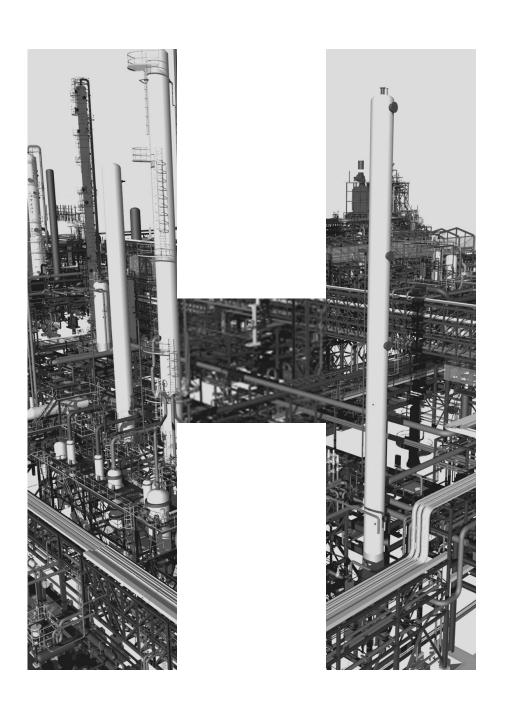
COMPANY PROFILE



HITECH ENG

HITECH ENG

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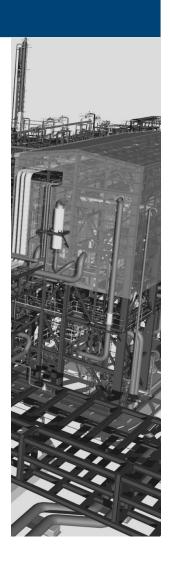
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- 06 Business License and Certificate
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HITECHENG

HI-TECH ENGINEERING IS HERE TO BE WITH YOU.

Since its establishment in 1992, Hi-Tech Eng. has accumulated various project experiences in oil refining, petrochemical, energy and environment area, and also has been grown up as one of the most reliable partners in engineering, project management and construction business field.

We, Hi-Tech Eng. have lots of experiences and specialized knowhow especially in process improvement, capacity increase and revamping project area. Based on our experience, we provide the entire EPC services through our own capability, and various solutions required by customers.

We are convinced that it is our value to builed trust with customers in safety, quality, innovation, integrity, respect and cooperation as a core competence of the company.

And we promise we will be with you for the prosperous future.

General Status

Company Name Hi-Tech Engineering Co.,Ltd.

CEO Yung Jang

Address 366, Yeosusandan 1-ro, Yeosu-si, Jeollanam-do, Republic of KOREA

(1392, Hwachi-dong)

Established Date Feb. 1992

Company Type Middle Market Enterprise (Mid-sized Company)

Business Fields Engineering and integrated construction of the industrial plant facilities

TEL No. +82-61-690-1000 / +82-2-6953-6501

Home Page www.htenc.co.kr

[Based on 2020 settlement]

Total sales

127.2 Billion Won

Credit rating

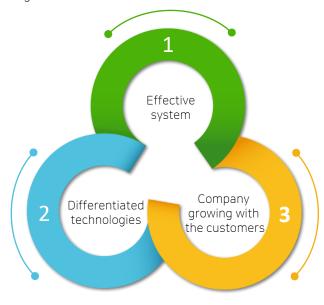
BBB+

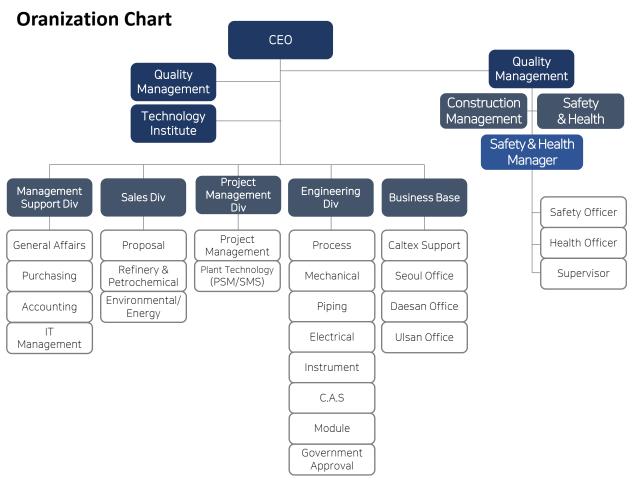
Cash flow rating

Α

Management Philosophy

We are the company growing with the customers while evolving based on effective system and differentiated technologies.

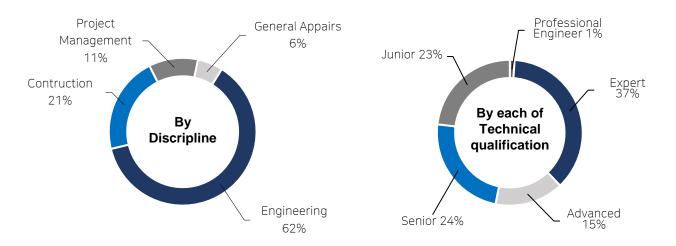




Executives and staff members

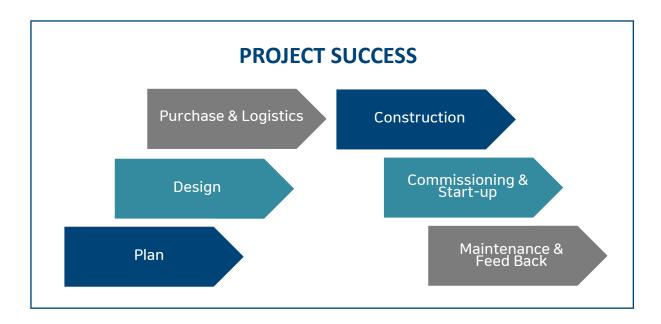
Hi-Tech Engineering has a lot of challenging workforce with expertise and competitiveness who will share the future of customers.

Number of Employees 380 (Unit: persons)



2020s~ Present	2021 2020	Mid-sized Company certified Registered civil construction business
		Registered the atmospheric environment specialized construction business
	2019	Family-friendly company certified
		Registered as a safety diagnosis specialized company (Architectue)
	2016	Registered construction technology services business
	2016	Registered survey business (Public/Under ground
	2015	facilities/Numerial mapping processing business) Registered as an OCA report preparing specialized organization
	2014	Reported as a software entrepreneur
		Registered mechanical facility construction
	2013	Registered 1st class power facility specialized design business
		Registered architecture construction business
	2012	OHSAS 18001 Health and safety management certified(D.N.V)
		ISO 14001 Environmental management certified(D.N.V)
		Ulsan office expanded and moved
	2011	Registered overseas construction business(Industrial environment facility, Electricity)
	2011	Registered the specialized fire fighting facility construction business Registered industrial environment facility construction business
2010s	2010	Registered electric construction business
20103		The glotter extracted to the content action a desired as
	2008	Registered as an Energy service company(ESCO)
	2007	Moved the head office
	2005	Opened Daesan office
		Opened Seoul office
		Introduced 3D laser scan(Z+F IMAGER) system
		Technology institute established and approved
	2004	Won the minister award of Ministry of Knowledge Economy Registered the fire fighting facility design business(Mech. & Elec.)
	2004	Introduced 3D design system (PDS)
	2003	Registered integrated construction supervision business(Elec. power facilities)
	2002	Reported s an engineering service provider
	2001	Introduced 3D design system from AVEVA (PDMS)
2000 s	2000	ISO 9001 quality managyment certified (Orion registrar inc., USA)
	1998	Registered as a partner company of GS E&C
	1995	Registered as partner company of Honam Petrochemical Corp.
		Registered as Hi-Tech Engineering Co.,Ltd.
	1994	Registered as partner company of GS Caltex/Hanwha Chemical
1990 s	1992	Established Hi-Tech Engineering





ESTIMATION

Cost estimation of equipment & materials Cost estimation of total construction

Basic design & Process development

BASIC ENGINEERING

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)

DETAIL ENGINEERING

SIS Analysis (FAULT TREE+)

Equipment selection and interconnection list Vessel, mech. calculation & Engineering drawing Piping line schedule and construction drawing Electrical schedule and construction drawing Instrument schedule and 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
Bid document of equipment and materials
Bid evaluation
Place on purchase order
Equipment and material inspection
Delivery expediting and control

CONSTRUCTION & SAFETY MANAGEMENT

Field construction management Construction supervision Schedule control and report Quality control and report Equipment inspection and report Cost control and report Safety management

PRE-COMMISSIONING

Pre-commissioning/Commissioning
Operator training
Performance test & guarantee operation

QUALITY

MANAGEMENT SYSTEM

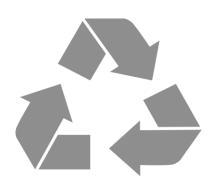
In order to achieve the targets of the products and services of the customers, Hi-Tech Eng. introduced <u>International Quality Assurance Certification(ISO 9001)</u> system and practicing the systematic and continuous quality management activities.



Hi-Tech Eng. is providing optimal quality performance and services with the strict international standard based quality management system for the Project Management, Preliminary Feasibility Study, Engineering, Design, Procurement, Construction and commissioning for Plant(Refinery, Petrochemical, General Chemical, Environmental and Industrial Plants included), Civil, Architecture, Steel Structure, Mechanical, Piping, Electrical, instrument and Fire-Fighting Works.

- 1. We provide the best products and services that can increase the satisfaction of the customers by identifying the internal & external issues and risks and practicing and considering the quality improvement as the first priority during the services and supporting processes of all of the activities, type of works and products.
- 2. We make the continuous improvement happen by monitoring the performance of the quality continuously and developing & practicing the effective quality management programs.
- We secure the transparency for the quality management activities by establishing the communication system with the customers and other stakeholders, and collecting the feedback, and providing the information

ENVIRONMENT MANAGEMENT SYSTEM



Consideration of the Environmental Impact

We check the harmful effects to the environment first and remove or minimize them during the whole process of design, material procurement and construction at site.

Establishment of Risk Analysis

We identify, classify and analyse the cause of the risks during the whole design, procurement and construction at site processes and take the counter measures and minimize the risks as much as possible.

Satisfaction of the environment related laws and requirements

We are doing our utmost to follow the environmental laws of corresponding country and the requirements of the customers and local residents. In order for this, we prepare the environment regulation control register and provide the education regularly.

Environmental management

We establish the effective construction site environmental administration system and prevent the environmental issues in advance through the cyclic check (daily/ weekly/ monthly) of the site.

Review of the performance and improvement

We review the operation performance and effectiveness of environmental administration by holding conference of environmental administration committee and improve it continuously for higher performance level.

HEALTH & SAFETY

MANAGEMENT SYSTEM

All of the members of Hi-Tech Eng. practice the safety administration with thoroughgoing sense of responsibility. We setup specific standard for the safety and follow them strictly and keep on improving the quality of the project. We are holding up our ends as the company that is practicing the safe, clean and happy work place through all of the executives and staff members participating in the health & safety activities. The reason why Hi-Tech Eng. is emphasizing the safety is not only because to accomplish the project successfully, but also because it is the most basic virtue in our business performance.



- Health & Safety activities is our top priority from all of our management decision makings and activities.
- We will do our best of our responsibilities for the development of safe work environment that the danger and risks of accident is removed though the risk evaluation that is analyzed by systematic and measurable ways, and consistent safety improvement activities.
- 3. We will share the directions that reflect the analyzed result of the performance of health & safety activities with all of the executives and staff members together with all the stakeholders and will accomplish the core capability reinforcement and purpose of health & safety management system.
- 4. We improve and control the health & safety improvement activities of the executives and staff members of the partner companies through the integrated health & safety system of Hi-Tech Eng.
- 5. We will do our utmost to be a company that fulfills social community development and social responsibility and holding our ends by following the health & safety related regulations.

CERTIFICATE

Quality Management (ISO 9001)



Health & safety Management (ISO 45001)



Environmental Management (ISO 14001)



Refinery & Petrochemical Plant Business

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

Hi-Tech Eng. is performing many of the 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 experiences and accumulated technical powers in designing and procurement service areas with many of the typical local oil refining & petrochemical companies such as GS Caltex, Hyundai Oil Bank, Kumho Petrochemical, Kumho Mitsui Chemicals, Lotte Chemical Corporation, Hanwha Solution etc. together with the overseas projects.

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



Refinery & Petrochemical 3D Model View











Environmental/Energy Business

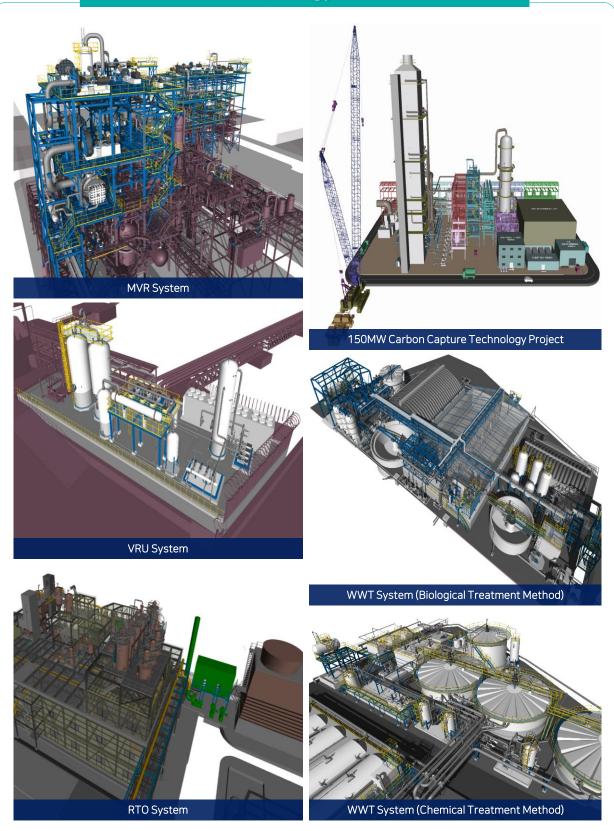
The Environmental/Energy Business is a green growth business that minimizes greenhouse gas emissions and environmental pollution through environmental preservation and efficient use of energy resources.

We are continuously developing and promoting low-carbon eco-friendly technologies to respond to global issues such as climate change and energy conversion, and as an Energy Service Company(ESCO), we are contributing to the efficient use and reduction of energy in the environment, renewable and cogeneration fields.

- 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
- CCS (Carbon Capture Storage) system



Environmental/Energy 3D Model View



Modularization/3D Scanning

Modularization is a construction method that divides the whole plant into the construction block modules which makes the manufacturing, transporting and constructing process easier and reduces the construction period and saves the cost of the plant. This is a manufacturing method that can guarantee high productivity, high quality and work stability.

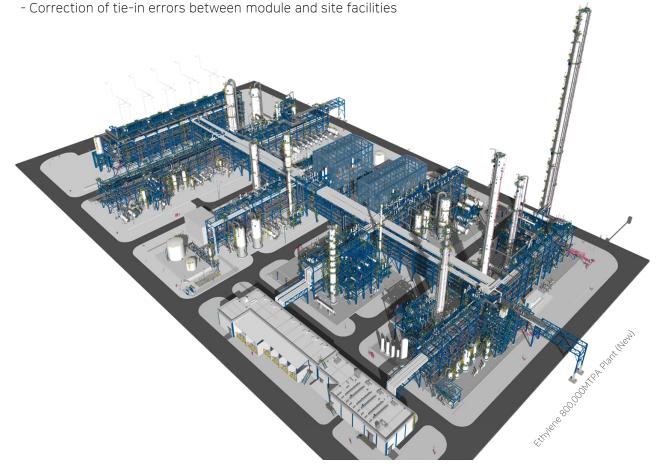
In particular, plant modularization is an advanced technology that performs unified management from design/purchase/production/transport by grafting modularization technology developed in the manufacturing industry of ships, automobiles, and electronic products into the plant industry.

Hi-Tech Engineering possesses not only 3D Modeling & Analysis, which is the basis of modular design, but also the technology to convert our own 3D Scanning to 3D Modeling. We are a specialized company that performs modular design by correcting the errors between the manufacturing plant of the module and the site to be installed.

3D Scanning & Modeling

- Correction of errors in production/installation of sites and shops as a core technology of the modularization method
- Resolving inconsistency and interference between machinery, piping and structures
- Reduction of construction period and cost by minimizing repair

- Check deformation during module production, site transport/installation failure and interference



Modularization / 3D Modeling&Scan 3D Model View



Business License and Certificate

Business License

License	Field	Registered date
Design	Engineering (electric facilities, electric & electronic applications, chemical plant, HVAC&Plumbing, structure, Communication)	Jan , 2002
	Construction technical service (design & project management - general)	Jul, 2019
	Fire fighting facilities (mechanical, electrical)	Mar, 2010
	Power facility professional (type 1)	Nov, 2013
	Offsite Consequence Analysis company	Apr, 2015
	Safety diagnosis specialized company (architecture)	Dec, 2019
Supervision	Integrated(electrical power facility)	May, 2003
Integrated construction	Industrial, environmental facility	Apr, 2011
	Architecture	Jun, 2013
	Civil	Jun, 2020
Specialized construction	Electricity	Sep, 2010
	Mechanical facility	Oct, 2014
	Professional fire fighting facilities	Apr, 2011
	Atmospheric environment specialized	Mar, 2020
Overseas construction	Industrial, Environmental facilities	Oct, 2012
	Electricity	Oct, 2012
Surveying services	Underground facilities	Aug, 2016
	Numerical map manufacturing	Aug, 2016
	Public	Oct, 2016
Energy Servic	e Company (ESCO)	Feb, 2008

Certificate

Certificate		Registered date
Quality Management	ISO 9001:2015	Jun, 2000
Health & Safety Management	ISO 45001:2018(OHSAS 18001)	Mar, 2012
Environmental Management	ISO 14001:2015	Mar, 2012
Institute of Technology		Jun, 2005
Middle Market Enterprise (Mid	-sized Company)	Apr, 2021
Family-friendly Company		Dec, 2019

Software

Process	Instrument
Aspen Plus	Instrument Calculation Plus 5.1
Pro-II	Smart Plant Instrumentation
Smart Plant P&ID	AVEVA Instrumentation
AutoCAD P&ID	
3D Modeling	3D Laser Scan
PDMS(Equip, Piping, Structure, Modeling)	Z+F Laser Control
PDS(Equip, Piping, Structure, Modeling)	Z+F Laser Scout
Review Reality (for PDMS)	AVEVA LFM
Smart Plant Review (for PDS)	Trimble Access
Mech. & Piping Stress Analysis	Project Management
COMPRESS	MS-Project (for Schedule)
CAESAR II	Primavera (for Schedule)
NozzlePRO	Flow(Project Cooperation S/W)
Civil & Structure Analysis	Safety & Environment
STAAD Pro V8i (Civil & Structure)	Phast (for Hazard Analysis)
AFES (for Foundation)	
MIDAS Plant (Civil & Structure)	
MIDAS Gen (Civil & Structure)	
Telka Structure (3D Modeling)	
Architecture Engineering & Construction Colle	ction (AEC)

3D Laser Scan

Possessed equipment	Manufacturer
Z+F IMAGER® 5010	Zoller Frohlich
Z+F IMAGER® 5016	Zoller Frohlich
Trimble Mensi GS-200	Trimble

Project Experience ____



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No.	Client	Project	Period	Scope
459	WONIK MATERIALS	DETAIL DESIGN SERVICE FOR CJ-NEIL	Dec,2021~Jun,2022	Е
468	JAEWON INDUSTRIAL	DETAILED DESIGN SERVICE RELATED TO THE EXTENSION OF 3 NMP TOWERS AT THE HUNGARY PLANT	Dec,2021~Jun,2022	E
457	GS CALTEX	PURGE GAS SUPPLY PIPE REVIEW SERVICE	Dec,2021~Jan,2022	Е
456	KUMHO POLY CHEM	3 LINE DEBOTTLENECKING PROJECT RELATED WORK	Dec,2021~Aug,2022	E/P/C
455	LG CHEM	ABS PLANT FLARE STACK NEW CONSTRUCTION DETAILED DESIGN	Dec,2021~Mar,2023	E
454	S&I CORP.	DETAIL DESIGN SERVICE FOR T1 PROJECT	Nov,2021~Dec,2023	Е
453	KUMHO POLY CHEM	4 LINE MVR(UC-403) NEW INSTALLATION PROJECT RELATED WORK	Nov, 2021~Nov, 2022	E/P/C
452	LG CHEM	TRANSPARENT ABS DEBOTTLENECKING PROJECT	Nov,2021~Apr,2022	Е
451	PURIOGEN	BASIC DESIGN SERVICE FOR PURIOGEN YEOSU PG-1 PLANT ESTABLISHMENT	Nov,2021~Mar,2022	E

 $\text{ $\%$ E: Engineering, P: Procument, PS: Procument Service, C: Construction, CS: Construction Supervision, FE: Field Engineering, GA: Government Approval Approval$

No.	Client	Project	Period	Scope
450	S&I CORP.	BDP & TIC SERVICE FOR THE ESTABLISHMENT OF AN 80,000TONS MMA(METHYL METHACRYLATE) PLANT IN ULSAN	Oct,2021~Dec,2021	E
449	JEONYOUNG R.G.O	JEONYOUNG R.G.O GWANGYANG PROJECT	Oct,2021~Jun,2022	E
448	S&I CORP.	LG CHEM DAESAN PLANT P5 PROJECT DESIGN	Sep,2021~Sep,2022	Е
447	S&I CORP.	LG CHEM YEOSU PLANT SAP3 SMALL PARTICLE SIZE, FOAMING PROCESS IMPROVEMENT DETAIL DESIGN	Sep,2021~Dec,2021	E
446	JINSUNG ENG	BASIC DESIGN OF SEMICONDUCTOR SPECIAL GAS MASS PRODUCTION PLANT	Sep,2021~Nov,2021	E
445	S&I CORP.	LG MMA OMA DETAIL DESIGN & TIC SERVICE	Aug, 2021~Sep, 2021	E
444	KOREA JAESAE NEUNGWON	18,000TONS OF HIGH NICKEL CATHODE MATERIAL NEW LINE CONSTRUCTION PROJECT	Aug,2021~Jun,2022	E
443	KUMHO PETRO CHEM	SSBR 60,000T PROJECT	Aug, 2021~Dec, 2022	E/P/C
442	LG CHEM	PVC SL-3 REVAMPING PROJECT	Aug, 2021~0ct, 2022	P/C
441	LG CHEM	ABS DP 220,000TONS REVAMPING PROJECT FEED DESIGN	Aug, 2021~Dec, 2021	Е
440	GS E&C	KPIC NEO-II & KBD PROJECT (PIPING/ELEC./INSTR./CIVIL)	Jul,2021~Mar,2023	Е
439	HANWHA SOLUTION	TECHNICAL MANAGEMENT TEAM HANYANG BRIDGE FACILITY PRECISE SAFETY DIAGNOSIS	Jul,2021~0ct,2021	E
438	KUMHO MITSUI CHEM	NO.2 MDI PLANT REVAMPING PROJECT(MDI)DESIGN, EQUIPMENT DELIVERY SERVICE	Jun,2021~Dec,2023	E/P/C
437	KUMHO MITSUI CHEM	NO.2 MDI PLANT PROJECT(FOX) DESIGN, EQUIPMENT DELIVERY SERVICE	Jun,2021~Dec,2023	E/P/C
436	JAEWON INDUSTRIAL	JAC20 PROJECT DETAIL DESIGN SERVICE	May,2021~0ct,2021	Е
435	WONIK MATERIALS	GAS 2 TEAM 0.5TPD AMMONIA HYDROGENATION PROCESS DETAIL DESIGN	Apr,2021~Aug,2021	E
434	KUMHO POLY CHEM	FACTORY 1 RTO-2 NEW INSTALLATION WORK	Apr,2021~Nov,2021	E/P/C
433	KUMHO MITSUI CHEM	410KTA PLANT 3D DESIGN	Apr,2021~Dec,2021	E
432	HANWHA SOLUTION	DETAILED DESIGN FOR PETROLEUM RESIN R-220 DUAL	Apr,2021~Nov,2022	Е
431	OCI	POHANG PLANT HSPP-MPR-001-PILOT PACKAGE MANUFACTURING WORK	Mar,2021~Jun,2021	E/P/C
430	KPIC	ONSAN PLANT NCC,DPG,RU UNIT SAFETY VALVE AND SHUT-OFF VALVE DESIGN SERVICE	Mar,2021~Dec,2021	Е
429	LG CHEM	ACS ORGANIC LOADING PROCESS DEMOLITION AND RESTORATION WORK	Feb,2021~May,2021	E/P/C
428	LG CHEM	CIVIL DESIGN AND STEEL STRUCTURE REVIEW RELATED TO NCC PSV DUALIZATION	Feb,2021~0ct,2021	Е
427	SGC E-TEC E&C	EPC WORKS FOR PIPING AMONG LOTTE CHEMICAL 6BLOCK INFRA2 PROJECT	Feb,2021~Apr,2022	E/P/C
426	DAYONE ENERGY	ISBL/OSBL STEAM SUPLLY PROJECT FOR LOTTE GS CHEMICAL	Feb, 2021~0ct, 2021	E/P/C
425	LG CHEM	ABS PLANT NEW FLARE STACK CAPACITY REVIEW & DESIGN	Jan,2021~May,2021	E
424	DOOSAN HEAVY I&C	CHANGWON HYDROGEN LIQUEFACTION PROJECT (BASIC AND DETAILED DESIGN)	Jan,2021~Feb,2023	E
423	YTT	BUTANE BLENDING PROJECT	Jan,2021~Mar,2021	E/P/C
422	LOTTE CHEM	2021 ABS CAPA UP BASIC DESIGN AND FEED	Jan,2021~Apr,2021	Е
421	KUMHO POLY CHEM	2ND FACTORY RTO NEW INSTALLATION PROJECT	Dec,2020~Sep,2021	E/P/C

 $\begin{tabular}{ll} {\tt \#E:Engineering,P:Procument,PS:Procument Service,C:Construction,CS:Construction,Supervision,FE:Field Engineering,GA:Government Approval (Construction,CS:Construction,$

No.	Client	Project	Period	Scope
420	LG CHEM	PVC SL-3 PROJECT	Dec,2020~Nov,2022	E
419	LG CHEM	3AA DEBOTTLENECKING BASIC DESIGN	Dec,2020~Nov,2022	E
418	JAEWON INDUSTRIAL	JWH-2 PROJECT NMP TOWER 2 PIPING PRODUCTION	Oct,2020~Mar,2021	E
417	WONIK MATERIALS	[YC B2H6 MIX PROJECT]DETAIL DESIGN & PERMIT	Dec,2020~Mar,2021	E
416	DAYONE ENERGY	LOTTE GS CHEMICAL OSBL DETAILED DESIGN	Dec,2020~Feb,2021	E
415	YTT	YTT BUTANE BLENDING PROJECT RELATED DETAILED DESIGN AND SUPERVISION AGENCY	Nov,2020~Mar,2021	Е
414	HYUNDAI ENG	HDO BIO DIESEL OVERALL DESIGN	Nov,2020~Dec,2020	Е
413	KOREA JAESAE NEUNGWON	ANNUAL OUTPUT OF 65,000 TONS LITHIUM BATTERY CATHODE MATERIAL (1-1 UNITS) PROJECT	Nov,2020~Sep,2021	E
412	LG CHEM	PSV DESIGN ADEQUACY REVIEW	Oct,2020~Mar,2021	E
	KUMHO P&B CHEM	LER(III) REVAMPING PROJECT	Oct,2020~Oct,2021	E/P/C
410	JAEWON INDUSTRIAL	DETAILED DESIGN FOR THE EXPANSION OF 2 NMP TOWERS IN HUNGARY FACTORY	Dec,2020~May,2021	E
409	KUMHO MITSUI CHEM	2020 TA INVESTMENT DESIGN SERVICE	Sep,2020~Dec,2020	E
408	LG CHEM	FEASIBILITY STUDY FOR NEW PIPE RACK REVAMPING BETWEEN YONGSUNG AND JEOKRYANG COMPLEX	Aug,2020~Feb,2021	E
407	LG CHEM	FEASIBILITY STUDY FOR NEW/REVAMPING PIPE RACK FOR OUTDOOR OFFICIALS	Jul,2020~Dec,2020	Е
406	OCI	GUNSAN PLANT, RE CVD THERMAL STRESS ANALYSIS	Jul,2020~0ct,2020	E
405	KICOX	FEASIBILITY ANALYSIS & BASIC DESIGN SERVICE FOR YEOSU INDUSTRIAL COMPLEX'S PUBLIC PIPE RACK & LOADING ARM INSTALLATION PROJECT	Jul,2020~Mar,2021	E
404	LG CHEM	DETAIL DESIGN & APPROVAL OF BPA HEAVIES	Jul,2020~Dec,2020	E
403	DAEA ENERGY	SULFUR SOLIDIFICATION PLANT DESIGN & APPROVAL	Jul,2020~Aug,2021	Е
402	S-OIL	EPC WORKS FOR VCU INSTALLATION PROJECT	Jun,2020~Dec,2020	E/P/C
401	HANWHA SOLUTION	OA PRODUCTION TEAM 2-EH STORAGE TANK(V-369C) INSTALLATION	Jun,2020~Mar,2021	E/P/C
400	HANWHA SOLUTION	OA OXO CATALYST PROCESS INCREASE P&C CONSTRUCTION	Jun,2020~Jan,2021	E/P/C
399	KUMHO P&B CHEM	PLANT 1 KPA(IV) PLANT COOLING WATER GRP PIPE REPLACEMENT WORK	Jun,2020~Nov,2020	E/P/C
398	KUMHO POLY CHEM	METALLOCENE PROCESS BASIC ENGINEERING SERVICE	May,2020~Dec,2020	E
397	EM TECH	DETAIL ENGINEERING SERVICES RELATED TO JPC-550 (1,000 L/HR PROCESS UNIT) AND NEW SITE TANK INSTALLATION PROJECT	May,2020~Jun,2021	E
396	LOTTE E&C	PIPING DESIGN SERVICE DURING LOTTE CHEM D-NC_R PROJECT	May,2020~Nov,2020	Е
395	CHEMICAL SAFETY AGENCY	PRODUCTION AND INSTALLATION OF 3 TYPES OF OUTDOOR TRAINING FACILITIES	May,2020~Dec,2020	E/P/C
	GANGJIN-GUN,	JAKCHEON GUSANG DISTRICT VILLAGE SEWER MAINTENANCE PROJECT	May,2020~May,2022	P/C
394	JEOLLANAM-DO	MAINT LIVANCE FINOSECT		
		3RD CONSTRUCTION OF IMPROVEMENT OF ELECTRICAL EQUIPMENT IN LOGISTICS CENTER	Apr,2020~Nov,2020	E/P/C
393	JEOLLANAM-DO	3RD CONSTRUCTION OF IMPROVEMENT OF ELECTRICAL	Apr,2020~Nov,2020 Apr,2020~Dec,2021	E/P/C

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No.	Client	Project	Period	Scope
390	GS E&C	YEOSU NO.2 COMPLEX PROJECT (PIPING FIELD ENGINEERING)	Mar,2020~Dec,2020	FE
389	LOTTE CHEM	NEW INSTALLATION OF D-GE/BDG EXPANSION REACTION FACILITY FOR DAESAN PLANT	Mar,2020~Mar,2021	E/P/C
388	HANWHA SOLUTION	BASF YEOSU PLANT HCL 35% EXTERNAL NEW PIPING DESIGN & APPROVAL	Mar,2020~Jun,2020	E
387	KUMHO MITSUI CHEM	MDI 200,000TONS, CA, HYDROCHLORIC ACID OXIDATION FACILITY BASIC DESIGN	Mar,2020~Jun,2020	E
386	KUMHO POLY CHEM	1 PLANT FLARE LOAD SUMMARY & PRESSURE VESSEL INSTALLATION RELATED DESIGN	Feb,2020~May,2020	E
385	MARINE GLORY	INSTALLATION OF 5 PETROCHEMICAL TANKS & DESIGN OF ADDITIONAL FACILITIES	Jan,2020~Dec,2021	E
384	LOTTE E&C	LOTTE CHEM INFRA-2 FEED DESIGN	Jan,2020~Mar,2020	Е
383	WONIK MATERIALS	DETAIL DESIGN FOR 2,000MTY HIGH PURITY CO2 REFINING & FILLING FACILITY CONSTRUCTION PROJECT	Jan,2020~Mar,2020	E
382	HYUNDAI ENERGY	DETAIL DESIGN OF STEAM PIPING INSTALLATION FOR GS CALTEX MFC PLANT	Dec,2019~Jan,2020	E
381	GS E&C	LG CHEM Y2C(YEOSU #2 COMPLEX) SAPO PIER EXTERNAL PIPING CONSTRUCTION	Nov,2019~Sep,2020	E/P/C
380	DOOSAN HEAVY I&C	CHANGWON HYDROGEN LIQUEFACTION PROJECT APPROVAL & TECHNICAL SERVICE	Nov,2019~Mar,2020	E
379	S&I CORP.	LG MMA M2 MTBE(METHYL TERTIARY BUTHYL ETHER) EXPANSION DESIGN	Nov,2019~Dec,2020	E
378	YEOSU TECHNICAL DIR CTOR'S COUNCIL	EPIPE RACK SAFETY DIAGNOSIS OF EXTERNAL PIPELINES BETWEEN 10-2,3 SECTIONS	Oct,2019~Mar,2020	E
377	KUMHO P&B CHEM	80,000T/Y KAR(KUMHO ACETONE RECYCLE) PROJECT	Oct,2019~May,2021	E/P/C
376	HYUNDAI ENERGY	AIR LIQUID PIPE RACK STRUCTURE STABILITY REVIEW	Oct,2019~Oct,2019	Е
375	HANWHA CHEM	OA PRODUCTION TEAM CATALYTIC PROCESS EXPANSION DESIGN & APPROVAL	0ct,2019~Jan,2021	E
374	KUMHO PETRO CHEM	SBS(STYRENE BUTADIENE STYRENE) 45,000T REVAMPING PROJECT	Oct,2019~Aug,2020	E/P/C
373	GS CALTEX	MFC PROJECT - 3WHARF PERMIT SERVICE FOR THE 2ND PRODUCT PIER	Oct,2019~Apr,2021	E
372	KUMHO MITSUI CHEM	NEW LOGISTICS BASE CONSTRUCTION	0ct,2019~Aug,2020	E/P/C
371	GS E&C	GS CALTEX MFC(MIXED FEED CRACKER) OUTSIDE PIPE LINE INSTALLATION WORK	Sep,2019~Nov,2020	E
370	LG CHEM	DETAILED DESIGN OF VCM1 EDC(ETHYLENE DICHLORIDE) REACTION PROCESS IMPROVEMENT	Sep,2019~Jul,2020	Е
369	GS E&C	GS CALTEX MFC(MIXED FEED CRACKER) OUTER PIPE LINE INSTALLATION WORK	Sep,2019~Jul,2021	E/C
368	LOTTE E&C	WP4 MTO WORK IN INDONESIA LINE PROJECT	Aug,2019~0ct,2019	Е
367	HYUNDAI ENG	KUMHO P&B CHEM BPA(BISPHENOL-A)-5 PROJECT	Aug,2019~Mar,2020	Е
366	KUMHO PETRO CHEM	DESIGN & APPROVAL FOR CATALYST MANUFACTURING FACILITIES IN 9 BLOCKS	Aug,2019~Feb,2020	E
365	LG CHEM	DETAIL DESIGN OF SAP5 POWDER ASSEMBLY BACK-UP SYSTEM CONSTRUCTION	Jul,2019~Dec,2019	E
364	GS CALTEX	NO.4 DIESEL HDS(87UNIT) CAPACITY INCREASE (75->80KBD) PERMIT SERVICE	Jun,2019~May,2020	E
363	DAEWOO PLANT	KPB2 LER(LIQUID EPOXY RESINS) STORAGE TANK 6EA INSTALLATION DESIGN	Jun,2019~Nov,2019	E
362	E1	YEOSU STATION PIPERACK EXTENSION DESIGN PROJECT	May,2019~Nov,2019	Е
361	GS CALTEX	DETAIL DESIGN OF LPG PIPE CONSTRUCTION FROM YEOSU PLANT TO E1 YEOSU STATION	May,2019~Dec,2019	E

* E: Engineering, P: Procument, PS: Procument Service, C: Construction, CS: Construction, Supervision, FE: Field Engineering, GA: Government Approval

	YNCC	BASIC DESIGN SERVICE FOR PIPE RACK EXPANSION PROJECT FOR THE INSTALLATION OF NEW PIPING BETWEEN PLANT 1 AND 2	Apr,2019~May,2019	Е
	KUMHO MITSUI CHEM	2019 SHUTDOWN INVESTMENT CONSTRUCTION PROJECT	Apr,2019~Jun,2019	E/P/C
358	PMC TECH	TANK REVAMPING PROJECT DESIGN & APPROVAL	Apr,2019~Mar,2020	Е
357	KUMHO POLY CHEM	TPV(THERMO PLASTIC VULCANIZATE) PLANT PROCESS IMPROVEMENT PROJECT	Apr,2019~Jul,2019	E/P/C
356	LOTTE ADVANCED MATE RIALS	HIGH TEMPERATURE NYLON A4 MASS PRODUCTION PROCESS BASIC DESIGN FEED	Mar,2019~Aug,2019	Е
355	LOTTE CHEM	BASIC DESIGN FOR DAESAN GE PROCESS BDG PRODUCTION PROCESS	Mar,2019~Aug,2019	E
354	GS E&C	GS CALTEX MFC(MIXED FEED CRACKER) PROJECT (PIPING/ELEC./INSTR./CIVIL)	Feb,2019~Apr,2021	Е
353	S&I CORP.	CDC PROJECT ORGANIC CATALYST & OSBL DETAIL DESIGN SERVICE	Feb,2019~Jan,2020	E
352	LG MMA	REPLACING MMA(METHYL METHACRYLATE) PROCESS INSTRUMENT & LINE IN MMA3 PLANT	Feb,2019~Nov,2019	E/P/0
351	LG MMA	MMA3 PLANT MA PRODUCT TOWER REPLACEMENT AND INSTALLATION	Feb, 2019~Nov, 2019	E
350	YNCC	ETHYLENE & BTX(BENZENE TOLUENE XYLENE) AREA ENERGY SAVING PROJECT	Jan,2019~Jun,2019	E/P/0
349	GS CALTEX	PETROCHEMICAL 2TEAM NO.2 AROMATICS PROCESS THROUGHPUT INCREASE BASIC/DETAILED DESIGN & PERMIT	Jan,2019~0ct,2019	E
348	KOREA VOPAK TERMINAL	VCU FACILITY MANUFACTURING INSTALLATION AND DESIGN (TERMINAL 2)	Dec,2018~Dec,2020	E/P/
347	KOREA VOPAK TERMINAL	VCU FACILITY MANUFACTURING INSTALLATION AND DESIGN (TERMINAL 1)	Dec,2018~Dec,2020	E/P/0
346	VERSUM PM KOREA	SIHWA GABLE-INFRASTRUCTURE EPC PROJECT	Dec,2018~May,2019	E/P/0
345	LOTTE CHEM	DAESAN PLANT D-EG ½ WASTE HEAT RECOVERY ENERGY SAVING PROJECT	Dec,2018~Nov,2019	E/P/
344	KUMHO POLY CHEM	PELLET STEP II PROJECT	Dec,2018~Oct,2019	E/P/
343	KOREA PLANT INDUSTRY ASSOCICATION	TURKMENISTAN, MTO PROJECT	Dec,2018~Jul,2019	E
342	GS CALTEX	CONSTRUCTION OF PIPING 3D INSPECTION DRAWINGS (OUTSIDE THE FACTORY)	Dec,2018~Jun,2019	E
341	GS CALTEX	CONSTRUCTION OF 3D INSPECTION DRAWING FOR OFFSITE PIPING IN THE PLANT 1	Dec,2018~Jun,2019	E
340	GS E&C	LG CHEM Y2C PROJECT (ETHYLENE 800,000MT/Y)	Nov,2018~Jun,2021	Е
	KUMHO POLY CHEM	PLANT 2 DEBOTTLENECKING PRE-ENGINEERING	Nov,2018~Jan,2019	E
38	Q-BIO TECH	WASTEWATER TREATMENT PLANT REVAMPING DETAILED DESIGN AND PERMIT	Nov,2018~Jul,2019	Е
37	GS CALTEX	FEASIBILITY STUDY(YEOSU PLANT~E1 LPG PIPE SEISMIC DESIGN RELATED)	Oct,2018~Jan,2019	Е
336	GS CALTEX	VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) SLURRY FILTER TRAIN ADDITIONAL INSTALLATION - BASIC DESIGN	Oct,2018~Dec,2018	Е
335	LG MMA	BASIC DESIGN FOR TRANSFER OF DRUM PACKING SYSTEM TO OUTSIDE OF MMA3 PLANT	Sep,2018~Dec,2018	Е
334	GS CALTEX	DESIGN OF GROUNDING PROJECT FOR EXTERNAL PIPING BETWEEN PLANT AND OIL STORAGE TAM(ANTI-AGING)	Sep,2018~Mar,2019	Е
333	LG MMA	TECHNICAL TEAM SF300B DEDICATED LINE TIC AND BASIC DESIGN	Sep,2018~Dec,2018	E
	DAIMOO 500	GS CALTEX SAR REVAMPING PROJECT / PIPING DETAILED	Aug, 2018~Nov, 2019	E
332	DAWOO E&C	DESIGN	Aug, 2010~110V, 2019	_

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No.	Client	Project	Period	Scope
330	LG CHEM	DETAILED DESIGN FOR IMPROVEMENT INVESTMENT IN EG CO2 REMOVAL SYSTEM	Jul,2018~May,2019	Е
329	GS CALTEX	REVISION OF PERMIT ACCORDING TO INCREASE IN BOP FEED THROUGHPUT	Jul,2018~Dec,2018	E
328	LG MMA	ESTABLISHMENT OF ACRYLIC RUBBER PRODUCTION PROCESS PROJECT(DESIGN)	Jul,2018~Mar,2020	Е
327	LG MMA	ESTABLISHMENT OF ACRYLIC RUBBER PRODUCTION PROCESS PROJECT	Jul,2018~Feb,2020	E/P/C
326	LG MMA	MMA2 PLANT DESIGN OF ESTER WORK	Jul,2018~0ct,2018	Е
325	DAWOO E&C	GS CALTEX SAR REVAMPING PROJECT PIPING 3D SCANNING & PERMIT	Jul,2018~Nov,2019	Е
324	VERSUM ADM KOREA	GABLE EXPANSION PROJECT	Jul,2018~Mar,2019	E/P/C
323	HYUNDAI E&C	DESIGN-PLANT(PIPING)/YEOSU GROUP ENERGY UNDERGROUND STEAM PIPELINE GROUNDING PROJECT	Jun,2018~Sep,2019	Е
322	GS CALTEX	REFINERY 3TEAM PSV DUALIZATION DETAIL DESIGN SERVICE	Jun,2018~May,2019	Е
321	SK AIR GAS	CHEONGJU PLANT 1 CDA REVAMPING WORK(DETAILED DESIGN)	Jun,2018~Feb,2019	Е
320	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE) 60,000MTPA PLANT REVAMPING PROJECT	Jun,2018~Jan,2019	E/P/C
319	VERSUM PM KOREA	SIHWA OFFICE BUILDING REINFORCEMENT PROJECT	Jun,2018~0ct,2018	E/P/C
318	KUMHO MITSUI CHEM	NEW INSTALLATION M-EC520A1/A2 SYSTEM	Jun,2018~Jul,2018	P. C
317	YNCC	DETAILED DESIGN RELATED TO THE REPLACEMENT OF LOW-VOLTAGE ELECTRICAL FACILITIES IN THE PLANT 1	Jun,2018~Jul,2019	Е
316	GS E&C	MFC FEED PROJECT (CIVIL DESIGN)	Jun,2018~May,2019	Е
315	LG CHEM	BUTENE-1, RBD PROJECT BULK MATERIAL PURCHASE PROVISIONAL CONTRACT	May,2018~Jan,2019	E/P
314	VERSUM MATERIALS	DEMOLITION WORK AT SIHWA PLANT	May,2018~Oct,2018	E/P/C
313	LG CHEM	BPA 30,000TON REVAMPING DETAILED DESIGN AND 1 CASE	May,2018~Apr,2019	Е
312	SHELL KOREA	BDEP DEVELOPMENT FOR NEW STORAGE TANKS INSTALLATION	Jun,2018~Jul,2018	Е
311	LOTTE CHEM	VRU(VAPOR RECOVERY UNIT) INSTALLATION	Apr,2018~Nov,2018	P/C
310	HANWHA CHEM	OSBL PIPE RACK INSTALLATION PROJECT	Apr,2018~Sep,2018	E/P/C
309	LG CHEM	BUTENE-1, RBD PROJECT CONSTRUCTION	Apr,2018~Jan,2019	P/C
308	FARMHANNONG	BASIC DESIGN PROJECT	Apr,2018~Apr,2018	E
307	LG CHEM	SAP5(SUPER ABSORBENT POLYMER) 15,000 TON DBN PROJECT	Apr,2018~0ct,2018	Е
306	LG CHEM	DETAIL DESIGN FOR EXTENSION COMPLEX UTILITY CENTER & INFRASTRUCTURE CONSTRUCTION	Apr,2018~Mar,2019	Е
305	GS E&C	2018 NCC PROJECT(LG CHEM NCC PROCESS IMPROVEMENT PROJECT)	Apr,2018~Dec,2018	Е
304	BASF	MIXTURE-1 PROJECT	Mar,2018~Mar,2019	E/P/C
	LC CLIENA	CA1 ELECTROLYZER PILOT FACILITY PROJECT	Mar,2018~Dec,2018	E/P/C
	LG CHEM	C// LLLC I KOL I ZEIK I LOT I / KOLLI I I KOJLC I	Mai ,2010 000,2010	_ , . , _
303	SERVEONE	YEOSU CA2 GENERAL CONTRACTOR	Mar,2018~Dec,2019	E

Project Experience ____

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LER(LIQUID EPOXY RESIN) STEP III 45,000T REVAMPING PROJECT 293 KUMHO MITSUI CHEM COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT Jan, 2018~Apr, 2018 E / P / C 292 AISA STABILIZERS GOJI PROJECT BASIC ENGINEERING Jan, 2018~Apr, 2018 E 291 YEONGJU NONGHYUP LIVESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT CENTER RESOURCE CONVERSION PILOT PROJECT Jan, 2018~Oct, 2019 E / P / C 290 SERVEONE YEOSU LG CHEM SAP5(SUPER ABSORBENT POLYMER) Nov, 2017~May, 2019 E 289 GS CALTEX DETAIL DESIGN FOR RFCC(RESIDUE FLUID CATALYTIC CRACKING UNIT) WET GAS SCRUBBER INSTALLATION Nov, 2017~Oct, 2019 E	No.	Client	Project	Period	Scope
298 HANWHA ENERGY 9 BLOCK PIPE RACK DESIGN Feb, 2018-Nov., 2018 E 297 LG MMA CONSTRUCTION OF DISPERSANT SEMI-MASS PRODUCTION FED, 2018-Nov., 2018 E 298 LOTTE CHEM K-PLA, PTA IG DRYFER VENT GAS PREVENTION PLOT RECONSTRUCTION Feb, 2018-Nov., 2018 E 299 LOTTE CHEM K-PLA, PTA IG DRYFER VENT GAS PREVENTION PACILITY (ACTIVATED CARBON ADSORPTION TOWER) PRODUCTION AT LUSAN PLANT Feb, 2018-Sep, 2018 E/P 295 VERSUM PM KOREA A LCHEMY PROJECT ICSP 80MTPY + AMP 15MTPY NEW) Feb, 2018-Sep, 2018 E/P / C 294 KUMHO PAB CHEM LERILIQUID EPOXY RESIN) STEP III 45,000T REVAMPING Jan, 2018-Apr, 2018 E/P / C 293 KUMHO MITSUI CHEM COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT Jan, 2018-Apr, 2018 E/P / C 294 VENDIN ONGHYUP LIVESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT Jan, 2018-0ct, 2019 E/P / C 295 SERVEONE YEOSULG CHEM SAPS (SUPER ABSORBENT POLYMER) Nov., 2017-May, 2019 E 296 SERVEONE YEOSULG CHEM SAPS (SUPER ABSORBENT POLYMER) Nov., 2017-May, 2019 E 297 FARMHANNONG CER 134 ABSIC ENGINEERING PACKAGE SERVICE Nov., 2017-May, 2018 E 298 VERSUM MATERIALS CER 134 ABSIC ENGINE	300	VERSUM SPC KOREA	,	Mar,2018~Jan,2019	E/P/C
298 HANWHA ENERGY 9 BLOCK PIPE RACK DESIGN Feb. 2018-Nov. 2018 E 297 LG MMA CONSTRUCTION OF DISPERSANT SEMI-MASS PRODUCTION FACILITY & SUSPENSION POLYMERIZATION PILOT Feb. 2018-Nov. 2018 E 298 LOTTE CHEM K-PHA, PTA IG DEYER VENT GAS PREVENTION FACILITY (ACTIVATED CARBON ADSORPTION TOWER) PRODUCTION AT Feb. 2019-Sep. 2018 E / P 295 VERSUM PM KOREA ALCHEMY PROJECT (CSP 80MTPY + AMP 15MTPY NEW) Feb. 2018-Feb. 2019 E / P / C 294 KUMHO MITSUI CHEM LERICUGUID EPOXY RESIN) STEP III 45,000T REVAMPING Jan., 2018-Apr. 2018 E / P / C 293 KUMHO MITSUI CHEM COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT Jan., 2018-Apr. 2018 E / P / C 294 VENDIJU NONGHYUP LERICUGUID EPOXY RESIN) STEP III 45,000T REVAMPING Jan., 2018-Apr. 2018 E / P / C 295 SERVEONE VEOSULE CHEM SAPE(SEUPER ABSORBERING Jan., 2018-Oct. 2019 E / P / C 296 SERVEONE YEOSULE CHEM SAPE(SEUPER ABSORBERT POLYMER) Nov., 2017-Mev. 2019 E 297 FARMHANNONG CREACKING UNIT) WET GAS SCRUBBER INSTALLATION Nov., 2017-Mev. 2019 E 298 KPIC ONSAN PLANT SS BOILER AND LP ETHYLEINE TANK DETAILED Nov., 2017-Apr. 2018 E 297 FARMHANNONG <td>299</td> <td>GS E&C</td> <td>LG CHEM 6AA PROJECT SMS/PSM</td> <td>Mar,2018~May,2019</td> <td>Е</td>	299	GS E&C	LG CHEM 6AA PROJECT SMS/PSM	Mar,2018~May,2019	Е
Pacility & SUSPENSION POLYMERIZATION PILOT Peb. 2018-May. 2018 Peb. 2018-May. 2018 Peb. 2018 Peb. 2018-May. 2018 Peb. 2018 P	298	HANWHA ENERGY	9 BLOCK PIPE RACK DESIGN	Feb,2018~Nov,2018	Е
296 LOTTE CHEM (ACTIVATED CARBON ADSORPTION TOWER) PRODUCTION AT Feb. 2018-8ep. 2018 E / P 295 VERSUM PM KOREA ALCHEMY PROJECT (CSP 80MTPY + AMP 15MTPY NEW) Feb. 2018-feb. 2019 E / P / C 294 KUMHO P&B CHEM LERLIQUID EPOXY RESIN) STEP III 45,000T REVAMPING Jan. 2018-Jun. 2019 E / P / C 293 KUMHO MITSUI CHEM COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT Jan. 2018-Apr. 2018 E / P / C 292 AISA STABILIZERS GOJI PROJECT BASIC ENGINE ERING Jan. 2018-Apr. 2019 E / P / C 293 SERVEONE YEOSU LG CHEM SAPSISUPER ABSORBENT POLYMER) Nov. 2017-44ar. 2019 E / P / C 290 SERVEONE YEOSU LG CHEM SAPSISUPER ABSORBENT POLYMER) Nov. 2017-44ar. 2019 E 293 SERVEONE YEOSU LG CHEM SAPSISUPER ABSORBENT POLYMER) Nov. 2017-44ar. 2019 E 294 SERVEONE YEOSU LG CHEM SAPSISUPER ABSORBENT POLYMER) Nov. 2017-44ar. 2019 E 295 SERVEONE PETAIL DESIGN FOR RECC(RESIDUE FLUID CATALYTIC Nov. 2017-44ar. 2019 E 296 SEALTEX DETAIL DESIGN FEB. 2019 PROJECT Nov. 201	297	LG MMA	FACILITY & SUSPENSION POLYMERIZATION PILOT	Feb,2018~May,2018	E
294 KUMHO PAB CHEM LER(LIQUID EPOXY RESIN) STEP III 45,000T REVAMPING Jan,2018-Jun,2019 E / P / C 293 KUMHO MITSUI CHEM COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT Jan,2018-Apr,2018 E / P / C 292 AISA STABILIZERS GOJI PROJECT BASIC ENGINEERING Jan,2018-Apr,2018 E 291 YEONGJU NONGHYUP LINESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT Jan,2018-Apr,2019 E / P / C 290 SERVEONE YEOSU LG CHEM SAPS(SUPER ABSORBENT POLYMER) Nov,2017-May,2019 E 280 GS CALTEX DETAIL DESIGN FOR RECC(RESIDUE FLUID CATALYTIC Nov,2017-May,2019 E 281 VERSUM MATERIALS NUMAT PROJECT Nov,2017-May,2018 E / P / C 286 GS CALTEX NUMAT PROJECT Nov,2017-May,2018 E / P / C 287 FARMHANNONG CRF #3,4 BASIC ENGINEERING PACKAGE SERVICE Nov,2017-May,2018 E 286 GS E&C GS CALTEX VGOFCCIVGO FLUIDIZED CATALYTIC CRACKER) Nov,2017-Apr,2018 E 286 GS E&C GS CALTEX VGOFCCIVGO FLUIDIZED CATALYTIC CRACKER) Nov,2017-Apr,2018 E	296	LOTTE CHEM	(ACTIVATED CARBON ADSORPTION TOWER) PRODUCTION AT	Feb,2018~Sep,2018	E/P
294 KUMHO PRB CHEM PROJECT Jan. 2018-Jun. 2019 E/P/C 293 KUMHO MITSUI CHEM COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT Jan. 2018-Apr. 2018 E/P/C 292 AISA STABILIZERS GOJI PROJECT BASIC ENGINEERING Jan. 2018-Apr. 2019 E/P/C 291 YEONGJU NONGHYUP LIVESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT CENTER RESOURCE CONVERSION PILOT PROJECT Jan. 2018-Oct. 2019 E/P/C 290 SERVEONE YEOSU LG CHEM SAPS(SUPER ABSORBENT POLYMER) Nov. 2017-May. 2019 E 280 SEX CALTEX DETAIL DESIGN FOR RECCIRESIDUE FLUID CATALYTIC CACACKING UNIT) WET GAS SCRUBBER INSTALLATION Nov. 2017-Mar. 2018 E/P/C 281 VERSUM MATERIALS NUMAT PROJECT Nov. 2017-Mar. 2018 E/P/C 282 FARMHANNONG CRF #3.4 BASIC ENGINEERING PACKAGE SERVICE Nov. 2017-Mar. 2018 E/P/C 283 KURIC GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) Oct. 2017-Apr. 2018 E 284 SK AIR GAS SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN Oct. 2017-Apr. 2019 E 285 KPIC ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED Oct. 2017-Mov. 2017 E 286 KA RIR GAS SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN Oct. 2017-Mov. 2017 E 287 KUMHO MITSUI CHEM DESIGN RELATED TO INVESTMENT OTHER THAN Sep. 2017-Mov. 2017 E <td>295</td> <td>VERSUM PM KOREA</td> <td>ALCHEMY PROJECT (CSP 80MTPY + AMP 15MTPY NEW)</td> <td>Feb,2018~Feb,2019</td> <td>E/P/C</td>	295	VERSUM PM KOREA	ALCHEMY PROJECT (CSP 80MTPY + AMP 15MTPY NEW)	Feb,2018~Feb,2019	E/P/C
292 AISA STABILIZERS GOJI PROJECT BASIC ENGINEERING Jan. 2018-Apr. 2018 E 291 YEONGJU NONGHYUP LIVESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT CENTER RESOURCE CONVERSION PILOT PROJECT 290 SERVEONE YEOSU LG CHEM SAP5(SUPER ABSORBENT POLYMER) REVAMPING PROJECT 291 GERVEONE REVAMPING PROJECT CHARLYTIC CRACKING UNIT) WET GAS SCRUBBER INSTALLATION Nov. 2017-May. 2019 E 282 VERSUM MATERIALS NUMAT PROJECT Nov. 2017-Mar. 2018 E/P/C 283 FARMHANNONG CRF#3,4 BASIC ENGINEERING PACKAGE SERVICE Nov. 2017-Feb. 2019 E 284 SK SEC SCALTEX VOOFCC(VGO FLUIDIZED CATALYTIC CRACKER) PROJECT 285 KPIC ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED DESIGN DESIGN SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN OCT. 2017-Apr. 2018 E 286 SK AIR GAS SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN OCT. 2017-Nov. 2017 E 287 SERVEONE LG MMA M3 REVAMPING PROJECT GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 288 SERVEONE LG MMA M3 REVAMPING PROJECT GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 289 SEA ENG MYR DESIGN PROJECT Sep. 2017-May. 2019 E 280 SEA ENG MYR DESIGN PROJECT GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 281 BERVEONE LG MMA M3 REVAMPING PROJECT GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 282 HANWHA E&C THE PROJECT OVERALL DESIGN SERVICE Sep. 2017-May. 2019 E 283 BERVEONE LG MMA M3 REVAMPING PROJECT GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 284 HYUNDAI ENG MYR DESIGN PROJECT SHIPPING SITE IMPROVEMENT WORK AUGUST SHIPPING SITE IMPROVEMENT SHIPPING SHIPPING SHIPPING SHIPPING SHIPPING S	294	KUMHO P&B CHEM	· · · · · · · · · · · · · · · · · · ·	Jan, 2018~Jun, 2019	E/P/C
291 YEONGJU NONGHYUP LIVESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT CENTER RESOURCE CONVERSION PILLOT PROJECT 290 SERVEONE YEOSU LG CHEM SAP5(SUPER ABSORBENT POLYMER) Nov. 2017-May. 2019 E 289 GS CALTEX DETAIL DESIGN FOR RFCC(RESIDUE FLUID CATALYTIC CRACKING UNIT) WET GAS SCRUBBER INSTALLATION Nov. 2017-May. 2019 E 288 VERSUM MATERIALS NUMAT PROJECT Nov. 2017-Mar. 2018 E/P/C 287 FARMHANNONG CRF #3,4 BASIC ENGINEERING PACKAGE SERVICE Nov. 2017-Feb. 2019 E 288 GS E&C GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) Nov. 2017-Mar. 2018 E 289 KPIC ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED Oct. 2017-Apr. 2018 E 280 KMHO MITSUI CHEM DESIGN RELATED TO INVESTMENT OTHER THAN SEP. 2017-Nov. 2017 E 281 SERVEONE LG MMA MS REVAMPING PROJECT (GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 282 HANWHA E&C THE PROJECT OVERALL DESIGN SERVICE Sep. 2017-May. 2019 E 283 SEA ENG MYR DESIGN PROJECT 279 POSCO E&C MDIS 40,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK 279 POSCO E&C MONO TORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORK 270 SE&C 3NE PROJECT 271 KUMHO PBB CHEM SERSIOL EFOR LUMP & SUM TURNKEY PROJECT 272 KUMHO PBB CHEM SERSIOL EFOR LUMP & SUM TURNKEY PROJECT 273 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 274 KUMHO PBB CHEM SERSIOL PROJECT 275 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 276 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 277 KUMHO PBB CHEM SERSIOL PROJECT 278 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 279 KUMHO PBB CHEM SERSIOL PROJECT 270 RESERVED LUMP & SUM TURNKEY PROJECT 271 KUMHO PBB CHEM SERSICL DEPOSY RESINS) STEP II 15,000MTPA REVAMPING May. 2017-Feb. 2018 E/P/C 272 KUMHO POLY CHEM INSTALLATION OF UNDERGROUND PIPING IN ONS AN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 275 KUMHO POLY CHEM INSTALLATION OF UNDERGROUND PIPING IN ONS AN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 276 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR APP. 2017 E/P/C	293	KUMHO MITSUI CHEM	COMPLEMENTARY WORK RELATED TO COLOR IMPROVEMENT	Jan,2018~Apr,2018	E/P/C
291 YEONGJU NONGHYUP LIVESTOCK MANURE REGIONAL INTEGRATED MANAGEMENT CENTER RESOURCE CONVERSION PILLOT PROJECT 290 SERVEONE YEOSU LG CHEM SAP5(SUPER ABSORBENT POLYMER) Nov. 2017-May. 2019 E 289 GS CALTEX DETAIL DESIGN FOR RFCC(RESIDUE FLUID CATALYTIC CRACKING UNIT) WET GAS SCRUBBER INSTALLATION Nov. 2017-May. 2019 E 288 VERSUM MATERIALS NUMAT PROJECT Nov. 2017-Mar. 2018 E/P/C 287 FARMHANNONG CRF #3,4 BASIC ENGINEERING PACKAGE SERVICE Nov. 2017-Feb. 2019 E 288 GS E&C GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) Nov. 2017-Mar. 2018 E 289 KPIC ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED Oct. 2017-Apr. 2018 E 280 KMHO MITSUI CHEM DESIGN RELATED TO INVESTMENT OTHER THAN SEP. 2017-Nov. 2017 E 281 SERVEONE LG MMA MS REVAMPING PROJECT (GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 282 HANWHA E&C THE PROJECT OVERALL DESIGN SERVICE Sep. 2017-May. 2019 E 283 SEA ENG MYR DESIGN PROJECT 279 POSCO E&C MDIS 40,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK 279 POSCO E&C MONO TORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORK 270 SE&C 3NE PROJECT 271 KUMHO PBB CHEM SERSIOL EFOR LUMP & SUM TURNKEY PROJECT 272 KUMHO PBB CHEM SERSIOL EFOR LUMP & SUM TURNKEY PROJECT 273 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 274 KUMHO PBB CHEM SERSIOL PROJECT 275 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 276 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 277 KUMHO PBB CHEM SERSIOL PROJECT 278 KICOX RESERVED LUMP & SUM TURNKEY PROJECT 279 KUMHO PBB CHEM SERSIOL PROJECT 270 RESERVED LUMP & SUM TURNKEY PROJECT 271 KUMHO PBB CHEM SERSICL DEPOSY RESINS) STEP II 15,000MTPA REVAMPING May. 2017-Feb. 2018 E/P/C 272 KUMHO POLY CHEM INSTALLATION OF UNDERGROUND PIPING IN ONS AN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 275 KUMHO POLY CHEM INSTALLATION OF UNDERGROUND PIPING IN ONS AN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 276 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR APP. 2017 E/P/C	292	AISA STABILIZERS		• •	
290 SERVEUNE REVAMPING PROJECT Nov. 2017-May. 2019 E 289 GS CALTEX DETAIL DESIGN FOR RECC(RESIDUE FLUID CATALYTIC CRACKING UNIT) WET GAS SCRUBBER INSTALLATION Nov. 2017-0ct. 2019 E 288 VERSUM MATERIALS NUMAT PROJECT Nov. 2017-Mar. 2018 E / P / C 287 FARMHANNONG CRF #3,4 BASIC ENGINEERING PACKAGE SERVICE Nov. 2017-Feb. 2019 E 286 GS E&C GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) Oct. 2017-Apr. 2018 E 285 KPIC ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED Oct. 2017-Apr. 2019 E 284 SK AIR GAS SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN Oct. 2017-Nov. 2017 E 283 KUMHO MITSUI CHEM DESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D Sep. 2017-Nov. 2017 E 282 HANWHA E&C THE PROJECT OVERALL DESIGN SERVICE Sep. 2017-May. 2019 E 281 SERVEONE LG MMA M3 REVAMPING PROJECT (GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 283 SEA ENG MYR DESIGN PROJECT Sep. 2017-May. 2019 E 279 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK Aug. 2017-Apr. 2018 P	291	YEONGJU NONGHYUP		Jan, 2018~0ct, 2019	E/P/C
289 SCALTEX CRACKING UNIT) WET GAS SCRUBBER INSTALLATION NOV.2017-061.2019 E 288 VERSUM MATERIALS NUMAT PROJECT Nov. 2017-Mar . 2018 E / P / C 287 FARMHANNONG CR # 3,4 BASIC ENGINEERING PACKAGE SERVICE Nov. 2017-Apr . 2019 E 286 GS E&C GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) Oct . 2017-Apr . 2019 E 287 KPIC ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED DESIGN OCT . 2017-Apr . 2019 E 288 SK AIR GAS SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN OCT . 2017-Nov. 2017 E 289 KUMHO MITSUI CHEM DESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D Sep. 2017-Nov. 2017 E 280 SEA ENG THE PROJECT OVERALL DESIGN SERVICE Sep. 2017-Jun. 2019 E 281 SERVEONE LG MMA M3 REVAMPING PROJECT (GENERAL CONTRACTOR) Sep. 2017-May . 2019 E 280 SEA ENG MVR DESIGN PROJECT 270 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK 271 S-OIL MOKPO STORAGE VRUIVAPOR RECOVERY UNIT) PACKAGE & Jun. 2017-Dec. 2018 E 272 S-OIL MOKPO STORAGE VRUIVAPOR RECOVERY UNIT) PACKAGE & Jun. 2017-Dec. 2017 E / P / C 273 KS SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20TONY) 274 KUMHO P&B CHEM SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING May . 2017-Nov . 2017 E 275 KICOX RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 277 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INSTALLATION OF PREFRIGERATOR 278 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INSTEGRATED OPERATION OF PREFRIGERATOR 279 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INSTEGRATED OPERATION OF PREFRIGERATOR 270 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INSTEGRATED OPERATION OF PREFRIGERATOR	290	SERVEONE	,	Nov,2017~May,2019	Е
287FARMHANNONGCRF #3,4 BASIC ENGINEERING PACKAGE SERVICENov.2017-Feb,2019E286GS E&CGS CALTEX VGOFCC (VGO FLUIDIZED CATALYTIC CRACKER) PROJECT0ct.2017-Apr.2018E285KPICONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED DESIGN0ct.2017-Apr.2019E284SK AIR GASSK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN0ct.2017-Nov.2016E283KUMHO MITSUI CHEM INSTALLATION OF U-GA206DSep.2017-Nov.2017E284HANWHA E&CTHE PROJECT OVERALL DESIGN SERVICESep.2017-Jun.2019E285SEA ENGMVR DESIGN PROJECTSep.2017-Mar.2019E280SEA ENGMVR DESIGN PROJECTSep.2017-Mar.2019E279POSCO E&CMDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORKAug.2017-Apr.2018P278HYUNDAI ENGTHAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT(DESIGN)Jul.2017-feb.2016E277S-OILMOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORKJun.2017-Dec.2017E / P / C276SK SHOWA DENKOSS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y)Jun.2017-Dec.2016E / P / C278KUMHO P&B CHEMSER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECTMay.2017-Apr.2019E273KICOXRESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSANMay.2017-Nov.2017E272KUMHO POLY CHEMINSTALLATION OF LINE	289	GS CALTEX	· ·	Nov,2017~0ct,2019	Е
286 GS E&C GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) PROJECT Oct. 2017-Apr. 2018 E 285 KPIC ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED DESIGN Oct. 2017-Apr. 2019 E 284 SK AIR GAS SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN Oct. 2017-Nov. 2018 E 283 KUMHO MITSUI CHEM DESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D 284 HANWHA E&C THE PROJECT OVERALL DESIGN SERVICE Sep. 2017-Jun. 2019 E 285 SERVEONE LG MMA M3 REVAMPING PROJECT (GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 280 SEA ENG MVR DESIGN PROJECT Sep. 2017-May. 2019 E 279 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK 278 HYUNDAI ENG THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT(DESIGN) THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT (CH3F 20TON/Y) 275 GS E&C 3NE PROJECT EPC LUMP& SUM TURNKEY PROJECT (CH3F 20TON/Y) 276 SK SHOWA DENKO SEP ROJECT EPC LUMP& SUM TURNKEY PROJECT (CH3F 20TON/Y) 277 KUMHO P&B CHEM SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING May. 2017-Feb. 2018 E / P / C 278 KICOX RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN May. 2017-Nov. 2017 E / P / C 278 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PREFRIGERATOR Apr. 2017-Oct. 2017 E / P / C	288	VERSUM MATERIALS	NUMAT PROJECT	Nov,2017~Mar,2018	E/P/C
PROJECT PROJECT OCT. 2017-Apr. 2018 E ROSEAN PROJECT ONSAN PLANT SS BOILER AND LP ETHYLENE TANK DETAILED DESIGN OCT. 2017-Apr. 2019 E RESIGN SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN OCT. 2017-Nov. 2018 E RESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D RESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D REP. 2017-Nov. 2017 E RESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D SEP. 2017-Nov. 2017 E RESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D SEP. 2017-Nov. 2017 E RESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D SEP. 2017-Nov. 2017 E RESEARCH MYR DESIGN PROJECT (GENERAL CONTRACTOR) Sep. 2017-May. 2019 E RESIGN PROJECT (GENERAL CONTRACTOR) Sep. 2017-May. 2019 E RESIGN PROJECT SHIPPING SITE INSTALLATION FOR THE PRODUCT SHIPPING SITE INSTALLATION WORK RESIGN PROJECT (DESIGN) ROKPO STORAGE VRU(WAPOR RECOVERY UNIT) PACKAGE & Jun. 2017-Peb. 2018 E PO CONCRETE INSTALLATION WORK RESIGN PROJECT POLIMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) RESIGN PROJECT SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING May. 2017-Apr. 2019 E RESEARCH SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING May. 2017-Peb. 2018 E / P / C RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN RESPACED SERVED TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN RESPACED SERVED TO SATURATION OF PREFRIGERATOR Apr. 2017-Oct. 2017 E / P / C	287	FARMHANNONG	CRF #3,4 BASIC ENGINEERING PACKAGE SERVICE	Nov,2017~Feb,2019	E
DESIGN DESIGN	286	GS E&C	,	Oct,2017~Apr,2018	Е
283 KUMHO MITSUI CHEM DESIGN RELATED TO INVESTMENT OTHER THAN INSTALLATION OF U-GA206D 282 HANWHA E&C THE PROJECT OVERALL DESIGN SERVICE Sep. 2017-Jun, 2019 E 281 SERVEONE LG MMA M3 REVAMPING PROJECT (GENERAL CONTRACTOR) Sep. 2017-May, 2019 E 280 SEA ENG MVR DESIGN PROJECT Sep. 2017-Mar, 2019 E 279 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK Aug. 2017-Apr, 2018 P 278 HYUNDAI ENG THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT(DESIGN) 277 S-OIL MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & Jun, 2017-Dec, 2017 E / P / C 276 SK SHOWA DENKO SS PROJECT EVE LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) 275 GS E&C 3NE PROJECT EVE LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) 276 KUMHO P&B CHEM SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT—Feb, 2018 E / P / C 277 KICOX RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 272 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PREFRIGERATOR 274 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 275 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 276 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 277 KICOX INSTALLATION OF PREFRIGERATOR 278 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 279 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 270 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 270 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 271 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 272 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 273 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 274 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 275 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 276 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 277 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 278 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 279 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 270 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 279 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 279 KUMHO POLY CHEM	285	KPIC		Oct,2017~Apr,2019	Е
INSTALLATION OF U-GA206D 282 HANWHA E&C THE PROJECT OVERALL DESIGN SERVICE Sep.2017-Jun.2019 E 281 SERVEONE LG MMA M3 REVAMPING PROJECT (GENERAL CONTRACTOR) Sep.2017-May.2019 E 280 SEA ENG MVR DESIGN PROJECT Sep.2017-May.2019 E 279 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK 278 HYUNDAI ENG THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT(DESIGN) 277 S-OIL MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORK 278 SK SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) 275 GS E&C 3NE PROJECT May.2017-Apr.2019 E 274 KUMHO P&B CHEM SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT 275 KICOX RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 272 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PR REFRIGERATOR Apr.2017-Oct.2017 E/P/C	284	SK AIR GAS	SK HYNIX M14 PHASE2B GAS PLANT PROJECT DESIGN	Oct,2017~Nov,2018	Е
281 SERVEONE LG MMA M3 REVAMPING PROJECT (GENERAL CONTRACTOR) Sep. 2017-May. 2019 E 280 SEA ENG MVR DESIGN PROJECT Sep. 2017-Mar. 2019 E 271 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK Aug. 2017-Apr. 2018 P 272 HYUNDAI ENG THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT (DESIGN) 273 S-OIL MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & Jun. 2017-Dec. 2017 E / P / C 274 SK SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) 275 GS E&C 3NE PROJECT May. 2017-Apr. 2019 E 276 KUMHO P&B CHEM SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT 277 KICOX RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 278 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PREFRIGERATOR 279 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 270 KUMHO POLY CHEM INSTALLATION OF PREFRIGERATOR 270 Apr. 2017-Oct. 2017 E / P / C	283	KUMHO MITSUI CHEM		Sep,2017~Nov,2017	Е
280 SEA ENG MVR DESIGN PROJECT Sep, 2017~Mar, 2019 E 279 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK Aug, 2017~Apr, 2018 P 278 HYUNDAI ENG THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT(DESIGN) Jul, 2017~Feb, 2018 E 277 S-OIL MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORK Jul, 2017~Dec, 2017 E/P/C 276 SK SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT Jul, 2017~Dec, 2018 E/P/C 275 GS E&C 3NE PROJECT 274 KUMHO P&B CHEM SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT May, 2017~Feb, 2018 E/P/C 273 KICOX RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 272 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PREFRIGERATOR Apr, 2017~Oct, 2017 E/P/C	282	HANWHA E&C	THE PROJECT OVERALL DESIGN SERVICE	Sep,2017~Jun,2019	Е
279 POSCO E&C MDI 340,000MTPA PLANT PRODUCT SHIPPING SITE IMPROVEMENT WORK Aug.2017-Apr,2018 P 278 HYUNDAI ENG THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT(DESIGN) 301,2017-Feb,2018 E 277 S-OIL MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORK 276 SK SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT Jun,2017-Dec,2018 E / P / C 275 GS E&C 3NE PROJECT May.2017-Apr,2019 E 274 KUMHO P&B CHEM SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT 278 KICOX RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 272 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PREFRIGERATOR Apr,2017-Oct,2017 E / P / C	281	SERVEONE	LG MMA M3 REVAMPING PROJECT (GENERAL CONTRACTOR)	Sep,2017~May,2019	Е
IMPROVÉMENT WORK 278 HYUNDAI ENG THAILAND EFFICIENCY, ENERGY AND ENVIRONMENT(3E) PROJECT(DESIGN) MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & CONCRETE INSTALLATION WORK 276 SK SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) 375 GS E&C 3NE PROJECT SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 272 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PREFRIGERATOR Apr ,2017~Oct ,2017 E / P / C	280	SEA ENG	MVR DESIGN PROJECT	Sep,2017~Mar,2019	E
PROJECT(DESIGN) MOKPO STORAGE VRU(VAPOR RECOVERY UNIT) PACKAGE & Jun.2017~Dec, 2017 E / P / C 276 SK SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) 275 GS E&C 3NE PROJECT SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT PROJECT RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 1NSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PREFRIGERATOR Apr.2017~Oct, 2017 E / P / C	279	POSCO E&C	•	Aug,2017~Apr,2018	Р
CONCRETE INSTALLATION WORK 276 SK SHOWA DENKO SS PROJECT EPC LUMP & SUM TURNKEY PROJECT (CH3F 20TON/Y) 301, 2017~Dec, 2018 E / P / C 275 GS E&C 3NE PROJECT SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN May, 2017~Nov, 2017 E Apr, 2017~Oct, 2017 E / P / C	278	HYUNDAI ENG		Jul,2017~Feb,2018	Е
276 SK SHOWA DENKO (CH3F 20TON/Y) 275 GS E&C 3NE PROJECT SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT May, 2017~Feb, 2018 E / P / C RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 272 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PP REFRIGERATOR Apr, 2017~Oct, 2017 E / P / C	277	S-OIL	· · · · · · · · · · · · · · · · · · ·	Jun,2017~Dec,2017	E/P/C
SER(SOLID EPOXY RESINS) STEP II 15,000MTPA REVAMPING PROJECT RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN May, 2017~Reb, 2018 E / P / C May, 2017~Nov, 2017 E May, 2017~Nov, 2017 E Apr, 2017~Oct, 2017 E / P / C	276	SK SHOWA DENKO		Jun,2017~Dec,2018	E/P/C
PROJECT RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN PROJECT RESEARCH SERVICE FOR INSTALLING ADDITIONAL PIPING DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PP REFRIGERATOR Apr ,2017~0ct ,2017 E / P / C	275	GS E&C	3NE PROJECT	May,2017~Apr,2019	Е
273 KICOX DUE TO SATURATION OF UNDERGROUND PIPING IN ONSAN NATIONAL INDUSTRIAL COMPLEX IN ULSAN 272 KUMHO POLY CHEM INSTALLATION OF LINE AND HEAT EXCHANGER FOR INTEGRATED OPERATION OF PP REFRIGERATOR Apr, 2017~0ct, 2017 E / P / C	274	KUMHO P&B CHEM		May,2017~Feb,2018	E/P/C
2/2 KUMHO POLY CHEM INTEGRATED OPERATION OF PP REFRIGERATOR Apr., 2017~0ct, 2017 E/P/C	273	KICOX	DUE TO SATURATION OF UNDERGROUND PIPING IN	May,2017~Nov,2017	Е
271 HYUNDAI E&C HCC THE PROJECT Apr, 2017~Aug, 2017 E	272	KUMHO POLY CHEM		Apr,2017~0ct,2017	E/P/C
	271	HYUNDAI E&C	HCC THE PROJECT	Apr,2017~Aug,2017	Е

No.	Client	Project	Period	Scope
270	VERSUM MATERIALS	SIHWA BDP PROJECT ENGINEERING	Apr,2017~Jun,2017	E
269	BASF	TOURBILLON PROJECT DIKE INSTALLATION	Apr,2017~Jun,2017	E/P/C
268	SAMSUNG C&T	OFF-SITE IMPROVEMENT PLAN DETAIL DESIGN & APPROVAL	Apr,2017~Aug,2018	Е
267	PTT TANK TERMINAL	4,000 TONS PROPYLENE STORAGE TANK PROJECT	Mar,2017~Aug,2018	E
266	POSCO ICT	GWANGYANG WORKS FERROMANGANESE LOW-TEMPERATURE ORC POWER GENERATION DESIGN	Mar,2017~Feb,2018	E
265	OCI	GUNSAN PLANT, AGRICULTURAL WATER UTILIZATION FACILITY INSTALLATION	Jan,2017~Aug,2017	E/P/C
264	KPIC	ULSAN PLANT SPP PROJECT DESIGN	Mar,2017~Jul,2018	Е
263	GS E&C	GS CALTEX No.1 CDU(CRUDE DISTILLATES UNIT) REVAMP PROJECT	Mar,2017~May,2018	E
262	KUMHO MITSUI CHEM	IMPROVEMENT CONSTRUCTION FOR MDI(METHYLENE DIPHENYL ISOCYANATE) EXTENSION BOTTLENECK ELIMINATION	Feb,2017~Apr,2017	E/P/C
261	HANWHA CHEM	W-TFT CA1 TEAM 35% HYDROCHLORIC ACID SHIPPING INFRASTRUCTURE CONSTRUCTION WORK	Feb,2017~Dec,2017	E/P/C
260	KOREA SILICON	2K-1601 MVR SYSTEM INSTALLATION WORK	Jan, 2017~Nov, 2017	E/P/C
259	HYOSUNG	DH-1 IMPROVED PROJECT DETAILED DESIGN	Jan,2017~Dec,2017	Е
258	PEG(IRPC)	EPU PROJECT	Dec,2016~Jun,2017	E
257	HANWHA ENERGY	LOTTE CHEMICAL STEAM PIPE ADDITIONAL DESIGN	Dec,2016~Dec,2016	Е
256	TECHNOCHEM TRADING	BORYEONG COLD STORAGE PLAN CONSTRUCTION	Dec,2016~Jun,2018	E/P/C
255	LG MMA	ACRYL RUBBER SYSTEM CONSTRUCTION DESIGN	Dec,2016~Oct,2017	Е
254	SK MATERIALS	W-3 PLANT 300TON/Y EXPANSION PROJECT	Dec,2016~Oct,2017	E/P/C
253	KUMHO P&B CHEM	CUEMEN AND PHENOL WASTE HAT RECOVERY DESIGN WORK	Dec,2016~Dec,2016	Е
252	KUMHO P&B CHEM	1->2ND FACTORY COMMON PIPE DESIGN WORK	Dec,2016~Dec,2016	Е
251	LOTTE ADVANCED MATERIALS	ABS 65,000MTY REVAMPING PROJECT	Dec,2016~Aug,2017	E/P/C
250	AIR LIQUIDE KOREA	Y2 REVAMP(CO2 RECYCLE) PROJECT	Dec,2016~Nov,2017	E/P/C
249	CHEIL INDUSTRIES	PC PLANT	Dec,2006~Dec,2008	E/PS
248	POSCO E&C	DAESAN PROPANE LOW TEMPERATURE TANK CONSTRUCTION DESIGN	Nov,2016~Feb,2019	Е
247	HYUNDAI ENG	HYUNDAI OIL BANK REVAMPING EPC PROJECT (PIPING/ELEC./INSTR./CIVIL DESIGN)	Nov,2016~Jul,2018	Е
246	KUMHO POLY CHEM	2-LINE FACILITY SUPPLEMENTARY CONSTRUCTION DESIGN	Nov,2016~Nov,2016	Е
245	SERVEONE	LG CHEM DAESAN PLANT POE ISBL PIPING DESIGN	Nov,2016~Dec,2018	Е
244	KUMHO P&B CHEM	STT(I) EXTERNAL STORAGE FACILITIES INSTALLATION	Nov,2016~Jul,2017	E/P/C
243	KUMHO MITSUI CHEM	JO MDI(METHYLENE DIPHENYL ISOCYANATE) 4,000M3 STORAGE TANK INSTALLATION	Nov,2016~May,2017	E/P/C
242	KUMHO POLY CHEM	TPV(THERMO PLASTIC VULCANIZATE) EXTENSION CONSTRUCTION	0ct,2016~Jan,2018	E/P/C
241	KUMHO P&B CHEM	MVR(MECHANICAL VAPOR RECOMPRESSION) STEP IV PROJEC	T0ct,2016~Jan,2017	E/P/C

Project Experience ___

No.	Client	Project	Period	Scope
240	LOTTE CHEM	H-NC3 PROJECT CAUSTIC STORAGE TANK INSTALLATION	Sep,2016~Apr,2017	E/P/C
239	KUMHO MITSUI CHEM	MDI REFINING SYSTEM IMPROVEMENT WORK	Aug,2016~0ct,2016	E/P/C
238	SY TANK TERMINAL	NAKPOGAC THREE TANK CONSTRUCTION PROJECT (SYP-1601)	Aug,2016~Apr,2017	E
237	YEOSU GREEN ENERG Y	YEOSU GREEN ENERGY STEAM SUPPLY SYSTEM	Aug,2016~Dec,2018	Е
236	HANWHA CHEM	DESIGN AND PERMIT FOR INSTALLATION OF HYDROCHLORIC ACID SHIPPING INFRASTRUCTURE FOR W-TFT CA PRODUCTION TEAM 1	Aug, 2016~0ct, 2016	E
235	GS CALTEX	SAPO 600,000BBL TANK DESIGN AND PERMIT	Jul,2016~Jun,2020	E
234	DAELIM INDUSTRIAL	E(ETHYLENE PROPYLENE OLIGOMER) PROJECT DESIGN & APPROVAL	Jul,2016~Sep,2017	Е
233	LOTTE CHEM	YEOSU PLANT H-EG1/2, WASTE HEAT RECOVERY REFRIGERATOR IMPROVEMENT CONSTRUCTION	Jun,2016~May,2017	E/P/C
232	KUMHO MITSUI CHEM	I-FA102 & ADDITIONAL FACILITIES REPLACEMENT WORK	Jun,2016~Jan,2017	E/P/C
231	METS	SR2 PROJECT MECHANICAL DESIGN	May,2016~Dec,2016	E
230	KUMHO POLY CHEM	1PLANT 1-LINE MVR(MECHANICAL VAPOR RECOMPRESSION) INSTALLATION	May,2016~Dec,2016	E/P/C
229	KUMHO MITSUI CHEM	CR-MDI TANK INSTALLATION WORK AFTER REMOVING V-FB106,107 TANK	May,2016~Aug,2016	E/P/C
228	KUMHO MITSUI CHEM	CR-MDI STORAGE TANK INSTALLATION WORK AFTER DEMOLITION OF M-FB452 TANK	May,2016~Aug,2016	E/P/C
227	SERVEONE	YEOSU CHEMICAL PC D/B TIC PROPOSAL	May,2016~Jun,2016	E
226	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE)-PH CONTINUOUS CRYSTALLIZER INSTALLATION WORK	May,2016~May,2017	E/P/C
225	LOTTE BP CHEM	SYNGAS COOLER REPLACEMENT EPC CONTRACT	Apr,2016~May,2017	E/P/C
224	E1	E1 MIXED-C4 TRANSPORT-RELATED CONSTRUCTION PROJECTS	Mar,2016~0ctr,2018	E/P/C
223	GS CALTEX	SEOKHWA 1 TEAM C9 COLUMN CHANGED TO REFORMATE COLUMN	Mar,2016~Mar,2017	Е
222	OCI	PIPING DESIGN FOR BTX(BENZENE TOLUENE XYLENE) DBNK PROJECT	Feb,2016~Dec,2016	Е
221	GS CALTEX	HIGH PRESSURE(#850) STEAM INTRODUCTION DETAILED DESIGN AND FEASIBILITY STUDY	Dec,2015~Dec,2015	Е
220	KUMHO MITSUI CHEM	MVR(MECHANICAL VAPOR RECOMPRESSION) PACKAGE MANUFACTURE & INSTALLATION	Nov,2015~0ct,2017	E/P/C
219	KUMHO P&B CHEM	AMS(ALPHA METHYL STYRENE) CAPA-UP PROJECT	Nov,2015~May,2016	E/P/C
218	YNCC	YNCC 2PLANT ENERGY-SAVING PROJECT	Nov,2015~Jun,2016	E/P/C
217	KUMHO MITSUI CHEM	HEAVY TEST FACILITY REACTOR AND AUXILIARY FACILITY REPLACEMENT WORK ADDITIONAL WORK	Nov,2015~Nov,2015	E/P/C
216	GS CALTEX	BENZENE RECOVERY IN AROMATIC OFF-GAS DESIGN SERVICE	Nov, 2015~Dec, 2016	E
215	KUMHO PETRO CHEM	POLYMERIZATION G-LINE NB LATEX PARALLEL PRODUCTION FACILITY CAPA UP	Nov,2015~Jul,2017	E/P/C
214	LOTTE CHEM	H-PC,IMPROVE PRODUCTIVITY THROUGH 3TH DEBOTTLENECKING	Nov,2015~Jul,2016	E/P/C
213	LOTTE CHEM	DESIGN RELATED TO ESTABLISHMENT OF PSV REAR END EMISSION TREATMENT SYSTEM	Nov,2015~Jun,2016	Е
212	LOTTE CHEM	POE SEMI-COMMERCIAL PLANT PDP MANUFACTURE	Nov,2015~Mar,2016	E
211	HANWHA CHEM	DETAILED DESIGN AND PERMIT FOR CVD INCREASE	Oct,2015~Oct,2015	E

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No.	Client	Project	Period	Scope
210	DAELIM INDUSTRIAL	DETAILED DESIGN OF S-OIL RUC PROJECT SITE, AREA-5 (REVAMPING OF EXIST.FAC.)	Oct,2015~Jan,2019	Е
209	GS CALTEX	CHANGES IN THE DEVELOPMENT PLAN OF THE WOOSUNDO DEVELOPMENT PROJECT AND APPROVAL OF THR IMPLEMENTATION PLAN	Oct,2015~Dec,2022	Е
208	HYOSUNG	200,000T/Y PP3(PROPYLENE PURIFICATION C3) PROJECT	Aug,2015~Dec,2016	Е
207	HANWHA CHEM	PE2 TEAM LP-1 RECOVERY PROCESS DETAILED DESIGN TO INCREASE CAPACITY	Jul,2015~Dec,2015	E
206	DAELIM INDUSTRIAL	PB2(POLY BUTANE) 100,000MTA REVAMPING PROJECT	Jul,2015~Jul,2017	Е
205	BASF	FEED SERVICE PACKAGE FOR TOURBILLON PROJECT	Jul,2015~Nov,2015	Е
204	LG MMA	NO.2 PMMA MS PRODUCTION FACILITY BUILDING CONSTRUCTION	Jul,2015~Jan,2016	E/P/C
203	PMC TECH	BO AND TCO SHIPPING FACILITY DESIGN	Jul,2015~Dec,2015	E
202	GS CALTEX	NO.1 AROMATICS PROCESS HEAT EXCHANGE NETWORK IMPROVEMENT	Jul,2015~Apr,2016	E
201	DONGLIM E&G	ULSAN SRF BOILER STEAM SUPPLYING PROJECT (FLUE GAS TREATMENT EQUIPMENT DELIVERY/ INSTALLATION)	Jul,2015~Feb,2016	E
200	KUMHO P&B CHEM	MVR(MECHANICAL VAPOR RECOMPRESSION) STEPII PROJECT	Jun,2015~Apr,2016	E/P/C
199	OCI	P2 CVD HEAT RECOVERY SYSTEM MANUFACTURING & INSTALLATION	Apr,2015~0ct,2015	E/P/C
198	KUMHO POLY CHEM	KP-1 PLANT 2-LINE MVR(MECHANICAL VAPOR RECOMPRESSION) PROJECT	Apr,2015~Nov,2015	E/P/C
197	SC ENG	STT(II) BASIC ENGINEERING PACKAGE FOR EXTERNAL STORAGE FACILITY INSTALLATION	May,2015~May,2015	E
196	DEOKYANG	THE 3 FACTORY RAW CONVERSION PROJECT	Mar,2015~Dec,2015	E/P/C
195	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE) & MDA MIXER, M-DA103 INSTALLATION	May,2015~May,2015	E/P/C
194	LG MMA	No.1 PMMA TANK INSTALLATION	Feb,2015~Jul,2015	E/P/C
193	KUMHO PETRO CHEM	NEW C4 BALL TANK(3,000m) INSTALLATION	Jan,2015~Dec,2015	E/P/C
192	DAELIM INDUSTRIAL	PB(POLY BUTANE)2 PLANT 75,000 MTA REVAMPING PROJECT	Nov,2014~May,2016	E/P/C
191	KUMHO MITSUI CHEM	COC(COCL2) REACTOR & HCL ADSORPTION TOWER INSTALLATION	Nov,2014~May,2015	E/P/C
190	HANWHA CHEM	POLY SILICON CAPA-UP DETAIL DESIGN	Nov,2014~Aug,2015	E
189	S-OIL	TECHNICAL RESEARCH INSTITUTE UTILITY DETAILED DESIGN	Nov,2014~Dec,2015	Е
188	SAMSUNG TECHWIN	MVR(MECHANICAL VAPOR RECOMPRESSION) INSTALLATION	Nov,2014~Nov,2014	E/P/C
187	HUVIS	BASIC DESIGN FOR HEATING MEDIUM BOILER PROCESS	Oct,2014~May,2015	E
186	LOTTE E&C	LCC D-EG1 DEBOTTNECKING PROJECT (MEG 50,000MT CAPA UP)	Oct,2014~Sep,2016	E/P/C
185	KUMHO MITSUI CHEM	CR-MDI(METHYLENE DIPHENYL ISOCYANATE) STORAGE TANK	Oct,2014~Dec,2014	E/P/C
184	G&L/BLUE O&M	ANIMAL WASTE RECYCLING PROJECT	Sep,2014~Sep,2015	Е
183	DEOKYANG	CO2 LIQUEFIED FACILITY PLANT ENGINEERING	Sep,2014~Nov,2014	Е
182	KUMHO MITSUI CHEM	IPC REACTOR AND AUXILIARY EQUIPMENT REPLACEMENT WORK	Aug,2014~Dec,2014	E/P/C

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180 GS E&C	UGCC ETHYLENE PLANT PIPING/INSTR. FIELD ENGINEERING	Aug,2014~Sep,2015	FE
179 KOREA PETRO CHEM	3RD Hx REFINE PROCESS IMPROVEMENT PROJECT	Aug, 2014~Dec, 2015	Е
178 HANWHA CHEM	DETAIL DESIGN FOR PE2, LP-2M-LLD PRODUCTION FACILITY	Jul,2014~Sep,2014	Е
177 YNCC	CURRENTIZATION OF RELAY DRAWINGS	Jul,2014~Dec,2014	Е
176 LG TOYO ENG	ELEC./INSTR./CIVIL DESIGN OF 2014 NCC(NAPHTHA CRACKING CENTER) UTILITY AREA EXPANSION PROJECT	Jul,2014~Dec,2014	E
175 LOTTE CHEM	H-PC, EFFICIENCY IMPROVEMENT	Jul,2014~Jan,2015	E/P/C
174 WOOYANG HC	DETAIL DESIGN FOR SPP(SUPER ABSORBENT POLYMER PILOT) PROJECT	Jun,2014~Dec,2014	E
173 SAMYANG	TPEE(THERMOPLASTIC EASTER ELASTOMER) PROJECT	May,2014~Dec,2015	E
172 SPG CHEM	DETAIL DESIGN FOR H2 BOOSTING COMPRESSOR INSTALLATION	Apr,2014~Dec,2014	E
171 LG CHEM	PGC(PROCESS GAS COMPRESSOR) DIFFERENTIAL PRESSURE IMPROVEMENT DESIGN	Apr,2014~Jun,2015	E
170 GS E&C	5AA PROJECT	Apr,2014~Jul,2015	Е
169 KUMHO MITSUI CHEM	2014 MDI(METHYLENE DIPHENYL ISOCYANATE) PLANT ANNUAL SHUT-DOWN PROJECT	Feb,2014~May,2014	E/P/C
168 LOTTE CHEM	H-PC, T-130(MPC REACTION TOWER) MVR(MECHANICAL VAPOR RECOMPRESSING) INSTALLATION PROJECT	Jan,2014~Sep,2015	E/P/C
167 GS E&C	2014 NCC EXPANSION PROJECT(PIPING DESIGN)	Jan,2014~Sep,2015	Е
166 LG CHEM	#3 C3 PURIFICATION SYSTEM	Jan,2014~May,2015	Е
165 LG TOYO ENG	ELEC./INSTR./CIVIL DESIGN OF 2014 NCC(NAPHTHA CRACKING CENTER) EXPANSION PROJECT	Jan,2014~Dec,2014	Е
164 TOYO ENG	PIPING DUCT & CHUTE DURING CONSTRUCTION OF EGKr HOT PHASE-2 PROJECT	Jan,2014~0ct,2014	P/C
163 LG CHEM	ELECTRICAL CONSULTANT SERVICE	Dec,2013~Jun,2015	E
162 SAMSUNG FINE CHEM	DETAILED DESIGN OF PROCESS STEAM PIPE NETWORK	Dec,2013~Dec,2015	Е
161 KUMHO MITSUI CHEM	FALLING FILM EVAPORATOR SYSTEM CONSTRUCTION	Dec,2013~May,2014	E/P/C
160 HANWHA CHEM	CM2 PROJECT	Sep,2013~Sep,2013	Е
159 LOTTE CHEM	UNHYDROGENATED C5 SEPARATION FACILITY CONSTRUCTION PROJECT	Sep,2013~Dec,2013	E/P/C
158 AIR LIQUIDE KOREA	LOCAL SUPPLIES & WORKS FOR Y2 NG FEEDSTOCK CONVERSION PROJECT	Aug,2013~May,2014	E/P/C
157 HANWHA ENERGY	9.9MW BACK-PRESSURE TURBINE INSTALLATION PROJECT	Aug, 2013~Feb, 2015	Е
156 HANWHA CHEM	CA5/OXY5 MATERIAL TAKE OFF	Aug,2013~Aug,2013	E
155 KUMHO P&B CHEM	LER(LIQUID EPOXY RESINS) STEP II 45,000MTPA REVAMPING PROJECT	Aug,2013~Jul,2014	E/P/C
154 N.I.O.C (S.W.PG)	NGL-3200 BEDP(BASIC ENGINEERING DOCUMENTS PACKAGE) ENDORSEMENT	Jul,2013~Sep,2013	Е
153 POSCO ENG	KUMHO POLY CHEM YEP-V(EPDM) 60,000MT/Y CONSTRUCTION PROJECT	Jul,2013~Nov,2015	E
152 SAMSUNG FINE CHEM	NH3 COLD HEAT RECOVERY PROJECT	Jul,2013~0ct,2013	E/P/C
151 CHEIL INDUSTRIES	RAW MATERIAL STORAGE TANK FARM PROJECT	Jun,2013~0ct,2013	Е

No.	Client	Project	Period	Scope
150	HYUNDAI OIL BANK	INCHEON INTERNATIONAL LOGISTICS WHARF	May,2013~Mar,2016	E
149	KOREA PETRO CHEM	HR(HEXANE RECOVERY)- II	May,2013~Mar,2014	Е
148	GS CALTEX	NEW CRUDE TANK (800,000 BARREL) PROJECT	Apr,2013~Dec,2015	Е
147	GS CALTEX	DESIGN & APPROVAL OF LAND & MARINE FACILITIES FOR NO.3 PRODUCT PIER	Apr,2013~Dec,2019	Е
146	KUMHO MITSUI CHEM	IPC PILOT PLANT INSTALLATION PROJECT	Mar,2013~Sep,2013	E/P/C
145	LG CHEM	BRU(BENZENE RECOVERY UNIT) 60,000MT DEBOTTLENECKING PROJECT(EDC: ETHYLENE DICHLORIDE)	Feb,2013~Nov,2013	E
144	TOYO ENG	EGKr HOT PROJECT (PIPING/DUCT & CHUTE)	Jan,2013~Dec,2013	E/C
143	HANWHA	AP SYNTHETIC RECRYSTALLIZATION PROCESS EXPANSION	Jan,2013~Jan,2014	Е
142	KUMHO MITSUI CHEM	17 CASES INCLUDING M-GB301B/C SUCTION SIZE-UP AND ADDITIONAL PIPING INSTALLATION	Jan,2013~Apr,2013	E/P/C
141	KUMHO PETRO CHEM	W.W.T(WASTE WATER TREATMENT) FACILITIES EXPANSION PROJECT	Jan,2013~Jul,2016	E/P/C
140	POSCO ENERGY	HYDROGEN RECOVERY UNIT STRUCTURE	Jan,2013~Jul,2013	С
139	HYUNDAI OIL TERMINAL	HDO(HEAVY DUTY OIL) STORAGE TANK FARM CONSTRUCTION MANAGEMENT	Dec,2012~Dec,2013	E/P/C
138	KUMHO PETRO CHEM	INSTALLATION OF PIPE RACKS FOR 26 SECTIONS OF COMMON PIPE RACKS IN YEOSU INDUSTRIAL COMPLEX	Nov,2012~Feb,2013	E/P/C
137	KUMHO MITSUI CHEM	MANUFACTURING AND INSTALLATION WORK RELATED TO REPLACEMENT OF 15 UNITS INCLUDING M-EA160	Nov,2012~Mar,2013	E/P/C
136	GS E&C	GSC VGOFCC PROJECT SAPO-PIPELINE SYNTHESIS DESIGN	0ct,2012~Jan,2013	Е
135	KUMHO PETRO CHEM	HEXANE PROCESS BEDP PROJECT	Oct,2012~Mar,2013	E
134	HYUNDAI E&C	LG CHEM SM PLANT HEAT SUPPLY PIPE DESIGN	0ct,2012~Jan,2014	Е
133	GS E&C	UZBEKISTAN UGCC ETHYLENE 600,000MT/Y PROJECT (MECHANICAL/PIPING/ELEC./INSTR./CIVIL DESIGN)	Oct,2012~Jan,2015	Е
132	GS CALTEX	NO.4 CDU O/H COMPRESSOR 1 ADDITIONAL INSTALLATION DETAILED DESIGN	Oct,2012~Oct,2013	E
131	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE) 50,000MT REVAMPING 2ND ADDITIONAL FACILITY INVESTMENT WORK	Sep,2012~Dec,2012	E/P/C
130	KUMHO P&B CHEM	DIBK(DIISOBUTYL KETONE) DISTILLATION TOWER INSTALLATION PROJECT	Aug,2012~Dec,2012	E/P/C
129	HANWHA CHEM	LP-1 EXTRUDER & PPB EXTENSION CONSTRUCTION PROJECT	Jul,2012~Apr,2013	E/P/C
128	KUMHO PETRO CHEM	ESTABLISHMENT OF SOLVENT RECOVERY SYSTEM DURING RECYCLE BD	Jun,2012~Dec,2012	E/P/C
127	DAELIM INDUSTRIAL	KUMHO YEP-IV(EPDM) VOC TREATMENT PACKAGE PROJECT	Jun,2012~May,2013	E/P/C
126	HANWHA E&C	HCC SCR(SELECTIVE CATALYTIC REDUCTION) PROJECT	May,2012~Mar,2013	Е
125	GS E&C	VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) FIELD ENGINEERING (PIPING/CIVIL)	May,2012~Feb,2013	FE
124	GS E&C	MAA(METHYL METHACRYLATE) EXPANSION PROJECT (PROCESS/MECHANICAL/PIPING/ELEC./INSTR./CIVIL DESIGN)	Apr,2012~Jan,2013	Е
123	LG CHEM	VCM 30,000MT DEBOTTLENECKING PROJECT DETAILED DESIGN		E
122	KUMHO MITSUI CHEM	HYPER SALINE WASTE WATER TREATMENT SYSTEM INSTALLA ION PROJECT	T Mar,2012~Sep,2012	E/P/C
121	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE) 50,000MT MVR (MECHANICAL VAPOR RECOMPRESSING) SYSTEM INSTALLATIO	NFeb,2012~Aug,2012	E/P/C

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120	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE) 50,000MT REVAMPING ADDITIONAL FACILITY INVESTMENT WORK	Feb,2012~Jul,2012	E/P/C
119	HANWHA CHEM	CM2 BASIC ENGINEERING DOCUMENT PACKAGE PROJECT	Jan, 2012~Feb, 2012	E
118	KUMHO POLY CHEM	NEW PLANT WASTE HEAT RECOVERY SYSTEM INSTALLATION	Jan,2012~Jul,2013	E/P/C
117	GS E&C	DESIGN FOR GS CALTEX VGOFCC(VGO FLUIDIZED CATALYTIC CRACKER) PROJECT SAPO-PIPE LINE (PIPING/ELEC./INSTR./CIVIL)	Nov,2011~Apr,2013	Е
116	KUMHO P&B CHEM	MIBK(DIISOBUTYL KETONE) 55KT CAPA UP PROJECT	Oct,2011~Oct,2012	E/P/C
115	GS E&C	TAME(TERTIARY AMYL ETHER) PROJECT	Oct,2011~May,2013	Е
114	HANWHA E&C	BASIC CIVIL DESIGN AMONG HCC BELT CONVEYOR INSTALLATION PROJECT	Sep,2011~Mar,2012	E/CS
113	KOREA PETRO CHEM	Hx REFINE PROCESS IMPROVEMENT PROJECT	Sep,2011~Jun,2012	E
112	GS E&C	#4 KERO MEROX(KEROSENE UNIT) PROJECT	Aug,2011~Apr,2013	E/PS/CS
111	YCOGEN	KOREA SILICON 2ND STEAM LINE DETAILED DESIGN	Aug,2011~Apr,2012	E
110	KUMHO MITSUI CHEM	MDI(METHYLENE DIPHENYL ISOCYANATE) 50,000MT REVAMPIN G PROJECT	Jul,2011~Jun,2012	E/P/C
109	LG CHEM	DETAILED DESIGN FOR INSTALLATION OF LDPE SECONDARY EXTRUDER(FOR IT PROTECTION FILM)	Jul,2011~Dec,2011	E
108	GS E&C	4AA PROJECT CONSTRUCTION FIELD ENGINEERING (PIPING/ELEC./INSTR./CIVIL)	Jul,2011~May,2012	FE
107	LINDE KOREA	INJU N20 PLANT & CYLINDER FILLING STATION DESIGN	Jun,2011~Jun,2012	E/FE
106	GS CALTEX	NO.3 OFF-SITE SUBSTATION EXPANSION AND 2 OTHERS	May,2011~Jul,2011	Е
105	LG CHEM DAESAN	NCC(NAPHTHA CRACKING CENTER) SCORE FURNACE REVAMPING PROJECT	Apr,2011~Jul,2012	Е
104	GS CALTEX	KERO SPLITTER INSTALLATION PROJECT	Mar,2011~Nov,2011	E
103	GS E&C	GSC VGOFCC PROJECT DETAILED DESIGN(PIPING/INSTR./CIVIL)	Mar,2011~Mar,2013	E
102	KUMHO MITSUI CHEM	MDA(METHYLENE DIPHENYL AMINE) REVAMPING PROJECT	Mar,2011~Jul,2011	E/P/C
101	LG CHEM	CA/EDC (CAUSTIC/ETHYLENE DICHLORIDE) PROJECT	Feb,2011~Jul,2011	Е
100	LG CHEM	L-LDPE(LOW DENSITY POLYETHYLENE) PLANT ELASTOMER 13,000TON DEBOTTLENECK PROJECT	Jan,2011~Mar,2012	E/P/C
99	HYUNDAI E&C	STEAM PIPING DESIGN	Dec,2010~Jun,2012	Е
98	ISU E&C	OTK NO.4 EXPANSION PROJECT	Dec,2010~Mar,2012	E
97	S-OIL	INTRODUCTION OF TVR AND STEAM ACCUMULATOR	Dec,2010~Jul,2011	E/P/C
96	ALBEMARLE KOREA	P-52141 CATALYST DEVELOPMENT UNIT ENGINEERING SERVICE	Sep,2010~Jun,2011	E / PS / C
95	LOTTE E&C	HONAM PETRO CHEM HPEO(HIGH PURITY ETHYLENE OXIDE) PROJECT	Dec,2010~0ct,2012	E/P/C
94	KUMHO P&B CHEM	U-5500 PHENOL TREATMENT PROJECT	Nov,2010~May,2011	E/P/C
93	GS E&C	LG CHEM 4AA PROJECT (MECHANICAL/PIPING/ELEC./INSTR./CIVIL DESIGN)	Nov,2010~Jul,2012	E/PS
92	LG CHEM	PP PLANT EXTENSION PROJECT	Aug,2010~Sep,2011	Е
91	GS CALTEX	OIL REFINING 3TEAM ATMOSPHERE EMISSION UNIT IMPROVEMENT	Aug,2010~Jul,2011	E/PS

No.	Client	Project	Period	Scope
90	YCOGEN	YEOSU COGENERATION PLANT DE-COMPRESS	Aug,2010~May,2011	E/P/C
89	GS E&C	YP-1 EXPANSION PROJECT	Aug,2010~Jun,2011	E/PS
88	LAKE LED	NEW LED CHEMICAL MATERIAL PLANT ESTABLISHED	Aug,2010~Nov,2010	E/P/C
87	LG CHEM	MYO DO SM G2-SECTION PIPE RACK TRANSFER	Jul,2010~Dec,2010	Е
86	KUMHO POLY CHEM	TECHNICAL SELF-RELIANCE FOR 2ND PLANT	Jul,2010~Nov,2010	Е
85	GS CALTEX	STEAM SUPPLY AND CONDENSATE RECOVERY PIPING INSTALI ATION DESIGN	_ Jun,2010~Nov,2010	E/PS
84	GS E&C	NO.4 DNT PROJECT	Jun,2010~Jun,2011	E/PS
83	SAMSUNG ELEC.	SOLVENT CASTING EQUIPMENT ROOM INTERIOR AND CONTROL CONSTRUCTION	May,2010~Jun,2010	E/P/C
82	DAELIM INDUSTRIAL	LHD REACTOR PILOT UNIT ESTABLISHMENT	May,2010~Jul,2010	E/PS
81	YCOGEN	43KGG STEAM CHEIL INDUSTRIAL SUPPLY PIPE RACK	Apr,2010~Nov,2010	Е
80	DAELIM INDUSTRIAL	PROPANE DRYING PACKAGE	Apr,2010~Nov,2010	E/P/C
79	GS CALTEX	B-SECTION 400MB ULSD TANK 1EA	Apr,2010~May,2011	E/PS
78	SERVEONE	DAESAN EO(ETHYLENE OXIDE) PLANT INCREASING PRODUCTIVITY PROJECT	√ Mar,2010~May,2011	E/PS
77	YTT	TANK 6EA CONSTRUCTION	Feb,2010~Sep,2010	E/PS/CS
76	KUMHO POLY CHEM	INTRODUCED WASTE HEAT RECOVERY FACILITY(MVR) OR SOL VENT RECOVERY PROCESS	Jan,2010~Aug,2010	E/P/C
75	KUMHO POLY CHEM	KP-II PLANT DEBOTTLENECKING	Jan,2010~May,2010	E/P/C
74	HANWHA CHEM	YEOSU PLANT CA PRODUCTION TEAM 2 SRS INSTALLATION W	Dec,2009~Apr,2010	E/P/C
73	DAESUNG GAS	GS CALTEX #3 HOU GN2 GAS LINE EXTENSION	Feb,2009~Apr,2009	E/PS/CS
72	KUMHO MITSUI CHEM	ADL SAFETY FACILITY INSTALLATION OF EXISTING MDI SYNTH	Jul,2009~Nov,2010	E/P
71	GS E&C	HPC B-PROJECT	Jun,2009~0ct,2010	P/CS
70	KICOX	DETAILED DESIGN SERVICE FOR YEOSUSANDAN AREA 3RD ST AGE COMMON PIPE RACK INSTALLATION WORK	Apr,2009~May,2009	E / GA
69	KUMHO E&C	MDI-PH DESIGN/MATERIALS	Feb,2009~Jan,2010	E/PS/CS
68	YCOGEN	OSBL STEAM SUPPLY PIPE RACK	Jan,2009~Apr,2009	Е
67	DAELIM INDUSTRIAL	INDUSTRIAL ESTATE COMMON PIPE RACK CONSTRUCTION	Dec,2008~May,2009	E/PS/GA
66	LG CHEM	LG CHEM FURNACE EXTENSION PROJECT	Nov,2008~Dec,2009	E
65	GS E&C	MTBE(METHYL TERTIARY BUTYL ETHER) EXPANSION PROJECT	Nov,2008~Nov,2009	E/PS
64	GS E&C	LG CHEM M3 PROJECT	Oct,2008~Jun,2010	P/PS
63	LG CHEM	SBS(STYRENE BUTADIENE STYRENE) 60,000TON BASIC PACKA	Oct,2008~Feb,2009	E
62	KUMHO POLY CHEM	STEAM SUPPLY BOILER ADDITIONAL INSTALLATION WORK	Jul,2008~0ct,2008	E/P/C
61	AIR LIQUIDE KOREA	DBS #1 PROJECT	Jul,2008~Sep,2009	E/PS

Project Experience

* E: Engineering, P: Procument, PS: Procument Service, C: Construction, CS: Construction Supervision, FE: Field Engineering, GA: Government Approval

No.	Client	Project	Period	Scope
60	KUMHO PETRO CHEM	KP STEP II PLANT UNDERGROUND PIPE REPLACEMENT	Apr,2008~May,2008	E
59	GS E&C	LG CHEM BUTENE-1 PROJECT	Apr,2008~Jun,2009	E/PS
58	LG CHEM	PE(POLYETHYLENE) PLANT	Apr,2008~Aug,2008	Е
57	HANWHA CHEM	[YEOSU CA] CAUSTIC SODA STORAGE/SHIPPING CAPA.UP A/R	Mar,2008~Nov,2008	E
56	HYUNDAI OIL BANK	ALKYLATE TANK ESTABLISHMENT	Mar,2008~Mar,2009	E / GA
55	KUMHO POLY CHEM	FLARE STACK STEAM SUPPLY BOILER INSTALLATION WORK	Feb,2008~Apr,2008	E/P/C
54	GS E&C	NO.3 HOU(HEAVY OIL UPGRADING) PROJECT	Feb,2008~Dec,2010	E/PS/GA
53	LG CHEM	BR PLANT DEBOTTLENECK	Jan,2008~Apr,2008	E/PS
52	H-PLUS	HPC 2-PLANT WASTEWATER TREATMENT SYSTEM	Jan,2008~Apr,2008	E/PS/GA
51	GS E&C	ATMOSPHERE EMISSION PRESSURE VALVE IMPROVEMENT PROJECT	Jan,2008~Aug,2008	E/PS
50	HYUNDAI ENG	DS MMA D-PROJECT CONSTRUCTION	Dec,2007~Apr,2009	Е
49	GS E&C	LPC REVAMPING PROJECT FIELD ENGINEERING(PIPING/CIVIL)	Dec,2007~Jun,2008	E/PS
48	LG CHEM	KOSEP HIGH PRESS STEAM ESTABLISHMENT	Nov,2007~Apr,2008	Е
47	GS E&C	NO.3 HOU(HEAVY OIL UPGRADING) PROJECT INTERCONNECTION PIPERACK & OSBL PIPE RACK	Nov,2007~Feb,2008	E/PS/GA
46	LG CHEM	NBR PLANT DEBOTTLENECK	Nov,2007~Mar,2008	E
45	H-PLUS	HSR & REFORMATE TANK VOC REDUCE UNIT	Nov, 2007~Nov, 2007	E
44	DAESHIN ENG	(D) T-606 VOC DERIVED FUEL SYSTEM	Oct,2007~Dec,2007	Е
43	DOOSAN MECATEC	CMP PROJECT	Sep,2007~Jul,2008	E / GA
42	KICOX	DETAILED DESIGN SERVICE FOR YEOSUSANDAN AREA 2ND STAGE COMMON PIPE RACK INSTALLATION WORK	Sep,2007~Dec,2007	E/GA
41	KOREA CARBON BLACK	STEAM SALES PROJECT	Jul,2007~Mar,2008	Е
40	H-PLUS	GS CALTEX PRODUCT DOCK VRU	Jul,2007~Dec,2007	Е
39	LG CHEM	L-LDPE(LOW DENSITY POLYETHYLENE) PLANT ELASTOMER PROCESS REVAMPING PROJECT	Jun,2007~0ct,2007	Е
38	HANWHA E&C	LD1 TUBULAR EXPANSION PROJECT	Mar,2007~Jul,2008	E/PS
37	KUMHO POLY CHEM	ENGINEERING FOR CONSTRUCTION OF TPV(THERMO PLASTIC VULCANIZATE) PRODUCTION FACILITIES	Mar,2007~Sep,2007	E/P
36	GS E&C	LPC REVAMPING PROJECT	Jan,2007~May,2008	E/PS
35	GS E&C	NCC(NAPHTHA CRACKING CENTER) REVAMPING PROJECT 3D MODELING (NCC, BRU, BD)	Nov,2006~Feb,2007	E/PS
34	GS E&C	LPC NCC(NAPHTHA CRACKING CENTER) PROJECT 3D MODELING (NCC,BRU,BD)	Nov,2006~Feb,2007	Р
33	GS E&C	LPC NCC(NAPHTHA CRACKING CENTER) PROJECT (PIPING/CIVIL)	Oct,2006~Nov,2006	E/PS
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32	GS CALTEX	MATERIALS MANAGEMENT SUPPLY	Oct,2006~Aug,2008	E/PS

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No.	Client	Project	Period	Scope
30	HONAM PETRO CHEM	HPEO CAPA. UP & SEG,CO2 REMOVE UNIT	Sep,2006~Nov,2007	E
29	SAMYANG KASEI	6TH INCREASE PRODUCTION PROJECT	Jul,2006~Nov,2006	E
28	CLEAN AIR WORLD	GS CALTEX ORDER/VOCS REDUCTION FACILITIES (2ND)	Jun,2006~Aug,2006	E
27	GS E&C	HOU(HEAVY OIL UPGRADING) PROJECT TIE PIPE RACK	Mar,2006~Dec,2007	E/PS
26	GS E&C	OMAN AROMATICS PROJECT	Feb,2006~Feb,2007	E/PS
25	GS E&C	PIPING DESIGN FOR LG CHEM DAESAN REVAMPING PROJECT	Jan,2006~May,2007	E/PS
24	GS E&C	LG DAESAN PETRO CHEMICAL 3D_2D CAD PROJECT	May,2005~Sep,2005	E/PS
23	KOSEP	YEOSU THERMOELECTRIC POWER PLANT HEAVY OIL ON THE SEA SUPPLY LINE PIPE RACK	Feb,2005~Jul,2005	Е
22	GS E&C	LYN PROJECT	Dec,2004~Jul,2005	E/PS
21	JAEWON INDUSTRIAL	METHANOL LINE PIPING (18", 4KM) DETAIL ENG	Nov,2004~May,2005	E/C/GA
20	KUMHO POLY CHEM	PRE-TREATMENT OF INDUSTRIAL WATER PROJECT	Oct,2004~Feb,2005	E/P/C
19	CLEAN AIR WORLD	HYDROGEN SUPPLY LINE INSTALLATION FEASIBILITY STUDY	Oct,2004~Nov,2004	Е
18	GS E&C	E-CHEM PROJECT DETAIL ENG	May,2004~May,2005	E/PS
17	KICOX	YEOSU INDUSTRIAL COMMON PIPE RACK EXPANSION PROJECT	Sep,2004~Feb,2005	Е
16	CLEAN AIR WORLD	GS CALTEX VOC & CDOR REMOVAL SYSTEM DETAIL ENG	Jun,2004~Jul,2004	E
15	CLEAN AIR WORLD	GS CALTEX VOC & CDOR MOVAL SYSTEM DETAIL ENG	May,2004~Jun,2004	E/PS
14	LG CHEM	POM(POLYACETAL) MONOMER PROCESS IMPROVEMENT PROJECT	Apr,2004~Dec,2004	Е
13	HANWHA E&C	HCC CAUSTIC SODA & BRAIN PI INSTALLATION & CONSTRUCTION	Sep,2003~Dec,2004	E/GA
12	HANWHA CHEM	PVC EXPANSION PROJECT DETAIL ENG	Jul,2003~Mar,2004	Е
11	GS E&C	CAA D/B PROJECT	Jun,2003~Dec,2003	E/PS
10	GS E&C	BD(BUTADIENE) KLP PROJECT	Mar,2003~Jul,2003	E/PS
9	LG CALTEX	ALKYLATION SITE CREATION/BUILDING RELOCATION DESIGN	Aug,2002~Dec,2003	E
8	HANWHA E&C	YEOSU INDUSTRIAL COMPLEX MATERIAL TRANSFER PIPELINE WORK	Jun,2002~0ct,2002	Е
7	KUMHO POLY CHEM	DC-601(FLASH GAS COMPRESSOR) UP STREAM FACILITY SUPPLEMENT WORK	Jun,2002~0ct,2002	Е
6	LG CHEM	CONCRETE FLUIDIZATION EXCIPIENT PRODUCTION PROJECT	May,2002~Jul,2002	E
5	LG CALTEX	MOC SUPPORT PROJECT	Jan,2002~Jun,2002	Е
4	HANWHA E&C	DESIGN/PERMIT SERVICE DURING THE CONSTRUCTION OF THE RAW MATERIAL TRANSFER PIPELINE IN THE YEOSU INDUSTRIAL COMPLEX	Sep,2001~Dec,2004	Е
3	LG E&C	LG CHEM P-5 PBL PROJECT DETAILED DESIGN	Aug,2001~Nov,2001	E
2	HANWHA PETRO CHEM	C/A BRINE PIPELINE [PIPE AND SUPPORT] INSTALLATION WORK	Jul,2000~Jan,2001	Е
1	HANWHA PETRO CHEM	C/A 50% 2ND BRINE PIPELINE [PIPE AND SUPPORT] INSTALLATION WORK	Mar,2000~Jan,2001	Е

Project Experience ___



[ENVIRONMENTAL/ENERGY]

MVR

 $\ \ \, \& \ \, E : Engineering, P : Procument, \ PS : Procument \ \, Service, \ \, C : Construction)$

No.	Year	Project	Client	Scope
11	2016	1Factory 1-Line MVR Installation Project (using 96.6℃ Waste gas, 2.4kg/αἦG 16.5Ton/hr Steam Production)	KUMHO POLY CHEM	E.P.C
10	2016	MVR(IV) Project (Surplus steam 10T/hr 0.4kg/amd →2.8kg/amd Booster Production)	KUMHO P&B CHEM	E.P.C
9	2015	KP-I Plant 2-Line MVR Project (using Low heat source steam, -0.88kg/cmG 22.4Ton/hr Steam Production)	KUMHO POLY CHEM	E.P.C
8	2015	MVR(II) Project (using Surplus Hot Oil, 4.5kg/and 25Ton/hr Steam Production)	KUMHO P&B CHEM	E.P.C
7	2015	MVR Package manufacture and installation work(50Ton/hr 6.9kg/cmg→21kg/cmg, 12Ton/hr 9.8kg/cmg→35.2kg/cmg Boost)	KUMHO MITSUI CHEM	E.P.C
6	2014	MPC Reaction Tower MVR Project (using Waste heat, 10.5kg/cm̊G 12.6Ton/hr Steam Production)	LOTTE CHEM	E.P.C
5	2014	Samsung Total Chem MVR Package Project (Surplus steam 50Ton/hr 2.5kg/ cmdG→5.4kg/cmdG Boost Production)	SAMSUNG TECHWIN	E.P.C
4	2012	Construction of new plant waste heat recovery system (using 98℃ Waste heat 1.2kg/㎡G 15.8Ton/hr Steam Production)	KUMHO POLY CHEM	E.P.C
3	2012	MDI 50,000MT MVR Project (Surplus steam 6.6Ton/hr 7kg/cm³G →18kg/cm³G Boost Production)	KUMHO MITSUI CHEM	E.P.C
2	2010	Introduction of MVR in Solvent Recovery Process (using 92°C Waste gas, 2.9kg/cmG 6.3Ton/hr Steam Production)	KUMHO POLY CHEM	E.P.C
1	2009	Introduction of R-Line MVR System (using 102℃ Waste water, 6kg/cmG 2.9Ton/hr Steam Production)	KUMHO PETRO CHEM	E.P.C

LDAR

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

VCU

No.	Year	Project	Client	Scope
2	2020	EPC works for VCU installation project	S-OIL	E.P.C
1	2018	VCU equip. manufacturing, installation & design (1,2 Terminal) (2500Nm²/hr, 3800Nm²/hr)	KOREA VOPARK TERMINAL	E.P.C



VRU

 $\begin{tabular}{ll} \& E : Engineering, P : Procument, PS : Procument Service, C : Construction) \end{tabular}$

No.	Year	Project	Client	Scope
10	2018	VRU installation (removal of VOC using VRU after removal of storage tank RTO)(1466 $\rm m^2/hr$)	CLOTTE CHEM	E.P.C
9	2018	VRU installation design(2 Terminal CI Gas process)	KOREA VOPAK TERMINAL	Е
8	2017	Mokpo Oil Reservoir VRU Package (Water vapor treatment generated during logistics shipment(240m/hr)	S-OIL	E.P.C
7	2012	Incheon VRU Expansion design (480㎡/hr)	GS CALTEX	E
6	2011	Busan VRU Expansion design (480m²/hr)	GS CALTEX	Е
5	2007	Supervision for VRU power supply electrical work	H-PLUS ENG	Е
4	2007	GS-CALTEX Detail design for VRU Installation (8500m3/hr)	GS CALTEX	Е
3	2006	GS-CALTEX Basic survey & detail design for offshore VRU plant installation (8500m3/hr)	CLEAN AIR WORLD	E
2	2006	GS-CALTEX Piping design review of Aromatic Day Tank Area VRU plant	TECHWIN E&C	E
1	2005	GS-CALTEX Piping design of Aromatic Day Tank Area VRU plant	TECHWIN E&C	Е

RTO

No.	Year	Project	Client	Scope
7	2021	Factory 1 RTO-2 new installation project	KUMHO POLY CHEM	E.P.C
6	2020	2nd factory RTO new 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 MATERIALS	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	EG GREEN TECH	E
2	2004	LG Caltex OIL RTO design	TECH WIN	Е
1	2001	Civil design related to SM plant RTO	LG CHEM	Е

WWT

No.	Year	Project	Client	Scope
2	2018	Wastewater treatment plant detail design & approval (Revamping)	Q-BIO TECH	Е
1	2013	Wastewater treatment plant upgrading construction(steam stripping→Improved steam reduction by microbial treatment)	KUMHO MITSUI CHEM	E.P.C

CCS

No.	Year	Project	Client	Scope
2		150MW Enhancement of Carbon Capture Storage technology	KOREA ELECTRIC POWER	E.P.C
1	2015	10MW Carbon capture technology commercial package module development	KOREA ELECTRIC POWER	E

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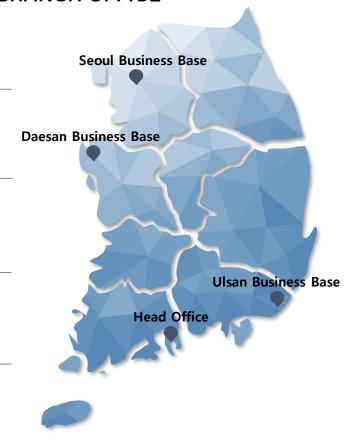
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