

PORTABLE R/O WATER SYSTEM

HIRO 3~10 TON



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1. INTRODUCTION & FEATURES

1.1 Introduction Background

This proposal is for the comprehension about package system organization of potable water system. Also, it has object to introduce R/O water filtration system which is able to supply the safe drinkable water in accordance with water quality standard, and good for human body.

1.2 FEATURES

- 1) Production of safe drinkable water by R/O membrane filtration system
- 2) Easy operation and Compact Design by the complete Box type with low noise (STS 304 & Anticorrosive Painting)
- 3) Clean qualified PVC pipes by SEKISUI
- 4) Easy maintenance and cost effective to maximize customer's satisfaction

2. RO FILTRATIONS TECH. AND COMPARISON with other filters

REVERSE OSMOSIS(R/O) MEMBRANE FILTATION TECH.

ITEM		R/O	NF/UF	OTHERS (NATURAL FILTRATION)	NOTE
Market Share(%)		90%	5%	5%	
Water Production Capacity		Rather Little	Much	Much	
Membrane pore		0.001~0.000 μ m	0.01~0.00 μ m	0.1 μ m(Electrolysis)	
Comparison Clean Water Quality	Mineral Ion, Heavy Metal	About 95% Removal	About 40~60% Removal	No Removal	
	Bacteria, Germ, Virose, Corpuscule	About 95~99% Removal	About 90% Removal	Partial Removal	
	Acidity	Acidity Water	Neutrality Water	Neutrality Water	
ComparisonMembrane Performance		Weak From Scale Component and Chlorine	Strong From Scale Component and Chlorine	Weak From Scale Component (Electrolysis)	

3. INTRODUCTION OF POTABLE WATER SYSTEM

3. 1 Understanding Filtration Process

Filtration process flow chart (Alterable based on regional water condition)



3. 2 Features of each filter stage

ITEMS	FEATURES	NOTE
FILTRATIONSYS.	-MICRO FILTER 20"	Removes secondary 1~5micron size floating particles and turbidity
	- ACTIVATED CARBON 20" - CARBON BLOCK 20"	Remove and adhere organism, smell, taste , various kinds of small matters that exist in raw water
	-Water sofnter	Eliminates hard substances by softening the water through a material called ion exchange
	-R/O MEMBRANE 4021 or 4040	Removes various heavymetal, Germs, Virus, ionic matters

3. INTRODUCTION OF POTABLE WATER SYSTEM

3.3 SPEC OF THE FILTERS AND MAIN PARTS FOR THE R/O SYSTEM

HIRO Series R/O System shall consist of the following major components: Base Structure, Pump with motor, Micro filter, Activated carbon & Carbon block filter, R/O High Pressure, Pump, R/O Vessel with a R/O membrane filter, Inner connection piping, Control sys.

NO.	COMPONENTS	STANDARDSPECIFICATION
1	Base Structure	Carbon Steel with Epoxy Coating.
2	Micro Filter	4.5" x 20" 5micron
3	Carbon Filter	4.5" x 20" Granual Activated Carbon
4	Carbon Block Filter	4.5" x 20" 10micron
5	Softner Filter	FRP Vessel #1017, Resin Volume : 12.5L
6	R.O Membrane Filter	RE4021 or R4040
7	R.O Vessel	R4021B30E1W or R4040B30E1W
8	Pump & Motor	1/3hp or 1hp
Etc.	Auto Controller, Pressure Gauge, Flow Meter, Low Pressure Switch, High Pressure Switch, Dual TDS Meter,, Solenoid Valve	

3. INTRODUCTION OF POTABLE WATER SYSTEM

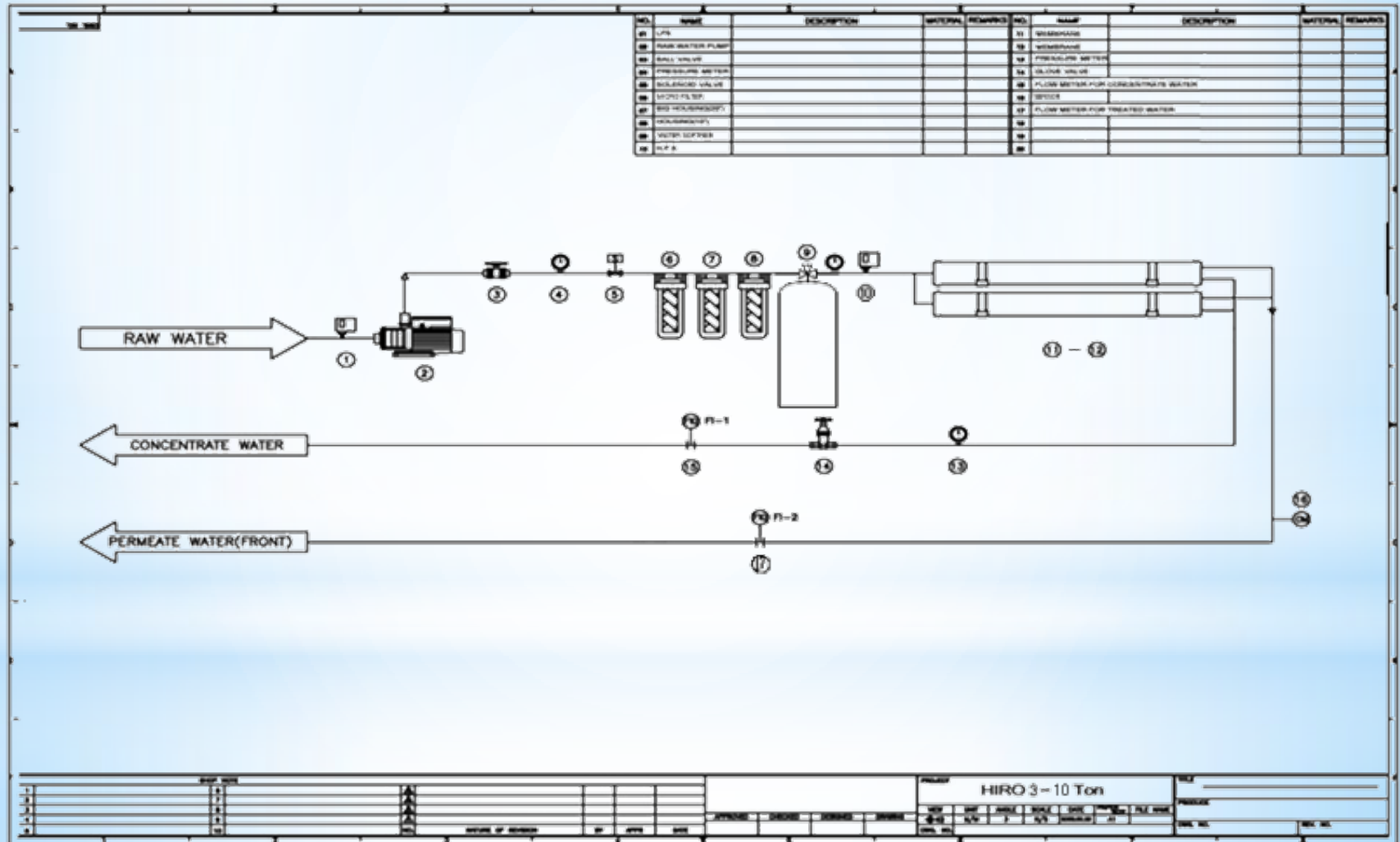
3.4 SPEC OF THE SYSTEM

HIRO Series R/O System shall consist of the following major components: Base Structure, Pump with motor, Micro filter, Activated carbon & Carbon block filter, R/O High Pressure, Pump, R/O Vessel with a R/O membrane filter, Inner connection piping, Control sys.

MODEL	PRODUCT (L/Day)	R.O MEMBRANE	VESSEL	POWER (Kw)	UNIT SIZE(mm) (W x D x H) Included Softner Filter
HIRO-3	3,000	#4021-1	or FRP 4021-	0.5	700 x 600 x 1400
HIRO-5	5,000	#4040-1	or FRP 4040-	1	700 x 600 x 1400
HIRO-7	7,000	#4040-2	or FRP 4040-	1.2	700 X 600 X 1400
HIRO-10	10,000	#4040-3	or FRP 4040-	1.5	700 X 600 X 1400
NOTE The PRODUCT(L/Day) is based on water temperature 25°C and TDS 580ppm and Ph 6.5~7.0 It is based on 20% of recovery rate, and it can be changed by water quality of source water.					

3. INTRODUCTION OF POTABLE WATER SYSTEM

3. 5 DIAGRAM



4. INSTALLATION

4.1 Proper place

- The Clean place(inside)
No vibration, dust, corrosion, gas, dirty oil, and water
- The place of temperature between 1°C to 40°C
- The place to be able to connect raw water pipe and drain water pipe
- The non-freezing place
- The non-solar ray place
- Flat floor with a ventilator
- Inlet water pressure shall be over 1kg/cm²

