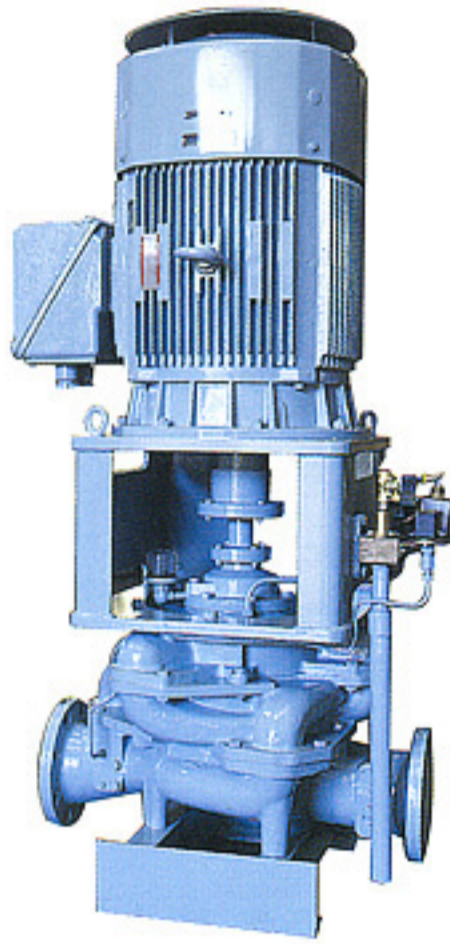


# SHIN SHIN MARINE



 SHIN SHIN MACHINERY CO., LTD.





### ■ Applications

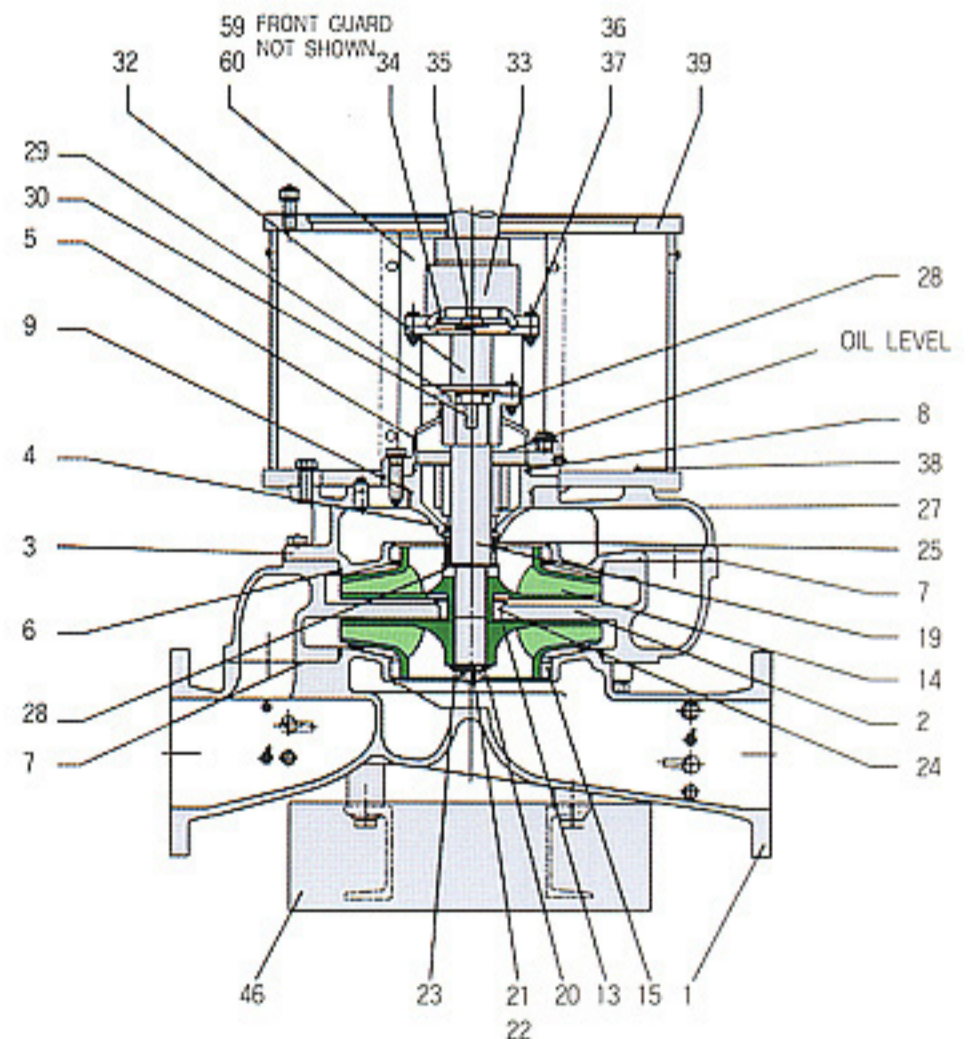
- Cooling sea water pump
- Cooling fresh water pump
- Ballast pump
- Bilge Fire & G/S pump
- Others

### ■ Principal Particulars (TWO STAGE)

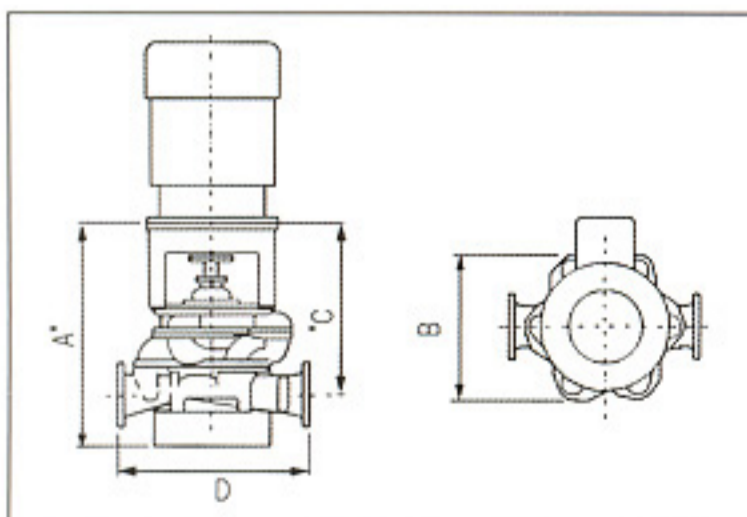
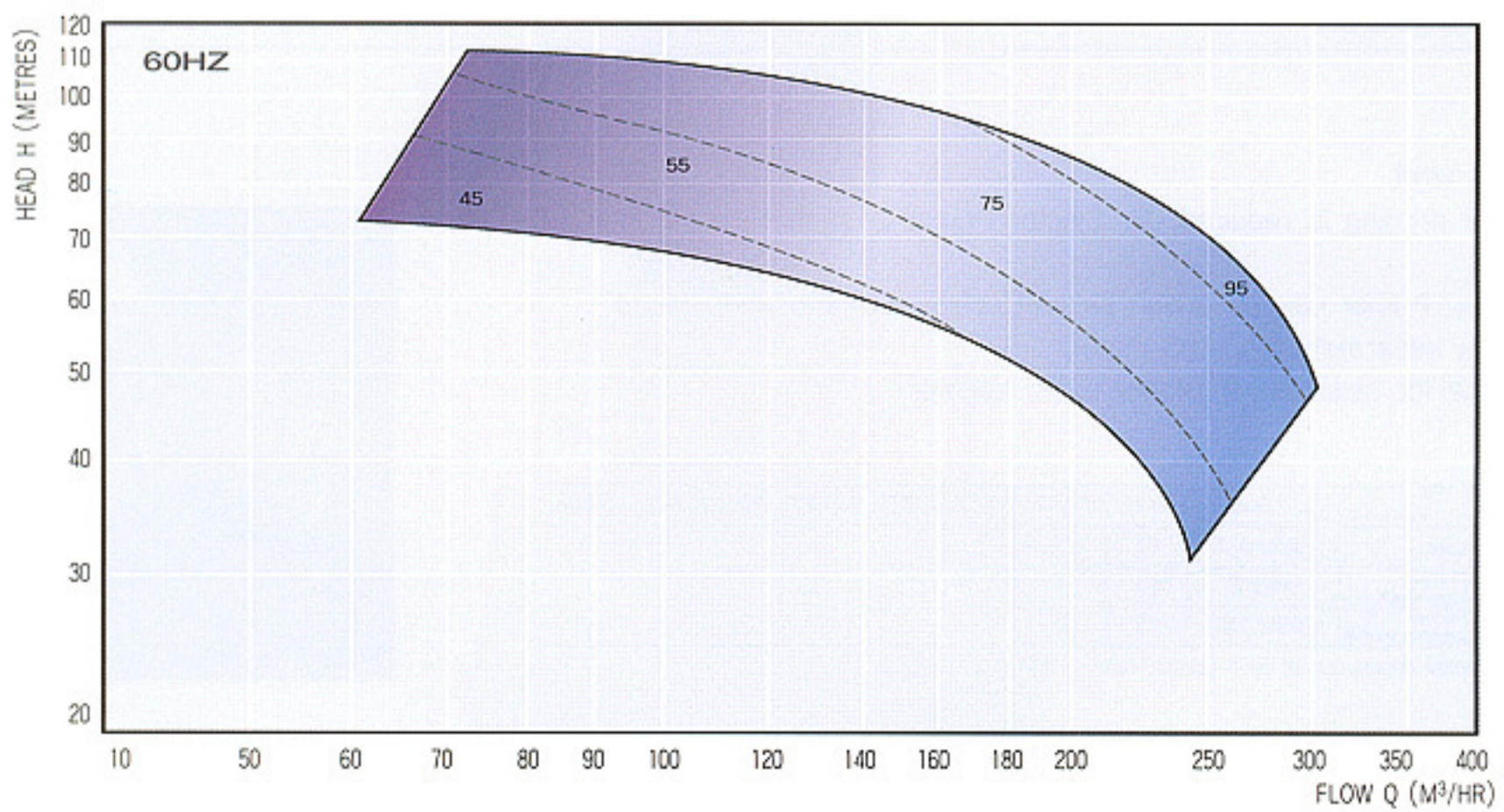
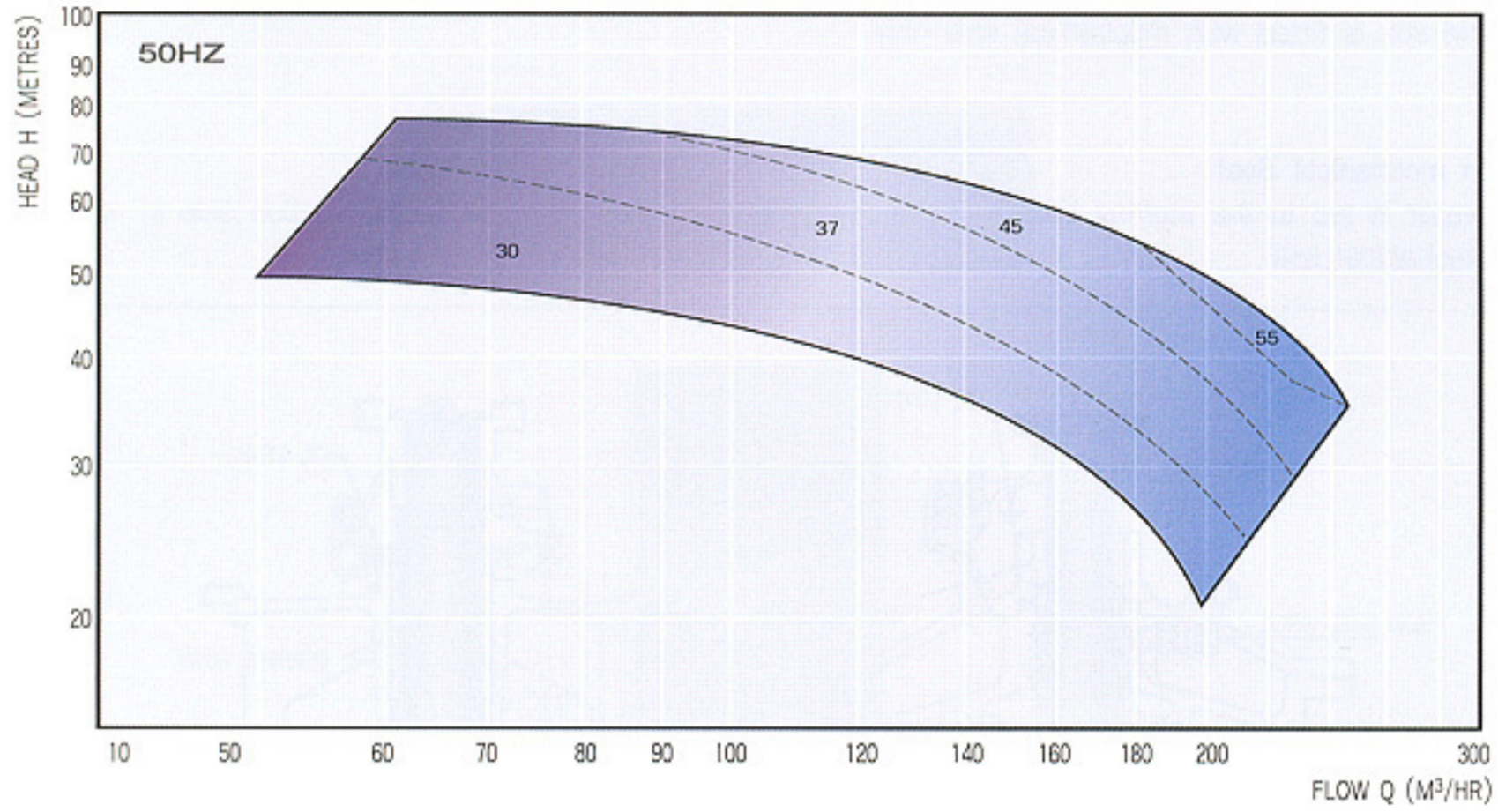
Item	Model	2C 150
Rotation		Clockwise viewed from driver end
Suction bore (mm)		150
Discharge bore (mm)		150
Stuffing box seal		Mechanical seal
Weight GC(BC) (kg)		505(537)
Water filled in casing (kg)		30

### ■ Standard Materials

Part No.	Name Of Part	REQ. NO. FOR 1PUMP	For Fresh Water		For Sea Water	
			Name	KS	Name	KS
1	PUMP CASING	1	CAST IRON	GC200	BRONZE	BC6
2	VOLUTE	1	CAST IRON	GC200	BRONZE	BC6
3	TOP COVER	1	CAST IRON	GC200	BRONZE	BC6
4	BEARING HOUSING	1	CAST IRON	GC200	BRONZE	BC6
5	COVER	1	CAST IRON	GC200	CAST IRON	GC200
6	'O' RING	2	NR		NR	
7	'O' RING	6	NR		NR	
8	'O' RING	1	NR		NR	
9	'O' RING	2	NR		NR	
13	IMPELLER-FIRST STAGE	1	PHOSPORE BRONZE	PBC2	PHOSPORE BRONZE	PBC2
14	IMPELLER-SECOND STAGE	1	PHOSPORE BRONZE	PBC2	PHOSPORE BRONZE	PBC2
15	WEAR RING-CASING	1	PSG		PSG	
19	PUMP SHAFT	1	STAINLESS STEEL	STS304	STAINLESS STEEL	STS304
20	RETAINING WASHER	1	STAINLESS STEEL	STS304	STAINLESS STEEL	STS304
21	LOCK WASHER	1	STAINLESS STEEL	STS304	STAINLESS STEEL	STS304
22	IMPELLER RETAINING NUT	1	STAINLESS STEEL	STS304	STAINLESS STEEL	STS304
23	IMPELLER KEY	1	STAINLESS STEEL	STS304	STAINLESS STEEL	STS304
24	THROTTLE BUSH	1	PAG		PAG	
25	MECHANICAL SEAL	1				
26	SEAL SPACER	1	STAINLESS STEEL	STS304	STAINLESS STEEL	STS304
27	BEARING BUSH	1	LEADED TIN BRONZE	LBC4	LEADED TIN BRONZE	LBC4
28	HALF COUPLING-PUMP	1	DUCTILE CAST IRON	GCD45	DUCTILE CAST IRON	GCD45
29	RETAINING WASHER HALF COUPLING	1	STEEL	SS41	STEEL	SS41
30	RETAINING SCREW	1	CARBON STEEL	SM45C	CARBON STEEL	SM45C
31	COUPLING KEY	1	STAINLESS STEEL	STS304	STAINLESS STEEL	STS304
32	COUPLING SPACER	1	DUCTILE CAST IRON	GCD45	DUCTILE CAST IRON	GCD45
33	HALF COUPLING-MOTOR	1	DUCTILE CAST IRON	GCD45	DUCTILECAST IRON	GCD45
34	RETAINING WASHER	1	STEEL	SS41	STEEL	SS41
35	RETAINING SCREW	1	CARBON STEEL	SM45C	CARBON STEEL	SM45C
36	COUPLING BOLT	8	CR - MO STEEL	SCM440	CR - MO STEEL	SCM440
37	STIFF NUT	8	CARBON STEEL	SM45C	CARBON STEEL	SM45C
38	DOWEL	2	CARBON STEEL	SM45C	CABRON STEEL	SM45C
39	MOTOR SUPPORT	1	STEEL	SS41	STEEL	SS41
46	PUMP FOOT	1	STEEL	SS41	STEEL	SS41
59	REAR GUARD	1	STEEL	SS41	STEEL	SS41
60	FRONT GUARD	1	STEEL	SS41	STEEL	SS41







■ Dimensions For Two Stage Pumps

Part No.	Dimensions (mm)				
	A	B	C	D	E
Type					
2C 150	960	570	740	820	10

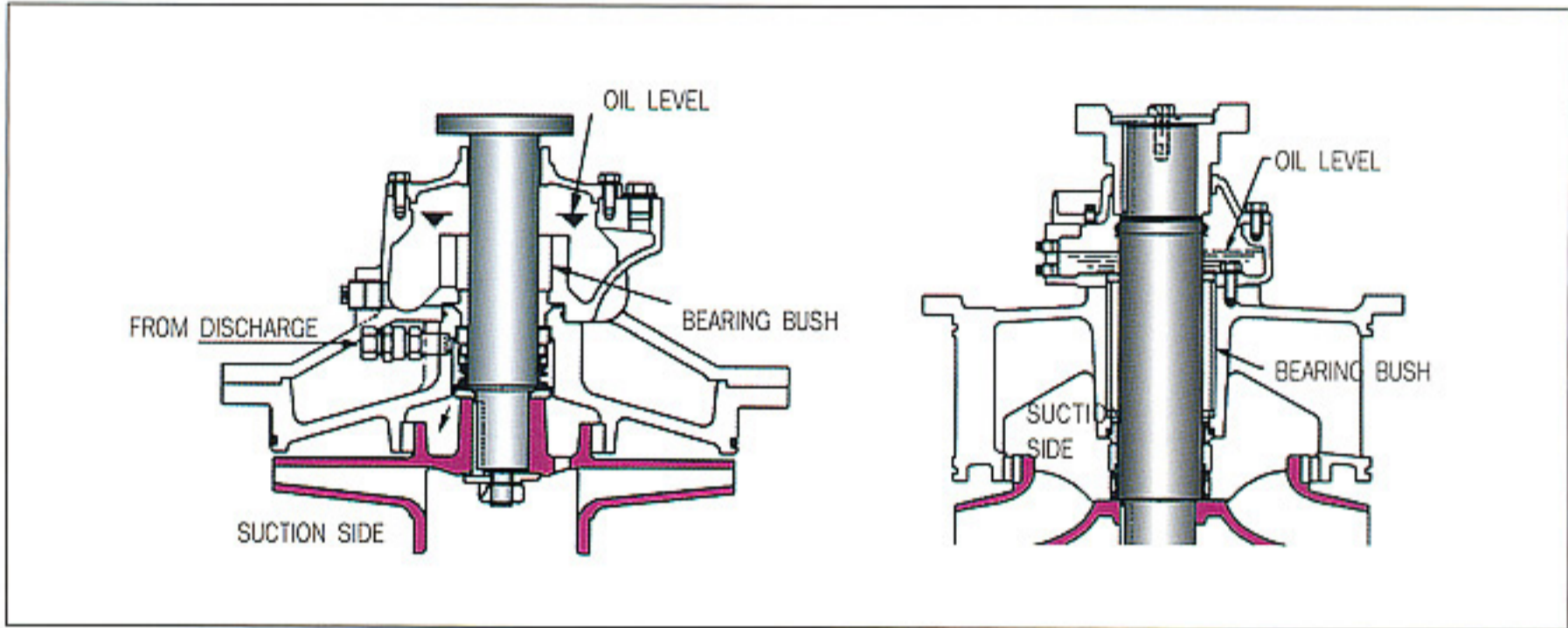


## ■ Stuffing Box Seal

The stuffing box is fitted with mechanical seal only

### Fitted with mechanical Seal

Flushing water is led to the stuffing box from the discharge side, and returned to the suction side in casing after flushing mechanical seal



## ■ Priming unit

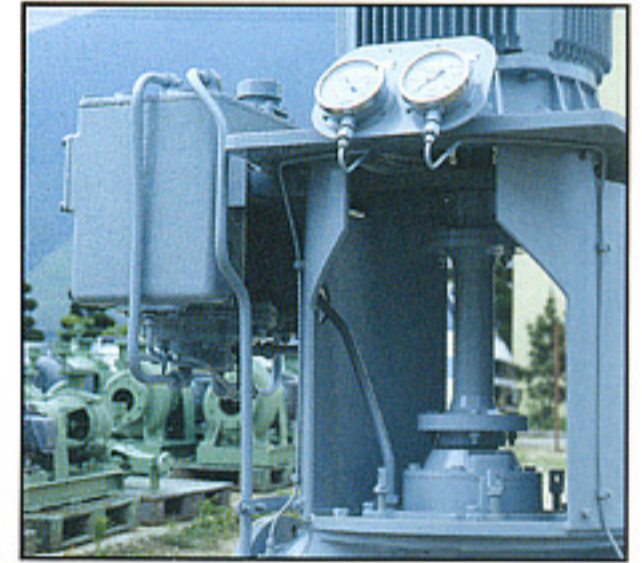
When self priming is required, Air Ejector Primer or Liquid Ring Primer(LRP) is available

Liquid Ring Primer can be driven by belt connected with main pump shaft or a separately mounted motor.

A guidance for selection of primer is as follows.

Item	Model	B/C80	B/C/D125	B/C200	DB250	DB300	DB350	DB400	DB500
Air Ejector Primer	KAEI, KAEII	○	○	○	○	○	○	○	
Liquid Ring Primer driven by pump shaft	LRP50B	○	○	○	○				
Liquid Ring Primer driven by separate motor	LRP50M/100M	○	○	○	○	○	○	○	○

\* For the detail description of each primer, refer to the primer leaflet.



## ■ Motor

The motor for this type of pump must satisfy the following conditions:

### Axial thrust

The thrust due to the weight of the rotating element acts downward.

The maximum values are as shown in the following table.



Unit: Kg

Model	VIB												
	B80	C80	B125	C125	D125	B200	C200	DB250	DB300	DB350	DB400	DB500	2C150
Thrust	34	38	49	58	52	70	83	50	80	100	-	-	80

- Notes**
- The thrust for DB400/500 pumps are variable according to the hydraulic force acting on the impeller.
  - The thrust bearing for the motor must be of the fixed type(below 0.7mm) for up and down directions.
  - The permissible value of elongation of the shaft end due to thermal expansion is to be less than 1mm.

**Screw at the motor shaft end  
(Bolt for fixing is supplied by Shin Shin)**

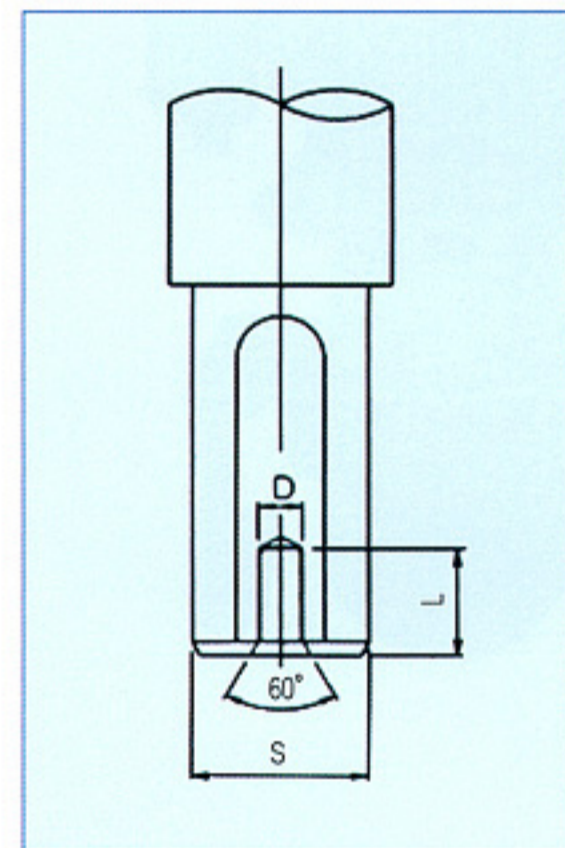
In order to support the pump rotating element the shaft end must be provided with threaded hole for fitting the motor coupling.

**Rectangularity and eccentricity for motor flange**

The rectangularity of the flange face relative to the axis and the eccentricity of the flange fitting outside diameter must be less than 0.127mm when read from a dial indicator.

**Shaft end deflection**

The shaft end deflection must be less than 0.05mm when read from a dial indicator.



Unit:mm

Motor Shaft(S)	D	Lmin
~38(7.5KW)	M12	22
~48(22KW)	M16	22
~85(150KW)	M16	22

■ **Standard Accessories**

Discharge pressure gauge	1
Suction compound gauge	1
Gauge board	1
Gauge root valve	2
Sealing pipe	1 set
Vacuum unit(for self priming pump)	1 set

■ **Standard Spare Parts**

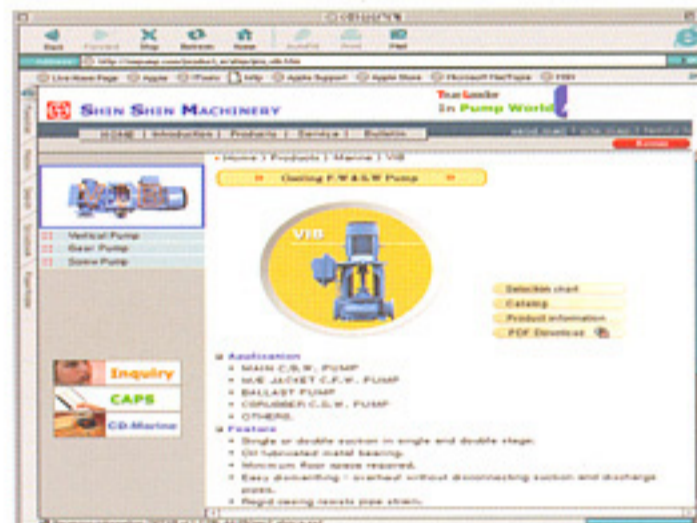
- 1 pump set of the following spare is supplied for 1ship.
- Gland packing or mechanical seal
  - Coupling bolt & nut
  - Bearing bush
  - Complete set of rotating element(if required)





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