Flomatic Plus RPZ Repair Manual

DN15-50mm (½" – 2")

⚠ WARNING

The device should be maintained and serviced by authorised personnel only, subject to local regulatory authority requirements, the National Construction Code Volume Three-Plumbing Code of Australia, AS/NZS 3500 and applicable reference standards.

This product must be tested at initial installation, after maintenance and at a frequency of at least once per year according to AS/NZS 2845.3 and local regulatory authority requirements.

Relief Valve Servicing

Follow the following steps to inspect and service the relief valve, referring to components in Figure 1. No special tools are required to disassemble and service the valve.

⚠ WARNING

All O-rings should be lubricated with food grade or AS/NZS 4020 approved 100% silicone grease only.

1. Notify any occupants of the temporary shut-off to water supply. Close the inlet and outlet isolation valves. Relieve internal pressure from the valve by opening all three test cocks by turning with a screwdriver.
2. Remove the four bolts from the top access cover while holding the cover down.

⚠ WARNING

The relief valve mechanism is spring loaded. Hold the cover down when removing the bolts to avoid injury or damage.

3. Lift the cover straight up to remove. The relief valve module will normally remain with the cover as it is removed.
4. Remove the relief valve module from the cover. The rubber diaphragm and washer can be cleaned without disassembling from the stem. Clean the sealing O-ring, rubber diaphragm and rubber washer and inspect for damage or signs of wear.
5. The relief valve spring will remain free inside the body. Remove the spring and retainer, clean if necessary and set aside.
6. The relief valve seat is located at the bottom of the body bore. Check the seat for debris and, if necessary, remove for cleaning by pressing from underneath the valve body. Check the O-ring is clean and lubricated and press the seat firmly back into the body.
7. If any relief valve components are damaged, replace using a suitable repair kit from the Parts List.
8. Before reassembling the relief valve, it is recommended to also inspect and service the check valves by following the steps in Check Valve Servicing section.
9. To reassemble the relief valve, reinstall the retainer and place the spring over the centre of the seat. Lubricate the relief valve module O-ring and reassemble to the cover. Check the cover O-ring is assembled, clean and lubricated. Lower the cover and relief valve module together slowly into the bore. Press down on the cover to ensure proper alignment.

⚠ WARNING

If the cover does not press flat against the body, the stem assembly is crooked and damage can result. Realign the stem, spring and cover before assembling the bolts.

10. Reassemble the four bolts into the cover and check they are securely tightened. Close the three test cocks.
11. Follow the Start Up Procedure section to resume operation.

Check Valve Servicing

Follow the following steps to inspect and service the check valves, referring to components in Figure 5. No special tools are required to disassemble and service the valve.

1. Remove the relief valve assembly by following the steps in the Relief Valve Servicing section.
2. After removing the retainer from the body bore. The check valve modules can be removed by hand or with a flat head screwdriver. Note the first and second check. The seats and springs of the first and second check modules are not interchangeable. The heavier spring and smaller seat belong with the first check module, which is installed on the inlet side of the valve.
3. Inspect the plastic seat and O-ring on each check valve for debris or damage.
4. Inspect the rubber disk for damage. If necessary, replace the check valve with a suitable repair kit from the Parts List.
5. Clean all components and flush the valve body. Lubricate the O-rings and reassemble the check valve modules with the spring side pointing towards the inlet. Reinstall the retainer. The modules must be inserted fully for the retainer to fit.
6. Follow the remaining steps the Relief Valve Servicing section to finish the reassembled and Start Up of the device.

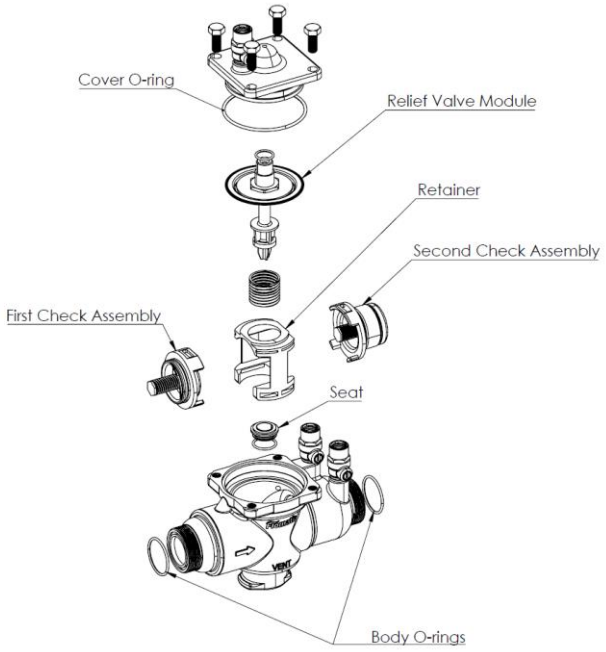
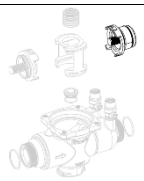


Figure 1: Exploded View of the RPZ Device

Flomatic Plus RPZ Parts List

ORDER CODE	PRODUCT CODE	DESCRIPTION	IMAGE
61132201	PP-FLO-RPZ-15-25-CK1	**First Check Valve** for DN15/20/25 RPZ	
61132202	PP-FLO-RPZ-32-50-CK1	**First Check Valve** for DN32/40/50 RPZ	
61132203	PP-FLO-RPZ-15-25-CK2	**Second Check Valve** for DN15/20/25 RPZ	
61132204	PP-FLO-RPZ-32-50-CK2	**Second Check Valve** for DN32/40/50 RPZ	
61132205	PP-FLO-RPZ-15-25-RV	**Relief Valve Repair Kit** for DN15/20/25 RPZ	
61132206	PP-FLO-RPZ-32-50-RV	**Relief Valve Repair Kit** for DN32/40/50 RPZ	
61132207	PP-FLO-RPZ-15-25-T	**Total Repair Kit** for DN15/20/25 RPZ (Includes First Check, Second Check, Relief Valve, Spring and Seat)	
61132208	PP-FLO-RPZ-32-50-T	**Total Repair Kit** for DN32/40/50 RPZ (Includes First Check, Second Check, Relief Valve, Spring and Seat)	

Contact your local Watts representative or Wattsau.com.au for more information.

Troubleshooting

PROBLEM	CAUSE	SOLUTION
Continuous discharge from vent	Fouled internal component	Close the outlet isolation valve. If the discharge stops, the Second Check Valve needs servicing. If the discharge continues, open the test cock on the outlet of the device. If the discharge stops, the first check valve needs servicing. If the discharge continues, the Relief Valve needs servicing.
	Excessive backpressure, freezing, or water hammer has distorted the second check.	Eliminate source of excessive backpressure or water hammer in the system downstream of the device. Replace defective second check assembly. In case of freezing; thaw, disassemble, and inspect internal components. Replace as necessary.
	Electrolysis of relief valve seat	Replace relief valve seat. Install dielectric unions. Electrically ground the piping system and/or electrically isolate the device with plastic pipe immediately upstream and downstream of the device.
	Valve improperly reassembled	If valve has been disassembled, caution must be exercised to follow instructions correctly and ensure check valves are installed in correct position.
Valve spits periodically from the vent	Fluctuating supply pressure	Check function of upstream Pressure Reducing Valve (PRV) or install one if it is not present. If problem persists, install a soft seated spring check valve immediately upstream of the device.
	Fluctuating downstream pressure.	Install a soft seated spring check valve downstream of the device as close as possible to the shutoff valve.
Valve exhibits high pressure drop	Fouled strainer	Clean strainer or replace.
	Valve size too small for required flow rate	Install proper size device based on flow requirements.
No water flows downstream of valve	Isolation valves are closed	Open isolation valves
	Valve installed backwards	Install valve in accordance with flow direction arrow
Valve does not test properly	Leaky downstream isolation valve	Clean or replace isolation valve
Valve quickly and repeatedly fouls following servicing	Debris in pipeline is too fine to be trapped by strainer.	Install finer mesh strainer element in the strainer and/or install additional strainer prior to the device.