

Appendix B - Trouble Shooting Guide for NatSol Twin Vault Toilets

Our toilets are designed to be very simple and highly reliable. Most problems are due to incorrect use or lack of routine maintenance. This guide should enable you to identify and solve most problems.

Type of problem encountered:

ODOUR

NatSol toilets are known for their lack of odour. If there is an odour problem it is important to identify where it is coming from.

Urine

The usual culprit is urine on the floor. This could be due to a leaking waste connection on the urinal and this can be checked by pouring water into the bowl. However, it is more likely to be due to urine splashes. If the toilet is used a lot by small boys then it may be essential to provide a box to stand on or to install an additional urinal to the left of the standard one at a lower height. NatSol can advise on this and supply components. Otherwise the solution is regular cleaning.



Smell coming from the pedestal, or an unidentified source

Normally air is drawn down the pedestal and up the vent pipe so that no smells enter the building. If the vent pipe is blocked (cobwebs, bird's nest etc.) or the cowl is not free to align with the wind direction then the ventilation won't work. If you remove the upper part of the cowl it is possible to see down the vent pipe. Move the retaining catch aside to remove the upper part. **Be careful of the spike sticking up from the lower part.** If the toilet pedestal is in the RH position, lift the lid to let some light into the chamber. If the pedestal is in the LH position you may need to remove the rear RH hatch. If the cowl is stiff then add some fresh general purpose grease. Re-position the retaining catch afterwards.



VERY WET OR FLOODED VAULTS

The compost vaults should be moist but not wet or flooded. If there is water in the vaults then this could be due to a manufacturing or installation fault or a management issue:

Installation or flooding

1. If the site has flooded then surface water will have entered the vaults through the hatches or through the urine outflow pipe from the urine soakaway. Toilets should not have been located where flooding is likely but if this has occurred then the vaults will need to be pumped out by slurry tanker and re-started with a fresh bed of shavings.
2. The urine soakaway has been installed incorrectly, e.g. uphill (!), or the vaults have been installed too low in the ground. These problems would require significant remedial work.

Operational problems – [for these checks observe precautions in Appendix A](#)

1. The urine outlet has blocked. Check and clean the back inlet gully (see page 4) and check that water gets away.
2. The soakaway is not draining away. This could be due to waterlogging, or to roots which have invaded the area around the soakaway since installation. If you pour several buckets of water down the back inlet gully and the water ceases to flow away then please call us to discuss.
3. The urine separator in the pedestal is not working properly. This can be checked by gently squirting water from a washing up liquid bottle or similar onto the urine plate and watching through the hatch. The water should enter the gutter and run away freely.
4. Insufficient soak. The soak is needed to keep the pile aerobic and so promote biological breakdown but it also mops up small amounts of urine that inevitably enter the vault. Lack of soak is often associated with infrequent emptying in situations where the volume of solids is low but urine contributions are quite high. Regular raking of solids and soak towards the emptying hatch helps decomposition and enables one to see if there is significant liquid accumulating on the floor of the vault. In such cases it is best to add a quantity of dry soak material to the liquid and rake in thoroughly. Record these actions in the Log Book. Options to ensure correct use of the toilet must then be considered and implemented.

User issues

1. Women may hover over the toilet rather than sitting down. This can affect urine separation. We can supply signage to encourage them to sit and an additional urine plate which would also be useful on busier sites.
2. Males standing to pee into the pedestal. Occasional misuse may not be a problem but for busy sites the amount of urine introduced this way could be enough to flood the toilet. It may be necessary to add an additional low level urinal for boys and improve signage.

If the above steps do not resolve the problem:

Contact us with the following information:

1. The site name or your contract number and the date of installation or first use.
2. Data from your log book.
3. Whether the use has changed and an estimate of the number and type of users i.e. ratio of adults to children and men to women.

If the vaults are very wet or flooded it will be useful if you can also provide:

1. The date when you became aware that the vaults were too wet.
2. Whether both vaults are wet or flooded. If not, which one? What depth of solids and liquids are present? Use a stick to estimate.
3. Photographs looking into both vaults through the front floor hatches.
4. What type of soak material is used and whether this is added by users or a manager.
5. The amount of soak you are using per vault change-over or per annum.

It will be useful to us if you can confirm your current type of use:

PUBLIC or CLOSED USER GROUP

A closed user group is usually a society or association, such as an allotment association, where it is reasonable to think that users have been made familiar with the toilet function and use it correctly.

A public toilet will be used by people who are not members of an association and they may use the toilet only once or rarely. Such toilets might be in parks, nature reserves, campsites, churches. In a church you may have regular users who are members of the congregation and non-regular users e.g. wedding guests.

DURATION OF STAY

1. Are users resident on site?
2. If visitors, are they there all day or just for an hour or so?
3. Do you get high usage on certain days or at certain times of year?
4. What is the average number of USERS per toilet and, if you have more than one toilet, is use evenly distributed?

AGE AND CAPABILITY OF USERS

1. What proportion of users are young children (<11yrs) and is this equally male and female?
2. What proportion of male users have learning difficulties?

Contact:- tech@natsol.co.uk

SERVICING

NatSol are currently assessing whether it might be possible to offer servicing of these toilets. If you might be interested in servicing please contact us.

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