

# Dukcheon Technology Co., Ltd

2020. 09



Dukcheon Technology Co., Ltd

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# 1. Company Profile

Established	August 25 <sup>th</sup> , 2001
Address	<b>Ungchon Factory</b> 585-9, Ungchon-ro, Ungchon-myeon, Ulju-gun, Ulsan, Korea
	<b>Oedong Factory</b> 373, Bangeobukto-gil, Oedong-eup, Gyeongju, Korea
Area	21,000 m <sup>2</sup>
Employees	80 Persons
Contacts	<b>Tel. No.</b> Ungchon Factory : 82 - 52-225-4570 Oedong Factory : 82 -54-745-2046
	<b>E-mail</b> Ungchon Factory : dukcheon.sales@gmail.com Oedong Factory : dukcheon.sales01@gmail.com

# 1. Company Profile

## 위치



Oedong Factory( 12 ,000 m<sup>2</sup>)

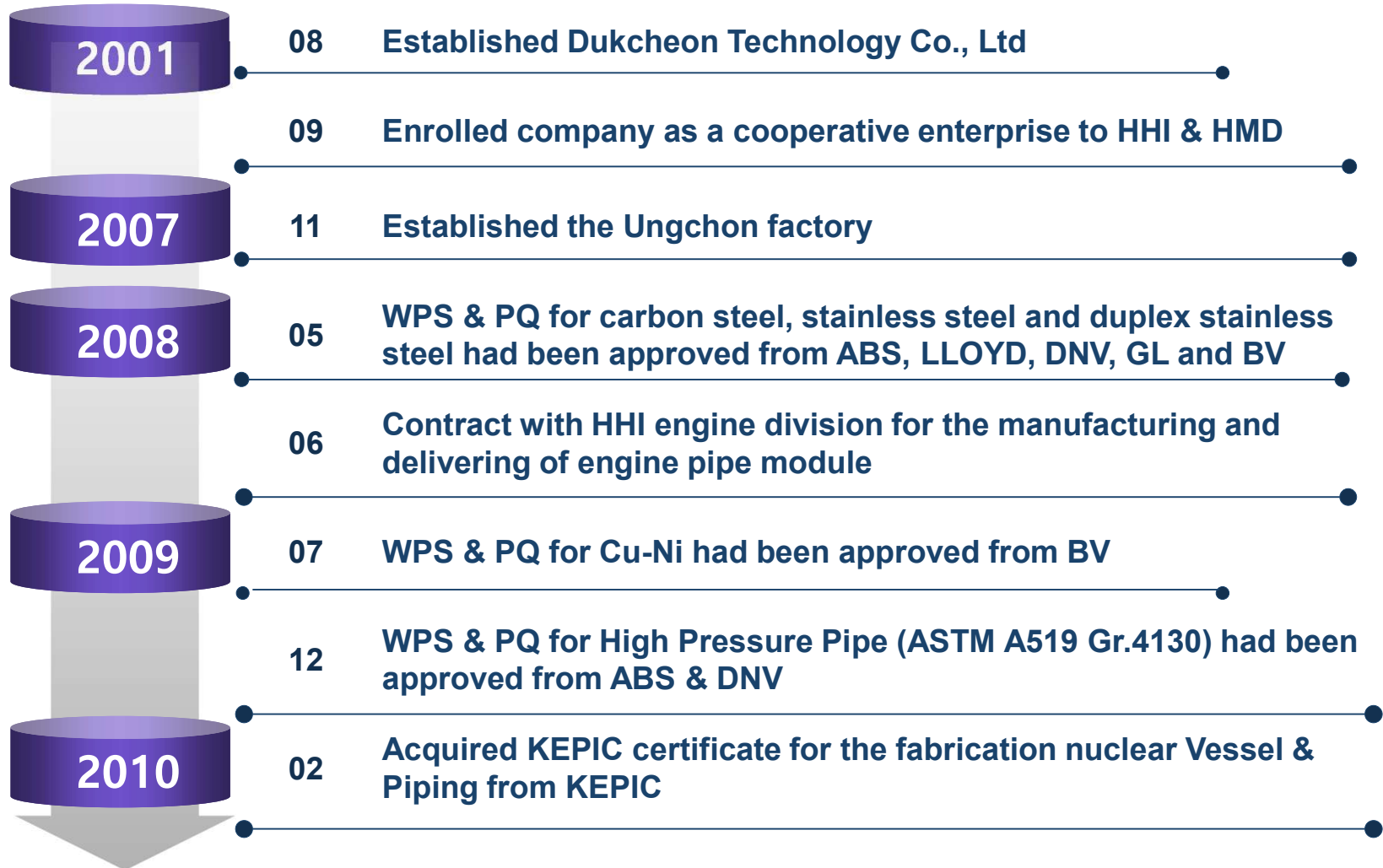


Ungchon Factory (9,000 m<sup>2</sup>)



# 1. Company Profile

Year



# 1. Company Profile

YEAR

2011

04 Established the Oedong Factory

07 WPS & PQ for DSS, SDSS and 6Mo had been approved from ABS for SAKHALIN Phase II project

2015

03 Acquire ASME U, PP & S stamp

2017

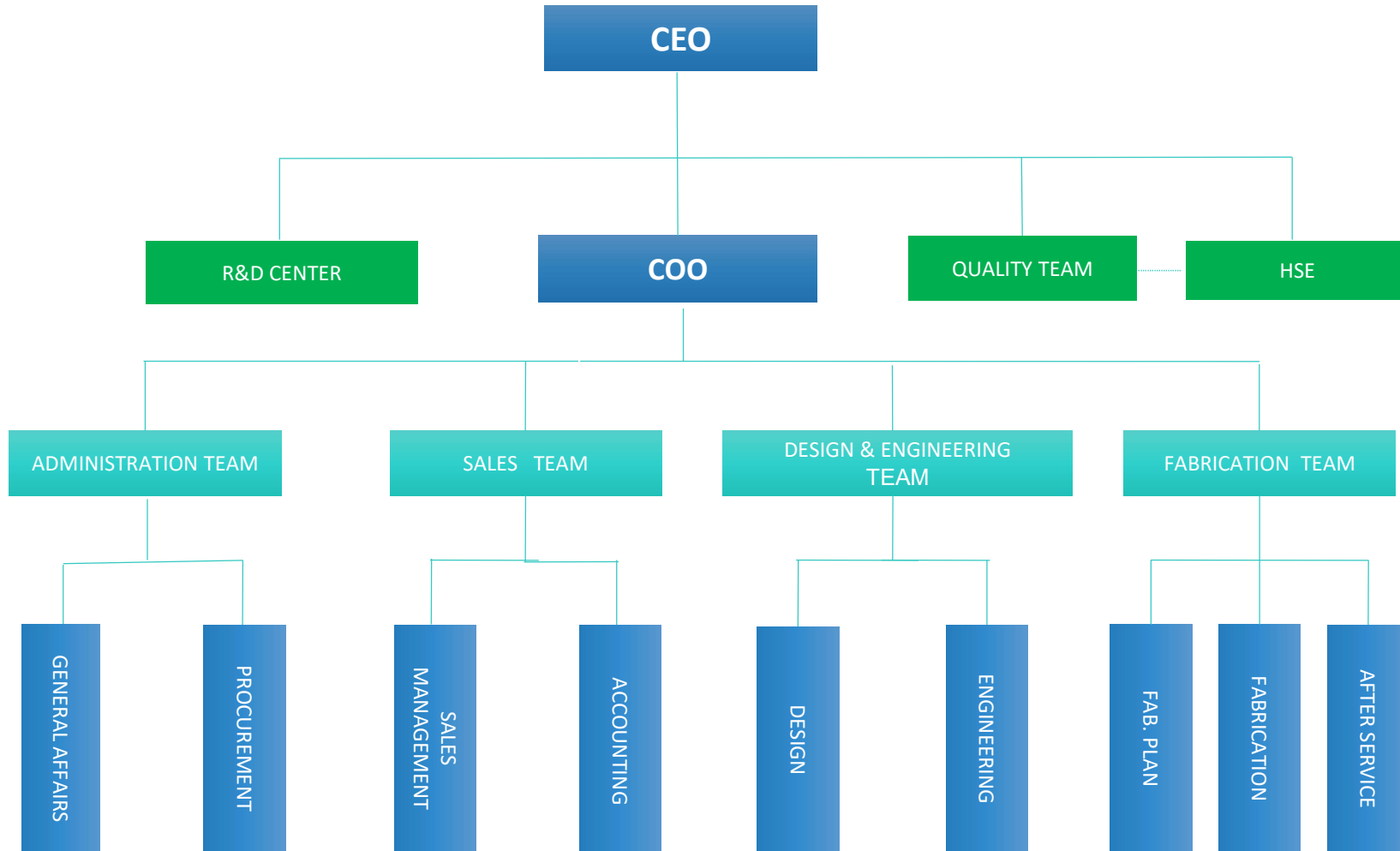
07 R&D Center (Korea Industrial Technology Association)

2019

09 Enrolled Company as cooperative company to Hyundai Electric and Energy Systems

10 Contract with HHI Shipbuilding division for the manufacturing and delivering of Deckhouse pipe spools

## 2. Organization



# 3. Business Area and Capacity

## Ferrous Pipe Spool Fabrication

<p><b>Item</b></p>	 	 	 
	<p>➤ <b>Marine Engine</b> -Engine Pipe</p>	<p>➤ <b>Onshore Plant</b> -Pipe Spool Fabrication</p>	<p>➤ <b>Nuclear Plant</b> -EDG Piping</p>
<p><b>Capacity</b></p>	<p>▪ <b>Carbon Steel</b> : 3,000 spool/month</p>		<p>▪ <b>Ferrous and Stainless Steel</b> : 800 Spool/month</p>



# 3. Business Area and Capacity

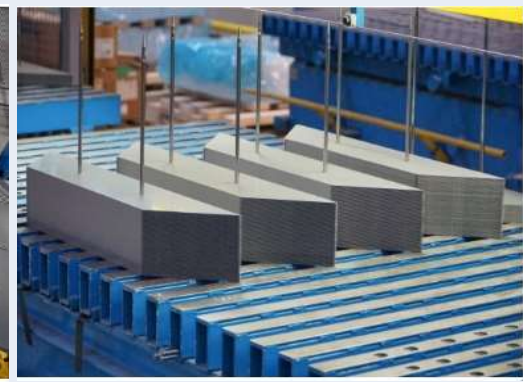
## Non-ferrous Pipe spool Fabrication

<p><b>Item</b></p>			
	<p>➤ <b>Offshore Plant</b> - Pipe Spool</p>	<p>➤ <b>Onshore Plant, etc</b> - LNG Pipe Spool</p>	<p>➤ <b>Pressure Vessel and Structure</b> - Desalination facility.</p>
<p><b>Capacity</b></p>	<p>▪ Ferrous and non-ferrous material : 1,300 Spool/month</p>		
<p><b>Material</b></p>	<ul style="list-style-type: none"> <li>• Carbon Steel</li> <li>• Duplex Stainless</li> <li>• Nickel Alloy</li> </ul>	<ul style="list-style-type: none"> <li>• Low-alloy</li> <li>• Super Duplex</li> <li>• Cu-Ni</li> </ul>	<ul style="list-style-type: none"> <li>• Stainless Steel</li> <li>• 6Mo</li> <li>• Titanium</li> </ul>

# 3. Business Area and Capacity

## Slitting & Cutting (Silicon Steel , etc)

Item



➤ **Transformer cores**

- Silicon Steel Plate Slitting & Cutting ( Slitting, Punching, Shearing, etc. )

Capacity

▪ Slitting 400 ton/month

▪ Cutting 150 ton/month

# 3. Business Area and Capacity

## Damper

Item



➤ Damper Design & Manufacture (Scrubber etc.)

Capacity

▪ Max. 3200 A

# 4. Factory View, Layout, Facilities

## Ungchon Factory View





# 4. Factory View, Layout, Facilities

## Ungchon Factory Facilities

Item	Facilities	Spec.	Qty	Remarks
1. CUTTING M/C	PIPE BEVEL CUTTER	400A	1	
	BAND SAW	5.5kW	3	
	PIPE COASTER	600A X 6M	1	
	PLASMA CUTTING	150A * 20T	2	
2. BENDING M/C	CNC PIPE BENDER	100A	1	
	CNC PIPE BENDER	65A	1	
	CNC PIPE BENDER	25A	1	
	NC PIPE BENDER	100A	1	
3. WELDING M/C	MIG WELDING	500A	36	
	TIG WELDING	500A	25	
4. WELDING POSITIONER	POSITIONER	125A~600AQ	2	
	ROTATOR	600A	11	

# 4. Factory View, Layout, Facilities

## Ungchon Factory Facilities

Item	Facilities	Spec.	Qty	Remarks
5. MACHINING EQUIP.	LATHER	1200 x 4500	1	
	PIPE BEVELCUTTING	100A, 400A	1	
	FACING M/C	KD125	1	
	DRILLING M/C	1600A, 850A	2	
6. LIFTING EQUIP.	OVER HEAD CRANE	2ton~20ton	8	
	GANTRY CRANE	10ton,~70ton	3	
	FORK LIFT	7ton	1	
7. OTHERS	TRUCK	1ton, 2ton	2	

# 4. Factory View, Layout, Facilities

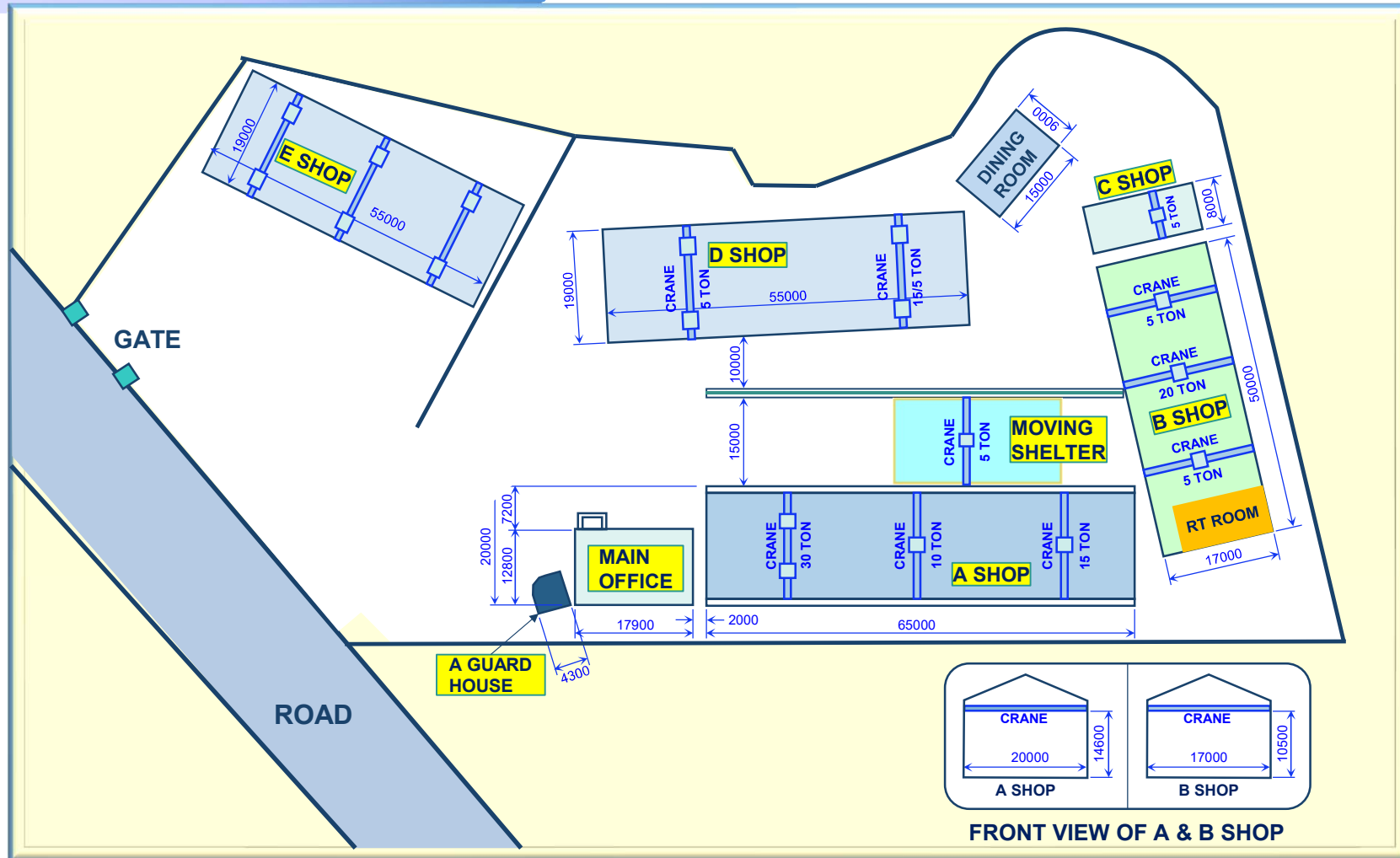
## Oedong Factory View





# 4. Factory View, Layout, Facilities

## Oedong Factory Layout



# 4. Factory View, Layout, Facilities

## Oedong Factory Facilities

Item	Facilities	Spec.	Qty	Remarks
1. CUTTING M/C	PIPE BEVEL CUTTER	150A, 500A	2	
	BAND SAW	700A	2	
	PLASMA CUTTING	150A * 20T	2	
2. WELDING M/C	MIG WELDING	500A	2	
	TIG WELDING	500A	18	Pulse
	TIG WELDING	500A	19	
	SEMI-AUTO AL. WELDING	600A	18	Al. welding
	CO2 WELDING	500A	8	
	GOUGING	1000A	1	
3. WELDING POSITIONER	ROTATOR	600A	6	
	ROTATOR	1000A	8	

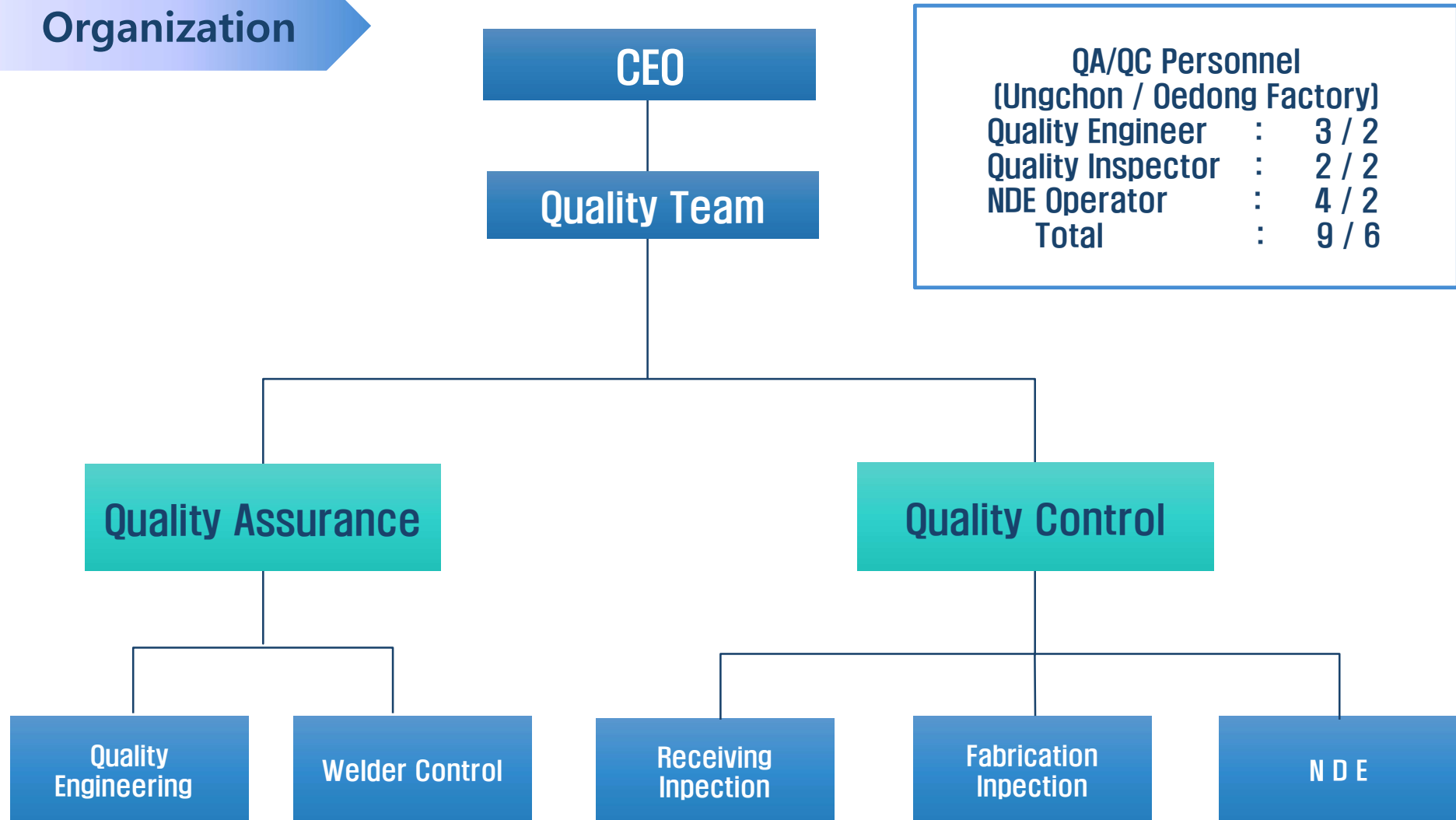
# 4. Factory View, Layout, Facilities

## Oedong Factory Facilities

Item	Facilities	Spec.	Qty	Remarks
4. MACHINING EQUIP.	LATHER	1200 x 4500	1	
	LATHER	940 x 2000	1	
	LATHER	580 x 2000	2	
	MILLING M/C		1	
	DRILLING M/C		1	
5. LIFTING EQUIP.	OVER HEAD CRANE	2ton~20ton	11	
	GANTRY CRANE	10ton~30ton	1	
	FORK LIFT	3ton, 7ton	2	
6. OTHERS	TRUCK	1ton, 2ton	2	
	HYDRAURIC PRESSURE TEST EQUIPMENT	210bar	1	
7. Slitting Machine	Core Slitting Machine	~1300 mm	1	
8. Cutting Machine	Core Cutting Machine	500~5,000mm	1	

# 5. Quality System

## Organization



## 5. Quality System

### Quality Policy

Providing products and service meet customer expectations and applicable regulatory requirements

Optimized fabrication process and waste elimination

Relentless Innovation for high quality standards

Cooperation based on communication and mutual assistance

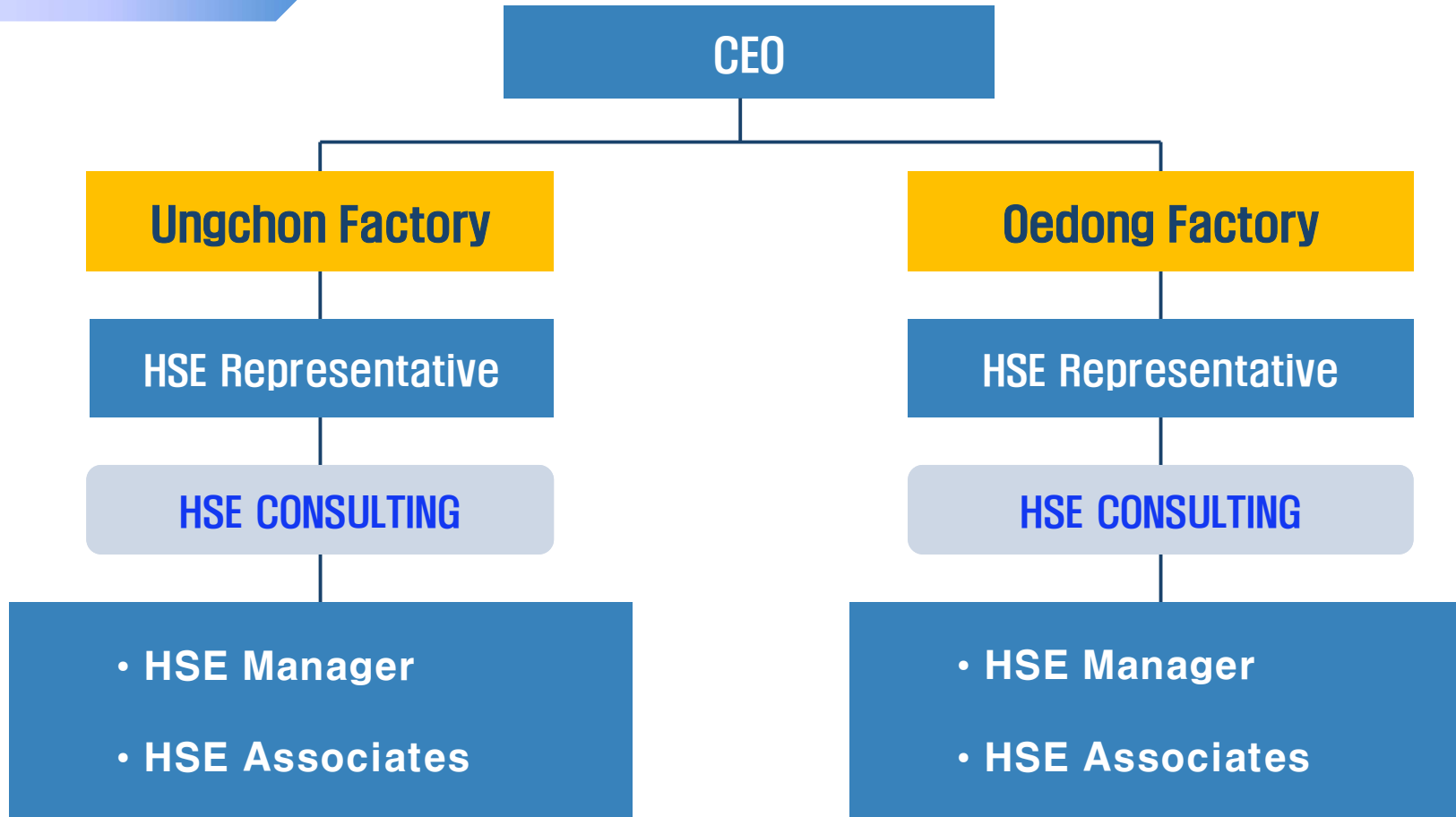
# 5. Quality System

## ISO 9001:2015



# 6. HSE System

## Organization



# 6. HSE System

## \* Safety Statistics (KPI)

Year	Average Numbers of Employees	Exposure of Employee Hours	Number of Recordable Cases	Incident Rate of Recordable Cases	Numbers of Lost Time Injury	Incident Rate of Lost Time Injury	Number of Fatality
2014	115	298,080	0	0.00	0	0.00	0
2013	98	254,016	0	0.00	0	0.00	0
2012	92	238,464	0	0.00	0	0.00	0

\* Incidence Rate of Recordable Cases = Number of Recordable Cases × 200,000/Employee Hours

\* Incidence Rate of Lost Time Injury = Numbers of lost Time Injury × 200,000/Employee Hours



# 6. HSE System

## ISO 14001 & OHSAS 18001



# 7. Experience

## 1) Pipe spool

No	Customer	Project Name	Size	Mat'l	Remark
	Client	Item			
1	HHI	Ship engine pipe	@ 300 spools / engine	Carbon Steel	2007 ~present
	HHI				
2	SUNG JIN GEOTEC	Fujairah II	½" ~ 72"	Duplex Steel (S31803)	2008
	SIDEM	Desalination plant			
3	NOV-KOREA	Stena #4	6" ~ 12" (31t~38t)	Alloy Steel	2009 ~2010
	SAMSUNG IND.	Dual hoisting tower			

# 7. Experience

No	Customer	Project Name	Size	Mat'l	Remark
	Client	Item			
4	NOV-KOREA	High pressure pipe	5.5" ~ 7" (31t~38t)	Alloy Steel	2009 ~2011
	NOV-Norway	MUD stand pipe			
5	NOV-KOREA	Sevan	5.5" ~ 7" (31t~38t)	Alloy Steel	2010 ~2011
	NOV-Norway	Burner boom			
6	NOV-KOREA	Riser pipe	5.5" ~ 7" (31t~38t)	Alloy Steel	2010 ~2011
	NOV-Shanghai	Booster line			
7	NOV-KOREA	Riser pipe	2.5"	Duplex (S31803)	2010 ~2012
	PACIFIC Drilling	Hydraulic Line			
8	HHI	USAN	4"	SS (316L)	2010
	TOTAL	Hydro test cap			

# 7. Experience

No	Customer	Project Name	Size	Mat'l	Remark
	Client	Item			
9	HHI	NR2	8" , 30"	Titanium	2010 ~2011
	WOODSIDE	Field welding piping			
10	OCEAN US	Sakhalin phase II	2" ~ 4"	Duplex Steel (S31803)	2010 ~2011
	SAKHALIN ENERGY	Drain water line			
11	OCEAN US	Sakhalin phase II	1½" ~ 14"	Super Duplex Steel (S32760)	2011 ~2012
	SAKHALIN ENERGY	Injection Water Line			
12	OCEAN US	Sakhalin phase II	1½" ~ 12"	6Mo, Super Stainless Steel (S31254)	2011 ~2012
	SAKHALIN ENERGY	Sea Water Line			
13	HHI	Gorgon	1" ~ 72"	SS (304, 316L)	2011 ~2013
	CHEVRON	LNG plant welding piping			

# 7. Experience

No	Customer	Project Name	Size	Mat'l	Remark
	Client	Item			
14	HHI	Clair Ridge	1" ~ 24"	SS, DSS, Cr-Mo	2013 ~2015
	BP	Drilling Production			
15	HHI	Hebron	1"~24"	Duplex steel, Cr-Mo	2014 ~2015
	EXXONMOBIL	Fixed platform process & utility			
16	HHI	JSTPP (Jeddah)	3" ~ 28"	Stainless steel (304, 316L) DSS	2014 ~2015
	SEC	Combined heat & power plant			
17	HSHI	Moho Nord	½" ~ 16"	Stainless steel (316L, 904)	2014 ~2015
	TOTAL	FPU Hull & Topside			
18	HHI	Aasta Hansteen	½" ~ 30"	Titanium, 6 Mo	2015 ~2016
	STATOIL	SPA FPSO Topside			

# 7. Experience

No	Customer	Project Name	Size	Mat'l	Remark
	Client	Item			
19	HHI	SSPP (Shuqaiq)	3" ~ 28"	Stainless steel (304L, 316L)	2015 ~2016
	SEC	Combined heat & power plant			
20	HHI	Odoptu Stage II	1" ~ 16"	SS (316L)	2015
	EXXONMOBIL	Process Piping for Onshore Modules			
21	HHI	Jangkrik	½" ~ 12"	Cu-Ni (C70600)	2015
	ENI	FPU Hull & Topside			
22	HHI	Badamyar	½" ~ 16"	Cu-Ni (C70600)	2015
	TOTAL	Fixed platform process & utility			
23	HHI	Bergading	½" ~ 30"	SS (316L)	2015 ~2016
	HESS	Central Processing Platform			

# 7. Experience

No	Customer	Project Name	Size	Mat'l	Remark
	Client	Item			
24	HHI	Baronia	½" ~ 24"	SS (316/316L)	2016
	PETRONAL CARIGALI	Upstream Facilities			
25	유영파이프	포항 3고로 3차 개수	1" ~ 18"	Carbon Steel Stainless Steel (sts304)	2016 ~2017
	POSCO	미분탄 취입장치류			
26	GS NEOTEK	S-OIL RUC PJT (Pkg3 Of Area2)	2" ~ 36"	CS, SS	2016 ~ 2017
	DAEWOO E&C	Shop Fabricated Pipe spool			
27	ADMA-OPCO	NASR Package2	1" ~ 24" 2" ~ 16"	SS(316L) Super Duplex Steel(S32750)	2017
	HHI	Fixed platform process & utility			
28	SJ Tech	Strainer	18" / 25t	SUS 321	2020

# 7. Experience

## 2) Scrubber Damper

No	Customer	Project Name	Size/Quantity	Material	Remark
	Client	Item			
1	Panasia	JOANNA etc.	500A ~ 2800A / 32EA	SUS316 / SUS304	2019.9 ~present
		Scrubber Damper			
2	GreenWorks	RCS	150A	Inconel 625	2020.07
		RCS Outlet Damper			
3					



# 7. Experience

## 3) Slitting & Cutting

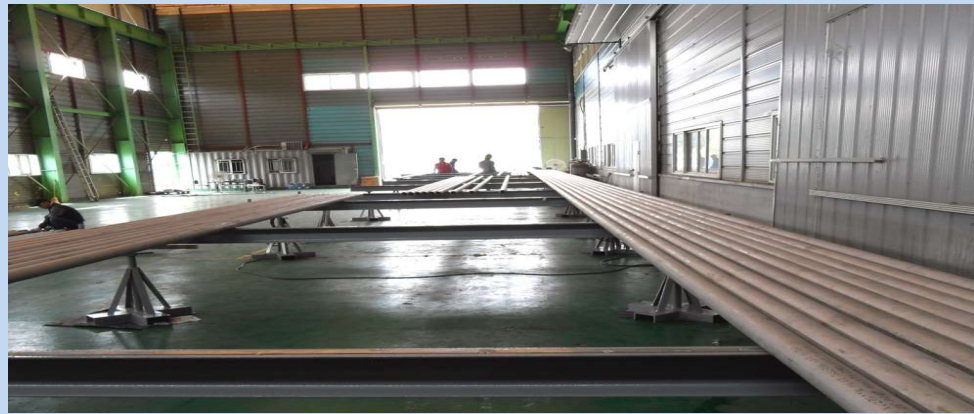
No	Customer	Project Name	Size/Quantity	Material	Remark
	Client	Item			
1	Sejung Corp.	Transformers	0.23t, 0.3t /120ton	Silicon Steel	2019.12 ~present
		15, 20, 25MVA			
2	Kwangjin	Transformers	0.23t/ 10ton	Silicon Steel	2019.12 ~2020.1
		Parts			
3	Hyundai Electric and Energy Systems	Transformers	0.23t/0.3t 50 ton	Silicon Steel	2020.3 ~ present
		Parts			
4	Koh-A Jung Gong Co., Ltd	Transformers	0.23t/ 50 ton	Silicon Steel	2020.03 ~2020.04
		Parts			

# 8. Reference Photos



<b>Product</b>	<b>Desalination plant piping &amp; Component</b>
<b>Material</b>	<b>Duplex Stainless Steel</b>
<b>Client</b>	<b>SIDEM</b>

# 8. Reference Photos



<b>Product</b>	<b>Riser Pipe Hyd. line</b>
<b>Material</b>	<b>Duplex Stainless Steel</b>
<b>Client</b>	<b>NOV KOREA</b>

# 8. Reference Photos



<b>Product</b>	<b>Duplex drain water line</b>
<b>Material</b>	<b>Super Duplex, etc.</b>
<b>Client</b>	<b>SAKHALIN ENERGY</b>

## 8. Reference Photos



Product	Gorgon LNG Plant
Material	SS
Client	CHEVRON



## 8. Reference Photos



<b>Product</b>	<b>Drilling</b>
<b>Material</b>	<b>DSS, 904, SS</b>
<b>Client</b>	<b>BP</b>

## 8. Reference Photos



Product	NR2 Titanium pipe line
Material	Titanium
Client	WOODSIDE



# 8. Reference Photos



<b>Project</b>	<b>HEBRON &amp; CLAIR RIDGE</b>
<b>Material</b>	<b>DSS, SS, 4130</b>
<b>Client</b>	<b>ExxonMobil &amp; BP</b>



# 8. Reference Photos



<b>Project</b>	<b>JSTPP (Jeddah) &amp; SSPP (Shuqaiq)</b>
<b>Material</b>	<b>SS</b>
<b>Client</b>	<b>SEC</b>

## 8. Reference Photos



**Project**

**MOHO NORD (Hull & Topside)**

**Material**

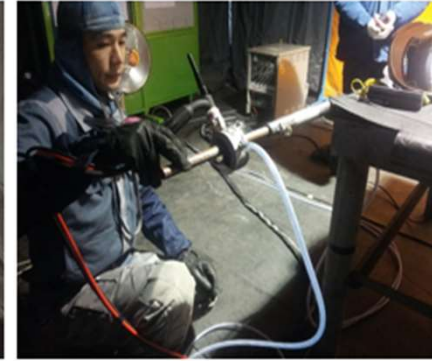
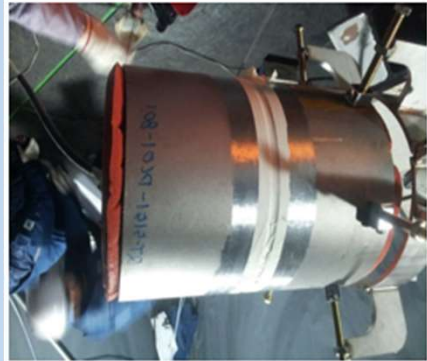
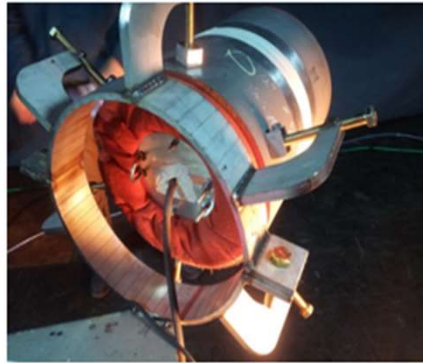
**SS, 904**

**Client**

**TOTAL**



# 8. Reference Photos



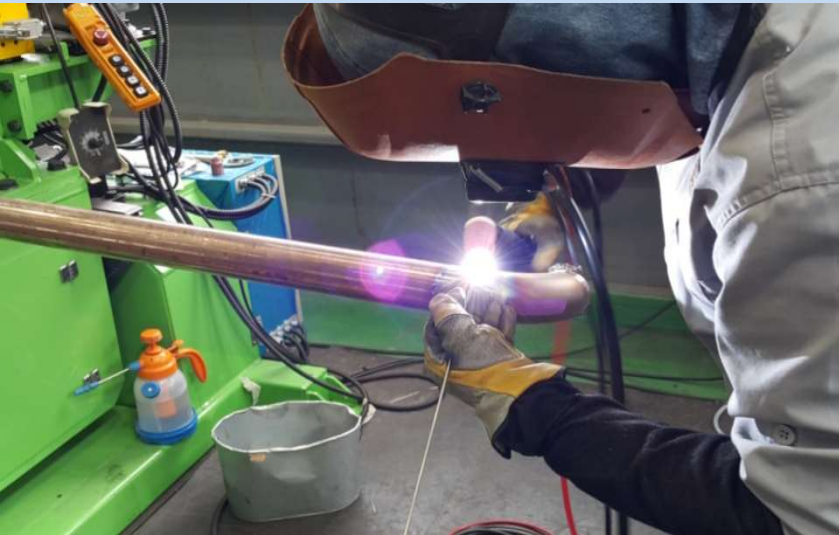
Project	Aasta Hansteen
Material	Titanium
Client	STATOIL

## 8. Reference Photos



<b>Project</b>	<b>Aasta Hansteen</b>
<b>Material</b>	<b>6Mo</b>
<b>Client</b>	<b>STATOIL</b>

## 8. Reference Photos

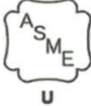


<b>Project</b>	<b>Jangkrik</b>
<b>Material</b>	<b>Cu-Ni</b>
<b>Client</b>	<b>ENI</b>



# 9. Certificates

The American Society of Mechanical Engineers




## CERTIFICATE OF AUTHORIZATION


The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.


**COMPANY:**  
 Duk Cheon Technology Co., Ltd.  
 373, Bangeobukto-gil, Oedong-eup  
 Gyeongju-si, Gyeongbuk 680-815  
 Republic of Korea

**SCOPE:**  
 Manufacture of pressure vessels at the above location and field sites controlled by the above location (This authorization does not cover impregnated graphite)


**AUTHORIZED:** March 4, 2015  
**EXPIRES:** March 4, 2018  
**CERTIFICATE NUMBER:** 48,907

  
 Vice President, Conformity Assessment

  
 Director, Conformity Assessment



The American Society of Mechanical Engineers




## CERTIFICATE OF AUTHORIZATION


The named company is authorized by the American Society of Mechanical Engineers (ASME) for the scope of activity shown below in accordance with the applicable rules of the ASME Boiler and Pressure Vessel Code. The use of the certification mark and the authority granted by this Certificate of Authorization are subject to the provisions of the agreement set forth in the application. Any construction stamped with this certification mark shall have been built strictly in accordance with the provisions of the ASME Boiler and Pressure Vessel Code.


**COMPANY:**  
 Duk Cheon Technology Co., Ltd.  
 373, Bangeobukto-gil, Oedong-eup  
 Gyeongju-si, Gyeongbuk 680-815  
 Republic of Korea

**SCOPE:**  
 Fabrication and assembly of pressure piping at the above location and field sites controlled by the above location

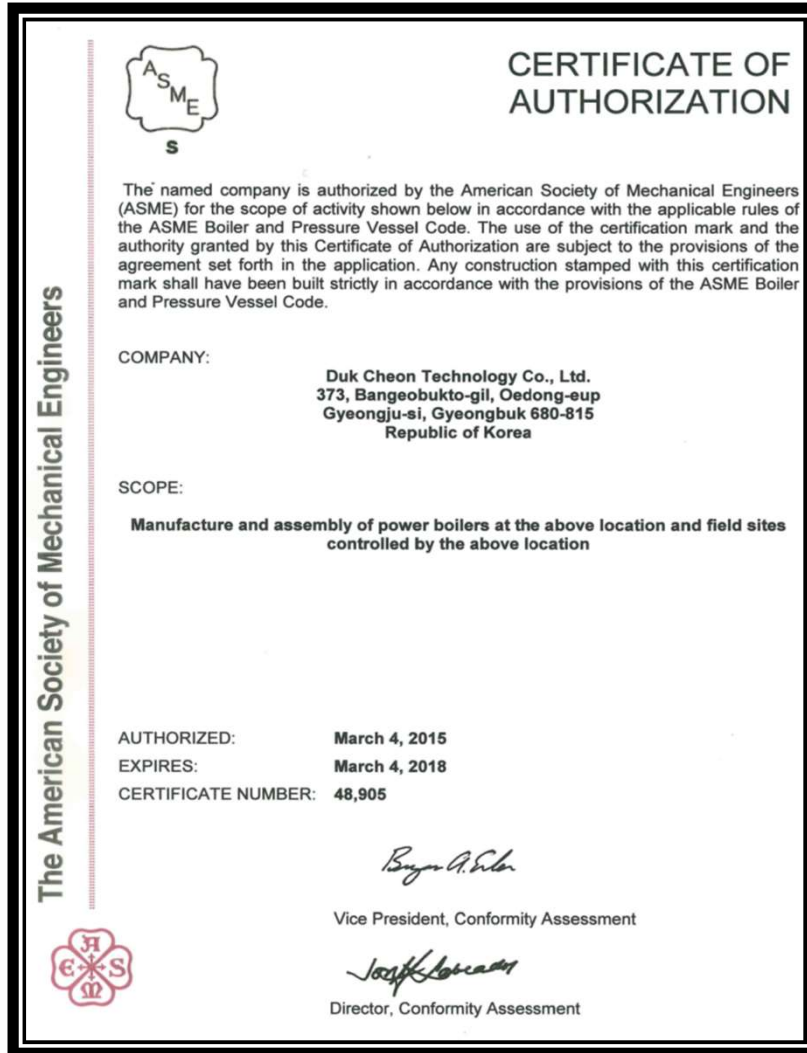
**AUTHORIZED:** March 4, 2015  
**EXPIRES:** March 4, 2018  
**CERTIFICATE NUMBER:** 48,906

  
 Vice President, Conformity Assessment

  
 Director, Conformity Assessment



# 9. Certificates



# 9. Certificates

**DNV·GL**

DNV GL SE • P.O. Box 11 34 04 • 20419 Hamburg • Germany

DNV GL SE  
P.O. Box 11 34 06  
20419 Hamburg  
Brookkorkal 18  
20457 Hamburg/Germany  
Phone +49 40 36149-0  
Fax +49 40 36149-200  
headoffice@dnvgl.com  
www.dnvgl.com

Duk Cheon Technology Co., Ltd.  
Attn: Mr. Shin, Min-Tai  
466, Daebog-ri, Ungchon-myeon  
Uiju-Gun  
Ulsan 689-873  
Korea, Republic of

Your reference	Your Letter of	Our reference	Extension	Date
		051633-14/GorSti	+49 40 3 61 49-	2014-08-12

**Prolongation of your GL welding workshop approval**

Dear Mr. Shin, Min-Tai,

Thank you for your always good cooperation and for providing us with your well prepared application documents.

Please find attached the prolongation of your GL welding workshop approval with appendix Rev. 02 to Certificate No.: WF 0810255HH.

The workshop approval is prolonged until 30.04.2017.

We have recognized you as new responsible welding supervisor and Mr. Cheong, Hee-Beom as your deputy.


The conditions according to our initial approval letter are still valid and shall be observed.


The already GL approved welding procedure certificates with supplement no. 01 to 04 are further more valid.

The fees for the prolongation of the GL welding workshop approval and for the issuance of the certificate will be charged to you separately under accounting no. 0360 14 58743 142.

Yours faithfully,


for DNV GL SE

  
Marcus von Busch

  
Gordon Steb

Chairman of the Supervisory Board: Henrik O. Madson • Executive Board: Joachim Segatz (Chairman) • Tor E. Svensen  
DNV GL SE, Registered Office Hamburg, HRB 115442  
The latest edition of the General Terms and Conditions of DNV GL SE is applicable.

26 December 2011  
Refer to: YYP/ks  
File Ref.: O2E  
Task No.: 843293  
CID: 407487

  
FOUNDED 1882

**DUK CHEON TECHNOLOGY CO., LTD.**  
#94-1, Bukto-Ri, Oedong-Up, Kyung-Ju City, Gyeongbuk  
Korea

Attn: Mr. J. H. Kim- President

WPS/Welding Procedure Qualification Record

Gentlemen:

We have your letter of 14 December 2011( Ref, DCTR-111214-001) submitting three (3) prints of the following drawing :

PQR No. : PGTAW-SDCS-001                      "GTAW-Groove Joint Welding"

We have reviewed the results and advise that the procedures as indicated and amended are acceptable provided the production weld is to the satisfaction of the attending surveyor.


One (1) print of the above drawing stamped to indicate our review is being returned.

An invoice to cover our fee for this technical service will be sent to you separately.

Should you need any clarification, please do not hesitate to contact Yong Yoo Park at 051-460-4128 or the undersigned at 051-460-4187 In case of inquiry by phone or reply in document, please indicate our Task No. and the date of this letter.

Very truly yours,

**ABS PACIFIC**  
Thomas Kirk  
Vice President of Engineering

By:   
Kosaku Sano,  
Senior Engineering Specialist  
Ship Structure and Statutes

Cc: ABS Pacific, Ulsan - w/p

PACIFIC DIVISION  
8th Floor, Kyobo Life Insurance Bldg., 86-7, 4-Ka, Chungang-Dong, Chung-Ku, Busan, 600-737, KOREA  
TEL: 82-51-469-6371, FAX: 82-51-462-4630 Email: ABS@ulsan@eagle.org www.eagle.org

**150** Years  
Tradition in safety



# 9. Certificates



# Thank you



Dukcheon Technology Co., Ltd