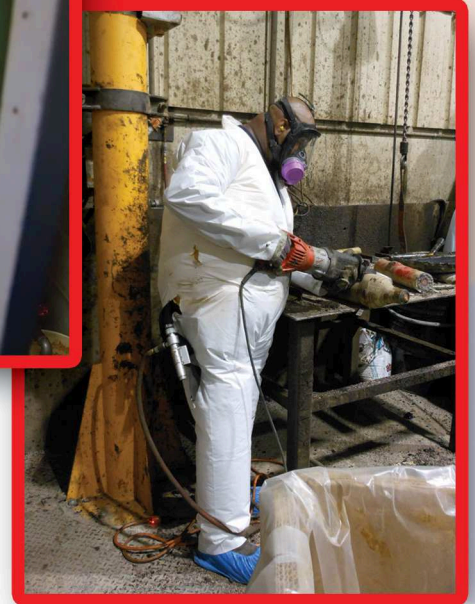


VORTEC

Personal Air Conditioners



The VORTEC **Advantage**

- *Eliminates incidence of worker heat stress or cold stress*
- *Maximizes worker productivity and comfort in extreme temperatures*
- *Eliminates the need to air condition large warehouse or shop areas*
- *Reduces frequency of non-productive cooling and warming breaks*
- *Provide continuous and consistent cooling or heating*
- *Improves worker safety*
- *Air is delivered at up to +/- 45-60 F° from compressed air inlet*
- *Can be worn under other protective clothing*
- *Cooling only version has easy temperature adjustment, even with gloved hands*
- *All PAC models include adjustable waist belt and quick connect*
- *The Dual Action PAC can be easily switched from heating to cooling*

VORTEC Personal Air Conditioning Vests

Keep Workers Comfortable & Productive in Extreme Temperatures:

Workers in extreme temperatures wear Personal Air Conditioning Vests to minimize heat stress, cold stress, and fatigue and to improve comfort and productivity. Cold (or Warm) air circulates through a Diffuse Air Vest to distribute cooling (or heating) to the wearer's torso and neck. The air supplied to the vest achieves a temperature differential of 45 – 60 F° from the inlet compressed air temperature.

Dual Action PAC



The newest addition to the Personal Air Conditioner line provides the wearer with the flexibility to benefit from Cold or Warm air relief for safety and comfort in any environment. With its unique belt bracket, the Dual Action PAC can be easily switched from cooling to heating mode to provide year-round comfort and protection.

- Can be easily configured to provide cold or hot air through the Diffuse Air Vest
- Air temperature can be slightly adjusted by changing the compressed air pressure

Cooling Only PAC



The PAC that started it all uses vortex tube technology to provide cold air relief and protection to workers in hot environments. Helps to minimize heat related injuries and allows the worker to be cool and productive while eliminating the need for costly, unproductive cooling breaks.

- Temperature adjustment knob provides easy temperature control, even with gloved hands
- Available in three different cooling capacities from 900 – 2500 BTU/hr

Personal Air Conditioning Vest Components

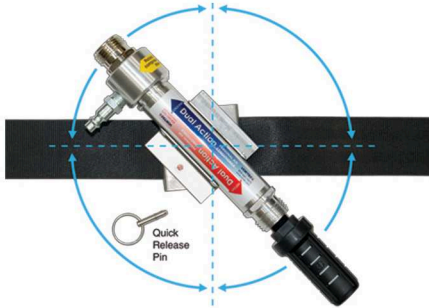


Vortec PAC Vests have two components:

- A Dual Action or Cooling Only tube, with belt
 - A Diffuse Air Vest through which cold or hot air flows to the wearer's torso and neck. It contains a perforated interior which allows for continuous cooled or heated flow throughout the vest.
- Dual Action or Cooling Only tube, with belt sized to fit vest size
 - Impermeable to sweat, dirt and other contaminants and is easily cleaned
 - Made of abrasion resistant, flame retardant material with a 300°F melting point

Operation of **VORTEC** PACs

Dual Action PAC



Pull out the Quick Release Pin in the swivel bracket and rotate in 90 degree increments as desired.



Rotate the body of the Dual Action PAC so that the compressed air quick connect nipple points in the desired direction. Switch the muffler as needed, see configurations below.



Cooling Mode Configuration. Muffler is placed on the hot end of the unit.



Heating Mode Configuration. Muffler is placed on the cold end of the unit.

Cooling Only PAC



Adjust the flow rate of the Cooling Only PAC by turning the adjustment knob on the end of the PAC. Turning the knob counterclockwise reduces the temperature and flow of the cold air. Turning the knob clockwise will increase the temperature and flow of the cold air. CAUTION: The temperature adjustment knob may be hot: use gloves when adjusting.

Specifications

Integrated PAC/Vest Model Number	Dual Action PAC Model Number	Vest Size	Cooling Capacity		Heating Capacity		Air Consumption	
			BTU/hr	kCal/H	BTU/hr	kCal/H	SCFM	SLPM
29525	29625	L	900	227	900	227	25	708
29735	29635	XL	1140	287	900	227	35	990
29935	29635	XXL	1140	287	900	227	35	990

Specifications (Cooling ONLY)

Integrated PAC/Vest Model Number	Cold Only PAC Model Number	Vest Size	Cooling Capacity		Air Consumption	
			BTU/hr	kCal/H	SCFM	SLPM
-	22815	-	900	227	15	425
22525	22825	L	1500	378	25	708
22735	22835	XL	2500	630	35	990
22935	22835	XXL	2500	630	35	990



About Vortec

In 1961, Vortec became the first company to develop technology for converting the vortex tube phenomenon into practical, effective industrial cooling solutions. Since then, Vortec has continued to refine and expand vortex tube applications, as well as develop air amplification products for more efficient use of compressed air in cleaning and conveying applications.

With over 50 years of industry experience combined with the strong global foundation of ITW, Vortec is the preferred solution for compressed air applications around the world.

APPLICATIONS

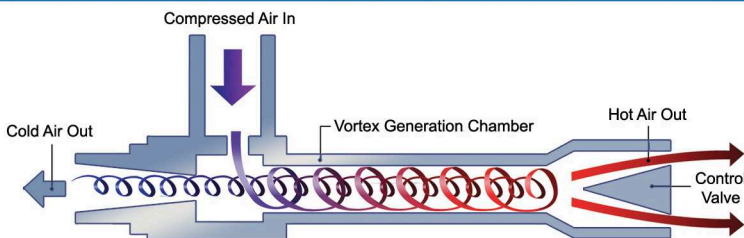
- Foundries
- Powder Coating
- Welding Operations
- Steel Mills
- Sand Blasting
- Asbestos Abatement
- Power Plants
- Mines
- Casting Shops
- Smelters
- Boiler Rooms
- Metal Production
- Paint Baking Operations
- Forging Shops
- Refrigerated Lockers
- Hazardous Waste Removal
- Unconditioned Warehouses
- Shipyards

BEST IN CLASS!

10 YEAR
warranty

Personal Air Conditioners

How PACs Create Cold Air



A vortex tube spins compressed air to produce hot and cold air streams, generating temperatures down to 100°F below inlet temperature

Fluid (air) that rotates around an axis (like a tornado) is called a vortex. A Vortex Tube creates cold air by forcing compressed air through a generation chamber, which spins the air at a high rate of speed (1,000,000 RPM) into a vortex. The high-speed air heats up as it spins along the inner walls of the tube toward the control valve. A percentage of hot, high speed air is permitted to exit at the valve. The remainder of the (now slower) air stream is forced to counterflow up through the center of the high-speed air stream in a second vortex. The slower moving air gives up energy in the form of heat and becomes cooled as it spins up the tube. The chilled air passes through the center of the generation chamber finally exiting through the opposite end as extremely cold air. Vortex tubes generate temperatures down to 100°F below inlet air temperatures. The control valve located in the hot exhaust end can be used to adjust the temperature drop and rise for all Vortex Tubes.

VORTEC

Innovative Compressed Air Technologies

ITW Air Management
10125 Carver Road
Cincinnati, OH 45242

Toll Free: +1-800-441-7475

Local: +1-513-891-7475

Fax: +1-513-891-4092



E-mail: sales@vortec.com

www.vortec.com