

### Clean and Blow Air:



# **Self-Cleaning Air Filter**









The Air-Cleaning Blower™ Cleans Air - Never Clogs

## Cut Maintenance, Cut Energy, Clean Air!

The Air-Cleaning Blower™ (ACB) separates dirt from air, using no filter media of any kind.

A powerful filter-blower, the ACB removes dust and other particles from the air without filter elements, bags or other media while maintaining constant airflow, air pressure and energy consumption.

Eliminating the media allows users to avoid most maintenance and save energy since they no longer have clogged filters to service, replace or reduce their airflow. Just an extra 0.5" of static pressure from a partially clogged filter can cause an increase of over 50% in amperage draw by a traditional blower or fan motor.



Our patented design leverages the momentum of the dirt particles along with the advancing and rotating air to fling them out of the housing and return them back into the surrounding atmosphere.





The ACB, as a self-cleaning filter-blower, removes up to 99% of the mass of dust in the air, An independent testing lab established that ACBs remove essentially all particles larger than 10 microns and almost half those between 3.5 and 10 microns. So little dust passes through them that it could take months or years to collect enough dust to become a blanket that could start to overheat a motor or cause a short-circuit in wiring.

...the air filter-blower that separates dirt from air, using no filter media...

If extremely clean air is required, downstream HEPA or other post filters can remove the small mass of remaining particles. In those cases, the ACBs will greatly extend the life of the post filters by removing most of the dirt before it reaches their expensive media. The units will provide the further benefit of supplying the airflow and pressure necessary to push the air through the post filters, thereby eliminating the need for an additional fan.

The Air-Cleaning Blower<sup>TM</sup>
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# How do they work?

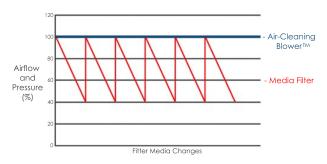
Like most blowers and fans, air-cleaning filter-blowers have an impeller inside that pulls air—clean or dirty—into itself. That impeller, in combination with the design of its surrounding housing, rotates the air around itself as it pulls the air through the blower housing and then pushes it out the clean-air side.

The ACB's unique, patented design uses the momentum of the dirt, sand, dust, grain husks, or other particles moving with the advancing air to fling them out of the housing, normally back into the dusty atmosphere from where they came. The rest of the air, now cleansed of its original load of particles, flows out of the Air-Cleaning Blower™ into buildings, electrical panels, furnaces and other applications. ACB's can also exhaust clean air leaving debris behind if regulations restrict discharging contaminated air outdoors.



#### ACB's Provide Constant Airflow and Air Pressure

Media Filters, even "self-cleaning" models, cause wide variations in Airflow, Air Pressure and Energy Consumption.





Regular filters and air filtration systems gradually clog over time and, consequently, slow the flow of air and reduce its pressure, both of which force the fans to work harder and consume more electricity to try to compensate. In contrast, ACB's self-cleaning filter-blowers maintain a virtually constant airflow and pressure and, therefore, experience little change in electrical consumption. This predictability makes it easier to design and control the output and operation of the air system. The self-cleaning ACB can go for years without needing to be maintained or cleaned because it has no filter media.

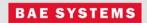
...unlike traditional filters that can clog, often in a short period of time under dusty conditions, the Air-Cleaning Blower™can go years without needing maintenance...

ECO-FRIENDLY

#### SELECT CUSTOMERS











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## Self-cleaning Air-Cleaning Blowers™

Blow and clean air simultaneously, and require no maintenance

Since they do not use filter media and/or collect unwanted dust and dirt as traditional filtration systems do, they maintain constant airflow, constant air pressure and constant electrical consumption with little to no maintenance. They provide clean air for ventilation, pressurization, exhaust and feed air.

ACBs do not collect dust and other debris because: Most Users Don't Want to Collect Dirt—They Just Want Clean Air!

#### CONSTRUCTION

- Interior frame & wall sleeve constructed of 304 stainless steel.
- 316 stainless steel, aluminum and other constructions available upon request.
- Mechanical controls only eliminate vulnerability of electronics to electrical problems.
- Units meet NEMA 4X and IP54 standards.

#### **ADDITIONAL FEATURES**

- Standard models run on 60 Hz single phase and three phase current, 115, 208-230 and 460 volts.
- All units can run on 50Hz current, except those made for 115 volts. Special voltages and direct current are an option.
- Units can include corrosion-resistant, heavy duty incoloy electrical resistance heating elements as option.
- Units can be made suitable for hazardous (explosive) locations whether the hazards are caused by gases or dusts.

#### WHO NEEDS ACBs?

- Agricultural Equipment
   Power Plants
- Bulk Product Conveyors
   Foundries
- Coal and Coke Plants
   Grain Elevators
- Emergency HousingHospitals
- Furnaces and Boilers
   Schools
- Motor Control Centers
   Military Facilities
- Steel and Aluminum Mills Vehicle Engines and Cabins
- Pulpits and Control Rooms Sawmills and Lumber
- MCCs and Other Electrical Buildings and Enclosures
  - Hotels and Convention Centers
  - Mines and Tunneling Vehicles
  - Modular and Inflatable Buildings
  - Office and Other LEEDs Buildings
  - Railroad Cars and Subway Trains

### Typical Model Options for Air-Cleaning Blowers™

BASIC MODEL	CFM	VOLTS	PHASES	H E RT Z
ACB-225-A-304	285	115	1	60
ACB-225- L-304	285	208-230	1	50/60
ACB-225-D-304	285	208-230/460	3	50/60
ACB-450-A-304	630	115	1	60
ACB-450- L-304	630	208-230	1	50/60
ACB-450-D-304	630	208-230/460	3	50/60

ACB adds models to its line regularly in the range of 50 CFM to 10,000 CFM and from 0.5" w.g. to 10" w.g. In addition, custom designs are available for OEM and other special applications.

Patents #9,259,675 #10,118,115. Others pending. CAGE Code: 7ZFZ0

#### ALL MODELS MADE IN THE UNITED STATES OF AMERICA

#### AIR CLEANING BLOWERS, LLC

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