Dynamic®
Air Quality Solutions

Engineered Commercial Air Cleaning Systems

COMPANY

Founded in 1982 by two university professors who applied an innovative approach to an established technology, Dynamic Air Quality Solutions has been innovating ever since. Applications engineering, sales and corporate offices are based at our Princeton, New Jersey headquarters, while primary manufacturing and R&D are located in Carleton Place, Ontario.

The first generation of products were geared towards the residential marketplace and that continues to be a significant sector for us. Dynamic supplies a wide range of products to most major OEM's, contractor groups and wholesalers, both under the Dynamic brand and numerous private labels. Dynamic product and IAQ training are the best in the industry.

In 1999, a separate division was created for the growing commercial business, with its own sales, engineering, and product development. This business now accounts for the majority of sales.

With a strong focus on R&D and product development, the company, the technologies, the intellectual property, and product lines have continued to grow and evolve. Our product range and application expertise enable us to meet and exceed the needs of our customers, even in the most challenging environments. Dynamic systems are installed throughout the world, and everyday millions of people breathe air that we have cleaned.

We clean the air for hospitals, precision manufacturing, mines, pharmaceutical labs, universities and the world's most valuable art collection.

Advanced engineered solutions for energy and air quality in commercial, institutional, medical, pharmaceutical and other critical applications

At the intersection of IAQ, energy and maintenance, Dynamic Air Quality Solutions provides sustainable solutions for new construction and existing buildings that save energy and reduce operating costs while providing maximum indoor air quality for people, productivity and processes.

Over 20% of all energy consumed in the United States is spent on maintaining air quality in commercial buildings. The expectations and requirements for IAQ have evolved well beyond simple temperature and humidity control. People and equipment expect and demand air that is free of harmful contaminants.

Maintaining indoor air quality has a direct impact on:

- *-the health and productivity of employees, occupants, and guests.*
- *-the life and operation of electronics and equipment.*
- *-the ongoing energy, operating, and maintenance costs.*
- *-the size of the carbon footprint.*
- *-the bottom line.*

With over 35 years of experience and a broad range of award-winning products, we have the right tools to deliver effective and cost-effective solutions.

We have designed solutions for airports, anthrax clean-ups, casinos, wastewater treatment plants, and data centers.

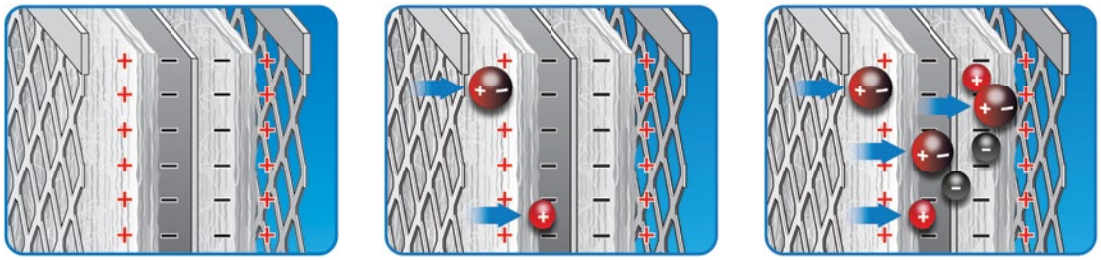
90% of the cost of providing clean air is energy. Our customers have saved hundreds of millions of kilowatt hours.

TECHNOLOGY & PRODUCTS

Active-field, Polarized-Media Air Cleaners

This is the basis for the original patents and the first family of Dynamic Air Cleaners. The technology combines the benefits of passive filtration with those of electrostatic attraction. An active DC voltage is used to create an electrostatic field inside a media pad. The field polarizes the media fibers and particles in the air. This attracts the particles to the media and their loading and interaction with each other. The end result is high-performance contaminant removal, low pressure drop, and a long maintenance cycle. The active field greatly enhances the ability to capture the ultrafine particles and the odors and reactive gas phase contaminants adsorbed onto their surface. These particles are the vast majority of what is in the air and have a very direct impact on people and equipment. They are also very difficult to capture with passive filters.

ESCOs
Offices
Education
Healthcare
et. al.



Activated Carbon Matrix Systems

This puts the proven power of carbon in a form that allows for the precise control of gas phase contaminants. Long life, low pressure drop and no requirement for a post filter reduce the cost of ownership. Activated carbon is immobilized into a uniform grid that gives even airflow and full use of the carbon. Whether in a sewage treatment plant, an art museum or precision manufacturing; people, processes and equipment require air that is free of VOCs, acid gases and other gas phase contaminants.

Clean Mfg.
Healthcare
Museums
Transportation
et. al.

Germicidal Ultra-Violet C Systems

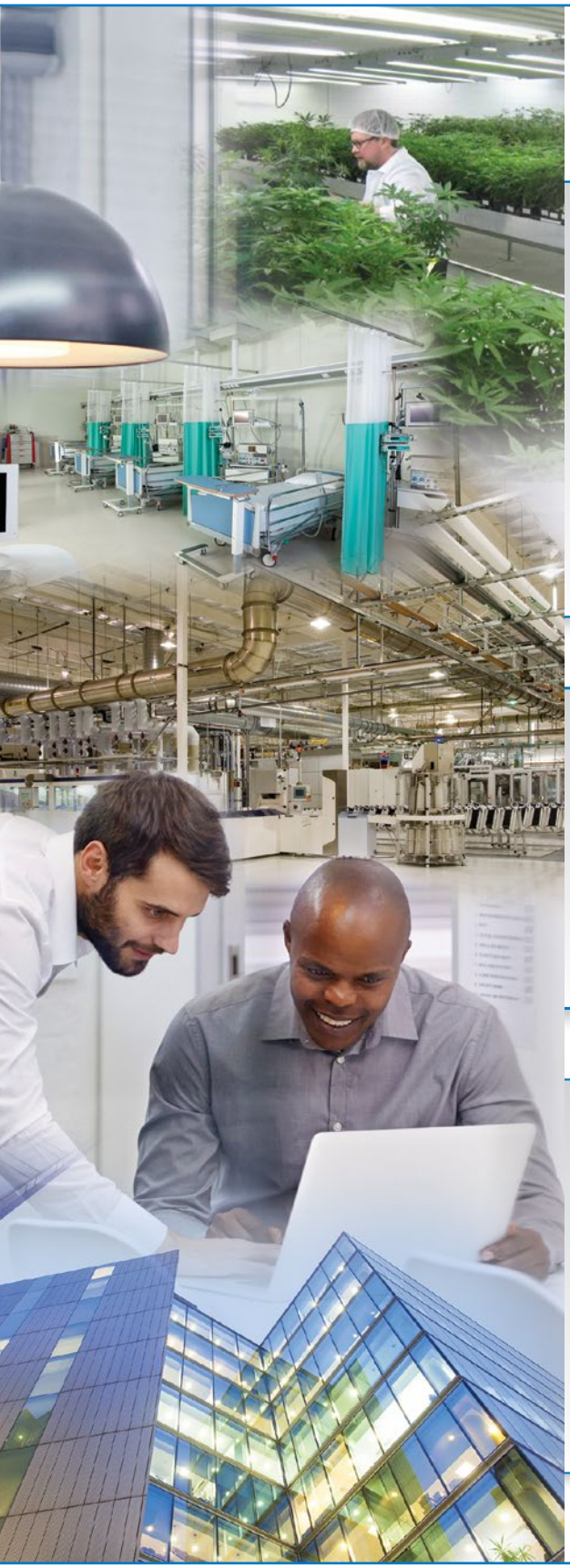
For those applications where biological inactivation is important, high-output UVC and a polarized-media are combined to provide a catch, hold, and kill solution. The key for UVC to be effective is contact time and proximity. The Dynamic system captures the biologicals in the airstream to provide the necessary contact time. This is a far more efficient approach with less potential for collateral UVC exposure than systems that bathe the entire coil or duct section with UVC light.

Healthcare
Education
Hospitality
Cannabis
et. al.

Integrated Supplemental Systems

Dynamic also provides stand-alone air cleaning and air moving systems that combine technologies to address specific air quality issues. Examples include units that provide odor mitigation for a cannabis grow facility, or units in collection hoods in a mail sorting room. Applications range in size from 800 to 10,000 cfm and are able to provide prescribed air changes and airflow patterns.

Veterinary
Hospitality
Offices
Cannabis
et. al.



CAPABILITIES & APPLICATIONS

Dynamic Air Quality Solutions usually fall into one or more of the following categories:

1. Solving for Energy and Maintenance

Here the deliverable is a 2/3 reduction in energy and operating costs and a maintenance cycle measured in years. These jobs are typically Dynamic V8s replacing MERV 13-14+ passive filters.

This work represents the majority of Dynamic commercial business—a straightforward installation into new or existing equipment. Dynamic Air Cleaners are installed as an option with most major manufacturers, into AHU sections at our factory, or in the field.

Typical paybacks run 1.5-4 years. In performance contract projects, the Dynamic V8 is one of the primary energy conservation measures. For example, retrofitting Dynamic V8s into a building saves as much utility energy as a photovoltaic system costing five times more.

2. Solving for IAQ Issues

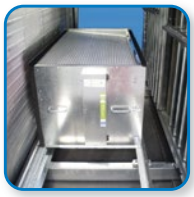
In these applications, there is an air quality issue that must be addressed. Dynamic has a *proven* track record and over three decades of experience in identifying and fixing IAQ issues in a vast *range* of situations. Whether the project involves a clean manufacturing facility where Dynamic diagnosed that a few parts per billion of hydrogen sulfide in the outdoor air was a few parts too many, a mailroom with the potential of dangerous micro-organisms, odors from a cannabis grow facility, or removing jet exhaust fumes from an airport terminal, Dynamic has designed and implemented a solution.

3. Solving for either with the IAQ Procedure

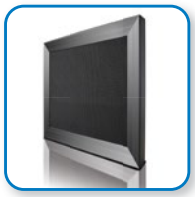
In today's indoor environments, with no smoking and green building design, indoor contaminant levels are lower and outdoor ventilation air is a more likely source of contaminants. This is especially true in urban environments, which are often classified by the EPA as nonattainment zones.

The Indoor Air Quality Procedure of ASHRAE Standard 62 looks at actual potential contaminant levels and allows designers to take credit for air cleaning, good airflow patterns, low-emitting materials, etc. In many instances, there is a potential to reduce outdoor air levels, improve air quality and lower heating and cooling loads. Air cleaning is an important part of the picture. Dynamic has the experience, products, software, and field data to help implement the IAQ Procedure.

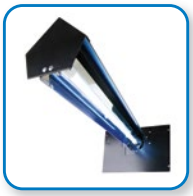
Dynamic V8 Air Cleaning Systems
The Dynamic V8 provides MERV 15 performance with odor and VOC reduction, and superior capture of dangerous ultra-fine particles. The award-winning Dynamic V8 features a dust holding capacity that far surpasses conventional filters and allows the Dynamic V8 to extend filter service intervals from every few months to several YEARS.



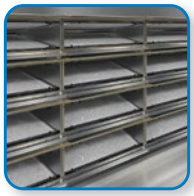
Dynamic V8 Side Loaded Systems
Like the Dynamic V8, the Dynamic V8-SL offers MERV 15 effectiveness with the same energy and operational cost savings. The Dynamic V8-SL is designed to fit rooftop units and custom air handlers that offer a minimum of 25 inches of service clearance through the unit. Air cleaner modules stack in racks inside the unit.



Activated Carbon Matrix Systems
State of the art Dynamic Activated Carbon Matrix (ACM) systems offer big advantages over pellet based systems. Carbon Matrix systems remove target contaminants without the energy cost penalty, supplying purified air more efficiently and without shedding and numerous other maintenance hassles.



Sterile Sweep® UVC Systems
Sterile Sweep UVC Systems feature a high-output UVC lamp and an oscillating parabolic reflector that focuses UVC light to kill pathogens on the filter media surface. The Sterile Sweep is available separately, as part of the RS-3 and RS-4 Air Purification System, or for use with V-Bank Air Cleaners.



V-Bank Air Cleaners
Designed for permanent mounting, Dynamic V-Banks offer a high-efficiency and cost effective alternative to bulky bag and cartridge filters. Dynamic V-Banks can be used with or without pre filters and post filters and can yield substantial energy and operational cost savings.

1" and 2" Panels and Tandems
Dynamic 1" and 2" Polarized-Media Air Cleaners are available in any size to fit return air grilles and filter tracks in air handling equipment. Tandem models can be run in series and wired to a single power supply or control panel.

RS-2, RS-3 and RS-4 Integrated Air Purification Systems
For unitary equipment applications, the RS Series of air purification equipment include Dynamic Air Cleaners in cased configuration designed to increase filter face area for more effective air cleaning at lower air velocity. Optional features include UVC lamps and an activated carbon matrix system.

Fan Powered Filter Systems
For stand-alone applications with fans in self-contained cabinets that can be ceiling mounted, free standing, or on casters and configured with Panels, V-Banks, V8s, UVC or Carbon Matrix systems.

Dynamic Final Filter Curbs
For rooftop units that lack an adequate internal filter service area, Dynamic Final Filter Curbs are available in a variety of sizes to accommodate Dynamic Air Cleaners or Dynamic V8 Air Cleaning Systems.

Dynamic Air Quality Solutions

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