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if we
make it!

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Vision of weeon

Always strive for the
Most advanced technology,
And best service.

최고의 기술과 최고의 서비스를 약속합니다.

(주)위온은 PTFE, PFA, PVDF, ETFE 등 다양한 불소수지 제품과 이를 이용한 특수 환경에 사용가능한 라이닝 제품을 개발하고 있습니다. 이들 FLUORO-POLYMER LINING SYSTEM 제품은 일반화학, 제약, 반도체 산업에 제조 설비로 이용되고 있습니다.

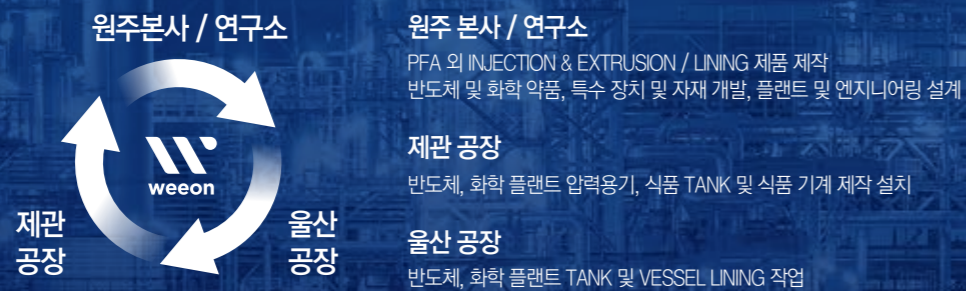
반도체, 화학플랜트, 바이오 및 조선 산업등 관련 분야에서 다년간 축적된 기술과 지속적인 연구 개발 활동을 통하여 불소수지 산업 분야에서 Global 경쟁력을 높힐 수 있도록 지속적으로 노력하겠습니다.

새로운 제품, 진보된 기술로 새로운 영역을 넓혀 나가겠습니다. 항상도전하고, 발전하는 모습을 지켜봐 주시고, 변함없는 격려와 성원 부탁드립니다.

(주)위온 임·직원 일동



COMPANY PHILOSOPHY



HOUSING FACTORY
(Si-Hwa)



TANK LINING FACTORY
(Eum-Sung)



TANK LINING FACTORY
(Ul-San)



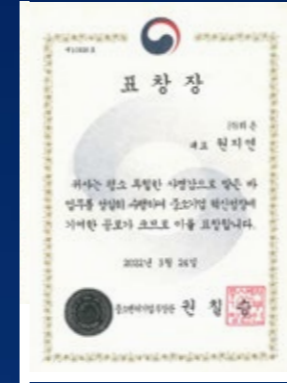
HEAD OFFICE & FACTORY



History of company

2022.03	• 중소벤처기업부 장관 표창 수상
2021.07	• 수출유망중소기업 지정
2021.05	• 원주시장 표창 수상
2021.02	• 기술혁신형 중소기업(Inno-Biz) 인증 획득
2021.01	• 기계 설비공사업 면허 획득
2020.12	• 대전방지용 플렉시블 호스(가스, 화학) 설계허가 획득
2020.01	• LINED VALVE 생산 /판매 개시
2019.08	• WEEON 원주공장 증설 - LINING 및 조립, CLEAN ROOM
2019.08	• WEEON 울산공장 신설 - LINING 제품생산 및 A/S
2019.02	• WEEON 기업부설연구소 설립
2018.08	• SPL Gasket 특허 획득
2018.07	• ESP Gasket 생산 개시
2018.05	• 제관공장 설립
2018.04	• LINED TANK & HEAT EXCHANGER 생산 개시
2018.04	• TUV ISO9001:2015 인증획득
2018.03	• 벤처기업 인증획득
2018.02	• PFA/ETFE 압출/사출 생산 개시
2018.01	• PFA/PTFE LINED PIPE & FITTING 생산 개시
2017.06	• 공장설립
2016.11.11	• (주)위온 법인설립

Certificate



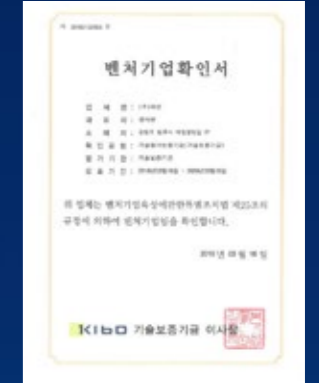
중소기업부 장관상



기업부설연구소 인정서



건설업 등록증



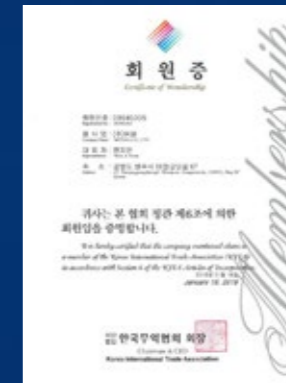
벤처기업 확인서



기술혁신형 중소기업 확인서



수출유망중소기업 지정증



한국무역협회 회원증



ISO9001:2015 인증서



특허증



디자인등록증

Products

(주)위온은 다양한 제조설비를 이용하여 다양한 제품을 생산하고 있습니다.

ROTO LINING
SHEET LINING
COATING &
SPECIAL FLUORINE
TECHNOLOGY



ROTO 회전성형



Sheet Lining



Coating 정전분체



Loose Lining



LINED TANK & HEAT EXCHANGER

불소수지를 이용한 다양한공법(LINING, ROTO, COATING)으로 생산되는 용기 및 열교환기를 생산하고 있습니다.
불소수지 특성을 필요로하는 정밀화학, 반도체, 바이오 등 다양한 산업현장에 사용되고 있으며, 원하는 사양에 따라 설계, 생산, 공급하고 있습니다.



LINED PIPE & FITTING FLEXIBLE & BELLWS

PFA,PTFE를 이용하여 INJECTION, LOOSE LINING공법으로 생산되는 LINED PIPE & FITTING은 반도체, 정밀화학, 화학플랜트의 내부식, 고순도를 요구하는 다양한 산업현장에 사용되고 있습니다.



위온에서 생산되는 배관자재의 트레이드마크

라이닝 제품이 필요한 3가지 요소를 형상화한 트레이드마크로 기본에 충실하며 최고의 제품을 만들고자 하는 마음을 담았습니다.

| 생산 제품 |

LINED PIPE & FITTING, FLEXIBLE HOSE, BELLWS,
LINED VALVE, STRAINER



TUV NORD 품질경영 시스템 획득

(주)위온은 독일인증기관인 TUV NORD를 통하여 품질경영 시스템을 획득하였으며, 우수한 품질관리 시스템을 기반으로 원자재에서 완제품 출하까지 철저한 품질관리를 실시하고 있습니다.

PFA PRODUCT

- PFA TUBE
- PFA HEAT SHINKING TUBE
- PFA ROD,BAND
- PTFE & PFA GASKET

EXTRUSION 공법으로 생산된 PFA TUBE, ROD 등 다양한 제품을 생산하고 있습니다.
또한, 열수축튜브, 복합형상튜브 등 주문제작 방식으로 독특한 요구에 만족하는 제품을 생산하고 있습니다.
또한, 일반 PTFE GASKET에서 ODS GASKET, ESP GASKET(E-PTFE), SPL GASKET 등 다양한 GASKET을 생산 공급하고 있습니다



esp GASKET

초수순 배관에 적용하는 가스켓으로 E-PTFE를 이용 제작되어 매우 우수한 쿠션성을 가지고 있습니다.

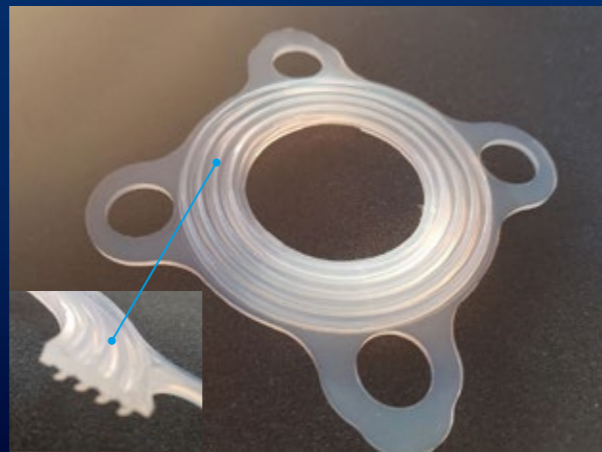


spl GASKET

PFA를 이용하여 생산되는 SPL GASKET은 기존의 TEFLON GASKET이 가지고 있는 복원력 문제를 해결하여 완벽한 실링을 구현하고 오랜기간 추가 볼트 조임을 하지 않고도 매우 안정적으로 사용이 가능합니다. SPL GASKET은 국내 및 해외 특허 출원되어 그 우수성을 인정받았습니다.



볼트 조임시 아래와 같이 눌림이 발생하여 반대편으로 삽입되어 AIR 쿠션과 물리적 복원력이 발생함.



SPECIALIZED FACILITIES

불소수지 제품의 사용을 위한 전문화된 다양한 설비를 개발 공급하고 있습니다.



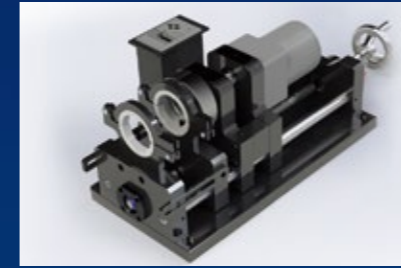
AUTO PFA WELDING M/C(ROD)



AUTO PFA WELDING M/C(BAND)



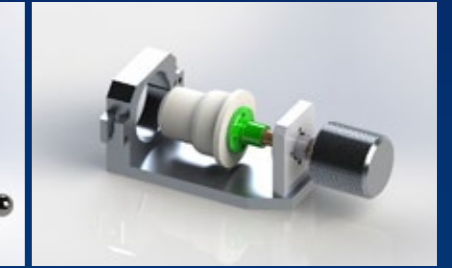
PFA PURE BONDING M/C



PFA PURE BONDING M/C



FLARE M/C



FLARE M/C

LINED VALVE & AUTO CONTROL VALVE

위온 볼 밸브는 높은 적응력, 신뢰성이 있으며 적은 torque 값으로 조정이 가능함. liner 수지는 진공, 압력, 온도에 대한 수축 및 변형없이 사용이 가능하도록 고정되어 있으며, 실질적으로 사용조건 변화나 염소, 황산 및 혼산에 대한 chemical 침투에 대한 영향이 적음.



PFA Lined Ball Valve



PFA LINED BALL CHECK VALVE



PFA LINED WAFER SWING CHECK VALVE



PFA LINED DIAPHRAGM VALVE

HOUSING PRODUCTS

Reactors & Pressure Vessels

Heat Exchangers

Semiconductor

- E.P Tank
- Lining Tank
- Lining & Coating Tank

Food Machine

- Mixing Tank
- Bucket Conveyor

HOUSING PRODUCTS



HEAT EXCHANGER & HEADER

Heat Exchanger



Heat Exchanger



Heat Exchanger



Clean Steam Header



Header



600A Header



FILTER HOUSING

Lined Filter Housing



10" X 3R Filter Housing



20" X 9R Filter Housing



40" X 8R Filter Housing



PRESSURE VESSEL

2,000L Evaporator Tank



5m³ Pressure Vessel

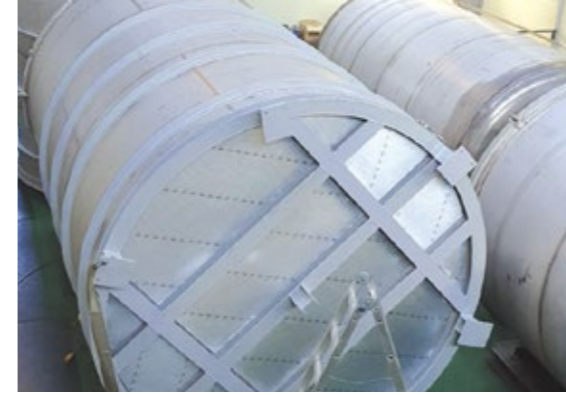


2m³ Pressure Vessel



STORAGE TANK

60m³ Storage Tank



150m³ Storage Tank



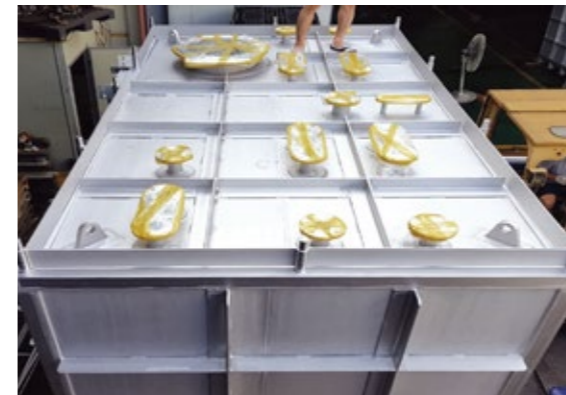
50m³ Storage Tank



30m³ Storage Tank



4m³ Rectangular Storage Tank



48m³ Rectangular Storage Tank



MIXING TANK

1,500L Mixing Tank



Oil Mixing Tank



2,000L Mixing Tank



2,000L Mixing Tank



10,000L Mixing Tank



6,000L Mixing Tank



FOOD MACHINE

Bucket Conveyor



Conveyor



Conveyor



Bucket Conveyor



TANK & HEAT EXCHANGER

Lined Tank & Container, etc
Clean Room & Inspection System
Features of Various Fluoropolymers
Heat Exchanger

LINED TANK & CONTAINER, ETC

INTRODUCTION & FEATURES

Introduction

Weeon unique sheet lining has best character which is fluorine, for example anticorrosion and non-adhesive against chemical, fluid, electric properties, etc into a wide range of temperatures. Munmak Factory has used various material fluorine sheet for column, vessels and tanks We have been recognized for our high technology from customers related to precision chemical, semiconductor, pharmacy, metal, etc.

Weeon chooses manufacturing method according to our experience of over 30 years and studies in GENERAL HEAT-GLUE SHEET LINING, DOUBLE SHELL SHEET LINING, VACUUM SHEET LINING, ROTATION MOLDING.

불소수지 SHEET LINING은 저온에서 고온까지 넓은 온도범위 내에서 최고의 내약품성, 전기적 특성, 비점착성 등 불소수지의 여러 가지 특성을 최대한으로 응용하여 정밀화학, 반도체, 제약, 금속 등의 여러 가지 조건 하에서도 안정된 성능을 요구하는 COLUMN, VESSEL, TANK류에서 높은 평가를 받고 있습니다.

당사는 일반 접착라이닝, 이중관체라이닝, 진공접착라이닝, 로테이션 몰딩을 실시하고 있습니다.

Features

1. Excellent flame retardancy and heat resistance.
2. Excellent chemical resistance
3. Good electric insulation and high frequency characteristics
4. Friction and abrasion : Lowest friction coefficient and unique self-lubrication Various fillers (carbon, graphite, molybdenum bisulfite, bronze) are mixed to improve abrasion resistance and load capacity.
5. Non-adhesion : PTFE is particularly strong in this feature. It detaches well even when contacting with adhesive materials.

1. 난연성 및 우수한 내열성
2. 우수한 내약품성
3. 전기절연성이 양호, 고주파특성 우수
4. 마찰 및 마모성 : 가장 낮은 마찰계수, 특이한 자기윤활성 보유. 각종 충전제 (탄소, 흑연, 2황하물리브덴, 브론즈)를 배합하여 내마모성, 내하중성을 향상.
5. 비점착성 : PTFE는 특히 이 성질이 강함. 점착성 물질과 접촉하여도 잘 떨어짐.

Lining sheet welding section view



A : Lining sheet = PTFE / PFA / PVDF / ECTFE / PP
(Surface Type : Glass back or Etching)
Thickness : 2-5mm
B : Bonding (Primer + Adhesive)
C : Housing (SS400 or SUS)

Rotation molding section view



A : Lining = PFA, ETFE, PE ⇒ Thickness : 2-5mm
B : Housing (SS400 or SUS)

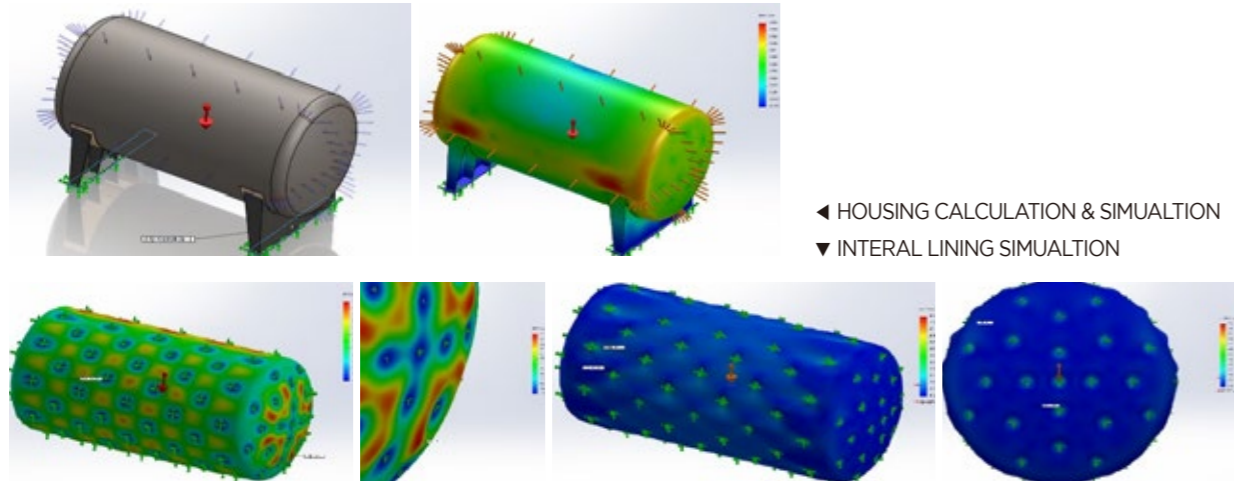
Special type lining system(PFA molding with mesh) Application : High temperature & Vacuum condision



A : Lining = PFA ⇒ Thickness : 7-8mm
B : Mesh : SUS304
C : Housing (SS400 or SUS)

이중관, bolting 고정방식, Vacuum ring 삽입방식 등 이외 다양한 사용 조건에 맞는 제품을 생산 중입니다.

CALCULATION & SIMUALTION

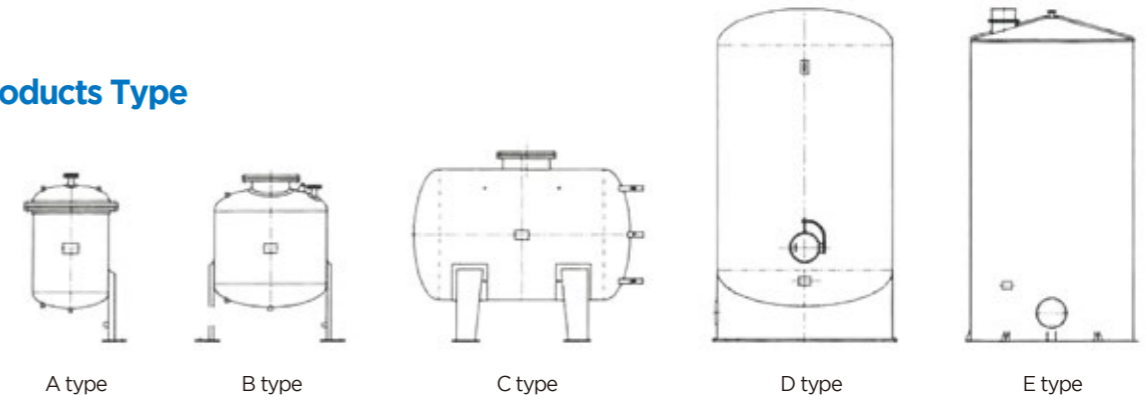


PRODUCTS PHOTO



DIMENSION TABLE

Products Type



NO	Volume(m3)	Type	Dimension	Thickness	Remark
1	0.1	A	ID 500 X 450 FL	4~8mm	Vertical Pressure Tank with Girth Flange
2	0.2	A	ID 600 X 640 FL		
3	0.3	A	ID 700 X 700 FL		
4	0.4	A	ID 750 X 820 FL		
5	0.5	A	ID 800 X 900 FL		
6	0.6	A	ID 850 X 960 FL		Vertical Pressure Tank with Girth Flange & ManHole
7	0.7	A	ID 900 X 1000 TL		
8	0.8	A	ID 950 X 1010 TL		
9	0.9	A	ID 950 X 1150 TL		
10	1.0	A	ID 1050 X 1050 TL		
11	1.2	B/C	ID 1050 X 1270 TL	6~12mm	Vertical & Horizontal Pressure & Storage Tank with Manhole (500A or 20')
12	1.5	B/C	ID 1170 X 1270 TL		
13	2.0	B/C	ID 1220 X 1580 TL		
14	2.5	B/C	ID 1350 X 1580 TL		
15	3.0	B/C	ID 1480 X 1580 TL		
16	4.0	B/C	ID 1600 X 1800 TL		
17	5.0	B/C	ID 1750 X 1860 TL		
18	6.0	B/C	ID 1850 X 2000 TL		
19	7.0	B/C	ID 1850 X 2380 TL		
20	8.0	B/C	ID 1940 X 2470 TL		
21	9.0	B/C	ID 2050 X 2480 TL		
22	10	B/C	ID 2050 X 2780 TL		
23	12	B/C	ID 2230 X 2800 TL		
24	15	B/C	ID 2480 X 2800 TL		
25	20	B/C	ID 2720 X 3100 TL		
26	25	B/C	ID 3030 X 3090 TL		
27-1	30	D	ID 2860 X 4310 TL	9~15mm	Skirt & Con-roof Storage Tank with Manhole (500A or 20')
27-2	30	E	ID 2900 X 4540 TSL		
28-1	40	D	ID 3200 X 4570 TL		
28-2	40	E	ID 3350 X 4570 TSL		
29-1	50	D	ID 3400 X 5080 TL		
29-2	50	E	ID 3400 X 5510 TSL		
30-1	60	D	ID 3500 X 5800 TL		
30-2	60	E	ID 3630 X 5800 TSL		
31-1	70	D	ID 3670 X 6160 TL		
31-2	70	E	ID 3820 X 6100 TSL		
32-1	80	D	ID 3800 X 6580 TL		
32-2	80	E	ID 3790 X 7100 TSL		
33-1	90	D	ID 3750 X 7680 TL		
33-2	90	E	ID 3800 X 8000 TSL		
34-1	100	D	ID 3900 X 8000 TL		
34-2	100	E	ID 3900 X 8400 TSL		

※용량 계산 기준

- Oper. Volume - TL to TL + Bottom Head (단, Volume 산정의 기준은 user의 요청에 따라 바뀔 수 있습니다.)

FEATURES OF VARIOUS FLUOROPOLYMERS



특성 / Properties		단위 /Unit	ASTM Test Method	TFE (PTFE)	FEP	PFA	ETFE	CTFE	VdF(PVdF)	VF(PVf)
물리적성질 Physical	비중 Specific gravity	-	D792	2.14~2.20	2.12~2.17	2.12~2.17	1.7	2.1~2.2	1.75~1.78	1.4
	용점 Melting point	°C	D3418	327	253~282	302~310	270	210~212	170	200~210
기계적성질 Mechanical	인장강도 Tensile strength	kgf/cm ²	D638	280~350	200~320	320	455	300~400	400~520	300~400
	신장율 Elongation	%	D638	200~400	250~330	280~300	200	80~250	100~300	150~200
	압축강도 Compressive strength	kgf/cm ²	D695	120	150	-	500	320~520	600	-
	인장탄성률 Modulus of elasticity in tension	10 ³ kgf/cm ²	D638	4	3.5	-	8.4	-	-	11
	굽힘탄성률 Modulus of elasticity in bending	10 ³ kgf/cm ²	D790	3.5~6.3	6.7	6.7~7.0	14	17.6	14.0~18.0	-
	충격강도 (200 Impact strength)	kg · cm/cm	D256	16.3	Not Destroyed	Not Destroyed	Not Destroyed	13.6~14.7	19.6~21.8	-
경도 Hardness	Rockwell	D785	R25	R25	-	R50	R75~95	R110~115	-	
	Durometer	D2240	D55	D55	D60	D75	D74~90	D75~80	-	
열적성질 Thermal	열전도도 Thermal conductivity	10 ⁻⁴ cal/cm · sec · °C	C177	5.9	6	-	5.7	4.7~5.3	3	4.9
	비열 Specific heat	cal/°C/g	D240	0.25	0.28	-	0.46~0.47	0.22	0.33	-
	선형팽창계수 Coefficient of linear expansion	10 ⁻⁵ /°C	D696	9.9 (23~66°C)	8.3~10.5 (-73~71°C)	12 (21~100°C)	9~9.3 (20~90°C)	4.5~7.0	8.5	3.95
	연속사용온도 Continuous service temperature	°C	-	260	200	260	150	180	150	107
	열변형온도 Heat distortion of temperature	4.6kgf/cm ² - °C	D648	121	72	75	-	115	145	-
전기적성질 Electrical	열변형온도 Heat distortion of temperature	18.5kgf/cm ² - °C	D648	55	50	48	74	76	90	-
	체적저항률 Volume resistivity	Ω · cm	D257	>10 ¹⁸	>10 ¹⁸	>10 ¹⁸	>10 ¹⁶	>10 ¹⁶	2.0 × 10 ¹⁴	4 × 10 ¹³
	표면저항률 Surface resistivity	Ω	D257	>10 ¹⁶	>10 ¹⁶	>10 ¹⁶	5 × 10 ¹⁴	-	-	-
	절연파괴강도 Dielectric strength	(1/8inch) KV/mm	D149	16~24	20~24	20~24	16	20~24	10.2	-
	유전율60Hz Dielectric constant	-	D150	<2.1	2.1	2.1	2.6	2.24~2.8	8.4	-
	유전율103Hz Dielectric constant	-	D150	<2.1	2.1	2.1	2.6	2.24~2.7	7.72	7.4
화학적성질 Chemical	유전율106Hz Dielectric constant	-	D150	<2.1	2.1	2.1	2.6	2.3~2.5	6.43	-
	내산성 Acid-proofness	-	D543	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good
	내알칼리성 Alkali-proofness	-	D543	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good
내구성 Durability	내용제성 Resistance to solvents	-	D543	Excellent	Excellent	Excellent	Excellent	Excellent	카본 또는 극성용매에 약함	-
	연소성 Combustibility	-	D635	Incombustibility	Incombustibility	Incombustibility	Incombustibility	Incombustibility	Self-Extinguishing	Self-Extinguishing
	흡수율 Water absorption	-	D570	<0.01	<0.01	0.03	0.029	0	0.04	<0.5

Heat Exchanger

INTRODUCTION & FEATURES



Introduction

Weeon's Heat Exchanger has corrosion resistance and contamination resistance. For these reason, It can be used on chemical industry, coating, acid cleaning for steel industry and finishing works on steel surface.

Weeon can design and manufacture shell & tube type, coil type, panel type, etc with heat transfer area from 0.1 to 200 square meter according to equipment and vessel volume, type.

Heat Exchanger는 불소수지가 갖고 있는 내식성, 내오염성 등의 우수한 특성을 최대한 활용한 열 교환기로서, 금속표면처리, 철강산세, 도금공업, 화학공업 등 여러 가지 용도에 사용할 수 있습니다.

Shell & Tube형, Panel형, Coil형 등이 있으며, 장치 및 용기의 크기 또는 형상에 따라 0.1㎡ 에서 200㎡까지 설계가 가능합니다.

Features

- Excellent chemical resistance**
Fluoroplastic is inert for virtually all industrial chemicals, and used in a wide range of applications since there is no limit to purpose of use
- Fluid does not pollute and realization minimum grade of eruption ion**
The surface of fluoroplastic is very smooth and highly non-adhesive, and the attachment and accumulation of stains and scales is effectively prevented.
- Excellent Pressure and heat resistance**
both heating steam and saturated can be used, up to the continuous use temperatuer of 158.1, 5Kg/cm2G
- Excellent mechanical shock**
The heat exchanger tubes made of glass graphite materials never get damaged by heat or mechanical shock
- Easy Maintenance**
Tubes damaged by accidents can be simply repaired/replaced, and their effective heat exchanger arer is not reduced.

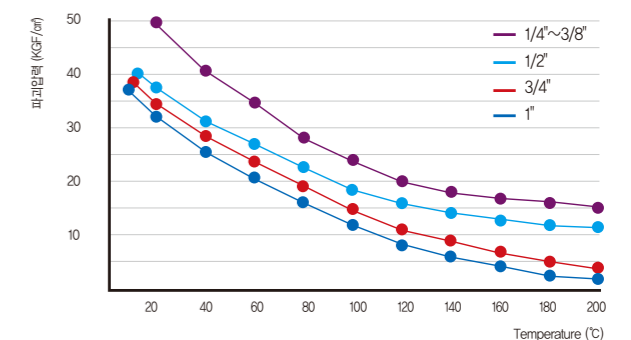
- 내약품성** 불소수지는 사실상 모든 공업용 약품에 대하여 불활성이며, 사용 목적에 제한이 없어 광범위한 분야에 사용됩니다.
- 내오염성** 불소수지의 표면은 대단히 미끄럽고 최고의 비점착성 물질로서 오염, scale의 부착, 누적을 방지합니다.
- 내압, 내열성** 가열증기, 포화증기 모두 이용할 수 있으며 연속 사용 온도 158.1°C, 5Kg/cm2G까지 사용 가능 합니다.
- 내구성** Glass graphite 등의 재료와 같이 열과 기계적 충격으로 인하여 전열관이 파손되는 경우가 없습니다.
- 보수** 돌발사고 등으로 인한 Tube 파손 시에도 간단히 보수, 교체 등이 가능하며, 유효 전열 면적을 감소시키지 않습니다.

Breakdown pressure of various tubes by temperature

각종 튜브의 온도별 파괴압력

The above figure shows the temperature break down pressure according to various sizes of PFA tubes. Typically, recommended pressure is 1/3 to 1/4 or less of the breakdown pressure.

상기의 그림은 PFA 튜브의 각종 사이즈에 따른 온도파괴 압력입니다. 추천 사용 압력은 파괴압력의 1/3~1/4 이하 입니다.

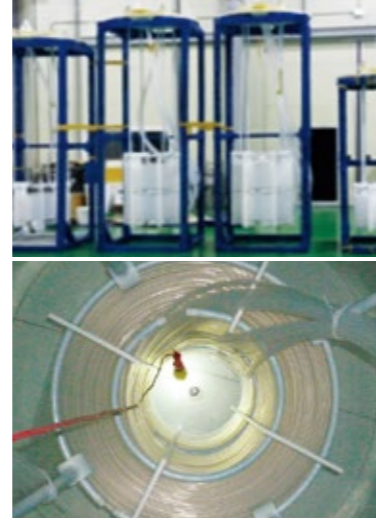


TYPE OF HEAT EXCHANGER

Tank Coil Heat Exchanger

1. The Tank-Coil type can be freely designed into the space of a reactor, concentratio tube, disassembly tube, condenser, or a cooler.
2. The Tank-Coil type has higher heat exchanging effect by Agitaitng, because the movement of the coil it self removes scales and crystals from tube surface or between coils.
3. The Tank-Coil type can be installed regardless of the companion material.
4. The Tank-Coil type has no such problems as corrosion, staining, instsllation and economic problems.

1. Tank-Coil형은 Reactor, 농축관, 분해관, 응축기, 냉각기의 Space에 자유롭게 설계 가능합니다.
2. Tank-Coil형은 교방에 의하여 전열효과가 높아집니다. 이것은 Coil자신의 움직임에의하여 Tube표면 또는 Coil간의 Scale, 결정이 떨어지기 때문입니다.
3. Tank-Coil형은 상대 재질에 관계없이 설치가 가능합니다.
4. Tank-Coil형은 부식문제, 오염문제, 설치와 경제성문제, Acid 내에 철분유출등에 문제가 없습니다.



U-Coil Heat Exchanger

1. The U-Coil type can be designed in accordance with the heating or cooling space in the Immersion Tube that uses a fluoroplastic heat exchanger tube.
2. The types of heat exchanger tubes of the U-Coil type Heat Exchanger include circular, elliptic, and track types.

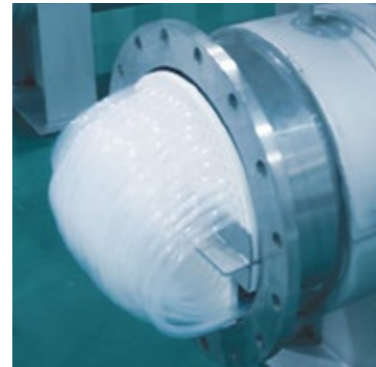
It consists of 32m(1m²) for each 10mm of heat exchange effective length.

1. U-Coil형은 불소수지 전열 Tube를 사용한 immersion Tube의 가열, 냉각 Space에 맞추어 설계할 수 있습니다.
2. U-Coil형은 열교환기의 일정한 길이의 전열 Tube는 원형 타원형, Track형이 있으며, 1본의 전열 유효길이 10mm경에 32m(1 m²)으로 구성됩니다.

Shell & Tube Heat Exchanger

1. The shell & tube type is a form of the heat exchanger which is general. The chemicals and all surface which contact use the PFA tube & PTFE lining.

1. Shell & Tube형은 가장일반적인 열교환기의 형태이며, 약품과 접촉하는 모든 구간은 불소수지를 이용하여 제작된다.



LINED PIPE & FITTINGS

Lined Pipe / 90° Elbow
45° Elbow / Equal Tee
Reducer Tee / Cross
Reducer / Instrument Tee
Bellows / Reducing Flange
Sight Grass

LINED PIPE & FITTINGS



위온에서 생산되는 배관자재의 트레이드마크
LINED PIPE & FITTING, FLEXIBLE HOSE, BELLOWS, LINED VALVE, STRAINER

라이닝 제품이 필요한 3가지 요소를 형상화한 트레이드마크로
기본에 충실하며 최고의 제품을 만들고자 하는 마음을 담았습니다.



Specification for Products

Scope | 적용범위

This specification covers Fluoropolymer(PTFE, PFA, ETFE...etc) lined pipe & fitting applied for piping of corrosive fluids. The contents include the requirement for construction of materials, dimensions together with standard test procedure.

This specification covers ANSI150 LBS & JIS 10K Fluoropolymer lined pipe, flange and fittings in nominal diameters from 1/2" to 24". The Fluoropolymer lined flange, pipe and fitting assemblies are limited for use from -28°C to 260. Temperature limitations are based on non-corrosive test condition, and temperature limitation may be changed by aggressive environment.

본 제작 사양서는 부식성 유체 운송을 위한 플루오르폴리머(PTFE,PFA,ETFE 등) 라인 파이프와 피팅에 관한 내용을 기술한다. 본문의 내용은 소재의 구조,치수,표준 시험 절차에 관한 필수조건을 포함한다.

본 사양서는 공칭직경 1/2"(15A)에서 24"(600A)의 ANSI 150LBS & JIS 10K Fluoropolymer 라인 파이프, 플랜지, 피팅 등에 관한 내용을 기술한다. Fluoropolymer 라인 플랜지,파이프,피팅 어셈블리는 -28°C에서 260°C 사이의 온도에서 사용하도록 제한한다. 제한온도는 비부식성 시험 환경에 기초한 것이며, 보다 가혹한 환경 조건에 의해 변경될 수 있다.

Fluoropolymer lining | 라이닝

The lining is made from Fluoropolymer resins conforming to the requirement of specification ASTM D1457(PTFE), ASTM D3307(PFA), ASTM D3519(ETFE).

Specific gravity

The lining is made from Fluoropolymer resin meeted specification ASTM D792 shall have a specific gravity from 2.14 to 2.2

라이닝은 ASTM D1457(PTFE),ASTM D3307(PFA), ASTM D3519(ETFE) 규격을 충족시키는 플루오르폴리머 합성수지를 사용하여 생산한다. ASTM D792(Fluoropolymer) 규격을 충족시키는 플루오르폴리머 합성수지를 사용하여 생산된 라이닝은 2.14에서 2.2사이의 비중을 가지고 있어야 한다.

Housing | 재관제작

Pipe and fitting | 파이프 및 피팅

The carbon steel pipe and fittings are welded or made of seamless steel, conforming to Schedule 40 or Schedule 20. For nominal diameter 1" to 8" Schedule 40 is used, Schedule 20 is used for diameter over 10" Materials specifications supplied as standard are :

강관과 피팅은 스케줄40 또는 스케줄 20을 사용하여 용접형태 또는 이음매가 없는 강관(seamless steel)의 형태이다. 1"에서 8"의 공칭직경에 대해서는 스케줄 40을 사용하며, 10"이상의 직경에 대해서는 스케줄20을 사용한다. 소재에 대해 적용된 표준규격은 다음과 같다.

Pipe	Carbon steel	ASTM A53, A106, JIS G3453, STPG38
	Stainless steel	ASTM A312, JIS G3459
Fitting	Carbon steel	ASTM A234, JIS B2312, STPG38
	Stainless steel	ASTM A403, JIS G3459

Flange | 플랜지

Flange is fabricated from materials conforming to one of the following specification

플랜지는 다음의 규격 중 하나의 규격에 부합하는 소재로부터 가공 생산한다.

Flange	Carbon steel	ASTM A105, JIS B2222, SS400
	Stainless steel	ASTM A182, JIS G3459

Welding | 용접

All fusion welding is done complying with provisions of Section IX of ASME Boiler & Pressure Vessel Code.

모든 용접(fusion welding)은 ASME Boiler & Pressure Vessel Code (보일러 및 압력 배관 코드)의 섹션 IX에 기술된 조항에 따라 실시한다.

Finish | 마감

The interior surfaces of all housing are clean and free of mold burrs, rust, scale or others that may adversely affect the performance of lining.

모든 하우징의 내부 표면은 청결해야 하고, mold burr(주형으로 인해 주물의 표면이 거칠어 지는 현상), 녹, 산화물 조각 또는 라이닝의 성능에 악영향을 미칠 수 있는 기타 요소가 없어야 한다.



Design requirements | 설계조건

Dimension

Nominal Fluoropolymer liner thickness of piping | 파이프의 플루오르폴리머 라이너(liner)의 공칭두께

(단위: mm)

SIZE	1"	1-1/2"	2"	3"	4"	6"	8"	10"	12"
Standard wall	3.2	3.2	3.2	3.2	4.5	5.0	5.0	5.0	5.0
Heavy wall	3.2	3.2	3.2	3.2	6.0	6.0	6.0	6.0	7.0

Fluoropolymer wall thickness of fitting | 피팅의 플루오르폴리머 벽면 두께

Nominal diameter	1/2" to 3"	Liner thickness	3.2mm
	4"~12"		4.5mm
	12over		5.0mm

Standard flange diameter | 표준 환관 직경

Nominal Diameter	15	20	25	40	50	65	80	100	150	200	250	300
	1/2"	3/4"	1"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"	10"	12"
Flare Diameter	32	40	48	68	87	100	117	151	203	256	311	365

Tolerances | 공차

Tolerance of pipe, flange and fitting are specified as follows.
파이프, 플랜지, 관이음쇠에 대한 공차는 다음과 같다.

Pipe length	+/- 1/8" (+/- 3.2mm)
Flange bolt hole alignment	+/- 1/16" (+/- 1.6mm)
Flange	See ANSI B16.5mm
Fitting	See ANSI B16.5mm

Vent hole | 벤트 홀

Each pipe & fitting is provided with a venting system that will release any gas between the liner and the housing. Each pipe will have at least 2 vent holes in diameter 0.12(3mm), located about 100mm from the ends.

Each fitting shall have one vent holes as least. Reducing flange has no vent hole.

각 파이프와 피팅은 라이너의 하우징 사이의 모든 가스를 방출하기 위한 벤트 홀을 갖추고 있다. 각 파이프는 0.12(3mm) 직경의 홀은 파이프의 양 끝으로부터 100mm 내외 떨어진 곳에 위치한다. 각 피팅은 최소한 1개 이상의 벤트 홀을 갖추고 있어야 한다. 리듀싱(가공) 플랜지는 벤트홀이 없다.



Inspection requirement | 검사항목

Hydrostatic pressure test | 수압시험

The internal test pressure is a 150% of maximum recommended design pressure.

Reach full test pressure within 1min. And maintain for 3min.

내부 시험 압력 수치는 설계 압력 최대 수치의 150%이다. 1분 이내에 최대 시험 압력에 도달하여 3분간 지속한다.

Electrostatic test | 정전시험

Conduct the test with a non-destructive high-voltage tester at an output voltage of 20,000V. A visible or audible spark or both that occurs at the probe when electrical contact is made because of a defeat in the liner, shall be cause for rejection.

비파괴적(NON - DESTRUCTIVE) 고전압 시험기를 사용하여 20,000V의 출력 전압으로 시험을 실시한다.

시험기의 전압을 접촉하였을 때 라이너의 결함으로 인해 탐침에서 육안으로 확인 가능한 불꽃이 튀거나 불꽃이 튀는 소리가 들리는 경우, 또는 이 두가지 현상이 모두 발생할 경우에는 REJECT의 원인이 된다.

Visual inspection, painting inspection test | 육안 점검, 도장 점검

All surfaces are free from blister, porosity and other defects. After visual inspection, the external part of pipe, fittings coated with epoxy primer 1 coat.

모든 표면에는 수포, 미세한 구멍 및 기타 결함이 없어야 한다. 파이프의 외장과 피팅은 육안 점검 후 에폭시 프라이머로 1회 도장한다.

Storage, Transport & Identification | 보관, 운송, 식별

Storage | 보관

The faces of each end are protected by wooden plate.

So that products can be kept it's condition during transport.

제품이 운송 중 취급환경을 견딜 수 있도록 파이프의 양쪽 끝면을 보호판으로 보호한다.

Marking | 식별

The markings shall be applied to the pipe, fitting with manufacturers name, order number.

파이프와 피팅에는 생산자명과 주문 번호가 표기되어야 한다.

Trnsport | 운송

All items are supplied with stout wooden case or export carton depend on the weight, measurement ordered.

모든 품목은 종량과 주문한 치수에 따라 견고한 목재 케이스 또는 수출용 상자에 수납하여 공급한다.

Type of Fluoropolymer Lining

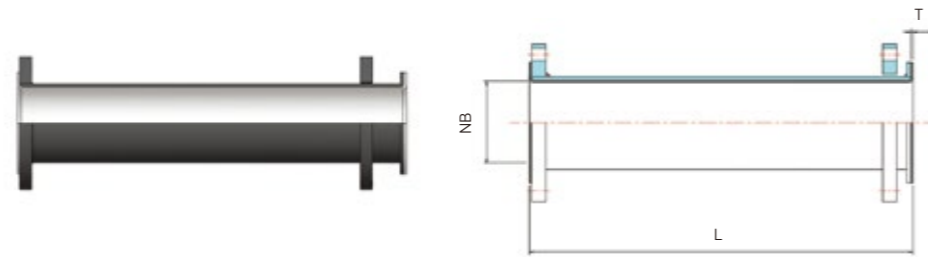
- Rotational-Molding
- Compression-Molding
- Isostatic Molding
- Paste extrusion Molding
- Extrusion Molding
- Injection Molding
- Transfer Molding
- Press Molding
- Blow Molding
- Powder Coating

LINED PIPE

PFA ROTECTION MOLDING은 3"까지 가능
ETFE ROTECTION MOLDING은 SPECIAL 제품군 사용가능.

STANDARD VERSION : 1 FIXED FLANGE AND 1 LAP JOINT FLANGE
AVAILABLE VERSION : 2 FIXED FLANGE OR 2 LAP JOINT FLANGE

APPLIANCE WITH : ASTM F-1545
* TEMPERATURE TEST
* STEAM COLD WATER CYCLE TEST
* VACUUM TEST
* HYDROSTATIC PRESSURE TEST
* ELECTROSTATIC TEST



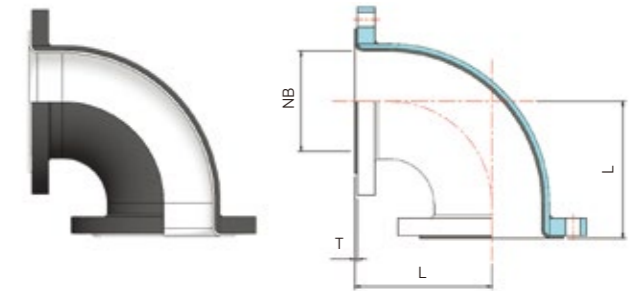
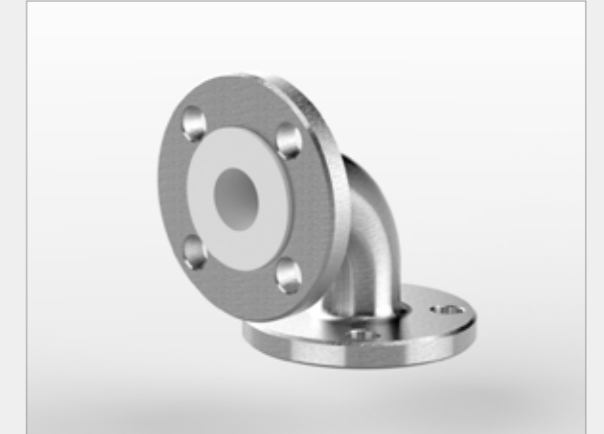
SIZE	LENGTH (L)		NB	THICKNESS (T)			MATERIAL			
	MAXIMUM	TOLERANCE		STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
1/2	3000		11	3.2	3.2		•	•	•	•
3/4	3000		16	3.2	3.2		•	•	•	•
1	3000		22	3.2	3.2		•	•	•	•
1 1/2	3000	± 3.0	36	3.2	3.2	± 5 %	•	•	•	•
2	3000		47	3.2	3.2		•	•	•	•
2 1/2	3000		60	3.2	3.2		•	•	•	•
3	3000		73	3.2	3.2		•	•	•	•
4	3000		94	4.5	6		•	•	•	•
5	3000		118	5	6		•	•	•	•
6	3000		143	5	6		•	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

90° ELBOW

STANDARD VERSION : 2 FIXED FLANGE
AVAILABLE VERSION : 1 FIXED FLANGE AND 1 LAP JOINT FLANGE
: 2 LAP JOINT FLANGE

APPLIANCE WITH : ASTM F-1545
* TEMPERATURE TEST
* STEAM COLD WATER CYCLE TEST
* VACUUM TEST
* HYDROSTATIC PRESSURE TEST
* ELECTROSTATIC TEST



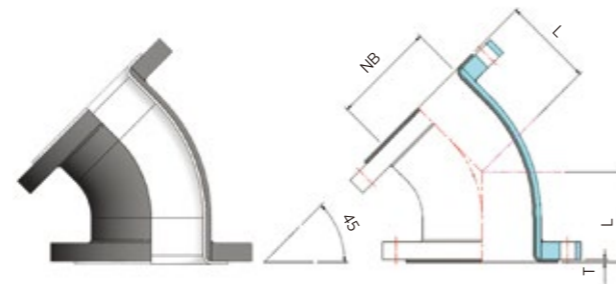
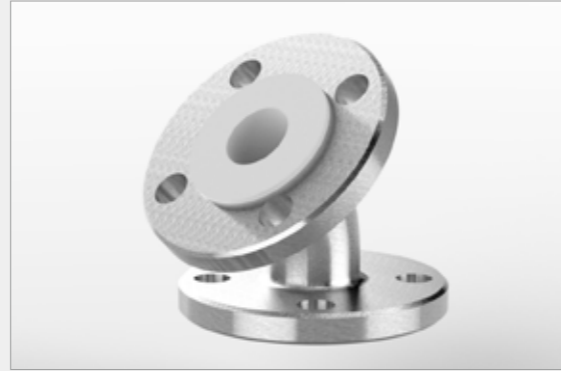
SIZE	FACE TO FACE (L)		NB	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
1/2	70		11	3.2	3.2		•	•	•	•
3/4	80		16	3.2	3.2		•	•	•	•
1	89		22	3.2	3.2		•	•	•	•
1 1/2	102	± 2.0	36	3.2	3.2	± 5 %	•	•	•	•
2	114		47	3.2	3.2		•	•	•	•
2 1/2	127		60	3.2	4		•	•	•	•
3	140		73	3.2	4		•	•	•	•
4	165		94	4.5	6		•	•	•	•
5	194		118	4.5	6		•	•	•	•
6	203		143	4.5	6		•	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

45° ELBOW

STANDARD VERSION : 2 FIXED FLANGE
 AVAILABLE VERSION : 1 FIXED FLANGE AND 1 LAP JOINT FLANGE
 : 2 LAP JOINT FLANGE

APPLIANCE WITH : ASTM F-1545
 * TEMPERATURE TEST
 * STEAM COLD WATER CYCLE TEST
 * VACUUM TEST
 * HYDROSTATIC PRESSURE TEST
 * ELECTROSTATIC TEST



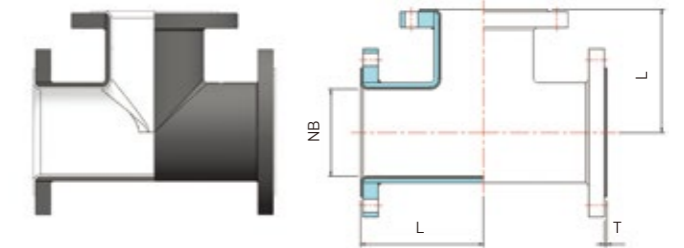
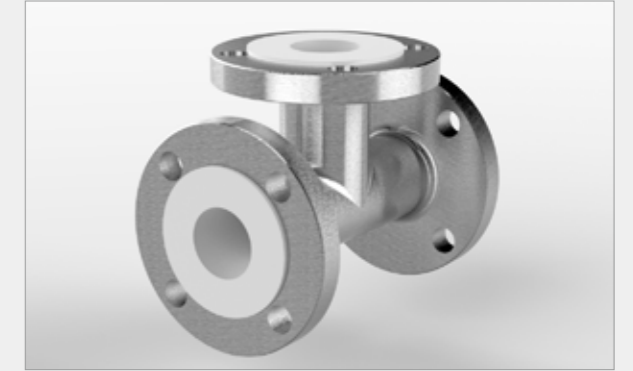
SIZE	FACE TO FACE (L)		NB	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		Ø	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE
1/2	45		11	3.2	3.2		•	•	•	•
3/4	45		16	3.2	3.2		•	•	•	•
1	60		22	3.2	3.2		•	•	•	•
1 1/2	60	± 2.0	36	3.2	3.2	± 5 %	•	•	•	•
2	64		47	3.2	3.2		•	•	•	•
2 1/2	76		60	3.2	4		•	•	•	•
3	76		73	3.2	4		•	•	•	•
4	102		94	4.5	6		•	•	•	•
5	114		118	4.5	6		•	•	•	•
6	127		143	4.5	6		•	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

EQUAL TEE

STANDARD VERSION : 3 FIXED FLANGE
 AVAILABLE VERSION : 1 FIXED FLANGE AND 2 LAP JOINT FLANGE
 : 3 LAP JOINT FLANGE

APPLIANCE WITH : ASTM F-1545
 * TEMPERATURE TEST
 * STEAM COLD WATER CYCLE TEST
 * VACUUM TEST
 * HYDROSTATIC PRESSURE TEST
 * ELECTROSTATIC TEST



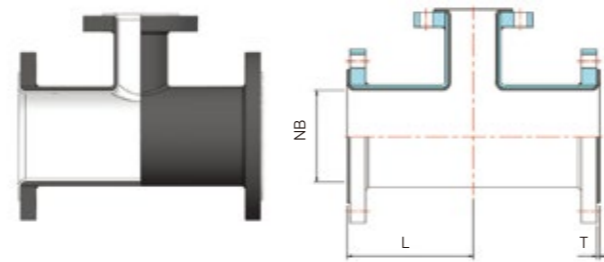
SIZE	FACE TO FACE (L)		NB	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		Ø	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE
1/2	70		11	3.2	3.2		•	•	•	•
3/4	80		16	3.2	3.2		•	•	•	•
1	89		22	3.2	4		•	•	•	•
1 1/2	102	± 2.0	36	3.2	4	± 5 %	•	•	•	•
2	114		47	3.2	4		•	•	•	•
2 1/2	127		60	3.2	4		•	•	•	•
3	140		73	3.2	4		•	•	•	•
4	165		94	4.5	6		•	•	•	•
5	194		118	4.5	6		•	•	•	•
6	203		143	4.5	6		•	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

REDUCER TEE

STANDARD VERSION : 3 FIXED FLANGE
 AVAILABLE VERSION : 1 FIXED FLANGE AND 2 LAP JOINT FLANGE
 : 3 LAP JOINT FLANGE

APPLIANCE WITH : ASTM F-1545
 * TEMPERATURE TEST
 * STEAM COLD WATER CYCLE TEST
 * VACUUM TEST
 * HYDROSTATIC PRESSURE TEST
 * ELECTROSTATIC TEST



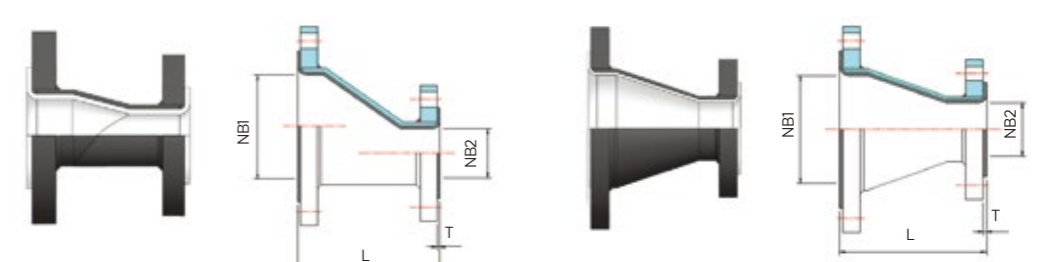
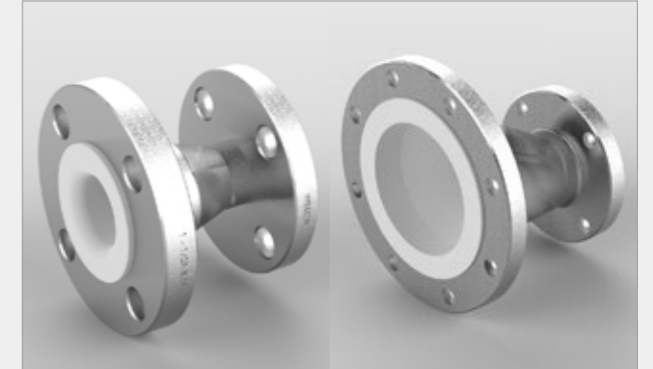
SIZE	FACE TO FACE (L)		NOMINAL BORE NB(∅)	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
3/4 @ 1/2	80		16 @ 11	3.2	3.2		•	•	•	•
1 @ 1/2	89		22 @ 11	3.2	3.2		•	•	•	•
1 @ 3/4	89		22 @ 16	3.2	4		•	•	•	•
1 1/2 @ 3/4	102		36 @ 16	3.2	4		•	•	•	•
1 1/2 @ 1	102		36 @ 22	3.2	4		•	•	•	•
2 @ 1	114	± 2.0	47 @ 22	3.2	4	± 5 %	•	•	•	•
2 @ 1 1/2	114		47 @ 36	3.2	4		•	•	•	•
2 1/2 @ 1 1/2	127		60 @ 36	3.2	4		•	•	•	•
2 1/2 @ 2	127		60 @ 47	3.2	4		•	•	•	•
3 @ 1 1/2	140		73 @ 36	3.2	4		•	•	•	•
3 @ 2	140		73 @ 47	3.2	4		•	•	•	•
4 @ 2	165		94 @ 47	4	6		•	•	•	•
4 @ 3	165		94 @ 73	4	6		•	•	•	•
5 @ 3	194		118 @ 73	4	6		•	•	•	•
5 @ 4	194		118 @ 94	4	6		•	•	•	•
6 @ 3	203		143 @ 73	4	6		•	•	•	•
6 @ 4	203		143 @ 94	4	6		•	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

REDUCER

STANDARD VERSION : 2 FIXED FLANGE
 AVAILABLE VERSION : 1 FIXED FLANGE AND 1 LAP JOINT FLANGE
 : 2 LAP JOINT FLANGE

APPLIANCE WITH : ASTM F-1545
 * TEMPERATURE TEST
 * STEAM COLD WATER CYCLE TEST
 * VACUUM TEST
 * HYDROSTATIC PRESSURE TEST
 * ELECTROSTATIC TEST



SIZE	FACE TO FACE (L)		NOMINAL BORE ∅	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
3/4 @ 1/2	100		16 @ 11	3.2	3.2		•	•	•	•
1 @ 1/2	100		22 @ 11	3.2	3.2		•	•	•	•
1 @ 3/4	100		22 @ 16	3.2	4		•	•	•	•
1 1/2 @ 3/4	100		36 @ 16	3.2	4		•	•	•	•
1 1/2 @ 1	100		36 @ 22	3.2	4		•	•	•	•
2 @ 1	127	± 2.0	47 @ 22	3.2	4	± 5 %	•	•	•	•
2 @ 1 1/2	127		47 @ 36	3.2	4		•	•	•	•
2 1/2 @ 1 1/2	127		60 @ 36	3.2	4		•	•	•	•
2 1/2 @ 2	127		60 @ 47	3.2	4		•	•	•	•
3 @ 1 1/2	152		73 @ 36	3.2	4		•	•	•	•
3 @ 2	152		73 @ 47	3.2	4		•	•	•	•
4 @ 2	152		94 @ 47	4	6		•	•	•	•
4 @ 3	152		94 @ 73	4	6		•	•	•	•
5 @ 3	194		118 @ 73	4	6		•	•	•	•
5 @ 4	194		118 @ 94	4	6		•	•	•	•
6 @ 3	200		143 @ 73	4	6		•	•	•	•
6 @ 4	200		143 @ 94	4	6		•	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

INSTRUMENT TEE

STANDARD VERSION : FIXED FLANGE
AVAILABLE VERSION : LAP JOINT FLANGE

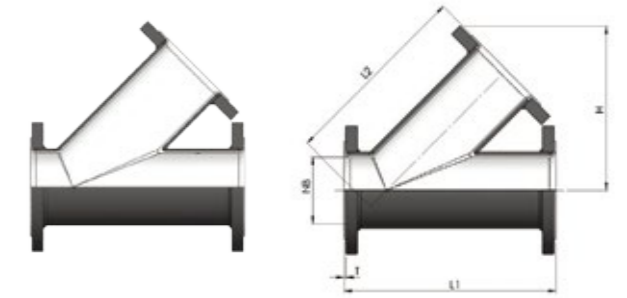
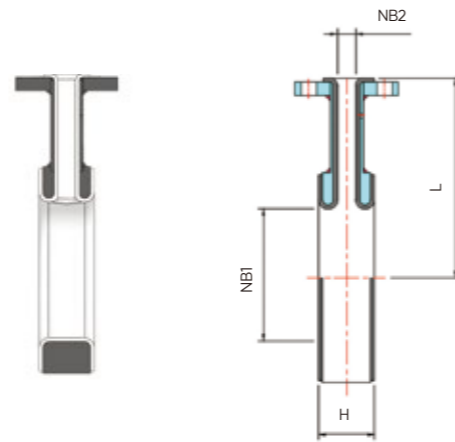
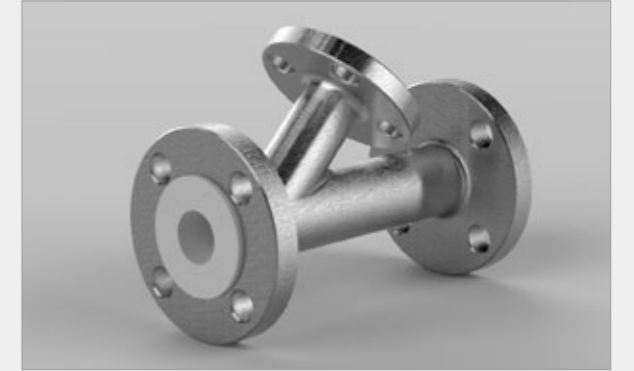
APPLIANCE WITH : ASTM F-1545
* TEMPERATURE TEST
* STEAM COLD WATER CYCLE TEST
* VACUUM TEST
* HYDROSTATIC PRESSURE TEST
* ELECTROSTATIC TEST



LATERAL

STANDARD VERSION : 3 FIXED FLANGE
AVAILABLE VERSION : 1 FIXED FLANGE AND 2 LAP JOINT FLANGE
: 3 LAP JOINT FLANGE

APPLIANCE WITH : ASTM F-1545
* TEMPERATURE TEST
* STEAM COLD WATER CYCLE TEST
* VACUUM TEST
* HYDROSTATIC PRESSURE TEST
* ELECTROSTATIC TEST



WIDE H	SIZE	FACE TO FACE (L)		NOMINAL BORE		THICKNESS (T)			MATERIAL			
		LENGTH	TOLERANCE	NB1 (Ø)	NB2 (Ø)	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
50L	1/2	70		11	22	3.2	3.2		•	•	•	•
50L	3/4	80		16	22	3.2	3.2		•	•	•	•
50L	1	80		22	22	3.2	4		•	•	•	•
50L	1 1/2	102	± 2.0	36	22	3.2	4	± 3 %	•	•	•	•
50L	2	114		47	22	3.2	4		•	•	•	•
60L	2 1/2	127		60	22	3.2	4		•	•	•	•
60L	3	140		73	22	3.2	4		•	•	•	•
60L	4	165		94	22	4	6		•	•	•	•
60L	5	194		118	22	4	6		•	•	•	•
60L	6	203		143	22	4	6		•	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

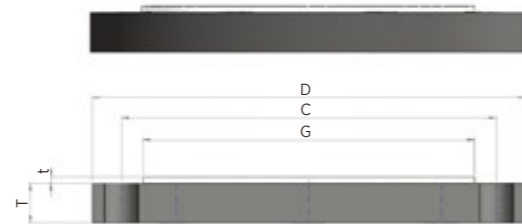
SIZE	NB(Ø)	H	L1	L2	MATERIAL		
					PFA	ETFE	PP/PE
3/4"	16.9	104		100.1	•	•	•
1"	22.6	111.9		106.3	•	•	•
1-1/2"	34.9	140	235	137.4	•	•	•
2"	46.5	165.8	250	161.4	•	•	•
2-1/2"	56.7	192.8	256	186.5	•	•	•
3"	71.9	208.1	300	201.5	•	•	•
4"	96.3	246.2	390	236.3	•	•	•
5"	122.2	283.7	440	276.7	•	•	•
6"	148.1	315.1	520	308.5	•	•	•

※ 8" 이상 제품은 별도 문의 바랍니다.

BLIND FLANGE

STANDARD VERSION : FIXED FLANGE
AVAILABLE VERSION : FIXED FLANGE

APPLIANCE WITH : ASTM F-1545
* TEMPERATURE TEST
* STEAM COLD WATER CYCLE TEST
* VACUUM TEST
* HYDROSTATIC PRESSURE TEST
* ELECTROSTATIC TEST

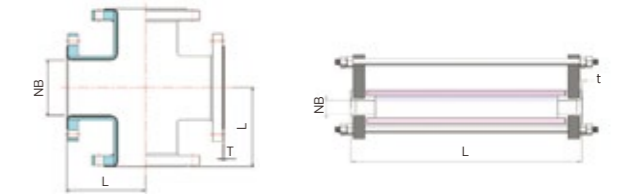
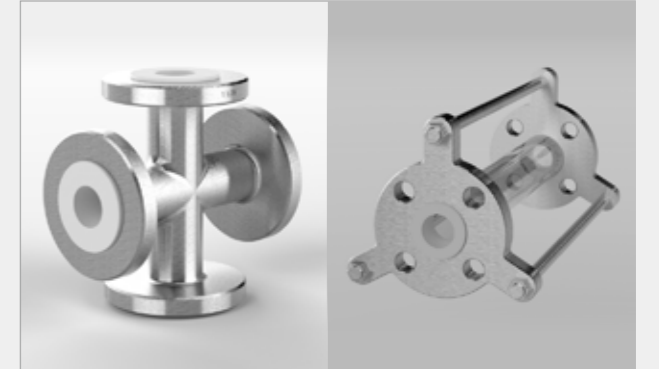


SIZE(INCH)	D	C	G	E2(d)	MATERIAL
					PTFE
1/2	88.9	60.4	35.1	22.4	•
3/4	98.6	69.9	42.9	27.7	•
1	108	79.2	50.8	34.5	•
1 1/4	117.3	88.9	63.5	43.2	•
1 1/2	127	98.5	73.2	49.5	•
2	152.4	120.6	92	62	•
2 1/2	177.8	139.7	104.6	74.7	•
3	190.5	152.4	127	90.7	•
3 1/2	215.9	177.8	139.7	103.4	•
4	228.6	190.5	157.2	116.1	•
5	254	215.9	185.7	143.8	•
6	279.4	241.3	215.9	170.7	•
8	342.9	298.4	269.7	221.5	•
10	406.4	361.9	323.8	276.4	•
12	482.6	431.8	381	327.2	•
14	533.4	476.2	412.8	359.2	•
16	596.9	539.7	469.9	410.5	•
18	635	577.8	533.4	461.8	•
20	698.5	635	584.2	513.1	•

SIGHT GLASS

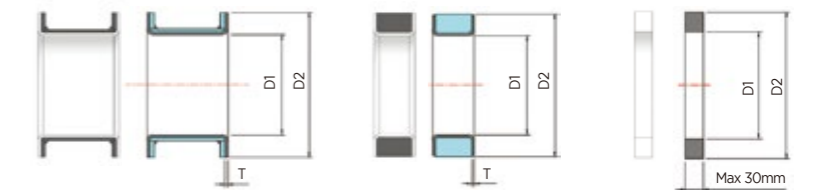
STANDARD VERSION : 4 FIXED FLANGE
AVAILABLE VERSION : 2 FIXED FLANGE AND 2 LAP JOINT FLANGE
: 4 FIXED FLANGE

APPLIANCE WITH : ASTM F-1545
* TEMPERATURE TEST
* STEAM COLD WATER CYCLE TEST
* VACUUM TEST
* HYDROSTATIC PRESSURE TEST
* ELECTROSTATIC TEST



SIZE	FACE TO FACE (L)			NB	THICKNESS (T)			MATERIAL				
	CROSS TYPE	PIPE TYPE	TOLERANCE		Ø	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
	LENGTH	LENGTH										
1/2	70	200		11	3.2	3.2		•	•	•	•	
3/4	80	200		16	3.2	3.2		•	•	•	•	
1	80	200		22	3.2	4		•	•	•	•	
1 1/2	102	200	± 2.0	36	3.2	4	± 5 %	•	•	•	•	
2	114	200		47	3.2	4		•	•	•	•	
2 1/2	127	200		60	3.2	4		•	•	•	•	
3	140	200		73	3.2	4		•	•	•	•	
4	165	200		94	4.5	6		•	•	•	•	

SPACER



SIZE		D2	D1	T	MATERIAL	
INCH	MM				PTFE	PFA
1"	25	66	22	3.2	•	•
1-1/2"	40	85	36	3.2	•	•
2"	50	104	47	3.2	•	•
3"	80	136	73	3.2	•	•
4"	100	174	97	4.5	•	•
6"	150	222	143	5	•	•
8"	200	279	193	5	•	•
10"	250	339	243	5	•	•
12"	300	409	290	5	•	•

BELLOWS

WS / WP / WV / WM BELLOWS

BELLOWS



Introduction

(주)위온은 Bellows는 작동성(유연성, 내굴곡성), 내압성, 내식성 등이 요구되는 곳에 설치 사용되며, 사용조건에 따라 다양한 모델로 생산되고 있습니다.

A Weeon Bellows are engineered and used where required functionality, (flexibility, winding property), pressure resistance, corrosion resistance. They have been produced to various model according to the utility condition.

Product Selection Guide

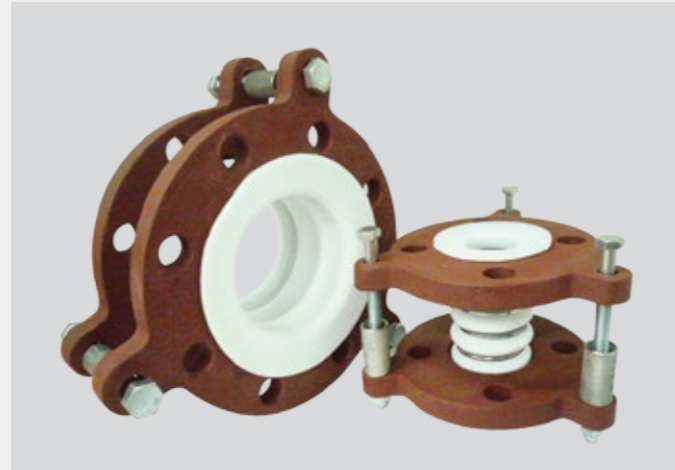
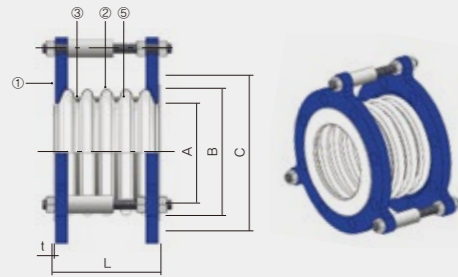
Product	Description	The utility condition			
		Low pressure	High pressure	Vacuum	Chemical fume
WS bellows	PTFE 1PLY (PFA 1PLY)	●			
WS bellows	PFA 1PLY				●
WP bellows	PTFE 1PLY+Cap-ring		●		
WV bellows	PTFE 1PLY+Vacuum-ring			●	
WM bellows	PTFE 1PLY+Metal housing		●		○

• Size : 3/4"(20A) - 24"(600A) • Materials : PTFE, PFA • End fitting : Carbon Steel, Stainless Steel, PVC • Spec' : ANSI, JIS, DIN
• Temperature rate : -25℃-200℃ • Reference the product performance curves

WS BELLOWS | PTFE / PFA 1PLY TYPE

Information

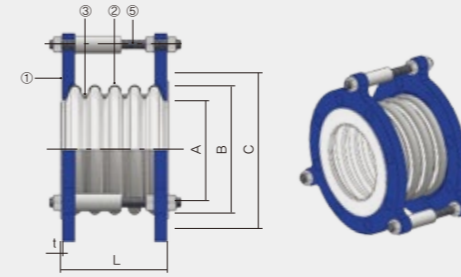
Thanks to their great flexibility, our PTFE / PFA bellows can be used as expansion units in pipelines or as protection units for equipment in brittle materials. (glass, graphite etc..)



WP BELLOWS | 1PLY + CAP RING TYPE

Information

Pressure bellows are reinforced by stainless steel caps(or T-ring), making them suitable for High pressure service.



Dimension & Performance Table

SIZE	CON VOLUTION	BORE (A)	FLARING OUTSIDE (B)	BCD (C)	LENGTH(L)		AXIAL ELASTICITY		DISPLACE-AXIS		ANGULAR		THICK	WEIGHT(kg)	
					3con	5con	3con	5con	3con	5con	3con	5con		3con	5con
1"(25A)	3 or 5	24	65	79.4(90)		80		20		15		36'	2.5		2.81
1-1/2"(40A)		37	75	98.4(105)		100		20		20		34'	2.5		4.3
2"(50A)		45	89	120.6(120)		100		25		20		28'	2.5		5.1
2-1/2"(65A)		60	104	139.7(140)		120		35		30		22'	2.5		6.9
3"(80A)		70	122	152.4(150)		130		40		30		20'	2.5		7.5
4"(100A)		98	154	190.5(175)		143		40		30		20'	3		8.5
6"(150A)		145	210	241.3(240)		165		45		32		14'	3		18
8"(200A)		196	270	298.4(290)		220		45		32		14'	3		21
10"(250A)		242	324	361.9(355)		225		45		15		12'	4		32
12"(300A)		289	370	431.8(400)	140	230	30	50	8	10	8'	10'	4	32	35
14"(350A)		333	412	476.25(445)	140	230	30	50	6	8	8'	10'	4	41	45
16"(400A)		372	470	540(510)	145	230	30	50	6	8	6'	8'	4	58	63
18"(450A)		418	518	577.8(565)	-	230	-	50	-	8	-	8'	4.5	-	85
20"(500A)		2	485	584	635(620)	165(2con)		25(2con)		6(2con)		6'(2con)		4.5	90(2con)
24"(600A)	585		692	749.3(730)	175(2con)		25(2con)		6(2con)		6'(2con)		4.5	131(2con)	

note 1 : Flange ANSI # 150(JIS10K) Application

Dimension & Performance Table

SIZE	CON VOLUTION	BORE (A)	FLARING OUTSIDE (B)	BCD (C)	LENGTH(L)		AXIAL ELASTICITY		DISPLACE-AXIS		ANGULAR		THICK	WEIGHT(kg)	
					3con	5con	3con	5con	3con	5con	3con	5con		3con	5con
1"(25A)	3 or 5	24	65	79.4(90)		80		10		7		32'	2.5		3.5
1-1/2"(40A)		37	75	98.4(105)		100		10		10		30'	2.5		4.6
2"(50A)		45	89	120.6(120)		100		12		10		24'	2.5		5.5
2-1/2"(65A)		60	104	139.7(140)		120		15		20		20'	2.5		7.8
3"(80A)		70	122	152.4(150)		130		23		20		16'	2.5		8.5
4"(100A)		98	154	190.5(175)		143		23		20		16'	3		9.7
6"(150A)		145	210	241.3(240)		165		30		20		12'	3		19
8"(200A)		196	270	298.4(290)		220		30		20		12'	3		23
10"(250A)		242	324	361.9(355)		225		30		12		10'	4		35
12"(300A)		289	370	431.8(400)	140	230	25	35	4	8	6'	8'	4	36	39
14"(350A)		333	412	476.25(445)	140	230	25	35	4	5	6'	8'	4	46	50
16"(400A)		372	470	540(510)	145	230	25	35	4	5	5'	6'	4	66	70
18"(450A)		418	518	577.8(565)	-	230	-	35	-	5	-	6'	4.5	-	90
20"(500A)		2	485	584	635(620)	165(2con)		25(2con)		4(2con)		5'(2con)		4.5	96(2con)
24"(600A)	585		692	749.3(730)	175(2con)		25(2con)		4(2con)		5'(2con)		4.5	140(2con)	

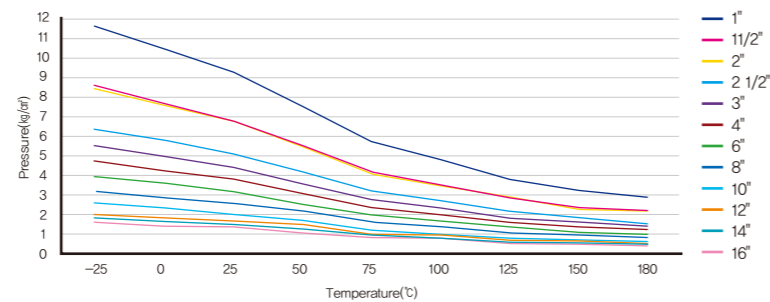
note 1 : Flange ANSI # 150(JIS10K) Application

Materials

NO	MATERIAL DESCRIPTION		
	ITEM	MATERIAL	REMARKS
1	FLANGE	A105(note2)	ANSI #150
2	BELLOWS	PTFE / PFA	3con or 5con
3	LOW RING	SUS 304	Ø2~Ø6
4	SET HOLDER	SUS 304	

note 2 : Flange spec(ANSI #150~300, JIS10~, DIN~)
Flange material(carbon steel, stainless steel, pvc, etc)

Performance Curves (Pressure & Temperature)

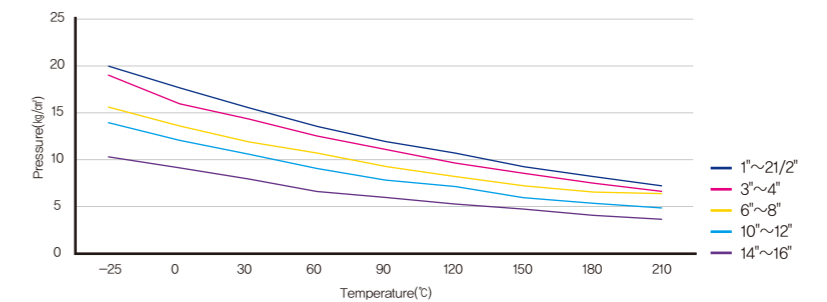


Materials

NO	MATERIAL DESCRIPTION		
	ITEM	MATERIAL	REMARKS
1	FLANGE	A105(note2)	ANSI #150
2	BELLOWS	PTFE	3con or 5con
3	LOW RING	SUS 304	Ø2~Ø6
4	SET HOLDER	SUS 304	
5	CAP RING	SUS 304	

note 2 : Flange spec(ANSI #150~300, JIS10~, DIN~)
Flange material(carbon steel, stainless steel, pvc, etc)

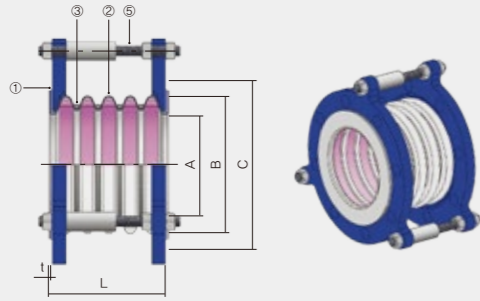
Performance Curves (Pressure & Temperature)



WV BELLOWS | 1PLY+VACUUM RING TYPE

Information

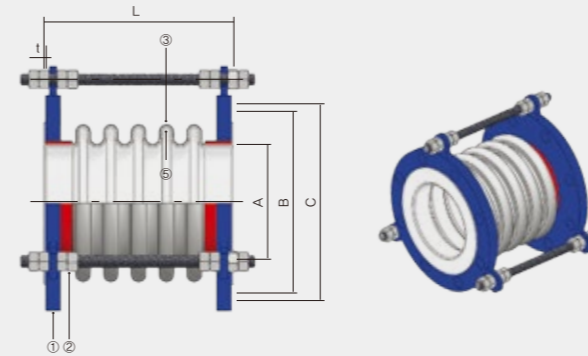
Our bellows are available to be used under vacuum up to 180°C.
(vacuum support ring type)



WM BELLOWS | 1PLY+METAL HOUSING

Information

Full stainless steel compensators lined PTFE.
High pressure resistance.



Dimension & Performance Table

SIZE	CON VOLUTION	NOMINAL BORE (A)	FLARING OUTSIDE (B)	BCD (C)	NOMINAL LENGTH(L)		AXIAL ELASTICITY		DISPLACEMENT - LATERAL		DISPLACEMENT - ANGULAR		FLARE THICK(T) PTFE	WEIGHT(kg)	
					3con	5con	3con	5con	3con	5con	3con	5con		3con	5con
1"(25A)	3 or 5	24	65	79.4(90)		80		20		15		36'	2.5		2.81
1-1/2"(40A)		37	75	98.4(105)		100		20		20		34'	2.5		4.3
2"(50A)		45	89	120.6(120)		100		25		20		28'	2.5		5.1
2-1/2"(65A)		60	104	139.7(140)		120		35		30		22'	2.5		6.9
3"(80A)		70	122	152.4(150)		130		40		30		20'	2.5		7.5
4"(100A)		98	154	190.5(175)		143		40		30		20'	3		8.5
6"(150A)		145	210	241.3(240)		165		45		32		14'	3		18
8"(200A)		196	270	298.4(290)		220		45		32		14'	3		21
10"(250A)		242	324	361.9(355)		225		45		15		12'	4		32
12"(300A)		289	370	431.8(400)	140	230	30	50	8	10	8'	10'	4	32.06	35
14"(350A)		333	412	476.25(445)	140	230	30	50	6	8	8'	10'	4	41.1	45
16"(400A)		372	470	540(510)	145	230	30	50	6	8	6'	8'	4	58.1	63
18"(450A)		418	518	577.8(565)	-	230	-	50	-	8	-	8'	4.5	-	85
20"(500A)		2	485	584	635(620)	165(2con)		25(2con)		6(2con)		6'(2con)	4.5		90(2con)
24"(600A)	585		692	749.3(730)	175(2con)		25(2con)		6(2con)		6'(2con)	4.5		131(2con)	

note 1 : Flange ANSI # 150(JIS10K) Application

Dimension & Performance Table

SIZE	NOMINAL BORE (A)	FLARING OUTSIDE (B)	BCD (C)	NOMINAL LENGTH (L)	AXIAL ELASTICITY	DISPLACEMENT - LATERAL	SPRING RATE(MAX) (kg/mm)	FLARE THICK(T)		WEIGHT(kg)
								PTFE		
2B(50A)	45	89	120.6(120)	110	7	2	20	2.5		5.5
2-1/2B(65A)	60	104	139.7(140)	110	7	2	25	2.5		8
3B(80A)	70	122	152.4(150)	125	10	3	25	2.5		8
4B(100A)	98	154	190.5(175)	125	10	3	31	3		9.5
6B(150A)	145	210	241.3(240)	150	10	3	58	3		19
8B(200A)	196	270	298.4(290)	165	15	5	93	3		23
10B(250A)	242	324	361.9(355)	165	15	5	125	3.4		35
12B(300A)	289	370	431.8(400)	165	15	5	150	3.4		39
14B(350A)	333	412	476.25(445)	200	17	6	175	3.4		50
16B(400A)	372	470	540(510)	200	17	6	184	3.4		70
18B(450A)	418	518	577.8(565)	200	17	6	198	3.4		80
20"(500A)	485	584	635(620)	255	20	7	216	3.4		95
24"(600A) (Call)*	585	692	749.3(730)	255	20	7	245	3.4		130

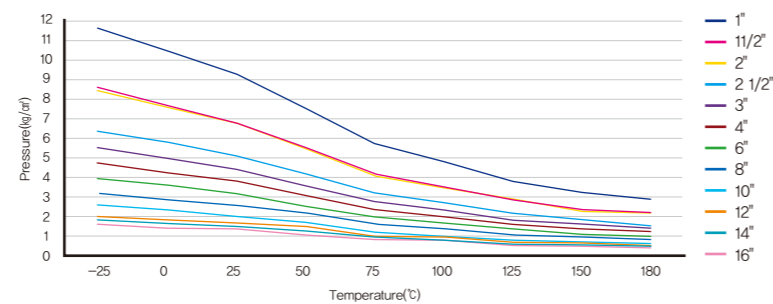
note 1 : Flange ANSI # 150(JIS10K) Application / note 2 : Metal bellows 길이는 고객요구 사양에 따라 제작 가능함.

Materials

NO	MATERIAL DESCRIPTION		
	ITEM	MATERIAL	REMARKS
1	FLANGE	A105(note2)	ANSI #150
2	BELLOWS	PTFE	3con or 5con
3	LOW RING	SUS 304	Ø2~Ø6
4	SET HOLDER	SUS 304	
5	VACUUM RING	PTFE or SUS316L+PFA	

note 2 : Flange spec(ANSI #150~300, JIS10~, DIN~)
Flange material(carbon steel, stainless steel, pvc, etc)

Performance Curves (Pressure & Temperature)

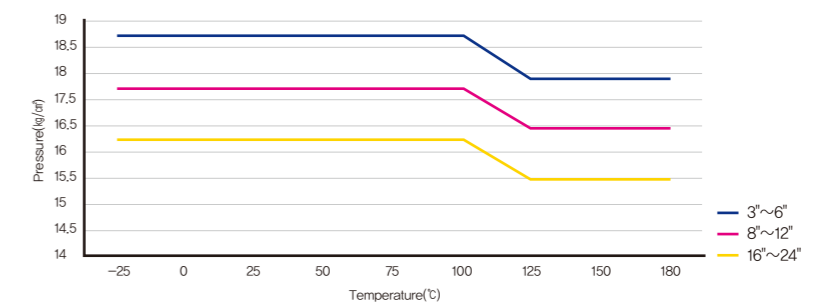


Materials

NO	MATERIAL DESCRIPTION		
	ITEM	MATERIAL	REMARKS
1	FLANGE	A105(note3)	ANSI #150
2	END PIPE	SUS 304	
3	BELLOWS	SUS 304	
4	SET HOLDER	SUS 304	
5	BELLOWS	PTFE	

note 3 : Flange spec(ANSI #150~300, JIS10~, DIN~)
Flange material(carbon steel, stainless steel, pvc, etc)

Performance Curves (Pressure & Temperature)



PFA PRODUCTS GASKET & PACKING

- PFA TUBE & PIPE
- PFA ROD & BAND
- PFA FLARE LOCK-FITTING
- PFA WELD FITTING
- 3F FLEXIBLE HOSE
- GASKET

PFA PRODUCTS & GASKET



Introduction

위온은 정밀화학, 반도체, 석유화학, 의약품 산업에서 불소수지를 사용하는 다양한 구성요소 개발의 개척자였습니다.

A Weeon PFA products are well suited for any corrosive or high purity application. A Weeon PFA products are available in various size upon standard and request.

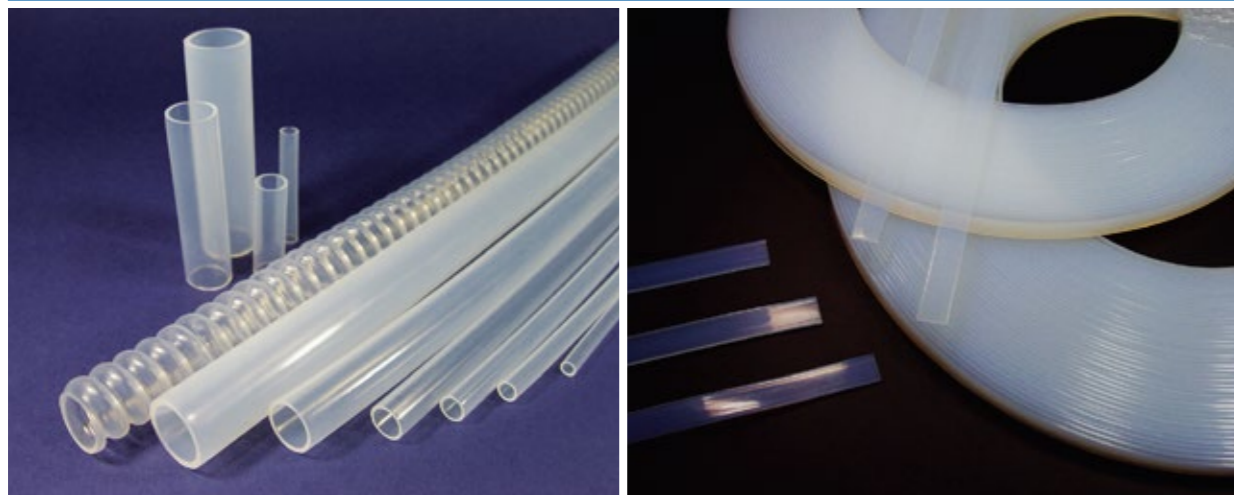
위온의 PFA 제품은 어떠한 부식성 · 고순도 영역에도 적용되는 제품입니다. 위온의 PFA 제품은 표준치수로 제작되며, 고객의 요구에 따라 다양한 치수로도 제공됩니다.

Features

100% VIRGIN PFA resin used on all products.(ultra high purity PFA resin)
Meets the semiconductor industry's ultra high purity chemical requirement.

모든 제품은 순수 PFA(고순도 PFA)로 생산됩니다.
고순도 약품조건의 반도체산업에 만족하는 제품 실현.

PFA TUBE / PIPE / ROD / TAPE



Dimension Table

PRODUCTS	SIZE	O.D	O.D TOLERANCE	WALL THK	LENGTH TOLERANCE	LENGTH(M)	비고
PFA ROD	Ø 3mm	3	± 0.05mm		2%	50/100	
	Ø 4mm	4	± 0.05mm			50/100	
	Ø 5mm	5	± 0.05mm			50/100	
PFA TAPE	W14,3 * 2,3T	W14,3 * 2,3T	± 0.05mm		2%	50/100	
	W14,7 * 2,5T	W14,7 * 2,5T	± 0.05mm			50/100	
PFA TUBE	1/4"	6.35	± 0.1mm	1.194	2%	100	OD. 기준하여 두께는 고객요구에 따라 생산 가능
	3/8"	9.53	± 0.1mm	1.574		100	
	1/2"	12.70	± 0.12mm	1.574		100	
	3/4"	19.05	± 0.12mm	1.574		100	
	1"	25.40	± 0.2mm	1.574		100	
	1-1/2"	38.00	± 0.25mm	1.800		100	
	1-1/2"	40.00	± 0.25mm	2.184		100	
	2"	50.50	± 0.4mm	2.590		50	
	3"	81.00	± 0.5mm	3.000		50	
	4"	104.00	± 1.5mm	3.000		50	
	Ø 6mm	6	± 0.1mm	1		100	
	Ø 8mm	8	± 0.1mm	1		100	
	Ø 10mm	10	± 0.12mm	1		100	
	Ø 12mm	12	± 0.12mm	1		100	
Ø 14mm	14	± 0.12mm	1	100			
PFA PIPE	1/2"	21.34	± 0.12mm	2.76	1%	3	3M 이상 제품 : 운송 가능 최대 길이로 직관 제작 가능 (본사문의 바람)
	3/4"	26.67	± 0.25mm	2.87		3	
	1"	33.40	± 0.3mm	3.37		3	
	1-1/2"	50.50	± 0.5mm	3.37		3	
		60.30	± 0.5mm	3.90		3	
	LEVEL PIPE	25.50	±0.25mm	2.25		3	

PFA FLARE LOCK-FITTING

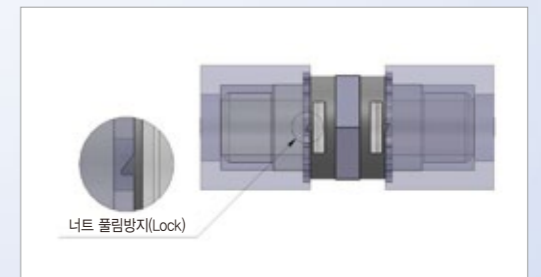


Introduction

확관락-피팅이란?

This product has added a nut loosening prevention function.

당사에서 제공하는 기존 용착 피팅의 장점에 너트 풀림 방지(Lock) 기능을 추가한 제품입니다.



Features

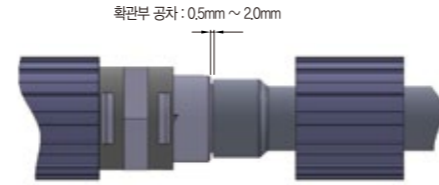
1. It is safe with anti-loose function.
2. Eye marking is applicable.
3. It can be used without a torque wrench.
4. When replacing existing pipes, they can be used in compatibility with third-party products.
- Flare type compatible.

1. 풀림방지 기능이 있어 누수 발생에 대하여 안전합니다.
2. 아이마킹(눈관리) 가능합니다.
3. 토크렌치 없이 사용 가능합니다.
4. 기존 배관 교체 작업시 타사제품과 호환하여 사용가능 합니다.
- Flare type 호환 사용가능.

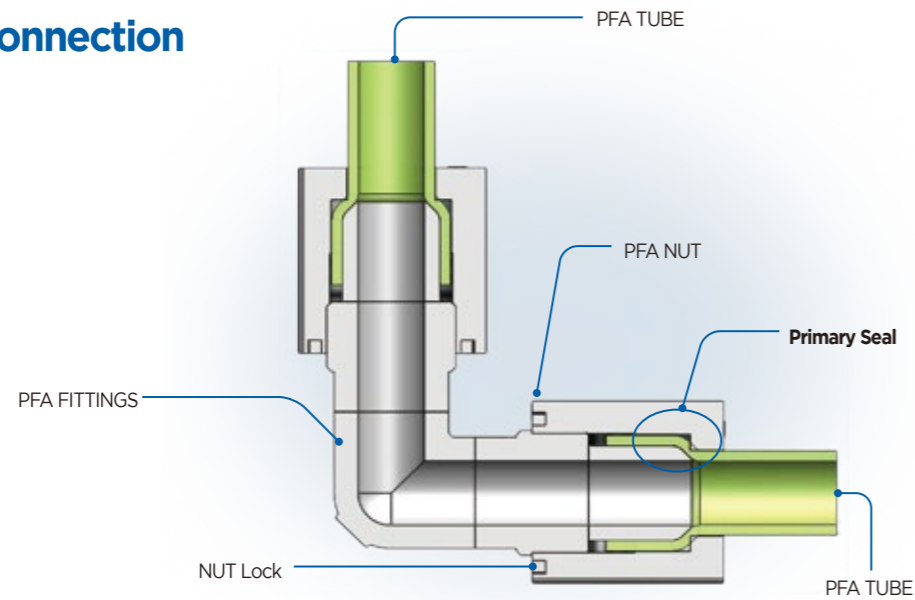
PFA FlareLock-Fitting Operation Standard

PFA Tube와 Fitting 삽입

- Fitting의 확관부와 Tube의 확관 부위가 밀착 되도록 삽입한다.
- Tube의 끝과 Fitting의 확관부 공차 → 0.5mm ~ 2.0mm.



Tube fitting connection



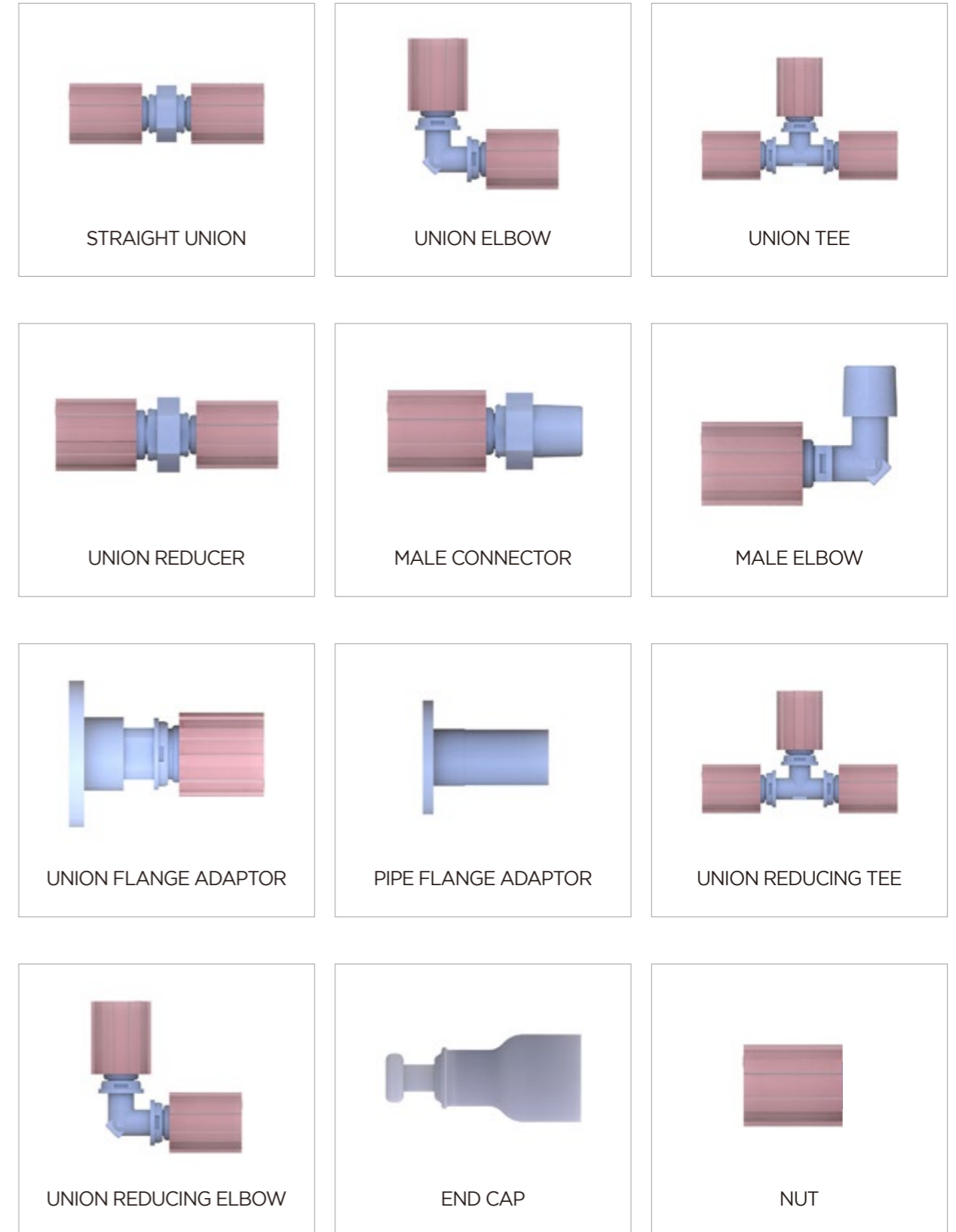
NUT 체결 토크값

The table below is based on the torque values for torque wrench.

아래 표의 Fitting의 토크값은 토크렌지로 체결작업을 할 경우 참고 바랍니다.

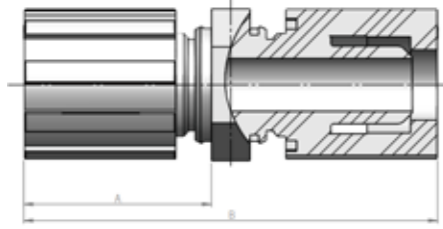
PRODUCTS	MIN (N-M)	MAX (N-M)	기준값(N-M)	파괴값(N-M)
UE-04	0.4	2.3	0.5	2.4
UE-06	0.9	2.7	0.9	2.8
UE-08	1.2	4.9	1.3	5
UE-12	1.6	5.4	1.6	5.5
UE-16	3.4	14.9	3.4	15
UT-04	0.5	1.6	0.5	1.7
UT-06	0.9	2.3	0.9	2.4
UT-08	1.2	4.9	1.3	5
UT-12	1.6	4.5	1.6	4.6
UT-16	3.4	14.9	3.4	15
SU-04	0.4	2.3	0.5	2.4
SU-06	0.9	2.7	0.9	2.8
SU-08	1.2	4.9	0.9	2.8
SU-12	1.6	5.4	1.6	5
SU-16	3.4	14.9	3.4	15

PFA FLARE LOCK-FITTING & DIMENSION SHEET



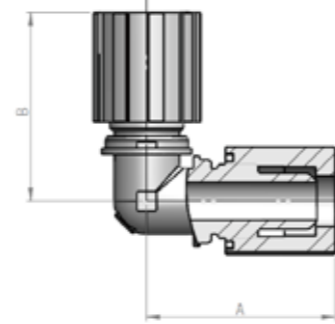
PFA FLARE LOCK-FITTING & DIMENSION SHEET

STRAIGHT UNION



PART No.	TUBE SIZE	A (mm)	B (mm)
SU-04	1/4"	31	69.1
SU-06	3/8"	32	71.1
SU-08	1/2"	34.5	76.1
SU-12	3/4"	45	97.1
SU-16	1"	50	107.1

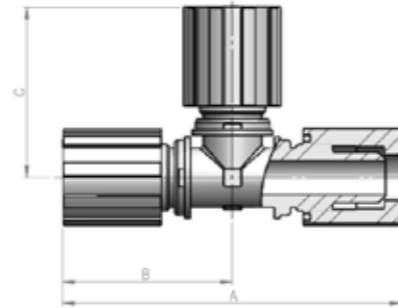
UNION ELBOW



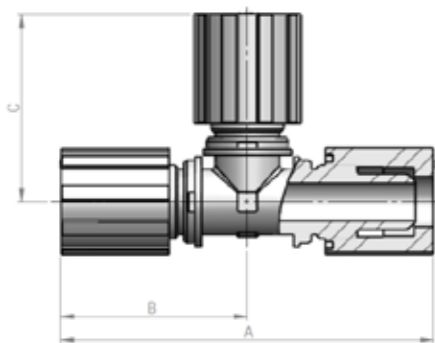
PART No.	TUBE SIZE	A (mm)	B (mm)
UE-04	1/4"	43	43
UE-06	3/8"	46.5	46.5
UE-08	1/2"	48	48
UE-12	3/4"	63	63
UE-16	1"	73	73

UNION TEE

PART No.	TUBE SIZE	A (mm)	B (mm)
UT-04	1/4"	86	43
UT-06	3/8"	93	46.5
UT-08	1/2"	96	48
UT-12	3/4"	126	63
UT-16	1"	146	73



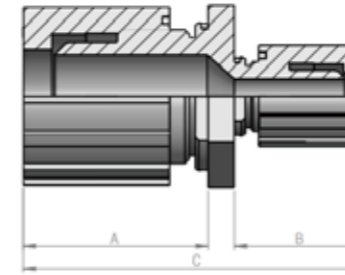
UNION REDUCING TEE



PART No.	TUBE SIZE	A (mm)	B (mm)
URT-160416	1 x 1/4" x 1"	146	73
URT-160616	1 x 3/8" x 1"	146	73
URT-160816	1 x 1/2" x 1"	146	73
URT-161216	1 x 3/4" x 1"	146	73
URT-120812	3/4" x 1/2" x 3/4"	126	63
URT-120612	3/4" x 3/8" x 3/4"	126	63
URT-120412	3/4" x 1/4" x 3/4"	126	63
URT-080608	1/2" x 3/8" x 1/2"	96	48
URT-080408	1/2" x 1/4" x 1/2"	96	48
URT-060406	3/8" x 1/4" x 3/8"	93	46.5

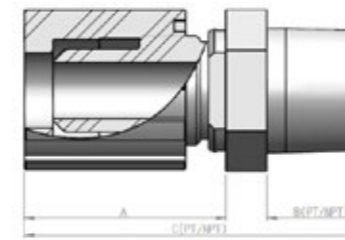
PFA FLARE LOCK-FITTING & DIMENSION SHEET

UNION REDUCER



PART No.	TUBE SIZE	A (mm)	B (mm)	C (mm)
UR-0604	3/8" x 1/4"	32	31	70.1
UR-0804	1/2" x 1/4"	34.5	31	72.6
UR-0804	1/2" x 3/8"	34.5	32	73.6
UR-1204	3/4" x 1/4"	45	31	83.1
UR-1206	3/4" x 3/8"	45	33	85
UR-1208	3/4" x 1/2"	45	34.5	86.6
UR-1604	1" x 1/4"	50	31	88.1
UR-1606	1" x 3/8"	50	33	90
UR-1608	1" x 1/2"	50	34.5	91.6
UR-1612	1" x 3/4"	50	45	102.1

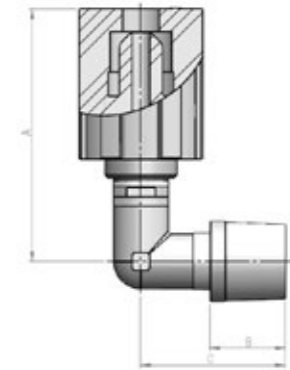
MALE CONNECTOR



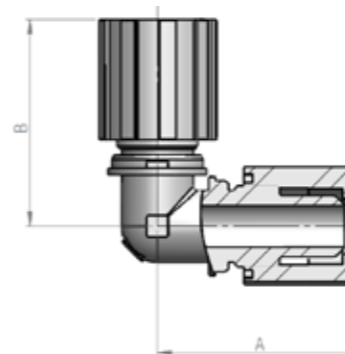
PART No.	TUBE SIZE	A (mm)	B (PT)	B (NPT)	C (PT)	C (NPT)
MC-0410(P,N)	1/4"	31	13	14.5	51.1	52.6
MC-0612(P,N)	3/8"	32	13	15	52.1	54.1
MC-0615(P,N)	3/8"	32	17	18	56.1	57.1
MC-0815(P,N)	1/2"	34.5	17	18	58.6	59.6
MC-1220(P,N)	3/4"	45	19	18	71.1	70.1
MC-1625(P,N)	1"	50	22	22	79.1	79.1

MALE ELBOW

PART No.	TUBE SIZE	A (mm)	B (PT)	B (NPT)	C (mm)
ME-0410(P,N)	1/4"	43		13	25
ME-0612(P,N)	3/8"	44		15	27
ME-0815(P,N)	1/2"	47		18	35
ME-1220(P,N)	3/4"	57		20	44
ME-1625(P,N)	1"	69		25	54



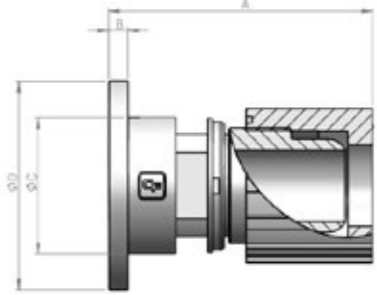
UNION REDUCING ELBOW



PART No.	TUBE SIZE	A (mm)	B (mm)
URE-1604	1 x 1/4"	73	56
URE-1606	1 x 3/8"	73	58
URE-1608	1 x 1/2"	73	60
URE-1612	1 x 3/4"	73	68
URE-1208	3/4" x 1/2"	63	56
URE-1206	3/4" x 3/8"	63	55
URE-1204	3/4" x 1/4"	63	53
URT-0806	1/2" x 3/8"	48	48
URT-0804	1/2" x 1/4"	48	46
URT-0604	3/8" x 1/4"	46.5	45

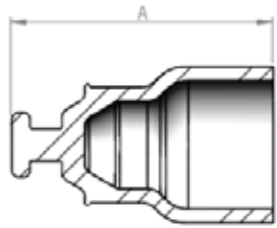
PFA FLARE LOCK-FITTING & DIMENSION SHEET

UNION FLANGE ADAPTOR



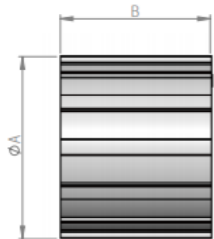
PART No.	TUBE SIZE	A (mm)	B (mm)	ΦC (mm)	ΦD (mm)
UFA-1508	1/2" x 15A	64.7	5	24	48
UFA-2012	3/4" x 20A	76.5	5	30.5	54
UFA-2516	1" x 25A	81.5	5	42.5	65

END CAP



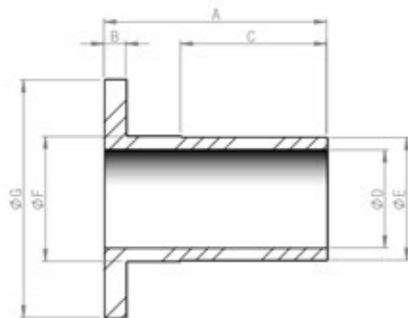
PART No.	TUBE SIZE	ΦD (mm)
UEC-04	1/4"	21.9
UEC-06	3/8"	24.7
UEC-08	1/2"	28.7
UEC-12	3/4"	32.2
UEC-16	1"	37.5

UNION NUT



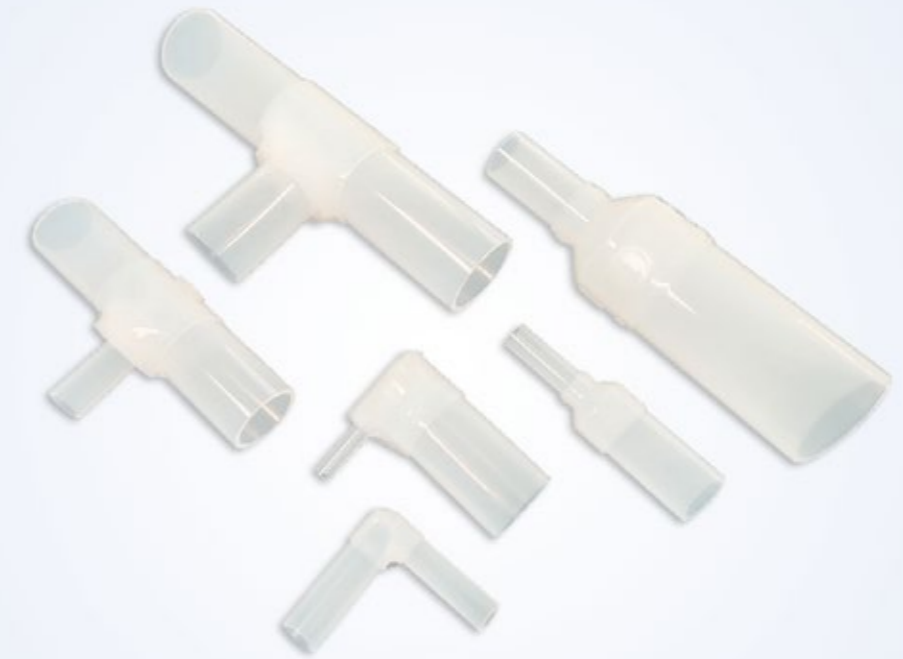
PART No.	TUBE SIZE	ΦA (mm)	B (mm)
UN-04	1/4"	21.3	25.8
UN-06	3/8"	22.7	25.4
UN-08	1/2"	27.6	27.7
UN-12	3/4"	36	32
UN-16	1"	48	39.6

PIPE FLANGE ADAPTOR



PART No.	PIPE SIZE	A (mm)	B (mm)	C (mm)	ΦD (mm)	ΦE (mm)	ΦF (mm)	ΦG (mm)
WFA-20A	20A	60	5	40	20.9	26.6	72.2	54
WFA-25A	25A	60	5	40	26.6	33.4	34	65

PFA WELD FITTING



Introduction

This product is applied to the **PFA BUTT WELDING**.

PFA 맞대기 용착(BUTT WELDING)작업에 적용되는 제품입니다.

Features

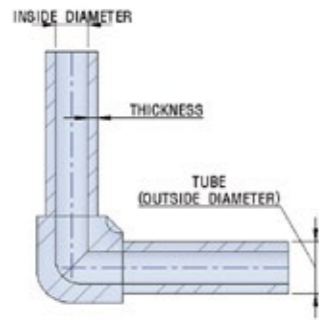
1. Constructable in a small space and simple piping construction.
2. Excellent flowability of chemicals in piping.
3. No assemblies to ensure structural safety

1. 좁은 공간에 시공가능하며 간결한 배관구성 가능.
2. 배관 내부 약품의 흐름성 우수함.
3. 조립 부분이 없어 구조적 안전성 확보 가능.



PFA WELD FITTING & DIMENSION SHEET

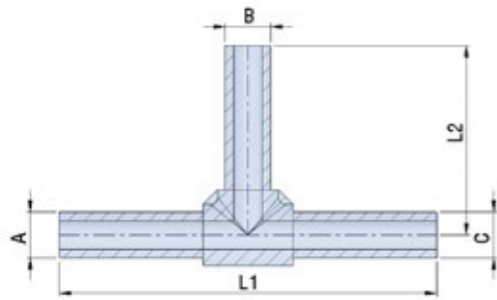
TUBE CONNECTION DIMENSION



unit : mm

PART No.	Outside Diameter	Inside Diameter	Thickness
1/4"	6.35	3.95	1.2
3/8"	9.53	6.33	1.6
1/2"	12.70	9.50	1.6
3/4"	19.05	15.85	1.6
1"	25.40	22.20	1.6
1-1/4"	31.80	28.20	1.8
1-1/2"	38.10	33.73	2.18

TEE



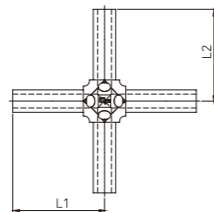
unit : mm

PART No.	TUBE			LENGTH	
	A	B	C	L1	L2
WT-04	1/4"	1/4"	1/4"	52	26.0
WT-06	3/8"	3/8"	3/8"	73	36.5
WT-08	1/2"	1/2"	1/2"	79	39.5
WT-12	3/4"	3/4"	3/4"	99	49.5
WT-16	1"	1"	1"	107	53.5
WT-20	1-1/4"	1-1/4"	1-1/4"	145	74.5
WT-24	1-1/2"	1-1/2"	1-1/2"	184	92.0
WT-0604	3/84"	1/44"	3/84"	73	36.5
WT-0804	1/2"	1/4"	1/2"	79	30.5
WT-0806	1/2"	3/8"	1/2"	79	39.5
WT-1204	3/4"	1/4"	3/4"	99	35.0
WT-1206	3/4"	3/8"	3/4"	99	49.0
WT-1208	3/4"	1/2"	3/4"	99	39.5
WT-1604	1"	1/4"	1"	107	37.5
WT-1606	1"	3/8"	1"	108	47.0
WT-1608	1"	1/2"	1"	107	41.5
WT-1612	1"	3/4"	1"	107	46.5
WT-2012	1-1/4"	3/4"	1-1/4"	149	55.5
WT-2016	1-1/4"	1"	1-1/4"	151	58.0
WT-2412	1-1/2"	3/4"	1-1/2"	184	72.5
WT-2416	1-1/2"	1"	1-1/2"	184	65.0
WT-2420	1-1/2"	1-1/4"	1-1/2"	184	82.0
WT-6M	6mm	6mm	6mm	56	22.0
WT-8M	8mm	8mm	8mm	64	32.0
WT-8M6M	8mm	8mm	8mm	59	26.0
WT-12M	12mm	12mm	12mm	78	39.0

CROSS TEE

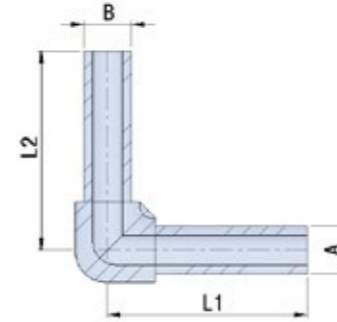
unit : mm

PART No.	TUBE		LENGTH	
	A	B	L1	L2
CT-0404	1/4"	1/4"	26	26



PFA WELD FITTING & DIMENSION SHEET

ELBOW



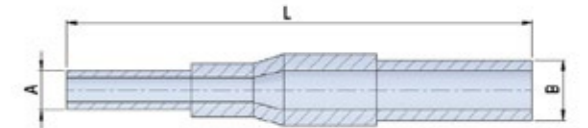
unit : mm

PART No.	TUBE		LENGTH	
	A	B	L1	L2
WE-04	1/4"	1/4"	26.0	26.0
WE-06	3/8"	3/8"	36.5	36.5
WE-08	1/2"	1/2"	39.5	39.5
WE-12	3/4"	3/4"	44.5	44.5
WE-16	1"	1"	53.5	53.5
WE-20	1-1/4"	1-1/4"	74.5	74.5
WE-24	1-1/2"	1-1/2"	92.0	92.0
WE-0604	3/8"	1/4"	27.5	37.0
WE-0804	1/2"	1/4"	29.5	39.5
WE-0806	1/2"	3/8"	39.5	39.5
WE-1204	3/4"	1/4"	35.5	44.5
WE-1208	3/4"	1/2"	44.0	39.0
WE-1604	1"	1/4"	38.0	52.5
WE-1606	1"	3/8"	48.0	52.5
WE-1608	1"	1/2"	53.5	39.0
WE-1612	1"	3/4"	53.0	46.5
WE-2412	1-1/2"	3/4"	64.5	92.0
WE-2416	1-1/2"	1"	73.0	92.0
WE-2420	1-1/2"	1-1/4"	82.5	92.0
WE-8M	8mm	8mm	32.5	32.5
WE-12M	12mm	12mm	39.5	39.5

REDUCER

unit : mm

PART No.	TUBE		LENGTH
	A	B	L1
WR-0604	3/8"	1/4"	75.0
WR-0804	1/2"	1/4"	75.0
WR-0806	1/2"	3/8"	78.5
WR-1204	3/4"	1/4"	75.5
WR-1206	3/4"	3/8"	78.5
WR-1208	3/4"	1/2"	284.5
WR-1604	1"	1/4"	85.0
WR-1606	1"	3/8"	88.0
WR-1608	1"	1/2"	91.5
WR-1612	1"	3/4"	97.0
WR-2012	1-1/4"	3/4"	124.5
WR-2016	1-1/4"	1"	135.5
WR-2412	1-1/2"	3/4"	137.5
WR-2416	1-1/2"	1"	149.0
WR-2420	1-1/2"	1-1/4"	155.0
WR-8M6M	8mm	6mm	60.0
WR-12M8M	12mm	8mm	69.0



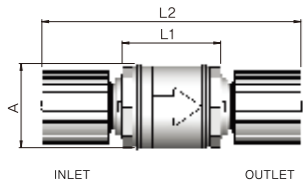
Accessory

PFA Check Valve

This is a backflow prevention valve.
NOT USING O-RING

PFA CHECK VALVE는 역류방지 밸브 입니다.
O-RING 이 없는 제품입니다.

- * PRESSURE RANGE : 90Kpa(7.03kgf/cm²)
- * OPENING PRESSURE : MIN 6.9Kpa(0.07kgf/cm²)
- * SEALING PRESSURE CLOSE : MIN 20.7Kpa(0.21kgf/cm²)
- * TEMPERATURE RANGE : - 100°C
- * Apply high purity PFA & PTFE



PART No.	Cv	Connction		Dimensions			Nut Type
		Inlet	Outlet	L1	L2	A	
CFCV-08	4.0	1/2"	1/2"	48	109	41	Flare
CFCV-12	4.0	3/4"	3/4"	48	116	41	Flare

PFA Stopcock Valve

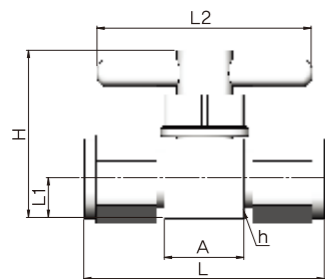
Connect to the tube with a one-touch perpendicular structure.
This valve is for sampling inspection and fluid direction change.

- * PRESSURE RANGE : -5kgf/cm²)
- * TEMPERATURE RANGE : - 70°C
- * Apply high purity PFA & PTFE



PART No.	Tube Size
CFSCV-04	1/4" * 1/4"
CFSCV-04T	1/4" * 1/4" * 1/4"
CFSCV-06	3/8" * 3/8"

PTFE BALL VALVE



PART No.	Tube Size	Orifice	A	L	H	L1	L2	h
CFBV-04	1/4"	4	25.4	68.6	54.5	12.5	68	25
CFBV-06	3/8"	6	25.2	70.8	54.6	12.6	69.4	25.2
CFBV-08	1/2"	8	32	97	71	16	70	32
CFBV-12	3/4"	12	36	109	75.7	18	97	36
CFBV-16	1"	20	45.5	120	84.7	22.6	100	45.2

Accessory

PFA SPRAY GUN (DI & Nitrogen)

Ergonomic design makes it easy to use.
The ring structure that is fixed to the facility has been improved.

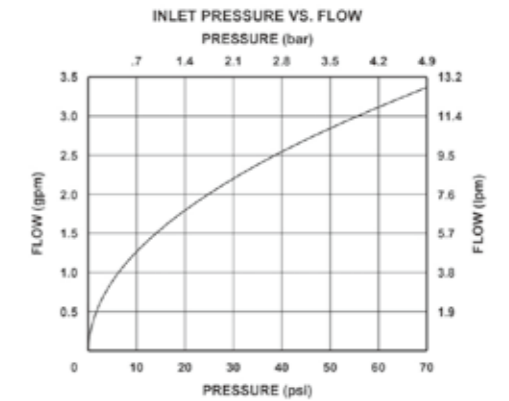
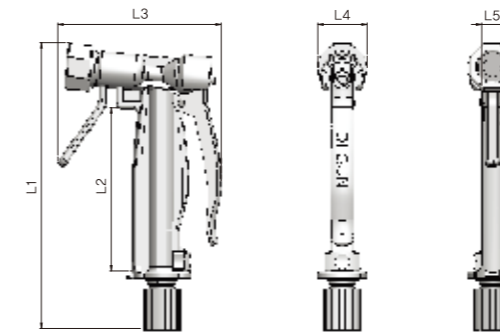
- * PRESSURE RANGE : 0 -5.5kgf/cm²
- * TEMPERATURE RANGE : -90°C
- * Apply high purity PFA



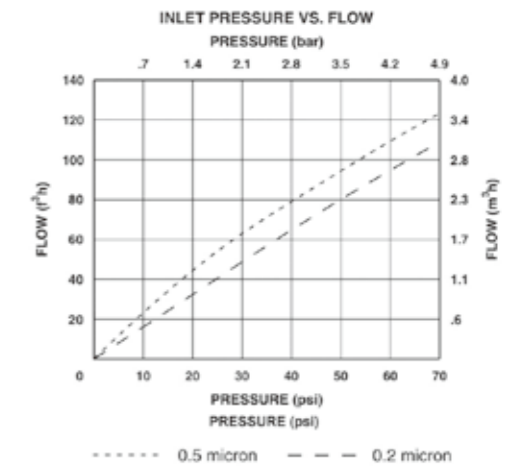
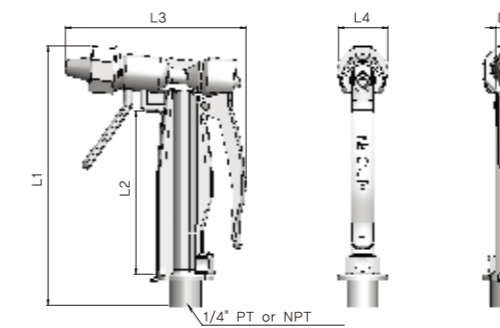
PART No.	Size	L1	L2	L3	L4	L5	Nut Type
CFSG-06	3/8"	170	98	96	30	14	Flare
CFSG-04	1/4"	170	98	96	30	14	FNPT

※ N2 Gun은 DI Gun과 동일합니다. 단, Nozzle부만 PTFE재질입니다.

PFA DI SPRAY GUN



PFA Nitrogen SPRAY GUN



Accessory

Union Torque Wrenches



UNION NUT TORQUE WRENCH
- TORQUE WRENCH HEAD DETACHABLE TYPE

PART No.	Size
CFTW-04	1/4"
CFTW-06	3/8"
CFTW-08	1/2"
CFTW-12	3/4"
CFTW-16	1"

Union NUT JIG



UNION NUT WRENCH

PART No.	Size
CFNJ-04	1/4"
CFNJ-06	3/8"
CFNJ-08	1/2"
CFNJ-12	3/4"
CFNJ-16	1"

FLARE JIG

Dedicated extension jig for connection work.
PFA TUBE & FITTING 연결작업을 위한 전용 확장지그.



PFA PURE BONDING M/C



PFA PURE BONDING M/C



FLARE M/C



FLARE M/C

3F FLEXIBLE HOSE

3F FLEXIBLE HOSE - ERC

SPEC

N-PTFE(PFA) + PE TUBE + SUS WIRE + PVC(EPDM) PROTETION TUBE 양끝단 꺾임방지 소재 내장

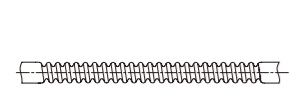
PTFE 내 약품서 및 내열서, 내크리이프 성질을 개선한 N-PTFE TUBE를 적용하여 기존 제품보다 수명을 연장하였습니다.

약품 TANKLORRY, CONTAINER 등 적용/사용을 목적으로 개발되었습니다.

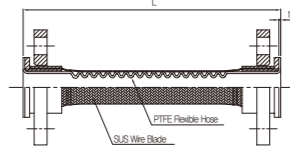


Flexible Hose Type

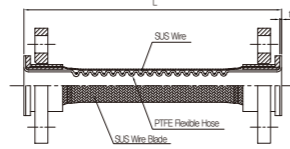
Pliable Hose



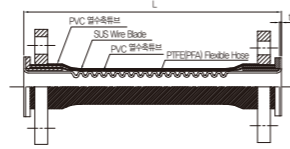
3F FLEXIBLE HOSE



3F FLEXIBLE HOSE-SS



3F FLEXIBLE HOSE-ERC



Fitting End Connections



Using Condition (Pressure & Temperature)

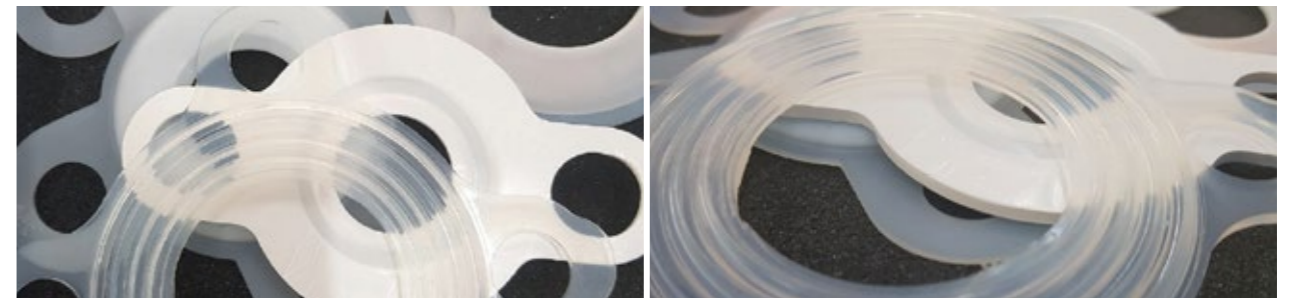
MODEL / TEMP	PLIABLE HOSE			3F FLEXIBLE HOSE			3F FLEXIBLE HOSE-SS			3F FLEXIBLE HOSE-ERC		
	25°C	50°C	100°C	25°C	50°C	100°C	25°C	50°C	100°C	25°C	50°C	100°C
3/4"(20A)	7	6	4	7	6	4	16	16	15	8	8	5
1"(25A)	6	5	3	6	5	3	16	15	14	8	8	5
1 1/2"(40A)	6	5	3	6	5	3	14	14	11	7	6	4
2"(50A)	5	4	2	5	4	2	13	12	10	7	6	4
2 1/2"(65A)				5	4	2	10	10	9	-	-	-
3"(80A)				4	3	2	8	8	7	-	-	-
4"(100A)				4	3	2	7	7	6	-	-	-
6"(150A)				4	3	2	7	7	6	-	-	-

Dimension Table

Size ANSI/JIS	LENGTH (L)		ID (Ø)		THICKNESS (T)			Minimum radius.(mm)
	Maximum	Tolerance	PFA	PTFE	PFA	PTFE	Tolerance	
1/2"(15A)	10000		9.7 or 16	-	1.5			80
3/4"(20A)	10000		16 or 22	25	1.5	2.5		100
1"(25A)	10000		22	28	1.5	2.5		120
1-1/2"(40A)	10000		48	37	1.5	2.5		200
2"(50A)	10000	± 3.0	48	50	1.5	2.5	± 5.0%	300
2-1/2"(65A)	5500			68	-	3		350
3"(80A)	5500			73	-	3		400
4"(100A)	2500			93	-	3		500
6"(150A)	2500			143	-	3.5		800

Materials * PFA STANDARD CODE : ASTM D3307 / * PTFE STANDARD CODE : ASTM D4894

GASKET



PTFE GASKET & NEW PTFE GASKET

These Gaskets are used in all sorts of chemical lines, for its superior quality of thermal resistance and chemical resistance. And these are manufactured by processing pure PTFE.

• Material : PTFE

우수한 내열성과 내약품성으로 각종 화학 약품을 라인에 사용됨. 순수PTFE를 가공하여 생산하는 제품



NEW PTFE GASKET have thermal and chemical resistance, which can expect long-life than existing PTFE by upgrading its creep(cold flow) resistance.

• Material : New PTFE

PTFE 내열성 및 내약품성등의 특징을 지니면서 내크리프성을 개선한 NEW PTFE GASKET으로 기존의 PTFE보다 긴수명을 기대할수 있음

esp GASKET

It is a gasket applied to high purity that is manufactured using E- PTFE and has excellent cushion performance.

초수순 배관에 적용하는 가스켓으로 E-PTFE를 이용하여 제작되어 매우 우수한 쿠션성능을 가지고 있습니다.

• PRODUCTS SIZE : 15A ~200A



spl GASKET

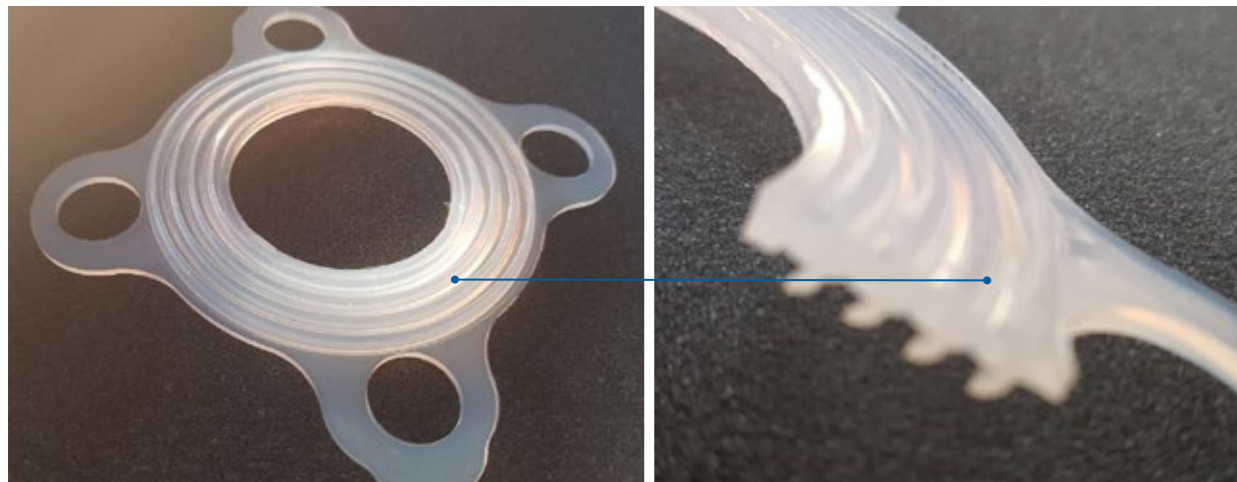
The SPL GASKET produced using the PFA solves the resilience issues that the existing TEFLON GASKET has, so it implements a complete sealing.

SPL GASKET has been granted applications for both domestic and international patents and recognition for its excellence.

PFA를 이용하여 생산되는 SPL GASKET은 기존의 TEFLON GASKET이 가지고 있는 복원력 문제를 해결하여 완벽한 실링을 구현하고 오랜기간 추가 볼트 조임을 하지 않고도 매우 안정적으로 사용이 가능합니다.

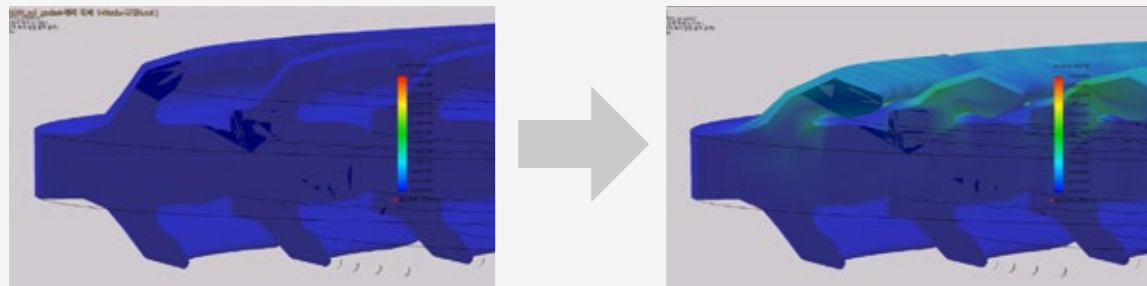
SPL GASKET은 국내 및 해외 특허 출원되어 그 우수성을 인정받았습니다.

• PRODUCTS SIZE : 15A-100A



When assembled, it creates an air cushion and physical resilience.

볼트 조임시 아래와 같이 눌림이 발생하여 반대편으로 삽입되어 AIR 쿠션과 물리적 복원력이 발생함.



LINED VALVE & AUTO CONTROL VALVE

Introduction for PFA Lined Valve
Product Guide / Ball Valve / Ball Check Valve
Wafer Swing Check Valve
Auto(On-Off & Control) Valve
Ordering Information



PFA LINED BALL VALVE

FULL PORT VALVES

Applied standard | 적용 규격

It is satisfactory in the next standard and it executes the prosecuting inspection.

다음의 표준에 만족하는 검사를 수행한다.

- ASME/ ANSI B16.5 Pipe Flanges and Flanged Fittings
- KS B1503 / JIS B2220 Steel Welding Pipe Flanges
- ASME/ ANSI B16.10 Face-to-Face and End-to-End Dimensions of valve
- ASME/ ANSI B16.34 Valves - Flanged, Threaded, and Welding End Addenda A
- API STANDARD 598 Valve Inspection and Testing
- ASTM D3307 Standard Specification for Perfluoroalkoxy (PFA)
- ASTM F1545 Standard Specification for Plastic-Lined Ferrous Metal Pipe, Fittings, and Flanges
- EN 12266 Industrial valves Testing of valves
- ASTM A216/A216M Standard Specification for Steel Castings, Carbon, Suitable for Fusion welding, for High-Temperature Service
- ASTM A351/A351M Standard Specification for Castings, Austenitic, Austenitic-Ferritic(Duplex), for Pressure-Containing Parts



TUV NORD 품질경영 시스템 획득

(주)위온은 독일인증기관인 TUV NORD를 통하여 품질경영 시스템을 획득하였으며, 우수한 품질관리 시스템을 기반으로 원자재에서 완제품 출하까지 철저한 품질관리를 실시하고 있습니다.

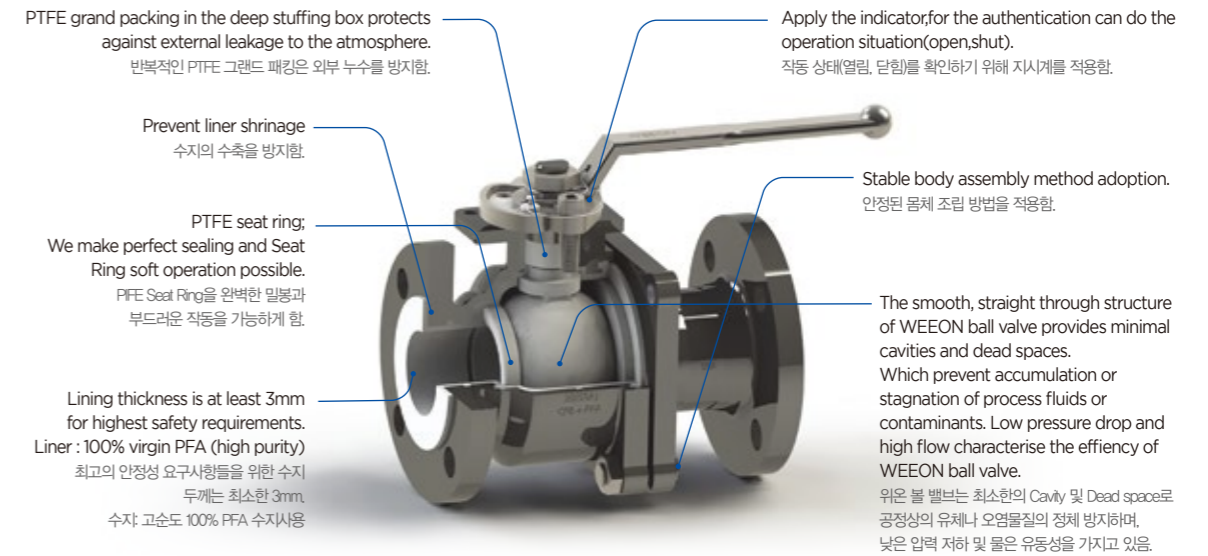
PFA LINED BALL VALVE

Valve features | 밸브 특징

WEEON PFA lined ball valves are more flexible, reliable & easy to operate with less torque value. The lining locked by grooves allow the valves to be used on high vacuum, pressure and temperature Application without lining collapse, shrinkage and blowout. Also, WEEON PFA lined ball valves are virtually unaffected by changes in processing operation or chemical concentration like chloride, sulfuric acid, mixed acid.

위온 볼 밸브는 높은 적응력, 신뢰성이 있으며 적은 torque 값으로 조정이 가능함. liner 수지는 진공, 압력, 온도에 대한 수축 및 변형없이 사용이 가능하도록 고정되어 있으며, 실질적으로 사용조건 변화나 염소, 황산 및 혼산에 대한 chemical 침투에 대한 영향이 적음.

Design features of ball valve | 볼 밸브 디자인 특징



Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건

- TEMPERATURE (온도) : UNDER 150°C (MAX. 200°C)
- PRESSURE (압력) : UNDER 15Kg/cm² (ANSI 150#)
UNDER 30Kg/cm² (ANSI 300#)

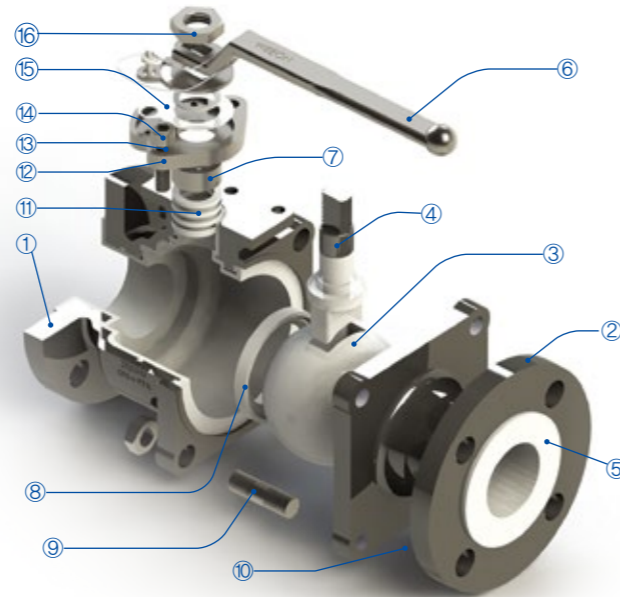
VACUUM SPEC' 진공 조건

- TEMPERATURE (온도) : UNDER 150°C
- VACUUM (압력) : 760mmHg



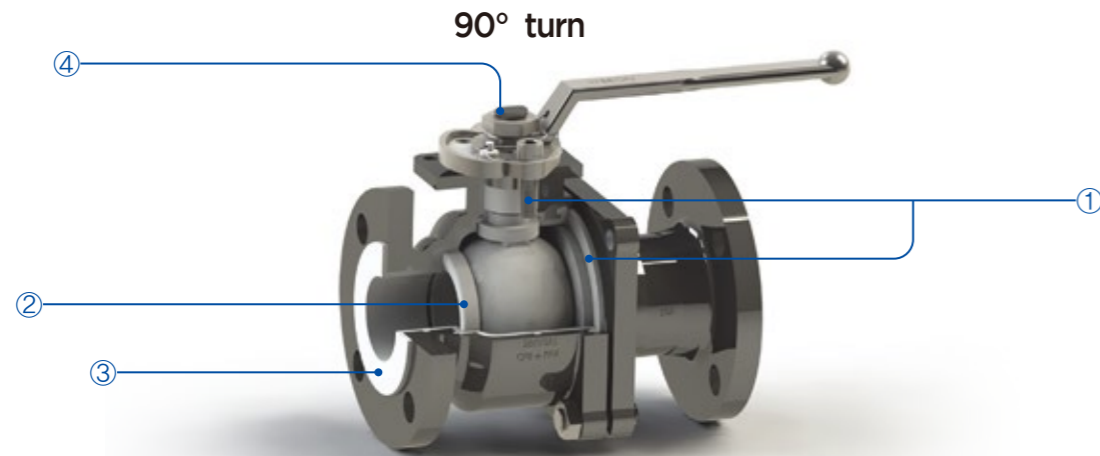
Materials (section view) | 재질 (단면도)

NO	DESCRIPTION	QTY	MATERIAL	
			STAINLESS STEEL (JIS10K)	CARBON STEEL (ANSI 150lbs)
1	Body1	1	ASTM A351 CF8 / PFA lined	ASTM A216 WCB / PFA lined
2	Body2	1	ASTM A351 CF8 / PFA lined	ASTM A216 WCB / PFA lined
3	Ball	1	ASTM A351 CF8 / PFA lined	ASTM A351 CF8 / PFA lined
4	Stem	1	ASTM A351 CF8 / PFA lined	ASTM A351 CF8 / PFA lined
5	Liner	-	PFA(Semiconductor grade)	PFA(Semiconductor grade)
6	Handle	1	ASTM A351 CF8	ASTM A351 CF8
7	Bush	1	SUS 304	SUS 304
8	Seat ring	2	PTFE	PTFE
9	Stud bolt	4	SUS 304	SUS 304
10	Nut	4	SUS 304	SUS 304
11	Grand packing	4	PTFE	PTFE
12	Grand	1	SUS 304	SUS 304
13	Spring washer	2	SUS 304	SUS 304
14	Grand bolt	2	SUS 304	SUS 304
15	Indicator	1	SUS 304	SUS 304
16	Samp ring	2	SUS 304	SUS 304



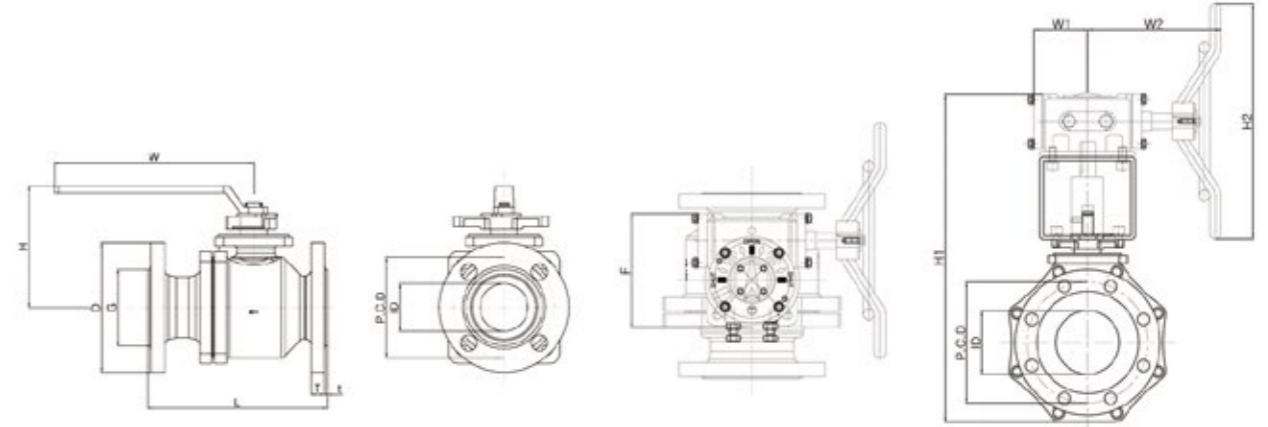
* Body & others : Made by lost wax process, their fore surface was very clean & smooth.
 몸체 및 부속 : 정밀주조로 제작하여, 표면이 매우 깨끗하고 정밀함.

Leak and fault point 누수 및 고장



Leak / Fault (누수/고장)	Possible cause (원인)	Fault clearance (해결방법)
① Valve leaks (밸브 누수) - Grand part (그랜드 부위) - Body part (몸통 부위)	- Grand part faulty : Grand, Packing, Grand bolt, Bush (그랜드 부품 고장) - Body bolting faulty (몸통 볼팅 고장)	- Replace Grand part item or Tigten the grand bolt. (그랜드 부품 교체나 그랜드 부위 재볼팅) - Tighten the body bolt. (몸통 재볼팅)
② Closes valve fluid passing (유체의 누수)	- Ball liner faulty (볼수지 고장) - Seat ring faulty (시트링 고장) - Body liner faulty (몸통 수지 고장)	- Ball liner faulty : replace ball (볼수지 고장 : 불교체) - Seat ring faulty : replace seat ring (시트링 손상 : 시트링 교체) - Body liner faulty : replace valve (몸통 수지 손상 : 밸브 교체)
③ Valve body connection to piping leaks (배관 연결부 누수)	- Valve flare seal face faulty (밸브 플레이션 고장) - Blotting faulty (블로팅 고장)	- Replace valve (밸브 교체) - Re-tighten bolting (재볼팅)
④ Valve doesn't open or doesn't close (Valve 개폐 고장)	- Valve body & ball pollution, corrosion & etc., (밸브 몸통 및 볼 오염, 부식 등)	- Replace valve (밸브 교체) - Disassemble valve : cleaning (해체 후 세정)

Dimensions & specification table



ANSI 150# unit : mm

SIZE	OUT FLANGE						LEVER		GEAR				PFA LINED t	BREAK TORQUE Value(Nm)	Cv value	STANDARD TYPE	
	L	D	P.C.D	G	ID	T	W	H	H1	H2	F	W1					W2
1/2"	117	90	60.3	41	20	12	183	86						3	10	19	LEVER
3/4"	117	100	69.9	50	20	14	183	86						3	10	28	LEVER
1"	127	110	79.4	60	25	14	183	96						3	15	42	LEVER
1-1/2"	165	125	98.4	78	40	16	240	130						3.5	30	141	LEVER
2"	178	150	120.7	96	50	16	240	142						3.5	40	232	LEVER
2-1/2"	203	180	139.7	129	76	18	376	180						4	55	610	LEVER
3"	203	190	152.4	129	76	18	376	180						4	55	610	LEVER
4"	229	230	190.5	161	100	18	376	201	498	350	179.5	86	223	4	90	1050	LEVER
6"	267	280	241.3	210	150	22	675	201	582	450	206	91	292	4.5	130	2400	GEAR

JIS 10K unit : mm

SIZE	OUT FLANGE						LEVER		GEAR				PFA LINED t	BREAK TORQUE Value(Nm)	Cv value	STANDARD TYPE	
	L	D	P.C.D	G	ID	T	W	H	F	W1		W2					
15A	140	95	70	41	20	12	183	80						3	10	19	LEVER
20A	152	100	75	50	20	14	183	78						3	10	28	LEVER
25A	165	125	90	60	25	14	183	98						3	15	42	LEVER
40A	190	140	105	78	40	16	240	130						3.5	30	141	LEVER
50A	216	155	120	96	50	16	240	145						3.5	40	232	LEVER
65A	203	175	140	127	76	18	376	180						4	55	610	LEVER
80A	203	185	150	127	76	18	376	180						4	55	610	LEVER
100A	229	210	175	160	100	18	376	201	498	350	179.5	86	223	4	90	1050	LEVER
150A	267	280	240	210	150	22	675	201	582	450	206	91	292	4.5	130	2400	GEAR

* Cv = Flow in gallon per minute of 60°F water at 1psi pressure drop. 1psi 압력차에서 60°F의 물이 1분동안 흐른 양
 * For other standard such as DIN or larger size than 10", Please contact us separately.
 * DIN 규격 제품 및 10"이상의 제품은 별도 문의 바랍니다.

PFA LINED DIAPHRAGM VALVE & AUTO CONTROL VALVE

Introduction for PFA Lined Valve

Product Guide | PFA LINED DIAPHRAGM VALVE

AUTO CONTROL VALVE

Ordering Information

PFA LINED DIAPHRAGM VALVE & AUTO CONTROL VALVE

Applied standard | 적용 규격

It is satisfactory in the next standard and it executes the prosecuting inspection.

다음의 표준에 만족하는 검사를 수행한다.

- ASME/ ANSI B16.5 Pipe Flanges and Flanged Fittings
- KS B1503 / JIS B2220 Steel Welding Pipe Flanges
- ASME/ ANSI B16.10 Face-to-Face and End-to-End Dimensions of valve
- ASME/ ANSI B16.34 Valves - Flanged, Threaded, and Welding End Addenda A
- API STANDARD 598 Valve Inspection and Testing
- ASTM D3307 Standard Specification for Perfluoroalkoxy (PFA)
- ASTM F1545 Standard Specification for Plastic-Lined Ferrous Metal Pipe, Fittings, and Flanges
- EN 12266 Industrial valves Testing of valves
- ASTM A216/A216M Standard Specification for Steel Castings, Carbon, Suitable for Fusion welding, for High-Temperature Service
- ASTM A351/A351M Standard Specification for Castings, Austenitic, Austenitic-Ferritic(Duplex), for Pressure-Containing Parts

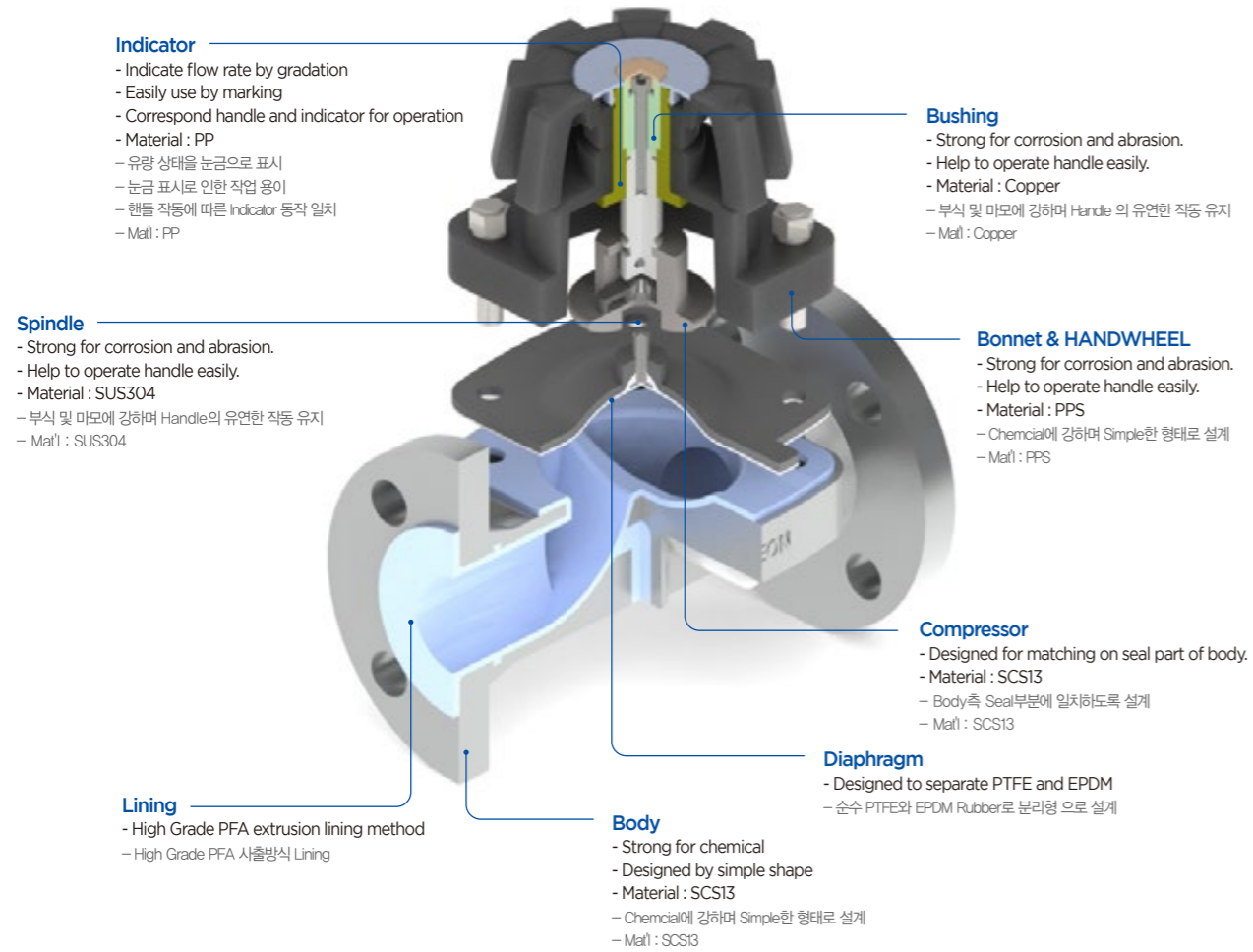


TUV NORD 품질경영 시스템 획득

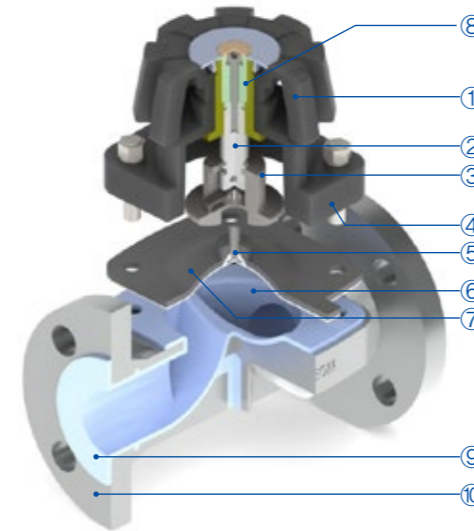
(주)위온은 독일인증기관인 TUV NORD를 통하여 품질경영 시스템을 획득하였으며, 우수한 품질관리 시스템을 기반으로 원자재에서 완제품 출하까지 철저한 품질관리를 실시하고 있습니다.

PFA LINED DIAPHRAGM VALVE

Valve features | 주요부품 구성도



Materials (section view) | 재질 (단면도)

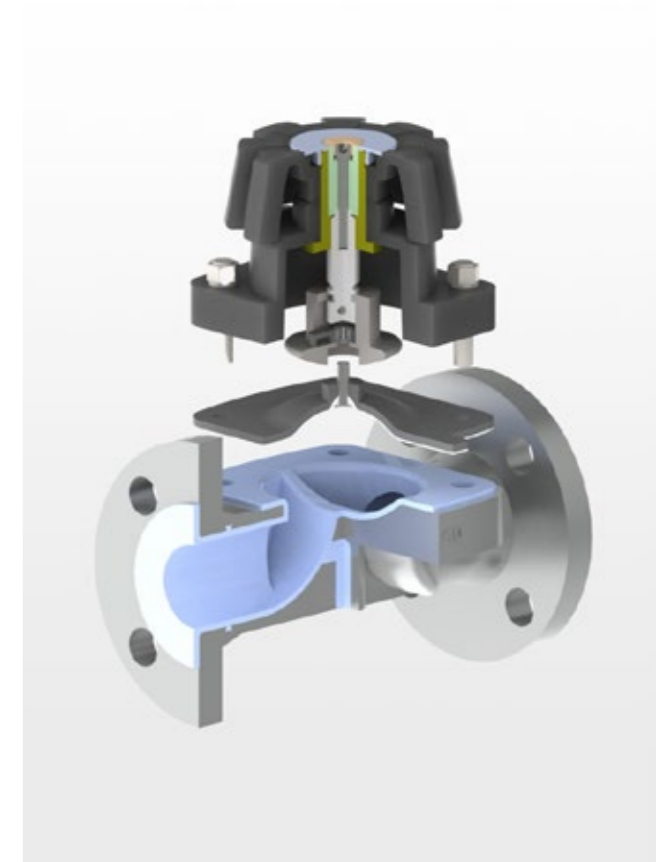
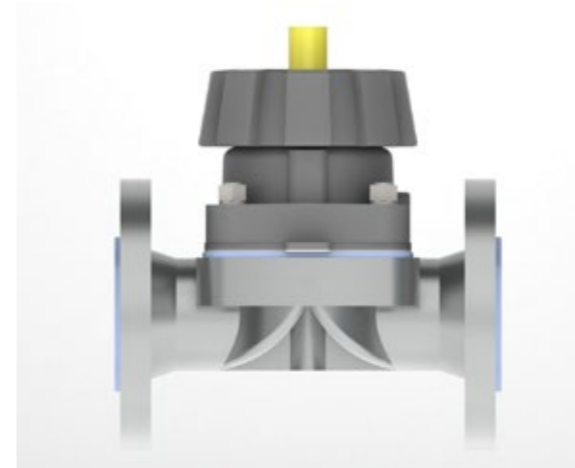


MANUAL TYPE		
No.	DESCRIPTION	MATERIALS
1	Handle	PPS
2	SPINDLE	SUS 304
3	Compressor	SUS 304
4	Bonnet	SUS 304
5	Spindle ring	SUS 304
6	EPDM Diaphragm	EPDM
7	PTFE Diaphragm	M - PTFE
8	Bushing	Copper
9	Lining	High Grade PFA
10	Body	SCS 13
Etc	Bolt & Nut	SUS 304

Bonnet측 Bolt Torque

PRODUCT SIZE	BOLT SIZE	TORQUE - NM
15A JIS10K & 1/2B ANSI150#	M8	20
20A JIS10K & 3/4B ANSI150#	M8	20
25A JIS10K & 1B ANSI150#	M8	24
40A JIS10K & 1 1/2B ANSI150#	M10	35
50A JIS10K & 2B ANSI150#	M12	40
65A JIS10K & 2 1/2B ANSI150#	M12	45
80A JIS10K & 3B ANSI150#	M12	45
100A JIS10K & 4B ANSI150#	M12	45

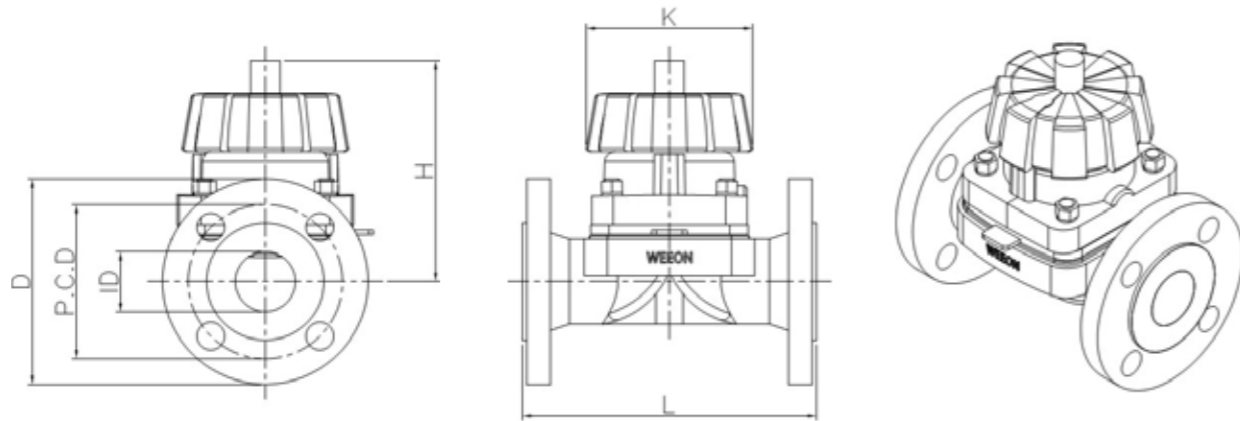
* 상기 값은 참조 Data입니다.



Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건	CONNECTING	
	STANDARD	CV - MAX
- MAXIMUM OPERATING PRESSURE (최고 사용압력) : 8kg/cm2 at r.t	15A	15
- MAXIMUM OPERATING TEMPERATURE (최고 사용온도) : 120deg c	20A	15
- LEAK TEST PRESSURE (기밀 시험압력) : 10kg/cm2	25A	21
- SPARK TEST VOLTAGE (라이닝 전압시험) : 20,000 volt	40A	44
- SPECIFICATION 적용규격 별 DATA	50A	87
	40A	163
	100A	248

Dimensions & specification table



ANSI 150# unit : mm

SIZE	L	D	P.C.D	t	T	H	W
1/2"	150	88.9	60.4	3.5	13	115	80
3/4"	150	98.6	69.9	3.5	13	115	80
1"	160	108	79.2	3.5	14.5	121	80
1 1/2"	200	127	98.5	3.5	17.5	150	100
2"	230	155	120	3.5	18	166	100
2 1/2"	300	190.5	139.7	4	22	235	200
3"	300	190.5	152.4	4	22	235	200
4"	350	228.6	190.5	4	22	264	200

JIS 10K unit : mm

SIZE	L	D	P.C.D	t	T	H	W
15A	150	95	70	3.5	14	115	80
20A	150	100	75	3.5	14	115	80
25A	160	125	90	3.5	14	121	80
40A	200	140	105	3.5	16	150	100
50A	230	155	120	3.5	16	166	100
65A	300	185	140	4	18	235	200
80A	300	185	150	4	18	235	200
100A	350	210	175	4	18	264	200

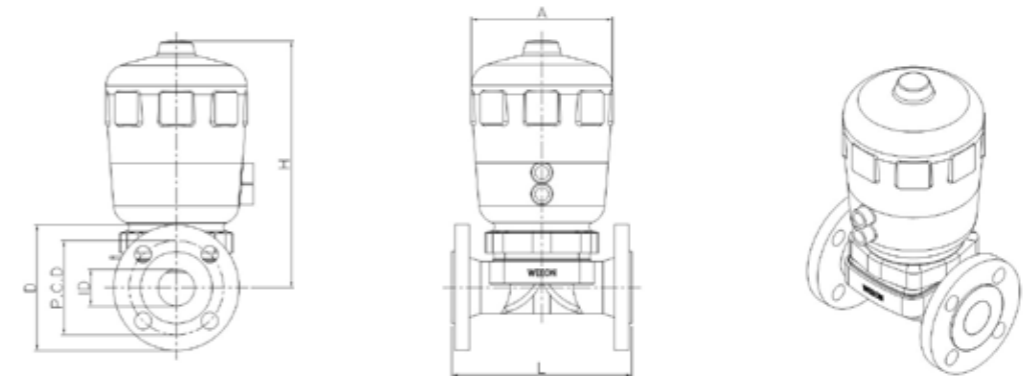
* Cv = Flow in gallon per minute of 60°F water at 1psi pressure drop.
1psi 압력차에서 60°F의 물이 1분동안 흐른 양
* For other standard such as DIN or larger size than 3", Please contact us separately.
* DIN 규격 제품 및 3"이상의 제품은 별도 문의 바랍니다.

AUTO (ON-OFF & CONTROL) VALVE

DIAPHRAGM VALVE



Dimensions & specification table



JIS 10K unit : mm

SIZE	L	D	P.C.D	A	H	PFA LIN-ING THK
15A	150	95	70	101	174	3.5
20A	150	100	75	101	174	3.5
25A	160	125	90	101	177	3.5
40A	200	140	105	153	274	3.5
50A	230	155	120	153	278	3.5
65A	310	185	140	200	398	4
80A	310	185	150	200	398	4
100A	350	210	175	220	410	4

ANSI 150# unit : mm

SIZE	L	D	P.C.D	A	H	PFA LIN-ING THK
1/2"	150	88.9	60.4	101	174	3.5
3/4"	150	98.6	69.9	101	174	3.5
1"	160	108	79.2	101	177	3.5
1 1/2"	200	127	98.5	153	274	3.5
2"	230	155	120	153	278	3.5
2 1/2"	310	190.5	139.7	200	398	4
3"	310	190.5	152.4	200	398	4
4"	350	228.6	190.5	220	410	4

* Actuator operate pressure : 5~6kg/cm2.G
* Pilot Port
* 자세한 사항은 본사 문의 바랍니다.

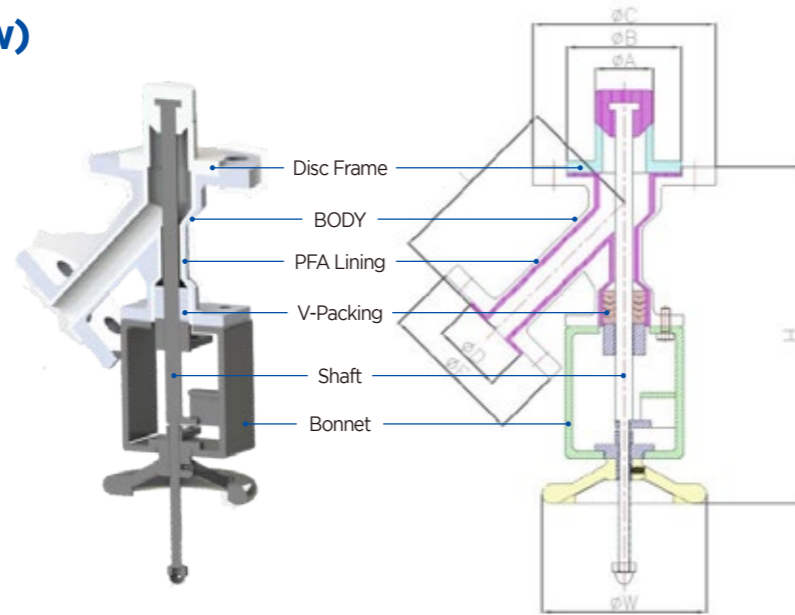
PFA LINED BOTTOM FLUSH VALVE

PFA LINED BOTTOM BALL VALVE

Materials (section view)

재질 (단면도)

NO	DESCRIPTION	QTY	MATERIAL
1	Body	1	SCS13 + PFA LINED
2	Bonnet	1	SUS304
3	Shaft	1	SUS304 + PFA LINED
4	V-Packing	4S	PTFE
5	Disc frame	1	PTFE
6	Bush	1	SUS304
7	Hand wheel	1	Aluminum



Dimensions & specification table

unit : mm

CLASS	SIZE	ØA	ØB	ØC	ØD	ØE	L	ØW	H
JIS 10K (ANSI 150#)	50A X 25A	49	97	155	60	125	155	140	289.5
	80A X 50A	75	124	185	94	155	215.5	160	370

Recommend using condition

사용 조건

STANDARD DUTY SPEC' 일반 조건

- TEMPERATURE (온도) : MAX 150°C
- PRESSURE (압력) : MAX 10 bar
- Flanges : JIS 10K, ANSI 150
- SPARK TEST : PFA LINING AT 20KV (ASTM F 1545)
- LEAK TEST : N2 Pneumatic (API 598)

Valve features

밸브 특징

PFA's thermal stability is so reliable that prolonged exposure event to 260°C would never affect mechanical properties of linings and valves.

PFA의 열 안정성은 매우 안정적이어서 260°C의 장기간 노출은 라이닝과 밸브의 기계적 특성에 영향을 미치지 않는다.

WEEON PFA lined Bottom flush valves are virtually unaffected by changes in processing operation or chemical concentration like chloride, sulfuric acid, mixed acid.

WEEON PFA lined bottom flush valve는 실질적으로 사용조건 변화나 염소, 황산 및 혼산에 대한 Chemical 침투에 대한 영향이 적음.

Materials | 재질

NO	DESCRIPTION	QTY	MATERIAL
1	Body	1	ASTM A351 CF8 / SCS13 + PFA Lined
2	Cover	1	ASTM A351 CF8 / SCS13 + PFA Lined
3	Ball	1	ASTM A351 CF8 / SCS13 + PFA Lined
4	Stem	1	ASTM A351 CF8 / SCS13 + PFA Lined
5	Liner	1	PFA(Semiconductor grade)
6	V-Packing	4	PTFE
7	Indigalor	1	SCS13
8	Grand	1	SCS13
9	Handle	1	SCS13
10	Backing ring	1	PTFE



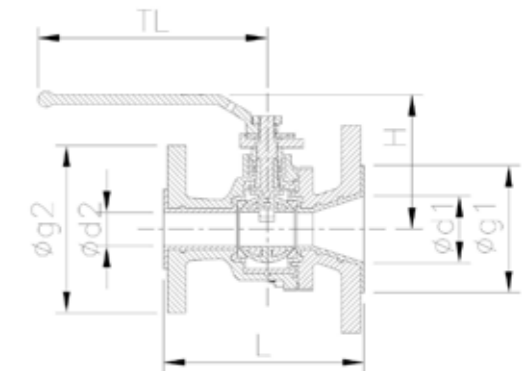
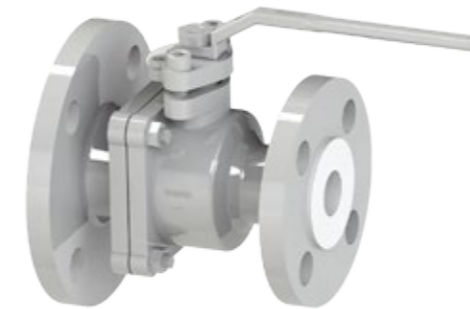
Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건

- TEMPERATURE (온도) : UNDER 150°C (MAX 200°C)
- PRESSURE (압력) : UNDER 15Kg/cm² (ANSI 150#)
UNDER 30Kg/cm² (ANSI 300#)

VACUUM SPEC' 진공 조건

- TEMPERATURE (온도) : UNDER 150°C
- VACCUM (압력) : 760mmHg



Dimensions & specification table

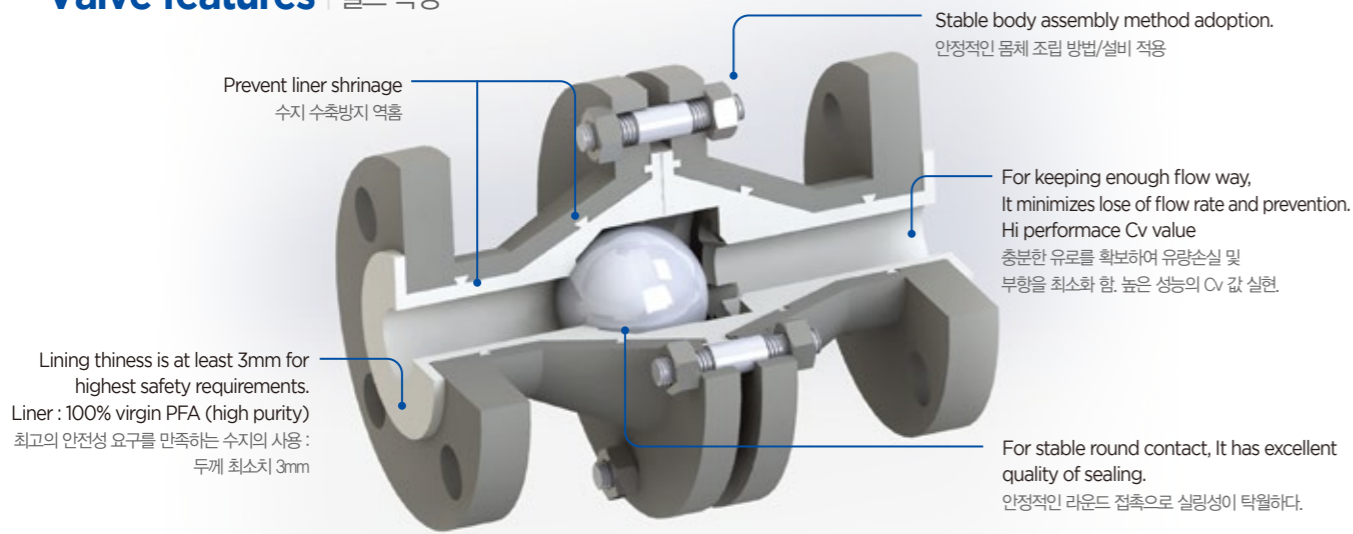
unit : mm

SIZE		L(mm)		H (mm)	TL (mm)	Ød(mm)		Øg(mm)		Weight (kg)
JIS 10K	ANSI 150#	JIS 10K	ANSI 150#			Ød1	Ød2	Øg1	Øg2	
50A X 25A	2"X1"	150	127	110	170	50	25	95	60	5.5
50A X 40A	2"X1 1/2"	168	157	124	200	50	36	95	73	8
80A X 50A	3"X2"	203	178	142	250	75	50	123	95	13
100A X 80A	4"X3"	225	203	170	280	100	75	147	123	20
150A X 100A	6"X4"	245	220	200	280	141	94	210	147	32

PFA LINED BALL CHECK VALVE

PFA LINED BALL CHECK VALVE

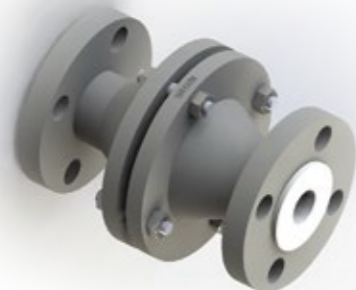
Valve features | 밸브 특징



Recommend using condition | 사용 조건

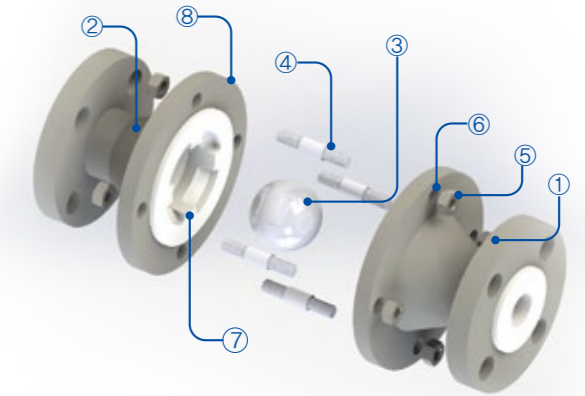
STANDARD DUTY SPEC' 일반 조건

- TEMPERATURE (온도) : UNDER 150°C (MAX 200°C)
- PRESSURE (압력) : UNDER 15Kg/cm² (ANSI 150#)
UNDER 30Kg/cm² (ANSI 300#)

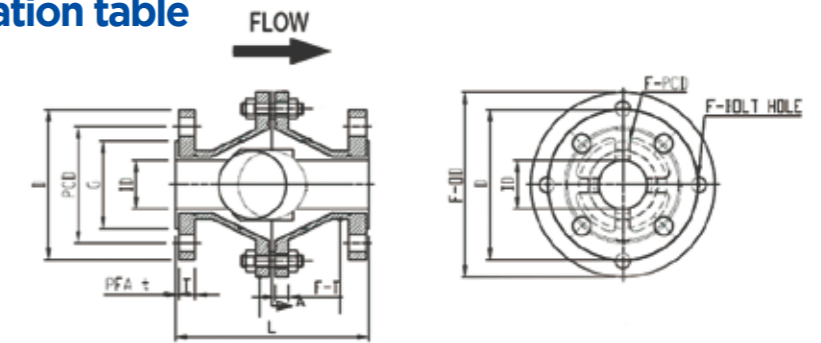


Materials (section view) | 재질 (단면도)

NO	DESCRIPTION	QTY	MATERIAL	
			STAINLESS STEEL(JIS10K)	CARBON STEEL (ANSI 150lbs)
1	Body	1	ASTM A351 CF8 / PFA lined	ASTM A216 WCB / PFA lined
2	Cover	1	ASTM A351 CF8 / PFA lined	ASTM A216 WCB / PFA lined
3	Ball	1	PTFE or RTFE	PTFE or RTFE
4	Stud-Bolt	1set	SUS304	SUS304
5	Hex-Nut	1set	SUS304	SUS304
6	S/Washer	1	SUS304	SUS304
7	Liner	1	PFA	PFA
8	Name plate	1	SUS304	SUS304



Dimensions & specification table



ANSI 150#

SIZE	END FLANGE							CENTER FLANGE GEAR					PFA LINED t	Cv
	L	D	P.C.D	G	ID	F-BOLTHOLE	T	F-OD	F-D	F-PCD	F-BOLTHOLE	F-T		
3/4"	152	98	69.9	43	20	4-Ø16	14	116		96.2	6-Ø10	10	3	12
1"	152	108	79.4	51	25	4-Ø16	14	130		110.2	6-Ø10	10	3	18
1-1/2"	178	125	98.4	73	40	4-Ø16	16	170		145	6-Ø14	12	3	44
2"	203	150	120.7	95	50	4-Ø19	18	190		157	6-Ø14	14	3	115
3"	241	190	152.4	127	80	4-Ø19	22.5	229	206.5	192.9	6-Ø16	19	3.5	265
4"	292	230	190.5	157	100	8-Ø19	22.5	308	294	270	8-Ø16	20	3.5	530

ANSI 300#

SIZE	END FLANGE							CENTER FLANGE GEAR					PFA LINED t	Cv
	L	D	P.C.D	G	ID	F-BOLTHOLE	T	F-OD	F-D	F-PCD	F-BOLTHOLE	F-T		
3/4"	152	115	82.6	43	20	4-Ø19	14.5	116		96.2	6-Ø10	10	3	12
1"	152	125	88.9	51	25	4-Ø19	16	130		110.2	6-Ø10	10	3	18
1-1/2"	178	155	114.3	73	40	4-Ø22	19.5	170		145	6-Ø14	12	3	44
2"	203	165	127	92	50	8-Ø19	21	190		157	6-Ø14	14	3	115
3"	241	210	168.3	127	80	8-Ø22	27.5	229	206.5	192.9	6-Ø16	19	3.5	265
4"	292	255	200	157	100	8-Ø22	30.5	308	294	270	8-Ø16	20	3.5	530

JIS 10K

SIZE	END FLANGE							CENTER FLANGE GEAR					PFA LINED t	Cv
	L	D	P.C.D	G	ID	F-BOLTHOLE	T	F-OD	F-D	F-PCD	F-BOLTHOLE	F-T		
20A	152	100	75	56	20	4-Ø16	14	116		96.2	6-Ø10	10	3	12
25A	152	125	90	67	25	4-Ø16	14	130		110.2	6-Ø10	10	3	18
40A	178	140	105	81	40	4-Ø16	16	170		145	6-Ø14	12	3	44
50A	203	152.4	120	95	50	4-Ø16	18	190		157	6-Ø14	14	3	115
80A	241	185	150	126	80	4-Ø19	25.5	229	206.5	192.9	6-Ø16	19	3.5	265
100A	292	210	175	151	100	8-Ø19	25.5	308	294	270	8-Ø16	20	3.5	530

* Cv = Flow in gallon per minute of 60°F water at 1psi pressure drop, 1psi 압력차에서 60°F의 물이 1분동안 흐른 양

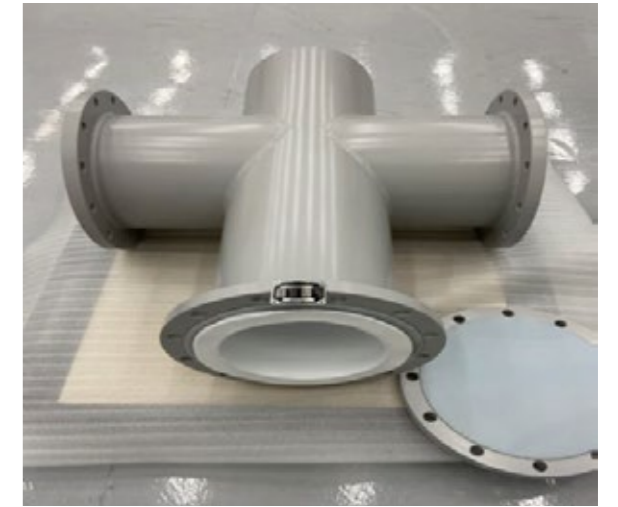
* For other standard such as DIN or larger size than 8", Please contact us separately.

* DIN 규격 제품 및 8"이상의 제품은 별도 문의 바랍니다.

TEFLON LINED BUCKET TYPE STRAINER

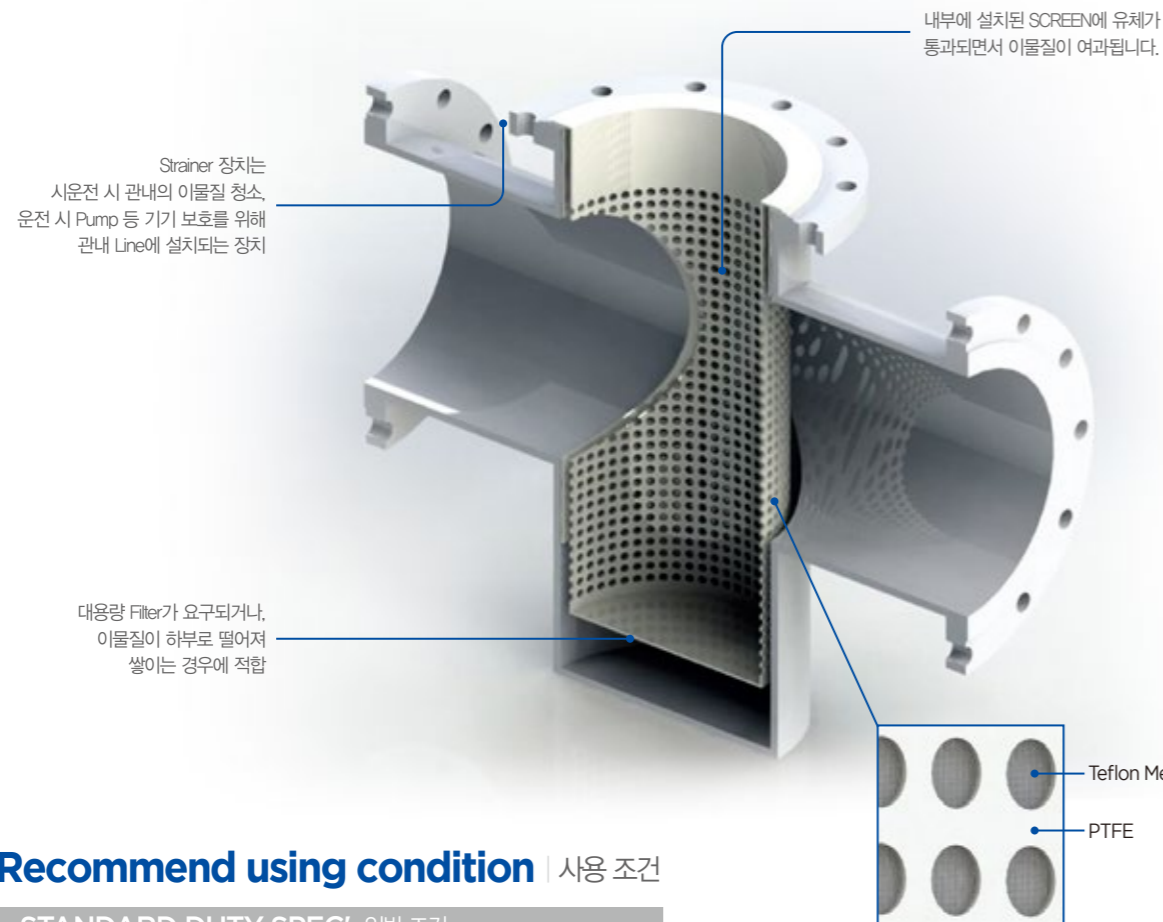
Materials | 재질

NO	DESCRIPTION	QTY	MATERIAL / CARBON STEEL
1	Flange	3	ASTM A105
2	Blind flange	1	ASTM A105
3	Body	1	ASTM A106-B / TEFLON LINED
4	Gasket	1	PTFE
5	Bucket	1	PTFE
6	Mesh	1	PFA
7	Cover	1	PFA



TEFLON LINED BUCKET TYPE STRAINER

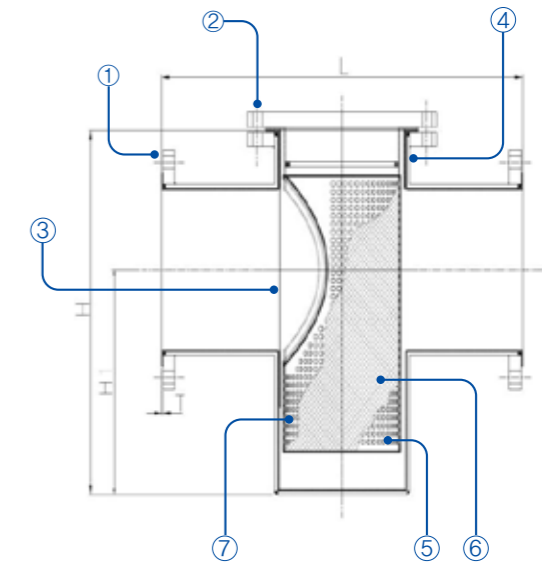
Strainer features | 스트레이너 특징



Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건

- TEMPERATURE (온도) : UNDER 100°C
- PRESSURE (압력) : UNDER 10Kg/cm²



Dimensions & specification table

unit : mm

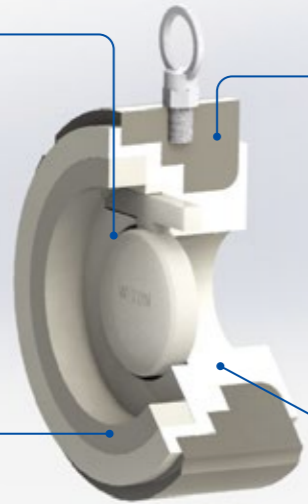
SIZE	LENGTH(L)		H1	H		T	NET Weight(kg)	
	150LB	300LB		150LB	300LB		150LB	300LB
50A	350	360	100	180	190	3	65	115
80A	400	410	120	220	230	3	89	190
100A	500	520	150	280	290	3	110	250
150A	580	610	200	350	370	3	126	279
200A	650	700	280	480	500	3	190	323
250A	800	880	350	580	600	3	253	406
300A	850	930	417.7	676.7	720	3	351	562
350A	950	1030	520	770	800	3	431	706
400A	1000	1100	650	930	980	3	560	909
450A	1100	1200	750	1050	1150	3	684	1099
500A	1100	1200	850	1200	1300	3	848	1629
600A	1400	1530	950	1400	1500	3	1359	2095

PFA LINED WAFER SWING CHECK VALVE

PFA LINED WAFER SWING CHECK VALVE

Valve features | 밸브 특징

We designed wafer not to have any interaction in piping line. When it assembles with piping or other equipments, It's usefulness is increased.
PIPE 라인에 간섭을 받지 않고 사용상 편리성을 고려하여 설계되었다.



Prevent liner shrinkage
수지 수축 방지 역할 적용

Wafer on valve body is prevented from breaking away and increased quality of sealing.: virgin PTFE
WAFER의 이탈을 방지하고 조립시 우수한 SEALING 성능을 실현하기 위한 PTFE SEAL사용

Lining thickness is at least 3mm for highest safety requirements.
Liner : 100% virgin PFA (high purity)
최고의 안전성 요구를 만족하는 수지의 사용 : 두께 최소치 3mm
고순도 100% PFA 수지를 사용

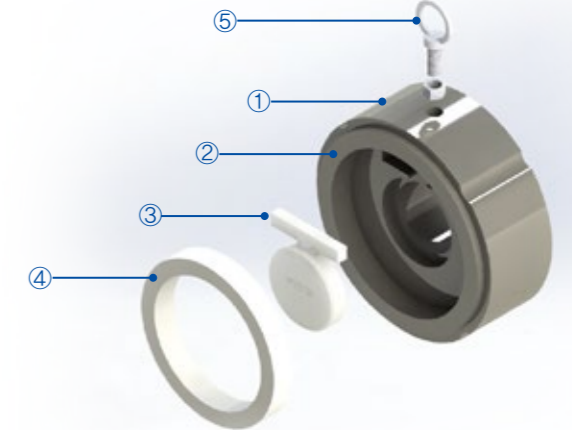
Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건

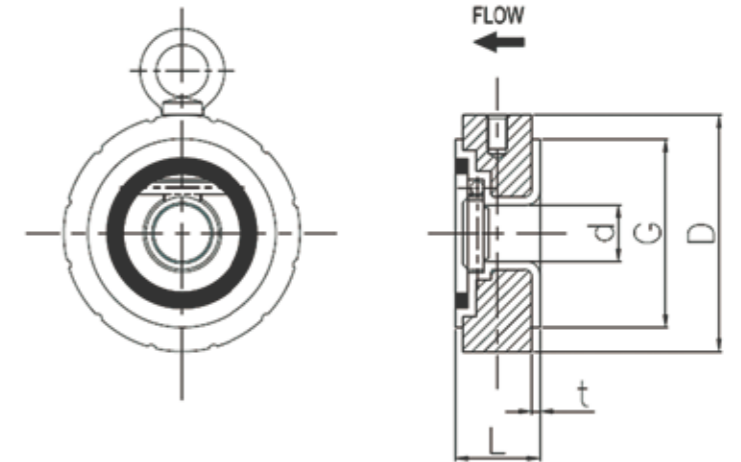
- TEMPERATURE (온도) : UNDER 150°C (MAX 200°C)
- PRESSURE (압력) : UNDER 10Kg/cm²

Materials (section view) | 재질 (단면도)

NO	DESCRIPTION	Q'TY	MATERIAL
			CARBON STEEL (ANSI 150lbs)
1	Body	1	ASTM A216 WCB
2	PFA line	1	PFA lined
3	Disc	1	ASTM A331 CF8 / PFA lined
4	Disc-ring(Key Pod)	1set	PTFE
5	I-Bolt/Nut	1set	SUS304



Dimensions & specification table



unit : mm

SIZE	WAFER SWING				PFA LINED
	L	d	G	D	t
1-1/2"(40A)	33	22	73	91,5	3,5
2" (50A)	43	30	92,1	112,4	3,5
2-1/2"(65A)	46	55	104,8	131,2	3,5
3"(80A)	46	55	127	143,8	3,5
4"(100A)	52	72	157,2	181,7	3,5
6"(150A)	56	115	215,9	231,1	3,5
8"(200A)	60	155	269,9	288,1	3,5
10"(250A)	68	190	323,8	350,2	4
12"(300A)	78	240	381	419,9	4
14"(350A)	78	275	412,8	462,9	4
16"(400A)	102	305	469,9	526,4	4,5
18"(450A)	114	355	533,4	562,5	4,5
20"(500A)	127	405	584,2	619,6	4,5
24"(600A)	154	450	692,2	732,4	4,5

* Cv = Flow in gallon per minute of 60°F water at 1psi pressure drop, 1psi 압력차에서 60°F의 물이 1분동안 흐른 양

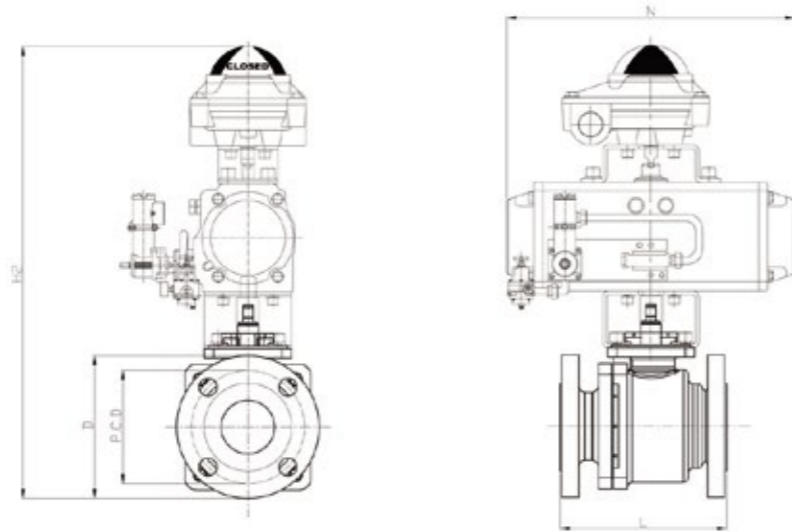
* It can be used by ANSI 150#, JS 10K, PN10.

* ANSI 150#, JS 10K 규격 공용사용가능.

AUTO(ON-OFF&CONTROL) VALVE

BALL VALVE

Dimensions & Specification table



JIS 10K unit : mm

NOMINAL SIZE	L	D	P.C.D	H	N	PFA LINED t (Min)
15A	140	95	70	464	210	3
20A	152	100	75	464	210	3
25A	165	125	90	502	247	3
40A	190	140	105	557	316	3.5
50A	216	155	120	582	347	3.5
65A	282	185	140	617	347	4
80A	282	185	150	627	347	4
100A	305	210	175	689	467	4
150A	267	280	240	779	467	4.5

ANSI 150# unit : mm

NOMINAL SIZE	L	D	P.C.D	H	N	PFA LINED t (Min)
1/2"	108	90	60.3	462	210	3
3/4"	117	100	69.9	462	210	3
1"	127	110	79.4	485	247	3
1-1/2"	165	125	98.4	544	316	3.5
2"	178	150	120.7	579	347	3.5
2-1/2"	203	190	139.7	663	347	4
3"	203	190	152.4	663	347	4
4"	229	230	190.5	708	467	4
6"	267	280	241.3	778	467	4.5
8"	292	345	298.5	869	497	4.5

ANSI 300# unit : mm

NOMINAL SIZE	L	D	P.C.D	H	N	PFA LINED t (Min)
1/2"	140	95	66.7	462	210	3
3/4"	152	115	82.5	462	210	3
1"	165	125	88.9	485	247	3
1-1/2"	190	155	114.3	544	316	3.5
2"	216	165	127	579	347	3.5
2-1/2"	282	210	168.3	663	347	4
3"	282	210	168.3	663	347	4
4"	305	255	200	708	467	4

* Actuator operate pressure : 4~6kg/cm2.G

* Actuator TYPE : SPRING RETURN / DOUBLE ACTING

* Standard Spec* : Valve & Actuator torque rate (1:2)

* 표준 사양 : 밸브 & 액츄에이터 토크 비 (1:2)

* 자세한 사항은 본사 문의 바랍니다.

ORDERING INFORMATION

1 Connections	Code	2 Connections	Code
JIS 10k	J10	Ball valve	B
ANSI 150lbs	A15	Diaphragm valve	D
ANSI 300lbs	A30	Ball check valve	BC
		Water check valve	WC

* Please contact us for standard DIN.
* DIN 규격제품은 별도 협의 바랍니다.

3 Materials	Code	4 Norminal size (mm)	5 Operating	Code
PFA lined / WCB housing	W	15A~600A 1/2"~24"	Manual	M
PFA lined / SCS13(CF8) housing	S		Actuator	A

* Please refer to separated data table for Auto (On-off or Control) Valve.
* AUTO(ON-OFF & CONTROL) VALVE는 별도 DATA TABLE 참고 바랍니다.

Order example	1 J10	2 B	3 M	4 S	5 E
Connection	J10				
Valve type	B				
Material	S				
Norminal size (mm)	15A				
Operating	M				



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SCOPE OF BUSINESS

Engineering Service (Chemical Plant)
R & D factory (DESIGN / R&D / Outsourcing)
Chemical facilities Manufacture & sales product
LINED TANK & HEAT EXCHANGER
LINED PIPE & FITTING
LINED VALVE & AUTO CONTROL VALVE
BELLOWS & FLEXIBLE HOSE
GASKET & PACKING
PFA TUBE & FITTING



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ver. 03 / 2023.04.04

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