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› Grundfos MQ3-45 1 HP Pressure Booster Pump, 115-volt User Manual

Grundfos MQ3-45

Grundfos MQ3-45 1 HP Pressure Booster Pump User Manual

Model: MQ3-45, 115-volt

1. INTRODUCTION

The Grundfos MQ3-45 is a compact, all-in-one pressure booster unit designed for water supply and pressure boosting in private homes, holiday homes, and farms. This unit integrates the pump, motor, diaphragm tank, pressure and flow sensor, controller, and check valve into a single, easy-to-install system. Its built-in safeties ensure reliable and long-lasting operation.



Image 1.1: The Grundfos MQ3-45 1 HP Pressure Booster Pump. This image shows the compact design of the all-in-one unit, including the pump, motor, and integrated controls.

2. SAFETY INFORMATION

Read this manual carefully before installation and operation. Failure to follow these instructions may result in serious injury or property damage.

- **Electrical Safety:** Ensure the power supply matches the pump's voltage (115-volt). Always disconnect power before performing any maintenance or service. The pump must be properly grounded.
- **Water Pressure:** The pump generates high water pressure. Ensure all plumbing connections are secure and rated for the operating pressure.
- **Installation:** Installation should be performed by qualified personnel in accordance with local codes and regulations.
- **Operating Environment:** Do not operate the pump in explosive atmospheres or with flammable liquids. Protect the pump from freezing temperatures.

3. PACKAGE CONTENTS

Verify that all components are present before beginning installation:

- Grundfos MQ3-45 Pressure Booster Pump Unit
- User Manual (this document)
- Installation Guide (if separate)

- Warranty Information

4. SETUP AND INSTALLATION

4.1 Unpacking

Carefully remove the pump from its packaging. Inspect for any signs of damage during transit. Report any damage to your supplier immediately.

4.2 Location Selection

Choose a dry, well-ventilated location that is protected from frost and direct sunlight. The pump should be installed on a firm, level surface to minimize vibration and noise. Ensure adequate space around the pump for ventilation and future maintenance.

4.3 Plumbing Connections

Connect the pump to your water supply and distribution system. Use appropriate fittings and sealants to ensure watertight connections. The pump has standard inlet and outlet connections. Ensure the inlet pipe is free of air pockets and debris. A check valve is integrated into the unit.

4.4 Electrical Connection

The Grundfos MQ3-45 operates on 115-volt AC power. Connect the pump to a dedicated, properly grounded electrical outlet. Ensure the circuit is protected by a suitable circuit breaker or fuse. Consult a qualified electrician if you are unsure about electrical connections.

4.5 Priming the Pump

The MQ3-45 is a self-priming pump. Before initial start-up, ensure the pump casing is filled with water. Open a tap on the discharge side to allow air to escape. The pump will automatically draw water and prime itself once power is supplied and water is available at the inlet.

5. OPERATING INSTRUCTIONS

5.1 Initial Start-up

After completing installation and ensuring the pump is filled with water, switch on the power supply. The pump will start automatically and build up pressure. It will then stop when the set pressure is reached.

5.2 Automatic Operation

The MQ3-45 is designed for fully automatic operation. It starts automatically when water is consumed (e.g., a tap is opened) and stops when water consumption ceases. The integrated pressure and flow sensor continuously monitors the system.

5.3 Automatic Reset Function

In case of dry running or overheating, the pump's built-in safeties will automatically shut down the unit to prevent damage. After a cooling period or if water supply is restored, the pump will attempt to restart automatically. This automatic reset function helps ensure continuous operation and protects the pump.

6. MAINTENANCE

The Grundfos MQ3-45 requires minimal maintenance. Regular checks can help ensure optimal performance and

extend the pump's lifespan.

6.1 Regular Inspection

- Periodically check for leaks around connections.
- Listen for unusual noises during operation.
- Ensure the ventilation openings are clear of obstructions.

6.2 Cleaning

Keep the exterior of the pump clean and free of dust and debris. Do not use harsh chemicals or abrasive cleaners.

6.3 Winterization

If the pump is installed in an area subject to freezing temperatures, it must be drained completely to prevent damage. Disconnect power, open a tap on the discharge side, and remove the drain plug (if applicable) to allow all water to escape. Store the pump in a warm, dry place if possible.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your Grundfos MQ3-45 pump.

Problem	Possible Cause	Solution
Pump does not start	No power supply Thermal overload Dry running protection activated	Check power connection and circuit breaker. Allow pump to cool down; it may reset automatically. Ensure water supply to the pump.
Low pressure or no water flow	Insufficient water supply Air in the system Clogged inlet filter	Check water source. Open a tap to release air; pump is self-priming. Inspect and clean the inlet filter.
Pump runs continuously	Leak in the system Faulty check valve Sensor issue	Check all plumbing for leaks. Contact service for inspection. Contact service for inspection.
Excessive noise/vibration	Air in the system Improper mounting Foreign objects in pump	Bleed air from the system. Ensure pump is on a firm, level surface. Disconnect power and inspect pump (contact service if unsure).

8. SPECIFICATIONS

8.1 Technical Data

Specification	Value
Brand	Grundfos
Model Number	MQ3-45

Specification	Value
Voltage	115 Volts
Horsepower	1 HP
Power Source	Corded Electric
Item Weight	30 Pounds
Product Style	Pressure Booster

8.2 Key Features

- Simple operation - self-priming
- Automatic reset function
- Built-in pressure tank reduces number of starts
- Integrated pump, motor, diaphragm tank, pressure and flow sensor, controller, and check valve

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your product or visit the official Grundfos website. Keep your purchase receipt as proof of purchase.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question