

REEFE

PUMPS AUSTRALIA

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RDW-E SELF PRIMING **DEEP WELL PUMP**

EXPLODED VIEW &
INSTRUCTION MANUAL

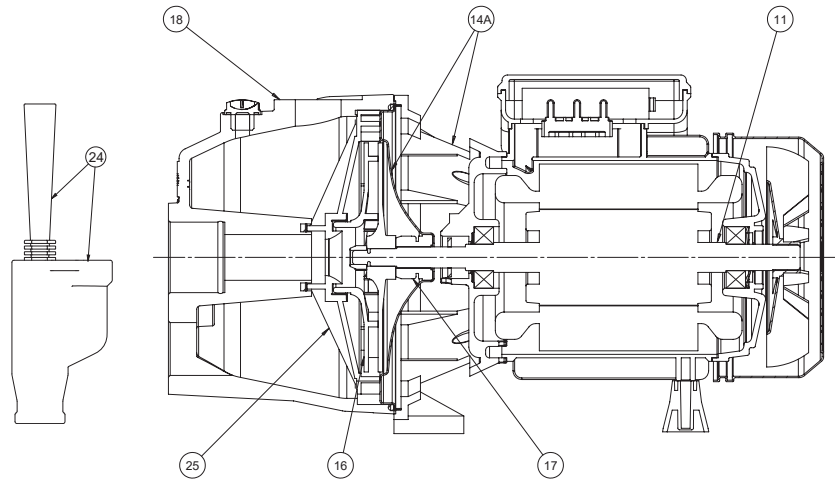
MODEL: RDW100E | RDW150E | RDW200E

AVAILABLE AS PUMP ONLY | WITH PRESSURE CONTROLLER | WITH PRESSURE TANK, SWITCH & GAUGE

COMPONENTS & MATERIALS

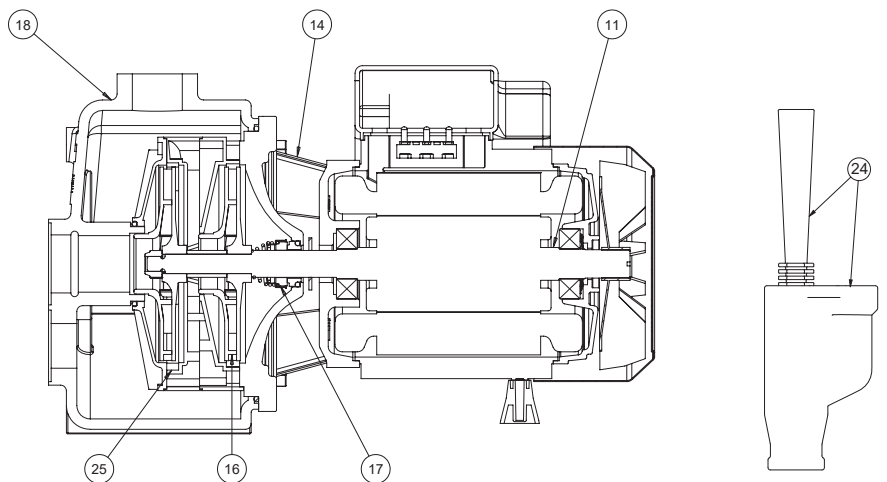
RDW100E

POSITION	COMPONENT	MATERIAL
11	Pump Shaft + Rotor	Stainless Steel AISI 304
14A	Motor Bracket Kit	Cast Iron
16	Impeller	Polymer
17	Mechanical Seal	Carbon-Ceramics
18	Pump Body	Cast Iron G20
24	Complete Ejector	Cast Iron G20
25	Diffuser	Techno-Polymer

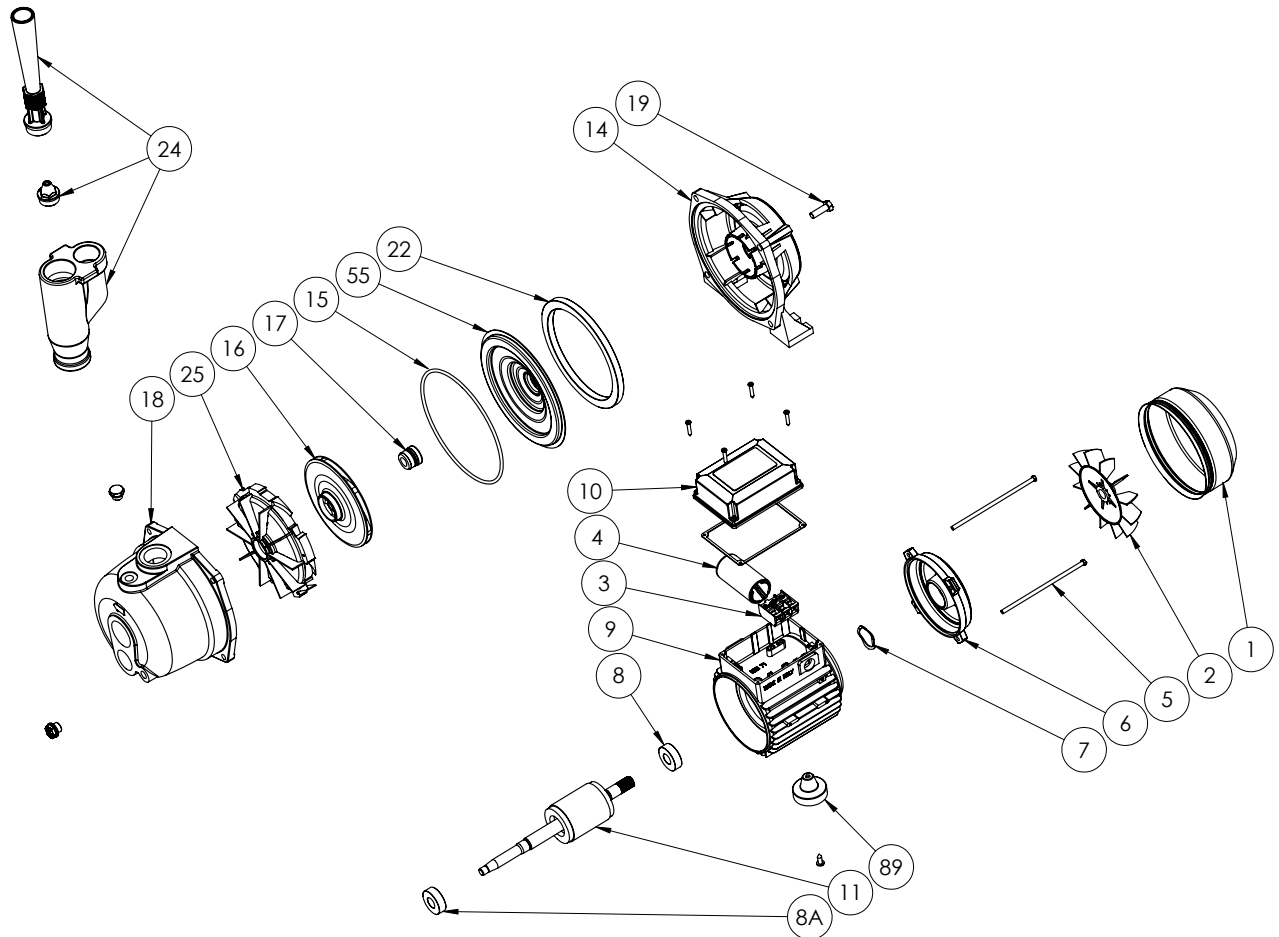


RDW150E | RDW200E

POSITION	COMPONENT	MATERIAL
11	Pump Shaft + Rotor	Stainless Steel AISI 304
14	Outlet Bracket	Cast Iron
16	Impeller	Polymer
17	Mechanical Seal	Carbon-Ceramics
18	Pump Body	Cast Iron G20
24	Complete Ejector	Cast Iron G20
25	Diffuser	Techo-Polymer



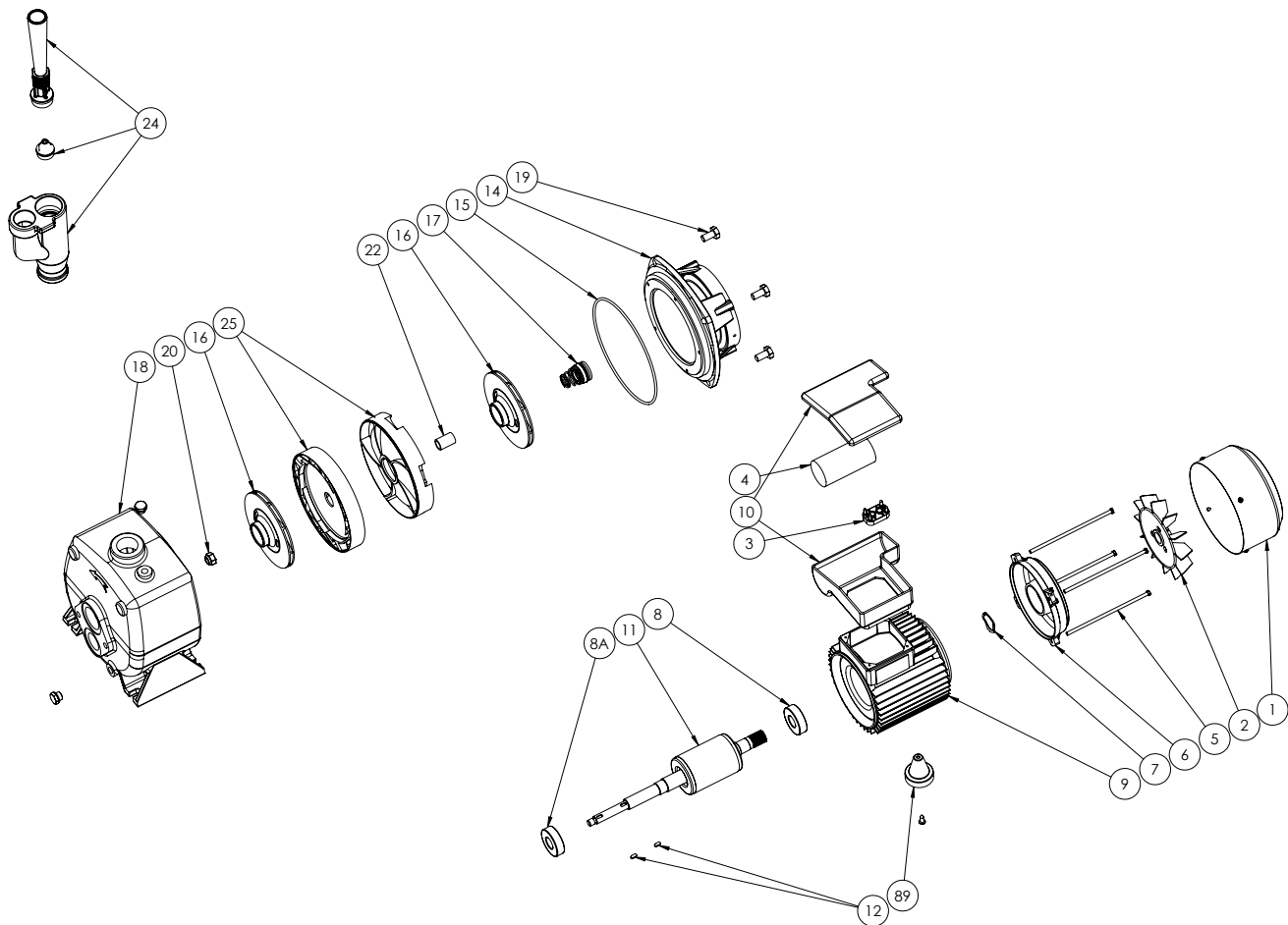
RDW100E EXPLODED VIEW



DEEP WELL PUMP RDW

POSITION	COMPONENT	POSITION	COMPONENT
1	Fan Cover	14	Motor Bracket
2	Fan	15	O-Ring Kit
3	Board	16	Left Impeller
4	Capacitor	17	Mechanical Seal
5	Tie-Rod	18	Pump Body
6	Driving Cap	19	Bracket Screw
7	Split Ring	22	Spacers
8	Rear Bearing	24	Ejector
8A	Front Bearing	25	Diffuser Kit
9	Casing with Wound Stator	55	Mechanical Seal Plate
10	Board Cover	89	Pumps Feet
11	Rotor & Shaft		

RDW150E | RDW200E EXPLODED VIEW



POSITION	COMPONENT	POSITION	COMPONENT
1	Fan Cover	12	Key
2	Fan	14	Motor Bracket
3	Board	15	O-Ring Kit
4	Capacitor	16	Left Impeller
5	Tie-Rod	17	Mechanical Seal
6	Driving Cap	18	Pump Body
7	Split Ring	19	Bracket Screw
8	Rear Bearing	20	Impeller Nut
8A	Front Bearing	22	Spacers
9	Casing with Wound Stator	24	Ejector
10	Board Cover	25	Diffuser Kit
11	Rotor & Shaft	89	Pump Feet

WARRANTY | INSTRUCTION MANUAL

Please take the time to read the instructions carefully before using this appliance. We recommend that you keep this instruction manual in a safe place for future reference.

This manual is part of the essential safety requirement and must be retained until the product is finally decommissioned.

Installation, electrical connection and commissioning must be carried out by skilled personnel in compliance with the general and local safety regulations in force in the country of installation of the product. Failure to comply with these instructions not only causes risk to personal safety and damage to the equipment voids the warranty.

1. SPECIFICATIONS

For your electric pump data, refer to the plate on the pump.

1.1 Motor construction features

Closed self-ventilated motor. Single-phase version with incorporated motor protector and permanently connected capacitor. The three-phase version does not incorporate an overload protection, therefore this must be provided by the user.

Continuous duty. Max start per hour 15 times.

2. GENERAL SAFETY WARNINGS

The manufacturer declines all liability for accidents to persons or animals or damage to property or the electric pump if the warnings are not complied with or if the electric pump is tampered with. The above will also render the guarantee invalid.

2.1 Preventive measures

The user must comply with all accident prevention regulations in force and must scrupulously follow the instructions contained in the following chapters.

Always remember to remove the plug from the socket before carrying out any operations on the electric pump (Diagram 11);

Do not move the electric pump while it is working;

Before using the electric pump, always check that the power cable and all the electric devices are in perfect condition;

Never start the electric pump in your bare feet, with wet hands or with your feet in the water;

The electric pumps are built so that all moving parts are protected with covers. When the electric pump is working, do not remove these parts;

The main switch to which the electric pump is connected must be out of reach of jets of water, rain, other liquids or atmospheric agents in general;

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard;

Single-phase motors are provided with built-in thermal overload protection and may be connected directly to the mains. Three-phase motors must be protected with an automatic switch (e.g. overload protection) set at the values on the electropump data plate. In the power mains there must be a device that ensures complete disconnection in overvoltage category III conditions.

The liquid inside the electric pump may freeze at low temperatures (below 0 °C). This is very dangerous for all the parts of the electric pump and may cause serious damage to it;

A temperature of over 40 °C may be dangerous for the motor.

WARNING

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

3. INSTALLATION

Never use the power cord to lift or to lower the electric pump, a rope or a chain must be used.

3.1. Installation

Pay attention when positioning the pump not to damage the power cord. To tie the cord to the delivery hose with proper clamps is recommended;

Use pipes with a high degree of resistance;

If flexible pipes are used, avoid twisting them in order not to cause any obstructions;

Use pipes with a diameter not smaller than the one of the holes of the electric pump;

Fix the pipes so that their weight and vibrations do not affect the electric pump.

3.2. Positioning

The electric pumps must be positioned on a perfectly level and stable surface;

Before placing the pump in position ensure that the suction is not totally or partially blocked by mud, sediments or similar substances;

When choosing the position make sure to observe the minimum required distances from the walls (Diagram 12).

4. CORRECT AND INCORRECT USE

4.1 Correct use

The electric pumps have been designed to pump clean water up to 4m. max suction deep, the self-priming centrifugal version sucks water from wells, either mixed with gas, up to 8/9 m. deep (50 m. for pumps having ejector). They can be used for small & medium irrigation, to increase water supply pressure, to fill or empty tanks, in washing, in cooling and conditioning systems, in firefighting systems. The pumps can be assembled in booster sets that will optimize the water reserves, limiting the number of start ups and, above all, always maintaining the correct pressure in the system.

Important: The following conditions must be observed when using the electric pump:

Max. water temperature: *35 °C;

Max. ambient temperature: *40 °C;

Max. operating pressure: (Refer to pump performance curves);

Voltage variation allowed: more or less 5%.*

*See plate on the pump

4.2 Incorrect use

All uses not mentioned in paragraph 4.1 are generally forbidden; the electric pump should especially not be used for the following:

Pumping sea-water, dirty water or water holding suspended solid bodies, sand, abrasive or corrosive substances in general;

Pumping water or other liquid at temperatures higher than the maximum value;

Pumping explosive, inflammable and other dangerous liquids.

5. HANDLING & TRANSPORT

5.1 Transport

The product is packed to maintain the content intact. During transportation avoid to stack excessive weights.

Make sure that the packaging is not free to move during transport. Avoid subjecting the products to impacts or collisions.

The transport vehicles must comply, for the weight and dimensions, with the chosen product.

5.2 Storage

All the pumps must be stored indoors. in a dry. vibration-free and dust-free environment, possibly at constant air humidity.

They are supplied in their original packaging and must be kept there until installation. If this is not the case, accurately close the suction and delivery mouth.

5.3 Unpacking

If the packing is not in good condition, after removing the electric pump make sure it has not been damaged during transport or handling. Any breakages or faults should be reported to the dealer within and not after 8 days from delivery.

ATTENTION: before installing and using the electric pump, check the rating plate to make sure the model and its characteristics correspond to your order.

4.4 Handling, uninstalling and transport

The pump should be handled with equipment suited to its weight and to the shape of its crate.

Lifting by hand is allowed only for weights lower than 20 kilograms (fig. 5). During handling, observe the current safety regulations. Raise the pump-motor unit slowly making sure it does not move from side to side in an uncontrolled way, to avoid the risk of imbalance and tipping up.

Warning, the motor body may reach 70°, after working don't touch it;

Never move the electric pump without first removing the plug from the socket or disconnecting mains power (Diagram 11);

Unscrew and remove the delivery and suction hoses;

Unscrew the bolts or screws anchoring the electric pump;

Roll up the electric power cable and hold it in your hand;

Do not transport or drag the electric pump with the power cable.

6. PREPARATION FOR USE

6.1 Electric wiring diagram

If the electric pump is not supplied with a cable and plug, the connections to the mains and grounding must be executed by qualified technicians and in compliance with local installation standards. Important: the cable must be IEC compatible and of a suitable section, bearing in mind the installed power and the length; the plug must have an earth contact.

6.2 Electrical connections

Before connecting the electric pump to the mains power supply, check that it is sufficient to cope with motor consumption See plate on the pump & enclosure "A" (ref.3). It is also very important for the mains supply to be fitted with a high-sensitivity differential switch (30mA as DIN standards). The electric pumps that are already supplied with a cable and plug must be connected to a main socket suitable for a SCHUKO plug. The plug must not be cut and/or replaced.

6.3 Operating checks

Before installing the electric pump, perform a no-load test on the motor. Make sure that all the electrical contacts are well sealed, start the electric pump and observe the cooling fan located at the back of the motor to check it turns in the right direction (clockwise)

7. USE AND START UP

7.1 Start up

First, make sure that the electric connections are well sealed and that the power cable has not been damaged during installation; then close the delivery gate valve; Fill the pump through the relative filling hole (Diagram 10). When the pump body and the suction hose are completely filled, close the filling hole. Insert the plug in the socket or turn on the main switch. When the electric pump starts working, gradually open the ball valve on the delivery hose.

7.2 Important warnings

Do not use the pump when it is dry (no water inside the pump body)

Prolonged use of the electric pump with the gate valve on the delivery hose closed may cause serious damage

Remove the plug from the socket or turn off the main switch in case of a power failure.

7.3 Stopping

Close the gate valve on the delivery line before switching off the pump (this will prevent any hammering); then turn off the switch (if the electric pump is fitted with a Pressure Controller or Pressure Switch, it will automatically stop when the valve or the circuit is closed);

If the electric pump is due to remain inactive for a long period of time, all the water in the pump body should be emptied and, if possible, rinsed with clean water.

ATTENTION: the pump must be emptied when there is a risk of frost caused by temperatures close to 0 °C.

8. ASSEMBLY AND DISMANTLING

The electric pump has no separate accessories so that no assembly is required. The eventual dismantled, feeding cable installation or substitution must be executed at service centers or by qualified technicians.

9 MAINTENANCE AND REPAIRS

9.1 Maintenance

Before carrying out any maintenance operations, remove the plug. The inner part of the plug does not require special maintenance, so it is not necessary to dismantle it. It is very important, however, that the suction and delivery parts are always kept perfectly clean and free from obstructions.

9.2 Troubleshooting

FAULTS	REASONS	REMEDIES
The pump does not work.	1) No mains voltage. 2) Shaft blocked.	1) Check the socket is powered and that the plug is fitted well. 2) Remove the plug from the socket; fit a screw-driver into the motor shaft (on the fan side) and turn to release
The pump works but it does not deliver water.	1) The air in the pump body has not been totally vented. 2) The pump sucks air from the suction pipe.	1) Unscrew the filling cap while the pump is working and vent all the air from the pump body, then put the cap back on. (NOTE: This may spray water out of the filling hole during operation. Be aware of this prior to attempting this task) 2) Check that the suction pipe is tightly fixed and sealed to the pump and that it is completely immersed in water and that there are no obstructions or traps. Pay attention to the max. suction height.
The thermal overload protector switches off the pump due to overheating.	1) The voltage does not correspond to the rated value of the motor. 2) A solid object has blocked the impeller. 3) The pump has run dry or the delivery valve has been closed for more than 15 minutes.	1) Check voltage. 2) Disconnect the suction hose and remove the object. (NOTE: Only complete this task if you are a licensed pump technician or you have sought guidance from the manufacturer prior to dismantling. Warranty may be void if the above is not taken into consideration). 3) Cool the pump and then start it up again making sure that the mechanical seal has not been damaged.

Before using the pump again after a period of inactivity, make sure the motor shaft rotates freely by fitting a screwdriver into the slot on the shaft.

10. MECHANICAL RISKS

ATTENTION: The above spare parts may only be replaced by qualified technicians or at service centers, and only original spare parts may be used.

11. INFORMATION ON AIR-BORNE NOISE

The weighted sound pressure level A produced by the electric pump working with liquids inside the pump body does not exceed 70 dB (A) established by the 98/037/EEC.

WARRANTY CONDITIONS

1. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. If you are a consumer as defined by 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 following conditions form part of the instructions and do not over-ride your statutory rights.

2. This warranty against defects covers failure due to manufacturing defects within the period as stated in the table below from the date of original purchase, for SUBMERSIBLE or EXTERNAL CONSTANT PRESSURE PUMPS and RAIN-TO-MAINS SYSTEMS, supplied by ASCENTO GROUP AUSTRALIA that are purchased and used in mainland Australia. In the case of a failure caused by a defect in the product, within the specified period from the date of original purchase, you can return it to the place of purchase for a refund or you can request for us to arrange for the pump to be repaired.

3. Faults or losses or failure caused due to but not restricted to any of the following: improper use, improper installation, foreign objects inside the pump or pump controller, normal wear and tear, accidents, misuse, lack of maintenance, not following the installation instructions, damage caused by lightning strike, or power surges, or power spikes or power brownouts, or operating the pump on power other than correct mains power, or operating the pump on power supplied by a domestic generator, power supply of voltage less than 230V, power supply of voltage above 240V - are not covered by warranty. Improper use is defined by us, at our sole discretion.

4. The complete Impeller set (including shaft), Seals and O-rings are all wearing items and therefore are not covered for "normal wear and tear". They are covered by this warranty if they fail due to a manufacturing defect. The Warranty also excludes accidental or deliberate breakages, fading or breakdown due to the effect of exposure to sunlight or chemicals or any other external factor that may affect the life of the product.

5. Warranty will be void if any tampering or removal of identification labels or electrical cables has occurred, or any non-genuine parts have been fitted, or repairs have been carried out by unqualified persons. No warranty applies for goods sold or used for HIRE or RENT or LEASE. No warranty applies, and no liability is accepted, if the pump is used in circumstances that we define as: HAZARDOUS SITUATIONS, MINE SITE, REMOTE AREA, INDUSTRIAL APPLICATION, or any other UNSUITABLE APPLICATION, all of these circumstances are defined by us at our sole discretion.

6. This product is guaranteed as fit for the purpose of pumping CLEAN FRESH WATER for normal domestic household use, and for NO OTHER USE. Performance data quoted is generally from test data and is approximate and does not take into account factors in the installation such as loss of pressure and flow due to pipework & pipe-fittings & valves. It is the purchaser's responsibility to ensure that the product is fit for their purpose and of sufficient size & performance for their application.

7. IMPORTANT: No electrical appliances last forever. Therefore, ALL installations of these pumps and valve-sets supplied by us, must be constructed to allow the owner to easily remove them for servicing, and to easily remove them for replacement, warranty replacement or upgrading. The installation must NOT be constructed in such a manner that specialized tools, or paid tradespersons, or external paid contractors, are required to be engaged in order to remove and/or replace and/or refit the pump, therefore all pumps must be installed using barrel-union connections to facilitate easy servicing or replacement. If the rainwater tank is installed under eaves or other structure such as a deck, ensure that the pump can be easily removed for servicing or repairs. Warranty replacement does not normally include costs of removal and re-installation as we have no control over the method of installation.

8. Before installing or servicing disconnect from the power supply. A ball-valve or gate-valve must be fitted on the suction, and the Town-water backup supply where fitted. A "First-flush-diverter" or similar device must be installed to prevent debris from entering the tank, or a filter screen through which all the incoming water passes before entering the tank. A Y-Strainer or Pre-filter must be installed: (a) For external pumps on the suction (inlet) pipe and (b) For submersible pumps on the discharge before the pump controller (for where there is an external pump controller) - to prevent particles entering the pump and fixtures and fittings including non-return valves. This instruction is a condition of warranty; all warranty is void if this instruction is not followed.

9. This pump is not to be used as your sole water supply. For critical applications where loss of water supply could cause serious consequences, use a DUAL PUMP System so you have a backup water supply or use a TOWN-WATER BACK-UP System.

10. This pump MUST NOT be installed in any manner that if it were to leak or fail to work that it would cause damage or loss to property or persons. It MUST be installed in a well-ventilated and drained area. All warranty is void if this condition is not heeded and no liability can be accepted in the case of damage or loss caused by failing to comply with this condition.

11. The Pump must be connected to a suitable circuit with an integral RCD (safety switch) in the circuit breaker. All warranty is void if this instruction is not followed.

12. RIGHT TO INSPECT: We reserve the right to inspect the product and installation, prior to accepting any warranty claim. We may inspect by use of drone technology, with property owners permission. We also reserve the right to request and require photographs or video evidence in lieu of physical inspection, at our sole discretion. Refusal of inspection cancels all warranty and liability.

13. This warranty does not exclude any non-excludable rights according to Australian Law. However any condition that is made void by Australian Law does not void the remaining conditions, which shall stand unaltered.

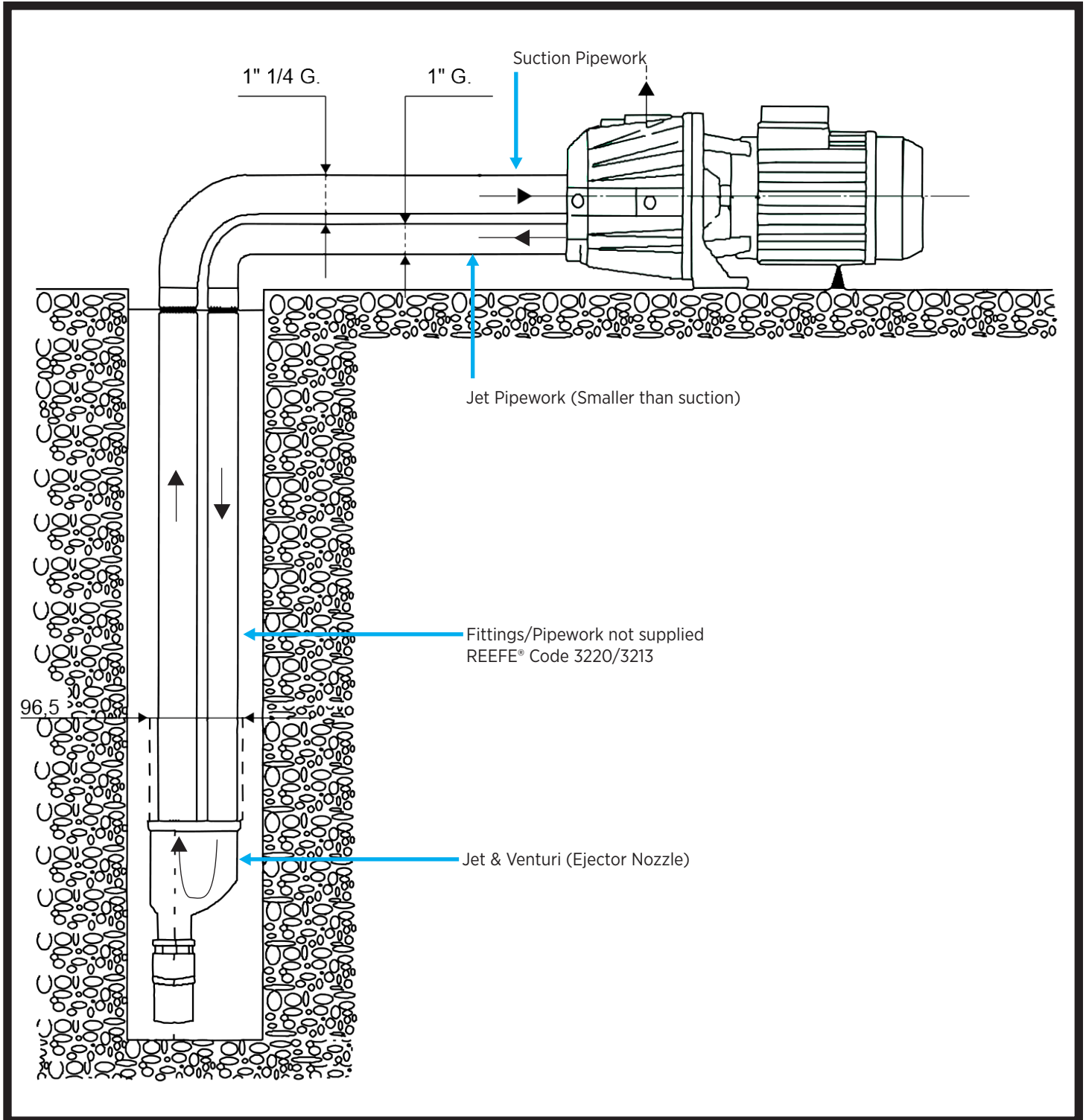
14. In the case of a fault, refer to the Trouble Shooting Guide first. If these steps do not rectify the problem, and the fault is due to a manufacturing defect or product failure not caused by improper installation, improper use or lack of maintenance, return the faulty appliance to the original place of purchase with proof of purchase for replacement or refund. Alternatively you can mail us at PO BOX 650 MORNINGSIDE QLD 4170 or send an email to csv@ascento.com.au with copy of your purchase receipt, a description of the problem, and your name and address and phone number - we will review your request and send you a replacement directly if we accept your warranty claim. Or call us on 1800 807 604 with the above information; however we will always require a copy of your purchase receipt. If an exact replacement is not available, the closest equivalent product will be supplied at our discretion. Do not send the product to us unless we ask you to do so.

WARRANTY PERIODS

REEFE EXTERNAL CONSTANT PRESSURE PUMPS:	3 Years
Rain & Town EXTERNAL CONSTANT PRESSURE PUMPS:	3 Years
WaterPro EXTERNAL CONSTANT PRESSURE PUMPS:	2 Years

RECOMMENDED INSTALLATION

A pressure controller is required for pump operation (not supplied with pump)

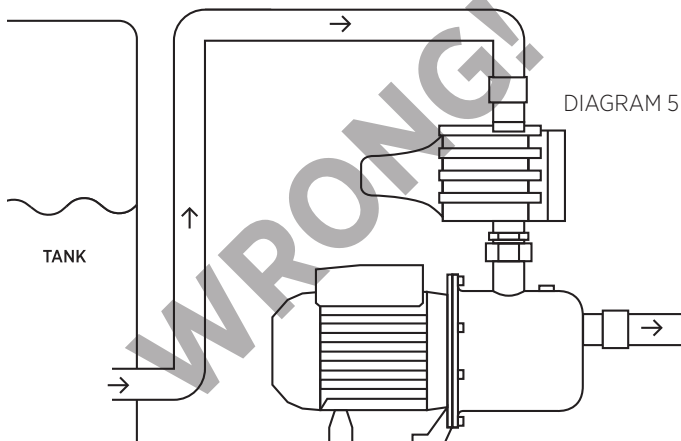


Before installing the pump verify that all the tubes (iron, plastic or ubber) are clean inside to avoid any obstruction of the ejector nozzle. A foot valve or a check valve must be installed at the foot of the ejector. After the pump is installed, fill tubes and pump body completely with clean water. To preserve an efficient priming a specific pressure in the circuit is necessary, therefore it is recommended to install a membrane tank at the delivery of the pump.

INCORRECT INSTALLATIONS



INCORRECT! THE PUMP IS CONNECTED INCORRECTLY. ALWAYS ENSURE WATER INLET AND OUTLET ARE CORRECT.



INCORRECT! PUMP IS NOT INSTALLED ON A LEVEL SURFACE. ALWAYS ENSURE THE PUMP IS INSTALLED LEVEL.

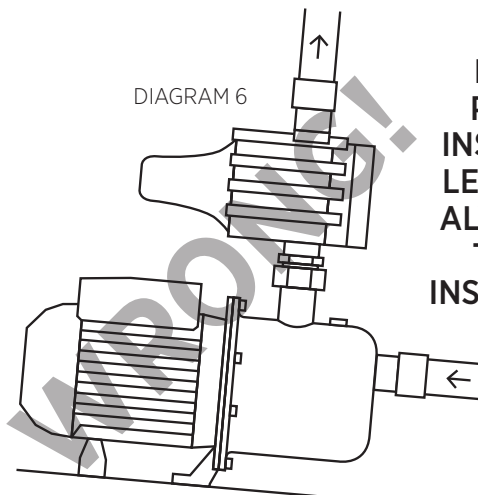
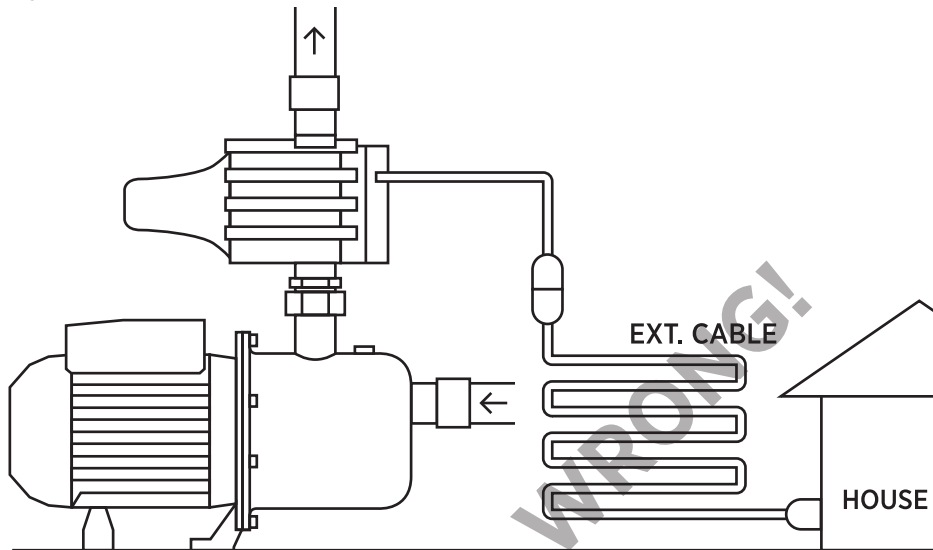


DIAGRAM 7

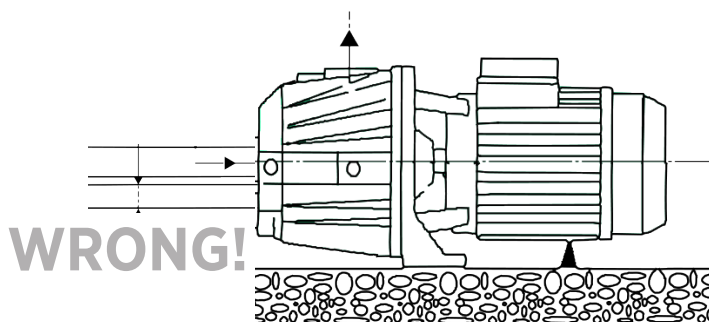


INCORRECT! DON'T USE EXTENSION LEADS.

NEVER USE AN EXTENSION CABLE TO CONNECT THE PUMP TO MAINS POWER.

ALWAYS CONNECT PUMP DIRECTLY TO DEDICATED POWER OUTLET.

DIAGRAM 9



INCORRECT! PIPES TOO SMALL!

FOR PUMP INLET, USE 25mm PIPE (INTERNAL DIAMETER). WE RECOMMEND 30mm FOR BEST PERFORMANCE. (FOR PUMPS WITH 32MM INTAKE OR LARGER, USE SUCTION PIPE ONE OR MORE SIZE LARGER).

For the outlet (discharge) pipework, use pipe that is the same diameter as the outlet of the pump, or NO MORE THAN ONE SIZE SMALLER. BIGGER PIPE = BETTER PERFORMANCE

PLEASE READ THE INSTRUCTIONS FOR MORE DETAILED INSTALL INFORMATION.

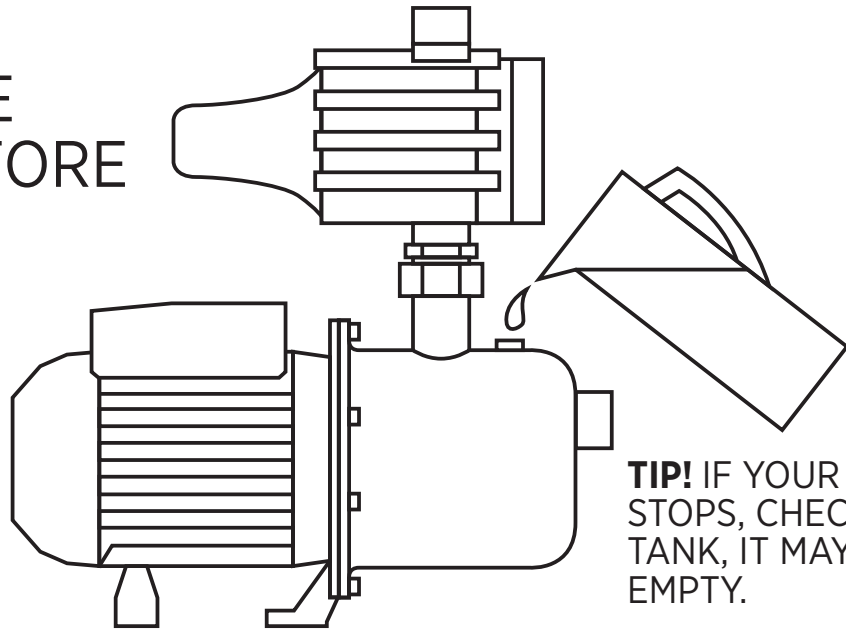
IMPORTANT

FOR VERY LONG SUCTION/INTAKE PIPEWORK, IT IS CRITICAL THAT THE CORRECT PIPE SIZE IS USED ESPECIALLY IN SUCTION-LIFT APPLICATIONS, CHECK WITH A QUALIFIED PUMP TECHNICIAN FOR THIS TYPE OF INSTALLATION.

IMPORTANT! ALWAYS PRIME THE PUMP BEFORE STARTING.

DIAGRAM 10

TIP
SOMETIMES YOU MAY
HAVE TO DO THIS
AFTER THE PUMP HAS
STOPPED DUE TO THE
TANK BEING EMPTY
OR LOW IN WATER.



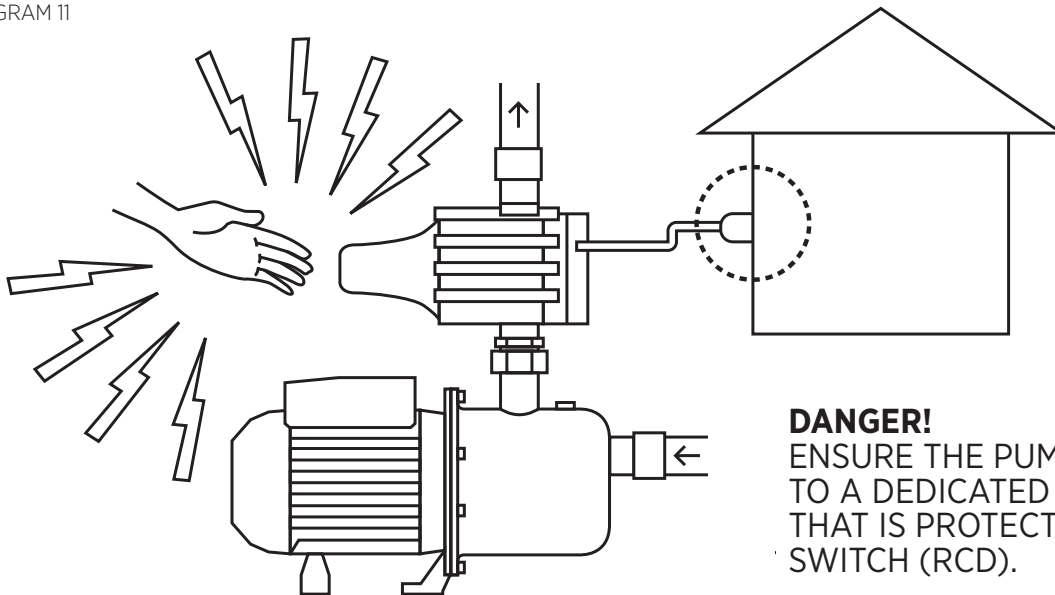
TIP! IF YOUR PUMP
STOPS, CHECK YOUR
TANK, IT MAY BE
EMPTY.



DANGER!

ALWAYS DISCONNECT THE PUMP FROM POWER WHEN INSTALLING, AND WHILE
SERVICING OR REPAIRING.

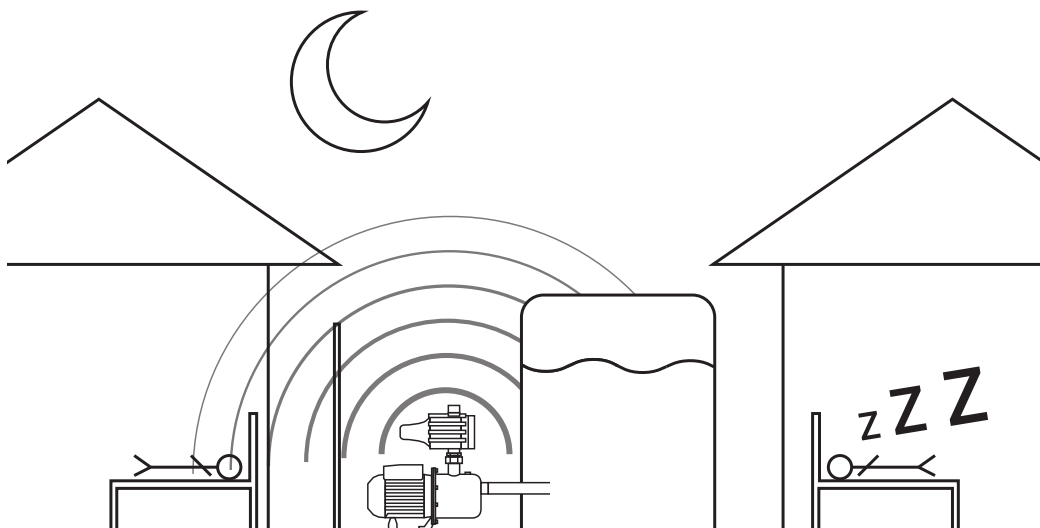
DIAGRAM 11



DANGER!
ENSURE THE PUMP IS CONNECTED
TO A DEDICATED POWER OUTLET
THAT IS PROTECTED BY A SAFETY
SWITCH (RCD).



DIAGRAM 12



IMPORTANT

CONSIDER
NEIGHBOURS WHEN
INSTALLING THE PUMP.
ALL PUMPS MAKE
SOME NOISE.





IMPORTANT - DO NOT EXPOSE THE PUMP DIRECTLY TO THE ELEMENTS. WE RECOMMEND THE PUMP IS PROTECTED WITH A PUMP COVER.



DIAGRAM 13

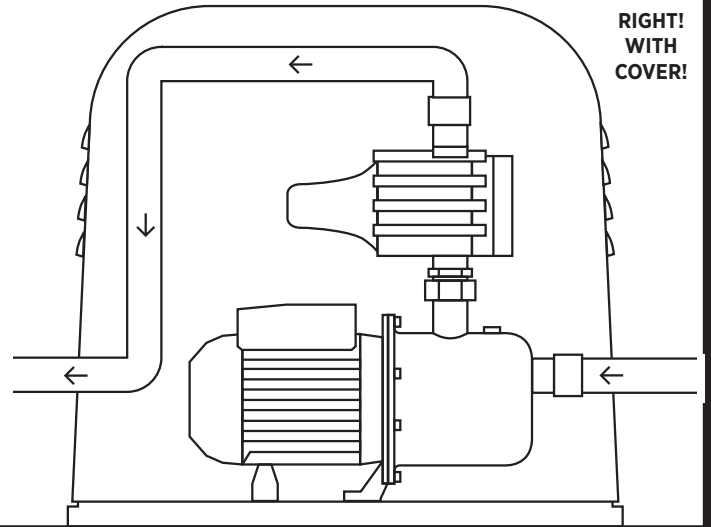
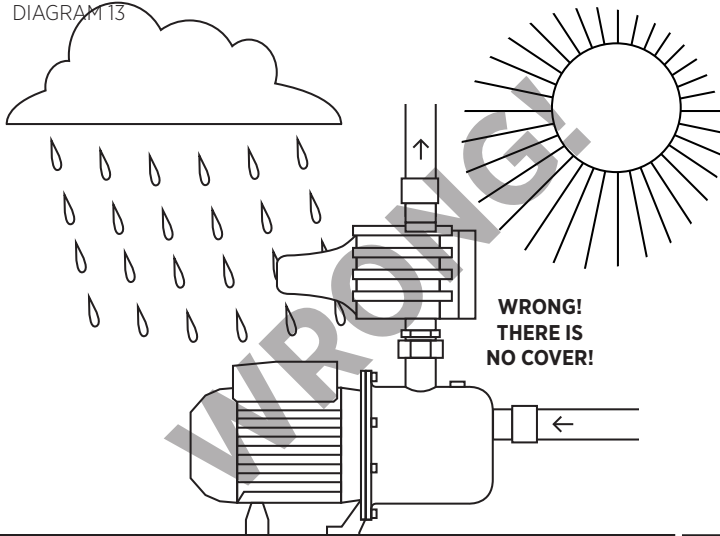


DIAGRAM 14



IMPORTANT! ENSURE THE PUMP IS SIZED CORRECTLY FOR THE JOB. TOO SMALL = LOW PERFORMANCE AND MAY USE EXCESS POWER, AND/OR OVERHEAT THE MOTOR AND/OR CAUSE PREMATURE FAILURE. THIS IS NOT A WARRANTY FAULT IF THIS OCCURS.

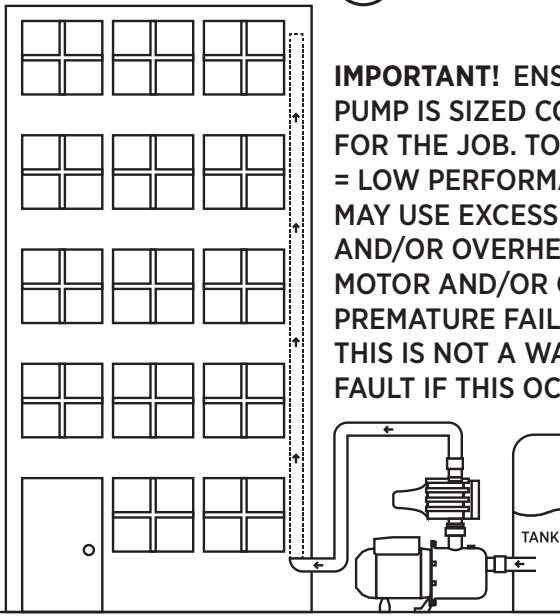
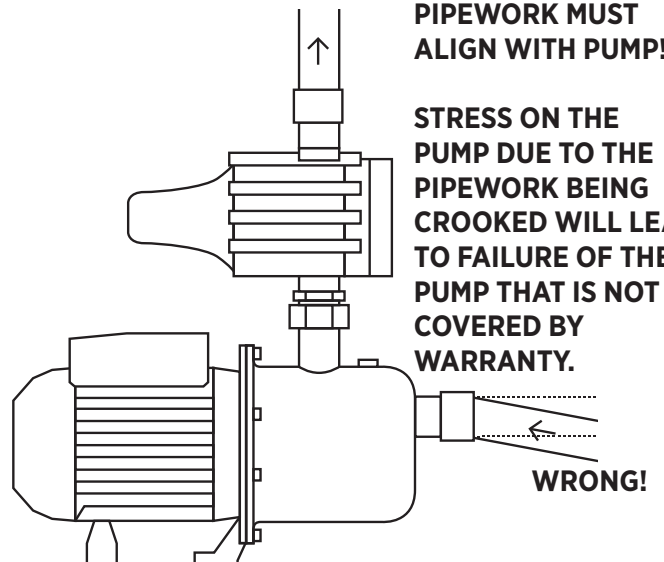


DIAGRAM 15



PIPEWORK MUST ALIGN WITH PUMP!

STRESS ON THE PUMP DUE TO THE PIPEWORK BEING CROOKED WILL LEAD TO FAILURE OF THE PUMP THAT IS NOT COVERED BY WARRANTY.



© Ascento Group Australia, 2020. IMPORTANT NOTICE: These diagrams are a guide only, it is the owners responsibility to ensure that the installation is carried out in accordance with applicable Electrical and Plumbing Standards and Local Council Regulations, and that the product is suitable for their purpose of use. Warranty does not include rectification of incorrect installation and/or problems caused by incorrect installation.

Thank you for purchasing our product. We trust it gives you years of trouble-free pumping!

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