

Robinair 15600

Robinair (15600) CoolTech Vacuum Pump - 2-Stage, 6 CFM Instruction Manual

1. INTRODUCTION AND OVERVIEW

The Robinair (15600) CoolTech 2-Stage Rotary Vane Vacuum Pump is engineered for a wide range of service applications, offering robust construction and high performance. This unit is designed for efficient and thorough evacuation of A/C-R systems.

Key features include:

- **Powerful Motor:** Equipped with a 1/2 HP, 115V/60Hz thermally protected motor.
- **High Displacement:** Provides 6 CFM free air displacement for fast evacuation.
- **Deep Vacuum:** Factory rated to 15 microns for thorough system evacuation.
- **Offset Rotary Vanes:** Builds powerful compression to reduce pressure and vaporize moisture.
- **Iso-Valve:** Isolates the pump from the system with a quarter turn, preventing oil suck-back.
- **Gas Ballast Design:** Mixes moisture-laden air with dry air to prevent condensation during compression.
- **Durable Base:** Molded polycarbonate base improves pump balance and minimizes vibration.
- **Convenient Fittings:** Includes 1/4", 3/8", and 1/2" male flare inlet fittings.
- **Easy Monitoring:** Features an easy-to-read sight glass for oil level.
- **Efficient Draining:** Angled oil drain valve for faster, more complete reservoir draining.

2. SAFETY INFORMATION

WARNING: This product can expose you to chemicals including lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

- Always wear appropriate personal protective equipment (PPE), including safety glasses and gloves, when operating the vacuum pump.
- Ensure the pump is connected to a properly grounded electrical outlet.

- Do not operate the pump in wet conditions or expose it to rain.
- Never use the pump with ammonia or lithium bromide systems, or with flammable refrigerants.
- Always turn the Iso-Valve to the "CLOSED" position prior to shutting off the pump to prevent oil suck-back into the system.
- Refer to the full instruction manual for complete safety guidelines.

3. SETUP

3.1 Unpacking

Carefully remove the vacuum pump from its packaging. Inspect the unit for any signs of damage that may have occurred during shipping. Ensure all components listed in the 'What's in the Box' section are present.

3.2 Adding Vacuum Pump Oil

Before initial operation, the vacuum pump must be filled with Robinair Premium High Vacuum Pump Oil. Locate the oil fill port on the top of the pump. Unscrew the cap and carefully pour oil into the reservoir until the level is visible in the sight glass, reaching the middle of the 'MIN' and 'MAX' marks. Do not overfill.



Image: Robinair (15600) CoolTech Vacuum Pump. The image displays the pump from an angled view, highlighting its blue handle, silver body, and the label with model information. Dimensions of 15.5"L x 5.62"W x 9.75"H are indicated.

3.3 Power Connection

Connect the power cord to the pump and then to a suitable 115V/60Hz grounded electrical outlet. Ensure the power switch is in the 'OFF' position before connecting.

4. OPERATING INSTRUCTIONS

4.1 Connecting to the System

Attach the appropriate manifold gauge set hoses to the vacuum pump's inlet fittings (1/4", 3/8", or 1/2" male flare) and to the A/C-R system being evacuated. Ensure all connections are tight to prevent leaks.

4.2 Starting the Vacuum Pump

Ensure the Iso-Valve on the pump is in the 'OPEN' position. Flip the power switch to 'ON'. The pump should start running smoothly. Allow the pump to run for a few minutes to warm up the oil and achieve optimal performance.

4.3 Evacuation Process

Monitor the vacuum level using a micron gauge connected to the system. The pump is designed to pull down to 15 microns. Utilize the Gas Ballast feature as needed to help remove moisture from the system, especially in humid conditions. This mixes dry air with moisture-laden air to prevent condensation within the pump.

4.4 Shutting Down the Pump (Preventing Oil Suck-back)

To prevent oil from being drawn back into the system, always follow these steps:

1. Close the Iso-Valve on the vacuum pump. This isolates the pump from the system.
2. Turn off the vacuum pump's power switch.
3. Slowly disconnect the hoses from the system and the pump.

Your browser does not support the video tag.

Video: Best Practices for Vacuum Pump Operation. This video demonstrates proper techniques for operating a vacuum pump, including how to prevent oil suck-back into the system, ensuring longevity and efficiency of your equipment.

5. MAINTENANCE

5.1 Oil Change

Regular oil changes are crucial for maintaining pump performance and longevity. It is recommended to change the vacuum pump oil after **each use**, especially when evacuating systems with high moisture content. Contaminated oil can lead to reduced vacuum levels and potential damage.

To change the oil:

1. Ensure the pump is cool and disconnected from power.
2. Place a suitable container under the angled oil drain valve.
3. Open the oil drain valve and allow all old oil to drain completely.
4. Close the drain valve and refill with fresh Robinair Premium High Vacuum Pump Oil through the oil fill port, observing the sight glass for the correct level.

5.2 Cleaning and Storage

Keep the exterior of the pump clean and free of debris. Store the pump in a dry, clean environment with the inlet fittings capped to prevent contamination.

6. TROUBLESHOOTING

- **Pump not starting:** Check power connection, ensure the power switch is 'ON', and verify the electrical outlet is functional.
- **Not pulling deep vacuum:** Ensure all connections are leak-free. Check and change the vacuum pump oil. Verify the Iso-Valve is fully open.
- **Excessive noise/vibration:** Check for loose components. Ensure the pump is on a stable, level surface. Verify oil level is correct.
- **Oil contamination:** Change oil frequently, especially after evacuating systems with high moisture. Use the Gas Ballast feature.

For persistent issues, contact Robinair customer support.

7. SPECIFICATIONS

Feature	Specification
Brand	Robinair
Model	15600
Type	2-Stage Rotary Vane
Free Air Displacement	6 CFM
Factory Rated Vacuum	15 Microns
Motor	1/2 HP, Thermally Protected
Voltage	115V/60Hz
Material	Polycarbonate (Base)
Product Dimensions	15.5"L x 5.63"W x 9.75"H
Item Weight	27 Pounds
Inlet Fittings	1/4", 3/8", and 1/2" Male Flare

8. WARRANTY AND SUPPORT

For warranty information, technical support, or replacement parts, please contact Robinair customer service directly. Keep your purchase receipt as proof of purchase for warranty claims.

What's in the Box:

- Robinair (15600) CoolTech Vacuum Pump
- Vacuum Pump Oil (starter bottle)

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

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

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