HI-TECH ENG

Engineering & Procurement & Construction Company

We have the Solution!

About HI-TECH ENG

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최적의 엔지니어링 솔루션을 제공하는 창의적 파트너

We have the Solution!

하이테크엔지니어링은 1995년 설립 이후 쌓아온 정유 및 석유화학, 에너지, 환경분야의 다양한 프로젝트 경험을 바탕으로 지금은 엔지니어링, 프로젝트관리, 건설분야에서 가장 신뢰할 수 있는 파트너로 성장 하였습니다.
하이테크엔지니어링은 특히 공정개선, CAPA-UP 및 REVAMPING PROJECT 분야의 많은 경험과 특화된 노하우를 가지고 있습니다.

그 동안의 경험을 기반으로 중소형 프로젝트는 E.P.C 전체를 일괄수행하고 있으며, 대형 프로젝트는 종합설계 및 고객이 요구하는 다양한 솔루션 (Module, 3D Scanning, 인허가, 구매서비스 및 Plant IT)을 제공하고 있습니다.

하이테크엔지니어링은 "최적의 엔지니어링 솔루션을 제공하는 창의적 파트너" 라는 Mission과 "보다 내실 있는 엔지니어링 회사" 라는 Vision을 선포하며, 고객의 신뢰를 쌓아가는 일이 우리의 최우선 가치라고 확신하며 고객의 미래와 비전을 함께 하겠습니다.

About HI-TECH ENG

개요

회 사 명 (주)하이테크엔지니어링

대 표 자 장 영

대표주소 전남 여수시 여수산단1로 366 (화치동 1392번지)

설립일자 1995.12

기업형태 중견기업

주요사업 산업생산시설의 종합엔지니어링 및 종합건설업

자 본 금 25억 1,862만원

[2022년 결산 기준]

매출액	신용등급	현금흐름등급	ESG평가등급
1,965 억원	BBB-	A	ESG-4(우수)

미션과 비전

하이테크엔지니어링은 「 보다 내실 있는 엔지니어링 회사 」라는 비전 달성을 위해 최적의 엔지니어링 솔루션을 제공하는 창의적 파트너가 되도록 노력하고 있습니다.

MISSION

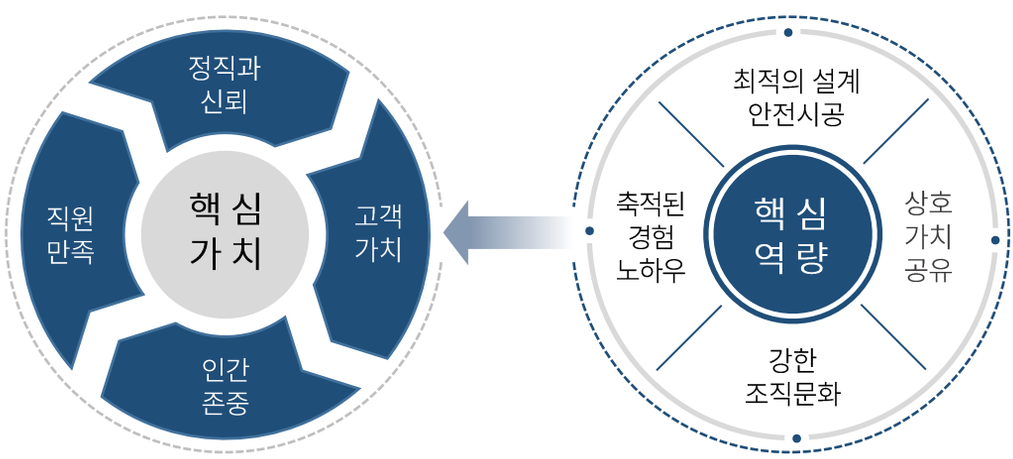
Creative Partner to Provide The Optimal Engineering Solution

최적의 엔지니어링 솔루션을 제공하는 창의적 파트너

VISION

More Sustainable Engineering Company

보다 내실 있는 엔지니어링 회사



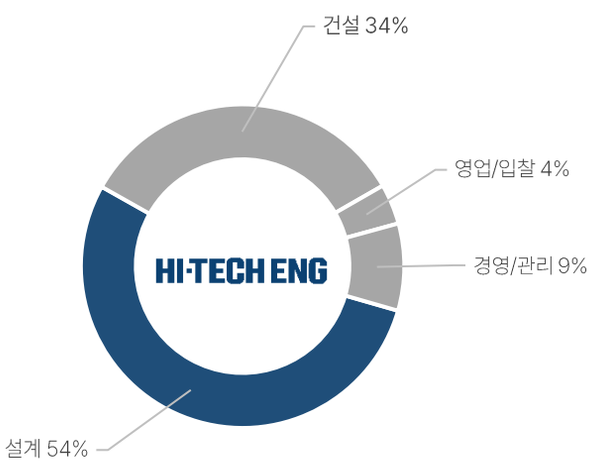
조직

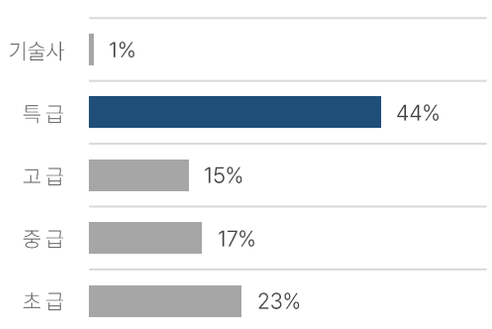
구성

54%
설계 인원 비중

45%
기술사 및 특급 비중

472
임직원(명)





About HI-TECH ENG

연혁

2024 / 2020

2024
- 수소전문기업 등록

2023
- 3차원 설계시스템 S3D (Intergraph Smart 3D) 도입
- 보건복지부장관 표창장 수상 (사회복지증진에 기여)
- 수소용품 제조사업 허가
- 기획재정부장관 표창장 수상
  (국가재정에 이바지 및 건전한 납세풍토 확립)

2022
- 소방청장 표창장 수상 (소방발전에 이바지)
- 산업통상자원부장관 표창장 수상
  (산업단지발전과 기업혁신 노력)
- ESG (Environmental Social Governance)
  평가등급 : ESG-4 우수 인증

2021
- 중견기업 인증

2020
- 토목공사업 등록
- 대기 환경전문공사업 등록
- 3차원 설계시스템 E3D (AVEVA E3D Design) 도입

2019 / 2015

2019
- 가족친화기업 인증
- 안전진단 전문기관 (건축) 등록
- 건설기술용역업 (설계, 사업관리-일반) 등록

2018
- 특허 등록
  (프로젝트 별 휴먼 리소스 관리 시스템 및 방법)

2017
- 특허 등록 (전자기 초음파 탐촉자를 이용한 저유탱크 용접부결함 검사용 로봇)
- 일학습병행제 기업으로 선정

2016
- 산업통상자원부장관 표창장 수상
  (에너지절약 및 효율향상 실천)
- 측량업 등록 (공공측량)
- 특허 등록 (피디엠에스 DB & 애드인 프로그램 관리 시스템 및 방법)

2015
- 장외영향평가서 작성 전문기관 등록

2014 / 2006

2014
- 소프트웨어사업자 신고
- 기계설비공사업 등록

2013
- 전문1종 설계업 (전력시설물) 등록
- 건축공사업 등록

2012
- 해외건설업 등록 (산업환경설비, 전기)
- ISO 45001 안전보건경영 인증
- ISO 14001 환경경영 인증
- 울산사업소 개설

2011
- 전문소방시설공사업 등록
- 산업환경설비공사업 등록

2010
- 전기공사업 등록

2008
- 에너지절약전문기업 (ESCO) 등록

2007
- 본사 이전

2005 / 1995

2005
- 지식경제부 장관상 수상 (소프트웨어 모범 사용 공로)
- 서울사업소 개설
- 기술연구소 설립
- 3D Laser Scan 도입
- 대산사업소 개설

2004
- 3차원 설계시스템 PDS (Plant Design System) 도입
- 소방시설설계업 등록 (기계/전기)

2003
- 종합감리업 (전력시설물) 등록

2002
- 엔지니어링사업자 신고
  (화공/설비/구조/전기설비/전기전자응용/정보통신)

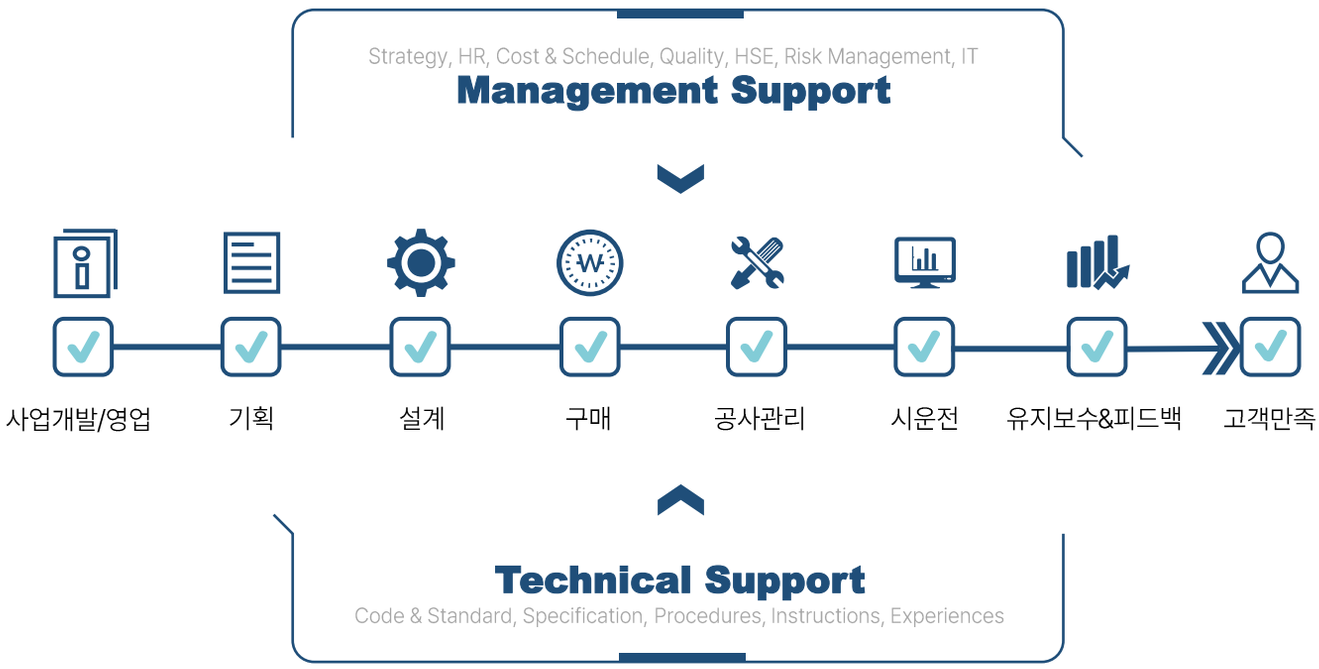
2001
- 3차원 설계시스템 PDMS
  (Plant Design Management System) 도입

2000
- ISO 9001 품질경영 인증 (Orion Registrar Inc., USA)

1995
- ㈜하이테크엔지니어링 법인 설립

About HI-TECH ENG

서비스 범위



ESTIMATION

FEED & Case study
Cost estimation of total construction

BASIC ENGINEERING

License Documentation Development
Basic design & Process development
Process simulation with column rating & Design (ASPEN PLUS, PRO-II)
Process dynamic analysis (ASPEN, HYSYS)
Equipment sizing & Data sheets
Heat exchanger rating & Design (HTRI, HTFS)
Hydraulic calculation & Flare network analysis (FLARNET, IN-HOUSE PROGRAM)
Instrument sizing & Data sheets (INSTRUCALC)
SIS Analysis (FAULT TREE+)

DETAIL ENGINEERING

Equipment selection
Calculation & Engineering drawing
3D Modeling
Piping construction drawing
Electrical construction drawing
Instrument construction drawing
Civil and architectural (Incl. Facilities) construction drawing
Other special construction drawing & Document related
As-built drawing for various construction

PROCUREMENT & SUPPORT

Vendor recommendation (Stationary/Rotationary/Piping/Instrument/Electric part)
RFQ (Request For Quotation)
TBE (Technical Bid Evaluation)
CBE (Commercial Bid Evaluation)
Purchase Order
Vendor shop inspection
Delivery expediting and control

CONSTRUCTION

Field construction management
Construction supervision
Schedule control and reporting
Quality control and reporting
Field inspection and reporting
Cost control and reporting
Safety management
Environment management
Field Engineering service

PRE-COMMISSIONING

Pre-commissioning/Commissioning
Performance test & Guarantee operation Assist

About HI-TECH ENG

지속가능경영

ESG 경영시스템

Environmental 환경

기후변화/탄소배출
환경오염/폐기물/유독물질
자원 선순환/신재생 에너지
환경인증/친환경제품

Social 사회

고용평등/역량개발
인권경영/임직원 건강과 안전
지역사회 관계/공정한 소통
기업문화의 다양성/포용성

Governance 지배구조

투명 경영
윤리 경영
리스크 관리
소통 거버넌스

ISO 경영시스템

고객 만족

품질경영시스템
ISO 9001

DNV·GL
MANAGEMENT SYSTEM CERTIFICATE
HI-TECH ENGINEERING CO., LTD.
ISO 9001:2015, KS Q ISO 9001:2015

고객만족을 실현하는 프로젝트
및 서비스의 품질 목표 달성

안전보건경영시스템
ISO 45001

DNV·GL
MANAGEMENT SYSTEM CERTIFICATE
HI-TECH ENGINEERING CO., LTD.
ISO 45001:2018

자율안전보건경영시스템의
정착으로 무재해 사업장 달성

환경경영시스템
ISO 14001

DNV·GL
MANAGEMENT SYSTEM CERTIFICATE
HI-TECH ENGINEERING CO., LTD.
ISO 14001:2015, KS I ISO 14001:2015

자율환경관리시스템 구축을 통한
친환경적인 경영활동

About HI-TECH ENG

장비 및 프로그램

장비

3D Scanner	IMAGER-5016	IMAGER-5010
도입시기 / 수량	2020년, 2022년 / 2대	2010년 / 1대
속 도	Max. 1.094 million pixel/sec.	Max. 1.016 million pixel/sec.
거리 / 선형오차	365m / ≤ 1 mm	187.3m / ≤ 1 mm
제 조 사	Zoller+Fröhlich (Z+F)	Zoller+Fröhlich (Z+F)

프로그램 (Package)

Project Management	Mech. & Piping Stress Analysis
MS-Project (for Schedule)	COMPRESS
Primavera P6 (for Schedule)	CAESAR II
Flow (Project Cooperation S/W)	NozzlePRO
Process	**Electrical & Instrumentation**
aspenONE Engineering	Power*Tools
AVEVA PRO/II	ETAP
AVEVA P&ID	AVEVA Electrical
Intergraph Smart P&ID	AVEVA Instrumentation
AutoCAD P&ID	Intergraph Smart Electrical
	Intergraph Smart Instrumentation
3D Modeling	**Piping**
AVEVA E3D Design / PDMS / Review	J-Sketch / J-Support
Intergraph Smart 3D / PDS / Review	Isogen (for PDS)
Autodesk AEC (Architecture Engineering & Construction Collection) (with Revit)(for BIM)	
Autodesk PDMC (Product Design Manufacturing Collection) (with Inventor)	
Civil & Structure Analysis	
MIDAS Gen MODS	Tekla Structures (3D Modeling)
MIDAS Plant	eSDI (enhanced Structure Design Integration)
STAAD.Pro	SketchUp (3D Modeling)
AFES (For Foundation)	Enscape (3D Modeling)
PEDAS-Foundation	
Others	
Consequence Analysis	PWIM (Piping Work Inspection Management)
Weldy (Welding Map / Weld Data Management)	

프로그램 (In-House)

Engineering	Documentation / Management
AutoCAD Plug-in	HI-Macro Tool for KORA
Navisworks Plug-in	HI-PDF Pro
HI-Mechanical	HI-Procurement
HI-Instrument	VDCS (Vendor Document Control System)
HI-Process	Piping Design Management System
PDMS Control System	

About HI-TECH ENG

면허/인증/특허

면허

면허	분야	등록일자
설계업	엔지니어링(화공,설비,구조,전기설비,전기전자응용, 정보통신)	2002.01.21
	소방시설 (기계,전기)	2010.03.09
	전력시설물 전문1종	2013.11.19
	장외영향평가 전문기업	2015.04.09
	안전진단 전문기업(건축)	2019.12.12
측량업	공공	2016.10.07
감리업	건설기술용역업(설계·사업관리-일반)	2019.07.17
	종합(전력시설물)	2003.05.26
종합건설업	산업·환경설비	2011.04.05
	건축	2013.06.04
	토목	2020.06.24
전문건설업	기계설비	2014.10.07
	대기환경	2020.03.16
해외건설업	산업·환경설비	2012.10.23
	전기	2012.10.23
기타건설업	전기	2010.09.02
	전문소방시설	2011.04.29
	에너지절약전문기업(ESCO)	2008.02.28
	수소용품 제조사업	2023.07.11

인증

인증	규격	등록일자
품질경영시스템	ISO 9001:2015	2000.06.28
안전보건경영시스템	ISO 45001:2018	2012.03.02
환경경영시스템	ISO 14001:2015	2012.03.02
기업부설연구소		2005.06.30
일학습병행제기업		2017.01.13
가족친화기업		2019.12.13
중견기업		2021.04.01
수소전문기업		2023.12.29

특허

특허(출원)번호	명칭	출원일자
제10-1638424호 (10-2015-0063344)	피디엠에스 데이터베이스 및 애드-인 프로그램 관리 시스템 및 방법	2015.05.06
제10-1716717호 (10-2015-0135464)	전자기 초음파 탐촉자를 이용한 저유탱크 용접부 결합 검사용 로봇	2015.09.24
제10-1847946호 (10-2016-0135216)	프로젝트별 휴먼 리소스 관리 시스템 및 방법	2016.10.18

About HI-TECH ENG

고객의 니즈와 안전을 최우선으로

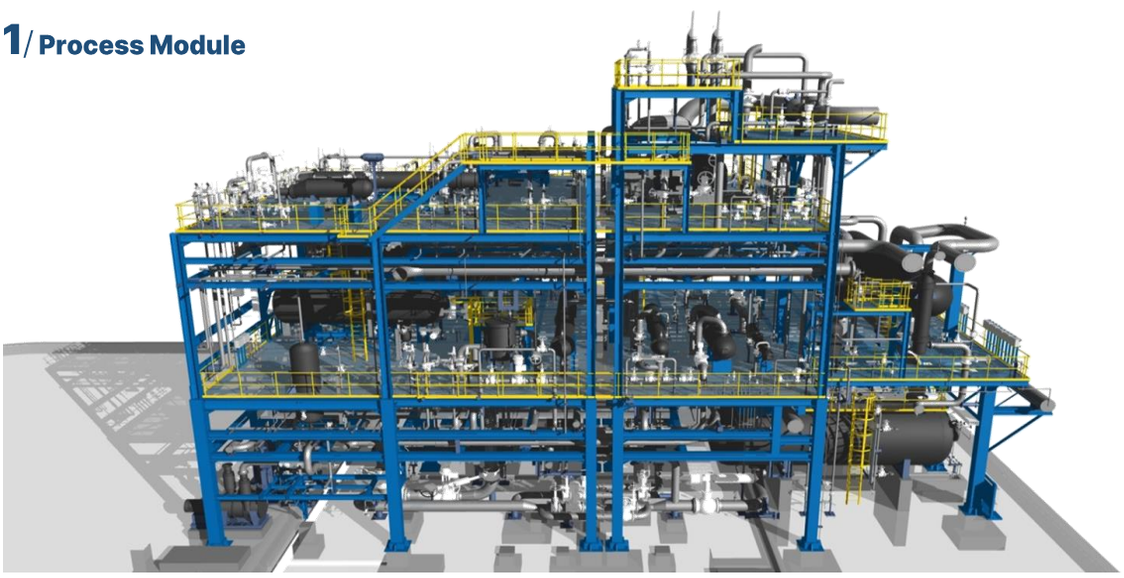
모듈화 사업

모듈화 (Modularization)는 플랜트를 혼합 구조물 (구조물, 압력용기, 배관, 전기실 등) 형태로 단위 부품화 함으로써 설치공간을 최소화하고, 제작여건이 좋은 지역의 Shop Yard에서 플랜트를 블록 단위의 Module로 제작한 후 현장으로 운송해 블록 형태인 플랜트를 조립만 함으로써 전체 공사기간과 비용을 절감하기 위한 건설 시공기술 입니다.

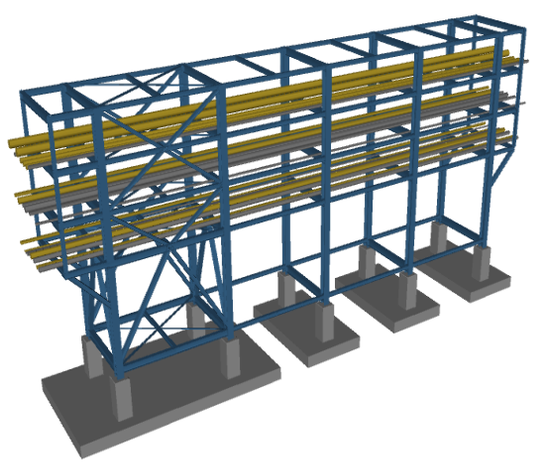
기존 Stick built 공법과는 달리 현장 작업을 줄이기 위한 목적으로 사용하며, On Site Limitation이 있을 때, 일정/비용/품질을 확보할 수 있는 공법으로 시공 현장의 환경영향을 최소화하여 공사기간 단축, 작업 안정성 확보, 생산성 제고 및 공사비용 절감 등의 효과를 기대할 수 있습니다.

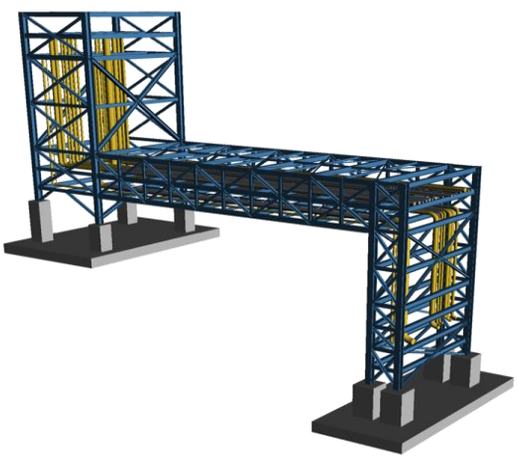
특히, 당사는 공사현장에서 일어나는 각종 안전사고를 예방하기 위하여 안전한 작업 여건이 갖추어진 제작공장 (Shop)에서 가능한 범위까지 Module 및 Skid로 제작하여 현장 작업을 최소화 함으로써 현장의 중대재해 예방에 최선을 다하고 있습니다.

1/ Process Module

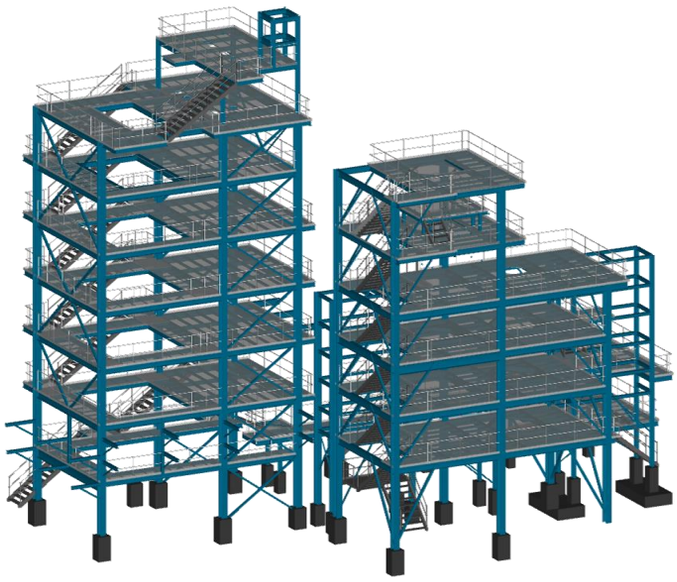


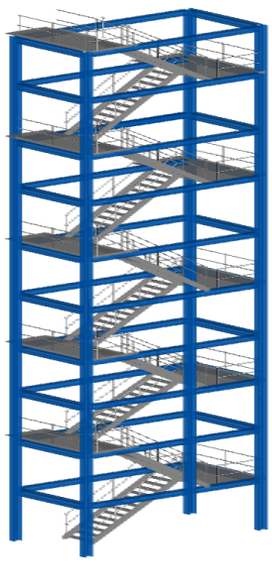
2/ Pipe Rack Module



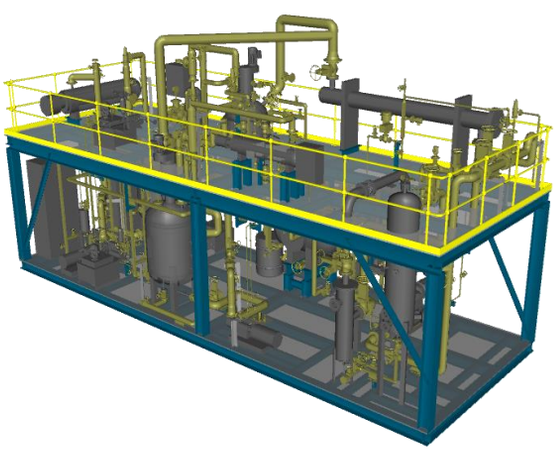


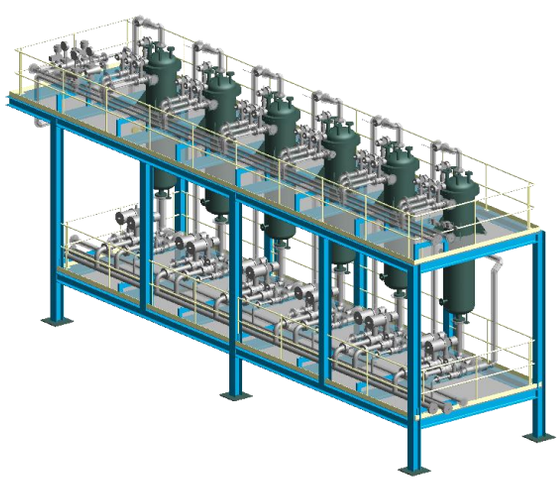
3/ Structure Module



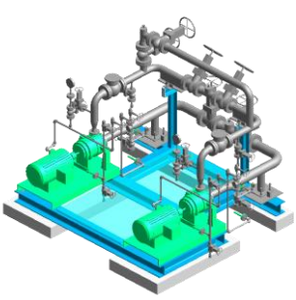


4/ Skid Type Module

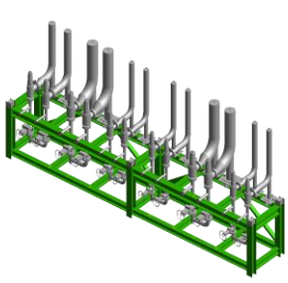




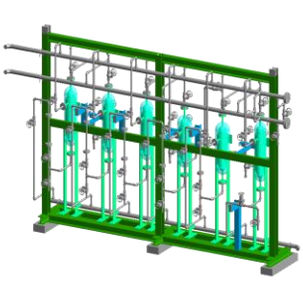
5/ Small Size Skid & Spools



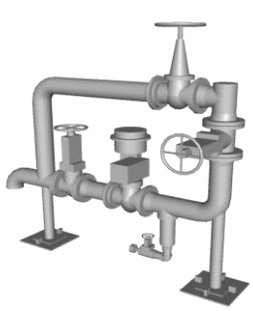
Pump Skid



PSV Skid



Sample Pot Skid



Control valve system

About HI-TECH ENG

최고의 완성도를 구현하는

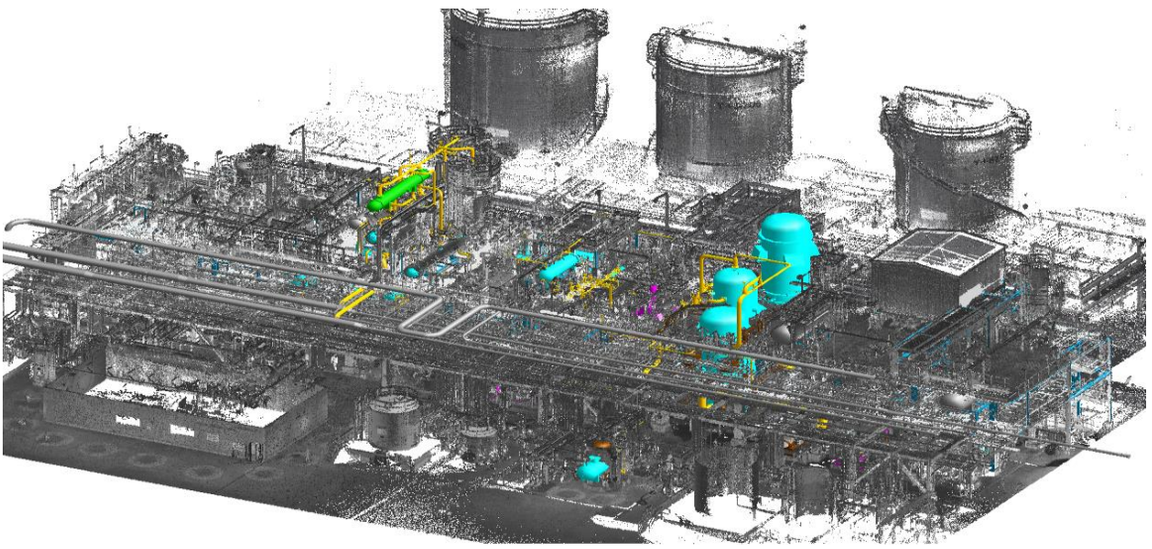
3D Laser Scan & Revamping Project

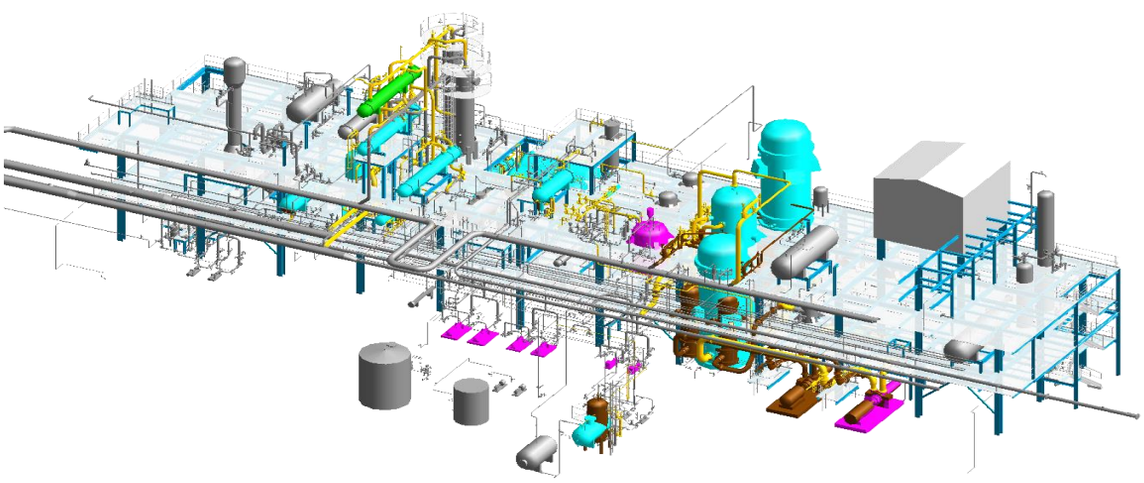
기존 공장의 공정개선, 용량 증대 등에 필요한 프로젝트를 수행하는 일은
새로운 공장을 건설하는 것보다 더 많은 어려움과 문제점에 직면하게 됩니다.

도면에 없는 현장의 다양한 시설물이 존재하는 등
실제 도면과 현장에는 많은 오차가 있으며 심지어 설계도서가 없는 경우도 있습니다.

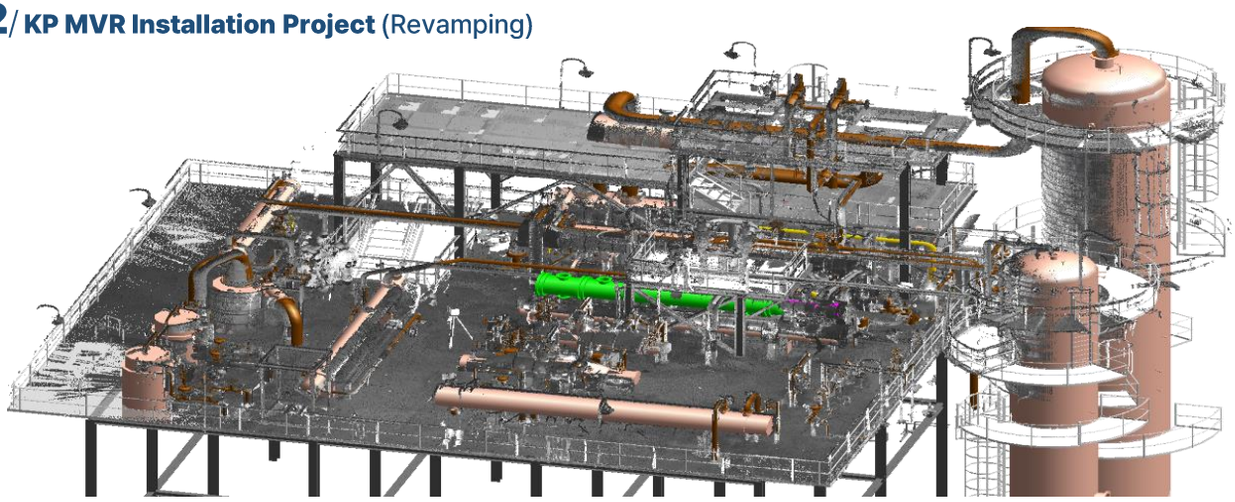
하이테크엔지니어링은 이러한 문제 해결을 위해 2005년부터 3D Laser Scan을 도입, 3D Modeling을 구현함으로써
Revamping Project에 필요한 양질의 경험과 노하우, 최첨단 시스템 적용으로 더욱 성공적인 프로젝트를 수행하고 있습니다.

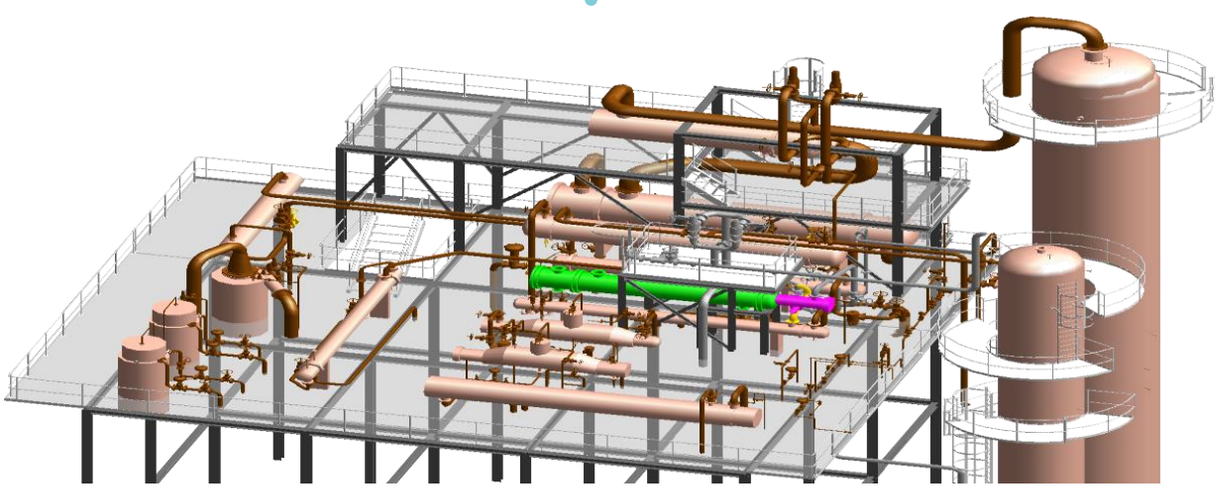
1/ PB2 100,000MTA Plant (Revamping)



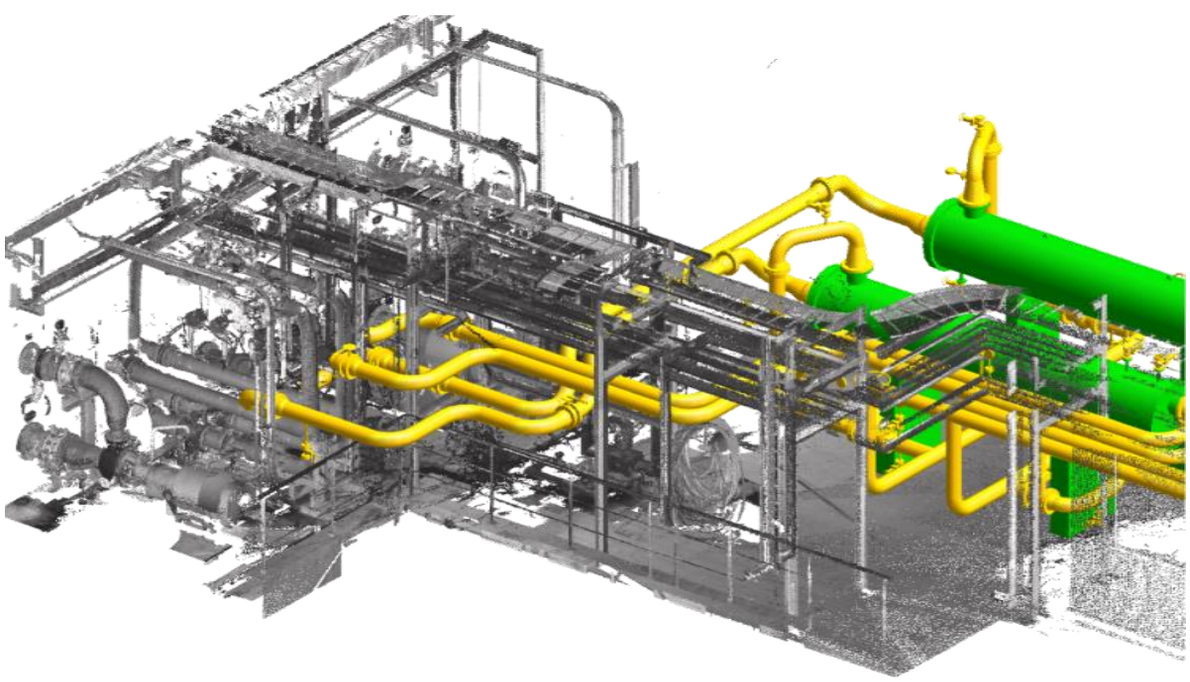


2/ **KP MVR Installation Project** (Revamping)





3/ **NCC Energy Saving Project** (Revamping)



Business Portfolio

30여년의 경험과 기술력으로

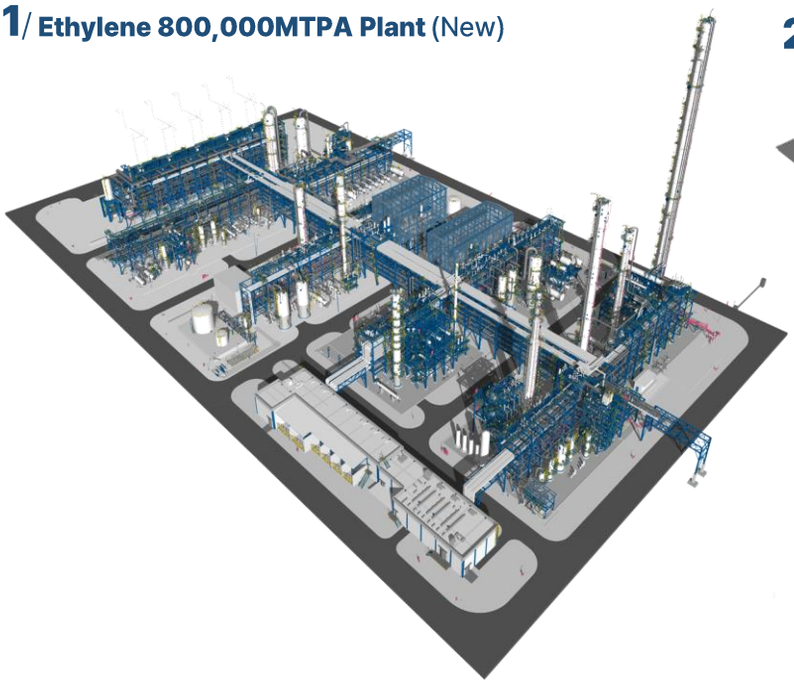
화공플랜트 사업

화공플랜트사업은 Oil & Gas, 정유, 석유화학, 일반 화학 등의 핵심 설계 기술과 폭 넓은 경험
그리고 우수한 기술인력을 확보해야만 수행 가능한 플랜트 사업입니다.

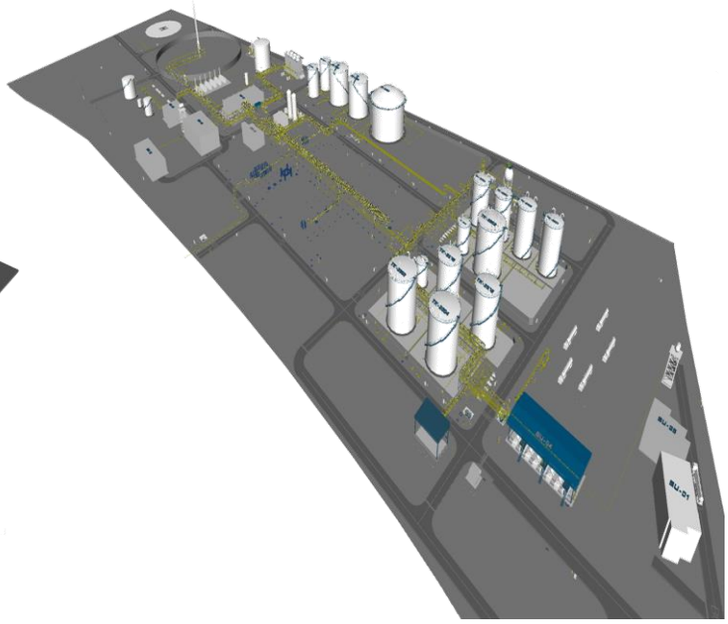
하이테크엔지니어링은 국내 대표적인 정유, 석유화학 회사인 GS칼텍스, LG화학, 금호피앤비화학, 금호미쓰이화학,
금호석유화학, 금호폴리켐, 롯데케미칼 등 많은 국내기업 및 해외 프로젝트의 설계, 구매 서비스 분야에서 쌓아온
경험과 기술력을 바탕으로 프로젝트 기획, 타당성 조사, 상세설계, 기자재 조달, 시공관리 및 시운전 등
모든 분야에서 성공적인 프로젝트를 수행하고 있습니다.

화공플랜트의 사업 경쟁력과 해외 진출 역량을 한층 강화하여, 진정한 글로벌 엔지니어링 회사로 발전할 것입니다.

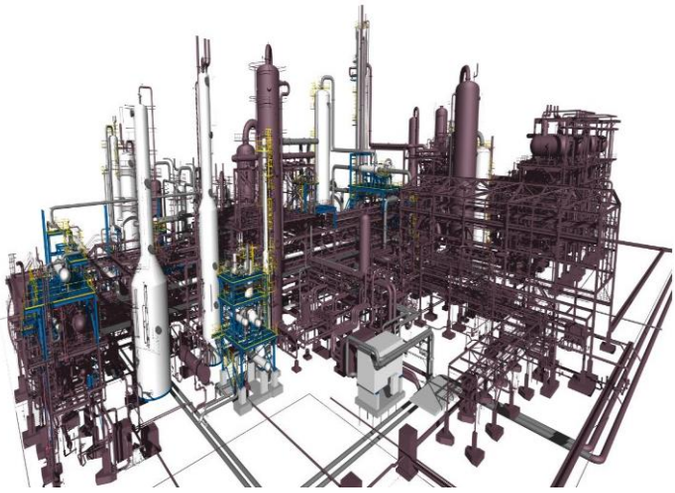
1/ Ethylene 800,000MTPA Plant (New)



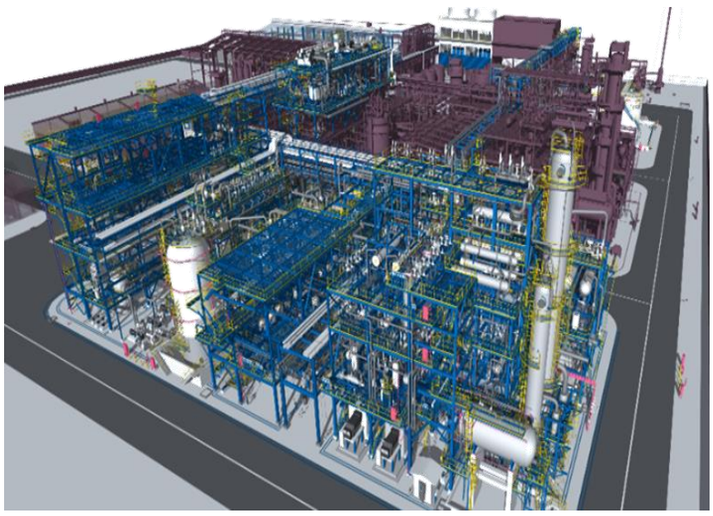
2/ 12,000 BPSD Hydro-skimming Refinery Plant (New)



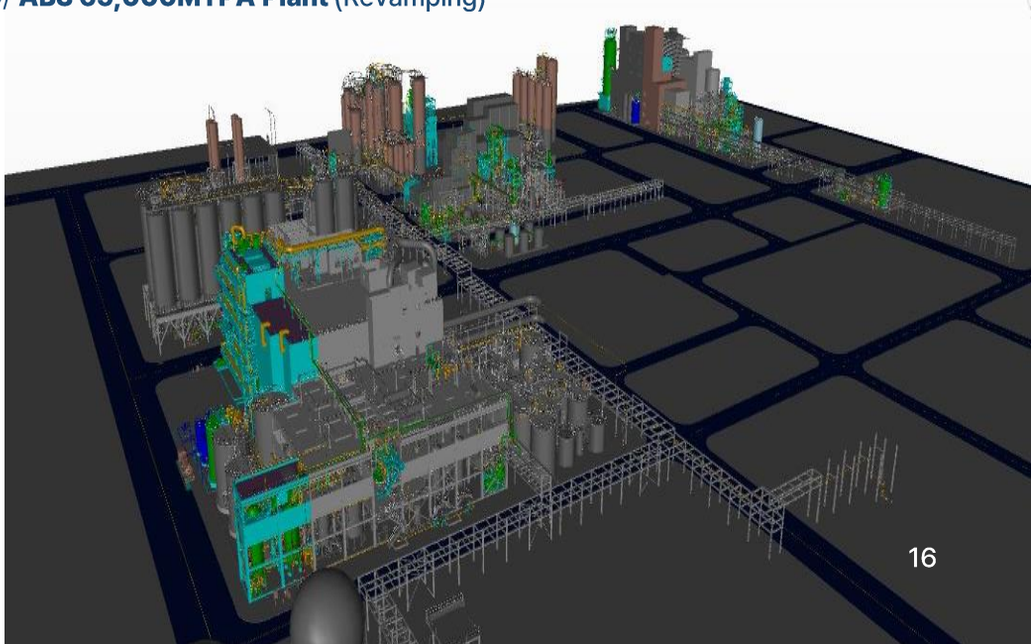
3/ MEG 50,000MTPA Plant (Revamping)



4/ EPM & EPDM 60,000MTPA Plant (New)



5/ ABS 65,000MTPA Plant (Revamping)



Business Portfolio

환경보호를 위한 자원순환 및 에너지절감

환경/에너지 사업

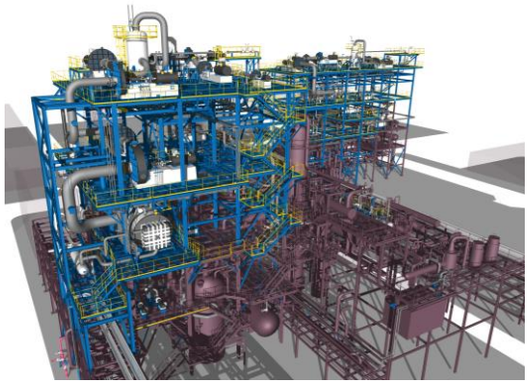
환경/에너지 사업은 환경보존과 에너지 자원의 효율적 활용을 통해 온실가스 배출 및 환경오염의 발생을 최소화하는 녹색성장 사업입니다.

사회와 산업이 유지되기 위해서는 에너지가 필요하고, 에너지를 얻기 위한 전 과정에서 오염물질이 대기중으로 배출되지 않아야 하는데,
하이테크엔지니어링은 산업공정 중 대기로 배출되는 휘발성유기화합물을 발화점 이상의 온도에서 열적 산화반응으로 분해하여 유해물질과 악취발생을 효과적으로 줄이면서
사용하고 버려지는 폐열 에너지를 재 사용하여 에너지를 절감하는 사업을 진행하고 있습니다.

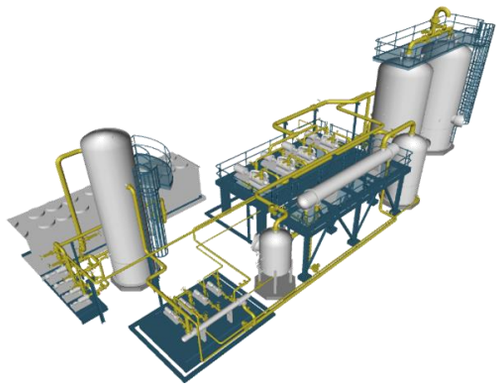
또한, 플라스틱 폐기물의 가장 효율적인 처리방법인 플라스틱 리사이클링 사업의 설계, 조달, 시공(EPC) 회사로써 친환경 에너지사업을 적극적으로 수행하고 있습니다.

- MVR (Mechanical Vapor Recompression) system
- LDAR (Leak Detection And Repair) system
- VRU (Vapor Recovery Unit) system
- VCU (Vapor Combustion Unit) system
- RTO (Regenerative Thermal Oxidizer) system
- WWT (Waste Water Treatment) system
- Waste Resource Recycling system

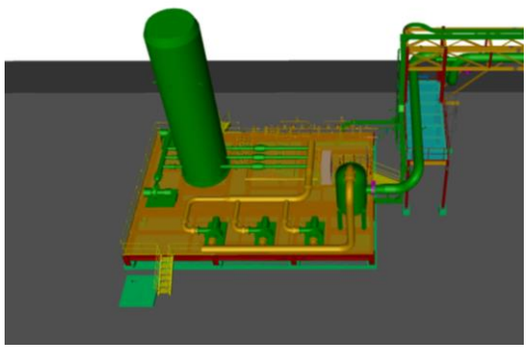
1/ MVR System



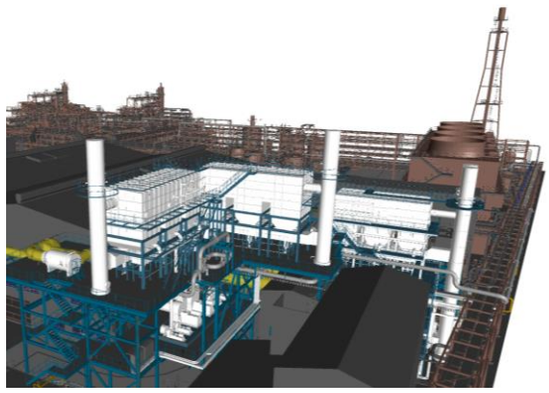
2/ VRU System



3/ VCU System

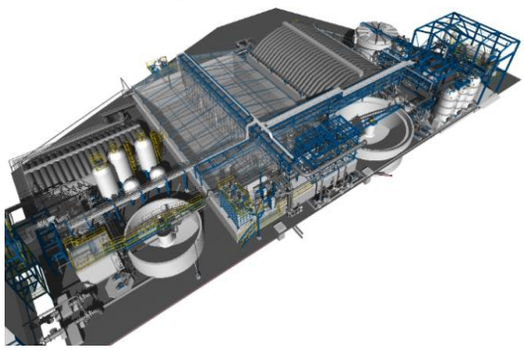


4/ RTO System

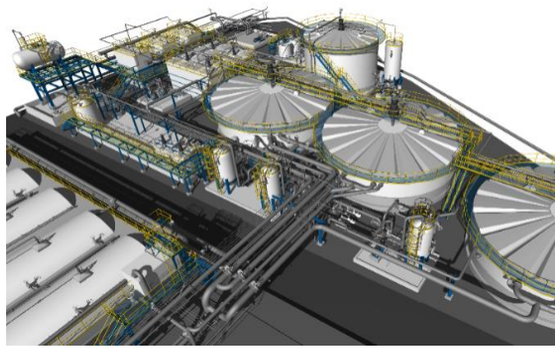


5/ WWT System

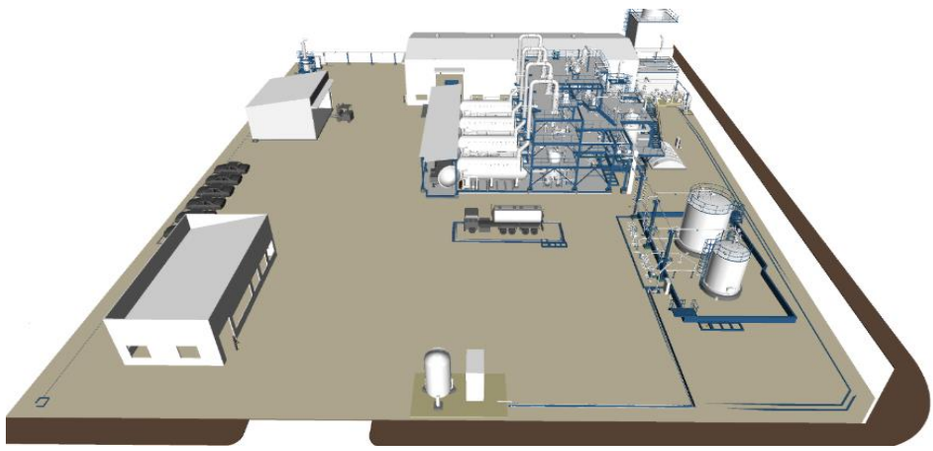
Biological Treatment Method



Chemical Treatment Method



6/ Waste Resource Recycling system



Business Portfolio

저탄소 녹색경영을 선도하는

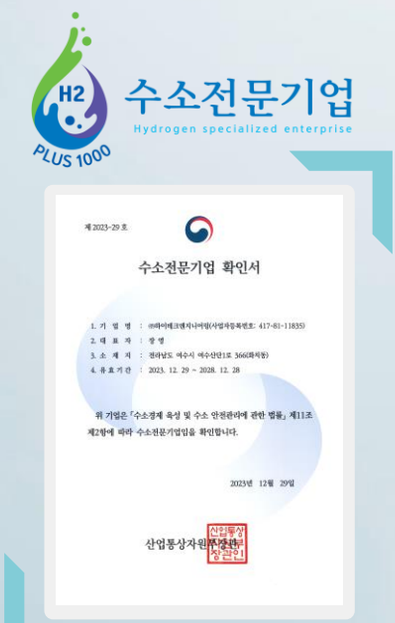
신·재생에너지 사업

신·재생에너지 사업은 탄소중립 및 수소, 태양열, 태양광, 바이오, 풍력, 소수력, 연료전지 등을 저장, 전환 및 활용하는 사업입니다.

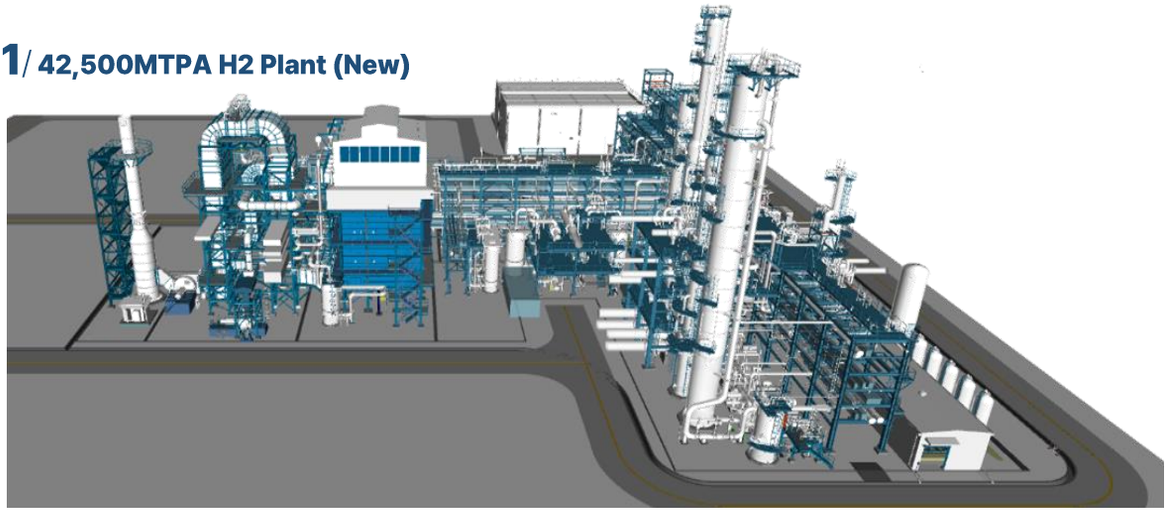
하이테크엔지니어링은 기후변화와 에너지전환 등 글로벌 이슈에 대응하기 위하여 지구온난화의 주범인 이산화탄소를 포집하여 저장하는 국책과제를 통해 이산화탄소를 저감하는 사업을 하였으며,
미래 에너지의 핵심인 수소를 분리하여 압축 및 액화시켜 보급하는 프로젝트를 선도적으로 수행하고자 수소공급망 설치에 대한 타당성 조사 용역 수행부터 56,000Nm³/hr 수소생산기지를 구축하는 프로젝트를 수행하고 있습니다.

또한, 「수소경제 육성 및 수소 안전관리에 관한 법률」에 따른 【수소용품 제조사업 허가(제2023-01호)】를 받아 수소제조설비를 설치하고 하이테크엔지니어링만의 안전성과 효율성을 확보하였으며,
【수소전문기업(제2023-29호)】으로 인정받음 으로서 수소경제 활성화에 기여하고 있습니다.

- Hydrogen system
- Rechargeable Battery system
- Bio system
- CCS(Carbon Capture Storage) system

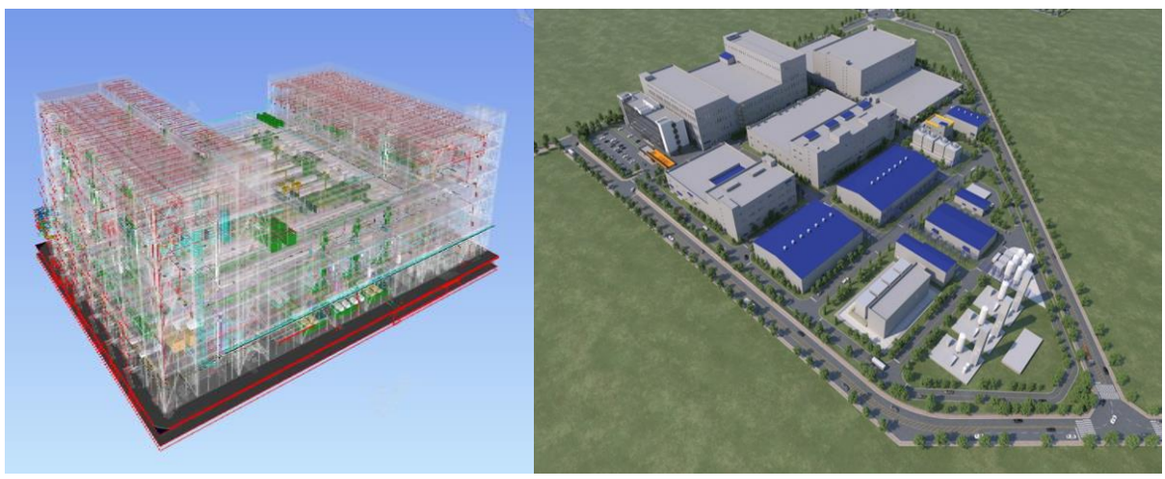


1/ 42,500MTPA H2 Plant (New)

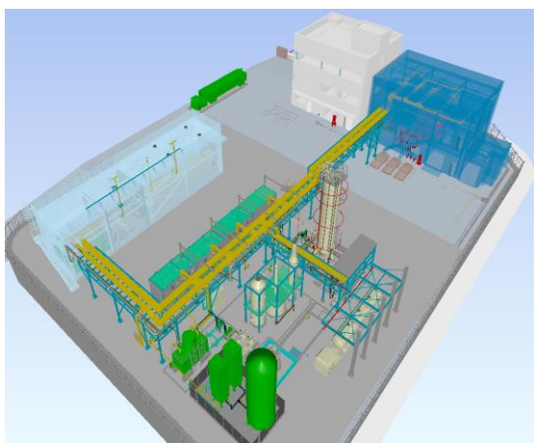


2/ 5 ton/day LH2 Plant (New)

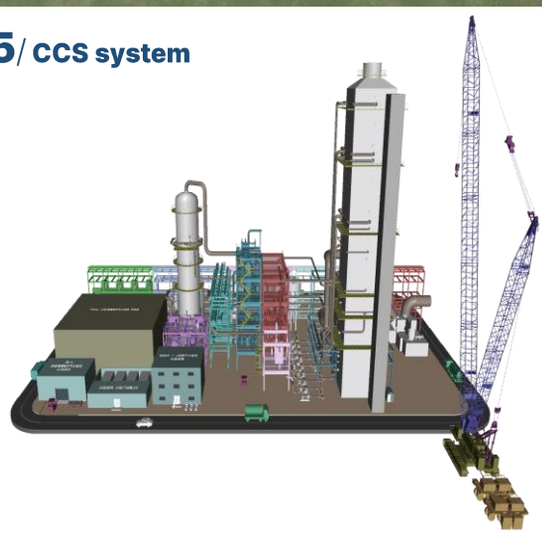
3/ Lithium-ion Battery Production system (New)



4/ 0.5TPD Ammonia Hydrogenation Process (Revamping)



5/ CCS system



Business Portfolio
사업 실적

No.	Client	Project	Period	Scope
269	KOLON INDUSTRY	BASIC DESIGN AND INVESTMENT COST CALCULATION SERVICE FOR PET CHEMICAL REGENERATION PLANT	2023.11~2024.03	E
268	S-OIL	DESIGN SERVICE FOR THE REVIEW OF DEMOLITION VOLUME OF OPERATION RESTING FACILITIES	2023.11~2023.12	E
267	KUMHO POLY CHEM	PLANT 1 RTO-3 NEW INSTALLATION PROJECT	2023.10~2024.07	E / P / C
266	KUMHO POLY CHEM	PLANT 1 VCU NEW INSTALLATION PROJECT	2023.10~2024.07	E / P / C
265	GS E&C	EVERGREEN FEED & UTILITY PROJECT (PROCESS, PIPING, ELECTRICAL, INSTRUMENT, CIVIL DETAIL DESIGN)	2023.08~2025.08	E
264	KUMHO P&B CHEM	CONSTRUCTION OF POWER SUPPLY FACILITIES IN PLANT 3	2023.08~2024.06	E / P / C
263	KUMHO POLY CHEM	PRE-ENGINEERING FOR INTRODUCTION OF LOW-PRESSURE TURBO CHILLER IN PLANT 1	2023.07~2023.10	E
262	DAIKIN ADVANCED MATERIALS	G2 GAS RECTIFIER EPC PROJECT	2023.07~2024.03	E / P / C
261	AZIKEL	12,000 BPSD HYDROSKIMMING REFINERY BAYELSA, NIGERIA - BDP AND UTILITIES	2023.07~2024.12	E / P
260	HANWHA AEROSPACE	AP SYNTHESIS NEW CONSTRUCTION PROCESS BASIC DESIGN	2023.07~2023.09	E
259	KOREA JAESAE NEUNGWON	HIGH NICKEL CATHODE MATERIAL NEW LINE CONSTRUCTION PHASE 2 PROJECT	2023.07~2024.01	E
258	KUMHO MITSUI CHEM	2023 CURRENT INVESTMENT EPC CONSTRUCTION	2023.06~2023.12	E / P / C
257	GS E&C	LG CHEM AURORA PROJECT FEED & DETAILED DESIGN	2023.06~2023.12	E
256	LG CHEM	PIPE RACK EXTENSION DESIGN AND APPROVAL FOR OUTSIDE PIPELINE	2023.05~2023.12	E
255	BASF	6 INCH MULTI-PURPOSE PIPELINE TO JETTY	2023.05~2023.09	E
254	GS E&C	MFC DEBOTTLENECK/ENERGY SAVING PROJECT	2023.05~2025.03	E / P / C
254	JAEWON INDUSTRIAL	JAC20 REVAMPING PROJECT DETAIL DESIGN	2023.05~2024.01	E
253	GS E&C	EVERGREEN PROJECT DESIGN OUTSOURCING (PIPING, ELECTRICAL, INSTRUMENT, CIVIL)	2023.04~2025.08	E
252	LG CHEM	BIO-PA PILOT CONSTRUCTION(ISBL)	2023.04~2023.10	P / C
251	AIR LIQUIDE KOREA	PROJECT TO CONNECT H2 LINE/CO LINE/VENT LINE TO KMCI BLOCK AT Y2 PLANT ISBL	2023.04~2023.10	E / P / C
250	KUMHO PETRO CHEM	I-LINE SBS OFF GAS SYSTEM DESIGN AND APPROVAL	2023.03~2023.09	E
249	KUMHO POLY CHEM	FACTORY 2 RTO(80,000NM3/HR 2EA) NEW INSTALLATION PROJECT	2023.03~2023.12	E / P / C
248	LG CHEM	PILOT BUILDING OSBL AND ADJUSTMENT BUILDING INSTALLATION WORK	2023.03~2023.08	P / C
247	LOTTE CHEM	DETAILED DESIGN RELATED TO RELOCATION OF H-WWT1 WASTEWATER TREATMENT PLANT	2023.03~2024.12	E
246	S-OIL	VCU INSTALLATION 2nd STAGE PROJECT	2023.02~2024.03	E / P / C
245	LOTTE CHEM	ESTABLISHMENT OF INFRASTRUCTURE FOR NEW DAESAN PROJECT	2023.02~2024.02	E / P / C
244	S-OIL	OFFSITE FACILITY IMPROVEMENT FOR FEEDSTOCK IMPORT	2023.02~2024.03	E / P / C
243	GS CALTEX	PE PROCESS THROUGHPUT INCREASE DESIGN & APPROVALS	2022.12~2023.04	E
242	GS CALTEX	RFCC FLARE GAS RECOVERY SYSTEM PROJECT DETAILED DESIGN SERVICE	2022.11~2023.12	E
241	LOTTE CHEM	PIP(POTASSIUM ISOPRENOXIDE) 1,100MTPA PROJECT BASIC DESIGN	2022.11~2023.12	E

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No.	Client	Project	Period	Scope
240	GS CALTEX	VRHCR PROCESS 2nd STAGE MEMBRANE NEW CONSTRUCTION DETAILED DESIGN SERVICE	2022.11~2024.03	E
239	LG CHEM	DAESAN H2 56,000Nm³/hr(42,500MTPA) PLANT PROJECT	2022.10~2024.08	E / P / C
238	DAYONE ENERGY	10-3 SECTION PIPE RACK RESTORATION PLAN & STRUCTURAL & PIPING SAFETY DIAGNOSIS SERVICE	2022.09~2022.12	E
237	LG CHEM	SUS SAN(ACRYLONITRILE-STYRENE) 40MTPA REVAMPING PROJECT	2022.09~2023.12	E / P / C
236	GS CALTEX	FEASIBILITY STUDY FOR BY-PRODUCT HYDROGEN SUPPLY PIPE AND WATER SUPPLY PIPE FOR HEAT RECOVERY	2022.09~2022.12	E
235	HANWHA ENERGY	DETAIL DESIGN SERVICE FOR LG CHEM STEAM SUPPLY PIPING INSTALLATION WORK	2022.08~2022.12	E
234	KUMHO P&B CHEM	KKLC BPA WAREHOUSE DESIGN & APPROVAL	2022.08~2023.09	E
233	KUMHO P&B CHEM	3rd FACTORY EXTERNAL PIPING PIPE RACK NEW PROJECT	2022.07~2024.05	E / P / C
232	LG CHEM	DAESAN D PILOT PLANT PROJECT	2022.07~2023.08	E / P / C
231	FARMHANNONG	TIAFENACIL PRODUCTION FACILITY BASIC DESIGN	2022.07~2022.09	E
230	LX MMA	P3 EXPANSION BASIC DESIGN & TIC	2022.07~2022.10	E
229	LG CHEM	PBAT 3,000MTPA PROJECT	2022.07~2023.03	Ⅱ
228	JEONYOUNG R.G.O	WASTE SYNTHETIC RESIN 7,920MTPA RECYLED OIL 4,752MTPA ENERGY CONVERSION PROJECT	2022.07~2023.05	E / P / C
227	XI C&A	NCC T/A & STEAM NETWORK OPTIMIZATION PROJECT DESIGN	2022.07~2023.02	E
226	HAMPYEONG-GUN	LIVING RESOURCES RECOVERY CENTER INSTALLATION PROJECT	2022.06~2023.06	P / C
225	GS E&C	BASIC & DETAIL DESIGN RELATED TO NO.1 PAREX PROCESS MVR PROJECT	2022.06~2024.06	E
224	KUMHO P&B CHEM	DESIGN & APPROVAL FOR STT(I) MIBK TANK USE CHANGE	2022.06~2022.12	E
223	LOTTE CHEM	NEW 250,000MTPA HPEO REFINING FACILITY IN DAESAN EG-1 PLANT	2022.06~2023.12	E / P / C
222	HANWHA ENERGY	DETAILED DESIGN OF CRESOL STEAM SUPPLY PIPING INSTALLATION WORK	2022.05~2023.05	E
221	NAMHAE CHEM	BASIC DESIGN OF 810MTPD 30% FUMING SULFURIC ACID MANUFACTURING FACILITY	2022.05~2023.08	E
220	HYUNDAI ENG	LG CHEM ABS REBUILDING PROJECT	2022.05~2022.06	E
219	HANJU	DESIGN SERVICED RELATED TO DISSOLVED REFINED SALT BUSINESS (PHASE 1)	2022.05~2022.09	E
218	LOTTE CHEM	VANADIUM ELECTROLYTE 480MTPA PRODUCTION PLANT CONSTRUCTION	2022.05~2023.06	E / P / C
217	LG CHEM	LDPE EXTERNAL PIPING PIPE RACK EXTENSION DESIGN	2022.05~2022.12	E
216	KUMHO P&B CHEM	FACTORY 1,2 RTO(12,000NM3/HR, 23,000NM3/HR) INSTALLATION PROJECT	2022.05~2023.01	E / P / C
215	KUMHO POLY CHEM	VOC IMPROVEMENT DESIGN	2022.05~2022.08	E
214	LG CHEM	LLDPE WEATHER PILOT OSBL FEED, TIC SERVICE	2022.04~2022.07	E
213	GANGJIN-GUN	DAEGU JEODU DISTRICT VILLAGE SEWERAGE MAINTENANCE PROJECT	2022.04~2024.04	P / C
212	KUMHO POLY CHEM	PLANT IMPROVEMENT DESIGN	2022.04~2022.12	E
211	KUMHO MITSUI CHEM	PLANT ANNUAL SHUT-DOWN PROJECT	2022.04~2022.11	E / P / C

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No.	Client	Project	Period	Scope
210	LG CHEM	DETAILED DESIGN FOR INTRODUCTION OF HIGH-CONCENTRATION PROCESS IN YEOSU PC PLANT	2022.03~2023.05	E
209	LG CHEM	DAESAN O PILOT 2nd PROJECT BASIC DESIGN & TIC SERVICE	2022.03~2022.06	E
208	LG CHEM	YEOSU NCC 2 PLANT RAW C5 EXPANSION DETAILED DESIGN	2022.02~2022.12	E
207	LG CHEM	YEOSU HDPE PLANT LINE-1 PROCESS DESIGN	2022.02~2022.04	E
206	KUMHO POLY CHEM	EPDM 50,000MTPA BASIC ENGINEERING	2022.01~2022.02	E
205	GANGJIN-GUN	GUNDONG BIJA DISTRICT VILLAGE SEWERAGE MAINTENANCE PROJECT	2022.01~2024.01	P / C
204	KUMHO P&B CHEM	LP PROCESS 60,000MTPA NEW REVAMPING PROJECT	2022.01~2023.04	E / P / C
203	LOTTE CHEM	L-NC PROJECT RELATED EXTERNAL C3 LPG PIPING FEASIBILITY STUDY	2022.01~2022.06	E
202	KICOX	YEOSU INDUSTRIAL COMPLEX PUBLIC PIPE RACK PHASE 4 CONSTRUCTION(INCREASED STAGE) DETAILED DESIGN	2022.01~2022.07	E
201	WONIK MATERIALS	500KG/DAY H2 PRODUCTION PROCESS DETAILED DESIGN	2021.12~2022.05	E
200	JAEWON INDUSTRIAL	DETAILED DESIGN SERVICE RELATED TO THE EXTENSION OF 3 NMP TOWERS AT THE HUNGARY PLANT	2021.12~2022.05	E
199	GS CALTEX	PURGE GAS SUPPLY PIPE REVIEW SERVICE	2021.12~2022.01	E
198	KUMHO POLY CHEM	3 LINE DEBOTTLENECKING PROJECT RELATED WORK	2021.12~2022.08	E / P / C
197	LG CHEM	ABS PLANT FLARE STACK NEW CONSTRUCTION DETAILED DESIGN	2021.12~2023.03	E
196	S&I CORP.	DESIGN OF A NEW PLANT TO PRODUCE 50,000MTPA OF PBAT (POLYBUTYLENE ADIPATE TEREPHTHALATE)	2021.11~2023.12	E
195	KUMHO POLY CHEM	4 LINE MVR(UC-403) NEW INSTALLATION PROJECT RELATED WORK	2021.11~2022.11	E / P / C
194	LG CHEM	TRANSPARENT ABS DEBOTTLENECKING PROJECT	2021.11~2022.04	E
193	PURIOGEN	BASIC DESIGN SERVICE FOR PURIOGEN YEOSU PG-1 PLANT ESTABLISHMENT	2021.11~2022.03	E
192	S&I CORP.	BDP & TIC SERVICE FOR THE ESTABLISHMENT OF AN 80,000MTPA MMA(METHYL METHACRYLATE) PLANT IN ULSAN	2021.11~2021.12	E
191	JEONYOUNG R.G.O	25MTPD COMBUSTIBLE WASTE ENERGY CONVERSION PROJECT FEASIBILITY STUDY	2021.10~2022.06	E
190	S&I CORP.	PILOT FACILITY DESIGN FOR RESEARCH & DEVELOPMENT OF POLY OLEFIN ELASTOMER	2021.09~2022.09	E
189	S&I CORP.	50MTPA C4F6 PILOT BASIC DESIGN	2021.09~2021.12	E
188	JINSUNG ENG	BASIC DESIGN OF SEMICONDUCTOR SPECIAL GAS MASS PRODUCTION PLANT	2021.09~2021.11	E
187	S&I CORP.	OMA(OCTANOLE METHACRYLATE) 37.3MTPD DETAILED DESIGN & TIC SERVICE	2021.08~2021.09	E
186	KOREA JAESAE NEUNGWON	18,000MTPA OF HIGH NICKEL CATHODE MATERIAL NEW LINE CONSTRUCTION PROJECT	2021.08~2022.06	E
185	KUMHO PETRO CHEM	SSBR 60,000MTPA REVAMPING PROJECT	2021.08~2022.12	E / P / C
184	LG CHEM	PVC 400,000MTPA REVAMPING PROJECT	2021.08~2022.10	P / C
183	LG CHEM	ABS DP 220,000MTPA REVAMPING PROJECT FEED DESIGN	2021.08~2021.12	E
182	GS E&C	KPIC NEO-II & KBD PROJECT (PIPING/ELEC./INSTR./CIVIL)	2021.07~2023.03	E
181	HANWHA SOLUTION	TECHNICAL MANAGEMENT TEAM HANYANG BRIDGE FACILITY PRECISE SAFETY DIAGNOSIS	2021.07~2021.10	E

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No.	Client	Project	Period	Scope
180	KUMHO MITSUI CHEM	NO.2 MDI PLANT REVAMPING PROJECT(MDI)DESIGN, EQUIPMENT DELIVERY SERVICE	2021.06~2023.12	E / P / C
179	KUMHO MITSUI CHEM	NO.2 MDI PLANT PROJECT(FOX) DESIGN, EQUIPMENT DELIVERY SERVICE	2021.06~2023.12	E / P / C
178	JAEWON INDUSTRIAL	PMA 24,000MTPA PRODUCTION PROCESS DESIGN	2021.05~2021.10	E
177	WONIK MATERIALS	GAS 2 TEAM 0.5MTPD AMMONIA HYDROGENATION PROCESS DETAIL DESIGN	2021.04~2021.08	E
176	KUMHO POLY CHEM	FACTORY 1 RTO-2(38,000NM3/HR 2EA) NEW INSTALLATION WORK	2021.04~2021.11	E / P / C
175	KUMHO MITSUI CHEM	410,000MTPA PLANT 3D DESIGN	2021.04~2021.12	E
174	HANWHA SOLUTION	DETAILED DESIGN FOR PETROLEUM RESIN R-220 DUAL	2021.04~2022.11	E
173	OCI	POHANG PLANT HSPP-MPR-001-PILOT PACKAGE MANUFACTURING WORK	2021.03~2021.06	E / P / C
172	KPIC	ONSAN PLANT NCC, DPG, ARU UNIT SAFETY VALVE & SHUT-OFF VALVE DESIGN SERVICE	2021.03~2021.12	E
171	LG CHEM	ACS ORGANIC LOADING PROCESS DEMOLITION & RESTORATION WORK	2021.02~2021.05	E / P / C
170	LG CHEM	CIVIL DESIGN & STEEL STRUCTURE REVIEW RELATED TO NCC PSV DUALIZATION	2021.02~2021.10	E
169	SGC E-TEC E&C	EPC WORKS FOR PIPING AMONG LOTTE CHEMICAL 6 BLOCK INFRA 2 PROJECT	2021.02~2022.04	E / P / C
168	DAYONE ENERGY	ISBL/OSBL STEAM SUPLLY PROJECT FOR LOTTE GS CHEMICAL	2021.02~2021.10	E / P / C
167	LG CHEM	ABS PLANT NEW FLARE STACK CAPACITY REVIEW & DESIGN	2021.01~2021.05	E
166	DOOSAN HEAVY I&C	H2 5MTPD HYDROGEN LIQUEFACTION PROJECT (BASIC & DETAIL DESIGN)	2021.01~2023.02	E
165	YTT	200M3/HR GASOLINE & BUTANE MIXING PROJECT	2021.01~2021.03	E / P / C
164	LOTTE CHEM	ABS 65,000MTPA→68,000MTPA REVAMPING PROJECT BASIC DESIGN & FEED	2021.01~2021.04	E
163	KUMHO POLY CHEM	FACTORY 2 RTO(65,000NM3/HR 2EA) NEW INSTALLATION PROJECT	2020.12~2021.09	E / P / C
162	LG CHEM	DETAILED DESIGN FOR PVC SL-3 REVAMPING PROJECT	2020.12~2022.11	E
161	LG CHEM	3AA DEBOTTLENECKING BASIC DESIGN	2020.12~2022.11	E
160	JAEWON INDUSTRIAL	JWH-2 PROJECT NMP TOWER 2 PIPING PRODUCTION	2020.10~2021.03	E
159	WONIK MATERIALS	YC 0.1% B2H6 & H2 MIX PROJECT DETAIL DESIGN & APPROVAL	2020.12~2021.03	E
158	DAYONE ENERGY	LOTTE GS CHEMICAL OSBL DETAILED DESIGN	2020.12~2021.02	E
157	YTT	YTT BUTANE BLENDING PROJECT RELATED DETAILED DESIGN & SUPERVISION AGENCY	2020.11~2021.03	E
156	HYUNDAI ENG	HDO BIO DIESEL OVERALL DESIGN	2020.11~2020.12	E
155	KOREA JAESAE NEUNGWON	ANNUAL OUTPUT OF 65,000MTPA LITHIUM BATTERY CATHODE MATERIAL PROJECT	2020.11~2021.09	E
154	LG CHEM	PSV DESIGN ADEQUACY REVIEW	2020.10~2021.03	E
153	KUMHO P&B CHEM	LIQUID EPOXY RESIN(III) 20,000MTPA REVAMPING PROJECT	2020.10~2021.10	E / P / C
152	JAEWON INDUSTRIAL	DETAILED DESIGN FOR THE EXPANSION OF 2 NMP TOWERS IN HUNGARY FACTORY	2020.12~2021.05	E
151	KUMHO MITSUI CHEM	2020 T/A(TURN AROUND) INVESTMENT DESIGN SERVICE	2020.09~2020.12	E

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No.	Client	Project	Period	Scope
150	LG CHEM	FEASIBILITY STUDY FOR NEW PIPE RACK REVAMPING BETWEEN YONGSUNG & JEOKRYANG COMPLEX	2020.08~2021.02	E
149	LG CHEM	FEASIBILITY STUDY FOR NEW/REVAMPING PIPE RACK FOR OUTDOOR OFFICIALS	2020.07~2020.12	E
148	OCI	GUNSAN PLANT, RE CVD THERMAL STRESS ANALYSIS	2020.07~2020.10	E
147	KICOX	FEASIBILITY ANALYSIS & BASIC DESIGN SERVICE FOR YEOSU INDUSTRIAL COMPLEX'S PUBLIC PIPE RACK & LOADING ARM INSTALLATION PROJECT	2020.07~2021.03	E
146	LG CHEM	DETAIL DESIGN & APPROVAL OF BPA HEAVIES	2020.07~2020.12	E
145	DAEA ENERGY	SULFUR SOLIDIFICATION PLANT DESIGN & APPROVAL	2020.07~2021.08	E
144	S-OIL	VCU(9,000NM3/HR) INSTALLATION PROJECT	2020.06~2020.12	E / P / C
143	HANWHA SOLUTION	OA PRODUCTION TEAM 2-EH STORAGE TANK(V-369C) INSTALLATION	2020.06~2021.03	E / P / C
142	HANWHA SOLUTION	OA OXO CATALYST PROCESS INCREASE P&C CONSTRUCTION	2020.06~2021.01	E / P / C
141	KUMHO P&B CHEM	PLANT 1 KPA(IV) PLANT COOLING WATER GRP PIPE REPLACEMENT WORK	2020.06~2020.11	E / P / C
140	KUMHO POLY CHEM	METALLOCENE PROCESS BASIC DESIGN	2020.05~2020.12	E
139	EM TECH	DETAIL DESIGN FOR RELATED TO JPC-550 (1,000 L/HR PROCESS UNIT) & NEW SITE TANK INSTALLATION PROJECT	2020.05~2021.06	E
138	LOTTE E&C	PIPING DESIGN SERVICE DURING LOTTE CHEM D-NC_R PROJECT	2020.05~2020.11	E
137	CHEMICAL SAFETY AGENCY	PRODUCTION & INSTALLATION OF 3 TYPES OF OUTDOOR TRAINING FACILITIES	2020.05~2020.12	E / P / C
136	GANGJIN-GUN	JAKCHEON GUSANG DISTRICT VILLAGE SEWER MAINTENANCE PROJECT	2020.05~2022.05	P / C
135	GS CALTEX	3RD CONSTRUCTION OF IMPROVEMENT OF ELECTRICAL EQUIPMENT IN LOGISTICS CENTER	2020.04~2020.11	E / P / C
134	KUMHO POLY CHEM	KP-1 RTO-1(35,000NM3/HR 2EA) INSTALLATION PROJECT	2020.04~2021.12	E / P / C
133	WONIK MATERIALS	DETAIL DESIGN FOR E PROJECT IN YANGCHEONG PLANT	2020.03~2021.01	E
132	GS E&C	YEOSU NO.2 COMPLEX PROJECT (PIPING FIELD ENGINEERING)	2020.03~2020.12	FE
131	LOTTE CHEM	NEW INSTALLATION OF D-GE/BDG EXPANSION REACTION FACILITY FOR DAESAN PLANT	2020.03~2021.03	E / P / C
130	HANWHA SOLUTION	BASF YEOSU PLANT HCL 35% EXTERNAL NEW PIPING DESIGN & APPROVAL	2020.03~2020.06	E
129	KUMHO MITSUI CHEM	MDI 200,000MTPA, CA, HYDROCHLORIC ACID OXIDATION FACILITY BASIC DESIGN	2020.03~2020.06	E
128	KUMHO POLY CHEM	1 PLANT FLARE LOAD SUMMARY & PRESSURE VESSEL INSTALLATION RELATED DESIGN	2020.02~2020.05	E
127	MARINE GLORY	INSTALLATION OF 5 PETROCHEMICAL TANKS & DESIGN OF ADDITIONAL FACILITIES	2020.01~2021.12	E
126	LOTTE E&C	LOTTE CHEM INFRA-2 FEED DESIGN	2020.01~2020.03	E
125	WONIK MATERIALS	DETAIL DESIGN FOR 2,000MTPA HIGH PURITY CO2 REFINING & FILLING FACILITY CONSTRUCTION PROJECT	2020.01~2020.03	E
124	HYUNDAI ENERGY	DETAIL DESIGN OF STEAM PIPING INSTALLATION FOR GS CALTEX MFC PLANT	2019.12~2020.01	E
123	GS E&C	LG CHEM Y2C(YEOSU #2 COMPLEX) SAPO PIER EXTERNAL PIPING CONSTRUCTION	2019.11~2020.09	E / P / C
122	DOOSAN HEAVY I&C	H2 5MTPA HYDROGEN LIQUEFACTION PROJECT APPROVAL SERVICE	2019.11~2020.03	E
121	S&I CORP.	LG MMA M2 MTBE(METHYL TERTIARY BUTHYL ETHER) 150,000MTPA EXPANSION PROJECT	2019.11~2020.12	E

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No.	Client	Project	Period	Scope
120	YEOSU TECHNICAL DIRECTOR'S COUNCIL	PIPE RACK SAFETY DIAGNOSIS OF EXTERNAL PIPELINES BETWEEN 10-2,3 SECTIONS	2019.10~2020.03	E
119	KUMHO P&B CHEM	80,000MTPA KAR(KUMHO ACETONE RECYCLE) PROJECT	2019.10~2021.05	E / P / C
118	HYUNDAI ENERGY	AIR LIQUID PIPE RACK STRUCTURE STABILITY REVIEW	2019.10~2019.10	E
117	HANWHA CHEM	OA PRODUCTION TEAM CATALYTIC PROCESS EXPANSION DESIGN & APPROVAL	2019.10~2021.01	E
116	KUMHO PETRO CHEM	SBS(STYRENE BUTADIENE STYRENE) 45,000T REVAMPING PROJECT	2019.10~2020.08	E / P / C
115	GS CALTEX	MFC PROJECT - 3WHARF APPROVAL SERVICE FOR THE 2nd PRODUCT PIER	2019.10~2021.04	E
114	KUMHO MITSUI CHEM	NEW LOGISTICS BASE CONSTRUCTION	2019.10~2020.08	E / P / C
113	GS E&C	GS CALTEX MFC(MIXED FEED CRACKER) OUTSIDE PIPE LINE INSTALLATION WORK	2019.09~2020.11	E
112	LG CHEM	DETAILED DESIGN OF VCM1 EDC(ETHYLENE DICHLORIDE) REACTION PROCESS IMPROVEMENT	2019.09~2020.07	E
111	GS E&C	GS CALTEX MFC(MIXED FEED CRACKER) OUTER PIPE LINE INSTALLATION WORK	2019.09~2021.07	E / C
110	LOTTE E&C	WP4 MTO WORK IN INDONESIA LINE PROJECT	2019.08~2019.10	E
109	HYUNDAI ENG	KUMHO P&B CHEM BPA(BISPHENOL-A)-5 PROJECT	2019.08~2020.03	E
108	KUMHO PETRO CHEM	DESIGN & APPROVAL FOR CATALYST MANUFACTURING FACILITIES IN 9 BLOCKS	2019.08~2020.02	E
107	LG CHEM	DETAIL DESIGN OF SAP5 POWDER ASSEMBLY BACK-UP SYSTEM CONSTRUCTION	2019.07~2019.12	E
106	GS CALTEX	NO.4 DIESEL HDS(87UNIT) CAPACITY INCREASE(75->80KBD) APPROVAL SERVICE	2019.06~2020.05	E
105	DAEWOO PLANT	KPB2 LER(LIQUID EPOXY RESINS) STORAGE TANK 6EA INSTALLATION DESIGN	2019.06~2019.11	E
104	E1	YEOSU STATION PIPERACK EXTENSION DESIGN PROJECT	2019.05~2019.11	E
103	GS CALTEX	DETAIL DESIGN OF LPG PIPE CONSTRUCTION FROM YEOSU PLANT TO E1 YEOSU STATION	2019.05~2019.12	E
102	YNCC	BASIC DESIGN SERVICE FOR PIPE RACK EXPANSION PROJECT FOR THE INSTALLATION OF NEW PIPING BETWEEN PLANT 1 & 2	2019.04~2019.05	E
101	KUMHO MITSUI CHEM	2019 SHUT-DOWN INVESTMENT CONSTRUCTION PROJECT	2019.04~2019.06	E / P / C
100	PMC TECH	TANK REVAMPING PROJECT DESIGN & APPROVAL	2019.04~2020.03	E
99	KUMHO POLY CHEM	TPV(THERMO PLASTIC VULCANIZATE) PLANT PROCESS IMPROVEMENT PROJECT	2019.04~2019.07	E / P / C
98	LOTTE ADVANCED MAT'L	ABS A4 PROCESS & HIGH HEAT-RESISTANCE NYLON PROCESS BASIC DESIGN & FEED	2019.03~2019.08	E
97	LOTTE CHEM	BASIC DESIGN FOR DAESAN GE PROCESS 5000MTPA BDG PRODUCTION PROCESS	2019.03~2019.08	E
96	GS E&C	GS CALTEX MFC(MIXED FEED CRACKER) PROJECT	2019.02~2021.04	E
95	S&I CORP.	CDC PROJECT ORGANIC CATALYST & OSBL DETAIL DESIGN SERVICE	2019.02~2020.01	E
94	LG MMA	REPLACING MMA(METHYL METHACRYLATE) PROCESS INSTRUMENT & LINE IN MMA3 PLANT	2019.02~2019.11	E / P / C
93	LG MMA	MMA3 PLANT MA PRODUCT TOWER REPLACEMENT & INSTALLATION	2019.02~2019.11	E
92	YNCC	ETHYLENE & BTX(BENZENE TOLUENE XYLENE) AREA ENERGY SAVING PROJECT	2019.01~2019.06	E / P / C
91	GS CALTEX	PETROCHEMICAL 2TEAM NO.2 AROMATICS PROCESS THROUGHPUT INCREASE BASIC/DETAILED DESIGN & APPROVAL	2019.01~2019.10	E

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90	KOREA VOPAK TERMINAL	VCU FACILITY MANUFACTURING INSTALLATION & DESIGN(TERMINAL 2)	2018.12~2020.12	E / P / C
89	KOREA VOPAK TERMINAL	VCU FACILITY MANUFACTURING INSTALLATION & DESIGN(TERMINAL 1)	2018.12~2020.12	E / P / C
88	VERSUM PM KOREA	SIHWA GABLE-INFRASTRUCTURE EPC PROJECT	2018.12~2019.05	E / P / C
87	LOTTE CHEM	DAESAN PLANT D-EG ½ WASTE HEAT RECOVERY ENERGY SAVING PROJECT	2018.12~2019.11	E / P / C
86	KUMHO POLY CHEM	PELLET STAGE II PROJECT	2018.12~2019.10	E / P / C
85	KOREA PLANT IND. ASSOCICATION	TURKMENISTAN, MTO PROJECT	2018.12~2019.07	E
84	GS CALTEX	CONSTRUCTION OF PIPING 3D INSPECTION DRAWINGS (OUTSIDE THE FACTORY)	2018.12~2019.06	E
83	GS CALTEX	CONSTRUCTION OF 3D INSPECTION DRAWING FOR OFFSITE PIPING IN THE PLANT 1	2018.12~2019.06	E
82	GS E&C	LG CHEM Y2C PROJECT (ETHYLENE 800,000MTPA)	2018.11~2021.06	E
81	KUMHO POLY CHEM	EPDM PLANT 2 DEBOTTLENECKING PRE-ENGINEERING	2018.11~2019.01	E
80	Q-BIO TECH	WASTEWATER TREATMENT PLANT REVAMPING DETAILED DESIGN & APPROVAL	2018.11~2019.07	E
79	GS CALTEX	FEASIBILITY STUDY(YEOSU PLANT~E1 LPG PIPE SEISMIC DESIGN RELATED)	2018.10~2019.01	E
78	GS CALTEX	VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) SLURRY FILTER TRAIN ADDITIONAL INSTALLATION - BASIC DESIGN	2018.10~2018.12	E
77	LG MMA	BASIC DESIGN FOR TRANSFER OF DRUM PACKING SYSTEM TO OUTSIDE OF MMA3 PLANT	2018.09~2018.12	E
76	GS CALTEX	DESIGN OF GROUNDING PROJECT FOR EXTERNAL PIPING BETWEEN PLANT & OIL STORAGE TEAM(ANTI-AGING)	2018.09~2019.03	E
75	LG MMA	TECHNICAL TEAM SF300B DEDICATED LINE TIC & BASIC DESIGN	2018.09~2018.12	E
74	DAWOO E&C	GS CALTEX SAR REVAMPING PROJECT / PIPING DETAILED DESIGN	2018.08~2019.11	E
73	KUMHO P&B CHEM	STT(I) STORAGE FACILITIES INSTALLATION	2018.07~2020.01	E / P / C
72	LG CHEM	DETAILED DESIGN FOR IMPROVEMENT INVESTMENT IN EG CO2 REMOVAL SYSTEM	2018.07~2019.05	E
71	GS CALTEX	REVISION OF APPROVAL ACCORDING TO INCREASE IN BOP FEED THROUGHPUT	2018.07~2018.12	E
70	LG MMA	ESTABLISHMENT OF ACRYLIC RUBBER PRODUCTION PROCESS PROJECT (DESIGN)	2018.07~2020.03	E
69	LG MMA	ESTABLISHMENT OF ACRYLIC RUBBER PRODUCTION PROCESS PROJECT	2018.07~2020.02	E / P / C
68	LG MMA	MMA2 PLANT DESIGN OF ESTER WORK	2018.07~2018.10	E
67	DAWOO E&C	GS CALTEX SAR REVAMPING PROJECT PIPING 3D SCANNING & APPROVAL	2018.07~2019.11	E
66	VERSUM ADM KOREA	BTBAS PRODUCTION FACILITY EXPANSION PROJECT BY BATCH POLYMERIZATION OF T-BUTYLAMINE(TBA) & DICHLOROSILANE(DCS)	2018.07~2019.03	E / P / C
65	HYUNDAI E&C	DESIGN-PLANT(PIPING)/YEOSU GROUP ENERGY UNDERGROUND STEAM PIPELINE GROUNDING PROJECT	2018.06~2019.09	E
64	GS CALTEX	REFINERY 3TEAM PSV DUALIZATION DETAIL DESIGN SERVICE	2018.06~2019.05	E
63	SK AIR GAS	CHEONGJU PLANT 1 CDA REVAMPING WORK(DETAILED DESIGN)	2018.06~2019.02	E
62	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE) 60,000MTPA PLANT REVAMPING PROJECT	2018.06~2019.01	E / P / C
61	VERSUM PM KOREA	SIHWA OFFICE BUILDING REINFORCEMENT PROJECT	2018.06~2018.10	E / P / C

※ E : Engineering, P : Procurement, C : Construction

No.	Client	Project	Period	Scope
60	KUMHO MITSUI CHEM	NEW INSTALLATION M-EC520A1/A2 SYSTEM	2018.06~2018.07	P. C
59	YNCC	DETAILED DESIGN RELATED TO THE REPLACEMENT OF LOW-VOLTAGE ELECTRICAL FACILITIES IN THE PLANT 1	2018.06~2019.07	E
58	GS E&C	MFC FEED PROJECT (CIVIL DESIGN)	2018.06~2019.05	E
57	LG CHEM	BUTENE-1, RBD PROJECT BULK MATERIAL PURCHASE PROVISIONAL CONTRACT	2018.05~2019.01	E / P
56	VERSUM MATERIALS	DEMOLITION WORK AT SIHWA PLANT	2018.05~2018.10	E / P / C
55	LG CHEM	BPA 30,000MTPA REVAMPING DETAILED DESIGN & 1 CASE	2018.05~2019.04	E
54	SHELL KOREA	BDEP DEVELOPMENT FOR NEW STORAGE TANKS INSTALLATION	2018.06~2018.07	E
53	LOTTE CHEM	VRU(VAPOR RECOVERY UNIT) INSTALLATION	2018.04~2018.11	P / C
52	HANWHA CHEM	OSBL PIPE RACK INSTALLATION PROJECT	2018.04~2018.09	E / P / C
51	LG CHEM	BUTENE-1, RBD PROJECT CONSTRUCTION	2018.04~2019.01	P / C
50	FARMHANNONG	ALA. BUTA, BTCM, FLO BASIC DESIGN PROJECT	2018.04~2018.04	E
49	LG CHEM	SAP5(SUPER ABSORBENT POLYMER) 15,000MTPA DEBOTTLENECKING PROJECT	2018.04~2018.10	E
48	LG CHEM	DETAIL DESIGN FOR EXTENSION COMPLEX UTILITY CENTER & INFRASTRUCTURE CONSTRUCTION	2018.04~2019.03	E
47	GS E&C	LG CHEM NCC PROCESS IMPROVEMENT PROJECT	2018.04~2018.12	E
46	BASF	8.7MTPA MIXTURE PRODUCTION BUILDING INSTALLATION PROJECT	2018.03~2019.03	E / P / C
45	LG CHEM	CA1 ELECTROLYZER PILOT FACILITY PROJECT	2018.03~2018.12	E / P / C
44	SERVEONE	YEOSU CA2 GENERAL CONTRACTOR	2018.03~2019.12	E
43	JAEWON INDUSTRIAL	JNJ(PDP) FEED DESIGN	2018.03~2018.07	E
42	VERSUM SPC KOREA	PYEONGTAEK CMP(CHEMICAL MECHANICAL POLISHING) PROJECT	2018.03~2019.01	E / P / C
41	GS E&C	LG CHEM 6AA PROJECT SMS/PSM	2018.03~2019.05	E
40	HANWHA ENERGY	9 BLOCK PIPE RACK DESIGN	2018.02~2018.11	E
39	LG MMA	CONSTRUCTION OF DISPERSANT SEMI-MASS PRODUCTION FACILITY & SUSPENSION POLYMERIZATION PILOT RECONSTRUCTION	2018.02~2018.05	E
38	LOTTE CHEM	K-PIA, PTA IG DRYER VENT GAS PREVENTION FACILITY(ACTIVATED CARBON ADSORPTION TOWER) PRODUCTION AT ULSAN PLANT	2018.02~2018.09	E / P
37	VERSUM PM KOREA	ALCHEMY PROJECT (MCS 80MTPA + TSA 15MTPA NEW)	2018.02~2019.02	E / P / C
36	KUMHO P&B CHEM	LIQUID EPOXY RESIN(III) 45,000MTPA LP & LTI PROCESS PROJECT	2018.01~2019.06	E / P / C
35	KUMHO MITSUI CHEM	COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT	2018.01~2018.04	E / P / C
34	AISA STABILIZERS	GOJI PROJECT BASIC DESIGN	2018.01~2018.04	E
33	YEONGJU NONGHYUP	LIVESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT CENTER RESOURCE CONVERSION PILOT PROJECT	2018.01~2019.10	E / P / C
32	SERVEONE	YEOSU LG CHEM SAP5(SUPER ABSORBENT POLYMER) REVAMPING PROJECT	2017.11~2019.05	E
31	GS CALTEX	DETAIL DESIGN FOR RFCC(RESIDUE FLUID CATALYTIC CRACKING UNIT) WET GAS SCRUBBER INSTALLATION	2017.11~2019.10	E

Business Portfolio
사업 실적

No.	Client	Project	Period	Scope
30	VERSUM MATERIALS	NUMAT PROJECT	2017.11~2018.03	E / P / C
29	FARMHANNONG	CRF #3,4 BASIC ENGINEERING PACKAGE SERVICE	2017.11~2019.02	E
28	GS E&C	GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER)PROJECT	2017.10~2018.04	E
27	KPIC	ONSAN PLANT SS BOILER & LP ETHYLENE TANK DETAILED DESIGN	2017.10~2019.04	E
26	SK AIR GAS	ASU PLANT CONSTRUCTION DESIGN SERVICE FOR M14 PHASE 2B SEMICONDUCTOR PLANT EXPANSION PROJECT	2017.10~2018.11	E
25	KUMHO MITSUI CHEM	DESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D	2017.09~2017.11	E
24	HANWHA E&C	STYRENE COPOLYMERIZATION(CP) 50,000MTPA, THE 50,000MTPA PRODUCTION FACILITY CONSTRUCTION DESIGN	2017.09~2019.06	E
23	SERVEONE	LG MMA MAA 80,000MTPA REVAMPING PROJECT	2017.09~2019.05	E
22	SEA ENG	MVR DESIGN PROJECT	2017.09~2019.03	E
21	POSCO E&C	MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK	2017.08~2018.04	P
20	HYUNDAI ENG	THAILAND EFFICIENCY, ENERGY & ENVIRONMENT(3E) PROJECT	2017.07~2018.02	E
19	S-OIL	MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORK	2017.06~2017.12	E / P / C
18	SK SHOWA DENKO	SS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20MTPA)	2017.06~2018.12	E / P / C
17	GS E&C	3NE PROJECT	2017.05~2019.04	E
16	KUMHO P&B CHEM	SER(SOLID EPOXY RESINS) STAGE II 15,000MTPA REVAMPING PROJECT	2017.05~2018.02	E / P / C
15	KICOX	RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX	2017.05~2017.11	E
14	KUMHO POLY CHEM	INSTALLATION OF LINE & HEAT EXCHANGER FOR INTEGRATED OPERATION OF PP REFRIGERATOR	2017.04~2017.10	E / P / C
13	HYUNDAI E&C	HCC THE PROJECT	2017.04~2017.08	E
12	VERSUM MATERIALS	SIHWA BDP PROJECT	2017.04~2017.06	E
11	BASF	TOURBILLON PROJECT DIKE INSTALLATION	2017.04~2017.06	E / P / C
10	SAMSUNG C&T	OFF-SITE IMPROVEMENT PLAN DETAIL DESIGN & APPROVAL	2017.04~2018.08	E
9	PTT TANK TERMINAL	4,000MTPA PROPYLENE STORAGE TANK PROJECT	2017.03~2018.08	E
8	POSCO ICT	GWANGYANG WORKS FERROMANGANESE LOW-TEMPERATURE ORC POWER GENERATION DESIGN	2017.03~2018.02	E
7	OCI	GUNSAN PLANT, AGRICULTURAL WATER UTILIZATION FACILITY INSTALLATION	2017.01~2017.08	E / P / C
6	KPIC	ULSAN PLANT SPP PROJECT DESIGN	2017.03~2018.07	E
5	GS E&C	GS CALTEX NO.1 CDU(CRUDE DISTILLATES UNIT) REVAMP PROJECT	2017.03~2018.05	E
4	KUMHO MITSUI CHEM	IMPROVEMENT CONSTRUCTION FOR MDI(METHYLENE DIPHENYL ISOCYANATE) EXTENSION BOTTLENECK ELIMINATION	2017.02~2017.04	E / P / C
3	HANWHA CHEM	W-TFT CA1 TEAM 35% HYDROCHLORIC ACID SHIPPING INFRASTRUCTURE CONSTRUCTION WORK	2017.02~2017.12	E / P / C
2	KOREA SILICON	2K-1601 MVR SYSTEM INSTALLATION WORK	2017.01~2017.11	E / P / C
1	HYOSUNG	DH-1 IMPROVED PROJECT DETAILED DESIGN	2017.01~2017.12	E

환경/에너지 사업

사업 실적

MVR (Mechanical Vapor Recompression)

No.	Year	Project	Client	Scope
11	2016	1공장 1-Line MVR 설치 공사 (96.6°C 폐가스 활용 2.4kg/cm²G 16.5Ton/hr Steam 생산)	KUMHO POLY CHEM	E.P.C
10	2016	MVR(IV) Project (잉여스팀 10T/hr 0.4kg/cm²G→2.8kg/cm²G 승압 생산)	KUMHO P&B CHEM	E.P.C
9	2015	KP-I Plant 2-Line MVR Project (저열원 증기 활용 -0.88kg/cm²G 22.4Ton/hr Steam 생산)	KUMHO POLY CHEM	E.P.C
8	2015	MVR(II) Project (잉여 Hot Oil 활용 4.5kg/cm²G 25Ton/hr Steam 생산)	KUMHO P&B CHEM	E.P.C
7	2015	MVR Package 제작 및 설치 공사 (50Ton/hr 6.9kg/cm²G→21kg/cm²G, 12Ton/hr 9.8kg/cm²G→35.2kg/cm²G 승압 사용)	KUMHO MITSUI CHEM	E.P.C
6	2014	MPC Reaction Tower MVR 공사 (폐열 활용 10.5kg/cm²G 12.6Ton/hr Steam 생산)	LOTTE CHEM	E.P.C
5	2014	삼성종합화학 MVR Package 공사 (잉여스팀 50Ton/hr 2.5kg/cm²G→5.4kg/cm²G 승압 생산)	SAMSUNG TECHWIN	E.P.C
4	2012	신공장 폐열회수시스템 공사 (98°C 폐열 활용 1.2kg/cm²G 15.8Ton/hr Steam 생산)	KUMHO POLY CHEM	E.P.C
3	2012	MDI 50,000MTPA MVR 공사 (잉여스팀 6.6Ton/hr 7kg/cm²G →18kg/cm²G 승압 생산)	KUMHO MITSUI CHEM	E.P.C
2	2010	용매회수공정의 MVR 도입 (92°C 폐가스 활용 2.9kg/cm²G 6.3Ton/hr Steam 생산)	KUMHO POLY CHEM	E.P.C
1	2009	R-Line MVR System 도입 (102°C 폐온수 활용 6kg/cm²G 12.9Ton/hr Steam 생산)	KUMHO PETRO CHEM	E.P.C

LDAR (Leak Detection And Repair)

No.	Year	Project	Client	Scope
9	2006	VCM LDAR System Monitoring 작업	HANWHA PETRO CHEM	E
8	2005	VCM 생산팀 LDAR 시스템 Monitoring 작업	HANWHA PETRO CHEM	E
7	2005	LG화학 LDAR 공급계약	SK C&C	E
6	2004	한화석유화학 LDAR작업 Inventory.TAG 설치	SK C&C	E
5	2002	정유1공정/MTBE 공정 LDAR Inventory 용역	LG CALTEX	E
4	2002	LDAR Inventory 용역 (정유2~5팀, RFCC)	LG CALTEX	E
3	2001	#2 방향족공장 LDAR Inventory 작업	LG CALTEX	E
2	2001	No.1 방향족공장 출하시설 LDAR Inventory	LG CALTEX	E
1	2000	No.1 Aromatics에 LDAR Program 도입을 위한 Inventory 작업	LG CALTEX	E

VRU (Vapor Recovery Unit)

No.	Year	Project	Client	Scope
9	2018	VRU 설치 (저장탱크 RTO 철거후 VRU 활용 VOC 회수) (1,466m³/hr)	LOTTE CHEM	E.P.C
8	2018	VRU 설치 Engineering 용역 (2 터미날 CI Gas 처리)	KOREA VOPAK TERMINAL	E
7	2017	목포저유소 VRU Package (물류출하시 발생되는 유증기 처리(240m³/hr)	S-OIL	E.P.C
6	2012	인천 VRU 증설 설계 (480m³/hr)	GS CALTEX	E
5	2011	부산 VRU 증설공사 설계 (480m³/hr)	GS CALTEX	E
4	2007	GS칼텍스 제품부두 VRU 설치에 대한 상세설계 (8,500m³/hr)	H-PLUS ENG	E
3	2006	GS칼텍스 해상출하 VRU 설비 설치 기초조사 및 상세설계 (8,500m³/hr)	CLEAN AIR WORLD	E
2	2006	GS-CALTEX정유 방향족 Day Tank Area VRU 환경설비의배관설계Review	TECHWIN E&C	E
1	2005	GS-CALTEX정유 방향족 Day Tank Area VRU 설비의 배관설계	TECHWIN E&C	E

VCU (Vapor Combustion Unit)

※ E : Engineering, P : Procurement, C : Construction

No.	Year	Project	Client	Scope
4	2023	VRU New installation Project (1,200Nm³/hr)	KUMHO POLY CHEM	E.P.C
3	2023	VCU 2nd additional connection project (9,000Nm³/hr)	S-OIL	E.P.C
2	2020	VCU 설치공사 (9,000Nm³/hr)	S-OIL	E.P.C
1	2018	VCU 설비 제작 설치 및 설계 (1,2터미날) (2,500Nm³/hr, 3,800Nm³/hr)	KOREA VOPARK TERMINAL	E.P.C

RTO (Regenerative Thermal Oxidizer)

No.	Year	Project	Client	Scope
11	2023	1공장 RTO-3(47,000Nm³/hr 2기) 설치공사	KUMHO POLY CHEM	E.P.C
10	2023	2공장 RTO(80,000Nm³/hr 2기) 설치공사	KUMHO POLY CHEM	E.P.C
9	2022	1,2공장 RTO(12,000Nm³/hr, 23,000Nm³/hr) 설치공사	KUMHO P&B CHEM	E.P.C
8	2021	1공장 RTO-2(38,000Nm³/hr 2기) 신규 설치 Project	KUMHO POLY CHEM	E.P.C
7	2020	2공장 RTO(65,000Nm³/hr 2기) 신규 설치 Project	KUMHO POLY CHEM	E.P.C
6	2020	KP-I RTO-1(35,000Nm³/hr 2기) 설치 PROJECT	KUMHO POLY CHEM	E.P.C
5	2019	고내열나일론 A4 양산공정 BASIC DESIGN FEED(RTO 신규 설치 포함)	LOTTE ADVANCED MAT'L	E
4	2016	중합 G-LINE NB LATEX 병행생산 설비구축 EPC(RTO 신규 설치 포함)	KUMHO PETRO CHEM	E.P.C
3	2006	여천NCC 3사업장 VOC관련 RTO 추가설치 공사의 배관설계	EG GREEN TECH	E
2	2004	LG칼텍스 OIL RTO 설비 설계	TECH WIN	E
1	2001	SM공장 RTO 신설 관련 토목 설계	LG CHEM	E

WWT (Waste Water Treatment)

No.	Year	Project	Client	Scope
3	2023	H-WWT1 폐수처리장 이설 관련 Detail Engineering	LOTTE CHEM	E
2	2018	폐수처리장 Revamping 상세설계 및 인허가 (폐수처리장 증설)	Q-BIO TECH	E
1	2013	폐수처리설비 개선공사 (Steam Stripping→미생물처리로 개선 Steam 감축)	KUMHO MITSUI CHEM	E.P.C

Waste Resource Recycling

No.	Year	Project	Client	Scope
1	2022	7.920MTPA 폐합성수지를 소각해 4.752MTPA 재생유로 생산하는 폐자원에너지화사업	JEONYOUNG R.G.O	E.P.C

신·재생에너지 사업

사업 실적

Hydrogen system

※ E : Engineering, P : Procurement, C : Construction

No.	Year	Project	Client	Scope
9	2022	30TPD LH2 Yeosu plant Project design	AIR LIQUIDE E&C	E
8	2022	CA2 Hydrogen introduction plant detailed design	LG CHEM	E
7	2022	56,000Nm3/hr(42,500MTPA) Hydrogen plant EPC project	LG CHEM	E.P.C
6	2020	0.5TPD Ammonia Hydrogenation process detailed design	WONIK MATERIALS	E
5	2019	H2 5 Tons/day Hydrogen liquefaction project design & Approval	DOOSAN HEAVY I&C	E
4	2014	H2 Boosting compressor installation design	SPG CHEMICAL	E
3	2011	Low purity hydrogen moisture removal and heating plant construction	SAMSUNG FINE CHEM	E.P.C
2	2011	Hydrogen mixed gas piping design	SEETEC	E
1	2004	Feasibility study service for hydrogen supply network installation	CLEAN AIR WORLD	E

Rechargeable Battery system

No.	Year	Project	Client	Scope
3	2023	High Nickel Cathode material new line construction phase 2 project	JAESAE NEUNGWON	E
2	2021	Annual output of 65,000MTPA Lithium Battery Cathode material(1-2) project	JAESAE NEUNGWON	E
1	2020	Annual output of 65,000MTPA Lithium Battery Cathode material(1-1) project	JAESAE NEUNGWON	E

Bio system

No.	Year	Project	Client	Scope
1	2023	Bio-PA pilot plant Construction(ISBL)	LG CHEM	E.P.C

CCS (Carbon Capture & Storage) system

No.	Year	Project	Client	Scope
5	2022	CO_2 포집 Pilot Plant 건설을 위한 기본설계	HANWHA TOTAL ENERGIES	E
4	2021	1,000,000MTPA 연소후 건식 CO_2 포집 공정 FEED 용역	KEPCO E&C	E
3	2020	2,000MTPA 고순도 CO_2 정제, 충전시설 구축 프로젝트를 위한 상세설계	WONIK MATERIALS	E
2	2017	150MW 중규모 CCS(Carbon Capture Storage) 포집기술 고도화 (R&D)	KEPCO	E.P.C
1	2015	10MW CO_2 포집기술 상용패키지 MODULE 개발 (R&D)	KEPCO	E

Business Portfolio

찾아오시는 길

본사

전라남도 여수시 여수산단1로 366
(화치동 1392번지)

TEL. 061-690-1000

서울사업소

서울특별시 금천구 벚꽃로 278,
SJ테크노빌 1504호

TEL. 02-6953-6501

울산사업소

울산광역시 중구 남외2길 44, 파크뷰 1층

TEL. 052-232-3199

대산사업소

충청남도 서산시 대산읍 명지1로 404-7

TEL. 041-667-0570

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WWW.HTENC.CO.KR

전라남도 여수시 여수산단1로 366 (화치동 1392번지)
TEL. 061-690-1000 FAX. 061-681-4375