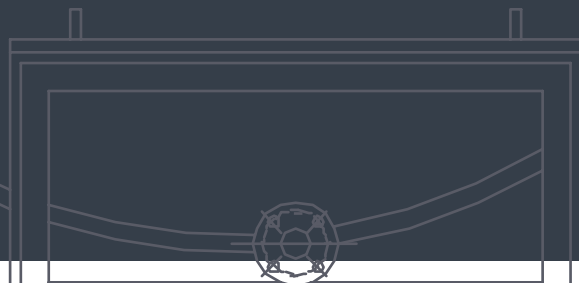




# FTF BLOWER MODELS





## 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

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

**WHEEL DIAMETERS**

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

**PERFORMANCE**

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

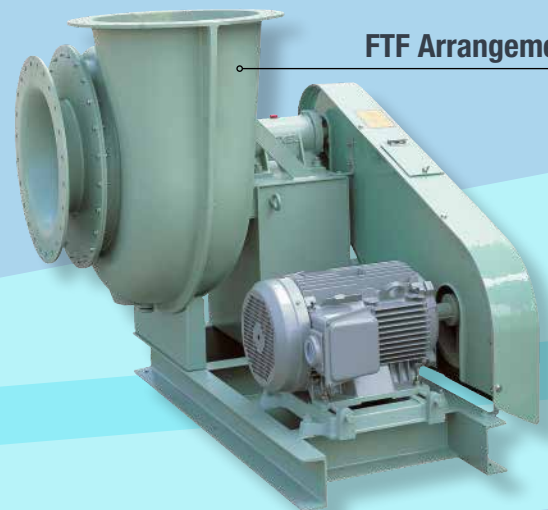
**ARRANGEMENTS**

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

# Model **FTF**



**FTF Arrangement 8**



**FTF Arrangement 1**

**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.

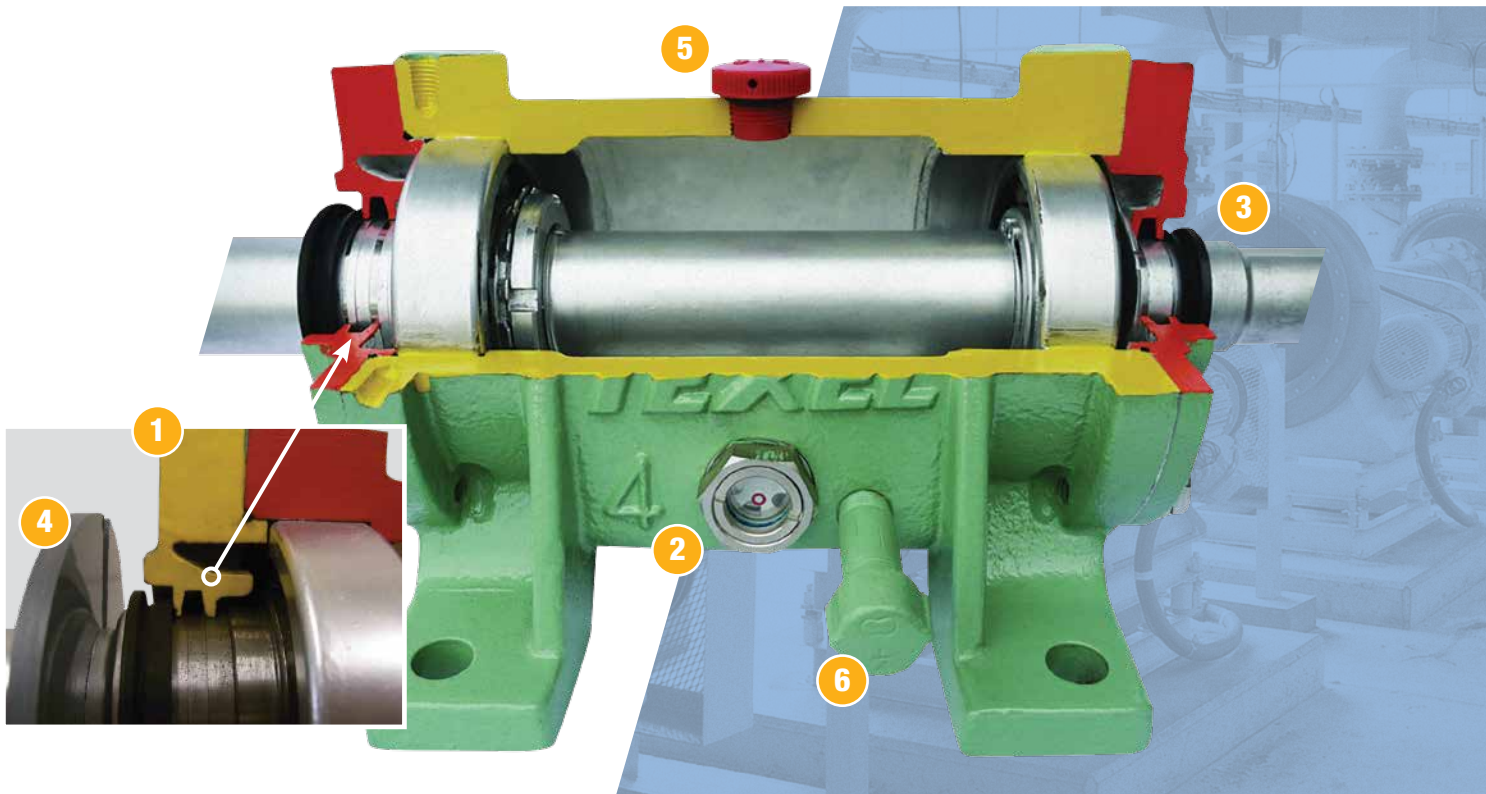
All of housing are coated with a UV resistant coating.



## Oil Lubricated Bearing and Shaft

This bearing system uses oil for lubricant. It enables the blower to run at over 5000 rpm and provides an excellent smooth lubricated performance. The bearings are selected minimum average bearing life (AFBMA L-10) in excess of 30,000 hours at the maximum fan RPM.

Every consideration was thought of when designing the shaft system. The tip of the shaft is encapsulated in FRP and prevents corrosion from the gas stream. Oil vapors coat and protect the shaft inside of the oil bath system. As a precaution, there is an epoxy coating applied to the exposed parts of the shaft. The shaft material is carbon steel / ASTM A194 Grade 2H. SS304 and 316 options are available.



### 1) NON-CONTACT SEAL

The oil bath unit has a non-contact seal to prevent an oil leakage. It does not require any wear and tear parts, and that will reduce maintenance duties.

### 2) OIL LEVEL INDICATOR

The oil bath comes with an oil indicator which shows how much oil is left in the bath unit.

### 3) SELF-ALIGNMENT

The oil bath system is designed to keep the bearings in a fixed and aligned position. This enables to eliminate the process of bearing alignment.

### 4) GAS SEPARATE SEAL PLATE

The seal plate prevents gas from entering the oil bath system and damaging the bearings. .

### 5) OIL CAP

The oil bath system comes with an oil cap. It has an air ventilation hall to prevent the oil in the bath from leaking through out of the shaft holes.

### 6) OIL DRAIN

The bath system also has a drain port for easy maintenance.

# 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**

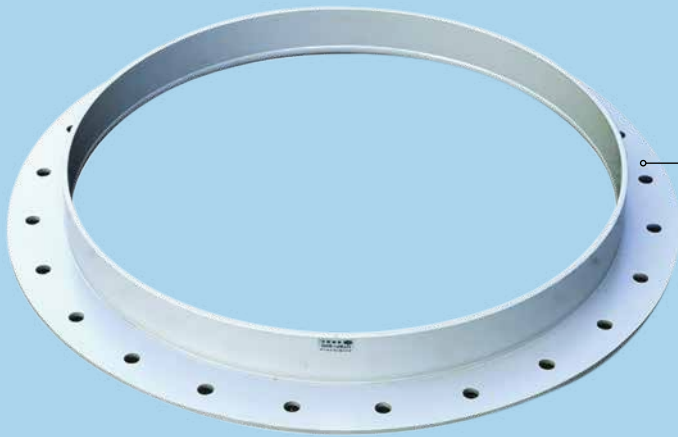


**INSPECTION PORT**



## Vibration Isolator

Rubber or spring type isolators are available.

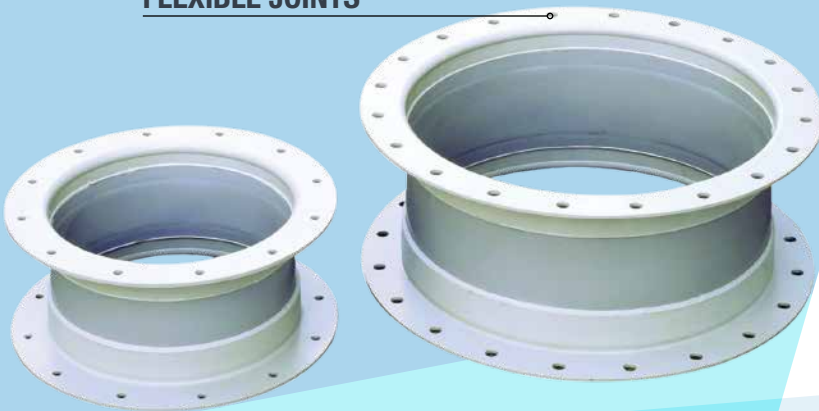


**COMPANION FLANGE**

## 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.

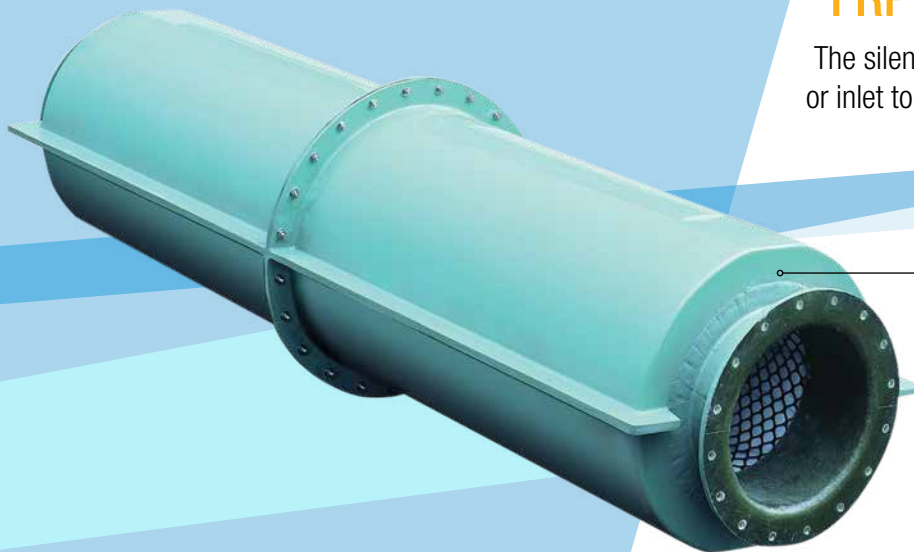
# Accessories



## 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

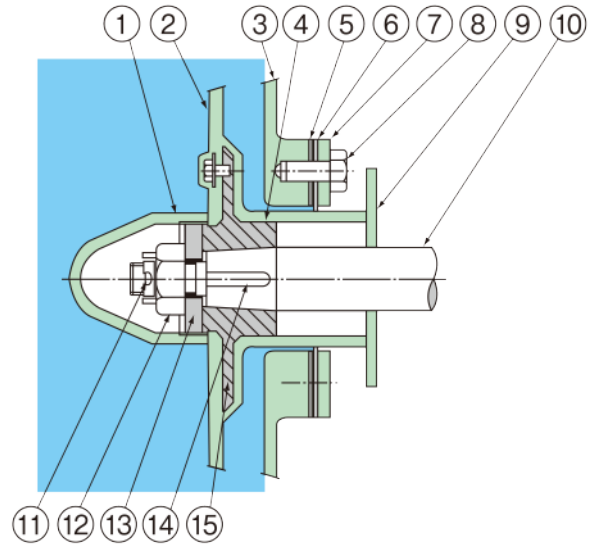
Fan can be constructed to meet ASTM D4167 as an option.

# 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.

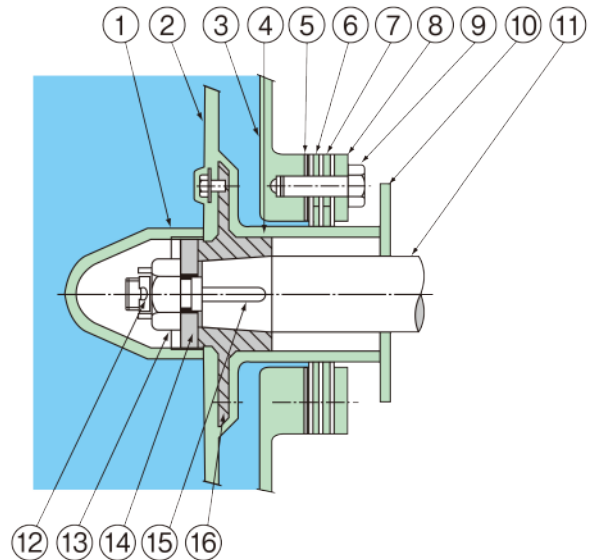
P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	Casing	1pc.
4	Shaft Sleeve	1pc.
5	Gland Gasket	1pc.
6	Seal Plate	1pc.
7	Seal Plate Tightener	1pc.
8	Gland Bolt	1set
9	Gas Separator	1pc.
10	Shaft	1pc.
11	Split Pin	1pc.
12	Nut (with Groove)	1pc.
13	Impeller Washer	1pc.
14	Impeller Key	1pc.
15	Impeller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

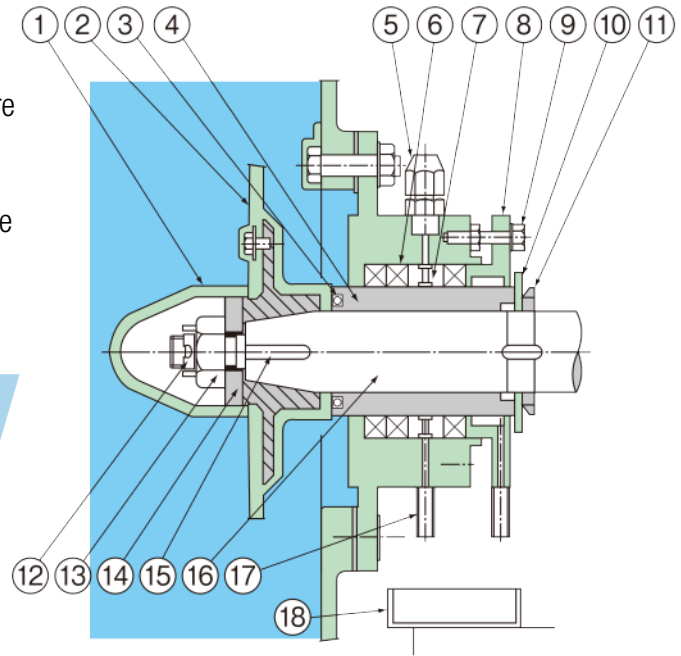
P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	Casing	1pc.
4	Shaft Sleeve	1pc.
5	Gland Gasket	1pc.
6	Spacer	1pc.
7	Seal Plate	1pc.
8	Seal Plate Tightener	1pc.
9	Gland Bolt	1set
10	Gas Separator	1pc.
11	Shaft	1pc.
12	Split Pin	1pc.
13	Nut (with Groove)	1pc.
14	Impeller Washer	1pc.
15	Impeller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

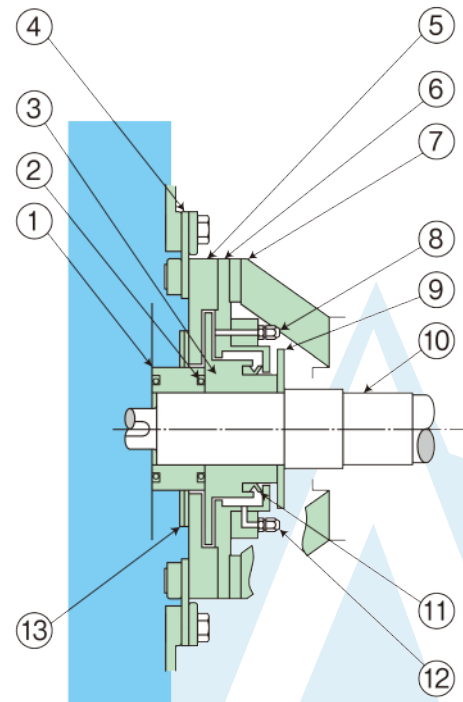
P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	O-Ring	1pc.
4	Shaft Sleeve	1pc.
5	Inlet Union	1pc.
6	Packing	1set
7	Lantern Ring	1pc.
8	Packing Tightener	1set
9	Tightening Bolt	1set
10	Gas Separator	1pc.
11	Shaft Sleeve Nut	1pc.
12	Split Pin	1pc.
13	Nut (with Groove)	1pc.
14	Impeller Washer	1pc.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










# CORROSION RESISTANT GUIDE

unit: °F(°C)

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 <sub>4</sub>	10	158(70)	122(50)	122(50)	
Chromic Acid	H <sub>2</sub> CrO <sub>4</sub>	20	140(60)	122(50) <sup>23</sup>	X	
Hydrofluosilic Acid	H <sub>2</sub> SiF <sub>6</sub>	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 <sub>3</sub>	10	158(70)	104(40)	122(50)	
Fuming Sulfuric Acid	H <sub>2</sub> SO <sub>4</sub> +xSO <sub>3</sub>		X	X	X	
Hydrofluoric Acid	HF	1	158(70)	104(40)	X	
Boric Acid	H <sub>3</sub> BO <sub>3</sub>	ALL	176(80)	122(50)	122(50)	
Hydrofluoric Anhydride	HF		X	X	X	
Sulfuric Anhydride	SO <sub>3</sub>		X	X	X	
Sulfuric Acid	H <sub>2</sub> SO <sub>4</sub>	40	176(80)	122(50)	122(50)	
Phosphoric Acid	H <sub>3</sub> PO <sub>4</sub>	30	176(80)	122(50)	122(50)	
Sulfurous Acid Gas	SO <sub>2</sub>	25	176(80)	122(50)	122(50)	
Carbon Monoxide	CO		176(80)	122(50)	122(50)	
Chlorine Gas	Cl <sub>2</sub>	5	176(80)	122(50)	X	
Ozone	O <sub>3</sub>	10ppm	122(50)	122(50)	122(50)	
Bromine	Br <sub>2</sub>		X	X	X	
Nitrogen Oxide	NO <sub>x</sub>	5	176(80)	122(50)	122(50)	
Hydrogen Sulfide	H <sub>2</sub> S	10	176(80)	122(50)	122(50)	
Acrylic Acid	CH <sub>2</sub> =CHCOOH	10	122(50)	122(50)	X	Organic Acid Gases
Adipic Acid	(CH <sub>2</sub> ) <sub>4</sub> (COOH) <sub>2</sub>	23	176(80)	122(50)	122(50)	
Oleic Acid	C <sub>17</sub> H <sub>33</sub> COOH	ALL	176(80)	122(50)	122(50)	
Formic Acid	HCOOH	10	158(70)	122(50)	122(50)	
Citric Acid	C <sub>3</sub> H <sub>4</sub> (OH)(COOH) <sub>3</sub>	25	176(80)	122(50)	122(50)	
Glycolic Acid	CH <sub>2</sub> OHCOOH	30	122(50)	122(50)	122(50)	
Acetic Acid	CH <sub>3</sub> COOH	25	176(80)	122(50)	122(50)	
Acetic Anhydride	(CH <sub>3</sub> CO) <sub>2</sub> O		X	X	X	
Oxalic Acid	(COOH) <sub>2</sub>	20	176(80)	122(50)	122(50)	
Tartaric Acid	(CHOHCOOH) <sub>2</sub>	ALL	176(80)	122(50)	122(50)	
Stearic Acid	C <sub>17</sub> H <sub>35</sub> COOH	ALL	176(80)	122(50)	122(50)	
Tannic Acid	C <sub>13</sub> H <sub>9</sub> O <sub>7</sub> COOH	ALL	176(80)	122(50)	122(50)	
Thioglycolic Acid	HSCH <sub>2</sub> COOH	ALL	X	X	X	
Lactic Acid	CH <sub>3</sub> CH(OH)COOH	ALL	176(80)	122(50)	122(50)	
Picric Acid	C <sub>6</sub> H <sub>2</sub> (NO <sub>2</sub> ) <sub>3</sub> OH	1	104(40)	104(40)	122(50)	
Benzene Sulfonic Acid	C <sub>6</sub> H <sub>5</sub> SO <sub>3</sub> H	10	140(60)	122(50)	122(50)	
Maleic Acid	(CHCOOH) <sub>2</sub>	ALL	176(80)	122(50)	122(50)	
Monochloroacetic Acid	CH <sub>2</sub> ClCOOH	25	104(40)	104(40)	122(50)	
Benzoic Acid	C <sub>6</sub> H <sub>5</sub> COOH	ALL	176(80)	122(50)	122(50)	
Butyric Acid	C <sub>3</sub> H <sub>7</sub> COOH	5	176(80)	122(50)	122(50)	
Ammonia (gas)	NH <sub>3</sub>	ALL	86(30)	86(30)	122(50)	Alkalis
Ammonium Hydroxide	NH <sub>4</sub> OH	20	140(60)	122(50)	122(50)	
Potassium Hydroxide	KOH	10	140(60)	122(50)	122(50)	
Calcium Hydroxide	Ca(OH) <sub>2</sub>	25	176(80)	122(50)	122(50)	
Sodium Hydroxide	NaOH	25	140(60)	122(50)	122(50)	
Barium Hydroxide	Ba(OH) <sub>2</sub>	10	158(70)	122(50)	122(50)	
Chlorine Water		Saturation	176(80)	X	X	Bleaches
Hydrogen Peroxide	H <sub>2</sub> O <sub>2</sub>	30	140(60)	122(50)	X	
Hypochlorous Acid	HClO	10	140(60)	122(50)	122(50) <sup>22</sup>	
Calcium Hypochlorit	Ca(ClO) <sub>2</sub>	ALL	140(60)	122(50)	122(50) <sup>22</sup>	
Sodium Hypochlorite	NaClO	15	140(60)	122(50)	122(50) <sup>22</sup>	
Chlorine Dioxide	ClO <sub>2</sub>	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 I O I -20 I 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
-  Separately can be handed with the CRS model.

Chemicals	Molecular Formula	Density Wt%	FTF/FTB	CTF 151-201 NSF 302-402	CES 101-201	Classification
Sodium Nitrite	NaNO <sub>2</sub>	ALL	176(80)	122(50)	122(50)	Salts
Sodium Sulfite	Na <sub>2</sub> SO <sub>3</sub>	ALL	176(80)	122(50)	122(50)	
Aluminum Chloride	AlCl <sub>3</sub>	ALL	176(80)	122(50)	122(50)	
Ammonium Chloride	NH <sub>4</sub> Cl	ALL	176(80)	122(50)	122(50)	
Calcium Chloride	CaCl <sub>2</sub>	ALL	176(80)	122(50)	122(50)	
Ferric Chloride	FeCl <sub>3</sub>	ALL	176(80)	122(50)	122(50)	
Copper Chloride	CuCl <sub>2</sub>	ALL	176(80)	122(50)	122(50)	
Nickel Chloride	NiCl <sub>2</sub>	ALL	176(80)	122(50)	122(50)	
Barium Chloride	BaCl <sub>2</sub>	ALL	176(80)	122(50)	122(50)	
Potassium Permanganate	KMnO <sub>4</sub>	10	176(80)	122(50)	X	
Potassium Dichromate	K <sub>2</sub> Cr <sub>2</sub> O <sub>7</sub>	20	176(80)	122(50)	X	
Potassium Bicarbonate	KHCO <sub>3</sub>	50	176(80)	122(50)	122(50)	
Ammonium Nitrate	NH <sub>4</sub> NO <sub>3</sub>	ALL	176(80)	122(50)	122(50)	
Silver Nitrate	AgNO <sub>3</sub>	ALL	176(80)	122(50)	122(50)	
Sodium Carbonate	Na <sub>2</sub> CO <sub>3</sub>	35	176(80)	122(50)	122(50)	
Magnesium Carbonate	MgCO <sub>3</sub>	ALL	158(70)	122(50)	122(50)	
Sodium Sulfide	Na <sub>2</sub> S	ALL	176(80)	122(50)	122(50)	
Zinc Sulfide	ZnSO <sub>4</sub>	ALL	176(80)	122(50)	122(50)	
Ammonium Sulfide	(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	20	176(80)	122(50)	122(50)	
Potassium Sulfide	K <sub>2</sub> SO <sub>4</sub>	ALL	176(80)	122(50)	122(50)	
Ferric Sulfide	Fe(SO <sub>4</sub> ) <sub>3</sub>	ALL	176(80)	122(50)	122(50)	
Copper Sulfide	CuSO <sub>4</sub>	ALL	176(80)	122(50)	122(50)	
Magnesium Sulfide	MgSO <sub>4</sub>	ALL	176(80)	122(50)	122(50)	
Acrylonitrile	CH <sub>2</sub> =CHCN		X	X	X	Solvents & Organic Compounds
Acetaldehyde	CH <sub>3</sub> CHO		X	X	X	
Acetonitrile	CH <sub>3</sub> CN		X	X	X	
Acetophenone	C <sub>6</sub> H <sub>5</sub> COCH <sub>3</sub>		X	X	X	
Acetone	CH <sub>3</sub> COCH <sub>3</sub>		X	X	X	
Aniline	C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub>		X	X	X	
Isopropylamine	(CH <sub>3</sub> ) <sub>2</sub> CHNH <sub>2</sub>	ALL	122(50)	122(50)	X	
Isopropyl Alcohol	(CH <sub>3</sub> ) <sub>2</sub> CHOH	ALL	122(50)	122(50)	122(50)	
Ethyl Alcohol	C <sub>2</sub> H <sub>5</sub> OH	50	122(50)	122(50)	122(50)	
Ethyl Ether	C <sub>2</sub> H <sub>5</sub> OC <sub>2</sub> H <sub>5</sub>		X	X	X	
Ethylene Oxide	CH <sub>2</sub> CH <sub>2</sub> O		X	X	X	
Ethylene Glycol	HOCH <sub>2</sub> OH <sub>2</sub> OH	ALL	176(80)	122(50)	122(50)	
Ethylene Chloride	C <sub>1</sub> CH <sub>2</sub> CH <sub>2</sub> Cl		X	X	X	
Methylene Chloride	CH <sub>2</sub> Cl <sub>2</sub>		X	X	X	
Gasoline		ALL	140(60)	122(50)	X	
Glycerin	C <sub>3</sub> H <sub>5</sub> (OH) <sub>3</sub>	5	176(80)	122(50)	122(50)	
Cresol	CH <sub>3</sub> C <sub>6</sub> H <sub>4</sub> OH	5	X	X	122(50)	
Chloroform	CHCl <sub>3</sub>		X	X	X	
Ethyl Acetate	CH <sub>3</sub> COOC <sub>2</sub> H <sub>5</sub>		X	X	X	
Methyl Acetate	CH <sub>3</sub> COOCH <sub>3</sub>		X	X	X	
Diethyl Ketone	C <sub>2</sub> H <sub>5</sub> COC <sub>2</sub> H <sub>5</sub>		X	X	X	
Dimethylamine	(CH <sub>3</sub> ) <sub>2</sub> NH		X	X	X	
Ethyl Bromide	C <sub>2</sub> H <sub>5</sub> Br		X	X	X	
Trichlorobenzene	C <sub>6</sub> H <sub>3</sub> Cl <sub>3</sub>		X	X	X	
Toluene	C <sub>6</sub> H <sub>5</sub> CH <sub>3</sub>	ALL	122(50)	122(50)	X	
Naphtha		ALL	104(40)	104(40)	X	
Sulfur Dioxide	SO <sub>2</sub>		X	X	X	
Pyridine	C <sub>5</sub> H <sub>5</sub> N		X	X	X	
Phenol Sulfonic Acid	C <sub>6</sub> H <sub>4</sub> (OH)(SO <sub>3</sub> H)		X	X	X	
Heptane	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>	10	140(60)	122(50)	122(50)	
Benzaldehyde	C <sub>6</sub> H <sub>5</sub> CHO		X	X	X	
Benzene	C <sub>6</sub> H <sub>6</sub>	ALL	122(50)	122(50)	X	
Formaldehyde	HCHO	10	158(70)	122(50)	122(50)	
Methyl Alcohol	CH <sub>3</sub> OH	50	122(50)	122(50)	122(50)	

# 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

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, AMCA205-12)

CFM	4"		5"		6"		7"		8"		9"		10"		11"		12"			
	OV	FPM	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														

Wheel diameter: 10"

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

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, AMCA205-12)

CFM	4"		5"		6"		7"		8"		9"		10"		11"		12"		13"		14"		15"		16"			
	OV	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		
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																								

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

Wheel diameter: 12.4"

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

## FEQ: 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	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
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	3,614	7.85	3,726	8.55	3,827	9.38				
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

## FEQ: 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	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
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.

FEQ: 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 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 diameter: 29.5" I.D.

FEQ: 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 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).



# FTF703

Backward curved impeller

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

Wheel diameter: 44.09

Inlet diameter: 41.3" I.D.  
Outlet diameter: 7.6875 sq. ft

CFM	OV	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
4000	<b>506</b>	665	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	<b>1011</b>	691	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	<b>1517</b>	728	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	<b>2023</b>	795	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	<b>2529</b>	871	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	<b>3034</b>	957	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	<b>3540</b>	1,051	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	<b>4046</b>	1,144	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	<b>4552</b>	1,247	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	<b>5057</b>	1,352	1,387	73.35	1,422	79.09	1,460	85.92	1,493	91.32																	
44000	<b>5563</b>	1,460	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. Performance ratings do not include the effects of appurtenances (accessories).

# Sound Performance for FTF Models

## FTF153

Backward curved impeller

**FEQ: 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	84	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	77	69	60	52	80

Test Method per ANSI / AMCA standard 300-08, Figure 3 Setup, 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.

## FTF203

Backward curved impeller

**FEQ: 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	98	88	83	74	95
	3.6	2890	104	101	91	91	98	85	80	73	94

Test Method per ANSI / AMCA standard 300-08, Figure 3 Setup, 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.

## FTF253

Backward curved impeller

**FEQ: 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 300-08, Figure 3 Setup, 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.

## FTF303

Backward curved impeller

**FEQ: 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 300-08, Figure 3 Setup, 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.

## FTF403

Backward curved impeller

**FEQ: 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 300-08, Figure 3 Setup, 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.

## FTF503

Backward curved impeller

**FEQ: 85**

(Maximum safe speed, AMCA205-12)

Wheel diameter: 30.49"

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	95	95	93	92	82	75	69	95
	6.83	8398	96	93	95	88	86	78	75	68	91
	8.06	4899	103	104	103	91	88	80	73	68	97

Test Method per ANSI / AMCA standard 300-08, Figure 3 Setup, 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.

## FTF703

Backward curved impeller

**FEQ: 85**

(Maximum safe speed, AMCA205-12)

Wheel diameter: 44.09

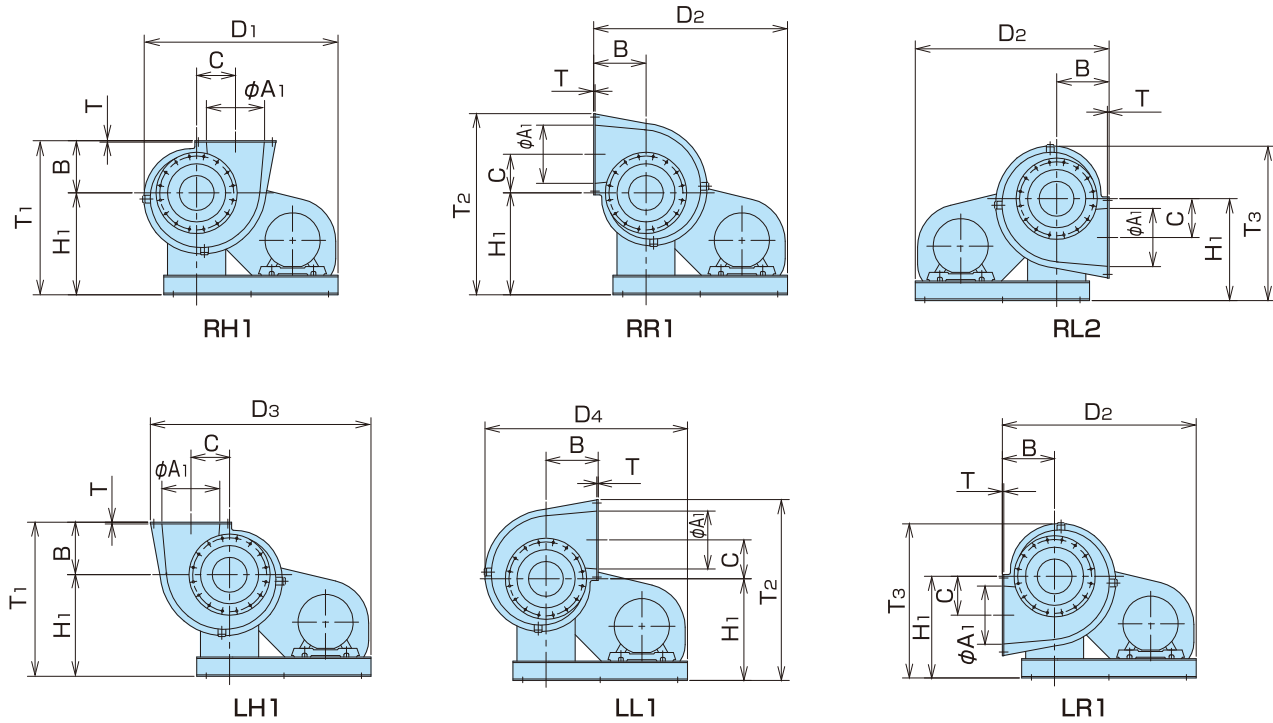
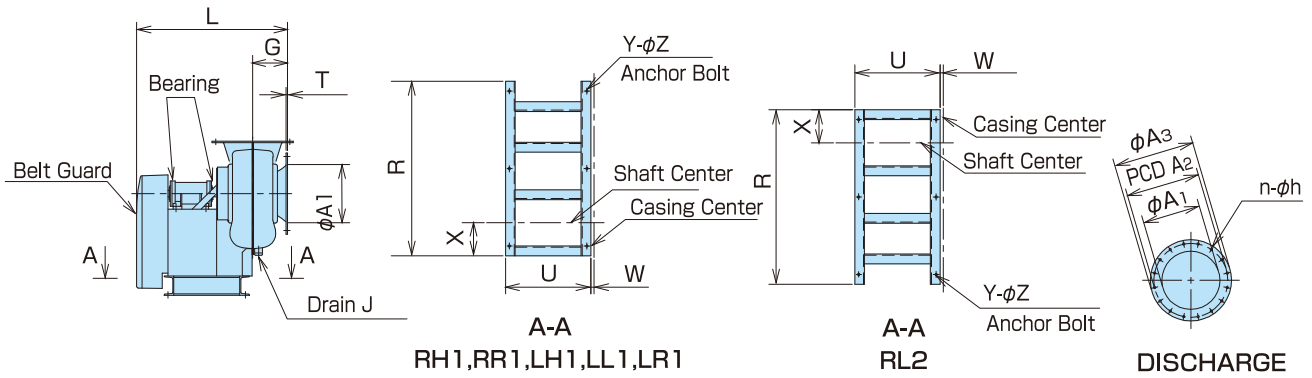
Inlet diameter: 41.3" I.D.

Outlet diameter: 7.6875 sq. ft

RPM	STATIC PRESSURE	CAPACITY	FREQUENCY (Hz)								LwA
	In. wg	CFM	63	125	250	500	1000	2000	4000	8000	dB
1380	5.02	15415	107	102	102	100	99	89	82	76	110
	10.12	10221	103	100	102	95	93	85	78	75	107
	11.94	5963	110	111	110	98	95	87	80	75	115

Test Method per ANSI / AMCA standard 300-08, Figure 3 Setup, 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.

# FTF153·203·253/FTE151·201·251



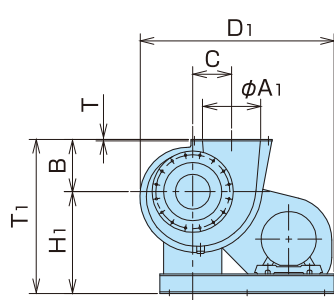
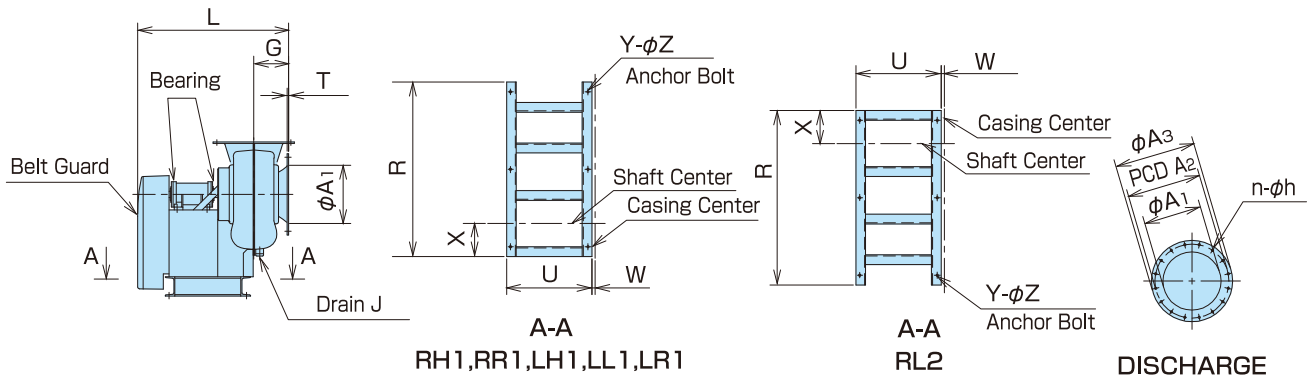
MODEL	CASING BODY											FLANGES						
	L	H <sub>1</sub>	B	C	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	G	$\phi A_1$	PCD $A_2$	$\phi A_3$	n	h	T
FTF153 FTE151	23.4	15.7	7.9	5.9	32.0	31.5	35.4	33.3	23.6	27.5	24.1	5.3	8.9	10.4	11.7	12	0.4	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	PULLEY	
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	

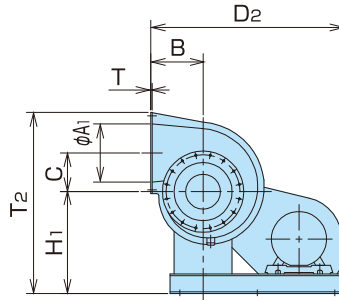
※BODY WEIGHT : Not Including Motor Weight.



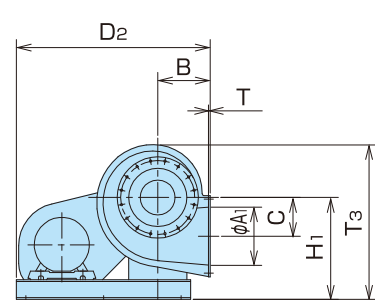
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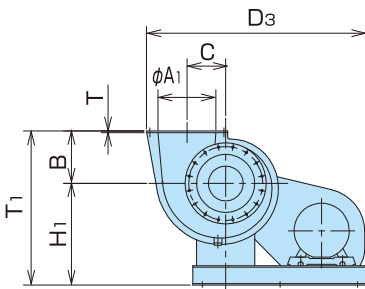
RH1



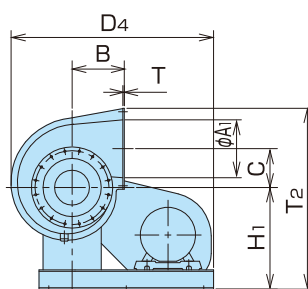
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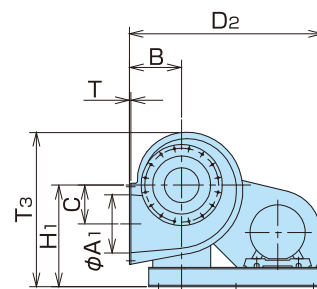
RL2



LH1



LL1



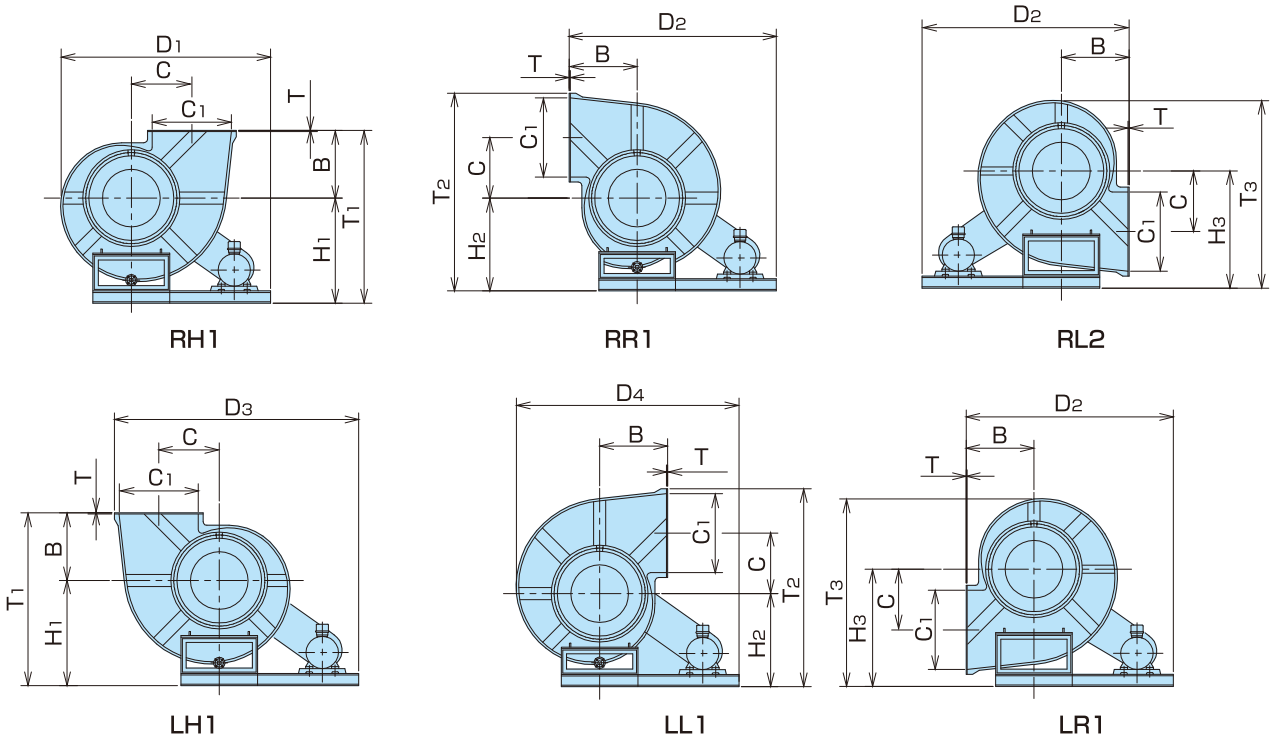
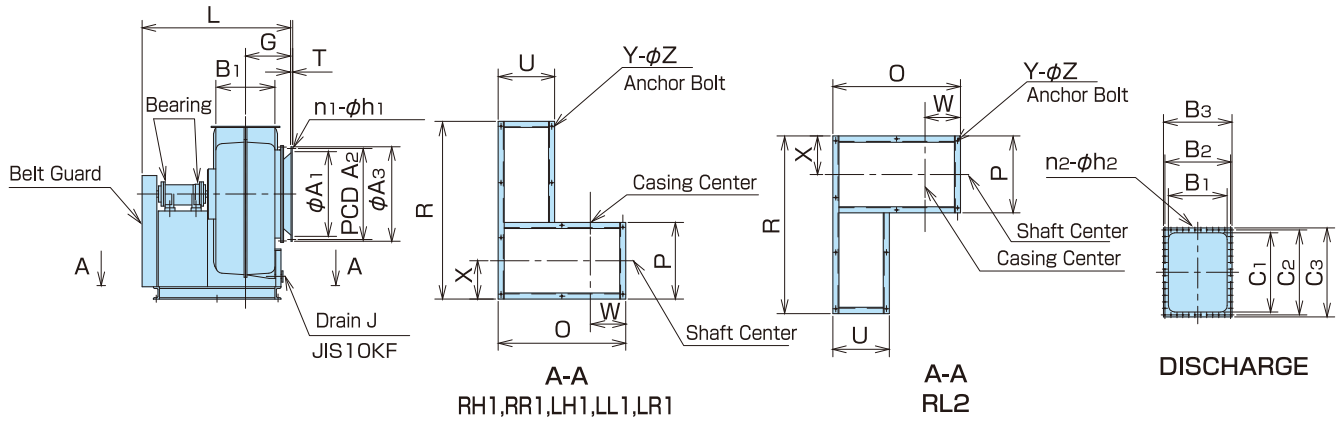
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MODEL	CASING BODY											FLANGES							
	L	H <sub>1</sub>	B	C	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	G	$\phi A_1$	PCD $A_2$	$\phi A_3$	n	h	T	
FTF303	FTE301	41.6	28.5	15.7	11.8	58.3	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
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

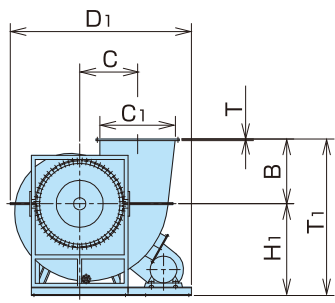
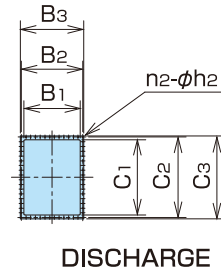
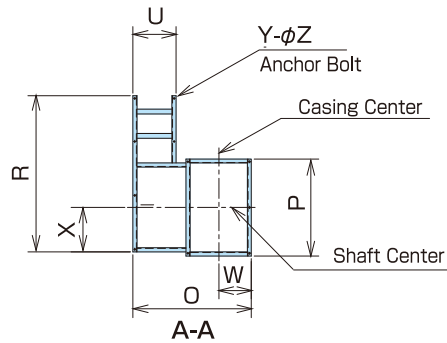
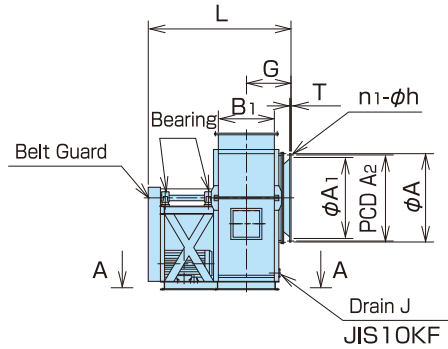


MODEL	CASING BODY														FLANGES				
	L	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	B	C	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	G	φA <sub>1</sub>	PCD A <sub>2</sub>	φA <sub>3</sub>	n <sub>1</sub>	h <sub>1</sub>
FTF503	57.8	37.4	37.4	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

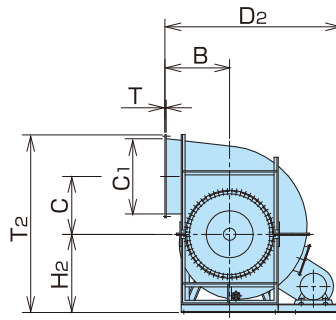
MODEL	FLANGES					DRAIN	BASE										BODY WEIGHT(lb)		BEARING		
	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>		C <sub>3</sub>	n <sub>2</sub>	h <sub>2</sub>	T	J	R	U	O	P	W	X	Y	Z	STANDARD	IMPELLER
FTF503	20.5	23.4	24.8	27.6	30.1	31.9	32	0.5	0.5	1.1/2"	68.9	23.6	48.0	27.6	13.2	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.

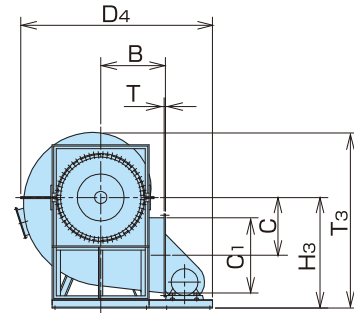
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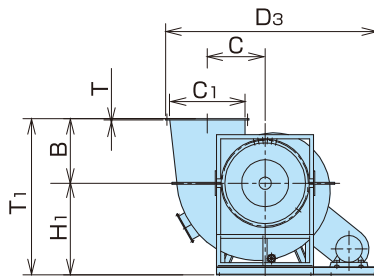
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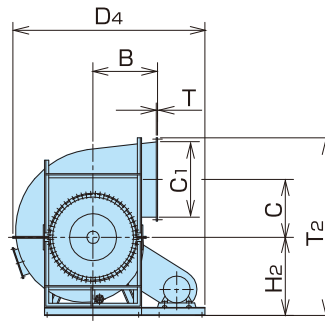
RR1



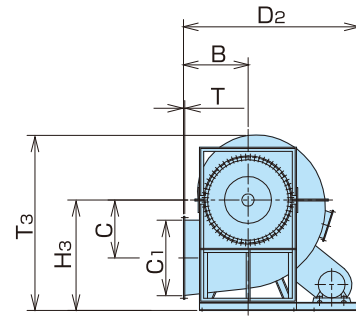
RL1



LH1



LL1



LR1

MODEL	CASING BODY														FLANGES				
	L	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	B	C	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	T <sub>1</sub>	T <sub>2</sub>	T <sub>3</sub>	G	φA <sub>1</sub>	PCD A <sub>2</sub>	φA <sub>3</sub>	n <sub>1</sub>	h <sub>1</sub>
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 <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	n <sub>2</sub>	h <sub>2</sub>	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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