

## **NATSOL - ERECTION OF WOODEN BUILDING FOR COMPUS TWIN FULL ACCESS**

### **What you need: -**

1. **Components [& tools] supplied by NATSOL:**
  - a. building sections; 4 walls and roof
  - b. 3m x 160mm vent pipe
  - c. 3m x 110mm soil pipe for soakaway inside vent pipe
  - d. gutter and downpipe for building inside vent pipe
  - e. vent pipe flashing collar
  - f. vent cowl
  - g. SIKAFlex
  - h. gutter & downpipe kit and rainwater gully
  - i. pack of coach screws & washers,
  - j. universal 9mm drill bit
  - k. urinal splashback
2. **Tools, equipment and materials required:**
  - a. **safety clothing**
  - b. tape
  - c. ladder
  - d. cordless drill or generator and corded drill
  - e. socket drives for cordless or spanners
  - f. drill bits for piloting timber, plastic & metal
  - g. small assortment of ZP woodscrews for pipe fixings etc
  - h. mastic gun
  - i. breathable exterior 'paint' for door and frame e.g. OS Country Colour, Sadolin.
3. **Personnel & skills required:**
  - a. 4 people for erection of frames and roof, then 2
  - b. measuring & drilling
  - c. lifting and positioning
  - d. fitting coach screws
  - e. masticing

### **Method – see accompanying drawings and/or photos: -**

**NB. Use appropriate safety clothing for all stages. Before you start to erect the building make sure that all apertures in the floor have hatches or safety boards fitted. Do not erect under windy conditions. Keep bystanders clear by roping off site. If using corded power tools use correct voltages [and/or protective trips] for site work.**

1. Using the 9mm universal bit supplied drill through the vault flanges where there are small circular depressions 30mm in from the edge. Do **NOT** use a hammer setting.
2. Mark on a line with a pencil 60mm in from the edges of the vault lid.
3. Stand the **rear wall** section in place [centrally L to R] and line it up with the line you have just marked on. Support this wall section with props or otherwise hold securely. Make sure you don't trap the plastic drip edge under the sole.
4. Stand a **side wall** section in place. Position to the line on the floor and check also to see that the **vertical** pencil line on the surface of the lining board **inside** is just visible in the corner. Then insert 2 x 120mm turbo coach screws into the piloted holes covered by lead tabs on the outside of the side wall to join rear and side walls together.
5. Repeat with the other **side wall**.
6. Now adjust the positions of the three walls you have joined up to make sure that the soles are all lined up with their respective markings on the floor. The gap for the front wall should be 1675mm but check this by measuring the front wall and measuring the gap between side walls low down.



N.B. Our buildings now have a skylight rather than a rear window



7. Fit the **front wall** into position and fit the corner coach screws as before. Leave the **batten across the bottom** in place for the time being.
8. Using a cordless drill and socket drivers or a ratchet fit 100mm turbo coach screws with washers from below to fix down the sole plates of all walls as shown above. Do not overtighten.
9. Now remove the batten across the bottom of the front wall.
10. Raise **the roof** into position. Slide it up from the back with 2 people inside and 2 outside. under windy conditions find a way of holding it down whilst fixing - **a roof blowing off is very dangerous!** Use 4 long wood screws [pack BW4] and insert these through the corner timber blocks on the top of the walls into the roof frame using a cordless drill. See highlighted area below. You may need to pilot these first.



Roof fixing screws



Downpipe support blocks

11. **Fit gutter**, sloping it to the preferred side. Then fit the downpipe. It may be possible to direct the water to the urine soakaway or there may be a separate soakaway – see **Site Layout, Excavations and Soakaways**. You must decide on an appropriate course of action depending on site conditions and typical rainfall. We supply a rainwater drainage gully but you may need additional pipe. If the client intends to fit a rain butt we may have supplied a rain diverter.

12. Seal vertical joins between wall sections on the outside of the building and between floor and wall internally with frame sealant as supplied.
13. **The vent pipe.** Slide the plastic storm collar on to the pipe and position approx 800mm down from the top end.
14. Attach directional cowl to the top end of the pipe with self tappers. Ensure there are no obstructions such as branches so the cowl can rotate freely at all times.
15. Insert pipe down through hole in roof. **Use a properly supported ladder, sufficient personnel and do not attempt under windy conditions.**



These pictures show a metal building but fitting the vent pipe is the same.

16. Locate bottom end of pipe in floor socket.
17. Slide storm collar down over roof collar. **Seal to vent pipe with SIKA.**
18. Seal pipe into floor socket with SIKA. You won't get around the back of the pipe but it doesn't matter.
19. The exterior surface of the door and frame should be painted with a breathable exterior paint. The door timber is treated but this will not in itself prevent swelling.

**INTERNAL FITTINGS See: Internal layout drawing. N.B: Some pictures illustrate the inside of metal buildings.**

**What you need: -**

1. **Components supplied by NATSOL:**
  - a. stainless steel toilet pedestal and short urine plate
  - b. seat adapted for pedestal
  - c. 2 hand disinfectant dispensers and 2 gel packs – load one in dispenser by pedestal, keep the other as spare
  - d. grab rail kit in white or dark blue
  - e. 2 toilet roll holders
  - f. ceramic urinal with splashback, trap, mounting brackets and pipework – all stored inside the soak box.
  - g. 40mm solvent weld pipe **[long piece over spade handle]**,
  - h. soak bin containing some wood shavings
  - i. coat hook
  - j. various screws
  - k. floor wax

- l. metal rake
  - m. emptying spade – this is for the owner to store somewhere else.
- 2. Tools & materials required:**
- a. saw for pipe cutting,
  - b. cordless drill & bits
  - c. flat bit screwdriver
  - d. **PAINT FOR INTERIOR - OPTIONAL**
- 3. Personnel & skills required:**
- a. 1 person is sufficient, 2 is handy

**Method – see accompanying drawings and/or photos: -**

1. NB. You may wish to paint the cubicle. We normally supply white grab rails. These should not be set on a white background. We would suggest a colour such as OSO Light Ochre or other shades of similar colour density. This will create an attractive cubicle with grab rails which can easily be seen by visually impaired users. If you decide to paint we suggest fitting the grab rails and other equipment and then removing them again. The screw holes will make it clear where to refit them after painting.
2. Fit splashback for urinal in front RH corner of cubicle. It should go right into the corner. Use self tappers through perimeter holes to fix. Fit brackets to predrilled holes in centre and hang urinal as shown. Fit waste and threaded adaptor below. It is preassembled.
3. Connect up urinal pipe work ensuring suitable fall in pipe, clip to wall. The pipe through the floor should be pushed into the hole up to the felt tip line. Any more than this and it may block the urine pipe.



4. Fit the grab rails in the positions shown on the walls or use the **Grab Rail Layout Drawing**. One grab rail is for the back of the door.
5. The wall mounted “soak” box is best fitted before fitting the pedestal. Fix the mounting brackets to the wall in both pedestal positions. The screw positions should be marked. If you can’t see them then the top of the box should be 1100mm off the floor and you should leave a 25mm gap between the side of the box and the circular fixing plates of the rear vertical grab rails. Hang the box behind whichever pedestal position you intend to use first. If you don’t want it to be easily removed put in a screw through the central hole in the back of the box.
6. Position the pedestal in the rear hatch which had the timber safety board. The front of the pedestal should be inserted first so that the urine plate extends under the floor and reaches to the gutter. Use pack B4 to fix down the back of the pedestal. The small washer goes beneath the large SS one. Fit the short urine plate inside the front of the pedestal on the hooks below the front edge of the top of the pedestal.
7. Fit toilet seat **following instructions on the label on the packaging**.
8. Fit the dispensers which open by pushing up recessed button underneath at rear.
9. Fit toilet roll holders, one each side, in position accessible from pedestal.
10. Fit coat hook on back of door or opposite urinal.
11. If not done earlier empty the entire bale of woodshavings into the vault to be used first and rest the rake in there too – but not the spade which should be stored by the owners.





Use pedestal fix down (B4) at rear.



Use floor wax as supplied.

12. Place the rake in the active vault so that handle is accessible from the emptying hatch in front of the pedestal – it stays in there until vault changeover and is then moved to the new active vault.
13. We supply floor wax as part of the kit. Application is best left for a few days so that the floor can be thoroughly cleaned and allowed to dry.

**FINISHING OFF OUTSIDE - We don't supply anything for this and it will depend very much on the site. See Ramped Access – next page.**

1. A **ramp** or **slope** and **landing area** should be constructed to comply with building regs. Maximum gradient for a **ramp** of 2m length is 1 in 12; width 1200mm. A **slope** of maximum gradient 1:21 is preferred for wheelchair access. The level **landing area** in front of the door should be approx 2200mm deep to provide 1200mm clear when the door is open. Make sure the landing area is slightly below the floor level so that rain doesn't run inside. The **maximum permissible step** here is 15mm. **We strongly advise you to contact a COUNCIL ACCESS OFFICER or private sector ACCESS CONSULTANT when designing your approach to the toilet.**
2. We strongly advise you to fit a post preventing the door from opening further than 90 degrees. Our doors will be fitted with restrainers but these could be damaged in high winds. The post should not obstruct disabled access.
3. We recommend fitting a **rain butt** to make use of rainwater and to reduce the amount of water going to the rain soakaway. The soakaway is necessary because the butt will undoubtedly overflow in winter. Rainwater is fine for floor cleaning, urinal rinsing etc.



**T 01686 412653**

# Ramped access

## EXTRACTS FROM PART M OF THE BUILDING REGULATIONS

### SECTION M1/M2

#### ACCESS TO BUILDINGS OTHER THAN DWELLINGS

##### Design considerations

**1.19** If site constraints necessitate an approach of 1:20 or steeper, an approach incorporating ramped access should be provided. Ramps are beneficial for wheelchair users and people pushing prams, pushchairs and bicycles.

**1.20** Gradients should be as shallow as practical, as steep gradients create difficulties for some wheelchair users who lack the strength to propel themselves up a slope or having difficulty in slowing down or stopping when descending.

##### Limits for ramp gradients:

Going of a flight	Maximum gradient	Maximum rise
10m	1:20	500mm
5m	1:15	333mm
2m	1:12	166mm

Note:- For goings between 2 and 10m it is acceptable to interpolate between the maximum gradients.

##### Provisions

**1.26** A ramped access will satisfy Requirement M1 or M2 if:

- c. no flight has a going greater than 10m, or a rise of more than 500mm;
- e. it has a surface width between walls, upstands or kerbs of at least 1.5m;
- h. there is a landing at the foot and head of the ramp at least 1.2m long and clear of any door swings and other obstructions;
- k. all landings are level, subject to a maximum gradient of 1:60 along their length and a maximum cross fall gradient of 1:40;
- m. there is a kerb on the open side of any ramp or landing at least 100mm high, which contrasts visually with the ramp or landing in addition to any guarding required under Part K.

##### Note from NatSol:

You should view the full regulations which can be downloaded online.

Highlighted sections above relate to those requirements which, in our experience, are often neglected in the installation of toilets on remote sites.

**We stress that the inclusion of the above extracts is merely a way to assist you but that we do not accept any liability for the work you do in providing access into a toilet we provide and that if in doubt you should consult with the local Building Control Officer or an Access Consultant.**