

# Installation and Operating Instructions

# Cole-Parmer® Venturi-Style Vacuum Pump

Model 78165-40



## WARNINGS

- Always wear adequate ear and eye protection.
- Not intended for corrosive gases.  
Always check compatibility of wetted materials.
- Insure that pump unit is always secured firmly before applying compressed air to any port.

Failure to follow these warnings could result in serious injury.

## Technical Data

<b>Operating pressure</b>	60 psi (min) to 100 psi (max). For optimum efficiency operate at 80 psi.
<b>Operating temperature</b>	15° F to 140° F
<b>Operating noise level</b>	55 dBA
<b>Material</b>	Anodized aluminum, brass, and Buna-N seals.

## Operating Instructions

1. Shut off air supply to tubing (supply line).
2. Place 10-32 male pipe fitting into the female threaded port marked "Air Supply" (supply port).
3. Place a second 10-32 male pipe fitting into the female threaded port marked "Vacuum" (vacuum port).
4. Attach necessary component(s) required for the application to the tubing side of the 10-32 male pipe fitting placed in the vacuum port.
5. Secure vacuum pump at desired location.
6. Attach tubing from supply line to the tubing side of the fitting placed in the supply port.
7. To obtain vacuum, turn on air supply so that 80 psi compressed air flows from the supply line into the supply port. Air should flow through the vacuum pump and exhaust into the atmosphere via the exhaust muffler located at the *opposite* side of the supply port. Vacuum should begin to flow through the vacuum port.
8. To stop the flow of vacuum to the vacuum port, shut off the supply of compressed air to the supply port.

# Trouble Shooting

If vacuum does not flow into the vacuum port when air is applied to the supply port, the following procedures should be taken.

1. Check to ensure that 80 psi compressed air is being supplied to the supply port.
2. Check to ensure that the necessary component(s) required for the vacuum side of the system are correctly mounted to the vacuum port. Eliminate any vacuum leaks that you may find.
3. Check fittings and tubing for leaks. Tighten any fittings that may be leaking and replace any tubing that is leaking. If leaks persist at fittings after tightening, replace fittings.
4. If the pump is not drawing a vacuum after the above steps, shut off the air supply. The orifice in the body may be obstructed. Remove the tubing and fitting at the supply port. Using a compressed air blow-gun, apply compressed air into the exhaust port to remove any particles that may be obstructing the internal orifice. Replace the tubing and fitting to the supply port. Reapply compressed air to the supply port and check the vacuum port to determine if the pump is drawing vacuum. If vacuum is not present at vacuum port, then return pump to Cole-Parmer for evaluation.



For Product Information

**Cole-Parmer®**  
an antyia scientific company

625 East Bunker Ct.,  
Vernon Hills, IL 60061  
US

**US**  
T: +1.800.323.4340 or  
+1.847.549.7600  
E: sales@antyia.com  
W: coleparmer.com

**Canada**  
T: +1.514.355.6100  
E: info@antyia.ca  
W: coleparmer.ca

**China**  
T: 86.21.5109.9909  
E: sales@antyia.com  
W: coleparmer.cn

**France**  
T: +33 (0) 1486 37800  
E: fr.sales@antyia.com  
W: coleparmer.fr

**Germany**  
T: +49 (0) 9377 92030  
E: de.sales@antyia.com  
W: coleparmer.de

**India**  
T: +9122 61394444  
E: info@coleparmer.in  
W: coleparmer.in

**Italy**  
T: +39 (0) 284349215  
E: it.sales@antyia.com  
W: coleparmer.it

**UK**  
T: +44 (0) 1480 272279  
E: uk.sales@antyia.com  
W: coleparmer.co.uk

**Other**  
T: +1.847.549.7600