

TREATMENT PLANT APPROVAL 19/2023
Plumbing and Drainage Regulation 2019, part 4.



Approval

1. The **Ozzie Kleen RP10S+** ("the System") described in the Specifications and Drawings in the attached Schedule and manufactured by **Neatport Pty Ltd (Trading as Suncoast Waste Water Management)** (ABN 62 063 770 534) ("the manufacturer") has been assessed in accordance with the Queensland Plumbing and Wastewater Code (QPW Code).
2. Approval is granted for the system as an **advanced secondary** quality wastewater treatment system with **nutrient reduction**, subject to compliance by the manufacturer with the requirements of the *Plumbing and Drainage Regulation 2019*, part 4 and the conditions of approval detailed below.
3. This approval, the conditions of approval and the Schedule comprise the entire Chief Executive Approval document.
4. Any modification by the manufacturer to the design, drawings or specifications scheduled to this approval must be approved by the Chief Executive.

Conditions of approval

5. The manufacture, installation, operation, service, and maintenance of the systems must be in conformity with the conditions of this Treatment Plant Approval.
6. The system when tested by a certification accreditation body in accordance with AS1546.3:2017 was found to comply with the **advanced secondary** 10 EP/1500L level criteria and must continue to meet the following requirements:

(a) Advanced secondary treatment

Table 2.1 (Abrev) AS1546.3:2017 Advanced secondary effluent compliance criteria for an STS

| Parameter | Advanced secondary effluent | |
|-----------------------------|-------------------------------|---------------|
| | 90% of Samples | Maximum |
| BOD ⁵ | ≤ 10 mg/L | 20 mg/L |
| TSS | ≤ 10 mg/L | 20 mg/L |
| <i>E. coli</i> [*] | ≤ 10 cfu/100 mL | 30 cfu/100 mL |
| FAC [‡] | Minimum 0.5 mg/L [†] | N/A |
| Turbidity [§] | N/A | 10 NTU |

* Where disinfection is required

‡ Where chlorine disinfection is required

† Minimum level, not 90% of samples

§ Where UV light is used for disinfection

TREATMENT PLANT APPROVAL 19/2023
Plumbing and Drainage Regulation 2019, part 4.



(b) Nutrient reduction

During the testing of the System, the treated effluent was tested for total Nitrogen (TN) and total Phosphorus (TP) concentrations. The treatment process has the capacity to reduce the TN and TP concentrations as follows:

- Total N an average of 69.63 mg/L to 13.95 mg/L which represents a **reduction of 79.97%**.
- Total P an average of 11.06 mg/L to 4.36 mg/L which represents a **reduction of 60.58%**.

7. Each system must be serviced in accordance with the accreditation certificate issued by SIA Global (certificate number SMK026806) on 27 May 2022, and details supplied in the owner's operation and maintenance manual.
8. Each system must be supplied with —
 - a. a copy of this Treatment Plant Approval document.
 - b. details of the system.
 - c. instructions for authorised persons for its installation.
 - d. a copy of the owner's manual to be given to the owner at the time of installation.
 - e. detailed instructions for authorised service personal for its operation and maintenance.
9. At each anniversary of the Treatment Plant Approval date, the supplier must submit to the Chief Executive a list of all systems installed in Queensland during the previous 12 months. Where the Chief Executive is notified of any system failures the Chief Executive may randomly select several installed systems for audit. The Chief Executive will notify the supplier's nominated NATA accredited laboratory which systems are to be audited for BOD⁵ and TSS. The sampling and testing of the selected systems, if required, is to be done at the supplier's expense. The following results must be reported to the Chief Executive;
 - a. Address of premises.
 - b. Date inspected and sampled.
 - c. Sample identification number.
 - d. BOD⁵ for influent and effluent.
 - e. TSS for influent and effluent.
10. The Chief Executive may, by written notice, cancel this approval if the manufacturer/supplier fails —
 - a. to comply with one or more of the conditions of approval, or
 - b. within 30 days, to remedy a breach, for which a written notice been given by the Chief Executive.
11. This approval may only be assigned with the prior written consent of the Chief Executive.

TREATMENT PLANT APPROVAL 19/2023
Plumbing and Drainage Regulation 2019, part 4.



12. This approval expires on 04 December 2028 unless cancelled earlier in accordance with paragraph 10 above.

Lindsay Walker



Level 15,
53 Albert Street Brisbane
GPO Box 2457, Brisbane Qld 4001

Telephone +61 7 3008 2557
Website www.hpw.qld.gov.au

ABN 61 331 950 314

Director
Plumbing, Drainage and Special Projects
Date approved: 04 December 2023



TREATMENT PLANT APPROVAL 19/2023
Plumbing and Drainage Regulation 2019, part 4.

SCHEDULE

Ozzi Kleen RP10S+

- Attachment 1 – Ozzi Kleen RP10S+ - CAB Certificate number SMK02608
- Attachment 2 – Ozzi Kleen RP10S+ – Operators Manual
- Attachment 3 – Ozzi Kleen RP10S+ – Schematic diagrams



STANDARDSMARK LICENCE

SAI Global hereby grants:

Neatport Pty Ltd

ABN 62 063 770 534

Trading As

Suncoast Waste Water Management

59 Industrial Avenue, Kunda Park, QLD 4556, Australia

StandardsMark Licence

Manufactured to:

AS 1546.3:2017 - On-site domestic wastewater treatment units - Secondary treatment systems

"the StandardsMark Licensee" the right to use the STANDARDSMARK as shown below only in respect of the goods described and detailed in the Schedule which are produced by the Licensee or on behalf of the Licensee* and which comply with the appropriate Standard referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the STANDARDSMARK and the Terms and Conditions for certification and licence. The Licensee covenants to comply with all the Rules and Terms and Conditions.

Certificate No: SMK02608

Issued: 27 May 2022

Expires: 14 August 2026

Originally Certified: 15 August 2001

Current Certification: 27 May 2022

Calin Moldovean
President, Business Assurance
SAI Global Assurance



For details of manufacture, refer to the licensee

The STANDARDSMARK is a registered certification trademark of SAI Global Pty Limited (A.C.N. 050 44 642) and is issued under licence by SAI Global Certification Services Pty Limited (ACN 108 716 39) ("SAI Global") 680 George Street, Sydney NSW 2000, GPO Box 5420 Sydney NSW 2001. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. Refer to www.saiglobal.com, for the list of product models.



Treatment Plant Approval
Approved by: Lindsay Walker
Delegated Authority
Department of Energy & Public Works



SCHEDULE TO STANDARDSMARK LICENCE

SAI Global hereby grants:

Neatport Pty Ltd

59 Industrial Avenue, Kunda Park, QLD 4556, Australia

StandardsMark Licence

Manufactured to:

AS 1546.3:2017 - On-site domestic wastewater treatment units - Secondary treatment systems

Model identification of the goods on which the STANDARDSMARK may be used:

| Brand Name & Model ID | Treatment Capacity (Litre / Day) | Treatment Type | Compliance Type | Date Endorsed |
|-----------------------|----------------------------------|--|--|---------------|
| RP 10S | 1500 L/day | Aerated Wastewater Treatment System - N 59%; P 60% | Secondary with Nutrient reduction | 27 May 2022 |
| RP 10S+ | 1500 L/day | Aerated Wastewater Treatment System - N 80%; P 61% | Advanced Secondary with Nutrient reduction | 27 May 2022 |
| RP-10 | 1500 L/day | Aerated Wastewater Treatment System | Secondary | 27 May 2022 |
| RP10A+ | 1500 L/day | Aerated Wastewater Treatment System - N 82% reduction; P 49% reduction | Advanced Secondary with Nutrient reduction | 27 May 2022 |

End of Record

Certificate No: SMK02608

Issued Date: 27 May 2022

This schedule supersedes all previously issued schedules

For details of manufacture, refer to the licensee

The STANDARDSMARK is a registered certification trademark of SAI Global Pty Limited (A.C.N. 050 14 642) and is issued under licence by SAI Global Certification Services Pty Limited (ACN 108 716 39) ("SAI Global") 680 George Street, Sydney NSW 2000, GPO Box 5420 Sydney NSW 2001. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. Refer to www.saiglobal.com, for the list of product models.



OWNER'S MANUAL



RP10
RP10A

www.ozzikleen.com

Efficiency, Reliability, Simplicity

NEATPORT PTY. LTD. TRADING AS SUNCOAST WASTE WATER MANAGEMENT

(A.B.N. 62 063 770 534)

59 Industrial Avenue, Kunda Park, Queensland 4556, Australia

Phone: +61 7 5459 4900

Email: info@ozzikleen.com

Web: <http://www.ozzikleen.com>

Document Name: RP10/RP10A/RP10A+/RP10S/RP10S+ Owner's Manual

Document No.: P002

Revision No.: 6

Approved By: MB

Date: 04/02/2022

Page 2 of 28

Treatment Plant Approval

Approved by: Lindsay Walker

Delegated Authority

Department of Energy & Public Works



CONGRATULATIONS

We would like to thank you for investing in an Ozzi Kleen sewage treatment plant.

An Ozzi Kleen treatment plant consists of a single tank using a cyclic aerobic biological treatment process, designed to take all your household wastewater, i.e., toilets, bathrooms, kitchen, and laundry. The effluent is then disinfected and may be reused on your garden.

Consider your Ozzi Kleen treatment plant as a small farm of micro-organisms consuming the waste that is discharged into it. Normal household wastewater will be biologically treated to produce high quality treated water which may be reused.

Suncoast Waste Water Management specializes in domestic and commercial water and waste water solutions.

Keep it GREEN with Ozzi Kleen - The Water & Waste Water Professionals

Ozzi Kleen products made here in Australia offer a unique range of advanced product technologies to recycle and reuse water. We are a family owned and operated company, providing sewage treatment solutions to Australian households and commercial operations since 1983.

Ranging from the original and trusted Ozzi Kleen Domestic Household Sewage Treatment Plant (HSTP) to:

- Greywater Treatment Systems
- Underground and Above Ground Rainwater Harvesting Tank Systems
- Commercial Water & Wastewater Treatment Systems
- Transportable Treatment Plants
- Pump Stations
- Grease Traps
- Septic Tanks
- Holding Tanks

Visit www.ozzikleen.com for more information on your Ozzi Kleen Waste Water Treatment System and our range of other products.

TABLE OF CONTENTS

| | |
|---|-----------|
| INTERPRETATION | 5 |
| STATEMENT | 5 |
| MODELS AVAILABLE | 5 |
| OZZI KLEEN MANUFACTURER'S WARRANTY | 6 |
| INSTALLATION INSTRUCTIONS..... | 7 |
| PLUMBER'S INSTALLATION INSTRUCTIONS | 7 |
| <i>RP10/RP10A/RP10A+ In-ground installation diagram</i> | <i>8</i> |
| <i>RP10S & RP10S+ In-ground installation diagram</i> | <i>9</i> |
| <i>Plumber's installation check list – in-ground installation</i> | <i>10</i> |
| ELECTRICAL REQUIREMENTS (COPY ONLY) | 11 |
| INSTALLATION INSTRUCTIONS | 11 |
| <i>Alarm panel diagram.....</i> | <i>12</i> |
| <i>In House Remote Alarm Panel</i> | <i>13</i> |
| <i>Buzzer Mute Function</i> | <i>13</i> |
| HOW THE OZZI KLEEN TREATMENT PLANT WORKS | 14 |
| OPERATING INSTRUCTIONS..... | 16 |
| TREATMENT PLANT SERVICING | 18 |
| TROUBLESHOOTING GUIDE | 19 |
| SPECIFICATIONS | 21 |
| SYSTEM DIAGRAM - RP10, RP10A & RP10A+ | 23 |
| SYSTEM DIAGRAM - RP10S & RP10S+ | 24 |
| SYSTEM DETAILS - RP10, RP10A & RP10A+ | 25 |
| SYSTEM DETAILS - RP10S & RP10S+ | 26 |
| SAFETY INFORMATION | 27 |

INTERPRETATION

- (i) 'Manufacturer' includes Neatport Pty. Ltd. A.B.N. 62 063 770 534 trading as Suncoast Waste Water Management.
- (ii) 'Purchaser/Owner' shall mean the registered proprietor of the property where the Ozzi Kleen Sewage treatment plant has been installed.

STATEMENT

We, the manufacturer of the OZZI KLEEN sewage treatment systems, confirm that our treatment plants meet the requirements of the State Regulatory Authorities.

This equipment is covered under a manufacturer's warranty as per the warranty conditions on page 6 of the Owner's Manual.

This system has been designed to treat normal household sewage to the required standards as set by the State Regulatory Authorities. This also precludes any use of garbage grinders connected to the system.

The wastewater discharged to the system should not contain foreign matter such as: disposable nappies, wipes, tampons, sanitary napkins, condoms, plastics, paint, thinners, contents of a portable chemical toilet, or waste from garbage grinders, etc. The wastewater should not contain excessive amounts of harsh cleaners, disinfectants, fats, oils, or grease.

This manual is for owners of the OZZI KLEEN system, which describes the proper function of the treatment plant, operating and maintenance responsibilities of the Owner and authorised personnel, and any service-related obligations of the Manufacturer.

MODELS AVAILABLE

Models Available:

- RP10 (Standard)
- RP10A (Advanced)
- RP10A+ (Advanced with Nutrient Reduction)
- RP10S
- RP10S+ (Advanced with Nutrient Reduction)

Optional Upgrade:

- High Head Pump
- Sock Filtration
- U.V. Disinfection

OZZI KLEEN MANUFACTURER'S WARRANTY

Warranty is subject to the return of both a signed Plumber's Installation Certificate and Commissioning Certificate. These Certificates are to be filled out and returned to the manufacturer as part of the Owner's Warranty Registration. If the Commissioning Certificate and Plumber's Installation Certificate have not been returned to Ozzi Kleen the warranty claim may be rejected and all warranty terms may become void.

1. Suncoast Waste Water Management (SWWM) warrants to the original purchaser that all equipment manufactured by SWWM is free from defect in material and construction at the time of dispatch from the premises of SWWM.
2. This warranty is a **return to base warranty** which means the item must be returned to the manufacture for repair. An exchange unit may be provided in this case. An Ozzi Kleen approved Green Card Service Agent must be used to service the system in order to maintain warranty. By not doing so, you may void the warranty. A list of Approved Green Card Service Agents is available on the Ozzi Kleen website. If replacement or service under this warranty policy is required and distance prevents you calling personally, forward your product freight prepaid to your nearest Ozzi Kleen authorised Service Provider. Warranty claims relating to the Submersible Pump should be directed to Ascento on 1300 726 339.
3. This warranty does not extend to any claim made after a fixed period from the date of purchase for the following equipment:

| | | | |
|-----------------------|-----------|------------------------|-----------|
| Main Tank | 15 years | Electronic Control Box | 36 months |
| Electrical components | 12 months | Air Blower | 36 months |
| Submersible Pump | 36 months | | |
4. All claims for warranty must be done through the retailer or supplier from whom the product was purchased. Proof of purchase must be supplied.
5. Any claim made in relation to this warranty is limited to the cost of replacement equipment or such parts that are defective labour/travel expenses are not included.
6. In the case of parts not manufactured by SWWM such as submersible pump, air blower etc., the guarantee of warranty extended to the purchaser will be limited to the guarantee or warranty available from the manufacturer of that component.
7. This warranty is valid only when the equipment has been used in accordance with the Owner's Manual and serviced by a duly authorised Ozzi Kleen Service Provider every three months.
8. This warranty does not cover any equipment that has been improperly installed, misused, neglected, damaged in transport, repaired without the authorisation of SWWM or altered in any way from its original condition at the date of purchase.
9. Adverse operating conditions beyond the control of SWWM such as improper voltage, water pressure, excessive ambient temperature, water damage, flooding, pest or insect invasion, or any condition that adversely affects the performance or life of the equipment will render this warranty null and void.
10. Any costs incurred to repair a unit that is not covered by warranty will be passed on to the consumer including costs incurred to remove the faulty unit and replace with an exchange unit. SWWM is not responsible for any costs for goods not covered by this warranty.
11. Warranty work will not be performed until the customer has accepted the price quoted for the service call. SWWM will designate a minimum charge.

Warranty does not cover

- Cleaning of any blockages or damage to equipment caused by not clearing blockages
- Any operational problems due to extraneous matter, fats, oils or chemical spills in the sewage
- Any foreign material or calcium build up problems caused from water supply to the system
- Insect or pest invasion causing damage to electrical or mechanical parts
- If the system has been used as an external power supply for other electrical appliances
- Electrical surges, brown outs, lightning strikes or abnormal voltages
- Service provider's time for replacement of any faulty parts or cleaning out of system
- Service provider's travel expenses (vehicle and travel time)
- Service callout costs
- Postage or courier charges to and from SWWM

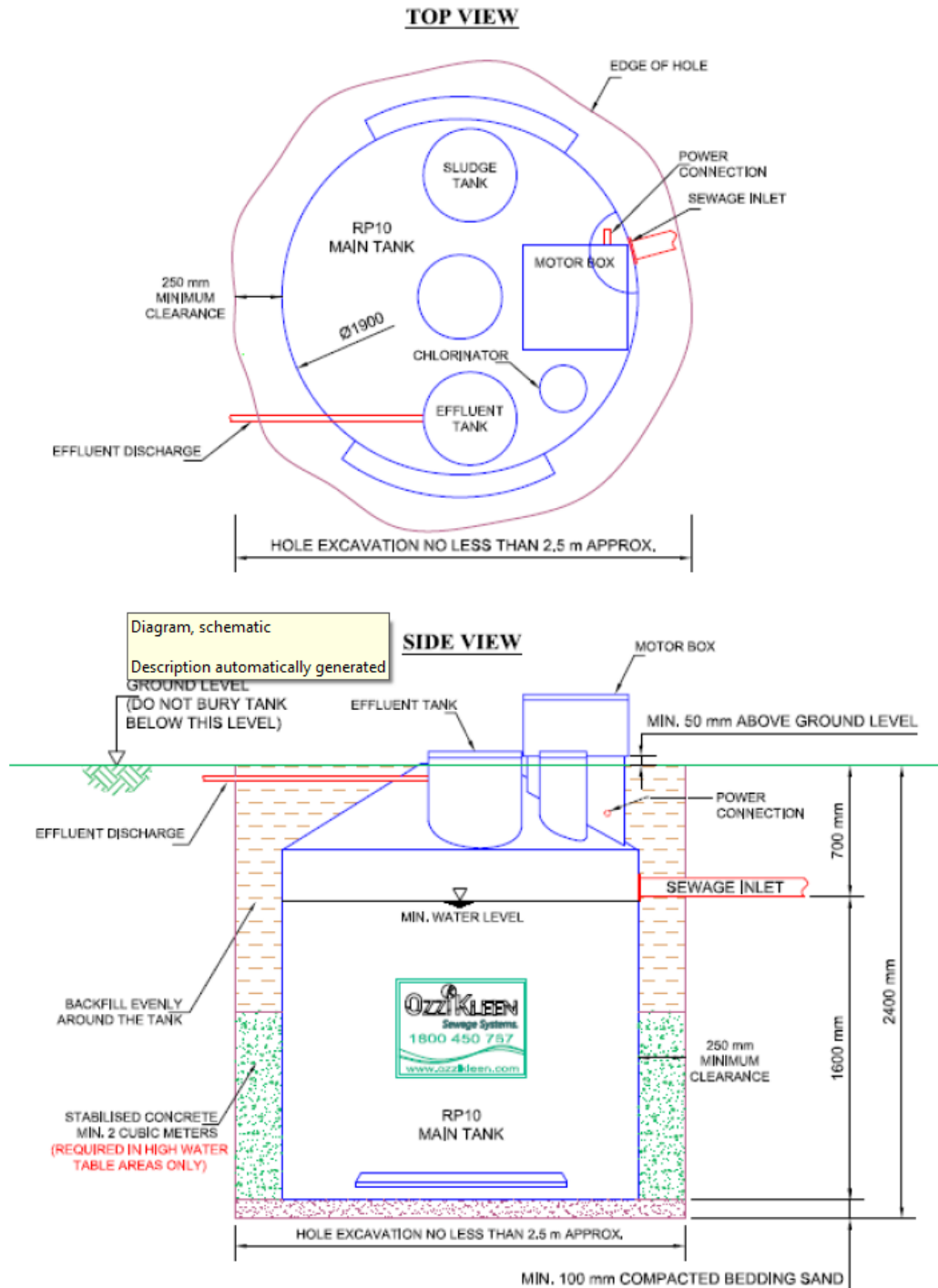
INSTALLATION INSTRUCTIONS

* Extract from Installation Manual - supplied with system, found in motor box.

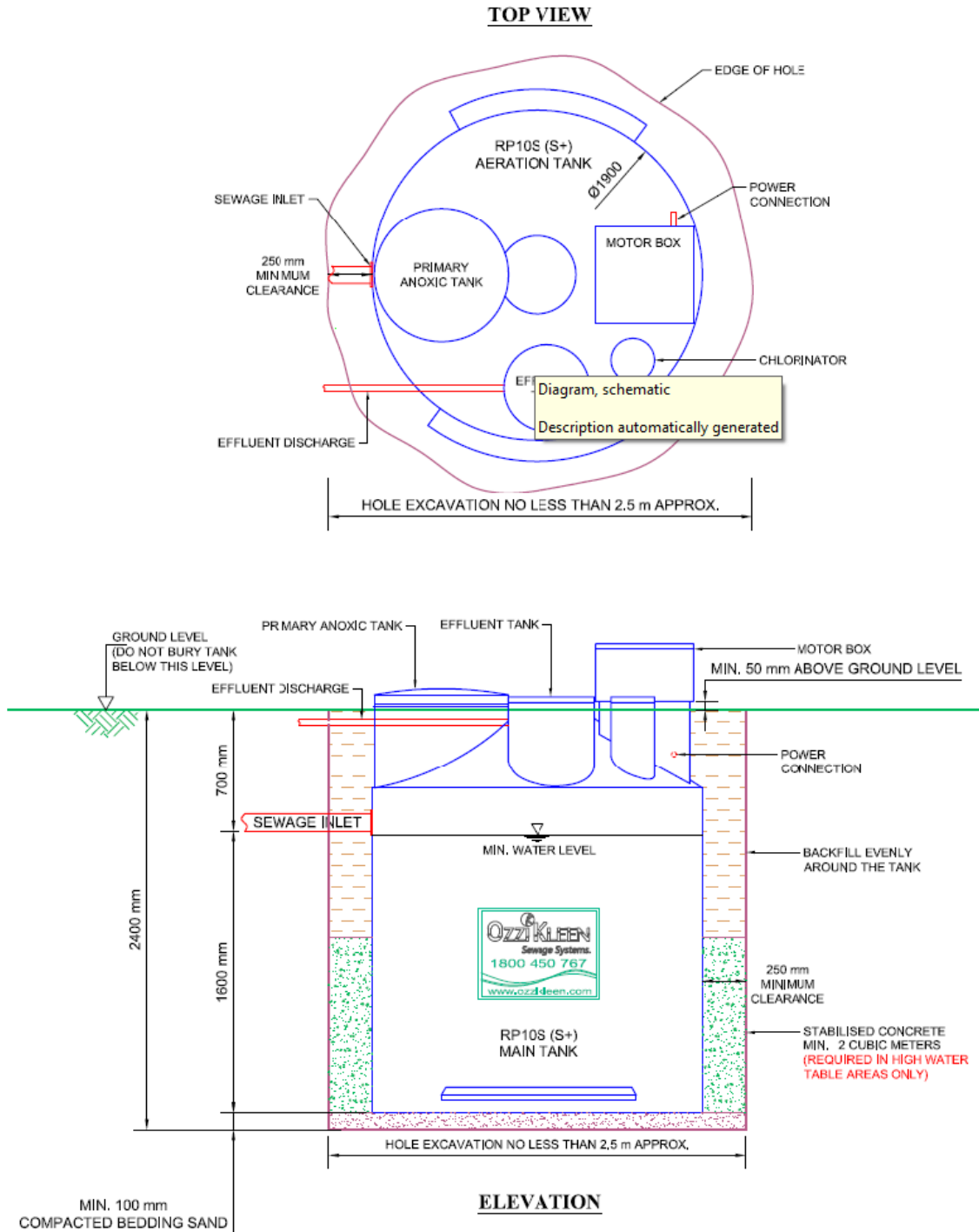
PLUMBER'S INSTALLATION INSTRUCTIONS

- A hole for installation will have to be excavated approximately 2.5 m across and 2.4 m deep with a sound base.
 - A layer of bedding sand is required (refer to drawing).
 - If the hole is over excavated, extra bedding sand will be required.
 - A normal installation of the treatment plant will locate the level of the sewer invert at 700mm below natural ground level and 1600mm above the sand base.
1. Install the treatment plant so that the tank is located centrally in the excavated hole with no less than 250mm to the nearest side. Ensure that the backfill is placed evenly around the tank (see drawing).
If the system is placed unevenly in the hole so that the tank is near to touching a side of the hole, this will not allow for even backfill and cause tank instability and will have to be rectified by the installer.
 2. Install the treatment plant so that the base of the green motor box is no less than 50mm above the natural/ finished ground level to avoid surface water entry.
If the system is installed too low it will have to be rectified by the installer.
 3. The Ozzi Kleen treatment plant is to be completely filled with water (approximately 4,500litres) or up to the sewer inlet before any backfill is placed around the tank. All compartments including sludge waste and effluent compartments must be filled as well.
Failure to do so will cause tank instability and any deflection to the tank will have to be rectified by the installer.
 4. The system is to be installed in a position where local storm water flooding and ponding around the tank will not occur.
If the system is installed in a watercourse or a flood prone area the system will have to be relocated by the installer.
 5. Landscaping or the importation of topsoil that is placed around the system after it is installed, which would cause the tank to be too low in the ground is to be avoided. No rocks are to be placed on top of the system or within 1m of the system.
Imported topsoil that may be placed on the system after the installation will be the responsibility of the installer or owner.
 6. When installing the system underneath a building ensure that there is sufficient head room for servicing.
A minimum of 1200mm head room is needed for the service removal of some parts and retrieving of water samples at time of service.
 7. Check all floor waste gullies are filled with water and location of drainage vents which should be located at the extreme end of the drainage system.
 8. Where the treatment plant has been installed above ground level, please ensure a portable scaffold ladder compliant with AS/NZS No. AS 1657-2013 is installed to allow commissioning and service access.

RP10/RP10A/RP10A+ In-ground installation diagram



RP10S & RP10S+ In-ground installation diagram



Plumber's installation check list – in-ground installation

The Ozzi Kleen sewage treatment system must be installed as per the following instructions. This form is to be filled out and returned to the manufacturer or their Distributor as part of the owner's warranty registration.

PLEASE TICK ALL THE BOXES DURING THE INSTALLATION

| | | |
|-----|--------------------------|---|
| 1. | <input type="checkbox"/> | Identify where the system is to be installed |
| 2. | <input type="checkbox"/> | Excavate hole – 2500 mm diameter and approximately 2400 mm deep |
| 3. | <input type="checkbox"/> | Place a layer of bedding sand in the hole |
| 4. | <input type="checkbox"/> | Check depth from sand bed to natural ground level no greater than 2300 mm |
| 5. | <input type="checkbox"/> | Install the tank |
| 6. | | Measure : |
| | <input type="checkbox"/> | Check depth from sewer invert to bedding sand no greater than 1600 mm |
| | <input type="checkbox"/> | Check depth of sewer invert to natural ground level no greater than 700 mm |
| | <input type="checkbox"/> | Check that motor box hinges are at least 50 mm above the natural/ finished ground level |
| 7. | <input type="checkbox"/> | Fill all tanks followed by main tank to sewer inlet with approximately 4,500 litres of water |
| 8. | <input type="checkbox"/> | Connect sewer piping to the sewer inlet |
| 9. | <input type="checkbox"/> | Backfill around tank with clean earth only, which is free from large lumps of clay, stones, bricks, foreign objects, or dumped rubbish etc. |
| 10. | <input type="checkbox"/> | Sock filter non-return valve and pressure gauge fitted (<i>Sock filter systems only</i>) |
| 11. | <input type="checkbox"/> | The irrigation system could be of several different formats, check Council requirements |
| 12. | <input type="checkbox"/> | Complete installation certificate located on back page |

ELECTRICAL REQUIREMENTS (COPY ONLY)

A Licensed Electrician Must Be Used

Installation of power to this unit must be performed by a licensed electrical contractor in accordance with current electricity act.

INSTALLATION INSTRUCTIONS

The power supply to the Treatment Plant is a single phase, 240V 50Hz supply and should be wired as per AS/NZS 3000.

The alarm circuit is supplied from the control board and is 24 V DC. As the alarm cables are run with the supply cables to the plant, they must be rated for 240V but may be 1mm² cable.

The maximum power consumption of the Treatment Plant with standard settings is approximately 1000 Watts. The air blower is rated at 120 Watts. The effluent pump is rated at up to 400 Watts, unless upgraded.

The power supply to the system should come direct from the meter board and be protected by a 10 A RCD (Residual Current Device) and surge protection. The main power point needs to be RCD protected. It is recommended that the system be connected to an individual dedicated electrical circuit.

The alarm mute switch and alarm lights are on a common switch plate, which is to be mounted in the Owner's house at an appropriate point. The switch plate is found in the motor box.

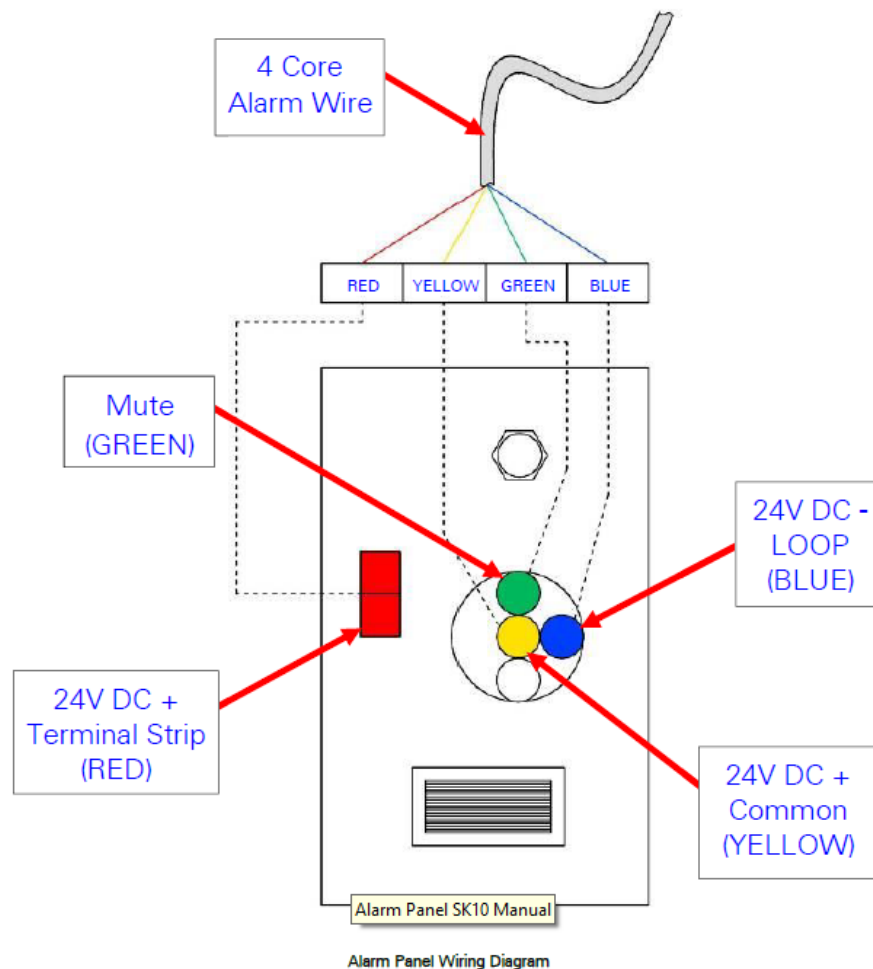
There are 3 alarms available, all of which are activated via the Ozzi Kleen colour coded 4 core alarm cable (supplied separately). The alarm connections are polarity sensitive and must be connected correctly. Cabling between the dwelling and Treatment Plant should be installed using adequate protection/conduit. 2 cables will be required - 3 core for power supply and 4 core for alarm circuit. Important: if installing alarm cable in same conduit as the power supply, the 4 core alarm cable must be suitably rated.

The power supply cable is brought into the sewage treatment system through the side of the tank turret at the top of the tank, referred to as the access manhole, and up through the floor of the motor box housed in the flexible conduit provided. The 240V supply is to be connected to the main power outlet inside the motor box. The low voltage alarm wires are to be connected to the terminals inside the small round junction box below the main power outlet. The external electrical conduit to the system is to be 25mm.

The power supply cable is to be connected to weatherproof outlet provided and alarm cable to be connected to terminal strip inside of PVC junction box provided. No other connections are required.

POWER TO TREATMENT PLANT MUST BE DISABLED BEFORE WIRING ALARM PANEL

Alarm panel diagram



| | | |
|--------|---|-------------------------------|
| Red | - | Terminal strip on alarm panel |
| Yellow | - | Common on the mute switch |
| Blue | - | Loop on the mute switch |
| Green | - | 1 on the mute switch |

A strobe light is connected to the yellow and blue alarm wires but please note that these wires are polarity sensitive.

| | |
|--------|--------------|
| Yellow | + (positive) |
| Blue | - (negative) |

Note: The motor compartment on the top of the sewage treatment system is on a hinged lid and the wiring to this compartment passes through a flexible conduit provided. No external conduit or rigid conduit is to be fastened to the outside of the motor box. If extra flexible conduit is used for wire connection to the system, ensure that there is sufficient length to allow for the tilting of the motor box when it is opened.

In House Remote Alarm Panel

The alarm panel's primary purpose is to indicate a high water alarm, low air alarm or power failure. When the alarm light is on continually this indicates there is power to the system and the system is healthy. If the alarm light is not on this would indicate that there is no power to the system. If the buzzer is muted the light will still indicate an alarm.

High Water Alarm

If the alarm light flashes fast (every ½ sec) this indicates that there is a high water alarm.

Low Air Alarm

If the alarm flashes slow (every 3sec) this indicates that there is a low air alarm.

Buzzer Mute Function

The buzzer mute function is activated when the alarm is on and the mute button is pressed on the alarm panel. Once the mute button has been pressed the buzzer will be muted for 9 hours or the 9 hours delay can be extended a further 9 hours by pressing the mute button on the alarm panel, or resetting the OK1 controller.

HOW THE OZZI KLEEN TREATMENT PLANT WORKS

The OZZI KLEEN STP operates through a cycled aeration process designed to treat all the household sewage, i.e. sewage from toilets, bathrooms, kitchen and laundry. The process is similar to the tried and tested method used in municipal treatment plants. The waste products in the sewage are completely consumed by naturally occurring bacteria in the oxygen-rich environment in the aeration tank. The system treats the organic waste to produce treated water to a high standard.

The cycled aeration system process consists of three main cycles:-

Aeration Cycle

The incoming sewage is aerated and oxygenated with air supplied by the air blower. As aeration takes place, an aerobic environment is provided for micro-organisms. These organisms grow and establish an "activated sludge". The activated sludge will oxidise the organic waste as long as a balance between the air feed and the organic/hydraulic load is maintained.

Settling Cycle

After the aeration cycle, aeration ceases for approximately 30 minutes, allowing the activated sludge to settle to the bottom of the aeration tank. A layer of clear water is then formed at the top of the aeration tank.

Decanting Cycle

After a predetermined settling period, a decanting operation takes place. The decanter device draws off effluent from the top of the aeration tank. The decanting cycle continues until either the liquid level in the tank reaches the minimum level, or the process timer puts the system back into the aeration treatment cycle, which in turn stops the decanting cycle.

While decanting, the effluent is chlorinated and stored in the effluent holding tank for a short period to ensure disinfection of pathogenic organisms prior to discharge. When the liquid level is sufficient, the effluent pump will pump out the disinfected effluent (through the sock filter, if fitted) to the irrigation area. This water is then used for irrigating lawns and gardens, etc.

Anoxic Cycle

After the decant cycle the anoxic cycle can be activated if required as per operator recommendations.

Optional Sock Filtration

If a sock filter is fitted to the system, the chlorinated effluent is pumped from the effluent holding tank through the sock filter. The sock filter operates under pressure, which is normally around 80 kPa. If the operating pressure goes higher than this, it could indicate that the filter needs a cleaning.

NOTE: Max operating pressure 250kPa

Advanced Treatment, RP10A, RP10A+, & RP10S+ Only

Advanced water treatment and nutrient reduction is achieved by chemical dosing and is checked by the Service Provider at each treatment plant service.

OPERATING INSTRUCTIONS

The treatment plant has to be commissioned to ensure that the system is set up correctly and is operating and ready for use. The system ***must not be used*** until it is fully commissioned. The Service Provider or duly authorised personnel will carry out commissioning.

- Regularly check that the irrigation system is working properly (if sprinklers are fitted). Check and clean regularly, making sure they are operating. Where a filter is installed (including disc and sock filters) please consult your Green Card Accredited Ozzi Kleen Service technician how best to clean and maintain your filter in between services. Maintaining the filter and irrigation area may be a weekly occurrence.
- The slow release chlorine tablets supplied should be sufficient for the period between services. Normally two kilograms of chlorine is placed in the system at each service. If the tablets have been consumed before the next service, more chlorine tablets will have to be added. Contact the Service Provider for replacement tablets or obtain your own from a local supermarket or pool shop (jumbo pool chlorine tablets). Avoid inhalation of chlorine.
- Keep the area around the treatment plant in a clean state, to avoid any damage to the treatment plant from fires, vehicular traffic etc.
- The ground level around the irrigation outlet pipe may subside, causing a load on the pipe. Please ensure that the pipe is not pulled out of the tank by soil movement.

DON'TS: For your own convenience there are a number of **DON'TS** that you should be made aware of:

Do not discharge any items to the treatment plant that cannot be biologically broken down or are not a source of food for the micro-organisms i.e.:

- Disposable nappies, wipes, tampons, sanitary napkins, condoms, plastics, paint, thinners, contents of a portable chemical toilet, or any other foreign matter.
- Large quantities of harsh cleaners, disinfectants, or any other substances or poisons that would be harmful to your system's ecology. Preferably use bio- degradable products as this will also help the environment).
- **Excessive amounts of fats, oils, or grease**, as this may cause problems within the biological treatment process. Fats have a calorific value of over 57,000 times that of normal sewage.
- Food scraps or the use of a garbage grinder, as this will increase the biological load on the system and could cause overloading.

As the owner of your treatment plant, it is to your advantage to understand the operating principles of the system and be observant as to what is happening from day to day. Look after your treatment plant and it will serve you well.

Note:

- *If the Treatment Plant process has been disinfected, power disconnected or if any of the previously stated "Don'ts" on page 16 are put into the system, charges may apply for the Service Provider to rectify the problem.*
- *The Treatment Plant is never to be emptied without prior consent by the Manufacturer/Service Provider.*
- *Unplug Air Blower before tilting motor box to avoid internal damage to the Air Blower.*
- *The Main Switch is to be left on at all times.*

In the event of power failure, you should avoid using your household amenities in excess, as there would be no effluent pumped out and the system will overflow. Storage volume is approximately 1,000 litres.

In the event of operational problems, you should contact your Service Provider who will ensure that the situation is corrected after determining the fault or cause.

Foaming: Foaming may occur with a new system due to laundry suds. The system operates initially with aeration of clean water, so with the addition of soaps it can sometimes cause a foaming effect. The system requires bio-solids, and this will take effect in a few days after normal household use and will overcome foaming.

This may be avoided by reducing excessive washing activity on a newly commissioned system.

As a suggestion you may wish to put a sign in your toilet room for others that do not know the type of treatment system, warning them of the items that cannot be placed in the system. It may help to provide a small bin for foreign matter, such as sanitary items.

If you are at any time renting out your property, please advise the tenants of the operating procedures.

Ask your Service Provider for signage options or visit www.ozzikleen.com

VACATION OF PREMISES

If you are vacating your premises for an extended period of 4 weeks or more, please contact your local authorised Ozzi Kleen Service Provider. Your Service Provider will be able to advise you of the appropriate measures to take on vacating your premises.

On your return, contact your authorised Ozzi Kleen Service Provider for advice.

TREATMENT PLANT SERVICING

The Ozzi Kleen system is to be serviced every 3 months, in accordance with State and Territory regulatory authorities. A test report is to be completed by an authorised Ozzi Kleen Service Provider on each service and supplied to the Purchaser/Owner and Local Authority. This report outlines water quality tests performed, plant operation and condition of the irrigation area.

The Purchaser/Owner is required to enter into a maintenance agreement for the servicing of the Ozzi Kleen Sewerage Treatment Plant. The authorised representative must inform the Owner of their obligations to maintain a service contract.

All servicing should be carried out by the authorised Ozzi Kleen Service Provider, holding a valid Green Card, or by any person or persons duly authorised in writing by the Manufacturer. A list of authorised Ozzi Kleen Service Providers can be found at <http://www.ozzikleen.com/> or by contacting Ozzi Kleen's head office on 1800 450 767.

The Purchaser/Owner shall provide reasonable access to the treatment plant as necessary to carry out the regular servicing as described within this Owner's Manual.

Chlorine tablets are replenished with each service. The amount of chlorine replaced is dependent on the consumption, so that at the time of each service the chlorinator will be topped up so that there will be at least two kilograms of tablets left in the system.

If the chlorine usage is higher, there is provision to hold up to four kilograms in the system.

Sludge levels are monitored by the Service Provider, who will carry out removal of sludge if required.

Note: In the event of any service queries, please refer directly to your local authorised Ozzi Kleen Service Provider.

Suncoast Waste Water Management will not be responsible for faults if your system has not been serviced on the regular 3-month schedule. It is the responsibility of the Owner to ensure that a service is performed. Contact Suncoast Waste Water Management if your Service Provider is not contactable.

TROUBLESHOOTING GUIDE

Note: Check that the sprinkler system is not blocked before requesting a service call. Sprinklers must operate at all times.

The treatment plant has an audio-visual, in-house alarm panel mounted inside your home. The alarm has a mute switch, which can be pressed until the problem is rectified. If the alarm situation is not addressed within 9 hours, the alarm will reactivate.

In the event of any troubleshooting queries, please refer directly to your local authorised Ozzi Kleen Service Provider.

| OPERATION PROBLEM | CAUSE | REMEDY |
|---|---|---|
| 1. High Water Alarm - buzzer will sound and the LED will flash fast | <ul style="list-style-type: none"> a) High sewage flow discharging into treatment plant. High wash load, draining of spa bath, etc. b) Basket strainer blocked. c) Decant pipe blocked. d) Chlorinator blocked. e) Effluent pump fails to run when pump well is full. <ul style="list-style-type: none"> i) No power supply. ii) Float switch stuck. iii) Electrical fault in motor. f) Blocked sprinklers. g) (Optional) Sock filter may need cleaning. | <ul style="list-style-type: none"> a) The plant will automatically go into settling and then decant mode. After approximately 30 minutes, the effluent pump should start and then the alarm should cancel. b) Clear any blockages. c) Clear any blockages. d) Clear any blockages. e) Effluent pump checks: <ul style="list-style-type: none"> i) Check plug and power supply. ii) Check that float switch is free to operate in pump well. iii) Call Service Provider. f) Check irrigation sprinklers. Clear any blockages. g) Empty and clean sock filter. |
| 2. Blower Alarm buzzer will sound, and the LED will flash slow (see following page for further details) | <ul style="list-style-type: none"> a) Broken or damaged air lines causing low air pressure. b) Air diffusers ruptured. c) Faulty blower components. d) Blower protection switch activated | <ul style="list-style-type: none"> a) Call Service Provider. b) Call Service Provider. c) Call Service Provider. d) Call Service Provider. |

| OPERATION PROBLEM | CAUSE | REMEDY |
|--|---|--|
| 3. Treatment Plant Smelling | <ul style="list-style-type: none"> a) Power turned off due to alarm being activated. b) Plant biomass killed-off. c) Blocked sprinklers causing ongoing high level alarm condition. d) Diffusers blocked causing loss of aeration. e) Diffuser partly ruptured causing poor aeration. f) Plant put into use prior to commissioning. g) Excessive fat/oil/grease or food scrap entry. | <ul style="list-style-type: none"> a) Always leave power on. b) Advise Service Provider. The biomass may be killed-off by toxic chemicals discharged to the system, i.e. harsh cleaners, portable chemical toilet contents, excessive antibiotics, etc. Aeration tank may need to be pumped out and refilled with clean water c) Check sprinklers. Clear any blockages. An ongoing high level alarm condition will stop the treatment process. Extended alarm periods will result in loss of treatment, causing odours. d) Call Service Provider. e) Call Service Provider. f) Do not use treatment plant before commissioning. Septic, anaerobic conditions in the treatment plant will cause odours. Call Supplier/Service Provider. g) Dispose of fats/oils/grease or food scraps elsewhere. Contact your Service Provider for further advice. |
| 4. Chlorine odour escaping through drainage. | <ul style="list-style-type: none"> a) Pipes not installed correctly and filled with water and/or house drains, and gully traps not filled with water. | <ul style="list-style-type: none"> a) Check gully traps are full of water. b) Check the location of the drainage vent pipe. c) Call your plumber/drainier |

Note:

The Red LED will always stay on constantly when there are no system faults and there is power to the system. If the red LED is off this would indicate that there is no power to the system.

SPECIFICATIONS

1546.3 : 2008

| Parameter | Raw Wastewater Characteristics |
|--|---|
| Wastewater treatment capacity | 10 persons EP at 200 L/person/day |
| Maximum hydraulic load | 2,000 L/day |
| Biological Oxygen Demand (BOD ₅) | 350 mg/L typical, up to 70 g/day/person |
| Total Suspended Solids (TSS) | 350 mg/L typical, up to 70 g/day/person |
| Fats, Oils and Grease (FOG) | 75 mg/L. For restaurant applications, a grease trap must be fitted upstream of the treatment plant to remove grease and oils. |
| pH | 6 < pH < 8.5 |
| Wastewater temperature range | 10°C to 38°C |

1546.3: 2017

| Parameter | Raw Wastewater Characteristics |
|--|---|
| Wastewater treatment capacity | 10 persons EP at 150 L/person/day |
| Maximum hydraulic load | 1,500 L/day |
| Biological Oxygen Demand (BOD ₅) | 350 mg/L typical, up to 70 g/day/person |
| Total Suspended Solids (TSS) | 350 mg/L typical, up to 70 g/day/person |
| Fats, Oils and Grease (FOG) | 75 mg/L. For restaurant applications, a grease trap must be fitted upstream of the treatment plant to remove grease and oils. |
| pH | 6 < pH < 8.5 |
| Wastewater temperature range | 10°C to 38°C |

Treatment Plant Construction:

Tank and components
All Pipe work

Polyethylene (MDPE)
PVC

Electrical Equipment:

Air Blower
Effluent Pump
Controls

LP120H
Submersible
Electronic (OK1 Control Board)

Alarm System:

Alarm System
Alarm signal

24VDC Audio/Visual
Indicator for High Water, Power & Blower

Aeration Tank:

Operating Volume
Aeration tank volume
Residence time
Buffer Zone

4.1m³
5.3 m³
46 hr
1m³ (approx.)

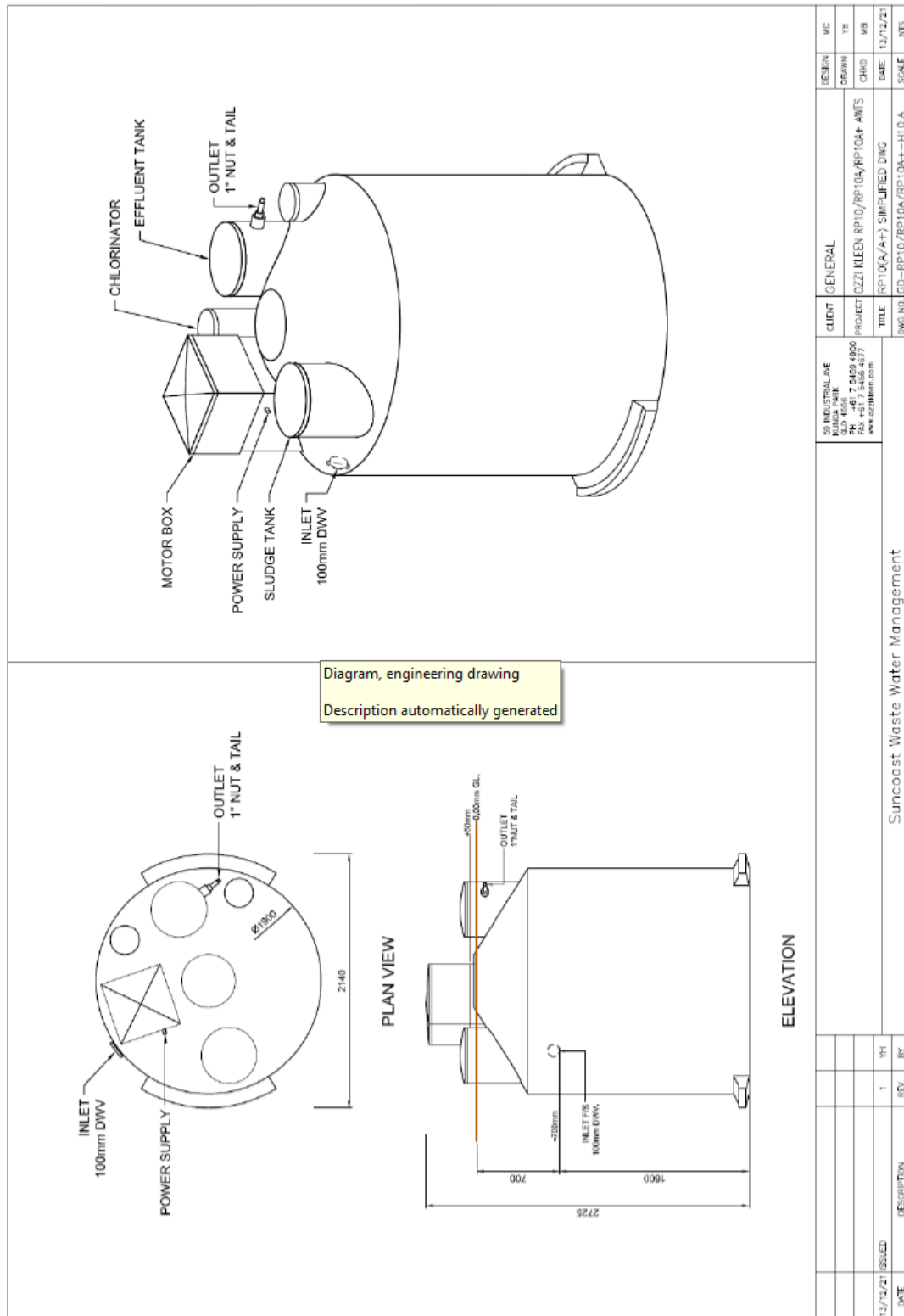
Disinfection equipment:

Chlorinator Type
Chlorine min contact time (max flow)

Tablet Dispenser Cassette
30 min

| | |
|-------------------------------|---|
| Motor Box: | |
| Equipment Contained | Air Blower, Control Board, Decanter, Solenoid Valve equipment |
| Effluent Pump (standard): | |
| Effluent pump duty | 100 litres/min @ 8 m head |
| Pump Mounting | Suspended on discharge pipe |
| <i>Optional Equipment</i> | |
| Sock Filtration Equipment: | |
| Flow rate | 250litre/min Max |
| Pressure | 250kPa Max |
| Nutrient Reduction Equipment: | |
| Process controls | Electronic |
| Phosphate reduction process | Chemical dosing / Sludge wasting |
| Sock Filters | 120/210/Other Microns |
| Lifting/Pump Stations | Sizes available from 300L to 5,000L |
| Other Customization available | Please enquire |

SYSTEM DIAGRAM - RP10, RP10A & RP10A+



Document Name: RP10/RP10A/RP10A+/RP10S/RP10S+ Owner's Manual

Document No.: P002

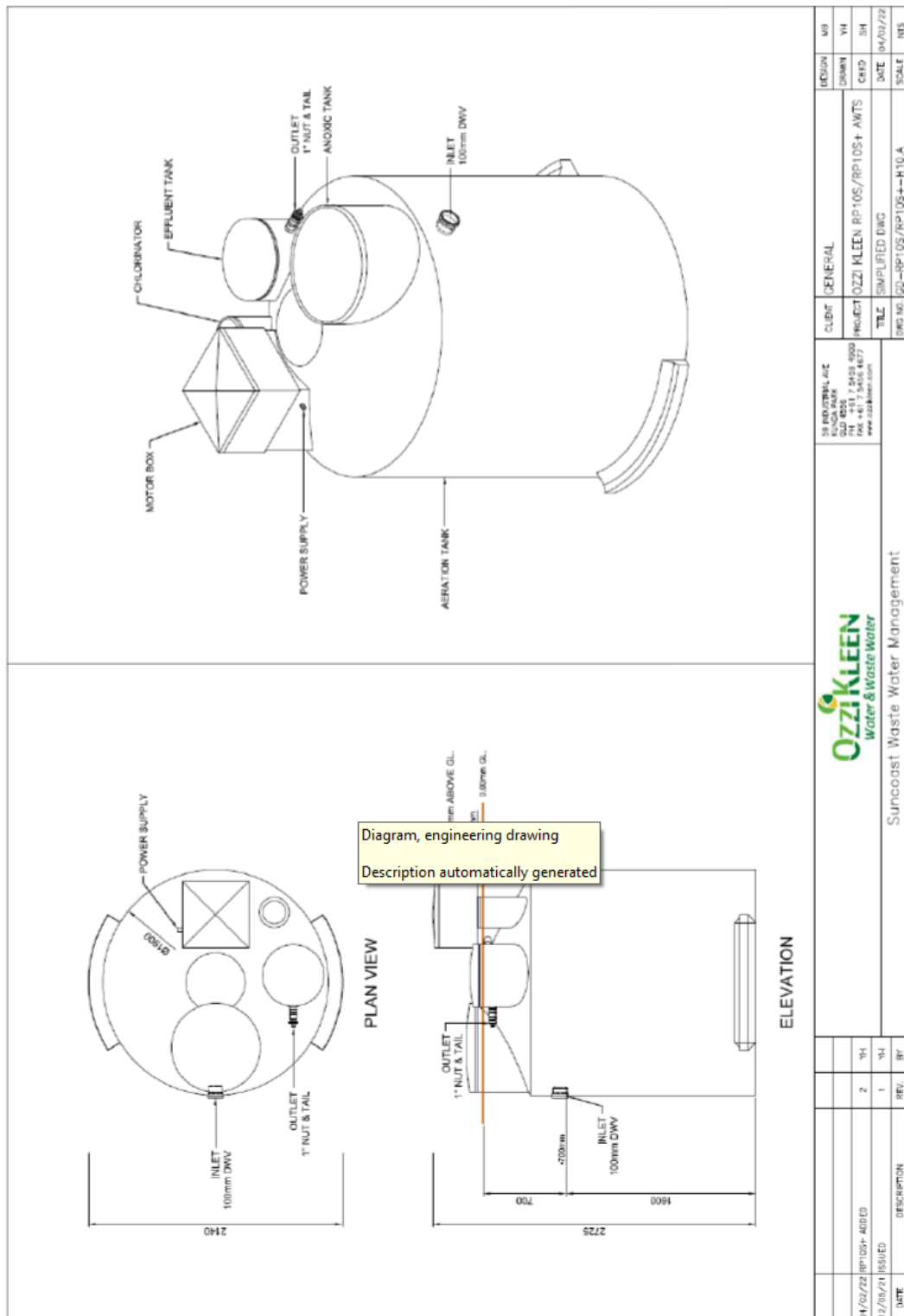
Revision No.: 6

Page 23 of 28

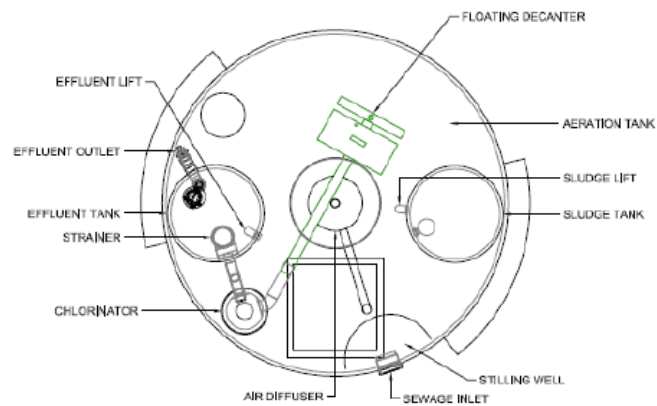
Approved By: MB

Date: 04/02/2022

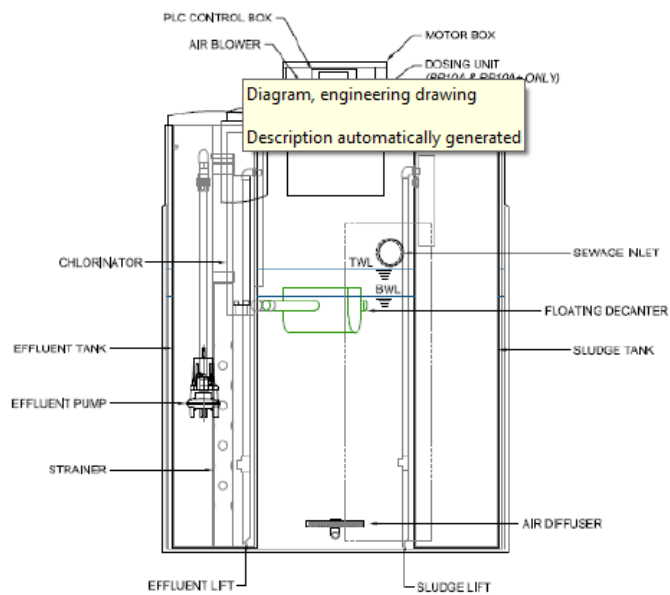
SYSTEM DIAGRAM - RP10S & RP10S+



SYSTEM DETAILS - RP10, RP10A & RP10A+



PLAN VIEW



ELEVATION

| | | | | | | | | |
|---|--|--|--|---|---------|-----------------------------------|--------|----------|
|  | | | | 59 INDUSTRIAL AVE RUNDAPARK QLD 4556 PH 4517 5459 4900 FAX +61 7 5456 4677 www.ozziclean.com | CLIENT | GENERAL | DESIGN | MB |
| Suncoast Waste Water Management | | | | | PROJECT | OZZI KLEEN RP10/RP10A/RP10A+ AWTS | DRAWN | YH |
| | | | | | TITLE | SYSTEM DETAILS | DATE | 13/12/21 |
| | | | | | DWG NO. | GD-RP10/RP10A/RP10A+-H10.B | SCALE | NTS |

Document Name: RP10/RP10A/RP10A+/RP10S/RP10S+ Owner's Manual

Document No.: P002

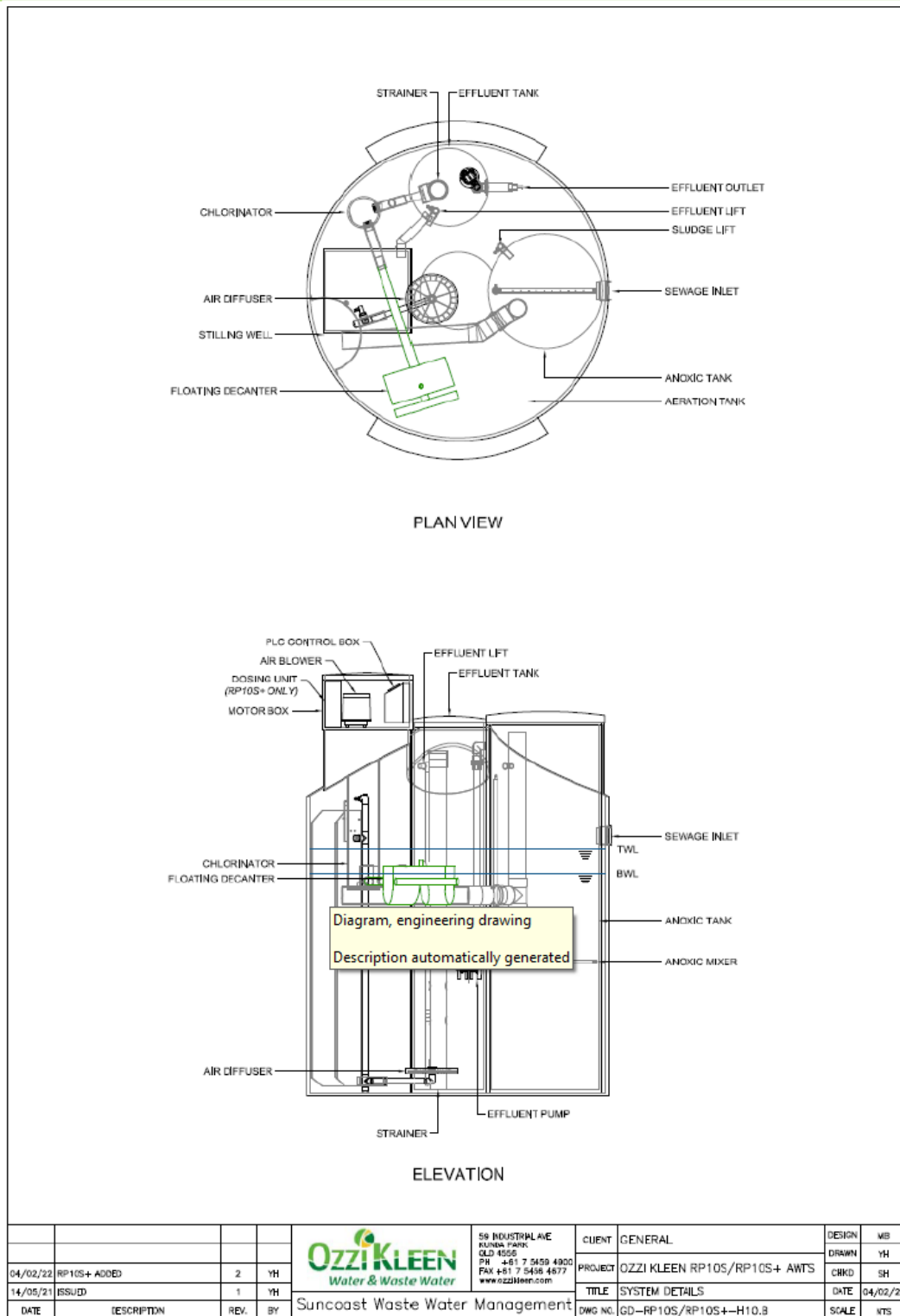
Revision No.: 6

Page 25 of 28

Approved By: MB

Date: 04/02/2022

SYSTEM DETAILS - RP10S & RP10S+



SAFETY INFORMATION

Never enter any compartment of the treatment plant.

There could be potential hazards from:

- Drowning in the tanks,
- Asphyxiation from an oxygen depleted atmosphere within the tanks.

There are five accessible compartments:

- The motor box control compartment, which is accessible through the top lid.
- The main aeration tank, which is accessible by tilting the motor box on its hinges.
- The effluent tank with its pump, which is accessible through one of the large round lids.
- The sludge waste tank, which is accessible through the other large round lid.
- The chlorinator, which is accessible through the small round lid between the motor box and effluent tank.

All access lids are normally secured with set screws. The Owner should ensure that they are all in place after any site inspection has been carried out.

Signs indicating that the treated water is recycled and is not fit for drinking have been provided and are to be erected in the irrigation area. This is a State Regulatory Authority requirement in all areas.

The Ozzi Kleen system operates on a 240V power supply.

The main power outlets within the motor box are intended for the use of the treatment plant equipment only. These should be kept plugged in at all times. The power outlets cannot be used for any other power appliances. Plugging anything else into these outlets will affect the systems controls and may void warranty.

Ensure all household drains are never dry.

Check with your plumber that they have been installed correctly. Floor waste gully traps in your home require to be charged with water to prevent odours from the drains. If odours occur have your plumbing checked.

OWNER'S MANUAL



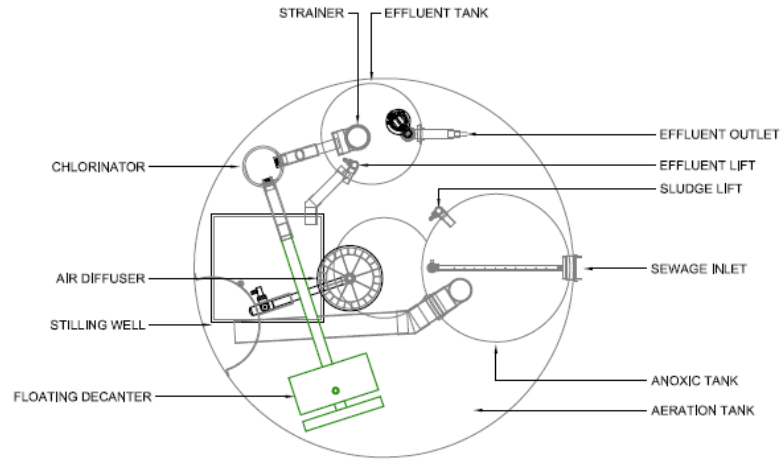
**Please contact your
Ozzi Kleen Service
Provider with any
queries**

Manufactured by: Suncoast Waste Water Management
A.B.N. 62 063 770 534
59 Industrial Avenue, Kunda Park, QLD, 4556
Head Office: (07) 5459 4900 Email: info@ozzikleen.com

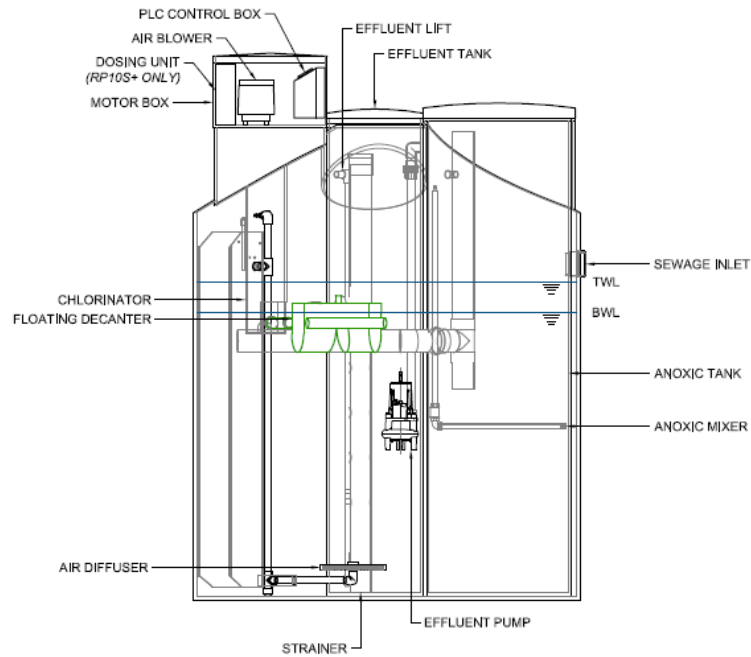
**RP10, RP10A, RP10A+
RP10S & RPOS+
www.ozzikleen.com**

Efficiency, Reliability, Simplicity

Attachment 3 – Ozzi Kleen RP10S+ Schematic



PLAN VIEW



ELEVATION

| | | | | | | | | |
|----------|--------------|------|----|---|---------|------------------------------|--------|-----|
| | | | |  <p>59 INDUSTRIAL AVE KUNDA PARK QLD 4556 PH +61 7 5459 4900 FAX +61 7 5456 4677 www.ozzikleen.com</p> | CLIENT | GENERAL | DESIGN | MB |
| 04/02/22 | ADDED RP10S+ | 2 | YH | | PROJECT | OZZI KLEEN RP10S/RP10S+ AWTS | DRAWN | YH |
| 14/05/21 | ISSUED | 1 | YH | | TITLE | SYSTEM DETAILS | CHKD | SH |
| DATE | DESCRIPTION | REV. | BY | | DWG NO. | GD-RP10S-H10.B | SCALE | NTS |

Suncoast Waste Water Management