# HITEEH ENG 

Engineering \& Procurement \& Construction Company

About HI-TECH ENG
Introduction ..... 03
History ..... 05
Service of Scope ..... 07
Sustainable Management ..... 08
Equipment \& Program ..... 09
License/Certificate/Patent ..... 10
3D Laser Scan \& Revamping Project ..... 11
Project Experience ..... 13
Business Portfolio
Refinery \& Petrochmical Plant
Environmental/Energy ..... 1715
New \& Renewable Energy ..... 19
Project Experience ..... 21
Domestic Branch Office ..... 33

A company that proposes a clear solution with an efficient system and differentiated technology

## We have the Solution!

Since its establishment in 1995, Hi-Tech Engineering has accumulated various project experiences in the fields of oil refining, petrochemicals, energy, and environment, and has grown into the most reliable partner in the fields of engineering, project management, and construction.

We, Hi-Tech Eng. have tots of experiences and specialized knowhow especially in process improvement, capacity increment and revamping project area.

Based on our experience, we provide the entire EPC services through our own capability, and various solutions required by customers.

Hi-Tech Engineering creates a better future with the conviction that building trust with customers is a corporate value with safety, quality, innovation and integrity, respect and cooperation as the core competencies of the company.

## About HI-TECH ENG Introduction

| Company Name | Hi-Tech Engineering Co.,Ltd. |
| :--- | :--- |
| CEO | Jang Yung |
| Address | 366, Yeosusandan 1-ro, Yeosu-si, Jeollanam-do, Republic of KOREA |
| Established Date | Dec. 1995 |
| Company Type | Middle Market Enterprise (Mid-sized Company) |
| Business Fields | Engineering and integrated construction of the industrial plant facilities |
| Capital | KRW 2.5 billion |

[Based on 2022 settlement]

| Revenue | Credit rating | Cash flow rating | E.S.G rating |
| :---: | :---: | :---: | :---: |
| KRW 196.5 billion US \$ 164 million | BBB- | A | ESG-4 <br> (Excellent) |

## Mission and Vision

Hi-Tech Engineering strives to be a creative partner to provide optimal engineering solutions to achieve its vision of a「 More Sustainable Engineering Company 」.

## - Vision <br> More Sustainable Engineering Company



Organization Chart


## Executives and staff members




## About HI-TECH ENG History

## 2023/2013

| $\mathbf{2 0 2 3}$ | Introduced 3D design system (S3D / Intergraph Smart 3D) |
| :--- | :--- |
| Received citation of minister from Minister of Health and Welfare |  |
| Received citation of minister from Minister of Strategy and Finance |  |



## 2012/1995

2012 Registered overseas construction business (Industrial environment facility, Electricity) Certified for ISO 45001 Health and safety management form DNV Certified for ISO 14001 Environmental management from DNV Established Ulsan Office
2011 Registered the construction business for specialized fire fighting facility Registered the construction business for industrial environment facility
2010 Registered the construction business for electric
2008 Registered Energy service company(ESCO)
2007 Moved the head office
$\mathbf{2 0 0 5}$ Won the minister award from Ministry of Knowledge Economy
Established Seoul office
Established and approved Technology institution
Introduced 3D laser scan(Z+F IMAGER) system
Established Daesan office

2004 Introduced 3D design system (PDS) Registered design business for fire fighting facility(Mech. \& Elec.)
2003 Registered integrated construction supervision business(Elec. power facilities)
2002 Registered engineering service provider
2001 Introduced 3D design system from AVEVA (PDMS)
2000 Certified for ISO 9001 Quality management from Orion registrar inc., USA

1995 Established Hi-Tech Engineering Co., Ltd.


About HI-TECH ENG Scope of Services


## Technical Support

Code \& Standard, Specification, Procedures, Instructions, Experiences

## 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
Sustainable Management

## ESG Management system

## Social

Employment Equality/ Capacity Development/ Human Rights Management/ Employee Health and Safety/ Community Relations/
Fair Communication/Diversity/ Inclusion of corporate culture


## Environmental

Climate Change/Carbon Emissions
Environmental Pollution/
Waste/Toxic Substances
Resource virtuous cycle/Renewable energy
Environmental Certification/
Eco-friendly Product

## Governance

Transparent Management
Ethical Management
Risk Management
Communication Governance

ISO Management system

## Customer Satisfaction


About HI-TECH ENG
Equipment \& Program
-

## Equipment

| 3D Scanner | IMAGER-5016 | IMAGER-5010 |
| :---: | :---: | :---: |
| Introduction period / Quantity | 2020년, 2022년 / 2대 | 2010년, 2014년 / 2대 |
| Speed | Max. 1.094 million pixel/sec. | Max. 1.016 million pixel/sec. |
| Distance / linear Error | $365 \mathrm{~m} / \leq 1 \mathrm{~mm}$ | $187.3 \mathrm{~m} / \leq 1 \mathrm{~mm}$ |
| Manufacturing company | Zoller+Fröhlich(Z+F) | Zoller+Fröhlich(Z+F) |

## Program (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 | PWIM (Piping Work Inspection Management) |
| Consequence Analysis |  |

## Program (In-House)

| Engineering | Electrical \& Instrumentation |
| :--- | :--- |
| AutoCAD Plug-in | Power*Tools |
| Navisworks Plug-in | ETAP |
| HI-Mechanical | AVEVA Electrical |
| HI-Instrument | AVEVA Instrumentation |
| HI-Process | Intergraph Smart Electrical |
| PDMS Control System | Intergraph Smart Instrumentation |
| Piping Design Management System |  |

About HI-TECH ENG
License/Certificate/Patent
License

| License | Field | Registered date |
| :--- | :--- | :---: |
| Design | Engineering (Chemical plant, HVAC \& Plumbing, <br> Structure, Electric facilities Electric \& Electronic <br> Applications, Communication) | Jan, 2002 |
|  | Fire fighting facilities (Mechanical, electrical) | Mar, 2010 |
|  | Power facility professional (type 1) | Nov, 2013 |
|  | Offsite Consequence Analysis company | Apr, 2015 |
|  | Safety diagnosis specialized company <br> (Architecture) | Dec, 2019 |
|  | Public | Oct, 2016 |
| Survey | Construction technical service |  |
| (Design \& project management - general) | Jul, 2019 |  |
| Supervision | Integrated(Electrical power facility) | May, 2003 |
|  | Industrial, environmental facility | Apr, 2011 |
| Integrated construction | Architecture | Jun, 2013 |
|  | Civil | Jun, 2020 |
|  | Oct, 2014 |  |
| Specialized construction | Mechanical facility | Mar, 2020 |
|  | Atmospheric environment specialized | Oct, 2012 |
| Overseas construction | Industrial, Environmental facilities | Oct, 2012 |
|  | Electricity | Sep, 2010 |
| Others construction | Electricity construction | Apr, 2011 |
|  | Fire fighting facilities construction (Professional) | Feb, 2008 |
|  | Energy Service Company (ESCO) | Jul, 2023 |
|  | Hydrogen product manufacturing license |  |

## Certificate

| Certificate | Standard | Registered date |
| :--- | :--- | ---: |
| Quality Management system | ISO 9001:2015 | Jun, 2000 |
| Health \& Safety Management system | ISO 45001:2018 | Mar, 2012 |
| Environmental Management system | ISO 14001:2015 | Mar, 2012 |
| Institute of Technology | Jun, 2005 |  |
| Work and training parallel system | Jan, 2017 |  |
| Family-Friendly Company | Dec, 2019 |  |
| Middle Market Enterprise (Mid-sized Company) | Apr, 2021 |  |
| Hydrogen Specialized Enterprise | Dec, 2023 |  |

## Patent

| Application no. | Designation | Registered date |
| :--- | :--- | :--- |
| 10-1638424 | Method and system for managing ADD-IN program and <br> PDMS database | May, 2015 |
| 10-1716717 | Robot for welding defect inspection of oil storage tank <br> using EMAT | Sep, 2015 |
| 10-1847946 | Human resources management system and method <br> specific project | Oct, 2016 |

## About HI-TECH ENG

Putting customer needs and safety first

## Modularization

Modularization minimizes the installation space by turning the plant into unit parts in the form of a mixed structure (structure, pressure vessel, piping, electrical room, etc.) It is a construction technology to reduce the overall construction period and cost by transporting.

Unlike the existing stick-built method, its method applies for the purpose of reducing on-site work, and it can secure schedule/cost/quality when there is on-site limitation, minimizing the environmental impact of the construction site and shortening the construction period. In addition, it is possible to secure the stability of work, and expect effects such as productivity improvement and cost reduction.

In particular, in order to prevent various safety accidents occurring at the construction site, we do our best to prevent serious accidents at the site by minimizing on-site work by manufacturing modules and skids to extent possible in a manufacturing factory with safe working conditions.


## 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

Realizing the highest level of perfection

## 3D Laser Scan \& Revamping Project

Carrying out projects necessary for process improvement and capacity increase of existing plants faces more difficulties and problems than building a new plant.

There are various facilities in the field that are not expressed in the drawings, and the drawings you have show a lot of errors with the site, and there are cases where there are no drawings.

Hi-Tech Engineering has been implementing 3D Laser Scan and 3D Modeling since 2005 to solve these problems, applying a lot of experience and know-how required for the Revamping Project.

## 1/ PB2 100,000MTA Plant (Revamping)



$\bullet \cdot{ }^{\circ}$


3/ NCC Energy Saving Project (Revamping)


## Business Portfolio

With 30 years of experience and technology

## Refinery \& Petrochemical Plant Business

Technical professionals with a wide range of design experience, and expertise in Oil \& Gas, Refinery, Petrochemical and General chemical are essential in the Plant projects.

Hi-Tech Eng. performs many projects successfully in all of the areas such as project planning, feasibility study, detailed designing, procurement of equipment \& materials, construction management and commissioning based on the accumulated experiences and technical powers in designing and procurement service areas with many of the typical local and overseas oil refining \& petrochemical companies such as GS Caltex, LG Chemical, Kumho P\&B Chemical, Kumho Mitsui Chemical, Kumho Petro Chemical, Kumho Poly Chemical, Lotte Chemical etc.

We promise that we will become a trustful global engineering company by strengthening the competitiveness of quality of refinery \& petrochemical plant business, and advance capabilities to the overseas markets.



2/MEG 50,000MTPA Plant (Revamping) 3/EPM \& EPDM 60,000MTPA Plant (New)


4/ ABS 65,000MTPA Plant (Revamping)


## Business Portfolio

Resource circulation and energy saving for environmental protection

## Environmental/Energy Business

The Environmental/Energy Business is a green growth business that minimizes greenhouse gas emissions and environmental pollution through environmental preservation and efficient use of energy resources.

Energy is needed to sustain society and industry, and it is important that the pollutants must not be emitted into the atmosphere during the entire process of obtaining energy. High-Tech Engineering is promoting the business to save energy by decomposing volatile organic compounds that discharged into the atmosphere during industrial processes through thermal oxidation reaction at a temperature above the ignition point. It effectively reduces the harmful substances and bad odors and reuses discarded waste heat energy.

In addition, we are actively operating the eco-friendly business as an engineering, procurement, and construction (EPC) company for the plastic recycling, which is the most efficient disposal method for plastic waste.

- 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


2/vrusystem


## 4/RTO System



## 5/wwT System

Biological Treatment Method


Chemical Treatment Method


6/ Waste Resource Recycling system


## Business Portfolio

Leading low-carbon green management

## New \& Renewable Energy Business

The new and renewable energy business refers to carbon neutrality and converts, stores, and utilizes hydrogen, solar power, photovoltaic power, bio, wind power, small hydro, and fuel cells.

In order to respond to global issues such as climate change and energy transition, Hi-Tech Engineering is carrying out projects of CCS system through national carbon reduction projects. We has taken the lead in operating a project to separate, compress, liquefy and distribute hydrogen, which is the core of future energy, by not only conducting a feasibility study on the installation of a hydrogen supply network but also building a hydrogen production base ( $56,000 \mathrm{Nm}^{3} / \mathrm{hr}$ ).

In addition, we have secured safety and efficiency by obtaining permission for [Hydrogen product manufacturing business] in accordance with the \{Act on Hydrogen Economy Promotion and Hydrogen Safety Management\} and are contributing to the revitalization of the hydrogen economy by being registered as a hydrogen specialized company.

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



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 Project Experience

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 269 | KOLON INDUSTRY | BASIC DESIGN AND INVESTMENT COST CALCULATION SERVICE FOR PET CHEMICAL REGENERATION PLANT | Nov, 2023-Mar , 2024 | E |
| 268 | S-OIL | DESIGN SERVICE FOR THE REVIEW OF DEMOLITION VOLUME OF OPERATION RESTING FACILITIES | Nov,2023~Dec, 2023 | E |
| 267 | KUMHO POLY CHEM | PLANT 1 RTO-3 NEW INSTALLATION PROJECT | Oct , 2023~Jul , 2024 | E/P/C |
| 266 | KUMHO POLY CHEM | PLANT 1 VCU NEW INSTALLATION PROJECT | Oct , 2023~Jul , 2024 | E/P/C |
| 265 | GS E\&C | EVERGREEN FEED \& UTILITY PROJECT (PROCESS, PIPING, ELECTRICAL, INSTRUMENT, CIVIL DETAIL DESIGN) | Aug, 2023~Aug, 2025 | E |
| 264 | KUMHO P\&B CHEM | CONSTRUCTION OF POWER SUPPLY FACILITIES IN PLANT 3 | Aug, 2023~Jun, 2024 | E/P/C |
| 263 | KUMHO POLY CHEM | PRE-ENGINEERING FOR INTRODUCTION OF LOW-PRESSURE TURBO CHILLER IN PLANT 1 | Jul ,2023~0ct, 2023 | E |
| 262 | DAIKIN ADVANCED MATERIALS | G2 GAS RECTIFIER EPC PROJECT | Jul ,2023-Mar , 2024 | E/P/C |
| 261 | AZIKEL | 12,000 BPSD HYDROSKIMMING REFINERY BAYELSA, NIGERIA - BDP AND UTILITIES | Jul ,2023~Dec, 2024 | E/P |
| 260 | HANWHA AEROSPACE | AP SYNTHESIS NEW CONSTRUCTION PROCESS BASIC DESIGN | Jul , 2023~Sep, 2023 | E |
| 259 | KOREA JAESAE NEUNGWON | HIGH NICKEL CATHODE MATERIAL NEW LINE CONSTRUCTION PHASE 2 PROJECT | Jul ,2023~Jun, 2024 | E |
| 258 | KUMHO MITSUI CHEM | 2023 CURRENT INVESTMENT EPC CONSTRUCTION | Jun, 2023~Dec, 2023 | E/P/C |
| 257 | GS E\&C | LG CHEM AURORA PROJECT FEED \& DETAILED DESIGN | Jun, 2023~Dec, 2023 | E |
| 256 | LG CHEM | PIPE RACK EXTENSION DESIGN AND APPROVAL FOR OUTSIDE PIPELINE | May,2023~Dec, 2023 | E |
| 255 | BASF | 6 INCH MULTI-PURPOSE PIPELINE TO JETTY | May, 2023~Sep, 2023 | E |
| 254 | GS E\&C | MFC DEBOTTLENECK/ENERGY SAVING PROJECT | May , 2023-Mar , 2025 | E/P/C |
| 254 | JAEWON INDUSTRIAL | JAC20 REVAMPING PROJECT DETAIL DESIGN | May, 2023~Jan, 2024 | E |
| 253 | GS E\&C | EVERGREEN PROJECT DESIGN OUTSOURCING (PIPING, ELECTRICAL, INSTRUMENT, CIVIL) | Apr ,2023~Aug, 2023 | E |
| 252 | LG CHEM | BIO-PA PILOT CONSTRUCTION(ISBL) | Apr ,2023~0ct, 2023 | P/C |
| 251 | AIR LIQUIDE KOREA | PROJECT TO CONNECT H2 LINE/CO LINE/VENT LINE TO KMCI BLOCK AT Y2 PLANT ISBL | Apr , 2023~0ct, 2023 | E/P/C |
| 250 | KUMHO PETRO CHEM | I-LINE SBS OFF GAS SYSTEM DESIGN AND APPROVAL | Mar ,2023~Sep, 2023 | E |
| 249 | KUMHO POLY CHEM | FACTORY 2 RTO( $80,000 \mathrm{NM} 3 / \mathrm{HR}$ 2EA) NEW INSTALLATION PROJECT | Mar ,2023~Dec, 2023 | E/P/C |
| 248 | LG CHEM | PILOT BUILDING OSBL AND ADJUSTMENT BUILDING INSTALLATION WORK | Mar ,2023~Aug, 2023 | P/C |
| 247 | LOTTE CHEM | DETAILED DESIGN RELATED TO RELOCATION OF H-WWT1 WASTEWATER TREATMENT PLANT | Mar ,2023~Dec, 2024 | E |
| 246 | S-OIL | VCU INSTALLATION 2nd STAGE PROJECT | Feb, 2023~Mar , 2024 | E/P/C |
| 245 | LOTTE CHEM | ESTABLISHMENT OF INFRASTRUCTURE FOR NEW DAESAN PROJECT | Feb,2023~Feb, 2024 | E/P/C |
| 244 | S-OIL | OFFSITE FACILITY IMPROVEMENT FOR FEEDSTOCK IMPORT | Feb,2023-Mar , 2024 | E/P/C |
| 243 | GS CALTEX | PE PROCESS THROUGHPUT INCREASE DESIGN \& APPROVALS | Dec, 2022~Apr , 2023 | E |
| 242 | GS CALTEX | RFCC FLARE GAS RECOVERY SYSTEM PROJECT DETAILED DESIGN SERVICE | Nov,2022~Dec, 2023 | E |
| 241 | LOTTE CHEM | PIP(POTASSIUM ISOPRENOXIDE) 1,100MTPA PROJECT BASIC DESIGN | Nov,2022~Dec, 2023 | E |

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

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 240 | GS CALTEX | VRHCRPROCESS 2nd STAGE MEMBRANENEW CONSTRUCTION DETAILED DESIGN SERVICE | Nov,2022~Mar,2024 | E |
| 239 | LGCHEM | DAESANH2 56,000Nm3/hr(42,500MTPA)PLANT PROJECT | Oct ,2022~Aug, 2024 | E/P/C |
| 238 | DAYONEENERGY | 10-3 SECTIONPIPE RACK RESTORATIONPLAN \& STRUCTURAL \& PIPINGSAFETY DIAGNOSISSERVICE | Sep,2022~Dec,2022 | E |
| 237 | LGCHEM | SUS SAN(ACRYLONITRILE-STYRENE) 40MTPA REVAMPING PROJECT | Sep,2022~Dec,2023 | E/P/C |
| 236 | GS CALTEX | FEASIBILITY STUDY FOR BY-PRODUCT HYDROGENSUPPLY PIPE AND WATERSUPPLY PIPE FOR HEAT RECOVERY | Sep,2022~Dec,2022 | E |
| 235 | HANWHA ENERGY | DETAIL DESIGNSERVICE FOR LG CHEM STEAM SUPPLY PIPING INSTALLATIONWORK | Aug,2022~Dec,2022 | E |
| 234 | KUMHO P\&BCHEM | KKLC BPA WAREHOUSEDESIGN\&APPROVAL | Aug,2022~Sep, 2023 | E |
| 233 | KUMHO P\&BCHEM | 3rd FACTORY EXTERNAL PIPING PIPE RACK NEW PROJECT | Jul ,2022~May, 2024 | E/P/C |
| 232 | LGCHEM | DAESAN D PILOT PLANT PROJECT | Jul , 2022~Aug, 2023 | E/P/C |
| 231 | FARMHANNONG | TIAFENACIL PRODUCTION FACILITY BASICDESIGN | Jul , 2022~Sep, 2022 | E |
| 230 | LXMMA | P3EXPANSIONBASICDESIGN\& TIC | Jul ,2022~0ct, 2022 | E |
| 229 | LGCHEM | PBAT 3,000MTPAPROJECT | Jul ,2022~Mar , 2023 | II |
| 228 | JEONYOUNGR.G.O | WASTESYNTHETIC RESIN 7,920MTPARECYLED OIL 4,752MTPA ENERGYCONVERSIONPROJECT | Jul ,2022~May, 2023 | E/P/C |
| 227 | XIC\&A | NCC T/A \& STEAM NETWORK OPTIMIZATIONPROJECT DESIGN | Jul ,2022~Feb, 2023 | E |
| 226 | HAMPYEONGGUN | LIVINGRESOURCES RECOVERY CENTER INSTALLATIONPROJECT | Jun, 2022~Jun, 2023 | P/C |
| 225 | GSE\&C | BASIC \& DETAIL DESIGNRELATED TO NO.1 PAREX PROCESSMVR PROJECT | Jun, 2022~Jun, 2024 | E |
| 224 | KUMHO P\&BCHEM | DESIGN \& APPROVAL FOR STT(I)MIBK TANK USE CHANGE | Jun,2022~Dec,2022 | E |
| 223 | LOTTE CHEM | NEW250,000MTPA HPEOREFININGFACILITY IN DAESANEG-1 PLANT | Jun, 2022~Dec, 2023 | E/P/C |
| 222 | HANWHA ENERGY | DETAILED DESIGNOF CRESOLSTEAM SUPPLY PIPING INSTALLATION WORK | May,2022~May,2023 | E |
| 221 | NAMHAE CHEM | BASIC DESIGNOF 810MTPD 30\% FUMING SULFURIC ACID MANUFACTURING FACILITY | May, 2022~Aug, 2023 | E |
| 220 | HYUNDAIENG | LGCHEM ABS REBUILDINGPROJECT | May, 2022~Jun, 2022 | E |
| 219 | HANJU | DESIGNSERVICED RELATED TO DISSOLVEDREFINEDSALT BUSINESS (PHASE1) | May, 2022~Sep,2022 | E |
| 218 | LOTTE CHEM | VANADIUM ELECTROLYTE480MTPA PRODUCTIONPLANT CONSTRUCTION | May, 2022~Jun, 2023 | E/P/C |
| 217 | LGCHEM | LDPE EXTERNAL PIPING PIPE RACK EXTENSIONDESIGN | May,2022~Dec,2022 | E |
| 216 | KUMHO P\&BCHEM | FACTORY 1,2 RTO(12,000NM3/HR, 23,000NM3/HR) INSTALLATION PROJECT | May,2022~Jan, 2023 | E/P/C |
| 215 | KUMHO POLY CHEM | VOCIMPROVEMENT DESIGN | May,2022~Aug, 2022 | E |
| 214 | LGCHEM | LLDPEWEATHER PILOT OSBLFEED, TIC SERVICE | Apr ,2022~Jul ,2022 | E |
| 213 | GANGJIN-GUN | DAEGU JEODU DISTRICT VILLAGE SEWERAGEMAINTENANCE PROJECT | May, 2022~May, 2024 | P/C |
| 212 | KUMHO POLY CHEM | PLANT IMPROVEMENT DESIGN | Apr,2022~Dec, 2022 | E |
| 211 | KUMHOMITSUICHEM | PLANT ANNUAL SHUT-DOWNPROJECT | Apr, 2022~Nov, 2022 | E/P/C |

Business Portfolio Project Experience

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 210 | LGCHEM | DETAILED DESIGNFOR INTRODUCTION OF HIGH-CONCENTRATION PROCESSIN YEOSU PC PLANT | Mar ,2022~May, 2023 | E |
| 209 | LGCHEM | DAESAN O PILOT 2nd PROJECT BASIC DESIGN \& TIC SERVICE | Mar ,2022~Jun, 2022 | E |
| 208 | LGCHEM | YEOSUNCC 2 PLANT RAW C5 EXPANSION DETAILED DESIGN | Feb,2022~Dec, 2022 | E |
| 207 | LGCHEM | YEOSU HDPE PLANT LINE-1PROCESS DESIGN | Feb,2022~Apr , 2022 | E |
| 206 | KUMHO POLY CHEM | EPDM 50,000MTPA BASICENGINEERING | Jun,2022~Feb, 2022 | E |
| 205 | GANGJIN-GUN | GUNDONGBIJADISTRICT VILLAGE SEWERAGE MAINTENANCEPROJECT | Jan,2022~Jan, 2024 | $P / C$ |
| 204 | KUMHO P\&BCHEM | LPPROCESS60,000MTPA NEWREVAMPINGPROJECT | Jan,2022~Apr , 2023 | E/P/C |
| 203 | LOTTE CHEM | L-NC PROJECT RELATED EXTERNAL C3 LPG PIPINGFEASIBILITY STUDY | Jan,2022~Jun,2022 | E |
| 202 | KICOX | YEOSU INDUSTRIALCOMPLEXPUBLIC PIPE RACK PHASE 4 CONSTRUCTION(INCREASED STAGE)DETAILED DESIGN | Jan,2022~Jul, 2022 | E |
| 201 | WONIKMATERIALS | 500KG/DAY H2 PRODUCTIONPROCESSDETAILED DESIGN | Dec,2021~Jun,2022 | E |
| 200 | JAEWONINDUSTRIAL | DETAILED DESIGNSERVICERELATEDTO THEEXTENSION OF 3NMPTOWERSAT THE HUNGARY PLANT | Dec,2021~Jun,2022 | E |
| 199 | GS CALTEX | PURGE GAS SUPPLY PIPE REVIEWSERVICE | Dec,2021~Jan, 2022 | E |
| 198 | KUMHO POLY CHEM | 3 LINE DEBOTTLENECKINGPROJECT RELATEDWORK | Dec,2021~Aug,2022 | E/P/C |
| 197 | LGCHEM | ABS PLANT FLARE STACK NEW CONSTRUCTION DETAILED DESIGN | Dec,2021~Mar ,2023 | E |
| 196 | S\&I CORP. | DESIGNOF A NEW PLANT TO PRODUCE 50,000MTPA OF PBAT (POLYBUTYLENEADIPATE TEREPHTHALATE) | Nov,2021~Dec, 2023 | E |
| 195 | KUMHO POLY CHEM | 4 LINEMVR(UC-403) NEWINSTALLATION PROJECT RELATEDWORK | Nov, 2021~Nov, 2022 | E/P/C |
| 194 | LGCHEM | TRANSPARENT ABS DEBOTTLENECKINGPROJECT | Nov,2021~Apr , 2022 | E |
| 193 | PURIOGEN | BASIC DESIGNSERVICEFORPURIOGENYEOSUPG-1 PLANT ESTABLISHMENT | Nov,2021~Mar , 2022 | E |
| 192 | S\&l CORP. | BDP \& TIC SERVICE FOR THE ESTABLISHMENT OF AN 80,000MTPA MMA(METHYLMETHACRYLATE)PLANT INULSAN | Nov,2021~Dec, 2021 | E |
| 191 | JEONYOUNGR.G.O | 25MTPD COMBUSTIBLE WASTE ENERGY CONVERSION PROJECT FEASIBILITYSTUDY | Oct,2021~Jun, 2022 | E |
| 190 | S\&I CORP. | PILOT FACILITY DESIGNFOR RESEARCH\& DEVELOPMENT OF POLY OLEFINELASTOMER | Sep,2021~Sep,2022 | E |
| 189 | S\&ICORP. | 50MTPAC4F6 PILOT BASICDESIGN | Sep,2021~Dec, 2021 | E |
| 188 | JINSUNG ENG | BASIC DESIGNOF SEMICONDUCTORSPECIALGASMASS PRODUCTIONPLANT | Sep,2021~Nov, 2021 | E |
| 187 | S\&I CORP. | OMA(OCTANOLEMETHACRYLATE)37.3MTPD DETAILEDDESIGN\& TIC SERVICE | Aug,2021~Sep, 2021 | E |
| 186 | KOREA JAESAE NEUNGWON | 18,000MTPA OF HIGH NICKEL CATHODE MATERIAL NEW LINE CONSTRUCTION PROJECT | Aug,2021~Jun, 2022 | E |
| 185 | KUMHO PETRO CHEM | SSBR60,000MTPAREVAMPINGPROJECT | Aug,2021~Dec, 2022 | E/P/C |
| 184 | LGCHEM | PVC 400,000MTPA REVAMPINGPROJECT | Aug,2021~0ct, 2022 | P/C |
| 183 | LGCHEM | ABS DP 220,000MTPAREVAMPING PROJECT FEED DESIGN | Aug,2021~Dec, 2021 | E |
| 182 | GSE\&C | KPICNEO-II\& KBD PROJECT (PIPING/ELEC./INSTR./CIVIL) | Jul ,2021~Mar ,2023 | E |
| 181 | HANWHA SOLUTION | TECHNICAL MANAGEMENT TEAM HANYANG BRIDGE FACILITY PRECISESAFETYDIAGNOSIS | Jul ,2021~0ct, 2021 | E |

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

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 180 | KUMHO MITSUICHEM | NO. 2 MDIPLANT REVAMPING PROJECT(MDI)DESIGN, EQUIPMENT DELIVERY SERVICE | Jun,2021~Dec,2023 | E/P/C |
| 179 | KUMHOMITSUICHEM | NO. 2 MDI PLANT PROJECT(FOX) DESIGN, EQUIPMENT DELIVERY SERVICE | Jun,2021~Dec,2023 | E/P/C |
| 178 | JAEWONINDUSTRIAL | PMA 24,000MTPA PRODUCTIONPROCESSDESIGN | May, 2021~0ct , 2021 | E |
| 177 | WONIKMATERIALS | GAS 2 TEAM 0.5MTPD AMMONIAHYDROGENATIONPROCESS DETAILDESIGN | Apr ,2021~Aug,2021 | E |
| 176 | KUMHO POLY CHEM | FACTORY 1 RTO-2(38,000NM3/HR2EA) NEW INSTALLATIONWORK | Apr,2021~Nov,2021 | E/P/C |
| 175 | KUMHO MITSUICHEM | 410,000MTPA PLANT 3D DESIGN | Apr ,2021~Dec, 2021 | E |
| 174 | HANWHASOLUTION | DETAILED DESIGNFOR PETROLEUMRESINR-220 DUAL | Apr ,2021~Nov, 2022 | E |
| 173 | OCl | POHANG PLANT HSPP-MPR-001-PILOT PACKAGE MANUFACTURING WORK | Mar ,2021~Jun, 2021 | E/P/C |
| 172 | KPIC | ONSANPLANTNCC, DPG, ARU UNIT SAFETYVALVE \& SHUT-OFF VALVE DESIGNSERVICE | Mar ,2021~Dec, 2021 | E |
| 171 | LGCHEM | ACS ORGANICLOADINGPROCESSDEMOLITION\&RESTORATIONWORK | Feb,2021~May,2021 | E/P/C |
| 170 | LGCHEM | CIVIL DESIGN\& STEEL STRUCTURE REVIEW RELATED TO NCC PSV DUALIZATION | Feb,2021~0ct,2021 | E |
| 169 | SGCE-TECE\&C | EPC WORKS FOR PIIING AMONG LOTTE CHEMICAL 6BLOCK INFRA 2 PROJECT | Feb,2021~Apr ,2022 | E/P/C |
| 168 | DAYONEENERGY | ISBL/OSBL STEAM SUPLLY PROJECT FOR LOTTE GS CHEMICAL | Feb,2021~0ct, 2021 | E/P/C |
| 167 | LGCHEM | ABS PLANT NEW FLARE STACK CAPACITY REVIEW \& DESIGN | Jan,2021~May, 2021 | E |
| 166 | DOOSANHEAVYI\&C | H2 5MTPD HYDROGENLIQUEFACTION PROJECT (BASIC \& DETAlL DESIGN) | Jan,2021~Feb,2023 | E |
| 165 | YTT | 200M3/HR GASOLINE \& BUTANE MIXING PROJECT | Jan,2021~Mar, 2021 | $E / P / C$ |
| 164 | LOTTE CHEM | ABS 65,000MTPA $\rightarrow 68,000$ MTPAREVAMPING PROJECT BASIC DESIGN \&FEED | Jan,2021~Apr ,2021 | E |
| 163 | KUMHO POLY CHEM | FACTORY 2 RTO(65,000NM3/HR 2EA) NEWINSTALLATIONPROJECT | Dec,2020~Sep,2021 | E/P/C |
| 162 | LGCHEM | DETAILED DESIGNFOR PVC SL-3 REVAMPING PROJECT | Dec,2020~Nov,2022 | E |
| 161 | LGCHEM | 3AADEBOTTLENECKINGBASICDESIGN | Dec,2020~Nov, 2022 | E |
| 160 | JAEWONINDUSTRIAL | JWH-2 PROJECT NMPTOWER 2 PIPINGPRODUCTION | Oct ,2020~Mar , 2021 | E |
| 159 | WONIKMATERIALS | YC 0.1\% B2H6 \& H2 MIXPROJECT DETAIL DESIGN \& APPROVAL | Dec,2020~Mar , 2021 | E |
| 158 | DAYONEENERGY | LOTTE GS CHEMICAL OSBLDETAILEDDESIGN | Dec,2020~Feb, 2021 | E |
| 157 | YTT | YTT BUTANE BLENDINGPROJECT RELATED DETAILED DESIGN\& SUPERVISIONAGENCY | Nov, 2020~Mar , 2021 | E |
| 156 | HYUNDAIENG | HDOBIO DIESEL OVERALL DESIGN | Nov,2020~Dec, 2020 | E |
| 155 | KOREA JAESAE NEUNGWON | ANNUAL OUTPUT OF 65,000MTPA LITHIUM BATTERY CATHODE MATERIALPROJECT | Nov, 2020~Sep,2021 | E |
| 154 | LGCHEM | PSV DESIGN ADEQUACY REVIEW | Oct , 2020~Mar , 2021 | E |
| 153 | KUMHO P\&BCHEM | LIQUIDEPOXY RESIN(III) 20,000MTPAREVAMPINGPROJECT | Oct,2020~0ct, 2021 | E/P/C |
| 152 | JAEWONINDUSTRIAL | DETAILED DESIGNFOR THE EXPANSIONOF 2 NMPTOWERSIN HUNGARY FACTORY | Dec,2020~May,2021 | E |
| 151 | KUMHO MITSUICHEM | 2020 T/A(TURN AROUND) INVESTMENT DESIGNSERVICE | Sep,2020~Dec,2020 | E |

## Business Portfolio Project Experience

| No. Client | Project | Period |
| :--- | :--- | :--- |
| 150 LGCHEM | FEASIBILITYSTUDY FORNEWPIPE RACKREVAMPING BETWEEN | Scope |
| 149 LGCHEM | FEASIBILITYSTUDYFORNEW/REVAMPINGPIPE RACKFOR <br> OUTDOOROFFICIALS | Aug,2020~Feb,2021 E |
| 148 | OCI | GUNSANPLANT, RECVD THERMALSTRESSANALYSIS |

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

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 120 | YEOSUTECHNICAL DIRECTOR'S COUNCIL | PIPE RACK SAFETY DIAGNOSISOF EXTERNALPIPELINESBETWEEN 10-2,3 SECTIONS | Oct ,2019~Mar,2020 | E |
| 119 | KUMHO P\&BCHEM | 80,000MTPAKAR(KUMHO ACETONE RECYCLE)PROJECT | Oct , 2019~May, 2021 | E/P/C |
| 118 | HYUNDAI ENERGY | AIR LIQUID PIPE RACK STRUCTURE STABILITY REVIEW | Oct ,2019~0ct , 2019 | E |
| 117 | HANWHACHEM | OA PRODUCTIONTEAM CATALYTIC PROCESSEXPANSIONDESIGN\& APPROVAL | Oct,2019~Jan, 2021 | E |
| 116 | KUMHO PETRO CHEM | SBS(STYRENEBUTADIENE STYRENE)45,000T REVAMPINGPROJECT | Oct ,2019~Aug, 2020 | E/P/C |
| 115 | GS CALTEX | MFC PROJECT-3WHARF APPROVAL SERVICEFOR THE 2nd PRODUCT PIER | Oct ,2019~Apr , 2021 | E |
| 114 | KUMHO MITSUICHEM | NEWLOGISTICS BASE CONSTRUCTION | Oct,2019~Aug, 2020 | E/P/C |
| 113 | GS E\&C | GS CALTEXMFC(MIXED FEED CRACKER)OUTSIDEPIPELINE INSTALLATIONWORK | Sep,2019~Nov,2020 | E |
| 112 | LGCHEM | DETALLED DESIGNOF VCM1 EDC(ETHYLENE DICHLORIDE)REACTION PROCESSIMPROVEMENT | Sep,2019~Jul ,2020 | E |
| 111 | GS E\&C | GS CALTEX MFC(MIXED FEED CRACKER)OUTER PIPELINE INSTALLATIONWORK | Sep,2019~Jul ,2021 | E/C |
| 110 | LOTTE E\&C | WP4 MTO WORK IN INDONESIA LINE PROJECT | Aug, 2019~0ct ,2019 | E |
| 109 | HYUNDAIENG | KUMHOP\&BCHEM BPA(BISPHENOL-A)-5 PROJECT | Aug, 2019~Mar ,2020 | E |
| 108 | KUMHO PETRO CHEM | DESIGN\& APPROVAL FOR CATALYST MANUFACTURING FACILITIESIN 9BLOCKS | Aug,2019~Feb, 2020 | E |
| 107 | LGCHEM | DETAIL DESIGNOF SAP5 POWDERASSEMBLYBACK-UP SYSTEM CONSTRUCTION | Jul,2019~Dec,2019 | E |
| 106 | GS CALTEX | NO. 4 DIESEL HDS(87UNIT) CAPACITY INCREASE(75->80KBD) APPROVAL SERVICE | Jun,2019~May,2020 | E |
| 105 | DAEWOOPLANT | KPB2 LER(LIQUIDEPOXY RESINS)STORAGE TANK 6EAINSTALLATION DESIGN | Jun,2019~Nov,2019 | E |
| 104 | E1 | YEOSU STATION PIPERACK EXTENSIONDESIGNPROJECT | May, 2019~Nov, 2019 | E |
| 103 | GS CALTEX | DETAIL DESIGNOF LPG PIPE CONSTRUCTION FROM YEOSUPLANT TOETYEOSUSTATION | May,2019~Dec,2019 | E |
| 102 | YNCC | BASICDESIGNSERVICEFOR PIPE RACK EXPANSION PROJECT FOR THE INSTALLATION OFNEW PIPING BETWEENPLANT 1 \& 2 | Apr ,2019~May,2019 | E |
| 101 | KUMHO MITSUICHEM | 2019 SHUT-DOWNINVESTMENT CONSTRUCTIONPROJECT | Apr ,2019~Jun, 2019 | E/P/C |
| 100 | PMC TECH | TANK REVAMPINGPROJECT DESIGN \& APPROVAL | Apr ,2019~Mar,2020 | E |
| 99 | KUMHO POLY CHEM | TPV(THERMO PLASTIC VULCANIZATE)PLANT PROCESSIMPROVEMENT PROJECT | Apr,2019~Jul,2019 | E/P/C |
| 98 | LOTTEADVANCEDMAT L | ABSA4 PROCESS\&HIGHHEAT-RESISTANCENYLON PROCESS BASICDESIGN\&FEED | Mar ,2019~Aug, 2019 | E |
| 97 | LOTTE CHEM | BASICDESIGNFOR DAESAN GE PROCESS 5000MTPABDG PRODUCTION PROCESS | Mar ,2019~Aug,2019 | E |
| 96 | GSE\&C | GS CALTEXMFC(MIXED FEED CRACKER)PROJECT | Feb,2019~Apr , 2021 | E |
| 95 | S\&ICORP. | CDC PROJECT ORGANICCATALYST \& OSBL DETAIL DESIGN SERVICE | Feb,2019~Jan,2020 | E |
| 94 | LGMMA | REPLACINGMMA(METHYLMETHACRYLATE)PROCESSINSTRUMENT \& LINE IN MMA3 PLANT | Feb,2019~Nov,2019 | E/P/C |
| 93 | LGMMA | MMA3 PLANT MA PRODUCT TOWER REPLACEMENT \& INSTALLATION | Feb,2019~Nov,2019 | E |
| 92 | YNCC | ETHYLENE\&BTX(BENZENE TOLUENEXYLENE)AREA ENERGYSAVINGPROJECT | Jan,2019~Jun,2019 | E/P/C |
| 91 | GS CALTEX | PETROCHEMICAL 2TEAM NO. 2 AROMATICSPROCESS THROUGHPUT INCREASEBASIC/DETAILED DESIGN\&APPROVAL | Jan,2019~0ct,2019 | E |

## Business Portfolio Project Experience

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 90 | KOREA VOPAK TERMINAL | VCU FACILITY MANUFACTURING INSTALLATION \& DESIGN(TERMINAL 2) | Dec,2018~Dec, 2020 | E/P/C |
| 89 | KOREA VOPAK TERMINAL | VCU FACILITY MANUFACTURING INSTALLATION \& DESIGN(TERMINAL 1) | Dec,2018~Dec, 2020 | E/P/C |
| 88 | VERSUM PM KOREA | SIHWA GABLE-INFRASTRUCTURE EPC PROJECT | Dec, 2018~May, 2019 | E/P/C |
| 87 | LOTTE CHEM | DAESANPLANT D-EG½WASTEHEAT RECOVERYENERGYSAVING PROJECT | Dec,2018~Nov, 2019 | E/P/C |
| 86 | KUMHOPOLY CHEM | PELLET STAGE II PROJECT | Dec, 2018~0ct , 2019 | $E / P / C$ |
| 85 | KOREAPLANT IND. ASSOCICATION | TURKMENISTAN, MTO PROJECT | Dec,2018~Jul, 2019 | E |
| 84 | GS CALTEX | CONSTRUCTIONOF PIPING 3D INSPECTION DRAWINGS (OUTSIDETHE FACTORY) | Dec,2018~Jun,2019 | E |
| 83 | GS CALTEX | CONSTRUCTION OF 3D INSPECTIONDRAWING FOR OFFSITEPIPINGIN THEPLANT1 | Dec,2018~Jun,2019 | E |
| 82 | GSE\&C | LG CHEM Y2C PROJECT (ETHYLENE 800,000MTPA) | Nov, 2018~Jun, 2021 | E |
| 81 | KUMHO POLY CHEM | EPDMPLANT 2 DEBOTTLENECKING PRE-ENGINEERING | Nov, 2018~Jan, 2019 | E |
| 80 | Q-BIOTECH | WASTEWATER TREATMENT PLANT REVAMPING DETAILED DESIGN \& APPROVAL | Nov, 2018~Jul , 2019 | E |
| 79 | GS CALTEX | FEASIBILITY STUDY(YEOSUPLANT~E1LPG PIPE SEISMIC DESIGNRELATED) | Oct ,2018~Jan, 2019 | E |
| 78 | GS CALTEX | VGOFCC(VGO FLUIDIZEDCATALYTIC CRACKER) SLURRY FILTER TRAIN ADDITIONALINSTALLATION-BASICDESIGN | Oct ,2018~Dec, 2018 | E |
| 77 | LGMMA | BASIC DESIGNFOR TRANSFER OF DRUM PACKING SYSTEM TO OUTSIDEOFMMA3PLANT | Sep,2018~Dec,2018 | E |
| 76 | GS CALTEX | DESIGNOF GROUNDING PROJECTFOREXTERNALPIPING BETWEEN PLANT\&OIL STORAGE TEAM(ANT1-AGING) | Sep,2018~Mar ,2019 | E |
| 75 | LGMMA | TECHNICAL TEAM SF300B DEDICATED LINE TIC \& BASICDESIGN | Sep,2018~Dec, 2018 | E |
| 74 | DAWOOE\&C | GS CALTEX SAR REVAMPING PROJECT / PIPING DETAILED DESIGN | Aug,2018~Nov, 2019 | E |
| 73 | KUMHO P\&BCHEM | STT(I)STORAGE FACILITIESINSTALLATION | Jul ,2018~Jan, 2020 | E/P/C |
| 72 | LGCHEM | DETAILED DESIGNFOR IMPROVEMENT INVESTMENT INEG CO2 REMOVALSYSTEM | Jul ,2018~May, 2019 | E |
| 71 | GS CALTEX | REVISION OF APPROVAL ACCORDING TO INCREASE INBOP FEED THROUGHPUT | Jul ,2018~Dec,2018 | E |
| 70 | LGMMA | ESTABLISHMENT OF ACRYLIC RUBBER PRODUCTION PROCESSPROJECT <br> (DESIGN) | Jul ,2018~Mar ,2020 | E |
| 69 | LGMMA | ESTABLISHMENT OF ACRYLIC RUBBER PRODUCTIONPROCESSPROJECT | Jul ,2018~Feb, 2020 | E/P/C |
| 68 | LGMMA | MMA2 PLANT DESIGN OFESTERWORK | Jul ,2018~0ct , 2018 | E |
| 67 | DAWOOE\&C | GS CALTEX SAR REVAMPING PROJECT PIPING 3D SCANNING\& APPROVAL | Jul , 2018~Nov, 2019 | E |
| 66 | VERSUM ADM KOREA | BTBASPRODUCTIONFACILITY EXPANSIONPROJECT BY BATCH POLYMERIZATION OFT-BUTYLAMINE(TBA)\&DICHLOROSILANE(DCS) | Jul ,2018~Mar ,2019 | E/P/C |
| 65 | HYUNDAIE\&C | DESIGN-PLANT(PIPING)YEOSUGROUP ENERGYUNDERGROUND STEAM PIPELINEGROUNDING PROJECT | Jun,2018~Sep,2019 | E |
| 64 | GS CALTEX | REFINERY3TEAM PSV DUALIZATION DETAIL DESIGNSERVICE | Jun,2018~May, 2019 | E |
| 63 | SKAIR GAS | CHEONGJU PLANT1CDAREVAMPING WORK(DETAILED DESIGN) | Jun,2018~Feb, 2019 | E |
| 62 | KUMHOMITSUICHEM | MDI(METHYLENEDIPHENYLISOCYANATE)60,000MTPAPLANT REVAMPINGPROJECT | Jun,2018~Jan,2019 | E/P/C |
| 61 | VERSUM PM KOREA | SIHWA OFFICE BUILDINGREINFORCEMENTPROJECT | Jun, 2018~0ct , 2018 | E/P/C |

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

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 60 | KUMHOMITSUICHEM | NEWINSTALLATIONM-EC520A1/A2 SYSTEM | Jun,2018~Jul ,2018 | P. C |
| 59 | YNCC | DETALLEDDESIGNRELATEDTO THEREPLACEMENT OFLOW-VOLTAGE ELECTRICAL FACILITIESINTHE PLANT1 | Jun,2018~Jul, 2019 | E |
| 58 | GSE\&C | MFCFEED PROJECT (CIVIL DESIGN) | Jun,2018~May, 2019 | E |
| 57 | LGCHEM | BUTENE-1, RBDPROJECT BULK MATERIAL PURCHASE PROVISIONAL CONTRACT | May,2018~Jan,2019 | E/P |
| 56 | VERSUMMATERIALS | DEMOLITIONWORK AT SIHWA PLANT | May,2018~0ct ,2018 | E/P/C |
| 55 | LGCHEM | BPA 30,000MTPA REVAMPINGDETAILED DESIGN \& 1 CASE | May ,2018~Apr , 2019 | E |
| 54 | SHELLKOREA | BDEP DEVELOPMENTFOR NEW STORAGE TANKSINSTALLATION | Jun,2018~Jul,2018 | E |
| 53 | LOTTE CHEM | VRU(VAPOR RECOVERY UNIT) INSTALLATION | Apr,2018~Nov,2018 | P/C |
| 52 | HANWHACHEM | OSBLPIPE RACK INSTALLATIONPROJECT | Apr ,2018~Sep, 2018 | E/P/C |
| 51 | LGCHEM | BUTENE-1, RBD PROJECT CONSTRUCTION | Apr ,2018~Jan, 2019 | P/C |
| 50 | FARMHANNONG | ALA. BUTA, BTCM, FLO BASIC DESIGNPROJECT | Apr ,2018~Apr ,2018 | E |
| 49 | LGCHEM | SAP5(SUPERABSORBENT POLYMER)15,000MTPA DEBOTTLENECKING PROJECT | Apr,2018~0ct,2018 | E |
| 48 | LGCHEM | DETAIL DESIGNFOR EXTENSIONCOMPLEXUTILITY CENTER\& INFRASTRUCTURE CONSTRUCTION | Apr ,2018~Mar ,2019 | E |
| 47 | GSE\&C | LGCHEM NCC PROCESSIMPROVEMENT PROJECT | Apr ,2018~Dec,2018 | E |
| 46 | BASF | 8.7MTPA MIXTURE PRODUCTIONBUILDINGINSTALLATIONPROJECT | Mar ,2018~Mar ,2019 | E/P/C |
| 45 | LGCHEM | CA1 ELECTROLYZERPILOT FACILITY PROJECT | Mar ,2018~Dec,2018 | E/P/C |
| 44 | SERVEONE | YEOSUCA2 GENERAL CONTRACTOR | Mar ,2018~Dec,2019 | E |
| 43 | JAEWONINDUSTRIAL | JNJ(PDP)FEED DESIGN | Mar ,2018~Jul ,2018 | E |
| 42 | VERSUMSPCKOREA | PYEONGTAEK CMP(CHEMICAL MECHANICAL POLISHING)PROJECT | Mar ,2018~Jan,2019 | E/P/C |
| 41 | GS E\&C | LGCHEM 6AA PROJECT SMS/PSM | Mar , 2018~May, 2019 | E |
| 40 | HANWHA ENERGY | 9 BLOCK PIPE RACK DESIGN | Feb,2018~Nov,2018 | E |
| 39 | LGMMA | CONSTRUCTIONOF DISPERSANT SEMI-MASS PRODUCTIONFACILITY \& SUSPENSION POLYMERIZATION PILOT RECONSTRUCTION | Feb,2018~May,2018 | E |
| 38 | LOTTE CHEM | K-PIA, PTA IG DRYER VENT GAS PREVENTIONFACILITY(ACTIVATED CARBON ADSORPTION TOWER)PRODUCTION AT ULSAN PLANT | Feb,2018~Sep,2018 | E/P |
| 37 | VERSUM PM KOREA | ALCHEMY PROJECT (MCS 80MTPA + TSA 15MTPA NEW) | Feb,2018~Feb,2019 | E/P/C |
| 36 | KUMHO P\&BCHEM | LIQUIDEPOXY RESIN(III) 45,000MTPALP \& LTIPROCESSPROJECT | Jan, 2018~Jun, 2019 | E/P/C |
| 35 | KUMHO MITSUICHEM | COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT | Jan,2018~Apr ,2018 | E/P/C |
| 34 | AISA STABILIZERS | GOJI PROJECT BASICDESIGN | Jan,2018~Apr ,2018 | E |
| 33 | YEONGJUNONGHYUP | LIVESTOCKMANURE REGIONALINTEGRATEDMANAGEMENT CENTER RESOURCECONVERSION PILOT PROJECT | Jan,2018~0ct,2019 | E/P/C |
| 32 | SERVEONE | YEOSULGCHEM SAP5(SUPERABSORBENT POLYMER)REVAMPING PROJECT | Nov,2017~May, 2019 | E |
| 31 | GS CALTEX | DETAIL DESIGNFOR RFCC(RESIDUEFLUID CATALYTIC CRACKINGUNIT) WET GAS SCRUBBERINSTALLATION | Nov,2017~0ct, 2019 | E |

## Business Portfolio Project Experience

| No. | Client | Project | Period | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 30 | VERSUMMATERIALS | NUMAT PROJECT | Nov, 2017~Mar , 2018 | E/P/C |
| 29 | FARMHANNONG | CRF\#3,4BASIC ENGINEERINGPACKAGE SERVICE | Nov,2017~Feb, 2019 | E |
| 28 | GSE\&C | GSCALTEXVGOFCC(VGO FLUIDIZED CATALYTIC CRACKER)PROJECT | Oct ,2017~Apr , 2018 | E |
| 27 | KPIC | ONSANPLANT SSBOILER\&LPETHYLENE TANKDETAILED DESIGN | Oct , 2017~Apr , 2019 | E |
| 26 | SKAIR GAS | ASU PLANT CONSTRUCTIONDESIGNSERVICEFORM14 PHASE 2B SEMICONDUCTORPLANT EXPANSIONPROJECT | Oct,2017~Nov,2018 | E |
| 25 | KUMHOMITSUICHEM | DESIGNRELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D | Sep,2017~Nov,2017 | E |
| 24 | HANWHAE\&C | STYRENE COPOLYMERIZATION(CP)50,000MTPA, THE 50,000MTPA PRODUCTION FACILITY CONSTRUCTION DESIGN | Sep,2017~Jun, 2019 | E |
| 23 | SERVEONE | LG MMA MAA 80,000MTPA REVAMPINGPROJECT | Sep,2017~May, 2019 | E |
| 22 | SEAENG | MVRDESIGNPROJECT | Sep,2017~Mar , 2019 | E |
| 21 | POSCOE\&C | MDI340,000MTPAPLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK | Aug,2017~Apr , 2018 | P |
| 20 | HYUNDAIENG | THAILAND EFFICIENCY, ENERGY \& ENVIRONMENT(3E)PROJECT | Jul ,2017~Feb, 2018 | E |
| 19 | S-OIL | MOKPO STORAGE VRU(VAPOR RECOVERY UNIT)PACKAGE \& CONCRETE INSTALLATIONWORK | Jun,2017~Dec, 2017 | E/P/C |
| 18 | SKSHOWADENKO | SSPROJECT EPC LUMP \& SUM TURNKEY PROJECT (CH3F 20MTPA) | Jun,2017~Dec, 2018 | E/P/C |
| 17 | GSE\&C | 3NEPROJECT | May, 2017~Apr , 2019 | E |
| 16 | KUMHOP\&BCHEM | SER(SOLIDEPOXY RESINS) STAGE\\|15,000MTPAREVAMPING PROJECT | May,2017~Feb, 2018 | E/P/C |
| 15 | KICOX | RESEARCHSERVCEFORINSTALIING ADDTIONALPPIINGDUE TOSATURATION OFUNDE RGROUNDPPING INONSANNATIONAL INDUSTRIAL COMPLEX | May , 2017~Nov, 2017 | E |
| 14 | KUMHO POLY CHEM | INSTALLATION OF LINE \& HEAT EXCHANGERFORINTEGRATED OPERATION OFPP REFRIGERATOR | Apr , 2017~0ct, 2017 | E/P/C |
| 13 | HYUNDAIE\&C | HCC THE PROJECT | Apr , 2017~Aug, 2017 | E |
| 12 | VERSUMMATERIALS | SIHWABDPPROJECT | Apr ,2017~Jun, 2017 | E |
| 11 | BASF | TOURBILLONPROJECT DIKEINSTALLATION | Apr ,2017~Jun, 2017 | E/P/C |
| 10 | SAMSUNGC\&T | OFF-SITEIMPROVEMENTPLAN DETAIL DESIGN\&APPROVAL | Apr , 2017~Aug, 2018 | E |
| 9 | PTT TANK TERMINAL | 4,000MTPA PROPYLENE STORAGE TANK PROJECT | Mar ,2017~Aug, 2018 | E |
| 8 | POSCO ICT | GWANGYANGWORKSFERROMANGANESELOW-TEMPERATUREORC POWERGENERATIONDESIGN | Mar ,2017~Feb,2018 | E |
| 7 | OCl | GUNSANPLANT, AGRICULTURAL WATER UTILIZATIONFACILITY INSTALLATION | Jan, 2017~Aug, 2017 | E/P/C |
| 6 | KPIC | ULSAN PLANT SPP PROJECT DESIGN | Mar ,2017~Jul , 2018 | E |
| 5 | GS E\&C | GS CALTEX NO. 1 CDU(CRUDE DISTILLATES UNIT) REVAMP PROJECT | Mar , 2017~May, 2018 | E |
| 4 | KUMHOMITSUICHEM | IMPROVEMENT CONSTRUCTION FORMDI(METHYLENEDIPHENYL ISOCYANATE)EXTENSIONBOTTLENECKELIMINATION | Feb,2017~Apr ,2017 | E/P/C |
| 3 | HANWHACHEM | W-TFT CA1 TEAM $35 \%$ HYDROCHLORIC ACID SHIPPING INFRASTRUCTURE CONSTRUCTIONWORK | Feb,2017~Dec, 2017 | E/P/C |
| 2 | KOREA SILICON | 2K-1601 MVR SYSTEM INSTALLATION WORK | Jan,2017~Nov, 2017 | E/P/C |
| 1 | HYOSUNG | DH-1 IMPROVED PROJECT DETAILED DESIGN | Jan,2017~Dec, 2017 | E |

## Environmental \& Energy Project Experience

MVR (Mechanical Vapor Recompression)

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

| No. | Year | Project | Client | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 11 | 2016 | 1Factory 1-Line MVR Installation Project (using $96.6^{\circ} \mathrm{C}$ Waste gas, 2.4kg/cm²G 16.5Ton/hr Steam Production) | KUMHO POLY CHEM | E.P.C |
| 10 | 2016 | MVR(IV) Project (Surplus steam 10T/hr 0.4kg/cm² $\rightarrow 2.8 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G}$ Booster Production) | KUMHO P\&B CHEM | E.P.C |
| 9 | 2015 | KP-I Plant 2-Line MVR Project <br> (using Low heat source steam, $-0.88 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G}$ 22.4Ton/hr Steam Production) | KUMHO POLY CHEM | E.P.C |
| 8 | 2015 | MVR(II) Project (using Surplus Hot Oil, 4.5kg/cm² $25 \mathrm{Ton} / \mathrm{hr} \mathrm{Steam} \mathrm{Production)}$ | KUMHO P\&B CHEM | E.P.C |
| 7 | 2015 | MVR Package manufacture and installation work ( $50 \mathrm{Ton} / \mathrm{hr} 6.9 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G} \rightarrow 21 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G}, 12 \mathrm{Ton} / \mathrm{hr} 9.8 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G} \rightarrow 35.2 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G}$ Boost) | KUMHO MITSUICHEM | E.P.C |
| 6 | 2014 | MPC Reaction Tower MVR Project (using Waste heat, $10.5 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G} 12.6 \mathrm{Ton} / \mathrm{hr}$ Steam Production) | LOTTE CHEM | E.P.C |
| 5 | 2014 | Samsung Total Chem MVR Package Project (Surplus steam 50 Ton/ $/ \mathrm{hr} 2.5 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G} \rightarrow 5.4 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G}$ Boost Production) | SAMSUNG TECHWIN | E.P.C |
| 4 | 2012 | Construction of new plant waste heat recovery system (using $98^{\circ} \mathrm{C}$ Waste heat $1.2 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G}$ 15.8Ton/hr Steam Production) | KUMHO POLY CHEM | E.P.C |
| 3 | 2012 | MDI50,000MTPA MVR Project <br> (Surplus steam 6.6Ton/hr $7 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G} \rightarrow 18 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G}$ Boost Production) | KUMHOMITSUICHEM | E.P.C |
| 2 | 2010 | Introduction of MVR in Solvent Recovery Process (using $92^{\circ} \mathrm{C}$ Waste gas, $2.9 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G} 6.3 \mathrm{Ton} / \mathrm{hr}$ Steam Production) | KUMHO POLY CHEM | E.P.C |
| 1 | 2009 | Introduction of R-Line MVR System (using $102^{\circ} \mathrm{C}$ Waste water, $6 \mathrm{~kg} / \mathrm{cm}^{2} \mathrm{G} 2.9 \mathrm{Ton} / \mathrm{hr}$ Steam Production) | KUMHO PETRO CHEM | E.P.C |

LDAR (Leak Detection And Repair)

| No. Year | Project | Client | Scope |  |
| :---: | :---: | :--- | :--- | :--- |
| 9 | 2006 | VCM LDAR System Monitoring work | HANWHAPETRO CHEM | E |
| 8 | 2005 | VCM Production team LDAR system Monitoring work | HANWHA PETRO CHEM | E |
| 7 | 2005 | LG Chem LDAR Supply contract | SKC\&C | E |
| 6 | 2004 | Hanwha Petro Chem LDAR Inventory \& TAG Installation work | SKC\&C | E |
| 5 | 2002 | LDAR Inventory service for oil refining process 1/MTBE process | LG CALTEX | E |
| 4 | 2002 | LDAR Inventory work (Oil 2 2 Team, RFCC) | LG CALTEX | E |
| 3 | 2001 | \#2 Aromatic Plant LDAR Inventory | LG CALTEX | E |
| 2 | 2001 | No.1 Aromatic Plant Shipment Facility LDAR Inventory | LGCALTEX | E |
| 1 | 2000 | Inventory work to introduce LDAR Program to No.1 Aromatics | LG CALTEX | E |

VRU (Vapor Recovery Unit)

| No. | Year | Project | Client | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 9 | 2018 | VRU installation (removal of VOC using VRU after removal of storage tank RTO) (1,466m³/hr) | LOTTE CHEM | E.P.C |
| 8 | 2018 | VRU installation design(2 Terminal Cl Gas process) | KOREA VOPAK TERMINAL | E |
| 7 | 2017 | Mokpo Oil Reservoir VRU Package <br> (Water vapor treatment generated during logistics shipment ( $240 \mathrm{~m}^{3} / \mathrm{hr}$ ) | S-OIL | E.P.C |
| 6 | 2012 | Incheon VRU Expansion design ( $480 \mathrm{~m}^{3} / \mathrm{hr}$ ) | GS CALTEX | E |
| 5 | 2011 | Busan VRU Expansion design ( $480 \mathrm{~m}^{3} / \mathrm{hr}$ ) | GS CALTEX | E |
| 4 | 2007 | GS-CALTEX Detail design for VRU Installation ( $8,500 \mathrm{~m}^{3} / \mathrm{hr}$ ) | H-PLUSENG | E |
| 3 | 2006 | GS-CALTEX Basic survey \& detail design for offshore VRU plant installation ( $8,500 \mathrm{~m}^{3} / \mathrm{hr}$ ) | CLEAN AIR WORLD | E |
| 2 | 2006 | GS-CALTEX Piping design review of Aromatic Day Tank Area VRU plant | TECHWINE\&C | E |
| 1 | 2005 | GS-CALTEX Piping design of Aromatic Day Tank Area VRU plant | TECHWINE\&C | E |

VCU (Vapor Combustion Unit)

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

| No. | Year | Project | Client | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 4 | 2023 | VRU New installation Project (1,200 $\left.\mathrm{Nm}^{3} / \mathrm{hr}\right)$ | KUMHOPOLY CHEM | E.P.C |
| 3 | 2023 | VCU 2nd additional connection project ( $9,000 \mathrm{Nm}^{3} / \mathrm{hr}$ ) | S-OIL | E.P.C |
| 2 | 2020 | VCU installation to reduce storage emission in \#1/2 facilities area for legal compliance (9,000 Nm ${ }^{3} / \mathrm{hr}$ ) | S-OIL | E.P.C |
| 1 | 2018 | VCU equip. manufacturing, installation \& design (1,2 Terminal) $\left(2,500 \mathrm{Nm}^{3} / \mathrm{hr}, 3,800 \mathrm{Nm}^{3} / \mathrm{hr}\right)$ | KOREA VOPARK TERMINAL | E.P.C |

RTO (Regenerative Thermal Oxidizer)

| No. | Year | Project | Client | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 11 | 2023 | Factory 1 RTO( $47,000 \mathrm{Nm}^{3} / \mathrm{hr} 2 \mathrm{ea}$ ) installation project | KUMHO POLY CHEM | E.P.C |
| 10 | 2023 | Factory 2 RTO( $80,000 \mathrm{Nm}^{3} / \mathrm{hr} 2 \mathrm{ea}$ ) installation project | KUMHO POLY CHEM | E.P.C |
| 9 | 2022 | Factory $1,2 \mathrm{RTO}\left(12,000 \mathrm{Nm}^{3} / \mathrm{hr}, 23,000 \mathrm{Nm}^{3} / \mathrm{hr}\right)$ installation project | KUMHO P\&BCHEM | E.P.C |
| 8 | 2021 | Factory 1 RTO-2(38,000 $\left.\mathrm{Nm}^{3} / \mathrm{hr} 2 \mathrm{ea}\right)$ new installation project | KUMHO POLY CHEM | E.P.C |
| 7 | 2020 | Factory 2 RTO(65,000 $\mathrm{Nm}^{3} / \mathrm{hr} \mathrm{2ea)} \mathrm{new} \mathrm{Installation} \mathrm{Project}$ | KUMHO POLY CHEM | E.P.C |
| 6 | 2020 | KP-I RTO-1(35,000 Nm³/hr 2ea) Installation Project | KUMHO POLY CHEM | E.P.C |
| 5 | 2019 | High heat resistant nylon A4 mass production process basic design FEED (including new installation of RTO) | LOTTE ADVANCED MAT'L | E |
| 4 | 2016 | Polymerization G-Line NB LATEX parallel production facility construction EPC (including new RTO installation) | KUMHO PETRO CHEM | E.P.C |
| 3 | 2006 | Yeosu NCC 3 factory Piping design for additional installation of VOC related RTO | EGGREENTECH | E |
| 2 | 2004 | LG Caltex OIL RTO design | TECHWIN | E |
| 1 | 2001 | Civil design related to SM plant RTO | LGCHEM | E |

WWT (Waste Water Treatment)

| No. Year | Project | Client | Scope |  |
| :---: | :---: | :--- | :--- | :--- | :---: |
| 2 | 2018 | Wastewater treatment plant detail design \& approval (Revamping) | Q-BIOTECH | E |
| 1 | 2013 | Wastewater treatment plant upgrading construction <br> (steamstripping $\rightarrow$ Improved steam reduction by microbial treatment) | KUMHOMITSUICHEM | E.P.C |

Waste Resource Recycling

| No. Year | Project | Client | Scope |  |
| :---: | :---: | :--- | :--- | :--- |
| 1 | 2022 | Waste synthetic resin 7,920MTPA recyled oil 4,752MTPAenergy conversion project | JEONYOUNGR.G.O | E.P.C |

## New \& Renewable Energy <br> Project Experience

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 | $56,000 N m 3 / h r(42,500 M T P A)$ Hydrogen plant EPC project | LG CHEM | E.P.C |  |
| 6 | 2020 | 0.5 TPD 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) | LGCHEM | E.P.C |

CCS (Carbon Capture \& Storage) system

|  |  | Project | Client | Scope |
| :---: | :---: | :---: | :---: | :---: |
| 5 | 2022 | Basic design and estimate for construction of $\mathrm{CO}_{2}$ capture pilot plant | HANWHA TOTAL ENERGIES | E |
| 4 | 2021 | FEED service for dry $\mathrm{CO}_{2}$ capture process after combustion of 1 million tons | KEPCO E\&C | E |
| 3 | 2020 | Detail design for 2,000MTPA high purity $\mathrm{CO}_{2}$ refining \& filling facility construction project | WONIK MATERIALS | E |
| 2 | 2017 | 150MW Enhancement of Carbon Capture Storage technology (R\&D) | KEPCO | E.P.C |
| 1 | 2015 | 10MW Carbon capture technology commercial package module developmen (R\&D) | KEPCO | E |

## Business Portfolio

 Domestic Branch Office

No.1504, SJ Techno ville, 278 Beotkkot-ro, Geumcheon-gu, Seoul, Korea.
TEL. 82-2-6953-6501

## Ulsan Office

1 Floor, Parkview, 44, Namoe 2-gil, Jung-gu, Ulsan, Korea.
TEL. 82-52-232-3199

## Daesan Office

404-7, Myeongji 1-ro, Daesan-eup, Seosan-si, Chuncheongnam-do, Korea.
TEL. 82-41-667-0570

# We have the Solition! <br> HITECH ENG <br> Engineering \& Procurement \& Construction Company 

## WWW.HTENC.CO.KR

