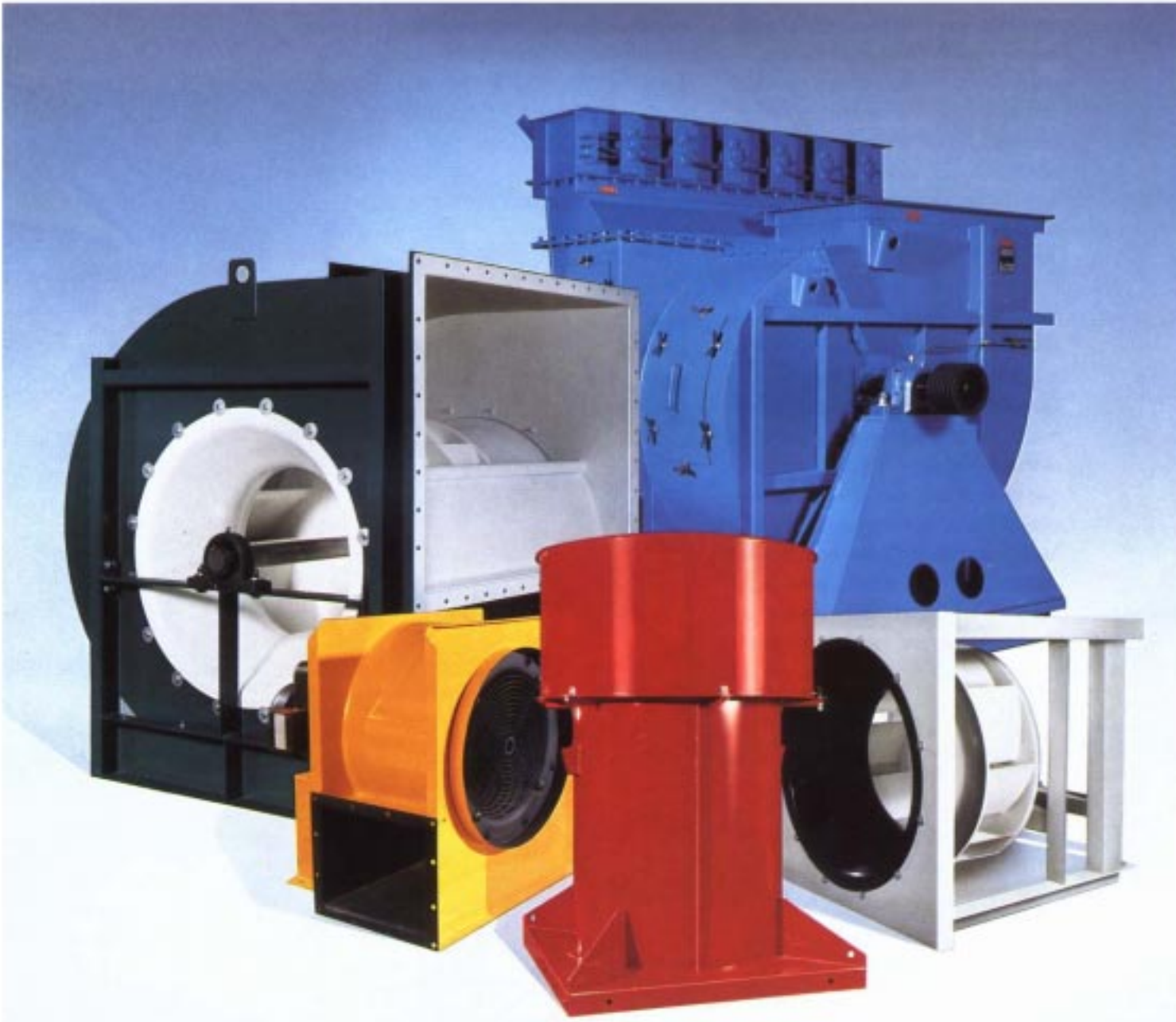


CML Northern Blower Inc.

Air Movement Equipment



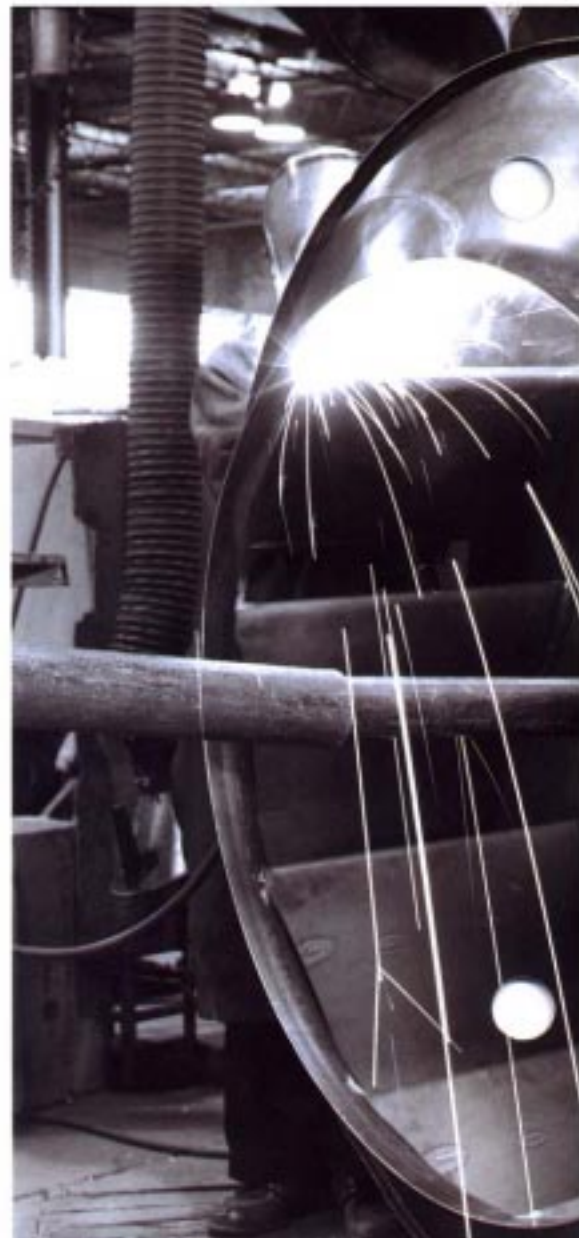


The Company

For years Northern Blower has been designing and manufacturing fan equipment for commercial and industrial applications. Product integrity and outstanding customer service are the cornerstones on which Northern Blower has built a reputation for solid performance. At Northern Blower our goal is to provide you with the fan you need at the time you need it.

Our modern manufacturing facility was constructed specifically for the production of fans and blowers. Northern Blower's factory houses an army of numerically controlled machinery and state-of-the-art welding equipment to ensure that all Northern Blower fans we constructed to our consistently high and rigorous standards. Northern Blower continuously researches current processes to identify new techniques, equipment systems, and technology which will be used to improve our end product.

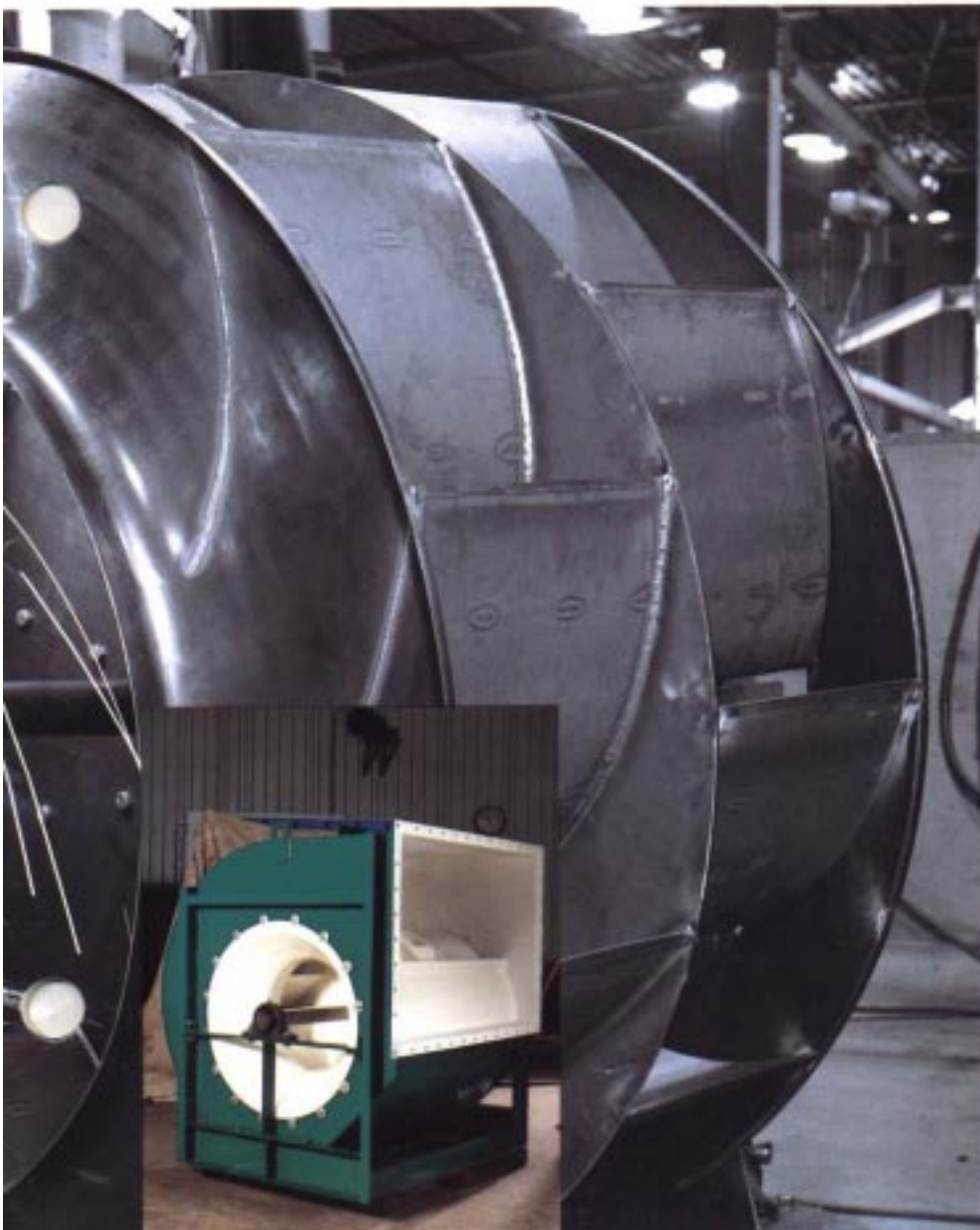
While technology is important, people are the force which makes Northern Blower different from other fan companies. Many of Northern Blower's employees have committed their entire careers to the fan industry. Their experience and dedication is your insurance that every fan we build receives the attention it deserves.



Customer service is an important component of the product we offer our clients. From the provision of equipment drawings to information we strive to facilitate customer requirements.



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Craftsmanship is an essential part of the fan production process at Northern Blower. The quality and detail put into Northern Blower equipment stems from the pride of a dedicated work force. While quality levels are monitored by a continuous formal inspection process, all employees realize the importance of their individual contribution towards flawless performance. We believe that few other fan companies can match our commitment to quality at all levels.

Research and development is a priority at Northern Blower. The latest in finite element technology is at the core of our new product design program.



Engineering

Northern Blower customers know that our commitment to engineering excellence results in fans designed for long, dependable service.

Thousands of Northern Blower fans on the job around the world are testament to the depth of our engineering expertise. Years of professional practice give Northern Blower engineers the experience needed to solve particular problems encountered on difficult applications. Finding new answers to air moving challenges is a goal our engineers set for themselves on every job.

Northern Blower has the technological equipment required to tackle the most demanding design problems. From sophisticated CAD/CAM systems to computerized fan selection and sound power programs, Northern Blower utilizes state-of-the-art computer ware to provide you with the optimum fan for your application.

Further technical support is available through product analysis conducted in our on-site laboratory. Built to AMCA Standard 210 this facility is capable of aerodynamic testing to ensure that Northern Blower fan designs continue to perform to our high standards. Laboratory inspection capabilities include dimensional, radiographic, liquid penetrant, magnetic particle, and vibration analysis.

The scope of Northern Blower's technical capacities is the strength which has given customers the confidence to place million dollar fan contracts in Northern Blower's trust. No matter the scope of the job, from supplying nuclear power plants to designing special alloy products for some of the largest automotive and pulp and paper plants in the world, Northern Blower technology is always at the forefront.





Northern Blower's on-site test laboratory is used for new product testing. Our commitment to excellence keeps us searching for the most efficient fan designs.

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Northern Blower's ability to manufacture almost every fan component, from machined parts to fabricated assemblies, guarantees consistent product quality.



Axial Fans



Series 5300 Fume and Hot Gas Exhaust

- Economical fume and vapour exhaust fan. May also be used for general ventilation.
- Available in a variety of configurations including panel fans ideal for parking garage exhaust, and with hoods and mounting curbs for roof top applications.
- Volumes to 90,000 CFM and static pressures to 1½" W.G.



Series 7400 Axial Ventilation

- Designed for air supply and ventilation applications where low tip speed and quiet operation are desirable.
- Individually formed blades have an airfoil shape, and the casing is all welded steel with punched flanges at both ends.
- Available with power roof or mushroom roof hoods and mounting curbs for roof top applications.
- Optional clamshell design for easy internal access.
- Volumes to 110,000 CFM and static pressures to 4" W.G.



Series 81100 Centrifugal In-line

- Combines convenient in-line mounting with excellent static pressure capacity by using an airfoil wheel in a tubular housing. A very quiet performer.
- A wide variety of models are available, including the clamshell ... the entire fan swings out of its frame for easy maintenance and inspection.
- Volumes to 80,000 CFM and static pressures to 11 " W.G.

Every Northern Blower fan rotor is dynamically balanced to ANSI quality standard 2.5, a full grade better than recommended for fan equipment. While other manufacturers may not go to this expense, WE believe that the extra effort WE put into Northern Blower fans ensures our product to be of the highest quality for our customer.



Centrifugal Fans



Series 5000

The Versatile Performer

- For clean air, fumes, moisture etc.
- A full range airfoil and backward inclined fan line. Single width and double width fans are available in almost every conceivable configuration.
- The 5010 airfoil fan is designed to move clean air with high efficiency. Low horsepower draw and low sound levels are its distinguishing characteristics.
- The 5020 backward inclined fan uses flat solid blades to allow for dust contaminated air handling at a high efficiency level.
- A top quality inlet vane accessory makes the 5000 line ideal for variable volume systems.
- Performance capacity to 280,000 CFM and static pressures to 20" W.G.

Series 7600

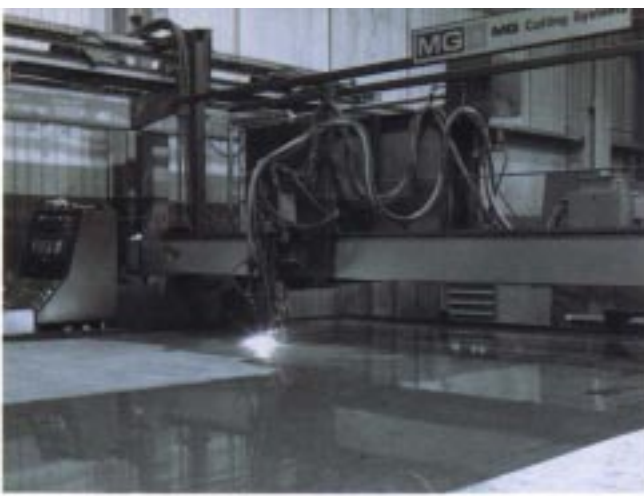
Rexibility Plus

- For commercial and industrial air handling and process exhaust, with either an airfoil or backward inclined impeller.
- The housing is flanged on four sides and can be mounted anywhere. Even the adjustable motor base mounts on all sides.
- Available with variable inlet vanes, isolation bases and a great variety of other accessories.
- Models in both belt drive and a limited size range of direct drive.
- Selections available for temperatures to 800OF and capacities of 85,000 CFM at 19" W.G. static pressure.

Series 8500

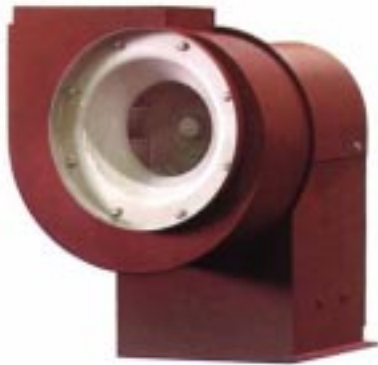
Swingout Spraybooth Exhaust

- Built for easy cleaning and low maintenance downtime. Perfect for paint booth systems, available with both airfoil and backward inclined impeller. Swing the door open and expose the entire wheel and housing interior for complete access.
- The door is leak tight and locks in place with "no-tool" handles.
- Type'C'spark resistant construction, and a full range of options, including inlet boxes, have made this fan a customer favorite.
- Volumes to 90,000 CFM and static pressures to 10" W.G.



Our NC plasma cutter was one of the first machines of this type introduced for manufacturing fans. This machine gives us the ability to handle special alloys and heavy plate with ease and efficiency—one reason Northern Blower is on the cuffing edge of air movement systems.

Centrifugal Fans



Series 7500

Economy Ventilation

- A general ventilation fan that's made for garages, stores, commercial laundries and kitchens, etc.
- Belt driven fans are complete with weather proof covers over the motor and running gear.
- Wheel diameters from 9½" to 36½".
- Volumes from 200 to 18,000 CFM.

Series 5600

Dust and Material Handling

- A true radial blade fan built to resist wear and material build up.
- Heavy steel plate construction.
- Available with either open blade or closed blade wheel design.
- Volumes to 60,000 CFM and static pressures to 32" W.G.

Series 7900

Dirty Air Exhaust

- Combines the characteristics of a radial wheel with the versatility of a square housing. A compact, rugged, yet economical fan.
- Both belt drive and a limited range of direct drive configurations are available.
- Volumes to 10,500 CFM and static pressures to 12" W.G.



Northern Blower's depth of manufacturing technology is surpassed only by the expertise of its work force. No fan can be constructed by machines alone and our skilled craftsmen finish every job with precision.



Series 8400

Oven and Dryer Plug Fans

- Made for oven and dryer air circulation.
- An airfoil energy saving fan in a unique design that places the wheel inside the machinery with the drive panel outside.
- Available with or without a housing.
- Accessories include insulated plug panels for temperatures to 8000F, and variable inlet vanes operable to 6000F.
- Volumes to 56,000 CFM and static pressures to 12" W.G.





Heavy Duty Fans



Series 5900

Industrial Airfoils

- A high efficiency rugged industrial airfoil fan designed to provide large volumes of air at high static pressures.
- Available in a variety of arrangements, single and double width geometries.
- Accessories cover a complete range from inlet boxes and water cooled bearings to insulation pins.
- Volumes to 400,000 CFM and static pressures to 50" W.G.



Series 6300

Pressure Air

- A high pressure fan designed to move moderate volumes of clean air at high pressure.
- Sturdy radial blade impeller.
- Available with a built-in easé.
- Volumes to 43,000 CFM and static pressures to 70" W.G.



Series 8800

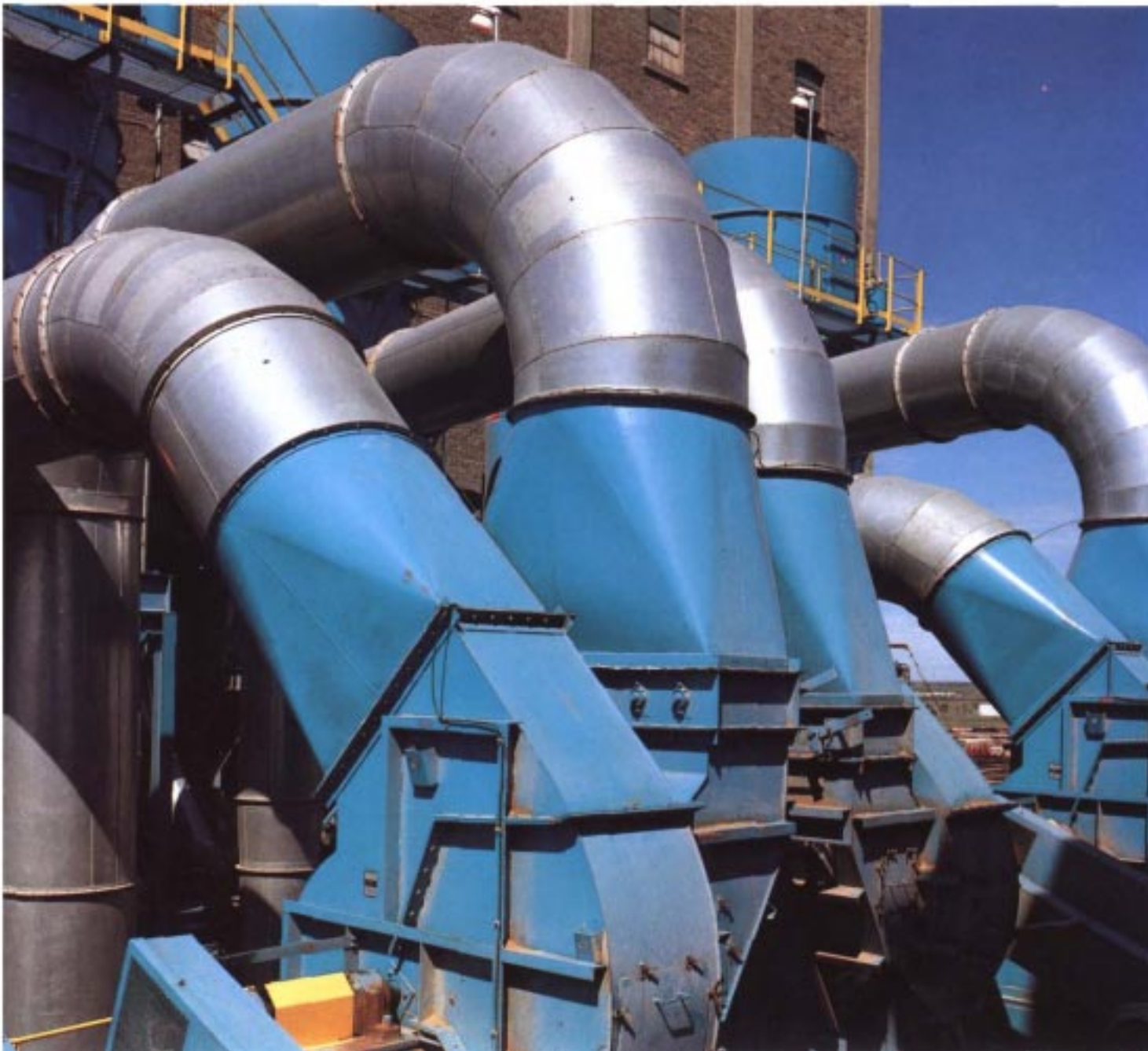
Radial Tip

- A rugged fan constructed for industrial induced draft applications where erosion resistance is a concern.
- Available with easé and/or inlet box in a multitude of arrangements.
- Single and double widths.
- Volumes to 250,000 CFM and static pressures to 35" W.G.



Special finishes are available on all fan lines. Here a vaneaxial rotor is being covered with an epoxy coating.

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Final assembly is one of the most critical phases of fan construction. Smooth fan operation requires great attention to the alignment of all critical components. Every Northern Blower fan is chocked from the ground up prior to release from the factory.



Special Materials & Processes

A number of Northern Blower fan products are available in special materials chosen to withstand the rigours of hostile environments. Northern Blower has experience producing fans utilizing the following metals ...

- aluminum
- 304 and 304L stainless steel
- 316 and 316L stainless steel
- corten high alloy steel
- brass and bronze
- monel
- hastalloy

Further special features available on a wide range of Northern Blower fan products include ...

- in-motion dynamic balancing systems
- vibration and temperature monitoring systems
- oil lubrication systems
- pneumatic and electric actuators
- turbine drives
- noise attenuation
- flame spray surface hardening
- ceramic liners
- weld passivation
- weld stress relief



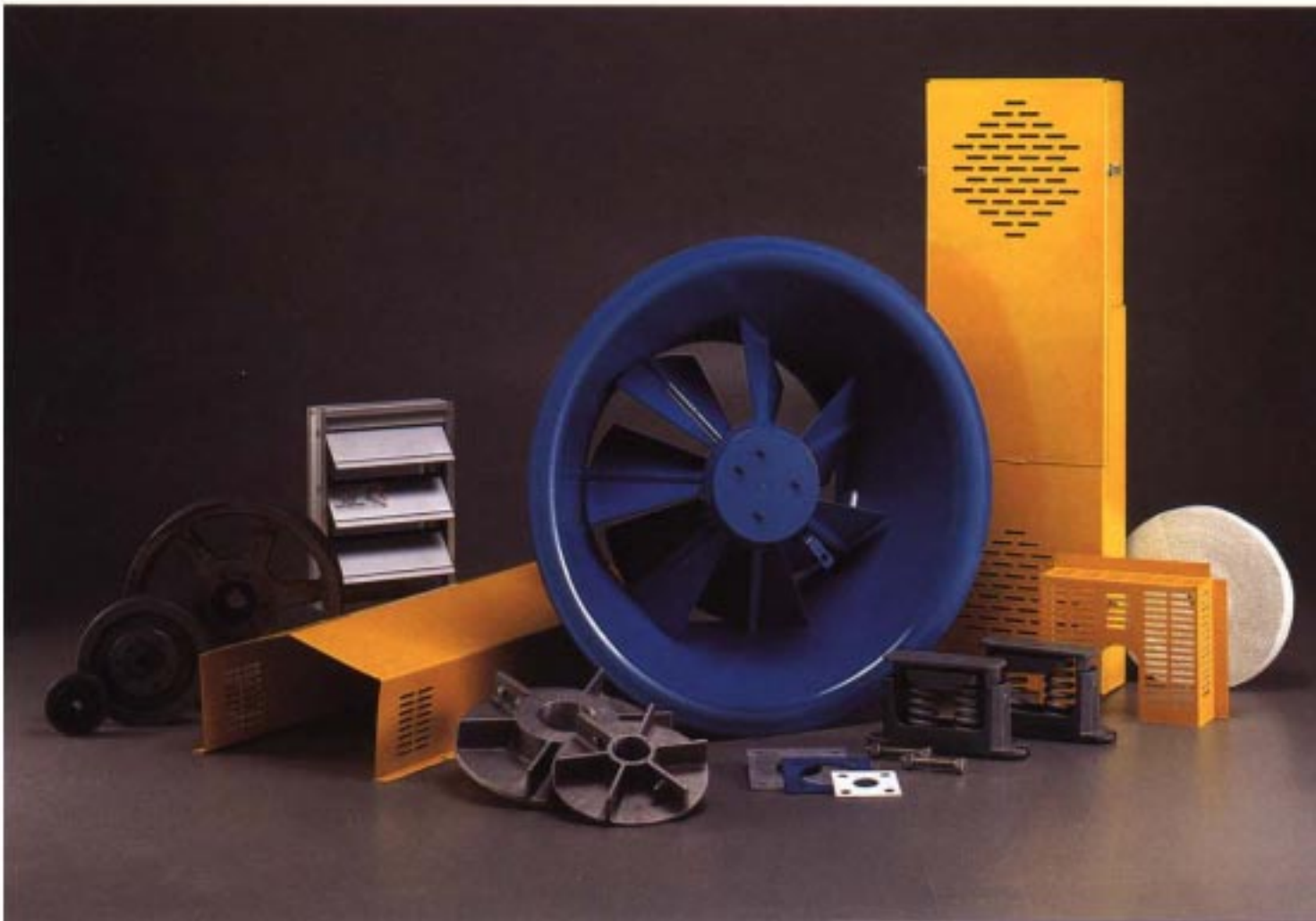


Accessories



Northern Blower fans are available with almost every conceivable “standard” accessory. From belt guards to dampers and vibration isolation, we have the components required to ensure that every fan we build can be tailored to the individual requirements of the customer.

- access doors
- belt guards
- cooling wheels
- inlet dampers
- variable inlet vanes
- outlet dampers
- gravity shutters
- shaft seals and guards
- spark resistant construction
- safety screens
- drives
- motors
- vibration isolation bases

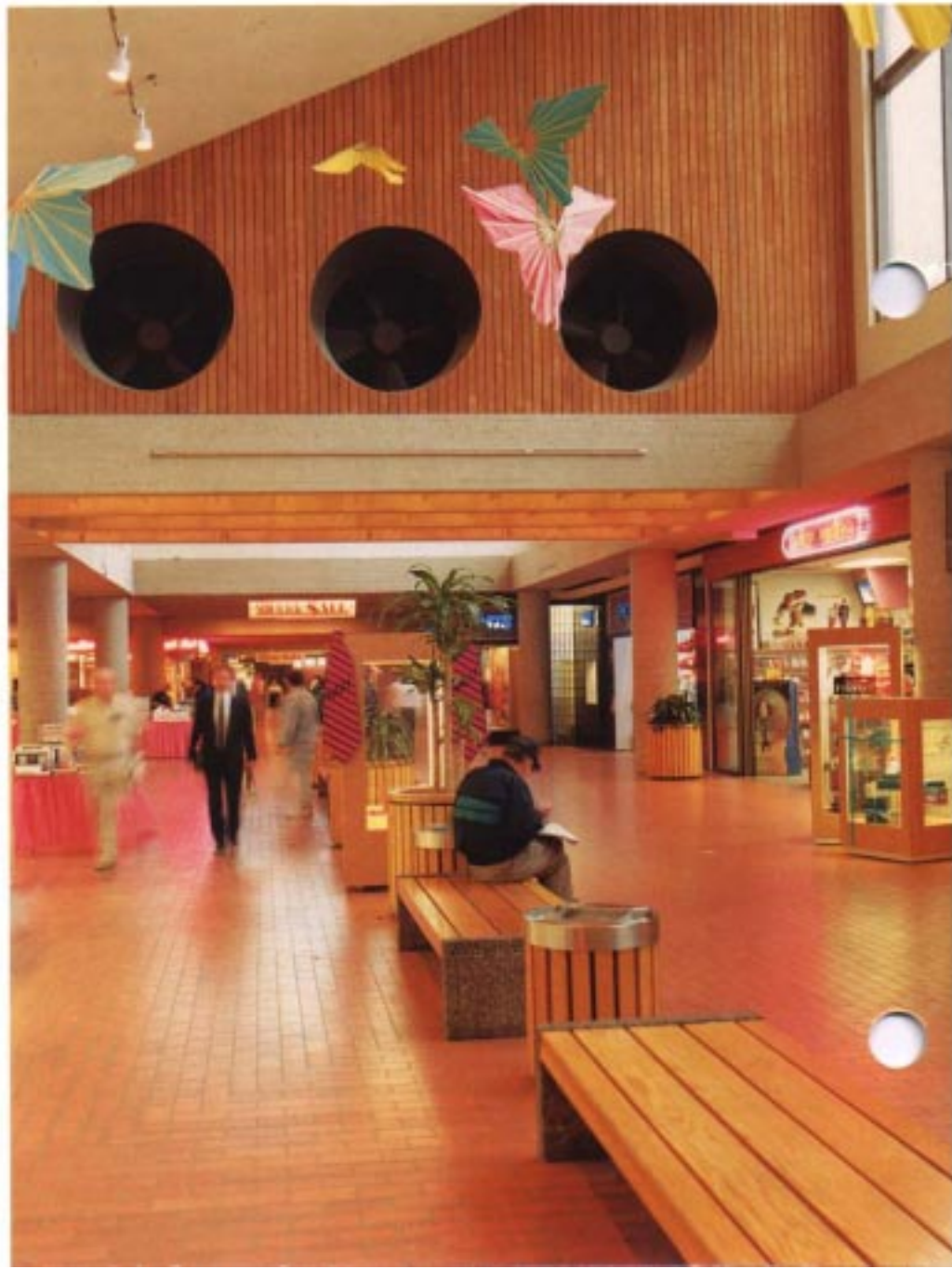


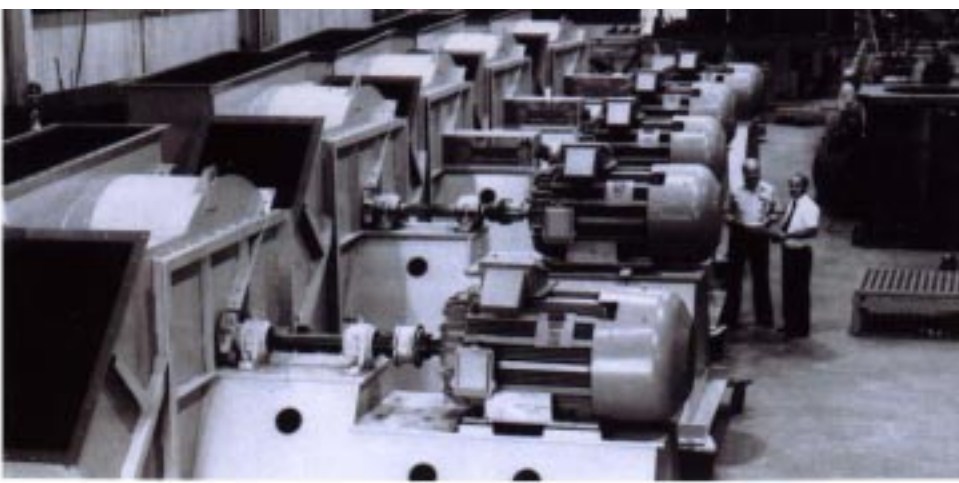


Fans for any application

Northern Blower fans are at work in almost every conceivable application. From coast to coast and all around the world Northern Blower fans are providing air where and when it is needed ...

- glass tempering
- petrochemical refining
- pulp & paper processing
- automotive paint systems
- steel & metal mills
- pollution control processes
- commercial air supply
- automotive wash systems
- clean room ventilation
- traction motor cooling
- boiler combustion air supply
- incineration
- distillation
- nuclear power generation





Northern Blower sales representatives are coast-to-coast across the continent. Backed by an experienced factory technical support team, Northern Blower representatives are ready to supply product information and application advice whenever you need it.

No matter where our clients are required in North America, we can supply them with unmatched efficiency.





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Further information regarding CML Northern Blower products may be obtained through your local CML Northern Blower agent or representative or the CML Northern Blower factory at 901 Regent Avenue West, Winnipeg, Manitoba, Canada, R2C 2Z8, 204-222-4216, fax 204-222-7601

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