# Keep Workers Comfortable and Safe in Extreme Temperatures

Workers in extreme temperatures wear Vortec Cooling Vests to minimize heat stress and fatigue while improving comfort and productivity.

Cold Air circulates through the Cooling Vest to distribute even cooling over the upper body.

- Vest can be worn under other protective clothing (PPE)
- Easy temperature adjustment even with gloved hands
- Provides continuous, consistent air delivery
- Vest allows for full range of motion with no airflow restrictions



## Applications

Foundries Powder Coating Welding Operations Steel Mills Sand Blasting Asbestos Abatement

- Power Plants Mines Casting Shops Smelters Boiler Rooms Metal Production
- Paint Operations Forging Shops Hazardous Waste Removal Unconditioned Warehouses Shipyards Glass Plants

### Vortec, an ITW Company

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## **How It Works**

Vortec Cooling Tubes use filtered compressed air and vortex tube technology to generate cold air used for personal cooling applications.

Inside the cooling tube, a vortex tube spins the supplied compressed air, separating it into hot and cold air streams. The cold air is delivered to the Cooling Vest via a ducting tube, while the hot air exits out the other end of the PAC through a hot end muffler. Inside the vest, the cold air is circulated via the perforated lining of the vest, providing a cooling effect to the wearer of the vest and tube.

The distributed air temperature differential is +/- 60°F (33°C) from the compressed air inlet temperature.

## Case Study

### **Cadillac of South Charlotte**

Summers in South Carolina are quite hot, regularly reaching over 90°F. Inside a paint booth, this means temperatures can reach well over 100°F. Without proper PPE, heat stress, dehydration, exhaustion heat stroke can all come into play. Cadillac of South Charlotte decreased those threats with the Vortec Cooling Vest.

Read more here:

https://bit.ly/2Az7UNf

| ltem #           | Description  | Cooling Capacity | Compressed Air Consumption |                  |
|------------------|--|------------------|----------------------------|------------------|
|                  |  |                  | @ 100 PSIG (SCFM)          | @ 6.9 BAR (SLPM) |
| 22825            | Cooling Tube with Belt                                       | 1500 BTU/Hr      | 25 SCFM                    | 708 SLPM         |
| 22835            | Cooling Tube with Belt                                       | 2500 BTU/Hr      | 35 SCFM                    | 990 SLPM         |
| Cooling Vest-L   | Cooling Vest (L)   | 1500 BTU/Hr      | 25 SCFM                    | 708 SLPM         |
| Cooling Vest-XL  | Cooling Vest (XL)  | 2500 BTU/Hr      | 35 SCFM                    | 990 SLPM         |
| Cooling Vest-2XL | Cooling Vest (2XL)   | 2500 BTU/Hr      | 35 SCFM                    | 990 SLPM         |
| Vest-L           | Replacement Vest Only, Size Large (fits 36" to 41" girth)    |                  |                            |                  |
| Vest-XL          | Replacement Vest Only, Size X-Large (fits 41" to 46" girth)  |                  |                            |                  |
| Vest-2XL         | Replacement Vest Only, Size 2X-Large (fits 46" to 52" girth) |                  |                            |                  |

COLD AIR OUT

TO VEST

Vest is made with flame resistant fabric that meets CPAI-84, Sec. 6 Fire Standard Specifications

All Cooling Tubes have 1/4" compressed air quick connect and 3/4" garden hose thread for discharge of air to vest

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COMPRESSED AIR IN HOT AIR

**EXHAUST**