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Dwyer Mark II 25

Dwyer Series Mark II 25 Manometer User Manual

Brand: **Dwyer** | Model: **Mark II 25**

INTRODUCTION

This manual provides detailed instructions for the proper installation, operation, and maintenance of your Dwyer Series Mark II 25 Molded Plastic Manometer. This instrument is designed for accurate measurement of positive, negative, and differential pressures in the range of 0 to 3 inches of water column. Please read this manual thoroughly before using the device to ensure safe and effective operation.

PRODUCT OVERVIEW

The Dwyer Series Mark II 25 Manometer is a durable, molded plastic instrument featuring an inclined-vertical scale for enhanced readability and precision. It utilizes a red gauge fluid with a specific gravity of 0.826 to indicate pressure differentials. The design includes clearly marked ports for high and low pressure connections, along with adjustment knobs for fluid filling and zero setting.

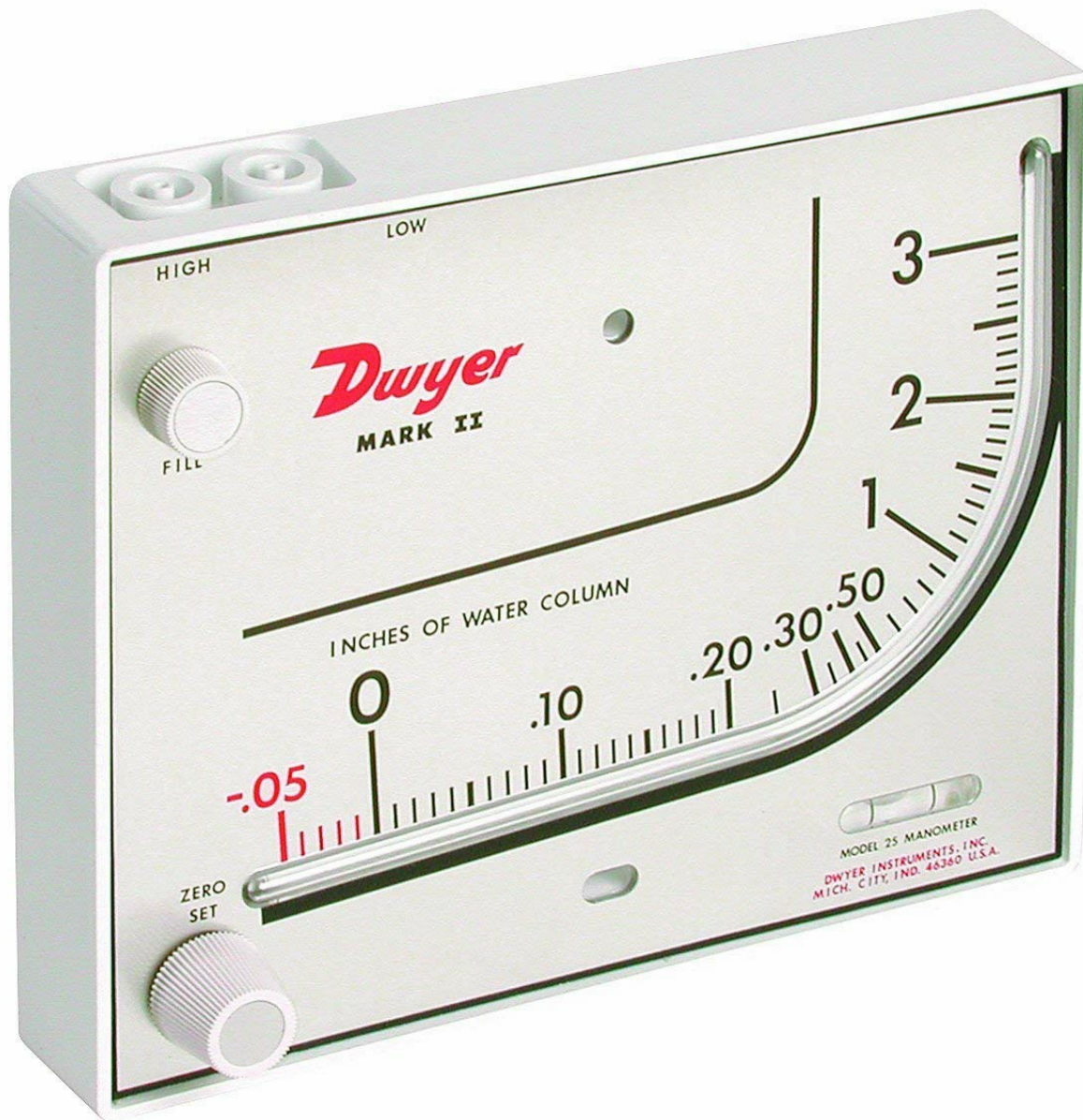


Figure 1: Dwyer Series Mark II 25 Molded Plastic Manometer. This image displays the Dwyer Series Mark II 25 Molded Plastic Manometer. The device features an inclined-vertical scale for measuring pressure from 0 to 3 inches of water column. Visible controls include a 'FILL' knob at the top left and a 'ZERO SET' knob at the bottom left. Input ports are labeled 'HIGH' and 'LOW' at the top. The Dwyer logo and 'MARK II' are prominently displayed on the face.

SAFETY INFORMATION

- Always handle the manometer with care to prevent damage to the instrument or fluid spills.
- Ensure the manometer is mounted securely on a stable surface or wall before use.
- Do not exceed the specified measuring range of 0 to 3 inH₂O, as this can damage the instrument.
- Use only the specified red gauge fluid (0.826 sp. gr.) for accurate readings and to prevent damage to internal components.
- Keep the manometer away from extreme temperatures, direct sunlight, and corrosive environments.
- Refer to local regulations for proper disposal of gauge fluid if replacement is necessary.

SETUP

1. **Mounting:** Select a vertical surface free from vibration. Use appropriate fasteners to securely mount the manometer through the designated mounting holes. Ensure the instrument is level for accurate readings.
2. **Fluid Filling:**
 - Unscrew the 'FILL' knob located at the top left of the manometer face (refer to Figure 1).
 - Carefully pour the red gauge fluid (0.826 sp. gr.) into the fill port until the fluid level in the inclined tube is slightly above the zero mark.
 - Replace and tighten the 'FILL' knob.
3. **Zero Adjustment:**
 - Ensure both the 'HIGH' and 'LOW' pressure ports are open to atmospheric pressure (disconnected from any pressure source).
 - Slowly turn the 'ZERO SET' knob, located at the bottom left of the manometer face (refer to Figure 1), until the fluid meniscus aligns precisely with the '0' mark on the inclined scale.
4. **Connecting Pressure Lines:** Connect the pressure source to the 'HIGH' port for positive pressure readings, or to the 'LOW' port for negative pressure (vacuum) readings. For differential pressure, connect the higher pressure source to 'HIGH' and the lower pressure source to 'LOW'.

OPERATING INSTRUCTIONS

1. **Verify Zero:** Before each measurement, ensure the manometer is properly zeroed with both ports open to atmosphere. Adjust the 'ZERO SET' knob if necessary.
2. **Apply Pressure:** Connect the pressure lines as described in the Setup section. The fluid column will move along the inclined-vertical scale.
3. **Read Measurement:** Read the pressure value directly from the scale at the top of the fluid meniscus. The scale is calibrated in inches of water column (inH₂O). The inclined section provides fine resolution for lower pressures, while the vertical section extends the range for higher pressures up to 3 inH₂O.
4. **Disconnect:** After measurement, carefully disconnect the pressure lines. If the manometer will not be used for an extended period, ensure the ports are capped or protected from dust and debris.

MAINTENANCE

- **Cleaning:** Clean the exterior of the manometer with a soft, damp cloth. Do not use abrasive cleaners or solvents, as these may damage the plastic housing or scale markings.
- **Fluid Level Check:** Periodically check the fluid level. If the level is consistently low, check for leaks or evaporation. Refill with the specified red gauge fluid as needed.
- **Fluid Replacement:** Over time, the gauge fluid may become discolored or contaminated. Replace the fluid by draining the old fluid and refilling as per the "Fluid Filling" instructions in the Setup section.
- **Storage:** When not in use, store the manometer in a clean, dry environment, protected from dust and physical impact.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Inaccurate Readings	Manometer not level; incorrect zero setting; air bubbles in fluid; wrong fluid type; exceeding range.	Ensure manometer is level. Re-zero the instrument. Gently tap to dislodge air bubbles. Use only specified fluid. Do not exceed 3 inH ₂ O.
Fluid Level Drops Rapidly	Leak in tubing or connections; evaporation.	Check all connections for tightness. Inspect tubing for cracks. Ensure fill cap is secure. Refill fluid as needed.
Fluid Does Not Move	Blocked pressure ports or tubing; no pressure applied.	Check for obstructions in ports and tubing. Verify pressure source is active.

SPECIFICATIONS

Model: Mark II 25

Measuring Range: 0 to 3 inches of water column (inH₂O)

Gauge Fluid: Red, 0.826 specific gravity

Material: Molded Plastic

Manufacturer: Dwyer

ASIN: B07NDKZ1TS

UPC: 703570169145

WARRANTY AND SUPPORT

For specific warranty information and technical support, please contact Dwyer Instruments, Inc. directly or refer to the official product documentation provided at the time of purchase. Keep your purchase receipt as proof of purchase for any warranty claims.

You can typically find contact information on the manufacturer's official website: www.dwyer-inst.com