

## Certificate of Accreditation

### Aerated Wastewater Treatment System

*This Certificate of Accreditation is hereby issued by the Director-General of the NSW Department of Health pursuant to Clause 41(1) of the Local Government (General) Regulation 2005.*

*System: Super-Treat SE10 AWTS*

*Manufacturer: Super-Treat Systems Pty Ltd*

*Of: Unit 1, 286 Princes Highway, South Nowra, NSW, 2541*

*This is to certify that the Super-Treat SE10 AWTS as described in Schedule 1, has been accredited as a sewage management facility for use in a single domestic premises in NSW. This accreditation is subject to the conditions of accreditation and permitted uses specified in Schedule 2, and in accordance with the Sewage Management Facility Accreditation Guideline, May 2005.*



*Director, Environmental Health Branch  
for Director-General (delegation PH335)*

*Date of Issue: 8 September 2010*

*Certificate No: AWTS 012*

## Schedule 1: Specification

### Super-Treat SE 10 Aerated Wastewater Treatment System

#### General Description

The Super-Treat SE 10 Aerated Wastewater Treatment System (AWTS) is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Super-Treat SE 10 AWTS is contained in a vertical axis type cylindrical tapered injection moulded polypropylene septic tank and collection well each with design capacities of either 3000 litres (Everhard tanks) or 3200 litres (Reln tanks). The operational water level in the system is 1200 mm. The system consists of:

- A primary treatment tank with a capacity of 3000 litres;
- A secondary treatment tank with a capacity of 3000 litres and containing:
  - An aeration chamber with a total capacity of 2087 litres;
  - A clarifier chamber with a capacity of 285 litres;
  - A chlorine contact chamber with a capacity of 155 litres; and
  - An irrigation pump well with a capacity of 55 litres.
- A chlorine disinfection unit installed on the outlet of the clarifying chamber;
- Aeration and agitation in the aeration chamber is provided by a venturi air injection and mixing system through a submersible Orange model SP213 pump;
- A submersible Orange model SP213 irrigation pump (10 metre head).

## **Schedule 2: Conditions of Accreditation**

### **1.0 General**

- 1.1 For each installation the owner/occupier of a premises shall make an application to the Local Authority to install a Super-Treat SE 10 AWTS as a waste management facility in accordance with Section 68, Part C of the Local Government Act 1993 and Clause 28 of the Local Government (General) Regulation 2005.
- 1.2 The Super-Treat SE 10 AWTS shall be supplied, constructed and installed in accordance with the design as submitted and accredited by the NSW Department of Health.
- 1.3 Any modification or variations to the accredited design of the Super-Treat SE 10 AWTS shall be submitted for separate consideration and variation of the Certificate of Accreditation by the Director-General of the NSW Department of Health.
- 1.4 Each Super-Treat SE 10 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 Super-Treat SE 10 AWTS an 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 Super-Treat SE 10 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 a premises to enter into an annual service contract with a representative of Tech-Treat Pty Ltd or a service contractor or company acceptable to the Council.
- 3.2 The Super-Treat SE 10 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.

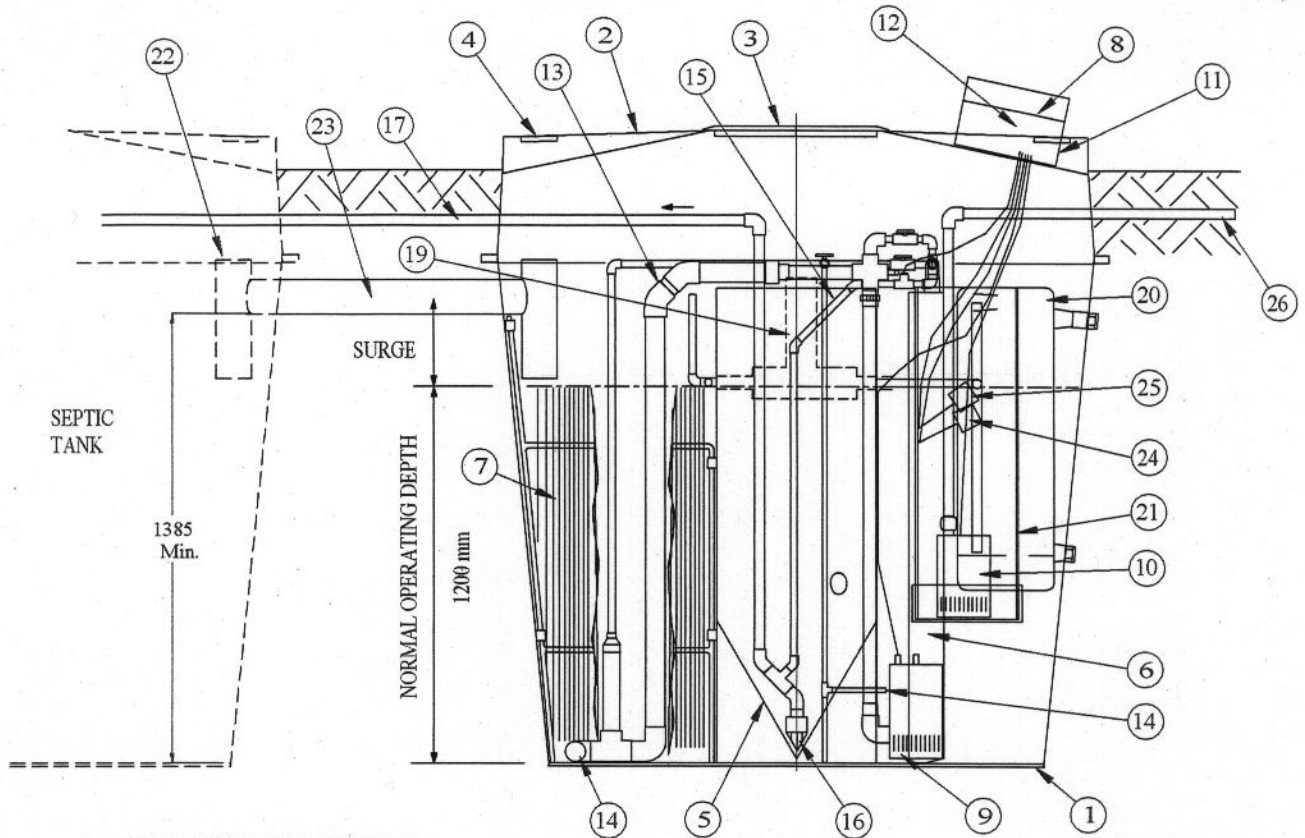
#### **4.0 On-going Management**

- 4.1 The owner's manual prepared by the manufacturer shall contain a plan for the on-going management of the Super-Treat SE 10 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 Super-Treat SE 10 AWTS taken in any random grab sample shall comply with the following standard:
- BOD<sup>5</sup> 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

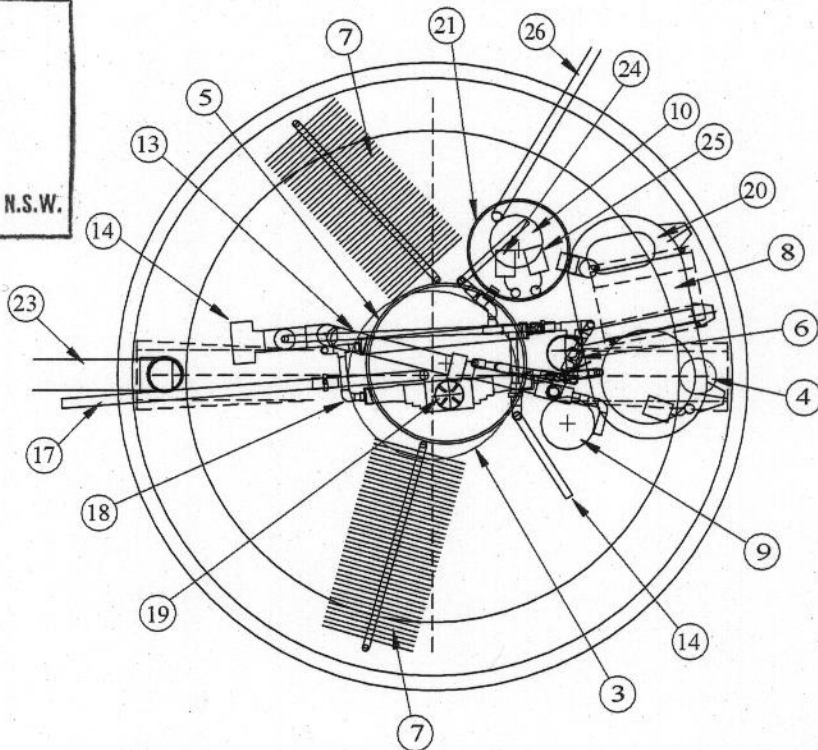
#### **5.0 Permitted uses**

- 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.



**APPROVED**  
- 8 SEP 2010  
DEPARTMENT OF HEALTH, N.S.W.



**LEGEND**

1. HOLDING WELL - 3200 L (PVC) or 3000 L (Polypropylene)
2. TANK LID
3. MANHOLE AND COVER
4. INSPECTION OPENING
5. CONE BASE CLARIFIER
6. AIR/WATER SEPARATOR
7. BIOLOGICAL GROWTH MEDIA
8. ELECTRICAL CONTROL UNIT
9. AERATION PUMP (Submersible)
10. IRRIGATION PUMP (Submersible)
11. INCOMING POWER
12. TIMING CLOCK
13. AIR/WATER MIXER
14. AIR DIFFUSER PIPEWORK
15. SLUDGE RETURN AIR CONTROL
16. SLUDGE RETURN SUCTION HEAD
17. SLUDGE RETURN TO SEPTIC TANK
18. CHLORINATOR INLET
19. CHLORINE DISPENSOR
20. CHLORINE CONTACT TANK
21. PUMP-OUT CHAMBER
22. SEPTIC OUTLET JUNCTION
23. EFFLUENT FROM SEPTIC TANK
24. PUMP-OUT CONTROL FLOAT SWITCH
25. HIGH LEVEL WARNING FLOAT SWITCH
26. IRRIGATION LINE TO SPRAYS/EMITTERS

REVISION 6  
01.11.2005

**SUPER · TREAT**  
SEWAGE TREATMENT SYSTEMS

Unit 1/286 Princes Hwy  
SOUTH NOWRA NSW 2541  
PH. (02) 4421 7287

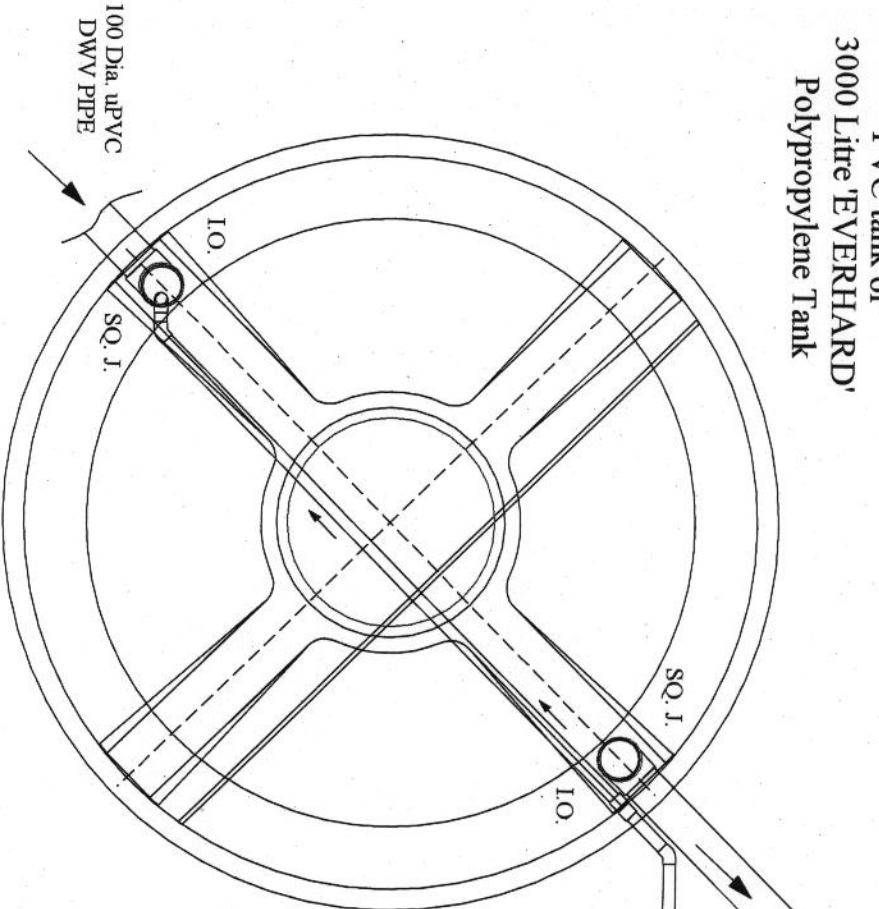
**MODEL No. SE 10**  
SEWAGE TREATMENT SYSTEM  
10 PERSONS

NOT TO SCALE

SHEET No. 1 of 1

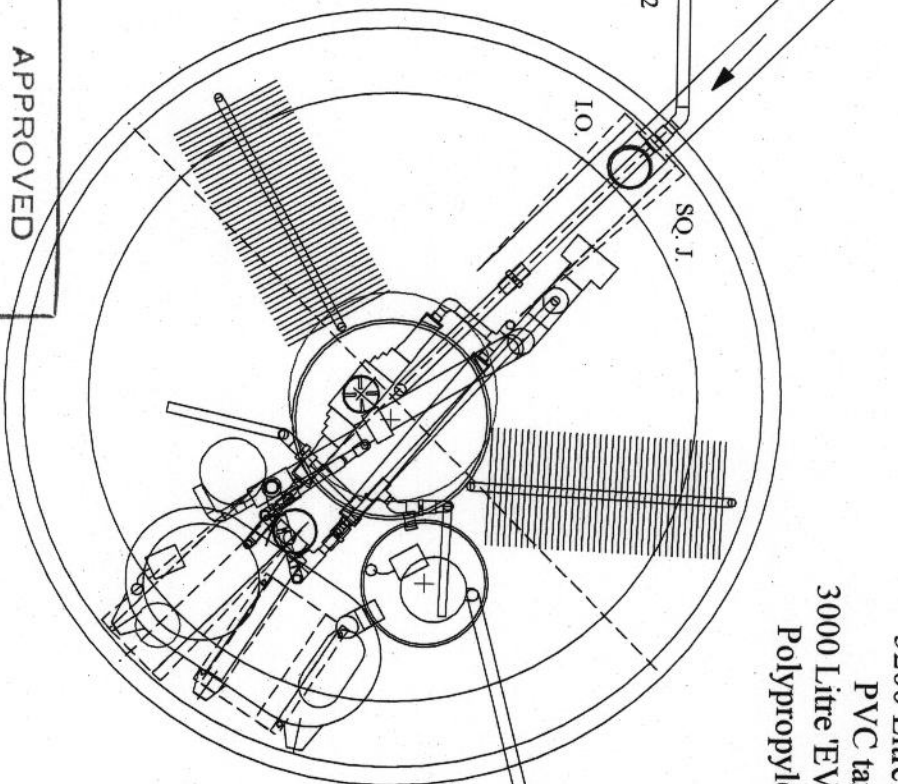
**SEPTIC TANK**

3200 Litre 'RELN'  
PVC tank or  
3000 Litre 'EVERHARD'  
Polypropylene Tank



100 Dia. uPVC  
DWV PIPE

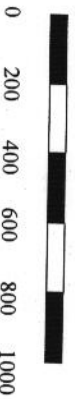
25 Dia. CL 12  
P.V.C.



**TREATMENT TANK**  
3200 Litre 'RELN'  
PVC tank or  
3000 Litre 'EVERHARD'  
Polypropylene Tank

To Irrigation  
Area

**SCALE**



MILLIMETRES

REFER TO SPEC. SHEET,  
SHEET No. 1 OF 1 FOR  
EQUIPMENT DESCRIPTION  
OF TREATMENT TANK.

**APPROVED**  
- 8 SEP 2010  
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**SUPER-TREAT**

SEWAGE TREATMENT SYSTEMS  
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SOUTH NOWRA N.S.W 2541  
PH (02) 4421 7287

MODEL No. SE 10  
SEWAGE TREATMENT SYSTEM  
10 PERSONS