

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 2021.

System:

Clivus Multrum Ecolet Composting Toilet System

Manufacturer: Ecoflo Wastewater Management Pty Ltd

Of:

25 Shannon Place, Virginia, QLD, 4014

The Clivus Multrum Ecolet Composting Toilet System as described in Schedule 1 have been accredited as a sewage management facility for use in single domestic premises in NSW. This accreditation is subject to the conditions and permitted uses specified in Schedule 2 and in accordance with the Waterless Composting Toilets (WCT) Accreditation Guideline, May, 2005.

1. Byloveld

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

Issued: 15Nov23

Certificate No: WCT009 Expires: 31 December 2028

Schedule 1: Specification

Clivus Multrum Ecolet composting toilet system

General Description

The Ecolet 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 Ecolet composting toilet system is installed directly in the bathroom or separate toilet room. All of the liquid entering the system is evaporated. The Ecolet system is available as a manual unit, an automatic unit, an automatic XL unit and a non-electric (NE) unit.

The Ecolet system consists of two storage chambers:

- Composting chamber Faeces, urine, toilet paper and organic matter in the form of a bulking agent
 are deposited into the composting chamber. After each use the composted material is mixed and
 aerated by turning the T-handle on the top of the Ecolet unit a couple of times. The Ecolet automatic
 (XL) unit has a fully automatic mixing mechanism which is activated when the seat is lowered after
 each use.
- Humus collection tray The composted material is collected in the humus collection tray located in the bottom of the Ecolet unit. The frequency of the removal of the composted material depends on usage and will vary between 2-3 months to once a year. The manufacturer recommends that after each removal humus-starter material is added to the tray to maintain a balanced composting mix.

Air is drawn through the Ecolet unit by means of a 25 W fan installed at the rear of the toilet. The fan drives warm air through the air channels at the front of the unit; over the humus collection tray and up the ventilation pipe, which is attached to the rear of the toilet. The negative pressure, which the fan creates within the Ecolet unit, ensures that there is no offensive odour coming from the unit when in use.

The composting capacity and usage of the Ecolet system is expressed in the following table:

Model	Residential use	Power
Ecolet Manual	2 persons full time or 3 persons part time	electric
Ecolet Automatic	3 persons full time or 4 persons part time	electric
Ecolet Automatic XL	4 persons full time or 6 persons part time	electric
Ecolet NE	2 persons full time or 3 persons part time	non electric

Schedule 2: Conditions of Accreditation

1. General

- 1.1 For each installation the owner/occupier of the premises shall make an application to the local authority to install a Clivus Multrum Ecolet composting toilet system as a waste management facility in accordance with Section 68, Part C of the Local Government Act 1993 and Clause 29 of the Local Government (General) Regulation 2021.
- 1.2 For each installation the application to the local authority shall include:
 - 2.1 Plans and specifications of the nominated model of the Clivus Multrum Ecolet composting toilet system;
 - 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;
 - 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;
- 1.3 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.
- 1.4 Installation of the nominated model of the Clivus Multrum Ecolet 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 Clivus Multrum Ecolet composting toilet system will be capable of providing satisfactory toilet accommodation.
- 1.5 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.
- 1.6 The manufacturer shall supply with each system a comprehensive manual with details of the maintenance procedures necessary to ensure the efficient and safe operation of the system.
- 1.7 The Clivus Multrum Ecolet composting toilet system shall be installed and operated in accordance with the manufacturer's instructions and any conditions imposed by the local authority.
- 1.8 All wastewater shall be disposed of by means of a disposal system designed to the satisfaction of the local authority.

2. Installation and Commissioning

- 2.1 The local authority should require that on completion of the installation of the nominated model of the Clivus Multrum Ecolet 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.
- 2.2 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.

3. Maintenance

- 3.1 Material, which has been only partially composted, may only be removed from the Clivus Multrum Ecolet 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.
- 3.2 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 human must be 100 mm.

3.3 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.

4. On-going Management

- 4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Clivus Multrum Ecolet composting toilet system. The plan shall include details of:
 - the treatment 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 the on-going monitoring program developed by the local authority.

Ecolet Auto Series:

15e (previously Ecolet Manual)

25e, 55ai (previously Ecolet Automatic)

65ai (previously *Ecolet Automatic XL*)

I. Rubber Coupling

23. Airflow 24. Grate

- 2. Adjustable setting 15e/25e, Display 55ai/65ai
- 3. Fan motor
- 4. Liquid indicator switch 55ai/65ai

6. Heating element

- 7.Airflow
- 8. External Cord
- 9. Composting chamber
- 10. Liquid level indicator 55ai/65ai
 - 11. Float (in tray) 55ai/65ai
- 12.Tray
- 13. Overflow connection (55ai/65ai)
- 14. Lower heating element
- 25. Sensor arm compost level
- 26. Handle Mixing 15e
 - 17 a. Sensor magnet
- b. nut for compost cover
- 18. Mixer motor 25e/55ai/65ai/ 19. Cover removable
- 20. Compost cover
- 21.Shearpin 25e/55ai/65ai
- 22. Shaft with mixer arms
- b. Fixed arm (55ai/65ai) a. Upper mixing arm
- c. Lower mixing arm with grating



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