

40'x11' Office with Self-Contained Washroom Trailer

General Information

The 40' x 11' office with a self-contained washroom trailer is designed to be used in various applications. It can be used as an open office or have multiple offices with a self-contained washroom. This means that the 400 gal water tank would need to be filled by a water truck and have the 400 gal sewer tank pumped out by septic truck. Alternatively, the trailer can be hooked up to municipal services or an on-site water source and septic tank/field.

The washroom is equipped with a macerating toilet and one ½ HP water pump. Please note there is a water pump power supply control box on the back wall to switch power between the water pump or to run on municipal services.

Note: Washroom trailers need to be completely level so that plumbing will function properly. The 400 gal water tank, 400 gal sewer tank and hot water heater must be drained prior to moving the trailer.

Water System Operating Instructions

Self-Contained System

1) Filling the 400 Gallon Water Tank

- Fill pipe is located outside the mechanical door with a sign indicating its use
- Remove protective cover off 2" male camlock
- Connect 2" female camlock to fill pipe
- Ensure 2" water tank drain valve #2 inside trailer mechanical room has been **CLOSED**
- Pump water into water tank using water pump and a 2" hose from water supply
- Alternatively, a garden hose can be used. Remove 400 gal water tank cover to fill water tank
- Once water flows out of the 3" overflow pipe at the rear and top of the trailer, the 400 gal water tank is full
- Reconnect protective cover over water fill pipe

Note: While water tank is filling, the water tank supply can be monitored by going into the mechanical room and looking at the sight glass on the side of the water tank. 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 after refilling water tank.

2) Instructions to Pressurize Water Supply When Using Water Tank & Pumps:

Note: Please see water pump power supply box on back wall to ensure the power is set to the pump and not the municipal supply. See valve position guide for start-up and use of self-contained water system.

- **OPEN** water supply valve #3 at bottom of water tank to feed water pump. Please note that pump may have to be primed. Ensure pressure tank drain valve #6 is **CLOSED**.
- Ensure water pump is plugged in, the power box switch is positioned for the appropriate water supply and the breaker in the electrical panel is in the ON position.
- Ensure the valve immediately upstream and downstream of the pump is **OPEN**
- Ensure valve #11 feeding the hot water heater is **CLOSED** to pressurize the system.
- Open valve #3 (water supply valve)

Washroom
Start Up Tutorial



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- To prime the pump, begin by removing the pressure gauge and filling the pump with water. Reinstall the pressure gauge and lift low-pressure valve lever on side of water pump until water pressures exceed 25 Psi 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 the pump will shut off.
- Once water line is pressurized, **OPEN** valve #11 to fill hot water heater and pressurize hot water lines.

Valve Position Guide for Start-Up & Use of a Self-Contained Water System

Note: Red ball valve on the white PVC discharge line coming from the toilet pump needs to be open. The water pump power supply box should be set to power to pump.

- VALVE 1. CLOSED (MAIN SEWER DRAIN)
- VALVE 2. CLOSED (WATER TANK DRAIN)
- VALVE 3. OPEN (WATER FEED FROM TANK)
- VALVE 4. OPEN (WATER FEED FROM PRESSURE TANK)
- VALVE 5. OPEN (PRESSURE TANK SHUT OFF)
- VALVE 6. CLOSED (PRESSURE TANK DRAIN)
- VALVE 7. CLOSED (TAP FOR MUNICIPAL)
- VALVE 8. CLOSED (SHUT OFF BETWEEN PUMP + MUNICIPAL)
- VALVE 9. CLOSED (SOLENOID VALVE, WILL OPEN AUTOMATICALLY WHEN USING MUNICIPAL)
- VALVE 10. CLOSED (HWH DRAIN)
- VALVE 11. OPEN (COLD WATER FEED)
- VALVE 12. OPEN (HOT WATER FEED)
- VALVE 13. CLOSED (BYPASS FOR HOT WATER)
- VALVE 14. CLOSED (WINTERIZING)
- VALVE 15. CLOSED (WATER PUMP DRAIN)
- VALVE 16. CLOSED (SINK DRAIN)
- VALVE 17. CLOSED (SINK DRAIN)
- VALVE 18. CLOSED (KITCHEN SINK DRAIN) IF APPLICABLE
- VALVE 19. CLOSED (KITCHEN SINK DRAIN) IF APPLICABLE

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Municipal System

If a water source is available, then it can be connected to the trailer instead of using a water tank. See the valve position guide below for using municipal services. The on-site water supply can be connected to the municipal water line (valve #7) inside the trailer via a garden hose. Be sure to wrap the on-site water supply pipe in heat tape to prevent freezing. There is a plug under the trailer to plug heat tape into. **The water supply control box, located in the washroom, must be switched to “Municipal” for this system to operate.**

Valve Position Guide for Start-Up & Use of a Municipal Water System

Note: Red ball valve on the white PVC discharge line coming from the toilet pump needs to be open.

- VALVE 1. CLOSED (MAIN SEWER DRAIN)
- VALVE 2. CLOSED (WATER TANK DRAIN)
- VALVE 3. CLOSED (WATER FEED FROM TANK)
- VALVE 4. CLOSED (WATER FEED FROM PRESSURE TANK)
- VALVE 5. CLOSED (PRESSURE TANK SHUT OFF)
- VALVE 6. CLOSED (PRESSURE TANK DRAIN)
- VALVE 7. OPEN (TAP FOR MUNICIPAL)
- VALVE 8. OPEN (SHUT OFF BETWEEN PUMP + MUNICIPAL)
- VALVE 9. OPEN (SOLENOID VALVE, WILL OPEN AUTOMATICALLY WHEN USING MUNICIPAL)
- VALVE 10. CLOSED (HWH DRAIN)
- VALVE 11. OPEN (COLDWATER FEED)
- VALVE 12. OPEN (HOT WATER FEED)
- VALVE 13. CLOSED (BYPASS FOR HOT WATER)
- VALVE 14. CLOSED (WINTERIZING)
- VALVE 15. CLOSED (WATER PUMP DRAIN)
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Septic System Operating Instructions

Macerating Toilet Pump Operation

The macerating toilet is equipped with a pump that will discharge waste into the sewer tank. Ensure the red ball valve leading to the sewer tank is **OPEN**.

400 Gal Sewer Tank Operation

The 400 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 power off to the water pump when the tank reaches its capacity to prevent it from overflowing. The alarm is located on the right side of the exterior door closest to the hitch. To restore power to the water pump and stop alarm, follow instructions to drain sewer tanks.

Instructions for Draining the Sewer Tanks

- Located on the right side of the trailer near the exterior door closest to the hitch, there is a 3" female camlock which is the drain pipe for the sewage tanks, which 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, located on the right side inside the exterior door closest to the hitch, 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.

Note: If you are draining into a municipal sewer line, use adapter located inside mechanical room. The adapter fastens to the camlock on exterior of the unit. Once everything is connected, **OPEN** valve #1.

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Winterization Procedure Must be Completed by a Licensed Plumber.

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

Washroom
Winterizing Tutorial



Water System Winterizing Instructions

Self-Contained System

Note: All drain valves (#2, 6, 10, 15, 16, 17, 18, 19) should be OPEN to drain the trailer, then CLOSED prior to winterizing the unit.

All ball valves **NOT** charged with antifreeze need to be in the half **OPEN** position once winterizing is complete. If valve is fully **CLOSED** to hold pressure, **OPEN** and **CLOSE** that valve twice to allow any trapped water to be displaced. Failure to do so may cause damage to the valve and it will need to be replaced. To winterize, you will need about 30 gallons of antifreeze.

- Turn off the hot water heater (HWH) electrical disconnect and drain the HWH (**OPEN** valve #10) and **CLOSE** the valves feeding the HWH (valves #11, 12) so no antifreeze will be pumped into the HWH.
- **OPEN** valve #13 at the top of the HWH to cross feed antifreeze from the cold water line to the hot water line downstream of the HWH.
- **OPEN** valve #2 at the bottom of the 400 gal water tank to drain it.
- **CLOSE** the valve feeding the toilet, then flush the toilet to remove the water in the bowl and tank.
- There is a 5-foot-long x 1 ¼" clear hose near the water pump (valve #14) that is used to pump plumber's antifreeze through the cold and hot water lines. Insert the end of this clear hose into a pail of antifreeze and **OPEN** valve #14 so that the water pump draws from the pail. Keep adding antifreeze to the pail as required.
- With the hot and cold water lines charged with plumber's antifreeze, run the washroom sink and kitchen sink hot and cold water taps until antifreeze comes out. Run enough to fill the sink P-traps with antifreeze.
- Sponge out or use a shop vac to clear any water out of the toilet bowl and tank. **OPEN** the valve of the toilet just enough to allow the antifreeze into the toilet tank and bowl. Allow the tank to fill with antifreeze before closing the toilet valve. Once the tank is full, flush the toilet to remove any remaining water.
- Have the 400 gal sewage tank drained as per instructions on Page 4.

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Valve Position Guide for Winterizing a Self-Contained System

Note: Red ball valve on the white PVC discharge line coming from the toilet pump needs to be open. The water pump power supply box should be set to power to pump.

- VALVE 1. CLOSED (MAIN SEWER DRAIN)
- VALVE 2. CLOSED (WATER TANK DRAIN)
- VALVE 3. CLOSED (WATER FEED FROM TANK)
- VALVE 4. OPEN (WATER FEED FROM PRESSURE TANK)
- VALVE 5. CLOSED (PRESSURE TANK SHUT OFF)
- VALVE 6. CLOSED (PRESSURE TANK DRAIN)
- VALVE 7. CLOSED (TAP FOR MUNICIPAL)
- VALVE 8. CLOSED (SHUT OFF BETWEEN PUMP + MUNICIPAL)
- VALVE 9. CLOSED (SOLENOID VALVE, WILL OPEN AUTOMATICALLY WHEN USING MUNICIPAL)
- VALVE 10. CLOSED (HWH DRAIN)
- VALVE 11. CLOSED (COLD WATER FEED)
- VALVE 12. CLOSED (HOT WATER FEED)
- VALVE 13. OPEN (BYPASS FOR HOT WATER)
- VALVE 14. OPEN (WINTERIZING)
- VALVE 15. CLOSED (WATER PUMP DRAIN)
- VALVE 16. CLOSED (SINK DRAIN)
- VALVE 17. CLOSED (SINK DRAIN)
- VALVE 18. CLOSED (KITCHEN SINK DRAIN) IF APPLICABLE
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- Disconnect external water source from trailer
- Turn off the hot water heater (HWH) electrical disconnect and drain the HWH (**OPEN** valve #10) and **CLOSE** the valves feeding the HWH (valves #11, 12) so no antifreeze will be pumped into the HWH.
- **OPEN** valve #13 at the top of the HWH to cross feed antifreeze from the cold water line to the hot water line downstream of the HWH.
- **OPEN** valve #2 at the bottom of the 400 gal water tank to drain it.
- **CLOSE** the valve feeding the toilet, then flush the toilet to remove the water in the bowl and tank.
- There is a 5-foot-long x 1 ¼" clear hose near the water pump (valve #14) that is used to pump plumber's antifreeze through the cold and hot water lines. Insert the end of this clear hose into a pail of antifreeze and **OPEN** valve #14 so that the water pump draws from the pail. Keep adding antifreeze to the pail as required.
- With the hot and cold water lines charged with plumber's antifreeze, run the washroom sink and kitchen sink hot and cold water taps until antifreeze comes out. Run enough to fill the sink P-traps with antifreeze.
- Sponge out or use a shop vac to clear any water out of the toilet bowl and tank. **OPEN** the valve of the toilet just enough to allow the antifreeze into the toilet tank and bowl. Allow the tank to fill with antifreeze before closing the toilet valve. Once the tank is full, flush the toilet to remove any remaining water.
- Have the 400 gal sewage tank drained as per instructions on Page 4.

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Valve Position Guide for Winterizing a Municipal System

Note: Red ball valve on the white PVC discharge line coming from the toilet pump needs to be open. The water pump power supply box should be set to power to pump. Once the system has been pressurized, the water pump power supply box should be set to municipal so valve #9 is winterized as well.

- VALVE 1. CLOSED (MAIN SEWER DRAIN)
- VALVE 2. CLOSED (WATER TANK DRAIN)
- VALVE 3. CLOSED (WATER FEED FROM TANK)
- VALVE 4. OPEN (WATER FEED FROM PRESSURE TANK)
- VALVE 5. CLOSED (PRESSURE TANK SHUT OFF)
- VALVE 6. CLOSED (PRESSURE TANK DRAIN)
- VALVE 7. CLOSED (TAP FOR MUNICIPAL)
- VALVE 8. OPEN (SHUT OFF BETWEEN PUMP + MUNICIPAL)
- VALVE 9. CLOSED (SOLENOID VALVE, WILL OPEN AUTOMATICALLY WHEN USING MUNICIPAL)
- VALVE 10. CLOSED (HWH DRAIN)
- VALVE 11. CLOSED (COLDWATER FEED)
- VALVE 12. CLOSED (HOT WATER FEED)
- VALVE 13. OPEN (BYPASS FOR HOT WATER)
- VALVE 14. OPEN (WINTERIZING)
- VALVE 15. CLOSED (WATER PUMP DRAIN)
- VALVE 16. CLOSED (SINK DRAIN)
- VALVE 17. CLOSED (SINK DRAIN)
- VALVE 18. CLOSED (KITCHEN SINK DRAIN) IF APPLICABLE
- VALVE 19. CLOSED (KITCHEN SINK DRAIN) IF APPLICABLE