

SILENT X-STREAM™ FRIGID-X™ PANEL COOLER



Prevent Downtime due to overheating electric and electronic control panels and cabinets with Frigid-X™ Panel Coolers combined with the Hot and Cold End Muffling Kits for Quiet Operation Maintain NEMA Type 12 (IP 52), NEMA Type 3R (IP 14) and Patented* NEMA Type 4-4x (IP 66) Integrity - ULC Listed

WHAT ARE THEY - REASONS TO USE COMBINED WITH THE HOT AND COLD END MUFFLING KITS, THE SILENT X-STREAM™ PANEL COOLER CAN REDUCE NOISE LEVELS TO 64 dBA OR MORE.

Frigid-X™ Panel Cooler and Cabinet Enclosure Cooler for electronic control panels provide a low cost method of both purging and cooling electrical and electronic control panels by using a stainless steel vortex tube to create cold air from ordinary compressed air. Unlike many competitors - all of our coolers are stainless steel, not just the vortex tube, for longer life and flexible use. Frigid-X™ Panel Coolers are compact and can be installed in minutes through a standard electrical knockout. There are virtually no moving parts. Cabinet Enclosure Cooler - Frigid-X™ series are ideal for all NEMA Type 12 (IP 52), NEMA Type 3R (IP 14) and Patented* NEMA Type 4-4X (IP 56) rated panels.



SILENT X-STREAM™ FRIGID-X™ PANEL COOLER ADVANTAGES :

- ▶ No moving parts.
- ▶ Put Extra Quiet
- ▶ Eliminate fans and blowers and filters
- ▶ Low in cost compared to most others
- ▶ Superior design and performance
- ▶ Maintenance free operation
- ▶ Made of durable stainless steel and metal arts -no cheap plastic parts
- ▶ Cooling capacities to 2800 BTU/Hr per unit.
- ▶ Maintain NEMA 12, NEMA 3R and Patented* NEMA 4-4X integrity (IP 52, IP 14 and IP 66)
- ▶ Control and stabilize the temperature and humidity Inside the enclosure
- ▶ No CFC's or HCFC's
- ▶ Mount in a standard electrical knockout
- ▶ Eliminate circuit drift, nuisance tripping and dirt Contamination
- ▶ Provide wash down protection (Patented* NEMA 4-4X (IP 66))

WHY THE SILENT X-STREAM™ FRIGID-X™ PANEL COOLER OVER OTHERS:

The Panel Cooler itself is All Metal Parts, Stainless Steel Body, Extra Silenced using the Hot End Muffling Kt of ABS Plastic and Silencing material and a Cold End Silencer inside the Electrical Panel. Our Silent X-Stream units are good in ambient temperatures to 150 degrees F (67 degrees C.) Non-Hazardous purge units are also available where constant flow is required to purge a control panel but maintain on-off operation to conserve energy. Contact Nex Flow™ or your local representative for details.

SILENT X-STREAM™ FRIGID-X™ PANEL COOLER APPLICATIONS:

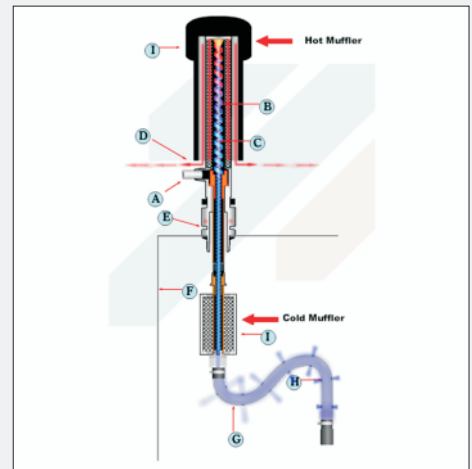
- ▶ Computer Rooms
- ▶ Environments where Cooler Panels are in close proximity to Personnel
- ▶ When General Noise Reduction is Desired or Necessary

*US patent number 8,616,010. Other countries: Patented or Patent Pending.

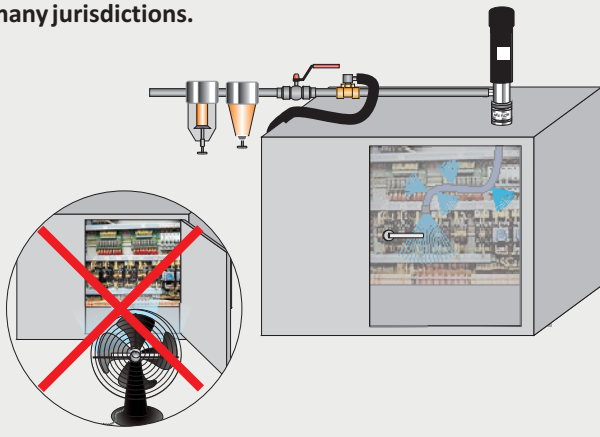


SILENT X-STREAM™ FRIGID-X™ PANEL COOLER SYSTEM - HOW IT WORKS

Compressed air enters at point (A) into the vortex tube component of the Panel Cooler. The vortex tube splits the compressed air into a hot (B) and cold (C) stream of air. The hot air from the vortex tube is vented out of the metal sleeve and down the hot end muffler and out at (D) after additional muffling. Hot air displaced from the inside of the control panel is exhausted through point (E). Cold Air enters into the panel (F) via the Cold End Muffler and hose distribution kit (G). Holes (H) are punched into the hose kit to deliver the cold air inside the panel where required. A muffler (I) further reduces the noise level of the exhausting air.



Leaving a control panel door open to let a fan blow dirty hot air on to the control is hazardous and even illegal in many jurisdictions.



When you find control panel doors open it is a sure sign that you need Frigid-X™ Panel Cooler. Open doors are not only dangerous but also creates dirt buildup on electronics shortening their life.

SILENT X-STREAM™ FRIGID-X™ PANEL COOLER

- ▶ Heat Pipes and air to air heat Exchangers cannot cool below ambient limiting cooling effect. Filters require Monitoring and change to prevent failure.
- ▶ Water cooled heat Exchangers use water which is not compatible with electrics. In addition scale buildup can cause reduced effectiveness over time and downtime for descaling.
- ▶ Refrigerant CFC or HCFC Heat Exchangers are more costly with higher installation cost and lower life expectancy Installation requires a floor drain for condensate. Machine vibration can cause loss of refrigerant and component failure. Average replacement cost of a compressor can be High. Filters require monitoring and change to prevent failure.
- ▶ Frigid-X™ Panel Cooler is low cost, with NEMA Type 12 (IP 52), NEMA Type 3R(IP 14) and Patented* NEMA Type 4-4X (IP 66) Models available. They are compact, easy and fast to install. Thermostatic control minimizes air use to only when needed

SILENT X-STREAM™ FRIGID-X™ PANEL COOLER

Nex Flow™ Frigid-X™ Panel Coolers are available with thermostat control (on-off units) or continuous operation. Continuous systems are best when constant cooling and/or a positive purge of the panel is required. On-off control saves air by activating the unit when the internal temperature approaches a critical level. The adjustable thermostat is factory set at 95 degrees F (35 degrees C). They are best used in applications where heat may fluctuate as in variable speed drives and where a continuous purge is not required. ALL OF OUR UNITS ARE STAINLESS STEEL for long life and flexible environments.

If a constant positive pressure is required with on-off control (Non-hazardous Purge Units) a special solenoid valve can be supplied to allow a small amount if air flow into the control panel when in the closed position. High temperature units for ambient in excess of 150° F (67° C) to 200° F (93° C) and higher are available.

Frigid-X™ Panel Coolers are approved by Underwriters Laboratory (ULC Component Recognized) to meet USA and Canadian Standards, and meet CE Regulations and necessary international standards.



*US patent number 8,616,010. Other countries: Patented or Patent Pending.

FRIGID-X™ PANEL COOLER

SILENT X-STREAM™ FRIGID-X™ PANEL COOLER SYSTEMS SPECIFICATIONS

TYPE	MODEL	CAPACITY BTU/hr (Watts)*	Thermo- stat Control	Sound Level dBA
NEMA TYPE 12 (IP 52)	61004A-X	290 (85)	Not included	64
NEMA TYPE 12 (IP 52)	61008A-X	580 (170)	Not included	66
NEMA TYPE 12 (IP 52)	61015A-X	1100 (322)	Not included	72
NEMA TYPE 12 (IP 52)	61025A-X	1800 (527)	Not included	73
NEMA TYPE 12 (IP 52)	61030A-X	2100 (615)	Not included	74
NEMA TYPE 12 (IP 52)	61040A-X	2900 (849)	Not included	76
NEMA TYPE 12 (IP 52)	63004A-X	290 (85)	Included	64
NEMA TYPE 12 (IP 52)	63008A-X	580(170)	Included	66
NEMA TYPE 12 (IP 52)	63015A-X	1100 (322)	Included	72
NEMA TYPE 12 (IP 52)	63025A-X	1800 (527)	Included	73
NEMA TYPE 12 (IP 52)	63030A-X	2100 (615)	Included	74
NEMA TYPE 12 (IP 52)	63040A-X	2900 (849)	Included	76
NEMA TYPE 3R (IP 14)	61004R-X	290 (85)	Not included	64
NEMA TYPE 3R (IP 14)	61008R-X	580(170)	Not included	66
NEMA TYPE 3R (IP 14)	61015R-X	1100 (322)	Not included	72
NEMA TYPE 3R (IP 14)	61025R-X	1800 (527)	Not included	73
NEMA TYPE 3R (IP 14)	61030R-X	2100 (615)	Not included	74
NEMA TYPE 3R (IP 14)	61040R-X	2900 (849)	Not included	76
NEMA TYPE 3R (IP 14)	63004R-X	290 (85)	Included	64
NEMA TYPE 3R (IP 14)	63008R-X	580(170)	Included	66
NEMA TYPE 3R (IP 14)	63015R-X	1100 (322)	Included	72
NEMA TYPE 3R (IP 14)	63025R-X	1800 (527)	Included	73
NEMA TYPE 3R (IP 14)	63030R-X	2100 (615)	Included	74
NEMA TYPE 3R (IP 14)	63040R-X	2900 (849)	Included	76
Patented*NEMA TYPE 4-4X (IP 66)	61104X-X	290 (85)	Not included	64
Patented*NEMA TYPE 4-4X (IP 66)	61108X-X	580(170)	Not included	66
Patented*NEMA TYPE 4-4X (IP 66)	61115X-X	1100 (322)	Not included	72
Patented*NEMA TYPE 4-4X (IP 66)	61125X-X	1800 (527)	Not included	73
Patented*NEMA TYPE 4-4X (IP 66)	61130X-X	2100 (615)	Not included	74
Patented*NEMA TYPE 4-4X (IP 66)	61140X-X	2900 (849)	Not included	76
Patented*NEMA TYPE 4-4X (IP 66)	63104X-X	290 (85)	Included	64
Patented*NEMA TYPE 4-4X (IP 66)	63108X-X	580(170)	Included	66
Patented*NEMA TYPE 4-4X (IP 66)	63115X-X	1100 (322)	Included	72
Patented*NEMA TYPE 4-4X (IP 66)	63125X-X	1800 (527)	Included	73
Patented*NEMA TYPE 4-4X (IP 66)	63130X-X	2100 (615)	Included	74
Patented*NEMA TYPE 4-4X (IP 66)	63140X-X	2900 (849)	Included	76

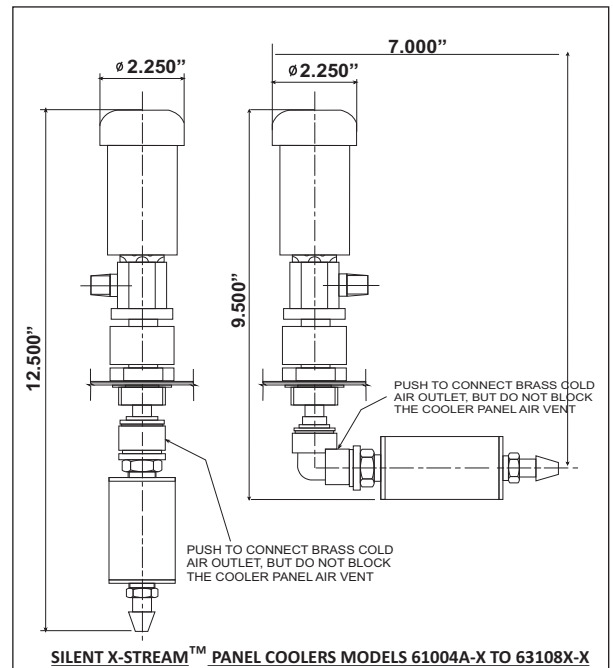
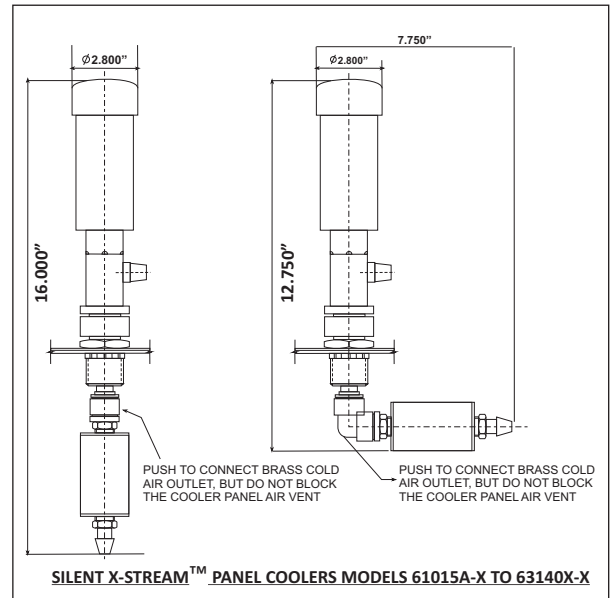
*US patent number 8,616,010. Other countries: Patented or Patent Pending.

RATINGS EXPLANATION

NEMA TYPE 12 (IP 52) Frigid-X™ Panel Cooler is dust tight and oil tight and used in general industrial environments.

Patented* NEMA TYPE 4-4X (IP 66) Frigid-X™ Panel Cooler is dust, oil-tight, spray resistant and used in environments where there are liquids and for food service and corrosive environments.

NEMA TYPE 3R (IP 14) Frigid-X™ Panel Cooler is used in outdoor service.



* A) The BTU/hr (wattage) is calculated with air at 100 PSIG (6.9 Bar) and 70°F (21°C)

B) For temperatures of compressed air between 90°F (32°C) to 100°F (38°C) de-rate the cooling effect by 20% at 100°F (38°C) & above de-rate by 30%

