

## How to install the UDS toilet bowl

It doesn't matter whether you want to install the UDS bowl together with a Otji-Toilet or any other dry toilet. All dry toilet systems are functioning much better once the urine is drained away to allow the solid to degrade. The french drain is always the same.

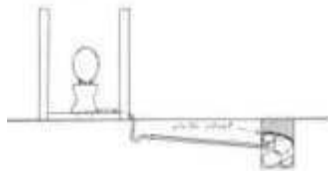
The „french drain set“ consists of:

- 1 SMALL L-BOW
- 1 SHORT PIPE
- 1 BIG L-BOW
- 1 P-TRAP
- 1 LONG PIPE
- 3 RUBBER CONNECTIONS
- 1 PLASTIC SHEET (50 x 50 cm)



The french drain is a small filtration hole (35cm x 35cm), dug into the ground with about 50 cm depth in a distance of about 1,5 m from the toilet. This hole is filled half (25 cm – 30 cm) with big rocks, while the urine-pipe ends in between the rocks. Make sure, that the end of the pipe is free from any potential blockage. Then cover the rocks with the plastic sheet and fill up the rest of the hole with soil. The plastic sheet will hinder the soil to enter in between the rocks and potentially causing blockage to the urine-pipe. The free and open space at the end of the pipe is an essential detail for the proper functioning of the drainage.

The connection of the „french-drain- set“ starts at the UDS-Bowl with the small L-BOW and the SHORT PIPE towards that side you want to have your french drain. The BIG L-BOW will go thru the hole in the toilet wall towards the P-TRAP which is outside and underground. From there the LONG PIPE goes straight into the french drain covered with the PLASTIC SHEET. Make sure, that the underground installation (french drain with P-TRAP and LONG PIPE) is not exposed to heavy pressure such as cars driving over or parking there.



## The Otji-Toilet and the Urine Diversion Toilet Bowl



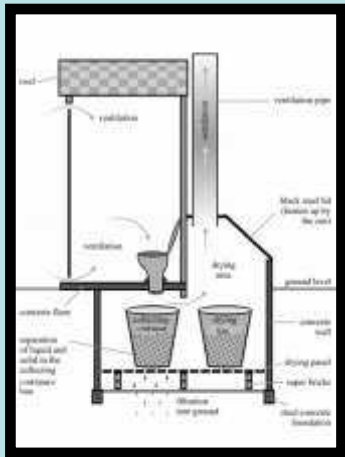
**Dry Sanitation of modern convenience**

## The Otji-Toilet

The Otji-Toilet has two perforated container in the underground chamber which are collecting the solid. After approximately six month (if 6-10 users) the first container is full and gets exchanged with the second container but will still remain in the chamber for composting. Once the second container is full again the first one has composted and will be emptied. This exercise will be performed twice per year from outside with long steel hooks which are part of the Otji-Toilet Self-Builder-Set. The Self-Builder-Set is a complete toilet kit including UDS-Bowl, floor slab, toilet door, roof, ventilation system and all other elements needed to build a complete finished dry toilet. Only bricks and cement you need to add to construct your Otji-Toilet wherever you want.

## The Urine Diversion Toilet Bowl

Our patented UDS-Bowl catches the urine which touches the inner wall of the toilet bowl and guides it into a channel. From there it runs into an underground "french drain" apart from the toilet structure. Therefore the solid remains dry and can undertake a composting process. In the absence of sludge there are no gases and no breeding environment for insects. The Eco Solutions UDS-Bowl is ideal for any dry toilet, from the pit latrine over the Otji-Toilet up to high end dry sanitation technologies. The UDS-Bowl is eco friendly since the pure urine does not contain pathogens, while the bacteria in the dry solid cannot survive due to the absence of liquid.



**Urine Diverting Toilet Bowl  
For VIP's, Long Drops and  
any other Dry Toilet**  
Patent Peter Arndt: 2010/08077

**Urine is separate, Solid is dry, No odour  
User-friendly, Field approved**  
Otjiwarongo 067-304548  
[www.otjitoilet.org](http://www.otjitoilet.org) [chp@africaonline.com.na](mailto:chp@africaonline.com.na)

## The maintenance free Eco-Toilet



## The maintenance free Eco-Toilet

The maintenance free Eco-Toilet is in fact a comfortable ventilated Urine Diverting Dry Toilet (UDDT) where the solid remains in the chamber undertaking a composting and degrading process. The liquid is drained apart via our UDS-Bowl. The ventilation is driven from a big 2,4m high steel pipe with a diameter of 280mm. The big size of the sun heated ventilation pipe ensures that enough air is really properly moving and no smell will border the user. As an extra benefit this Self-builder-Set includes a second floor slaps (outside under the ventilation pipe) which can be removed once the pit is full. That way the composted solid can be removed instead of investing in the construction of a new pit latrine. Please note that this decision is only to be considered once in a decade, while in the meantime the system works