



Health

# Certificate of Accreditation

## Sewage Management Facility

### Aerated Wastewater Treatment 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: Taylex ABS Concrete Tank AWTs*

*Manufacturer: Taylex Industries Pty Ltd*

*Of: 56 Prairie Road, Ormeau, QLD, 4208*

*The Taylex ABS Concrete AWTs 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 and permitted uses specified in Schedule 2.*

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

*Issued: 14 August 2017*

*Certificate No: AWTs 026*

*Expires: 31 December 2020*

## Schedule 1: Specification

### Taylex ABS (Advanced Blower System) Concrete AWTS

#### General Description

The Taylex ABS (Advanced Blower System) Aerated Wastewater Treatment System (AWTS) is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Taylex ABS AWTS is contained in one vertical axis type cylindrical precast concrete collection well with a design capacity of 7100 litres and an operational capacity of 5880 litres. The operational water level in the aeration chamber of the system is 1530 mm.

The Taylex ABS system consists of:

- A primary pre-treatment chamber with a capacity of 1684 litres;
- A secondary pre-treatment chamber with a capacity of 842 litres, fitted with a Taylex TFS filter located on the outlet of the secondary pre-treatment chamber;
- An aeration chamber with a capacity of 2071 litres containing Taylex PVC Biomass panels with a surface area of 80m<sup>2</sup>;
- A sedimentation/clarifier chamber with a capacity of 662 litres;
- An irrigation pump chamber with a capacity of 621 litres incorporating a capacity of 300litres for chlorine contact of the effluent;
- A chlorine disinfection unit installed on the outlet pipe of the clarifier;
- Air is supplied to the aeration chamber by an 80 litre/min air blower via a 15 mm PVC pipe to a Matala 225 fine bubble disk diffuser or equivalent located 300 mm up from the base of the aeration chamber;
- A Davey D25 submersible irrigation pump or equivalent.

## Schedule 2: Conditions of Accreditation

### 1.0 General

- 1.1 For each installation the owner/occupier of the premises shall make an application to the local council to install a Taylex ABS AWTS 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.
- 1.2 The Taylex ABS AWTS shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the NSW Ministry of Health.
- 1.3 Any modification or variations to the accredited design of the Taylex ABS AWTS shall be submitted for separate consideration and variation of the Certificate of Accreditation by the Secretary of the NSW Ministry of Health.
- 1.4 Each Taylex ABS AWTS shall be permanently and legibly marked on a non-corrosive metal plaque or equivalent, attached to the lid with the following information:
  - The brand name of the system;
  - The manufacturer's name or registered trademark;
  - The month and year of manufacture.
- 1.5 The manufacturer shall supply with each Taylex ABS AWTS and owner's manual, which sets out the care, operation, maintenance and on-going management requirements of the system.
- 1.6 The manufacturer shall provide the following information to each local authority where it is intended to install an AWTS in their area once Departmental accreditation has been obtained:
  - 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
  - A4 Plans
  - Accreditation documentation from NSW Health.

## **2.0 Installation and Commissioning**

- 2.1 The local council should require that on completion of the installation of the Taylex ABS AWTS, 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 council.
- 2.2 The local council should require that all electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.

## **3.0 Maintenance**

- 3.1 The Council shall require the owner/occupier of a premises to enter into an annual service contract with a representative of Taylex Industries Pty Ltd or a service contractor or company acceptable to the Council.
- 3.2 The Taylex ABS AWTS shall be serviced at three monthly intervals in accordance with the details set out in the owner's and service manual.
- 3.3 Each three monthly service shall include a check on all mechanical, electrical and functioning parts of the system including:
  - The chlorinator and replenishment of the disinfectant,
  - Pumps, air blower, fan or air venturi,
  - The alarm system,
  - Slime growth on the filter media,
  - Operation of the sludge return system,
  - The effluent irrigation area,
  - On-site testing for free residual chlorine, pH and dissolved oxygen.
- 3.4 The local council should require that a service report sheet, in triplicate, is completed for each service. The original shall be given to the owner, the duplicate forwarded to the local council and the triplicate retained by the service contractor.

## **4.0 On-going Management**

- 4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Taylex ABS AWTS. 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.
- 4.2 Effluent from the Taylex ABS AWTS taken in any random grab sample shall comply with the following standard:

• BOD <sup>5</sup>	less than 30 mg/L
• TSS	less than 45 mg/L
• Faecal coliforms	less than 100 cfu/100 ml
• Free residual chlorine	greater than 0.2 and less than 2.0 mg/L

## **5.0 Permitted uses**

5.1 The effluent is suitable for re-use for garden purposes by way of any of the forms of irrigation as described in AS/NZS 1547:2000:

- above ground spray irrigation; or
- surface drip irrigation covered by mulch; or
- sub-surface drip irrigation installed at around 100 mm depth.

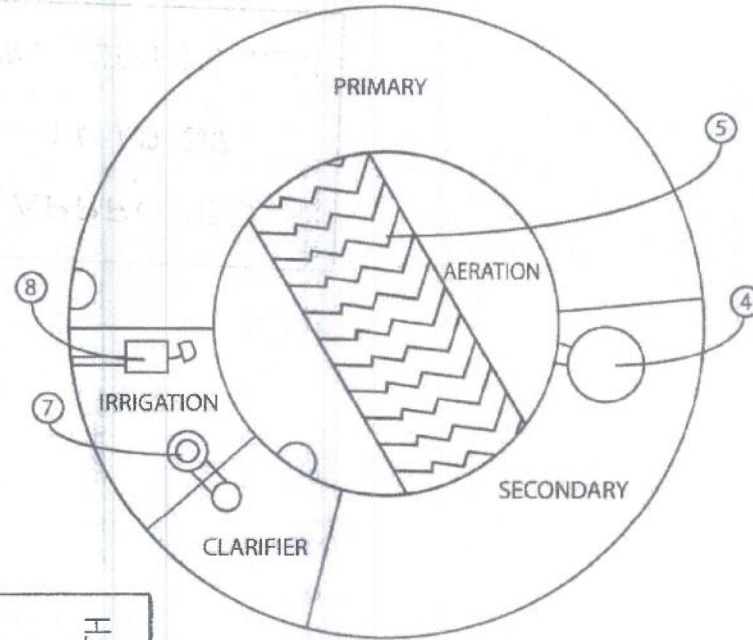
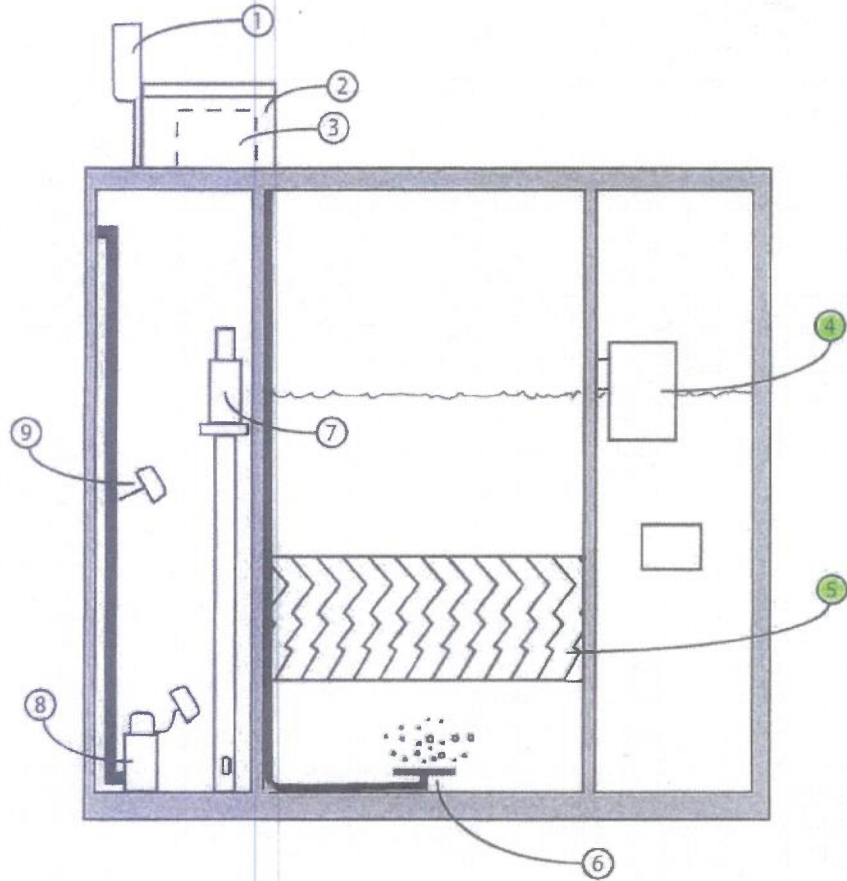
Each of the three forms of irrigation is subject to the approval of the local council.

## **6.0 Reduction in nutrient levels**

During the testing of the Taylex ABS AWTS the treated effluent was tested for total N (TN) and total P (TP) concentrations.

The treatment process has the capacity to reduce the above concentrations as follows:

- Total N from an average 53.79 mg/l to 24.9 mg/l which represent a reduction by 53.7%;
- Total P from an average 16.24 mg/l to 2.49 mg/l which represent a reduction by 84.7%



APPROVED  
 14 AUG 2017  
 NSW MINISTRY OF HEALTH

1. TAYLEX CONTROL PANEL WITH AUDIBLE AND VISUAL ALARM
2. BLOWER BOX
3. 80Lt BLOWER
4. TAYLEX TFS FILTER
5. TAYLEX BIOMASS
6. TAYLEX DIFFUSER
7. CHLORINE DISPENSER
8. DAVEY D25 IRRIGATION PUMP
9. HIGH LEVEL ALARM FLOAT

**TAYLEX A.B.S.  
Wastewater Treatment System**

10 Person

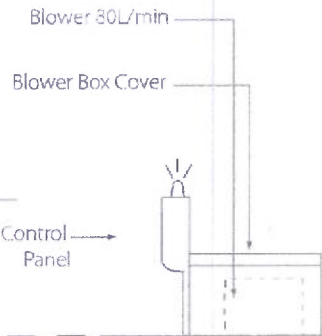
Operating Capacity - 5880Lt  
Holding Capacity - 9320Lt



TAYLEX INDUSTRIES  
56 Prairie Rd Ormeau 4208 Qld

DATE 8/7/09

DRAWN BY  
DARRYL WILLISHER



SPECIFICATIONS	
Primary Pre-treatment Chamber	1,684 Lt
Second Pre-treatment Chamber	842 Lt
Aeration Chamber	2,071 Lt
Clarifier	662 Lt
Chlorination/Pumpwell	621 Lt
TOTAL Operating Capacity	5,880 Lt
TOTAL Holding Capacity	9,320 Lt

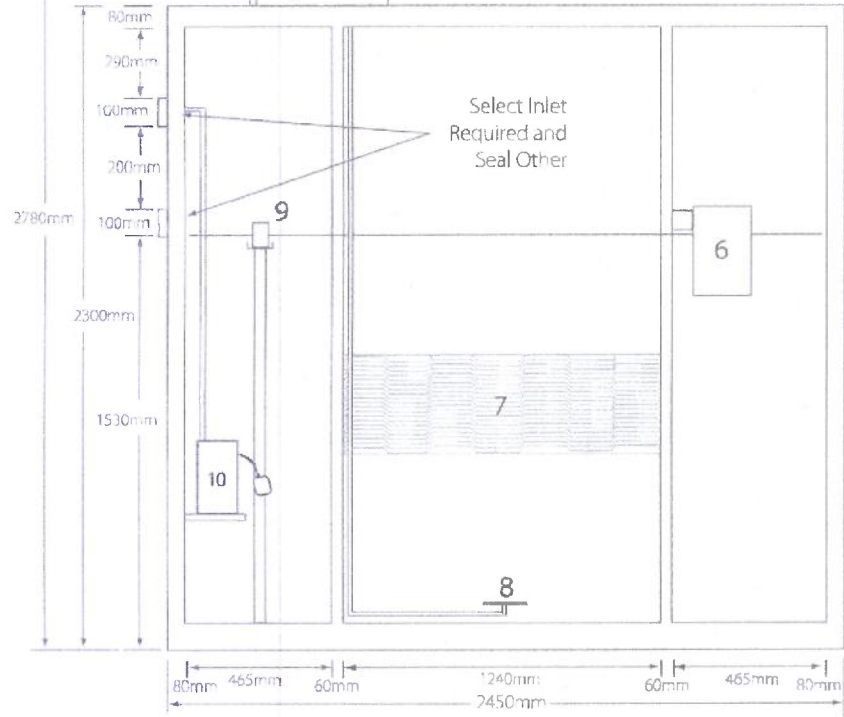
  

Control Panel	
Solid State Circuitry	
Fully Programmable	
Includes alarm isolator and overload protection	

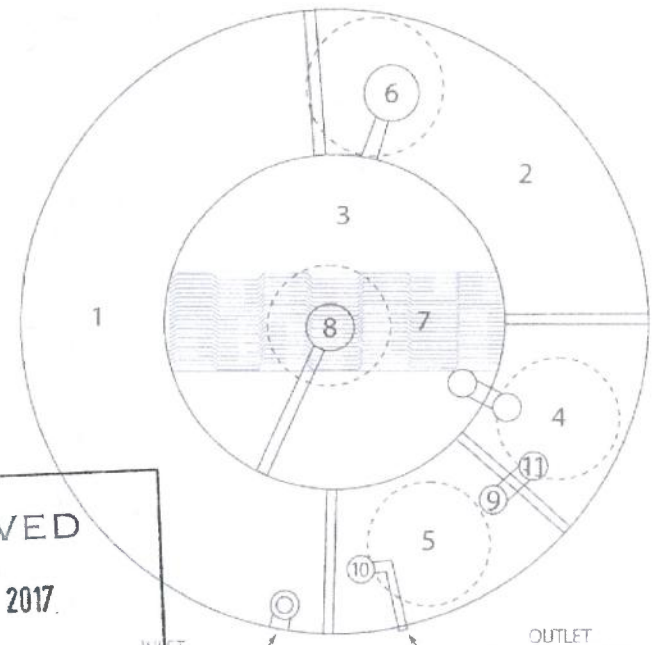
  

Tank Construction	
All Concrete	
Height	2300mm
Inlet Invert	1830 or 1530mm
Diameter	2450mm
Weight	6.25tonnes

1. Primary Pre-Treatment Chamber
2. Second Pre-Treatment Chamber
3. Aeration Chamber
4. Clarifier Chamber
5. UV/Pumpwell Chamber
6. Taylex Disk Filter
7. Taylex Media Substrate
8. Taylex Air Diffuser
9. U.V. Light
10. Davey D25 Irrigation Pump
11. Taylex TFR Filter



SECTION VIEW



ISOMETRIC VIEW

**APPROVED**  
**14 AUG 2017**  
**NSW MINISTRY OF HEALTH**

TITLE  
**TAYLEX ADVANCED BLOWER SYSTEM (A.B.S.)**  
**Wastewater Treatment System**  
 10 Person System



TAYLEX INDUSTRIES PTY LTD  
 56 PRAIRIE RD ORMEAU 4221

DATE 01/02/2010  
 DRAWN BY  
 DARYL WILLISHER