



# Certificate of Accreditation

## On-Site Wastewater Management System

This Certificate of Accreditation is hereby issued by the Director of Building Control pursuant to Section 18(1) of the *Building Act 2016* and the accreditation of product.

<b>System:</b>	GT120, GT330
<b>Manufacturer or Supplier:</b>	Green Loo PTY LTD
<b>Of:</b>	3/17A Ern Harley Drive, Burleigh Heads QLD 4220

This is to certify that the GT120 and GT330 as described in Schedule 1, has been accredited for use as a Waterless Composting Toilet on-site wastewater management system on a single premises (within plumbing installations in Tasmania). This accreditation is subject to the conditions and permitted uses specified in Schedule 2, and in accordance with the *Building Act 2016*.

**Megan Ryan**  
**Delegate of Director of Building Control**  
Consumer, Building and Occupational Services  
Department of Justice

**Date of Issue: 20 October 2023**

**Certificate Number: DOC/23/79424**

**This Certificate of Accreditation is in force until 27/09/2028 unless withdrawn earlier at the discretion of the Director of Building Control**

**Document Development History**

Version date	Certificate number	Approved by	Amendment notes
20/10/2023	DOC/23/79424	MR	Original Release

## Schedule I: Specification

### Normative

### System Description

The Green Loo GT composting toilet system is designed to receive and treat human excrement by using a dry composting method that requires no additional water. Waste is separated and detained in containers while the composting process takes place. The treated product is a relatively non-offensive dry compost that is suitable for disposal on the property with little nuisance risk to public health.

The capacity of each unit is as per the below table:

Model	Design capacity (number of people)
GT120	Up to 4
GT330	Up to 8

A connection must be provided to allow excess liquid to drain to a disposal area designed and installed compliant with AS/NZS1547.

This model has been assessed as a Waterless Composting Toilet in accordance with AS/NZS1546.2.2008.

This model has been approved by the certifier for use in Climate Zone 7 however insulation and additional heating may be required determined by installation location and local climatic conditions.

The installation of a waterless composting toilet is the work of a licensed plumber.

**The Eco Remote models are not covered by this certificate.**

## Schedule 2: Conditions of Accreditation

### Definitions in this schedule:

(Note: referenced Standards and Acts refer to version as per current NCC)

**AS/NZS 1547** means the Joint Australian/New Zealand Standard 'AS/NZS 1547 On-site domestic-wastewater management'

**AS/NZS 1546.3** means the Joint Australian/New Zealand Standard 'AS/NZS 1546.3 On-site domestic wastewater treatment systems, Part 3: Secondary treatment systems'

**AS/NZS 3000** means the Joint Australian/New Zealand Standard 'AS/NZS 3000 Wiring rules'

**AS/NZS 5667** means the Joint Australian/New Zealand Standard 'AS/NZS 5667.1 Water quality – Sampling, Part 1: Guidance on the design of sampling programs, sampling techniques and preservation and handling of samples'

**BOD<sub>5</sub>** means '5-day Biochemical Oxygen Demand'

**Council** means 'the Municipal Council having jurisdiction'

**Commissioned** means 'when the test results from a NATA Certified Laboratory show that the water quality requirements for the STS have been met and all pre-commissioning tests have been carried out in accordance with AS/NZS 1547 on all associated equipment and the sub-surface irrigation system'

**Designer** means 'a person who has a specialty in the area of designing on-site wastewater management system installations and may include but not be restricted to appropriately trained professional engineers, soil scientists, land surveyors and plumbers'

**Director** means 'the Director of Building Control'

**EC** means electrical conductivity

**E. coli** means 'Escherichia coli of the family Enterobacteriaceae which is a bacterium used in public health as an indicator of faecal pollution'

**g/m<sup>3</sup>** means grams per cubic metre

**Manufacturer** means as listed on Certificate of Accreditation

**N** means 'Nitrogen' NATA means 'National Association of Testing Authorities'

**PCA** means 'Plumbing Code of Australia'

**Permit** means 'a Permit issued by the council pursuant to section 82 of the Building Act'

**Permit authority** means 'a person or body authorised for that purpose by the council of the municipal area in which the on-site wastewater management system is installed'

**Secondary Treatment System** A wastewater treatment 'system' which produces effluent of a secondary standard

**Supplier** means 'the party that is responsible for ensuring that products meet and, if applicable, continue to meet, the requirements on which the certification is based.'

**The supplier** means as listed on Certificate of Accreditation

**System** means as listed on Certificate of Accreditation

**TSS** means 'Total Suspended Solids'.

## 1.0 General

- 1.1 The *system* must be supplied, constructed, and installed in accordance with the design submitted and accredited by the *Director*.
- 1.2 The *system* must not be installed in a plumbing installation other than in accordance with the conditions of permit issued by the *Permit Authority*.
- 1.3 Each *system* must be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:
- The brand and model name or designation of the system
  - The manufacturer's name or registered trademark
  - Top load limitations, and
  - The month and year of manufacture.
- 1.4 The *supplier* must supply the owner and occupier, of each installation, with a user manual setting out the following:
1. the treatment process
  2. procedures to be followed in the event of a system failure
  3. emergency contact number
  4. care, operation, monitoring and maintenance requirements, and
  5. inspection and sampling procedures to be followed as part of the on-going monitoring and program required by the permit authority.
- 1.5 Any proposed modifications to the *system's* specified processes, equipment, materials, fittings, or manuals must have prior authorisation in writing from the *Director* and may be subject to additional verification or testing.
- 1.6 Each application to a *permit authority* to install a *system* must be accompanied by a site-and-soil evaluation report and design report in accordance with AS/NZS 1547 as appropriate.
- 1.7 The *supplier* must provide the following information to each *permit authority* where it is intended to install a *system* in their jurisdiction:
- Statement of warranty
  - System compatibility with area specific climate zone
  - Statement of service life
  - Quality Assurance Certification
  - Installation Manual
  - Service Manual
  - Owner's Manual
  - Service Report Form
  - Engineering Drawings on A3 format
  - Detailed Specifications
  - Certificate of Accreditation and Schedules.
- 1.8 This Certificate of Accreditation is valid for five (5) years from the date of issue or until withdrawn by the *Director*.

- I.9 Where a *system* has been found not to operate satisfactorily during its serviceable life, and as a result require modification to achieve the required water quality limits, all installed *systems* are to be modified accordingly.
- I.10 When granting a *permit*, the *permit authority* is to satisfy itself that the *designer's* choice of the *system* configuration is optimal for the proposed use and site conditions.
- I.11 The *system* must not be deployed to areas where seasonal climatic conditions will negatively affect its proper operation (refer to *manufacturer's* specifications).
- I.12 Prior to the granting of a *permit* to install a *system* the following reports must be submitted with an application to the *permit authority*.

### Site-and-soil evaluation report

The site and soil evaluation report must detail results of an assessment of the individual lot(s) for the public health, environmental, legal and economic factors which are likely to impinge on the location and design of a land-application. (Refer to AS/NZS 1547 and associated appendices).

### Design report

The Design Report is to include the following:

- (a) Relevant aspects of the Site-and-soil Evaluation Report.
- (b) A report on the selection of the land-application. (Refer to AS/NZS 1547, and associated appendices for further information).
- (c) A report on the selection of the wastewater-treatment system. (Refer to AS/NZS 1547, and associated appendices for further information).
- (d) Sufficient information to show that the relevant performance requirements set out in the PCA have been met.
- (e) A loading certificate which sets out the design criteria and the limitations associated with use of the system and incorporates such matters as:
  - (i) System capacity (number of persons and daily flow)
  - (ii) Summary of design criteria
  - (iii) The location of and use of reserve areas
  - (iv) Use of water efficient fittings, fixtures, or appliances
  - (v) Allowable variation from design flows (peak loading events)
  - (vi) Consequences of changes in loading (due to varying wastewater characteristics)
  - (vii) Consequences of overloading the system
  - (viii) Consequences of under-loading the system
  - (ix) Consequences of lack of operation, maintenance and monitoring attention, and
  - (x) Any other relevant considerations related to the use of the system.

- I.13 The following reports must be submitted to the *permit authority* and owner and be made available to the *Director* upon request after *commissioning* of the *system*:

### Installation and commissioning report

The installation and commissioning report is to cover the 'as-constructed' records of the *system* installation together with the results of *commissioning* tests to demonstrate correct construction and installation and is to

be provided to the owner and *permit authority* on completion of the work. (Refer to and AS/NZS 1547 and associated appendices).

### Inspection and Maintenance Report

Maintenance reports cover ongoing inspection and maintenance operations in order to monitor the operation of the installation. (Refer to AS/NZS 1547).

1.14 Effluent distribution by sub-surface application may be permitted where the *Permit Authority* is satisfied that the application for a *permit* to install the system has demonstrated that the:

- (a) effluent can be retained within the authorised land application area
- (b) where applicable the land application has been designed and is capable of being installed and maintained in accordance with AS/NZS 1547
- (c) the location of the land application satisfies the relevant requirements of the State Policy on Water Quality Management 1997, and
- (d) the discharge is capable of satisfying the relevant water quality limits.

### Product approval documentation

The following documents are referenced as part of this Accreditation:

Document	Document date
Test Report – Global Certification	
Certificate of Conformity SMK41315	14.09.2023

## 2.0 Installation and Commissioning

- 2.1 The installation and operation of the system must comply with the conditions of accreditation and the *manufacturer's* instructions.
- 2.2 All plumbing work carried out in connection with the system installation must satisfy the requirements of the *Building Act* and the *Plumbing Code of Australia* and be carried out by a licensed plumber with appropriate training and qualifications.
- 2.3 Any electrical work must be carried out by a licensed electrician and in accordance with relevant provisions of AS/NZS 3000.
- 2.4 Each system installation must be inspected and checked by the *designer* or the designer's agent. The *designer* on completion is to certify that the system has been constructed, installed, and *commissioned* in accordance with its design, the conditions of accreditation and any additional requirements set out in the *permit*.

**Note:** Where the *designer* is not available to supervise the installation, the *designer* shall obtain signed certification from the installing plumber stating that the installation has been constructed/installed and *commissioned* in accordance with its design, the conditions of accreditation and any additional requirements of the *council* and/or *permit authority*.

- 2.5 A report is to be prepared by the *council* approved plumbing contractor detailing the inspection of the installation and the results of the *commissioning* tests and be accompanied by a certificate certifying that the system is operating and performing adequately.
- 2.6 Copies of the following reports/certificates must be submitted to the *council* and the owner as soon as practicable after the commissioning of the system and after each scheduled or unscheduled service or inspection for the period specified in the *permit*:

- (a) The initial plant installation and commissioning report
- (b) All required laboratory analytical test reports, and
- (c) All inspection and maintenance reports.

2.7 Copies of any report or certificate required by the conditions of accreditation must be made available to the *Director* on request.

2.8 The *designer* is to provide a statement warning the user of which items and products that must not be placed in the *system*.

### 3.0 Maintenance and monitoring

3.1 Each installation must be monitored regularly to ensure correct operation in accordance with the conditions of accreditation, the conditions of *permit* and *manufacturer's* requirements.

#### Notes:

- (1) Other than visual inspection, and the removal of containers, only a licensed plumber can carry out maintenance of the *system*.
- (2) The licensed plumber may need to complete training by the *supplier* before carrying out any maintenance on the *system*.

3.2 The owner of the *system* must enter into and maintain a maintenance contract with the *council*, the *supplier* of the *system*, or other *council* approved plumbing contractor.

3.3 The *system* must be operated and maintained to ensure it performs continuously and without any intervention between inspections carried out by the *council* approved plumbing contractor.

3.4 A service report is to be prepared by the plumbing contractor who carried out the work detailing the inspection of the installation and the results of all servicing tests and conditions at the completion of all scheduled or unscheduled services or inspections.

3.5 The service report is to be accompanied by a signed certificate certifying that the *system* is operating and performing adequately.

3.6 A copy of the service report and certificate is to be provided to the occupant and *council*. Each service report is to contain a statement reminding the user of which items and products that must not be placed in the *system*.

3.7 Each service must include monitoring the operation of the *system* and associated land application.

3.8 Maintenance must be carried out on all mechanical, electrical and functioning components of the *system* as appropriate.

3.9 The monitoring, servicing, and reporting of the installation must include but not be restricted to the following matters, as appropriate:

- (a) Reporting on weather conditions, ambient temperature, effluent temperature
- (b) Odour
- (c) Check and test pump
- (d) Check and test air blower, fan or air venturi and clean/replace air filters
- (e) Check and report operation of sludge return, sludge level and de-sludging;
- (f) Cleaning of the following items at above the waterline:
  - (i) clarifier

- (ii) pipework
- (iii) valves
- (iv) walls of chambers.

## 4.0 On-going management

- 4.1 Copies of the following reports and certificates must be submitted to the *permit authority* and the owner as soon as practicable after the *commissioning* of the *system* and after each scheduled or unscheduled service for the period specified in the *permit*:
- the initial plant installation and *commissioning* report
  - all laboratory analytical test reports; and
  - all inspection and maintenance reports
- 4.2 The system is to be desludged strictly in accordance with the *manufacturer's* recommendations and the sludge is to be disposed of in accordance with the Tasmanian Biosolids Reuse Guidelines and the conditions of *permit*.
- 4.3 Only persons with a waste transport business Environment Protection Notice are to be engaged for the removal, transporting and disposal of accumulated sludge removed from the *system*.
- 4.4 Any waste material removed from the system must be collected and disposed of or utilised by an approved facility or agency.
- 4.5 Measures are to be put in place during servicing that will protect the environment, personnel and any other persons who could be affected by the activity.

## 5.0 Permitted uses

- 5.1 The effluent is suitable for land application by way of the following forms:
- (a) Excess liquid to sub-surface by:
    - (i) trenches, beds, mounds, evapo-transpiration in accordance with the relevant provisions of AS/NZS 1547.
  - (b) Composted material may be buried on-site to approval.

**Note:** Each of the above forms of irrigation is subject to consent from the *permit authority* and the relevant provisions of AS/NZS 1547.

- 5.2 Where it is not practicable for effluent from the system to be applied in accordance with AS/NZS 1547 the method of discharge must satisfy the performance requirements of the *National Construction Code*.