

# *OIL VAPOR TRAP*

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**M I C R O M E R I T I C S**



## ***INSTALLATION INSTRUCTIONS***

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## ***CONTACT US***

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### **Micromeritics Instrument Corporation**

4356 Communications Drive

Norcross, GA / USA / 30096-2901

1-770-662-3636

1-770-662-3696

[www.Micromeritics.com](http://www.Micromeritics.com)

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### **U.S. Inquiries**

U.S. Sales: 1-770-662-3636

[USSales@Micromeritics.com](mailto:USSales@Micromeritics.com)

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### **Quotes, Orders, and Customer Satisfaction**

Customer Service: 1-770-662-3636

[Orders@Micromeritics.com](mailto:Orders@Micromeritics.com)

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### **U.S. Instrument Service Department**

Phone: 1-770-662-3666

## ***OIL VAPOR TRAP***

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These instructions explain how to install and use the Oil Vapor Trap. The Oil Vapor Trap attaches to the intake port of the vacuum pump and reduces the amount of oil vapor that collects in the hoses leading to the instrument.

There are two Oil Vapor Trap kits available:

- **Single vacuum pump system.**
  - 1 oil trap body
  - 2 end fittings
  - 4 O-rings
  - 1 clamp
  - 1 centering ring
  - 500 grams of drying agent (alumina)
  
- **Dual vacuum pump system.** Generally used for instruments having two vacuum pumps mounted internally. Access to the vacuum pumps usually requires the removal of panels. Refer to the instrument's operator manual for removal procedure.
  - 2 oil trap bodies
  - 4 end fittings
  - 6 O-rings
  - 2 clamps
  - 2 centering rings
  - 500 grams of drying agent (alumina)

## OIL VAPOR TRAP INSTALLATION

Installation consists of activating the alumina used in the trap, assembling the trap, and attaching the trap to the vacuum pump.

### ACTIVATE THE ALUMINA

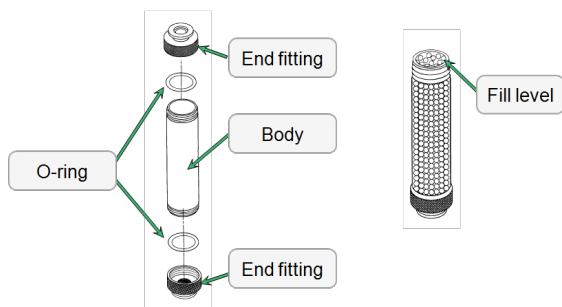
Fresh alumina must be activated to remove sorbed moisture before it can be used in the Oil Vapor Trap.



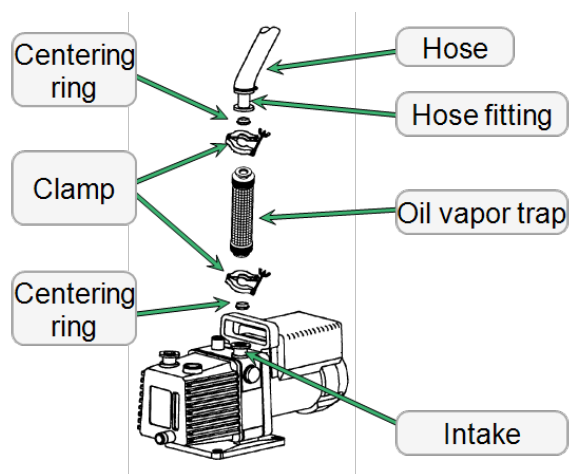
Avoid inhalation, eye contact, and unnecessary skin contact with the activated alumina. Failure to do so may cause skin irritation.

1. Heat an oven from 250 °C to 350 °C.
2. Pour approximately 90 grams of alumina into a glass or metal container (approximately 125 mL if a graduated beaker is used). Place the container in the oven.
3. Bake the alumina for 2 hours then turn off the oven.
4. Allow the alumina to cool in the oven before pouring it into the trap.

### ASSEMBLE THE TRAP



1. Lightly lubricate the two O-rings with stopcock or vacuum grease.
2. Press an O-ring into each end fitting.
3. Screw one end fitting onto the trap body and tighten securely by hand.
4. Pour cooled, activated alumina into the trap until it is level with the top of the trap body.
5. Screw the second end fitting onto the trap body and tighten securely by hand.

**ATTACH THE TRAP TO THE VACUUM PUMP**

1. Disconnect the vacuum pump power cord from the power source.
2. Loosen the wing nut that secures the vacuum clamp to the intake port. Open the clamp and remove it.
3. Disconnect the hose fitting. Do not remove the hose from the fitting.
4. Install the trap on the intake port centering ring. The trap may be mounted with either end up. Open the clamp removed in the previous step and place it around the flanges of the pump and trap. Close the clamp and secure it by turning the wing nut clockwise until hand tight.
5. Use the centering ring and clamp to attach the hose to the trap.
6. Reconnect the power cord and turn the power switch on the vacuum pump to the ON position.
7. Wait a few minutes before using the attached instrument to allow air to be removed from the trap and hoses.

## MAINTENANCE

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The activated alumina used in the Oil Vapor Trap becomes saturated with sorbed vapors such as pump oil during use. The alumina should be inspected every 15 days and replaced if either of the following conditions occur:

- Oil has accumulated in the cold trap (on instruments with cold traps)
- Most of the alumina pellets are no longer white.



When the alumina is replaced, the vacuum pump oil should also be changed.

## REPLACE THE ALUMINA

1. Refer to ["Activate the Alumina" on page 5](#) to prepare fresh alumina.
2. Disconnect the vacuum pump power cord from the power source.
3. Remove the trap by opening both vacuum clamps and separating the trap from the vacuum pump and hose connections. Reference the figure in ["Attach the Trap to the Vacuum Pump" on the previous page](#).
4. Remove one end fitting from the trap body and remove the used alumina. If the interior of the trap body appears oily or dirty, wash the trap body with isopropyl alcohol or ethyl alcohol and dry thoroughly.



Ensure adequate ventilation when using solvents for cleaning purposes.

5. Pour the new activated alumina pellets into the trap until they are level with the top of the trap body. Reference the figure in ["Assemble the Trap" on page 5](#)
6. Screw the end fitting back onto the trap body.
7. Replace the trap on the vacuum pump.
8. Connect the vacuum pump power cord and turn the power switch to the ON position.
9. Wait a few minutes before using the attached instrument to allow air to be removed from the trap and hoses.

## ***TROUBLESHOOTING***

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<b>What Happened</b>	<b>Why</b>	<b>What To Do</b>
<b>System cannot achieve a good vacuum</b>	A leak is occurring at a fitting	Ensure all fittings are tightly connected. Check the O-rings in the fittings for damage.
	The alumina is holding moisture.	Replace or reactivate the alumina.

## ***PARTS AND ACCESSORIES***

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Order system components and accessories using one of the following methods:

- Call our Customer Service Department at 1-770-662-3636
- Email orders to [Orders@Micromeritics.com](mailto:Orders@Micromeritics.com)
- Contact your local sales representative

<b>Part Number</b>	<b>Item and Description</b>
<b>004-16830-00</b>	Alumina, 500 grams
<b>004-25652-00</b>	O-ring for trap end fitting
<b>062-33002-00</b>	Single Trap Kit