ISO 9001
ISO 14001

JQA-2348
JQA-EM4095

Seikow Chemical Engineering & Machinery, Ltd. is an ISO 9001 certified company, operates Quality Management System on Pump, Fan and Environmental Equipment Products and accredited by ISO 14001 Environmental Management System.

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CORROSION RESISTANT FRP FANS/BLOWERS GENERAL CATALOGUE

SEIKOW CHEMICAL ENGINEERING & MACHINERY, LTD.

TEXEL®

CORROSION RESISTANT FRP FANS/BLOWERS GENERAL CATALOGUE

ISO 9001
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SEIKOW CHEMICAL ENGINEERING & MACHINERY, LTD.

TEXEL®
CORROSION RESISTANT FRP FANS/BLOWERS

Exceptionally Corrosion-resistant, high-performing and highly functional, TEXEL fans/blowers are the dependable choice for exhaust and ventilation applications in various factories, labs universities, and sewage/raw sewage treatment plants. Choose from our wide selection of corrosion resistant fans/blowers for any application.

TEXEL FANS/BLOWERS LINE-UP

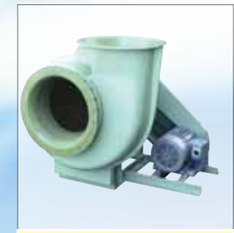
MODEL CES

MODEL CES-D/V

MODEL FTF

MODEL FTF-MD/MC

MODEL NSF



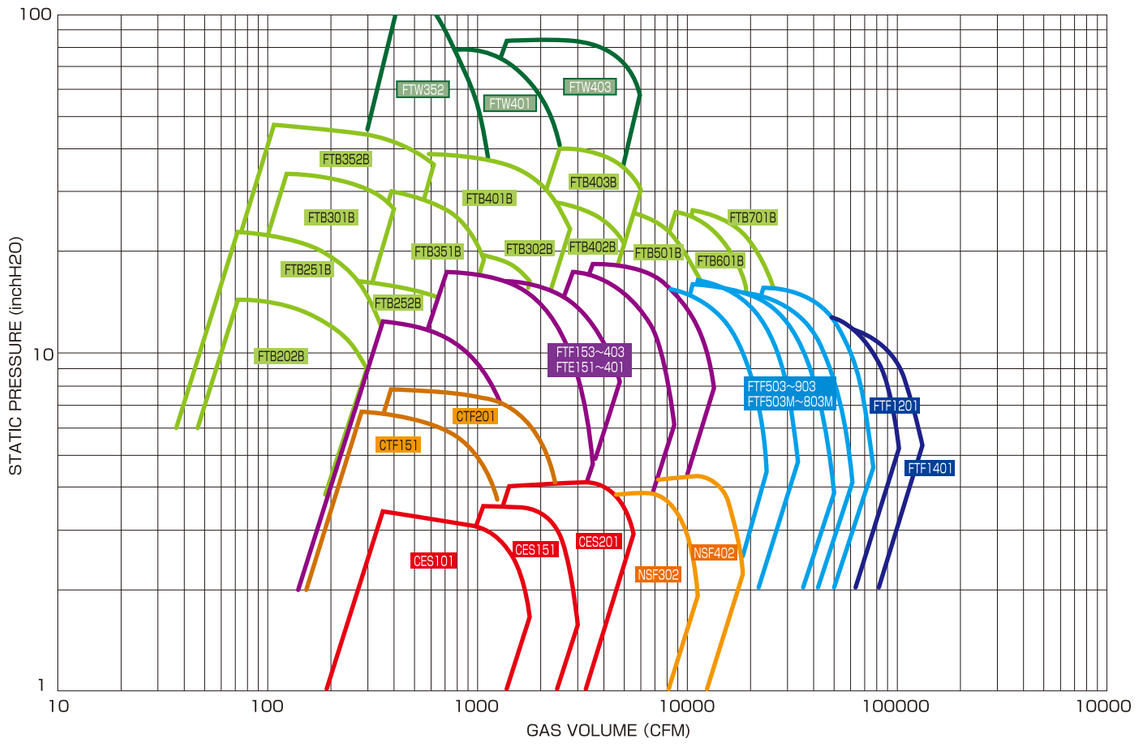
MODEL CTF

NEW MODEL FTE

MODEL FTB

MODEL FTW

TEXEL FANS/BLOWERS CAPACITY RANGE



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STANDARD SPECIFICATIONS

Model		CES	CES D	CES V	FTF	FTF MD	FTF MC	NSF	CTF	FTE	FTB	FTW
Gas Temperature		14~122°F	14~122°F		14~176°F	14~176°F		14~122°F	14~122°F	14~176°F	14~176°F	14~176°F
Construction	Impeller	Sirocco	Sirocco		Turbo	Turbo		Sirocco	Turbo	Turbo	Turbo	Turbo
	Sealing	Free Gland	Free Gland		Seal Plate	Seal Plate		Free Gland	Free Gland	Seal Plate	Seal Plate	Seal Plate
Material	Impeller	FRPP	FRPP		FRP	FRP		FRP	FRP	FRP	FRP	FRP
	Casing	FRPP	FRPP		FRP	FRP		FRP	FRPP	FRP	FRP	FRP
	Shaft	Carbon steel	Carbon steel		Carbon steel	Carbon steel		Carbon steel	Carbon steel	Carbon steel	Carbon steel	Carbon steel
Standard Color	Casing											
	Belt-Guard		——			——			MUNSELL 2.5G6/3			
	Shaft-Guard											
	Support base	Melted zinc plating color							Melted zinc plating color			
	Motor	Maker's standard color										
Standard Accessories		●V-Pulley…1set ●V-Belt…1set ●Belt-Guard…1pc. ●Shaft-Guard…1pc. ●Anchor Bolt…1set	●Shaft-Guard…1pc. ●Anchor Bolt…1set		●V-Pulley…1set ●V-Belt…1set ●Belt-Guard…1pc. ●Shaft-Guard…1pc. ●Anchor Bolt…1set	●Anchor Bolt…1set		●V-Pulley…1set ●Shaft-Guard…1pc.	●V-Belt…1set ●Belt-Guard…1pc. ●Anchor Bolt…1set			●Anchor Bolt 1set

Information Necessary for Inquiries and Orders

1. Gas Volume — CFM, m^3/min
2. Static Pressure — kPa, $inchH_2O$
3. Handling Gas — Concentration (% ppm), Specific Weight (kg/m^3), Operating Temperature (°F), (°C)
4. Discharge and Rotational Direction
5. Power Source — Voltage, Frequency, Phase

❷

CES・CES-D FEATURES

FRPP SIROCCO FAN

MODEL CES

JAPAN PT. No.4590167
CHINA PT. No.ZL200380110333.X
TAIWAN PT. No.I253491

The conventional model was completely redesigned given birth to the model CES Compact Sirocco Fan made of an injected FRPP mold with standardized central discharge. It has the same capabilities as the conventional models and its rotating discharge direction was reduced by half making selection simple. Also, its impeller and casing are both made of an injected FRPP mold for enhanced recyclability.

• Standardized central discharge

Conventional models featured 6 rotational discharge directions, however, this fan's right rotation only central discharge cuts the number of rotational directions to 3 types. This significantly reduces the complexity of choosing a rotational direction and simplifies duct piping.

• Enhanced maintainability

Conventional compact sirocco fans were made with a casing divided into 2 parts. This required the removal of the suction and discharge ducts before being able to remove the impeller. However, by incorporating an easy-to-remove suction cone in the design, only the suction duct needs removal before the impeller can be taken off. Inner-casing inspection is also made easy.

• Excellent corrosion resistance

Its casing and impeller have excellent chemical resistance thanks to our standardized FRPP injection mold construction that boasts high dimensional accuracy. Also, its effective ribbed and hemmed design gives it superior strength while keeping it lightweight. We used materials that not only offer great corrosion resistance and maintainability, but also 100% recyclability.

• A variety of drive systems

Choose either a belt drive or direct action electric motor drive depending on the application. You can also choose from two types of the direct action electric motor drives: a universal electric motor (D-type) or an electric motor with built-in inverter (V-type) , Because the only rotating parts in direct action electric motor drives are the motor itself and the impeller, there is no V-belt, shaft or any other mechanical part. This significantly reduces maintenance requirements and labor costs incurred during equipment inspections.
In addition, the electric motor with built–in inverter is direct action, however, like a belt driven fan, the required airflow and static pressure can be universally set.

JAPAN PT. No.4590167 CHINA PT. No.ZL200380110333X TAIWAN PT. No.1253491

MODEL CES-D

WITH UNIVERSAL MOTOR

MODEL CES-V

WITH MOTOR FEATURING BUILT-IN INVERTER

• Standardized central discharge

These models provide central discharge in only one direction (clockwise). Moreover, the number of rotating discharge directions is limited to three, compared with the six available with conventional models. This eliminates the troublesome selection of discharge direction and simplifies duct arrangement.

• Ease of maintenance

A conventional small sirocco fan has a two-block casing. Removal of the impeller requires removal of the suction duct and discharge duct. This new sirocco fan includes an easily removable suction cone that allows the impeller to be easily removed simply by removing the suction side duct. This simplifies checking of the casing interior.

• Excellent corrosion resistance

The standard casing and impeller are manufactured with injection-molded FRPP featuring excellent chemical resistance and high dimensional accuracy. In addition, the effective rib-and-turnback design ensures low weight and high strength. All materials have been selected for ease of maintenance and recycling as well as corrosion resistance.

• Greatly reduced maintenance

Direct-drive models feature universal motors (D type) or motors with built-in inverters (V type). The direct-drive type has no V-belt and no bearings; the only rotating parts are the motor and impeller. No maintenance is required for mechanical parts such as belts and bearings, which significantly reduces the labor required for facility monitoring. The use of a motor with a built-in inverter allows for easy setting of the required airflow and static pressure, similar to the case of a belt-driven fan.

Typical applications:

- As a corrosive gas fan/blower in a chemical or pharmaceutical plant
- As a draft chamber fan/blower in a chemical laboratory treating various gases
- As a fan/blower in a biotechnology research laboratory or experimental semiconductor laboratory
- As fan/blower in kitchen facilities
- As an odorous gas fan/blower in a sewage treatment facility
- As a fan /blower to eliminate coastal salt pollution

FTF・FTF-MD/MC FEATURES

FRP TURBO FAN

MODEL FTF

Model FTF FRP Turbo Fan has been recognized as breakthrough fan capable of long-term continuous operation, leading the industry in employing the oil lubricated bearing system.
Application of new techniques to strength analysis and research for optimal impeller/casing design and flow drove the development of this ideal fan that delivers vastly improved performance – and also energy savings, helping reduce CO_2 emissions.

• Highly improved efficiency

Efficiency has highly improved upon the former by the maximum ten percent at a total pressure. Also, sound level has been reduced by one to five decibel Ampere.

• The extension of capacity

Extended capacity range. A 30%(approx.) increase in static pressures and capacities gives the series extended application range, meaning cost saving where smaller models suffice.
It will make your initial cost reduce. The values of power for capacity range chart are calculated with the allowance of five percent for shaft brake horse power.

• FRP molded casing

Easy and economical maintenance work has been realized by employing FRP molded casing, excellent in corrosion resistance and endurance. Employing our own FRP-molding-technique has attained smooth-beautiful finished casing and quality preventing adherence of scale and dirt.

• Quality maintenance

Equipping open-close inspection window at the upper part of belt-guard facilitates interior check. Easy maintenance has attained by equipping the inspection window for model FTF-303 & FTF-403 casing.

MODEL FTF-MD

MOTOR DIRECT DRIVE

MODEL FTF-MC

COUPLING-DRIVE

• Inverter-compatible

The inverter is provided to cover a wide range of revolutions and capacities. It provides the same coverage as a belt-driven type. The inverter provides superb operational control and significant energy efficiency. This model is designed so that operation can continue with a commercial power source if the inverter fails.

• Greatly reduced maintenance requirements

The design eliminates burdensome monitoring, replacement, and tension adjustments and the like associated with V-belts. The only consumable part is the motor bearing, which provides a longer service life because the impeller mass represents the only radial load. The long life reduces running costs.

• Ease of maintenance

The casing is provided with a large opening offering easier access for casing inspection and impeller cleaning.

• Back pullout system (Model FTF-MD)

Models FTF503–803 are provided with a back pullout system that enables removal of the impeller together with the motor, suction duct, and discharge duct. This system facilitates maintenance and rapid parts replacement. The impeller can also be removed from the suction side.

• Space-saving design (Model FTF-MD)

Elimination of the space required for the belt and belt-drive system results in an even smaller footprint.

• Choose an electric motor to achieve targeted performance.

For Models FTF503–803, either MD or MC types, you can select a specific model of motor from a specific manufacturer. Choose either a general-purpose or universal motor.

Typical applications:

- As a corrosive gas fan/blower in a chemical or pharmaceutical plant
- As a corrosive gas fan/blower for emissions treatment equipment and gas absorbing towers
- As a corrosive gas fan/blower in a sewage plant and a human-waste treatment plant
- As a corrosive gas fan/blower in a semiconductor fabrication plant
- As a fan /blower to eliminate coastal salt pollution

NSF/CTF FEATURES

FRP SIROCCO FAN
MODEL NSF

• Round suction and discharge flange of identical size

The adoption of round flanges of identical dimension on both the suction and discharge openings has greatly enhanced piping in comparison with the conventional square flanges. Moreover, easy sleeve piping is now possible due to the fact that a duct flange can be employed as a companion flange on fans with a flange size of 500A or less.

• Excellent corrosion resistance

•Casing
FRP material having outstanding chemical resistance has been employed. Besides being rigid against external impact, it has a higher working temperature range than PVC, and has the added advantage of being lighter than metal casing.
•Impeller
While, integral models have been employed in the fabrication of the impellers of NSF-302~402 models which have superb chemical resistance and enhanced mechanical strength.

• Wider capacity range

In comparison with our conventional models, higher static pressure and extended gas volume range achieved with the new model NSF make them more economical.

Model NSF Sirocco Fan is made of the thick FRP sheets offering great safe and mechanical strength. The indented round shape of the suction and discharge opening facilitates connection of the fan to a duct.

MEDIUM-PRESSURE FRPP CENTRAL DISCHARGE TURBOFAN
MODEL CTF

• Turbofan with standardized central discharge

The use of clockwise rotation alone for central discharge reduces the number of rotating discharge directions to three compared with the six directions available with conventional models. This eliminates troublesome selection of the discharge direction. What's more, both the suction and discharge flanges are round and of the same size, simplifying duct alignment. The layout of the fan is similar to that of elbow piping.

• Ease of maintenance

An easily removable suction cone is provided that allows for simple removal of the impeller through effortless disconnection of the duct on the suction side. Both checking and cleaning of the inside of the casing and replacement of the impeller can be performed with ease.

• Excellent corrosion resistance

FRP impellers made with special resin under our proprietary new manufacturing technology ensures that the turbofan can be used for almost all chemical and gas applications except for those involving solvents and organic compounds.

Model CTF has an excellent reputation for outstanding value and energy efficiency in medium-pressure-range (1.0–2.0 kPa) applications. This new model features an FRPP central discharge casing offering corrosion resistance and high mechanical strength. As a result, it is easier to operate and maintain.

Typical applications:

- As a corrosive gas fan/blower in a chemical or pharmaceutical plant
- As a draft chamber fan/blower in a chemical laboratory treating various gases
- As a fan/blower in a biotechnology research laboratory or experimental semiconductor laboratory
- As fan/blower in kitchen facilities
- As an odorous gas fan/blower in a sewage treatment facility
- As a fan /blower to eliminate coastal salt pollution

FTE FEATURES

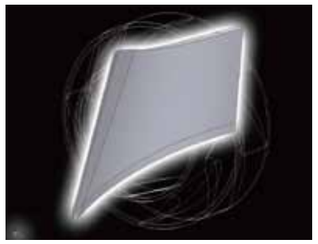
Reducing CO_2 Emissions with Our New Energy-Efficient Fans

FRP TURBO ECONOMICAL FAN
NEW *MODEL* FTE

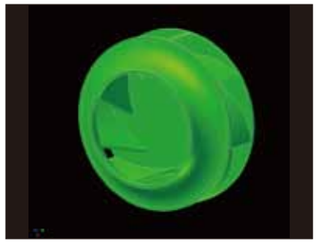
At Seikow, we were the first in Japan to develop economical corrosion-resistant fans. We also recognized that an optimized airstream is essential for improving the performance of fans. We therefore employed fluid design analysis based on computational fluid dynamics (CFD) to develop impeller blades with the ideal hydrofoil profile. This approach enabled us to successfully develop an optimized impeller shape.
This innovative impeller design features enhanced efficiency and reduced noise in operation. What's more, it has enabled us to develop our new Model FTE economical corrosion-resistant fans offering significant energy efficiency while reducing CO_2 emissions.

Model FTE251 ▶

■3D CAD image of impeller



■ Impeller blade



■ 3D CAD image of impeller

CFD-based analysis has enabled us to optimize blade geometry. The result is an airfoil impeller blade that provides higher efficiency while reducing noise.

We were the first in the industry to adopt oil-lubricated bearings, which enable the Model FTF corrosion-resistant fan to provide continuous long-term operation under severe conditions. Many of our customers consider this the ideal fan. This new and evolutionary Model FTE offers all the excellent features of our conventional Model FTF along with additional eco-friendly features.

■ Belt guard with inspection door

■ Oil-lubricated bearings (cutaway view)

■ Inspection port (Model FTE301)

■ Cleaning port (Model FTE401)

• Improved Performance

The new model exceeds the total pressure efficiency of earlier models by up to 12% while reducing noise levels by 1 to 5 dB(A).

• FRP Molded Parts

The fan's main components are made of highly durable corrosion-resistant FRP, ensuring easy, low-cost maintenance. We produce our FRP parts with a proprietary mechanical molding technology noted for producing a high-quality smooth surface finish that is highly resistant to the accumulation of scale and dirt.

• Increased Capacity

Thanks to the significant increase in static pressure and air capacity ranges, this model is compatible with an even wider range of applications. This model can be used to replace older and larger models for the same application, decreasing initial costs. The selection table shows the shaft power within a 5% margin.

• Backward Compatibility

For assured compatibility, Model FTE has dimensions identical to those of the preceding Model FTF-III. Thus, you can increase performance simply by replacing the impeller and suction cone.

FTB・FTB-CL FEATURES

FRP TURBO BLOWER

MODEL FTB

• Oil lubricated bearing unit

The bearing unit has a high attrition rate. Use of oil lubrication has made possible safe and uninterrupted operation. Oil lubrication ensures

a. Improved lubrication.
b. Leak-proof shaft sealing construction prevents infiltration of dirt and water from the exterior.
c. Easy inspection maintenance.
d. Easy alignment.
e. Elimination of arduous grease replacement.

• Corrosion resistance enhancement attachment

The casing/bracket attachment method employed plays an essential role in enhancing corrosion resistance. Corrosion resistance has been further bolstered through the elimination of pin holes by adopting an exterior casing attachment instead of the insert or overlay method.

• Pursuit of total safety

a. The FRP molded belt cover ensures safety during operation.
b. The inspection window equipped belt cover facilitates check against belt looseness.
c. Casing inspection of interior of fan.

Model FTB FRP Turbo Blower can solve problems involving corrosion resistance to acids and alkalis, humidity, polluted air and so forth.

Typical applications:

- As a corrosive gas fan/blower in a chemical or pharmaceutical plant
- As a corrosive gas fan/blower for emissions treatment equipment and gas absorbing towers
- As a corrosive gas fan/blower in a sewage plant and a human-waste treatment plant
- As a corrosive gas fan/blower in a semiconductor fabrication plant
- As a fan /blower to eliminate coastal salt pollution

Model FTB-CL is the optimal blower for sending high-concentration gaseous chlorine.

MODEL FTB-CL

Model FTB-CL blower was developed in order to correspond to high-concentration chlorine. This blower has adopted the impeller made from titanium, and the casing made from FRP in order to bear gaseous chlorine with high corrosiveness. Also, the water-seal type gland sealing is adopted to prevent a gas leak completely.

FTW FEATURES

FRP DOUBLE-IMPELLER BLOWER

MODEL FTW

Units compatible with one impeller can now house two impellers. The high-pressure blower can withstand static pressures exceeding 10 kPa. This high-pressure blower is made of highly corrosion-resistant FRP. The two-stage blower accommodates high static pressures that conventional blowers can match only when two units are connected in series. Three models are available to cover the high-static-pressure range in which blowers are frequently used.

• Reduced space requirements

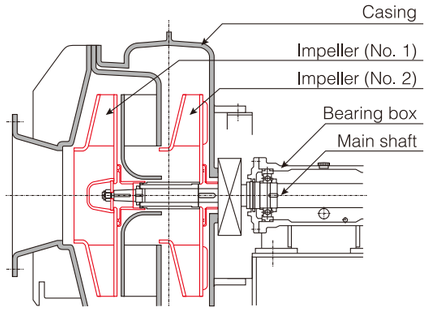
This model requires less installation space than is typically required by two blowers connected in series. This results in simple, streamlined piping layouts.

• Reduced installation costs

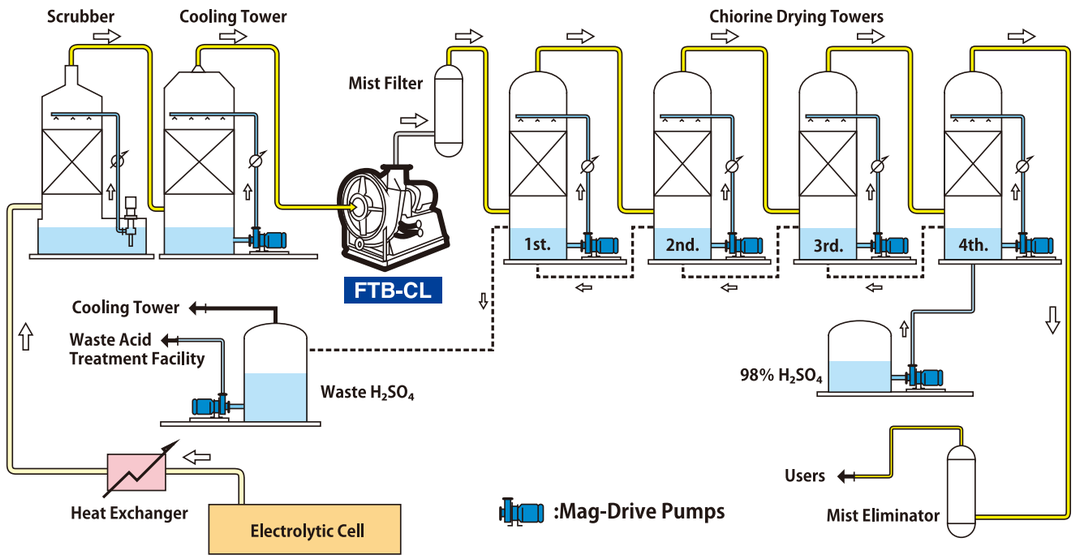
The cantilevered structure allows for installation identical to that of a conventional blower. In addition, it requires only the same noise reduction measures required for a single unit, thus reducing the installation cost below that required for two units connected in series.

• Ease of maintenance

Because this direct-drive unit requires no V-belt link to the motor, it eliminates tension adjustment and belt checking and replacement. The work required for operation and maintenance is similar to that required by a single unit; thus, time and cost are reduced.



The general process of chlorine refining



CORROSION RESISTANCE TABLE

unit : °F(℃)

Chemicals	Molecular Formula	Density Wt%	FTF/FTB	CTF 151～201 NSF302 ～*4SF802	CES 101～201	*4TB 1-50 ～ TB 1½-100	Classification
Hydrochloric Acid	HCl	20	176(80)	122(50)	122(50)	104(40)	Inorganic Acid Gases
Perchloric Acid	$HClO_4$	10	158(70)	122(50)	122(50)	104(40)	
Chromic Acid	H_2CrO_4	20	140(60)	122(50)*3	×	×	
Hydrofluosilic Acid	H_2SiF_6	10	140(60)	104(40)	104(40)*1	104(40)	
Hydrocyanic Acid	HCN	ALL	176(80)	122(50)	122(50)	104(40)	
Hydrobromic Acid	HBr	10	176(80)	122(50)	122(50)	104(40)	
Nitric Acid	HNO_3	10	158(70)	104(40)	122(50)	104(40)	
Fuming Sulfuric Acid	$H_2SO_4{\cdot}xSO_3$		×	×	×	×	
Hydrofluoric Acid	HF	1	158(70)	104(40)	×	104(40)	
Boric Acid	H_3BO_3	ALL	176(80)	122(50)	122(50)	104(40)	
Hydrofluoric Anhydride	HF		×	×	×	×	
Sulfuric Anhydride	SO_3		×	×	×	×	
Sulfuric Acid	H_2SO_4	40	176(80)	122(50)	122(50)	104(40)	
Phosphoric Acid	H_3PO_4	30	176(80)	122(50)	122(50)	104(40)	
Sulfurous Acid Gas	SO_2	25	176(80)	122(50)	122(50)	104(40)	
Carbon Monoxide	CO		176(80)	122(50)	122(50)	104(40)	
Chlorine Gas	Cl_2	5	176(80)	122(50)	×	104(40)	
Ozone	O_3	10ppm	122(50)	122(50)	122(50)	104(40)	
Bromine	Br_2		×	×	×	×	
Nitrogen Oxide	NOx	5	176(80)	122(50)	122(50)	104(40)	
Hydrogen Sulfide	H_2S	10	176(80)	122(50)	122(50)	104(40)	
Acrylic Acid	CH_2=CHCOOH	10	122(50)	122(50)	×	×	Organic Acid Gases
Adipic Acid	$(CH_2)_4(COOH)_2$	23	176(80)	122(50)	122(50)	104(40)	
Oleic Acid	$C_{17}H_{33}COOH$	ALL	176(80)	122(50)	122(50)	104(40)	
Formic Acid	HCOOH	10	158(70)	122(50)	122(50)	104(40)	
Citric Acid	$C_3H_4(OH)(COOH)_3$	25	176(80)	122(50)	122(50)	104(40)	
Glycolic Acid	$CH_2OHCOOH$	30	122(50)	122(50)	122(50)	104(40)	
Acetic Acid	CH_3COOH	25	176(80)	122(50)	122(50)	104(40)	
Acetic Anhydride	$(CH_3CO)_2O$		×	×	×	×	
Oxalic Acid	$(COOH)_2$	20	176(80)	122(50)	122(50)	104(40)	
Tartaric Acid	$(CHOHCOOH)_2$	ALL	176(80)	122(50)	122(50)	104(40)	
Stearic Acid	$C_{17}H_{35}COOH$	ALL	176(80)	122(50)	122(50)	104(40)	
Tannic Acid	$C_{13}H_9O_7COOH$	ALL	176(80)	122(50)	122(50)	104(40)	
Thioglycolic Acid	$HSCH_2COOH$	ALL	×	×	×	×	
Lactic Acid	$CH_3CH(OH)$ COOH	ALL	176(80)	122(50)	122(50)	104(40)	
Picric Acid	$C_6H_2(NO_2)_3OH$	1	104(40)	104(40)	122(50)	104(40)	
Benzene Sulfonic Acid	$C_6H_5SO_3H$	10	140(60)	122(50)	122(50)	104(40)	
Maleic Acid	$(CHCOOH)_2$	ALL	176(80)	122(50)	122(50)	104(40)	
Monochloroacetic Acid	$CH_2ClCOOH$	25	104(40)	104(40)	122(50)	104(40)	
Benzoic Acid	C_6H_5COOH	ALL	176(80)	122(50)	122(50)	104(40)	
Butyric Acid	C_3H_7COOH	5	176(80)	122(50)	122(50)	104(40)	
Ammonia (gas)	NH_3	ALL	86(30)	86(30)	122(50)	104(40)	Alkalis
Ammonium Hydroxide	NH_4OH	20	140(60)	122(50)	122(50)	104(40)	
Potassium Hydroxide	KOH	10	140(60)	122(50)	122(50)	104(40)	
Calcium Hydroxide	$Ca(OH)_2$	25	176(80)	122(50)	122(50)	104(40)	
Sodium Hydroxide	NaOH	25	140(60)	122(50)	122(50)	104(40)	
Barium Hydroxide	$Ba(OH)_2$	10	158(70)	122(50)	122(50)	104(40)	
Chlorine Water		Saturation	176(80)	×	×	×	Bleaches
Hydrogen Peroxide	H_2O_2	30	140(60)	122(50)	×	104(40)	
Hypochlorous Acid	HClO	10	140(60)	122(50)	122(50)*2	104(40)	
Calcium Hypochlorit	$Ca(ClO)_2$	ALL	140(60)	122(50)	122(50)*2	104(40)	
Sodium Hypochlorite	NaClO	15	140(60)	122(50)	122(50)*2	104(40)	
Chlorine Dioxide	ClO_2	15	176(80)	122(50)	×	104(40)	

- Numbers shown in the table are the applicable temperature.
- Numbers in parenthesis are the applicable temperature at normal conditions.

Note1: Be careful when choosing CES101～201 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.

Note4: Model SF and TB series are not published in this catalog.

*For models NSF302～SF802 there is a corresponding CRS model exclusively for chromic acid use.

Solvent, Heat and Acid resistant specification
Chromic acid resistant specification
Hypochlorous acid specification
Hydroflouric acid specification
× Separately can be handled with the CRS model.

unit : °F(℃)

Chemicals	Molecular Formula	Density Wt%	FTF/FTB	CTF 151～201 NSF302 ～*4SF802	CES 101～201	*4TB 1-50 ～ TB 1½-100	Classification
Sodium Nitrite	$NaNO_2$	ALL	176(80)	122(50)	122(50)	104(40)	Salts
Sodium Sulfite	Na_2SO_3	ALL	176(80)	122(50)	122(50)	104(40)	
Aluminum Chloride	$AlCl_3$	ALL	176(80)	122(50)	122(50)	104(40)	
Ammonium Chloride	NH_4Cl	ALL	176(80)	122(50)	122(50)	104(40)	
Calcium Chloride	$CaCl_2$	ALL	176(80)	122(50)	122(50)	104(40)	
Ferric Chloride	$FeCl_3$	ALL	176(80)	122(50)	122(50)	104(40)	
Copper Chloride	$CuCl_2$	ALL	176(80)	122(50)	122(50)	104(40)	
Nickel Chloride	$NiCl_2$	ALL	176(80)	122(50)	122(50)	104(40)	
Barium Chloride	$BaCl_2$	ALL	176(80)	122(50)	122(50)	104(40)	
Potassium Permanganate	$KMnO_4$	10	176(80)	122(50)	×	104(40)	
Potassium Dichromate	$K_2Cr_2O_7$	20	176(80)	122(50)	×	×	
Potassium Bicarbonate	$KHCO_3$	50	176(80)	122(50)	122(50)	104(40)	
Ammonium Nitrate	NH_4NO_3	ALL	176(80)	122(50)	122(50)	104(40)	
Silver Nitrate	$AgNO_3$	ALL	176(80)	122(50)	122(50)	104(40)	
Sodium Carbonate	Na_2CO_3	35	176(80)	122(50)	122(50)	104(40)	
Magnesium Carbonate	$MgCO_3$	ALL	158(70)	122(50)	122(50)	104(40)	
Sodium Sulfide	Na_2S	ALL	176(80)	122(50)	122(50)	104(40)	
Zinc Sulfide	$ZnSO_4$	ALL	176(80)	122(50)	122(50)	104(40)	
Ammonium Sulfide	$(NH_4)_2SO_4$	20	176(80)	122(50)	122(50)	104(40)	
Potassium Sulfide	K_2SO_4	ALL	176(80)	122(50)	122(50)	104(40)	
Ferric Sulfide	$Fe(SO_4)_3$	ALL	176(80)	122(50)	122(50)	104(40)	
Copper Sulfide	$CuSO_4$	ALL	176(80)	122(50)	122(50)	104(40)	
Magnesium Sulfide	$MgSO_4$	ALL	176(80)	122(50)	122(50)	104(40)	
Acrylonitrile	CH_2=CHCN		×	×	×	×	Solvents & Organic Compounds
Acetaldehyde	CH_3CHO		×	×	×	×	
Acetonitrile	CH_3CN		×	×	×	×	
Acetophenone	$C_6H_5COCH_3$		×	×	×	×	
Acetone	CH_3COCH_3		×	×	×	×	
Aniline	$C_6H_5NH_2$		×	×	×	×	
Isopropylamine	$(CH_3)_2CHNH_2$	ALL	122(50)	122(50)	×	×	
Isopropyl Alcohol	$(CH_3)_2CHOH$	ALL	122(50)	122(50)	122(50)	68(20)	
Ethyl Alcohol	C_2H_5OH	50	122(50)	122(50)	122(50)	104(40)	
Ethyl Ether	$C_2H_5OC_2H_5$		×	×	×	×	
Ethylene Oxide	CH_2CH_2O		×	×	×	×	
Ethylene Glycol	$HOCH_2OH_2OH$	ALL	176(80)	122(50)	122(50)	104(40)	
Ethylene Chloride	$ClCH_2CH_2Cl$		×	×	×	×	
Methylene Chloride	CH_2Cl_2		×	×	×	×	
Gasoline		ALL	140(60)	122(50)	×	×	
Glycerin	$C_3H_5(OH)_3$	5	176(80)	122(50)	122(50)	104(40)	
Cresol	$CH_3C_6H_4OH$	5	×	×	122(50)	104(40)	
Chloroform	$CHCl_3$		×	×	×	×	
Ethyl Acetate	$CH_3COOC_2H_5$		×	×	×	×	
Methyl Acetate	CH_3COOCH_3		×	×	×	×	
Diethyl Ketone	$C_2H_5COC_2H_5$		×	×	×	×	
Dimethylamine	$(CH_3)_2NH$		×	×	×	×	
Ethyl Bromide	C_2H_5Br		×	×	×	×	
Trichlorobenzene	$C_6H_3Cl_3$		×	×	×	×	
Toluene	$C_6H_5CH_3$	ALL	122(50)	122(50)	×	×	
Naphtha		ALL	104(40)	104(40)	×	×	
Sulfur Dioxide	SCl_2		×	×	×	×	
Pyridine	C_5H_5N		×	×	×	×	
Phenol Sulfonic Acid	$C_6H_4(OH)(SO_3H)$		×	×	×	×	
Heptane	$CH_3(CH_2)_5CH_3$	10	140(60)	122(50)	122(50)	×	
Benzaldehyde	C_6H_5CHO		×	×	×	×	
Benzene	C_6H_6	ALL	122(50)	122(50)	×	×	
Formaldehyde	HCHO	10	158(70)	122(50)	122(50)	104(40)	
Methyl Alcohol	CH_3OH	50	122(50)	122(50)	122(50)	104(40)	

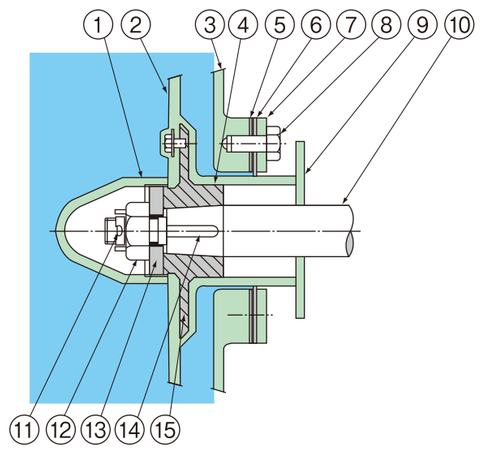
Solvent, Heat and Acid resistant specification
Chromic acid resistant specification
Hypochlorous acid specification
Hydroflouric acid specification
× Separately can be handled with the CRS model.

GLAND SEALING

①Seal-Plate Type

This is a shaft sealing device for our standard type of fans /blowers. There is no gas leakage from the gland part, where a shaft passes through, due to the effect by rear plate, even when a static pressure of the fan /blower up to 65% acts on the discharge-side. (Secondary air can be sucked in from the gland part, where a shaft passes through.) Even if a gas leakage should occur, this device minimizes a clearance of the gland part, resulting in a minimized gas leakage. No maintenance work will be required for a long time of operation.

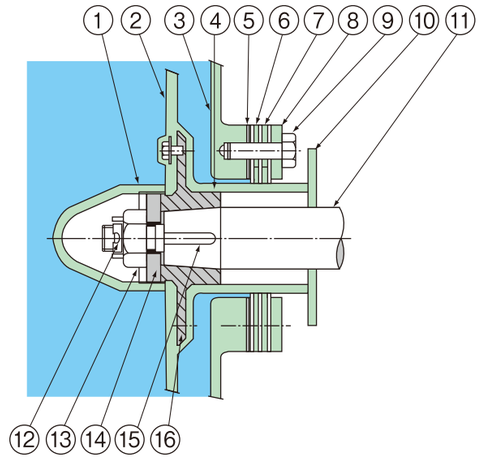
P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	Casing	1pc.
4	Shaft Sleeve	1pc.
5	Gland Gasket	1pc.
6	Seal Plate	1pc.
7	Seal Plate Tightener	1pc.
8	Gland Bolt	1set
9	Gas Separator	1pc.
10	Shaft	1pc.
11	Split Pin	1pc.
12	Nut (with Groove)	1pc.
13	Impeller Washer	1pc.
14	Impeller Key	1pc.
15	Impeller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



②Labyrinth-Seal Type

This device can be attached to our standard type of fans/blowers without any modifications. As in "Seal-Plate Type", there is no gas leakage from gland part, even when a static pressure of the fan/blower up to 65% acts on the discharge side. (Secondary air can be sucked in from the gland part, but its volume is smaller than in "Seal-Plate Type")
Also, A gas leakage, if any, will be less compared with the"Seal-Plate Type". No maintenance work will be required for a long time of operation.

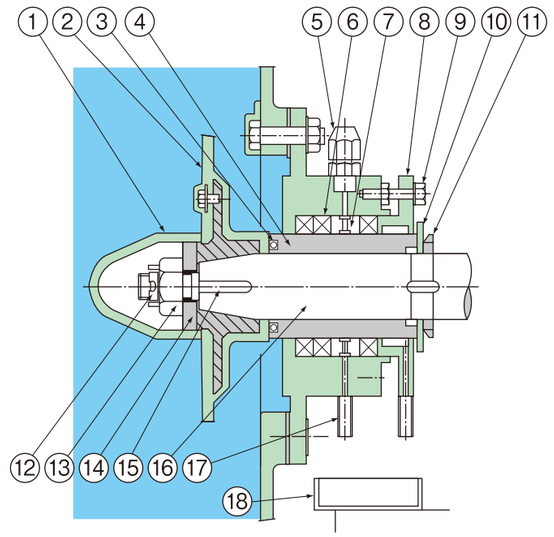
P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	Casing	1pc.
4	Shaft Sleeve	1pc.
5	Gland Gasket	1pc.
6	Spacer	1pc.
7	Seal Plate	1pc.
8	Seal Plate Tightener	1pc.
9	Gland Bolt	1set
10	Gas Separator	1pc.
11	Shaft	1pc.
12	Split Pin	1pc.
13	Nut (with Groove)	1pc.
14	Impeller Washer	1pc.
15	Impeller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



③Packing-Seal Type

This device can not be attached to our standard type of fans/blowers without any modifications. In this sealing device, gas sealing can be performed by a pressure of the packing and cooling water membrane. Materials of shaft sleeve should vary according to the gas handled. Periodical maintenance work such as tightening, replacement of the packing, etc. will be required.

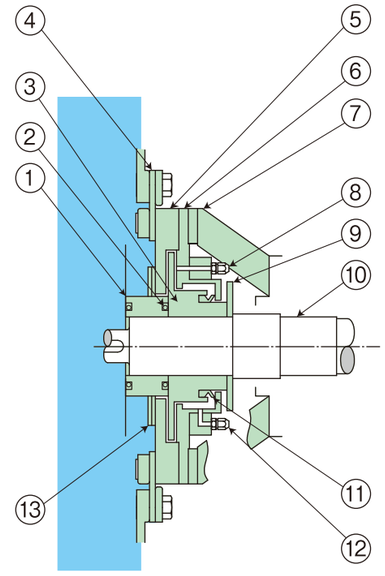
P/No.	Part Name	Qty.
1	Nut Cover	1pc.
2	Impeller	1pc.
3	O-Ring	1pc.
4	Shaft Sleeve	1pc.
5	Inlet Union	1pc.
6	Packing	1set
7	Lantern Ring	1pc.
8	Packing Tightener	1pc.
9	Tightening Bolt	1set
10	Gas Separator	1pc.
11	Shaft Sleeve Nut	1pc.
12	Split Pin	1pc.
13	Nut (with Groove)	1pc.
14	Inpeller Washer	1pc.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



④Water-Seal Type

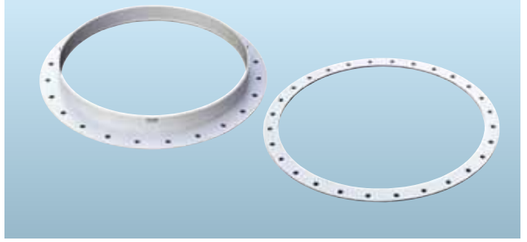
This device can not be attached to our standard type of fans/blowers without any modifications. In this sealing device, gas sealing can be performed by water membrane, generated by centrifugal force of the rotating impeller. Materials of shaft sleeve should vary according to the gas handled.
Unlike in"Packing-Seal Type", periodical maintenance work such as tightening and replacement of the packing, etc. will not be required. Since some types of gas combine with water, waste water treatment may be required.

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	1pc.
9	Water Separator	1pc.
10	Shaft	1pc.
11	V-Ring	1pc.
12	Outlet Union Seal	1set
13	Seal Plate	1set



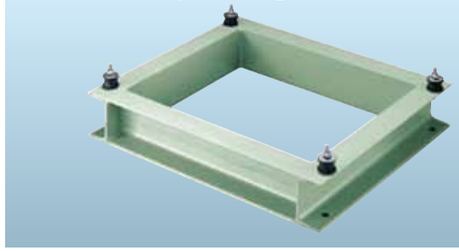
ACCESSORIES

Coupling Flange



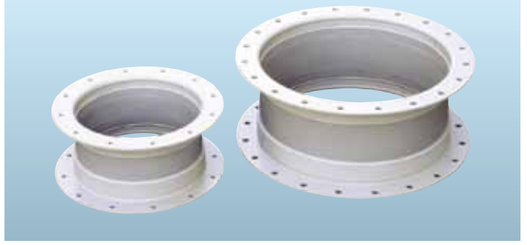
If your application uses PVC ducting, we can supply a set of coupling flanges with nuts and bolts on request. This set accommodates a maximum operating temperature of 122°F.

Vibration-proofing Rubber Frame



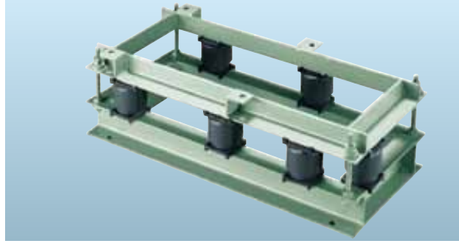
This frame dampens blower vibrations that are transferred to the floor. An optional vibration-resistant stopper bolt can be added. Consult us if you have predetermined the isolation efficiency, as the vibration-proofing rubber may not absorb the required amount of vibration.

Vibration Isolation Coupling



This coupling is used between the blower and duct to reduce the blower vibration transferred to the duct and to protect the blower against loads imparted from the duct. This coupling is a required item for blower piping.

Vibration Isolation Spring Frame



This frame dampens blower vibrations that are transferred to the floor. If you have predetermined the isolation efficiency, consult us regarding the choice of springs.

Damper

This manual FRP damper is installed between ducts to adjust airflow. Consult us if you require electrically controlled dampers.

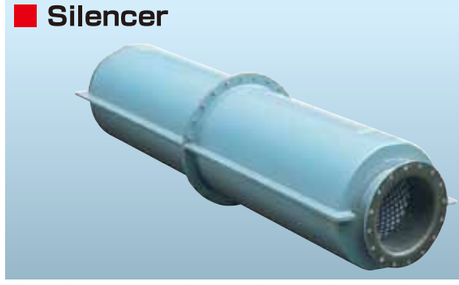
Soundproof Box

The soundproof box cuts noise originating at the blower, bearings, and motor that is transmitted through the casing. The box typically mutes the sound level by 19 to 23 dB(A) depending on the model and rpm. This accessory does not attenuate noise in the duct.

Ventilator

The ventilator is installed at the discharge ports of the blower and duct to prevent rain and snow ingress.

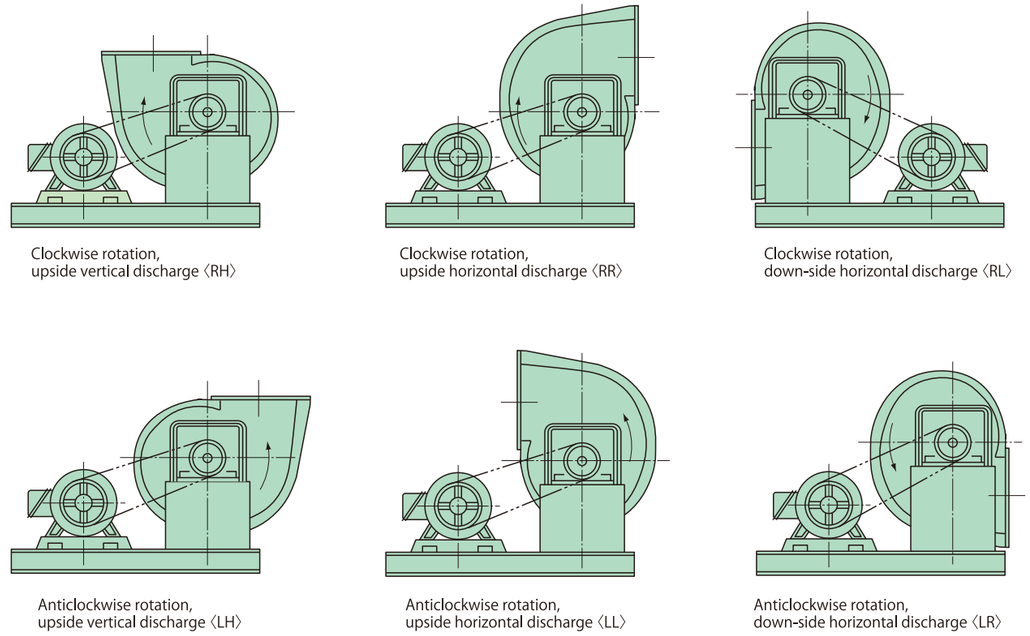
Silencer



The silencer can be used to reduce noise traveling through the suction and discharge ducts. It typically reduces sound levels by 15 to 25 dB(A) depending on the model and rpm.

DISCHARGE AND ROTATIONAL DIRECTIONS

The discharge and rotational directions of TEXEL corrosion resistant fans/blowers are shown in the following figures. They are shown from the pulley side or from the motor shaft end. For example, if it is“the clockwise rotation and upward vertical discharge”, denote it with “RH”.



Clockwise rotation,
upside vertical discharge〈RH〉

Clockwise rotation,
upside horizontal discharge〈RR〉

Clockwise rotation,
down-side horizontal discharge〈RL〉

Anticlockwise rotation,
upside vertical discharge〈LH〉

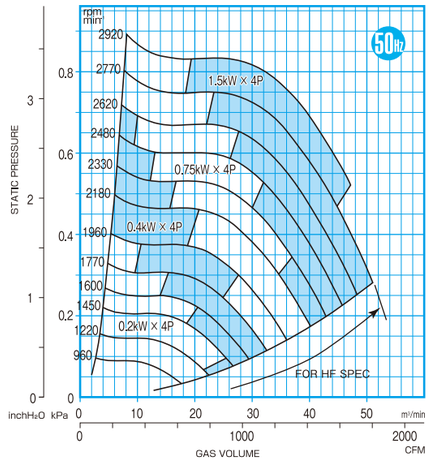
Anticlockwise rotation,
upside horizontal discharge〈LL〉

Anticlockwise rotation,
down-side horizontal discharge〈LR〉

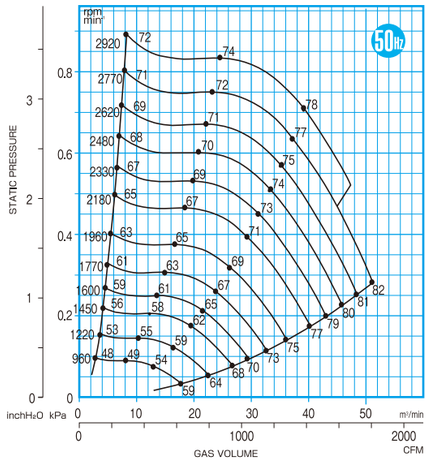
CES CAPACITY RANGE CHART

CES101

CAPACITY RANGE CHART

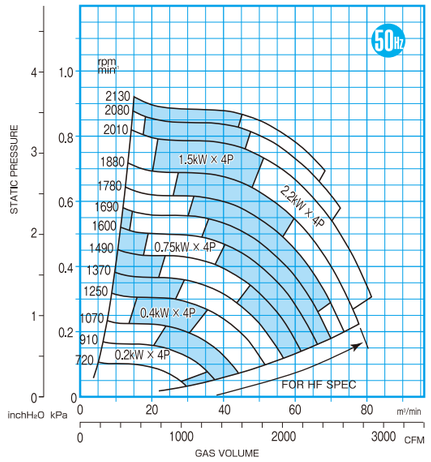


SOUND LEVEL

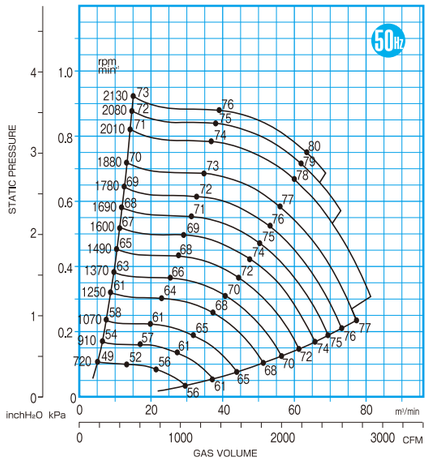


CES151

CAPACITY RANGE CHART

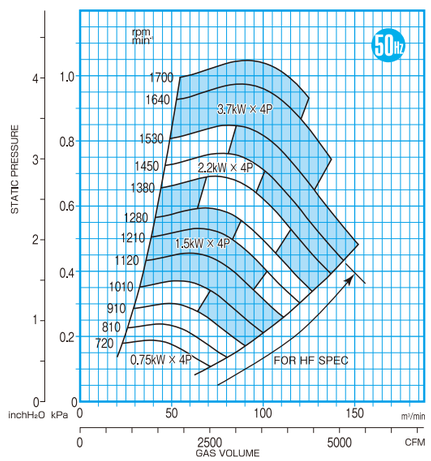


SOUND LEVEL

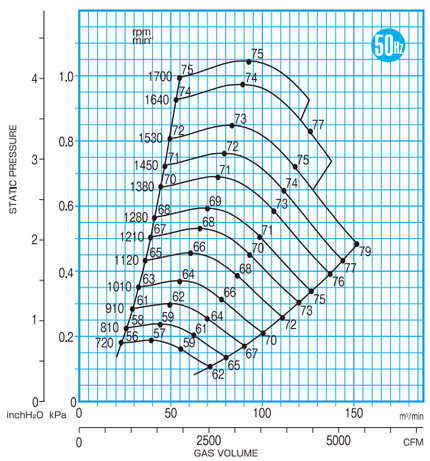


CES201

CAPACITY RANGE CHART

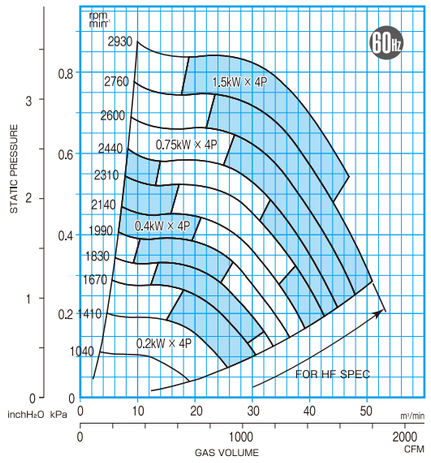


SOUND LEVEL

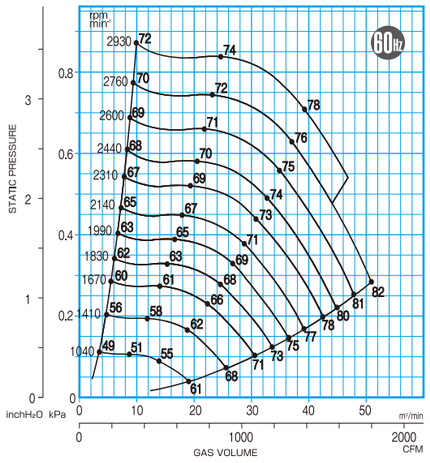


CES101

CAPACITY RANGE CHART

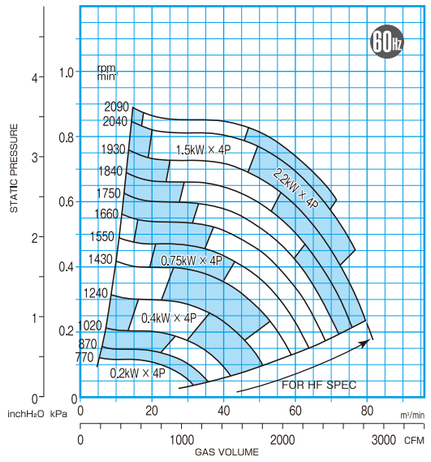


SOUND LEVEL

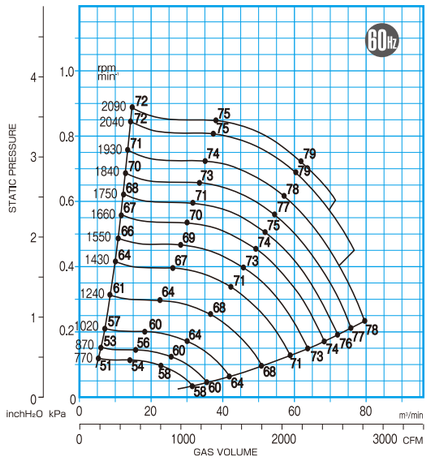


CES151

CAPACITY RANGE CHART

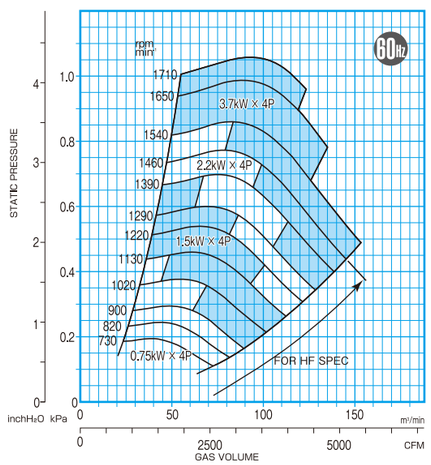


SOUND LEVEL

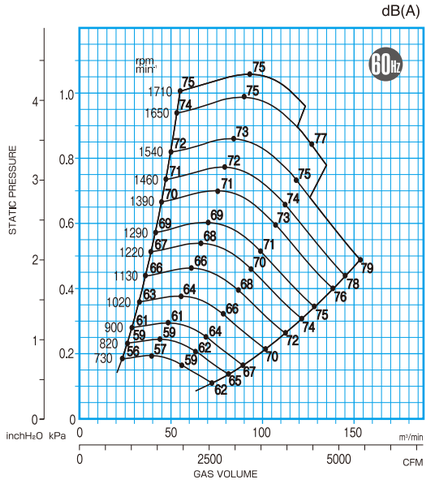


CES201

CAPACITY RANGE CHART



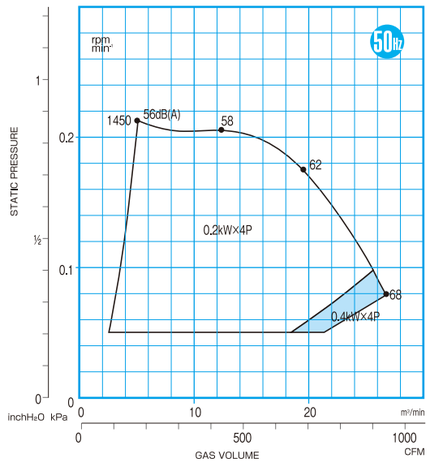
SOUND LEVEL



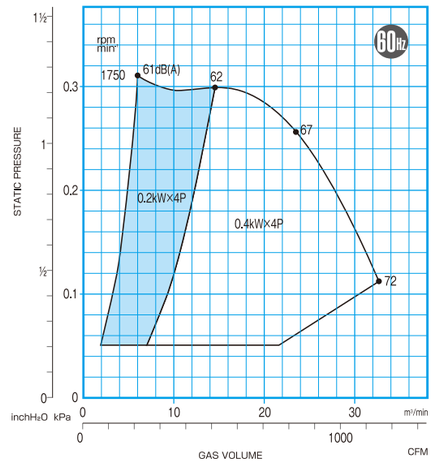
CES-D CAPACITY RANGE CHART

CES101D

CAPACITY RANGE CHART

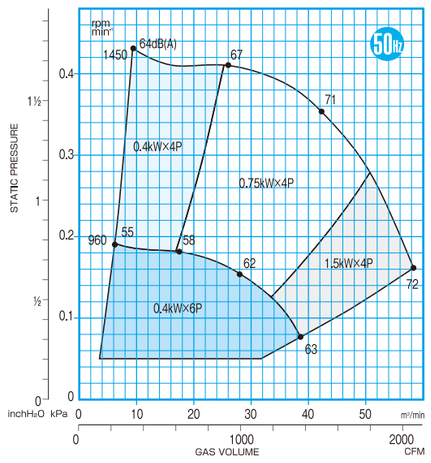


CAPACITY RANGE CHART



CES151D

CAPACITY RANGE CHART



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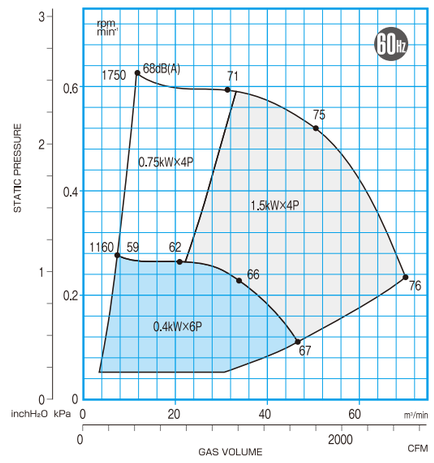
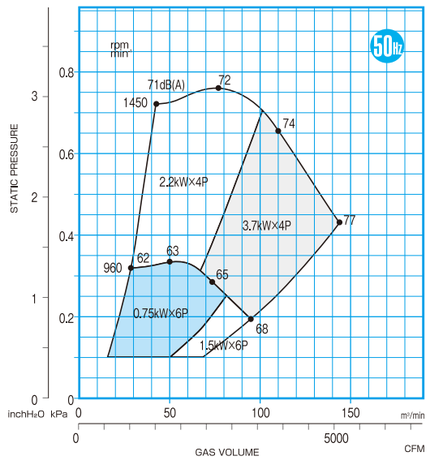
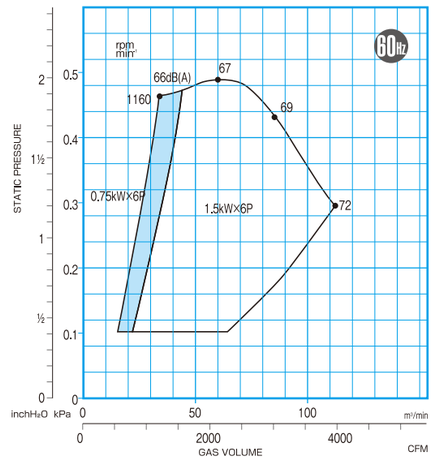


CES201D

CAPACITY RANGE CHART



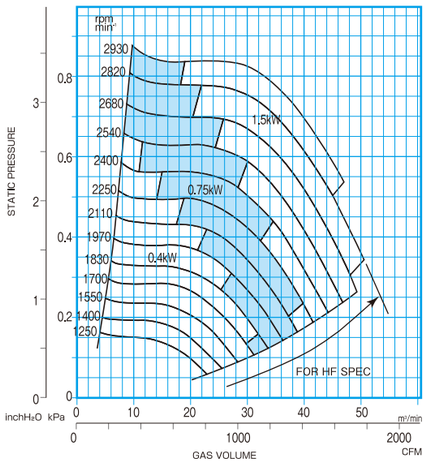
CAPACITY RANGE CHART



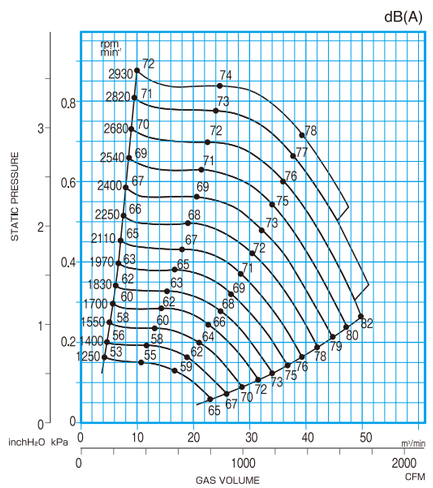
CES-V CAPACITY RANGE CHART

CES101V

CAPACITY RANGE CHART

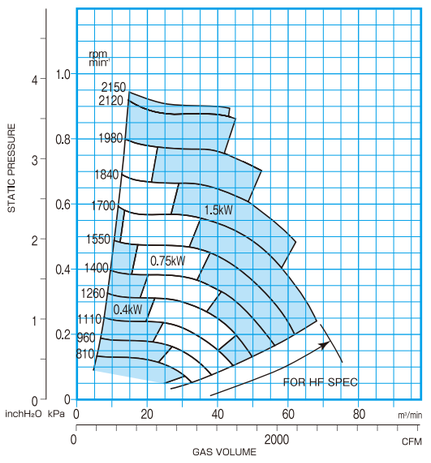


SOUND LEVEL

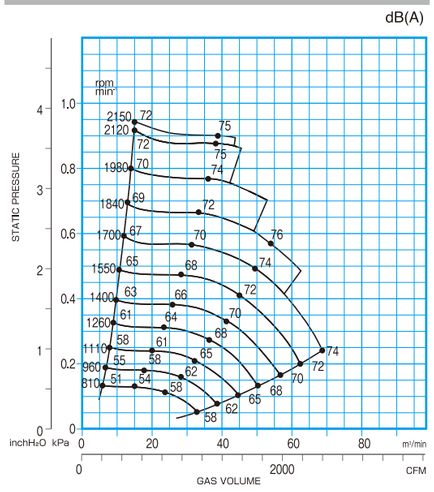


CES151V

CAPACITY RANGE CHART

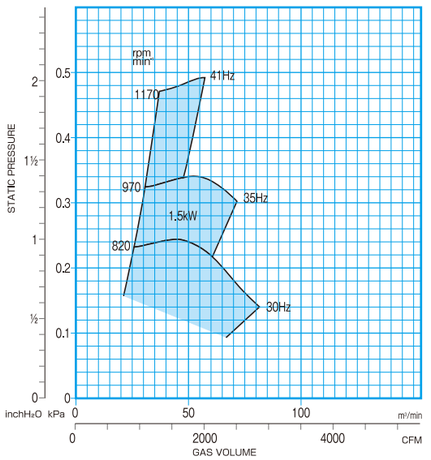


SOUND LEVEL

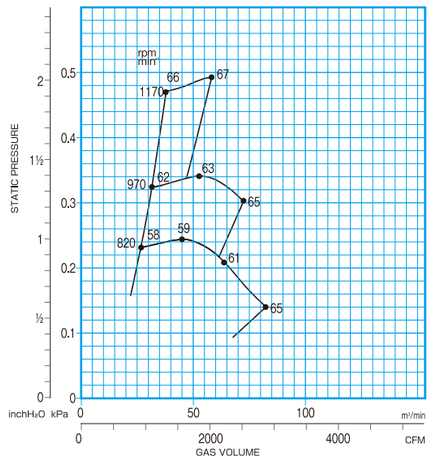


CES201V

CAPACITY RANGE CHART



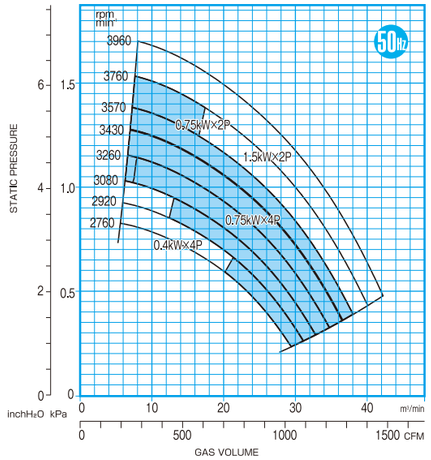
SOUND LEVEL



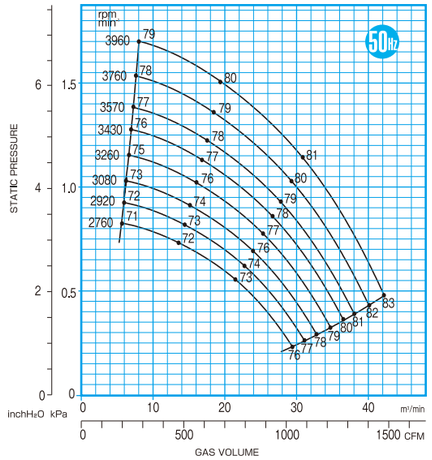
CTF/FTF 50Hz CAPACITY RANGE CHART

CTF151

CAPACITY RANGE CHART

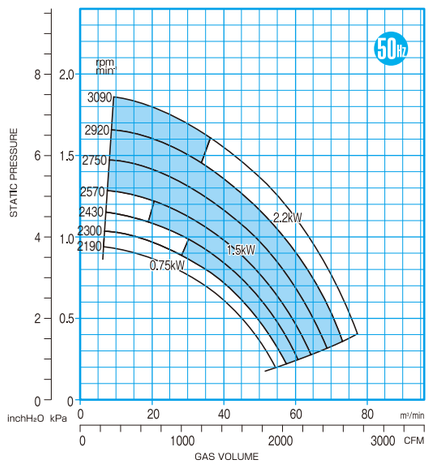


SOUND LEVEL

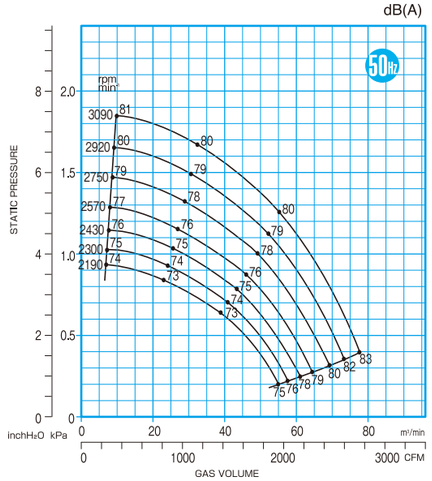


CTF201

CAPACITY RANGE CHART

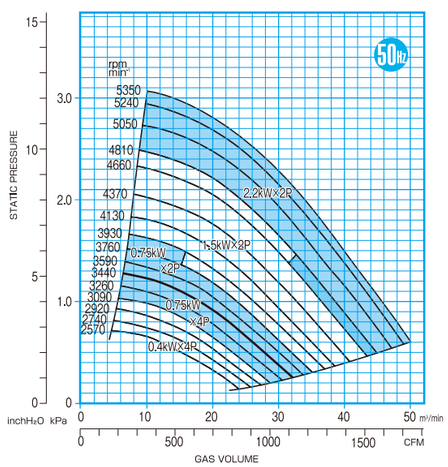


SOUND LEVEL

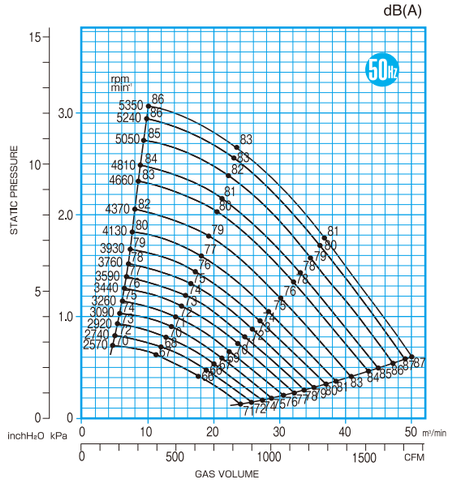


FTF153

CAPACITY RANGE CHART

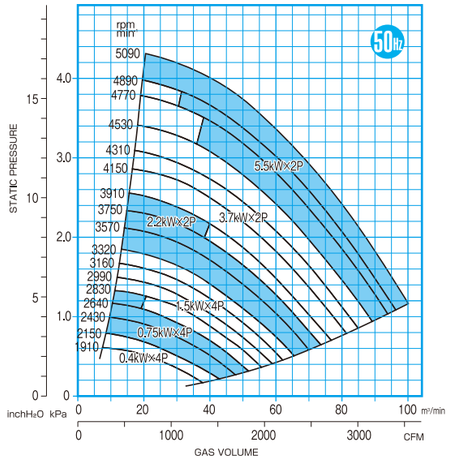


SOUND LEVEL

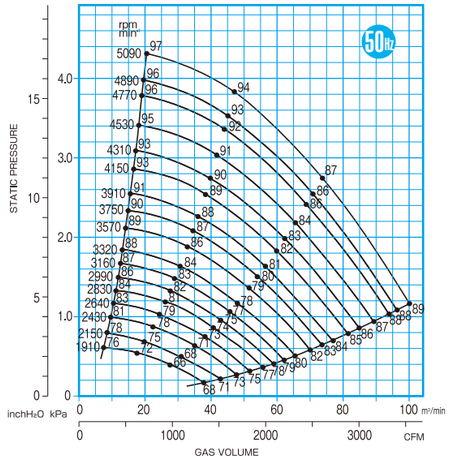


FTF203

CAPACITY RANGE CHART

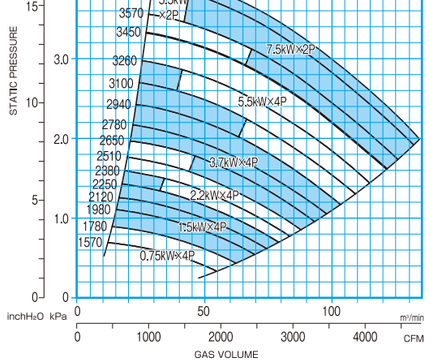


SOUND LEVEL

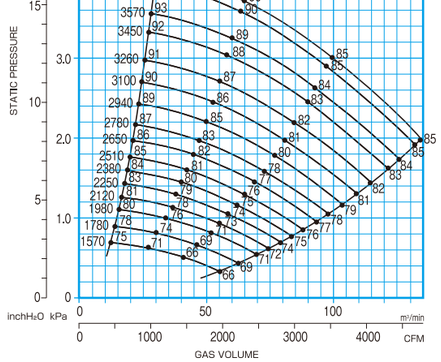


FTF253

CAPACITY RANGE CHART

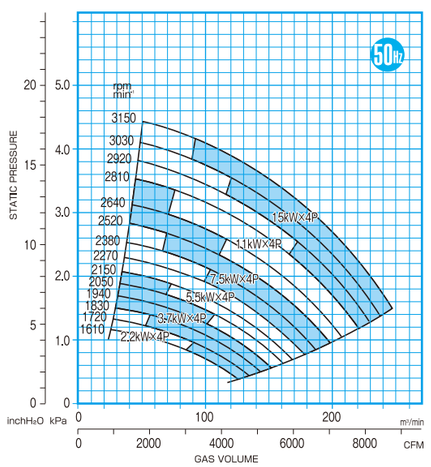


SOUND LEVEL

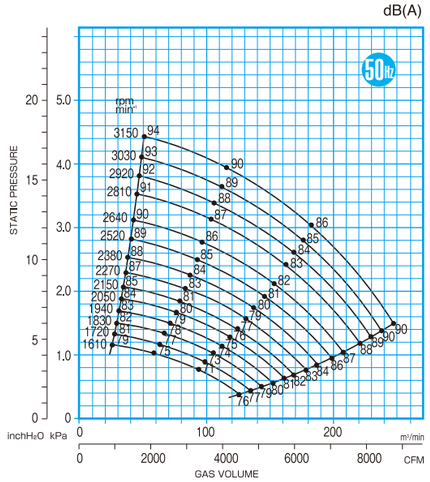


FTF303

CAPACITY RANGE CHART



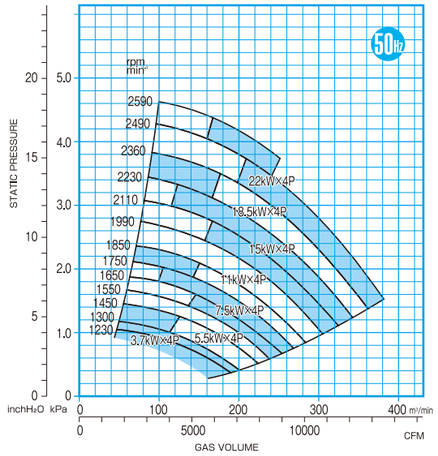
SOUND LEVEL



FTF 50Hz CAPACITY RANGE CHART

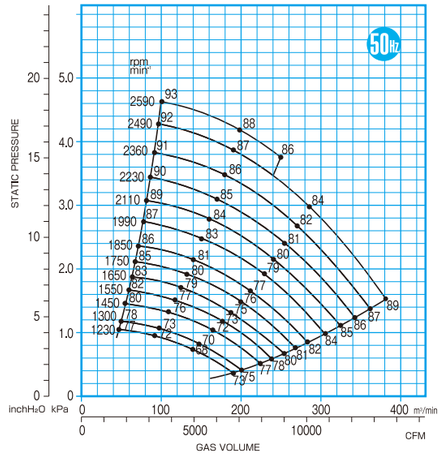
FTF403

CAPACITY RANGE CHART



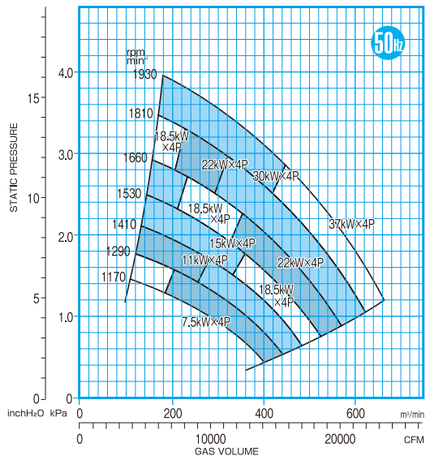
SOUND LEVEL

dB(A)



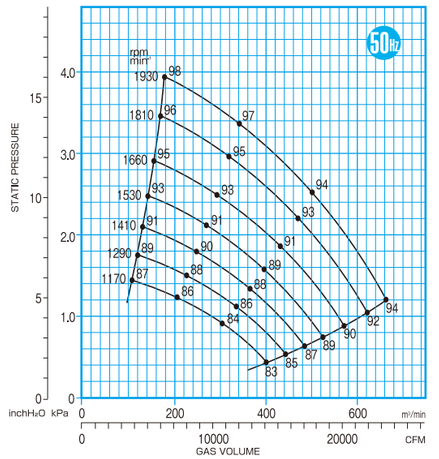
FTF503

CAPACITY RANGE CHART



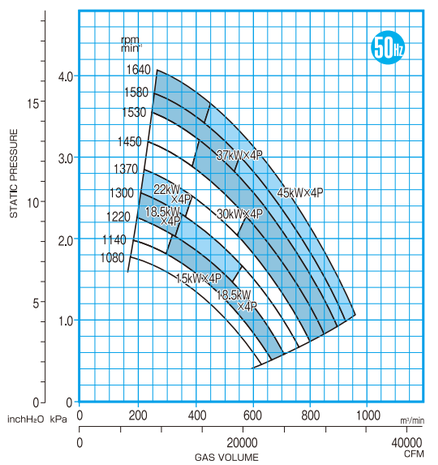
SOUND LEVEL

dB(A)



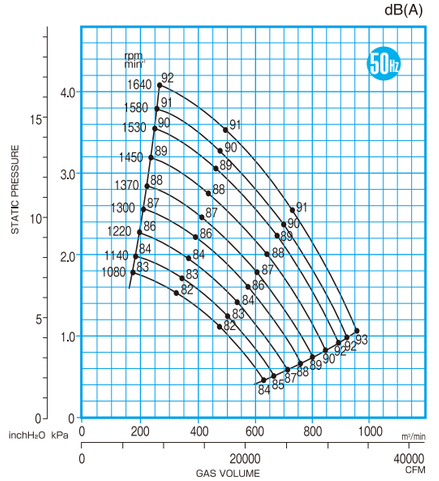
FTF603

CAPACITY RANGE CHART



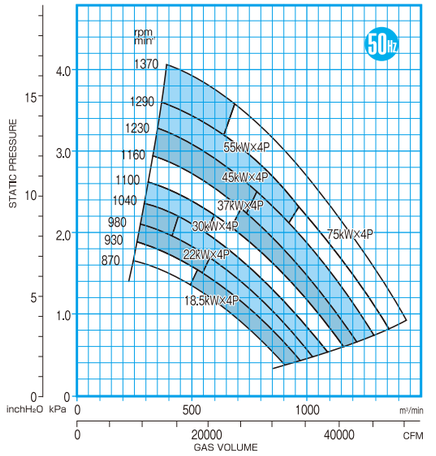
SOUND LEVEL

dB(A)



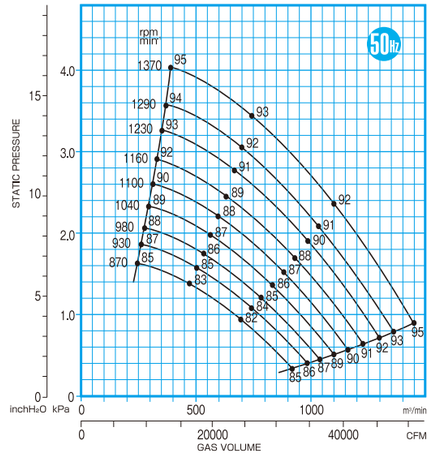
FTF703

CAPACITY RANGE CHART



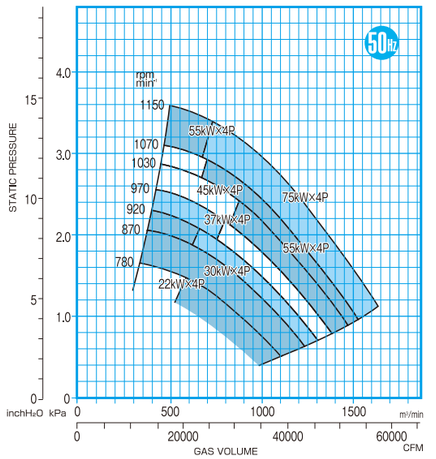
SOUND LEVEL

dB(A)



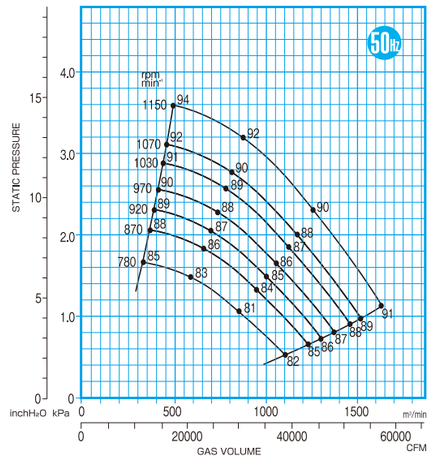
FTF803

CAPACITY RANGE CHART



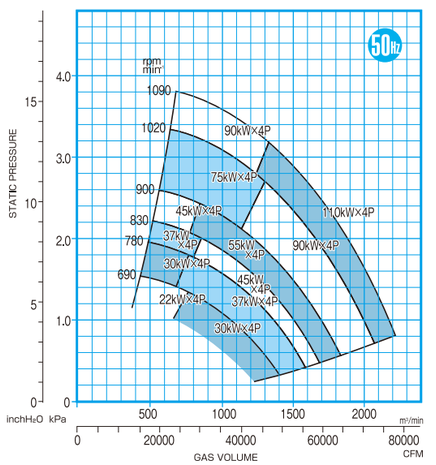
SOUND LEVEL

dB(A)



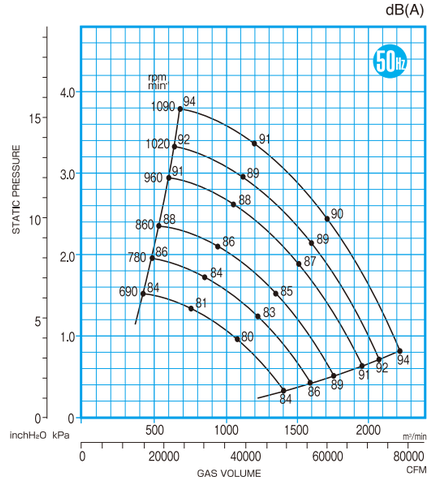
FTF903

CAPACITY RANGE CHART



SOUND LEVEL

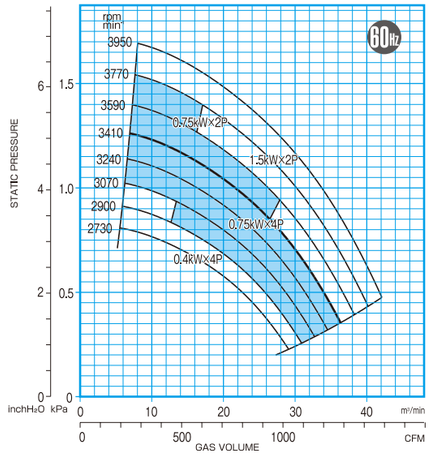
dB(A)



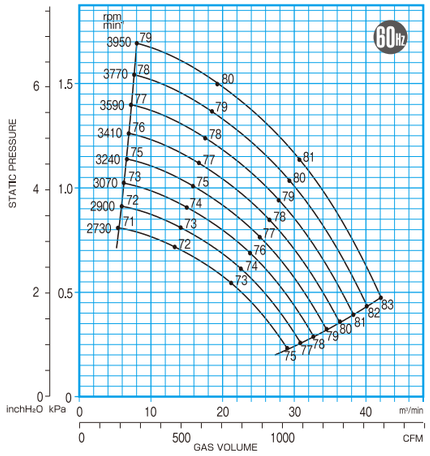
CTF/FTF 60Hz CAPACITY RANGE CHART

CTF151

CAPACITY RANGE CHART

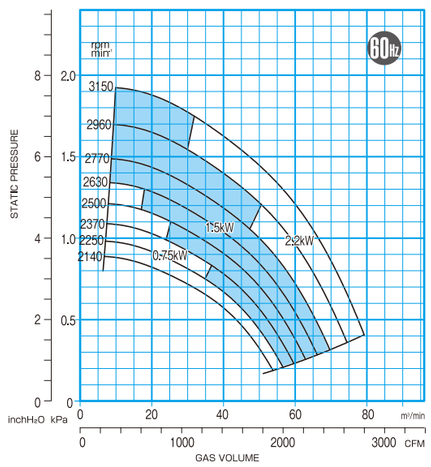


SOUND LEVEL

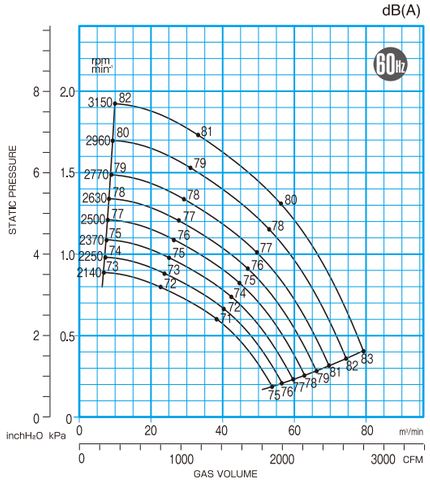


CTF201

CAPACITY RANGE CHART

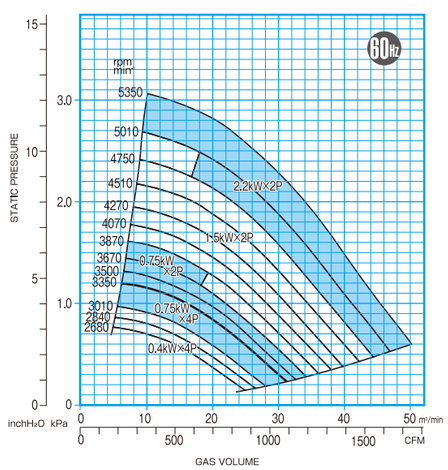


SOUND LEVEL

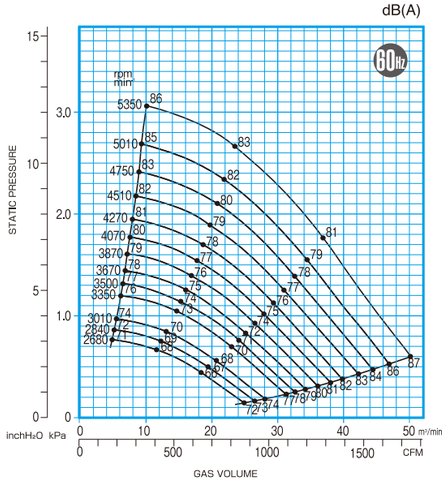


FTF153

CAPACITY RANGE CHART

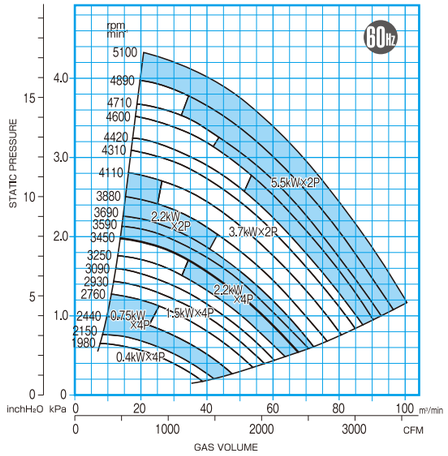


SOUND LEVEL

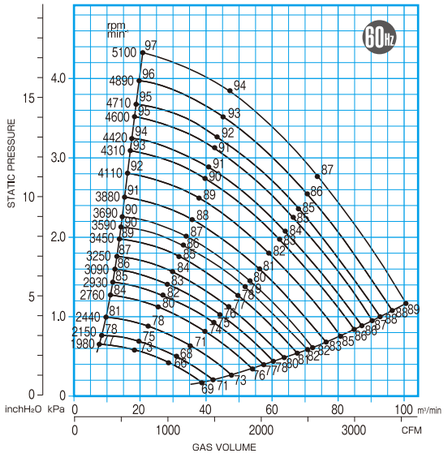


FTF203

CAPACITY RANGE CHART

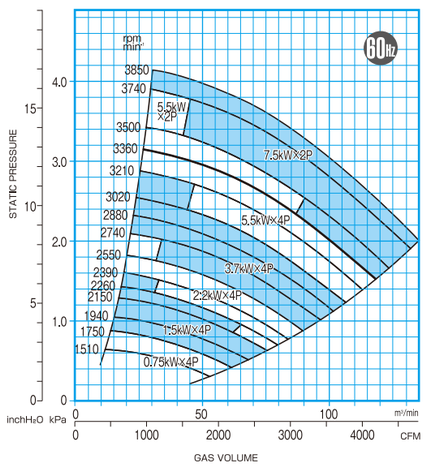


SOUND LEVEL

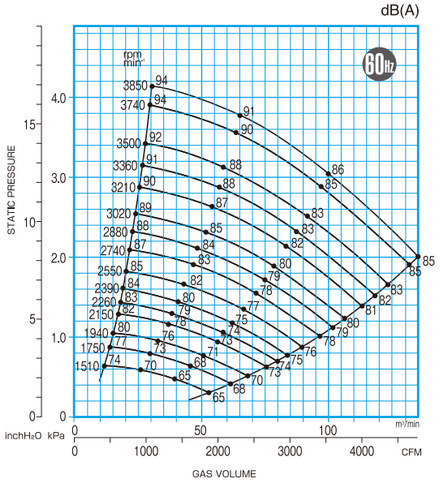


FTF253

CAPACITY RANGE CHART

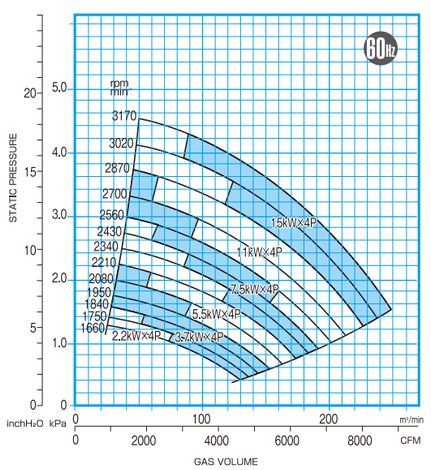


SOUND LEVEL

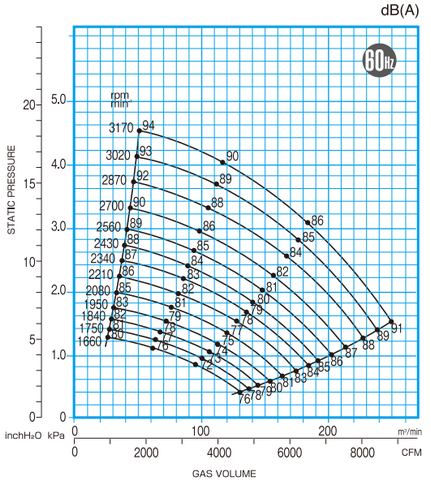


FTF303

CAPACITY RANGE CHART



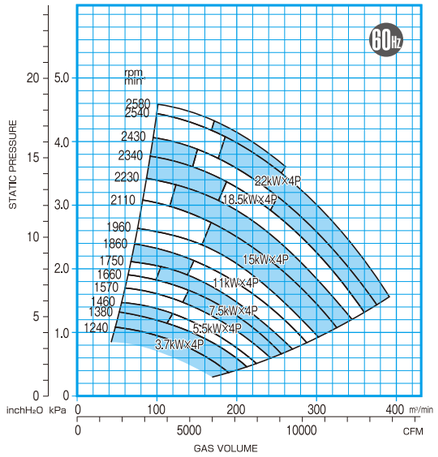
SOUND LEVEL



FTF 60Hz CAPACITY RANGE CHART

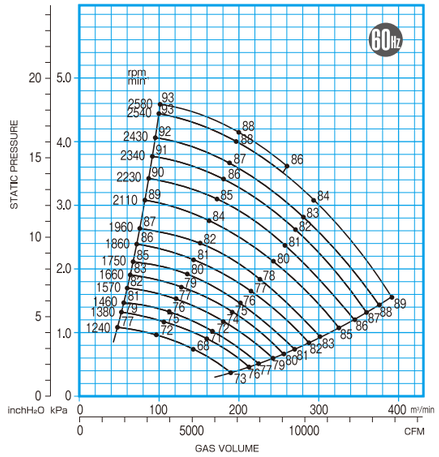
FTF403

CAPACITY RANGE CHART



SOUND LEVEL

dB(A)



FTF503

CAPACITY RANGE CHART

SOUND LEVEL

dB(A)

FTF603

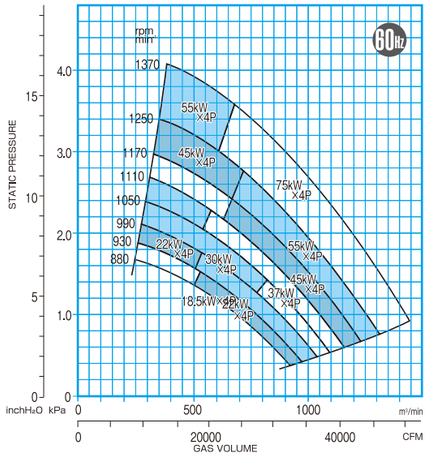
CAPACITY RANGE CHART

SOUND LEVEL

dB(A)

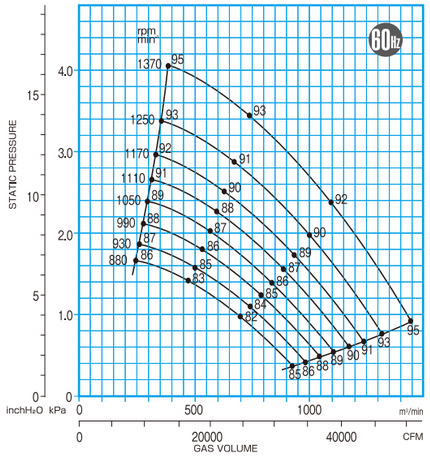
FTF703

CAPACITY RANGE CHART



SOUND LEVEL

dB(A)



FTF803

CAPACITY RANGE CHART

SOUND LEVEL

dB(A)

FTF903

CAPACITY RANGE CHART

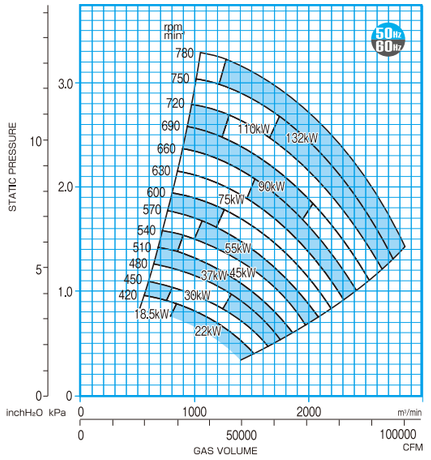
SOUND LEVEL

dB(A)

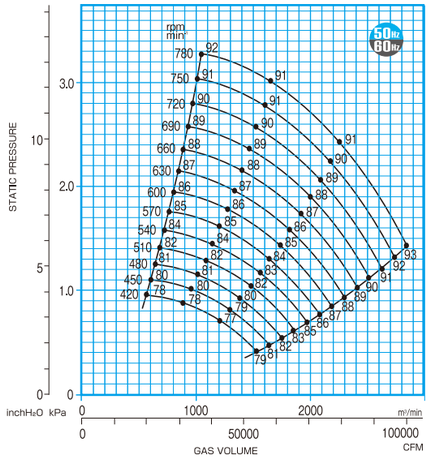
FTF 50/60Hz CAPACITY RANGE CHART

FTF1201

CAPACITY RANGE CHART

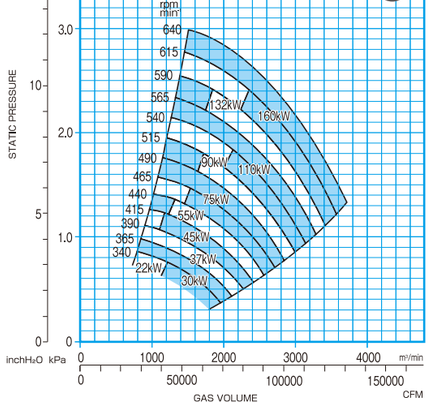


SOUND LEVEL

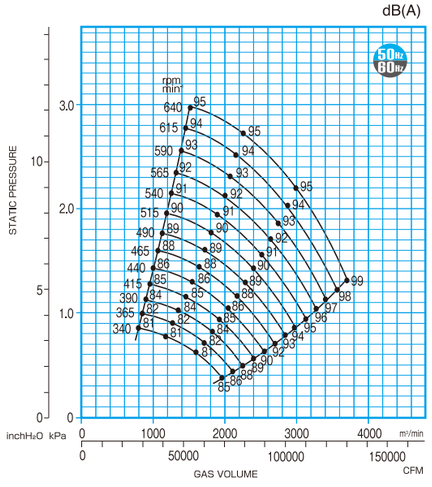


FTF1401

CAPACITY RANGE CHART



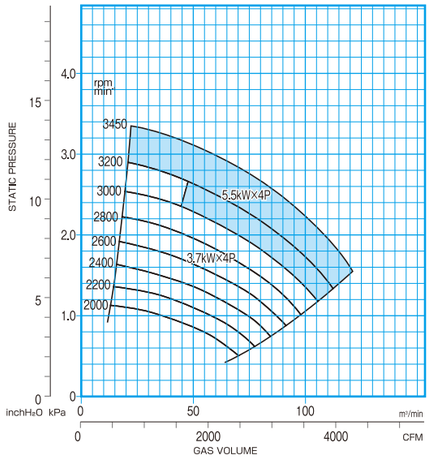
SOUND LEVEL



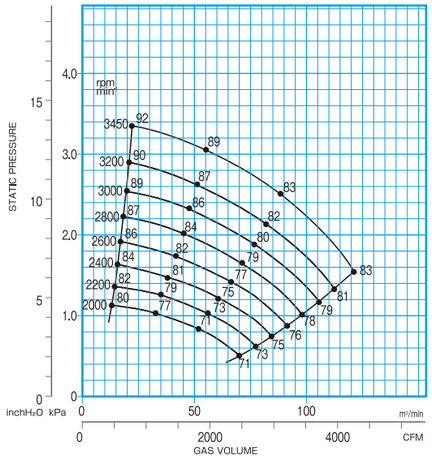
FTF-M CAPACITY RANGE CHART

FTF253M

CAPACITY RANGE CHART

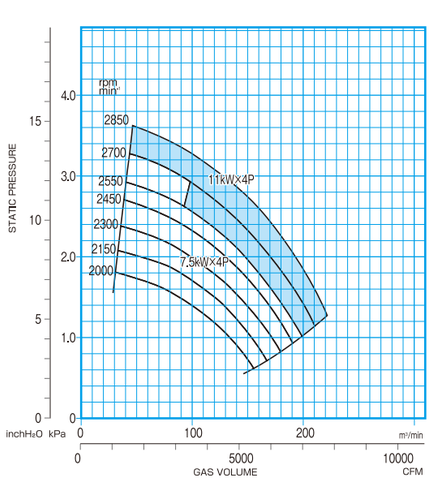


SOUND LEVEL

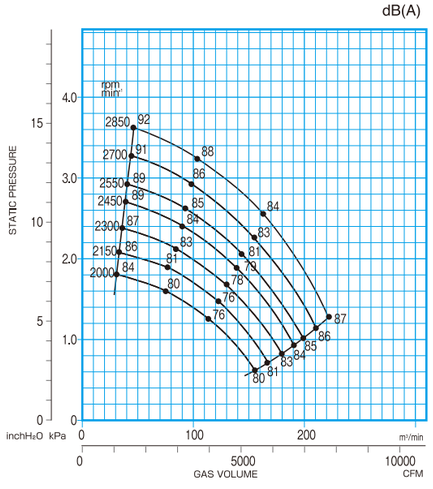


FTF303M

CAPACITY RANGE CHART

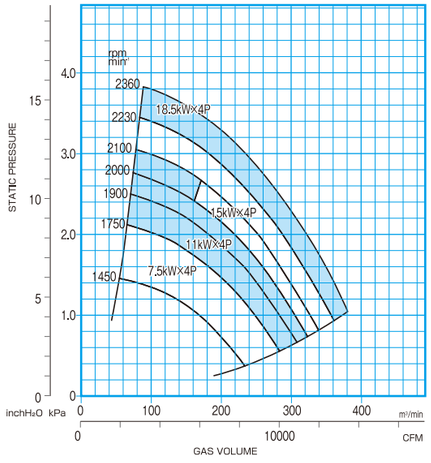


SOUND LEVEL

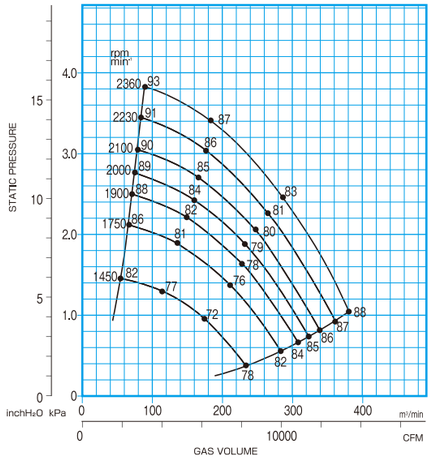


FTF403M

CAPACITY RANGE CHART



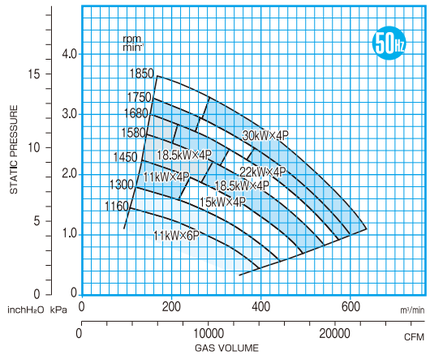
SOUND LEVEL



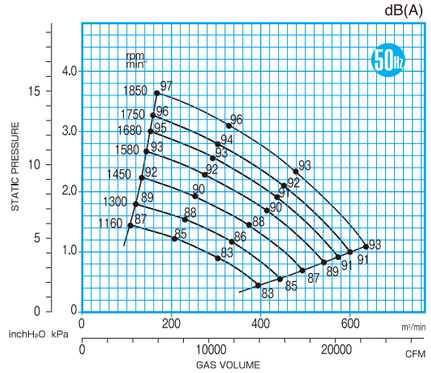
FTF-M CAPACITY RANGE CHART

FTF503M

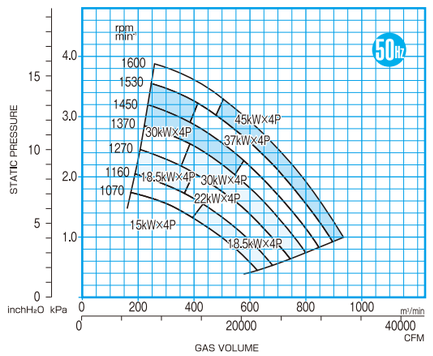
CAPACITY RANGE CHART

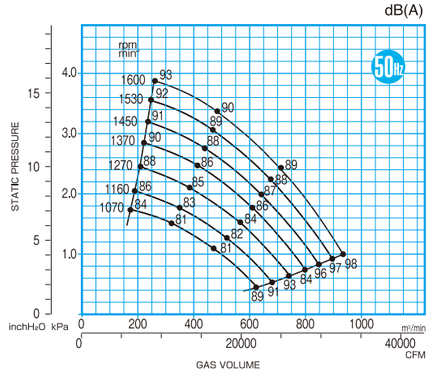


SOUND LEVEL

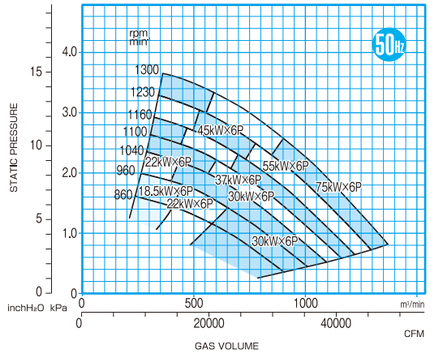


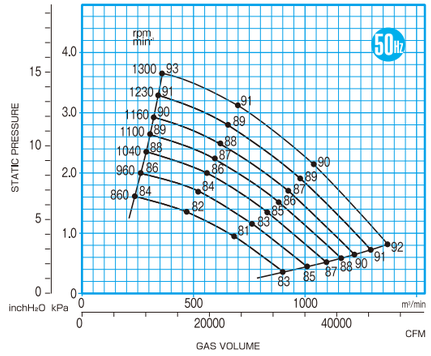
FTF603M



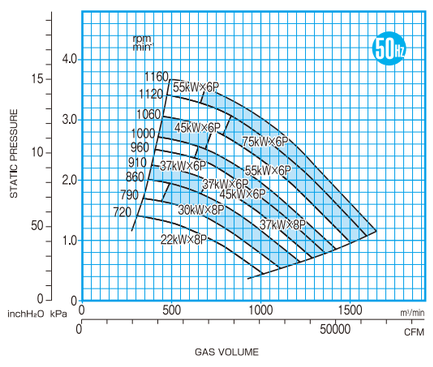


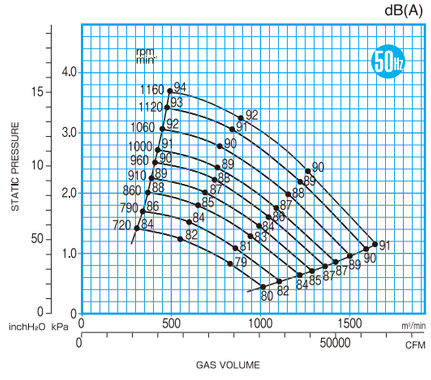
FTF703M





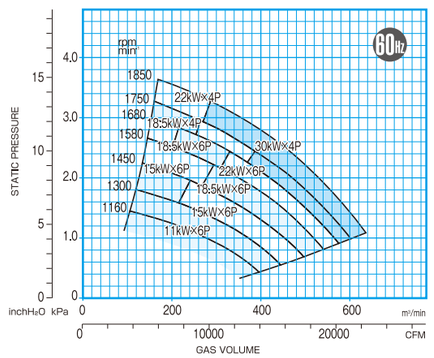
FTF803M



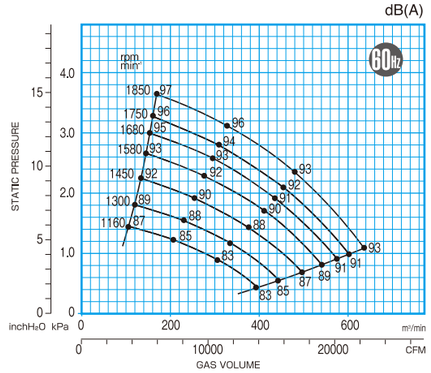


FTF503M

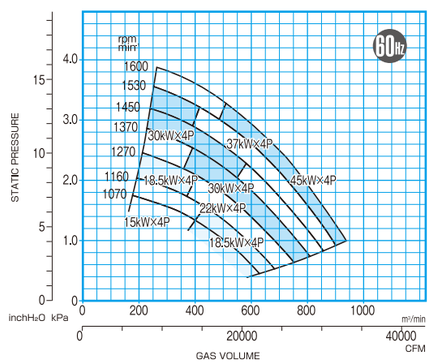
CAPACITY RANGE CHART

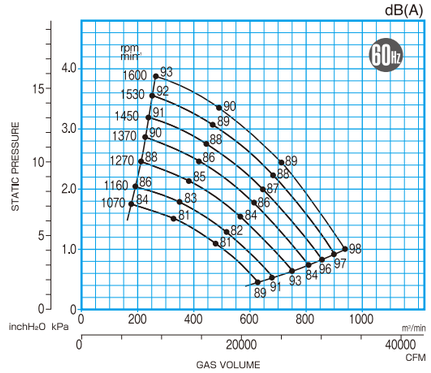


SOUND LEVEL

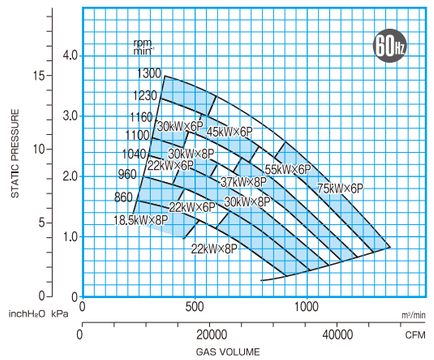


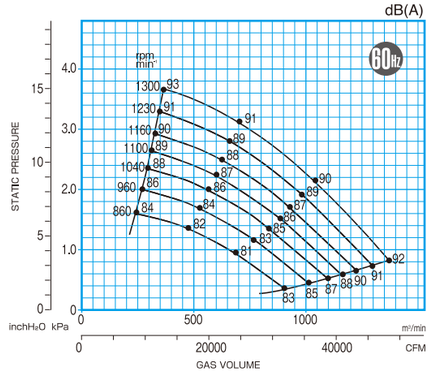
FTF603M





FTF703M





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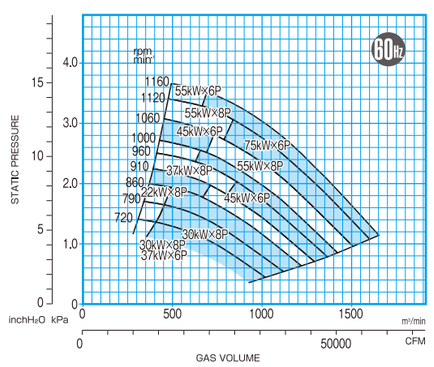
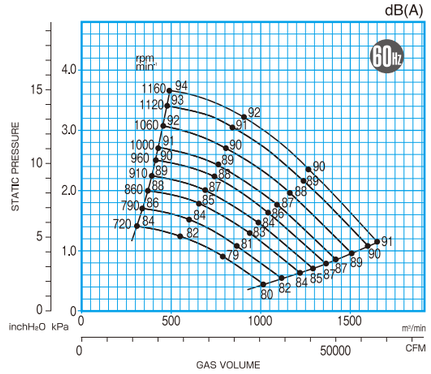
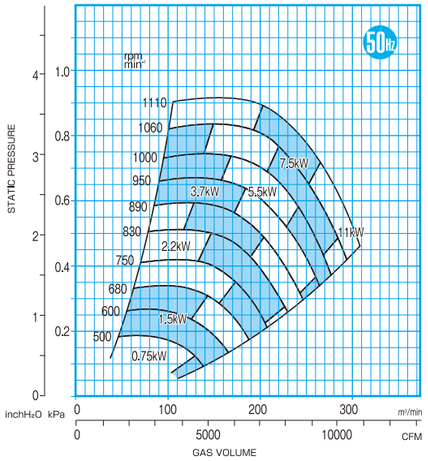




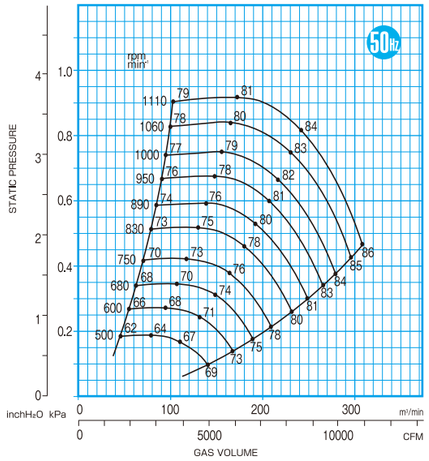
NSF CAPACITY RANGE CHART

NSF302

CAPACITY RANGE CHART

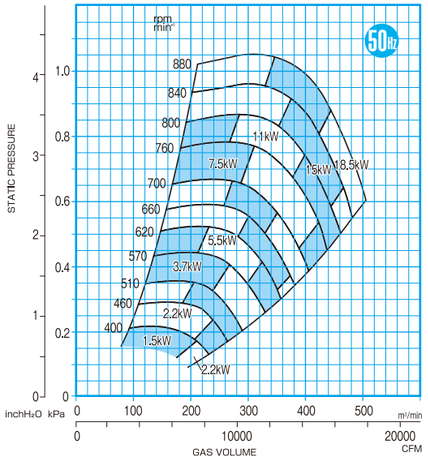


SOUND LEVEL

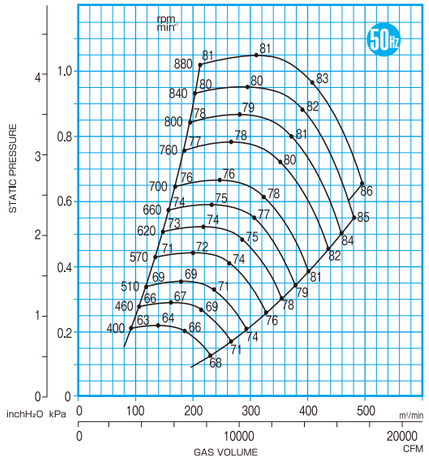


NSF402

CAPACITY RANGE CHART

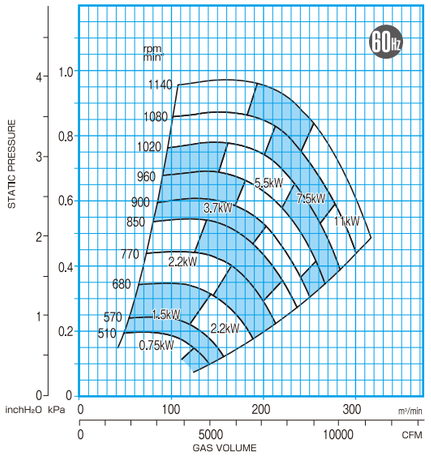


SOUND LEVEL

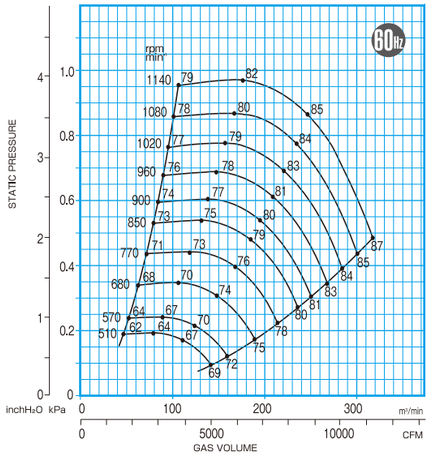


NSF302

CAPACITY RANGE CHART

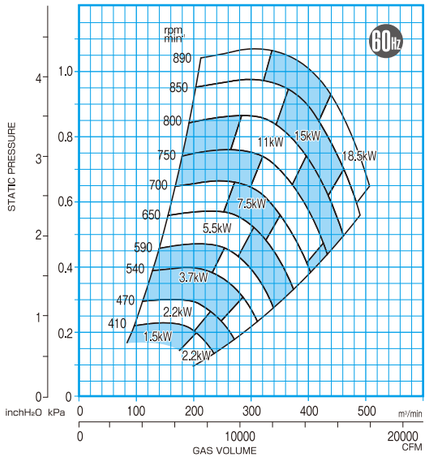


SOUND LEVEL

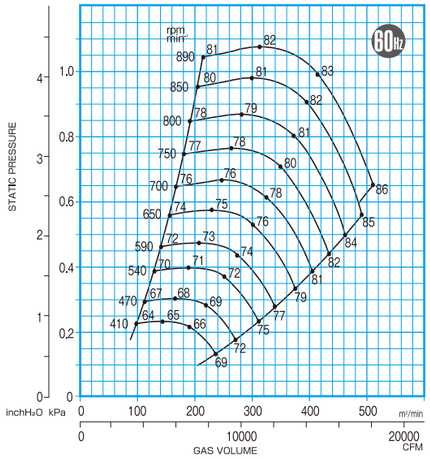


NSF402

CAPACITY RANGE CHART



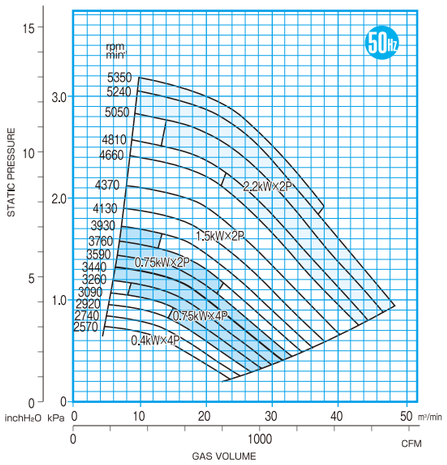
SOUND LEVEL



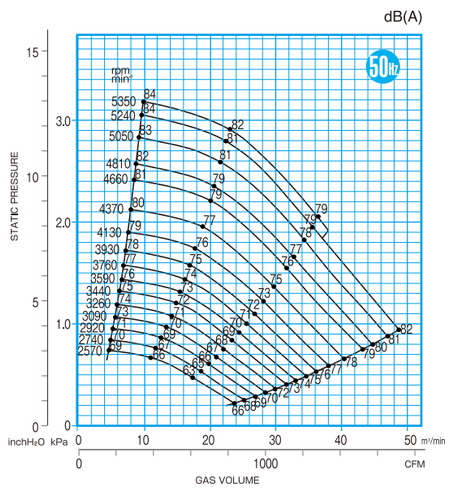
FTE CAPACITY RANGE CHART

FTE151

CAPACITY RANGE CHART

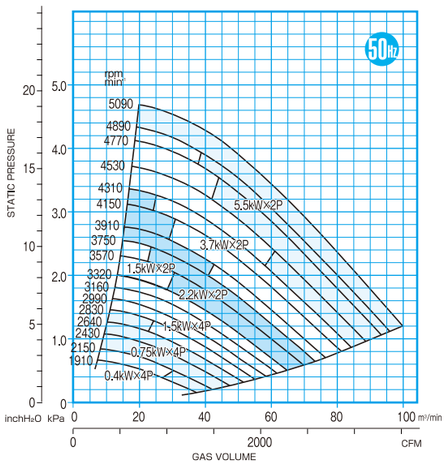


SOUND LEVEL

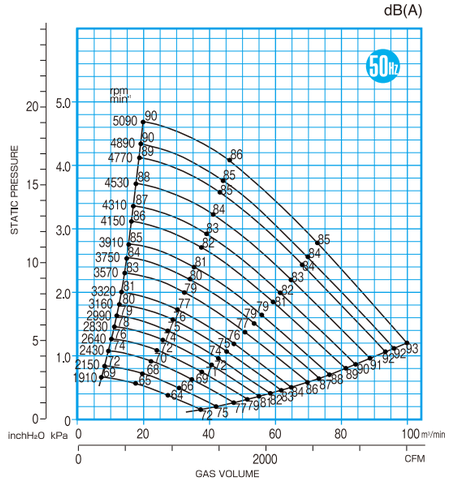


FTE201

CAPACITY RANGE CHART

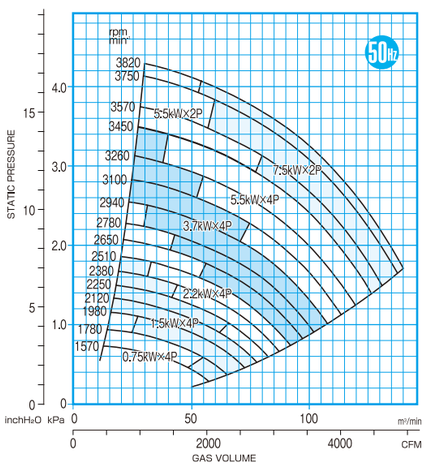


SOUND LEVEL

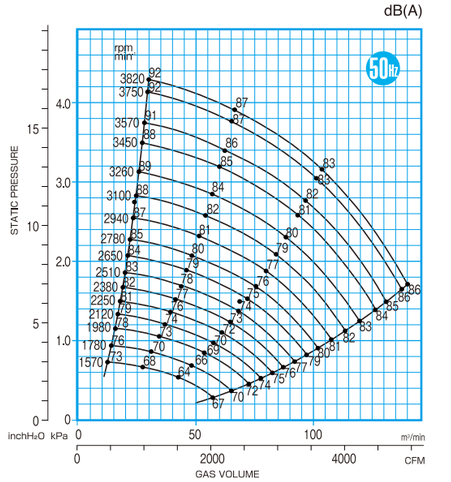


FTE251

CAPACITY RANGE CHART

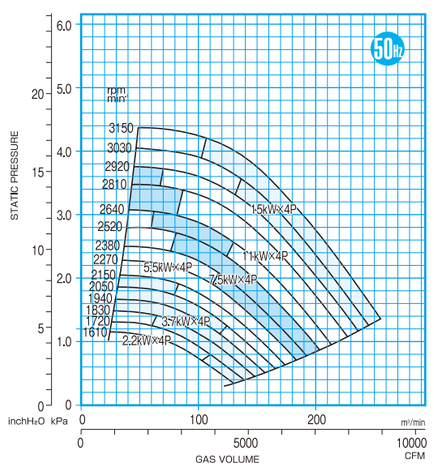


SOUND LEVEL

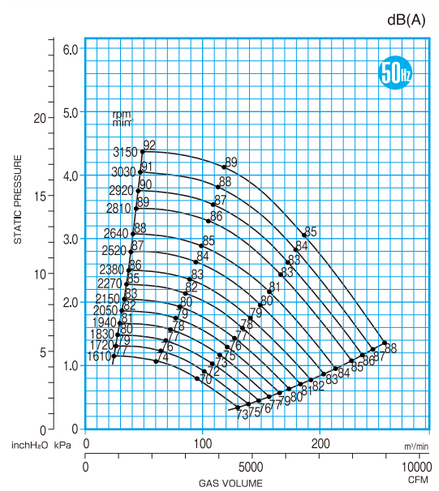


FTE301

CAPACITY RANGE CHART

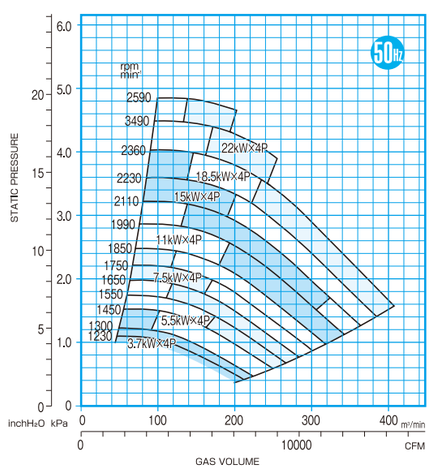


SOUND LEVEL

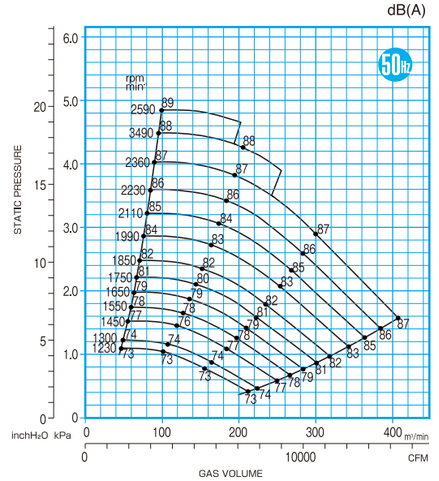


FTE401

CAPACITY RANGE CHART



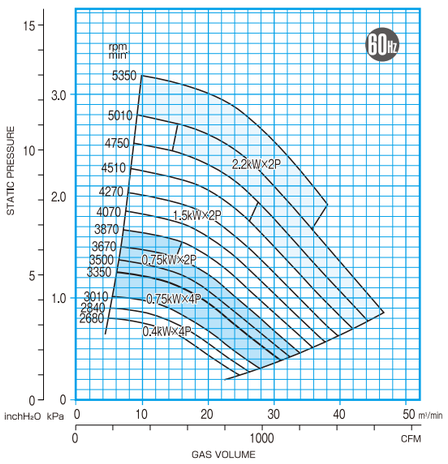
SOUND LEVEL



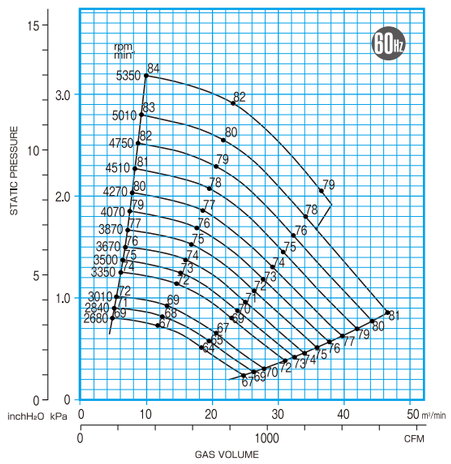
FTE 60Hz CAPACITY RANGE CHART

FTE151

CAPACITY RANGE CHART

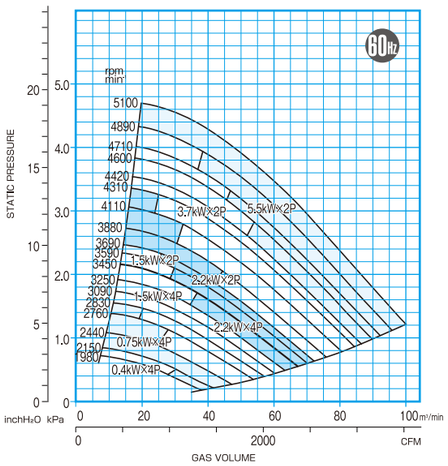


SOUND LEVEL

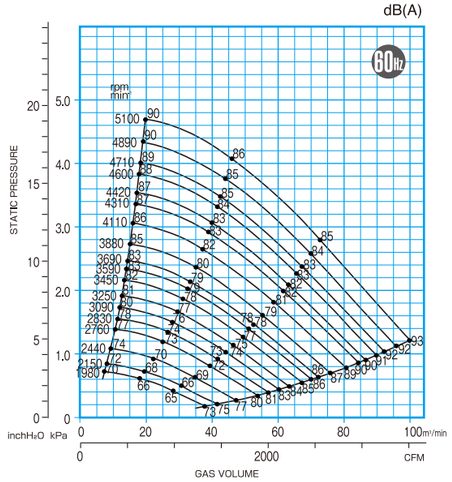


FTE201

CAPACITY RANGE CHART

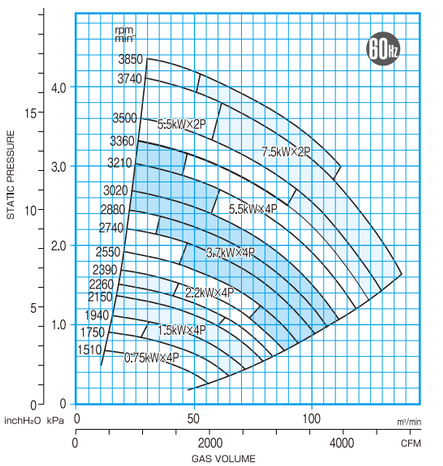


SOUND LEVEL

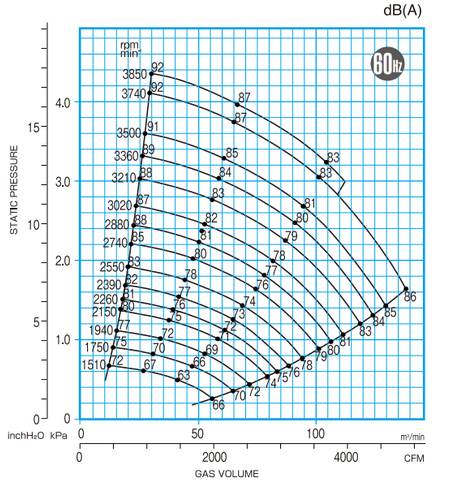


FTE251

CAPACITY RANGE CHART

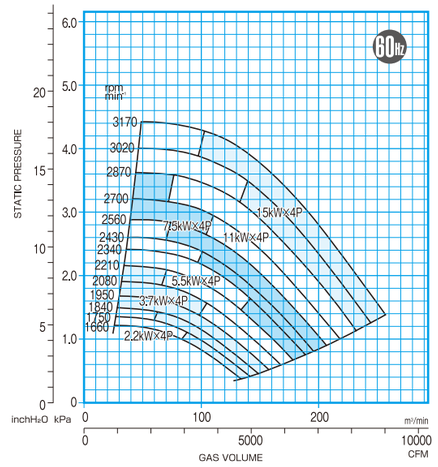


SOUND LEVEL

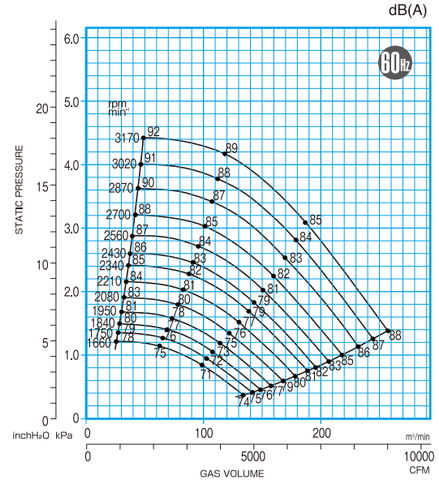


FTE301

CAPACITY RANGE CHART

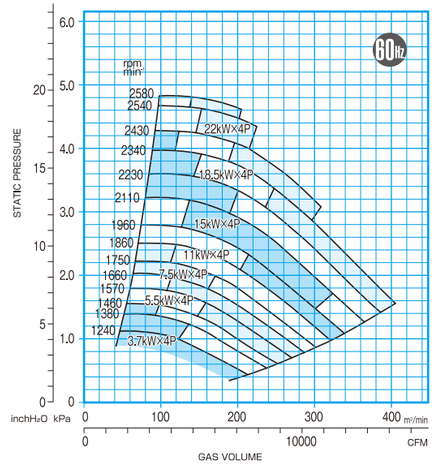


SOUND LEVEL

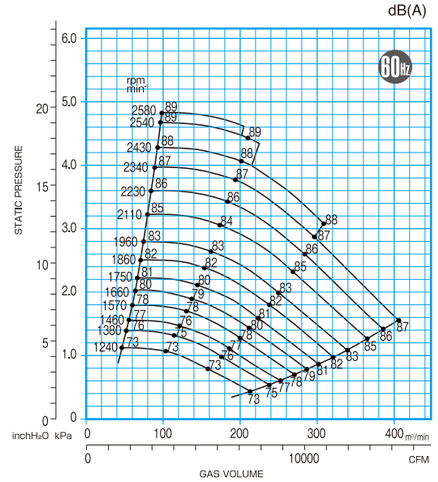


FTE401

CAPACITY RANGE CHART



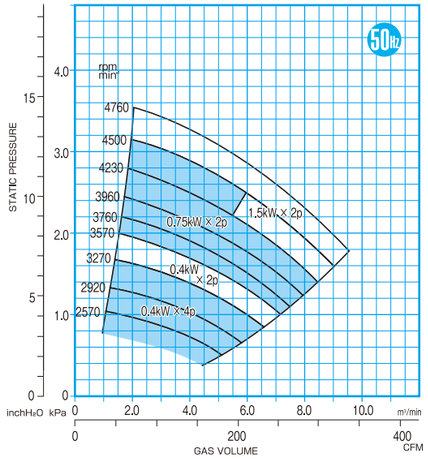
SOUND LEVEL



FTB 50Hz CAPACITY RANGE CHART

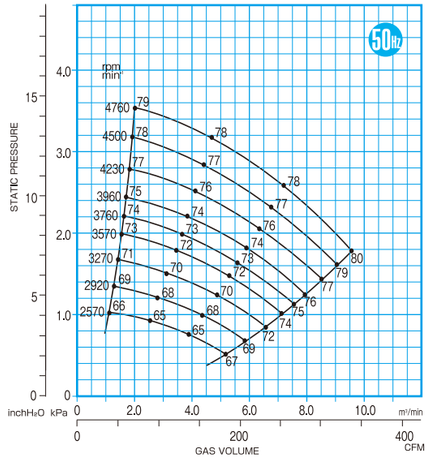
FTB202B

CAPACITY RANGE CHART



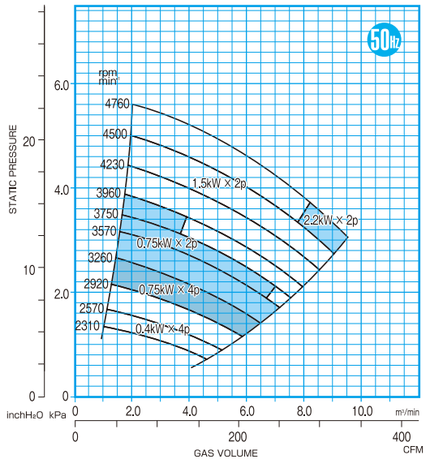
SOUND LEVEL

dB(A)



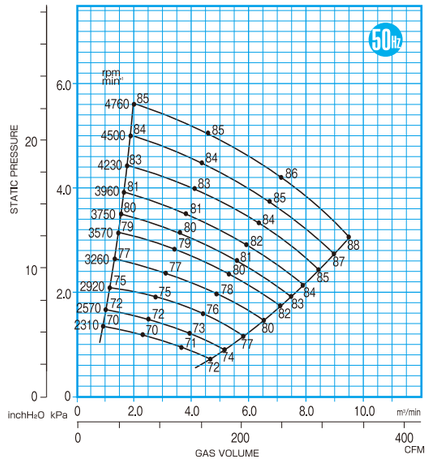
FTB251B

CAPACITY RANGE CHART



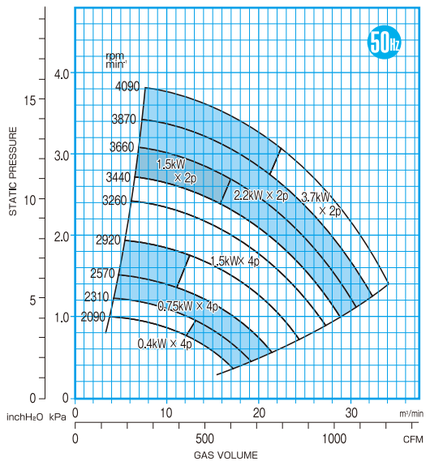
SOUND LEVEL

dB(A)



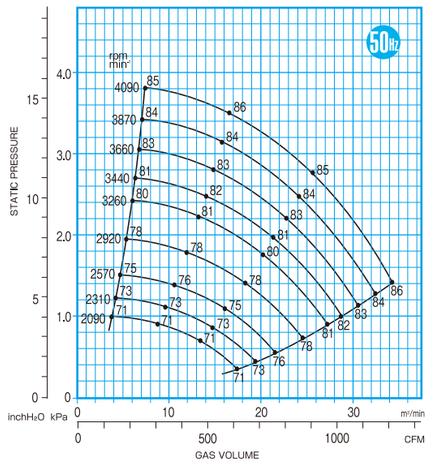
FTB252B

CAPACITY RANGE CHART



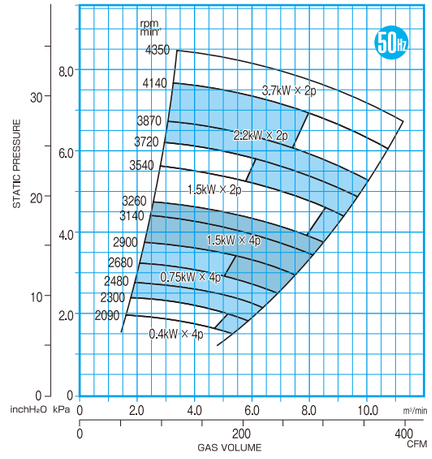
SOUND LEVEL

dB(A)



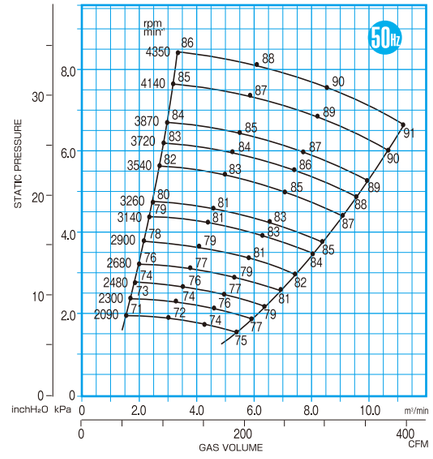
FTB301B

CAPACITY RANGE CHART



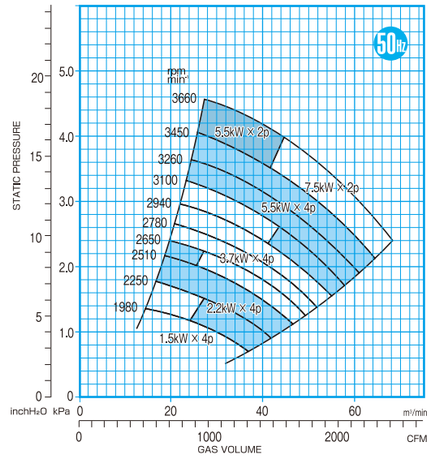
SOUND LEVEL

dB(A)



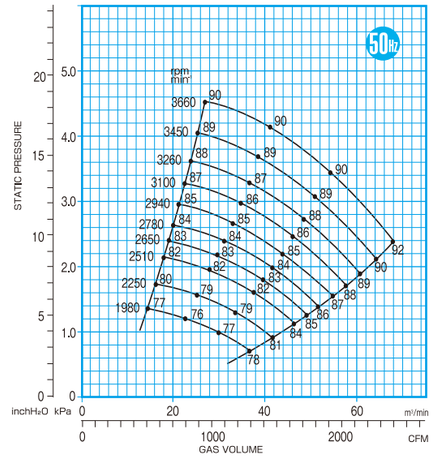
FTB302B

CAPACITY RANGE CHART



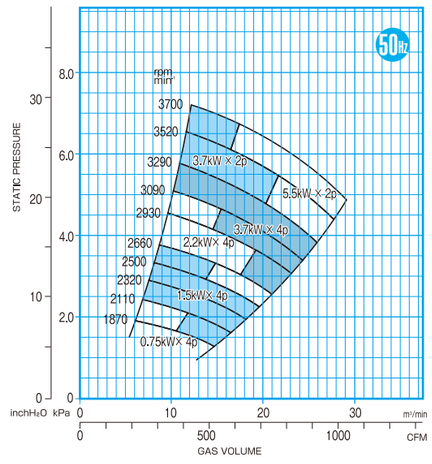
SOUND LEVEL

dB(A)



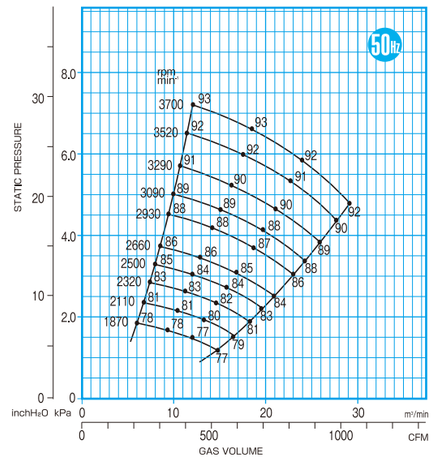
FTB351B

CAPACITY RANGE CHART



SOUND LEVEL

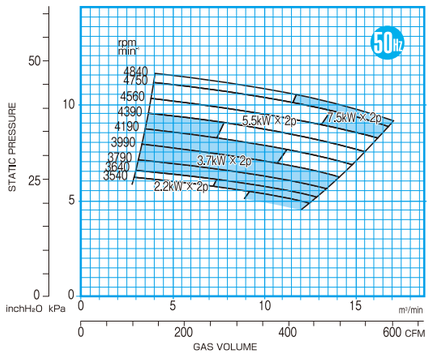
dB(A)



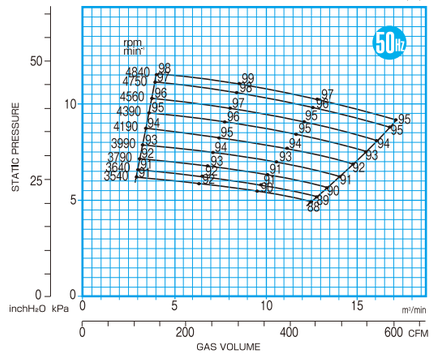
FTB 50Hz CAPACITY RANGE CHART

FTB352B

CAPACITY RANGE CHART

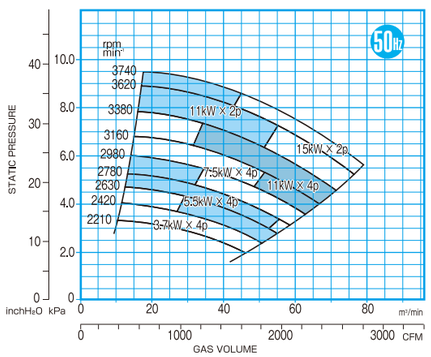


SOUND LEVEL

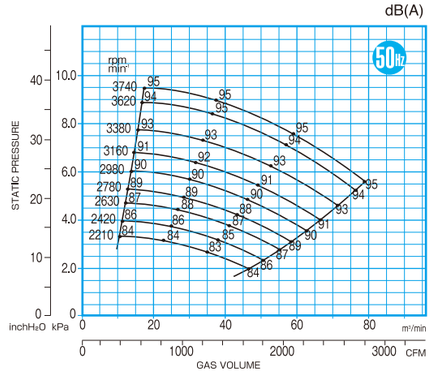


FTB401B

CAPACITY RANGE CHART

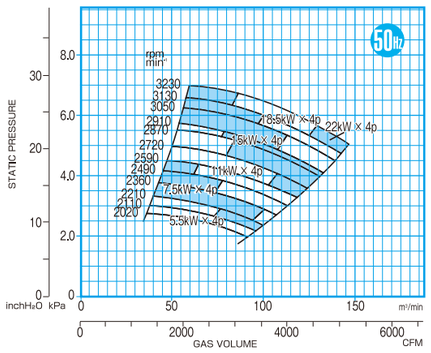


SOUND LEVEL



FTB402B

CAPACITY RANGE CHART



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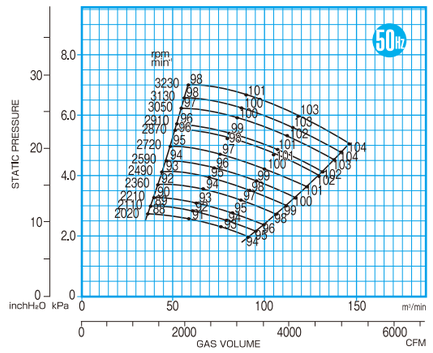

FTB403B

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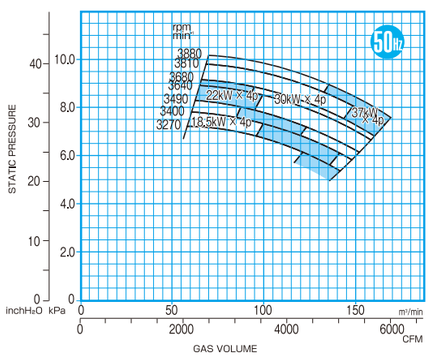

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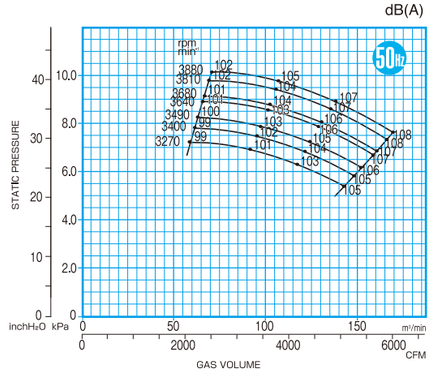

FTB501B

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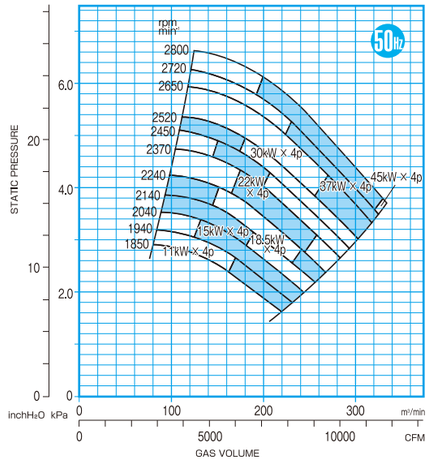

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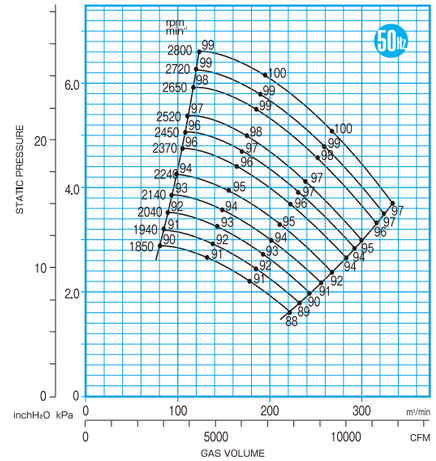

FTB601B

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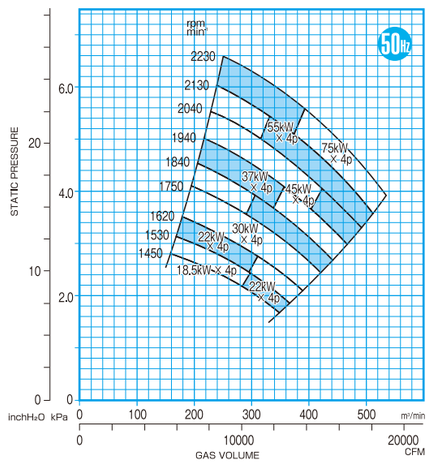

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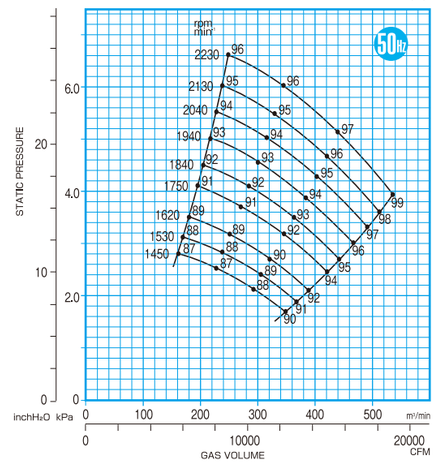

FTB701B

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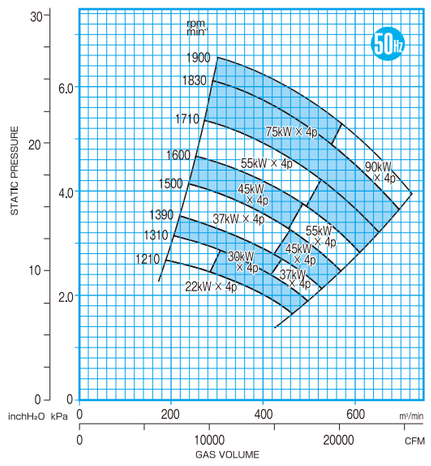

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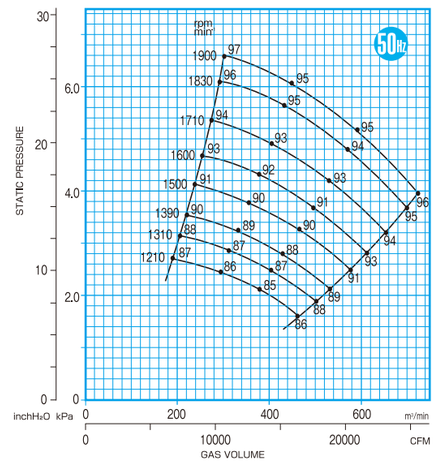
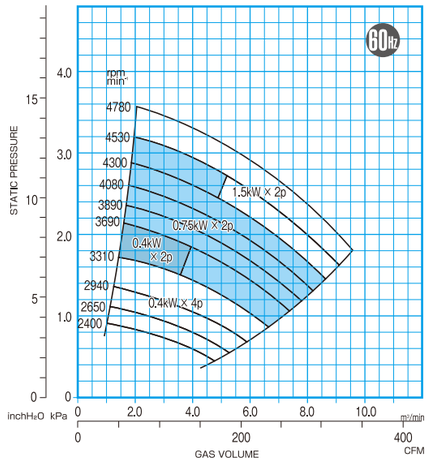


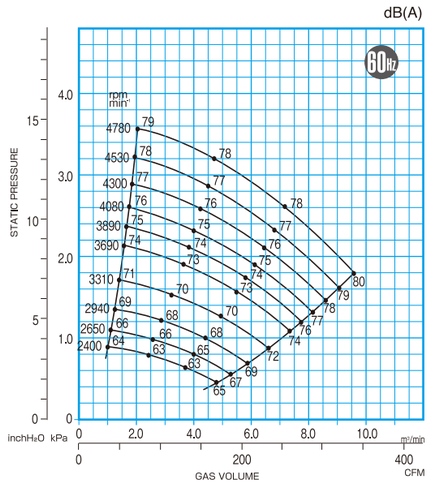
FTB 60Hz CAPACITY RANGE CHART

FTB202B

CAPACITY RANGE CHART



SOUND LEVEL



FTB251B

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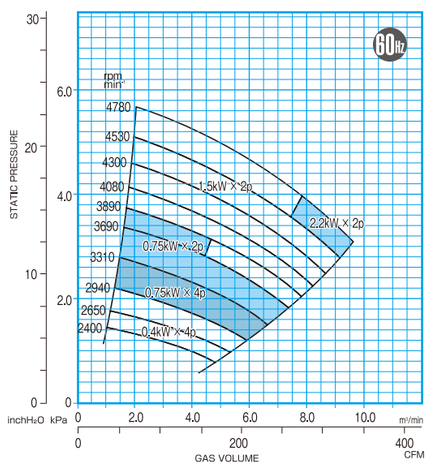
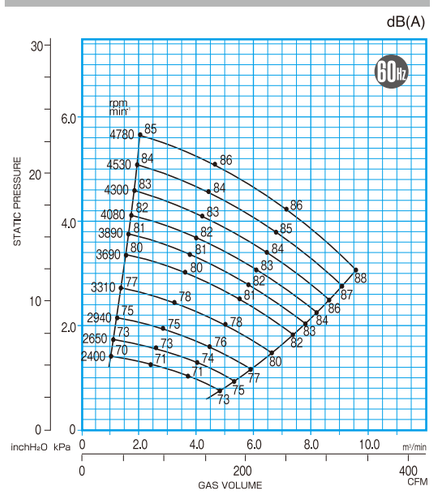


SOUND LEVEL



FTB252B

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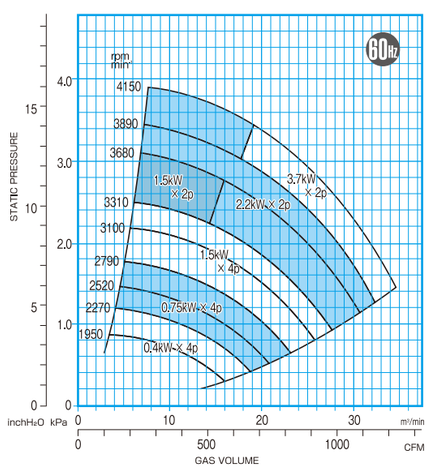
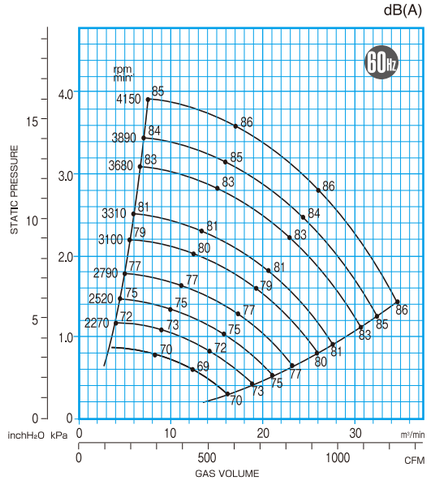


SOUND LEVEL



FTB301B

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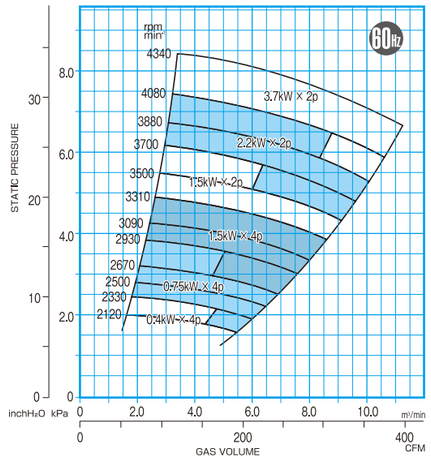
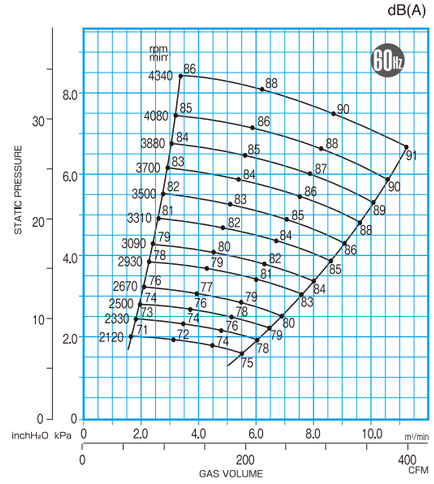


SOUND LEVEL



FTB302B

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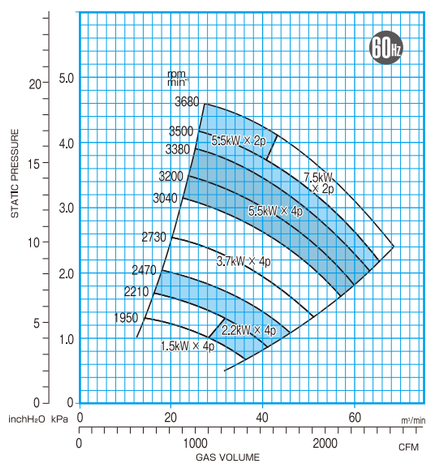

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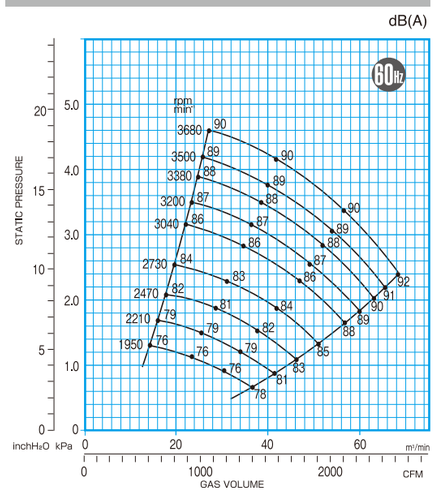

FTB351B

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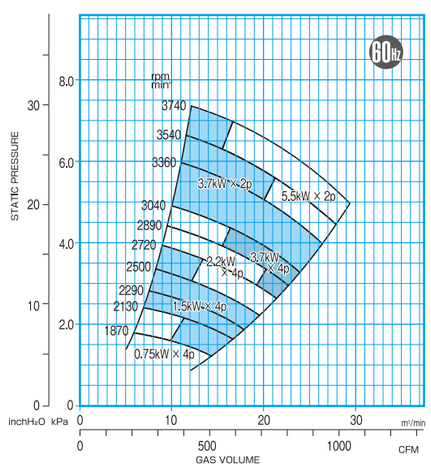
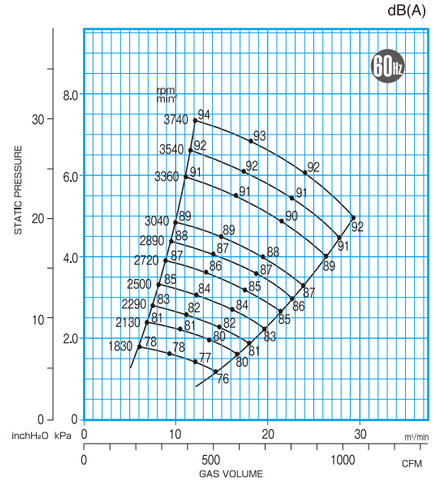


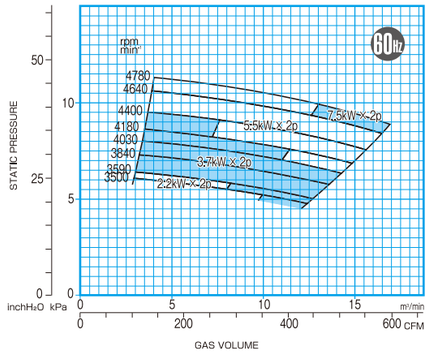
SOUND LEVEL



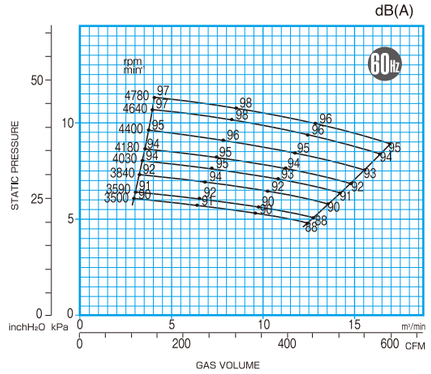
FTB 60Hz CAPACITY RANGE CHART

FTB352B

CAPACITY RANGE CHART



SOUND LEVEL



FTB401B

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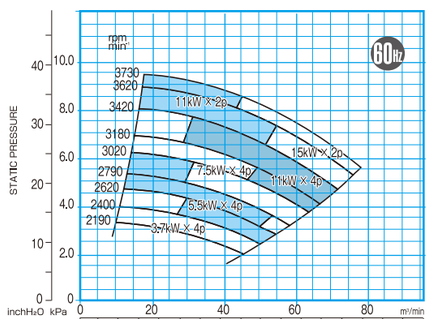

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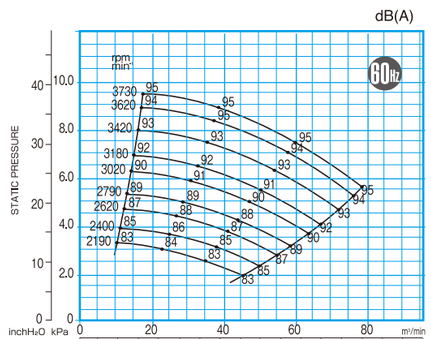

FTB402B

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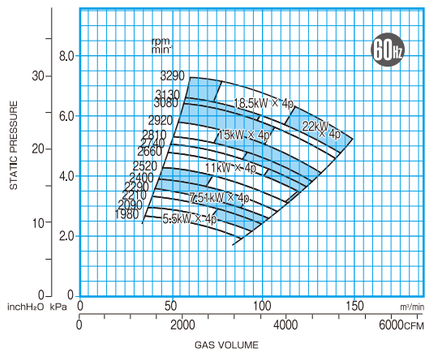
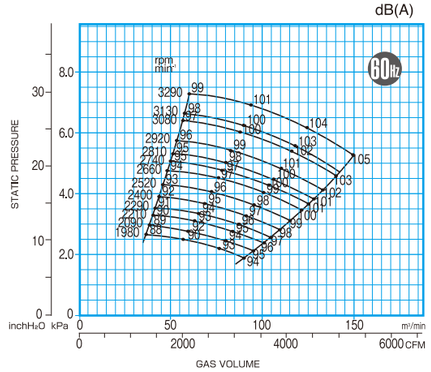


SOUND LEVEL



FTB403B

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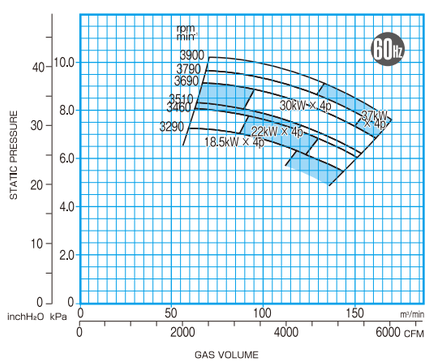
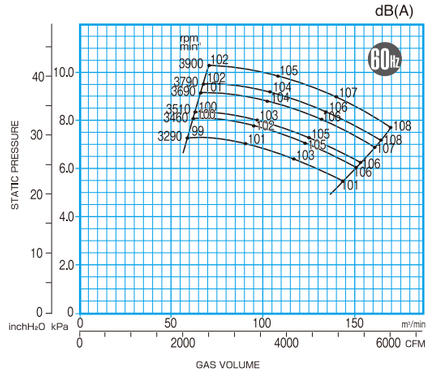


SOUND LEVEL



FTB501B

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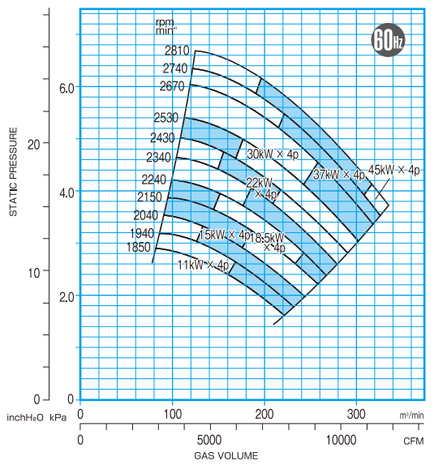
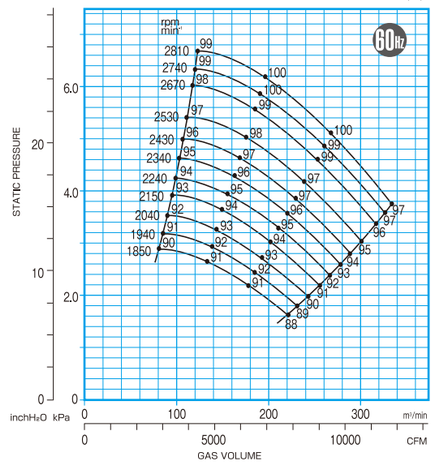


SOUND LEVEL



FTB601B

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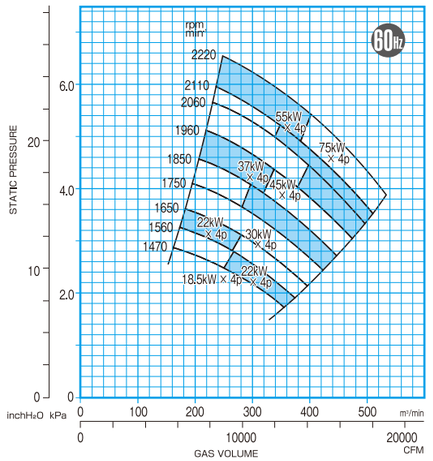
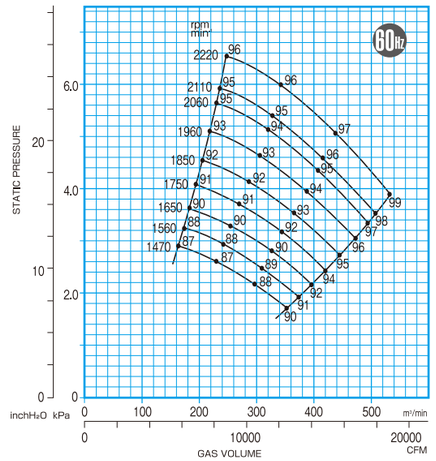


SOUND LEVEL



FTB701B

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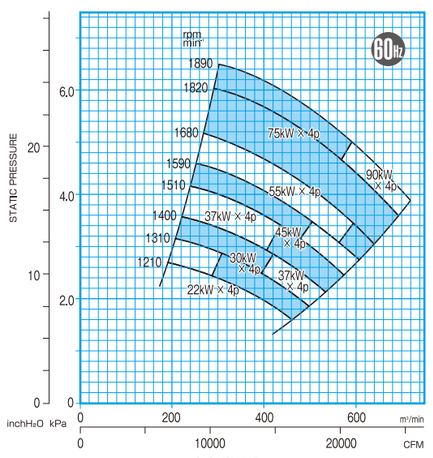
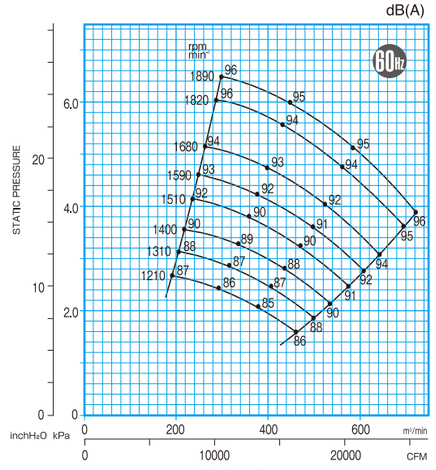


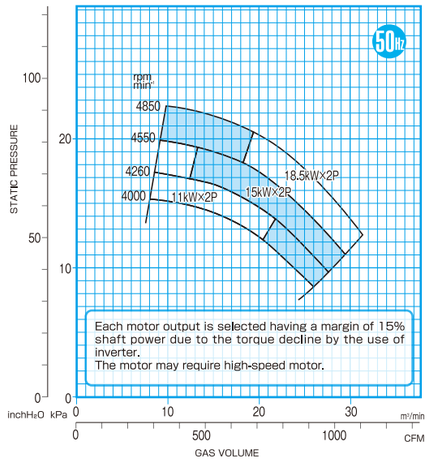
SOUND LEVEL



FTW 50Hz CAPACITY RANGE CHART

FTW352

CAPACITY RANGE CHART



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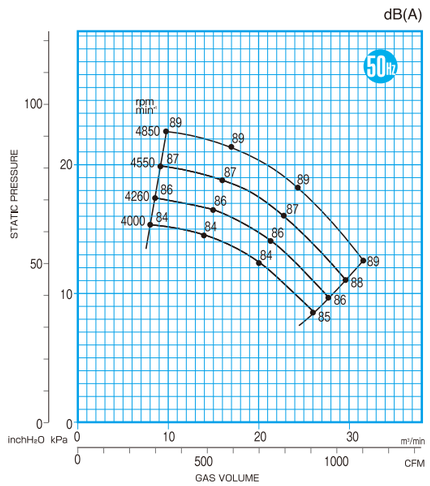

FTW401

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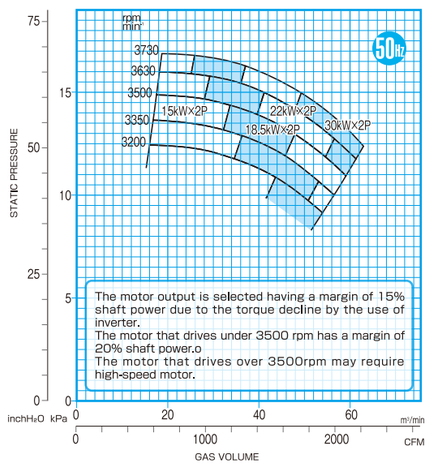
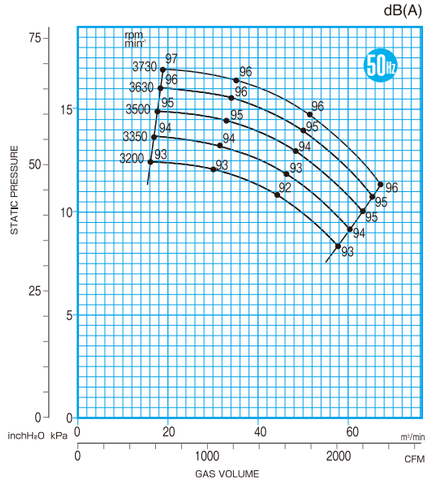


SOUND LEVEL



FTW403

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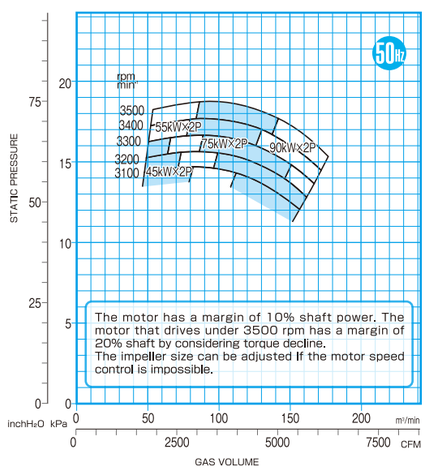
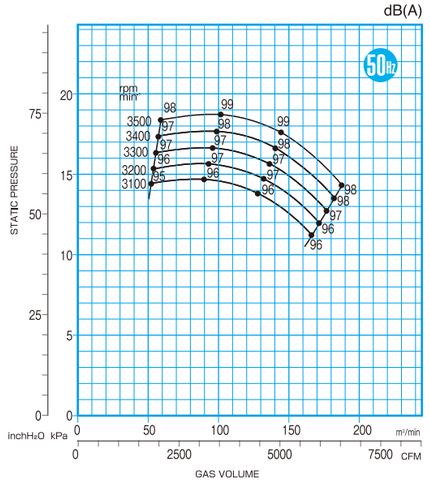
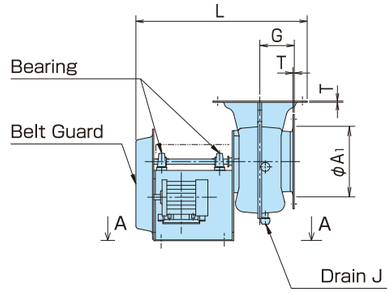


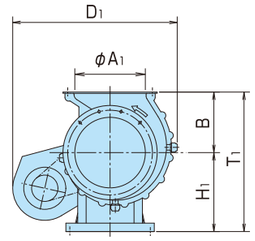
SOUND LEVEL



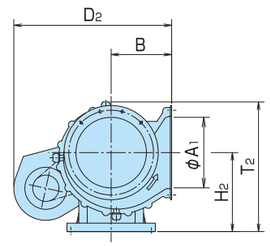
DIMENSIONS

CES101·151·201

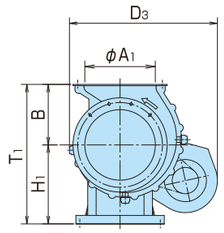




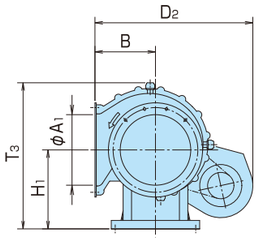
RH2



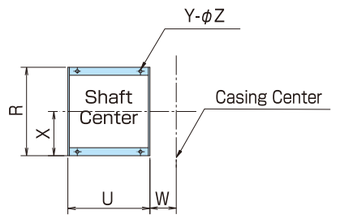
RL2



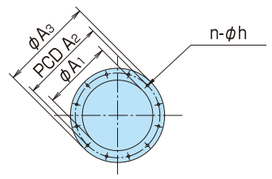
RH1



RR1



A-A VIEW BASIC DRAWING



DISCHARGE

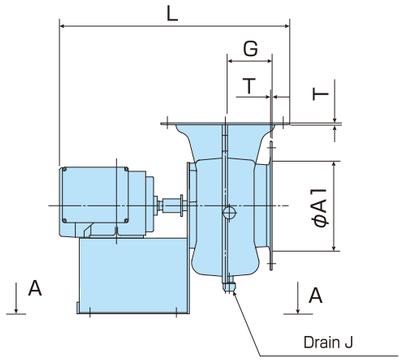
MODEL	CASING BODY											FLANGES					
	L	H1	H2	B	D1	D2	D3	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n	h	T
CES101	25.9	11.8	11.8	9.1	24.6	23.6	22.1	20.9	19.4	21.9	5.1	10.6	12.7	14.1	12	0.4	0.1
CES151	32.0	12.6	15.0	11.8	29.7	28.9	26.6	24.4	24.4	25.2	6.3	12.6	15.0	16.6	16	0.5	0.1
CES201	35.9	15.7	19.7	15.7	34.1	33.9	29.8	31.5	31.4	31.8	7.9	16.6	19.0	20.5	20	0.6	0.1

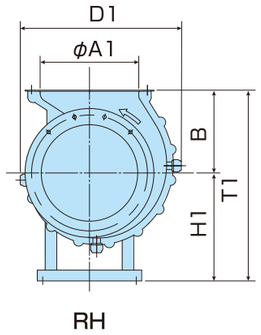
MODEL	BASE							BODY WEIGHT(lb)	BEARING
	DRAIN	R	U	W	X	Y	Z	STANDARD	
CES101	PF1/2"	13.2	12.3	3.9	6.6	0.2	0.5	39.7	UCP204
CES151	PF1/2"	16.9	16.0	5.0	8.5	0.2	0.5	55.1	UCP205
CES201	PF1/2"	22.8	16.0	6.3	11.4	0.2	0.5	92.6	UCP205

※BODY WEIGHT : Not Including Motor Weight.

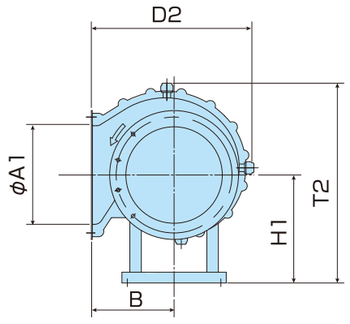
DIMENSIONS

CES101D·151D·201D

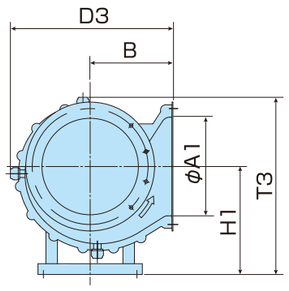




RH



RR



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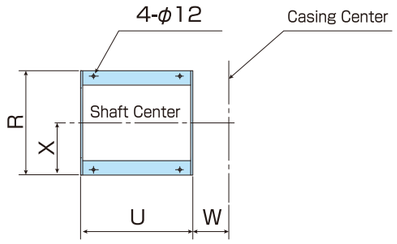

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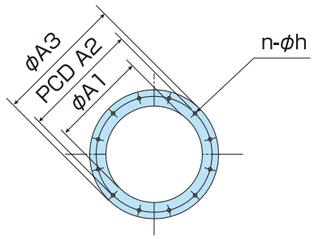


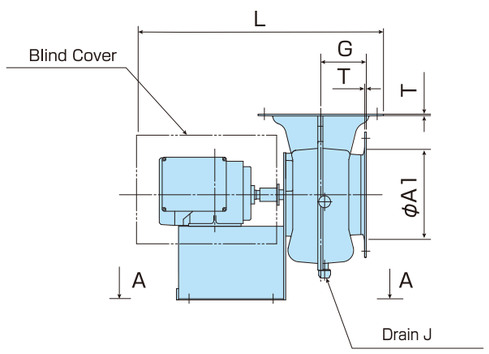
DISCHARGE

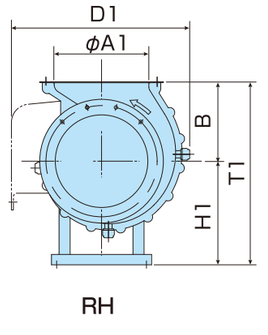
MODEL	CASING BODY									FLANGES					
	L	H1	B	D1	D2	T1	T2	T3	G	ϕA1	PDC A2	ϕA3	n	h	T
CES101D	25.3	11.8	9.1	20.3	19.0	20.9	21.9	19.4	5.1	10.6	12.7	14.1	12	0.4	0.1
CES151D	29.5	15.0	11.8	22.9	22.8	26.8	27.6	24.4	6.3	12.6	15.0	16.6	16	0.5	0.1
CES201D	33.5	19.7	15.7	27.9	29.6	35.4	35.7	31.4	7.9	16.6	19.0	20.5	20	0.6	0.1

MODEL	BASE				BODY WEIGHT(lb)
	R	U	W	X	STANDARD
CES101D	11.4	12.3	3.9	5.7	35.3
CES151D	11.4	12.0	6.6	5.7	41.9
CES201D	14.6	12.8	7.9	7.3	79.4

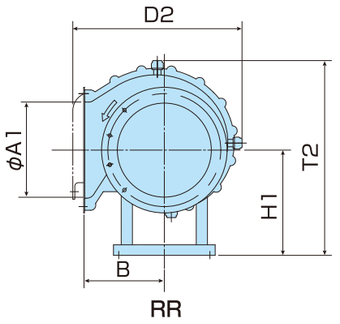
※BODY WEIGHT : Not Including Motor Weight.

CES101V·151V·201V

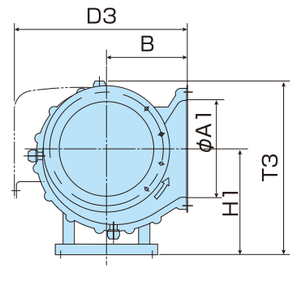




RH



RR



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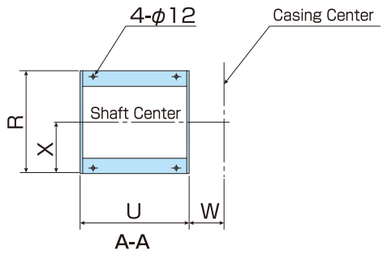

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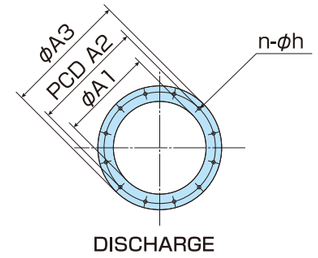


DISCHARGE

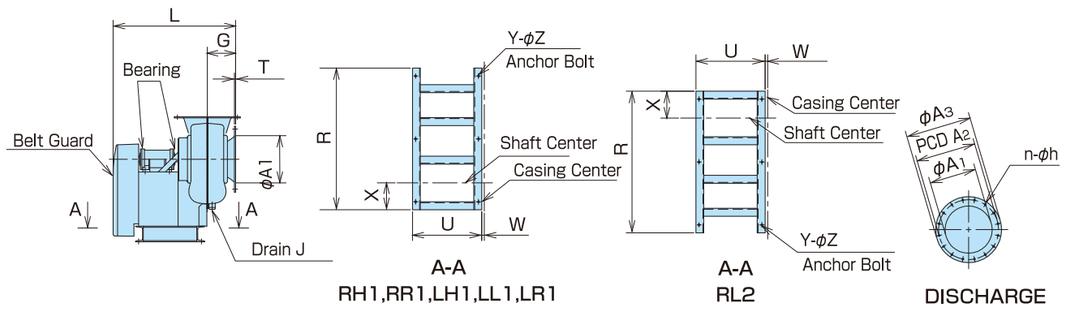
MODEL	CASING BODY										FLANGES					
	L	H1	B	D1	D2	D3	T1	T2	T3	G	ϕA1	PDC A2	ϕA3	n	h	T
CES101V	27.8	11.8	9.1	20.3	19.0	19.3	20.9	21.9	19.4	5.1	10.6	12.7	14.1	12	0.4	0.1
CES151V	31.1	15.0	11.8	22.9	22.8	22.8	26.8	27.6	24.4	6.3	12.6	15.0	16.6	16	0.5	0.1
CES201V	35.8	19.7	15.7	27.9	29.6	29.6	35.4	35.7	31.4	7.9	16.6	19.0	20.5	20	0.6	0.1

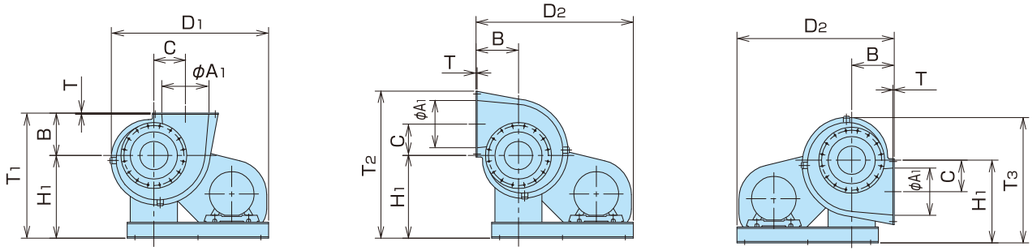
MODEL	BASE				BODY WEIGHT(lb)
	R	U	W	X	STANDARD
CES101V	11.4	12.3	3.9	5.7	39.7
CES151V	11.4	13.6	5.0	5.7	50.7
CES201V	14.6	14.4	6.3	7.3	88.2

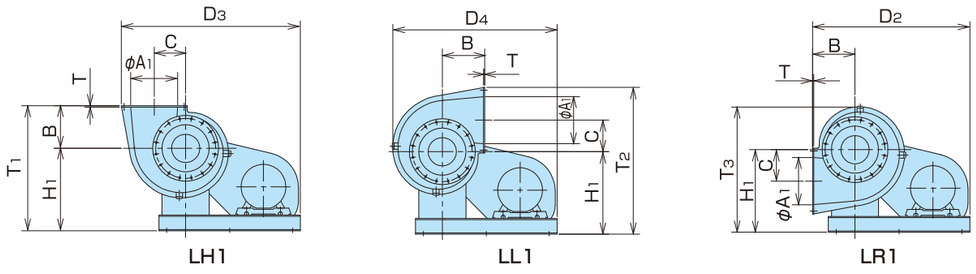
※BODY WEIGHT : Not Including Motor Weight.

DIMENSIONS

FTF153·203·253/FTE151·201·251





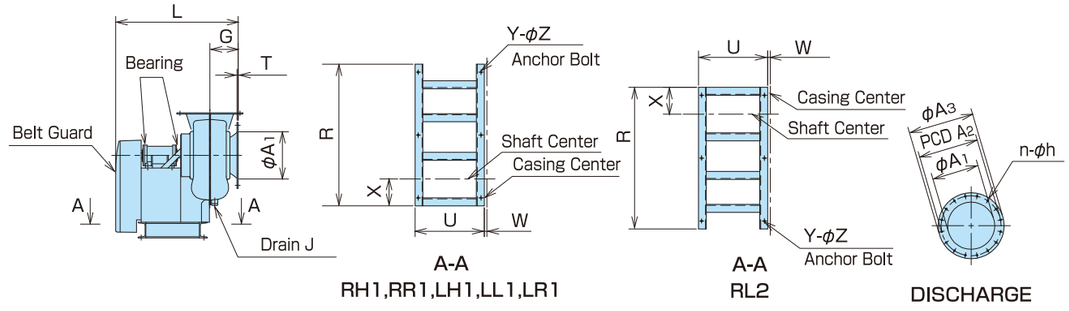


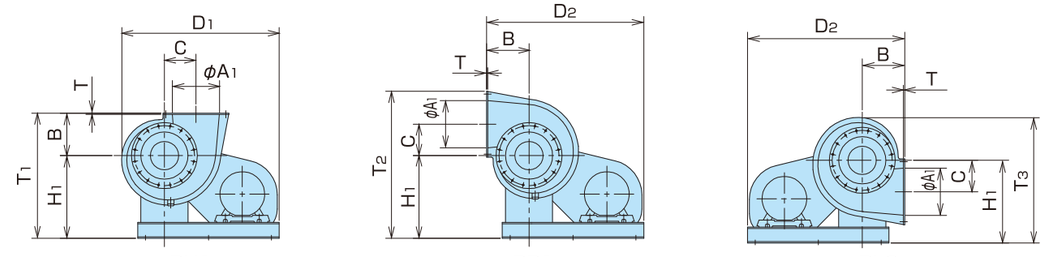
MODEL		CASING BODY											FLANGES					
		L	H1	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n	h	T
FTF153	FTE151	23.4	15.7	7.9	5.9	32.0	31.5	35.4	33.3	23.6	27.5	24.1	5.3	8.9	10.4	11.7	12	0.4	0.2
FTF203	FTE201	30.7	20.7	10.6	7.9	39.4	39.4	44.9	41.1	31.3	36.8	31.3	7.1	11.8	15.0	16.5	16	0.5	0.3
FTF253	FTE251	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

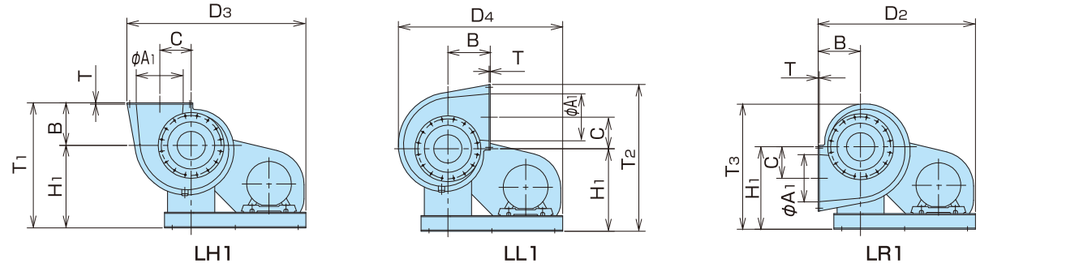
MODEL		DRAIN	BASE						BODY WEIGHT(lb)	BEARING	
		J	R	U	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTF153	FTE151	PF3/4"	29.1	12.8	1.0	3.5	0.2	0.5	127.9	6306	6305
FTF203	FTE201	PF3/4"	35.4	17.3	0.7	4.7	0.2	0.5	209.5	6308	6307
FTF253	FTE251	PF3/4"	43.3	18.1	0.8	6.1	0.2	0.6	260.2	6308	6307

※BODY WEIGHT : Not Including Motor Weight.

FTF303·403/FTE301·401







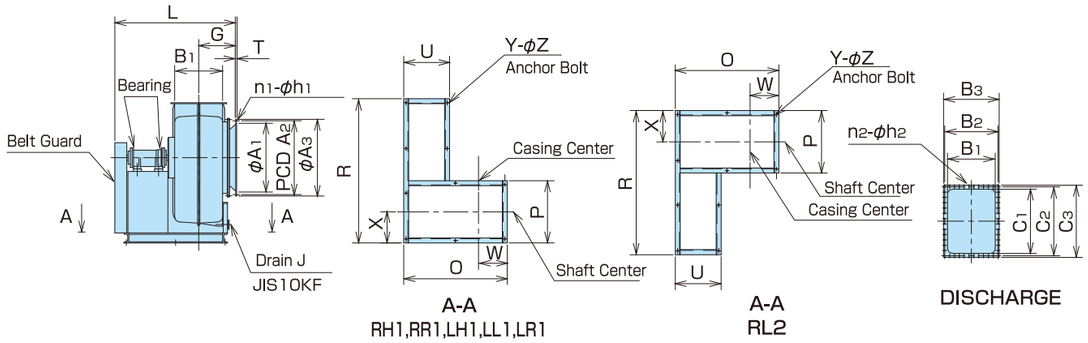
MODEL		CASING BODY											FLANGES					
		L	H1	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n	h	T
FTF303	FTE301	41.6	28.5	15.7	11.8	58.3	57.1	64.8	60.7	44.3	52.0	44.5	12.8	17.7	21.3	23.3	24	0.6	0.4
FTF403	FTE401	48.4	33.5	20.9	15.7	70.9	68.5	77.2	75.6	54.3	63.0	54.4	15.0	23.6	26.0	27.6	28	0.6	0.4

MODEL		DRAIN	BASE						BODY WEIGHT(lb)	BEARING	
		J	R	U	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
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.

DIMENSIONS

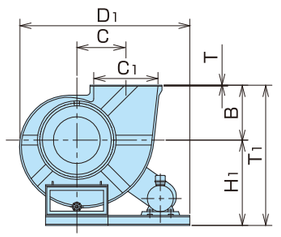
FTF503·603·703·803·903



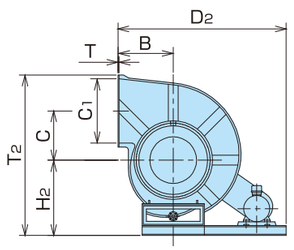
A-A
RH1,RR1,LH1,LL1,LR1

A-A
RL2

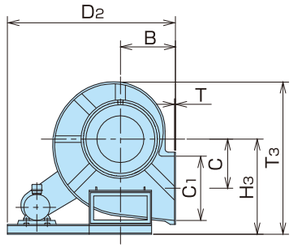
DISCHARGE



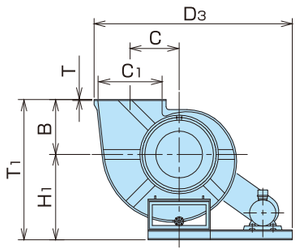
RH1



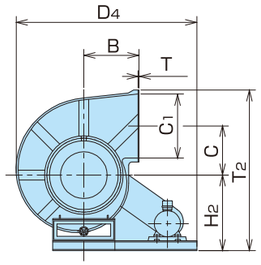
RR1



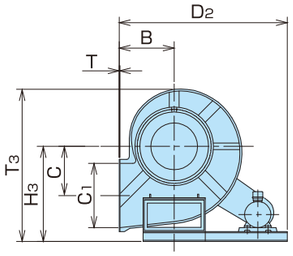
RL2



LH1



LL1



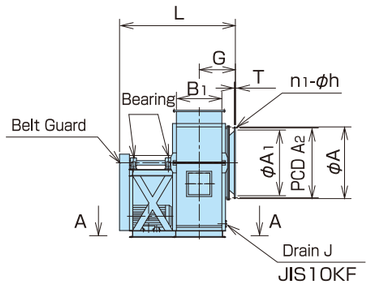
LR1

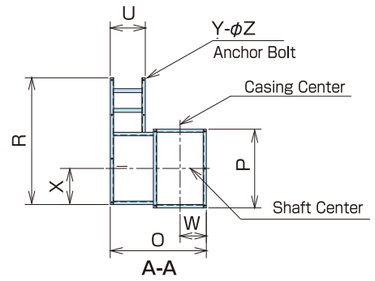
MODEL	CASING BODY															FLANGES				
	L	H1	H2	H3	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n1	h1
FTF503	57.8	37.4	37.4	43.3	23.6	21.3	79.9	78.7	92.3	84.4	61.0	74.6	68.1	17.7	29.5	31.9	33.5	32	0.5
FTF603	61.8	43.3	43.3	51.2	28.3	25.4	91.5	90.4	106.3	97.0	71.7	87.6	80.7	19.7	35.4	38.6	40.2	40	0.6
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	
	B1	B2	B3	C1	C2	C3	n2	h2	T	J	R	U	O	P	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTF503	20.5	23.4	24.8	27.6	30.1	31.9	32	0.5	0.5	1.1/2"	68.9	23.6	48.0	27.6	13.2	13.8	0.3	0.7	882.0	6315	6313
FTF603	24.6	27.6	29.5	33.1	35.9	37.8	40	0.6	0.5	1.1/2"	78.7	25.6	52.4	33.5	15.5	16.7	0.4	0.7	1102.5	6315	6313
FTF703	28.7	32.0	33.5	38.6	41.5	43.3	48	0.6	0.6	1.1/2"	86.6	27.6	62.2	37.4	17.3	18.7	0.4	0.9	1786.1	6320	6318
FTF803	32.7	35.9	37.4	44.1	46.9	48.8	50	0.6	0.6	2"	98.4	28.3	66.5	43.3	19.3	21.7	0.4	0.9	1984.5	6320	6318
FTF903	37.0	41.1	42.5	49.6	53.5	55.1	56	0.6	0.6	2"	110.2	31.5	72.4	65.0	21.5	32.5	0.4	0.9	3175.2	6324	6320

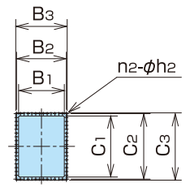
※BODY WEIGHT : Not Including Motor Weight.

FTF1201·1401

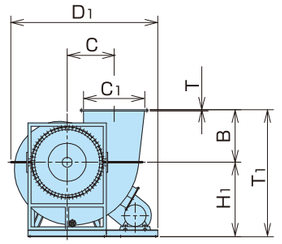




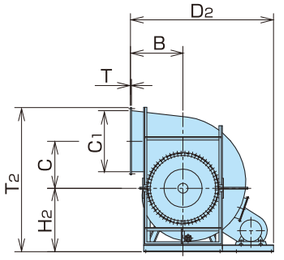
A-A



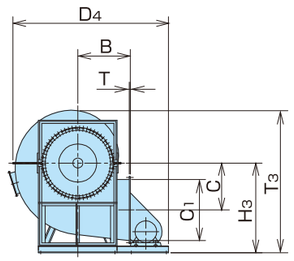
DISCHARGE



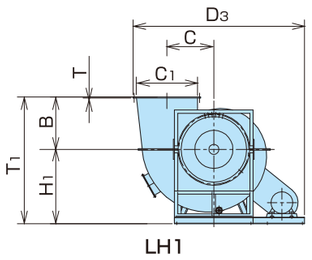
RH1



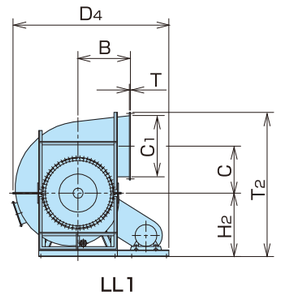
RR1



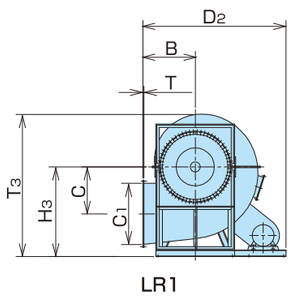
RL1



LH1



LL1



LR1

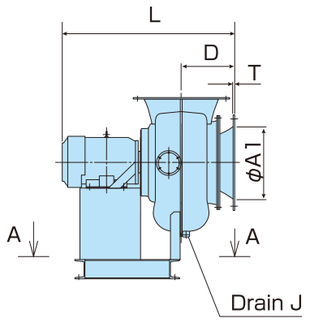
MODEL	CASING BODY														FLANGES				
	L	H1	H2	H3	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n1	h1
FTF1201	122.4	78.7	66.9	94.5	56.7	50.8	148.4	144.9	174.8	171.3	135.4	153.5	151.6	37.4	70.9	74.8	76.4	72	0.6
FTF1401	133.9	92.5	78.7	108.3	66.1	59.3	158.7	155.1	189.6	171.3	158.7	179.3	174.8	47.2	82.7	86.2	88.2	84	0.6

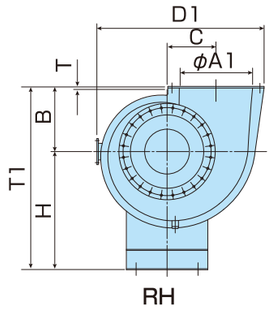
MODEL	FLANGES									DRAIN	BASE								BODY WEIGHT(lb)	BEARING	
	B1	B2	B3	C1	C2	C3	n2	h2	T	J	R	U	O	P	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTF1201	49.2	53.1	54.7	66.1	69.4	71.7	72	0.6	0.7	2"	128.0	39.4	104.3	86.6	28.5	43.3	0.4	0.9	5424.3	6222	NU319
FTF1401	68.5	71.9	74.0	77.2	80.3	82.7	92	0.6	0.7	2"	133.9	39.4	123.6	96.9	38.3	44.9	0.4	0.9	8379.0	6324	6322

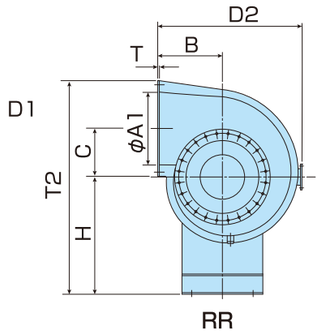
※BODY WEIGHT : Not Including Motor Weight.

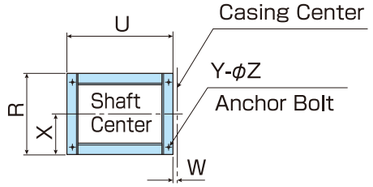
DIMENSIONS

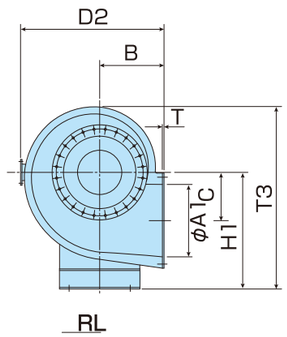
FTF253MD･303MD･403MD

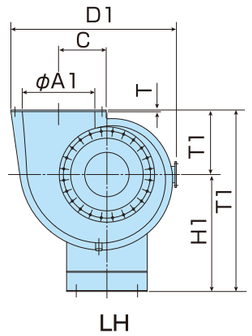


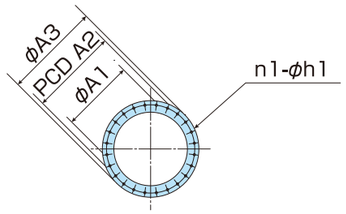


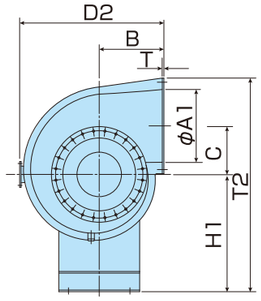


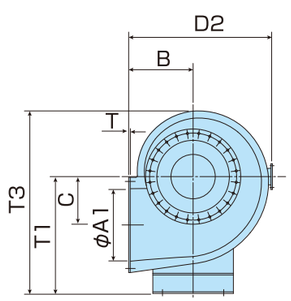










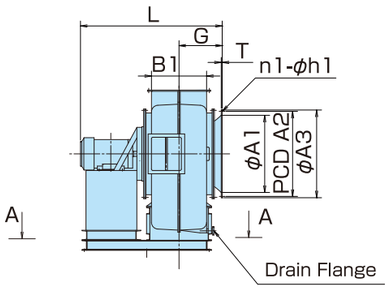


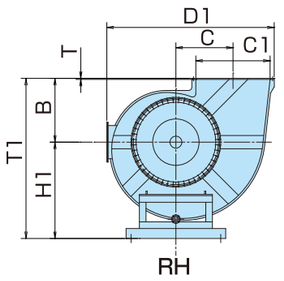
MODEL	CASING BODY										FLANGES					
	L	H1	B	C	D1	D2	T1	T2	T3	G	ϕA1	PDC A2	ϕA3	n1	h1	T
FTF253MD	32.3	23.6	13.4	9.8	33.2	28.6	37.0	43.7	36.7	8.9	14.8	19.0	20.5	20	0.6	0.3
FTF303MD	44.1	28.5	15.7	11.8	49.9	35.1	44.3	52.0	44.5	12.8	17.7	21.3	23.3	24	0.6	0.4
FTF403MD	48.9	33.5	20.9	15.7	52.8	48.8	54.3	63.0	54.4	15.0	23.6	26.0	27.6	28	0.6	0.4

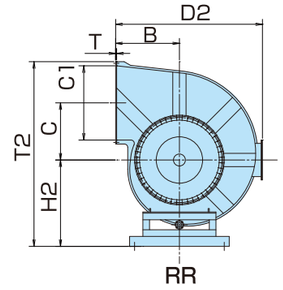
MODEL	BASE							BODY WEIGHT(lb)
	J	R	U	W	X	Y	Z	STANDARD
FTF253MD	PF3/4"	16.9	21.7	0.8	8.5	0.2	0.6	180.8
FTF303MD	PF3/4"	19.7	29.5	0.2	9.8	0.2	0.6	306.5
FTF403MD	PF3/4"	22.8	31.5	0.6	11.4	0.2	0.7	416.7

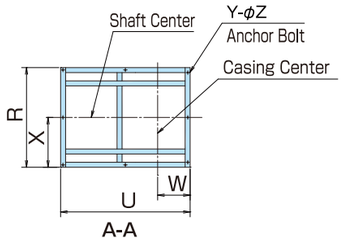
※BODY WEIGHT : Not Including Motor Weight.

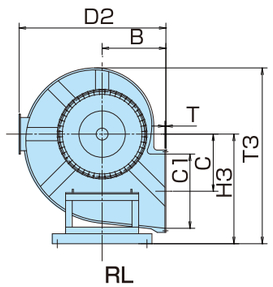
FTF503MD･603MD･703MD･803MD

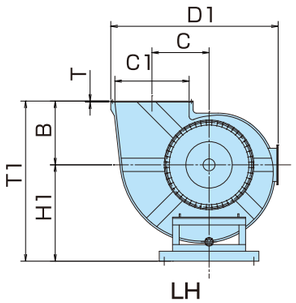


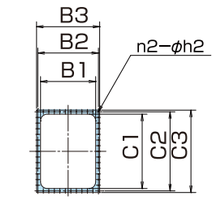


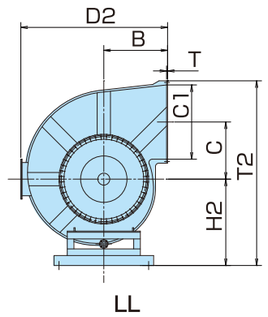


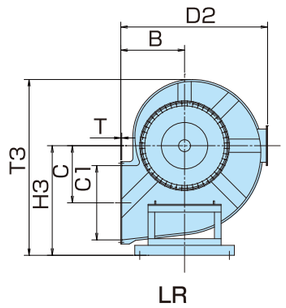












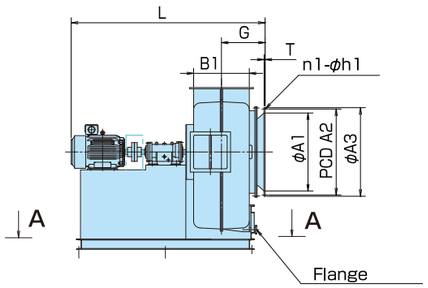
MODEL	CASING BODY												FLANGES				
	L	H1	H2	H3	B	C	D1	D2	T1	T2	T3	G	ϕA1	PDC A2	ϕA3	n1	h1
FTF503MD	60.6	37.4	37.4	43.3	23.6	21.3	63.2	55.3	61.0	74.6	68.1	17.7	29.5	31.9	33.5	32	0.5
FTF603MD	65.0	43.3	43.3	51.2	28.3	25.4	75.2	65.9	71.7	87.6	80.7	19.7	35.4	38.6	40.2	40	0.6
FTF703MD	79.1	51.2	45.3	57.1	33.1	29.5	87.2	76.4	84.3	96.5	91.3	22.8	41.3	44.5	46.1	44	0.6
FTF803MD	84.1	57.1	51.2	65.0	37.8	33.9	99.2	87.0	94.9	109.4	103.9	25.6	47.2	50.4	52.0	48	0.6

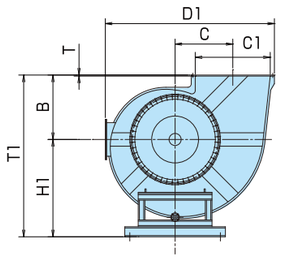
MODEL	FLANGES									DRAIN	BASE						BODY WEIGHT(lb)
	B1	B2	B3	C1	C2	C3	n1	h2	T	J	R	U	W	X	Y	Z	STANDARD
FTF503MD	20.5	23.4	24.8	27.6	30.1	31.9	32	0.5	0.5	1.1/2"	41.3	53.1	13.2	20.7	0.3	0.7	981.2
FTF603MD	24.6	27.6	29.5	33.1	35.9	37.8	40	0.6	0.5	1.1/2"	47.2	59.1	15.5	23.6	0.3	0.7	1256.9
FTF703MD	28.7	32.0	33.5	38.6	41.5	43.3	48	0.6	0.6	1.1/2"	53.1	72.8	17.3	26.6	0.3	0.7	2160.9
FTF803MD	32.7	35.9	37.4	44.1	46.9	48.8	50	0.6	0.6	2"	59.1	76.8	19.3	29.5	0.3	0.7	2491.7

※BODY WEIGHT : Not Including Motor Weight.

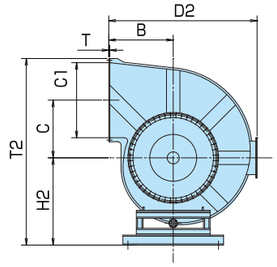
DIMENSIONS

FTF503MC·603MC·703MC·803MC

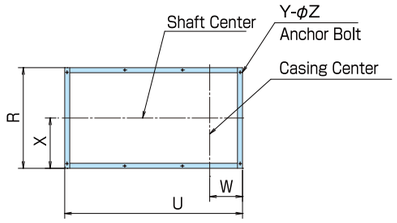




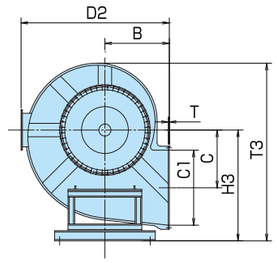
RH



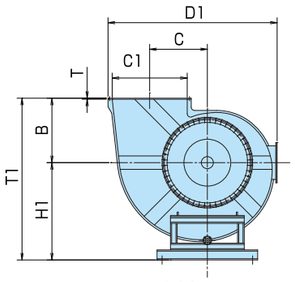
RR



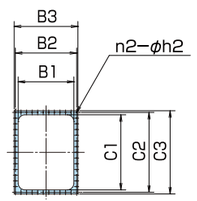
A-A



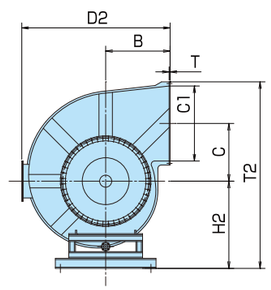
RL



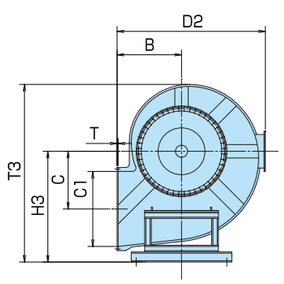
LH



DISCHARGE



LL



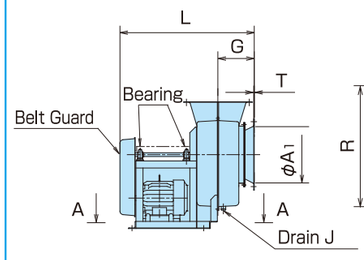
LR

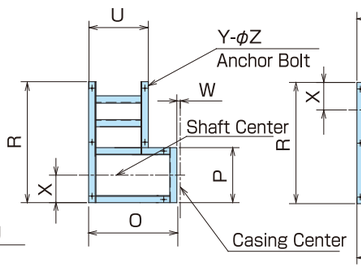
MODEL	CASING BODY												FLANGES				
	L	H1	H2	H3	B	C	D1	D2	T1	T2	T3	G	ϕA1	PDC A2	ϕA3	n1	h1
FTF503MC	84.3	37.4	37.4	43.3	23.6	21.3	63.2	55.3	61.0	74.6	68.1	17.7	29.5	31.9	33.5	32	0.5
FTF603MC	88.6	43.3	43.3	51.2	28.3	25.4	75.2	65.9	71.7	87.6	80.7	19.7	35.4	38.6	40.2	40	0.6
FTF703MC	105.1	51.2	45.3	57.1	33.1	29.5	87.2	76.4	84.3	96.5	91.3	22.8	41.3	44.5	46.1	44	0.6
FTF803MC	113.8	57.1	51.2	65.0	37.8	33.9	99.2	87.0	94.9	109.4	103.9	25.6	47.2	50.4	52.0	48	0.6

MODEL	FLANGES									DRAIN	BASE						BODY WEIGHT(lb)	BEARING	
	B1	B2	B3	C1	C2	C3	n1	h2	T	J	R	U	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTF503MC	20.5	23.4	24.8	27.6	30.1	31.9	32	0.5	0.5	1.1/2"	35.4	76.8	13.2	17.7	0.3	0.7	1367.1	6315	6313
FTF603MC	24.6	27.6	29.5	33.1	35.9	37.8	40	0.6	0.5	1.1/2"	43.3	82.7	15.5	21.7	0.3	0.7	1764.0	6315	6313
FTF703MC	28.7	32.0	33.5	38.6	41.5	43.3	48	0.6	0.6	1.1/2"	51.2	98.4	17.3	25.6	0.3	0.8	3175.2	6320	6318
FTF803MC	32.7	35.9	37.4	44.1	46.9	48.8	50	0.6	0.6	2"	59.1	104.3	19.3	29.5	0.3	0.8	3792.6	6320	6318

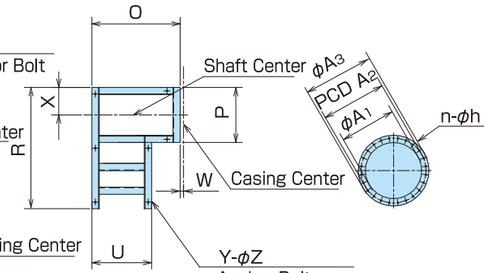
※BODY WEIGHT : Not Including Motor Weight.

NSF302·402



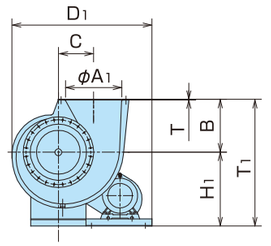


A-A
RH,RR,LH,LL,LR TYPE

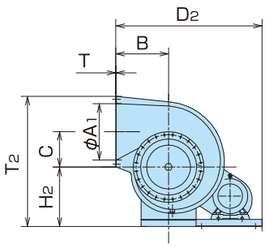


A-A
RL TYPE

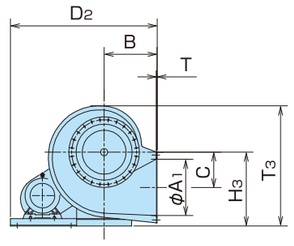
DISCHARGE



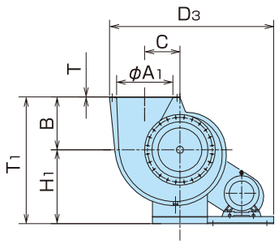
RH1



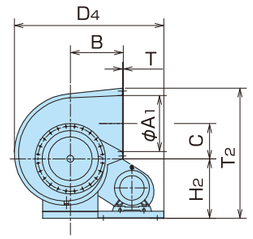
RR1



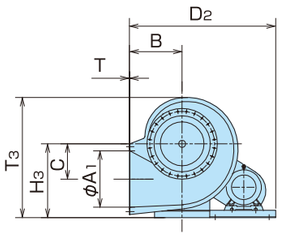
RL2



LH1



LL1



LR1

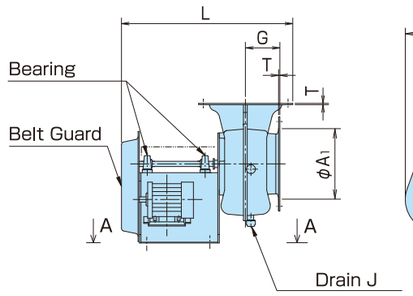
MODEL	CASING BODY													FLANGES					
	L	H1	H2	H3	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n	h	T
NSF302	48.0	26.4	21.3	26.4	18.9	12.6	50.0	52.4	58.7	52.4	45.3	46.5	42.9	13.0	20.1	23.2	25.2	24	0.6	0.25
NSF402	55.1	34.3	29.5	34.3	22.8	17.7	56.8	57.9	66.5	57.9	57.1	61.0	56.0	15.7	23.6	26.0	27.6	28	0.6	0.25

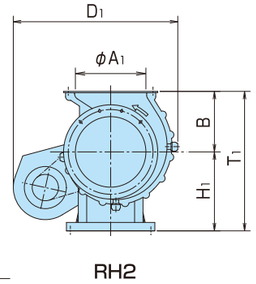
MODEL	DRAIN	BASE								BODY WEIGHT(lb)	BEARING
	J	R	U	O	P	W	X	Y	Z	STANDARD	
NSF302	PF3/4"	43.3	21.3	31.5	19.7	0.4	9.8	0.3	0.6	253.6	UCP207
NSF402	PF3/4"	47.2	22.8	35.0	24.4	0.6	12.2	0.3	0.7	396.9	UCP309

※BODY WEIGHT : Not Including Motor Weight.

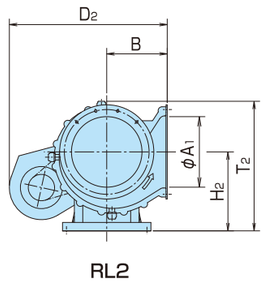
DIMENSIONS

CTF151·201

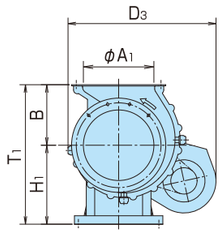




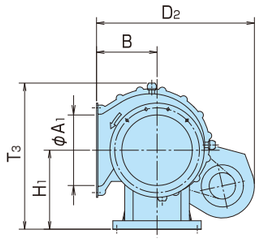
RH2



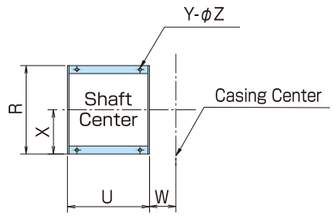
RL2



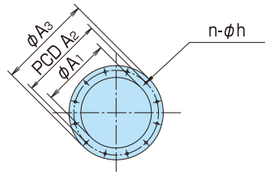
RH1



RR1



A-A VIEW BASIC DRAWING



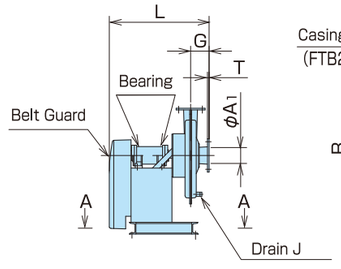
DISCHARGE

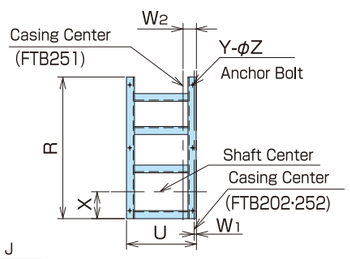
MODEL	CASING BODY											FLANGES					
	L	H1	H2	B	D1	D2	D3	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n	h	T
CTF151	32.0	12.6	15.0	11.8	29.7	28.9	26.6	24.4	24.4	25.2	6.3	12.6	15.0	16.6	16	0.5	0.1
CTF201	35.9	15.7	19.7	15.7	34.1	33.9	29.8	31.5	31.4	31.8	7.9	16.6	19.0	20.5	20	0.6	0.1

MODEL	BASE							BODY WEIGHT(lb)	BEARING
	DRAIN	R	U	W	X	Y	Z	STANDARD	
CTF151	PF1/2"	16.9	16.0	5.0	8.5	0.2	0.5	59.5	UCP205
CTF201	PF1/2"	22.8	16.0	6.3	11.4	0.2	0.5	99.2	UCP205

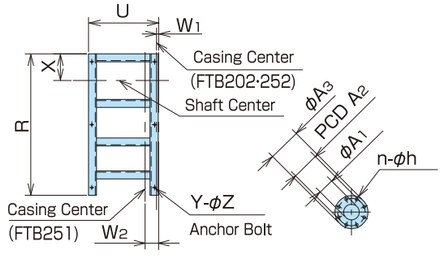
※BODY WEIGHT : Not Including Motor Weight.

FTB202B·251B·252B



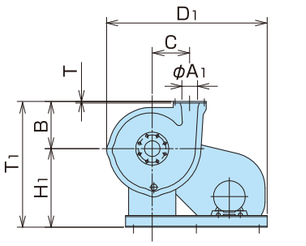


A-A
RH,RR,LH,LL,LR

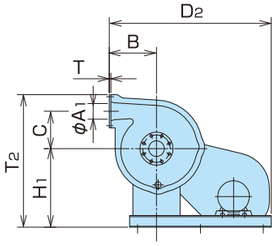


A-A
RL

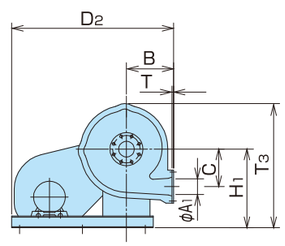
DISCHARGE



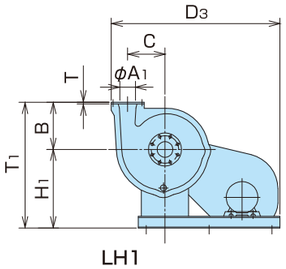
RH1



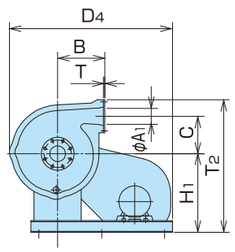
RR1



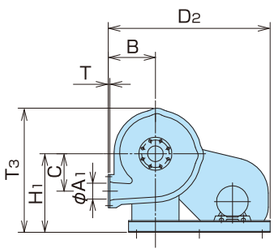
RL2



LH1



LL1



LR1

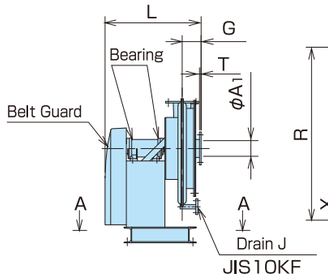
MODEL	CASING BODY											FLANGES					
	L	H1	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n	h	T
FTB202B	20.5	15.7	10.2	8.1	33.8	33.9	35.8	34.6	26.0	28.0	25.9	4.3	3.9	6.9	8.3	8	0.7	0.4
FTB251B	24.4	20.7	11.8	9.4	40.2	40.6	42.2	40.8	32.5	34.2	32.1	4.6	3.9	6.9	8.3	8	0.7	0.4
FTB252B	28.0	20.7	12.6	11.3	42.3	41.3	46.5	43.9	33.3	38.4	34.2	6.3	7.9	11.4	13.0	12	0.9	0.6

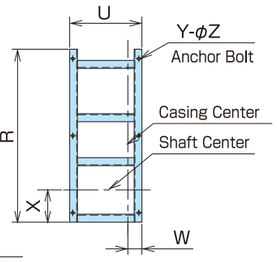
MODEL	DRAIN	BASE							BODY WEIGHT(lb)	BEARING	
	J	R	U	W1	W2	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTB202B	PF3/4"	29.1	12.8	0.1	-	3.5	0.2	0.5	121.3	6306	6305
FTB251B	PF3/4"	35.4	17.3	-	2.0	4.7	0.2	0.5	196.2	6308	6307
FTB252B	PF3/4"	35.4	17.3	0.2	-	4.7	0.2	0.5	207.3	6308	6307

※BODY WEIGHT : Not Including Motor Weight.

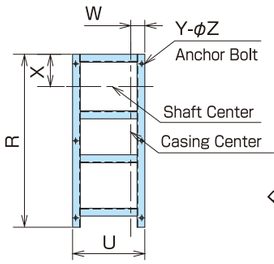
DIMENSIONS

FTB301B·302B·351B·352B·401B

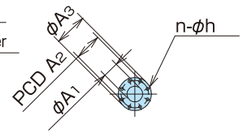




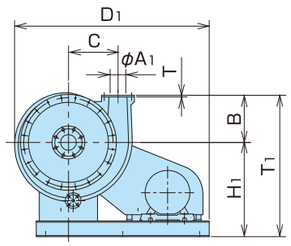
A-A
RH,RR,LH,LL,LR



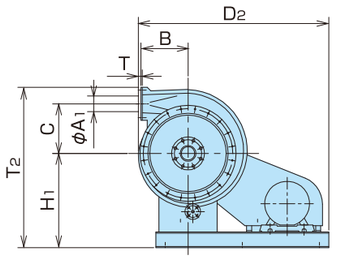
A-A
RL



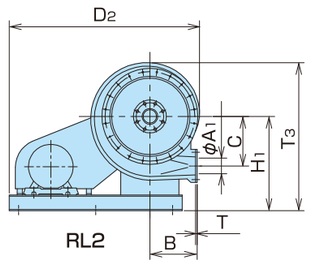
DISCHARGE



RH1



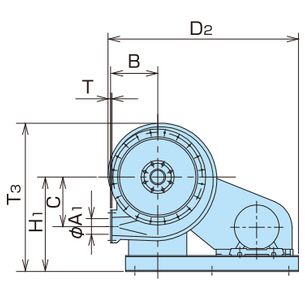
RR1



RL2

LH1

LL1



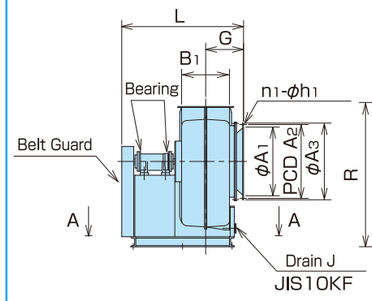
LR1

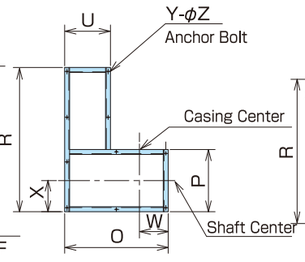
MODEL	CASING BODY												FLANGES					
	L	H1	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n	h	T
FTB301B	24.0	23.6	11.8	12.4	48.7	47.7	51.8	50.0	35.4	40.2	37.1	4.7	3.9	6.9	8.3	8	0.7	0.4
FTB302B	35.4	28.5	13.8	13.7	56.2	55.1	62.9	58.2	42.3	50.1	43.4	9.8	9.8	14.0	15.7	12	1.0	0.6
FTB351B	28.5	28.5	15.7	14.2	56.7	57.1	62.0	58.3	44.3	49.2	43.9	5.9	7.9	11.4	13.0	12	0.9	0.6
FTB352B	28.5	28.5	13.8	14.6	56.9	55.7	60.8	58.6	42.3	48.0	44.1	5.9	4.9	8.3	9.8	8	0.9	0.6
FTB401B	31.7	28.5	15.7	16.9	58.9	57.5	66.1	60.9	44.3	53.3	46.1	7.5	9.8	14.0	15.7	12	1.0	0.6

MODEL	DRAIN	BASE						BODY WEIGHT(lb)	BEARING	
	J	R	U	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTB301B	3/4"	43.3	18.1	3.5	6.1	0.2	0.6	242.6	6308	6307
FTB302B	1"	51.2	22.0	2.0	7.9	0.2	0.6	383.7	6310	6308
FTB351B	1"	51.2	22.0	5.0	7.9	0.2	0.6	383.7	6310	6308
FTB352B	1"	51.2	22.0	5.0	7.9	0.2	0.6	394.7	6310	6308
FTB401B	1"	51.2	22.0	3.3	7.9	0.2	0.6	449.8	6310	6308

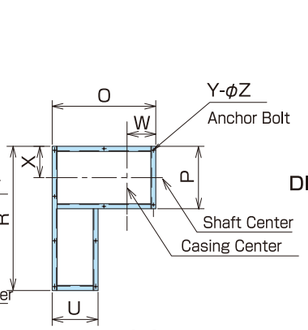
※BODY WEIGHT : Not Including Motor Weight.

FTB402B·403B·501B·601B·701B

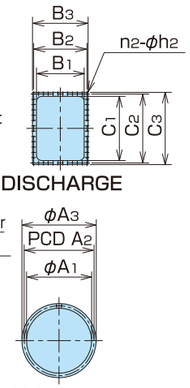




A-A
RH1,RR1,LH1,LL1,LR1

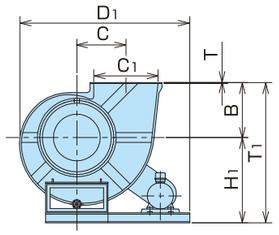


A-A
RL2

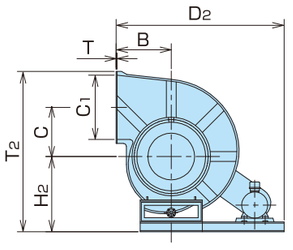


DISCHARGE

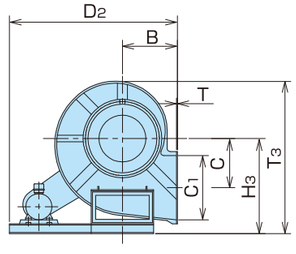
DISCHARGE
FTB402~501B



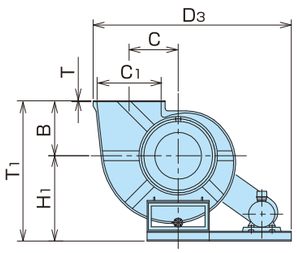
RH1



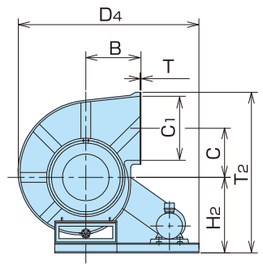
RR1



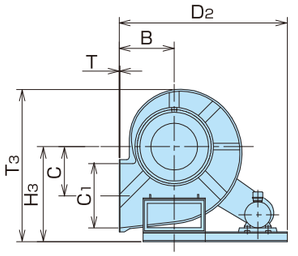
RL2



LH1



LL1



LR1

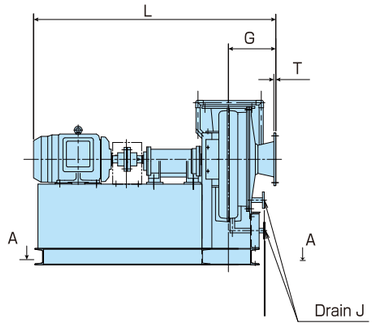
MODEL	CASING BODY														FLANGES				
	L	H1	H2	H3	B	C	D1	D2	D3	D4	T1	T2	T3	G	ϕA1	PCD A2	ϕA3	n1	h1
FTB402B	47.6	35.4	35.4	35.4	19.7	21.5	73.2	69.9	81.3	76.8	55.1	66.5	58.5	11.8	13.8	17.5	19.3	16	1.0
FTB403B	47.6	35.4	35.4	35.4	19.7	21.5	73.2	69.9	81.3	76.8	55.1	66.5	58.5	11.8	13.8	17.5	19.3	16	1.0
FTB501B	54.5	37.4	37.4	43.3	21.7	23.6	79.7	76.8	92.0	84.1	59.1	74.3	67.9	15.7	19.7	24.4	26.6	20	1.1
FTB601B	64.0	45.3	45.3	51.2	25.6	29.9	98.2	93.5	112.0	103.7	70.9	89.4	81.5	17.7	23.6	26.8	28.3	24	0.6
FTB701B	67.9	51.2	53.1	57.1	29.5	34.8	103.1	97.4	118.9	109.4	80.7	102.2	92.3	19.7	27.6	30.7	32.3	32	0.6

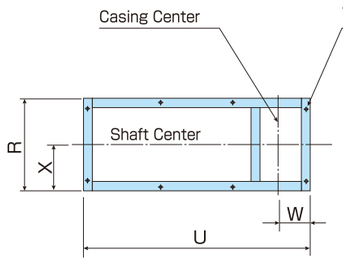
MODEL	FLANGES									DRAIN	BASE								BODY WEIGHT(lb)	BEARING	
	B1	B2	B3	C1	C2	C3	n2	h2	T	J	R	U	O	P	W	X	Y	Z	STANDARD	IMPELLER	PULLEY
FTB402B	-	-	-	-	-	-	-	-	0.6	2"	63.0	23.6	36.4	25.6	7.6	12.8	0.3	0.7	837.9	6315	6313
FTB403B	-	-	-	-	-	-	-	-	0.6	2"	63.0	23.6	36.4	25.6	7.6	12.8	0.3	0.7	837.9	6315	6313
FTB501B	-	-	-	-	-	-	-	-	0.6	2"	68.9	23.6	43.7	27.6	11.0	13.8	0.3	0.7	992.3	6315	6313
FTB601B	19.7	22.9	24.4	23.6	26.8	28.3	30	0.6	0.6	2"	86.6	27.6	53.9	37.4	13.6	18.7	0.4	0.9	1642.7	6320	6318
FTB701B	23.6	26.6	28.3	27.6	30.7	32.3	38	0.6	0.6	2"	86.6	27.6	57.9	37.4	15.6	18.7	0.4	0.9	2039.6	6320	6318

※BODY WEIGHT : Not Including Motor Weight.

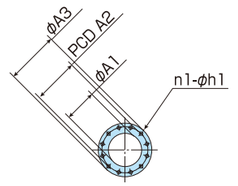
DIMENSIONS

FTW

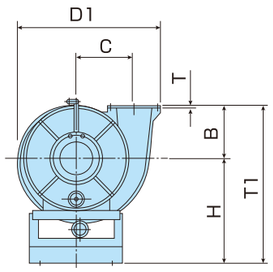




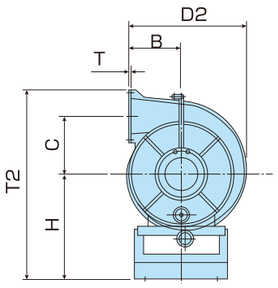
A-A



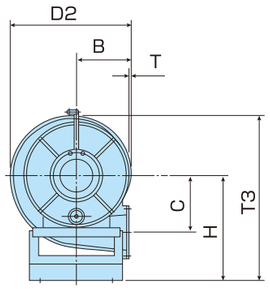
DISCHARGE



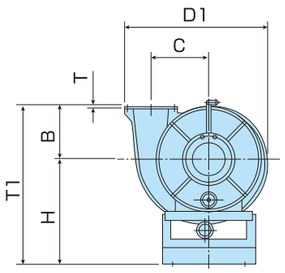
RH



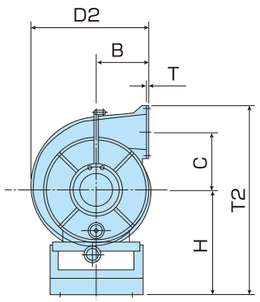
RR



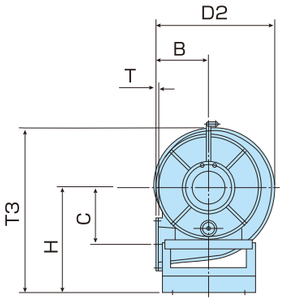
RL



LH



LL



LR

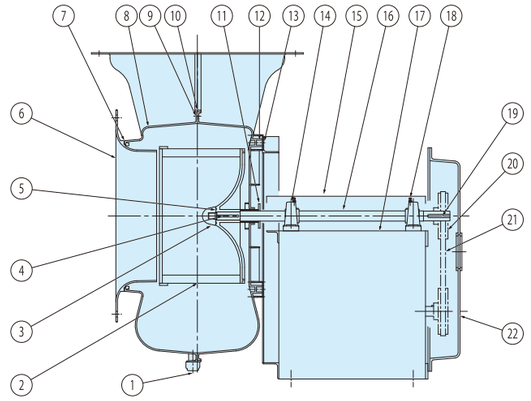
MODEL	CASING BODY										DRAIN	BEARING	
	L	H	B	C	D1	D2	T1	T2	T3	G	J	IMPELLER	MOTOR
FTW352	56.0	28.5	13.8	14.6	35.1	31.0	42.3	48.0	44.1	11.0	1"	6210	6207
FTW401	72.2	31.5	15.7	16.9	42.4	35.4	47.2	56.3	49.1	14.2	1"	6215	6213
FTW403	86.5	37.4	19.7	21.5	54.1	46.3	57.1	68.5	60.4	18.5	2"	6215	6213

MODEL	FLANGES						BASE						BODY WEIGHT
	φA1	PDC A2	φA3	n1	h2	T	R	U	W	X	Y	Z	lb
FTW352	4.9	8.3	9.8	8	0.9	0.6	23.6	51.2	6.5	11.8	0.3	0.7	926.1
FTW401	9.8	14.0	15.7	12	1.0	0.6	27.6	66.9	9.2	13.8	0.3	0.7	1499.4
FTW403	13.8	17.5	19.3	16	1.0	0.6	31.5	78.7	12.1	15.7	0.3	0.9	1984.5

※BODY WEIGHT : Not Including Motor Weight.

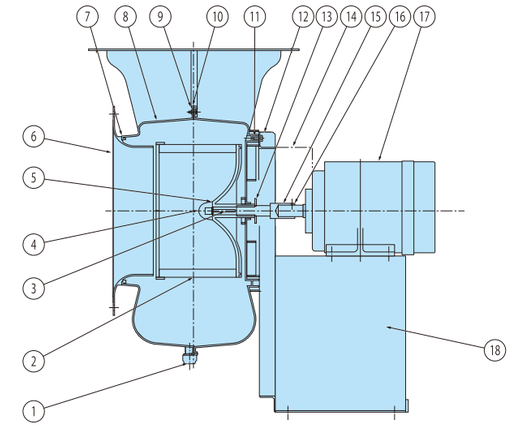
STRUCTURE

CES101·151·201



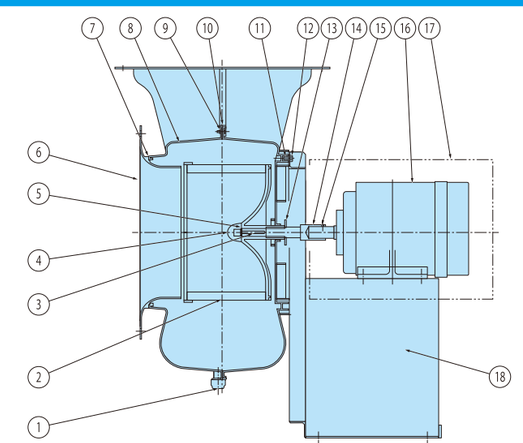
No.	NAME OF PART	MATERIALS	QTY	
1	Drain Plug	PE	3	
2	Impeller	PP(GF)	1	
3	Impeller Nut	PP	1	
4	Impeller Key	S45C	1	
5	O-Ring	Chloroprene	1	
6	Suction Cone	PP(GF)	1	
7	Packing	PE	1	
8	Casing	PP(GF)	1	
9	Casing Bolt	SUS304	1set	
10	Casing Gasket	PE	1	
11	Gas Separator	PE	1	
12	Insert Nut	Brass	1set	
13	Casing Set Bolt	SUS304	1set	
14	Bearing	SUJ2	2	
15	Shaft Guard	FRP	1	
16	Shaft	S35C	1	
17	Base	SS400	1	
18	Grease Nipple	Brass	2	
19	V-Pulley Key	S45C	1	
20	V-Pulley	FC200	1set	
21	V-Belt	Rubber	1set	
22	Belt Guard	FRP	1	

CES101D·151D·201D



No.	NAME OF PART	MATERIALS	QTY	
1	Drain Plug	PE	3	PF1/2"
2	Impeller	FRPP	1	
3	Impeller Key	S45C	1	
4	Impeller Nut	PP	1	
5	O-Ring	Chloroprene	1	
6	Suction Cone	FRPP	1	
7	Packing	PE	1	
8	Casing	FRPP	1	
9	Casing Bolt	SUS304	1set	
10	Casing Gasket	PE	1	
11	Insert Nut	Copper Pyrites	1set	
12	Casing Set Bolt	SUS304	1set	
13	Gas Separator	PE	1	
14	Shaft Guard	FRP	1	
15	Shaft	S45C	1	
16	Shaft Set Screw	SUS304	1set	
17	Motor	----	1	
18	Base	SS400	1	

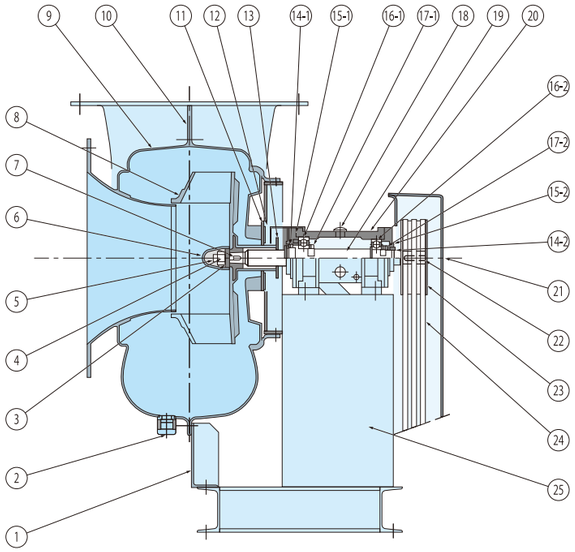
CES101V·151V·201V



No.	NAME OF PART	MATERIALS	QTY	
1	Drain Plug	PE	3	PF1/2"
2	Impeller	FRPP	1	
3	Impeller Key	S45C	1	
4	Impeller Nut	PP	1	
5	O-Ring	Chloroprene	1	
6	Suction Cone	FRPP	1	
7	Packing	PE	1	
8	Casing	FRPP	1	
9	Casing Bolt	SUS304	1set	
10	Casing Gasket	PE	1	
11	Insert Nut	Copper Pyrites	1set	
12	Casing Set Bolt	SUS304	1set	
13	Gas Separator	PE	1	
14	Shaft	S45C	1	
15	Shaft Set Screw	SUS304	1set	
16	Motor	----	1	
17	Sunshade Cover	FRP	1	
18	Base	SS400	1	

STRUCTURE

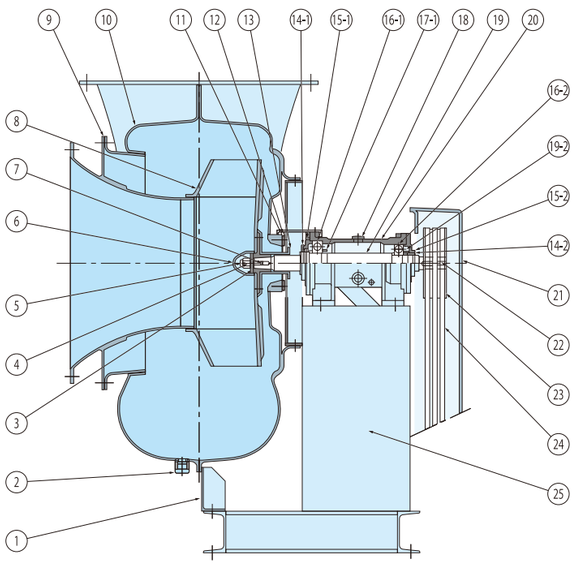
FTF153·203·253/FTE151·201·251



No.	NAME OF PART	MATERIALS	QTY	
1	Casing Support	FRP	1	*No Casing Support for model FTF153.
2	Drain Plug	FRP	2	
3	Impeller Washer	SS400	1	
4	Impeller Nut	S25C	1	
5	Split Pin	SWRM6	1	
6	Nut Cover	FRP	1	
7	Impeller Key	S45C	1	
8	Impeller	FRP	1	
9	Casing	FRP	1	
10	Casing Gasket	EPT	1	
11	Seal Plate	PE	1	
12	Gland	FRP	1	
13	Gas Separator	HTPVC	1	
14-1	V-Ring (Front)	NBR	1	
14-2	V-Ring (Rear)	NBR	1	
15-1	Bearing Cover(Front)	FC200	1	
15-2	Bearing Cover (Rear)	FC200	1	
16-1	Bearing(Front)	SUJ2	1	
16-2	Bearing (Rear)	SUJ2	1	
17-1	Adapter Nut & Washer (Front)	SS400	1set	
17-2	Adapter Nut & Washer (Rear)	SS400	1set	
18	Oil Supply Plug	PP	1	
19	Shaft	S35C	1	
20	Bearing Housing	FCD450	1	
21	Belt Guard	FRP	1	
22	V-Pulley Key	S45C	1	
23	V-Pulley	—	1set	
24	V-Belt	—	1set	
25	Bracket	SS400	1	

Note: No drain plug on RL and LR types. Number of belts may vary from that shown in this drawing.

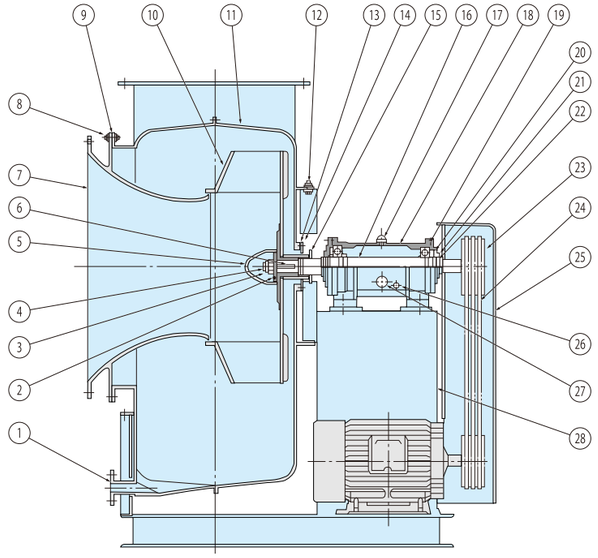
FTF303·403/FTE301·401



No.	NAME OF PART	MATERIALS	QTY	
1	Casing Support	FRP	1	
2	Drain Plug	FRP	2	
3	Impeller Washer	SS400	1	
4	Impeller Nut	S25C	1	
5	Split Pin	SWRM6	1	
6	Nut Cover	FRP	1	
7	Impeller Key	S45C	1	
8	Impeller	FRP	1	
9	Casing	FRP	1	
10	Casing Gasket	EPT	1	
11	Seal Plate	PE	1	
12	Gland	FRP	1	
13	Gas Separator	HTPVC	1	
14-1	V-Ring (Front)	NBR	1	
14-2	V-Ring (Rear)	NBR	1	
15-1	Bearing Cover(Front)	FC200	1	
15-2	Bearing Cover (Rear)	FC200	1	
16-1	Bearing(Front)	SUJ2	1	
16-2	Bearing (Rear)	SUJ2	1	
17-1	Adapter Nut & Washer (Front)	SS400	1set	
17-2	Adapter Nut & Washer (Rear)	SS400	1set	
18	Oil Supply Plug	PP	1	
19	Shaft	S35C	1	
20	Bearing Housing	FCD450	1	
21	Belt Guard	FRP	1	
22	V-Pulley Key	S45C	1	
23	V-Pulley	—	1set	
24	V-Belt	—	1set	
25	Bracket	SS400	1	

Note: No drain plug on RL and LR types. Number of belts may vary from that shown in this drawing.

FTF503·603·703·803·903

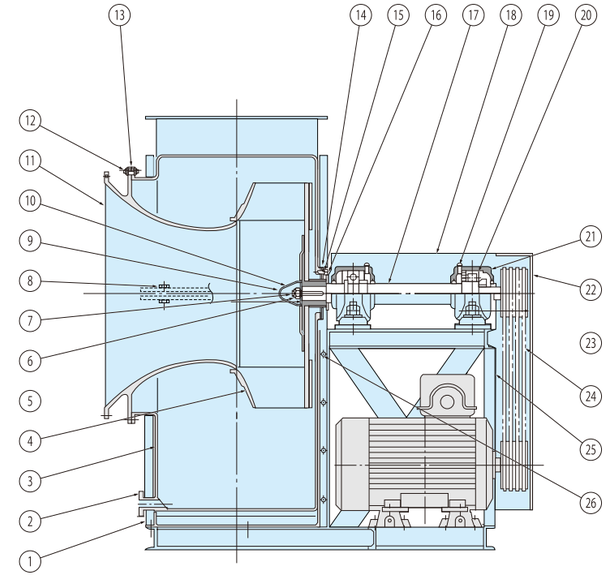


No.	NAME OF PART	MATERIALS	QTY	
1	Drain Flange	FRP	1	
2	Impeller Washer	SS400	1	
3	Impeller Nut	S25C	1	
4	Split Pin	SWRM6	1	
5	Nut Cover	FRP	1	
6	Impeller Key	S45C	1	
7	Suction Cone	FRP	1	
8	Suction Cone Bolt	SUS304	1set	
9	Casing Gasket	EPT	1	
10	Impeller	FRP	1	
11	Casing	FRP	1	
12	Casing Set Bolt	SUS304	1set	
13	Seal Plate	PE	1	
14	Gland	FRP	1	
15	Gas Separator	HTPVC	1	
16	Shaft	S45C	1	
17	Oil Supply Plug	PP	1	
18	Bearing Housing	FCD450	1	
19	Bearing	SUJ2	2	
20	Adapter Nut & Washer	SS400	2	
21	Bearing Cover	FC200	2	
22	V-Ring	NBR	2	
23	V-Pulley	FC200	1set	
24	V- Belt	Rubber	1set	
25	Belt Guard	FRP	1	
26	Oil Plug	SS400	1	
27	Oil Gauge	Brass	1	
28	Bracket	SS400	1	

※Note: No drain flange on RL and LR types. Number of belts may vary from that shown in this drawing.

※Note for FTF903 : The casing is divide into two, and the Belt gurde is made of SS400.

FTF1201·1401

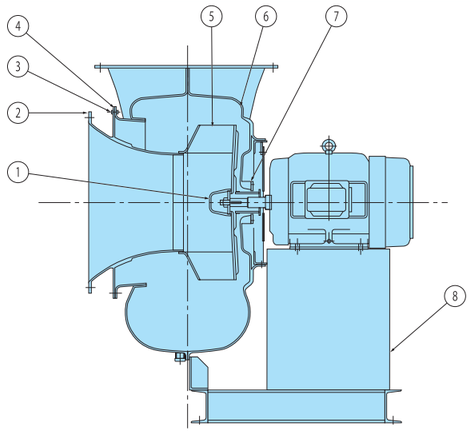


No.	NAME OF PART	MATERIALS	QTY	
1	Casing Support	SS400	1set	
2	Drain Flange	FRP	1	
3	Casing	FRP	1	
4	Impeller	FRP	1	
5	Impeller Washer	SS400	1	
6	Impeller Key	S45C	1	
7	Split Pin	SWRM6	1	
8	Casing Joint Bolt	SUS304	1set	
9	Nut Cover	FRP	1	
10	Impeller Nut	S25C	1	
11	Suction Cone	FRP	1	
12	Suction Cone Bolt	SUS304	1set	
13	Casing Gasket	EPT	1	
14	Seal Plate	PE	1	
15	Gland	FRP	1	
16	Gas Separator	HTPVC	1	
17	Shaft	S45C	1	
18	Shaft Guard	SS400	1	
19	Grease Nipple	Brass	2	
20	Bearing	SUJ2	2	
21	Bearing Housing	FC200	2	
22	Belt Guard	SS400	1	
23	V-Pulley	FC200	1set	
24	V-Belt	Rubber	1set	
25	Bracket	SS400	1	
26	Casing Set Bolt	SS400	1set	

※Note: No drain flange on RL and LR types. Number of belts may vary from that shown in this drawing.

STRUCTURE

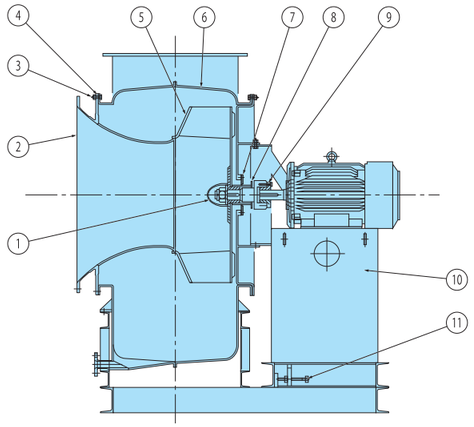
FTF253MD・303MD・403MD



No.	NAME OF PART	MATERIALS	QTY	
1	Nut Cover	FRP	1	
2	Suction Cone	FRP	1	
3	Suction Cone Set Bolt	SUS304	1set	
4	Gasket For Suction Cone	EPT	1	
5	Impeller	FRP	1	
6	Casing	FRP	1	
7	Sealing Base	PE	1	
8	Base	SS400	1	

Note: No drain plug on RL and LR types.

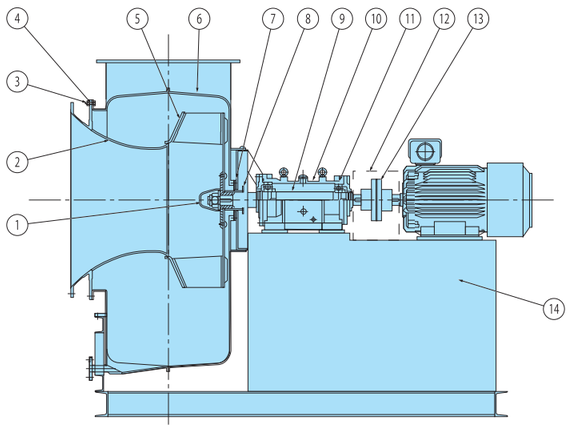
FTF503MD・603MD・703MD



No.	NAME OF PART	MATERIALS	QTY	
1	Nut Cover	FRP	1	
2	Suction Cone	FRP	1	
3	Suction Cone Set Bolt	SUS304	1set	
4	Casing Gasket	EPT	1	
5	Impeller	FRP	1	
6	Casing	FRP	1	
7	Sealing Plate	PE	1	
8	Gas Separator	HTPVC	1	
9	Shaft Coupling	SS45C	1	
10	Base	SS400	1	
11	Pushing Bolt For Upper Base	SUS304	2set	

Note: No drain plug on RL and LR types.

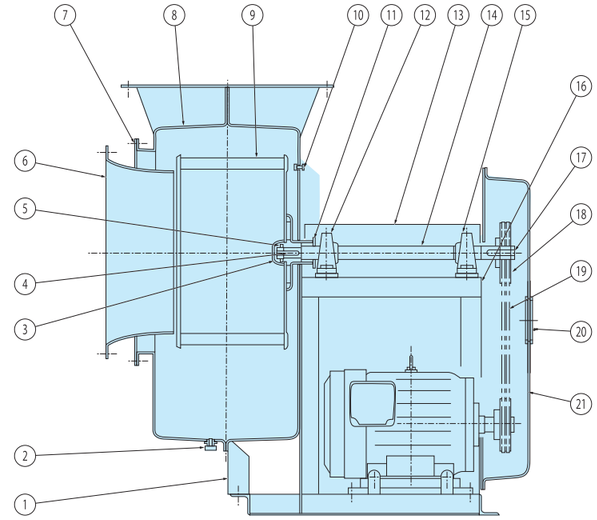
FTF503MC・603MC・703MC・803MC



No.	NAME OF PART	MATERIALS	QTY	
1	Nut Cover	FRP	1	
2	Suction Cone	FRP	1	
3	Suction Cone Set Bolt	SUS304	1set	
4	Casing Gasket	EPT	1	
5	Impeller	FRP	1	
6	Casing	FRP	1	
7	Sealing Plate	PE	1	
8	Gas Separator	HTPVC	1	
9	Shaft	SS45C	1	
10	Bearing Housing	FCD450	1	
11	Bearing	SUJ2	1	
12	Coupling Cover	SS400	1	
13	Coupling	FC200	1	
14	Base	SS400	1	

Note: No drain plug on RL and LR types.

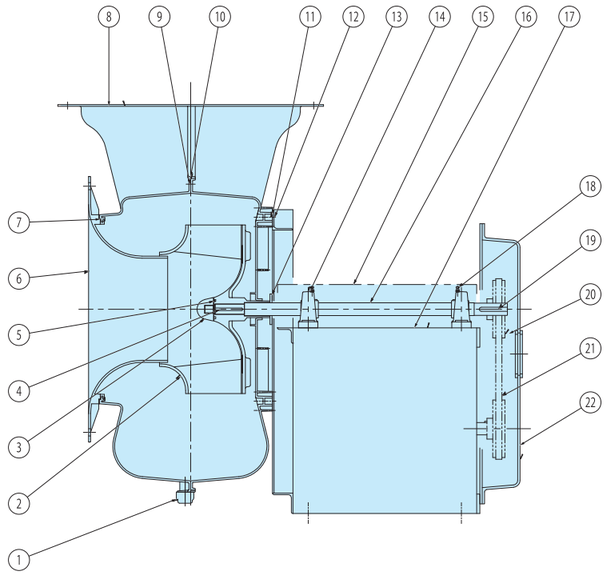
NSF302・402



No.	NAME OF PART	MATERIALS	QTY	
1	Casing Support	FRP	1	
2	Drain Plug	FRP	1	
3	Nut Cover	FRP	1	
4	Impeller Key	S45C	1	
5	Impeller Nut & Washer	SS400	1	
6	Suction Cone	FRP	1	
7	Suction Cone Set Bolt	SUS304	1set	
8	Casing	FRP	1	
9	Impeller	FRP	1	
10	Casing Set Bolt	SUS304	1set	
11	Gas Separator	HTPVC	1	
12	Bearing	SUJ2	2	
13	Shaft Guard	FRP	1	
14	Shaft	S45C	1	
15	Grease Nipple	Brass	2	
16	Base	SS400	1	
17	V-Pulley Key	S45C	1	
18	V-Pulley	FC200	2	
19	V-Belt	Rubber	1set	
20	V-Belt Inspection Window	Acrylic Plate	1	
21	Belt Guard	FRP	1	

※Note: No drain plug on RL and LR types. Number of belts may vary from that shown in this drawing.

CTF151・201

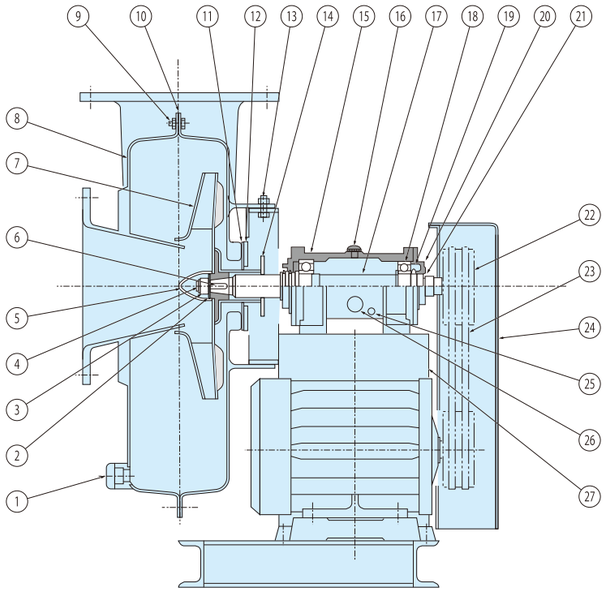


No.	NAME OF PART	MATERIALS	QTY	
1	Drain Plug	PE	3	
2	Impeller	FRP	1	
3	Impeller Nut	PP	1	
4	Impeller Key	S45C	1	
5	O-Ring	Chloroprene	1	
6	Suction Cone	PP(GF)	1	
7	Packing	PE	1	
8	Casing	PP(GF)	1	
9	Casing Bolt	SUS304	1set	
10	Casing Gasket	PE	1set	
11	Insert Nut	Brass	1set	
12	Casing Set Bolt	SUS304	1set	
13	Gas Separator	PE	1	
14	Bearing	SUJ2	2	
15	Shaft Guard	FRP	1	
16	Shaft	S45C	1	
17	Base	SS400	1	
18	Grease Nipple	Brass	2	
19	V-Pulley Key	S45C	1	
20	V-Pulley	FC200	1set	
21	V-Belt	Rubber	1set	
22	Belt Guard	FRP	1	

Note: Number of belts may vary from that shown in this drawing.

STRUCTURE

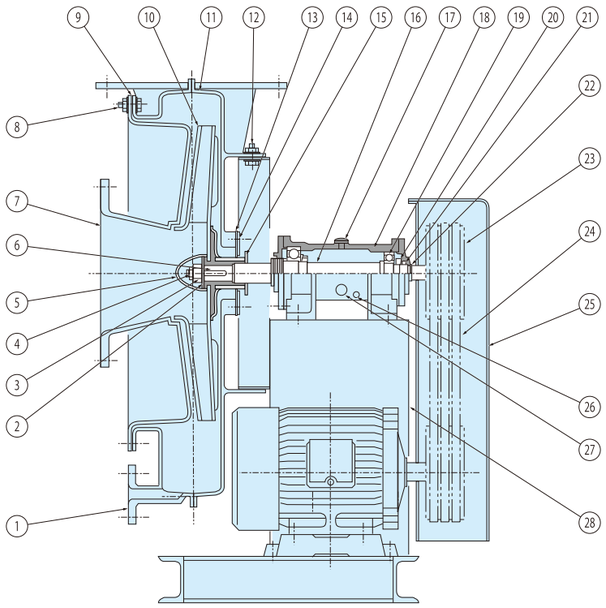
FTB202B·251B·252B



No.	NAME OF PART	MATERIALS	QTY	
1	Drain Plug	FRP	1	
2	Washer	SS400	1	
3	Nut With Groove	S25C	1	
4	Split Pin	SWRM6	1	
5	Nut Cover	FRP	1	
6	Impeller Key	S45C	1	
7	Impeller	FRP	1	
8	Casing	FRP	1	
9	Casing Bolt	SUS304	1set	
10	Casing Gasket	EPT	1	
11	Seal Plate	PE	1	
12	Seal Plate Support	FRP	1	
13	Casing Set Bolt	SUS304	1	
14	Gas Separator	HTPVC	1	
15	Bearing Housing	FCD450	1	
16	Oil Supply Plug	PP	1	
17	Shaft	S45C	1	
18	Bearing	SUJ2	2	
19	Bearing Nut & Washer	SS400	2	
20	Bearing Cover	FC200	2	
21	V-Ring	NBR	2	
22	V-Pulley	FC200	1set	
23	V-Belt	Rubber	1set	
24	V-Belt Guard	FRP	1	
25	Oil Plug	SS400	1	
26	Oil Gauge	PC	2	
27	Base	SS400	1	

※No drain plug is attached in case of RL and LR.
Number of belt may vary from that shown in this drawing.

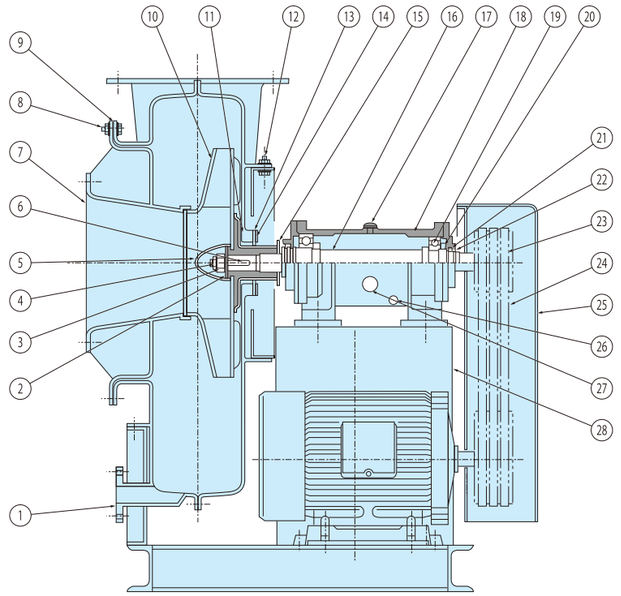
FTB301B·302B·351B·352B·401B



No.	NAME OF PART	MATERIALS	QTY	
1	Drain Flange	FRP	1	
2	Washer	SS400	1	
3	Nut With Groove	S25C	1	
4	Split Pin	SWRM6	1	
5	Nut Cover	FRP	1	
6	Impeller Key	S45C	1	
7	Suction Cone	FRP	1	
8	Suction Cone Bolt	SUS304	1set	
9	Casing Gasket	Chloroprene	1	
10	Impeller	FRP	1	
11	Casing	FRP	1	
12	Casing Set Bolt	SUS304	1set	
13	Seal Plate	PE	1	
14	Seal Plate Support	FRP	1	
15	Gas Separator	HTPVC	1	
16	Shaft	S45C	1	
17	Oil Supply Plug	PP	1	
18	Bearing Housing	FCD450	1	
19	Bearing	SUJ2	2	
20	Bearing Nut & Washer	SS400	2	
21	Bearing Cover	FC200	2	
22	V-Ring	NBR	2	
23	V-Pulley	FC200	1set	
24	V-Belt	Rubber	1set	
25	V-Belt Guard	FRP	1	
26	Oil Plug	SS400	1	
27	Oil Gauge	PC	2	
28	Base	SS400	1	

※No drain plug is attached in case of RL and LR.
Number of belt may vary from that shown in this drawing.

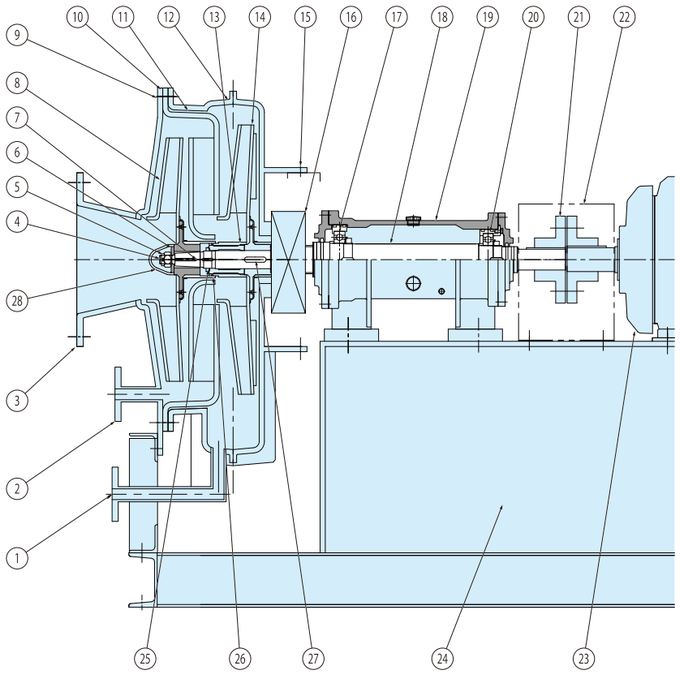
FTB402B·403B·501B·601B·701B



No.	NAME OF PART	MATERIALS	QTY	
1	Drain Flange	FRP	1	
2	Washer	SS400	1	
3	Nut With Groove	S25C	1	
4	Split Pin	SWRM6	1	
5	Nut Cover	FRP	1	
6	Impeller Key	S45C	1	
7	Suction Cone	FRP	1	
8	Suction Cone Bolt	SUS304	1set	
9	Casing Gasket	Chloroprene	1	
10	Impeller	FRP	1	
11	Casing	FRP	1	
12	Casing Set Bolt	SUS304	1set	
13	Seal Plate	PE	1	
14	Seal Plate Support	FRP	1	
15	Gas Separator	HTPVC	1	
16	Shaft	S45C	1	
17	Oil Supply Plug	PP	1	
18	Bearing Housing	FCD450	1	
19	Bearing	SUJ2	2	
20	Bearing Nut & Washer	SS400	2	
21	Bearing Cover	FC200	2	
22	V-Ring	NBR	2	
23	V-Pulley	FC200	1set	
24	V-Belt	Rubber	1set	
25	V-Belt Guard	FRP	1	
26	Oil Plug	SS400	1	
27	Oil Gauge	PC	2	
28	Base	SS400	1	

※No drain Flange is attached in case of RL and LR.
Number of belt may vary from that shown in this drawing.

FTW



No.	NAME OF PART	MATERIALS	QTY	
1	Drain Flange (rear)	FRP	1	
2	Drain Flange (front)	FRP	1	
3	Suction Cone	FRP	1	
4	Split Pin	SWRM6	1	
5	Impeller Nut	S25C	1	
6	Washer	SS400	1	
7	Impeller Key (front)	S45C	1	
8	Impeller (front)	FRP	1	
9	Casing Bolt	SUS304	1set	
10	Gasket	EPT	1set	
11	Median Plane	FRP	1	
12	Casing	FRP	1	
13	Distance Piece	FRP/S25C	1	
14	Impeller (rear)	FRP	1	
15	Casing Set Bolt	SUS304	1set	
16	Gland	·------·	1set	
17	Bearing	SUJ2	1	
18	Shaft	S45C	1	
19	Bearing Housing	FCD450	1	
20	Bearing	SUJ2	1	
21	Coupling	SF440A	1	
22	Coupling Cover	SS400	1	
23	Motor	·------·	1	
24	Base	SS400	1	
25	Impeller Nut & Washer (R)	SS400	1	
26	O-Ring	FPM	1	
27	Impeller Key	S45C	1	
28	Nut Cover	FRP	1	

※No drain Flange is attached in case of RL and LR.

THE PRODUCTS OF TEXEL

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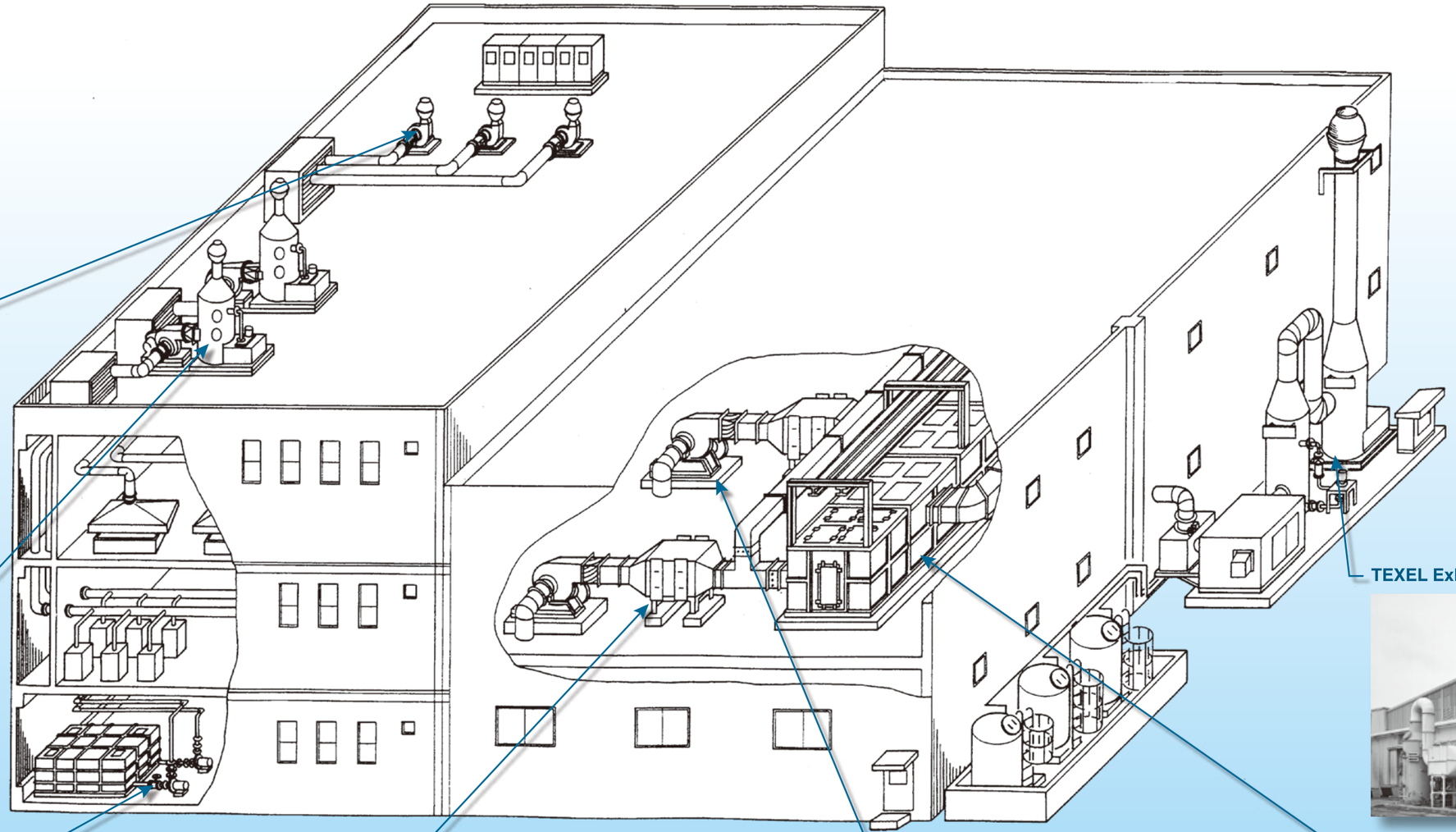
The reliability of our products have been recognized by our clients as superior chemical resistant equipment in modern industrial applications fulfilling the product efficiency.

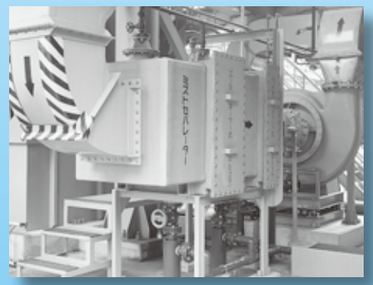


TEXEL Ventilator

TEXEL Exhaust Gas Scrubber

TEXEL Corrosion-Resistant Pumps

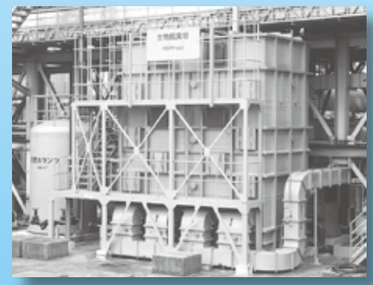
TEXEL Mist Separator



TEXEL Exhaust Gas Scrubber

TEXEL Corrosion-Resistant Fan/Blower

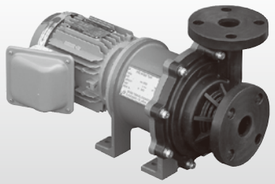
TEXEL Biological Deodorizer "BIOBEST"



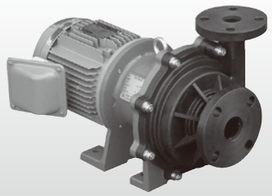
INTRODUCTION OF TEXEL PUMPS

TEXEL MAGNETIC DRIVE PUMPS

MEP-040

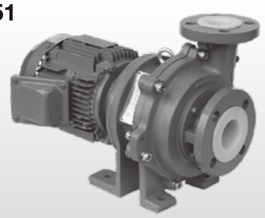


MEP-050



PP type Magnetic Drive Pump is extremely durable even during idling operation and operation with aeration.

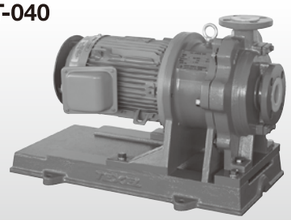
MER-051



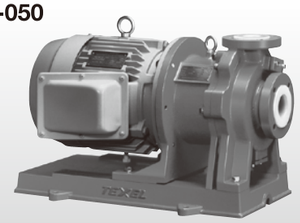
MEH-040

Compact, High Efficiency, General Purpose, Magnetic Drive Pump.

MET-040

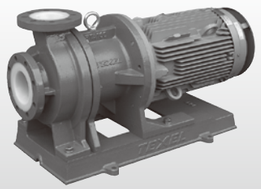


MET-050



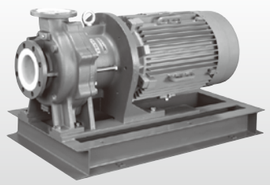
Magnetic Drive pump with a wide range of usefulness in medium size processes.

MTA SERIES



High Total Head State of The Art Process Magnetic Drive Pump.

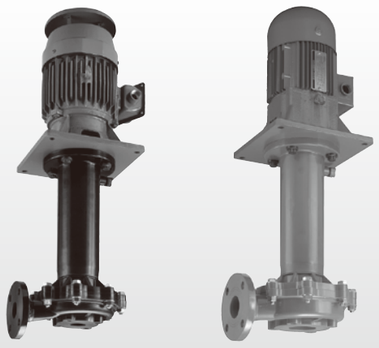
MSX SERIES



High Capacity Process Magnetic Drive Pump.

TEXEL VERTICAL CHEMICAL PUMPS

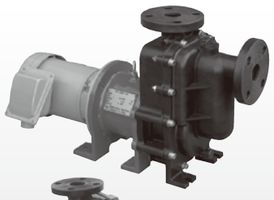
VEM SERIES



High Corrosion-Resistant, Vertical Type Pump.

TEXEL SELF-PRIMING MAGNETIC DRIVE PUMPS

MES-040



MES-050

High Durability during Idling Operation and High Corrosive Resistant Self-Priming Magnetic Drive Pump.

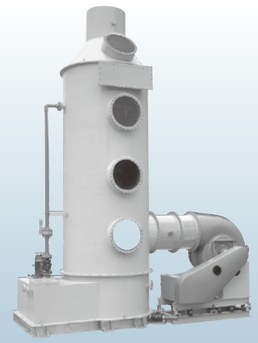
•Please refer to a catalog for detailed contents.

INTRODUCTION OF TEXEL ENVIRONMENTAL EQUIPMENTS

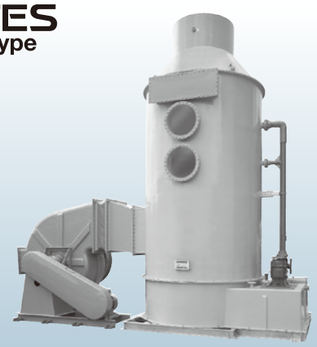
WET TYPE SCRUBBERS

TRS-F
Small Series
Filling Type

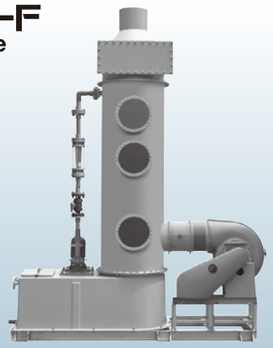
TRS-F
Large Scale Series
Filling Type



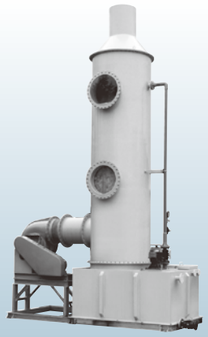
MODEL TES
Spray Type



MODEL SBS-F
Bubbling Type



MODEL STP
Filling Type



DEODORIZERS

Biological Deodorizer (BIOBEST)

Activated Carbon Absorption Tower

Chemical Cleanning Tower

•Please refer to a catalog for detailed contents.

INSTALLATION PLAN

Precautions for Installation

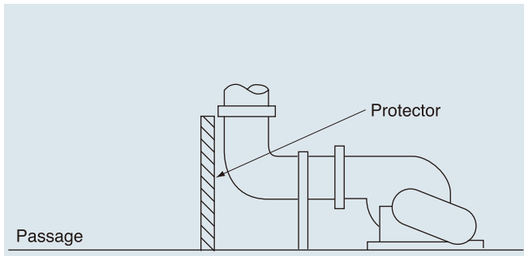
1. Installation and Piping

1) Ensure that the fan is installed where it can easily be accessed for routine checks and maintenance. (Free space of about 600mm is recommended)

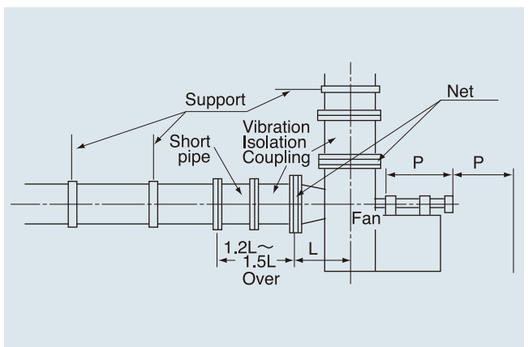
2) When connecting the fan to a duct, make sure a vibration proof joint is attached to the fan and piping supports installed to free the fan from effects of piping load.(We are always at your service with standard vibration proof joints for each model)

3) The risk of foreign matter being sucked into the fan while it is running , resulting in unanticipated damage to the impeller should be averted by taking steps to ensure that foreign matter is not sucked in through the suction opening or allowed to drop in through the dischage opening. (We are always at your service with standard nettings for each model)

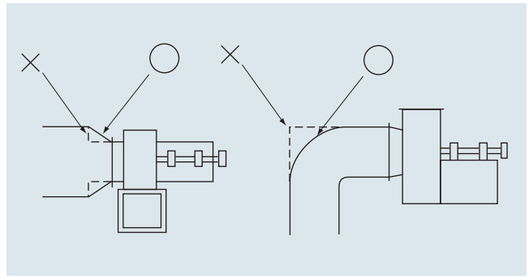
4) Safety has been fully considered in the design and manufacture of impellers. However,the suction of foreign matter, adherance of dust (debris), suction of high tempeature gases may lead to unanticipated damage to the fan . A protector should be installed or other adequate measures taken to avert accidents in unavoidable situations where the discharge opening stretches out into a passage way.



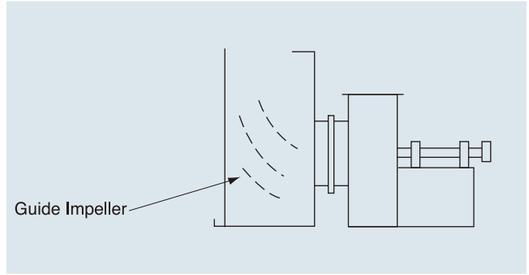
5) For proper running of the fan , the piping and installation method given in the diagram below is recommended.



6) To ensure smooth flow of air, ducts should be designed to have the profile shown by the solid lines in the drawings displayed below. Ducts having the profile denoted by the dotted lines not only lead to increased vibration especially at the suction side but may also cause a decline in fan performance.



7) The use of a right-angle elbow or chamber as piping is also a cause for excessive vibration and decline in fan performance. Utilize guide vanes if use of a right-angle elbow or chamber is unavoidable.



8) Fluid would accumulate inside the casing if the gas being handled contains water vapor or mist, therefore, a casingdrainage pipe should be installed and drainage performed regularly to get rid of the accumulated fluid.

9) The fan has been designed to handle gases that are free of dust or crystallize particles. To avert the risk of impeller unbalance, a filter or similar device should be attached to the suction opening if the gas is not devoid of dust etc.

2. Working temperature and Corrosion resistance

A list of the various gases that can be handled and the permissible maximum gas temperature under which the fan can be used is shown in the CORROSION RESISTANCE TABLE.
Corrosion resistance is attainable at the temperatures up to 50°C temperatures above this value may likely result in impeller damage. The specified working temperature range must be strictly maintained. Consult with us, if the gas temperature should exceed the maximum.

COMPANY PROFILE

Trade Name:
SEIKOW CHEMICAL ENGINEERING & MACHINERY, LTD.

Head Office:
1-31 4-chome Mizudo-cho, Amagasaki,Hyogo Pref. 661-0026 Japan
TEL. (06)6438-0841 FAX. (06)6438-3001

President: Susumu Fujita

Capital: 100 million Yen

Founded: Aug.1, 1952

Established: May 16, 1956

Employees: 191 persons

Business Lines:
Design, manufacture, engineering and sales of corrosion resistant chemical equipment
and apparatus which are mainly constructed with synthetic resins.

Main Production Items:
Corrosion-resistant Pump, Fan/Blower and Exhaust gas treating equipment, NOx control equipment, Chlorine gas leak detection security equipment, White smoke eliminator, Deodorizer, Biological deodorizing system, Odor preventive covering for duct line, etc.
Reference: Risona Bank Amagasaki-Kita Branch,
Sumitomo Mitsui Banking Corp. Amagasaki Branch,
Minato Bank Amagasaki branch
Mizuho Bank Amagasaki Branch,

Qualification:
Construction License No. Toku-23 2667 dated June 25, 2011, by the Ministry of Land.
Infrastructure and Transport

Category : Ducting/Piping construction work, Machinery Equipment installation work

Category : Water service institution construction work

Registered date : August 12, 1994

Membership of the following Organizations:
Amagasaki Chamber of Commerce and Industry
Amagasaki Industrial Association
Amagasaki Employers Association
Turbo Machinery Society of Japan

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Osaka Service Center
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・Environmental Equipment Division
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・Fan Division
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China Suzhou Factory:
Suzhou Seikow Chemical Engineering & Machinery, Ltd.
Taiping Industrial Park, Taiping Road, Xiang Cheng District, Suzhou, Jiangsu China 215137
TEL. 0512-8818-0058 FAX. 0512-8818-0059