PULSAFEEDER®
ENGINEERED PRODUCTS

MPC Start Up Instructions

1. **Get this information from customer**
   - Is water available?
   - Does the system include pressure gauges?
   - What is the expected MPC IO to SCADA configuration?
   - What is the delivery point? Pipeline or open channel?
   - If pipeline, what is the expected process pressure (at the point of delivery)?.
   - If the system has a pressure relief valve, what is the expected setting? Typically 10 psi above the process pressure.
   - If the system has a pressure switch, what is the expected setting? Also, typically 10 psi above the process pressure.

2. **Check the system**
   - Oil in pump?
   - Piped up?
   - IO Wired Correctly?
     - Analog Input
     - Analog Output (optional)
     - Digital Input #1, 2
     - Digital Output #1, 2, 3
   - Calibration column available?

3. **Configure the IO**
   - Analog Input Activated
   - Digital Input #1, Activated (typically “Remote On/Off”)
     - Normally Open or Closed?
   - Digital Input #2, Activated
     - Normally Open or Closed?
   - Digital Output #1, Activated (typically “On/Off ”)
     - Normally Open or Closed?
   - Digital Output #2, Activated (typically “Auto/Man”)
     - Normally Open or Closed?
   - Digital Output #3, Activated (typically “ALM Status ”)
     - Normally Open or Closed?

4. Calibration of Stroke- Potentiometer

a. From the HOME screen press the menu key to get into the Calibration screen
b. The display should show -MENU- CALIBRATION
c. Press both the Menu and Enter keys at the same time to get into the Stroke Sensor Calibration screen.
d. The display should show STROKE SENSOR CALIBRATION
e. Press enter.
f. The display will show SET STROKE 0% PRESS ENTER
g. Turn the large stroke knob on the pump to the 0% position, then press the Enter key on the keypad.
h. The display will show "calibrating…" for a few seconds
i. The display will then show SET STROKE 25% PRESS ENTER
j. Turn the large stroke knob on the pump to the 25% position, then press the Enter key on the keypad.
k. The display will then show SET STROKE 75% PRESS ENTER
l. Turn the large stroke knob on the pump to the 75% position, then press the Enter key on the keypad.
m. The display will then show SET STROKE 100% PRESS ENTER
n. Turn the large stroke knob on the pump to the 100% position, then press the Enter key on the keypad.
o. The display will then show SET STROKE CALIBRATION
p. Press menu to return to the Calibration screen on the display.

5. Calibrate Pump Flow

Make note of pump flow on pump tag
Select Calibration
Select Pump Flow
Follow MPC prompts;
Set Stroke to 50%
Input 50% of rated flow
Set Stroke to 100%
Input 100% of rated flow
You will perform volume calibration with water or chemical later.

6. If system has pulsation dampeners, make sure lines are empty! Pressurize pulsation dampeners with air with 75% of expected process pressure.

7. **Fill the process lines with water. Run pump with water to fill lines. Adjust back pressure valve to a value between 15 to 30 psi. Run pump for 15 minutes.**

8. **Adjust pressure relief valve, typically 10 psi greater than expected process pressure. If possible I close the valve located downstream and adjust the pressure relief valve. Be sure to not run the pump with the valve closed for very long.**

9. **If system includes a pressure switch, follow the same procedure as above. Also typically 10 psi greater than expected process pressure.**

10. **Calibrate Pump Flow**
    - Select Calibration
    - Select Pump Volume
    - Fill Calibration column
    - Follow MPC prompts;
        - Set Stroke to 50%
        - Pump will start automatically, after approximately 30 to 60 seconds press “Enter” to stop.
        - Input the volume of water delivered at 50% stroke.
        - Set Stroke to 100%
        - Fill Calibration column
        - Pump will start automatically, after approximately 30 to 60 seconds press “Enter” to stop.
        - Input 100% of rated flow.
    - Pump flow is complete.