

## PRODUCT OVERVIEW

The VADA series of self priming jet pumps combine the functional benefits of centrifugal pumps and the practical and qualitative benefits of self-priming pumps. The Venturi system the pumps are fitted with guarantees optimum hydraulic efficiency and great performance under high suction lift applications

## CONSTRUCTION

Pump Casing	X5 CrNi 1810 (AISI 304) stainless steel
Motor Bracket	Die-cast aluminium
Impeller	Technopolymer with stainless steel shim ring
Monobloc diffusor Venturi tube nozzle assembly	Technopolymer
Shaft	X12 CrNiS 1809 (AISI 416) stainless steel
Mechanical Seal	Graphite
Counterface	Ceramic
Seal Holder Plate	X5 CrNi 1810 (AISI 304) stainless steel
O-ring	NBR 70 Shore



## USAGE LIMITATIONS

- Type of liquid: clean water with no suspended solids or abrasive material
- Maximum liquid temperature: 50°C
- Maximum ambient temperature: 40°C
- Maximum recommended suction height: 8m with foot valve
- Maximum operating pressure: 6 bar

## MOTOR

- Enclosed, externally ventilated
- Level of protection IP44
- Class F insulation
- Single phase power supply with capacitor permanently activated
- Thermal protection built into the motor winding
- Speed of rotation 2850 rpm
- Suitable for continuous use

## WARRANTY

You have purchased a quality product from Reece Australia. This product is covered by a 24 month warranty. This warranty covers faults in the product construction, material and assembly. Faulty products will be repaired or exchanged free of charge. Faulty items become our property.

This warranty does not include faults caused by

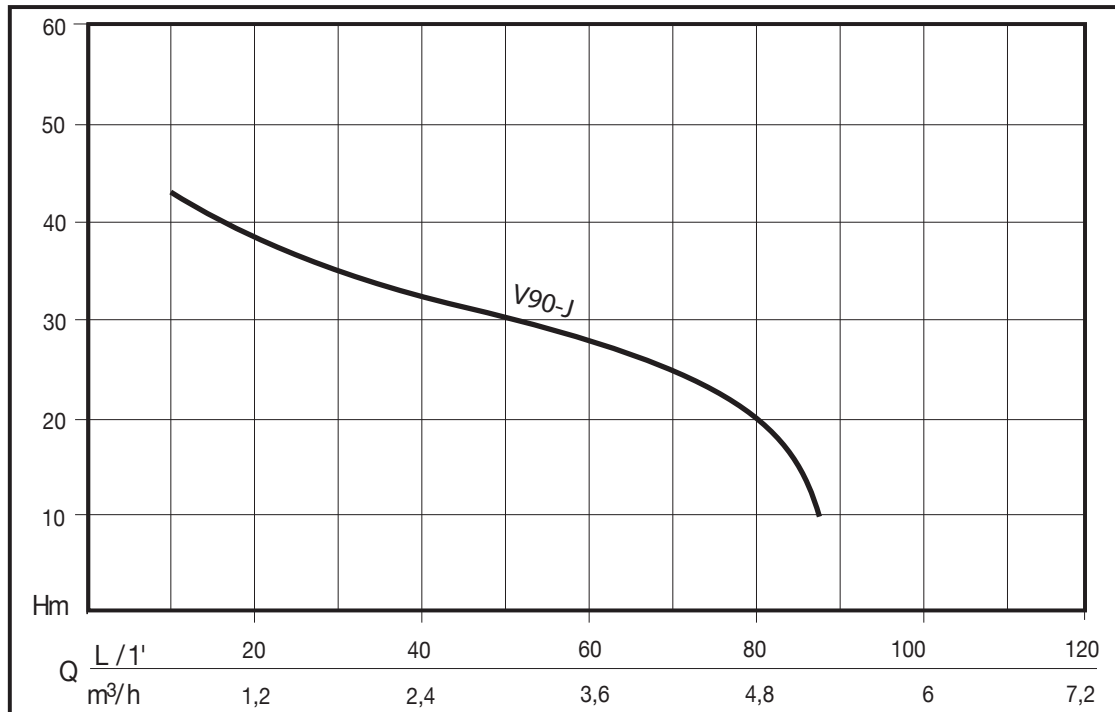
- Unsuitable or improper use
- Incorrect installation
- Normal wear and tear
- Inadequate or complete lack of maintenance
- Chemical, electrochemical or electrical influences

To the maximum extent permitted by law, Reece excludes all warranties other than those set out above. In the event of a warranty claim, we will replace or repair defective products, or pay for the cost of having defective products repaired or replaced, but will not be liable for any injury to any person, damage to any property, any indirect or consequential loss, or in any other respect.

### Disclaimer:

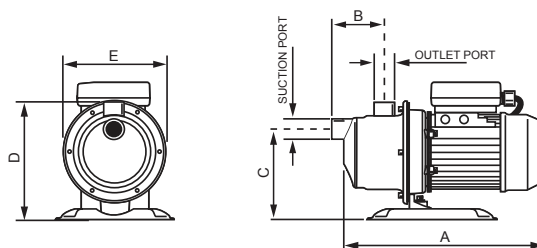
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## TABLE OF HYDRAULIC PERFORMANCE



## PUMP PERFORMANCE

Model	Nominal power		Absorbed power		Voltage	Amp	μF	Q	Discharge head in meters								
	HP	kW	HP	kW					0	10	20	30	40	50	60	70	80
V90-J	1.2	0.9	2	1.5	1-220/240V	7	25	Discharge head in meters	50	42	39	37	33	30	27	25	20



## PUMP DIMENSIONS

Model	Dimensions (mm)							Weight
	A	B	C	D	E	Suction Port	Outlet Port	kg
V90-J	430	98	168	260	235	1" 1/4 M	1" F	13

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## INSTALLATION

Please pay careful attention to the following warnings signs and indications.



Only qualified, licensed personnel should install pump. The electrical installation shall be in accordance with the national wiring rules (AS/NZS 3000) for class 1, IP44 rated products.



These instructions are a guide only. Users not familiar with pumping equipment should seek advice from people experienced in pump equipment and installation.



Freezing conditions will damage the unit, because when water freezes it expands. Ensure that the pump is located so that it is not prone to freezing, or ensure that the product is disconnected and dried of water during cold conditions.



The pump is electrically connected. Ensure that it is isolated from electrical supply during installation and any subsequent service work.



The pump is designed to be used with clean water in a residential application. Do not use it with alternative fluids, specifically abrasive, corrosive or explosive fluids. Do not install or operate your pump in an explosive environment or near combustible matter.



Incorrectly installed or tested equipment may fail, causing severe injury or property damage.



Fire and burn hazard. Modern motors run at high temperatures. To reduce risk of fire, do not allow leaves, debris, or foreign matter to collect around the pump motor. To avoid burns when handling the motor, let it cool for at least 20 minutes before trying to work on it. A thermal overload switch protects the motor from heat damage during operation.

## PREPARING FOR INSTALLATION

Inspect your pump, ensuring that it is well packaged and has not been damaged in transport. If the pump is damaged, report it to the Reece branch where the pump was purchased. Make sure the suction piping is completely air tight and is laid so that there can be no air locks. Warranty of these pumps is void unless they are operated in accordance with these instructions.

## PUMP PROTECTION

The pump should be protected from the weather, floods, chemicals, dust, vermin and insects. It is recommended that the pump be housed in a weather proof, well vented enclosure.

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## GENERAL INSTALLATION

### 1. Fitting and Auto Pressure Control or Mains Water Switch Over Device

If you are using a Vada Auto Pressure Control or a Mains Water Switch Over Device with your pump, connect it either directly to the top of the pump or in a suitable position in line with the delivery piping. For further instructions on connecting these devices, please refer to the manual supplied with your unit. Ensure that the power lead remains disconnected until you have completed the installation process.

### 2. Locating the Pump

Find a location for your pump as close to your water source as possible. Ensure that this location is stable, dry and on a separate footing from your home. To do this you can mount the pump on a concrete base.

### 3. Power Source

Arrange for an electrician to install a 10A weatherproof outdoor power point near the pump if there is not one there already.

### 4. Suction

This is the most important part of the installation as errors will cause significant problems for the system in performance and longevity. A gate valve must be installed at the water source outlet. To maintain optimum performance from your pump, the suction pipe should be:

- Kept to the shortest length practical.
- Re-enforced crush resistant (non-collapsible) hose or pipe.
- All fittings should be air tight.
- Pipes should be equal to or larger than the diameter of the suction/inlet port.
- When pumping from a well/pit etc. a foot valve should be installed on the suction pipe.
- Optional: Fitted with a suction Strainer/Filter\*

\*In-line strainers/filters are only recommended for pumps fitted with a Vada Auto Pressure Control or a Mains Water Switch Over Device. Regular maintenance is required to keep them clean and provide maximum pump pressure.

### 5. Discharge

The length and diameter of the discharge hoses/pipes will affect the pressure and flow rate at which your pump operates. Pressure ratings of all components must exceed the maximum pressure of the pump by an appropriate safety factor. All pipe work should be supported independently of the pump.

If you want to test that the pump is operating correctly prior to having the plumbing connected, attach a hose with a trigger nozzle to the top of the pump or the connected discharge hoses/pipes.

### 6. Pump Priming

Ensure that there is at least 200mm of water in your tank, (i.e. that the tank outlet is covered, and the pump will not draw any air into the system). Open the gate valve on the water source. Check for any leaks, and repair these if necessary.

- If no leaks are present, remove the priming plug to open the priming port on the top of the pump case. If the tank is above the level of the pump, water will start to run out of this port. Replace the priming plug carefully. Your pump is not ready to run.
- If the tank water level is below the level of the pump, you will need to fill the pump body and suction line. Remove the priming plug and fill the pump body and suction line using a funnel.

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## ELECTRICAL INSTALLATION



In accordance with AS 3350.2.41 we are obliged to inform you that this pump is not to be used by children or infirm persons and must not be used as a toy by children



The pump must be supplied by an outlet protected by a residual current device or earth leakage circuit breaker with a maximum rated residual current of 30mA

The pump is supplied with:

- A fixed cable featuring a weatherproof IEC socket
- A separate power cable which features a weatherproof IEC plug and a standard Australian 10 amp plug.

If connecting directly to a power outlet, simply connect the two supplied cords using the IEC socket and plug. If you are installing a Vada Auto Pressure Control or a Mains Water Switch Over Device, connect the IEC socket from the pump to the IEC plug cord on the device.

Ensuring there are no water traces on the connectors push them firmly into each other to ensure intended splash (water) proof protection. This connection shall be separated again only for service purpose and only after the power supply is removed by unplugging the cord from the socket outlet. The socket outlet shall be in dry and flood free location; preferably do not use extension cords for this very reason and because they can cause voltage drop. Supply voltage outside limits specified in Model Data can cause motor overheat leading to overload tripping, reduced component life or seriously damage pump and voids warranty.

For additional protection, the pump must be supplied from an outlet protected by a residual current device – RCD (also known as an Electrical Leakage Circuit breaker – ELCB) with a maximum rated residual current of 30mA.

## OPERATION



The pump operator or owner must be provided with this owner's manual. This must be read before operation, and followed during operation.



Fire and burn hazard. Modern motors run at high temperatures. To reduce risk of fire, do not allow leaves, debris, or foreign matter to collect around the pump motor. To avoid burns when handling the motor, let it cool for at least 20 minutes before trying to work on it. A thermal overload switch protects the motor for heat damage during operation.



Ensure that your pump is filled with water before operating.



**DO NOT RUN PUMP DRY**  
Ensure that your pump is primed before operating



The pump is designed to be used with clean water in a residential application. Do not use it with alternative fluids, specifically abrasive, corrosive or explosive fluids. Do not install or operate your pump in an explosive environment or near combustible matter.

## START-UP/OPERATION

Open all valves in the suction and discharge lines. When the power is turned on, the pump will start to pump water. Without an Auto Pressure Control or Mains Water Switch-Over Device, the pump will continue to operate until the power is switched off.

Most applications will incorporate an Auto Pressure Control or Mains Water Switch-Over Device which will stop the pump as soon as it has pressurised the system it is connected to. For instructions on operating your pump with one of these devices, please refer to the manual that came with your unit.

The system is now ready for use. If no water is delivered, check the troubleshooting section.

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## SERVICE AND MAINTENANCE



Pump should only be serviced by qualified personnel. For best results, use only genuine service parts. Be sure to prime pump before starting.



Liquid may be HOT, release pressure with care before servicing.



To avoid dangerous or fatal electrical shock hazard, turn OFF power to motor and remove plug from power outlet before working on pump or motor.

## GENERAL CARE AND MAINTENANCE

Under normal conditions VADA pumps do not need any type of maintenance. In order to avoid possible failures, it is advisable to periodically check the pressure supplied and current absorption. A decrease in pressure is a symptom of wear. An increase in current absorption is a sign of abnormal mechanical friction in the pump and/or motor.

If the pump is not going to be used for long periods of time it should be emptied completely, rinsed with clean water and put in a dry place.

## TROUBLE SHOOTING GUIDE

Symptom	Cause	Remedy
The motor will not start, no water is pumped	No electricity	Ensure that the pump is connected to a live outlet
	Motor protection tripped	Verify the cause and reset the switch. If the thermal circuit breaker has tripped wait for the system to cool down
	Defective condenser	Replace the condenser
The motor runs but no water is pumped	Shaft blocked	Verify the cause and unblock the pump
	The pump is sucking air	Makes sure that the joints are airtight
		Check that the level of liquid has not dropped below the minimum priming level.
	The pump rotates in the wrong direction	Reset the direction of rotation
The pump stops after running for a short period of time because the thermal motor circuit breaker trips	The power supply does not conform with the data on the nameplate	Check the voltage on the power supply cable leads
	A solid object is blocking the impellers	Call 1800 032 566 for your nearest Reece branch
	The liquid is too thick	Call 1800 032 566 for your nearest Reece branch. You may need a different type of pump

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