



# **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 2021.*

**System:**            **UBI Aqua Mk II AWTs**

**Manufacturer:** **Global Rotomoulding Pty Ltd**

**Of:**                    **14 Nans Road, Helidon Spa, Qld, 4344**

*The UBI Aqua Mk II AWTs as described in Schedule 1 attached 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.*



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

**Issued:** 5 / 10 / 2022

**Certificate No:** STS-AWTS065

**Expires:** 30 June 2027

## Schedule 1: Specification

### UBI Aqua MKII Aerated Wastewater Treatment System

Name and Model of STS: UBI Aqua MKII

The UBI Aqua MKII STS is designed to treat sewage from a residential dwelling occupied by a maximum of 8 persons. The UBI Aqua MKII STS is contained in a septic tank/collection well with design capacity of 6000L and a NSW Health Accreditation Number STCW021

Chamber	Design capacities
Total Nominated Capacity	6000 L
Primary treatment	3,030 L
• Partition	No
Secondary treatment	
• Pre-aeration	150 L
• Aeration chamber	1280 L
• Clarifier	1270 L
Irrigation chamber	340 L
Emergency storage	1000 L
Operational water level(depth)	Not stated
• primary	...
• secondary	

The emergency storage capacity is achieved by a combination of spare capacity above the normal operating level in the primary treatment and in the tank column surrounding the internal chambers as well as spare capacity in the final pump out chamber. NB Emergency storage capacity does not include pipes draining into or discharge from the treatment system.

The Global Rotomoulding UBI AQUA MKII system comprises a single plastic tank of 6000 L nominal capacity configured as follows:

- Primary treatment septic chamber (3,030 L working volume);
- Small pre-aeration chamber (150 L working volume);
- Secondary aeration chamber (1,280 L working volume) containing proprietary moving bed attached growth media for biological activity (500 media carriers with total combined surface area of approx. 28.3 m<sup>2</sup>) aerated by a 120 L/minute blower (HIBLOW HP120; noise rating 40 dB) via two 230 mm fine bubble air disc diffusers (Aquaflex ADD230-9). Theoretical residence time in the aeration chamber under normal operating flow of 1,200 L/d is approx. one day. Outlet of the secondary chamber is fitted with a Global Rotomoulding plastic septic tank filter, with screen mesh aperture approx. 2.5 × 4 mm;
- Settling chamber (1,270 L working volume) with sludge return via a continuous air lift back to the inlet of the primary chamber and fitted with an outlet filter (Global Rotomoulding plastic septic tank filter as per secondary chamber);
- Chlorinator containing dual Trichloroisocyanuric acid tablet dispensers and chlorine contact chamber;
- Irrigation pump-out chamber (340 L working volume) fitted with a Davey D42.A submersible pump;
- Final treated effluent disc filter (Amiad Arkal, 120 mesh/130 micron);
- An alarm system.

## Schedule 2: Conditions of Accreditation

### 1. General

- 1.1 Prior to installation the owner/occupier of the premises shall make an application, in accordance with Clause 26 of the *Local Government (General) Regulation 2021*, to the local authority for approval to install and operate the UBI Aqua MKII AWTS as a Sewage Management Facility in accordance with Section 68, Part C of the *Local Government Act 1993*.

- 1.2 The local authority shall apply those Conditions of Accreditation, appropriate to the owner / occupier, to any approval to operate the UBI Aqua MKII AWTS issued under Clause 45(4), *Local Government (General) Regulation 2021*.
- 1.3 In accordance with Clause 36 of the *Local Government (General) Regulation 2021*, the UBI Aqua MKII AWTS shall have an expected service life of 5 years in the case of mechanical and electrical components and 15 years in the case of other components.
- 1.4 The owner / occupier shall ensure that the UBI Aqua MKII AWTS is installed or constructed:
  - in accordance with the accredited specifications of the type tested unit and in accordance with good trade practice, and
  - to allow ease of access for maintenance, and
  - regarding the health and safety of users, operators and persons maintaining the facility, and
  - must be installed or constructed to make appropriate provision for access to, and removal of, contents in a safe and sanitary manner, and
  - must, if it is intended to be a permanent fixture, be anchored to prevent movement.
- 1.5 The manufacturer / supplier shall ensure that the UBI Aqua MKII AWTS is supplied, constructed and installed in accordance with the design (including the disinfection unit) as submitted and accredited by the NSW Ministry of Health. The UBI MKII Aqua AWTS shall not be modified or altered except that alternate individual mechanical and electrical components such as pumps, PLCs, etc, may be substituted provided that the component meets the accredited design specification.
- 1.6 Any permanent modification or variations to the accredited design of the UBI Aqua MKII AWTS shall not be permitted.
- 1.7 Each UBI Aqua MKII AWTS shall be permanently and legibly marked by the manufacturer in accordance with section 3 of AS1546.3:2017.
- 1.8 The manufacturer shall supply with each UBI Aqua MKII AWTS an owner's manual, which sets out the care, operation, maintenance and on-going management requirements of the system. The owner's manual prepared by the manufacturer shall specifically contain a plan for the on-going management of the UBI Aqua MKII 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 any on-going monitoring program developed by the local authority.
- 1.9 The manufacturer shall provide the following information to each local authority where it is intended to install a UBI Aqua MKII AWTS in their area once Ministry Accreditation has been obtained:
  - Statement of warranty
  - Statement of service life
  - Quality Assurance Certification
  - Installation Manual
  - Service Manual
  - Owner's Manual
  - Manufacturer's Service Report Form
  - Engineering Drawings
  - Specifications
  - A4 Plans
  - Certificate of Accreditation documentation from NSW Health.The manufacturer need not provide the above information to the local council where the information or document is contained on the manufacturer's web site.

## 2. Installation and Commissioning

- 2.1 The owner / occupier shall have the UBI Aqua MKII AWTS 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 authority.
- 2.2 The owner / occupier shall ensure that all electrical work is carried out on the UBI Aqua MKII AWTS by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.
- 2.3 The owner / occupier shall not commission the UBI Aqua MKII AWTS unless the land application system has been completed.

## 3. Maintenance

- 3.1 The owner / occupier of the premises shall enter into a minimum 12-month contract or agreement with a service agent and ensure that the UBI Aqua MKII AWTS is serviced:
  - in accordance with the manufacturer's / supplier's service manual and using the manufacturer's / supplier's service sheet; and
  - by a service agent who
    - has completed a course on the servicing and maintenance of STS and has some supervised servicing experience or extensive un-supervised experience;
    - is employed or authorised by the manufacturer / supplier of the UBI Aqua MKII AWTS;
    - uses replacement parts which meet the minimum specification of the UBI Aqua MKII AWTS;
    - has advised of their name, contact details and credentials to the local authority;
    - submits a completed NSW Health "Local Council Service Report" (template attached) to the local authority immediately after every service;
    - shall report to the local authority any instances where the owner / occupier refuses to authorise repairs, replacement of parts or maintenance; and
    - does not perform electrical work or enter confined spaces unless trained and is suitably qualified to do so.
- 3.2 The owner/occupier shall not service the UBI Aqua MKII AWTS unless they are an authorised agent of the manufacturer.
- 3.3 The UBI Aqua MKII AWTS once installed and commissioned shall be serviced at three (3) monthly intervals.
- 3.4 The manufacturer / supplier of the UBI Aqua MKII AWTS shall place on its web site a copy of the service manual, service sheet or form and specifications for the UBI Aqua AWTS to facilitate servicing, maintenance and repairs. Commercial-in-confidence documents may be provided directly to the service agent without uploading to the web site.
- 3.5 Each three-monthly service shall, as a minimum where provided, include a check on all mechanical, electrical and functioning parts of the system including:
  - The chlorinator and replenishment of the disinfectant,
  - Pump and air blower,
  - 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 at the appropriate check points.

## 4. Verification

- 4.1 Effluent from the UBI Aqua 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
  - E. coli less than 100 cfu/100 ml
  - Free residual chlorine greater than 0.2 and less than 2.0 mg/L

**5. 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 1547:2012:

- above ground spray irrigation; and/or
- surface drip irrigation covered by mulch; and/or
- sub-surface drip irrigation installed at around 100 mm depth; and or
- any form of sub-soil application.

Each of the forms of irrigation or application is subject to the approval of the local authority.

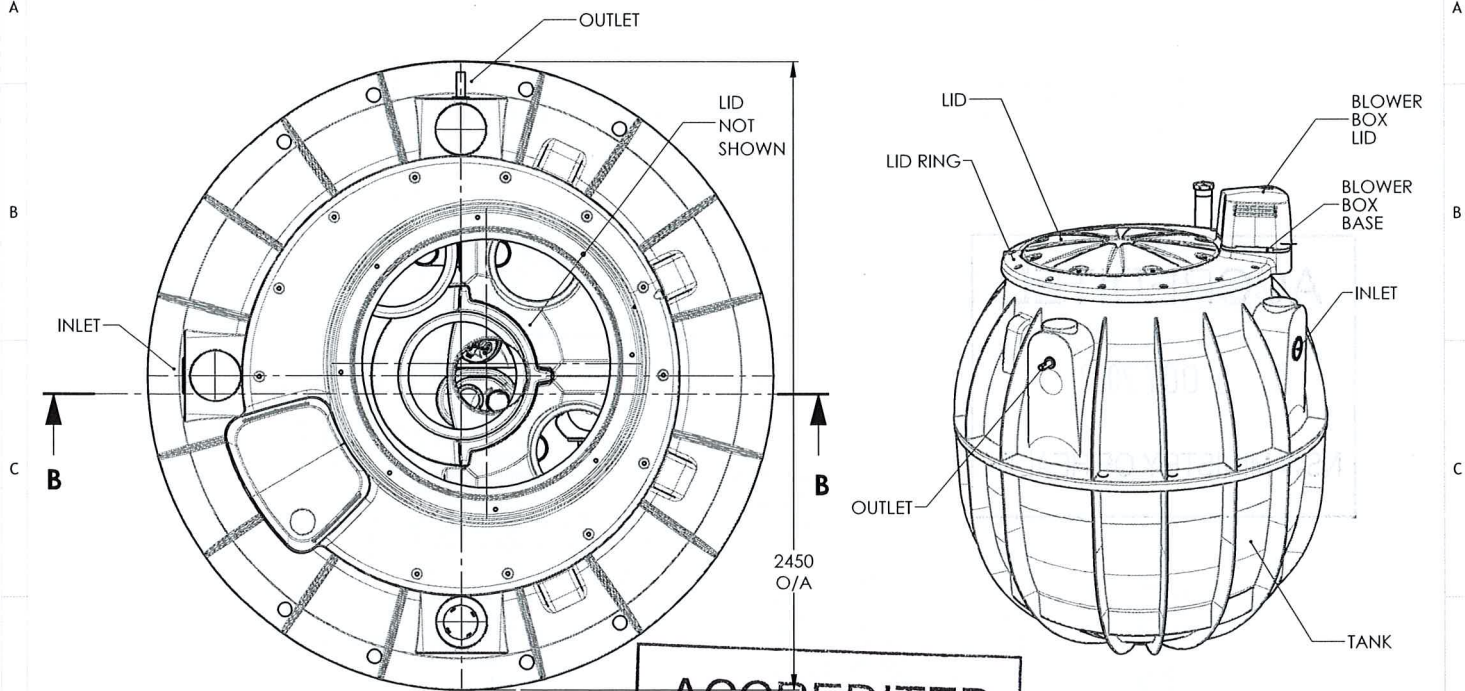
-----



Local Council STS (DGTS) Service Report: February 2018		
Owner's Name:	Local Council:	
Installation Address:		
System Brand & Model:	<input type="checkbox"/> Domestic	<input type="checkbox"/> Commercial
Date of this service: / /	Date of last Service: / /	Next service due: / /
Has the STS/DGTS been <b>serviced</b> in accordance with the manufacturer's / supplier's requirements and using the service sheet? <input type="checkbox"/> Yes <input type="checkbox"/> No If "No" why not?		
STS/DGTS <b>functioning</b> correctly? <input type="checkbox"/> Yes <input type="checkbox"/> No If "No" why not?		
<b>According to sludge-judge or other methodology is de-sludging needed?</b> <input type="checkbox"/> Yes <input type="checkbox"/> No If "Yes" what action is recommended?		
<b>Offensive odours?</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If "Yes" what action is recommended?
<b>Alarms</b> tested and functional?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If not "functional" what action is recommended?
<b>Final Effluent Quality</b>		
Tested?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Disinfected?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Chlorine tablets remaining?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Quality?	<input type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory	
On what evidence is this judgement made? If "Unsatisfactory" what action was recommended?		
<b>Land Application Area</b>		
Surface ponding?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Run off?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Excess plant growth?	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Effluent leaving premises.	<input type="checkbox"/> Yes <input type="checkbox"/> No	
High risk areas contaminated? *	<input type="checkbox"/> Yes <input type="checkbox"/> No	* Patio, play areas, BBQ, etc
Operating satisfactorily?	<input type="checkbox"/> Yes <input type="checkbox"/> No	If "Not operating satisfactorily" what action was recommended?
<b>Overall Condition of STS?</b> <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor		
Comments / Action Recommended / Repairs Needed / Repairs Performed:		
Has the owner / occupier taken recommended actions? <input type="checkbox"/> Yes <input type="checkbox"/> No		
Service Agent:	Contact Details:	
Signature:	Date:	

Source: Adapted from "Checklist 4.2: Operational AWTS inspection report for use by service providers and Council inspectors" in *Designing and Installing On-Site Wastewater Systems*, Sydney Catchment Authority, May 2012

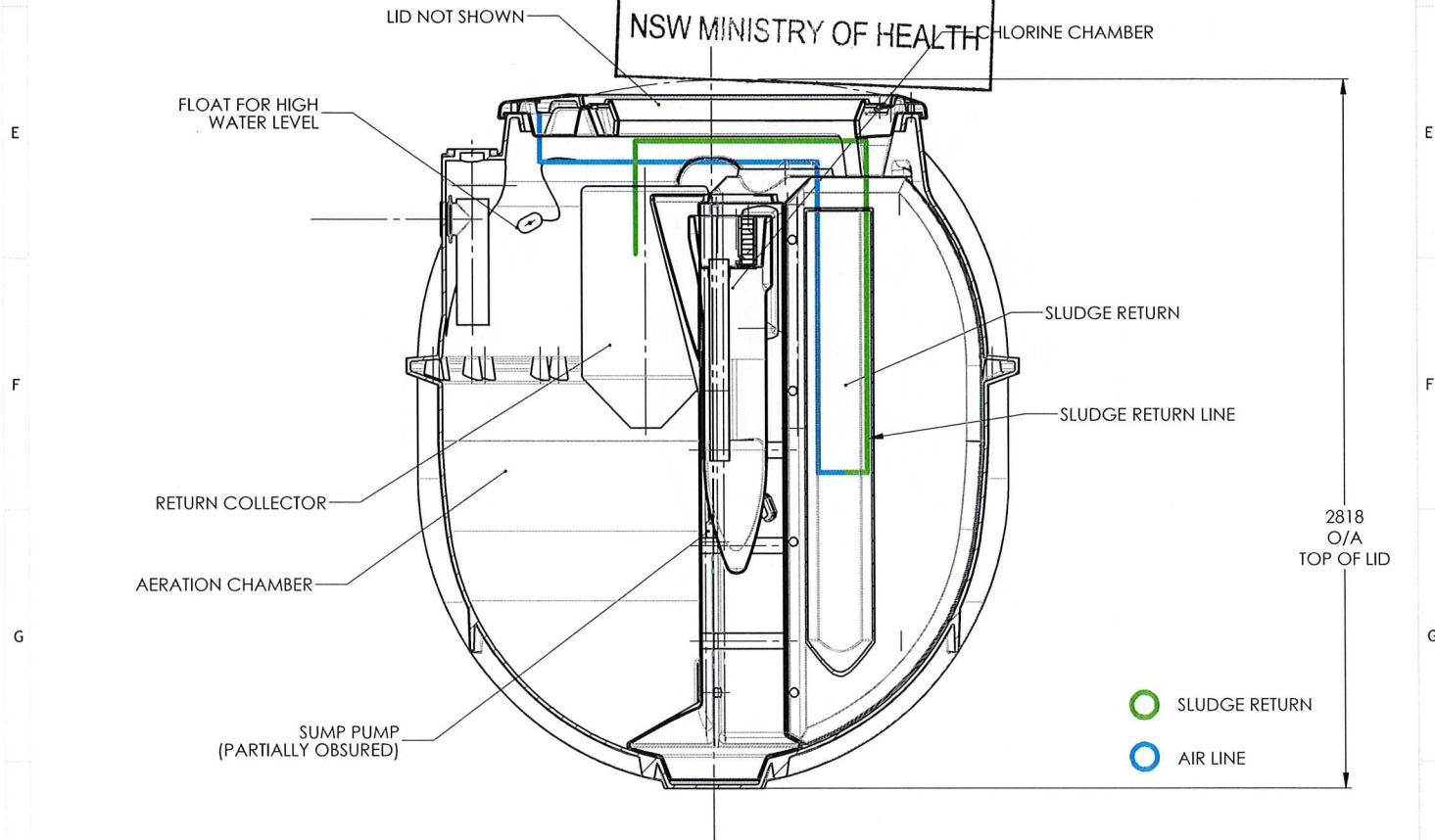
# GLOBAL ROTOMOULDING - 6000lt TREATMENT SYSTEM - PRODUCTION DRAWING



**PLAN VIEW**  
SEE SHEET 2 OF 2 FOR CHAMBER DETAILS

**PICTORIAL VIEW**

**ACCREDITED**  
5 OCT 2022  
NSW MINISTRY OF HEALTH



**SECTION B-B**

- SLUDGE RETURN
- AIR LINE

ALL INFORMATION SUPPLIED BY GLOBAL ROTOMOULDING

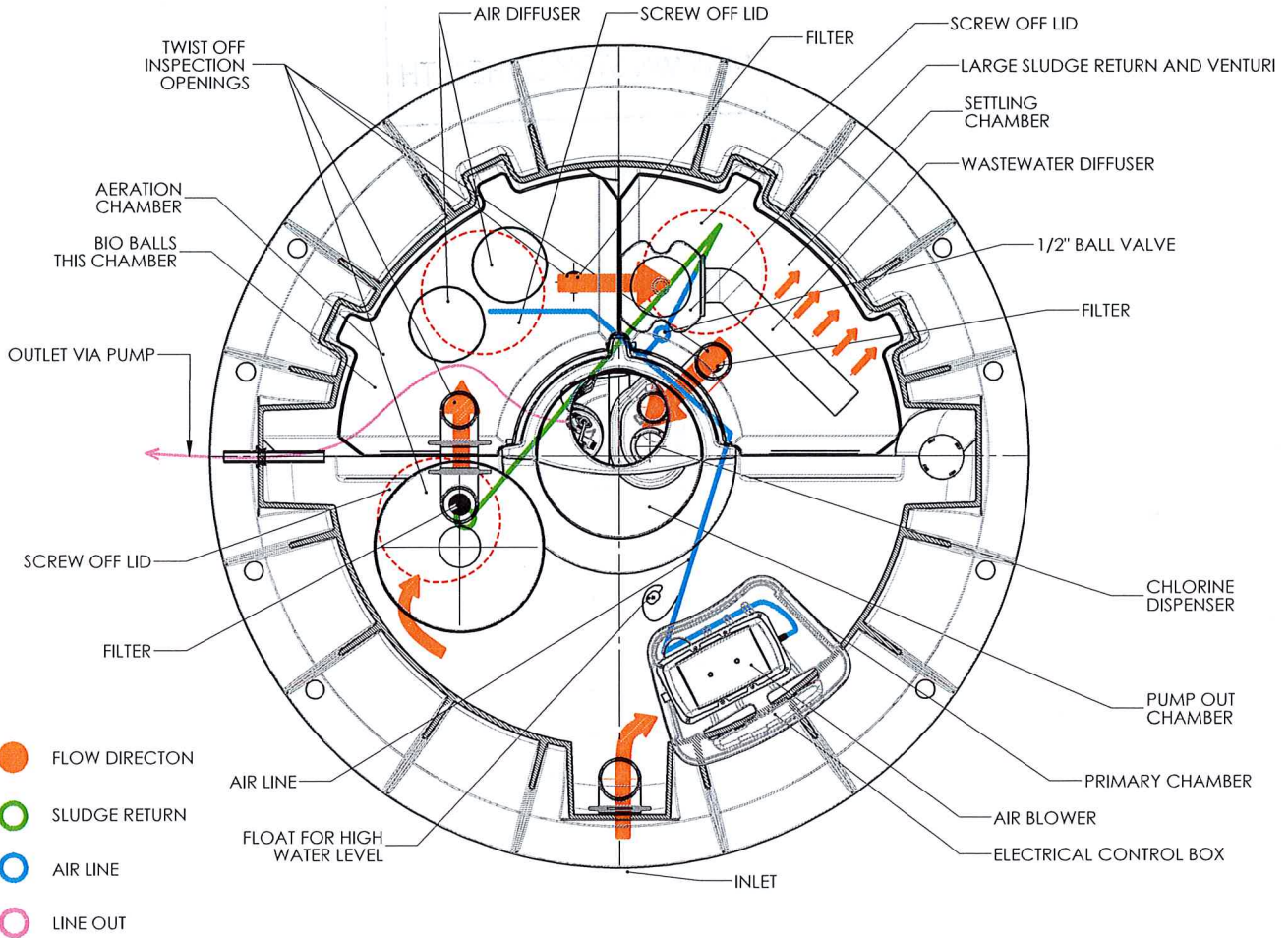
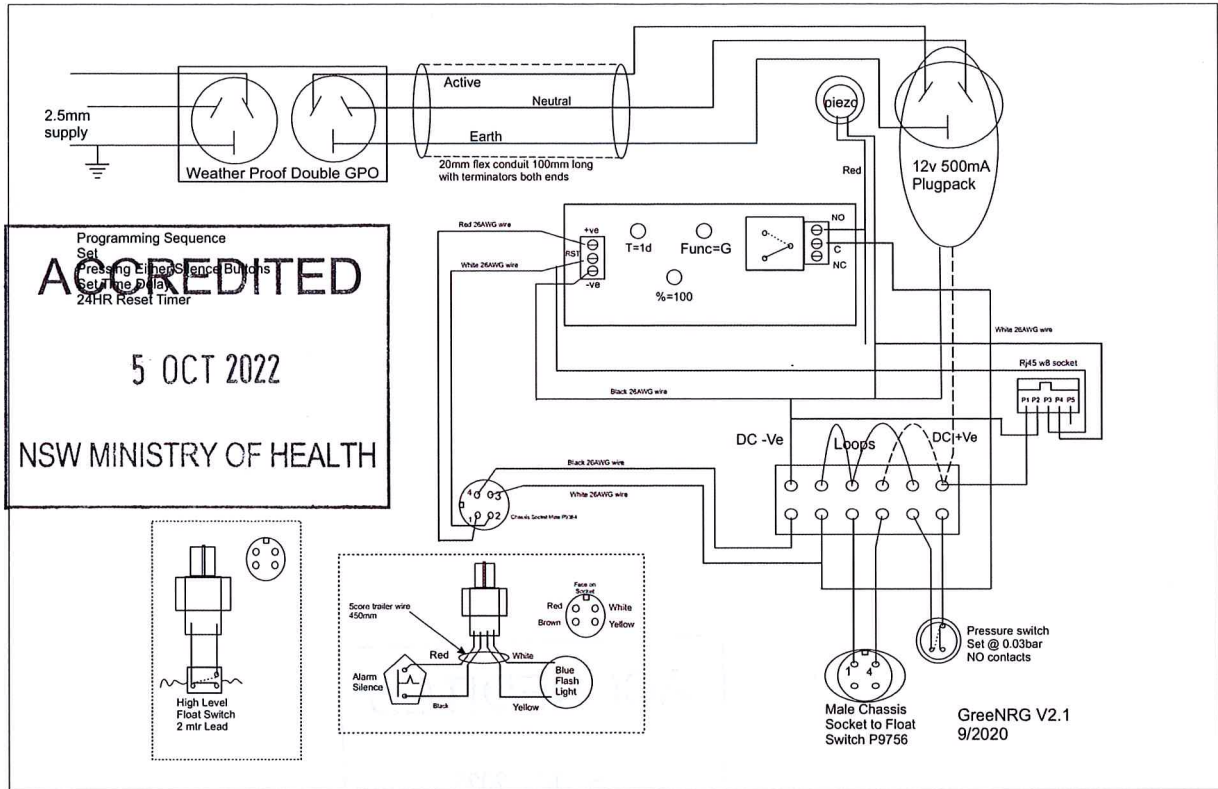
REFER TO CAD IF SPEC'D

**PRODUCT SIZES**

**SIGNED: \_\_\_\_\_ DATE: \_\_\_\_\_**

C				CUSTOMER: GLOBAL	SURFACE FINISH:
B				DESCRIPTION: UBI AQUA 6000 WATER TREATMENT SYSTEM	MATERIAL:
A	RELEASED FOR PRODUCTION	02.06.22	AVCD		WEIGHT:
REV	DESCRIPTION	DATE	DRN	FILE NAME: 12-568 6000lt Septic Tank Services	WALL THICKNESS:
NOTE: ALL TOLERANCES $\pm 1\%$ UNLESS NOTED OTHERWISE				DRAWN: LC	<div style="display: flex; justify-content: space-around; align-items: center;"> <span style="font-size: 24pt; font-weight: bold;">12-568</span> <span style="font-size: 24pt; font-weight: bold;">A3</span> </div> <div style="display: flex; justify-content: space-around; align-items: center;"> <span style="font-size: 24pt; font-weight: bold;">568 6000 SRVS</span> </div>
This drawing is the property of Trymak Pty Ltd. It cannot be copied in part or full without the written permission of Trymak Pty Ltd.				DATE: 15.01.2016	
Fact 15, 2 Garden Blvd, Dingley, VIC, 3172 Ph: (03) 9558 3455 Fx: (03) 9558 3466 www.trymak.com.au				SCALE: 1:20	
				SHEET 1 OF 2	

# GLOBAL ROTOMOULDING - 6000L TREATMENT SYSTEM - PRODUCTION DRAWING



- FLOW DIRECTON
- SLUDGE RETURN
- AIR LINE
- LINE OUT

REFER TO CAD IF SPEC'D		PRODUCT SIZES		SIGNED: _____ DATE: _____	
C				CUSTOMER: GLOBAL	SURFACE FINISH:
B				DESCRIPTION: UBI AQUA 6000 WATER TREATMENT SYSTEM	MATERIAL:
A	RELEASED FOR PRODUCTION	02.06.22	AMCD		WEIGHT:
REV	DESCRIPTION	DATE	DRN	FILE NAME: 12-568 6000L Septic Tank Services	WALL THICKNESS:
NOTE: ALL TOLERANCES ±1% UNLESS NOTED OTHERWISE				DRAWN: LC	
This drawing is the property of Trymak Pty Ltd. It cannot be copied in part or full without the written permission of Trymak Pty Ltd.				DATE: 15.01.2016	
Fact 15, 2 Garden Blvd, Dingley, VIC, 3172 Ph: (03) 9558 3455 Fx: (03) 9558 3466 www.trymak.com.au				SCALE: 1:20	
				SHEET 2 OF 2	
				12-568	A3
				568 6000 SRVS	