

SINCE 1971



SEWON E&C

OUR VALUE YOUR SUCCESS

Quality Value. Delivery Value. Price Value.



SEWON E&C

CEO MESSAGE



In its long journey with customers and partners since its foundation in 1971, SEWON E&C has sought to pioneer new approaches in manufacturing. These endeavors have yielded many products that have enriched the lives of people in the world and SEWON E&C has contributed to the development of the industries through these commitments. Over the past five decades we have become a leader in executing large, complex projects on time and within budget. The world, however, always present great challenges, and the work of solving them will never be finished.

SEWON E&C are convinced that our customers will continue to rely on us as integral to their success by delivering their most valuable projects safely, on time, within budget, and to their quality requirements. We will work closely with them to find even more innovative solutions to lessen the impact of their every challenge and believe that SEWON E&C is well positioned in global market and will deliver innovations that answer global economy challenges.

Moving towards to next half-century, SEWON E&C promises to maintain the highest quality of product and think ahead to the customer needs and realize best values.

CEO Lee, Jong In

Overview

Founded in 1971, SEWON E&C have been one of the most technologically focused plant manufacturing company in the world and major provider of various clients from all over the world. During our history, we have acquired many innovative technologies and executed large projects for fabrication in the Oil & Gas and Energy industries the refinery complex to the energy sector successfully. Today, SEWON E&C is perfectly ready to support any projects from precious clients and our endeavors dedicated to the success of clients will become the hallmark of our business.

Enterprise Structure



Chemical
Process
Equipment

Process Equipment
Glass Lined Equipment



Power
Limb

Hydraulic Equipment
Hydraulic System & Unit

Company Snapshot

Company Name
SEWON E&C Co., Ltd.

Date of Establishment 1971.01.14

Business
Field

Process
Equipment

Mechanics &
Engineering

Location

- 1 Changwon, Korea
- 2 Seoul, Korea
- 3 Busan, Korea

Head Office

211, Gongdan-ro, Seongsan-gu,
Changwon-si, Gyeongsangnam-do,
Korea

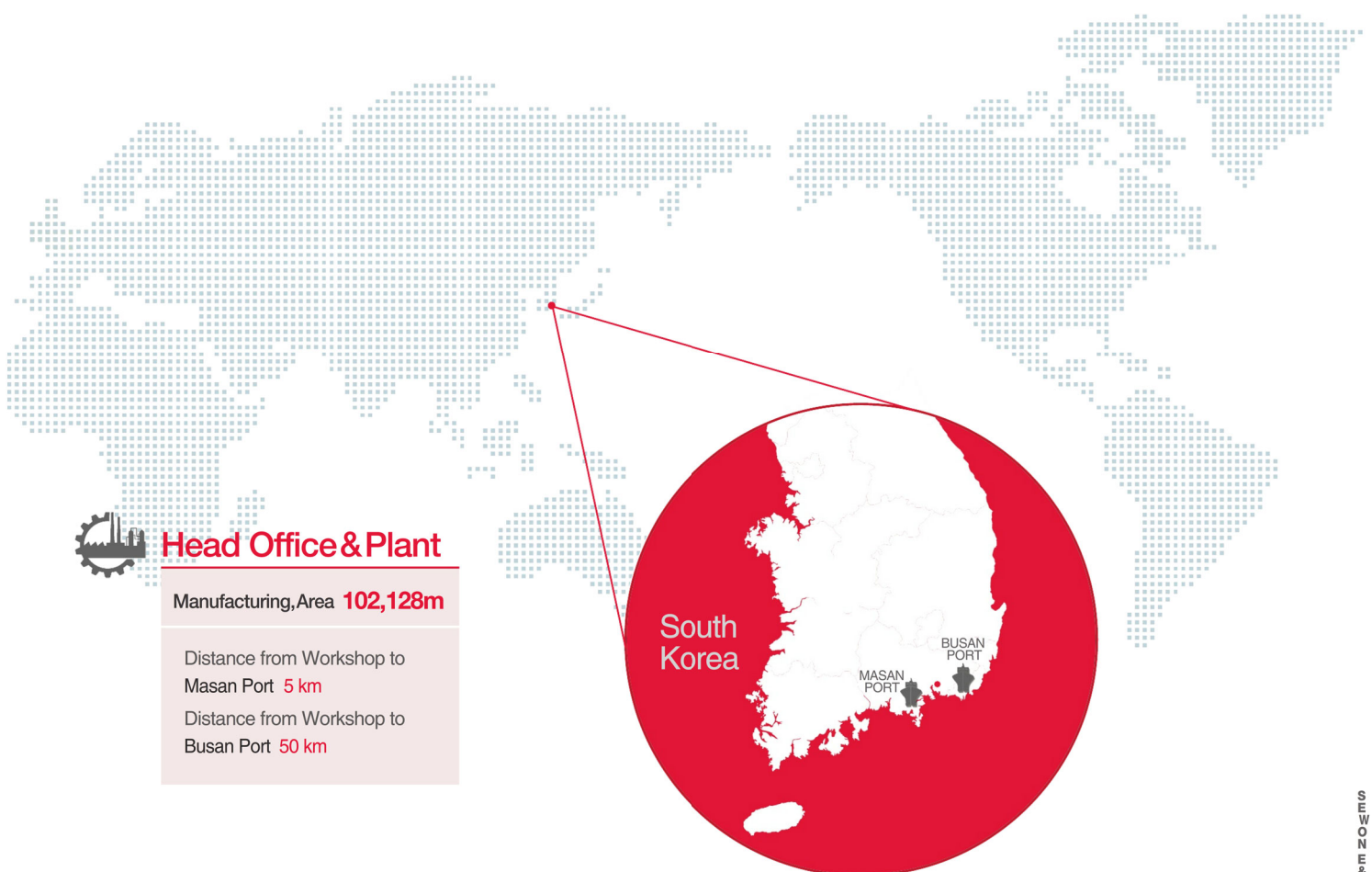
Website

www.sewonenc.com

Location of **SEWON E&C**



SEWON E&C has a good location and logistics, the product can be delivered to our customers quickly and safely.



Head Office & Plant

Manufacturing, Area **102,128m**

Distance from Workshop to
Masan Port **5 km**

Distance from Workshop to
Busan Port **50 km**

Line of Business

Reactors



SEWON E&C is capable of designing in strict compliance with the client's requirements and supplied reactors in the world make us build up a strong relationship with clients and licensors. Zero-tolerance quality control and technical research of welding and heat treatment are always a strong basement for supporting clients' request.



Drums



SEWON E&C heavy wall pressure vessels are in use for a wide range of pressure, temperature and fluid flow in process plants. With decades of experience, SEWON E&C has been fully committed to provide our services and products to our clients' satisfaction.



Towers & Columns



SEWON E&C is a reputed fabricator of several types of packed and tray columns.



Shell & Tube Heat Exchangers



Various types of shell & tube heat exchangers are supplied by over 40 manufacturing Know-how.





REACTORS

- 01** CCR Platforming Reactor (UOP)
- 02** CCR Reforming Reactor (Axens)
- 03** FCC Reactor & Regenerator
- 04** PDH (Propane Dehydrogenation) Reactor – Oleflex Reactor (UOP)
- 05** Water Cooled Methanol Reactor
- 06** Hydro-Treating Reactor
- 07** SM (Stylene Monomer) Reactor – SMART Reactor (UOP)
- 08** Secondary Reformer (Haldor Topsoe)



CCR Platforming

(Continuous Catalytic Reforming)
Reactor (UOP)

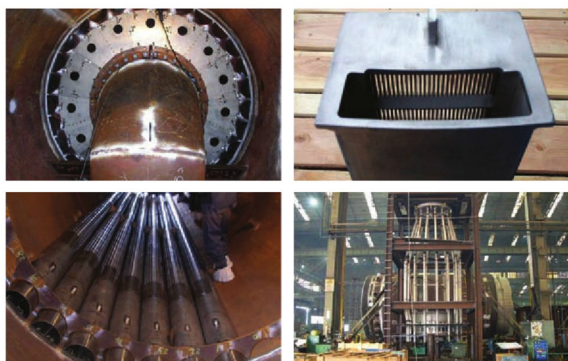
REACTORS



Our rich experiences have made us to develop know-how to fabricate the reactor on-time with required quality. Its high temperature service needs very careful mechanical design. This reactor is usually very long because each section of reactors is stacked vertically. Thus tolerances including straightness are quite severe. We know well how to handle all these difficulties. And good relationship and cooperation with licensor and internal parts suppliers enables to be better for this equipment.

Reference

- 1 Internal Part (Centerpipe, Catalyst Transfer Pipe) shall be separately packed, assembled at site after trial-assembly at CCR manufacturer's shop
- 2 Referring scallop type, assembly scope can be managed at the shop or site.



Experience List					
CCR Reactor (UOP)					
Customer	Project	Description	Material	Weight (Ton)	Year
GS E&C	Lidong Aromatics	CCR Platforming Reactor #1~#4 [Moon Type]	SA387-11 Cl.1	300	2006
SK E&C	ATC Aromatics Complex 2	CCR Platforming Reactor [Moon Type]	SA387-11 Cl.1	330	2007
GS Caltex Corp.	CCR Revamping	CCR Revamping [Moon Type]	SA387-11 Cl.1	175	2008
SK E&C	KPPC Aromatics	CCR Platforming Reactor [Moon Type]	SA387-11 Cl.2	533	2008
Bechtel-Jacobs Joint Venture	Motiva Crude Expansion	CCR Platforming Reactor [Optimizer Type]	SA387-22 Cl.2	468	2009
Daelim Industrial Co., Ltd	Yanbu	CCR Platforming Reactor [Optimizer Type]	SA387-11 Cl.1	281	2012
SK E&C	Jurong Aromatic	CCR Platforming Reactor [Moon Type]	SA387-11 Cl.1	244	2013
Hyundai Engineering & Construction	V-Project	CCR Platforming Reactor [Moon Type]	SA387-11 Cl.1	168	2014
UOP	Rosneft	CCR Platforming Reactor [Moon Type]	SA387-11 Cl.1	167	2014
UOP	Antipinsky Russia	CCR Platforming Reactor [Moon Type]	SA387-11 Cl.11	100	2016
Technip Malaysia	NSRP	CCR Platforming Reactor #1~#4 [Moon Type]	SA387-22 Cl.21	336	2017
UOP	YAIKIY CCR	CCR Platforming Reactor [Optimizer Type]	SA387-22 Cl.2	112	2018
Hyundai Engineering & Construction	RDMP	CCR Platforming Reactor [Moon Type]	SA387-11 Cl.2	222	2022

CCR Reforming

(Continous Catalytic Regeneration)
Reactor (Axens)

REACTORS

This reactor is made of CrMo low alloy steel. Heat control is very sensitive for welding of this material to maintain required quality. We know how to handle this material very well. There are very complicate catalyst transfer pipes installed to connect upper&lowerhopper to reactor. It needs very careful bending for 3 dimensional pipes to fit perfectly. Our successful supplying experiences prove our capability.



Reference

- 1 The bending tolerance of catalyst transfer piping shall be considered to connect reactor from catalyst hopper.
- 2 Internal Part (Centerpipe, Catalyst Transfer Pipe) shall be separately packed, assembled at site after trial-assembly at CCR manufacturer's shop, and scallop or outside grid shall be assembled at shop.



Experience List					
CCR Reactor (Axens)					
Customer	Project	Description	Material	Weight (Ton)	Year
GS Engineering & Construction	No.4 Aromatics	CCR Reactor	A387-11 Cl.1	51	2003
SK Engineering & Construction	NRCX	CCR Reactor	A387-11 Cl.1	41~58	2006
GS Engineering & Construction	Sohar Aromatic	CCR Reactor	A387-11 Cl.1	33~54	2008
Samsung Engineering	Aromatics	CCR Reactor	A387-11 Cl.1	50~99	2012
Technip Energies	Rehabilitation & Adapation	CCR Reactor	A387-11 Cl.1	15~22	2014
Bankchark	Hyundai Engineering	CCR Reactor	A387-11 Cl.1	15~74.7	2020

FCC

(Fluidised Catalytic Cracking)

Reactor & Regenerator

REACTORS

FCC reactor and regenerator are key-equipment for FCC (Fluidised Catalytic Cracking) Process. Due to its process requirement, many complicate internal parts and refractory lining shall be installed inside of the equipment. Working sequences are very critical to maintain quality & on-time delivery. Through extensive experiences, we know how to fabricate the equipment and assemble the parts including refractory lining work.

FCC Regenerator



FCC Reator



Experience List					
CCR (Fluidised Catalytic Cracking)					
Customer	Project	Description	Material	Weight (Ton)	Year
Daelim Industry	Petro FCC, Philippines	UOP FCC reactor [Full package]	A516-70	235(Rx) / 365(Rg)	2008
CB&I	Cartagena Refinery Expansion	UOP FCC reactor	A387-11 Cl.1 + 410 SS / A516-70	480(Rx) / 911(Rg)	2013
HDGSK JV	Karbala Refinery	FCC REACTOR	A387-11 Cl.2	235.2	2017

Reference

1 Composition

- Reactor / Regenerator / Stand pipe / Orifice Chamber

2 Detailed Part

- Spent Catalyst Stripper · Combustor
- Cyclone · Air Distributor · Refractory Lining Work
- Expansion Joint · Slide Valve

3 ETC

- Packing the Stand pipe separately



PDH Reactor

(Propane Dehydrogenation)
Oleflex Reactor (UOP)

REACTORS

Due to the high economic feasibility of natural gas, gas based process are now very popular. PDH process is one of them. With strong capability of manufacturing complicate reactors, we are very good at this PDH reactor also. Complicate internal parts shall be installed inside of the reactor. Precise sequence of working procedure, know-how & good cooperation with internal suppliers are also crucial to successful delivery.



Reference

- 1 Internal Part (Basket, Transfer Pipe, Cover Plate, Centerpipe, Plug Distributor, Expansion Joint) shall be separately packed, assembled at site after trial-assembly at manufacturer's shop.
- 2 Carbon content shall be 0.04% to 0.06% on base metal heat analysis and welding consumables.



Experience List					
PDH Reactor - Oleflex Reactor (UOP)					
Customer	Project	Description	Material	Weight (Ton)	Year
Taekwang Industries	Taekwang ANP	R#1 / #2 / #3 / #4	A240-304	65, 75, 85, 100	1997
Lurgi	PDH Al Fasel	R-1001 / 1002 / 1003 / 1004	A240-304	42, 49, 56, 68	2006
Tecnimont	PDH Tobolsk	R-11201 / 2 / 3 / 4	A240-304	90, 96, 97, 108	2010
Samsung Engineering	Carbon Black & Delayed Coker	2640-D-016/017/018	A240-304H	104, 109, 119, 123	2014
SIBUR	PDH Tobolsk Revamping	R-11201 / 2 / 3 / 4	A240-304H	24, 27, 29, 31	2022

Methanol

Reactor

REACTORS

Water Cooled Methanol reactor is one of the core equipments of Mega Methanol process. This reactor is very heavy tubular reactor. Careful handling of mass numbers of tubes, tube to tubesheets welding is required and also precise heat control for welding is very important to overall quality. We have capability to supply good quality reactors on time, of course can meet all requirements from process, licensor, code & project specification.



Reference

- 1 Piping shall be designed as per ASME B31.1
- 2 Tube shall be ordered as per tolerance limits of Licensor (SA789 UNS S31500)
- 3 Catalyst shall be filled in tube inside



Experience List					
Air Liquide					
Customer	Project	Description	Material	Weight (Ton)	Year
Air Liquide	Petronas Methanol	Water Cooled Methanol Reactor	SA387-11 Cl.2	305.14	2007



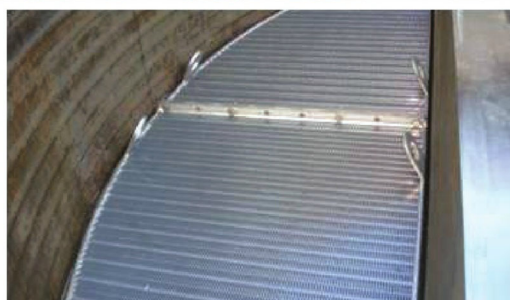
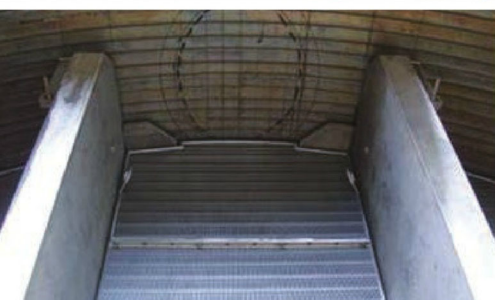
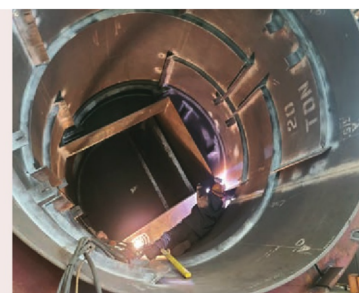
Experience List					
Haldor Topsoe					
Customer	Project	Description	Material	Weight (Ton)	Year
Haldor Topsoe A/S	1350 MTPD Methanol	Methanol Reactor	SA387-11 Cl.2	191	2018

Hydro-Treating Reactor

REACTORS



HDS Reactor



Operational condition of Hydro-treating reactors are very severe, thus high-temperature service CrMo low alloy steel shall be used as base material and SS cladding or weldoverlay is also required because of hydrogen. Very sensitive control of all working procedure, especially welding is key factor of good quality and on-time delivery. Only few capable manufactures can supply this reactor with required quality on time. We are very proud we are one of them, even better we can supply it with competitive price.

Experience List

Hydro-Treating

Customer	Project	Description	Material	Weight (Ton)	Year
Fluor Daniel	BP Toledo Clean Fuels	A-DHT Reactor	SA387-22+347 Cald	173	2005
SK Corp.	No. 2 & 3 FCC	HDS Reactor	SA387-22 CL2 + 347 W / O	62 / 33	2008
Foster Wheeler	Bukom Refinery Modification	HDS Reactor	SA387-11 CL2 + 347 W / O	148	2010
SKEC	Jurong Aromatic Complex	DHT Reactor No. 1 & 2	SA387-11 CL2 + 347 W / O	127 / 192	2013
SECL	Samsung Total No.2 Aromatics Complex	DHT Reactor	SA387-11 CL2 + 347 W / O	125	2014
GSEC	The ERC Hydro-Cracker	Diesel Hydrotreating Reactor	SA387-11 CL2 + 347 W / O	421	2015

Reference

- 1 Support ring for Catalyst Bed support Grid shall be fabricated with weld built-up or Forged ring type.
- 2 Internal Part (Equipflow Distributor Tray, Catalyst Bed Support Grid, Equipflow Mixing Tray) shall be separately packed, assembled at site after trial Ass'y at manufacturer's shop.



SM Reactor

(Stylene Monomer)

REACTORS



Stylene Monomer is feed stock of polystyrene and key process of BTX chain. We are one of the most experienced suppliers of this reactor. This reactor needs careful design, work procedure, control of welding, assembling internal parts & proper quality control. Thanks to customers' satisfaction, we could have many experiences supplying this reactor.

Experience List					
SM Reactor (Lummus/UOP)					
Customer	Project	Description	Material	Weight (Ton)	Year
LC Chem.	EB/SM Revamping	Intermediate Stage "Smart" Dehydrogenation Reactor	SA240-304H	71	2004
Dongbu Hiteck	SM2 Plant Smart Reactor	Smart Dehydrogenation Reactor	SA240-304H	71	2006
Hitachi Plant Technologies	NS	First Stage Dehydrogenation Reactor	SA240-304H	94	2012

Experience List					
SM Reactor (Badger)					
Customer	Project	Description	Material	Weight (Ton)	Year
YNCC	SM Dehydrogenation Reactor	Dehydrogenation Reactor	A240-304	33	2016
Hanwha / Total	STC SM#1 Modernization	Primary Reactor / Secondary Reactor	A240-304	148, 118	2016
Lotte Chemical Corp.	200,000 MTPA EB/SM	Primary Styrene Reactor / Secondary Styrene Reactor	A240-304H	114	2018
Innova S.A.	Styrene Expansion	Primary Condenser	A240-304	182	2019
INEOS	STACE	Tertiary Styrene Reactor	A240-304H	113	2020

Reference

- 1 All internal Parts (Displacement Cylinder, Inner Cylinder, etc) shall be assembled at manufacturer's shop.
- 2 Pneumatic Test of Reactor



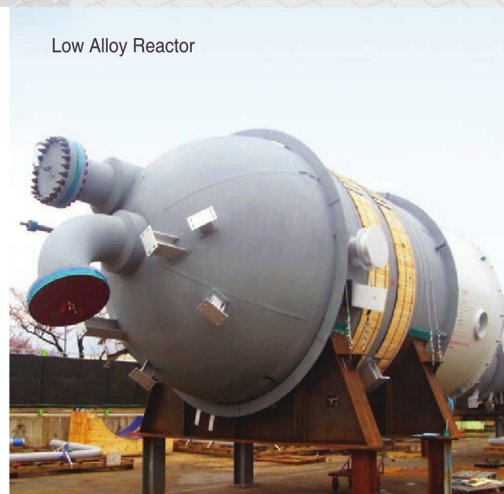
Ammonia & Urea

REACTORS

Secondary Reformer



Low Alloy Reactor



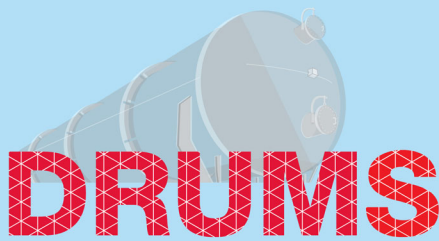
Low Alloy Reactor



We have supplied a variety of equipment to the ammonia / urea plant, one of the main processes in the fertilizer industry. Supplied equipment are most heavy wall equipment due to high pressure and temperature conditions. We are working on the production of reactors and reformers using special materials that require understanding of the materials and related welding know-how recently. We are also working directly with major technology companies and developing related cooperation for their core equipment.

Experience List

Ammonia / UREA							Ammonia / UREA						
Customer	Project	Licensor	Description	Material	Weight (Ton)	Year	Customer	Project	Licensor	Description	Material	Weight (Ton)	Year
ThyssenKrupp Industries Solutions	Eagrium-NH ₃ Urea Plant	ThyssenKrupp	Reactor	SA387-11 Cl2	17.1	2009	Wuhan Engineering	Ammonia-Urea II	-	Reactor / High Temperature Shift Converter	SA387-11 Cl2	133	2017
Mitsubishi Heavy Industries Co., Ltd	TAF	Haldor Topsoe	Secondary Reformer	SA387-11 Cl2	156	2014	Tecnimont S.p.A	KIMA Fertilizer	KBR	Low Alloy Reactor	SA387-11 Cl2	100	2018
Mitsubishi Heavy Industries Co., Ltd	SAMUR	Haldor Topsoe	Reactor	SA387-11 Cl2 / A516-70	115	2014	Tecnimont S.p.A	Kingisepp	KBR	Low Alloy Steel Reactor	SA387-22 Cl2	182	2018
ThyssenKrupp Industries Solutions	Port Near Nitrogen Complex	ThyssenKrupp	Reactor	SA387-11 Cl2	119.7	2015	Technip Italy S.p.A	Ammonia Plant Revamp	Haldor Topsoe	Secondary Reformer	SA387-11 Cl2	79	2018
ThyssenKrupp Industries Solutions	CFI Donaldsonville Expansion	ThyssenKrupp	Reactor	SA387-11 Cl2	131.5	2015	Black & Veatch	Koch Enid Ammonia Expansion	KBR	Ammonia Injection Separator	SA516-70	86, 23	2018
Samsung Engineering Co., Ltd	Bolivia Fertilizer	KBR	Secondary Reformer	A516-70	115.1	2015	Stamicarbon	LSB industries Pryor	Stamicarbon	HP Reactor (Safurex)	SA266 Gr2	170	2019
Toyo Eneerig Copo.	IEFCL Fertilizer	KBR	Secondary Reformer	A516-70	157	2015	Stamicarbon	SPIC	Stamicarbon	HP Reactor (Safurex)	SA533 GrB Cl2	238	2019
Mitsubishi Heavy Industries Co., Ltd	Russia Phosagro	Haldor Topsoe	Reactor	SA387-11 Cl2	130	2016	Stamicarbon	Weihua Urea Plant	Stamicarbon	HP Stripper, Cabamate (Safurex)	SA789S32906	178, 60, 48	2019
Mitsubishi Heavy Industries Co., Ltd	Russia Phosagro	Haldor Topsoe	Secondary Reformer	SA387-11 Cl2	170	2016	Stamicarbon	LIFECO	Stamicarbon	HP Scrubber (Safurex)	SA789S32906	17	2019
Toyo Eneerig Copo.	UNFV Ammonia	KBR	Secondary Reformer	A516-70N	109	2016	Kellog Brown & Root	IBB Reliability Improvement	KBR	Secondary Reformer	SA516-70N	128	2020
Kellog Brown & Root	Koch Enid Urea 2	Stamicarbon	Rectifying Column / Separator	SA240 304L / SA240 S32205	101, 39	2016	Mitsubishi Heavy Industries	GPUFP	Haldor Topsoe	Secondary Reformer	SA387-11 Cl2	110	2022

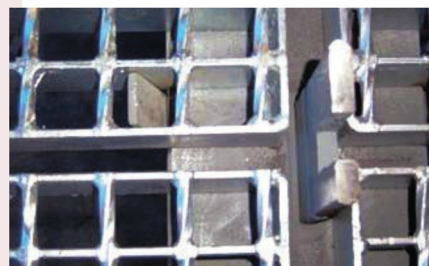
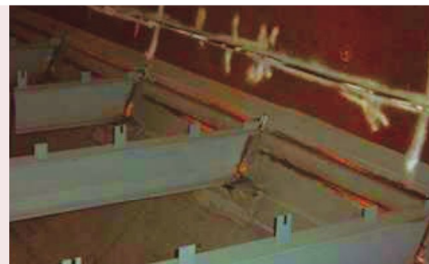
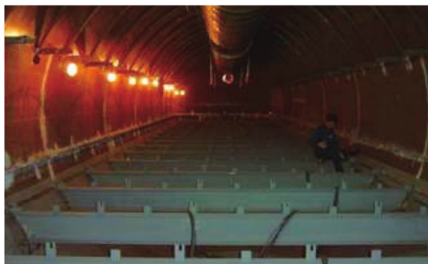


Adsorber (Horizontal Type)

Project	MIRFAI, U.A.E.
Dimension	5,000 ID x 35T x 25,000L, 133 Ton
Material	SA516-70

SEWON E&C is building and supplying a variety of pressure vessels necessary for the oil, gas and petrochemical industries by performing all manufacturing stages from design and manufacture to inspection and test, and shipping in compliance with the codes of different countries including ASME, PD5500, JIS and PED, and the provisions of ISO 9001 Quality Management System and ISO 14001 Environment Management System.

Overview of Shell Inside Part



Adsorber (Vertical Type)

DRUMS



Project NEW FCC, Ulsan, Korea. **Dimension** 1,800ID x 38T x 12,000L **Material** SA516-70

In addition, we have sufficient experience in using various materials, welding techniques and testing to meet diverse requirements of each process.

Experience List					
Customer	Project	Description	Material	Weight (Ton)	Year
Burns & McDonnell	FREEPORT LNG LIQUEFACTION	HP MR SEPARATOR	SA240-304/304L	396	2018
DLENC	RESIDUE UPGRADING PROJECT	COLD HP SEPARATOR DRUM	SA516-70N + SUS316L	293	2018
DLENC	RESIDUE UPGRADING PROJECT	HOT HP SEPARATOR DRUM	SA387-22 CL.2 + SUS347	182	2018
Tecnimont S.P.A	SOCAR HAOR PROJECT	COLD HP SEPARATOR	SA516-60+HIC	330	2020
JGC CORPORATION	LNG CANADA	HP MR SEPARATION VESSEL	SA240-304/304L	407	2021
JGC CORPORATION	LNG CANADA	MERCURY REMOVAL BED	SA516-70N+S5 SA516-	293	2021
KBR	METHANEX GEISMAR 3	SATURATOR	70N+309L/ S31803 W.O	244	2021
ARVOS GmbH	APCI JUBAIL CITY	STEAM DRUM	SA-516M GR.485	202	2022

Bottom Head Welding Adsorber for Vertical Type



▶ Head Buttering



▶ Head to Skirt Fit up

Fabrication



▶ Rolling



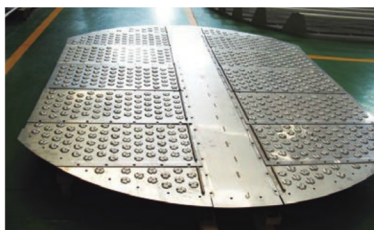
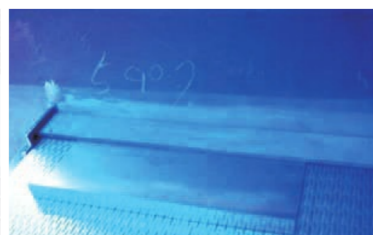
▶ Shell to Nozzle Welding



▶ Hemi Head Fabrication



Installation of Internals

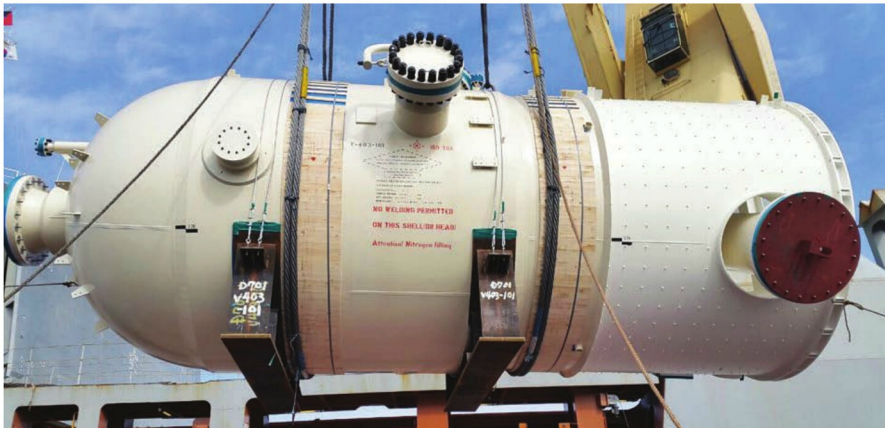


Critical drum



Charge Gas Compressor 2nd Stage Suction Drum

Project MIRFAI, U.A.E.
Dimension 5,000 ID x 35T x 25,000L, 133 Ton
Material SA516-70



Molecular Sieve Dryer

Project Confidential
Dimension 4500ID x 153T x 8300 L, 237Ton
Material SA516-70N



Ammonia Separator

Project QAFCO-5, Qatar
Dimension 2,700 ID x 194T x 8,600L, 105T
Material SA516-70



Third Stage Separator

Project Cilacap RFCC Project
Dimension 9,040 ID x 20T x 15,030L, 65T
Material SA516-70

Large Tower

SEWON E&C has numerous experience in building different types of columns such as packed columns and tray columns used in the oil, gas and petrochemical industries. Having the necessary facilities to build largesize columns.

Project TAF, Russia
Dimension 6,430 ID x 35+3T x 70,750L, 376 Ton
Material SA516-70+SA316L



TOWERS & COLUMNS



Project TAF, Russia
Dimension 5,250 ID x 72T x 50,800L, 392 Ton
Material SA516-70



Deethaniser

Project QGPC NGL-4, Qatar
Dimension 5,800 ID x 99T x 80,000L, 440Ton
Material SA240-316L

Large Tower

TOWERS & COLUMNS



H.P. Demethaniser

Project TAF, Russia
Dimension 5,250 I D x 72T x 50,800L, 392 Ton
Material SA516-70

Fabrication of Each Block

▶ PWHT



▶ Final Docking



▶ Shipping Arrangement

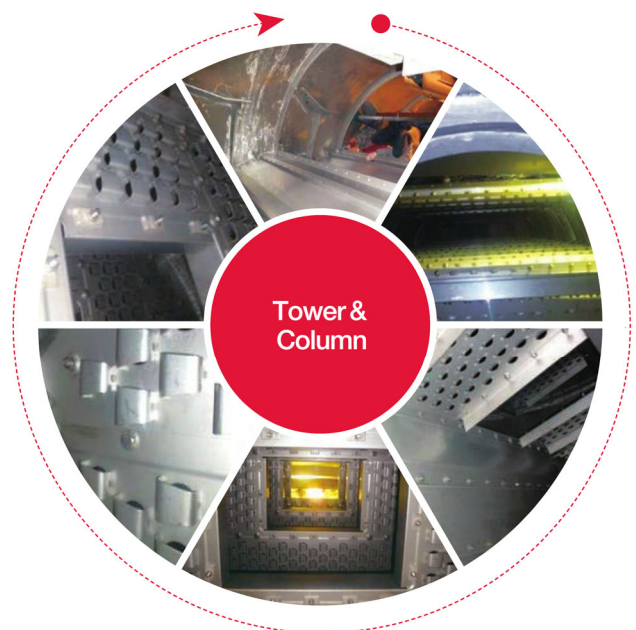


▶ Transportation



Tray Installation

SEWON E&C is a reputed fabricator of several types of packed and tray columns.



Algeria Oman
 Fertilizer Project
 65mm wall thickness



Large Tower

TOWERS & COLUMNS



Urea Plant

Project Eagrium-NH3, Egypt
Dimension 3,800 ID x 79T x 58,000L, 177 Ton
Material SA516Gr-70



Solvent Contactor

Project Confidential
Dimension 4,030 ID x 139T x 34,680L, 470 Ton
Material SA516-70N+HIC



LP Flash Drum / CO2 Stripper



Big Tower

Experience List

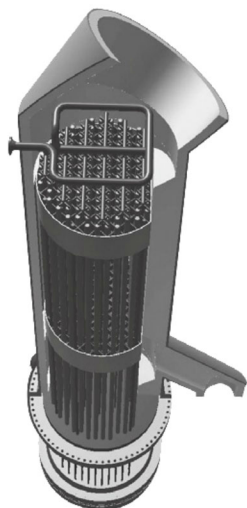
Customer	Project	Qt'y	Description	Weight (Ton)	Year
Kellogg Brown & Root	Ras Tanura Integrated (RTIP)	4	12T x 2200ID x 15585L (UNS S31803/Alloy UNS N10276)	12.4	2012
JGC Corporation	Barzan Onshore	6	87T x 5100ID x 23960L (A240-304L)	317	2012
Mitsui Engineering & Shipbuilding Co., Ltd.	AURORA-EOS	2	28T x 2800ID x 89000L (SA516-70)	199.5	2015
Burns & McDonnell	Valero St.Charles Refinery Alkylation Unit	5	40T x 16,883ID x 29,794L (SA516-70)	544	2018
Jacobs	Bookrameg	6	52T x 5487ID x 76632L (A240-304/304L)	342.9	2018
Hyundai Oilbank	HDO SDA PJT	8	119T x 6400ID x 15100 TL to TL (SA516-70N)	164	2018

Experience List

Customer	Project	Qt'y	Description	Weight (Ton)	Year
SK Energy	S PJT	3	27+3T x 320ID x 28,250L (SA516-70 + Alloy 625/410S)	162	2019
GS Caltex	MFC	3	56TX4000ID X 53,900L (SA240-304/304L)	236	2020
Daelim Industrial Co., Ltd.	YNCC NCC2 Revam1ing & 2nd BD	2	20+3.2T X 5200ID X 43,650L (SA516-70+316L SS CLAD)	186.2	2019
KINETICS TECHNOLOGY	RESIDUE UPGRADE	13	90T X 1900ID X 55,000L (SA516-70N)	175.8	2020
MHIE	GPUFP	4	55T X 4608ID X 50,000L (SA516-70N+SS304, SA516-70N)	310.6	2020
DL E&C	AORC HYDROCRACKING UNITS	3	48T X 4100ID X 36900L (SA516-60N + 410S)	183	2021

Catalyst Cooler

SHELL & TUBE HEAT EXCHANGERS



Fabrication of Shell & Tube Heat Exchanger

SHELL & TUBE HEAT EXCHANGERS



Project Takree Black & Delayed Coker



Tubesheet Overlay

Project Ras Tanura Refinery, Saudi Arabia

Tube to Tubesheet Welding



Manual Welding



Orbital Welding Head (8 sets)



Inner Bore Welding (IBW)

NDE & Bolt tensioning with UT check



TOFD on circum. weld joint



Bolt tensioning with tensioner



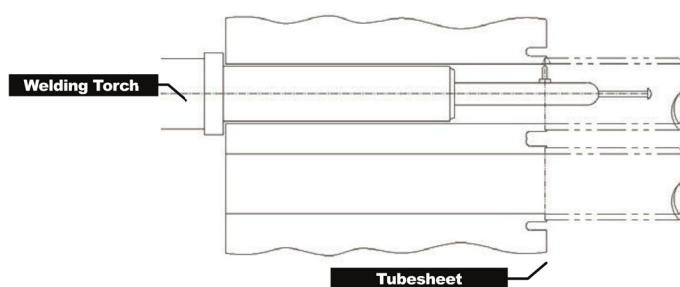
UT check before / after tensioning with tensioner

Special Type of Heat Exchanger

SHELL & TUBE HEAT EXCHANGERS

Hot Combined Feed Exchanger

Project PDH ALFASEL, Saudi Arabia
Dimension 2,500I D x 25,200L, 133Ton



Inner Bore Welding

D-type & High Pressure Equipment

Project TAF Project & Tatarstan
Dimension 1,600I D x 7,900L, 19Ton (Type : V-DEU)
Material 396kg / cm²



Project TEC Ammonia Project / Russia
Dimension 1,800I D x 10,000L, 83Ton (Type : H-DEU)
Material 474kg / cm²



Heavy Weight Equipment



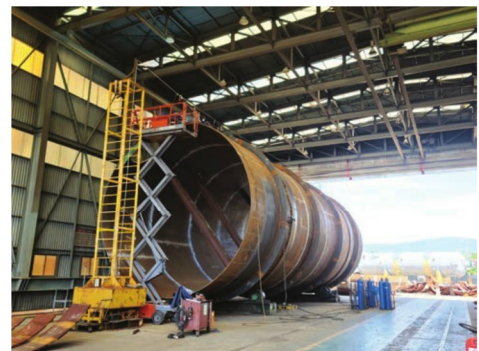
Project Shah Gas Develop.(SGD) & U.A.E
Dimension 6,100ID x 30,000L, 440Ton
Equipment CLAUS Package of Reaction Furnace + WHB + Steam Drum



Project Shah Gas Develop.(SGD) & U.A.E
Dimension 5,900ID x 19,800L, 375Ton
Equipment Sulphur Condenser

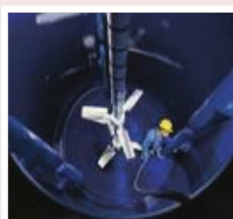


Experience List				
UOP Catalyst Cooler				
Customer	Project	Qt'y	Description (Material)	Year
UOP	SOHAR Refinery	3	A516-70 / A213-T11	2004
UOP	UOP	1	A213-T11 / A213-T11	2013
HOD	HYUNDAI OILBANK REVAMPING	1	SA516-70 / SA213-T11, OUTER TUBE / SA192, INNER TUBE	2017
UOP	DANGOTE REFINERY AND PETROCHEMICAL	4	SA516-70 / SA213-T11, OUTER TUBE / SA192, INNER TUBE	2017
HOT Combined Feed Exchanger				
Customer	Project	Qt'y	Description (Material)	Year
LURGI AG	PDH Alfasel	2	A240-304 / A213-304	2006
CTCI Corporation	PDH PJT (Hot Combined Feed Exchangers)	2	A240-304/304H Dual. / A213-304/304H Dual.	2008
Technip Malasia	NGHI Son Refinery and Petrochemical Complex	2	A387-11 CL.2. / A213-TP321.	2015
TEI	C4 Pleflex / MTBE Complex	2	A240-304/304H Dual. / A213-304/304H Dual.	2019
Taekwang IND.	Revamping Factory II	2	A240-304 / A249-TP304	2019
Jacobs Netherland	NEW European PDH	4	A240-304/304H Dual. / A213-TP304/304H	2020
Hyundai Engineering	Polimery Police PDH/PP	2	A240-304/304H Dual. / A213-TP304/304H	2021



Glass Lined Solution Business

Glass Lined Equipment



Glass-Lined System

brings you innovative and adapted solutions to your process, offering a full range of materials for Fine chemicals, Bio & pharmaceuticals, Electronic & IT materials, Speciality chemicals and Green chemistry industries.

Application

- Highly corrosive process / Abrasive product
- Adapted to GMP requirements, cleaning, cleanliness, sterilization
- Anti-adhesive : polymerization process

Centrifuge Separator



Centrifugal filtration System

Centrifugal filtration System is the separation of the solid and liquid by centrifugal force through the filter media. From lab to pilot and full production scale, our optimized separation solutions are highly versatile and adaptable to many processes.

Application

- Pharmaceuticals Antibiotics, API's, Intermediates
- Amino acids, citric acid, lysine, Vitamins, Tryptophan

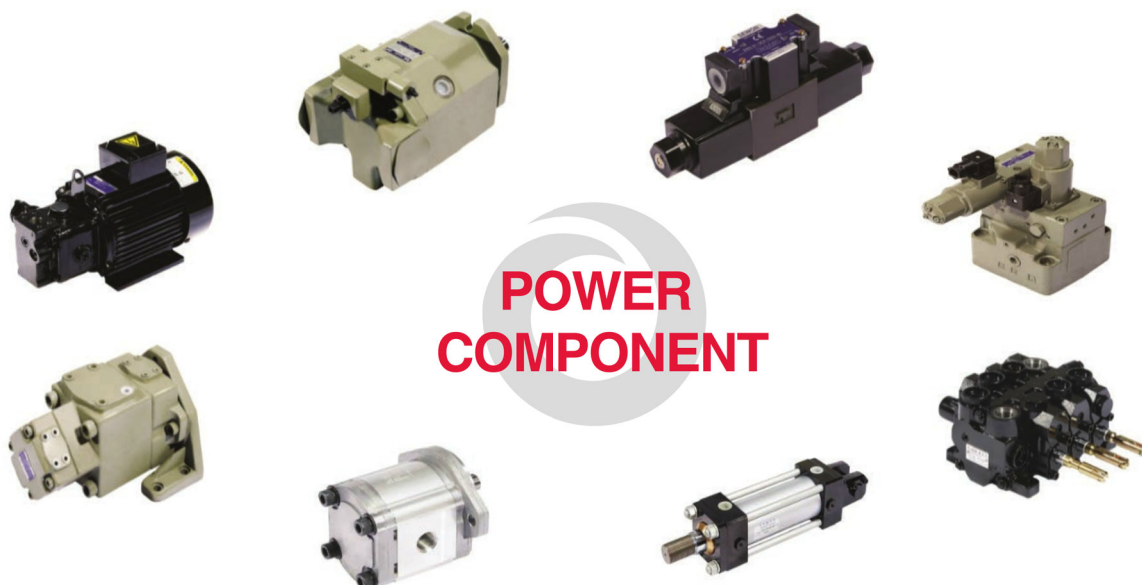


Power Limb Business

Introduction

For past 48 years, PL Business has played a main role in building Korean industrial infrastructure. It has been widely recognized as a representative company of industrial hydraulic equipment. Hydraulic equipment is a field that requires ultra-precise machining technology. Accordingly our business headquarter has been building the highest quality awareness in Korea based on the know-how acquired through technical partnerships with Japanese hydraulic professional company, and has been recognized for its sales network, delivery response and technology that differentiate it from competitors. Our products are an integral part of automation systems in a wide range of applications, including automotive, steelmaking, non-ferrous metal equipment, machine tools, injection molding machines, presses, construction equipment, industrial vehicles, shipbuilding and various plant sectors.

Product



POWER SYSTEM

Iron Steel / Industrial



Aerospace / CSU

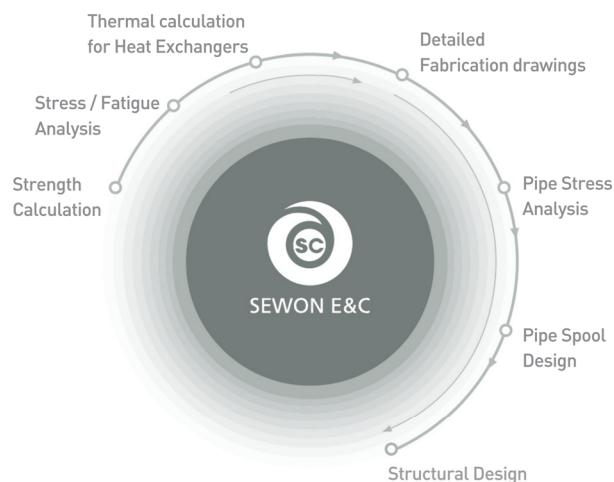


Quality Management System



We are applying the latest version for inspection and has developed a Quality Control System, Quality Assurance Manual and Procedures.

We intend to make a great leap forward to becoming an advanced engineering enterprise armed with the technical power, best design and analysis that is one-step further upgraded



< QMS Certificate >

1. ASME U (Pressure Vessel)
2. ASME U2 (Pressure Vessel Alternative)
3. ASME S (Power Boiler)
4. ASME PP (Pressure Piping)
5. R (Repair) of National Board
6. NB (National Board)
7. ML
8. ISO 9001:2015
9. ISO 14001:2015
10. ISO 45001:2018
11. Stamicarbon

< Certificate of Patent >

12. Welding Method for Shell and Tube
13. Apparatus for Circle Welding Nozzle to Shell
14. Reactor Using Gasket for Sealing Spiral and Manufacturing Method of The Reactor
15. An annealing furnace and annealing system thereof
16. Plate butt Joint Sub-merged ARC Welding Machine
17. Tube-to-Tubesheet Welding Device
18. Fillet Welding SAW

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18



SEWON E&C

Head Quarter_Changwon Factory

211 Gongdan-ro, Seongsan-gu, Changwon-si,
Gyeongsangnam-do, Korea 51562

Tel. +82.55.269.7100, Fax. +82.55.263.6575

E-mail. sales@sewonenc.com Site. www.sewonenc.com