Caleffi 553640

Caleffi Series 553640 Automatic Filling Unit with Pre-calibrated Pressure Gauge User Manual

Introduction

Welcome and thank you for choosing the Caleffi Series 553640 Automatic Filling Unit. This manual provides essential information for the safe and efficient installation, operation, and maintenance of your unit. Please read these instructions carefully before installation and retain them for future reference.

The Caleffi Series 553640 is an automatic filling unit designed to maintain constant pressure in closed heating systems. It features a pre-calibrated pressure gauge, an anti-scale system, an inspectable filter, and an integrated check valve.

Product Overview

The Caleffi Series 553640 Automatic Filling Unit is a critical component for ensuring optimal performance and longevity of your heating system. It automatically replenishes water into the system when pressure drops below a set threshold, preventing system damage and maintaining efficiency.



This image displays the Caleffi Series 553640 Automatic Filling Unit. The unit is made of brass, featuring a grey adjustment knob on top and a pressure gauge attached to its side. The gauge clearly shows pressure readings in bar, with a red indicator needle. A grey cap is visible at the bottom, likely for the filter housing.

Safety Information

Always observe the following safety precautions during installation, operation, and maintenance:

- Installation must be performed by qualified personnel in accordance with local regulations and standards.
- Ensure the main water supply is turned off and the system is depressurized before beginning any installation or maintenance work.
- Do not exceed the maximum operating pressure specified for the unit (16 Bar).
- Protect the unit from freezing temperatures.
- Use appropriate tools and personal protective equipment.

Installation

Follow these steps for proper installation of the Caleffi Series 553640 Automatic Filling Unit:

1. **Preparation:** Turn off the main water supply and drain the heating system to depressurize it.
2. **Location:** Install the unit on the return line of the heating system, ensuring easy access for inspection and maintenance. The unit should be installed vertically with the pressure gauge facing upwards for clear reading.
3. **Connections:** The unit features 1/2" (2 cm) compression connections. Apply appropriate sealing materials (e.g., PTFE tape) to threaded connections. Ensure a tight, leak-free seal without overtightening.

4. **Orientation:** Observe the flow direction arrow marked on the unit body to ensure correct installation.
5. **Pressure Gauge:** The pressure gauge is pre-calibrated. Ensure it is securely attached and visible.
6. **Filling Valve:** Ensure the manual filling valve (if present in your system) is closed after installation.
7. **System Refill:** Slowly open the main water supply and allow the system to refill. Bleed air from the system as it fills.
8. **Leak Check:** Inspect all connections for leaks once the system is pressurized.

Operating Instructions

The Caleffi Series 553640 is designed for automatic operation. Once installed and the system is filled, it will maintain the set pressure.

- **Initial Pressure Setting:** The unit comes pre-calibrated. The red indicator on the pressure gauge typically marks the factory-set pressure. If adjustment is needed, rotate the grey knob on top of the unit to increase or decrease the set pressure. Turn clockwise to increase pressure, counter-clockwise to decrease.
- **Monitoring:** Regularly check the pressure gauge to ensure the system pressure is within the recommended operating range for your heating system.
- **Automatic Filling:** The unit will automatically open to allow water into the system if the pressure drops below the set point, and close once the desired pressure is reached.

Maintenance

Regular maintenance ensures the longevity and proper functioning of your automatic filling unit.

- **Filter Inspection and Cleaning:** The unit includes an inspectable filter. It is recommended to inspect and clean the filter annually, or more frequently in areas with hard water. To clean, isolate the unit, depressurize, unscrew the grey cap at the bottom, remove the filter, clean it under running water, and reassemble.
- **Anti-Scale System:** The integrated anti-scale system helps prevent mineral buildup. No specific user maintenance is required for this component.
- **Check Valve:** The integrated check valve prevents backflow. Periodically verify its proper function by observing system pressure stability.
- **General Inspection:** Periodically check the unit and connections for any signs of leaks, corrosion, or damage.

Troubleshooting

If you encounter issues with your Caleffi Series 553640 unit, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
System pressure too low	Unit not filling; clogged filter; incorrect pressure setting; system leak.	Check water supply; clean filter; adjust pressure setting; inspect system for leaks.

Problem	Possible Cause	Solution
System pressure too high	Incorrect pressure setting; faulty expansion vessel; unit malfunction.	Adjust pressure setting; check expansion vessel; contact qualified technician.
Water leakage from unit	Loose connections; damaged seals; internal component failure.	Tighten connections; replace seals; contact qualified technician.
Unit not responding	No water supply; severe clogging; internal malfunction.	Check water supply; clean filter; contact qualified technician.

Technical Specifications

Feature	Specification
Model Number	553640
Brand	Caleffi
Maximum Operating Pressure	16 Bar
Product Dimensions (L x W x H)	30 x 20 x 10 cm
Product Weight	810 g
Connection Size	1/2 inch (2 cm)
Connection Type	Compression
Number of Ports	2
Compliance	CE

Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your purchase or contact Caleffi customer service directly. Keep your proof of purchase for warranty claims.

For further assistance, please visit the official Caleffi website or contact your local distributor.

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