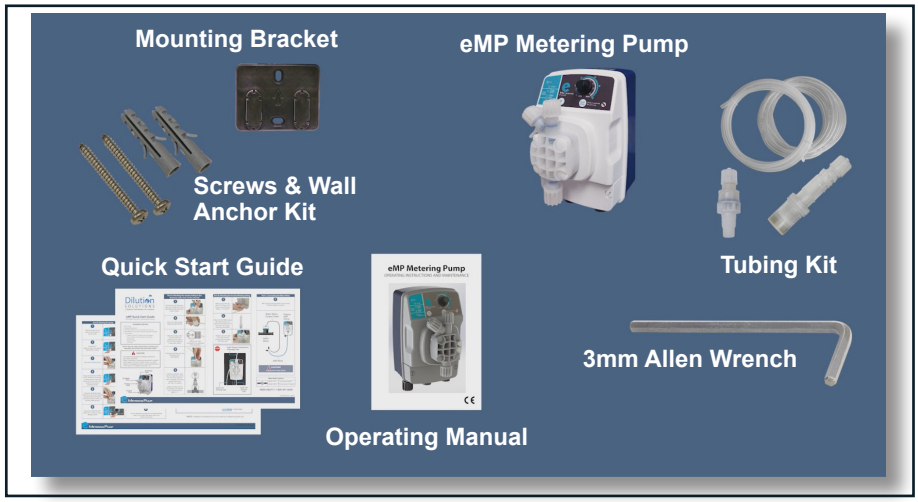
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

How to installl the **eMP** pump, and run through its initial operation. It's best to install the **eMP** in a clean area, make sure to cover the chemical bucket so you don't lose any parts.

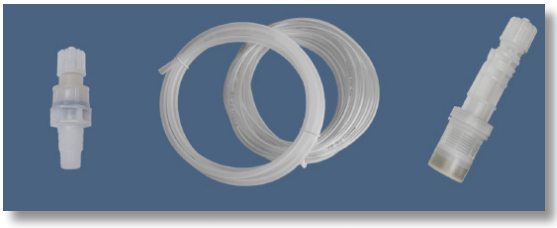


The Etatron **eMP box** includes:

1 - **eMP Metering Pump**
1 - Mounting Bracket
1 - Screw & Wall Anchor Kit
1 - Tubing Kit
1 - Quick Start Guide
1 - Operating Manual
1 - 3mm Allen Wrench

The **Tubing Kit** includes:

1 - Injection valve (for 3/8 inch or 1/2 inch connection)
1 - Foot filter
1 - 6 ½ feet of rigid polyethylene discharge tubing
1 - 6 ½ feet of clear, flexible PVC suction tubing
1 - 6 ½ feet of clear, flexible, PVC bleed-off tubing.

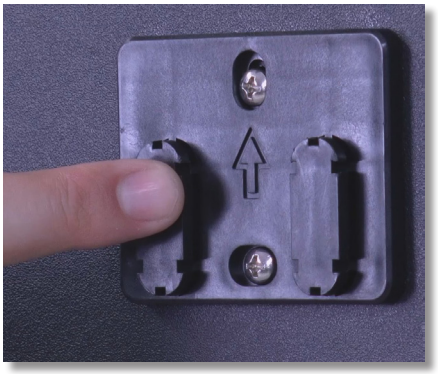


Tubing Kit
Part #: SCO0132021

NOTE: You will also need PTFE seal tape, diagonal cutters or pliers, and a small towel. None of which are included in the eMP Metering Pump box.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions



Step 1: To begin, attach the mounting bracket to the wall. You can either use the screw & wall anchor kit, or your own hardware.

Make sure the arrow on the bracket is pointed in the up direction.

Step 2: Do not plug the **eMP Metering Pump** into a power supply until installation is complete.

Step 3: Slide the eMP onto the mounting bracket.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

DISCHARGE VALVE

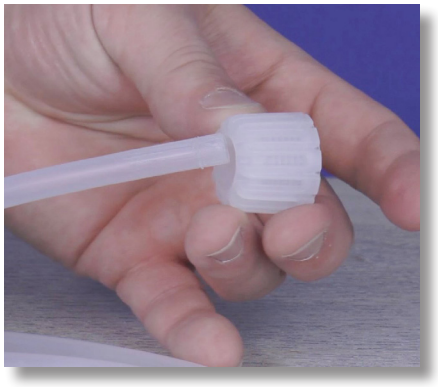
Step 4: Locate the discharge valve at the top of the pump head. Remove the discharge valve tube nut, collar, and nozzle. Set all three aside.

Step 5: Make sure not to lose the blue o-ring underneath the tube nozzle and sitting on the discharge valve.

Step 6: Open the tubing kit and take out the rigid polyethylene discharge tubing.

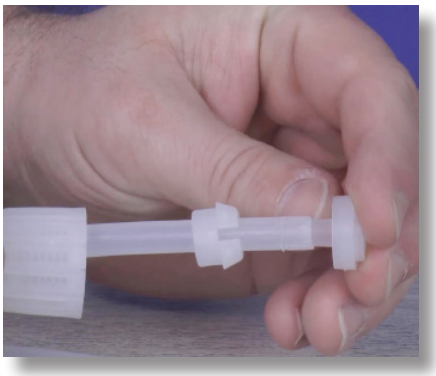
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions



Step 7: Slide one end of the rigid polyethylene discharge tubing through the outside opening of the tube nut.

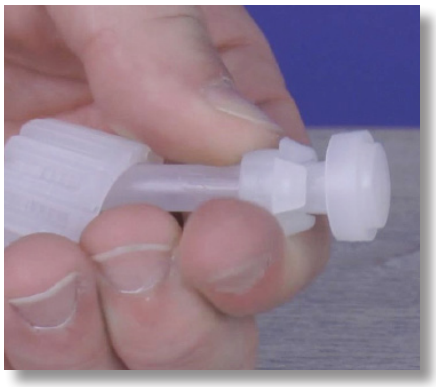
Step 8: Slide the collar onto the tube, and make sure the collar's crown is pointing away from the tube nut.



Step 9: Grab the nozzle and insert the pointed end into the opening of the same tube.

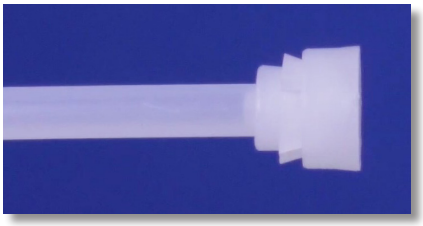
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions



Step 10: Push the collar and nozzle together as close as possible.

Step 11: Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



Step 12: Attach the tube, and tube connections onto the discharge valve by hand tightening the tube nut. Do not cross thread nor overtighten.

NOTE: If the tube nut is not securing, re-check the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

INJECTION VALVE

Step 13: Take the injection valve out of the tubing kit bag.

Step 14: Remove the tube nut, collar, and nozzle. Set these items aside and make sure not to lose them.

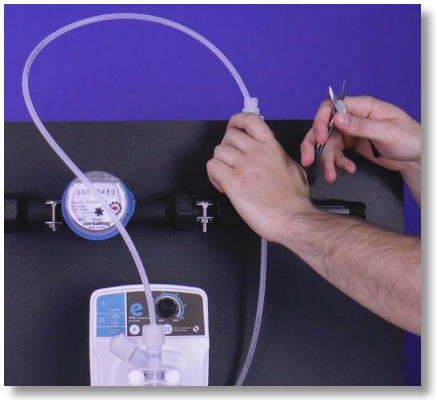
Step 15: Wrap thread seal tape around the threads of the injection valve for the necessary size; either 3/8 or 1/2 inch.

NOTE: For blue or pink seal tape wrap 3 - 4 times around, for white seal tape wrap 5 - 6 times around.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

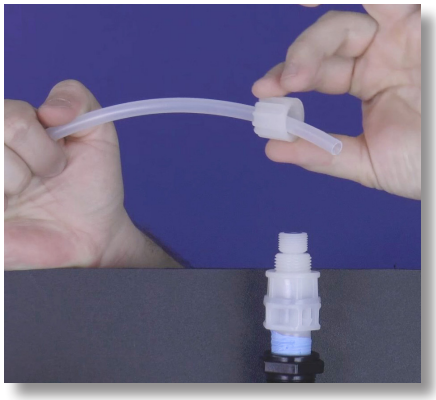
eMP - Metering Pump Installation Instructions

Step 16: Install and hand tighten the injection valve into the installation saddle or tee in the supply line. Do not overtighten.



Step 17: Grab the rigid polyethylene discharge tube connected to the discharge valve. Using diagonal pliers or cutters, cut the tube so that it runs comfortably from the discharge valve to the injection valve.

If the tubing is too snug, the tubing connection will come loose and produce a leak.



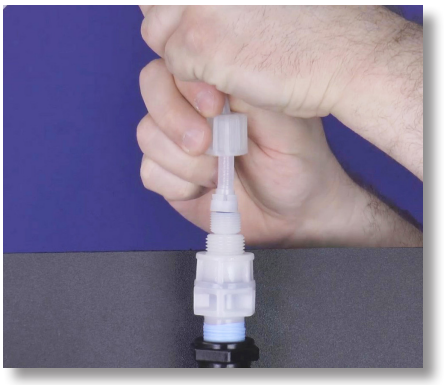
Step 18: Re-attach the tube connections onto the loose end of the connected discharge tubing. Be mindful of their orientation for the tubing connections.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

Step 19: Push the collar and nozzle together as close as possible.

Pull the tube nut toward the nozzle to compress the collar and nozzle tight together forming a ferrule connection.



Step 20: Attach the tube, and tube connections onto the injection valve by hand tightening the tube nut. Do not cross thread nor overtighten.

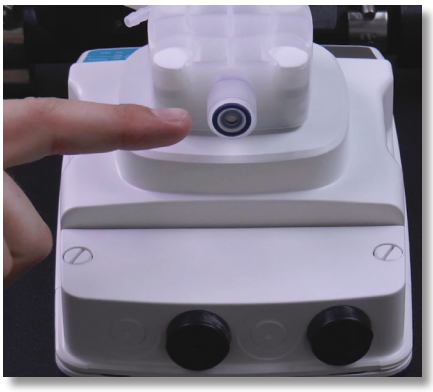
NOTE: If the tube nut is not securing, re-check the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.

SUCTION VALVE

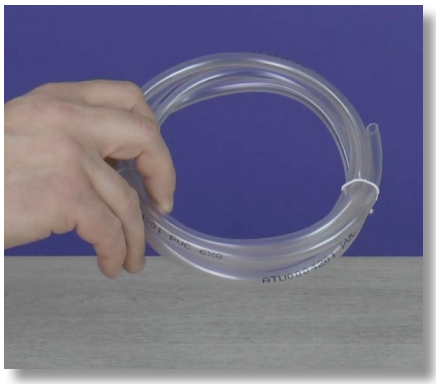
Step 21: To set up the suction tubing, locate the suction valve at the bottom of the pump head, and remove the tube nut, collar, and nozzle. Set these items aside.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

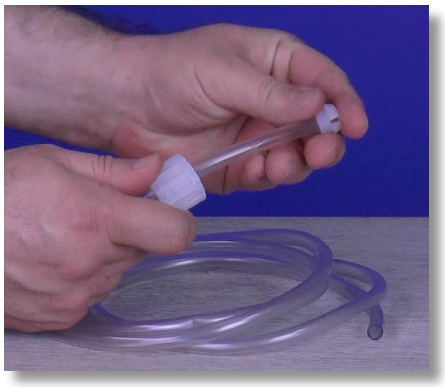
eMP - Metering Pump Installation Instructions



Step 22: Make sure you don't lose the blue o-ring above the tube nozzle sitting in the suction valve.



Step 23: Remove the clear, flexible PVC tubing from the tubing kit.

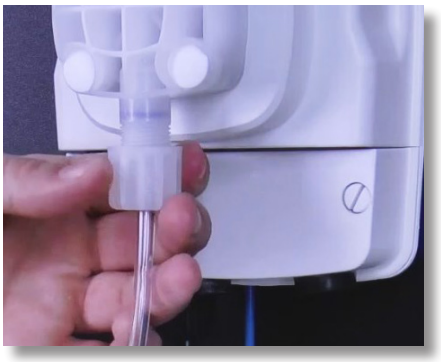


Step 24: Attach the tubing connections onto the loose end of the PVC tube, be mindful of their orientation.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

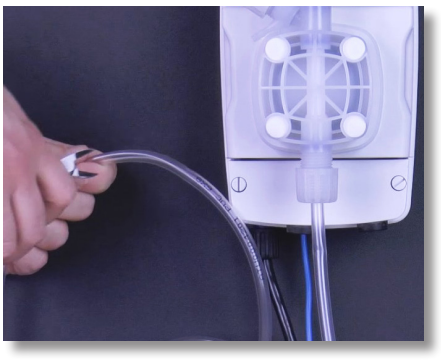
eMP - Metering Pump Installation Instructions

Step 25: Push the collar and nozzle together as close as possible. Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



Step 26: Attach the tube, and tube connections onto the suction valve by hand tightening the tube nut. Do not cross thread nor overtighten.

NOTE: If the tube nut is not securing, re-check the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.

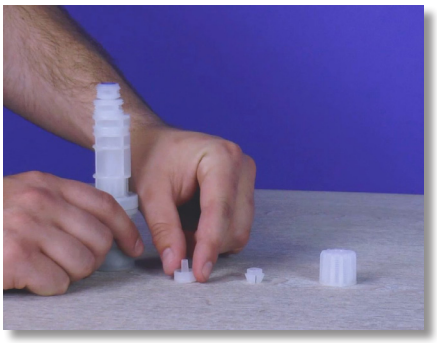


FOOT FILTER

Step 27: To connect the foot filter, cut the PVC suction tubing attached to the suction valve, so that the foot filter will comfortably sit in the chemical bucket in a vertical position.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions



Step 28: Grab the foot filter from the tubing kit and remove its tube nut, collar, and nozzle. Set everything else aside.

Step 29: Shake the foot filter back and forth. You should hear a ceramic ball moving freely inside.

Step 30: If not, separate the foot filter into three (3) pieces by popping the filter basket from the filter body.

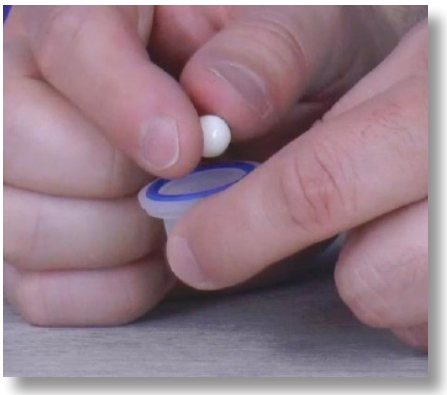
The filter seat may stick to the filter body. Make sure it rests in the filter basket instead, to avoid losing the ceramic ball.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

Step 31: Pull the filter seat out of the filter basket and set the filter basket aside.

Step 32: Pour the ceramic ball out of the filter seat and into your hand and use the small towel to wipe the ceramic ball clean. Do not misplace it.



Step 33: Put the ceramic ball back into the filter seat.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

Step 34: Place the filter seat back into the filter basket.

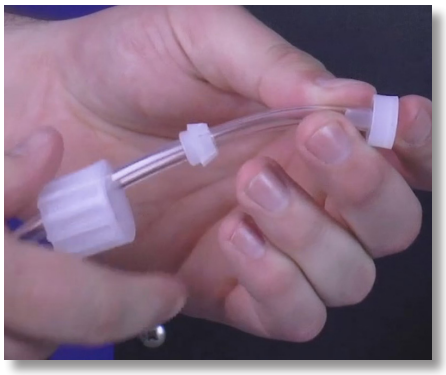
Step 35: Insert the filter basket into the filter body and forcefully pop them together. This may take a couple of tries, please be sure not to misplace the ceramic ball.

NOTE: Pull on the two sections to make sure they are securely connected.

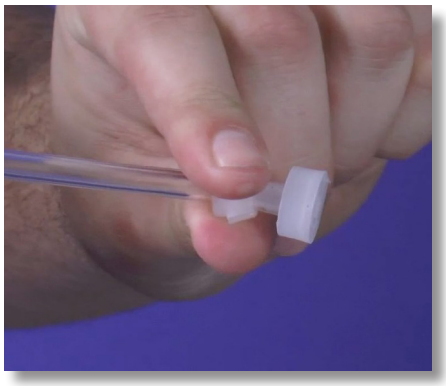
Step 36: Shake the foot filter back and forth once more, verifying the ceramic ball is moving freely. Set the foot filter aside.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions



Step 37: Grab the PVC suction tubing hanging down from the suction valve; and attach the tube connections onto the loose end of the PVC suction tubing. Be mindfull of the orientation for the tubing connections.



Step 38: Push the collar and nozzle together as close as possible.

Step 39: Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

Step 40: Grab the foot filter and re-attach the tube and tube connections onto the foot filter by hand tighten the tube nut. Do not cross thread nor overtighten.

NOTE: If the tube nut is not securing, re-check the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut until secure.

Step 41: Place the foot filter into the bucket or stock tank. This ensures the foot filter draws chemistry once you begin operation.

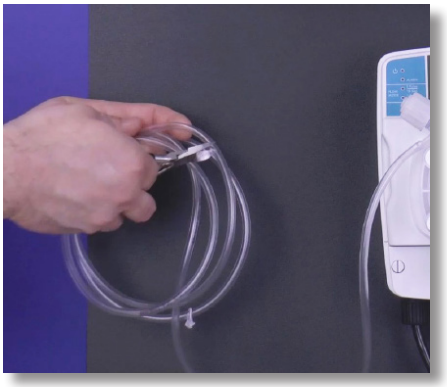
AIR BLEED BARB

Step 42: Take the smaller remaining PVC tubing out of the tubing kit.

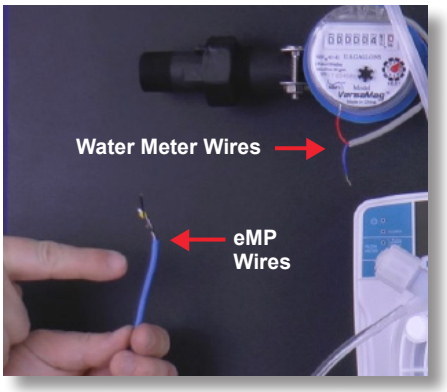
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

Step 43: Locate the manual air bleed barb on the upper left section of the pump's head and slide one end of the PVC tubing over the barb.

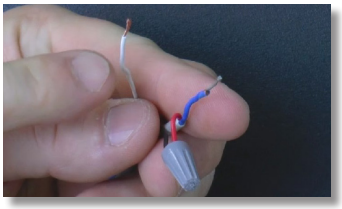


Step 44: Using the diagonal pliers, cut the tube so that it is long enough for the chemical bleed off to go into the bucket or stock tank.



INITIAL SETUP AND PRIMING

Step 45: Locate the **eMP Metering Pump** lead wires as well as the water meter lead wires, and connect the two sets of wires together.



NOTE: Polarity typically does not matter, but if it does, the white wire of the **eMP** is positive. Use wire nuts if necessary.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

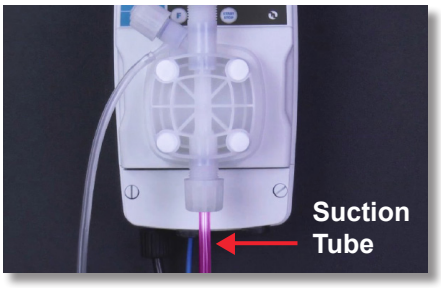
Step 46: Connect the **eMP Metering Pump** to the power supply. The power LED will light up green and the pump is now in **Operational Mode**.

Step 47: Press the **Start/Stop** button once and the power LED will light up red. The pump is now in **Standby Mode**.

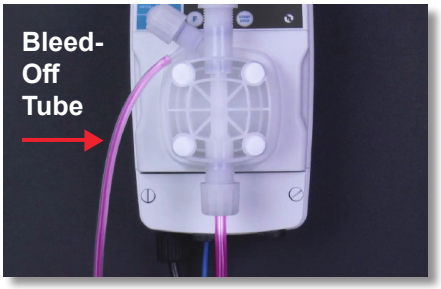
Step 48: Open the air bleed valve on the top left of the pump head, and hold down the **Start/Stop** button for about five (5) seconds.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

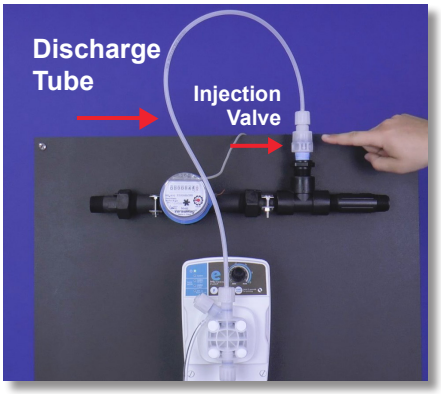
eMP - Metering Pump Installation Instructions



Step 49: The **eMP** should start stroking or clicking, and chemical should start coming up the suction tube.



Step 50: Once chemical starts going down the bleed-off tube, close the air bleed valve on the pump's head.

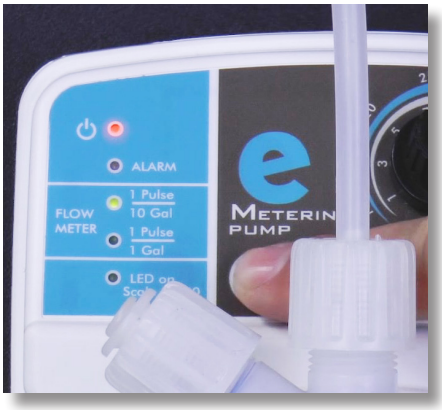


Step 51: Chemical should now go up the discharge tube and into the injection valve.

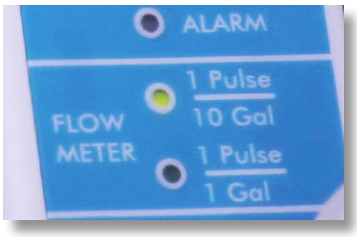
Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions

Step 52: When the priming process completes, the **eMP Metering Pump** stops stroking and the power LED would light up red.



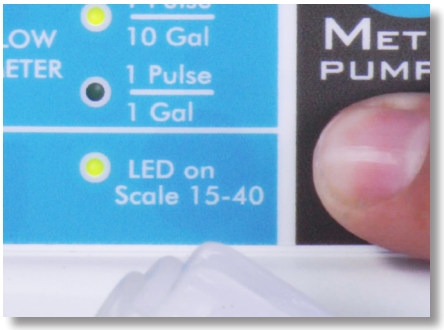
Step 53: Press the "**F**" button and select a program to match your water meter. Either 1 Pulse per 1 Gallon (1 GPC), or 1 Pulse per 10 Gallons (10 GPC).



Step 54: Once again, press the **Start/Stop** button. The power LED will light up green and the **eMP** is in **Operational Mode**, waiting for a signal from the water meter.

Proper protection, such as gloves, eyewear, and aprons, are recommended when handling a pump.

eMP - Metering Pump Installation Instructions



Step 55: If you need to use the 15 - 40 Scale, press the "**F**" button while the **eMP** is in **Stand-By Mode,** and the LED will light up green.

PLEASE NOTE

- The pump will go through the complete cycle on the first signal from the water meter.
- On the second signal, and every signal there after, the pump will slow down or speed up to pace out the chemical delivery.
- The **eMP** learns the water flow and adjusts the strokes accordingly.
- If you are using a 1 Pulse per 1 Gallon water meter, the pump will go through its complete cycle on the first signal. It will then skip nine (9) signals and begin to stroke on the tenth (10th) signal.

We hope this document has been helpful with installing your **eMP Metering Pump**.

For more information, please call us at **1-800-451-6628**
or visit us online at **www.dilutionsolutions.com**.