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Installation and Operating Instructions

Introduction

The AcquaSaver[®] Valve is a fully automatic 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 and an extra tap outlet

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 rainwater 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. This ensures an extremely reliable mechanism using few moving parts and no electronic components and no energy consumption.

Features

- Easy to install
- Patent design
- Solid Brass mounting bracket (optional)
- Watermark approved to WMTS477/LN60075
- Does not require regular 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

Flow Rates



Pressure drop vs flow rate - Main inlet side

Pressure drop verssus flow rate between the mains water inlet side and the outlet of the device



Pressure drop vs flow rate – Pump inlet side

Pressure drop verssus flow rate between the rainwater inlet side and the outlet of the device







Fig. 3





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, do not over tighten.

Step 2.

Connect mains water to the AcquaSaver Fig 2.

Step 3.

Connect outlet to the household

Fig 3. Shows a typical installation for a submersible pump.

Fig 4. Shows the AcquaSaver mounted surface using an AcquaSaver bracket

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 that a Y-Strainer be fitted between the tank and pump.

Specifications

Max Mains Pressure	500 KPa
Max Pump Pressure	600 KPa
Min Pump Pressure	300 KPa
Max Flow Rate	50 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	0.85 KG

Meets Requirements of WMTS477/LN60075

Complies to WMTS477/LN60075 when installed by a licensed plumber

NOTE: According to WMTS477/LN60075 maximum allowable pressure in buildings is 500 KPa

Parts List



No.	Component	Qty	Material	Part No.
1	Acquasaver Body	1	DZR Brass	WDV20-S B
2	End Cap	1	DZR Brass	WDV20-S EC
3	DN25 Nut	2	Brass	DN25 Nut
4	Brass Tail	1	DZR Brass	WDV20-S BT
5	1/8 BSP Plug	1	Stainless Steel	N/A
6	Dual Check Valve	1	N/A	N/A

Trouble Shooting

Symptom	Cause	Remedy
No water is delivered from pump or pump performance is decreased.	Rainwater tank is empty. No Power. Isolation Valve is shut. Pump is not primed. Y-Strainer is blocked.	Wait for tank to fill. Check power supply & plug. Restart pump. Open isolation Valve. See pump owners manual on priming pump. Clean Y-Strainer.
No water is delivered from mains.	No water from mains. Debris in valve.	Check isolation valve on water meter. Open bleed plug
Pump continually runs.	Leak in the plumbing system. E.g. Toilet or tap leaking. Faulty pump	Repair Leak. Contact pump manufacturer.

Maintenance

The AcquaSaver® Valve does not require any regular 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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