

## ASHCROFT 251009SW02BXLLVAC

# ASHCROFT Vacuum Gauge Instruction Manual

Model: 251009SW02BXLLVAC

## 1. INTRODUCTION

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This manual provides essential information for the proper installation, operation, and maintenance of your ASHCROFT Vacuum Gauge. This test gauge is designed for precise vacuum measurement, featuring a durable construction suitable for industrial applications.

The gauge has a 2-1/2 inch dial, measures vacuum from 30 inches of Mercury (Hg) to 0, and features a 1/4 inch NPT connection located at the lower back. It is constructed with a 304 stainless steel case, 316 stainless steel socket and tube, and a polycarbonate lens. The gauge is filled with glycerin for dampening and enhanced performance.



**Figure 1:** ASHCROFT Vacuum Gauge. This image displays the front view of the vacuum gauge, highlighting its stainless steel casing, white dial with black markings, and the ASHCROFT DURALIFE branding. The gauge face indicates measurements in psi and notes "Welded AISI 316 tube & socket U.S.A."

## 2. SAFETY INFORMATION

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Always observe standard safety precautions when handling and installing pressure and vacuum gauges. Failure to do so may result in injury or damage to equipment.

- Ensure the system is depressurized before installing or removing the gauge.
- Do not exceed the specified operating range of 30" Hg Vac to 0.
- Verify compatibility of the gauge's wetted parts (316 Stainless Steel) with the process media.
- Protect the gauge from extreme temperatures outside the -40°F to 150°F operating range.
- Handle with care to avoid dropping or impacting the gauge, which can affect accuracy.

## 3. SETUP AND INSTALLATION

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Proper installation is crucial for accurate readings and long service life.

1. **Preparation:** Ensure the connection port on your system is clean and free of debris.

- 2. **Connection:** The gauge features a 1/4 inch NPT (National Pipe Taper) connection. Apply appropriate thread sealant (e.g., PTFE tape) to the male threads of the gauge connection.
- 3. **Mounting:** Carefully thread the gauge into the system's female NPT port. Tighten using a wrench on the wrench flats of the gauge connection. *Do not overtighten or apply torque to the gauge case.*
- 4. **Orientation:** The connection location is lower back, allowing for direct mounting or panel mounting with appropriate accessories (not included). Ensure the dial is easily visible for reading.

## 4. OPERATING INSTRUCTIONS

The ASHCROFT Vacuum Gauge provides accurate vacuum measurements within its specified range.

- **Reading the Gauge:** The dial is marked from 30" Hg Vac (full vacuum) to 0 (atmospheric pressure). The smallest graduation is 0.5" Hg, allowing for precise readings.
- **Accuracy:** This gauge has an accuracy of +/-1.0% of span, ensuring reliable measurements for test applications.
- **Temperature Considerations:** The gauge is designed to operate effectively within a temperature range of -40°F to 150°F. Operating outside this range may affect accuracy and longevity.
- **Glycerin Fill:** The glycerin fill dampens pointer pulsation caused by vibration and pressure surges, improving readability and extending the life of the gauge movement.

## 5. MAINTENANCE

Regular maintenance ensures the longevity and accuracy of your vacuum gauge.

- **Cleaning:** Clean the exterior of the gauge, especially the polycarbonate lens, with a soft, damp cloth. Avoid abrasive cleaners or solvents that could damage the lens or case.
- **Inspection:** Periodically inspect the gauge for any signs of damage, such as cracks in the lens, dents in the case, or bent pointer. Check the connection for leaks.
- **Recalibration:** While designed for long-term accuracy, professional recalibration may be necessary if the gauge is subjected to severe conditions or if accuracy is critical for your application.
- **Storage:** When not in use, store the gauge in a clean, dry environment within its operating temperature range.

## 6. TROUBLESHOOTING

Refer to the following common issues and their potential solutions:

Problem	Possible Cause	Solution
Inaccurate Reading	Gauge exposed to over-vacuum; physical damage; extreme temperature.	Verify operating conditions; inspect for damage; allow gauge to normalize temperature. Consider professional recalibration or replacement.
Pointer Fluctuation	System vibration; rapid pressure changes.	The glycerin fill helps dampen this; ensure gauge is securely mounted. If severe, consider a snubber or remote mounting.
Leak at Connection	Improperly applied thread sealant; insufficient tightening.	Depressurize system, remove gauge, reapply thread sealant, and re-install, ensuring proper tightening.

## 7. SPECIFICATIONS

Detailed technical specifications for the ASHCROFT Vacuum Gauge (Model: 251009SW02BXLLVAC).


- Gauge Type:** Test
- Dial Size:** 2-1/2 inches
- Range:** 30" Hg Vac to 0
- Connection Size:** 1/4" NPT
- Connection Location:** Lower Back
- Smallest Graduation:** 0.5" Hg
- Accuracy:** +/-1.0%
- Case Material:** 304 Stainless Steel
- Case Color:** Silver
- Socket Material:** 316 Stainless Steel
- Tube Material:** 316 Stainless Steel
- Fill:** Glycerin
- Lens Material:** Polycarbonate
- Ring Material:** Stainless Steel
- Operating Temperature Range:** -40°F to 150°F
- Series:** 1009
- Product Dimensions:** 3 x 3 x 3 inches
- Item Weight:** 1 Pound
- Country of Origin:** USA
- UPC:** 094706106517

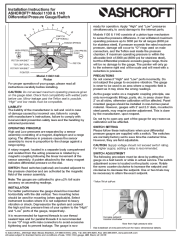
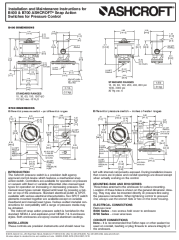

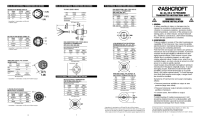
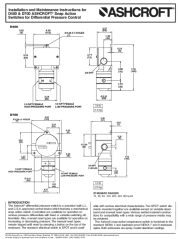
## 8. WARRANTY AND SUPPORT

This ASHCROFT Vacuum Gauge comes with a **5-year manufacturer's warranty**. For warranty claims or technical support, please contact ASHCROFT customer service. Retain your proof of purchase for warranty validation.

For further assistance or detailed technical inquiries, please refer to the official ASHCROFT website or contact their authorized distributors.

### Related Documents - 251009SW02BXLLVAC

	<p><a href="#">Ashcroft S10 &amp; S50 RTD and Thermocouple Installation and Maintenance Guide</a></p> <p>Provides detailed installation and maintenance instructions for Ashcroft S10 and S50 RTD and Thermocouple temperature sensors. Covers general precautions, storage, specific installation procedures for RTDs and thermocouples, and maintenance guidelines to ensure accurate measurements and longevity.</p>
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	<p><a href="#">Ashcroft Model 1130 &amp; 1140 Differential Pressure Gauge/Switch Installation Instructions</a></p> <p>Installation instructions and technical details for Ashcroft Model 1130 and 1140 Differential Pressure Gauges with optional switches. Covers operating principles, installation, precautions, and switch wiring.</p>
	<p><a href="#">Ashcroft B400 &amp; B700 Snap Action Pressure Switch Installation and Maintenance Guide</a></p> <p>This guide provides essential information for the installation and maintenance of Ashcroft B400 and B700 series snap action pressure switches. It covers product overview, dimensions, mounting, electrical and conduit connections, setpoint adjustment procedures, and recommended practices for safe and reliable operation.</p>
	<p><a href="#">Ashcroft Skid Builder Gauges for Plant Engineering   Pressure Measurement</a></p> <p>Explore Ashcroft's range of Skid Builder pressure gauges designed for robust plant engineering applications. Featuring stainless steel, Hastelloy, Monel, and Inconel materials with detailed technical specifications.</p>
	<p><a href="#">Ashcroft G2, G3, GV &amp; T2 Pressure Transmitter Instruction Sheet</a></p> <p>Instruction sheet for Ashcroft G2, G3, GV, and T2 pressure transmitters, covering electrical terminations, wiring, installation, and safety warnings.</p>
	<p><a href="#">Ashcroft D400 &amp; D700 Snap Action Differential Pressure Switch Installation and Maintenance</a></p> <p>Comprehensive guide for the installation and maintenance of Ashcroft D400 and D700 series snap action differential pressure switches. Covers mounting, electrical connections, and setpoint adjustments for various models.</p>