

CAPTURE POLLUTANTS AND ENERGY SAVINGS

LEED CREDITS WITH PREVENT EQUIPMENT PROTECTION

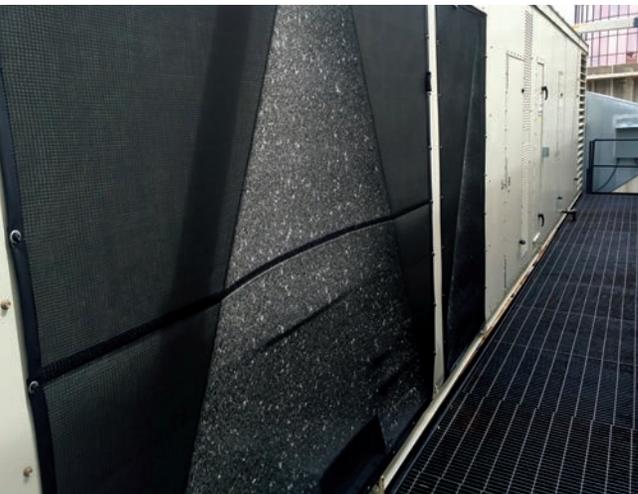
How PreVent® Filters Work

PreVent filters are made from either polypropylene or PVC-coated polyester high abrasion media, and are all UV protected and capable of withstanding extreme indoor and outdoor environments.

The inherent electrostatic charge of the woven black polypropylene filter media enhances the filter's ability to capture and hold smaller particles.

Independent laboratory testing* showed that PreVent equipment protection filters cause less than 1% change in compressor discharge pressure, resulting in negligible performance degradation due to pressure drop.

* ARI Standard 210-240-2006 Performance Rating of Unitary Air Conditioning and Air Source Heat Pump Equipment
Underwriters Laboratories, Plano, TX



Save Energy

In order to operate efficiently, outdoor HVAC equipment must be clean and free of debris. Natural pollutants, such as dust, tree seeds, leaves, and other debris can very easily clog air intake louvers and condenser fins.

According to EPA research, as little as 0.042" of dirt on an air conditioning coil can reduce its efficiency by 21%.

An article in the Refrigeration Service Engineers Society Journal states that a 5-ton A/C system could use as much as 37% more power if the coils are dirty.

Permatron's PreVent® filters not only capture the pollutants that decrease HVAC equipment efficiency, but are cleanable, reuseable and fit any equipment.



Save Money

A 5-ton A/C unit protected with PreVent equipment filters will cost up to \$450 less per season to operate than an unprotected A/C unit with dirty condenser fins, assuming an electricity cost of \$0.12 per kWh, 1,500 hours worth of A/C unit run time in a 90-day cooling season.



Economy of Scale

Typically, larger A/C and air intake equipment experience a higher percentage of efficiency increase when operating with clean coils. As the size of your HVAC system or the length of your cooling season increases, so does your potential energy and utility bill savings.

“ The installation of the Permatron PreVent filter has saved us money, reduced downtime, and to date eliminated any possible environmental outages. ”

Gary Wilcox
Production Supervisor, Osram-Sylvania

PREVENT®

www.permatron.com/prevent

LEED CREDITS AND OTHER BENEFITS



LEED Certification

Permatron's PreVent® filters can help your building achieve certification through the U.S. Green Building Council's LEED Rating System by contributing to the following credits:

Energy and Atmosphere (EA)

Credit 1: Optimize Energy Performance

Intent: To achieve increasing levels of energy performance beyond the prerequisite standard to reduce environmental and economic impacts associated with excessive energy use.

How PreVent filters are consistent with this Intent:

PreVent filters provide facility managers with an easily maintained, reuseable, highly efficient means of ensuring optimum HVAC equipment efficiency by preventing condenser fins, coils, and air intake grills from becoming clogged and inefficient, thereby eliminating potential excessive HVAC equipment energy use.

Indoor Environmental Quality (IEQ)

Credit 5: Indoor Chemical and Pollutant Source Control

Intent: To minimize building occupant exposure to potentially hazardous particulates and chemical pollutants.

How PreVent filters are consistent with this Intent:

PreVent® filters serve as a first line of defense against any pollutants in outside air being brought into a building. These filters reduce the amount of pollutants that reach indoor HVAC equipment filters, freeing up these filters to capture other particulates and extending their useful life.

Innovation & Design (ID)

Credit 1: Innovation in Design

Intent: To provide design teams and projects the opportunity to achieve exceptional performance above the requirements set by the LEED Green Building Rating System and/or innovative performance in Green Building categories not specifically addressed by the LEED Green Building Rating System.

How PreVent filters are consistent with this Intent:

The benefits of PreVent® filters transcend the current definitions of LEED credits by providing improved energy efficiency and reduced indoor pollutant levels by means of a technology that is not specifically listed in the requirement of each credit. Benefits related to each credit listed above can be quantified using laboratory testing data and historical energy savings records.



Reduce Your Carbon Footprint

A 5-ton A/C unit protected with PreVent equipment filters, using approximately 3,750 less kWh of electricity per season, will generate approximately 5,625 lbs less CO2 emissions than an unprotected A/C unit with dirty condenser fins, assuming 1.5 lbs CO2 emissions per kWh of electricity (U.S. EPA, Feb. 2011: <http://www.epa.gov/greenpower/pubs/calcmeth.htm>).

Preventative maintenance doubles the useful life of unitary equipment & reduces HVAC energy bills more than 20%



100 ton Trane Unit BEFORE



100 ton Trane Unit AFTER with durable, cleanable PreVent air filter screens

PreVent Filters Can Be Used On:

- Air Conditioner Condensers
- Rooftop Heating/Cooling Units
- Air-to-Air Heat Pumps
- Fresh Air Louvers
- Chillers / Cooling Towers
- Economizer Equipment
- Any other outdoor equipment with an air intake
- Indoor equipment (coolers, freezers, etc)

“By using the PreVent filters, we've reduced our seasonal filtration costs by almost 70% and our maintenance and cleaning man-hours are about a third of what they were with the old filtration equipment.”

Angelo Carrieri

Maintenance Superintendent, Water & Sanitation District



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