

Electrostatic Spraying Systems

It is assumed that you have already tried the following solutions to your spray problem:

- Depress the trigger on the spraywand, and while spraying water, place your finger over the nozzle blocking the liquid and air. This will force air back through the spraygun and possibly clear any obstructions in the liquid line.
- Check that all hose “quick connections” are connected including hoses connected to spraywand, to the base unit, and to the tank

We now need to determine where the clog might be located. It can be in one of four places:

- The base unit, or
- The quick connections on the hose, or
- The flow disc and filter; or
- The spraywand

1. Remove the fitting on the end of the hose, which is connected to the spraywand, with a wrench (5/8) and/or socket set-either brass or stainless.

A. We will refer to this threaded fitting during this troubleshooting as the “removed fitting”



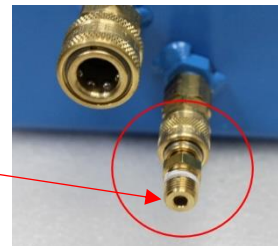
Removed Fitting



2. Unplug the blue hose from the base unit



3. Plug the “removed fitting” into the external quick connection on the base unit



4. Fill the tank at least half full of water, and turn on sprayer



A. Make sure the pressure relief valve on top of the tank is well-seated and not leaking.



B. Make sure pressure is building up inside the tank, with the compressor running, by pulling slightly on the compressor relief valve.



5. Water should spray out the “removed fitting” that has been plugged directly into base unit.
A. If water sprays out of the fitting, this tells us that the clog is not in the base unit.

6. Turn off the sprayer.

7. Take the “removed fitting” out of the base unit.



8. Re-connect the blue hose to the base unit.



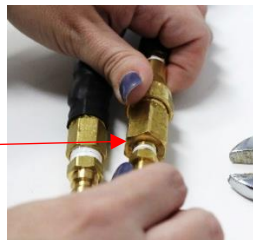
9. Plug the “removed fitting” into the other end of the blue hose, into the liquid quick connect.



10. Turn on the sprayer.

11. Water should now spray out of the end of the hose, when the unit is turned on
A. If water sprays out of the fitting, this tells us that the clog is not in the base hose.

12. Turn off the sprayer and reconnect the “removed fitting” to the back of the spraywand.



13. Remove the flow disc and filter.



14. Reconnect the coupling without the flow disc and filter inside.



15. Turn on the sprayer and depress the trigger.

- A. If water does not spray out of the spraywand, this tells us that the clog is not in the flow disc nor filter, but inside the spraywand.



16. Turn off the sprayer. Check the flow disc with a pin to make sure that the orifice is not clogged. Clean the filter and then put the flow disc, and filter back into the coupling.



17. Turn on the sprayer, and depress the trigger. If water does not spray out the nozzle we know that the clog is inside the gun. There are two possible places it can be clogged inside the spraywand, that can be solved without the help of a technician at the ESS factory:

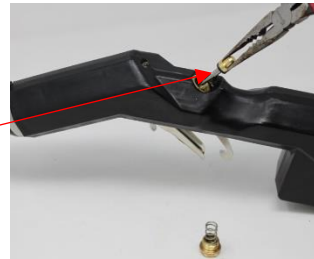
A. Unscrew the nozzle cover and insert a wire the size of a paper clip, into the small center orifice in the nozzle. Try to dislodge any debris.



B. Unscrew the large brass cap on top of the spraywand with the appropriate wrench (5/8) and/or socket set.



i. Once the cap is off, carefully remove the trigger plunger with needle nose pliers. Take care not to lose any parts from the plunger mechanism during removal.



ii. Once the trigger plunger is removed, either replace with a new plunger or clean the old plunger thoroughly and re-insert.



iii. On the ESS website there is a video available for viewing on how to replace the trigger plunger. <https://maxcharge.com/wp-content/uploads/2020/05/Trigger-replacement-med-res.mp4>

18. We have now exhausted all possibilities that can be done by the users to find the clog. You have a major clog inside the spraywand, undoubtedly in the liquid line due to dried chemical blocking the hose. The spraywand (only the spraywand) will need to be serviced by a technician at the factory.