by hand, without the use of tools to facilitate tube replacement.
- I. The pump head shall contain the roller assembly and the peristaltic pump tube, which are retained by a cover plate. The head and cover plate shall be see-through to allow for tubing inspection.
- J. The liquid end shall contain non-metallic bearings on each side of the rotor assembly to fully support all generated loading.
- K. The roller assembly shall have 3 non-metallic rollers to create pump flow and pressure, and to prevent siphoning or backflow.

2.03 LIQUID END ((SELECT ONE))

The liquid end shall be constructed of PVC with Norprene tubing sized to provide the flow and pressure as described in the product literature.

Or

The liquid end shall be constructed of PVC with acid resistant Fluran tubing sized to provide the flow and pressure as described in the product literature.

2.04 AGENCY LISTINGS

The pump shall be listed either directly or via a third party agency to:

- UL778
- CSA 22.2
- NSF50
- NSF61
- CE
- IP54
- NEMA 3R Enclosure Rating

2.05 ACCESSORIES – Required with Pump

The pump should be assembled on a wall mount or floor mount in Polyethylene, Fiberglass or Stainless Steel material. A single pump manufacturer should be responsible for supplying all components of the metering pump system, including:

- A. A foot valve and strainer constructed of materials compatible with chemical being used shall be provided with each pump.
- B. A ceramic weight capable of holding the suction tubing at the bottom of the chemical tank.
- C. An injector capable of preventing backflow and being installed into either 3/8" NPT or 1/2" NPT female connections.
- D. Twenty feet of 1/4" OD tubing compatible with chemical to be used shall be provided with each pump where applicable.

2.06 APPLICATION

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

END OF SECTION