

CORROSION RESISTANT FRP FANS & BLOWERS

Superior Quality High Efficiency Low Noise Level Competitive Pricing Fans in Stock





Dedicated to detail, precision and quality control

Welcome to M.K. PLASTICS CORPORATION

Founded in 1963, MK Plastics is a global leader in the production of corrosion resistant industrial and commercial blowers, fans, and ventilation systems. Patented in several countries, our products are AMCA Certified for Air and Sound Performance.

Our Mission

We offer the broadest and most complete line of quality industrial and commercial corrosion-resistant fans and blowers. Our innovative ventilation technologies are patented in several countries.

Our Commitment

Certified for excellence in performance and noise reduction, we are devoted to providing:

- The highest quality corrosion resistant fans and systems available
- · Superior engineering support for our equipment
- Industry leading technology and experience.
- Highly skilled application engineering associated with the equipment and systems we manufacture.

Our Facilities

We design and manufacture complete ventilation systems in our own facilities as we have done for two generations, assuring quality, and reliability and constant innovation. Our dedicated engineering and R&D team designs, refines, and tests all of our fans and blowers in our 70,000 sq. ft. manufacturing facility and performance test laboratory in Montréal, Québec, Canada.



Our Products

For over 45 years, M. K. Plastics has been engineering, designing, and fabricating thermoplastic and FRP ventilation components and systems for institutional and industrial applications. Founded in 1963, today M. K. Plastics has facilities and offices in Montréal, Québec, Canada; Spiez, Switzerland; Troy, OH and Mooers, NY, USA. M.K. Plastics has technical sales representatives that are in major cities throughout the globe.

INNOVATIVE DESIGNS

The Canadian Plastics Industry Association - Québec Section has recognized the innovative design and construction of the Axijet High Plume Dilution Blower at the 2004 Galea Awards.

PRODUCTS SUPPLIED BY M.K. PLASTICS

Axijet[®] High Plume Dilution Fan Axijet[®] LEADLAG[™] Exhaust Fan Control System **KVC High Plume Fan** Plastifer® Venturi Exhaust System DHK Medium Pressure Centrifugal Fan DHK-NW High Pressure Centrifugal Fan **CNW** Centrifugal Fiberglass Fan PRVS High Pressure/Low Volume Centrifugal Blower **RBK Roof Upblast & Sidewall Centrifugal Fiberglass Exhaust Fan AXT Axial Tubular Fan AXTC Centrifugal In-Line Fan AXB Axial Bifurcated Fan** AXPR Axial Panel Fan FRP & PVC Control Dampers & Gravity Backdraft Dampers FRP & PVC Ducting and Fittings **Mist Eliminators**









CENTRIFUGAL FANS AND BLOWERS





CNW

Medium pressure and volume. Available from 160 to 400 (6" to 16") with capacities from 50 to 6,500 CFM and up to 9" S.P. Used primarily in exhausting fumes from hoods in universities, hospitals, research institutions, as well as in process industries such as metal refineries, pulp and paper, electronics, chemical processing, etc. Available in both belt and direct drive.

DHK & DHK-NW

Medium to high pressure and volume. Available from 1225 to 6000, with capacities from 700 to 88,000 CFM and up to 22" S.P. Available in Class I, II & III at 100% wheel width and Class II, III & IV at 66% wheel width (NW). The DHK impeller is a self cleaning, molded backward inclined design on 1225 and 1500 sizes and backward curved air-foil design on 1825 to 6000 sizes. This allows for stability to efficiently exhaust large volumes of air at high pressures. Available in both belt and direct drive.

PRVS

Very efficient in applications where low volume is required at high static pressure. Available from 63 to 250 (2.5" to 10") with capacities from 50 to 4,000 CFM and up to 26" S.P. The flat radial tip impeller is manufactured with high quality corrosion resistant resins and fiberglass reinforced. This innovative design has no metal in the air stream, for superior corrosion resistance and long life in corrosive atmospheres. Available in both belt and direct drive.



AXIAL FANS AND PRV'S







AXTC

The AXTC is an in-line centrifugal fan that offers non-overloading, high efficiency, low noise, and economy for corrosive atmospheres. The design allows the unit to be installed directly in a duct system with the same inlet and discharge dimensions. Available from 1825 to 6000, with capacities from 2,800 to 85,000 CFM and up to 12" S.P. in both 100% width and 66% width. Also offered as a Power Roof Ventilator configuration for exhaust or supply. Available in both belt and direct drive.

AXT

AXT Tubeaxial Fans are well suited for indoor or outdoor use and can be easily installed in ducted or roof mounted systems. The AXT design incorporates a highly efficient fiberglass airfoil propeller in a heavy-duty corrosive resistant fiberglass housing. Available from 12" to 60", with capacities from 500 to 50,000 CFM at 1.5" S.P. Also offered as a Power Roof Ventilator configuration for exhaust or supply. Available in both belt and direct drive.

AXB

Axial Flow Bifurcated Fans are designed for ventilation and industrial process applications. Fan housing is a bifurcated design, in which the motor is outside of the corrosive, contaminated air stream. Housing as well as air inlet is aerodynamically designed for high-efficiency, engineered to reduce incoming air turbulence. Available from 300 to 1370 (12" to 54") with capacities from 700 to 40,000 CFM and up to 1.5" S.P. Also offered as a Power Roof Ventilator configuration for exhaust or supply. Available in direct drive only.



Direct drive wall mounted AXPR panel fans are designed for general ventilation applications where corrosive elements exist in the exhaust. Fan housing and propeller are made entirely out of fiberglass. Available from 12" to 60", with capacities from 1,170 to 60,000 CFM. The AXPR can be used for either exhaust or supply.



RBK

The RBK is a centrifugal exhaust fan that can be either roof or wall mounted. Available from 12" to 40", with capacities from 500 to 18,000 CFM and up to 2.5" of S.P. The RBK can be used in applications where corrosive elements exist in fume and vapor form such as the chemical industry, storage facilities, wastewater/odor control stations, laboratories, pulp & paper, aquariums, indoor swimming pools and other areas where corrosive exhaust may cause a problem. Available in both belt and direct drive.

LABORATORY EXHAUST SYSTEMS



AXIJET HIGH PLENUM DILUTION FAN

The Axijet[®] High Plume Dilution Fan is used to extract laboratory, process, or fume hood effluent air and dilute the effluent with outside ambient air. Because of the nozzle design, the diluted effluent is displaced high into the atmosphere at a constant high discharge velocity. As a result, the Axijet has greater exhaust dilution, higher discharge velocity, greater exhaust mass, and a greater plume height than conventional blowers and fans. The Axijet is AMCA certified for both Air & Sound.

As well as for general laboratory exhaust, the Axijet can also be used for the following applications:

- Energy Recovery Units: M.K. Plastics Axijet energy recovery systems for energy transfer between exhaust and supply air streams to reduce laboratory operating costs, and to prevent cross contamination between exhaust & supply.
- High Temperature Diesel Exhaust: Axijet's are the perfect choice for diesel generator exhaust for hospitals and healthcare facilities. High temperature steel Axijets can safely reduce the diesel exhaust temperature and disperse it high enough away from the building, preventing possible re-entrainment into air intakes.
- Kitchen Exhaust: Modified Axijet version for exhausting grease-laden air from kitchen, cooking and diswasher hoods. Built in compliance with UL 762 standards.

Available in sizes from 1225 to 7300 (12" to 73"), with capacities from 1,200 to 95,000 CFM and up to 10" S.P. in belt drive arrangements #1, #9 and #10, direct drive arrangement #4 and direct coupled arrangement #8. Choice of materials of construction offered are fiberglass reinforced plastics, chemical resistant epoxy coated steel, or stainless steel. Some optional standard accessories include inlet mixing plenum, isolation & bypass dampers, equipment supports, vibration & noise control, disconnect switch, AMCA A, B & C construction.

AXIJET-V HIGH PLUME DILUTION FAN

The Axijet-V is a vertical, inline High Plume Dilution Fan that combines the benefits of axial flow and centrifugal fans, with a high plume dilution stack and windband. The Axijet-V has the advantage of a compact design and straight-through airflow where roof space is limited.

Available in sizes from 1225 to 5425 (12" to 54"), capacities from 1,200 to 75,000 CFM and up to 8" S.P. in belt drive arrangements #9. Choice of materials of construction offered are chemical resistant epoxy coated steel, or stainless steel. The Axijet-V can be applied in single, double, triple or quad plenum assemblies.

KVC HIGH PLUME FAN

Similar in design to the Axijet-V, the KVC High Plume Laboratory Exhaust Fan is a more cost-effective solution for lab exhaust applications. The KLV is a straight-line, vertical centrifugal flow fan that incorporates a tapered discharge velocity nozzle that removes exhaust fumes high enough away from the building roof.

Available in sizes from 1225 to 5425 (12" to 54"), capacities from 1,200 to 75,000 CFM and up to 8" S.P. in belt drive arrangements #9. Choice of materials of construction offered are chemical resistant epoxy coated steel, or stainless steel. The KVC can be applied in single, double, triple or quad plenum assemblies, or single curb mounted.

VENTURI PERCHLORIC ACID EXHAUST SYSTEM

The MVT Venturi is designed to exhaust perchloric acid fumes safely without the risk of explosive reactions. Because of the induced exhaust, no rotating wheel or fans parts are in the air stream. The induction blower is mounted outside of the air stream for safe service and inspection. A primary washing ring and spray nozzle is built into the stack to wash and remove the perchloric crystals. Optional accessories include a programmable wash down timer, solenoid valves, auxiliary washing rings & spray nozzles, and FRP ducting from the fume hood to the Venturi stack. Available from 4308 to 4320 (8" to 20") with induced capacities from 250 to 3,230 CFM and up to 2.0" S.P.







LABORATORY EXHAUST SYSTEMS (cont'd)



AXIJET[®] LEADLAG[™] EXHAUST FAN CONTROL SYSTEM

For laboratory exhaust systems that utilize multiple fans in an N + 1 design, the Leadlag^M controller can sequence the standby fan in order to prevent bearing and drive damage due to stagnancy. The Leadlag^M controller has an additional feature that will shut down a fan when the total system airflow has been decreased by that fan's exhaust volume by maintaining system static pressure in addition to automatically opening, closing and modulating dampers, (all cycling fan operations can be achieved while maintaining no more than a +/- 10% variation in the system static pressure, and cycle completion within 30 seconds). Energy savings are therefore achieved by operating fans as required to handle the actual exhaust load at specific times.

Available options include:

- Pressure indicators digital or analogue.
- Integrated or remote start/stop mode.
- Fan failure indicator (alarm), enabling to switch from Lead Fan to Lag Fan.
- BACnet communication Protocol compatible for Building Automation Control Networks.
- Fire/smoke mode fan on or off.
- Compatibility with fans controlled by Variable Frequency Drives (VFD).

FRP & PVC ACCESSORIES

FRP & PVC CONTROL DAMPERS AND GRAVITY BACKDRAFT DAMPERS

The M.K. Plastics fiberglass & PVC control and gravity dampers are intended for low to medium pressure and velocity applications where corrosive elements exist in the air stream. The dampers are center pivoted and are available in both parallel and opposed blade design. Control dampers come with an extended shaft which enables both manual or motor control. Gravity dampers are end pivoted and suitable for backdraft prevention applications. Both control and gravity dampers can be either flanged or duct mounted.





FRP & PVC DUCTING AND FITTINGS

The M.K. Plastics is a leading manufacturer of high quality fiberglass reinforced plastic (FRP) and Polyvinyl Chloride (PVC) products for industrial and commercial exhaust, ventilation and process related duct systems. Both FRP and PVC are characterized by distinctive physical properties and are resistant to corrosion and chemical attack by acids, alkalies, salt solutions and many other chemicals. Whether the application is in industrial exhaust or commercial HVAC, M.K. Plastics offers a variety of quality FRP & PVC products and superior service. We also offer customized ducting, fittings, enclosures according to your specifications. Engineering assistance is available for the design of ductwork projects requiring non-standard construction.

MIST ELIMINATORS

High efficiency mist eliminators constructed in both FRP and PVC are designed to separate liquid droplets in systems, effectively reducing condensate solid emissions. The eliminators consist of a corrosion resistant fiberglass housing or chamber with extruded PVC baffles that effectively coalesce the exhaust flow into particles, up to 3 microns in size, which are then collected and removed through an outlet drain. M.K. Plastics Mist Eliminators have been successfully used in chemical plating tank ventilation systems, flue gas desulphurization plants, moistening and air conditioning facilities, pulp & paper evaporators, synthesis and process gases. An internal wash-down system is offered as an accessory.

LIMITATION OF WARRANTY AND LIABILITY

We will not be responsible for the damage to equipment or materials through improper installation, storage, improper servicing, or through attempts to operate it in excess of its rated capacity or recommended use, intentional or otherwise. We will not be responsible for consequential damage.

Based on the fact that M.K. Plastics Corp. has no direct control over the actual handling and use of its products in the field, M.K. Plastics Corp. does not assume any liability for any loss of custumer or any personnel or any physical damages claimed by anyone due to a failure or cause attributed to the use of its products. In no event shall M.K. Plastics Corp. be responsible for consequential damages of any such defective material or workmanship, including but not limited to the buyer's loss of material or profit, increased expense of operation, downtime or reconstruction of the work and in no event shall M.K. Plastics Corp. obligation under this warranty exceed the original contract price of the defective item.

M.K. Plastics Corp. warrants its equipment, products and parts, to be free from defects in workmanship and material under normal use and service for one (1) year after delivery to the first user. Our obligation under this warranty being limited to repairing or replacing, at our option, without cost at our factory any part, or parts which shall, within such warranty period, be returned to us with transportation charges prepaid, and which our examination shall disclose to our satisfaction to have been defective.

M.K. Plastics Corp. will not be responsible for the cost of removal of a defective product or parts or the installation of a replaced product or parts, or for costs due for its removal, crating or shipping.

On account of variables including but not limited to, vibration, system noise characteristics, motor overloading or change in voltage conditions, the specifics of customer application of equipment or other system conditions, M.K. Plastics Corp. does not expressly warrant its equipment for any specific purpose.

The customer and its agents are responsible for the selection and application of M.K. Plastics Corp. products, including their fitness for the purpose and performance intended. Consequently, the customer on behalf of its agents assumes all liability related to the user/misuse, application and selection of the M.K. Plastics Corp.











DIGITAL MEDIA

The information contained within is also available on the M. K. Plastics Electronic Catalog (CD ROM). This CD includes information on all of the M. K. Plastics fans, exhaust systems and their components, and is available from your technical sales representative or M. K. Plastics directly.



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