Clarence City Council
Info Sheets
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Guide to Septic Tank Filter Maintenance

What is a septic tank filter?

A septic tank filter is a device inserted in the outlet "T" of the septic tank. Its purpose is to filter the wastewater from the septic tank before it discharges to the wastewater land management area. Typically, the wastewater land management area, for the septic tank, consists of trenches, pits or beds. A septic tank filter can improve the quality of the effluent by reducing the level of solids leaving the septic tank which aids in extending the life of the wastewater land management area. Over time, a beneficial bacterial bio-mass builds up on the filter and, while this may assist in improving the quality of the effluent, excessive bio-mass reduces flow and can clog the filter. This means that some simple routine maintenance is required to remove the excess bio-mass however, because filters have no moving parts, maintenance is minimal and quite simple. In some instances, the bio-mass will simply fall off the filter while it is still in place in the septic tank.

The cost of maintenance required is a small price to pay to protect the wastewater land management area which may cost well in excess of $10,000 to replace. The simple routine maintenance outlined in this InfoSheet will help in extending the effective life of the wastewater land management area.

Monitoring a septic tank filter

A septic tank filter requires some monitoring to ensure that it is working efficiently. Lack of maintenance, may limit its overall efficiency. Things to look for to determine if your filter requires maintenance between scheduled maintenance include:

- Water drains away from household fixtures slower than normal
- Wastewater is overflowing from the overflow relief gully located outside the house

From time to time the filter should be inspected to monitor the bio-mass and, if it is excessive, the filter needs cleaning. See the maintenance section below for the correct procedure for removing the filter for inspection.

The primary maintenance activity is regular cleaning to maintain effluent flow through the filter and to prevent clogging. Cleaning frequency will depend on the size of the filter, environmental conditions, the number of people living in the house, the size of the septic tank and the overall nature of the wastewater being discharged to the septic tank from the house. The nature of the wastewater, to a large extent, depends on dietary habits and the types and quantities of household cleaning products.

It is recommended that a licensed plumber or, a contractor for pumping out septic tanks, who is familiar with cleaning precautions and procedures, conduct filter maintenance. The main consideration is to ensure that the filter is maintained so that it continues to be effective.

Maintenance instructions

For cleaning frequency, initially consult the manufacturer's instructions. Every household is different so you will gain experience over time as to how frequently the filter will need cleaning.

The first thing to remember is that you will be dealing with wastewater that has a very high bacterial and viral load so, precautions are needed when handling the filter, or any item that comes into contact with wastewater.

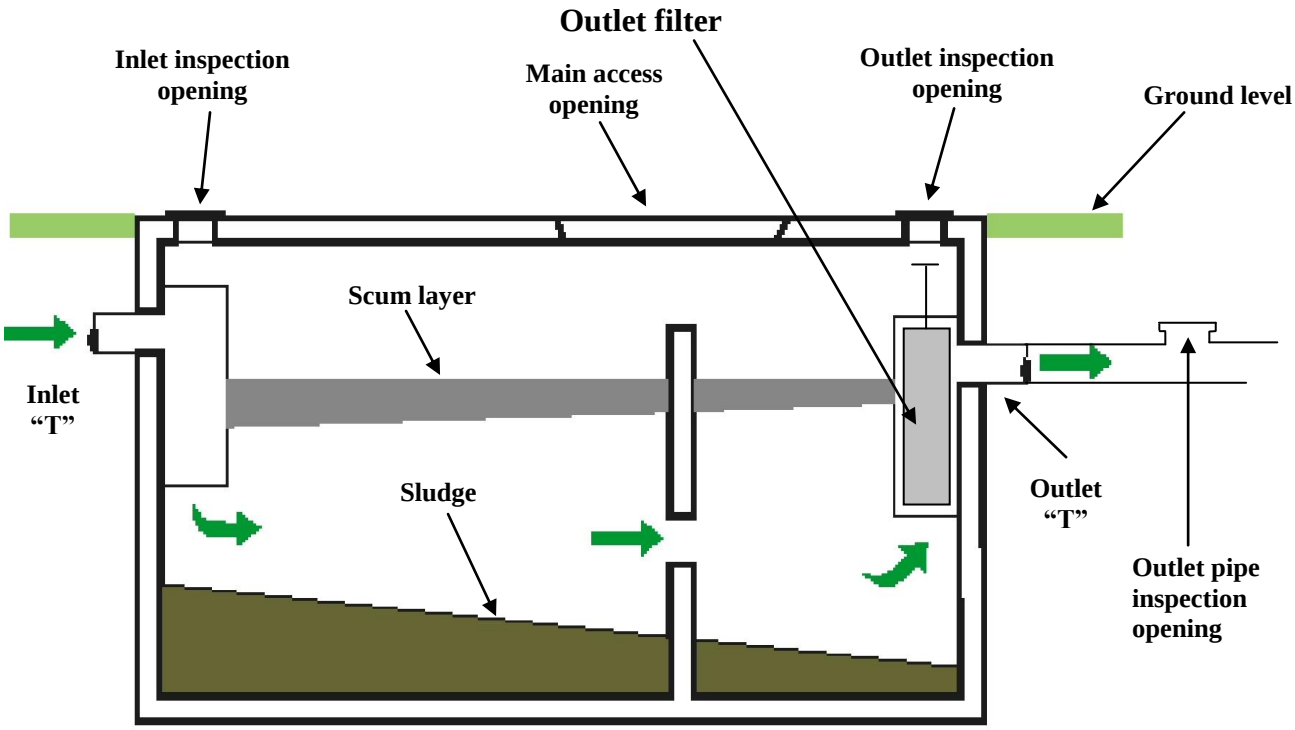
Before you start

Take reasonable precautions by dressing appropriately for the task:

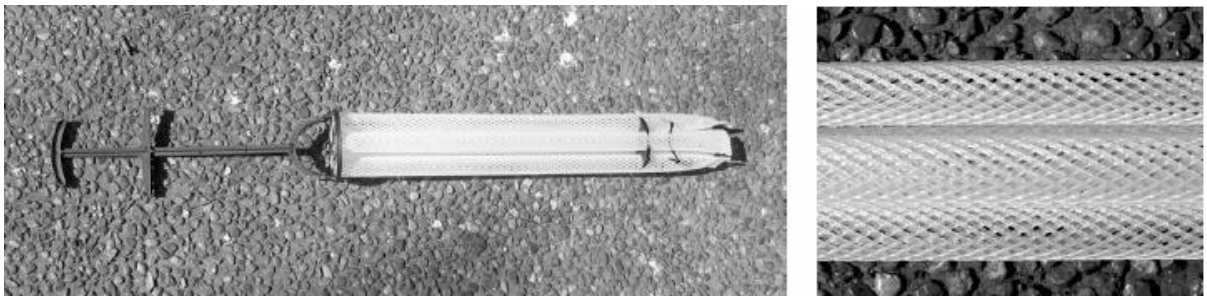
- Wear protective clothing, or some old clothes, that can be washed in disinfectant immediately after the cleaning process.
- Wear safety footwear that totally encloses your feet.
- Wear disposable rubber or latex gloves. Disposable gloves can be obtained from supermarkets.
- Wear safety goggles to protect your eyes.
- Keep wounds covered with a waterproof dressing.
- Have available an anti-bacterial hand cleaner in case your skin comes into contact with the wastewater.

If the filter is being cleaned with a hose connected to the household drinking water supply, ensure adequate protection is provided *e.g.* a hose connection vacuum breaker (HCVB) is fitted to the tap.

Make sure that other people, particularly children, and animals, are kept away from the septic tank during maintenance activities.



Schematic of a Typical Septic Tank



Example of an outlet filter

Maintenance Procedure

Ideally the filter will only need to be cleaned when the septic tank is pumped out *i.e.* every 3 years. However, if cleaning is required between pump outs, use the following procedure.

1. Locate the septic tank. If you have difficulty please contact the Council who may be able to assist.

2. Locate the inspection openings on the septic tank (see diagram of the schematic of a typical septic tank). Generally, a septic tank has three inspection openings, an inlet opening and an outlet opening, which are small covers on each end, and a main access opening, which is a large cover towards the centre of the tank. The outlet opening will generally be the one the most distant from the house.

Note: If the septic tank is below ground level, risers may have been installed to bring the inspection openings up to finished ground level. This will mean that possibly you will need to remove the cover at ground level and the cover in the septic tank.

3. Remove the inspection opening cover on the outlet of the septic tank. The filter is located in the outlet "T" junction.

4. Remove the main access opening cover. The wash water used for cleaning the filter must be directed into this opening.

5. The filter should not be removed for inspection or cleaning without first plugging the outlet or pumping the septic tank to lower the liquid level well below the bottom of the outlet "T". If this is not done, solids attached to the filter may dislodge as the filter is removed. These solids may then pass through the outlet "T" and into the wastewater land management area unless adequate precautions are taken. Plugging is achieved by opening the inspection opening on the outlet pipe immediately after the septic tank and placing a suitable plug in this outlet pipe.

6. In the first instance, refer to the manufacturer's instructions and follow these.

7. If there are no specific manufacturer's instructions and, you are dressed appropriately, gently remove the filter from the outlet. Avoid rapid movement or jerking as this can create splashing and dislodgement of the bio-mass. If there are signs of sludge (this will look different from the bio-mass adhering to the filter) on the bottom of the filter or, if cleaning is required more frequently than usual, have the septic tank pumped out.

8. Take the filter to the main access opening and gently knock off as much bio-mass as possible into the septic tank.

9. Using a gentle stream from a hose, wash the filter while holding it over the septic tank main access opening. Never use a high pressure water stream to "blast" the bio-mass away, as this will result in splashing and unintended distribution of contaminated material in the area around the septic tank. The aim is not to remove all the bio-mass, just to remove the excess, as removal of all the bio-mass may reduce the filter's effectiveness.

10. Make sure that any spillage of contaminated water or bio-mass is either washed into the septic tank or disinfected with a household disinfectant.

Note: Take care to not wash disinfectant into the septic tank as this will interfere with the beneficial bacterial activity in the septic tank itself.

11. Reinsert the filter into the outlet "T" junction making sure that it is seated properly.

12. Remove any plug that has been inserted into the outlet pipe of the septic tank and replace the inspection opening cap.

13. Replace and seal all removed inspection opening covers on the septic tank. Sealing the covers is important to prevent stormwater infiltration which can flood your system.

14. Disinfect the end of the hose. Remove your gloves and place them in a plastic bag. Secure the top of the bag and place it in the rubbish bin.

15. Remove your outer clothing and wash immediately, making sure that disinfectant is included in the wash water. Disinfect footwear if it has been contaminated with wastewater or bio-mass.

16. Thoroughly wash your hands and any other parts of your body that may have come into contact with wastewater or bio-mass using an anti bacterial soap.

As an alternative to having a contractor clean the filter for you, you may wish to simply dispose of the clogged filter and replace it with a new one. It is important that the same make and model filter is used for the replacement as other models and brands may not fit correctly.

To dispose of the filter, plug the outlet pipe of the septic tank as described in step 5. above, lift the filter up out of the wastewater and allow is to drain into the outlet "T". When it has drained so that no more water is dripping from it place it is a heavy duty plastic bag, secure the top and place it in the rubbish bin. With the new filter follow steps 11 - 16 above.

Further Information

For further information or advice please contact Council's Environmental Health Services on 6217 9570.