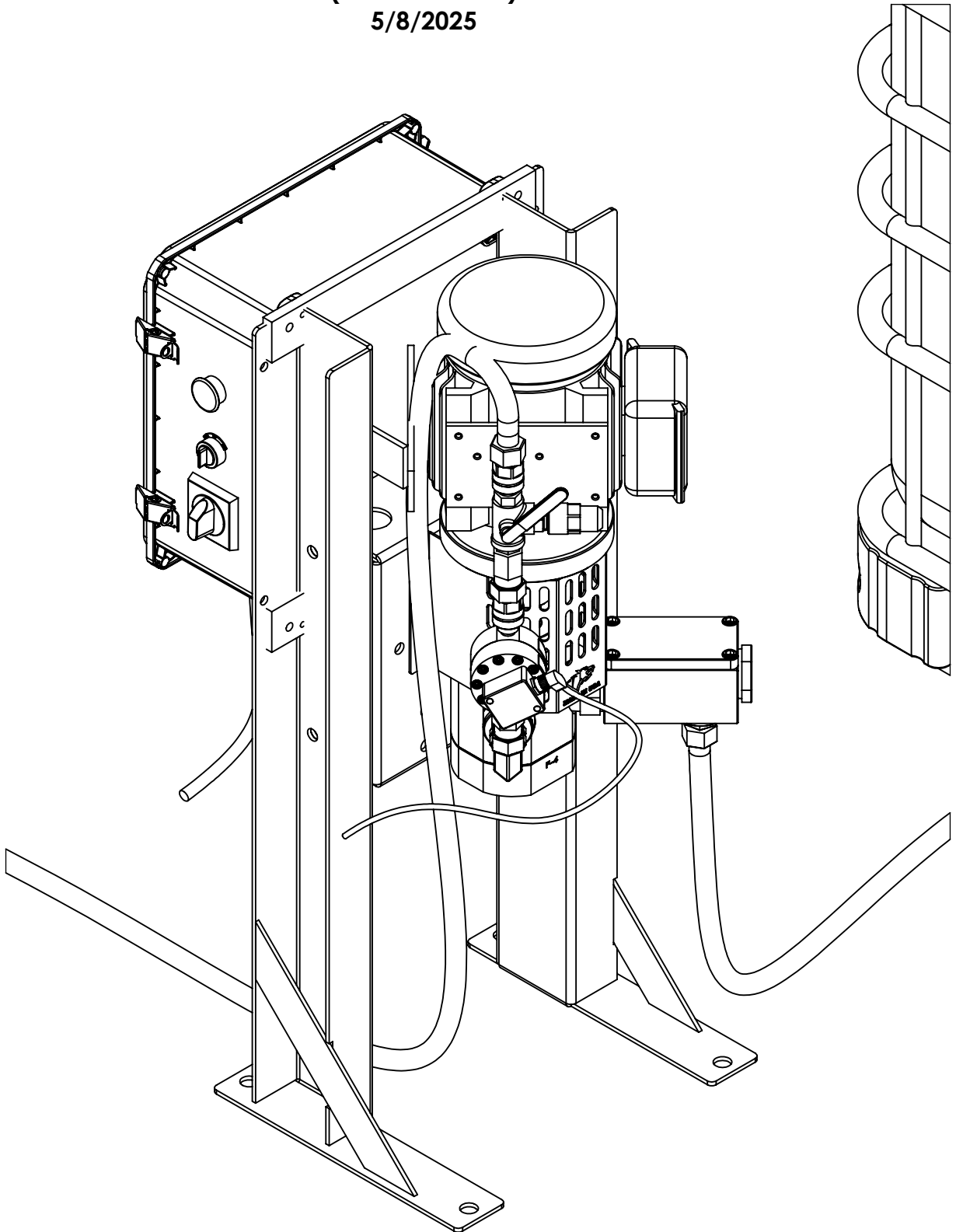


# BearCat Pumps

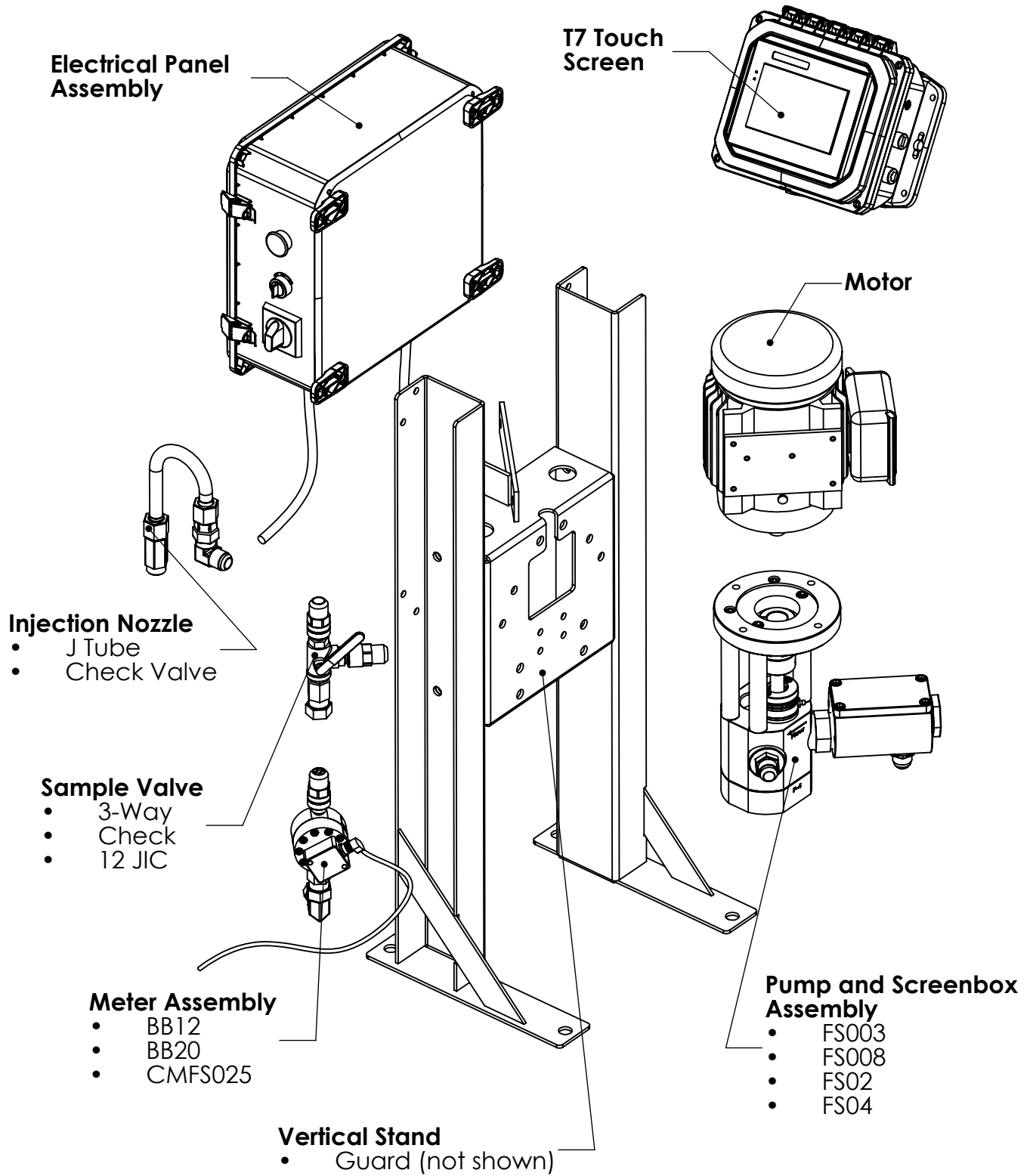
## Vertical Pump, F-Series

(Order Manual)

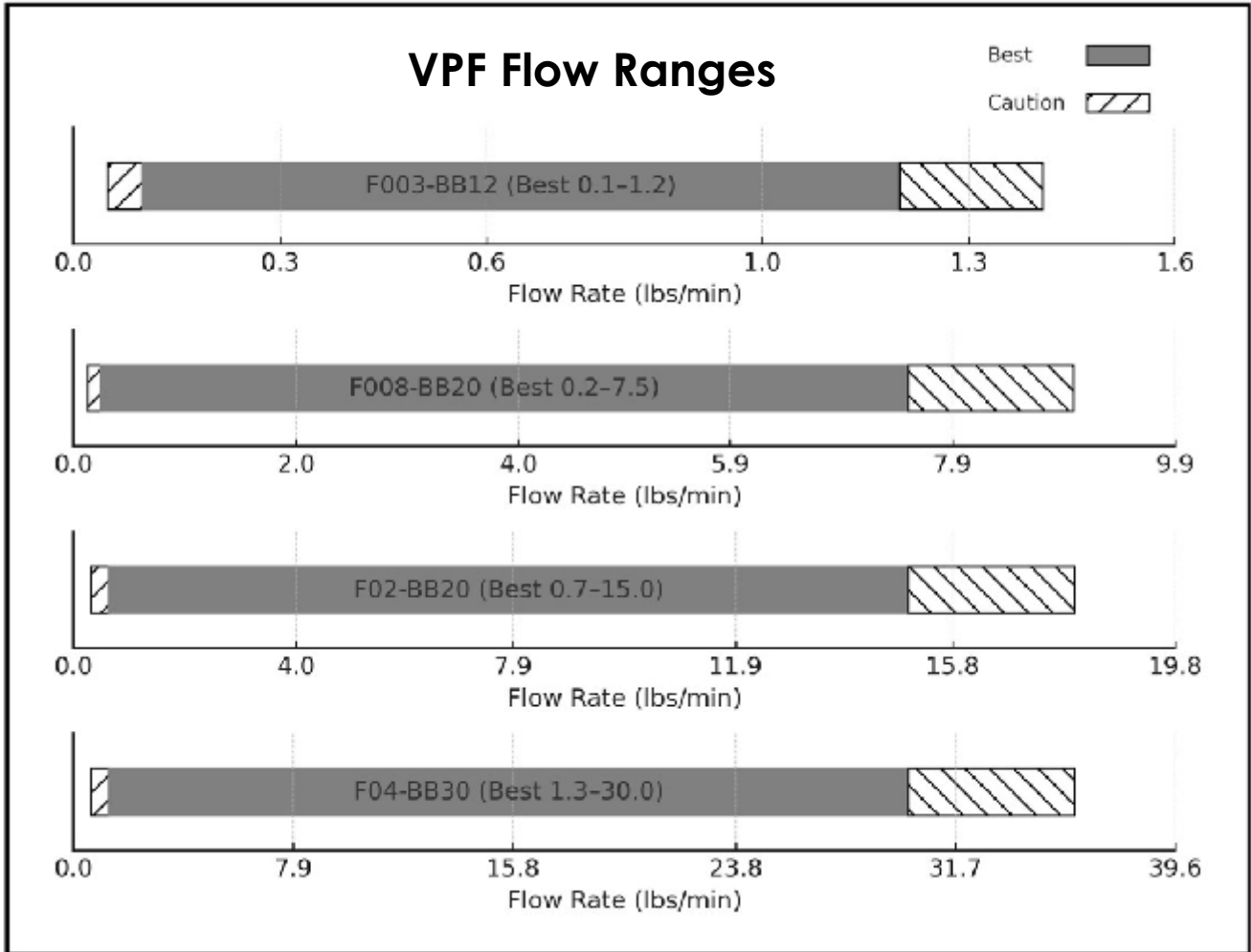
5/8/2025



# System Components



# VPF Flow Ranges



# Order Questionnaire

1. Customer Name: \_\_\_\_\_
2. Contact (Name, Phone) : \_\_\_\_\_
3. Jobsite Address : \_\_\_\_\_
4. Additive Type : \_\_\_\_\_
5. Additive % of AC: \_\_\_\_\_
6. AC Flow (Lbs/min) Min: \_\_\_\_\_ Max: \_\_\_\_\_
7. Hoses; From Tote: \_\_\_\_\_ To Injection: \_\_\_\_\_
8. System Type (circle one); **Terminal - Batch - Drum - Tank Blend**
9. Is onsite assistance with installation required: **Yes No**
10. Integration (circle one): **Standalone - Integrate** into existing automation
11. System Application (in your own words please describe your system):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If Question 10 is “Standalone”, a proposal can be generated with no further info. Requirements:

- 110V 1PH 20A to VFD/PLC
- Dry contact signal (e.g., start/stop or deadman)
- 3-way valve limit switch (batch or drum plant)
- 110V 1PH 15A to HMI
- Ethernet from Panel to HMI

If “Integrate with existing automation”, a call will be scheduled to gather details. Please include someone familiar with your control system.

# Acknowledgement Letter

To ensure your liquid additive pump system is properly specified for your operation, please review and complete the attached questionnaire thoroughly.

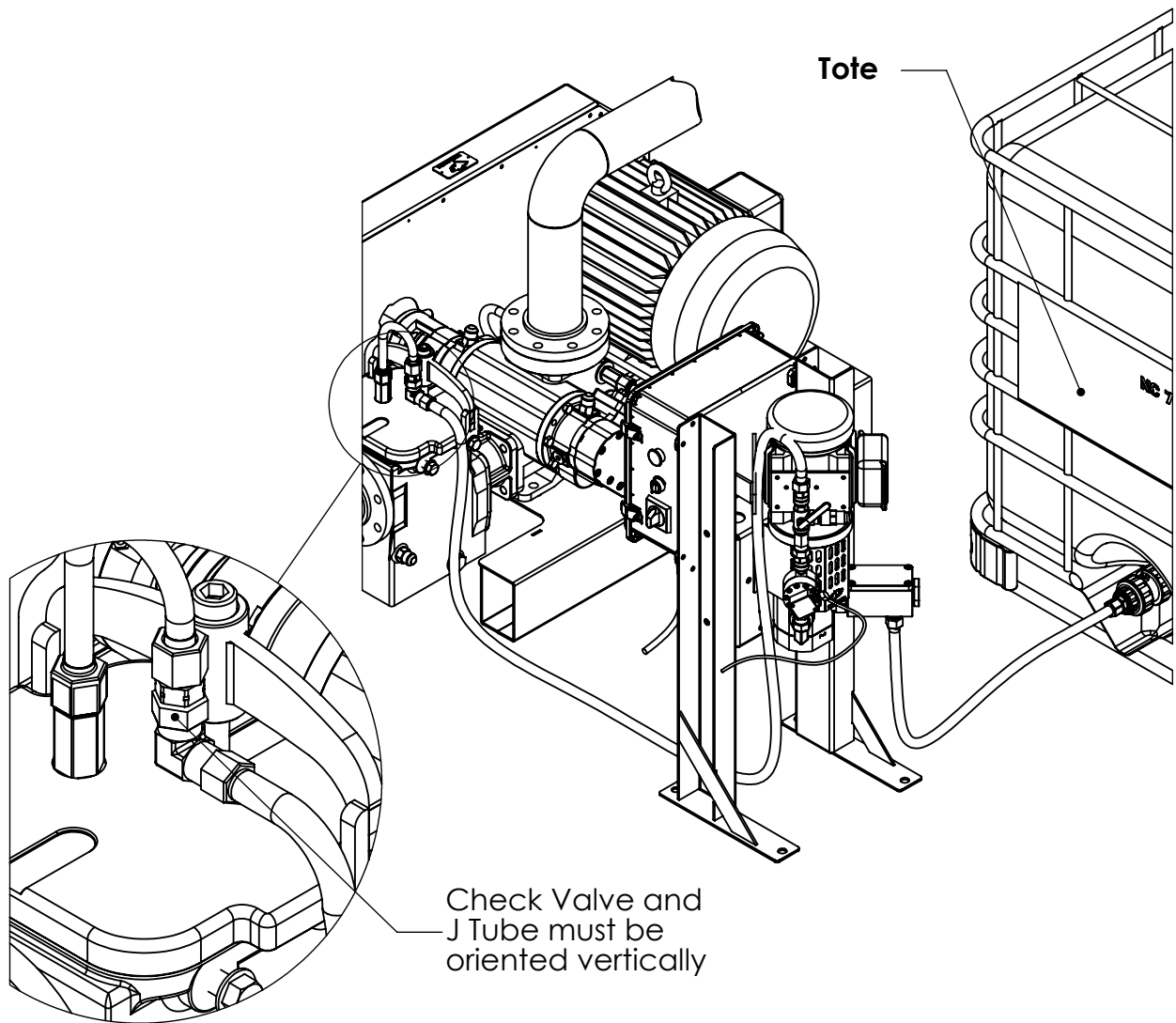
Our team is highly experienced with the system's operation, control integration, and injection configurations. However, because every plant setup is different, it is critical that you provide accurate, site-specific details. This includes understanding how the system will interface with your existing controls and what your facility's electrical and mechanical requirements are.

We also want to highlight that codes and regulations vary by region. While we are familiar with general industry standards, final responsibility for compliance with all applicable local requirements rests with you.

By signing below, you acknowledge your role in providing the necessary information and ensuring compatibility with your facility and regional regulations so we can recommend a system that will serve you effectively.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

# System Set-up



**Injection:** The lid of the screen box is an optimal location for injection. This area is typically free of asphalt, making it a convenient and accessible point for the process.

**Tote Placement:** Position the tote in a readily accessible location to facilitate easy replacement or maintenance.

**Hose:** Utilize stainless steel hoses with JIC swivel ends. This design simplifies field installation and streamlines the flushing process during seasonal shutdowns.

**Pump Positioning:** Ensure control wiring (Ethernet or signal cables) does not exceed a maximum distance of 300 feet.

# Building a Model Number

**FS003 - B12SS - V - S - T7 - A - S**

## Shaft Plate

- FS = Steel
- FA = Aluminum
- RS = Rebuild, Steel

## Displacement

- 003 = 0.003 Gal/Rev
- 008 = 0.008 Gal/Rev
- 02 = 0.02 Gal/Rev
- 04 = 0.04 Gal/Rev

## Meter Assembly

- B12SS = PD, 0.005-0.8 GPM
- B20SS = PD, 0.02-2.0 GPM
- B30SS = PD, 0.1-7.0 GPM
- CMFS025 = MM Coriolis
- Z = No Meter

## Mount Type

- M = Beam Mount
- V = Vertical Stand
- Z = No Mount

## Panel (1HP VFD, 120V-1ph, E-STOP, HOA)

- P = Poly 14x14x8
- S = Steel 15x14x8
- Z = No Panel

## HMI

- T4 = 4in Touch Screen (No Case)
- T7 = 7in Touch Screen, Data Logging, Polycase
- Z = No HMI

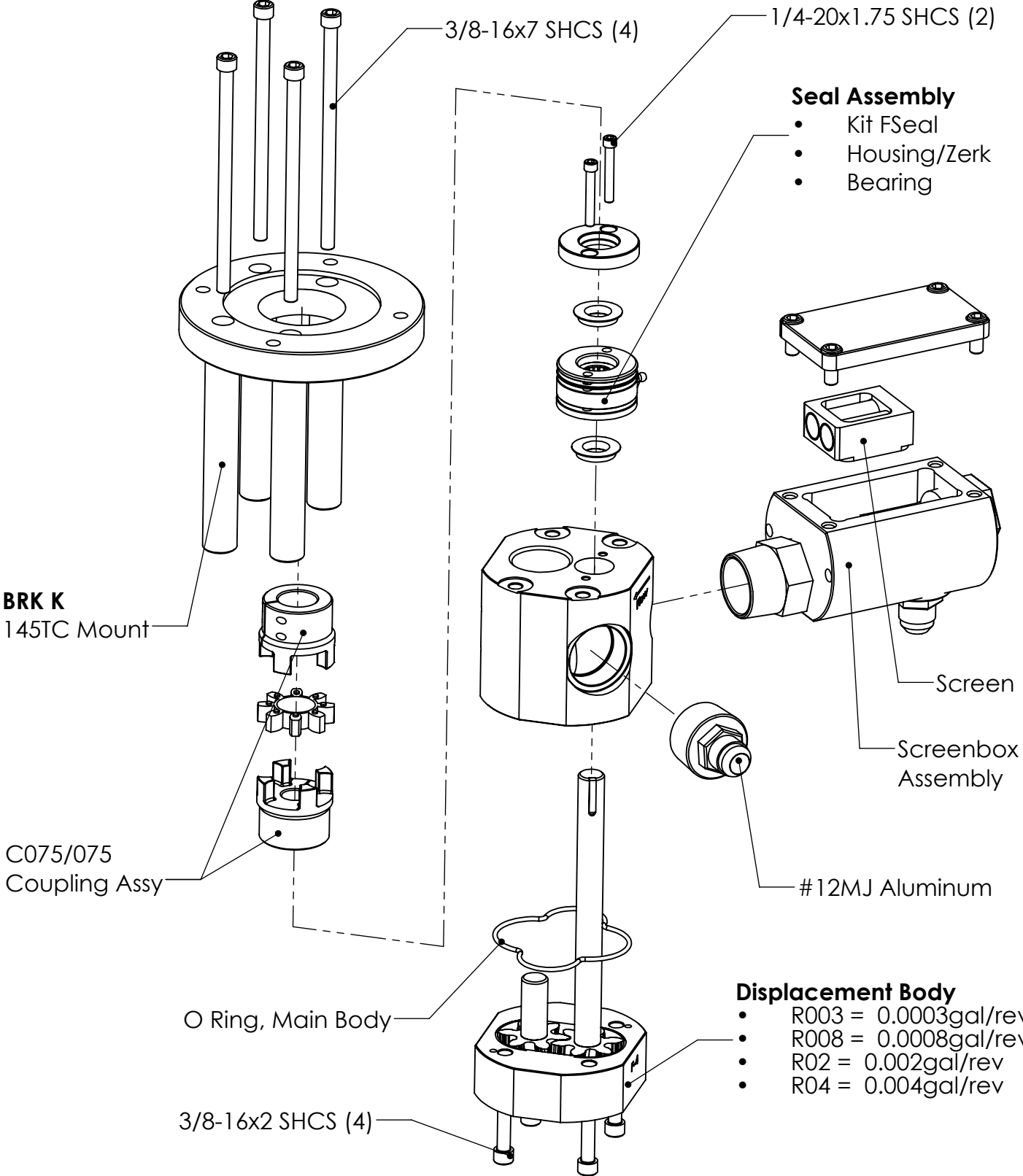
## PLC

- A = PLC w/ 4/2-mA I/O
- Z = No PLC

## Option Items (one or more)

- I = Injection Assembly
- S = Sample Valve Assembly
- Z = NA

# Pump Assembly

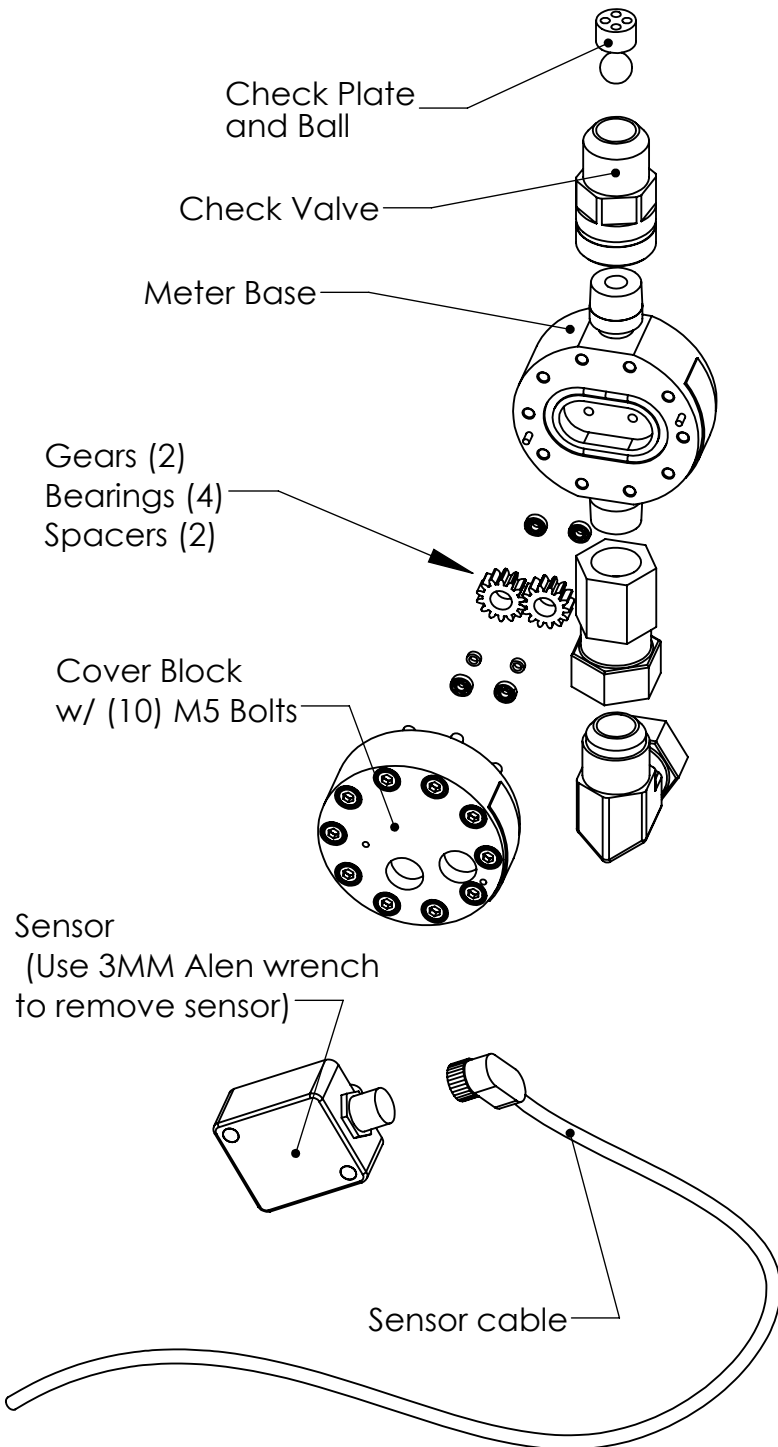




# Meter Assembly

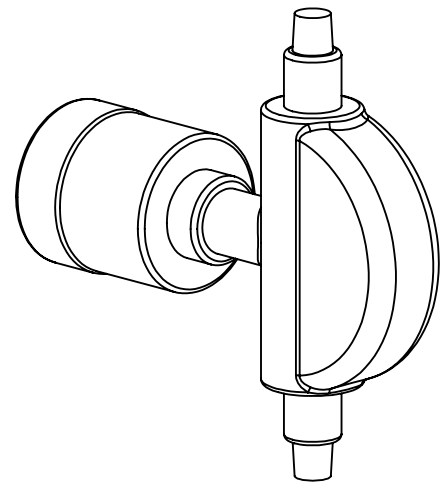
## Meter Assembly

- BB12 (.005-.8gpm)
- BB20 (.02-2.0gpm)
- BB30(.1-7gpm)



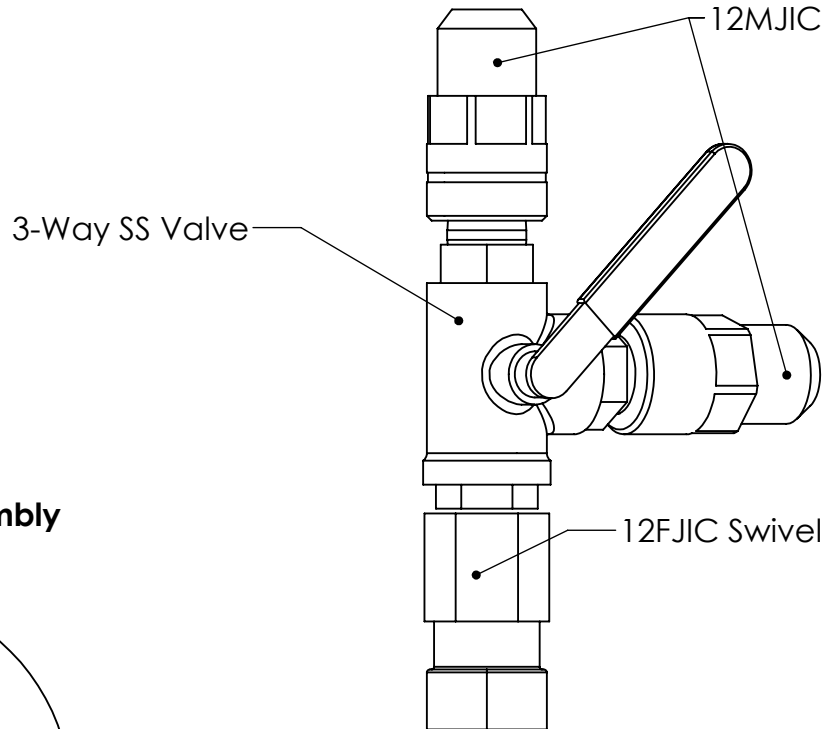
## Coriolis Options

- CMFS025

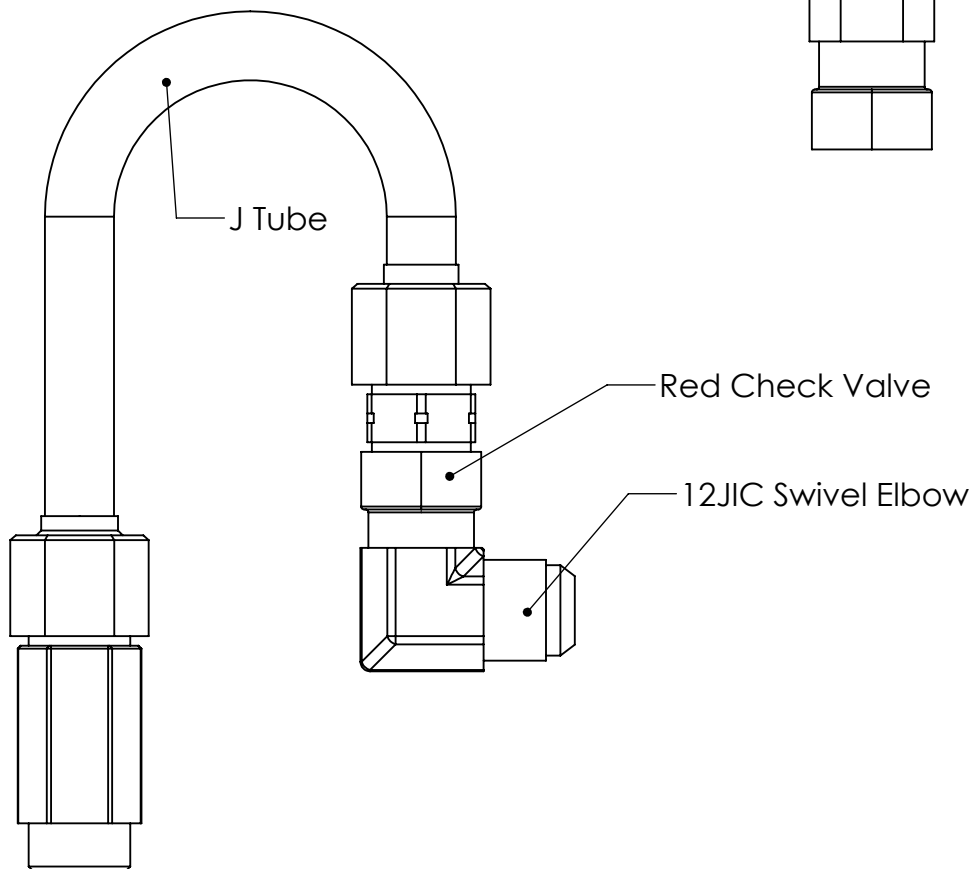


# Accessories

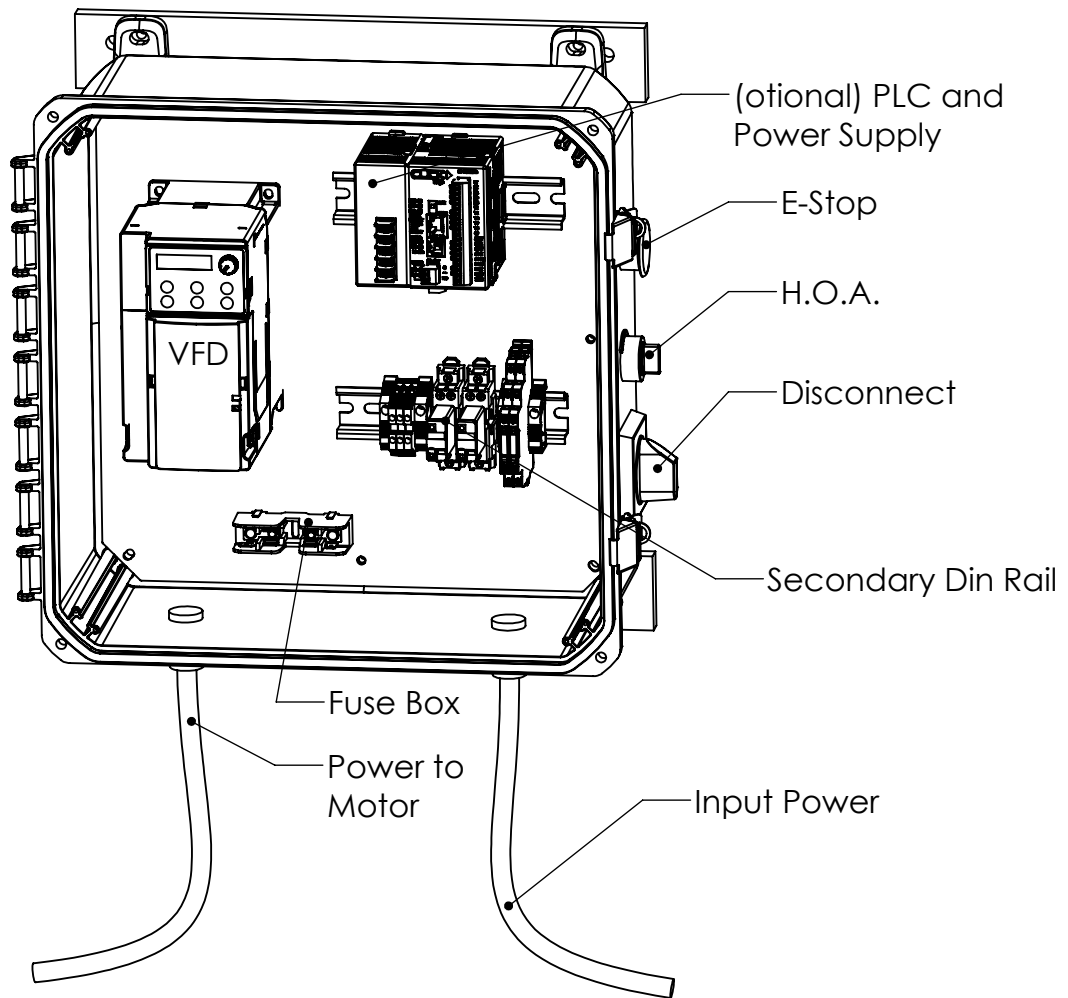
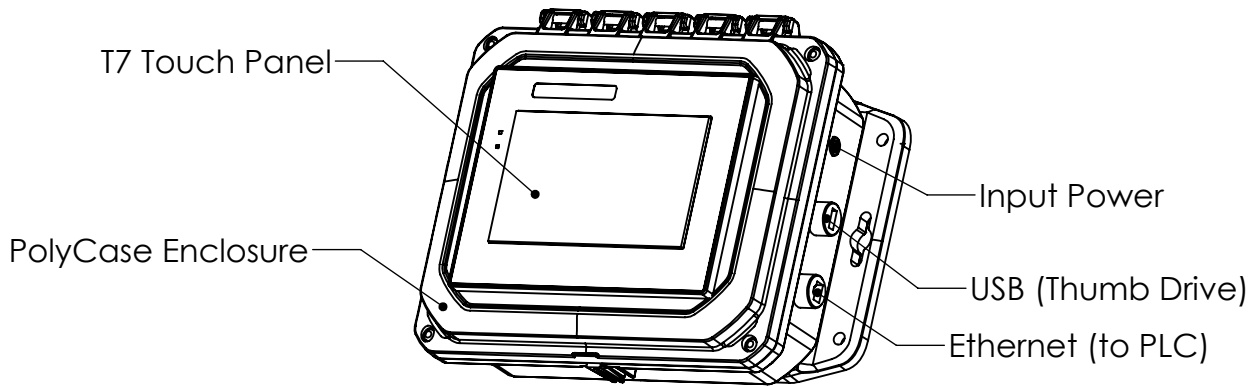
## Sample Valve Assembly



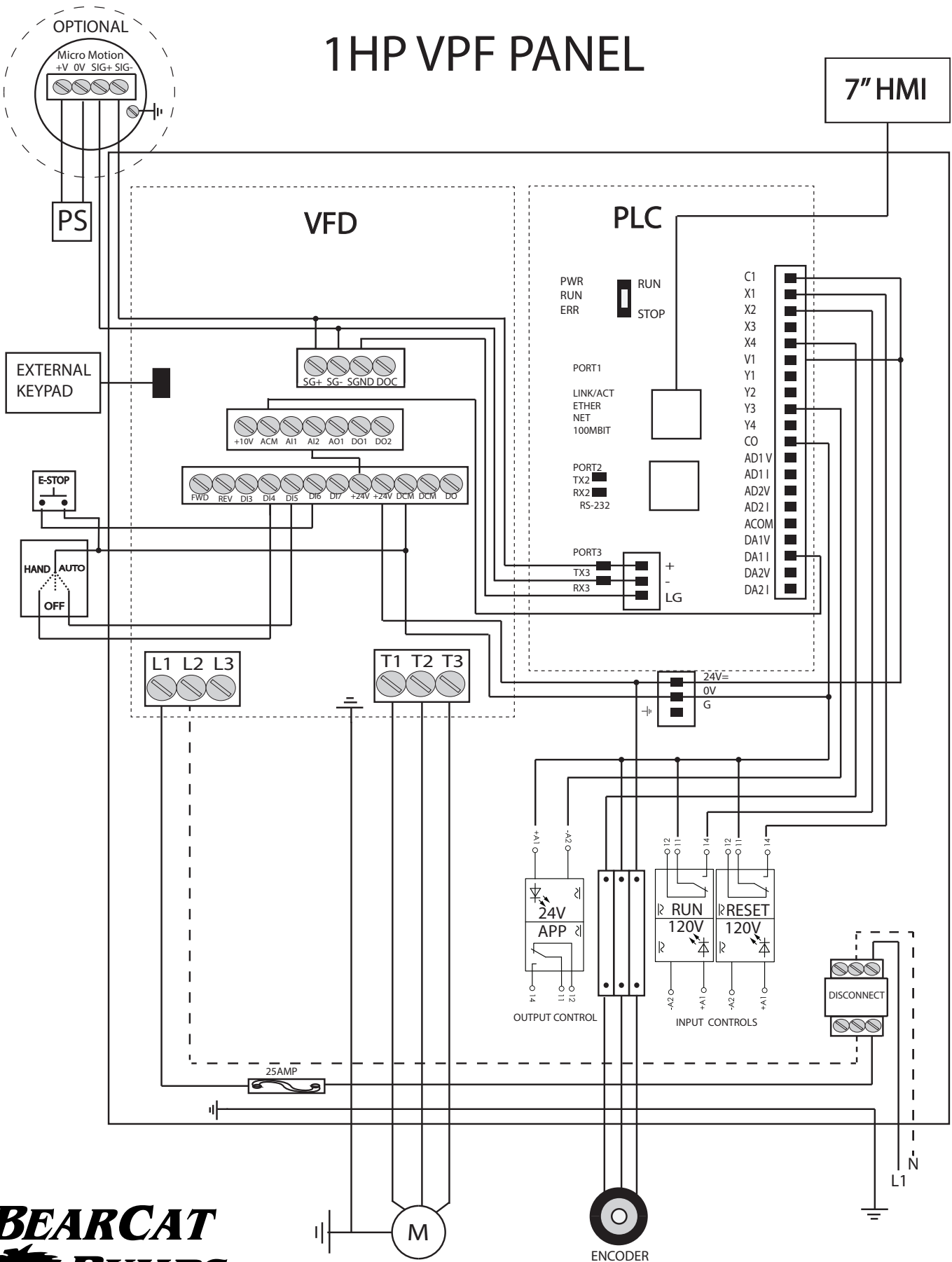
## Injection Nozzle Assembly



# Electrical Panel



# 1HP VPF PANEL

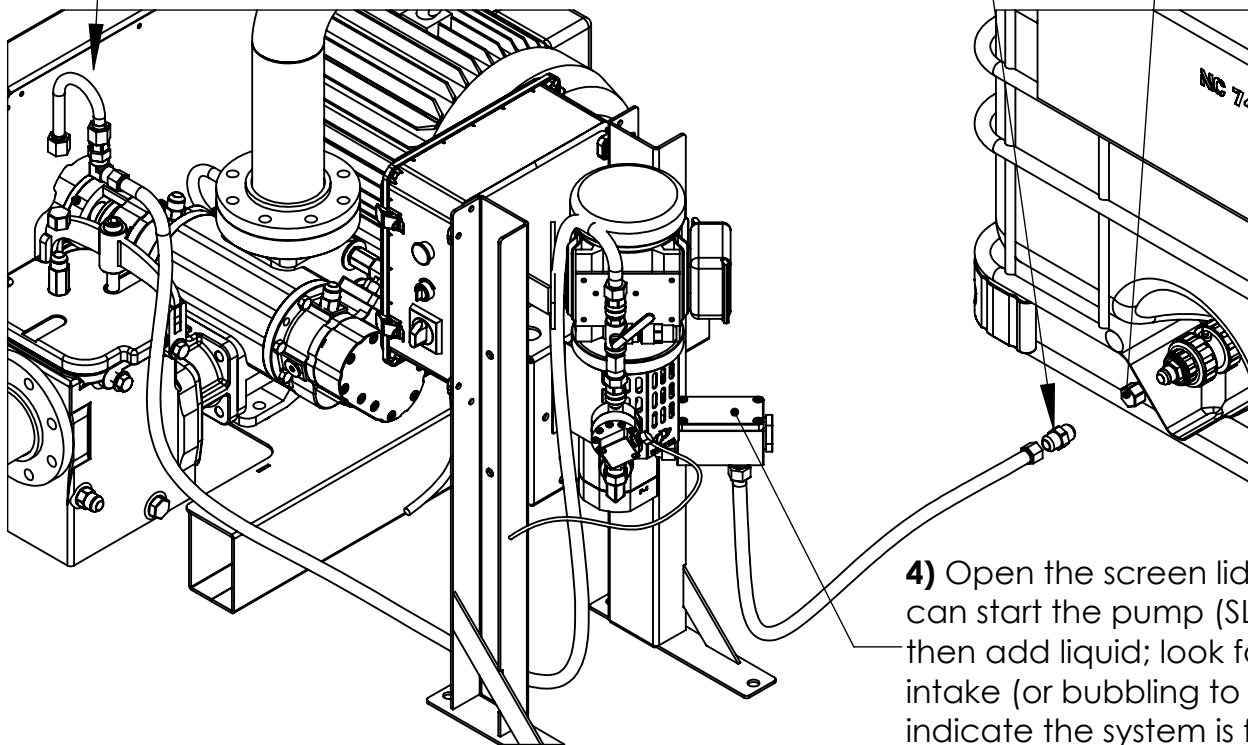


# Flushing Procedure

**1)** Turn the Tote valve OFF. Disconnect the hose and drain. Cap the Tote opening.

**2)** Disconnect J-Tube at the injection port and drain the hose. Cap the opening of the injection port.

**3)** Use a JIC coupler to connect the ends together from the previous steps.



**4)** Open the screen lid. You can start the pump (SLOWLY) then add liquid; look for rising intake (or bubbling to stop) to indicate the system is full

**5)** To flush the system, close the lid and run the pump at a moderate rate (5-10min)

Note: WD-40 is effective for flushing most anti-strips but use cautiously as it may not suit all cases.