

## THE PUBLIC TOILET FACILITY THAT WORKS!

### Combining the Maxi Rota-Loo with a Soltran Building.



Public Toilet only 20' from fresh water supply



The Maxi Rota-Loo 2000 is the most appropriate and environmentally responsible method for disposing of human waste. The Rota-Loo is approved by the Environmental Protection Authority and Health departments throughout Australia and used by people around the world. From inside the toilet room it looks just like a normal toilet except that the system;

- NEEDS NO WATER FOR FLUSHING,**
- HAS AN UNLIMITED CAPACITY,**
- USES NO CHEMICALS,**
- CREATES NO POLLUTION,**
- IS FREE OF ODOUR, &**
- LOW MAINTENANCE.**

The huge capacity of the Maxi 2000 makes it particularly suitable for public toilet facilities where the site is environmentally sensitive, where water is in short supply, or where a low maintenance facility is required. The Maxi Rota-Loo 2000 provides an environment that allows human waste to be treated by a method that has taken "Nature" millions of years to evolve...NATURAL HYGIENIC COMPOSTING.

#### Housing the Maxi 2000

The Maxi 2000 is designed for use in remote or high traffic locations, to be able to do this effectively the building in which a system is housed, becomes an essential component, for its efficient, effective and successful



operation. Whilst it is possible to design your own building around the Rota-Loo composting toilet system, it is our recommendation that you first consider the proven Ecos Soltran. An understanding of the principles of aerobic decomposition and why the design of the Soltran is so successful will help you decide on the best course of action for your project.

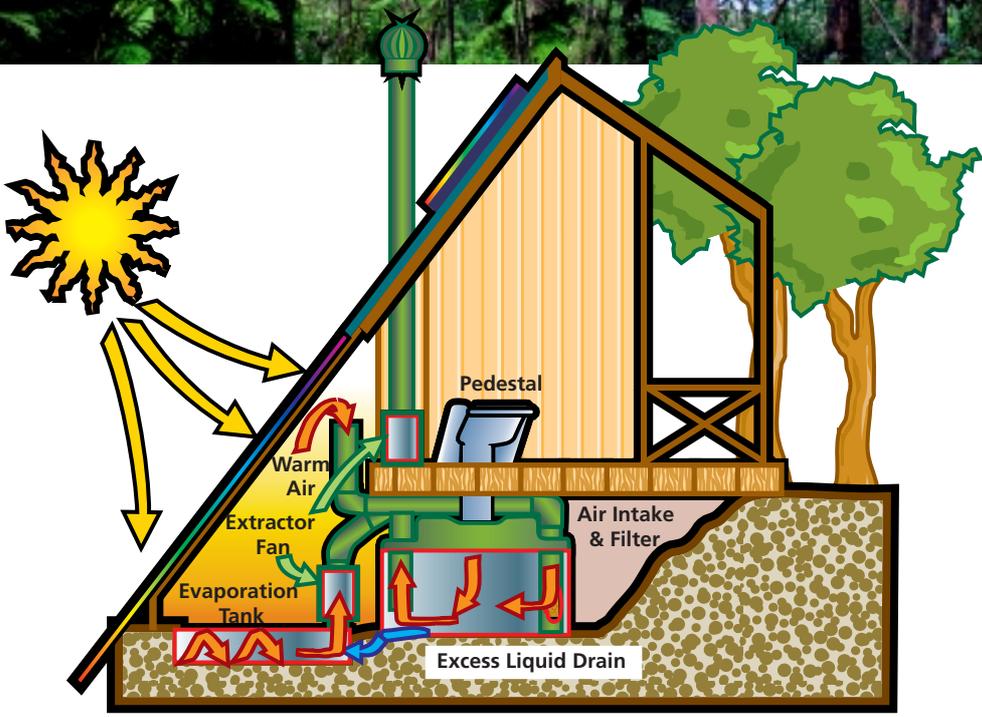
#### Low Maintenance and Unlimited Capacity

Every Maxi ROTA-LOO 2000 is equipped with 8 removable composting bins which are located on an internal turntable which is rotated once a bin becomes full (hence ROTA-LOO). The full bin is left to continue the composting process and will not need to be emptied until it returns to the first position under the toilet pedestal. By this time, humus has been created which can be simply buried into a shallow hole.

Sometimes a toilet facility can be under designed due to inaccurate information on frequency patterns for the area. When a situation like this occurs, it is possible that the material in the bin that is to be emptied, may not yet be fully composted. If this occurs, one is able to simply fasten a lid onto the full bin, remove it from the system and replace the bin with an empty spare. The full bin can then be moved to a secure location to finish its composting process. This feature will ensure that no Soltran facility need ever be closed due to insufficient capacity or unexpected high usage.

#### Aerobic Composting and the Ecos-Soltran:

Hygienic aerobic composting requires oxygen, heat and a little bit of moisture. A constant source of oxygen and heat will promote higher rates of aerobic decomposition than can be created by the local environment. For every 10 degrees Celsius that can be promoted within the system the rate of decomposition and evaporation will double. The Ecos-Soltran is designed to generate heat naturally using the solar gain from the sun's rays. A 10mm, twin wall Polycarbonate glazing and clever positioning allows heat to accumulate into temperature ranges not possible other than by costly artificial means. The most natural and efficient means of killing pathogens is through a factor of heat and time, which is exactly what occurs in the Rota-Loo systems, once the first bin has been filled and rotated. The bin is now allowed to sit and compost within a warm environment without any fresh material being added to the pile. Once the bin has finished its full rotation of the system, it has matured and become a safe soil rejuvenating humus, ready for burial into the ground.



**Schematic diagram of an operational Soltran Building.**

inside the Soltran Module, both the Maxi and the ELT will have their own independent venting systems making the system more efficient.

**Power:**

If the toilet facility is expected to cater for more people than a passive system will cope with, then a fan is required in each of the ELT and Maxi 150mm vent pipes. The fan assemblies are available to suit any power supply. In urban areas or regional parks where 240V supply is available the fans will draw 20 W. If in remote areas where solar panels are to be used, the 12V fans only draw 2.6W each and 24V fans will draw 5W. If a remote area is also vandal prone and 12V supply is required, we can also supply a 5metre panel pole, which we have found to be a great deterrent.



**Kit Buildings and Soltran Modules:**

Soltran Buildings are designed to suit any floor plan or size, and comply with all building codes to Australian Standards. The most practical buildings will have multiples of two toilet rooms to suit the Maxi Rota-Loo 2000. The cubicles can be either standard or allow access by a wheel chair, with this option an earth mound or a wooden ramp is preferable to a set of stairs. Additional urinal rooms, showers or changing rooms can all be included into the building in order to cater for all sites requirements. Soltran's can either be manufactured in Kit-form or constructed on-site by our builders. A full turnkey operation is also available whereby we will take care of everything including installing all the Rota-Loo equipment, conducting site inspections, workshops and then hand over the facility to the Rangers and service personnel. We can now even provide a service contract where we inspect, trouble-shoot and report on the facilities operation on a regular basis. Soltran Modules are available too, which can be retrofitted to any building to increase the systems performance

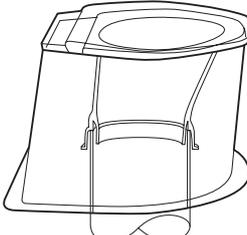
**Excess Liquid Tank (ELT):**

Another Soltran feature is its ability to accept an Excess Liquid Tank (ELT) into the Soltran Module (which is the name given to the sealed area under the special glazing at the back of the building behind where the Rota-Loo sits). In most Public Toilet Facilities excess liquid is the biggest problem to deal with, it can also be the source of the most unpleasant odours, unless dealt with properly. The ELT takes liquid from the Rota-loo and evaporates it by providing a greater differential in ambient temperatures, a significantly larger and independent airflow and an increased surface area. The capacity of the Maxi Rota-Loo 2000 combined with the efficiency of the Ecos-Soltran Building makes the combination the perfect low maintenance remote location public toilet facility.

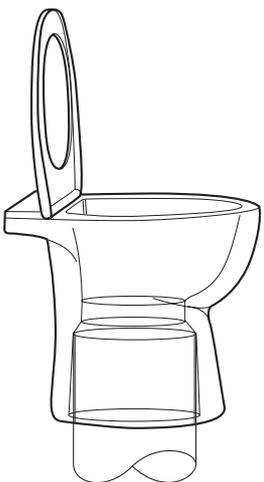
**Venting:**

One of the additional features of the Soltran Building is that it can be adapted to be a completely passive system. This means that power is not required to drive the 150mm fans. A correctly sited Soltran Building is able to generate sufficient heat to create a thermal convection to pull the air through the system. Whilst this can be of great advantage in vandal prone areas or when budgets are really tight, a passive system is limited to facilities that don't experience flash loadings. As mentioned before, dealing with liquid can be a concern when ensuring a facility operates properly. Evaporation from an ELT in a passive system is considerably slower than when a fan is used. In high usage areas where an ELT is positioned

**A variety of pedestal designs are available.**



**Fibreglass Pedestal**  
**NOT SHOWN**  
**Stainless Steel Pedestal**  
**Waterless Urinals**  
**Urine Separating Pedestal**



**Vitreous China Pedestal**

**Manufactured by:**  
**Environment Equipment**  
**41A Jarrah Drive, Braeside**  
**VIC-3195 Australia**  
**Ph: +61 03 9587 2447**  
**<http://www.rotaloo.com>**

