

E-Coat Element Installation Procedure

1. Ensure the housing is depressurized before installation. Remove the top cap assembly and store in a safe place to prevent damage.
2. Lift the top cap off the housing. In the event that this is a replacement element, in most cases the element will lift up with the top cap. If it does not, you may pull the spent element out by the permeate tube extension or by removing the housing and bottom cap to push the element out.
3. Remove the new element from its storage bag and save the bag for element installation. Ensure the rubber seals are installed in the correct position (See Double or Single Seal Detail on the drawing attached, depending on your system capabilities). Install the O-rings onto the permeate tube extension or top cap, if applicable and apply a suitable amount of glycerin to lubricate the O-rings and rubber seal(s). A vial of glycerin is included with the element.
4. Eliminate the residual paint from the housing and fill the housing approximately 1/3 full with DI/RO water.
5. Insert the bottom plug into the end of the element without the rubber seal(s), if applicable. For elements with no rubber seal, insert the bottom plug into any end. Male models "M" are already plugged.

For HS models: Remove the four pieces of 1" tape that holds the netting in place. Insert the element into the housing, bottom plug end first, with a circular motion. Do not force the element, this will cause the netting to roll and will result in improper installation. If the element does not fit into the housing, trim off the tail from the element at approximately 1/4 of the outer diameter (OD) at a time. Test the element's fit after each trimming. Ideally, the element should fit snugly into the vessel. See attached drawing with cutting detail for more information.

6. Make a sleeve of plastic from the element storage bag to wrap around the seals (See drawing with element storage bag details). Use tape if necessary and insert the element with the plugged end first into the housing. Slide the sleeve and element into the housing. Once the seal(s) are about 2" into the housing, remove the sleeve.
7. Gently push the element to make sure the element is seated on the bottom of the housing. Make sure the permeate tube is completely submerged in DI/RO water.
8. Carefully insert the top cap connector into the permeate tube. Replace the Victaulic coupling and tighten the bolts. Return the top cap assembly and tighten the union connections.
9. Circulate DI/RO water through the element for 15 minutes in the CIP loop. Purge to drain, and then refill with fresh DI/RO water. If this is not possible, soak the element in DI/RO water for at least one hour, purge to drain, and refill the housing with fresh DI/RO water.
10. Open both the paint permeate to rinse valve and the paint return valve.
11. Start paint feed pump and SLOWLY open the paint feed valve (to fully open in 3 to 5 minutes). Adjust inlet pressure to a minimum of 50 psi. If your system is running, open your housing outlet and permeate valve. Then, very SLOWLY open the housing inlet valve to fully open in 3 to 5 minutes to bring your element back online.
12. After the system runs for a few minutes, it may be necessary to re-adjust the pressures until the system balances out.
13. If you are running permeate to drain and are ready to change to permeate to rinse, open the permeate to rinse valve before closing the permeate to clean valve.
14. Start-up is now complete. Record the Serial No., Date, Permeate Output and Installer's Initials on the housing label provided with your new element.

WARNING: All rubber seals must be lubricated with glycerin, which is provided in a vial with your shipment. Never use excessive force during installation. Excessive force may damage seal(s). When operating on paint, the "Permeate to Rinse" valve must be 100% open and when cleaning, the "Permeate to CIP tank" valve must be 100% open. Throttling or closing any permeate valve while the element is in operation can result in "leakers" and "smokers" and will void the element warranty.

NOTE: For older systems without Reverse Flow Cleaning capabilities, use (1) paint seal in the ATD groove. For systems with Reverse Flow Cleaning capabilities, install two (2) paint seals in the upper ATD groove. See attached drawing for the correct position or single and double seals.