



TOTAL GAS ENGINEERING

<http://mseng.msgas.co.kr>



MS ENG CO., LTD.

본사 (HEAD OFFICE / BUSAN FACTORY)

부산광역시 사상구 학장로 165

TEL : (051)312-5501~5

FAX : (051)326-3061, 327-2355

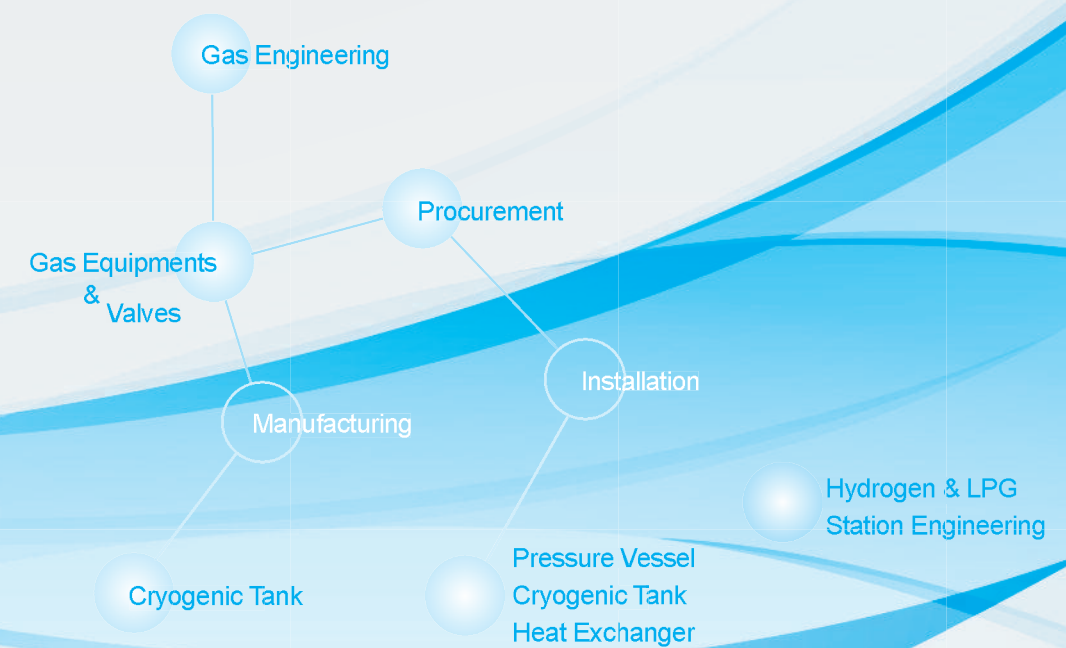
<http://mseng.msgas.co.kr>

진영공장 (JIN YEONG FACTORY)

경상남도 김해시 한림면 한림로 1029

TEL : (055)343-5041~3

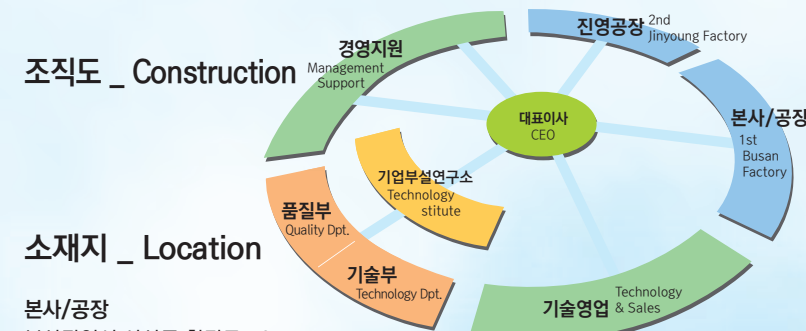
FAX : (055)343-5217



회사개요 Overview of Summary

회사명 : (국문) 주식회사 MS이엔지 / (English) MS ENG CO.,LTD.
 회사설립 : 1982년 5월 14일
 대표이사 : 최병철
 주요사업 : 장비개발, PLANT설비, TANK분야, 특정설비 재검사와 안전진단, 가스 기자재 제조와 신-재생에너지 녹색성장 분야
 웹사이트 : http://mseng.msgas.co.kr

Company name : MS ENG CO., LTD.
 Establish : May 14, 1982
 CEO : B.C. Choi
 Main business : Gas equipments, Plant facilities, Storage tank, Inspection business of gas tank, products related with gas facilities, Neo-recycle energy.
 Web site : http://mseng.msgas.co.kr



소재지 _ Location

본사/공장
 부산광역시 사상구 학장로 165
 TEL : 051-312-5501~5 / FAX : 051-326-3061

진영공장
 경상남도 김해시 한림로 1029
 TEL : 055-343-5041~3 / FAX : 055-343-5217

Mother company & factory
 #165, Hakjang-Ro, Sasang-Gu, Busan, R.O.Korea
 Tel : +82-51-312-5501~5 / Fax : +82-51-326-3061

Jinyoung factory
 #1029, Halim-Ro, Hanlim-Myeon, Kimhae-City, Kyoungnam, R.O.Korea
 Tel : +82-55-343-5041~3 / Fax : +82-55-343-5217

사훈

- 1. 장인정신**
 맡은 일에 최고를 추구한다.
 자기가 한 일에는 책임을 진다.
- 2. 고객제일주의**
 회사이익 이전에 고객의 감동을 이끌어 낸다.
 새로운 고객창조를 위해 전사적으로 노력한다.
- 3. 도전과 혁신**
 새로운 가치 창출을 위해 끊임없이 도전한다.
 위기를 새로운 기회로 인식하여 적극적으로 대응한다.

Corporate ideas

- 1. Craftsmanship**
 Becoming the best one in my job.
 Taking the responsibility for what I did.
- 2. Our idea about customers.**
 Driving best impression from customers.
 Doing everything to make the customers satisfaction.
- 3. Challenge & innovation.**
 Trying to make new value constantly.
 Changing the risk into the best opportunity.

인허가증 보유현황

1. SGS ISO 9001, 14001 인증
2. 전문건설업 - 가스시설 시공업 면허
3. 특정설비 제조업 - 압력용기 등
4. 가스용품 제조업
5. 무역업 등록
6. ASME STAMP 인증획득 ("S", "U", "U2", "PP" Stamp)
7. NATIONAL BOARD 인증획득 ("S", "U", "U2", "PP" Stamp)
8. CSEL 인증획득
9. WPS BV 선급인증
10. OHSAS 18001 인증

Status of certification

1. SGS ISO 9001, 14001
2. Acquired construction license for gas facilities.
3. Acquired production license of special
4. Acquired production license of products related with gas.
5. Registered trade business license.
6. Acquired 'Asem stamp' ('S', 'U', 'PP', Stamp)
7. Acquired National board ('S', 'U', 'PP', Stamp)
8. Acquired CSEL Certificate
9. Acquired WPS BV
10. Acquired OHSAS 18001



(주)MS이엔지는 가스산업 및 에너지 산업분야에 오랜 역사와 함께 기술과 능력을 인정받고 있습니다.

회사연혁

- 1982. 5. (주)MS이엔지 전신, (주)원기연 설립(일반고압가스 제조업) - 본사위치
- 1983. 11. 건설업 면허 취득 / 가스시설시공 사업개시
- 1988. 3. 무역업 허가(NO. 382113), 고압가스 면허 취득
- 1992. 1. L.P.G 사업시작 / L.P.G 탱크 및 설비
- 1992. 11. 우리은행으로부터 유망 중소기업 선정
- 1997. 12. 한국능률협회로부터 ISO9001 인증 취득
- 1999. 4. SGS/KGS ISO9001 인증 취득
- 2001. 1. C.I(Coporate Identity) 변경 : (주)원기연 ▶ (주)MS이엔지
- 2002. 3. '사내근로복지기금' 조성
- 2004. 1. (주)MS이엔지 진영공장 사업 개시
- 2004. 4. [가스충전등의 유류주유를 위한 제어장치 및 방법]으로 특허인증
- 2005. 3. [손잡이를 부설한 로딩암] 으로 실용신안등록 인증
- 2006. 5. 벤처기업 인증
- 2006. 7. ASME STAMP의 인증 취득("S", "U" STAMP)
- 2006. 8. NATIONAL BOARD의 인증 취득("S", "U" STAMP)
- 2006. 12. 충전기 CE MARK 인증 취득
- 2008. 5. [가스주입밸브]로 특허 취득
- 2008. 10. 한국가스공사에서 초저온 GLOBE 및 NG GAS 의 안전밸브 등록
- 2008. 10. 신.재생에너지의 전문기업으로 등록(수소, 바이오에너지)
- 2008. 10. BV(Bureau Veritas)의 인증 취득
- 2009. 3. [CE TANK의 퍼라이트 주입 방법] 으로 특허 인증
- 2009. 10. 한국가스안전공사에서 역화방지기의 인증 취득(대한민국 최초)

- 2010. 1. 최병철 대표이사 취임
- 2011. 8. (재)재기중소기업개발원 설립
- 2012. 9. [복사용구용 다기능 세척 및 소독장치] 으로 특허 인증
- 2012. 10. [각종 복사용구의 세척 및 소독장치용 텐테이블] 로 특허 인증
- 2013. 9. (재)재기중소기업개발원 '보건복지부 장관상' 수상
- 2013. 12. 제50회 무역의 날 100만불탑 수상
- 2014. 1. 부산광역시 우수기업인 선정
- 2014. 2. ISO14001 인증 취득
- 2014. 12. OHSAS 18001:2007 인증 취득
- 2014. 12. CE-PED 인증 취득
- 2014. 12. ASME STAMP 인증 재취득("S", "U", "PP", "U2")
- 2015. 05. 기술혁신형 중소기업(INNO-BIZ) 재인증
- 2016. 03. CSEL(China Special Equipment License) 인증 취득
- 2016. 03. 청년 친화 강소기업 선정
- 2017. 03. SGS YARSLEY ISO 9001 인증 재취득

MS Eng has a good reputation of the technology and capability with long history in a line of Gas and Energy Industry.

Company History

- 2017. 03. Acquired ISO 9001 renewed by SGS
- 2017. 03. Acquired ISO 14001
- 2016. 03. Appointed Youth Friendly Strong Company
- 2016. 03. Acquired CSEL(China Special Equipment Licence)
- 2016. 05. Appointed Technology Innovative Small and Medium Size Company (INNO-BIZ) again
- 2014. 12. Acquired ASME Stamp Certificate ("S" "U" "PP" "U2")
- 2014. 12. Acquired CE-PED Certificate
- 2014. 01. Appointed Superior Entrepreneur by Busan Metropolitan City
- 2013. 12. Awarded 1M Exportation Prize on 50th Trade Day
- 2013. 09. Awarded by Minister of Health and Welfare for Revitalization Center of Strained Entrepreneur
- 2012. 10. Acquired Patent for [Turntable for Sanitization and Cleaning of the equipment for Welfare Appliances]
- 2012. 09. Acquired Patent for [Equipment of Multi Function Cleaning and Sanitization for Welfare Appliances]
- 2011. 08. Set up Revitalization Center for Strained Entrepreneur
- 2010. 08. Acquired WPS BV
- 2010. 01. B.C. Choi inaugurated as president
- 2008. 10. Registration of Neo-recycle energy company (Hydrogen, Bio energy)
- 2010. 10. Registered cryogenic valve and NG gas safety valve on KOGAS
- 2006. 12. Selected strategic industrial company in Busan
- 2006. 12. Acquired CE for dispenser.
- 2006. 05. Registered venture company on Busan small business administration.
- 2006. 04. Registered Innovation of technology company on small business administration.
- 2006. 04. Registered a company specialized in parts and material by ministry of commerce, industry and energy.
- 2006. 01. Establishing Bio business office
- 2004. 04. Acquired a patent of oil supply equipment
- 2004. 01. Establish branch factory in Jinyoung.
- 2003. 12. Consolidation of Dongnam industry. (Capital : US\$ 0.84 million)
- 2003. 12. Acquired Globe valve UL
- 2002. 03. Acquired the approval of inner pressure explosion proof for dispenser
- 2001. 01. Renamed as MS Eng. co. ltd.
- 2000. 05. Registered practical new device for multi gas valve.
- 1999. 04. Acquired SGS Yarsley ISO 9001.
- 1999. 04. Acquired ISO 9001 by Korean efficient association
- 1997. 12. Launching the business of inspection of liquefied oil gas tank &facility
- 1988. 03. Acquired the trade business approval : No. 382113.
- 1983. 11. Acquired the construction business and gas facility construction.
- 1982. 06. Started business under the name of Won.
- 1982. 05. Establishing company.

MS ENG TOTAL GAS ENGINEERING



본사 & 공장 _ Mother company & Factory

부산시 사상구 학장로 165
 TEL : 051-312-5501~5 / FAX : 051-326-3061
 #165, Hakjang-Ro, Sasang-Gu, Busan Korea.
 Tel : +82-51-312-5501~5 / Fax : +82-51-326-3061



진영공장 _ Jinyeong Factory

경남 김해시 한림면 한림로 1029
 TEL : 055-343-5041~3 / FAX : 055-343-5217
 #1029, Hanrim-Ro, Hanrim-Myeon, Kimhae-City, KyoungNam, Korea.
 Tel : +82-55-343-5041~3 / Fax : +82-55-343-5217



(주)MS유니켄 _ MS Unichem Co., Ltd.

충청남도 예산군 고덕면 예당산단 4길 62
 TEL : 041-338-2301 FAX : 041-338-2302
 #62 4Gil, YedangSandan, Go-Deok Myeon, Ye-San Gun, ChungNam, Korea.
 Tel : +82-41-338-2301 / Fax : +82-41-338-2302



MS죽도연수원
MS Jukdo Island training institute
 경남 통영시 한산면 매죽리 죽도길 15-27
 TEL : 055-642-2301 / FAX : 055-642-2308
 #407 Maejuk-ri Hansan-myeon, Tongyeong-si, Gyeongnam, Korea
 Tel : +82-55-642-2301 / Fax : +82-55-642-2308

사회봉사 계열 _ Social Service Division

(재)재기중소기업개발원
Foundation Jaegi : Revitalization Center for Strained Entrepreneur

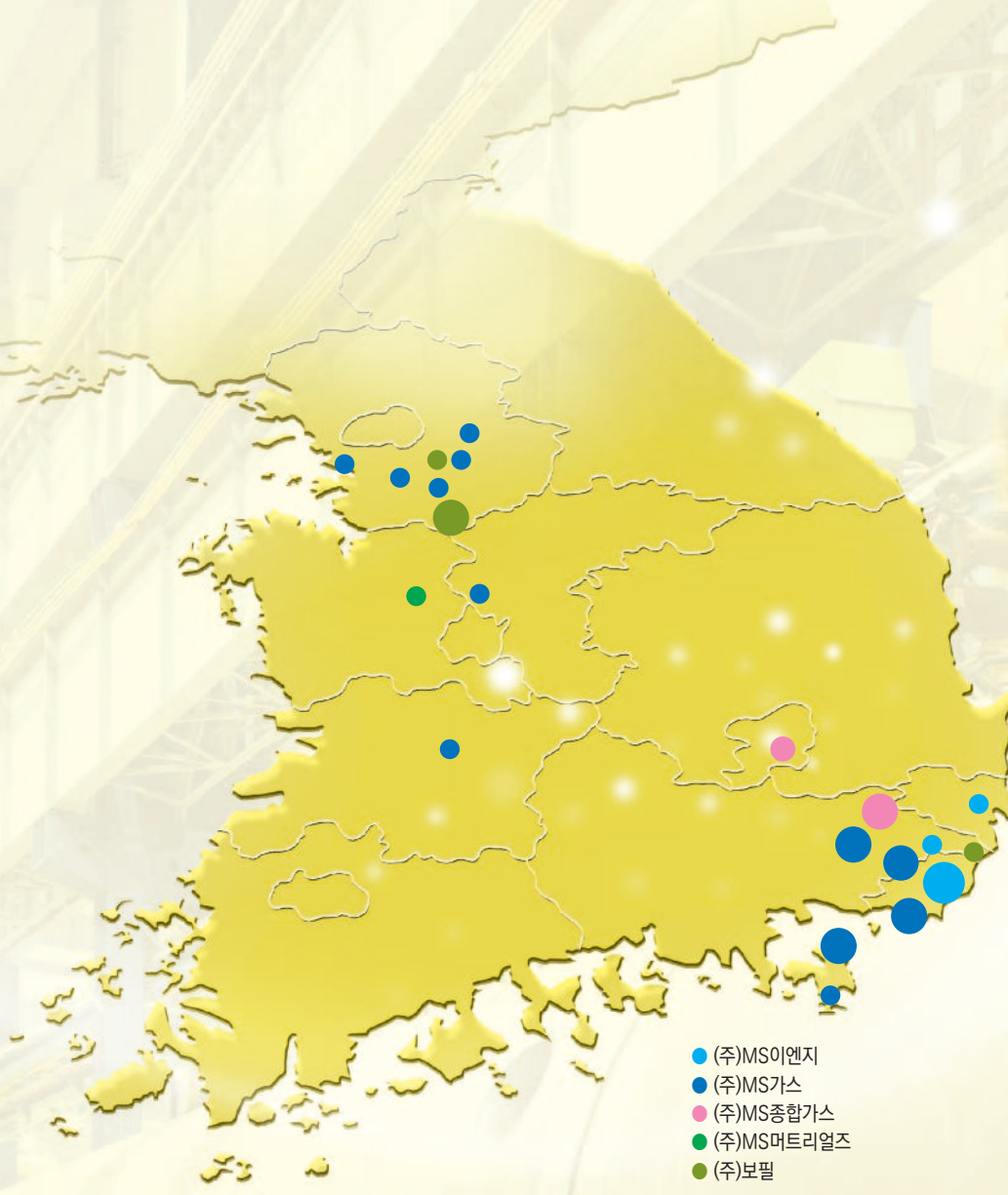
부산 사상구 학장로 165
 부산사무소 TEL : 051-316-4050 FAX : 051-311-5612
 서울사무소 : 02-516-4050
 264-5, Hakjang-dong, Sasang-Gu, Busan, Korea
 Busan Office TEL : +82-51-316-4050 / FAX : +82-51-311-5612
 Seoul Office TEL : +82-2-516-4050

관계사 현황 / Affiliate Companies

MS 계열회사 _ MS Affiliated Companies

MS인천가스(주) 인천시 동구 방축로 9번길 40
 TEL : 032-581-7001 FAX : 032-581-7130
MS Incheon Gas #140-26 Songhyeon-dong, Dong-gu, Incheon, Korea
 Tel : +82-32-581-7001 / Fax : +82-32-581-7130

MS에너지(주) 경남 김해시 한림면 한림로 1029
 TEL : 055-345-1117 FAX : 055-342-1557
MS Energy #1029, Hanrim-Ro, Hallim-myeon, Gimhae-si, Gyeongnam, Korea
 Tel : +82-55-345-1117 / Fax : +82-55-342-1557



- (주)MS이엔지
- (주)MS가스
- (주)MS종합가스
- (주)MS머트리얼즈
- (주)보필

- MS ENG Co., Ltd.
- MS Gas Co., Ltd.
- MS General Gas Co., Ltd.
- MS Materials Co., Ltd.
- Bofeel Co., Ltd.



(주)MS가스 _ MS Gas Co., Ltd.

부산광역시 사상구 가야대로 176번길 92 TEL : 051-325-5501 FAX : 051-323-5277
 276-22, Hakjang-dong, Sasang-Gu, Busan, Korea
 Tel : +82-51-325-5501 / Fax : +82-51-323-5277

영업종류 Business
 1) 일반 산업용 가스 제조 및 판매 2) 액화석유가스 충전 및 판매 3) 특수가스 제조 및 수입판매
 4) 용기 재검사, Purge 및 기밀 시험대행 5) 일반고압가스 및 LPG, 특수가스, E.O등 운송
 6) 가스 기자재 판매 및 설비 7) 무역업(가스, 기자재, 가스플랜트, 화공약품류 : 수출입)
 1) Industrial gas, 2) LPG Manufacturing & filling, 3) special gas manufacturing & import
 4) re-inspection of tank, Purge, gas tight test. 5) transportation of general high pressure gas & special gas, EO,
 6) Sales of gas equipments. 7) Trade business (Gas equipments, gas plant, chemical products, import & export)



MS종합가스(주) _ MS General Gas Co., Ltd.

경남 양산시 소주공단 2길 48(주남동) TEL : 055-366-5522 FAX : 055-366-5517
 #541-10 Junam-dong, Yangsan-si, Gyeongnam, Korea / Tel : +82-55-366-5522 / Fax : +82-55-366-517

영업종류 Business
 1) 일반가스 제조 및 충전 2) 혼합가스 제조 3) LPG(부탄, 프로판)가스 판매 4) 독성, 특수, 의료용가스 판매
 1) Manufacturing general gas and filling, 2) Manufacturing mixed gas. 3) LPG(Butane, Propane) sales.
 4) Toxic, special, medical gas sales.



(주)MS머트리얼즈 _ MS Materials Co., Ltd.

충남 공주시 우성면 군량골길 25-52 TEL : 041-856-5551 FAX : 041-856-5561
 #249-3 Donggok-ri, Useong-myeon, Gongju-si, Chungnam, Korea Tel : +82-41-856-5551 / Fax : +82-41-856-5561

영업종류 Business
 표준가스, 다성분 혼합가스, UHP Pure Gas, 반도체용 가스, 특수가스 등 제조 및 가스분석
 Criterion gas, Mixed gas, UH P Pure Gas, Semi conductor gas, special gas analysis.



(주)보필 _ Bofeel Co., Ltd.

경기도 안성시 미양면 안성맞춤대로 717 TEL : 031-677-9924 FAX : 031-675-9918
 #717 Anseongmatchum street, Anseong-si, Gyeonggi, Korea / Tel : +82-31-677-9924 / Fax : +82-31-675-9918

영업종류 Business
 전동형 침대, 수동형 침대, 휠체어, 전동 스쿠터, 욕창 방지용품, 이동형 좌변기, 목욕의자, 욕실 안전손잡이, 보행 보조기(실버카), 미끄럼방지용품, 지팡이, 기능성 신발 및 의류, 기타 복지용품일체, 보호대
 Motor bed, Manual bed, Safety grip of bath room, Wheel chair, Motor scooter, Bedsore protector, Potable toilet bowl, Bath chair, Zimmer frame, Slippery protector, Cane, Practical clothes and shoes, Other welfare products.

서울사무소 _ Seoul office
 서울특별시 강남구 논현로 635 우림빌딩2층 TEL : 02-3446-9924
 635 Urim building second floor, Nonhyeon-ro, Seoul Korea. Tel : +82-2-3446-9924

밸브 및 장비사업 Valve & Equipment Business

장비 제작품 _ Equipment

- 가스압축기 _ Gas compressor
- 액이송 펌프 _ LPG Vane Pump
- LPG 소형 저장탱크 _ LPG Package tank
- LPG충전기 _LPG Dispenser
- 기화기 _ Vaporizer
- 압력용기류 _ Manifold pressure vessels
- 특수가스 제조장비 Gas Refinery
- 기타 주문 제작품 _ Other facilities for customization

밸브류 _ Valves

- 로딩암 _ Loading arm
- 안전 밸브 _ Safety valve
- 역류방지 밸브 _ Check valve
- 스트레이너 _ Strainer
- 바이패스 릴리프 밸브 _ By-Pass relief valve
- 앵글타입 볼체크 밸브 _ Angle type ball check valve
- 리프트타입 체크 밸브 _ Lift type check valve
- 벌크로리용 커플링 _ Bulk lorry coupling
- 탱크로리용 긴급차단 밸브 _ Emergency shut off valve for tank lorry
- 긴급차단 밸브 _ Emergency shut off valve
- 글로브 밸브 _ Globe valve
- 초저온 밸브 _ Cryogenic valve
- Y타입 글로브 밸브 _ Y-type globe valve
- 트랜스퍼 볼 밸브 _ Transfer ball valve
- 차량충전용 암 커플링 _ Female coupling for car filling
- 로타리 레벨 게이지 _ Rotary level gauge
- 부탄 충전기용 안전 커플링 _ Butane dispenser safety coupling
- 역화방지 밸브 _ Flame arrester

적용분야 _ Application area

- 액화석유가스, 암모니아, 디메틸에테르 _ LPG, NH₃, DME, Ethylene
- 산소, 질소, 아르곤, 탄산 _ Oxygen, Nitrogen, Argon, Carbonic Dioxide
- 액화천연가스 _LNG
- 화학 PLANT용 _ Chemical plant
- 기타 특수가스용 _ Other special gas



가스장비 관련 제품군
Products related to Gas Equipment

가스산업의 동반 성장을 위해
연구/개발 투자로 경쟁력 있는 다양한 제품들
을 생산하고 있습니다.

MS ENG has manufactured a various
type and competitive of products
through Research and Development
for WIN-WIN Growth of Gas Industry.



액화석유가스 관련 제품군
Products related to LPG

초저온가스 관련 제품군
Products related to Cryogenic Gas

Plant 사업 Plant Business

Gas Industry

- Water Bath Heater
- Heat Exchanger
- Electric Heater
- Gas Filter
- Ko Drum
- Cryogenic Gas Tank
- Pressure Vessel & Storage Tank
- Vaporizer

Power Plant Industry

- Fuel Gas Treatment System
- NH₃ Storage and Supply System for SCR

Plant Facility

- Utility Package System
- LNG Satellite Station
- H₂ Car Filling Station
- Hydrogen Generator

설계 & 시공 _ Deign & Construction

- LPG 용기 자동차 충전시설
- 암모니아 저장 및 공급장치
- 특수가스 및 혼합가스 충전장치
- 고순도 고압가스 배관공사 및 정제장치
- LPG 및 고압가스 용기 재검사시설
- 일반고압가스 제조, 저장, 충전시설
- 기타 독성가스 중화조 제조 및 설치공사
- 수소스테이션 Engineering 및 수소 제조장치 공급(일본 MKK 제품)
- 프레온 등 냉매 저장 및 공급장치
- LPG storage tank & filling facilities.
- Ammonia storage tank and supply facility.
- The facility filling special gas and mixed gas
- Piping construction of high purity of pressure gas and purification facility.
- Facilities to inspect the LPG storage tank and high-pressure gas tank.
- Production, storage and filling facility for general high pressure gas.
- Construction of dilution tank for manifold intense poison gas.
- Supply H₂ Station Engineering and Hydrogen Production Equipment (Cooperation with MKK in Japan)
- H₂ station construction and approval process.
- Storage tank and supplying facility of freon
- Storage tank and vaporizer
- Chemical design and facility
- Toxic Gas catalyzer deodorization facility.

창조적인 가스플랜트 분야
전문기업으로 인정받고 있습니다.

We are acknowledged as a creative
company in gas plant industrial field.

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PLANT DIVISION GAS INDUSTRY

GAS INDUSTRY

WATER BATH HEATER

HEAT EXCHANGER

ELECTRIC HEATER

GAS FILTER

FUEL GAS TREATMENT SYSTEM (KO DRUM)

CRYOGENIC GAS TANK

PRESSURE VESSEL & STORAGE TANK

VAPORIZER

POWER PLANT INDUSTRY

SUPPLY SYSTEM

NH₃ STORAGE & SUPPLY SYSTEM FOR SCR

PLANT FACILITY

UTILITY PACKAGE SYSTEM

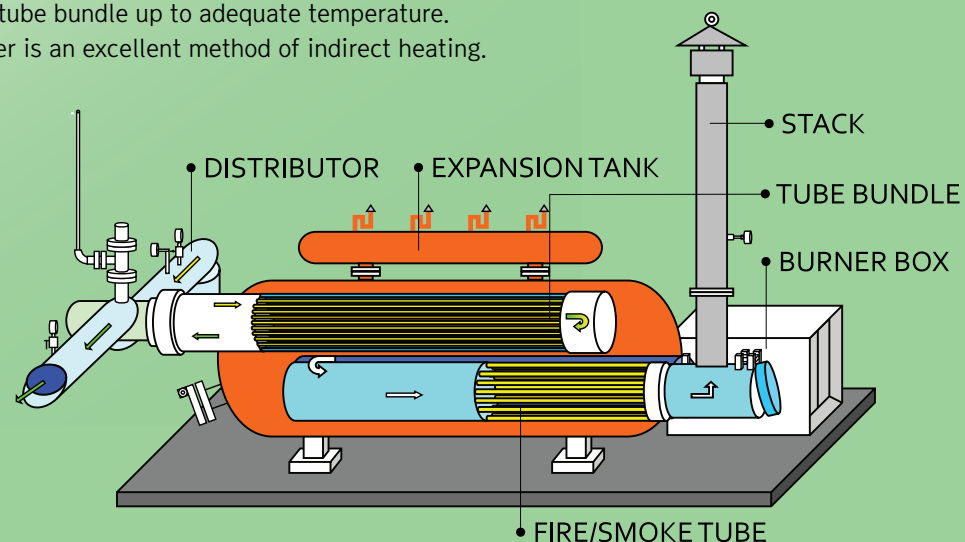
LNG SATELLITE STATION

H₂ CAR FILLING STATION

HYDROGEN GENERATOR

WATER BATH HEATER

The water in the body is heated by radiant heat and convectional heat emitted from a firetube heated by a burner and the heated water indirectly heats the flowing gas in a tube bundle up to adequate temperature. Water bath heater is an excellent method of indirect heating.



SPECIFICATION

Capacity (Ton/hr)	25	50	100	150	200
Design Pressure	7.85 MPa				
Design Temp.	-20°C ~ +100°C				
Heat Absorption (kcal/hr)	600,000	1,200,000	2,600,000	3,600,000	5,100,000
Thermal Efficiency	Above 90%				
Weight (Ton)	15	27	45	54	54

HEAT EXCHANGER

SHELL & TUBE TYPE

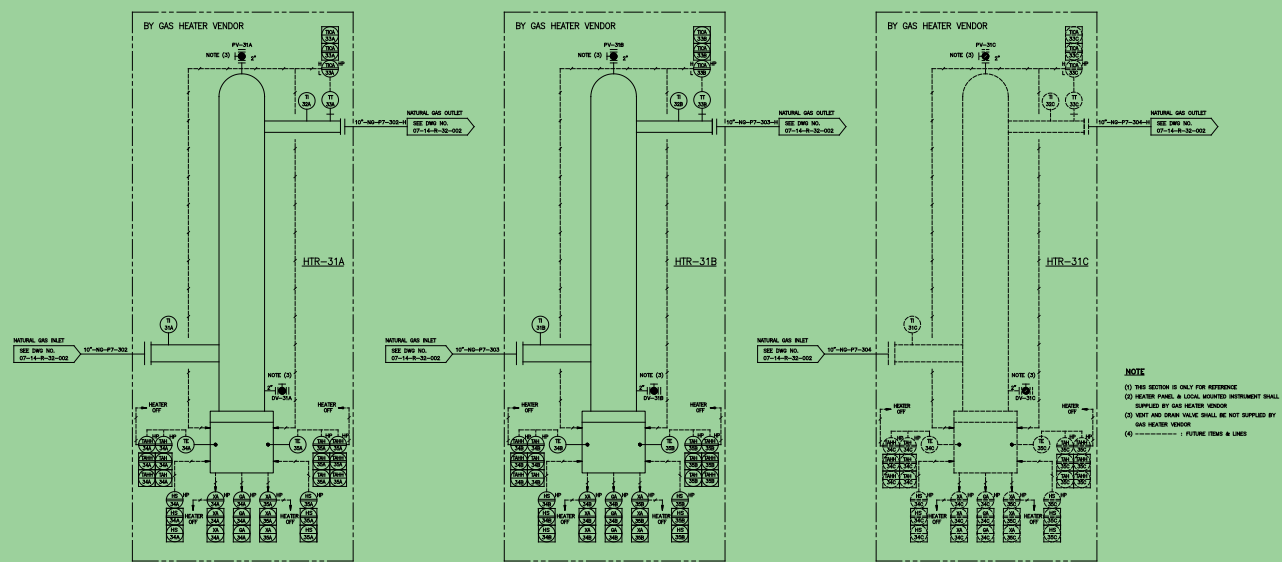


- The natural gas is heated in a shell and tube heat exchanger using a heating medium.
- Two separated fluids at different temperatures flow through the heat exchanger, one through the tubes and the other through the shell around the tubes.
- A shell & tube heat exchanger consists of a number of tubes mounted inside a shell.



ELECTRIC HEATER

Electric heater can be used to heat up natural gas before passing through regulator to prevent pressure reducing station from freezing. It is designed in compliance with API standard.



SPECIFICATION

REQUIRED POWER Kcal/hr(kw)	EFFICIENCY (%)	APPLICABLE POWER Kcal/hr(kw)	RECEIVING VOLTAGE	REMARKS
53,500 (62.0)	53,500 (62.0)	59,500 (70)	LOW PRESSURE	3.0 Ton/hr
89,500 (103.4)	89,500 (103.4)	99,500 (115)	HIGH PRESSURE	5.0 Ton/hr
178,500 (206.8)	178,500 (206.8)	198,500 (230)	HIGH PRESSURE	10 Ton/hr

GAS FILTER _ SEPARATOR

Solids or fluids can be eliminated from the gas in the filter separator section. The range consists of dust filters, baffle plate/coalescer separators, cyclone separators and filter elements.



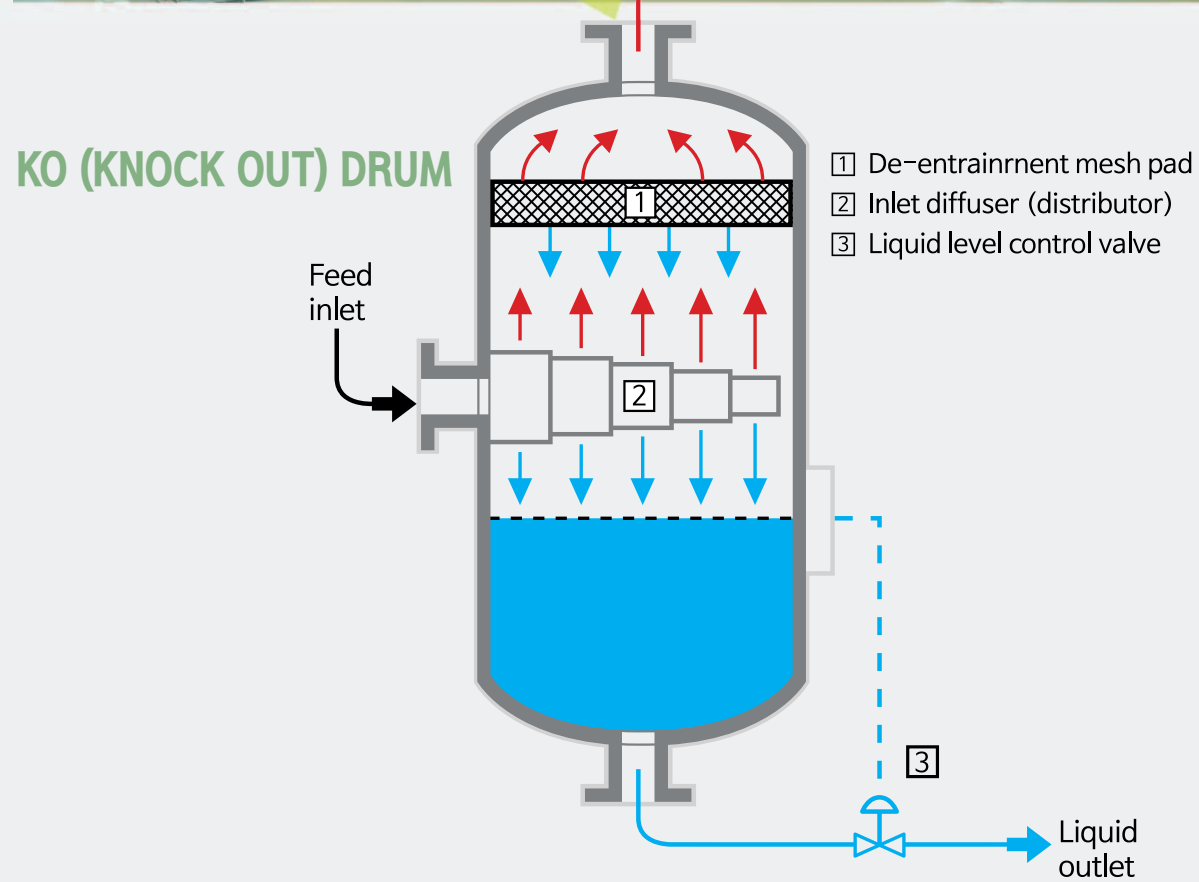
- Each filter has a specific application area, separation efficiency and operating range.
- The filter separators are typically vertically positioned, but horizontal configuration is also possible.
- The pressure vessels can be designed and manufactured according to various design codes.

SPECIFICATION

Capacity (Ton/hr)	50	100	150	200	300
Design Pressure	7.85 MPa				
Design Temp.	-20°C ~ +100°C				
Element Size	Ø145 x 1500L (750L)				
Element Material	304SS (Normal Operation), Polyester				
Dust Removal Prefomance	10µm (Normal Operation), 3µm				
Element Efficiency	Over 98%				
Weight (Ton)	15	27	45	54	54

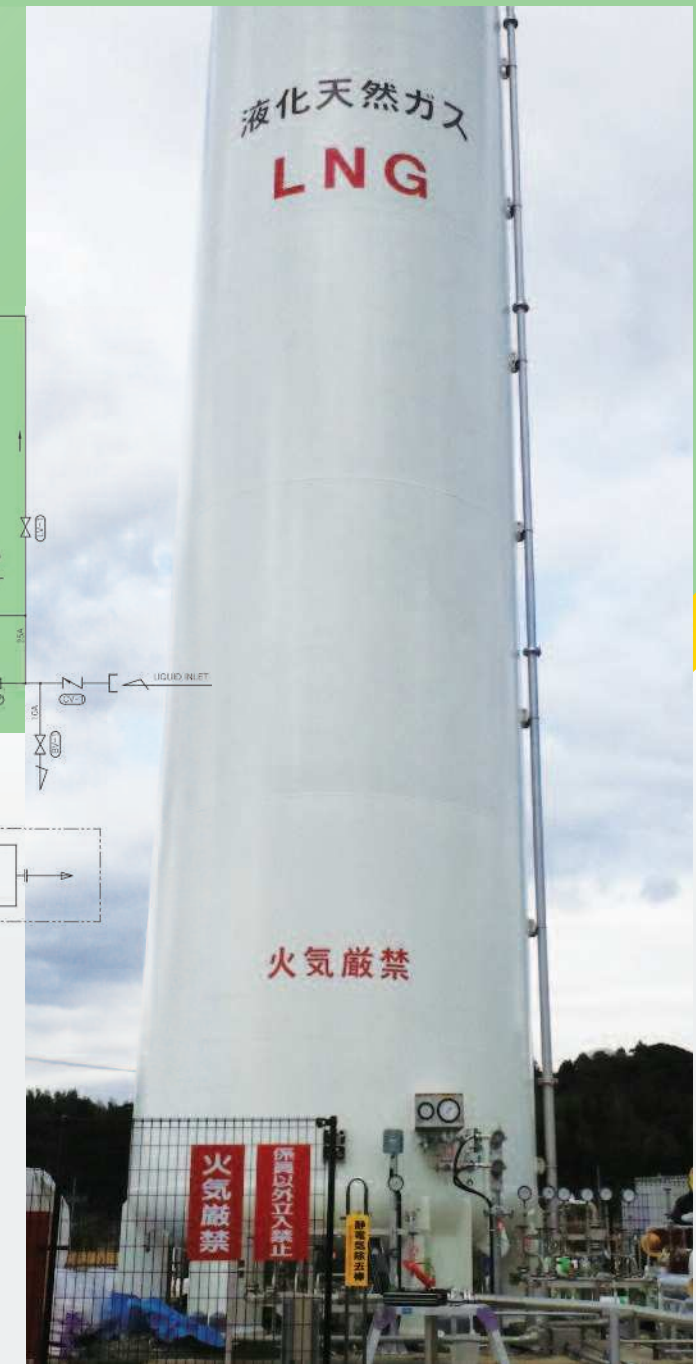
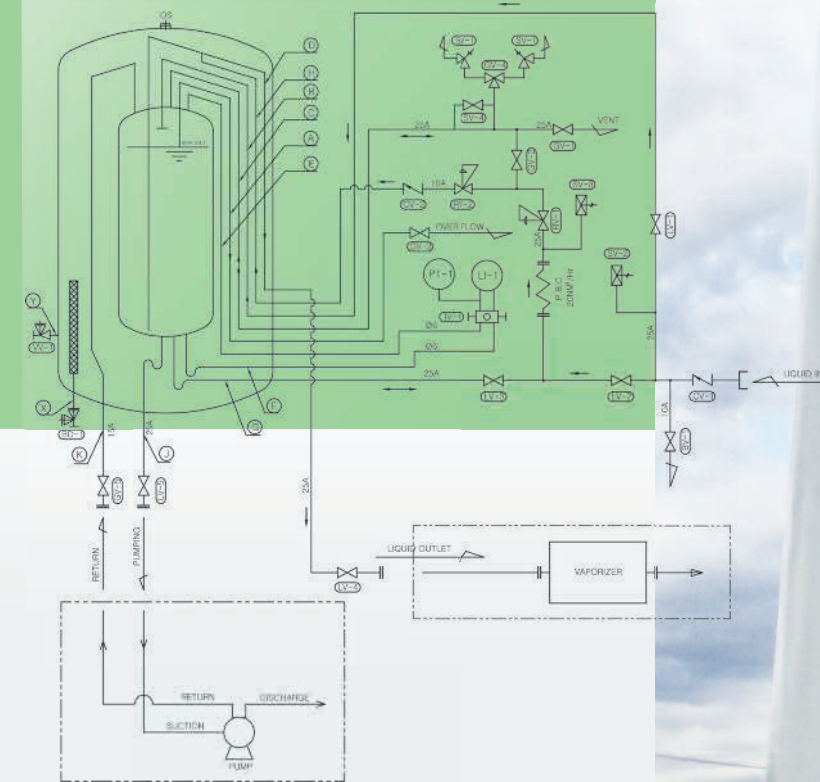
FUEL GAS TREATMENT SYSTEM

Knock out drums are used to slow down gasses and allow liquids to fall out of the gas stream. A liquid level gauge or indicator should always be included as these vessels must remain drained and free of excess liquid



CRYOGENIC GAS TANK (CE TANK)

Cryogenic storage tank can be used to store LNG, liquefied nitrogen, oxygen and argon by pump in tank lorry. CE tank is designed in accordance with international standard.



SPECIFICATION

CAPACITY	5 ~ 150m ³ (BASED ON WATER VOLUME)
DESIGN PRESSURE	1.0 ~ 4.0 Mpa
DESIGN TEMP.	-196°C ~ +40°C
NER	0.03%

PRESSURE VESSEL & STORAGE TANK



AIR TANK

- Capacity : 10L ~ 5m³
- Pressure : 1.0Mpa
- Materials : A283C or A516-70
- Customer : KOGAS



NH₃ STORAGE TANK

- Capacity : 215m³
- Pressure : 2.18Mpa
- Materials : A516-70
- Size : ID4M x 18M
- Customer : Youngheung Thermal Power Plant



H₂ HOLDER

- Capacity : 110m³
- Pressure : 3.0 Mpa
- Materials : SPV490
- Size : ID4M x 18M
- Customer : Hyundai Hysco

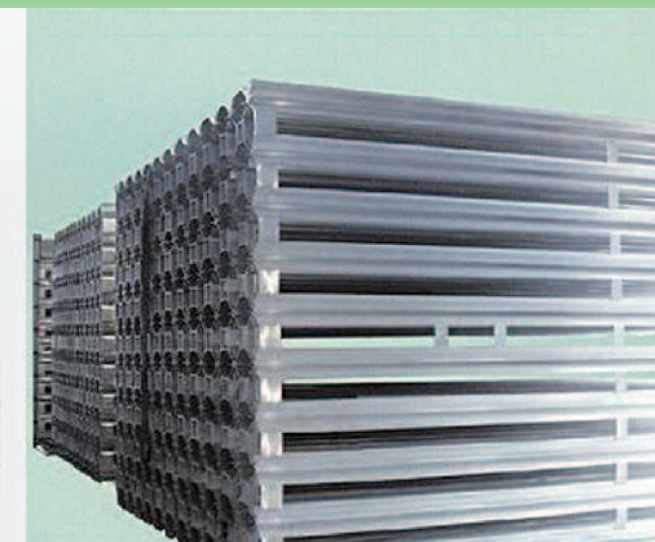
We Design, manufacture, and supply gas storage tanks or pressure vessels for different kinds of gases based on client requirements.

SPECIFICATION

CAPACITY	5 ~ 300m ³ (BASED ON WATER VOLUME)
DESIGN PRESSURE	1.0 ~ 4.0 Mpa
DESIGN TEMP.	-5°C ~ +200°C
DESIGN CODE	ASME U, CE PED
NER	Air, H ₂ , LPG, NH ₃ , He etc.

SPECIAL VAPORIZER

A vaporizer can be heated via the heating elements in the vaporizer water chamber. The heated water provides the energy that is required to maintain the gaseous state of the liquefied gas. It features preventing overflow of liquefied gas.

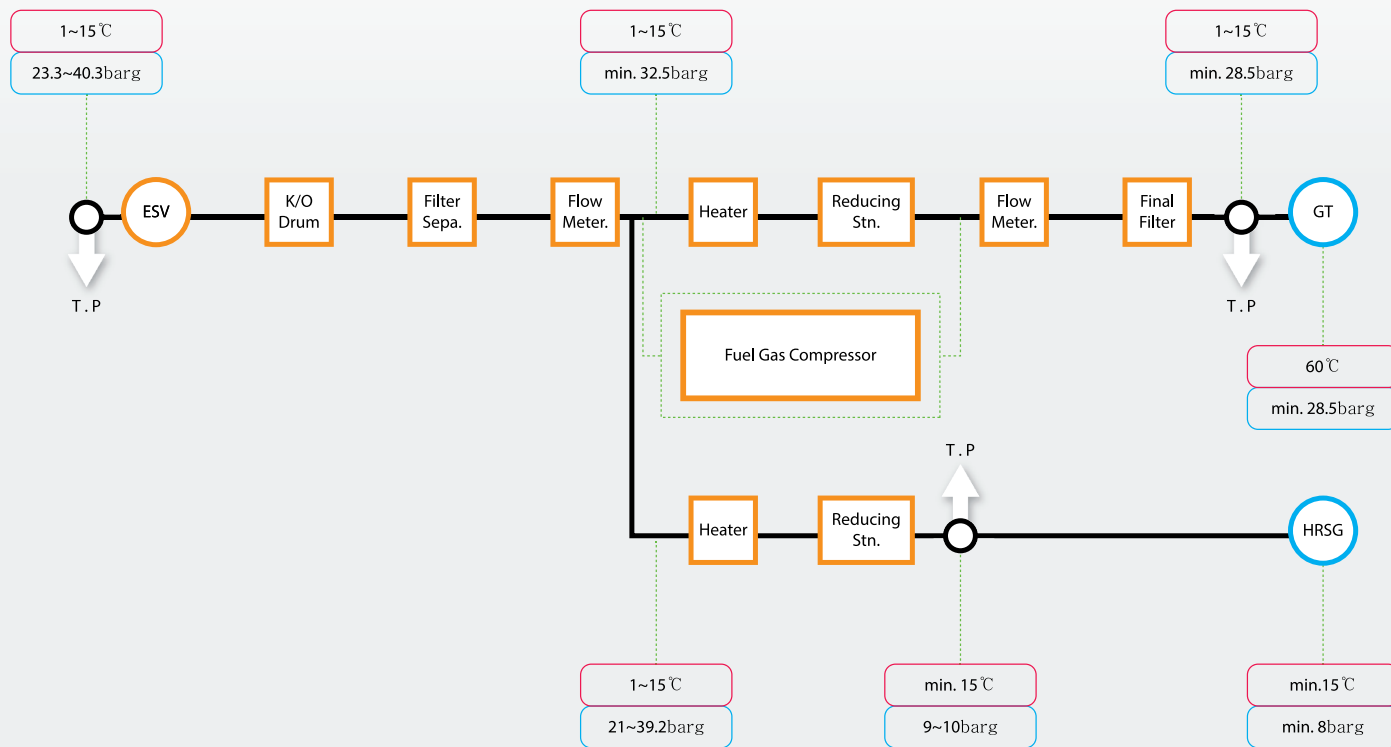


SPECIFICATION

	ELECTRIC VAPORIZER	CONVECTIONAL VAPORIZER	ELECTRIC VAPORIZER
MATERIAL	SUS304TP	A6063 T5 (Aluminum)	Internal Pressure(Coil):SUS304TP
FLUID	LPG	LNG, L-N ₂ , L-AR, L-O ₂ , L-CO ₂	NH ₃
PRESSURE	1.0 ~ 1.8 Mpa	1.0 ~ 2.0 Mpa	1.0 ~ 2.2 Mpa
TEMP.	-5 ~ 100°C	-196 ~ 40°C	-20 ~ 180°C
CAPACITY	30/50/100/150/200 300/400/500 kg/hr	10 ~ 10,000 m ³ /hr	50 ~ 500 kg/hr

FULL GAS SUPPLY SYSTEM

The fuel gas supply system is designed to supply fuel gas to gas turbines with appropriate pressure and temperature in accordance with client requirements. It is the essential part for reliable operation of a gas turbine for combined cycle power plants.

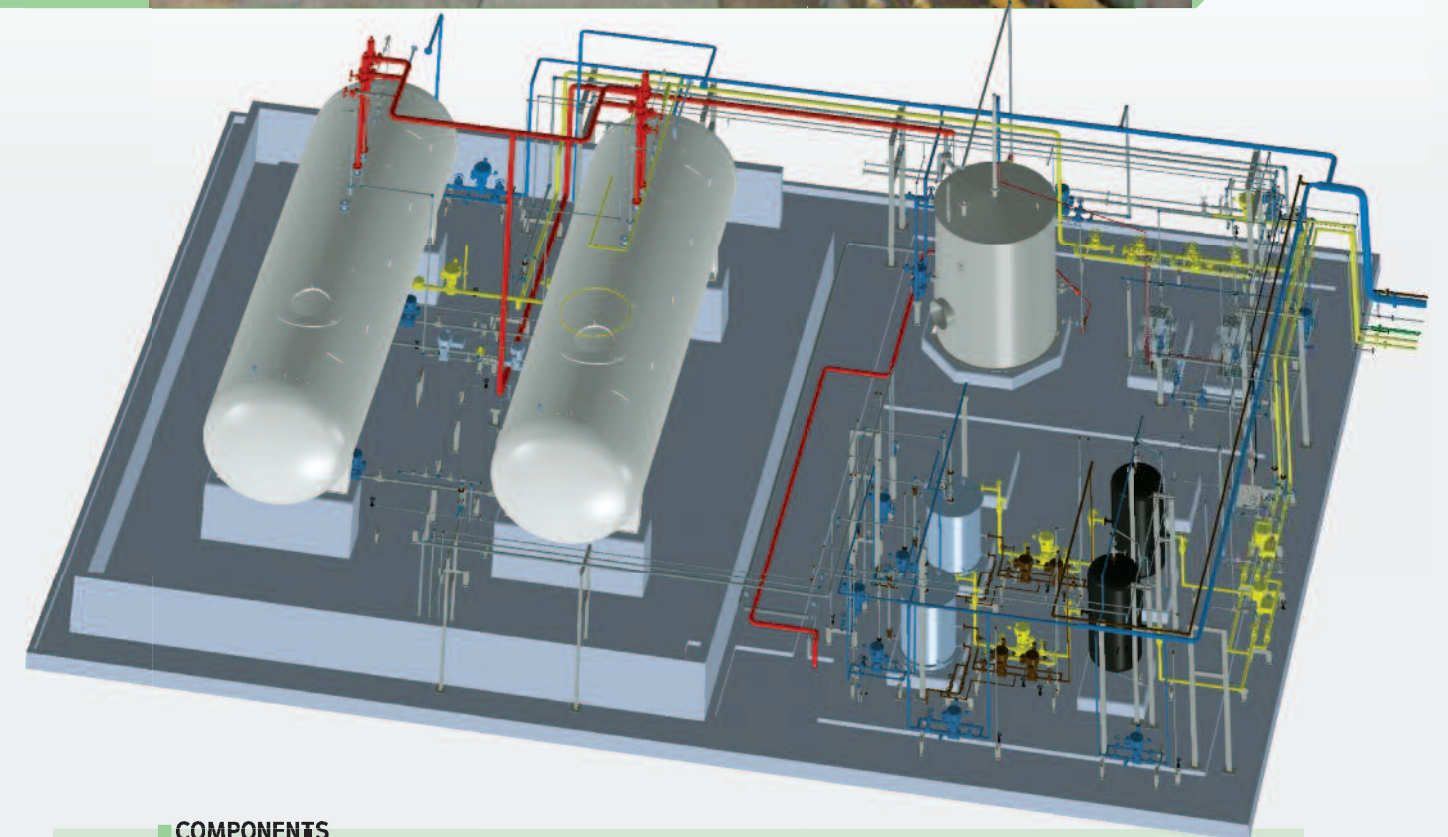


COMPONENTS

- Emergency Shut Down Valves
- Knock Out Drum
- Gas Filter Separator
- Fuel Gas Heater
- Condensate Tank
- HP & LP Pressure Reducing Station
- Fuel Gas Analyzer (Chromatography)
- Gas Metering System
- Vent Stack
- Control Panel
- All Necessary Pipes, Controls and Instruments

NH₃ STORAGE & SUPPLY SYSTEM for SCR

NH₃ storage & supply system is designed to meet regulation on discharge by decreasing NO_x emitted from boilers in power plant using anhydrous ammonia.



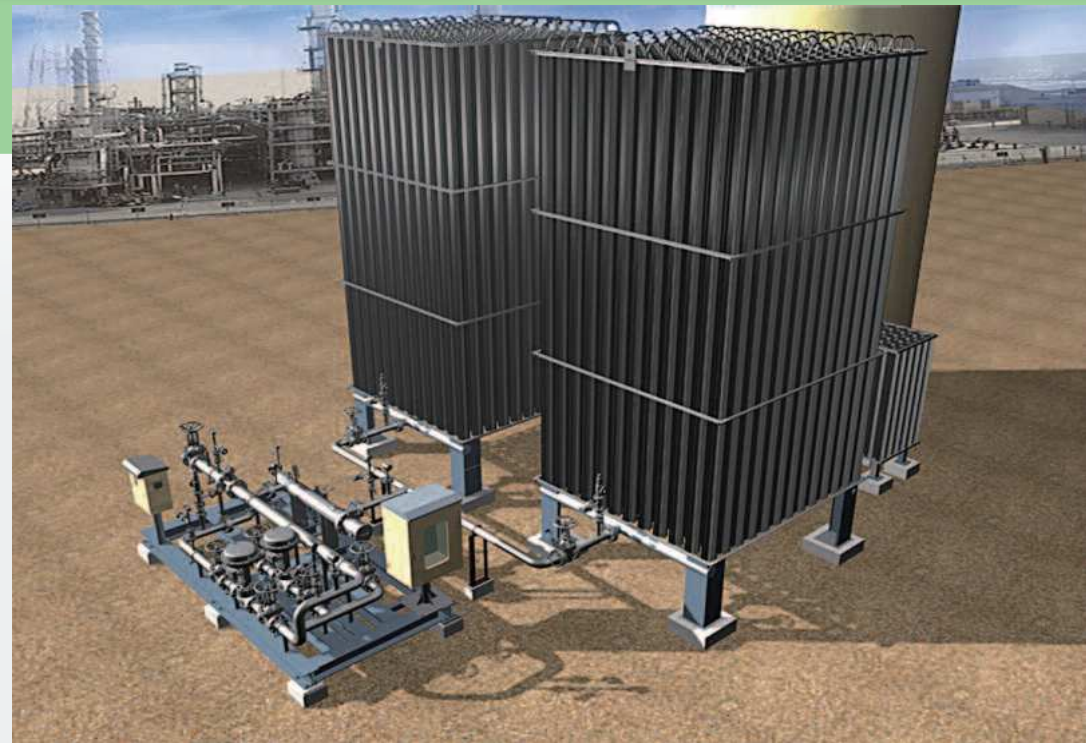
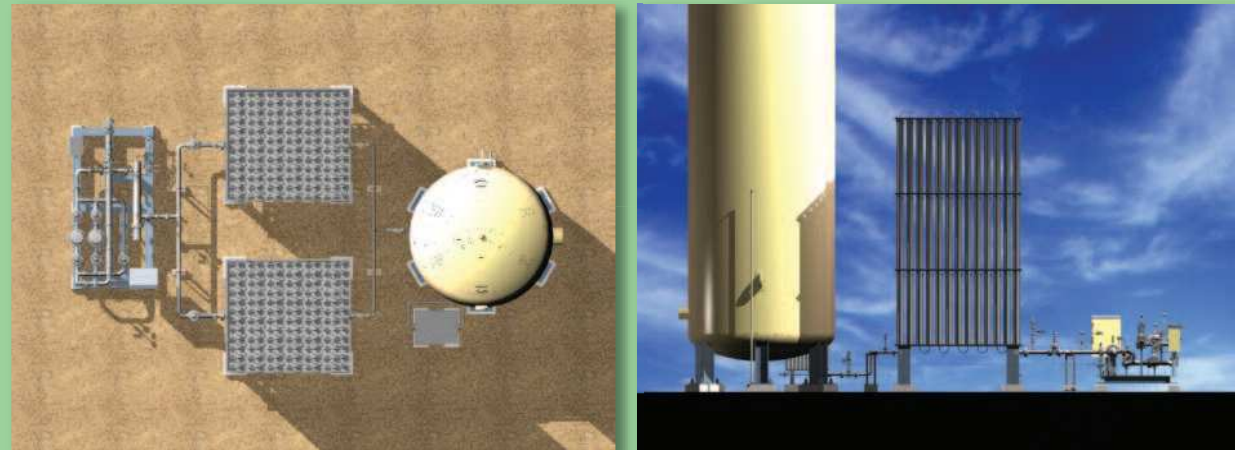
COMPONENTS

- NH₃ Storage Tank
- Vaporizer
- Accumulator
- Dilution Tank
- Compressor
- Sump Pump
- Safety & Equipment
- Manual Valve
- All Necessary Pipes, Controls and Instruments

UTILITY PACKAGE SYSTEM

EMERGENCY NITROGEN SUPPLY SYSTEM

Emergency nitrogen supply system is designed to supply nitrogen to main nitrogen line in case of emergency. The liquefied gas is vaporized and provided with adequate pressure aligned to client needs.



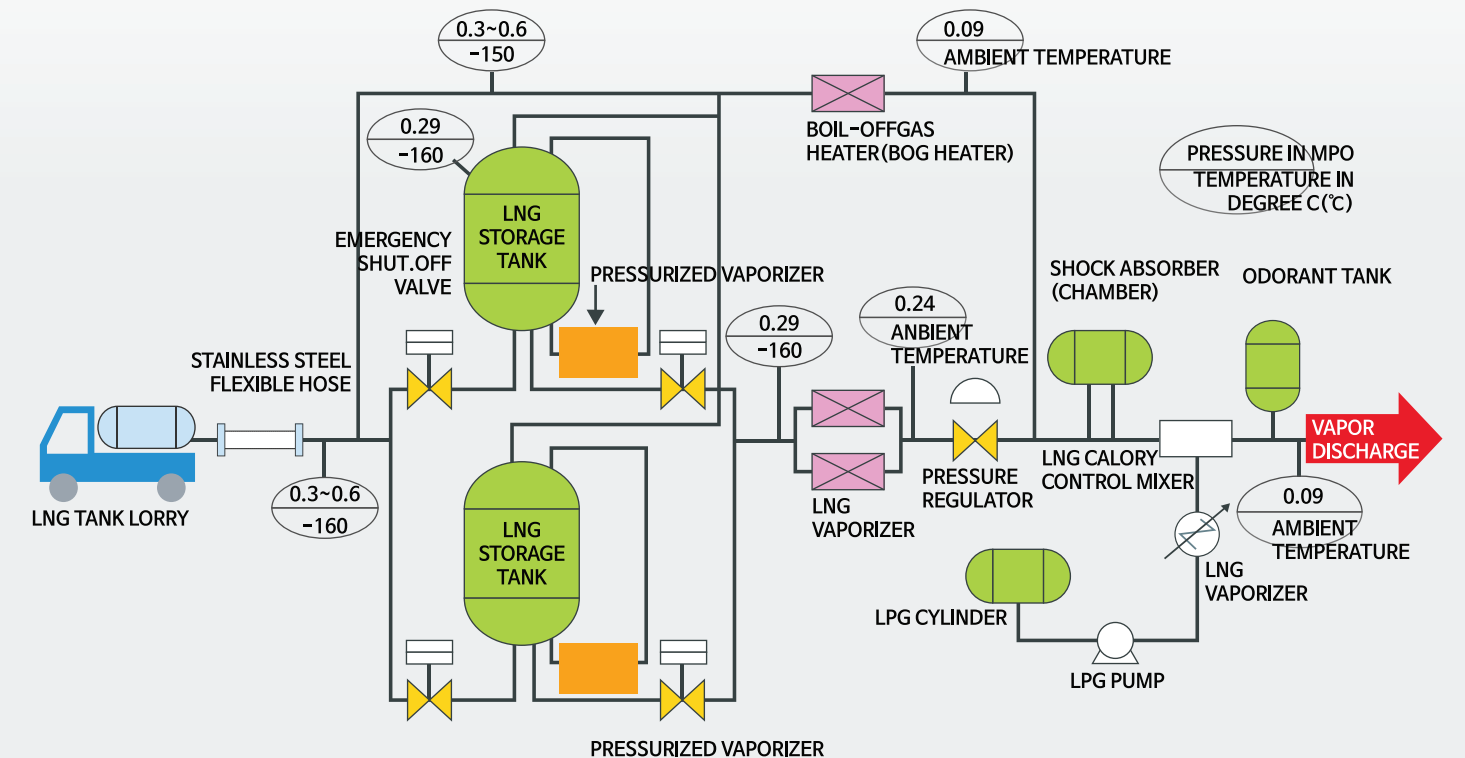
Project : Saudi-Arabian Chlor Vinyl
Contractor : Daelim

SPECIFICATION

	LN ₂ STORAGE TANK	VAPORIZER	E / HEATER
TYPE	VERTICAL DOUBLE WALL	NATURAL AMBIENT VAPORIZER	
CODE	ASME SEC. VIII DIV.1	ASME SEC. VIII DIV. 1 KGS AA911	ASME SEC. VIII DIV.1
DESIGN PRESSURE	1.5MPa	1.5 MPa	1.5 MPa
DESIGN TEMPERATURE	-196 / +40°C	-196 ~ +85°C	85°C
CAPACITY		3817 Nm ³ /hr	4,772 kg/hr / 3817 Nm ³ /hr

LNG SATELLITE STATION

LNG satellite station is designed to supply natural gas to remote area not served by pipeline network. LNG transported by tank trucks from LNG receiving terminal is stored, vaporized, and supplied after regulating pressure.



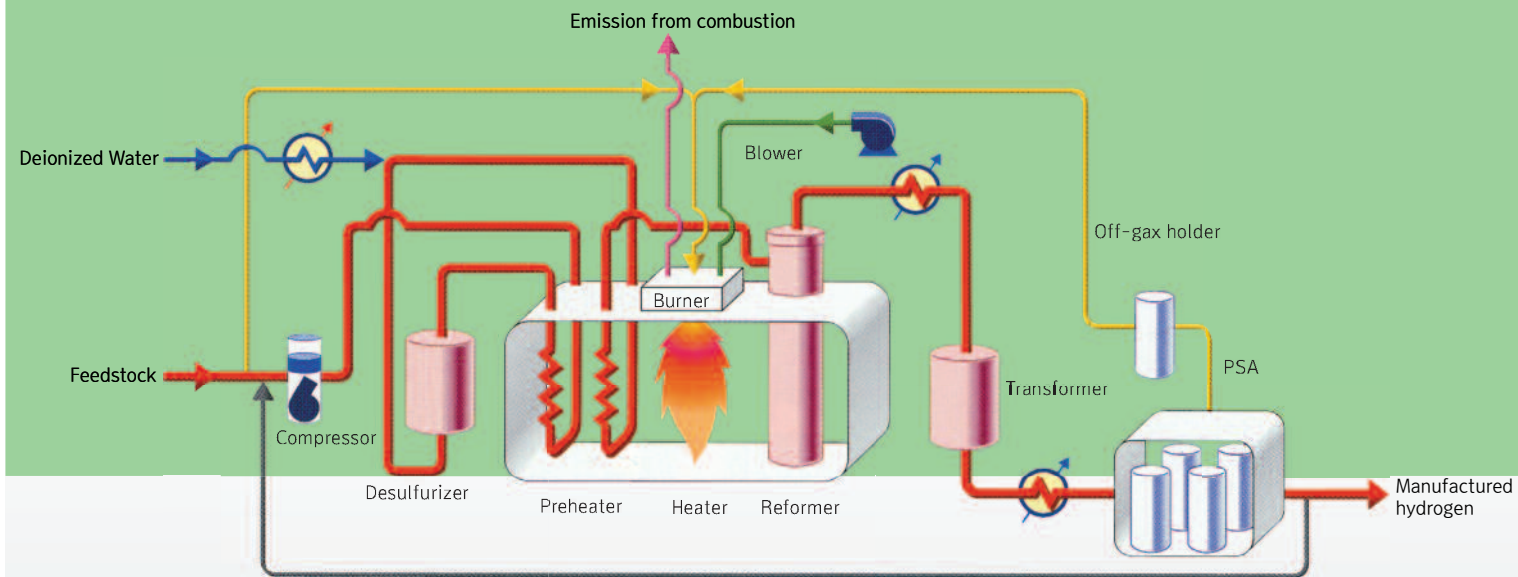
COMPONENTS

1. LNG Storage Tank / 2. LNG Vaporizer / 3. Heater / 4. Odorant Tank
5. Pressure Regulator / 6. Emergency Shut-off Valve

H₂ CAR FILLING STATION

Hydrogen station is an ideal solution for production of high-purity hydrogen and filling fuel cell vehicles with high-pressure hydrogen compressed and stored at a pressure of 40Mpa up to 70Mpa.

- Fluids : Naphtha, NG, and LPG
- Capacity : 30 ~300 Nm³/hr
Charging consecutively 5 FCV on a daily basis



- Project : Hydrogen Station at Yonsei University (2007)
- Capacity : 30 Nm³/hr
- Description : Generate hydrogen by 30 Nm³/hr per hour. Installed on-site hydrogen production system.



EQUIPMENTS

1. 용기내면 처리기 : 혼합가스 용기 내면 처리장비
2. 압력용기류 : chamber, 탈취탑등 제작
3. Gas mixer : 혼합가스 제조
4. 용기내압시험기 : 용기 재검사 장비제작
5. 독성가스용 중화조



MICROBULK SYSTEM

EQUIPMENTS

1. Rugged steel frame with galvanised base
2. Highly efficient super insulation
3. Ergonomically placed long stem valves
4. High flow rates
5. TPED approved "Pi" marked 1000 litre option available
6. Combined pressure regulator with economiser function
7. Convenient handling by fork lift, mobile crane, chain pulley or over head crane
8. Corrosion free valve identification tags
9. Civil foundation not essential as units can be placed on level surfaces

SPECIFICATION

Code	EN / ADM	ASME
Capacity	1000~3000 litres	260~800 USG
Tank mawp	18 / 24 / 38 kg/cm ² (g)	256 / 341 / 537 psig
Withdrawal rate	Upto 120 Nm ³ /hr	Upto 4500 SCFH

