

KC-1000

Globe Control Valves

KB-3000

Ball & Gate Valves

KPR-2000

High Pressure Reducing Valves

HAD Series

Diaphragm Actuator

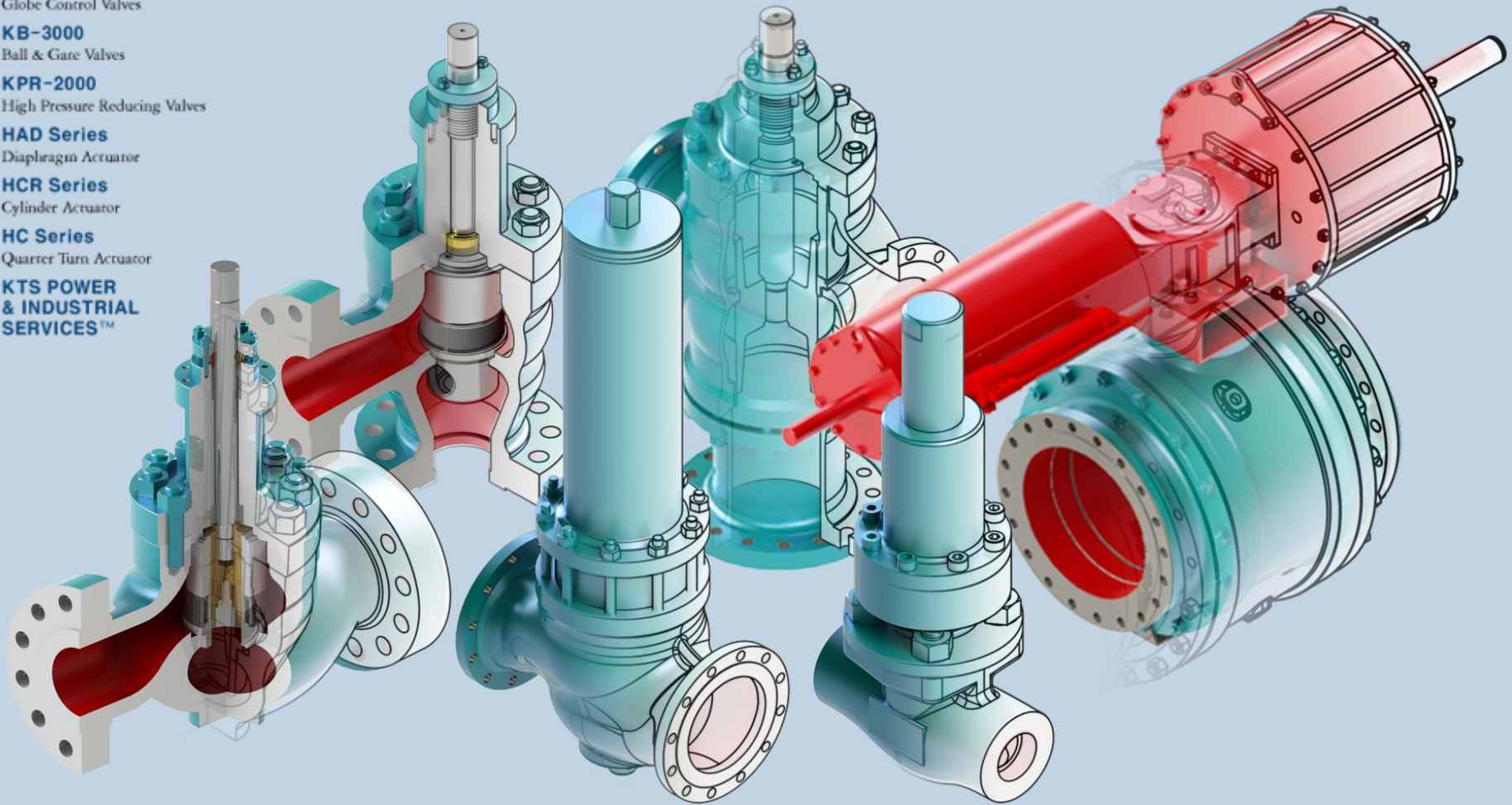
HCR Series

Cylinder Actuator

HC Series

Quarter Turn Actuator

**KTS POWER
& INDUSTRIAL
SERVICES™**



Confidential Information

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Company Profile

Performance

Company History

Global Network

Technology Introduction

Organization Structure

Product Overview

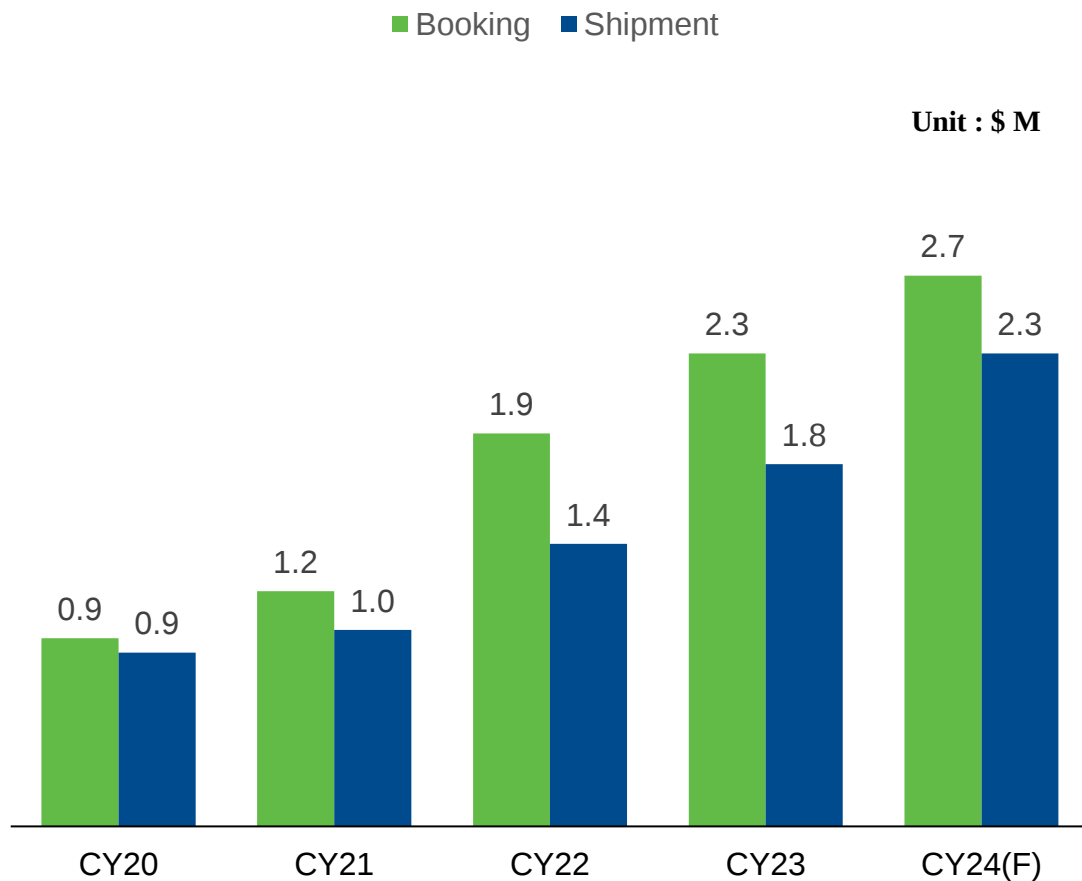
Certificate

Equipment

- Company Name : KTS Co., Ltd.
- Date of Establishment : Dec,11,2007
- C.E.O : J.H Kim
- www.helitork.com
- E- mail : helitork@naver.com
- Brand : **Helitork**
- Location
 - Head Office & Factory , R&D Center
13, MTV 10-10, Danwon-gu, Ansan-si, Gyeonggi-do, Republic of Korea.
 - Second Factory
305 KoFoMo techno center Jungwang-dong Shiwha shiheung-city Kyunggi-Do Korea.
 - Sales Office
201 Charies St. Hackensack, NJ 0760 USA / Tel : 01-201-281-0258



Annualized KTS Orders



Key Win

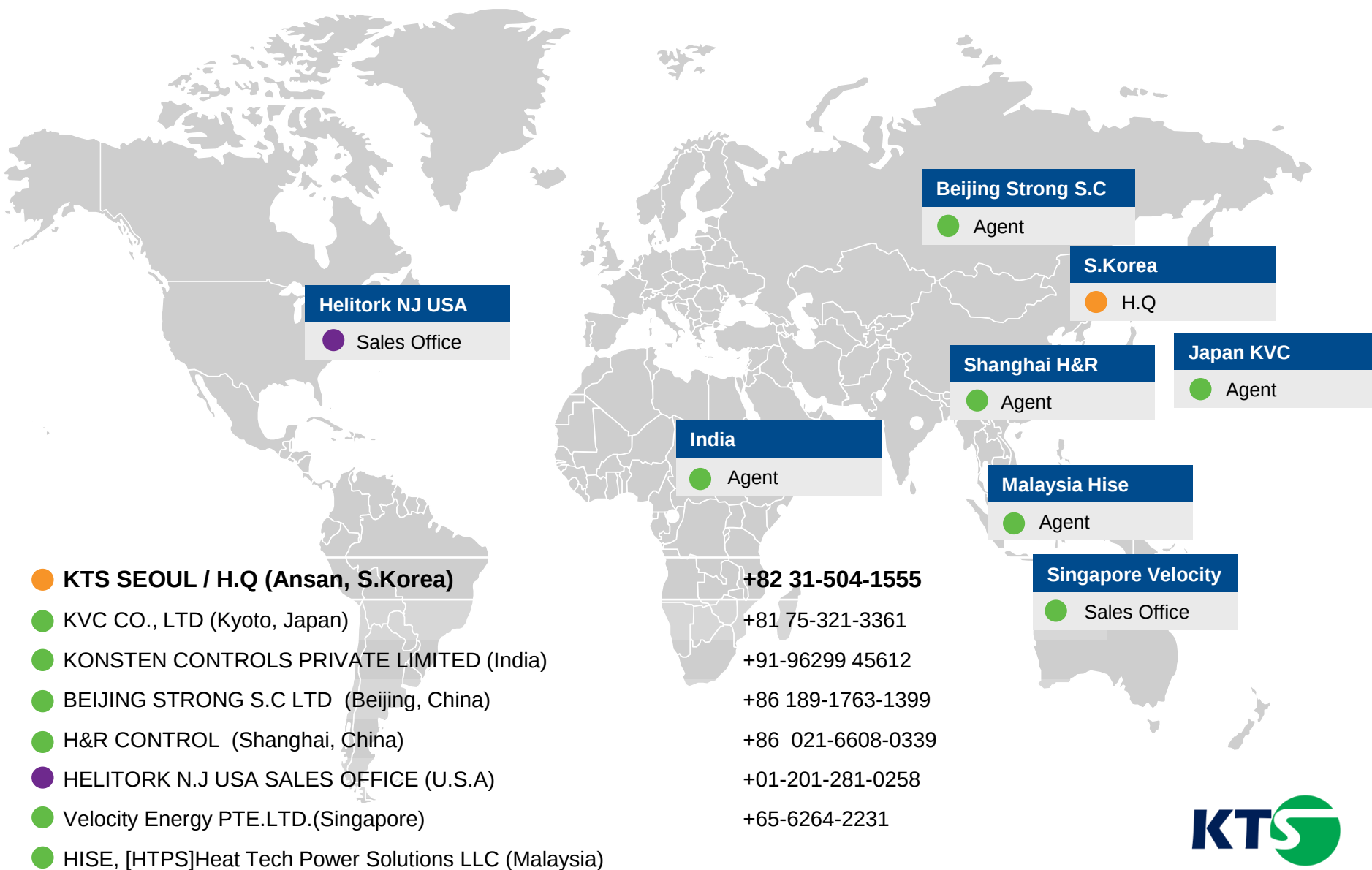
CY20 ~CY22

- Boryeong Thermal Power Co., Ltd. / Metal Seat Ball / 1.5" 4500# SW
- Shin-Kori Units#5 AOV (nuclear power gen.) / V-Nortch Ball / 2sets / 12" 300# RF
- Oseong Combined Cycle Power Plant / Top Entry BV / 24sets / 1.5~1", #600~#2500
- Jeju Combined HRSG / Top Entry BV / 10sets / 1.5"~3" #1500~#2500

CY23 ~ Q1 CY24

- Boryeong Thermal Power / Top Entry BV / 4sets / 1.5" 4500#
- Taean Unit4, DRN MOV Top-Entry - PLANT1 / 1sets / 2" 4500#
- Posco Industrial Gas Storage / On-Off Cryogenic Control / 10sets / 2"~8", #300
- Pyeongtaek Energy Service / Top-Entry / 3sets/ 1", 1.5" / 4500# SW

- 2010. 11 Established KTS corporation.
- 2010. 11 Registered the brand **Helitork** (No : 58983)
- 2010. 12 **Patent registered for Cryogenic Ball Valve** (No :10-0693935)
- 2012. 06 Requested for approved supplier of KWEP
- 2012. 08 Certified ISO-15848-1 Fugitive emission construction for the Ball valves
- 2012. 10 **Patent registered of Metal Seat Ball Valve** (No: 10-1167373)
- 2013. 03 Established R&D department (Issued by KOITA No : 2013150581)
- 2013. 04 Certified ISO-9001 quality system by IIC.
- **2013. 07 UK Weir International OEM Supply** (PRV, Control Valve, Ball valve)
- 2013. 08 **Patent registered S-trim for severe service control valves** (No :1302103)
- 2014. 06 Contracted with K-Water for new factory in MTV.
- 2014. 11 Contracted with SMBA of government for R&D policy program
- 2014. 12 **New Patent register of S-Disc for severe service valves**
- 2015. 01 **Established KTS R&D department in KTS SEOUL**
- 2017. 02 Occupancy of a new factory (13, MTV 10-10, Danwon-gu, Ansan-si, Gyeonggi-do, Republic of Korea.)
- 2018. 07 Business agreement with KVC JAPAN
- **2019. 09 US TRILLIUM Flow Technologies OEM Supply** (PRV, Control Valve, Ball valve)
- 2019. 10 Performing POSCO BS tasks (Spray valve, Shut-off valve)
- 2019. 10 Delivered to R&D Valmax Tech. Korea - **Cryogenic Ball Valves**
- **2020. 02 Registered Venture company**
- 2020. 11 Adopting Government Technology Innovation Tasks
- **2021. 12 Acquired new technology certificate NET**
- 2021. 12 **Passed Performing POSCO BS tasks** (Spray valve, Shut-off valve)
- 2022. 12 Acquired Certification of a Qualified Supplier



- **Featured Products**
 - Globe Control Valve for Severe Service and General Service
 - Pressure Regulator Valve
 - Ball Valve for Cryogenic Service , Metal seated Ball Valves
- **Technology Globe Control Valve**
 - Ability to design and manufacture top grade valve for power plant
 - Pneumatic actuator design capability
 - Test equipment required for verification
- **Technology Pressure Regulator Valve**
 - Customized custom design of industrial automatic pressure control valve
 - Product performance in accordance with international standards
 - Create technical and quality documents required by overseas plants
 - Ability to design and manufacture test equipment to guarantee product performance
 - Design and manufacture valves operating at ultra high pressure and high temperature
 - Creation and production of required documents for nuclear power plants
- **Technology Ball Valve**
 - Secured metal seat & zero leakage (metal seat & no leakage) technology
 - Patented metal seat ball valve for high temperature and high pressure
 - Cryogenic ball valve technology for LNG
 - Patented ultra low temperature ball valve
 - Packing leakage prevention technology international standard rating

■ Valve Design

- Due to the nature of valves used in power plants or oil refineries, we have the design ability and experience to design according to the prescribed design standard (ANSI, DIN, JIS, BS). Supply.
- It is possible to carry out the equipment verification with its own technology by having design and report writing ability of QME-1 (device verification test) test device in addition to the DESIGN REPORT specified by the Nuclear Power Law when supplying valves for nuclear power plants among OEM supply parts in particular.
- Based on 30 years 'experience of designing and working experience in foreign companies' labs, we can design customized products according to international standards. Especially, we have experience in designing cryogenic valves and ultra high temperature and high-pressure valves without domestic technology.

■ Valve Manufacturing

In case of ultrasonic pressure control, the meter is not supplied properly, so it is supplied by customer's approval using its own measurement method.

In the case of PRV, ultrafine pressure control with a set pressure of 0.005 barg is the only precision technology that can be supplied exclusively in domestic production capacity.

In the case of ball valve, it is precisely polished using a self-made grinding machine which realizes zero leak in metal seat system, so the security of the technology is fully maintained.

Materials and machining are supplied through suppliers, but assembling and testing are carried out by themselves, ensuring final performance and quality with their own technology.

■ Valve Quality

After machining, dimensional inspection is proceeding with general inspection method.

The performance test after assembling tests the key points of the core technology by self-testing equipment, device, jig etc.

In order to secure the objectivity of the inspection, the performance inspection is carried out at the entrance of the customer during the inspection process and at the entrance of the accredited institution or the third party inspection agency, and the report and report are prepared.

■ Utilization of technology

- Our products are mainly used in power plants and industrial petrochemical plants. Since all products are used in energy related facilities, the performance of products is directly linked to energy efficiency and it is focused on improving energy efficiency.
- In particular, most of the products are supplied by OEM and exported to overseas. We are planning to advance into the global market with our own BRAND if we accumulate the results and accumulate the technology because we are recognized by competing in quality and performance with world-class products.
- Technology for increasing energy efficiency due to energy depletion and global warming on the earth is preferred. The automatic regulator technology which does not need special power supply source in the future plant market is expected to become a very useful automatic control device .

- Capability

- A MASTER ENGINEERING ENGINEER DESIGNED OPTIMIZED VALVES
- VALVE DESIGN FOR OF ASME SEC III REQUIREMENT
- SEISMIC ANALYSIS REPORT FOR I- EEE 382,384 OF PNEUMATIC ACTUATOR
- VALVE DESIGN FOR QME-1 REQUIREMENT
- EPRI CALCULATION REPORT
- DYNAMIC QUALIFICATION REPORT
- NATURAL FREQUENCY CALCULATION REPORT
- WEAK LINK ANALYSIS REPORT

- Category

- Globe Control Valve for Severe Service
- HP – Bypass Valve
- Desuperheater
- Dump Tube
- Ball Valve for Cryogenic Service , Metal seated Ball Valves,
- Pressure Regulator
- Gate On-off Valve

Reference List

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Year	Project	Item	Product Range
2021. 01	KEPCO BNPP J231 PRV	Pressure Regulating Valve(1ea)	2" 150# BW
2021. 03	Shin-Kori 5&6 J231 RTM-8	Pressure Regulating Valve(6ea)	3/4", 1", 2" 150#
2021. 04	Shin-Kori 5&6 J231 RTM-9	Pressure Regulating Valve(5ea)	1-1/2", 2" 150#
2022. 02	SBM_Almirante	Pressure Regulating Valve(19ea)	1"~8" 150#
2022. 06	SBM_Almirante	Pressure Regulating Valve(1ea)	2" 300#
2022. 08	Barakah 1,2,3&4	Pressure Regulating Valve(1ea)	1" /900#
2022. 09	Oumache-3 PRV	Pressure Regulating Valve(5ea)	2" / 150#,300#,600#
2022. 11	Almirante Tamadare FPSO	Pressure Regulating Valve(10ea)	1"~2" 150#
2023. 01	Singapore Spring Cariflex	Pressure Reducing Valve(174ea)	3/4"~1" 150#
2023. 02	EPC for Al Dbbiya	Pressure Regulating Valve(8ea)	1" 150#
2023. 03	Shin Kori Nuclear Power Plant 5&6 J231 RTM-15	Pressure Reducing Valve(1ea)	2" 150#
2023. 04	Dabbiya	Pilot Operating Back Pressure(2ea), Pressure Regulating Valve(1)	2" 300# 8" 150#
2023. 09	EPC Al Dabbiya Thamama	Pressure Regulating Valve(12ea)	1/2" 150#, 1" 150#
2023. 09	KARBALA	Pressure Regulating Valve(1ea)	1" 300#
2023. 10	Petrocon ECC	Pressure Regulating Valve(1ea)	1" 600#



Reference List

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Year	Project	Item	Product Range
2021. 04	PIPECHINA TIANJIN LNG PHASE II RECEIVING TERMINAL PROJECT	Control Valve(8ea)	1-1/2", 4" 300#
2021. 07	FUJIAIRAH F3 CV	Control Valve(9ea)	2" 600# 900#, 1" 900#
2021. 07	TIMOR-1 BYPASS	Control Valve(4ea)	1-1/2" 300#
2021. 08	MEGHNAGHAT CV	Control Valve(29ea)	1-1/2"~2" 600#, 1-1/2"~2" 1500#
2021. 09	Ciprel IV Volet B Project (350MW)	Control Valve(1ea)	1-1/2" 800#
2021. 12	Malaysia NBL	Control Valve(2ea)	1" 150# RF
2022. 03	Sarawak methanol project	Control Valve(4ea)	1" 150# RF
2022. 03	Sulut-1 CFSPP	Control Valve(4ea)	1-1/2" 300#
2022. 03	Sarawak Methanol	Control Valve(4ea)	1" 150#
2022. 04	Sulut-1 CFSPP	Control Valve(2ea)	1-1/2" 300# RF
2022. 06	SHIN SEJONG AOV	Control Valve(1ea)	2" 1500# SW
2022. 12	IRAQ	Control Valve(4ea)	1/2" 300#
2023. 04	ULSAN GPS	Control Valve(3ea)	1-1/2"~2", 600#
2023. 05	Tanajib	Control Valve(10ea)	1-1/2" 2" 600#
2023. 09	Nhon Trach 3&4	Control Valve(2ea)	2" 150#



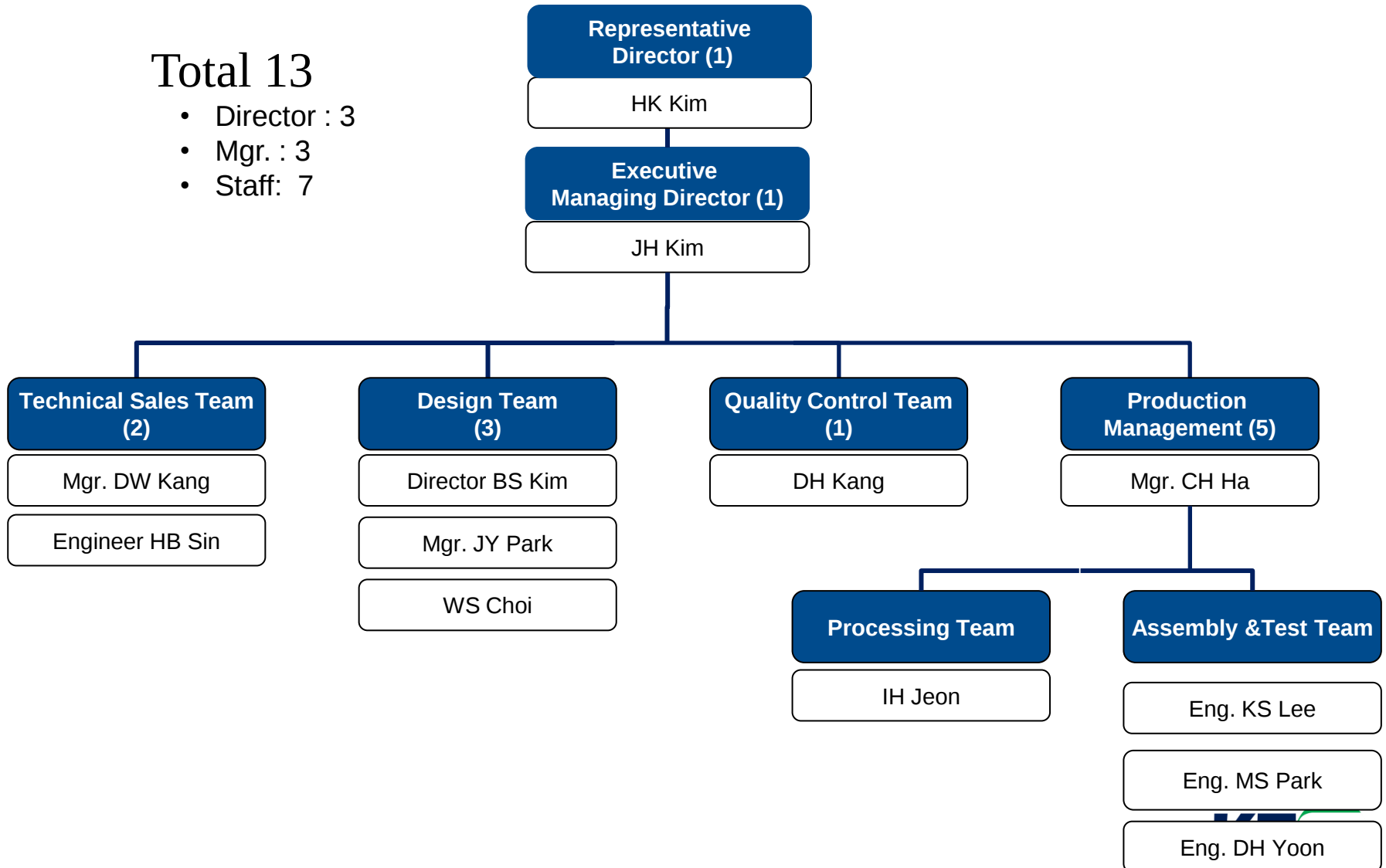
Reference List

Year	Project	Item	Product Range
2021. 02	Shin-Kori Units 5-6 V-Notch Ball Valve	V-Nortch Ball(2ea)	12" / 300LB / 14.9 bar.g / 247.38°C
2021. 04	PIPECHINA TIANJIN LNG PHASE II RECEIVING TERMINAL PROJECT	Ball Valve(24ea)	1/2"~4" 300# RF
2021. 09	Ulsan 1 factory#2	Ball Valve(1ea)	3"-2500# 7kg/cm2
2021. 12	Gwangyang No. 4 Blast Furnace 2nd Repair PJT	Ball Valve(1ea)	1" 30K RF
2021. 12	Dangjin Units 1-4 Environmental Facility Performance Improvement Project	Ball Valve(8ea)	2-1/2"(DN65) 150# RF
2022. 01	ARAKAWA	V-Ball Valve(27ea)	MOV-3014
2022. 02	TAEAN TPP UNIT 9,10NITS	Ball Valve(1ea)	2" 600# SW
2022. 02	TVA Paradise	Ball Valve(9ea)	2" 600# RE
2022. 10	OSEONG Combined Cycle Power Plant	Top Entry (24ea)	1.5"~2.5", 600#~2500# RF
2023. 02	JGC BALL VALVE	Ball Valve (2ea)	1-1/2" (DN40) 2500# RTJ
2023. 02	JIJEL CV	Ball Valve (2ea)	2" 1500#, 2" 900#
2022. 05	Jeju Combined HRSG Top Entry Ball Valve	Top Entry Ball Valve 10ea	1.5"~3" / 1500#~2500#
2023. 09	Pyeongtaek Energy Service	Top-Entry Ball Valve(3ea)	1" & 1.5"-4500#-SW
2023. 11	Boryeong Thermal Power Co., Ltd.	Top-Entry Ball Valve(4ea)	1.5"-4500#
2023. 11	Taeon Unit4, DRN MOV Top-Entry - PLANT1	Top-Entry Ball Valve(1ea)	2"-4500#-SW

Organization Structure

Total 13

- Director : 3
- Mgr. : 3
- Staff: 7



Superior Valve Technology

Globe Control Valve



Actuator

- Pneumatic Cylinder & Diaphragm Actuator
- Scotch-yoke



Ball Valve

- Top entry Metal Seat
- Rising Stem Ball Valve

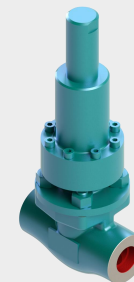


Cryogenic Valve

- Top & Side Entry Ball Valves
- Cryogenic Control Valve



Pressure Regulating Valves



Desuperheater

- Single & Variable Nozzle
- Integral Variable Multi-Nozzle
- Pipe Desuperheater



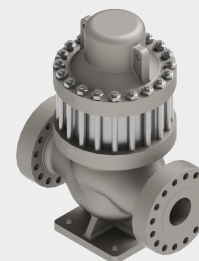
Turbine bypass valve



Blanketing Valves (Pilot Acting)



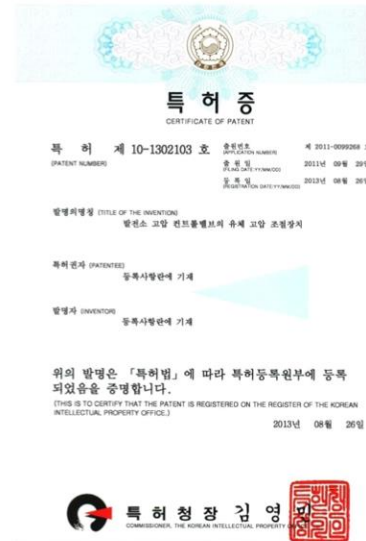
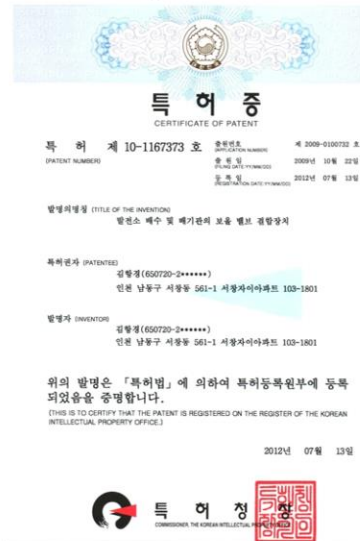
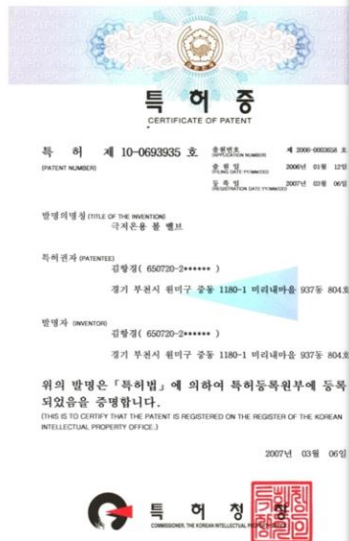
Spray Valve



Globe and Angle Choke Valve



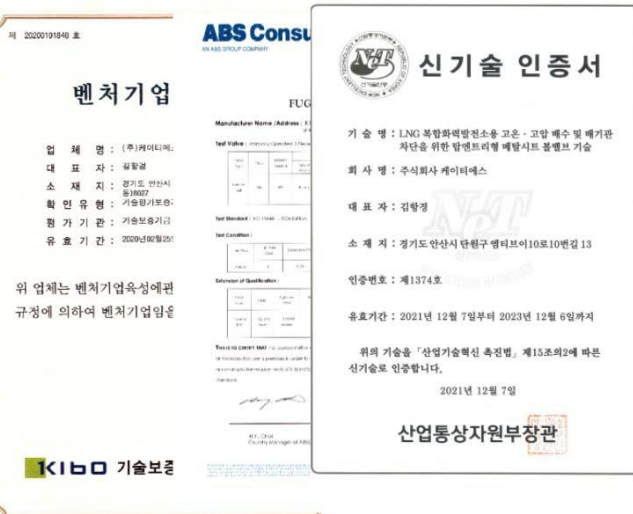
Engineered valves to improve process productivity, safety for your operations.



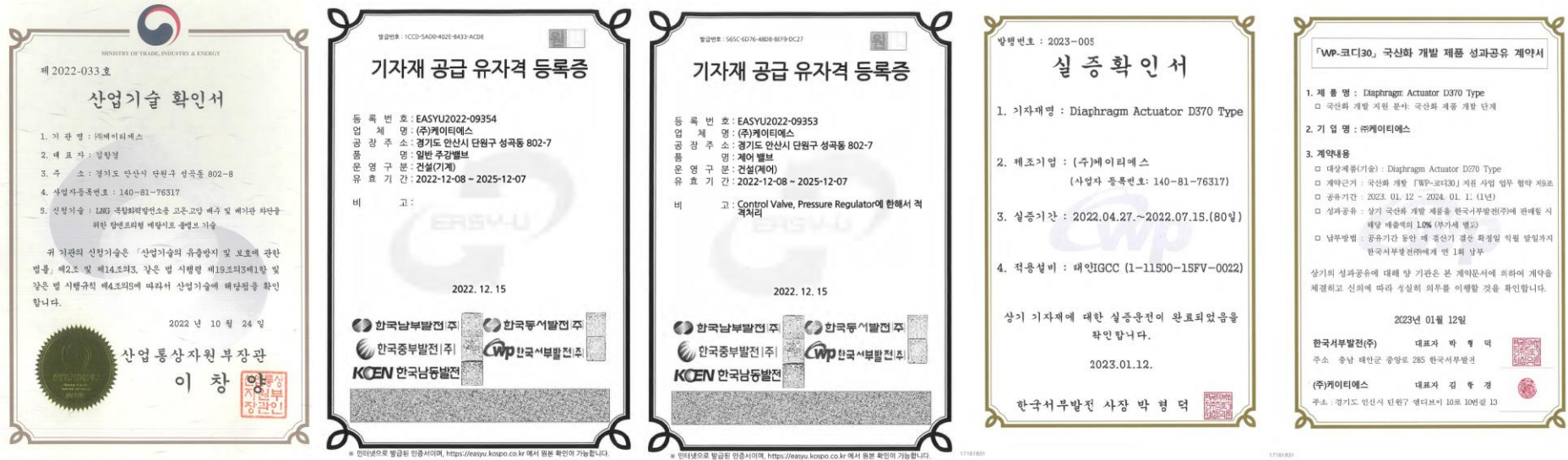
- Cryogenic Ball Valve Patent (10-0693935)
- Top Entry Metal Seat Ball Valve Patent (10-2500977)
- High Pressure Control Valve Patent (10-1302103)
- Control Valve Patent (10-1583164)
- Ball Valve Patent (10-1167373)
- Trademark Registration Certificate “Helitork” (40-0904129)
- Certificate of design Registration (30-0808090)

Certificate (PATENT,CERTIFACATION)

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- ISO 9001 Certificate
- Established R&D center
- Power plant Certificate of a qualified company (Check valve, Pneumatic type, Globe valve, Relief valve)
- ISO-15848-1 Fugitive emission for the Ball Valves
- NET Certificate



- Certificate of Industrial Technology
- Certificate of a Qualified Supplier
- Certificate of Verification

시설 및 장비명	규격	구입년도	용도	보유기관
수압시험기	24"	2009	밸브 수압시험	(주)케이티에스
소형 수압시험기	6"	2009	밸브 수압시험	(주)케이티에스
F.E Tester	20"	2010	패킹누설검증	(주)케이티에스
Cv 시험기	4"	2009	밸브유량계수시험	(주)케이티에스
구동부 조립기	50 ton	2009	구동부 조립	(주)케이티에스
Partial Stroke Tester	24"	2014	볼밸브 작동시험	(주)케이티에스
지게차	1.5 ton	2011	중량물이동	(주)케이티에스
컴프레셔	5.5 HP	2012	공압 공급	(주)케이티에스
정밀토크렌지	EMA 450	2022	정밀 조립	(주)케이티에스
Steam 보일러	0.2 ton/hr ~ 1.0 MPA	2015	스팀시험	(주)케이티에스
가스 부스터	36 Mpa	2022	압력 시험	(주)케이티에스

REFERENCE LIST (2013-2024)-Control Valve



산소공장용

Last Updated : 2024.06

Year	Customer	Project	Country	Item	Product Range
• In 2013					
2013. 08	DOOSAN HEAVY INDUSTRIES	MOMG DUONG 1 CONTROL VALVE	Bietnam	Control Valve(18ea)	2", 6"-600#
2013. 09	POSCO	POSCO HEAT ONLY BOILER	Korea	Control Valve(34ea)	2", 6"-600#
2013. 09	DOOSAN HEAVY INDUSTRIES	MONG DUONG 1	Bietnam	Control Valve(31ea)	1", 2", 10"-600#
2013	Unimech Thailand	KKSP2 Thailand	Thailand	Control Valve(3ea)	8"-300#
• In 2014					
2014. 04	KEPCO E&C	TAEAN IGCC LET DOWN	Korea	Control Valve(6ea)	1"-600#
2014. 04	KEPCO E&C	Ciprel IV Volet B Project (350MW)	Cote d'Ivoire	Control Valve(1ea)	
2014. 05	POSCO	CHILE COCHRANE	China	Control Valve(4ea)	1", 1-1/2"-600#
2014. 05	DOOSAN HEAVY INDUSTRIES	THAI BINH 2	Bietnam	Control Valve(50ea)	1-1/2", 2, 6"-600# / 14"-900#
• In 2016					
2016. 01	Daewoo Corporation	SAFI	Korea	Control Valve(1ea)	1"-600#
2016. 01	SAMSUNG C&T	MIRFA	Korea	Control Valve(2ea)	2"-150#
2016. 01	POSCO	Seongmun group Energy	Korea	Control Valve(1ea)	1"-150#
2016. 01	POSCO	Chuncheon group Energy	Korea	Control Valve(8ea)	1", 2", 1.5"-600#
2016. 02	DOOSAN HEAVY INDUSTRIES	VINH TAN4 BOILER	Indonesia	Control Valve(2ea)	2" 150#
2016. 02	SAMWON ENGINEERING.Co.Ltd	JANGMOON/SAMWON ENGINEERING	Korea	Control Valve(1ea)	1"-600#
2016. 02	Loftyman Engineering Ltd.	LF-11135	Korea	Control Valve(8ea)	1", 1.5"-300#
2016. 02	Loftyman Engineering Ltd.	LF-11134	Korea	Control Valve(4ea)	1"-300# / 1.5"-1500#
2016. 06	S&TC	Youngnam CCPP	Korea	Control Valve(2ea)	2"-1500#
2016. 06	POSCO	Chuncheon group Energy-hanchang	Korea	Control Valve(2ea)	2"-150#
2016. 06	Loftyman Engineering Ltd.	Nanjiang	China	Control Valve(1ea)	1"-300#
2016. 06	Loftyman Engineering Ltd.	Jiangyan	China	Control Valve(4ea)	1"-600#
• In 2017					
2017. 09	DKME	JIJEL/DKMC	Algeria	Control Valve(10ea)	1"-600#, 1.5"-600#, 2"-600#
2017. 10	HANWHA CHEMICAL	Sammi Tech	Korea	Control Valve(1ea)	1"-300#
2017. 11	KVC (Export)	Chiyoda Singapore	Japan	Cryogenic Control Valve(10ea)	1" 600#
2017. 11	KAIS	KAIS	Korea	Control Valve(4ea)	2"-300#
2017. 12	DOOSAN HEAVY INDUSTRIES	VT4 Exrention		Control Valve(10ea)	2"-150, 600#
2017. 12	GS EPS & BHI Ltd	KAIS	Korea	Control Valve(14ea)	1", 1.5", 2"-600#
2017. 12	DOOSAN HEAVY INDUSTRIES	VT4 Exrention		Control Valve(19ea)	1", 2"-600#, 1"-900#
2017. 12		ARMACO COGEN		Control Valve(6ea)	1"-600#
• In 2018					
2018. 01	POSCO	광양 포스코 1 제강공장	Korea	Control Valve(7ea)	6"-20K, 8"-20K, 10"-20K, 12"-20K
2018. 02	KEPCO	Ciprel KEPCO	Korea	Control Valve(1ea)	2"-600#

Year	Customer	Project	Country	Item	Product Range
2018. 03	KIPIC	KIPIC		Control Valve(2ea)	1" ,2"-150#
2018. 12	DKME	JIJEL	Algeria	Control Valve(2ea)	2"-150#
2018. 12	POSCO	광양 포스코 1 제강공장 - 산소공장	Korea	Control Valve	2", 300#
• In 2019					
2019. 01	komipo	Shin Seochon AOV	Korea	Control Valve(1ea)	2" 300#
2019. 03	Hanwha Chemical	Yeosu	Korea	Control Valve(1ea)	1" 150#
2019. 03	SK	SK MATERIALS	Korea	Cryogenic Control Valve(3ea)	1.5" JIS 10K
2019. 03	SK	PACO Power Plant Project		Control Valve(1ea)	1.5" 600#
2019. 03	Hyundai Engineering & Construction Co., Ltd.	2x500MW MONG DUONG1 TPP	Vietnam	Control Valve(1ea)	2" 600#
2019. 04	DOOSAN HEAVY INDUSTRIES	Ko Sung Hai AOV		Control Valve(1ea)	2" 600#
2019. 06	Korea ENG(GANA ENERGY)	GANA BIOMASS TBP	GANA	(PRDS)Desuperheater	10" 300#
2019. 06	Hyundai E&C Co.Ltd	QATAR RAPO	QATAR	Control Valve(1ea)	1"-150#
2019. 06	Petroleum Development Oman	TAYSEER EDF	Oman	Control Valve(1ea)	2"-150#
2019. 09	SK	SK MATERIALS	Korea	Cryogenic Control Valve(3ea)	2" JIS 10K
2019. 09	BHI	Sulsel Barru 2 PJT		Control Valve(13ea)	1.5", 2" 600#
2019. 10	R&D Valmax Tech. Korea	-	Korea	Cryogenic Control Valve (7ea)	2"-150# 9 bar.g
2019. 10	Daesan Green Energy	Daesan hydrogen fuel cell	Korea	Control Valve(2ea)	1", 2" 600#
2019. 10	VALMAX	VALMAX	Korea	Cryogenic Control Valve(2ea), Control Valve(1ea)	1.5" 150#
2019. 12	GW POWER	RIAU GFPP 275MW IPP PROJECT		Control Valve(1ea)	2" 300#
• In 2020					
2020. 06	POSCO	Four) Development of the Localization of the Descaling Valve for High Pressure with Two-Fire Heating	Korea	Spray Valve(2ea)	8", 10" 2000#
2020. 07	osungsystem	Sechang Eentech Co., Ltd. Control Valve	Korea	Control Valve(3ea)	1", 2" 10K, 4" 30K
2020. 07		Pohang Revival	Korea	Control Valve(18ea)	1", 1.5" 600#, 1", 1.5", 2" 1500#
2020. 08	POSCO	POSCO POHANG NEW BY-PASS	Korea	Control Valve(1ea)	1/2" 150#
2020. 08	hyosunheavyindustries	Oriental Environment Private Power Generation Facility	Korea	(PRDS)Desuperheater	14" 150#
2020. 08	osungsystem	Oriental Environment Private Power Generation Facility	Korea	Control Valve(2ea)	3" 150#, 4" 300#
2020. 09	hyosunheavyindustries	Small Scale waste to Energy Project at S.Hithadhoo	Korea	(PRDS)Desuperheater	10" 300#
2020. 09	Kogas	Replacing the 1st Base Deteriorated Pneumatic Valve Drive Unit in 2020	Korea	Actuator	18ea
2020. 10	하이테크 엔지니어링	QA촉매 공정 증산	Korea	Control Valve(2ea)	1" 150# RF
2020. 10	강원	Polimiey Police CV	Korea	Control Valve(3ea)	1" 600# RF
2020. 10	CTCI	Tung Hsio Power Plant	Taiwan	(PRDS)Desuperheater	4"x6" 1500# RF
• In 2021					
2021. 01	SK E&C	여주 CCPP	Korea	Control Valve(1ea)	2" 600# SW
2021. 01	SK E&C	여주 CCPP	Korea	Control Valve(1ea)	1" 600# SW
2021. 02		원주그린에너지	Korea	Control Valve(1ea)	1" 600# SW
2021. 04	osungsystem	대성에코그린	Korea	Control Valve(1ea)	4" 300# RF
2021. 04	osungsystem	아람에너지	Korea	Control Valve(8ea)	2"-8" 10K-30K RF
2021. 04	원일 T&I	PIPECHINA TIANJIN LNG PHASE II RECEIVING TERMINAL PROJECT	Korea	Control Valve(8ea)	1-1/2", 4" 300#
2021. 05		FUJIAIRAH F3 CV	FUJIAIRAH	Control Valve(3ea)	2" 600#

Year	Customer	Project	Country	Item	Product Range
2021. 07		FUJIAIRAH F3 CV	FUJIAIRAH	Control Valve(9ea)	2" 600# 900#, 1" 900#
2021. 07	SK E&C	SMART ENERGY	Korea	Control Valve(2ea)	1" 600#, 2" 600#
2021. 07	PLN	TIMOR-1 BYPASS		Control Valve(4ea)	1-1/2" 300#
2021. 08	SAMSUNG C&T	MEGHNAGHAT CV	Bangladesh	Control Valve(29ea)	1-1/2"~2" 600#, 1-1/2"~2" 1500#
2021. 09	KEPCO E&C	Ciprel IV Volet B Project (350MW)	Cote d'Ivoire	Control Valve(1ea)	1-1/2" 800#
2021. 09	SK E&C	SMART ENERGY	Korea	Control Valve(1ea)	1" 600#
2021. 10	Hyundai E&C Co.Ltd	DATAN ADD-ON		Control Valve(10ea)	1"~2" 600#
2021. 12		Gas po315316		Control Valve(1ea)	1" 600# SW
2021. 12	Hyundai E&C Co.Ltd	DATAN ADD-ON 20-TK-3260		Control Valve(2ea)	2" 600# SW
2021. 12		Malaysia NBL		Control Valve(2ea)	1" 150# RF
2021. 12	POSCO	광양 4고로 2차 개수 - 산소공장	Korea	Control Valve (Trim Monel)	1" 30K (Ball)
2021. 12	POSCO	광양 2제강공장 산소밸브	Korea	Control Valve (Trim Monel)	1.5", 300#
• In 2022					
2022. 03	BHI	Sarawak methanol project	Korea	Control Valve(4ea)	1" 150# RF
2022. 03		DATAN ADD-ON 20-TK-3260		Control Valve(2ea)	2" 600# SW
2022. 03		Sulut-1 CFSPP		Control Valve(4ea)	1-1/2" 300#
2022. 03		Sarawak Methanol		Control Valve(4ea)	1" 150#
2022. 04	TOYO ENG	Sulut-1 CFSPP	Japan	Control Valve(2ea)	1-1/2" 300# RF
• In 2023					
2023. 04		ULSAN GPS		Control Valve(3ea)	1-1/2"~2", 600#
2023. 05		한국지역난방공사		Control Valve(1ea)	1" 150#
2023. 05		Tanajib		Control Valve(10ea)	1-1/2", 2" 600#
2023. 09		Nhon Trach 3&4		Control Valve(2ea)	2" 150#
2023. 06	POSCO / DWCT	양극재설비	Korea	Control Valve (13ea) - Cryogenic valve 10ea	1",1.5", 2", 4" 150# RF
• In 2024					
2024. 01	POSCO / DWCT	영일만 산업가스 (산소공장) - Cryogenic	Korea	Control Valve (7ea) - Cryogenic valve	1",2"3",8", 150# RF / 3", 8", 300# RF
2024. 05	VIETSOVPETRO (Export)	MODIFICATION OF PROCESS SYSTEM ON CPP3	Vietnam	Control Valve (11ea)	1",6", 10" 300#
2024. 08	South Pars Gas Complex (SPGC)	Phase19 (Flaring Reduction) Project	Iran	Control Valve (1ea)	20", 900# RTJ

KTS CONTROLS OVER VIEW

GLOBE CONTROL VALVE
BALL VALVE
ACTUATOR
PRESSURE REGULATING VALVE
DESUPERHEATER

CONDENSED PRODUCT CATALOGUE



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GLOBE CONTROL VALVE

KC-1000

STANDARD GLOBE BODY

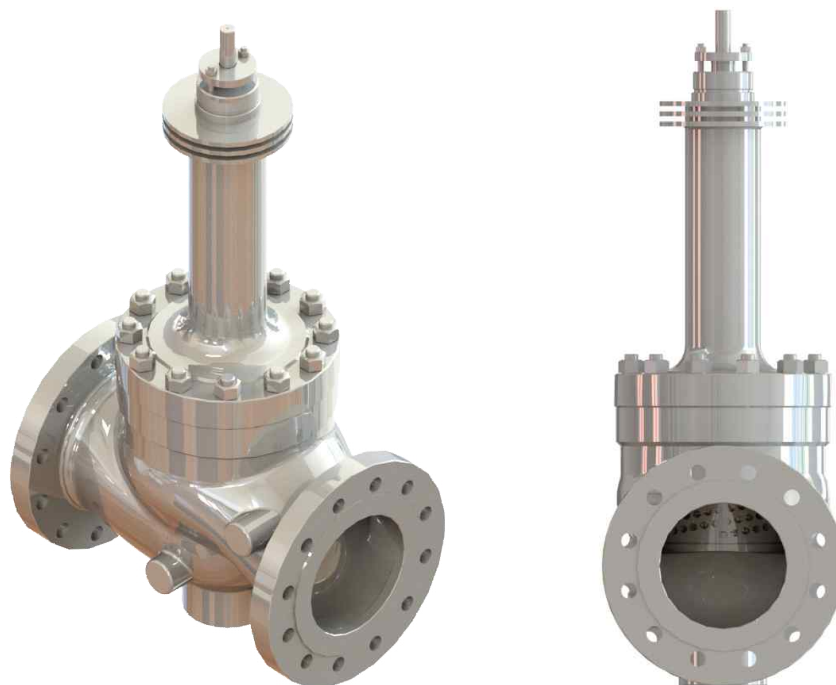


SIZE	1/2"(DN 15) ~ 24"(DN 600)	
RATING	ANSI 150LB ~ ANSI 4500LB	
TEMP	~ 610°C	
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel (316SS, 304SS+Stellite, 410SS, 420SS+Q.T, Alloy Steel+HF, Solid TC, etc.)	
TRIM	- CASCADE PLUG TRIM	- SPLINE TRIM
	- CAGE PLUG TRIM	- MULTI PORT TRIM
	- MULTI HOLE TRIM	- S-DISC TRIM
	- S-STREAM TRIM	- STEP HOLE TRIM
	- PILOT TRIM	- FLASH TRIM
FEATURES	- Quick Change Trim Design - Lightweight with Anti Noise, Anti Cavitation Trim - Trim Exit Energy Control - High Strength, High Natural Frequency Design	

GLOBE CONTROL VALVE

KC-C1000

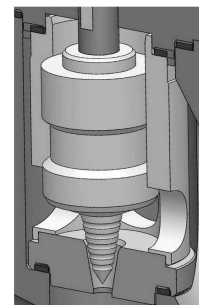
CRYOGENIC GLOBE BODY



SIZE	1/2"(DN 15) ~ 24"(DN 600)	
RATING	ANSI 150LB ~ ANSI 2500LB	
TEMP	-196°C ~	
MATERIALS	BODY : Casting Stainless Steel, Forged Steel TRIM : Stainless Steel (316SS, 304SS+Stellite etc.)	
TRIM	- CASCADE PLUG TRIM	- SPLINE TRIM
	- CAGE PLUG TRIM	- MULTI PORT TRIM
	- MULTI HOLE TRIM	- S-DISC TRIM
	- S-STREAM TRIM	- STEP HOLE TRIM
	- PILOT TRIM	- FLASH TRIM
FEATURES	- Quick Change Trim Design - Lightweight with Anti Noise, Anti Cavitation Trim - Trim Exit Energy Control - High Strength, High Natural Frequency Design	

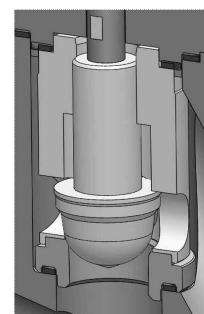
GLOBE CONTROL VALVE TRIM

CASCADE PLUG



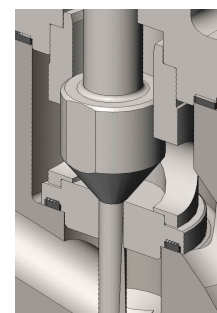
SIZE	1/4" ~ 12"(DN 300)
FEATURES	High rangeability, Preventing cavitation, Reducing Noise and vibration at the high pressure drop
APPLICATIONS	Boiler feed pump recirculation HP, Reheat spray water control Desuperheating Cooling water control

CAGE PLUG



SIZE	1/4" ~ 4"(DN 100)
FEATURES	Low pressure drop, High capacity
APPLICATIONS	Air conditioning chilled water control Fuel oil and gas supply general service Steam pressure reducing general service

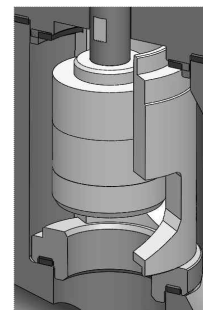
SPLINE PLUG



SIZE	1/4" ~ 2"(DN 50)
FEATURES	Low Flow Control at the High Pressure Drop
APPLICATIONS	Reheat spray control Cooling water control High pressure desuperheater cooling water control Pump recirculation

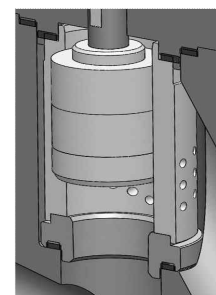
GLOBE CONTROL VALVE TRIM

MULTI PORT



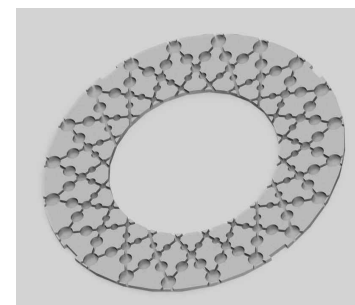
SIZE	2"(DN 50) ~ 24"(DN 600)
FEATURES	High Capacity, Low Pressure Drop, Modulating and On/Off Control Wide Range of Application with either Compressible or Non-compressible Fluids
APPLICATIONS	Feedwater control, Level control. Condensate recirculation. Steam pressure reducing.

MULTI HOLE



SIZE	1/8" ~ 20"(DN 500)
FEATURES	Anti cavitation design, Low noise and reducing erosion damage
APPLICATIONS	Steam Pressure Reducing. Deaerator Level Control. Steam Dump Condensate Recirculation. Feedwater Regulation Gas and Liquid Flow Control

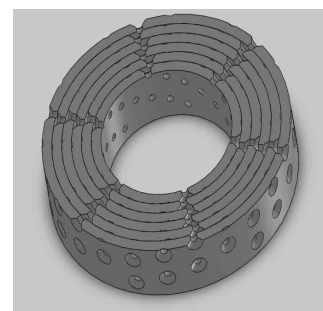
S-DISC



SIZE	1/8" ~ 24"(DN 600)
FEATURES	Disc Stack Trim, Anti Cavitation and Anti Noise at the High Pressure Drop Trim Exit Energy Control both of Compressible or Non-Compressible Fluids
APPLICATIONS	Feedwater Minimum Flow Recirculation control, Boiler Level Control, Vent Flow Control, High Velocity Gas Flow Control.

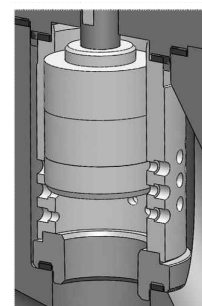
GLOBE CONTROL VALVE TRIM

S-STREAM



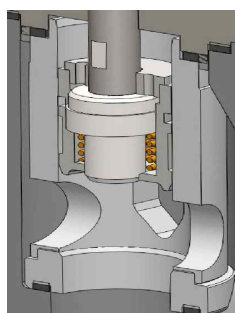
SIZE	1/8" ~ 24"(DN 600)
FEATURES	Cylinder Stack Trim for Multi Stage and Multi Flow Path, Anti Cavitation and Anti Noise for High Pressure Drop Gases or Liquids
APPLICATIONS	Feedwater Minimum Flow Recirculation control, Boler Level Control, Vent Flow Control, Hlgh Velocity Gas Flow Control.

STEP HOLE

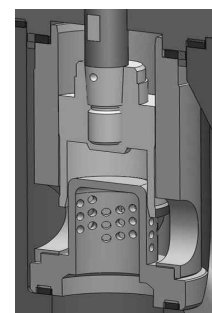


SIZE	2"(DN 50) ~ 24"(DN 600)
FEATURES	Low Level Cavitation Control, Reducing Noise and Vibration Control
APPLICATIONS	Feedwater control. Tank drains. Condensate recirculation.

PILOT



FLASH



SIZE	4"(DN 100) ~ 24"(DN 600)
FEATURES	Tight Shut-Off Leakage Class with Wide Range Application
APPLICATIONS	Steam Vent and Discharge. Feed water main control. Condensate recirculation. Turbine By-Pass pressure control.

SIZE	2"(DN 50) ~ 24"(DN 600)
FEATURES	High Level Choked Flow Control Flashing Fluid Control
APPLICATIONS	Flashing Service Tank Drains, Steam Dump Feed Water Control Choke Flow applications.

DESUPERHEATERS

IVM

INTEGRAL MULTI NOZZLE DESUPERHEATER



PMN

PIPE DESUPERHEATER



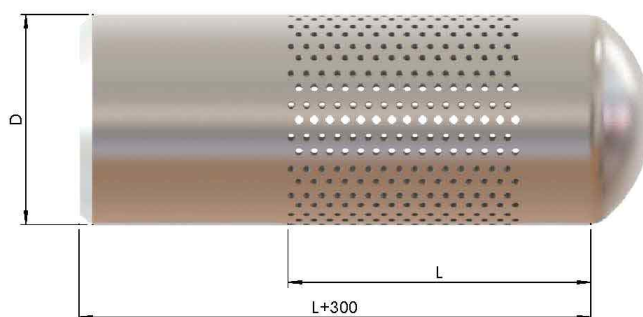
SIZE	1"(DN 25) ~ 3"(DN 80) for (6"~36")
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Forged Alloy steel PLUG : Stainless Steel SPRING : Inconel
TYPE	Integral Multi Nozzle
RANGE ABILITY	It's dependent upon the nozzle arrangement selected 6:1 to 1:100.
CV	0.2 ~ 12

SIZE	2"(DN 50) ~ 60"(DN 1500)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Forged Alloy steel PLUG : Stainless Steel SPRING : Inconel
TYPE	Variable Nozzle
RANGE ABILITY	One Nozzle : 1/25 Hybrid Nozzle : 1/50
CV	0.5/0.8/1/1.3/1.6/2/2.5/3/3.5/4

BY-PASS LINE

KDT

DUMP TUBE



SIZE	3"(DN 80) ~ 60"(DN 1500)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Forged Alloy steel CAP : Forged Alloy steel
TYPE	A1 : AIR W1 : WATER

VALUES FOR DISTRIBUTION HEADER SIZING

Nominal Pipe Size (inch)	Required Length of Header(L)
3	400 ~ 800 mm
4	500 ~ 1,000 mm
5	625 ~ 1,250 mm
6	750 ~ 1,500 mm
8	1,000 ~ 2,000 mm
10	1,250 ~ 2,500 mm
12	1,500 ~ 3,000 mm
14	1,750 ~ 3,500 mm
16	2,000 ~ 4,000 mm

※header size for Coldewater

PNEUMATIC ACTUATOR

HCL

CYLINDER TYPE



HDA

DIAPHRAGM TYPE



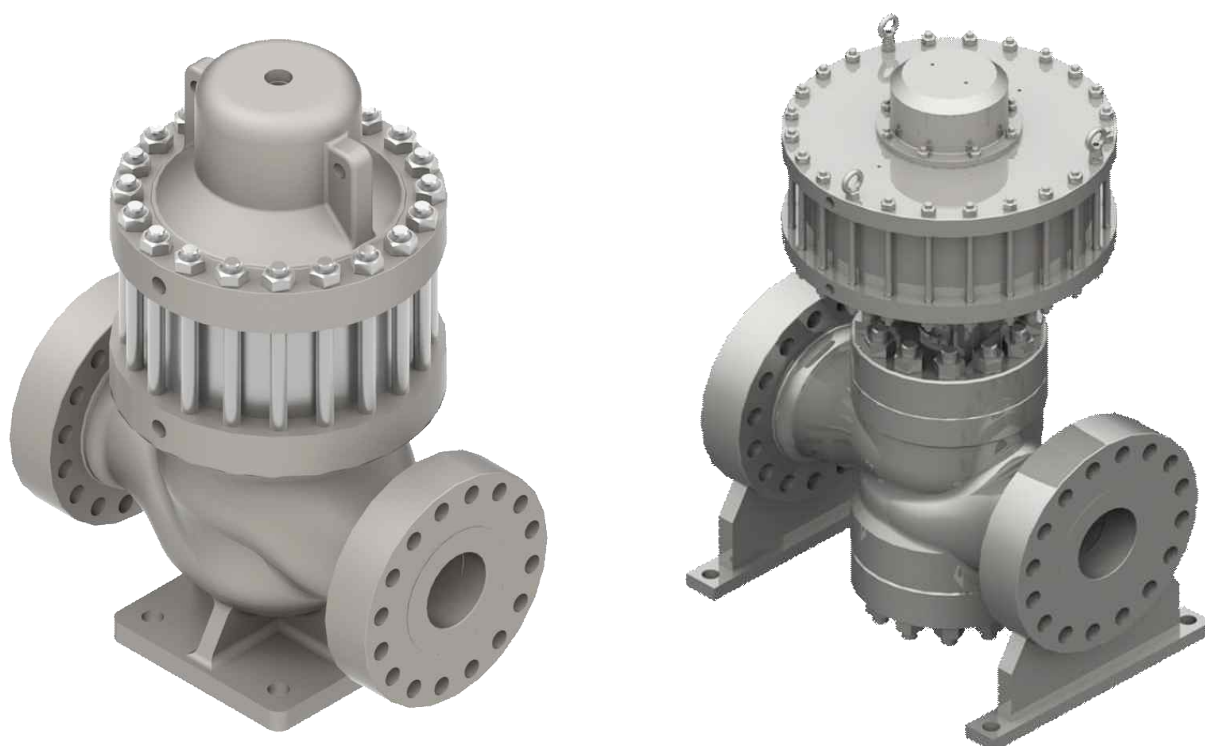
SIZE	300 / 350 / 400 / 450 / 500 / 550 / 600
FUNCTION	Direct, Reverse, Double
MATERIALS	CASE : Carbon Steel PISTON : Carbon Steel STEM : Stainless
BENCH SET	Pressure 2.5 ~ 3.5 bar g for Reverse Pressure 0.5 ~ 1.5 bar g for Direct
TRAVEL	25 ~ 250mm
FEATURES	Standard top mounted handwheels High stability and high thrust force High linearity Low hysteresis

SIZE	250 / 290 / 370 / 480 / 550
RATING	Direct, Reverse
MATERIALS	CASE : Carbon Steel DIAPHRAGM : NBR, EPDM, VITON STEM : Stainless
BENCH SET	Pressure 1.2 ~ 2.8 bar g for Reverse Pressure 0.4 ~ 1.4 bar g for Direct
TRAVEL	25 ~ 250mm
FEATURES	Standard top mounted handwheels High stability and high thrust force High linearity Low hysteresis

DESCALING VALVE

DSV

HIGH PRESSURE TYPE



SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : Graphite + 316SS, Graphite
ACTUATOR	HCL : Pneumatic Actuator (Cylinder Type)
TEMP	Up to 200°C
WORKING PRESSURE	10 ~ 50 bar g 50 ~ 100 bar g 100 ~ 200 bar g 200 ~ 300 bar g 300 ~ 400 bar g
FEATURES	- Quick Change Trim Design - Long Life Cycle - Trim Exit Energy Control - High Strength, High Natural Frequency Design

PRESSURE REGULATING VALVE

KPR-1000

PILOT ACTING STEAM SERVICE



KPR-2000

LIQUID AND GAS SERVICE DIRECT ACTING REGULATOR



SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 1500LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : Graphite + 316SS, Graphite SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.1 ~ 0.5 bar g 0.3 ~ 1.2 bar g 0.8 ~ 2.5 bar g 1 ~ 5 bar g 1.5 ~ 8 bar g 1.5 ~ 12 bar g 2 ~ 15 bar g

SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 600LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.005 ~ 0.01 bar g 0.01 ~ 0.1 bar g 0.1 ~ 1 bar g 1 ~ 5 bar g 1.5 ~ 8 bar g 1.5 ~ 12 bar g 2 ~ 15 bar g

PRESSURE REGULATING VALVE

KPR-3000

DIRECT ACTING HIGH PRESSURE SERVICE



KPR-4000

DIRECT ACTING FORGED VALVE



SIZE	1/2"(DN 15) ~ 24"(DN 600)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.005 ~ 0.01 bar g 0.01 ~ 0.1 bar g 0.1 ~ 1 bar g 1 ~ 5 bar g 1.5 ~ 8 bar g 1.5 ~ 12 bar g 2 ~ 15 bar g 30 ~ 60 bar g 250 ~ 260 bar g

SIZE	1/2"(DN 15) ~ 4"(DN 100)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.005 ~ 0.01 bar g 0.01 ~ 0.1 bar g 0.1 ~ 1 bar g 1 ~ 5 bar g 1.5 ~ 8 bar g 1.5 ~ 12 bar g 2 ~ 15 bar g

PRESSURE REGULATING VALVE

KPR-5000

DIRECT ACTING LOW FLOW CONTROL
HIGH PRESSURE SERVICE



KPR-6000

DIRECT ACTING HIGH CAPACITY CONTROLLER
HIGH PRECISION CONTROL



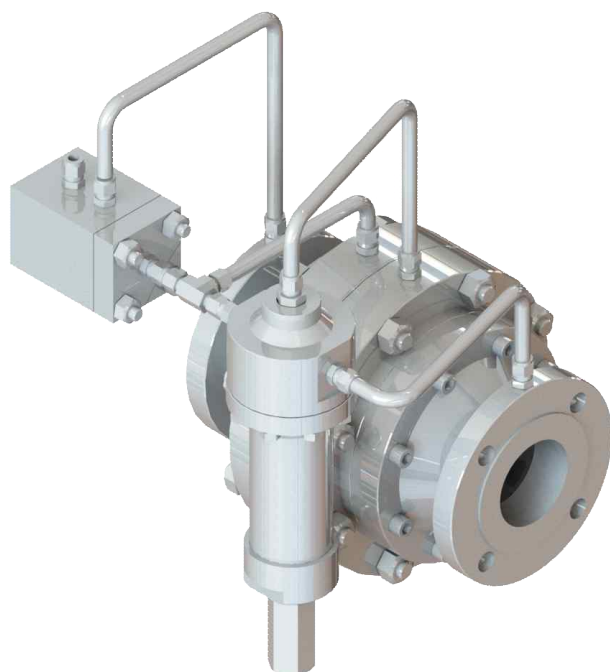
SIZE	1/2"(DN 15) ~ 4"(DN 100)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.005 ~ 0.01 bar g 0.01 ~ 0.1 bar g 0.1 ~ 1 bar g 1 ~ 5 bar g 1.5 ~ 8 bar g 1.5 ~ 12 bar g 2 ~ 15 bar g 30 ~ 60 bar g 250 ~ 260 bar g

SIZE	2"(DN 50) ~ 20"(DN 500)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.005 ~ 0.01 bar g 0.01 ~ 0.1 bar g 0.1 ~ 1 bar g 1 ~ 5 bar g 1.5 ~ 8 bar g 1.5 ~ 12 bar g 2 ~ 15 bar g

PRESSURE REGULATING VALVE

KPR-7000

AXIAL FLOW DIAPHRAGM PILOT ACTING
REGULATOR



KPR-8131

SLAM SHUT DOWN DIAPHRAGM PILOT ACTING
REGULATOR



SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 1500LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting
SET PRESSURE RANGE	0.3 ~ 1.5 bar g 0.7 ~ 3.0 bar g 1.5 ~ 5 bar g 4 ~ 12 bar g 8 ~ 20 bar g 13 ~ 25 bar g

SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 1500LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting
SET PRESSURE RANGE	0.3 ~ 1.5 bar g 0.7 ~ 3.0 bar g 1.5 ~ 5 bar g 4 ~ 12 bar g 8 ~ 20 bar g 13 ~ 25 bar g

PRESSURE REGULATING VALVE

KPR-8000

LIQUID AND GAS SERVICE PILOT ACTING
REGULATOR



KPR-9500

DIRECT ACTING BLANKETING VALVE



SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 600LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.3 ~ 1.5 bar g 0.7 ~ 3.0 bar g 1.5 ~ 5 bar g 4 ~ 12 bar g 8 ~ 20 bar g 13 ~ 25 bar g

SIZE	1/2"(DN 15) ~ 2"(DN 50)
RATING	Up to ANSI 300LB
MATERIALS	BODY : Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting
SET PRESSURE RANGE	0.005 ~ 0.01 bar g 0.01 ~ 0.1 bar g 0.1 ~ 1 bar g 1 ~ 5 bar g 1.5 ~ 8 bar g 1.5 ~ 12 bar g 2 ~ 15 bar g

PRESSURE REGULATING VALVE

KPR-9900

PILOT ACTING DIAPHRAGM ACTUATED
BLANKETING VALVE



SIZE	1"(DN 25) ~ 12"(DN 300)
RATING	Up to ANSI 600LB
MATERIALS	BODY : Casting, Forged Alloy steel TRIM : Stainless Steel, Alloy Steel SEAL : NBR, EPDM, VITON, Metal SPRING : SAE9254, Inconel, 316SS, SWOSC
ACTUATOR	Diaphragm Acting, Piston Acting
SET PRESSURE RANGE	0.002 ~ 0.005 bar g 0.005 ~ 0.015 bar g 0.01 ~ 0.04 bar g 0.03 ~ 0.07 bar g 0.05 ~ 0.15 bar g 0.15 ~ 0.3 bar g 0.3 ~ 0.5 bar g

BALL VALVE

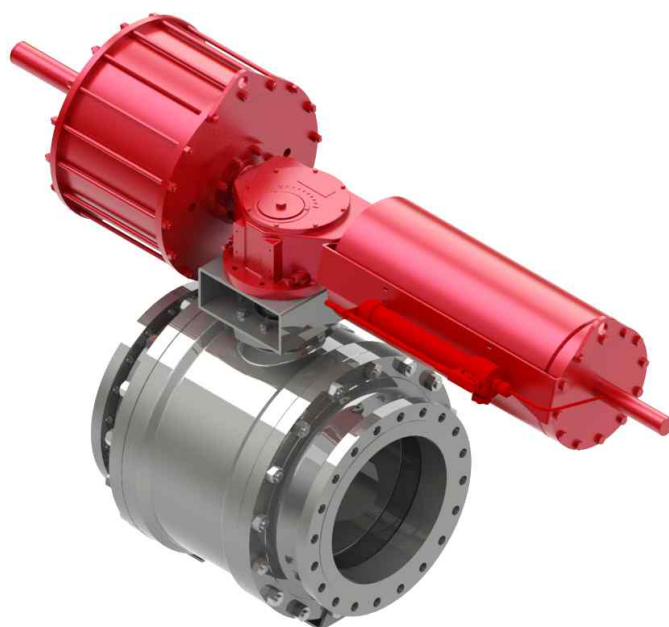
KB-2000

2-PIECE BALL VALVE



KB-3000

3-PIECE BALL VALVE



SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel BALL : Casting, Forged Alloy steel SEAT : RTFE, PTFE, PEEK, METAL
TRIM	Floating, Trunnion
HAND WHEEL	Lever, Gear, Pneumatic, Hydraulic
FEATURES	Fire safety, Anti static Anti Blowout Proof Stem

SIZE	2"(DN 50) ~ 48"(DN 1200)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel BALL : Casting, Forged Alloy steel SEAT : RTFE, PTFE, PEEK, METAL
TRIM	Trunnion
HAND WHEEL	Lever, Gear, Pneumatic, Hydraulic
FEATURES	Fire Safety, Anti Blowout Proof Stem, Double block & Bleed, Anti Static

BALL VALVE

KBT

TOP ENTRY METAL SEAT BALL



SIZE	1/2"(DN 15) ~ 36"(DN 900)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel BALL : Casting, Forged Alloy steel SEAT : RTFE, PTFE, PEEK, METAL
TEMP	-196°C ~ 450°C
ACTUATOR	Lever, Gear, Pneumatic, Hydraulic
FEATURES	Fire safety, Anti static

BALL VALVE

KBCS

SIDE ENTRY CRYOGENIC BALL



KBCT

TOP ENTRY CRYOGENIC BALL



SIZE	1/2"(DN 15) ~ 36"(DN 900)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel BALL : Stainless SEAT : PCTFE, KEL-F
TEMP	-196°C ~ 450°C
ACTUATOR	Lever, Gear, Pneumatic, Hydraulic
FEATURES	Fire safety, Anti static

SIZE	4"(DN 100) ~ 36"(DN 900)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel BALL : Stainless SEAT : PCTFE, KEL-F
TRIM	-196°C ~ 450°C
ACTUATOR	Lever, Gear, Pneumatic, Hydraulic
FEATURES	Fire safety, Anti static

BALL VALVE

KBE

ECCENTRIC BALL



KBS

SEGMENTED BALL



SIZE	1/2"(DN 15) ~ 36"(DN 900)
RATING	Up to ANSI 2500LB
MATERIALS	BODY : Casting, Forged Alloy steel BALL : Casting, Forged Alloy steel SEAT : RTFE, PTFE, PEEK, METAL
TRIM	Trunnion
ACTUATOR	Lever, Gear, Pneumatic, Hydraulic
FEATURES	Fire safety, Anti static

SIZE	1/2"(DN 15) ~ 20"(DN 500)
RATING	Up to ANSI 600LB
MATERIALS	BODY : Casting, Forged Alloy steel BALL : Casting, Forged Alloy steel SEAT : RTFE, PTFE, PEEK, METAL
TRIM	Trunnion
ACTUATOR	Lever, Gear, Pneumatic, Hydraulic
FEATURES	Fire safety, Anti static

CONTACT US

- **HEAD OFFICE & R&D CENTER**

10-10, 13 MTV Danwon-gu Ansan-si Gyeonggi-do Republic of Korea

- **FACTORY**

305 KoFoMo techno center Jungwang-dong Shiwha shiheung-city Gyeonggi-do Republic of Korea

- **TEL :** +82 31-504-1555, 070-4238-9889(Direct)

- **FAX :** +82 31-434-5091

- **E-MAIL :** helitork@naver.com

- **HOME PAGE :** <http://www.helitork.com>



KBT SERIES TOP ENTRY BALL VALVES



SERIES KBT

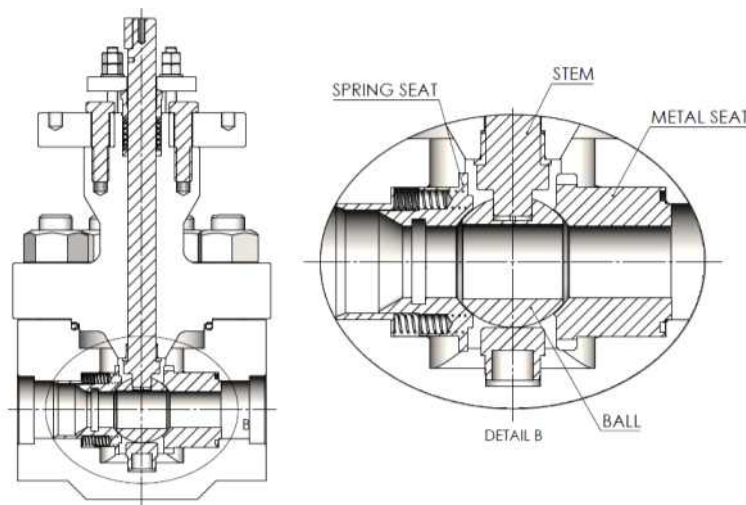
- Integral seat design is to prevent internal leaks.
- Precision metal gasket is for easy maintenance.
- Special custom hard coating on the ball over life cycle.
- SIZE : 1/2"(DN15) ~ 36"(DN900)
- RATING : UP TO ANSI 4500LB
- TEMP : -196°C ~ 450°C
- MATERIAL
 - BODY : Casting, Forged Alloy steel
 - BALL : Casting, Forged Alloy steel
 - SEAT : RTFE, PCTFE, PEEK, METAL

FEATURE

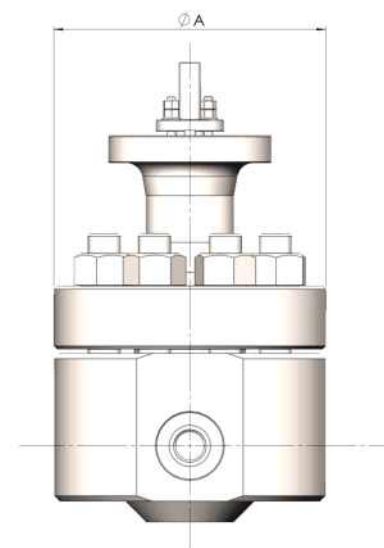
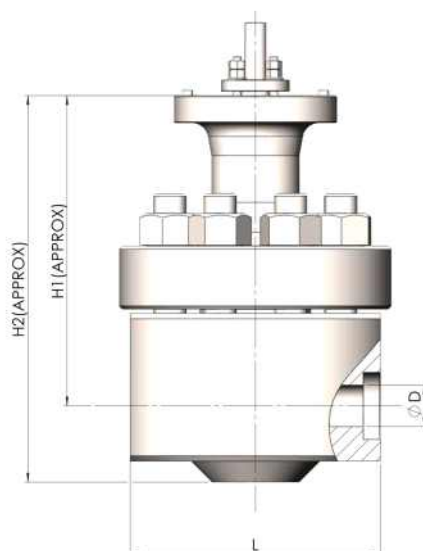
- Easy in-line maintenance
- Bottom Supporter mounted ball for ease of operation at high pressure
- Fewer potential leak paths
- Flange dimension in accordance with ANSI B 16.5
- Face to face/internal bore dimensions in accordance with API 6D
- Fire tested to API 6FA & API 607
- Anti static design
- Anti blow-out stem
- Choice of soft seated or metal-to-metal seated
- Special designs and materials available on request
- Full and reduced bore designs available

STANDARDS

- The body is designed and manufactured in accordance with ANSI B16.34
- The bolted bonnet design complies with ASME Code Section VIII, Div. I.
- Flange dimensions in accordance with ANSI B16.5
- Face to face/internal bore dimensions in accordance with API 6D except the face to face dimensions of classes 150, 300 lbs, which are equal to the class 600 lbs face to face dimensions.
- Welding ends in accordance with ANSI B16.25



DIMENSIONS – REDUCE BORE



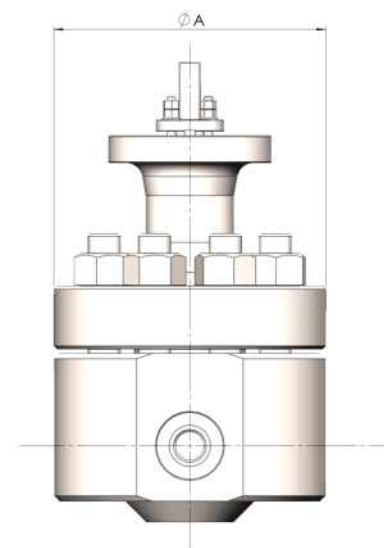
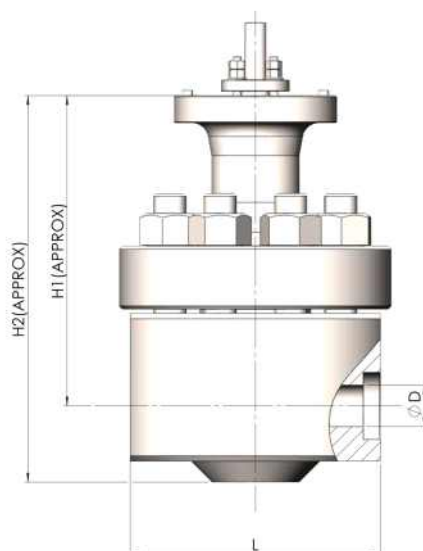
SIZE	UP TO 2500LB						4500LB					
	D(bore)	L	H1	H2	A	WEIGHT(kg)	D(bore)	L	H1	H2	A	WEIGHT(kg)
½"	15	180	230	295	180	40	15	200	260	330	200	60
¾"	15	180	230	295	180	40	15	200	260	330	200	60
1"	19	180	230	295	180	40	19	200	260	330	200	60
1¼"	19	180	230	295	180	40	19	200	260	330	200	60
1½"	27	180	230	295	180	40	27	200	260	330	200	60
2"	27	180	230	295	180	40	27	200	260	330	200	60
2½"	38	240	260	360	260	70	38	260	310	390	280	90
3"	38	240	260	360	260	70	38	260	310	390	280	90
4"	49	240	260	360	260	70	49	260	310	390	280	90

※ L: Face to Face dimensions provided are subject to change as requested by the customer.

Cv

SIZE	½"	¾"	1"	1¼"	1½"	2"	1½"	3"	4"
REDUCE BORE	15	15	19	19	27	27	38	38	49
Cv	8	8	10	10	28	28	55	55	100

DIMENSIONS – FULL BORE



SIZE	UP TO 2500LB					
	D(bore)	L	H1	H2	A	WEIGHT(kg)
½"	20	180	230	295	180	50
¾"	20	180	230	295	180	50
1"	27	180	230	295	180	50
1¼"	27	180	230	295	180	50
1½"	27	240	260	360	260	50
2"	38	240	260	360	260	50
2½"	49	280	300	400	300	80
3"	49	280	300	400	300	100
4"	58	320	350	430	350	120

※ L: Face to Face dimensions provided are subject to change as requested by the customer.

Cv & Bore

SIZE	½"	¾"	1"	1¼"	1½"	2"	1½"	3"	4"
FULL BORE	20	20	27	27	27	38	49	49	58
Cv	12	12	28	28	28	55	100	100	140

Materials & Trim Class

MATERIAL & CLASS	T1	T3	T2	LT9
BODY / SEAT CONNECTOR	ASTM A 105 / ASTM A106 WITH TC/CR	ASTM A182 F316 / ASTM A182 F316 WITH TC/CR	ASTM A 182 F22 / ASTM A182 F22 WITH TC/CR	ASTM A 182 F91 / ASTM A182 F91 WITH TC/CR
BALL	410SS WITH TC/CR	316SS WITH TC/CR	A182 F22 WITH TC/CR	A182 F91 WITH TC/CR
SEAT	ASTM A106 WITH TC/CR / 410SS WITH TC/CR	ASTM A182 F316 WITH TC/CR / 316SS WITH TC/CR	ASTM A182 F22 WITH TC/CR / 410SS WITH TC/CR	ASTM A182 F91 WITH TC/CR / 410SS WITH TC/CR
METAL GASKET	ASTM A182 F316L	ASTM A182 F316L	ASTM A182 F316L	ASTM A182 F316L
STEM	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316	ASTM A182 F91
SPRING	INCONEL 718	INCONEL 718	INCONEL 718	INCONEL 718

MATERIAL & TRIM CLASS	S1	S6	S9	S11
BODY / SEAT CONNECTOR	ASTM A 216 WCB / ASTM A216 WITH TC/CR	ASTM A 217 WCB / ASTM A217 WCB WITH TC/CR	ASTM A 217 WC9 / ASTM A217 WC9 WITH TC/CR	ASTM A217 C12A / ASTM A217 C12A WITH TC/CR
BALL	410SS/CASTING WITH TC/CR	410SS/CASTING WITH TC/CR	410SS/CASTING WITH TC/CR	410SS/CASTING WITH TC/CR
SEAT	ASTM A216 WCB WITH TC/CR / 410SS WITH TC/CR	ASTM A217 WCB WITH TC/CR / 410SS WITH TC/CR	ASTM A217 WC9 WITH TC/CR / 410SS WITH TC/CR	ASTM A217 C12A WITH TC/CR / 410SS WITH TC/CR
METAL GASKET	ASTM A182 F316L	ASTM A182 F316L	ASTM A182 F316L	ASTM A182 F316L
STEM	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316	ASTM A182 F316
SPRING	INCONEL 718	INCONEL 718	INCONEL 718	INCONEL 718

Integral seat, Four years zero leakage guarantee.

As a standard, all valves are seat leak tested with 3.5 bar of air for 3 minutes with the minimum acceptable passing criteria, being zero bubbles during the 3 minute test. This test procedure used ANSI B 16.104 / FCI 70-2 standards.



FOREWORD

KTS Co., Ltd. is a leading industrial valve manufacturing company, specializing in the design and manufacture of Ball, Globe Control, Pressure Reducing Valve, Actuator.

At KTS, we stand for three values—quality, innovation and service.

We know the worlds Oil, Chemical, Petrochemical and Process industries require precision ow control products. We have dedicated ourselves to supplying that need with an extensive range of industrial valves, manufactured in our own factories and designed for environmental sensitivity.

The Quality Policy of KTS Co., Ltd. is to consistently provide product that meets customer and applicable regulatory requirements, with the aim to enhance customer satisfaction by providing exactly what has been agreed contractually, to the required quality and time stated.

We are pleased to introduce a more precise diaphragm actuator this catalogue will assist our customers in the selection and application of KTS

A PROVEN TRACK RECORD

We have extensive references and a proven track record in the supply of valves across a number of key industries. Our valves are industry renowned brands, each with an established reputation for quality engineering and reliability.

VALVE TESTING

All pressure containing items are hydrostatically tested, seat leakage tested and functionally tested.

We can also perform gas, packing emission, cryogenic and advanced functional testing, as well as seismic testing for nuclear applications.



MINISTRY OF TRADE, INDUSTRY & ENERGY

제 2022-033 호

산업기술 확인서

1. 기 관 명 : (주)케이티에스
2. 대 표 자 : 김항경
3. 주 소 : 경기도 안산시 단원구 성곡동 802-8
4. 사업자등록번호 : 140-81-76317
5. 신청기술 : LNG 복합화력발전소용 고온 고압 배수 및 배기관 차단을 위한 탭엔트리형 메탈시트 볼밸브 기술

귀 기관의 신청기술은 「산업기술의 유출방지 및 보호에 관한 법률」 제2조 및 제14조의3, 같은 법 시행령 제19조의3제1항 및 같은 법 시행규칙 제4조의5에 따라서 산업기술에 해당됨을 확인합니다.

2022 년 10 월 24 일



산업통상자원부 장관

이 창





Management System Certification Body No. MSCB-105

품질경영시스템인증서

No. 22-A-4280 Rev. 0

주식회사 케이티에스

경기도 안산시 단원구 엠티브이 10 로 10 번길 13 (성곡동)

사업자등록번호: 140-81-76317

하기 규격에 따라 품질경영시스템이 적격하게 수립 및 유지됨을 확인함

ISO 9001:2015

인증범위

밸브에 대한 설계, 개발 및 제조

IAF Code: 17

본 인증서는 적합한 심사결과에 근거하여 발행되었으며, 인증서의 유효성은 정해진 주기에 따른 사후심사의 긍정적인 결과를 조건으로 유지 됨.

인증표준계약에 따라 상기 인증주체의 의무를 이행하지 않을 경우 인증서의 유효성은 무효가 될 수 있음.

최초 발행일: 2013. 04. 29

재발행일: 2022. 04. 19

만료일: 2025. 04. 27



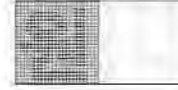
G. Gilbert

G. Gilbert
Head of Certification Body

Rm. 501, Daeryung techno town, 638, Seobusaet-gil,
Geumcheon-gu, Seoul, Republic of Korea
www.igcert.org



발급번호 : 1CCD-5AD0-402E-8433-ACDE



기자재 공급 유자격 등록증

등록번호 : EASYU2022-09354
업체명 : (주)케이티에스
공장주소 : 경기도 안산시 단원구 성곡동 802-7
품명 : 일반 주강밸브
운영구분 : 건설(기계)
유효기간 : 2022-12-08 ~ 2025-12-07

비고 :

2022. 12. 15

 한국남부발전|주|

 한국동서발전|주|

 한국중부발전|주|

 한국서부발전|주|

 KGEN 한국남동발전

발급번호 : 565C-6D76-48D8-8EF9-DC27



기자재 공급 유자격 등록증

등록번호 : EASYU2022-09353
업체명 : (주)케이티에스
공장주소 : 경기도 안산시 단원구 성곡동 802-7
품명 : 제어 밸브
운영구분 : 건설(제어)
유효기간 : 2022-12-08 ~ 2025-12-07

비고 : Control Valve, Pressure Regulator에 한해서 적격처리

2022. 12. 15

 한국남부발전|주|

 한국동서발전|주|

 한국중부발전|주|

 CWP 한국서부발전|주|

 KOEN 한국남동발전

벤처기업확인서

- 기 업 명 : 주식회사 케이티에스
- 사업자등록번호 : 140-81-76317
- 대 표 자 : 김항경
- 주 소 : 경기도 안산시 단원구 엠티브이10로10번길 13
- 확인 유형 : 혁신성장유형
- 유효기간 : 2022년 02월 25일 ~ 2025년 02월 24일

위 기업은 「벤처기업육성에 관한 특별조치법」 제25조의 규정
에 의거 벤처기업임을 확인합니다.

변경일자

2022년 03월 17일

변경내역

대표자

2022년 03월 16일

벤처기업확인기관



벤처기업 해당사유 : 벤처기업법 제2조의2제1항제2호 가목의 요건을 충족하는 벤처기업
(또는 나목의 요건을 충족하는 벤처기업, 또는 다목의 요건을 충족하는 벤처기업)

이 확인서는 「벤처기업법」 제25조의3(벤처기업확인기관의 지정 등)에 따라 지정된 벤처기업확인기관((사)벤처기업협회)이 벤처확인종합관리시스
템을 통해 정보를 확인하고 발급한 확인서입니다. (벤처기업확인기관 지정기간 : '20.7.1~'23.6.30)



제 2020110796 호

기업부설연구소 인정서

1. 연 구 소 명: (주)케이티에스 기술연구소
[소속기업명: (주)케이티에스]
2. 소 재 지: 경기도 안산시 단원구 엠티브이10로10번길 13
13 (성곡동)
3. 신고 연월일: 2020년 02월 05일

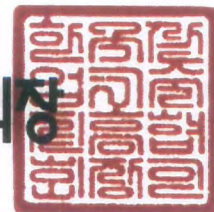
과학기술정보통신부

「기초연구진흥 및 기술개발지원에 관한 법률」 제14조의
2제1항 및 같은 법 시행령 제27조제1항에 따라 위와 같이
기업부설연구소로 인정합니다.



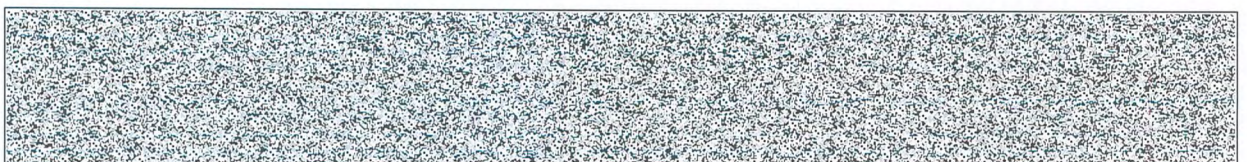
2020년 2월 14일

한국산업기술진흥협회장



※ 한국산업기술진흥협회에서 발급되었으며 "https://www.rnd.or.kr"에서 "문서번호"를 입력하면 원본대조 및 유효성을 검증할 수 있습니다.

KOITA KOITA KOITA
KOITA KOITA KOITA
KOITA KOITA KOITA



발급번호 : F6E3DACC-EFF4-4C28-B9FF-61A5A9AC0A82

정비적격기업 인증서

등 록 번 호: WITHU20220618619
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
구동장치	Pneumatic Type		V		

2022.06.23



※ 인터넷으로 발급된 인증서이며 <http://withu.ewp.co.kr>에서 원본 확인이 가능합니다.

발급번호 : F97987AC-950F-4C65-ACB9-35F3E2854575

정비적격기업 인증서

등 록 번 호: WITHU20220618615
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Globe Valve(Cast)	#1500이하	V		

2022.06.23



※ 인터넷으로 발급된 인증서이며 <http://withu.ewp.co.kr>에서 원본 확인이 가능합니다.

발급번호 : 213DBE5A-05DF-42B6-9A7A-06BAE3E8204E

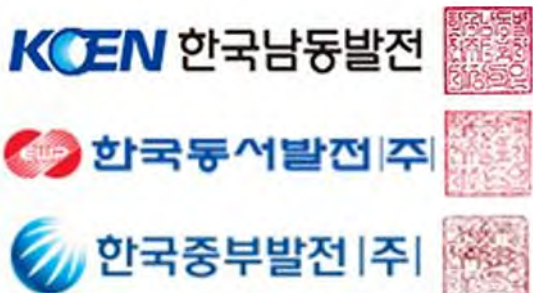
정비적격기업 인증서

등 록 번 호: WITHU20220618616
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Globe Valve(Cast)	#1500이상 #2500미 만	V		

2022.06.23



발급번호 : B3BBB947-9590-4CB1-8602-CDD729D5B760

정비적격기업 인증서

등 록 번 호: WITHU20220618617
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Globe Valve(Cast)	#2500이상 #4500미 만	V		

2022.06.23



※ 인터넷으로 발급된 인증서이며 <http://withu.ewp.co.kr>에서 원본 확인이 가능합니다.

발급번호 : E25257D0-FB70-46E7-AF6C-A9BCFCF9F7D4

정비적격기업 인증서

등 록 번 호: WITHU20220618609
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Check Valve		V		

2022.06.23



※ 인터넷으로 발급된 인증서이며 <http://withu.ewp.co.kr>에서 원본 확인이 가능합니다.

발급번호 : 06D472EA-1EAF-4C14-978B-3C6718E6A1DB

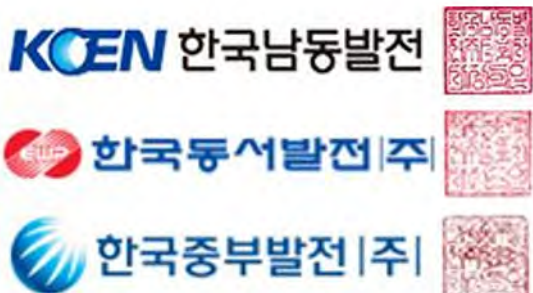
정비적격기업 인증서

등 록 번 호: WITHU20220618611
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주)의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Globe Valve(Forged)	#1500이하	V		

2022.06.23



발급번호 : D7FDF41C-9375-4ACA-BFBF-D68DAF13DDA7

정비적격기업 인증서

등 록 번 호: WITHU20220618612
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주)의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Globe Valve(Forged)	#1500이상 #2500미 만	V		

2022.06.23



※ 인터넷으로 발급된 인증서이며 <http://withu.ewp.co.kr>에서 원본 확인이 가능합니다.

발급번호 : 87988AE8-3792-4BFF-A60B-B9A6EFE40951

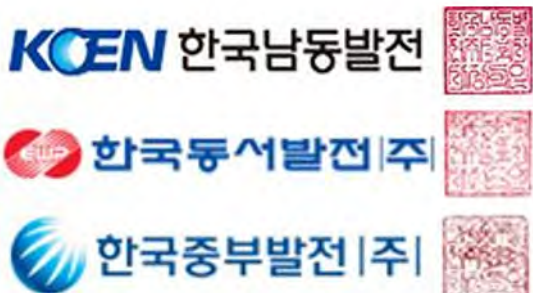
정비적격기업 인증서

등 록 번 호: WITHU20220618613
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Globe Valve(Forged)	#2500이상 #4500미 만	V		

2022.06.23



발급번호 : 6B0B2E13-7CC3-4CC8-AEF8-B157A04C35F0

정비적격기업 인증서

등 록 번 호: WITHU20220618614
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Globe Valve(Forged)	#4500이상	V		

2022.06.23



※ 인터넷으로 발급된 인증서이며 <http://withu.ewp.co.kr>에서 원본 확인이 가능합니다.

발급번호 : 81CB77B4-78C4-49EE-AA54-A12B87C1DDB3

정비적격기업 인증서

등 록 번 호: WITHU20220618608
업 체 명: 주식회사 케이티에스
대 표 자: 김항경
사업자등록번호: 140-81-76317
유효 기 간: 2022-06-23 ~ 2025-06-23

상기업체는 정비적격기업 통합관리 기준에 따라 한국남동발전(주), 한국남부발전(주), 한국동서발전(주), 한국서부발전(주), 한국중부발전(주) 의 정비적격기업으로 인증함.

관리품목	인증품목	인정범위	제작	현장 정비	반출 정비
밸브	Relief Valve		V		

2022.06.23



※ 인터넷으로 발급된 인증서이며 <http://withu.ewp.co.kr>에서 원본 확인이 가능합니다.



특 허 증

CERTIFICATE OF PATENT

특 허 제 10-1302103 호

(PATENT NUMBER)

출원번호
(APPLICATION NUMBER)

제 2011-0099268 호

출 원 일
(FILING DATE:YY/MM/DD)

2011년 09월 29일

등 록 일
(REGISTRATION DATE:YY/MM/DD)

2013년 08월 26일

발명의명칭 (TITLE OF THE INVENTION)

발전소 고압 컨트롤밸브의 유체 고압 조절장치

특허권자 (PATENTEE)

등록사항란에 기재

발명자 (INVENTOR)

등록사항란에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록
되었음을 증명합니다.

(THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN
INTELLECTUAL PROPERTY OFFICE.)

2013년 08월 26일



특 허 청 장 김 영

COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE



연차등록료 납부일은 설정등록일 이후 4년차부터 매년 08월 26일까지이며 등록원부로 권리관계를 확인바랍니다.



특 허 증

CERTIFICATE OF PATENT

특 허 제 10-1302103 호

(PATENT NUMBER)

출원번호
(APPLICATION NUMBER)

제 2011-0099268 호

출 원 일
(FILING DATE:YY/MM/DD)

2011년 09월 29일

등 록 일
(REGISTRATION DATE:YY/MM/DD)

2013년 08월 26일

발명의명칭 (TITLE OF THE INVENTION)

발전소 고압 컨트론펠브의 유체 고압 조절장치

특허권자 (PATENTEE)

등록사항란에 기재

발명자 (INVENTOR)

등록사항란에 기재

위의 발명은 「특허법」에 따라 특허등록원부에 등록
되었음을 증명합니다.

(THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN
INTELLECTUAL PROPERTY OFFICE.)

2013년 08월 26일



특 허 청 장 김 영

COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE



연차등록료 납부일은 설정등록일 이후 4년차부터 매년 08월 26일까지이며 등록원부로 권리관계를 확인바랍니다.

특허증

CERTIFICATE OF PATENT

특 허

Patent Number

제 10-2500977 호

출원번호

Application Number

제 10-2021-0050441 호

출원일

Filing Date

2021년 04월 19일

등록일

Registration Date

2023년 02월 14일

발명의 명칭 Title of the Invention

탑 엔츠클리형 메탈 시이트 볼밸브

특허권자 Patentee

등록사항란에 기재

발명자 Inventor

등록사항란에 기재

위의 발명은 「특허법」에 따라 특허원부에 등록되었음을 증명합니다.

This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.



특허청

Korean Intellectual
Property Office

2023년 02월 14일

특허청장

COMMISSIONER,
KOREAN INTELLECTUAL PROPERTY OFFICE

이 인 신



QR코드로 현재기준
등록사항을 확인하세요





특 허 증

CERTIFICATE OF PATENT

특 허 제 10-1167373 호

(PATENT NUMBER)

출원번호
(APPLICATION NUMBER)

제 2009-0100732 호

출 원 일
(FILING DATE:YY/MM/DD)

2009년 10월 22일

등 록 일
(REGISTRATION DATE:YY/MM/DD)

2012년 07월 13일

발명의명칭 (TITLE OF THE INVENTION)

발전소 배수 및 배기관의 보울 밸브 결합장치

특허권자 (PATENTEE)

김항경 (650720-2*****)

인천 남동구 서창동 561-1 서창자이아파트 103-1801

발명자 (INVENTOR)

김항경 (650720-2*****)

인천 남동구 서창동 561-1 서창자이아파트 103-1801

위의 발명은 「특허법」에 의하여 특허등록원부에 등록
되었음을 증명합니다.

(THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN
INTELLECTUAL PROPERTY OFFICE.)

2012년 07월 13일



특 허 청

COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE



연차등록료 납부일은 설정등록일 이후 4년차부터 매년 07월 13일까지이며 등록원부로 권리관계를 확인바랍니다.

디자인등록증

CERTIFICATE OF DESIGN REGISTRATION

등록

Registration Number

제 30-0808090 호

출원번호

Application Number

제 30-2014-0063095 호

출원일

Filing Date

2014년 12월 24일

등록일

Registration Date

2015년 07월 23일

등록의 구분

Type of Registration

심사등록

(EXAMINED REGISTRATION)

물품류 Class

제23류

디자인의 대상이 되는 물품 Product

유속조절 밸브용 디스크

디자인권자 Owner

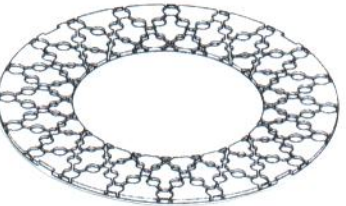
김항경(650720-2*****)

인천 남동구 장아산로 157, 103동 1801호 (서창동, 서창자이)

창작자 Creator

김항경(650720-2*****)

인천 남동구 장아산로 157, 103동 1801호 (서창동, 서창자이)



위의 디자인은 「디자인보호법」에 따라 디자인등록원부에 등록되었음을 증명합니다.

This is to certify that, in accordance with the Design Protection Act, a design has been registered at the Korean Intellectual Property Office.



2015년 07월 23일

특허청장

COMMISSIONER,

KOREAN INTELLECTUAL PROPERTY OFFICE

최동국



특 허 증

CERTIFICATE OF PATENT

특 허 제 10-0693935 호

(PATENT NUMBER)

출원번호
(APPLICATION NUMBER)

제 2006-0003658 호

출원일
(FILING DATE:YY/MM/DD)

2006년 01월 12일

등록일
(REGISTRATION DATE:YY/MM/DD)

2007년 03월 06일

발명의명칭 (TITLE OF THE INVENTION)

극저온용 불 밸브

특허권자 (PATENTEE)

김항경 (650720-2*****)

경기 부천시 원미구 중동 1180-1 미리내마을 937동 804호

발명자 (INVENTOR)

김항경 (650720-2*****)

경기 부천시 원미구 중동 1180-1 미리내마을 937동 804호

위의 발명은 「특허법」에 의하여 특허등록원부에 등록
되었음을 증명합니다.

(THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN
INTELLECTUAL PROPERTY OFFICE.)

2007년 03월 06일



특 허 청

COMMISSIONER, THE KOREAN INTELLECTUAL PROPERTY OFFICE



특허증

CERTIFICATE OF PATENT



특 허

Patent Number

제 10-1583164 호

출원번호

Application Number

제 10-2014-0188319 호

출원일

Filing Date

2014년 12월 24일

등록일

Registration Date

2015년 12월 30일

발명의 명칭 Title of the Invention

발전소 컨트롤 밸브의 유체 고압 조절장치

특허권자 Patentee

김향경(650720-2*****)

인천 남동구 장아산로 157, 103동 1801호 (서창동, 서창자이)

발명자 Inventor

김향경(650720-2*****)

인천 남동구 장아산로 157, 103동 1801호 (서창동, 서창자이)

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.

This is to certify that, in accordance with the Patent Act, a patent for the invention has been registered at the Korean Intellectual Property Office.

2015년 12월 30일



특허청장

COMMISSIONER,

KOREAN INTELLECTUAL PROPERTY OFFICE

최 동 규

발행번호 : 2023-005

실증확인서

1. 기자재명 : Diaphragm Actuator D370 Type

2. 제조기업 : (주)케이티에스

(사업자 등록번호: 140-81-76317)

3. 실증기간 : 2022.04.27.~2022.07.15.(80일)

4. 적용설비 : 태안IGCC (1-11500-15FV-0022)

상기 기자재에 대한 실증운전이 완료되었음을
확인합니다.

2023.01.12.

한국서부발전 사장 박형덕



「WP-코디30」 국산화 개발 제품 성과공유 계약서

1. 제 품 명 : Diaphragm Actuator D370 Type

□ 국산화 개발 지원 분야: 국산화 제품 개발 단계

2. 기 업 명 : (주)케이티에스

3. 계약내용

- 대상제품(기술) : Diaphragm Actuator D370 Type
- 계약근거 : 국산화 개발 「WP-코디30」 지원 사업 업무 협약 제9조
- 공유기간 : 2023. 01. 12 ~ 2024. 01. 11 (1년)
- 성과공유 : 상기 국산화 개발 제품을 한국서부발전(주)에 판매할 시 해당 매출액의 **1.0%** (부가세 별도)
- 납부방법 : 공유기간 동안 매 결산기 결산 확정일 익월 말일까지 한국서부발전(주)에게 연 1회 납부

상기의 성과공유에 대해 양 기관은 본 계약문서에 의하여 계약을 체결하고 신의에 따라 성실히 의무를 이행할 것을 확인합니다.

2023년 01월 12일

한국서부발전(주)

대표자 박 형 덕



주소 : 충남 태안군 중안로 285 한국서부발전

(주)케이티에스

대표자 김 항 경



주소 : 경기도 안산시 단원구 엠티브이 10로 10번길 13

