

# HANYOUNG

ENGINEERING CO., LTD



# HANYOUNG ENG

## CEO's Message

With over 40 years of expertise since 1982,HANYOUNG ENG. is a leading developer and manufacturer of marine equipment. Leveraging our accumulated technology and expertise, we are committed to delivering innovative and reliable solutions.

As a specialist in marine pollution prevention, our core products include 15PPM Bilge Separators (Oily Water Separators) and Sewage Treatment Plants (STP).

Our technology is engineered for environmental protection and sustainable development, playing a critical role in preventing marine pollution, preserving our oceans, and safeguarding marine ecosystems.

We continuously challenge the industry's technological frontiers, striving to set the global standard for eco-friendly marine solutions. Our commitment to top-tier quality and advanced technology enables us to deliver tailored solutions that exceed customer expectations while contributing to a cleaner marine environment.

HANYOUNG ENG. Co., Ltd.  
(Han Young Engineering Co., Ltd.)

## History

1982 > 2000 > 2009 > 2022 > 2024 > 2025 >

**1982. 07**  
Established HANYOUNG ENG. Co., Ltd. in Yeouido-dong, Yeongdeungpo-gu, Seoul

**1983. 08**  
Technical alliance with Kobe Separator & Taiho Industry Technic

**1987. 03**  
Hogeun Yoo appointed as CEO

**1989. 01**  
Relocated business site to Hang-dong, Jung-gu, Incheon

**1994. 09**  
Acquired government type approval for Oily Water Separator [IMO Res. MEPC 60[33]]

**1999. 11**  
Acquired CE MARK certification for E.C Quality Satisfaction [EU]

**1999. 12**  
Acquired ISO 9001 Quality Management System Certification

**2000. 06**  
Obtained CE Certification from the Small and Medium Business Administration

**2004. 05**  
Designated as a CLEAN workplace by Korea Occupational Safety and Health Agency (KOSHA)

**2006.**  
• Obtained DNV EC/CE MARK certification (15PPM Bilge Separator)  
• Acquired government type approval for Oily Water Separator [IMO Res. MEPC 107[49]]

**2006. 09**  
Obtained RS Type Approval (15PPM Bilge Separator)

**2006. 11**  
Obtained ABS Design Assessment Certificate (15PPM Bilge Separator)

**2007. 08**  
Developed Sewage Treatment Plant (STP)

**2009.**  
• Relocated business site to Hallim-myeon, Gimhae-si, Gyeongsangnam-do  
• Acquired government type approval for Sewage Treatment Plant (STP) [IMO Res. MEPC 159[55]]  
• Obtained GL Type Approval (15PPM Bilge Separator)

**2014. 06**  
Established R&D Department

**2016. 04**  
Acquired type approval for Sewage Treatment Plant (STP) [IMO Res. MEPC 227[64]]

**2022. 01**  
Acquired type approval for the new Sewage Treatment Plant (STP) [IMO Res. MEPC 227[64]]

**2024. 08**  
Relocated business site to Jinrye-myeon, Gimhae-si, Gyeongsangnam-do

**2025. 05**  
Seungwoo Kang appointed as CEO

**2025. 09**  
Relocated the business site to Hallim-myeon, Gimhae-si, Gyeongsangnam-do



## 15PPM BILGE SEPARATOR(OILY WATER SEPARATOR)

Engineered for maximum efficiency within a compact footprint, our 15ppm 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 15ppm 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 15ppm 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 15PPM 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, HANYOUNG ENG. Co., Ltd. brings extensive experience and proven engineering expertise. HANYOUNG ENG. Co., Ltd is committed to delivering optimal solutions that comply with both current and future maritime regulations.



### Product Line-up & Specifications

| MODEL    | CAPACITY<br>(m³/hr) | DIMENSION<br>(mm) |      |      | WEIGHT<br>(kg) |      | CONNECTION |       |
|----------|---------------------|-------------------|------|------|----------------|------|------------|-------|
|          |                     | L                 | D    | H    | DRY            | WET  | IN         | OUT   |
| HYN00201 | 0.2                 | 650               | 700  | 1000 | 100            | 168  | 5K15A      | 5K15A |
| HYN00301 | 0.3                 | 740               | 730  | 1130 | 120            | 190  | 5K20A      | 5K20A |
| HYN00501 | 0.5                 | 850               | 800  | 1130 | 140            | 280  | 5K25A      | 5K25A |
| HYN01001 | 1.0                 | 1200              | 880  | 1500 | 520            | 890  | 5K25A      | 5K25A |
| HYN02001 | 2.0                 | 1250              | 1030 | 2050 | 780            | 1600 | 5K40A      | 5K40A |
| HYN03001 | 3.0                 | 1300              | 1050 | 2100 | 940            | 1800 | 5K40A      | 5K40A |
| HYN05001 | 5.0                 | 1580              | 1300 | 2100 | 1300           | 2800 | 5K50A      | 5K40A |
| HYN10001 | 10.0                | 2160              | 1660 | 2200 | 1500           | 3500 | 5K50A      | 5K50A |



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.

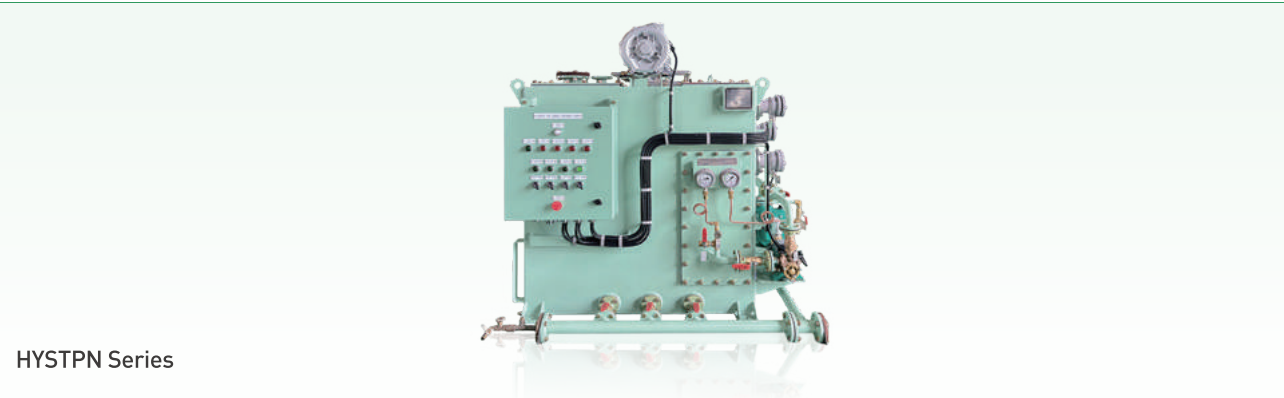
Featuring a compact and modular design, our STP is ideally suited for both retrofitting existing vessels and installation on new ships, serving as a direct and superior replacement for conventional units.

| Effluent Constituent | IMO Res. MEPC 227(64)                                 | Han Young Tested |
|----------------------|-------------------------------------------------------|------------------|
| BOD5                 | 25mg/L * Qi/Qe or less                                | 0.6mg/L          |
| COD                  | 125mg/L * Qi/Qe or less                               | 4.0mg/L          |
| TSS                  | 35mg/L * Qi/Qe or less                                | non-detection    |
| T-N                  | 20mg/L * Qi/Qe or less or 70% or more reduction rate  | 6.3mg/L          |
| T-P                  | 1.0mg/L * Qi/Qe or less or 70% or more reduction rate | 0.2mg/L          |
| Fecal Coliforms      | 100/100mL or less                                     | non-detection    |
| Turbidity            | -                                                     | 0.1NTU           |



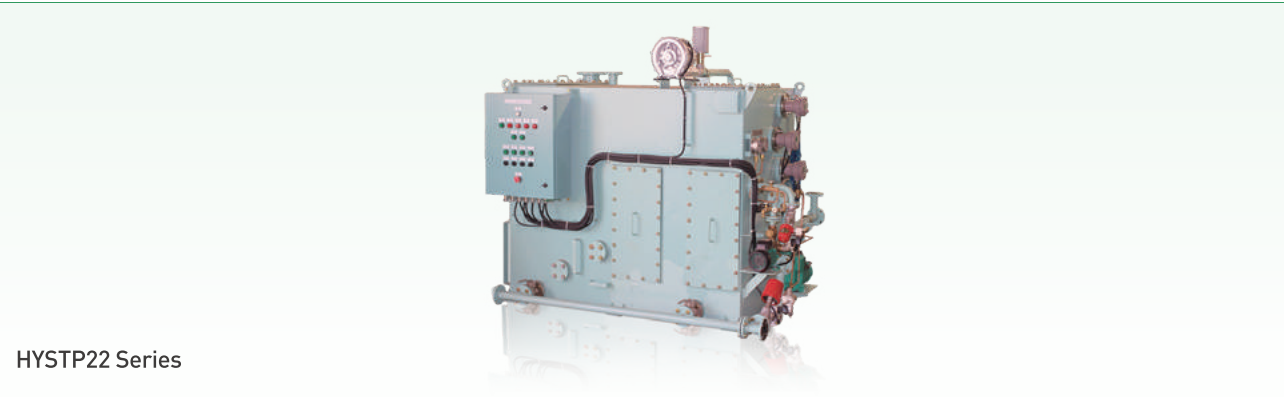
SEWAGE TREATMENT PLANT

Product Line-up & Specifications



HYSTPN Series

| MODEL      | CAPACITY<br>(L/day) | DIMENSION<br>(mm) |       |       | WEIGHT<br>(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<br>(L/day) | DIMENSION<br>(mm) |       |       | WEIGHT<br>(kg) |       | CONNECTION |        |
|-------------|---------------------|-------------------|-------|-------|----------------|-------|------------|--------|
|             |                     | L                 | D     | H     | DRY            | WET   | IN         | OUT    |
| HYSTP22-016 | 1,120               | 1,280             | 1,160 | 1500  | 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 |

VACUUM TOILET SYSTEM

The Vacuum Toilet System is a marine sanitation system designed to efficiently handle wastewater on board ships. Operating under vacuum pressure, it minimizes water usage while providing reliable performance, contributing to both operational efficiency and marine environmental protection.

Product Line-up & Specifications

| Description        | Specifcations                        |
|--------------------|--------------------------------------|
| Outside Dimensions | W385 x L545 x H465                   |
| Seat & Cover       | Silent Polypropylene & Polypropylene |
| Discharge Outlet   | DN40                                 |
| Water Pressure     | 200 ~ 1000kPa                        |
| Operating Vacuum   | -20 ~ -60 kPa                        |
| Water Consumption  | 1.5 L/flush (Adjustable)             |
| Air Consumption    | 60 L/flush                           |
| Weight             | 23kg                                 |



Vacuum Toiltr

| Description       | Specifcations      |
|-------------------|--------------------|
| Vacuum Capacity   | 15 m³/h ~25 m³/h   |
| Flushing Capacity | 150 flush/h        |
| Dimensions        | W214 x L554 x H332 |
| Pump Casing       | Bronze             |
| Knives            | STS316             |
| Shaft             | RCr13              |
| Weight            | 58 kg              |



Vacuum Pump System

| Description     | Specifcations |
|-----------------|---------------|
| Vacuum Pump     | 2 sets        |
| Pressure Switch | 1 set         |
| Pressure Gauge  | 1 set         |
| 3-way Valve     | 2 set         |
| Rubber Hose     | 4 set         |
| Clamp           | 8 set         |
| Vibration Pad   | 8 set         |



Scop of Supply (Per one ship set)

# 03

## 15PPM BILGE ALARM

HANYOUNG  
HANYOUNG ENG. CO., LTD.

Product Overview 11

### 15PPM BILGE ALARM

Our 15ppm bilge alarm is an optimal solution for preventing marine pollution, featuring immediate warning and automatic shut-off functions that activate when the oil content exceeds 15 ppm. It ensures both operational efficiency and vessel safety, providing a reliable safeguard against environmental violations.

#### Product Introduction

The 15ppm bilge alarm (Bilge water oil content alarm) is a device designed to monitor and control the operation of the oily water separator that treats bilge water generated on ships.

The water discharged from the 15ppm bilge separator (Oily water separator) is regulated to comply with IMO Resolution MEPC.107(49). This device operates automatically to ensure the oil content of the treated water remains below 15 ppm. If the oil content exceeds 15 ppm, an alarm is triggered and displayed on the front panel within 5 seconds.

Additionally, the device features a fully automatic control system that simultaneously activates an automatic shut-off mechanism upon alarm activation, stopping the discharge and recirculating the oily water back to the bilge tank.

With its immediate alert and automatic shut-off functions, the 15PPM Bilge Alarm offers an optimal solution for fundamentally preventing marine pollution while ensuring both operational efficiency and onboard safety.

#### Product Specifications

|                                  |                                                                                  |
|----------------------------------|----------------------------------------------------------------------------------|
| Range (measurement & indication) | 0-30ppm, Trend up to 50ppm                                                       |
| Range (IMO specification)        | 0-15ppm(in accordance with IMO regulation)<br>0-5ppm(optional setting available) |
| Accuracy                         | ±2ppm(IMO MEPC.107(49))                                                          |
| Electrical power supply          | 24V AC or DC, +/-10%                                                             |
| Electrical power consumption     | > 5 VA                                                                           |
| sample                           | Oil water from separator outlet,<br>0.1-4 l/min                                  |
| sample temperature range         | +1°C to +65°C                                                                    |
| Alarm output                     | 0-20mA or 4-20mA, for 0-30ppm<br>(recordable on Load CTRL)                       |
| Display                          | Graphic Display                                                                  |
| Ambient temperature              | +1°C to +55°C                                                                    |
| Class of protection              | IP 65                                                                            |
| Dimension Computer Unit          | 185 x 210 x 65mm(WxHxD)                                                          |
| Dimension Measuring Cell         | 140 x 160 x 65mm(WxHxD)                                                          |
| Weight                           | 2.5kg                                                                            |



# 04

## BILGE PUMP

### BILGE PUMP

Our bilge pump reliably discharges separated oily water to minimize marine pollution, delivering optimal performance and durability even under the most demanding conditions.

#### Product Introduction

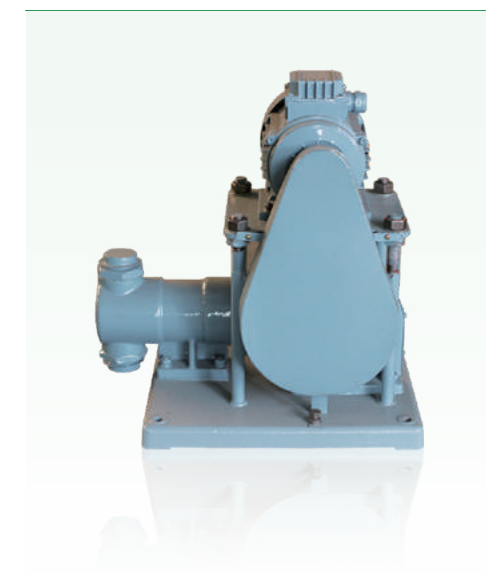
HANYOUNG ENG. offers AC motor-driven bilge pumps in both piston and plunger types for marine applications.

The working media of this pump include seawater, fresh water, oily sludge, and sludge. It is suitable for discharging various types of liquids that do not contain hard particles or fibrous materials, with a liquid temperature below 85°C and viscosity under 830 cSt.

Our bilge pumps have passed testing and inspection by designated Classification Societies and ensure long-term stable operation through advanced engineering and robust durability. Backed by strict quality control, they offer a reliable marine pumping solution designed to perform in diverse maritime environments enhancing vessel efficiency and safety while allowing for easy maintenance and management.

#### Product Line-up & Specifications

| MODEL  | CAPACITY<br>(m³/hr) | MOTOR<br>(kW) | PUMP<br>(RPM) | CONNECTION | WEIGHT<br>(kg) |
|--------|---------------------|---------------|---------------|------------|----------------|
| HYP-02 | 0.2                 | 0.18          | 55.0          | 5K 20A     | 30             |
| HYP-03 | 0.3                 | 0.18          | 75.0          | 5K 20A     | 30             |
| HYP-05 | 0.5                 | 0.25          | 50.0          | 5K 25A     | 35             |
| HYP-10 | 1.0                 | 0.37          | 50.0          | 5K 40A     | 40             |
| HYP-20 | 2.0                 | 0.75          | 70.0          | 5K 50A     | 50             |
| HYP-30 | 3.0                 | 1.1           | 70.0          | 5K 65A     | 110            |



GREASE TRAP

Product Introduction

Grease Trap is a device designed to separate and remove animal fats and vegetable oils from kitchen wastewater.

By utilizing the fact that grease is 10–15% lighter than water and naturally floats to the surface, it effectively prevents oil and grease from entering the sewage system. Installed beneath or near drainage pipes, the grease trap is designed with sufficient capacity to handle large volumes of grease generated in kitchens. This helps prevent pipe blockages, unpleasant odors, and environmental pollution. Regular maintenance ensures stable and long-lasting performance.

In addition to improving kitchen hygiene, the grease trap plays a vital role in protecting the environment. In some regions, its installation is legally required, highlighting its importance as essential equipment.

With extensive experience and technical expertise, we offer high-efficiency grease traps that prevent internal pipe contamination and clogging, contribute to a clean and hygienic workspace, and support environmental sustainability

Product Specifications

| MODEL | CAPACITY | DIMENSION (mm) |     |     | WEIGHT (kg) |
|-------|----------|----------------|-----|-----|-------------|
|       |          | L              | D   | H   | DRY         |
| GT-20 | 200GPM   | 905            | 425 | 490 | 60          |



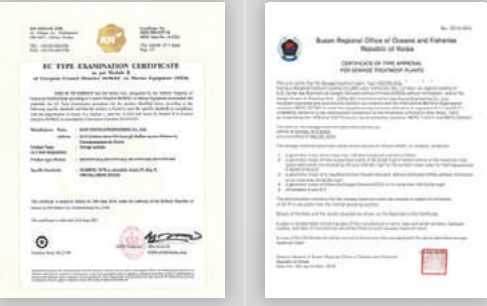
CERTIFICATES

15PPM Bilge Separator



Ministry of Oceans and Fisheries(Korean Government) Type Approval      Certificate of EC Type Examination(Module B)      QS Certificate of Assessment - EC(Module D)      ABS Certificate of Design Assessment      RS Type Approval

Sewage Treatment Plant



Certificate of EC Type Examination(Module B)      Ministry of Oceans and (Korean Government) Type Approval

Certificate of Patent



Sewage Treatment Plant for Ships      Dual Filter for Ship Water Treatment      Long-Distance Transport Sewage Treatment Plant      Control Method for Sewage Treatment Plant for Ships



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Homepage

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