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› Bell & Gossett 110129 1170-30 Relief Valve User Manual

## Bell & Gossett 110129

# Bell & Gossett 1170-30 Relief Valve User Manual

Model: 110129 | Brand: Bell & Gossett

## INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the Bell & Gossett 1170-30 Relief Valve, Part No. 110129. This valve is designed to protect systems from overpressure by automatically releasing fluid when a preset pressure is exceeded. Please read this manual thoroughly before installation or operation.

## PRODUCT OVERVIEW

The Bell & Gossett 1170-30 Relief Valve is a critical safety component in various fluid systems. It is constructed from durable brass and iron, ensuring longevity and reliable performance. The valve is factory-set to relieve pressure at 30 psi (pounds per square inch) and features a 1-inch NPT (National Pipe Tapered) inlet connection.



Figure 1: The Bell & Gossett 1170-30 Relief Valve, showing its brass body and attached identification tag with model number 1170-30 and part number 110129, set at 30 PSI.

Key features include:

- **Model:** 1170-30
- **Part No.:** 110129
- **Set Pressure:** 30 psi
- **Inlet Connection:** 1 inch NPT
- **Material:** Brass, Iron
- **Compliance:** ASME BPVC (Boiler and Pressure Vessel Code)



Figure 2: The Bell & Gossett 1170-30 Relief Valve as packaged, alongside its accompanying installation instructions manual.

## SETUP AND INSTALLATION

Proper installation is crucial for the safe and effective operation of the relief valve. Always ensure the system is depressurized and cool before beginning installation.

### Safety Precautions:

- Wear appropriate personal protective equipment (PPE).
- Ensure the system is completely isolated and drained.
- Verify the valve's pressure setting matches system requirements.
- Do not modify the valve in any way.

### Installation Steps:

1. **Select Location:** Install the valve in an accessible location, preferably at the highest point of the system or where pressure accumulation is most likely.
2. **Prepare Connection:** Ensure the 1-inch NPT inlet connection on the system is clean and free of debris.
3. **Apply Sealant:** Apply an appropriate pipe thread sealant (e.g., PTFE tape or pipe dope) to the male threads of the valve's inlet.
4. **Thread Valve:** Carefully thread the relief valve into the system connection. Tighten securely using a wrench, but do not overtighten, as this can damage the valve or piping.
5. **Discharge Piping:** Connect appropriate discharge piping to the valve's outlet. This piping must be adequately sized, sloped for drainage, and routed to a safe discharge location where released fluid will not cause harm or damage. Ensure there are no obstructions in the discharge line.

6. **Test System:** After installation, slowly repressurize the system and check for leaks around the valve connections. Monitor system pressure to ensure the valve operates as expected at its set pressure.

OPERATING PRINCIPLES

The Bell & Gossett 1170-30 Relief Valve is a passive safety device. It operates automatically when the system pressure exceeds its factory-set pressure of 30 psi. When this occurs, the valve opens to release excess pressure, preventing potential damage to the system or injury to personnel. Once the system pressure drops below the set point, the valve will automatically reseal and close.

No manual operation is typically required during normal system function. However, periodic testing may be required by local codes or system maintenance schedules to ensure the valve is not fouled or stuck.

MAINTENANCE

Regular maintenance ensures the longevity and reliability of your relief valve. Always depressurize the system before performing any maintenance.

Routine Checks:

- **Visual Inspection:** Periodically inspect the valve for any signs of corrosion, leaks, or physical damage.
- **Discharge Line Check:** Ensure the discharge piping is clear and free of obstructions.
- **Function Test (if applicable):** If your system design allows for safe testing, periodically actuate the valve manually (if equipped with a test lever) to ensure it opens and reseats properly. Consult system-specific safety procedures before performing such tests.

Cleaning:

The valve generally requires no internal cleaning under normal operating conditions. If the valve is suspected of fouling due to system contaminants, it should be removed and inspected by a qualified technician. Do not attempt to disassemble the valve unless specifically trained and authorized.

Replacement:

Relief valves are critical safety devices and should be replaced if they show signs of malfunction, damage, or after a specified service life as recommended by Bell & Gossett or relevant industry standards. Do not attempt to repair a malfunctioning relief valve; replace it with a new, certified unit.

TROUBLESHOOTING

This section addresses common issues you might encounter with the relief valve. For issues not listed here, contact a qualified technician.

| Problem                               | Possible Cause                                                                                                                                                            | Solution                                                                                                                                                                                                                                                        |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valve constantly weeping or dripping. | <ul style="list-style-type: none"><li>• System pressure too close to set point.</li><li>• Debris lodged under the seat.</li><li>• Damaged valve seat or spring.</li></ul> | <ul style="list-style-type: none"><li>• Verify system operating pressure is sufficiently below 30 psi.</li><li>• Attempt to flush the valve by briefly opening it (if safe to do so).</li><li>• Replace the valve if internal components are damaged.</li></ul> |

| Problem                           | Possible Cause                                                                                                                    | Solution                                                                                                                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Valve does not open at 30 psi.    | <ul style="list-style-type: none"><li>Valve is stuck or fouled.</li><li>Incorrect pressure gauge reading.</li></ul>               | <ul style="list-style-type: none"><li>Do not attempt to force open. Replace the valve immediately.</li><li>Verify system pressure with a calibrated gauge.</li></ul>     |
| Excessive noise during discharge. | <ul style="list-style-type: none"><li>Improperly sized or routed discharge piping.</li><li>Rapid pressure fluctuations.</li></ul> | <ul style="list-style-type: none"><li>Consult a professional to review discharge piping design.</li><li>Investigate system conditions causing pressure spikes.</li></ul> |

### SPECIFICATIONS

| Attribute             | Value                                                                                                                                             |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Model Number          | 110129                                                                                                                                            |
| Valve Type            | Pressure Relief Valve                                                                                                                             |
| Set Pressure          | 30 Pound per Square Inch (psi)                                                                                                                    |
| Inlet Connection Type | National Pipe Tapered (NPT)                                                                                                                       |
| Number of Ports       | 2                                                                                                                                                 |
| Material              | Brass, Iron                                                                                                                                       |
| Exterior Finish       | Brass                                                                                                                                             |
| Specification Met     | ASME BPVC                                                                                                                                         |
| Manufacturer          | Bell & Gossett                                                                                                                                    |
| Date First Available  | January 14, 2012                                                                                                                                  |
| Package Dimensions    | 9 x 7 x 5 inches                                                                                                                                  |
| Item Weight           | 0.01 ounces (Note: This weight seems unusually low for a valve of this type and material. Please refer to product packaging for accurate weight.) |
| UPC                   | 683328101293                                                                                                                                      |



*Figure 3: The product packaging for the Bell & Gossett 1170-30 Relief Valve, indicating the model number, part number, and other key details.*

## WARRANTY AND SUPPORT

Specific warranty information for the Bell & Gossett 1170-30 Relief Valve is typically provided with the product packaging or can be obtained directly from the manufacturer. Please retain your proof of purchase for warranty claims.

For technical support, service, or to inquire about replacement parts, please contact Bell & Gossett directly or an authorized distributor. Contact information can usually be found on the manufacturer's official website or on the product packaging.

**Manufacturer:** Bell & Gossett

For the most current information, please visit the official Bell & Gossett website.

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## 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**

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**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**