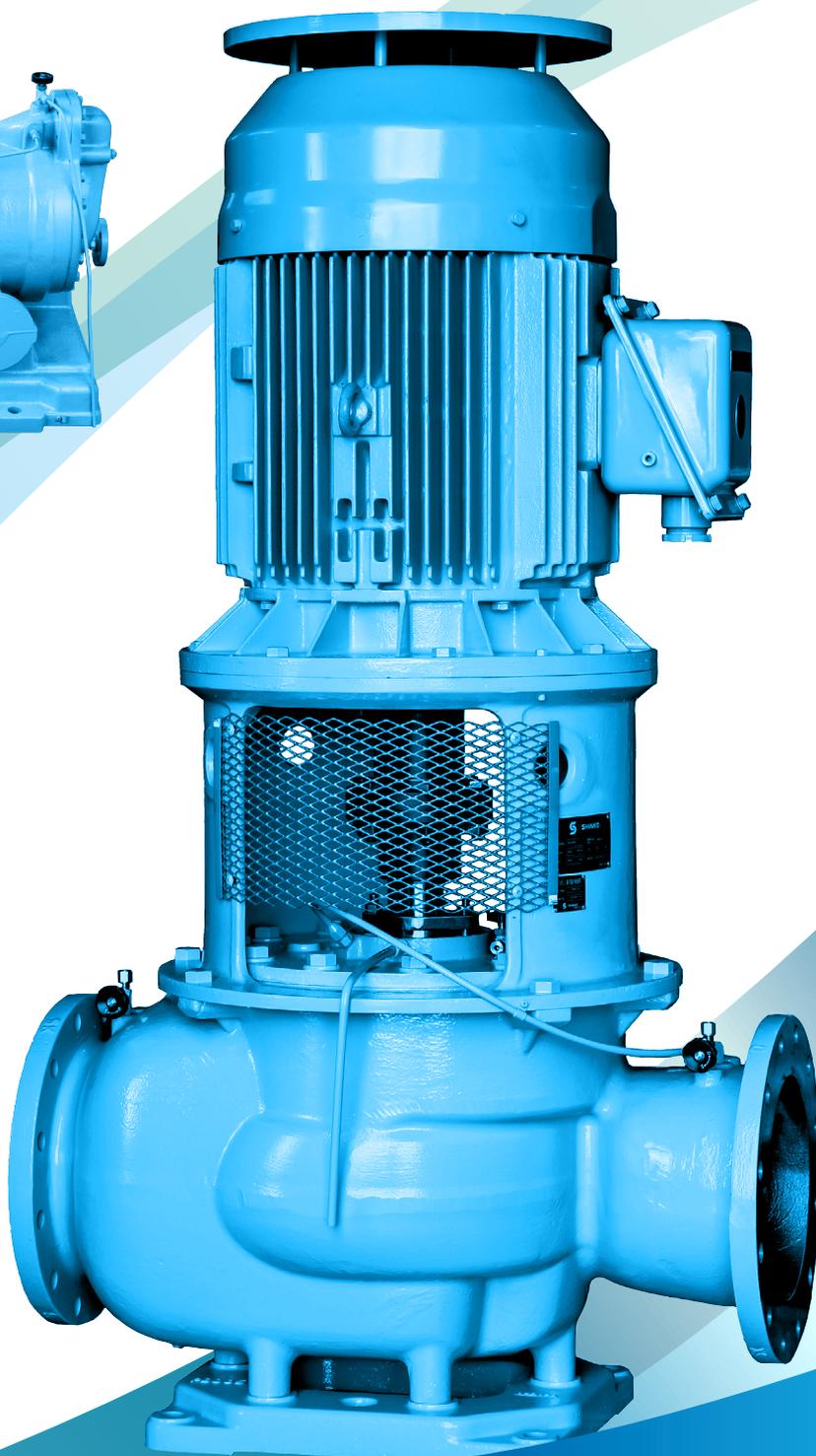
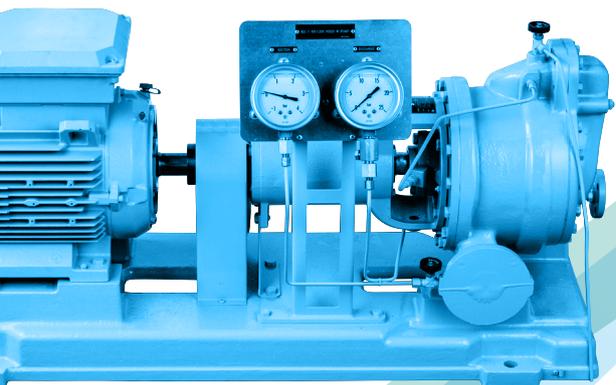


Marine Standard

Centrifugal Pumps

MC-101Q



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ENGINEERING DATA

SHINKO marine centrifugal pumps have been designed and manufactured in accordance with the Japan Ship Machinery and Equipment Association's standards for high performance under the following operating conditions:

- Temperature : Maximum ambient temperature : 50°C
- : Maximum cooling sea water temperature : 32°C
- List and rolling of the ship : 15 degrees horizontally, 10 degrees longitudinally, and 22.5 degrees for one side rolling.
- Installation direction : The shafts for the horizontal pumps are to be installed parallel to the keel. The shafts for the vertical pumps are to be installed vertically to the keel.

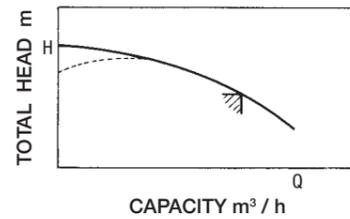
DESIGN & FUNCTIONS

H-Q CURVE

All pumps are designed in such a way that the H-Q curve descends to the right in a continuous line as shown in the figure on the right.

At any of the points on the H-Q curve, shaft horsepower does not exceed motor output.

However, some specific pumps such as boiler feed pumps, condensate pumps, and drinking water pumps or sanitary pumps for hydrophore units, are operated within a specific range upon which the motor output is selected. Hence, shaft horsepower beyond this specific range may exceed the motor output.



BALL BEARINGS & LUBRICATION

The vertical models SA, SB, CVF, EVZ, and all horizontal pumps except the model HJ are equipped with heavy duty deep groove ball bearings or angular contact ball bearings.

Sealed ball bearings are applied to small pumps. Whereas, all other pumps use grease lubrication or oil lubrication. For oil lubrication, either an oil bath or an oil ring is employed to lubricate. And, an oil level gauge is located on the bearing housing.

Service	Model	Lubrication
Horizontal small size pump	AHJ, SHQ, GJ	Sealed ball bearing
BW circulating pump	BT	Oil bath
Lubricating oil pump	SA	Oil handled
Other pumps	Other models	Grease

During the shop test, attention has been paid to the bearing temperature of electric-motor-driven pumps to ensure that they do not exceed the ambient temperature by 40°C or liquid temperature by 20°C whichever is higher, and do not exceed 75°C in summer.

LINE BEARING & LIQUID LUBRICATION

We have experienced many troubles to do with the lower side bearings such as water leakage from the stuffing box causing the ball bearings to get rusty in the vertical pumps. And, with our standard pumps, the lower bearings are equipped with a line bearing where water lubrication is applied utilizing a pump discharge liquid.

The line bearing is also applied to the casing and intermediate shaft bearings of the tank mounting pumps (the models SA and SB).

VIBRATION

Consideration has been given to the design of the pump construction and the impellers to reduce vibration as much as possible.

The maximum tolerance for pump vibration during shop test is shown on the table on the right.

Horizontal	Below 500m³/h	4.0mm/s
	Over 500m³/h	4.0mm/s
Vertical	Below 500m³/h	3.3mm/s
	Over 500m³/h	5.3mm/s

NOISE

Consideration has been given to the design of the pump casings and the impellers to reduce as much noise as possible as with vibration.

The permissible value of the noise in the shop to be less than 100 dB (A), when measuring at 1 m distance from the pump operated at rated condition.

PRESSURE GAUGE & ROOT VALVE

To indicate pump suction pressure and discharge pressure, 75 mm diameter gauges are fitted onto a gauge stand for horizontal pumps or onto a gauge board for vertical pumps. Connection to the gauges is made via 6mm outer diameter copper pipes with root gauge valves on the pump side, and gauge joints on the gauge side.

COUPLING COVER

A coupling cover is provided for the pumps for safety.

AIR VENT VALVE

At the highest point of the pump casing, a hole is provided to allow the air to vent, and an air vent valve is installed.

APPLICATIONS

Jacket cooling fresh water pumps

Sea water service pumps

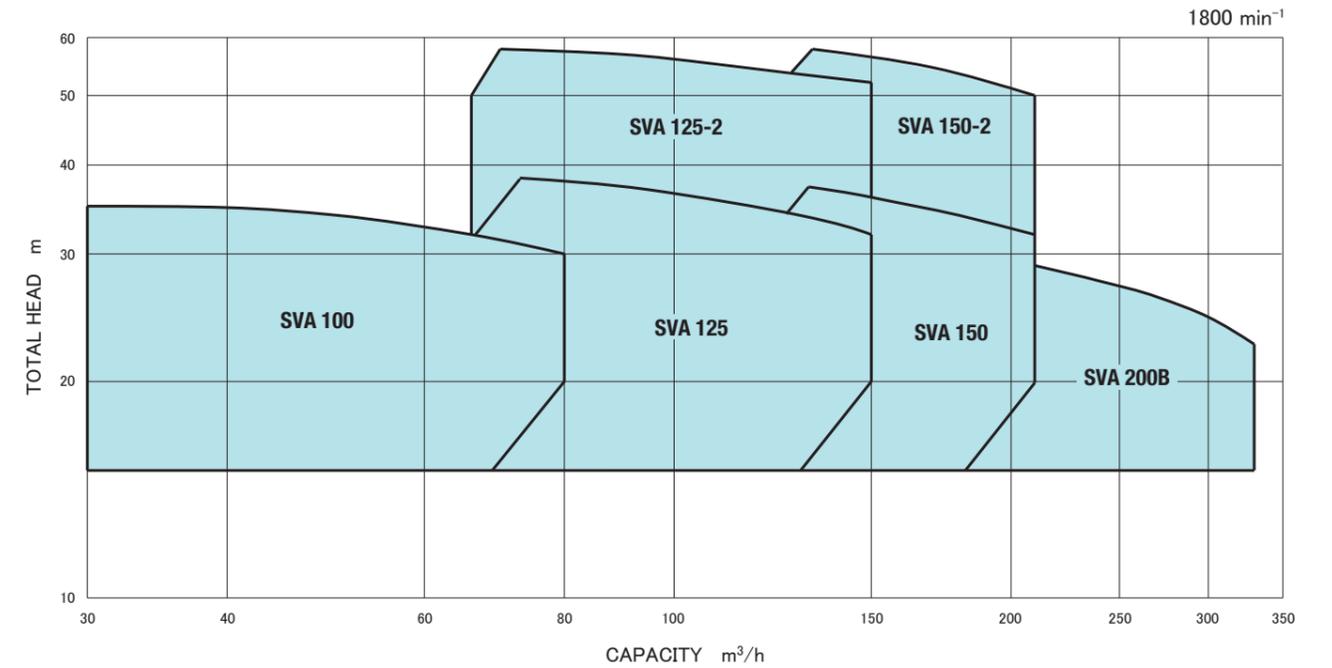
Other use

GENERAL CHARACTERISTICS (SINGLE SUCTION)

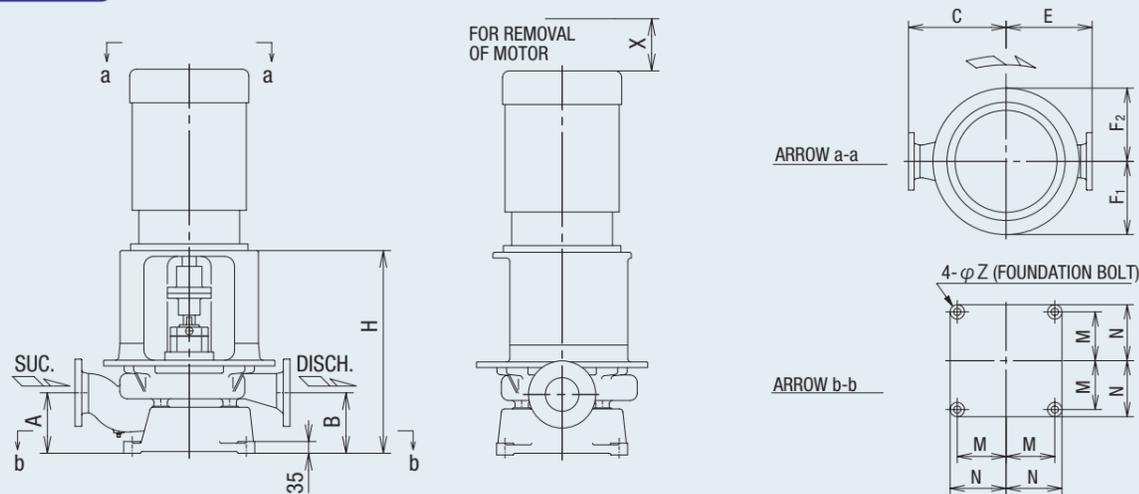
Item	Model	SVA 100	SVA 125	SVA 125-2	SVA 150	SVA 150-2	SVA 200B
Rotation		Clockwise when viewed from the driver					
Suction bore (mm)		100	125	125	150	150	200
Discharge bore (mm)		100	125	125	150	150	200
Stuffing box seal		Gland packing or Mechanical seal					
Max.output (kW)		15	22	37	30	45	30
weight:CAC (kg)		175	195	270	230	280	235
weight:FC (kg)		165	175	250	210	260	215
Water filled in casing (kg)		6	18	26	25	33	37



PERFORMANCE CHARTS



SVA 100~200B



Dimensions:mm

Model	A	B	C	E	F ₁	F ₂	H	M	N	X	Z	Mecha. seal
SVA 100	180	180	340	300	255	255	609	170	195	170	25	35
SVA 125	190	190	380	320	255	255	629	170	195	170	25	35
SVA 125-2	220	220	420	350	310	310	718	210	240	200	27	45
SVA 150	215	215	420	360	255	270	700	210	240	170	27	45
SVA 150-2	215	215	460	390	310	310	715	210	240	200	27	45
SVA 200B	215	215	410	380	260	290	724	210	240	170	27	45

APPLICATIONS

Cooling sea water pumps

Cooling fresh water pumps

Turbo generator condenser C.S.W. pumps

Vaccum condenser C.S.W. pumps

Inert gas scrubber C.S.W. pumps

Reliquefaction C.F.W. pumps

Central cooling sea water pumps

Central cooling fresh water pumps

Ballast pumps

Others

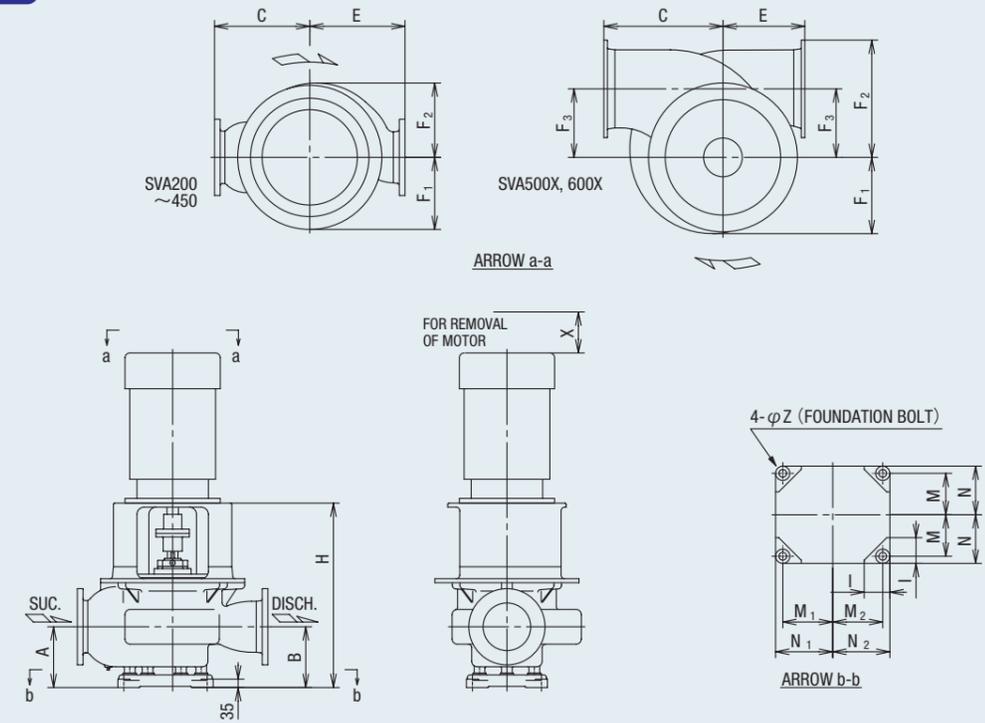


GENERAL CHARACTERISTICS (DOUBLE SUCTION)

Item	Model	SVA 200	SVA 250B	SVA 250(A)	SVA 300B	SVA 300(A)
Rotation		Clockwise when viewed from the driver				
Suction bore	(mm)	200	250	250	300	300
Discharge bore	(mm)	200	250	250	300	300
Stuffing box seal		Gland packing or Mechanical seal				
Max.output	(kW)	45	55	90	75	132
weight:CAC	(kg)	360	300	460	350	570
weight:FC	(kg)	310	260	400	315	510
Water filled in casing	(kg)	51	76	90	101	125

Item	Model	SVA 350B	SVA 350(A)	SVA 400(A)	SVA 450	SVA 500X	SVA 600X
Rotation		Clockwise when viewed from the driver					
Suction bore	(mm)	350	350	400	450	500	600
Discharge bore	(mm)	350	350	400	450	500	600
Stuffing box seal		Gland packing or Mechanical seal					
Max.output	(kW)	110	150	280	315	460	600
weight:CAC	(kg)	420	730	1160	1600	1800	2370
weight:FC	(kg)	380	675	1050	1450	1640	2160
Water filled in casing	(kg)	126	195	315	438	668	850

SVA 200~600X

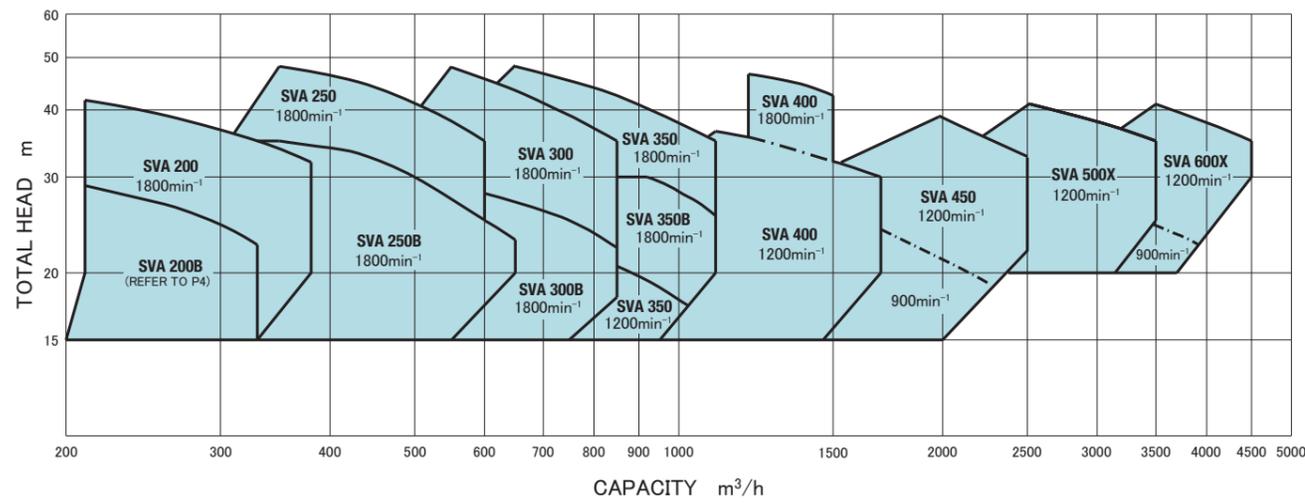


Dimensions:mm

Model	A	B	C	E	F ₁	F ₂	F ₃	H	I	M	M ₁	M ₂	N	N ₁	N ₂	X	Z	Mecha. seal
SVA 200	255	255	400	400	305	315	—	810	90	145	205	145	170	230	170	200	27	45
SVA 250B	290	290	400	400	285	310	—	879	—	190	180	180	215	205	205	200	27	45
SVA 250(A)	290	290	430	430	305	350	—	881	90	180	240	180	210	270	210	200	27	55
SVA 300B	300	300	430	430	285	360	—	911	—	215	200	200	245	230	230	200	33	55
SVA 300(A)	325	325	470	470	310	390	—	941	110	200	275	200	230	305	230	200	33	55
SVA 350B	305	305	430	440	330	370	—	976	—	230	200	200	260	230	230	200	33	55
SVA 350(A)	355	355	480	480	365	380	—	1031	110	235	300	235	265	330	265	230	33	60
SVA 400(A)	410	410	600	580	430	495	—	1171	110	275	355	275	305	385	305	230	33	70
SVA 450	500	500	730	710	414	598	—	1454	150	340	440	340	380	480	380	300	39	85
SVA 500X	580	580	800	550	515	790	460	1764	170	425	425	425	470	470	470	300	46	115
SVA 600X	670	670	950	600	542	885	500	1913	190	500	500	500	550	550	550	300	52	115

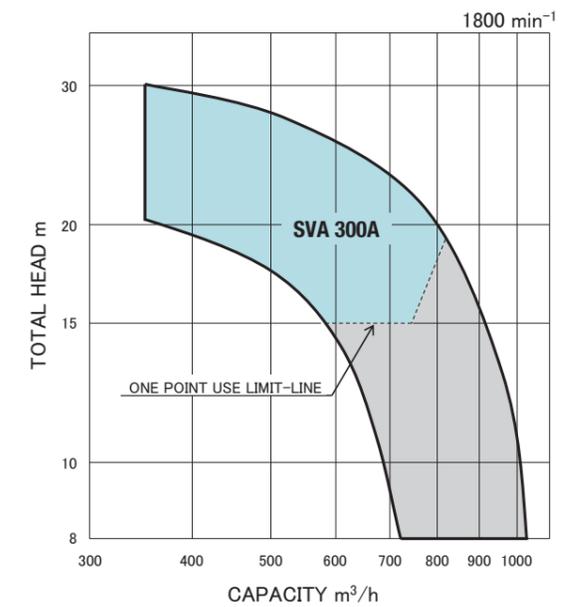
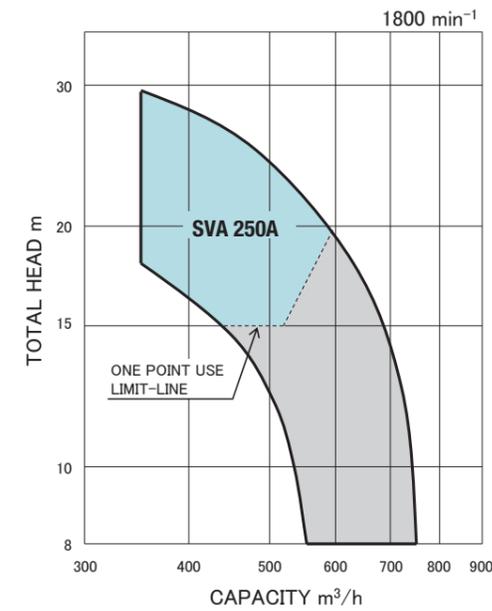
PERFORMANCE CHARTS

For Cooling Sea Water Pumps and Cooling Fresh Water Pumps (SVA)

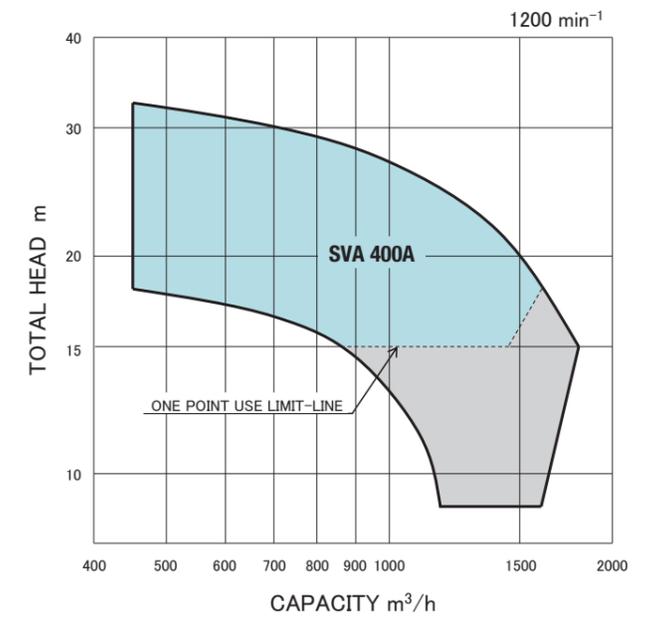
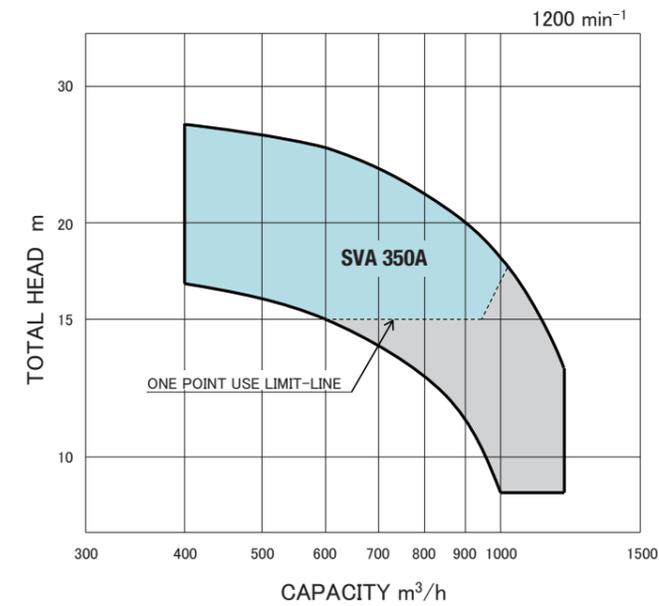
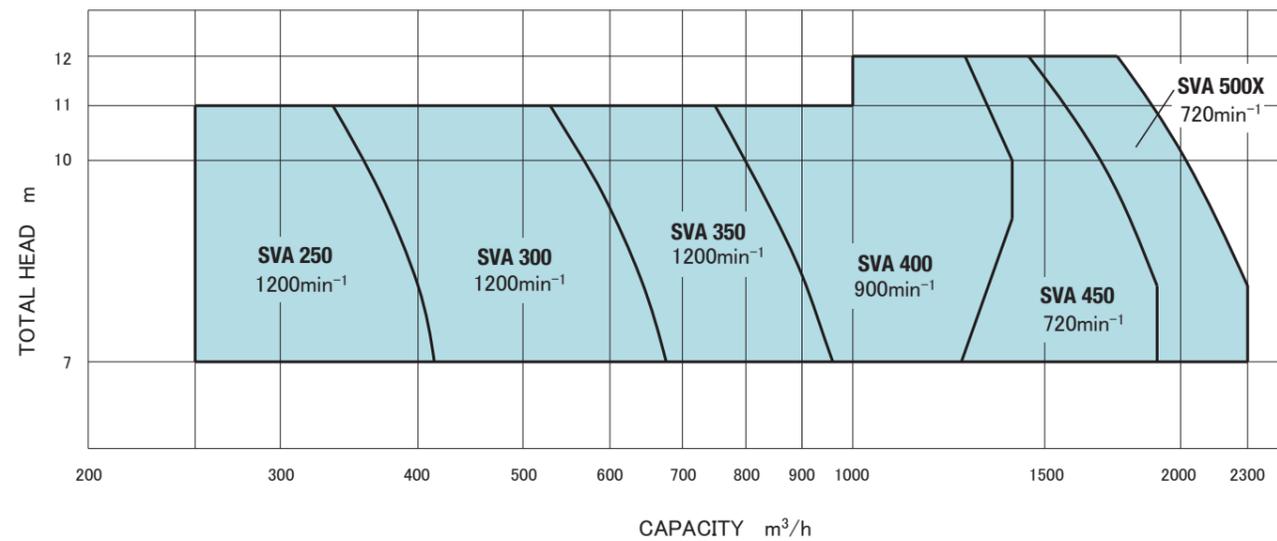


For Cooling Sea Water Pumps and COPT Condenser Cooling Pumps with a Double Specification (SVA-A)

Pumps should be used intermittently when they are run in the gray-colored zones on the charts below.



For Turbo Generator Condenser Cooling Pumps (SVA)



APPLICATIONS

Fire and general service pumps

Bilge and ballast pumps

Emergency fire pumps

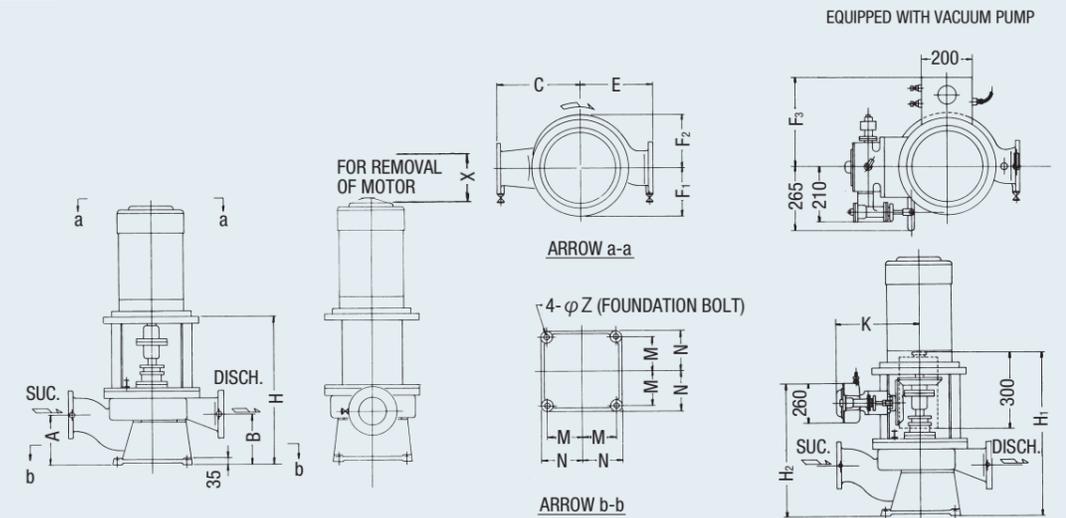
Other use

GENERAL CHARACTERISTICS (SINGLE SUCTION)

Item	Model	SVB 65	SVB 100	SVB 125
Rotation		Clockwise when viewed from the driver		
Suction bore	(mm)	65	100	125
Discharge bore	(mm)	65	100	125
Stuffing box seal		Gland packing or Mechanical seal		
Max.output	(kW)	15	30	75
weight:CAC	(kg)	165	185	255
weight:FC	(kg)	150	165	230
Water filled in casing	(kg)	4	6	18



SVB 65-125



Dimensions:mm

Model	A	B	C	E	F ₁	F ₂	F ₃	H	H ₁	H ₂	K	M	N	X	Z	Mecha. seal
SVB 65	150	150	280	250	133	165	350	554	654	594	420	125	150	170	23	30
SVB 100	180	180	300	270	220	220	350	609	689	629	420	170	195	170	25	35
SVB 125	190	190	380	320	255	255	460	700	800	750	500	170	195	200	25	45

APPLICATIONS

Fire and general service pumps

Bilge and ballast pumps

Emergency fire pumps

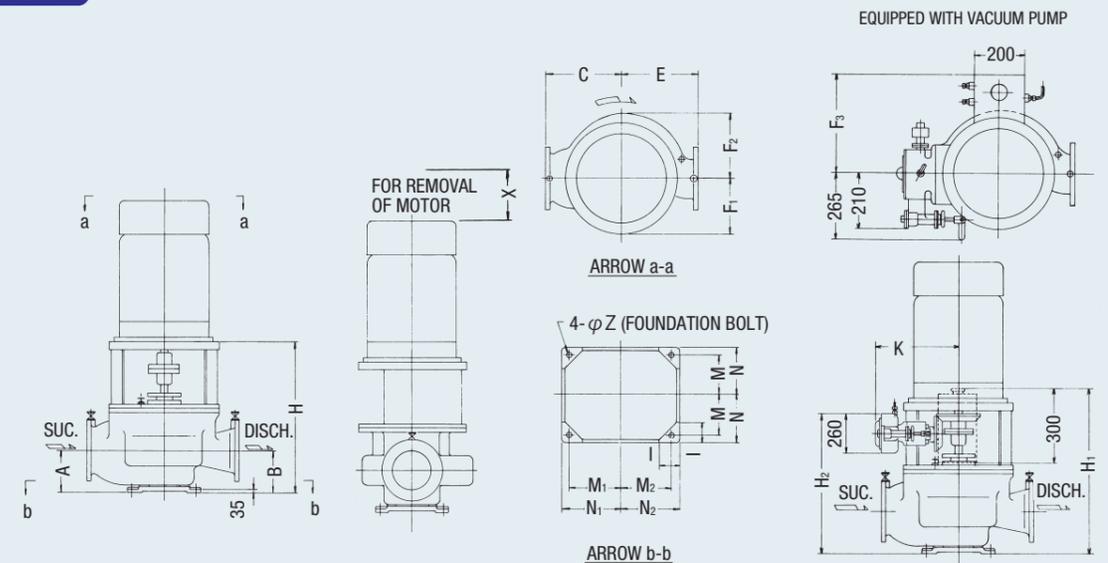
Other use

GENERAL CHARACTERISTICS (DOUBLE SUCTION)

Item	Model	SVB 150	SVB 200
Rotation		Clockwise when viewed from the driver	
Suction bore	(mm)	150	200
Discharge bore	(mm)	150	200
Stuffing box seal		Gland packing or Mechanical seal	
Max.output	(kW)	110	150
weight:CAC	(kg)	320	410
weight:FC	(kg)	280	360
Water filled in casing	(kg)	42	62



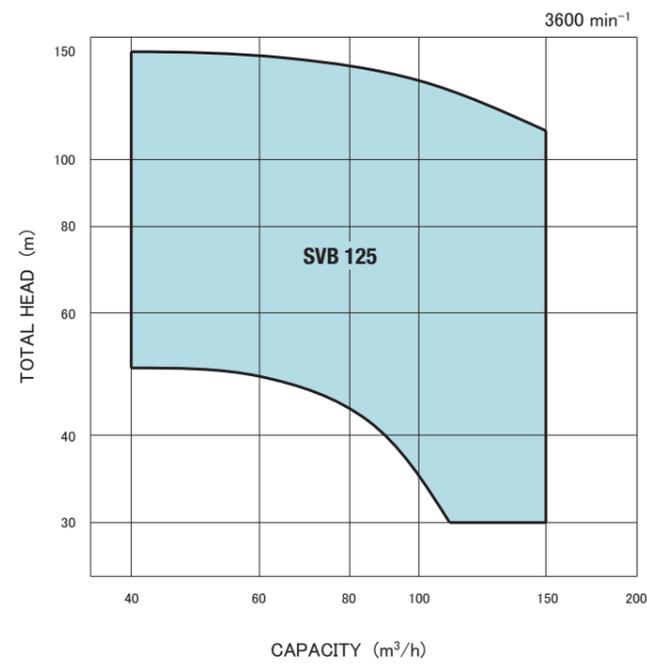
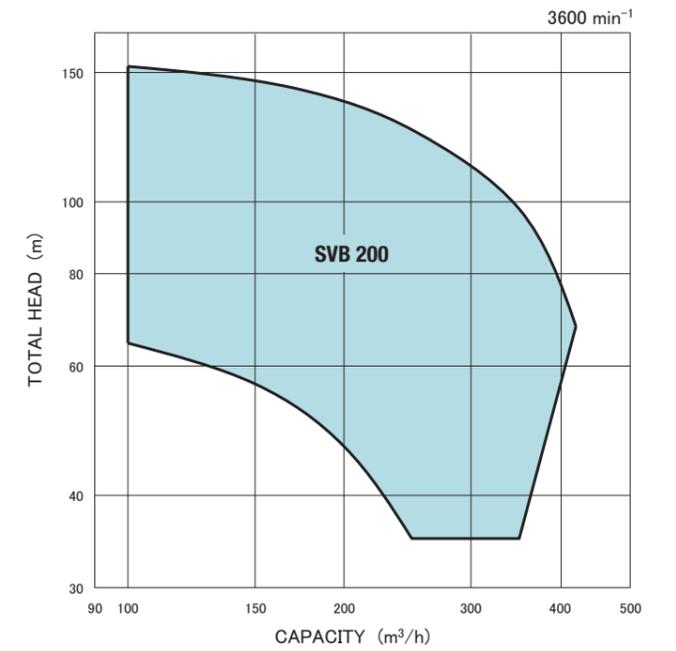
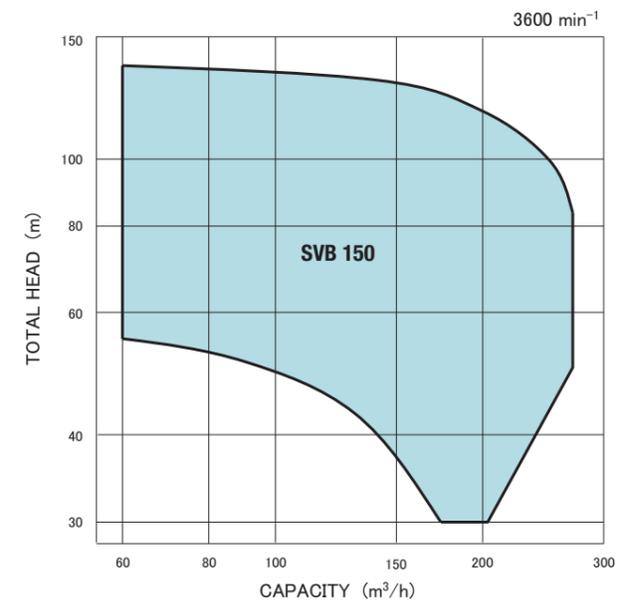
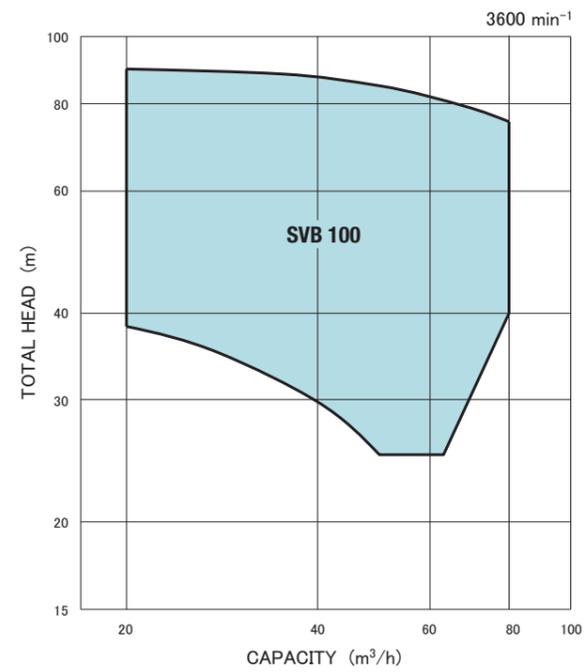
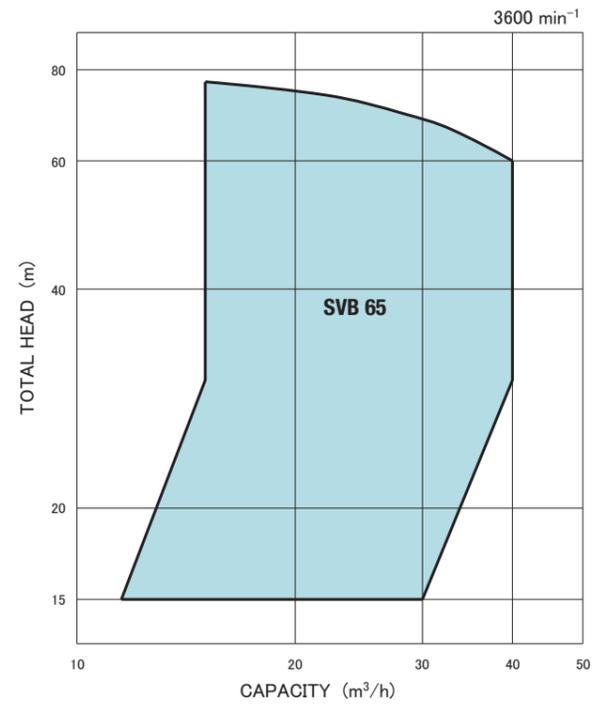
SVB 150-200



Dimensions:mm

Model	A	B	C	E	F ₁	F ₂	F ₃	H	H ₁	H ₂	I	K	M	M ₁	M ₂	N	N ₁	N ₂	X	Z	Mecha. seal
SVB 150	240	240	380	380	310	310	555	780	880	820	90	500	180	240	180	210	270	210	200	27	45
SVB 200	300	300	450	450	365	365	600	900	1000	940	110	540	200	275	200	230	305	230	200	33	55

PERFORMANCE CHARTS



RVP

SHINKO IND. LTD.
Vertical two-stage single-suction
FIRE & GS PUMPS

RVP | Vertical two-stage single-suction
FIRE & GS PUMPS

APPLICATIONS

Fire and general service pumps

Bilge and ballast pumps

Emergency fire pumps

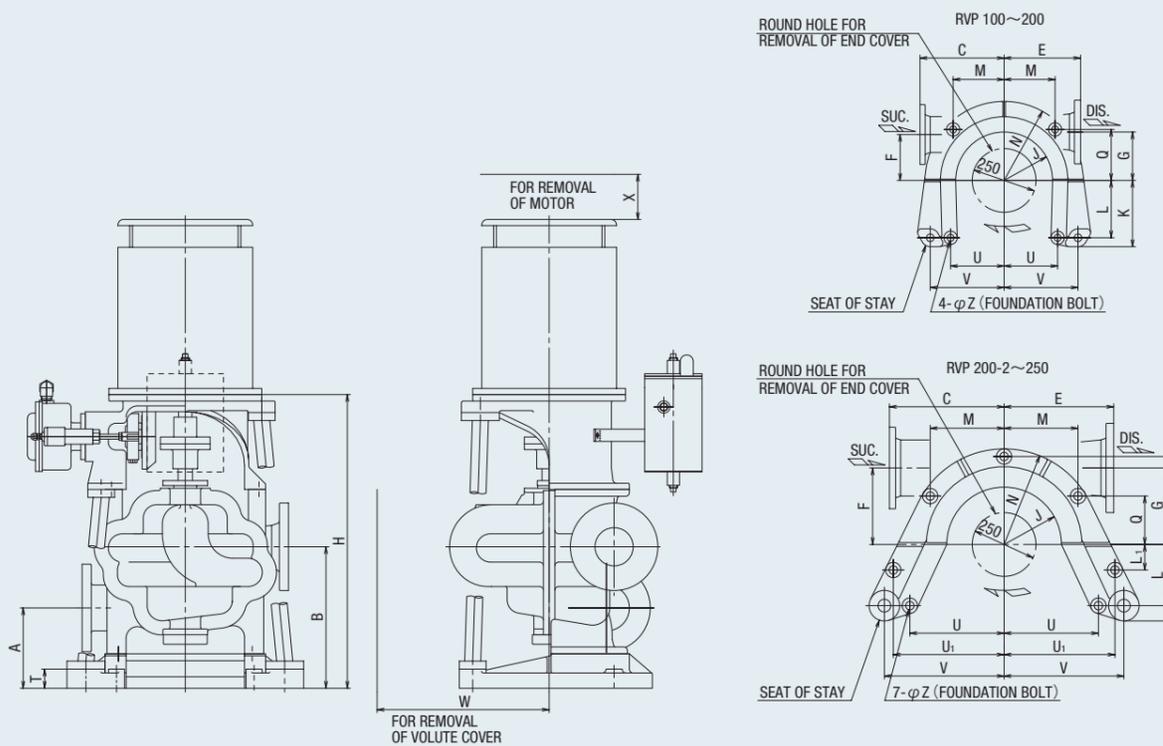
Other use



GENERAL CHARACTERISTICS

Item	Model	RVP 100	RVP 130	RVP 160	RVP 160-2	RVP 200	RVP 200-2	RVP 250-1	RVP 250
Rotation		Clockwise when viewed from the driver							
Suction bore (mm)		100	125	150	150	200	200	250	250
Discharge bore (mm)		100	125	150	150	200	200	250	250
Stuffing box seal		Gland packing or Mechanical seal							
Max.output (kW)		18.5	45	55	110	110	150	200	450
weight:CAC (kg)		265	412	560	590	670	685	755	800
weight:FC (kg)		240	370	510	535	605	630	675	715
Water filled in casing (kg)		10	21	41	51	70	80	105	110

RVP 100~250

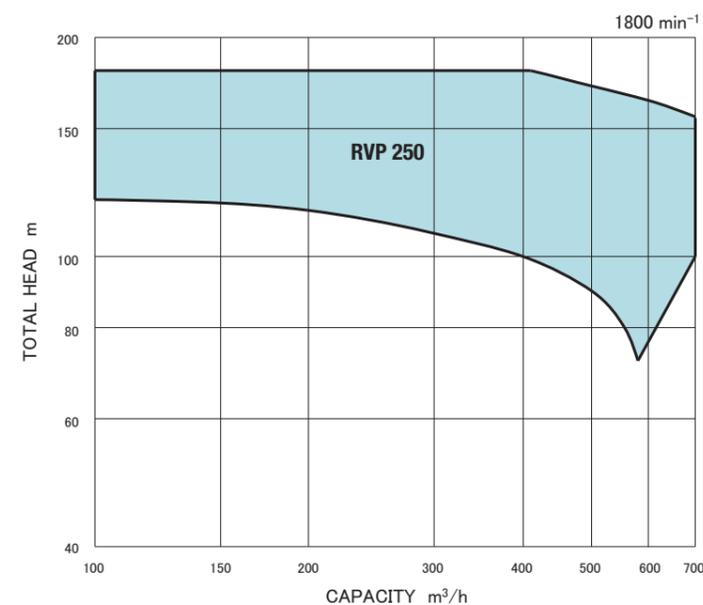
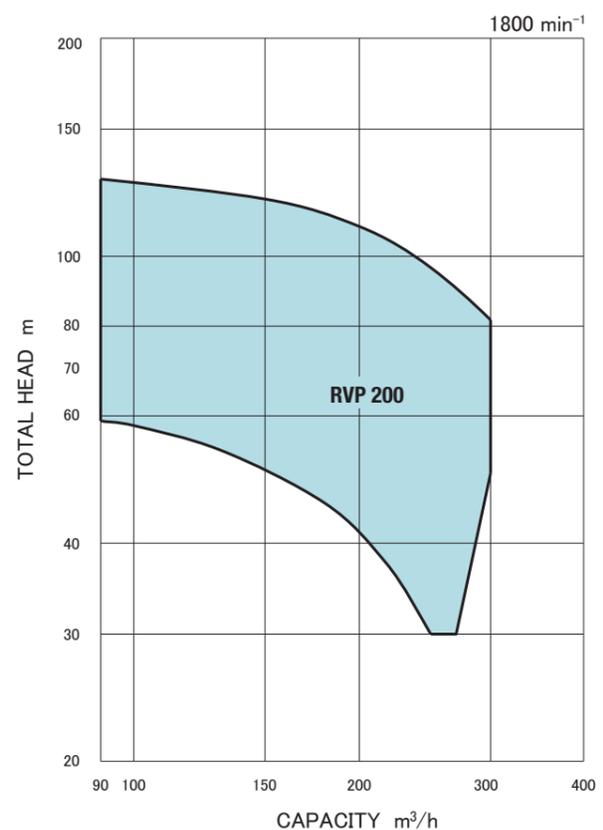
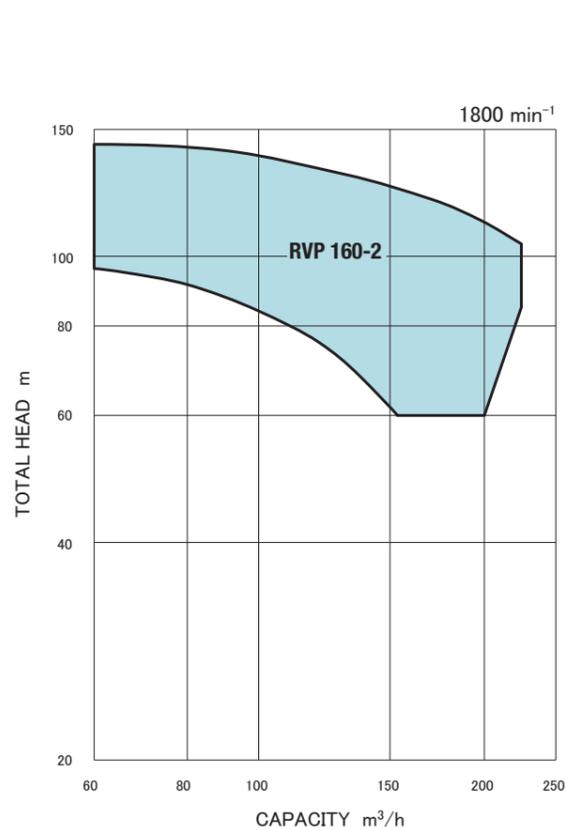
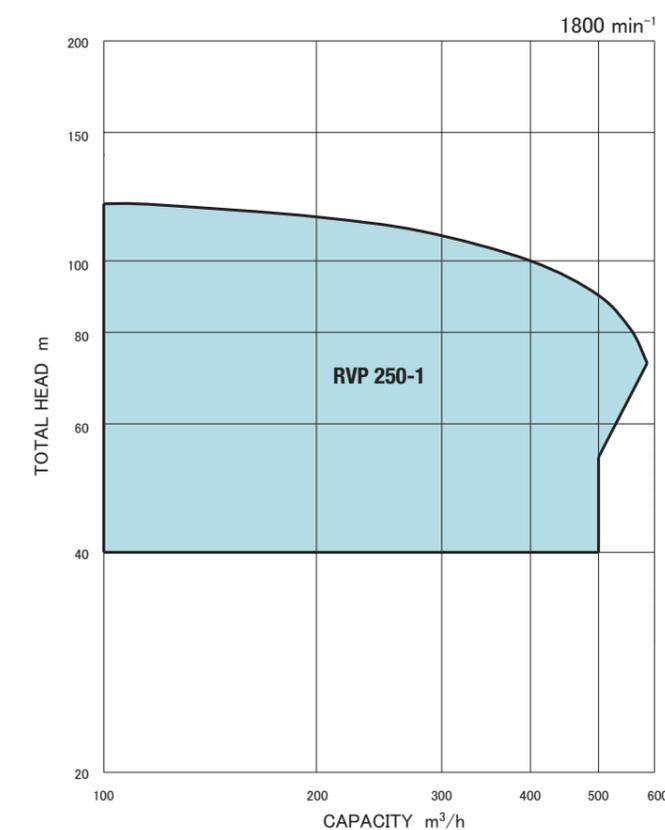
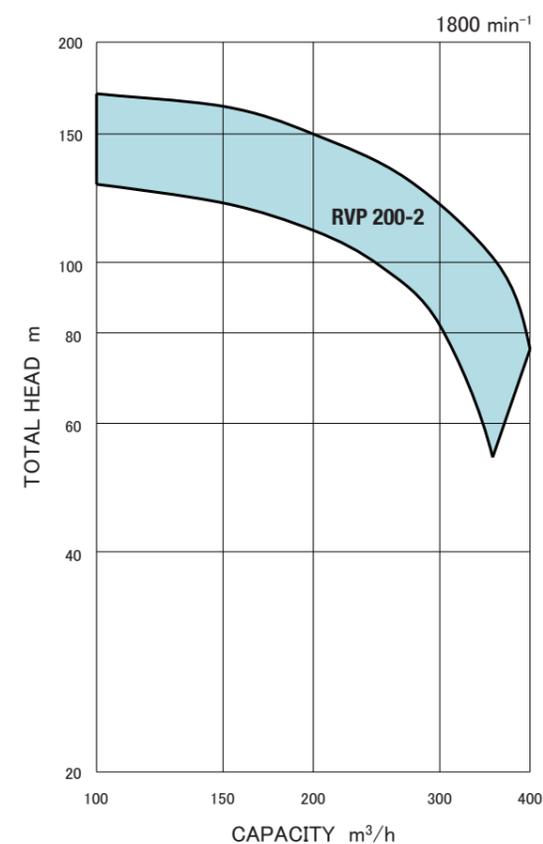
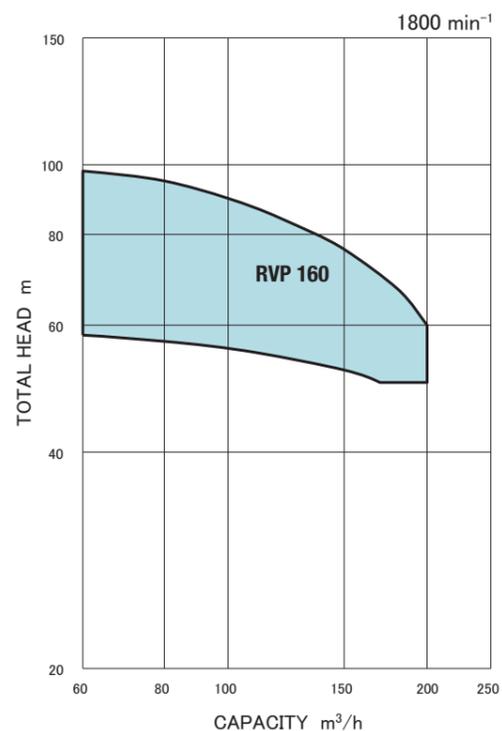
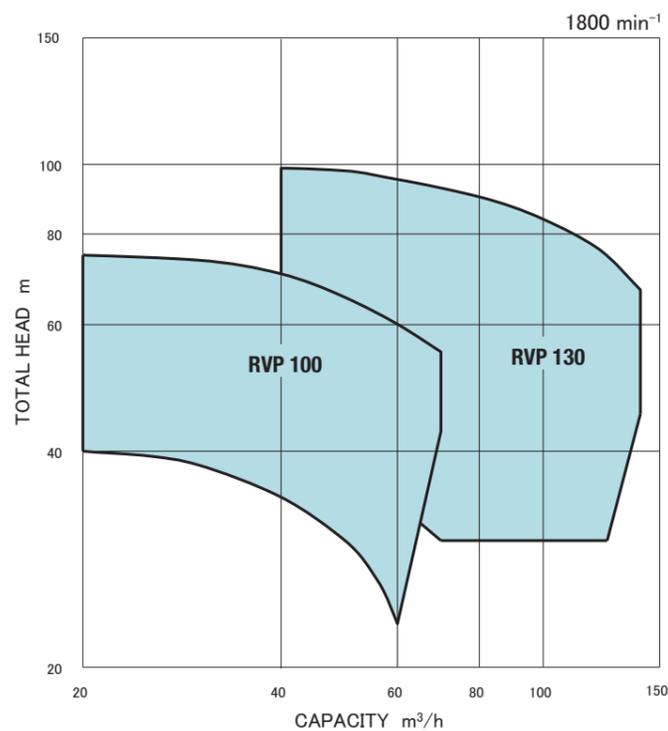


Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	L ₁	M	N	Q	Q ₁	T	U	U ₁	V	W	X	Z	Mecha. seal
RVP 100	210	370	270	270	150	170	768	155	221	200	—	170	270	170	—	50	180	—	—	500	155	23	40
RVP 130	200	380	330	300	180	190	861	190	260	225	—	200	310	200	—	50	210	—	290	500	155	27	50
RVP 160	210	400	370	350	190	210	888	225	300	245	—	240	365	240	—	50	305	—	380	600	170	27	50
RVP 160-2	210	420	370	370	190	270	988	225	300	245	—	240	365	240	—	50	305	—	380	800	200	27	60
RVP 200	240	505	400	380	210	250	1088	225	300	245	—	240	365	240	—	50	305	—	380	700	210	27	60
RVP 200-2	240	505	450	430	300	300	1088	225	300	240	100	290	375	190	345	50	370	435	470	800	210	33	60
RVP 250-1	265	585	415	415	300	350	1258	260	350	290	150	340	420	200	390	50	450	515	550	850	210	33	65
RVP 250	265	585	450	450	300	350	1258	260	350	290	150	340	420	200	390	50	450	515	550	850	210	33	75

PERFORMANCE CHARTS

For fire and general service pumps, a double specification is required. And, for emergency fire pumps, a single specification is required.



The dashed double-dotted lines are used when a pump has a double specification.

※ Please contact us if you have double or more specifications.

RVX

APPLICATIONS

Fire and general service pumps

Bilge and ballast pumps

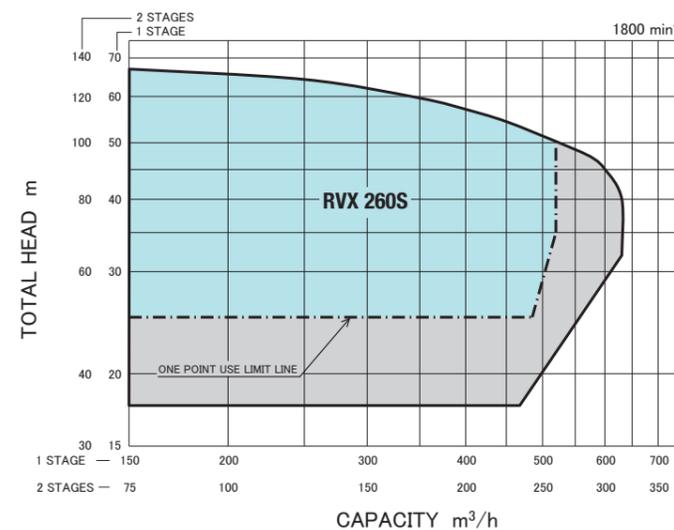
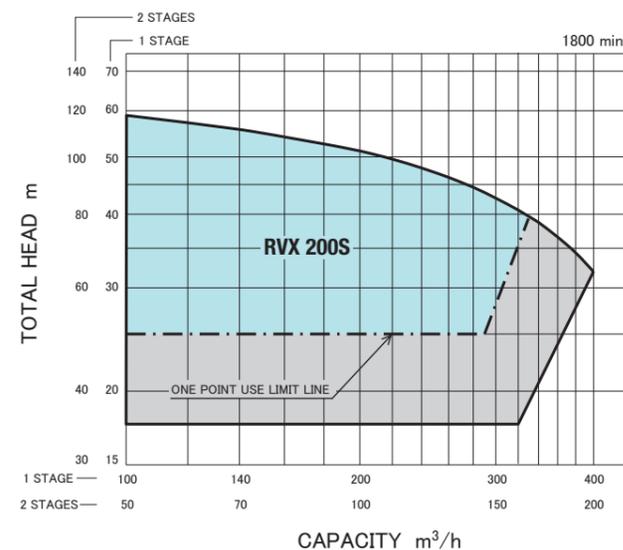
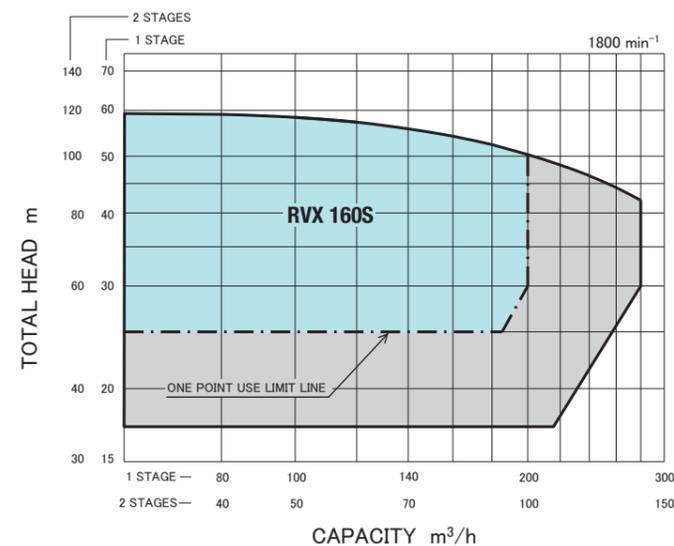
Other use

GENERAL CHARACTERISTICS

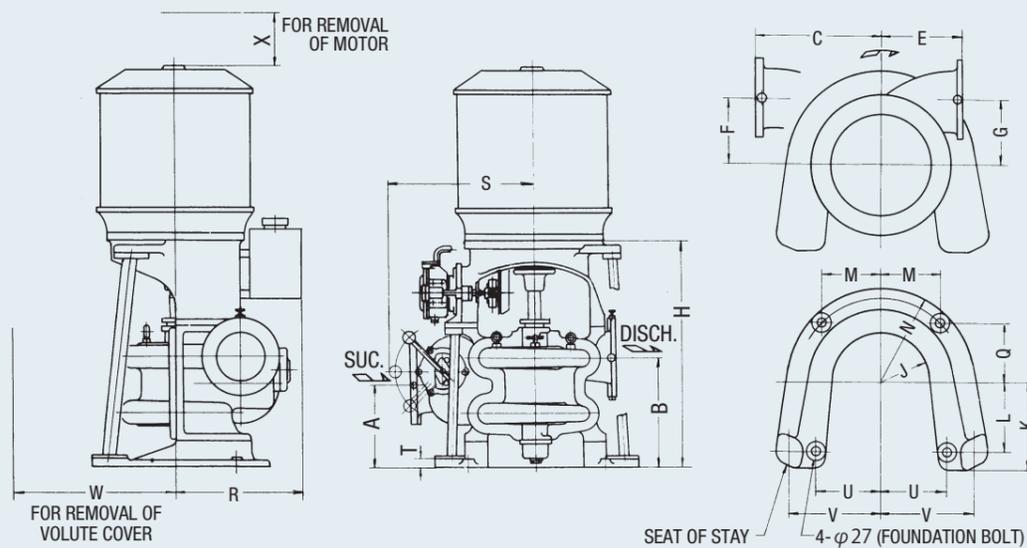
Item	Model	RVX 160S	RVX 200S	RVX 260S
Rotation		Clockwise when viewed from the driver		
Suction bore	(mm)	150	200	250
Discharge bore	(mm)	150	200	250
Stuffing box seal		Gland packing or Mechanical seal		
Max.output	(kW)	55	55	132
weight:CAC	(kg)	700	730	885
Water filled in casing	(kg)	45	66	105



PERFORMANCE CHARTS



RVX 160S~260S



Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	M	N	Q	R	S	T	U	V	W	X	Mecha. seal
RVX 160S	310	425	565	390	260	250	859	225	300	245	240	365	240	450	630	50	305	380	500	170	50
RVX 200S	310	425	565	390	260	250	859	225	300	245	240	365	240	450	630	50	305	380	500	170	50
RVX 260S	360	500	610	400	310	280	993	225	300	245	240	365	240	493	675	50	305	380	500	210	60

APPLICATIONS

Lubricating oil pumps

GENERAL CHARACTERISTICS

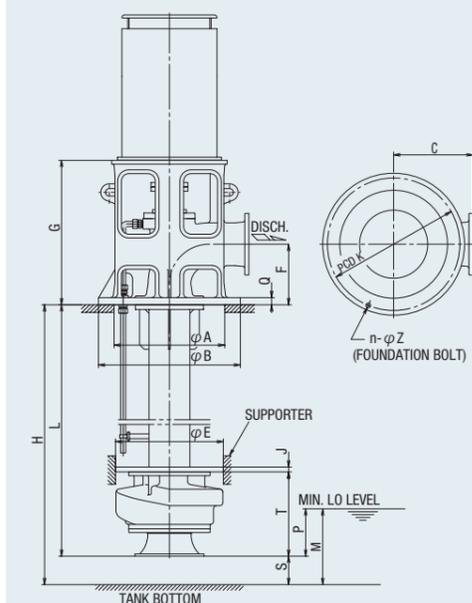
Item	Model	SA 150	SA 150-2	SA 200	SA 200-2	SA 250	SA 250-2	SA 300	SA 300H	SA 300-2	SA 350	SA 350H	SA 350-2	SA 400	SA 400-2
Rotation		Clockwise when viewed from the driver													
Number of stages		1	2	1	2	1	2	1	1	2	1	1	2	1	2
Discharge bore (mm)		150		200		250		300		350		400			
Max.output (kW)		37	75	75	90	110	150	150	200	315	250	280	400	450	450
Lubrication		Self-lubrication by handling oil													
Required min. LO leve (mm)		330		350		430		500		570		700			
Stuffing box seal		Oil seal													
weight:FC (kg)		510 (40)	580 (40)	770 (50)	900 (50)	1070 (63)	1230 (63)	1170 (80)	1220 (80)	1350 (80)	1530 (108)	1590 (108)	1730 (108)	1650 (120)	2100 (120)

Weight refers to L=2m, and increases as shown in bracket with 1m increases in L

- SAD : A single shaft without an intermediate bearing
- SAE : Two shafts with sleeve couplings
- SAF : A single shaft with an intermediate bearing
- SAG : Two shafts with sleeve couplings and an intermediate bearing

In order to standardize the length (L), the dimension (S) is adjusted to the range shown in the table below depending on the tank height (H).

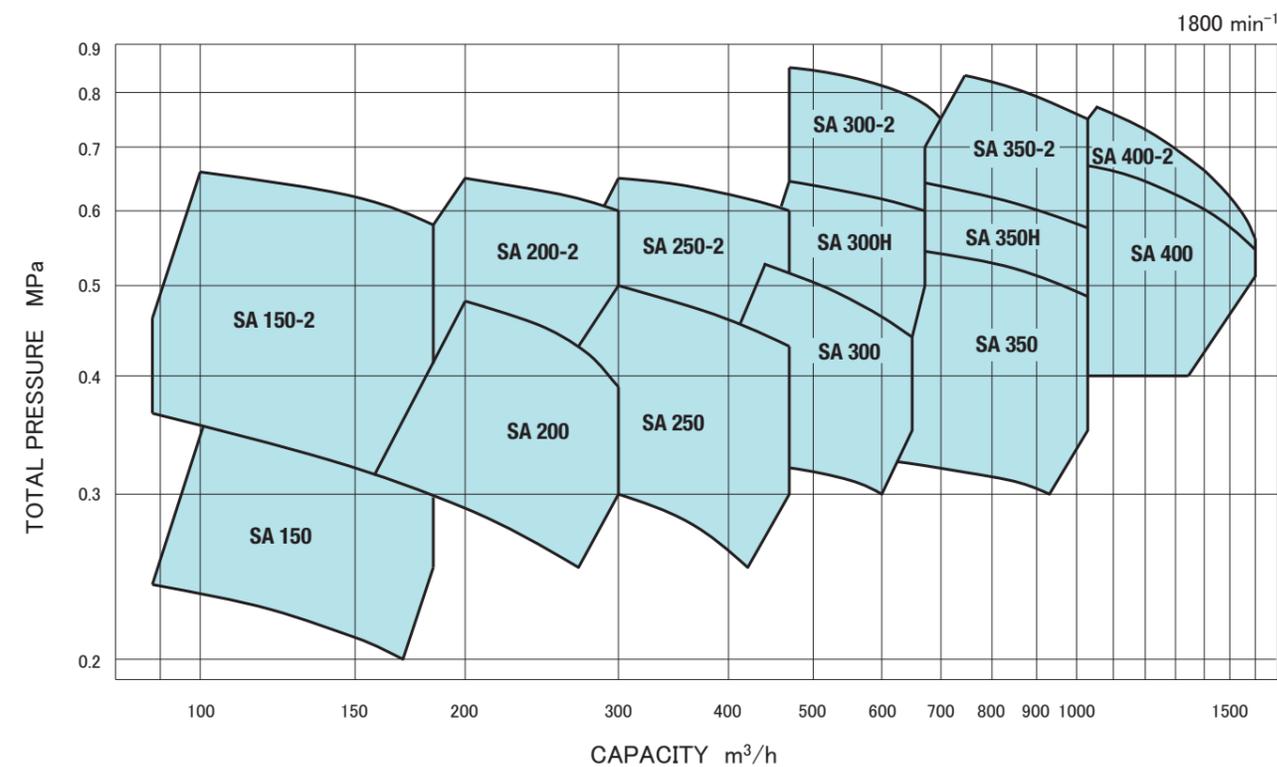
Model	H (reference)	S	L (reference)	P	M (S + P)
SA 150 (-2)	2080~2180	80~180	2000	250	330~430
SA 200 (-2)	2100~2200	100~200		250	350~450
SA 250 (-2)	2120~2220	120~220		310	430~530
SA 300 (-2)	2140~2240	140~240		360	500~600
SA 300H	2140~2240	140~240		360	500~600
SA 350 (-2)	2170~2270	170~270		400	570~670
SA 350H	2120~2270	170~270		400	570~670
SA 400 (-2)	2220~2320	220~320		480	700~800


SA 150-400-2


Dimensions:mm

Model	A	B	C	E	F	G	J	K	Q	T	Z	n
SA 150 (-2)	480	640	330	470	200	578	25	590	30	375	25	8
SA 200 (-2)	585	750	380	570	320	764	25	700	32	445	25	8
SA 250 (-2)	650	850	430	620	320	790	25	790	35	407	25	12
SA 300 (-2)	680	870	450	650	320	840	26	820	35	422	25	12
SA 300H	690	870	450	680	320	840	26	820	35	422	25	12
SA 350 (-2)	730	940	480	700	350	955	30	880	35	580	25	12
SA 350H	740	940	480	730	350	955	30	880	35	580	25	12
SA 400 (-2)	720	940	500	700	370	1040	30	880	35	680	25	12

PERFORMANCE CHART

 Handling lube oil with a viscosity of 100 cSt and a specific gravity of 0.9 at 40°C
 Capacity guarantee : 25.8 cSt
 Power guarantee : 260 cSt


APPLICATIONS

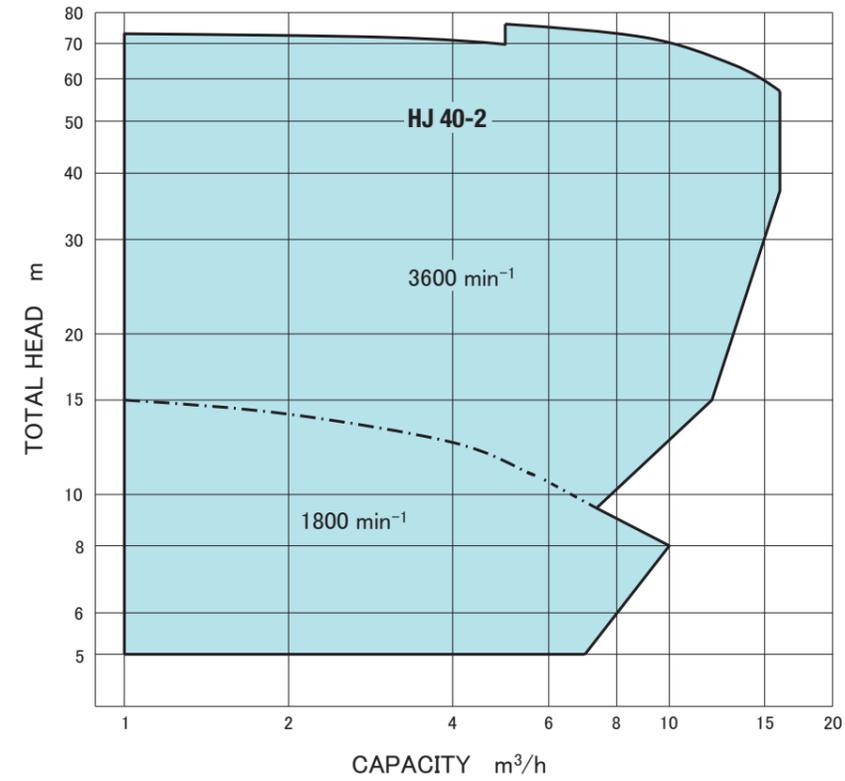
- Fresh water pumps
- Sanitary pumps
- Refrigerator cooling water pumps
- Other use

GENERAL CHARACTERISTICS

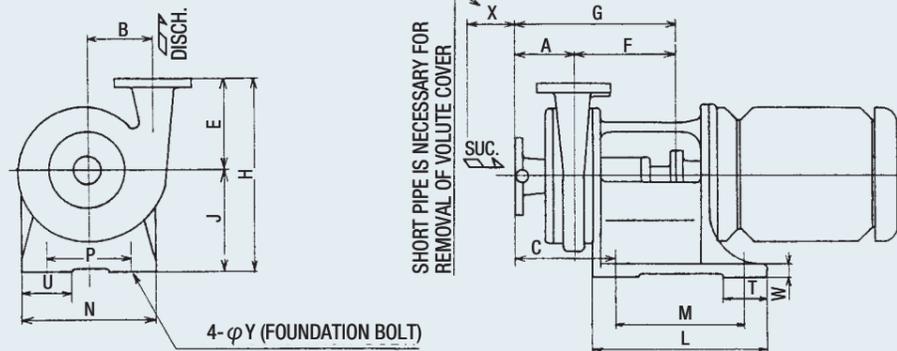
Item	Model	HJ 40-2
Rotation		Clockwise when viewed from the driver
Suction bore	(mm)	40
Discharge bore	(mm)	40
Stuffing box seal		Gland packing or Mechanical seal
Max.output	(kW)	7.5
weight:CAC	(kg)	41
weight:FC	(kg)	38
Water filled in casing	(kg)	0.8



PERFORMANCE CHART



HJ 40-2

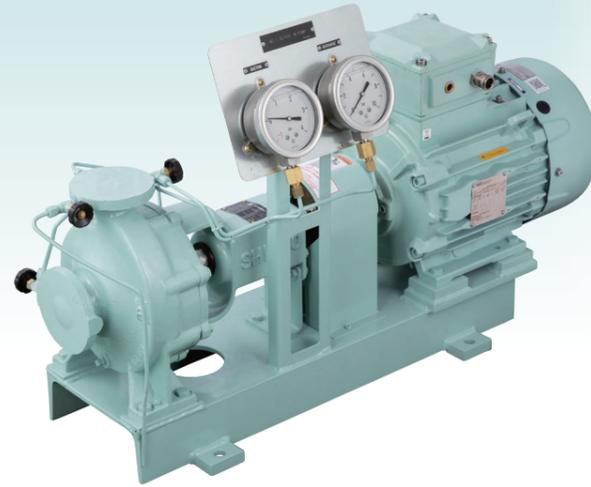


Dimensions:mm

Model	A	B	C	E	F	G	H	J	L	M	N	P	T	U	W	X	Y	Mecha. seal
HJ 40-2	90	100	150	150	132	222	320	170	300	260	270	230	50	50	13	100	19	25

APPLICATIONS

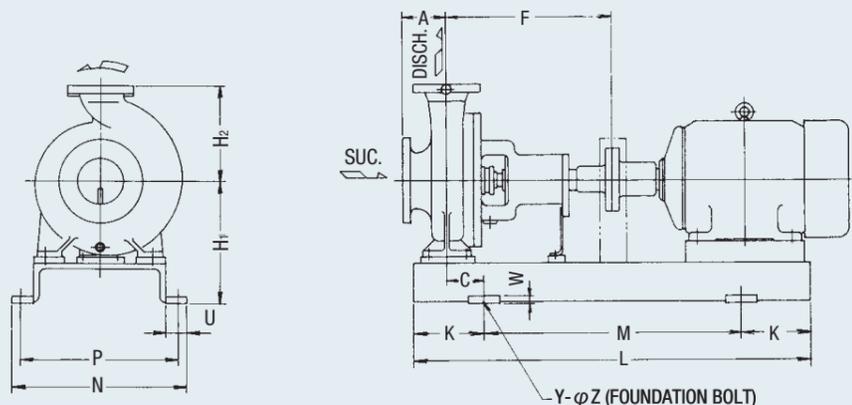
- Air conditioning ref. cooling water pumps
- Refrigerator cooling water pumps
- Miscellaneous cooling water pumps
- Fresh water generator ejector pumps
- Other use



GENERAL CHARACTERISTICS

Item	Model	GJ 40-20	GJ 40-25	GJ 50-20	GJ 50-25	GJ 80-20	GJ 80-25
Rotation		Clockwise when viewed from the driver					
Suction bore (mm)		50	50	80	80	100	100
Discharge bore (mm)		40	40	50	50	80	80
Stuffing box seal		Gland packing or Mechanical seal					
Max.output (kW)		11	18.5	18.5	30	7.5	15
weight:CAC (kg)		140	151	145	161	186	232
weight:FC (kg)		132	141	136	150	174	219
Water filled in casing (kg)		1.6	2.1	2.8	3.4	4.8	5.8

GJ 40-20~80-25

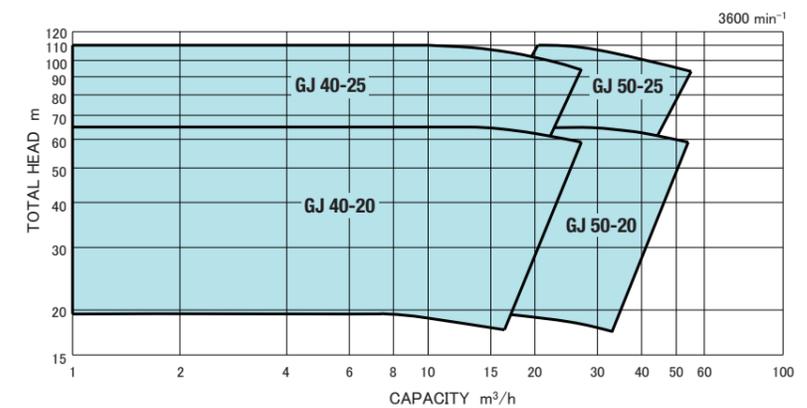
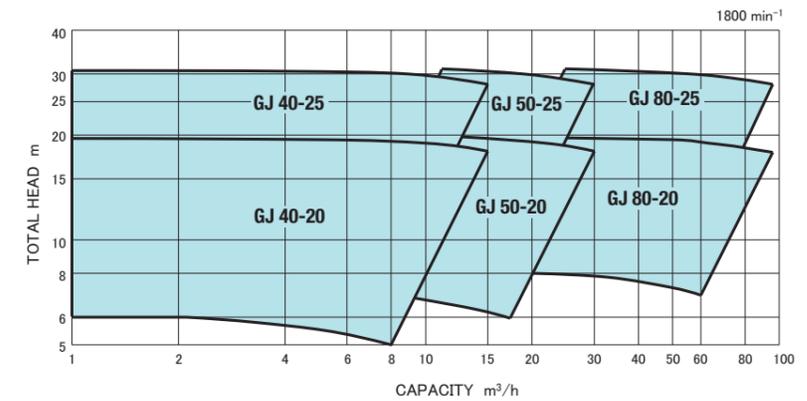


Dimensions:mm

Model	Bore		Motor frame NO.	A	C	F	H ₁	H ₂	K	L	M	N	P	U	W	Y	Z	Mecha. seal
	Suc.	Disch.																
GJ 40-20	50	40	90L	100	55	385	265	180	115	700	470	335	295	42.5	20	4	19	30
			160M	100	90	385	265	180	150	910	610	385	345	42.5	20	4	19	
GJ 40-25	50	40	90L	100	57.5	390	285	225	130	710	450	385	345	42.5	20	4	19	30
			160L	100	97.5	390	285	225	170	970	630	385	345	42.5	20	4	19	
GJ 50-20	80	50	90L	100	55	385	265	200	115	700	470	335	295	42.5	20	4	19	30
			160L	100	90	385	265	200	150	950	650	385	345	42.5	20	4	19	
GJ 50-25	80	50	132S	125	77.5	390	285	225	150	810	510	385	345	42.5	20	4	19	30
			180L	125	117.5	390	285	225	190	1040	660	385	345	42.5	20	4	19	
GJ 80-20	100	80	112M	125	57.5	405	285	250	130	780	520	385	345	42.5	20	4	19	30
			180L	125	117.5	405	285	250	190	1060	680	385	345	42.5	20	4	19	
GJ 80-25	100	80	132M	125	60	434	340	280	150	910	610	465	425	42.5	20	4	19	40
			160L	125	80	434	340	280	170	1040	700	465	425	42.5	20	4	19	

PERFORMANCE CHARTS

When this model is used for pumps with a total head below 30m, such as air conditioning refrigerator cooling pumps, the revolution of the electric motor is 1800min⁻¹ and the upper chart should be referred to.
On the other hand, when this model is used for pumps with a total head over 30m, such as fresh water generator ejector pumps, the speed of the electric motor is 3600min⁻¹ and lower chart should be referred to.
If the rated point is within the performance chart, even when the total head is between 20~30m, the lower chart for 3600min⁻¹ can also be used.



APPLICATIONS

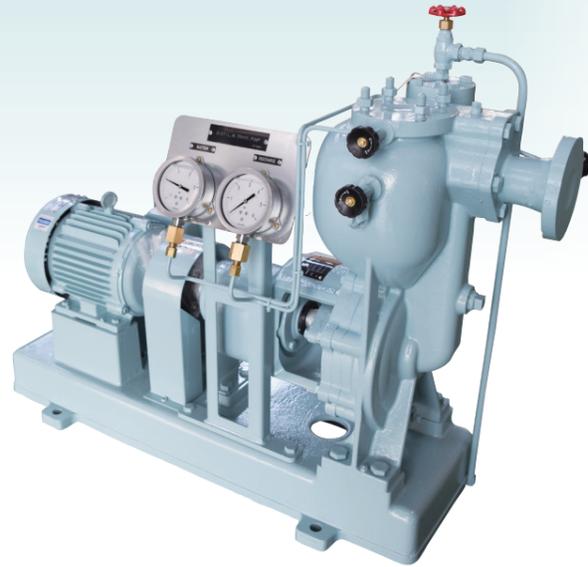
Fresh water pumps

Sanitary pumps

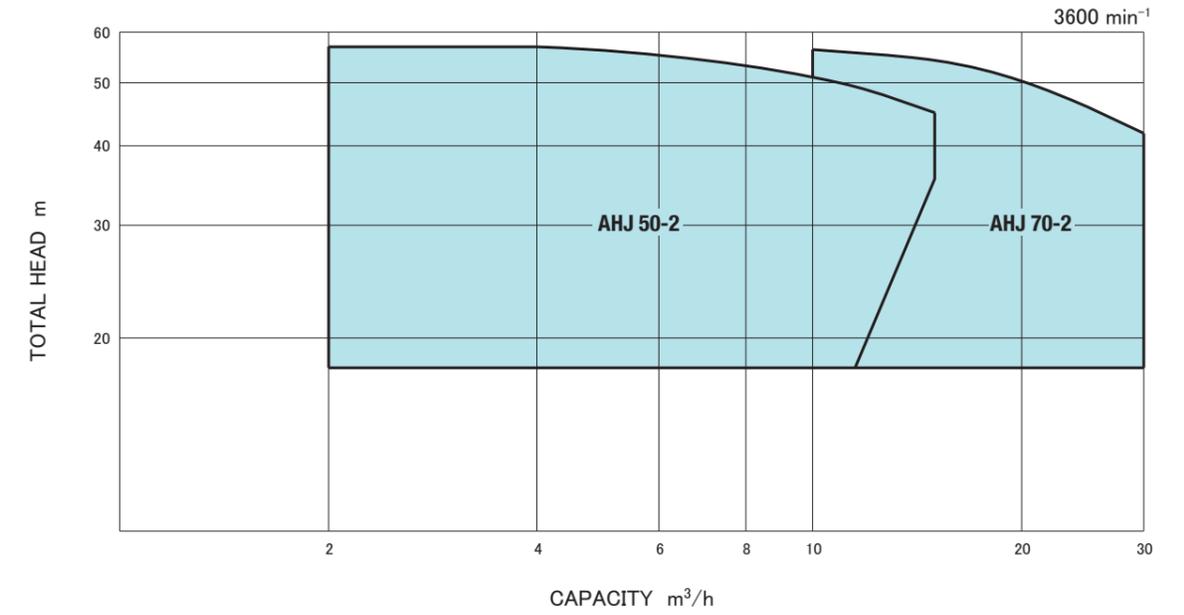
Other use

GENERAL CHARACTERISTICS

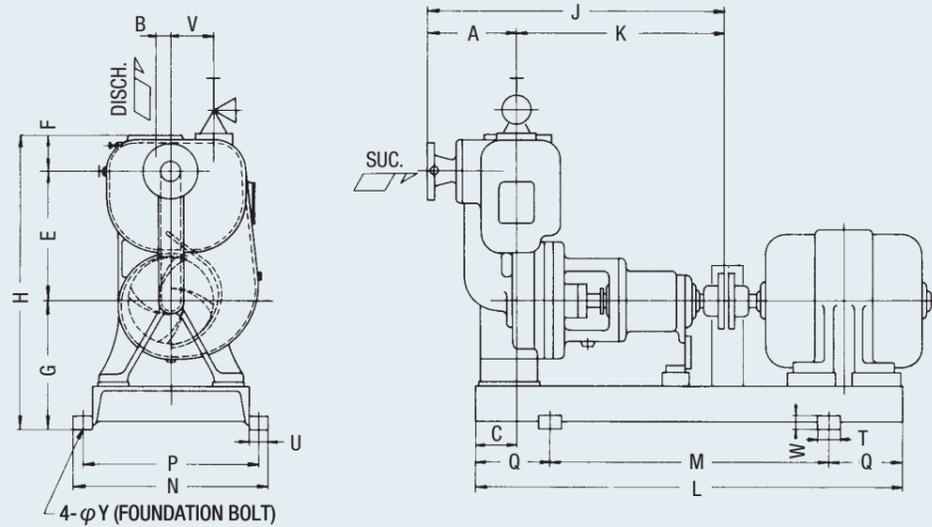
Item	Model	AHJ 50-2	AHJ 70-2
Rotation		Clockwise when viewed from the driver	
Suction bore (mm)		50	65
Discharge bore (mm)		50	65
Stuffing box seal		Gland packing or Mechanical seal	
Max.output (kW)		5.5	7.5
weight:CAC (kg)		130	210
weight:FC (kg)		115	180
Water filled in casing (kg)		7	12



PERFORMANCE CHART



AHJ 50-2~70-2



Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	M	N	P	Q	T	U	V	W	Y	Mecha. seal
AHJ 50-2	205	40	105	280	80	285	645	585	380	850	550	330	295	150	60	40	90	20	19	30
AHJ 70-2	240	50	110	280	85	280	645	695	455	1000	700	400	360	150	75	50	110	20	23	35

SVQ

SHINKO IND. LTD.

Vertical / Horizontal two-stage single-suction
BOILER FEED PUMPS

SVQ | Vertical / Horizontal two-stage single-suction
BOILER FEED PUMPS

APPLICATIONS

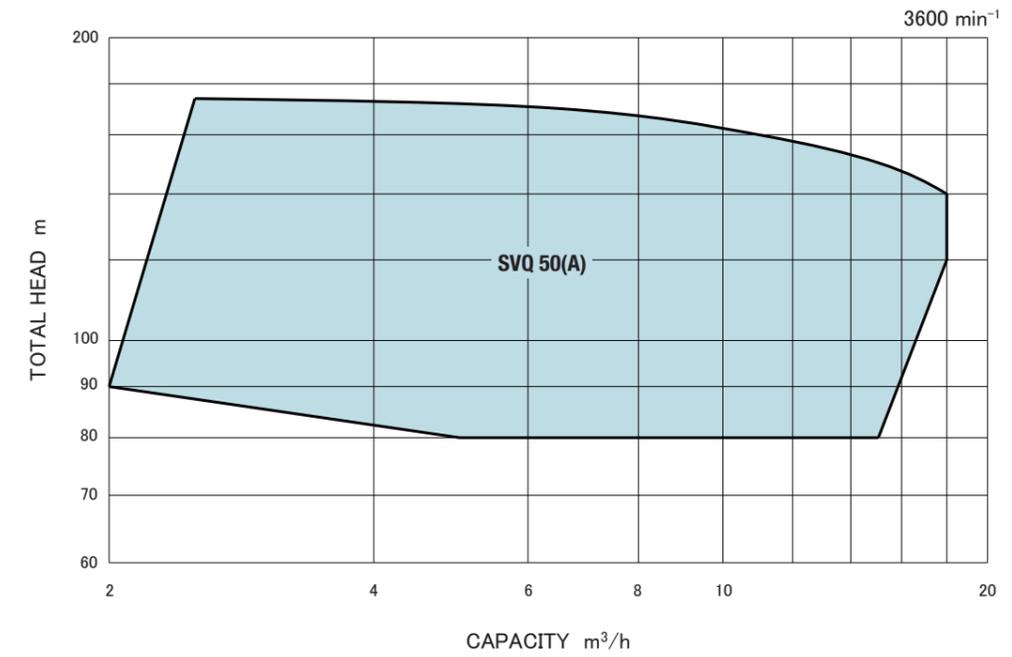
Feed pumps for exhaust gas boilers on diesel ships

GENERAL CHARACTERISTICS

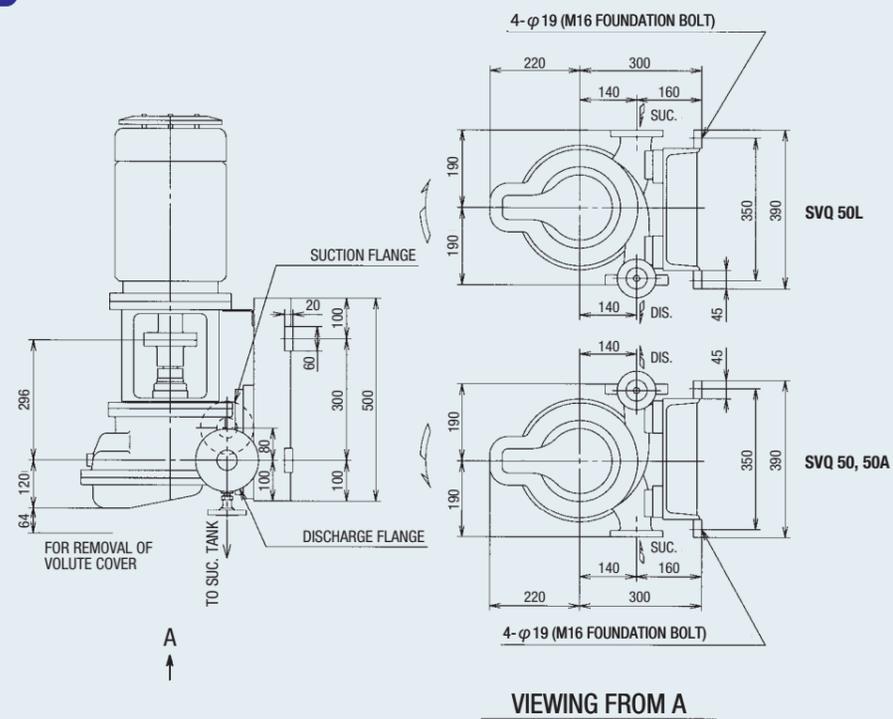
Item	Model	SVQ50(L)	SVQ50A
Type		Vertical	Horizontal
Rotation		CW(CCW) when viewed from the driver	
Suction bore (mm)		50	
Discharge bore (mm)		50	
Stuffing box seal		Gland packing or Mechanical seal	
MAX.output (kW)		18.5	
weight:FC(FCD) (kg)		110	
Water filled in casing (kg)		6	



PERFORMANCE CHART



SVQ 50(L)~50A



Note :
When attaching two pumps to the cascade tank wall, symmetrical pumps can be used.

APPLICATIONS

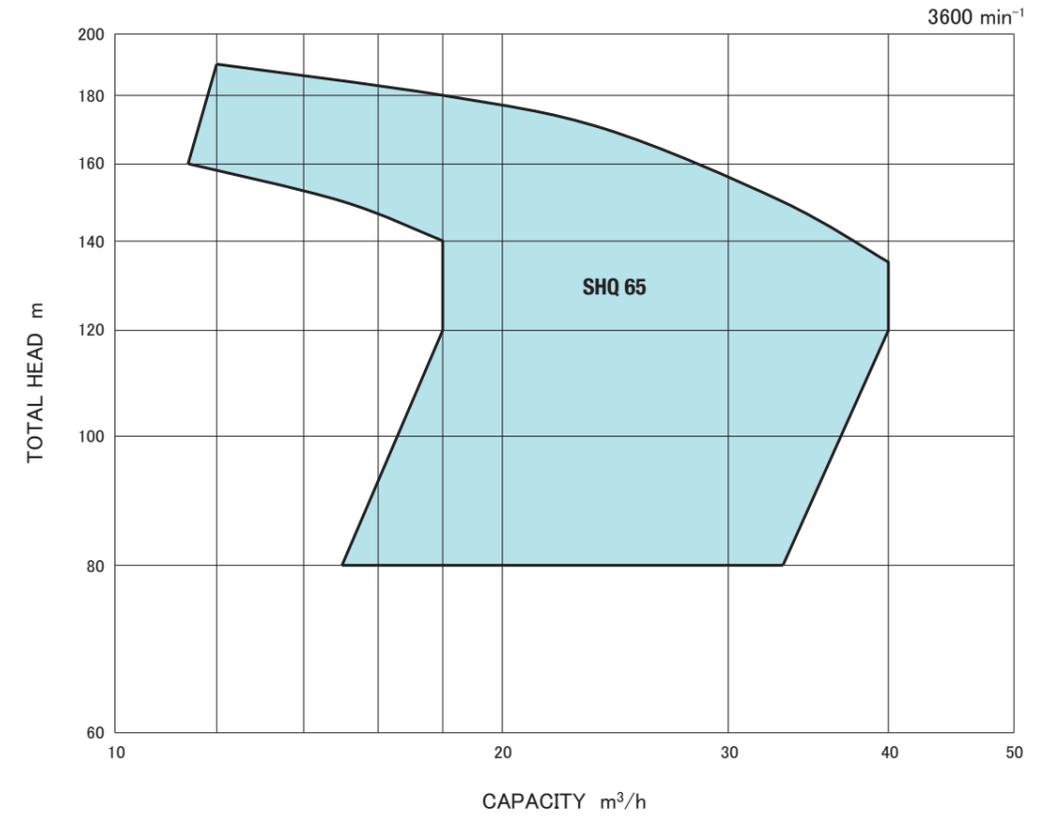
Feed pumps for exhaust gas boilers on diesel ships

GENERAL CHARACTERISTICS

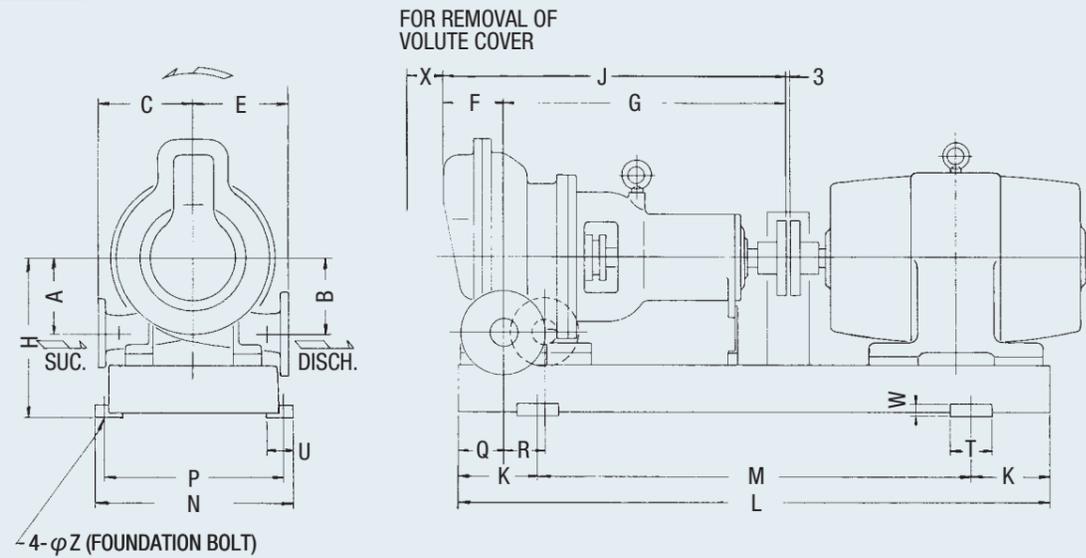
Item	Model	SHQ 65
Rotation		Clockwise when viewed from the driver
Suction bore (mm)		65
Discharge bore (mm)		65
Stuffing box seal		Gland packing or Mechanical seal
Max.output (kW)		30
weight:FC(FCD) (kg)		180
Water filled in casing (kg)		7



PERFORMANCE CHART



SHQ 65



Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	M	N	P	Q	R	T	U	W	X	Z	Mecha. seal
SHQ 65	150	150	200	200	130	554	335	684	150	1250	950	460	410	110	90	100	65	30	90	25	40

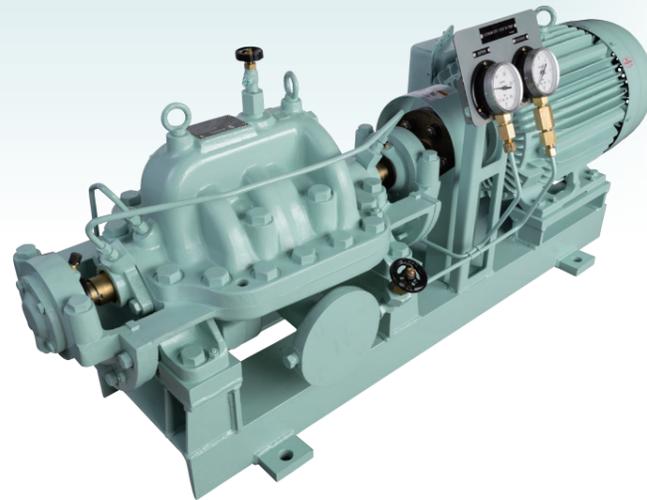
APPLICATIONS

Feed pumps for exhaust gas boilers on diesel ships

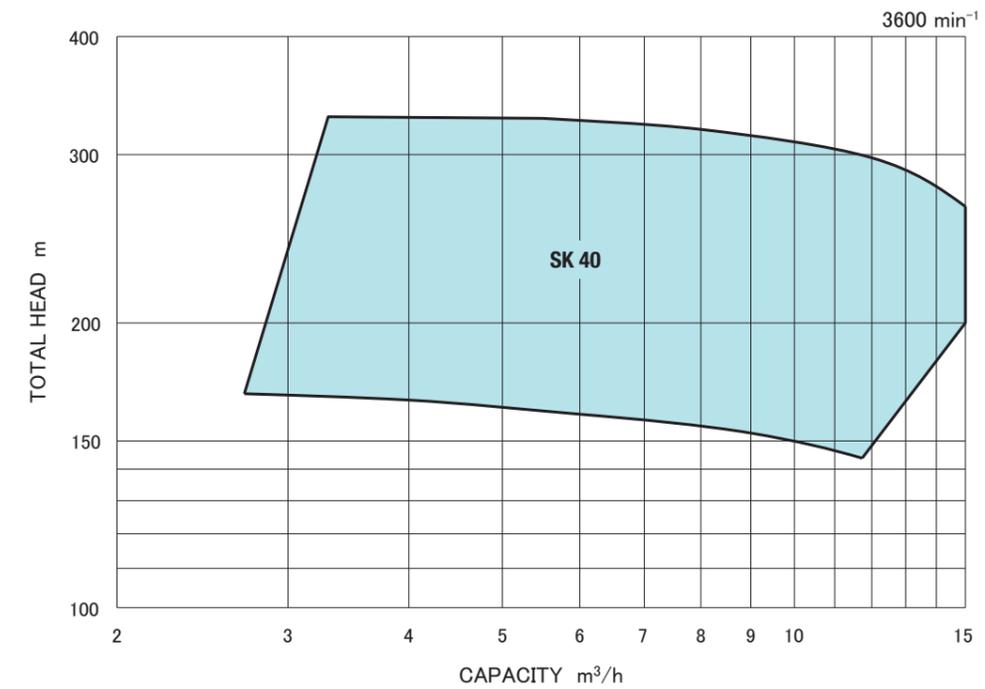
Cold start feed pumps for LNG carriers

GENERAL CHARACTERISTICS

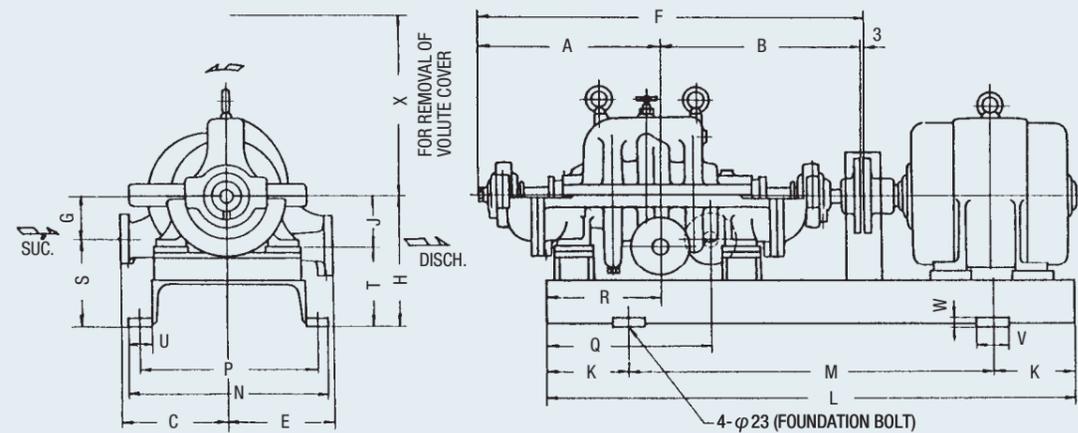
Item	Model	SK 40
Rotation		Clockwise when viewed from the driver
Suction bore	(mm)	40
Discharge bore	(mm)	40
Stuffing box seal		Gland packing or Mechanical seal
Max.output	(kW)	30
weight:FC(FCD)	(kg)	240
Water filled in casing	(kg)	9



PERFORMANCE CHART



SK 40



Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Mecha. seal
SK 40	390	415	200	200	805	100	325	115	150	1150	850	400	360	365	250	225	210	50	75	20	1000	40

APPLICATIONS

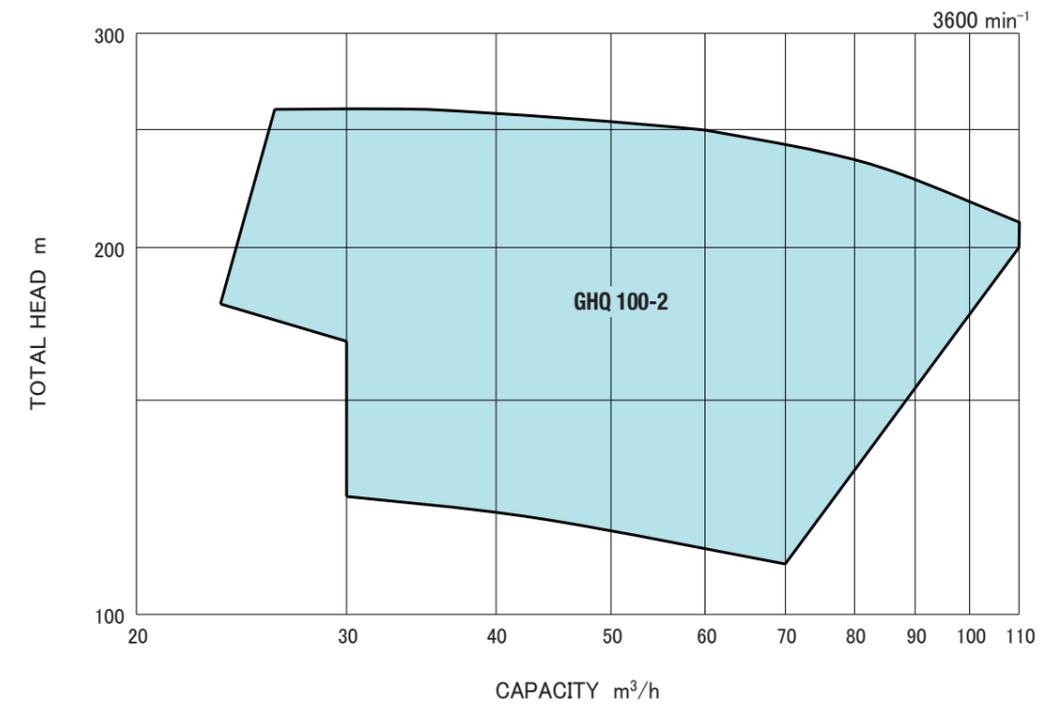
Feed pumps for cargo boilers on diesel ships

GENERAL CHARACTERISTICS

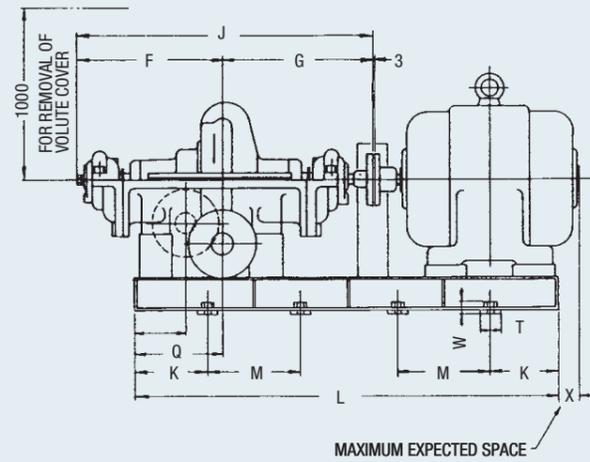
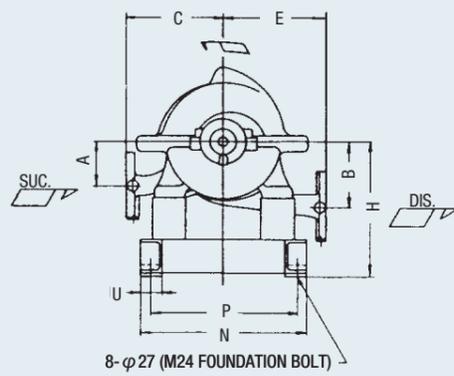
Item	Model	GHQ 100-2
Rotation		Clockwise when viewed from the driver
Suction bore	(mm)	100
Discharge bore	(mm)	100
Stuffing box seal		Gland packing or Mechanical seal
Max.output	(kW)	110
weight:FCD	(kg)	300
Water filled in casing	(kg)	10



PERFORMANCE CHART



GHQ 100-2



Dimensions:mm

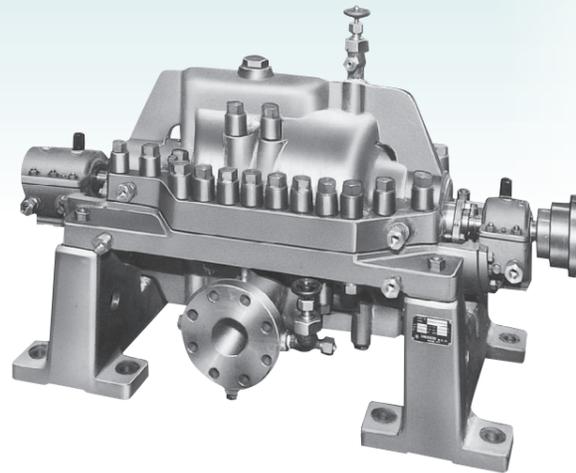
Model	Motor(kW)	A	B	C	E	F	G	H	J	K	L	M	N	P	Q	R	T	U	W	X	Mecha. seal
GHQ 100-2	45 ≥										1340	380	430	370						133	50
	55~80	135	160	250	250	440	400	460	840	100	1430	410	560	500	290	140	110	75	25	133	
	90~110										1505	435	580	520						270	

APPLICATIONS

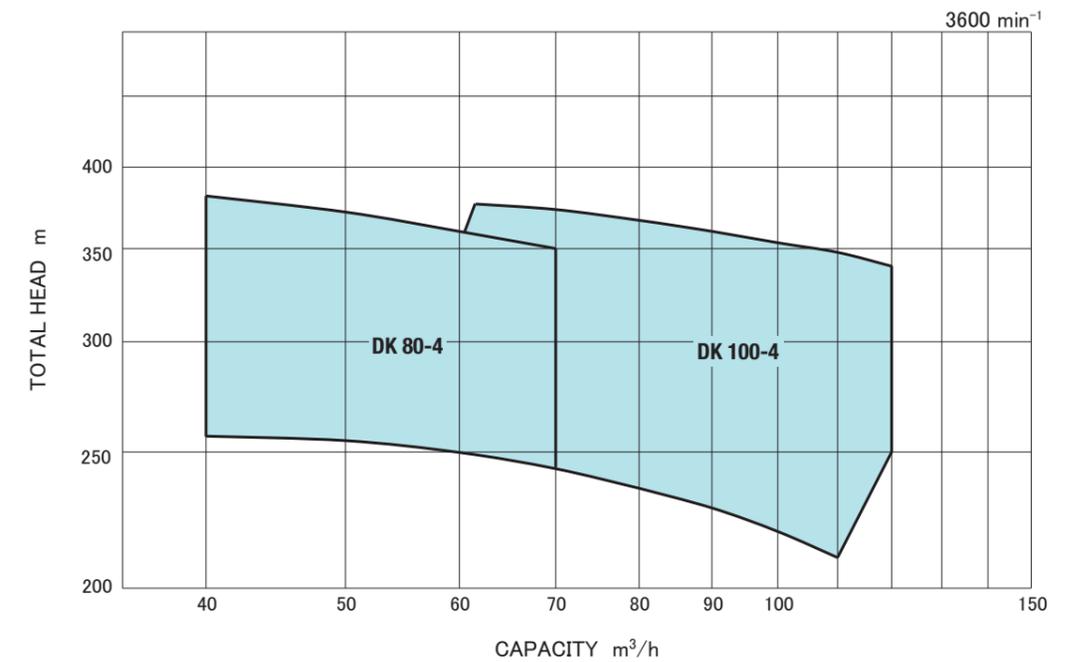
Feed pumps for cargo boilers on diesel ships

GENERAL CHARACTERISTICS

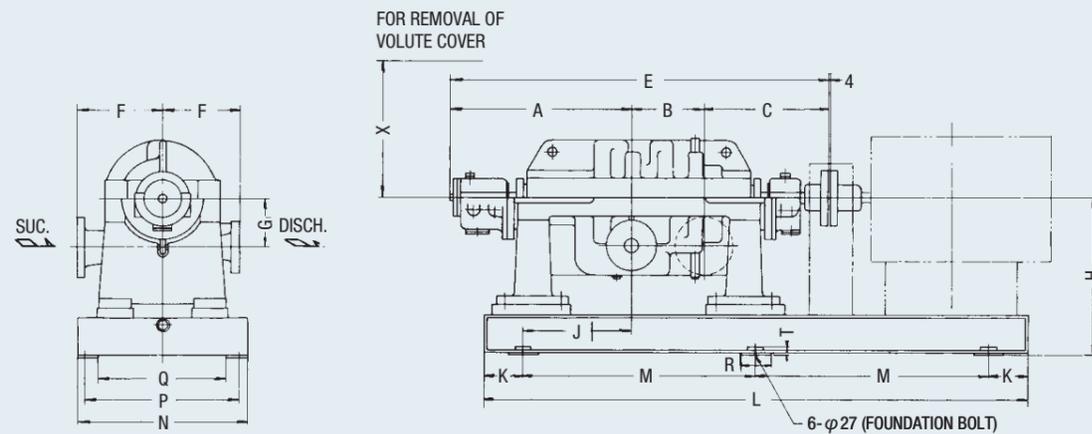
Item	Model	DK 80-4	DK 100-4
Rotation		Clockwise when viewed from the driver	
Suction bore (mm)		100	125
Discharge bore (mm)		80	100
Lubrication system		Oil ring	
LO required (ℓ)		0.7	
Stuffing box seal		Gland packing or Mechanical seal	
Max.output (kW)		110	185
weight:FCD (kg)		910	1100
Water filled in casing (kg)		38	48



PERFORMANCE CHART



DK 80-4~100-4



Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	M	N	P	Q	R	T	Mecha. seal
DK 80-4	600	239	411	1250	320	170	550	450	150	2100	900	600	540	450	110	25	50
DK 100-4	590	255	400	1245	320	175	590	450	150	2150	925	650	590	500	110	25	50

DK80-10M

SHINKO IND. LTD.
Horizontal ten-stage single-suction
BOILER FEED PUMPS

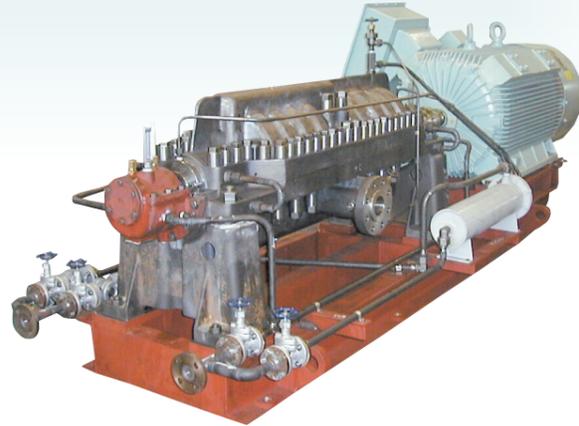
DK80-10M | Horizontal ten-stage single-suction
BOILER FEED PUMPS

APPLICATIONS

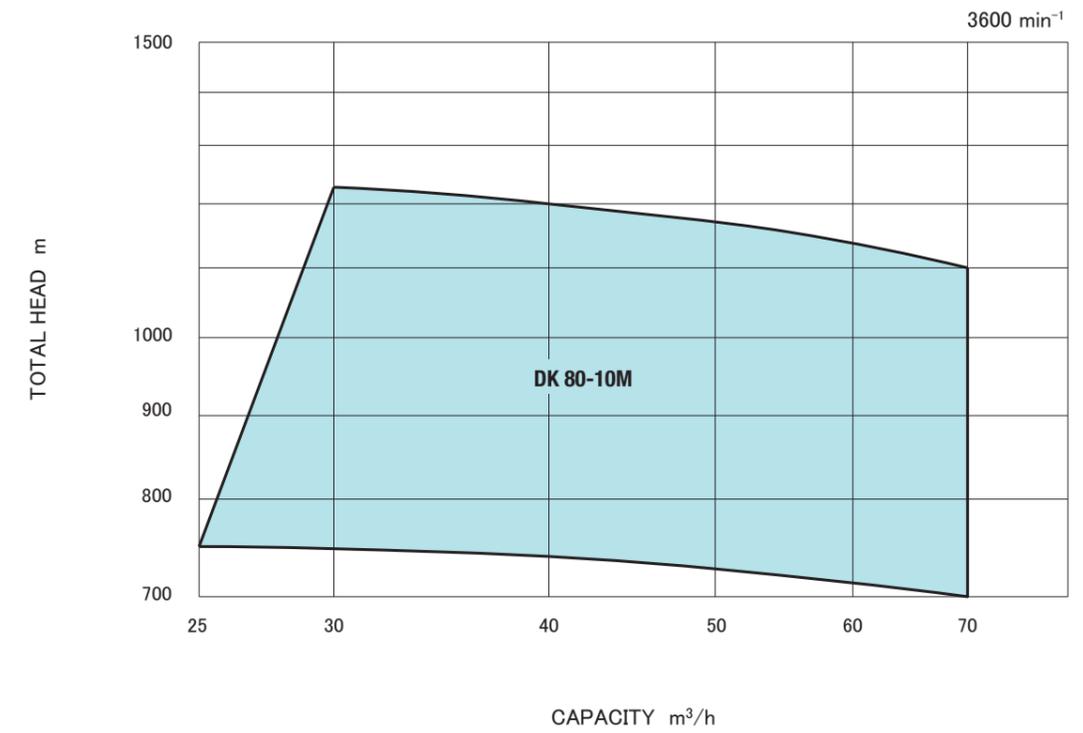
Feed pumps for main or auxiliary boilers

GENERAL CHARACTERISTICS

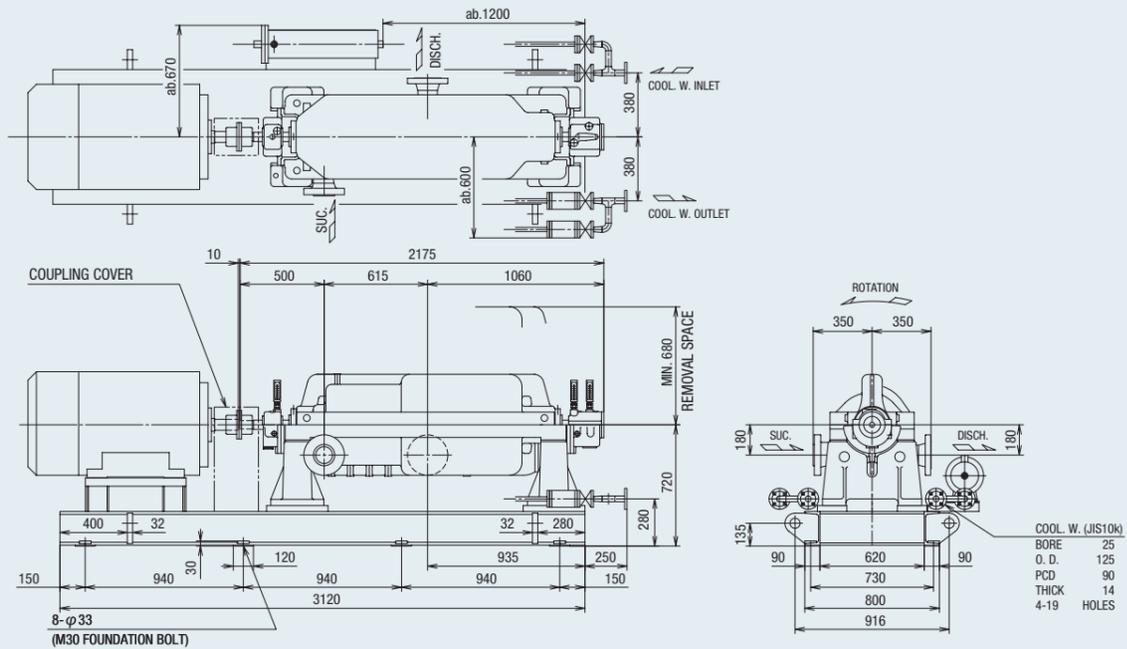
Item	Model	DK 80-10M
Rotation		Clockwise when viewed from the driver
Suction bore	(mm)	100
Discharge bore	(mm)	80
Lubrication system		Oil ring
LO required	(ℓ)	1.3
Cooling F.W.required	(m ³ /h)	4 (Below 36°C)
Stuffing box seal		Mechanical seal
Max.output	(kW)	355
weight	(kg)	2350
Water filled in casing	(kg)	68



PERFORMANCE CHART



DK 80-10M



DK100-8M

SHINKO IND. LTD.
Horizontal eight-stage single-suction
BOILER FEED PUMPS

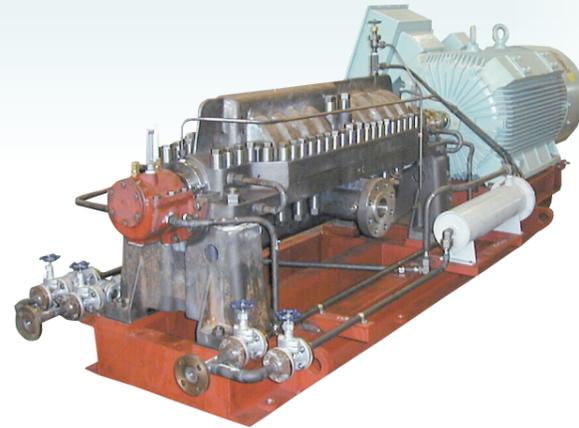
DK100-8M | Horizontal eight-stage single-suction
BOILER FEED PUMPS

APPLICATIONS

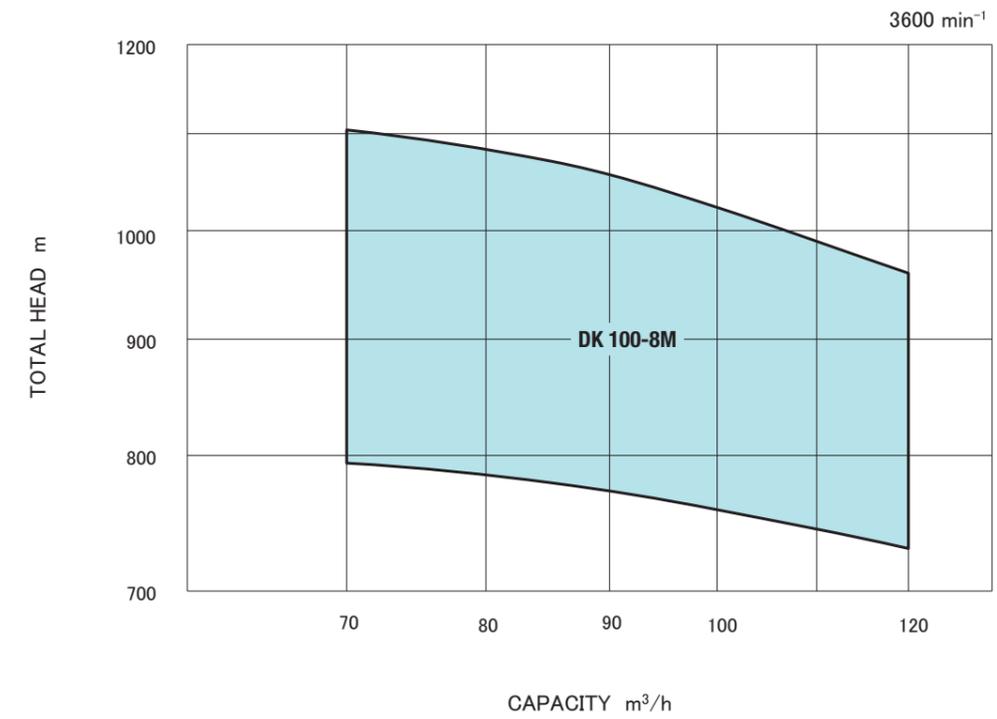
Feed pumps for main or auxiliary boilers

GENERAL CHARACTERISTICS

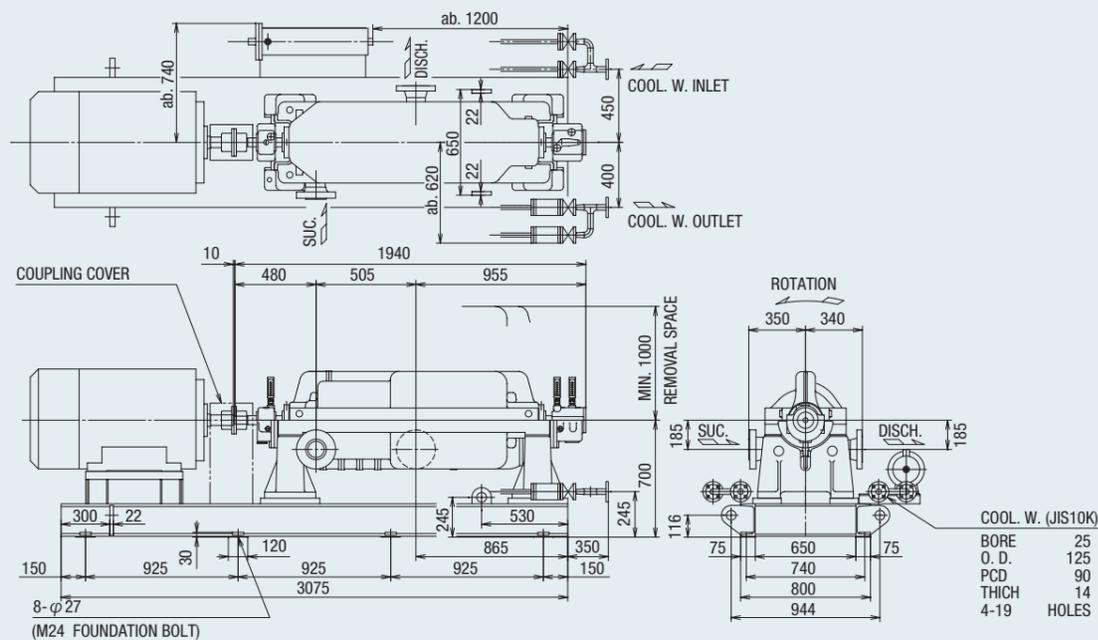
Item	Model	DK 100-8M
Rotation		Clockwise when viewed from the driver
Suction bore	(mm)	125
Discharge bore	(mm)	100
Lubrication system		Oil ring
LO required	(ℓ)	1.3
Cooling F.W.required	(m ³ /h)	4 (Below 36°C)
Stuffing box seal		Mechanical seal
Max.output	(kW)	520
weight	(kg)	2400
Water filled in casing	(kg)	70



PERFORMANCE CHART



DK 100-8M



BT-4



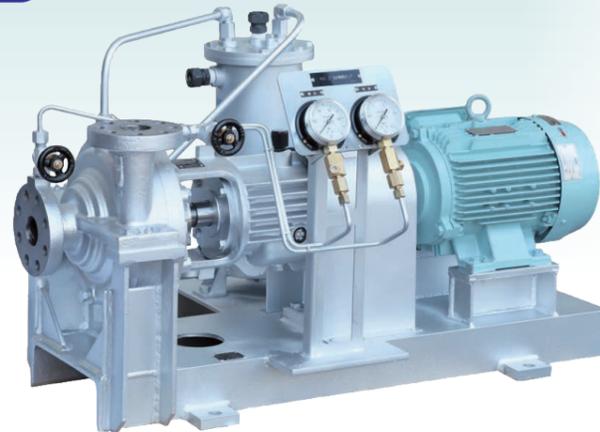
SHINKO IND. LTD.

Horizontal single-stage single-suction with mechanical seal
BW CIRCULATING PUMPS

BT-4 Horizontal single-stage single-suction with mechanical seal
BW CIRCULATING PUMPS

APPLICATIONS

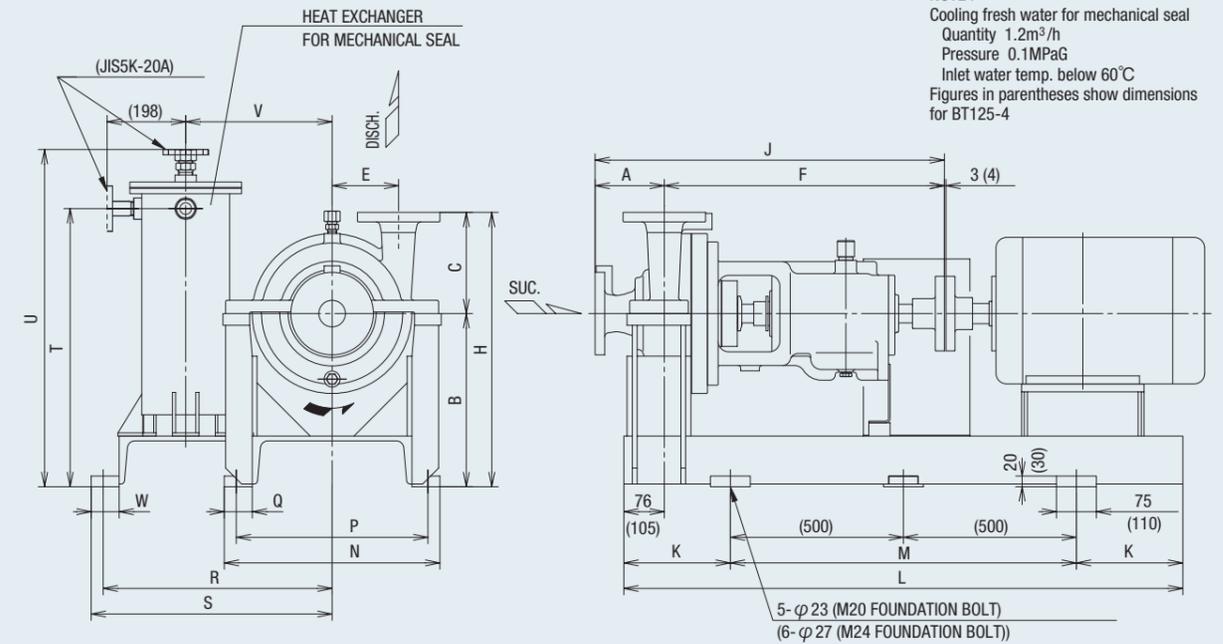
Boiler water circulating pumps



GENERAL CHARACTERISTICS

Item	Model	BT 50-4	BT 70-4	BT 100-4	BT 100-4A	BT 125-4
Rotation		Clockwise when viewed from the driver				
Suction bore	(mm)	50	65	100	125	150
Discharge bore	(mm)	50	65	100	100	125
Amount of LO filled	(ℓ)	0.67 (turbine OIL ISO VG-68)				
Stuffing box seal		Mechanical seal				
Max.output	(kW)	5.5	15	18.5	30	75
weight:FCD	(kg)	155	192	245	255	550
Water filled in casing	(kg)	2	3	3	4.5	20

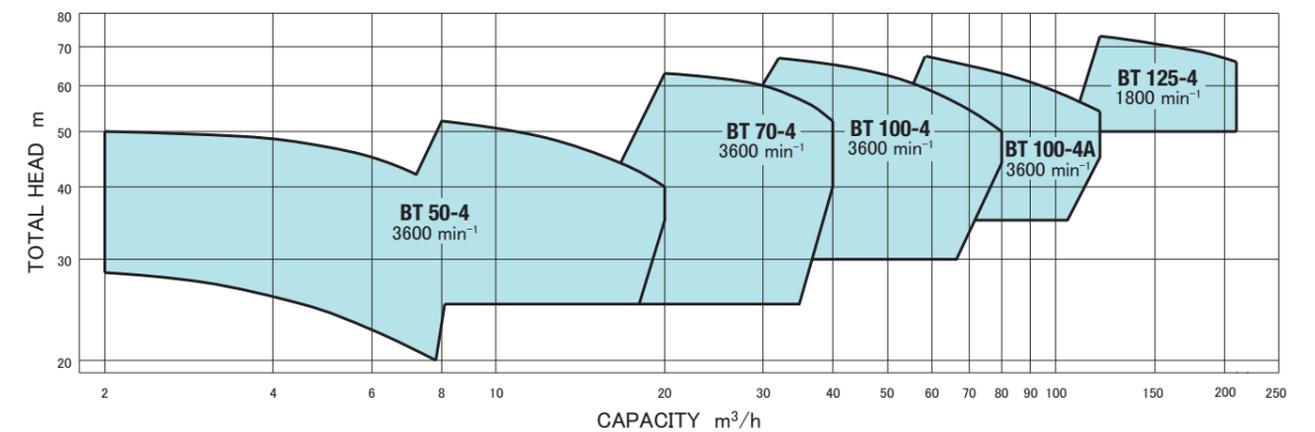
BT 50-4~125-4



Dimensions:mm

Model	A	B	C	E	F	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	Mecha. seal
BT 50-4	130	325	190	125	526	515	656	200	1050	650	405	360	52.5	430	452.5	522	615	275	52.5	35
BT 70-4	130	325	210	125	526	535	656	200	1150	750	405	360	52.5	430	452.5	522	615	275	52.5	35
BT 100-4	150	350	210	135	526	560	676	200	1200	800	530	485	75	495	517.5	532	615	315	77.5	35
BT 100-4A	160	350	210	135	535	560	695	200	1200	800	530	485	75	495	517.5	532	633	315	77.5	35
BT 125-4	160	520	400	0	500	920	660	200	1400	1000	850	790	75	—	—	594	757	290	—	45

PERFORMANCE CHART



APPLICATIONS

Hydrophore units for drinking water

Hydrophore units for fresh water

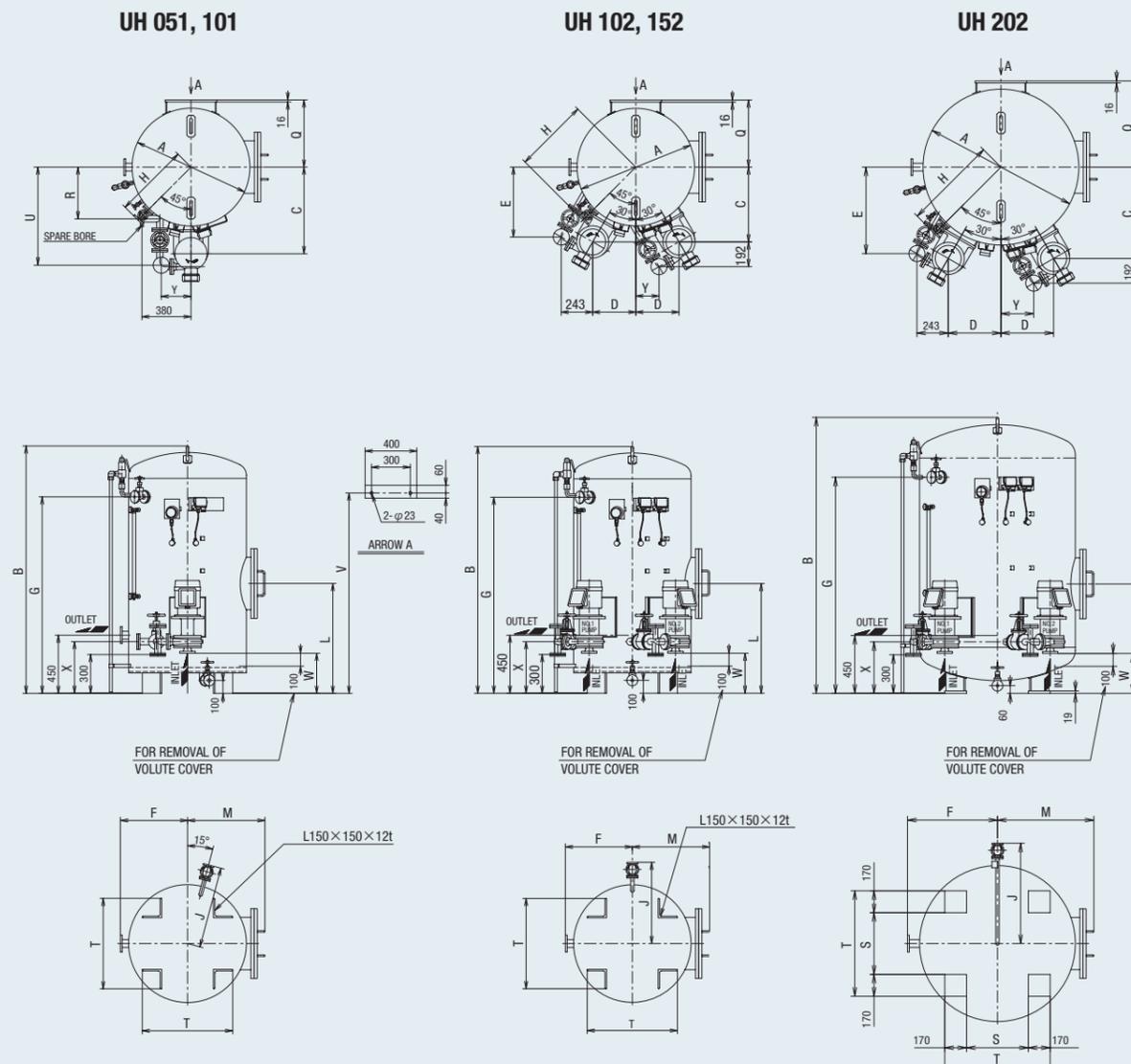
Hydrophore units for sanitary water



GENERAL CHARACTERISTICS FOR A SINGLE-TANK UNIT

Item	Model	UH 051	UH 101	UH 102	UH 152	UH 202
Tank volume	(m ³)	0.5	1.0	1.0	1.5	2.0
Number of pumps supplied		1	1	2	2	2
Pump type		Vertical single stage centrifugal				
Capacity × head		5~15m ³ /h × 40~60m				
Pump suction bore	(mm)	40				
Tank outlet bore	(mm)	50				
Max.output	(kW)	7.5				
Weight	(kg)	400	490	560	630	700
weight at service condition 0.5MPaG	(kg)	750	1190	1260	1680	2100

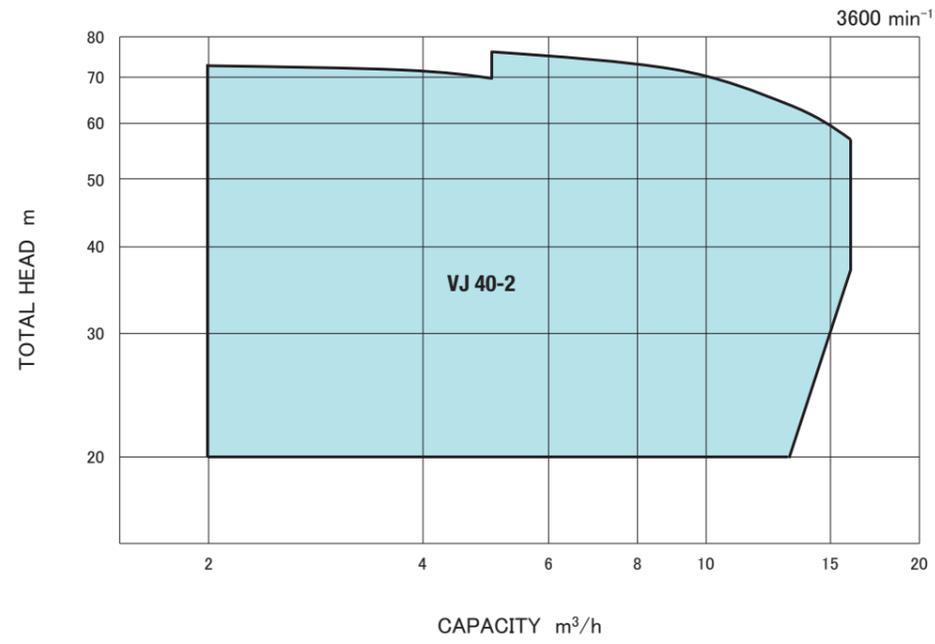
UH 051~202



Dimensions:mm

Model	A	B	C	D	E	F	G	H	J	L	M	Q	R	S	T	U	V	W	X	Y	Mecha. seal
UH 051	862	1235	650	—	—	495	830	555	605	600	575	—	390	—	700	739	—	310	400	230	25
UH 101	912	1920	670	—	—	520	1520	580	630	850	600	520	400	—	700	759	1550	310	400	230	25
UH 102	912	1920	580	335	542	520	1520	580	630	850	600	520	—	—	700	—	1550	310	400	180	25
UH 152	1112	1930	667	385	629	650	1520	680	730	850	700	620	—	—	800	—	1550	310	400	230	25
UH 202	1212	2166	710	410	672	700	1700	730	780	850	750	670	—	480	820	—	1700	310	400	255	25

■ PERFORMANCE CHART



■ PAINTING

The inside of the tank is coated with pure epoxy after being thoroughly cleaned with a sandblasting process.



UH153L

SHINKO IND. LTD.
HYDROPHORE UNITS
 [PATENT REGISTERED]

UH153L | HYDROPHORE UNITS
 (PATENT REGISTERED)

APPLICATIONS

Hydrophore units for drinking water and fresh water



GENERAL CHARACTERISTICS FOR A COMBINED-TANK UNIT

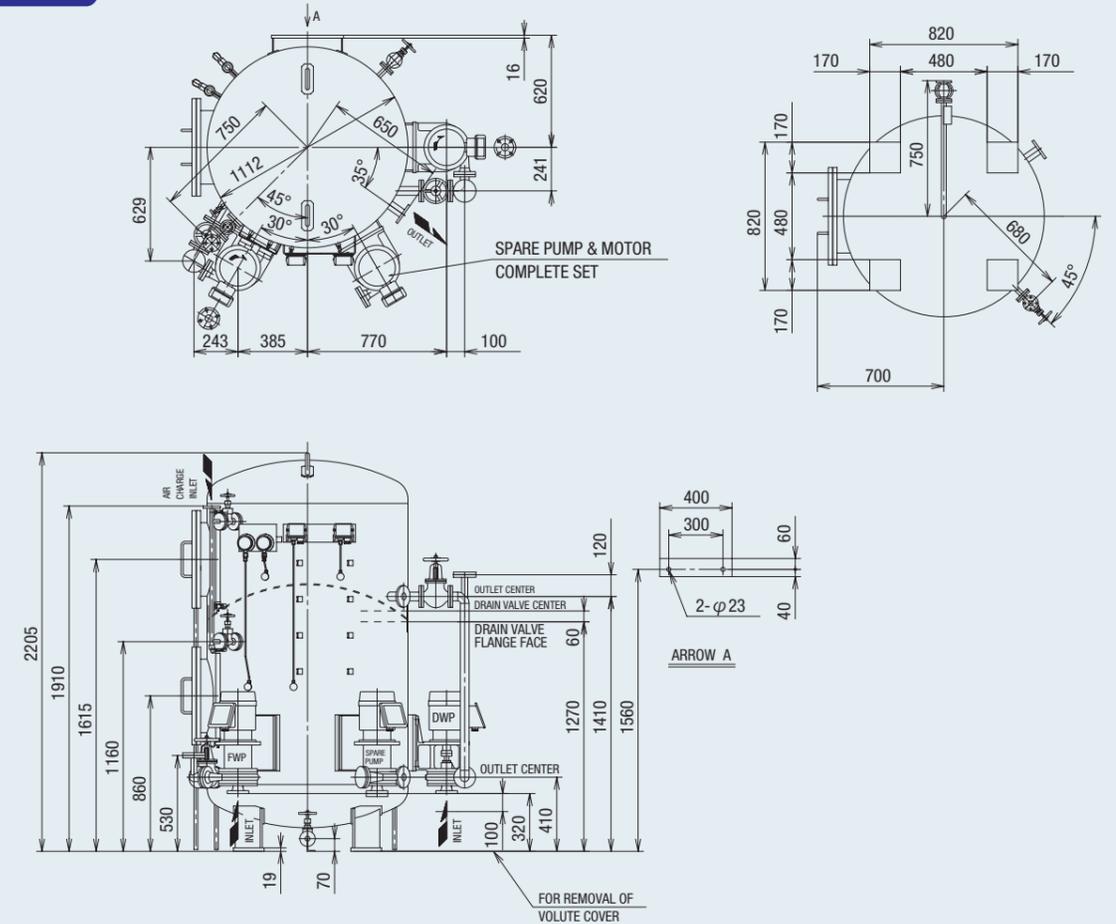
Item	Model	UH 153L	
Kind of liquid		Fresh water	Drinking water
Tank volume	(m ³)	1.0	0.5
Number of pumps supplied		2	1
Pump type		Vertical single stage centrifugal	
Capacity × head		5~15m ³ /h × 40~60m	
Pump suction bore	(mm)	40	
Tank outlet bore	(mm)	50	
Max.output	(kW)	7.5	
Weight	(kg)	1000	
weight at service condition 0.5MPaG	(kg)	2050	

In order to conserve space in the engine room, this combined hydrophore tank is designed to integrate two tanks into one. The tank is separated horizontally by a dished-end plate. The lower side can hold 1m³ of fresh water and the upper can hold 0.5m³ of drinking water.

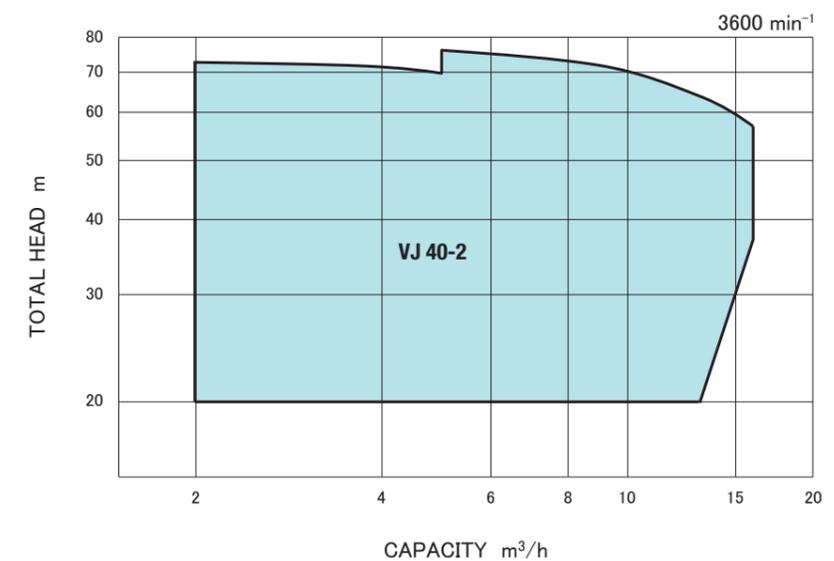
One fresh water pump and one drinking water pump have been simply installed on the combined tank. They are connected with the tank via a screw-down-check valve to supply the water.

Additionally, one spare pump with an electric motor has been installed on the tank simply. If either of the pumps malfunction, they can be replaced with this pump.

UH 153L



PERFORMANCE CHART



PAINTING

The inside of the tank is coated with pure epoxy after being thoroughly cleaned with a sandblasting process.

CVF.CVN



SHINKO IND. LTD.

Vertical single-stage double-suction CONDENSER CIRCULATING PUMPS

CVF.CVN Vertical single-stage double-suction
CONDENSER CIRCULATING PUMPS

APPLICATIONS

Main condenser circulating pumps

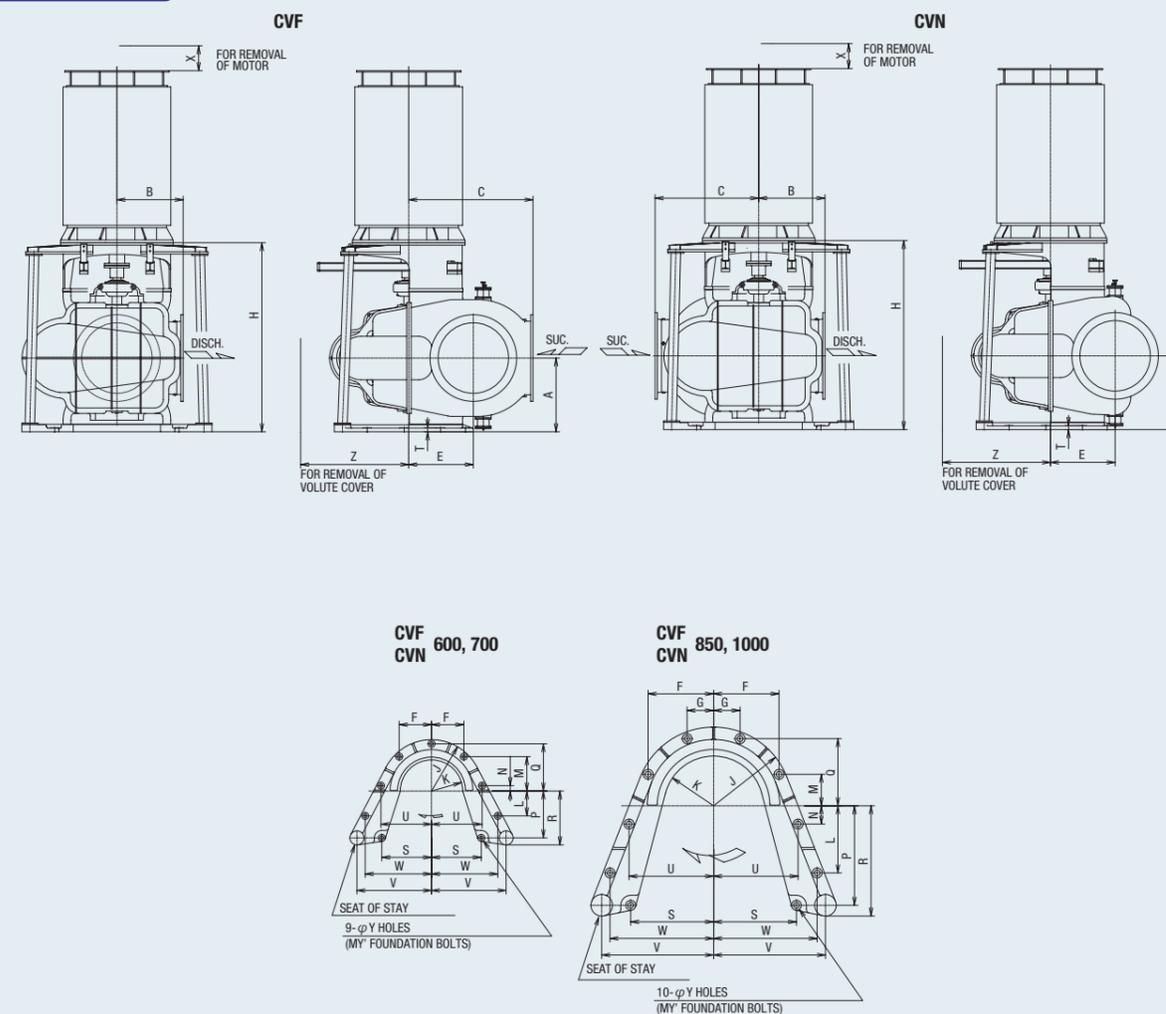
T/G condenser circulating pumps



GENERAL CHARACTERISTICS

Item	Model	CVF 600	CVN 600	CVF 700	CVN 700	CVF 850	CVN 850	CVF 1000	CVN 1000
Rotation		Clockwise when viewed from the driver							
Suction bore	(mm)	600		700		850		1000	
Discharge bore	(mm)	600		700		850		1000	
Flow direction		90°	180°	90°	180°	90°	180°	90°	180°
Stuffing box seal		Gland packing or Mechanical seal							
Max.output	(kW)	110		150		250		355	
weight:CAC	(kg)	2930	2830	3830	3730	5200	5150	8500	8500
Water filled in casing	(kg)	920	870	1210	1165	1695	1620	3300	3300

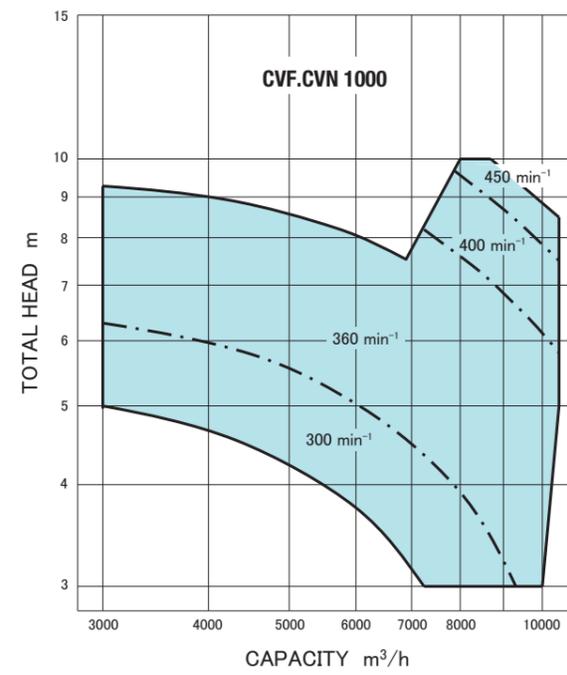
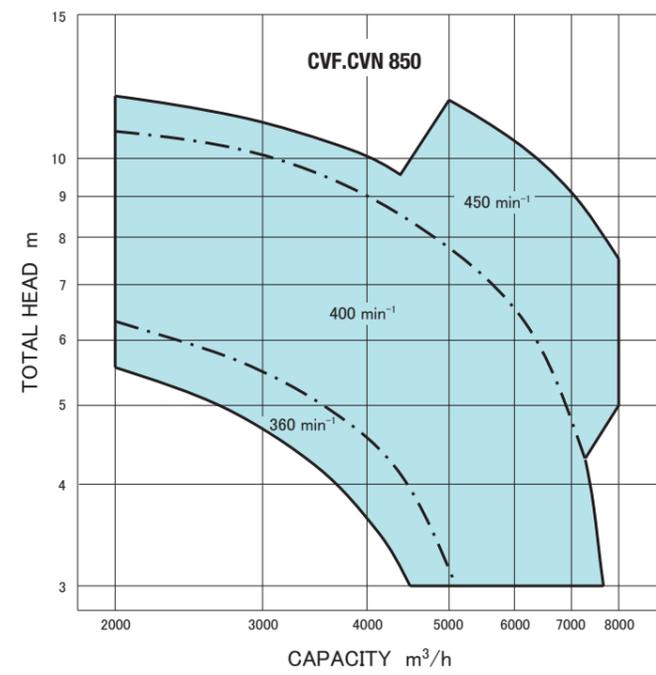
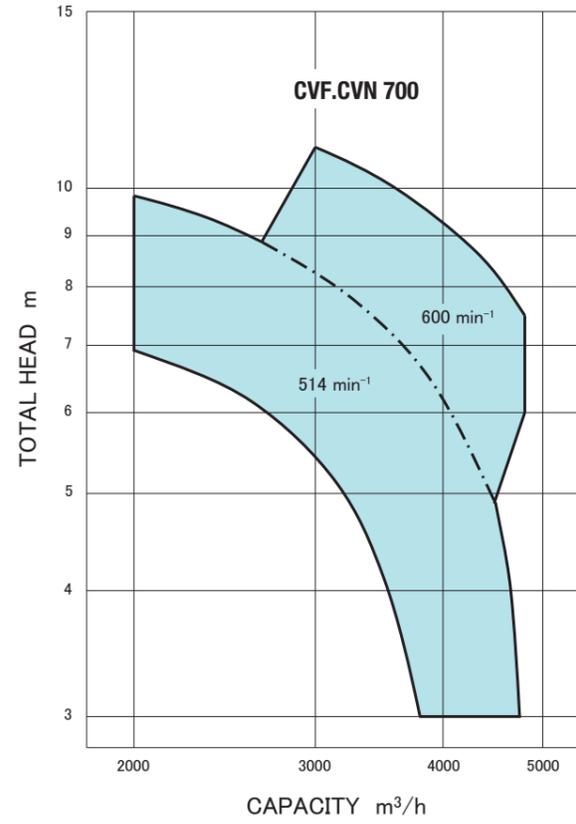
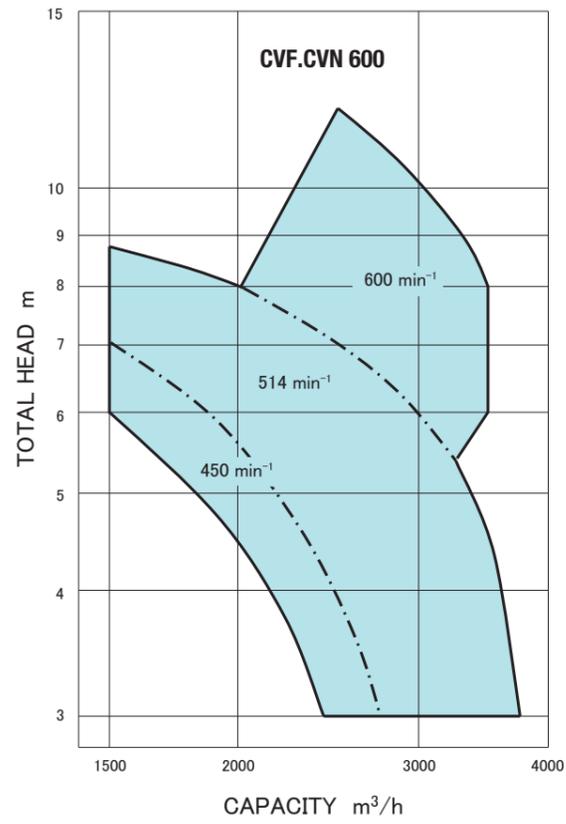
CVF.CVN 600~1000



Dimensions:mm

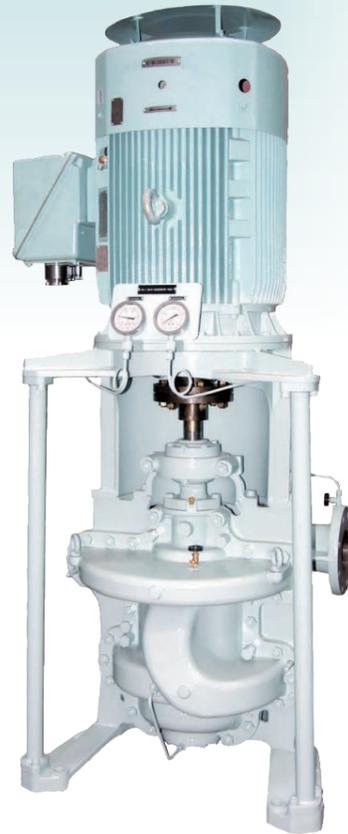
Model	Bore		A	B	C	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V	W	X	Y	Y'	Z	Mecha. seal
	suc.	disc.																									
CVF CVN 600	600	600	615	800	1100 960	580	390	—	1751	620	376	300	415	65	565	570	650	600	50	610	900	800	240	46	42	1400	100
CVF CVN 700	700	700	690	800	1250 1000	650	390	—	1930	620	376	300	415	65	565	570	650	600	50	610	900	800	240	46	42	1400	110
CVF CVN 850	850	850	890	800	1500 1250	780	610	235	2281	780	515	500	385	55	800	685	900	750	50	800	1050	975	300	52	48	1800	120
CVF CVN 1000	1000	1000	1100	950 1050	1850 1550	950	790	320	2631	950	600	810	380	220	1200	810	1330	1000	80	1020	1350	1250	300	70	64	2500	130

PERFORMANCE CHARTS



APPLICATIONS

- Main condensate pumps
- Drain transfer pumps
- Other use

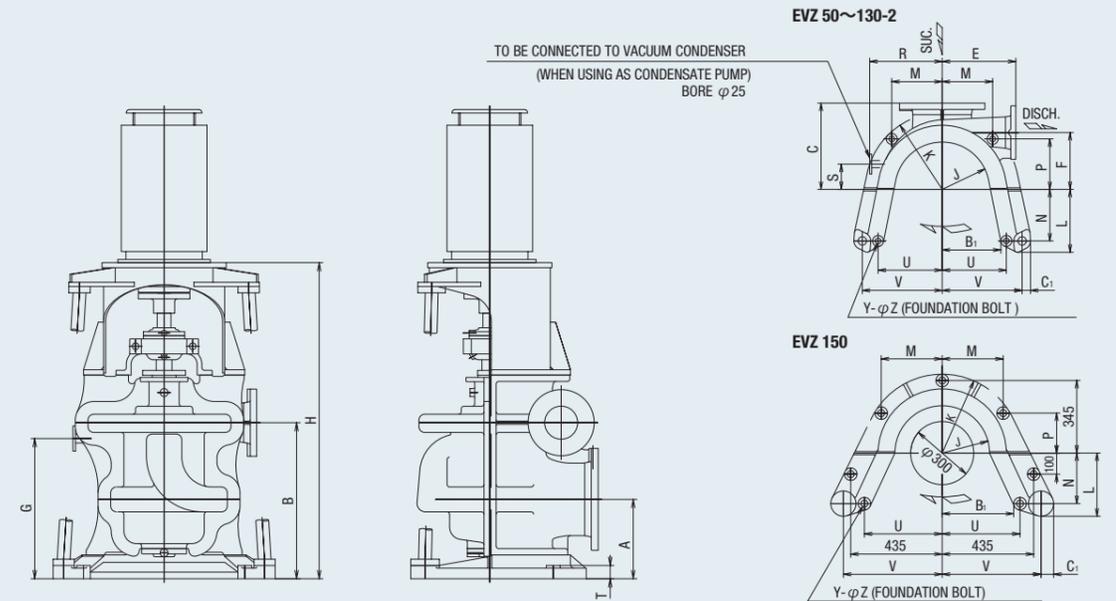


GENERAL CHARACTERISTICS

Item	Model	EVZ 50	EVZ 70	EVZ 100	EVZ 130	EVZ 130-2	EVZ 150
Rotation		Clockwise when viewed from the driver					
Suction bore (mm)		100	125	200	250	250	300
Discharge bore (mm)		50	65	100	125	125	150
Stuffing box seal		Gland packing or Mechanical seal					
Max.output (kW)		22	22	45	55	90	150
weight:FC (FCD) (kg)		200	470	530	590	640	760
Water filled in casing (kg)		7	24	27	48	58	68

1st stage impeller : Single suction for EVZ 50, 70, and 100
Double suction for EVZ 130, 130-2, and 150

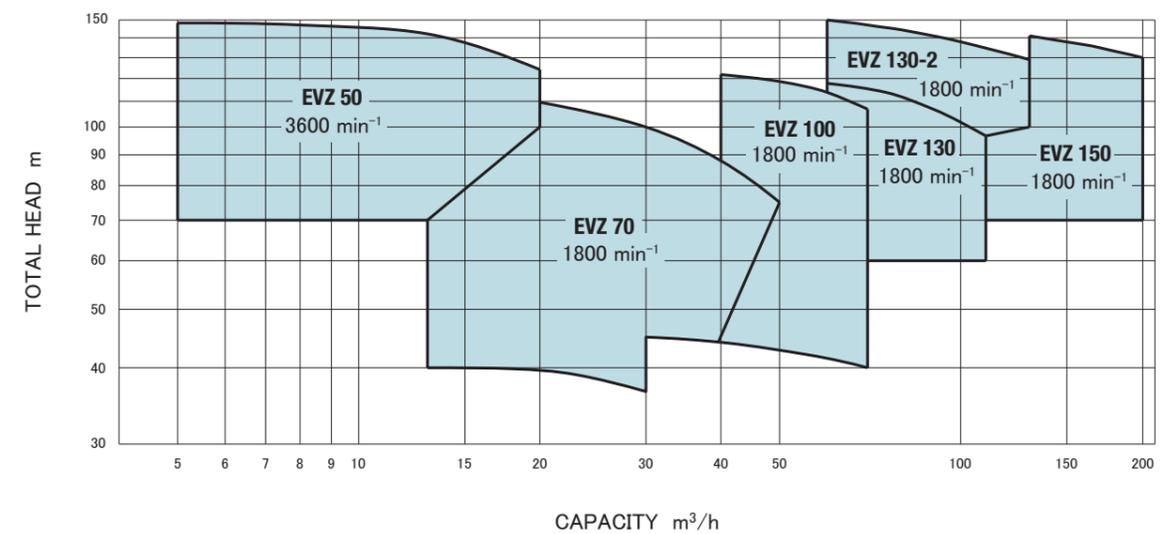
EVZ 50~150



Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	M	N	P	R	S	T	U	V	Y	Z	B ₁	C ₁	Mecha. seal
EVZ 50	210	310	260	260	120	270	739	155	270	235	170	200	170	200	150	50	180	260	4	23	159	50	35
EVZ 70	330	460	350	330	210	395	973	225	365	300	240	245	240	320	105	50	305	380	4	27	279	40	50
EVZ 100	350	490	350	330	210	440	1122	225	365	300	240	245	240	320	100	50	305	380	4	27	279	40	60
EVZ 130	300	590	410	350	270	530	1222	225	365	300	240	245	240	345	120	50	305	380	4	27	279	40	60
EVZ 130-2	300	590	440	380	320	525	1222	225	365	300	240	245	240	370	120	50	305	380	4	27	279	40	60
EVZ 150	325	670	460	380	345	585	1166	225	375	300	290	240	190	400	140	50	370	470	7	33	340	60	60

PERFORMANCE CHART



APPLICATIONS

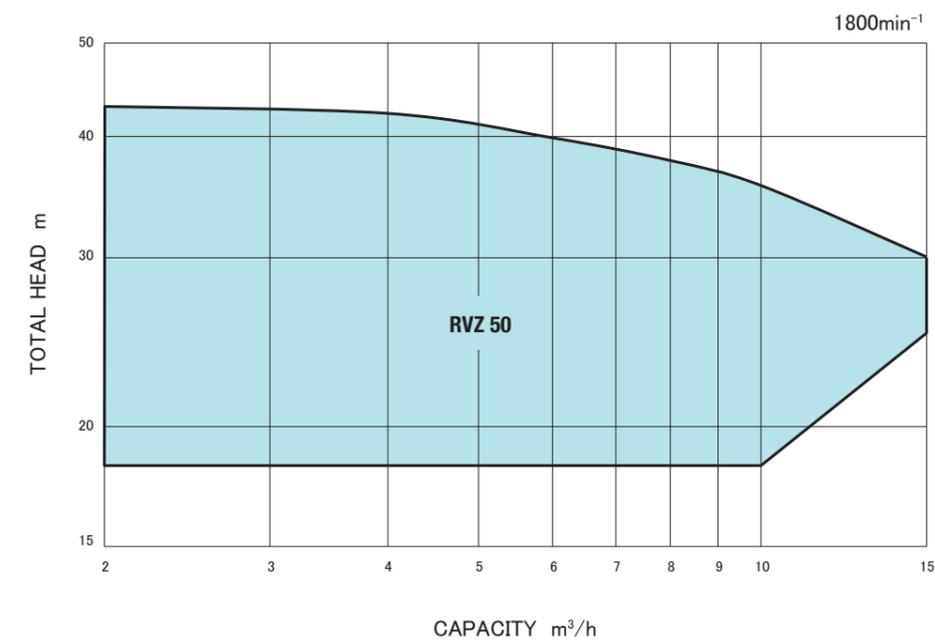
Condensate pumps for turbo generators

GENERAL CHARACTERISTICS

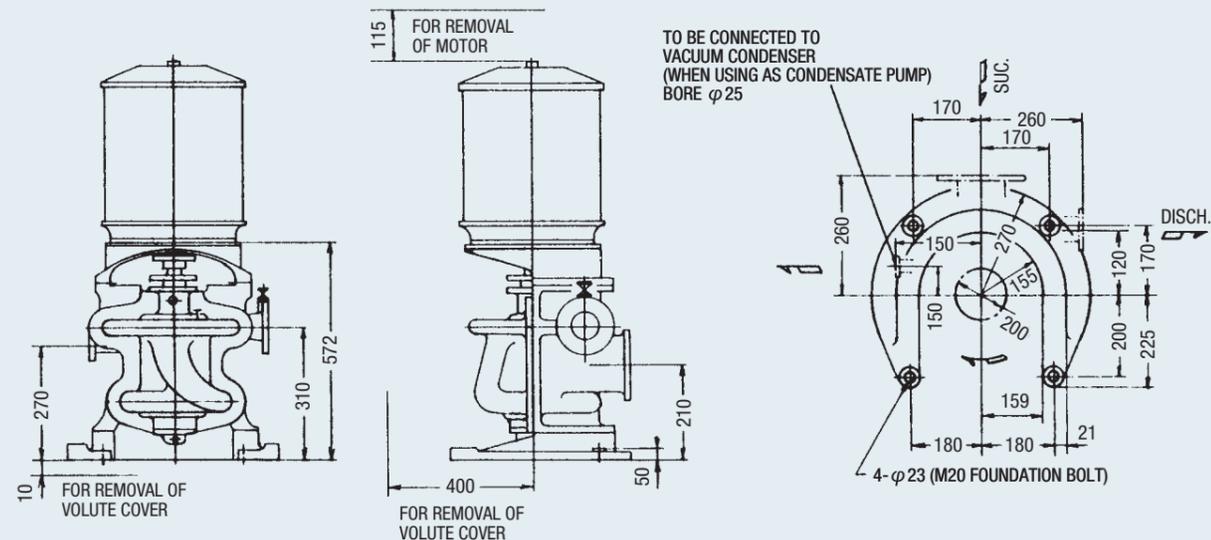
Item	Model	RVZ 50
Rotation		Clockwise when viewed from the driver
Suction bore (mm)		100
Discharge bore (mm)		50
Stuffing box seal		Gland packing or Mechanical seal
Max.output (kW)		3.7
weight:FC (kg)		175
Water filled in casing (kg)		7



PERFORMANCE CHART



RVZ 50



APPLICATIONS

Condensate pumps

Drain transfer pumps

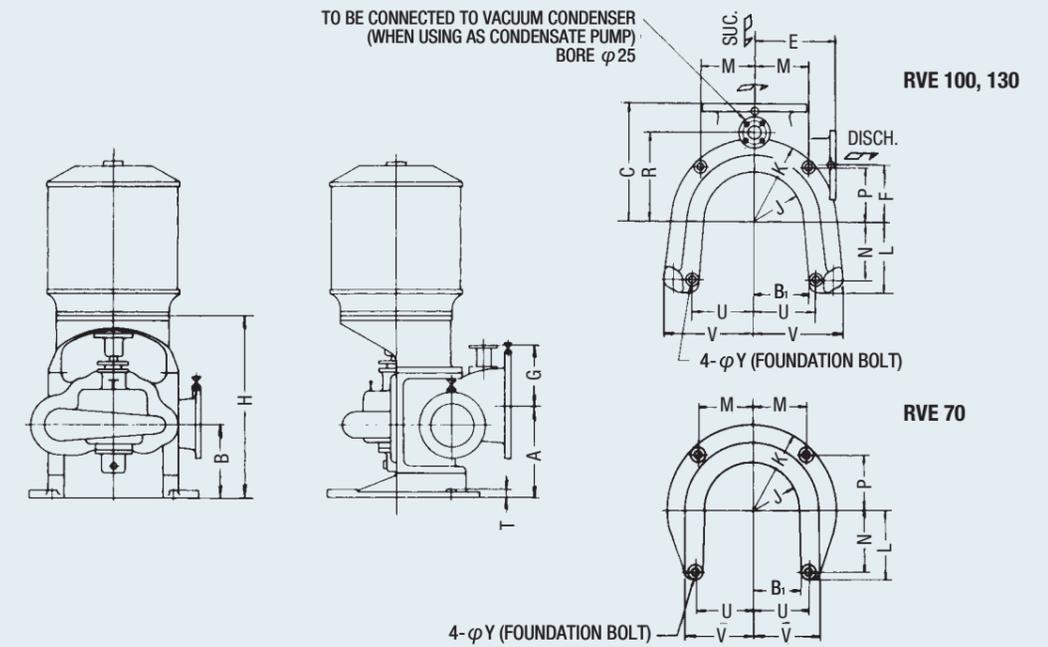
Other use



GENERAL CHARACTERISTICS

Item	Model	RVE 70	RVE 100	RVE 130
Rotation		Clockwise when viewed from the driver		
Suction bore	(mm)	125	200	250
Discharge bore	(mm)	65	100	125
Balance pipe	(mm)	25		
Stuffing box seal		Gland packing or Mechanical seal		
Max.output	(kW)	7.5	18.5	22
weight:FC	(kg)	175	288	358
Water filled in casing	(kg)	10	28	29

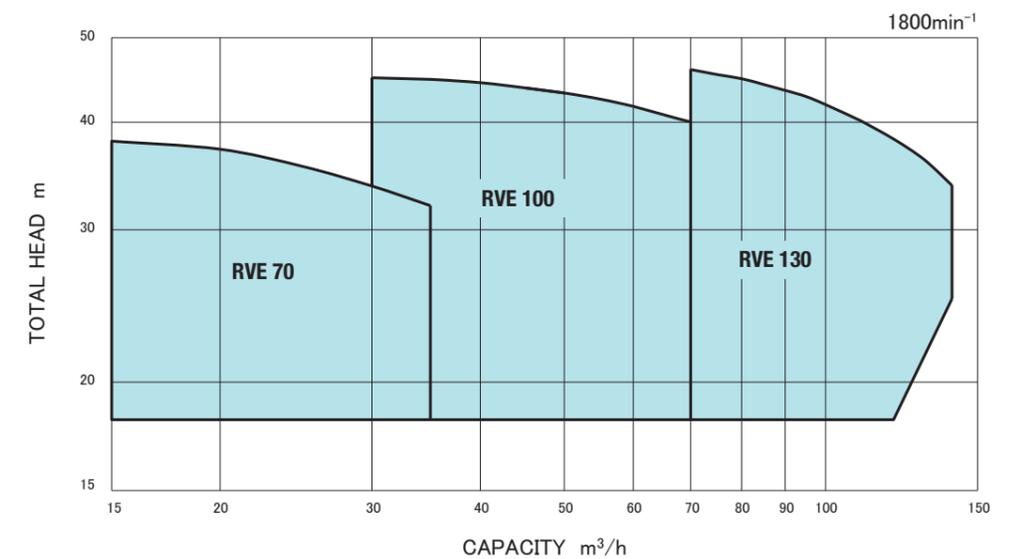
RVE 70~130



Dimensions:mm

Model	A	B	C	E	F	G	H	J	K	L	M	N	P	R	T	U	V	Y	B ₁	Mecha. seal
RVE 70	285	190	330	250	170	185	564	155	270	225	170	200	170	265	50	180	201	23	159	35
RVE 100	360	230	380	330	200	250	693	190	310	260	200	225	200	300	50	210	335	27	184	50
RVE 130	360	230	380	330	200	250	693	190	310	260	200	225	200	300	50	210	335	27	184	50

PERFORMANCE CHART



APPLICATIONS

An atmospheric condenser and feed pumps are combined with the cascade tank as a single unit, which helps to minimize the installation space required.

Wasted condensation water, which has heated up fuel oil for the main engine or other components, is led to the atmospheric condenser to be cooled.

Then, the oil mixed in with the condensation water is removed with sponges in the buckets installed in the cascade tank. The clean water is fed to the auxiliary boiler via the feed pump.

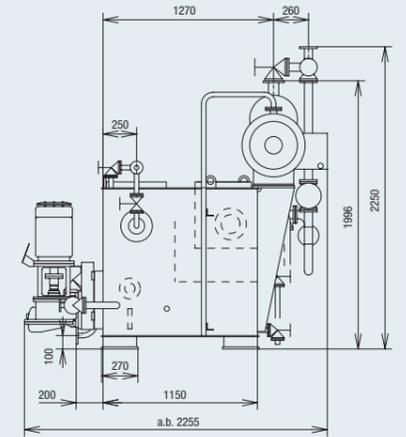
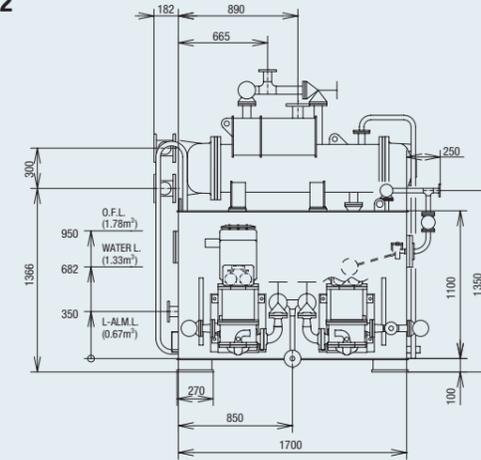


GENERAL CHARACTERISTICS

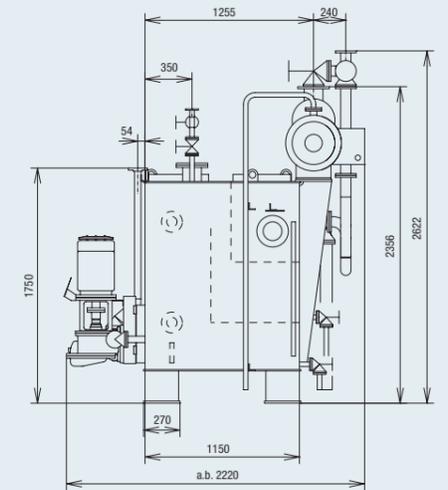
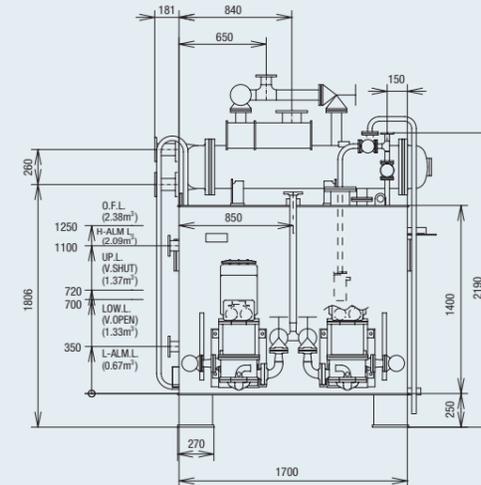
Item	Model	UC 102	UC 152	UC 202
Cascade tank	Overflow capacity (m ³)	2.0	2.6	2.9
	Effective water quantity (m ³)	1.0	1.5	2.0
Feed pump	Number of pumps supplied	CW:1, CCW:1		
	Pump type	Centrifugal		
	Capacity (m ³ /h)	2.5	2~6	2~10
	Total head (m)	110	100~140	100~140
Atmos. Condenser	Max.output (kW)	18.5		
	Type of condenser	Shell & tube		
	Cooling surface (m ²)	8~10	8~10	8~14
	Steam drain quantity (kg/h)	1000	1200~1800	1200~2500
Weight	Cooling S.W.required (m ³ /h)	25	35~55	45~70
	Dry (kg)	2000	2550	3300
	Operating (kg)	3850	4850	6550

UC 102~202

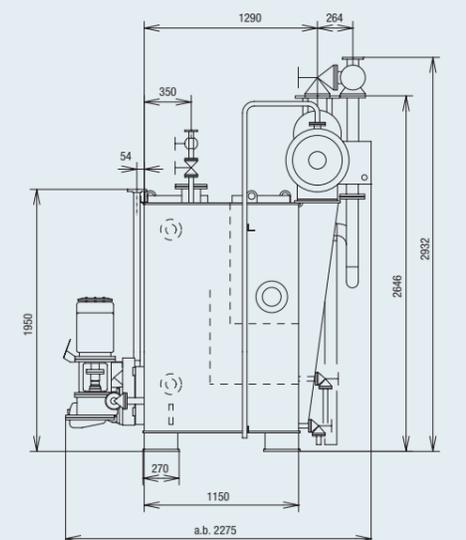
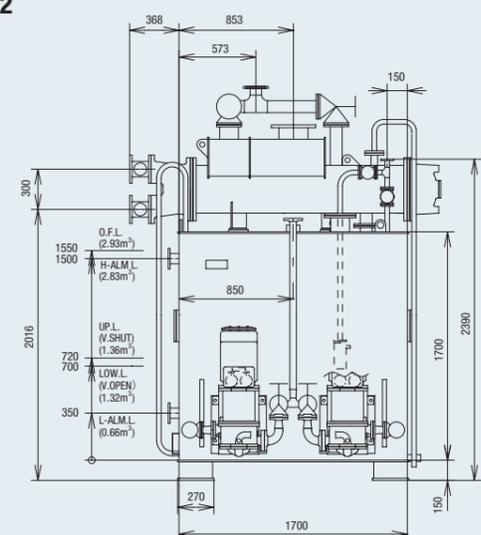
UC 102



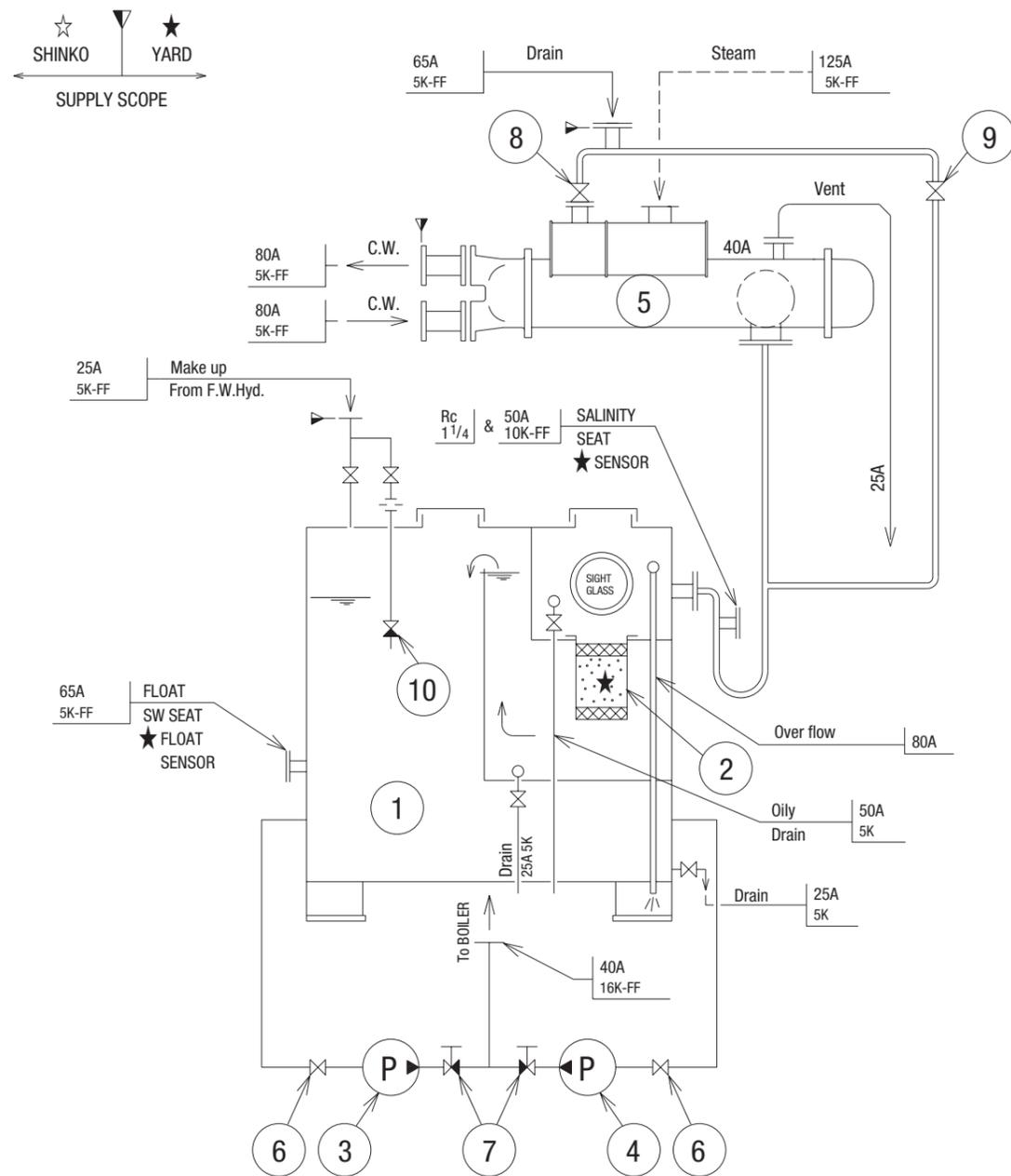
UC 152



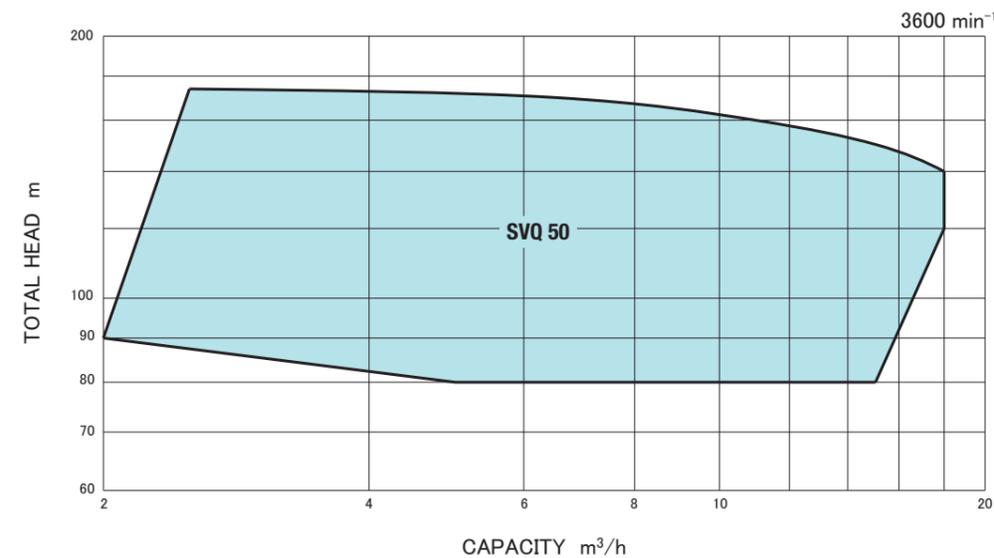
UC 202



SYSTEM DESIGN (in the case of UC 152)



PERFORMANCE CHART



PART NO.	NAME OF PART	REQ.NO. FOR 1UNIT	PART NO.	NAME OF PART	REQ.NO. FOR 1UNIT
1	CASCADE TANK	1	6	SUCTION VALVE	2
2	BUCKET	3SETS	7	DISCHARGE SCREW DOWN CHECK VALVE	2
3	No.1 FEED PUMP	1	8	DRAIN INLET VALVE	1
4	No.2 FEED PUMP	1	9	DRAIN BY-PASS VALVE	1
5	ATMOS. CONDENSER	1	10	LEVEL CONTROL VALVE	1