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#### Pittsburgh 2.5 CFM 1/6 HP One Stage Vacuum Pump

# Pittsburgh 2.5 CFM 1/6 HP One Stage Vacuum Pump User Manual

Model: 2.5 CFM 1/6 HP One Stage Vacuum Pump

#### INTRODUCTION

This manual provides essential information for the safe and efficient operation, maintenance, and troubleshooting of your Pittsburgh 2.5 CFM 1/6 HP One Stage Vacuum Pump. Please read this manual thoroughly before operating the pump and retain it for future reference.

The Pittsburgh 2.5 CFM 1/6 HP One Stage Vacuum Pump is designed for deeper vacuum draw, pulling vacuum down to 75 microns. Its precision-machined one-stage pump effectively removes moisture from air conditioning systems, preparing them for safe refrigerant addition. This pump is ideal for automotive air conditioning, HVAC work, and other applications requiring high vacuum pull from a compact unit.

#### IMPORTANT SAFETY INFORMATION

Always observe basic safety precautions when using this product to reduce the risk of personal injury and damage to equipment.

- · Read all instructions before use.
- Wear appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the work area is well-ventilated.
- Do not operate the pump in wet conditions or expose it to rain.
- Disconnect power before performing any maintenance or service.
- Use only with specified refrigerants (R134A, R12, R22).

#### **SETUP**

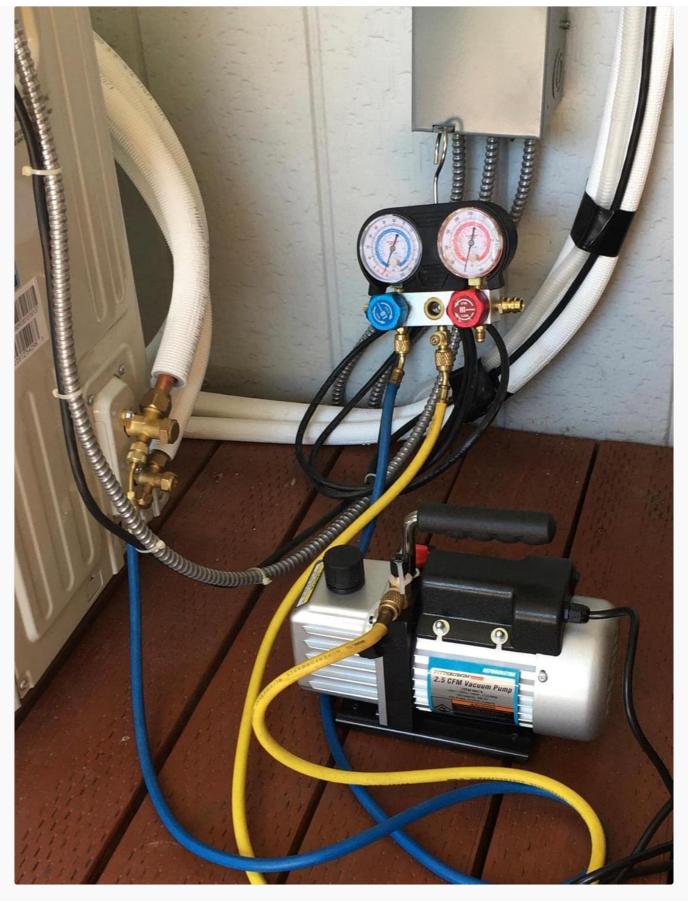
Before initial operation, ensure the vacuum pump is placed on a stable, level surface. Check the oil level and fill if necessary with appropriate vacuum pump oil.

#### Initial Oil Fill/Check

- 1. Locate the oil fill cap and sight glass on the pump.
- 2. Unscrew the oil fill cap.
- 3. Pour vacuum pump oil into the fill port until the oil level is visible in the sight glass, reaching the indicated fill line. Do not overfill.
- 4. Replace the oil fill cap securely.

### **Connecting to an HVAC System**

The pump features dual ports for R134A and R12/R22 systems. Use appropriate manifold gauges and hoses for connection.



**Figure 1:** The Pittsburgh 2.5 CFM 1/6 HP One Stage Vacuum Pump connected to an HVAC system. The image shows the vacuum pump on a wooden deck, connected via yellow and blue hoses to a manifold gauge set. The manifold gauge set is then connected to an outdoor HVAC unit. This setup illustrates a typical vacuuming process for an air conditioning system.

- 1. Ensure all valves on the manifold gauge set are closed.
- 2. Connect the appropriate vacuum hose from the manifold gauge set to the vacuum pump's inlet port.
- 3. Connect the manifold gauge set to the service ports of the HVAC system.

4. Verify all connections are tight to prevent leaks.

#### **OPERATING INSTRUCTIONS**

Follow these steps for proper operation of the vacuum pump to evacuate an HVAC system.

- 1. With the pump connected to the system and manifold gauges, open the manifold gauge valves to the system.
- 2. Plug the vacuum pump into a grounded electrical outlet.
- 3. Turn on the vacuum pump. The pump will begin to pull a vacuum on the system.
- 4. Monitor the vacuum gauge on your manifold set. Allow the pump to run until the desired vacuum level (e.g., 75 microns or lower) is achieved and held steady for a specified period (e.g., 15-30 minutes) to ensure all moisture is removed.
- 5. Once the desired vacuum is reached, close the manifold gauge valves to isolate the system from the pump.
- 6. Turn off the vacuum pump and then disconnect it from the manifold gauges.
- 7. Proceed with refrigerant charging as per HVAC system manufacturer's instructions.

#### **MAINTENANCE**

Regular maintenance ensures the longevity and optimal performance of your vacuum pump.

#### Oil Change

Vacuum pump oil should be changed frequently, especially after each use on a contaminated system or when the oil appears cloudy or discolored. Contaminated oil reduces the pump's ability to pull a deep vacuum.

- 1. Ensure the pump is off and unplugged.
- 2. Place a suitable container under the oil drain plug.
- 3. Remove the oil drain plug and allow all old oil to drain completely.
- 4. Replace the oil drain plug securely.
- 5. Refill with new, clean vacuum pump oil as described in the "Initial Oil Fill/Check" section.

#### **General Cleaning**

Keep the exterior of the pump clean and free of debris. Do not use harsh chemicals or solvents that could damage the housing.

#### **TROUBLESHOOTING**

This section addresses common issues you might encounter with your vacuum pump.

Problem	Possible Cause	Solution
Pump does not start	No power; Thermal overload tripped; Motor fault.	Check power connection and outlet; Allow pump to cool down; Consult qualified technician.
Pump not pulling sufficient vacuum	Low or contaminated oil; Leaks in system/hoses; Clogged inlet filter.	Change oil; Check all connections for leaks; Clean/replace inlet filter.
Excessive noise/vibration	Low oil level; Damaged internal components.	Check and add oil; Contact customer support for service.

#### **SPECIFICATIONS**

Key technical specifications for the Pittsburgh 2.5 CFM 1/6 HP One Stage Vacuum Pump:

• Application: R134A, R12, R22 refrigerant

• Flow Rate: 2.5 CFM

• Horsepower (hp): 1/6 HP

• Maximum Vacuum: 75 micron (10 Pascal)

• Product Height: 9 in.

Product Length: 11-1/4 in.
Product Width: 4-3/4 in.

• Weight: 18.25 lb.

• Thread Size: 1/4 in. SAE & 1/2 in.

• Housing Material: Durable die cast aluminum

• Protection: Thermal and current overload protection

#### WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the manufacturer's official website or contact their customer service department. Keep your purchase receipt for warranty claims.

**Manufacturer:** Pittsburgh **ASIN:** B006ZBAXSW

Date First Available: May 4, 2014

For additional assistance, you may visit the product page on Amazon.com.

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#### Related Documents - 2.5 CFM 1/6 HP One Stage Vacuum Pump



#### Pittsburgh A/C Manifold Gauge Set Owner's Manual & Safety Instructions

This manual provides safety instructions, specifications, applications, operation, and maintenance for the Pittsburgh A/C Manifold Gauge Set. It details how to safely use the gauge set for automotive air conditioning systems, including procedures for diagnostic checks, recovery/evacuation, and charging.



#### Pittsburgh Double Flaring Tool Kit Owner's Manual and Safety Instructions

This manual provides safety warnings, assembly, operating, inspection, maintenance, and cleaning procedures for the Pittsburgh Double Flaring Tool Kit. It includes specifications, important safety information, operating instructions, maintenance and servicing guidelines, and a parts list and diagram.



#### PITTSBURGH 6" Composite Digital Caliper Owner's Manual and Safety Instructions

This manual provides safety warnings, precautions, assembly, operating, inspection, maintenance, and cleaning procedures for the PITTSBURGH 6" Composite Digital Caliper. It includes important safety information, component descriptions, operation instructions, and warranty details.



## <u>Pittsburgh Dual Power Home 120V/Auto 12V Tire Inflator with LED Light - Owner's Manual & Safety Instructions</u>

Comprehensive owner's manual and safety instructions for the Pittsburgh Dual Power Home 120V/Auto 12V Tire Inflator with LED Light. Covers operation, maintenance, troubleshooting, and warranty information.



#### Pittsburgh 8" Three-Jaw Puller Owner's Manual & Safety Instructions

Owner's manual and safety instructions for the Pittsburgh 8-inch Three-Jaw Puller (Model 63952). Includes setup, assembly, operating procedures, maintenance, parts list, and warranty information from Harbor Freight Tools.



#### Pittsburgh Hydraulic Jack: Important Pre-Operation Instructions

Read these critical pre-operation instructions for Pittsburgh hydraulic jacks to ensure safe and proper use. Includes contact details for technical support.