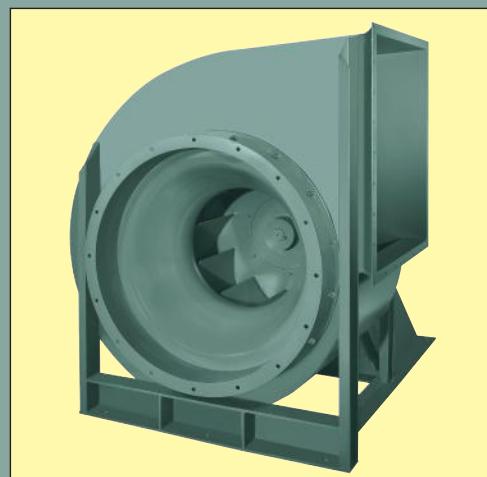
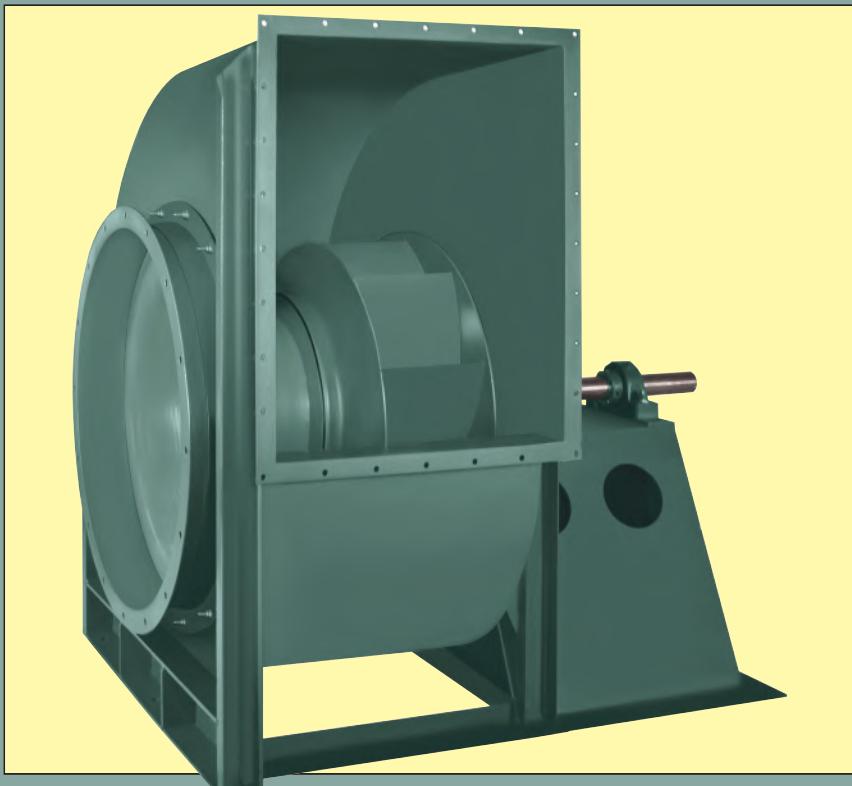


# HIGH-EFFICIENCY BACKWARD CURVE BC FANS



## **BC-20 FANS**

- Capacities to 260,000 CFM
- Static pressures to 21"WG

## **BC-40 FANS**

- Capacities to 300,000 CFM
- Static pressures to 40"WG



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)

# BC FANS

## Providing more high-efficiency choices.

### APPLICATIONS

With two designs to choose from, the BC line of fans is ideally suited for a wide range of high-pressure, industrial-process applications including: combustion air, solvent recovery, thermal oxidation, fluidizing, combustion, and air recirculation.

### DESIGN FEATURES

- Two models to choose from:  
BC-20 Fans for applications to 21"WG; wheel dia. 24" to 73".  
BC-40 Fans for applications to 40"WG; wheel dia. 24" to 89".
- Direct-drive models to 50"WG.
- Capacities to 300,000 CFM.
- Operating temperatures to 750°F.
- Available in Arrangements 1, 4, 8 and 9.
- Backward curved wheels for mechanical efficiencies to 85%.
- Available in clockwise and counterclockwise rotations in any of seven standard discharge positions.

### STANDARD FEATURES

**Welded construction**—heavy-gauge housing and pedestal. Reinforcements pre-engineered for each model.

**Precision balancing**—BC wheels are dynamically balanced before final assembly. After assembly, fans are fine-tune balanced at specified operating speed.

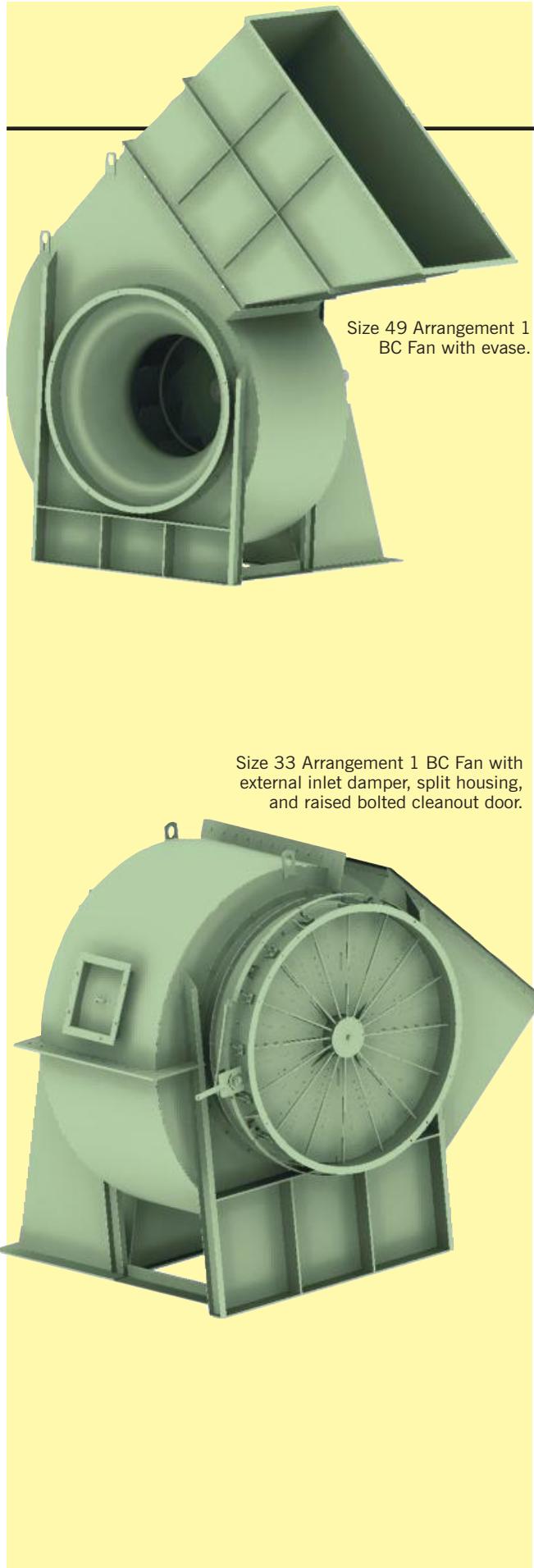
**Shafting**—turned, ground, and polished shafting is straightened to close tolerance to minimize “run-out” and ensure smooth operation.

**Bearings**—ball or spherical roller bearings selected for each model to provide extended service life.

**Flanged inlet and outlet**—furnished with bolt holes for ease of installation.

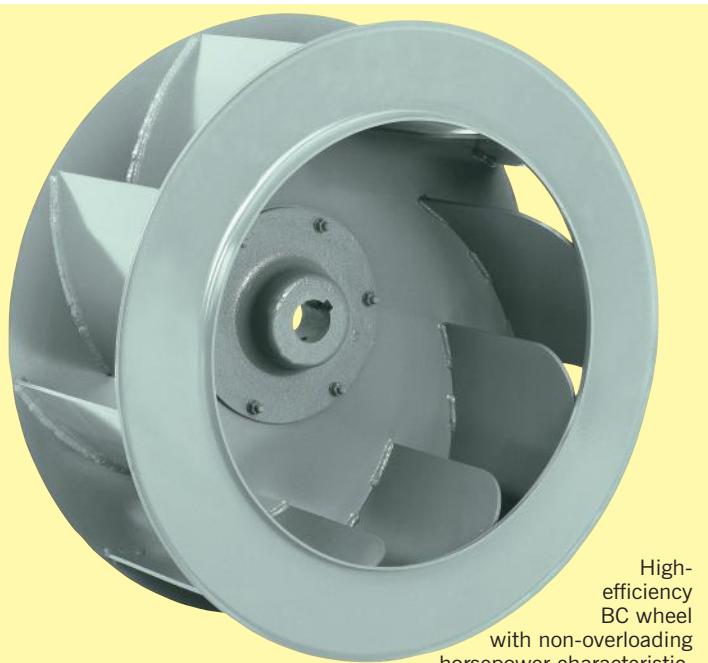
**Lifting eyes**—sized and located for ease of handling.

**Shaft seal**—ceramic-felt seals standard on all Arrangement 1, 8 and 9 fans...multiple-seal elements encased between metal backing plate and retainers. Teflon® shaft hole closure standard on Arrangement 4 fans. [Teflon is a registered trademark of DuPont.]



# BC WHEELS

Based on the proven single thickness backward curved wheel, the New York Blower Company has incorporated the latest state of the art design tools including finite element design, computational fluid dynamics, laboratory testing and alloy technology to create a high efficiency fan that is both cost effective and capable of handling mildly contaminated gas streams.

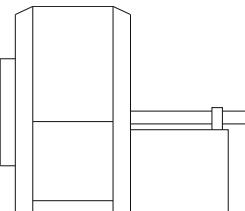
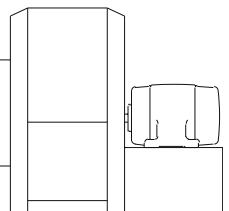
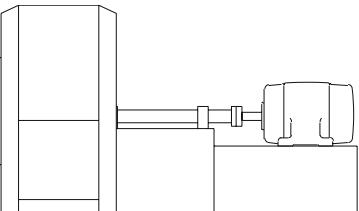


High-efficiency BC wheel with non-overloading horsepower characteristic.

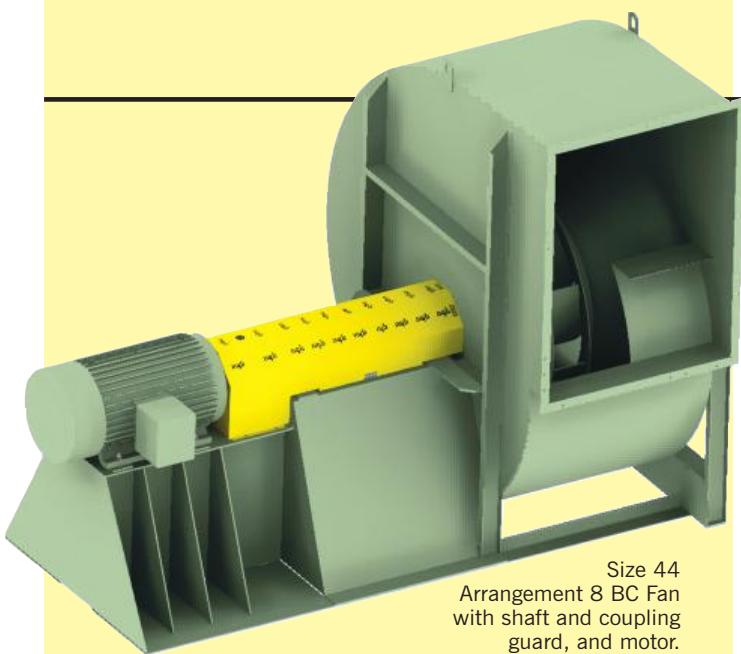
## BACKWARD CURVED WHEEL

The BC fan lines are available with a single-thickness backward curved wheel design for slightly contaminated gas streams. Contact your **nyb** sales representative for selection assistance.

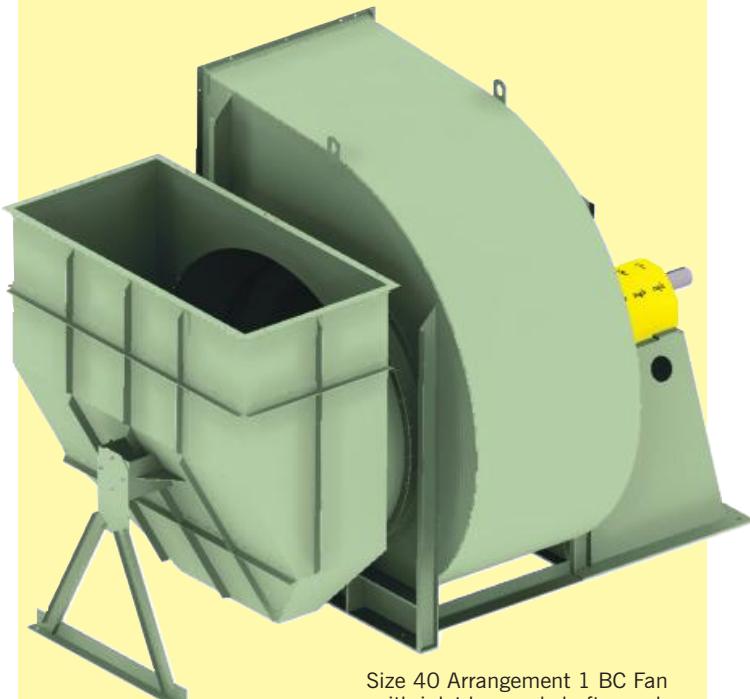
## ARRANGEMENT FLEXIBILITY

ARRANGEMENT 1	ARRANGEMENT 4	ARRANGEMENT 8
 <p>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.</p> <p>Maximum temperature: Standard fan: 300°F. Heat fan: 750°F.</p>	 <p>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.</p> <p>Maximum temperature: 180°F.</p>	 <p>Similar to Arrangement 1 but with integral motor base to accommodate motor and coupling.</p> <p>Maximum temperature: Standard fan: 300°F. Heat fan: 750°F.</p>

# ACCESSORIES



Size 44  
Arrangement 8 BC Fan  
with shaft and coupling  
guard, and motor.



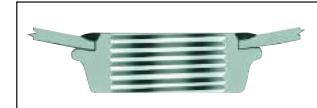
Size 40 Arrangement 1 BC Fan  
with inlet box and shaft guard.

- **COMPANION FLANGES**

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

- **EVASE**

Aerodynamically designed evase provides attached flow for maximum static pressure regain and reduced outlet velocities. BC Fans with evases offer mechanical efficiencies to 85%.



- **DRAIN**

Welded tank flange [FPT], 1 1/2" 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 consist of compressed ceramic felt elements standard on Arrangements 1 & 8. Lubricated lip seals [Buna-N, Teflon, and Viton®] and gas-purgeable mechanical seals are also available. See your **nyb** representative for availability.

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

- **INLET DAMPERS**

External vane construction provides prespun air effect to control fan performance efficiently...not available for use with inlet box...maximum temperature: 750°F.

- **OTHER ACCESSORIES**

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

## 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

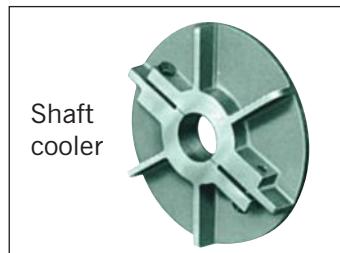
danger to life and limb of personnel. Users and/or installers should read "Recommended Safety Practices For Air Moving Devices" as published by the Air Movement and Control Association International, 30 West University Drive, Arlington Heights, Illinois 60004, which is included with the packing slips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

# MODIFICATIONS

- **HEAT-FAN CONSTRUCTION**

Arrangement 1 and 8 BC Fans are designed to handle airstream temperatures to 300°F.

BC Fans handling 301°F. to 750°F. (301°F. to 650°F. for Arr. 9) airstreams are furnished with shaft coolers and shaft cooler guards, and all surfaces are coated with high-temperature paint.



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

- **OUTLET DAMPERS**

Heavy-gauge parallel-blade or opposed-blade outlet dampers are available for volume control. Two standard temperature ranges: 300°F. and 750°F.

- **SPECIAL ALLOY CONSTRUCTION**

Airstream components can be constructed of a wide range of alternate alloys for corrosive applications including stainless steel and duplex stainless steel.

- **COATINGS**

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

- **SPLIT-HOUSING CONSTRUCTION**

Provides for wheel and shaft removal...split portion can be removed without disturbing the inlet or outlet connections. Standard on Sizes 73-89.

- **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**

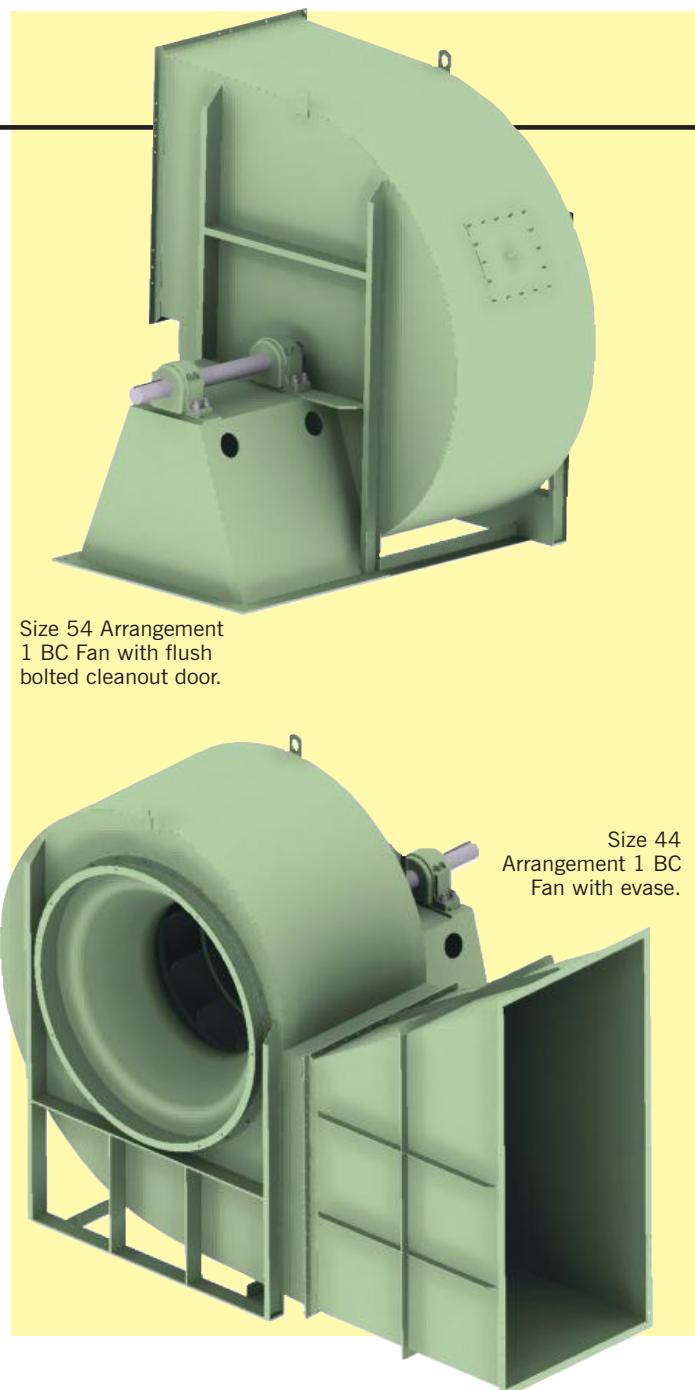
To include all airstream parts constructed of a spark-resistant alloy...maximum temperature: 200°F.

**AMCA B [WHEEL] SRC**

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**

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



- **NARROW-WIDTH AND OVER-DIAMETER CONSTRUCTION**

Wheel width and diameter can be adjusted to meet volume and pressure requirements at most efficient operating point. Consult Fan-To-Size Online ([www.nyb.com/online-fan-selection-software/](http://www.nyb.com/online-fan-selection-software/)) for performance.

- **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.

# BC FAN ENGINEERING AND SELECTION

## GENERAL

Due to the nature of BC Fans and the applications in which they are used, only experienced engineers and systems designers should select BC Fans. It is recommended that selection be made using New York Blower's Electronic Catalog software and that a New York Blower sales representative be consulted for assistance in optimizing the selection.

## EVASE

A determination must be made as to whether or not the system discharge duct configuration will allow the use of an energy-saving evase. Depending upon the specific fan size and point of operation, an evase can significantly increase fan efficiency. Performance curves and specific performance data are available by using the Electronic Catalog.

## CORRECTION FACTORS

Fan performance is based on actual cubic feet per minute [ACFM] at the fan inlet at standard density [.075 lbs./ft.<sup>3</sup>] and static pressure at the fan 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 operating conditions by the appropriate factors in Charts I, II, and III to obtain the corrected static pressure for standard conditions. 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].

## FAN ARRANGEMENT

The choice of a fan arrangement must be made to determine specific fan capabilities. Space availability, airstream temperature, maintenance, control methods, performance requirements, and past practice must all be considered in the selection of fan arrangement. See page 3 and 7 for further information on arrangements.

## HEAT FANS

Fans handling hot airstreams must be kept in operation after system shutdown, until the airstream cools below 200°F. to prevent damage to the fan. The fan wheel or shaft might otherwise distort due to "heat-soaking". The shaft cooler on heat fans is only effective while rotating. Contact nyb when the application involves temperature changes greater than 20°F. per minute.

Refer to the selection example on page 7 for the effect of temperature on the maximum safe speed of wheels and the temperature derate factors in Chart IV. Charts VI and VII below list the speed limits by fan arrangement.

## CHART V

### MAXIMUM WHEEL OPERATING SPEEDS [RPM] AT 100% WIDTH

Size	BC-20	BC-40
24	2665	4130
27	2415	3750
30	2120	3375
33	1860	3065
36	1673	2770
40	1476	2515
44	1364	2275
49	1239	2065
54	1091	1865
60	966	1685
66	877	1530
73	796	1385
80	-	1250
89	-	1050

## CHART IV

### TEMPERATURE DERATES FOR STANDARD BC WHEELS

Temp °F	BC-20 Steel	BC-40 Steel
-50	1.00	1.00
70	1.00	1.00
120	0.98	0.98
200	0.96	0.96
300	0.95	0.95
400	0.95	0.95
500	0.94	0.94
600	0.92	0.92
700	0.91	0.91
750	0.90	0.90

## CHART I 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 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
140	1.13
160	1.17
180	1.21
200	1.25
300	1.43
400	1.62
500	1.81
600	2.00
750	2.28

## CHART III RAREFACTION CORRECTIONS

Neg. inlet pressure "WG"	Factor
15	1.04
20	1.05
25	1.07
30	1.08
35	1.09
40	1.11
45	1.12
50	1.14
55	1.16
60	1.17
65	1.19
70	1.21
75	1.23
80	1.25
85	1.26

## CHART VI

### DIRECT-DRIVE UNIT OPERATING SPEEDS [RPM]

Size	BC-20		BC-40	
	Arr. 4	Arr. 8	Arr. 4	Arr. 8
24	3200*	2665	3550	4130
27	2905*	2415	3550	3750
30	2615*	2120	3550*	3375
33	2375*	1860	3550*	3065
36	2150*	1780	3140*	2600
40	1950*	1480	2850*	2200
44	1770*	1364	2580*	2200
49	1770*	1239*	2340*	2000
54	—	1180	—	1800
60	—	1180	—	1685
66	—	1180	—	1500
73	—	890	—	1385
80	—	—	—	1200
89	—	—	—	1050

\* Requires narrow-width wheel construction.

## CHART VII

### BELT-DRIVE UNIT OPERATING SPEEDS [RPM]

Arrangement 1

Size	BC-20	BC-40
24	2665	3800
27	2415	3400
30	2120	3000
33	1860	2850
36	1673	2500
40	1476	2200
44	1364	—
49	1239	—
54	1091	—
60	966	—
66	877	—
73	796	—

# DIRECT-DRIVE FAN SELECTIONS

It is often more cost-effective to use direct-drive fans due to reduced bearing loads and maintenance. However, a major objection to direct-drive arrangements in the past was the inability to adjust fan speed if system requirements changed. With the advent of variable frequency drives [VFD] the speed and therefore performance of direct-drive fans can now be adjusted to meet varying process requirements.

<b>ARRANGEMENT 8 FANS</b>	The shafts and bearings for Arrangement 8 BC Fans have been pre-engineered to simplify selection and provide best value. The standard Arrangement 8 fan temperature limit is 300°F. with a high heat option to 750°F. Available in 24" to 89" wheel diameters.
<b>ARRANGEMENT 4 FANS</b>	With the fan wheel directly mounted on the motor shaft, speed limitations imposed by the fan's shaft and bearings are eliminated. In addition, fan maintenance is further reduced by the elimination of these components. The maximum temperature for Arrangement 4 fans is 180°F. Available in 24" to 49" wheel diameters.
<b>WHEEL SPEED VS. WIDTH</b>	A major component in the determination of wheel maximum safe speed is blade strength. Narrower wheels are inherently stronger permitting higher wheel maximum safe speeds. Final selection of direct-drive BC Fans can only be optimized using <b>nyb</b> Electronic Catalog software.

# BELT-DRIVE FAN SELECTIONS

The use of belt-drive arrangements provides flexibility in fan performance by changing sheaves and belts to modify fan speed. The high speeds and horsepower requirements of BC Fans require proper drive selection to minimize shaft stress and maximize belt and bearing life.

To ensure satisfactory motor performance, 1800 RPM motors 250 HP and above require motor-vendor approval of drive selection.

**Arrangement 1 fans**—overhung wheel keeps bearings out of airstream. Temperature limit for standard fan is 300°F., optional high-heat construction suitable to 750°F. (Arrangement 1) Note: belt-drive fans are available in 24" to 73" wheel diameters.

## HOW TO SELECT A BELT-DRIVE FAN

PROCEDURES	STEPS	EXAMPLE
For a given CFM and static pressure, capacity tables can be used to obtain fan size, outlet velocity, wheel RPM, and BHP. If capacities are at conditions other than 70°F, sea level, or standard density [.075 lbs./cu.ft.], correction factors must be applied to static pressure and BHP.	1	Fan required for 29,000 CFM, 7.86"SP at 120°F, and sea level. The system has 20" negative pressure at the fan inlet. The system does not allow for use of an evase outlet. The fan is to be Arrangement 1, belt-drive.
If temperature, altitude, or density-rarefaction corrections are required, determine the correction factor using Charts I, II, and III from page 6.	2	Correction factor for 120°F. is 1.09 from Chart II. Correction factor for rarefaction of negative 20" from Chart III is 1.05. The combined factor $1.09 \times 1.05 = 1.145$ .
Multiply the required operating SP by the correction factor[s]. This gives the equivalent SP at .075 lb./cu.ft. density.	3	The required fan SP at standard air is $7.86 \times 1.145 = 9.0$ at 0.75 lb./cu. ft.
Select the fan size, RPM, and BHP from the capacity tables. Note: For a given performance, larger fans are generally more efficient and will have lower operating cost over the life of the fan.	4	A Size 49 BC-20 Fan is selected for 29,000 CFM, at 9.0"SP, 964 RPM, 59.5 BHP at [standard air] .075 lbs./cu.ft. density.
Determine the maximum safe speed of the fan at operating [or design] temperature from Charts IV and V on page 6.	5	From Chart V on page 6, the maximum safe speed is 1239 RPM for a BC-20 Fan at 70°F. The correction factor from Chart IV for 120°F. is .98, when multiplied by 1239 gives 1214 RPM at 120°F. The fan is satisfactory for operation at 120°F.
Determine operating BHP by dividing the BHP from the capacity tables by the correction factor[s] used in step 3.	6	The fan-operating BHP is 59.5 divided by the combined correction factor. $59.5 \div 1.145 = 52$ BHP.
Confirm maximum unit safe speed for the fan model and arrangement from Chart VII.	7	From Chart VII the Arrangement 1 maximum unit safe speed for a Size 49 BC-20 Fan is 1364 RPM...satisfactory for operation at 964 RPM.

# PERFORMANCE FOR FANS WITH BC-20 WHEELS

SIZE <b>24</b>	CFM	OV	9"SP		10"SP		11"SP		12"SP		13"SP		14"SP		15"SP		16"SP		17"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6000	1765	1918	11.7	2020	13.3	2115	14.9	2210	16.7	2304	20.2	2390	22.2	2470	24.1	2552	26.1	2627	28.1	
7200	2118	1934	13.1	2035	14.9	2126	16.6	2215	18.3	2320	22.3	2404	24.4	2481	26.3	2562	28.5	2636	30.6	
8400	2471	1969	14.8	2060	16.6	2150	18.5	2235	20.3	2320	22.3	2430	26.8	2506	29.0	2582	31.2	2653	33.4	
9600	2824	2020	16.6	2104	18.5	2186	20.4	2270	22.5	2350	24.6	2466	29.3	2541	31.7	2612	34.0			
10800	3176	2090	18.9	2166	20.8	2244	22.8	2320	25.0	2395	27.1	2452	30.0	2521	32.3	2587	34.5	2653	36.9	
12000	3529	2166	21.4	2240	23.5	2315	25.7	2384	27.8	2461	31.1	2521	33.2	2587	35.6	2653	38.1			
13200	3882	2250	24.2	2320	26.4	2390	28.7	2461	31.1	2521	33.2	2587	35.6	2653	38.1					
14400	4235	2335	27.2	2406	29.7	2472	32.1	2541	34.7	2602	37.1	2664	39.5							
15600	4588	2430	30.6	2496	33.2	2558	35.7	2622	38.4											

SIZE <b>27</b>	CFM	OV	9"SP		10"SP		11"SP		12"SP		13"SP		14"SP		15"SP		16"SP		17"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7000	1687	1742	15.5	1834	17.6	1924	19.8													
8500	2048	1752	17.2	1843	19.6	1929	22.0	2015	24.6	2095	27.1	2170	29.6	2246	32.2	2320	34.8			
10000	2410	1777	19.2	1863	21.7	1944	24.1	2026	26.8	2104	29.5	2180	32.3	2255	35.3	2326	38.2	2395	41.1	
11500	2771	1823	21.7	1898	24.1	1974	26.7	2050	29.4	2126	32.3	2195	35.1	2270	38.2	2340	41.3	2406	44.3	
13000	3133	1883	24.6	1954	27.2	2024	29.9	2095	32.7	2160	35.5	2230	38.5	2295	41.5	2364	44.8			
14500	3494	1960	28.1	2024	30.8	2086	33.5	2150	36.4	2215	39.4	2275	42.3	2340	45.6	2400	48.7			
16000	3855	2044	32.2	2106	35.0	2166	38.0	2224	40.9	2280	43.8	2340	47.1	2395	50.1					
17500	4217	2130	36.6	2190	39.7	2250	42.9	2306	46.0	2360	49.1	2415	52.4							
19000	4578	2210	41.1	2275	44.7	2335	48.2	2390	51.5											

SIZE <b>30</b>	CFM	OV	8"SP		9"SP		10"SP		11"SP		12"SP		13"SP		14"SP		15"SP		16"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8500	1676	1494	16.3	1580	18.9	1662	21.5	1742	24.3	1828	29.4	1898	32.4	1969	35.6	2035	38.8	2100	42.1	
10000	1971	1514	18.3	1596	20.9	1676	23.6	1752	26.4	1843	32.1	1914	35.3	1980	38.4	2046	41.7	2110	45.2	
11500	2267	1540	20.5	1622	23.3	1697	26.1	1772	29.1	1843	32.1	1900	35.3	1980	38.4	2046	41.7	2110	45.2	
13000	2563	1574	22.9	1651	25.9	1726	29.0	1797	32.1	1868	35.3	1934	38.5	2000	41.8	2064	45.3			
14500	2858	1611	25.4	1686	28.6	1757	31.9	1828	35.3	1898	38.8	1964	42.3	2026	45.7	2086	49.2			
16000	3154	1646	27.7	1722	31.3	1792	34.9	1863	38.6	1929	42.3	1994	46.0	2055	49.7	2115	53.5			
17500	3450	1691	30.4	1762	34.2	1832	38.0	1898	41.9	1964	45.9	2026	49.8	2086	53.7					
19000	3745	1748	33.8	1812	37.5	1874	41.3	1940	45.5	2000	49.4	2064	53.8							
20500	4041	1812	37.7	1868	41.3	1929	45.3	1984	49.1	2044	53.4	2104	57.9							

SIZE <b>33</b>	CFM	OV	7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP		14"SP		15"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9000	1454	1265	15.5	1350	18.4	1430	21.4	1505	24.4	1580	27.8	1651	33.4	1717	36.9	1782	40.7	1843	44.5	
10800	1745	1285	17.6	1365	20.5	1440	23.5	1514	26.7	1585	30.0	1666	36.5	1728	40.0	1792	43.9	1852	47.8	
12600	2036	1305	19.8	1385	23.0	1456	26.0	1530	29.4	1596	32.7	1616	36.1	1682	39.9	1742	43.5			
14400	2327	1334	22.3	1410	25.7	1480	29.0	1550	32.5	1616	36.1	1682	39.9	1742	43.5					
16200	2618	1365	24.8	1440	28.5	1510	32.3	1576	36.0	1642	39.9	1706	43.9	1766	47.8	1823	51.8			
18000	2909	1400	27.4	1470	31.3	1540	35.4	1606	39.5	1671	43.8	1732	48.0	1792	52.3	1848	56.5			
19800	3200	1440	30.3	1505	34.2	1574	38.7	1640	43.3	1702	47.7	1762	52.3	1818	56.7					
21600	3491	1490	33.7	1550	37.8	1611	42.2	1671	46.7	1737	51.9	1792	56.4	1848	61.2					
23400	3782	1545	37.7	1602	41.9	1660	46.5	1717	51.2	1772	55.9	1828	61.0							

SIZE <b>40</b>	CFM	OV	6"SP		7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP		14"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
14000	1513	964	19.7	1038	23.6	1108	27.7	1174	32.0	1240	40.0	1296	44.6	1354	49.7	1410	54.9			
16500	1784	973	22.1	1044	26.3	1114	30.8	1176	35.1	1245	43.7	1305	49.0	1360	54.2	1414	59.6	1465	65.0	
19000	2054	993	24.9	1059	29.3	1124	34.0	1185	38.7	1245	42.6	1260	48.1	1316	53.6	1370	59.1	1420	64.6	
21500	2324	1013</																		

# PERFORMANCE FOR FANS WITH BC-20 WHEELS

SIZE <b>44</b>	CFM	OV	6"SP		7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP		14"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
22000	1941	872	28.9	938	34.6	998	40.3	1059	46.6	1114	52.7	1165	58.7	1220	70.7	1270	77.9	1314	84.6	
25000	2206	887	32.0	947	37.8	1008	44.3	1064	50.6	1119	57.3	1170	63.8	1225	76.0	1274	83.7	1320	91.3	
28000	2471	907	35.8	964	41.7	1022	48.4	1074	54.9	1124	61.5	1176	68.8	1225	76.0	1274	83.7	1320	91.3	
31000	2736	932	40.0	984	46.2	1038	52.8	1090	59.7	1139	66.8	1185	73.8	1234	81.7	1280	89.5	1325	97.5	
34000	3000	962	44.5	1008	50.8	1059	58.0	1108	65.1	1154	72.1	1205	80.4	1245	87.3	1290	95.6	1336	104	
37000	3265	998	49.8	1042	56.6	1088	64.0	1130	71.0	1176	78.8	1220	86.4	1265	94.6	1305	102	1350	112	
40000	3530	1033	55.3	1079	62.9	1119	70.1	1159	77.6	1200	85.5	1245	94.3	1285	102	1325	110			
44000	3883	1084	63.4	1124	71.1	1165	79.3	1205	87.6	1245	96.4	1280	104	1316	113	1354	122			
48000	4236	1139	72.8	1176	80.8	1214	89.5	1250	97.9	1290	108	1325	116	1360	126					

SIZE <b>49</b>	CFM	OV	6"SP		7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP		14"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
29000	2111	801	37.5	856	44.4	912	52.0	964	59.5	1013	67.2	1059	74.9	1108	83.6	1150	91.5			
31000	2257	810	39.8	862	46.6	916	54.4	968	62.4	1018	70.6	1064	78.6	1108	86.8	1154	95.8	1194	104	
34000	2475	821	43.1	876	50.7	927	58.5	973	66.2	1022	74.9	1068	83.5	1114	92.6	1159	102	1200	111	
37000	2694	841	47.5	892	55.3	938	62.8	988	71.5	1033	80.1	1079	89.4	1119	98.0	1159	107	1205	118	
40000	2912	862	51.7	907	59.6	953	67.9	998	76.2	1044	85.3	1088	94.7	1128	104	1170	114	1210	124	
45000	3276	907	60.5	947	68.7	988	77.7	1028	86.6	1068	95.7	1110	105	1150	115	1190	126	1225	135	
50000	3640	953	70.1	993	79.5	1028	88.0	1064	97.4	1099	107	1139	118	1174	128	1210	138			
55000	4004	1002	80.7	1038	90.5	1074	101	1108	110	1144	121	1176	131	1205	143					
62000	4514	1074	98.1	1108	109	1139	119	1170	130	1205	142	1236	153							

SIZE <b>54</b>	CFM	OV	6"SP		7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP		14"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
34000	2011	720	44.5	772	53.0	821	61.7	867	70.4	912	79.7	958	89.8	998	99.2					
39000	2307	735	50.0	781	58.3	830	68.0	876	77.9	918	87.4	962	98.0	1002	108	1042	119	1079	130	
45000	2662	756	57.3	801	66.6	847	76.6	892	87.2	932	97.6	973	109	1013	120	1048	131	1088	143	
50000	2958	786	65.3	826	75.1	867	85.5	907	95.8	947	107	984	118	1022	129	1059	142			
55000	3254	816	73.3	856	84.4	892	95.0	927	106	964	117	1002	129	1038	141	1074	153			
60000	3550	847	82.0	887	94.2	922	106	953	116	988	129	1022	141	1053	152	1090	166			
65000	3845	887	93.6	918	104	953	117	984	128	1018	142	1048	154	1079	167					
70000	4141	922	104	953	116	988	130	1018	142	1048	155	1079	169							
75000	4533	962	117	993	130	1022	143	1053	157	1079	170									

SIZE <b>66</b>	CFM	OV	5"SP		6"SP		7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP								
38000	1480	544	44.7	590	54.0	635	64.0	675	73.8	715	84.5	756	96.6							
46000	1792	555	51.4	604	64.2	646	75.7	686	87.2	724	98.8	761	111	792	122	826	134			
54000	2103	570	57.4	615	70.8	660	86.1	700	100	735	114	770	127	801	139	836	154	862	148	
62000	2415	586	66.0	630	78.7	675	94.5	710	109	750	127	786	144	816	158	847	173			
70000	2727	615	78.7	650	91.0	686	104	724	119	761	135	796	153	830	173	862	191			
78000	3038	644	89.9	675	104	710	120	741	133	776	149	810	166	841	183	876	205			
86000	3350	680	105	706	118	735	135	766	152	796	167	826	183	858	201					
91000	3545	700	113	730	130	756	146	781	162	812	181	841	198	867	213					
96000	3739	724	125	752	141	781	160	801	174	830	194	856	212							

SIZE <b>73</b>	CFM	OV	5"SP		6"SP		7"SP		8"SP		9"SP		10"SP		11"SP		12"SP		13"SP	
			RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
50000	1592	495	57.9	540	71.4	575	82.6	615	96.5	650	110	684	124	715	138	746	152			
58000	1847	506	64.8	550	81.0	586	95.0	620	109	655	124	686	138	720	154	750	169	781	186	
66000	2101	515	70.1	555	86.1	595	104	630	121	664	139	695	155	726	171	756	188	781	203	
74000	2356	526	78.2	566	93.7	606	113	640	131	675	152	706	171	735	189	766	209	792	227	
82000	2611	544	89.7</td																	

# PERFORMANCE FOR FANS WITH BC-40 WHEELS

**SIZE 24**

CFM	OV	29"SP		30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
14000	4118	3618	88.5	3672	92.0	3724	95.4	3776	98.9	3826	102	3844	105	3893	109	3944	112	4012	119	4057 122
14500	4265	3642	91.2	3690	94.4	3744	98.1	3791	101	3864	108	3912	111	3960	115	4048	125	4096	129	
15000	4412	3662	93.6	3714	97.2	3766	101	3811	104	3862	110	3908	114	3955	117	4004	121	4052	128	4096 132
16000	4706	3718	99.4	3766	103	3811	106	3862	110	3908	114	3955	117	4008	124	4110	135			
17000	5000	3782	106	3826	109	3873	113	3918	117	3960	120	4026	128	4068	131					
18000	5294	3858	114	3898	117	3940	120	3984	124	4057	132	4100	136							
19000	5588	3936	122	3980	125	4018	129	4057	133	4100	137									
19500	5735	3980	126	4018	129	4057	133	4100	137											
20000	5882	4022	131	4062	134	4100	138													

**SIZE 27**

CFM	OV	29"SP		30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		
		RPM	BHP	RPM	BHP															
16000	3855	3256	103	3306	107	3356	111	3426	120	3472	124	3520	129	3565	133					
17000	4096	3285	108	3331	112	3380	116	3452	125	3497	130	3545	134	3588	139	3632	143	3676 147		
18000	4337	3316	113	3362	117	3408	121	3442	127	3486	131	3530	136	3574	140	3618	145	3662 149		
19000	4578	3356	118	3397	122	3442	127	3526	133	3565	142	3608	146	3652	151	3694	156	3734 160		
20000	4819	3397	124	3442	129	3482	133	3570	144	3612	149	3652	153	3690	158	3729	162			
21000	5060	3452	131	3492	136	3530	140	3570	144	3612	149	3652	153	3698	161	3738	165			
22000	5301	3508	139	3545	143	3584	147	3622	152	3662	156									
23000	5542	3570	147	3608	151	3642	155	3680	160	3714	164									
24000	5783	3632	155	3670	160	3704	164	3740	169											

**SIZE 30**

CFM	OV	29"SP		30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP	
		RPM	BHP	RPM	BHP														
20000	3942	2945	129	2985	133	3034	138	3076	143	3120	148								
21000	4140	2960	133	3005	139	3045	143	3090	149	3134	154	3176	159	3220	165	3260	170		
22000	4337	2976	138	3020	144	3065	149	3105	154	3150	159	3190	165	3234	170	3274	176	3316 181	
24000	4731	3020	150	3065	156	3105	161	3145	166	3185	171	3225	177	3265	182	3306	188	3346 194	
26000	5125	3074	164	3114	169	3154	175	3194	180	3234	186	3270	191	3311	197	3351	203		
28000	5519	3136	179	3174	184	3210	190	3250	196	3285	201	3326	207	3362	213				
30000	5914	3205	195	3240	200	3276	206	3311	212	3351	218								
31000	6111	3240	203	3276	209	3311	215	3346	221										
32000	6308	3280	212	3311	217	3351	224												

**SIZE 33**

CFM	OV	30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		38"SP	
		RPM	BHP	RPM	BHP														
23000	3717	2704	155	2744	161														
24500	3959	2718	163	2759	169	2799	175	2839	181	2880	188	2916	194						
26000	4202	2738	171	2779	177	2819	183	2854	189	2894	196	2934	203	2970	209	3005	215	3045 222	
27500	4444	2759	179	2799	185	2839	192	2876	198	2914	205	2950	211	2985	218	3025	225	3060 232	
29000	4686	2784	188	2819	194	2859	201	2896	207	2934	214	2970	221	3005	227	3045	235		
30500	4929	2810	198	2848	204	2885	211	2920	217	2956	224	2994	231	3030	238	3065	245		
32000	5171	2844	209	2876	215	2914	222	2950	228	2985	235	3020	242	3054	249				
35000	5656	2910	231	2945	238	2980	246	3014	253	3045	259								
38000	6141	2990	257	3025	265	3054	271												

**SIZE 36**

CFM	OV	30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		38"SP	
		RPM	BHP	RPM	BHP														
30000	3952	2441	211	2476	218	2512	226	2547	233	2582	241								
32000	4216	2461	224	2496	232	2532	240	2567	248	2602	256	2632	263	2668	271	2698	279	2733 287	
34000	4479	2486	237	2521	245	2552	253	2587	261	2622	270	2653	278	2684	286	2718	295	2753 304	
36000	4742	2512	250	2547	259	2578	267	2612	276	2642	284	2673	292	2708	302	2738	310	2770 319	
38000	5006	2541	263	2572	272	2607	282	2638	290	2668	299	2702	309	2733	318	2764	327		
40000	5269	2572	277	2607	287	2636	296	2668	305	2698	314	2728	323	2759	333				
42000	5533	2607	291	2638	301	2668	310	2698	320	2728	329	2759	339						

# PERFORMANCE FOR FANS WITH BC-40 WHEELS

SIZE 44	CFM	OV	30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		38"SP	
			RPM	BHP	RPM	BHP														
41000	3618	1989	280	2015	289	2060	318	2086	328	2115	338	2144	350	2175	362	2210	391	2240	404	
44000	3883	2000	296	2030	307	2075	336	2104	347	2130	358	2155	368	2184	380	2230	414	2255	426	
47000	4148	2020	314	2050	326	2100	357	2126	368	2150	379	2175	390	2204	403	2250	437	2275	449	
50000	4412	2046	334	2075	346	2126	377	2150	389	2175	401	2206	424	2235	446	2260	460			
53000	4677	2075	354	2100	365	2155	398	2180	411	2206	424	2235	446	2275	472					
56000	4942	2110	375	2135	388	2155	398	2180	411	2206	424	2235	446	2275	472					
59000	5206	2150	399	2170	410	2195	423	2215	435	2235	446	2275	472							
62000	5471	2190	422	2215	437	2235	449	2255	460											
65000	5736	2235	450	2255	462	2275	474													

SIZE 49	CFM	OV	30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		38"SP	
			RPM	BHP	RPM	BHP														
50000	3640	1803	339	1832	352	1868	382	1894	395	1920	408	1949	423							
53000	3858	1814	356	1843	370	1883	402	1903	413	1929	427	1954	440	1980	455	2004	468	2030	483	
56000	4077	1828	374	1854	387	1898	422	1920	434	1944	448	1969	462	1994	477	2015	489	2040	504	
59000	4295	1848	395	1872	408	1914	441	1940	457	1964	471	1984	483	2009	499	2030	512	2055	527	
62000	4514	1868	414	1892	428	1914	441	1940	457	1964	471	1984	483	2026	521	2050	537			
65000	4732	1892	435	1914	449	1938	464	1960	478	1980	491	2004	507							
68000	4950	1914	454	1938	470	1960	485	1980	499	2004	515	2026	530	2046	544					
71000	5169	1944	477	1964	492	1984	506	2009	524	2026	537	2050	555							
74000	5387	1978	504	1998	519	2015	532	2035	547	2055	563									

SIZE 54	CFM	OV	28"SP		29"SP		30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP	
			RPM	BHP	RPM	BHP														
60000	3550	1576	379	1602	395	1626	409													
64000	3786	1585	399	1611	416	1636	431	1660	447	1686	464	1708	478	1732	495					
68000	4023	1606	426	1626	439	1651	456	1671	470	1697	488	1717	502	1742	520	1766	537	1788	554	
72000	4260	1622	448	1646	466	1666	480	1691	499	1712	514	1732	529	1757	548	1777	564	1797	579	
76000	4496	1646	475	1666	491	1686	507	1708	524	1732	543	1752	560	1772	576	1792	592			
80000	4733	1671	502	1691	519	1708	533	1728	550	1752	571	1772	589	1792	606					
84000	4970	1697	528	1717	546	1737	565	1757	583	1772	597	1792	616							
88000	5206	1728	559	1746	576	1766	595	1782	611											
92000	5443	1757	588	1777	608	1797	628													

SIZE 60	CFM	OV	31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		38"SP		39"SP	
			RPM	BHP	RPM	BHP														
80000	3777	1465	550	1490	574	1510	593	1530	612											
85000	4013	1480	580	1500	600	1520	621	1540	642	1560	663	1580	685	1600	706	1620	728			
90000	4249	1496	609	1516	631	1534	651	1554	673	1570	691	1591	716	1611	739	1626	756	1646	780	
95000	4485	1520	646	1536	664	1554	686	1570	705	1591	730	1606	749	1622	769	1642	794	1660	817	
100000	4721	1545	684	1560	702	1576	723	1591	742	1611	767	1626	787	1642	808	1660	832	1676	854	
105000	4958	1570	723	1585	742	1602	765	1616	783	1631	804	1651	831	1666	852	1680	872			
110000	5194	1596	764	1611	784	1626	805	1642	827	1660	853	1676	876							
115000	5430	1620	805	1636	827	1651	848	1671	877											
120000	5666	1642	846	1660	871	1676	894													

SIZE 66	CFM	OV	30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		38"SP	
			RPM	BHP	RPM	BHP														
95000	3700	1314	637	1330	657	1350	682													
100000	3895	1320	660	1340	686	1360	712	1376	733	1396	761	1414	785	1434	813					
105000	4090	1334	691	1350	713	1365	734	1385	763	1405	791	1420	813	1440	842	1456	866	1474	893	
110000	4285	1350	724	1365	746	1380	769	1396	792	1414	820	1430	844	1445	867	1465	899	1480	922	
115000	4479	1365	756	1380	779	1396	804	1414	832	1430	858	1445	882	1460	906	1476	933	1494	963	
120000	4674	1385	795	1400	819	1414	841	1430	868	1445	893	1460	919	1476	946	1490	971			
125000	4869	1405	834	1416	853	1434	883	1445	902	1465										

# PERFORMANCE FOR FANS WITH BC-40 WHEELS

SIZE 80	CFM	OV	29"SP		30"SP		31"SP		32"SP		33"SP		34"SP		35"SP		36"SP		37"SP		
			RPM	BHP																	
140000	3641	1053	901	1070	938	1088	978	1104	1013	1119	1048	1134	1082	1154	1172	1170	1213	1185	1252		
150000	3901	1064	954	1079	989	1094	1025	1110	1063	1124	1098	1139	1135	1150	1198	1165	1238	1180	1280	1194	1318
160000	4161	1079	1012	1094	1050	1108	1086	1119	1115	1134	1155	1150	1198	1176	1224	1165	1267	1176	1299	1190	1341
170000	4421	1099	1082	1110	1112	1124	1150	1139	1193	1150	1224	1165	1267	1194	1378						
180000	4681	1119	1152	1130	1184	1144	1225	1159	1270	1170	1303	1180	1334	1200	1416						
190000	4941	1139	1224	1154	1270	1165	1309	1176	1338	1190	1383	1200	1416								
200000	5202	1159	1301	1174	1347	1185	1383	1200	1432												
210000	5462	1180	1386	1194	1430																
220000	5722	1196	1461																		

SIZE 89	CFM	OV	26"SP		27"SP		28"SP		29"SP		30"SP		31"SP		32"SP		33"SP		34"SP		
			RPM	BHP																	
160000	3448	907	932	922	971	936	1008	953	1054	973	1145	988	1190	1002	1232	1013	1265				
170000	3664	912	971	927	1013	942	1056	958	1102	978	1192	993	1239	1004	1274	1018	1320	1033	1369		
180000	3879	922	1021	936	1063	953	1115	964	1149	988	1251	1002	1298	1013	1335	1028	1387	1038	1421		
190000	4095	936	1081	947	1116	962	1165	973	1201	998	1271	998	1306	1013	1360	1024	1400	1038	1451	1048	1488
200000	4310	953	1151	962	1181	973	1218	988	1271	1002	1337	1013	1378	1024	1420	1038	1473	1048	1512		
210000	4526	964	1201	978	1250	988	1286	1002	1337	1013	1378	1028	1451	1042	1507						
220000	4741	982	1277	993	1317	1004	1358	1018	1412	1028	1451	1044	1529								
230000	4957	998	1350	1008	1387	1022	1441	1033	1485	1044	1529										
240000	5172	1013	1423	1024	1465	1038	1520	1048	1560												



**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.



**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.

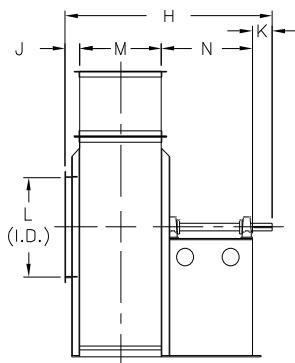
Performance certified is for installation Type B: Free inlet, Ducted outlet. Power rating (BHP) does not include transmission losses.  
Performance ratings do not include the effects of appurtenances (accessories).

# DRAWINGS

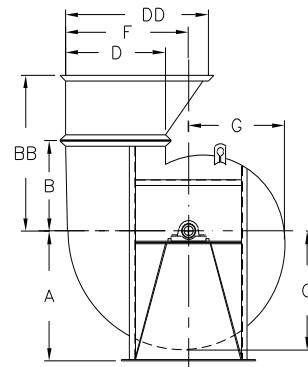
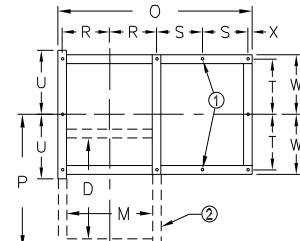
Dimensions not to be used for construction unless certified.

## ARRANGEMENT 1

1

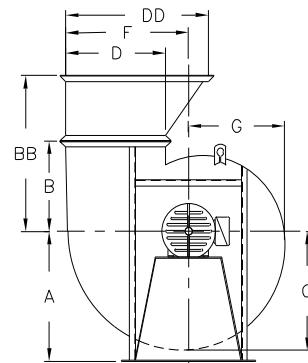
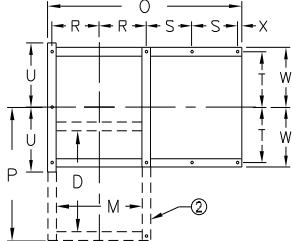
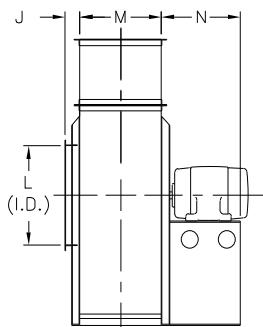


① Omitted on Sizes 24 through 33.



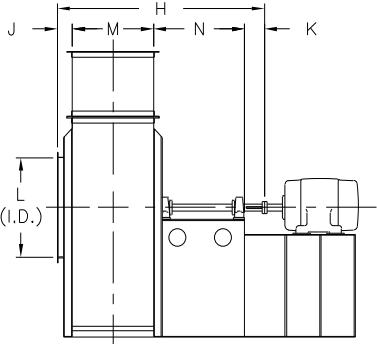
## ARRANGEMENT 4

4

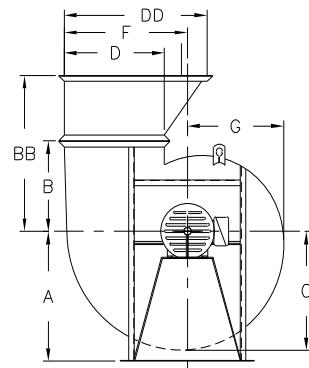
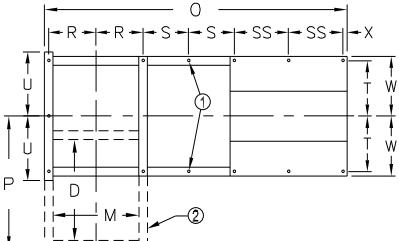


## ARRANGEMENT 8

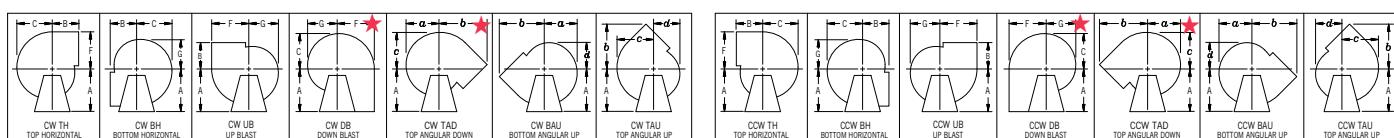
8



① Omitted on Sizes 27 through 33.



② Base bars form flanged outlet on Down Blast.  
M, D, and DD are outside housing dimensions. J is from housing side over inlet. L is inside diameter.



★ Down Blast and Top Angular Down discharge positions must be evaluated for clearance of accessories such as a unitary base, outlet damper, evase, 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.

# DIMENSIONS [INCHES]

Not to be used for construction unless certified.

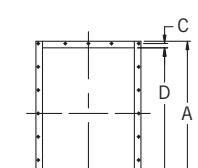
## ARRANGEMENTS 1, 4, AND 8

Size	A							B		BB		C	D	DD	F	G	L	M	P
	TH	TAD	BH	BAU	UB	TAU	DB	*	TAD	*	TAD								
24	21 $\frac{1}{4}$	21 $\frac{1}{4}$	30 $\frac{1}{8}$	30 $\frac{1}{8}$	23 $\frac{3}{4}$	23 $\frac{3}{4}$	19 $\frac{1}{4}$	19 $\frac{1}{4}$	28 $\frac{1}{4}$	44 $\frac{1}{8}$	69	21 $\frac{1}{4}$	26 $\frac{5}{16}$	40 $\frac{1}{16}$	26 $\frac{1}{16}$	18 $\frac{1}{16}$	26 $\frac{7}{8}$	19 $\frac{1}{2}$	29 $\frac{1}{16}$
27	23 $\frac{1}{8}$	23 $\frac{1}{8}$	32 $\frac{3}{4}$	32 $\frac{3}{4}$	25 $\frac{7}{8}$	25 $\frac{7}{8}$	21 $\frac{1}{4}$	21 $\frac{1}{4}$	30 $\frac{1}{16}$	48 $\frac{1}{16}$	76 $\frac{1}{16}$	23 $\frac{3}{8}$	29	44 $\frac{1}{8}$	28 $\frac{1}{16}$	20 $\frac{5}{8}$	29 $\frac{1}{2}$	21 $\frac{1}{2}$	31 $\frac{1}{16}$
30	25 $\frac{1}{2}$	25 $\frac{1}{2}$	35 $\frac{7}{8}$	35 $\frac{7}{8}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	23 $\frac{1}{2}$	23 $\frac{1}{2}$	34 $\frac{1}{4}$	54 $\frac{3}{8}$	85 $\frac{1}{4}$	26	32 $\frac{1}{4}$	49 $\frac{1}{16}$	31 $\frac{1}{8}$	22 $\frac{1}{16}$	32 $\frac{7}{8}$	23 $\frac{1}{8}$	34 $\frac{7}{8}$
33	27 $\frac{3}{4}$	27 $\frac{3}{4}$	39 $\frac{1}{8}$	39 $\frac{1}{8}$	31 $\frac{1}{8}$	31 $\frac{1}{8}$	25 $\frac{7}{8}$	25 $\frac{7}{8}$	37 $\frac{1}{8}$	59 $\frac{3}{4}$	93 $\frac{3}{8}$	28 $\frac{9}{16}$	35 $\frac{1}{16}$	54 $\frac{1}{16}$	35 $\frac{1}{16}$	25 $\frac{3}{16}$	36 $\frac{1}{8}$	26 $\frac{3}{8}$	39 $\frac{1}{16}$
36	30 $\frac{3}{8}$	30 $\frac{3}{8}$	42 $\frac{3}{4}$	42 $\frac{3}{4}$	34 $\frac{1}{8}$	34 $\frac{1}{8}$	28 $\frac{5}{8}$	28 $\frac{5}{8}$	40 $\frac{5}{8}$	66 $\frac{1}{8}$	103 $\frac{5}{16}$	31 $\frac{5}{8}$	39 $\frac{3}{16}$	60 $\frac{1}{16}$	38 $\frac{3}{4}$	27 $\frac{7}{8}$	40 $\frac{1}{8}$	29 $\frac{1}{8}$	42 $\frac{3}{4}$
40	33 $\frac{1}{4}$	33 $\frac{1}{4}$	46 $\frac{3}{4}$	46 $\frac{3}{4}$	37 $\frac{3}{8}$	37 $\frac{3}{8}$	31 $\frac{5}{8}$	31 $\frac{5}{8}$	44 $\frac{9}{16}$	72 $\frac{5}{16}$	114 $\frac{5}{16}$	34 $\frac{1}{16}$	43 $\frac{1}{8}$	66 $\frac{7}{8}$	42 $\frac{1}{16}$	30 $\frac{1}{16}$	43 $\frac{7}{8}$	32 $\frac{1}{8}$	46 $\frac{1}{16}$
44	36 $\frac{1}{2}$	36 $\frac{1}{2}$	51 $\frac{1}{4}$	51 $\frac{1}{4}$	41	41	34 $\frac{7}{8}$	34 $\frac{7}{8}$	49 $\frac{3}{8}$	80 $\frac{5}{8}$	126 $\frac{3}{8}$	47 $\frac{5}{8}$	73 $\frac{7}{8}$	47 $\frac{3}{16}$	33 $\frac{1}{16}$	48 $\frac{7}{8}$	35 $\frac{1}{2}$	51 $\frac{1}{16}$	
49	39 $\frac{7}{8}$	39 $\frac{7}{8}$	56 $\frac{1}{2}$	56 $\frac{1}{2}$	44 $\frac{7}{8}$	44 $\frac{7}{8}$	38 $\frac{1}{2}$	38 $\frac{1}{2}$	53 $\frac{7}{16}$	88 $\frac{1}{16}$	42 $\frac{5}{16}$	52 $\frac{3}{8}$	81 $\frac{1}{16}$	51 $\frac{1}{16}$	37 $\frac{5}{16}$	53 $\frac{7}{8}$	39	55 $\frac{1}{16}$	
54	43 $\frac{7}{8}$	43 $\frac{7}{8}$	62	62	49 $\frac{3}{8}$	49 $\frac{3}{8}$	42 $\frac{1}{2}$	42 $\frac{1}{2}$	58 $\frac{1}{2}$	98 $\frac{1}{4}$	154	46 $\frac{13}{16}$	57 $\frac{15}{16}$	90 $\frac{3}{16}$	57 $\frac{1}{2}$	41 $\frac{5}{16}$	59 $\frac{3}{8}$	43 $\frac{1}{4}$	62 $\frac{1}{2}$
60	48 $\frac{1}{8}$	48 $\frac{1}{8}$	68 $\frac{1}{8}$	68 $\frac{1}{8}$	54 $\frac{3}{8}$	54 $\frac{3}{8}$	47	47	64	108 $\frac{5}{8}$	170 $\frac{1}{4}$	51 $\frac{3}{16}$	64	99 $\frac{1}{16}$	63 $\frac{3}{16}$	45 $\frac{5}{8}$	66 $\frac{1}{8}$	47 $\frac{3}{4}$	68 $\frac{1}{16}$
66	52 $\frac{3}{4}$	52 $\frac{3}{4}$	74 $\frac{3}{8}$	74 $\frac{3}{8}$	59 $\frac{1}{2}$	59 $\frac{1}{2}$	51 $\frac{3}{4}$	51 $\frac{3}{4}$	70 $\frac{1}{4}$	119 $\frac{5}{8}$	187 $\frac{1}{2}$	56 $\frac{5}{16}$	70 $\frac{3}{8}$	109 $\frac{11}{16}$	69 $\frac{7}{8}$	50 $\frac{3}{16}$	72 $\frac{5}{8}$	52 $\frac{1}{2}$	74 $\frac{7}{8}$
73	58	81 $\frac{3}{4}$	81 $\frac{3}{4}$	65 $\frac{1}{2}$	65 $\frac{1}{2}$	57 $\frac{1}{4}$	57 $\frac{1}{4}$	76 $\frac{3}{16}$	132 $\frac{3}{16}$	207 $\frac{3}{16}$	62 $\frac{1}{16}$	77 $\frac{1}{16}$	121 $\frac{3}{16}$	77 $\frac{1}{4}$	55 $\frac{1}{2}$	80 $\frac{3}{8}$	58 $\frac{3}{8}$	82 $\frac{1}{4}$	
80	63 $\frac{7}{8}$	63 $\frac{7}{8}$	90	90	72 $\frac{1}{8}$	72 $\frac{1}{8}$	63 $\frac{3}{16}$	63 $\frac{3}{16}$	82 $\frac{1}{16}$	146 $\frac{5}{16}$	229 $\frac{5}{16}$	69 $\frac{5}{8}$	86	134	85 $\frac{7}{16}$	61 $\frac{3}{8}$	88 $\frac{5}{8}$	64 $\frac{3}{8}$	90 $\frac{7}{16}$
89	70 $\frac{1}{8}$	70 $\frac{1}{8}$	98 $\frac{5}{8}$	98 $\frac{5}{8}$	79 $\frac{1}{4}$	79 $\frac{1}{4}$	69 $\frac{3}{4}$	69 $\frac{3}{4}$	89 $\frac{1}{4}$	161 $\frac{1}{4}$	252 $\frac{3}{4}$	76 $\frac{1}{16}$	94 $\frac{3}{4}$	147 $\frac{1}{16}$	94 $\frac{1}{8}$	67 $\frac{7}{16}$	97 $\frac{7}{8}$	70 $\frac{7}{8}$	99 $\frac{1}{8}$

NA – Not available. \* For TH, BH, UB, BAU and TAU discharges. For DB discharge, use A dimension for B.

Size	R	U	W	a	b		c	d	H	J	K		N	O	S	T	X	Base holes
					BAU/TAU	TAD					Arr. 1	Arr. 1	Arr. 1	Arr. 1	Arr. 1			
24	11 $\frac{1}{4}$	18	15 $\frac{1}{2}$	19 $\frac{15}{16}$	32	38 $\frac{1}{2}$	22 $\frac{9}{16}$	17 $\frac{7}{16}$	47 $\frac{1}{8}$	45 $\frac{8}{16}$	5	5 $\frac{1}{2}$	18	43 $\frac{1}{4}$	17 $\frac{3}{4}$	14	1 $\frac{1}{2}$	3 $\frac{4}{16}$
27	12 $\frac{1}{4}$	19 $\frac{3}{8}$	16 $\frac{1}{8}$	22	35 $\frac{1}{4}$	42 $\frac{1}{4}$	24 $\frac{7}{8}$	19 $\frac{1}{4}$	51 $\frac{5}{8}$	45 $\frac{8}{16}$	5 $\frac{1}{2}$	6	20	47 $\frac{1}{4}$	19 $\frac{3}{4}$	15 $\frac{3}{8}$	1 $\frac{1}{2}$	3 $\frac{4}{16}$
30	13 $\frac{7}{16}$	21 $\frac{1}{4}$	18 $\frac{7}{8}$	24 $\frac{1}{2}$	39 $\frac{3}{16}$	46 $\frac{3}{4}$	27 $\frac{11}{16}$	21 $\frac{7}{16}$	56 $\frac{1}{2}$	45 $\frac{8}{16}$	6	6	22	51 $\frac{5}{8}$	21 $\frac{3}{4}$	17 $\frac{3}{8}$	1 $\frac{1}{2}$	3 $\frac{4}{16}$
33	15 $\frac{3}{16}$	23	21	26 $\frac{7}{8}$	43 $\frac{1}{16}$	51 $\frac{1}{8}$	30 $\frac{7}{16}$	23 $\frac{1}{2}$	62	51 $\frac{8}{16}$	6 $\frac{1}{2}$	6	24	58 $\frac{1}{8}$	23 $\frac{3}{4}$	19	2	3 $\frac{4}{16}$
36	16 $\frac{9}{16}$	25	22 $\frac{1}{2}$	29 $\frac{3}{4}$	47 $\frac{5}{8}$	56 $\frac{1}{8}$	33 $\frac{5}{8}$	26	68 $\frac{3}{8}$	51 $\frac{8}{16}$	7	27	63 $\frac{7}{8}$	13 $\frac{3}{8}$	20 $\frac{1}{2}$	2	1 $\frac{1}{2}$	1 $\frac{1}{2}$
40	18 $\frac{1}{16}$	27 $\frac{1}{8}$	23 $\frac{1}{4}$	32 $\frac{3}{4}$	52 $\frac{1}{2}$	61 $\frac{3}{4}$	37 $\frac{1}{16}$	28 $\frac{5}{8}$	74 $\frac{7}{8}$	51 $\frac{8}{16}$	7	25 $\frac{5}{8}$	30	69 $\frac{3}{4}$	14 $\frac{1}{16}$	21 $\frac{1}{4}$	2	1 $\frac{1}{2}$
44	19 $\frac{3}{4}$	29 $\frac{5}{8}$	25	36 $\frac{1}{16}$	58	68 $\frac{3}{8}$	40 $\frac{15}{16}$	31 $\frac{5}{8}$	81 $\frac{3}{4}$	51 $\frac{8}{16}$	7	33	76 $\frac{1}{8}$	16 $\frac{5}{16}$	23	2	1 $\frac{1}{2}$	1 $\frac{1}{2}$
49	21 $\frac{1}{2}$	32 $\frac{1}{4}$	26	39 $\frac{13}{16}$	63 $\frac{7}{8}$	74 $\frac{1}{2}$	45 $\frac{1}{16}$	34 $\frac{13}{16}$	88 $\frac{3}{4}$	51 $\frac{8}{16}$	7	36	82 $\frac{5}{8}$	17 $\frac{1}{16}$	24	2	1 $\frac{1}{2}$	1 $\frac{1}{2}$
54	24 $\frac{1}{8}$	35 $\frac{1}{4}$	29 $\frac{1}{2}$	44 $\frac{1}{16}$	70 $\frac{11}{16}$	82	49 $\frac{13}{16}$	38 $\frac{1}{2}$	97 $\frac{7}{8}$	55 $\frac{8}{16}$	9	7	40	92 $\frac{7}{8}$	19 $\frac{1}{16}$	27	2 $\frac{1}{2}$	1 $\frac{1}{2}$
60	26 $\frac{3}{8}$	38 $\frac{1}{2}$	31 $\frac{1}{2}$	48 $\frac{1}{16}$	78 $\frac{3}{16}$	90 $\frac{1}{4}$	55 $\frac{1}{8}$	42 $\frac{9}{16}$	107 $\frac{7}{8}$	55 $\frac{8}{16}$	9 $\frac{1}{2}$	8	45	102 $\frac{3}{8}$	22 $\frac{9}{16}$	29	2 $\frac{1}{2}$	1 $\frac{1}{2}$
66	28 $\frac{13}{16}$	42	33 $\frac{1}{2}$	53 $\frac{9}{16}$	86	99 $\frac{1}{8}$	60 $\frac{9}{16}$	46 $\frac{13}{16}$	117 $\frac{1}{8}$	55 $\frac{8}{16}$	9 $\frac{7}{8}$	8	49	111 $\frac{1}{4}$	24 $\frac{5}{16}$	31	2 $\frac{1}{2}$	1 $\frac{1}{2}$
73	31 $\frac{9}{16}$	46	35 $\frac{1}{2}$	59 $\frac{9}{16}$	95 $\frac{1}{16}$	108 $\frac{1}{2}$	67	51 $\frac{3}{4}$	127 $\frac{7}{8}$	55 $\frac{8}{16}$	9 $\frac{7}{8}$	8	54	121 $\frac{3}{4}$	24 $\frac{1}{2}$	33	2 $\frac{1}{2}$	1 $\frac{1}{2}$
80	34 $\frac{1}{16}$	50 $\frac{1}{2}$	42 $\frac{1}{2}$	65 $\frac{1}{2}$	105 $\frac{3}{16}$	119	74 $\frac{1}{16}$	57 $\frac{3}{16}$	—	—	55 $\frac{8}{16}$	8	60	—	29 $\frac{13}{16}$	40	—	1 $\frac{1}{2}$
89	37 $\frac{1}{16}$	55 $\frac{1}{8}$	47 $\frac{1}{2}$	72 $\frac{1}{8}$	115 $\frac{7}{8}$	129 $\frac{3}{4}$	81 $\frac{5}{8}$	63 $\frac{1}{16}$	—	55 $\frac{8}{16}$	9	9	67	—	33 $\frac{5}{16}$	45	—	1 $\frac{1}{2}$

Tolerance:  $\pm \frac{1}{8}$ "



## FLANGED OUTLET AND EVASE

Model	A		B†	C	D	M†	Standard holes		
	Fan	Evase					Sides	Fan	Evase
24	28 $\frac{3}{16}$	43 $\frac{1}{4}$	22	3/4	26 $\frac{5}{16}$	19 $\frac{1}{2}$	9	13	5 $\frac{1}{16}$
27	31 $\frac{1}{2}$	47 $\frac{5}{8}$	24	3/4	29	21 $\frac{1}{2}$	9	13	5 $\frac{1}{16}$
30	34 $\frac{3}{4}$	52 $\frac{5}{8}$	26 $\frac{3}{8}$	3/4	32 $\frac{1}{4}$	23 $\frac{7}{8}$	9	15	5 $\frac{7}{16}$
33	38 $\frac{7}{16}$	58	29 $\frac{3}{8}$	7/8	35 $\frac{7}{16}$	26 $\frac{$			

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

DIMENSIONS [INCHES] Arr. 4 and 8											
Size	Frame size	N		O†		S		SS		Base holes	
		Arr. 4	Arr. 8	Arr. 4	Arr. 8	Arr. 4	Arr. 8	Arr. 4	Arr. 8	Arr. 4	Arr. 8
24	213T	—	—	60 <sup>5</sup> / <sub>8</sub>	—	8 <sup>5</sup> / <sub>16</sub>	—	—	—	—	—
	215T	—	—	62 <sup>1</sup> / <sub>8</sub>	—	9 <sup>1</sup> / <sub>16</sub>	—	—	—	—	—
	254T	15 <sup>5</sup> / <sub>8</sub>	18	40 <sup>7</sup> / <sub>8</sub>	65 <sup>3</sup> / <sub>4</sub>	7 <sup>11</sup> / <sub>16</sub>	10 <sup>7</sup> / <sub>8</sub>	—	—	—	—
	324TS	20	45 <sup>1</sup> / <sub>8</sub>	69 <sup>3</sup> / <sub>4</sub>	91 <sup>3</sup> / <sub>16</sub>	12 <sup>7</sup> / <sub>8</sub>	13 <sup>5</sup> / <sub>8</sub>	—	—	—	—
	326TS	21 <sup>1</sup> / <sub>2</sub>	46 <sup>5</sup> / <sub>8</sub>	71 <sup>1</sup> / <sub>4</sub>	10 <sup>9</sup> / <sub>16</sub>	13 <sup>9</sup> / <sub>16</sub>	14 <sup>1</sup> / <sub>16</sub>	—	—	—	—
	364TS	21 <sup>1</sup> / <sub>4</sub>	43 <sup>3</sup> / <sub>4</sub>	71 <sup>1</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>8</sub>	—	—	—	—	—	—
	365TS	22 <sup>1</sup> / <sub>4</sub>	44 <sup>3</sup> / <sub>4</sub>	72 <sup>1</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>8</sub>	—	—	—	—	—	—
	404TS	23	45 <sup>1</sup> / <sub>2</sub>	73 <sup>3</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>8</sub>	15 <sup>1</sup> / <sub>8</sub>	—	—	—	—	—
	405TS	24 <sup>1</sup> / <sub>4</sub>	47	74 <sup>7</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	15 <sup>7</sup> / <sub>8</sub>	—	—	—	—	—
	254T	15 <sup>5</sup> / <sub>8</sub>	20	42 <sup>7</sup> / <sub>8</sub>	70 <sup>1</sup> / <sub>4</sub>	71 <sup>1</sup> / <sub>16</sub>	11 <sup>1</sup> / <sub>8</sub>	—	—	—	—
27	256T	17 <sup>3</sup> / <sub>8</sub>	44 <sup>5</sup> / <sub>8</sub>	72	8 <sup>9</sup> / <sub>16</sub>	12	—	—	—	—	—
	364TS	21 <sup>1</sup> / <sub>4</sub>	45 <sup>3</sup> / <sub>4</sub>	75 <sup>5</sup> / <sub>8</sub>	8 <sup>7</sup> / <sub>8</sub>	13 <sup>13</sup> / <sub>16</sub>	—	—	—	—	—
	365TS	22 <sup>1</sup> / <sub>4</sub>	46 <sup>3</sup> / <sub>4</sub>	76 <sup>5</sup> / <sub>8</sub>	9 <sup>9</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>16</sub>	—	—	—	—	—
	404TS	23	47 <sup>1</sup> / <sub>2</sub>	77 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	15 <sup>3</sup> / <sub>8</sub>	—	—	—	—	—
	405TS	24 <sup>1</sup> / <sub>2</sub>	49	79 <sup>3</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>2</sub>	16 <sup>1</sup> / <sub>8</sub>	—	—	—	—	—
	444TS	27 <sup>1</sup> / <sub>4</sub>	51 <sup>3</sup> / <sub>4</sub>	82 <sup>1</sup> / <sub>2</sub>	11 <sup>1</sup> / <sub>8</sub>	17 <sup>11</sup> / <sub>16</sub>	—	—	—	—	—
	445TS	29 <sup>1</sup> / <sub>4</sub>	53 <sup>3</sup> / <sub>4</sub>	84 <sup>1</sup> / <sub>2</sub>	12 <sup>7</sup> / <sub>8</sub>	18 <sup>11</sup> / <sub>16</sub>	—	—	—	—	—
	447TS	32 <sup>3</sup> / <sub>4</sub>	57 <sup>1</sup> / <sub>4</sub>	88	14 <sup>5</sup> / <sub>8</sub>	20 <sup>7</sup> / <sub>16</sub>	—	—	—	—	—
	284T	17 <sup>3</sup> / <sub>8</sub>	22	47	77	8 <sup>9</sup> / <sub>16</sub>	12 <sup>5</sup> / <sub>16</sub>	—	—	—	—
	286T	18 <sup>7</sup> / <sub>8</sub>	48 <sup>1</sup> / <sub>2</sub>	78 <sup>1</sup> / <sub>2</sub>	9 <sup>5</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>16</sub>	—	—	—	—	—
30	324T	20	49 <sup>1</sup> / <sub>2</sub>	78 <sup>5</sup> / <sub>8</sub>	9 <sup>13</sup> / <sub>16</sub>	13 <sup>1</sup> / <sub>8</sub>	—	—	—	—	—
	444TS	27 <sup>1</sup> / <sub>4</sub>	54 <sup>1</sup> / <sub>8</sub>	86 <sup>7</sup> / <sub>8</sub>	11 <sup>7</sup> / <sub>8</sub>	17 <sup>11</sup> / <sub>16</sub>	—	—	—	—	—
	445TS	29 <sup>1</sup> / <sub>4</sub>	56 <sup>1</sup> / <sub>8</sub>	88 <sup>7</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	18 <sup>11</sup> / <sub>16</sub>	—	—	—	—	—
	447TS	32 <sup>3</sup> / <sub>4</sub>	59 <sup>9</sup> / <sub>8</sub>	92 <sup>3</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>	20 <sup>7</sup> / <sub>16</sub>	—	—	—	—	—
	449TS	37 <sup>3</sup> / <sub>4</sub>	64 <sup>9</sup> / <sub>8</sub>	97 <sup>3</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>8</sub>	22 <sup>15</sup> / <sub>16</sub>	—	—	—	—	—
	324T	20	54	85 <sup>5</sup> / <sub>8</sub>	9 <sup>13</sup> / <sub>16</sub>	13 <sup>5</sup> / <sub>8</sub>	—	—	—	—	—
	326T	21 <sup>1</sup> / <sub>2</sub>	55 <sup>1</sup> / <sub>2</sub>	87 <sup>1</sup> / <sub>8</sub>	10 <sup>9</sup> / <sub>16</sub>	14 <sup>3</sup> / <sub>8</sub>	—	—	—	—	—
	364T	21 <sup>1</sup> / <sub>4</sub>	51 <sup>5</sup> / <sub>8</sub>	87 <sup>5</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	14 <sup>3</sup> / <sub>8</sub>	—	—	—	—	—
	445TS	29 <sup>1</sup> / <sub>4</sub>	59 <sup>9</sup> / <sub>8</sub>	94 <sup>3</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	18 <sup>3</sup> / <sub>16</sub>	—	—	—	—	—
	447TS	32 <sup>3</sup> / <sub>4</sub>	63 <sup>1</sup> / <sub>8</sub>	97 <sup>7</sup> / <sub>8</sub>	14 <sup>5</sup> / <sub>8</sub>	19 <sup>15</sup> / <sub>16</sub>	—	—	—	—	—
	449TS	37 <sup>3</sup> / <sub>4</sub>	68 <sup>1</sup> / <sub>8</sub>	102 <sup>7</sup> / <sub>8</sub>	17 <sup>1</sup> / <sub>8</sub>	22 <sup>7</sup> / <sub>16</sub>	—	—	—	—	—

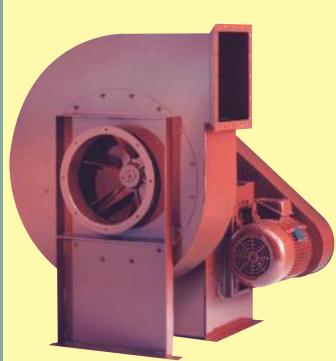
DIMENSIONS [INCHES] Arr. 4 and 8											
Size	Frame size	N		O†		S		SS		Base holes	
		Arr. 4	Arr. 8	Arr. 4	Arr. 8	Arr. 4	Arr. 8	Arr. 4	Arr. 8	Arr. 4	Arr. 8
36	364T	21 <sup>1</sup> / <sub>4</sub>	—	—	—	54 <sup>3</sup> / <sub>8</sub>	93 <sup>3</sup> / <sub>8</sub>	8 <sup>5</sup> / <sub>8</sub>	—	14 <sup>5</sup> / <sub>8</sub>	—
	365T	22 <sup>1</sup> / <sub>4</sub>	27	—	—	55 <sup>3</sup> / <sub>8</sub>	94 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>8</sub>	13 <sup>5</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>8</sub>	7-1
	404T	23	—	—	—	56 <sup>1</sup> / <sub>8</sub>	96 <sup>1</sup> / <sub>2</sub>	9 <sup>1</sup> / <sub>2</sub>	—	16 <sup>5</sup> / <sub>8</sub>	13-1
	405T	24 <sup>1</sup> / <sub>4</sub>	—	—	—	57 <sup>7</sup> / <sub>8</sub>	98	10 <sup>1</sup> / <sub>4</sub>	—	17 <sup>1</sup> / <sub>8</sub>	—
	444T	27 <sup>1</sup> / <sub>4</sub>	30	—	—	63 <sup>3</sup> / <sub>8</sub>	108 <sup>7</sup> / <sub>8</sub>	11 <sup>5</sup> / <sub>8</sub>	14 <sup>13</sup> / <sub>16</sub>	19 <sup>9</sup> / <sub>16</sub>	7-1
40	445T	29 <sup>1</sup> / <sub>4</sub>	—	—	—	65 <sup>5</sup> / <sub>8</sub>	110 <sup>8</sup> / <sub>8</sub>	12 <sup>7</sup> / <sub>8</sub>	14 <sup>13</sup> / <sub>16</sub>	20 <sup>9</sup> / <sub>16</sub>	13-1
	364T	21 <sup>1</sup> / <sub>4</sub>	—	—	—	60 <sup>3</sup> / <sub>4</sub>	106 <sup>3</sup> / <sub>4</sub>	8 <sup>5</sup> / <sub>8</sub>	—	15 <sup>1</sup> / <sub>8</sub>	—
	365T	22 <sup>1</sup> / <sub>4</sub>	33	—	—	61 <sup>3</sup> / <sub>4</sub>	107 <sup>3</sup> / <sub>4</sub>	9 <sup>1</sup> / <sub>2</sub>	16 <sup>5</sup> / <sub>16</sub>	15 <sup>5</sup> / <sub>8</sub>	7-1
	404T	23	—	—	—	62 <sup>1</sup> / <sub>2</sub>	109 <sup>8</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	16 <sup>5</sup> / <sub>16</sub>	17 <sup>5</sup> / <sub>8</sub>	13-1
	405T	24 <sup>1</sup> / <sub>2</sub>	—	—	—	64	111 <sup>3</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	17 <sup>13</sup> / <sub>16</sub>	19 <sup>9</sup> / <sub>16</sub>	—
44	444T	27 <sup>1</sup> / <sub>4</sub>	36	—	—	66	116 <sup>3</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>2</sub>	17 <sup>13</sup> / <sub>16</sub>	16 <sup>7</sup> / <sub>8</sub>	7-1
	445T	29 <sup>1</sup> / <sub>4</sub>	—	—	—	67 <sup>1</sup> / <sub>2</sub>	117 <sup>8</sup> / <sub>8</sub>	10 <sup>1</sup> / <sub>4</sub>	17 <sup>13</sup> / <sub>16</sub>	17 <sup>3</sup> / <sub>8</sub>	—
	447T	32 <sup>3</sup> / <sub>4</sub>	—	—	—	70 <sup>1</sup> / <sub>4</sub>	121 <sup>3</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>8</sub>	19 <sup>13</sup> / <sub>16</sub>	19 <sup>9</sup> / <sub>16</sub>	—
	449T	37 <sup>3</sup> / <sub>4</sub>	—	—	—	72 <sup>1</sup> / <sub>4</sub>	123 <sup>3</sup> / <sub>4</sub>	12 <sup>9</sup> / <sub>8</sub>	20 <sup>9</sup> / <sub>16</sub>	22 <sup>5</sup> / <sub>16</sub>	—
	404T	23	—	—	—	75 <sup>3</sup> / <sub>4</sub>	127 <sup>1</sup> / <sub>4</sub>	14 <sup>3</sup> / <sub>8</sub>	—	24 <sup>13</sup> / <sub>16</sub>	—
54	444T	—	—	—	—	80 <sup>3</sup> / <sub>4</sub>	132 <sup>1</sup> / <sub>4</sub>	16 <sup>7</sup> / <sub>8</sub>	—	—	—
	445T	—	40	—	—	131	—	—	19 <sup>13</sup> / <sub>16</sub>	20 <sup>1</sup> / <sub>16</sub>	13-1
	447T	—	—	—	—	133	—	—	21 <sup>13</sup> / <sub>16</sub>	—	—
	447T	—	45	—	—	136 <sup>1</sup> / <sub>2</sub>	—	—	22 <sup>5</sup> / <sub>16</sub>	24 <sup>13</sup> / <sub>16</sub>	—
	449T	—	—	—	—	147	—	—	—	—	—
60	66	—	—	—	—	152	—	—	—	—	—
	73	Sizes 66, 73, 80 and 89 Arr. 8 pedestals are designed per job due to non-NEMA frame size motors.	—	—	—	—	—	—	—	—	—
	80	—	—	—	—	—	—	—	—	—	—
	89	—	—	—	—	—	—	—	—	—	—

BC-40 FANS										
Size	Shaft diameter		Bearings		Wheel		Bare fan weight			
	Arr. 1	Arr. 8	Arr. 1	Arr. 8	Weight	WR <sup>2</sup>	Arr. 1	Arr. 4	Arr. 8	
24	2 <sup>11</sup> / <sub>16</sub>	2 <sup>11</sup> / <sub>16</sub>	E	C	127	70	972	845	1401	
27	2 <sup>11</sup> / <sub>16</sub>	2 <sup>11</sup> / <sub>16</sub>	E	C	146	100	1155	1097	1765	
30	2 <sup>15</sup> / <sub>16</sub>	2 <sup>15</sup> / <sub>16</sub>	E	C	179	160	1534	1655	2458	
33	2 <sup>15</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	E	C	217	235	1882	2028	3001	
36	3 <sup>7</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	E	C	291	337	2330	1917	3048	
40	3 <sup>7</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>16</sub>	E	C	373	563	2736	2405	3681	
44	—	3 <sup>15</sup> / <sub>16</sub>	—	E	460	890	—	2840	4373	
49	—	4 <sup>7</sup> / <sub>16</sub>	—	E	612	1484	—	3846	5208	
54	—	4 <sup>15</sup> / <sub>16</sub>	—	E	856	2317	—	—	6566	
60	—	5 <sup>7</sup> / <sub>16</sub>	—	E	1218	4593	—	—	8992	
66	—	6	—	E	1535	6833	—	—	10575	
73	—	6	—	E	1828	10122	—	—	12542	
80	—	6 <sup>7</sup> / <sub>16</sub>	—	E	2371	15453	—	—	15476	
89	—	6 <sup>7</sup> / <sub>16</sub>	—	E	2792	22521	—	—	18306	

\*nyb reserves the right to substitute bearings of equal ratings.  
 Bearing types:

# 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.

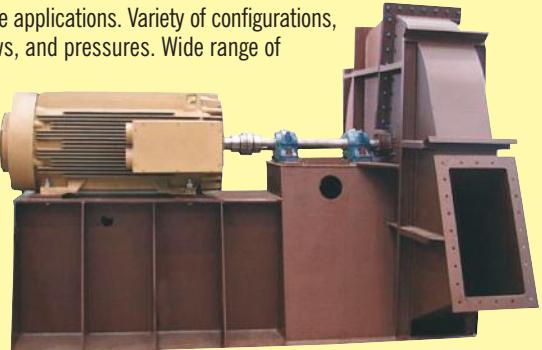


## FIBERGLASS REINFORCED PLASTIC [FRP]

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 exhaustors. These units are ideal for industrial, commercial, and institutional applications.



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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.