



Premium High Vacuum Pump Oil

The performance of your pump depends largely on the quality and purity of the vacuum pump oil. Robinair's oil is engineered to maintain maximum viscosity at high running temperatures and to improve cold weather starts.

To keep the pump operating at peak efficiency, change the oil frequently. Moisture and other contaminants can quickly deteriorate the purity of the oil, thinning the oil, and reducing the pump's ability to reach deep vacuum conditions.

Thermally Stable

Laboratory tests prove that Robinair oil is more thermally stable in comparison to other leading brands, which means it resists breaking down due to heat for a longer period of time.

Lower Moisture Content

Robinair oil has a lower moisture content than other oils, thanks to our special packaging and handling procedures. Moisture degrades the oil's purity, thinning it, and reducing the pump's ability to reach a deep vacuum.

13119 – Pint bottle, 12 per case.

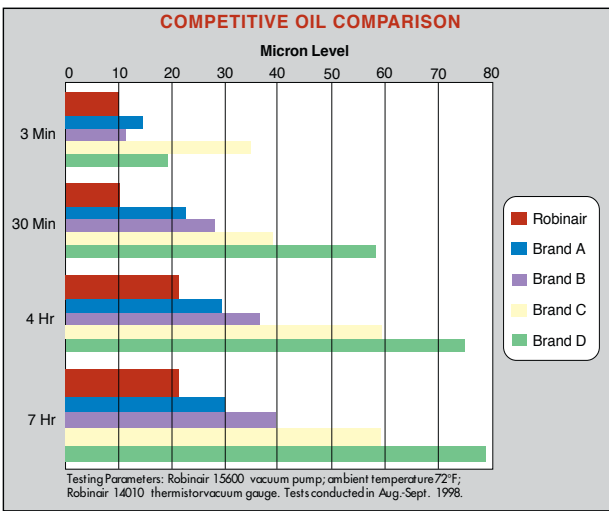
13203 – Quart bottle, 12 per case.

13204 – Gallon bottle, 4 per case.

Change Your Vacuum Pump Oil Frequently

Clean oil is important for peak vacuum pump performance. When the oil is contaminated, it reduces your pump's ability to remove moisture from a system. You should change the pump oil frequently, and especially in the following situations:

- You have just evacuated a system that you suspect was overly moisture-laden.
- You have just evacuated a system with a compressor burnout.
- The pump oil looks cloudy or milky.
- The pump will not pull to factory specifications when blanked off to an electronic thermistor vacuum gauge.
- Every 10 hours of operation.

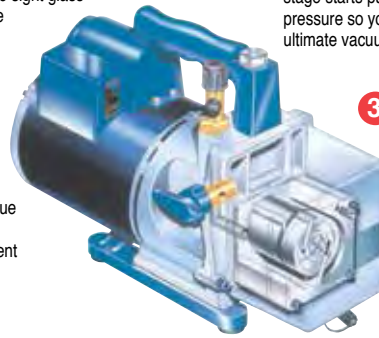


1 Oil Fill Port

Makes adding oil simple since the port is accessible from the front or either side. The sight glass on the front of the pump shows you when enough oil has been added.

2 Two-stage Design

Cleans the system more thoroughly than a single-stage pump; the second stage starts pumping at a lower pressure so you can pull a deeper ultimate vacuum.



4 Heavy Duty Motor

High torque design for easy startup and efficient operation.

3 Die-Cast Aluminum Housing

Cast aluminum housings make the pumps lightweight but durable.

5 Molded Base

Durable polycarbonate base improves pump balance and minimizes vibration during operation.

8 Oil Drain Valve

Positioned at the bottom of the oil reservoir and angled for faster, more complete draining.

6 Iso-Valve™

Isolates the pump from the system with just a quarter-turn.

7 Offset Rotary Vanes

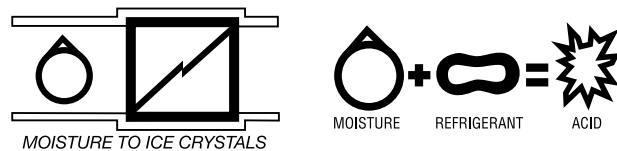
Our proven design builds a powerful compression within the pumping chamber to reduce system pressure and vaporize moisture, so it can be exhausted along with air.

The Importance of Deep Vacuum

The purpose of a vacuum pump is to remove moisture and air from an A/C-R system.

Modern systems are built tighter and charges are more critical. That means these systems have a greater sensitivity to moisture and other contaminants, making thorough evacuation more important than ever before.

Moisture in a refrigeration system, directly or indirectly, is the cause of most problems and complaints. First, moisture can cause freeze-up in a system. Moisture is picked up by the refrigerant and transported through the refrigerant line in a fine mist, with ice crystals forming at the point of expansion.



"Freeze-up" is not the only problem caused by moisture.

It can also result in corrosion, the effects of which are not apparent until the real damage has occurred. Moisture alone is bad enough, but combined with refrigerants containing chlorine, hydrochloric acids can form. These greatly increase the corrosion of metals.

Also, refrigerant oil rapidly absorbs moisture. Water-formed acids combine with the refrigerant, forming a closely bonded mixture of fine globules. The effect is called sludging and it greatly reduces the lubricating ability of the oil.

A vacuum pump removes troublesome moisture by lowering the pressure within the system and vaporizing (or boiling off) the moisture, then exhausting it along with air.

CoolTech™ – The Inside Story

A vacuum pump that's fast and thorough saves you not only time, but also the expense of callbacks and dissatisfied customers. Robinair pumps perform better than other pumps in the industry, ensuring you complete dehydration before recharging.

Robinair pumps are engineered specifically to meet the needs of the kind of A/C work you're doing today, and to give you trouble-free operation. We've put our years of experience and know-how into developing pumps that help you do the job faster and better.

All Robinair pumps are backed by our exclusive "No Hassle" over-the-counter replacement warranty. You can return a pump to your Robinair distributor for an immediate exchange — with no hassle! (In U.S. and Canada only; in other locations, see your Robinair distributor.)

Robinair CoolTech vacuum pumps are designed for use on A/C-R systems using CFCs, HCFCs, and HFCs in conjunction with mineral oil, ester oil, alkylbenzene oil, and PAG oil as lubricants. Do not use them with ammonia or lithium bromide systems; not for use with flammable refrigerants.

U.S. Patent Numbers: 4,523,897; 4,631,006; 5,209,653.



Selecting the Right Size Pump

The more air a pump moves, the faster it can reach an acceptable vacuum. A smaller pump takes more time to evacuate a system than one that's the correct size for the job.



Cool Tech



VacuMaster

Use this Chart as a Guide to Selecting the Right Size Pump.

System	Recommended Pump Size	
	Cool Tech Robinair Pump	VacuMaster™ Robinair Pump
Up to 10 tons (35kW); Domestic Refrigeration, Passenger Cars	–	1.5 CFM (35 l/m)
Up to 30 tons (105kW); Residential A/C, Panel Trucks & RV's	4 CFM (93 l/m)	3 CFM (71 l/m)
Up to 50 tons (176kW); Rooftop A/C systems, Tractor/Trailers, Buses	6 CFM (142 l/m)	5 CFM (118 l/m)
Up to 70 tons (246kW)	10 CFM (236 l/m)	8 CFM

	Oil Fill Port	Heavy Duty Motor	Two-Stage Design	Molded Base	Die-Cast	Oil Drain Valve	Offset Rotary Vanes	Iso-Valve	Gas Ballast
Robinair® Pumps	•	•	•	•	•	•	•	•	•
VacuMaster® Pumps	•	•	•		•	•			

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Robinair Vacuum Pumps

- Power and capacity for a wide range of service applications.
- High CFM rating for fast, thorough evacuation.
- Two-stage rotary vane design.
- Cool Tech assembly in the USA.

Iso-Valve™ – Isolates the pump from the system with just a quarter-turn.

Gas Ballast – Moisture laden air passing through the pump mixes with relatively dry air so compression does not cause condensation.

Two-stage Design – Cleans the system more thoroughly than a single-stage pump; the second stage starts pumping at a lower pressure so you can pull a deeper, ultimate vacuum.

Oil Drain Valve – Positioned at the bottom of the oil reservoir and angled for faster, more complete draining.

Oil Fill Port – Makes adding oil simple since the port is accessible from the front or either side. The sight glass on the front of the pump shows you when enough oil has been added.

Heavy-Duty Motor – High torque design for easy startup and efficient operation.

Offset Rotary Vanes – Our proven design builds a powerful compression within the pumping chamber to reduce system pressure and vaporize moisture so it can be exhausted along with air.

Molded Base – Durable polycarbonate base improves pump balance and minimizes vibration during operation.

Die-Cast Aluminum Housing – Cast aluminum housings make the pumps lightweight but durable.



15120A – 10 CFM



15600 – 6 CFM, 15400 – 4 CFM, 15434 – 4 CFM

Model	Free Air Displacement	Factory Micron Rating	No. of Stages	Intake Fitting	Oil Capacity	Motor Size	Voltage	Approvals	Weight	Dimensions
Domestic Models										
15400	4 CFM	15 microns	2	1/4" MFL & 1/2" MFL	15 oz. (445 ml)	1/2 hp	115V 60 Hz	UL	27 lbs. (12.2 kg)	9.75" H x 5.625" W x 15.5" L 247 mm x 143 mm x 394 mm
15434	4 CFM	15 microns	2	1/4" MFL & 1/2" Acme	13 oz. (384 ml)	1/3 hp	115V 60 Hz	UL	29 lbs. (13 kg)	9.75" H x 5.625" W x 15" L 247 mm x 143 mm x 381 mm
15600	6 CFM	15 microns	2	1/4" MFL, 3/8" MFL, & 1/2" MFL	15 oz. (445 ml)	1/2 hp	115V 60 Hz	UL	27 lbs. (12.2 kg)	9.75" H x 5.625" W x 15.5" L 247 mm x 143 mm x 394 mm
15120A	10 CFM	15 microns	2	1/4" MFL, 3/8" MFL, & 1/2" MFL	16.5 oz. (488 ml)	1/2 hp	115V 60 Hz	UL	38 lbs. (17.24 kg)	10.75" H x 5.625" W x 16.5" L 273 mm x 143 mm x 419 mm
International Models										
15401	94 liters/minute	15 microns	2	1/4" MFL & 1/2" MFL	13.5 oz. (400 ml)	1/3 hp	115V/220-250V 50/60 Hz	CE	29 lbs. (13 kg)	9.688" H x 5.625" W x 15.75" L 246 mm x 143 mm x 400 mm
15424	94 liters/minute	20 microns	2	1/4" MFL & 1/2" Acme	13.5 oz. (400 ml)	1/3 hp	115V/220-250V 50/60 Hz	CE	32 lbs. (14.5 kg)	9.763" H x 5.625" W x 15.75" L 248 mm x 143 mm x 400 mm
15601	142 liters/minute	15 microns	2	1/4" MFL, 3/8" MFL, & 1/2" MFL	13.5 oz. (400 ml)	1/3 hp	115V/220-250V 50/60 Hz	CE	29 lbs. (13 kg)	9.688" H x 5.625" W x 16.5" L 246 mm x 143 mm x 419 mm
15121A	283 liters/minute	15 microns	2	1/4" MFL, 3/8" MFL, & 1/2" MFL	16.5 oz. (488 ml)	1/2 hp	115V/220V 50/60 Hz	CE	41 lbs. (18.60 kg)	10.75" H x 5.625" W x 17.5" L 273 mm x 143 mm x 445 mm



**VacuMaster™
Economy Vacuum Pumps**

- Performance tested to meet Robinair's high standards
- Power and capacity for a wide range of service applications.
- High CFM rating for fast, thorough evacuation.
- Two-stage rotary vane design.

Features:

Two-stage Design – Cleans the system more thoroughly than a single-stage pump; the second stage starts pumping at a lower pressure so you can pull a deeper, ultimate vacuum.

Oil Drain Valve – Positioned at the bottom of the oil reservoir and angled for faster, more complete draining.

Oil Fill Port – Makes adding oil simple since the port is accessible from the front or either side. The sight glass on the front of the pump shows you when enough oil has been added.

Heavy-Duty Motor – High torque design for easy startup and efficient operation.

Die-Cast Aluminum Housing – Cast aluminum housings make the pumps lightweight but durable.



15150 – 1.5 CFM
15300 – 3 CFM
15500 – 5 CFM



15800 – 8 CFM



Model	Free Air Displacement	Factory Micron Rating	No. of Stages	Intake Fitting	Oil Capacity	Motor Size	Voltage	Weight	Dimensions
Domestic Models									
15150	1.5 CFM	50 microns	2	1/4" MFL and 3/8" Acme 3/8" FFL x 1/2" Acme adapter	7.4 oz. (219 ml)	1/4 hp	115V 60Hz	22 lbs. (10 kg)	9.5" H x 4.75" W x 12.5" L 240 mm x 120 mm x 315 mm
15300	3 CFM	35 microns	2	1/4" MFL and 3/8" MFL 3/8" FFL x 1/2" Acme adapter	7.5 oz. (220 ml)	1/3 hp	115V 60Hz	28 lbs. (12.5 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm
15500	5 CFM	35 microns	2	1/4" MFL and 3/8" Acme 3/8" FFL x 1/2" Acme adapter	7.5 oz. (220 ml)	1/3 hp	115V 60Hz	28 lbs. (12.2 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm
15800	8 CFM	35 microns	2	1/4" MFL and 3/8" MFL	18.6 oz. (550 ml)	1 hp	115V 60Hz	37 lbs. (16.8 kg)	16" H x 6" W x 10" L 406 mm x 152 mm x 254 mm
International Models									
15301 3 CFM	71 liters/minute	35 microns	2	1/4" MFL and 1/2" MFL 3/8" FFL x 1/2" Acme adapter	7.5 oz. (220 ml)	1/3 hp	220V 50Hz	28 lbs. (12.5 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm
15501 5 CFM	118 liters/minute	35 microns	2	1/4" MFL and 1/2" Acme 3/8" FFL x 1/2" Acme adapter	7.5 oz. (220 ml)	1/3 hp	220V 50Hz	28 lbs. (12.5 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm

**14777
Compact Electronic Vacuum Gauge**

Robinair's 14777 electronic vacuum gauge is just 2-1/2" x 3" in size, but accurate enough to clearly indicate when the system is free from moisture and ready for recharging. Specifically designed for use with a high vacuum pump, the 14777 measures to 10 microns.

Clearly Shows Vacuum Level – The display is an easy-to-read LCD type with readout showing the current vacuum level.

6' Lead for Service Flexibility – Hang the gauge in a location that's convenient for you to monitor vacuum level.

Mounting Magnet – Position the 14777 where it's easy-to-read the LCD.

Specifications

- Power Supply One 9V battery (included)
- Vacuum Fitting 1/4" MFL
- Length of Lead 6 feet (8.3 m)
- Vacuum Rating 29 in./Hg
- Dimensions 3" H x 2.5" W x 1" D
..... (7.62 cm x 6.35 cm x 2.54 cm)

14778 – Replacement thermistor tube.



Reading Vacuum Tips

When reading vacuum, remember that the location of the vacuum gauge tube will affect the reading. The closer the gauge is to the vacuum pump, the lower the reading will be. Conversely, if you take the reading at a line far away from the pump, the reading will be on the high side.

The way to get the most reliable reading is to isolate the vacuum pump using a vacuum valve assembly. Allow the pressure to equalize throughout the system, then take a final reading.

A reading that's too high is a good indication of moisture in the system; continuing to evacuate will likely pull the system into a deeper vacuum. If the pressure will not equalize, you probably have a leak, which should be repaired.