



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

Manufacturer: Taylex Industries Pty Ltd

Of: 56 Prairie Road, Ormeau, QLD, 4208

The Taylex ABS 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 of accreditation and permitted uses specified in Schedule 2.

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

Issued: 24 November 2014

Certificate No: AWTs 026

Expires: 31 December 2017

Schedule 1: Specification

Taylex ABS (Advanced Blower System) 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 9320 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 Bio-blok media panels with a surface area of 80m²;
- A sedimentation/clarifier chamber with a capacity of 662 litres fitted with a Taylex TFG filter;
- An irrigation pump chamber with a capacity of 621 litres incorporating a capacity of 300 litres 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 or D42 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 Authority 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 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 Council.
- 2.2 The 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 the 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 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 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:
- BOD⁵ less than 30 mg/L
 - SS less than 45 mg/L
 - Thermotolerant 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:

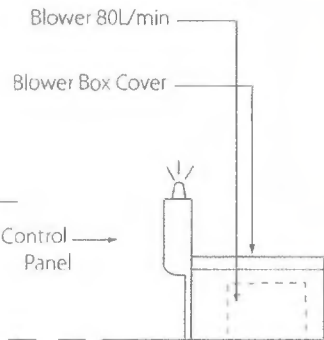
- above ground spray irrigation; or
- surface drip irrigation covered by mulch; or
- sub-surface drip irrigation installed at around 100 mm depth.

Each of the three forms of irrigation is subject to the approval of the 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%



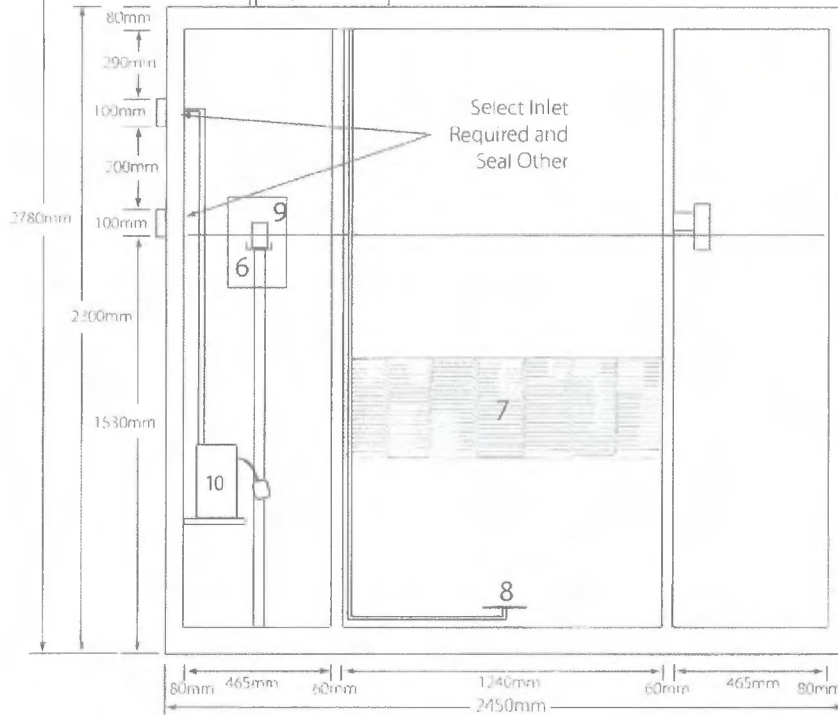
SPECIFICATIONS

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. U.V./Pumpwell Chamber
6. Taylex Disk Filter
7. Taylex Media Substrate
8. Taylex Air Diffuser
9. U.V. Light
10. Davey D25 Irrigation Pump
11. Sludge Return

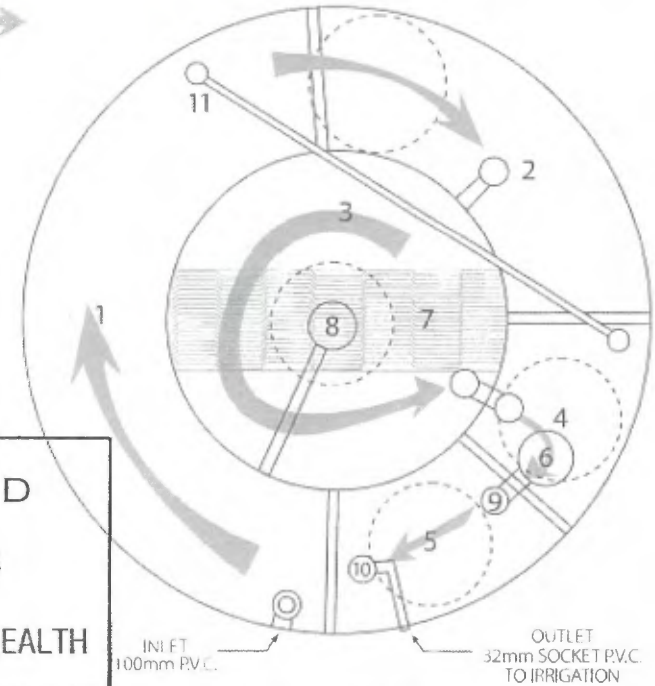


SECTION VIEW

FLOW PATH
1-2-3-4-5



APPROVED
24 NOV 2014
NSW MINISTRY OF HEALTH



ISOMETRIC VIEW

TITLE

TAYLEX ADVANCED BLOWER SYSTEM (A.B.S.)
Wastewater Treatment System

10 Person System



Taylex
Tanks

TAYLEX INDUSTRIES PTY LTD
56 PRAIRIE RD ORMEAU 4221

DATE 17/01/2014

DRAWN BY
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