

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

eMP - Metering Pump Troubleshooting Section B

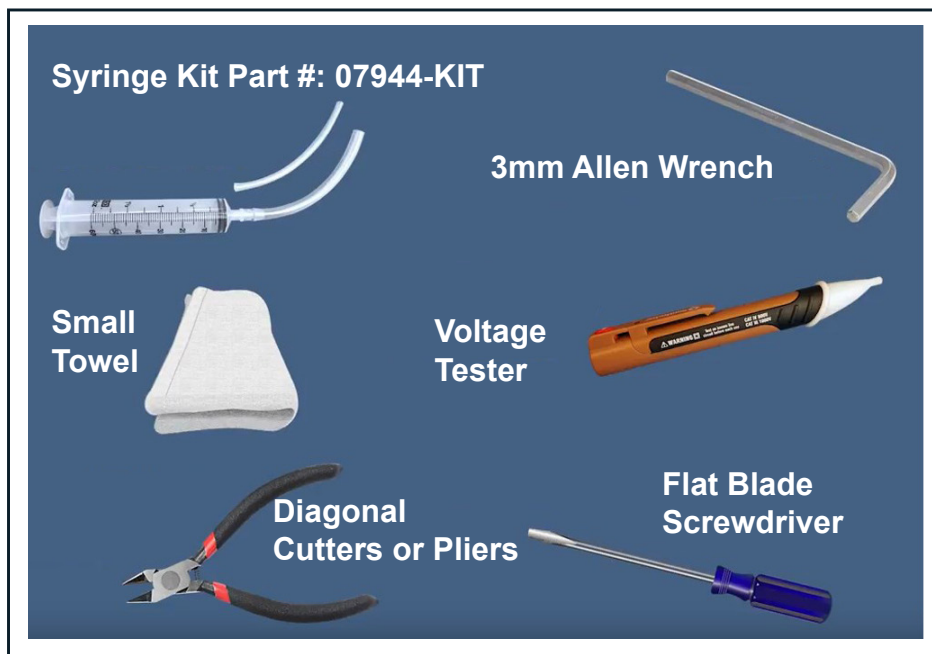
This document contains **Section B** of the troubleshooting documents **A, B, and C**.

Section B covers:

Part 4 - The **eMP** draws chemistry but does not inject.

- 4a. Check the Air Bleed Valve
- 4b. Inspect the Discharge Tubing, Tubing Connections, and Injection Valve
- 4c. Tighten the Pump Head
- 4d. Release Airlock from the Pump Head

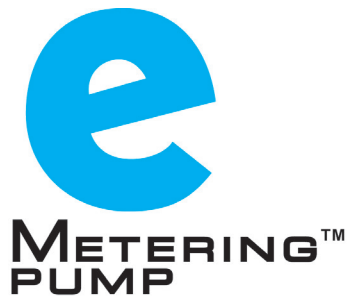
If these areas do not apply to your troubleshooting problem, please see **Section A** of these troubleshooting series for key areas 1, 2, and 3, or **Section C** for key areas 5, 6, and 7.



To start you will need:

- A 3mm Allen wrench
- Diagonal pliers or cutters
- A voltage tester
- Small towel
- Flat blade screwdriver
- A syringe (**Syringe Kit Part #: 07944-KIT**)

If you do not have a syringe, you can purchase the **Syringe Kit (Part # 07944-KIT)** through **Dilution Solutions** at **1-800-451-6628** or search Syringe Kit at **dilutionsolutions.com**.



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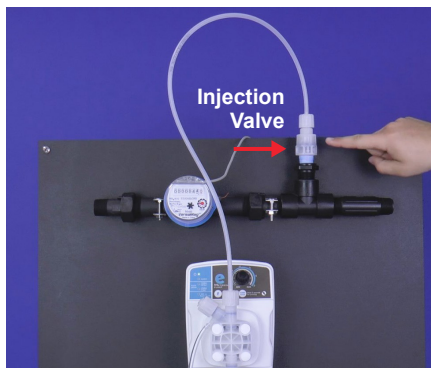
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PART 4 - The eMP Draws Chemistry but Does Not Inject.



Part 4a - If the eMP draws chemistry but does not inject, check the Air Bleed Valve:

Step 1: It may have been left open after priming. If so, close the air bleed valve now.

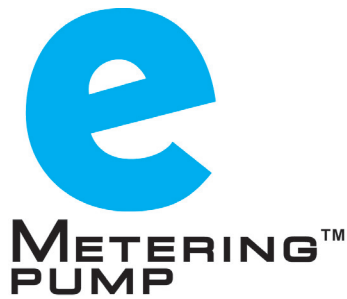


Part 4b - If the eMP draws chemistry but does not inject, inspect the Discharge Tubing, Tubing Connections, and Injection Valve:

Step 2: Locate the injection valve installed in the supply line.

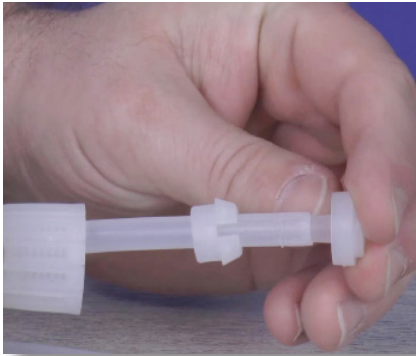


Step 3: Unscrew the tube nut from the injection valve.



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Step 4: Remove the nozzle, collar, and tube nut from the end of the tube and set them aside. Do not lose them.



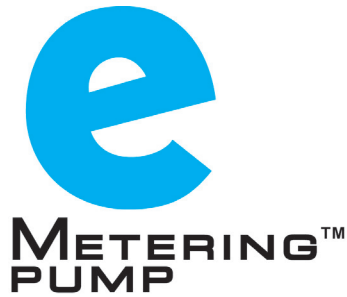
Step 5: Now locate the discharge valve tube nut. Unscrew the discharge valve tube nut and disconnect the tubing from the discharge valve.



Step 6: Remove the connections, and set them aside. Visually inspect the condition of the rigid polyethylene discharge tubing.

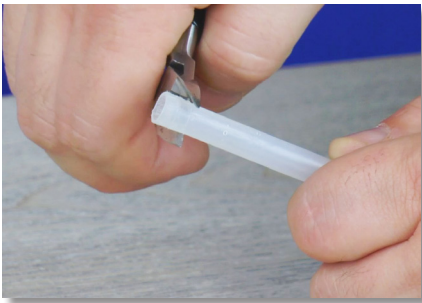
You can replace the tubing with the same type left over from the install or rebuild of the unit.





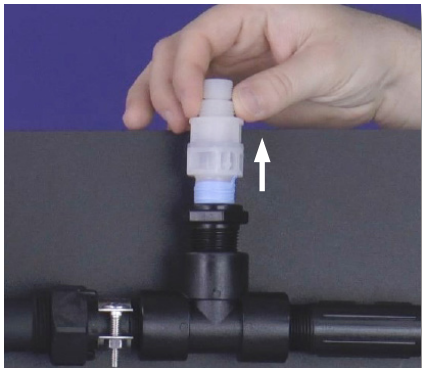
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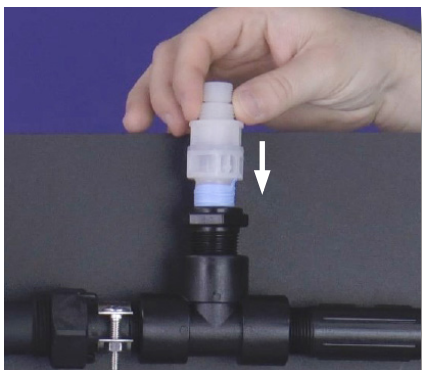
Step 7: Cut the rigid polyethylene discharge tubing so that it runs comfortably from the discharge valve to the injection valve. Set the remaining tubing aside.

Look at each end of the tube, if either end is flared, use the diagonal pliers to cut the flared portion off. Set your tubing aside with the connections.

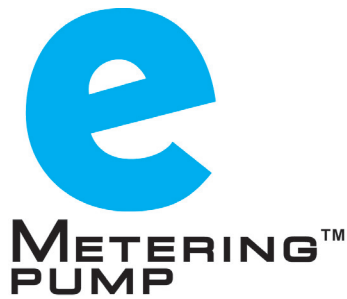


Step 8: Locate and remove the injection valve from the installation saddle or tee. Visually inspect the injection valve for debris. Try to clear the debris with either running water or using a seal pick.

NOTE: If this does not work, call **Dilution Solutions** at **1-800-451-6628** to order a new injection valve.



Step 9: Reinstall the injection valve into the installation saddle, hand-tight.



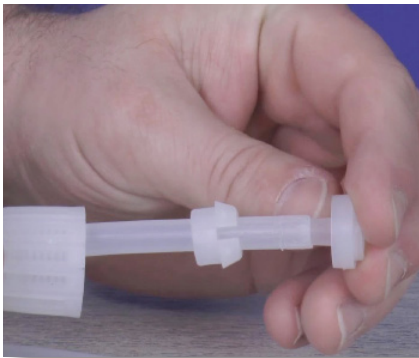
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Step 10: Grab the polyethylene discharge tubing and the injection valve connections you set aside earlier.

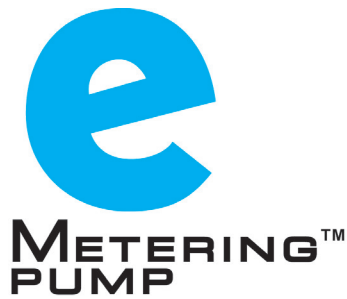
Slide the tube nut and then the collar back onto the tube, making sure the collar's crown is pointing away from the tube nut.



Step 11: Slide the nozzle back onto the end of the tube's opening and push the collar and nozzle together as close as possible.

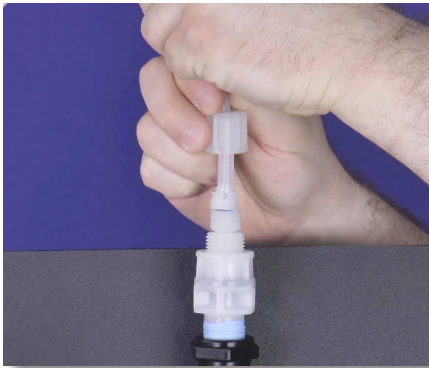


Step 12: Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.



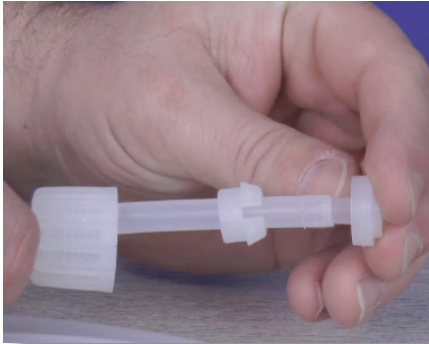
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Step 13: Reattach the tube to the injection valve by hand tightening the tube nut. Do not cross thread or overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle to compress the collar and nozzle together. Retighten the tube nut onto the injection valve.



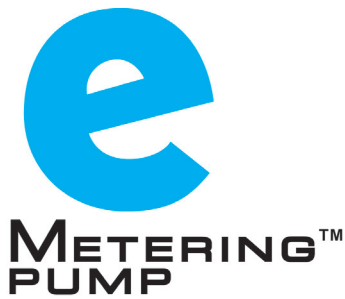
Step 14: Grab the discharge valve connections you set aside earlier and reattach the tubing connections back onto the loose end of the tube.

NOTE: Be mindful of their orientation.



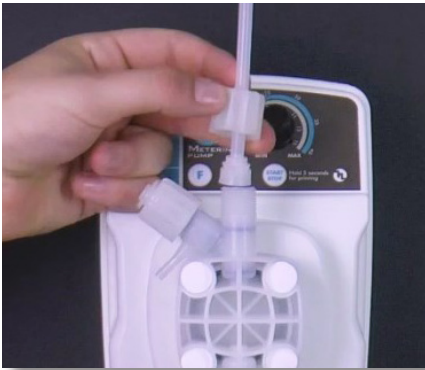
Step 15: Push the collar and nozzle together as close as possible. Pull the tube nut toward the nozzle to compress the collar and nozzle tight together, forming a ferrule connection.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle to compress the collar and nozzle together. Retighten the tube nut onto the injection valve.



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Step 16: Reattach the tube onto the discharge valve by hand tightening the tube nut. Do not cross thread nor overtighten.

If the tube nut is not securing, recheck the ferrule connection. Pull the tube nut toward the nozzle, once more, to compress the collar and nozzle together. Retighten the tube nut onto the discharge valve. Be mindful of their orientation.

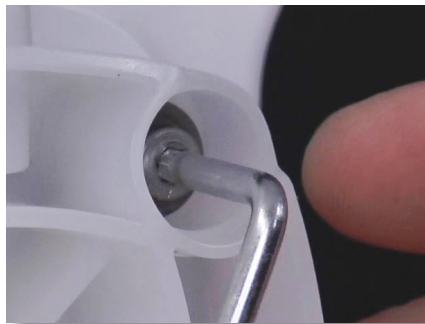
NOTE: Without proper orientation, air can enter into the system causing the **eMP** to not operate correctly.



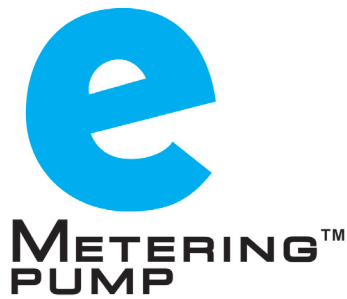
Part 4c - If the eMP draws chemistry but does not inject, tighten the Pump Head:

Step 17: Over time the pump head may work itself loose from the pump. To check this, remove the four (4) white screw caps on the pump head. This can be done with your finger or a flat blade screwdriver.

Set the white screw caps aside and do not lose them.



Step 18: Underneath the caps are four (4) pump head screws. Using the three millimeter Allen wrench, tighten the four (4) screws about 1/8 turn. It's best to tighten in a crisscross pattern.



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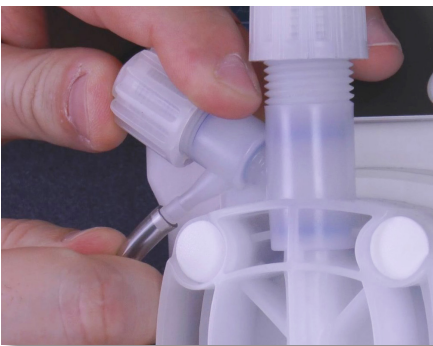


Step 19: Reinsert the four (4) white screw caps back over the pump head screws.

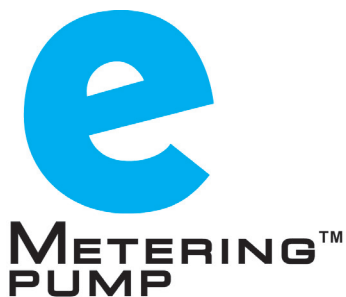


Part 4d - If the eMP draws chemistry but does not inject, release airlock from the Pump Head:

Step 20: Locate the air bleed valve on the upper left portion of the pump head and open it by turning the valve counter-clockwise.

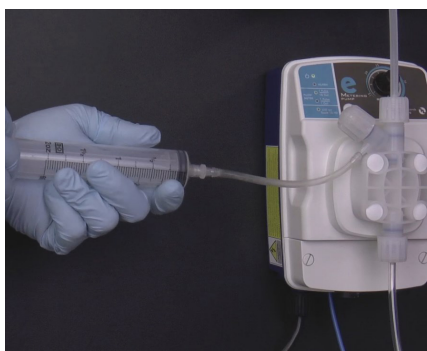


Step 21: Remove the bleed-off tubing from the air bleed barb and set it outside of the chemical bucket.



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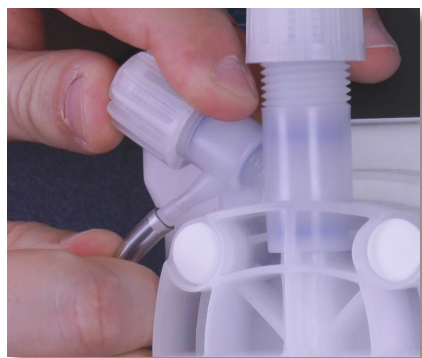


Step 22: Using the syringe kit, slide the 4mm adapter of the syringe onto the air bleed barb and draw the plunger back. Chemistry should enter the syringe. This may take a couple of tries.

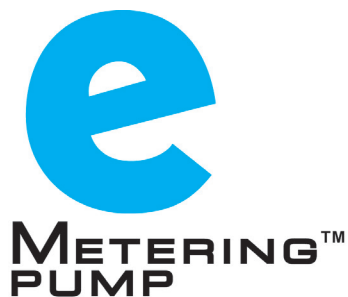
NOTE: If no chemistry enters the syringe, call **Dilution Solutions** at **1-800-451-6628** for assistance.



Step 23: Eject the chemistry from the syringe into the chemical bucket.



Step 24: Slide the bleed-off tubing back onto the air bleed barb and place the tubing back into the chemical bucket.



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Step 25: Now close the air bleed valve by turning it clockwise.

Start the **eMP** and run a few gallons of water through. The **eMP** should now be drawing chemistry and functioning properly.

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

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



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