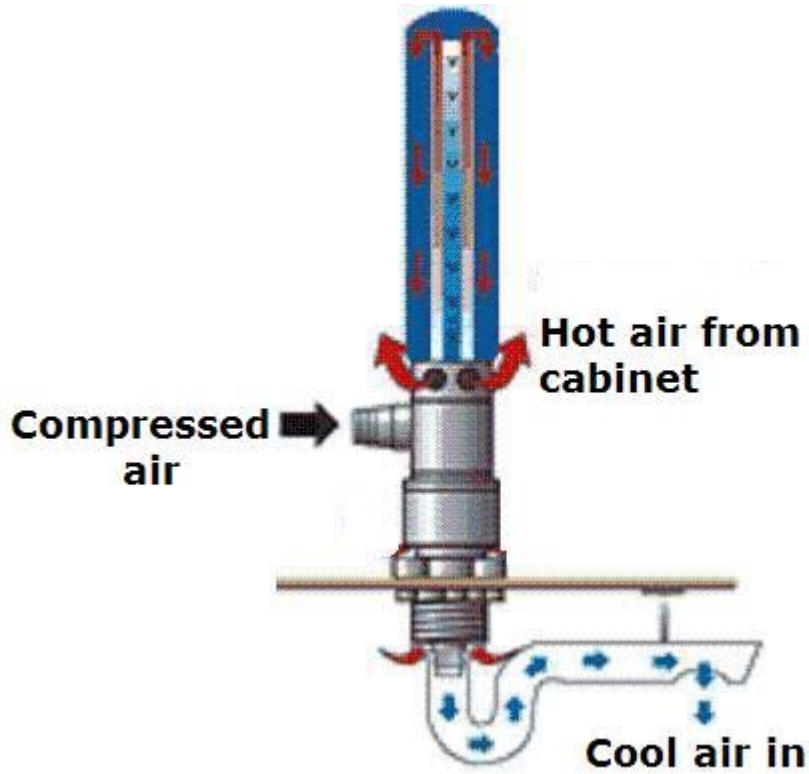
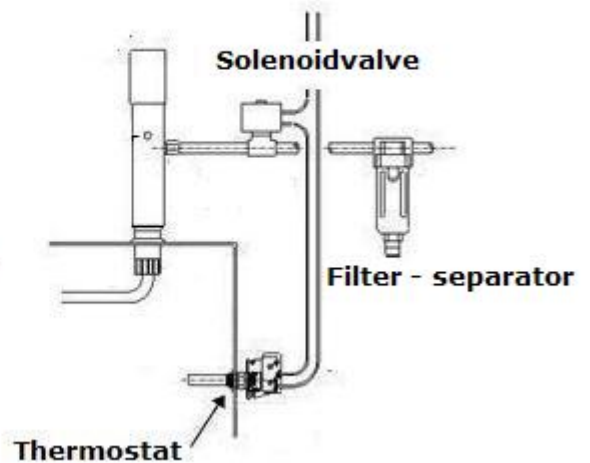
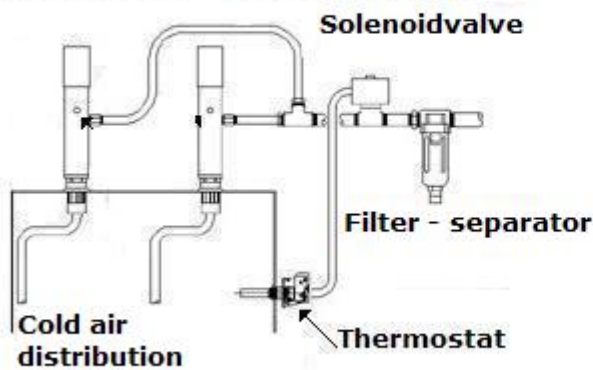


## Mounting Instructions Vortex Cabinet Coolers



### Mounting of Vortex Cooler with thermostat

#### 2 Vortex Coolers - parallelmounting



# FIKTECH

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### COMPRESSED AIR LINE SIZES

Compressed air lines should be sized to hold pressure drops to a minimum. When installing supply lines, use 1/8" pipe for runs up to 3 m. Use 1/4" pipe for runs up to 7.6 m, and 3/8" pipe for runs over 7.6 m. If using compressed air hose, consider 3/8" LD. hose to be the same as 1/4" pipe and 1/2" LD. hose to be the same as 3/8" pipe. **Do not use restrictive fittings such as quick connects. They can "starve" the Cabinet Cooler by causing excessive line pressure drop.**

### COMPRESSED AIR SUPPLY

With proper filtration and separation of dirt, moisture and oil from the compressed air supply, the Cabinet Cooler will run for years with no maintenance required. Make use of an Automatic Drain Filter Separator which provides 5 micron filtration. Vortex Cabinet Coolers are designed to use normal shop air supplies of 80 to 100 PSIG (5.5 to 6.9 BAR).

Thermostat control will minimize compressed air usage and should be used whenever possible.

### USING THE CABINET COOLER

For use on a flat surface of a cabinet, the Cabinet Cooler mounts in an upright position to the enclosure thru a 22, 29, 32 or 49 mm diameter hole (depending of the size of cooler). A nut is supplied to lock it in place. The Cabinet Cooler will provide a 28° C temperature drop from supply air temperature at 100 PSIG (6.9 BAR). An elevated inlet temperature will produce a corresponding rise in cold air temperature and reduction in cooling capacity.

### COLD AIR DISTRIBUTION KIT

The Cold Air Distribution Kit includes 1.2 m of flexible tubing, adhesive backed clips to hold the tubing in place, connector and end plug. The tubing is used to direct the cold air for circulation or to hot spots, as needed. Holes may be drilled or cut ("V" shaped) in the tubing. If the end is plugged, use **at least** 4 x 3.2mm diameter holes in the tube to eliminate excessive back pressure on the Cabinet Cooler.

### HUMIDITY

If ambient air can circulate through the enclosure, humidity from this air may condense on the tubing used to distribute the cold air. Any moisture in an electrical enclosure is dangerous. To prevent this potential problem, close off any vents or fan intakes that allow ambient air into the enclosure. Fans can be relocated inside the cabinet to help circulate the cold air.

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### **THERMOSTAT**

The Thermostat should be mounted in a hot area of the enclosure. It should be mounted on a bracket inside the enclosure. The thermostat is preset at 35° inside the cabinet, NO-version (Normally Open) and closes at rising temperature.

### **SOLENOID VALVE**

Mount the solenoid valve on the compressed air line between the filter and the Cabinet Cooler. The valve is normally closed, actuated open. In most cases, it is controlled by the thermostat. It can also be actuated by the machine control.

NHP-version: In closed position, the solenoid valve passes 28 SLPM of air through to the Cabinet Cooler to maintain a slight, positive pressure inside the electrical enclosure. When the thermostat detects high temperature, it energizes the solenoid valve to pass line pressure to the Cabinet Cooler, producing full cooling capacity.

### **TROUBLESHOOTING & MAINTENANCE**

If the Cabinet Cooler is not producing cold air, check the pressure by installing a gage at the compressed air inlet of the cooler. Large pressure drops are possible due to undersized lines, restrictive fittings and clogged filter elements!

### **NOISE MUFFLING**

In most applications, the noise level is less than 75 dB(A). A cold muffler can be easily retrofitted to the cold air discharge.

