

Vortex Cooler Kits



NEMA 4/4X

NEMA 12

Applications

Compressed air cooling is used where conventional enclosure cooling by air conditioners or heat exchangers is not possible. (Examples: Small to medium size enclosures, nonmetallic enclosures, and areas where the size of cooling devices is restricted).

Features

- Suitable for harsh environments
- Small physical size
- Creates cool air without refrigerants (no CFCs, HCFCs)
- Exceptionally reliable - no moving parts and virtually no maintenance



Requirements

- Uses clean, dry, oil-free compressed air (100 PSIG / 70 degrees F or below) required to achieve published BTU/H ratings. Lower pressures and higher temperatures will reduce BTU/H ratings.
- A 5-micron water and particulate removal filter must be installed prior to any vortex cooler operation.
- An oil removal filter can be installed between the 5 micron filter and the Vortex Cooler if oil is present in the compressed air line.

Mounting holes

- NEMA 12: (1) 1-3/32" (28mm) or 3/4" knockout hole for cooling tube and (1) 1/16" hole for thermostat
- NEMA 4 and 4X: (1) 1-15/16" (49mm) or 1-1/2" knockout hole for cooling tube and (2) #8 holes for thermostat

Includes the following:

- Vortex cooler
- Vortex distribution tube
- Solenoid valve 120V / 60Hz - 110V / 50Hz
- Filter: 5-micron water and particulate removal
- Ducting kit
- Thermostat

Standards

- UL Listed
- NEMA 12, NEMA 4 or NEMA 4X

How vortex coolers create cold air

Compressed air is injected into the vortex tube at extremely high speeds and that creates a cyclone, or vortex, spinning a million revolutions per minute. Part of the air is forced to spin inward to the center and travels up a long tube where a valve turns the spinning column of air inside itself. The inside column of air gives up its heat to the outside column. The cold air is directed out the cold end of the Vortex Tube and the hot air is directed out the other end of the Vortex Tube. And since there are no moving parts there is little need for maintenance.



Enclosure Shipping Schedule					
Same day	1 - 5 days	1 - 7 days	1 -10 days	1 - 15 days	1 - 20 days

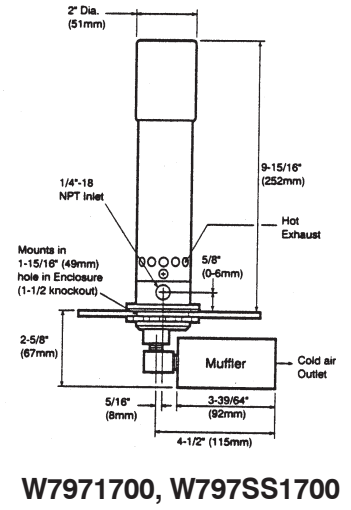
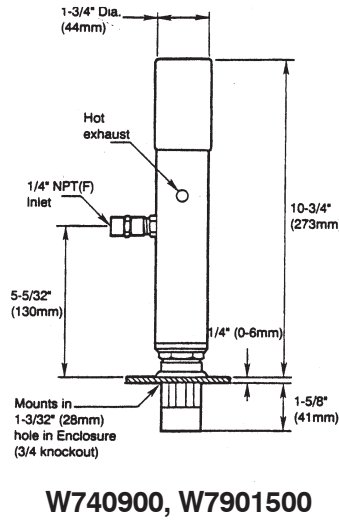
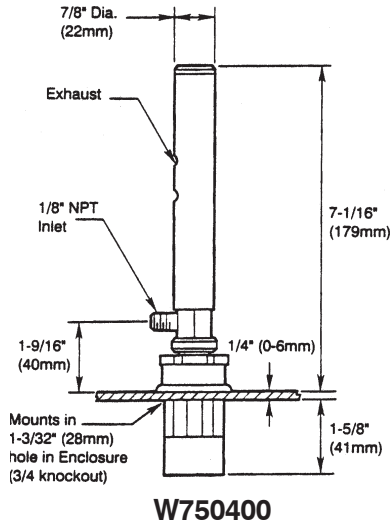
Color indicates shipping lead time in business days.

Part Number	Price	Description	Capacity BTU/H [KCAL/H]	Air Consumption SCFM [SLPM]
W750400	\$1,080.00	Wiegmann vortex cooler, 400 BTUH (117W) / 8 SCFM (227 SLPM), aluminum body. For NEMA 12 enclosures. Thermostat, solenoid valve, distribution tube and filter included.	400 [101]	8 [227]
W740900	\$1,330.00	Wiegmann vortex cooler, 900 BTUH (264W) / 15 SCFM (425 SLPM), aluminum body. For NEMA 12 enclosures. Thermostat, solenoid valve, distribution tube and filter included.	900 [225]	15 [425]
W7901500	\$1,440.00	Wiegmann vortex cooler, 1500 BTUH (440W) / 25 SCFM (708 SLPM), aluminum body. For NEMA 12 enclosures. Thermostat, solenoid valve, distribution tube and filter included.	1500 [378]	25 [708]
W7971700	\$1,325.00	Wiegmann vortex cooler, 1700 BTUH (498W) / 25 SCFM (708 SLPM), aluminum body. For NEMA 4 enclosures. Thermostat, solenoid valve, distribution tube and filter included.	1700 [425]	25 [708]
W797SS1700	\$2,443.00	Wiegmann vortex cooler, 1700 BTUH (498W) / 25 SCFM (708 SLPM), stainless steel body. For NEMA 4/4X enclosures. Thermostat, solenoid valve, distribution tube and filter included.	1700 [425]	25 [708]

Vortex Coolers Kits



Dimensions in [mm]



Please see our website www.AutomationDirect.com for complete engineering drawings.

Industrial strength cooling options for your enclosure from AutomationDirect



- Both intake (FPI) and exhaust (FPO) fans are available.
- Exhaust fans and grilles available with air flaps or filters. Using air flaps on the exhaust reduces the number of filters to maintain.



Filter Fan Kits

- Easy filter change
- Outer door lock for outdoor models
- Impact resistant
- Weather/UV resistant -f1
- Flammability Rating: UL94V-0
- Adhesive mounting for non-screw installation (except outdoor models)
- Low noise
- 120VAC and 24VDC models available

Filter Fan Plus

- Easy filter change
- Hinged cover
- Impact resistant
- Weather/UV resistant-UL-f1
- Flammability Rating: UL94V-0
- Unique ratchet mechanism for no-screw installation
- Low noise
- 120, 230VAC and 12, 24, 48VDC models available

Hose-Proof Filter Fan Hoods

- Stainless steel hood with food-grade silicone seal
- Fits all Stego Filter Fan and Filter Fan Plus and exhaust grilles (except outdoor Filter Fans)
- Maintains an enclosure's NEMA/UL Type 4 or 4X rating in washdown environments



Fan Kits

- All models are 115V with an expected service life of 30,000 hours
- High-performance fan motors and finger guards
- Polycarbonate fire retardant plastic grilles, UL94-V0
- Durable, reusable filter mat included
- Patented "Click and Fit" system allows for rapid filter fan and exhaust filter installation without screws



Industrial strength cooling options for your enclosure from AutomationDirect



Heat Exchangers

- For NEMA 4 and 4X enclosures
- Closed loop cooling
- Energy efficient: uses approximately the same power as a filtered fan system
- 120VAC and 24VDC models available
- UL
- Made in the USA



Air Conditioning Units

- For NEMA 12, 4, 4X type enclosures
- Digital temperature controller
- Active condensate evaporation system
- High unit efficiency
- Tough industrial construction
- Compressor protection system



Enclosure Vortex Coolers



- For NEMA 12, 4, 4X type enclosures
- Operates on compressed air
- Stainless steel construction
- No moving parts, no maintenance required
- Vortex coolers can be "resized" for changing applications by simply replacing the generator inside the cooler. No need to purchase a new unit
- Replacing the vortex generator takes minutes



Seifert Thermoelectric Cooling Units

- For NEMA 4, 4X and 12 enclosures
- Stainless steel housing
- 170, 340, 510, 680 BTU/H cooling capacity
- Recessed mounting
- No maintenance required
- 24VDC and 120VAC power options

