



**EBARA**

Certified System  
Quality  
ISO 9001

SAI GLOBAL  
Lic. No. QEC22090

FS613CT-R0E

# EBARA END SUCTION VOLUTE PUMP

MODEL FSA

60 Hz

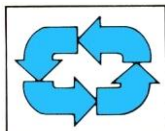


# APPLICATION



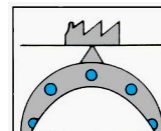
## Water Supply

- Boosting pump System
- High-rise building



## Water Circulation

- Circulating of water in Heating and cooling



## Industrial Use

- Liquid transfer

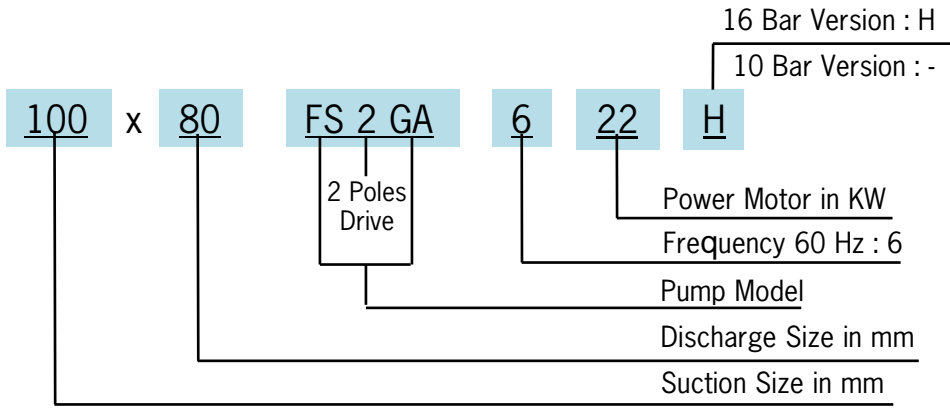
# FEATURES

1. Easy removal and maintenance, BPO (Back Pull Out) system allows all rotating elements can be removed without disconnecting suction and discharge pipe work.
2. Top centreline discharge, foot support under casing for maximum resistance due to misalignment and distortions from pipe loads.
3. Non-overload design to ensure stable performance for all applications.
4. Wider range application with flow capacity up to 22 m<sup>3</sup>/min.
5. Higher working pressure up to 16 bar.

# SPECIFICATION

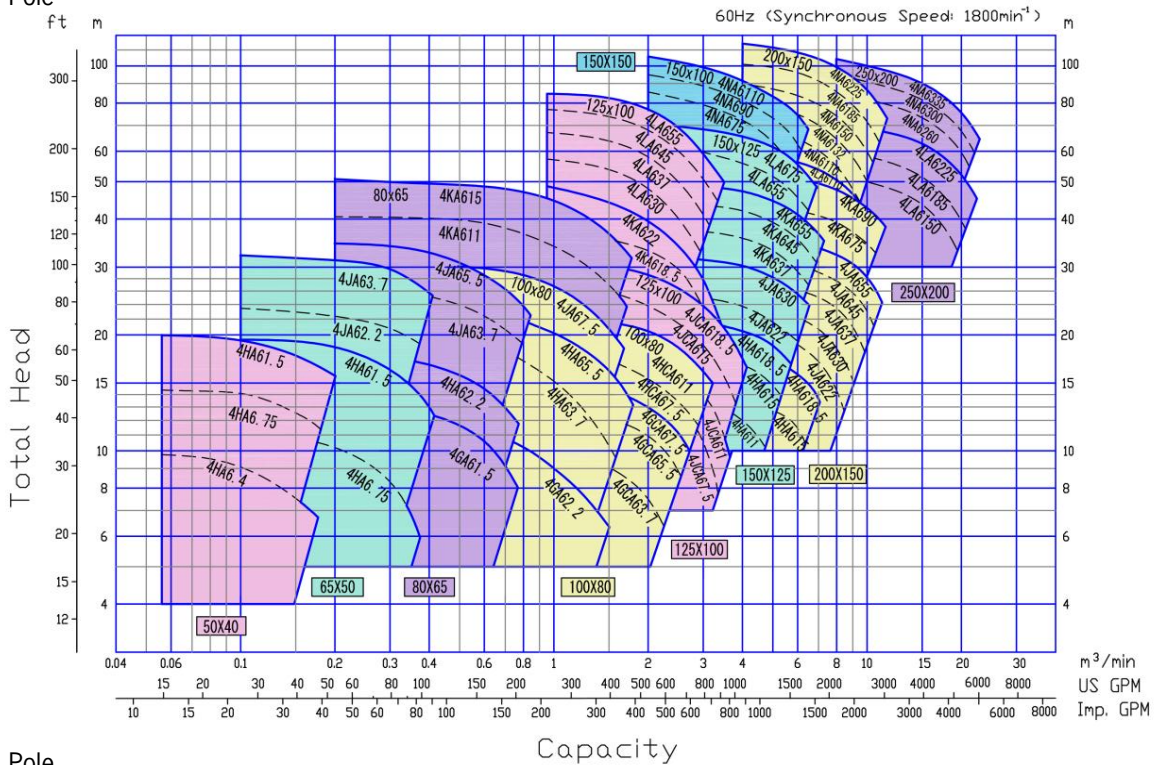
DESCRIPTION		STANDARD		OPTIONAL	
		2 Poles Model	4 Poles Model	2 Poles Model	4 Poles Model
Liquid	Name	Clean Water			
	Temperature	0 To 80 °C (32 To 176 °F)			
Max. Working Pressure		10 Bar (10.2 Kgf/Cm <sup>2</sup> ) For Standard Flange JIS 10K RF		16 Bar (16.3 Kgf/Cm <sup>2</sup> )	
		16 Bar (16.3 Kgf/Cm <sup>2</sup> ) For Standard Flange JIS 16K RF			
Synchronous Speed		3600 Min <sup>-1</sup>	1800 Min <sup>-1</sup>		
Installation		Indoors		Outdoors	
Construction	Impeller	Enclosed			
	Shaft Seal	Mechanical Seal		Gland Packing	
	Sealing	Self Flushing		External Flushing	
	Bearing	Sealed Ball Bearing		Oil Bath (Some Models Only)	
Flange	Suction & Discharge	Suction < φ 150 mm, Except Bellow	: JIS 10K RF	16 Bar : JIS 16K RF; DIN PN-16	
		100x65 FSKA	: JIS 16K RF	DIN PN-16	
		Suction = φ 150 mm, Except Below Models	: JIS 10K RF	16 Bar : JIS 16K RF; DIN PN-16	
		150x100 FSKA; 150x100 FSNA	: JIS 16K RF	DIN PN-16	
		Suction = φ 200 mm, Except Below Models	: JIS 10K RF	16 Bar : JIS 16K RF; DIN PN-16	
200x150 FSLA; 200x150 FSNA	: JIS 16K RF	DIN PN-16			
Suction = φ 250 mm	: JIS 16K RF	DIN PN-16			
Material	Casing	Cast Iron		Ductile Cast Iron (FCD)	
	Impeller	Bronze Casting (CAC406/BC6)		Cast Iron; Ductile Cast Iron (FCD) (Some Models Only)	
	Shaft	403 Stainless Steel		304; 316 Stainless Steel	
	Seal	Mechanical Seal : Ceramic/ Carbon/ NBR		Gland Packing : Teflon (PTFE) Impregnated Mechanical Seal : Sic/Sic	
Accessories	Bare Shaft	-		Priming Funnel; Valve; Companion Flange	
	With Motor	Common Base, Coupling, Coupling Guard		Priming Funnel; Valve; Companion Flange	

# MODEL CODE

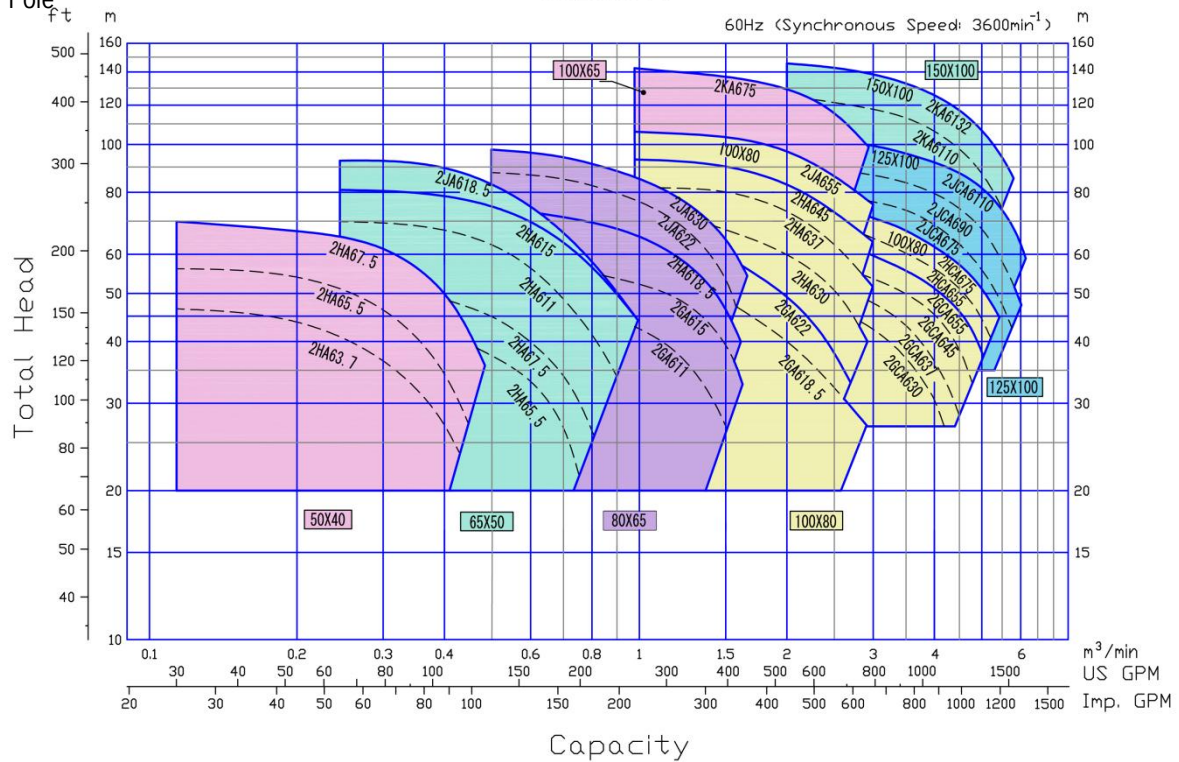


# PERFORMANCE CHART

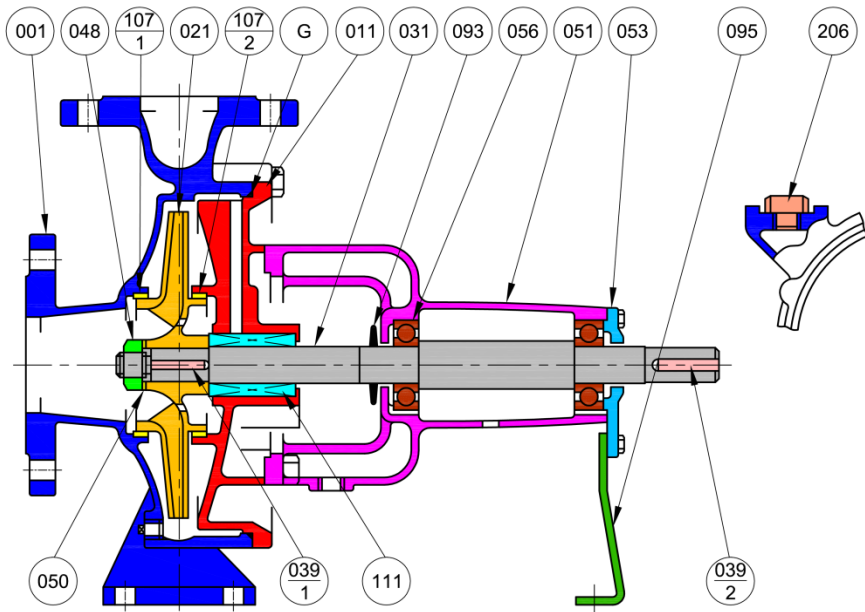
4 Pole



2 Pole

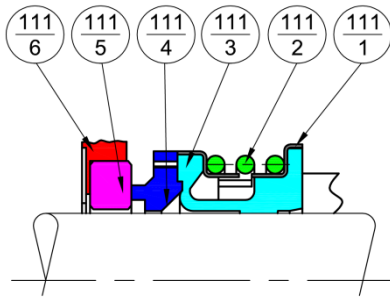


## SECTIONAL VIEW (General)



G	O-Ring	Rubber	
206	Plug	Steel	
111	Mechanical Seal	-	1
107-2	Casing Ring	Bronze	
107-1	Casing Ring		
095	Bearing Support	Steel	
093	Deflector	Rubber	
056	Ball Bearing	-	2
053	Bearing Cover	Cast Iron	1
051	Bearing Housing		
050	Impeller Nut Washer	Brass	
048	Impeller Nut		
039-2	Coupling Key	Stainless Steel	
039-1	Impeller Key		
031	Shaft		
021	Impeller	Bronze	
011	Casing Cover	Cast Iron	
001	Casing		
No.	Part Name	Material	Qty

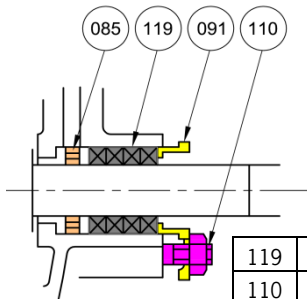
### Mechanical Seal Type (Standard)



111-6	Cup Gasket	NBR	1
111-5	Matting Ring	Ceramic	
111-4	Seal Ring	Carbon	
111-3	Bellows	NBR	
111-2	Coil Spring	Stainless Steel	
111-1	Spring Holder		
No.	Part Name	Material	Qty

### Gland Packing Type (Optional)

#### With Lantern Ring

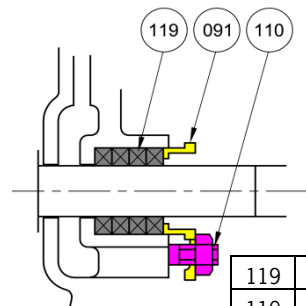


119	Gland Packing	Non-Asbestos	4 or 5
110	Gland Bolt	Brass	2
091	Gland	Bronze	1
085	Lantern Ring		
No.	Part Name	Material	Qty

#### Pump Model:

50x40 FSHA; 65x50 FSHA, FSJA;  
 80x65 FSGA, FSHA;  
 100x80 FSGA; 125x100 FSLA;  
 150x100 FSKA, FSNA;  
 150x125 FSKA, FSLA;  
 200x150 FSJA, FSLA, FSNA;  
 250x200 FSLA, FSNA.

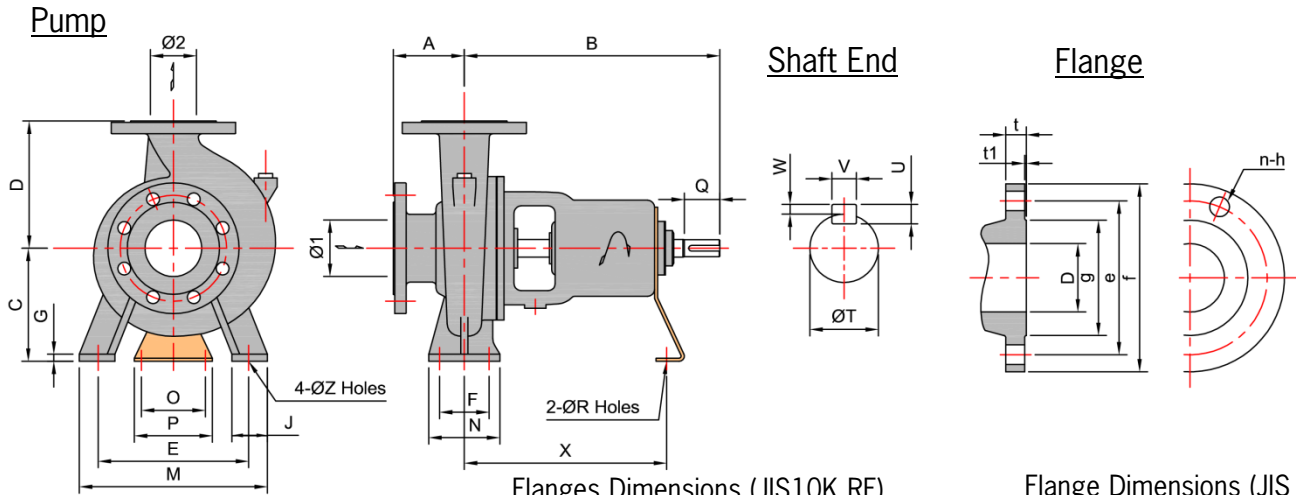
#### Without Lantern Ring



119	Gland Packing	Non-Asbestos	4 or 5
110	Gland Bolt	Brass	2
091	Gland	Bronze	1
No.	Part Name	Material	Qty

#### Pump Model:

80x65 FSJA, FSKA;  
 100x65 FSKA;  
 100x80 FSHA, FSJA, FSGCA, FSHCA;  
 125x100 FSJCA, FSKA;  
 150x125 FSHA, FSJA;  
 200x150 FSHA, FSKA.



Flanges Dimensions (JIS10K RF)

D (mm)	f (mm)	e (mm)	g (mm)	t1 (mm)	t (mm)	n	h (mm)
40	140	105	81	2	20	4	19
50	155	120	96	2	20	4	19
65	175	140	116	2	22	4	19
80	185	150	126	2	22	8	19
100	210	175	151	2	24	8	19
125	250	210	182	2	24	8	23
150	280	240	212	2	26	8	23
200	330	290	262	2	26	12	23

Flange Dimensions (JIS 16K RF)

D (mm)	f (mm)	e (mm)	g (mm)	t1 (mm)	t (mm)	n	h (mm)
65	175	140	116	2	22	8	19
100	225	185	160	2	26	8	23
150	305	260	230	2	28	12	25
200	350	305	275	2	30	12	25
250	430	380	345	2	34	12	27

## Pump Dimensions

MODEL	SIZE		FLANGE STANDARD	PUMP														SHAFT					Wt Kg	
	φ1	φ2		A	B	C	D	E	F	G	J	M	N	O	P	R	X	Z	T	Q	U	V		W
50x40 FSJA	50	40	JIS 10K	80	360	160	180	190	70	12	50	240	100	110	150	17	285	15	24	50	7	8	4	37
65x50 FSJA	65	50	JIS 10K	100	360	180	225	250	95	14	65	320	125	110	150	17	285	15	24	50	7	8	4	49
80x65 FSJA	80	65	JIS 10K	100	360	160	180	212	70	12	50	265	100	110	150	17	285	15	24	50	7	8	4	39
80x65 FSJA	80	65	JIS 10K	100	360	160	200	212	70	12	50	265	100	110	150	17	285	15	24	50	7	8	4	48
80x65 FSJA	80	65	JIS 10K	100	350	180	225	250	95	14	65	320	125	110	150	17	285	15	32	80	8	10	5	60
80x65 FSJA	80	65	JIS 10K	125	470	225	280	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	5	108
100x65 FSJA	100	65	JIS 16K	125	360	225	280	315	120	16	80	400	160	110	150	17	285	19	38	80	8	10	5	106
100x80 FSJA	100	80	JIS 10K	100	360	160	200	212	95	14	65	280	125	110	150	17	285	15	24	50	7	8	4	49
100x80 FSJA	100	80	JIS 10K	100	360	180	225	250	95	15	65	320	125	110	150	17	285	15	32	80	8	10	5	62
100x80 FSJA	100	80	JIS 10K	100	360	200	250	280	120	15	80	360	160	110	150	17	285	19	32	80	8	10	5	70
100x80 FSJA	100	80	JIS 10K	125	360	180	225	250	95	14	65	320	125	110	150	17	285	15	32	80	8	10	5	62
100x80 FSJA	100	80	JIS 10K	125	360	180	250	280	95	14	65	345	125	110	150	17	285	15	32	80	8	10	5	65
125x100 FSJA	125	100	JIS 10K	140	360	225	280	315	120	16	80	400	160	110	150	17	285	19	38	80	8	10	5	108
125x100 FSJA	125	100	JIS 10K	140	470	250	315	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	5	128
125x100 FSJA	125	100	JIS 10K	140	530	280	355	400	150	20	100	500	200	110	150	17	370	24	42	110	8	12	5	168
150x100 FSJA	150	100	JIS 16K	140	530	250	315	315	120	16	80	400	160	90	120	15	373	19	42	95	8	12	5	146
150x100 FSJA	150	100	JIS 16K	180	670	375	450	450	150	20	100	550	200	140	180	19	500	24	48	110	9	14	5.5	365
150x125 FSJA	150	125	JIS 10K	140	470	250	315	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	5	120
150x125 FSJA	150	125	JIS 10K	140	470	250	355	315	120	16	80	400	160	110	150	17	370	19	32	80	8	10	5	128
150x125 FSJA	150	125	JIS 10K	140	470	280	355	400	150	16	100	500	200	110	150	17	310	24	42	110	8	12	5	164
150x125 FSJA	150	125	JIS 10K	140	470	315	400	400	150	20	100	500	200	110	150	17	310	24	42	110	8	12	5	195
200x150 FSJA	200	150	JIS 10K	160	470	280	355	400	150	18	100	500	200	110	150	17	370	24	32	80	8	10	5	137
200x150 FSJA	200	150	JIS 10K	160	470	280	375	400	150	18	100	500	200	110	150	17	310	24	42	110	8	12	5	177
200x150 FSJA	200	150	JIS 10K	160	640	315	400	450	150	20	100	550	200	140	180	19	500	24	48	110	9	14	5.5	220
200x150 FSJA	200	150	JIS 16K	162	670	315	450	450	150	20	100	550	200	140	180	19	500	24	48	110	9	14	5.5	336
200x150 FSJA	200	150	JIS 16K	182	670	375	560	450	150	20	100	550	200	140	180	19	500	24	60	110	11	18	7	488
250x200 FSJA	250	200	JIS 16K	180	670	385	560	560	250	25	100	660	315	140	180	19	500	24	60	110	11	18	7	505
250x200 FSJA	250	200	JIS 16K	200	820	435	630	560	250	25	100	660	315	160	200	19	630	27	74	125	12	20	8	642

Unit : mm, unless otherwise stated



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