

HOW TO CLEAN YOUR WATER STORAGE TANK

Step by step instructions for cleaning
and disinfecting your water storage tank



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WHY DO I NEED TO CLEAN MY WATER STORAGE TANKS?

Regular maintenance of your water storage tank involves draining, cleaning and disinfecting it, this will help to keep the stored water safe to drink. All water contains some solids. Even if you can't see it in your glass, it can build up over time in your water tank. This maintenance will remove sediment, algae, microbial growth, and debris from your water tank.

Regular cleaning also makes water look and taste better. It is a homeowner's responsibility to make sure that their water tank is cleaned and disinfected at least once per year and as needed.

HOW DO I KNOW THAT MY WATER STORAGE TANK NEEDS TO BE CLEANED?

The drinking water that comes from a water delivery truck or piped system is treated and safe. If the water comes out of the tap cloudy or if the water in your glass is not clear after one minute, your storage tank may need to be drained, cleaned, and disinfected.

HOW OFTEN SHOULD MY WATER STORAGE TANK BE CLEANED?

Water storage tanks should be drained, cleaned and disinfected at least once per year. In communities where the water supply has high levels of sediment at certain times of the year, storage tanks may need to be cleaned more often. In general, if your household water tastes, looks or smells unusual, you should clean your storage tank and/or your water heater.



Things you will need for cleaning your tank:



Unscented
household bleach



Water delivery
and pump out



Pressure washer
with storage tank



Sump Pump
(optional)



Mop



Wet/Dry Vacuum

Personal Protective Equipment



Protective
glasses



N95 Mask



Gloves

HOW TO CLEAN YOUR WATER STORAGE TANK

{ Read all the steps before starting the cleaning process.

STEP 1: PREP

- Start the process when the tank is near empty and co-ordinate with the water delivery and sewage pump out service to refill your water storage tank and pump out your sewage tank.

You will need two water fills: once during the tank cleaning process and again at the end.

- Once you start cleaning the tank, you will not have any water for 24 hours. Have a reserve of drinking water or set aside a reserve of water from your tank to use for brushing teeth, cooking, etc.
- Put up signs at all the taps and faucets to let your family know that the water is NOT safe for drinking.
- Change into your work clothing and put on your personal protective equipment (PPE) - protective glasses, N95 mask, and gloves.
- Clear the top of the tank for a clean workspace.



- Make a disinfectant solution by mixing 1 part unscented household bleach with 4 parts warm (not hot) water in a clean bucket e.g. 1 cup bleach and 4 cups water.

- Clean and disinfect all tools that will touch the water or inside of the tank, including the hose of the wet/dry vacuum, the nozzle of the pressure washer, etc.:

1. Wash all tools with hot water and dish detergent.

2. Rinse with water.

3. Disinfect by spraying the disinfectant solution on the tools or by dipping the tools in the disinfectant solution.

4. Let tools air dry on a clean towel or paper towel.

- Collect 2-5 gallons of hot water in water storage container(s) or pail(s). Set aside, this water will be used for cleaning and rinsing the tank. If you are using a pressure washer, fill the storage container of the pressure washer with hot water.

STEP 2: DRAIN

- Drain the tank by turning on all the taps and letting the water run.



Caution: Listen to the water pump. When the tank is close to empty the pump will run without stopping. Be careful not to let the pump run at zero flow as it will burn the motor out.

- Turn off the water pump and faucets when the tank is close to empty. Close any valves to stop water from circulating in the pipes throughout the building.
- Use the sump pump to finish draining the tank if there is still a lot of water in it.



Do not enter the tank unless you are confined space entry trained, are certified to do so, and have all of the appropriate safety gear available.

STEP 3: CLEAN



- Use the pressure washer or stiff brush to clean any slime, grime and built-up dirt and sediment from the inside of the tank.
- Use the sump pump and/or wet/dry vacuum to remove the water and any bottom sludge or debris from the inside of the tank.

STEP 4: RINSE



- Rinse the inside of the tank well with clean water.
- Use the wet/dry vacuum to remove the rinse water from the tank.
- Repeat rinsing and draining as often as needed to remove any build up.
- Use the mop as needed to clean up any water spills to keep the area free of slipping hazards.

STEP 5: REFILL AND DISINFECT



- Coordinate with your drinking water delivery service to have your tank filled with potable water. Coordinate with them to have your tank filled again the next day once you have finished the disinfection step.

- During this step, any water treatment devices (including the hot water heater) should be bypassed to avoid harming the equipment/material.
- Disinfect by shock chlorination: Add about 4 cups of unscented liquid household bleach (5% chlorine) for every 900 L (200 Gal)

to make a 50 mg/L chlorine solution. To ensure good mixing, it is recommended that the bleach be added to the water when the storage tank is being filled.

{ To properly disinfect, or "shock chlorinate", the tank and plumbing lines, there needs to be at least 10 mg/L free chlorine residual after the full 12-24 hour contact time. You should still be able to smell the bleach at the end of the contact time.



- Once the tank is full, open all taps and faucets connected to the plumbing system and the tank until you can smell bleach.
- Close/turn off all the taps and faucets.

STEP 7: WAIT

- The chlorinated water should be allowed to remain in the plumbing system for up to 24 hours, but no less than 12 hours.
- Make sure the "do not drink" signs are on all the taps and faucets.
- Use bottled water or water set aside during the PREP step to drink, brush your teeth, wash your face and cook with.

STEP 8: DRAIN AND REFILL

- Drain the tank by turning on all the taps and letting the water run. If you have a septic field, use a hose to by-pass the septic system and drain the water outside away from vegetation, lakes, or other areas that may be damaged by the chlorine solution.



Caution: Be careful not to let the pump run at zero flow as it will burn the motor out.

- Turn off the water pump and faucets when the tank is near empty.
- Coordinate with your drinking water delivery service to have your tank filled with potable water.

STEP 9: PURGE

- Turn on all the water taps and faucets and let the water run until you do not smell any bleach. This may take 2 to 5 minutes.

STEP 10: USE

- Your tank and pipes are now clean and disinfected, and you can now use your water.