

LINED VALVE & AUTO CONTROL VALVE

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Introduction for PFA Lined Valve

Product Guide | Ball Valve | Ball Check Valve

Waffer 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.

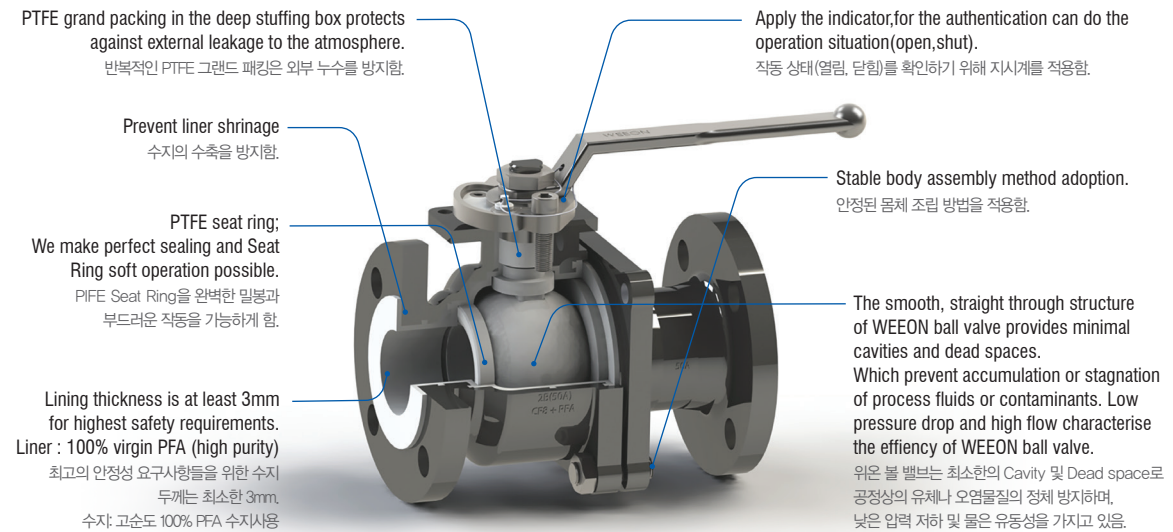
PFA LINED BALL VALVE

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



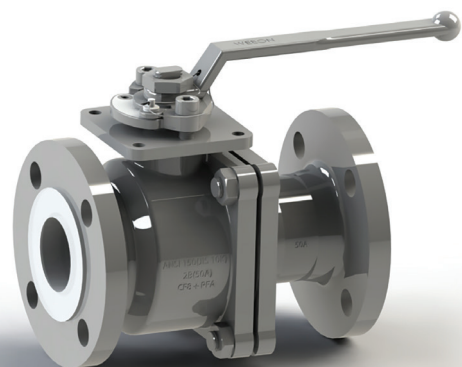
Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건

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

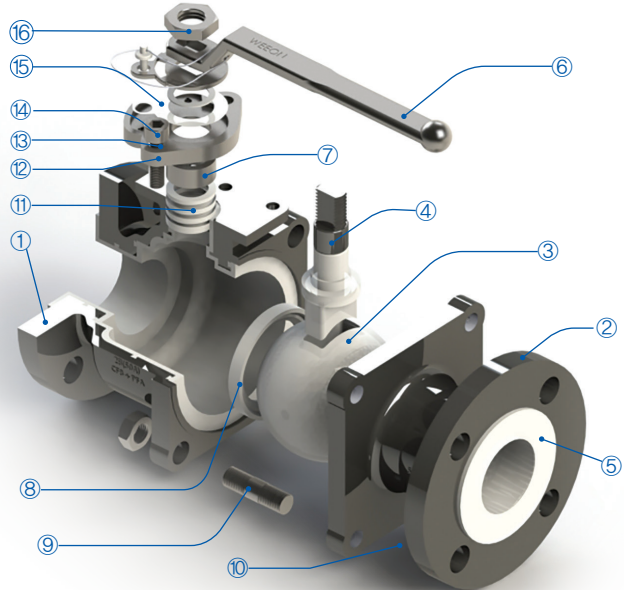
VACUUM SPEC' 진공 조건

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



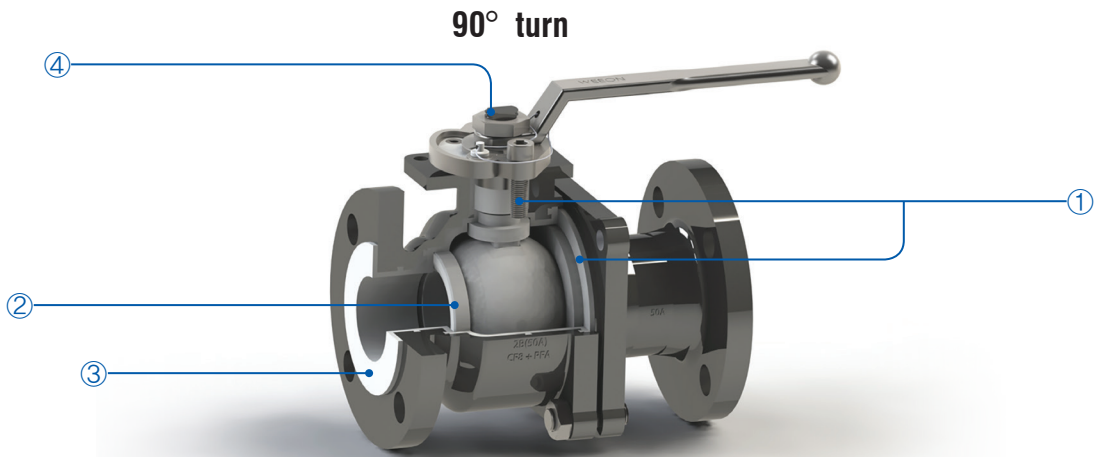
Materials (section view) | 재질 (단면도)

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	Sanp ring	2	SUS 304	SUS 304



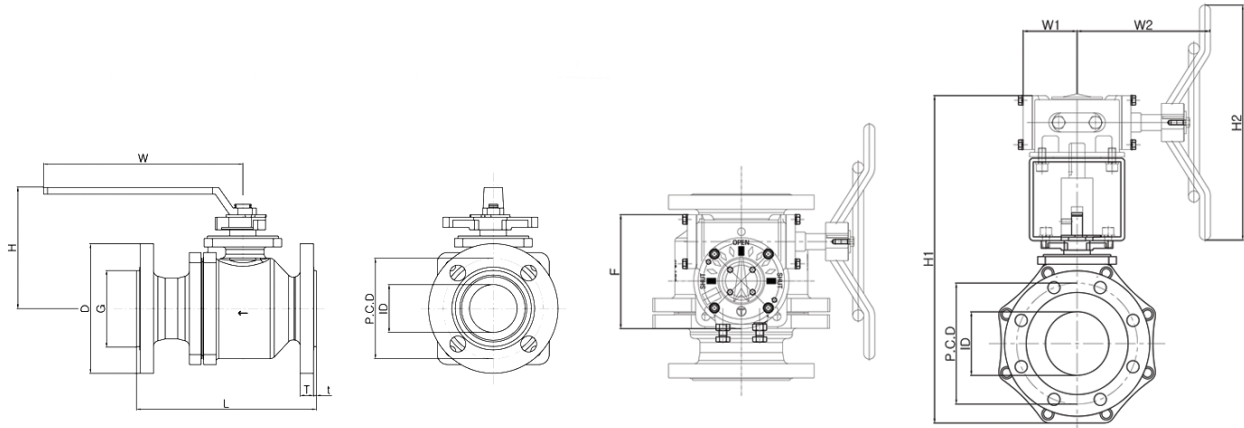
* **Body & others** : Made by lost wax process, ther fore surface was very clean & smooth.
 몸체 및 부속 : 정밀주조로 제작하여, 표면이 매우 깨끗하고 정밀함.

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 부위 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 : 볼교체) - 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) - Bolting faulty (볼팅 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 vlave : 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 분동안 흐른 양

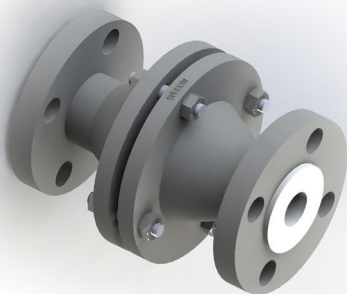
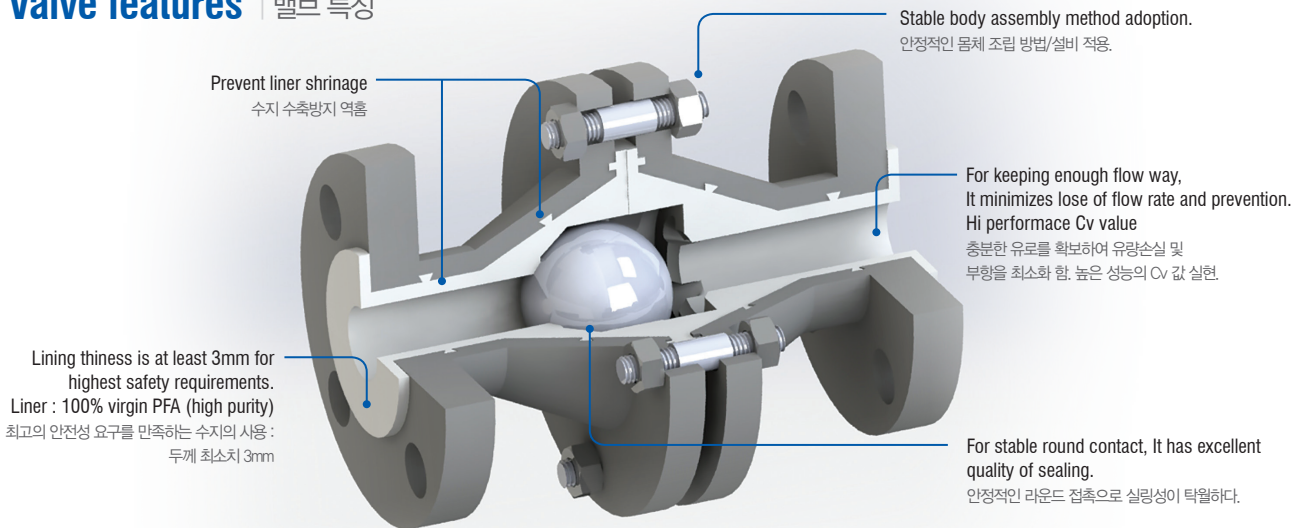
* For other standard such as DIN or larger size than 10", Please contact us separately.

* DIN 규격 제품 및 10"이상의 제품은 별도 문의 바랍니다.

PFA LINED BALL CHECK VALVE

PFA LINED BALL CHECK VALVE

Valve features | 밸브 특징



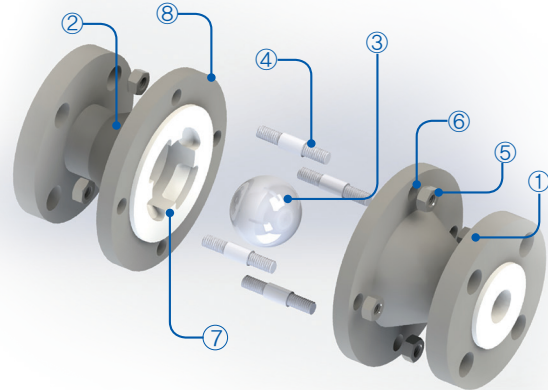
Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건

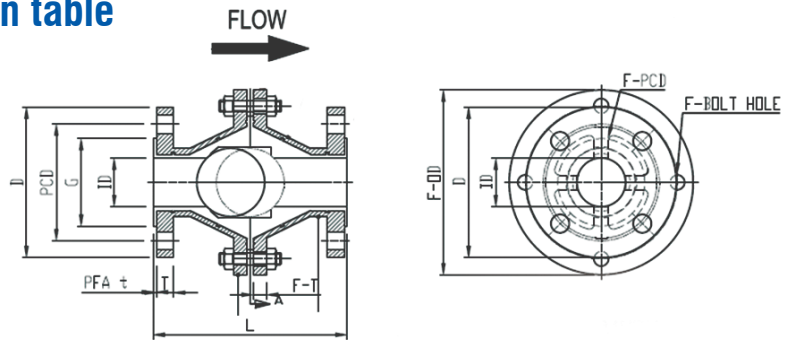
- TEMPERATURE (온도) : UNDER 150° (MAX. 200°C)
- PRESSURE (압력) : UNDER 15Kg/cm²(ANSI 150#)
UNDER 30Kg/cm²(ANSI 300#)

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#

unit : mm

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-Φ16	14	116		96.2	6-Φ10	10	3	12
1"	152	108	79.4	51	25	4-Φ16	14	130		110.2	6-Φ10	10	3	18
1-1/2"	178	125	98.4	73	40	4-Φ16	16	170		145	6-Φ14	12	3	44
2"	203	150	120.7	95	50	4-Φ19	18	190		157	6-Φ14	14	3	115
3"	241	190	152.4	127	80	4-Φ19	22.5	229	206.5	192.9	6-Φ16	19	3.5	265
4"	292	230	190.5	157	100	8-Φ19	22.5	308	294	270	8-Φ16	20	3.5	530

ANSI 300#

unit : mm

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-Φ19	14.5	116		96.2	6-Φ10	10	3	12
1"	152	125	88.9	51	25	4-Φ19	16	130		110.2	6-Φ10	10	3	18
1-1/2"	178	155	114.3	73	40	4-Φ22	19.5	170		145	6-Φ14	12	3	44
2"	203	165	127	92	50	8-Φ19	21	190		157	6-Φ14	14	3	115
3"	241	210	168.3	127	80	8-Φ22	27.5	229	206.5	192.9	6-Φ16	19	3.5	265
4"	292	255	200	157	100	8-Φ22	30.5	308	294	270	8-Φ16	20	3.5	530

JIS 10K

unit : mm

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-Φ16	14	116		96.2	6-Φ10	10	3	12
25A	152	125	90	67	25	4-Φ16	14	130		110.2	6-Φ10	10	3	18
40A	178	140	105	81	40	4-Φ16	16	170		145	6-Φ14	12	3	44
50A	203	152.4	120	95	50	4-Φ16	18	190		157	6-Φ14	14	3	115
80A	241	185	150	126	80	4-Φ19	25.5	229	206.5	192.9	6-Φ16	19	3.5	265
100A	292	210	175	151	100	8-Φ19	25.5	308	294	270	8-Φ16	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.

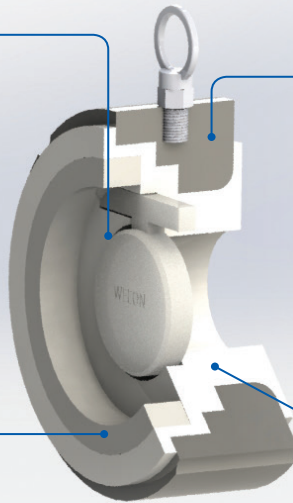
PFA LINED WAFER SWING CHECK VALVE

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.

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 SEAL 사용.



Prevent liner shrinkage
수지 수축 방지 역할 적용

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.

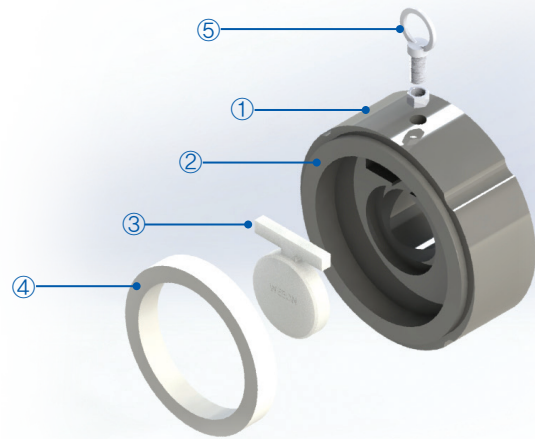
Recommend using condition | 사용 조건

STANDARD DUTY SPEC' 일반 조건

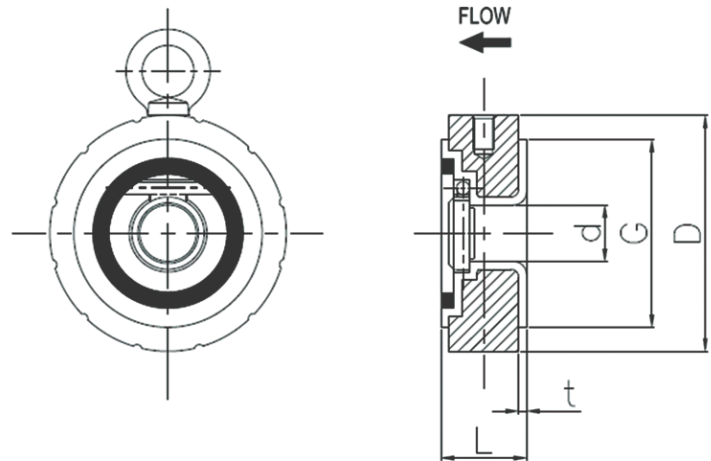
- TEMPERATURE (온도) : UNDER 150° (MAX. 200°C)
- PRESSURE (압력) : UNDER 10Kg/cm²

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 분동안 흐른 양

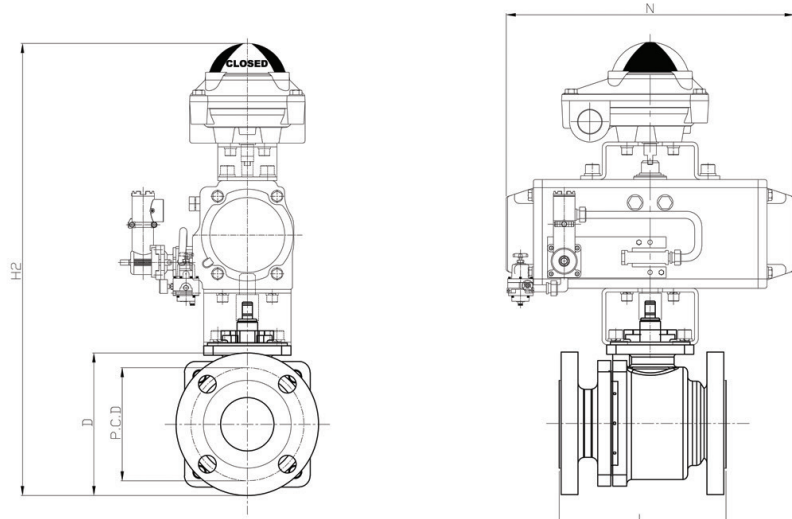
* It can be used by ANSI 150#, JIS 10K, PN10.

* ANSI 150#, JIS 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
	JIS 10k	J10
	ANSI 150lbs	A15
	ANSI 300lbs	A30

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

2	Connections	Code
	Ball valve	B
	Diaphragm valve	D
	Ball check valve	BC
	Wafer check valve	WC

3	Materials	Code
	PFA lined / WCB housing	W
	PFA lined / SCS13(CF8) housing	S

4	Normal size (mm)
	15A~600A 1/2"~24"

5	Operating	Code
	Manual	M
	Actuator	A

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

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



Challenge to the New Technology!



TUV NORD
품질경영
시스템 획득

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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



67, Taejanggongdan-gil, Wonju-si, Gangwon-do, Republic of Korea
강원도 원주시 태장공단길 67
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