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Installation and Operating Instructions

Introduction

The AcquaSaver[™] Valve is a fully automatic adjustable mechanical rainwater/mains water changeover device designed for pressure pump supply systems for harvesting rainwater for the toilet, laundry and household applications with automatic mains backup. It is suitable for up to 2 toilets and washing machine in a single story house.

Operation

The AcquaSaver[™] Valve will always prioritize the use of rainwater over mains water when rainwater is available and will automatically switch over to mains water in the event of the rainwater tank running low or electrical failure. When water has been replenished or power has been restored to the pump, the AcquaSaver[™] Valve will automatically prioritize back to rainwater. The pump is only active when rainwater is being drawn from the water tank, it does not operate when the AcquaSaver[™] Valve has switched to mains position. The pump controller starts and stops the pump when it detects a demand - for example flushing a toilet or using a washing machine.

The operating mechanism of the AcquaSaver[™] Valve is a unique patent design, it works by hydraulic water pressure created by the pump to close one inlet fully before opening the other inlet without restriction of flow. This ensures an extremely reliable mechanism using few moving parts and no electronic components and no energy consumption.

Features

- Easy to install
- Patent design
- Adjustable mains pressure
- Does not require maintenance
- No electrical consumption No electronic components
- Solid brass construction Fully weatherproof -Built to last
- Suitable for any pressure pump with sufficient head pressure
- Can be mounted in any position
- Built-in dual check valve for backflow prevention
- 2 Year warranty

Connection

All plumbing connections should be carried out by a licensed plumber.

Step 1.

The AcquaSaver[™] Valve is fitted onto the pump controller as shown in Fig 1. lock up the 1" BSP F loose nut with the rubber washer supplied.

Step 2.

Connect mains water to the AcquaSaver[™] Fig 2. using the 1" BSP Nut.

Step 3.

Connect outlet to the household Fig 2. using the 3/4" BSP Nut. Fig 3. Shows a typical installation for a submersible pump.

NOTE: The AcquaSaver[™] Valve can be installed in any position and location, it does not require to be installed on the pump as shown in diagram. Connection of the pump should be carried out to manufacturer's instructions, It is recommended a Y-Strainer be fitted between the tank and pump.

NOTE: Pump needs to be primed before use.

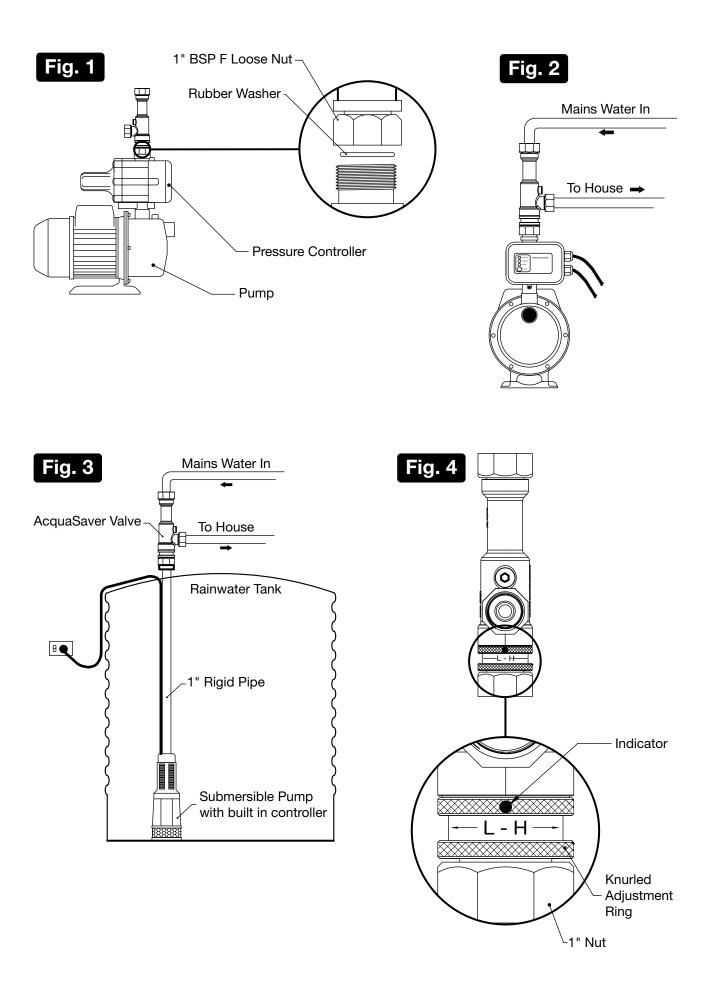
Specifications

Max Mains Pressure	500 KPa	
Max Pump Pressure	500 KPa	
Min Pump Pressure	250 KPa	
Max Flow Rate	35 LPM	
Max Water Temperature	40 C	
Min Water Water Temperature	0 C	
Pump Inlet	25mm 1" BSP F	
Mains Water in	25mm 1" BSP F	
Outlet	20mm 3/4" BSP F	
Weight	0.7 KG	

Meets Requirements of ATS 5200.477

Complies to AS/NZS 3500.1 when installed by a licensed plumber

NOTE: According to AS/NZS 3500.1 maximum allowable pressure in buildings is 500 KPa



Adjustment Ring

The AcquaSaver[™] Valve has a built-in adjustable pressure device, which can be adjusted by rotating the knurled adjustment ring.

L – Refers to low household mains pressure H – Refers to high household mains pressure

Using the adjustment device Fig 4.

Step 1.

Turn off pump and isolate the tank water.

Step 2.

Loosen the 1" Nut.

Step 3.

Rotate the Knurled adjustment ring to the required pressure, or make 1/2 turn adjustments until pressure is correct.

Step 4.

Tighten Nut

Step 5.

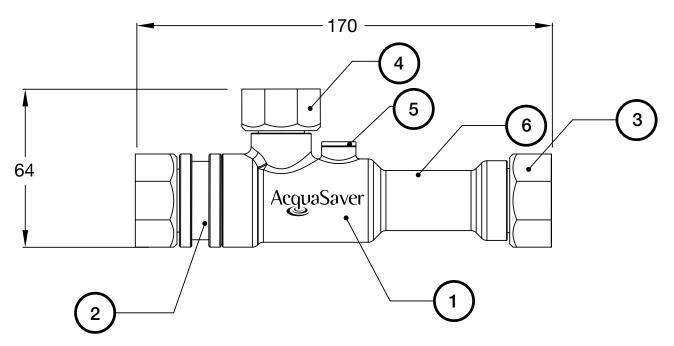
Open isolation valve on tank, turn on pump.

Warning! rotating the Knurled Adjustment Ring under pump pressure will make rotating difficult, rotating ring should always feel free, rotating beyond its limits may cause damage.

An adjustment is only required when no water is being delivered from the pump or no water is being delivered from the mains water. Turning the Knurled Adjustment ring in the direction of L "Low" will adjust the pressure for low household mains pressure. Rotating in the direction of H "High" will adjust pressure for high household mains pressure e.g. rotate to "L" if there is no mains water being delivered or rotate to "H" if the pump does not start when tank water is available. This chart shows the approximate numbers of turns starting at 0 turns for low mains pressure, use the indicator marked to help.

Mains Pressure	No. of Turns
200 KPa	0
250 KPa	0 - 0.5
300 KPa	0.5 - 1
350 KPa	1.5 - 2
400 KPa	2.5 - 3
450 KPa	3 - 3.5
500 KPa	3.5 - 4.5

Parts List



No.	Component	Qty	Material	Part No.
1	AcquaSaver™ Body	1	DZR Brass	WDV25-20
2	Pressure Adjustment Body	1	DZR Brass	WDV25-20
3	DN25 Nut	2	Brass	DN25 Nut
4	DN20 Nut	1	Brass	DN 20 Nut
5	1/8 BSP Plug	1	Brass Nickel plated	RA46 00 18
6	Dual Check Valve	1	DZR Brass	N/A

Trouble Shooting

Symptom	Cause	Remedy
No water is delivered from pump.	Rainwater tank is empty. No Power. Isolation Valve is shut. Pump is not primed. Pressure adjustment set to low. Y-Strainer is blocked.	Wait for tank to fill. Check power supply & plug. Restart pump. Open isolation Valve. See pump owner's manual on priming pump. Refer to instructions. Clean Y-Strainer.
No water is delivered from mains. Pump continually runs.	No water from mains. Debris in valve. Pressure adjustment set to high. Mains pressure below 200 KPa. Leak in the plumbing system. E.g. Toilet or tap leaking.	Check isolation valve on water meter. Refer to instructions Repair Leak.

Maintenance

The AcquaSaver[™] Valve does not require any maintenance however there are things you can do to ensure its most reliable operation.

- Fit a Y-Strainer
- Cleaning your gutters
- Cleaning the inlet strainer on rainwater tank

Warranty Information

AcquaSaver[™] warranty for Australia and New Zealand

The AcquaSaver[™] Valve is guaranteed for a period of 2 years from the date of original purchase to be free of material or manufacturing defects. Should any part fail as a result of such defects within this period, the AcquaSaver[™] valve will be repaired or replaced free of charge. The AcquaSaver[™] Valve also has a LIMITED LIFETIME WARRANTY on all brass components, any brass component will be replaced free of charge if it fails in normal use during its life.

This warranty applies in all states and territories in Australia and New Zealand. The warranty period commences on the day of the original purchase of the AcquaSaver[™] Valve. Evidence of this purchase must be provided when claiming repairs or replacement, it is recommended you retain all receipts.

Both warranties are subject to conditions by the original purchaser with all conditions set out in the installation and operating instructions. Failure to comply with these instructions, damage or breakdown caused by fair wear and tear, negligence, misuse, incorrect installation, chemical or additives in the water, corrosive or abrasive water, inadequate conditions, attempting repairs or accidents, are not covered by this warranty.



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