Quick Start Guide for Acid Injection with NanoP and Flex Flow Pump

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Installation

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The FlexFlow Pump is prewired for easy installation. Select a secure horizontal surface that is convenient to the electrical and plumbing connections that is accessible by the operator. Do not install pump in a location where the ambient temperature exceeds 120°F (50°C).

The pump is suitable for most outdoor installations, shielding from direct exposure to the elements is recommended. The properties of the solutions to be metered should also be considered concerning temperature changes and effects to the poly tubing.

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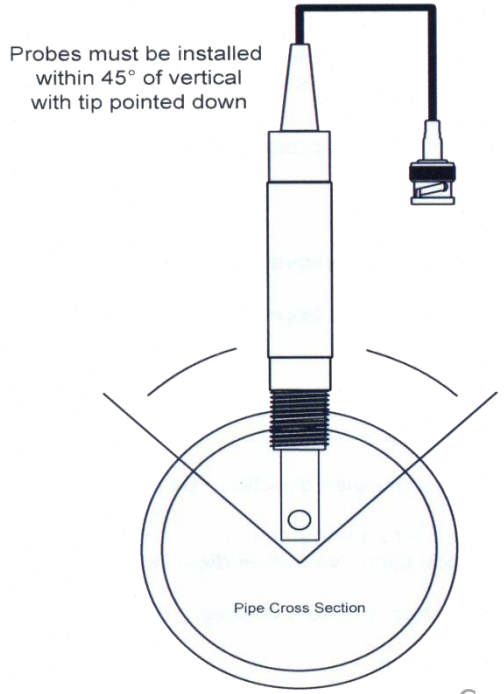
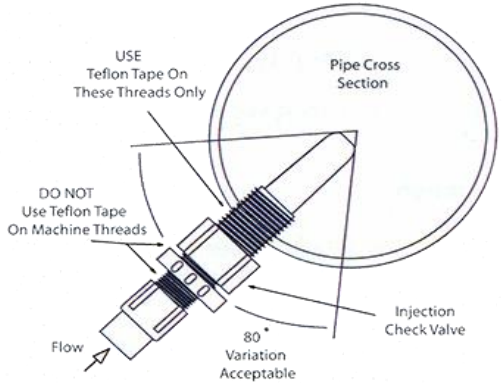
pH Probe



Injection Valve



NOTE: **When installation is made into a line with zero pressure or when pumping into an open vessel, use our three-function valve to prevent syphoning.**

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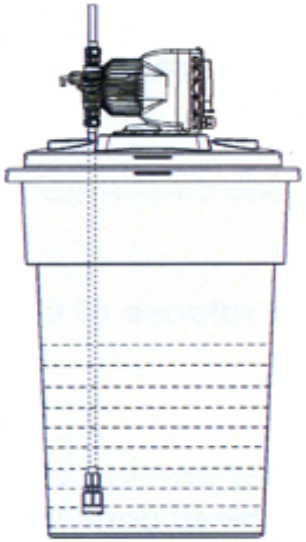
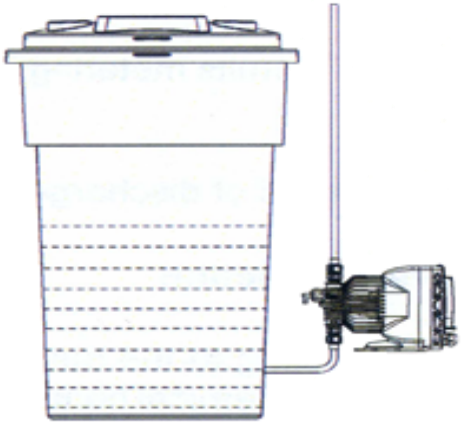
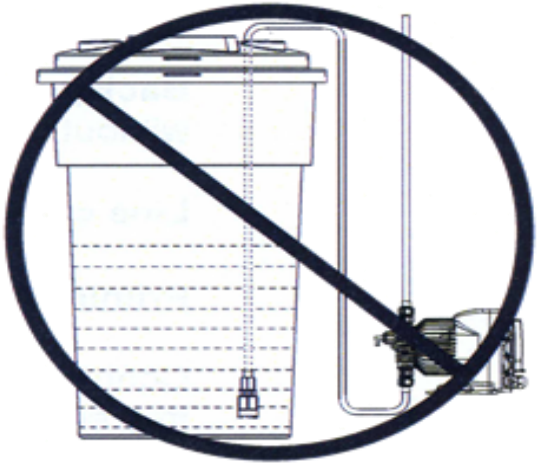
Suction lift



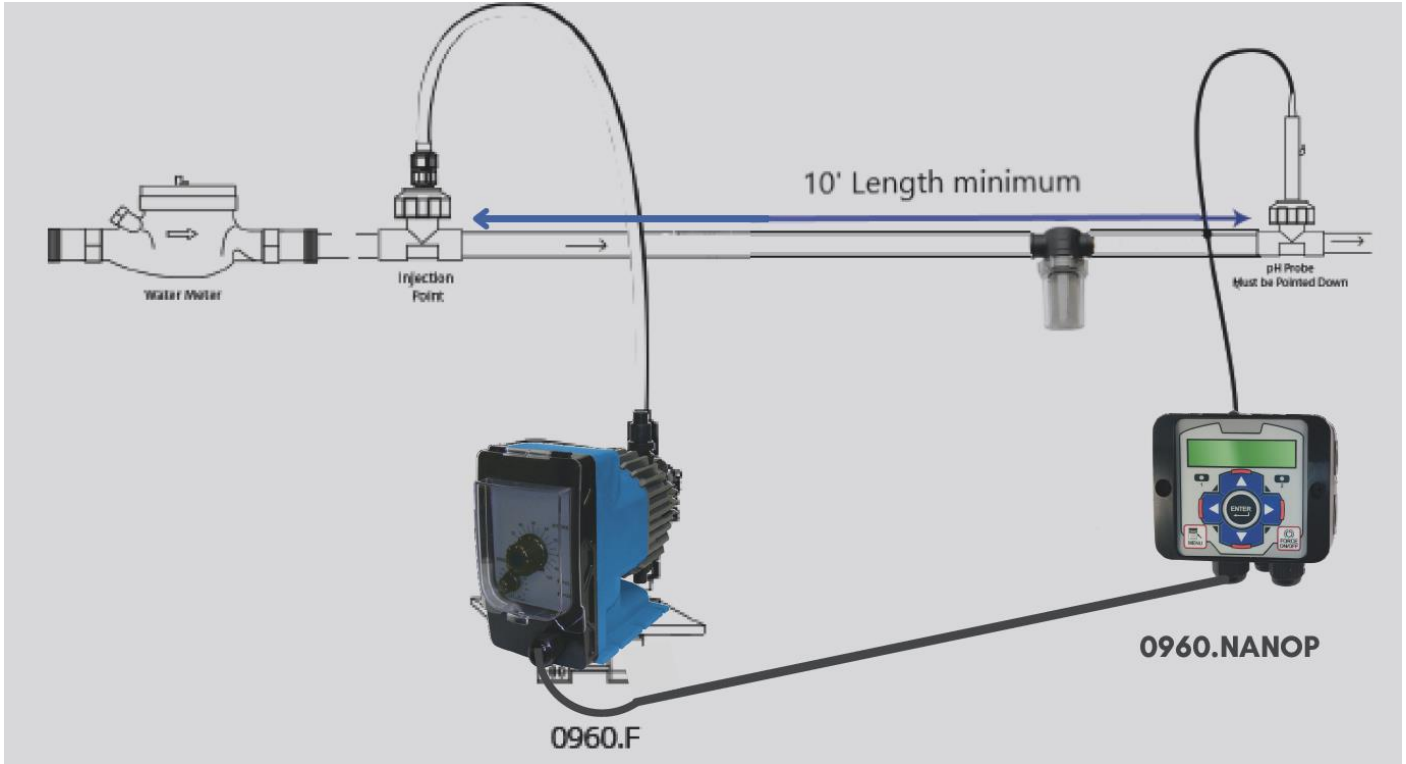
Flooded Suction



Not recommended



Installation



Setup/Programming NANO-P

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Relay on/off indicator LEDs

Directional Arrows

Enter Button

Menu Button

Force Relays on/off

Setup/Programming NANO-P

Ph Probe

Pulse Output

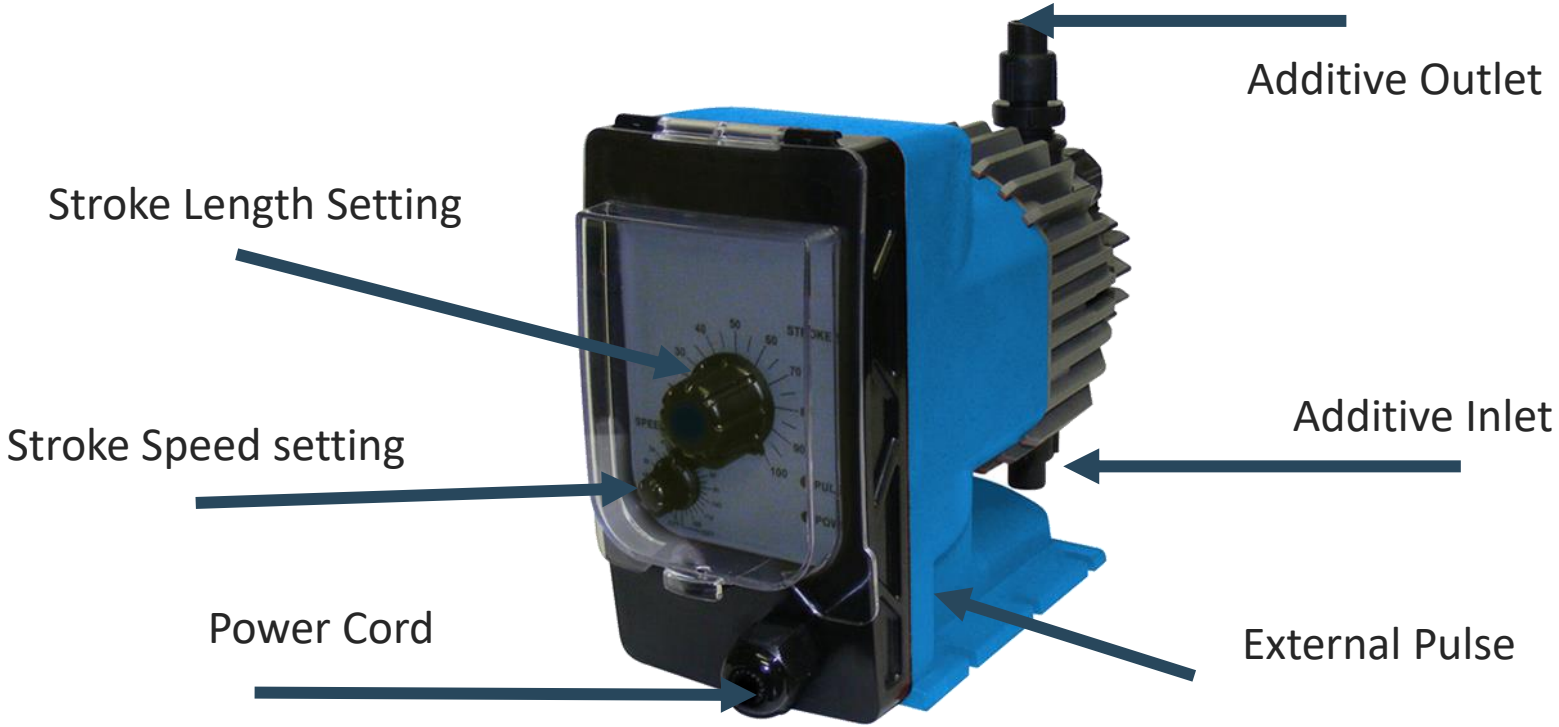
Green Ground
Wire for Probe

Relay 1 pH output

Power Cord

Relay 2 Output

Setup/Programming 0960.F



Setup

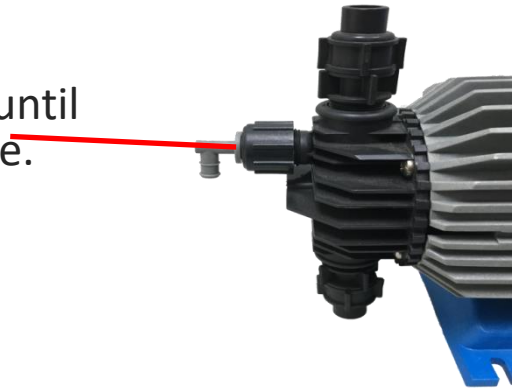
Priming – Plug in pump to relay 2 output on NANO-P. Manually turn the relay output on by pressing the force output on button on NANO-P and set stroke knob to 100%

(To avoid damage to the pump, this adjustment should only be made while pump is running at a high stroking rate.)

If fluid begins moving up suction line while pump is operating

No further priming is required.

If fluid is not moving, open bleed valve approximately 1 turn until fluid begins to move. When suction line fills, close bleed valve.



Do not over tighten bleed valve. Damage may occur

Setup – NANO-P Control Mode

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Manual – The Manual control mode will stroke the pump at a user defined rate. From 0-125 strokes per minute. Click here for programming

Relay 2 Set – The Relay 2 should be set as a utility timer from the factory. If the Relay is not set as a utility timer, then the unit will shut off. If you need to set Relay 2 to utility, follow these instructions.

mA Output – This feature can be used with EasyDose systems to output a mA output. More can be learned about this mode in the instruction sheet.

Pulse Output – This is how the 0960.F will be controlled by the NANO-P controller. Click here for programming

Calibration – The calibration should be set from the factory, but periodically, the unit should be calibrated. Calibration can be done by using single point or two-point calibration. Click here for calibration

Programming – Manual

1. Control Mode Manual – Ensure Relay 2 LED is green.
2. Manually Adjust Strokes Speed knob to desired setting.
3. Manually Adjust Stroke length to desired setting while the pump is running.
4. Pump will run as long as the controller has power.

* - (125 Strokes Max)

This function uses the External Stop wire to start and stop the pump. The External Stop wire can be wired to most types of switches. (Pressure, Flow, Toggle…)

Programming – Relay 2 Set

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1. Press the menu button to enter programming
2. Press the down arrow twice.
3. Press the enter button once on Relay 2 Set
4. On Mode, press the enter button, select Timer.
5. Press the down arrow, then press the enter button and scroll to Utility. Press enter on Utility.
6. Pump will show timer turned ON and Green LED above the relay output 2 on the front of the unit.

Programming – Pulse Output

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1. Press the Menu button
2. Scroll down to Pulse Output. Hit enter.
3. Set the low rate below your desired pH. Hit the enter button and change the values. Press enter to accept.
4. Press the down arrow. Set the high rate above what the normal pH of your water is. Press the enter button and change the values. Press enter to accept.
5. Press the down arrow. Set the hi/minute stroke rate. Default setting is 125 strokes per minute. This is the maximum setting of the pump as well. Do not set the pulses higher than 125. Press enter to accept.
6. Press Menu twice, the unit should show the current pH.

Setup - Calibration

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All Flex Flow pumps are factory calibrated. The reading should be verified for accuracy and adjusted as per the instruction.

One Point Calibration – Units can be one point calibrated by leaving the cleaned probe, on-line sensing in a known pH or ORP fluid* then entering that value in the calibration screen.

See instruction manual for more calibration options.

Warning:

Do not allow probe to become dry! Damage will occur and a new probe may be needed. Probes typically last 6-18 months depending on installation and care

Maintenance

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Cleaning the pH Probe

1. Disconnect probe leads from the pump
2. Remove probe from pipe
3. Inspect the end of the probe for build up and contaminates
4. Use a spray cleaner (409) on the end of the probe. Let it soak
5. DO NOT WIPE THE END OFF THE END OF THE PROBE! This can damage the membrane of the probe!
6. Recalibrate
7. Re-install into the system.

- A well maintained pH probe should last 12-16 months.

Questions

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