



Since 1996

**KOREA FILTER** CO., LTD.

# Company Profile

**Auto Filter & Strainer  
All Kind of Filter**



**Shipbuilding / Offshore**

**Power Plant**



**Address : 35, Yongdangsandan 4-gil, Yangsan-si, Gyeongsangnam-do, Republic of Korea**

**Tel: +82-55-367-0360, Fax: +82-55-367-0361**

**Home Page : [www.korea-filter.co.kr](http://www.korea-filter.co.kr)**

**E-Mail : [webmaster@korea-filter.co.kr](mailto:webmaster@korea-filter.co.kr)**



# About Company

## General information

### ■ ADDRESS :

35, Yongdangsandan 4-gil, Yangsan-si, Gyeongsangnam-do, Republic Korea.

### ■ TOTAL AREA : 6,599.1m<sup>2</sup>



### ■ BUILDING AREA : 3,847.58m<sup>2</sup>





## Historical Achievements

- ◆ 1996.08 : Establishment of Korea Filter.
- ◆ 2004.12. : Transfer of factory completion. (925-49 Junam-dong, Yangsan, Gyeongsang Province, Republic of Korea)
- ◆ 2007.03. : Part and material reliability certification. (Hydraulic Filter RS B 0046)
- ◆ 2007.06. : Korea International Trade Association Membership Registration. (Membership number: 24116673)
- ◆ 2009.05. : Transfer of factory completion. (65, Sandan 7-ro, Jeonggwan-eup, Gijang-gun, Busan Republic of Korea)
- ◆ 2011.12. : Corporate conversion Korea Filter corporation.
- ◆ 2012.06. : Approval by department dedicated to research and development. (Korea Industrial Technology Association)
- ◆ 2012.07. : Obtain maintenance qualified certificate. (Korea East-West Power Corporation)
- ◆ 2013.07. : Add part of the ship for business perpose.
- ◆ 2015.07. : ISO 9001, 14001, OSHAS 18001 Certified.
- ◆ 2015.12. : A capital increase of 7 million won
- ◆ 2018.06. : Transfer of general industrial complex  
35, Yongdangsandan 4-gil, Yangsan-si, Gyeongsangnam-do, Korea
- ◆ 2018.07 : Transfer of general industrial complex  
(#50524 35 Yongdangsandan 4-gil, Yangsan-si, Gyeongsangnam-do
- ◆ 2019.06 : ISO 45001 Certified



Since 1996

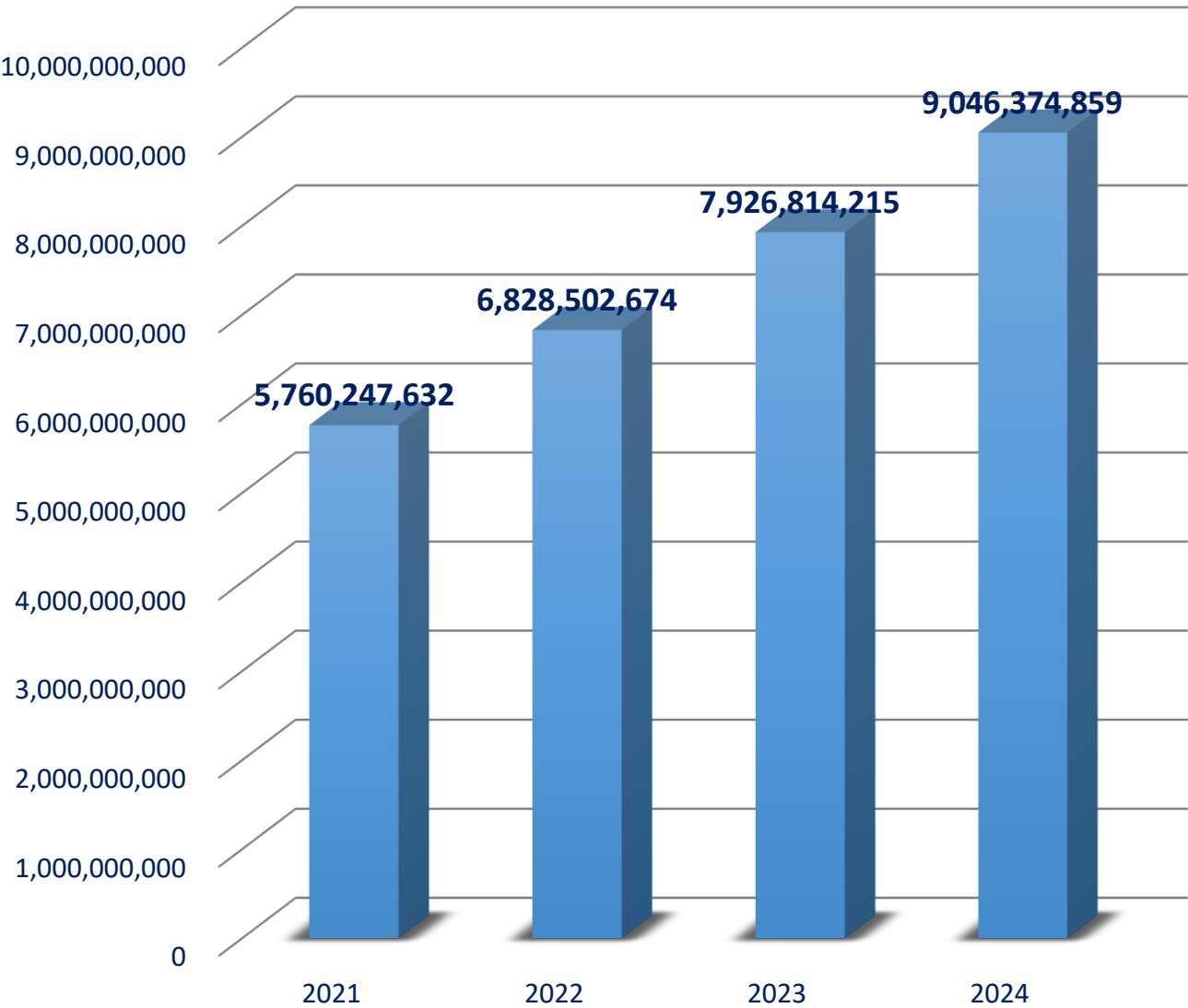
KOREA FILTER CO., LTD.

# About Company

## Financial position

- Paid-In Capital : KRW 700,000,000
- Annual Average Turnover for The Latest 4 Years : KRW 7,390,484.845

### TURNOVER







Since 1996

KOREA FILTER CO., LTD.

# About Company

## Quality assurance & Control certification



### ISO QUALITY SYSTEM CERTIFICATE (ISO 9001 : 2015)

### ISO ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE (ISO 14001 : 2015)



### OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEM CERTIFICATE (ISO 45001 : 2018)



# About Company

## Manufacturing equipment list 1

EQUIPMENT NAME	CAPACITY	QUANTITY
OVER HEAD CRANE	10 TON	1
OVER HEAD CRANE	5 TON	2
OVER HEAD CRANE	3 TON	3
CO2 WELD MACHINE	650A	1
CO2 WELD MACHINE	600A	4
CO2 WELD MACHINE	500A	2
TIG & MMA WELD MACHINE	300A	6
MILLING MACHINE	NO 2.5	1
LATHE MACHINE	-	2
FORK LIFT CAR	3 TON	1
RADIAL DRILL MACHINE	960L (DRD 960)	1



# About Company

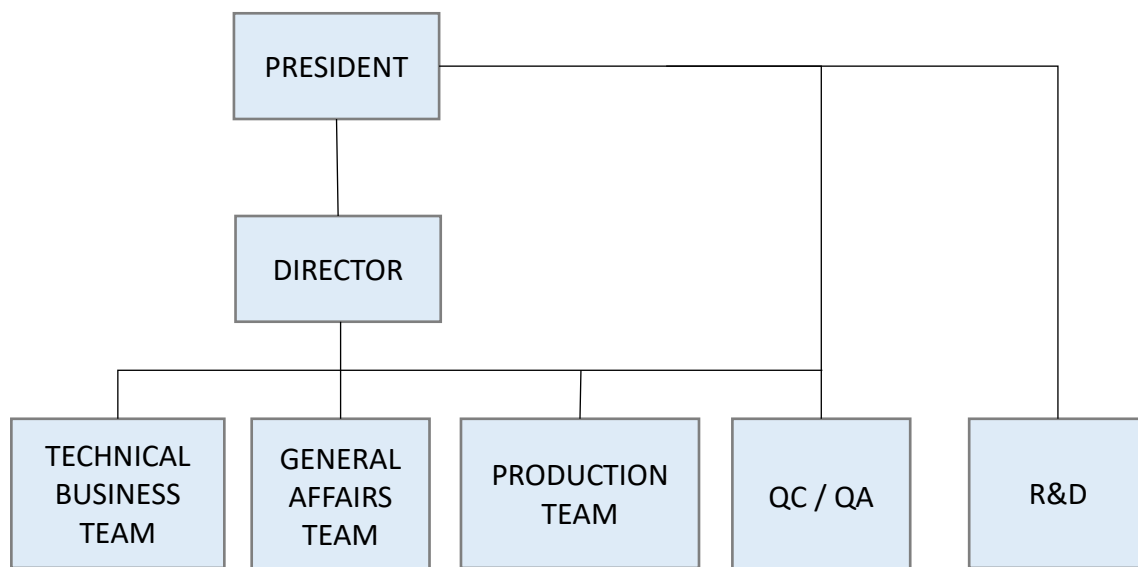
## Manufacturing equipment list 2

EQUIPMENT NAME	CAPACITY	QUANTITY
BENDING ROLLER	-	1
TURNING ROLLER	1200A	1
TURNING ROLLER	500A	1
TURNING ROLLER	400A	1
PRESS MACHINE	1.5TON	1
PRESS MACHINE	3TON	1
COMPRESSOR	50HP	1
COMPRESSOR	75HP	1
BAND SAW	500A (WOO SUNG HA-500)	1
PLASMA CUTTING MACHINE	120A (FLASH-1200)	1



# About Company

## Organization



■ **NO. OF EMPLOYEES : 36 person**

■ **PRESIDENT : 1 person**

● **DIRECTOR : 1 person**

● **R&D : 3 person**

● **QC / QA : 2 person**

● **TECHNICAL BUSINESS TEAM : 4 person**

● **GENERAL AFFAIRS TEAM : 5 person**

● **PRODUCTION TEAM : 20 person**





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## Business Area



### SHIPBUILDING / OFFSHORE

- **BWTS AUTO - FILTER Development and production.**
- **LNG CARRIER – CARGO STRAINER, CRYOGENIC TYPE & Y STRAINER, DUPLEX FILTER**
- **TANKER, CONTAINER, PC, BULK CARRIER BASKET, WATER, OIL STRAINER, DUPLEX FILTER, MUD BOX, CARBON FILTER, GAS FILTER METHANOL, AMMONIA FILTER**
- **CUSTOMER**  
: HD ,HHI , HSHI, SHI, HANWHA OCEAN ,  
A SHIPYARD AT HOME AND ABROAD



### POWER PLANT

- **SUCTION STRAINER FOR PUMP PROTECTION**
- **CUSTOMER**  
: HGS, HHITMC, KOREA EAST-WEAT DEVELOPMENT,  
A SHIPYARD AT HOME AND ABROAD SITE



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**KOREA FILTER** CO., LTD.

## Product description

### Main Product



#### **Strainer & Filter**

Manual &amp; Auto



#### **Filter**

Cartridge &amp; ETC.



#### **Cryogenic Strainer**

LNG Cargo Strainer &amp; Pipe Piece &amp; Y Strainer



## Product description

### Main Product



**Carbon Filter**



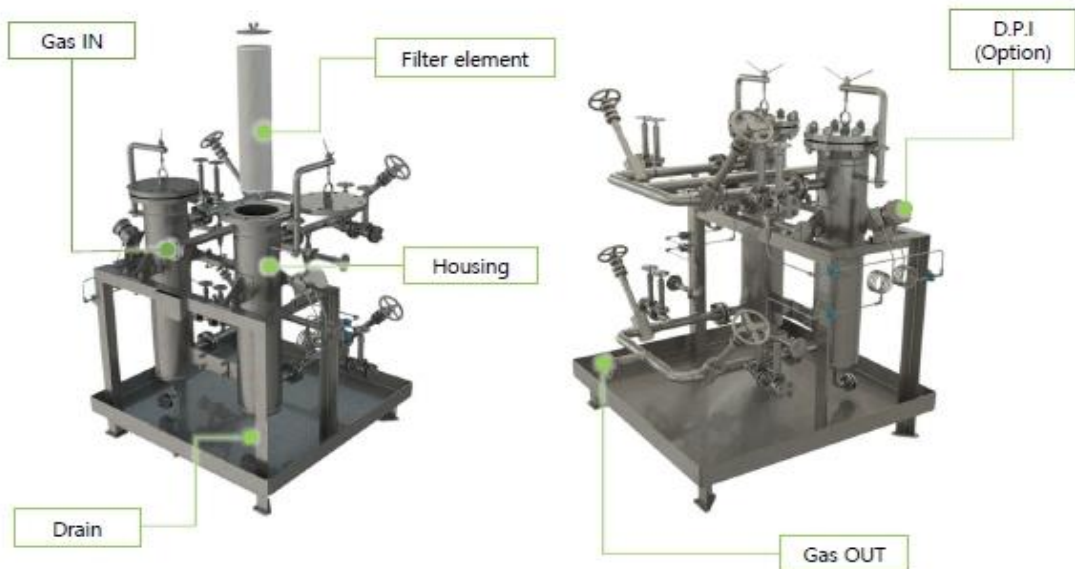
**Gas Filter**



## Main Product

### Duplex Type Cryogenic Filter

- Feature Duplex filter for separating solids from gases
- Flange ASME, DIN, JIS
- Filter element Stainless steel disposable cartridges
- Grade of filtration 5 $\mu$ m - 200 $\mu$ m
- Operation temperature -160°C or Order specification
- Operation pressure 10bar or Order specification
- Filter housing Stainless steel 316L
- Option Insulation, Differential Pressure Gauge



### Other Products for Natural Gas



High pressure filter  
(~400bar)





## Main Product

# AUTO STRAINER

for Ballast water

### CHARACTERISTIC

- ▶ When BWMS operates at high turbidity and pollution water condition, the solution of decreasing filtering should be cleaning element consistently contain and also durability excellence
- ▶ When the ship are maximum load line by cargo loading, It possible for back-washing to overboard by high pressure and quick speed water of pump smoothly (For example other makers, if the position of load line is lower than sea level, back-washing water not be discharged overboard and the effect will be lowered by back pressure)
- ▶ Increases the effectiveness of system and contributes to smooth operation
- ▶ Cleaning  
Back washing done by pump more effective back washing because of high pressure  
(3 Patents: incl. No.10-1054236)
- ▶ The function of pump  
Provide high pressure for effective back washing drain water out of vessels after filtering
- ▶ Durability  
Excellent restoration function by effective back washing
- ▶ Turbid and polluted sea area  
Good performance





## Main Product

# AUTO STRAINER

for Sea chest water

### CHARACTERISTIC

- ▶ Auto cleaning system enables the vessels into using ballast water even if the seawater has much foreign substance
- ▶ When installing our system, the vessels can reduce the size of strainer and foreign substance less flows into the vessels
- ▶ Our system minimizes the effect of foreign substance and then does not affect cooling efficiency, which leads to cost saving of maintenance







## Auto-Filter For Sea Chest Development Background

1. Demand of large shipping companies and parent companies in accordance with the demand for quality supply
2. Economic conformance automatically restores filter efficiency
3. World-class filter absence

## Auto-Filter For Sea Chest Summary

- 5mm(8mm) removal of solids
- Large capacity Auto-Strainer
- `Excelerate Energy 13,500ton Holding sales performance
- HANWHA OCEAN 8,500ton & 14,000ton Holding sales performance
- FSRU For cooling water and ship water supply Strainer





## Main Product

# MANUAL STRAINER

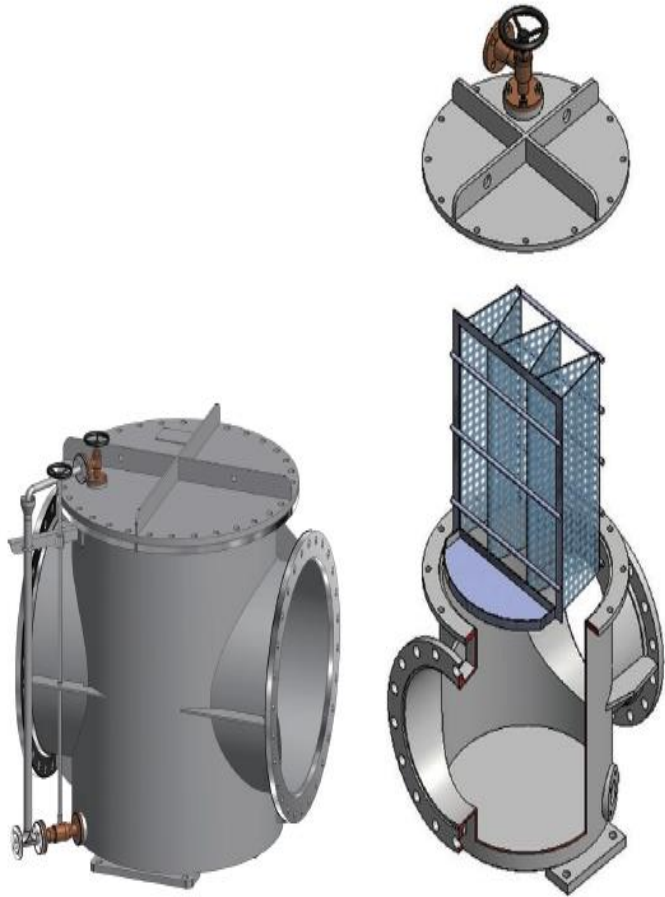
for Sea chest water

### APPLICATION

- ▶ Hull in the main sea chest strainer (Common)
- ▶ Filter area of broad the proposed space, where necessary

### CHARACTERISTIC

- ▶ Bending bar type to apply the large element area for filter area in limited space, 2 times and above filter area can be obtained generally
- ex) If the bending 10 for strainer element with same diameter size 30mm, more filter area can be obtained than general element





## Main Product

### Carbon Filter



Carbon Filter for SHIP & PLANT

Design Code : ASME SEC VIII DIV.1

Feature : CO<sub>2</sub> & SO<sub>3</sub>, & Amine remove

Flange : ASME, JIS, DIN

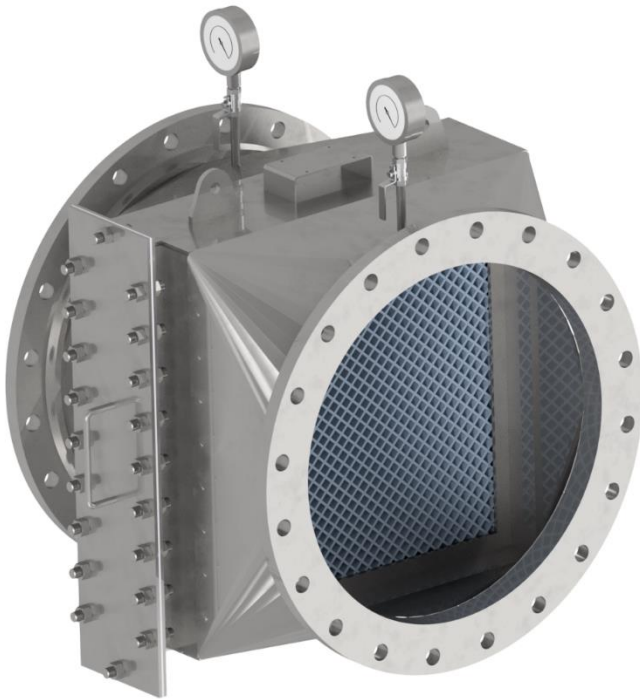
Filter Housing : Stainless Steel 304,  
304L, 316, 316L

Filter Media : Activated Carbon



## Main Product

### Gas Filter



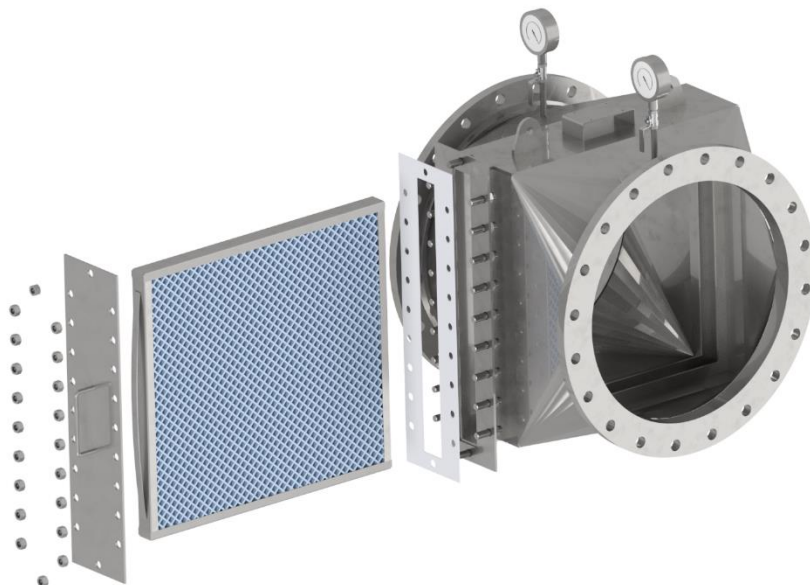
Carbon Filter for SHIP

Feature : Ship Inlet Gas

Flange : ASME, JIS, DIN

Filter Housing : Stainless Steel  
316, 316L

Filter Element : Stainless Steel  
316, 316L





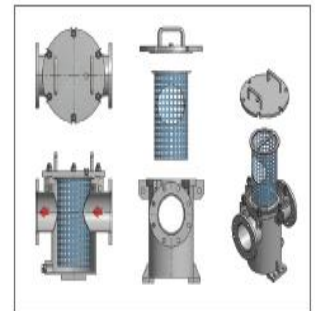
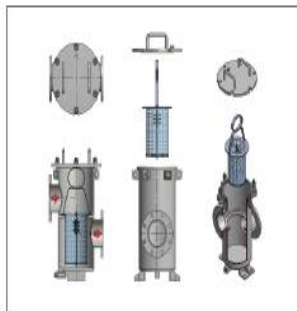
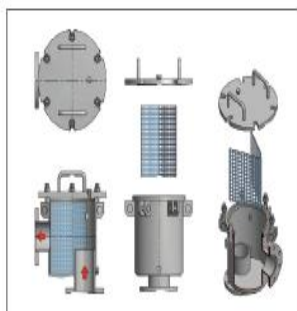
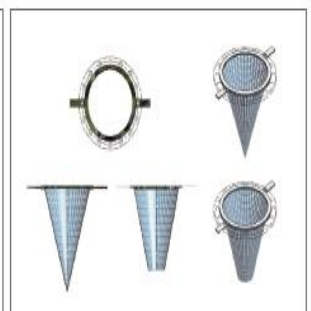
## Main Product

## MANUAL STRAINER

for Other parts of Ship

## SUMMARY

- ▶ Normally it is based on JIS Standard
- ▶ The designation depends on the shape and application fluid

SIMPLEX WATER STRAINER  
(STEEL PLATE)SIMPLEX WATER STRAINER  
(CASTING)SIMPLEX OIL STRAINER  
(STEEL PLATE)SIMPLEX OIL STRAINER  
(CASTING)Y STRAINER  
(STEEL PLATE)Y STRAINER  
(CASTING)MUD BOX  
(STEEL PLATE)MUD BOX  
(CASTING)

TEMPORARY STRAINER



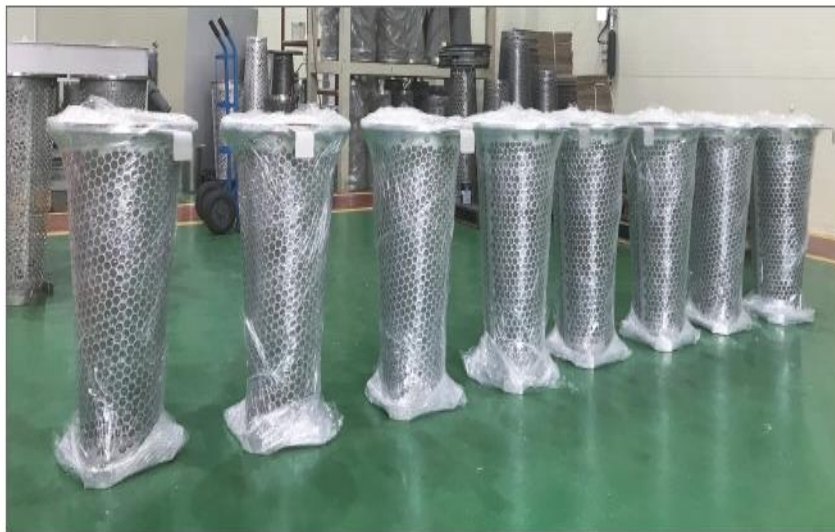


## Main Product

# LNG CARGO STRAINER

### CHARACTERISTIC

- ▶ The applied bending type mesh can secure a high filtration area and drastically reduce the installation area
- ▶ Double-structured perforated plates increase the strength of strainer
- ▶ Separable mesh is applied, allowing easy replacement on board even if the mesh is damaged







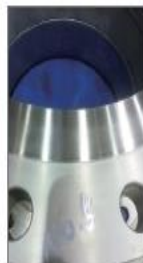
## Main Product

# SHORT DISTANCE PIECE

for LNG Cargo line

### SUMMARY

- ▶ Ship side pipe spool directly connected to QCDC (Quick Connect and Disconnect Couplers) for LNG Loading and Unloading
- ▶ The roughness of the flange surface bonded to QCDC is very important (Less than 1.6Ra)





## Main Product

# CARTRIDGE FILTER

## APPLICATION

- ▶ Chemical industry : Reagent, Refining, Electrolyte filtering, Solvent filtration process & filtration products
- ▶ Cosmetic industry : Refinery of products, Cooking oil
- ▶ Brewed industry : Refinery of used water, Refinery of potable water
- ▶ Ceramic material industry : Solvent filtration, Dispersion liquid filter of oxidation of metal
- ▶ Pharmaceutical industry
- ▶ Metal industry : Filtration of a plating solution
- ▶ Machine industry : Filtration of machine oil
- ▶ Picture industry : Filtration of Photographic sensitive material developer, Filtration of washing water
- ▶ Semiconductor industry : Solvent, Acid, alkali
- ▶ Electro painting industry : Automobile painting
- ▶ Building : Filtration of portable water and boiler water





## Main Product

# DEMISTER

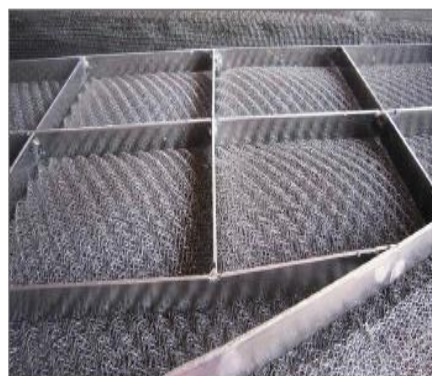
## SUMMARY

Wire Dia. For metallic is 0.122~ 0.254mm and plastic yarn is 0.3mm, We also knit combined mesh with metallic, PP, PE, Nylon, Glass fiber, Cotton, Teflon.

Style and material are selected based upon our engineering result, previous experience or sample furnished by the purchaser correct selection of the style and material are important for good performance and long life of the Demister pads.

## CHARACTERISTIC

- ▶ DE-80 : Low cost mesh pad good for high through put capacity and solid retention.  
Used for good separation efficiency with viscous or dirty liquids and permits higher vapor velocities.  
Used in 6" thickness minimum.
- ▶ DE-144 : For general purpose and all around use and has 98~99% removal efficiency against 5~8 micron mist at 1~4 m/sec velocity. Used in 4~6 inches thickness or thicker for better efficiency.
- ▶ DE-193 : Practical and standard style and most popularly used for heavy duty and high efficiency.  
Removes 98~99% at 1~3.5m/sec velocity. Thickness recommended is as same as DE-144 style.
- ▶ DE-220 : Used for removing fine particles as much as 1~3 micron mist or wet dust.  
Especially good for where the entertainment is 1.0 g/m3 or less. Used in 8~10 inches thick or thicker for better efficiency.
- ▶ DE-432 : Used for removing the fine particles mist as under 0.8~1 micron in greatness.  
Brings higher performance efficiency than DE-220 style. Recommended thickness is as same as the DE-220 style.







## Product description

### 1) Auto Back Washing Strainer (Actual Output)



- Fluid : Condensate Water
- Flow Rate : 444 m<sup>3</sup>/hr
- Particle : 500 μm



- Fluid : Seawater
- Flow Rate : 1,300 m<sup>3</sup>/hr
- Particle : 50 μm



- Fluid : HP Boiler Feed Water
- Flow Rate : 342 m<sup>3</sup>/hr
- Particle : 500 μm



## Product description

### 2) Manual Strainer (Actual Output)



- Fluid : Seawater
- Flow Rate : 13,500 m<sup>3</sup>/hr
- Particle : 5mm



- Project : MOL QRUGUAY LNG FSRU/2419
- Fluid : Seawater
- Flow Rate : 10,000 m<sup>3</sup>/hr
- Particle : 4mm



- Project : TEEKAY LNG CARRIER / 2407S
- Fluid : Seawater
- Flow Rate : 8,200 m<sup>3</sup>/hr
- Particle : 5mm



## Product description

### 3) Inlet Strainer (Actual Output)



- Fluid : Sour Gas
- Flow Rate : 33,378 m<sup>3</sup>/hr
- Particle : 850 μm



- Fluid : Sour Gas
- Flow Rate : 32,238 m<sup>3</sup>/hr
- Particle : 500 μm



- Fluid : Seawater
- Flow Rate : 9,000 m<sup>3</sup>/hr
- Particle : 3mm





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## Product description

### 3) Inlet Strainer (Actual Output)



- Fluid : Sour Gas
- Particle : 500 $\mu$ m



- Fluid : Cooling Water
- Flow Rate : 4,600 m<sup>3</sup>/hr
- Particle : 500 $\mu$ m



- Fluid : Sour Gas
- Flow Rate : 1,843 m<sup>3</sup>/hr
- Particle : 500 $\mu$ m



## Product description

### 4) Suction strainer (For Pump Protection / Actual Output)



- Project : Brazil CSP Steel Plant
- Fluid : Boiler Feed Water
- Flow Rate : 480 m<sup>3</sup>/hr
- Particle : 500 μm



- Project : Dang jin Biomass
- Fluid : Condensate Water
- Flow Rate : 440 m<sup>3</sup>/hr
- Particle : 500 μm



- Project : CIPREL IV VOLET
- Fluid : Boiler Feed Water
- Flow Rate : 254 m<sup>3</sup>/hr
- Particle : 500 μm





## Product description

### 4) Suction strainer (For Pump Protection / Actual Output)



- Project : SM200 Phase
- Fluid : Boiler Feed Water
- Flow Rate : 480 m<sup>3</sup>/hr
- Particle : 500 μm



- Project : Cochrane Thermoelectric Plant
- Fluid : Demineralized Water
- Flow Rate : 1,372 m<sup>3</sup>/hr
- Particle : 500 μm



- Project : CIPREL IV VOLET
- Fluid : Boiler Feed Water
- Flow Rate : 254 m<sup>3</sup>/hr
- Particle : 500 μm



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## Major Customer

**SAMSUNG HEAVY INDUSTRIES**SAMSUNG HEAVY INDUSTRIES  
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[www.hhi.co.kr](http://www.hhi.co.kr)Wärtsilä  
[www.wartsila.com](http://www.wartsila.com)EXCELERATE ENERGY L.P.  
[www.excelerateenergy.com](http://www.excelerateenergy.com)

Golar LNG

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