



HEALTHCARE STORAGE TANKS OPERATION & MAINTENANCE MANUAL



**Manufactured With Pride
In The USA**

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TABLE OF CONTENTS

PAGE

1.0 STORAGE TANK COMPONENTS	1
2.0 INSTALLATION AND STARTUP	5
3.0 TANK DISINFECTION	6
4.0 REPLACEMENT PARTS	7
5.0 WARRANTY POLICY	8

1.0 STORAGE TANK COMPONENTS

THEORY OF OPERATION

The storage tank is equipped with 3 float switches, which will turn the reverse osmosis unit off when the water reaches the predetermined cutoff point and turn the RO on when the tank is drained to the appropriate level float. The distribution pump on the storage tank will cycle whenever there is a pressure drop detected. A third float switch has been wired into the pump to act as a kill switch to prevent the pump from operating when there is no water. **(Applies to models, 00HC-0091, 00HC-0093, 00HC-0095 and 00HC-0097)**

The storage tank is equipped with 2 float switches, which will turn the reverse osmosis unit off when the water reaches the predetermined cutoff point and turn the RO on when the tank is drained to the appropriate level float. The distribution pump on the storage tank will cycle whenever there is a pressure drop detected. **(Applies to models, 00HC-0090, 00HC-0092 and 00HC-0094)**

The storage tank is equipped with 2 float switches, which will turn the reverse osmosis unit off when the water reaches the predetermined cutoff point and turn the RO on when the tank is drained to the appropriate level float. The distribution pump on the storage tank will cycle whenever there is a pressure drop detected. **(Applies to models, 0185-8000 and 00HC-0090-PRV)**

The Healthcare storage tanks come in three different sizes – 55 Gallon, 100 Gallon and 185 Gallon. Shown in this manual is the 185 Gallon model.

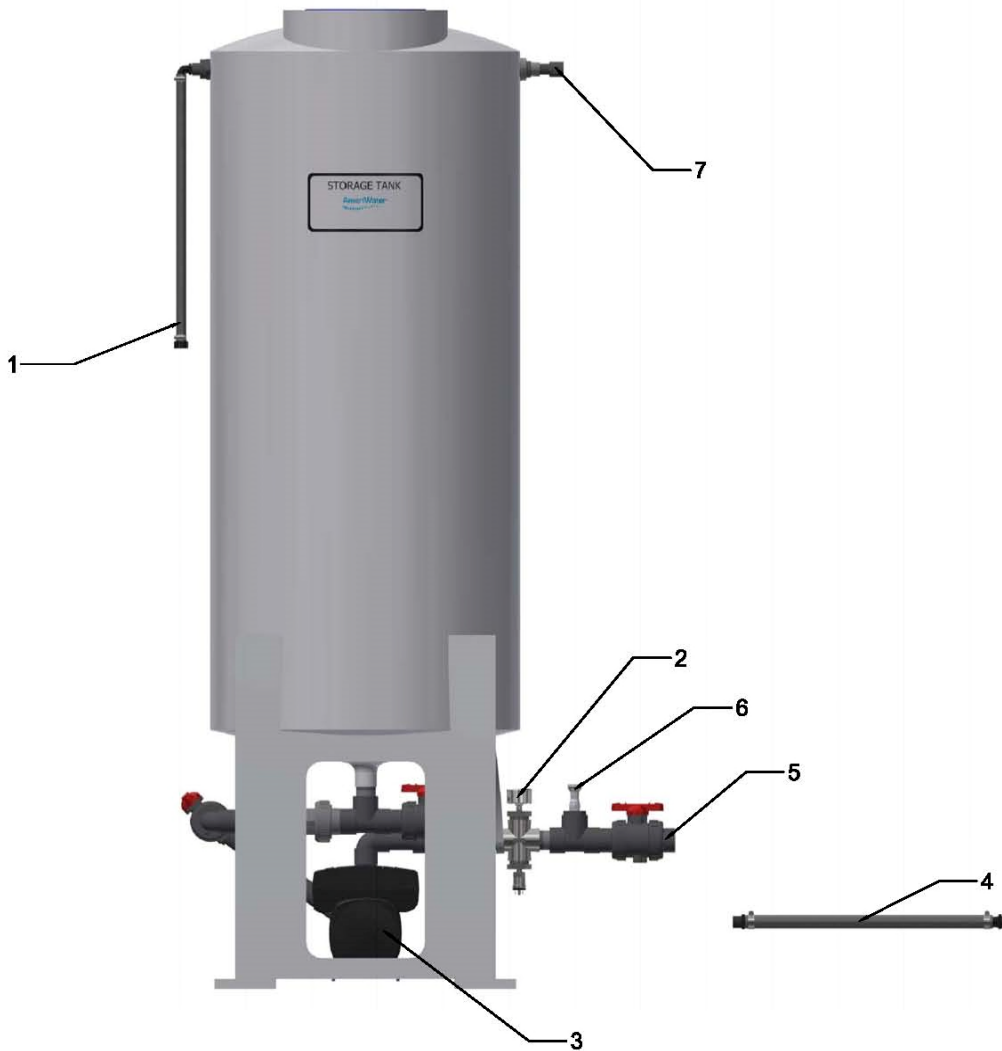


FIGURE 1.1

IDENTIFICATION OF STORAGE TANK COMPONENTS (FRONT VIEW)

1. **WATER INLET:** Connection for the purified water into the tank.
2. **PUMP PRESSURE GAUGE:** Gauge that measures the pressure in pounds per square inch (PSI) when the distribution pump is running.
3. **DISTRIBUTION PUMP:** Pump that is used to distribute water to the system whenever the internal pressure drops or there is greater than 3.0 GPM flow.
4. **SYSTEM OUTLET HOSE:** Hose that is provided to change the system outlet from FPT to MPT. See chart below for models and sizes

MODEL #	FPT (Size in Inches)	MPT (Size in Inches)
00HC-0090	.75	.75
00HC-0091	1.00	1.00
00HC-0092	.75	.75
00HC-0093	1.00	1.00
00HC-0094	.75	.75
00HC-0095	1.00	1.00
00HC-0097	1.00	1.00

5. **DISCHARGE CONNECTION:** FPT connection point for the loop. See chart below for models and sizes

MODEL #	FPT (Size in Inches)
0185-8000	1 .00
00HC-0090	.75
00HC-0091	1 .00
00HC-0092	.75
00HC-0093	1 .00
00HC-0094	.75
00HC-0095	1.00
00HC-0097	1.50

6. **BYPASS QUICK CONNECT:** Used to allow untreated water to completely bypass the system in the event of downtime.
7. **RETURN FROM LOOP:** Connection that can be utilized to allow the loop to re-circulate back into the storage tank to minimize opportunities for bacteria growth. The return flow control on this is 3 GPM.

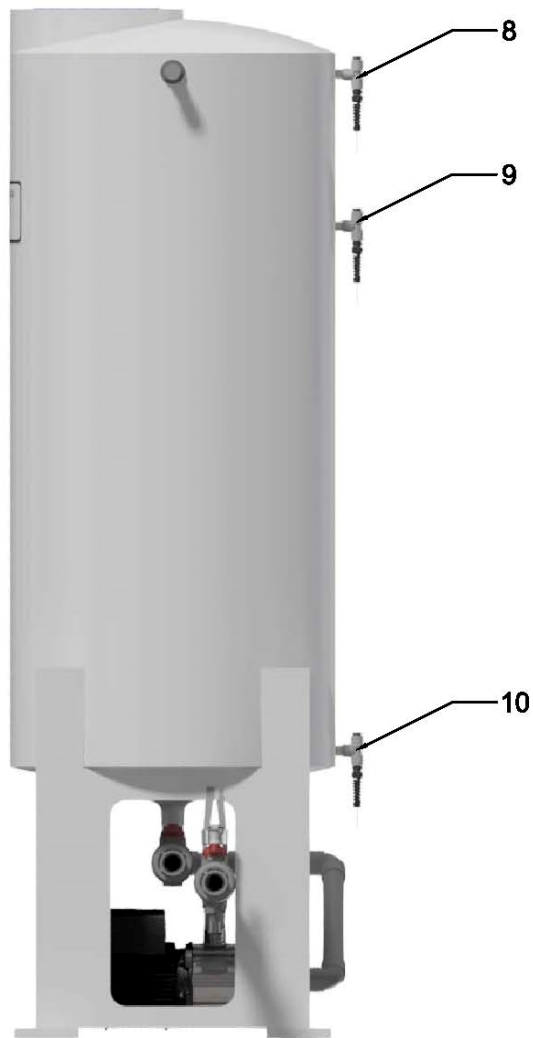


Figure 1.2

IDENTIFICATION OF STORAGE TANK COMPONENTS (SIDE VIEW)

- 8. HIGH LEVEL FLOAT:** Sends a signal to the RO when the tank is full to stop water purification.
- 9. MID LEVEL FLOAT:** Sends a signal to the RO when the predetermined mid level has been breached to have the RO begin water purification.
- 10. PUMP PROTECTION FLOAT:** Prevents the pump from operating when this switch is open.

2.0 INSTALLATION AND STARTUP

1. Locate the storage tank on a firm, level foundation. For seismic requirements, drill (4) 5/8" diameter holes into the concrete through the mounting holes in the storage tank feet a minimum of 4" deep. Install (4) 5/8" diameter, HILTI KB-TZ Expansion anchors through the 4 holes on the pads to anchor into the ground. A minimum of 4 threads for each anchor must be below the concrete prior to application of 60 ft-lbs of torque.
2. Connect the discharge from the pump to the distribution piping.
3. Run the floatswitch quick disconnect to the RO and lock in place.
4. Prime the pump by filling the tank with water and opening the valve into to the pump's inlet. Loosen the priming plug on the pump to allow the air to escape. Once water starts to escape, re-tighten the priming plug (Only applicable to pump 80-0002).
5. Wire or plug the storage tank power cord into a dedicated UL listed NEMA 4X rated disconnect. See table below for models and pump voltages.

Part #	Electrical Voltages	Name
80-0002	115VAC, 1PH, 9.2AMPS	DISTRIBUTION PUMP-55,100 & 185 GALLON STD FLOW, MODELS 00HC-0090, 00HC-0090-PRV, 00HC-0092 AND 00HC-0094
80-0148	220VAC, 1PH, 7.5AMPS	DISTRIBUTION PUMP, HIGH FLOW 30GPM, MODELS 00HC-0091, 00HC-0093, 00HC-0095
80-0203	208VAC, 3PH, 8.3AMPS	DISTRIBUTION PUMP, HIGH FLOW 70GPM, MODEL 00HC-0097

6. If the pressure delivered by the pump is to be changed, a technician will need to have access to a smartphone with the Grundfos GO application along with a Grundfos communication dongle (AMW PN 97-0003). Refer to IFU 98-9057 to setup parameters to change pressure delivered by the pump.
7. Loop should be flushed prior to operating the distribution pump on the storage tank.

3.0 TANK DISINFECTION

Storage Tank Disinfection Procedure:

1. The storage tank can be disinfected using household bleach or a peracetic acid disinfectant (PAA).

WARNING: Never allow Chlorine (bleach) to come into contact with PAA. Doing so will cause a severe chemical reaction!

- a. For a 55 gallon tank, fill to the RO shut-off level mark and add 1 quart of household bleach or PAA.
- b. For a 100 gallon tank, fill to the RO shut-off level mark and add 2 quarts of household bleach or PAA.
- c. For the 185 gallon tank, fill to the RO shut-off level mark and add 4 quarts of household bleach or PAA.

NOTE: The values above will provide a 250 PPM concentration of disinfectant. If desired, the disinfectant can be doubled to provide a stronger kill (500 PPM). However, when this is done, the rinse-up time will be significantly longer.

2. If your system is installed with a recirculation loop back to the storage tank, recirculate the system for 30 minutes.
3. If your system is a demand feed (where the pump only operates when your equipment calls for water), connect the bypass hose to the quick disconnect and place the other end of the bypass hose into the storage tank, recirculate for 30 minutes.
4. After recirculation, drain the tank, fill with RO water, and recirculate for 5 minutes.
5. Drain, then refill the tank, and recirculate for 5 minutes. Use a chlorine test strip to verify the residual chlorine level or a PAA test strip to verify the residual PAA level.
6. Repeat step 4 and 5 until the test strip indicates a residual level at or below 1.0 ppm.

4.0 REPLACEMENT PARTS

Part #	Name
1A. 80-0002	DISTRIBUTION PUMP-55,100 & 185 GALLON STD FLOW, MODELS 0185-8000, 00HC-0090, 00HC-0090-PRV, 00HC-0092 AND 00HC-0094
1B. 80-0148	DISTRIBUTION PUMP, HIGH FLOW 30GPM, MODELS 00HC-0091, 00HC-0093, 00HC-0095
1C. 80-0203	DISTRIBUTION PUMP, HIGH FLOW 70GPM, MODEL 00HC-0097
2. R167-0017	FLOATSWITCH,ASSY,REPLACEMENT,W/SPIRAL+10' CABLE
3. 43-0017	GAUGE,0-100,.25,CBM,2.5,LF,U-CLAMP,SS/SS



Figure 4.1

5.0 WARRANTY POLICY

This product is covered under the standard AmeriWater warranty policy. For specific terms and conditions, please contact your AmeriWater Sales Representative.