

Installation and Operating Instructions

Cole-Parmer® Venturi-Style Vacuum Pump

Model 78165-10



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

Operating pressure	60 psi (min) to 100 psi (max). For optimum efficiency operate at 80 psi.
Operating temperature	15° F to 140° F
Operating noise level	72 dBA
Material	Anodized aluminum, brass, and Buna-N seals.

Operating Instructions

1. Shut off air supply to tubing (supply line).
2. Place 1/4" NPT male pipe fitting into the female threaded port marked "Air Supply" (supply port).
3. Place a second 1/8" NPT 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 1/8" NPT male pipe fitting placed in the vacuum port.
5. Mount vacuum generator to desired location. The vacuum pump comes with two (2) 0.120" dia thru holes for mounting purposes.
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. Shut off air supply. Remove exhaust muffler from exhaust port (opposite end of the supply port). The exhaust muffler is threaded into the exhaust port of the vacuum pump body. Remove the exhaust muffler by unscrewing the muffler from the vacuum pump body in a counterclockwise rotation. With the vacuum pump secured, reapply air pressure to the supply port. **NOTE:** A large volume of compressed air should now exit the exhaust port. This will likely cause a loud, hissing noise. With compressed air being applied to the supply port, check the vacuum port. If the vacuum pump is now drawing a vacuum, shut off the air supply and replace the exhaust muffler (Cole-Parmer part number 78165-52).

If the pump is not drawing a vacuum when both 80 psi compressed air is being applied to the supply port and the exhaust muffler is removed from the vacuum pump body, the orifice in the body may be obstructed. Shut off the air supply. Using a compressed air blow-gun, apply compressed air into the exhaust port to remove any particles that may be obstructing the internal orifice. Reapply compressed air to the supply port and check the vacuum port to determine if the pump is drawing vacuum. If vacuum is now present at the vacuum port, shut off the air supply and place the exhaust muffler in the exhaust port. Apply 80 psi compressed air to supply port. If vacuum is not present at vacuum port, then return pump to Cole-Parmer for evaluation.



For Product Information

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