



# PRODUCT GUIDE



THE NEW YORK BLOWER COMPANY  
(800) 208-7918 • nyb.com



## History

In 1889, two brothers—J.W. Mathis and August Mathis—opened a sheet-metal shop on the South Side of Chicago and formed Mathis Brothers Company. They designed and installed heating and ventilating systems.

In 1904, the brothers bought The New York Blower Company, a fan manufacturer founded in 1893. The plant was moved from Bucyrus, Ohio, to La Porte, Indiana, in 1919. The New York Blower Company was one of 12 founding companies of the National Association of Fan Manufacturers, the earliest predecessor to the Air Movement and Control Association International.

Spanning the decades since 1889, The New York Blower Company has been designing and building fans and blowers to move air in all types of commercial and industrial applications. Today, New York Blower has one of the most comprehensive lines of fans and blowers in the world, with literally thousands of designs and models available.

## International Operations

In the 1950s and 1960s, the company expanded its presence from regional to national through the development of an extensive network of sales representatives. Throughout the rest of the century and into the 2000s, acquisitions and licensees have allowed for expansion in both product lines and the industrial marketplace.

Today, that presence is worldwide with over 200 representatives, partners, and licensees established around the globe.

## Commitment To Excellence

The dedication to product research and innovation is a key ingredient of our business philosophy. Consistent capital investment has resulted in the most modern production equipment and research facilities in the industry. This has allowed New York Blower to provide an unmatched combination of technology and manufacturing expertise in its products.



The New York Blower Company is a charter member of the Air Movement and Control Association International, which was founded to establish test standards for air-moving equipment.



**MEMBER**



## Lab

New York Blower's AMCA-accredited laboratory and research center ensure the company performs to the highest standards in product development and research including sound, air performance, vibration, finite element analysis, and speed-testing.

\*Product performance data based on tests in an AMCA Accredited Laboratory are not to be construed as being licensed to bear the AMCA Seal.

# Axial Clean Air Fans

New York Blower axial fans are available in both belt-drive and direct-drive arrangements. Models can be constructed of either mild steel or aluminum.

## APPLICATIONS

- Building ventilation
- Oven exhaust
- Drying systems
- Moisture blow-off
- Fume removal
- Glass tempering
- Spray-booth exhaust
- Air curtains
- Cooling
- Grain Drying
- Flares



Vaneaxial Fan



Tubular Acoustafoil Fan



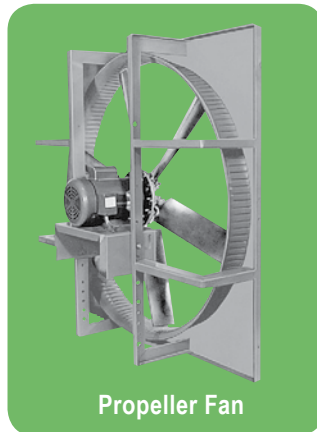
Duct Fan



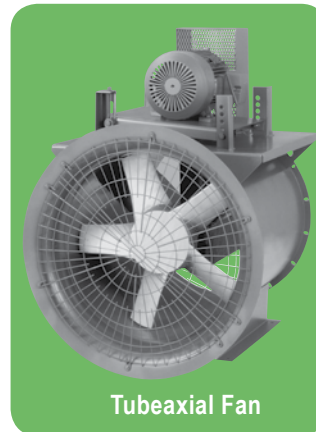
Vaneaxial Fixed Pitch



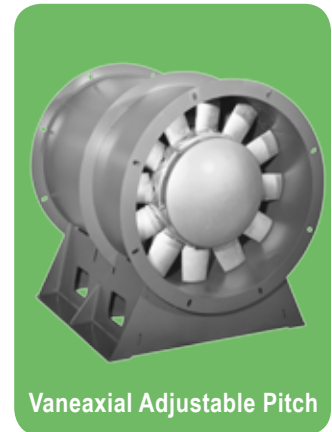
Upblast Roof Ventilator



Propeller Fan



Tubeaxial Fan



Vaneaxial Adjustable Pitch

PRODUCT LINE	DESCRIPTION	MAXIMUM		
		m <sup>3</sup> /hr	Pa	Temp. (°C)
Propeller Fans	Propeller panel fan	200,000	187	80
Upblast Roof Ventilators	Housed "Propeller" fan w/rainhood	201,000	187	80
Duct Fans	Housed axial "Propeller" fan	102,000	498	180
Tubeaxial Fans	Housed axial "Propeller" fan	146,000	747	90
Vaneaxial Fans	Housed axial "Propeller" fan w/vanes	170,000	1,250	90
Vaneaxial Fixed Pitch Fans	Housed axial "Propeller" fan w/vanes	170,000	1,990	90
Direct Drive Vaneaxial Fixed Pitch Fans	Housed axial "Propeller" fan w/vanes	170,000	1,990	40
Tubular Acoustafoil Fans	Centrifugal inline "AcF/PLR" wheel	238,000	3,490	90
Vaneaxial Adjustable Pitch Fans	Housed axial "Propeller" fan w/vanes	203,000	4,980	50

\*AcF=Backward Inclined Airfoil, PLR=Backward Inclined Single Thickness

For state-of-the-art air management systems designed and manufactured based on your application requirements

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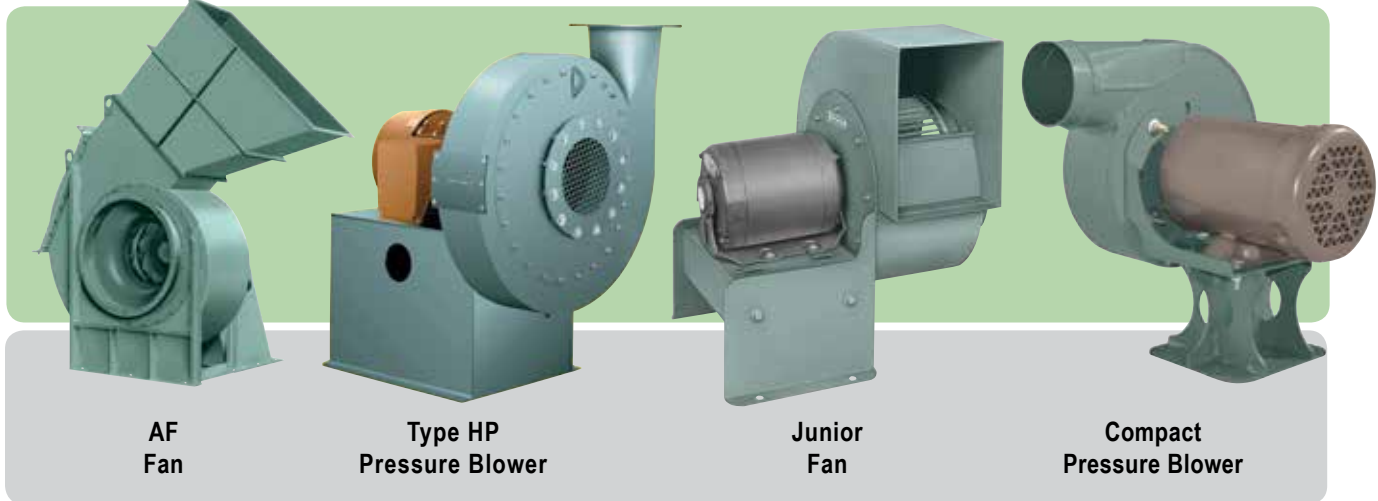


# Centrifugal Clean Air Fans

New York Blower centrifugal fans are available in both belt-drive and direct-drive arrangements. Models can be constructed of either mild steel, aluminum, stainless steel or special alloys.

## APPLICATIONS

- Dust collection
- Pneumatic conveying
- Incineration
- Combustion air
- Pollution control
- Fume-hood/Scrubber exhaust
- Chemical process
- Dryer applications



PRODUCT LINE	DESCRIPTION	MAXIMUM		
		m <sup>3</sup> /hr	Pa	Temp. (°C)
Junior Fans	Centrifugal housed "FC" wheel	7,800	62	230
General Purpose Fans	Centrifugal housed "AcF/PLR" wheel	45,000	1,990	340
Square Fans	Centrifugal square housed "AcF/PLR" wheel	49,000	5,480	80
Forward Curved DWDI Fans	Centrifugal DWDI "FC" wheel	54,000	810	50
Tubular AcoustaFoil Fans	Centrifugal inline "AcF/PLR" wheel	238,000	3,490	90
Single Width Fans	Centrifugal housed "AcF/BC/PLR" wheel	578,000	3,490	540
Double Width Fans	Centrifugal housed "AcF/PLR" wheel	595,000	3,490	50
Class IV Fans	Centrifugal housed "AcF/PLR" wheel	425,000	4,980	540
BC Pressure Blower	Centrifugal housed "BC" wheel	136,000	27,400	430
High Pressure Backward Inclined	Centrifugal housed "BC" wheel	289,000	9,960	400
AF-30 Fans	Centrifugal housed "AF/BC" wheel	209,000	7,470	400
AF-40 Fans	Centrifugal housed "AF/BC" wheel	408,000	11,500	400
AF-50 Fans	Centrifugal housed "AF/BC" wheel	221,000	12,500	400
BC-20 Fans	Centrifugal housed "BC" wheel	442,000	5,230	400
BC-40 Fans	Centrifugal housed "BC" wheel	510,000	9,960	400
Compact GI Fans	Centrifugal housed "Radial" wheel	3,700	3,490	315
Compact Pressure Blowers	Centrifugal housed "Radial" wheel	6,800	5,730	315
Pressure Blowers	Centrifugal housed "Radial" wheel	8,800	14,400	315
Type HP Pressure Blowers	Centrifugal housed "Radial" wheel	34,000	31,900	315
Surge Limiting Pressure Blowers	Centrifugal housed "Radial" wheel	50,000	44,800	640
Plenum Fans	Centrifugal un-housed "AcF/BC/PLR" wheel	306,000	3,240	50
Plug Fans	Centrifugal un-housed "AcF/PLR" wheel	126,000	4,980	705
Air Kits	Centrifugal housed "FC" wheel	170,000	1,490	540

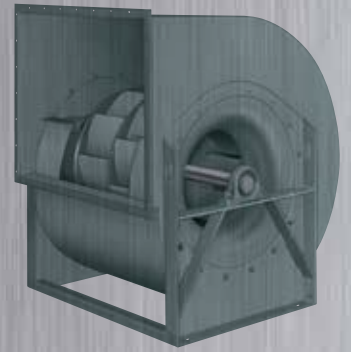
\*FC=Forward Curved, AcF/AF=Backward Inclined Airfoil, BC=Backward Inclined Backward Curve, PLR=Backward Inclined Single Thickness



**General Purpose Fan**



**Tubular  
Acoustafoil Fan**



**Double-Width Fan**



**BC Pressure  
Blower**



# CLASS IV FAN

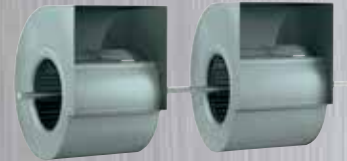
All of our products are designed  
and manufactured to exact specifications



**Plenum Fan**



**Plug Fan**



**Air Kits**



**Single-Width Fan**



**Square Fan**



**Pressure Blower**

# Centrifugal Dust/Material Handling Fans

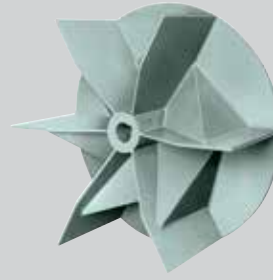
Centrifugal fans in belt-drive and direct-drive arrangements, constructed of mild steel, aluminum, stainless steel or special alloys.



Compact GI



Series 20 GI Fan



RD Wheel



Series 60 Fan



### Engineering Letters

Visit [nyb.com/eng\\_letters.asp](http://nyb.com/eng_letters.asp) to review twenty-eight “letters” that cover a wide range of technical fan subjects.

### APPLICATIONS

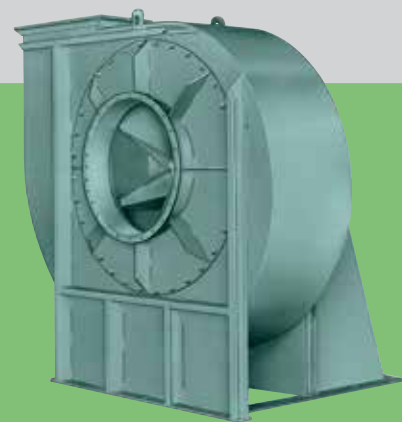
- Dust collection
- Pneumatic conveying
- Scrubber exhaust
- Incineration
- Combustion air
- Pollution control
- Fume-hood exhaust
- Chemical process
- Dryer applications
- Bulk material handling
- Paper converting



Series 30 GI Fan



RTS Fan



Series 45 GI Fan

PRODUCT LINE	DESCRIPTION	MAXIMUM		
		m <sup>3</sup> /hr	Pa	Temp. (°C)
Compact GI Fans	Centrifugal housed “Radial” wheel	3,700	3,490	315
Compact Pressure Blowers	Centrifugal housed “Radial” wheel	6,800	5,730	315
Series 20 Fans	Centrifugal housed “Radial” wheel	131,000	5,480	540
Series 30 Fans	Centrifugal housed “Radial” wheel	161,000	7,970	540
Series 45 Fans	Centrifugal housed “Radial” wheel	170,000	11,500	540
Series 60 Fans	Centrifugal housed “Radial Tip” wheel	112,000	17,400	430
RTS	Centrifugal housed “Radial Tip” wheel	425,000	8,970	400

# Fiberglass-Reinforced-Plastic

# FRP

Fiberglass-reinforced-plastic [FRP], fans with alternative corrosion-resistant materials, stainless steel, aluminum, hot-dip galvanizing and other special coatings.



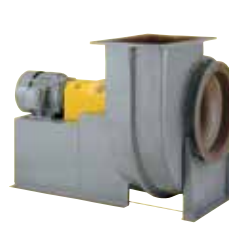
FRP General-Purpose Fume Exhauster



FRP Pressure Blower



FRP Radial Fume Exhauster



FRP Fume Exhauster

PRODUCT LINE	DESCRIPTION	MAXIMUM		
		m <sup>3</sup> /hr	Pa	Temp. (°C)
FRP Radial Fume Exhausters	Centrifugal housed "Radial" wheel	12,800	623	120
FRP Pressure Blowers	Centrifugal housed "Radial" wheel	8,500	8,970	120
FRP General Purpose Fume Exhausters	Centrifugal housed "ST" wheel	124,000	4,230	120
FRP Fume Exhausters	Centrifugal housed "BC" wheel	143,000	6,230	120

\* BC=Backward Inclined Backward Curve, ST=Backward Inclined Single Thickness

## Process Components



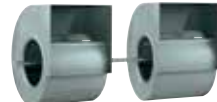
Plenum Fan



Plug Fan



Forward Curved DWDI Fan



Air Kits

### APPLICATIONS

- Air handlers
- Ovens and dryers
- Clean rooms
- Air curtains
- HVAC ventilation
- Air recirculation
- Spray booths

PRODUCT LINE	DESCRIPTION	MAXIMUM		
		m <sup>3</sup> /hr	Pa	Temp. (°C)
Forward Curved DWDI Fans	Centrifugal housed "FC" wheel	54,000	872	50
Plenum Fans	Centrifugal un-housed "AcF/BC/PLR" wheel	306,000	3,240	50
Plug Fans	Centrifugal un-housed "AcF/PLR" wheel	213,000	4,980	705
Air Kits	Centrifugal housed "FC" wheel	170,000	1,490	540

\*FC=Forward Curved, AcF=Backward Inclined Airfoil, BC=Backward Inclined Backward Curve, PLR=Backward Inclined Single Thickness

## Fan Components



Acoustafoil® Wheel



Backward Curved Wheel



PLR Wheel



Inlet Cone



Housing

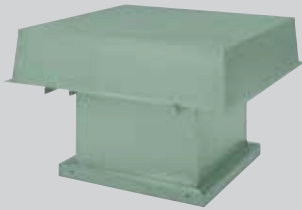
PRODUCT LINE	DESCRIPTION	MAXIMUM		
		m <sup>3</sup> /hr	Pa	Temp. (°C)
Wheels	Centrifugal "AcF/BC/PLR" wheel (10"-89" dia)	425,000	4,980	705
Cones	Spun inlet cones for wheel (10"-89" dia)	-	-	705
Housings	Housing for "AcF/BC/PLR" wheel (10"-89")	-	9,960	705

\*FC=Forward Curved, AcF=Backward Inclined Airfoil, BC=Backward Inclined Backward Curve, PLR=Backward Inclined Single Thickness

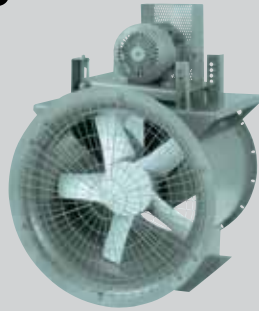
The New York Blower Company has been providing air-handling equipment to the construction and process industries for over 125 years. To ensure the highest quality, OEM components use the same designs as our standard products.



# Roof Ventilators



**Hooded Roof Ventilator**



**Tubeaxial Fan**



**Duct Fan**

## APPLICATIONS

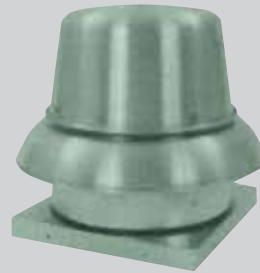
- Commercial ventilation
- Oven exhaust
- Institutional HVAC
- Industrial ventilation
- Smoke/fume removal
- Agriculture



**Tubular Acoustafoil Fan**



**Vaneaxial Fan**



**Centrifugal Roof Exhauster**



**Upblast Roof Ventilator**

New York Blower Roof Ventilators are available in both belt-drive and direct-drive arrangements. Models can be constructed of either mild steel or aluminum.

PRODUCT LINE	DESCRIPTION	MAXIMUM		
		m <sup>3</sup> /hr	Pa	Temp. (°C)
Hooded Roof Ventilators	Housed "Propeller" fan w/mushroom cap	180,000	187	40
Upblast Roof Ventilators	Housed "Propeller" fan w/rainhood	200,000	187	40
Centrifugal Roof Ventilators	Housed "Centrifugal" fan w/rainhood	59,500	810	40
Duct Fans	Housed axial "Propeller" fan	102,000	498	175
Tubeaxial Fans	Housed axial "Propeller" fan	146,000	747	90
Vaneaxial Fans	Housed axial "Propeller" fan w/vanes	170,000	1,250	90
Tubular Acoustafoil Fans	Centrifugal inline "AcF/PLR" wheel	238,000	3,490	90

\* AcF=Backward Inclined Airfoil, PLR=Backward Inclined Single Thickness

# Heating Products

The New York Blower Company manufactures complete lines of steam Unit Heaters and steam heating coils. Because there are numerous coil sizes and two different fin styles available, we suggest you contact your

New York Blower representative to assist you in making the final selection.



## APPLICATIONS

- Food processing
- Industrial heating
- Drying systems
- Make-Up Air systems

PRODUCT LINE	DESCRIPTION	m <sup>3</sup> /hr	MAXIMUM	
			Max. Steam Temp (°C)	Max. Steam Pressure
Unit Heaters	Steel heating coil w/propeller fan	9,900	315	13.79 bar
STEELfin Coils	Steel heating coil	30,000	315	13.79 bar



# Heavy Industrial Fans



## INDUSTRIES

- Cement & Lime
- Iron & Steel
- Foundries
- Metals & Minerals
- Paper & Pulp
- Petrochemical
- Power Generation
- Water Treatment

## Custom Engineered

Our fans are available in standard catalog sizes or as custom designed units. Each application is analyzed on its own performance and unique requirements. Units can be built in accordance with the customers' specifications.

## DESIGN FEATURES

**Fan Designs:** Centrifugal, Axial, Radial

**Volume:** to over 1,000,000 CFM

**Pressures:** beyond 150" WG

**Temperatures:** to 1800°F

**Sizes:** beyond 150" in diameter

**Arrangements:** 1, 2, 3, 4, 7, 8, 9 and 10

**Available Materials of Construction:**

Carbon Steel, Stainless Steel, Abrasion Resistant Materials, Corrosion Resistant Materials, Inconel®, Carpenter 20, Hastelloy and more.

## Testing Services:

- ASTM B117 Salt Fog Chamber Testing for Corrosion
- Balance and Vibration Tests
- Computational Fluid Dynamics (CFD)
- Finite Element Analysis (FEA)
- Impact (Bump) Testing
- Material Identification/Certification
- Modal Analysis
- Stress Analysis
- Prototype/Product Evaluation
- Wheel Deconstruction/Deformation Testing

## Repair & Rebuild

New York Blower uses their experienced engineers, technicians and Field Service Department to assess and analyze any field issues associated with fan equipment. Fan assemblies can be quickly tested in the field or at the the AMCA accredited laboratory for a quick diagnosis of air, sound and vibration problems. Engineered solutions include modified liners, stiffeners, blade tips, metallurgical changes and fabricated inlets to accomodate changes in application requirements or improve longevity of the equipment. Regardless of the original manufacturer, NYB can accommodate all repair, rebuild and retrofit needs.

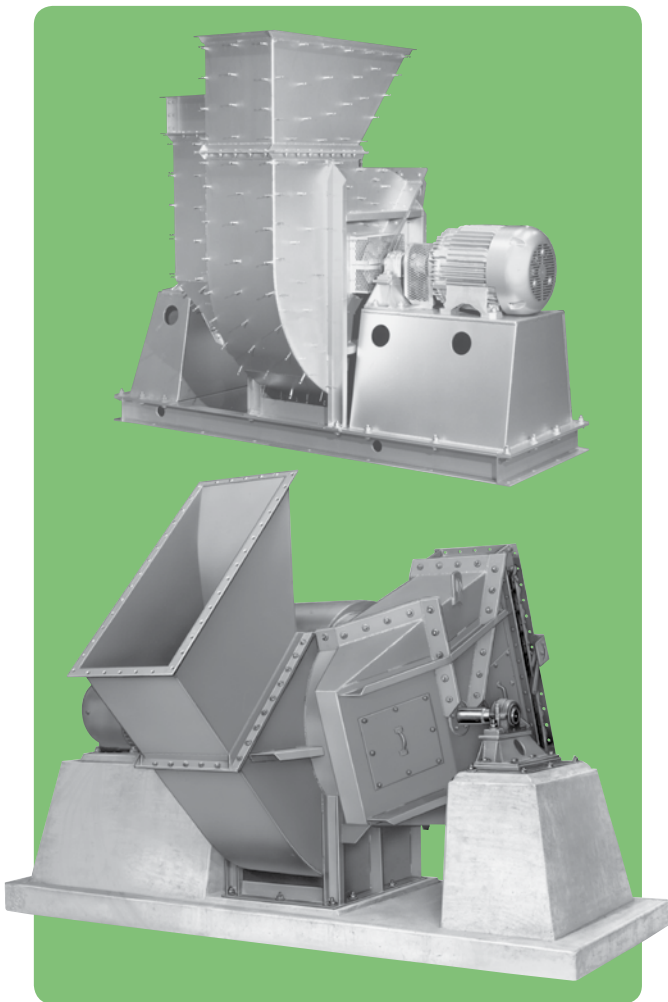


Pictured is a wheel from an induced draft fan located on the dirty side of a baghouse exhausting blast furnace. 82" diameter wheel with chromium carbide blade liners.



In addition to wheels, NYB has the ability to field measure difficult to replace components including cones, shafts, wheels and more.

# Custom Products



New York Blower's custom-engineered products are designed to exacting specifications. Designs meet specific flow, pressure, temperature, leak integrity, and configuration requirements.

Specialty areas include:

- Configurations—choices range from having fan wheels mounted directly on motor shafts to independent pedestal configurations . . . to match mounting, space limitations, and application requirements.
- High temperatures—employing alloys for strength and insulation, and cladding for heat retention and protection.
- Corrosion/abrasion-resistance—alternatives include a wide variety of alloys such as Hastelloy®, Ferallium, Inconel®, Chrome Carbide, and Corten.  
*Hastelloy® is a registered trademark of Haynes International, Inc. Inconel® is a registered trademark of Special Metals Corporation.*
- Low leakage—options include purgeable mechanical seals, full-face gasketing, double welding of housing seams, and factory pressure testing.
- Volatile gases—spark-resistant construction incorporating special materials, buffers, and design elements.
- Petrochem (API), Nuclear (NQA-1), Coal (NFPA), Etc.

**Contact your New York Blower representative with your specific application requirements.**

## Quality & Experience

Our fan designs provide the highest aerodynamic efficiencies compatible with specific systems and gas stream requirements. Durable fan structures are designed for long life in the harshest and most demanding industrial applications. All NYB products undergo extensive air performance, sound and quality assurance testing prior to release to the market.

## On-time Delivery

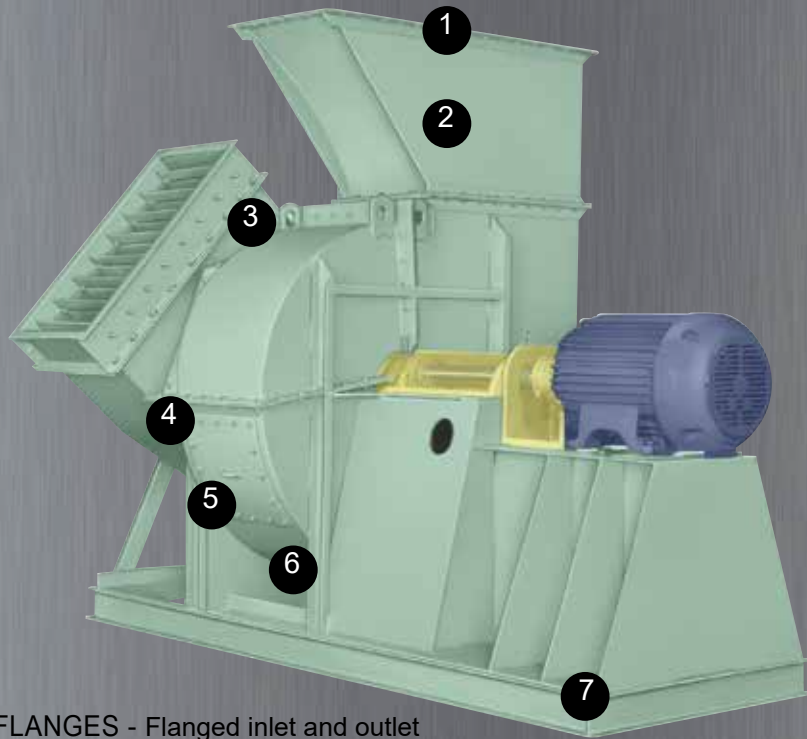
In today's dynamic market, where the formula "Time is money" is more applicable than ever, the New York Blower Company remains unmatched in delivery reliability. The dependable, timely shipments have become synonymous with NYB, as we never fail to meet our customers' deadlines. This outstanding integrity and reliability is highly appreciated by our customers and clearly set us apart from the competition.

## Expansive Manufacturing Facilities

NYB has over 460,000 ft<sup>2</sup> of manufacturing floor space that is fully equipped to fulfill fabricating and machining requirements. The AMCA accredited laboratory has six test chambers of various flows (up to 130,000 CFM) and pressure capabilities (up to 100" WC) and two reverberant sound rooms.

# NYB Options

We can customize your fan with a wide variety of accessories and modifications to meet your unique requirements.



- 1 FLANGES - Flanged inlet and outlet connections standard on all sizes.
- 2 EVASE - Provides static-pressure regain and reduced discharge velocities.
- 3 INLET BOX - Minimizes entry losses also available with parallel-blade damper for efficient volume control.
- 4 SPLITHOUSING CONSTRUCTION - Section can be removed without disturbing inlet or outlet duct connections.
- 5 CLEANOUT DOOR - Gasketed door for secure seal.
- 6 DRAIN - 1-1/2" tank flange located at lowest point in housing scroll.
- 7 UNITARY BASE - Structural-steel base provides common support for fan, motor, and drive components. Available with spring or rubber-in-shear isolators.



## Motors and Drives

A wide array of motors, belt-drives, and coupling components available factory mounted by New York Blower.

## Heat-Fan

### Construction

Fans handling gas streams above 301°F furnished with shaft coolers and guards . . . surfaces are coated with high-temperature paint . . . refer to each fan line for specific limitations.



## Inlet-Vane

### Damper

Inlet vane dampers pre-spins the air entering the fan inlet providing a very efficient method of controlling the fan.



## Special Alloys

Most fans and models available with various grades of stainless steel, exotic alloys or aluminum for corrosive, non-abrasive airstream applications.

## Shaft Seals

A variety of shaft seals including mechanical type, lip type and ceramic-felt type available.

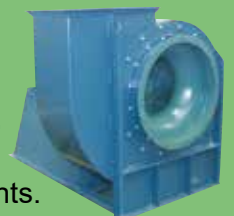
## Outlet Damper

Outlet dampers available with parallel or opposed blades to suit dampering requirements.



## Coatings

Cost-effective protective coatings under a variety of trade names available to increase the fan's resistance to adverse, corrosive environments.







## THE NEW YORK BLOWER COMPANY

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Go to [nyb.com](http://nyb.com) to download more information. Complete NYB Catalog, Product Bulletins, Fan-Selection Program, Guide Specifications, Engineering Letters, Installation and Maintenance Literature, Listing of New York Blower Representatives and other resources.

All charts in this catalog have been designed to assist you in locating the fan that best meets your system requirements.

Generally, there is more than one product line that will meet a particular flow and pressure requirement so we suggest you contact your New York Blower representative to assist you in making the final selection.