

# GROW GREEN

Removing odors and  
particulates without  
the high costs of  
energy and maintenance



The Science of Clean Air.

# ACTIVATED CARBON MATRIX

For over thirty years, Dynamic Air Quality Solutions has been providing affordable solutions that optimize air quality, energy consumption, and the environment. Today, *growers around the world* rely on proven Dynamic technology to remove VOCs, mold spores, and ultrafine particles from indoor air and outdoor ventilation air, and to mitigate odors from exhaust air.

## Odor Mitigation

Dynamic Activated Carbon Matrix (ACM) Systems have been used successfully to remove odors from exhaust air at large commercial grow operations to meet local codes and ordinances.

## Advantages over Pellet Systems

Dynamic Carbon Matrix systems offer many advantages over standard carbon based systems including trays and rotary drums filled with carbon pellets:

- Dynamic Carbon Matrix systems have up to a 60% lower pressure drop, reducing blower horsepower by up to 50% compared to pellet systems.
- Half the size and a fraction of the weight of a pellet based system.
- Easier to use and maintain because they do not require vacuum trucks, pellet handling or confined space entry that is associated with media change out.
- Dynamic Carbon Matrix systems have significantly smaller footprints and much lower weights, making installation easier and less costly than traditional pellet systems.
- Fast and effective contact at velocities up to six times greater than traditional pelletized carbon beds.
- Unlike pellet based systems which typically break through after about 66% utilization of the pellet media, properly rotated Dynamic Carbon Matrix systems use 100% of the media as the media modules are replaced over time.



Air Velocity		Dwell Time (seconds)	Removal (%)*
fpm	"w.g.		
78	0.040	0.090	99.9
99	0.050	0.070	99.5
113	0.055	0.062	99.0
207	0.110	0.034	90.0
276	0.160	0.025	80.0

\* based on Xylene analytical standard

## Unsurpassed Versatility:

- Suitable for high airflow applications (>500 fpm).
- Suitable for high temperature applications up to 500°F.
- Suitable for damp conditions up to 99% RH.
- Can be mounted horizontally or vertically with airflow in either direction.
- Maximum gaseous contaminant removal and protection from gas-phase contaminants.
- Can be installed and disposed of without the need for any special safety precautions.



# POLARIZED-MEDIA AIR CLEANERS

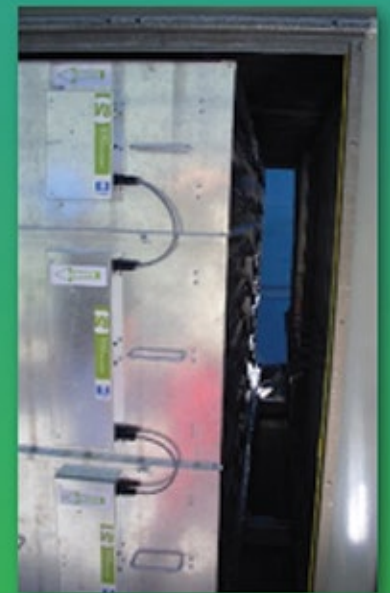


## Protect Plants from Bacteria, Molds and Mildew

Dynamic polarized-media filtration technology is available in a wide variety of products to remove bacteria, molds and mildew from growing environments to optimize plant health. Air cleaning systems range from 1 inch and 2 inch panels that fit into all types of HVAC equipment to the Dynamic V8 Air Cleaning System which sets the standard in air cleaning – outperforming anything on the market in contaminant control, maintenance, and cost of ownership.



- Capable of removing harmful molds, mildew and bacteria that affect plant yield
- Fit all types of HVAC equipment without costly retrofits
- Low static pressure drop for improved energy savings
- Reduces VOCs
- Use in recirculating systems or on exhaust to extend Dynamic ACM service life
- Longer life between filter change-outs





## Maximize crop protection with the Dynamic V8

Designed to meet the rigorous requirements of hospitals, data centers, LEED® buildings and clean manufacturing, the Dynamic V8 Air Cleaning System couples maximum effectiveness with unparalleled energy and operational savings, providing MERV 15 performance without ionizing or Ozone generation— plus VOC reduction and superior capture of dangerous ultra-fine particles. And its extended maintenance cycle means less media change outs, freeing your personnel to concentrate on more critical issues.

### Advantages over conventional filters

- Holds up to 10 times the dust of standard bag or cartridge filters
- MERV 15 performance with zero-bypass
- Significantly lower static pressure drop than passive conventional filters for big energy savings
- Saves energy through reduced brake horsepower requirements
- Exceptionally long maintenance cycle – up to 3 or 4 years in grow facilities

*The Dynamic V8 replacement media (left) does the same job as the 24" x 24" conventional cartridge filters shown on the right...but also providing better filtration, lower static pressure, longer maintenance intervals, and taking up far less space.*



**Dynamic**  
Air Quality Solutions

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