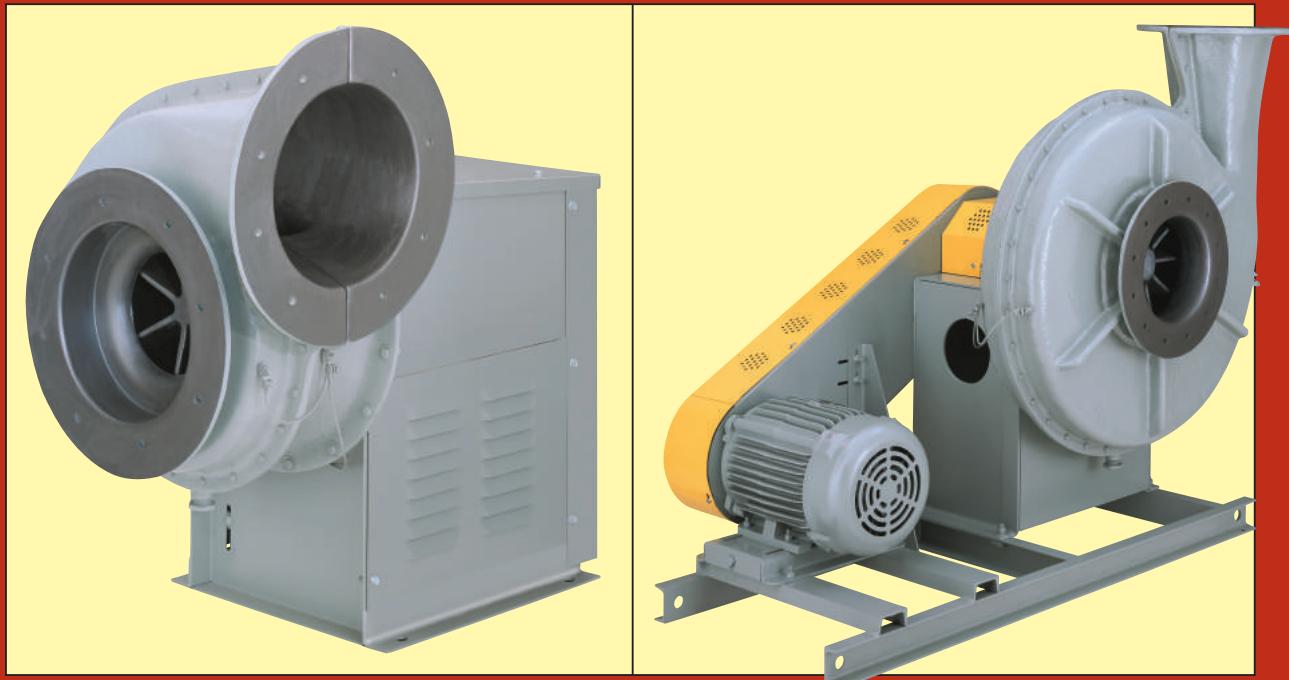


FRP RADIAL FUME EXHAUSTERS/ PRESSURE BLOWERS

Fiberglass-reinforced-plastic fans for handling corrosive gas streams in a wide variety of process applications...



FRP RADIAL FUME EXHAUSTERS

- Static pressures to 14" WG
- Capacities to 7,500 CFM
- Temperatures to 250°F.

FRP PRESSURE BLOWERS

- Static pressures to 36" WG
- Capacities to 5,000 CFM
- Temperatures to 250°F.



THE NEW YORK BLOWER COMPANY®

7660 QUINCY STREET—WILLOWBROOK, ILLINOIS 60527-5530
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Visit us on the Web: <http://www.nyb.com>

FRP RADIAL FUME EXHAUSTERS

DESIGN FEATURES

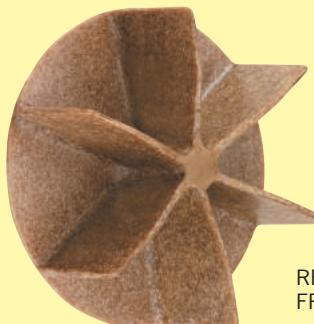
The New York Blower Company's FRP Radial Fume Exhauster [RFE] and FRP Pressure Blower [FPB] are designed so that all parts exposed to the airstream are constructed of high-quality corrosion-resistant fiber-glass reinforced plastic. The RFE and FPB are resistant to attack from most chemicals and are ideally suited to applications in the chemical, pulp and paper, waste-water-treatment, fertilizer, pharmaceutical, and metal-plating industries.

Specifically, the RFE is designed for exhausting moderate volumes of highly corrosive fumes at moderate pressures. Typical applications include laboratory fume hoods, small plating and pickling operations, etching processes, and chemical-fume scrubbers. The FPB is designed for low volumes at high pressures. Typical applications include pulp and paper processes, chemical-fume scrubbers, and soil remediation.

FRP RADIAL FUME EXHAUSTERS

- Five sizes: 160, 200, 315, 400, and 500 mm inlet-duct diameters [8", 10", 14", 18", and 22" wheel diameters].
- Capacities to 7,500 CFM.
- Static pressures to 14"WG.
- Temperatures to 250°F.
- Available in compact Arrangement 10 design.

RFE-400, Arrangement 10,
clockwise Up Blast, with
optional motor and v-belt drive.



RFE radial
FRP wheel.



AMCA SEAL

The New York Blower Company certifies that the Radial Fume Exhausters shown herein are licensed to bear the AMCA Seal. The ratings shown on pages 6 and 7 are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

AND PRESSURE BLOWERS

CONSTRUCTION FEATURES

- Wheel is cast in a one-piece mold with a resin-glass mixture featuring premium-quality, corrosion-resistant vinyl ester resin. Solid FRP wheels are oven-cured to provide optimum strength and corrosion resistance. Radial-blade design provides stable, pulsation-free performance over the entire pressure range from wide-open to closed-off.
- Standard shaft is ASTM A-108 steel, grade C-1040/1045. Inside the fan housing the shaft is covered with an FRP sleeve that is bonded to the wheel backplate and extends through the housing side, protecting the shaft from corrosive attack . . . 316 SST shafting also available.
- Housing is made of premium-quality, corrosion-resistant vinyl ester resin. The interior is extremely smooth, due to fabrication on male molds.
- Flanged inlet and outlet for easy in-duct connection; supplied without holes as standard. Flange drilling available in choice of National Bureau of Standards Voluntary Product Standard PS15-69 or ANSI Class 150 lb. patterns.
- All fans are rotatable to any of six discharge positions.
- Lifting eyes on all fans for ease of handling.
- Welded-steel base is constructed of heavy-gauge components for structural strength and durability. Arrangement 10 base features self-contained motor platform.
- Close-fitting, Teflon® shaft-hole closure limits the free exchange of gases through the shaft-hole opening. [Teflon is a registered trademark of DuPont.]
- Neoprene gasketing at all bolted FRP joints.
- Fan exterior is coated with gray epoxy enamel.
- RFE and FPB wheels are dynamically balanced before final assembly. After assembly, all fans are given a final balance check at the specified running speed.
- Meets ASTM D 4167 Standard Specification for Fiber-Reinforced Plastic Fans and Blowers when fan is purchased with surface veil.

SPECIAL ALLOY WHEEL AND SHAFT ASSEMBLIES—

316 stainless steel and Hastelloy® C-276 alloy wheel and shaft assemblies are available for applications where high moisture content may cause erosion of the standard FRP wheel. Available on Arrangement 1 and 8 FRP Pressure Blowers only. Consult your New York Blower sales representative for details and pricing.

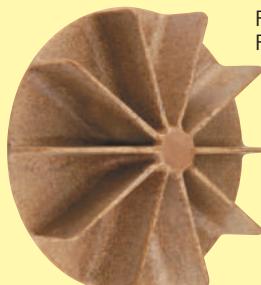
[®Hastelloy is a registered trademark of Haynes International, Inc.]

FRP PRESSURE BLOWERS

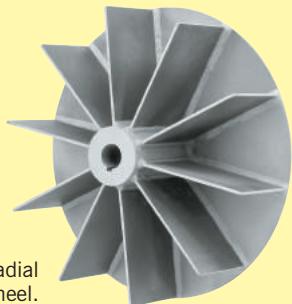


FPB-18, Arrangement 10,
counterclockwise Top Horizontal,
with optional flange drilling, drain,
and weather cover/belt guard.

- Three sizes: 18", 22", and 28" wheel diameters.
- Capacities to 5,000 CFM.
- Static pressures to 36"WG.
- Temperatures to 250°F.
- Choice of Arrangements: 1, 8, or 10.
- Choice of fiberglass or alloy wheel construction.



FPB radial
FRP wheel.



FPB radial
alloy wheel.

ACCESSORIES/MODIFICATIONS

- **Shaft seal**—Viton® elements in FRP casing. Type 316 SST sleeve covers shaft for use with seal. Optional Teflon seal and Hastelloy C-276 sleeve available. [Viton is a registered trademark of DuPont Dow Elastomers.]
- **Outlet damper**—corrosion-resistant FRP wafer-type damper sized to match FRP fan outlet flange. Damper flanges drilled as standard.
- **Companion flange with collar**—FRP construction; used on inlet or outlet to provide a slip connection for customer-furnished flexible connection.
- **Flanged drilling**—for ease of direct connection; dimensions shown on page 10.
- **Unitary base**—available with spring or rubber-in-shear [R-I-S] isolators. Isolation rails are available for Arrangement 10 fans.
- **Drain**—threaded FRP drain with PVC plug, 1" npt, at lowest point of housing scroll.
- **Inspection port**—allows examination of fan interior. Located on inlet side half of housing at 2 or 10 o'clock, opposite discharge. Port size is 3" on RFE-160/200/315, and FPB-18/22; and 4" on RFE-400/500, and FPB-28.
- **Surface veil**—for added protection against certain corrosives. Provides compliance with ASTM D 4167.
- **Graphite impregnation**—to control static electricity. The gas-stream surfaces are grounded to the fan base.
- **Positive screw adjustment**—two threaded rods provide easy motor platform/V-belt adjustment. [Arrangement 10 fans only.]
- **Arrangement 10 weather cover/belt guard**—provides motor and drive protection, and can be easily removed for inspection and maintenance. Louvered side panels provide ample motor ventilation.
- **Safety equipment**—belt guards and shaft and bearing guards are available for Arrangement 1 fans, and coupling guards for Arrangement 8 fans. Extended lube lines are furnished as standard with shaft and bearing guard.
- **Drive components**—a wide variety of motors, couplings, and v-belt drives are available from nyb.



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.

HOW TO USE PERFORMANCE TABLES

For a given fan size, CFM, and static pressure, capacity tables can be used to obtain 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.

STEPS TO FOLLOW	STEPS	EXAMPLE:
Determine fan static pressure at standard conditions. If temperature or altitude is involved, correct for air density [see Charts I and II].	1	Size RFE-400 fan to handle 2400 CFM at 8"WG at 200°F. at sea level. Chart I shows 1.25 correction factor for 200°F. 8"WG x 1.25 = 10"WG at 70°F.
Select size, RPM, and BHP of fan from capacity tables.	2	Capacity table shows 2659 RPM, 7.9 BHP for Size RFE-400 fan at 2400 CFM at 10"WG at 70°F.
Check the maximum safe speed of the fan shown below in Chart III.	3	Maximum safe speed of Size RFE-400 fan is 3050 RPM at 70°F.
Apply temperature maximum safe speed factors from Chart IV to maximum safe speed of fan from Step 3 to determine new maximum safe speed when temperature is involved.	4	Chart IV shows .94 correction factor for 200°F. .94 x 3050 RPM = 2867 RPM at 200°F.
Determine actual performance by dividing static pressure and BHP* from Step 2 by the correction factor in Step 1.	5	Actual performance: 2400 CFM at 8"WG at 2659 RPM at 6.32 BHP at 200°F.

*NOTE: Motor should be selected for BHP @ 70°F. to insure proper operation during "cold starts."

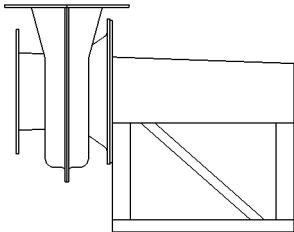
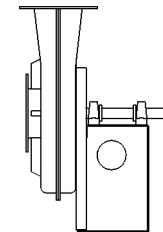
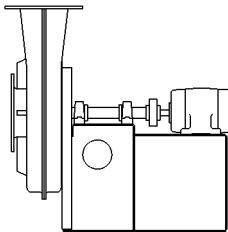
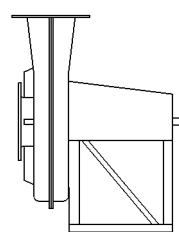
CHART I CORRECTION FACTORS FOR TEMPERATURE [°F.]	
Temperature	Factor
-50	.77
-25	.82
0	.87
20	.91
40	.94
70	1.00
100	1.06
130	1.11
160	1.17
200	1.25
250	1.34

CHART II CORRECTION FACTORS FOR ALTITUDE [feet above sea level]	
Altitude	Factor
0	1.00
1000	1.04
2000	1.08
3000	1.12
4000	1.16
5000	1.20
6000	1.25
7000	1.30
8000	1.35
9000	1.40
10000	1.45

CHART III MAXIMUM SAFE WHEEL SPEED AT 70°F.	
Size	RPM
RFE-160	4800
RFE-200	4800
RFE-315	3760
RFE-400	3050
RFE-500	2440
FPB-18	4000
FPB-22	3600
FPB-28	2500

CHART IV SAFE SPEED CORRECTION FACTORS FOR TEMP. [°F.]	
Temperature	Factor
70–150	1.0
200	.94
225	.86
250	.73
Note: 250°F. is maximum allowable temperature.	

NOTE: If correction factor for both temperature and altitude is required, multiply factors from Chart I and II together: 3000 and 200°F. 1.12 x 1.25 = 1.40 [combined factor].

FAN ARRANGEMENTS			
FRP RADIAL FUME EXHAUSTERS		FRP PRESSURE BLOWERS	
	ARRANGEMENT 10		ARRANGEMENT 1
	ARRANGEMENT 8		ARRANGEMENT 10

PERFORMANCE FOR FRP RADIAL FUME EXHAUSTERS

SIZE 400					Wheel diameter: 18"				Inlet diameter: 16" I.D.				Maximum BHP = .631 $\left[\frac{\text{RPM}}{1000}\right]^3$								
CFM	OV	1"SP		3"SP		5"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	RPM	BHP
1200	889	976	0.5	1430	1.2	1781	2.0	2078	2.8	2217	3.3	2339	3.8	2458	4.3	2581	4.8	2686	5.3	2800	5.9
1400	1037	1047	0.6	1477	1.4	1820	2.3	2105	3.2	2236	3.7	2358	4.2	2480	4.8	2600	5.3	2697	5.8	2802	6.4
1600	1185	1125	0.8	1534	1.6	1857	2.6	2141	3.7	2267	4.2	2385	4.7	2504	5.3	2622	5.9	2721	6.5	2828	7.1
1800	1333	1208	1.0	1594	1.9	1911	3.0	2177	4.1	2308	4.7	2424	5.3	2541	5.9	2646	6.5	2747	7.1	2855	7.8
2000	1481	1292	1.2	1662	2.3	1961	3.4	2227	4.6	2347	5.2	2462	5.9	2568	6.5	2683	7.2	2786	7.8	2884	8.5
2200	1630	1379	1.5	1730	2.6	2019	3.9	2275	5.1	2393	5.8	2507	6.5	2614	7.2	2720	7.9	2825	8.6	2914	9.3
2400	1778	1468	1.8	1806	3.1	2085	4.4	2328	5.7	2446	6.4	2560	7.2	2659	7.9	2767	8.7	2863	9.4	2956	10.1
2600	1926	1559	2.2	1882	3.5	2148	4.9	2391	6.4	2503	7.1	2610	7.9	2711	8.7	2812	9.5	2911	10.3	2997	11.0
2800	2074	1652	2.6	1958	4.0	2223	5.6	2451	7.1	2564	7.9	2667	8.7	2762	9.5	2865	10.3	2957	11.2	3047	12.0
3000	2222	1747	3.1	2040	4.6	2295	6.2	2516	7.8	2624	8.7	2728	9.6	2826	10.4	2916	11.2				
3200	2370	1842	3.7	2123	5.3	2370	7.0	2589	8.7	2694	9.6	2787	10.4	2888	11.4	2973	12.2				
3400	2519	1938	4.3	2211	6.0	2447	7.8	2660	9.6	2761	10.5	2858	11.5	2948	12.4	3044	13.4				
3600	2667	2036	5.0	2298	6.8	2526	8.7	2730	10.5	2827	11.5	2920	12.5	3020	13.6						
3800	2815	2133	5.8	2382	7.7	2604	9.6	2808	11.6	2903	12.6	2993	13.6								
4000	2963	2231	6.7	2473	8.6	2689	10.7	2884	12.7	2977	13.8										
4200	3111	2330	7.6	2563	9.7	2772	11.8	2964	14.0												

SIZE 500					Wheel diameter: 22"				Inlet diameter: 20" I.D.				Maximum BHP = 1.70 $\left[\frac{\text{RPM}}{1000}\right]^3$								
CFM	OV	1"SP		3"SP		5"SP		7"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	RPM	BHP
1200	569	704	0.4	1114	1.1	1417	2.0	1669	2.9	1897	4.0	1999	4.6	2100	5.2	2185	5.8	2278	6.5	2365	7.1
1600	758	762	0.5	1154	1.4	1440	2.4	1683	3.5	1903	4.8	2000	5.4	2098	6.0	2189	6.7	2276	7.4	2361	8.1
2000	948	834	0.7	1204	1.7	1484	2.9	1711	4.2	1923	5.5	2018	6.2	2110	6.9	2203	7.7	2288	8.4	2371	9.2
2400	1137	918	1.0	1261	2.2	1532	3.5	1754	4.9	1956	6.4	2051	7.2	2139	7.9	2223	8.7	2313	9.6	2396	10.5
2800	1327	1007	1.4	1324	2.7	1590	4.2	1807	5.7	2005	7.3	2093	8.2	2179	9.0	2262	9.9	2340	10.8	2424	11.7
3200	1517	1101	1.9	1395	3.3	1642	4.9	1862	6.6	2054	8.4	2141	9.3	2227	10.2	2310	11.2	2390	12.2		
3600	1706	1197	2.6	1472	4.1	1708	5.8	1918	7.6	2108	9.5	2194	10.5	2280	11.5	2356	12.5	2437	13.6		
4000	1896	1297	3.3	1558	5.0	1778	6.8	1976	8.7	2164	10.8	2251	11.9	2331	12.9	2416	14.1				
4400	2085	1399	4.2	1645	6.1	1853	8.0	2042	10.0	2225	12.2	2306	13.3	2386	14.5						
4800	2275	1504	5.3	1734	7.3	1931	9.3	2114	11.5	2288	13.8	2371	15.0								
5200	2464	1610	6.6	1826	8.7	2018	10.9	2187	13.1	2354	15.5	2433	16.8								
5600	2654	1717	8.0	1919	10.3	2106	12.7	2272	15.1	2428	17.6										
6000	2844	1826	9.7	2016	12.2	2195	14.7	2353	17.2												
6400	3033	1935	11.6	2114	14.2	2285	16.9														
6800	3223	2044	13.8	2213	16.5	2377	19.3														
7200	3412	2154	16.2	2315	19.1																

Performance shown is installation Type B: Free inlet, Ducted outlet. Power rating (BHP) does not include drive losses.
 Performance ratings do not include the effects of appurtenances in the airstream.

OTHER



FRP PRODUCTS

FRP GENERAL-PURPOSE FUME EXHAUSTERS

73,000 CFM
17"WG



FRP FUME EXHAUSTERS

84,000 CFM
25"WG



SPECIFICATIONS

Size	Shaft diameter [inches]		Bearings		Weight [lbs.]				Wheel WR ² [lb.-ft. ²]	
					Bare fan			Wheel and shaft assembly		
	Arr. 1, 8	Arr. 10	Arr. 1, 8	Arr. 10	Arr. 1	Arr. 8	Arr. 10	Arr. 1, 8	Arr. 10	
RFE-160	NA	1 ⁷ / ₁₆	NA	A	NA	NA	125	NA	13	.09
RFE-200	NA	1 ⁷ / ₁₆	NA	A	NA	NA	150	NA	15	.30
RFE-315	NA	1 ¹¹ / ₁₆	NA	A	NA	NA	213	NA	26	1.4
RFE-400	NA	1 ¹⁵ / ₁₆	NA	A	NA	NA	342	NA	44	4.5
RFE-500	NA	1 ¹⁵ / ₁₆	NA	A	NA	NA	375	NA	54	12.4
FPB-18	1 ⁷ / ₁₆	1 ⁷ / ₁₆	A	A	290	540	182	28	32	4.3
FPB-22	1 ⁷ / ₁₆	1 ¹¹ / ₁₆	D	A	370	680	320	50	60	9.2
FPB-28	1 ¹¹ / ₁₆	1 ¹¹ / ₁₆	D	A	610	740	410	65	67	27.5

A—Link Belt P3-U200 ball bearings. D—Linkbelt P-U300 ball bearings. NA—not available.

nyb reserves the right to substitute bearings of equal quality.



CORROSION-RESISTANT ALTERNATIVES

New York Blower metal fans can be constructed of various alloys including 304 and 316 stainless steel and aluminum. A wide range of corrosion-resistant coatings are also available.

CORROSION-RESISTANCE GUIDE

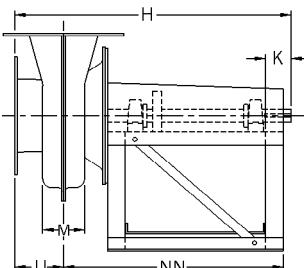
FRP fans are used to exhaust highly corrosive gases or fumes from various processes. Following is a list of corrosive substances, including acids, alkalies, salts, and solvents, commonly encountered in these applications. Refer to nyb Engineering Letter 18 for a more comprehensive listing.

Corrosive agent	Std. FRP const.	Corrosive agent	Std. FRP const.	Corrosive agent	Std. FRP const.
Acetic Acid	R	Fluoboric Acid	V	Palmitic Acid	R
Acrylic Acid	R	Fluosilicic Acid	V	Perchloroethylene	R
Ammonia	R	Formaldehyde	R	Perchloric Acid	R
Ammonium Carbonate	R	Formic Acid	R	Petroleum Ether	R
Ammonium Hydroxide	V	Glycerine	R	Phosphoric Acid	R
Ammonium Sulfite	R	Glycolic Acid	R	Phosphorous Acid	R
Arsenious Acid	R	Heptane	R	Phthalic Acid	R
Barium Carbonate	R	Hexane	R	Phthalic Anhydride	R
Benzoic Acid	R	Hydrochloric Acid Fumes	D	Polyvinyl Alcohol	R
Boric Acid	R	Hydrocyanic Acid	R	Polyvinylidene Chloride	R
Bromine, Dry Gas	R	Hydrofluoric Acid	D*	Potassium Bicarbonate	V
Bromine, Moist Gas	R	Hydrogen Bromide	R	Potassium Ferrocyanide	R
Butyl Acetate	R	Hydrogen Chloride	R	Potassium Permanganate	R
Butylene Glycol	R	Hydrogen Fluoride	V*	Propionic Acid	R
Butyric Acid	R	Hydrogen Peroxide	R	Propylene Glycol	R
Calcium Sulfate	R	Hydrogen Sulfide	R	Silver Nitrate	R
Carbon Dioxide	R	Hydroxyacetic Acid	R	Sodium Acetate	R
Carbon Disulfide Vapor	R	Hypochlorous Acid	R	Sodium Benzoate	R
Carbon Tetrachloride	R	Iodine	R	Sodium Chloride	R
Chlorine Gas, Dry	V	Kerosene	R	Sodium Dichromate	R
Chlorine Gas, Wet	V	Lactic Acid	R	Sodium Hydroxide	V
Chlorofluorocarbon	R	Lithium Chloride	R	Sodium Nitrate	R
Chrome-Plating Bath	R	Magnesium Carbonate	R	Stannic Chloride	R
Chromic Acid	R	Magnesium Chloride	R	Stearic Acid	R
Citric Acid	R	Malathion	R	Styrene	R
Copper Cyanide	R	Maleic Acid	R	Sulfamic Acid	R
Copper Nitrate	R	Mercuric Chloride	R	Sulfur Dichloride	R
Copper Sulfate	R	Mercury	R	Sulfur Dioxide	R
Cyclohexane	R	Methacrylic Acid	R	Sulfuric Acid	R
Diethyl Glycol	R	Methyl Alcohol	R	Sulfurous Acid	R
Dimethyl Sulfoxide	R	Methyl Bromide	R	Tannic Acid	R
Dimethylamine	R	Methyl Chloride	R	Tartaric Acid	R
Dipropylene Glycol	R	Naphtha	R	Tetrachloroethane	R
Ether	R	Naphthalene	R	Toluene	R
Ethyl Alcohol	R	Nickel Nitrate	R	Trichloroacetic Acid	R
Ethyl Chloride	R	Nitric Acid	R	Turpentine	R
Ethylene Glycol	R	Nitrous Acid	R	Vinegar	R
Fatty Acids	R	Oleic Acid	R	Water, Sea	R
Ferric Nitrate	R	Oxalic Acid	R	Water, Steam Condensate	R
Ferrous Chloride	R	Ozone	R	Xylene	R

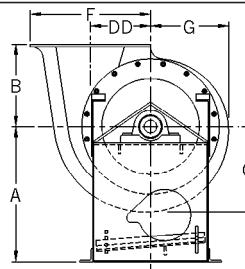
R—Recommended. V—Synthetic surface veil required. D—Double layer synthetic surface veil required. N—Not recommended. T—Test data not available. * = 120°F. maximum.

FRP RADIAL FUME EXHAUSTERS

ARRANGEMENT 10 DIMENSIONS [inches/millimeters]



Dimensions not to be used for construction unless certified.



Size	A	B	C	DD	F	G	H	JJ	K	M	NN	O	R
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm						
160	15½ 394	8½ 206	8½ 206	5½ 140	11 280	7¼ 185	30½ 784	5½ 134	2½ 64	4½ 108	24¾ 629	19¾ 505	6¾ 171
200	15½ 394	9½ 241	9½ 251	6¾ 172	13½ 346	8½ 225	32½ 819	5¾ 146	2½ 64	5½ 133	24¾ 632	19¾ 505	6¾ 171
315	21¼ 540	13¼ 337	13¾ 340	9½ 242	19½ 486	11½ 300	39½ 1006	6¾ 171	3½ 89	7½ 184	28½ 724	21½ 556	8½ 226
400	25½ 648	17 432	16½ 422	11½ 302	23½ 600	14¾ 375	47 1193	8½ 219	4 102	9½ 234	33½ 854	25½ 657	10½ 267
500	28 711	20¾ 528	20 508	13¾ 350	27½ 702	17¾ 450	49¾ 1264	9½ 241	4½ 108	11½ 282	34½ 866	25½ 657	11½ 285

Size	S	T	V	W	a	b	c	d	Base holes	Square key	Maximum motor frame size	Maximum motor case length [C-NW]	Minimum motor HP**
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	Open	TEFC	
160	16½ 416	7½ 187	6½ 165	8 203	7½ 194	13¾ 340	8¾ 213	6½ 175	¾ 16 14	¾ 9.5	215T	184T	14½ ½
200	16½ 416	7½ 187	6½ 165	8 203	9½ 238	16½ 413	10½ 264	8½ 210	¾ 16 14	¾ 9.5	215T	184T	14½ ½
315	17½ 441	9½ 238	8½ 210	10½ 260	13 330	22½ 572	14½ 359	11 279	¾ 16 14	¾ 9.5	215T	215T	16½ ½
400	20½ 518	10½ 276	9½ 248	11¾ 298	15¾ 400	29½ 743	17¾ 441	13¾ 346	¾ 16 14	½ 12.7	256T	254T	18½ ½
500	19½ 505	12½ 311	11 279	13 330	18½ 473	35½ 895	21½ 537	16½ 413	¾ 19	½ 12.7	256T	254T	18½ ½

** This represents the minimum HP required for fan start-up with 3-phase motor.

Tolerance: ± ½" or ± 3 mm.

FLANGED INLET AND OUTLET DIMENSIONS

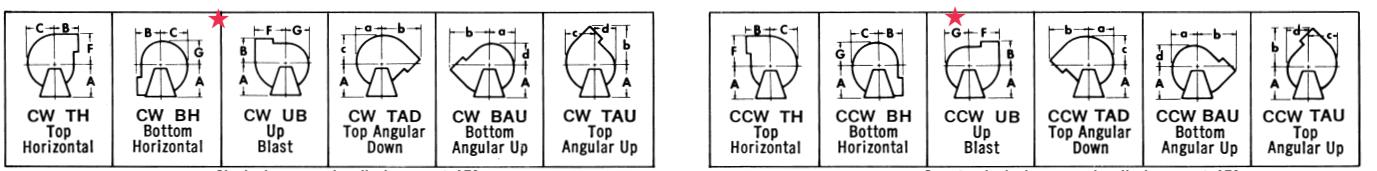
for FRP Radial Fume Exhausters and FRP Pressure Blowers [inches/millimeters]

Size	O.D.	B.C.	Inlet and outlet flanges*						Flange thickness			
			I. D.	B. C. [bolt circle]		O. D.	Number of holes	Diameter of holes				
				PS 15-69	ANSI Class 150			in. mm	in. mm			
RFE-160	6½ 160	9 229	9½ 241	11 279	8½ 213	6½ 175	8	¾ 16 11	¾ 9.5	215T	184T	5½ 8
RFE-200	7½ 200	11 279	11½ 298	13½ 343	10½ 264	8½ 210	8	¾ 16 11	¾ 9.5	215T	184T	5½ 8
RFE-315	12½ 315	15 381	17 432	19 483	14½ 359	11 279	12	¾ 16 11	1 25	215T	215T	16½ 11
RFE-400	15¾ 400	19 483	21½ 540	23½ 600	23½ 600	13¾ 441	16	¾ 16 11	1½ 29	256T	254T	1½ 13
RFE-500	19¾ 500	23 584	25 635	27½ 699	27½ 699	20 537	20	¾ 16 11	1¼ 32	256T	254T	1½ 13
FPB-18	8 203	11 279	11½ 298	13½ 343	13½ 343	8 279	8	¾ 16 11	¾ 9.5	215T	184T	1½ 13
FPB-22	10 254	13 330	14½ 362	16 406	16 406	12 330	12	¾ 16 11	1 25	215T	215T	1½ 13
FPB-28	12 305	15 381	17 432	19 483	19 483	12 381	12	¾ 16 11	1 25	215T	215T	1½ 13

* Flanges are furnished standard without holes. Choice of either PS 15-69 or ANSI Class 150 drilling patterns available. Holes straddle centerline except on inlet flange of the following fans in angular discharge positions: RFE-315, RFE-500, FPB-22, and FPB-28.

Tolerance: ± ½" or ± 3 mm.

FAN DISCHARGES – VIEWED FROM DRIVE SIDE



★ Bottom Horizontal fans, Size FPB-28 only, are equipped with a 3-inch channel sub-base...add 3" to the fan centerline height.

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

FRP PRESSURE BLOWERS

ARRANGEMENT 1 AND 8 DIMENSIONS [inches/millimeters]		Dimensions not to be used for construction unless certified.											
Size	A	B	C	DD	F	G	H	JJ	K	M	NN		
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm
18	18½ 470	17 432	14 356	10½ 267	17½ 438	13½ 337	27½ 692	6½ 168	3 76	7 178	17½ 448		
22	24½ 622	22 559	18½ 460	14½ 378	22½ 581	17½ 435	28½ 721	6¾ 171	4 102	7½ 181	17¾ 451		
28	27 686	28 711	22½ 575	18½ 479	28½ 721	21½ 543	31¾ 806	8½ 206	5 127	9 229	18½ 473		

Size	R	S	T	W	a	b	c	d	Base holes	Square key		
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm
18	4½ 117	12 305	10¼ 260	11½ 283	13½ 346	24¼ 616	14¾ 365	12¾ 327	9/16 14	3/8 9.5		
22	4¾ 121	12 305	10½ 276	11¾ 298	17½ 448	31¾ 806	18½ 473	16½ 422	9/16 14	3/8 9.5		
28	5½ 143	12 305	10½ 276	11¾ 298	22 559	39½ 1013	23¼ 591	20¾ 527	9/16 14	3/8 9.5		

Tolerance: $\pm \frac{1}{16}$ " or ± 3 mm.

ARRANGEMENT 8 FRP PRESSURE BLOWER DIMENSIONS [in./mm]

Motor frame	Size 18			Size 22			Size 28		
	HH*	SS	XX	HH*	SS	XX	HH*	SS	XX
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm
143T-145T	41½ 1045	14 356	31½ 810	42¼ 1073	15¼ 387	33½ 845	— —	— —	— —
182T-184T	45½ 1156	15½ 394	33½ 848	46½ 1184	16¾ 425	34¾ 883	50 1270	17½ 451	36½ 930
213T-215T	47½ 1216	18½ 476	36½ 930	49 1245	19¾ 502	37¾ 959	52½ 1330	20¾ 527	39½ 1006
254T-256T	— —	— —	— —	54½ 1387	25	635	43 1092	58 1473	26 660
284TS-286TS	— —	— —	— —	— —	— —	— —	— —	59½ 1511	26¾ 679
324TS-326TS	— —	— —	— —	— —	— —	— —	— —	62 1575	29½ 743

* HH dimension is for reference only and is based on the maximum motor lengths for standard TEFC, 1800 RPM motors.

Tolerance: $\pm \frac{1}{16}$ " or ± 3 mm.

ARRANGEMENT 10 DIMENSIONS [inches/millimeters]		Dimensions not to be used for construction unless certified.											
Size	A	B	C	DD	F	G	H	JJ	K	M	NN	O	R
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm
18	17½ 445	17 432	14 356	10½ 267	17½ 438	13½ 337	33½ 841	6½ 168	3 76	7 178	25½ 648	21½ 556	5¾ 137
22	25½ 645	22 559	18½ 460	14½ 378	22½ 581	17½ 435	37½ 962	6¾ 171	4 102	7½ 181	29½ 752	25½ 657	6½ 165
28	27½ 708	28 711	22½ 575	18½ 479	28½ 721	21½ 543	40 1016	8½ 206	4 102	9 229	30½ 775	25½ 657	7½ 194

Size	S	T	V	W	a	b	c	d	Base holes	Square key	Maximum motor frame size	Maximum motor case length [C-NW]	Minimum motor HP**
	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	in. mm	Open	TEFC	
18	18½ 467	8½ 225	8 203	9½ 241	13½ 346	24¼ 616	14½ 365	12½ 327	9/16 14	3/8 9.5	215T	215T	16½ 1/2
22	20½ 518	10½ 276	9¾ 248	11¾ 298	17½ 448	31¾ 806	18½ 473	16½ 422	9/16 14	3/8 9.5	256T	254T	18½ 1/2
28	19½ 505	12½ 311	11 279	13 330	22 559	39½ 1013	23¼ 591	20¾ 527	¾ 19	3/8 9.5	256T	254T	18½ 1/2

** This represents the minimum HP required for fan start-up with 3-phase motor.

Tolerance: $\pm \frac{1}{16}$ " or ± 3 mm.

IN

CORROSION-RESISTANT

FRP FANS...

STANDARDS MAKE A DIFFERENCE!

In FRP Fans, construction quality and accurate air ratings are vital. That's where standards make a big difference.

The American Society for Testing and Materials [ASTM] developed a standard specification for FRP fans and blowers. ASTM D 4167, Standard Specification for FIBER-REINFORCED PLASTIC FANS AND BLOWERS, defines minimum specifications for construction of major fan elements. It is a concise, understandable, readily available standard.

The Air Movement and Control Association's [AMCA] Certified Ratings Program provides assurance of accurate ratings. AMCA Standard 210 describes how fans are to be tested for air performance. The AMCA Certified Ratings Program requires the fan manufacturer to guarantee aerodynamic performance within close tolerances of the manufacturer's published ratings.

The Society of the Plastic Industry's [SPI] Users Guide to RP Industrial Equipment, #2-Fans, Guide for Purchasing or Specifying Reinforced Plastic Fans and Blowers, recommends specification of both the ASTM and AMCA standards.

The New York Blower Company's complete line of FRP Fans—Fume Exhausters, Radial Fume Exhausters, Pressure Blowers, General-Purpose Fume Exhausters, and Tubeaxial Fans—meet these standards.



FRP PRESSURE BLOWERS

5,000 CFM
36" WG



FRP RADIAL FUME EXHAUSTERS

7,500 CFM
14" WG



FRP FUME EXHAUSTERS

84,000 CFM
25" WG



FRP GENERAL-PURPOSE FUME EXHAUSTERS

73,000 CFM
17" WG



FRP TUBEAXIAL FANS

90,000 CFM
4" WG



THE BEST FRP FANS STILL KEEP COMING FROM NEW YORK BLOWER!