

LINED PIPE & FITTINGS

Lined Pipe | 90° Elbow

45° Elbow | Equal Tee

Reducer Tee | Cross

Reducer | Instrument Tee

Bellows | Reducing Flange

Sight Glass



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 ANSI 150 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 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 meeting 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) 직경 벤트 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 불뚱이 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 중량과 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 MOLDING 3"

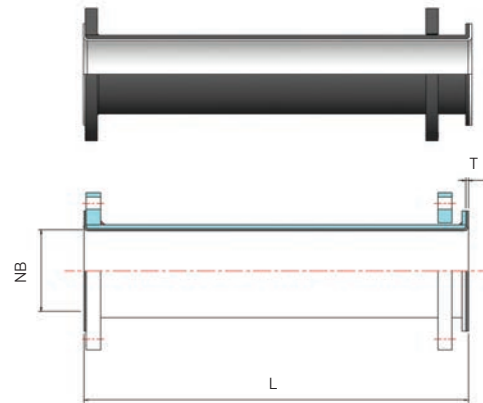
ETFE ROTECTION MOLDING SPECIAL

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



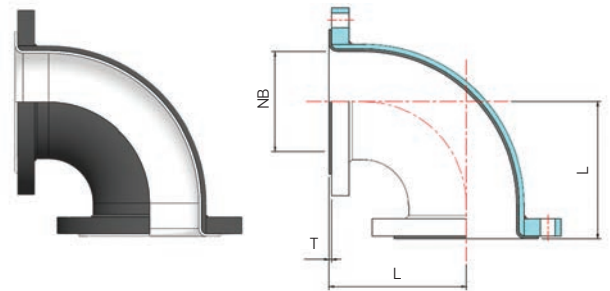
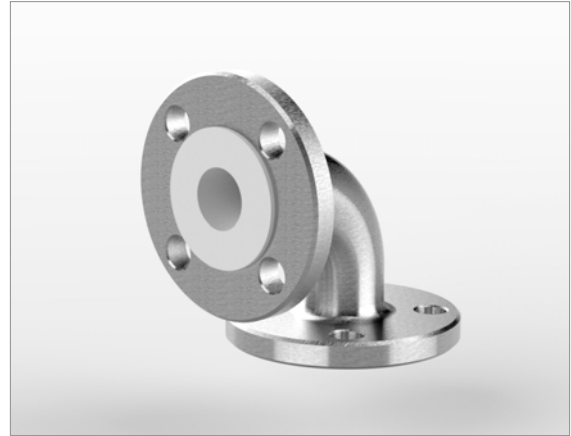
SIZE	LENGTH (L)		NB	THICKNESS (T)			MATERIAL			
	MAXIMUM	TOLERANCE		Φ	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE
1/2	3000		11	3.2	3.2		●	●	●	●
3/4	3000		16	3.2	3.2		●	●	●	●
1	3000		22	3.2	3.2		●	●	●	●
1 1/2	3000	± 3.0	36	3.2	3.2	± 5 %	●	●	●	●
2	3000		47	3.2	3.2		●	●	●	●
2 1/2	3000		60	3.2	3.2		●	●	●	●
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



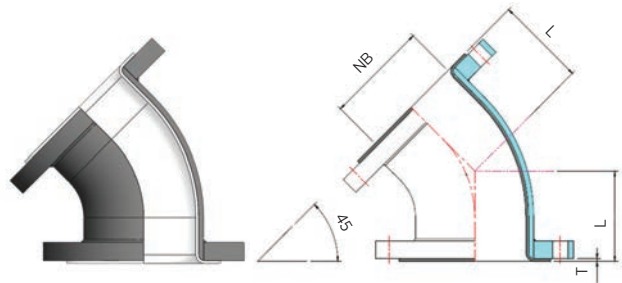
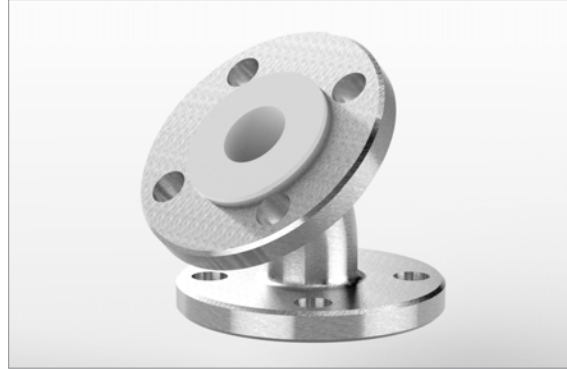
SIZE	FACE TO FACE (L)		NB	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		NB(φ)	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE
1/2	70		11	3.2	3.2		●	●	●	●
3/4	80		16	3.2	3.2		●	●	●	●
1	89		22	3.2	3.2		●	●	●	●
1 1/2	102	± 2.0	36	3.2	3.2	± 5 %	●	●	●	●
2	114		47	3.2	3.2		●	●	●	●
2 1/2	127		60	3.2	4		●	●	●	●
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



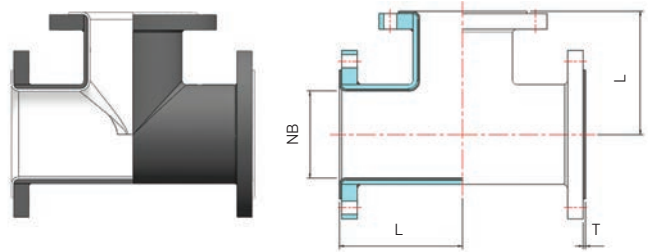
SIZE	FACE TO FACE (L)		NB	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		Φ	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE
1/2	45		11	3.2	3.2		●	●	●	●
3/4	45		16	3.2	3.2		●	●	●	●
1	60		22	3.2	3.2		●	●	●	●
1 1/2	60	± 2.0	36	3.2	3.2	± 5%	●	●	●	●
2	64		47	3.2	3.2		●	●	●	●
2 1/2	76		60	3.2	4		●	●	●	●
3	76		73	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



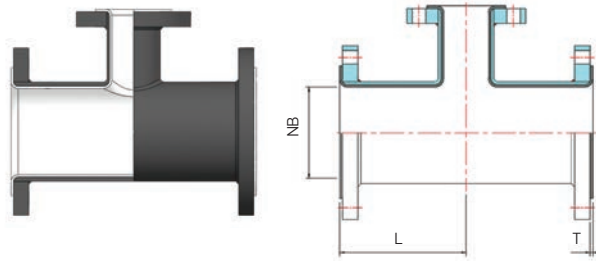
SIZE	FACE TO FACE (L)		NB	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		Φ	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE
1/2	70		11	3.2	3.2		●	●	●	●
3/4	80		16	3.2	3.2		●	●	●	●
1	89		22	3.2	4		●	●	●	●
1 1/2	102	± 2.0	36	3.2	4	± 5%	●	●	●	●
2	114		47	3.2	4		●	●	●	●
2 1/2	127		60	3.2	4		●	●	●	●
3	140		73	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



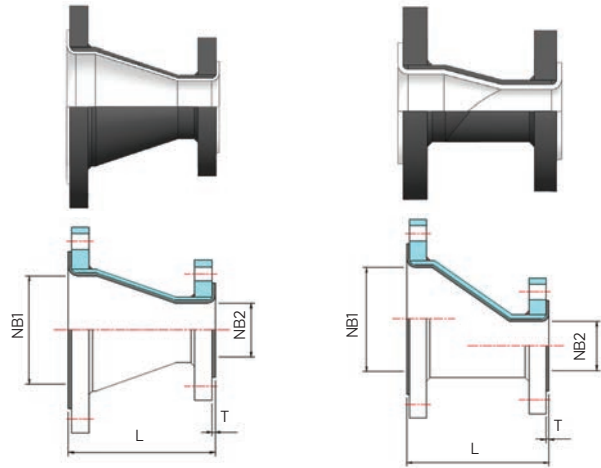
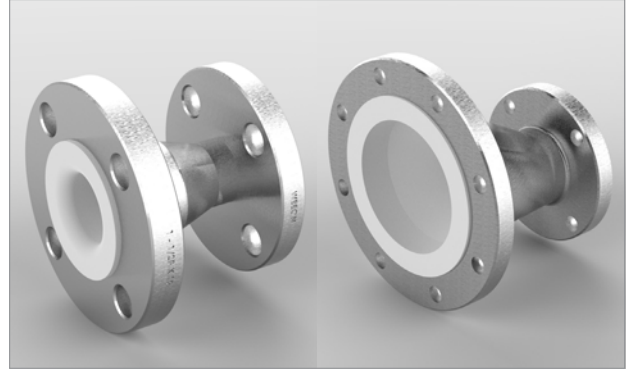
SIZE	FACE TO FACE (L)		NOMINAL BORE NB(φ)	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
3/4 @ 1/2	80		16 @ 11	3.2	3.2		●	●	●	●
1 @ 1/2	89		22 @ 11	3.2	3.2		●	●	●	●
1 @ 3/4	89		22 @ 16	3.2	4		●	●	●	●
1 1/2 @ 3/4	102		36 @ 16	3.2	4		●	●	●	●
1 1/2 @ 1	102		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



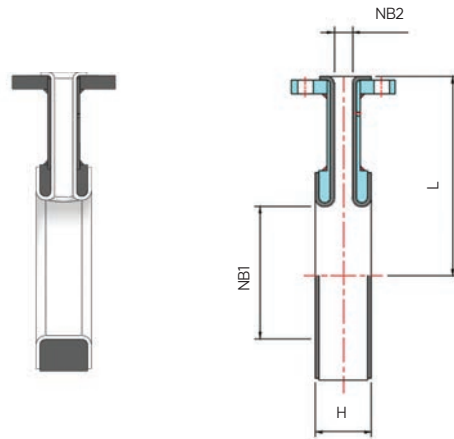
SIZE	FACE TO FACE (L)		NOMINAL BORE Φ	THICKNESS (T)			MATERIAL			
	LENGTH	TOLERANCE		STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
3/4 @ 1/2	100		16 @ 11	3.2	3.2		●	●	●	●
1 @ 1/2	100		22 @ 11	3.2	3.2		●	●	●	●
1 @ 3/4	100		22 @ 16	3.2	4		●	●	●	●
1 1/2 @ 3/4	100		36 @ 16	3.2	4		●	●	●	●
1 1/2 @ 1	100		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



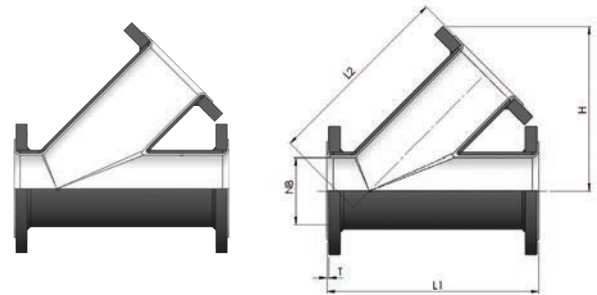
WIDE	SIZE	FACE TO FACE (L)		NOMINAL BORE		THICKNESS (T)			MATERIAL			
		LENGTH	TOLERANCE	NB1 (φ)	NB2 (φ)	STD. DUTY	HEV. DUTY	TOLERANCE	PTFE	PFA	ETFE	PP/PE
50L	1/2	70		11	22	3.2	3.2		•	•	•	•
50L	3/4	80		16	22	3.2	3.2		•	•	•	•
50L	1	80		22	22	3.2	4		•	•	•	•
50L	1 1/2	102	± 2.0	36	22	3.2	4	± 3%	•	•	•	•
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.

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



SIZE	NB(φ)	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.

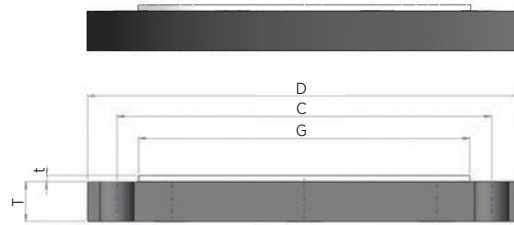
BLIND FLANGE

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

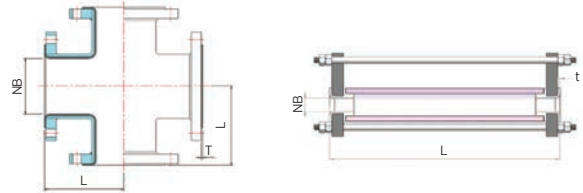
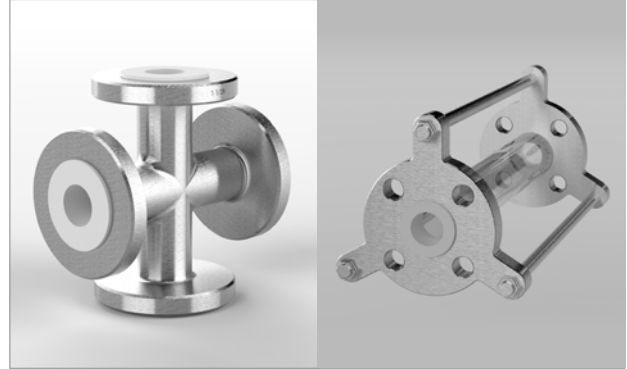


SIZE(INCH)	D	C	G	B2(d)	MATERIAL
					PTFE
1/2	88.9	60.4	35.1	22.4	●
3/4	98.6	69.9	42.9	27.7	●
1	108	79.2	50.8	34.5	●
1 1/4	117.3	88.9	63.5	43.2	●
1 1/2	127	98.5	73.2	49.5	●
2	152.4	120.6	92	62	●
2 1/2	177.8	139.7	104.6	74.7	●
3	190.5	152.4	127	90.7	●
3 1/2	215.9	177.8	139.7	103.4	●
4	228.6	190.5	157.2	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

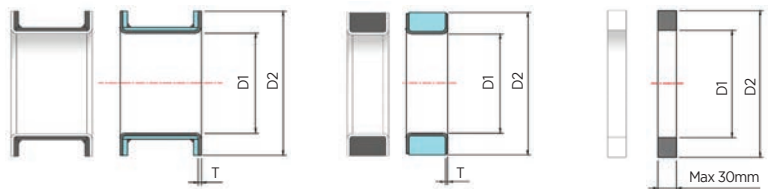
STANDARD VERSION : 4 FIXED FLANGE
 AVAILABLE VERSION : 2 FIXED FLANGE AND 2 LAP JOINT FLANGE
 : 4 FIXED FLANGE

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		Φ	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	●	●



(주)위온은 독일인증기관인 TUV NORD를 통하여 품질경영 시스템을 획득하였습니다.

Challenge to the New Technology!



esp|BASKET

spl|BASKET

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- R & D factory (DESIGN / R&D / Outsourcing)
- Chemical facilities Manufacture & sales product

PRODUCTS

- LINED TANK & HEAT EXCHANGER
- LINED PIPE & FITTING
- LINED VALVE & AUTO CONTROL VALVE
- BELLOWS & FLEXIBLE HOSE
- GASKET & PACKING
- PFA TUBE & FITTING



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