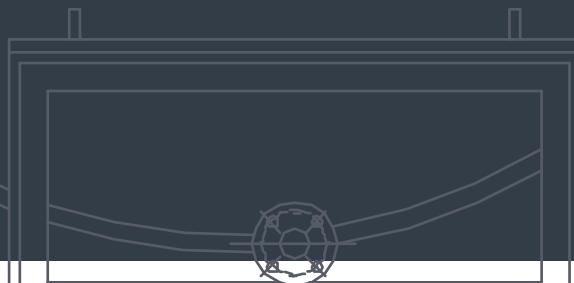




# FTF BLOWER MODELS



## 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 U.S.A., Inc. 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



**FTF Arrangement 8**

## WHEEL DIAMETERS

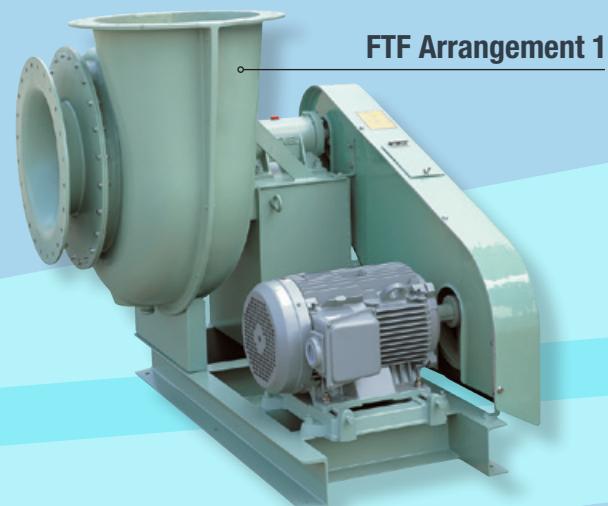
10", 12", 16", 20", 24", 32",  
36", 44", 50", 55", 72"

## 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



**FTF Arrangement 1**

## APPLICATIONS

Pollution Control  
Scrubbers  
Odor Control  
Fume Exhausting / Fume Hood

## INDUSTRIES

Chemical  
Metal  
Pulp and Paper  
Wastewater  
Pharmaceutical  
Fertilizer  
Petrochemical



**FTF Arrangement 9**

# 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.

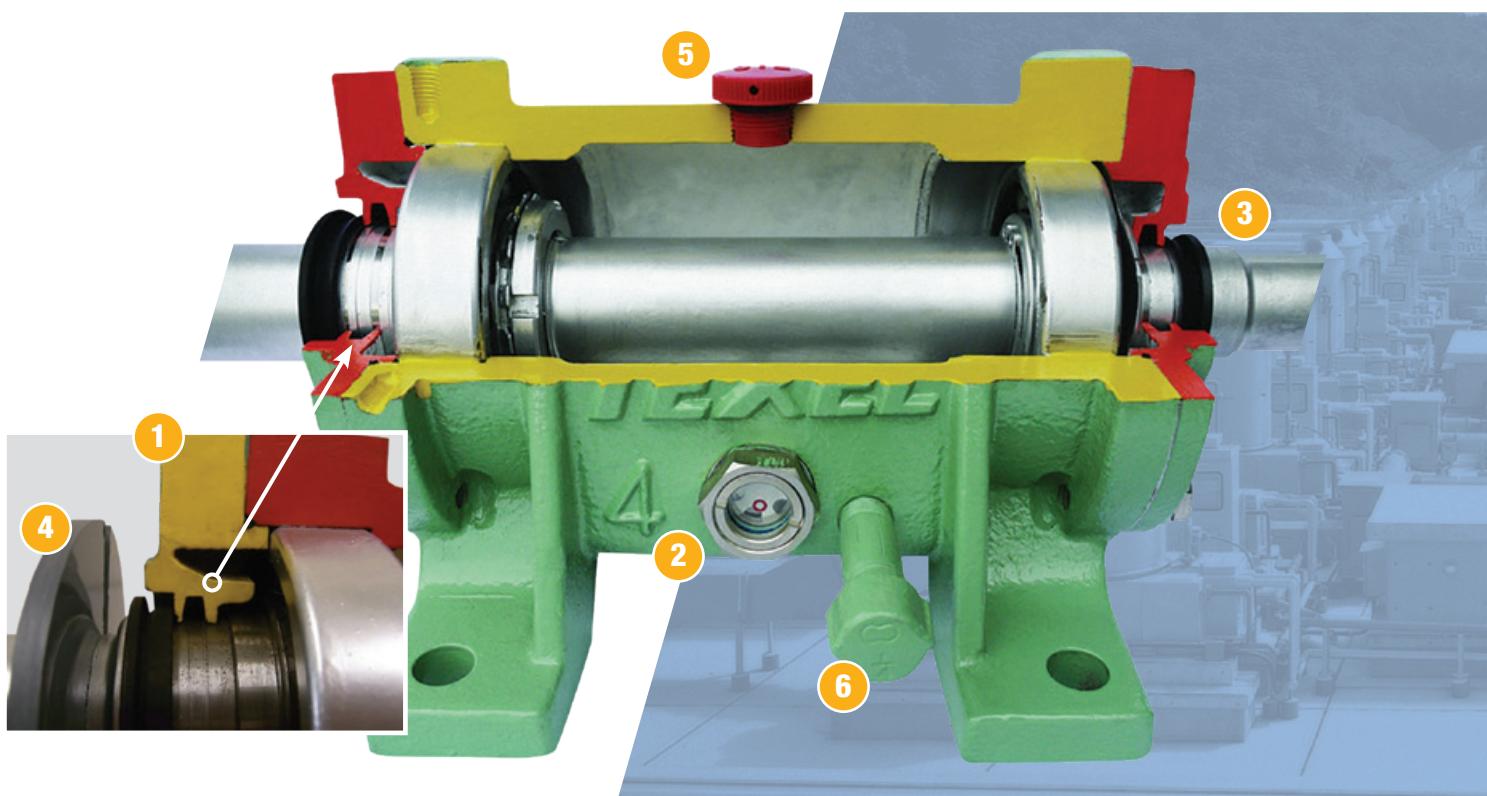
All of housing are coated with a UV resistant coating.



## 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 hole 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

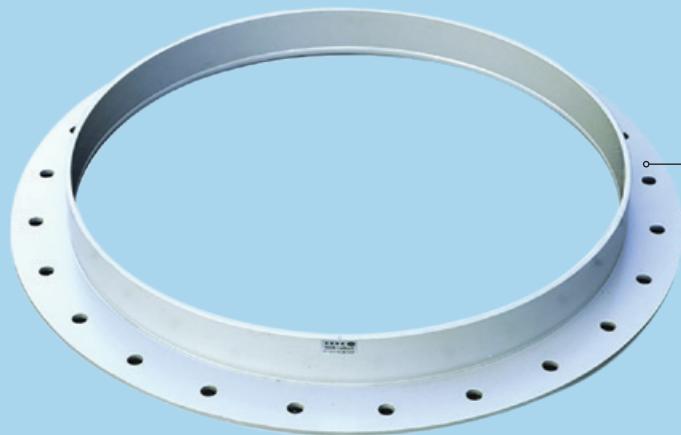
Gasketed inspection ports and rectangular access doors are available in several sizes for wheel inspection or maintenance.



**ACCESS DOOR**



**INSPECTION PORT**



## Vibration Isolator

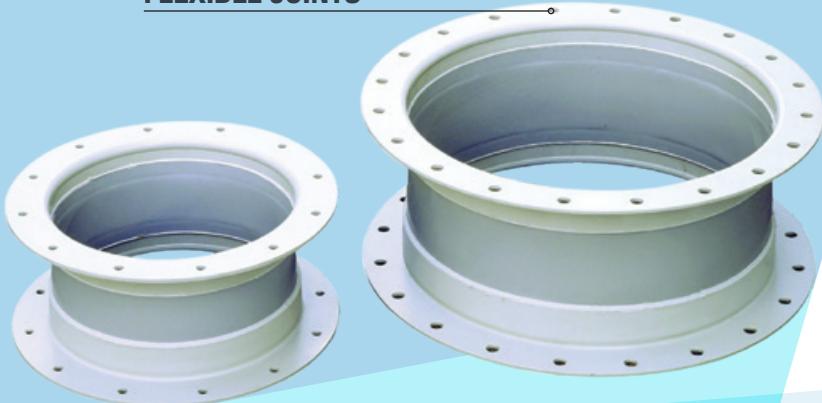
Rubber or spring type isolators are available.

### 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



### FRP VOLUME DAMPER



## Flexible connection

PVC or PTFE lined flexible joints are available.

## FRP Volume Control Damper

Manual dampers are available to control flow speed.

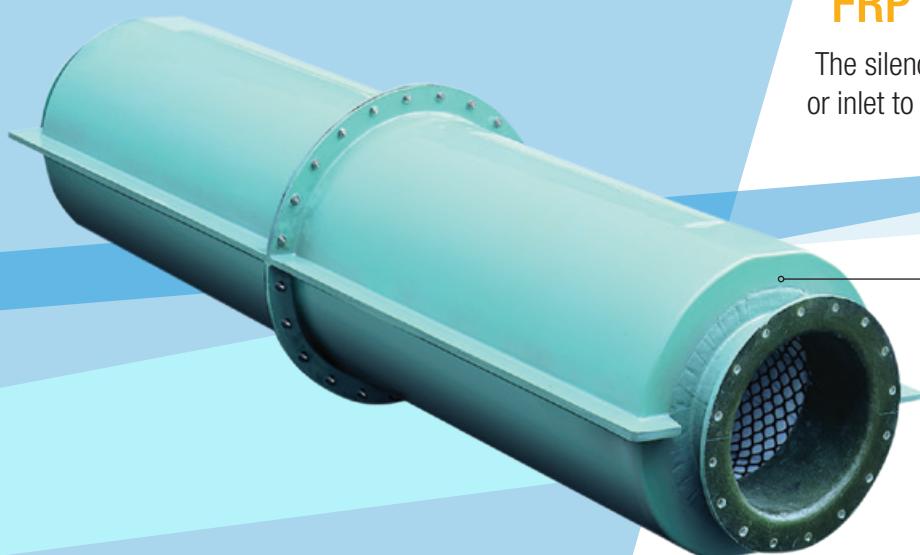
# Accessories



## 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

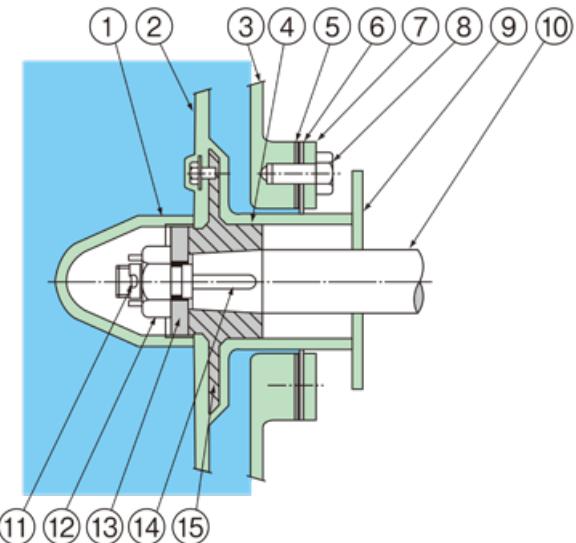
Fan can be constructed to meet ASTM D4167 as an option.

# 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.

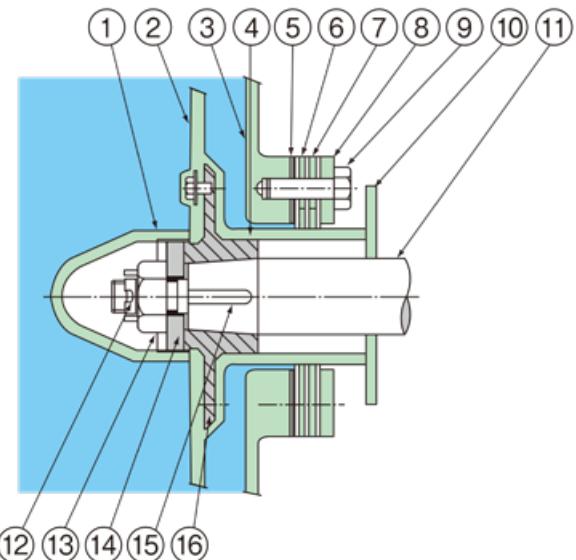
| P/No. | Part Name            | Qty. |
|-------|----------------------|------|
| 1     | Nut Cover            | 1pc. |
| 2     | Impeller             | 1pc. |
| 3     | Casing               | 1pc. |
| 4     | Shaft Sleeve         | 1pc. |
| 5     | Gland Gasket         | 1pc. |
| 6     | Seal Plate           | 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.

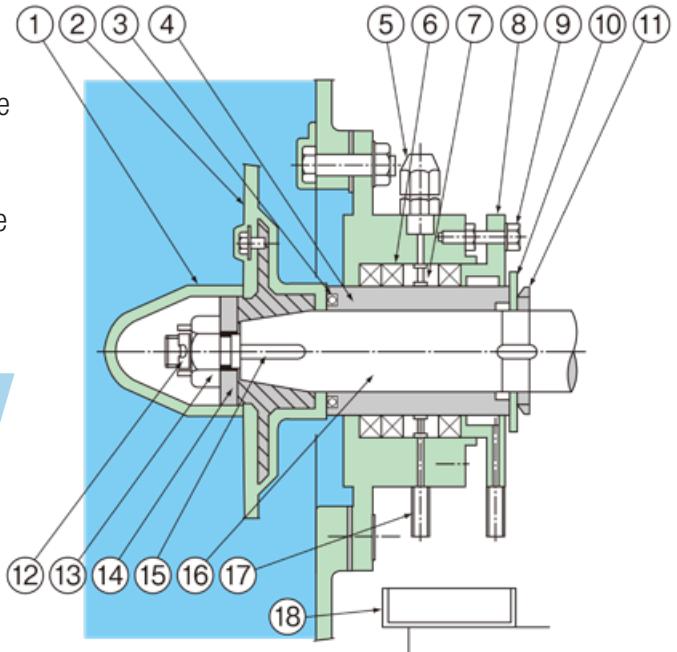
| P/No. | Part Name            | Qty. |
|-------|----------------------|------|
| 1     | Nut Cover            | 1pc. |
| 2     | Impeller             | 1pc. |
| 3     | Casing               | 1pc. |
| 4     | Shaft Sleeve         | 1pc. |
| 5     | Gland Gasket         | 1pc. |
| 6     | Spacer               | 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.

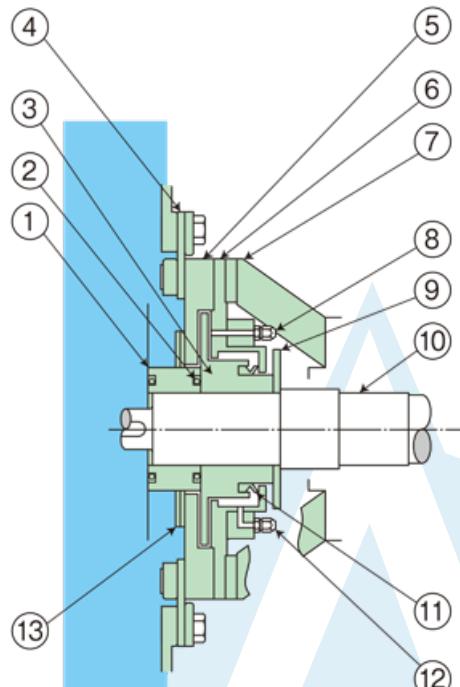
| P/No. | Part Name         | Qty. |
|-------|-------------------|------|
| 1     | Nut Cover         | 1pc. |
| 2     | Impeller          | 1pc. |
| 3     | O-Ring            | 1pc. |
| 4     | Shaft Sleeve      | 1pc. |
| 5     | Inlet Union       | 1pc. |
| 6     | Packing           | 1set |
| 7     | 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<br>151-201<br>NSF<br>302-402 | CES<br>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>*3</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>18</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)               | Alkalies             |
| 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)               |                      |
| Ammonium Hydroxide     | NH <sub>4</sub> OH   | 20          | 140(60) | 122(50)                          | 122(50)               | Bleaches             |
| 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>*2</sup> |                      |
| Calcium Hypochlorite   | Ca(ClO) <sub>2</sub>   | ALL         | 140(60) | 122(50)                          | 122(50) <sup>*2</sup> |                      |
| Sodium Hypochlorite    | NaClO  | 15          | 140(60) | 122(50)                          | 122(50) <sup>*2</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 I: Be careful when choosing CES 101-201 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
- Hydroflouric acid specification
- Separately can be handled with the CRS model.

| Chemicals              | Molecular Formula   | Density Wt% | FTF/FTB | CTF                       | CES<br>101-201 | Classification               |
|------------------------|---|-------------|---------|---------------------------|----------------|------------------------------|
|                        |   |             |         | 151-201<br>NSF<br>302-402 |                |                              |
| 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  | KHC <sub>0</sub> 3  | 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           | ZnS <sub>0</sub> 4  | ALL         | 176(80) | 122(50)                   | 122(50)        |                              |
| Ammonium Sulfide       | (NH <sub>4</sub> ) <sub>2</sub> S <sub>0</sub> 4                | 20          | 176(80) | 122(50)                   | 122(50)        |                              |
| Potassium Sulfide      | K <sub>2</sub> S <sub>0</sub> 4                                 | ALL         | 176(80) | 122(50)                   | 122(50)        |                              |
| Ferric Sulfide         | Fe(S <sub>0</sub> 4) <sub>3</sub>                               | ALL         | 176(80) | 122(50)                   | 122(50)        |                              |
| Copper Sulfide         | CuS <sub>0</sub> 4  | ALL         | 176(80) | 122(50)                   | 122(50)        |                              |
| Magnesium Sulfide      | MgS <sub>0</sub> 4  | 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> O <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> HOH <sub>2</sub> O                            | ALL         | 176(80) | 122(50)                   | 122(50)        |                              |
| Ethylene Chloride      | ClCH <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         | SCl <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)        |                              |

 Solvent. Heat and Acid resistant specification  
 Chromic acid resistant specification  
 Hypochlorous acid specification  
 Hydrofluoric acid specification  
 Separately can be handled 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

| TEMPARATURE (' 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

**FIG: 71**  
(Maximum safe speed, AMCA205-12)

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

Wheel diameter: 10"

Backward curved impeller

|      | OV          | 4"    | 5"   | 6"    | 7"   | 8"    | 9"   | 10"   | 11"  | 12"   |      |
|------|-------------|-------|------|-------|------|-------|------|-------|------|-------|------|
| CFM  | FPM         | RPM   | BHP  | RPM   | BHP  | RPM   | BHP  | RPM   | BHP  | RPM   |      |
| 300  | <b>811</b>  | 3,208 | 0.50 | 3,538 | 0.65 | 3,826 | 0.81 | 4,108 | 0.99 | 4,381 | 1.19 |
| 400  | <b>1081</b> | 3,250 | 0.55 | 3,653 | 0.75 | 3,968 | 0.97 | 4,267 | 1.18 | 4,508 | 1.36 |
| 500  | <b>1351</b> | 3,317 | 0.62 | 3,647 | 0.81 | 3,972 | 1.01 | 4,296 | 1.25 | 4,589 | 1.51 |
| 600  | <b>1622</b> | 3,445 | 0.72 | 3,757 | 0.92 | 4,049 | 1.13 | 4,324 | 1.36 | 4,595 | 1.59 |
| 700  | <b>1892</b> | 3,601 | 0.84 | 3,894 | 1.04 | 4,171 | 1.27 | 4,433 | 1.50 | 4,683 | 1.75 |
| 800  | <b>2162</b> | 3,781 | 0.98 | 4,056 | 1.20 | 4,317 | 1.43 | 4,566 | 1.67 | 4,805 | 1.93 |
| 900  | <b>2432</b> | 3,981 | 1.15 | 4,239 | 1.38 | 4,485 | 1.62 | 4,721 | 1.88 | 4,948 | 2.14 |
| 1000 | <b>2703</b> | 4,194 | 1.35 | 4,438 | 1.59 | 4,671 | 1.85 | 4,894 | 2.11 | 5,111 | 2.39 |
| 1100 | <b>2973</b> | 4,418 | 1.58 | 4,649 | 1.84 | 4,870 | 2.11 | 5,083 | 2.39 | 5,289 | 2.67 |
| 1200 | <b>3243</b> | 4,651 | 1.84 | 4,871 | 2.12 | 5,082 | 2.40 | 5,285 | 2.69 |       |      |
| 1300 | <b>3514</b> | 4,893 | 2.13 | 5,102 | 2.43 | 5,303 | 2.73 |       |      |       |      |
| 1400 | <b>3784</b> | 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

**FIG: 75**  
(Maximum safe speed, AMCA205-12)

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

Wheel diameter: 12.4"

Backward curved impeller

|      | OV          | 4"    | 5"   | 6"    | 7"   | 8"    | 9"   | 10"   | 11"  | 12"   | 13"  | 14"   | 15"  | 16"   |      |
|------|-------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
| CFM  | FPM         | RPM   | BHP  | RPM   |      |
| 400  | <b>556</b>  | 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 |
| 600  | <b>833</b>  | 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 |
| 800  | <b>1111</b> | 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 |
| 1000 | <b>1389</b> | 2,724 | 0.97 | 3,295 | 1.24 | 3,209 | 1.52 | 3,429 | 1.81 | 3,636 | 2.12 | 3,833 | 2.44 | 4,020 | 2.77 |
| 1200 | <b>1667</b> | 2,866 | 1.16 | 3,100 | 1.45 | 3,320 | 1.75 | 3,529 | 2.07 | 3,728 | 2.41 | 4,101 | 3.11 | 4,275 | 3.47 |
| 1400 | <b>1944</b> | 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 |
| 1600 | <b>2222</b> | 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 |
| 1800 | <b>2500</b> | 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 |
| 2000 | <b>2778</b> | 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 |
| 2200 | <b>3056</b> | 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 |
| 2400 | <b>3333</b> | 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 |
| 2600 | <b>3611</b> | 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 | <b>3889</b> | 4,526 | 4.22 | 4,679 | 4.74 | 4,825 | 5.27 | 4,965 | 5.81 | 5,100 | 6.35 |       |      |       |      |
| 3000 | <b>4167</b> | 4,762 | 4.87 | 4,908 | 5.42 | 5,049 | 5.98 |       |      |       |      |       |      |       |      |
| 3200 | <b>4444</b> | 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)

Inlet diameter: 14.8" I.D.  
Outlet diameter: 14.8" I.D.  
Wheel diameter: 15.74"

| Backward curved impeller |             |       |      |       |      |       |      |       |      |       |      |       |      |       |      |
|--------------------------|-------------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|
|                          | OV          | 4"    | 5"   | 6"    | 7"   | 8"    | 9"   | 10"   | 11"  | 12"   | 13"  | 14"   | 15"  | 16"   |      |
| CFM                      | FPM         | RPM   | BHP  | RPM   |      |
| 600                      | <b>488</b>  | 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 |
| 900                      | <b>732</b>  | 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 |
| 1200                     | <b>976</b>  | 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 |
| 1500                     | <b>1220</b> | 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 |
| 1800                     | <b>1463</b> | 2,118 | 1.56 | 2,307 | 1.97 | 2,482 | 2.40 | 2,657 | 2.85 | 2,813 | 3.31 | 3,061 | 3.80 | 3,102 | 4.30 |
| 2100                     | <b>1707</b> | 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 |
| 2400                     | <b>1951</b> | 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 |
| 2700                     | <b>2195</b> | 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 |
| 3000                     | <b>2439</b> | 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 |
| 3300                     | <b>2683</b> | 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 |
| 3600                     | <b>2927</b> | 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 |
| 3900                     | <b>3171</b> | 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 |
| 4200                     | <b>3415</b> | 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                     | <b>3659</b> | 3,299 | 5.92 | 3,421 | 6.68 | 3,539 | 7.45 | 3,652 | 8.24 | 3,761 | 9.03 |       |      |       |      |
| 4800                     | <b>3902</b> | 3,454 | 6.74 | 3,571 | 7.55 | 3,684 | 8.36 | 3,793 | 9.19 |       |      |       |      |       |      |
| 5100                     | <b>4146</b> | 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)

Inlet diameter: 17.7" I.D.  
Outlet diameter: 17.7" I.D.  
Wheel diameter: 19.66"

| Backward curved impeller |             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|--------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                          | OV          | 4"    | 5"    | 6"    | 7"    | 8"    | 9"    | 10"   | 11"   | 12"   | 13"   | 14"   | 15"   | 16"   |       |
| CFM                      | FPM         | RPM   | BHP   | RPM   |       |
| 1500                     | <b>882</b>  | 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  |
| 2000                     | <b>1176</b> | 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  |
| 2500                     | <b>1471</b> | 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  |
| 3000                     | <b>1765</b> | 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  |
| 3500                     | <b>2059</b> | 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  |
| 4000                     | <b>2353</b> | 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  |
| 4500                     | <b>2647</b> | 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 |
| 5000                     | <b>2941</b> | 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 |
| 5500                     | <b>3235</b> | 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 |
| 6000                     | <b>3529</b> | 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 |
| 6500                     | <b>3824</b> | 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                     | <b>4118</b> | 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                     | <b>4412</b> | 2,744 | 10.73 | 2,842 | 11.92 | 2,938 | 13.24 | 3,031 | 14.58 | 3,122 | 16.15 |       |       |       |       |
| 8000                     | <b>4706</b> | 2,875 | 12.21 | 2,969 | 13.57 | 3,060 | 14.86 | 3,149 | 16.27 |       |       |       |       |       |       |
| 8500                     | <b>5000</b> | 3,008 | 13.95 | 3,098 | 15.28 |       |       |       |       |       |       |       |       |       |       |
| 9000                     | <b>5294</b> | 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

FIG. 85

(Maximum safe speed, AMCA205-12)

Inlet diameter: 23.6" I.D.

Wheel diameter: 24.8"

| CFM               | OV    |       |       | 4"    |       |       | 5"    |       |       | 6"    |       |       | 7"    |       |       | 8"    |       |       | 9"    |       |       | 10"   |       |       | 11"   |       |     | 12" |     |     | 13" |  |  | 14" |  |  |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|--|--|-----|--|--|
|                   | FPM   | RPM   | BHP   | FPM   | RPM   | BHP | FPM | RPM | BHP |     |  |  |     |  |  |
| 2000 <b>664</b>   | 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 <b>997</b>   | 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 <b>1329</b>  | 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 <b>1661</b>  | 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 <b>1993</b>  | 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 <b>2326</b>  | 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 <b>2658</b>  | 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 <b>2990</b>  | 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 <b>3322</b> | 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 <b>3654</b> | 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 <b>3987</b> | 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 <b>4319</b> | 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 <b>4651</b> | 2,339 | 20.24 | 2,406 | 22.53 | 2,472 | 24.86 | 2,537 | 27.02 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |     |     |  |  |     |  |  |
| 15000 <b>4983</b> | 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

FIG. 85

(Maximum safe speed, AMCA205-12)

Inlet diameter: 29.5" I.D.

Wheel diameter: 30.4"

| CFM               | OV    |       |       | 4"    |       |       | 5"    |       |       | 6"    |       |       | 7"    |       |       | 8"    |       |       | 9"    |       |       | 10"   |       |       | 11"   |       |     | 12" |     |     | 13" |  |  | 14" |  |  |
|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|--|--|-----|--|--|
|                   | FPM   | RPM   | BHP   | FPM   | RPM   | BHP | FPM | RPM | BHP |     |  |  |     |  |  |
| 3000 <b>767</b>   | 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 <b>1087</b>  | 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 <b>1407</b>  | 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 <b>1726</b>  | 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 <b>2046</b>  | 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 <b>2366</b>  | 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 |       |       |       |       |     |     |     |     |     |  |  |     |  |  |
| 10500 <b>2685</b> | 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 <b>3005</b> | 1,361 | 12.07 | 1,453 | 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 <b>3325</b> | 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 <b>3645</b> | 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 <b>3964</b> | 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 <b>4284</b> | 1,714 | 23.68 | 1,771 | 26.27 | 1,826 | 29.00 | 1,880 | 31.78 | 1,933 | 34.60 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |     |     |  |  |     |  |  |
| 18000 <b>4604</b> | 1,808 | 27.70 | 1,862 | 30.36 | 1,915 | 33.26 |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |     |     |     |     |     |  |  |     |  |  |
| 19250 <b>4923</b> | 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

**FIG: 90**  
(Maximum safe speed, AMCA205-12)

Wheel diameter: 37.4  
Inlet diameter: 35.4" I.D.  
Outlet Area: 5.72 sq. ft

| CFM   | 4"   |       |       | 5"    |       |       | 6"    |       |       | 7"    |       |       | 8"    |       |       | 9"    |       |       | 10"   |       |       | 11"   |       |       | 12"   |       |       | 13" |     |     | 14" |  |  |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|--|--|
|       | CV   | 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

**FIG: 85**  
(Maximum safe speed, AMCA205-12)

Wheel diameter: 44.09  
Inlet diameter: 41.3" I.D.  
Outlet Area: 7.69 sq. ft

| CFM   | 4"   |       |       | 5"    |       |       | 6"    |       |       | 7"    |       |       | 8"    |       |       | 9"    |       |       | 10"   |       |       | 11"   |       |       | 12"   |       |       | 13" |     |     | 14" |  |  |  |
|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|--|--|--|
|       | CV   | 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

**FE:90**  
 (Maximum safe speed, AMCA205-12)

Wheel diameter: 49.6

 Inlet diameter: 47.2" I.D.  
 Outlet Area: 10 sq. ft

| CFM   | OV    | 4"    |       |       | 5"    |       |       | 6"    |       |       | 7"    |       |       | 8"    |       |       | 9"    |       |       | 10"   |       |       | 11"   |       |       | 12" |     |     | 13" |     |  | 14" |  |  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----|-----|-----|-----|--|-----|--|--|
|       |       | FPM   | 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<sub>w</sub><sub>o</sub> or outlet L<sub>w</sub><sub>o</sub>A) 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<sup>-12</sup> 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<sub>w</sub><sub>o</sub> or outlet L<sub>w</sub><sub>o</sub>A) 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<sup>-12</sup> 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<sub>w</sub><sub>o</sub> or outlet L<sub>w</sub><sub>o</sub>A) 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<sup>-12</sup> 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<sub>w0</sub> or outlet L<sub>w0A</sub>) 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<sup>-12</sup> 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<sub>w0</sub> or outlet L<sub>w0A</sub>) 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<sup>-12</sup> 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<sub>w0</sub> or outlet L<sub>w0A</sub>) 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<sup>-12</sup> 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<sub>w1</sub>) 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<sup>-12</sup> watts, calculated per AMCA International Standard 301.

# Sound Performance for FTF Models

## FTF703

Backward curved impeller

FEG: 85

Wheel diameter: 44.09  
(Maximum safe speed, AMCA205-12)

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<sub>w</sub><sub>o</sub> or outlet L<sub>w</sub><sub>A</sub>) 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<sup>-12</sup> 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

FEG: 90

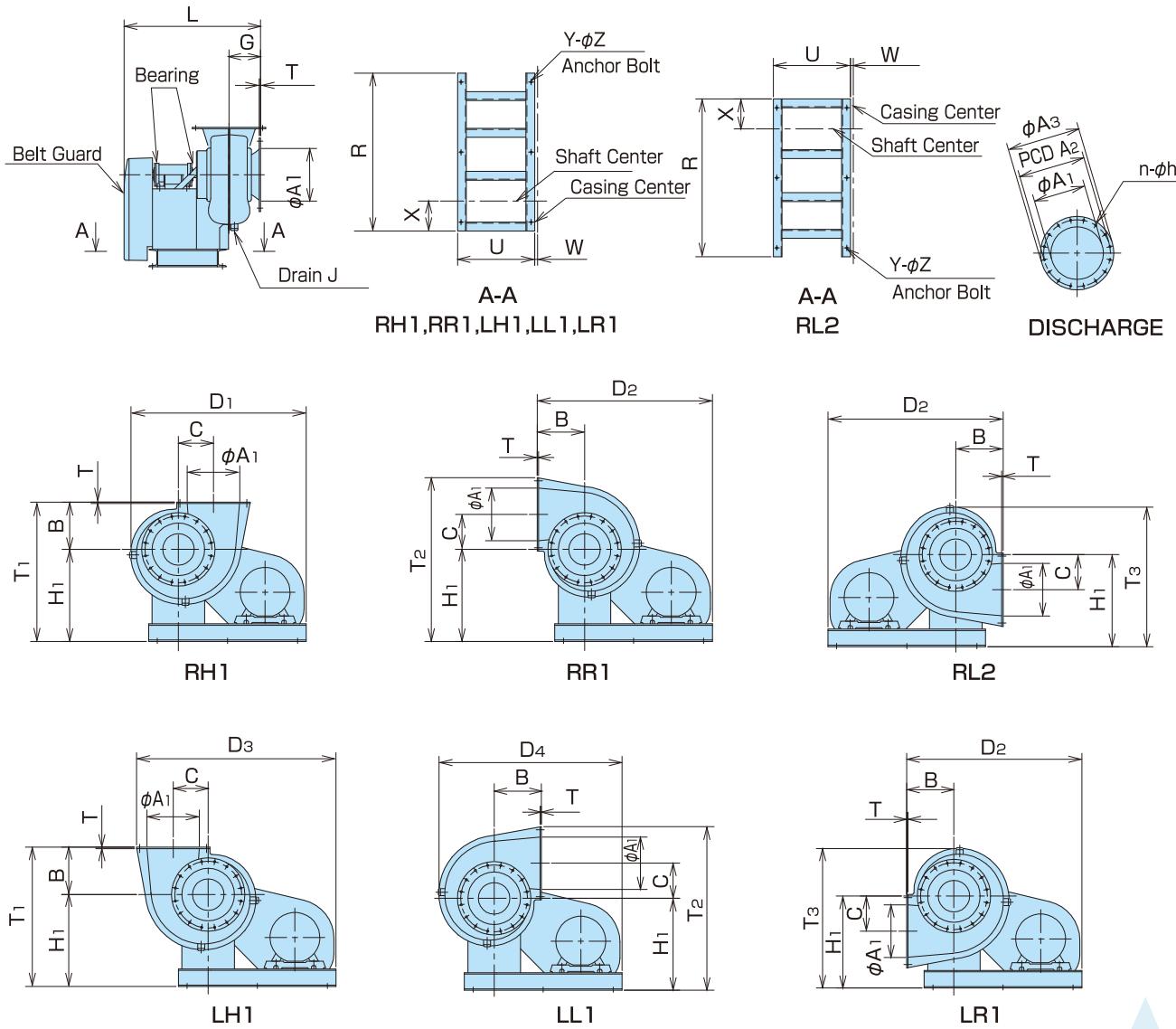
Wheel diameter: 49.6"  
(Maximum safe speed, AMCA205-12)

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<sub>w</sub><sub>i</sub>) 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<sup>-12</sup> watts, calculated per AMCA International Standard 301.

# FTF153·203·253/FTE151·201·251

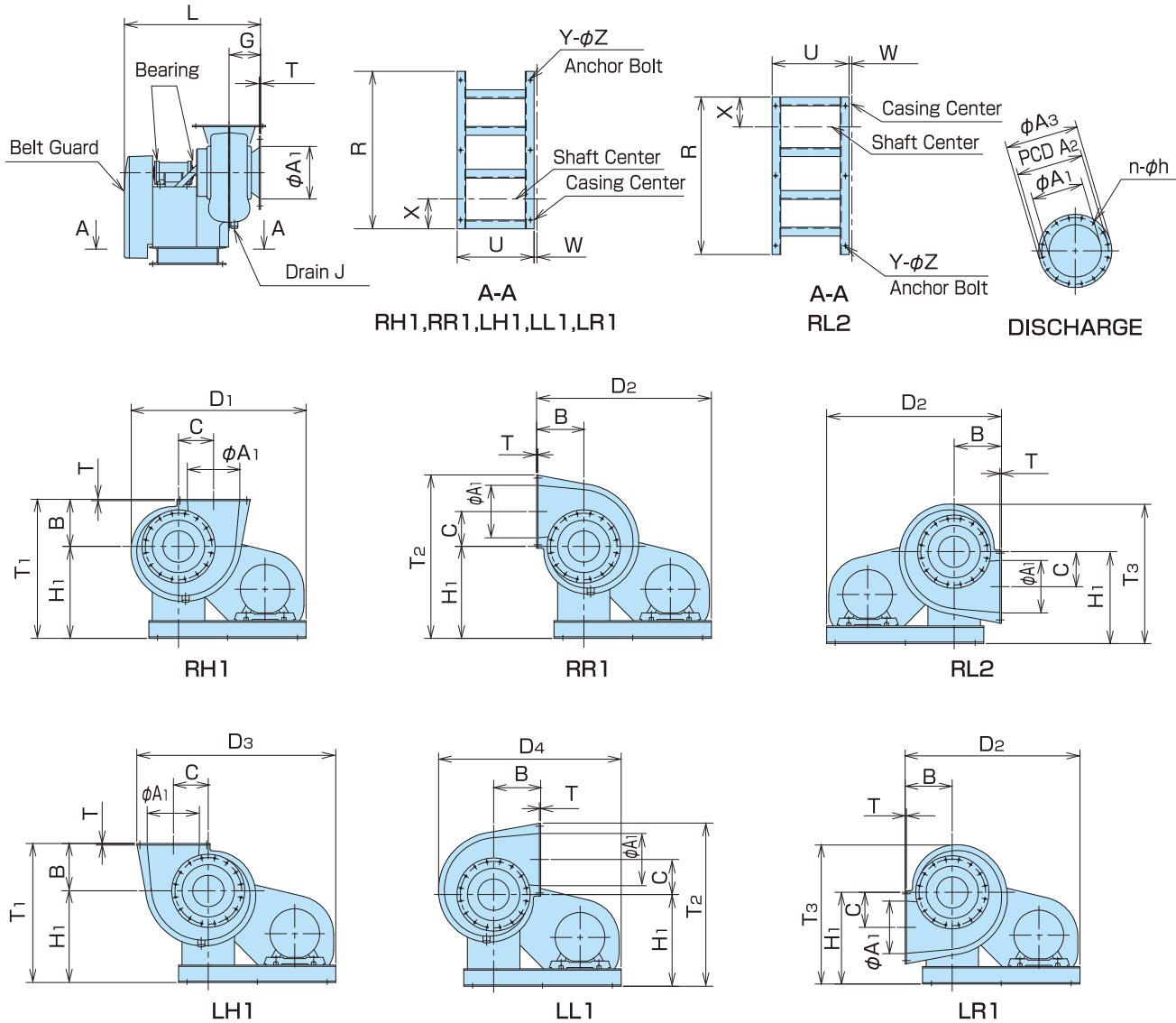


| MODEL         | CASING BODY |      |      |     |      |      |      |      |      |      |      |     |      | FLANGES |      |    |     |     |  |
|---------------|-------------|------|------|-----|------|------|------|------|------|------|------|-----|------|---------|------|----|-----|-----|--|
|               | L           | H1   | B    | C   | D1   | D2   | D3   | D4   | T1   | T2   | T3   | G   | φA1  | PCD A2  | φA3  | 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   |                 | 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.

# FTF303·403/FTE301·401

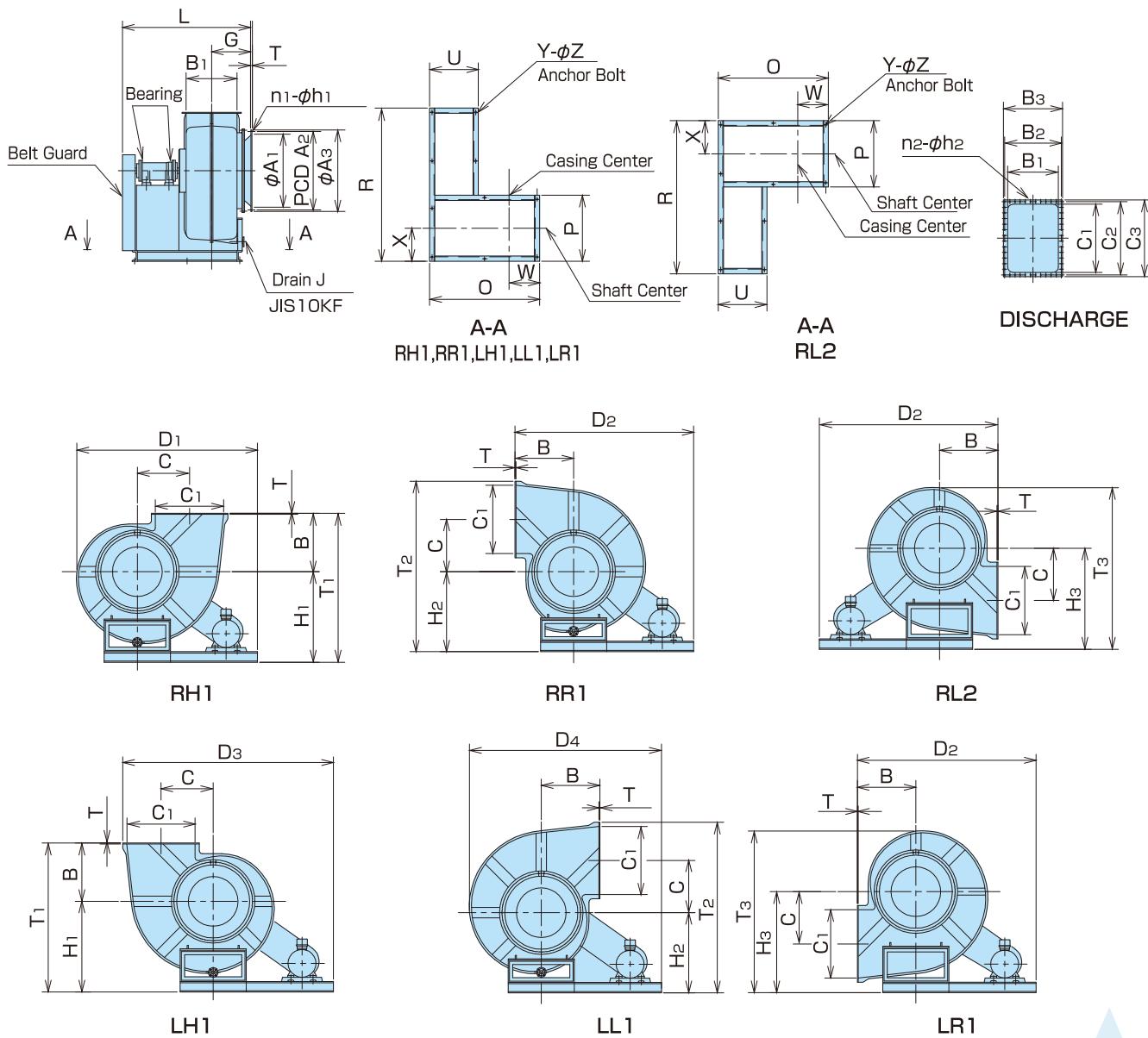


| MODEL  | CASING BODY |      |      |      |      |      |      |      |      |      |      |      | FLANGES |        |      |      |    |     |     |
|--------|-------------|------|------|------|------|------|------|------|------|------|------|------|---------|--------|------|------|----|-----|-----|
|        | L           | H1   | B    | C    | D1   | D2   | D3   | D4   | T1   | T2   | T3   | G    | φA1     | PCD A2 | φA3  | 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 | φA1     | PCD A2 | φA3 | n | h | T |  |
| 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

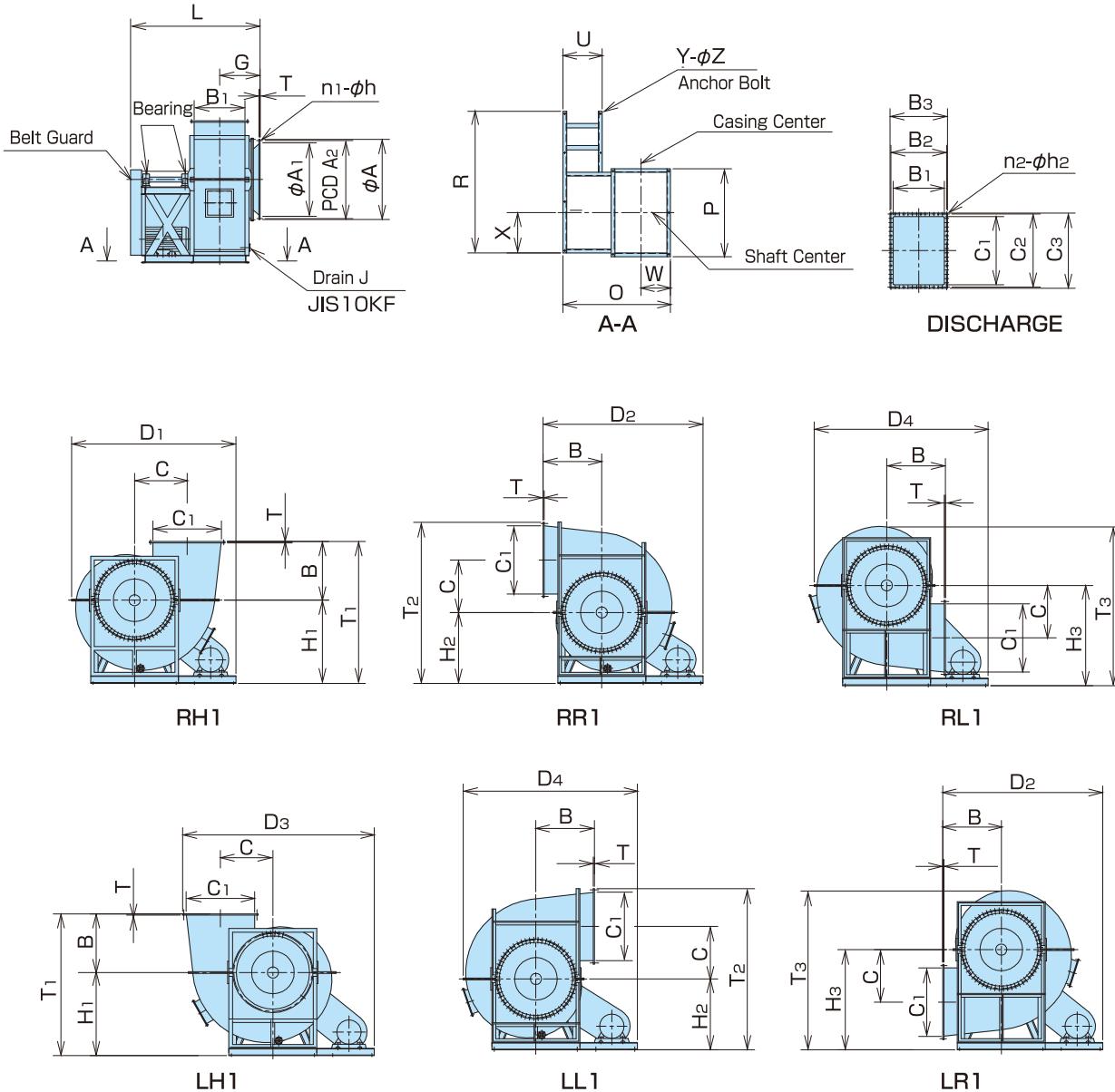


| MODEL  | CASING BODY |                |                |                |      |      |                |                |                |                |                |                |                |      | FLANGES         |                    |                 |                |                |
|--------|-------------|----------------|----------------|----------------|------|------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------|-----------------|--------------------|-----------------|----------------|----------------|
|        | 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.

# FTF1201·1401



| 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        |                |                |                |                |                |                |                | J   | R     | U    | O     | P    | W    | X    | Y   | Z   | 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> |     |       |      |       |      |      |      |     |     |                 | STANDARD | IMPELLER |
| FTF1201 | 49.2           | 53.1           | 54.7           | 66.1           | 69.4           | 71.7           | 72             | 0.6            | 0.7 | 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 | 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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