

SHIN SHIN MARINE



 SHIN SHIN MACHINERY CO., LTD.



■ Applications

- Hydrophore unit for drinking water
- Hydrophore unit for fresh water
- Hydrophore unit for sanitary water

■ Components in unit

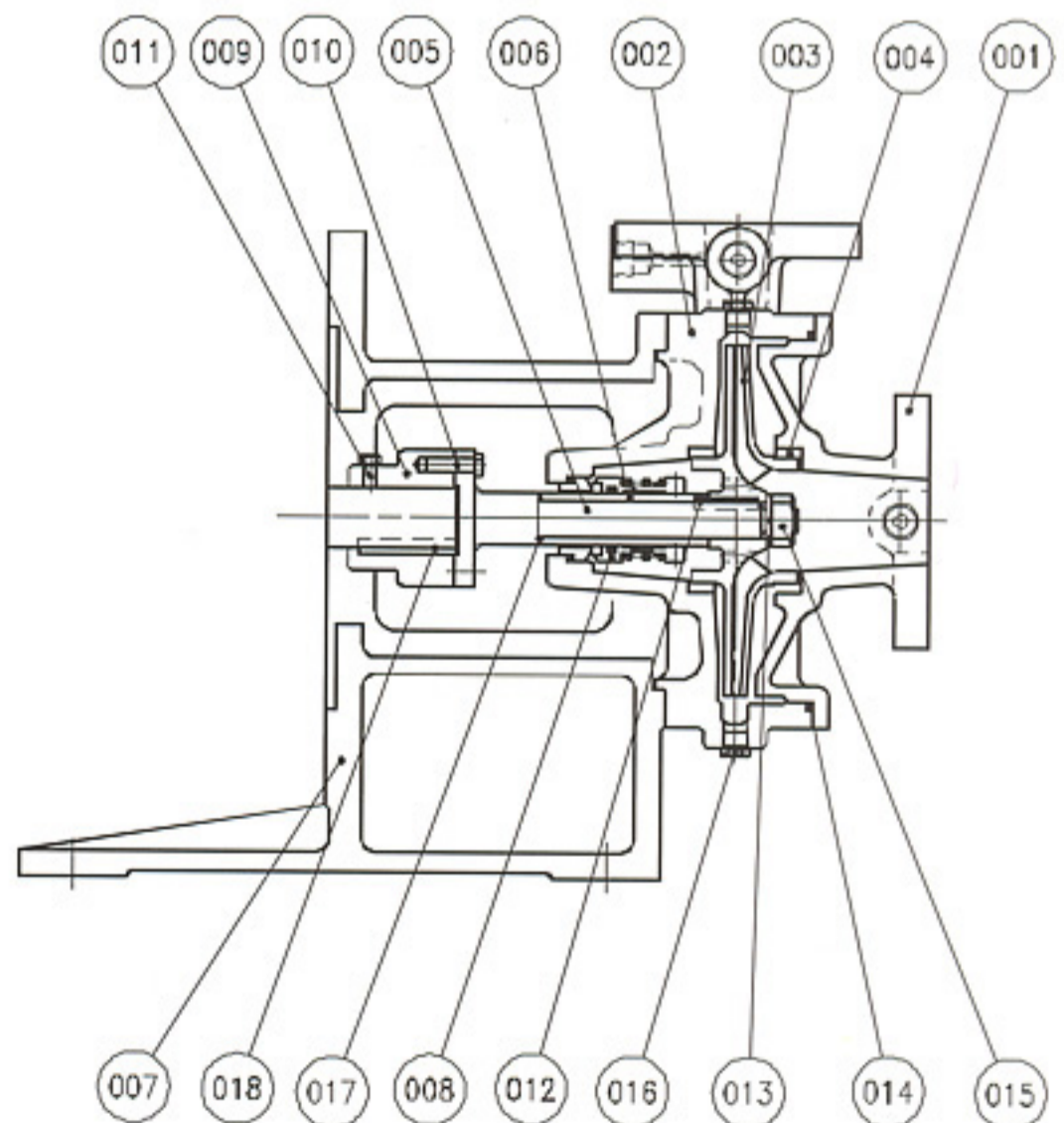
NO.	NAME OF COMPONENT	MATERIAL		1PUMP	2PUMP
		NAME	KS	SUPPLIED	SUPPLIED
1	TANK	STEEL	SS41	1	1
2	PRESSURE GAUGE			1SET	1SET
3	PERSSURE SWITCH			1SET	1SET
4	SAFETY VASVE	BRONZE	BC6	1SET	1SET
5	AIR CHARGE VALVE	BRONZE	BC6	1	1
6	WATER LEVEL GAUGE	PLASTIC+BRASS		1SET	1SET
7	PUMP			1SET	1SET
8	CHECK VALVE	CAST IRON	GC200	1	2
9	TANK DELIVERY NOZZLE	STEEL	SS41	1	1
10	MANHOLE COVER	STEEL	SS41	1	1
11	DRAIN VALVE	BRONZE	BC6	1	1

※MATERLAS FOR PUMP
FOR FRESH WATER GC200
FOR SEA WATER BC6

■ Pump

The hydrophore unit is equipped with one or two sets of pump by customer's requirement and construction and material are shown as follows

PART NO.	NAME OF PART	REQ.NO. FOR 1 PUMP	MATERIAL	
			NAME	KS
001	SUCTION CASING	1	BRONZE	BC6
002	VOLUGE CASING	1	BRONZE	BC6
003	IMPELLER	1	PHOSPHORE BRONZE	PBC2
004	WEARING RING	2	BRONZE	BC6
005	SHAFT	1	STAINLESS STEEL	STS304
006	SHAFT SLEEVE	1	STAINLESS STEEL	STS304
007	MOTOR SUPORT	1	CAST IRON	GC200
008	MECHANICAL SEAL	1		
009	MOTOR COUPLING	1	CARBON STEEL	SM45C
010	COUPLING BOLT	4	STEEL	SS41
011	LOCK BOLT	1	STEEL	SS41
012	IMPELLER KEY	1	STAINLESS STEEL	STS304
013	IMPELLER WASHER	1	STAINLESS STEEL	STS304
014	O-RING	1	EPDM	
015	IMELLER NUT	1	STAINLESS STEEL	STS304
016	DRAIN PLUG	1		C3604
017	O-RING	1	EPDM	
018	COUPLIN KEY	1	CARBON STEEL	SM45C

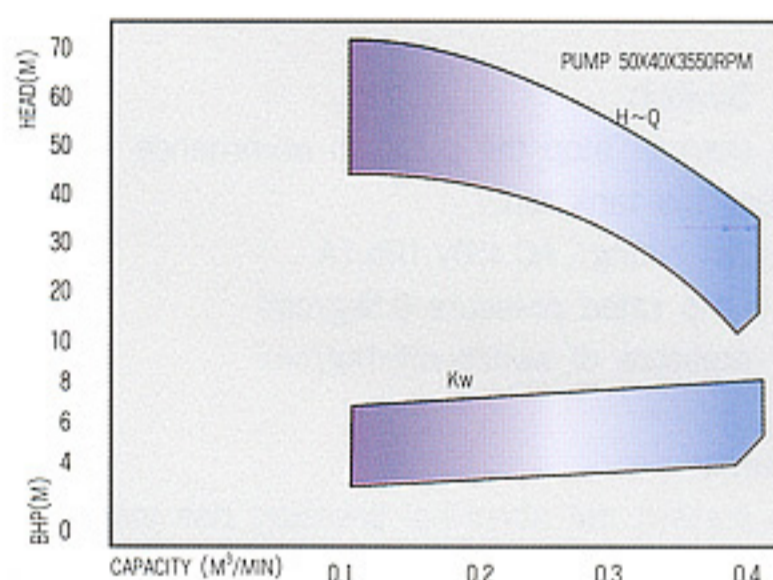
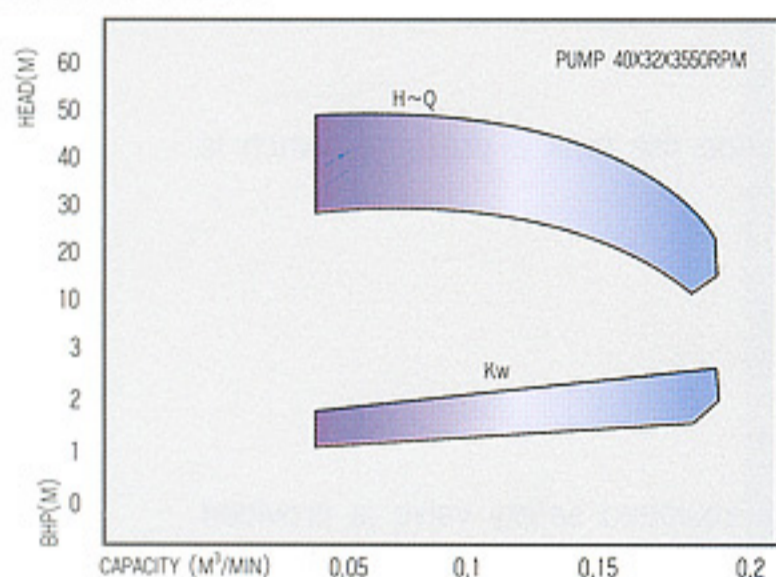


The above materials are shown for FW pumps. For SW pumps, the materials for the volute casing and cover(BC) are different from those shown above.

■ Principal Particulars

Item	Model	EHU0.5-1	EHU0.5-2	EHU1.0-1	EHU1.0-2	EHU1.5-1	EHU1.5-2	EHU2.0-1	EHU2.0-2
Tank volume(m ³)		0.5	0.5	1.0	1.0	1.5	1.5	2.0	2.0
No. of pump supplied		1	2	1	2	1	2	1	2
Pump type		Vertical single stage centrifugal							
Capacity x head		2~24m ³ /hrX35~60m							
Operating pressure range(kg/cm ²)		3~5.5							
Weight(kg)		400	450	530	580	610	660	690	740

■ Selection Chart



■ Volume of tank

Quantity of water used(Q m³/h)

The quantity of water used differs according to the kind and size of ship as well as number of crew members, and from the past service result the quantity at peak time is as follows

Drinking water	2.88 m ³ /h
Fresh water	2.8 m ³ /h
Sanitary water	10.8 m ³ /h

Interval of start -up and stop of pump(T min)

If a tank of large volume is adopted against a definite quantity of water used, the start-up and stop interval of supply pump becomes great and the frequency of use of the pump can be lowered, but weight and cost increase. In general the interval adopted at the peak time of water quantity used is 2 to 3 minutes.

Volume of tank

The volume of tank can be obtained as follows on the basis of the effective water quantity in the tank and the pump start-up and stop interval.

$$T = \frac{V}{Q} \times 60 \quad (V : \text{effective water quantity in pressure tank } m^3)$$

The volume of tank must be selected so that T may become 2~3 minutes as mentioned above.

PAINTING

The inside of the tank is coated as follows after being thoroughly cleaned by sand -blast process.

- Undercoating; Epicon T-500 Primer is coated 2times
- Finishcoating; Epicon T-500 Finish is coated 2times

Besides, the outside of the tank is coated according to Munsell Notation 7.5 BG 7/2.

■ Stuffing Box Seal

The stuffing box is fitted with mechanical seal only.

■ Air Charge Valve

To maintain the function of unit by supplying the tank with air from time to time a manual control air charge valve is equipped near the tank top and connected to the compressed air line.

■ Water Level Gauge

In order to see the water level inside the tank from outside a water level gauge is provided at a suitable position and the level at the time of lowest level is clearly indicated.

■ Pressure Switch

In order to start or stop the pump in accordance with the pressure inside the tank a pressure switch is provided near the tank top.

Electric contact rating: AC 450V, 1Ph, 1A

Switch off: pump rated pressure-0.5kg/cm²

Switch on : pressure of switch off-1kg/cm²

■ Safety Valve

In order to prevent the abnormal pressure rise inside the tank a lever-equipped safety valve is provided near the tank top.

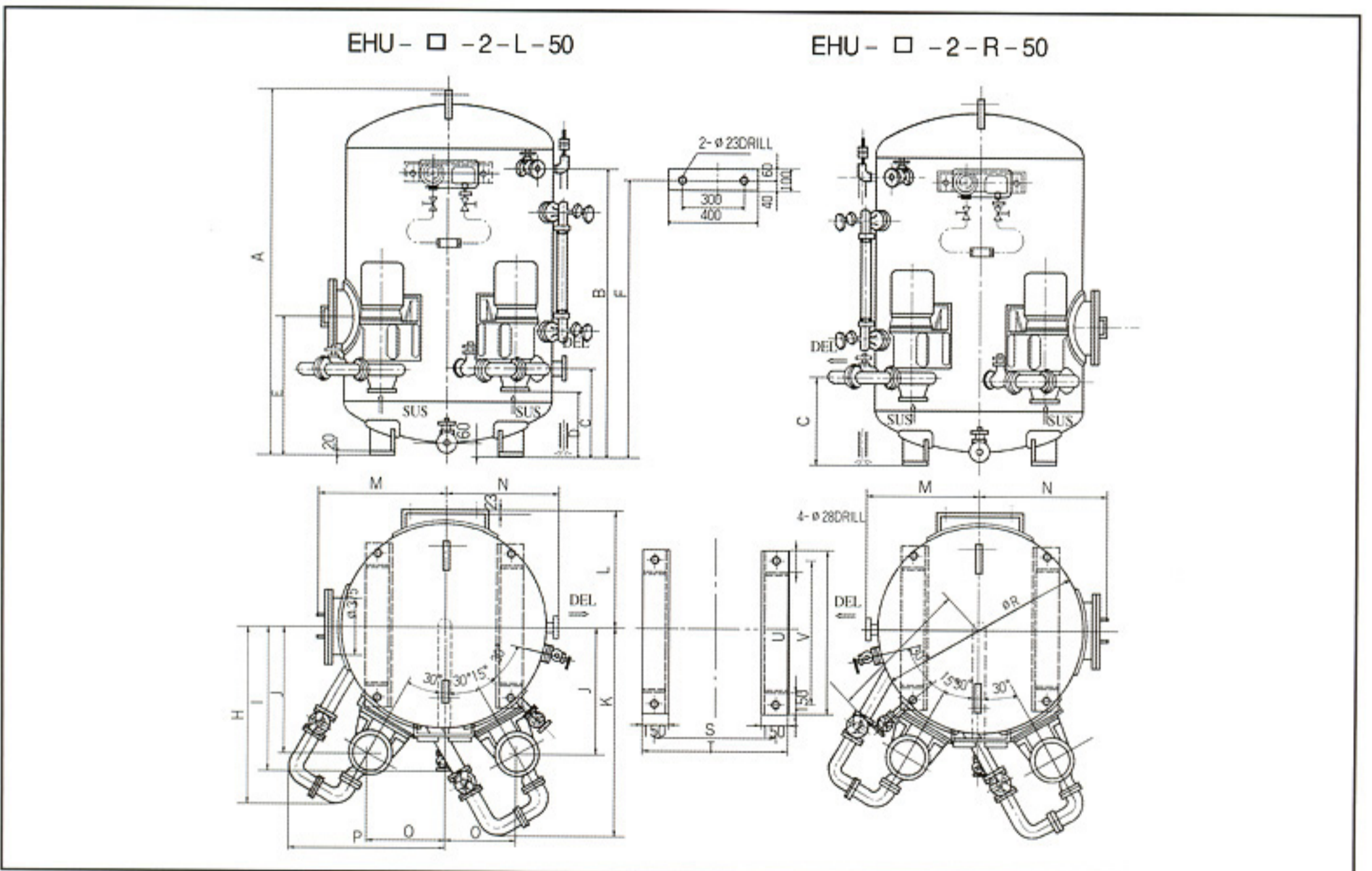
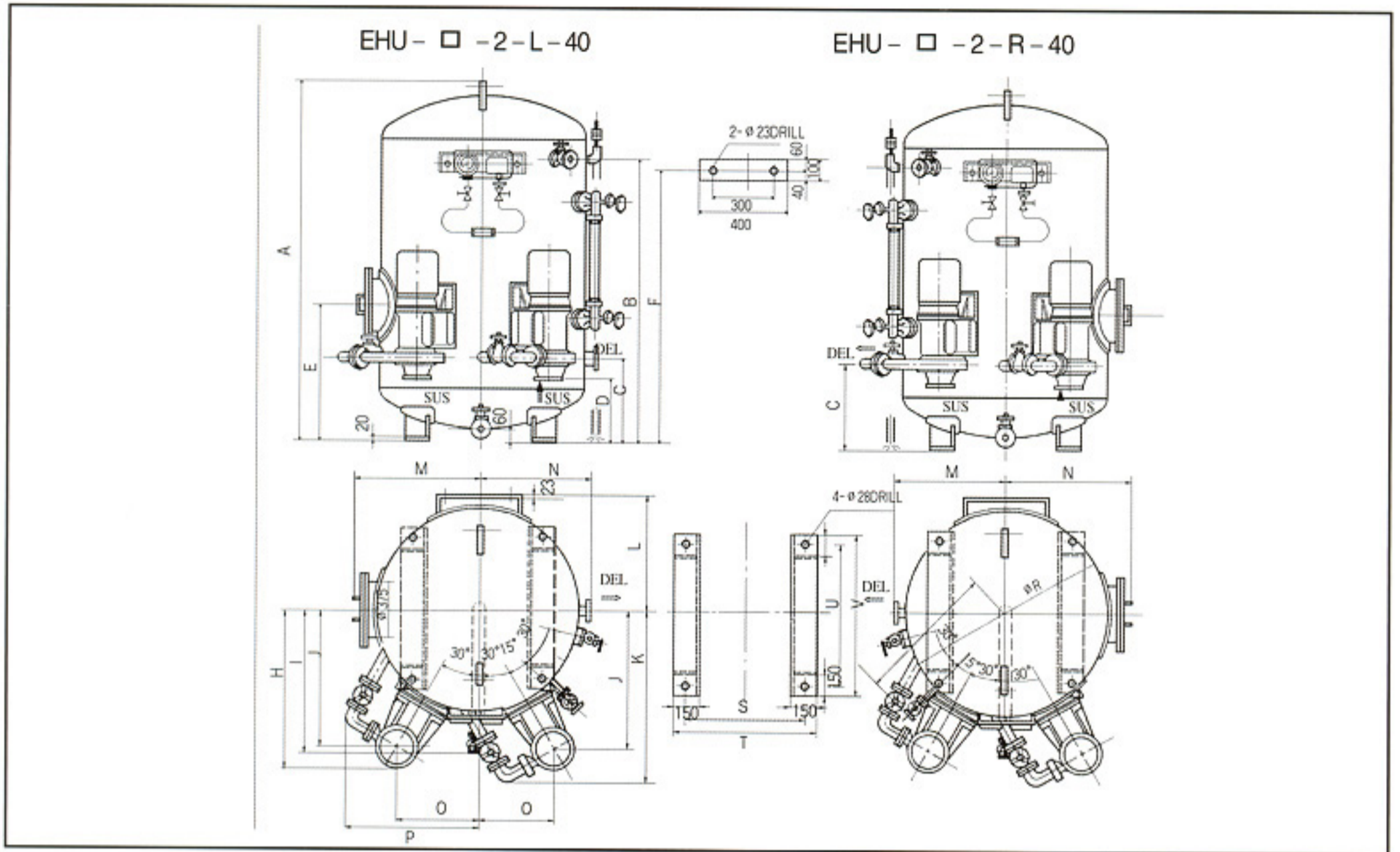
Actuating pressure : 6kg/cm²

■ Standard Accessories

- Discharge pressure gauge.....1
- Gauge board.....1
- Gauge root valve.....2
- Pressure switch root valve.....1
- Drain pipe for safety valve.....1set
- Piping for pressure switch..... 1set
- Support for electric wire.....1

■ Standard Spare Parts

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



WITH PUMP SUCTION 40

Dimension(mm)

Type	BORE(mm)		TANK VOLUME(M ³)	A	B	C	D	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	UNIT WEIGHT (kg)
	Suc	Del																							
EHU0.2-1-R	40	40	0.2	1145	775	400	320	570	765	-	510	469	685	339	419	400	290	-	450	550	320	430	320	430	280
L	40	40	0.2	1145	775	400	320	570	765	-	510	469	685	339	400	419	290	-	450	550	320	430	320	430	280
EHU0.5-1-R	40	40	0.5	1205	805	430	350	600	795	-	625	565	720	495	495	575	326	-	575	862	600	700	600	700	400
L	40	40	0.5	1205	805	430	350	600	795	-	625	565	720	495	575	495	326	-	575	862	600	700	600	700	400
EHU0.5-2-R	40	40	0.5	1205	805	430	350	600	795	675	625	565	720	495	495	575	326	575	575	862	600	700	600	700	450
L	40	40	0.5	1205	805	430	350	600	795	675	625	565	720	495	575	495	326	575	575	862	600	700	600	700	450
EHU0.7-1-R	40	40	0.7	1800	1550	250	170	650	1600	-	560	510	830	430	450	520	295	-	560	762	550	650	550	650	470
L	40	40	0.7	1800	1550	250	170	650	1600	-	560	510	830	430	520	450	295	-	560	762	550	650	550	650	470
EHU0.7-2-R	40	40	0.7	1800	1550	250	170	650	1600	710	560	510	830	430	450	520	295	510	560	762	550	650	550	650	520
L	40	40	0.7	1800	1550	250	170	650	1600	710	560	510	830	430	520	450	295	510	560	762	550	650	550	650	520
EHU1.0-1-R	40	40	1.0	1980	1570	430	350	650	1620	-	650	590	745	520	520	600	340	-	600	912	600	700	600	700	530
L	40	40	1.0	1980	1570	430	350	650	1620	-	650	590	745	520	600	520	340	-	600	912	600	700	600	700	530
EHU1.0-2-R	40	40	1.0	1980	1570	430	350	650	1620	700	650	590	745	520	520	600	340	600	600	912	600	700	600	700	580
L	40	40	1.0	1980	1570	430	350	650	1620	700	650	590	745	520	600	520	340	600	600	912	600	700	600	700	580

WITH PUMP SUCTION 50

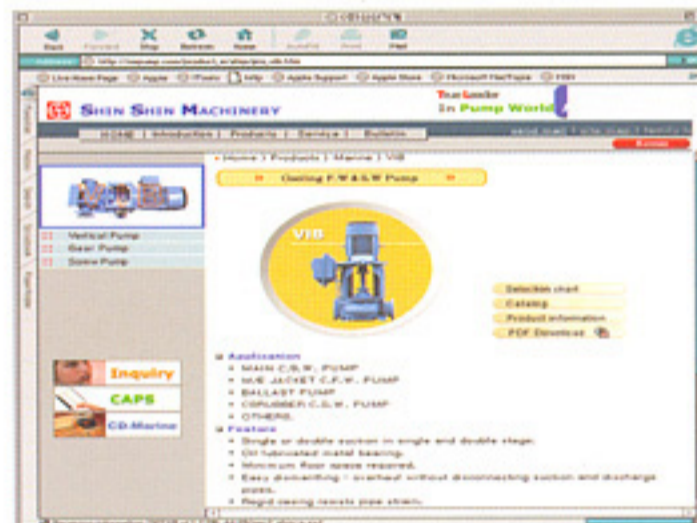
Dimension(mm)

Type	BORE(mm)		TANK VOLUME(M ³)	A	B	C	D	E	F	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	UNIT WEIGHT (kg)
	Suc	Del																							
EHU1.5-1-R	50	50	1.5	1980	1530	450	350	700	1520	-	750	685	930	620	620	700	396	-	695	1112	700	800	600	700	620
L	50	50	1.5	1980	1530	450	350	700	1520	-	750	685	930	620	700	620	396	-	695	1112	700	800	600	700	620
EHU1.5-2-R	50	50	1.5	1980	1530	450	350	700	1520	920	750	685	930	620	620	700	396	710	695	1112	700	800	600	700	680
L	50	50	1.5	1980	1530	450	350	700	1520	920	750	685	930	620	700	620	396	710	695	1112	700	800	600	700	680
EHU2.0-1-R	50	50	2.0	2170	1700	450	350	700	1690	-	800	735	980	670	700	750	425	-	745	1212	700	800	600	700	700
L	50	50	2.0	2170	1700	450	350	700	1690	-	800	735	980	670	750	700	425	-	745	1212	700	800	600	700	700
EHU2.0-2-R	50	50	2.0	2170	1700	450	350	700	1690	970	800	735	980	670	700	750	425	750	745	1212	700	800	600	700	760
L	50	50	2.0	2170	1700	450	350	700	1690	970	800	735	980	670	750	700	425	750	745	1212	700	800	600	700	760



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