

# FLUORO TECH CATALOGUE

THE BEST

Everyone in the world is in pursuit of alues beyond chemical safety to realize safety, relief and trust.



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**About Company** 



# **GUMI**

FLUORO TECH CO., LTD

1st place of business (head office and factory) 2nd place of business (factory)

# **HWASEONG**

FLUORO TECH CO., LTD

Hwaseong Branch (Sales Office)

# **CHANGZHOU**

CHANGZHOU FLUORO TECH CO.,LTD

Overseas legal corporation (Changzhou, Jiangsu, China)

Location	domestic	Overseas (China)
Company Name	FLUORO TECH CO., LTD.	CHANGZHOU FLUORO TECH CO.,LTD.
CEO	JANG, Moon-Soo BAE, Jong-Wook	LEE Gyoung-Yul
Date of establishment	August 20, 1995	September 3, 2013
Business area	Semiconductor, display, chemical plant, pharmaceutical/BIO plant, nuclear power, renewable energy industry	Semiconductor, display, chemical plant, pharmaceutical/BIO plant, new and renewable energy industry
Contact information	TEL. +82-54-473-4657 FAX. +82-54-475-4659	TEL. +86-519-6888-5156 FAX. +86-519-6888-5296
E-Mmail	fluoro@fluorotech.co.kr	changzhou@fluorotech.co.kr
Factory scale	Gumi Plant 1: Land 5,200㎡ / Building 3,100㎡ -Clean room (height) 5M x 100 pyeong -D.I.Water System 18MΩcm×3m3/HR production -Hot D.I.W System and Clean air system, etc. Gumi Plant 2: Land 6,000㎡ / Building 3,300㎡	China-1 Factory: 2,100㎡, clean room 300㎡ China-2 Factory: 3,300㎡, clean room 800㎡ (10,000 level clean room 300㎡)
Address	[Headquarters and Factory] Gumi 1st business site: # 51, Cheomdangeop 2-ro, Sandong-eup, Gumi-City, Gyeongsangbuk-do, Korea Gumi 2nd Plant: # 209, Cheomdangeop-ro, Sandong-eup, Gumi-si, Gyeongsangbuk-do, Korea [Business office] Hwaseong Branch: #1005, #1008, #1009, 683, Dongtan-daero, Hwaseong-si, Gyeonggi-do (Yeongcheon-dong, SH Square 2)	No.66 Yanyang Road, Tongjiang Industrial Park, Xiaohe, Menghe Town, Xinbei District, Changzhou City, Jiangsu Province
Production CAPACITY	Gumi 1st Plant (LINING TANK) - 60 units per month based on 1㎡ Gumi 2nd Plant (E.P TANK) - 60 units per month based on 1㎡ Maximum production capacity in SHOP: 100㎡	1st Factory in China - 40 units per month based on 1mੈ 2nd factory in China - 50 units per month based on 1mੈ

# **About Company**

"

Everyone in the world is in pursuit of alues beyond chemical safety to realize safety, relief and trust.

"

We will make the world more convenient and enrich the lives of all of us by creating new values with **safety** for industrial sites, **relief** for members of society, and **trust** for customers.



#### **Basics and Principles**

We strictly follow laws and social norms, and do not compromise on matters that do not conform to common sense and ethics.



#### **Client-centric thinking**

Accurately recognizing the level of customer needs inside or outside the company Impress customers by promptly providing information or services



#### Passion and challenge

we are not afraid of change and engage in innovation activities to create organizational results based on a strong desire to achieve higher goals and a spirit of challenge



# A small but strong company that creates new values



As a corporate citizen, we contribute to the common prosperity of the local community, nation, and humanity



We impress customers with the spirit of unlimited responsibility



We solidify our position as a firstclass company that leads the market



Enrich the lives of all mankind with the values we create



Harmonious person

**Creative person** 

Challenging person

Professional person

# History

		The 48th 'Day of Commerce and Industry' Stone Tower Order of
	2021	Industrial Service Merit  Acquisition of construction license for mechanical equipment
		construction business
		Lab establishment certification
Sales office (Hwaseong branch) opened	2020	Eds Stabilism of Continuation
Established and moved the laboratory to Hwaseong, Gyeonggi-do		Completion of the 2nd Gumi Plant
, 5, 55		Acquired permission for hazardous chemical business (use business)
	2019	Designated as a promising export small and medium enterprise ,Ministry
		of SMEs and Startups
		ISO 45001:2018 certified
Selected as a KICOX Global Leading Company , Korea Industrial Complex	2018	Chemical safety community business agreement
Corporation		(Daegu Regional Environment Agency, Gumi Chemical Safety Joint
Selected as a technology innovative SME, Ministry of SMEs and Startups		Disaster Prevention Center)
	2017	A 1 (1) 540 T 1 D IT (A40 D II 5 1)
		Award of the 54th Trade Day 'Tower of Million Dollar Exports'
Selection of Export Promising SMEs		Company of the Month Selection, Gumi city
(by SMBA, Daegu Gyeongsangbuk-do)	2016	Designation of Compliant Trade Traders , Ministry of Industry, Trade and
Daegu Gyeongsangbuk-do		Resources
Small and Medium Business Commissioner Promising Small and Medium		Small Hidden Champion Certification, Ministry of Employment and Labor
Business Selection Commendation	2015	GERMAN TUV SUB FTSA GASKET Product Certification
New Technology Certification by Ministry of Industry, Trade and		LEAK SENSOR product certification (explosion-proof certification, UL
Resources (LEAK SENSOR Production Technology)		certification, CE certification, China explosion-proof)
Industry-academia cooperation technology development support	2014	FTSA GASKET Design Registration and Trademark Application
project participation		1 10/10/ ONE 1 2001g/11 toglottation and materiality pplication
(convergence of technologies based on astronomical		
measurement data)	2013	Establishment of China Trauma Independent Enterprise
		ISO 14001:2015 Certified
Certification of Component Materials Professional Company,	2012	
(Ministry of Knowledge Economy)		
	0011	
	2011	Gyeongsangbuk-do Selected as a 'New Growth Company'
		, ,
Establishment of a company-affiliated research institute (Gumi)	2010	
Renewable Energy Professional Company Certification	2010	
(Ministry of Knowledge Economy)		
	2006	Inna Diz Tashnalası ulanayatı va Casall Dusinasa Cartification
		Inno-Biz Technology Innovative Small Business Certification (Small and Medium Business Administration)
		(Small and Medium Dasiliess Administration)
	2005	
China Export Quality Certification (CSEL) License Acquisition		
	2004	Headquarters relocation
		#51 Cheomdangeop 2-ro, Sandon-eup, Fumi-city, Gyeongbuk, Korea
		gp =, -=p,,, -, g,
	2002	
ISO 9001:2000 Certified		
	2001	Japan 'SAKAI STAINLESS 社" E.P Technology Partnership
		E.P Localization Development and Mass Production Supply
LINING TANK mass production supply commencement	1995	
Startup and business open		

# **Business Performance**

We will make our best efforts to grow and develop into a small but strong company with the world's best technical manpower and high competitiveness so that we can play a role in the domestic and global markets.

# **END USER**



# **I ENGINEERING COMPANIES**



















# I CHEMICAL TANK PERFORMANCE

Main				Quantity	
Customers		Site & Project	Capability	LINING	E.P
<b>6</b>	Semi- Conductor	Giheung: 14Line,15Line,G,G1-PJT,S1A,S1B,SF1-PJT,SR1L,K2 Hwaseong: NRD,10Line,11Line,12Line,13Line,16Line,16-2Line,17Line Pyeongtaek: P-PJT, P1L V7, P2-PJT, P3-PJT Cheonan: L5-PJT	0.1M³ ~ 20M³	2,122	659
Samsung	Display	Cheonan: SDI-PDP Line, C5, C6 Asan: T7-1, T7-2, T8, T8-2	0.2M³ ~ 35M³	549	436
	Electronics	Cheonan: S-PJT	0.035M <sup>3</sup> -15M <sup>3</sup>	58	7
L G	Display	Gumi: P1, P2, P3, P4, P5, P6, P6E, AP2, AP3-PJT Paju: P7, P8, P8E, P98-PJT, P10B PJT	0.2M <sup>3</sup> ~80M <sup>3</sup>	790	438
	Electronics	Gumi: LGE Solar PJT	0.1M <sup>3</sup> ~80M <sup>3</sup>	14	4
SK Hynix	Semi- Conductor	Gumi(Magna Chip): G1 section, MOS section FAB CCSS Icheon: M-Line, FAB7, M10A, M10B, M10C, M14, M14 PH2, M14 PH2B, M16 PJT Cheongju: M8,9, M11, M12 PJT, M15 PJT	0.1M³~20M³	1,506	280
Doosan Heavy Industries & Construction	Nuclear Energy	US AP1000/ Uljin1,2 / Shin-Kori #3,4,5,6 / Sinwolseong #2 / China AP1000 / Palo #1,2,3 / Sequoyah#2/Hanbit #3,4,5,6 / Watts Bar etc.	Steam Generator HEAD		29
Others	Chemical / Etc.	Dongseo Petrochemical, Samsung SDI (Cheil Textile Industries), Hanwha, Samyoung Soonhwa, LS Nikko Copper Smelting, Samsung Corning, Dongbu Hitech, Fairchild, Hansol Chemical, Techno Semichem, Hyosung, SK Siltron, Kolon Petrochemical, Dongwoo Fine Cam, ENF Technology, Ram Technology, KC Tech, Seoul Semiconductor, AMKOR, SB TECH, Chemitop, SKC, etc.	0.01M³~200M³	1,306	329
Overseas	China	Beijing: BOE B1, B4, GVO  Dalian: INTEL  Hebei: BOE B3, B9  Qingdao: BOE B2  Shenzhen: CSOT  Xian: Samsung M, X2  Ordos: BOE B6  Fuzhou: BOE B10  Chongqing: BOE B8  Chengdu: BOE B7  Wuhan: YMTC  Shanghai: SMIC, TIANMA  Guangzhou: LGD CA, GP2, P10A	0.2M³~50M³	1,666	421
	Taiwan	CPT-PJT, PROMOS PJT	1.0M³~35M³	56	19
	Vietnam	SEV, SEVT, SEVT(Metal) PJT	1.0M <sup>3</sup> ~25M <sup>3</sup>	46	
	USA	AUSTIN SAS A2, AUSTIN SAS CU, SAS FAB	0.05M <sup>3</sup> ~65M <sup>3</sup>	286	30
	Singapore	MICRON F10A, F23C, F25C, F10A PH2 PJT	0.075M <sup>3</sup> ~20M <sup>3</sup>	117	2
		TOTAL		8,518	2,654

# **Product Introduction**

We will grow and develop into a small but strong company with the world's best technical manpower and high competitiveness so that we can play a role in the domestic and global markets.



01

# **LINING TANK**

- Lining Tank
- Tank Lorry
- Pipe & Fitting
- Drum & Container





02

# **E.P TANK**

- E.P Tank
- Tank Lorry
- Pipe & Fitting
- Drum & Container





03

# **ACCESSORY PARTS**

- Pipe & Fitting
- Safety Valve
- Vacuum Breaker





04

# **FLUORORESIN PARTS**

- Molding Bath
- FTSA Gasket
- Ohter Parts



# **Chemical Tank**

FLUORO THECH CO., LTD. is a specialized company that manufactures chemical tanks in the semiconductor and display fields. Based on skilled experience and high technology, We have accumulated experience in the necessary specialized fields, and have been manufacturing and supplying TANK and VESSEL of various shapes and specifications created with high technology and know-how. We promise that We will do our best to produce safe and high quality products.

# I TANK SIZE table

The SIZE table is not a standardized table, and it can be manufactured in accordance with the customer's specifications and conditions.

Capacity(m³)	SIZE
0.5	ID 750×1,200H (TL~TL)
1	ID 1,050×1,200H (TL~TL)
1.5	ID 1,200×1,500H (TL~TL)
2	ID 1300×1,500H (TL~TL)
5	ID 1,800×2,000H (TL~TL)
10	ID 2,100×2,900H (TL~TL)
15	ID 2,400×3,300H (TL~TL)
20~100	Please consult with us for material, size, and other matters on production.

# I Characteristics of each type of TANK

The shape of the tank is changed in accordance with various conditions such as the purpose of use and the presence or absence of pressure resistance.

# VERTICAL TYPE

End plate shape: 10% DISH.

Capacity: 0.5m³~50m³ or less can be manufactured (more than 50m³ requires additional agreement)

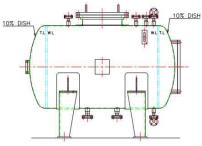
#### Advantages

- This is the popular model. both pressure and non-pressure are used (there may be partial changes depending on the operating pressure)
- Can be used for external storage or tank with large capacity

#### Disadvantage

- It is difficult to work if the inner diameter is less than 1050mm owing to the interference between MANHOLE and NOZZLE

# HORIZONTAL TYPE



End plate shape: 10% DISH.

Capacity: 1m³~30m³ or less can be produced

(more than 30m³ requires additional mutual agreement)

#### Advantages

- Use both pressure and non-pressure
- It is mainly used for external storage or tanks with large capacity, and is mainly used where there is a height limit.
- Stronger in earthquake and wind resistance than VERTICAL TYPE

#### Disadvantage

- In case of E.P TANK, separate NOZZLE must be manufactured on the left and right end plates (used for E.P work)
- Compared to the VERTICAL TYPE, the production period and cost are higher. There is some difficulty in lining or E.P work.

# I Types of CHEMICAL TANK

### **SUPPLY TANK**

The tank that supplies chemicals to mass production facilities at a constant pressure and flow rate







# **MIXING TANK**

The tank that mixes each chemical supplied to the facility with a stirrer







# **STORAGE & WASTE TANK**

The tank that stores chemicals in large capacity or for disposal of used chemicals







# **TANKLORRY / ISO CONTAINER**

The TANK used to transport chemicals







# I Other special purpose CHEMICAL TANK

#### PHARMACEUTICALS-BIO EQUIPMENT

FLUORO TECH CO., LTD. receives and supplies technologyn alliance with Sakai Stainless of Japan for clean facilities, which are the most basic in BIO facilities. Incubator provides the best system by realizing optimal management conditions such as temperature, pressure, and mixing amount of various bacteria desired by customers in the culture process that artificially creates microorganisms. In addition, it is possible to manufacture CIP and SIP process-compatible equipment which are the most basic of bio processes and the mixing and general processes of the cleaning liquid are fully automated, which makes the work easier and is designed to reduce labor costs.







#### **PFA HEAT EXCHANGER**

A device designed to exchange heat between two or more fluids is called a heat exchanger. Heat exchangers are used to exchange heat between different fluids for the purpose of cooling the fluid or heating the fluid to increase its temperature. Fluorotech's fluororesin heat exchanger is a product that utilizes the characteristics of fluororesin such as corrosion resistance, stain resistance, heat resistance, pressure resistance, and stability of mechanical strength. There are FREE TYPE, SPIRAL TYPE and MODULE TYPE.









#### **JACKET HEATER TANK**

The thermal insulation method that has been used so far has mainly been used to cover the tank and piping with insulation material and then finish it with tin or PE tape on it. In order to solve this inconvenience, it is an economical resource-saving heater that can be attached and detached several times during maintenance, remodeling, and repair of semiconductor equipment as a product that integrates heating wire and insulation material that can compensate for heat loss. In particular, frequent repairs are required. It is an innovative heating system that is optimal for heating equipment that can prevent the temperature drop of valves and equipment, and can significantly extend the period of regular equipment maintenance.







# **Fluororesin Lining**

It means bonding and vacuum adsorption inside the housing by using fluororesin (PTFE, PFA, APV, PP, PVDF, FEP, ECTFE) sheet.

it is widely used in the semiconductor, display, and chemical plant industries as highly clean chemical containers and piping owing to the excellent chemical resistance, heat resistance, non-adhesiveness, and non-dissolving properties of fluororesin





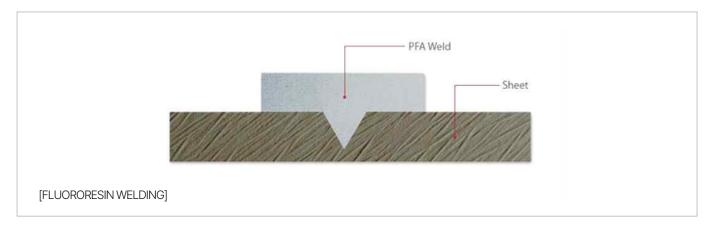




# I LINING SHEET TYPE

PTFE SHEET	<ul><li>PTFE ETCHING SHEET</li><li>PTFE GLASS BACKING SHEET</li></ul>
NEW PTFE SHEET	<ul><li>APV GLASS BACKING SHEET</li><li>TFM GLASS BACKING SHEET</li><li>PLP ETCHING SHEET</li></ul>
PFA SHEET	■ PFA GLASS BACKING SHEET

# I LINING SHEET WELDED SECTION SECTION



# **I LINING PRODUCT**

LINING TANK

• LINING TANK LORRY

LINING DRUM & CONTAINER

• LINING PIPE & FITTING

Please consult with us for material, size, and other matters.



















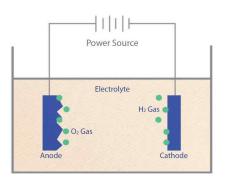






# **Electro Polishing**

Electro Polishing of FLUOTO TECH CO., LTD. is based on specialized technology and implements design and construction suitable for the customer's environment in all industries that require ultra-precision, such as semiconductors, displays, biopharmaceuticals, and nuclear power. Mobile electropolishing equipment is built so that the electrolytic polishing can be performed smoothly even if the product is moved locally without being restricted by the product's bulkiness, shape, and characteristics. Electropolishing is possible regardless of the environment. Electrolytic polishing has excellent performance in polishing the inner surface of pipes and tanks in contact with high-purity solutions of semiconductor manufacturing equipment.



# I Comparison of grinding techniques

Grinding Shape characteristics	Precipitation electropolishing [E.P]	Chemical polishing [C.P]	Machine grinding [Buffing]		
Smoothness	0	$\circ$			
Polished surface	(Seconds) mirror surface	No gloss	Polish		
Effective area	Minimal (micro improvement)	Large	Large		
non-adhesive	0	X	Δ		
greenness	0	X	Δ		
processing bending	doesn't exist	doesn't exist	has exist		
corrosion resistance	0	Δ	X		

# <Surface of 316L stainless steel (optical microscope 400 times magnification)>

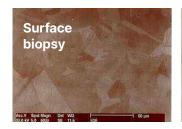


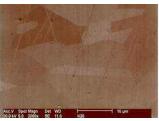


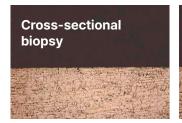




# <Electropolishing Scanning Electron Microscopy (SEM) Microscopic Examination>









No surface defects such as grain boundary erosion were observed as a result of the SEM inspection. It can be seen that the electropolished surface is uniform.

# I ELECTRO POLISHING PRODUCT

- E.P TANK
- E.P PIPE & FITTING
- E.P PHARMACEUTICALS·BIO
- E.P TANK LORRY
  - E.P DRUM & CONTAINER
  - E.P FILTER HOUSING

Please consult with us for material, size, and other matters.

























# **Accessory Parts**

We manufacture and sell both lining using PTFE and PFA and electropolishing (E.P) or BA Grade FITTINGs.

As a corrosion-resistant piping material suitable for chemical transport, it is applied to various fittings, straight pipes, and inserted pipes, and the dimensions are applicable to KS, JIS, ANSI, DIN standards, etc.



# I LINING & E.P FITTINGS

Please inquire separately for other non-standard productions.

PIPE	NOMIN	MINAL SIZE D(mm)		NOMINAL SIZE		L(r	nm)	LINERS A	VAILABLE	DIMENSION
	ANSI	JIS	D(mm)	Min	Max	PFA	PTFE	DIMENSION		
	3/4"	20A	40	80	3000	*	*			
	1	25A	48	80	3000	*	*			
	11/2	40A	69	90	3000	*	*	<b>\$</b>		
	2	50A	88	90	3000	*	*			
	21/2	65A	113	90	3000	*	*	/// ">		
	3	80A	118	100	3000	*	*	& /// /		
	4	100A	151	100	3000	*	*	****		
	6	150A	204	120	3000	*	*	<b>*</b>		
STANDARD FLANGE	8	200A	256	120	3000	*	*	$\checkmark$		
ANSI 150Lb OR JIS 10K	10	250A	312	150	3000	*	*			
	12	300	366	150	3000		*			

	NOMIN	AL SIZE		L(n	nm)	LINERS A	VAILABLE		
ELBOW	ELBOW	ANSI	JIS	D(mm)	90° Elbow	45° Elbow	PFA	PTFE	DIMENSION
	3/4"	20A	40	80	45	*	*	<b>A</b>	
	1	25A	48	89	45	*	*		
	11/2	40A	69	102	58	*	*		
	2	50A	88	114	64	*	*	. 訓 . 🖶	
	21/2	65A	113	127	76	*	*	atest lests	
	3	80A	118	140	76	*	*	<del></del> -	
	4	100A	151	165	102	*	*	<u> </u>	
	6	150A	204	203	127	*	*	<i>Y</i> ^\   <b>∄</b> _,	
	8	200A	256	229	140		*	<b>V</b>	
STANDARD FLANGE	10	250A	312	279	165		*	<b>*</b>	
ANSI 150Lb OR JIS 10K	12	300A	366	305	191		*	***	

REDUCER	NOMIN	NOMINAL SIZE		D1(mm)	D2/mm)	D2(mm) LINERS AVAILA		DIMENSION
	ANSI	JIS	D(mm)	D1(mm) D	DZ(IIIII)	PFA	PTFE	DIIVIENSION
	1×3/4"	25×20	49	40	100	*	*	
	11/2×1	40×25	69	48	100	*	*	<b>772</b>
	2×1	50×25	88	48	127	*	*	
	2×11/2	50×40	88	69	127	*	*	2
	21/2×2	65×50	113	88	127	*	*	øD2
	3×2	80×50	110	88	152	*	*	
STANDARD FLANGE	4×2	100×50	151	88	152	*	*	222
	4×21/2	100×65	151	113	152	*	*	L .
ANSI 150Lb OR JIS 10K	4×3	100×80	151	118	152	*	*	

TEE	NOMIN	AL SIZE	D(mm)	L(mm)	LINERS A	VAILABLE	DIMENSION
	ANSI	JIS	D(IIIIII)	Min	PFA	PTFE	DIIVIENSION
	3/4"	20	40	80	*	*	
	1	25	48	89	*	*	
	1182	40	69	102	*	*	
	2	50	88	114	*	*	<u> </u>
	2 1/2	65	113	127	*	*	│ <del></del> ┤∰∵∰
	3	80	118	140	*	*	
	4	100	151	165	*	*	<u> </u>
	6	150	204	203	*	*	₽
	8	200	256	229		*	1 <del>2                                    </del>
STANDARD FLANGE	10	250	312	279		*	
ANSI 150Lb OR JIS 10K	12	300	366	305		*	

REDUCER TEE	NOMIN	MINAL SIZE		nm) D1(mm)	D2(mm)	LINERS A	VAILABLE	DIMENSION
	ANSI	JIS	D(mm)		"",   52(""", [	PFA	PTFE	DIVIENSION
	1×3/4"	25×20	49	40	89	*	*	
	11/2×1	40×25	69	48	102	*	*	<del>==0.1</del>
	2×1	50×25	88	48	114	*	*	
	2×11/2	50×40	88	69	114	*	*	-  ∰
	21/2×2	65×50	113	88	127	*	*	
	3×2	80×50	110	88	140	*	*	
	4×2	100×50	151	88	165	*	*	
STANDARD FLANGE	4×21/2	100×65	151	113	165	*	*	
ANSI 150Lb OR JIS 10K	4×3	100×80	151	118	165	*	*	

INSTURMENT TEE	NOMINAL SIZE		D(mm)	D1(mm)	1 (mm)	H/mm)	DIMENSION	
INSTURIVIENT TEE	ANSI	JIS	D(IIIIII)	D1(mm)	L(mm)	H(mm)	DIMENSION	
	3/4"	20A	40	60	80	60		
	1	25A	48					
	11/2	40	69	85	102	60	11000   ESATE 4	
	2	50A	88	103	114	60		
	2 1/2	65A	113	122	127	60	T 20   124	
	3	A08	118	135	140	60		
	4	100A	151	173	165	60	• • • • • • • • • • • • • • • • • • •	
	6	150A	204	221	203	60		
STANDARD FLANGE	8	200A	256	278	229	60	<u> </u>	
ANSI 150Lb OR JIS 10K	10	250A	312	339	279	60		

CROSS	NOMINAL SIZE		D(none)	1 (100100)	LINERS AVAILABLE		DIMENSION
	ANSI	JIS	D(mm)	L(mm)	PFA	PTFE	DIMENSION
	3/4"	20	40	80	*	*	
STANDARD FLANGE ANSI 150Lb OR JIS 10K	1	25	48	89	*	*	
	11/2	40	69	102	*	*	PHISS SEATO
	2	50	88	114	*	*	
	2 1/2	65	113	127	*	*	
	3	80	118	140	*	*	
	4	100	151	165	*	*	→ HB HB HB
	6	150	204	203	*	*	
	8	200	256	229		*	<del>                                     </del>
	10	250	312	279		*	
	12	300	366	305		*	

# I SAFETY VALVE & VACUUM BREAKER

Our safety valve and VACUUM BREAKER are safety valves for semiconductors jointly developed with YooYeon Corporation and applied to tanks. It is a gas type safety valve with acid resistance by FUME rather than direct liquid. It is used as a LINED product when the chemical liquid in the pressure vessel is inorganic solvent and an E.P product when organic solvent is used.

In the case of some storage containers, a vacuum may occur when the pressure drops rapidly, but if the vacuum inside the container is not resolved, the container may be damaged. There is a risk of a chemical accident. VACUUM BREAKER not only prevents damage to equipment due to vacuum generation in liquid or gas systems, but also prevents the release of toxic gases from pipelines exposed to workmen. It is a product used to protect human safety and prevent malfunction.

#### **SAFETY VALVE FOR EQUIPMENT**



- MODEL: SFL-7S(Cap) SIZE: 1/2"x3/4", 3/4"x3/4"
- TYPE: E.P
- WORKING PRESS: 0.5~10kgf/cm²
- DESIGN TEMP.: Max 50°C
- FLUID: N2/CDA

# **SAFETY VALVE for pressure vessel**



- MODEL:SFA-1
- SIZE: 20A, 50A
- TYPE: LINING / E.P
- WORKING PRESS.:
  - LINING: 0.5~8kgf/cm<sup>2</sup>
  - E.P: 0.5~10kgf/cm<sup>2</sup>
- DESIGN TEMP.: - Max 50°C
- FLUID: N2



- MODEL: SFL-7S(Lever) SIZE: 1/2"x3/4", 3/4"x3/4"
- WORKING PRESS.: 0.5~10kgf/cm<sup>2</sup>
- DESIGN TEMP.: Max 50°C
- FLUID: N2/CDA



- MODEL:SFS-2
- SIZE: 20A, 25A, 50A
- TYPE:LINING/E.P
- WORKING PRESS.:
  - LINING: 0.5~8kgf/cm<sup>2</sup>
  - E.P: 0.5~10kgf/cm<sup>2</sup>
- DESIGN TEMP.:
  - Max 50°C
- FLUID: N2

#### **VACUUM BREAKER**



- MODEL: SFL-7SN
- SIZE: 1/2"x3/4", 3/4"x3/4"
- TYPE: E.P
- WORKING PRESS.
  - : 0.5~10kgf/cm<sup>2</sup> DESIGN TEMP.
  - : Max 50°C
- FLUID: N2/CDA



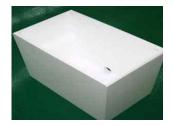
- MODEL: VBT-Note
- SIZE: 20A ~ 50A
- TYPE: Flange / Cap
- WORKING PRESS.:
  - Mzx. 10kgf/cm<sup>2</sup>
- DESIGN TEMP.:
  - Max 100°C
- VACUUM PRESS.:
  - $-0.001 \sim 0.005$ mmHq
- WORKING FLUID: HF,
- HN03,CJ3COOH,H2SO3
- \* Please inquire separately for detailed specifications of safety valve

# **Fluororesin Parts**

Fluorotech's precision processing technology produces parts that are applied to core processes in major industries such as semiconductors, displays, and chemical plants by precision analysis and processing according to the characteristics of fluororesin and high-functional materials. It is a product that localizes various parts of each process and boasts the best in the industry in terms of delivery time, quality, and price.

# I MOLDING BATH

It is a one-piece compression molded product using fluororesin. As there is no welding wire, the risk of leakage is low and can be used for a long time.









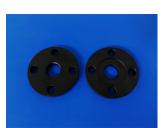
# Other Parts

We have secured technology in various fields and are specializing in the localization of various parts based on the fluororesin processing technology used for conductor equipment, We manufacture and supply various processed products including O-rings, Vacuum Pads, Blades, and Holders. It is also used by applying a fluororesin coating to the metal surface of other components.

















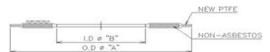
# **Fluororesin Parts**

FLUORO TECH CO., LTD. has developed an FTSA gasket that has improved the eccentricity of the existing O.D.S gasket and improved the inclination of the gasket that occurs on the assembly. assembly timelt is designed to prevent leakage due to shortening and gasket in advance.

FTSA Gasket is not only patented and design/trademark registered, but also among gasket products. It is the only initial product certified by German TUV SUD in Korea.

# I O.D.S GASKET





#### ASKET MATERIAL: NEW PTFE + NON ASBESTOS

- ANSI standards are not currently being produced.
- ODS products are not TUV certified.

KS standard	15A	20A	25A	32A	40A	50A	65A	80A	100A
A	14	19	25	33	39	50	65	80	101
В	55	60	70	80	86	102	120	129	152

# I PTFE GASKET (for safety valve)



#### Gasket material: 100% PTFE

Gasket for assembling the upper and lower parts of the rupture disc made of 100% PTFE.
 It is manufactured in accordance with the outer diameter of the disc holder of the rupture disk. It can be stably installed and used without any problems in the operation of the rupture disk during assembly.

# I PTFE GASKET (for rupture plate)

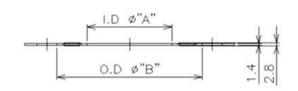


#### Gasket material: 100% PTFE

Gasket for assembling the upper and lower parts of the rupture disc made of 100% PTFE.
 It is manufactured in accordance with the outer diameter of the disc holder of the rupture disk. It can be stably installed and used without any problems in the operation of the rupture disk during assembly.

# I FTSA GASKET







GASKET MATERIAL: NEW PTFE + NON ASBESTOS

TUV certificate FTSA GASKET

KS standard	15A	20A	25A	32A	40A	50A	65A	80A	100A
A	15.4	21.2	29.5	35.2	46.7	59.9	72.1	54.2	96
В	53	58	69	79	84	99	119	129	154
ANSI standard	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"	2.1/2"	3"	4"
A	15.4	21.2	29.5	35.2	46.7	59.9	72.1	84.2	96.3
B	42.3	51.2	61.2	70.9	80.4	98.6	117.7	130.4	168.5

# I FTSA PTFE GASKET



# Gasket material: 100% PTFE

- It is a SOLID-type GKASKET made of 100% PTFE material certified by TUV in Germany along with FTSA GASKET.
- Specifications are the same as FTSA GASKET.



TUV certificate FTSA PTFE GASKET

# I FTSA BLIND GASKET



#### Gasket material: 100% PTFE

- It is a BLIND-type gasket made of 100% PTFE material, and it is manufactured in the form of FTSA(our patented design)
- to increase assembly efficiency. Specifications are the same as FTSA GASKET

# **Certificates**

# **Major Certifications**



**Gumi Headquarters ISO** 9001:2015



Gumi Headquarters ISO 14001:2015



Gumi Headquarters ISO 45001:2018



Voluntary Compliance Trader (CP) Designation



CSEL manufacturing license

(Pressure Vessel D2)



**Promising SMEs** 



Excellent company FAMILY company



**CLEAN** workplace



Commendation from Gyeongsangbuk-do Governor



Small and Medium Business Administration Commendation



R&D department accreditation



Small and Medium Business Innovation Award



A company specializing in new and renewable energy



Material and parts specialist



Technology innovative SME INNO-BIZ confirmation



TUV product certification (FTSA Gasket)



TUV product certification (PTFE Gasket)



Explosion-proof certificate (Leak Seneor)



CE Certificate (Leak Seneor)



**UL Certificate** (Leak Seneor)

# **Industrial Property Status**



Portable leak check device for chemical liquid tank



Automatic welding machine



Electrolyte and ultrapure water transfer equipment for electropolishing



High-efficiency automated resin welding equipment for synthetic resins



Adhesive pad for assembling piping in semiconductor manufacturing facilities



How to install a slate roof type solar panel



Solar tracking device of solar system for post installation



Flexible sheet type material property detection leak sensor and its manufacturing method



Fixed plate type physical property detection leak sensor device and its manufacturing method



Solar tracking rotation device of solar system for post installation



Noxious gas detection device



Flexible sheet type property detection leak sensor device



Flexible sheet type material property detection leak sensor device [split application]



leak detection sensor



**design registration certificate**(Solar panel module fixing zone)



design registration certificate
(Gasket for piping connection)



Trademark registration certificate (FTSA GASKET)

Everyone in the world is in pursuit of alues beyond chemical safety to realize safety, relief and trust.



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