Rain Bird DASASVF100

Rain Bird DASASVF100 Professional Grade Anti-Siphon Valve User Manual

Model: DASASVF100 | Brand: Rain Bird

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your Rain Bird DASASVF100 Professional Grade Anti-Siphon Valve with Flow Control. This valve is designed for reliable performance in residential and light commercial irrigation systems.
Key features include:

- Professional grade 1" anti-siphon valve with flow control.
- Compatible with any standard 24-volt AC irrigation timer/controller.
- Designed for above-ground installation to prevent backflow.
- Features a unique reverse-flow design to prevent flooding.
- Includes a top-mounted, easy-turn flow control knob for optimizing sprinkler performance.
- Operates automatically or manually with a bleed screw.
- Energy-efficient, low-power encapsulated solenoid with captured plunger.
- Durable construction with Buna-N diaphragm and stainless steel screws.

2. Safety Information

Please read all instructions carefully before installing or operating the valve. Failure to follow these instructions may result in property damage or injury.

- Always turn off the main water supply before performing any installation or maintenance.
- Ensure all electrical connections are made by a qualified individual and comply with local codes.
- This valve is designed for outdoor irrigation use only.
- Do not exceed the maximum operating pressure of 150 PSI.
- Install the valve at least 6 inches (15 cm) above the highest sprinkler head on the valve line to ensure proper anti-siphon function.

- Never install another valve further down the line from this main anti-siphon valve.

3. Product Overview

The Rain Bird DASASVF100 valve is a robust component of your irrigation system. Familiarize yourself with its parts for proper installation and operation.



Figure 3.1: Two Rain Bird DASASVF100 Professional Grade Anti-Siphon Valves. Each valve features a solenoid, flow control knob, and threaded inlet/outlet connections. The image shows two valves side-by-side, highlighting their compact design and key components.

Key Components:

- **Solenoid:** The electrical component that opens and closes the valve.
- **Flow Control Knob:** Allows manual adjustment of water flow through the valve.
- **Bleed Screw:** Used for manual operation and flushing the system.
- **Inlet/Outlet:** 1" female pipe threads for connection to irrigation lines.
- **Anti-Siphon Mechanism:** Prevents backflow of contaminated water into the potable water supply.

4. Specifications

Feature	Specification
Model	DASASVF100
Inlet/Outlet Size	1 inch Female Pipe Thread (FPT)
Operating Pressure	15 to 150 PSI
Flow Range	0.2 to 40 GPM
Electrical Requirements	24 Volt AC (compatible with standard irrigation timers)
Material	Rubber, Stainless Steel
Certifications	I.A.P.M.O., A.S.S.E., CSA approved
Weight	1.92 ounces

Note: For flows below 3 GPM or Drip applications, install a 200 mesh filter before the valve.

5. Installation (Setup)

Proper installation is crucial for the anti-siphon valve's performance and to prevent backflow.

1. **Location:** Install the valve above ground. It must be positioned at least 6 inches (15 cm) higher than the highest sprinkler head or emission device on the valve's irrigation line.
2. **Water Supply:** Turn off the main water supply to the irrigation system before beginning installation.
3. **Threaded Connections:** Apply thread sealant (e.g., PTFE tape) to the male pipe threads of your irrigation lines. Carefully thread the valve onto the pipes, ensuring a watertight seal. The valve has 1" female pipe threads for both inlet and outlet.
4. **Flow Direction:** Ensure the valve is installed with the correct flow direction, indicated by an arrow on the valve body.
5. **Electrical Wiring:** Connect the two wires from the valve's solenoid to your 24-volt AC irrigation timer/controller. Refer to your controller's manual for specific wiring instructions.
6. **System Flushing:** After installation and before initial startup, manually flush the system of dirt and debris. This can be done by slowly opening the valve's external bleed screw until water flows clear, then closing it. This prevents debris from clogging the valve or sprinklers.
7. **Testing:** Slowly turn on the main water supply. Check for leaks. Test the valve operation using your irrigation controller.

Important: Do not install any other valves or devices that could create a cross-connection or reduce the air gap downstream of this anti-siphon valve.

6. Operation

Automatic Operation:

The Rain Bird DASASVF100 valve is designed to operate automatically when connected to a 24-volt AC irrigation timer/controller. Program your controller according to its instructions to schedule watering times and durations.

Manual Operation:

You can manually open and close the valve using the bleed screw:

- **To Open Manually:** Slowly turn the bleed screw counter-clockwise until water begins to flow.
- **To Close Manually:** Turn the bleed screw clockwise until it is finger-tight. Do not overtighten.

Flow Control Adjustment:

The top-mounted flow control knob allows you to adjust the amount of water flowing through the valve, optimizing sprinkler performance and preventing misting.

- **To Increase Flow:** Turn the flow control knob counter-clockwise.
- **To Decrease Flow:** Turn the flow control knob clockwise.

Adjust the flow control while the zone is running to achieve the desired spray pattern and coverage from your sprinklers.

7. Maintenance

Regular maintenance ensures the longevity and proper function of your anti-siphon valve.

- **Periodic Flushing:** If you notice reduced flow or erratic operation, manually open the bleed screw to flush out any accumulated debris.
- **Diaphragm Inspection:** If the valve fails to open or close properly, the internal diaphragm may need inspection or

cleaning. Turn off the main water supply, carefully unscrew the top cap, and inspect the Buna-N diaphragm for tears or debris. Clean if necessary.

- **Winterization:** In freezing climates, it is essential to properly winterize your irrigation system, including draining water from the anti-siphon valve, to prevent freeze damage. Consult a local irrigation professional if unsure.
- **Solenoid Check:** If the valve does not activate electrically, check the solenoid for proper connection and resistance. A faulty solenoid may need replacement.

8. Troubleshooting

Problem	Possible Cause	Solution
Valve does not open	No power to solenoid; Clogged diaphragm; Faulty solenoid; Water pressure too low.	Check wiring and controller; Clean diaphragm; Replace solenoid; Check main water supply pressure.
Valve does not close (constantly running)	Debris in valve; Damaged diaphragm; Bleed screw open; Faulty solenoid.	Flush valve manually; Inspect and replace diaphragm; Ensure bleed screw is closed; Replace solenoid.
Low flow from sprinklers	Flow control knob closed; Partially clogged valve; Low water pressure.	Adjust flow control knob; Flush valve; Check main water supply pressure.
Water leaking from valve	Loose connections; Damaged O-rings or diaphragm; Cracked housing.	Tighten connections; Inspect and replace O-rings/diaphragm; Replace valve if housing is cracked.

9. Warranty and Support

Rain Bird products are manufactured to the highest quality standards. For specific warranty information, please refer to the documentation included with your purchase or visit the official Rain Bird website.
For technical support, troubleshooting assistance, or to inquire about replacement parts, please contact Rain Bird Customer Service. Contact information can typically be found on the Rain Bird website or product packaging.
Rain Bird Website: www.rainbird.com

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