

Winterization Procedure **Must** be Completed by a Licensed Plumber

Failure to properly winterize unit can result in thousands of dollars in damage.

28' x 12' Water & Septic on Skid

General Information

The 28x12 water & septic on a skid is designed to be used as a holding area for a washroom that is not self-contained. It can also be used as a single toilet use with a sewer pit and pump located inside the skid. Meaning that the 1700 gal water tank would need to be filled by a water truck and have the 1700 gal sewer tank pumped out by septic truck.

The washroom is equipped with a 40 gallon pressure tank, 40 gallon hot water tank and two ¾ HP water pumps. Please note there is a water pump power supply control box on the back wall to shut power off to the pumps when the tanks are filled.

Notes:

- The skid needs to be completely level in order for plumbing to function properly
- 1700gal water tank, 1700gal sewer tank and Hot Water Heater must be drained prior to moving the trailer

Water System Operating Instructions

Fill 1700 Gallon Water Tank

- Fill pipe is located outside the mechanical door with a sign indicating its use
- Remove the protective cover off 2" male camlock
- Connect 2" female camlock to fill pipe
- Ensure 2" water tank drain valve (#6) inside unit has been closed
- Pump water into water tank using a water pump and a 2" hose from the water supply
- Alternatively, a garden hose can be used by removing 1700 gal water tank cover to fill the water tank
- Once water flows out of 3" overflow pipe at rear and top of the trailer the water tank is full
- Reconnect protective cover over water fill pipe

Note: While the water tank is filling, the water tank supply can be monitored from inside the unit. There is a low-level float switch that activates when the water tank is empty and the alarm will sound and a red light will turn on. Turn OFF water alarm breaker at electrical panel to stop alarm until water is refilled. Turn breaker back on afterward refilling the water tank.

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USING SELF CONTAINED WATER & SEPTIC TANKS

NOTE: BELOW IS VALVE INSTRUCTIONS FOR USING WATER PUMP #1. SEE INSTRUCTION BELOW IF THE PUMP FAILS. WATER PUMP POWER SUPPLY SWITCH IS SET TO "PUMP 1" ON CONTROL BOX LOCATED ON WALL ABOVE WATER PUMPS.

- VALVE 1. CLOSED (MAIN SEWER DRAIN)
- VALVE 2. OPEN (SEWER LINE TO PIT)
- VALVE 3. N/A (VALVE REMOVED)
- VALVE 4. N/A (VALVE REMOVED)
- VALVE 5. N/A (VALVE REMOVED)
- VALVE 6. CLOSED (WATER TANK DRAIN)
- VALVE 7. OPEN (WATER FEED FROM TANK)
- VALVE 8. CLOSED (MUNICIPAL)
- VALVE 9. OPEN (PRESSURE TANK)
- VALVE 10. CLOSED (PRESSURE TANK DRAIN)
- VALVE 11. CLOSED (HWH DRAIN)
- VALVE 12. OPEN (COLD WATER)
- VALVE 13. CLOSED (HWH BY-PASS)
- VALVE 14. OPEN (HOT WATER)
- VALVE 15. CLOSED (PUMP 1 DRAIN)
- VALVE 16. OPEN (PUMP 1)
- VALVE 17. OPEN (PUMP 1 FEED)
- VALVE 18. CLOSED (PUMP 2 DRAIN)
- VALVE 19. CLOSED (PUMP 2)
- VALVE 20. CLOSED (PUMP 2 FEED)
- VALVE 21. CLOSED (WINTERIZING)
- VALVE 22. N/A (VALVE REMOVED)
- VALVE 23. N/A (VALVE REMOVED)
- VALVE 24. N/A (VALVE REMOVED)
- VALVE 25. OPEN (WATER LINE AFTER PT)
- VALVE 26. CLOSED (DRAIN UNDER LAUNDRY SINK)
- VALVE 27. CLOSED (DRAIN UNDER LAUNDRY SINK)

**IF WATER PUMP 1 FAILS: SWITCH ON WATER PUMP SUPPLY TO "PUMP 2", CLOSE VALVE 16 & 17 AND OPEN VALVES 19 & 20.

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Instructions to Pressurize Water Supply When Using Water Tank and Pumps:

See Valve Guide Instructions for Using Self-Contained Water and Septic Tanks (Page 2)

- OPEN water supply valve (#7) at bottom of the water tank to feed water pump. Please note that Pump may have to be primed (See Steps below). Ensure hot water heater drain valve (#11) is closed.
- Ensure water pump to be used is plugged in and the breaker in the electrical panel is in the ON position.
- If using pump #1 have valves #16 & #17 **OPEN** while valves 19 & 20 are **CLOSED**.
- If using pump #2 have valves #19 & #20 **OPEN** while valves 16 & 17 are **CLOSED**.
- Ensure valve (#14) feeding hot water heater is CLOSED to pressurize system.
- To prime pump lift low-pressure valve lever on side of water pump until water pressures exceed 25Psi and water pump operates on its own. Then, release low-pressure valve lever and pump should continue running until 50 psi is obtained at which time pump will shut off automatically.
- Once water line is pressurized then open valve (#14) to fill hot water heater and pressurize hot water lines.

VALVE GUIDE FOR USING MUNICIPAL WATER SERVICE

NOTE: If the water source is available then it can be connected to the trailer instead of using water tank. See Valve Guide below for using Municipal Service. On-site water supply is connected to a water pipe protruding outside the trailer clearly marked. Be sure to wrap heat tape on-site to prevent freezing of pipes outside of building. There is a plug outside of the trailer to plug heat tape into. Please note Valves 3, 4, 5, 22, 23, 24 are not applicable.

- VALVE 1. **CLOSED (MAIN SEWER DRAIN)**
- VALVE 2. OPEN (SEWER LINE TO PIT)
- VALVE 3. **N/A (VALVE REMOVED)**
- VALVE 4. **N/A (VALVE REMOVED)**
- VALVE 5. **N/A (VALVE REMOVED)**
- VALVE 6. **CLOSED (WATER TANK DRAIN)**
- VALVE 7. OPEN (WATER FEED FROM TANK)
- VALVE 8. OPEN (MUNICIPAL)
- VALVE 9. OPEN (PRESSURE TANK)
- VALVE 10. **CLOSED (PRESSURE TANK DRAIN)**
- VALVE 11. **CLOSED (HWH DRAIN)**
- VALVE 12. OPEN (COLD WATER)
- VALVE 13. **CLOSED (HWH BY-PASS)**
- VALVE 14. OPEN (HOT WATER)
- VALVE 15. **CLOSED (PUMP 1 DRAIN)**
- VALVE 16. OPEN (PUMP 1)
- VALVE 17. OPEN (PUMP 1 FEED)
- VALVE 18. **CLOSED (PUMP 2 DRAIN)**

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- VALVE 19. CLOSED (PUMP 2)
- VALVE 20. CLOSED (PUMP 2 FEED)
- VALVE 21. CLOSED (WINTERIZING)
- VALVE 22. N/A (VALVE REMOVED)
- VALVE 23. N/A (VALVE REMOVED)
- VALVE 24. N/A (VALVE REMOVED)
- VALVE 25. OPEN (WATER LINE AFTER PT)
- VALVE 26. CLOSED (DRAIN UNDER LAUNDRY SINK)
- VALVE 27. CLOSED (DRAIN UNDER LAUNDRY SINK)

Macerating Toilet Pump Operation (If Applicable)

The macerating toilet is equipped with a pump that will discharge waste into the sewer tank. Ensure the RED ball valve leading to sewage pit is open and power is supplied to pump.

Liberty Sewage Pit Operation

The Liberty sewage sump pit is equipped with a high level alarm that will sound when sump pit is over full. If the tank is not full this may be a sign that there is something clogging the pump or pumps have failed. If alarm continues please disconnect power, remove top access cover of pit and clear the debris before using again. The alarm will automatically reset once level goes down. Ensure valve (#2) leading to sewage pit is open. If problem persists please call for assistance.

1700 Gal Sewer Tank Operation

The 1700 gal sewer tank is equipped with two floats. One high-level alarm float to let you know that the tank is almost full and needs to be drained. If not drained the second float will trip a contactor to turn the power off to the water pump when the tank reaches its capacity to prevent it from overflowing. To restore power to the water pump and stop alarm follow instructions to drain sewer tanks see below.

Instructions for Draining the Sewer Tanks

- Located on the right side of the exterior door there is a 3" female camlock which is the drain pipe for the sewage tanks and has a protective spill cover.
- Remove the protective spill cover and connect a 3" male camlock with a sewage hose from the vacuum truck to the 3" female camlock drain line on the trailer.
- Open sewage release valve (#1) to allow sewage to flow.
- Once sewage tank is empty close sewage valve (#1) and unhook the hose and reconnect protective cover into camlock connection.

If you are Draining into a municipal sewer line use adapter located inside the mechanical room. The adapter fastens to the camlock on the exterior of the unit. Once everything is connected open valve 1.

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INSTRUCTIONS FOR DRAINING & WINTERIZING

Note: All ball valves **NOT** charged with antifreeze need to be in the half-open position once winterizing is complete. If the valve is fully open or fully closed damage to the valve may occur and will need to be replaced.

To winterize you will need about 20 gallons of antifreeze.

Turn off the hot water heater electrical disconnect and drain the hot water heater (open valve #11) and CLOSE the valve feeding the hot water heater (Valve #12, 14) so no antifreeze will be pumped into the hot water heater.

OPEN the valve (#6) at the bottom of the 1700-gallon water tank to drain it.

There are about a 5 ft long x 1 ¼ " clear tube hose near the water pump (Valve #21) that is used to pump plumbers antifreeze thru the cold and hot water lines. Insert the open end of hose into a pail of antifreeze so that the water pump draws from this pail of antifreeze. Keep adding antifreeze as required. OPEN valve (#13) at the top of the hot water heater to crossfeed antifreeze from the cold water line to the hot water line downstream of the hot water heater.

With the hot and cold water lines charged with plumber antifreeze run the laundry sink hot and cold water taps until antifreeze comes out and run enough to fill the sink p traps with antifreeze. Run antifreeze thru each water pump by OPENING valve (#16, 17 or #19, 20) of the pump not being used.

Hold the flush valve on the toilet until the antifreeze flows through the valve into the bowl and enough to fill the lines. Two flushes should be enough. If applicable, same instructions apply for urinals.

To winterize liberty sewer sump pit and pumps press the "Pump Run" button on the pump controller (located on ceiling) to pump out the water in the sump pit. Next, ensure sewage pump power is unplugged and remove the small access cover on the sewage sump pit (6 bolts). Use a shop vac to suck the remaining water out of the sewer sump pit or dump 10 gallons of antifreeze into the sewage sump. Reinstall the sewer sump pit cover. Have the 1700 gal sewage tank drained as per instructions on page 4.

If toilet is macerating: Close the valve feeding the toilet and then flush the toilet to get rid of the water in the bowl and tank.

Once lines are charged with antifreeze, open the valves of the toilet just enough to allow the antifreeze into the toilet tank. Flush toilet 4 to 5 times to ensure macerating pump and discharge line are clear of water. Pour antifreeze into the standpipe in the toilet tank. Then add 4" of plumber antifreeze in toilet bowl.