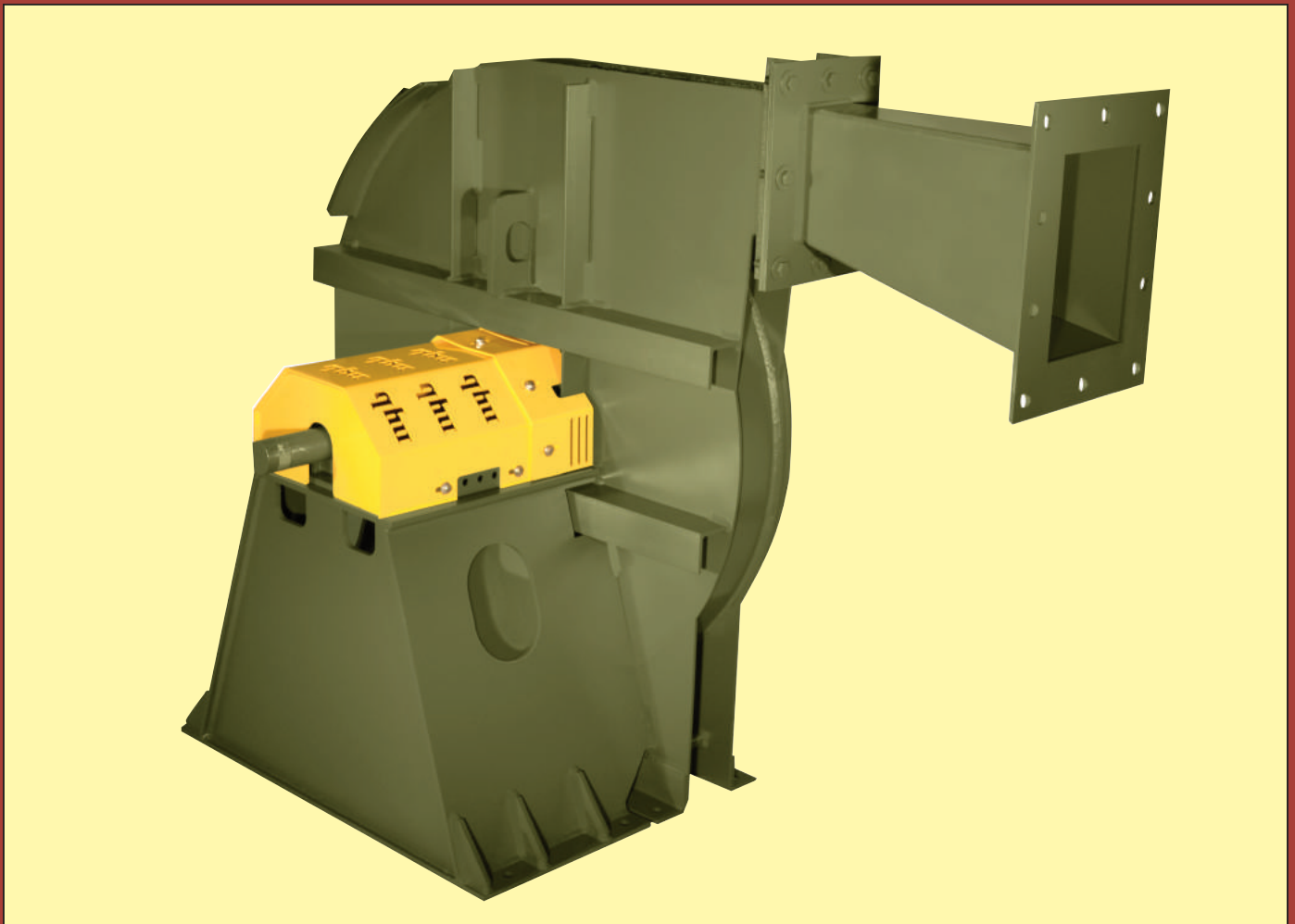


# SURGE LIMITING PB FANS



- Designed for high pressure, low flow applications with stringent job process requirements
- Capacities to 30,000 CFM
- Static pressures to 180"WG
- Temperatures to 1,200°F.



THE NEW YORK BLOWER COMPANY  
7660 Quincy Street  
Willowbrook, IL 60527-5530

Visit us on the Web: <http://www.nyb.com>  
Phone: (800) 208-7918 Email: [nyb@nyb.com](mailto:nyb@nyb.com)

# SURGE LIMITING PB FANS

High efficiency, Surge Limiting PB Fans for low flow, high pressure process applications.

## DESIGN FEATURES

- Completely customizable to accommodate unique process and job site conditions including elevated temperatures, corrosive gas streams, and stringent leakage requirements.
- Unique wheel and housing design minimizes surge without the need for auxiliary equipment/accessories when process conditions approach shutoff.
- Wheel sizes from 22" to 98" diameters. Custom sizes are also available.
- Capacities to 30,000 CFM.
- Pressures to 180"WG.
- Temperatures to 1,200°F.
- Choice of direct-drive or belt-drive arrangements.
- Optional Arrangement 7 with integral-base eliminates the need for field erection of independent bearing pedestals and sole plates...complete factory-assembled units up to Size 73 are test run and balanced prior to shipment. Consult nyb.
- Available in clockwise and counterclockwise rotations in customizable discharge positions.

## CONSTRUCTION FEATURES

**Flanged inlet and outlet**—standard on all sizes...furnished with bolt holes for ease of installation.

**Lifting eyes**—standard on all sizes for ease of handling.

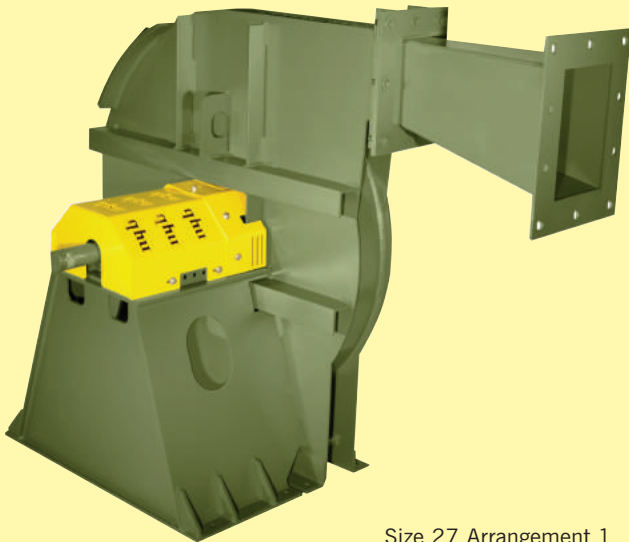
**Shafting**—high quality, close tolerance, turned, ground, and polished.

**Ceramic-felt shaft seals**—standard on all Arr. 1 and 8 fans...multiple seal elements compressed between metal backing plate and retainer.

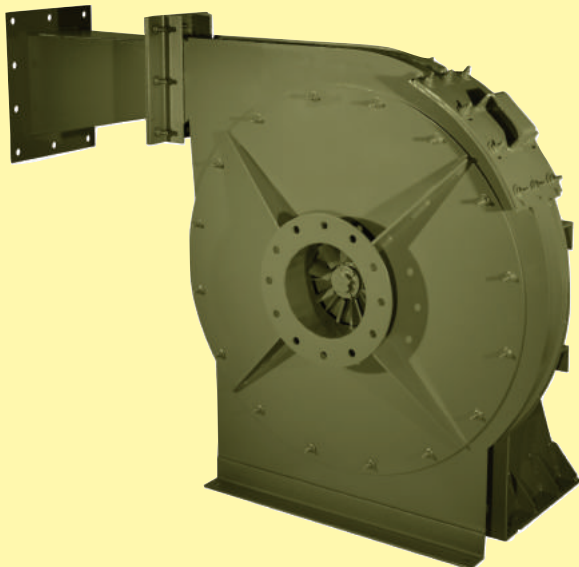
**Precision balancing**—all Surge Limiting PB wheels are dynamically balanced before final assembly...after final assembly all fans are given a final balance check on a rigid test block at the specified operating speed.

**Heavy-duty bearings**—selected per job based on design performance, temperature, and operating speed to ensure long life at the design conditions.

**Standard two-coat paint system**—two coats of green industrial enamel. Heat Fans (301°F. and above) are coated with high-temperature paint.



Size 27 Arrangement 1  
Surge Limiting PB with  
evase, shaft and bearing  
guard.

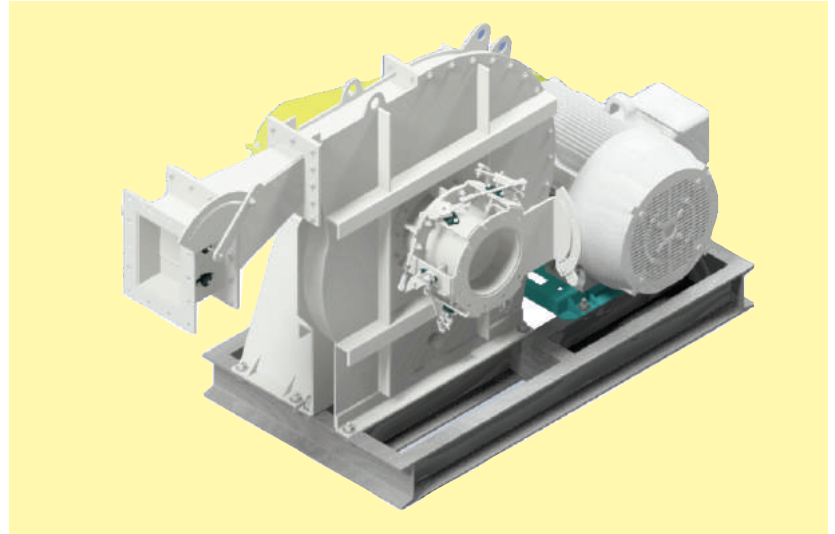


Size 27 Arrangement 1 Surge  
Limiting PB with cleanout door,  
evase, flanged inlet and outlet.

# SURGE LIMITING PB RADIAL BLADE WHEELS

**Surge Limiting PB Radial Blade wheels**—rugged, all-welded wheels designed with blade inducers for stable operation from shutoff to wide open without the need for special accessories. Open shrouded design is capable of handling light particulate-laden dust or moist airstreams. Air-handling efficiencies of the Surge Limiting PB Fans are higher than common radial fans at low flow conditions and, therefore, offer lower noise levels.

See pages 6–8 for performance information, or use **nyb** Online Selection Software at [www.nyb.com/online-fan-selection-software/](http://www.nyb.com/online-fan-selection-software/) for more specific performance details.



## SAFETY EQUIPMENT

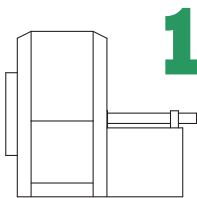
Belt guards, inlet and outlet guards, shaft and bearing guards, and coupling guards are available from The New York Blower Company. Contact your **nyb** representative for further information.

NOTE: Safe operation of air-moving equipment is dependent on proper installation and maintenance including selection and use of appropriate safety accessories for the specific installation. The system designer must consider providing guards for all exposed moving parts as well as protection from access to high-velocity airstreams. Improper application, installation, maintenance, or safety-guard selection can create

danger to life and limb of personnel. Users and/or installers should read “Recommended Safety Practices For Air Moving Devices” as published by the Air Movement and Control Association International, 30 West University Drive, Arlington Heights, Illinois 60004, which is included with the packing slips for all shipments from **nyb** and available on request.

# ARRANGEMENT FLEXIBILITY

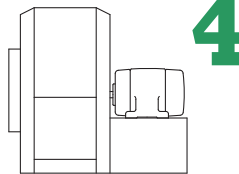
## ARRANGEMENT 1



Overhung wheel on shaft and bearing assembly isolates fan bearings from airstream. Normally this arrangement is used for V-belt drive fans which provides flexibility in fan performance.

Maximum temperature:  
Standard fan: 300°F.  
Heat fan: 1200°F.

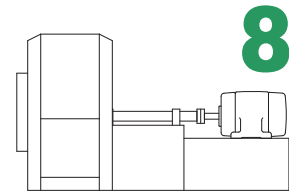
## ARRANGEMENT 4



Wheel mounted directly on motor shaft to provide the most compact design. Elimination of shaft and bearings for minimum maintenance. Narrow-width wheel designs permit higher speeds and pressures.

Maximum temperature:  
Standard fan: 180°F.  
Heat fan: 600°F.

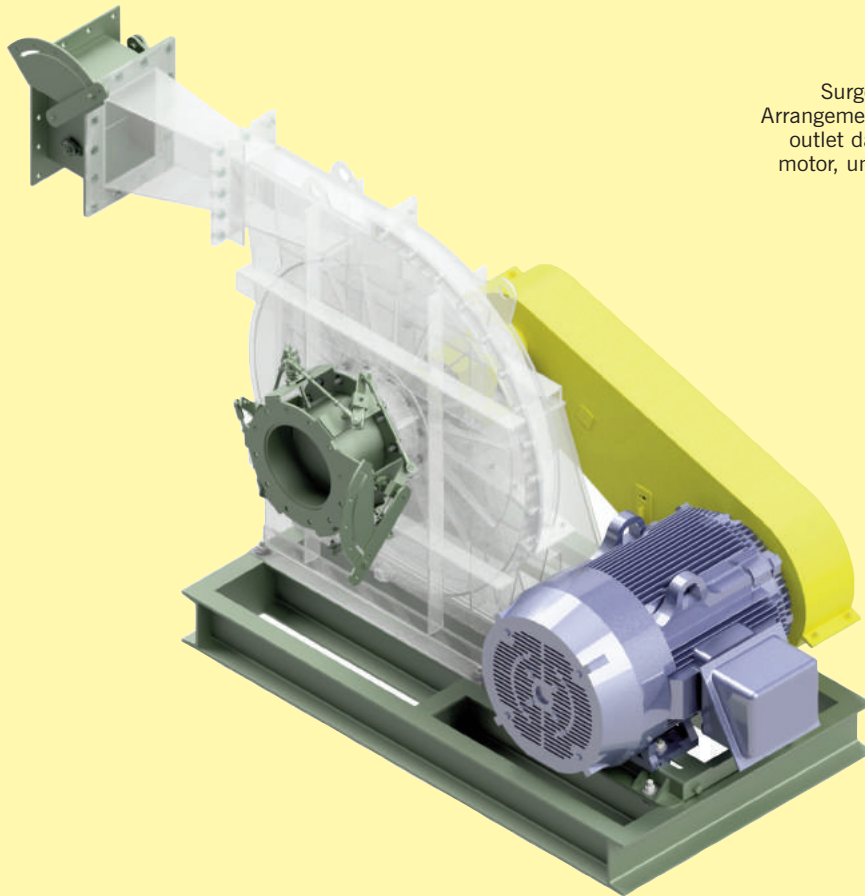
## ARRANGEMENT 8



Similar to Arrangement 1 but with integral motor base to accommodate motor and coupling.

Maximum temperature:  
Standard fan: 300°F.  
Heat fan: 1200°F.

# ACCESSORIES



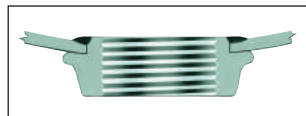
Surge Limiting Pressure Blower. Arrangement 1 with optional louvered outlet damper, vortex inlet damper, motor, unitary base, belt guard, and shaft/bearing guard.

- **COMPANION FLANGES**

Designed to fit flush with fan inlet and outlet flanges, provided with a matching hole pattern.

- **DRAIN**

Welded tank flange [NPT], 1½" located at the lowest point in the housing scroll.



- **CLEANOUT DOOR**

Two types of gasketed door available...**bolted**: closely spaced studs keep door securely sealed...**raised bolted**: allows for insulation when desired, door raised 2" from the fan housing.

- **INLET BOX**

Minimizes entry losses normally associated with 90° turns at or near fan inlet...also available with parallel-blade damper for efficient volume control.

- **SHAFT SEALS**

Ceramic-felt shaft seals consisting of compressed ceramic felt elements are standard on Arrangements 1 and 8. Lubricated lip seals [Buna-N, Teflon®, and Viton®] and gas-purgeable mechanical seals are also available. Consult your **nyb** representative for availability.

[Teflon is a registered trademark of DuPont]  
[Viton is a registered trademark of DuPont Dow Elastomers.]

- **INLET DAMPERS**

External vane construction provides pre-spun air effect to control fan performance efficiently...maximum temperature: 800°F.

- **VIBRATION ISOLATION**

Rubber-in-shear or spring-type isolation mounted to rugged structural unitary base reduces the transmission of vibration to the mounting structure.

- **UNITARY BASE**

Arrangement 1 fan, motor, and guards can be mounted and shipped on a rugged, structural-steel base. Factory-assembled and run-tested prior to shipment.

- **OUTLET DAMPER**

Heavy gauge dampers are available for volume control.

- **OTHER ACCESSORIES**

Also available from **nyb** are drive components such as motors, couplings, and v-belt drives as well as a variety of preventive-maintenance products including vibration detectors, bearing-temperature detectors, and zero-speed switches.

# MODIFICATIONS

- **COATINGS**

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

- **INSULATION STUDS**

2-inch long weld-studs located on all surfaces of housing exterior...recommended for use with field installed insulation...studs are normally mild steel; stainless steel and other alloys available on request.

- **HEAT-FAN CONSTRUCTION**

Standard Arrangement 1 and 8 Surge Limiting PB Fans are designed to handle airstreams to 300°F.

Surge Limiting PB Fans handling 301°F. to 1200°F. airstreams are furnished with shaft cooler and shaft cooler guard, and all surfaces are coated with high temperature paint. Fans designed for temperatures above 800°F. are custom designed per the application's requirements.

NOTE: Contact **nyb** when the intended service involves a temperature rate change exceeding 20°F. per minute.

- **NARROW-WIDTH AND SPECIAL DIAMETER CONSTRUCTION**

Wheel widths and diameters can be adjusted to meet volume and pressure requirements at most efficient operating point.

- **SPLIT-HOUSING CONSTRUCTION**

Provides for wheel and shaft removal...split portion can be removed without disturbing the inlet or outlet connections.

- **SPARK-RESISTANT CONSTRUCTION [SRC]**

Intended to minimize the potential for any two or more fan components to generate sparks within the airstream by rubbing or striking during operation.

The following types are available:

**AMCA A [AIRSTREAM] SRC (on application)**

To include all airstream parts constructed of a spark-resistant alloy...maximum temperature: 200°F.

**AMCA B [WHEEL] SRC (on application)**

To include the fan wheel constructed of a spark-resistant alloy and a buffer plate around the housing shaft-hole opening...maximum temperature: 200°F.

**AMCA C [BUFFER] SRC (on application)**

To include a spark-resistant alloy buffer affixed to the housing interior adjacent to the wheel backplate, a spark-resistant alloy inlet assembly, and a buffer plate around the housing shaft-hole opening...maximum temperature: 650°F.

**ALL TYPES SRC**

Fan is to be so constructed such that no bearings, drive components, or electrical apparatus are located in the airstream...the user must electrically ground all fan and system components.



Size 60 Surge Limiting PB. Optional Arrangement 7S1 with cleanout door, split housing, unitary base, shaft seals, and inlet box.

Surge Limiting PB Fan with cleanout door, motor, coupling pressure tap, split housing, and unitary base.

- **SPECIAL ALLOYS**

Surge Limiting PB Fans are available with various grades of stainless steel, Inconel, Hastelloy, and Carpenter 20 for corrosive, non-abrasive airstream contaminants. Consult **nyb** when alternate materials are required.

- **TECHNICAL SUPPORT**

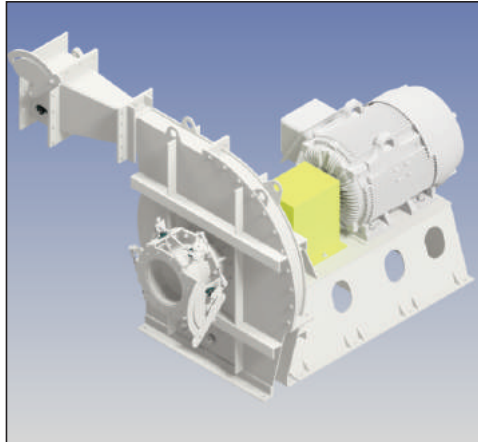
**nyb** has developed numerous engineering and application support tools for system designers and operators. For further information, contact your local **nyb** sales representative or visit our web site at [www.nyb.com](http://www.nyb.com).

# SURGE LIMITING PB FANS

## SPEED CAPABILITIES

Maximum wheel operating speeds are shown in Chart I for Surge Limiting PB Fans with the standard high-strength steel wheel. Substitution of alternate wheel alloys, or modifications to the standard shaft and bearing selection, may alter the maximum safe speed.

\*Consult nyb's online selection program at [www.nyb.com/online-fan-selection-software/](http://www.nyb.com/online-fan-selection-software/) for alternate materials such as stainless steel.



## CHART I

MAXIMUM WHEEL OPERATING SPEEDS		STANDARD WHEEL MATERIALS OF CONSTRUCTION AT 100° F
Fan size	Wheel Max Safe Speed	Carbon Steel Materials
22	3600	ASTM A36
24	3600	ASTM A36
27	3600	ASTM A36
30	3600	ASTM A36
33	3600	ASTM A36
36	3600	ASTM A588
40	3600	ASTM A588
44	3600	ASTM A514
49	1800	ASTM A36
54	1800	ASTM A36
60	1800	ASTM A36
66	1800	ASTM A36
73	1800	ASTM A588
80	1800	ASTM A588
89	1200	ASTM A36
98	1200	ASTM A36

## CORRECTION FACTORS

Performance is based on actual cubic feet per minute [ACFM] at the blower inlet at standard density [.075 lbs./ft.<sup>3</sup>] and static pressure at the blower outlet. Static pressure capabilities are shown in inches water gauge [”WG].

Air density corrections are necessary for proper selection when air density varies from the standard .075 lbs./ft.<sup>3</sup> at 70°F. at sea level. This also occurs when negative static pressure exists [rarefaction] on the inlet side of the fan. Multiply the required static pressure at conditions by the appropriate factors in Charts II, III, and IV to obtain corrected pressure for blower selection. Pressure and BHP will be reduced at conditions by the inverse of these factors. Multiply one factor by the other if temperature, altitude, and rarefaction are non-standard. For example: If the installation is located at an altitude of 4000 feet, the gas temperature is 300°F., and the inlet pressure is -40”WG, the correction factor is 1.84 [1.16 x 1.43 x 1.11].

## CHART II TEMPERATURE CORRECTIONS

Temp. °F.	Factor
0	.87
20	.91
40	.94
60	.98
70	1.00
80	1.02
100	1.06
120	1.09
160	1.17
200	1.25
300	1.43
400	1.62
500	1.81
600	2.00
800	2.38
1000	2.76
1200	3.14

## CHART III ALTITUDE [ft.] CORRECTIONS

Alt.	Factor
0	1.00
500	1.02
1000	1.04
1500	1.06
2000	1.08
2500	1.10
3000	1.12
3500	1.14
4000	1.16
4500	1.18
5000	1.20
5500	1.23
6000	1.25
7000	1.30
8000	1.35
9000	1.40
10000	1.45

## CHART IV RAREFICATION CORRECTIONS

Neg. inlet pressure ”WG	Factor
40	1.11
50	1.14
60	1.17
70	1.21
80	1.24
90	1.28
100	1.32
110	1.37
120	1.42
130	1.47
140	1.52
150	1.58
160	1.65
170	1.71
180	1.79

NOTE: If correction factor for both temperature and altitude is required, multiply factors from Charts II and III together: 3000’ and 600°F. 1.12 x 2.00 = 2.24 [combined factor].

## FAN TO SIZE AND DRAWINGS ON DEMAND

Fan to Size online allows customers to select fans without the need to download software on their computers or tablets. Fans can be selected by product categories, types or applications. Additionally, drawings are generated to supplement fan selections.

### FAN TO SIZE SELECTION BENEFITS

- Compare multiple product lines.
- Metric or English units.
- Add silencers.
- Add accessories.
- Save data for future use.
- Calculate density based on rarefaction, compression, and molecular weight.

### DRAWINGS ON DEMAND BENEFITS

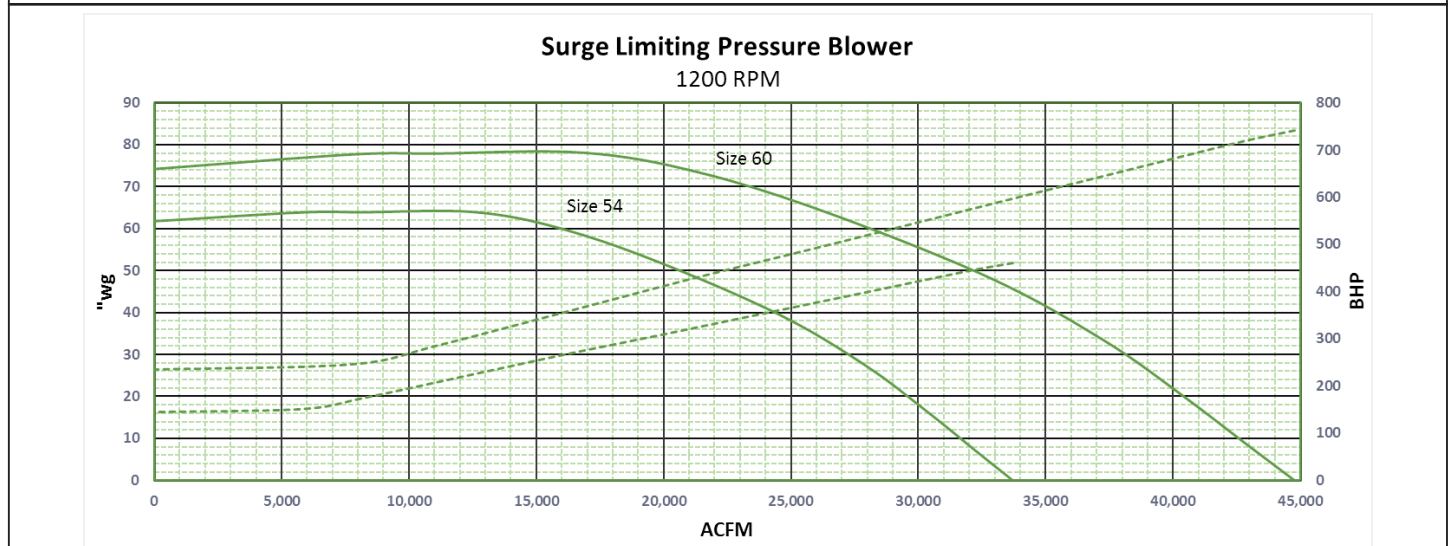
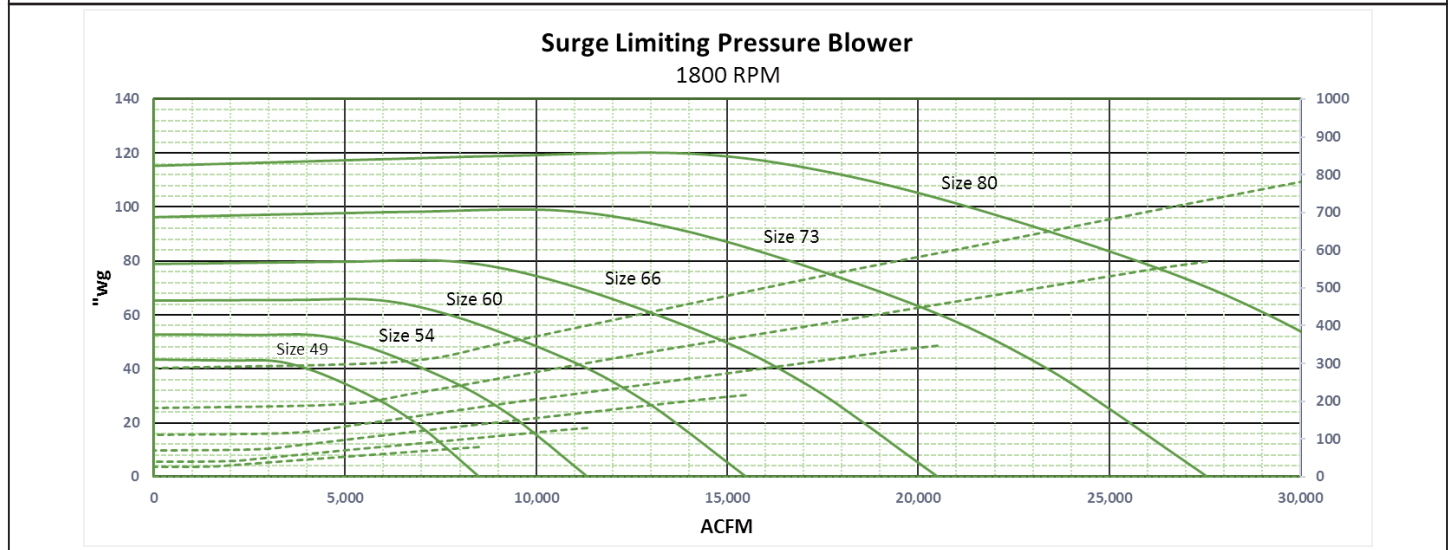
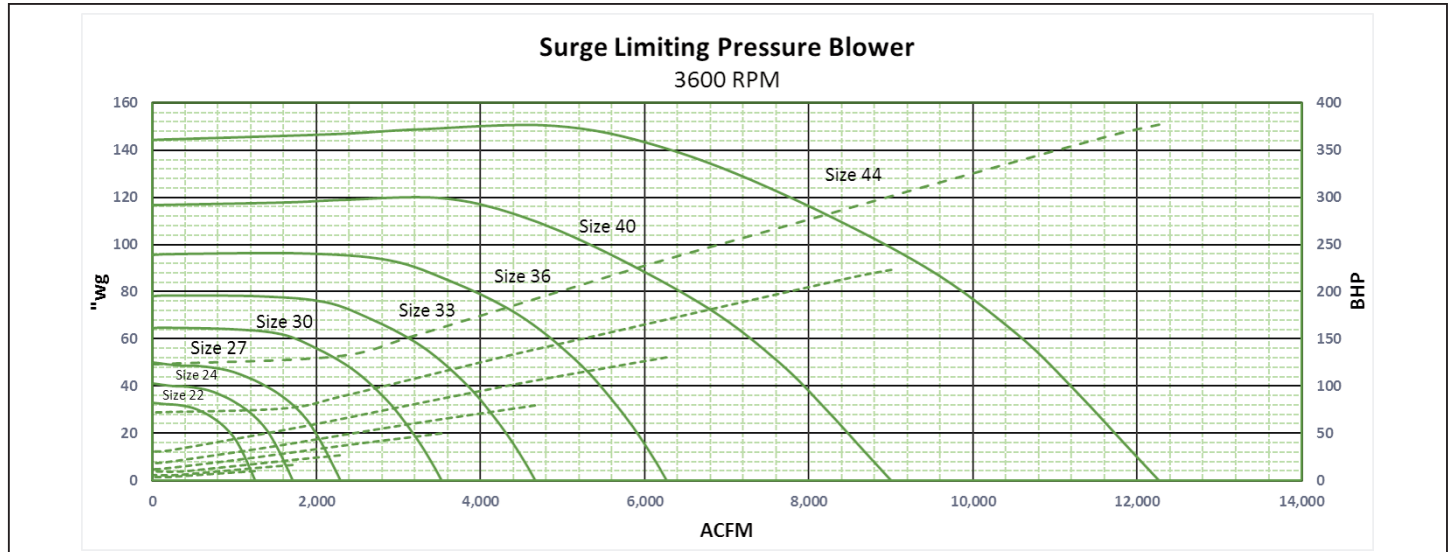
- Generate drawing package specifically tailored to the user’s application requirements.
- Fan-performance curves.
- Select fan’s rotation, discharge position, motor frame size and u-base.
- Add accessories (dampers, silencers, stack hoods, curb caps)
- Installation and Maintenance Manuals.



# USING IMPERIAL CAPACITY CURVES

Performance is shown according to sizes for quick reference. Brake horsepower increments are identified on each curve.

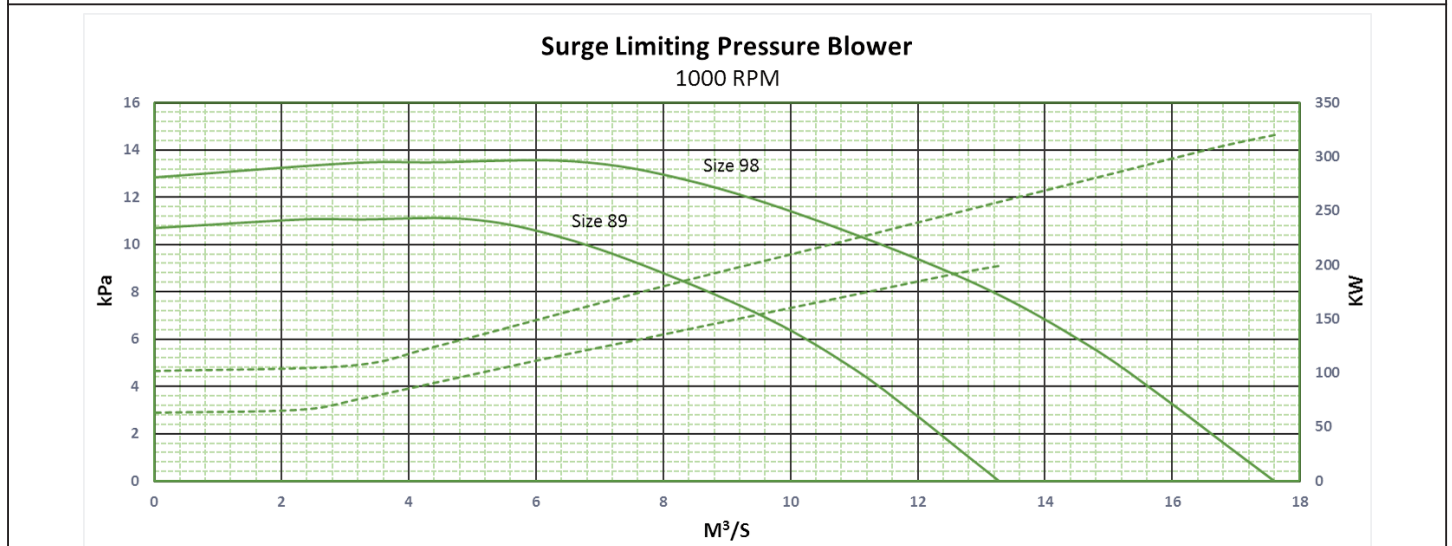
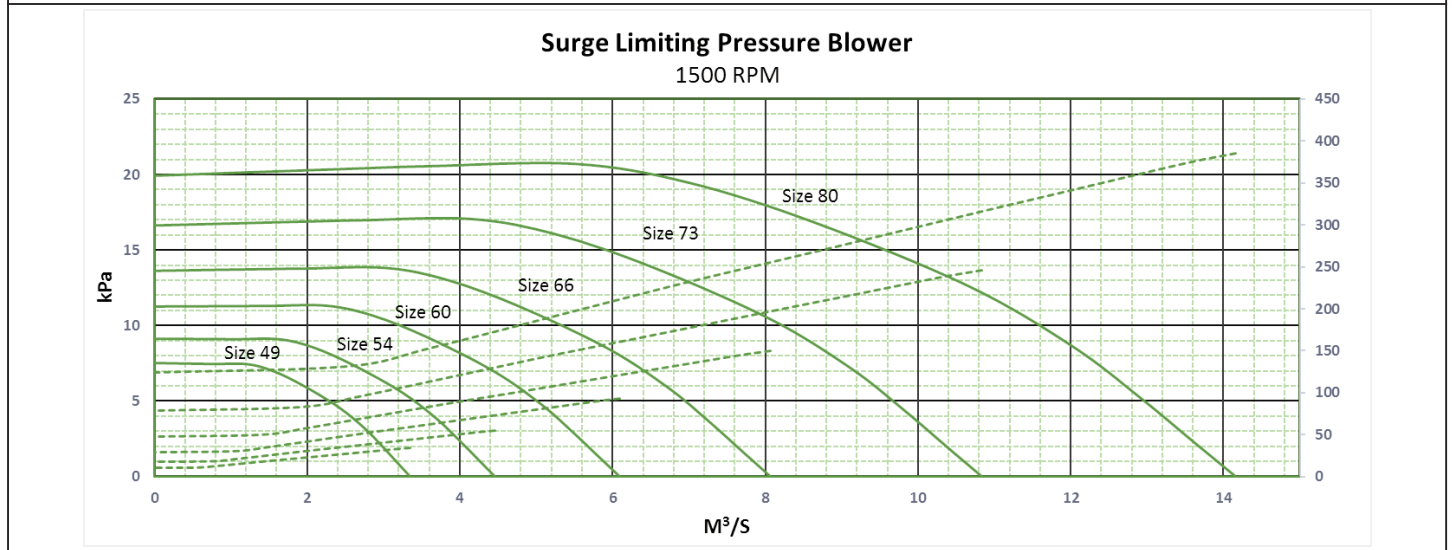
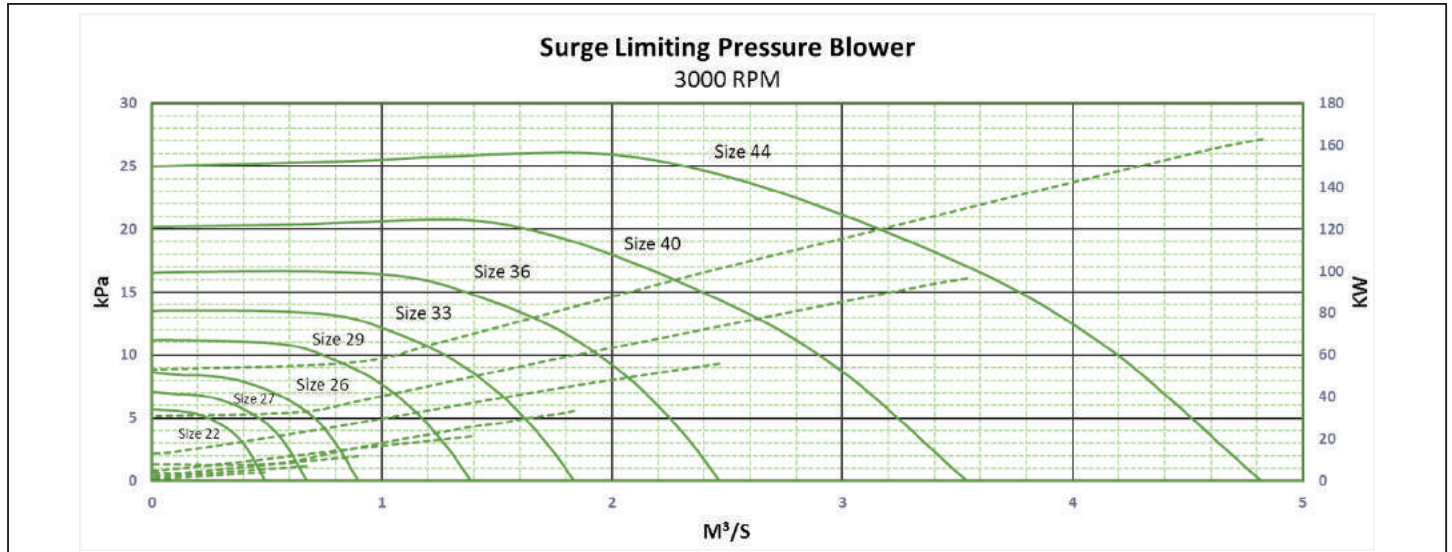
1. Ratings are based on standard 70°F. air at a density of .075 pounds per cubic foot. See page 6 for density correction factors.
2. Performance shown is for Surge Limiting PB fan including evase with outlet ducts, and with or without inlet ducts.
3. For a given selection, check the required fan speed at the maximum operating temperature against the maximum safe speeds shown in Chart I on page 6.



# USING METRIC CAPACITY CURVES

Performance is shown according to sizes for quick reference. Brake horsepower increments are identified on each curve.

1. Ratings are based on standard 20°C. air at a density of 1.20 kilogram per cubic meter. See page 6 for density correction factors.
2. Performance shown is for Surge Limiting PB fan including evase with outlet ducts, and with or without inlet ducts.
3. For a given selection, check the required fan speed at the maximum operating temperature against the maximum safe speeds shown in Chart I on page 6.





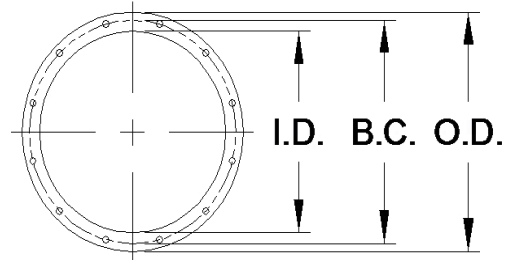
# DIMENSIONS AND SPECIFICATIONS

DIMENSIONS [INCHES]					
Size	Inside diameter	Bolt circle	Outside diameter	Holes	
				Number	Diameter
22	7 <sup>1</sup> / <sub>16</sub>	10	12	8	3/4
24	7 <sup>1</sup> / <sub>16</sub>	10	12	8	3/4
27	7 <sup>13</sup> / <sub>16</sub>	11	13	8	3/4
30	8 <sup>5</sup> / <sub>8</sub>	12	14	10	3/4
33	9 <sup>1</sup> / <sub>2</sub>	13	15	10	3/4
36	10 <sup>1</sup> / <sub>2</sub>	14	16	10	3/4
40	11 <sup>1</sup> / <sub>2</sub>	15	17	12	3/4
44	12 <sup>13</sup> / <sub>16</sub>	16	18	12	3/4
49	14 <sup>1</sup> / <sub>8</sub>	17	19	12	3/4
54	15 <sup>9</sup> / <sub>16</sub>	19	21	14	3/4
60	17 <sup>1</sup> / <sub>4</sub>	20	22	16	3/4
66	19	22	24	18	7/8
73	21	24	26	18	7/8
80	23	26	28	20	7/8
89	25 <sup>5</sup> / <sub>8</sub>	29	31	22	7/8
98	28 <sup>3</sup> / <sub>16</sub>	31	33	24	7/8

Tolerance: ±1/8"

## FLANGED INLET

Furnished as standard with holes straddling the centerline.

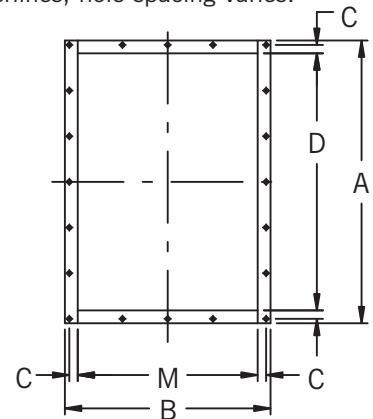


DIMENSIONS [INCHES]								
Size	A	B	C	D	M	Holes/Flange		Hole dia.
						Sides	Top/bottom	
22	11 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	7/8	7 <sup>1</sup> / <sub>2</sub>	5	3	1	3/4
24	12 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>8</sub>	7/8	8 <sup>3</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	3	1	3/4
27	14 <sup>7</sup> / <sub>8</sub>	12	1 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	6 <sup>1</sup> / <sub>2</sub>	5	1	3/4
30	15 <sup>3</sup> / <sub>4</sub>	12 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>8</sub>	5	1	3/4
33	16 <sup>3</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>4</sub>	7 <sup>7</sup> / <sub>8</sub>	5	1	3/4
36	19	15 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>2</sub>	8 <sup>5</sup> / <sub>8</sub>	5	3	3/4
40	20 <sup>1</sup> / <sub>8</sub>	15 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	13 <sup>3</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	5	3	3/4
44	21 <sup>1</sup> / <sub>2</sub>	16 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	15	10 <sup>1</sup> / <sub>4</sub>	5	3	3/4
49	23 <sup>1</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>8</sub>	7	3	3/4
54	26	20 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>2</sub>	13	7	3	3/4
60	28 <sup>1</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	20 <sup>5</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>8</sub>	7	3	3/4
66	30	22 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	22 <sup>1</sup> / <sub>2</sub>	15 <sup>1</sup> / <sub>4</sub>	7	3	7/8
73	32 <sup>5</sup> / <sub>8</sub>	25	1 <sup>1</sup> / <sub>2</sub>	24 <sup>7</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>4</sub>	9	5	7/8
80	35 <sup>1</sup> / <sub>8</sub>	26 <sup>5</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	27 <sup>3</sup> / <sub>8</sub>	18 <sup>7</sup> / <sub>8</sub>	9	5	7/8
89	38 <sup>1</sup> / <sub>8</sub>	28 <sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	30 <sup>3</sup> / <sub>8</sub>	21	9	5	7/8
98	42 <sup>1</sup> / <sub>4</sub>	32	1 <sup>1</sup> / <sub>2</sub>	33 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>4</sub>	11	5	7/8

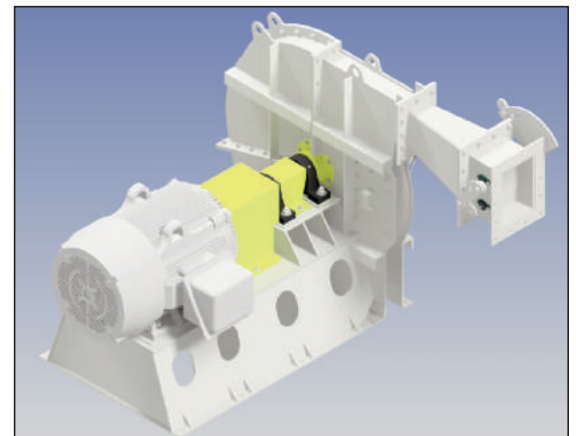
Tolerance: ±1/8"

## FLANGED EVASE OUTLET (STANDARD)

Mounted flush with edge of housing outlet. Holes furnished on fan centerlines, hole spacing varies.



MATERIAL SPECIFICATIONS [POUNDS, WR <sup>2</sup> IN LB-FT <sup>2</sup> ]					
Size	‡ Bare Fan Weights			Wheel	
	Arrangement 4 [lbs.]	Arrangement 1 [lbs.]	Arrangement 8 [lbs.]	Weight [lbs.]*	WR <sup>2</sup> [lbs.-ft. <sup>2</sup> ]*
22	400	475	715	70	15
24	475	530	840	80	23
27	645	700	1,055	90	34
30	780	840	1,260	105	50
33	940	1,010	1,500	135	75
36	1,380	1,450	2,000	155	110
40	1,650	1,785	2,375	180	155
44	2,320	2,500	3,160	265	250
49	2,645	2,775	3,785	275	365
54	2,790	2,950	3,940	355	535
60	3,410	3,550	4,750	420	805
66	4,155	4,400	5,850	655	1,670
73	6,205	6,525	8,340	910	2,650
80	7,525	7,840	9,985	1,065	3,795
89	7,845	8,350	10,965	1,460	7,055
98	10,520	11,100	14,300	1,930	10,875

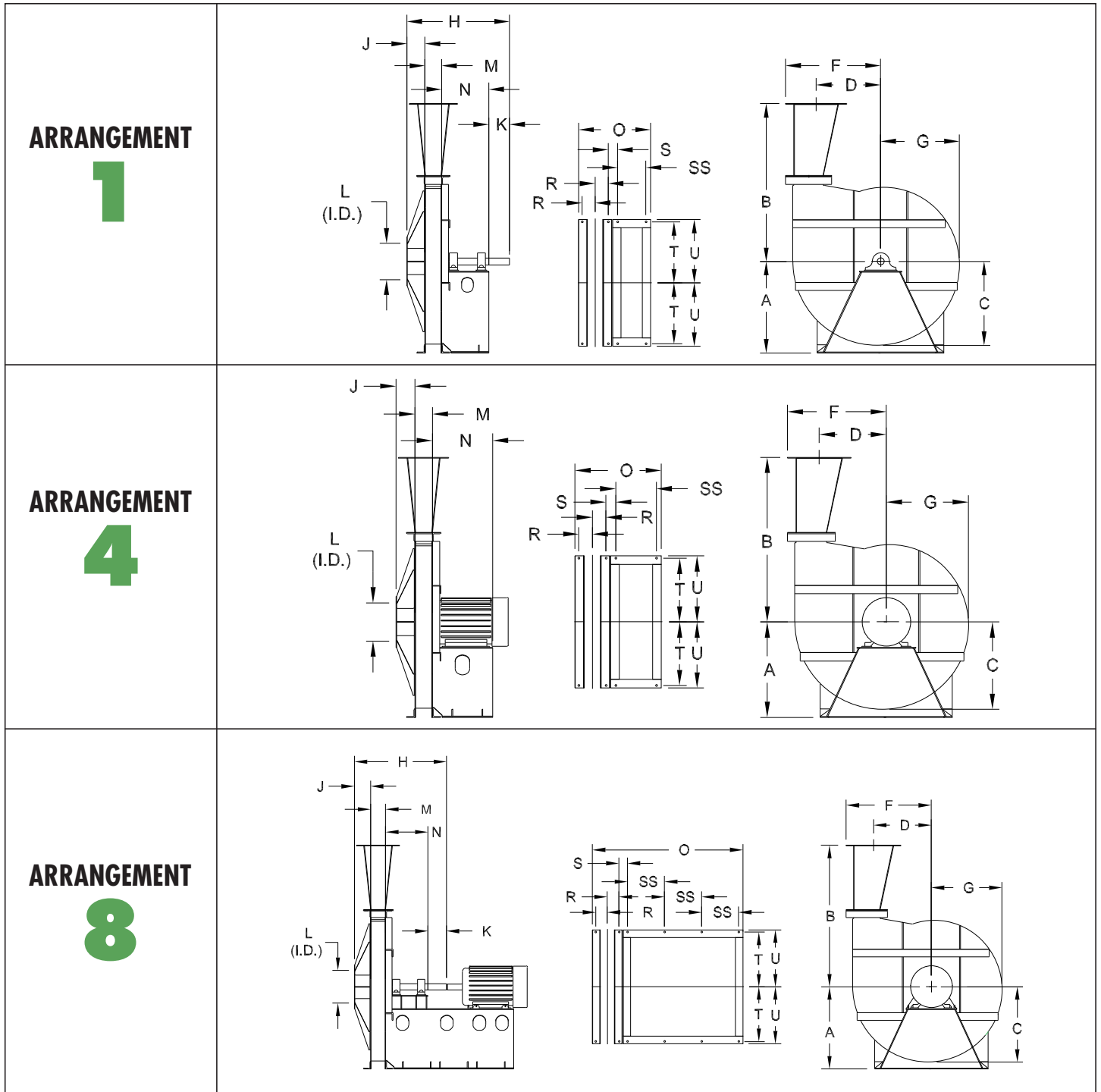


\* Wheel weight and WR2 will change with special diameter and narrow-width construction. Consult **nyb**.

‡ Bare fan weights provided are less motor. Based on maximum frame size and will vary as a result of changes in motor size. Consult **nyb**.

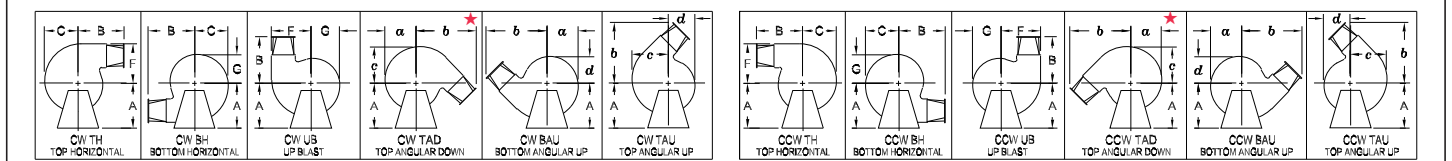
# DRAWINGS

Dimensions not to be used for construction unless certified.



M is an outside housing dimension. J is from housing side over inlet. L is inside diameter.

## FAN DISCHARGES – VIEWED FROM DRIVE SIDE



★ Top Angular Down discharge positions must be evaluated for clearance of accessories such as unitary base, etc. Consult **nyb** with specific details.

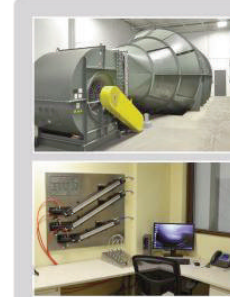
The New York Blower Company has a policy of continuous product development and reserves the right to change designs and specifications without notice.

# IMPERIAL DIMENSIONS [INCHES] **Not to be used for construction unless certified.**

ALL ARRANGEMENTS														
Size	Motor Frame		A					B	C	D	F	G	H	J
	Min.	Max	TH	TAD	BH	BAU	UB/TAU							
22	182T	215T	19	18	23	20	19	27 <sup>15</sup> / <sub>16</sub>	14 <sup>15</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	15 <sup>5</sup> / <sub>8</sub>	14	28 <sup>3</sup> / <sub>4</sub>	5
24	213T	256T	20	19	25	22	21	31 <sup>3</sup> / <sub>16</sub>	16 <sup>9</sup> / <sub>16</sub>	13 <sup>7</sup> / <sub>8</sub>	17 <sup>9</sup> / <sub>16</sub>	15 <sup>9</sup> / <sub>16</sub>	29 <sup>9</sup> / <sub>16</sub>	5
27	254T	286TS	21	21	26	23	22	35 <sup>3</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>4</sub>	15 <sup>5</sup> / <sub>16</sub>	19 <sup>1</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>8</sub>	30 <sup>1</sup> / <sub>16</sub>	5
30	182T	326TS	23	22	28	25	24	38 <sup>1</sup> / <sub>8</sub>	20 <sup>3</sup> / <sub>16</sub>	17	21 <sup>1</sup> / <sub>8</sub>	18 <sup>15</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>16</sub>	5
33	184T	365TS	25	24	30	27	26	41 <sup>11</sup> / <sub>16</sub>	22 <sup>1</sup> / <sub>8</sub>	18 <sup>11</sup> / <sub>16</sub>	23 <sup>3</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>4</sub>	33 <sup>9</sup> / <sub>16</sub>	5
36	213T	444TS	27	26	33	30	28	46 <sup>1</sup> / <sub>8</sub>	24 <sup>3</sup> / <sub>8</sub>	20 <sup>11</sup> / <sub>16</sub>	25 <sup>9</sup> / <sub>16</sub>	22 <sup>7</sup> / <sub>8</sub>	34 <sup>5</sup> / <sub>16</sub>	5
40	215T	447TS	29	28	35	32	30	50	26 <sup>5</sup> / <sub>8</sub>	22 <sup>11</sup> / <sub>16</sub>	27 <sup>15</sup> / <sub>16</sub>	25	34 <sup>5</sup> / <sub>16</sub>	5
44	254T	449TS	31	30	38	35	33	55 <sup>1</sup> / <sub>16</sub>	29 <sup>9</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>4</sub>	31	27 <sup>3</sup> / <sub>4</sub>	38 <sup>3</sup> / <sub>16</sub>	5
49	284T	365T	34	32	41	38	36	60 <sup>3</sup> / <sub>4</sub>	32 <sup>1</sup> / <sub>2</sub>	27 <sup>13</sup> / <sub>16</sub>	34 <sup>1</sup> / <sub>16</sub>	30 <sup>7</sup> / <sub>16</sub>	37 <sup>1</sup> / <sub>8</sub>	5
54	324TS	405T	37	35	44	41	39	67 <sup>1</sup> / <sub>4</sub>	35 <sup>11</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>8</sub>	37 <sup>7</sup> / <sub>16</sub>	33 <sup>1</sup> / <sub>2</sub>	41 <sup>1</sup> / <sub>16</sub>	5
60	364T	447T	40	38	48	45	42	74 <sup>3</sup> / <sub>8</sub>	39 <sup>5</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>16</sub>	41 <sup>9</sup> / <sub>16</sub>	37 <sup>1</sup> / <sub>8</sub>	42 <sup>1</sup> / <sub>16</sub>	5
66	405T	447T	44	42	52	49	46	80	43 <sup>1</sup> / <sub>2</sub>	37 <sup>7</sup> / <sub>16</sub>	45 <sup>5</sup> / <sub>8</sub>	40 <sup>3</sup> / <sub>4</sub>	43 <sup>1</sup> / <sub>4</sub>	5
73	445T	449T	48	45	56	53	50	88 <sup>15</sup> / <sub>16</sub>	48 <sup>1</sup> / <sub>8</sub>	41 <sup>3</sup> / <sub>8</sub>	50 <sup>1</sup> / <sub>2</sub>	45 <sup>1</sup> / <sub>8</sub>	50 <sup>7</sup> / <sub>8</sub>	5
80	447T	449T	52	49	61	58	55	97 <sup>3</sup> / <sub>8</sub>	52 <sup>11</sup> / <sub>16</sub>	45 <sup>3</sup> / <sub>8</sub>	55 <sup>1</sup> / <sub>4</sub>	49 <sup>3</sup> / <sub>8</sub>	52 <sup>1</sup> / <sub>16</sub>	5
89	447T	449T	57	54	67	64	60	107 <sup>1</sup> / <sub>2</sub>	58 <sup>1</sup> / <sub>2</sub>	50 <sup>1</sup> / <sub>2</sub>	61 <sup>3</sup> / <sub>8</sub>	54 <sup>7</sup> / <sub>8</sub>	54 <sup>7</sup> / <sub>16</sub>	5
98	447T	449T	62	59	72	69	65	118 <sup>13</sup> / <sub>16</sub>	64 <sup>5</sup> / <sub>16</sub>	55 <sup>9</sup> / <sub>16</sub>	67 <sup>1</sup> / <sub>2</sub>	60 <sup>5</sup> / <sub>16</sub>	55 <sup>7</sup> / <sub>8</sub>	5

Size	K	L	M	N			O					R	S
				Arr. 1/8	Arr. 4 Min.	Arr. 4 Max.	Arr. 1	Arr. 8 Min.	Arr. 8 Max.	Arr. 4 Min.	Arr. 4 Max.		
22	8	6 <sup>3</sup> / <sub>8</sub>	2 <sup>7</sup> / <sub>8</sub>	15 <sup>15</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>2</sub>	14 <sup>3</sup> / <sub>4</sub>	20 <sup>13</sup> / <sub>16</sub>	40	43 <sup>7</sup> / <sub>8</sub>	16 <sup>3</sup> / <sub>8</sub>	19 <sup>5</sup> / <sub>8</sub>	29 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>
24	8	7 <sup>1</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>4</sub>	16 <sup>1</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>2</sub>	21 <sup>3</sup> / <sub>8</sub>	36 <sup>15</sup> / <sub>16</sub>	48 <sup>13</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>2</sub>	23 <sup>3</sup> / <sub>4</sub>	29 <sup>4</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>8</sub>
27	8	7 <sup>13</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>	16 <sup>3</sup> / <sub>8</sub>	16 <sup>3</sup> / <sub>4</sub>	20	22 <sup>5</sup> / <sub>8</sub>	48 <sup>5</sup> / <sub>16</sub>	50 <sup>13</sup> / <sub>16</sub>	23	26 <sup>1</sup> / <sub>4</sub>	31 <sup>4</sup>	3 <sup>5</sup> / <sub>8</sub>
30	10	8 <sup>5</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	21 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>4</sub>	44 <sup>7</sup> / <sub>16</sub>	55 <sup>7</sup> / <sub>16</sub>	18 <sup>1</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>16</sub>	3 <sup>5</sup> / <sub>8</sub>
33	10	9 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	17 <sup>5</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	22 <sup>3</sup> / <sub>8</sub>	24 <sup>5</sup> / <sub>16</sub>	46 <sup>5</sup> / <sub>16</sub>	57 <sup>3</sup> / <sub>16</sub>	19 <sup>1</sup> / <sub>2</sub>	29 <sup>3</sup> / <sub>8</sub>	37 <sup>1</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>8</sub>
36	10	10 <sup>1</sup> / <sub>2</sub>	4 <sup>7</sup> / <sub>8</sub>	17 <sup>11</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>4</sub>	26 <sup>1</sup> / <sub>4</sub>	25 <sup>9</sup> / <sub>16</sub>	48 <sup>15</sup> / <sub>16</sub>	63 <sup>5</sup> / <sub>16</sub>	21 <sup>1</sup> / <sub>8</sub>	34 <sup>1</sup> / <sub>8</sub>	43 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>
40	10	11 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>4</sub>	17 <sup>15</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>4</sub>	31 <sup>3</sup> / <sub>4</sub>	26 <sup>3</sup> / <sub>16</sub>	51 <sup>1</sup> / <sub>16</sub>	69 <sup>7</sup> / <sub>16</sub>	23	40	49 <sup>3</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>4</sub>
44	10	12 <sup>13</sup> / <sub>16</sub>	5 <sup>5</sup> / <sub>8</sub>	21 <sup>7</sup> / <sub>16</sub>	16 <sup>3</sup> / <sub>4</sub>	20	30 <sup>1</sup> / <sub>16</sub>	56 <sup>15</sup> / <sub>16</sub>	77 <sup>11</sup> / <sub>16</sub>	25 <sup>3</sup> / <sub>8</sub>	45 <sup>3</sup> / <sub>8</sub>	49 <sup>1</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>
49	10	14 <sup>1</sup> / <sub>8</sub>	6 <sup>3</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>2</sub>	22 <sup>3</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>2</sub>	58 <sup>1</sup> / <sub>4</sub>	63 <sup>3</sup> / <sub>8</sub>	27 <sup>7</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>4</sub>	41 <sup>5</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>4</sub>
54	12	15 <sup>5</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>8</sub>	19 <sup>15</sup> / <sub>16</sub>	20	24 <sup>5</sup> / <sub>8</sub>	30 <sup>9</sup> / <sub>16</sub>	64 <sup>5</sup> / <sub>16</sub>	70 <sup>15</sup> / <sub>16</sub>	30 <sup>5</sup> / <sub>8</sub>	35 <sup>1</sup> / <sub>4</sub>	59 <sup>1</sup> / <sub>16</sub>	4
60	12	17 <sup>1</sup> / <sub>4</sub>	7 <sup>3</sup> / <sub>4</sub>	20 <sup>7</sup> / <sub>16</sub>	21 <sup>3</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>4</sub>	31 <sup>11</sup> / <sub>16</sub>	72 <sup>7</sup> / <sub>16</sub>	80 <sup>13</sup> / <sub>16</sub>	32 <sup>5</sup> / <sub>8</sub>	43	57 <sup>3</sup> / <sub>8</sub>	4
66	12	19	8 <sup>1</sup> / <sub>8</sub>	21 <sup>11</sup> / <sub>16</sub>	24 <sup>5</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>4</sub>	33 <sup>9</sup> / <sub>16</sub>	73 <sup>3</sup> / <sub>8</sub>	74 <sup>3</sup> / <sub>4</sub>	36 <sup>1</sup> / <sub>4</sub>	43 <sup>3</sup> / <sub>8</sub>	61 <sup>1</sup> / <sub>16</sub>	4
73	15	21	9 <sup>1</sup> / <sub>2</sub>	25 <sup>1</sup> / <sub>8</sub>	28 <sup>1</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	38 <sup>1</sup> / <sub>8</sub>	86 <sup>1</sup> / <sub>8</sub>	94 <sup>5</sup> / <sub>8</sub>	41 <sup>1</sup> / <sub>4</sub>	49 <sup>3</sup> / <sub>4</sub>	63 <sup>4</sup>	4
80	15	23	10 <sup>1</sup> / <sub>4</sub>	25 <sup>9</sup> / <sub>16</sub>	31 <sup>3</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	39 <sup>5</sup> / <sub>16</sub>	90 <sup>13</sup> / <sub>16</sub>	90 <sup>13</sup> / <sub>16</sub>	45 <sup>1</sup> / <sub>2</sub>	50 <sup>1</sup> / <sub>2</sub>	71 <sup>1</sup> / <sub>8</sub>	4
89	15	25 <sup>5</sup> / <sub>8</sub>	11 <sup>3</sup> / <sub>8</sub>	27	31 <sup>3</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	41 <sup>7</sup> / <sub>8</sub>	93 <sup>3</sup> / <sub>16</sub>	98 <sup>3</sup> / <sub>16</sub>	46 <sup>5</sup> / <sub>8</sub>	51 <sup>5</sup> / <sub>8</sub>	71 <sup>1</sup> / <sub>16</sub>	4
98	15	28 <sup>3</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	27 <sup>11</sup> / <sub>16</sub>	31 <sup>3</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	44 <sup>3</sup> / <sub>16</sub>	95 <sup>1</sup> / <sub>8</sub>	100 <sup>1</sup> / <sub>8</sub>	48 <sup>1</sup> / <sub>4</sub>	53 <sup>1</sup> / <sub>4</sub>	83 <sup>4</sup>	4

Size	SS						T	U	a	b	c	d	Base Holes
	Arr. 1	Arr. 8 Min.	Arr. 8 Max.	Arr. 8 Qty.	Arr. 4 Min	Arr. 4 Max.							
22	9 <sup>5</sup> / <sub>16</sub>	9 <sup>9</sup> / <sub>16</sub>	10 <sup>13</sup> / <sub>16</sub>	3	5	8 <sup>1</sup> / <sub>4</sub>	10	11	14 <sup>7</sup> / <sub>16</sub>	23 <sup>1</sup> / <sub>4</sub>	15 <sup>7</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	3/4
24	9 <sup>5</sup> / <sub>8</sub>	10 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>8</sub>	3	6 <sup>3</sup> / <sub>4</sub>	12	11 <sup>1</sup> / <sub>4</sub>	12 <sup>1</sup> / <sub>4</sub>	5 <sup>15</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>2</sub>	17 <sup>1</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>16</sub>	3/4
27	9 <sup>5</sup> / <sub>8</sub>	11 <sup>11</sup> / <sub>16</sub>	12 <sup>1</sup> / <sub>2</sub>	3	9 <sup>3</sup> / <sub>4</sub>	13	12 <sup>1</sup> / <sub>2</sub>	13 <sup>1</sup> / <sub>2</sub>	17 <sup>9</sup> / <sub>16</sub>	27 <sup>13</sup> / <sub>16</sub>	18 <sup>7</sup> / <sub>8</sub>	16 <sup>5</sup> / <sub>8</sub>	3/4
30	9 <sup>5</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	13 <sup>15</sup> / <sub>16</sub>	3	4 1/2	14 <sup>1</sup> / <sub>2</sub>	12	15	19 <sup>7</sup> / <sub>16</sub>	31 <sup>3</sup> / <sub>16</sub>	20 <sup>7</sup> / <sub>8</sub>	18 <sup>3</sup> / <sub>8</sub>	3/4
33	10 <sup>5</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>8</sub>	3	5 <sup>1</sup> / <sub>2</sub>	15 <sup>3</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>2</sub>	21 <sup>5</sup> / <sub>16</sub>	33 <sup>15</sup> / <sub>16</sub>	22 <sup>7</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>8</sub>	3/4
36	10 <sup>3</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>16</sub>	16	3	5 <sup>3</sup> / <sub>4</sub>	18 <sup>3</sup> / <sub>4</sub>	17 <sup>1</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>4</sub>	22 <sup>3</sup> / <sub>16</sub>	37 <sup>13</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>4</sub>	22 <sup>3</sup> / <sub>16</sub>	3/4
40	10 <sup>7</sup> / <sub>16</sub>	11 <sup>3</sup> / <sub>4</sub>	17 <sup>7</sup> / <sub>8</sub>	3	7 <sup>1</sup> / <sub>4</sub>	24 <sup>1</sup> / <sub>4</sub>	19	20	25 <sup>11</sup> / <sub>16</sub>	40 <sup>15</sup> / <sub>16</sub>	27 <sup>9</sup> / <sub>16</sub>	24 <sup>1</sup> / <sub>4</sub>	3/4
44	13 <sup>15</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>2</sub>	3	9 <sup>1</sup> / <sub>4</sub>	29 <sup>1</sup> / <sub>4</sub>	21 <sup>1</sup> / <sub>4</sub>	22 <sup>1</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>2</sub>	45 <sup>1</sup> / <sub>16</sub>	30 <sup>9</sup> / <sub>16</sub>	26 <sup>15</sup> / <sub>16</sub>	3/4
49	11 <sup>5</sup> / <sub>8</sub>	13 <sup>13</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>2</sub>	3	11	14 <sup>7</sup> / <sub>8</sub>	23 <sup>1</sup> / <sub>2</sub>	24 <sup>1</sup> / <sub>2</sub>	31 <sup>5</sup> / <sub>16</sub>	49 <sup>1</sup> / <sub>8</sub>	33 <sup>5</sup> / <sub>8</sub>	29 <sup>9</sup> / <sub>16</sub>	3/4
54	11 <sup>15</sup> / <sub>16</sub>	15 <sup>3</sup> / <sub>8</sub>	17 <sup>5</sup> / <sub>8</sub>	3	12	16 <sup>5</sup> / <sub>8</sub>	26	27	34 <sup>7</sup> / <sub>16</sub>	54 <sup>5</sup> / <sub>16</sub>	36 <sup>15</sup> / <sub>16</sub>	32 <sup>1</sup> / <sub>2</sub>	3/4
60	12 <sup>7</sup> / <sub>16</sub>	17 <sup>3</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>2</sub>	3	13 <sup>3</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>4</sub>	29	30	38 <sup>3</sup> / <sub>16</sub>	59 <sup>3</sup> / <sub>4</sub>	41	36	3/4
66	13 <sup>11</sup> / <sub>16</sub>	18	18 <sup>3</sup> / <sub>8</sub>	3	16 <sup>5</sup> / <sub>8</sub>	23 <sup>3</sup> / <sub>4</sub>	32	33	41 <sup>15</sup> / <sub>16</sub>	65 <sup>3</sup> / <sub>16</sub>	45	39 <sup>9</sup> / <sub>16</sub>	3/4
73	17 <sup>1</sup> / <sub>8</sub>	21 <sup>1</sup> / <sub>16</sub>	24 <sup>9</sup> / <sub>16</sub>	3	20 <sup>1</sup> / <sub>4</sub>	28 <sup>3</sup> / <sub>4</sub>	35 <sup>1</sup> / <sub>2</sub>	36 <sup>1</sup> / <sub>2</sub>	46 <sup>3</sup> / <sub>8</sub>	71 <sup>5</sup> / <sub>8</sub>	49 <sup>13</sup> / <sub>16</sub>	43 <sup>13</sup> / <sub>16</sub>	7/8
80	17 <sup>9</sup> / <sub>16</sub>	23	32	3	23 <sup>3</sup> / <sub>4</sub>	28 <sup>3</sup> / <sub>4</sub>	39	40	50 <sup>3</sup> / <sub>4</sub>	77 <sup>15</sup> / <sub>16</sub>	54 <sup>1</sup> / <sub>2</sub>	47 <sup>15</sup> / <sub>16</sub>	7/8
89	19	23 <sup>1</sup> / <sub>16</sub>	25 <sup>1</sup> / <sub>8</sub>	3	23 <sup>3</sup> / <sub>4</sub>	28 <sup>3</sup> / <sub>4</sub>	43 <sup>1</sup> / <sub>2</sub>	44 <sup>1</sup> / <sub>2</sub>	56 <sup>3</sup> / <sub>8</sub>	86 <sup>1</sup> / <sub>8</sub>	60 <sup>9</sup> / <sub>16</sub>	53 <sup>3</sup> / <sub>16</sub>	7/8
98	19 <sup>3</sup> / <sub>16</sub>	23 <sup>3</sup> / <sub>8</sub>	25 <sup>1</sup> / <sub>16</sub>	3	23 <sup>1</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>4</sub>	48	49	62	94 <sup>15</sup> / <sub>16</sub>	66 <sup>9</sup> / <sub>16</sub>	58 <sup>1</sup> / <sub>2</sub>	7/8



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

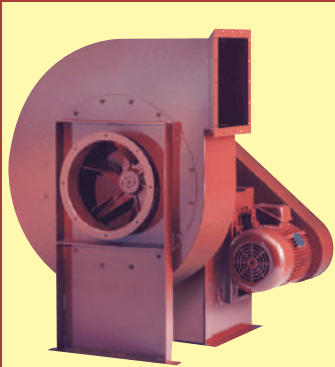
## nyb Laboratory

**Lab Features Include:**

- Flows to 130,000 CFM
- Pressures to 100" WC
- Horsepower to 500 bhp
- 6 Airflow Test Chambers
- 2 Sound Rooms
- 15,000 Ft<sup>3</sup>
- 44,000 Ft<sup>3</sup>
- Other Various Testing Capabilities

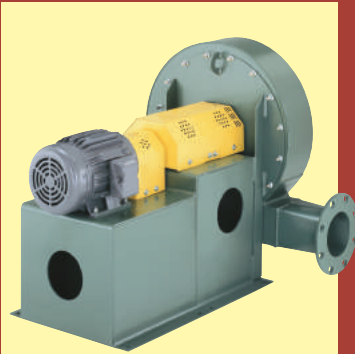
# COMPLETE SELECTION OF AIR-MOVING EQUIPMENT

The New York Blower Company offers thousands of different types, models, and sizes of air-moving equipment. Contact your nyb representative for assistance in identifying the best fan for your application.



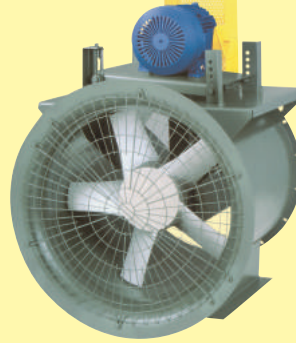
## DUST/MATERIAL HANDLING

Wide range of duty available with unique fan lines capable of handling light dust to heavy material. Typical applications include dust-collection and high-pressure process along with material-conveying.



## AIR-HANDLING [CENTRIFUGAL]

Designed for clean to moderately dirty gas streams. Commercial and industrial HVAC, process cooling, light material-conveying, heat removal, and dryer exhaust are just a few of the numerous sample applications



## AIR-HANDLING [AXIAL]

For the ideal handling of clean to moderately dirty airstreams. Commercial and industrial HVAC, drying and cooling systems, fume extraction, and process-heat removal are typical applications.

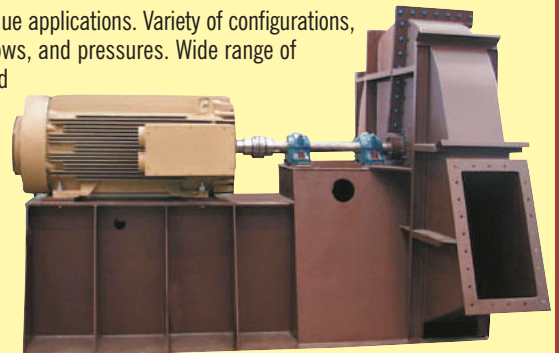


## FIBERGLASS REINFORCED PLASTIC [FRP]

Choice of performance and duty for corrosive gas streams. Applications include chemical process, wastewater treatment, laboratory hood exhaust, and tank aeration.

## CUSTOM PRODUCTS

Designed for unique applications. Variety of configurations, temperatures, flows, and pressures. Wide range of modifications and accessories are available to meet the most demanding specifications.



# Leading the industry forward since 1889



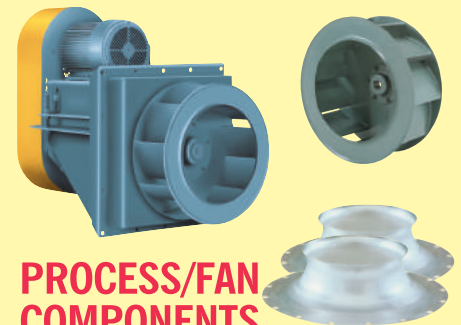
## ROOF VENTILATORS

Including both hooded and upblast ventilators, propeller fans, and centrifugal roof exhausters. These units are ideal for industrial, commercial, and institutional applications.



## HEATING PRODUCTS

Industrial-duty steam unit heaters with steam heating coils are available for facility heating and process-heat transfer.



## PROCESS/FAN COMPONENTS

Plug fans, plenum fans, wheels, inlet cones, and housings for a wide variety of OEM applications. Process/fan components are used in air-handling units, ovens, dryers, freezer tunnels, and filtration systems.