



## Panel Cooling with Panel Enclosure Coolers

Using our extremely low-cost, reliable Vortex Tube, these Panel Enclosure Coolers will purge AND cool electronic/electrical enclosures with filtered air that's up to 45°F colder than the compressed air supply. Built into the cooler is a relief valve that exhausts the hot air from the cabinet, while the cooler continues to supply clean cold air. Our Panel Enclosure Coolers are ideal for all NEMA 4/4X (IP56) and NEMA 12 (IP52) rated panels. They mount in minutes through a standard knockout.

### How to determine size requirements of the Panel Enclosure Cooler



1. Determine the watts of heat generated inside the enclosure.  
[ Watts x 3.41 = (W) Btu/hr.]
2. Determine the area in square feet that is exposed to the air, *not* including the top of the cabinet.  
[ 2 x {Width} + 2 x {Depth} ] {Height} = (S) Square feet of cabinet
3. Determine the temperature difference between the desired internal temperature and the maximum expected external temperature. Now you can use the below chart to determine the Btu/hr./sq. ft., for this differential (B).
4. Determine the external heat load (H).  
[(S) x (W) = (H) Btu/hr.]
5. Now take (W) and add (H) to get the total heat load or Btu/hr. refrigeration required to maintain desired temperature and choose the correct one using the chart.

Temperature Difference (°F)	Btu/hr. / sq. ft.
5	1.5
10	3.3
15	5.1
20	7.1
25	9.1
30	11.3
35	13.8
40	16.2

## Specifications

### Mounting:

The STREAMTEK™ Cabinet Panel Cooler must be vertically mounted, on a flat surface surface for all enclosure types. The STREAMTEK™ Cabinet Panel Cooler system is easy to install through a 1-1/8" diameter drilled hole or electrical knockout.

### Humidity:

It's important to close off any openings and any vents that may bring in ambient air, especially in warm or hot high humidity environments. The relative humidity inside the enclosure stabilizes at 45% for all continuous operating Cabinet Panel Coolers.

### Filtration:

All STREAMTEK™ Cabinet Panel Cooler systems include an auto drain 5 micron dirt and water filter. This filter is imperative to prevent any accidental water flow into the enclosure. If oil is present in the compressed air supply, use an oil filter within at least .3 micron rating.

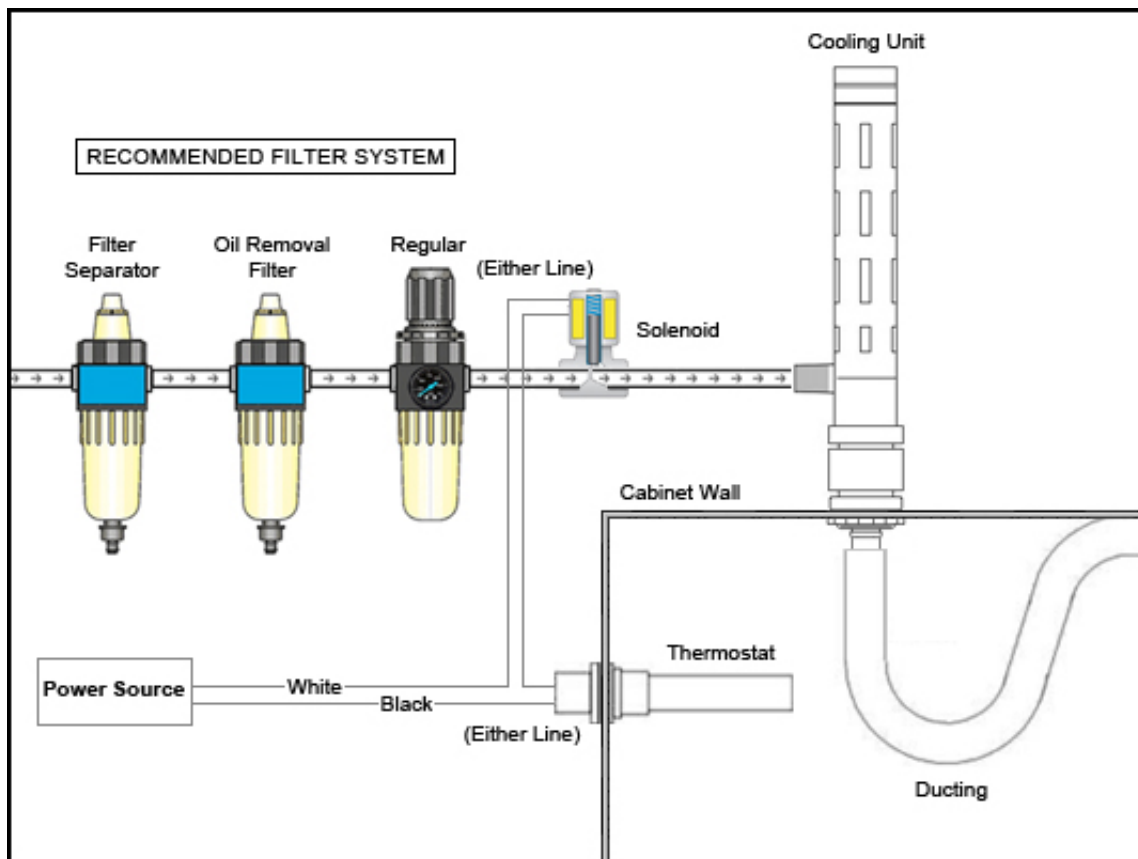
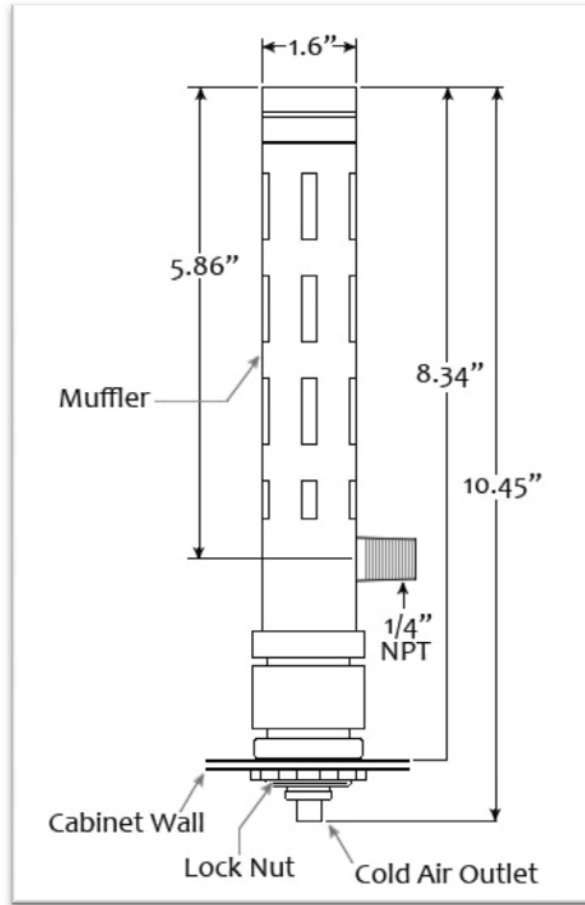
### Environmental Considerations:

**NEMA 12 (IP52)** - Cabinet Panel Coolers (oil-tight, dust-tight) are used in industrial environemnts where no liquids can come in contact with the unit. Constructed of Stainless Steel (Type 303) to withstand harsh corrosive environments.

**NEMA 4/4X (IP56)** - Designed for Electronic Control Panels - Splash resistant, oil-tight, and dust-tight for use in wash down environments as well as outdoor use. When the Panel Cooler is not operating a low pressure relief valve closes and seals to maintain the integrity of your NEMA 4 cabinet enclosure. Constructed of Stainless Steel (Type 303) for long life in wet environments.

NEMA 12 (IP52) - Dust, Oil, and Corrosion Resistant					
Model No	Capacity Btu/hr	Capacity Kcal/hr	Air Consumption SCFM @ 80 PSI	Air Consumption SLPM @ 5.5 Bar	Sound Level
STCC1208	550	139	8	226	67*
STCC1215	1,100	277	15	425	73*
STCC1225	1,800	454	25	708	74*
STCC1230	2,060	519	30	849	74*
STCC1240	2,800	706	40	1,132	80*
STCC1250	3,400	857	(2 x CC1215)	850	
STCC1260	4,000	1008	(2 x CC1230)	1,698	
STCC1270	4,800	1210	(CC1230 & CC1240)	1,981	
STCC1280	5,600	1411	(2 x CC1240)	2,264	
NEMA 4/4X (IP56) - Dust, Oil, Corrosion, and Splash Resistant					
Model No.	Capacity Btu/hr.	Capacity Kcal/hr.	Air Consumption SCFM @ 80 PSI	Air Consumption SLPM @ 5.5 Bar	Sound Level
STCC408	550	139	8	226	67*
STCC415	1,100	277	15	425	73*
STCC425	1,800	454	25	708	74*
STCC430	2,060	519	30	849	74*
STCC440	2,800	706	40	1,132	80*
*With Optional Cold Muffler installed					

# Dimensions



## Accessories



Thermostat and Solenoid Valve. Both rated 120V/60Hz or 110V, 50Hz ( UL, CSA )

### Thermostat and Solenoid Valve:

Cabinet Panel Systems with thermostat control include a thermostat and solenoid valve. This combination will limit the flow of compressed air to only when cooling is needed.

Solenoid valve is rated 120V, 60 Hz or 110V, 50 Hz and are CSA Certified, UL Listed.

The Adjustable Thermostat is factory set at 95F (35C). It has a tolerance of +/- 2F (1C) of the desired temperature inside the enclosure. Rated 120V, 50/60 Hz and is CSA Certified, UL Recognized.



Cold Air Distribution kit includes flexible vinyl tubing, and adhesive rubber protected clips to hold the tubing in place.

### Cold Air Distribution Kit

The Cold Air Distribution Kit is used to direct the cold air flow for circulation, or to hot spots within your enclosure. Kit includes a flexible length of vinyl tubing, and rubber lined clips to hold the tubing in place.

Model No.	Description
<b>STCC000-T</b>	Adjustable Thermostat (factory set at 95F (35°C). Normally holds +/- 2°F (1°C) of the desired temperature setting. Rated 120V, 50/60 Hz, CSA Certified, UL Recognized )
<b>STSLD00-1</b>	Solenoid Valve (120V, 50/60 Hz), 40 SCFM (1133 SLPM)
<b>STFTR00-3</b>	Manual drain Filter (Metal bowl, 27 SCFM (765 SLPM), 5 micron, 1/4" NPT.)
<b>STFTR01-4</b>	Automatic drain Filter. (Metal Bowl, 27 SCFM (765 SLPM), 5 micron, 1/4" NPT.)
<b>STFTR00-4</b>	Automatic drain Filter (Metal Bowl, 43 SCFM (1218 SLPM), 5 micron, 1/4" NPT.)