

## Trouble Shooting Guide for NatSol Twin Vault Toilets

### (All models except COMPUS COMPACT)

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 is probably essential to provide a box to stand on or to install an additional lower urinal to the left of the standard one. 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, birds 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 when the upper part is removed. You will need to open the door and, 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 surface water will have entered the vaults through the hatches or through the urine outflow pipe from the urine soakaway. Toilets should not be located where flooding is likely but if this has occurred then the vaults will need to be pumped out and re-started with a fresh bed of shavings.
2. The urine soakaway has been installed incorrectly, e.g. up-hill (!), or the vaults have been installed too low in the ground. Please check this before calling us – see page 3.

#### Operation problems

1. The urine outlet or soakaway has blocked. Check and clean the outlet gully (see manual) and check that water gets away. The soakaway is not likely to fail unless the toilet has very heavy use or the ground is heavy clay.
2. The urine separator in the pedestal is not working. The operation can be checked by squirting water from a washing up liquid bottle or similar onto the urine plate and watching the result through the hatch. The water should enter the gutter and run away freely.
3. Boys (and/or men) are standing to pee into the pedestal! Occasional misuse is not a problem but for busy sites the amount of urine introduced this way is enough to flood the toilet. It may be necessary to add an additional low level urinal for boys.
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. This would be due, most probably, to some use of the pedestal as a urinal by males. In such cases it is best to add dry soak to the liquid and rake in thoroughly. Options to ensure correct use of the toilet must then be considered and implemented.

**NB.** A lack odour does **not** mean that liquid in the vaults is necessarily water rather than urine. Our ventilation design is very effective.

### **If the above steps do not resolve the problem:**

We are then happy to discuss problems on the phone but it is very helpful to us if you read this carefully before calling. For all enquiries we will need to know:

1. Your contract number.
2. The date of installation or first use.
3. Whether the use has changed - and an estimate of the number and type of users.
4. Whether or not the site is open to the general public.

### **Odour**

If odour is experienced when the toilet is in normal use then please consider the following questions:

1. Has that always been the case since the toilet was first used?
2. If not, does the odour coincide with any change in use?
3. Is the predominant smell ammonia?
4. Is there any evidence of the urinal leaking onto the floor? In this respect it must be said that males often miss urinal bowls or may urinate on the rim of the bowl in which case the urine will flow down the outside of the bowl and drip off the pipework onto the floor. It may not actually be leaking.
5. Has a normal cleaning regime been applied?
6. Have you checked the ventilation cowl as described above?
7. Does either vault appear to have very wet contents or to be flooded?

### **Very wet or flooded vaults**

We will need the following information:

1. The date the toilet was installed *and* when it first came into use.
2. The date when you became aware that the vaults were too wet.
3. Whether both vaults are wet or flooded. If not, which one? What depth of solids and liquids are present? Use a stick to estimate.
4. Whether the site is sloping or flat and, if sloping, where the soakaway is in relation to the toilet.
5. Whether the toilet is installed in heavy clay or on a site which is sometimes very wet or flooded.
6. What the height of the cubicle floor is above average ground level.
7. A photograph of the right hand side of the building showing ground levels.
8. Photographs looking into both vaults through the front floor hatches.
9. The proportion of young males using the toilet.
10. A record of vault change-over dates.
11. What type of soak material you are using and whether this is added by users or managers.
12. The amount of soak you are using per vault change-over or per annum.

### **It will be useful to us if you can identify your 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 with some regularity.

A public toilet will be used by people who are not members of an association and 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-familiar 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](mailto:tech@natsol.co.uk) 01696 412653 [www.natsol.co.uk](http://www.natsol.co.uk)

## APPENDIX C

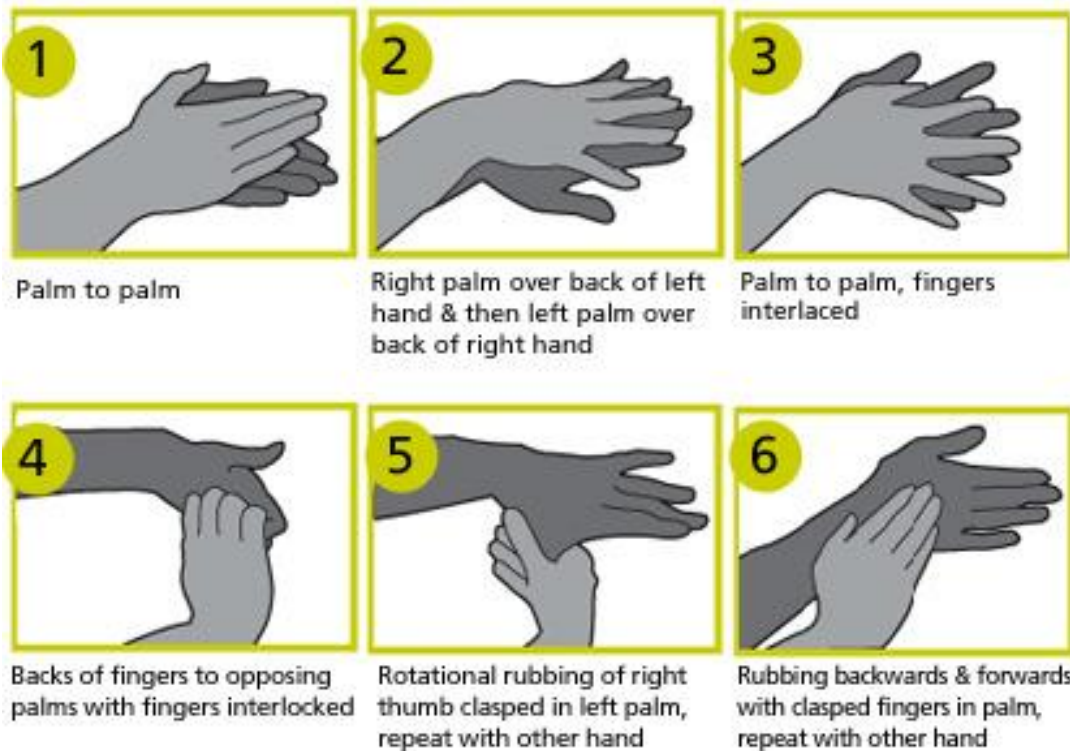
### HYGIENE PRECAUTIONS WHEN CLEANING AND MANAGING COMPOST TOILETS



Wear gloves for all cleaning operations



Wear overalls when switching vaults or emptying compost



Clean hands after all toilet cleaning or management procedures.