



Health

Certificate of Accreditation

Sewage Management Facility

Waterless Composting Toilet System

This Certificate of Accreditation is issued by the Secretary of the NSW Ministry of Health pursuant to Clause 41(1) of the Local Government (General) Regulation 2005.

System: *Sun-Mar Excel Composting Toilet Systems*

Manufacturer: *Ecoflo Wastewater Management Pty Ltd*

Of: *6 Hurricane St, Banyo, QLD, 4014*

The Sun-Mar Excel Waterless Composting Toilet System as described in Schedule 1 has been accredited as a sewage management facility for use in single domestic premises in NSW. This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2.

*A/Director, Environmental Health
for Secretary (delegation PH335)*

Issued: *10 December 2018*

Certificate No: *WCT004*

Expires: *31 December 2023*

Schedule 1: Specification

Sun-Mar Excel Waterless Composting Toilet System

The Sun-Mar Excel composting toilet system is designed to receive and treat human waste from a single toilet pedestal. Organic material may be added to the composting wastes as a bulking agent (peat moss mixed with wood shavings) at intervals specified by the manufacturer. The system is designed to reduce such wastes after a minimum composting period into an innocuous relatively dry waste that is capable of being disposed of within the premises without nuisance or risk to health.

The Sun-Mar Excel composting toilet system is installed directly in the bathroom or separate toilet room. All of the liquid entering the system is evaporated. The system requires no flushing liquid. The Sun-Mar Excel system is available as an electric, on-electric (NE) and AC/DC unit.

The Sun-Mar Excel system consists of three storage chambers:

- Composting chamber – Faeces, urine, toilet paper and organic matter in the form of a bulking agent are deposited into the composting chamber. Three times per week when the toilet is in use, the composted material is aerated and mixed by rotating the handle of the Bio-drum (composting chamber). While the Bio-drum is rotated the drum doors on the input and output openings on the drum close automatically so that the compost remains in the drum.
- Compost finishing drawer - When the Bio-drum is about 2/3 full, a small amount of compost is removed from the Bio-drum onto the drawer by rotating the drum while the output door on the drum remains open. The frequency of the removal of the compost depends on usage and will vary between 1 to 4 times per year. The manufacturer recommends that the compost should be left in the tray for a minimum of 3-4 weeks before being emptied.
- Evaporating chamber/tray – Liquid wastes in the form of urine entering the system is controlled by several means.
 - a. Firstly liquid waste is absorbed by the compost pile, which helps to maintain the moisture content of the pile.
 - b. Secondly excess moisture is removed in the form of vapour from the pile.
 - c. Thirdly any excess free liquid percolates through the pile and drains onto the evaporating chamber/tray where it is evaporated by means of a 240 W heating pad mounted underneath the evaporating tray.

Air is drawn through the system by means of a 30 W fan installed at the rear of the toilet. Air is pulled through intake holes at the front end of each side of the toilet; over the evaporating tray and up the vent stack, which is attached to the rear of the toilet. The negative pressure, which the fan creates within the toilet system, ensures that there is no offensive odour coming from the toilet when in use.

The composting capacity and usage of the Sun-Mar Excel systems are expressed in the following table:

Model	Power	Residential use
Excel	electric	3 adults full time, or 6 adults vacation/weekend use
Excel NE	12 V	2 adults full time, or 5 adults vacation/weekend use
Excel AC/DC	electric or 12 V	either as Excel or Excel NE

Schedule 2: Conditions of Accreditation

General

1. The owner/occupier of the premises shall make an application to the local authority to install a Sun-Mar Excel composting toilet system as a waste management facility in accordance with Section 68, Part C of the Local Government Act 1993 and Clause 26 of the Local Government (General) Regulation 2005.
2. The application to the local authority shall include:
 - 2.1 Plans and specifications of the nominated model of the Sun-Mar Excel composting toilet system;
 - 2.2 A site plan drawn to scale showing the location and type of the proposed sullage disposal system for the premises and state the method of disposal;
 - 2.3 A statement detailing the proposed method of disposal of the composted end product, the frequency of such disposal and the estimated volume of composted end product to be removed;
 - 2.4 A statement on whether the composting system is likely to produce a liquid component and how it is proposed to dispose of the liquid. The statement shall be supported by detailed plans of any necessary liquid disposal system.
3. Installation of the nominated model of the Sun-Mar Excel composting toilet system is restricted to the number of persons occupying a domestic premises as set out in the table attached to Schedule 1 and where in the opinion of the local authority the nominated model of the Sun-Mar Excel composting toilet system will be capable of providing satisfactory toilet accommodation.
4. A permanent notice with basic instructions shall be affixed to the unit in a prominent position. The permanent notice shall include provision for recording the date the last time humus material was removed from the composting chamber onto the composted end product tray.
5. The composted end product in the Sun-Mar Excel system shall be retained on the composted end product tray for a period of not less than 4 weeks before the tray is emptied. A statement to that effect must be included on any accompanying literature.
6. The manufacturer shall supply a comprehensive manual with details of the maintenance procedures necessary to ensure the efficient and safe operation of the system.
7. The Sun-Mar Excel composting toilet system shall be installed and operated in accordance with the manufacturer's instructions and any conditions imposed by the local authority.
8. All sullage water shall be disposed of by means of a disposal system designed to the satisfaction of the local authority.

9. Installation and Commissioning

- 9.1 The local authority should require that on completion of the installation of the nominated model of the Sun-Mar Excel composting toilet system, the system is inspected and checked by the manufacturer or the manufacturer's agent. The manufacturer or the agent is to certify that the system has been installed and commissioned in accordance with its design, conditions of accreditation and any additional requirements of the local authority.

9.2 The local authority should require that all electrical work, where necessary, must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.

10. Maintenance

10.1 Material, which has been only partially composted, may only be removed from the Sun-Mar Excel composting toilet system with the written consent of the local authority. The Local Authority may issue instructions as to who may remove the humus and the method of disposal of the humus.

10.2 Unless otherwise directed by either the Local Authority or the NSW Ministry of Health, the composted end product is to be disposed of by burial within the confines of the premises in soil, which is not intended to be used for the cultivation of food for human consumption. The minimum cover of soil over the deposited humus must be 100 mm.

10.3 Alternatively the composted end product may be retained for an additional period of three months in a lidded compost bin. At the completion the humus may be used as a soil conditioner without any further treatment.

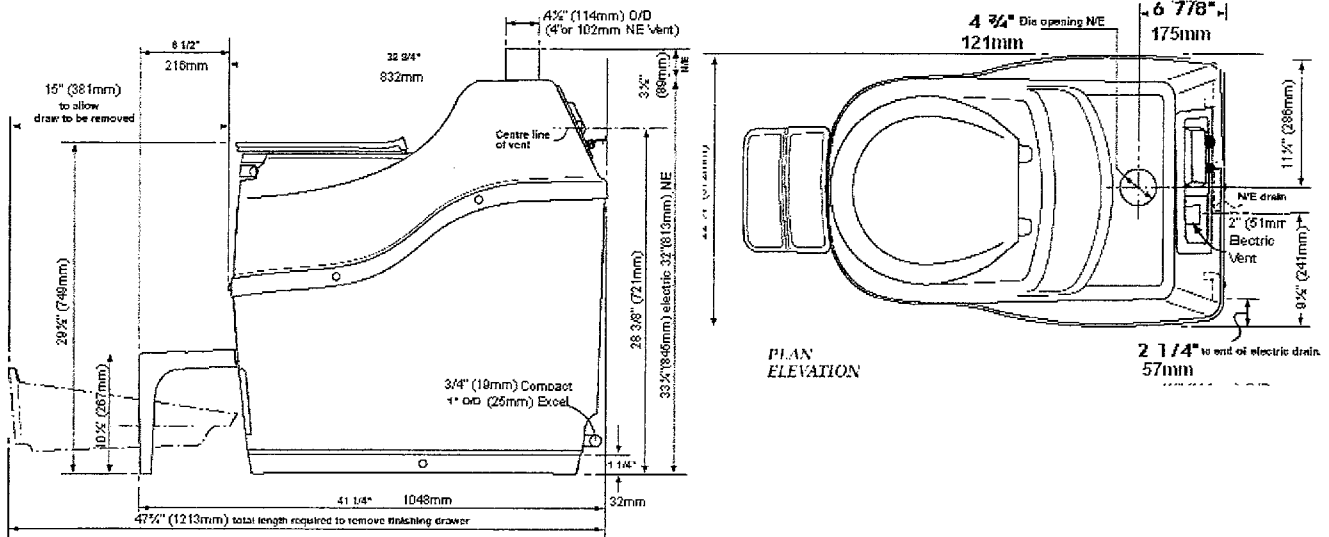
11. On-going Management

11.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Sun-Mar Excel composting toilet system. The plan shall include details of:

- The composting process,
- Procedures to be followed in the event of a system failure,
- Emergency contact numbers,
- Maintenance requirements,
- Inspection and sampling procedures to be followed as part of an on-going monitoring program developed by the local authority

Installation

EXCEL and EXCEL NE ROUGH IN DIMENSIONS



COMPACT ROUGH IN DIMENSIONS

APPROVED
10 DEC 2018
NSW MINISTRY OF HEALTH

