

## Electro Breeze Polarized Air Cleaner combined with UV Lamp

### How Does It Work

Electro Breeze Air Cleaner would like to introduce our latest New Innovative product on the market. We Trap, Hold and Kill bacteria and viruses. This new technology is proving more effective than traditional passive filters such as pleated, bag, cell, also the electrostatic precipitators.

We have been producing Polarized Media type Air Cleaners for many years. We are proud that this design was developed and manufactured right here at our plant in St-Sauveur, a 100% Canadian product.

Ten years and more in continuous production have demonstrated that the original concept works very well, but valuable feedback from our clients, together with our own tests and observations, have shown us that we could make several improvements. Our new V-Bank P-224 UV design has enhanced efficiency; also we can save energy on the fan motor of your HVAC. We are able to reduce static pressure in HVAC unit, at the same time we can also eliminate odours such as hydrocarbon from cars and diesel fuel odours, jet fuel odours and cooking odours and many more, but when coupled with ultra violet light, they can effectively neutralize bacteria and viruses.

Perhaps the most exciting development is the coupling of UV light with the polarized filter. This makes the unit into an efficient Ultra-Violet light Germicidal device, so that it can be used in health care facilities for the neutralization of bacteria and viruses such as SARS, INFLUENZA VIRUS, TUBERCULOSIS, MOLD, SPORES, etc.

Polarized media Air Cleaners with or without the UV light have been successfully used in many situations where traditional air filtration strategies have failed. They are being effectively used in hospitals to control spread of TB and other airborne diseases transmitted in the air, by office buildings HVAC. They can also effectively control the spread of airborne bacteria and viruses in animal housing also processing plants, which are important both to the meat packers and the consumers, also to farmers that produce such as eggs, meat, milk, and vegetables.

### Our New Design:

So what is different about this relatively new UV air filtration technology? Generally, polarized media Air Cleaners agglomerate polarized particles by creating an electrostatic field inside the filter housing. Electro Breeze Air Cleaners patented design makes the electrostatic field more intense, so that the particles grow more rapidly.

The Electro Breeze Air Cleaners are capturing more effectively by the intensely polarized fibreglass strands. As a result the particles are attracted to the polarized filter media in much of the same way as small grains ferrous metal are attracted to a permanent magnet. Polarized media air cleaners made by Electro Breeze Air Cleaners Ltd. meet all of the filter performance requirements of the ASHRAE Standard 62. 1989R, and they are CSA approved, also in large buildings we can operate with less outside air reducing ventilation Under ASHRAE 62-1999 Clean Air Guidelines.

Because of the filtration efficiency, we can operate at 97 % efficiency filtration at 0.3 Micron and more because of the agglomeration technology. Our Electro Breeze Air Cleaner "V" Bank with UV modular air cleaner panels have a static pressure of 0.13 water columns at 500 FPM (face velocity) when using a 2 inch air panel.

There is a large saving of energy on the fan motor of the air handler unit, also a saving on outside air.

Recent research shows that polarized media air cleaner provide the greatest advantage when coupled with modern air filtration strategy, which is based on intelligent distribution of local air filtration devices in combination with centrally located filters. This is precisely the situation where Electro Breeze Air Cleaners are most effective, they perform well in local air filtration devices and central air handling units. When the filtration and ventilation functions of an HVAC system are separated, or can be separated, air is either fully or partly circulated through the filters, so that the smallest particles agglomerate and can be captured in subsequent passes. The separation of filtration and ventilation functions is easily achieved, or may be presented in many cases, such as in hospital wards, government buildings, hotel rooms, colleges, universities, classrooms, apartment buildings, and also housing.

An important feature of Electro Breeze Air Cleaners is that they do not ionize particles or generate ozone, which means that they can be used to clean the air for people who suffer from allergies, as well as those with regular sensitivity to dust.

The benefits from the Electro Breeze Air Cleaners New Design are: they will remove 40% of V.O.C.'S from carpets and furniture, as well as perfumes in the air. We can eliminate problems by using a disposable media carbon cushion assembly, consisting of an activated charcoal carbon used for a centre electrode, sandwiched between glass fibre pads. Its appearance suggested its nick name : as the "Cushion replacement pad".

The activated carbon electrode effectively controls odours, and the factory made replaceable glass fibre Cushion means that your unit will be restored to top operating efficiency each time the Cushion pad is changed. Electro Breeze Air Cleaner panels with or without the activated carbon can be installed in commercial HVAC equipment.

Electro Breeze Air Cleaner products may not have all the answers yet, but the new technology holds great promise for further improvements in our comfort and quality of life.

***A Breeze of Fresh Air***