

AERATED WASTEWATER
TREATMENT SYSTEM



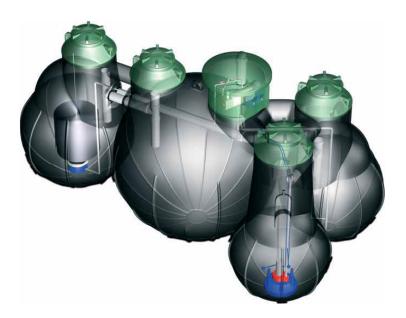




The RXP AirTech<sup>™</sup> 9000 system, is an efficient, lightweight sewage treatment plant that safely and effectively processes all household sewage and wastewater. It recycles the wastewater into clear, odourless nutrient enriched water to irrigate landscape and planted areas, through driplines.

For the environmentally minded, this means that the sewage and wastewater is treated on the property where it is produced and then recycled for reuse with little or no environmental impact on the land.

Designed recognising the latest industry standards and incorporating many innovative features, we believe the AirTech<sup>™</sup> 9000 is unequalled by any existing polyethylene tank system available today.





# **CHAMBER SYSTEM**

#### **PRIMARY SEPTIC CHAMBER**

Where all household sewage and wastewater is discharged and the settling out of up to 95% of solid waste occurs. There is also a reduction in the Biochemical Oxygen Demand (BOD 5) of up to 40%. It has a large liquid working capacity of 3300 litres ensuring maximum retention time allowing adequate anaerobic digestion of the accumulated solid waste. It is a sealed chamber making sure there is no crossflow contamination between the separate treatment processes within the system. The outlet is fitted with an industry proven 3mm biofilter minimising solid waste carry-over integrating a flow modulation baffle to manage peak flow levels limiting shock loading of the system.



The partially treated wastewater flows into the Aeration Chamber where aggressive digesting aerobic bacteria further reduce the suspended solid sludge. Efficient oxygen transfer through fine air diffusion maintains high aerobic activity and population. Increased surface area through additional submerged media enhances and accomodates a greater growth of bacteria.

#### **CLARIFICATION CHAMBER**

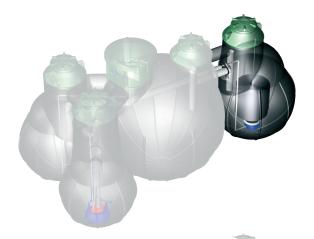
Clean and dead effluent is gravity fed into the Clarification Chamber where, in quiescent conditions, all dead bacteria will settle and be returned to the Primary Chamber through venturi airlift manifold. This is done once a day with a timer.

#### **IRRIGATION PUMP CHAMBER**

The gravity flow of clean, clear odourless effluent into the Irrigation Pump Chamber is nutrient enriched and is recycled through a designed irrigation system to enhance landscape on your property.

This chamber is protected with an alarm that will activate in the unlikely event of a pump failure, and as required by regulations, has a capacity to hold up to 1000 litres of effluent storage.









# TECHNICAL INFORMATION

# COMPLIANCE & CERTIFICATION

Tank construction - Strongest Grade Polyethlene

**Tank production - Rotational Moulding** 

#### Features:

Primary Septic Chamber 3300 litres
 Areation Chamber 1500 litres
 Clarification Setting Chamber 1200 litres
 Pump Chamber 1000 litres
 Nominal Operating Capacity 7000 litres
 Additional Storage Capacity 2465 litres

- 3mm Bio Filter fitted

- Intergrated Flow Modulation Baffle

#### **Dimensions:**

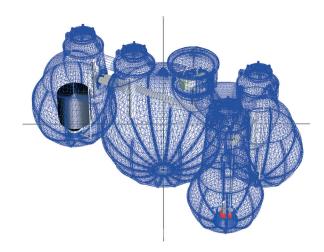
Height 2200mmWidth 2400mmLength 4500mmWeight 600kg

#### **Electrical:**

Irrigation Pump .75kWAir Blower .051kW

The RXP Septic Tank range meets the following:

- OSET Performace Certificate
- AS/NZS 1546 1:1998 (On-site domestic wastewater treatment units Septic tanks)
- AS/NZS 1547 2000 (On-site domestic wastewater management)
- ARC Environmental TP 58 Second Edition
- Design and testing verified by registered engineers and consultants
- Process analysis undertaken at Lincoln University: Andrew Dakers, M.E. NAtural Resources Engineering
- Member On-site Wastewwater Special Interest Group (OSW-SIG)
- Local Authority Approved
- Meets World Health Organisation (WHO) effluent quality standards
- ISO9001 Quality Management System:Telarc Registration No. 807
- NZ Pat Appn No.529820





# **EQUIPMENT &**COMPONENTS

## Controller Alarm Communication System

The AirTech<sup>TM</sup> 9000 Aerated Wastewater Treatment System is managed by a SmartWater controller. The controller is a wireless alarm system.

This unit monitors the Air Blower and High level liquid alarm. This enables action to be taken to ensure optimum operation of your system.

The units also provides six month reminders for servicing and can also monitor water tank usage with a tank level indicator (up to 9 tanks).

## Air Blower



- Low flow, high pressure performance
- Die-cast aluminium sound chamber
- Low power usage only a 51 Watt blower
- Ideally suited for effluent aeration
- Low noise, independently tested below 40db

### Proflex Disc Diffuser



- Uniform bubble distribution
- Flexible rubber membrane
- Auto checkvalve preventing backflow
- Heavy duty EPDM diaphragm
- Precision perforated slits
- Corrosion resistant polypropylene
- PVC retaining ring

## Biological Treatment Media



- Submerged aerobic application
- High specific surface area (m<sup>2</sup>/m<sup>3</sup>)
- Strong construction
- Low maintenance
- Fast bio-mass accumulation
- Lightweight
- Non-clog characteristics

### Bio Filter



- Stainless steel filter
- Large filtration surface area
- Improved efficiency
- 3mm filter screen
- Flow modulation outlet
- Manages peak flow leveks
- Long life
- Suited to NZ conditions

## Submersible Irrigation Pump



- Double mechanical seal
- Stainless steel shaft and motor shell
- Twin impeller design
- Corrosion resistant polycarbonate impellers
- Stainless steel fine mesh suction strainer
- Large surface area suction strainer
- 32m working head

## (IRRIGATION EFFLUENT DISPOSAL

### Irrigation Lateral



- Purple dripline to identify effluent application
- 17mm low density linear PE lateral tube
- Intergrated emitters set up at specific spacings
- Pressure compensating emitters, 1.5I/min,
   2.3I/min and 3.2 I/min application
- Automatic air relief valve
- Automatic MFV line flushing valve
- Proven effluent disposal system

### Filtmaster Disc Filter



- Disc filter 130 microns
- Unique design of the discs guarantees a real filtering in microns, constant in all the filtering process

# WARRANTY

The AirTech<sup>™</sup> 9000 Aerated Wastewater Treatment System is covered by the RX Plastics extended warranty and covers the product to be free of defects in workmanship, and materials for a period of 15 years for all polyethylene rotomoulded tanks.

The manufacturers warranty apply to all other componentry used in the AirTech™ 9000 system.

# CUSTOMER CARE

An AirTech™ 9000 Aerated Wastewater Treatment System will provide you with many years of rewarding and reliable performance supported and serviced by our network of installers and service technicians.

Our friendly expert technicians have extensive product and system knowledge and are able to provide you excellent support should you require.

It's all part of our commitment to your total satisfaction and peace of mind.



