



FTF BLOWER MODELS

Introduction

This catalog features Fiberglass Reinforced Plastic Centrifugal Fan, FTF models, which are suitable for use in the chemical, metal, wastewater, semiconductor, pharmaceutical, pulp and paper, and fertilizer industries. Our unique backward curved impeller leads the industry in performance and sound characteristics. With over 60 years of manufacturing corrosion resistant products, we have experience and technology to provide solutions.



AMCA SEAL

SEIKOW Chemical Engineering & Machinery certifies that FTF 153, 203, 253, 303, 403, 503, 603, 703, 803 models shown herein; except FTF 903, 1203, 1403; are licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and 311 and comply with the requirements of the AMCA Certified Ratings Program.

Model FTF

WHEEL DIAMETERS

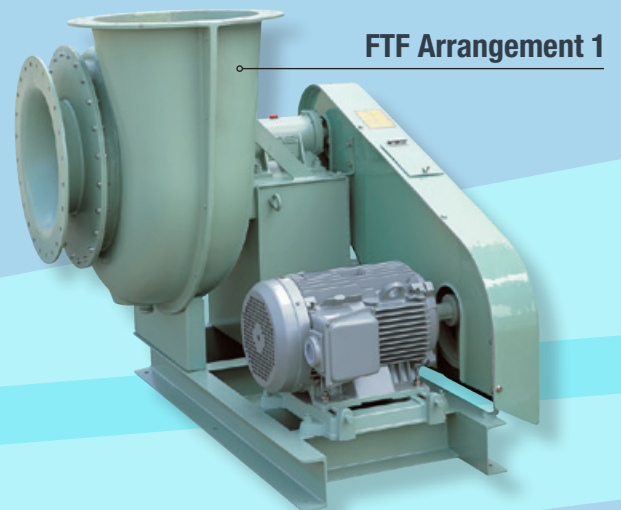
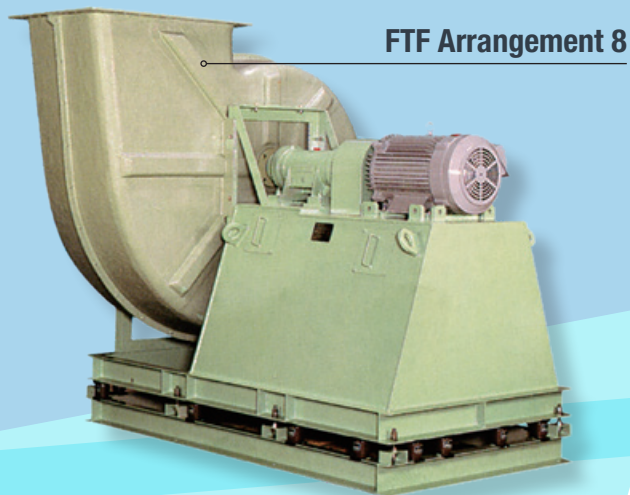
10", 12", 16", 20", 24", 32",
36", 44", 50", 55", 72"

PERFORMANCE

Airflow To 140,000 CFM
Static Pressure To 18" wg

ARRANGEMENTS

Available In Arrangements 1, 4, 8, 9, 10
Belt and Direct Drive Configurations



APPLICATIONS

Pollution Control
Scrubbers
Odor Control
Fume Exhausting
/ Fume Hood

INDUSTRIES

Chemical
Metal
Pulp and Paper
Wastewater
Pharmaceutical
Fertilizer
Petrochemical



Construction Features

Wheel

The FTF wheel is a backward curved design, innovated with Computational Fluid Dynamic (CFD) analysis. The FTF wheel is able to flow corrosive gas efficiently with low noise characteristics. It consists of vinyl ester resin and is manufactured with our own unique methods, providing high efficiency and durability. Every impeller is molded with an attached shaft sleeve and back vanes to create suction through the shaft hole and prevent a leak. All of the impellers are statically and dynamically balanced in accordance with G6.3 per ANSI S2.19 / ISO1940.

Housing

The housing of FTF models 153 – 403 consists of vinyl ester resin. The housing is designed to be aerodynamically efficient. Resin transfer molding (RTM) allows us to manufacture high quality competitive products. These models come with round suction and discharge flanges that increase durability.

The housing of FTF models 503 – 1203 consists of polyester resin. This material is easy to form and ideal for complex designs. It comes with round suction and rectangular discharge flanges, and is manufactured using the hand layup method.

All of housing are coated with a UV resistant coating.



Accessories



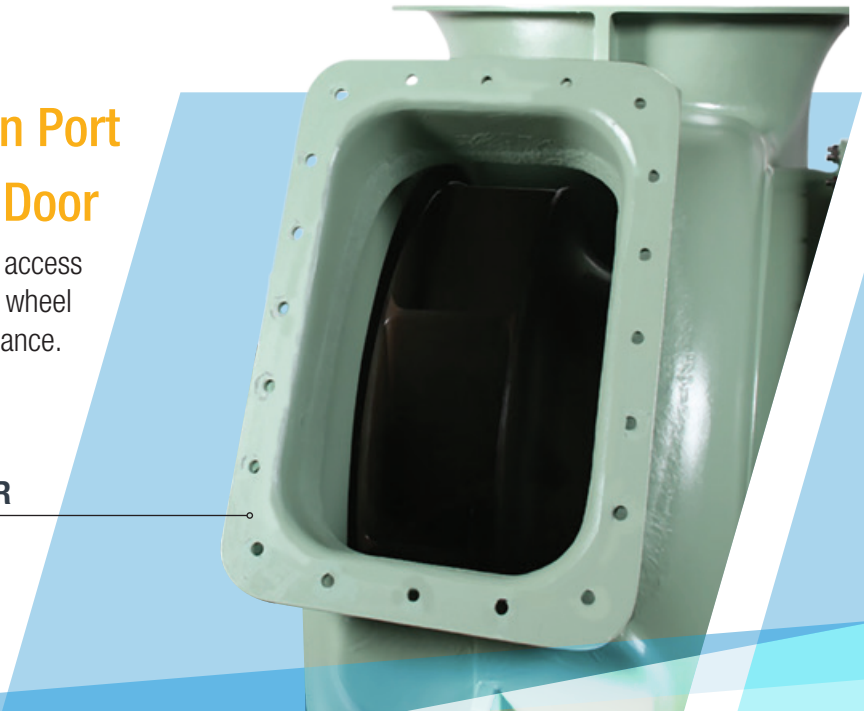
Belt Guard

The standard OSHA belt guard material is FRP, and comes with an inspection window. Carbon steel, SS304, SS316 material guards are available as options.

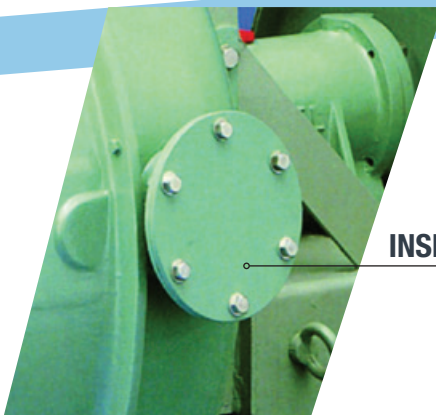
INSPECTION WINDOW

Inspection Port and Access Door

Gasketed inspection ports and rectangular access doors are available in several sizes for wheel inspection or maintenance.



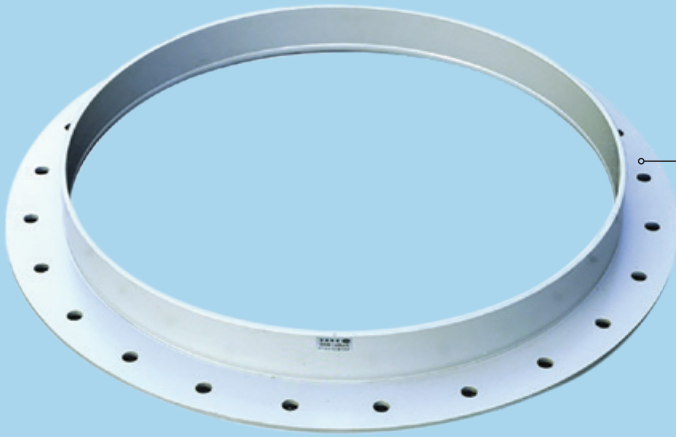
ACCESS DOOR



INSPECTION PORT

Vibration Isolator

Rubber or spring type isolators are available.

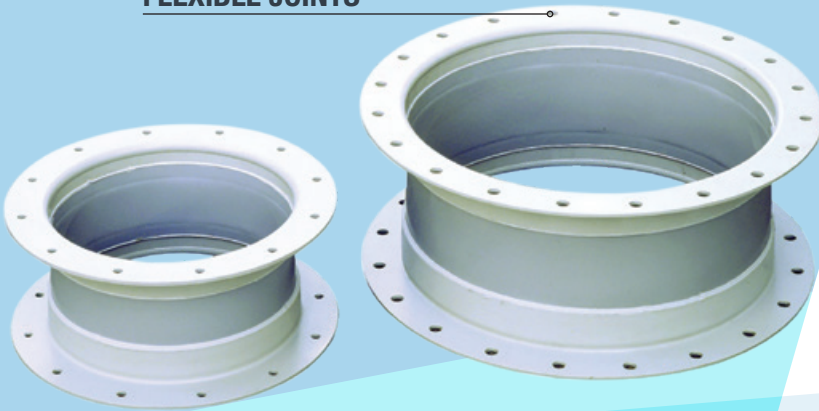


COMPANION FLANGE

Duct Connections

The outlet and inlet flanges are standard. See the drawings for the detailed flange sizes. Undrilled flanges and companion flanges are available to connect user's duct for easy installation.

FLEXIBLE JOINTS



Flexible connection

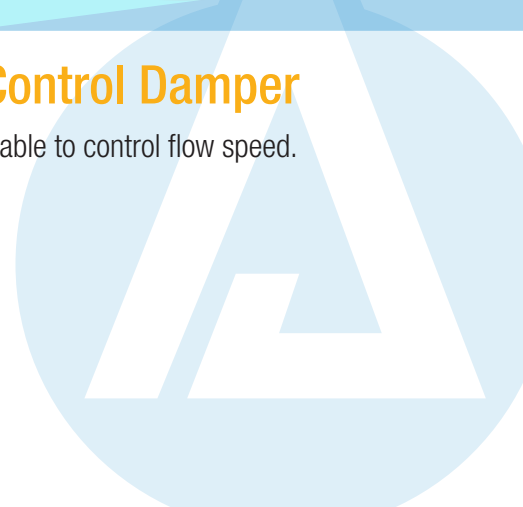
PVC or PTFE lined flexible joints are available.



FRP VOLUME DAMPER

FRP Volume Control Damper

Manual dampers are available to control flow speed.



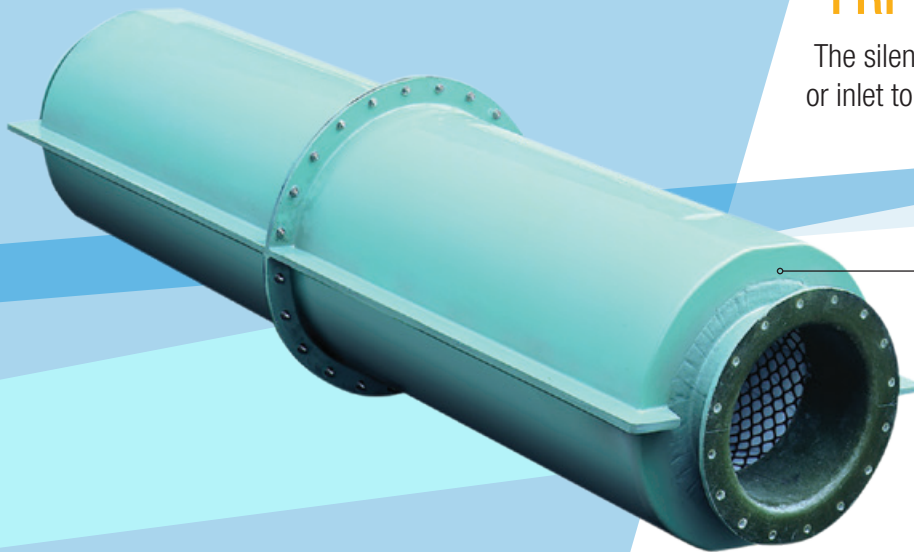
Accessories



FRP Ventilation Hood

A weather proofing ventilation hood is available to prevent elements from entering the system.

FRP VENTILATION HOOD



FRP Silencer

The silencers are mounted on the blower's outlet or inlet to reduce the duct noise by 15 – 25dB(A).

FRP SILENCER

Sound enclosure

Sound enclosures decrease radiant noise levels generated from the blower and motor by 19 to 23 dB(A).

Weather Cover

Weather covers are available for extra motor protection.

Drain

Plugged and flanged drains are available. Both have an option for a PVC ball valve.

Optional Construction



Graphite Impregnation

Graphite impregnation is available for spark resistant construction. The gas-stream surfaces are grounded to the fan base.

Special materials

Several types of FRP constructions are available for high temperature and severe gas conditions such as Chromic acids, Bleaches, and Hydrofluoric Acid.

Fire retardant brominated vinyl ester resin

Brominated vinyl ester resin is available upon requests. This will meet ASTM E84 Class I flame 0-25 flame spread.

Synthetic Veil

Synthetic veil is available to protect air stream surfaces from severe corrosive conditions.

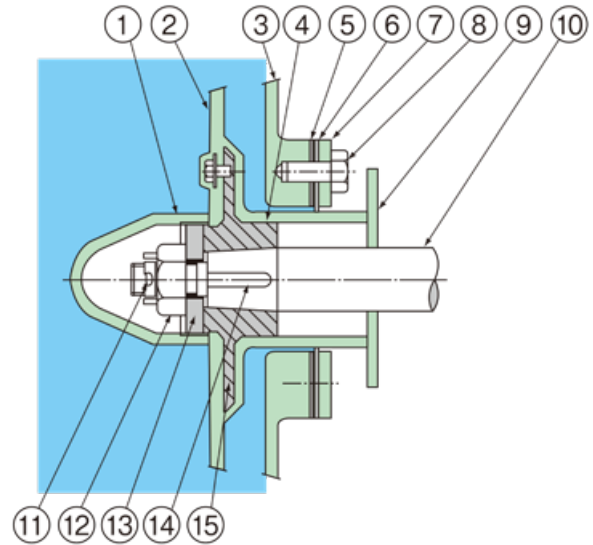
ASTM D4167 Construction

Fan can be constructed to meet ASTM D4167 as an option.

Seal Options

Seal Plate Type

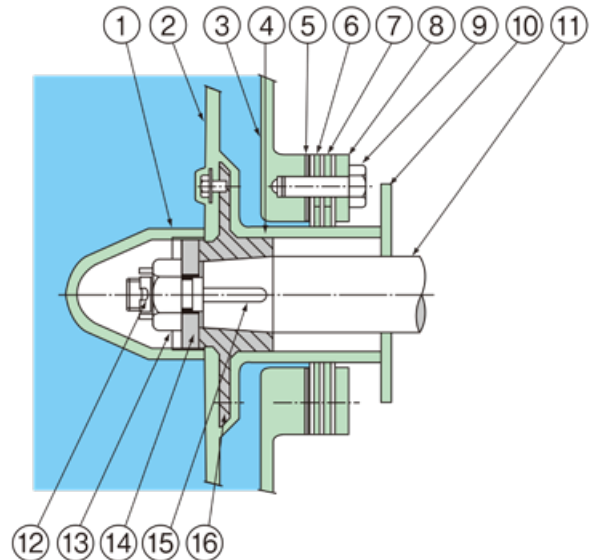
A polyethylene plate is the most basic seal type used for protection of shaft and bearings. This plate will block the gas from coming out of the shaft hole and prevent corrosion. Back vanes on the impeller create suction pressure through the shaft opening to prevent a leakage. If the blower is pushing more than 65 % of total pressure, we recommend a different seal type. PTFE seal plate is available.



P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	Casing	1pc.
4	Shaft Sleeve	1pc.
5	Gland Gasket	1pc.
6	Seal Plate	1pc.
7	Seal Plate Tightener	1pc.
8	Gland Bolt	1set
9	Gas Separator	1pc.
10	Shaft	1pc.
11	Split Pin	1pc.
12	Nut (with Groove)	1pc.
13	Impeller Washer	1pc.
14	Impeller Key	1pc.
15	Impeller Boss	1pc.

Labyrinth Seal

A labyrinth seal comes with three seal plates for additional protection. This type of seal is efficient and easy to maintain. Back vanes on the impeller create suction pressure through the shaft opening to prevent a leakage. If the blower is pushing more than 65 % of total pressure, we recommend a different seal type. PTFE seal plate is available.

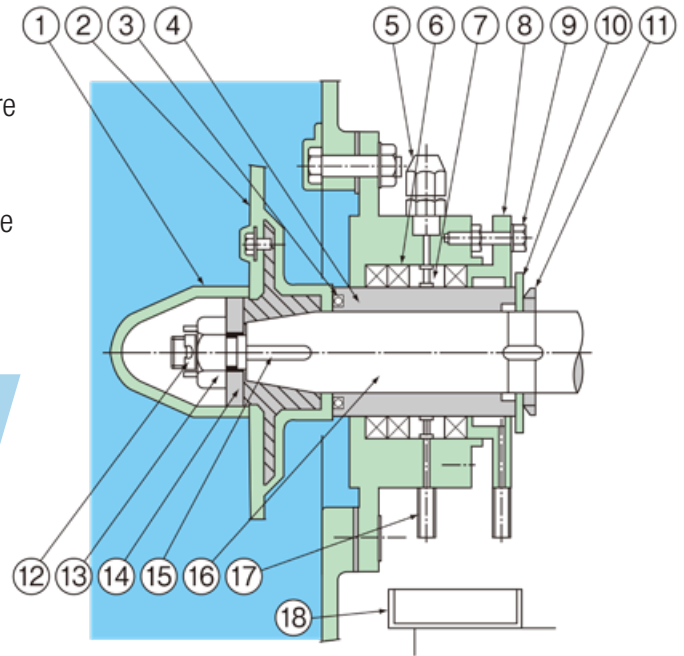


P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	Casing	1pc.
4	Shaft Sleeve	1pc.
5	Gland Gasket	1pc.
6	Spacer	1pc.
7	Seal Plate	1pc.
8	Seal Plate Tightener	1pc.
9	Gland Bolt	1set
10	Gas Separator	1pc.
11	Shaft	1pc.
12	Split Pin	1pc.
13	Nut (with Groove)	1pc.
14	Impeller Washer	1pc.
15	Impeller Key	1pc.
16	Impeller Boss	1pc.

Packing Seal Type

This option is ideal for applications when discharge pressure is high and used under severe conditions. This requires a water supply to lubricate the gaskets and periodical maintenance for better sealing. Mechanical seal options are also available upon requests.

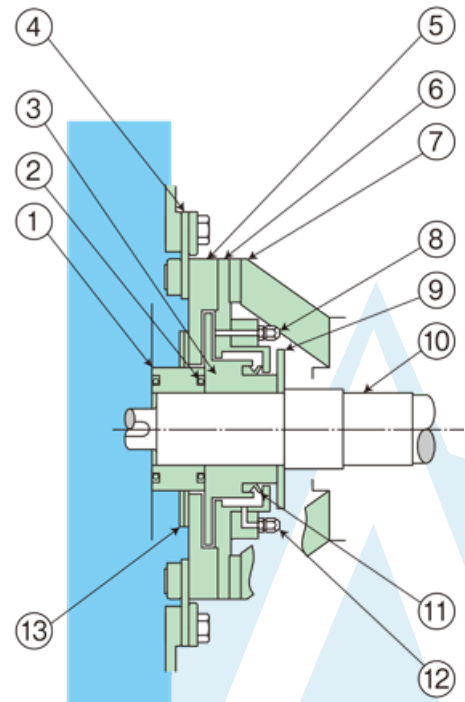
P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	O-Ring	1pc.
4	Shaft Sleeve	1pc.
5	Inlet Union	1pc.
6	Packing	1set
7	Lantern Ring	1pc.
8	Packing Tightener	1set
9	Tightening Bolt	1set
10	Gas Separator	1pc.
11	Shaft Sleeve Nut	1pc.
12	Split Pin	1pc.
13	Nut (with Groove)	1pc.
14	Impeller Washer	1pc.
15	Impeller Key	1pc.
16	Shaft	1pc.
17	Drain Pipe	1set
18	Drain Receiver	1pc.



Water Seal Type

This option is ideal for applications when discharge pressure is high and used under severe conditions. This seal requires a water supply to create a liquid membrane, preventing a leak. Water seals do not have direct contact with any moving parts, and require less maintenance.






P/No.	Part Name	Qty.
1	Distance Piece	1pc.
2	O-Ring	1set
3	Rotor	1pc.
4	Gland Gasket	1pc.
5	Gland Box	1pc.
6	Drain Catcher	1pc.
7	Bearing Housing Cover	1pc.
8	Inlet Union	1set
9	Water Separator	1pc.
10	Shaft	1pc.
11	V-Ring	1pc.
12	Outlet Union Seal	1set
13	Seal Plate	1set



Chemicals	Molecular Formula	Density Wt%	FTF/FTB	CTF 151-201 NSF 302-402	CES 101-201	Classification
Hydrochloric Acid	HCl	20	176(80)	122(50)	122(50)	Inorganic Acid Gases
Perchloric Acid	HClO ₄	10	158(70)	122(50)	122(50)	
Chromic Acid	H ₂ CrO ₄	20	140(60)	122(50) ²³	X	
Hydrofluosilic Acid	H ₂ SiF ₆	10	140(60)	104(40)	104(40)*1	
Hydrocyanic Acid	HCN	ALL	176(80)	122(50)	122(50)	
Hydrobromic Acid	HBr	10	176(80)	122(50)	122(50)	
Nitric Acid	HNO ₃	10	158(70)	104(40)	122(50)	
Fuming Sulfuric Acid	H ₂ SO ₄ +xSO ₃		X	X	X	
Hydrofluoric Acid	HF	1	158(70)	104(40)	X	
Boric Acid	H ₃ BO ₃	ALL	176(80)	122(50)	122(50)	
Hydrofluoric Anhydride	HF		X	X	X	
Sulfuric Anhydride	SO ₃		X	X	X	
Sulfuric Acid	H ₂ SO ₄	40	176(80)	122(50)	122(50)	
Phosphoric Acid	H ₃ PO ₄	30	176(80)	122(50)	122(50)	
Sulfurous Acid Gas	SO ₂	25	176(80)	122(50)	122(50)	
Carbon Monoxide	CO		176(80)	122(50)	122(50)	
Chlorine Gas	Cl ₂	5	176(80)	122(50)	X	
Ozone	O ₃	10ppm	122(50)	122(50)	122(50)	
Bromine	Br ₂		X	X	X	
Nitrogen Oxide	NO _x	5	176(80)	122(50)	122(50)	
Hydrogen Sulfide	H ₂ S	10	176(80)	122(50)	122(50)	
Acrylic Acid	CH ₂ =CHCOOH	10	122(50)	122(50)	X	
Adipic Acid	(CH ₂) ₄ (COOH) ₂	23	176(80)	122(50)	122(50)	
Oleic Acid	C ₁₇ H ₃₃ COOH	ALL	176(80)	122(50)	122(50)	
Formic Acid	HCOOH	10	158(70)	122(50)	122(50)	
Citric Acid	C ₃ H ₄ (OH)(COOH) ₃	25	176(80)	122(50)	122(50)	
Glycolic Acid	CH ₂ OHCOOH	30	122(50)	122(50)	122(50)	
Acetic Acid	CH ₃ COOH	25	176(80)	122(50)	122(50)	
Acetic Anhydride	(CH ₃ CO) ₂ O		X	X	X	
Oxalic Acid	(COOH) ₂	20	176(80)	122(50)	122(50)	
Tartaric Acid	(CHOHCOOH) ₂	ALL	176(80)	122(50)	122(50)	
Stearic Acid	C ₁₇ H ₃₅ COOH	ALL	176(80)	122(50)	122(50)	
Tannic Acid	C ₁₃ H ₉ O ₇ COOH	ALL	176(80)	122(50)	122(50)	
Thioglycolic Acid	HSCH ₂ COOH	ALL	X	X	X	
Lactic Acid	CH ₃ CH(OH)COOH	ALL	176(80)	122(50)	122(50)	
Picric Acid	C ₆ H ₂ (NO ₂) ₃ OH	1	104(40)	104(40)	122(50)	
Benzene Sulfonic Acid	C ₆ H ₅ SO ₃ H	10	140(60)	122(50)	122(50)	
Maleic Acid	(CHCOOH) ₂	ALL	176(80)	122(50)	122(50)	
Monochloroacetic Acid	CH ₂ ClCOOH	25	104(40)	104(40)	122(50)	
Benzoic Acid	C ₆ H ₅ COOH	ALL	176(80)	122(50)	122(50)	
Butyric Acid	C ₃ H ₇ COOH	5	176(80)	122(50)	122(50)	
Ammonia (gas)	NH ₃	ALL	86(30)	86(30)	122(50)	
Ammonium Hydroxide	NH ₄ OH	20	140(60)	122(50)	122(50)	
Potassium Hydroxide	KOH	10	140(60)	122(50)	122(50)	
Calcium Hydroxide	Ca(OH) ₂	25	176(80)	122(50)	122(50)	
Sodium Hydroxide	NaOH	25	140(60)	122(50)	122(50)	
Barium Hydroxide	Ba(OH) ₂	10	158(70)	122(50)	122(50)	
Chlorine Water		Saturation	176(80)	X	X	
Hydrogen Peroxide	H ₂ O ₂	30	140(60)	122(50)	X	
Hypochlorous Acid	HClO	10	140(60)	122(50)	122(50) ²²	
Calcium Hypochlorit	Ca(ClO) ₂	ALL	140(60)	122(50)	122(50) ²²	
Sodium Hypochlorite	NaClO	15	140(60)	122(50)	122(50) ²²	
Chlorine Dioxide	ClO ₂	15	176(80)	122(50)	X	

- Numbers shown in the table are the applicable temperature.
- Numbers in parenthesis are the applicable temperature at normal conditions.
- CES, NSF, CTF, and FTB models are not listed in this brochure.

Note 1: Be careful when choosing CES | O | -20 | for HF applications that the maximum speed differs with that for normal use.
 Note2: The maximum applicable concentration is 500ppm if there is occurrence of mist install a mist separator. To suppress the generation of chlorine limit use within a range of PH8.5-10. Please contact us for applications different than stated above.
 Note3: Not applicable to the CTF Model.

-  Solvent. Heat and Acid resistant specification
-  Chromic acid resistant specification
-  Hypochlorous acid specification
-  Hydrofluoric acid specification
-  X Separately can be handled with the CRS model.

Chemicals	Molecular Formula	Density Wt%	FTF/FTB	CTF 151-201 NSF 302-402	CES 101-201	Classification
Sodium Nitrite	NaNO ₂	ALL	176(80)	122(50)	122(50)	Salts
Sodium Sulfite	Na ₂ SO ₃	ALL	176(80)	122(50)	122(50)	
Aluminum Chloride	AlCl ₃	ALL	176(80)	122(50)	122(50)	
Ammonium Chloride	NH ₄ Cl	ALL	176(80)	122(50)	122(50)	
Calcium Chloride	CaCl ₂	ALL	176(80)	122(50)	122(50)	
Ferric Chloride	FeCl ₃	ALL	176(80)	122(50)	122(50)	
Copper Chloride	CuCl ₂	ALL	176(80)	122(50)	122(50)	
Nickel Chloride	NiCl ₂	ALL	176(80)	122(50)	122(50)	
Barium Chloride	BaCl ₂	ALL	176(80)	122(50)	122(50)	
Potassium Permanganate	KMnO ₄	10	176(80)	122(50)	X	
Potassium Dichromate	K ₂ Cr ₂ O ₇	20	176(80)	122(50)	X	
Potassium Bicarbonate	KHC0 ₃	50	176(80)	122(50)	122(50)	
Ammonium Nitrate	NH ₄ NO ₃	ALL	176(80)	122(50)	122(50)	
Silver Nitrate	AgNO ₃	ALL	176(80)	122(50)	122(50)	
Sodium Carbonate	Na ₂ CO ₃	35	176(80)	122(50)	122(50)	
Magnesium Carbonate	MgCO ₃	ALL	158(70)	122(50)	122(50)	
Sodium Sulfide	Na ₂ S	ALL	176(80)	122(50)	122(50)	
Zinc Sulfide	ZnSO ₄	ALL	176(80)	122(50)	122(50)	
Ammonium Sulfide	(NH ₄) ₂ SO ₄	20	176(80)	122(50)	122(50)	
Potassium Sulfide	K ₂ SO ₄	ALL	176(80)	122(50)	122(50)	
Ferric Sulfide	Fe(SO ₄) ₃	ALL	176(80)	122(50)	122(50)	
Copper Sulfide	CuSO ₄	ALL	176(80)	122(50)	122(50)	
Magnesium Sulfide	MgSO ₄	ALL	176(80)	122(50)	122(50)	
Acrylonitrile	CH ₂ =CHCN		X	X	X	Solvents & Organic Compounds
Acetaldehyde	CH ₃ CHO		X	X	X	
Acetonitrile	CH ₃ CN		X	X	X	
Acetophenone	C ₆ H ₅ COCH ₃		X	X	X	
Acetone	CH ₃ COCH ₃		X	X	X	
Aniline	C ₆ H ₅ NH ₂		X	X	X	
Isopropylamine	(CH ₃) ₂ CHNH ₂	ALL	122(50)	122(50)	X	
Isopropyl Alcohol	(CH ₃) ₂ CHOH	ALL	122(50)	122(50)	122(50)	
Ethyl Alcohol	C ₂ H ₅ OH	50	122(50)	122(50)	122(50)	
Ethyl Ether	C ₂ H ₅ OC ₂ H ₅		X	X	X	
Ethylene Oxide	CH ₂ CH ₂ O		X	X	X	
Ethylene Glycol	HOCH ₂ OH ₂ OH	ALL	176(80)	122(50)	122(50)	
Ethylene Chloride	ClCH ₂ CH ₂ Cl		X	X	X	
Methylene Chloride	CH ₂ Cl ₂		X	X	X	
Gasoline		ALL	140(60)	122(50)	X	
Glycerin	C ₃ H ₅ (OH) ₃	5	176(80)	122(50)	122(50)	
Cresol	CH ₃ C ₆ H ₄ OH	5	X	X	122(50)	
Chloroform	CHCl ₃		X	X	X	
Ethyl Acetate	CH ₃ COOC ₂ H ₅		X	X	X	
Methyl Acetate	CH ₃ COOCH ₃		X	X	X	
Diethyl Ketone	C ₂ H ₅ COC ₂ H ₅		X	X	X	
Dimethylamine	(CH ₃) ₂ NH		X	X	X	
Ethyl Bromide	C ₂ H ₅ Br		X	X	X	
Trichlorobenzene	C ₆ H ₃ Cl ₃		X	X	X	
Toluene	C ₆ H ₅ CH ₃	ALL	122(50)	122(50)	X	
Naphtha		ALL	104(40)	104(40)	X	
Sulfur Dioxide	SO ₂		X	X	X	
Pyridine	C ₅ H ₅ N		X	X	X	
Phenol Sulfonic Acid	C ₆ H ₄ (OH)(SO ₃ H)		X	X	X	
Heptane	CH ₃ (CH ₂) ₅ CH ₃	10	140(60)	122(50)	122(50)	
Benzaldehyde	C ₆ H ₅ CHO		X	X	X	
Benzene	C ₆ H ₆	ALL	122(50)	122(50)	X	
Formaldehyde	HCHO	10	158(70)	122(50)	122(50)	
Methyl Alcohol	CH ₃ OH	50	122(50)	122(50)	122(50)	

- Solvent. Heat and Acid resistant specification
- Chromic acid resistant specification
- Hypochlorous acid specification
- Hydrofluoric acid specification
- X Separately can be handed with the CRS model.

Performance for FTF Models

Performance tables are developed using standard air which is 70°F at 29.92" atmospheric pressure (at sea level) and 0.0749 lbs.

If capacities at conditions other than those rates, correction factors must be applied to static pressure and BHP

STEP 1. When a fan runs at conditions other than ambient conditions, the correction factors in TABLE 1 and TABLE2 will be applied to correct static pressure and horsepower

STEP 2. Choose size, rpm and BHP of fan from the fan performance tables.

STEP 3. Check the maximum safe speed of the fan shown in TABLE3

STEP 4. Apply temperature maximum safe speed factors show in TABLE4 to maximum safe speed of fan from STEP 3 to determine new maximum safe speed.

STEP 5. Determine actual performance by dividing static pressure and BHP corrected from step 2 by the correction factor in STEP 1.

TABLE1

CORRECTION FACTORS FOR TEMPERATURE (° F)	
Temperature	Factor
32	0.93
40	0.94
60	0.98
70	1.00
80	1.02
100	1.06
120	1.09
140	1.13
160	1.17
176	1.20

If the temperature above 176° F , contact factory.

TABLE2

CORRECTION FACTORS FOR ALTITUDE [feet above sea level]	
Altitude	Factor
0	1.00
500	1.02
1000	1.04
2000	1.06
2500	1.10
3000	1.12
3500	1.14
4000	1.16
4500	1.18
5000	1.20
5500	1.22
6000	1.25
6500	1.27
7000	1.30
7500	1.32
8000	1.35
8500	1.37
9000	1.40
10000	1.45

TABLE3

MAXIMUM SAFE WHEEL SPEED AT 70° F	
Model	Maximum safe speed [rpm]
FTF153	5500
FTF203	5200
FTF253	3950
FTF303	3250
FTF403	2650
FTF503	2010
FTF603	1700
FTF703	1440
FTF803	1180

TABLE4

TEMPERATURE (° F) SAFE SPEED FACTORS	
Temperature	Materials of Construction
0	-
25	-
32	1.00
50	1.00
75	1.00
100	1.00
125	1.00
150	1.00
176	1.00

If the temperature above 176° F , contact factory.

FTF153

Backward curved impeller

FIG: 71
(Maximum safe speed, AMICA205-12)

Wheel diameter: 10"

Inlet diameter: 8.9" I.D.
Outlet diameter: 8.9" I.D.

CFM	OV	4"		5"		6"		7"		8"		9"		10"		11"		12"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
300	811	3,208	0.50	3,538	0.65	3,826	0.81	4,108	0.99	4,381	1.19	4,637	1.39	4,879	1.59	5,109	1.81	5,329	1.89
400	1081	3,250	0.55	3,633	0.75	3,968	0.97	4,267	1.18	4,508	1.36	4,742	1.55	4,964	1.80	5,174	2.08		
500	1351	3,317	0.62	3,647	0.81	3,972	1.01	4,296	1.25	4,589	1.51	4,865	1.80	5,114	2.08	5,223	2.23		
600	1622	3,445	0.72	3,757	0.92	4,049	1.13	4,324	1.36	4,595	1.59	4,870	1.85	5,135	2.15	5,325	2.30		
700	1892	3,601	0.84	3,894	1.04	4,171	1.27	4,433	1.50	4,683	1.75	4,922	2.01	5,151	2.28				
800	2162	3,781	0.98	4,056	1.20	4,317	1.43	4,566	1.67	4,805	1.93	5,034	2.20	5,255	2.48				
900	2432	3,981	1.15	4,239	1.38	4,485	1.62	4,721	1.88	4,948	2.14	5,168	2.42						
1000	2703	4,194	1.35	4,438	1.59	4,671	1.85	4,894	2.11	5,111	2.39	5,320	2.68						
1100	2973	4,418	1.58	4,649	1.84	4,870	2.11	5,083	2.39	5,289	2.67								
1200	3243	4,651	1.84	4,871	2.12	5,082	2.40	5,285	2.69										
1300	3514	4,893	2.13	5,102	2.43	5,303	2.73												
1400	3784	5,303	2.72	5,340	2.78														

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).

FTF203

Backward curved impeller

FIG: 75
(Maximum safe speed, AMICA205-12)

Wheel diameter: 12.4"

Inlet diameter: 11.8" I.D.
Outlet diameter: 11.8" I.D.

CFM	OV	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"		
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
400	556	2,466	0.55	2,743	0.73	2,992	0.93	3,232	1.14	3,446	1.35	3,647	1.58	3,837	1.82	4,027	2.07	4,200	2.32	4,365	2.59	4,525	2.86	4,688	3.14	4,837	3.42	
600	833	2,531	0.68	2,806	0.89	3,055	1.12	3,284	1.35	3,498	1.60	3,699	1.86	3,889	2.13	4,070	2.41	4,243	2.69	4,408	2.98	4,567	3.29	4,721	3.60	4,870	3.91	
800	1111	2,612	0.81	2,879	1.06	3,123	1.31	3,350	1.58	3,562	1.86	3,762	2.14	3,952	2.44	4,132	2.75	4,305	3.07	4,470	3.39	4,630	3.72	4,783	4.06	4,932	4.41	
1000	1389	2,724	0.97	2,975	1.24	3,209	1.52	3,429	1.81	3,636	2.12	3,833	2.44	4,020	2.77	4,199	3.10	4,370	3.45	4,535	3.81	4,693	4.17	4,847	4.54	4,995	4.92	
1200	1667	2,866	1.16	3,100	1.45	3,320	1.75	3,529	2.07	3,728	2.41	3,918	2.75	4,101	3.11	4,275	3.47	4,444	3.85	4,606	4.23	4,763	4.62	4,915	5.02	5,062	5.43	
1400	1944	3,033	1.37	3,251	1.69	3,457	2.02	3,654	2.37	3,843	2.72	4,024	3.09	4,199	3.47	4,368	3.87	4,531	4.27	4,690	4.68	4,843	5.10	4,992	5.53			
1600	2222	3,220	1.63	3,423	1.97	3,616	2.33	3,801	2.70	3,979	3.08	4,152	3.47	4,318	3.88	4,480	4.30	4,637	4.72	4,790	5.16	4,939	5.61	5,083	6.06			
1800	2500	3,419	1.94	3,610	2.30	3,792	2.68	3,967	3.08	4,136	3.48	4,299	3.90	4,457	4.33	4,611	4.77	4,762	5.22	4,908	5.68	5,051	6.15					
2000	2778	3,627	2.28	3,809	2.68	3,982	3.09	4,148	3.51	4,308	3.94	4,463	4.38	4,614	4.83	4,760	5.30	4,904	5.77	5,044	6.26							
2200	3056	3,844	2.68	4,018	3.11	4,182	3.54	4,340	3.99	4,493	4.45	4,641	4.92	4,784	5.40	4,925	5.88	5,062	6.38									
2400	3333	4,067	3.14	4,232	3.59	4,390	4.06	4,542	4.53	4,688	5.02	4,829	5.51	4,967	6.02	5,101	6.53											
2600	3611	4,294	3.65	4,453	4.14	4,605	4.63	4,750	5.14	4,890	5.65	5,026	6.17															
2800	3889	4,526	4.22	4,679	4.74	4,825	5.27	4,965	5.81	5,100	6.35																	
3000	4167	4,762	4.87	4,908	5.42	5,049	5.98																					
3200	4444	5,001	5.59																									

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).

FTF253

FIG. 85
(Maximum safe speed, AMCA205-12)

Wheel diameter: 15.74"

Inlet diameter: 14.8" I.D.
Outlet diameter: 14.8" I.D.

CFM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"		
	FPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
600	488	1,902	0.77	2,128	1.02	2,324	1.29	2,504	1.58	2,682	1.88	2,840	2.19	2,989	2.51	3,132	2.85	3,228	3.20	3,408	3.56	3,534	3.93	3,655	4.31	3,772	4.70
900	732	1,927	0.94	2,139	1.24	2,342	1.55	2,521	1.89	2,697	2.23	2,853	2.59	3,012	2.96	3,153	3.35	3,248	3.74	3,418	4.15	3,553	4.56	3,673	4.99	3,790	5.43
1200	976	1,977	1.12	2,184	1.46	2,373	1.82	2,548	2.19	2,711	2.58	2,876	2.99	3,023	3.40	3,172	3.83	3,276	4.27	3,435	4.72	3,569	5.18	3,689	5.66	3,804	6.14
1500	1220	2,034	1.33	2,243	1.70	2,425	2.10	2,596	2.51	2,756	2.94	2,908	3.38	3,053	3.84	3,190	4.31	3,313	4.80	3,460	5.29	3,582	5.80	3,701	6.32	3,826	6.84
1800	1463	2,118	1.56	2,307	1.97	2,482	2.40	2,657	2.85	2,813	3.31	2,961	3.80	3,102	4.30	3,238	4.81	3,358	5.33	3,493	5.87	3,614	6.42	3,731	6.98	3,845	7.54
2100	1707	2,217	1.83	2,396	2.27	2,563	2.73	2,721	3.22	2,872	3.72	3,025	4.24	3,163	4.77	3,295	5.32	3,412	5.89	3,545	6.46	3,663	7.05	3,779	7.65		
2400	1951	2,328	2.14	2,497	2.61	2,656	3.11	2,808	3.63	2,952	4.17	3,091	4.72	3,224	5.29	3,352	5.88	3,476	6.48	3,606	7.09	3,722	7.71	3,835	8.35		
2700	2195	2,449	2.50	2,609	3.01	2,761	3.54	2,906	4.10	3,044	4.66	3,177	5.25	3,306	5.86	3,430	6.48	3,550	7.11	3,666	7.76	3,780	8.42				
3000	2439	2,578	2.91	2,730	3.46	2,875	4.03	3,013	4.62	3,146	5.22	3,274	5.84	3,397	6.48	3,517	7.13	3,633	7.80	3,746	8.48						
3300	2683	2,713	3.38	2,859	3.97	2,997	4.58	3,129	5.20	3,256	5.84	3,379	6.50	3,498	7.17	3,614	7.85	3,726	8.55	3,827	9.38						
3600	2927	2,854	3.92	2,993	4.55	3,125	5.19	3,252	5.85	3,374	6.53	3,492	7.22	3,607	7.92	3,718	8.64	3,827	9.38								
3900	3171	2,999	4.51	3,132	5.19	3,258	5.87	3,380	6.57	3,498	7.28	3,612	8.01	3,722	8.75	3,830	9.51										
4200	3415	3,147	5.18	3,275	5.90	3,397	6.62	3,514	7.36	3,627	8.12	3,737	8.88	3,844	9.66												
4500	3659	3,299	5.92	3,421	6.68	3,539	7.45	3,652	8.24	3,761	9.03																
4800	3902	3,454	6.74	3,571	7.55	3,684	8.36	3,793	9.19																		
5100	4146	3,611	7.65	3,724	8.50	3,833	9.36																				

Performance certified 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).

FTF303

FIG. 80
(Maximum safe speed, AMCA205-12)

Wheel diameter: 19.68"

Inlet diameter: 17.7" I.D.
Outlet diameter: 17.7" I.D.

CFM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"		
	FPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	
1500	882	1,579	1.58	1,754	2.16	1,913	2.58	2,061	3.14	2,200	3.72	2,331	4.32	2,455	4.95	2,574	5.60	2,688	6.28	2,797	6.97	2,902	7.69	3,004	8.42	3,102	9.17
2000	1176	1,624	1.90	1,792	2.54	1,946	3.13	2,090	3.74	2,224	4.38	2,352	5.05	2,473	5.65	2,589	6.36	2,701	7.10	2,808	7.85	2,911	8.63	3,011	9.43	3,108	10.24
2500	1471	1,686	2.27	1,847	2.97	1,995	3.62	2,134	4.30	2,264	5.00	2,388	5.73	2,506	6.48	2,619	7.26	2,728	8.06	2,832	8.88	2,934	9.72	3,032	10.48	3,127	11.36
3000	1765	1,759	2.70	1,913	3.45	2,056	4.17	2,190	4.91	2,316	5.67	2,437	6.47	2,551	7.28	2,661	8.12	2,767	8.98	2,869	9.86	2,968	10.77	3,064	11.69	3,158	12.63
3500	2059	1,842	3.22	1,990	4.00	2,128	4.78	2,257	5.59	2,379	6.42	2,496	7.27	2,607	8.15	2,714	9.05	2,817	9.98	2,917	10.92	3,014	11.88	3,107	12.87		
4000	2353	1,934	3.79	2,075	4.63	2,207	5.47	2,332	6.34	2,450	7.23	2,563	8.16	2,672	9.10	2,776	10.06	2,876	11.05	2,974	12.16	3,068	13.08	3,160	14.13		
4500	2647	2,034	4.41	2,168	5.33	2,295	6.34	2,415	7.28	2,529	8.24	2,639	9.12	2,744	10.13	2,845	11.16	2,943	12.21	3,038	13.38	3,130	14.37				
5000	2941	2,140	5.12	2,268	6.13	2,389	7.20	2,504	8.21	2,614	9.24	2,720	10.29	2,823	11.36	2,921	12.45	3,016	13.47	3,109	14.71						
5500	3235	2,252	5.97	2,373	7.02	2,489	8.17	2,599	9.24	2,706	10.43	2,808	11.55	2,907	12.69	3,003	13.85	3,096	14.94								
6000	3529	2,369	6.91	2,484	8.03	2,594	9.24	2,700	10.38	2,803	11.55	2,902	12.83	2,997	14.04	3,090	15.27										
6500	3824	2,491	8.01	2,600	9.16	2,705	10.44	2,806	11.65	2,905	12.98	3,000	14.23	3,092	15.51												
7000	4118	2,616	9.24	2,719	10.52	2,819	11.77	2,917	13.04	3,011	14.44	3,103	15.66														
7500	4412	2,744	10.73	2,842	11.92	2,938	13.24	3,031	14.58	3,122	16.15																
8000	4706	2,875	12.21	2,969	13.57	3,060	14.86	3,149	16.27																		
8500	5000	3,008	13.95	3,098	15.28																						
9000	5294	3,143	15.86																								

Performance certified 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).

FTF403

Backward curved impeller
 Wheel diameter: 24.8"
 Inlet diameter: 23.6" I.D.
 Outlet diameter: 23.6" I.D.

FIG. 85

(Maximum safe speed, AMCA205-12)

CFM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"		
	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2000	664	1,244	2.10	1,386	2.76	1,515	3.46	1,635	4.29	1,746	5.06	1,851	5.85	1,951	6.67	2,045	7.52	2,136	8.30	2,222	9.29	2,306	10.21	2,387	11.15	2,465	12.11
3000	997	1,273	2.70	1,411	3.50	1,536	4.34	1,653	5.23	1,762	6.14	1,865	7.09	1,963	8.06	2,056	9.06	2,146	10.09	2,231	11.24	2,314	12.32	2,394	13.42	2,471	14.53
4000	1329	1,319	3.34	1,451	4.38	1,572	5.35	1,685	6.27	1,791	7.33	1,892	8.42	1,987	9.54	2,079	10.68	2,166	11.86	2,251	13.06	2,332	14.28	2,411	15.53	2,487	16.80
5000	1661	1,380	4.09	1,505	5.35	1,621	6.35	1,730	7.49	1,832	8.68	1,930	9.90	2,023	11.15	2,112	12.33	2,197	13.65	2,280	14.99	2,360	16.35	2,437	17.74	2,512	19.15
6000	1993	1,454	4.98	1,572	6.35	1,682	7.47	1,786	8.73	1,885	10.04	1,979	11.38	2,069	12.76	2,155	14.17	2,238	15.51	2,319	17.19	2,397	18.59	2,472	20.01	2,546	21.56
7000	2326	1,540	6.03	1,650	7.43	1,754	8.75	1,853	10.14	1,947	11.56	2,037	13.12	2,124	14.62	2,208	16.15	2,289	17.52	2,367	19.31	2,443	20.94	2,516	22.59	2,588	24.27
8000	2658	1,636	7.26	1,738	8.67	1,835	10.13	1,929	11.73	2,019	13.27	2,105	14.95	2,189	16.57	2,269	18.32	2,347	19.70	2,423	21.62	2,497	23.37	2,568	25.14		
9000	2990	1,740	8.80	1,834	10.24	1,926	11.82	2,014	13.44	2,099	15.20	2,181	17.00	2,261	18.74	2,339	20.61	2,414	22.11	2,487	24.14	2,558	26.00				
10000	3322	1,850	10.57	1,938	12.23	2,024	13.74	2,107	15.49	2,187	17.27	2,265	19.09	2,342	21.15	2,416	23.04	2,488	24.76	2,558	26.91						
11000	3654	1,967	12.59	2,048	14.29	2,128	16.12	2,206	17.80	2,282	19.71	2,356	21.65	2,429	23.63	2,500	25.64	2,569	27.68								
12000	3987	2,087	14.89	2,163	16.72	2,238	18.59	2,312	20.49	2,383	22.43	2,454	24.50	2,523	26.60	2,590	28.73										
13000	4319	2,211	17.40	2,283	19.56	2,353	21.56	2,422	23.59	2,490	25.65	2,556	27.65														
14000	4651	2,339	20.24	2,406	22.53	2,472	24.86	2,537	27.02																		
15000	4983	2,468	23.44	2,531	25.86	2,593	28.31																				

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).

FTF503

Backward curved impeller
 Wheel diameter: 30.49"
 Inlet diameter: 29.5" I.D.
 Outlet Area: 3.01 sq. ft.

FIG. 85

(Maximum safe speed, AMCA205-12)

CFM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"		
	FPM	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3000	767	965	3.04	1,073	4.00	1,172	5.01	1,264	6.07	1,349	7.17	1,429	8.33	1,505	9.52	1,577	10.75	1,647	12.02	1,713	13.33	1,777	14.67	1,839	16.04	1,899	17.45
4250	1087	991	3.81	1,096	4.93	1,192	6.11	1,281	7.34	1,365	8.62	1,443	9.95	1,518	11.32	1,590	12.72	1,658	14.17	1,724	15.66	1,787	17.17	1,848	18.72	1,907	20.31
5500	1407	1,029	4.68	1,129	5.95	1,222	7.29	1,308	8.68	1,389	10.13	1,466	11.62	1,539	13.16	1,609	14.74	1,676	16.36	1,741	18.01	1,803	19.70	1,864	21.43	1,922	23.19
6750	1726	1,079	5.70	1,173	7.12	1,261	8.61	1,344	10.15	1,422	11.75	1,496	13.41	1,568	15.10	1,636	16.85	1,701	18.63	1,765	20.45	1,826	22.31	1,885	24.20	1,943	26.13
8000	2046	1,139	6.92	1,227	8.48	1,310	10.12	1,389	11.81	1,464	13.56	1,535	15.36	1,604	17.21	1,670	19.11	1,734	21.05	1,795	23.03	1,855	25.05	1,913	27.10		
9250	2366	1,207	8.37	1,289	10.08	1,368	11.86	1,442	13.70	1,513	15.59	1,582	17.54	1,648	19.54	1,712	21.59	1,773	23.68	1,833	25.81	1,891	27.98	1,947	30.19		
10500	2685	1,281	10.07	1,358	11.94	1,432	13.87	1,503	15.86	1,570	17.90	1,636	20.00	1,699	22.14	1,760	24.33	1,819	26.57	1,877	28.85	1,933	31.17				
11750	3005	1,361	12.07	1,433	14.10	1,502	16.18	1,569	18.32	1,634	20.51	1,696	22.75	1,756	25.04	1,815	27.38	1,872	29.76	1,928	32.19						
13000	3325	1,444	14.39	1,512	16.58	1,578	18.82	1,641	21.11	1,702	23.46	1,762	25.85	1,819	28.29	1,875	30.77	1,930	33.30								
14250	3645	1,531	17.06	1,595	19.41	1,657	21.81	1,717	24.27	1,775	26.77	1,832	29.31	1,887	31.90	1,941	34.54										
15500	3964	1,621	20.11	1,682	22.63	1,740	25.20	1,797	27.81	1,852	30.47	1,906	33.17														
16750	4284	1,714	23.68	1,771	26.27	1,826	29.00	1,880	31.78	1,933	34.60																
18000	4604	1,808	27.70	1,862	30.36	1,915	33.26																				
19250	4923	1,904	32.21																								

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).

FTF603

Backward curved impeller

FEQ: 90
(Maximum safe speed, AMCA205-12)

Wheel diameter: 37.4

Inlet diameter: 35.4" I.D.
Outlet Area: 5.72 sq. ft

CFM	OV FPM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5000	1279	805	4.65	895	6.00	976	7.50	1,052	9.00	1,122	10.80	1,185	12.20	1,245	13.90	1,302	15.50	1,360	17.40	1,412	19.20	1,462	20.80	1,515	22.80	1,560	24.80
10000	2558	860	7.71	938	9.70	1,010	11.80	1,086	14.10	1,160	16.80	1,220	19.00	1,296	21.60	1,352	24.40	1,408	27.00	1,463	29.80	1,516	32.30	1,568	35.10	1,615	37.70
14000	3581	978	11.72	1,043	14.20	1,100	16.60	1,162	19.30	1,220	22.20	1,268	24.30	1,328	27.50	1,380	30.40	1,430	33.20	1,484	36.50	1,537	39.80	1,590	43.30		
16000	4092	1,040	14.48	1,105	17.00	1,164	19.80	1,221	22.70	1,275	25.90	1,315	28.00	1,372	31.40	1,418	34.40	1,467	37.60	1,513	40.90	1,558	43.80	1,606	47.40		
18000	4604	1,098	17.30	1,165	20.40	1,222	23.20	1,282	26.50	1,334	29.80	1,377	32.60	1,422	35.80	1,470	39.30	1,514	42.70	1,557	46.10	1,600	49.40				
20000	5115	1,170	21.00	1,230	24.40	1,285	27.50	1,342	30.80	1,394	34.30	1,441	37.70	1,486	41.10	1,528	44.70	1,570	48.30	1,612	52.10						
22000	5627	1,245	25.10	1,295	28.60	1,349	32.20	1,402	35.80	1,458	39.90	1,499	42.70	1,551	47.10	1,590	50.70										
24000	6138	1,320	29.60	1,370	33.60	1,412	37.10	1,467	41.50	1,520	45.70	1,558	48.80	1,613	53.50												
26000	6650	1,403	35.20	1,450	39.50	1,492	43.60	1,538	47.90	1,584	52.40																
28000	7161	1,482	41.00	1,529	45.90	1,567	50.00	1,608	54.50																		
30000	7673	1,568	48.10	1,609	53.00																						
31400	8031	1,625	53.20																								

Performance certified is for installation type B: Free inlet, Ducted outlet.
Power rating (BHP) does not include transmission losses.

FTF703

Backward curved impeller

FEQ: 85
(Maximum safe speed, AMCA205-12)

Wheel diameter: 44.09

Inlet diameter: 41.3" I.D.
Outlet Area: 7.69 sq. ft

CFM	OV FPM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
4000	506	665	4.86	742	6.47	812	8.18	877	9.99	937	11.89	994	14.37	1,047	16.44	1,098	18.58	1,147	20.80	1,194	23.58	1,239	25.43	1,282	27.85	1,324	30.33
8000	1011	691	7.26	765	9.51	828	11.57	891	13.94	949	16.40	1,005	18.95	1,057	21.58	1,107	24.30	1,155	27.08	1,201	29.94	1,246	32.87	1,289	35.86	1,330	38.92
12000	1517	728	9.96	797	12.69	865	15.74	925	18.62	981	21.60	1,034	24.67	1,085	27.84	1,133	30.59	1,180	33.91	1,225	37.32	1,263	40.79	1,305	44.33	1,346	47.94
16000	2023	795	13.55	852	16.43	910	20.15	965	23.49	1,018	26.94	1,068	30.50	1,121	34.65	1,167	38.39	1,217	46.22	1,255	46.12	1,297	50.11	1,338	54.17	1,377	58.30
20000	2529	871	18.09	927	21.95	980	25.63	1,026	28.93	1,074	32.84	1,121	37.35	1,166	41.46	1,209	45.67	1,252	51.46	1,293	54.84	1,333	59.30	1,371	63.84	1,414	68.46
24000	3034	957	24.10	1,008	28.26	1,056	32.43	1,102	36.70	1,147	41.58	1,195	46.05	1,227	49.62	1,268	54.58	1,308	60.04	1,346	64.87	1,384	69.79	1,421	74.79	1,457	79.87
28000	3540	1,051	32.00	1,096	36.57	1,145	41.25	1,188	46.02	1,229	50.88	1,269	56.03	1,304	60.38	1,347	66.51	1,384	72.22	1,410	75.82	1,446	81.90	1,480	86.36	1,515	92.89
32000	4046	1,144	41.52	1,186	46.12	1,236	51.81	1,271	56.59	1,314	62.96	1,351	67.91	1,387	73.14	1,423	79.06	1,463	85.26	1,487	90.13						
36000	4552	1,247	53.51	1,285	58.63	1,322	63.84	1,363	70.14	1,399	75.03	1,439	81.99	1,473	88.03	1,506	94.15										
40000	5057	1,352	67.19	1,387	73.35	1,422	79.09	1,460	85.92	1,493	91.32																
44000	5563	1,460	83.83	1,493	90.52	1,525	97.29																				

Performance certified is for installation type B: Free inlet, Ducted outlet.
Power rating (BHP) does not include transmission losses.

FTF803

Backward curved impeller

FEQ: 90

(Maximum safe speed, AMCA205-12)

Wheel diameter: 49.6

Inlet diameter: 47.2" I.D.

Outlet Area: 10 sq. ft

CFM	OV FPM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
18000	4604	652	14.00	710	17.40	765	21.10	817	25.10	871	29.60	921	33.80	972	38.70	1,015	43.20	1,056	47.50	1,099	52.20	1,138	57.00	1,175	61.80
24000	6138	731	19.90	780	24.20	827	28.70	870	33.05	910	37.20	951	41.90	992	46.70	1,035	52.14	1,072	56.90	1,111	62.40	1,152	68.24		
28000	7161	782	25.50	834	29.90	878	34.70	914	39.20	956	44.35	994	49.57	1,030	54.60	1,067	59.90	1,099	64.80	1,135	70.25	1,168	75.90		
32000	8184	838	31.80	886	36.80	931	41.88	971	46.98	1,010	52.80	1,045	58.24	1,080	64.20	1,110	69.45	1,140	74.56	1,175	80.92				
36000	9207	893	38.30	941	44.70	984	50.42	1,020	55.79	1,061	62.00	1,093	67.12	1,131	74.20	1,158	79.74	1,188	85.41	1,225	93.55				
40000	10230	964	47.80	1,000	53.80	1,036	59.88	1,075	66.15	1,110	72.60	1,145	78.64												
44000	11253	1,032	58.10	1,065	64.50	1,099	71.21	1,131	77.74	1,164	84.90														
48000	12276	1,096	68.80	1,132	76.80	1,163	83.71																		
51000	13043	1,153	79.20																						

Performance certified is for installation type B: Free inlet, Ducted outlet.
Power rating (BHP) does not include transmission losses.



Sound Performance for FTF Models

FTF153

Backward curved impeller

FEG: 71

(Maximum safe speed, AMCA205-12)

Wheel diameter: 10"

Inlet diameter: 8.9" I.D.

Outlet diameter: 8.9" I.D.

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
2470	0.23	765	88	85	93	81	77	76	67	59	86
	0.52	725	88	84	90	80	77	74	65	57	84
	1.1	640	85	82	86	76	73	69	60	52	80

Test Method per ANSI / AMCA standard 300-14, Figure 3 Setup, Values shown are for (outlet L_{w0} or outlet L_{w0A}) sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct and correction. Values shown are for outlet sound power levels. The sound power level ratings shown are in decibels, referred to 10^{-12} watts, calculated per AMCA international Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

FTF203

Backward curved impeller

FEG: 75

(Maximum safe speed, AMCA205-12)

Wheel diameter: 12.4"

Inlet diameter: 11.8" I.D.

Outlet diameter: 11.8" I.D.

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
3450	0.65	2380	102	96	94	96	91	92	88	79	98
	1.29	2260	100	96	93	96	91	91	86	77	97
	2.45	2100	101	92	91	94	88	88	83	74	95
	3.6	2890	104	101	91	91	88	85	80	73	94

Test Method per ANSI / AMCA standard 300-14, Figure 3 Setup, Values shown are for (outlet L_{w0} or outlet L_{w0A}) sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct and correction. Values shown are for outlet sound power levels. The sound power level ratings shown are in decibels, referred to 10^{-12} watts, calculated per AMCA international Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

FTF253

Backward curved impeller

FEG: 85

(Maximum safe speed, AMCA205-12)

Wheel diameter: 15.74"

Inlet diameter: 14.8" I.D.

Outlet diameter: 14.8" I.D.

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
2740	1.57	4100	100	94	96	94	92	90	86	77	97
	3.55	3460	99	91	91	93	88	86	79	72	94
	6.34	2450	97	90	88	90	85	81	74	68	90

Test Method per ANSI / AMCA standard 300-14, Figure 3 Setup, Values shown are for (outlet L_{w0} or outlet L_{w0A}) sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct and correction. Values shown are for outlet sound power levels. The sound power level ratings shown are in decibels, referred to 10^{-12} watts, calculated per AMCA international Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

FTF303

Backward curved impeller

FEG: 80

(Maximum safe speed, AMCA205-12)

Wheel diameter: 19.68"

Inlet diameter: 17.7" I.D.

Outlet diameter: 17.7" I.D.

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
2080	2.26	5827	94	94	93	88	87	84	77	69	92
	4.76	4300	91	87	90	84	82	77	69	66	87
	6.32	3150	95	95	86	83	80	74	67	65	86
	6.55	2733	97	95	87	84	81	74	67	61	86

Test Method per ANSI / AMCA standard 300-14, Figure 3 Setup, Values shown are for (outlet L_{w0} or outlet L_{w0A}) sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct and correction. Values shown are for outlet sound power levels. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts, calculated per AMCA international Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

FTF403

Backward curved impeller

FEG: 85

(Maximum safe speed, AMCA205-12)

Wheel diameter: 24.8"

Inlet diameter: 23.6" I.D.

Outlet diameter: 23.6" I.D.

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
2580	3.09	16551	115	107	108	105	104	101	100	89	109
	6.24	15158	114	105	105	102	101	98	96	86	106
	9.38	12931	113	104	104	100	99	96	92	85	104

Test Method per ANSI / AMCA standard 300-14, Figure 3 Setup, Values shown are for (outlet L_{w0} or outlet L_{w0A}) sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct and correction. Values shown are for outlet sound power levels. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts, calculated per AMCA international Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

FTF503

Backward curved impeller

FEG: 85

(Maximum safe speed, AMCA205-12)

Wheel diameter: 31.5"

Inlet diameter: 29.5" I.D.

Outlet diameter: 29.5" ID

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
1380	3.39	12665	100	96	95	93	92	82	75	69	95
	6.83	8398	96	93	95	88	86	78	71	68	91
	8.06	4899	103	104	103	91	88	80	73	68	97

Test Method per ANSI / AMCA standard 300-14, Figure 3 Setup, Values shown are for (outlet L_{w0} or outlet L_{w0A}) sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct and correction. Values shown are for outlet sound power levels. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts, calculated per AMCA international Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

FTF603

Backward curved impeller

FEG: 90

(Maximum safe speed, AMCA205-12)

Wheel diameter: 37.4"

Inlet diameter: 35.4" I.D.

Outlet Area: 5.72 sq. ft

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
1380	7.07	21242	95	92	96	92	89	85	79	76	94
	11.22	14089	95	91	97	89	84	83	79	75	93
	11.85	10793	95	91	98	90	86	83	78	74	93

Test Method per ANSI / AMCA standard 300-14, Figure 2 Setup, Values shown are for (inlet L_{wi}) sound power levels for Installation Type B: free inlet, ducted outlet. Values shown are for inlet sound power levels. The sound power level ratings shown are in decibels, referred to 10⁻¹² watts, calculated per AMCA international Standard 301.

Sound Performance for FTF Models

FTF703

Backward curved impeller

FEQ: 85

(Maximum safe speed, AMCA205-12)

Wheel diameter: 44.09

Inlet diameter: 41.3" I.D.

Outlet Area: 7.69 sq. ft

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
1250	6.6	34740	84	81	81	77	74	65	58	54	80
	13.4	23035	98	102	98	80	75	67	60	53	92
	15.8	13438	108	117	109	84	78	70	62	52	104

Test Method per ANSI / AMCA standard 300-14, Figure 3 Setup, Values shown are for (outlet L_{w0} or outlet L_{w0A}) sound power levels for Installation Type B: free inlet, ducted outlet. Ratings include the effects of duct and correction. Values shown are for outlet sound power levels. The sound power level ratings shown are in decibels, referred to 10^{-12} watts, calculated per AMCA international Standard 301. The A-weighted sound ratings shown have been calculated per AMCA International Standard 301.

FTF803

Backward curved impeller

FEQ: 90

(Maximum safe speed, AMCA205-12)

Wheel diameter: 49.6"

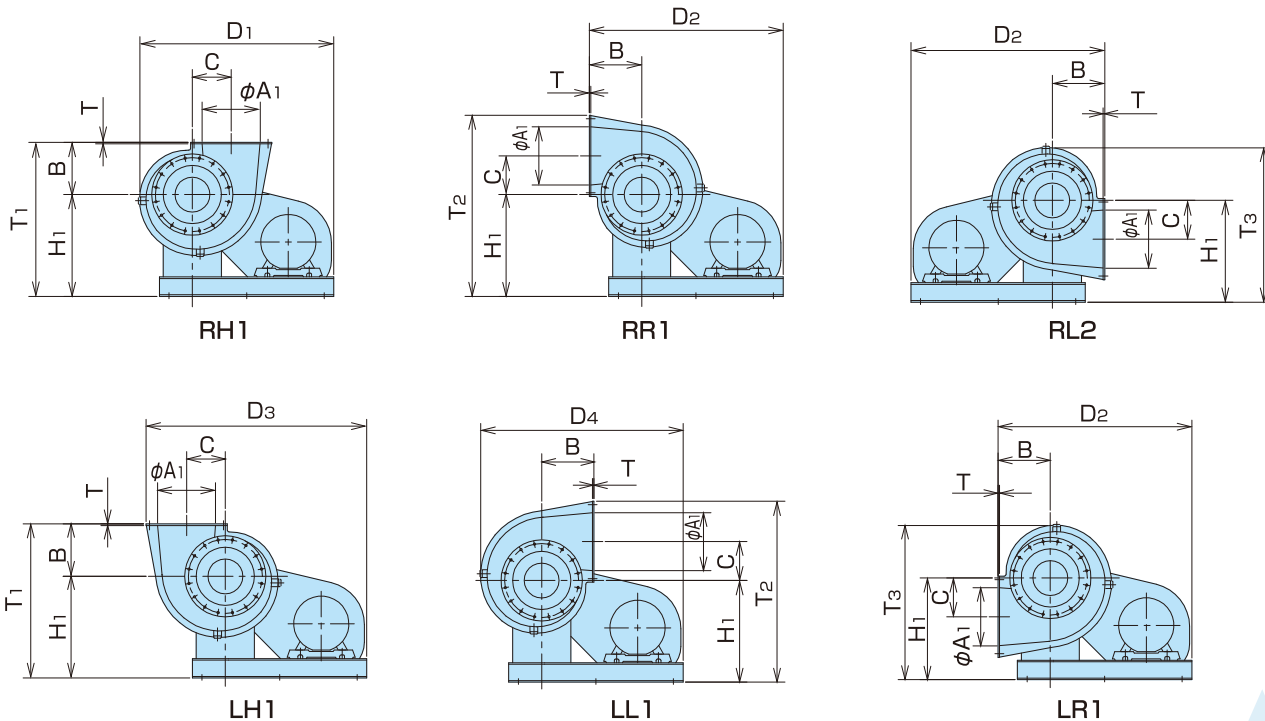
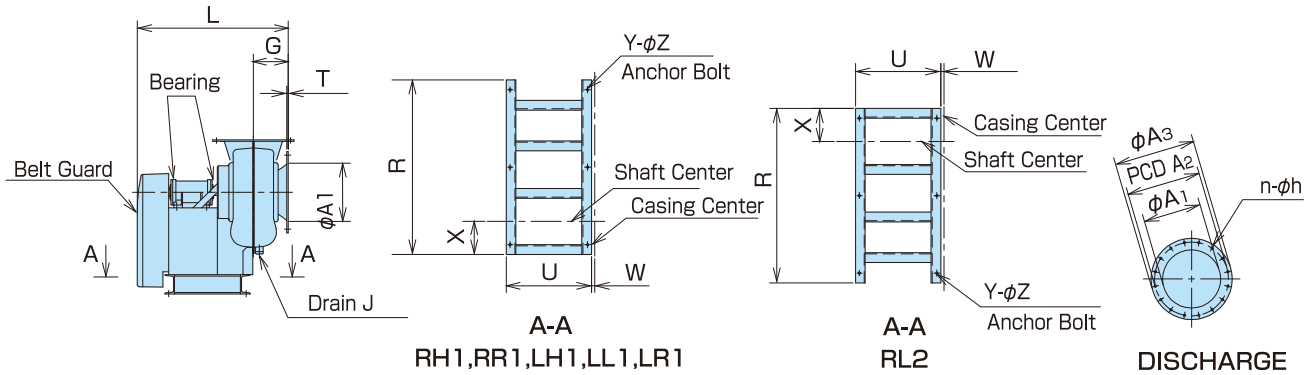
Inlet diameter: 47.2" I.D.

Outlet Area: 10 sq. ft

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
1120	12.4	49587	72	70	75	66	63	60	56	52	71
	19.7	34556	72	74	84	78	75	57	47	43	80
	20.8	25185	72	74	86	80	77	57	45	41	82

Test Method per ANSI / AMCA standard 300-14, Figure 2 Setup, Values shown are for (inlet L_{wi}) sound power levels for Installation Type B: free inlet, ducted outlet. Values shown are for inlet sound power levels. The sound power level ratings shown are in decibels, referred to 10^{-12} watts, calculated per AMCA international Standard 301.

FTF153·203·253/FTE151·201·251

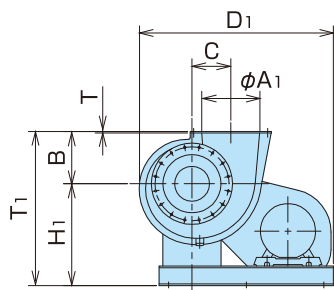
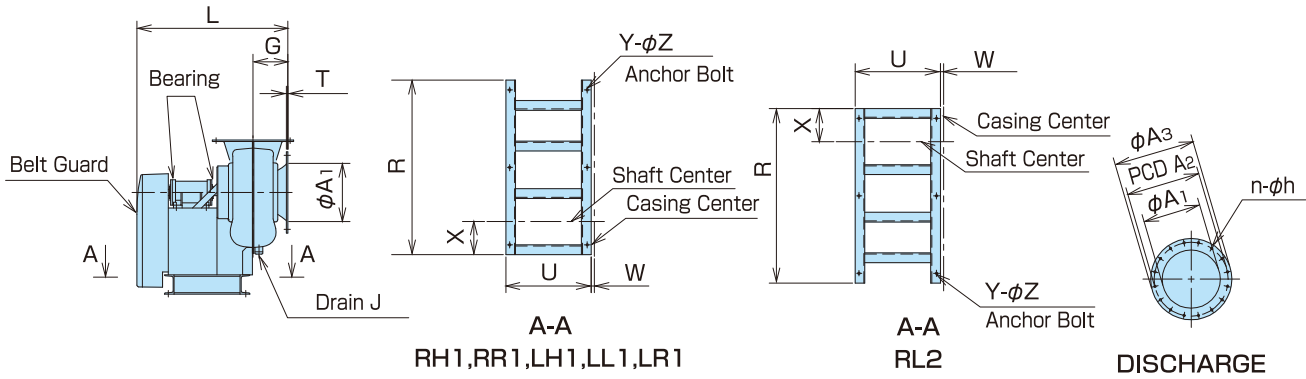


MODEL	CASING BODY												FLANGES						
	L	H ₁	B	C	D ₁	D ₂	D ₃	D ₄	T ₁	T ₂	T ₃	G	φA ₁	PCD A ₂	φA ₃	n	h	T	
FTF153	FTE151	23.4	15.7	7.9	5.9	32.0	31.5	35.4	33.3	23.6	27.5	24.1	5.3	8.9	10.4	11.7	12	0.4	0.2
FTF203	FTE201	30.7	20.7	10.6	7.9	39.4	39.4	44.9	41.1	31.3	36.8	31.3	7.1	11.8	15.0	16.5	16	0.5	0.3
FTF253	FTE251	33.7	23.6	13.4	9.8	48.3	48.6	55.3	50.4	37.0	43.7	36.7	8.9	14.8	19.0	20.5	20	0.6	0.3

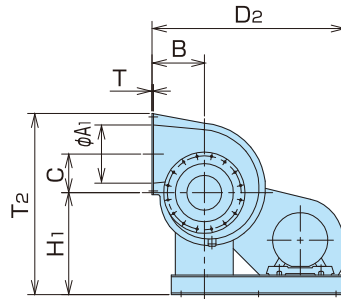
MODEL	DRAIN	BASE							BODY WEIGHT (lb)	BEARING	
		J	R	U	W	X	Y	Z		STANDARD	IMPELLER
FTF153	FTE151	PF3/4"	29.1	12.8	1.0	3.5	0.2	0.5	127.9	6306	6305
FTF203	FTE201	PF3/4"	35.4	17.3	0.7	4.7	0.2	0.5	209.5	6308	6307
FTF253	FTE251	PF3/4"	43.3	18.1	0.8	6.1	0.2	0.6	260.2	6308	6307

※BODY WEIGHT : Not Including Motor Weight.

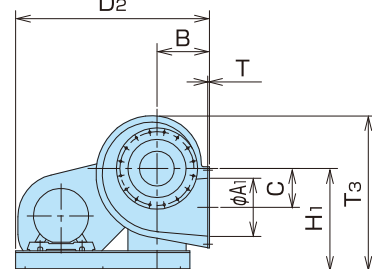
FTF303·403/FTE301·401



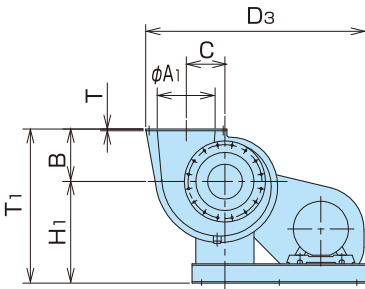
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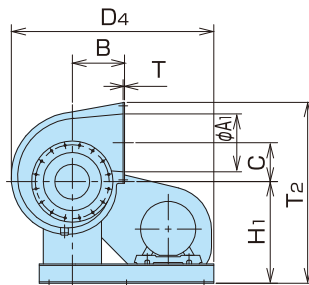
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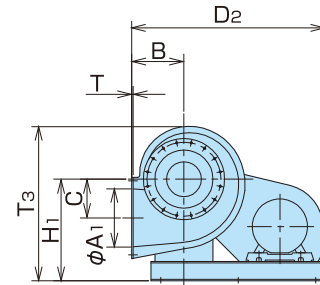
RL2



LH1



LL1



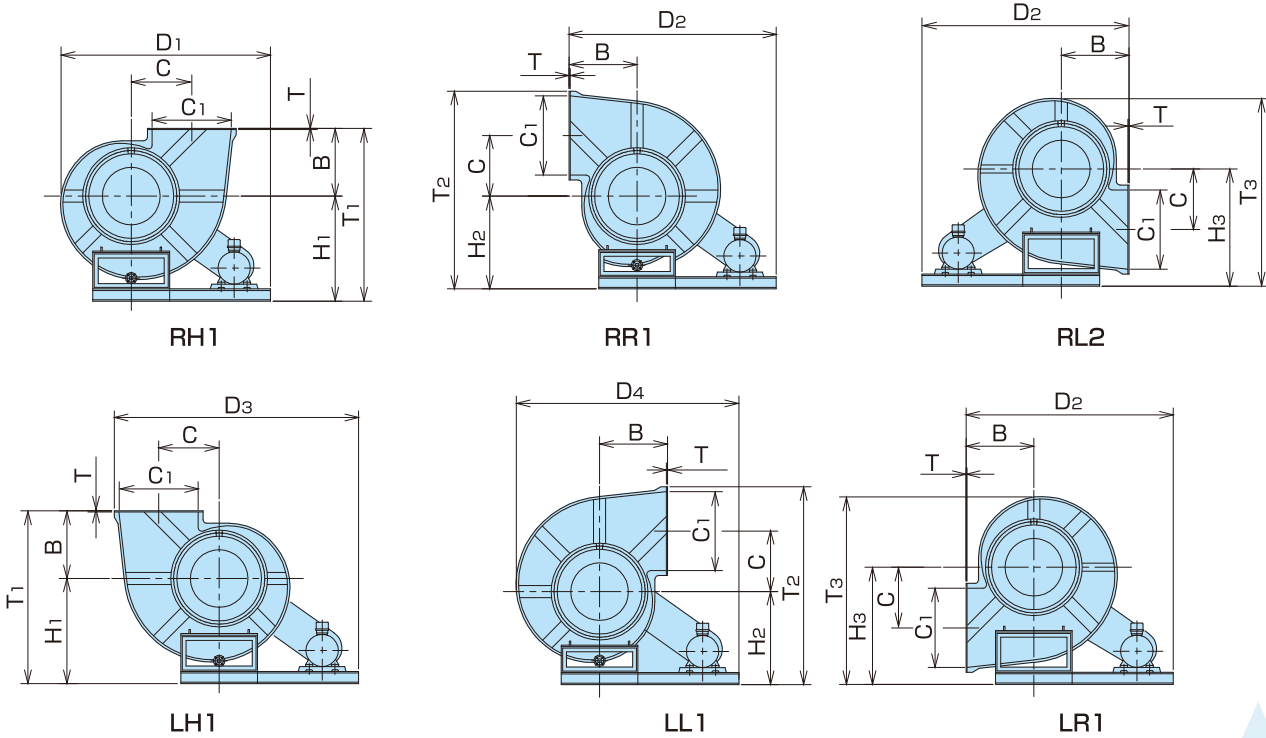
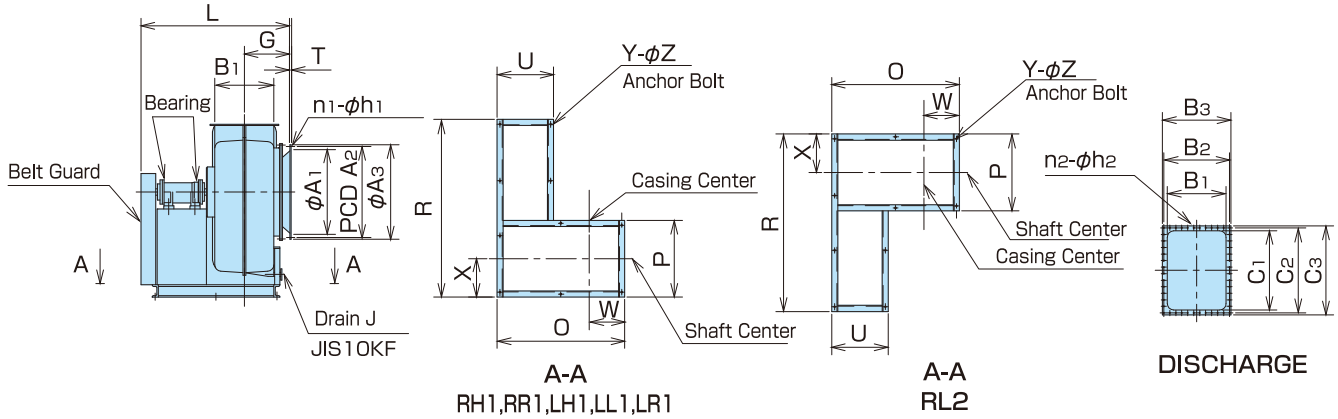
LR1

MODEL	CASING BODY											FLANGES						
	L	H ₁	B	C	D ₁	D ₂	D ₃	D ₄	T ₁	T ₂	T ₃	G	φA ₁	PCD A ₂	φA ₃	n	h	T
FTF303 FTE301	41.6	28.5	15.7	11.8	58.3	57.1	64.8	60.7	44.3	52.0	44.5	12.8	17.7	21.3	23.3	24	0.6	0.4
FTF403 FTE401	48.4	33.5	20.9	15.7	70.9	68.5	77.2	75.6	54.3	63.0	54.4	15.0	23.6	26.0	27.6	28	0.6	0.4

MODEL	DRAIN	BASE							BODY WEIGHT(lb)	BEARING	
	J	R	U	W	X	Y	Z	STANDARD	IMPELLER	PULLEY	
FTF303 FTE301	PF3/4"	51.2	22.0	0.2	7.9	0.2	0.6	396.9	6310	6308	
FTF403 FTE401	PF3/4"	59.1	25.2	0.6	9.1	0.2	0.7	573.3	6312	6310	

※BODY WEIGHT : Not Including Motor Weight.

FTF503·603·703·803·903

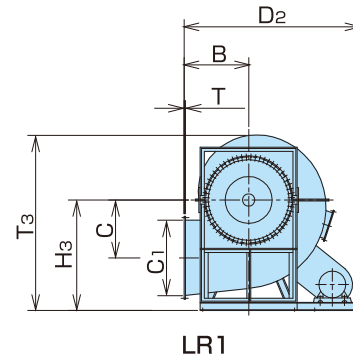
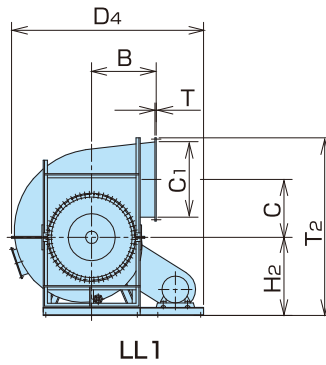
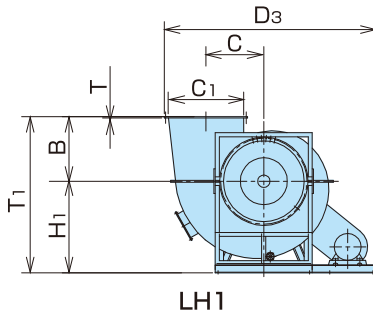
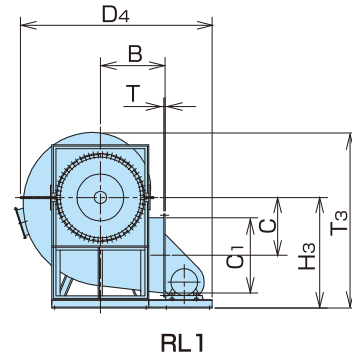
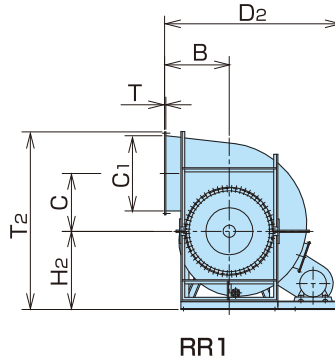
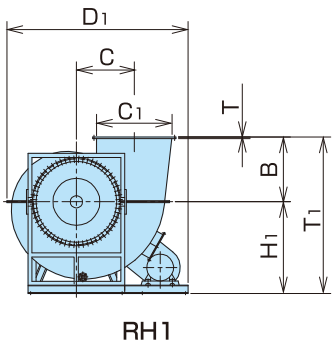
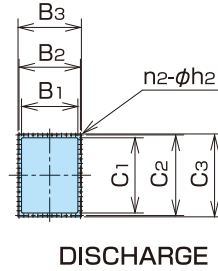
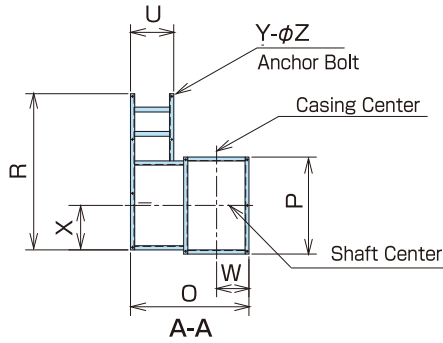
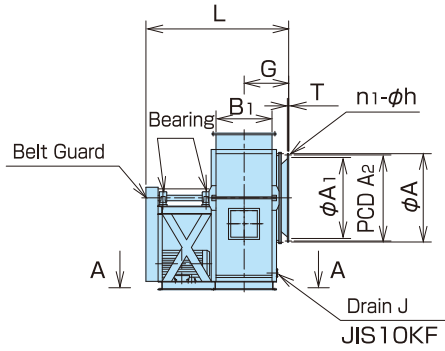


MODEL	CASING BODY													FLANGES					
	L	H ₁	H ₂	H ₃	B	C	D ₁	D ₂	D ₃	D ₄	T ₁	T ₂	T ₃	G	φA ₁	PCD A ₂	φA ₃	n ₁	h ₁
FTF503	57.8	37.4	37.4	43.3	23.6	21.3	79.9	78.7	92.3	84.4	61.0	74.6	68.1	17.7	29.5	31.9	33.5	32	0.5
FTF603	61.8	43.3	43.3	51.2	28.3	25.4	91.5	90.4	106.3	97.0	71.7	87.6	80.7	19.7	35.4	38.6	40.2	40	0.6
FTF703	73.2	51.2	45.3	57.1	33.1	29.5	102.2	101.0	119.1	108.5	84.3	96.5	91.3	22.8	41.3	44.5	46.1	44	0.6
FTF803	78.7	57.1	51.2	65.0	37.8	33.9	115.7	114.6	135.0	123.0	94.9	109.4	103.9	25.6	47.2	50.4	52.0	48	0.6
FTF903	92.1	61.0	53.1	72.8	42.5	38.2	123.8	120.3	143.5	132.1	103.5	118.9	115.7	30.7	53.1	57.1	58.7	56	0.6

MODEL	FLANGES						DRAIN			BASE								BODY WEIGHT (lb)		BEARING	
	B ₁	B ₂	B ₃	C ₁	C ₂	C ₃	n ₂	h ₂	T	J	R	U	O	P	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTF503	20.5	23.4	24.8	27.6	30.1	31.9	32	0.5	0.5	1.1/2"	68.9	23.6	48.0	27.6	13.2	13.8	0.3	0.7	882.0	6315	6313
FTF603	24.6	27.6	29.5	33.1	35.9	37.8	40	0.6	0.5	1.1/2"	78.7	25.6	52.4	33.5	15.5	16.7	0.4	0.7	1102.5	6315	6313
FTF703	28.7	32.0	33.5	38.6	41.5	43.3	48	0.6	0.6	1.1/2"	86.6	27.6	62.2	37.4	17.3	18.7	0.4	0.9	1786.1	6320	6318
FTF803	32.7	35.9	37.4	44.1	46.9	48.8	50	0.6	0.6	2"	98.4	28.3	66.5	43.3	19.3	21.7	0.4	0.9	1984.5	6320	6318
FTF903	37.0	41.1	42.5	49.6	53.5	55.1	56	0.6	0.6	2"	110.2	31.5	72.4	65.0	21.5	32.5	0.4	0.9	3175.2	6324	6320

※BODY WEIGHT : Not Including Motor Weight.


FTF1201·1401



MODEL	CASING BODY													FLANGES					
	L	H ₁	H ₂	H ₃	B	C	D ₁	D ₂	D ₃	D ₄	T ₁	T ₂	T ₃	G	φA ₁	PCD A ₂	φA ₃	n ₁	h ₁
FTF1201	122.4	78.7	66.9	94.5	56.7	50.8	148.4	144.9	174.8	171.3	135.4	153.5	151.6	37.4	70.9	74.8	76.4	72	0.6
FTF1401	133.9	92.5	78.7	108.3	66.1	59.3	158.7	155.1	189.6	171.3	158.7	179.3	174.8	47.2	82.7	86.2	88.2	84	0.6

MODEL	FLANGES						DRAIN		BASE										BODY WEIGHT(lb)		BEARING	
	B ₁	B ₂	B ₃	C ₁	C ₂	C ₃	n ₂	h ₂	T	J	R	U	O	P	W	X	Y	Z	STANDARD	IMPELLER	PULLEY	
FTF1201	49.2	53.1	54.7	66.1	69.4	71.7	72	0.6	0.7	2"	128.0	39.4	104.3	86.6	28.5	43.3	0.4	0.9	5424.3	6222	NU319	
FTF1401	68.5	71.9	74.0	77.2	80.3	82.7	92	0.6	0.7	2"	133.9	39.4	123.6	96.9	38.3	44.9	0.4	0.9	8379.0	6324	6322	

※BODY WEIGHT : Not Including Motor Weight.

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