HEAD OFFICE

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SUNG IL CO., LTD.

Creating New Value,

SUNG IL CO., LTD.(SIM)

· SHOP FABRICATED PIPING
· INDUCTION BENDING

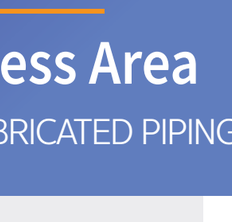
With extensive technical know-how and decades of experience,
SUNG IL CO.,LTD.(SIM) provides the best service to customer's needs.

Business Area

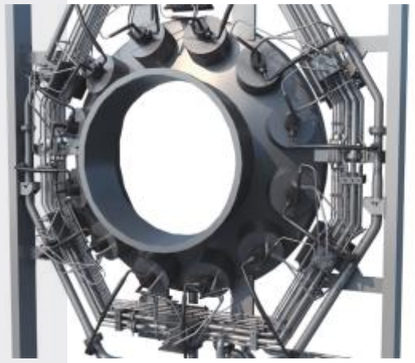
SHOP FABRICATED PIPING

SUNG IL CO.,LTD.(SIM) was found-ed in 1978 and has grown to be a leading supplier of Shop Fabricated Pipng and Induction Bending for various plant industries.

Our technology is widely applied in the vast areas of the plant industry and has established a strong foothold through customer satisfaction.



COMBINED CYCLE POWER PLANT

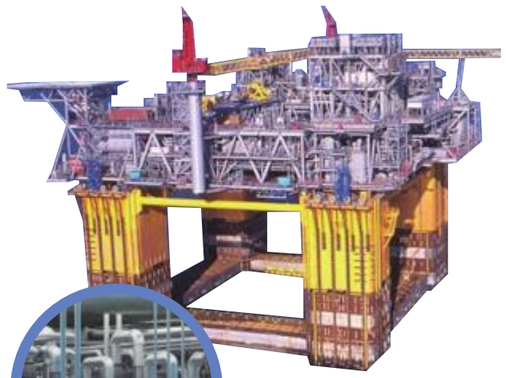


THERMAL POWER PLANT

NUCLEAR POWER PLANT

CHEMICAL, OIL AND GAS PLANT

ON/OFF SHORE PLANT



Business Area

INDUCTION BENDING

Induction Bending, a core part of shop fabricated piping process, operates in-house and provides a pipe bending service up to 1.3DR bending radius.

- 80" Large Diameter Bend
- 120T Heavy Wall Thickness Pipe Bend
- 1.3DR Short Radius Bend
- 3 Dimensional Bend

Induction Bending Technology

By replacing the elbow with Induction Bending, significant cost reduction, as well as lowering defect rates, are achieved. Also, it can save costs by reducing the number of in-service inspection sites at nuclear power plants.

Welding

- Cost of pipe and elbow
- Manufacturing period
- Cost of butt welding
- Defect risk

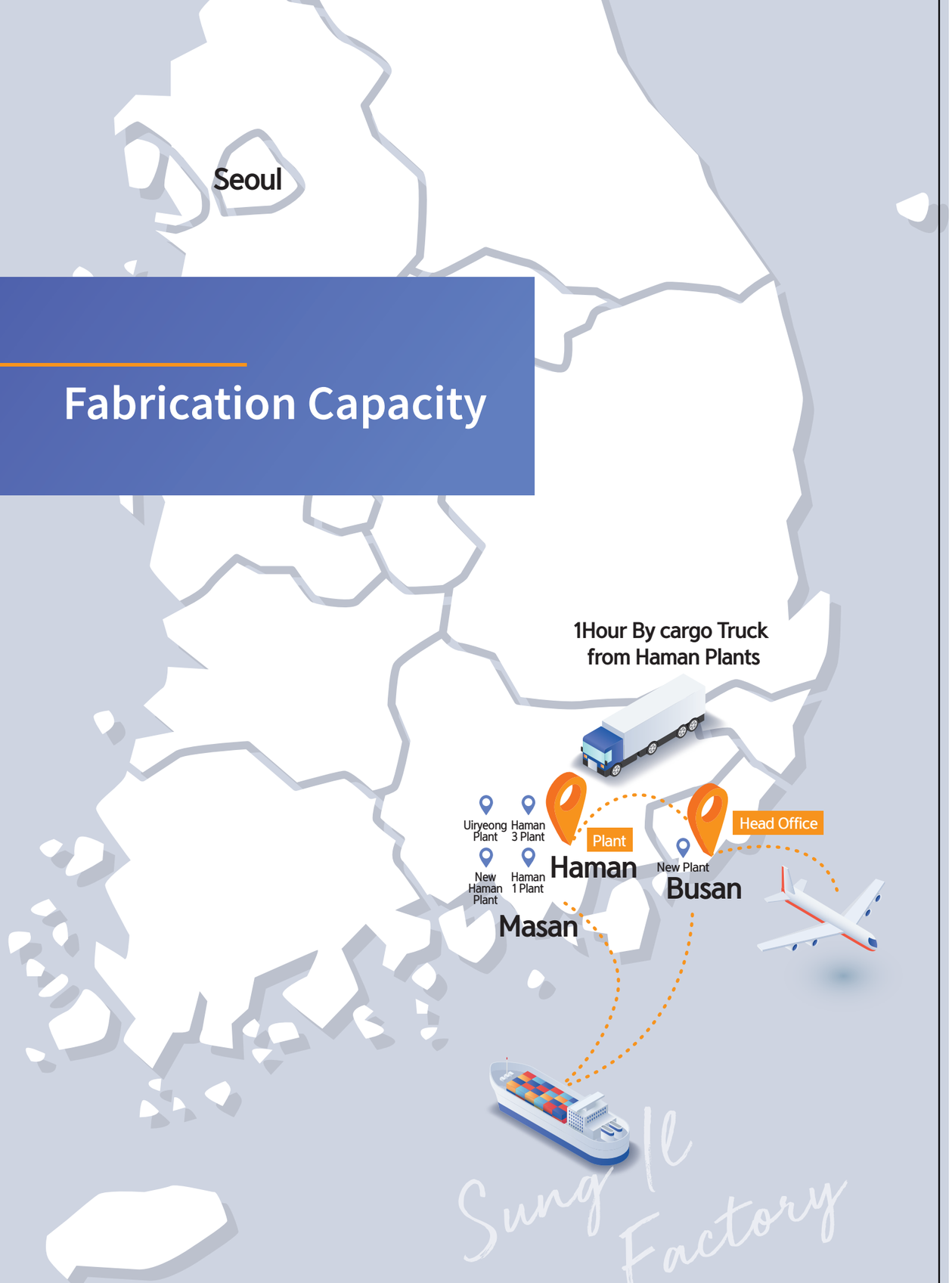
Induction Bending

- Cost of mother pipe
- Manufacturing period
  Cost of Induction Bending
  Defect risk

"Reduction of total manufacturing cost and period"

Total 9 Induction Bending machines

Fabrication Capacity



BUSAN VENTURE TOWER (Head Office)

BUSAN VENTURE TOWER 17F, 22, Mora-ro, Sasang-gu, Busan

Size of site 2,477㎡
Procurement, Engineering, Sales, R&D, Administration

New Haman Plant

Gunbuk-myeon, Haman -gun, Gyeongsangnam-do

Size of site 53,361㎡
Capacity Shop fabricated Piping. 2,500Ton/Month

Haman 1 Plant

Gunbuk-myeon, Haman -gun, Gyeongsangnam-do

Size of site 28,438㎡
Capacity Shop fabricated Piping. 1,550Ton/Month
Induction Bending. 1,600Ton/Month

Haman 3 Plant

Beopsu-myeon, Haman -gun, Gyeongsangnam-do

Size of site 8,257㎡
Capacity Shop fabricated Piping. 200Ton/Month

UIRYEONG PLANT(WAREHOUSE)

Uiryeong-eup, Uiryeong-gun, Gyeongsangnam-do

Size of site 9,805㎡

UNDER CONSTRUCTION

Mieumsandan, Gangseo-gu, Busan

Size of site 51,843㎡

Fabrication Process

SUNG IL CO.,LTD.(SIM) is equipped to enable all fabrication processes such as welding, heat treatment, inspection, painting, and packaging of Shop fabricated piping, and can also manufacture Induction Bending pipes.

- SHOP FABRICATED PIPING
- INDUCTION BENDING

STEP 01
Engineering

STEP 02
Purchase

STEP 03
Receipt of material, and Inspection

STEP 04
Cutthing/ Machining

STEP 04
Induction Bending

STEP 05
Fit- up & Welding

STEP 06
Heat treatment

STEP 07
NDE

STEP 08
Visual/ Dimension Inspection

STEP 09
Surface preparation

STEP 10
Painting

- GLASS FLAKE REINFORCED LINING
- PE COATING
- RUBBER LINING

STEP 11
Packing

STEP 12
Delivery

SIM

SUNG IL CO., LTD.(SIM)

Welding

- GTAW
- FCAW
- SMAW
- SAW&GMAW

- Has a various welding equipment
- Development of WPS that meets customer needs is possible (Organization of production technology department)

Applicable Thickness and Size

Min 0.25" inch ~ Max 130" inch
Min 6T ~ Max 130T

Typical Applicable Materials

- CARBON STEEL
- ALLOY STEEL
- INCONEL
- COPPER-NICKEL
- STAINLESS STEEL
- DUPLEX
- TITANUM
- CLAD

Inspection

Quality control personnel assigned to all factories and thorough inspections enable immediate action to defects.

NDE

RT

UT

MT

PT

Up to 2000Film per day

RT Room

Plant	Room No	Size 'M' (L x W x H)
Haman	1	6.9 x 2.8 x 2
	2	9 x 5.2 x 2
	3	6 x 2.5 x 2
	4(Cobalt)	13.5 x 7.4 x 3
New Haman	A	6.3 x 7 x 3
	B	11.2 x 7 x 3
	C	6.3 x 7 x 3
	D	8.5 x 7 x 2.6
	E	10 x 7 x 2.6
	F	6 x 7.5 x 2.5

Visual & Dimension Inspection

Hydro Test

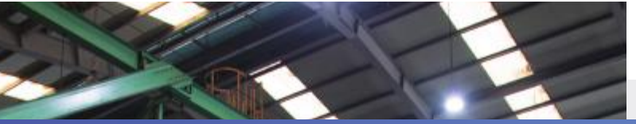
Heat treatment

FURNACE & LOCAL are applicable.

Heat Treatment Facilities

Plant	Furnace No	Size 'M' (L x W x H)
Haman	01	8 x 5.5 x 1.6
	02	8 x 4 x 1.6
	J-13	6 x 2.5 x 2
New Haman	J-10	12 x 2.1 x 1.5
	J-11	12 x 2.5 x 2

※ Furnaces can be increased according to amount of piping.



Shot & Painting

Experienced professionals and diverse experiences.

Shot Room
21000w x 16000L x 4800H

Painting Moving Shelter
8000W x 15000L x 4900H

Painting Capacity
Mon 3000Ton Mon

Shot Room
9000W x 16000L x 4800H

Painting work

Painting Work Process

Check Painting Specification → Paint Stir → 1st coating → Papering and Stripe Coating → 2nd and Final Coating (By Specification) → Go to postprocessing

Painting Inspection

1. Check the Color Ton
2. Inspection of compliance with Wet Film Thickness (W.F.T) right after the spray
3. Check compliance with Dry Firm – Inspection of compliance with customer demand film (Dry Film Thickness, D.F.T) –Check Dust and foreign substances
4. Visual Inspection
5. Maintaining records of inspection
6. End points at work
   1)Sample inspection by painting specification
   2)Familiarize with the Wet film thickness gauge (ASTM D4414)
   3)Use the thickness gauge after it's completely dried. (zero adjustment in daily)
   4)Remove foreign substances and perform papering before final painting.
   5)Record and maintain records of interlayer and final coating in Independence or daily Inspection Report.

GLASS FLAKE REINFORCED LINING

inside the Glass Flake Reinforced Lining

RUBBER LINNING

PE COATING

SUNG IL CO., LTD.(SIM)
SMART FACTORY

ROBOT WELDING | SIMNET

Robot welding can improve productivity, ensure quality, respond to workforce restructuring, and reduce costs.
SIMNET is a program developed by SUNG IL CO.,LTD.(SIM) to optimize all fabrication process from order to delivery.

Automatic Robo-Welding

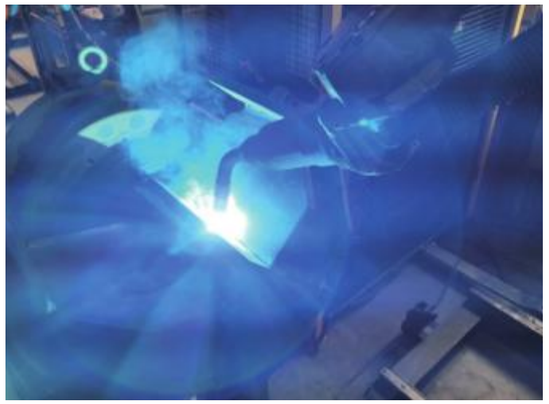
Robot welding

Robotic welding for automatic welding of multi-layer Heavy Wall Thickness Pipe Bend can stabilize quality and increase productivity.

- Increased cost competitiveness due to increased productivity
- Production control, Response to changes in the work environment
- Improving quality & reliability,Enhanced traceability

Reduce the routine labor works.

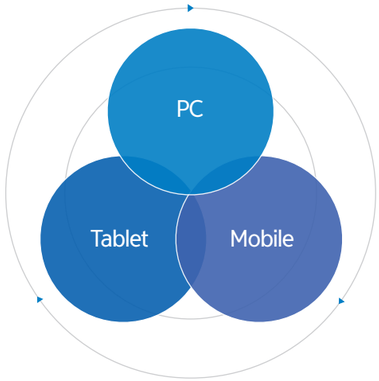
SiMART FACTORY



SIMNET

SUNG IL CO.,LTD.(SIM)
information management system.

- **Growth of production** : By streamlining and automating core business processes, all personnel in the organization can do more works with fewer resources.
- **Reduction of risk** : It is possible to predict and prevent risks by enhancing management capabilities and complying with regulatory conditions.
- **Simplify IT** : By sharing the database using PC, tablet, and mobile equipment, all personnel can easily handle their work.



SUNG IL CO.,LTD.(SIM) information management system

Through the SIMNET program developed by SUNG IL CO.,LTD.(SIM), we collect real-time data on the site and optimize all fabrication process from order to delivery.

SUNG IL CO.,LTD.(SIM) monitors the work situation and work plan for each process in real time by linking not only with the desktop but also with tablet and mobile. Data that has been analyzed and correct-ed in real time is utilized for quality review, production, and related facility manage-ment to increase efficiency.

PC Ver.

Tablet Ver.

Mobile Ver.

Sim net

SIMNET PROGRAM

- **Sales**
  - Sales management
    - Customer management
    - Creating Quotation
    - Sales status by project
  - Project
    - project management
    - Manufacturing Order management
- **Engineering**
  - Base data management
  - Blueprint management
  - Engineering automation
  - Engineering data management
- **Purchase**
  - Purchase requisition
    - fill in MPR
    - fill in SPR
- **Production**
  - Process Plan
    - Cutting plan
    - Machining plan
    - FIT-UP / WELDING plan
  - Fabrication management
    - Entering work performance by Spool
    - Entering cutting performance
    - Request for Fit-up inspection
  - Fabrication status
    - Check of the spool list
    - Check of the BOM list
    - Check of the JOINT list
  - Induction Bending
    - Induction Bending machine/worker information
    - Entering Induction Bending Work information
    - Entering Defect information of Induction Bending
- **Quality**
  - Fabrication Inspection
    - NDE RATE Setting of Manufacturing Order
    - Request for VT inspection
    - Request for NDE
    - Creating dimension inspection report
    - Enter the raw material inspection result
    - Enter the visual inspection result
    - Enter the NDE result

Experience List

North America

USA
CANADA
PANAMA
DOMINICAN Rep
EL SALVADOR
MEXICO

South America

CHILE
BRAZIL
COLOMBIA

Oceania

AUSTRALIA

Europe

POLAND
DENMARK
SWEDEN
NORWAY
UK

Africa

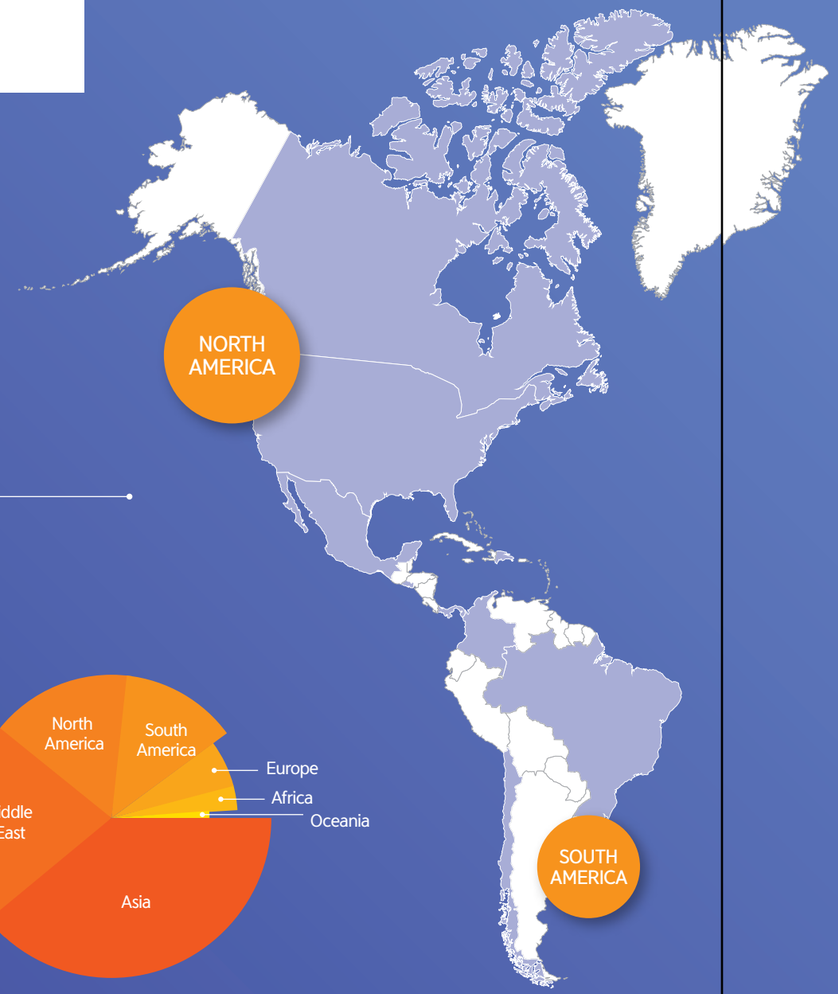
NIGERIA
IVORY COAST
SENEGAL
ANGOLA
CONGO

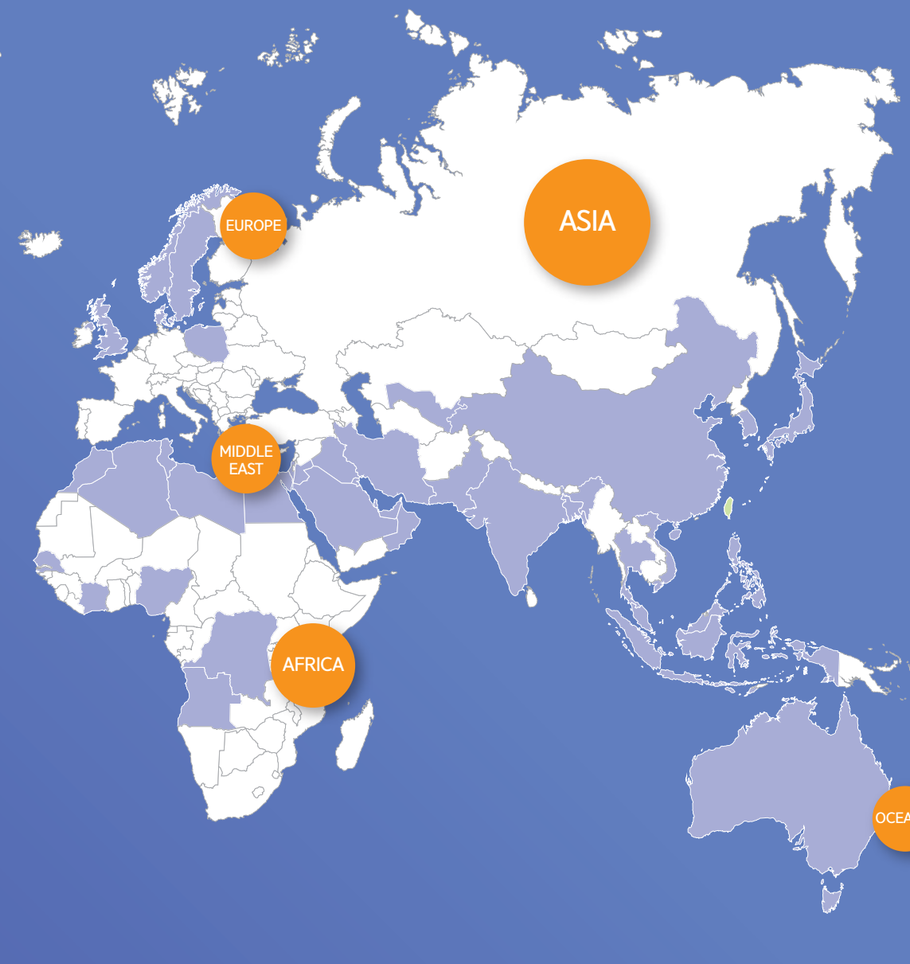
Asia

KOREA
JAPAN
CHINA
INDIA
VIETNAM
SINGAPORE
THAILAND
IRAN
MALAYSIA
PHILIPPINES
INDONESIA
UZBEKISTAN
TAIWAN
BANGLADESH
HONG KONG
PAKISTAN

Middle East

UAE
LIBYA
OMAN
QATAR
ALGERIA
KUWAIT
SAUDI
EGYPT
ISRAEL
IRAQ
MOROCCO
TUNISIA
JORDAN
BAHRAIN





Partner

GE VERNOVA
MITSUBISHI HEAVY INDUSTRIES
NE NOOTER/ERIKSEN
KOGAS
SA
McCor
LOGANWELD
DAELIM
Hanwha OCEAN
DAEWOO E&C

SIEMENS
SAMSUNG HEAVY INDUSTRIES SAMSUNG C&T
DOOSAN
Hanwha E&C
SK E&C
BHI
KEPCO
KHNP
KOSPO
KOMIPO
KOEN
posco
HD HYUNDAI HEAVY INDUSTRIES
IHI
TOTAL
ExxonMobil
Chevron
bp
PTTEP
GS 엔텍
SBM OFFSHORE
Petrofac
TURBODEN
PETROBRAS

Certification Award

ISO 9001

ISO 14001

ISO 45001

KEPIC MN

AEO

ASME 'PP'

ASME 'S'

ASME 'NA'

ASME 'NPT'

NB(National Board)

PED Module-H

EN ISO 3834-2

EN 1090

CE(DVGW)

Best Supplier
(Korea Offshore &
Shipbuilding Association)

NET

NEP

Root technology
specialized company

Small Giant
company of Korea

Inno-Biz company

The certification award of SUNG IL CO.,LTD.(SIM), which provides the best service to customers' needs based on the know-how accumulated in the field of shop fabricated pipng for decades.

GE Gas Power
Partnership Awards
(2022)

GE Gas Power
Best Partnership
(2020)

Mitsubishi Power
Best Partner
(2019)

'Nooter Eriksen
Best Supplier
(2018)

KHNP
(Korea Hydro & Nuclear Power)
Best enterprise model
(2022)

Hyundai Power Systems
Best Supplier
(2020)

POSCO
(Pohang Iron&Steel Company)
Best Supplier

KMR
(Korea Management Registrar)
Grand Prize for
Innovation Management

KMR
(Korea Management Registrar)
Best Company for quality
management system

USD 50 Milion Export
(2021)

KOGAS
(Korea Gas Corporation)
Appreciation plaque

KOEN
(Korea South-East Power Co., Ltd)
Best enterprise model

KOSPO
(Korea Southern Power Co., Ltd.)
Best enterprise model

KOMIPO
(Korea Midland Power Co., Ltd.)
Appreciation plaque

KEPCO
(Korea Electric Power Corporation)
Appreciation plaque

SHI
(Samsung Heavy industries)
Appreciation plaque

TCO
(Tengizchevroil)
Appreciation plaque
(2019)

Shell Appomattox
Appreciation plaque

Presidential prize
(Trade Promotion)

Presidential prize
(the silver tower of
new technology for
practical use)