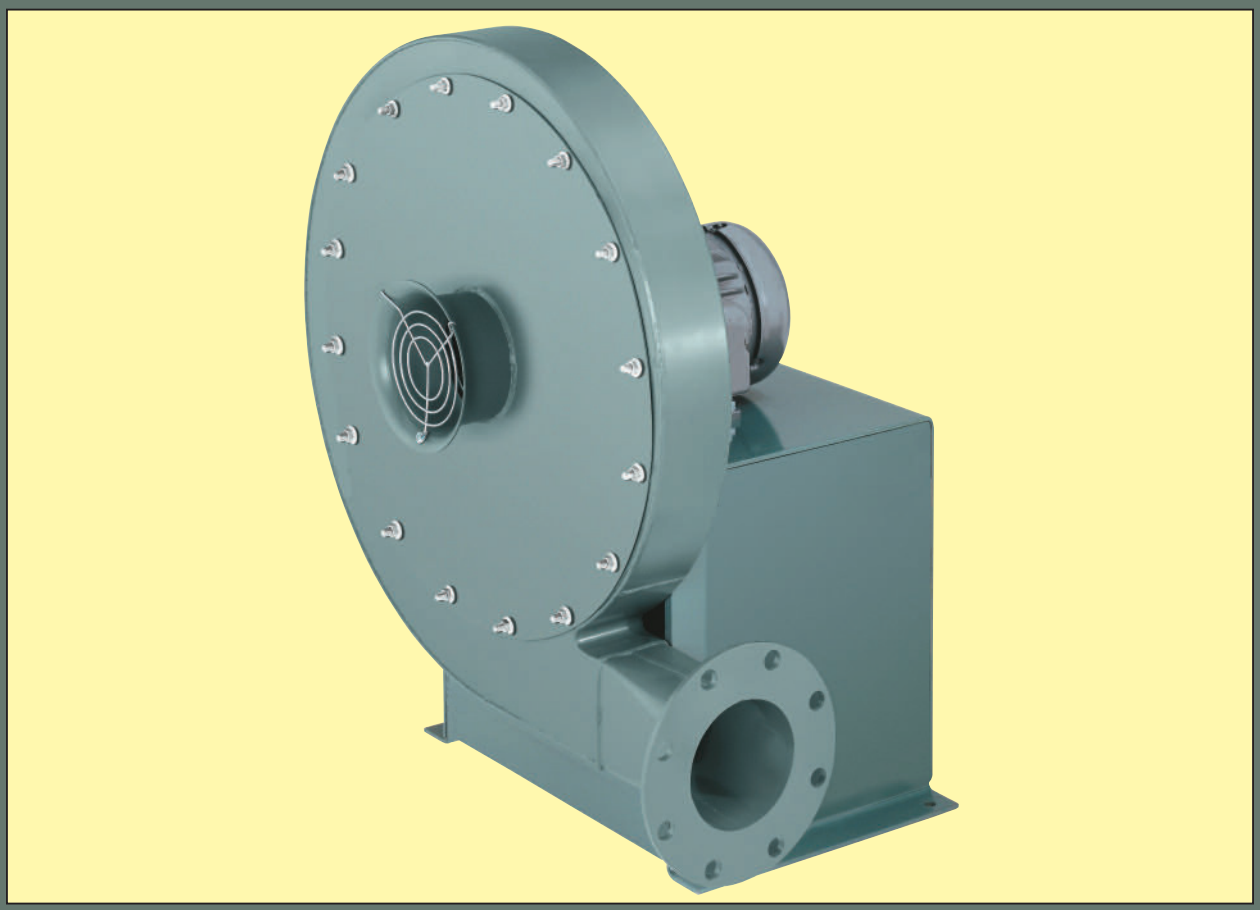
BULLETIN 451
MARCH, 2014

PRESSURE BLOWERS

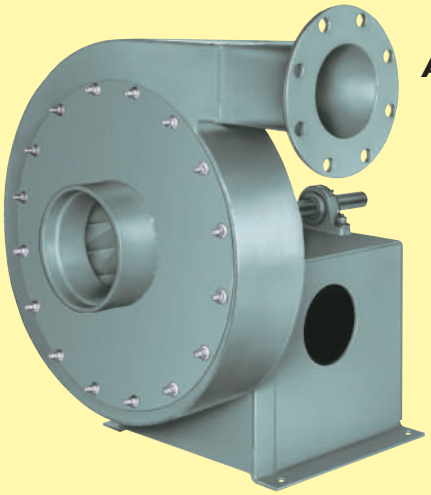
- Capacities to 5,200 CFM
- Two wheel choices
- Static pressures to 58"WG
- Temperatures to 600°F.



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

For greater pressures and capacities: see Type HP Pressure Blowers



ARRANGEMENT

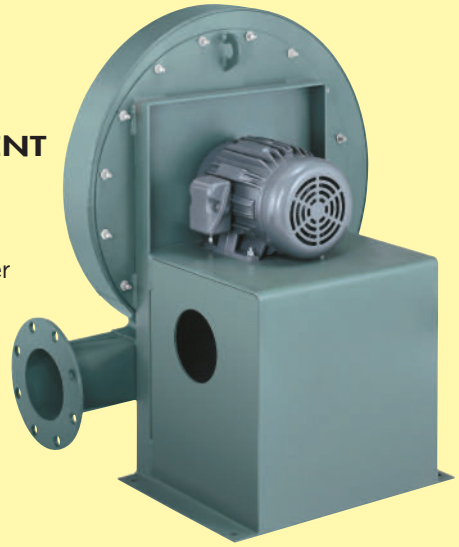
1

Pressure Blower with plain pipe inlet.

ARRANGEMENT

4

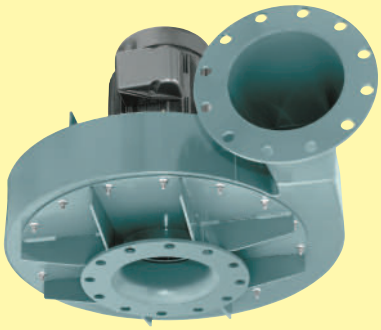
Pressure Blower with motor.



ARRANGEMENT

4-V

Pressure Blower with motor.



The New York Blower Company certifies that the Pressure Blowers shown herein are licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

PRESSURE BLOWERS

...for process systems

DESIGN FEATURES

- Pressures to 58"WG.
- Capacities to 5,200 CFM.
- Stable performance . . . the pressure curve remains stable from wide-open to closed-off . . . fan instability, or pulsation, is eliminated even when "turn-down" approaches zero flow.
- Choice of wheel designs . . . standard aluminum wheel for optimum efficiency or optional steel wheel for more rugged applications.
- Efficiency . . . advanced wheel and aerodynamic housing design combine for air-handling efficiency superior to conventional radial-wheel designs.
- Variable wheel diameters and a choice of six outlet sizes enable efficient fan selection across a wide range of volumes and pressures.
- Choice of arrangements . . . direct-drive and belt-drive.
- Wide application range . . . designed for continuous operation in combustion, cooling, conveying, drying, and various process systems.

CONSTRUCTION FEATURES

- All-welded steel housings . . . heavy-gauge housings are designed specifically to prevent "flexing" at high pressures.
- Flanges . . . continuously welded flanges match ANSI Class 125/150 hole pattern.
- Balance . . . all wheels are precision-balanced prior to assembly . . . fans with motors and drives mounted by **nyb** are given a final trim balance check at the specified running speed.
- Shafting . . . straightened to close tolerance to minimize "run-out" and ensure smooth operation.
- Inlet configuration . . . a choice of three inlet types allows units to be tailored to specific application requirements.
- Lifting eyes . . . standard on all units for ease of handling and installation.
- Finish . . . medium-green industrial coating.

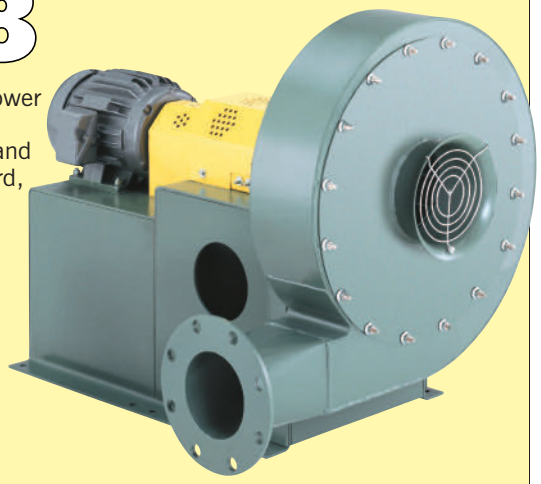
ACCESSORIES/MODIFICATIONS

- **COMPANION FLANGES**
  Designed to fit flush with fan inlet and outlet flanges, provided with a matching hole pattern.
- **DRAINS**
  Tank flange is welded to the lowest point of the housing scroll . . . female pipe thread.
- **INLET FILTER**
  Filters are available with a choice of three element types: wire mesh, hi-flow polyester, and ultra-synthetic. High-efficiency filter is flange-mounted. Furnished standard with outboard support bracket and available with or without protective hood.
- **SILENCERS**
  Available to match standard inlet or outlet flange sizes. Heavy-welded construction filled with high-density, acoustical absorption material.
- **OUTLET DAMPERS**
  Available as either an integral outlet design for fixed damper control or as a separate wafer design for variable-flow applications [shown]. Wafer damper is available with an optional actuator and positioner.

- **SHAFT SEALS**
  Ceramic-felt shaft seals consist of compressed ceramic felt elements. Lubricated lip seals [Buna, Teflon®, and Viton®] and gas-purgeable, segmental bushing seals are also available. See your **nyb** representative for availability.
  [Teflon and Viton are registered trademarks of DuPont and DuPont Dow Elastomers, respectively.]
- **ACCESS DOOR**
  Gasketed, flush-bolted door opens to provide access to the wheel.
- **HEAT-FAN CONSTRUCTION**
  Available on Arrangements 1, 8, 9, and 10 steel wheel Pressure Blowers up to 600°F. Modifications include shaft cooler and shaft-cooler guard.
- **LL-1 LOW LEAKAGE CONSTRUCTION**
  Special construction to minimize leakage includes lip-type shaft seal, non-rotatable housing with solid drive side, double studs, and neoprene gasketing. Maximum temperature 200°F. due to gasketing limitations. Not available with heat-fan construction. Contact your **nyb** representative for other options.
- **SPECIAL ALLOY CONSTRUCTION**
  Airstream components can be constructed of a wide range of alternate alloys for corrosive applications.
- **UNITARY BASE**
  Fan, motor, and guards can be mounted and shipped on a rugged, structural-steel base. Factory-assembled and run-tested prior to shipment.

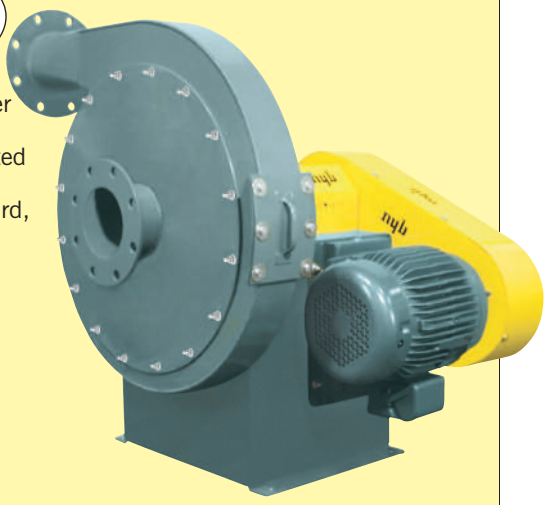
ARRANGEMENT 8

Pressure Blower with Venturi inlet, shaft and bearing guard, coupling guard, and motor.



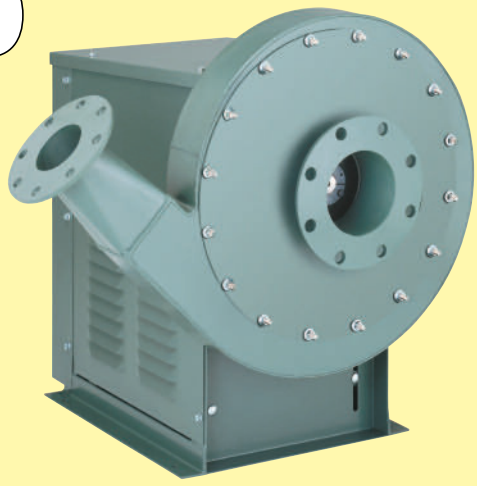
ARRANGEMENT 9

Pressure Blower with flanged inlet, flush-bolted cleanout door, motor, belt guard, and shaft and bearing guard.



ARRANGEMENT 10

Pressure Blower with flanged inlet and optional weather cover/belt guard.

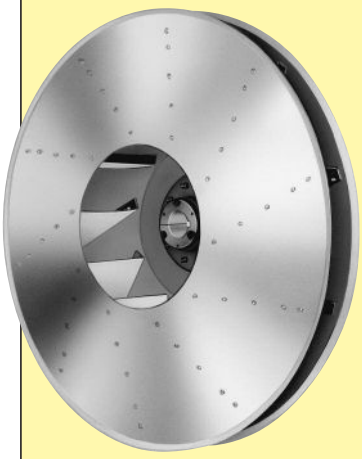


Wheels

Standard Aluminum

The unique Aluminum Pressure Blower wheel is designed to provide efficient performance and reduced sound levels … the dual-taper design concept on all but the narrowest wheel sizes yields typical efficiencies up to 10 percentage points greater than conventional straight radial wheels. Riveted high-strength aluminum alloy blades and side plates minimize overhung wheel weight and starting inertia. Ductile-iron, taper-lock hubs make wheels easily removable.

Note: Maximum operating temperature of aluminum wheel is 200°F.



Optional Steel

Either welded steel or stainless-steel wheel construction is available in straight radial design. AMCA Certified Ratings Seal applies to Pressure Blowers with aluminum-wheel design only. Air volume and pressure capabilities are the same as the dual-taper aluminum wheel, but brake horsepower requirements are typically higher. Refer to The New York Blower Company's fan-selection program for details.

Note: Maximum operating temperature of steel wheel with heat fan construction is 600°F. Some fan-and-motor combinations with steel wheels may be restricted due to starting torque requirements. Consult **nyb**.

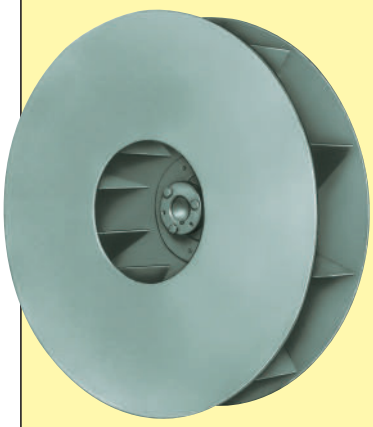


Chart II

STEEL WHEEL HORSEPOWER CORRECTIONS

18″ Pressure Blower with 04 outlet to handle 400 CFM at 23½″SP at .075 lbs./ft.³ density. Aluminum wheels require 2.6 BHP as shown on page 7. Steel or stainless-steel wheels require [1.15 x 2.6] 3.0 BHP.

Outlet size	Wheel size	BHP correction factors
03	14 to 22 23 to 26	0.96 1.02
04	14 to 26	1.15
06	14 to 18 19 to 26	1.06 1.15
08	15 to 22 23 to 26	1.06 1.15
10	19 to 26	1.06
12	19 to 26	1.06

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.

Chart I
Maximum Safe Speeds [RPM]†

Wheel diameter	Aluminum wheel	Steel wheel	
	All Arr.	Arr. 1, 4, 4-V, 8, 9	Arr. 10
14	4000	4000	4000
15	4000	4000	4000
16	4000	4000	4000
17	4000	4000	4000
18	4000	4000	4000
19	3900	3900	2992
20	3900	3900	2918
21	3900	3900	2851
22	3900	3900	2787
23	3800	3800	3178
24	3800	3800	3121
25	3800	3800	3068
26	3800	3800	3017

† derate for temperature not required.
* Arr. 9 fans may have additional speed limits based on pedestal length.

SAFETY EQUIPMENT

Safety accessories are available from **nyb**, but selection of the appropriate devices is the responsibility of the system-designer who is familiar with the particular installation, or application, and can provide for guards for all exposed moving parts as well as protection from access to high-velocity airstreams. Neither **nyb** nor its sales representatives is in a position to make such a determination. Users and/or installers should read "Recommended Safety Practices for Air Moving Devices" as published by the Air Movement and Control Association International, Arlington Heights, Illinois.

PERFORMANCE

USING PERFORMANCE CURVES

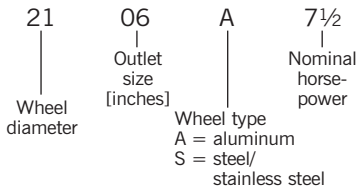
Performance is shown according to outlet sizes for quick reference to duct diameter. Brake horsepower increments are identified on each curve. Recommended standard blower size and motor combinations, which are based on the most efficient area of operation, are listed on page 14 for Arrangements 4, 4-V, and 8. Nonstandard combinations are generally available, but are usually less efficient than the standard combinations.

SIZING NOMENCLATURE

7-digit model number designates the wheel diameter, outlet size, wheel type, and nominal motor horsepower.

Note: the last two digits showing motor horsepower are not required for Arrangement 1 Pressure Blowers.

EXAMPLE



PROCEDURE	STEPS	EXAMPLE
Determine the appropriate outlet size.	1	The 06 outlet is selected for 800 CFM at 32″SP.
Plot the CFM and SP [standard] and select a performance curve for the fan size that meets or slightly exceeds the required performance.	2	A Size 2106A will provide 800 CFM at 33.6″SP.
Determine the BHP required for the point of operation . . . see page 4 for steel or stainless-steel wheel factors.	3	2106A requires 6.3 BHP. 2106S requires 7.2 BHP [6.3 x 1.15].
Read to the right to select motor horsepower.	4	A 7½ HP motor will cover both wheel types.

Note: The horsepower coverage of a given motor will increase 15% when a 1.15 service factor motor is utilized.

CORRECTION FACTORS

Performance is based on actual cubic feet per minute [ACFM] at the blower inlet at standard density [.075 lbs./ft.^{3}] 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.^{3} at 70˚F. at sea level. This also occurs when negative static pressure exists [rarefication] on the inlet side of the fan. Multiply the required static pressure at conditions by the appropriate factors in Charts III, IV, and V 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 rarefication 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 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
6000	1.25
7000	1.30
8000	1.35
9000	1.40
10000	1.45

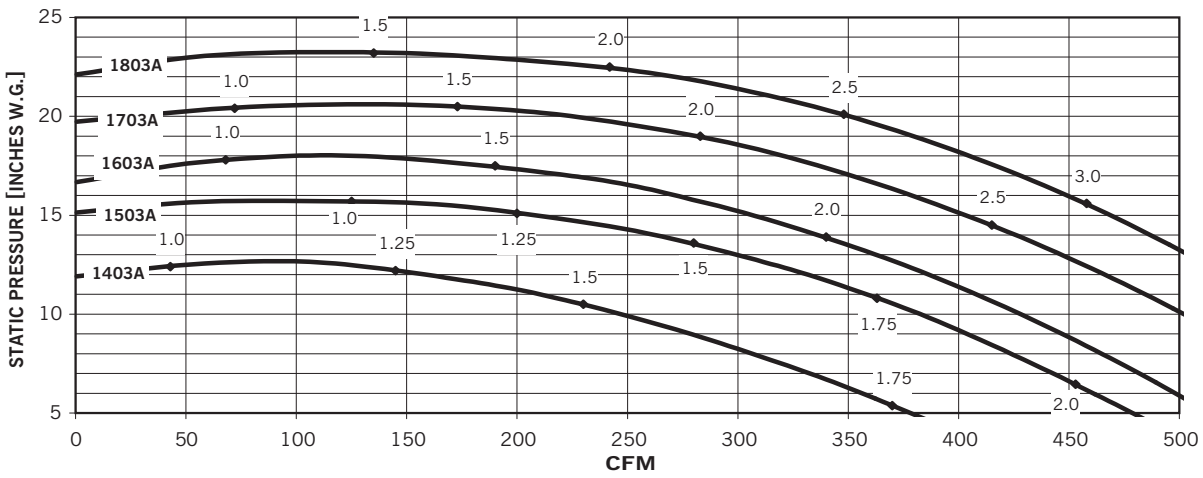
CHART IV
TEMPERATURE CORRECTIONS

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

CHART V
RAREFICATION 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
85	1.26

1403A-1803A

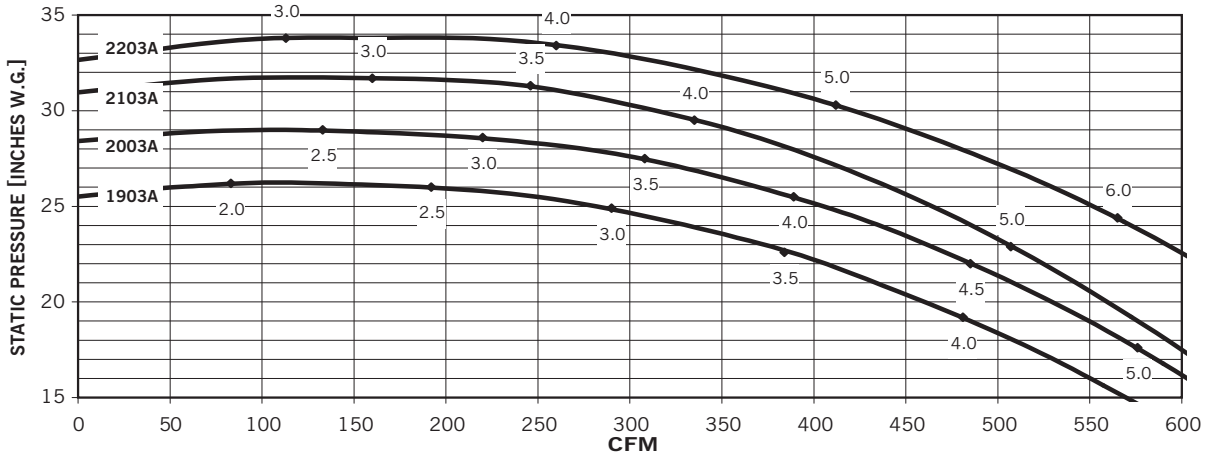


Performance at 3500 RPM

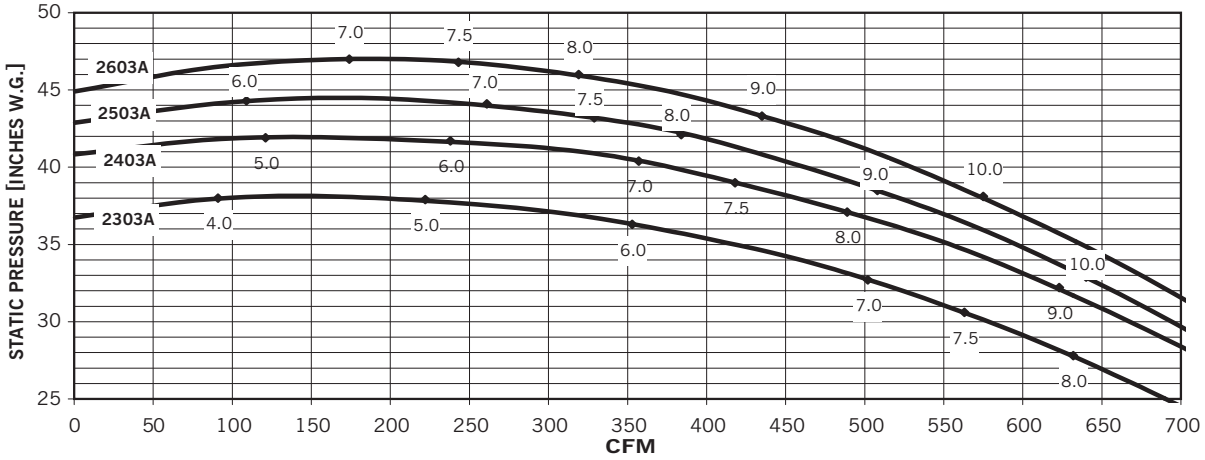
Aluminum Wheel
Pressure Blower

NOTE: Values shown on curves indicate brake horsepower [BHP] required.

1903A-2203A



2303A-2603A



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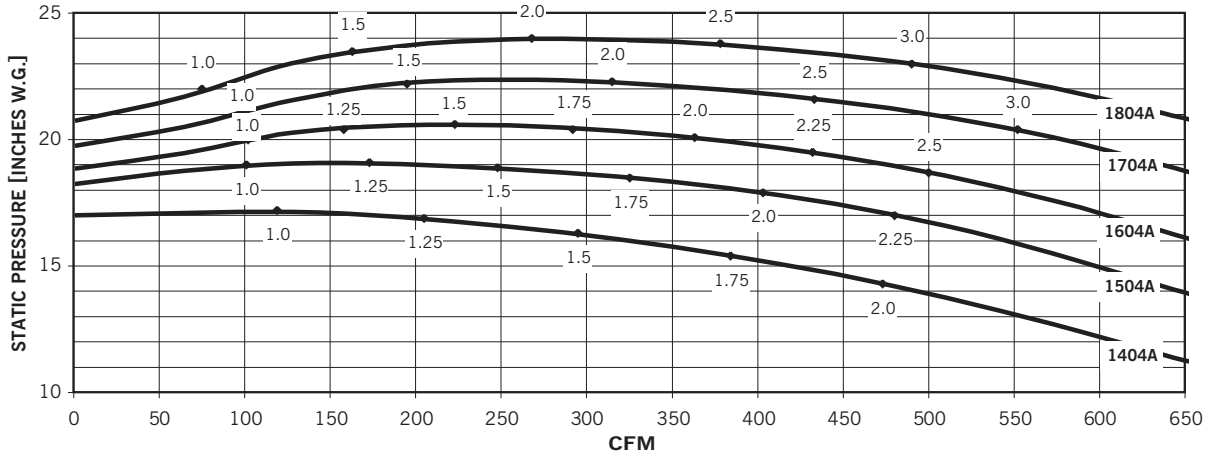


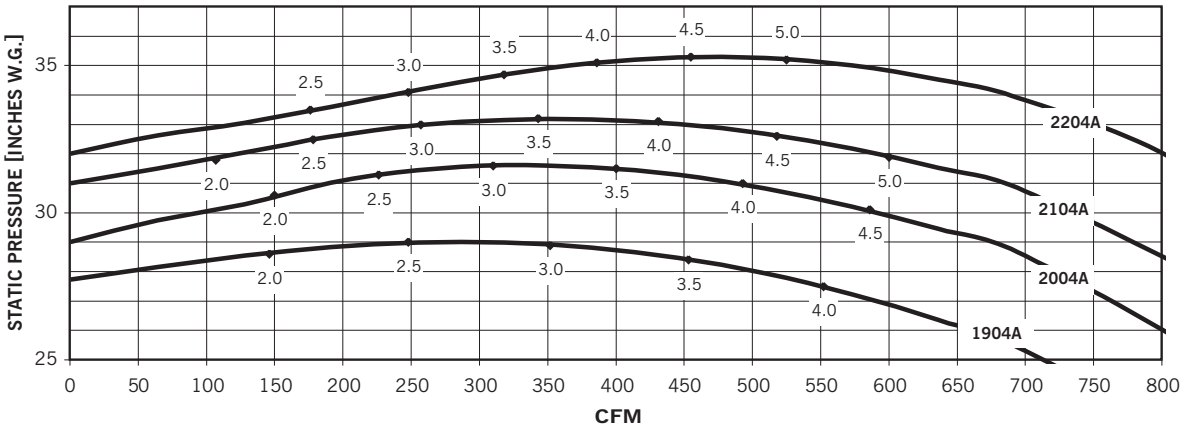
Performance certified is installation Type B: Free inlet, Ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Performance at 3500 RPM

Aluminum Wheel
Pressure Blower

NOTE: Values shown on curves indicate brake horsepower [BHP] required.

1904A-2204A



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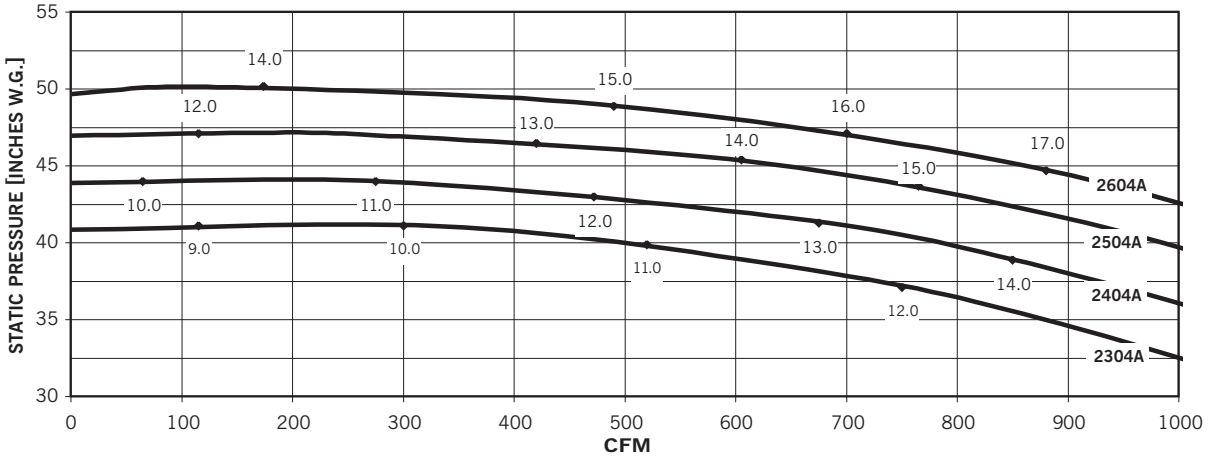

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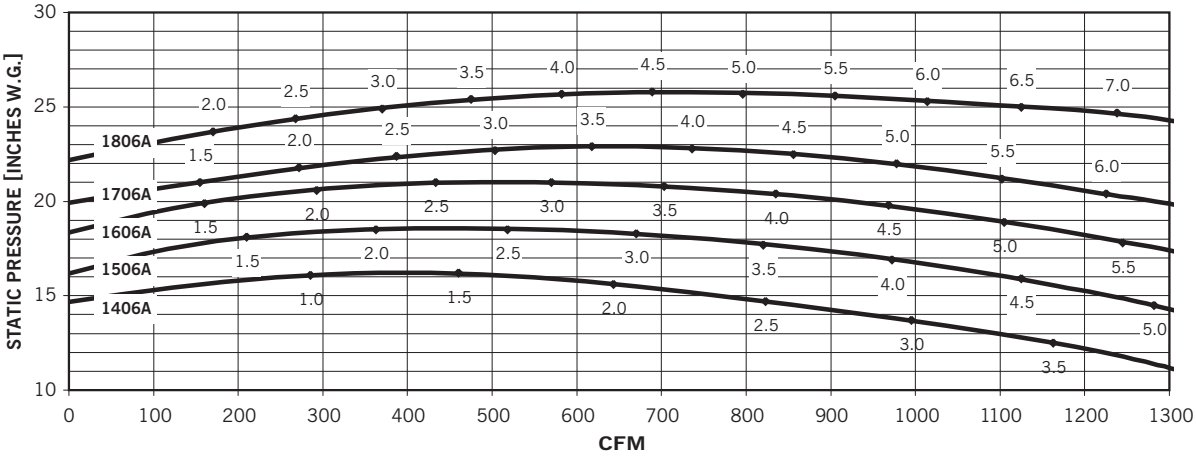


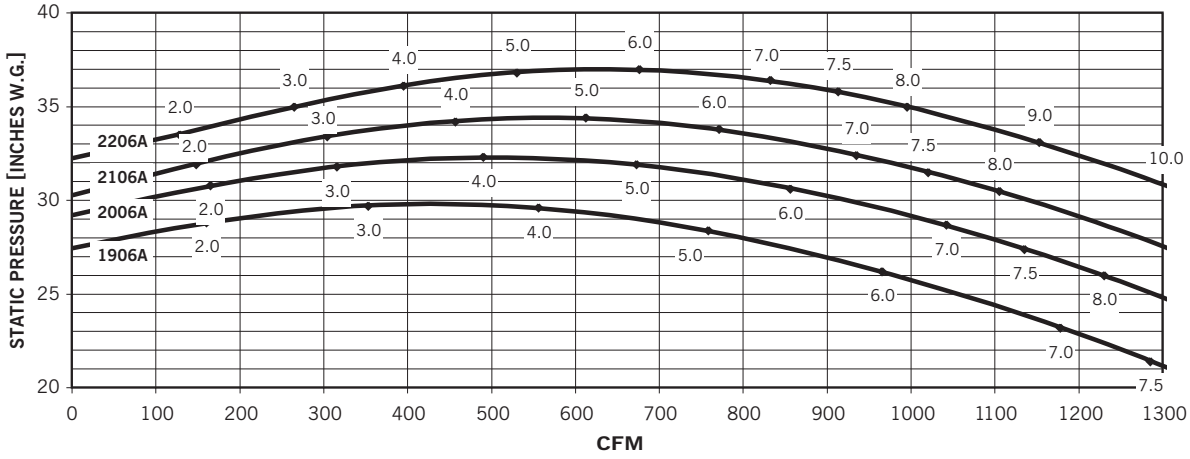
Performance certified is installation Type B: Free inlet, Ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Performance at 3500 RPM

Aluminum Wheel
Pressure Blower

NOTE: Values shown on curves indicate brake horsepower [BHP] required.

1906A-2206A



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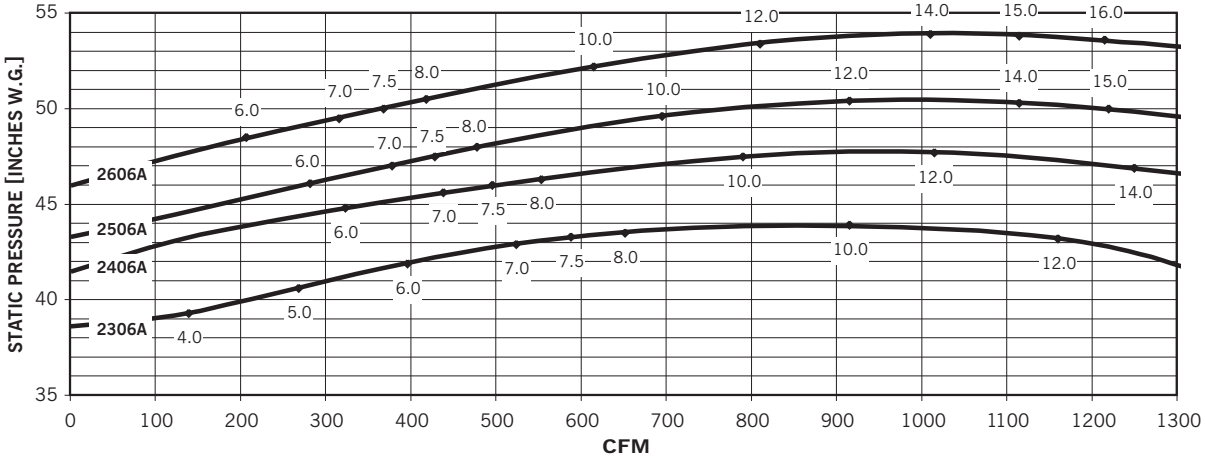
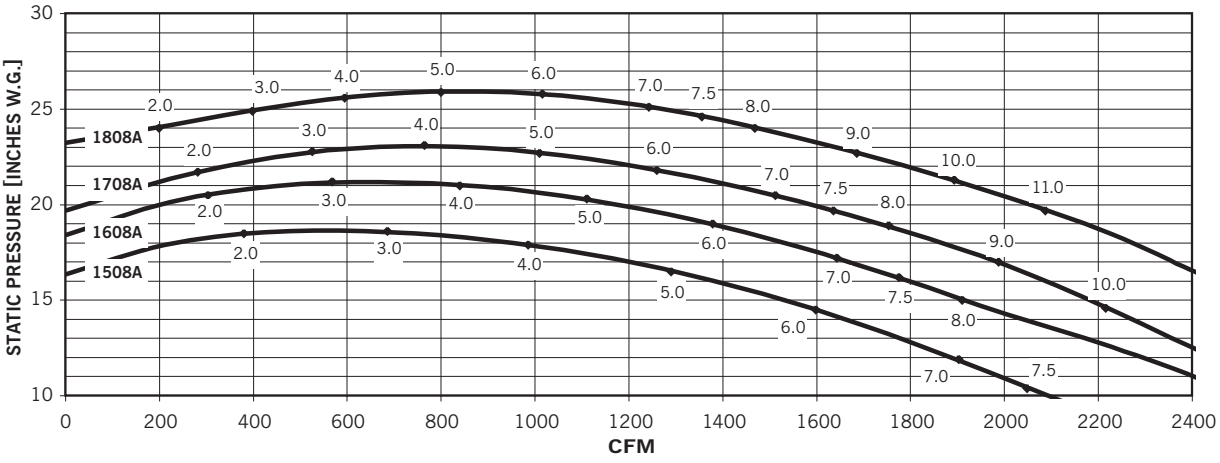


1508A-2208A



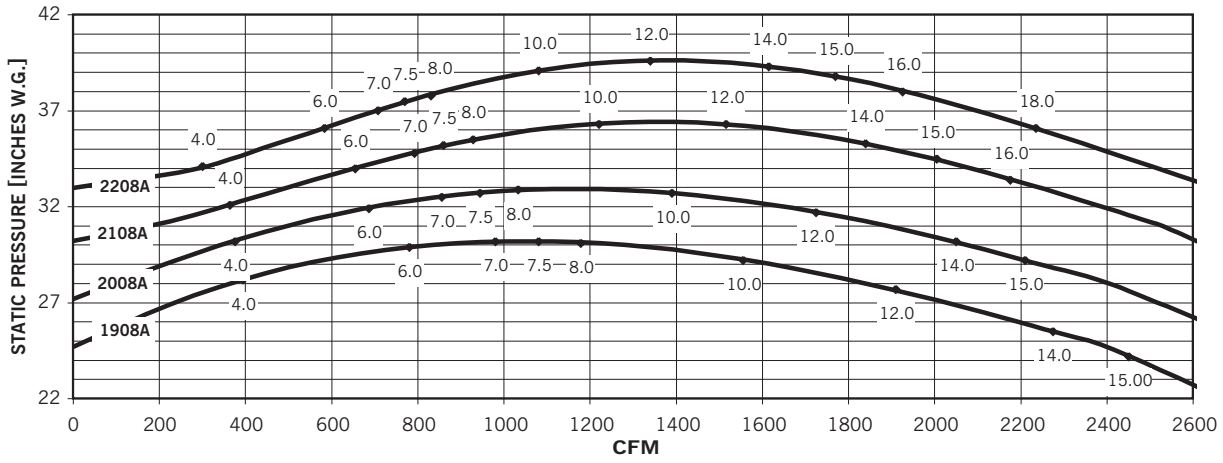
Performance certified is installation Type B: Free inlet, Ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Performance at 3500 RPM

Aluminum Wheel
Pressure Blower

NOTE: Values shown on curves indicate brake horsepower [BHP] required.

1908A-2208A



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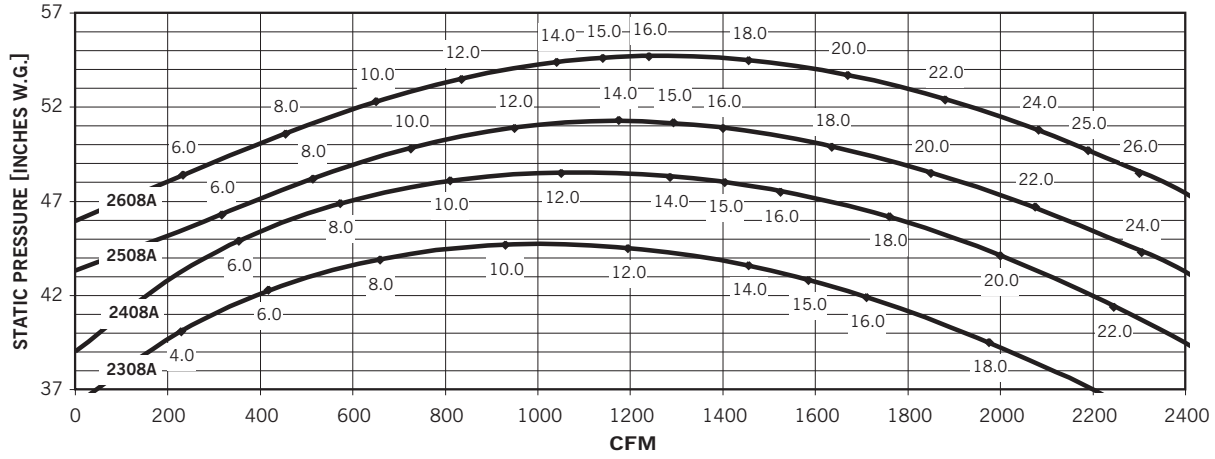

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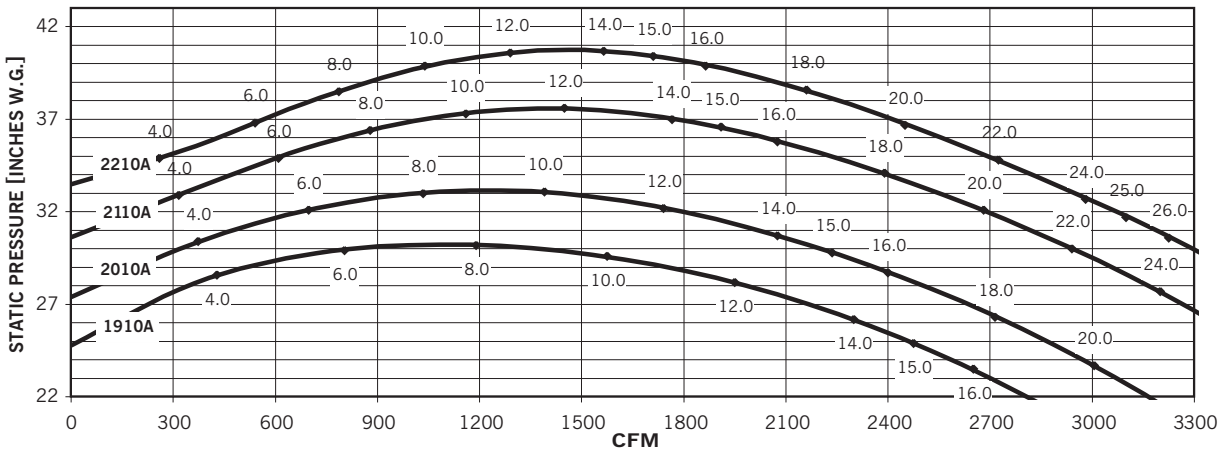


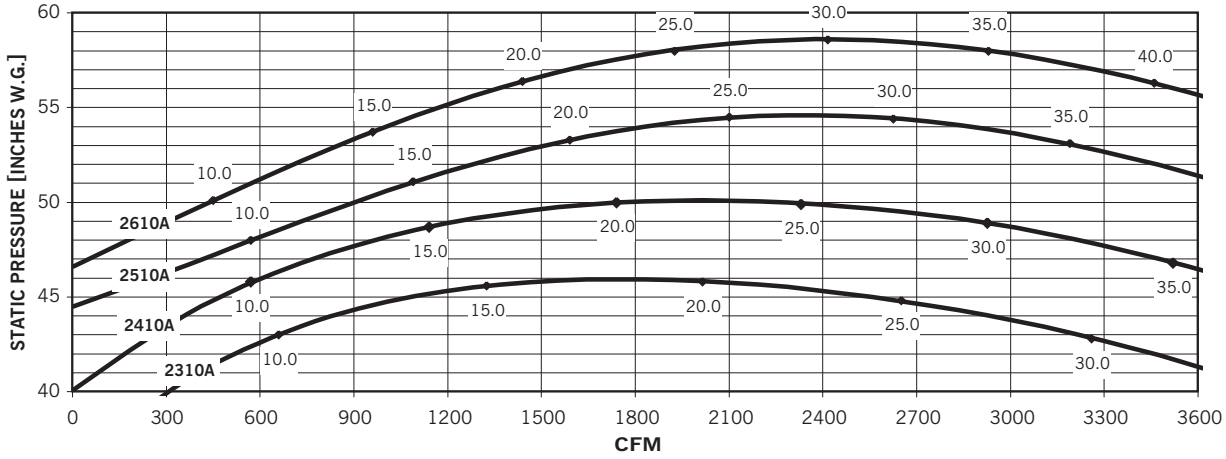
Performance certified is installation Type B: Free inlet, Ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

Performance at 3500/3550 RPM

Aluminum Wheel
Pressure Blower

NOTE: Values shown on curves indicate brake horsepower [BHP] required.

2310A-2610A



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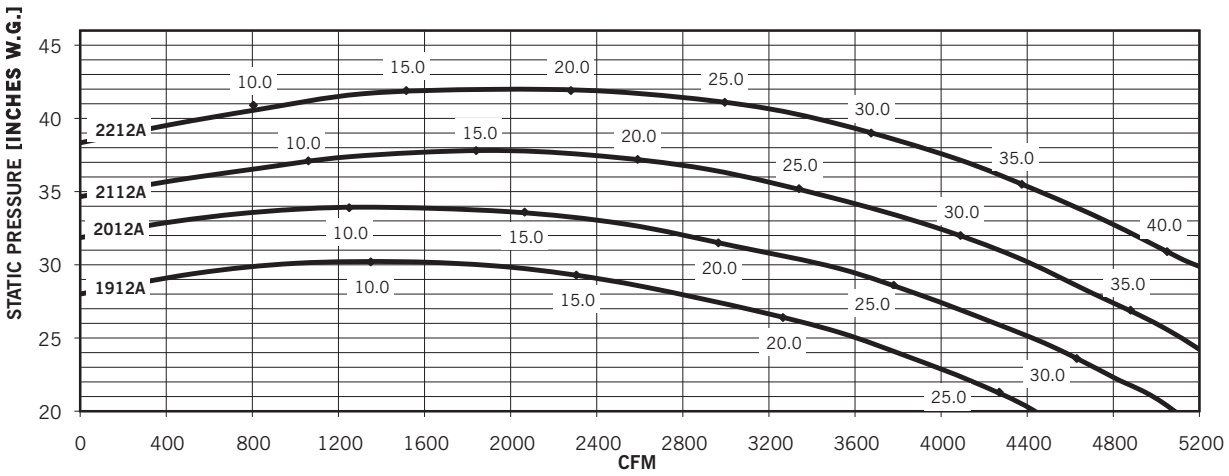

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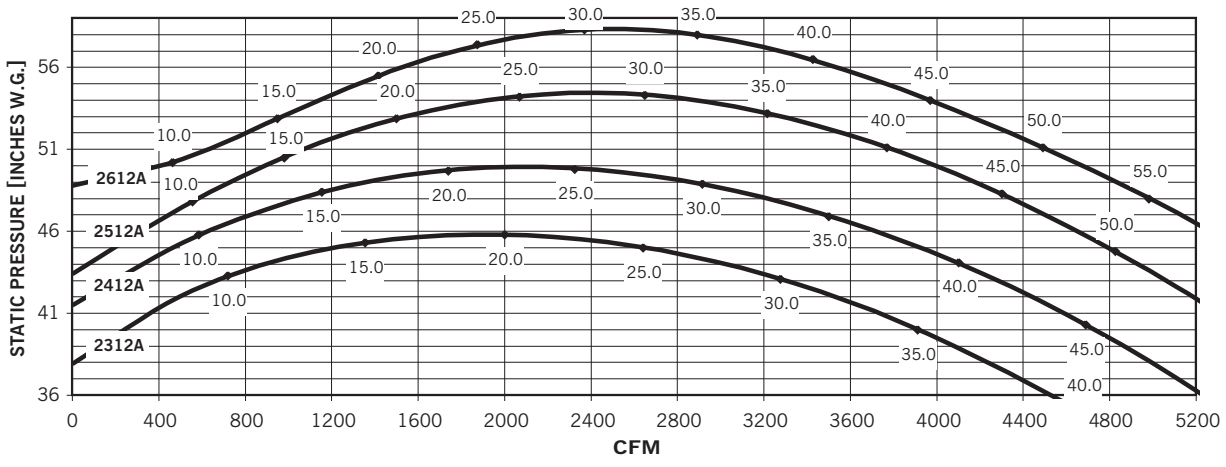


Performance certified is installation Type B: Free inlet, Ducted outlet. Power rating (BHP) does not include transmission losses. Performance ratings do not include the effects of appurtenances (accessories).

SPECIFICATIONS

U.S. standard sheet gauge to 7 gauge. Dimensions in inches. Weights in pounds. WR^2 in lb.-ft.^{2}.

WHEEL SPECIFICATIONS

Size	Aluminum		Steel	
	Wt.	WR^2	Wt.	WR^2
1403	10.1	0.96	19.7	2.74
1404	8.5	1.43	18.0	3.04
1406	11.7	2.40	20.5	3.46
1503	10.8	1.23	21.8	3.59
1504	8.8	1.69	19.0	3.68
1506, 1508	11.8	2.40	21.5	4.16
1603	11.5	1.53	23.9	4.56
1604	9.0	1.98	20.0	4.41
1606, 1608	12.1	2.50	23.0	5.07
1703	12.3	1.93	26.3	5.79
1704	9.3	2.30	21.0	5.22
1706, 1708	12.2	2.60	24.5	6.09
1803	13.0	2.36	28.6	7.16
1804	9.5	2.65	22.0	6.13
1806, 1808	12.4	2.60	26.0	7.25
1903	14.2	2.92	31.1	8.42
1904, 1906	12.0	3.73	29.5	9.16
1908, 1910	15.1	5.10	34.5	10.72
1912	12.9	5.07	32.8	10.15
2003	15.1	5.02	33.7	10.23
2004, 2006	12.3	4.22	31.0	10.67
2008, 2010	15.3	5.20	36.5	12.56
2012	13.1	5.21	36.1	12.37
2103	16.0	4.24	36.5	12.31
2104, 2106	12.5	4.74	32.5	12.33
2108, 2110	15.5	5.30	38.0	14.42
2112	13.3	5.34	39.4	14.91
2203	17.1	5.02	39.3	14.70
2204, 2206	12.8	5.31	34.0	14.16
2208, 2210	15.6	5.40	40.0	16.66
2212	13.5	5.48	42.9	17.80
2303	18.3	6.07	49.4	20.83
2304	19.8	6.50	52.5	22.27
2306, 2308	18.5	8.42	45.0	20.93
2310, 2312	21.7	10.60	53.5	24.35
2403	19.4	7.16	53.1	24.50
2404	20.9	7.80	56.4	26.14
2406, 2408	18.8	9.29	48.0	23.79
2410, 2412	21.9	10.80	56.0	27.75
2503	20.5	8.33	56.9	28.64
2504	22.0	9.00	60.4	30.49
2506, 2508	19.0	10.22	50.0	26.89
2510, 2512	21.9	11.00	58.5	31.46
2603	21.8	9.63	60.9	33.27
2604	23.1	10.30	64.5	35.36
2606, 2608	19.3	11.20	52.0	30.24
2610, 2612	22.3	11.20	61.0	35.48

MATERIAL SPECIFICATIONS

HOUSING

Wheel diameter	Sides	Scroll	Inlet plate	Drive plate
14-18	10	10	1/4	10
19-22	10	10	1/4	10
23-26	10	10	1/4	10

SHAFT DIAMETER

Wheel diameter	Arrangement 1		Arrangement 8	
	Standard	Heat Fan with Shaft Seal	Standard	Heat Fan with Shaft Seal
14-18	1 7/16	1 7/16	1 7/16	1 7/16
19-22	1 7/16	1 11/16	1 7/16	1 7/16
23-26	1 11/16	1 15/16‡	1 7/16	1 11/16

SHAFT DIAMETER

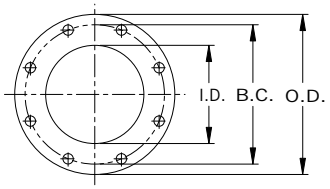
Wheel diameter	Arrangement 9		Arrangement 10	
	Standard	Heat Fan with Shaft Seal	Standard	Heat Fan
14-18	1 7/16	1 7/16	1 7/16	1 7/16
19-22	1 11/16	1 11/16	1 7/16	1 7/16
23-26	1 15/16	1 15/16	1 11/16	1 11/16

BEARINGS*

Wheel diameter	Arrangement 1/9		Arrangement 8	Arrangement 10
	Inboard	Outboard		
14-18	A	A‡	A	A
19-22	B	B	A	B
23-26	C	B‡	A	B

A–200 Series ball bearing. B–22400 Series roller bearing.
C–300 Series ball bearing.
***nyb** reserves the right to substitute bearings of equal rating.
‡ Fans with heat fan construction and shaft seal:
Arr. 1: Sizes 23-26 include a shaft turndown at the outboard bearing, with a bearing size of 1 11/16". Inboard bearing size is 1 15/16".
Arr. 9: Sizes 14-18 include a Type B outboard bearing, in lieu of the standard Type

FLANGE



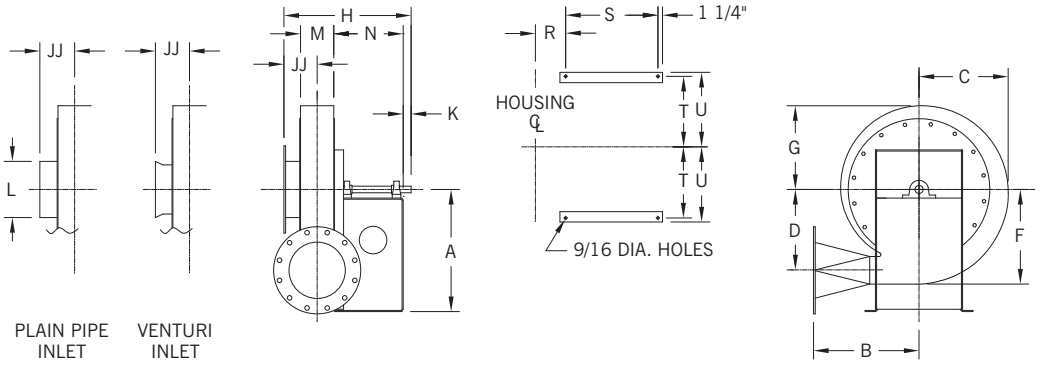
DIMENSIONS [INCHES]

Size	I.D.	O.D.	Bolt circle	Holes† No. – size
03	3	7 1/2	6	4 – 3/4"
04	4	9	7 1/2	8 – 3/4"
05	5	10	8 1/2	8 – 7/8"
06	6	11	9 1/2	8 – 7/8"
08	8	13 1/2	11 3/4	8 – 7/8"
10	10	16	14 1/4	12 – 1"
12	12	19	17	12 – 1"

† Holes straddle centerline. ANSI Class 125/150 hole pattern. Flange thickness 3/8"

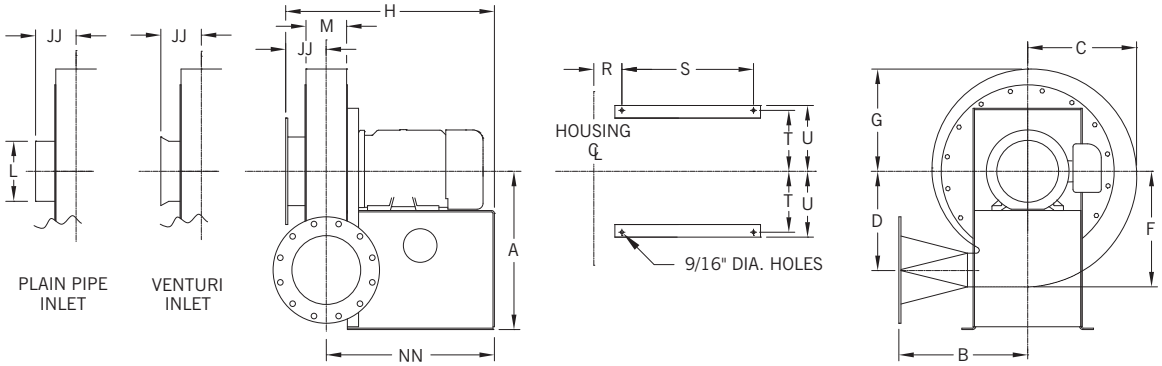
ARRANGEMENTS
1/9
PRESSURE BLOWERS

Maximum Airstream Temperature:
200°F. – aluminum wheel.
300°F. – steel wheel.
600°F. – heat fan.



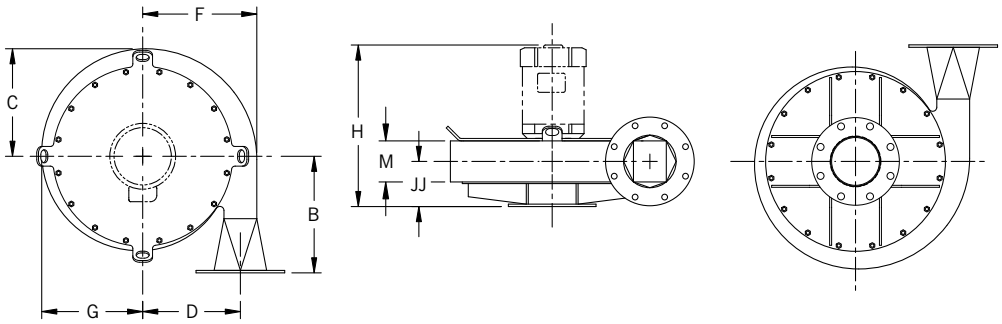
ARRANGEMENT
4
PRESSURE BLOWERS

Maximum Airstream Temperature:
180°F.



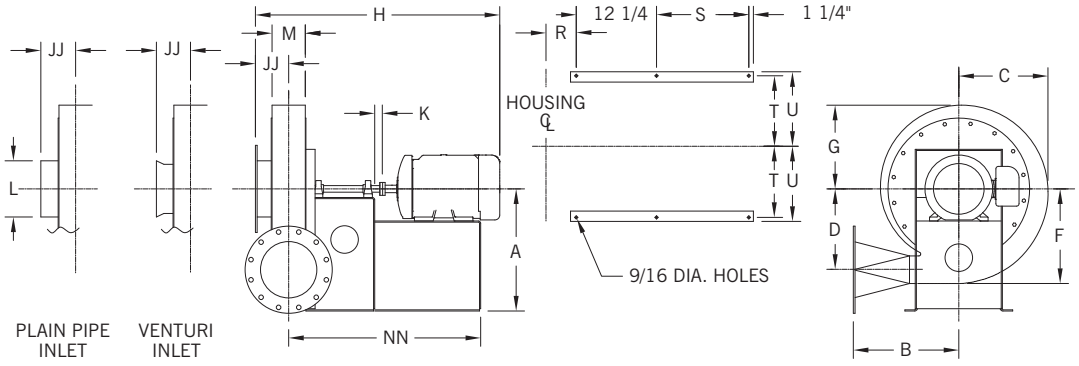
ARRANGEMENT
4-V
PRESSURE BLOWERS

Maximum Airstream Temperature:
120°F.



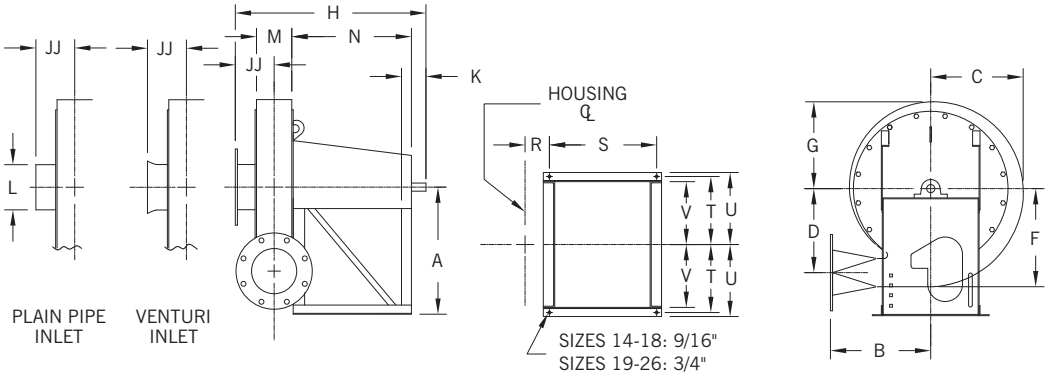
ARRANGEMENT
8
PRESSURE BLOWERS

Maximum Airstream Temperature:
200°F. – aluminum wheel.
300°F. – steel wheel.
600°F. – heat fan.



ARRANGEMENT
10
PRESSURE BLOWERS

Maximum Airstream Temperature:
200°F. – aluminum wheel.
300°F. – steel wheel.
600°F. – heat fan.



ARRANGEMENTS 1, 4, 4-V, 8, 9, 10

Dimensions not to be used for construction unless certified. Bare fan weight does not include wheel or motor. Weights in pounds. Wheel weights on page 11.

HOUSING DIMENSIONS [INCHES]

Fan Size	Outlet Size	Inlet Size	B	C	D	F	G	M	JJ [Inlet types]			L
									Flanged	Plain pipe	Venturi	
14-18	03	05	18 1/4	13 5/8	11 3/4	14 3/8	12 3/4	2 7/8	5 1/16	4 11/16	4 9/16	5 9/16
	04	06						3 7/8	5 9/16	5 3/16	4 13/16	6 5/8
	06	08						6 1/4	6 3/4	6 3/8	6 3/8	8 5/8
	08	08										
19-22	03	05	17 3/4	16 1/2	14 7/8	17 1/2	15 1/2	2 7/8	5 9/16	5 3/16	5 3/16	5 9/16
	04	06						3 7/8	6 1/16	5 11/16	5 5/16	6 5/8
	06	06										
	08	08						6 1/4	6 3/4	6 3/8	6 3/8	8 5/8
	10	10	21 3/4									
	12	12	23		14 1/2			7 1/4	7 1/4	6 7/8	6 7/8	10 3/4
23-26	03	05	19	19 1/2	17 5/8	20 5/8	18 1/4	3 5/8	6 5/16	5 15/16	5 9/16	5 9/16
	04	06						5	7	6 5/8	6 5/8	6 5/8
	06	08										8 5/8
	08	08										
	10	10	23					7 1/4	7 1/4	6 7/8	6 7/8	10 3/4
	12	12										

Tolerance: ± 1/8"

BARE FAN WEIGHTS AND MOTOR LIMITATIONS

Fan Size	Outlet Size	Inlet Size	Arr. 1 Wt.	Motor Frame Size (Arr. 4, 8)	Weight		Arr. 4-V	
					Arr. 4	Arr. 8	Motor Frame Size	Weight
14-18	03	05	200	143T-145T	145	285	182TC-184TC	120
				182T-184T	170			
	04	06	205	143T-145T	150	295	182TC-184TC	130
				182T-184T	175			
	06	08	220	143T-145T	165	300	182TC-184TC	135
				182T-184T	190			
				213T-215T		305	213TC-215TC	
15-18	08	08	220	182T-184T	190	310	182TC-184TC	145
				213T-215T		315	213TC-215TC	
19-22	03	05	270	143T-145T	235	370	182TC-184TC	160
				182T-184T		375		
				213T-215T		380	213TC-215TC	
	04	06	275	143T-145T	245	385	182TC-184TC	170
				182T-184T				
				213T-215T		390	213TC-215TC	
	06	06	275	143T-145T	245	385	182TC-184TC	175
				182T-184T		390		
				213T-215T		395	213TC-215TC	
	08	08	290	182T-184T	260	410	182TC-184TC	190
				213T-215T		415	213TC-215TC	
				254T-256T	290	430	254TC-256TC	
	10	10	300	213T-215T	270	415	213TC-215TC	190
				254T-256T	300	430	254TC-256TC	
				284TS-286TS			284TSC-286TSC	
	12	12	320	254T-256T	320	445	254TC-256TC	215
				284T-286T		455	284TSC-286TSC	
				324TS-326TS	345	460	324TSC-326TSC	
23-26	03	05	330	182T-184T	270	435	182TC-184TC	205
				213T-215T		445	213TC-215TC	
				254T-256T	300	460	254TC-256TC	
	04	06	350	182T-184T	275	465	182TC-184TC	230
				213T-215T		470	213TC-215TC	
				254T-256T	300	490	254TC-256TC	
	06	08	365	182T-184T	285	460	182TC-184TC	230
				213T-215T		465	213TC-215TC	
				254T-256T	315	485	254TC-256TC	
	08	08	365	213T-215T	290	475	213TC-215TC	235
				254T-256T	320	495	254TC-256TC	
				284TS-286TS		495	284TSC-286TSC	
	10	10	385	254T-256T	335	500	254TC-256TC	255
				284TS-286TS			284TSC-286TSC	
				324TS-326TS	360	505	324TSC-326TSC	
	12	12	395	284TS-286TS	345	515	284TSC-286TSC	265
				324TS-326TS	370	520	324TSC-326TSC	

Fan Size	Outlet Size	Arr. 9		Arr. 10			
		Pedestal Number	Weight	Weight	Max. Motor Size		
					ODP	TEFC	C-NW
14-18	03	1	190	220	215T	215T	16 5/8
		2	225				
		3	260				
		4	300				
	04	1	195	230			
		2	235				
		3	265				
		4	305				
	06,08	1	210	245			
		2	250				
		3	280				
		4	325				
19-22	03	5	280	290	256T	254T	18 5/8
		6	300				
		7	340				
		8	360				
		9	370				
	04,06	5	295	305			
		6	315				
		7	355				
		8	375				
		9	385				
	08,10	5	315	325			
		6	335				
		7	375				
		8	395				
		9	405				
	12	5	340	350			
		6	360				
		7	405				
		8	420				
		9	430				
23-26	03,04	10	435	355	256T	254T	18 5/8
		11	455				
		12	465				
		13	550				
	06,08	10	440	360			
		11	460				
		12	470				
		13	555				
	10,12	10	460	375			
		11	480				
		12	490				
		13	570				

N/A: Not Available due to motor shaft/wheel fit.

Tolerance: ± 1/8"

ARRANGEMENTS 4, 4-V, 8

Dimensions not to be used for construction unless certified. Note: See page 12 for dimensional drawings.

Wheel dia.	Outlet Size	Inlet flange	Arr. 4 & 8 Motor Frame Size	A		H*		Arr. 4-V Motor Frame Size	H*	K	NN		R	S		T		U	
				Arr. 4	Arr. 8†	Arr. 4	Arr. 8		Arr. 4-V	Arr. 8	Arr. 4	Arr. 8		Arr. 4	Arr. 8	Arr. 4	Arr. 8	Arr. 4	Arr. 8
14-18	03	05	143T-145T	17¾	19½	18	38	182TC-184TC	20⅞	3⅜	12 15/16	31 5/16	2 13/16	8⅝	15	8⅞	9⅛	9¾	10
			182T-184T	19		23½	40⅝				17 13/16	32 13/16		14⅛	16½				
	04	06	143T-145T	17¾		19	39	182TC-184TC	21⅞		13 7/16	31 13/16	3 5/16	8⅝	15				
			182T-184T	19		24½	41⅝				18 5/16	33 5/16		14⅛	16½				
	06	08	143T-145T	17¾		21⅜	41⅜	182TC-184TC	24¼		14⅝	33	4½	8⅝	15				
			182T-184T	19		26⅞	44				20⅛	34½		14⅛	16½				
			213T-215T	19¾			46⅝	213TC-215TC	25½	2⅞		36¾			18¾				
15-18	08	08	182T-184T	19	19½	26⅞	44	182TC-184TC	24¼	3⅜	20⅛	34½	4½	14⅛	16½				
			213T-215T	19¾			46⅝	213TC-215TC	25½	2⅞		36¾			18¾				
19-22	03	05	143T-145T	23	23⅝	24	38½	182TC-184TC	20⅞	3⅜	18 7/16	31 5/16	2 13/16	14⅛	15	10⅞	10⅞	11¾	11¾
			182T-184T	24			41⅛					32 13/16			16½				
			213T-215T	24¾			43¾	213TC-215TC	22⅝	2⅞		35 1/16			18¾				
	04	06	143T-145T	23		25	39½	182TC-184TC	22⅜	3⅜	18 15/16	31 13/16	3 5/16	14⅛	15				
			182T-184T	24			42⅛					33 5/16			16½				
			213T-215T	24¾			44¾	213TC-215TC	23⅝	2⅞		35 9/16			18¾				
	06	06	143T-145T	23		25	39½	182TC-184TC	22⅜	3⅜	18 15/16	31 13/16	3 5/16	14⅛	15				
			182T-184T	24			42⅛					33 5/16			16½				
			213T-215T	24¾			44¾	213TC-215TC	23⅝	2⅞		35 9/16			18¾				
	08	08	182T-184T	24		26⅞	44	182TC-184TC	24¼	3⅜	20⅛	34½	4½	14⅛	16½				
			213T-215T	24¾			46⅝	213TC-215TC	25½	2⅞		36¾			18¾				
			254T-256T	26		32¼	51⅜	254TC-256Tc	26⅝		25½	42⅛		19½	24⅛				
	10	10	213T-215T	24¾		26⅞	46⅝	213TC-215TC	25½	2⅞	20⅛	36¾	4½	14⅛	18¾				
			254T-256T	26		32¼	51⅜	254TC-256TC	26⅝		25½	42⅛		19½	24⅛				
			284TS-286TS	26¾			53⅜	284TCS-286TCS	33⅜			42⅞			24⅞				
	12	12	254T-256T	26		33¼	52⅜	254TS-256TS	27⅝	2⅞	26	42⅝	5	19½	24⅛				
			284TS-286TS	26¾			54⅜	284TSC-286TSC	34⅜			43⅜			24⅞				
			324TS-326TS	29¼		37¼	57⅞	324TSC-326TSC	36⅜		30	46⅜		23½	27⅞				
23-26	03	05	182T-184T	24	26⅝	25⅛	42¾	182TC-184TC	22½	3⅞	18 13/16	33 1/16	3 3/16	14⅛	17	10⅞	10⅞	11¾	11¾
			213T-215T	24¾			45⅜	213TC-215TC	N/A			35 5/16			19¼				
			254T-256T	26		30½	50⅛	254TC-256TC	N/A		24 3/16	41 5/16		19½	24⅝				
	04	06	182T-184T	24		26½	44⅛	182TC-184TC	23⅞	3⅞	19½	34⅜	3⅞	14⅛	17				
			213T-215T	24¾			46¾	213TC-215TC	N/A			36⅝			19¼				
			254T-256T	26		31⅞	51½	254TC-256TC	N/A		24⅞	42		19½	24⅝				
	06	08	182T-184T	24		26½	44⅛	182TC-184TC	23⅞	3⅞	19½	34⅜	3⅞	14⅛	17				
			213T-215T	24¾			46¾	213TC-215TC	25⅛	3¼		36⅝			19¼				
			254T-256T	26		31⅞	51½	254TC-256TC	26¼		24⅞	42		19½	24⅝				
	08	08	213T-215T	24¾		26½	46¾	213TC-215TC	25⅛	3¼	19½	36⅝	3⅞	14⅛	19¼				
			254T-256T	26		31⅞	51½	254TC-256TC	26¼		24⅞	42		19½	24⅝				
			284TS-286TS	26¾			53½	284TS-286TS	33			42¾			25⅜				
	10	10	254T-256T	26		33¼	52⅞	254TC-256TC	27⅝	3¼	26	43⅛	5	19½	24⅝				
			284TS-286TS	26¾			54⅞	284TCS-286TCS	34⅜			43⅞			25⅜				
			324TS-326TS	29¼		37¼	58⅝	324TCS-326TCS	36⅜		30	46⅜		23½	27⅞				
	12	12	284TS-286TS	28¼		37¼	54⅞	284TCS-286TCS	34⅜	3¼	30	43⅞	5	23½	25⅜				
			324TS-326TS	29¼			58⅝	324TCS-326TCS	36⅜			43⅜			27⅞				

N/A = Not Available

Tolerance: ± 1/8"

* Dimensions may vary slightly depending on motor manufacturer. Given "H" dimensions were based on the larger of those motors most frequently used by **nyb**. † On fan Sizes 23-26 with Size 12 outlet and Bottom Horizontal discharge, the flange extends ½" below the floorline.

ARRANGEMENTS 1, 9, 10

Dimensions not to be used for construction unless certified. Note: See page 12 for dimensional drawings.

ARRANGEMENTS 1, 9, & 10 DIMENSIONS [INCHES]

Wheel dia.	Outlet Size	Inlet flange	A†		H		K		N		R		S	T		U		V
			Arr. 1	Arr. 10	Arr. 1	Arr. 10	Arr. 1/9	Arr. 10	Arr. 1	Arr. 10	Arr. 1/9	Arr. 10	Arr. 1	Arr. 10	Arr. 1/9	Arr. 10	Arr. 1/9	Arr. 10	Arr. 10
14-18	03	05	19 1/2	21	24 5/8	30 1/8	3	3 1/2	15 1/8	22	2 13/16	3 7/8		17 3/8	9 1/8	9 3/8	10	10 1/4	8 1/4
	04	06			25 5/8	31 1/8					3 5/16	4 3/8							
	06	08			28	33 1/2					4 1/2	5 1/2							
15-18	08	08																	
19-22	03	05	23 5/8	27 5/8	26 1/8	35 1/8	4	4 1/2	15 1/8	26	2 13/16	4 5/8	12 1/4	19 7/8	10 7/8	12 1/4	11 3/4	13	11
	04	06			27 1/8	36 1/8					3 5/16	5 1/8							
	06	06																	
	08	08			29	38					4 1/2	6 1/4							
	10	10			30	39					5	6 3/4							
	12	12																	
23-26	03	05	26 5/8	27 7/8	28 1/4	36 1/4	5	4 1/2	15 1/8	26	3 3/16	4 1/4		19 7/8	10 7/8	12 1/4	11 3/4	13	11
	04	06			29 5/8	37 5/8					3 7/8	5 5/8							
	06	08																	
	08	08																	
	10	10			31	39					5	6 3/4							
	12	12																	

† On fan sizes 12, outlet and Bottom Horizontal discharge, the flange extends ½" below the floorline.

Tolerance: ± 1/8"

ARRANGEMENT 9 DIMENSIONS [INCHES]

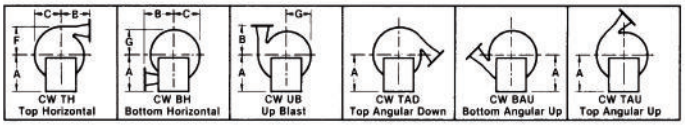
Fan Size	Outlet Size	Pedestal Number	H
14-18	03	1	24 5/8
		2	28 3/8
		3	32 1/8
		4	35 1/4
	04	1	25 5/8
		2	29 3/8
		3	33 1/8
		4	36 1/4
	06,08	1	28
		2	31 3/4
		3	35 1/2
		4	38 5/8
19-22	03	5	26 1/8
		6	29 7/8
		7	33 5/8
		8	36 3/4
		9	38 3/4
	04,06	5	27 1/8
		6	30 7/8
		7	34 5/8
		8	37 3/4
		9	39 3/4

Fan Size	Outlet Size	Pedestal Number	H
19-22	08,10	5	29
		6	32 3/4
		7	36 1/2
		8	39 5/8
		9	41 5/8
	12	5	30
		6	33 3/4
		7	37 1/2
		8	40 5/8
		9	42 5/8
	03	10	35 3/4
		11	38 7/8
		12	40 7/8
		13	42 7/8
23-26	04,06,08	10	37 1/8
		11	40 1/4
		12	42 1/4
		13	44 1/4
	10,12	10	38 1/2
		11	41 5/8
		12	43 5/8
		13	45 5/8

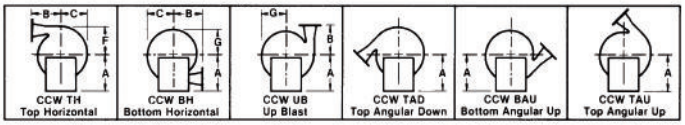
Fan Size	Pedestal Number	Max. C-NW	Max. Frame Size	A	N	S
14-18	1	13 5/8	256T	19 1/2	15 1/8	12 1/4
	2	17 3/8			18 7/8	16
	3	21 1/8			22 5/8	19 3/4
	4	24 1/4	284T	23 1/2	25 3/4	22 7/8
19-22	5	13 5/8	326T	23 5/8	15 1/8	12 1/4
	6	17 3/8			18 7/8	16
	7	21 1/8			22 5/8	19 3/4
	8	24 1/4			25 3/4	22 7/8
	9	26 1/4			27 3/4	24 7/8
23-26	10	21 1/8	326T	26 5/8	22 5/8	19 3/4
	11	24 1/4			25 3/4	22 7/8
	12	26 1/4			27 3/4	24 7/8
	13	28 1/4	365T	30 5/8	29 3/4	26 7/8

Tolerance: ± 1/8"

FAN DISCHARGES – VIEWED FROM DRIVE SIDE



Clockwise—angular discharges at 45°



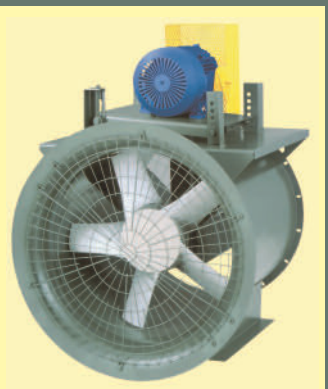
Counterclockwise—angular discharges at 45°

Housings are reversible and rotatable in 22½° increments except Down Blast and Bottom Angular Down which require special construction. Arrangement 10 fans Sizes 19–22 are not rotatable in the field.

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

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.

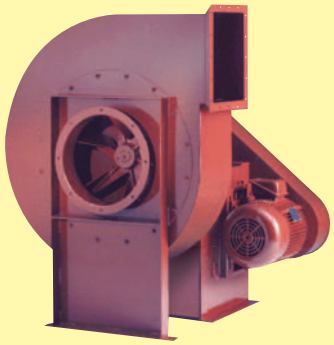


AIR-HANDLING [AXIAL]

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.

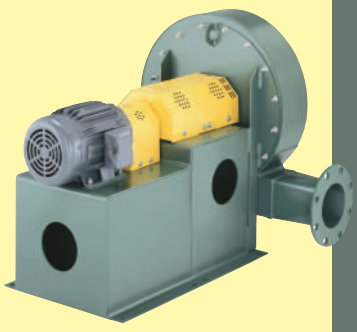
FIBERGLASS REINFORCED PLASTIC [FRP]

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



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.

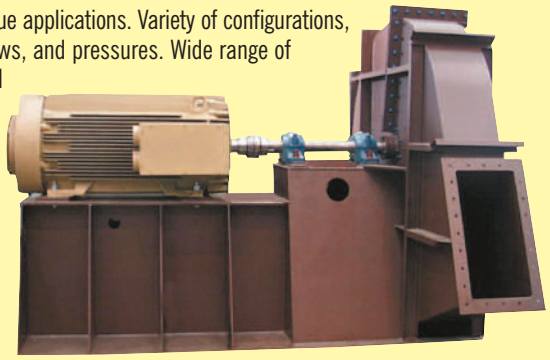


AIR-HANDLING [CENTRIFUGAL]

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

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

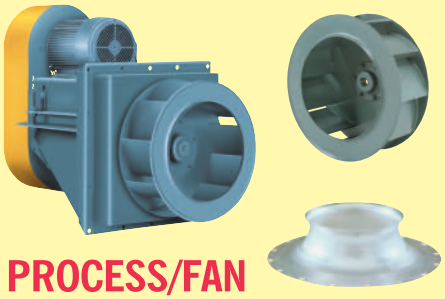
ROOF VENTILATORS

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

nyb

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.