



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.

System:	Hybrid Toilet System 6p, 10p, 25p, 50p, 75p, 150p
Manufacturer or Supplier:	Gough Industries PTY LTD
Of:	833 Ingham Rd, Townsville QLD 4814

This is to certify that the Gough Plastics Hybrid Toilet System as described in Schedule 1, has been accredited for use as a **Septic Tank** for the treatment of domestic wastewater generated in association with any class of building defined within the National Construction Code. This accreditation is subject to the conditions and permitted uses specified in Schedule 2, and in accordance with the *Building Act 2016*.

Henry Hodgson
Delegate of the Director of Building Control
Consumer, Building and Occupational Services
Department of Justice

Date of Issue: 14 December 2023

Certificate Number: DOC/23/94694

This Certificate of Accreditation is in force until 14 DEC 2028 unless withdrawn earlier at the discretion of the Director of Building Control

Document Development History

Version date	Certificate number	Approved by
1.0	DOC/23/94694	HH

Schedule I: Specification

Normative

System Description

The Hybrid Toilet System is a Non-Flushing or Micro-Flushing displacement toilet.

The system consists of a pedestal drop toilet that feeds deposited waste into a primary tank and drains to the secondary tank which then flows to an absorption trench.

The primary tank receives undiluted waste, and its function is to separate solids and digest the waste. The liquid retention time in the primary tank varies between 45 – 128 days depending on the model installed. The primary tank retains sludge for approximately 4 – 7 years, until pumped out.

The second tank is filled with a media that further treats the effluent to a primary quality (under controlled conditions) before it is released to an absorption trench.

The second tank also contains baffles, which facilitates upward and downward flow of the effluent causing it to come into contact with anaerobic and aerobic zones of the system. Liquid retention time in the secondary tank varies between 25 – 27 days, which is also dependent on the model installed.

The installation of these systems is restricted to national parks and reserves, subject to approval of the relevant jurisdiction's permit authority.

For micro-flushing units, an isolated water supply must be provided in accordance with PCA 2022 B3P2.

This model has been assessed as a Septic Tank as per AS/NZS1546.1.2008.

Model No.	Hydraulic Loading L/Day		Maximum number of persons
	Micro-Flush	Non-Flushing	
6p	21	7.2	6
10p	35	12	10
25p	87	30	25
50p	175	90	50
75p	262	120	75
150p	525	180	150

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 1546.1 means the Joint Australian/New Zealand Standard 'AS/NZS 1546.1 On-site domestic wastewater treatment systems: Septic Tanks'

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'

BOD₅ means '5-day Biochemical Oxygen Demand'

Council means 'the Municipal Council having jurisdiction'

Commissioned means when all pre-commissioning tests have been carried out in accordance with the relevant standards, on all elements of the system required.

Designer means 'a person who has a specialty in the area of designing on-site wastewater management system installations and appropriately licensed under the *Occupational Licensing Act 2005*, with the suitable scope of work.'

Director means 'the Director of Building Control'

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

g/m³ means grams per cubic metre

Manufacturer means 'as listed on Certificate of Accreditation'

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 2016*'

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'

Septic Tank is as defined in AS1546.1

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

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 the permit issued by the Permit Authority.

1.3 The supplier must supply the owner and occupier, of each installation, with a user manual setting out the following:

1. the treatment processes
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.

1.4 Any proposed modifications to the system's specified processes, equipment, materials, or fittings, listed as a trigger for a retest under the relevant standard, must provide an updated certificate from the certifying body prior to consideration for a certificate of accreditation amendment by the Director.

1.5 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
- 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.

1.6 This Certificate of Accreditation is valid for five (5) years from the date of issue or until withdrawn by the Director.

1.7 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. The failure of a system must be reported to the Director.

1.8 The system must not be deployed to areas where seasonal climatic conditions will negatively affect its proper operation (refer to manufacturer's specifications).

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 to monitor the operation of the installation. (Refer to AS/NZS 1547).

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 can satisfy the relevant water quality limits.

Product approval documentation

The following documents are referenced as part of this Accreditation:

Document	Document date
Certification SAI Global SMKB21477	31/03/2023
Hybrid Owner's Manual	N/A
Engineering drawings	N/A

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 2016* and the PCA and be carried out by a licensed plumber with appropriate training and qualifications.
- 2.3 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 in the form of a certificate of assessable item by a qualified person (Form 55) 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.

- 2.4 Where discharging wastewater to a land application by irrigation, a lockable sampling tap or gate valve is to be provided on the outlet pipe to the irrigation.
- 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 system 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 advising 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 visually monitored in accordance with the conditions of accreditation, the conditions of permit and manufacturer's requirements.

4.0 On-going management

4.1 De-sludging frequency to be determined by the permit authority and specified on the plumbing permit.

4.2 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. The sludge is to be disposed of in accordance with the Tasmanian Biosolids Reuse Guidelines and the conditions of the permit.

4.3 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 (remove non-applicable uses)

5.1 The excess liquid effluent is suitable for land application by way of the following forms:

- (a) sub-surface by:
 - (i) trenches, beds, mounds, evapo-transpiration in accordance with the relevant provisions of AS/NZS 1547.

Note: Each of the above forms of distribution is subject to consent from the permit authority and the PCA.

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 PCA.