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Arrow Pneumatics F300-01

Arrow Pneumatics F300-01 Mini Particulate Filter Instruction Manual

Model: F300-01

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Arrow Pneumatics F300-01 Mini Particulate Filter. This filter is designed to remove particulate matter, such as dirt, debris, pipe scale, rust, and water from compressed air lines, ensuring cleaner air for your pneumatic tools and equipment. Please read this manual thoroughly before installation and operation.

2. SAFETY INFORMATION

Always depressurize the air system before installing, servicing, or removing the filter. Wear appropriate personal protective equipment (PPE) such as safety glasses. Do not exceed the maximum operating pressure of 150 PSI. Ensure all connections are secure to prevent air leaks. This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm (Proposition 65 warning).

3. PRODUCT OVERVIEW AND COMPONENTS

The Arrow Pneumatics F300-01 is a compact particulate filter featuring a 20-micron filtering element and a 1 oz. poly bowl with a manual drain. It is designed for 1/8 inch air lines.



Figure 1: Arrow Pneumatics F300-01 Mini Particulate Filter. This image shows the filter assembly, including the gray top housing with threaded ports, the clear poly bowl, the internal filter element, and the manual drain knob at the bottom.

- **Filter Body:** The main housing that connects to the air line.

- **Filter Element:** A 20-micron element designed to capture solid particles.
- **Poly Bowl:** A transparent bowl that collects condensed water and removed particulates.
- **Manual Drain:** A valve at the bottom of the bowl for manually expelling collected contaminants.
- **Inlet/Outlet Ports:** 1/8 inch NPT threaded ports for air line connection.

4. SETUP AND INSTALLATION

1. **Depressurize System:** Ensure the compressed air system is completely depressurized before beginning installation.
2. **Select Location:** Install the filter upstream of the equipment it is protecting, and after any compressor or dryer. Ensure it is installed vertically with the drain at the bottom.
3. **Prepare Connections:** Apply appropriate thread sealant (e.g., PTFE tape) to the 1/8 inch NPT threads of your air lines.
4. **Connect Filter:** Connect the inlet air line to the port marked "IN" (or indicated by an arrow on the filter body) and the outlet air line to the port marked "OUT". Tighten connections securely but do not overtighten.
5. **Pressurize System:** Slowly re-pressurize the air system and check for leaks using a soapy water solution.

5. OPERATING INSTRUCTIONS

Once installed, the filter operates automatically, removing solid particles and condensing water vapor from the compressed air. The collected contaminants will accumulate in the transparent poly bowl.

- **Monitoring:** Regularly inspect the transparent poly bowl for accumulated water and debris.
- **Draining:** When the bowl fills to the indicated maximum level, or as part of routine maintenance, manually drain the collected contaminants.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the life of your filter.

1. **Manual Drain Operation:** To drain the bowl, turn or pull the manual drain knob located at the bottom of the poly bowl. Allow all collected water and debris to exit. Close the drain valve securely after draining.
2. **Filter Element Replacement:** The 20-micron filter element should be inspected periodically and replaced when it appears clogged or when a significant pressure drop across the filter is observed. To replace the element:
 - Depressurize the air system.
 - Unscrew the poly bowl from the filter body.
 - Remove the old filter element.
 - Install a new, genuine Arrow Pneumatics 20-micron filter element.
 - Reattach the poly bowl, ensuring the O-ring is properly seated and tightened securely.
 - Slowly re-pressurize the system and check for leaks.
3. **Bowl Cleaning:** The poly bowl can be cleaned with warm, soapy water. Avoid using harsh chemicals or solvents, as these can damage the plastic.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Reduced air flow	Clogged filter element	Replace filter element (refer to Section 6)
Water or particulates in air line downstream	Bowl not drained, damaged element, or improper installation	Drain bowl, inspect/replace element, verify installation (refer to Sections 4 & 6)
Air leak at connections	Loose connections or insufficient thread sealant	Depressurize, tighten connections, reapply thread sealant if necessary

8. SPECIFICATIONS

- **Model:** F300-01
- **Port Size:** 1/8 inch NPT
- **Filter Micron Rating:** 20 Micron
- **Bowl Capacity:** 1 oz.
- **Drain Type:** Manual
- **Maximum Operating Pressure:** 150 PSI
- **Maximum Flow Rate:** 27 SCFM
- **Product Dimensions:** 1.5 x 1.5 x 4.63 inches
- **Weight:** 8 ounces
- **Manufacturer:** Arrow Pneumatics

9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact Arrow Pneumatics directly or refer to their official website. Keep your purchase receipt for warranty claims.

Contact Information: Please refer to the manufacturer's official website or product packaging for the most current contact details.