



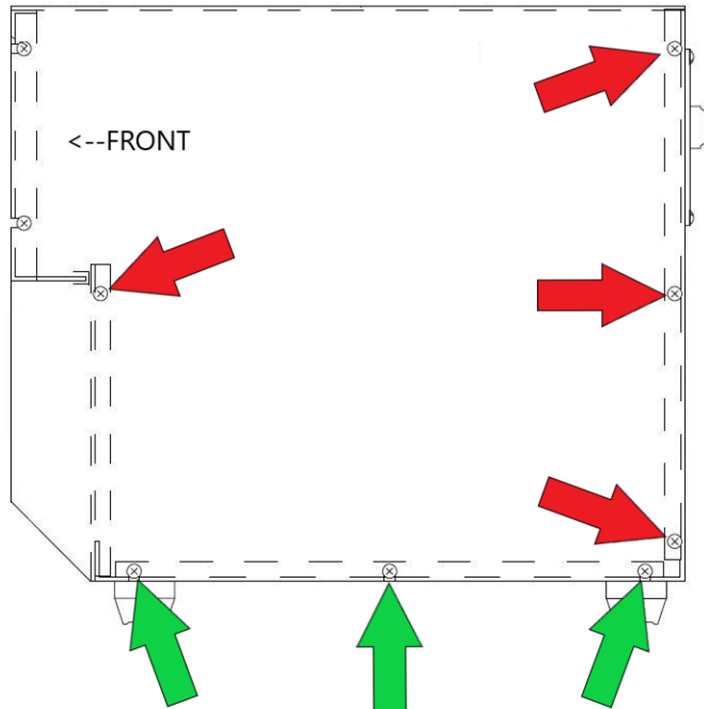
# Model 600 & 850 Purge Valve Repair Kit Installation Instructions



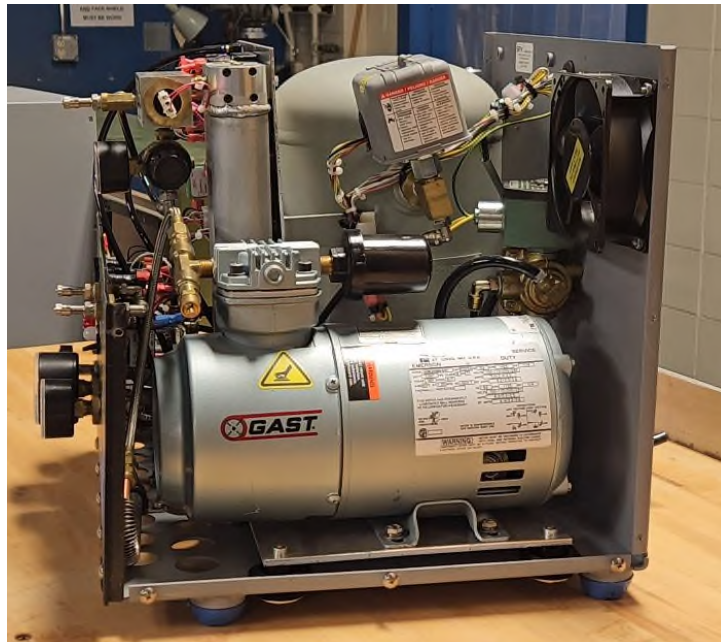
*P/N 46037 Purge Valve Repair Kit Contents*

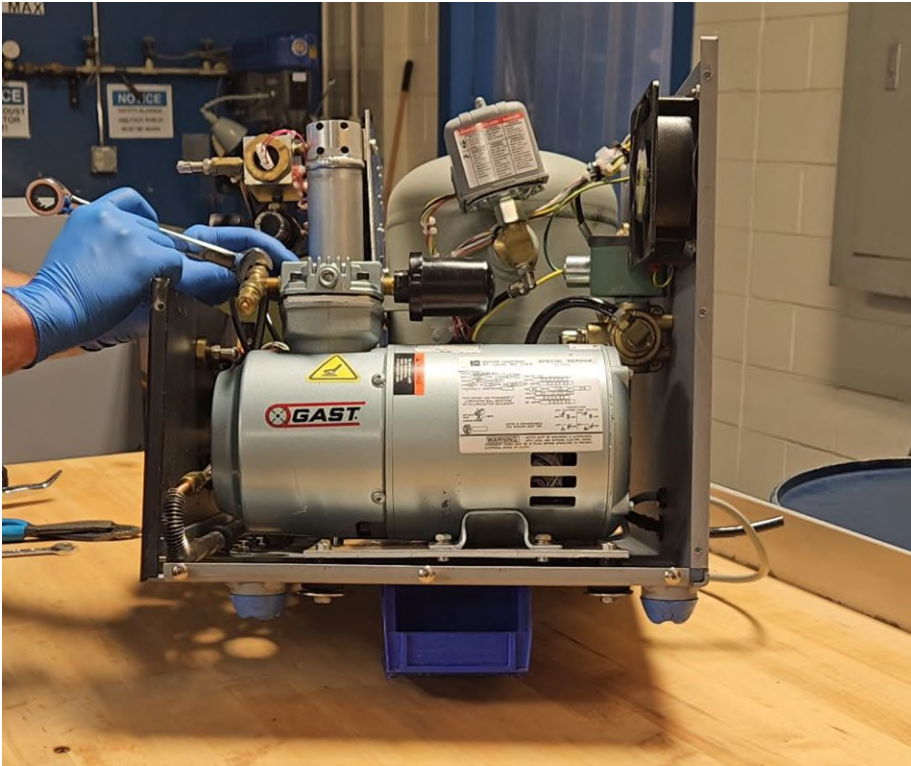
This guide will detail the necessary steps to take when performing the preventive maintenance or repair of the purge valve in a model 600 and 850 dehydrator. Refer to the complete instruction booklet for safety warning information before proceeding. When performing any work on the dehydrator be sure to isolate the unit from sources of pneumatic and electrical energy as well as drain any air from the internal tank of the unit.

**WARNING:** TURN THE DEHYDRATOR OFF AND DISCONNECT FROM THE ELECTRIC POWER SOURCE BEFORE PERFORMING THE FOLLOWING PROCEDURES



Start by removing the main cover on the unit. Completely remove the 4 screws indicated by red arrows. Loosen but do not completely remove the 3 screws indicated by green arrows. Repeat on the other side of the cover and then lift the cover from the unit.



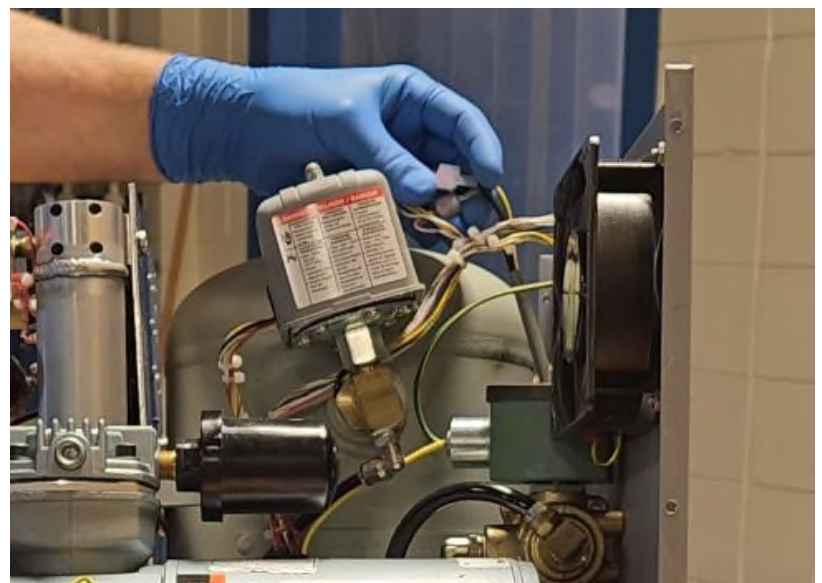


To allow for easier access, the compressor needs to be removed from the unit. It is recommended to install a compressor rebuild kit at the same interval when a purge valve repair kit is installed.

Position something under the unit to lift the dehydrator up and allow for easier access to unbolt the compressor mounts from underneath the unit. Using a 7/16" wrench, remove the 4 bolts and set aside.

Using a 9/16" wrench loosen and unscrew the compressor braided flex hose.

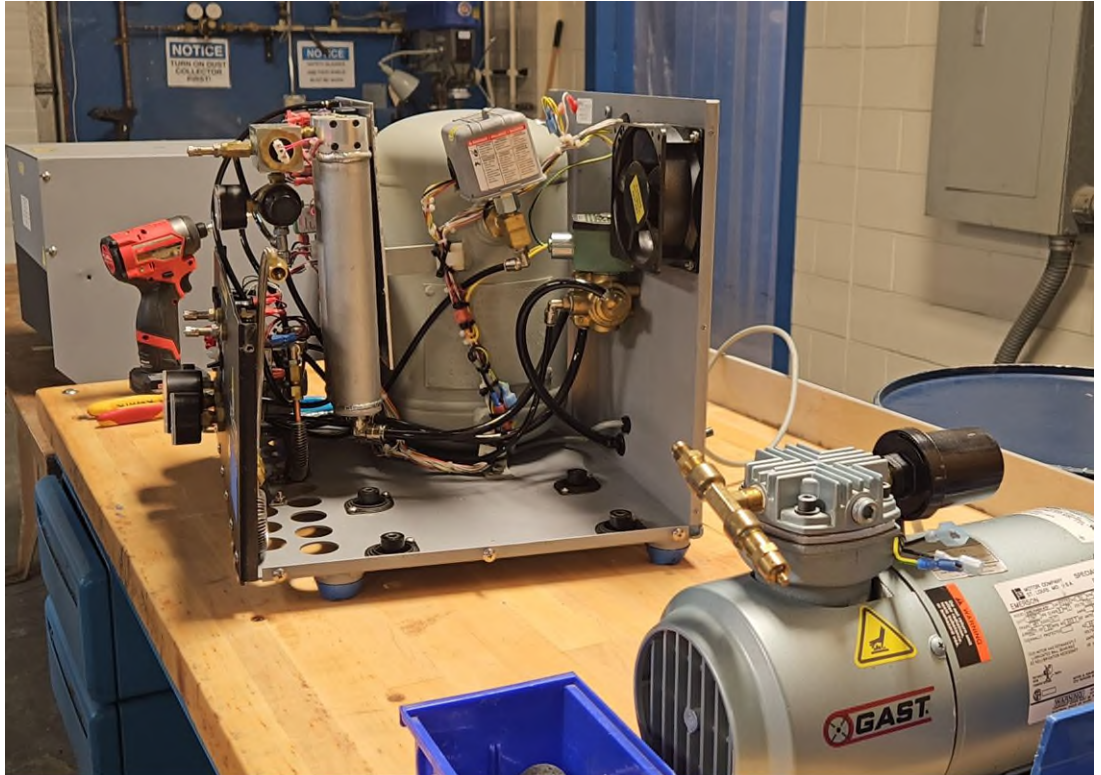
Follow the gray cord from the compressor up to the wire harness to locate and disconnect the three electrical connections to the compressor. Note: The two black wires do not have a specific polarity. You may need to remove zip ties securing the connection.







Remove the compressor and set aside.



Locate the purge valve and begin to remove the solenoid coil from the valve body. On the top of the coil is a retained plate which is secured by either a silver metal clip or a red plastic clip. Remove the retainer clip and discard.





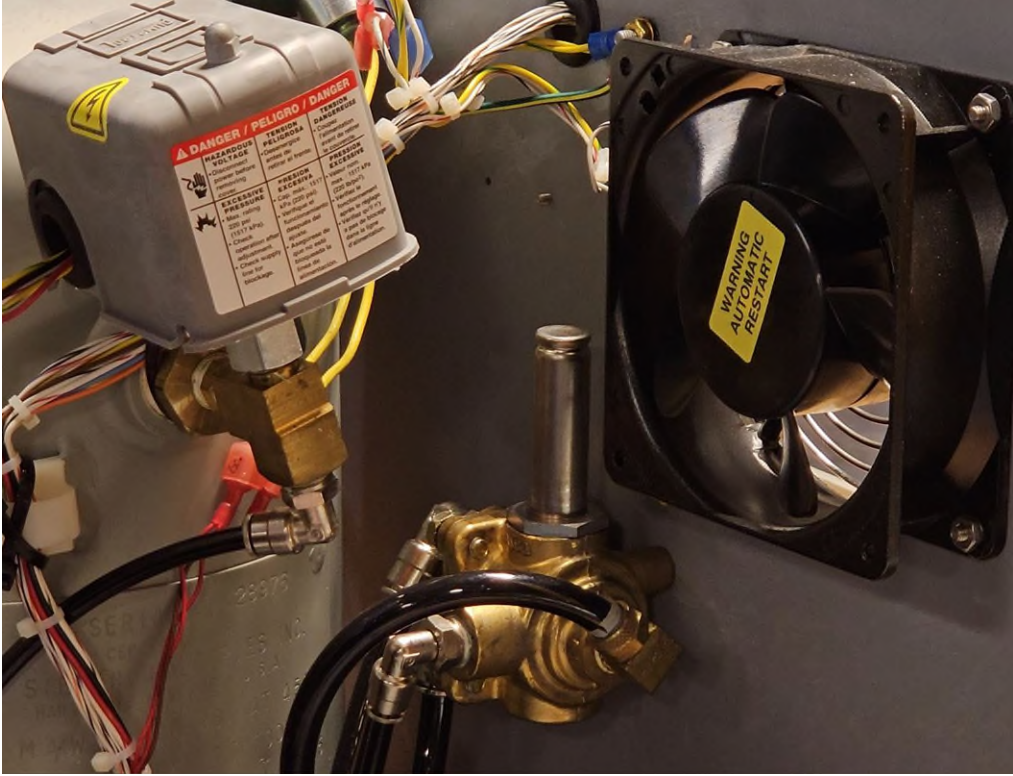
After removing the retainer clip the retaining nameplate must be removed. The coil assembly has a spring located under the coil to apply upward pressure on the clip.

Remove the clip by pushing down on the spring to relieve the upward pressure and then using a small flat blade screwdriver or O ring pick gently pry up the plate on the side where the wires come out of the coil and push it away from the coil wires.

After removing the retainer nameplate, remove the black spacer.

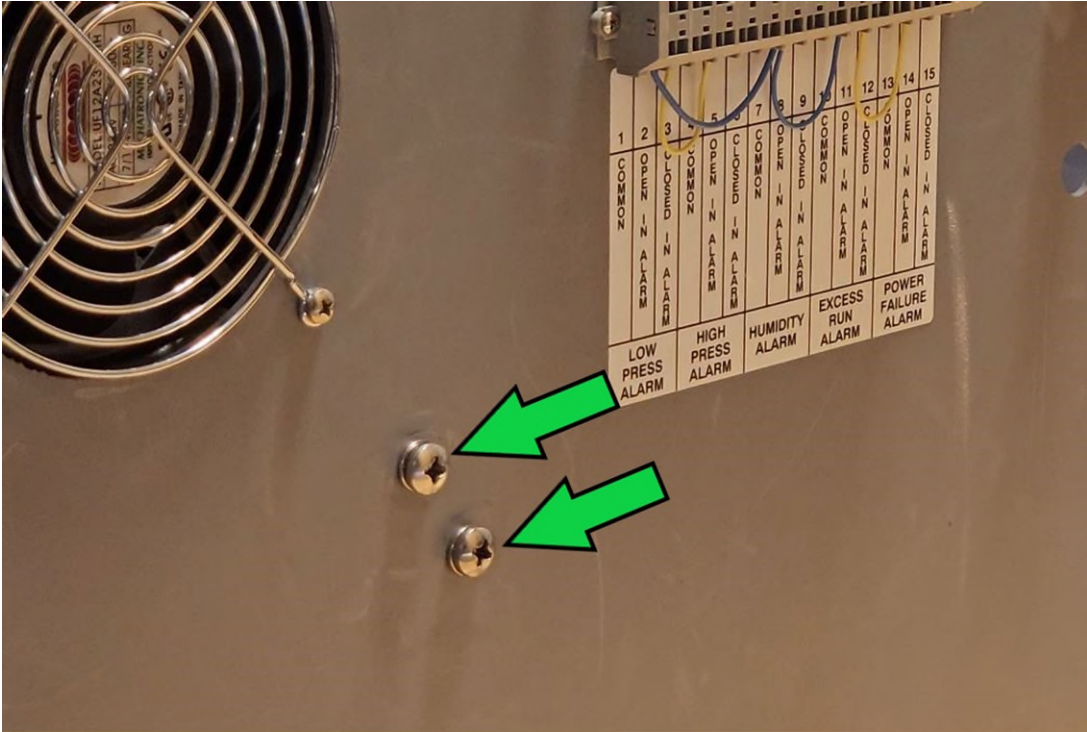






Pull the green solenoid coil off of the valve and set it aside on top of the tank. Disconnecting the coil wiring is generally not required.

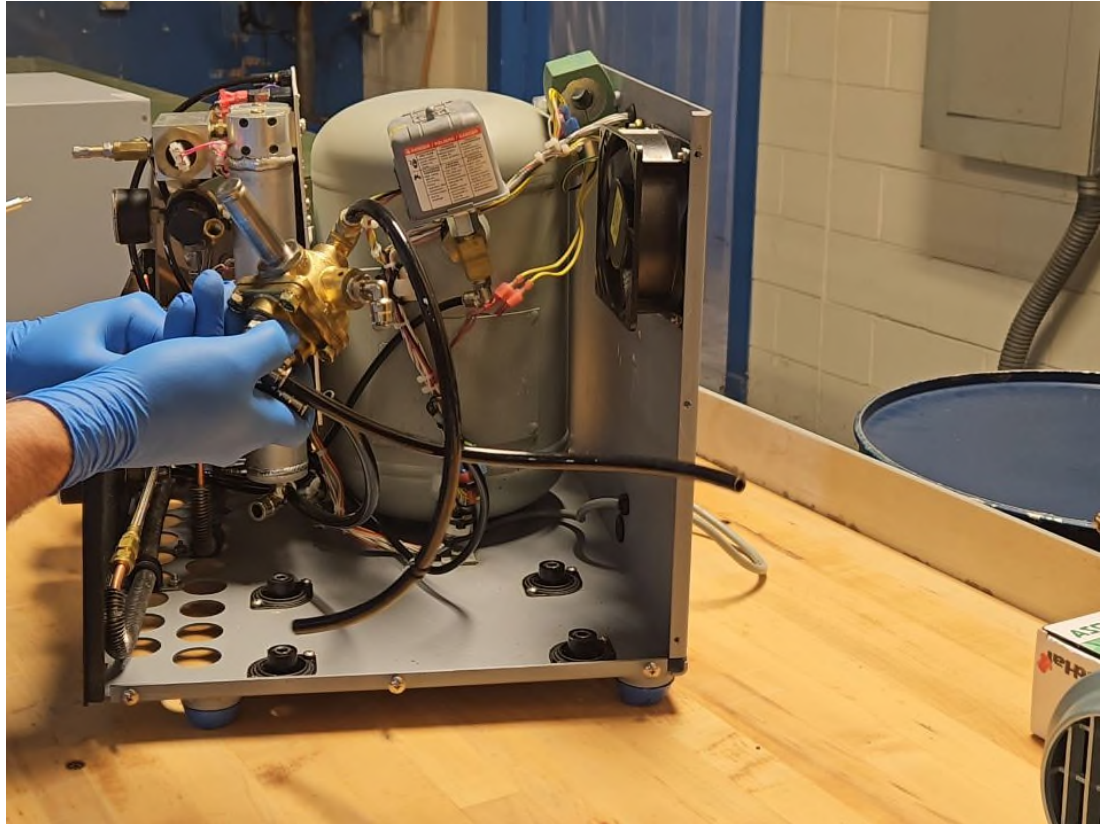
Remove the two large Phillips head screws from the back of the unit that secure the purge valve body.



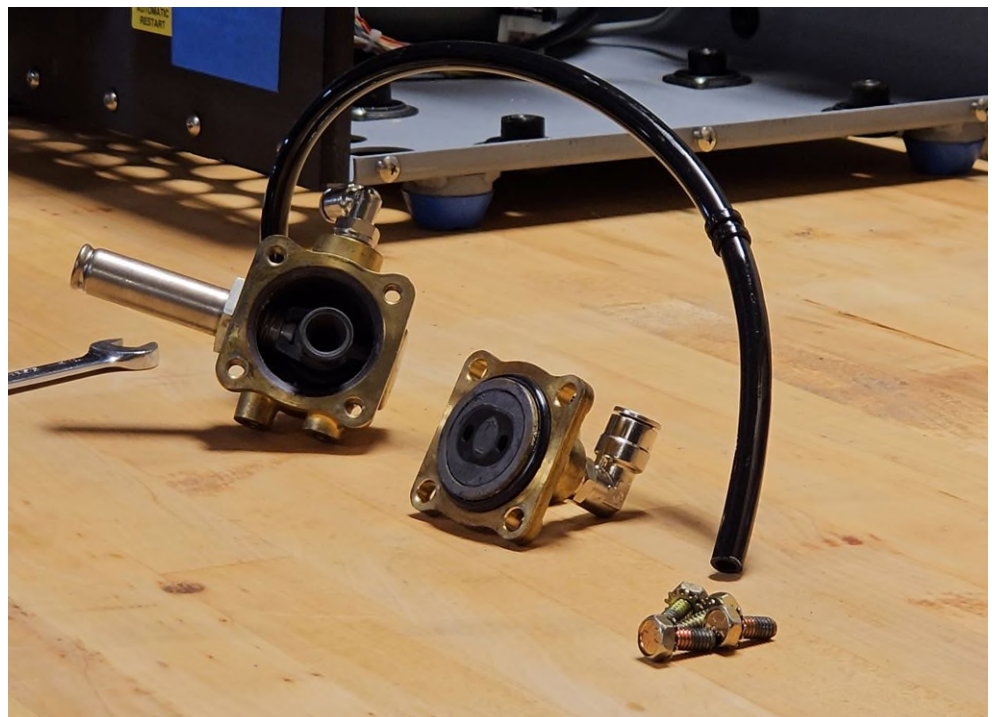


Disconnect the two larger hoses that connect the purge valve to the bottom of the drying cylinders at the drying cylinder side.

Disconnect the smaller hose from the compressor heat exchanger tube and leave the purge valve exhaust tube attached to the purge valve but cut any zip ties around the tube located outside of the cabinet and pull the exhaust tube through the rubber grommet where it exits the cabinet.



Disconnect all of the tubes from the purge valve quick connect fittings. The exhaust tube can remain in place. Remove the 4 bolts holding the two halves of the valve body together using a 7/16" wrench and pull the valve body apart.

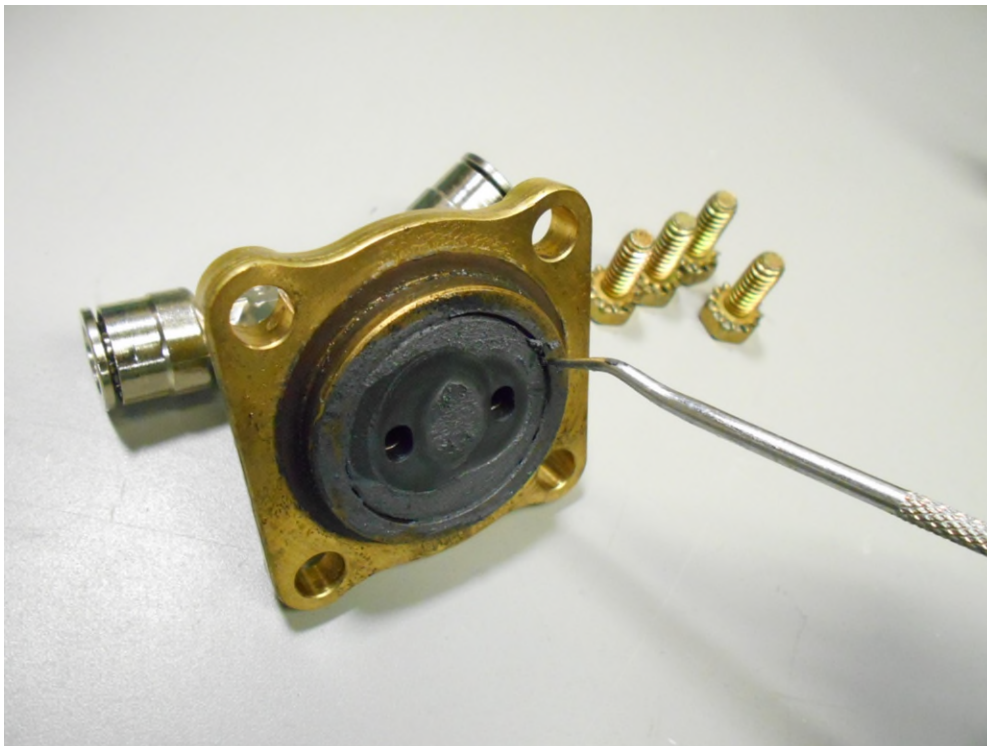
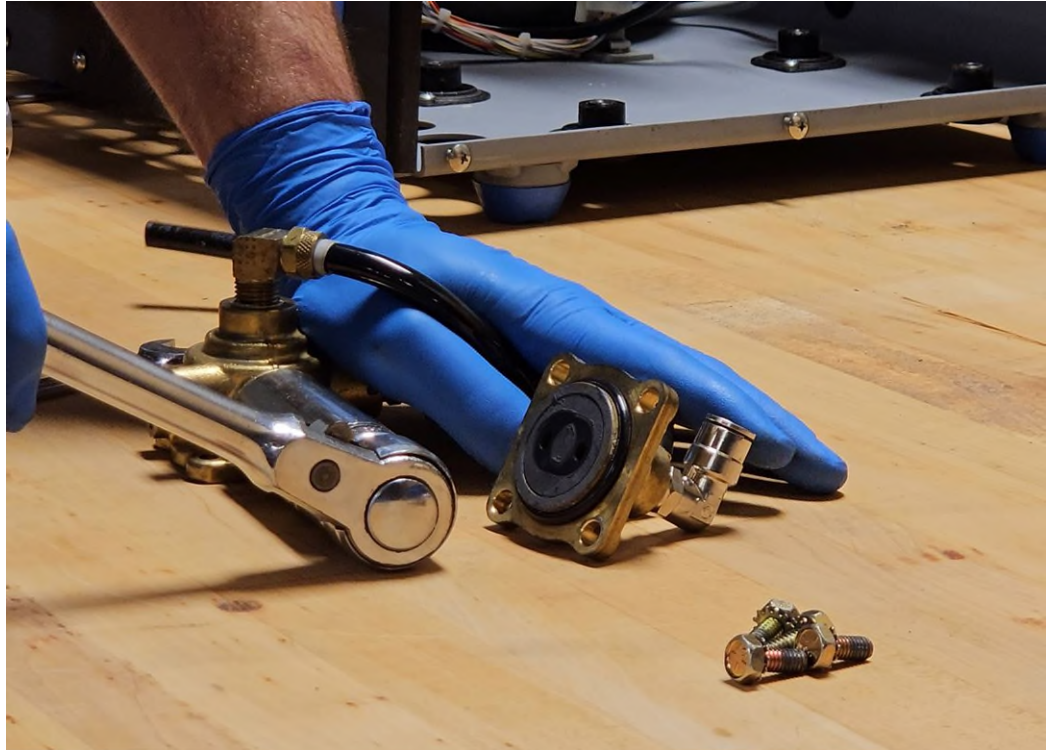






Next, using a 1 inch deep well socket or open ended wrench loosen the valve stem from the valve body. Completely unscrew the valve stem and discard.

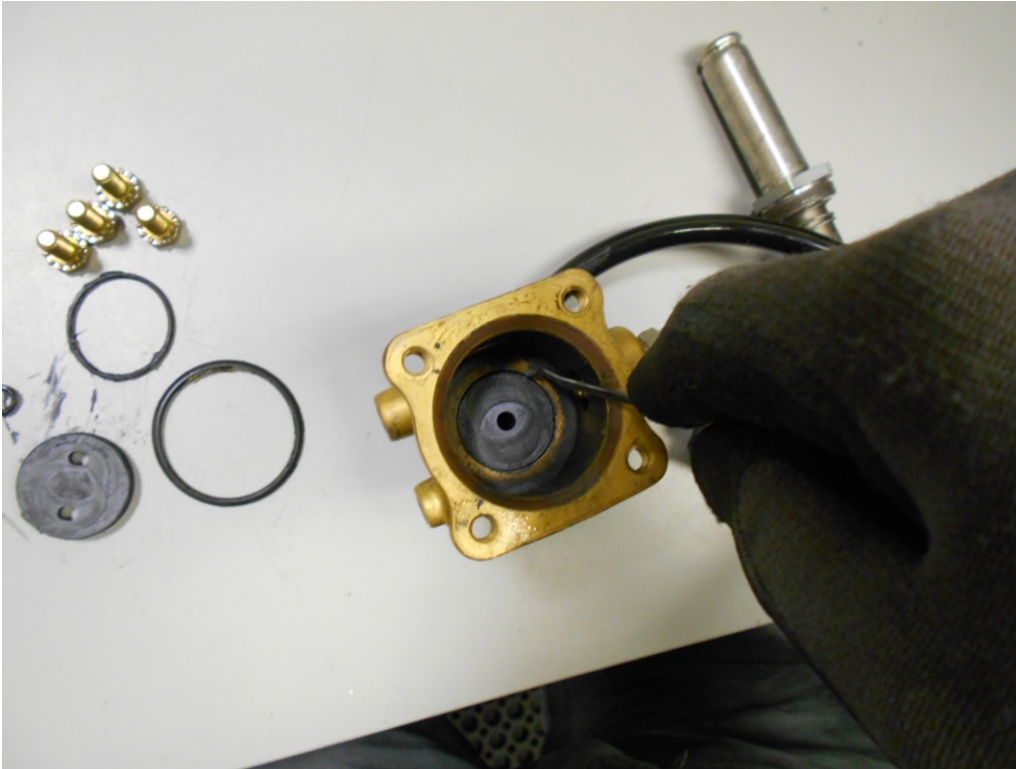
If the valve cup dovetail joint is still attached to the plunger that is inside of the stem you will need to first pull the center valve cup piece out in order to remove the plunger.



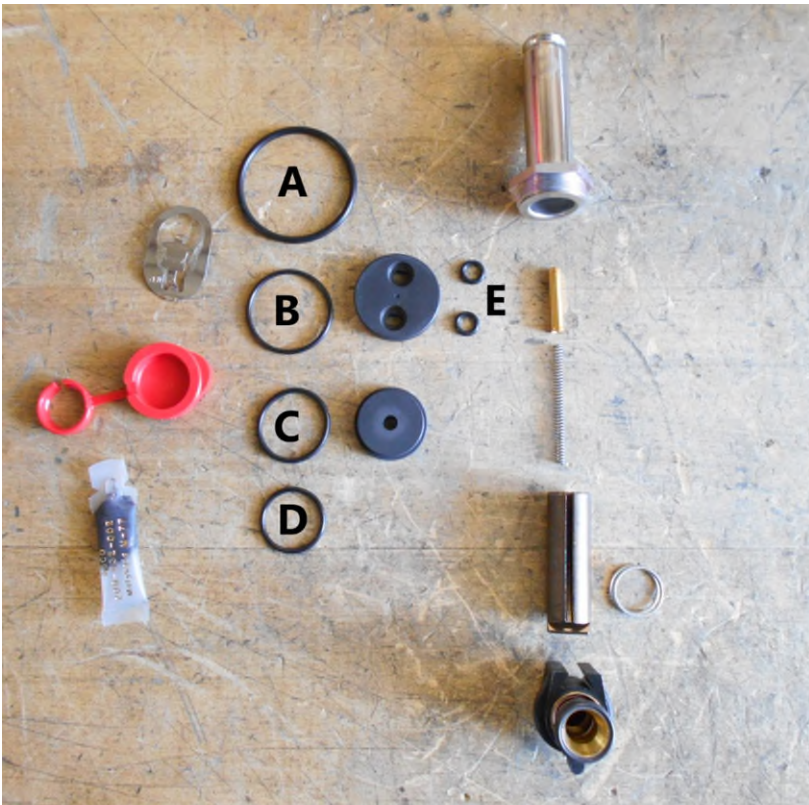
Using an O ring pick, remove the plastic valve seat from the from the valve body and discard.

Remove the two small O rings and discard.

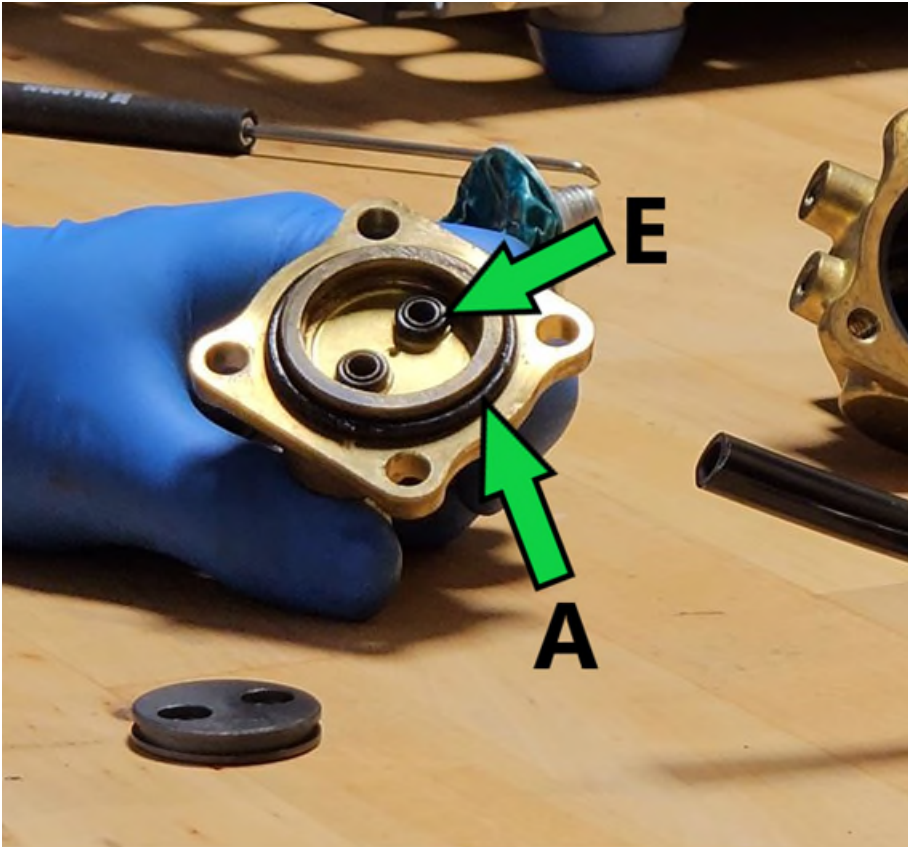




Remove the inner valve body seat from the main valve body and O ring underneath. All of the wear parts should now be removed from the brass valve body. Clean the brass body with a fine wire brush or scotchbrite pad.

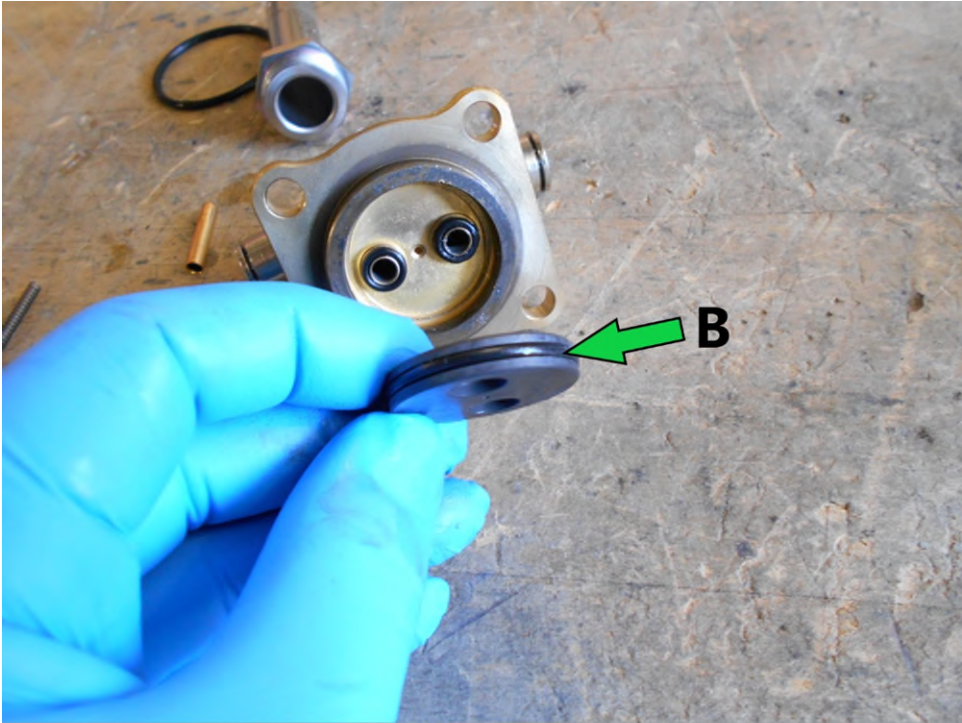


Remove the repair kit contents from the packaging. Note that there are 5 different sizes of O rings. Each O ring is labelled in the photo A-E by size. Each size O ring goes to the corresponding part next to it as pictured. The largest O ring is for the valve body cover which is held on with the 4 bolts and the smallest of the large O rings is for the valve stem and will go into the top of the valve body and the stem will screw down on top of it.



Begin reassembly by applying some O ring grease to all the O rings in the kit or a light coating of petroleum jelly if no O ring grease is available. Install the two smallest O rings, (O ring E) onto the two ports protruding from the center of the valve body cover. Install the largest O ring (O ring A) on the outside of the valve body cover.

Install the 2<sup>nd</sup> largest O ring (O ring B) into the outer groove of the large valve seat and then insert the valve seat into the valve body cover making sure that the two small O rings are aligned with the two holes in the valve seat.







Install the other round valve seat and corresponding O ring (O ring C) into the main valve body with the O ring side down. Using the included packet of M77 moly lube, apply a thin coating of lubricant to the two round valve seats, both round ends of the center valve cup (red arrows below) and a small amount to the long metal spring and brass spring retainer tube.



Insert the long spring into the brass retainer tube and then insert both of these into the hole in the valve plunger with the spring end first then insert these 3 pieces into the valve stem. Before reinstalling the valve stem, insert the valve stem O ring seal (O ring D) into the valve body at the bottom of the threaded hole where the valve stem screws in.





Put the larger spring over the valve plunger and loosely screw the assembled valve stem into the valve body so that the dovetail joint on the plunger faces the opening. Insert the center valve cup onto the plunger by slightly compressing the plunger spring while sliding the dovetail joint together.

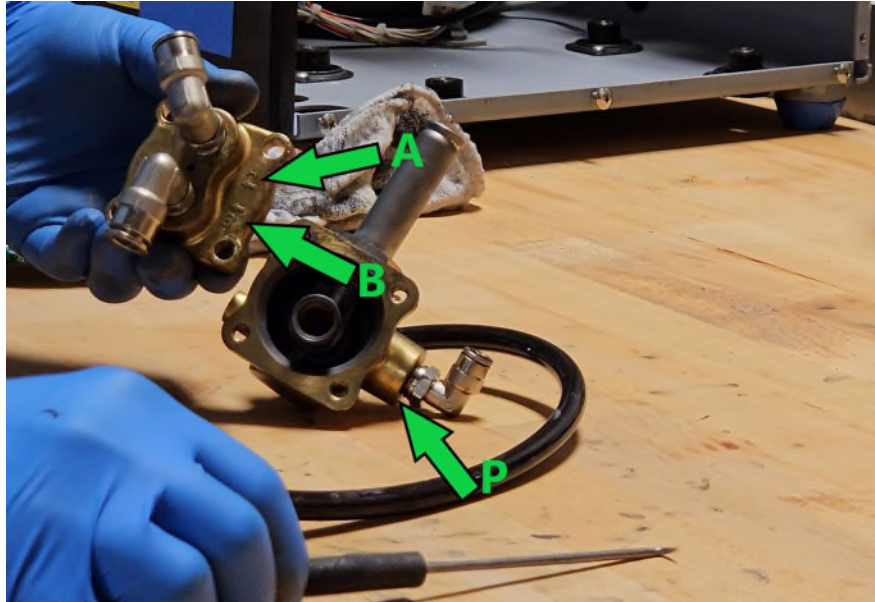






Reassemble the valve body cover onto the valve body. Note that the “A” and “B” markings will be oriented on the same side as the “P” marking. Reinstall the 4, 7/16” bolts and tighten. Fully tighten the valve stem using the 1” wrench and rebuilding the purge valve is complete! Reassembly of the unit is the opposite of the disassembly. Using some O ring grease on the ends of the push connect tubing will aid in fully seating the tubes into the fittings.

Note that the two tubes connecting to the drying cylinders do not have a specific orientation and will work connected to either the A or B ports.



- After rebuilding the valve is complete, reinstallation of the purge valve into the dehydrator is the opposite as disassembly.
- Before reconnecting the 3/8 and 1/4" tubes lubricate the last 1/2" of tubing at the ends to help the tube fully reinsert to the push connect fittings.
- After the dehydrator has been reassembled, it is advised to check for air leaks around the push connect fittings using a leak detection solution or soapy water solution when the unit is running.
- If rebuilding the purge valve is due to an active humidity alarm the unit will be required to run continuously, typically for up to a few hours before the humidity alarm will clear and the unit will return to normal operation. Refer to the model 600-850 humidity alarm troubleshooting guide for further details.