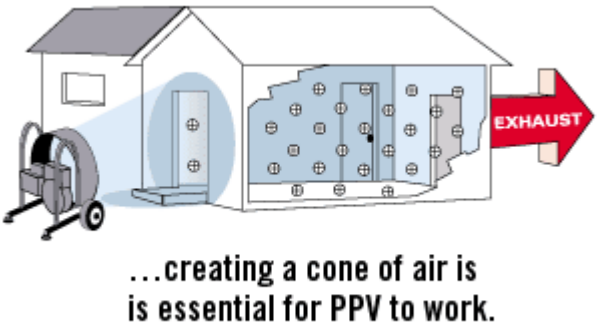
What is PPV?

Protecting your personnel from hazardous environments is vital. Effectively ventilating toxic gases and smoke from fires, as well as harmful dust, fumes and other contaminates in industrial applications, will make your work environment safer.

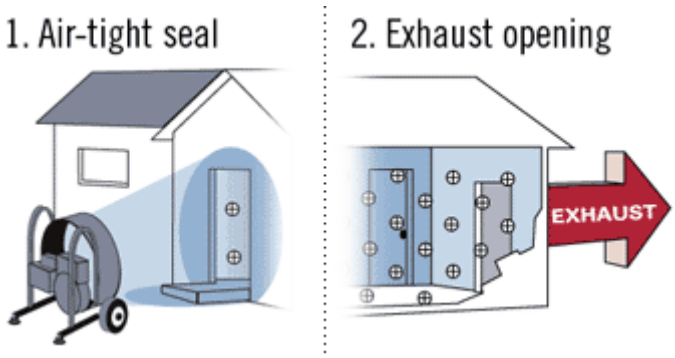
Two ventilation techniques are most effective for achieving this goal: Positive Pressure Ventilation (PPV) and Negative Pressure Ventilation (NPV). PPV has changed firefighting worldwide and is increasingly popular in industrial applications. First adopted in the World., it has become a standard technique in Europe and Asia, replacing the use of NPV.



...creating a cone of air is is essential for PPV to work.

How does PPV work?

In a typical PPV application, the blower is placed about four to ten feet from the doorway of the structure. It is positioned so that the cone of air produced by the blower completely seals the opening. Once the doorway is sealed air pressure inside the structure builds almost instantly. An exhaust opening, usually a rear door or window, allows the air to quickly escape due to the difference between the outside and inside air pressure. The smoke, toxic fumes and other contaminates are quickly cleared and replaced with fresh, clean air.



The LionKing Power Blower's unique shroud design creates the "cone of air" that is essential for PPV to work. In addition, the multiple blades of the AirFlex Impeller create the pressure required to get the air moving.

How PPV Provides Increased Safety For Firefighters

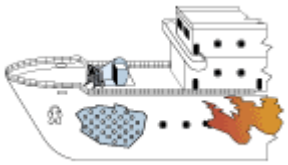
- Smoke and heat are significantly reduced, allowing firefighters to enter structures upright in some cases.
- Visibility is improved making it easier to locate victims and find the seat of the fire.
- The level of toxic gases, CO and other gases released from burning synthetics are reduced.
- PPV reduces the chance of flashover.

How PPV Provides Increased Worker Safety

- Fumes, dust and odors can be effectively controlled and ventilated.

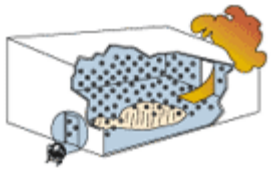
- Harmful gases such as carbon monoxide can be kept within OHSA required levels.
- Fumes from coatings can be contained and isolated from adjacent areas.
- Confined spaces such as tanks, tunnels and pipelines can be quickly ventilated.
- PPV can be used to control anhydrous ammonia in the event of a refrigeration leak.

PPV Applications



Removal of Smoke from Ships and Boats

PPV is very effective for ventilating compartmentalized structures such as ship holds. Interior spaces can be cleared in a controlled manner by using sequential ventilation techniques (outlined in the LionKing PPV Training Program).



Commercial/Industrial Decontamination

PPV can be used to ventilate contaminated/toxic environments or dry hazardous spills. Multiple blowers can be used to ventilate large buildings with oversized openings.

Industrial Smoke, Dust and Fume Removal

PPV techniques can be used to ventilate dangerous and/or offensive fumes caused by welding, adhesives and coatings. These fumes can be removed with LionKing Smooth Bore Ducting without contaminating adjacent areas.

Aircraft Fires

PPV offers the fastest and most effective method for clearing smoke, heat, and gases from passenger and cargo aircraft. The interior of an aircraft can be ventilated in only 60 to 90 seconds, improving evacuation procedures and allowing rescue personnel faster, safer entry.

Confined Spaces

PPV can ventilate microenvironments such as tanks, pipelines and tunnels by using the blower's massive air velocity to push out the stagnant air, replacing it with fresh, cool air.