

# DOMESTIC WASTEWATER TREATMENT SYSTEM

# FUJICLEAN ACE

Owner's Manual



#### Dear Customer,

Thank you for choosing a FujiClean Wastewater Treatment System. Please read this owner's manual carefully before using FujiClean ACE and keep for future reference.

The information contained in this manual is subject to change without notice. Please contact us via www.fujiclean.com.au for current updates.

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# 1 SAFETY PRECAUTIONS

Read the safety precautions carefully before operating the system.

The contents of this section are vital to ensure safety. Please pay special attention to the following signs.

- **WARNING:** This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.
- **CAUTION:** This symbol refers to a hazard or unsafe practice which can result in personal injury and/or the potential for product or property damage.

### **⚠ WARNING**

#### **Electrical safety**

 Do not open the electrical box. There are no user serviceable parts inside. The system shall be maintained by a service agent approved by the local council.

#### Fall prevention

- Make sure the access covers are securely closed to prevent children from entering the tank.
- Report to the service agent if any cracks or damage is found on the access covers.

### **△** CAUTION

#### Preventing overload on the tank

No vehicle shall approach within installed area of FujiClean system. Always maintain the system
installed area free of all vehicle traffic. Parking a vehicle nearby the system may cause significant
damage to the system.

#### Prevention of public health risk

• Do not use treated water for human consumption, livestock watering or irrigating edible crops.

#### Access Cover Lids

 Make sure there is no any vehicular traffic loads applied on the access cover lids during the installation and operations. Unless there is any particular reason please refrain from standing on the access cover

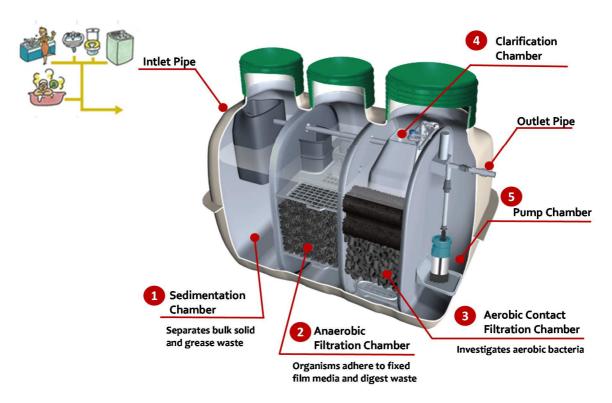
# 2 OVERVIEW

### What is an AWTS?

An Aerated Wastewater Treatment System (AWTS) is a small scale onsite sewage treatment plant. An AWTS uses the processes of aeration followed by clarification to achieve biological treatment of wastewater.

FujiClean ACE is an AWTS designed to comply with the Australian Standard 1546.1 and 1546.3(2017) and to meet each state and territory in Australia's regulatory requirements.

# FujiClean ACE Treatment System



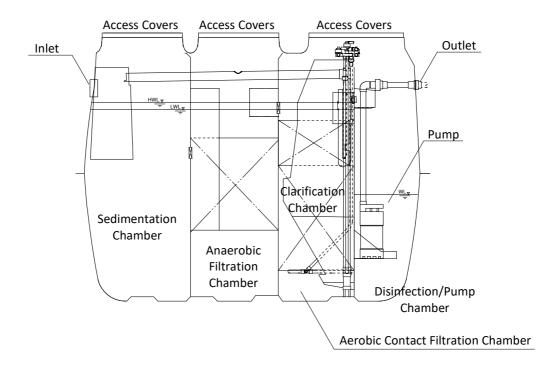
FujiClean ACE is designed to treat all household wastewater from the kitchen, bathroom, toilet and laundry area and is capable of producing Advanced Secondary Quality Effluent as specified below. The daily design flow rate of FujiClean ACE is 1,200 L/day.

- BOD equal to or less than 10mg/L
- Suspended Solids equal to or less than 10mg/L
- Thermotolerant coliform less than 10cfu/100mL

### What is BOD?

Biochemical Oxygen Demand (BOD) is a standard measure of water quality. It is a measure of the amount of oxygen (mg/L) consumed by natural, biological processes, like bacteria, which break down organic matter. A higher BOD indicates poor quality of water.

# 3 TREATMENT PROCESS



### **Sedimentation Chamber**

This chamber is designed to physically separate the solids from the incoming water.

### **Anaerobic Filtration Chamber**

This chamber contains a spherical-skeleton type of filter media. Through bacterial growth processes on the surface of the filter media, biological anaerobic treatment thrives while suspended solids are captured. Furthermore, the bacteria in this chamber convert nitrates in the recirculated water returning from the aerobic chamber to gaseous nitrogen. The nitrogen then escapes to the atmosphere.

### **Aerobic Contact Filtration Chamber**

The aeration chamber consists of upper section with net-block media and lower section with net-hollow-cylindrical media. Organic matters are decomposed by micro-organism/bacteria on the media surface while suspended solids are captured in media. Furthermore, suspended solids accumulated on the bottom are constantly transferring to the sedimentation chamber by a recirculation air-lift pump.

### **Clarification Chamber**

This chamber is designed to temporarily store treated water flowing from the aeration chamber. In this chamber, the suspended solids settle to the bottom and are returned to the sedimentation chamber.

# **Disinfection/Pump Chamber**

The treated water from the clarification chamber passes through the chlorinator for final disinfection. After disinfection, the treated effluent is stored. This treated water is ready for discharge.

### 4 MAINTAINING YOUR SYSTEM

### **Owner's Responsibilities**

The owner is responsible for:

- Ensuring the system is operating efficiently at all times:
- · Promptly fixing the system when problems are detected;
- Ensuring the system is inspected and serviced quarterly by a qualified service technician;
- Ensuring the system is desludged when it is required.

To ensure the overall health and performance of your FujiClean wastewater treatment system, Fuji Clean Australia recommends a desludge of the system every 3 years, or earlier if the maximum accumulated sludge and scum levels are reached as specified by the manufacturer. The desludge frequency will depend on sludge and scum accumulation levels, which varies depending on usage. Your FujiClean service agent will measure the sludge depth at every service interval and will advise you when desludging is required.

⚠ **CAUTION:** Any problems caused due to the neglect of the quarterly service being carried out or disregarding when is time to desludge advice from your FujiClean service agent will immediately void warranty.

### **Tips for Trouble-Free Operation**

Below is a guide on good maintenance procedures, which you should follow:

- Keep your household's water usage well below the system's daily design flow rate.
- Do not switch off the power to the system even if you are going on holidays. If extended periods of non-use are anticipated, contact your service agent.
- Do not use more than the recommended amounts of detergents.
- Do not put fats and oils down the drain and keep food waste out of your system.
- Do not put bleaches, disinfectants, whiteners, nappy, soakers, spot removers in large quantities into your system via the sink, washing machine or toilet.
- Do not allow foreign objects such as sanitary napkins, nappies, baby wipes, and other hygiene products to enter the system.
- Do not dispose of chemicals down the drain. The list below shows examples of chemicals which are considered harmful to the system.
  - Medicines
  - Paint, Paint Thinners and Paint Strippers
  - Solvents
  - Pesticides and Herbicides
  - Motor Oil, Petrol, Antifreeze, Break Fluid and Other Automotive Fluids

# **Regular Maintenance**

The effective operation of the system is dependent on regular maintenance. It is to be serviced **EVERY 3 MONTHS** by a FujiClean authorised service agent.

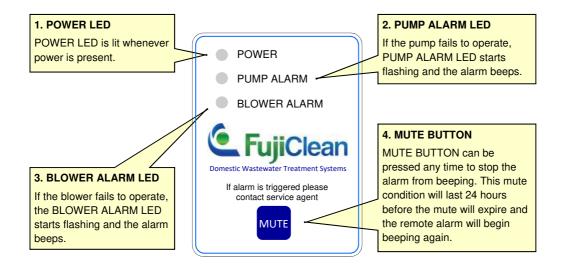
Regular maintenance involves periodic removal of excessive sludge and scum build-up from the system. The frequency of removal depends on the system's loading.

Consumable parts for the blower such as air filter and diaphragms need to be replaced regularly. The recommended replacement interval for these parts is between 12 months to 24 months.

# Irrigation Area/Disposal

There are certain requirements and laws for the irrigation system for the disposal/reuse of the treated wastewater. The irrigation system must be designed and installed by qualified professionals by law, and in accordance with the requirements of your local, state and/or Australian standards.

# 5 OPERATION OF REMOTE ALARM PANEL



Normally when the system is operating correctly, only the green POWER LED is lit to indicate that power is available.

### **Pump Alarm**

If the pump fails to operate, the PUMP ALARM LED starts flashing in red and the alarm beeps. In such cases, please contact the service agent and minimise your water usage until the problem has been rectified.

### **Blower Alarm**

If the blower fails to operate, the BLOWER ALARM LED starts flashing in red and the alarm beeps. In such cases, please contact the service agent and minimise your water usage until the problem has been rectified.

# **Muting and Resetting**

The mute button can be pressed at any time to stop the remote alarm from beeping. This mute condition will last 24 hours before the mute will expire and the remote alarm will begin beeping again. Note the mute timeout period will reset whenever the mute button is pressed so the user can press mute before going to bed to reduce disturbance during the night.

Once an alarm condition exists, the associated alarm LED will flash. Pressing the MUTE BUTTON will only silence the alarm. If the "Fault" condition still exists then the fault will continue to be indicated. However, should the fault clear then the alarm condition will automatically reset and both audible and visual alarms will be cleared.

If at any stage a new alarm condition occurs the mute will be overridden also expire and the alarm will begin beeping again.

⚠ CAUTION – WHEN THERE WAS POWER OUTAGE
With the FujiClean remote alarm panel with battery backup you will be notified by alarm beep when your FujiClean system lost power. However when there was a power outage it is highly recommended to check if the air blower and the submersible pump are still operating so your FujiClean system works properly.

### 6 WARRANTY & REPAIR POLICY

### **Warranty Period**

Structural tank:
 15 years from the date of commissioning

Riser, Blower Box, Access Cover Lids:
 2 years from the date of commissioning

Electrical components: 2 years from the date of commissioning

### **Scope of Warranty**

Fuji Clean Australia would repair defects of a FujiClean wastewater treatment system for free of charge when it was confirmed that the system was installed by a licensed plumbing contractor and serviced quarterly by an approved FujiClean service agent AND the defects in structure and function was caused by responsibility of manufacture within the above warranty period.

However the repair would NOT be covered by Fuji Clean Australia when:

- consumable parts (i.e. disinfectant, diaphragm assembly, air filter) failed;
- there is no service agreement in place between customer and service agent;
- the system was not properly installed as per this installation instruction;
- the electrical components were not properly wired or mounted as per the Wiring Instruction;
- the system was broken down or damaged as a result of retrofitting, improper repair, or any other changes outside the instruction manual.
- the damage occurred a result of moving the electrical parts (i.e. air blower);
- the damage occurred by heavy loads and vibration of any vehicle;
- the damage resulted from natural disasters such as flood, fire, earthquake or lightening, problems with electrical power such as power surges or incorrect voltages;
- the damage resulted from any other accident, inappropriate handling, machine or building foundation, foreign objects, chemicals.
- any trouble caused by excessive amount of inflow and foreign substances as described in the section 4. Maintenance on page 4;

### **Contacts**

Fuji Clean Australia Pty Ltd. PO BOX 1230 Oxenford QLD 4210

Ph: 1300 733 619

Website: <a href="mailto:www.fujiclean.com.au">www.fujiclean.com.au</a> Email: info@fujiclean.com.au

# WARRANTY

The rights expressed in this warranty are in addition to other consumer rights and remedies under a law in relation to the goods or services to which the warranty relates.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

The Fuji Clean product is warranted by Fuji Clean Australia Pty. Ltd. against defects in material and workmanship, under normal use and service, for the following warranty periods from the date of commissioning.

Structural Tank: 15 years Electrical Components: 2 years

Access Cover Lids, Risers, Blower Box: 2 years Other components 2 years

Within the warranty period, any component forming part of the Fuji Clean Product which is determined by Fuji Clean Australia to be defective will be repaired or replaced by an authorised Fuji Clean service agent.

This warranty only applies if the product has been installed in accordance with the manufacturer's installation guidelines and serviced by a Fuji Clean Australia's authorised agent. The warranty does not cover damage resulting from use of accident, incorrect installation, misuse, neglect of periodical service and desludge, blockages, abuse, heavy loads such as any vehicle, machine or building foundation, foreign objects, root intrusion, chemicals, natural disasters such as flood, fire, earthquake or lightening, problems with electrical power such as power surges or incorrect voltages, repairs by unauthorised persons or exposure to abrasive or corrosive substances. This warranty does not apply to and shall not warrant any material or product that has been repaired or modified without prior approval from the manufacturer. This warranty does not cover consumable items unless the fault, defect existed at the time of purchase. Labour and travel related time and expense to replace any faulty parts including call out fee is not covered by the warranty.

Please fill out the following details completely and store in a safe place. To claim under this warranty, owner should contact Fuji Clean authorised service agent or Fuji Clean Australia Pty. Ltd.

Owner Details			
Name:			
Address:			
Phone:	Email:		
Product Model Number: FujiClean ACE			
Serial Number:	Date of Commissioning: / /		
Installer Details			
Company:			
Address:			
Phone:	Email:		