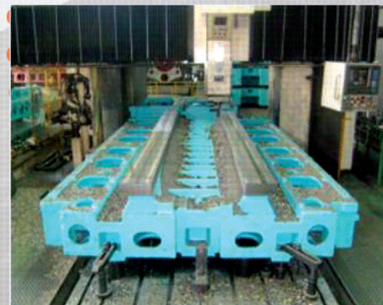
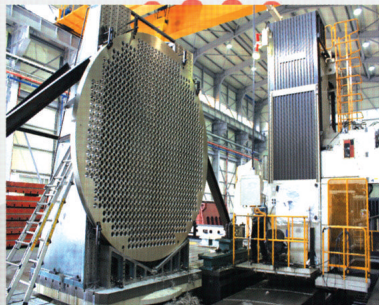
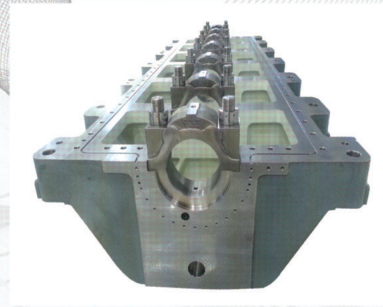


Innovations for a better world

# SAMHONG EMC





# Global Leader

## The best company focused on our clients

"Samhong Machinery Co., Ltd. & EMC Co., Ltd. places customer satisfaction on top priority by producing goods based on Craftsmanship and thorough quality management."

## 实现顾客满意的最佳企业

(株)三宏机械,(株)EMC根据匠人精神生产完美的产品,以完善的品质管理满足客户需求。





## GREETING / 代表致词

Samhong Machinery Co.,Ltd. & EMC Co.,Ltd. have specialized in fine machining and manufacturing for the medium-large sized machinery products in the field of Engine block for vessel, Power plant, Pump, ITER project, Machine tool and industrial parts since 1995.

We are leading the precision processing industry with the best quality and the ISO9001 & ISO14001 quality management system and KEPIC for the parts of nuclear power plants.

1995年创立以来,三宏机械&EMC不断挑战产业机械领域及大型加工领域,如今已在核电,机床,泵,风力发电设备,发动机等精密加工领域作为领先企业日益成长,以革新与挑战精神取得了ISO9001, ISO14001,并获得电力产业技术标准认证“大韩电力协会”和品质经营体系认证。三宏机械&EMC今后在面对全球化无限的竞争中,将继续为实现顾客满意的最佳企业做出不懈的努力。

谢谢 김 홍 규

三宏机械-EMC CEO

金宏圭





## COMPANY HISTORY / 企业历程

- 1995 : Foundation of a machine shop, Samhong Machinery Co.,Ltd. (Changwon city)
- 2000 : Extension and relocation of Samhong Machinery Co.,Ltd. (Haman-gun, Gyeongnam)
- 2001 : Registration on vendor of Doosan Heavy Industry, Hyosung Ebara, Hanhwa Techem & Hyundai Rotem
- 2002 : Registration on vendor of Hyundai-Wia & STX heavy industries
- 2004 : Obtained a Clean Factory Certificate from Ministry of Labor Korea / Korea Occupational Safety and Health Agency
- 2005 : Obtained a certificate of ISO9001:2000 / KSA 9001:2001
- 2007 : Construction of a machine shop, EMC Co.,Ltd. for the large-sized product
- 2008 : Obtained a certificate of ISO14001:2004 / KSA 14001:2004
- 2011 : Registration on vendor of Wartsilar – Hyundai
- 2013 : Registration on vendor of Kimura (Japan) & Goulds pump  
Registration on vendor of SFA for the supply of ITER  
(International Thermonuclear Experimental Reactor) Thermal Shield
- 2014 : Registration on vendor of Burckhardt Compression (Switzerland)  
Construction of a fabrication shop, 2nd Samhong Machinery Co.,Ltd. (Changwon city)  
Acquisition of a machine shop, 2nd EMC Co.,Ltd. (Changwon city)
- 2015 : Registration on vendor of Hyundai Heavy Industries  
Obtained a KEPIC-MN [ Korea Electric Power Industry Code ] for nuclear component manufacture from Korea Electric Association

- 1995 : 成立 (马山市)
- 2000 : 搬迁到咸安郡法守面于巨里路
- 2001 : 注册为国内大企业的合作企业, Hyosung Ebara, Hanhwa Techem, Hyundai-Rotem
- 2002 : 注册为现代威亚& STX的合作企业。获得从企业银行到FAMILY企业的认证
- 2004 : 从韩国劳务部获得CLEAN营业场所证书
- 2005 : 取得ISO9001:2000 / KS A 9001:2001认证
- 2007 : 建立生产大型零配件的新工厂 (EMC)
- 2008 : 从政府获得 ISO14001:2004 / KS A 14001:2004, 风险公司, INNOBIZ公司
- 2011 : 注册为Wartsila - Hyundai合作企业
- 2013 : 注册为Goulds Pumps (USA)合作企业
- 2014 : 注册为 Burckhardt compression (瑞士), ITER (KODA) 的合作企业
- 2015 : 获得电力产业技术标准认证书 (大韩电力协会)



## ORGANIZATION /组织结构图





## QUALITY POLICY / 品质方针

- Timely supply of quality products
- Quality improvement for zero defect in post processing
- A work of craftsmanship
- Continuous improvement to realize customer satisfaction

- 应优质产品
- 为了控制不良品"0"化,改善品质
- 匠人精神
- 通过持续的改善,实现客户满意



## BUSINESS FIELDS / 企业领域

Marine & Stationary Engine Parts / 海上和陆上用发动机机体

- Engine block and Crankcase ( 2 stroke & 4 stroke )  
/ 发动机机体, 曲轴箱 ( 2冲程和四冲程 )

Compressor Parts / 压缩机部分

- Compressor frame, Compressor bedplate and Compressor flywheel  
/ 压缩机机身, 压缩机底板, 压缩机飞轮

Pump Parts / 泵配件

- Pump casing and Pump bed  
/ 泵壳和 泵床

Power Plant Parts / 核电 机械零部件

- Cask, Tube sheet, Top plate, etc.  
/ 包装体, 外壳, 一次盖管板, 热气体外壳, 顶板

Machine Tool ,Industrial Machinery Parts & Vacuum Chamber  
机床外机械产业备件

- Bed, Frame and Vacuum chamber

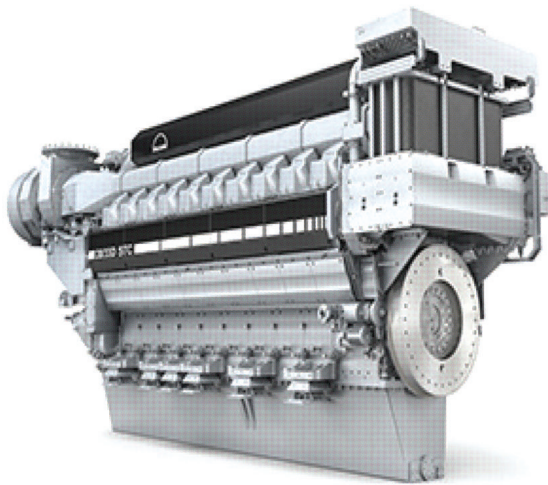
ITER Project / 国际热核 实验反应堆

- Thermal shield /  
/ 隔热板





# Marine & Stationary Engine Parts



· Customer / 顾客

**stx** Heavy Industries

**WÄRTSILÄ HYUNDAI**

**DOOSAN** Doosan Heavy Industries  
& Construction

· Reference / 业绩

| DESCRIPTION         |                    |               | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------|--------------------|---------------|------|------|------|------|------|------|------|------|
| Medium Speed Engine | Crankcase (L-Type) | L 16/24       | 144  | 137  | 26   | 6    | 20   | 2    | 3    |      |
|                     |                    | L 17AHX       |      |      |      |      |      | 12   | 6    |      |
|                     |                    | L 21/31       | 111  | 77   | 29   | 41   | 13   | 8    | 63   | 13   |
|                     |                    | L 22HLX       |      |      |      |      |      | 4    | 3    |      |
|                     |                    | L 23/30H.AK   | 56   | 32   | 27   | 20   | 17   | 22   | 88   | 36   |
|                     |                    | L 28/32H      |      |      |      |      |      | 13   | 2    |      |
|                     |                    | L 32/40       | 69   | 47   | 45   | 31   | 35   | 12   | 71   | 39   |
|                     |                    | L 28HX        |      |      |      |      |      | 11   | 46   | 4    |
|                     |                    | L 50DF        |      |      |      |      |      |      | 11   | 15   |
|                     | Crankcase (V-Type) | V 32/40       |      |      | 41   | 17   | 12   | 2    | 6    |      |
|                     |                    | V 28/32       |      |      |      | 36   | 49   | 2    |      |      |
|                     | TOTAL              |               | 380  | 293  | 168  | 151  | 146  | 88   | 299  | 107  |
| Low Speed Engine    | Bed Plate          | S 50MC-C      |      |      | 6    | 10   | 12   |      |      |      |
|                     |                    | S 60MC-C      | 5    | 7    | 5    | 7    | 1    | 1    |      |      |
|                     | Frame Box          | S 35MC-MK7    |      |      | 12   |      | 9    |      | 1    |      |
|                     |                    | S 35ME        |      |      |      |      |      | 4    | 11   | 4    |
|                     | Cylinder-Frame     | G 50MC-C      | 45   | 37   | 53   | 15   | 1    |      |      |      |
|                     |                    | S 70MC-C      |      |      |      | 4    | 1    |      |      |      |
|                     |                    | G 50ME        |      |      |      |      |      |      | 10   | 16   |
|                     |                    | S 90ME        |      |      |      |      |      |      | 2    | 1    |
|                     |                    | S80, S90, K98 |      | 32   | 20   | 28   | 27   | 12   |      |      |
|                     | TOTAL              |               | 50   | 76   | 100  | 61   | 50   | 17   | 24   | 21   |
|                     | Grand TOTAL        |               | 430  | 369  | 268  | 212  | 196  | 105  | 323  | 128  |



## 海上和陆上的发动机零部件

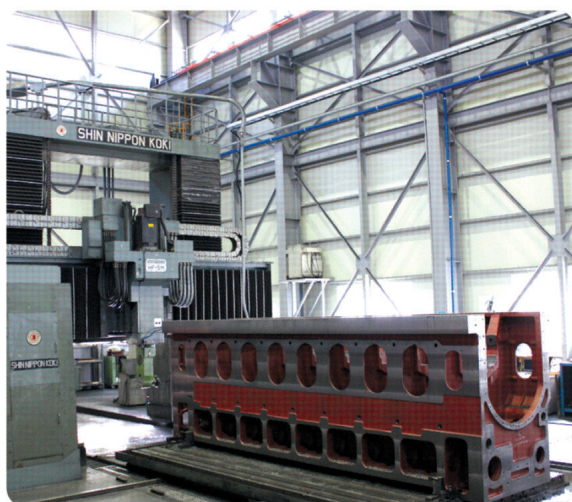
# Engine Block and Crankcase (2 stroke & 4 stroke)



- Customer : Wartsila-Hyundai / 客户: 瓦锡兰, 现代
- Item : Crankcase / 项目: 曲轴箱
- Engine Type : L50DF, 4 stroke & medium speed  
/ 发动机类型: L50DF, 4冲程和中速



- Customer : STX Heavy Industries / 客户: STX重工
- Item : Crankcase / 项目: 曲轴箱
- Engine Type : V 32/40, 4 stroke & medium speed  
/ 发动机型号: V1832/40, 4冲程和中速



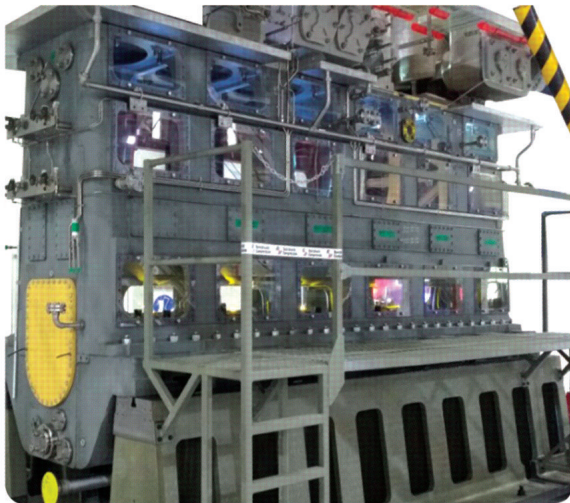
- Customer : STX Heavy Industries / 客户: STX重工
- Item : Crankcase / 项目: 曲轴箱
- Engine Type : L 32/40, 4 stroke & medium speed  
/ 发动机型号: L1828/32, 4冲程和中速



- Customer : STX Heavy Industries / 客户: STX重工
- Item : Bed frame / 项目: 基架
- Engine Type : 2 stroke & lower speed  
/ 发动机类型: 二冲程和低转速



# Compressor Parts / 压缩配件



· Customer / 顾客

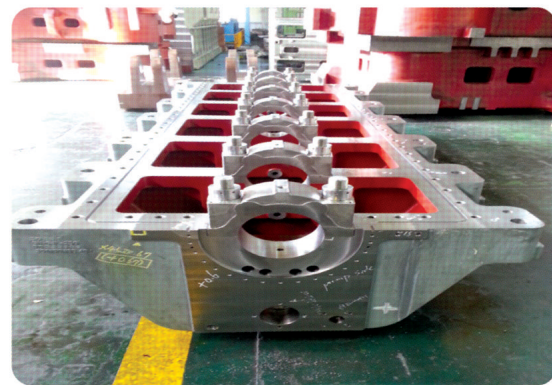


· Project / 项目

LP 250 reciprocating compressor



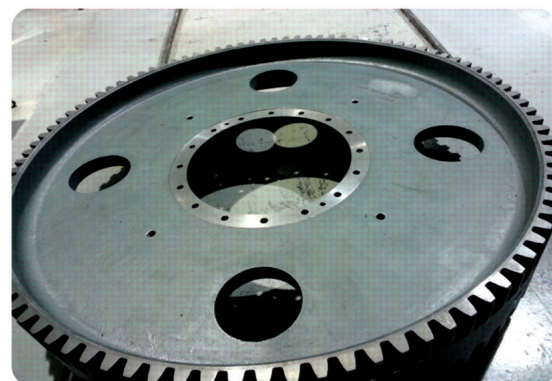
Compressor frame / 压缩机机身



Compressor base plate / 压缩机底板



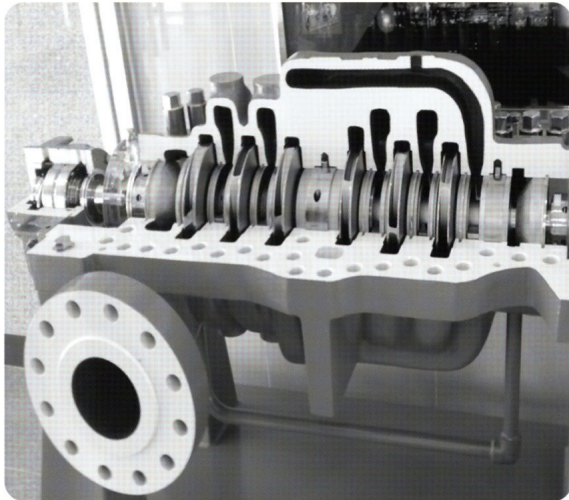
Compressor base plate inspection  
/ 检查压缩机底盘



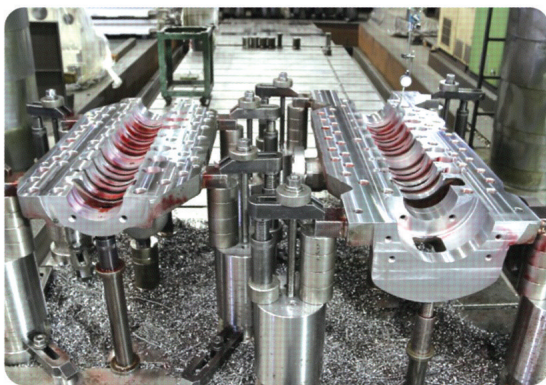
Flywheel / 压缩机飞轮



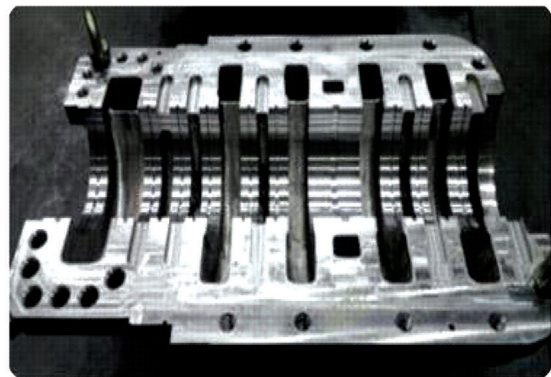
# Pump Parts / 泵零件



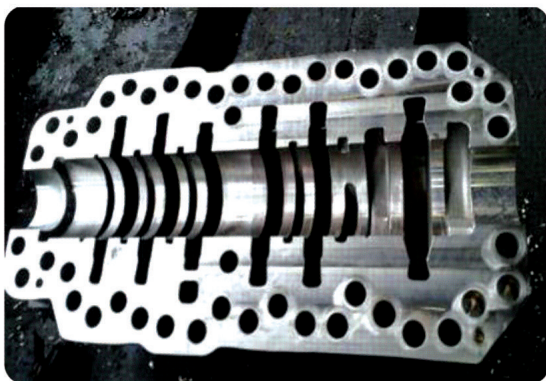
· Customer / 顾客



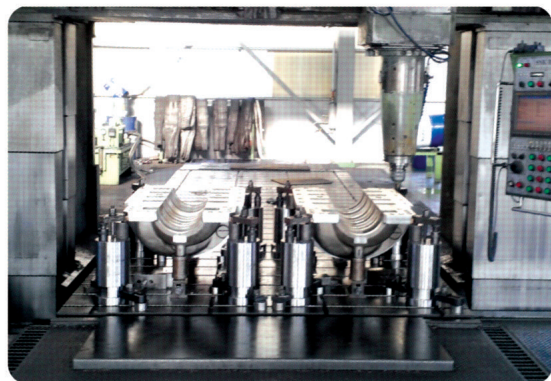
Pump casing / 泵壳



Pump casing / 泵壳



Pump casing / 泵壳



Inner casing / 内壳



# Power Plant Parts / 电站备件



· Customer / 顾客



· Reference / 业绩

| 프로젝트명 Project     | 항목 Item                                                                                                                                                                                                                                                                                    | 기간 Period           |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| JINSAN #1, #2     | <ul style="list-style-type: none"> <li>- Major heat exchangers, Channel cover and etc.</li> <li>- PZR&amp; D/Condenser, Angle support, F/M bridge and etc.</li> </ul>                                                                                                                      | 1999 ~ 2000         |
| Hanul #5, #6      | <ul style="list-style-type: none"> <li>- Fuel rack, Base plate, Steam generator, Divider plate</li> <li>- Internal lift rig, Link block</li> <li>- RCS support, Link, Male &amp; female support, Divider plate</li> <li>- Support column ass'y, RCS, ICI Support column, Clevis</li> </ul> | 2000 ~ 2003         |
| Shin-kori #3, #4  | <ul style="list-style-type: none"> <li>- Tube sheet ( FAP &amp; LSF ), Support column</li> <li>- Embed plate, RV support column</li> </ul>                                                                                                                                                 | 2009 ~ 2011         |
| AP1000, CHINA     | <ul style="list-style-type: none"> <li>- IGA plate</li> </ul>                                                                                                                                                                                                                              | 2010. 08. 13        |
| Shin-hanul #1, #2 | <ul style="list-style-type: none"> <li>- FAP &amp; LSF</li> <li>- Support column, RCS piping</li> </ul>                                                                                                                                                                                    | 2011                |
| Shin-kori #4 RVI  | <ul style="list-style-type: none"> <li>- FAP, LSF, Support column</li> </ul>                                                                                                                                                                                                               | 2012. 02. 25        |
| Tokyo CASK        | <ul style="list-style-type: none"> <li>- Packaging body, Outer shell, Expansion chamber</li> <li>- Primary lid, Secondary lid, Shock absorber</li> </ul>                                                                                                                                   | 2011. 10 ~ 2014. 02 |
| UAE BNPP #1,2     | <ul style="list-style-type: none"> <li>- Support column, FAP &amp; LSF, RCS piping, RCP casing, Top plate ass'y</li> </ul>                                                                                                                                                                 | 2011 ~ 2018         |

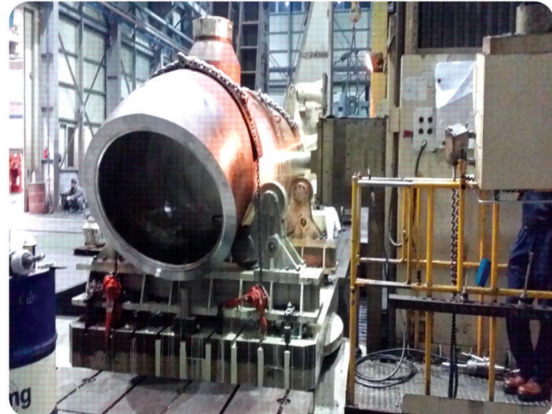


## 核电站 < 机械部件

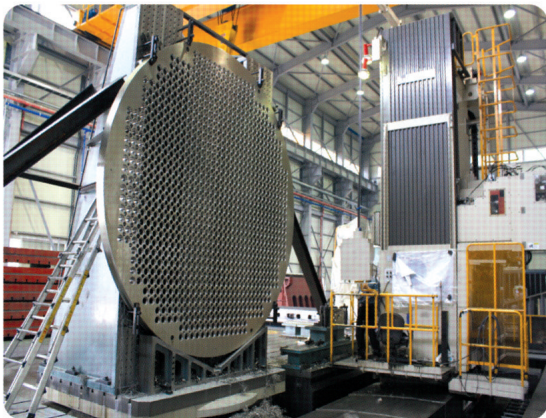
# Cask, RCS Piping, Tube Sheet, etc



Cask



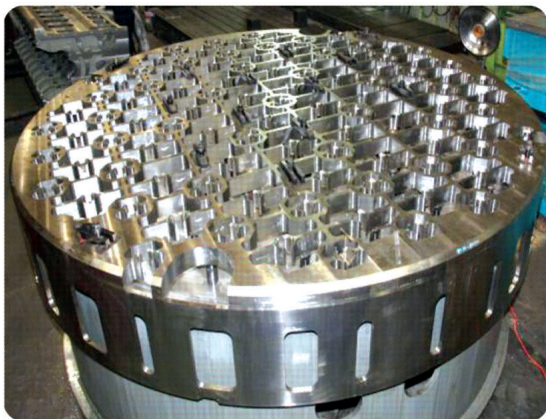
RCS piping



Tube sheet



Hot casing



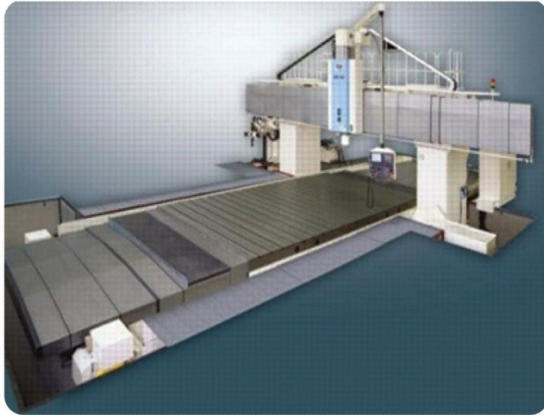
Top plate



Primary lid



## Machine Tool, Industrial Machinery Parts & Vacuum Chamber / 机床外机械产业备件



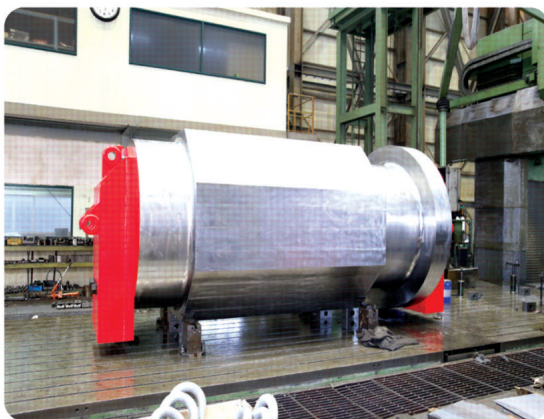
· Customer / 顾客



KBN 135 BED



Bolster plate



Rotor-rim



Chamber



# ITER – The way to New Energy



· Customer / 顾客

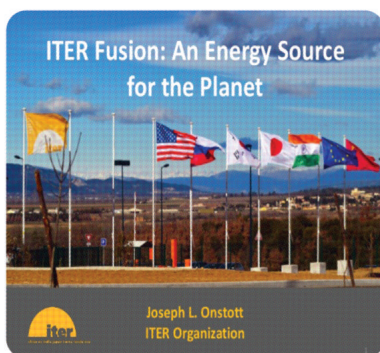


ITER (International Thermonuclear Experimental Reactor and Latin for "the way") is an international nuclear fusion research and engineering megaproject.

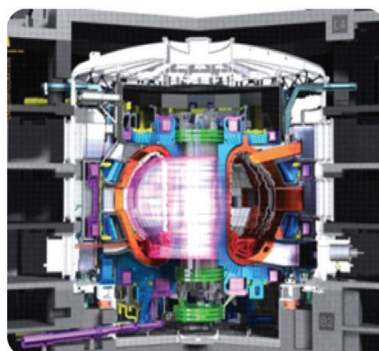
The ITER project aims to make the long-awaited transition from experimental studies of plasma physics to full-scale electricity-producing fusion power plants.

ITER(国际热核聚变实验反应堆, 用拉丁语是'路')是国际性核融合研究和建设运营事业。

ITER方案是从等离子体物理学实验研究转换成正式生产电源的融合发电所为目标。



Seven member entities? China, the European Union, India, Japan, Korea, Russia, and the United States  
中国, 欧洲联合, 印度, 日本, 韩国, 瑞士和美国 7个国家参与



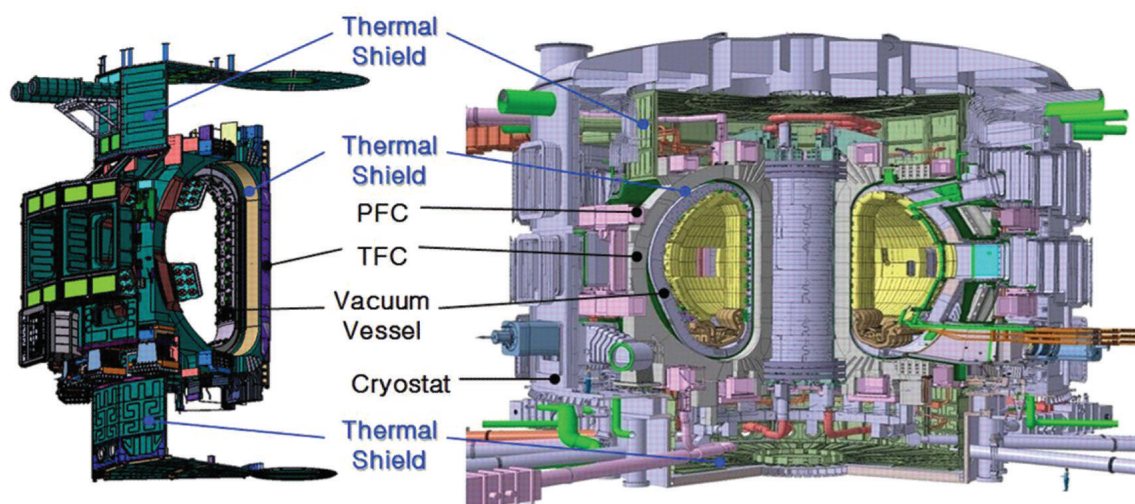
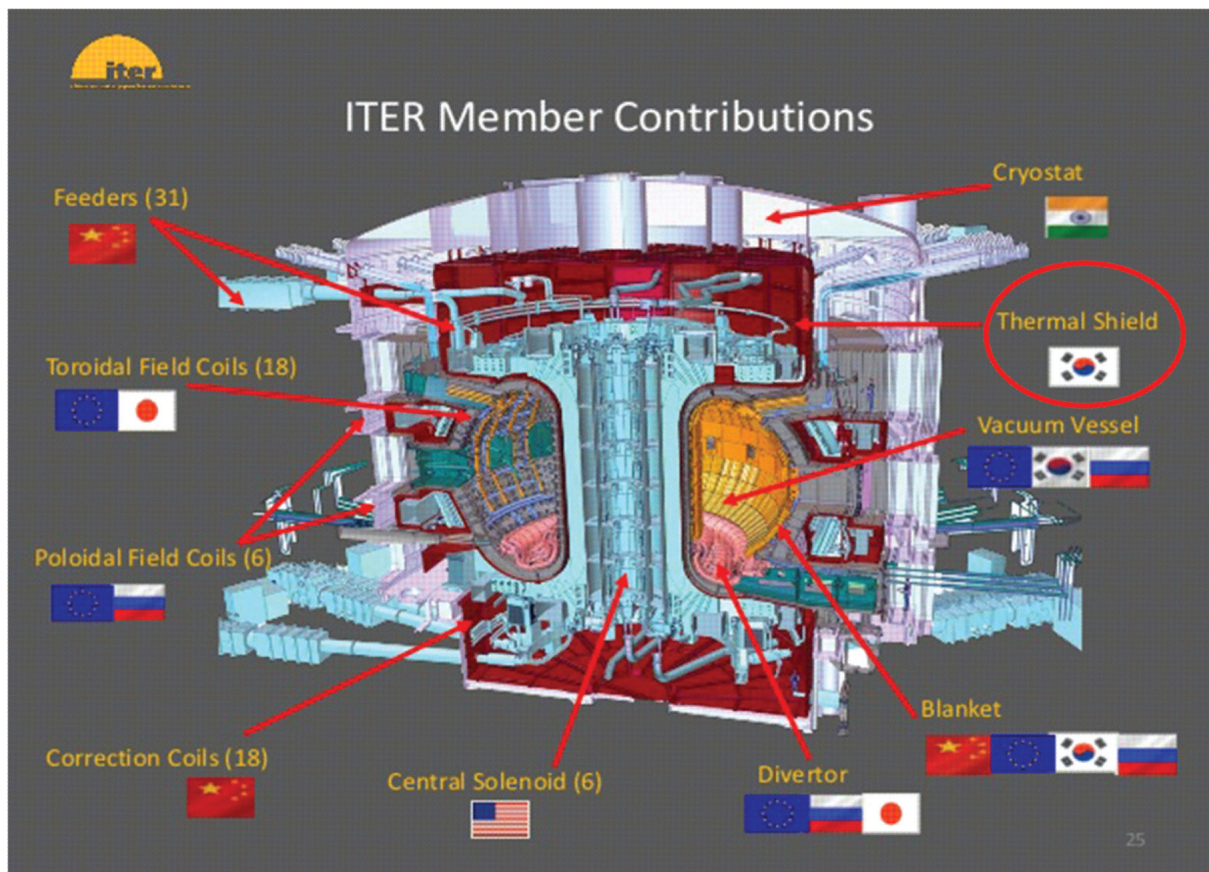
23,000 ton Machine weight  
30 meters in diameter and nearly as many in height  
840 cubic meters Plasma volume  
150 million °C Plasma temperature  
500 MW Output power



ITER Tokamak construction site  
ITER Tokamak 建设现场



# 国际热核聚变实验反应堆





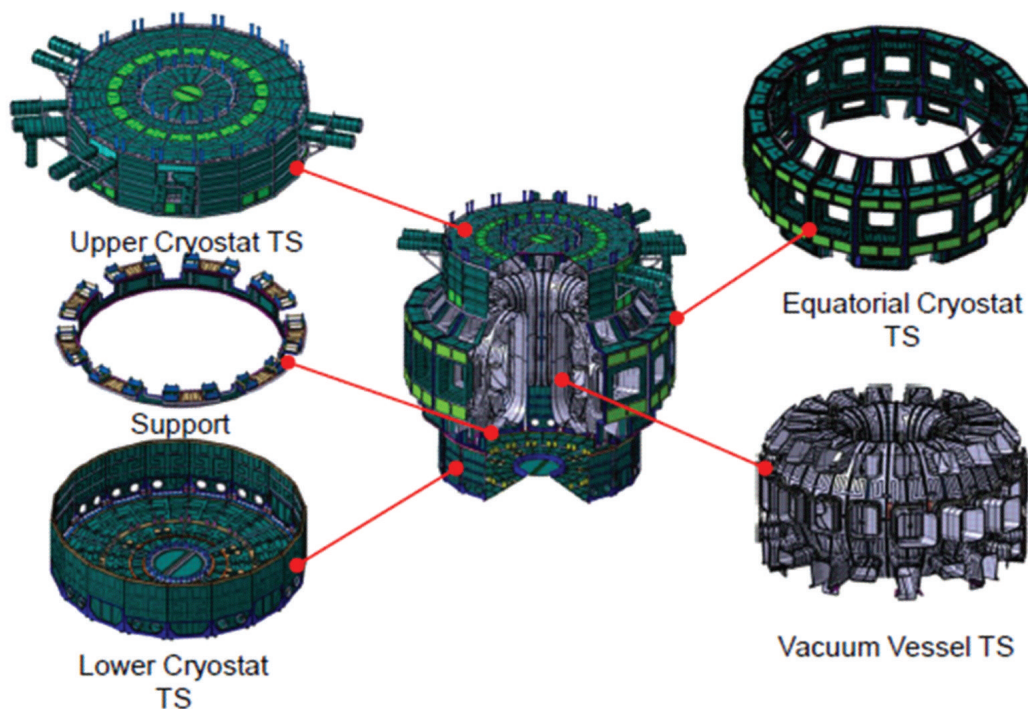
# ITER / Thermal Shield

## The thermal shield system

- are made of stainless steel 304LN and silver coated to minimize emissivity.
- provides an effective barrier for thermal loads to the superconducting coils and structures operating at 4.5K, by thermal radiation and conduction.
- withstands gravity, thermal and electromagnetic loads, deflection of support components, loads experienced during assembly and disassembly, tests, seismic events and postulated accidents, without damage requiring repair.

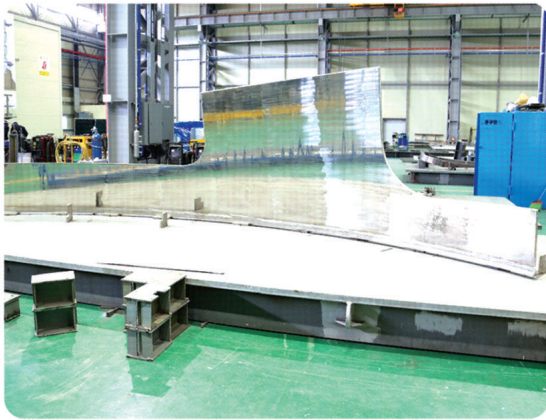
屏蔽热系统是,

- 是用Stainless Steel 304LN制造成。为了最小化放射率，用银涂层的。
- 为了让超导线圈和构成部件在4.5K（-269）能够起动，对所有热负荷提供墙壁。
- 重力、热以及电磁式负荷支持配件的变型，即使装配及分解时受的负荷，试验，地震及发生事故时也不能有破坏。





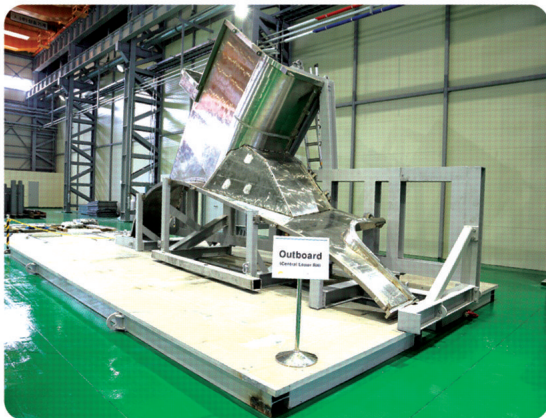
# ITER / Thermal Shield



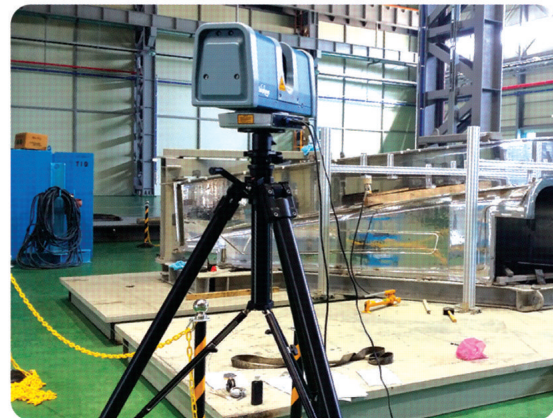
Outboard CTR UPR LH Shell



Outboard LAT UPR LH/RH U port Flange



Outboard



3D scanning



Tube welding



VVTS 10°



# References / 业绩

| 사업 분야 Business field                                                                                                    | 항목 Item                                                                                                                                                                                                                                                                                             | 거래선 Customer                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| 해상 및 육상엔진 부품<br>Marine & Stationary<br>Engine Parts                                                                     | <ul style="list-style-type: none"> <li>- 중형엔진 크랭크 케이스 Medium Engine Crankcase</li> <li>- 대형엔진 부품류 Components for Large Engine (Bed Plate, Frame Box and Cylinder Frame)</li> <li>- 고속엔진 부품류 High Speed Engine (V26/26)</li> </ul>                                                                   | STX 중공업 / 현대중공업<br>/ 기무라<br>STX Heavy Industries<br>/ Hyundai Heavy<br>Industries/KIMURA                                                      |
|                                                                                                                         | <ul style="list-style-type: none"> <li>- 엔진 크랭크 케이스 50DF(Dual Fuel) Engine Crankcase</li> </ul>                                                                                                                                                                                                     | 바르질라-현대<br>Wartsila-Hyundai                                                                                                                   |
| 압축기 부품<br>Compressor Parts                                                                                              | <ul style="list-style-type: none"> <li>- 컴프레서 프레임/베이스 플레이트/플라이 휠<br/>Compressor Frame, Baseplate and Flywheel</li> </ul>                                                                                                                                                                            | 부르크하르트 컴프레션<br>Burckhardt Compression                                                                                                         |
| 원자력/발전/담수/<br>해양플랜트<br>설비<br>Nuclear Energy Parts/<br>Power Plant Parts/<br>Water Conversion/<br>Marine Plants Facility | <ul style="list-style-type: none"> <li>- 원자력 부품 Nuclear Energy Parts (Tokyo Cask, Channel Cover, FM Bridge and Top Plate)</li> <li>- 발전설비 부품 Power Plant Parts (Adapter Housing)</li> <li>- 담수설비 Water Conversion (Water Box and Inter Piece)</li> <li>- 해양 플랜트 Marine Plant (T-casting)</li> </ul> | 두산 중공업<br>Doosan Heavy Industry                                                                                                               |
| 공작기계, 산업기계, 진공챔버<br>Machine Tool Parts<br>Industrial Machinery Parts<br>& Vacuum Chamber                                | <ul style="list-style-type: none"> <li>- 공작기계<br/>Machine Tool Parts, Industrial Machinery Parts (Bed, Column, Table, Saddle, Head and Rotary Table)</li> <li>- 진공챔버 Vacuum Chamber</li> </ul>                                                                                                      | 현대 위아 / 한화기계<br>/ 두산 인프라코어 / 주성엔<br>지니어링 / 에스에프에이<br>Hyundai-Wia /<br>Hanwha Machinery /<br>Doosan Infracore /<br>Jusung Engineering /<br>SFA |
| 풍력발전<br>Wind Power<br>Generation Parts                                                                                  | <ul style="list-style-type: none"> <li>- 풍력발전설비 부품 제작<br/>Wind Power Generation Parts(HUB)</li> </ul>                                                                                                                                                                                               | 풍력발전 관계사<br>Wind Power<br>Generation Plant                                                                                                    |
| 고압펌프<br>High-pressure Pump                                                                                              | <ul style="list-style-type: none"> <li>- Pump and Pump Bed</li> </ul>                                                                                                                                                                                                                               | 골드 펌프 / 효성 에바라<br>Goulds Pumps /<br>Hyosung                                                                                                   |
| 제철설비<br>Steel Plant Parts                                                                                               | <ul style="list-style-type: none"> <li>- CGL Brush Scrubber (Erdemir)</li> <li>- Frame and Deflector (Kawasaki)</li> <li>- Pinch Roll Threading Table</li> <li>- Segment Facility (Hadeed, Bsc, Imexsa and Cosipa)</li> <li>- Horizontal Segment, Straight Segment &amp; etc.</li> </ul>            | 포철산기 / 현대로템<br>POSCO /<br>Hyundai R0tem                                                                                                       |



## 设施和设备 - Samhong第一工厂

## Facilities – Samhong Machinery 1st Factory



HF5M (X7300\*Y2900\*W3320)



HF5M (X6000\*Y2900\*W3320)



HPM30L (X11000\*Y3850\*W3500)



HF3M (X4300\*Y2000\*W1500)



RB4N-4M (X4850\*Y2700\*W1800)



RB4N-7M (X7500\*Y2700\*W1800)



## 设施和设备 - Samhong第二工厂

## Facilities – Samhong Machinery 2nd Factory



HF7M (X11000\*Y4500\*W4500)



Marking Machine



Silver Coating Line



RT Room (NDT)



CNC Tilting Table

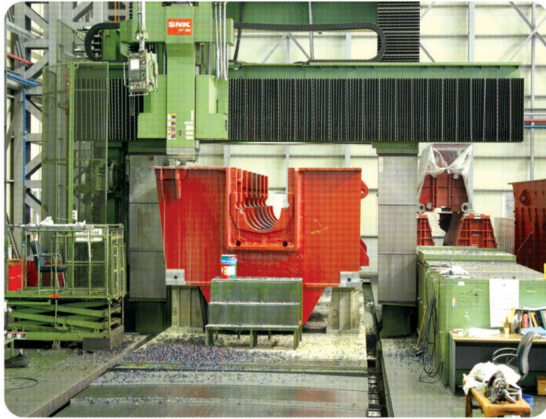


Vertical Milling &amp; Lathe



## 设施和设备 - EMC第一工厂

# Facilities – EMC 1st Factory



HF8M (X13000\*Y4500\*W5000)



HF5M (X7300\*Y2900\*W3200)



CNC Boring (X10000\*Y4000\*W2000)



PME40 (X10000\*Y4000\*W4500)



KOTOBUKI (X6300\*Y2600\*W1300)



Ingersoll (X10000\*Y3900\*W4250)



## 设施和设备 - EMC第二工厂

# Facilities – EMC 2nd Factory



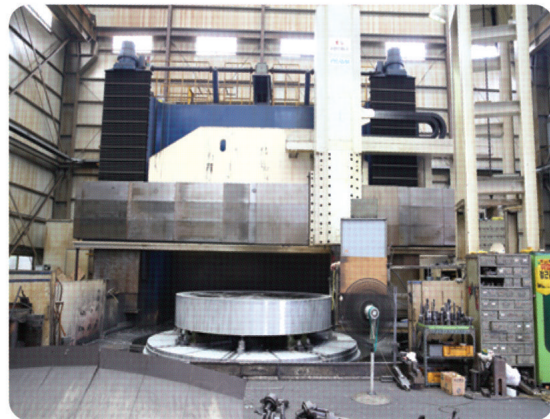
CNC Floor Boring  
(X6000\*Y3200\*W1450)



CNC Plano Miller (X12000\*Y4000\*W3000)



Vertical Turning Center M/C  
( $\Phi 6620$ \*W3700(H))





## 机械设备清单

## Facilities

| M/C Name                | Size (XxYxW)                  | Model    | Maker             | Q'ty | Installation | Remark                              |
|-------------------------|-------------------------------|----------|-------------------|------|--------------|-------------------------------------|
| CNC Plano Miller        | 13000x4500x5000               | HF8M     | SNK(JAPAN)        | 1    | 2008         | EMC 1st<br>Factory                  |
|                         | 10500x4000x4500               | PME40    | HANKOOK           | 1    | 2008         |                                     |
|                         | 7300x2900x3200                | HF5M     | SNK(JAPAN)        | 1    | 2007         |                                     |
|                         | 6000x2600x1300                | KOTOBUKI | KOTOBUKI(JAPAN)   | 1    | 2008         |                                     |
|                         | 10000x3900x4250               | MASTER   | INGERSOLL         | 1    | 2012         |                                     |
| CNC Floor Boring        | 10000x4000x2000               | MAF      | MITSUBISHI(JAPAN) | 1    | 2008         | EMC 2nd<br>Factory                  |
| Radial Drill Machine    | H=2500mm                      |          | BONGSHIN          | 1    | 2008         |                                     |
| Overhead Crane          | 100+50TON, 50+20TON,<br>50TON |          | BANDO             | 5    | 2007         |                                     |
| CNC Plano Miller        | 12000x4000x3000               | PCM4     | WALDRICH          | 1    | 2007         |                                     |
| Vertical Turning Center | Φ6620xW3700(H)                | VTC50/60 | HANKOOK           | 1    | 2007         |                                     |
| CNC Floor Boring        | 6000x3200x1450                | BF-Φ132  | TOSHIBA(JAPAN)    | 1    | 2007         | Samhong<br>Machinery<br>1st Factory |
| Overhead Crane          | 100+100TON                    |          | BANDO             | 2    | 2007         |                                     |
| CNC Plano Miller        | 4850x2700x1800                | RB4N     | H.H.I             | 1    | 1995         |                                     |
|                         | 7500x2700x1800                | RB4N     | H.H.I             | 1    | 1995         |                                     |
|                         | 4300x2000x1500                | HF3M     | H.H.I             | 1    | 2005         |                                     |
|                         | 11000x3850x3500               | HPM30L   | HANKOOK           | 1    | 2005         |                                     |
|                         | 7300x2900x3320                | HF5M-1   | SNK(JAPAN)        | 1    | 2001         |                                     |
|                         | 6000x2900x3320                | HF5M-2   | SNK(JAPAN)        | 1    | 2012         |                                     |
| Radial Drill Machine    | H=2000mm                      |          | DOOSAN            | 3    | 1995         |                                     |
| Overhead Crane          | 30+10TON                      |          | BANDO             | 3    | 2000         |                                     |



## 机械设备清单

# Facilities

| M/C Name                           | Size (XxYxW)                                   | Model | Maker       | Q'ty | Installation | Remark                              |
|------------------------------------|------------------------------------------------|-------|-------------|------|--------------|-------------------------------------|
| CNC Plano Miller                   | 11000x4500x4500                                | HF7M  | SNK(JAPAN)  | 1    | 2014         |                                     |
| Layout(Marking)<br>M/C             | 9350x3000x2000                                 |       | ATTOTECH    | 1    | 2014         |                                     |
| RT Room(NDT)                       | 11600x3000x7180                                |       |             | 1    | 2014         |                                     |
| Silver Coating Line                | 53700x9000x5500                                |       |             | 1    | 2014         |                                     |
| Radial Drilling<br>Machine         | H=3447mm                                       |       | BONGSHIN    | 1    | 2014         | Samhong<br>Machinery<br>2nd Factory |
| Vertical Miller                    | DMB-U5                                         |       | DOOSAN      | 1    | 2014         |                                     |
| Lathe                              | TIPL-5 MODEL.<br>530x1050                      |       | TONGIL      | 1    | 2014         |                                     |
| Welding Machine<br>(Tig, Mig, Arc) | Tig-14ea, Co2-10ea,<br>Mig-2ea, others-4ea     |       | MILLER, ETC | 30   | 2013         |                                     |
| Overhead Crane                     | 100+50 TON, 70+30 TON,<br>70+30 TON, 50+20 TON |       | BANDO       | 10   | 2014         |                                     |

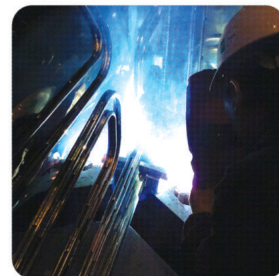


## Research & Development / 企业部设研究所

Samhong Machinery Co.,Ltd. operates a R&D Center for product design and production technologies and other fundamental technologies related to shipbuilding and nuclear power plants. Our outstanding researchers and designers at the R&D Center have successfully developed various new technologies.

### Research & Development

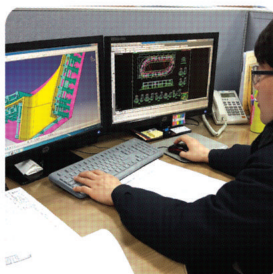
- . Develops new technology and products
- . Researches the development for technologically advanced products
- . Develops V-type vessel engine auxiliaries with CNC control
- . Creates Universal attachment of plano-miller
- . Researches the development for ITER project
- . Builds its R&D network through joint industry-academic research



三宏拥有海洋造船和核电发展有关的各种基础技术，设计技术和生产技术的研究所  
我司优秀的研究人员和设计人员在开发各行业的新技术。

### 企业附属研究所 (R&D)

开发新技术及新产品  
研究开发有技术优势的产品  
开发CNN控制的V型船舶主机辅助装置  
开发Plano Miller 的universal attachment  
研究热核聚变实验反应堆 (ITER PROJECT)  
强化产,学,研共同研究开发,架起R&D网



## Employee Welfare and Creates a Happy Workplace / 职员福利和创造快乐的工作环境

Samhong Machinery Co.,Ltd. & EMC Co.,Ltd. are committed to improve the quality of life within its community. We help members of the community to have better lives and to share company's economic success. Samhong machinery & EMC has built dormitories in the company as employee housing. In addition to the wellness and fun workplace for employee, we operates a fitness center with table tennis.

### 员工福利

为了员工及家人的稳定居住生活,提供宿舍等“稳定居住支援政策”。  
不仅如此,为了员工的健康和愉快的工作环境,运营着体育馆和台球室。





# CERTIFICATES / 证书

Samhong Machinery Co.,Ltd.



ISO9001

ISO14001

INNO-BIZ 이노비즈



Certificate of Research Department  
企业附属研究所

KEPIC-MN Certificate  
(Korea Electric Power Industry Code)  
战略性产业技术标准 认证书

Certificate of Clean Factory  
干净事业场 认证书



# CERTIFICATES / 证书

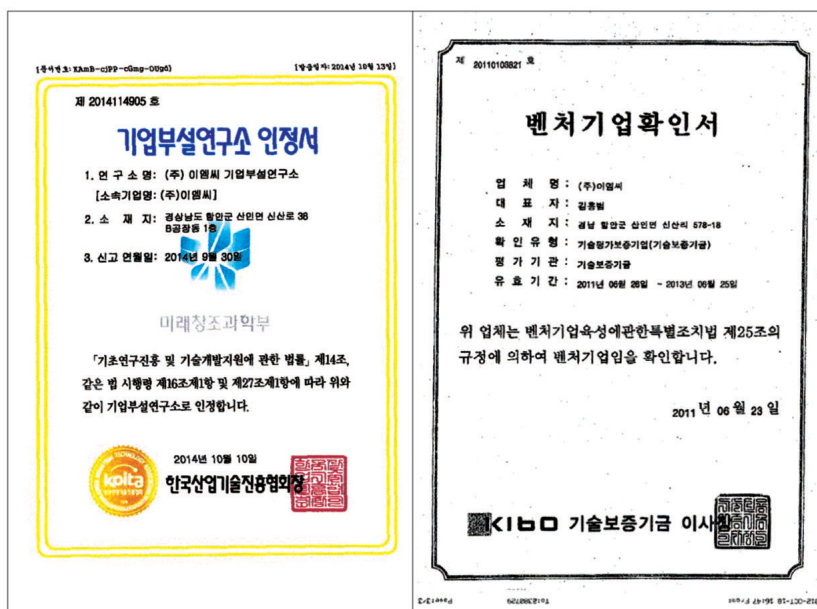
EMC Co.,Ltd.



ISO9001

ISO14001

INNO-BIZ 이노비즈



Certificate of Research Department  
企业附属研究所

Certificate of Venture Company  
风险企业确认书



## Machine shops

### EMC 1st Factory(Haman)

38, Shinsan-ro, Sanin-myeon, Haman-gun Gyeongnam province  
(Land 5987m<sup>2</sup>, Factory 3926m<sup>2</sup>, Office 382m<sup>2</sup>)  
Tel : +82-55-582-1953, Fax : +82-55-582-1957

### EMC 2nd Factory(Changwon)

82-43, Juckjun-ro, Uichang-gu, Changwon-city Gyeongnam province  
(Land 2302m<sup>2</sup>, Factory 1428m<sup>2</sup>, Office 277m<sup>2</sup>)  
Tel : +82-55-293-0729 (Overseas saels), Fax : +82-55-238-0729

### Samhong Machinery 1st Factory(Haman)

308, Beopsu-ro, Beopsu-myeon, Haman-gun Gyeongnam province  
(Land 5323m<sup>2</sup>, Factory 2621m<sup>2</sup>, Office 281m<sup>2</sup>)  
Tel: +82-55-583-8024, Fax: +82-55-583-8028

## Fabrication shop

### Samhong Machinery 2nd Factory(Changwon)

52, Sandan2-gil, Jinbuk-myeon, Hapso-gu, Masan,  
Changwon-city Gyeongnam province  
(Land 18057m<sup>2</sup>, Factory 11772m<sup>2</sup>, Office 2448m<sup>2</sup>)  
Tel : +82-55-714-8130, Fax : +82-55-714-8131

[www.shemc.co.kr](http://www.shemc.co.kr)

### E-Mail of

Overseas(해외) : parkkw@shemc.co.kr  
sales12@shemc.co.kr

Domestic(국내) : sales21@shemc.co.kr  
sales22@shemc.co.kr

## 가공공장

이엠씨 1공장 : 경남 함안군 산인면 신산로 38  
(대지 5987m<sup>2</sup>, 공장 3926m<sup>2</sup>, 사무실 382m<sup>2</sup>)  
Tel : 055)582-1953, Fax : 055)582-1957

이엠씨 2공장 : 경남 창원시 의창구 죽전로 82번길 43  
(대지 2302m<sup>2</sup>, 공장 1428m<sup>2</sup>, 사무실 277m<sup>2</sup>)  
Tel : 055)293-0729 (해외영업), Fax : 055)238-0729

삼흥기계 1공장 : 경남 함안군 법수면 법수로 308  
(대지 5323m<sup>2</sup>, 공장 2621m<sup>2</sup>, 사무실 281m<sup>2</sup>)  
Tel : 055)583-8024, Fax : 055)583-8028

## 제관공장

삼흥기계 2공장 : 경남 창원시 마산 합포구 진북면 산단2길 52  
(대지 18057m<sup>2</sup>, 공장 11772m<sup>2</sup>, 사무실 2448m<sup>2</sup>)  
Tel : 055)714-8130, Fax : 055)714-8131