

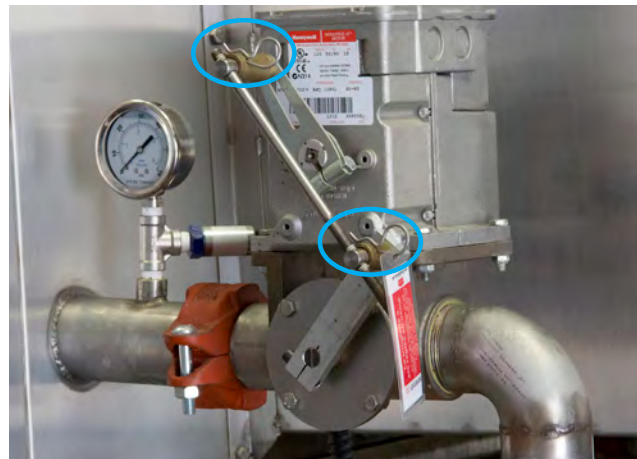
Instruction Guide for Replacing an O-Ring Kit on a Humidaire Butterfly Valve

Before you begin, gather these items:



Step 1: Remove Red Zip-Ties and Pins

- Some Humidaire models may not have the tag and zip ties. If so, simply remove the pins.



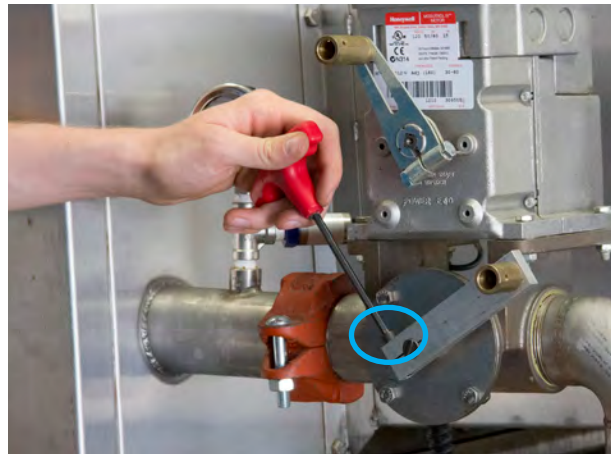
Step 2: Remove Connecting Rod Between Cranks

- Before removing shaft, make sure the valve is in the 0% position, which is indicated by the notch on the vane shaft being completely vertical.
- If not, note the angle of the crank arm on the shaft by taking a picture.
- Remove connecting rod, taking care not to change the position of the pins threaded on the shaft.



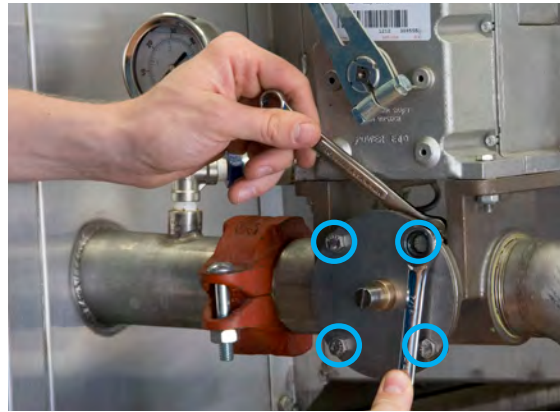
Step 3: Remove Aluminum Crank Arm

- Loosen screw with 3/16" Allen Wrench
- Insert small screwdriver into the slot at the end of the aluminum shaft by tapping it with a hammer. This will loosen it.
- Pull the crank off the valve.

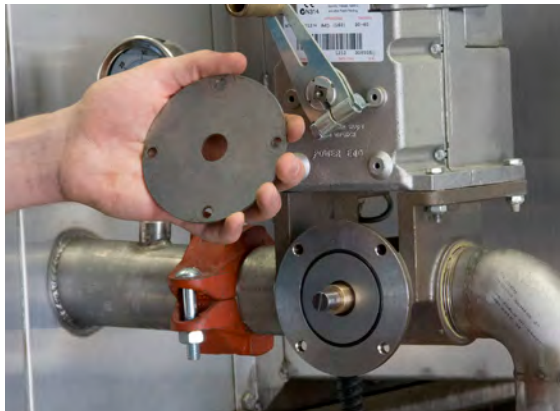


Step 4: Remove Bolts and Front Plate

- Use 7/16" wrench and ratchet to loosen and remove all 4 bolts, nuts, and locking washers.

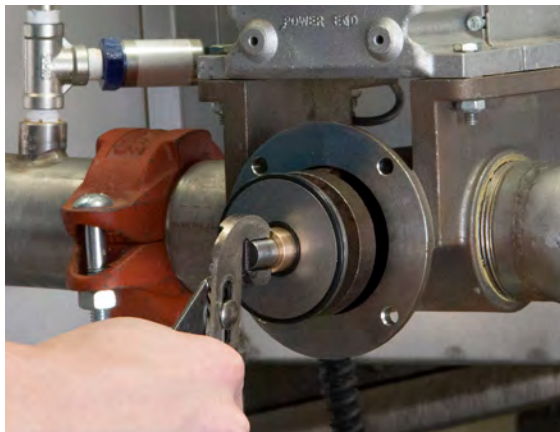


- Remove front plate



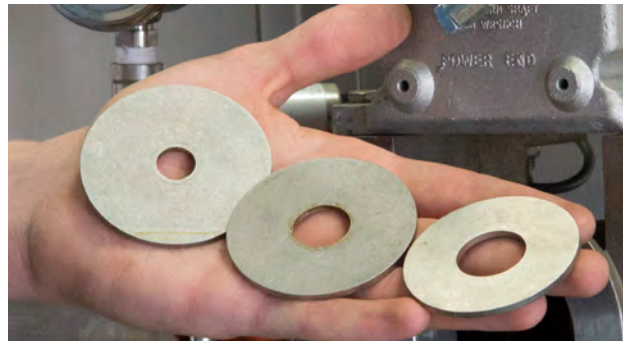
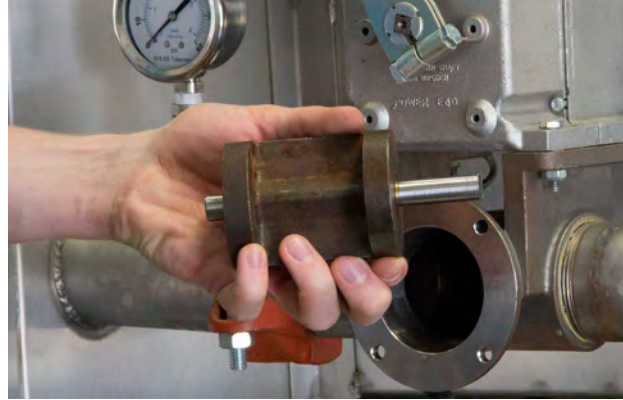
Step 5: Pull out Water Vane Assembly

- Use pliers, vise grips, or channel locks to remove vane assembly from the valve.
- Make sure the washer in the back of the valve is removed.



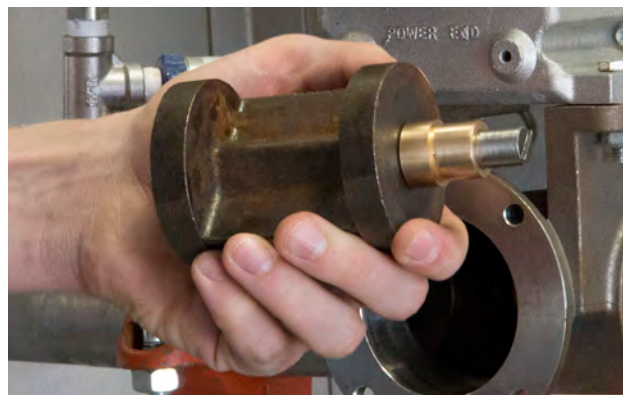
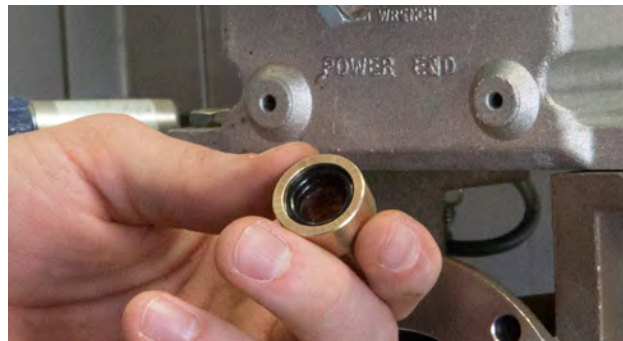
Step 6: Remove Washers, O-Rings, and Bushing from Vane Assembly

- Remove 3 washers, 5 o-rings, and 1 bronze bushing from the vane. Note that 2 of the small o-rings will be inside the bushing. Remove them.
- Discard the used o-rings. Discard the used bushing.
- Clean the vane and file down any marks left on the shaft from the pliers so that the crank arm will reattach correctly.
- Note that you now have 3 washers with small, medium, and large holes.



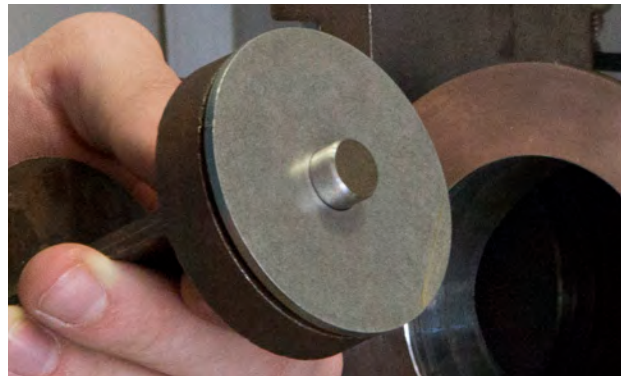
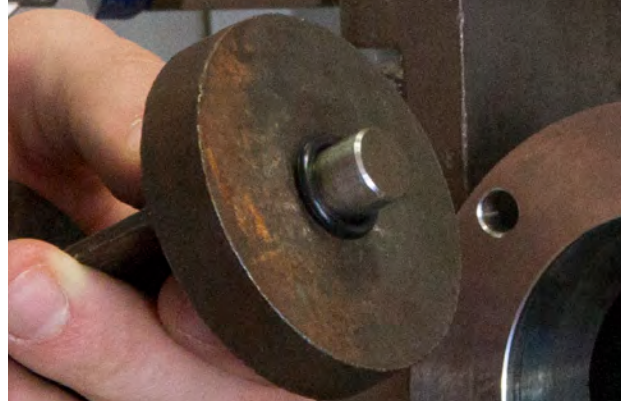
Step 7: Replace Bronze Bushing

- Insert 2 small o-rings into bushing.
- Apply glycerin. This will prevent the o-rings from ripping as you slide them back onto the shaft.
- Push bushing down onto the shaft until it fits snugly.



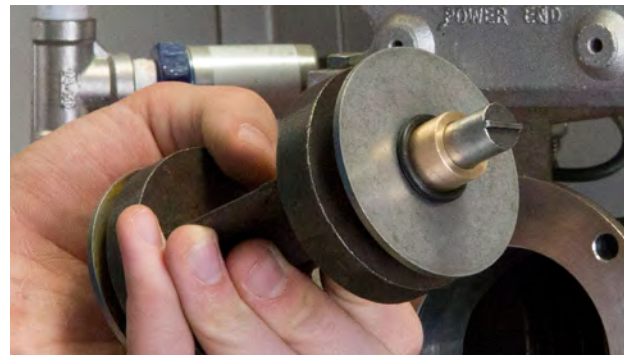
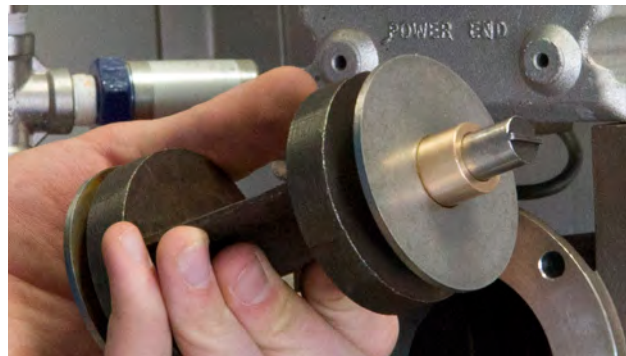
Step 8: Replace End Washer and O-Ring

- Place small o-ring onto the small end of the vane shaft.
- Place the washer with the small hole onto the small end of the vane shaft. There will be a small space between the washer and the vane body caused by the o-ring.



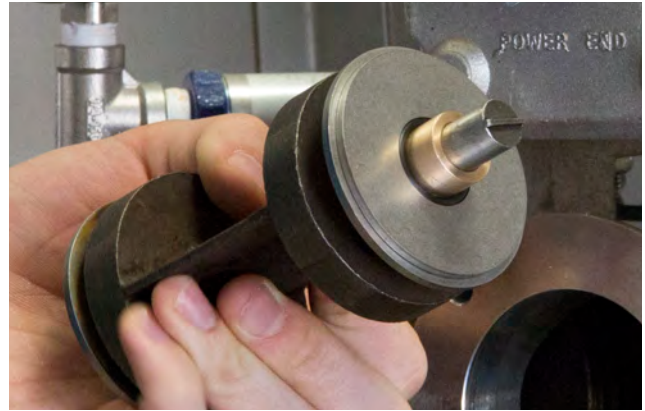
Step 9: Replace Medium Washer and O-Ring

- Place washer with medium hole onto the bushing.
- Place the medium o-ring onto the bushing until it fits snugly.



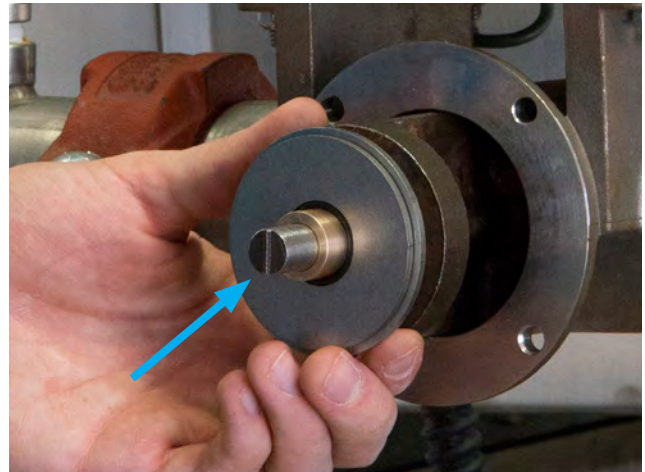
Step 10: Replace Large Washer

- Place the washer with the large hole onto the medium washer. Twist to secure in place.



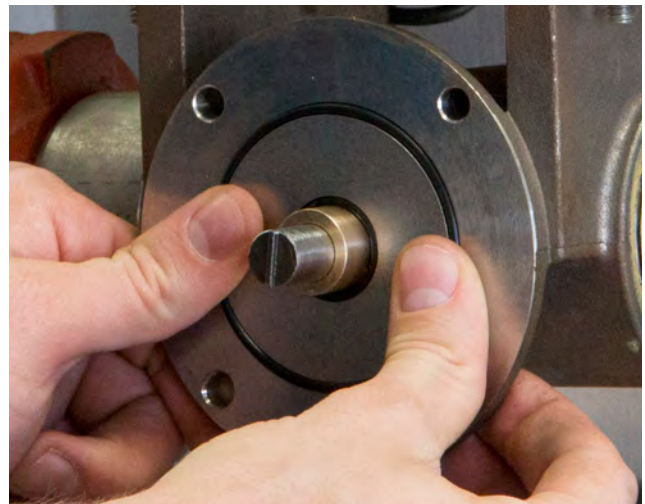
Step 11: Reinstall Vane Assembly

- Reinsert vane assembly into water valve.
- **Make sure the notch on the end of the shaft is perfectly vertical.**



Step 12: Replace Large O-Ring

- Secure the large o-ring into the space around the outer washer.
- Press in with fingers until mostly in place and push in remaining segments using the front plate.



Step 13: Secure Front Plate

- Making sure the large o-ring is securely in place, align front plate with bolt holes.
- Replace all 4 bolts, nuts, and locking washers using wrench and ratchet.

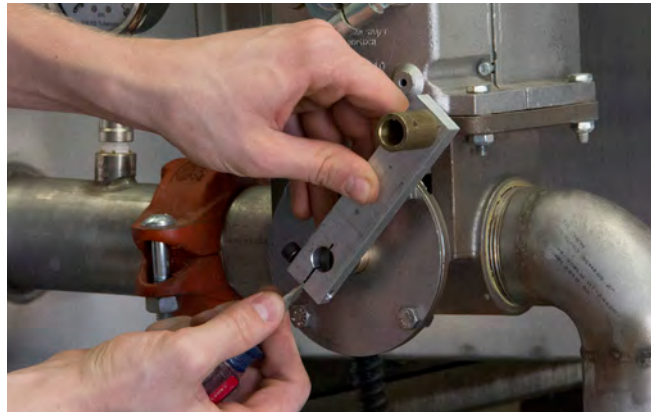


Step 14: Replace Crank Arm

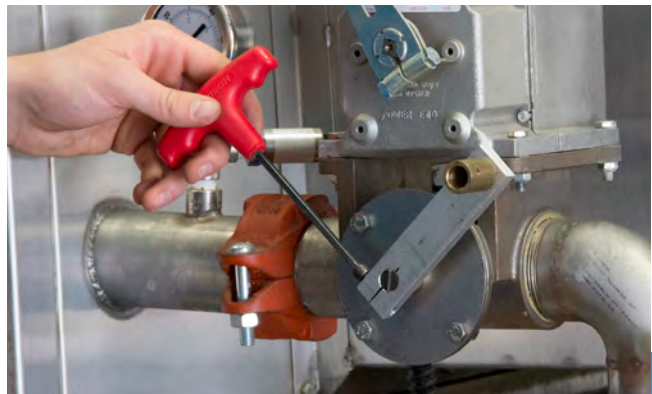
- Estimate the angle of the crank arm by holding it up to the connecting rod.
- Note the angle on the picture you took.



- Insert the screwdriver into the slot on the end so you can slide the arm onto the vane shaft.
- Make sure not to turn the vane. The notch should remain vertical.



- Tighten side screw using Allen Wrench



Step 15: Replace Connecting Shaft, Pins, and Zip Ties

- Replace connecting shaft, making sure not to move pins on threading.
- Replace pins and zip-ties, if you had them.



Step 16: Recalibrate Humidaire*

*If your Humidaire has a laminated recalibration tag like the one in the picture above, it needs to be recalibrated. Consult the Humidaire manual for instructions.