

Owner's Manual

FujiClean ACE NZ1500

WW-ACE1500 -OM (Feb-2024)

Domestic Wastewater Treatment System



Dear Customer,

Thank you for choosing a FujiClean ACE NZ1500 Wastewater Treatment System.

Please read this Owner's Manual carefully before using the FujiClean ACE NZ1500 and keep it for future reference. The information contained in this manual is subject to change without notice. Please contact Hynds Wastewater to request the latest manual.

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1. Safety Precautions

Please read the Owner's Manual and Safety Precautions carefully before operating the system.

All maintenance must be done by a Trained Service Personnel. If the unit is opened or tampered with by an untrained person, this may void the warranty. Wastewater treatment units are hazardous. 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.
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 CAUTION:	This symbol refers to a hazard or unsafe practice that can result in personal injury and/or the potential for product or property damage.
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 WARNING
<p>Electrical Safety</p> <ul style="list-style-type: none">■ Do not open the electrical box. There are no user-serviceable parts inside. The system must be maintained by a trained service agent.
<p>Fall Prevention</p> <ul style="list-style-type: none">■ Ensure 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.■ Lifting operations must be carried out in a safe manner in accordance with the relevant regulations.
<p>Hazardous Gases & Confined Spaces</p> <ul style="list-style-type: none">■ Never enter a wastewater tank. Toxic gases in the septic tank can kill in minutes. If maintenance work is required, only trained service agents can enter the tank, and they must comply with Confined Space and NZ Health and Safety regulations.■ Ensure no naked flames, smoking or other ignition sources (e.g., tools) around the wastewater tank and vents.

 CAUTION
<p>Prevention of Physical Loading to the Tank</p> <ul style="list-style-type: none">■ Ensure the area around the system installation is always free of vehicular traffic. Heavy vehicles can deform the ground and damage the tank, especially if installed in soft ground. Heavy vehicles must be >4m from the tank.
<p>Prevention of Public Health Risk</p> <ul style="list-style-type: none">■ Do not use treated water for human consumption, livestock watering, or irrigating edible crops. Access Cover Lids■ Keep your tank manholes locked or heavy enough to prevent children from opening them. Make sure the access covers are securely closed during operation.■ Ensure no vehicular traffic load is applied to the access cover lids during the installation and operation. Do not stand on the access cover lids

2. Overview

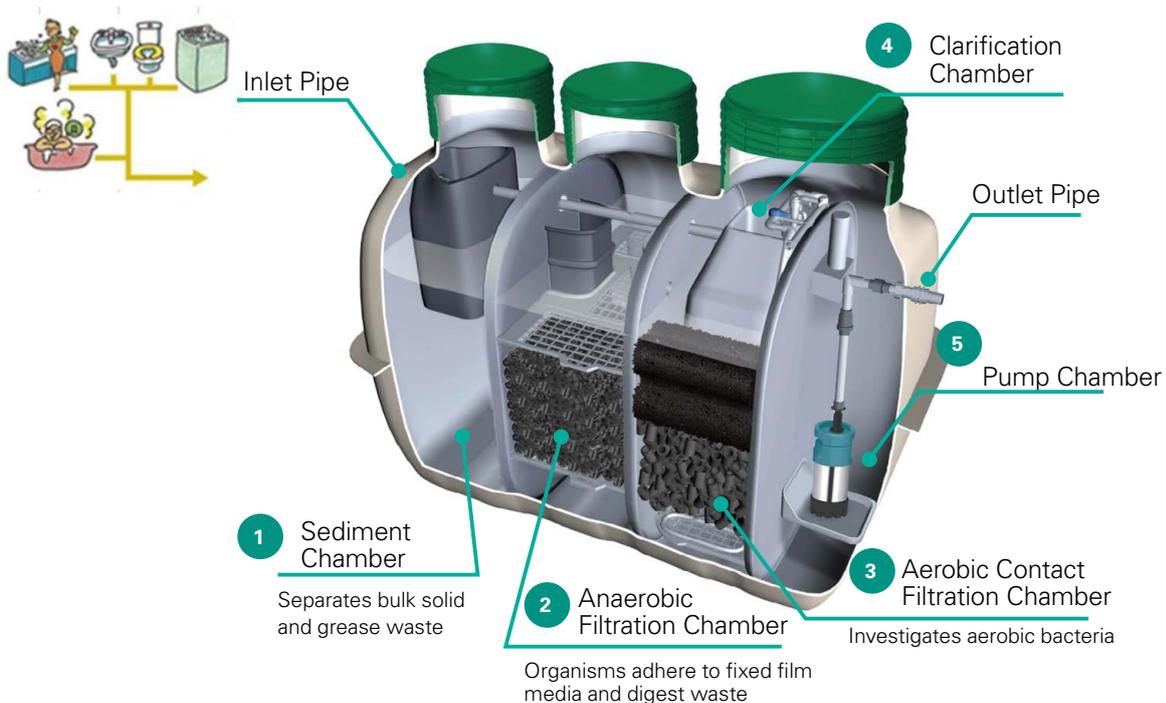
2.1 What is an AWTS?

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 NZ1500 is an AWTS designed to comply with AS 1546.3(2017) and AS/NZS 1546.1(2008) to meet NZ's regulatory requirements.

2.2 FujiClean ACE1500 Treatment System

FujiClean ACE1500 is designed to treat all household wastewater from the kitchen, bathroom, toilet, and laundry areas. The daily design flow rate of FujiClean ACE1500 is 1,500 L/day, and the system is capable of producing advanced secondary quality effluent to:

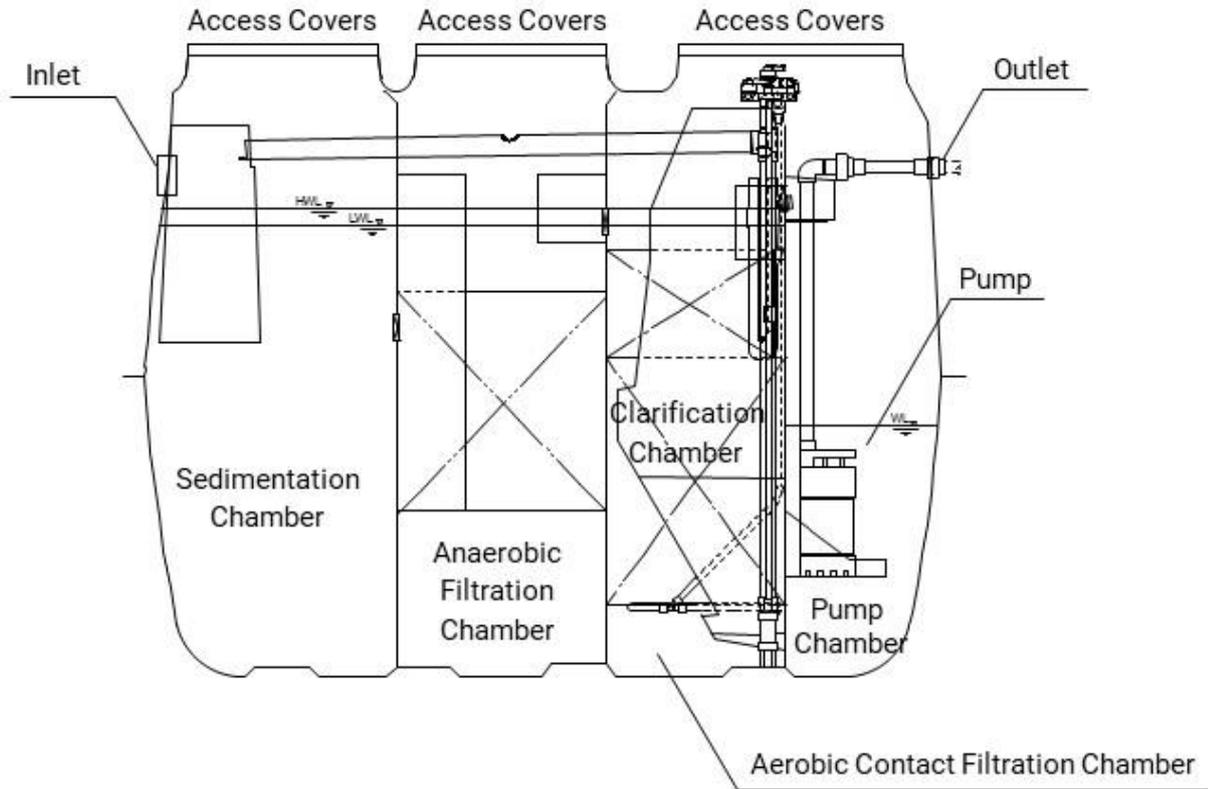
- $BOD_5 \leq 10 \text{ mg/L}$
- Total Suspended Solids $\leq 10 \text{ mg/L}$
- Total Nitrogen $\leq 20 \text{ mg/L}$
- Thermotolerant coliform $< 10 \text{ cfu/100ml}$



What is BOD?

Biochemical Oxygen Demand (BOD) is a standard measure of water quality. BOD is the amount of oxygen (mg/L) required to break down organic matter. Higher BOD indicates poorer water quality.

3. Treatment Process



Sedimentation Chamber

This chamber is designed to physically separate the solids from the incoming water. Solids settle to the bottom of the chamber, and scum floats to the surface.

Anaerobic Filtration Chamber

The water enters this chamber and travels through a spherical-skeleton type of filter media. The filter media provides a physical filtration to separate suspended solids. The filter media also provides a surface for the growth of anaerobic bacteria that decompose nitrates into nitrogen gas, which is vented to the atmosphere.

Aerobic Contact Filtration Chamber

The water enters and flows up through two types of plastic media. Air diffusers at the bottom of the chamber create an oxygen-rich environment for bacteria, which grow on the filter surfaces. The bacteria break down ammonia and organic matter into nitrates.

Clarification Chamber

Water flows into the Clarification Chamber, which is inside the Aerobic Contact Filtration Chamber. Suspended solids settle to the bottom and are pumped back into the sedimentation chamber for re-treatment.

Pump Chamber

The treated water from the clarification chamber then enters the pump chamber. This treated water is ready to be pumped and discharged.

It is possible to add tertiary disinfection treatment. Contact Hynds Wastewater if you require further information on disinfection systems.

4. Caring for Your System

4.1 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 every 6 months by a trained service technician. If the system is required to meet AS 1546.3:2017 Certified Limits, it must be serviced every 3 months.
- Ensuring the system is desludged when it is required. To ensure the overall health and performance of your FujiClean ACE NZ1500 wastewater treatment system.

Hynds Wastewater recommends desludging the system every 3 years or as necessary when 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 vary depending on usage. Your service agent will measure the sludge depth at every service interval and will advise you when desludging is required.

 CAUTION	If the regular servicing is neglected, or desludging advice from your service agent is disregarded, the warranty will immediately be void.
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4.2 Regular Maintenance

The effective operation of the system is dependent on regular maintenance. The system requires a service EVERY 6 MONTHS by a Hynds-trained service agent.

If the system is required to meet AS 1546.3:2017 Certified Limits, it must be serviced every 3 months.

Regular maintenance also 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, must be replaced regularly. The recommended replacement interval for these parts is between 12 and 24 months.

4.3 Incompatible Chemicals & Substances

Do not allow incompatible substances into the wastewater treatment system. This includes disposal via the kitchen sink, laundry and toilet.

Below is a list of chemicals that are considered harmful to the system:

- Water >75°C
- Excess Milk
- Harsh or excessive cleaning products such as bleaches, disinfectants, whiteners, or spot removers

- Coffee Grounds
- Food scraps (including Insinkerator)
- Fatty or oily substances
- Antibiotics or medicines
- Dressings, Plasters
- Paper towels
- Sanitary towels, Nappies, Baby wipes
- Fibres, cloths
- Cigarette stubs
- Paints
- Acids
- Dyes
- Pesticides, herbicides
- Solvents
- Industrial oils, lubricants, thinners, spirits
- Paints, Thinners, Paint Strippers
- Motor Oil, Petrol, Antifreeze, Break Fluid and Other Automotive Fluids
- Contents from a chemical toilet
- Rainwater or stormwater, including downpipes
- Backflush from a swimming pool

4.4 Other Helpful Hints

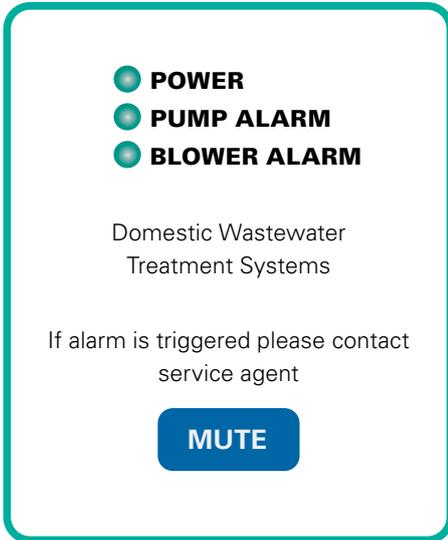
- Complete your laundry over several periods during the week to prevent surge loading.
- Use the correct measure of cleaning product.
- Use a compost bin for food scraps.
- Put toxic items in the above list in an appropriate disposal facility.
- Buy environmentally friendly labelled products such as Eco Store from your supermarket.
- If the tank takes a while to settle, purchase live bacteria Septic Tank Starter from Eco Store.

4.5 Tips for Trouble-Free Operation

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

- Keep your household's water usage below the system's daily design flow rate.
- Do not switch off the power to the system even if you are going on holiday. Contact your service agent if the system will not be used for extended periods.
- Do not use more than the recommended amounts of detergents.

5. Operation of Remote Panel



1. POWER LED

POWER LED is lit whenever power is present.

2. PUMP ALARM LED

If the pump fails to operate, PUMP ALARM LED starts flashing and the alarm beeps.

3. BLOWER ALARM LED

If the blower fails to operate, the BLOWER ALARM LED starts flashing and the alarm beeps.

4. MUTE BUTTON

MUTE BUTTON can be pressed any time to stop the alarm from beeping. This mute condition will last 24 hours before the mute will expire and the remote alarm will begin beeping again.

5.1 Normal Operations

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

5.2 Pump Alarm

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

5.3 Blower Alarm

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

5.4 Muting and Resetting

The mute button can be pressed anytime to stop the remote alarm from beeping. This mute condition will last 24 hours before the mute expires, 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, the fault will continue to be indicated. However, should the fault clear, the alarm condition will automatically reset and audible and visual alarms will be cleared. If, at any stage, a new alarm condition occurs, the mute will be overridden and expire, and the alarm will begin beeping again.



CAUTION

IN THE EVENT OF A POWER OUTAGE

The FujiClean ACE NZ1500 Remote Alarm Panel has a battery backup and will notify you if power is lost to the system. After power is restored, ensure the system is working correctly by checking the air blower and pump are operating.

6. Natural Alternative Cleaning Solutions

Wastewater Treatment Systems rely on bacterial growth to treat all wastewater that leaves the home. It is the homeowner's responsibility to ensure all products used do not have a negative effect on the treatment system's performance.

It is easy and simple to create your own cleaning solutions using some basic ingredients:

- ✓ White Vinegar
- ✓ Bi-Carb Soda
- ✓ Soda Crystals
- ✓ Lemon Juice
- ✓ Baking Powder

Note: Certain essential oils are strong antibacterial agents, especially tea tree oil and eucalyptus oil. Please prevent placing concentrated amounts of these oils down your drain.

1. Stain Remover

Lemon Juice
Sunlight
Soda Crystals

Instructions:

- Apply Lemon Juice to stain
- Sit the garment in the sun for 1 hour.
- Rub with soda crystals and wash as usual.

2. Window and Mirror Cleaner

1 part White Vinegar
1 part Water

Instructions:

- Mix in a spray bottle.
- Apply to glass and rub dry with newspaper.

3. Grout Cleaner

Baking Powder
Lemon Juice

Instructions:

- Mix to form a paste.
- Apply the paste to Grout.
- Scrub with a toothbrush.

4. Floor Cleaner

1 part Boiling Water
1 part White Vinegar

Instructions:

- Mix in a bucket.
- Use a mop or suitable cloth to apply
- Air dry

5. Drain Cleaner

Kettle of Boiling Water
Soda Crystals

Instructions:

- Once a month, pour boiling water over soda crystals and into the drain.

Note: Soda Crystals are made from limestone that undergoes heating to form these crystals.

6. Toilet Deodoriser

Bi-Carb Soda

Instructions:

- Once a week, add to the toilet bowl.
- Allow to sit for 2 minutes. Flush.

7. Toilet Bowl Cleaner

1/4 cup Bi-carb Soda
1 cup White Vinegar
1 drop Orange Essential Oil

Instructions:

- Mix all ingredients in a bowl.
- Apply the mixture to the toilet bowl and scrub with a toilet brush.
- Allow to sit for 2 minutes before flushing the toilet.

8. Toilet Seat & Cistern Cleaner

White vinegar

Instructions:

- Wipe over with a cloth soaked in white vinegar.

7. Warranty Statement

The quality waste water treatment product you have purchased from Hynds Waste Water is covered under this comprehensive warranty as outlined in the following document and shall be read in conjunction with Hynds Terms and Conditions of Sale.

1. THE ENVELOPE (TANK)

Unless otherwise agreed in writing by duly authorised persons the structural integrity of the concrete tank shall be WARRANTED for a period of 10 years, commencing from the date of delivery; and all other components (parts only) of 2 years commencing from the date of delivery.

2. THE TREATMENT AND PERFORMANCE

The treatment and performance of the product (as defined in the user's guide supplied with the product) are guaranteed, provided that the terms and conditions set out in this document are complied with.

3. FOREWARD

Hynds Waste Water (hereinafter referred to as "HWW") manufacture and distribute products intended for the treatment of waste water. The purpose of this document is to inform the owner, or installer about

the warranty relating to HWW products. The warranty shall cover all waste water treatment products manufactured or distributed by HWW (hereinafter referred to as the "Product").

Products shall consist of an external envelope in concrete or in polyester and internal components can be accompanied by accessories such as but not limited to sockets, pump, raiser, lids and control panels. In this Agreement or other documents the term "End User Owner" shall be further defined as including or referring to any Purchaser or Customer of Hynds.

4. WARRANTY

HWW warrants to the owner that the product is designed to treat wastewater in compliance with the regulatory requirements in force at the time it is purchased in a new and unused condition.

Notwithstanding anything contained in this Warranty the liability of either Party to the other including the end user owner shall not in aggregate exceed the invoice price of the Goods in respect of which the liability occurs.

The different warranties shall apply from the purchase date by the end user owner of the product, provided that, pursuant to installation, users and operating instructions, the product:

- was correctly sized with consideration to hydraulic and organic loading as specified by the Customers engineer, approved designer or regulatory authority; and
- was correctly installed, connected and commissioned in strict accordance the manufacturers and local authority requirements by an approved and certified contractor, the Customers engineer, approved designer or regulatory authority; and
- is operated consistently within the parameters of which it was designed; and
- the Product receives regular servicing in accordance with the manufacturers and local authority requirements by an approved and certified contractor.

5. EXCLUSION FROM WARRANTY

The following types of damage including but not limited to shall be excluded and therefore void any warranty:

- 5.1 Any damage resulting from poor handling, transport (by a third party engaged by the customer directly) or storage defect. More generally, any damage caused by a third party that was not authorized directly by the manufacturer or distributor.
- 5.2 Any damage resulting from a modification of the product without having consulted the manufacturer or distributor beforehand (and having received either Parties written consent) about the modifications made to the product by any individual, company, agent or person.
- 5.3 Any damage resulting from an installation that does not comply with the requirements specified in HWW's installation guide (supplied with the product or available upon request at the following address: hwwsupport@hynds.co.nz) or those required by the local regulatory authority.

5.4 All damage resulting from a sizing error of the product, in particular with regard to the hydraulic and organic Load of wastewater intended for the product and to the legislation in force at the time the product was installed. The term "Load" shall refer to water, liquids, any elements sent inside the product to be stored or processed therein.

5.5 Any damage resulting from a change of the use of the product leading to a modification of the Load (flow rate and/or nature of wastewater) intended for the product.

5.6 Any damage caused by using the product in a way not compliant with the requirements set out by HWW in the user's instructions for the product (supplied with each product and available upon request at hwwsupport@hynds.co.nz).

5.7 Any damage caused by failing to observe the maintenance or operating instructions for the product as defined by HWW and as contained in the operating instructions for the product or any other document supplied with the product. Instructions are supplied with the product or are available on demand at hwwsupport@hynds.co.nz. The manufacturer reserves the right to review and update the instructions from time to time and it shall be the Customers responsibility to remained informed.

5.8 At the sole discretion of Hynds, any damage resulting from incorrect, incomplete and/or inadequate installation of the product essential to the correct functioning of the product.

5.9 Any damage resulting from a technical intervention on the installation by any individual, company or person who is not approved/certified (by the manufacturer or local regulatory authority), or does not have the correct equipment and knowledge to intervene on the product and its accessories. More generally, any modification or alteration of the product without the prior, written consent of HWW shall cancel the warranty granted by HWW and release the latter from its obligations without limitation.

5.10 Any damage resulting from elements such as the conditions of placement, conditions of installation, nature of the soil type, nature of the water to be treated or other similar external source that in the sole discretion of HWW is communicated inadequately, or with unreasonable delay or not at all to the installer and directly HWW by the end user owner, individual or company authorized by the latter or to whom said task was entrusted.

5.11 Any damage caused directly or indirectly, deliberate or accidental resulting from negligence, tort or unforeseeable circumstances of the installer, the end user owner, individual or company authorized by

the latter. For the purposes of clarity this shall by extension also include force majeure, such as earthquake, storm, flooding, volcanic eruption, and as may be further defined.

6. IMITATION AND IMPLEMENTATION OF THE WARRANTY

If the product should malfunction and provided that the terms and conditions of the warranty are complied with, HWW shall proceed or nominate an agent to review as soon as practically possible the repair(s) required in accordance with the degree of malfunction and assessment by HWW, or at the sole discretion of HWW the replacement of the product or component(s) of the product as may be required.

Under no circumstances may HWW be held liable for damages of any kind including liquidated damages, direct or indirect, resulting from incorrect or unsafe use of the product. The end user owner is responsible for the daily supervision of the product, within the limits of their competencies, the latter must inform HWW immediately and without unreasonable delay (defined as not more than 5 business days) upon detecting a defect or malfunction of the product. Notification must be in writing to hwwsupport@hynds.co.nz.

Any call on the warranty must be made in writing, if possible using the appropriate form (documented entitled "Claim Card" likewise available upon request at hwwsupport@hynds.co.nz), sent to hwwsupport@hynds.co.nz.

If, after inspection, it turns out that the damage or defect ascertained by the end user owner, who has informed HWW, does not comply with the terms and conditions of warranty, and where the HWW cannot be held liable, HWW reserves the right to invoice all expenses incurred including but not limited to travel or time & material operations to the end user owner or individual, company or person(s) who has engaged HWW or their nominated repair agent for services.



Branches Nationwide *Support Office & Technical Services 0800 93 7473*

Disclaimer: While every effort has been made to ensure that the information in this document is correct and accurate, users of Hynds product or information within this document must make their own assessment of suitability for their particular application. Product dimensions are nominal only, and should be verified if critical to a particular installation. No warranty is either expressed, implied, or statutory made by Hynds unless expressly stated in any sale and purchase agreement entered into between Hynds and the user.