

Chemicals	Chemical Formula	Density Wt%	Temp. °C				Special specifications
			20	40	60	80	
Inorganic Acid Gases							
Hydrochloric Acid	HCl	20	Standard	Standard	Standard	Standard	
Perchloric Acid	HClO ₄	10	Standard	Standard	Standard	Standard	
Chromic Acid	H ₂ CrO ₄	20	Standard	Standard	Standard	Standard	
Hydrofluosilicic Acid	H ₂ SiF ₆	10	Standard	Standard	Standard	Standard	Note 1
Hydrocyanic Acid	HCN	all	Standard	Standard	Standard	Standard	
Hydrobromic Acid	HBr	25	Standard	Standard	Standard	Standard	
Nitric Acid	HNO ₃	20	Standard	Standard	Standard	Standard	
Fuming Sulfuric Acid	H ₂ SO ₄ -SO ₃		Not recommended	Not recommended	Not recommended	Not recommended	
Hydrofluoric Acid	HF	5	Standard	Standard	Standard	Standard	Note 1
Boric Acid	H ₃ BO ₃	all	Standard	Standard	Standard	Standard	
Hydrofluoric Anhydride	HF		Not recommended	Not recommended	Not recommended	Not recommended	
Sulfuric Anhydride	SO ₃		Not recommended	Not recommended	Not recommended	Not recommended	
Sulfuric Acid	H ₂ SO ₄	50	Standard	Standard	Standard	Standard	
Phosphoric Acid	H ₃ PO ₄	80	Standard	Standard	Standard	Standard	
Sulfur dioxide	SO ₂	25	Standard	Standard	Standard	Standard	
Carbon Monoxide	CO	—	Standard	Standard	Standard	Standard	
Chlorine Gas	Cl ₂	10	Standard	Standard	Standard	Standard	
Ozone	O ₃	(10ppm)	Standard	Standard	Standard	Standard	
Bromine	Br ₂		Not recommended	Not recommended	Not recommended	Not recommended	
Nitrogen Oxide	NOx	5	Standard	Standard	Standard	Standard	
Carbon Dioxide	CO ₂	—	Standard	Standard	Standard	Standard	
Hydrogen Sulfide	H ₂ S	all	Standard	Standard	Standard	Standard	
Organic Acid Gases							
Acrylic Acid	CH ₂ =CHCOOH	10	Standard	Standard	Standard	Standard	
Adipic Acid	(CH ₂) ₄ (COOH) ₂	23	Standard	Standard	Standard	Standard	
Benzoic Acid	C ₆ H ₅ COOH	all	Standard	Standard	Standard	Standard	
Oleic Acid	C ₁₇ H ₃₃ COOH	all	Standard	Standard	Standard	Standard	
Formic Acid	HCOOH	10	Standard	Standard	Standard	Standard	
Citric Acid	C ₆ H ₄ (OH)(COOH) ₃	all	Standard	Standard	Standard	Standard	
Glycolic Acid	CH ₂ OHCOOH	50	Standard	Standard	Standard	Standard	
Acetic Acid	CH ₃ COOH	25	Standard	Standard	Standard	Standard	
Acetic Anhydride	(CH ₃ CO) ₂ O		Not recommended	Not recommended	Not recommended	Not recommended	
Oxalic Acid	(COOH) ₂	all	Standard	Standard	Standard	Standard	
Tartaric Acid	(CHOHCOOH) ₂	all	Standard	Standard	Standard	Standard	
Stearic Acid	C ₁₇ H ₃₅ COOH	all	Standard	Standard	Standard	Standard	
Sulfanilic Acid	C ₆ H ₄ (NH ₂)(SO ₃ H)	all	Standard	Standard	Standard	Standard	
Tannic Acid	C ₇₆ H ₅₂ O ₄₆	all	Standard	Standard	Standard	Standard	
Thioglycolic Acid	HSCH ₂ COOH		Not recommended	Not recommended	Not recommended	Not recommended	
Lactic Acid	CH ₃ CH(OH)COOH	all	Standard	Standard	Standard	Standard	
Picric Acid	C ₆ H ₂ (NO ₂) ₃ OH	10	Standard	Standard	Standard	Standard	
Benzene Sulfonic Acid	C ₆ H ₅ SO ₃ H	50	Standard	Standard	Standard	Standard	
Maleic Acid	(CHCOOH) ₂	all	Standard	Standard	Standard	Standard	
Monochloroacetic Acid	CH ₂ ClCOOH	25	Standard	Standard	Standard	Standard	
Butyric Acid	C ₃ H ₇ COOH	50	Standard	Standard	Standard	Standard	
Levulinic Acid	CH ₃ COCH ₂ CH ₂ COOH	all	Standard	Standard	Standard	Standard	
Alkalis							
Ammonia (gas)	NH ₃	all	Standard	Standard	Standard	Standard	
Ammonium Hydroxide	NH ₄ OH	20	Standard	Standard	Standard	Standard	
Calcium Hydroxide	Ca(OH) ₂	25	Standard	Standard	Standard	Standard	
Potassium Hydroxide	KOH	10	Standard	Standard	Standard	Standard	
Sodium Hydroxide	NaOH	25	Standard	Standard	Standard	Standard	
Barium Hydroxide	Ba(OH) ₂	10	Standard	Standard	Standard	Standard	
Bleaches							
Chlorine Water		sat.	Standard	Standard	Standard	Standard	
Hydrogen Peroxide	H ₂ O ₂	30	Standard	Standard	Standard	Standard	
Hypochlorous Acid	HClO	10	Standard	Standard	Standard	Standard	Note 2
Calcium Hypochlorite	Ca(ClO) ₂	all	Standard	Standard	Standard	Standard	Note 2
Sodium Hypochlorite	NaClO	15	Standard	Standard	Standard	Standard	Note 2
Chlorine Dioxide	ClO ₂	15	Standard	Standard	Standard	Standard	
Salts							
Sodium Nitrite	NaNO ₂	all	Standard	Standard	Standard	Standard	
Sodium Sulfite	Na ₂ SO ₃	all	Standard	Standard	Standard	Standard	
Aluminum Chloride	AlCl ₃	all	Standard	Standard	Standard	Standard	
Ammonium Chloride	NH ₄ Cl	all	Standard	Standard	Standard	Standard	
Calcium Chloride	CaCl ₂	all	Standard	Standard	Standard	Standard	

Standard Specification
 For Solvents (not recommended to use for Alkalis)
 For Chromic Acid (not recommended to use for Alkalis)

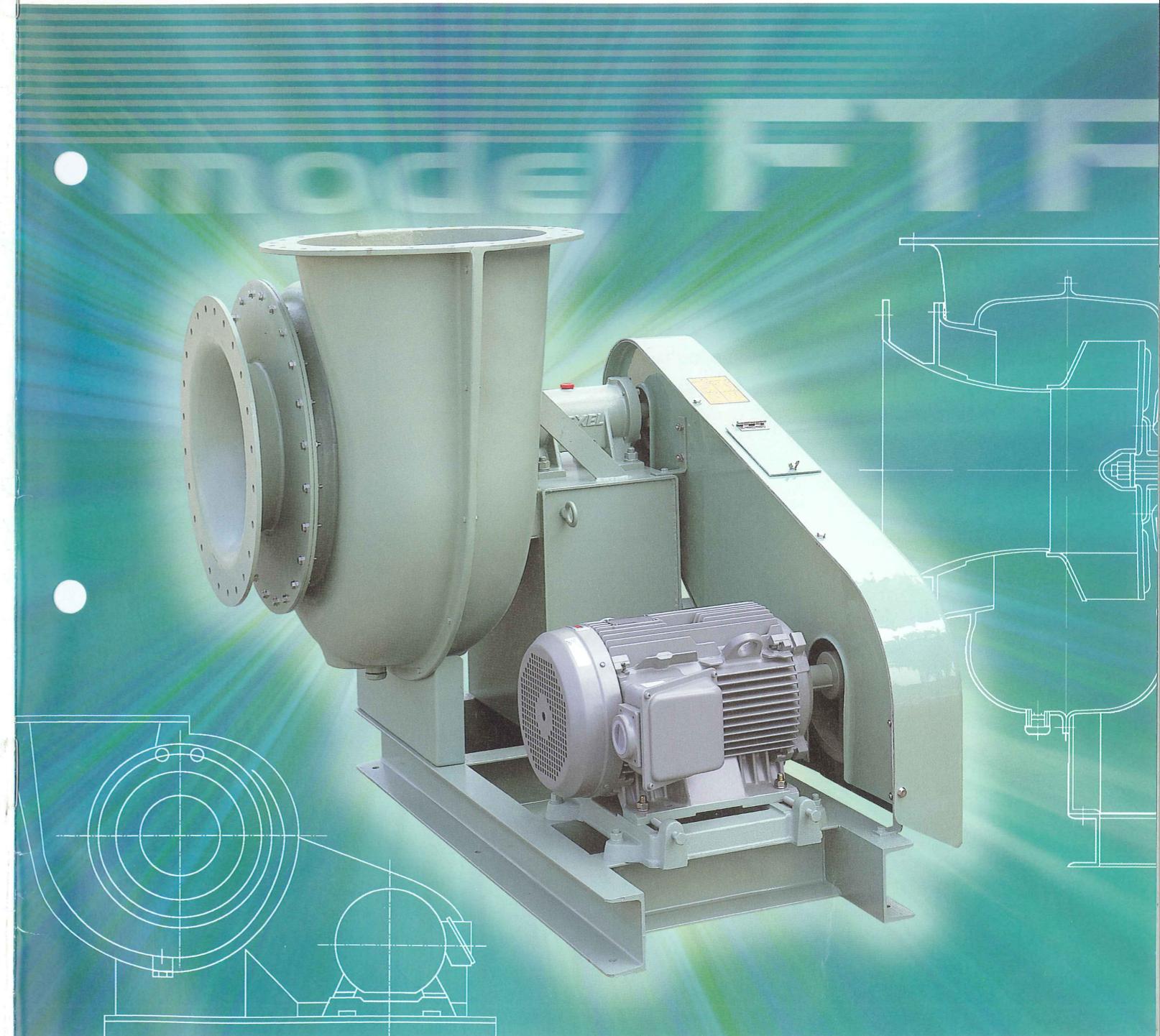
Chemicals	Chemical Formula	Density Wt%	Temp. °C				Special specifications
			20	40	60	80	
Salts							
Copper Chloride	CuCl ₂	all	Standard	Standard	Standard	Standard	
Ferric Chloride	FeCl ₃	all	Standard	Standard	Standard	Standard	
Nickel Chloride	NiCl ₂	all	Standard	Standard	Standard	Standard	
Barium Chloride	BaCl ₂	all	Standard	Standard	Standard	Standard	
Potassium Permanganate	KMnO ₄	20	Standard	Standard	Standard	Standard	
Potassium Bichromate	K ₂ Cr ₂ O ₇	all	Standard	Standard	Standard	Standard	
Ammonium Nitrate	NH ₄ NO ₃	all	Standard	Standard	Standard	Standard	
Silver Nitrate	AgNO ₃	all	Standard	Standard	Standard	Standard	
Sodium Carbonate	Na ₂ CO ₃	35	Standard	Standard	Standard	Standard	
Magnesium Carbonate	MgCO ₃	all	Standard	Standard	Standard	Standard	
Sodium Sulfide	Na ₂ S	all	Standard	Standard	Standard	Standard	
Zinc Sulfate	ZnSO ₄	all	Standard	Standard	Standard	Standard	
Ammonium Sulfate	(NH ₄) ₂ SO ₄	20	Standard	Standard	Standard	Standard	
Potassium Sulfate	K ₂ SO ₄	all	Standard	Standard	Standard	Standard	
Ferric Sulfate	Fe ₂ (SO ₄) ₃	all	Standard	Standard	Standard	Standard	
Copper Sulfate	CuSO ₄	all	Standard	Standard	Standard	Standard	
Magnesium Sulfate	MgSO ₄	all	Standard	Standard	Standard	Standard	
Solvents & Organic Compounds							
Acrylonitrile	CH ₂ =CHCN		Not recommended	Not recommended	Not recommended	Not recommended	
Acetaldehyde	CH ₃ CHO		Not recommended	Not recommended	Not recommended	Not recommended	
Acetonitrile	CH ₃ CN		Not recommended	Not recommended	Not recommended	Not recommended	
Acetophenone	C ₆ H ₅ COCH ₃		Not recommended	Not recommended	Not recommended	Not recommended	
Acetone	CH ₃ COCH ₃		Not recommended	Not recommended	Not recommended	Not recommended	
Aniline	C ₆ H ₅ NH ₂		Not recommended	Not recommended	Not recommended	Not recommended	
Isopropylamine	(CH ₃) ₂ CHNH ₂	all	Standard	Standard	Standard	Standard	
Isopropyl Alcohol	CH ₃ CH(OH)CH ₃	all	Standard	Standard	Standard	Standard	
Ethyl Alcohol	C ₂ H ₅ OH	50	Standard	Standard	Standard	Standard	
Ethyl Ether	C ₂ H ₅ OC ₂ H ₅		Not recommended	Not recommended	Not recommended	Not recommended	
Ethylene Oxide	CH ₂ CH ₂ O		Not recommended	Not recommended	Not recommended	Not recommended	
Ethylene Glycol	HOCH ₂ CH ₂ OH	all	Standard	Standard	Standard	Standard	
Ethylene Chlorohydrin	ClCH ₂ CH ₂ OH	all	Standard	Standard	Standard	Standard	
Ethylene Chloride	ClCH ₂ CH ₂ Cl		Not recommended	Not recommended	Not recommended	Not recommended	
Methylene Chloride	CH ₂ Cl ₂		Not recommended	Not recommended	Not recommended	Not recommended	
Gasoline		all	Standard	Standard	Standard	Standard	
Xylene	C ₆ H ₄ (CH ₃) ₂	all	Standard	Standard	Standard	Standard	
Glycerine	C ₃ H ₅ (OH) ₃	all	Standard	Standard	Standard	Standard	
Cresol	CH ₃ C ₆ H ₄ OH		Not recommended	Not recommended	Not recommended	Not recommended	
Chloroform	CHCl ₃		Not recommended	Not recommended	Not recommended	Not recommended	
Ethyl Acetate	CH ₃ COOC ₂ H ₅		Not recommended	Not recommended	Not recommended	Not recommended	
Methyl Acetate	CH ₃ COOCH ₃		Not recommended	Not recommended	Not recommended	Not recommended	
Diethyl Ketone	C ₂ H ₅ COC ₂ H ₅		Not recommended	Not recommended	Not recommended	Not recommended	
Carbon Tetrachloride	CCl ₄	all	Standard	Standard	Standard	Standard	
Cyclohexane	C ₆ H ₁₂	all	Standard	Standard	Standard	Standard	
Methyl Sulfoxide	(CH ₃) ₂ SO	all	Standard	Standard	Standard	Standard	
Dimethylamine	(CH ₃) ₂ NH		Not recommended	Not recommended	Not recommended	Not recommended	
Ethyl Bromide	C ₂ H ₅ Br		Not recommended	Not recommended	Not recommended	Not recommended	
Tetrachloroethylene	CCl ₂ CCl ₂	all	Standard	Standard	Standard	Standard	
Triethanolamine	N(C ₂ H ₄ OH) ₃	all	Standard	Standard	Standard	Standard	
Trichlorobenzene	C ₆ H ₃ Cl ₃		Not recommended	Not recommended	Not recommended	Not recommended	
Toluene	C ₆ H ₅ CH ₃	all	Standard	Standard	Standard	Standard	
Naphtha		all	Standard	Standard	Standard	Standard	
Naphthalene	C ₁₀ H ₈		Not recommended	Not recommended	Not recommended	Not recommended	
Sulfurdichloride	SCl ₂		Not recommended	Not recommended	Not recommended	Not recommended	
Nitrobenzene	C ₆ H ₅ NO ₂	all	Standard	Standard	Standard	Standard	
Carbondsulfide	CS ₂	10	Standard	Standard	Standard	Standard	
Pyridine	C ₅ H ₅ N		Not recommended	Not recommended	Not recommended	Not recommended	
Phenyl Ether	C ₁₂ H ₁₀ O	all	Standard	Standard	Standard	Standard	
Phenol	C ₆ H ₅ OH	5	Standard	Standard	Standard	Standard	
Phenol Sulfonic Acid	C ₆ H ₄ (OH)(SO ₃ H)		Not recommended	Not recommended	Not recommended	Not recommended	
Heptane	CH ₃ (CH ₂) ₅ CH ₃	all	Standard	Standard	Standard	Standard	
Benzaldehyde	C ₆ H ₅ CHO		Not recommended	Not recommended	Not recommended	Not recommended	
Benzene	C ₆ H ₆	all	Standard	Standard	Standard	Standard	
Formaldehyde	HCHO	37	Standard	Standard	Standard	Standard	
Methyl Alcohol	CH ₃ OH	50	Standard	Standard	Standard	Standard	

Special specifications
 Note 1 : For Hydrofluoric Acid
 Note 2 : For Sodium Hypochlorite Acid - based substances

TEXEL®

CORROSION RESISTANT FRP FANS

FTF SERIES



SEIKOW CHEMICAL ENGINEERING & MACHINERY, LTD.

1-31, Mizudo-cho 4-chome, Amagasaki, 661-0026 Japan
 Telephone: (06) 6438-9481 Telefax: (06) 6438-9485
 http://www.seikow.co.jp e-mail:texel@oak.ocn.ne.jp



Catalogue No.	
CF-24-FTF-E	
0507	3
17.7.20 1000	

SEIKOW CHEMICAL ENGINEERING & MACHINERY, LTD.

FTF SERIES

The new-generation ideal Fans accommodated to preservation of the environment have realized Energy-Saving and Reduction of Carbon dioxide.

Corrosion-resistant TEXEL FTF fans have been recognized as breakthrough fans 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 these ideal fans that deliver vastly improved performance—and also energy savings, helping reduce CO₂ emissions.

FEATURES

1. Highly Improved Efficiency

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

2. The Extension of Capacity

Extended capacity range. A 30%(approx.) increase in static pressures and capacities gives the series extended application range, meaning cost savings where smaller models suffice.

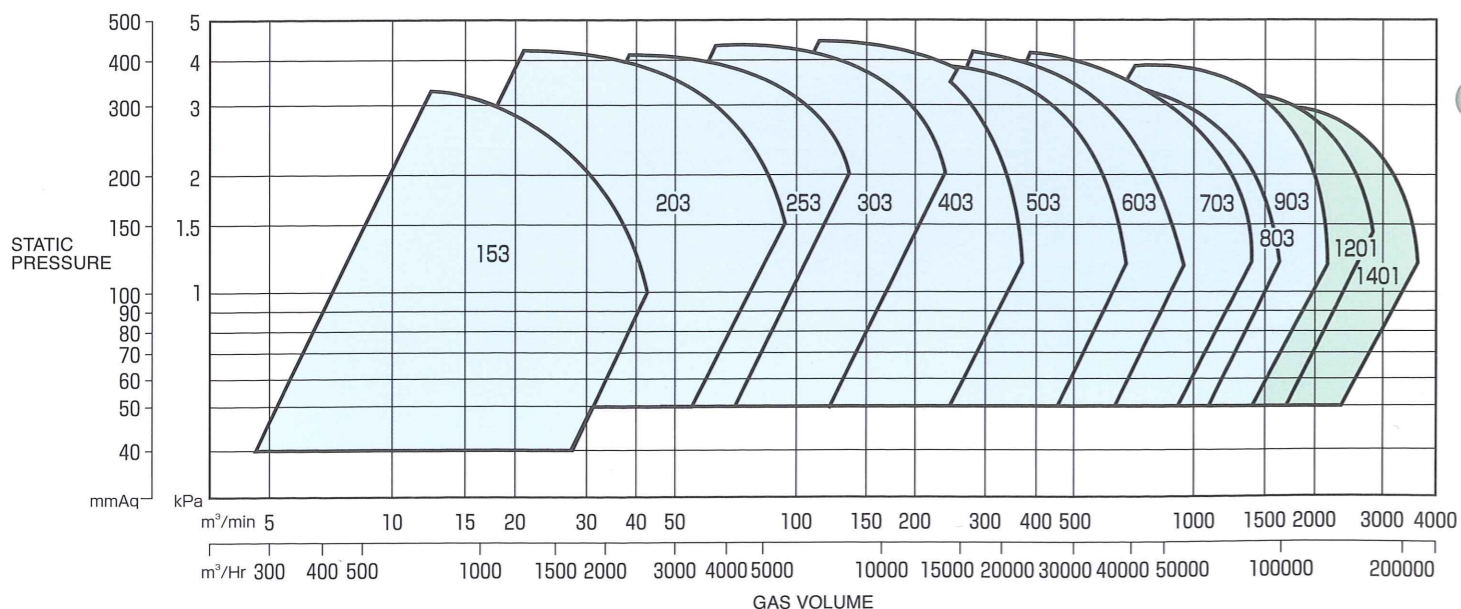
It will make your initial cost reduce. The values of power for capacity range chart are calculated with the allowance of five percent for shaft brake horse power.

3. 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.

4. Quality maintenance

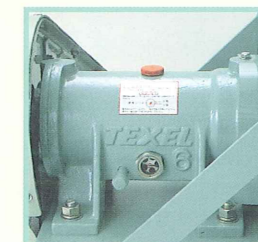
Equipping open-close inspection window at the upper part of belt-guard facilitates interior check. Easy maintenance has attained by equipping the inspection window for FTF303 & FTF403 casing.



SPECIFICATIONS

STANDARD SPECIFICATIONS & ACCESSORIES

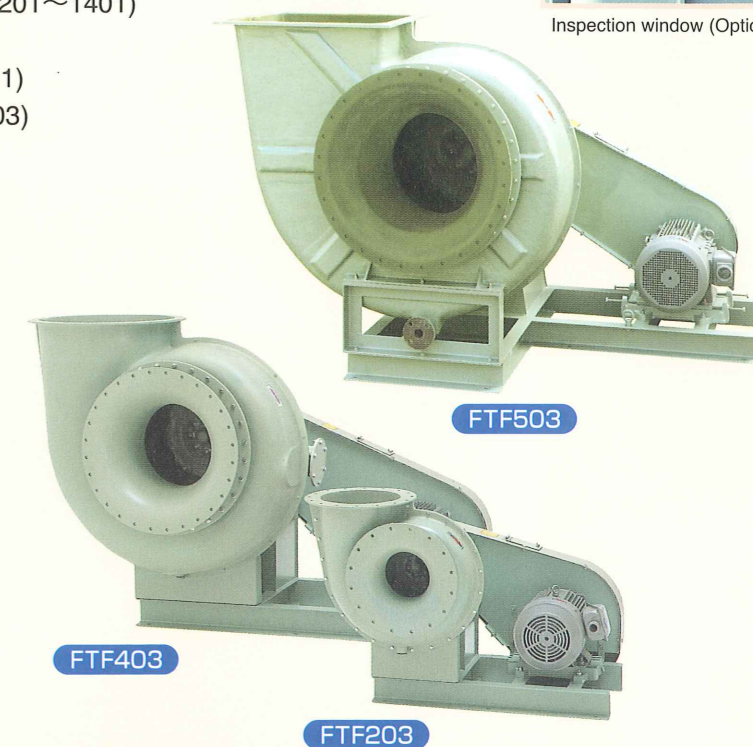
- Gas Temp.: 0~80 Deg. C
- Construction:
 - Impeller Single Stage Turbo Type
 - Sealing Seal Plate Type Gland
 - Bearing Housing..... Oil Bath Type (FTF153~903)
Plummer Block Type (FTF1201~1401)
 - Drain Plug Type (FTF153~403)
Flange Type (FTF503~1401)
 - Inspection window ... FRPφ100(FTF303 & FTF403)
- Material:
 - Impeller FRP
 - Casing FRP
 - Shaft S35C
- Finishing Color:
 - Casing Munsell 2.5G6/3(S31-513)
 - Casing Stand Munsell 2.5G6/3(S31-513)
 - Belt-Guard..... Munsell 2.5G6/3(S31-513)
 - Shaft-Guard..... Munsell 2.5G6/3(S31-513)
- Standard Accessories:
 - V-Pully (FC200)..... 1set
 - V-Belt (Rubber) 1set
 - V-Belt Guard (FRP) 1pce.
 - Anchor Bolt (SS400) 1set
- Options: (Special Application)
 - Labyrinth-Seal Gland
 - Packing-Seal Gland
 - Water-Seal Gland



Oil Lubricated Bearing Unit.



Inspection window (Options)

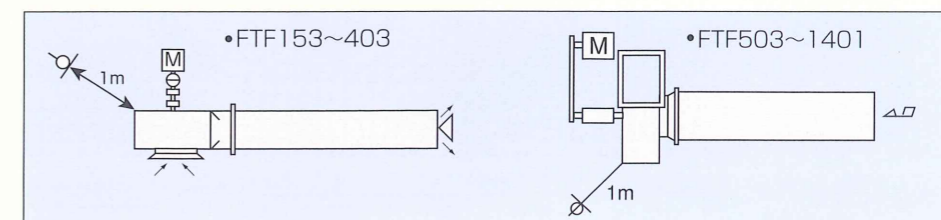


Energy-Saving & Amounts of Reduction of Carbon dioxide per unit

Model	Gas volume m³/min	Static pressure kPa	Shaft power kW		Difference kW	Energy-Saving kW		Amounts of Reduction of Carbon dioxide per year kg
			FTF-II	FTF-III		1 day (24h)	1 year (365day)	
#1 1/2	30	1.67	1.76	1.39	0.37	8.88	3,241	1,245
#2	66	2.45	4.5	4	0.5	12	4,380	1,682
#2 1/2	100	2.06	5.9	5.2	0.7	16.8	6,132	2,355
#3	140	2.7	9.3	8.9	0.4	9.6	3,504	1,346
#4	220	3.09	16.2	15.5	0.7	16.8	6,132	2,355
#5	380	2.7	23	22.2	0.8	19.2	7,008	2,691
#6	600	2.78	38	36.8	1.2	28.8	10,512	4,037
#7	800	2.7	51.9	48.9	3	72	26,280	10,092
#8	1000	2.67	66.4	55.3	11.1	266.4	97,236	37,339
#9	1400	2.54	82.9	79.8	3.1	74.4	27,156	10,428

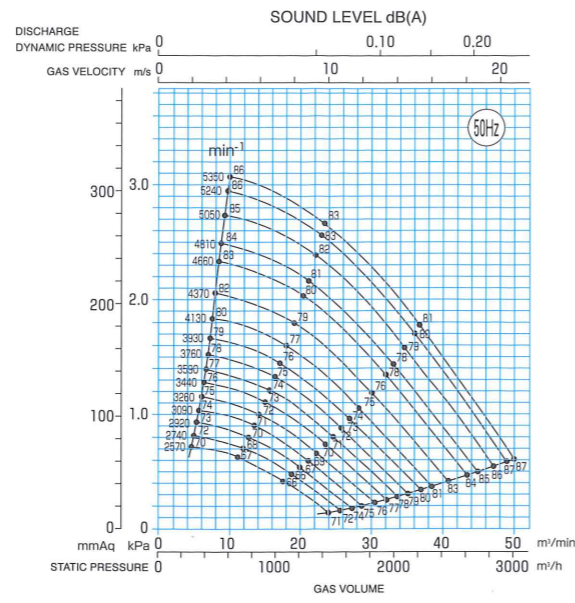
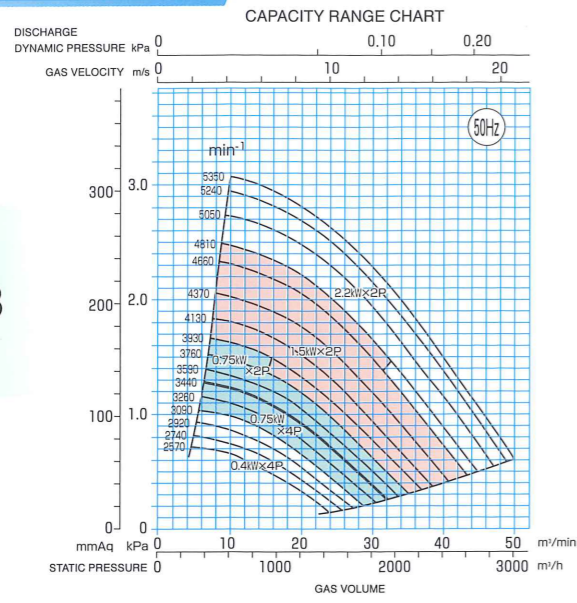
PERIPHERAL SOUND LEVEL RECORDING POINT

Sound levels recorded at one meter away from fan casing.

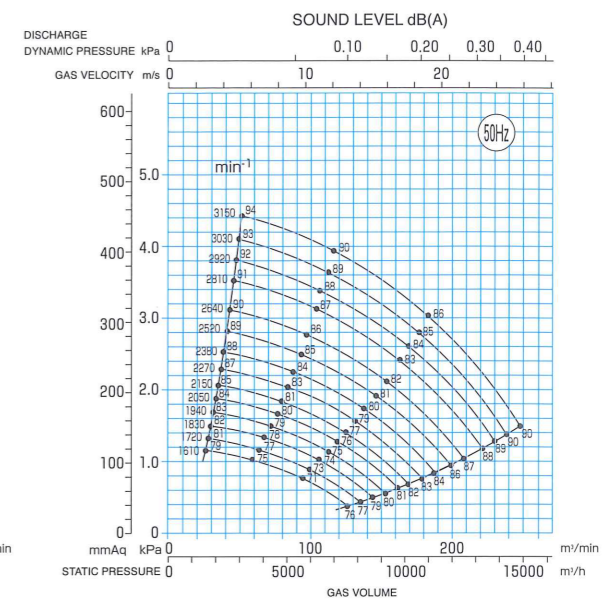
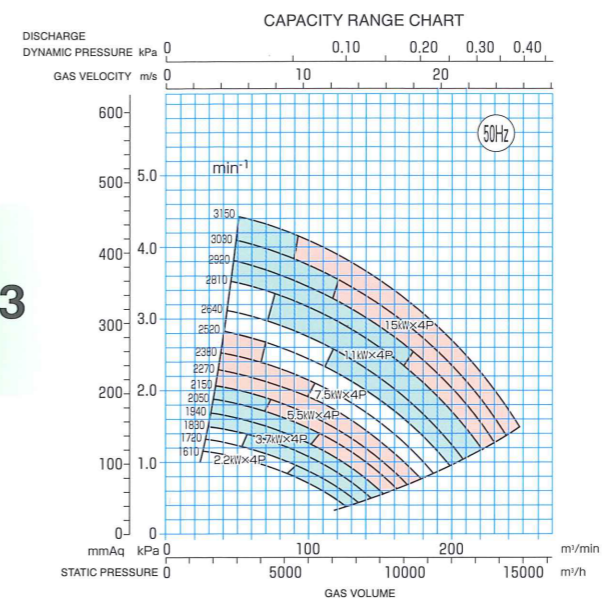


50Hz CAPACITY RANGE CHART

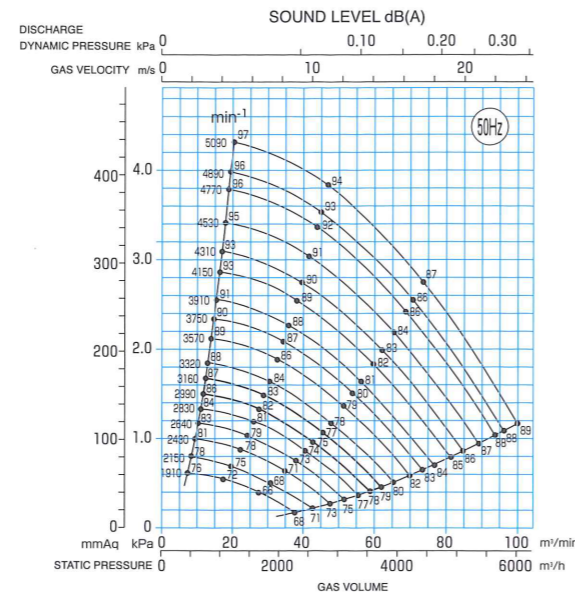
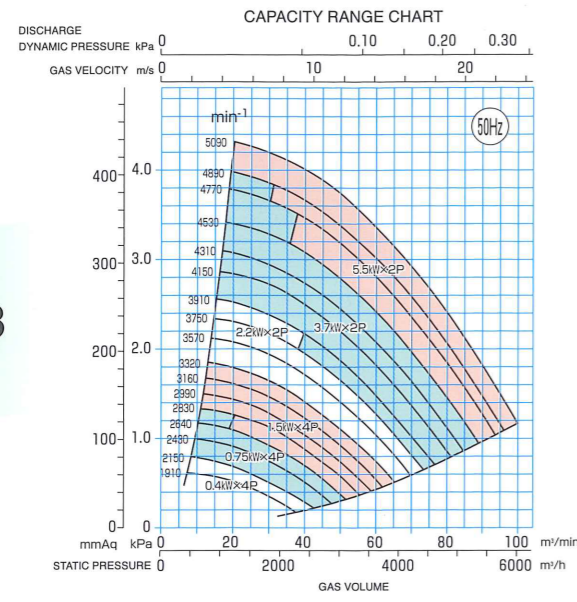
FTF153



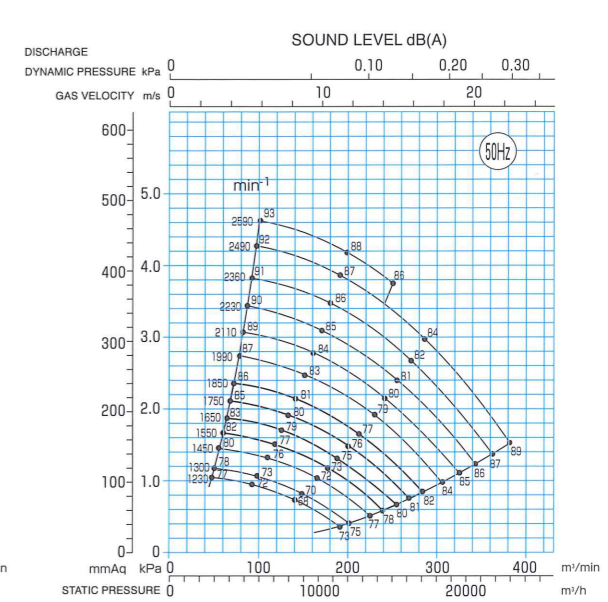
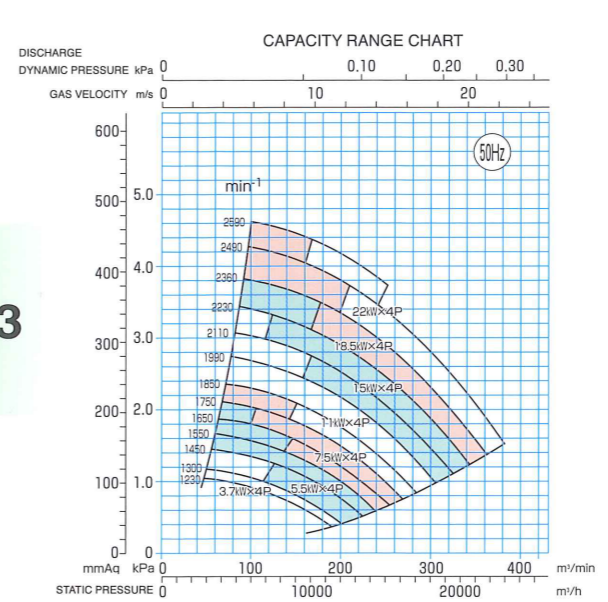
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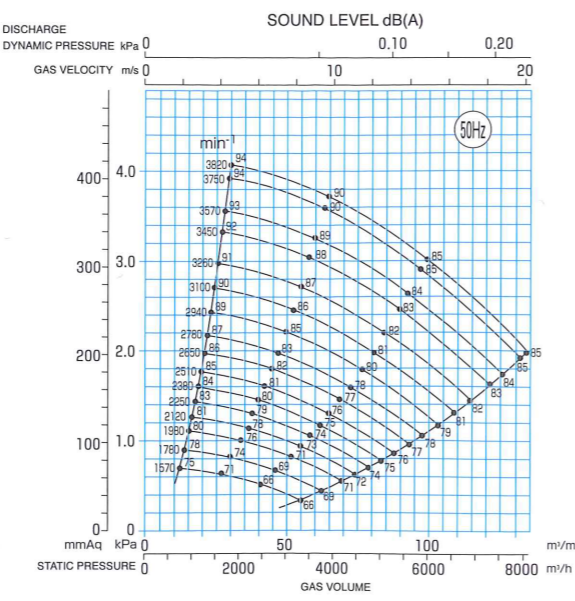
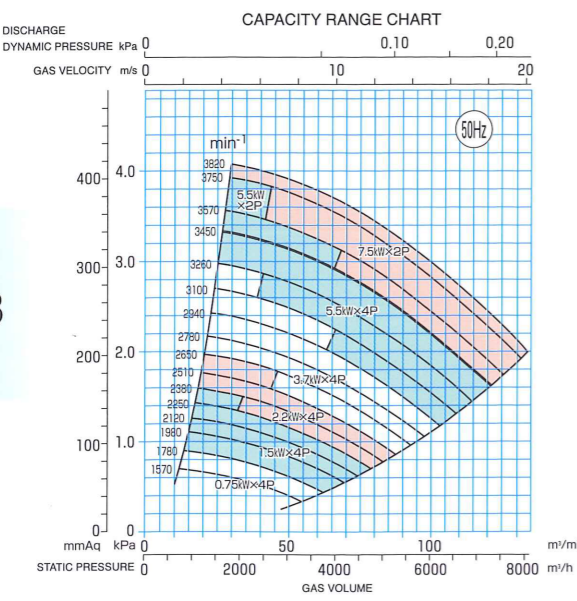
FTF203



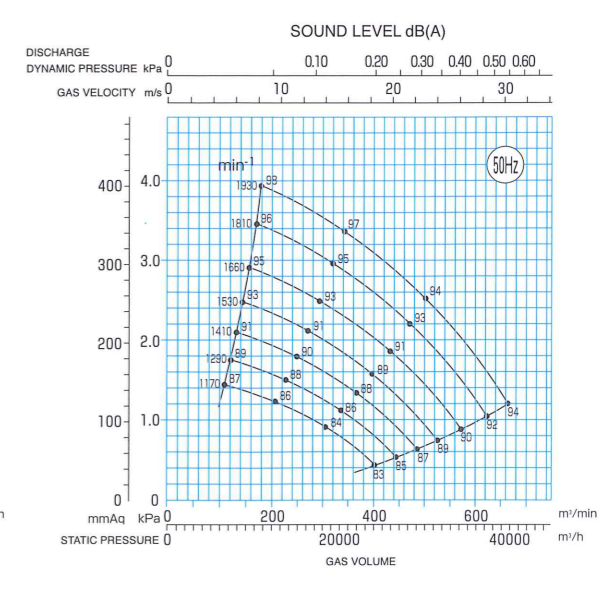
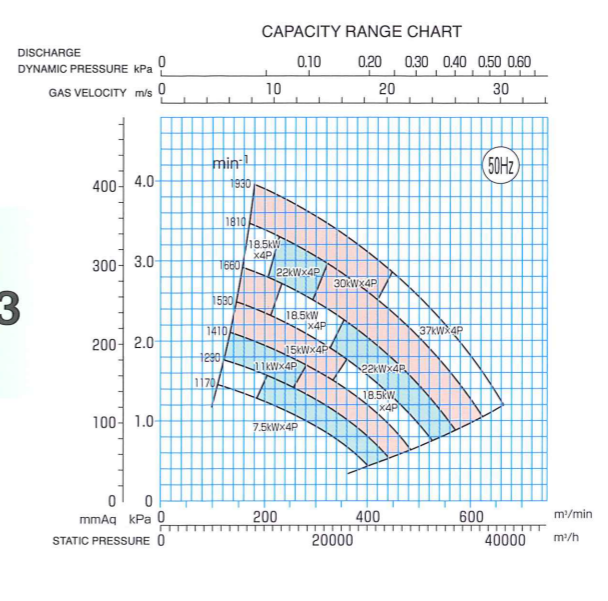
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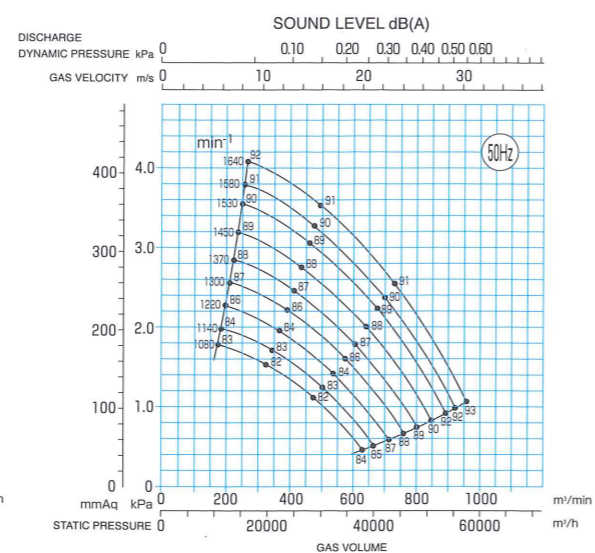
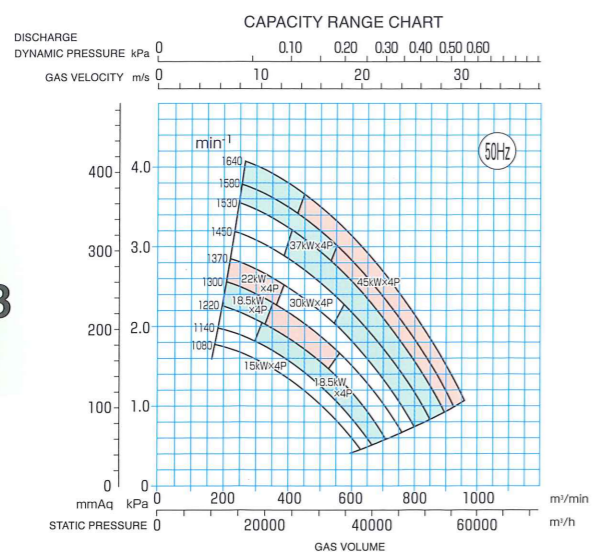
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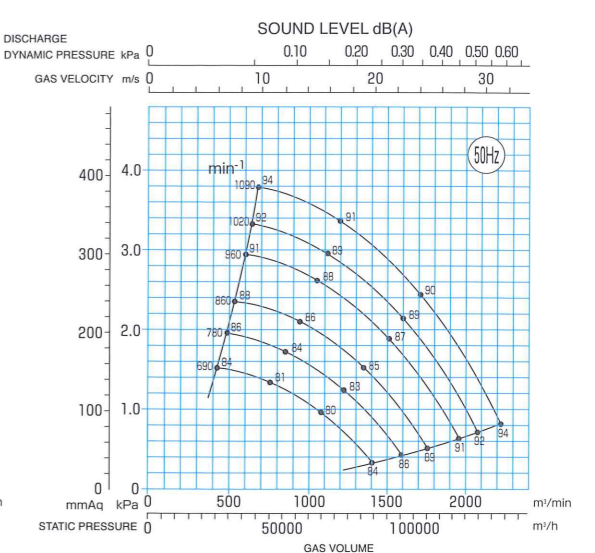
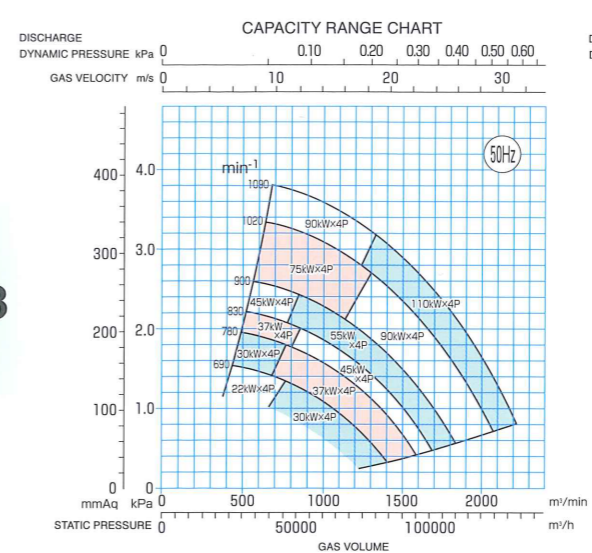
FTF503



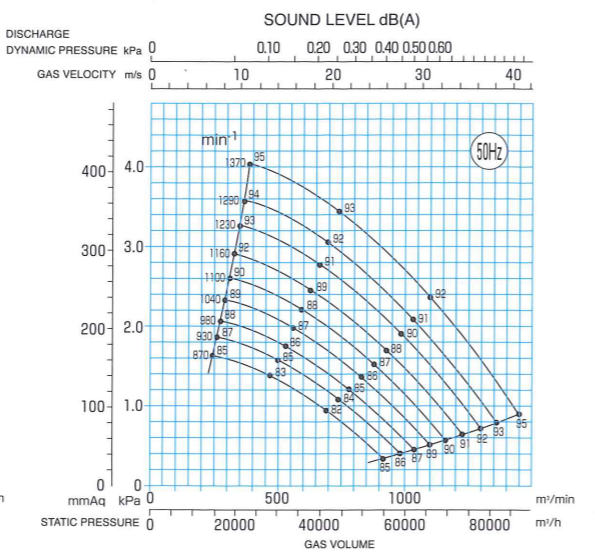
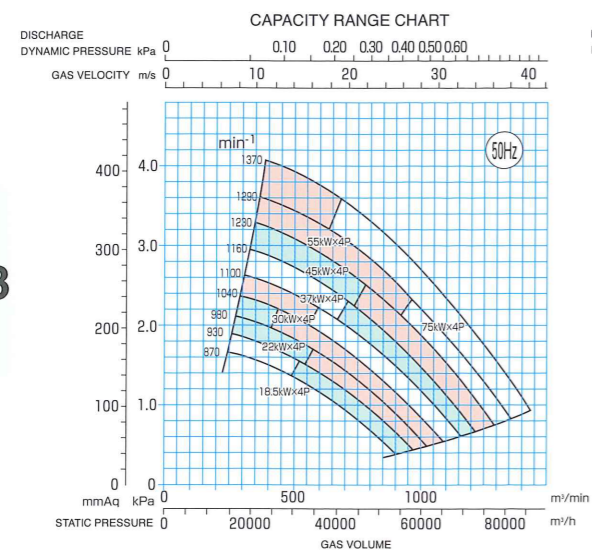
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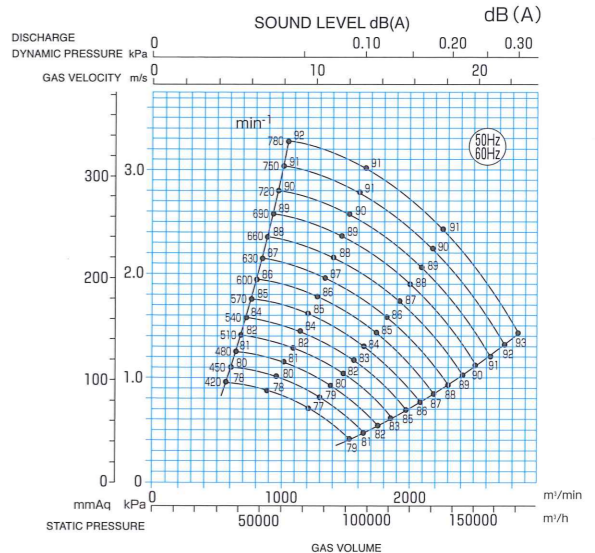
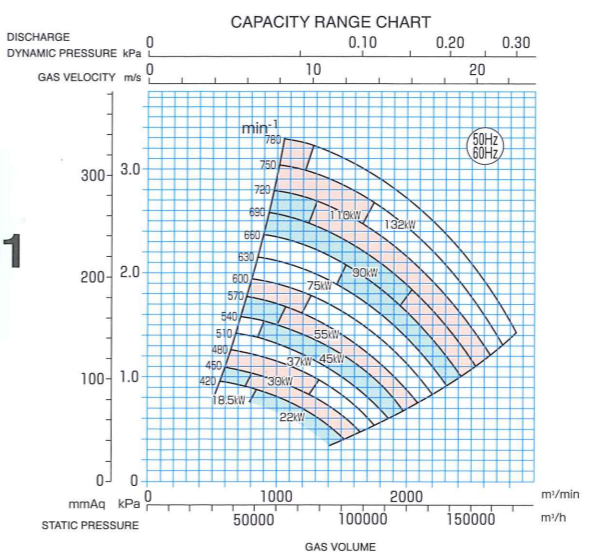
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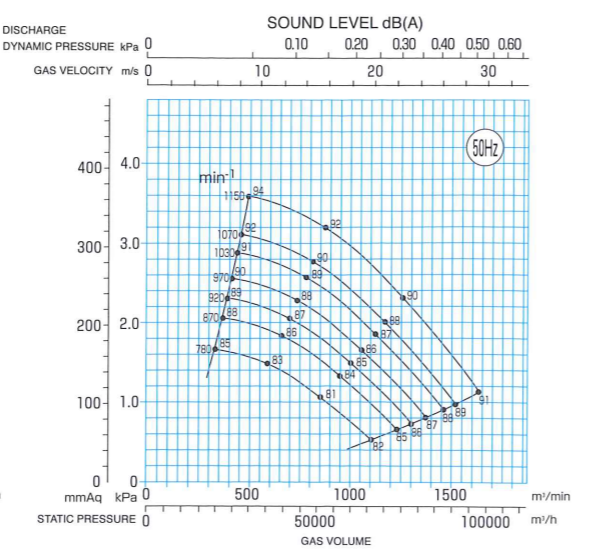
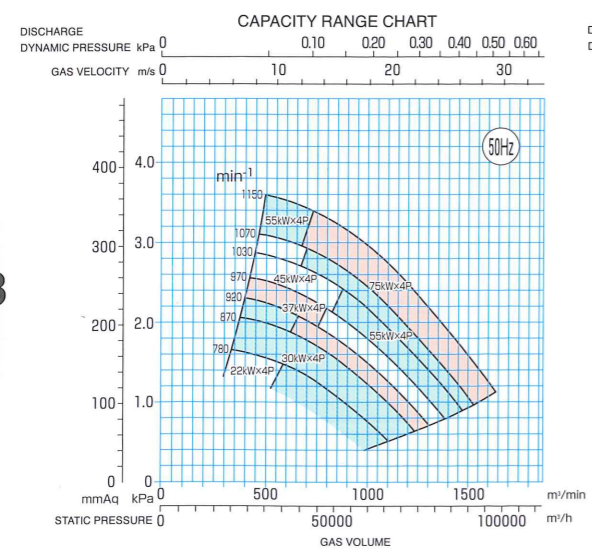
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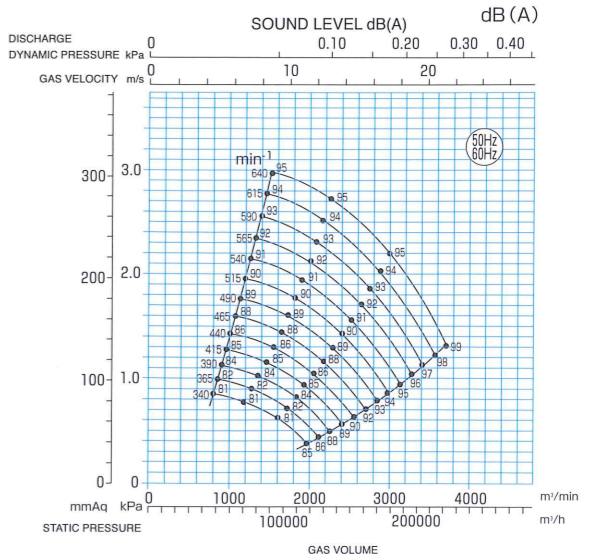
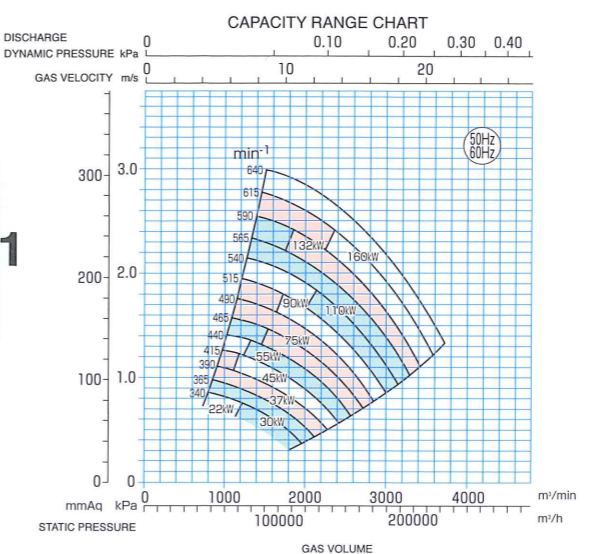
FTF1201



FTF803

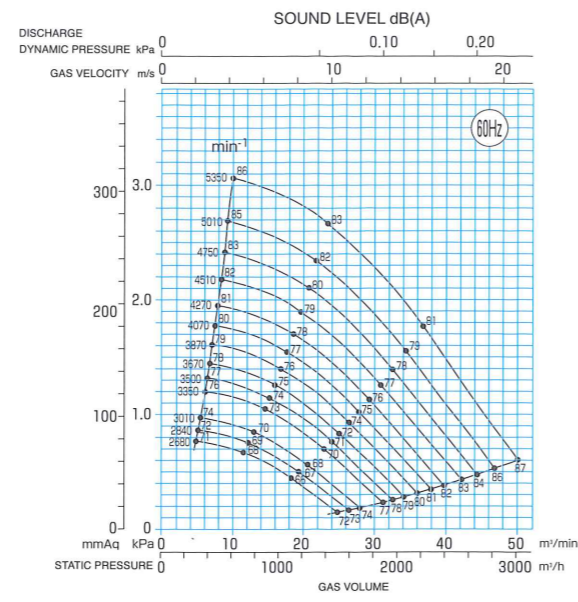
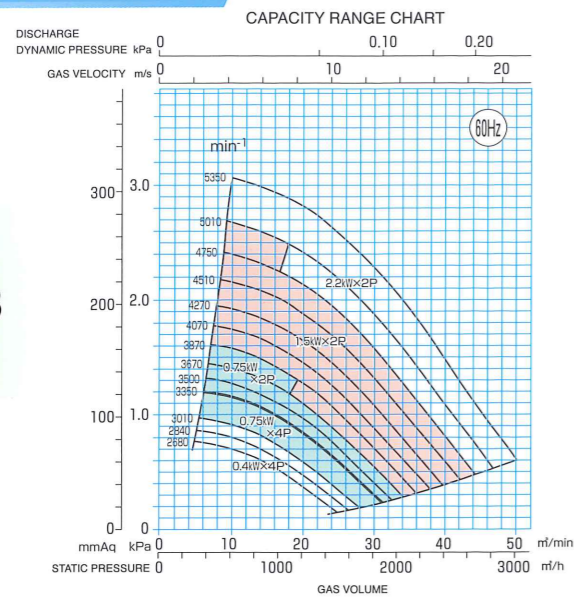


FTF1401

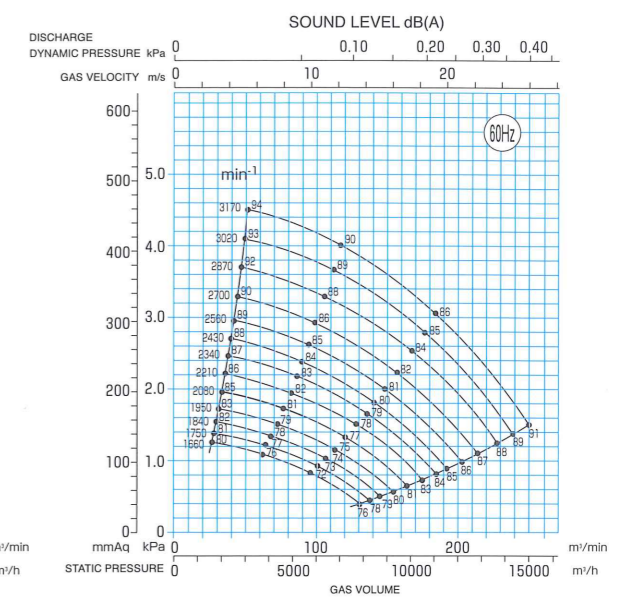
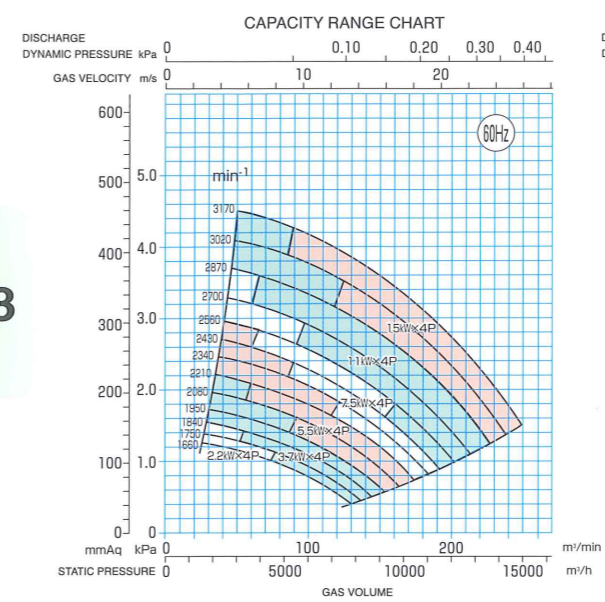


60Hz CAPACITY RANGE CHART

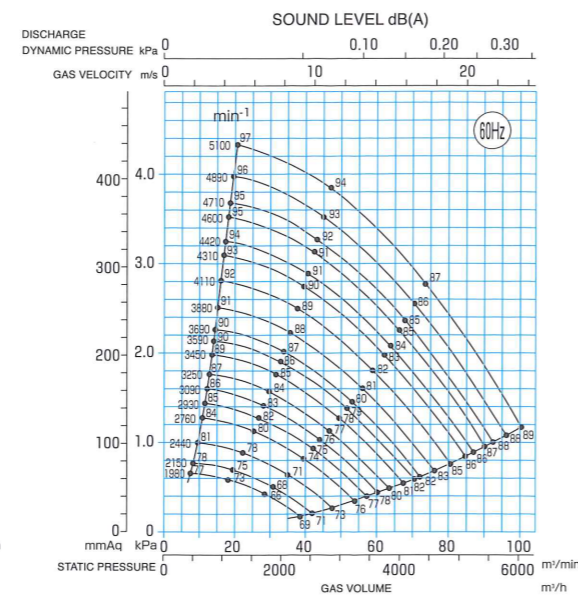
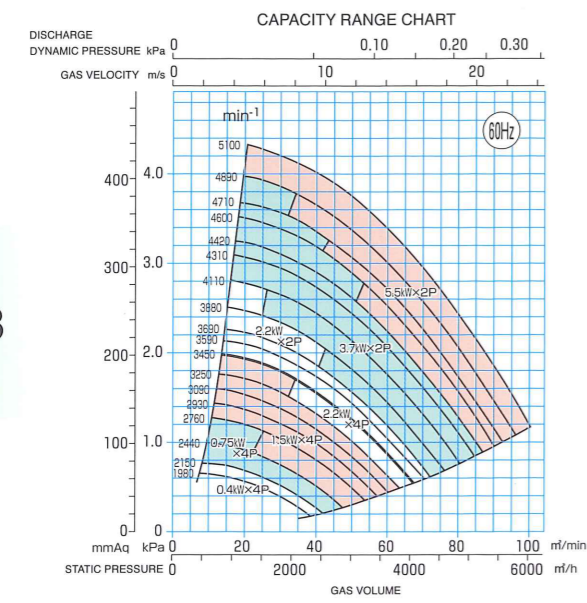
FTF153



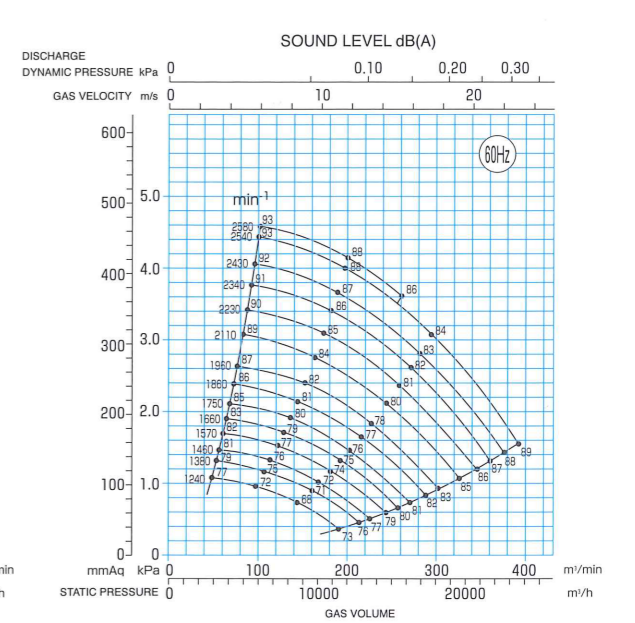
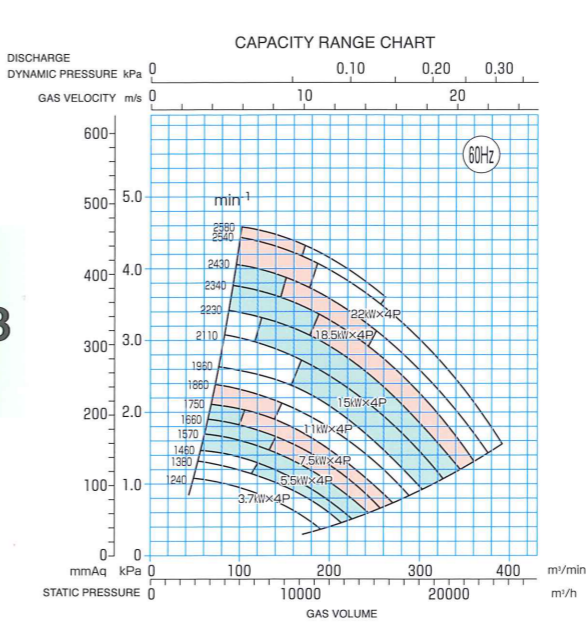
FTF303



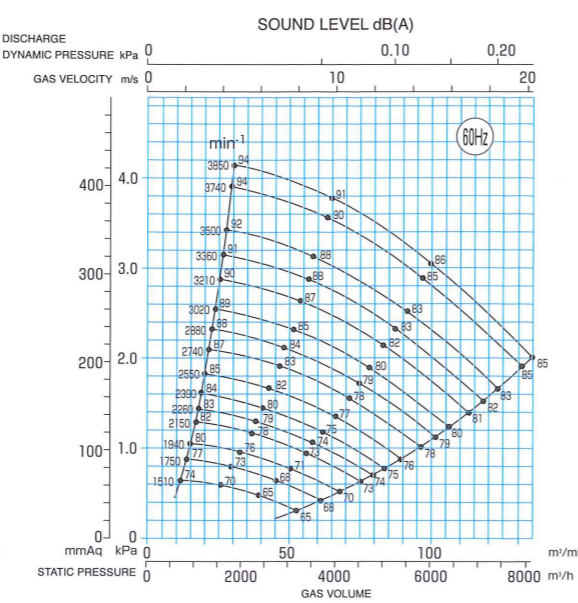
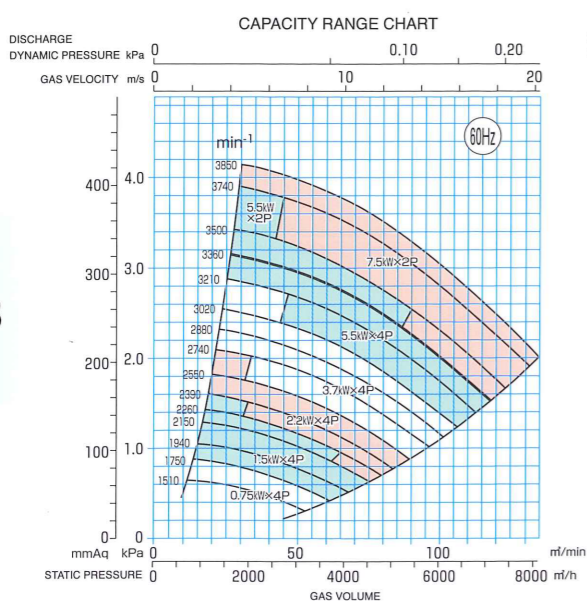
FTF203



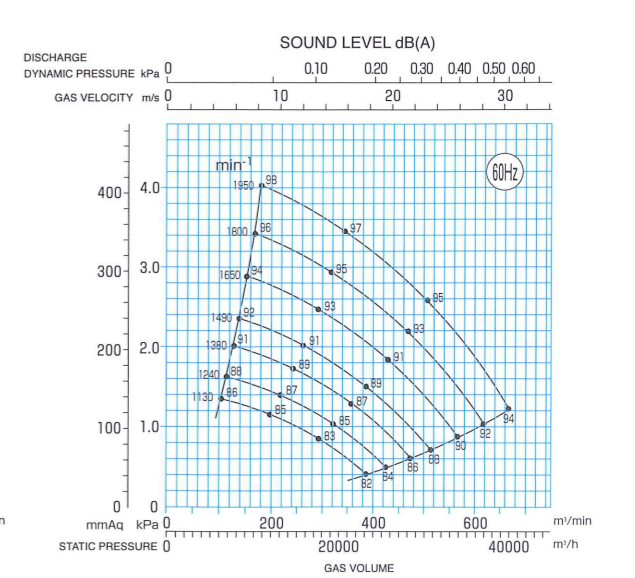
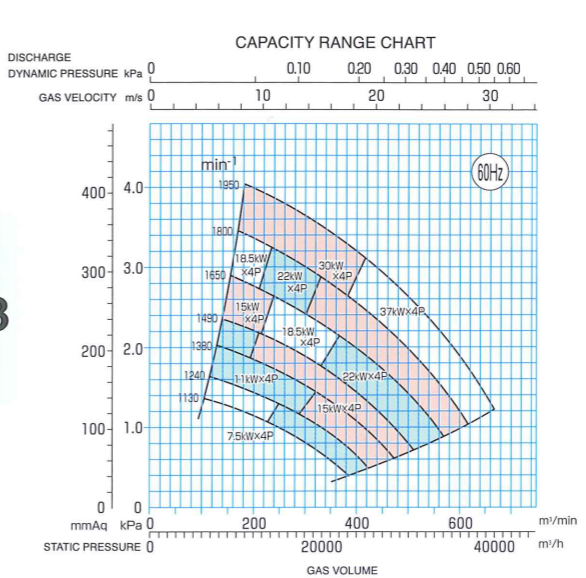
FTF403



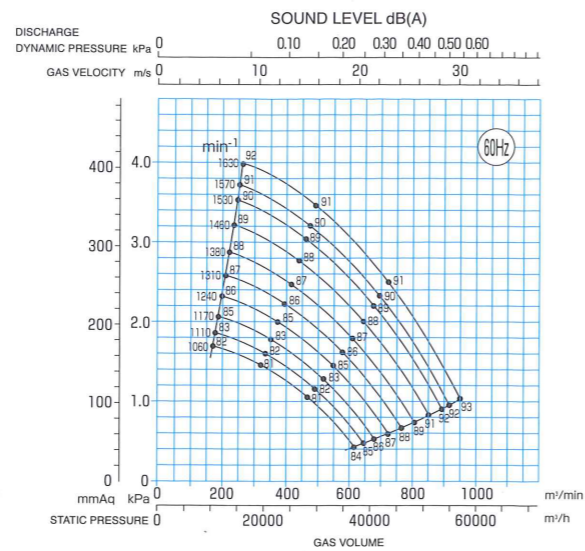
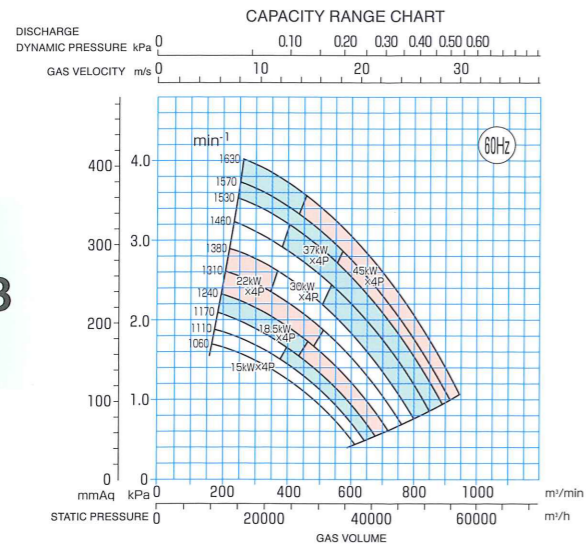
FTF253



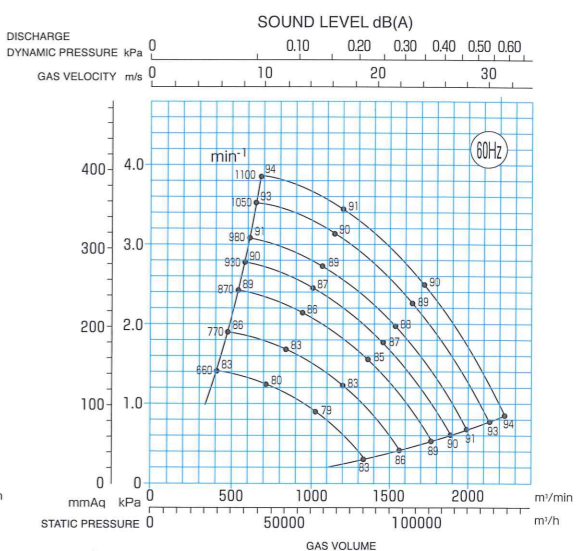
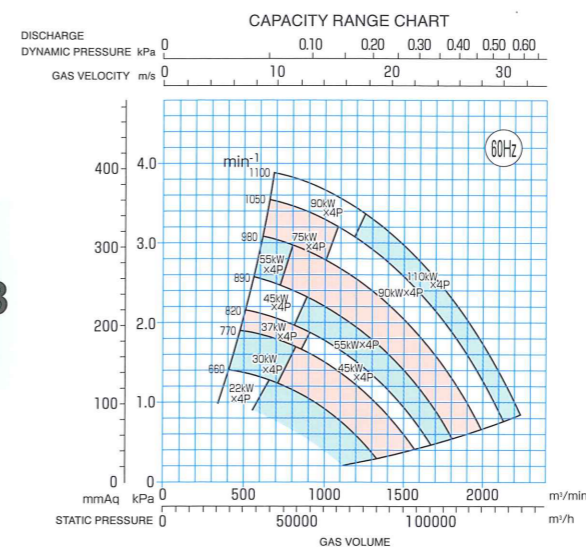
FTF503



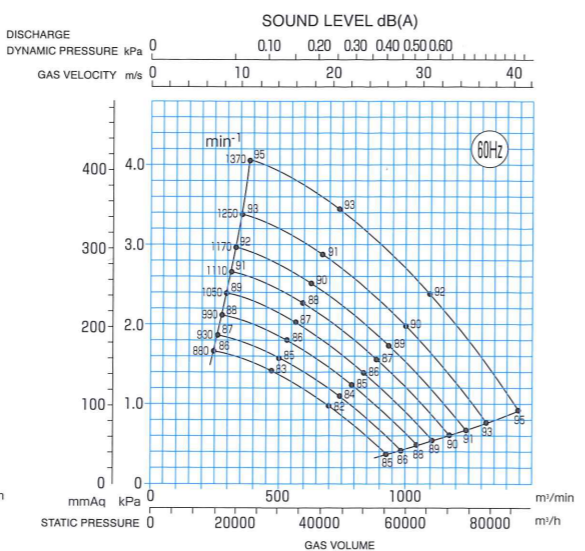
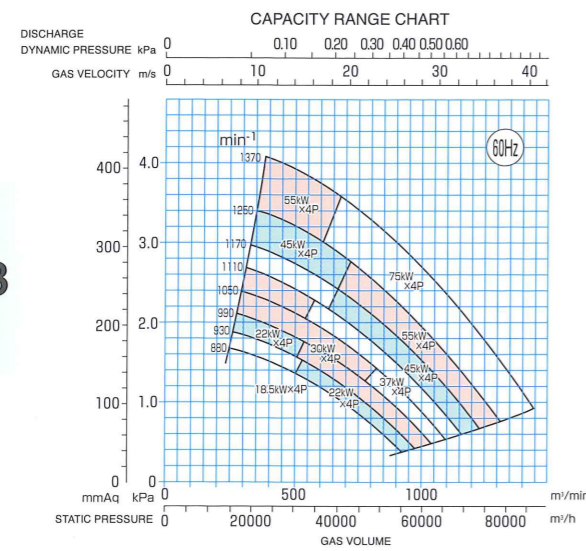
FTF603



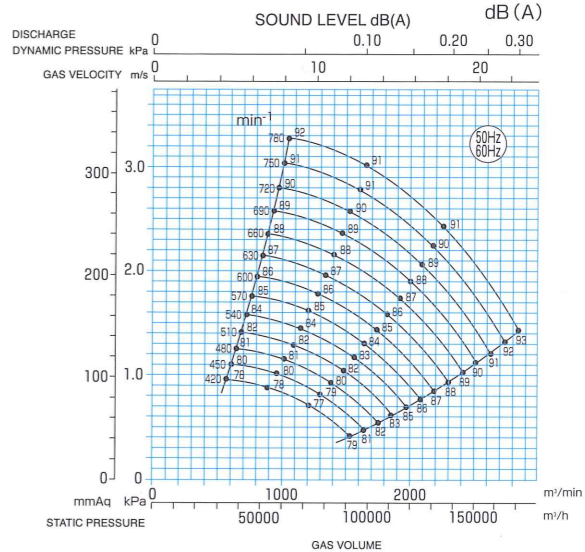
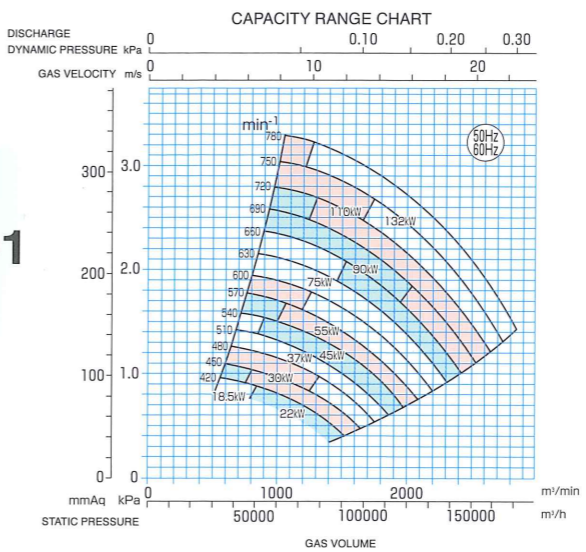
FTF903



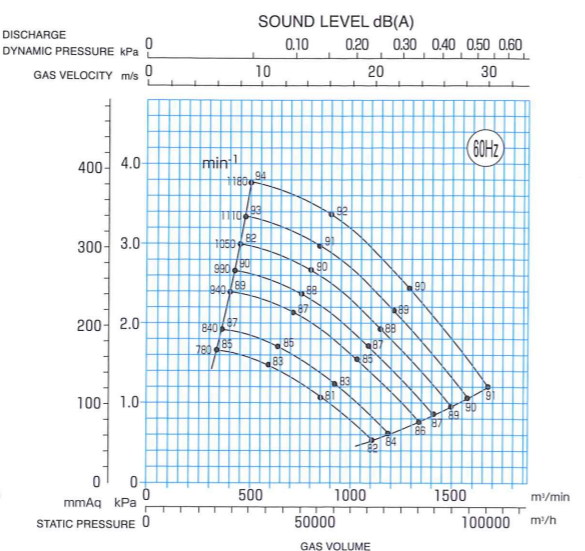
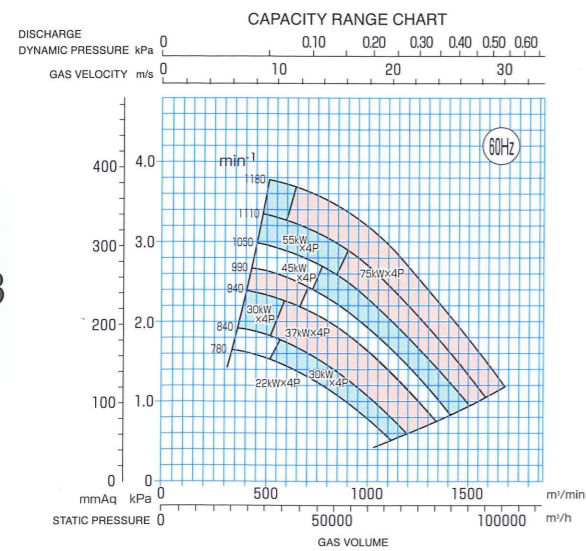
FTF703



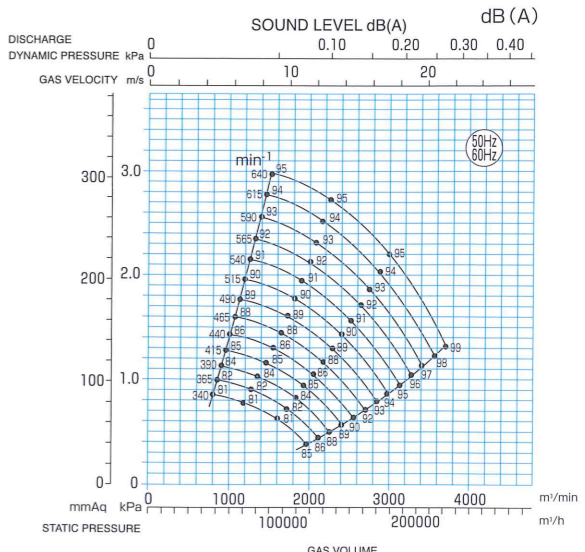
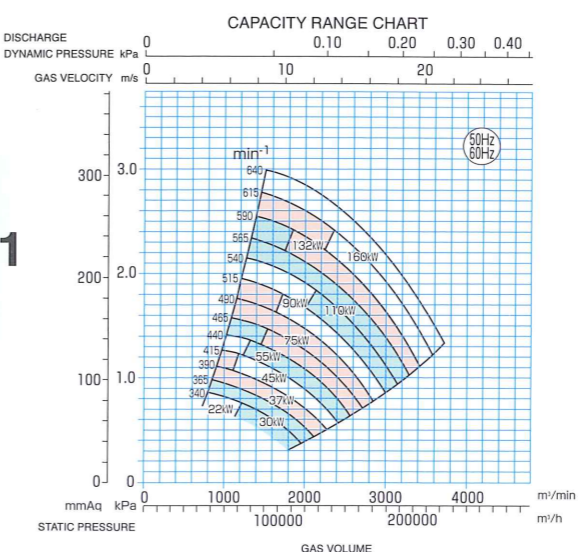
FTF1201



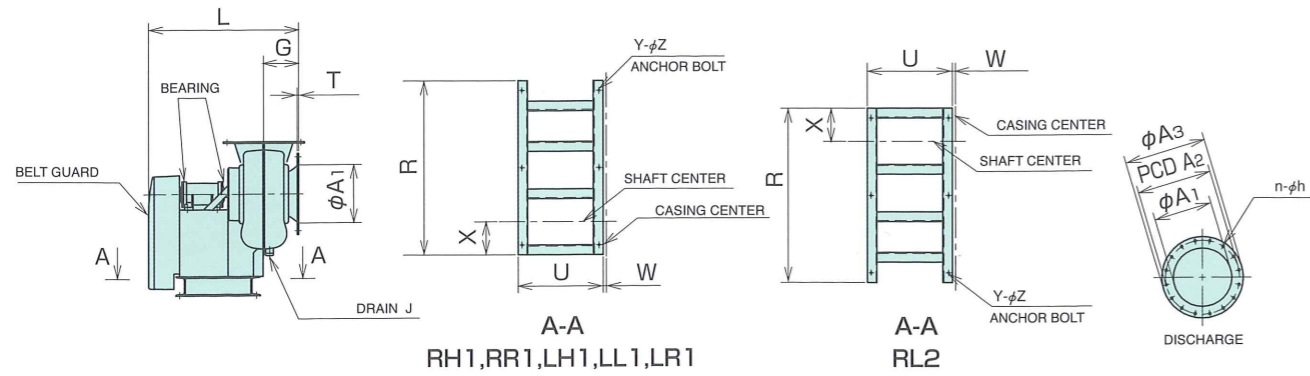
FTF803



FTF1401



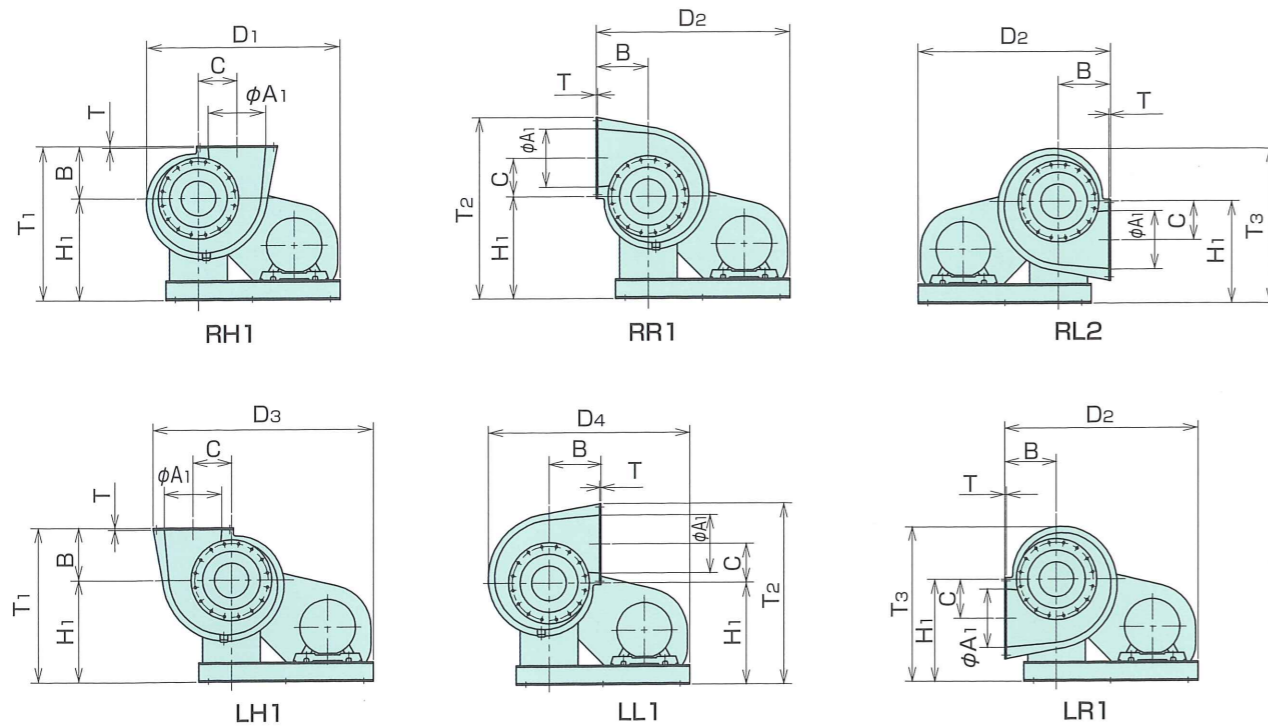
FTF153·203·253



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

A-A
RL2

DISCHARGE

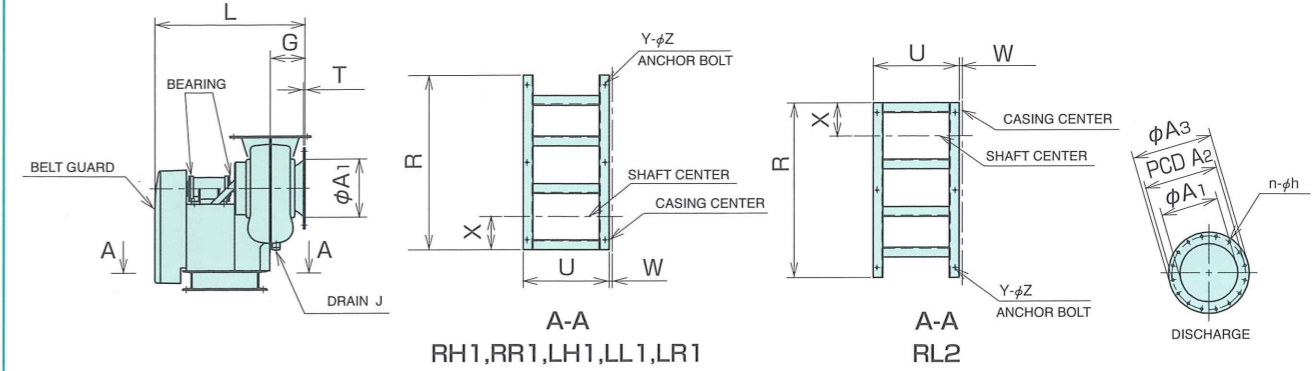


MODEL	CASING BODY											FLANGES						
	L	H ₁	B	C	D ₁	D ₂	D ₃	D ₄	T ₁	T ₂	T ₃	G	ϕA_1	PCD A ₂	ϕA_3	n	h	T
FTF153	595	400	200	150	812	800	899	845	600	699	612	135	225	264	297	12	10	6
FTF203	780	525	270	200	1001	1000	1140	1044	795	935	796	180	300	382	419	16	12	8
FTF253	855	600	340	250	1227	1235	1406	1281	940	1111	932	225	375	482	521	20	14	8

MODEL	DRAIN J	BASE						BODY WEIGHT
		R	U	W	X	Y	Z	
FTF153	PF3/4"	740	325	26	140	6	12	58
FTF203	PF3/4"	900	440	17	170	6	12	95
FTF253	PF3/4"	1100	460	20	205	6	14	118

※BODY WEIGHT : Not including Motor Weight.

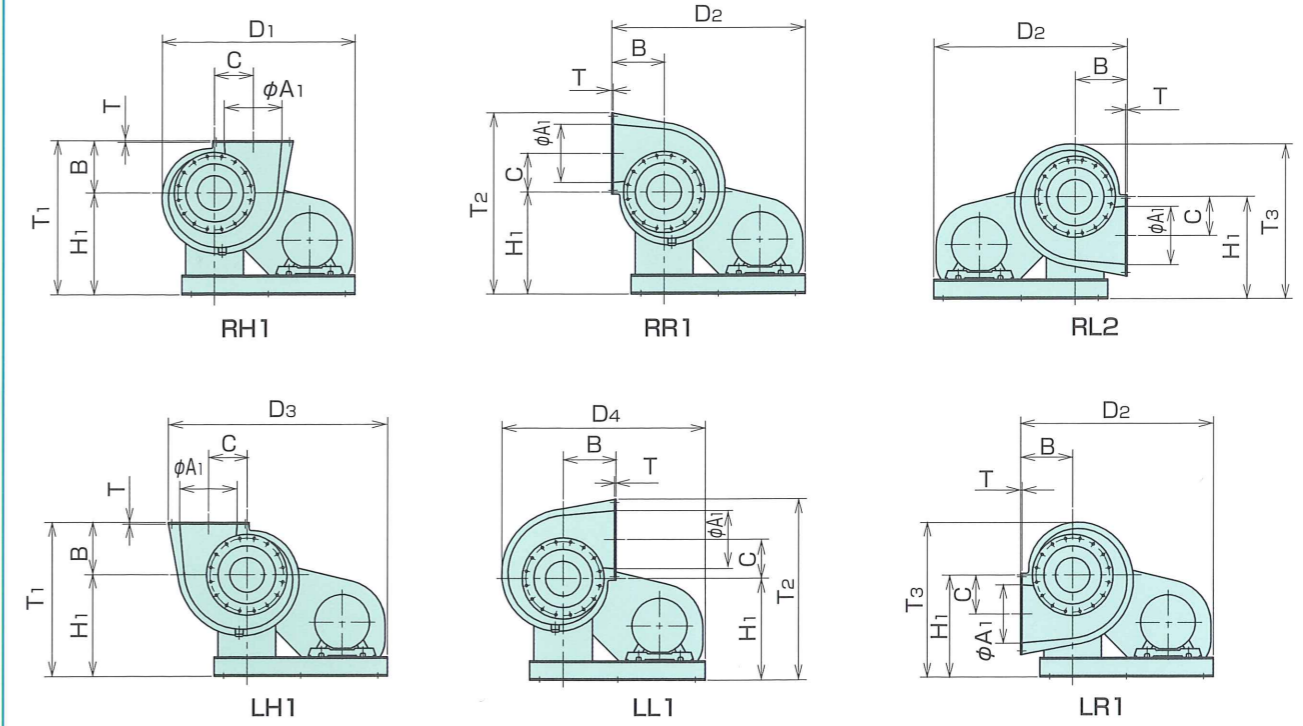
FTF303·403



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

A-A
RL2

DISCHARGE

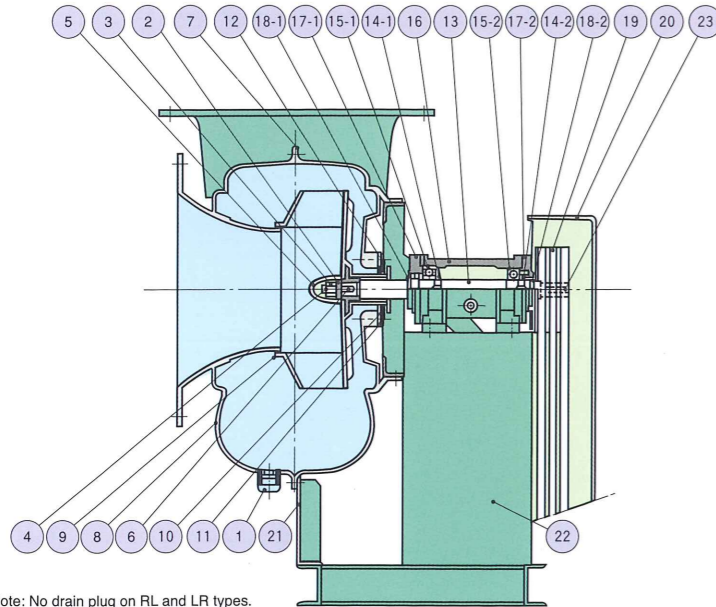


MODEL	CASING BODY											FLANGES						
	L	H ₁	B	C	D ₁	D ₂	D ₃	D ₄	T ₁	T ₂	T ₃	G	ϕA_1	PCD A ₂	ϕA_3	n	h	T
FTF303	1056	725	400	300	1481	1450	1646	1542	1125	1321	1131	326	450	540	591	24	14	10
FTF403	1230	850	530	400	1800	1740	1960	1920	1380	1600	1381	380	600	660	700	28	14	10

MODEL	DRAIN J	BASE						BODY WEIGHT
		R	U	W	X	Y	Z	
FTF303	PF3/4"	1300	560	5	250	6	14	180
FTF403	PF3/4"	1500	640	14	290	6	18	260

※BODY WEIGHT : Not including Motor Weight.

FTF153·203·253

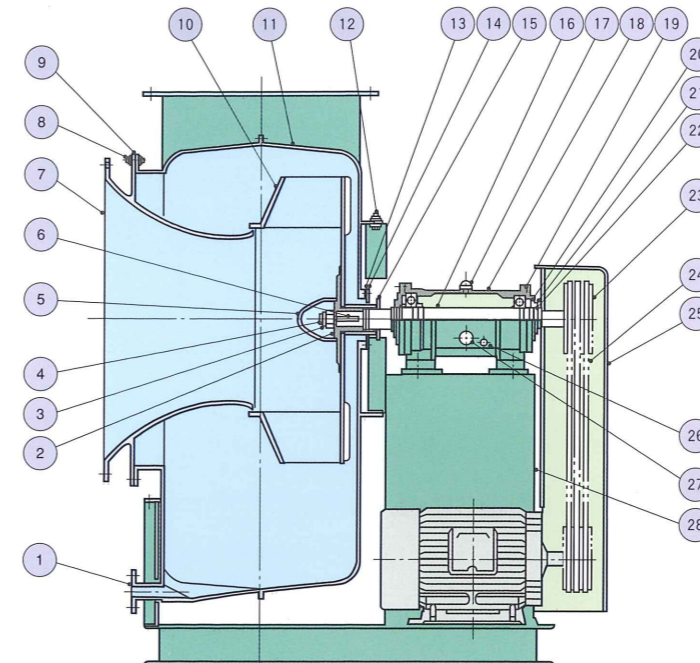


No.	NAME OF PART	MATERIALS	QTY
1	Drain Plug	FRP	1
2	Impeller Washer	SS400	1
3	Impeller Nut	S25C	1
4	Split Pin	SWRM6	1
5	Nut Cover	FRP	1
6	Impeller Key	S45C	1
7	Casing Gasket	EPT	1
8	Casing	FRP	1
9	Impeller	FRP	1
10	Seal Plate	PE	1
11	Gland	FRP	1
12	Gas Separator	HTPVC	1
13	Shaft	S35C	1
14-1	Adapter Nut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

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

*No Casing support for model FTF 153.

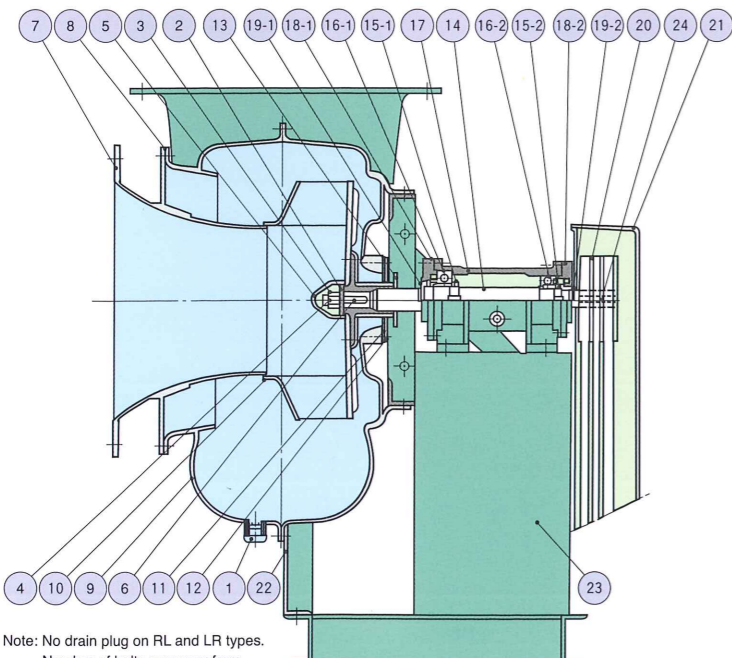
FTF503·603·703·803·903



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	S35C	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.

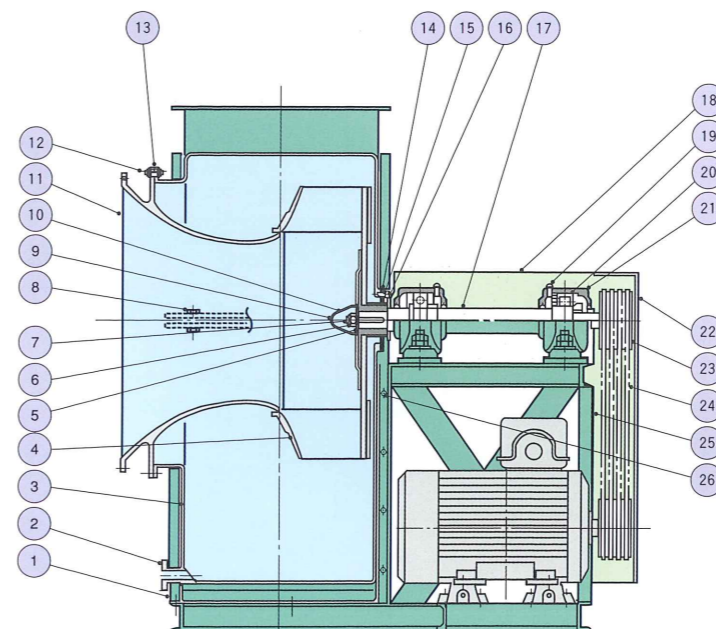
FTF303·403



No.	NAME OF PART	MATERIALS	QTY
1	Drain Plug	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 Gasket	EPT	1
9	Casing	FRP	1
10	Impeller	FRP	1
11	Seal Plate	PE	1
12	Gland	FRP	1
13	Gas Separator	HTPVC	1
14-1	Shaft	S35C	1
15-1	Adapter Nut & Washer (Front)	SS400	1Set
15-2	Adapter Nut & Washer (Rear)	SS400	1Set
16-1	Bearing (Front)	SUJ2	1
16-2	Bearing (Rear)	SUJ2	1
17	Bearing Housing	FCD450	1
18-1	Bearing Cover (Front)	FC200	1
18-2	Bearing Cover (Rear)	FC200	1
19-1	V-Ring (Front)	NBR	1
19-2	V-Ring (Rear)	NBR	1
20	V-Belt, V-Pulley	Rubber & FC200	1Set
21	Belt Guard	FRP	1
22	Casing Support	FRP	1
23	Bracket	SS400	1
24	V-Pulley Key	S45C	1

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

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	S35C	1
18	Shaft Guard	SS400	1
19	Grease Nipple	BsBm	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.

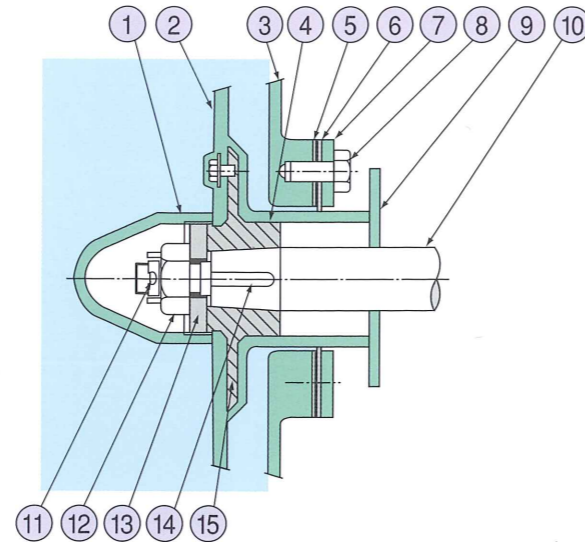
(1) Seal-Plate Type

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	1 pce.
2	Impeller	1 pce.
3	Casing	1 pce.
4	Shaft Sleeve	1 pce.
5	Gland Gasket	1 pce.
6	Seal Plate	1 pce.
7	Seal Plate Tightener	1 pce.
8	Gland Bolt	1 set
9	Gas Separator	1 pce.
10	Shaft	1 pce.
11	Split Pin	1 pce.
12	Nut (with Groove)	1 pce.
13	Impeller Washer	1 pce.
14	Impeller Key	1 pce.
15	Impeller Boss	1 pce.



(3) Packing-Seal Type

This device can not be attached to our standard type of fans/blowers without any modifications.

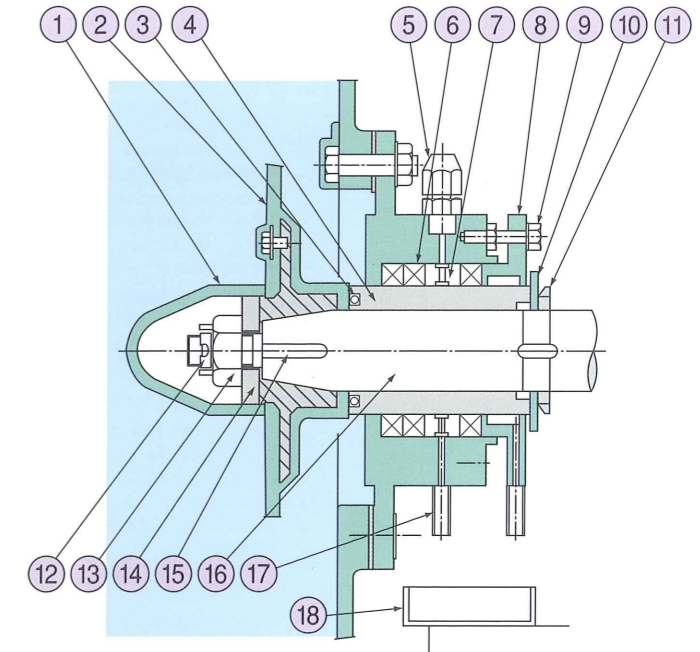
In this sealing device, gas sealing can be performed by a pressure of the packing and cooling water membrane.

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	1 pce.
2	Impeller	1 pce.
3	O-Ring	1 pce.
4	Shaft Sleeve	1 pce.
5	Inlet Union	1 pce.
6	Packing	1 set
7	Lantern Ring	1 pce.
8	Packing Tightener	1 pce.
9	Tightening Bolt	1 set
10	Gas Separator	1 pce.
11	Shaft Sleeve Nut	1 pce.
12	Split Pin	1 pce.
13	Nut (with Groove)	1 pce.
14	Impeller Washer	1 pce.
15	Impeller Key	1 pce.
16	Shaft	1 pce.
17	Drain Pipe	1 set
18	Drain Receiver	1 pce.

*Corrosion Resistant Metal



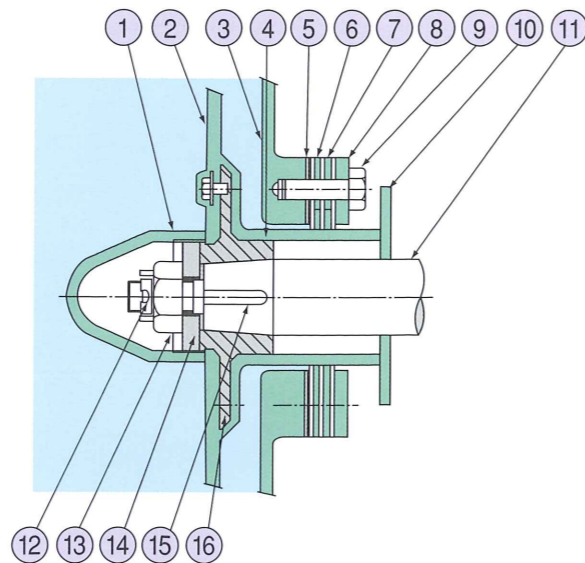
(2) Labyrinth-Seal Type

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	1 pce.
2	Impeller	1 pce.
3	Casing	1 pce.
4	Shaft Sleeve	1 pce.
5	Gland Gasket	1 pce.
6	Spacer	1 set
7	Seal Plate	1 set
8	Seal Plate Tightener	1 pce.
9	Gland Bolt	1 set
10	Gas Separator	1 pce.
11	Shaft	1 pce.
12	Split Pin	1 pce.
13	Nut (with Groove)	1 pce.
14	Impeller Washer	1 pce.
15	Impeller Key	1 pce.
16	Impeller Boss	1 pce.



(4) Water-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	1pce.
2	O-Ring	1set
3	Rotor	1pce.
4	Gland Gasket	1pce.
5	Gland Box	1pce.
6	Drain Catcher	1pce.
7	Bearing Housing Cover	1pce.
8	Inlet Union	1pce.
9	Water Separator	1pce.
10	Shaft	1pce.
11	V-Ring	1pce.
12	Outlet Union Seal	1set
13	Seal Plate	1set

