



Date of Issue  
2019

**Rivatec**

**Environmental**

**RWT10-2**

# Installation & Owners Manual

**Advanced Aerated  
Waste Water  
Treatment  
System**



**The Viable  
Alternative  
For Rural and  
Non-Sewered Land**

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# Introduction

About 20% of Australian homes are not connected to central sewers i.e. treatment of wastewater occurs on-site. It is important to realise that on-site waste water systems require regular inspection and maintenance to ensure that they function effectively. Your RWT10-2 has been tested and accredited by the NSW Department of Health and the system must be operating correctly to ensure that the health of your family and the community are protected at all times.

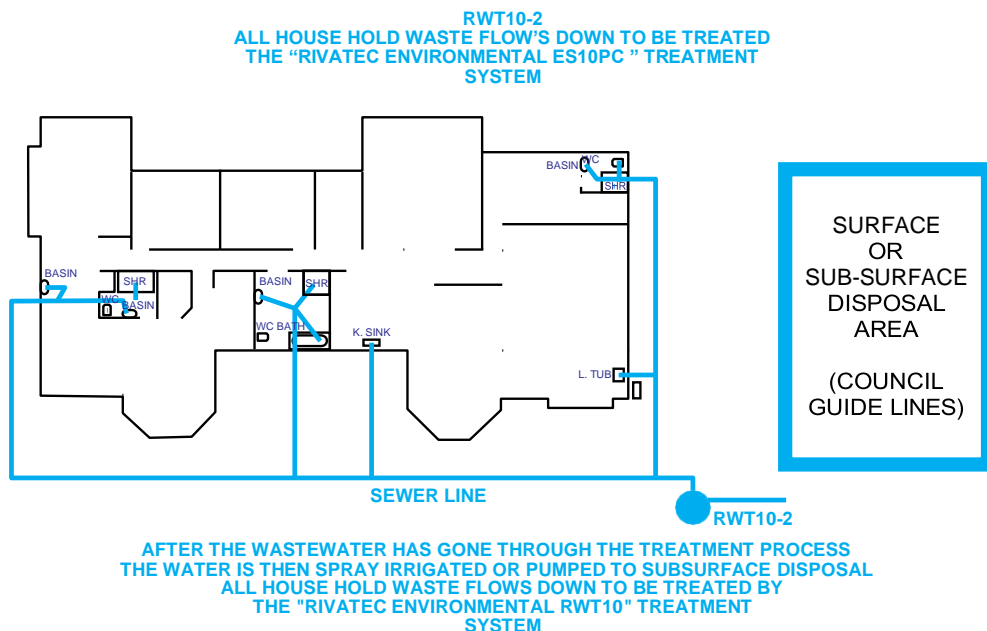
Rivatec Environmental / Agents have a 24 hour maintenance service and offers full system monitoring management for your peace of mind. It is important that you have signed a contract for the ongoing maintenance of your system. This will ensure that your system continues to operate as designed and will continue to function correctly in the long term. Generally speaking the RWT10-2 is automatic in operation and requires very little owner intervention. It is useful however for you to familiarise yourself with the system so that you understand the general operation of the unit. If you have any questions please don't hesitate to contact:



## Rivatec Environmental's Experience

Rivatec Environmental systems evolved over 40 years ago in a small factory in Newcastle, NSW, manufacturing concrete septic tanks. In the early 1980's, the company saw the need to develop an advanced septic tank that would be more environmentally friendly and recycle treated waste water.

In the 1980's, the first aerated septic system, was approved for above ground irrigation by the NSW Department of Health. This was a major breakthrough, since the, Rivatec Environmental has made continual improvements and in April 2000, the standard Rivatec Environmental (RWT10-2) was accredited by the NSW Department of Health (AWTS####).



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# Operation

The Rivatec Environmental RWT10-2 system treats waste water on-site to Advance secondary levels far in advance of older style septic tanks. In technical terms the RWT10-2 has been designed to process waste water to achieve typically 95% reduction in suspended solids (TSS) and biological oxygen demand (BOD<sup>5</sup>). The treated effluent is clear, odourless and can be reused on site (subject to council approval).

The Rivatec Environmental RWT10-2 is a compact sewage treatment system housed in a single tank. It is intended to treat domestic waste water from single households (with adequate capacity to treat waste water) up to 10 people. The tank is connected to the household plumbing system and requires electrical power to be supplied for the air blower and electronic alarm/control unit (and if, necessary, the irrigation and other pumps).

The RWT10-2 is an Advance aerated septic tank system which uses totally natural biological processes to treat the waste water. It consists of a set of 7 chambers which perform various treatment processes on the waste stream.

Rivatec Environmental systems are manufactured by Rivatec Environmental and transported direct to site. Once installation is complete, Rivatec Environmental / Agent will commission the system and issue a certificate of compliance.

Water first enters the primary pre-treatment chamber where large organic and inorganic solids settle to the bottom and fats and certain other floating matter forms a scum layer on top of the liquid in the chamber. A sludge layer builds up in the chamber and a fermentation process takes place i.e. anaerobic bacteria digest the sludge and break down some of the organic matter.

Fluid is decanted from the buffer pre-treatment chamber through a baffle to eliminate the passage of grease and floating matter. Whenever more liquid enters the pre-treatment chamber, waste water flows by a Air Lift displacement into a second primary chamber, then into a aeration chamber. In this chamber air is introduced through fine diffusers which serve to stir the contents of the tank and some air dissolves to provide air for the aerobic bacteria to survive. These bacteria form as a biofilm on the submerged media and float in the solution. Aerobic bacteria are faster acting than their anaerobic cousins and the effluent is converted into clean, clear water through aerobic digestion.

Liquid from the aeration chamber flows into the clarifier where the solution stands still to enable any suspended particles to settle to the bottom. Periodically the accumulated sludge is returned to the primary treatment chamber to ensure more complete digestion. A surface skimmer returns any floating material back to the aeration chamber.

Treated water then flows though a chamber where it is disinfected with chlorine, if necessary, and then passes into the final irrigation chamber. At this point treated waste water is automatically and silently discharged into the land application system or predefined outlets. Land application systems vary according to individual situations and can be in the form of surface sprinklers, subsurface irrigation, sand filters or other innovative systems.

Once the choice is made to use the Rivatec Environmental system, Rivatec Environmental / Agent can arrange for further site evaluations, soil and geo-tech reports to be conducted and will take care of all necessary paperwork to submit the application to the local authority.



# Products

Rivatec Environmental / Agents installs and manages a full range of on-site waste water treatment systems including;

- **Advance Aerated secondary treatment**
- **Pump out collection wells**
- **Sand filters**
- **Mound systems**
- **Innovative surface and subsurface disposal systems**

Rivatec's Environmental has Agents that regularly service nearly 5,000 systems in NSW.

**Applications include;**

- **Domestic dwellings**
- **Schools, commercial offices, resorts, vineyards and other specialised situations**
- **Village scale systems**

## Rivatec Environmental's Reliability and Cost Effective Systems

The RWT10-2 system treats waste water on-site to Advance secondary levels far in advanced of those achieved with older style septic tanks. The system features unique surge reduction and advanced aeration to ensure treatment that exceeds the requirements of Australian standards AS1546.3.2017 and AS1547.2000.

The advantages of the remarkably simple process of the RWT10-2 system are how well it works and how little maintenance is required.

The treated water is clear, odourless and can be reused on-site (subject to local authority approval) for applications such as watering the gardens and lawn.

Rivatec Environmental systems are modular, scalable systems, manufactured by Rivatec Environmental and delivered as a complete package for installation on-site. The RWT10-2 model is housed in a single concrete tank, with adequate capacity to treat waste water for up to 10 persons.





## Accredited Performance

Rivatec Environmental standard RWT10-2 system has been designed to achieve a 95% reduction in BOD<sup>5</sup> and suspended solids. Additional sterilisation (chlorination) reduces the faecal coliforms to virtually zero.

The RWT10-2 system is accredited by the NSW Department of Health (approval #AWTS009) and has been designed to conform to Australian standards (Global Certification Licence No: 564) as 1546.3.2017 and as 1547.2000.

## The Excellent Customer Service

Rivatec Environmental customer service never ends. From initial contact, trained consultants advise of the waste water treatment systems best suited to the area and the customers specific needs. Quotations and site inspections are available without obligation and consultants can also offer advice on excavation, electrical and plumbing requirements.

## Treated Water Quality

BOD <sup>5</sup>	10 mg/Litre or less
Suspended solids	10 mg/Litre or less
Faecal coliforms	10 cfu/100mL or less
Free residual chlorine	min 0.5 mg/Litre
Total Nitrogen	
Total phosphorus	

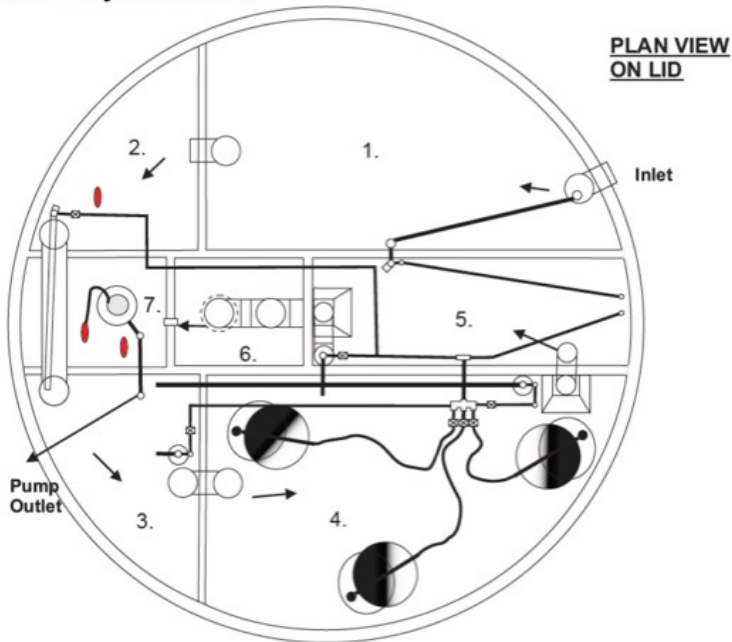


## LEGEND

- ① 1st Primary Treatment
- ② Buffer Chamber
- ③ 2nd Primary Treatment
- ④ Aeration
- ⑤ Clarifier
- ⑥ Chlorinator
- ⑦ Chlorine Retention
- ⑧ Pump well

## Rivatec Environmental – Model RWT10-2 TANK SPECIFICATION

### Assembly Instructions

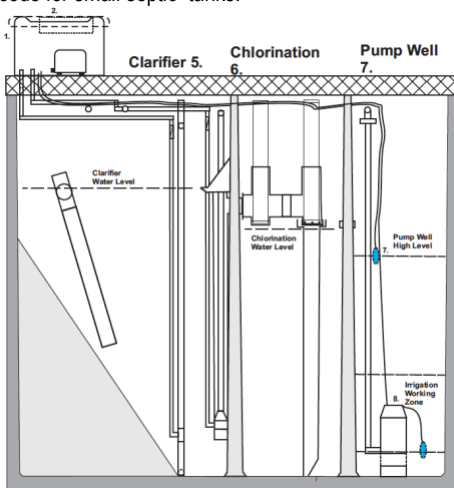


**EFFLUENT CHAMBER SIDE VIEW:**  
**CHAMBER 1 - 2 - 3 - 4 - 5 - 6 - 7**  
**WATER LEVEL HEIGHTS FORM THE**  
**BASE:**



## NOTE:

All tanks to comply with AS 1546 code for small septic tanks.



All PVC fittings to comply with AS 1477.

### Tank Volumes:

Primary treatment (anaerobic) chamber . . . . .	1800 L
Buffer chamber . . . . .	600 L
Primary treatment (anaerobic ) chamber . . . . .	700 L
.Aeration (aerobic ) chsmber. . . . .	2650 L
Chlorine retention . . . . .	165 L
Pump well . . . . .	165 L
Emergency reserve capacity . . . . .	1000 L



# Tank Delivery and Installation Instructions

- Tank deliveries are done using our crane truck in most deliveries the truck can backup to the excavation and drop the tank in. Make sure to site is fairly level.

- Make sure there is good access to the site
  - approximate 5m under power lines when unloading the tank.
  - minimum 3m gap between the gate.
  - site conditions should be dry and firm under foot.



- When organising to do the excavation you have to make allowances for the length and width of the truck.

- Allow 3m either side of the truck to put the outriggers out for the crane and to be able to swing the tank around to place it in the 3m hole.



- When excavating the hole make sure the dirt is piled up to the side or an opposite end to where the truck will be backing to.

- Allow 2m from the back of the truck to the excavation and another 2m to the centre of the hole.



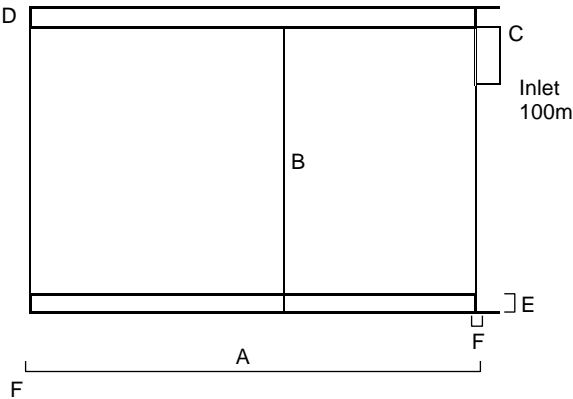


# Rivatec Environmental

Tank Manufacturer:  
 Central Coast Septics P/L Single Tank Collection Well / Lid AS/NZS 1546.1  
 Specifications  
 Base: 80mm Thick reinforced with one layer of F72 reinforced complying to AS 3600.  
 LID: 80mm thick reinforced with F82 bottom plus Y72 trimmer bars sitting ont op of f82 This lid has not been designed to carry fill or pedestrian traffic.  
 Concrete Cover: As per AS/NZS 1546.1 minimum concrete cover is to be 20mm,

## INSTALLATION

NOTE that the tank is to be found on a bed of uniformly compacted and levelled sand at least 100mm thick



CAPACITY	A	B	C	D	E	F
7,100LT	2500MM	2200MM	550	80	80	80

# Rivatec Environmental

## Model RWT10-2

### Tank Installation - Customer Liaison

(Prior to Tank Installation)

- **Liaison with Customer**

Constant communication with the customer is vital. Communication breakdowns can prove costly and with little effort can be avoided. Imagine the cost of returning to site to remove a tank, fill the hold and start again in another location. Liaison with the customer at strategic points in the process can avoid these problems and forge good relationship with customer.

- **Coordinate excavation date and time with customer**

Arrange a time and arrive on time. Good service is prompt and professional.

- **Request the preferred site be marked with stakes**

If the customer thinks they will be late ask them to mark the desired tank location (and an alternative where appropriate) so the excavator can commence work on time. This simple request can save time (and money) if the customer happens to arrive late. Your excavator will be able to commence work immediately.

- **Discuss tank site with the customer**

The customer will inform you of their desired location of the tank. Where necessary, have the customer provide detail for an alternative site. Never arbitrarily change the location without reference to the customer. They may have plans for a garage, pool etc and you may find yourself having to redo the entire job. This behaviour will also adversely affect your ongoing relationship with the customer.

Advise the customer of additional plumbing and electrical cost they will incur for a tank location that is a great distance from dwelling. The minimum allowable tank distance is 1.5 metres from the dwelling.



An alternative site may be necessary due to unforeseen obstacles (rock) that may be struck. If this is the case then a rock Breaker may need to be called in. However the Excavator is able to effectively tackle more than 90% of all jobs.

- **Confirm the customers requirements regarding the soil**

Only spread the soil if requested by the customer

- **Ensure a minimum-fall of 1:60 exists**

Take levels to ensure the minimum fall of 1 :60 exists. If the preferred site cannot be changed then plan to dig deeper and place a riser on the tank.

- **Extra Work**

Occasionally the customer will request extra work to be completed whilst the excavator is on site. This work must first be cleared by you.

- **Advise owner of their responsibilities**

Refer to owner responsibility instruction sheet.

# Rivatec Environmental

## Model RWT10-2

### Tank Hole Excavation - Owner Responsibility

- **Good Access**

Must be available for a large truck to unload very close to the hole. Surplus soil should not be piled where truck will manoeuvre Site should be quite level for unloading The ground near unloading site should be firm and dry to take the truckload Tank hole base must be level and the depth and clearance correct.

- **Hole**

The overall depth of the tank hole is determined by the invert of the inlet drains. Standard tank depth only is indicated on the plan. Extra risers I extensions may be required to raise the lids above finished ground level. This will incur additional charges

- **Water**

Must be available to fill the tank immediately after installation to avoid possible flotation- 4000 litres minimum. For heavy clay soils 6000 litres minimum.

Filling must be completed as per the standard procedure to avoid damage to the insert or baffles.

- **Note**

Any damage to drives, paths, underground or aerial services etc are not the responsibility of the drivers or suppliers.

Every effort and care will be taken by the driver to have the tanks installed into the hole.

Our offer to install the tank into the hole is not subject to any deductions, charges or costs incurred by the purchaser for any delays or failure to install by the supplier. i.e. breakdown, inclement weather etc.



# Rivatec

## Environmental

### Model RWT10-2

### Tank Installation and Excavation

- **Arrive at Site**

Arrive on time

- **Liaison with customer**

Discuss tank position. If customer is not present locate tank positional markers (stakes and sign) Ensure a minimum of 1:60 fall

If alternative site selected is a great distance from dwelling - advise that their drainage and electrical charges will be increased.

- **Ascertain location of telephone and electrical service**

Ask customer

Visual check or ask electrician

Telstra can provide this information if unsure

- **Advise customer to fill tank on completion**

Advise owner of tank filling procedure.

Tank to be filled immediately after installation

4000litres minimum (half fill tank) In heavy clay areas 6000 litres minimum

- **Dig the hole**

Refer excavation detail sheet

- **Measure hole depth and width**

- **Ensure the hole base is level**

Use a shovel

If water charged ground no need to level as the mud will settle evenly. If rock or shale fill with minimum 100mm sand and level

- **Lower tank into ground**

Use regulation lifting bars

Check to ensure the tank is level in the ground

If it is not - remove it from hole and level the base

- **Seal the lifting holes**

Use megapoxy or 100mm pvc glued cap

Mix the megapoxy on flat plastic or metal sheet

Place the sheet over outer side of hole as you fill with the megapoxy

- **Spread soil**

As per customer request only

- **Advise head office that tank is in ground and sealed**

Important for job records

- **Advise owner/builder that system is ready for power and drains to be connected.**



# **Rivatec**

## **Environmental**

### **Model RWT10-2**

#### **Water Filling Instructions**

1. Remove manhole lids
2. Fill each of the five sections with approximately 1 metre of water.
3. Top each section up to approximately 1 metre of water
4. Replace manhole lids

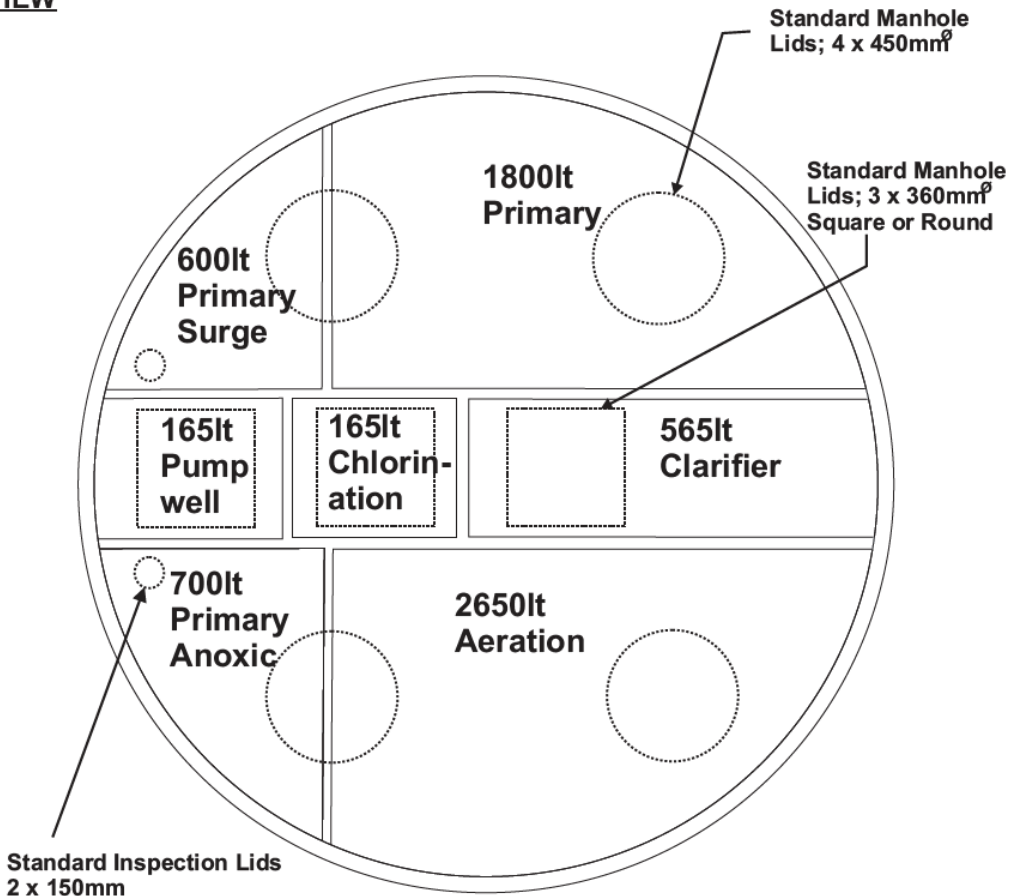
#### **Note**

Total water requirement approximately 6000 litres.

#### **IMPORTANT**

**TANKS SHOULD BE FILLED IMMEDIATELY AFTER INSTALLATION TO PREVENT FLOATATION PROBLEMS**

**VIEW**





# Control Panel & Alarm

Operation of the RWT10-2 is automatic and controlled within the tank using solid state microelectronics. The only user interface is the alarm indicator plate which is usually mounted inside the home in locations such as the laundry, garage, electrical meter box.

Normally the GREEN LED glows to indicate that power is connected to the tank and that it is operating normally. Sensors inside the ES10PC continually monitor the air pressure and the water level. Should either of these exceed the preset levels the RED LED (AIR) or YELLOW LED (WATER) will glow and a buzzer will sound. Whenever this happens you should contact Earthsafe emergency line for instructions. Pressing the MUTE switch will silence the buzzer although the RED LED or YELLOW LED will remain on. The alarm will reset as soon as the fault conditions have been rectified.

## RWT10-2 CONTROLLER INSTALLATION & OPERATION GUIDE

Refer to attached wiring and circuit diagram when installing the controller. All electrical work must be carried out as per AS/NZ 3000:2007 and any other regulatory or site requirements. The controller is to be earthed at the distribution board supplying this controller.

The controller is designed for a maximum current draw of 6A at 230V.

The controller has been pre-wired, follow the instructions below, however, at all times ensure the instructions are safe to follow.

1. Remove the lid of the controller. The printed circuit board is attached to the lid. Take care to ensure no moisture or damage occurs to the printed circuit board while the lid is open.
2. Connect the Dose High Level Float to the terminal labelled 'Dose High Level'
3. Connect the Irrigation High Level Float to the terminal labelled 'Irr High Level'
4. Connect Air Blower's air hose (6mm) to the bottom Pressure Switch hose tail NB; Irrigation High Level input are connected to Dual layer terminals. The floats are not polarity sensitive.
5. Connect the cable labelled 'Sludge Vlv' to their respective terminals on the Sludge Valve

NB: All Valves are connected to Dual layer terminals, with the base of each terminal being the OV common, and top being 12VDC supply.

Pumps/Blower:

6. Connect the cable labelled 'I.P.' to its respective pump 'Irrigation Pump'
7. Connect the cable labelled 'A.B.' to its respective blower 'Aeration Blower'

Battery:

8. Connect the cable labelled 'Batt +/-' to their respective terminals on the battery

SMS Unit:

## Control Panel & Alarm

13. Connect the blue cable labelled 'Ezy +/-' to their respective terminals (+=1; -=2) on the **Ezy Switch**

14. Connect the blue cable labelled 'BMS +/-' to their respective terminals (+=3; -=4) on the Ezy Switch

15. Connect the blue cable labelled 'PF +/-' to their respective terminals (+=5; -=6) on the Ezy Switch

16. Insert SIM card into SMS-2 Telemetry Unit.

Mains Power:

17. Connect the white cable labelled 'Mains' to its power source (240V)

Once the controller is tested for safety, power up the plant. There are some settings that will need to be changed. Instructions on how to enter these parameters are below (SMS Unit)

18. The LED will fast flash until it finds the network; it will then slow flash (every 3 seconds) which indicated it has found the network and ready to go.

19. Enter the Sim card cell number into your phone under the name (RWT10 - Test Unit)

20. Then send the following text to the unit's cell number: Set User

21. The unit will respond with: Your number has been added to the user list

NB: Refer to SMS-2 installation manual for adding an Administrator

NOTE:

1. Should the High Dosing Level Alarm activate (UP) the dosing times are overridden until the High Dosing Level Alarm deactivates (down)

2. The Dosing Cycles are continuously counted irrespective of the time of day. The cycle count starts when the controller is turned on. The Sludge Delay Time (00:05; HH:MM) starts when the allotted (6) dosing cycles finish.

3. If you receive a text from the unit 'You are not authorised to use this device' send a text to the unit's cell number 'Back Door 123456' this will do a factory reset. Then go to number 20 above.

Wire colours in this controller are:

- \_230V – red
- \_Neutral – black
- \_12VDC – white
- \_OVDC/control - purple

# Control Panel & Alarm

## RWT10-2 APP INSTRUCTIONS

1. The App is to be loaded onto an android mobile or tablet. Open the App and click *Discovering* to find the controller. It will be labelled RWT10-2\_v1. Select this device and connect to it. When you first connect to the unit, you will be asked to enter a PIN. This PIN is 1234.
2. Once you are connected to the controller, you will have a main menu. To ensure the correct date and time is loaded, click *UPDATE REAL TIME*. This will load the time from your device to the controller. Ensure you get the confirmation *Time downloaded to controller*. Do this when the controller is first powered up and/or it has lost power for a period of time.
3. Click *SEND / RECEIVE* to go into the settings part of the App. This will take you to the set-up page. In this page click *RECEIVE FROM CONTROLLER*. This populates the page with the controller's current settings. You can change these details e.g. Controller Name, Alarm Delay Time, Dosing On Time, cycles etc. Once changes are made, you click *SEND TO CONTROLLER*, and this will be downloaded to the controller. Ensure you get the confirmation message that the download was successful.
4. When connected to the controller, you can download the Alarm History. The alarm history will show the latest 20 alarm state changes. I.e. it will show when an alarm occurred and when it was cleared. It will also show when the controller was powered up. You can clear the alarms by pressing *CLEAR ALARMS*.



# Control Panel & Alarm


ES10PC Test

ES10PC Test is Connected

SEND / RECEIVE

UPDATE REAL TIME

Powered by

 N2P | Controls

ES10PC Test

RECEIVE FROM CONTROLLER

Controller Name

ES10PC Test

Alarm Delay Time (MM:SS)

13:43

Aeraetion On Time (HH:MM)

00:01

Aeraetion Off Time (HH:MM)

00:01

Dosing On Time (HH:MM)

00:01

Dosing Off Time (HH:MM)

00:01

Dosing Delay Start Time (HH:MM)

03:00

Dosing Starts Before Sludge Value

10

ES10PC Test

(HH:MM)

Decant Off Time (HH:MM)

00:01

Decant Delay Start Time (HH:MM)

01:40

Decant Daily Cycles Value

4

SEND TO CONTROLLER

Alarms

GET ALARMS

Power Up on:

01:32:14 PM, 27th, March, 2018

CLEAR ALARMS



# Pumps and Blowers

## MEDIUM CAPACITY AIR PUMPS

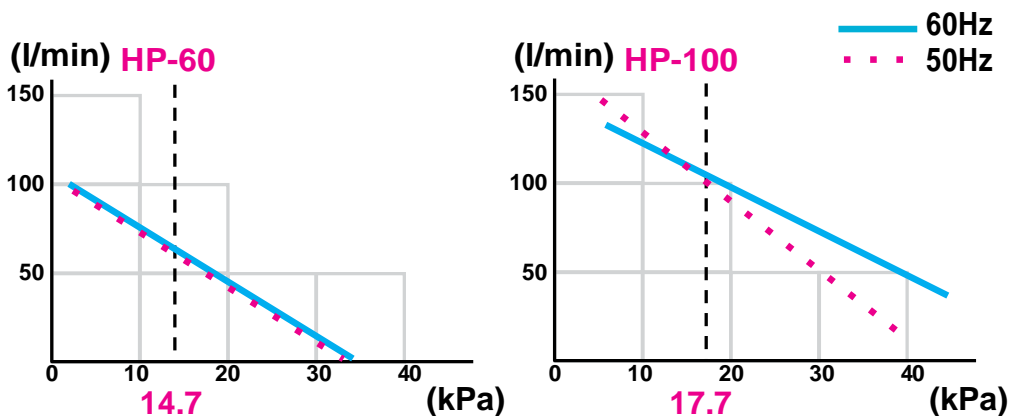
HP SERIES - Silent Type

### SPECIFICATIONS

HP - 60	TYPE		HP-60		HP-80		HP-100		HP-120	
HP - 80	Rated Voltage	V	240							
HP - 100	Power Supply	Hz	50	60	50	60	50	60	50	60
HP - 120	Frequency									
	Normal Pressure	kg/cm2 (MPa)	0.15 (0.015)				0.18 (0.018)			
	Exhaust Volume	l/min	60		80		100		120	
	Power Consumption	W	51		71		95	100	115	125
	Noise level	dBA(1m)	35		36		38		40	
	Weight	kg	7.0		7.0		8.5		8.5	



## Performance Curves





Submersible high head pump designed for AWTS and rainwater tanks. Fitted with noryl impellers and stainless steel strainer.

### Features

- Glass Filled Nylon pump body and Stainless Steel cover for strength and lightness.
- Easy grip, nylon carry handle.
- Tripple seal system: Dual mechanical seal (Carbon ceramic) in oil bath and Oil Seal
- 3 Stage High Head pump with durable Noryl Impellers.
- Elevated (88mm) suction intake with Algae-Proof slotted strainer.
- 10m Power lead and automatic Float Switch. All cables to H07RNF standard.
- 240V Single Phase, 0.55kW
- Built in auto-resetting thermal overloads

### Benefits

- Strainer design Improves water flow and prevents blockage from algae growth.
- Elevated Intake draws oxygenated water from higher in tank and avoids sludge layer.
- Leads to improved water quality with lower algae and anaerobic mater for better smelling water and cleaner clothes washing.
- Quality pump materials assist with longer pump life while still being light to lift and lower.
- High Head pump with low energy usage

### Applications

- Domestic pressure systems (with optional Press Control)
- Pumping Clean and pre-treated water.
- AWTS – Automated Water Treatment Systems pump out to dripper beds.
- De-watering of cellars, basements and garages.

Liquid:		Electrical Data:	
Liquid Type:	Clean Water	Rated Voltage:	240V
Solid Handling:	2mm Ø	Rated Output:	550W
Liquid Temperature Range:	2-35°C	Power:	0.55kW
Motor Data:		Mains Frequency:	50Hz
Pump body:	Glass filled nylon	Current:	5.4A
Impeller:	Glass filled nylon	Capacitor:	15 µF
Electromotor:	M91	Motor Output:	Continuous
Rotor/Shaft:	440 SS	Motor Type:	Asynchronous
Strainer:	304 SS	Motor Protection:	Built-in thermal overload
Installation:		Ingress Protection:	IP 65
Max Ambient Temperature:	46°C	Insulation Class:	B
Discharge Size/Pipe Connection:	1"	Power cable length:	10m
Net weight:	12kg	Cable Material:	H07 RN-F
Dimensions (mm):	220L x 187W x 430H (mm)	Hydraulic Data:	
		Max Flow (l/min):	1050 <sup>34</sup>
		Max Head (m):	32m <sup>32</sup>

### 2 Year Bianco Pumpz Warranty



Distributed by White International Pty Ltd  
AUST 49 900 111 9 980  
PO BOX 204 MELBOURNE VIC 3024  
HOTLINE 1300 792 601 FAXLINE 02 9762 6002  
Email: [enquiries@whiteint.com.au](mailto:enquiries@whiteint.com.au)

Distributed by White International NZ Ltd  
PO BOX 12704 PENROSE AUCKLAND 1442  
HOTLINE 0800 509 504  
FAXLINE 0800 804 344  
Email: [sales@whiteint.co.nz](mailto:sales@whiteint.co.nz)

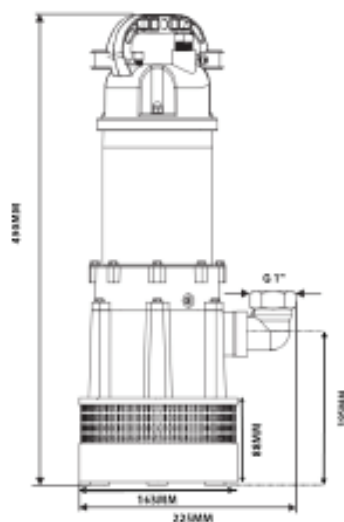
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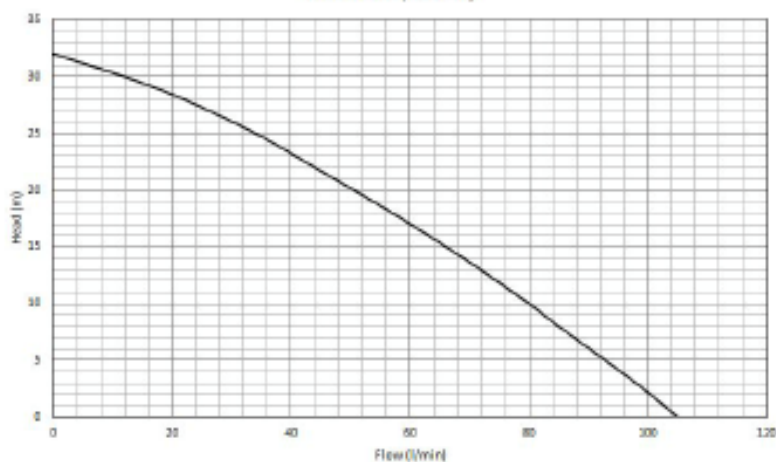
# BIANCO PUMPZ



## PRODUCT PROFILE BIANCO SUBMERSIBLE PUMP BIA-B42AC (805140)



BIA-B42AC (805140)



Distributed by White International Pty Ltd  
ABN 48 000 119 280  
PO BOX 204 PULPURA LPO NSW 5214  
HOTLINE 1300 763 601 - FAXLINE 02 9703 6902  
Email: [ourrosales@whiteint.com.au](mailto:ourrosales@whiteint.com.au)

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PO BOX 12704 PENROSE AUCKLAND 1442  
HOTLINE 0900 509 306  
FAXLINE 0900 904 344  
Email: [sales@whiteint.co.nz](mailto:sales@whiteint.co.nz)

BIA-B42AC\_10/04/18

# Frequently Asked Questions

## **My system smells – is that normal?**

No. However you may notice some smells in some circumstances. When a system is first installed it might take some time for the scum to form on the septic chamber. Check that the air blower is operating and that plentiful bubbles of air are rising in the aeration chamber. If smells persist you should check your use of household chemicals (eg. disinfectants, bleaches) as they can react with the system biology and kill off some of the bugs that treat the sewage. Excessive water flows can overload the system – try to spread washing loads over 2-3 days if possible.

## **Is the sprayed effluent safe?**

Your RWT10-2 when operating correctly will produce effluent at the prescribed quality. Although the effluent has been disinfected it should not be used for drinking. Surface or subsurface irrigation has been extensively tested and is considered to be the best known practice today. You should avoid direct contact with the spray and children and pets should be kept away from the effluent. Please note that it should not be irrigated onto crops for human consumption. Please don't hesitate to contact Rivatec Environmental if you are unsure or require further testing for your peace of mind.

## **What happens if the power fails?**

The RWT10-2 has sufficient capacity to treat and store 24 hours wastewater. Should a blackout occur you need not worry unduly provided power is restored within the 24 – 36 hours. If for any reason the power is switched off at the tank (or the earth leakage circuit breaker trips for any reason) you should investigate immediately or contact Rivatec Environmental for further advice.

## **What should I do when the alarm (RED or YELLOW LED) comes on?**

When the alarm trips MUTE the system (using the switch on the alarm panel) and contact Rivatec Environmental. Sometimes the problem can be easily fixed over the phone alternatively the Rivatec Environmental / Agent will check the system within 24 hours of your phone call.

## **What if the system floods or overflows?**

It is possible for the tank to flood or overflow. If your property is subject to extensive rainfall and flooding, your tank may be flooded by the excessive rainwater. The circuit breaker at your house should shut the power and protect the system. You should not reconnect the power until the water level falls again. Contact Rivatec Environmental / Agent for advice before reconnecting power to the system. It is also possible for the pump to fail, irrigation filter/lines to become blocked or the power to fail for some reason. In such events, the water level in the tank could rise and flood the system and eventually flow out of the lid. Usually the alarm and RED or YELLOW LED should have warned you of the situation. Contact Rivatec Environmental / Agent immediately for advice and appropriate action to take.

## **Are there any household chemicals that I shouldn't use?**

Generally speaking your RWT10-2 system is robust and can be treated as if you have 'flush and forget' central sewage. It is desirable that you try to use recommended biodegradable products wherever possible in place of harsh chemicals, bleaches and strong detergents. Do not dispose of sanitary napkins, disposable nappies or similar solids into the system. Avoid excess fats and grease from the kitchen whenever possible.



## Owners - Tenant Responsibilities

- ❖ The current owners should advise Rivatec Environmental / Agent in writing if the property changes ownership. Notification must advise Rivatec Environmental / Agent of the new owners name and contact address and telephone number if possible.
- ❖ The owner / tenant of the property should ensure safe passage for the Rivatec Environmental / Agent. Any animals that may pose a danger to the service technician should be locked up or penned during servicing.
- ❖ The owner / tenant should provide a key for the Rivatec Environmental / Agent if there are any locked gates which prevents entry to your property.
- ❖ The owner / tenant should ensure that the area around the RWT10-2 is kept neat and tidy at all times.
- ❖ The owner / tenant should ensure that the irrigation disposal area is kept neat and tidy at all times.
- ❖ The owner / tenant should monitor the irrigation sprinkler system to ensure all spray jets are working properly. (The owner / tenant will be required to replace or clear any blocked or broken sprinklers).
- ❖ The owner / tenant should ensure that any inline filters on the irrigation sprinklers system is checked and cleaned on a regular basis (every two weeks). The Rivatec Environmental / Agent will clean the filter every three months only.
- ❖ The owner / tenant should ensure prompt payment of any service or repair accounts.

Thank you for your cooperation, if you have any questions in regards to this matter please contact us on 1300 327 847 during business hours.



# Controlling Phosphorus in your Environment

## Why worry about Phosphorus (P)?

In Australia our plants have adapted to a low nutrient environment. Adding nutrients to the land can speed up the life cycle of our native plants, encourage weeds, and disturb the natural ecosystem.

Further, excessive levels of nutrients are a major cause of unsightly and sometimes poisonous blue-green algae infestation in our waterways. These algae blooms in our rivers and estuaries are believed to be increasing in frequency and severity and can cause a number of problems. Some blue-green algae are poisonous to humans and wildlife. Stock and domestic pets have died. Water supplies can be disrupted (toxins need to be removed before use) and recreational opportunities are compromised.

To reduce the frequency and intensity of blue green algae blooms and maintain our native surroundings we need to reduce the amount of phosphorus entering our landscape.

## What can I do to minimise Phosphorus discharges from my RWT10-2 treatment system?

The principal means of phosphorus entering the land application area is through the use of detergents and other cleaning products. Selecting cleaning products that are low in phosphorus will help in on-site sewage management and aid in the protection of our native landscapes.

Always follow the manufacturers dosage instructions and try to avoid using excessive amounts of bleach and disinfectants.



# Sales and Service

## HEAD OFFICE

Steven Fowles .. Manufacture/Sales ... CENTRAL COAST .....1300 327 847

## MAINTENANCE LOG

Date	Service Details	Agent



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