SMOGHOG

Application Spotlight

Educational Institutions

Indoor air pollution control has become a high priority issue within educational institutions. Public, vocational and trade schools, community colleges and even large universities are compelled to provide a safe and healthy teaching environment. Key considerations include:

- Student and teacher safety
- Reducing operational costs
- Environmental compliance
- Enhanced education experience
- Enrollment benefits
- Community standing

Keep Students and Teachers Safe

The safety and health of both students and faculty is a top priority for any educational institution. Fumes and dusts generated during processes such as welding, wood working and ceramics are known to be hazardous when inhaled and therefore need to be controlled. Worker safety organizations such as OSHA and NIOSH have standards regulating exposure limits for sub-micronic particulate such as the by-products of welding. The American Welding Society (AWS) issues safety recommendations on how to safely control welding fume. In addition to the inhalation hazard, dusts can be combustible or even explosive under a certain set of conditions which poses safety threats to the students, faculty and the facility. The National Fire Protection Association (NFPA) has issued standards on how to safely collect combustible and/or explosive material.

Reduce Operational Costs

Well-designed air pollution control systems can save operational costs in several areas. Conditioned air (heated or cooled) can be safely recirculated into the facility to reduce energy consumption. Advanced filter technology can offer higher operational efficiencies, reduced cleaning cycles and extended filter life. Pollutants migrating throughout the entire facility can cause damage to the HVAC system and require frequent clean-up. By preventing this migration, building maintenance costs can be reduced. Some collected material such as sawdust and wood chips can even be recycled and sold.

Achieve Environmental Compliance

Fumes and pollutants generated during processes such as welding are often simply exhausted outdoors without being filtered. This results in both odor and pollution being emitted into the environment. For schools located in urban areas, this not only can cause problems with neighbors but it could also violate local air quality standards set by the EPA or other regional authority. Achieve environmental compliance and good standing in the community with a comprehensive air pollution control strategy.

PH1810-032

Parker Hannifin Corporation
Industrial Gas Filtration and Generation Division
4087 Walden Avenue
Lancaster NY 14086 USA
Ph: 800-252-4647
Ph: 513-891-0400
smoghog@parker.com

Parker

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Application Spotlight

Educational Institutions

Clean Air Solutions from Parker Hannifin

As a leading solutions provider within the air pollution control industry, Parker Hannifin has the products, expertise and experience working with school staff to meet their specific air pollution control needs.

Smoke and Fume Extraction

Fume control is most commonly handled through local ventilation by capturing the fume at the source. Source capture can be implemented using smaller, local systems or it can be configured using one central dust collection system. Safety in weld fume collection systems begins with selecting a filter media capable of collecting the sub-micron particulate in an efficient manner. ProTura® Nanofiber is the optimum solution with its MERV 15 rating and surface loading characteristics. Selecting appropriate safety features such as fire retardant media, spark deterrence or safety after filters are also important considerations. To meet schools' specific requirements, choose from our DustHog® SFC cartridge dust collectors, our SmogHog® electrostatic precipitators and media mist collectors, and a full line of extraction arms.

Wood Working Dust Control

Wood working processes vary greatly as does the dust generated within these processes. Wood dust can range from long curly strings from machines such as lathes or planers to fine dust from sanding or cutting. The dust characteristics are an important consideration in the system design and dust equipment selection. Additionally, wood dust is explosive and requires safety measures in accordance with applicable NFPA standards. Generally, these provisions require the dust collectors to be located outdoors or near an outdoor wall to accommodate explosion deflagration. Parker Hannifin provides solutions for wood working applications that will improve the safety and operation of your wood shop. Select from our cartridge dust collectors, cyclone collectors, downdraft benches and shaker bag houses that can all be equipped with the safety features necessary to achieve NFPA compliance including fire retardant media, sprinkler connections and explosion vents.

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