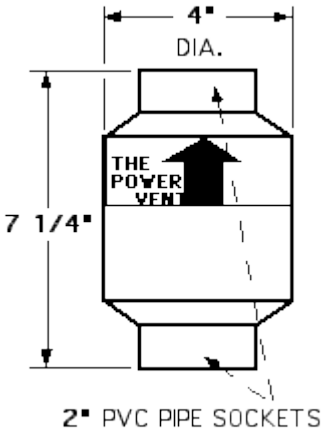
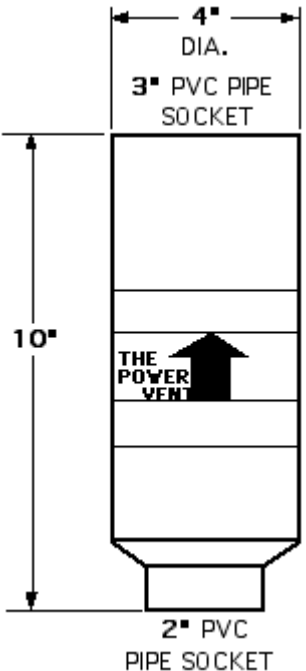


Zephyr Vent Fan Specifications

12 & 24 Volt Zephyr Vent Fan	48 Volt Zephyr Vent Fan
 <p>4" DIA.</p> <p>7 1/4"</p> <p>THE POWER VENT</p> <p>2" PVC PIPE SOCKETS</p>	 <p>4" DIA.</p> <p>3" PVC PIPE SOCKET</p> <p>10"</p> <p>THE POWER VENT</p> <p>2" PVC PIPE SOCKET</p>
Shipping Weight: 3 lbs.	Shipping Weight: 4 lbs
Size: 4" Dia. x 7.25"	Size: 4" Dia. x 10"
Power consumption: 3 watts or less	Power consumption: 6 watts or less
Max. current: 0.2 Amp or less	Max. current: 0.2 Amp or less
Voltage: 12 or 24 VDC	Voltage: 48 VDC
Air volume: 6 cfm with 360° maximum change of direction	Air volume: 8 cfm with 360° maximum change of direction

Zephyr Vent Fan Testing

November, 1995, initial explosion proof tests were performed in an acetylene/air environment. The fan was cycled on/off every 15 seconds for three hours. There were no explosions.

The unit was then placed in the battery compartment of a prototype power shed. The power shed included a 530 watt, 24 volt array charging a 350 amp hour battery bank. A plastic tent covered the battery tops and was tied tight to the batteries allowing very little fresh air to be introduced into the system.

The Vent Fan was ducted so as to return the battery fumes back into the tent (not recommended practice!). The fan was operated by a cycle timer, turning on and off every 45 seconds or 1.5 minutes per cycle for 120 days and then 3 minutes per cycle for another 40 days. Battery temperature ranged from 50 to 77 degrees F over the 160 days of testing. The battery voltage was regulated by an APT charge controller and battery voltage was 25.4 to 29.4 volts at all times except when four equalize charges raised the voltage to 33 volts for several hours. More than two gallons of water were added to the 4 batteries in 160 days. Under these extreme conditions the unit cycled over one hundred and thirty thousand times without failure or explosion. We are currently still using this unit in our shop system!

The only unit that has failed under testing was subjected to battery acid poured directly into the fan motor. Oddly enough the electronics continued to work but the acid coagulated the ball bearing grease and the motor could not overcome the friction.

A small hole has been placed on the battery side of the damper to allow hydrogen to escape in the event the unit does fail, the damper is stuck, or the exhaust is blocked.

Reports from customers who have had Zephyr Vent Fans in operation since January, 1996, are very satisfactory!