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Riello RBS03

Riello 40 G3B Oil Pump Instruction Manual

Model: RBS03 | Part Number: 20031996

INTRODUCTION

This instruction manual provides detailed guidance for the proper installation, safe operation, and routine maintenance of the Riello 40 G3B Oil Pump. Adhering to these instructions will ensure optimal performance and longevity of the unit. Please read this manual thoroughly before attempting any installation or operation.

SAFETY INFORMATION

Always prioritize safety when working with heating systems and fuel pumps. Failure to follow safety guidelines can result in serious injury, property damage, or death.

- Ensure all power to the burner system is disconnected before installation, maintenance, or troubleshooting.
- Installation and service should only be performed by qualified and authorized personnel.
- Wear appropriate personal protective equipment (PPE), including gloves and eye protection.
- Handle fuel with extreme care. Avoid spills and ensure adequate ventilation.
- Refer to local codes and regulations for proper installation and safety procedures.

SETUP AND INSTALLATION

The Riello 40 G3B Oil Pump (Part Number 20031996) is designed for use with Riello 40 G3B, G5, and G10 burners. It is compatible with gas oil, kerosene, and a 20% blend of biofuel.

Pre-Installation Checks:

- Verify that the pump model matches the requirements of your burner system.
- Inspect the pump for any signs of damage during shipping.
- Ensure all necessary tools and fittings are available.

Installation Steps:

1. **Disconnect Power:** Turn off the main power supply to the burner and heating system.

2. **Remove Old Pump (if applicable):** Carefully disconnect fuel lines and mounting bolts from the existing pump. Be prepared for fuel spills and have absorbent materials ready.
3. **Mount New Pump:** Secure the Riello 40 G3B pump to the burner assembly using appropriate fasteners. Ensure a stable and vibration-free mounting.
4. **Connect Fuel Lines:** Attach the fuel supply and return lines to the designated ports on the pump. Ensure all connections are tight and leak-free. Refer to the burner's specific diagram for correct port identification.
5. **Electrical Connections:** Connect the electrical wiring according to the burner manufacturer's instructions. Double-check all connections for correctness and security.
6. **Bleed System:** After installation, the fuel system may need to be bled to remove air. Follow the burner manufacturer's procedure for bleeding the oil line.



Image 1: Front view of the Riello 40 G3B Oil Pump. This image shows the main body of the pump, including the drive shaft, mounting plate, and fuel line connections. The model number and other identifying marks are visible on the pump's face.

The Riello 40 G3B Oil Pump is an automatic pump designed to supply fuel to the burner at the required pressure. Its operation is integrated with the burner's control system.

- **Automatic Operation:** The pump activates and deactivates automatically in response to the burner's demand for fuel.
- **Pre-ventilation Safety Feature:** The pump incorporates a safety feature that prevents pressure in the hydraulic circuit during the pre-ventilation phase of the burner cycle. This ensures safe ignition.
- **Fuel Compatibility:** Ensure that the fuel being used (gas oil, kerosene, or up to 20% biofuel blend) is appropriate for both the pump and the burner system.

For detailed operational sequences, refer to the specific instruction manual for your Riello burner model.

MAINTENANCE

Regular maintenance is crucial for the reliable operation and longevity of your Riello oil pump. Always ensure the power supply is disconnected before performing any maintenance.

- **Fuel Filter Replacement:** Periodically check and replace the fuel filter (if applicable to your system) to prevent contaminants from reaching the pump. Consult your burner manual for recommended intervals.
- **System Inspection:** Annually inspect all fuel lines and connections for leaks, cracks, or signs of wear. Tighten any loose connections.
- **Nozzle Cleaning/Replacement:** While not directly part of the pump, a clean nozzle is essential for efficient fuel delivery. Follow burner manufacturer guidelines for nozzle maintenance.
- **Professional Service:** It is recommended to have the entire heating system, including the oil pump, serviced annually by a qualified technician.

TROUBLESHOOTING

This section provides general troubleshooting tips. For complex issues, contact a qualified service technician.

Problem	Possible Cause	Solution
Burner fails to ignite	No fuel supply, air in fuel line, clogged filter, faulty pump.	Check fuel tank level. Bleed fuel line. Replace fuel filter. Inspect pump for damage (professional service recommended).
Burner cycles on and off rapidly	Inconsistent fuel pressure, air in system, dirty nozzle.	Check for air leaks in fuel lines. Clean or replace burner nozzle. Consult technician for pressure adjustment.
Oil leak from pump or lines	Loose connections, damaged seals, cracked lines.	Tighten all fuel line connections. Inspect seals and lines for damage. Replace any damaged components immediately.

SPECIFICATIONS

Feature	Detail
Brand	Riello
Model Number	RBS03
Riello Part Number	20031996

Feature	Detail
Compatibility	Riello 40 G3B, G5, and G10 burners
Fuel Types	Gas oil, Kerosene, 20% Biofuel blend
Pump Type	Automatic
Material	Metal
Item Weight	1.1 Kilograms
Package Dimensions	13.21 x 12.19 x 9.4 cm
OEM Part Number	RBS03
Output Connection Type	BSP
Compliance	CE

WARRANTY INFORMATION

Specific warranty terms for the Riello 40 G3B Oil Pump are typically provided by the manufacturer or the point of purchase. Please retain your proof of purchase. For detailed warranty information, contact your supplier or Riello customer service.

SUPPORT AND CONTACT

If you require technical assistance, have questions regarding installation, operation, or maintenance, or need to report an issue, please contact the authorized Riello distributor or your original seller. Ensure you have the product model number (RBS03) and part number (20031996) available when seeking support.

For general information about Riello products, you may visit the official Riello website: www.riello.com

