

# SAMKUN

## CENTURY CO., LTD



### ■ Water Treatment Equipment

(BWMS, F.W. Generator, F.W. Supply Unit, H.P. Pump Unit, etc.)

### ■ Onshore Plant

(Water Treatment Sys, Waste Water Treatment Sys)

### ■ Pipe Coating

(PE, PA, Metalizing, Rubber Lining)

**SAMKUN** 89  
SAMKUN CENTURY CO., LTD

www.samkun89.com  
Tel. +82-55-338-3030

skms@samkunms.com  
Fax. +82-55-335-3030



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# INTRODUCTION

One of the leading companies specialized in water treatment in Korea, Samkun Century Co., Ltd. always contribute to customer's satisfaction and national development.

Since 1989, We, Samkun Century, have manufactured and supplied Fresh water & Potable water treatment system to our clients.

We have always strived to develop new products, and succeeded in localization of Silver Ion Sterilizer. In addition, we have developed various products such as Re-hardening Filter and RO Type Fresh Water Generator. Now we supply technology-intensive Fresh Water Supply Unit not only ship but offshore plant.

To develop as the global top-tier company which provides customer with high quality products and best service, we aim to achieve the company values with the below quality policies.







# CEO Message

First of all, we would like to cordially express our gratitude for your continuing interest and support.

Samkun Century was established in 1989, and has since advanced the innovation of new technology for more than 30 years. Our willingness and ability to take on new challenges have driven our corporate success while contributing to the development of Offshore plant, Marine, Navy, and Onshore equipment package modules.

We have persevered in our efforts to supply the best quality and service to our clients while always following the motto, "Always, like the beginning". We will strive to make positive changes in the environment and contribute to humanity and society for future generations.

Thank you.

President *Jung Il Kang*







# History (2011~)

2025.12	Governor's Commendation hosted by Gyeongnam SME Awardees Association : Gyeongsangnam-do
2025.07	Presidential Award at the 2025 Gyeongnam SME Conference : President, Republic of Korea
2024.03	Certificate of Partnership 'Excellent Business Partner' : SHI
2024.02	Certificate of 'Reliable Marine Equipment Manufacturer & Supplier' : KOSHIPA & KOMEA
2023.11	Designated leading environmental company for 2023
2023.10	<b>ARA Plus+ BWMS USCG Type Approval</b>
2023.06	Selected as a 'national Defence Venture Center partnership' : KRIT
2023.06	Acquired Innovative Water Treatment Company Certificate : Ministry of Environment
2022.09	<b>ARA Plus+ BWMS KR Type Approval</b>
2022.07	<b>ARA Plus+ BWMS Panama Flag Approval</b>
2022.07	<b>ARA Plus+ BWMS Code New G8 Type Approval</b>
2022.04	Certificate for professional company in Material, Components and Equipment : KEIT
2021.11	Certificate of ESG Excellent Company
2021.09	ABS Pressure Vessel Factory Approval Certificate
2021.05	Selected as 'National Representative of Innovative Enterprises 1000'
2021.04	Small Giant Company of Korea
2020.09	<b>IECEX Certificate of Conformity (BWMS UV MODULE)</b>
2020.07	Confirmation of root company
2020.07	Designated as a promising Export Firm
2020.04	Excellent job invention compensation company certificate
2019.07	Performance certification : Ministry of SMEs and Startups
2019.05	Maintenance qualification certificate
2019.03	Corporate certificate for parts and materials: Ministry of Trade, Industry and Energy
2018.08	PANAMA MARITIME AUTHORITY type approval (BWMS)
2017.07	Acquired RS type approval (BWMS)
2015.02	Acquired BV type approval (BWMS)
2014.10	Liberian Registry type approval (BWMS)
2014.01	UV sterilizer NIPH type approval (SK11-JSD)
2013.11	Acquired KR Type Approval (BWMS)
2013.10	AMS Acceptance by USCG (BWMS)
2012.07	Type Approval by Korean Government (BWMS)
2011.01	Acquired KUN MARK from KCL







# History (1989~2010)

- 2010.12 Selected as a membership of the exemplary medium enterpriser
- 2010.10 Awarded a presidential citation
- 2010.10 Acquired FINAL Approval by IMO (BWMS)
- 2010.03 Acquired BASIC Approval by IMO (BWMS)
  
- 2009.10 Acquired AA Class of HMD
- 2009.10 Registered as a Qualified Supplier in KOSPO
- 2009.10 Acquired K MARK from KTL
- 2009.09 UV sterilizer NIPH type approval (JSC40)
- 2009.07 Selected as a clean work place by KOSHA
- 2009.07 Obtained a qualification of competitive bid Joining by the office of supply Administration
- 2009.01 Acquired ASME STAMP
  
- 2008.03 Approved for GL classification
- 2008.03 Acquired ISO9001 & ISO14001
  
- 2007.12 Awarded first prize of venture enterprise by DSME
- 2007.08 Dolomite NIPH type approval
- 2007.08 Moved Head Office
- 2007.06 Dolomite NSF type approval
- 2007.05 Acquired authentication of NSF
- 2006.07 Selected as a technical innovation Enterprise
- 2006.01 UV sterilizer NIPH (JSB-1,3,5,10,20,30)
- 2006.01 Established a R&D Institute
  
- 2004.09 Technical cooperation with German specialized PA coating company
- 2004.03 Registered as a cooperator along STX, SHI, DSME, HMD & HHI Acquired
- 2003.04 ISO 9001:2000
- 2003.04 Technical cooperation with a Japanese specialized coating Company
- 2002.07 Acquired "Water"Mark which means water purifier manufacturing approved
- 2002.06 Acquired DNV Classification
- 2002.04 Acquired KSA 9001:2001
  
- 2001.10 UV sterilizer NIPH type approval (JSA-5000)
- 2001.09 Established Samkun PNC
- 2000.12 Acquired Europe Safety Standard CE Mark
- 1998.06 Moved factory
- 1998.04 Joined in the Korea Shipbuilding Material Industry Cooperative association
- 1998.02 Converted into the Corporative Institution named Sam-kun century
- 1989.11 Established Su-Hyang Industry  
(Producing Shipbuilding material & Water purifying system)







# Local Factory Network

Republic of Korea



**Main Factory  
(Headquarter)**

- ▶ Ballast Water Management System
- ▶ Fresh Water Supply Unit
- ▶ Sterilizer (UV, Ozone, Silver Ion, Auto Chlorinator)
- ▶ Pipe Spool
- ▶ PE/PA Coating
- ▶ Rubber Coating

405, Miyul-ro, Samnangjin-eup,  
Miryang-si, Gyeongsangnam-do,  
Korea

TEL : +82-55-338-3030

FAX : +82-55-325-0808

E-mail : [sk@samkunok.com](mailto:sk@samkunok.com)

Parts Sale: [skms@samkunms.com](mailto:skms@samkunms.com)



**R&D Center**

- ▶ Technical Design
- ▶ Research & Development

8F, Sporex BD, 13, Geumgok-daero  
285beon-gil, Buk-gu, Busan, Korea

TEL : +82-55-338-3030

FAX : +82-55-332-7123

E-mail : [sk@samkunok.com](mailto:sk@samkunok.com)

Parts Sale: [skms@samkunms.com](mailto:skms@samkunms.com)



**TSA Coating Factory**

- ▶ Metalizing (TSA)

228, Yeocha-ro, Sangdong-  
myeon, Gimhae-si,

Gyeongsangnam-do, Korea

TEL : +82-55-338-3030

FAX : +82-55-312-0685

E-mail : [pnc@samkunok.com](mailto:pnc@samkunok.com)





# Business

Samkun Century has been a professional company based on steady growth and a solid profit structure.

We have advanced the development of new technologies and have established a solid foothold in the marine equipment industry based on a solid profit structure. We started in water treatment equipment specializing by including many kinds of sterilizer for 30 years. Since then, to strengthen our competitiveness in the global market, our company has diversified into offshore plants, ballast water treatment systems, coating, painting and pipe spools.







**ARA Plus+ BWMS**

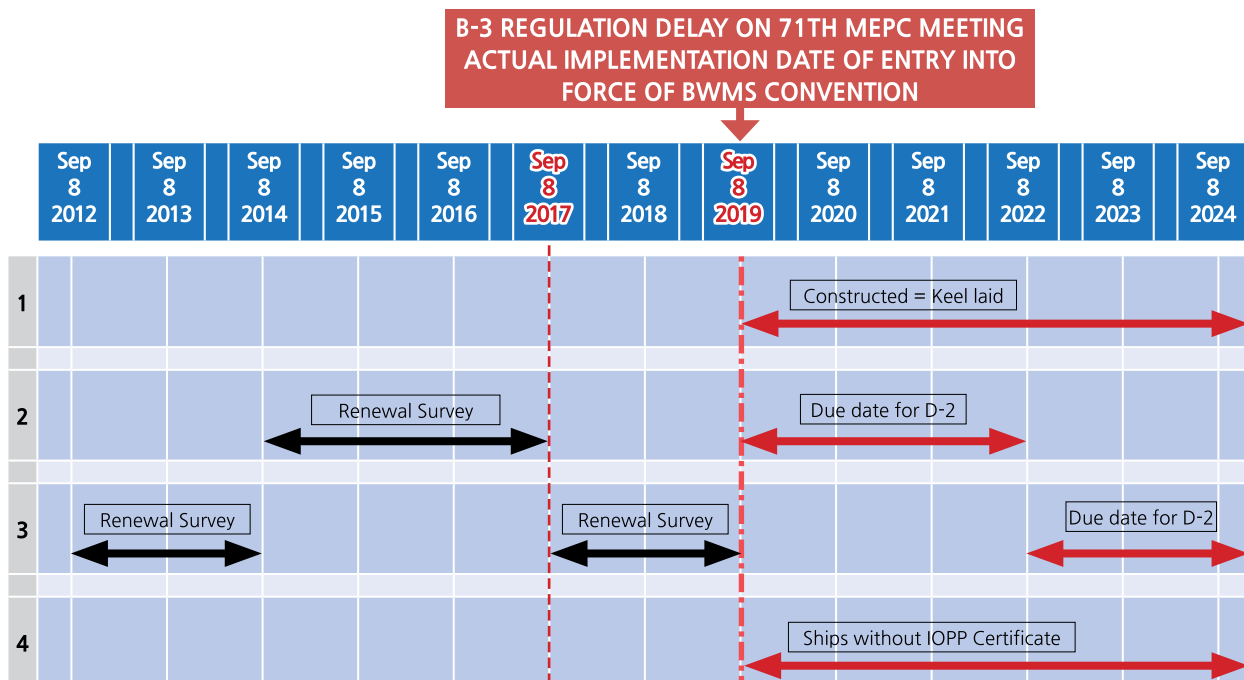
## IMO Regulation

### ■ ■ D-2 Ballast Water Performance Standard

- ▶ Over 50 $\mu$ m : Less than 10 inds/m<sup>3</sup>
- ▶ 10~50 $\mu$ m : Less than 10 inds/ml
- ▶ Bacteria
  - Escherichia Coli : Less than 250 cfu/100ml
  - Intestinal Enterococci : Less than 100 cfu/100ml
  - Vibrio Cholerea : Less than 1 cfu/100ml

### ■ ■ B-3 Ballast Water Management Implementation Schedule

- ▶ New Ships shall be installs BWMS before delivery
- ▶ Existed ship shall be installs BWMS from 8th September 2019 according to IOPP renewal period







## ARA Plus+ BWMS



### FILTER

It removes large particles and organisms larger than  $50\mu\text{m}$  in ballast water. It automatically removes any substances in filter cartridges by housing an internal pressure increase. It is highly accurate and reliable.

#### -Specifications-

- ▶ Mesh size :  $50\mu\text{m}$
- ▶ Design pressure : 6.6 bar
- ▶ Max. working temp :  $50^{\circ}\text{C}$
- ▶ Power Source : 3Phase, AC 380/440V 50/60Hz



### ULTRA-VIOLET

It has a high performance in disinfecting bacteria and viruses (which are smaller than  $50\mu\text{m}$ ). There are no formations of residual toxins or harmful substances. Uses a wavelength of UV-C (200~280nm) to sterilize microorganisms.

#### -Specifications-

- ▶ UV sensor :  $0\sim 500\text{ mW/cm}^2$
- ▶ Temperature sensor : PT-100
- ▶ Wiper Seal : EPDM
- ▶ UV chamber : STS 316L



### CONTROL PANEL

Users conveniently operate "ARA Plus+ BWMS" by touchscreen. The status of each module and any alarm messages are easily monitored in realtime. The control panel consists of four parts; monitoring & operating, main switch, emergency stop switch and cabinet ventilators.

#### -Specifications-

- ▶ Control panel type : PLC type(Auto)
- ▶ Power Source : AC 230V, 1Phase & DC 24V
- ▶ Frequency : 50/60 Hz



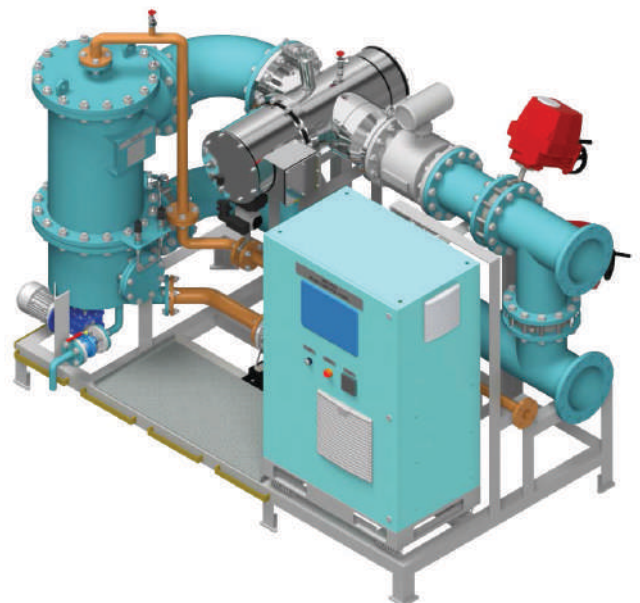
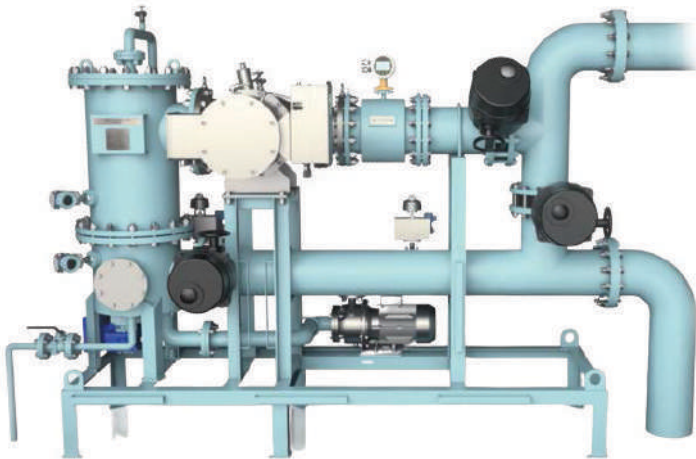


**ARA Plus+ BWMS**

## LINE UP

NO	MODEL	CAPACITY (m3/hr)	FILTER	DIMENSION (mm)	
				UV	CONTROL PANEL
1	AP-150 / AP-150 Ex	150	Ø406x1473	650 x 518 x 1016 / 1088	800 x 500 x 1350
2	AP-250 / AP-250 Ex	250	Ø406x1473	650 x 544 x 1016 / 1088	800 x 500 x 1350
3	AP-400 / AP-400 Ex	400	Ø660x1488	700 x 562 x 1016 / 1088	800 x 500 x 1700
4	AP-650 / AP-650 Ex	650	Ø762x1631	750 x 588 x 1016 / 1088	800 x 500 x 1700
5	AP-800 / AP-800 Ex	800	Ø1016x1998	APUV-400 x 2	APMCP-400(M) APMCP-400(S)
6	AP-1300 / AP-1300 Ex	1300	Ø1016x2198	APUV-650 x 2	APMCP-650(M) APMCP-650(S)

### ► 3D Modeling View







**ARA Plus+ BWMS**

ARA Plus+ BWMS was developed by SAMKUN CENTURY and ARA Plus+ BWMS approved by BWMS Code (=New G8 Type Approval) in 2022 and also USCG Type Approval in 2023

### BWMS Code New G8 Type Approval



### USCG Approval



### KR Class



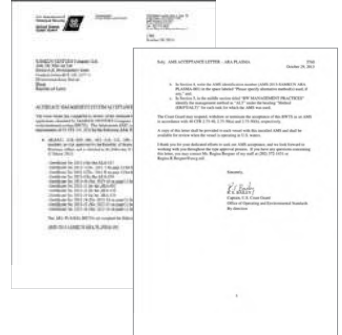
### BV Class



### RS Class



### USCGAMS&USCGT/AOI



### Basic Approval



### Final Approval



### Korean Government





## ARA Plus+ BWMS

# ADVANTAGES

### ECO-FRIENDLY

- No chemical substances used
- No by-products generated
- No neutralizing agents used, therefore no secondary pollutants

### CONVENIENCE

- Simple maintenance
- Easy installation to newly constructed and existing vessels
- Easy operation by an automatic control system

### COST-EFFECTIVE

- Competitive Price
- Compact size with minimal foot print
- Low Power Consumption

### ADVANTAGE

- Exceptional performance of the ARA Plus+ BWMS in high levels of turbidity
- Differentiation of leakage sensor in UV chamber
- Use of inner polyethylene coating pipes

### SAFETY

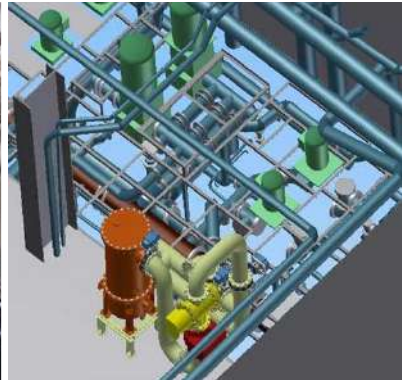
- Safety for the marine environment
- Safety for your assets and people





## Retrofit Procedure

### 1. Pre-survey & Design



### 2. Installation on-board



### 3. Commissioning & Training





## Offshore Plant Division

Since 1989, Samkun Century has manufactured and supplied Fresh water & Portable water treatment systems to our clients. We have always strived to be innovative by developing new products; products like our UV sterilizer, Re-hardening Filter and Silver Ion sterilizer.

And because of our drive for excellence, we now supply tech-nology-intensive Fresh Water Supply Units.



### UV Sterilizer



The UV sterilizer of Samkun Century has a superior operating system. It protects mineral components, but disinfects typical viruses, colitis germs and bacteria in water.

Emission of ultra violet rays : 253.7nm

(Most effective wavelength for removing bacteria)



### Hot Water Calorifier



Hot Water Calorifier is designed to proper in environmental conditions of the vessel, and supply hot water. Setting temperature is automatically maintained by Steam heater (or Electric heater). Supplied hot water is used for shower, cooking, and feeding.



### High Pressure Washing Pump Unit



High Pressure Washing Pump unit is washing machine for Deck and Tank by using over 160bar high pressure. It consists of HP pump, Tank and Spray Gun etc. If the self closing type connector is installed where cleaning is re uired from the vessel, It can operate in the desired area through a transportable hose reel.



### Hydrophore Tank



The purpose of Hydrohpore thank is to store fresh water and maintain its pressure.The Hydrophore tank is commonly made by Carbon steel, and the inside is coated with a harmless coating of paint. In addition the manhole of each tank keeps the inside clean. Destructive Test is done for all welding points to secure safety. ( Hydrophore tank can be made by Stainless Steel as well).





## Auto Filter (Sea water/Fresh water)



Our AutoFilter is pre-treatment filter system with automatic backwash. It consists of several Filter elements on a rotating plate with a drive shaft. Differential pressure is detected automatically and each filter element is back-washed without interruption of filtration process. Mainly it is used for pre-treatment of Seawater Cooling pipe line and BWMS in field of Marine, and also used for pre-treatment of Seawater Cooling pipe line in field of onshore plant.



## Grease Trap



"Grease" is an industrial term for animal fats and vegetable oils from waste water in the kitchen. Specific gravity of Grease is 10~15% below water, so Grease doesn't mix with water. The Grease Trap is an essential component of sewage pipes designed to separate the grease from water.



## Pressure Vessel



Based on our own design and production technology, we supply various Pressure Vessel in various fields, including Marine Shipbuilding, Offshore plant, Power Plant, and Refinery Plant.



## Sea water Supply Plant (Sea water Auto Filter)



## Personal Protection Cover





## Offshore Plant Reference list

	OWNER	PROJECT	SHIPYARD
1	BP	Atlantis Rig	DSME
2	CHEVRON	Agbami FPSO	DSME
3	SEADRILL	Drill Rig	DSME
4	ODFJELL	Semi-sub Rig	DSME
5	PETROSERV	Drill Rig	DSME
6	ODFJELL	Semi-sub Rig	DSME
7	TRANSOCEAN	Drillship	DSME
8	GRUPO R	Drill Rig	DSME
9	ODFJELL	DP Moored Rig	DSME
10	TMT	Drillship	DSME
11	ODBRECHT	Drillship	DSME
12	PETROSERV	Drill Rig	DSME
13	TOTAL	Pazflor FPSO	DSME
14	TOTAL	CLOV FPSO	DSME
15	RWEI	Wind Turbine Installation Vessel	DSME
16	STATOIL	Semi-Rig	DSME
17	EXXONMOBIL	ARKUTUN-DAGI Fixed Platform	DSME
18	TRANSOCEAN	Drillship	DSME
19	ATWOOD	Drillship	DSME
20	VANTAGE	Drillship	DSME
21	ODBRECHT	Offshore Pipe Laying Support Vessel	DSME
22	SEADRILL	Rig	DSME
23	PETRONAS	LNG FPSO	DSME
24	TRANSOCEAN	Drillship	DSME
25	PETROBRAS	P-79 FPSO	DSME
26	TRANSOCEAN	Drillship	HHI

	OWNER	PROJECT	SHIPYARD
27	GLOBAL SANTA FE	Drillship	HHI
28	DOCKWISE, NETHERLAND	Semi Sub Heavy Transport Vessel	HHI
29	DAEWOO ENGINEERING	SHWE Field	HHI
30	WOODSIDE ENERGY LTD.	NRB PLATFORM	HHI
31	NOBLE	Drillship	HHI
32	DIAMOND	Drillship	HHI
33	SEADRILL	Semi Sub Drilling Rig	HHI
34	DOLPHIN	Drillship	HHI
35	ROWAN	Drillship	HHI
36	SEA LION	Multi Purpose Offshore Construction Vessel	HHI
37	EDDA	Offshore accommodation Vessel	HHI
38	DIAMOND	Drillship	HHI
39	TOTAL	Moho Nord FPU	HHI
40	PETROBRAS	FPSO P78	HHI
41	PETROBRAS	P-78 FPSO	HHI
42	COROCORO	FPSO	SHI
43	ENFIELD	FPSO	SHI
44	TANK PACIFIC	Drillship	SHI
45	STENA	Drillship	SHI
46	MOSVOLD	Drillship	SHI
47	TANK PACIFIC	Drillship	SHI
48	NEXUS	FPSO	SHI
49	PETROBRAS	Drillship	SHI
50	STENA	Drillship	SHI
51	PRIDE	Drillship	SHI
52	STENA	Drillship	SHI







## Offshore Plant Reference list

	OWNER	PROJECT	SHIPYARD
53	TANK PACIFIC	Drillship	SHI
54	SAIPEM	Drillship	SHI
55	SCHAHIN	Drillship	SHI
56	BP	SKARV FPSO	SHI
57	VASHI	ONGC	SHI
58	QGOG	Drillship	SHI
59	SEADRILL	Drillship	SHI
60	TEEKAY	Petrojarl Knarr FPSO	SHI
61	OCEAN RIG	Drillship	SHI
62	MAERSK DRILLING	Drillship	SHI
63	SEADRILL	Drillship	SHI
64	ENSCO	Drillship	SHI
65	OCEAN RIG	Drillship	SHI
66	STATOIL	FSU	SHI
67	QGOG	Drillship	SHI
68	SEA JACKS	WTIV	SHI
69	ENSCO	Drillship	SHI
70	STATOIL MARINER	FSU	SHI
71	PDC	Drillship	SHI
72	STATOIL	Drilling Jack-up	SHI
73	SHELL	Prelude LNG FPSO	SHI
74	TOTAL	Egina FPSO	SHI
75	ENI	Coral South Mozambique LNG FPSO	SHI
76	PETRONAS	ZLNG	SHI
77	ENI	CORAL NORTE FLNG	SHI
78	TECHNIP	Pipe Layer	STX
79	IOOC	FSU	STX

	OWNER	PROJECT	SHIPYARD
80	NOBLE	Drillship	STX
81	PETROSERV	FDPSO Dynamic Producer	SINGAPORE
82	CHEVRON MODEC	FPSO	SINGAPORE
83	OCEAN APEX	Semi Sub Mersible Drillship	SINGAPORE
84	SEADRILL	Drillship	SINGAPORE
85	TRANSOCEAN	MODU Drillship	SINGAPORE
86	PETROBRAS	FPSO Cidade de São Paulo MV23	BRAZIL
87	PETROBRAS / TANKPACIFIC	FPSO	CHINA
88	PETROBRAS	FPSO Carioca MV30	CHINA
89	PETROBRAS	FPSO Guanabara MV31	CHINA
90	SHELL	Penguin FPSO	CHINA
91	ENI, MEXICO	FPSO MIAMTE MV34	CHINA
92	PETROBRAS	FPSO Almirante Barroso MV32	CHINA
93	BP	Tortue FPSO	CHINA
94	BP	Tortue QU	CHINA
95	PETROBRAS	FPSO Anita Garibaldi MV33	CHINA
96	EQUINOR	Bacalhau FPSO	CHINA
97	WOODSIDE	Sangomar FPSO	CHINA
98	SBM OFFSHORE	MPF B FPSO	CHINA
99	WOODSIDE	Scarborough FPU	CHINA
100	ENETI	WTIV NESSIE & SIREN	HANWHA
101	PETROBRAS	FPSO P79	HANWHA
102	PETROBRAS	FPSO P82	SEATRIUM
103	SBM OFFSHORE	MPF C FPSO	CMHI
104	EXXONMOBILE	UARU FPSO	DSIC
105	EQUINOR	FPSO BM-C-33	COSCO





## Water Treatment Division



### Fresh Water Supply Unit

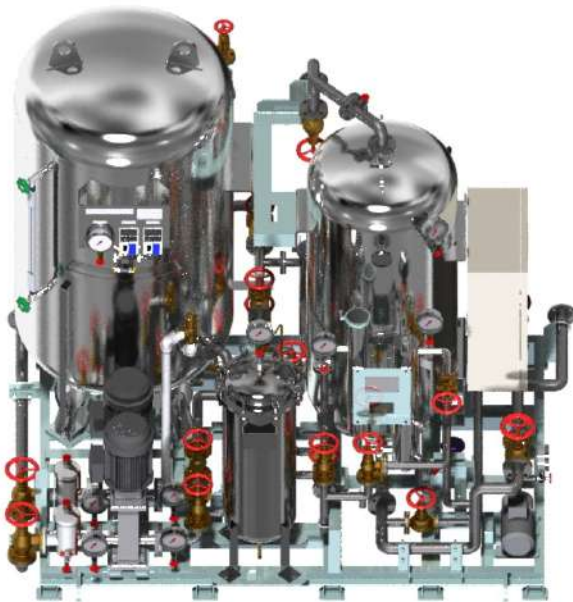
- ▶ Simple Construction
- ▶ Easy Installation
- ▶ Easy Maintenance
- ▶ Easy Operation

The fresh water supply unit supplies fresh, warm and cold drinking water to the crew and consists of a technical system of a water tank, sterilizer, re-hardening filter(mineralizer), calorifier and pumps.

- ▶ Capacity : 1,000 ~ 10,000 L/hr



### 3D Modeling View







## Hydrophore Tank



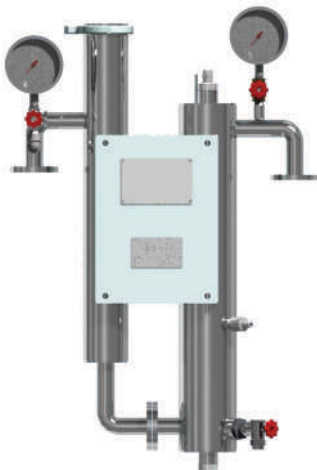
The Hydrophore tank is a pressurized vessel that is used for drinking or the technical water supply. The hydrophore tank is a welded steel interior which is specially coated with epoxy (PE coating or Rubber coating), a manhole is provided on the tank for inspection or the cleaning of the interior. All products test the welding point by penetration inspection.

The Hydrophore unit is available in sizes from 100L to 5000L.

- ▶ Capacity : 1,000 ~ 5,000 L/hr



## UV Sterilizer



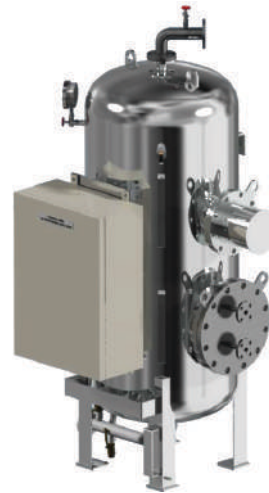
The UV sterilizer of Samkun Century has a superior operating system. It protects mineral components, but disinfects typical viruses, colitis germs and bacteria in water.

Emission of ultra violet rays : 253.7nm  
(Most effective wavelength for removing bacteria)

- ▶ Capacity : 1,000 ~ 30,000 L/hr



## Hot Water Calorifier



In the galley, everytime hot water is needed, our Hot Water calorifier is the perfect solution. It is used for showers, cooking, feeding etc. Calorifiers supplied for ships are specially designed to be durable from corrosion and vibration, with a long life span and easy maintenance.

- ▶ Capacity : 50 ~ 66,000 L/hr
- ▶ Temperature : 30~ 97 °C



## Mineralizer (Re-Hardening Filter)



The water which is generated by a freshwater generator in a vessel, can not be used as drinking water directly, because of its pH value, hardness and insufficient mineral components.

Therefore using a mineralizer, increases hardness, pH-value and mineral components.

- ▶ Capacity : 1,000 ~ 30,000 L/hr



## Fresh Water Generator (RO Type)

Reverse Osmosis is most commonly known for its use in drinking water purification from seawater, removing salt and other substances.

Reverse Osmosis is the process of forcing a solvent through a membrane from a region of high solute concentration to a region of low solute concentration by applying a pressure in excess of the osmotic pressure.

- ▶ Capacity : 5 ~ 20 Ton/day & Maximum 200 Ton/day
- ▶ Product Water Quality : Less than 10 or 500 ppm TDS



### Compact Size Modular



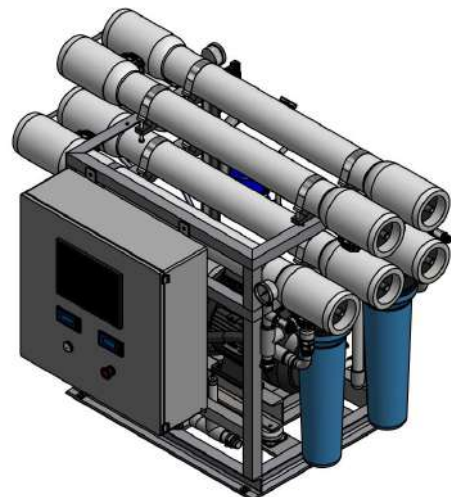
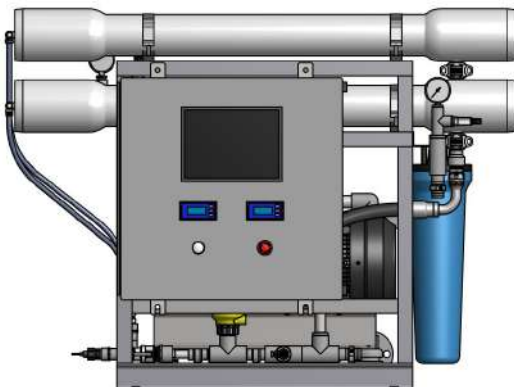
#### ▶ **Standard Features**

- Paint coated carbon steel frame
- 2.5", 4", 8" Spiral wound RO membranes
- SUS316 Centrifugal pump
- FRP membrane housings
- 5 Micron cartridge prefilter
- 440V/3Ph/60Hz Power requirement
- Local control panel
- Low/high pressure switch
- Liquid filled pressure gauges
- Permeate conductivity monitor
- Permeate & Feed or concentrate flow meters
- Pipe material : UPVC, SUS316

#### ▶ **Available Options**

- Membrane cleaning system
- 220V or 380-415V/3ph/50 or 60Hz
- Feed pH & ORP monitor with sensor
- Water and hour meters
- Multi media pre-filtration systems

### ▶ 3D Modeling View





## ■ Fresh Water Generator (RO Type)

### Installation View



- ▶ Project : KG D6 RUBY FPSO
- ▶ Model : SK12-SRB72
- ▶ Client : Samsung Heavy Industries

### Installation View



- ▶ Project : DWT 6,800 Product / Chemical Tanker
- ▶ Model : SK12-SRB10
- ▶ Client : Dae Sun Shipbuilding & Engineering



## Silver Ion Sterilizer



The bactericidal effect of silver has been useful knowledge since ancient times. Silver foils were used for treating wounds and silver vessels made it possible to store water. We supply a silver ion sterilizer which removes microorganisms by a catalytic method.

► Capacity : 1,000 ~ 30,000 L/hr



## Auto Chlorinator (Sterilizer)



The function of the Auto Chlorinator is to provide chlorine to water in order to sterilize water which contains a variety of bacteria, bacillus, etc. HOCL & OH Radicals are formed when chlorine dissolves in water. And they have a strong oxidizing power to destroy microorganisms during disinfection. This method can disinfect water with ease and over long periods of time.

► Capacity : 1,000 ~ 200,000 L/Hr



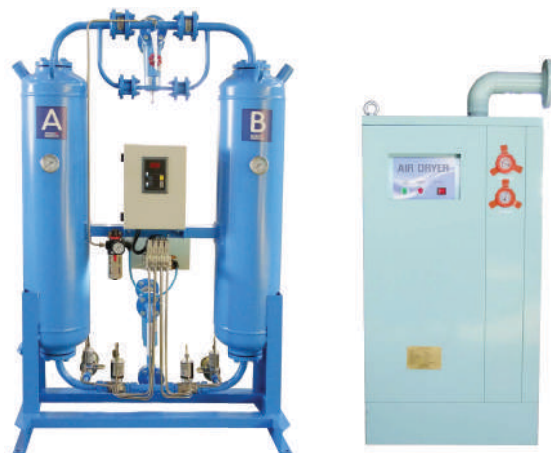
## Ozone Generator (Sterilizer)



Ozone has been used for disinfection of drinking water in the municipal water industry for over 100 years. Ozone can be used for water and air treatment. When ozone disinfects or breaks down harmful bacteria or pollutants, there are generally no by-products. In a short period of time, all odors are simply removed.



## Air Dryer

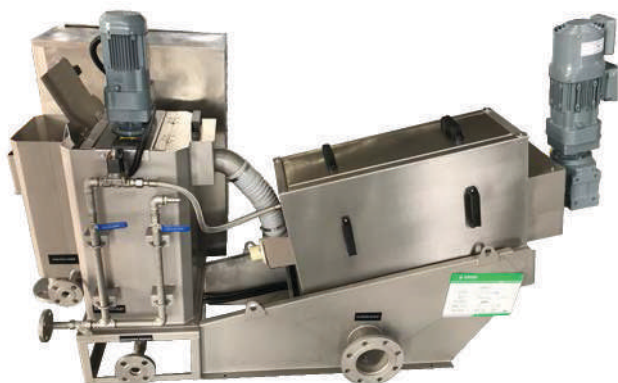


Heatless Type Air Dryer

Refrigerated Air Dryer

Excessive water, and atmospheric contaminants in compressed air can cause a variety of operational problems for users of compressed air. These include freezing of outdoor airlines, corrosion in piping and equipment, malfunctioning of pneumatic process control instruments, fouling of processes and products and more. To prevent these problems, an air dryer is used for removing water vapor from compressed air.





## Dehydrator

The multy plates is pressurized with screw, which is very compact compared to existing dehydrator, and power consumption is low, so operating cost can be saved. The automatic washing function enables continuous operation 24 hours a day without blockage and can be applied to various wastewater treatment.

- ▶ Water, Food
- ▶ Medicine
- ▶ Dyeing, Detergents
- ▶ Chemicals, Pharmaceutical industry



## Wastewater Treatment Unit for Scrubber



It is Wastewater Treatment unit for Scrubber in Close mode or Hybrid mode for ships, and it purifies the waste water and resupply or discharge it out of ship (to meet the outboard discharge criteria). Our system is Membrane type which is very compact and easy to operate.



## MGPS with strainer (Filter)



The Marine Growth Prevention System (MGPS) is designed to prevent marine life such as barnacle and shellfish by applying current to both copper and aluminum electrode rods. MGPS of SANKUN CENTURY Co., Ltd. is integrated with STRAINER and is made COMPACT for the best effect in minimal space.



## De-Ionizer(Demineralization Unit)



De-Ionizer is a device that removes all minerals that can be found in normal water. Usually, De-Ionizer is used when water is used in chemical processes or when minerals in the water can interfere with other chemicals. The device can be used extensively

in many industries and is useful in handling boiler FEED WATER on ships.

Similar devices : ION EXCHANGER and MIXED BED POLISHER (MBP)

- ▶ Capacity : 1,000 ~ 50,000 L/hr



## Drinking Water Fountain



The Drinking water fountain is composed of a compressor, condenser, evaporator, silver ion filter, etc. The drinking water provided from the drinking water fountain is directly connected to the fresh water line. Also, the drinking water fountain is able to provide healthy and fine tasting water due to a Silver Carbon Filter which consistently sterilizes its contents. Silver carbon is added to improve the continuity of sterilization.

- ▶ Floor stand type    ▶ Cold water fountain
- ▶ Wall mount type    ▶ Hot & Cold water fountain



## Hot Water Boiler

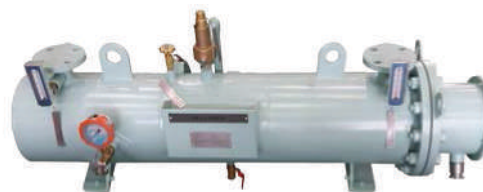


The Hot Water boiler is a small electronic appliance used for boiling water and maintaining it at a constant temperature in the galley.

- ▶ Capacity : 10 L
- ▶ Wall mount type



## Heater



### LO PRE-HEATER

It makes proper viscosity of lubricating oil for the purifier and ME/GE by heating lubricating oil at a constant temperature.

### FO PRE-HEATER

Pre-heating lowers the viscosity of heavy fuel so that it can be properly atomized by the burner.

### M/E JACKET PRE-HEATER

It keeps cooling water at a constant temperature, when the engine is stopped due to repairs. This is the way to prevent problems which can occur by lowered temperature.



## Fan Heater



The Fan heater works by using a fan to pass air over a heat element.

The Portable type is for ease in moving with a stainless steel heating element and all devices provide a dual protection against overheating. It has a built-in thermostat and regular power, and a powered whole metal casing cover to resist rust.

- ▶ Heating element : Stainless Steel
- ▶ Adjustable thermostat control Overheat protection
- ▶ With Fan & Cooling
- ▶ Free standing & Portable type



## Grease Trap



The Grease Trap separates the grease and solids from waste water in the galley.

It is typically small enough to be installed beneath or adjacent to a sewer line.

- ▶ Capacity : 20 GPM



## Emergency Eye Wash & Shower

The Emergency eye wash & shower is essential equipment when using chemicals and hazardous substances.

Its purpose is to reduce workplace injury and keep workers away from various dangers.

- ▶ Durable-Excellent raw materials / Anti corrosion
- ▶ Reliable-High quality
- ▶ Easy Installation

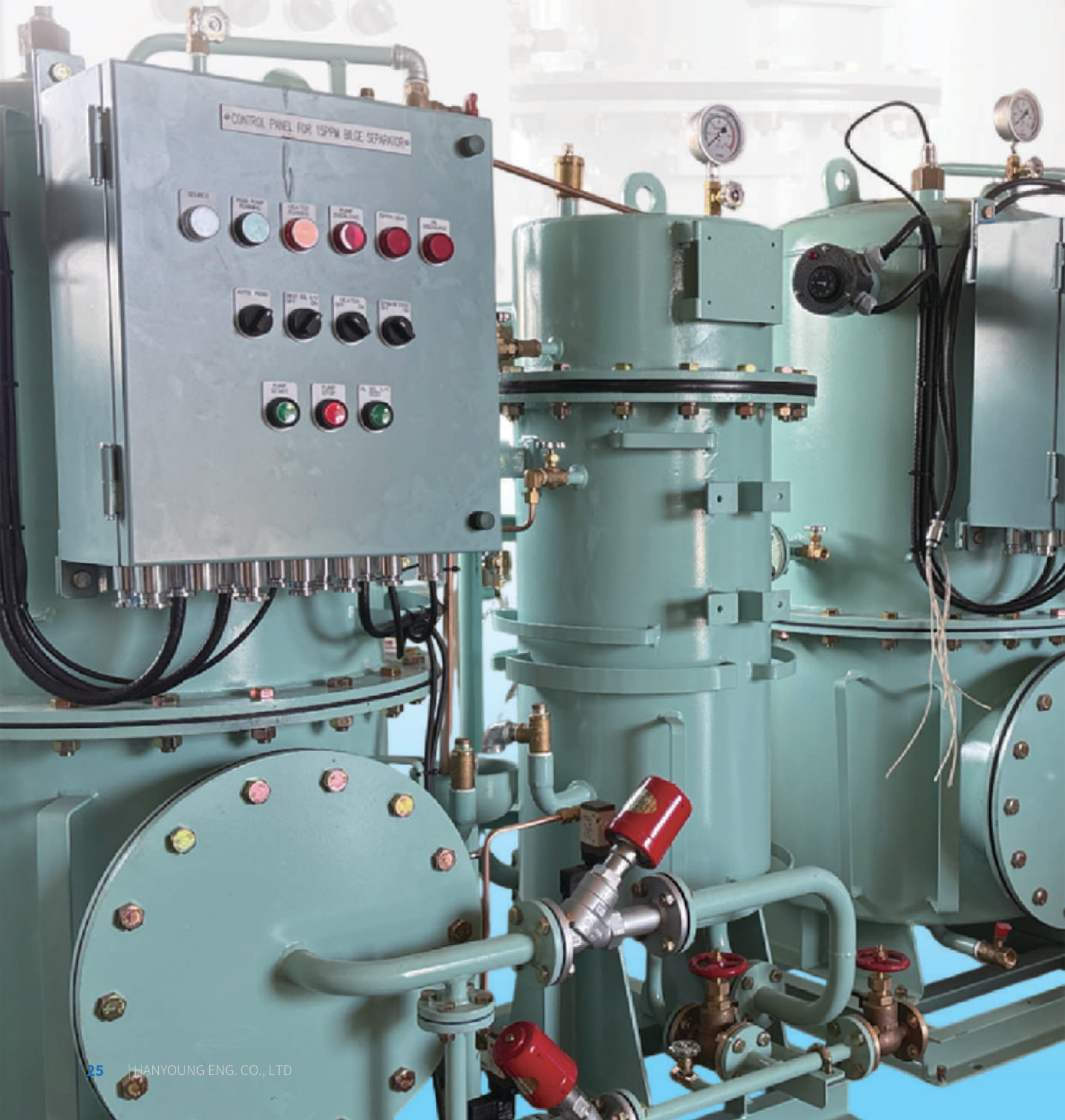


- ▶ Emergency shower booth type





## BILGE SEPARATOR





## BILGE SEPARATOR(OILY WATER SEPARATOR)

Engineered for maximum efficiency within a compact footprint, our bilge separator is a robust solution for marine pollution prevention. Its compact and efficient design minimizes installation complexity and operational costs. By meeting strict IMO standards, it offers the perfect balance of regulatory compliance, environmental responsibility, and outstanding economic value.

### Product Introduction

The primary function of the bilge separator(Oily water separator) is to separate oil components (hydrocarbons) contained in bilge water on ships and discharge clean effluent overboard in compliance with IMO Resolution MEPC.107(49).

The bilge separator features a three-stage treatment process. In the first stage, a CPR module removes oil components by gravity separation. In the second stage, a coalescer filter eliminates fine oil particles. Finally, a membrane filter in the third stage adsorbs emulsified oil components (hydrocarbons).

Designed to deliver outstanding performance even in the most demanding marine environments, our bilge separator minimizes the need for spare part replacement and reduces maintenance requirements for special marine projects that must consider logistics and risk zone requirements.



### Product Line-up & Specifications

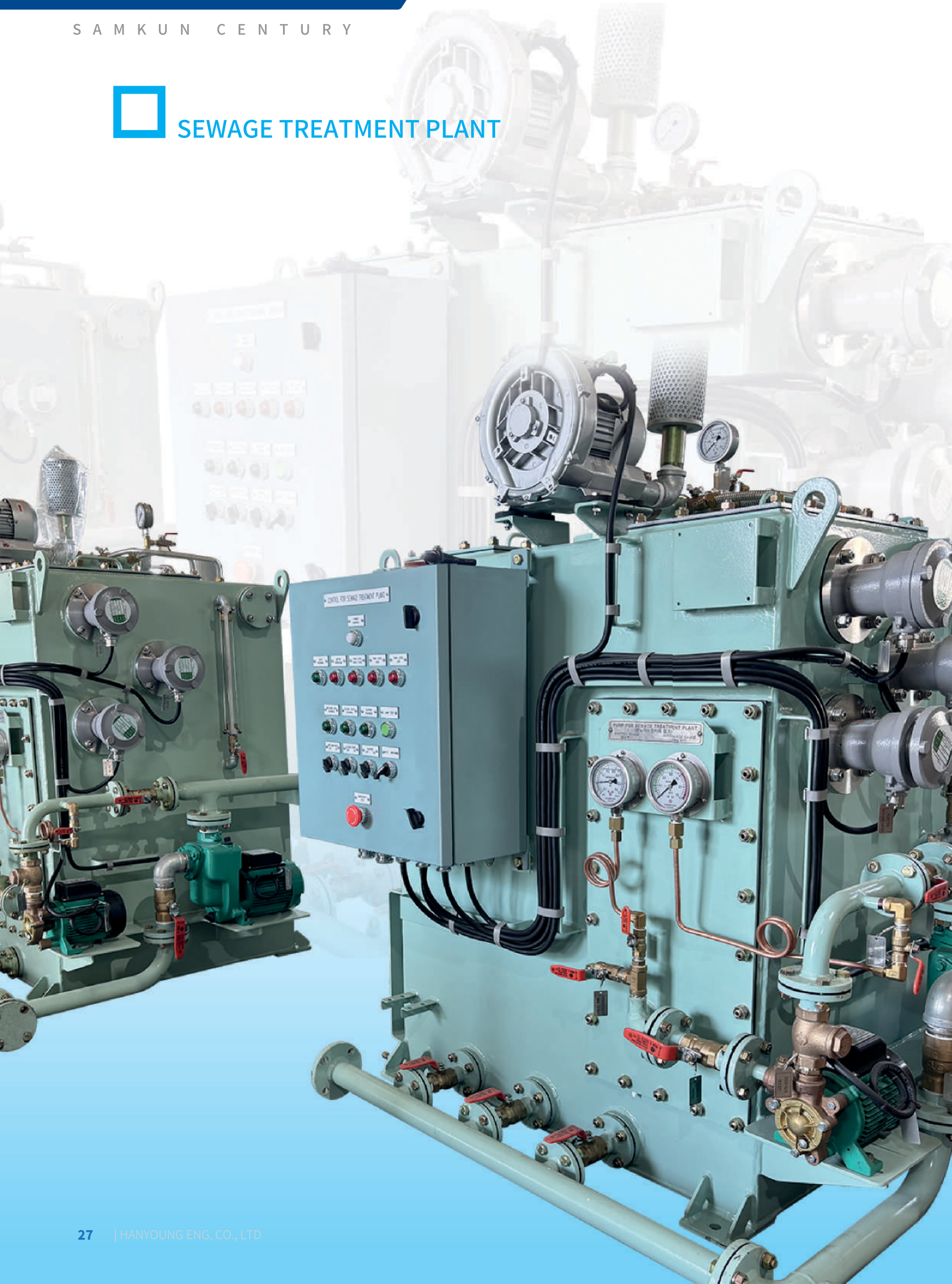
MODEL	CAPACITY (m <sup>3</sup> /h)	DIMENSION (mm)			WEIGHT (kg)		CONNECTION	
		L	D	H	DRY	WET	IN	OUT
HYN00201	0.2	650	700	1000	100	168	5K 15A	5K 15A
HYN00301	0.3	740	730	1130	120	190	5K 20A	5K 20A
HYN00501	0.5	850	800	1130	140	280	5K 25A	5K 25A
HYN01001	1.0	1200	880	1500	520	890	5K 25A	5K 25A
HYN02001	2.0	1250	1030	2050	780	1600	5K 40A	5K 40A
HYN03001	3.0	1300	1050	2100	940	1800	5K 40A	5K 40A
HYN05001	5.0	1580	1300	2100	1300	2800	5K 50A	5K 40A
HYN10001	10.0	2160	1660	2200	1500	3500	5K 50A	5K 50A







## SEWAGE TREATMENT PLANT





## SEWAGE TREATMENT PLANT

Our sewage treatment plant efficiently processes sewage while safeguarding the marine environment. Fully compliant with IMO regulations, it offers an optimal solution for producing clean effluent and supporting a sustainable marine ecosystem.

### Product Introduction

Our sewage treatment plant is an advanced system capable of processing all incoming sewage flows in accordance with established standards.

Our Sewage Treatment Plant offers a high-performance biological treatment solution for both black and gray water, utilizing advanced Membrane Bioreactor (MBR) technology. This proven process combines biological degradation with precision membrane filtration, effectively removing contaminants down to the bacterial level.

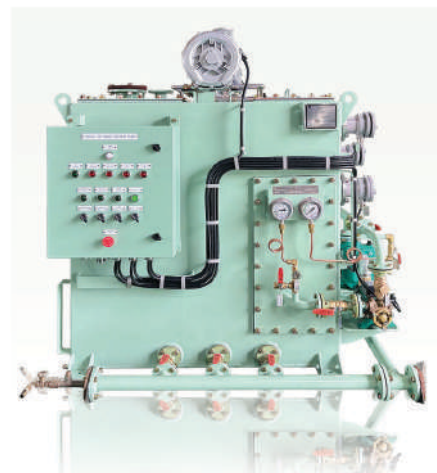
The system produces exceptionally clear effluent, ensuring full compliance with the stringent nutrient removal requirements of IMO Resolution MEPC.227(64). This allows for safe discharge even in environmentally sensitive marine areas, while also making the treated water suitable for reuse in certain applications.

Featuring a compact and modular design, our STP is ideally suited for both retrofitting existing vessels and installation on new ships, serving as a direct and superior replacement for conventional units.

### Product Line-up & Specifications

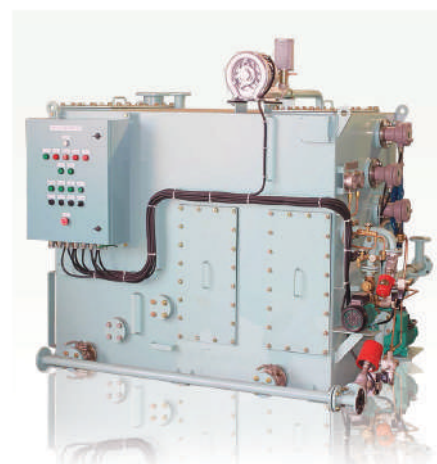
#### ► HYSTPN Series

MODEL	CAPACITY (L/day)	DIMENSION (mm)			WEIGHT (kg)		CONNECTION	
		L	D	H	DRY	WET	IN	OUT
HYSTPN-016	1,050	1,150	1,100	1,400	340	969	5K 100A	5K 40A
HYSTPN-025	1,740	1,300	1,200	1,550	450	1,360	5K 100A	5K 40A
HYSTPN-040	2,800	1,600	1,250	1,600	550	1,965	5K 100A	5K 40A
HYSTPN-060	4,200	1,800	1,350	1,700	650	2,750	5K 100A	5K 40A



#### ► HYSTP22 Series

MODEL	CAPACITY (L/day)	DIMENSION (mm)			WEIGHT (kg)		CONNECTION	
		L	D	H	DRY	WET	IN	OUT
HYSTP22-016	1,280	1,200	1,160	1,500	540	1,236	5K 100A	5K 40A
HYSTP22-025	1,750	1,480	1,200	1,550	650	1,550	5K 100A	5K 40A
HYSTP22-040	2,800	1,730	1,300	1,650	750	2,165	5K 100A	5K 40A
HYSTP22-060	4,200	1,980	1,400	1,750	900	3,000	5K 100A	5K 40A
HYSTP22-080	5,600	2,180	1,445	1,845	1,100	3,400	5K 100A	5K 40A





## Hydrophore system of VFD (Variable Frequency Drive)



A specific type of hydrophore system is needed for the efficiency of maintenance and saving energy. Most conventional hydrophore tanks is too heavy and occupies too much space. A VFD system is used to control process flow without the use of a separate controller. Suitable sensors and electronics are used to interface the driven equipment with the VFD.



## Water Softener



Water softening is the removal of calcium, magnesium, and certain other metal cations in hard water. Soft water extends the lifetime of plumbing(pipes) by reducing or eliminating scale build-up in pipes and fittings, and extends efficiency of heat exchanger. Water softening is usually achieved using lime softening or ion-exchange resins.



## Ozone Generator



An ozone generator is placed inside a foodstuff storage(Vegetable etc) in ships, Ozone is especially efficient in prolonging the life of food materials.



## Emergency Shut-Off Valve System (Quick Closing Valve System)



A device that allows you to quickly and remotely close the fuel line and the valves in the tank in case of an emergency, such as a fire.



## Onshore Plant Division

### Water Treatment System for Onshore Plant

#### Installation View



- ▶ Main Product : CPP System
- ▶ Project : S-Oil Residue Upgrading Complex Project
- ▶ Client : S-Oil





### Installation View

- ▶ Main Product : Water Maker  
(1,000m<sup>3</sup>/day\*6train, BWRO)  
PE Coating pipe etc.
- ▶ Project : Karbala Refinery Project
- ▶ Client : KOLON e Engineering



### Installation View

- ▶ Main Product : Demineralized Water Package
- ▶ Project : NSRP Complex Project
- ▶ Client : KOLON e Engineering





## Water Treatment System for Onshore Plant

### Installation View



- ▶ Main Product : Side Steam Filter & Portable Water System
- ▶ Project : S-Oil Residue Upgrading Complex Project
- ▶ Client : S-Oil





### Installation View



- ▶ Main Product : Demi Water Treatment System
- ▶ Project : S-Oil Residue Upgrading Complex Project
- ▶ Client : S-Oil

## Waste Water Treatment System for Onshore Plant

### Installation View



- ▶ Main Product : Biological Treatment  
(3,000 m<sup>3</sup>/day\*2train)
- ▶ Project : Karbala Refinery Project
- ▶ Client : KOLON e Engineering







## Unit Module (SKID)

F.O. Supply Unit (for M/E)



F.O. Supply Unit (for G/E)



Fresh Water Supply Plant



Front Pipe Skid



F.O. Supply Unit (for M/E)



F.O. Supply Unit (for G/E)



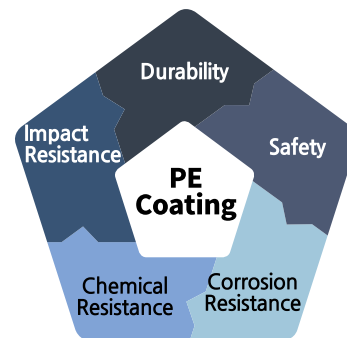
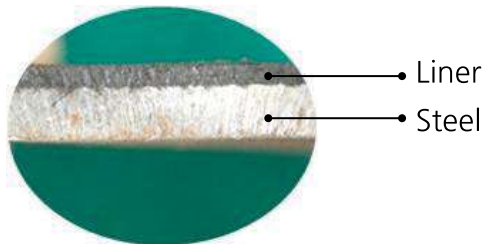


## Coating Division

The Coating division supplies outstanding products which have both excellent mechanical properties from steel pipes and rust prevention properties from plastic. The Coating is resistant to seawater and organic solvents, and also doesn't contain dioxins and VOCs (Volatile organic compounds).

We maximize technical efficiency to expand usage of PE/PA coating from sea to land based on our core PE, PA Coating Technology.

### PE Coating (Polyethylene)



PE Coating has been applied to Ships, Offshore plants, Power Plants, Water-Supply pipes and Steel tube plants. Main products especially have coated steel pipes for Vessels, Offshore plants and covered-steel pipes.

#### ■ Applications

- ▶ Sea water line for Ship
- ▶ Offshore Plant
- ▶ Power Plant
- ▶ Cable Tray
- ▶ Water Pipe for Industrial
- ▶ Water Supply & Sewage Pipe
- ▶ Chemical Plant





## ■ PE Coating Applications

### Installation View



▶ Seawater desalination facility piping and LNG terminal piping

### Installation View



▶ Water treatment equipment piping (Factory)

### Installation View



▶ Methane gas storage



## Rubber Coating

Samkun Century has a steel fabrication shop, Shot shop, Painting shop, and coating shop, and perform from various designs to construction based on accumulated technological Know-how and experience.

This material has a large number of excellent characteristics. Our Rubber is flexible and resilient, strong, and easy to manufacture. Our rubber coated products have many advantages such as excellent anti-chemical properties, anti-corrosion properties and outstanding adhesion.



## Metalizing Coating



A Metalizing coating is an excellent way to protect iron and steel from corrosion. It is done at a reasonable cost, like painting, but with a long life span. Based on accumulated technological know-how and experience, we offer wind power parts to clients famous for wind power generation; businesses like Gamesa, Vestas Hyosung and Dongyang e&c.

### CS PIPE

Shipbuilding & Offshore project



### SUS PIPE

Shipbuilding & Offshore project



### METALIZING PROCESS

Use : Wind power Size : 2MW



## PA Coating (Polyamide)

The best merits of PA Coating are its high physical intensity and low gas permeability. Therefore, PA coating is suitable for high-quality products and is also capable of working on complicated compositions. At the same time, it is harmless to humans.



## Teflon Coating

Teflon has unlimited application range from the general manufacturing industry, to high-tech semiconductors, to even the aerospace industry.



## Worldwide Network



### EUROPE

#### Greece

Sea Power Hellas  
Tel : 30-2108920928

#### Netherlands

Hyundai Engine Service  
Tel : 31-10-447-3457

#### Norway

GMC Maritime AS  
Tel : 47-518-48000

#### Russia

Everest Pacific  
Tel: 7-423-2499-439

#### Türkiye

Gurdesan Ship  
Machinery Corp  
Tel: 90-262-724-85-46

### AMERICA

#### USA (East)

All Marine Spares International  
Tel : 1-203-487-0422

#### USA (West)

Sammar Supply Co,  
Tel : 1-909-628-9400

#### Brazil

Metalock  
Tel : 55-13-3226-4686

### AFRICA

#### Nigeria

Platinum Samandy Ventures  
Tel : 234-807-407-2031

### ASIA

#### Singapore

Dintec Singapore  
Tel : 65-6896-4434

Paterson Integrated  
Engineering  
Tel : 65-6760-0928

Enfac Singapore  
Tel : 65-7825-2879

#### Taiwan

Richtop Enterprise  
Tel : 86-7-5312365

#### Japan

Ushio Reinetsu Co., Ltd.  
Tel : 81-898-34-1230

#### Vietnam

VINA TD  
Tel : 84-225-3880918  
EDC Investment Co., Ltd.  
Tel : 84-977727722

### ASIA

#### China

Xiamen Taizhou  
Tel : 86-182-0592-5529

#### Oceantec

Tel : 86-186-42203118

#### DSIE

Tel : 86-411-39986892

#### Chief-Marine Limited

Tel : 86-186-1633-2941

### MIDDLE EAST

#### Arab Emirates

Tenosys Fzco  
Tel : 971-4-324-7502

#### Oman

Petrohouse  
Tel : 968-248-15738



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