



## **HydroCumulator IOM**

### **TROUBLESHOOTING**

1. First, determine if the HydroCumulator has correct pre-charge by isolating it from the building. Close all valves connected to the HydroCumulator and open the hose bib to relieve the water-side pressure.
2. After bleeding off water side pressure, check pre-charge pressure vs. data sheet. If precharge pressure is correct, close  $\frac{3}{4}$ " drain valve and return HydroCumulator to service.
3. If precharge pressure is low, recharge to proper setting and then close  $\frac{3}{4}$ " drain connection and return to service.
4. If HydroCumulator pressure gauge drops to zero, depress air fill valve fitting to check for water or air pressure. If neither is present, remove air fill valve connection.
5. If precharge pressure has been lost completely, allow HydroCumulator to drain and then re-install air fill valve connection and attempt to precharge HydroCumulator. If air comes out of the water-side opening, diaphragm has ruptured. If HydroCumulator can be precharged back to design pressure, recharge and check for leaks before returning to service.
6. If HydroCumulator loses air regularly, check all external openings for leaks.

### **BLADDER REPLACEMENT and CHARGING**

1. After determining the HydroCumulator cannot be recharged, make sure that all water has been removed from tank. Remove the air fill valve fitting if not already out. Break the flanged connection at bottom of tank to drain any water that may be outside the diaphragm. Only loosen the connection; do not remove completely.
2. Once the HydroCumulator is empty, unbolt it from floor and disconnect pipe union. Lay tank on its side, allowing approximately five feet access to bottom connection. Unbolt flange assembly and pull straight back.

3. Take care when removing the distribution tube so as not to damage it.
4. Inspect tube assembly for any damage. Tube should not have any openings other than the thin slots. The tip should be roughed and permanently attached. Re-tape neck of tube if needed.
5. If any damage is noted on the distribution tube, contact factory for tube replacement. Do not continue repair with damaged tube as failure to bad will result.
6. Remove diaphragm assembly and inspect for rips and tears. If warranty failure, bag must be returned for credit.
7. Clean inside of HydroCumulator with water hose to remove any dirt or sediment that may still be present.
8. Reassemble by inserting tube in bag and folding bag in half. Then, roll bag uniformly around tube so it can be slid through the opening.
9. Using an air compressor, blow air in flange opening to unravel bag inside tank.
10. Once bag is unraveled, line up bag with flanges and insert bolts, making sure gaskets are on both sides of the bag.
11. Bolt flange assembly to tank mating flange. Tighten bolts uniformly to compress gaskets and provide a tight seal.
12. Stand up tank and bolt to skid. Inflate the bag through the water side opening to allow it to expand to the full inside area of the receiver.
13. When HydroCumulator bag appears at the air fill fitting opening, stop and allow bag to settle down over tube.
14. Re-install air fill valve and precharge to required pressure.
15. Reconnect water side piping and close  $\frac{3}{4}$ " drain valve.
16. Check all external openings for leaks using trouble bubble or liquid soap. Tighten any leaking connections.
17. Slowly open HydroCumulator shutoff valve and return tank to operation.
18. Refer to pump system IOM for switch settings.
19. Check precharge 24 hours later to confirm integrity.