

## Baomain FV-320

# Baomain FV-320 Pneumatic Foot Pedal Valve Instruction Manual

Model: FV-320

## 1. INTRODUCTION

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This manual provides essential information for the safe and effective installation, operation, and maintenance of your Baomain FV-320 Pneumatic Foot Pedal Valve. Please read these instructions thoroughly before use and retain them for future reference. This valve is designed for precise airflow control in pneumatic systems, offering a momentary 3-way, 2-position function.

## 2. PRODUCT OVERVIEW

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The Baomain FV-320 is a robust pneumatic foot pedal valve featuring a momentary action mechanism. It is engineered for industrial applications requiring quick and reliable control of air pressure. The non-slip rubber pedal ensures stable operation.

### Key Features:

- **Momentary Action:** Spring-return design for automatic shutoff, ideal for intermittent or rapid cycling.
- **3-Way, 2-Position Functionality:** Directs airflow in multiple directions for versatile industrial applications.
- **1/4" PT Threaded Ports:** Standard threading ensures compatibility with industrial pneumatic fittings.
- **Nonslip Rubber Pedal:** Enhances safety and stability during operation.
- **Integrated Muffler:** The exhaust hole on the side is equipped with a muffler to reduce noise.

### Components:

The FV-320 valve consists of a durable metal body, a rubberized foot pedal, and threaded ports for air connections. An internal spring mechanism facilitates the momentary action. The rear of the valve houses two air holes: one inlet and one outlet. A separate exhaust port with a muffler is located on the side.



Figure 2.1: Front view of the Baomain FV-320 Foot Pedal Valve, showing the non-slip rubber pedal and the brand/model markings.



Figure 2.2: Side view of the FV-320 valve, highlighting the exhaust port with its integrated muffler.

### 3. SPECIFICATIONS

<b>Model</b>	FV-320
<b>Product Type</b>	Pneumatic Foot Valve
<b>Operation Type</b>	Momentary, Direct Acting
<b>Valve Type</b>	2-position 3-way
<b>Threaded Hole Diameter</b>	PT 1/4" (Inlet/Outlet)
<b>Working Pressure</b>	1.5-8 kgf/cm <sup>2</sup> (0.15-0.8 MPa)
<b>Material</b>	Metal body, Rubber pedal
<b>Overall Size (Approx.)</b>	12.4 x 8.2 x 5.4 cm / 4.9" x 3.1" x 2.1" (L*W*H)
<b>Number of Ports</b>	3 (1 Inlet, 1 Outlet, 1 Exhaust)

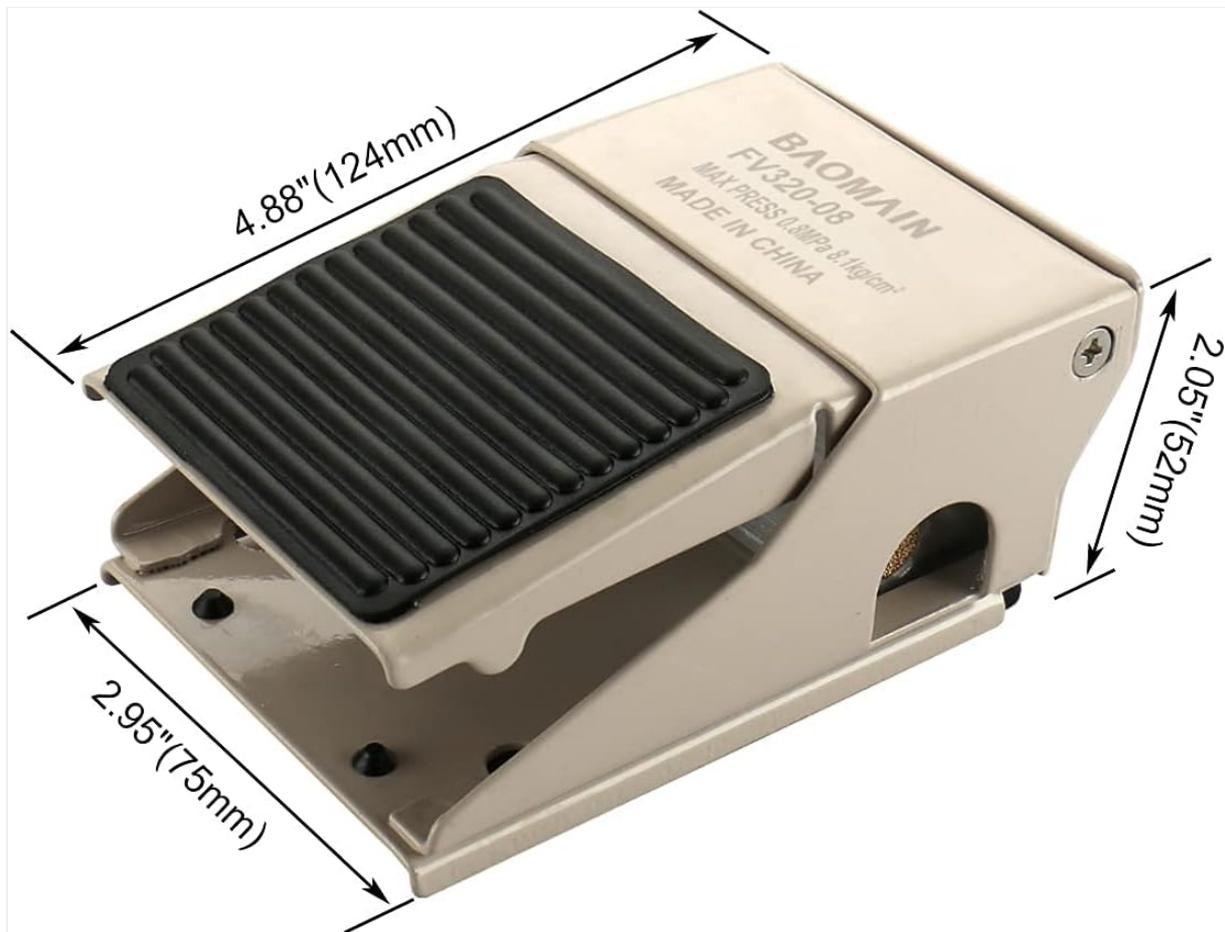


Figure 3.1: Dimensions of the FV-320 Foot Pedal Valve.

## 4. SAFETY INFORMATION

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- Always ensure the pneumatic system is depressurized before installing, maintaining, or removing the valve.
- Wear appropriate personal protective equipment (PPE), including eye protection, when working with pneumatic systems.
- Do not exceed the maximum working pressure specified for the valve.
- Ensure all connections are securely tightened to prevent air leaks.
- Keep the valve and surrounding area clear of obstructions to allow for safe and unimpeded operation.
- This valve is designed for air only. Do not use with other gases or liquids unless explicitly stated by the manufacturer.

## 5. INSTALLATION AND SETUP

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Proper installation is crucial for the optimal performance and longevity of your pneumatic foot pedal valve.

1. **Identify Ports:** The FV-320 has two air holes on the back for inlet and outlet connections. The exhaust port with a muffler is on the side. Refer to the product diagram for port identification.
2. **Prepare Connections:** Ensure all connecting pipes or hoses have 1/4" PT threads. Clean threads thoroughly before applying sealant.
3. **Apply Thread Sealant:** Use a suitable thread sealant (e.g., PTFE tape or liquid sealant) on all threaded connections to ensure an airtight seal. This is critical to prevent air leakage.
4. **Connect Air Supply:** Connect the main air supply line to the designated inlet port on the back of the

valve.

5. **Connect Actuator/Tool:** Connect the air line leading to your pneumatic tool or actuator to the designated outlet port on the back of the valve.
6. **Secure Mounting:** Position the foot pedal valve on a stable, flat surface. The valve can be mounted using screws through the designated mounting holes to prevent movement during operation.
7. **Test for Leaks:** After installation, slowly pressurize the system and check all connections for air leaks using a soapy water solution. Tighten any leaking connections as necessary.



Figure 5.1: Rear view of the FV-320 valve, illustrating the inlet and outlet ports.

## 6. OPERATING INSTRUCTIONS

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The Baomain FV-320 is a momentary action foot pedal valve, meaning it activates when pressed and returns to its original state when released.

1. **Power On:** Ensure your pneumatic system is pressurized and ready for operation.
2. **Activate Valve:** To activate the airflow, firmly press down on the rubber foot pedal. Air will flow from the inlet to the outlet port.
3. **Deactivate Valve:** To stop the airflow, release pressure from the foot pedal. The spring-return mechanism will automatically return the pedal to its original position, cutting off the air supply to the outlet and exhausting air from the tool/actuator through the muffler.
4. **Continuous Operation:** For continuous airflow, the pedal must be held down.

## 7. MAINTENANCE

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Regular maintenance helps ensure the reliable operation and extends the lifespan of your FV-320 foot pedal valve.

- **Cleanliness:** Keep the valve free from dust, dirt, and debris. A clean, dry cloth can be used for external cleaning.
- **Inspect Connections:** Periodically check all air connections for tightness and signs of wear or damage. Re-tighten or replace components as needed.
- **Check for Leaks:** Regularly test the system for air leaks, especially if you notice a drop in system pressure or increased compressor cycling.
- **Lubrication:** Ensure that the air supply to the valve is clean and adequately lubricated, if required by your pneumatic system setup.
- **Muffler Inspection:** Check the muffler for any blockages or damage. A clogged muffler can impede exhaust and affect valve performance.

## 8. TROUBLESHOOTING

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If you encounter issues with your FV-320 foot pedal valve, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
No airflow when pedal is pressed	<ul style="list-style-type: none"><li>• No air supply to the valve.</li><li>• Blocked inlet port.</li><li>• Internal valve malfunction.</li></ul>	<ul style="list-style-type: none"><li>• Check air compressor and supply line pressure.</li><li>• Inspect inlet for obstructions.</li><li>• Contact Baomain support if internal issue is suspected.</li></ul>
Air leakage from connections	<ul style="list-style-type: none"><li>• Loose connections.</li><li>• Insufficient thread sealant.</li><li>• Damaged threads or fittings.</li></ul>	<ul style="list-style-type: none"><li>• Tighten all connections.</li><li>• Reapply thread sealant.</li><li>• Replace damaged fittings or valve if necessary.</li></ul>

Pedal does not return to original position	<ul style="list-style-type: none"> <li>• Spring mechanism obstructed or damaged.</li> <li>• Debris under the pedal.</li> </ul>	<ul style="list-style-type: none"> <li>• Inspect for foreign objects.</li> <li>• If spring is damaged, valve may need replacement.</li> </ul>
Reduced airflow or slow response	<ul style="list-style-type: none"> <li>• Low air supply pressure.</li> <li>• Partially blocked ports or lines.</li> <li>• Clogged muffler.</li> </ul>	<ul style="list-style-type: none"> <li>• Check system pressure.</li> <li>• Inspect and clear any blockages in lines or ports.</li> <li>• Clean or replace muffler.</li> </ul>

## 9. WARRANTY AND SUPPORT

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For warranty information or technical assistance, please contact Baomain customer support through their official channels. Keep your purchase receipt and product model number (FV-320) readily available when contacting support.

You can visit the Baomain store on Amazon for more information: [Baomain Store](#)