● Making Safety **Perfect**

GASTRON

Company Overview

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GASTRON

01

Company Overview

01. **Introduction**

GASTRON

GASTRON, The No. 1 Safety Device Company In Korea!

GASTRON

Safety Device Manufacturing Company that produces

gas detectors/flame detectors/fire receiver panels/warning lights/ automatic Fire extinguishing systems etc.

Since its foundation in 1992

Successfully competing with

The World-leading companies beyond Korea since we have eventually emerged as a leading company in the safety device industry

Key Customers Include

Industries from semiconductors, chemical plants, steel, ships, power plants, gas manufacturers, **manufacturing and selling products of various product portfolio with varied specifications** that can encompass from large companies to small and medium-sized enterprises.

GASTRON Co. Ltd.

02. Company Overview

GASTRON

GASTRON, The No. 1 Safety Device Company In Korea!

President	Choi, Dong Jin
Established	June 26, 1992
Headquarters	23, Gunpo Cheomdansaneop 1-ro, Gunpo-si, Gyeonggi-do (Bugok-dong)
Contact	Tel. 031-490-0800 Fax. 031-490-0801
Business Area	Development and Manufacturing ｜ Safety Systems Consulting ｜ Safety System Construction ｜ Safety System Maintenance

Capital
500 MKRW

Revenue(2021)
130 BKRW

Employee
270

03. **History**

GASTRON

GASTRON, The No. 1 Safety Device Company In Korea!

History of GASTRON Co. Ltd.

1990   **2000**   **2010**   **2020**

1992
- Establishment of Hwaseong Instrument Co. Ltd.

1999
- ISO9001 Certificate Obtained

2000
- Rebranded to GASTRON Co. Ltd.

2005
- Overseas Office Launched

2012
- Designated as a promising export small and medium enterprise

2015
- Developed the world's first Multi Sensor type Gas Detector (GTM Series)

2016
- ISO14001, OHSAS18001 Certificate Obtained

2017
- Transferred to Newly-constructed Headquarter Building

2018
- ISO45001 Certificate Obtained

2019
- Awarded the 10 million dollar export tower for the first time in the industry

2020
- KOSHA18001 Certified
- Achieved 100 Billion KRW Revenue for the first in the industry

2021
- 8 types of Vessel-specific Certification obtained for the first time in Korea

04. **Awards**

GASTRON, The No. 1 Safety Device Company In Korea!

GASTRON Co. Ltd. Award History

|	2002 ~ 2017
2002	Excellent Venture Entrepreneur Award (Gyeonggi Provincial Small and Medium Business Administration)
2005	Encouragement Prize for Safety Equipment Calibration (Korea Occupational Safety and Health Agency)
2006	Selected as an excellent technology company (Technology Guarantee Fund)
2008	Award for measuring instrument industry development (Minister of Commerce, Industry and Energy)
2012	Designated as a promising export small and medium enterprise (Gyeonggi Provincial Small and Medium Business Administration)
2015	Award for development of metrology industry (Prime Minister)
2017	Award for development of metrology and measurement industry (Mayor of Busan)
2017	Trade Promotion Development Award (Minister of Trade, Industry and Energy)

	2018 ~ Present
2018	Selected as an Best company to work for (Governor of Gyeonggi Province)
2018	Award for Export Innovation Companies (Director of Gyeonggi Regional Small and Medium Venture Business Administration)
2019	Award for the development of shipbuilding and marine equipment industry (Chairman of Korea Shipbuilding and Marine Equipment Association)
2019	Selected as world-class portable gas detector product (Minister of Trade, Industry and Energy)
2019	Gold Tower Order of Industrial Service Merit for Venture Startup Promotion (President)
2020	Export activation award (Gyeonggi Provincial Economic Development Institute)
2020	Environmental Energy Gold Award (Korea Gas Corporation)
2021	Installation type gas detector selected as world-class product (Minister of Trade, Industry and Energy)
2021	World-Class Product Contribution Award (Minister of Trade, Industry and Energy)

05. Organization

GASTRON, The No. 1 Safety Device Company In Korea!
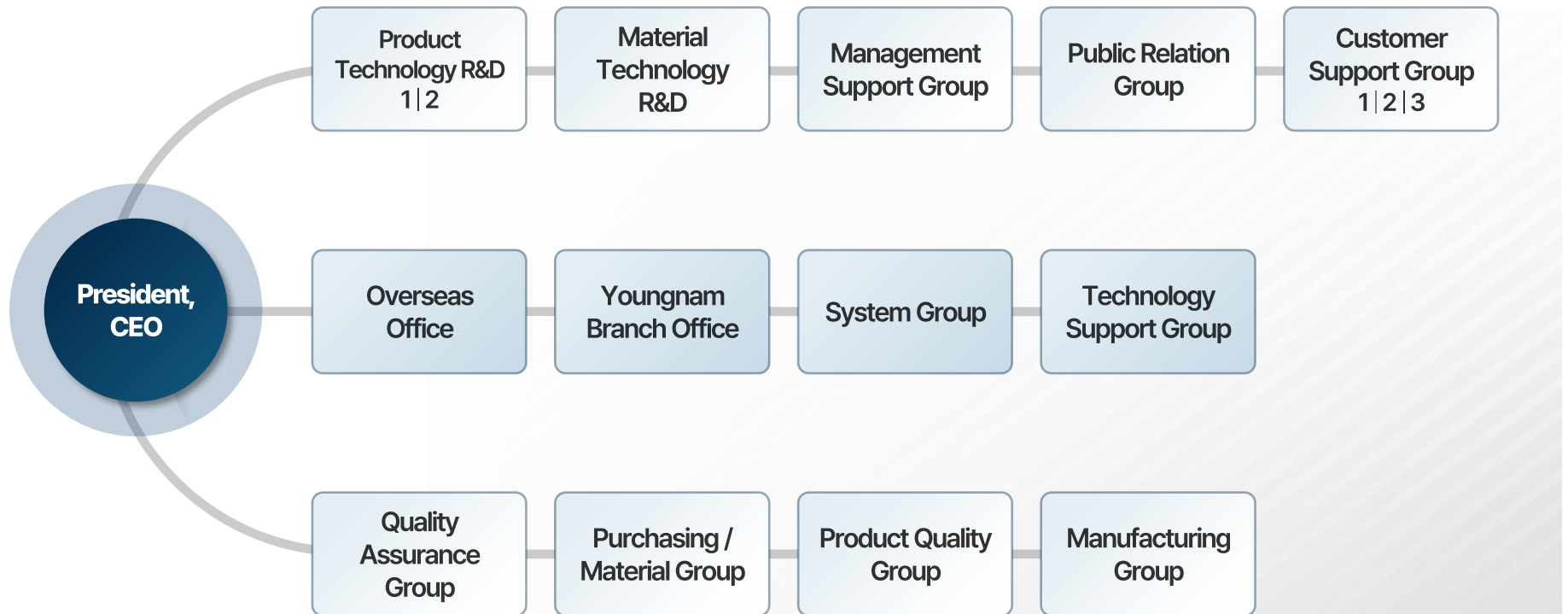
06. **Key Business**

GASTRON, a leading company in the domestic safety device industry

| Development and manufacturing of industrial safety equipment	On-site customized safety system consulting	Site-optimized safety construction system	Prompt and accurate safety system maintenance
Based on 100% leading-edge domestic technology, we develop and manufacture various industrial safety devices including gas detectors.	We provide safety solutions to various domestic and overseas sites such as general plants, offshore plants, and semiconductors together with quotation and delivery.	By building a dedicated construction team for Gastron products and providing on-site optimization installation, the safety system quality is raised to more than 100%.	We are running offices across the country and provide prompt and accurate maintenance services based on more than 100 C/S professionals.

GASTRON's prompt and accurate safety devices that make safety complete

07. **Competitiveness**

GASTRON

Road to safety! The world-best safety device!
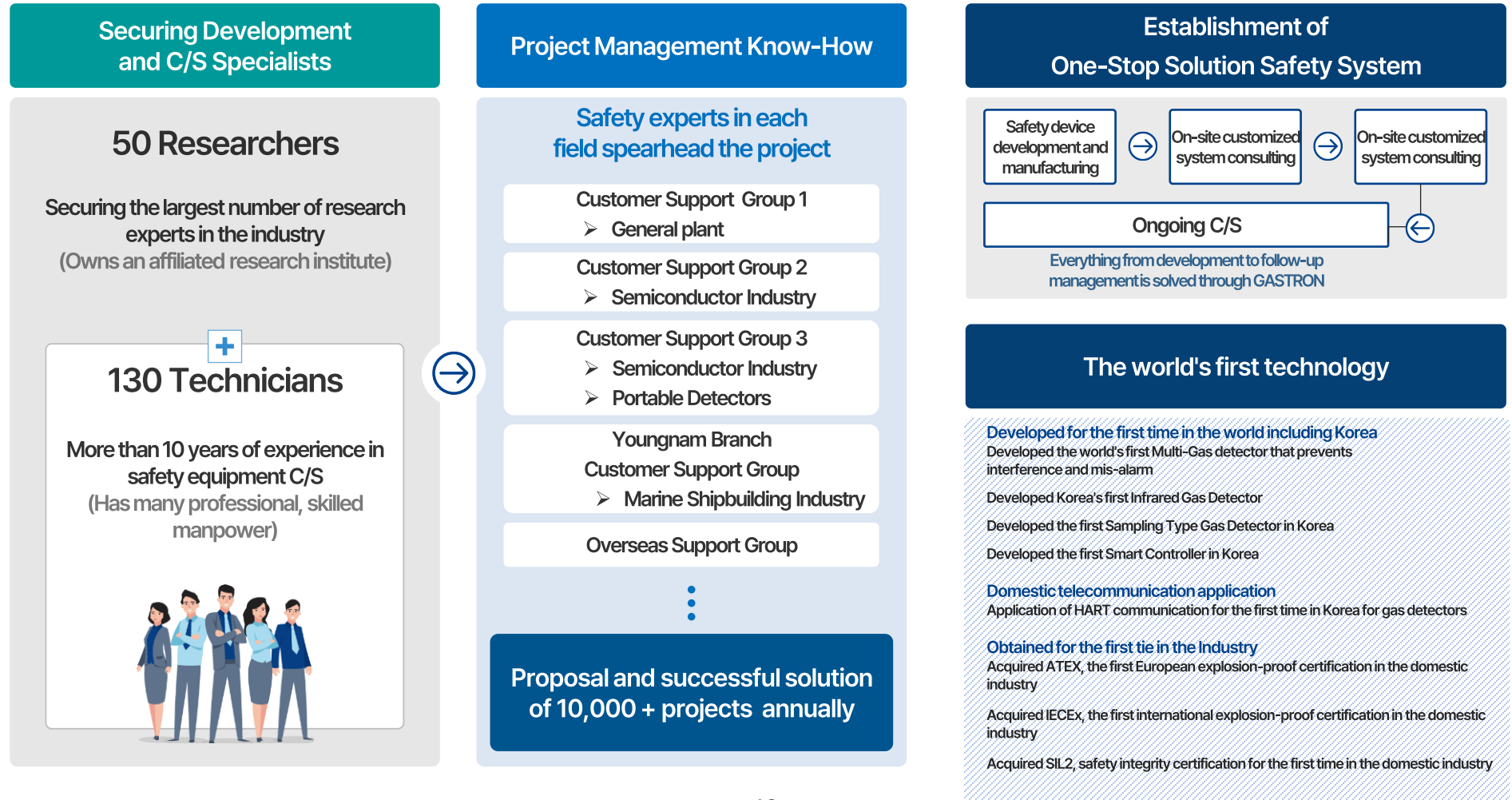
Securing Development and C/S Specialists

50 Researchers

Securing the largest number of research experts in the industry
(Owns an affiliated research institute)

+

130 Technicians

More than 10 years of experience in safety equipment C/S
(Has many professional, skilled manpower)

Project Management Know-How

Safety experts in each field spearhead the project

Customer Support Group 1
➢ General plant

Customer Support Group 2
➢ Semiconductor Industry

Customer Support Group 3
➢ Semiconductor Industry
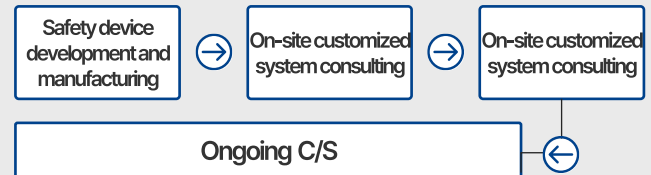➢ Portable Detectors

Youngnam Branch
Customer Support Group
➢ Marine Shipbuilding Industry

Overseas Support Group

⋮

Proposal and successful solution of 10,000 + projects annually

Establishment of One-Stop Solution Safety System

Safety device development and manufacturing → On-site customized system consulting → On-site customized system consulting

Ongoing C/S ←

Everything from development to follow-up management is solved through GASTRON

The world's first technology

Developed for the first time in the world including Korea
Developed the world's first Multi-Gas detector that prevents interference and mis-alarm

Developed Korea's first Infrared Gas Detector

Developed the first Sampling Type Gas Detector in Korea

Developed the first Smart Controller in Korea

Domestic telecommunication application
Application of HART communication for the first time in Korea for gas detectors

Obtained for the first tie in the Industry
Acquired ATEX, the first European explosion-proof certification in the domestic industry

Acquired IECEx, the first international explosion-proof certification in the domestic industry

Acquired SIL2, safety integrity certification for the first time in the domestic industry

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08. **Management Index**

GASTRON

GASTRON, a leading company in the domestic safety device industry

Revenue Growth Rate

(Unit: Million KRW)

2020 YOY,

Approx.

16.12% Growth

130,000

111,944

85,642

2019　　**2020**　　**2021**
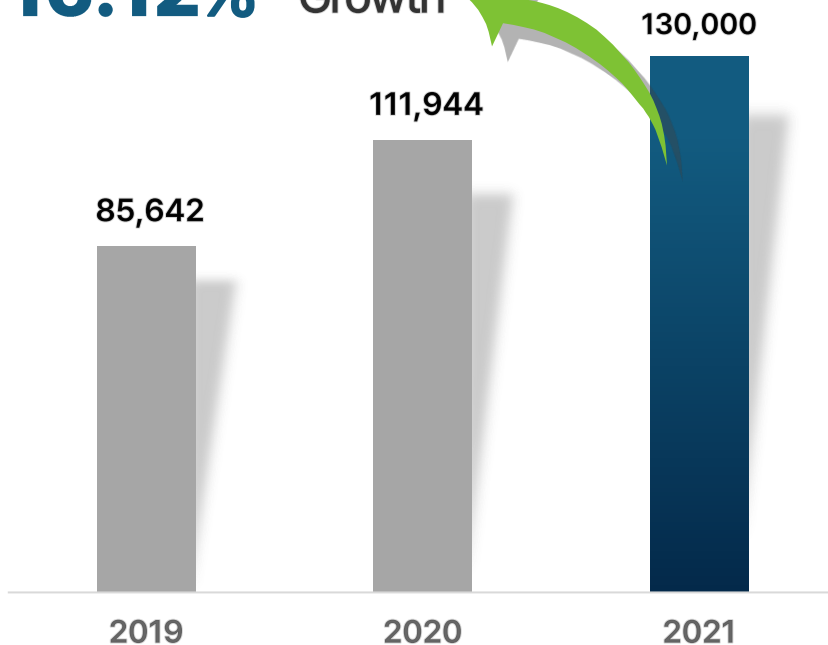
Revenue Forecast

(Unit: Million KRW)

Within 3 years

210 **Billion Won** Target

210,000

190,000

160,000

2022　　**2023**　　**2024**

08. **Certificates** (Company Management)

GASTRON

Gastron management system certified by various organizations is extremely reliable

| 사업자 등록증 | 기업부설연구소인증서 | 벤처기업 확인서 | 이노비즈 확인서 |
| KOSHA MS | ISO9001 | ISO14001 | ISO45001 |
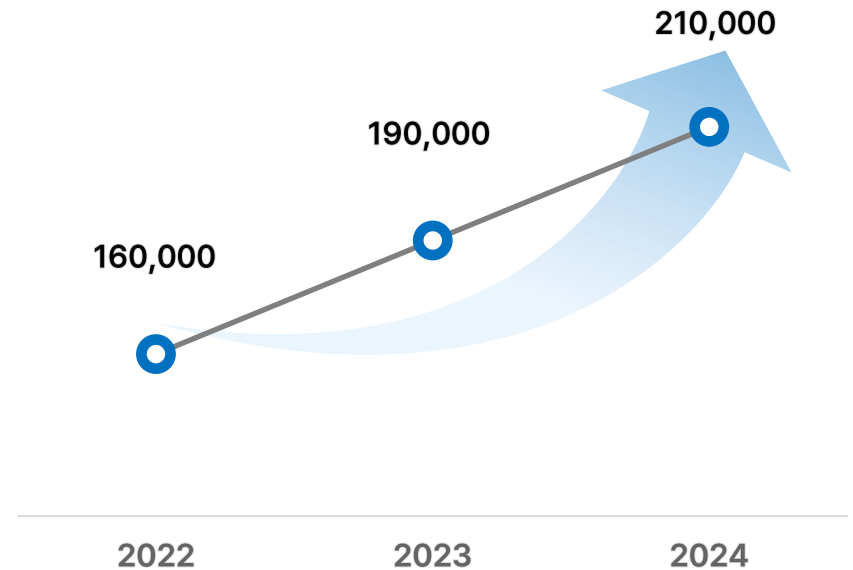
09. **Certificates** (Patent)

GASTRON's product quality certified by the Korean
Intellectual Property Office is extremely reliable
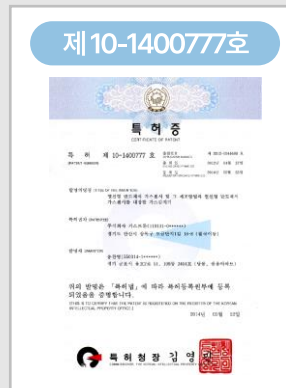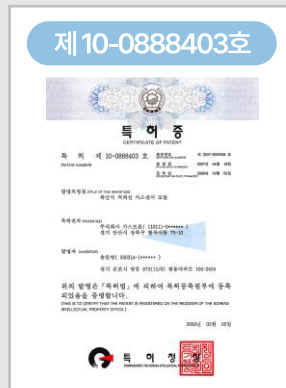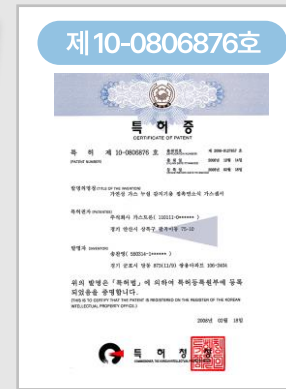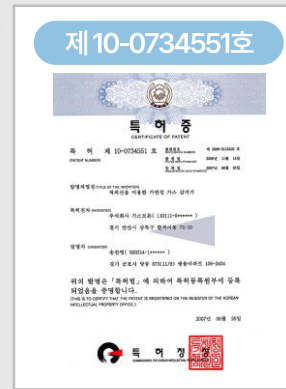
09. **Certificates** (Product)

GASTRON's product quality certified by in several countries extremely reliable

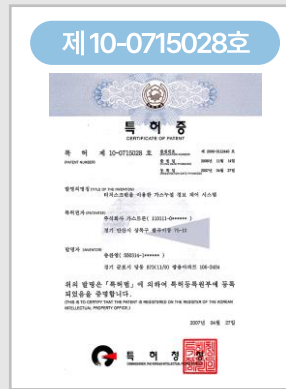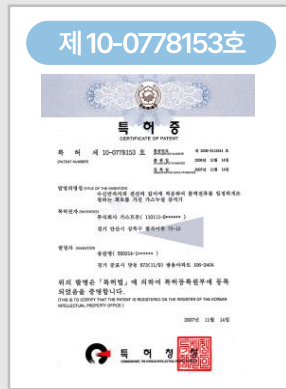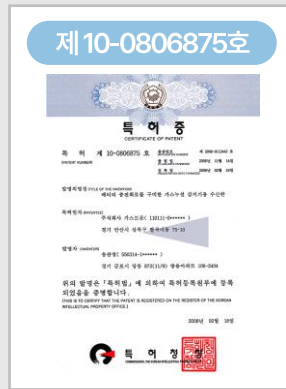| Certification	Contents	Applied product
KCs	Domestic explosion-proof certification	GIR-3000 / GTD-1000Ex / GTD-1000Tx / GTD-2000Ex / GTD-2000Tx / GTD-3000Ex / GTD-3000Tx / GTD-5000F / GTD-5100F / GFS-100 / GFM-400
IECEx	International explosion-proof certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GTD-5000F / GTD-5100F / GFS-100 / GFM-400
ATEX	European explosion-proof certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GTD-5000F / GTD-5100F / GFS-100 / GFM-400
TS	Taiwan explosion-proof certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GTD-5100F / GFS-100
UL	US explosion-proof certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx
FM	US explosion-proof performance certification	GTD-2000Tx
FM	Canadian explosion-proof performance certification	GTD-2000Tx
PESO	India Explosion Proof Certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx
TRCU	Russian explosion-proof certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx
NEPSI	Chinese explosion-proof certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GTD-3000Ex / GTD-3000Tx / GTD-5000F / GTD-5100F / GFS-100 / GFM-400
TIIS	Japanes explosion-proof certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx
KR	Korean Classification Certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GDS-10000 / GDS-20000
DNV	Norwegian Classification Certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GDS-10000 / GDS-20000
ABS	US Classification Certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GDS-10000 / GDS-20000
CCS	Chinese Classification Certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GDS-10000 / GDS-20000
MED	European ship certification	GIR-3000 / GTD-2000Ex / GTD-2000Tx / GDS-10000 / GDS-20000
BV	French ship certification	GTD-2000Tx / GDS-10000 / GDS-20000
RS	Russian Classification Certification	GDS-10000 / GDS-20000
LR	British Classification Certification	GDS-10000 / GDS-20000

09. **Certificates** (Product)

GASTRON's product quality certified by in several countries extremely reliable

Certification	Contents	Applied product
S Mark	China firefighting product certification	GIR-3000/GTD-3000Ex
CPA	China Instrumentation Certification	GIR-3000/GTD-2000Ex/GTD-3000Ex/GTD-3000Tx/GTD-5000/GTD-5000F/GTD-5100F
SXRQRLXH	Certificate of registration in Shaanxi, China	GTD-5000/GTD-5000F
HART	Communication protocol authentication	GIR-3000/GTD-2000Ex
ECASEx	United Arab Emirates Certification	GIR-3000/GTD-2000Ex
UKAS	International and European performance certification	GIR-3000/GTD-2000Ex
CE ROHS	European Hazardous Substance Certification	GIR-3000/GTD-2000Tx/GTD-5000/GFS-100
SIL2	Safety Integrity Certification	GIR-3000/GTD-2000Ex/GTD-2000Tx
KFI	Domestic firefighting performance certification	GIR-3000/GTD-1000Ex/GTD-2000Ex
KC	Domestic electromagnetic wave certification	GIR-3000/ GTD-1000Ex/GTD-2000Ex/GTD-3000Ex/GTD-3000Tx/GTD-5000F/GTD-5100F/GTM-1000/GTM-2000/GFS-100/GFM-400
CE	European electromagnetic certification	GIR-3000/GTD-1000Ex/GTD-1000Tx/GTD-2000Tx/GTD-3000Ex/GTD-3000Tx/GTD-5000/GTD-5000F/GTD-5100F/GTD-6000Ex/GTM-1000 /GTM-2000/GFS-100
CE	European radio wave certification	GFM-400

10. Performance

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GASTRON, a leading company in the domestic safety device industry

General Plant (Local) - 1

Year	Client	Project name	Remark
2017	Lotte Department Store_Busan		Gas Detection System
	Lotte Chemical_Daesan		Gas Detection System
	Seongbo Chemical_Ansan		Gas Detection System
	UAE nuclear power plant		Gas Detection System
	Incheon Power Headquarters		Gas Detection System
	Yeocheon NCC		Gas Detection System
	Unid_Gunsan	U PJT	Gas Detection System
	LG Chem_Cheongju		Gas Detection System
	Hanhwa Total	NCC SR PJT	Gas Detection System
	Seoul Biosys		Gas Detection System
	Hanhwa Total	NCC PJT	Gas Detection System
	POSCO_Pohang		Gas Detection System
	Dongwoo Fine Chem_Iksan		Gas Detection System
	Lotte Chemical_Daesan		Gas Detection System
	SK energy_Incheon		Gas Detection System
	E1 Energy	Daesan Base Propane Low Temperature Tank Construction	Gas Detection System
2018	E1_Daesan	C3 PJT	Gas Detection System
	Gangnam Jevisco		Gas Detection System
	Gangnam Chemical Co. Ltd_Banwol		Gas Detection System
	POSCO_Pohang		Gas Detection System
	Hyundai Oilbank_Daesan	HDO_revamping PJT	Gas Detector

Year	Client	Project name	Remark
2018	Gangnam Jevisco_Pyeongtaek		Gas Detection System
	OCI Co., Ltd._Iksan		Gas Detector(Check)
	Lotte Chemical	H-NC3 PJT	Gas Detector
	LG Chem_Yeosu	B-1 PTJ	Gas Detection System
	Hanwha Chemical_Yeosu	THE PJT	Gas Detection System
	Gangnam Jevisco_Pyeongtaek		Gas Detection System
	Daesan hydrogen fuel cell	Daesan hydrogen fuel cell	Gas Detection System
	Hanwha Solutions_Yeosu	HCC VCM/PVC expansion	Gas Detection System
	LG Chem_Yeosu	C2 PJT	Gas Detection System
	LG Chem_Yeosu	6AA PJT	Gas Detection System
	Daesan hydrogen fuel cell	Daesan hydrogen fuel cell	Gas Detection System
	Hanwha Solutions_Yeosu	HCC VCM/PVC expansion	Gas Detection System
	Versum Materials	ALCHEMY PJT	Gas Detection System
	SK Energy	S PJT	Gas Detection System
	SK Trichem	B2 PJT	Gas Detector
	LG Chem_Daesan	TPEE PJT	Gas Detection System
2019	Hanwha Chemical_Yeosu	X D I PJT	Gas Detection System
	Miwon Trading Company_Iksan		Gas Detection System
	Hanwha Solutions_Yeosu	HCC XDI PJT	Gas Detection System
	LG Chem_Yeosu		Gas Detector
	Hanwha Total	PP4 PJT	Gas Detection System

10. **Performance**

GASTRON, a leading company in the domestic safety device industry

General Plant (Local) - 2

Year	Client	Project name	Remark
2019	SK TRICHEM.	PILOT PJT	Gas Detection System
	LG Chem_Yeosu.	Yeosu No.2 Complex PJT	Gas Detection System
	LG Chem_Yeosu.	Yeosu No.2 Complex-L PJT	Gas Detection System
	Seoul Biosys.		Gas Detector
	Lotte Aluminum Ansan.		Gas Detection System
	POSCO_Gwangyang.		Gas Detection System
	TOK Advanced materials		Gas Detection System
	Kumho Petrochemical.		Gas Detector
	Umicore_China.		Gas Detection System
	S_Oil_Kunsan.		Gas Detection System
	Yeocheon NCC.	YNCC NCC2 PJT	Gas Detector
	Daelim Petrochemical.	410,000 M T Y mPE PLANT	Gas Detector
	Konix		Gas Detector
2020	Matheson Tri-gas		Gas Detector
	LG Chem_Yeosu.	Yeosu No.2 Complex-B PJT	Gas Detection System
	LG Chem_Yeosu.	4EOA PJT	Gas Detector
	Poland, the battery sk	Poland LiBS PJT	Gas Detector
	LG Chem_Yeosu.	B PJT	Gas Detector
	SK Battery_China	M PJT Ph2	Gas Detection System
	Yeongheung Power Headquarters.		Gas Detector
	Yeongheung Power Headquarters.	Hyco & OA PJT	Gas Detector

Year	Client	Project name	Remark
2020	Hanwha Solution_Yeosu.	Hyco & OA PJT	
	LG Chem_Yeosu.	C2 PJT	Gas Detection System
	LG Chem_Daesan.	RTO 설비 PJT	Gas Detector
	Hanwha Energy_Gunsan.		Gas Detector
	KNK Coatings		Gas Detector
	Hyundai Oilbank_Daesan.	HPC PKG-3 PJT	Gas Detector
	Hyundai Oilbank_Daesan.	HPC PKG-2 PJT	Gas Detector
	Hyundai Oilbank_Daesan.	HPC PKG-1 PJT	Gas Detector
	GS칼텍스_여수	MFC PJT	Gas Detector
	Hyundai Oilbank_Daesan.		Gas Detector
2021	Gangnam Jevisco Pyeongtaek.		Gas Detector
	Hanwha Total_Daesan.		Gas Detector(점검)
	Seoul Energy Corporation.		Gas Detector
	LG Chem_Yeosu.	G1 PJT	Gas Detector
	Korea East-West Power		Gas Detector
	Kukdo Chemical_Iksan Plant		Gas Detection System

10. **Performance**

GASTRON

GASTRON, a leading company in the domestic safety device industry

General Plant (Overseas) - 1

Year	Nation	Client	Project name	Remark
2017	Saudi Arabia	ARAMCO	LUBEREF Project (Fire Alarm Full Station)	Addressable Dual Action Pull Station
2018	Kuwait	KNPC	Al-Zour LNG Import Project	GIR-3000 Combustible (HC) GTD-2000TxToxic (CL2, H2S)
	Oman	ORPIC PLASTICS LLC.	LPIC-EPC-3 Project	GIR-3000 Combustible (HC)
	Bahrain	Bahrain LNG W.L.L.	Bahrain LNG Import Terminal Project	GIR-3000 Combustible (HC)
	Bahrain	Bahrain LNG W.L.L.	Bahrain LNG Import Terminal Project	GIR-3000 Combustible (HC)
2019	Indonesia	PT CHANDRA ASRI PETROCHEMICAL TBK	NPEFD PROJECT(AXKA002A)	GTD-2000ExCombustible (HC,H2) GTD-2000TxToxic (CO, O2)Portable Gas Detector
	Indonesia	PT CHANDRA ASRI PETROCHEMICAL TBK	NPEFD PROJECT(AXKA002B)	GTD-2000ExCombustible (HC)
	Indonesia	PT CHANDRA ASRI PETROCHEMICAL TBK	NPEFD PROJECT(AXKA010)	Horn & Beacon, SELECTOR SWITCH, LIMIT SWITCH, CYLINDER PRESSURE REGULATOR
	Malaysia	PETRONAS	Melaka Refinery Diesel Euro 5 PROJECT	GDS System
	Malaysia	PETRONAS	Melaka Refinery Diesel Euro 5 PROJECT	GAS DETECTOR & ALARM DEVICE
2019	Malaysia	PETRONAS	PETRONAS RAPID PROJECT / PACKAGE 06	GTD-2000TxToxic (E.O)
	Vietnam	HYOSUNG	PP4 PROJECT	GDS System, GTD-2000Ex(Combustible) GTD-2000Tx (CO,O2)
	Kenya	KENYA POWER GENERATING	OLKARIA I UNIT 6 GEOTHERMAL PROJECT	GDS System, GTD-2000Tx (H2S), Horn & Beacon
	China	SK INNOVATION	M PROJECT Ph-1	GDS System, Gas Detectors and Local Alarm Devices
2020	Indonesia	PT PERTAMINA (PERSERO)	RDMP PROJECT RU V BALIKPAPAN Project	Gas Detectors and Local Alarm Devices

10. **Performance**

GASTRON, a leading company in the domestic safety device industry

General Plant (Overseas) - 2

Year	Nation	Client	Project name	Remark
On-Going	Bahrain	Bahrain Petroleum Company (BAPCO)	Bapco Refinery Modernization Program PROJECT	GIR-3000 (Combustible), GTD-2000Ex (H2) Horn & Beacon & Manual Call Point, Liner Heat Detector
	Bahrain	Bahrain Petroleum Company (BAPCO)	Bapco Refinery Modernization Program PROJECT	GIR-3000 (Combustible), GTD-2000Ex (H2) Horn & Beacon & Manual Call Point, Flame Detector (IR3)
	Bahrain	Bahrain Petroleum Company (BAPCO)	Bapco Refinery Modernization Program PROJECT	GIR-3000 (Combustible), GTD-2000Ex (H2) Horn & Beacon & Manual Call Point, Flame Detector (IR3)
	Russia	Irkutsk Oil Polymer Plant	IPPET (INK GCC) PROJECT Ethylene	Gas Detectors and Local Alarm Devices
	Russia	Irkutsk Oil Polymer Plant	IPPET (INK GCC) PROJECT Propylene	Gas Detectors and Local Alarm Devices
	Vietnam	HYOSUNG	HSVC OL1 PROJECT	GDS System, Gas Detectors
	Poland	SK INNOVATION	M PROJECT (LIBS)	GDS System, Gas Detectors and Local Alarm Devices
	China	SK INNOVATION	M PROJECT Ph-2	GDS System, Gas Detectors and Local Alarm Devices
	Indonesia	PT MEDCO RATCH POWER RIAU	RIAU GFPP 275MW IPP PROJECT	Gas Detectors
	Indonesia	PT CHANDRA ASRI PETROCHEMICAL TBK	Butene-1 and MTBE PROJECT	GDS System, GTD-2000ExCombustible (HC)
	Indonesia	PT PERTAMINA (PERSERO)	RDMP PROJECT RU V BALIKPAPAN Project	Gas Detectors and Local Alarm Devices
	Indonesia	PT PERTAMINA (PERSERO)	RDMP PROJECT RU V BALIKPAPAN Project	GDS System, Gas Detectors
	Indonesia	PT PERTAMINA (PERSERO)	RDMP PROJECT RU V BALIKPAPAN Project	GDS System, Gas Detectors
	Algeria	AMOS	AMOS Combined Cycle Power Plant Project (1460MW)	Gas Detectors

10. **Performance**

GASTRON

## GASTRON, a leading company in the domestic safety device industry
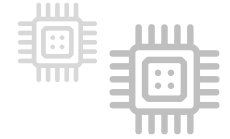
Semiconductor (Local) - 1

Year	Client	Project name	Remark
2017	SK Hynix	M14 PH2 Project	Production equipment TGMS-dedicated Duct Installation work
	Samsung Electronics	P1L Upper West Addition PJT	CL9613EA
	SK Hynix	M12	Gas Detector_120ea
	SK Hynix		GTD-2000Tx_O2 and 2 types
	SK Hynix	M14 PH2 Project	Gas detector investment_DIFF_414ea
	SK Hynix		GTD-5000F_IPA and 4 types
	SK Hynix	M!4 TGMS Project	Anti-explosion type detector investment construction work_460ea
	Samsung Electronics	S3 Lower part production equipment investment project	CL9614EA
	Samsung Electronics	S3L PJT LSI	GTM-SERIES 520EA
	SK Hynix		Q2 TGMS Sensor Replacement
	SK Hynix	M14 PH2 B Project	GTD-5000F_H2
	SK Hynix	M14	Diff/Etch TGMS_Installation work 485ea
	Samsung Electronics	Hwaseong Memory 15L ~ 17L Investment project	GTM-SERIES 1,867EA
	SK Hynix		GasDetector_423ea
	SK Hynix	M10	GasDetector_1134ea

Year	Client	Project name	Remark
2017	SK Hynix		Gas detector installation work_1267ea
2018	Samsung Electronics	P1L Upper Part Western area addition	GTM-SERIES 368EA
	SK Hynix		Gas Detector_Calibration
	Samsung Electronics	P-PJT Upper part Eastern area	GTM-SERIES 804EA
	SK Hynix		TGMS Maintenance
	SK Hynix		GTD-5000F_H2
	Samsung Electronics	Hwaseong Memory H1 Area fanout project	GTM-SERIES_1,216EA
	SK Hynix	M14	Production equipment TGMS Installation work_650ea
	Samsung Electronics	MEMORY 16L 3Q Investment project	GTM-SERIES 120EA
	SK Hynix		TGMS Sensor Replacement
	SK Hynix		Gas Detector_Maintenance
2019	SK Hynix	M15	TGMS Sensor investment_697ea
	Samsung Electronics	Hwaseong FOUNDRY In response to Labor Ministry requirement PJT	CL9639EA
	SK Hynix		Gas Detector_Maintenance
	SK Hynix	MF Project	CL96_2ea

10. **Performance**

## GASTRON, a leading company in the domestic safety device industry
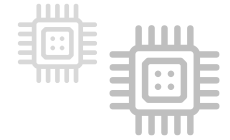
Semiconductor (Local) - 2

Year	Client	Project name	Remark
2019	Samsung Electronics	GCS SCRUBBER ROOM investment project	CL967EA
	SK Hynix Co., Ltd.		Gas Detector_maintenance
	Samsung Electronics	P2 PH1 15K PJT	CL968EA
	SK Hynix Co., Ltd.	M15	2Q Gas Detector Investment _Explosion-proof
	Samsung Electronics	Hwaseong Memory action items from Ministry of Labor PJT	GTM-SERIES 780EA
	SK Hynix Co., Ltd.	M10	Gas Detector_245ea
2020	SK Hynix Co., Ltd.		Gas Detector_Maintenance
	SK Hynix Co., Ltd.	M15	1Q Gas Detector Investment_178ea
	SK Hynix Co., Ltd.		GTD-5000_285es
	SK Hynix Co., Ltd.	M15	Gas detector installation_320ea
	SK Hynix Co., Ltd.	M11A	_368ea
	Samsung Electronics	P1 MEMORY Fanout investment project	GTD-5000N 310EA
	SK Hynix Co., Ltd.		DIFF/ETCH_381ea
	Samsung Electronics	Hwaseong Memory action items from Ministry of Labor PJT	CL9630EA
	Samsung Electronics	P1 MEMORY Upper part investment project	GTM-SERIES 309EA

Year	Client	Project name	Remark
2020	SK Hynix Co., Ltd.		GTD-5000F&1type_371ea
	Samsung Electronics	P2 FOUNDRY PH4 PJT	CL9619EA
2021	SK Hynix Co., Ltd.		1Q, DIFF/ETCH Gas Detector_1123ea
	SK Hynix Co., Ltd.		4Q Gas Detector_421ea
	Samsung Electronics	P2 FOUNDRY S5L	CL9616EA
	Samsung Electronics	Pyeongtaek disaster prevention fanout	GTD-5100FN 5522EA
	Samsung Electronics	P1, P2 Upper part complementary project	CL9623EA
	SK Hynix Co., Ltd.	M16	DIFF/ETCH Investment GasDetector_1079ea
	Samsung Electronics	H3 MEMORY 16L	GTM-SERIES 830EA
	SK Hynix Co., Ltd.	M16	DIFF/ETCH Investment GasDetector_441ea
	SK Hynix Co., Ltd.		GTD-5100F_H2 and 10 types
	LG DISPLAY	LG Display (Paju, Gumi) investment project for airtight safety oxygen concentration meter	GTD-5000 272EA
	SK Hynix Co., Ltd.	W16	GasDetector_409ea

10. **Performance**

GASTRON, a leading company in the domestic safety device industry
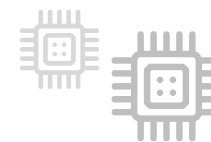
Semiconductor (Overseas) - 1

	Country	Company	Contents
On-Going	Taiwan	Industrial Technology Research Institute	GTD-5000
		Advanced Semiconductor Engineering, Inc.	GPD-100
		Vanguard International Semiconductor Corporation	GPD-100, GTD-5000
		Shin-Etsu Handotai Taiwan	GPD-100
		Mosel Vitelic Inc.	GTD-5000
		Taiwan Semiconductor Manufacturing Company	GTD-1000EX
		Integrated Service Technology Inc	GTD-5000
		Macronix Inrternational Co.	GTD-5000
		Episil-Precision Inc.	GPD-100, GTD-5000, GTD-5000F-IR
		United Microelectronics Corporation	GPD-100, GTD-5000
		Wavetek Microelectronics Corporation	GTD-5000
		WIN Semiconductors Corp.	GTD-5000
		TSMC	GTD-5000
	USA	TEXAS INSTRUMENT	GTD-5000
		INTEL	GTD-5000
	Singapore	Micron Technology	GTD-5000
		Global Foundries	GTD-5000, 5000F

10. **Performance**

GASTRON, a leading company in the domestic safety device industry

Semiconductor (Overseas) - 2

	Country	Company	Contents
On-Going	China	YMTC	GTD-5000, GTD-5100F
		SMIC	GTD-5000, GTD-5100F
		SAMSUNG ELECTRONICS XIAN	GTD-5000, GTD-5100F
		SK HYNIX WUXI	GTD-5000, GTD-5100F
		CXMT	GTD-5000, GTD-5100F

10. **Performance**

GASTRON

GASTRON, a leading company in the domestic safety device

Offshore Plant (Including overseas & domestic)

Year	Company	Project Name	Contents
2017	Mokpo Shipbuilding	Pohang Office of Oceans and Fisheries 80-ton class LNG-powered blue port	GTD-2000Tx + GTC-200
	Yeonsu Heavy Industries	1950PS Prevention Ship	GTD-2000Tx + GTC-200
	Yeonsu Heavy Industries	2500PS Prevention Ship	GTD-2000Tx + GTC-200
	STX O&S	OCEAN GOLD TANKERS INC. 50K PRODUCT OIL / CHEMICAL TANKER	GDS-10000 SERIES
2018	STX O&S	OCEAN GOLD TANKERS INC. 50K PRODUCT OIL / CHEMICAL TANKER	GDS-10000 SERIES
	Yudal Shipbuilding	Ministry of Oceans and Fisheries 80-ton class	GTD-2000Tx + GTC-200
	STX O&S	EPS 50K PRODUCT OIL / CHEMICAL TANKER	GDS-10000 SERIES
2019	SAMKANG M&T	HYODONGSHIP 3.99K SUS316L OIL & CHEMICAL TANKER	GDS-10000 SERIES
2020	HMD	MARINVEST 49K Methanol/Product/Chemical Tanker	GIR-3000
	GSI	STENA 50K CHEMICAL/PRODUCT OIL TANKER	GIR-3000
	-	Korea Gas Shipping Co.., Ltd B.P 60MT LNG ASD TUG BOAT / DF	GDS-20000 SERIES
	NTS	Eastern Pacific Shipping Pte. Ltd. 110K CRUDE/PRODUCT OIL TANKER	GTD-2000Tx etc
	HMD	NYK 49K Methanol/Product/Chemical Tanker	GIR-3000
	HMD	TOHMEI 49K Methanol/Product/Chemical Tanker	GIR-3000
	HMD	KSS LINE 49K Methanol/Product/Chemical Tanker	GIR-3000
	HMD	MOL 49K Methanol/Product/Chemical Tanker	GIR-3000
	GSI	STENA 50K CHEMICAL/PRODUCT OIL TANKER	GIR-3000

10. **Performance**

GASTRON

GASTRON, a leading company in the domestic safety device industry

Offshore Plant (Including overseas & domestic)

Year	Company	Project Name	Contents
2020	STX O&S	WOORIM SHIPPING 6,600 DWT CLASS OIL/CHEMICAL TANKER	GDS-10000 SERIES
	HMD	EPS 38,000m3 Class LPG Carrier	GIR-3000
	GSI	EPS 158,000 DWT Crude / Product Oil Tanker	GDS-20000 SERIES
2021	YUDAL	LNG ship	GTD-2000Ex + GTC-200
	HMD	Ulsan Information Industry Promotion Agency ULSAN SMART SHIP	GDS-20000 SERIES
	HMD	EPS 38,000m3 Class LPG Carrier	GIR-3000
	HHI	KSS LINE 91K LPGC	GIR-3000
	DH SHIPYARD	5,000HP LNG FUELED TUG BOAT	GDS-20000 SERIES
	STX O&S	6,600 DWT CLASS OIL/CHEMICAL TANKER	GDS-10000 SERIES
	HMD	TRAFIGURA 40K LPG/NH3 CARRIER	GIR-3000
	STX O&S	DONG-A TANKER 50K CHEMICAL/PRODUCT OIL TANKER	GDS-10000 SERIES
	SAMWON CORP.	Ocean and Fisheries Research Vessel (Cheonggyeong)	GDS-20000 SERIES
	SAMKWANG (Samkwang Shipbuilding Industry)	Korea Maritime Environment Corporation LNG Dual FUELED Prevention Ship	GDS-20000 SERIES
	HAEMIN HEAVY INDUSTRIES	Busan South Port Office LPG Hybrid Electric Propulsion Cruise Ship	GDS-20000 SERIES
	KSHIPBUILDING	SINOKOR 50K CHEMICAL/PRODUCT OIL TANKER	GDS-10000 SERIES
	KSHIPBUILDING	115K CRUDE OIL/PRODUCT OIL TANKER	GDS-10000 SERIES
	YUIL SHIPYARD	Pure Electric Propulsion Driveway K1	GTD-2000Ex + GTC-200

10. **Performance**

GASTRON, a leading company in the domestic safety device industry

Offshore Plant (Including overseas & Domestic)

Year	Company	Project Name	Contents
	MIRAE SHIPYARD	Korea Maritime Police Agency Coast Guard 500-ton class LNG fuel-propelled control boat	GDS-20000 SERIES
	HSHI	TRAFIGURA 86K LPG CARRIER	GIR-3000
	HMD	PASCO GAS 40K LPG CARRIER	GIR-3000
	HSHI	KNUSEN 174K LNG CARRIER	GIR-3000
	-	Masan Regional Sea and Water Administration 40-ton patrol boat	GTD-2000Ex + GTC-200
	HHI	CAPITAL SHIP MANAGEMENT 174K LNG CARRIER	GIR-3000
	KSHIPBUILDING	DONG-A TANKER 50K CHEMICAL/PRODUCT OIL TANKER	GDS-10000 SERIES
2021			

11. Overseas Vendor List

GASTRON, a leading company in the overseas safety device industry

Overseas Vendor List

Country	Company	Remark
Vietnam	PETROVIETNAM ENGINEERING	EPC
Vietnam	PETROVIETNAM	End user
Uzbekistan	Enter Engineering	EPC
UAE	ADNOC	End user
UAE	CPECC	EPC
UAE	GPS	EPC
Turkey	TUPRAS	End user
Taiwan	CTCI	EPC
Spain	Technicas Reunidas	EPC
Saudi Arabia	MARAFIQ	End user
Saudi Arabia	Saudi Aramco	
Philippines	JG SUMMIT	End user
Mexico	Pemex	End user
Kuwait	KNPC	End user
Kuwait	KOC	End user
Japan	Chiyoda	EPC
Japan	Chiyoda System Technologies	EPC
Japan	JGC	EPC
Japan	MITSUBISHI POWER	EPC
Japan	TOYO Engineering	EPC

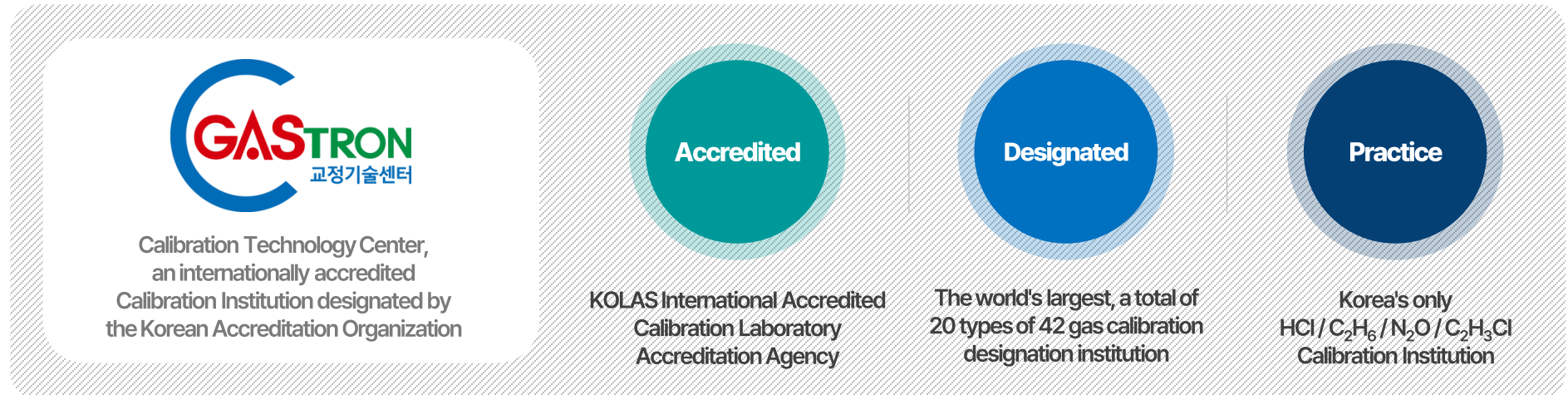| Country	Company	Remark
Italy	KT	EPC
Italy	Technip	EPC
Indonesia	Pertamina	End user
Indonesia	Chandra Asri	End user
Indonesia	PT ADHI KARYA	EPC
Indonesia	PT PP	EPC
Indonesia	PT REKIND	EPC
India	NIPC	End user
India	PDIL	End user
Egypt	PETROJET	EPC
Malaysia	Petronas	End user
Malaysia	AMK Control	EPC
Malaysia	NGL Tech	EPC
Malaysia	Sony Malaysia	EPC
Malaysia	Sime Darby	EPC
Malaysia	SAPURA KENCANA	EPC

12. **Major Clients**

Perfect quality adding to the safety, it's a firm promise to keep for our clients.

13. **Key Partners**

GASTRON

GASTRON Calibration Technology Center, an internationally accredited Calibration
Laboratory specializing in gas analyzers (detectors)

GASTRON 교정기술센터

Calibration Technology Center,
an internationally accredited
Calibration Institution designated by
the Korean Accreditation Organization

Accredited

KOLAS International Accredited
Calibration Laboratory
Accreditation Agency

Designated

The world's largest, a total of
20 types of 42 gas calibration
designation institution

Practice

Korea's only
HCl / C_2H_6 / N_2O / C_2H_3Cl
Calibration Institution

Gas Analyzer (Detector) KOLAS Calibration
- Gas analyzer (detector) such as flammable, toxic gas and oxygen
- Global Top in connection with calibration, accredited items
- Fixed standard room calibration
- On-site Calibration at domestic and abroad

Gas Analyzer (Detector) Internal Calibration
- General calibration using CRM and RM gas and issue self-report
- Fixed standard room calibration
- On-site Calibration for domestic and international sites

Gas Analyzer (Detector) Test Operation
- Field installation and test operation
- On-site test operation for domestic and international sites

Gas Analyzer (Detector) Inspection and Repair
- Regular inspection and repair of fixed standard room
- Periodic inspection and repair for domestic and international sites

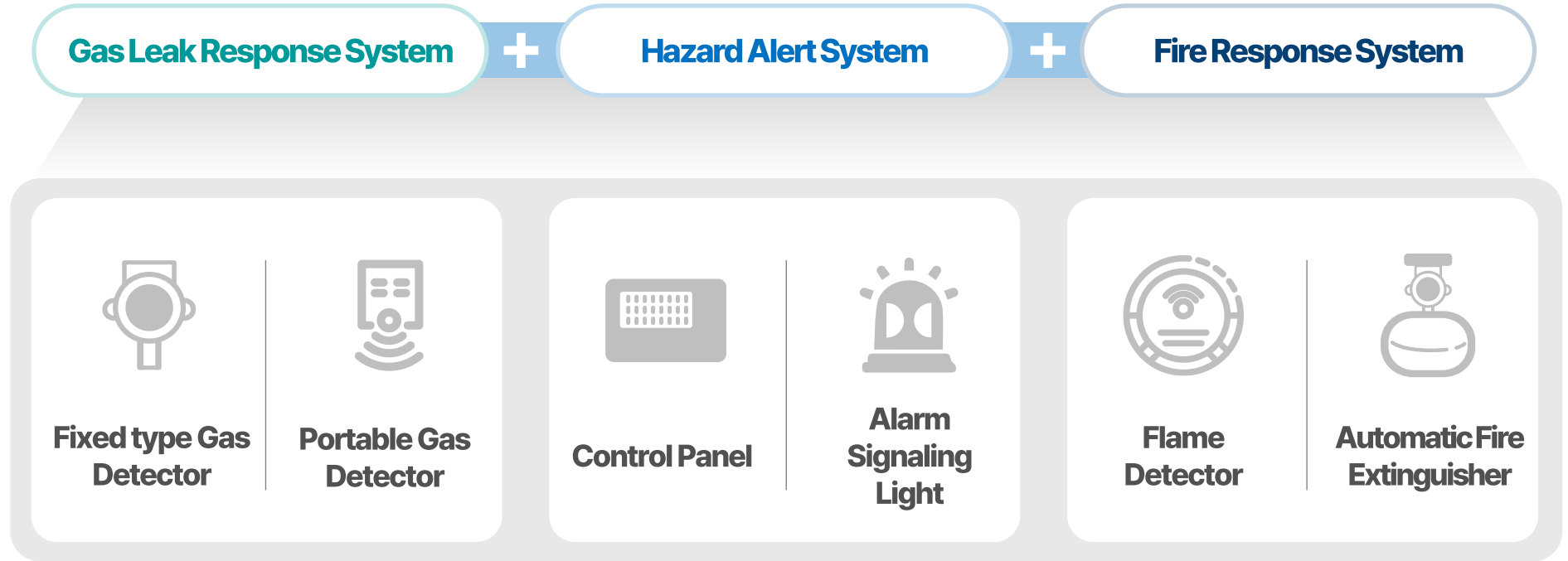**Others**
- Other gas analyzer (detector) related business

02

**Product
Description**

01. **Product Portfolio**

GASTRON

Road to Safety ! The World-Best Safety Device!

| **Gas Leak Response System** | + | **Hazard Alert System** | + | **Fire Response System** |

| **Fixed type Gas Detector** | **Portable Gas Detector** | **Control Panel** | **Alarm Signaling Light** | **Flame Detector** | **Automatic Fire Extinguisher** |

GASTRON products can establish safety systems in all industrial sites.

02. Product Description

GASTRON

Road to safety! The world's best Fixed Type Gas Detector!

Fixed type Gas Detector

It can detect most of the gases used in industrial sites. Depending on the gas, sensors such as Infrared/Catalytic Cell type/Electrochemical Cell type are used, and if there is a risk of explosion, it can be constructed as an explosion-proof structure.

Explosion-proof Flammable Gas Detector →

- Model: GTD-2000Ex
- Measuring gas: Flammable
- Communication: 4-20mA, HART
- Certification: KCs, IECEx and 15 other types

Explosion-proof Oxygen & Toxic Gas Detector →

- Model: GTD-2000Tx
- Measuring gas : Toxic / Oxygen
- Communication: 4-20mA, HART
- Certification: KCs, IECEx and 15 other types

Explosion-proof Infrared Gas Detector →

- Model: GIR-3000
- Measuring gas : Toxic / Flammable
- Communication: 4-20mA, Relay, HART
- Certification: KCs, IECEx and 15 other types

New Product

Explosion-proof Infrared Gas Detector →

(Interfering gas filtering)

- Model: GTD-5100F N
- Measuring gas : Toxic / Flammable / Freon
- Communication: 4-20mA, RS-485, Relay, PoE
- Certification: KCs, IECEx and 6 other types

02. **Product Description**

GASTRON

Road to safety! The world's best Portable Gas Detector!

Portable Gas Detector

It is used in enclosed spaces where there are many suffocation accidents or in sites where product installation is difficult. It detects the gas closest to the worker, and can be configured from 1 to 7 channels as needed.

Single-channel Portable Gas Detector →

- Model : G-Finder Single
- Channel : 1
- Measuring gas : O2 / CO / H2S
- Certification: KCs, IECEx and 6 other types

Multi-channel Portable Gas Detector →

- Model : G-Finder Multi
- Channel : 4
- Measuring gas : O2 / CO / H2S / Flammable
- Certification: KCs, IECEx and 6 other types

5-channel Portable Gas Detector →

- Model : VENTIS PRO
- Channel : 5
- Measuring gas : Flammable / Toxic / O2 / VOC
- Certification: KCs, IECEx and 2 other types

7-Channel Portable Gas Detector →

- Model : RADIUS BZ1
- Channels : 7
- Measuring gas : Flammable / Toxic / O2 / VOC
- Certification: KCs, IECEx and 2 other types

02. **Product Description**

GASTRON

Road to safety! The world's best Controller!

Controller | It is a product that collects gas leakage data in the site and displays it on a monitor.
This allows managers to respond to dangerous situations faster and more accurately.

New Product

Smart Controller →

- Model : ASC-100
- Channel : Receive 10-20 channels.
- Communication : 4-20 mA, RS-485, Relay
- Certification : CE
- Features : Position Monitoring System, MSDS Viewer

Non-explosion-proof Multi-Channel Controller →

- Model : GTC-200A / 210A (Fire certification)
- Channel : 1~64 channel reception
- Communication : 4-20mA, RS-485, Relay
  Certification : CE, KR, KFI

Explosion-proof Multi-Channel Controller →

- Model : GTC-200F
- Channels : 4 channels receive
- Communication : 4-20mA, RS-485, Relay
- Certification : KCs

Explosion-proof Single Channel Controller →

- Model : GTC-520F
- Channel : 1 channel receive
- Communication : 4-20mA, RS-485, Relay
- Certification : KCs

02. **Product Description**

GASTRON

Road to safety! The world's best Flame Detector!

Flame Detector

It is a product that detects flames and prevents fires. It proudly boasts accurate detection performance with a detection distance of up to 50 m and a viewing angle of 100°.

UV/IR Flame Detector →

- Model : GTF-1100U
- Type : UV/IR
- Detection distance : 30 m
- Viewing angle : vertical 100° horizontal 100°
- Certification : KCs, FM and 6 other types

Triple IR Flame Detector →

- Model : GTF-1100T
- Type : Triple IR
- Detection distance : 50m
- Viewing angle : vertical 100° horizontal 100°
- Certification : KCs, FM and 6 other types

02. Product Description

GASTRON

Road to safety! The world's best Safety Device!

Alarming Lamp

Light and alarming sounds inform emergency situations. It is designed with an explosion-proof structure and can be interlocked with a gas detector and reception panel.

Automatic Fire Extinguishing System

It is a product that extinguishes fires through carbon dioxide and IG-100.

Explosion-proof Alarming Light →

- Model : GTL-200
- Type : LED light
- Volume : MAX 120 dB
- Certification : KCs, ATEX, IECEx, CE

Automatic Fire Extinguishing System →

- Model : AFC-100
- Extinguishing Gas : CO2, N2

GAStron

We provide you with the right and viable
solution for your safety.

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