North American region

United States, Canada, and Mexico
About ebm-papst North America

Headquarters - Farmington, CT
- 250,000 square feet
- 275 employees
- Value added
- Acoustic testing chamber
- Complete air testing lab on site
- ISO 9001 and ISO 14001 certifications
- Distribution centers in Farmington, CT and Toronto, Canada

ebm-papst is an innovator and market leader in fans, blowers, and motors with core competencies in motor technology, aerodynamics, and electronics. With over 15,000 products, we provide solutions to a wide range of markets including Air-conditioning and Ventilation, Appliance, Automotive, Commercial Refrigeration, Heating, Industrial, Lighting, IT / Telecom, Medical, Transportation and more.

Support when and where you need it
Knowledgeable field sales professionals throughout USA, Canada, and Mexico are close by for face-to-face meetings. Dedicated inside sales associates fulfill all of your ordering needs. To assist you with order management, our Customer Relations department provides automated services such as shipment notifications, reorder notifications, and invoicing.

Design and manufacturing
Beginning with the initial product concept, our application engineers work in tandem with customers to select the best air moving solution to suit specific goals and requirements. Once the prototype has been established, it can then be tested in our state-of-the-art airflow testing chambers to optimize performance. Each chamber has been designed to meet AMCA 210 and ISO 5801 requirements. In addition to our airflow testing capabilities, ebm-papst can conduct comparative sound, temperature, and velocity tests. The electrical engineering team can design everything from simple fan controllers for monitoring fan speed to complex controllers and power supplies, filtering, and specific communication protocols.

Logistics and inventory management programs
Our facilities feature over 90,000 square feet of climate-controlled warehousing, and utilize bar coding for real-time inventory management. Supply chain management programs such as Kanban, demand/pull, safety stock, consignment, and local warehousing can be customized to your needs.
Passionate about air technology and drive engineering
The ebm-papst product portfolio numbers over 15,000 products. We offer the right solution for almost every air technology and drive engineering task. In addition, we work with you to develop very customized solutions that extend beyond our current product line. This is made possible by our extensive team of over 650 dedicated engineers and technicians out of our three central locations in Germany.

World Headquarters: Mulfingen, Germany
- ebm-papst established in 1963
- Manufacturing: Germany, Hungary, Czech Republic, Slovenia, Italy, USA, China, and India
- Worldwide revenue over 2 billion USD
- 57 sales and distribution groups worldwide
- 12,000+ employees worldwide
- Ship over 46 million products annually
- Certifications: ISO 9001, ISO 14001 & RoHS compliant
- Over 1,000 patents held in design

Core competencies: motor technology, aerodynamics and electronics
Our innovative technologies keep turning into new industrial standards. Our advantage: We consider aerodynamic relationships as a whole. Thus we combine benchmark-setting motor technology with the intelligence of state-of-the-art electronics and aerodynamically optimized shapes. The system solution that results from these three core competencies has a synergy that is unique in all the world and makes up the majority of our product line.

GreenTech EC technology: Our motor for the future
Virtually our entire product range is now available with GreenTech, the leading edge EC technology. GreenTech EC motors deliver unparalleled energy efficiency when compared to conventional AC Technology. With wear-free and maintenance-free performance, longer service life, lower noise, intelligent electronic control, and higher aerodynamic efficiency, GreenTech EC motors from ebm-papst are the future of air moving technology.

Passion, quality and responsibility: Three reasons for our success
Only real passion for fans and motors makes the highest level of achievement possible. With a clear organizational structure, flat hierarchies and a high degree of personal responsibility, we create the perfect foundation - not only for technological innovation, but also for excellent service and active dedication to closely working with our customers.

Of course, our products are also produced with the highest quality - at a total of 18 facilities worldwide. Our quality management is uncompromising and is present in every process stage. This is also confirmed by our certification of compliance with international standards ISO 9001 and ISO 14001. Additionally our German Automotive Business Unit is in compliance with IATF 16949:2016.
Design and manufacturing
Our staff of design, electrical, and application engineers possess a wealth of knowledge and experience enabling unparalleled guidance and support to our customers and their projects. Cutting-edge equipment and innovative technologies are used to develop customer concepts into sub-assemblies or complete product ranges. Our engineers draw upon the vast resources available throughout the ebm-papst family to ensure that the most innovative and energy-efficient air movement components are correctly applied.

Beginning with the initial product concept, our application engineers work in tandem with customers to select the best air moving solution to suit specific goals and requirements. Once the prototype has been established, it can then be tested in our state-of-the-art airflow testing chambers. The airflow chambers are truly beneficial to our customers as they allow for optimization of equipment for outdoor a/c systems, refrigeration systems, and commercial fan applications. Each chamber has been designed to meet AMCA 210 and ISO 5801 requirements. In addition to our airflow testing capabilities, ebm-papst can conduct comparative sound, temperature, and velocity tests.

Design and electrical engineers advance the concept into a packaged air moving device incorporating sheet metal, fan controls, filters, gaskets and more. Our design engineers utilize the latest version of “Pro-Engineer” software to create a viable and cost-effective, value-added solution. File sharing between customers and our team of engineers enables all stages of the prototype design to be verified before the initial build of the product.

While our design engineers develop the mechanical components of the fan assembly, our electrical engineering team can design everything from simple fan controllers for monitoring fan speed to complex controllers and power supplies, filtering, and specific communication protocols. With our staff of engineering experts, a working prototype can be developed in a matter of weeks!

Our engineers and custom assembly solutions can help customers to:
- Create cost effective designs
- Optimize airflow
- Lower energy consumption
- Reduce noise
- Quickly develop prototypes

The gas lab provides ebm-papst the opportunity to service our customers making gas fired appliances that are sold into the commercial cooking and heating markets. We provide support to optimize performance for component and system solutions for individual applications.
Sheet metal fabrication and finishing

Lean manufacturing techniques, such as the use of reliable and efficient manufacturing equipment, ensure that subassemblies, components, and air handling products are produced to the highest technical standards. Significant investments in top-of-the-line production equipment and the efficient equipment know-how provide customers with the manufacturing excellence that has led to ebm-papst to become the leading choice for fan and motor technologies.

All sheet metal cutting, stamping, forming, rolling and welding are performed within our facilities. Our modern line of CNC punch presses, the TruPunch5000, allow us to accurately and efficiently create metal scrolls to exact specifications ensuring high quality and maximum flexibility. Our TruLaser 3030 fiber cutting machine uses a 3000 watt fiber laser beam delivery system for extremely high cutting speeds of thin sheets, while also allowing for the cutting of more exotic metals like copper and brass.

This machine includes the Trumpf LiftMaster Compact for the automated production loading and unloading of 5’ x 10’ sheets. No sheet metal part is too large to manipulate using our Flexibend folding machine, and no tooling set-up is required, allowing for significant savings in both time and cost! After the first sheet metal sample is cut or punched, the parts are then scanned for quality purposes. Our flat part measurement and digitizer, Fabrivision, scans and compares cut parts to the original CAD drawings for complete accuracy. Our Haeger automatic inserting machines will then insert nuts, bolts, or other hardware as required.

Our electrostatic powder paint system has the ability to reclaim unused paint thus reducing waste through efficiency. This high-capacity paint line includes a paint oven conveyor and five-stage iron phosphate washer to streamline the finishing process. Once the sheet metal has been completed, custom assemblies incorporating our fans and blowers can be finished by adding PCB’s, power supplies, air filters, wire harnesses, labels and more!
Market overview.

Access Control
Turn stiles, barriers, doors, gates, sliding doors

Agriculture
Food storage, greenhouse ventilation, livestock ventilation, seeding machines & robots, conveyor systems

Air-conditioning
Air handing units, condensing units, energy recovery systems (ERV), fan coil units, heat pumps, packaged rooftop units

Alternative Energy
Battery charging electric vehicle stations, battery/grid cooling, gas compressor stations, generators, power conditioning, backup converters, solar power inverters, wind turbine cooling, fuel cells

Appliance
Cleaning systems, convection and microwave ovens, food preparation equipment, range hoods, refrigerators

Automation and Intralogistics
Factory automation, textile machines, woodworking machines, AGVs, circuit breakers, conveyor systems, transfer systems, shuttle systems, packaging machines, cross belt systems

Automotive
Active front steering, actuator, e-mobility battery cooling, electronic oil pumps, electronics cooling, seat ventilation

Commercial Refrigeration
Beverage coolers & dispensers, condensers, cooling towers, evaporators, vending machines, refrigerators & ice making equipment, supermarket display cabinets

Data Center
Computer room air conditioners (CRAC), under floor cooling, electronics enclosures, mainframe computers, portable and modular data centers, rack cooling, routers, servers, switches

Heating
Air heaters, burners, commercial & residential water heaters, fireplace inserts, gas fired condensing boilers, gas heaters, humidifiers, pellet stoves, rotational heat exchangers

Industrial Air Technology
CNC machinery, control cabinet cooling & ventilation, exhaust systems, inspection & test equipment, laser technology, military applications, power electronics, transformer cooling, welding/printing

IT / Telecom
Electronics enclosures, mainframe computers, portable and modular data centers, rack cooling, routers, servers, switches, telecommunication equipment

LED
Architectural and residential lighting, audio-visual equipment, digital signage and displays, high-bay lighting, LED active cooling, stage lighting, street lamps

Medical & Laboratory
Blanket warmers, blood processing machines, C-PAP machines, CT scanners, centrifuges, chromatographs, diagnostic equipment, dialysis machines, emergency cots, MRI, patient lifters, peristaltic pumps, shakers, stirrers, surgery tables, wheelchairs, X-ray machines

Transportation / Mobile
Agriculture vehicles, buses, commercial vehicle ventilation, marine, material handling equipment, railway technology, refrigerated transport vehicles

Ventilation
Commercial and residential ventilation, chilled water systems, cleanroom equipment (FFU, clean benches, air showers)
Product overview.

Axial fans
Supply airflow at low system pressures. Complete fan packages provide easy mounting, minimal depth, low noise and high efficiency. Electronically commutated external-rotor motor with integrated electronics.

Applications: Condensers, horticulture, industrial and commercial air conditioners, livestock ventilation, motor/engine cooling, mobile refrigeration
Markets: Agriculture, Air-conditioning, Commercial Refrigeration, Data Center, Industrial, Transportation, Mobile, Rail, Ventilation
Size: Ø 7.9 in. to 63 in. (200 mm to 1,600 mm)
CFM: 100 to 49,500
Static pressure: 0.16 in.H₂O to 2.5 in.H₂O
Accessories: AxiTop™, FlowGrid

Backward curved motorized impellers
Supply air flow at medium system pressure; air is drawn in over the motor and then discharged radially. Electronically commutated external-rotor motor with integrated electronics.

Applications: Cleanrooms, exhaust systems, routers, telecom equipment, mobile refrigeration, HVAC, engine cooling
Markets: Data Center, IT / Telecom, Transportation, Ventilation, Rail
Size: Ø 3.94 in. to 35.4 in. (133 mm to 900 mm)
CFM: 50 to 21,780
Static pressure: 0.4 in.H₂O to 10.3 in.H₂O

Centrifugal blowers
Suitable for applications with relatively high pressures. External rotor motor combined with a forward curved centrifugal wheel within a scroll housing.

Applications: Exhaust systems, range hoods, machine cooling
Markets: Air-conditioning, Appliance, Industrial, Transportation, Ventilation
Size: Ø 3.35 in. to 15.9 in. (85 mm to 404 mm)
CFM: 26 to 5,600
Static pressure: 0.2 in.H₂O to 4.5 in.H₂O

Compact fans
Compact, quiet and highly efficient energy-saving fans. Available for all voltages and in all standard sizes.

Applications: Automotive seat and electronics cooling, medical equipment, power supplies, printers/copiers, refrigerated display cases, routers, servers, warming ovens
Markets: Appliance, Automotive, Data Center, Industrial, IT / Telecom, Medical, Refrigeration
Size: Ø 1 in. to 11 in. (25 mm to 280 mm)
CFM: 1.2 to 1,218
Static pressure: 0.04 in.H₂O to 5.6 in.H₂O
Accessories: Connecting cables, filters, finger guards, screens, spacers and temperature sensors
Energy-saving motor (ESM) fans
Two speed, user programmable, reversible, energy efficient complete fan packages. Line powered energy efficient EC brushless motors and also DC versions with infinitely variable speed control via analog signal or ModBus communication. 100 - 240 VAC wide voltage range available on select models. Safe for use with hydrocarbon refrigerants.

Applications: Display cases, vending machines, bottle coolers, freezers, unit coolers
Markets: Commercial Refrigeration
Size: Ø 6 in. to 12 in. (152 mm to 305 mm)
CFM: 100 to 825
Static pressure: 0.09 in. H₂O to 0.65 in. H₂O
Accessories: HX0C-003-000-02 full featured programmer
HX0C-006-000-03 two-speed programmer

Gas blowers & complete combustion systems
Components and systems that allow for a measured air-fuel mixture to be delivered to the burner for optimum combustion.

Applications: Gas fired boilers, water heaters, power burners, commercial food equipment
Markets: Heating
Size: Impeller diameters ranging from Ø 3.03 in. to 12.40 in. (77 mm to 315 mm)
Note: Energy input rate satisfies 3.4M BTU/H (1 kW) to 6.8M BTU/H (2 MW)
Static pressure: 6.4 in. H₂O to 20 in. H₂O

FlatPak® blowers
Flat, low-noise, pressure-resistant fans developed for installations of equipment within compact space.

Applications: Electronic, medical equipment, power supplies, routers, servers
Markets: Data Center, Industrial, IT / Telecom, Medical
Size: 2 in. to 8.7 in. (50 mm to 220 mm)
CFM: 5.7 to 261
Static pressure: 0.4 in. H₂O to 5.5 in. H₂O

Hot air blowers
Feature an AC motor mounted outside the hot area and a radial impeller made of sheet steel, stainless steel, or die-cast aluminum for mounting in the hot area.

Applications: Convection ovens
Markets: Heating, Industrial
Size: Ø 4.7 in. to 8.9 in. (119 mm to 226 mm)
CFM: 80 to 105
Static pressure: 0.1 in. H₂O to 2.1 in. H₂O
Note: Motor supplied bundled with blade, nut and washer
Motors & Drives
Modular drive systems. Motors with integrated logic and power electronics - optional gearhead, encoder, and brake.

**Applications:** Conveyors, turnstiles, patient lifter, ceiling lifter, wheelchairs, pumps, transfer systems, actuators, feeder units, dialysis machines, surgical tables, stirrer / shaker, circuit breakers, pellet heating systems, autonomous guided vehicles, sorters, windshield wipers, doors, barriers, packaging machines, blinds, rotational heat exchanger, shutters, seeding machines, wood working machines

**Markets:** Agriculture, Automotive, Industrial, Medical, Intralogistics, Access Control, Transportation, Factory Automation

**Size:** 1.65 in. to 3.14 in. (42 mm to 80 mm)

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Tangential blowers
Provide even, low velocity airflow over a wide area. Feature a narrow footprint and are available in many different lengths.

**Applications:** Fireplace inserts, pellet stoves, industrial cabinet cooling

**Markets:** Heating, Industrial

**Size:** 11.8 in. to 32.4 in. (300 mm to 823 mm)

**CFM:** 185 to 649

**Static pressure:** 0.03 in.H₂O to 0.44 in.H₂O

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RadiPac™
Single inlet, direct drive, centrifugal impeller with an electronically commutated external-rotor motor with integrated electronics; backward curved impeller blades.

**Applications:** Air handling units, condensing units, energy recovery systems (ERV), packaged rooftop units

**Markets:** Air-conditioning, Data Center, Industrial, Ventilation

**Size:** Ø 9.8 in. to 39.4 (249 mm to 1000 mm)

**CFM:** 700 to 22,000

**Static pressure:** 1.35 in.H₂O to 10.3 in.H₂O

**Accessories:** FlowGrid, instrumented inlet rings

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Accessories
Products designed to optimize performance.

**Accessory:** FlowGrid, AxTop, fan guards, capacitors, cord sets, programmers
What is EC Technology?

At the heart of our ecologically friendly products is our award-winning EC technology integrated into the electric motors. EC stands for electronically commutated, the innovative commutation without wear-and-tear. EC motors are DC motors with integrated AC to DC conversion. The EC motor compares to the direct current shunt-wound motor but for the fact that the magnetic field is generated by permanent magnets inside the rotor. EC motors give the flexibility of connecting to an AC mains with the efficiency and simple speed control of a DC motor.

EC motors and fans can be easily controlled, are maintenance-free, offer outstanding efficiency and have a considerably long service life. The variable speed range possible in EC technology makes using a multitude of individual models a thing of the past, making your life a lot easier.

Still, our R&D activities are not only focused on saving energy. In terms of pressure build-up, air performance and low noise, our products exceed the toughest specifications.

When you use intelligent ebm-papst EC technology in your applications, everyone wins - companies, customers, and the environment. It not only pays off in real money for every owner/operator, it also conserves precious energy resources. But that’s not all. In addition to the “savings effect,” you can also expect a significant reduction of noise emissions. At lower speeds, ebm-papst EC fans are even quieter. You will hardly know they are there. Consistent use of ebm-papst fans with EC technology can radically reduce the power consumption compared to AC fans - and that pays off.

29% savings – E.g. A3G800 axial fan.
A heat exchanger operates with 6 fans. Given an average utilization rate of 75%, there is potential for saving more than 24 MWh per year. That corresponds to roughly 14.4 t of CO2 and represents a savings of $3,194 USD*.

67% savings – E.g. W1G200 axial fan.
40 fans operate in refrigerated display cases in a small supermarket. On account of the lower level of heat generated by the energy-saving motor, the operating time is 30% shorter. This translates into a potential annual savings of more than 9.4 MWh and 5.6 t of CO2. Cost savings: $1,226 USD*.

22% savings – E.g. R3G500 centrifugal fan.
6 precision air conditioning units, each equipped with 3 GreenTech EC fans, operate in the IT rooms of a computer center. Given a 100% duty cycle it is possible to save up to 50 MWh of electricity. That corresponds to around 30 t of CO2 and represents a predicted savings of $6,695 USD* per year.

* Based on CO2 emissions of 600 kg/MWh (German energy mix) and 11.69 cents/kWh, average price paid by industry for electricity in Germany (as at: January 2010, source: VEA, BDEW).
**GreenIntelligence stands for highly efficient and intelligently interconnected EC fans and motors. It stands for process efficiency through digitalization and for Industry 4.0.**

Furthermore, it stands for the fulfillment of optimization potential through data analysis. For us, GreenIntelligence also means promoting sustainable thoughts and actions in all areas, including through the use of artificial intelligence.

*Condition monitoring courtesy of GreenIntelligence*

The AxiBlade axial fan illustrates one particularly impressive example of GreenIntelligence. Condition monitoring permits remote monitoring of the operation of the fans in the condenser and thus early recognition of imbalance caused by dirt, for instance. This makes it possible to avoid bearing damage and so ensure operational reliability. Further advantages offered by condition monitoring include indication of required maintenance work or the automatic de-icing of fans in evaporators by way of heating tapes integrated into the fan housing. Energy-efficient fan operation is thus guaranteed at all times, and there is no risk of the blades freezing to the fan housing.

*Fail-safe operation thanks to intelligent interconnection*

Modular FanGrid solutions are yet another example of intelligent, interconnected fans. They are primarily employed in situations where redundancy is employed to ensure maximum fail-safe operation. With an appropriate number of fans, the necessary air flow can always be attained even if one fan is out of operation. The speed of the other, interconnected, fans is then automatically increased to compensate for the missing air quantity. EC technology thus permits demand-based, energy-efficient control of an entire installation, and critical – i.e. inefficient – motor speed ranges can be avoided.

*GreenIntelligence is self-enhancing*

The digital interconnection of all components makes it possible to plan processes more efficiently, detect malfunctioning sooner and optimize the overall interaction of all components. Intelligent control technology means that optimization potential can be recognized and automatically implemented if required. Communication takes place via the MODBUS RTU communication protocol, for example. ebm-papst fans come ready equipped with the appropriate interface.

*GreenIntelligence is the next step*

Since the company was established in 1963, ebm-papst has stood for sustainability, both in its philosophy and in practice – in keeping with the principle "Each new product must surpass its predecessor economically and ecologically". Alongside an early focus on highly efficient EC technology, the company also recognized the opportunities offered by industrial digitization. In 2009, ebm-papst established “GreenTech” as a symbol of energy efficiency as well as sustainable products and manufacturing. With the addition of digital intelligent concepts, this has now developed into “GreenIntelligence” solutions made by ebm-papst.