

# A/C FOR CNC CONTROLS WITHOUT FREON-ELECTRICITY-OR MOVING PARTS

## Arizona Vortex—CNC Coolers

### STAINLESS STEEL CONSTRUCTION

The Arizona Vortex CNC Cooler uses a Vortex Tube to convert compressed air into two streams—one hot and one cold. The cold air is discharged into the control cabinet of your CNC cabinet. The air is filtered before it is cooled so that only clean dry air is introduced to the sensitive controls. There are no moving parts so you can install the CNC Cooler and forget about heat related shut-downs. Relief valves and seals are built into the CNC Cooler to enable the unit to maintain the sealed nature of NEMA boxes.

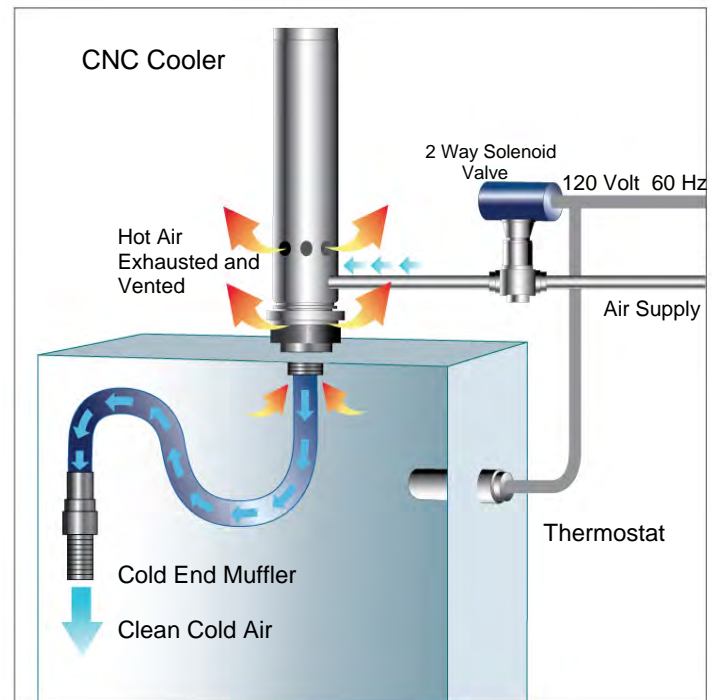


CNC Cooler (part #20125) includes a five-micron air filter for the compressed air system, and a ducting kit for the cold air so you can direct the cold air to the heat source in your control cabinet. CNC Cooler System (part # 20325) includes an adjustable electrically operated thermostat, and a solenoid valve to provide thermostatic control for your systems. All systems come complete with installation instructions. The CNC Cooler mounts into a standard 3/4" electrical knockout and the thermostat mount into a standard 1/2" electrical knockout.



CNC Cooler System - Part # 20325  
Includes CNC Cooler, Filter, Ducting Kit, Solenoid Valve, and  
Thermostat pre-set at 90° F.

### The standard CNC Cooler will cool a cabinet that is 6'x4'x2'



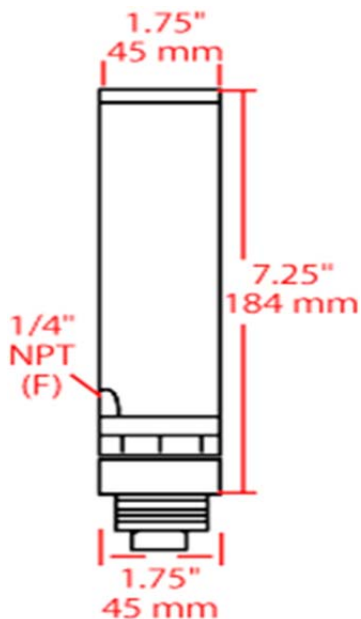
## Air Conditioning Using Only Compressed Air As a Power Source

A compressed air line size of 3/8" pipe or 1/2" Compressed air hose must be used for distances over 10' from the main supply line. Use 1/2" pipe and 3/4" hose for runs up to 20' from the header.

The generator controls the volume of air through the Vortex Tube. The standard CNC Cooler will use a 25scfm generator. This will produce 2500 BTUH of cooling. This will take care of a cabinet that is 6' high X 4' wide X 2' deep. This is based on an ambient temperature of 130° F and on providing the CNC Cooler with compressed air at 80 psig.



The 8' of plastic hose connects to the cold end of the CNC Cooler once it is mounted to the control cabinet. This allows efficient use of the cold air by routing the cold air to hot spots in the cabinet. Punch holes in the tube at each of the hot spots. The open end of the tube should be placed at or near the bottom of the cabinet so that cold air exists at the bottom creating convection inside the cabinet. Hot air rises and maintains even temperature inside the cabinet. Positive pressure is created within the cabinet and maintains a sealed nature. The CNC Cooler has no moving parts. Clean compressed air moving through the unit will not cause any wear. Dirt or moisture will cause problems and will affect the efficiency of the unit. If this happens simply disassemble the unit, clean the parts and reassemble making sure to properly seat the O ring and generator.



### USE TO COOL

- CNC Controls
- PLC's
- Motor Controls
- Industrial Cameras

### FEATURES

- Compact
- No Freon
- Thermostatically Controlled
- No Moving Parts
- No Fans or Filters
- Relief Valves

### BENEFITS

- Low Cost
- Reliable
- Easy Installation
- Stainless Steel Construction
- No Vibration - Quiet
- Maintain NEMA Ratings
- Maintain Sealed Nature of Cabinets
- Positive Pressure Created Within Cabinet