



### OPERATION MANUAL

#### RDC SERIES – STAINLESS STEEL DOUBLE CASE PUMPS

Dear Client,

Congratulations on your purchase of this REEFE® Premium Series Pump. These pumps are developed and manufactured using advanced electrical and motor parts.

Please check on receipt of your pump:

- (1) Is the pump exactly what you ordered? Please check the nameplate.
- (2) Has any damage occurred during shipment? Are any nuts or bolts loose?

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

#### SPECIFICATIONS<sup>1</sup>

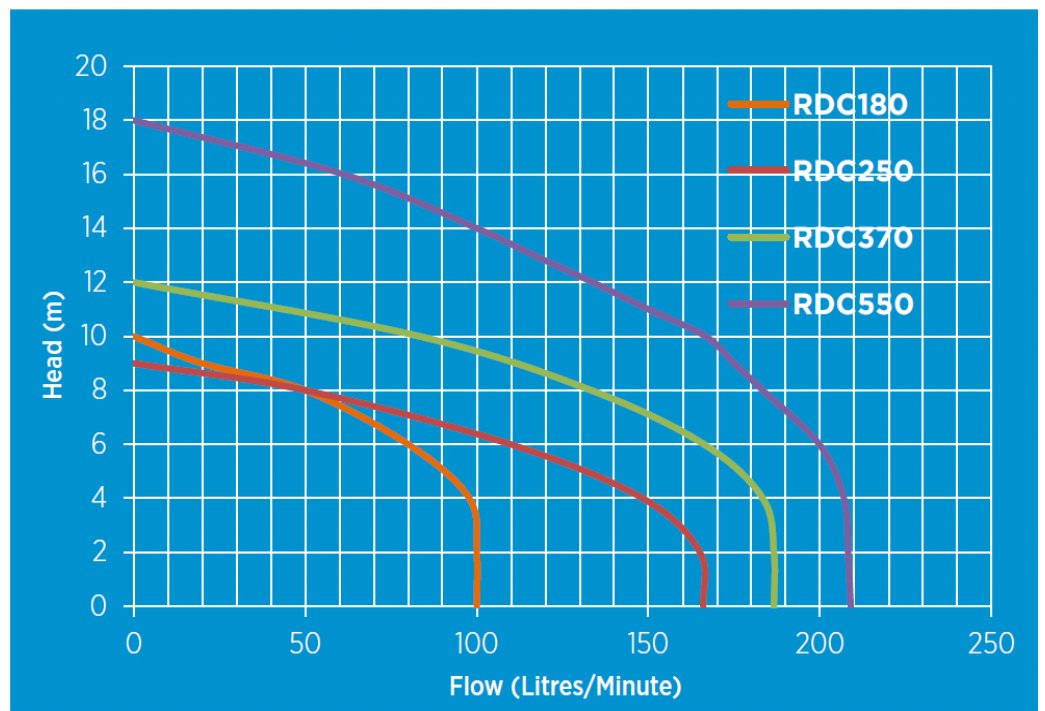




MODEL	POWER		OUTLET		RATED		MAXIMUM		SOLIDS HANDLING	WEIGHT	APPROX SIZE
	AMPS	WATTS	MM	INCH	FLOW L/MIN	HEAD (m)	FLOW L/MIN	HEAD (m)	MM	KG	LxWxH mm
RDC180	1.4	180	32	1 ¼	50	8	100	10	4	6.5	150 x 315 x 250
RDC250	2.0	250	40	1 ½	80	7	150	9	4	7.5	150 x 150 x 260
RDC370	2.5	370	50	2	110	9	170	12	4	8.5	185 x 185 x 360
RDC550	4.3	550	50	2	100	14	216	18	4	12.3	150 x 290 x 355

<sup>1</sup> Specifications are approximate and subject to change without notice at the discretion of Ascento Group Australia.

Check the nameplate for your pump's specification as per the table list. Do not exceed the given specifications in the use of you pump.

#### PERFORMANCE CURVES:



	<p><b>DANGER!!</b></p>	<p>Keep the pump equipment protected from interference by children, incompetent persons, livestock and pets!</p> <p><b><u>ALWAYS</u></b> disconnect power before handling the pump or the liquid the pump is in.</p>
	<p><b>WARNINGS!!</b></p>	<p>This pump is designed for pumping pump fresh water, storm water, grey water and rain water, with small soft particles, as per the specification chart, only.</p> <p>It must NOT be used for hazardous or flammable liquids or in areas where these substances are in use.</p> <p>This pump contains an oil chamber for protection of the mechanical seal – it must NOT be used in food industry or in aquaculture or any other use where there is risk to persons or animals if the oil should leak.</p>

## APPLICATIONS

The RDC series of pumps are suitable to pump fresh water, storm water, grey water and rain water, with small soft particles, as per the specification chart.

The water temperature may be from +5°C to 40°C Max.



**WARNING!!** The pump cannot be used for salt water and inflammable, corrosive, explosive or dangerous liquids. Ensure that the pump never runs without water.

## INSTALLATION GUIDELINES

- (1) Before installing or servicing this pump, be certain the pump power source is DISCONNECTED.
- (2) Do not position the pump where it the float could get caught, as if this occurs the pump will run dry and damage the pump, this damage is not covered by warranty.
- (3) **IMPORTANT:** For underground tanks or other types of installations where access is difficult, plan and construct the installation so that the pump is easily accessed through the tank opening – make the pipework to allow easy access – and include barrel-union connections so that it is simple to undo a barrel-union and lift the pump straight out of the tank that it is installed in.  
**DO NOT** install it in such a way that it is necessary to enter the tank to maintain, repair, service or simply to check the pump.
- (4) Installation under patios or similar areas must also be constructed in such a way as to allow easy access for maintenance, repair, servicing or simply to check the pump.
- (5) Ensure all fittings and joints are watertight. All installations must include barrel-union connections and be such that it is easy for the owner to change the pump without specialised equipment or trade-person needed.
- (6) **IMPORTANT:** It is recommended that a suitable non-return valve be installed in the discharge pipe, near the pump outlet.
- (7) Use a rope attached to the handle of the pump to raise and lower the pump from the tank, pit or well. NEVER use the electrical cable to lift or move the pump, all warranty is voided if so.

- (8) For any situation where there will be sludge or sand or other pollutants in the bottom, the pump must be raised above the level of the solids, to avoid clogging of the pump. If this is not possible, the pump should be housed in a non-corroding housing that will protect the pump from the large particles clogging the intake.
- (9) **IMPORTANT:** Pressure of the water at the discharge (taps, irrigation etc) is affected by the pipe size. The **SMALLER** your pipes, the **LOWER** the pressure will be at discharge. Example: 13mm ID pipe/hose over 20 metres at 30Lpm will reduce pressure at discharge by 240kPa (24m) - whereas if 25mm ID pipe is used for 20 meters at 30Lpm it only reduces pressure by a miniscule 10kPa (1m). Smaller pipe also means that more power will be used as the pump has to work harder to overcome the extra back-pressure from small pipes. A small short-term saving (in the cost of the pipes) will become a long-term liability.

Model	Outlet (BSP)	Discharge Pipe or Hose Internal Diameter
RDC180	32	32 - 40mm
RDC250	40	40 - 50mm
RDC370	50	50 - 63mm
RDC550	50	50 - 75mm

The larger size is recommended for best performance when there is long length of pipe or hose. Pipe sizes are ID (Internal Diameter).

- (10) Adjust the water height that the pump stops pumping, by loosening the clamp on the float cable, and lengthening or shortening the swing of the float. **WARNING:** Too long and the float will lie on the bottom and the pump will not stop until it overheats and burns out. Too short and the float might not go up and down as it should, with the result the pump not working. **WARNING:** Ensure that the float can operate freely or the pump will not work or will not stop, and burn out.
- (11) The installer is responsible for all installation aspects; the pump warranty never includes or covers problems with the installation, the installer must ensure that the installation is correct.
- (12) Installation and electrical wiring must adhere to all applicable Australian wiring rules, and any applicable state and local codes and must be completed before using the pump. All Electrical wiring must be performed by a licenced Electrician.
- (13)(a) Pump must be connected to a separate circuit, with a RCD (safety switch) having a residual operating current not exceeding 30mA. Note: plugging into existing outlets with other devices connected, may cause low voltage supply to the motor, causing blown fuses, tripping of motor overload, or burnt out motor, none of which are covered by warranty.
- (b) Surge protection – we recommend that a surge protector is used to protect the electronics of the pump, as damage due to power surges is not covered by warranty.
- (14) These pumps come with an earthed power plug and all electrical installations must be earthed. All electrical wiring must be performed by a licenced Electrician.
- (15) Voltage and power supply must match the voltage of the pump – 240 volt / 50Hz / 1Ph
- (16) **WARNING:** these pumps are not designed for and **CANNOT** be installed in locations classified as hazardous.
- (17) The following may cause severe damage to the pump and voids all warranty:
- Using an extension cord.
  - Cutting the earth pin off the plug or using an adapter fitting or double adapter.
  - Working on the pump while switched on or connected to the power supply.
  - Disassembling the pump, except by an authorised pump technician or by a licenced Electrician.
  - Pumping chemicals or corrosive liquids, or raw sewage.

- f. Pumping flammable liquids.
- g. Pumping hot liquids. (Exceeding 40 centigrade)
- h. Picking up the pump using the power cable or the float cable.

(18) PUMP USAGE

- a. Dry operation will destroy the pump seals and is not covered by warranty.
- b. If the pump does not pump water, check the discharge pipe work is free from airlocks, other obstructions and refer the TROUBLE-SHOOTING section.

(19) OVERLOAD PROTECTION – This pump has a built in thermal protection switch. The pump stops if an overload condition occurs. After it has cooled down, disconnect the power and investigate the cause of stoppage – it is usually because of a blockage. Continuing to use the pump without investigating the cause of the failure will lead to motor burn-out, which is not covered under warranty. If this occurs – check Trouble Shooting.

(20) MAINTENANCE

- a) Check the supply cable and the float switch cable periodically – if there is any evidence of damage or wear it must be replaced by a Licenced Electrician, or replace the pump.
- b) Starting daily, check the strainer on the base of the pump and clean it if it is clogged. Extend the period of time with experience of what is acceptable, to ensure the strainer is not clogged. Clogged strainer will severely reduce the performance of the pump, leading to extra power use and cost to the owner. Remember to always isolate the power supply before touching the water or the pump.
- c) Periodically check that the float switch is operating freely.
- d) No other maintenance is usually required. If the mechanical seals require replacement this must be conducted by an experienced and qualified person.

(21) IMPORTANT NOTES

- a. Do not switch the pump on and off frequently, as this will cause damage to the electronics and void warranty.
- b. If the pump is idle for a long period of time or in very low temperature, it should be removed, washed clean and stored in a safe place

## TROUBLESHOOTING CHECKLIST (CAUTION: SHUT OFF POWER TO PUMP)

Check the following before requesting service or repair.

A call out fee may apply to field services and additional labour cost may apply.

PROBLEMS	POSSIBLE CAUSES
Pump does not run	<ul style="list-style-type: none"> <li>*Circuit breaker or Safety Switch is off or fuse has blown</li> <li>*Water level in tank is too low to lift the float switch</li> <li>*Pump plug is not connected properly, or has been flooded or wet – Isolate power at main switch, remove plug and allow to dry. If problem continues, contact a licenced Electrician.</li> <li>*If all of the above are OK, then check the pump for clogged impellor.</li> <li>*If the overload switch has activated, investigate why this has occurred before turning it back on.</li> </ul>
Pumps runs but does not deliver water	<ul style="list-style-type: none"> <li>*Check valve is installed backwards. Arrow on valve should point in the direction of flow.</li> <li>*Discharge shut-off valve (if used) may be closed.</li> <li>*Impeller or volute openings are fully or partially clogged. Disassemble pump and clean.</li> <li>*Pump is air-locked. Start and stop several times by plugging and unplugging cord.</li> <li>*Vertical pumping distance is too high. Reduce distance or upgrade to a larger pump.</li> </ul>
Pump runs and does not stop	<ul style="list-style-type: none"> <li>*Float is stuck in up position. Be sure float operates freely in the sump.</li> <li>*Defective float switch. Call our warranty dept on 1800 807 604</li> </ul>
Pump not pumping properly	<ul style="list-style-type: none"> <li>*Too high head or pump under specified – Check specifications</li> <li>*Too low water level – Check the water levels</li> <li>*Pipework is too long</li> <li>*Pipework is too small</li> </ul>
Pump runs but delivers only a small amount of water	<ul style="list-style-type: none"> <li>*Pump is air-locked. Start and stop several times by plugging and unplugging cord.</li> <li>*Vertical pumping distance is too high. Reduce distance or upgrade to a larger pump.</li> <li>*Too low water level – Check the suction and water levels</li> <li>*Serious damage to the impeller – Impeller or volute openings are fully or partially clogged.</li> <li>*Pump impeller is partially clogged with particles, causing motor to run slow and overload – Disassemble pump and clean. See below</li> <li>*Pipework is too long or too small</li> </ul>
Fuse blows or circuit breaker trips when pump starts	<ul style="list-style-type: none"> <li>*Motor stator may be defective, have checked by a licenced electrician, or return for service.</li> <li>*Fuse size or circuit breaker may be too small. (Must be 15 amps or more).</li> <li>*Impeller or volute opening are fully or partially clogged. Disassemble pump and clean.</li> </ul>
Motor runs for a short time, then stops	<ul style="list-style-type: none"> <li>*Pump impeller is partially clogged with particles, causing motor to run slow and overload. Disassemble pump and clean.</li> <li>*Motor shaft may be overheating. Ensure there is water and float switch is not jammed in the up position.</li> <li>*Impeller or volute openings are fully or partially clogged. Disassemble pump and clean.</li> </ul>

**If after checking all of the above, and the fault continues,  
CALL our WARRANTY DEPARTMENT on 1800 807 604,  
Who will issue authorisation of repair or replacement or you may  
return it to the place of purchase for replacement or refund.**



### ELECTRICAL PRECAUTIONS

Before servicing a pump, always shut off the power supply and then make sure you are not standing in water and that there is no risk of electrical shock.

If the pump is direct-wired to the electrical circuit, contact your qualified licensed electrician to disconnect if required.

**DO NOT ATTEMPT ELECTRICAL REPAIRS OF ANY SORT UNLESS YOU ARE A LICENSED ELECTRICIAN**

## 2 YEAR 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. If you (the purchaser) do not fall within the meaning of 'consumer' in the Australian Consumer Law the provisions of the Australian Consumer Law will not apply to you. The following conditions form part of the instructions and do not over-ride your statutory rights.
2. This warranty covers failure due to manufacturing defects for REEFE® Pumps and WaterPro® Pumps purchased and used in mainland Australia. We shall repair or replace faulty goods when we ascertain that the fault is due to manufacturing defects, within the period of time as advised by us for any particular item. If you require a refund, you must return the item to the original place of purchase.
3. Faults or losses or failure caused due to: Accidents, misuse, lack of maintenance, not following these instructions, damage caused by lightning strike/power surges/spikes/brownouts/operating the pump on power other than 240volts 50Hz mains power/operating the pump on power supplied by a domestic generator - are not covered by warranty.
4. Where fitted: The complete Impeller set (including shaft), Pre-filter Sponge, 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 are faulty due to a manufacturing defect.
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
6. The Warranty excludes accidental or deliberate breakages, normal wear and tear, fading or breakdown due to the effect of exposure to sunlight or chemicals (including chlorine), or any other external factor that may affect the life of the product.
7. This product is guaranteed as fit for the purpose of pumping CLEAN WATER and GREY WATER and STORM WATER in 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 pipe work & 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.
8. IMPORTANT: No electrical appliances last forever. Therefore ALL installations of these pumps must be constructed to allow the owner to easily remove the pump for servicing, and to easily remove the pump 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. Warranty replacement does not normally include costs of removal and re-installation as we have no control over the method of installation.
9. Before installing or servicing disconnect from the power supply. All pumps must be installed using barrel-union connections to facilitate easy servicing or replacement. Also ball-valves or gate-valves must be fitted on the discharge and the suction (where applicable).
10. 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.
11. 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.
12. The Pump must be correctly earthed and connected to its own separate circuit, with an integral RCD (safety switch) in the circuit breaker.
13. In the case of a fault, refer to the Trouble Shooting Guide first. If these steps do not rectify the problem, then 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 at [sales@reefe.com.au](mailto:sales@reefe.com.au) with a photo of the faulty item, 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. Do not send the product to us unless we ask you to do so.
14. If an exact replacement is not available, the closest equivalent product will be supplied at our discretion.
15. 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.



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