



Taylex

WASTEWATER



OWNER'S MANUAL

Taylex Advanced Blower System 5000
ABS 5000

Taylex Systems produce the highest quality effluent for the safest and best environmental outcome.

We are committed to protecting Human Health and our Environment.



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Trust Taylex

Welcome to Taylex, an Australian family-owned company founded in 1969. We have 70 plus employees and over 80 trained distributors who market, install and service our range nationally in Australia and New Zealand. Post installation, we have a network of over 300 trained Service Technicians to provide the ongoing care and maintenance for your system.

We manufacture a range of products for Wastewater, Rainwater and Stormwater, we also offer Servicing for our wastewater systems. Taylex was the first company to manufacture Home Sewage Treatment Systems in Australia and we continue to be leaders our field.

Innovation

Taylex is at the cutting edge of environmentally sound wastewater treatment that is healthy for your family and the environment. We are constantly testing and improving our systems to not only provide unparalleled quality and unmatched results, but to ensure the most stringent safety standards are met. We are constantly striving to improve and perfect.

Functionality

Our systems work! Taylex use Monolithic, single piece moulds meaning no deteriorating seals or weak post-joined walls, which could expose your family to catastrophic failure of your system. There's no skimping on parts from the biggest pump down to the smallest seal. Our systems are designed and engineered to last as long as your home.

Expertise

Over 50 years of experience, building our reputation as the most trusted brand. Taylex leads the industry, whether it be leading industry bodies or working with governing bodies to help guide new legislation for more stringent wastewater regulations, Taylex is the trusted voice.

Integrity

We honour warranties. We stand behind our products, for their lifetime, no questions, no fine print. We are an Australian owned and made, family business. We are passionate about producing quality products that work. We take care of our staff. We value the environment and human health.

Flexibility

Regardless of the conditions of your block and your operational requirements, Taylex has a system that will work for you. In difficult terrain or soil, for the size of your house and the slope of your block, Taylex systems are adaptable, we are eager to work with you and become part of the solution.

What is a Wastewater Treatment System?

Taylex Wastewater Treatment Systems are safe, environmentally sound, reliable and cost efficient. Our advanced systems use natural processes to turn your household wastewater into clear, odourless water.

Secondary treatment systems are the most commonly used systems in Australia. They treat your household wastewater to a very high quality, allowing you to reuse your water in areas closer to your home and neighbouring properties, often above ground, with complete peace of mind.

Secondary Treatment Systems are designed to treat all the waste water that is generated by your home. The waste water includes the sewage (black water) that is discharged from the toilets and bidets, and the sullage (grey water) that is discharged from sinks, washing machines, dish washers, showers and baths. Your Taylex ABS 5000 treats wastewater in an environmentally sustainable way by making use of the naturally occurring bacteria that is present in the waste water.

The system is designed to hold the polluted or degraded water in a series of compartments where various types of bacteria can flourish and in doing so, “treat” the water, naturally, without dangerous chemicals or additives.

Secondary Wastewater Treatment Systems are sometimes known by different names in different areas.

Here are some of the names you might have heard;

- Home Sewage Treatment Plant (HSTP)
- Secondary Treatment System (STS)
- On-site Sewage Facilities (OSSF)
- Aerated Wastewater Treatment Systems (AWTS)
- Aerobic Treatment Units (ATU)
- Aerobic Septic Systems
- Wastewater Treatment Systems

How does my Taylex Wastewater Treatment System work?

All household wastewater from your bathrooms, toilets, kitchen, and laundry naturally flows into your Taylex Wastewater Treatment System using gravity.

Step 1.

The first stop for your wastewater is in the 'Primary Chambers'(1),(2). Here solids will naturally sink to the bottom and fats and oils will float to the top, leaving a clear "Supernatant" zone in the middle, it's this zone that will transfer to the next chamber.

Step 2.

Next up is the 'Balance Chamber'(3). This chamber serves as the "Gatekeeper" of your tank and protects against surge loading. Surge loading is when a large volume of water enters your system at the same time, e.g. Emptying the bathtub and doing the washing at the same time. These surge events can flood the later chambers in your system, greatly reducing the quality of the end product. The balance chamber stops this by only letting a little bit through at a time, ensuring all the other chambers can work hard uninterrupted.

Step 3.

On to the 'Sedimentation Chambers'(4),(5). These chambers are filled with 'Bio Filter' this essentially functions as a maze and creates a more difficult path for our wastewater to follow trapping even more solids in the process. The longer this process continues the better the result as a natural film build up around the Bio Filter making it even harder for solids to continue forward. This Bio Filter also provides a perfect home for naturally occurring Anaerobic bacteria which multiply through the chamber, assisting in the treatment process.

Step 4.

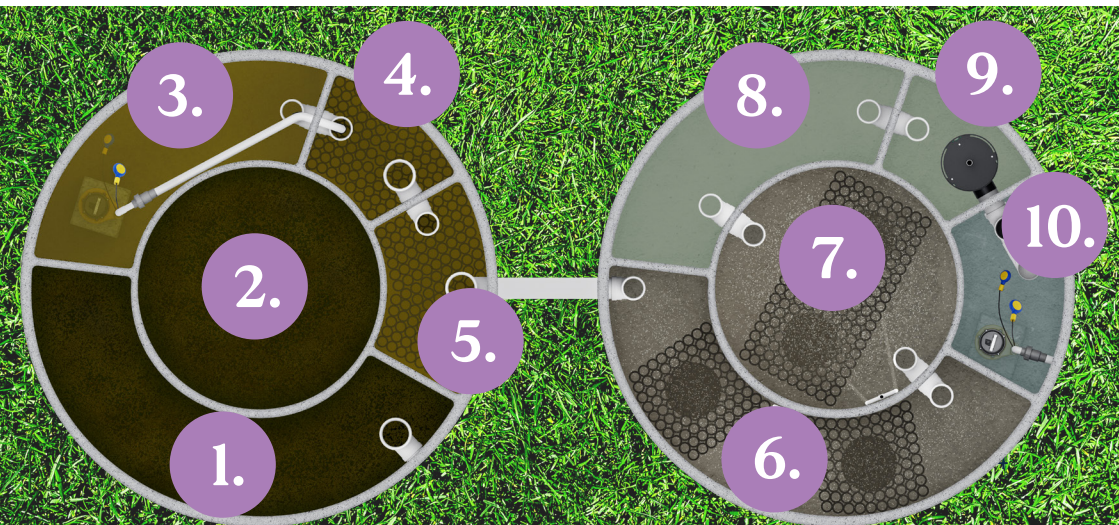
Up next are the 'Aeration Chambers'(6),(7). This is where the magic happens, your quiet, reliable, energy efficient Nitto Blowers send oxygen into the chamber through diffusers, in the form of tiny bubbles. These bubbles pass through a specially designed filter system called 'Bio Mass'. Bio Mass is purpose designed to trap the air bubbles to feed naturally occurring 'Aerobic bacteria'. These microscopic Eco- Warriors are now hard at work, chomping through most of the remaining organic matter, polishing the water and eliminating odour.

Step 5.

Step five is the 'Clarification Chamber'(8),(9). More settling occurs here. Once settled to the bottom this magical mix of Aerobic bacteria and fine particle solids are sent back to the Primary chambers to keep it healthy and working hard (read: not smelly). Whats left is sent through a TFG filter and onto the final stage of treatment.

Step 6.

The water gets a 'kiss' goodbye from our Chlorinator which removes any harmful bacteria, viruses and pathogens, producing clean, clear and safe water. When the irrigation chamber (10) fills up, your dependable irrigation pump automatically switches on to send crystal-clear, environmentally safe water out to your designated irrigation area.



What keeps my system healthy?



“Food”



Air



A good environment

FOOD

Your household waste water is rich with organic matter that nourishes the good bacteria in your Taylex ABS5000. ‘Food’ comes from toilets, hand basins, sink, showers, washing machine, in fact anything that we put down the sink or flush down the toilet.

AIR

The Taylex tank is fitted with an air blower that takes fresh air and introduces it to the water through an aerator diffuser. The oxygen in the air dissolves into the water as it bubbles up to the top. This gives the water a higher than normal dissolved oxygen content allowing the good bacteria to breathe, live and multiply.

A GOOD ENVIRONMENT

This is where you have a major influence.

- Too little AIR will kill the bacteria.
- Heavy Pollutants will degrade A GOOD ENVIRONMENT and kill the bacteria.

What upsets the balance in my system?

The greatest cause of problems for Wastewater Treatment Systems are harmful cleaning products and the washing machine. Remember, when using household cleaning products:



Adhere to the manufacturer's recommended measured dosage. Do not free pour.



Use cleaning products that are bio-degradable, low phosphorus and labelled 'Safe for onsite treatment systems'

ANTIBIOTICS

Never pour antibiotics down the sink or flush down the toilet. This can cause problems throughout the system.

CLEANING PRODUCTS

Unfortunately, what we call cleaning products, the good bacteria in your treatment system may class as poisons, if high levels are used. Like humans, some poisons kill us while others will just make us sick and the same can happen to the good bacteria in your system.

Please always use environmentally friendly products.

Your treatment system relies on bacteria for it to work effectively therefore any product labelled as anti-bacterial can be harmful to your system if used frequently and in large doses. Any bleaches or harsh chemicals should only be used once a week and in small doses. The use of harsh chemicals in high levels can affect the function of your system and are not good for the environment.

WASHING MACHINES

Try to evenly spread your washing over the course of the week. Avoid, where possible, washing everything in one day. It puts a lot of water into your treatment system and it may struggle to cope. Liquid soaps breakdown more easily than powder. Try not to be heavy handed with the amount of soaps you use.

When working properly, your treatment system will work efficiently with no odours or problems.

YOUR SYSTEM NEEDS A HAPPY BALANCE

Suitable Products

ALL PRODUCTS SHOULD BE USED IN MODERATION

The products listed are suggestions that are suitable for use based on the dosage amount recommended by the product manufacturer.

DISWASHING LIQUIDS

Morning Fresh	Palmolive	Sunlight
Finish Original for Dishwashers (limit quantity)		Rinse Aid

SURFACE CLEANERS

Jiff Cream Cleaner	Swipe
Spray & Wipe (limit quantity)	Windex

TOILET CLEANERS

Jiff Cream Cleaner or any cream cleaner – Toilet fresheners are not recommended.

FLOOR CLEANERS

Use hot water and detergent.

LAUNDRY POWDERS AND LIQUIDS AND BATH SALTS

Please look at the Independent Laundry Product Research which is available on the internet at www.lanfaxlabs.com.au. Washing soda can occasionally be added (less than half a cup) to help reduce foaming if necessary.

When using Epsom salts in your bath, use small amounts, less than 2 cups of Epsom salt per bath, no more than once per week.

PET / ANIMAL WASHING IN BASINS

Pets are treated with products to maintain their health (especially fleas). If washed in laundry, bath or shower, this treatment used could flow through to the system and cause operational problems.

PLEASE NOTE

This list is not intended to promote or discredit the product of any company. It is provided to assist in ensuring the satisfactory on-going operation of your system.

If your technician notices there is a problem, they may recommend that you to limit the use of any product (even if it is listed here as suitable).

Products to Avoid

ALL WIPES

Do not dispose of wipes in the toilet. Wipes do not breakdown and can cause costly problems with Irrigation Pumps, Filters and Sprinklers. 'Flushable Wipes' are not flushable, please avoid them altogether.

ANTIBACTERIAL SOLUTIONS

Any product labelled as anti-bacterial kills all types of bacteria, not just the 'bad' bacteria. Using any antibacterial products will harm the good bacteria that your Taylex system relies upon. This includes natural anti-bacterials like Eucalyptus and Tea-tree oils.

BLEACHES

CAUSTIC OVEN OR DRAIN CLEANERS

A NOTE ON 'GREYWATER AND SEPTIC SAFE' / 'BIODEGRADABLE'

It might seem logical to assume that products labelled as 'greywater safe', 'septic safe' or 'biodegradable' are safe for use in your treamemnt system. Many plant based cleaners are powerful antibacterials. Some products marketed as 'Green' or 'biodegradable' are actually more damaging to our environment than more traditional cleaning products.

When selecting cleaning products, always look for products that are phosphate free or low phosphate.

TOO MUCH OF ANYTHING IS A BAD THING

When using cleaning products in your home, always remember that too much of anything can harm the good bacteria in your system. Moderation is key.

Servicing your Wastewater Treatment System

All Taylex Wastewater Treatment Systems are required to be serviced on a regular basis. Your local council enforces these requirements. Systems may only be serviced by appropriately trained and licensed Wastewater Service personnel.

There are better reasons to service your Taylex Wastewater Treatment System than just complying with requirements. Your service person is trained to monitor your system. They can detect problems often before they become a hazard. More importantly, a properly operated and maintained system is your contribution to the environment, right in your own back yard. Correctly operating systems do not smell, they guarantee a healthy environment, they save water and protect the health of your family, friends and neighbours.

HOW CAN YOU ASSIST IN SERVICING YOUR TAYLEX WASTEWATER TREATMENT SYSTEM?

- 1.** Do not cover the top of the tank with decking, earth, gravel, tanbark, concrete, pavers, pot plants, barbecue, swing set, seats etc.
- 2.** Provide clear access to the system and the inspection openings.
- 3.** If you have a locked yard, provide your service person with a key.
- 4.** Make sure surface water does not pool and can never enter the tank, even during torrential rain events.

Warranty

Every Taylex ABS5000 Wastewater Treatment System is covered by a full manufacturer's warranty. There is a 15 year warranty* on the pre-cast concrete tank. There is also a 3 year* warranty on all electrical and mechanical components, including the irrigation pump (a 12 month standard warranty and a further 24 months extended warranty is available when you purchase your 2nd and 3rd year of service calls with a Taylex Approved Service Agent). Warranties apply from the date of commissioning or 90 days from the date of purchase (whichever is sooner).

This guarantee does not cover damage caused by misuse, neglect, failure to keep the unit clean and functional, accident, use of incorrect power supply, or repair or attempts to repair by unauthorised personnel. The benefits conferred by this warranty are in addition to all other rights and remedies in respect of the product which the consumer has under the Trade Practices Act and other legislations.

TO ENSURE YOUR WARRANTY IS VALID, THE FOLLOWING SHOULD BE OBSERVED:

DO NOT use system or allow wastewater to enter tanks before power services are available to the System and a Taylex Authorised Distributor has been notified of pending occupancy of the property and has subsequently commissioned (activated) the system.

DO NOT cover lids with soil

DO NOT position decking, concrete paths or driveways over System

DO NOT allow surface water to enter the System by incorrect falls and landscaping around the system.

NEVER turn the power off unless instructed to do so by your Service Agent

* Terms and Conditions apply

Tank 1 - Operating Instructions for the Eco Transfer Pump Controller

Introduction to the Eco Transfer Pump Controller

The Taylex ABS Eco Transfer Pump Controller is designed to control the flow between the Secondary Chamber to the first Sedimentation Chamber based on the flow entering the system.

When the power is on, the Transfer Pump Controller shows a green light in the power indicator. This indicates normal operation.



Visual Alarm / Display

The LED display will indicate a fault by flashing. Different sequences indicate different faults. See 'Alarm Codes' for a list of the sequences and their meanings.

Tank 2 – Operations inside Blower Box 1

Introduction

The Taylex ABS Eco Control Panel has a number of features that are explained in this section.

The Eco Control Panel monitors and controls the Treatment System's air blower, pump and registers an alarm when it detects a fault in the system.

The Taylex ECO Controller Assembly (complete with Controller, Control Panel Box, 3 x GPO Assembly and Blower Box) is classed as electrical equipment and has been certified to comply with AS/NZS3820 and AS/NZS 3100:2017, meeting the Electrical Safety requirements in Australia and New Zealand.

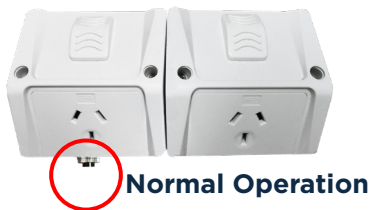
Your Taylex ABS 5000 is designed to operate automatically and its operation will usually be event free. The Eco Control Panel provides visual and audible indicators of both normal operating conditions and fault conditions. The illustration on the previous page provides description markers that correspond with the following description of their operation.

The Power Supply

The power outlets for the Transfer Pump Controller for your system are located inside the Blower Box.

Each switch must be in the ON position at all times. If any or all switches are OFF, the treatment process and alarms may not function.

The single GPO on the right is for the 240V - 12V power supply for your controller and the single GPO on the left is for your Pump. The single GPO on the left contains a 7amp breaker underneath the GPO, which will activate in the case of a fault with the pump. If the breaker is activated it will trigger the associated alarm on the Controller. You can reset the Breaker by pushing in the reset button. If the breaker is activated again, contact your service agent to rectify the issue.



Visual Alarm / Display (A)

The LED display will indicate a fault by flashing. Different sequences indicate different faults. See 'Alarm Codes' for a list of the sequences and their meanings.

Mute Alarm (B)

A 'soft touch' key that when pressed, silences the audible alarm for a period of 24 hours.

Normal Operation at Start-up

When the power is switched on to your Taylex ABS Eco Control Panel, the display (A) will flash twice. The audible alarm will sound in unison with the 2 flashes, this is a TEST MODE. At the completion of the Test Mode, the display will show a single LED light in the 'Power' indicator to indicate that the system has tested correctly.

Alarm Recognition and Rectification.

Visual Alarm and Display (A)

All faults are indicted by the number of flashes on the display (A). If two faults occur simultaneously, then two sets of flashes will be displayed in sequence, after a short interval, the display and alarm will repeat the sequence (Please refer to 'Alarm Codes').

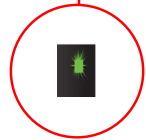
Audible Alarm and how to Silence it

The audible alarm mimics the number of flashes of the LED visual display. To silence the audible alarm, press the Soft Touch Mute Alarm key (B) briefly once. This will silence the alarm for 24 hours, the Display (A) will now flash a number of times matching the fault codes and indicating that the alarm has been muted. Should another fault occur while the alarm is muted, a new alarm will sound. If the faults are not rectified, the alarm will sound again at the expiration of 24 hours as a reminder that the system is not operating correctly. The visual alarm cannot be turned off until all faults are rectified.

Flashing
-Fault detected



Solid green
-Power is on



Optional Extra

A 12volt In House Alarm Panel is available as an optional extra to the system. If required, the panel can be fitted during the installation of the system. The In House Alarm Panel is connected to the same circuit as the Alarm, situated on the system, and works in tandem with the same functions listed above. To mute the In House Alarm, press the red button, this will silence the alarm. The alarm at the system will still function, and needs to be muted separately. The LED light on the In House Alarm panel will continue to flash until the fault is rectified.



Back To Base Alarm Modem

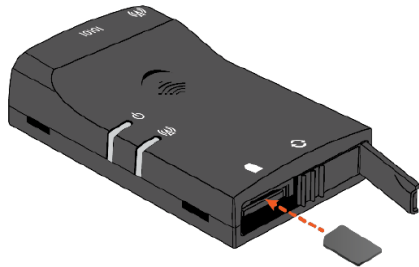
The ABS5000 system includes a Back To Base Alarm Modem. This modem alerts the customer / service agent of any alarms present on the system by SMS message, direct to up to 3 pre-programmed contact numbers.

If power is ever lost to the system, the modem includes a back-up battery, which will continue to operate the modem and trigger a 'No Power' alarm.

Set-Up Instructions

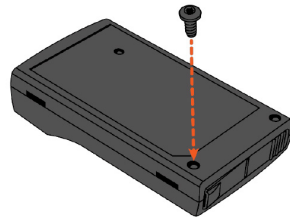
The data sim card is supplied to enable the modem to send the SMS alarm alerts to the pre-programmed numbers, once programmed.

The SIM card is located in the slot with the gold SIM conductor pins facing down. Push the SIM card in until it locks into place. To remove the SIM card, simply push it in again and it will unlock.



To close, slide the cover back to the left, and then push the right side flap closed.

To lock the protective cover, on the back of the modem, fasten the provided Torx screw into the hole on the bottom of the device using a T6 Torx driver.



Phone Number Programming

To store your numbers into the modem, simply send this SMS message to the number associated with the SIM card inside the modem: TN*phonenumber1*phonenumber2*-phonenumber3*

To check / search for stored numbers on the modem, simply send this SMS message to the number associated with the SIM card inside the modem: PB*

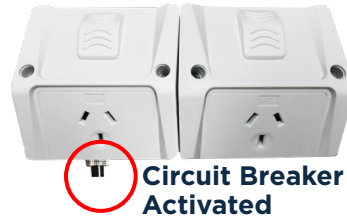
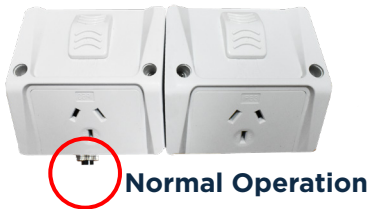
Tank 2 – Operations inside Blower Box 2

The Power Supply

The power outlets for the second blower are located inside this Blower Box (Blower Box 2).

The switch must be in the ON position at all times. If the switches are OFF, the treatment process and alarms may not function.

The left GPO is for the power supply for your Blower. This GPO contains a 7amp breaker underneath the GPO, which will activate in the case of a fault with the blower. You can reset the Breaker by pushing in the reset button. If the breaker is activated. The second point is a spare for servicing.





RCM Compliance Certificate

Certificate No.: 20/RCM/13

Date of Issue: 31 July 2020

Certificate Holder: Taylex Industries Pty Ltd

Address: 56 Prairie Road, Ormeau, QLD 4208

Equipment: Controller for waste water treatment tank

Brands: "Taylex"

Model No's: ABS Controller; and ABS ECO Controller

QEC Global certifies that the above article meets the requirements for use of the RCM as follows:

Electrical Safety Standards: AS/NZS3820:2020 & AS/NZS 3100:2017 +A1 & A2

Evidenced by: CPC Test Report No. 90644-19-70-20-PP001 (for ABS Controller) to AS/NZS 3100:2017 +A1 & A2 (demonstrating compliance with essential safety requirements of AS/NZS3820)

'ABS ECO Controller' same as 'ABS Controller' except ELV supplied electronic circuitry via safety isolating PSU covered under approval certificate SAA132096EA

EMC Standard: AS/NZS61000.6.3:2012

Evidenced by: EMC Services Pty Ltd Test Report No. 80606 (for ABS Controller)

EMC Services Pty Ltd Test Report No. 191204 (for ABS ECO Controller)

EESS National Equipment Database Supplier Registration Number: E4296

RCM required to be marked on all stock sold:



A handwritten signature in black ink, appearing to read 'm. De'.

On behalf of QEC Global

P// +61 7 5429 6999 A// PO Box 552, Maleny QLD 4552

Alarm Codes

Alarm	Meaning	Action
1 Flash	Normal Operation	None required
3 Flashes	The water level is high	Please see below
5 Flashes	There is no air flow	Call your Service Agent
3 & 5 Flashes	Tripped Circuit Breaker	Reset or call your Service Agent

3 Flashes - High Water Alarm

A high water level may be self-correcting. It can be caused by the washing machine discharging at the same time as the bath being emptied and the dishwasher pumping out. If you think this may have occurred, then wait for 15 minutes until the surge flow has stopped and see if the alarm stops. If sprinklers are still operating, recheck the alarm when they stop to see if the alarm has stopped.

If it does not then check the following:

- 1.** Is there a filter on the irrigation line before effluent disposal area? Is it blocked?
- 2.** Is the irrigation line kinked or broken?
- 3.** Has the irrigation pump failed?
- 4.** Surface irrigation - Are all the turf valves connected?

If you can rectify any of these problems yourself, then you will save the call out cost of your Service Provider. However, they are experts in this field and will assist you whenever you need their help. Call them whenever you need their assistance or you are in doubt about what you need to do. They will happily assist you over the phone.

Who to Contact for Help and Troubleshooting

Before you call for help, and to avoid unnecessary call out fees, check these items:

1. Is the power turned ON at the system?
2. Are there lights ON in the panel face?
3. Has a Safety Switch, not related to the system, tripped in your switchboard?
4. Has the irrigation hose become kinked, preventing the system pumping out?
5. If you have removable “Turf Keys” on your sprinklers, make sure they are engaged properly, PUSH DOWN HARD (Surface irrigation only).
6. Is the irrigation outlet filter blocked? (If fitted)

If you have identified an issue, once it is fixed you can try **resetting your system**:

1. Turn the system OFF, remove the 4 screws on the blower box cover and turn the single power point **ONLY** OFF. This will reset the program.
2. Turn the system ON again using the single power point switch.
3. If the system starts and operates correctly, observe the system over the next few days for another ALARM event and discuss it with your Service Agent.
4. If the system goes back into the ALARM mode, call your Service Agent. Limit your water usage until the fault is rectified.

Contact us to find your closest Service Agent

taylex.com.au
1300 TAYLEX

Or call the number on the back cover of this manual.

Notes:

A series of 20 horizontal dotted lines provided for taking notes.



Taylex
WASTEWATER



Your local distributor:

www.taylex.com.au
1300 TAYLEX

Owner's Manual for the Advanced Blower System 5000

Taylex Australia Pty. Ltd.



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