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 ATS/NZS 5200.477
- 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 versus flow rate between the mains water inlet side and the outlet of the device

**Pressure drop vs flow rate – Pump inlet side**

Pressure drop versus flow rate between the rainwater inlet side and the outlet of the device
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 overtighten.

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

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Mains Pressure</td>
<td>500 KPa</td>
</tr>
<tr>
<td>Max Pump Pressure</td>
<td>600 KPa</td>
</tr>
<tr>
<td>Min Pump Pressure</td>
<td>300 KPa</td>
</tr>
<tr>
<td>Max Flow Rate</td>
<td>50 LPM</td>
</tr>
<tr>
<td>Max Water Temperature</td>
<td>40 °C</td>
</tr>
<tr>
<td>Min Water Temperature</td>
<td>0 °C</td>
</tr>
<tr>
<td>Pump Inlet</td>
<td>25mm 1” BSP F</td>
</tr>
<tr>
<td>Mains Water in</td>
<td>25mm 1” BSP F</td>
</tr>
<tr>
<td>Outlet</td>
<td>20mm 3/4” BSP F</td>
</tr>
<tr>
<td>Weight</td>
<td>0.85 KG</td>
</tr>
</tbody>
</table>

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.
### Parts List

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

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**Acquasaver**

**BAS20-S**

*Installation and Operating Instructions*

*AS220-S ISSUE A 06-11-2017*
## Trouble Shooting

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

## 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.