clivus multrum CM40 Split Unit Toilet System Instruction Manual

Contents

clivus multrum
WATERLESS COMPOSTING TOILETS

clivus multrum CM40 Split Unit Toilet System

Product Information

The CM40 installation manual provides detailed information on the installation process and required items for the CM40 system. The manual includes instructions for installing the tank, pedestal, drain items, vent items, optional items for the buried anchor system and leachate drain, consumables, tools required, materials required, and installation summary.

CM40 Tank Items

- 1x Maintenance Rake
- 1x Silicone Sealant
- 1x CM40 Tank

Pedestal Items

How to use

- 1x ‘HOW TO USE’ Sign
- 1x Pedestal & Toilet Seat (Type and quantity dependent on customer requirements)
- 1x Toilet Chute
- 16x Roofing Screws
- 1x Toilet Chute Collar

Drain Items

- 1x Liquid Drain Pipe Connector 50mm

Vent Items

- 1x Vent Cowl 150mm
- 1x Wallace Seal 150mm
- 1x Mozzie Stoppa (with Pipe Adapters)
- Electronic Vent Items
    - 1x Fan in Housing
    - 2x Vent Support Brackets & 4x Screws
    - 3x Slip Joiners 150mm
    - 2x Pipe Reducer 150-100mm
    - 4x Vent Pipe Sections 150mm OD 1000mm Long
    - 1x Transformer

Optional Items for Buried Anchor System Only

- 5x FRP Pipe 50mm OD 300mm Long

Optional Items for Leachate Drain

- 1x Slotted Drain Coil 100mm OD 3000mm Long
- 1x PVC Drain Pipe 50mm OD 1000mm Long
- 1x Filter Cloth

Consumables

- 3x Starter Bulking Material
- 1x Spray Bottle
- 1x Bag of Microbes
- 1x 125mL Enzymes

Tools Required

- Screwdriver (Philips/plain)
- Scissors/Knife
- Spade Drill
- Spirit Level
- Caulking Gun
- PPE (Personal Protective Equipment)
- Jigsaw
- Tape Measure
- Marker
- Ladder

Materials Required
(Not specified in the manual)

Installation Summary

1. Ensure the tank is in a position so that the toilet chute will be perfectly straight over the tank below.

Conditions
Ideal temperature for composting: (Not specified in the manual)

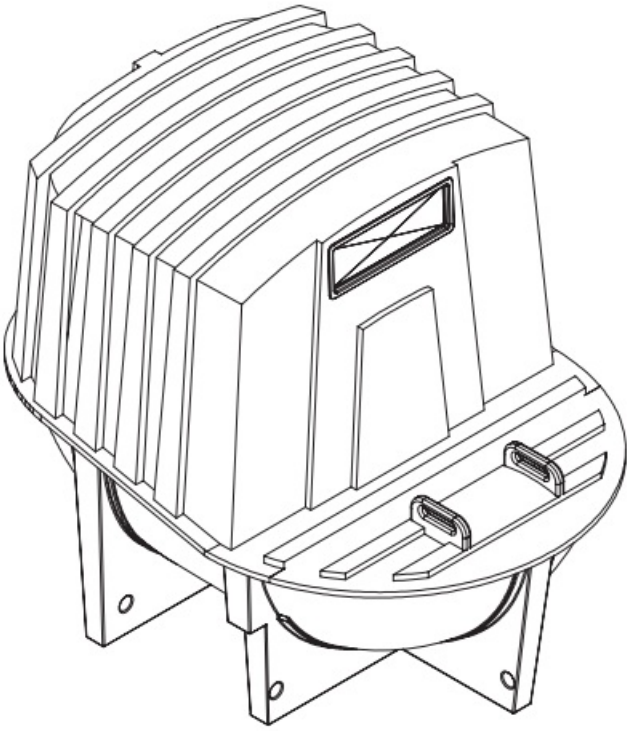
Product Usage Instructions

To use the CM40 system, follow these steps

1. Position the CM40 tank in a location where the toilet chute will be directly above the tank.
2. Install the tank support to ensure stability and proper alignment.
3. If using the buried anchor system, install the optional FRP pipes as specified in the manual.
4. Install the drain items, including the liquid drain pipe connector.
5. Install the vent items, including the vent cowl, Wallace seal, and Mozzie stoppa.
6. If using electronic vent items, follow the instructions for installing the fan in housing, vent support brackets, slip joiners, pipe reducer, vent pipe sections, and transformer.
7. If using the leachate drain, install the optional slotted drain coil, PVC drain pipe, and filter cloth.
8. Install the pedestal items, including the 'HOW TO USE' sign, pedestal & toilet seat, toilet chute, and roofing screws.
9. Install the ventilation system according to the provided instructions.
10. Familiarize yourself with how to use the main lid of the CM40 system.
11. Prepare a starter bed of organic matter by following the instructions in the manual.
12. Use the CM40 system for waste disposal according to the provided guidelines.

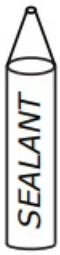
For more detailed instructions and information on maintenance and troubleshooting, please refer to the CM40 installation manual available at **www.ecoflo.com**.au or contact customer support at 1300-138-182.

CM40 TANK ITEMS



1x CM40 TANK

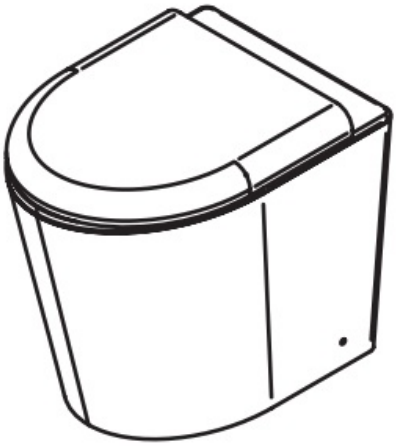
1x MAINTENANCE RAKE



1x SILICONE SEALANT

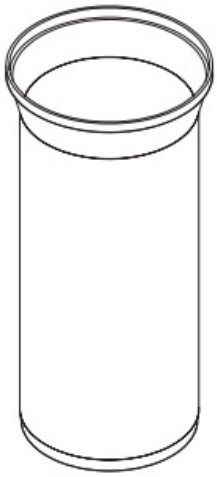
1x 'HOW TO USE' SIGN

PEDESTAL ITEMS



1x PEDESTAL & TOILET SEAT

(Type and quantity dependent on customer requirements)



1x TOILET CHUTE

16x ROOFING SCREWS

1x TOILET CHUTE COLLAR

DRAIN ITEMS

1x LIQUID DRAIN PIPE CONNECTOR 50mm

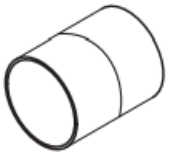
2x 45° BEND 50MM

VENT ITEMS

1x 90° BEND
150mm

2x VENT SUPPORT BRACKETS & 4x SCREWS

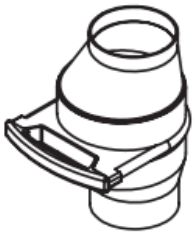
1x VENT COWL
150mm



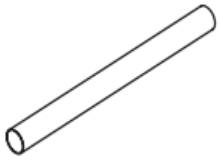
3x SLIP JOINERS
150mm

1x WALLACE SEAL
150mm

2x PIPE REDUCER
150-100mm



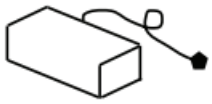
1x MOZZIE STOPPA
(with Pipe Adapters)



4x VENT PIPE SECTIONS
150mm OD 1000mm Long

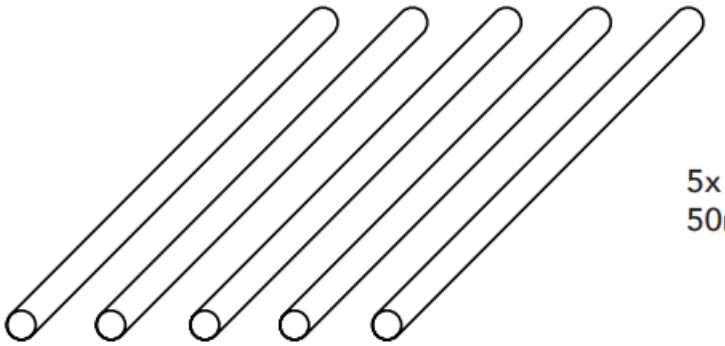
ELECTRONIC VENT ITEMS

1x FAN IN HOUSING



1x TRANSFORMER

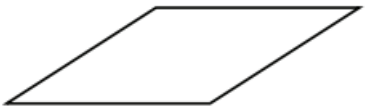
OPTIONAL ITEMS FOR BURIED ANCHOR SYSTEM ONLY



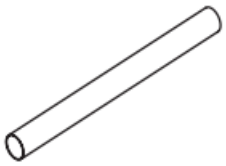
5x FRP PIPE
50mm OD 300mm Long

OPTIONAL ITEMS FOR LEACHATE DRAIN

1x SLOTTED DRAIN COIL
100mm OD 3000mm Long

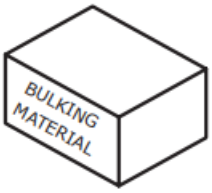


1x FILTER CLOTH



1x PVC DRAIN PIPE
50mm OD 1000mm Long

CONSUMABLES



3x STARTER
BULKING
MATERIAL

1x SPRAY BOTTLE

1x BAG OF
MICROBES

1x 125mL
ENZYMES

TOOLS REQUIRED

Screwdriver
(Philips/plain)

Spade

Spirit Level

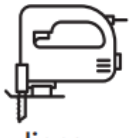
Caulking gun

Scissors/Knife

Drill

PPE

Ladder



Jigsaw

Tape Measure

Marker

MATERIALS REQUIRED

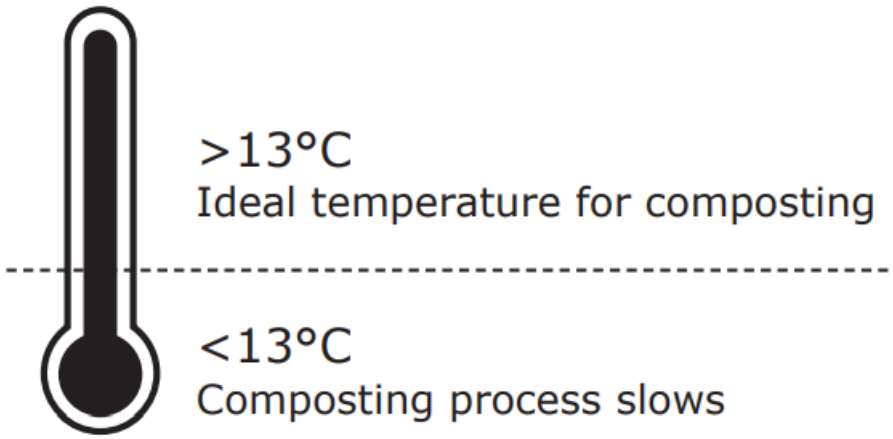
- Water to wet starter material.
- Additional 50mm PVC pipe (coupling and bends if absorption trench is to be located some distance away from tank). Additional pipe bends if needed for vent pipe.
- In poor soil conditions, extra length of trenching arch or agi drain may be required.
- Drainage gravel for leachate drain.

INSTALLATION SUMMARY

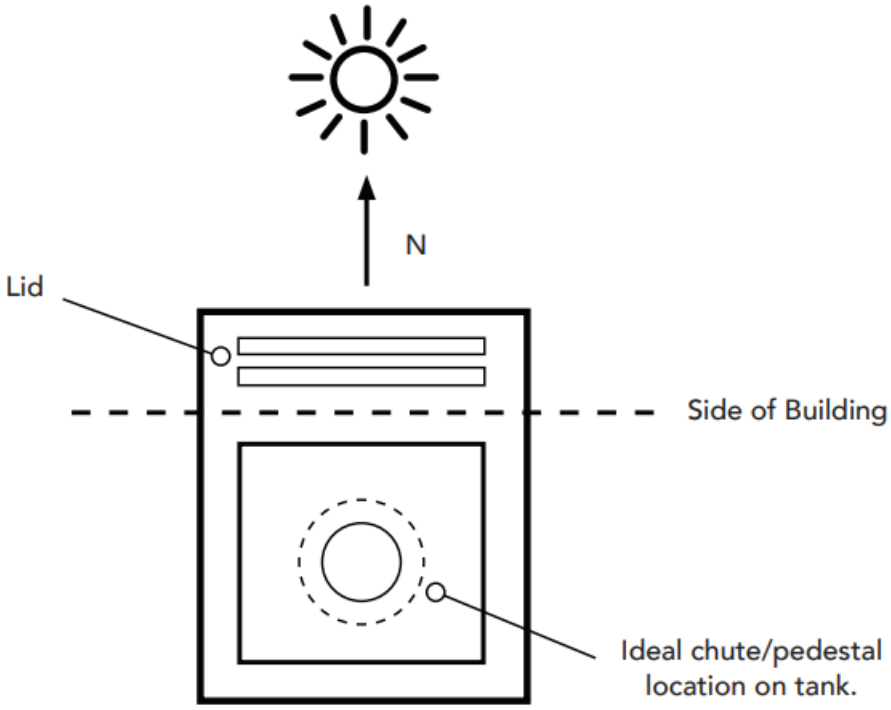
1. Ensure the tank is in a position so that the toilet chute will be perfectly straight over the tank below.
2. Ensure the tank foundation is solid with a sand or crusher dust bed.
3. Mark and cut holes in the floor for the toilet chute.
4. Mark and cut holes in the tank top.
5. Insert toilet chute and pedestal.
6. Install the vent system.
7. Install the liquid end-product drain pipe and absorption/transpiration trench.
8. Connect fan to power source.
9. Check everything is sealed.
10. Place a starter-bed of suitable bulking agent (e.g. wood shavings) in the unit.
11. Wet bulking agent before use of toilet.
12. Add starter bacteria after 14 days of use.

CONDITIONS

Any decomposition process works better where temperatures are warmer. Over the winter months the composting process slows or can even temporarily stop where temperatures in the pile drop below 4°C.



As the composting tank is black, it will absorb heat from the sun. Simply by installing the compost bin on the north side of the house will make a dramatic difference to the composting process. In addition, a translucent hatch and enclosure can be installed around the compost bin. In extreme alpine conditions it may be necessary to insulate the tank itself in addition to the above.



PLAN VIEW

POSITIONING THE TANK

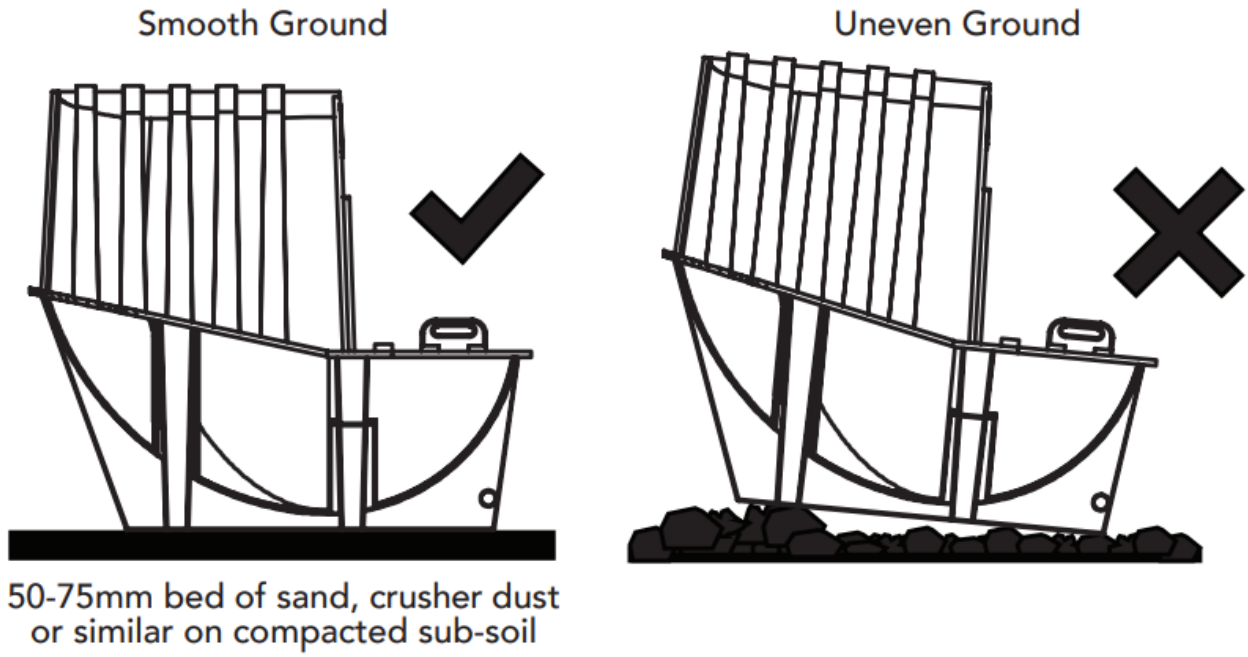
If there is very little room between the top of the tank and the floor of the building, the order of the installation can be changed as follows: Firstly, cut the hole for the pedestal in the floor of the building (refer to page 11, Toilet Chute & Pedestal). Position the tank under the hole and then mark the position of the hole onto the tank. After the tank has been marked, it can be removed from under the building. Cut the hole in the tank and fit the chute collar before placing the tank back into position.

- Check the position planned for the toilet chute. The toilet chute must be positioned over the top of the compost tank. For less maintenance of the compost pile, the optimum location for the chute/s to enter the tank is mid-width, in the rear half of the tank. A clearance of at least 150mm from edge of chute to edge of tank-top is desirable to avoid rapid build up of the pile against the sides.
- Check there are no major support beams, pipes or electrical wire that are in the way of the toilet chute.
- Where mains power is to be used, check that a power point has been installed near the location for the ventilation fan.
- Locate where the excess liquid drainpipe and tench is to go and take this into account when positioning the tank.

TANK SUPPORT

The composting tank must be supported by either compacted subsoil with the tank placed on a bed of sand, or a concrete slab. Insulation between the tank and the concrete slab will reduce heat loss and aid the composting process.

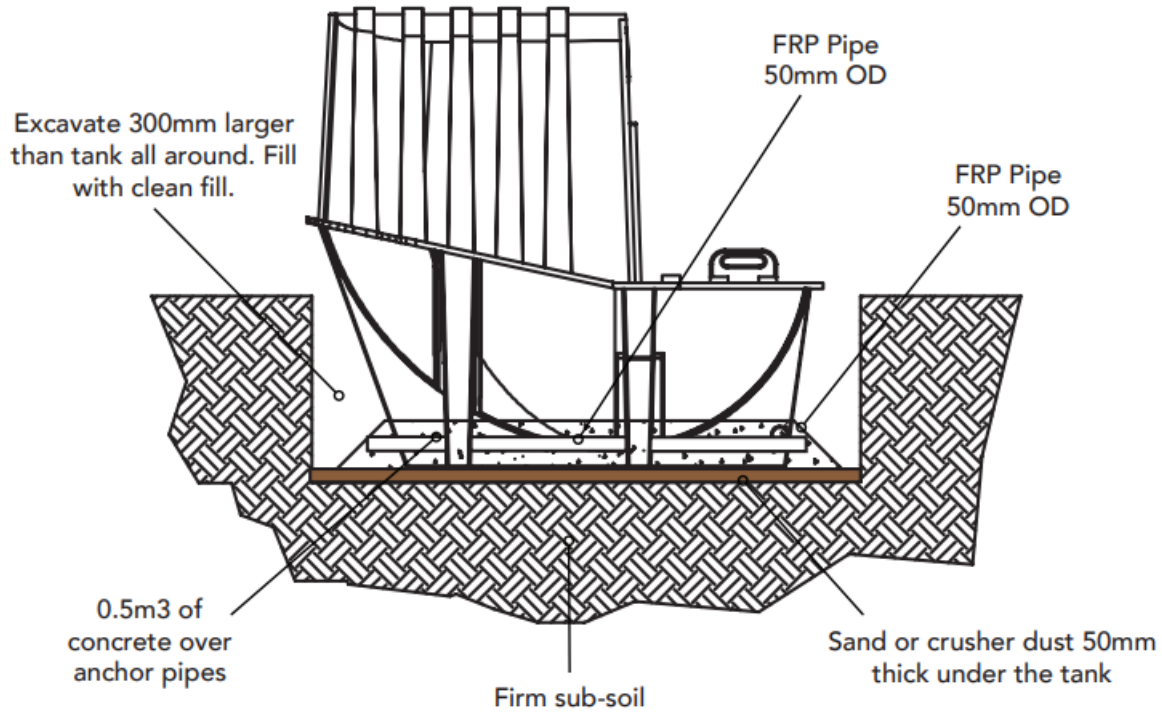
NOTE: The tank and enclosure should be protected from surface and floodwater.



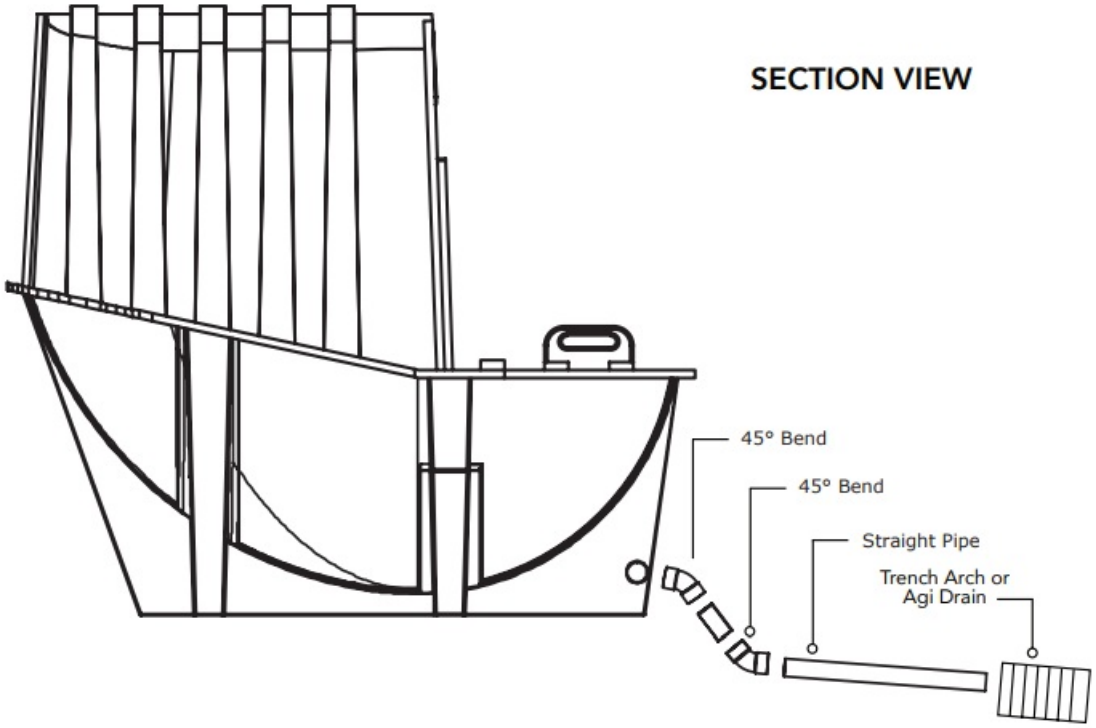
INSTALLATION FOR BURIED ANCHOR SYSTEM ONLY

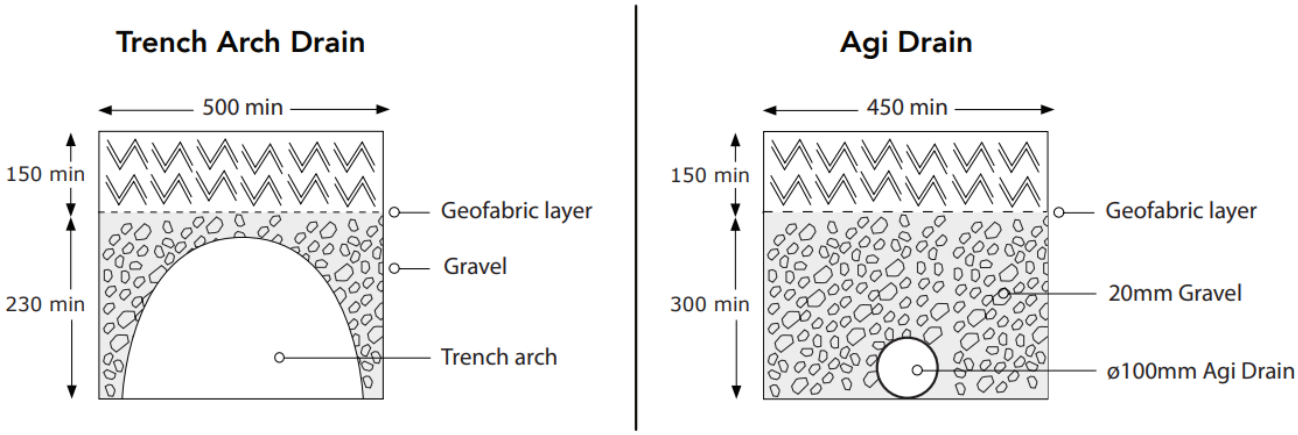
For a buried system it is required to hold the tank down with galvanized rods. These are slid into the slots provided on both sides and the front of the CM40 tank.

LEFT SIDE VIEW SECTIONAL IN GROUND



EXCESS LEACHATE DRAIN INSTALLATION (OPTIONAL)

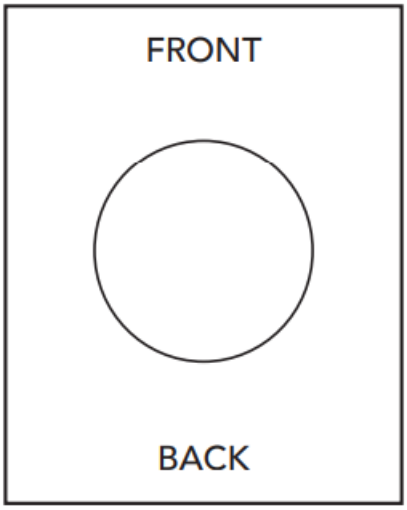




ALTERNATIVE EXCESS LEACHATE DRAINAGE
PLEASE CONTACT OUR SALES STAFF ABOUT ZERO DISCHARGE UNITS.

TOILET CHUTE & PEDESTAL

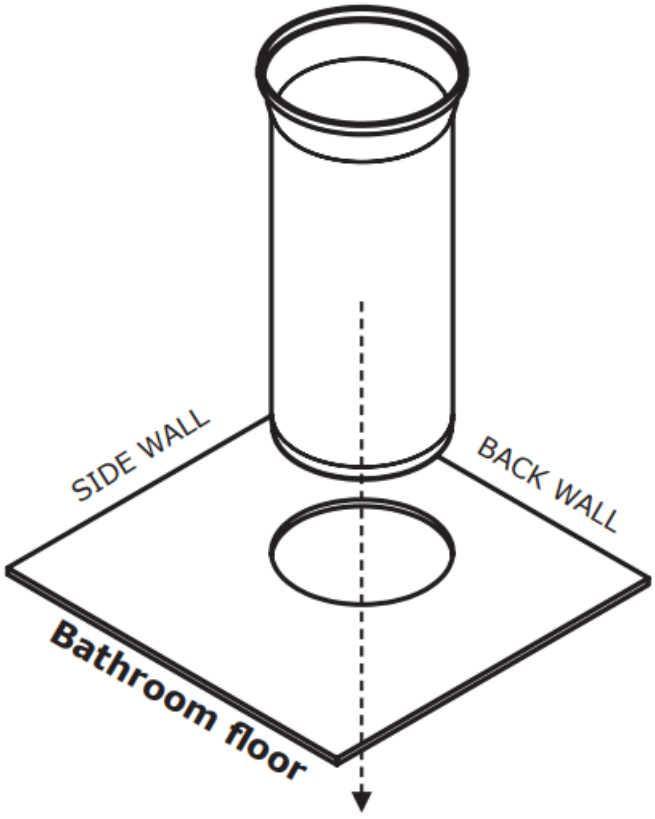
1. Please refer to the Pedestal installation manual for instructions on how to locate the pedestal in your bathroom.
    -



A3 Template to cut chute hole at the correct size (included with pedestal).

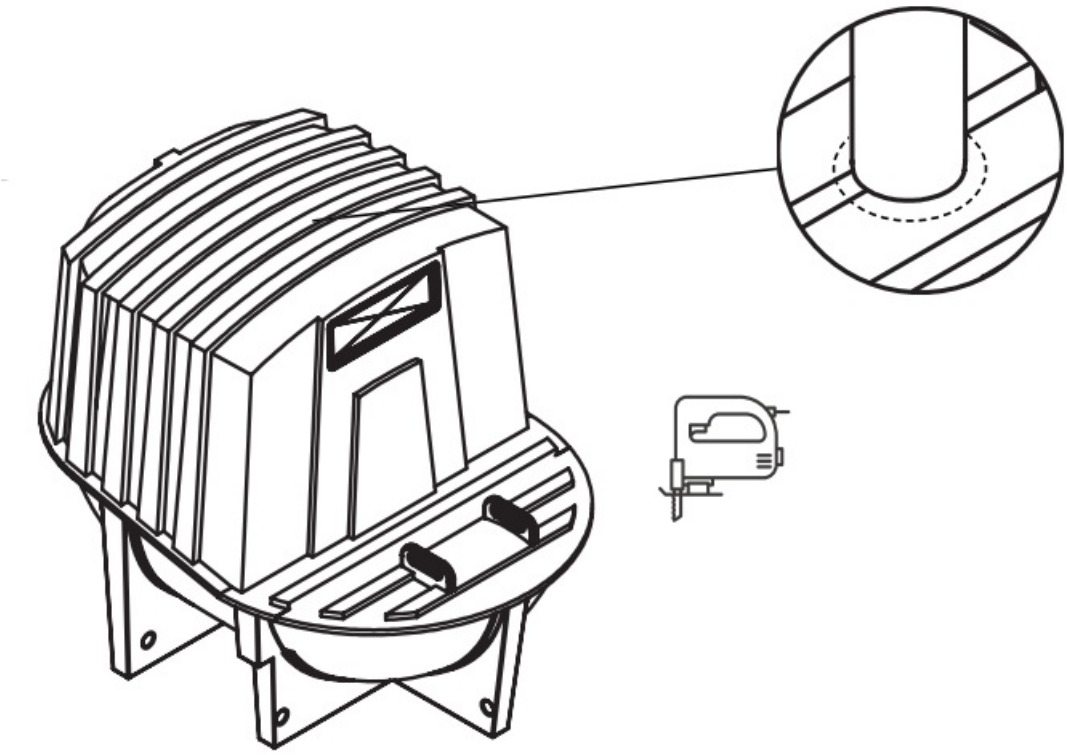
< 5mm of sideways play around the hole.

2. **Note:** If the floor of the building is high above the top of the tank a chute extension piece/s may be needed. Extra lengths are available from your supplier. Joints should be screwed with short self-tapper screws, and sealed with silicon. If more than 2 chutes are joined then additional support straps or brackets are needed to support their weight from the building frame, instead of hanging only by the top chute.
3.



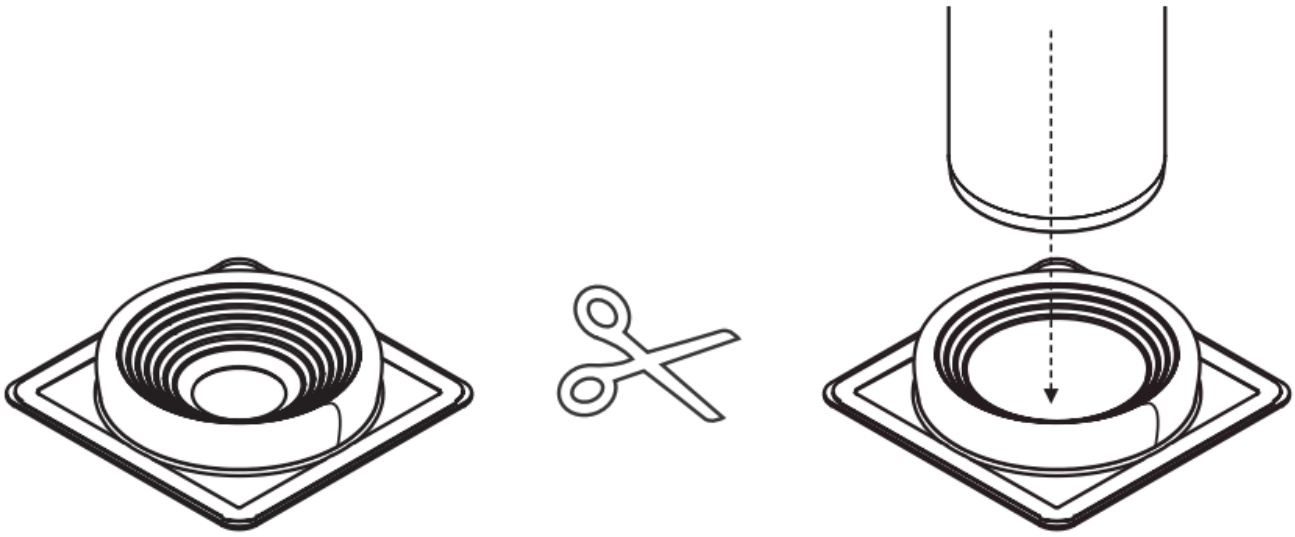
Using the outside of the toilet chute as a template, mark and cut the chute hole into the top of the tank.

4.

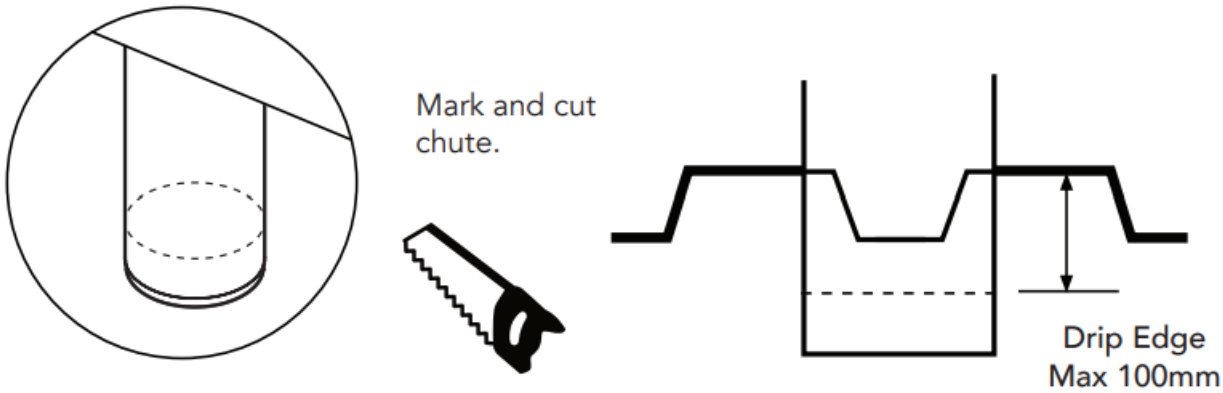


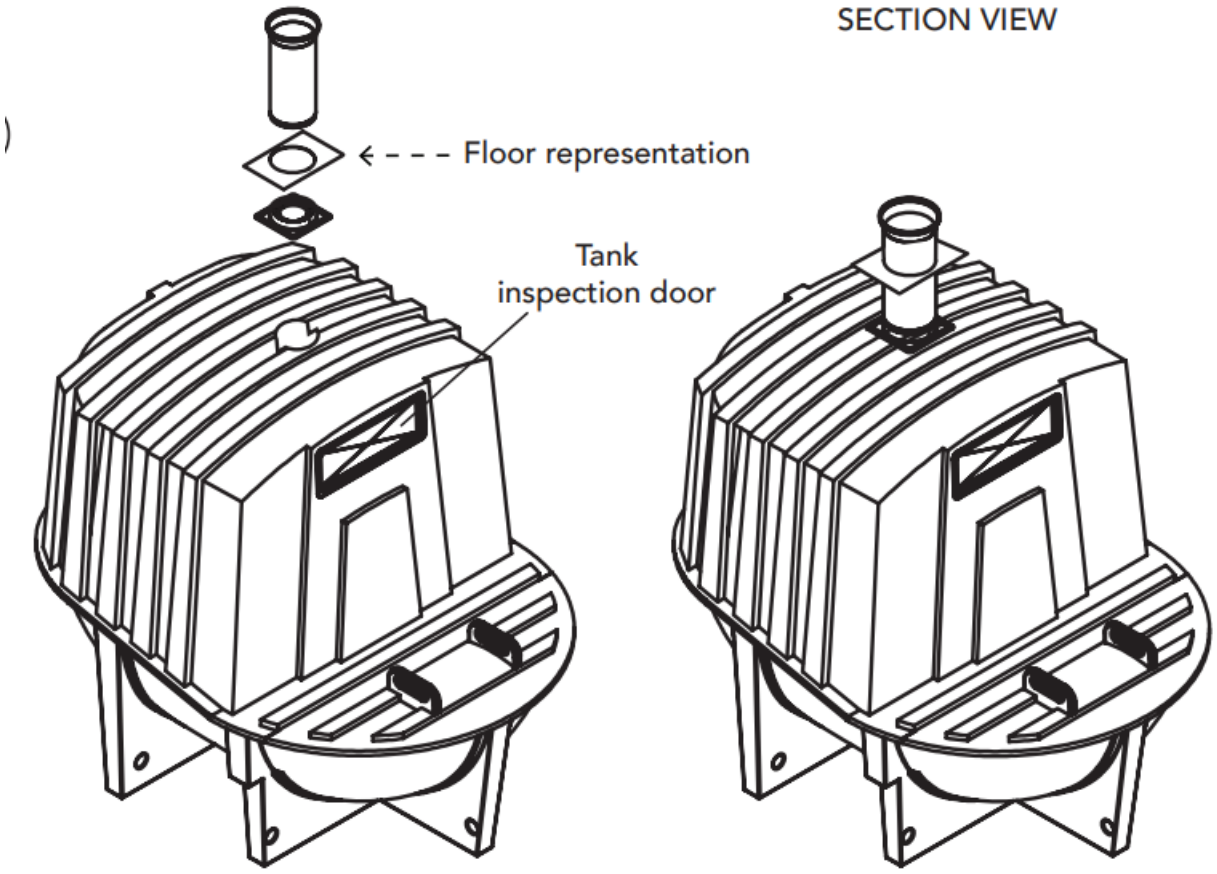
Enlarge the hole in the rubber chute collar (dektite) so it will stretch snugly around the toilet chute without gaps.

5.

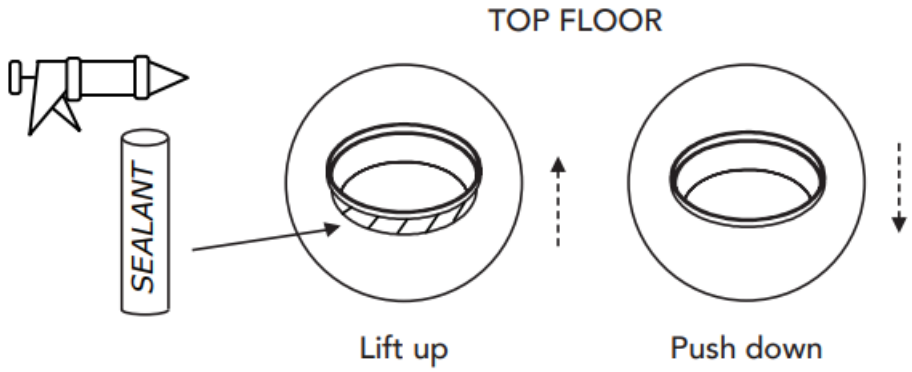


6.





7. Lift the toilet chute slightly and put sealant between the toilet chute and the floor then press chute down again to seat firmly onto the floor.



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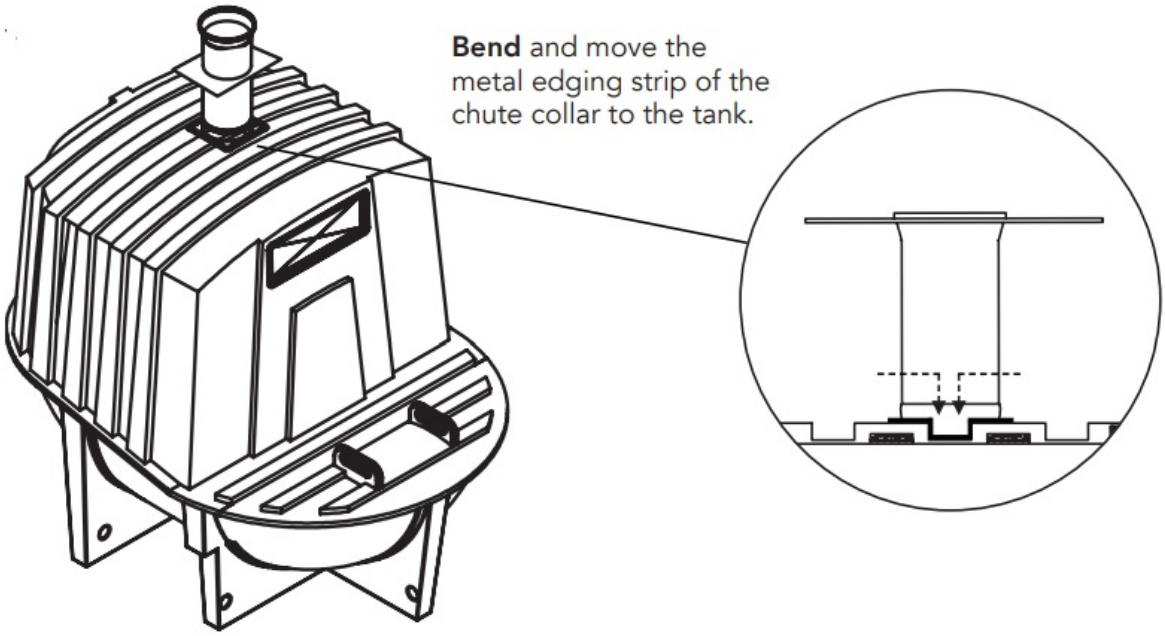
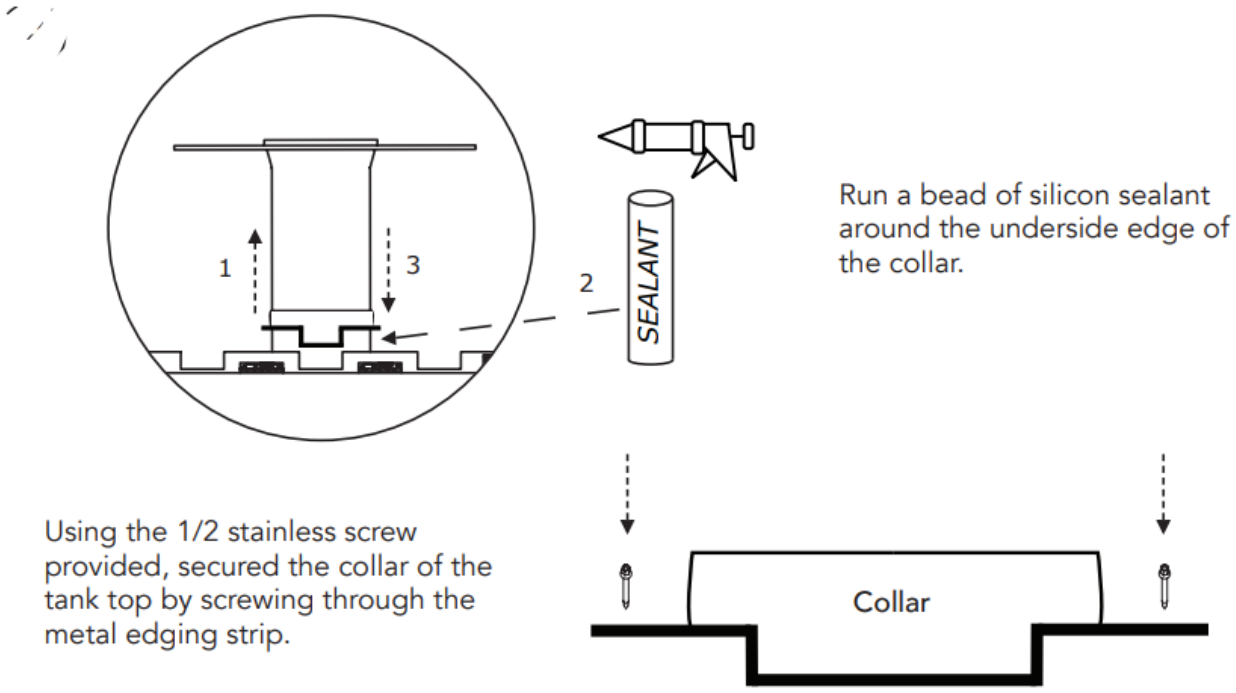


9.

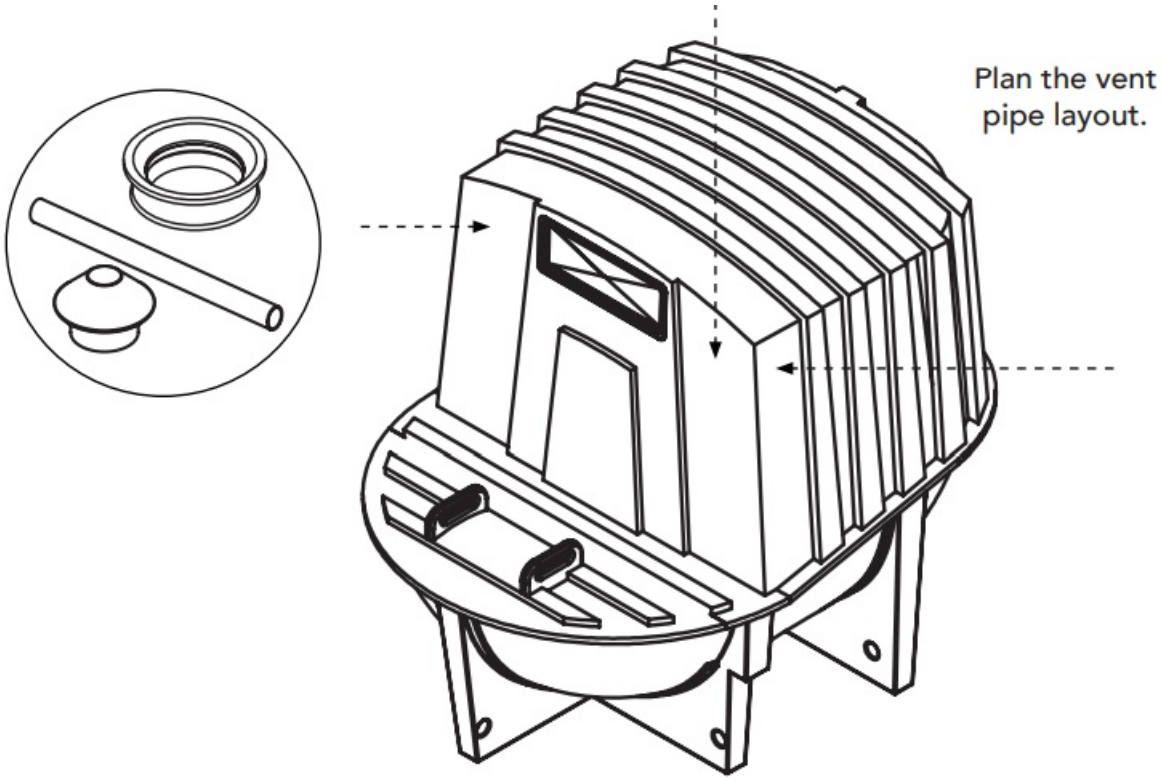


PEDESTAL INSTALLATION
See separate instruction manual for pedestal installation.

INSTALLATION OF VENTILATION SYSTEM

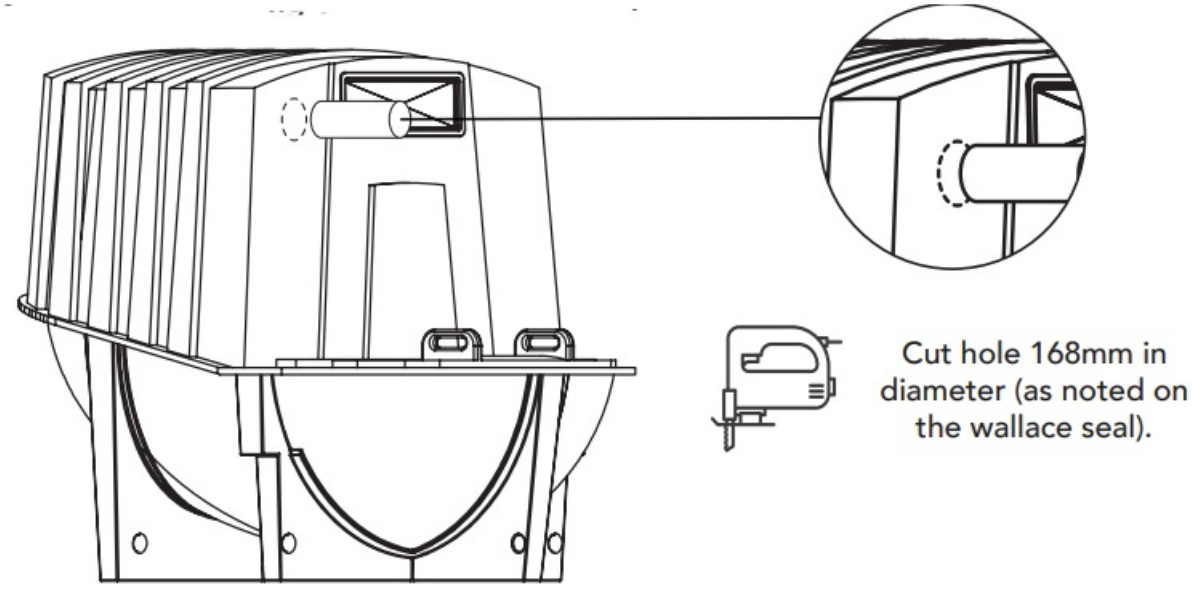
Note: As air flow is essential to the operation of the unit, the fewer bends that are used when installing the vent system the better.

1.



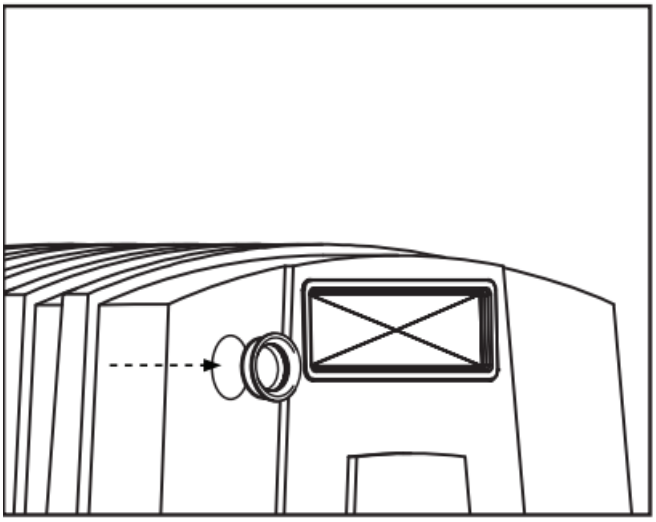
NOTE: The hole for the vent pipe is best at the side of the tank or along the top edge, as far as practical from the nearest chute entry. Refrain from placing it along the front face as this can hinder opening of maintenance access.

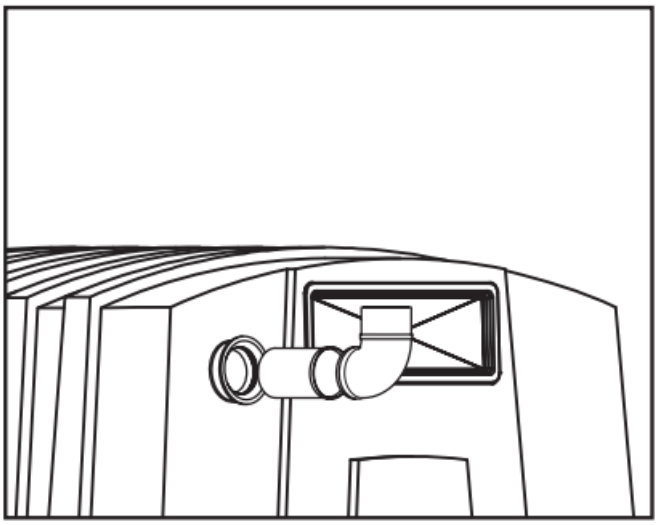
2.



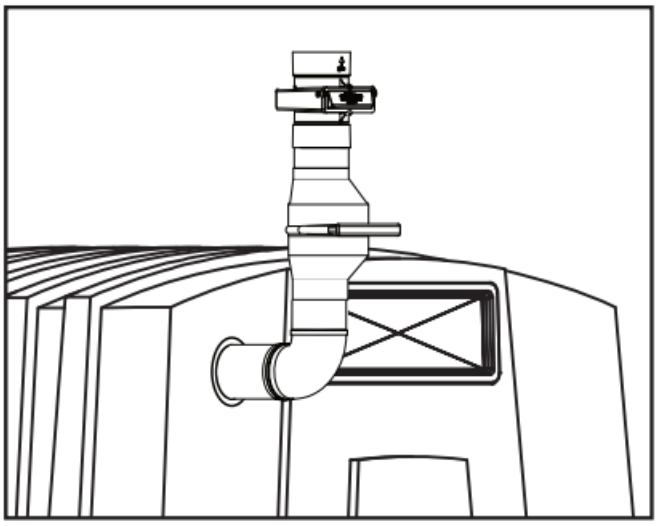
3. Secure Wallace seal into position.

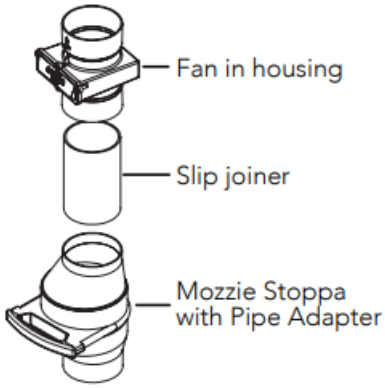
   Tip: Putting the wallace seal in hot water for 5 minutes can help when installing the PVC pipe.



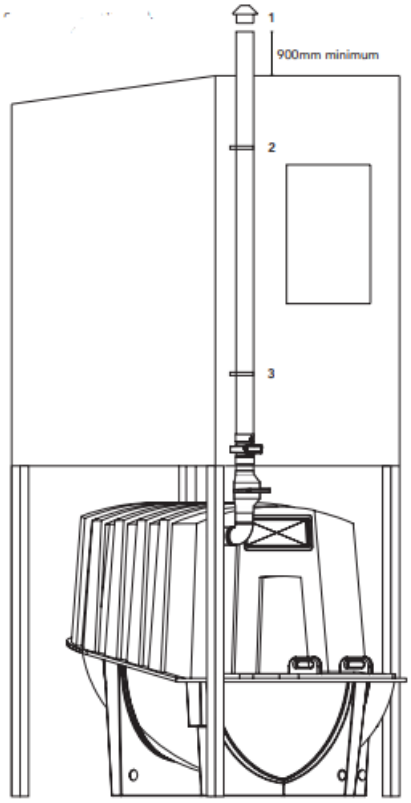


4. Secure pipe fittings according to building/roofing instructions. Complexity may vary.



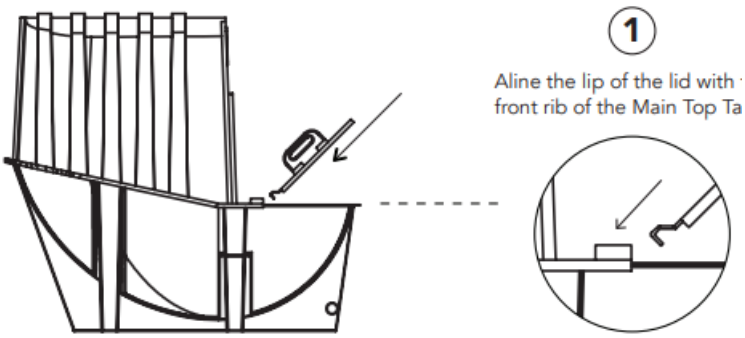


5. Mount the fan housing and Mozzie Stoppa onto the vent pipe. Position the fan housing so that it can be easily accessed and secure with silicon.
6. Install the vent cowl or optional turbo vent (1). Secure with 3 self-tapping screws.
7. Attach the upper section of the vent pipe. The pipe should be supported against the wall of the building with the brackets provided (2, 3). This configuration will vary depending on location of CM40.

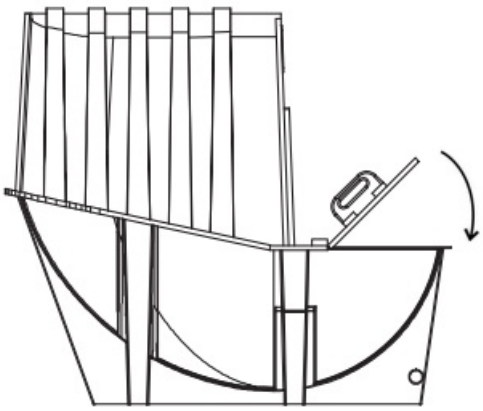


HOW TO USE THE MAIN LID

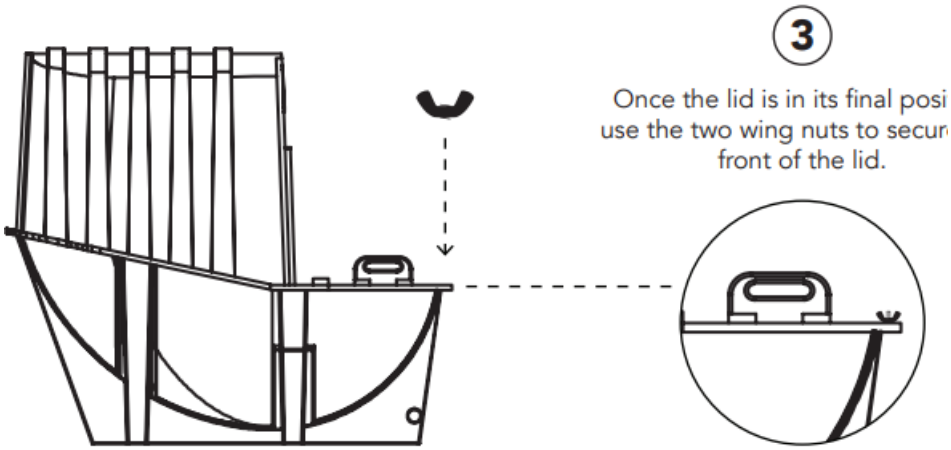
1.



2 Push the lip under the rib and ensure there is a strong secure fit. Once the lip is secured push the lid down to its final position.



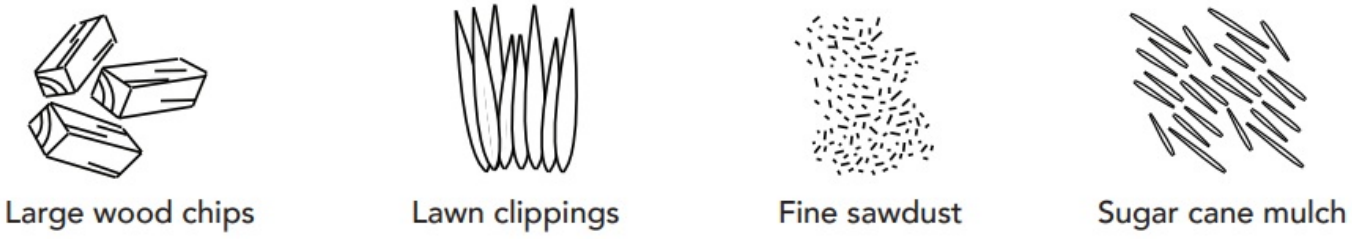
3 Once the lid is in its final position use the two wing nuts to secure the front of the lid.



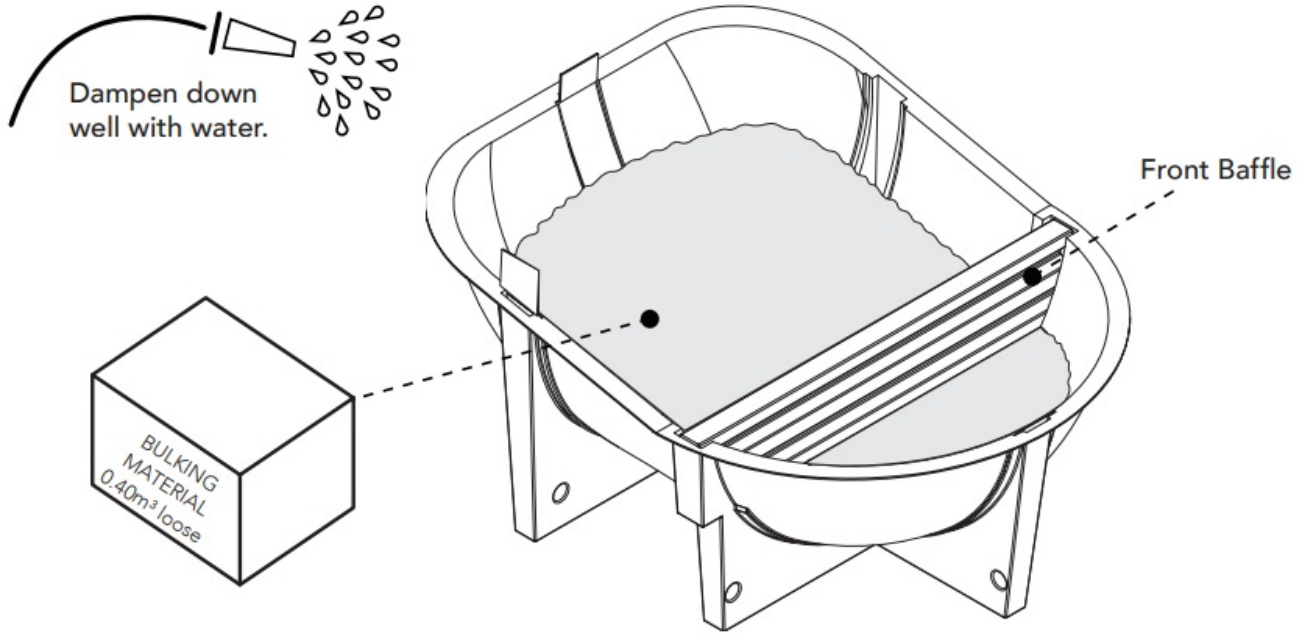
STARTER-BED OF ORGANIC MATTER

SUITABLE BULKING MATERIAL

NOT SUITABLE BULKING MATERIAL

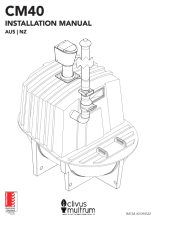


1. Add starter bed of bulking material to underside of baffle.



2.  **INSTALLATION COMPLETE**

Documents / Resources

	clivus multrum CM40 Split Unit Toilet System [pdf] Instruction Manual CM40 Split Unit Toilet System, CM40, Split Unit Toilet System, Unit Toilet System, Toilet System , System

References

- Waterless Composting Toilets | Ecoflo Wastewater Management
- User Manual