

# SERVICE BULLETIN

### **WISA AC AIR PUMP MAINTENANCE AND REBUILD**

This Service Bulletin provides instruction for periodic maintenance and rebuild of WISA air pumps found in Gorman-Rupp bubbler type liquid level controllers.

#### **Periodic Maintenance Inspections**

Periodically, the air pumps should be inspected for signs of defects such as noisy operation, excessive vibration, discoloration of tubing, or damaged tubing. Periodically, change the cotton ball inlet filter.

#### Rebuilding a WISA Air Pump

When the air pump is found to be defective, it can be replaced or rebuilt. The following instructions describe the procedures required to rebuild the air pump.

#### **Gorman-Rupp Parts Required**



Air Pump Repair Kit Gorman-Rupp P/N 26813-903



Air Pump ConnectingRod Kit Gorman-Rupp P/N 26813-905



In-Line Check Valve (Gorman-Rupp P/N 46411-168



Disconnect all power before removing air pump from control panel.

## **Rebuild Instructions**

 Remove air line from air pump and unplug A/C power plug. Air pump can then be removed from the panel for rebuild by unscrewing the base where it attaches to the back panel (Envirep advises that the in-line check valve be replaced whenever the air pump is rebuilt).



2. Separate the top and bottom section of air pump enclosure by inserting a flat head screwdriver into the side and separate the two sections





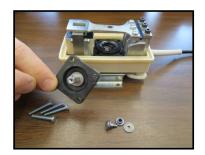
3. Remove connecting rod screw while stabilizing the rod with needle nosed pliers. Remove the rubber bushing and metal washer



4. Remove 4 screws from top portion of diaphragm and set aside.







5. Pop off bottom portion of diaphragm housing with a flat head screw driver and remove pump body; set aside.



6. Peel away old gasket and replace with new one from air pump repair kit shims,



7. Replace spring and diaphragm that are located inside the bottom diaphragm housing. There is one diaphragm and one spring on each side of the bottom housing. Once complete, place the bottom diaphragm housing back into the air pump.

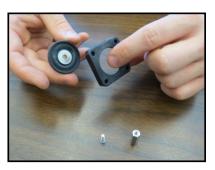






- 8. Remove Phillips head screw from bottom half of connecting rod to replace the rubber diaphragm.
- 9. Remove top and bottom washers from old diaphragm and place on replacement diaphragm from air pump repair kit. Insert Phillips head screw back through replacement diaphragm and washers back into connecting rod (do not over-tighten)







10. Place top half of diaphragm housing with the connecting rod attached back into pump body. Insert all 4 bolts back into diaphragm housing. Once snug, proceed with another  $\frac{1}{4}$  to  $\frac{1}{2}$  turn to tighten.





11. Re-install rubber bushing, metal washer, and connecting rod screw. Stabilize connecting rod with needle nose pliers and tighten rod screw until just snug (do not over-tighten).







12. Re-attach top section of air pump enclosure to bottom half and re-install pump back in control panel. Re-attach air line to output on air pump and plug A/C power plug back into receptacle. Air pump is now ready to be tested for proper operation.



\*\*\* For more information, please contact Envirep's Service Department @ 717-761-7884 or email a request to service @envirep.com. \*\*\*

**Envirep** maintains a large inventory of genuine factory parts for **Gorman-Rupp** pumps and equipment for the water and wastewater industry. Please call our dedicated parts sales team for assistance in selecting and ordering parts for your equipment.