

EFFICIENT IAQ. CLEARLY GREEN.



# MAXIMUM PERFORMANCE

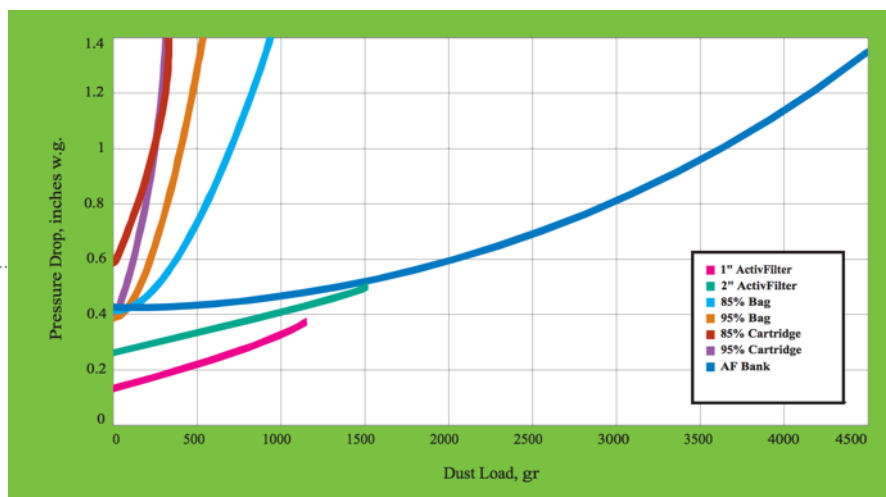
MERV 13-16 performance without ionizing or Ozone generation – plus the agglomeration and VOC reduction that you have come to rely on from ActivTek Air cleaners. The ActivFilter (AF) can be configured and fine-tuned for a wide range of applications.



While the MERV test is not truly applicable for active and electronic air cleaners because of the highly conductive loading dust used (typical atmospheric dust is not conductive), in the absence of a universally applicable performance test, ASHRAE 52 is what many rely on. In the standard MERV test with conductive loading dust, the ActivFilter achieves a MERV 13. If the MERV protocol is followed with non-conductive dust (MERV-NC), the AF achieves up to MERV 16. The ActiveFilter does this without ionizing and Ozone production. It is also constructed to eliminate bypass of air; a critical issue for maximum performance.

# MAXIMUM LOADING

The ActivFilter holds up to ten times the dust load of passive filters, as shown in Figure 2. This is a critical component of a filter's ongoing costs and one that is often overlooked or not reported. Passive filters and ionizing air cleaners tend to load on the surface of the media. To increase loading, passive media is pleated or made into deep bags. The ActivFilter loads throughout the full depth of the media pad. This three-dimensional loading around each fiber makes the ActivFilter unequalled in its ability to hold contaminants and, because of the active-field technology, they are held tightly and not shed back into the airstream.



## ActivTek

brings to market the new standard in air cleaning: The ActivFilter. Designed to meet performance requirements for Green Buildings, hospitals, pharmaceutical and clean manufacturing facilities, the ActivFilter Air Cleaning System couples maximum air cleaning effectiveness with unparalleled energy and operational cost savings.

# MAXIMUM ENERGY SAVINGS

Superior loading flattens the pressure drop curve to save over 1" of static versus alternatives. This translates to big energy savings and the potential for smaller fan selection. Energy costs are a major concern for facility managers and are, at current rates, typically 80-85% of the cost of filtration. They far outweigh the initial cost of a filter. The ActivFilter can save over 70% of annual energy costs versus a MERV 14 cartridge filter with a pre-filter. On a 20,000 cfm air handler, that means saving about 30,000 kWh and 40,000 pounds of CO2 per year.

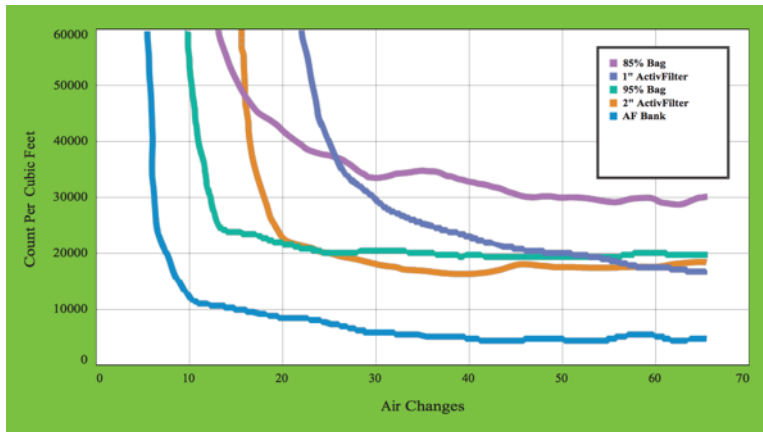


# EFFICIENT IAQ

In the past you had to chose between air quality and operating costs: Now you don't.



INTRODUCING THE EFFICIENT INDOOR AIR QUALITY



## A New Category of Air Cleaning

The ActivFilter combines the principles of existing ActivTek products with several important technological advances to create a system that outperforms anything on the market.

Like previous generations of ActivTek Air Cleaners, the AF utilizes active-field polarized media technology to polarize both media fibers and airborne particles. The polarized particles are then drawn to both other particles and the fibers of the media. This process brings about a deep cleaning of the air. The ActivFilter utilizes these basic physical principals and couples them

with patented developments in material and composite chemistry and media fiber design. The result is revolutionary performance and a new level of energy and operational savings.

- Particles, including the very smallest sub-micron particles, are agglomerated and captured.
- Biological contaminants are captured with the particles.
- Reactive gas phase contaminants such as VOC's are adsorbed more readily by the polarized particles and reduced significantly.
- Low initial static and an amazingly flat loading curve mean the longest service life in the industry and significant energy and operational savings — typically 1/3 the life cycle cost of alternatives.



## THE LEAST EXPENSIVE KILOWATT IS THE ONE YOU NEVER USE

### Shorter Payback

Energy, maintenance and disposal can account for over 90% of the cost of filtration. The ActivFilter slashes all three to deliver operating costs that are 1/3 that of alternatives. This usually means a payback in less than three years.

### Configurations and Applications

The ActivFilter Air Cleaning System can be factory or field installed into the filter section of air handlers with space for high-efficiency passive filters. For smaller equipment, such as packaged rooftops and fan coils, because of its low operational static, the AF can be configured to slide out of external filter boxes.

### Green Design and LEED

The ActivFilter is completely consistent with the goals of LEED and Green Design: it does more with less: less energy, less time, less waste. It is the choice for LEED projects. But whether you are seeking LEED certification or simply designing with Green in mind, the AF provides the highest level of performance with the minimum environmental footprint.



Unlike previous generations of ActivTek purifiers, the ActivFilter utilizes active filtration technology coupled with RCI to polarize both media fibers and airborne particles. The polarized particles are then drawn to both the fibers of the media and other particles. This process brings about a deep cleaning of the air and treat surfaces inside the building with added efficacy. The ActivFilter utilizes these basic physical principals and couples them with patented developments in material and composite chemistry and media fiber design. The result is revolutionary performance and a new level of energy and operational savings.

## SPECIFICATIONS

**MERV rating:** 13

**MERV-NC rating:** 15-16

**Typical clean pressure drop in an air handler:** <0.3" w.g. / <75 Pa

**Typical clean pressure drop in a filter box application:** <0.18" w.g. / <47 Pa

**Dust required for .25" w.g. / 60 Pa increase in pressure drop:** 2,880g

**Input Voltage:** 100-240V

