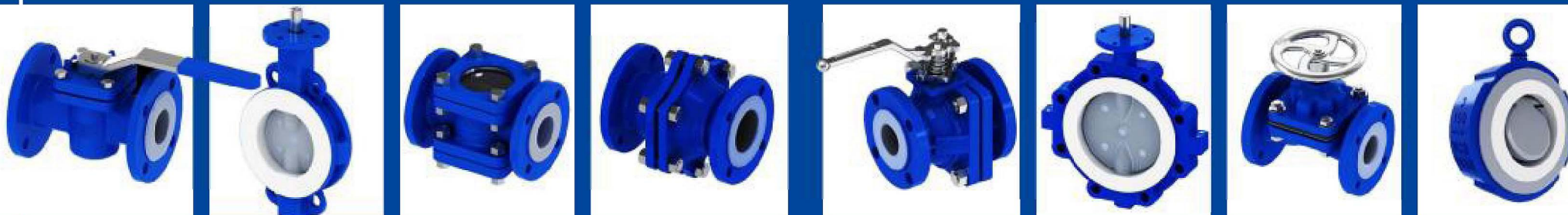


# DOXI VALVES

A MEMBER OF  XUANDA GROUP



## DOXI

**Xuanda Industrial Group Doxi Valve Co., Ltd**  
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## MANAGEMENT ORATION

Lin ZhongHai G.M.

Over 20 years experience in valve marketing & materials sourcing  
Xuanda Industrial Group "DOXI" Brand valve founder

DOXI is an independently owned company which has been supplying lined valves to the chemical, pharmaceutical, petrochemical and associated process industries since 1990. Since the first day of our company we have always set out to supply highest quality products as we know they are used for handling both high value and potentially hazardous fluids.

Developed and perfected by our engineers, proprietary state-of-the-art valve technology is one of the cornerstones of our company.

Our slogan is "professional and dedicated". With incomparable quality, we step into worldwide market.

DOXI would not be who we are today without our clients, engineers, project managers, specialists, sales and administration staff. It is their support, their experience, their skills and their dedication that make all the difference. Thank you.

**DOXI** General Manager:



Lu YongHe Vice G.M.

Over 20 years experience in valves & actuators design and production  
Xuanda Industrial Group "DOXI" Brand valve founder

As lined valve and actuator manufacturers, we DOXI recognize that our quality is directly responsible for your quality.

Our technically competent staff of engineers, designers and technical support personnel utilizes fully equipped modern facilities to test the valves you use with the most precise and exacting standards.

We keep all lining processes completely in house and provide 100% traceability on every component manufactured by us.

Many of our customers have long term supply agreements with us and we provide a wide range of project support services as added value to ensure the most cost effective procurement and materials management is achieved. Keeping in pace with the latest technological trends is always our first goal.

**DOXI** Chief Engineer & Vice Gm:



## DOXI'S MILESTONE

- 1990 Yongjia Xuanda Anticorrosive Equipment Factory formed
- 1997 Zhejiang Xuanda Anticorrosive Equipment Ltd founded
- 1998 Lined low pressure valve won the "Excellent Products of Wenzhou"
- 1999 Lined valve & rubber lined wafer butterfly valve won the "National New Products"
- 2001 Xuanda Industrial Group Co., Ltd established, consists of 8 subsidiaries
- 2002 High and new technology research&development centre established
- 2004 The rubber lined plug valve won the "National Utility Model Patent"
- 2005 Obtained ISO 9001, ISO 14001, ISO 28001
- 2008 D371-10C DN600 fluorine lined butterfly valve won the gold award in the 4th China international fluid machinery exhibition & the 2nd China international valve expo
- 2009 Obtained API and rated as AAA grade credit enterprise
- 2010 Lined valves became the China Petroleum&Chemical Industry fixed point products  
Obtained CE certification
- 2011 "DOXI" brand was created
- 2013 R&D for national nuclear power major project launched

## XUANDA INDUSTRIAL GROUP

Established in 1990, manufacturing and supplying various kinds of industrial valves, pumps, pipes, tanks and fitting for Oil and Gas, Petro-chemical, Chemical, Processing, Metallurgy, Sewage, Construction, Sulfuric acid plant, Power plant, Pharmacy, Semiconductor, Beverage, Water& Waste, Water treatment, Shipbuilding etc.

Xuanda is National Emphasis High-tech Enterprise, 66000m<sup>2</sup>, having over 600 employees. We are also the Executive Member of China Valve Association and China Pump Industry Association. Manufacturing facilities are certificated to ISO9001 quality standards, assuring products quality, precision manufacturing and internal process integrity.

## DOXI VALVE CO.,LTD

DOXI valve as a member of Xuanda group, specializes in lined valve development and manufacturing. Our valves are the best choice for corrosive application and service.

Through years of filed application experience, research and development, DOXI have designed products that meet the stringent requirements of today's fluids control industry. We had earned a good reputation for excellence by creating products of superior value and quantity, providing personalized customer service and on-time deliveries. Our success has always been the direct result of our fully integrated range of valves and control products.

Rugged and reliable, our products are engineered to provide years of trouble free using.

## ABOUT US



## QUALITY ASSURANCE

**DOXI** valves are strictly produced under a company committed, statistical quality assurance process to assure defect-free products that are delivered to our customers on time. All valves are manufactured utilizing the latest computer-aided production methods and molding technology, guaranteeing control of the manufacturing process and reduction of rework. Each valve is individually tested in accordance with the international standard specifications and is spark tested with 14,000 volts to assure lining integrity. Each valve is individually designed and tested using applicable standards as a minimum requirement. Valves are also subject to visual&dimensional examinations as well as functional tests.

### CASTING WAX MOULD

As good as work of ART



### WORKING SITE

WE CARE



### CERTIFICATE

PROMISE



## OUR LINING MATERIALS

PROPERTY	Test Method	PTFE	PFA	ETFE	FEP	UHMWPE
Specific Gravity	ASTM D792	2.14~2.22	2.12~2.17	1.70~1.76	2.12~2.17	0.92~0.99
Melt Flow Rate	ASTM D1238	/	8 g/10min	12 g/10min	6 g/10min	0.25 g/10min
Melting Point	ASTM D3418	327°C	306°C	267°C	260°C	135°C
		(621 °F)	(582 °F)	(512 °F)	(500 °F)	(275 °F)
Tensile Strength	ASTM D638	21~34 MPa	25 MPa	40~46 MPa	23 MPa	40 MPa
Break Elongation	ASTM D638	300-500%	300%	150-300%	370%	300%
Chemical Resistance	ASTM D543	Excellent	Excellent	Excellent	Excellent	Excellent





# CLEAN ROOM

\* 100000 CLASS  
10000 CLASS

**DOXI**

## CLEAN ROOM



### Air Shower

Both personnel and goods have to go through the air shower to clean the dust before enter the clean room

### Parts Store

Parts in the store are all be cleaned before using



### Assemble

All our valves are assembled in clean room to avoid pollution



### Testing

Every piece will be through a serie of test



### Packing

Special customized packing  
Protect the goods perfectly



## OEM SERVICE

### Friendly and Professional Service

We have over 20 years experience. Customer can obtain professional advice from our sales expert to choose their own products. Our design team is highly experienced, which can provides the most suitable product design that in line with customer's idea and turn the product concept to a promising business opportunity.



### Develop Your Own Brand

By using our one-stop service,customers are no need to procure raw material or set up production line themselves. They only need to choose products from our product category, then they can develop their own brand and achieve their business goal.



### Quality Product

DOXI carefully selects good materials from global certified manufacturers. With internal quality control and assurance system, DOXI ensures products fulfill the strict requirements in quality,safety and efficacy.



### Flexible Cost Control

By choosing our OEM service,customers can enjoy our professional analysis, procurement, design, printing and packing services. Hence, our cost effective OEM service is less time consuming and benefits to cost control.

### New project initiation

- Over all project discussion
- Define exact product specification
- Quotation

### Research and design

- Design and development of prototype at R&D center
- Sample full function test

### Manufacturing

- Batch manufacturing at ISO and TUV certified factory
- Production assembly

### Quality control/assurance

- Test by quality assurance LAB
- Burn-in tests and full function tests of every manufactured item

### Service and Support

- Logistic services
- After-sales support



# DOXI



**DOXI**  
Lined butterfly valve

### Lined butterfly valve

Size	50mm-900mm (2"-36")
Working pressure	0.1mbar-10bar
Temperature range	-20° C - 200° C according to working conditions, other temperatures on request.
Design and Manufacture	API609 DIN EN1092 JIS B2032
Face to Face	ASME B16.10 DIN EN558. 1 JIS B2002
Flange Ends	ASME B16.5 DIN 2532 JIS B2212 (150lb, 10k, Pn10)
Visual Inspection	MSS Sp54
Testing	API 598 DIN 3230 JIS B2003
Pressure & Temperature	ASME B16.34
Operator Type	Lever/ Gear/ Pneumatic/ Electric
Spark testing	14kv



**DOXI**

### Lined butterfly valve

The DOXI butterfly valves' special feature is the seat ring design. The interference between the disc and the raised central area of the seat ring shuts off the flow completely. The resilient elastomeric seat cushion ensures reliable shut-off for the life of the valve.

The upper and lower positions of the seal ring, where the stem passes through, use a triple seal design to prevent leakage to the atmosphere.

Triple Seal Prevent Leakage

Primary Seal: ① Seat

Secondary Seal: ② O ring

Tertiary Seal: ③ Taper PTFE seal ring

Stem design (Square, double-D, single key ,double key)

Self lubricating bushing could endure under pressure and three point form SL design could prevent disc be deformed

Double Belleville springs exert uniform loading through the pusher, pressing the PTFE seal ring and the shoulder of the disc hub together resulting in a leak free mechanical stem seal

O-ring (the second seal)

Elastomer back-up immersed in body ensures zero leakage between disc and seat.

Two piece body (wafer and lug type) precision casting moulds with clear mark.

ISO5211 pad universal mounting permits easy automations even with the valves in the pipe line

Integral body locating holes to ensure perfect centering of the valves between flange. Applied to different international standard

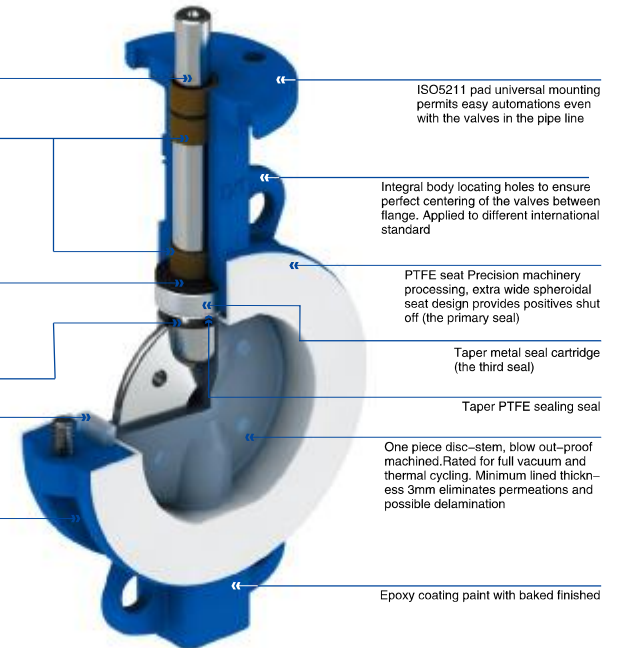
PTFE seat Precision machinery processing, extra wide spheroidal seat design provides positives shut off (the primary seal)

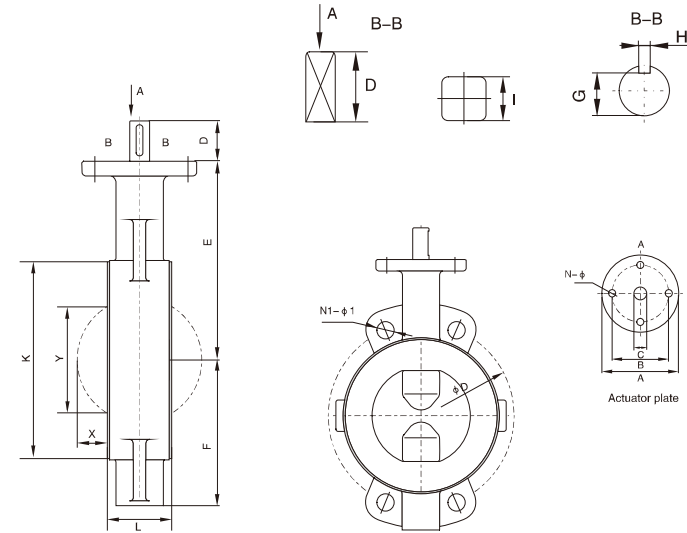
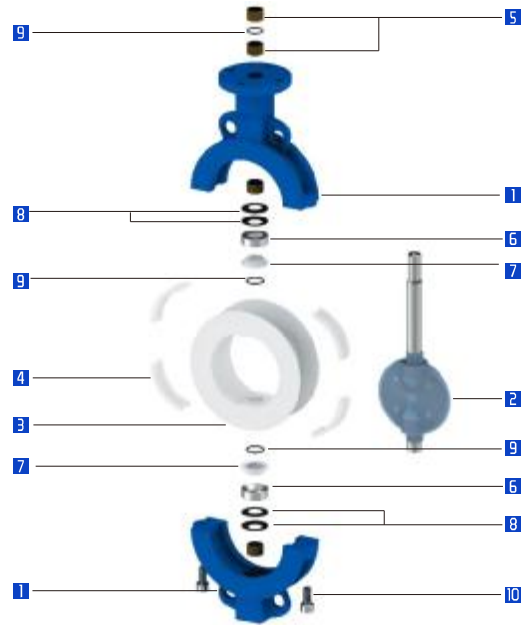
Taper metal seal cartridge (the third seal)

Taper PTFE sealing seal

One piece disc-stem, blow out-proof machined. Rated for full vacuum and thermal cycling. Minimum lined thickness 3mm eliminates permeations and possible delamination

Epoxy coating paint with baked finished





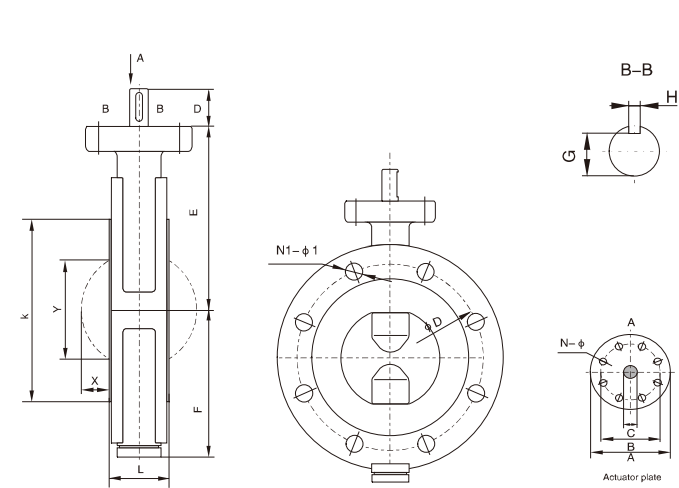
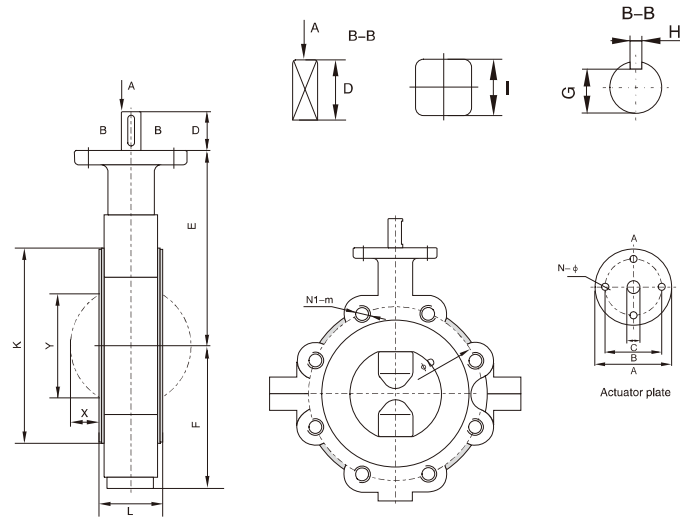
## MATERIALS SELECTION

No	Description	Qty.	Materials	Materials According to Norms		
				ASTM	JIS	DIN
1	BODY	2	Carbon Steel	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron	ASTM A395	FCD400	GGG-40 ( 0.7040)
2	ONE-PIECE DISC	1	Carbon Steel	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron	A536-60-40-18	FCD350-22	1693-1997GGG-35.3(0.7033)
3	BODY LINER(SEAT)	1	PTFE/UHMWPE/PO/PE/FEP/PFA	-	-	-
4	ELASTIC SPACER	2	Silicone Rubber	-	-	-
5	AXLE SLEEVE	4	Carbon Steel+PTFE	1020+PTFE	S20C+PTFE	C20+PTFE
6	TAPER SEAL CARTRIDGE	2	Carbon Steel	1020	S20C	C20
7	TAPER SEAL RING	2	PTFE	-	-	-
8	BELLEVILLE SPRING	4	Spring Steel	E52100	Su52	100Cr6
9	O-RING	3	VITON	-	-	-
10	HEX BOLT	2	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 17440

## WAFER TYPE DIMENSION

DN NPS	Dimensions in mm													A ISO 5211	ASME 150LB		JIS 10K		DIN Pn10		Weight [Kg]	Torque [N-m]			
	mm	in	A	B	C	D	E	F	G	H	I	N-φ	L		K	X	Y	ΦD	N1-φ1	ΦD			N1-φ1	ΦD	N1-φ1
50	2	77	57	12.6	23	115	60	/	/	11	4-10	46	100	9	42	F07	120.7	4-19	120	4-19	125	4-18	2.2	210	19
65	2½	77	57	12.6	23	115	60	/	/	11	4-10	46	100	9	42	F07	139.7	4-19	140	4-19	145	4-18	2.2	210	19
80	3	92	70	12.6	26	150	86	/	/	11	4-10	46	135	18	66	F07	152.4	4-19	150	8-19	160	4-18	4.2	410	40
100	4	92	70	15.9	26	160	115	/	/	14	4-10	52	158	25	85	F07	190.5	8-19	175	8-19	180	8-18	6.4	710	60
125	5	92	70	15.9	26	175	130	/	/	14	4-10	56	185	35	112	F07	215.9	8-22	210	8-23	210	8-18	7.9	1150	70
150	6	115	89	22.2	28	192	145	/	/	17	4-14	56	210	48	139	F07	241.3	8-22	240	8-23	240	8-23	10.4	1750	100
200	8	115	89	22.2	28	220	175	/	/	17	4-14	60	263	69	187	F10	298.5	8-22	290	12-23	295	8-23	17	3550	140
250	10	140	108	31.8	35	275	215	/	/	24	4-14	68	320	90	237	F10	362	12-25	355	12-25	350	12-23	25	5100	310
300	12	140	108	31.8	35	310	250	/	/	24	4-14	78	368	112	290	F12	431.8	12-25	400	16-25	400	12-23	34.5	8870	400
350	14	210	165	38	55	360	285	33	10	/	4-22	78	410	136	341	F14	476.3	20-1 3/8	445	16-25	460	16-23	75	9200	500
400	16	210	165	38	55	395	320	33	10	/	4-22	102	460	147	383	F14	539.8	20-1 1/4	510	16-27	515	16-27	110	14500	550
450	18	210	165	44	65	435	360	38.5	14	/	4-22	114	518	167	432	F14	577.9	16-1 1/4	565	20-27	/	/	130	20100	620
500	20	210	165	44	65	435	385	38.5	14	/	4-22	127	565	181	473	F14	635	16-1 1/8	620	20-27	620	20-27	190	22000	680
600	24	210	165	55	75	525	445	49	16	/	4-22	154	658	218	569	F14	749.3	12-1 1/8	730	24-33	725	20-30	280	31000	950





## LUG TYPE DIMENSION

DN	NPS	Dimensions in mm														A	ASME B16.5		JIS B2212 10K		DIN2532 Pn10		Weight	Torque	
mm	in	A	B	C	D	E	F	G	H	I	N-Φ	L	K	X	Y	ISO 5211	ΦD	N1-m	ΦD	N1-m	ΦD	N1-Φ1	[Kg]	CV	[N·m]
50	2	77	57	12.6	23	115	60	/	/	11	4-10	46	100	9	42	F07	120.7	4-5/8	120	4-16	125	4-M16	2.9	210	25
65	2½	77	57	12.6	23	115	60	/	/	11	4-10	46	100	9	42	F07	139.7	4-5/8	140	4-16	145	4-M16	2.9	210	25
80	3	92	70	12.6	26	150	86	/	/	11	4-10	46	135	18	66	F07	152.4	4-5/8	150	8-16	160	8-M16	5.5	410	50
100	4	92	70	15.9	26	160	115	/	/	14	4-10	52	158	25	85	F07	190.5	8-5/8	175	8-16	180	8-M16	8.3	710	80
125	5	92	70	15.9	26	175	130	/	/	14	4-14	56	185	35	112	F07	215.9	8-3/4	210	8-20	210	8-M16	10.3	1150	90
150	6	115	89	22.2	28	192	145	/	/	17	4-14	56	210	48	139	F07	241.3	8-3/4	240	8-20	240	8-M20	13.5	1750	130
200	8	115	89	22.2	28	220	175	/	/	17	4-14	60	263	69	187	F10	298.5	8-3/4	290	12-20	295	8-M20	22.1	3550	180
250	10	140	108	31.8	35	275	215	/	/	24	4-14	68	320	90	237	F10	362	12-7/8	355	12-22	350	12-M20	32.5	5100	400
300	12	140	108	31.8	35	310	250	/	/	24	4-14	78	368	112	290	F12	431.8	12-7/8	400	16-22	400	12-M20	44.9	8870	610
350	14	210	165	38	55	360	285	33	10	4-22	78	410	136	341	F14	476.3	12-1	445	16-22	460	16-M20	97	9200	850	
400	16	210	165	38	55	395	320	33	10	4-22	102	460	147	383	F14	539.8	16-1	510	16-24	515	16-M24	143	14500	1170	
450	18	210	165	44	65	435	360	38.5	14	4-22	114	518	167	432	F14	577.9	16-1 1/8	565	20-24	/	/	169	20100	1560	
500	20	210	165	44	65	435	385	38.5	14	4-22	127	565	181	473	F14	635	20-1 1/8	620	20-24	620	20-M24	247	22000	1820	
600	24	210	165	55	75	525	445	49	16	4-22	154	658	218	569	F14	749.3	20-1 1/4	730	24-30	725	20-M27	365	31000	2990	

## WAFER TYPE DIMENSION

DN	NPS	Dimensions in mm														A	ASME 150LB	JIS 10K	DIN Pn10	Weight	Torque			
mm	in	A	B	C	D	E	F	G	H	N-Φ	L	K	X	L	ISO 5211	ΦD	N1-Φ1	ΦD	N1-Φ1	ΦD	N1-Φ1	[Kg]	CV	[N·m]
700	28	300	254	70	120	670	550	55	20	8-19	165	780	268	680	F25	795.3	40-7/8	840	24-33	840	24-30	320	39500	2100
800	32	300	254	70	120	750	600	55	20	8-19	190	885	295	756	F25	900.1	48-7/8	950	28-33	950	24-33	395	51750	3100
900	36	300	254	85	120	790	630	67	22	8-19	203	990	344	867	F25	1010	44-1	1050	28-33	1050	28-33	450	63600	4000



**DOXI**  
Lined ball valve

### Lined ball valve

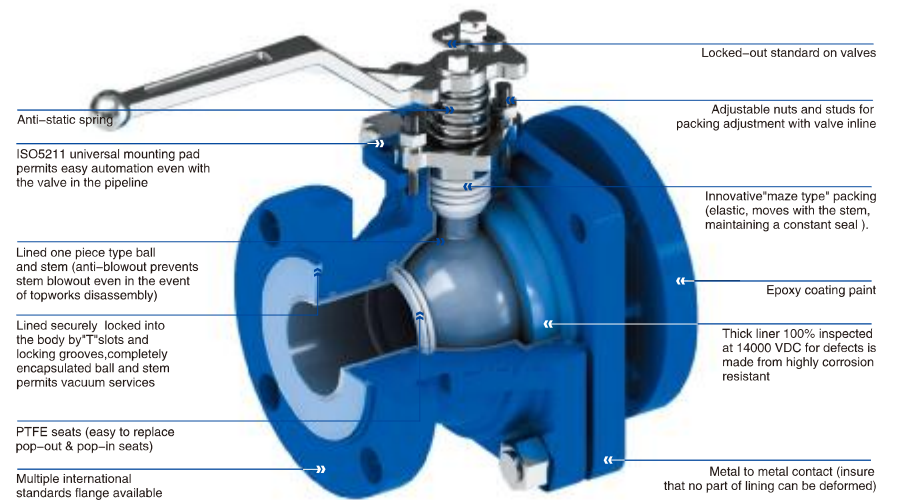
Size	15mm-300mm (0.5"-12")
Working pressure	0.1mbar-16 bar
Temperature range	-20° C ~ 200° C according to working conditions, other temperatures on request.
Design and Manufacture	API 608 DIN 3357 JIS B2071
Face to Face	ASME B16.10 DIN 3202 JIS B2002
Flange Ends	ASME B16.5 DIN 2532 JIS B2212
Visual Inspection	MSS Sp54
Testing	API 598 DIN 12569 JIS B2003
Pressure & Temperature	ASME B16.34
Operator Type	Lever/ Gear/ Pneumatic/ Electric
Spark testing	14kv

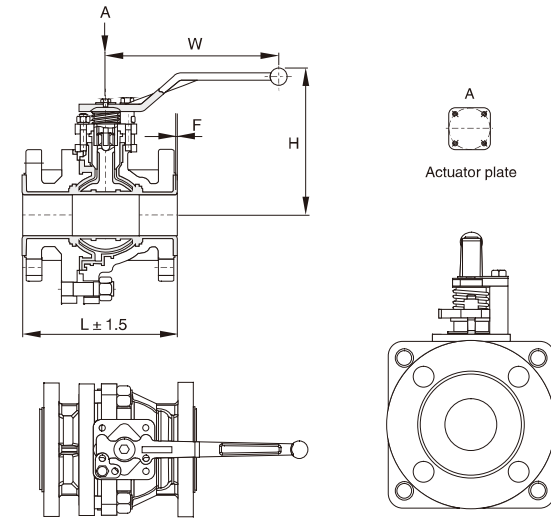
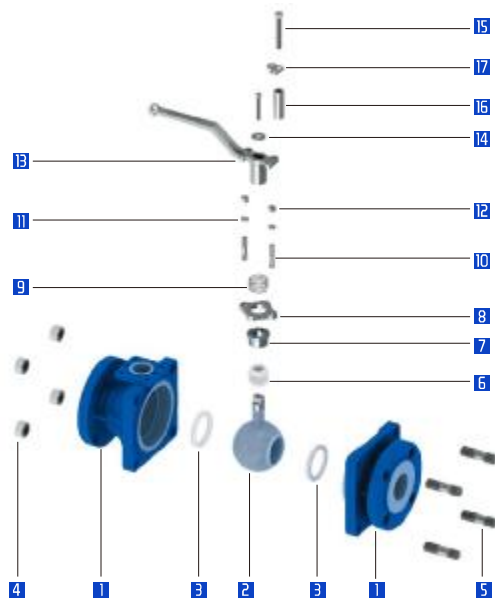
**DOXI**



### ■ Lined ball valve

The DOXI ball valves are ideally suited for corrosive applications, requiring reliable performance, tight shutoff, and constant torque. The valves successfully handle a multitude of corrosive applications in industries such as chemical, petrochemical, pharmaceutical, pulp and paper, foundries and mining like sulphuric acid, etc.





## MATERIALS SELECTION

No	Description	Qty.	Materials	Materials According to Norms		
				ASME	JIS	DIN
1	Body	2	Carbon Steel+PFA/FEP/ETFE	A216 WCB	G5151-SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351 CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD40	GGG-40 ( 0.7040)
2	ONE-PIECE BALL	1	Carbon Steel+PFA/FEP/ETFE	A216 WCB	G5151-SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351 CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD40	GGG-40 ( 0.7040)
3	SEAT RING	2	PTFE	-	-	-
4	STUD BOLT	4	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
5	NUT	4	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
6	PACKING MATERIAL	1	PTFE	-	-	-
7	SHAFT SLEEVE	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
8	GLAND	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
9	ANTI-STATIC SPRING	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
10	STUD BOLT	2	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
11	WASHER	2	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
12	NUT	2	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
13	HANDLE	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
14	WASHER	2	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
15	BOLT	2	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
16	LEVER STOP	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
17	LOCKER	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301

## Unit: mm DIMENSION

DN	NPS	ASME 150LB			JIS 10K			DIN Pn10			A ISO 5211	Weight [kg]	CV	Torque [N · m]
		L	H	W	L	H	W	L	H	W				
15	½	108	126	160	130	126	160	130	126	160	F05	3.5	20	7
20	¾	117	126	160	150	126	160	150	126	160	F05	4.6	20	7
25	1	127	131	160	160	131	160	160	131	160	F05	5	55	7
32	1¼	140	131	160	180	131	160	180	131	160	F05	5.5	55	7
40	1½	165	160	200	200	160	200	200	160	200	F07	11	210	15
50	2	178	170	200	230	170	200	230	170	200	F07	14	310	20
65	2½	190	170	200	290	170	200	290	170	200	F07	19	310	20
80	3	203	230	260	310	230	260	310	230	260	F07	28.8	684	40
100	4	229	265	313	350	265	313	350	265	313	F10	44.8	1546	60
125	5	/	265	313	400	265	313	400	265	313	F10	51	1546	60
150	6	267	347	535	480	347	535	480	347	535	F12	96.2	3262	110
200	8	292			600			600			F14	118	4565	260
250	10	533	Gear Box		730	Gear Box		730	Gear Box		F14	330	10250	320
300	12	610			850			850			F16	460	17500	350



**DOXI**  
Lined diaphragm valve

**Lined diaphragm valve**

Size	15mm-300mm (0.5"-12")
Working pressure	0.1mbar-16 bar
Temperature range	-20° C ~ 200° C according to working conditions, other temperatures on request.
Design and Manufacture	MSS SP-88
Face to Face	ASME B16.10, DIN 1202, JIS B2002
Flange Ends	ASME B16.5 DIN 2532 JIS B2212
Visual Inspection	MSS Sp54
Testing	API 598 DIN 12569 JIS B2003
Pressure & Temperature	ASME B16.34
Operator Type	Hand wheel/Pneumatic
Spark testing	14kv

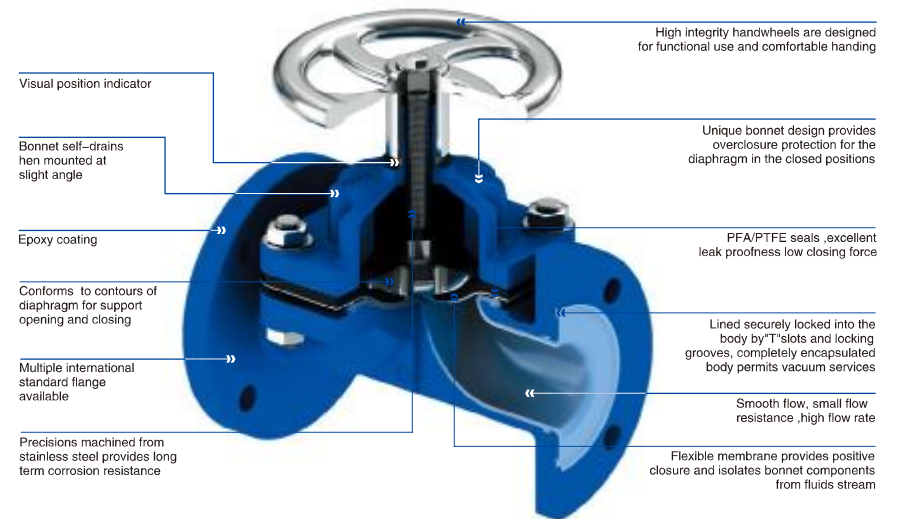
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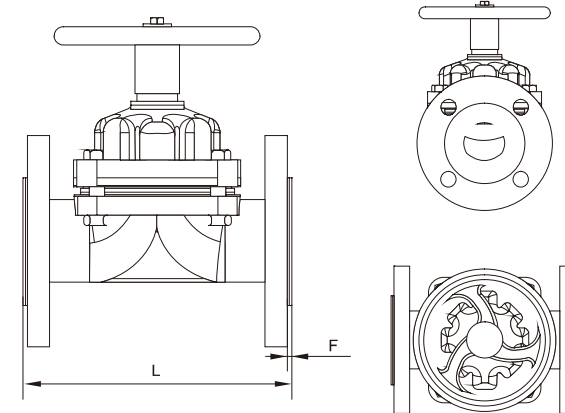
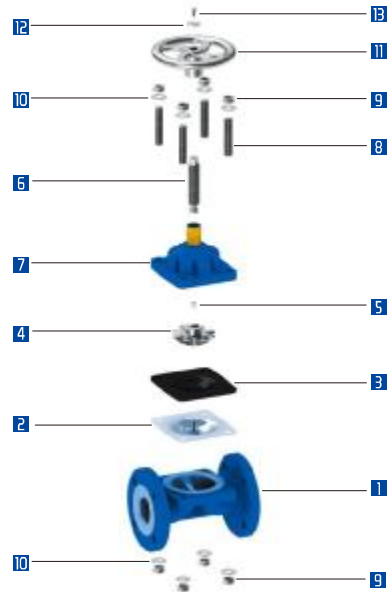


■ **Lined diaphragm valve**

DOXI weir type diaphragm valve having rugged design to incorporating the best material available is proved by easy, smooth and maintenance free operation for a long time. Extra heavy-duty casting affords high resistance to atmospheric corrosion. DOXI diaphragm valve reduces diaphragm travel for extended service and fine control.

A wide choice is available for body materials, body linings, types of operation and body end connections to satisfy the needs of most industrial applications. High quality standards are strictly maintained, each valve being checked for size, design pressure, operation, MOC, finish etc and within house painting.



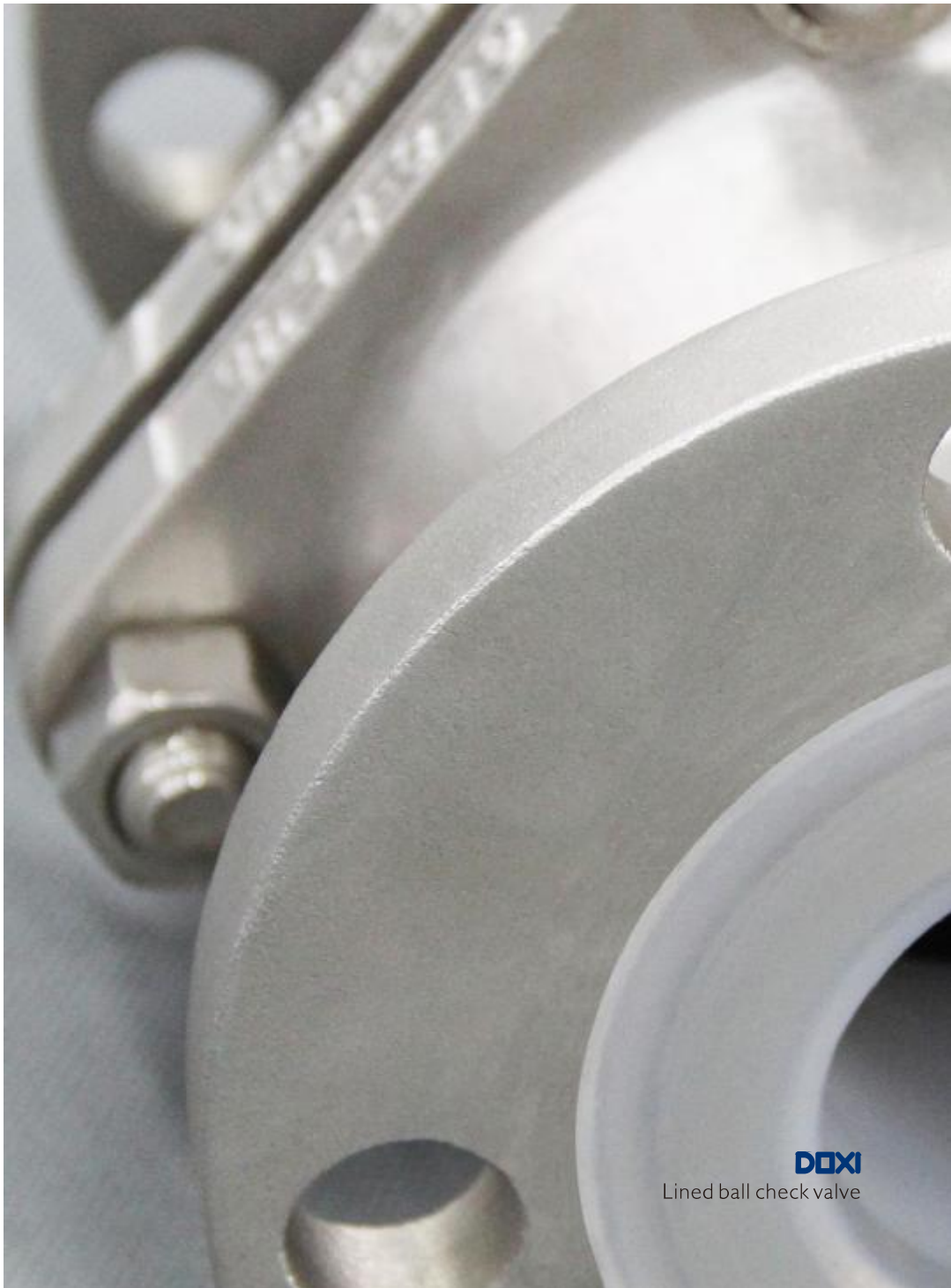


## MATERIALS SELECTION

No	Name	Qty.	Materials	Materials According to Norms		
				ASTM	JIS	DIN
1	BODY	1	Carbon Steel+PFA/FEP/ETFE	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
2	DIAPHRAGM	1	PFA/PTFE	-	-	-
3	CUSHION RUBBER	1	NBR	-	-	-
4	COMPRESSOR	1	Carbon Steel	A216 WCB	G5151-SCPH2	GS-C25N DIN 17245
5	LINK BLOCK	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 17440
6	SPINDLE	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 17440
7	BONNET	1	Carbon Steel	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron	ASTM A395	FCD400	GGG-40 ( 0.7040)
8	STUD BOLT	4	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
9	HEX NUT	8	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
10	WASHER	8	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
11	HAND WHEEL	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
12	WASHER	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
13	WRENCH BOLT	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301

## \* Unit: mm DIMENSION

DN	NPS	ASME B16.5		JIS B2212 10K DIN2532 Pn10		BS 5156		Weight [kg]	CV
		L	f	L	f	L	f		
15	½	108	3	130	3	108	3	3.5	10
20	¾	146	3	150	3	117	3	4	12
25	1	146	3	160	3	127	3	5.5	17
32	1¼	159	3	180	3	146	3	8	27
40	1½	175	3	200	3	159	3	11	39
50	2	200	3	230	3	190	3	14	70
65	2½	226	3	290	3	216	3	23	125
80	3	260	4	310	4	254	4	29	180
100	4	327	4	350	4	305	4	46	305
125	5	400	4	400	4	356	4	70	412
150	6	480	4	480	4	406	4	90	712
200	8	600	4	600	4	521	4	160	1011
250	10	730	4	730	4	635	4	230	1840
300	12	850	5	850	5	749	5	320	2435



**DOXI**  
Lined ball check valve

**Lined ball check valve**

Size	15mm-200mm (0.5"-8")
Working pressure	0.1mbar-16 bar
Temperature range	-20° C - 200° C according to working conditions, other temperatures on request.
Design and Manufacture	API 594
Face to Face	ASME B16.10, DIN 3202, JIS B2002
Flange Ends	ASME B16.5, DIN 2532, JIS B2212
Visual Inspection	MSS Sp54
Testing	API 598, DIN 12569, JIS B2003
Pressure & Temperature	ASME B16.34
Spark testing	14kv

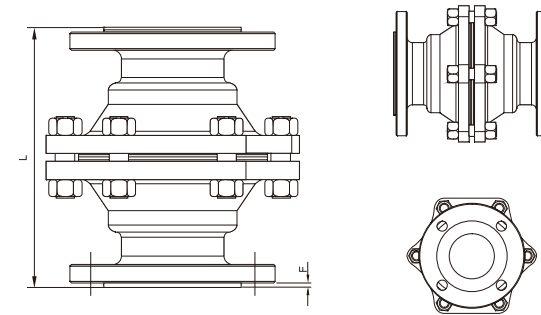
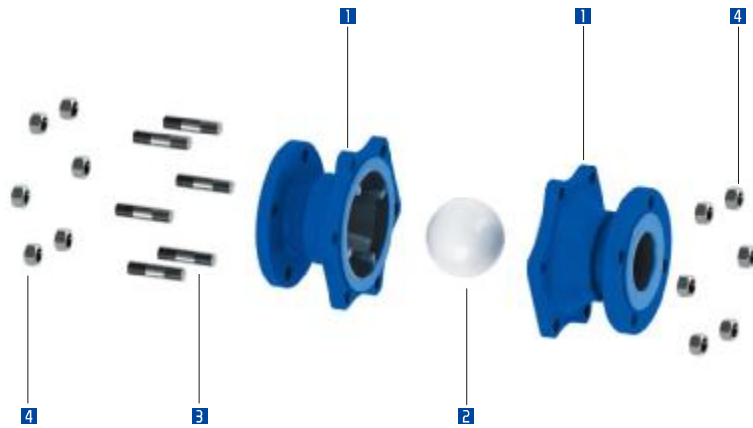
**DOXI**



■ **Lined ball check valve**

The DOXI ball check valves are developed for use on fluids compatible with the corrosion resistant characteristics of virgin PFA. These valves can be used in horizontal and vertical installations. The body of the valve is made from a combination of ductile iron and steel. The body parts do not come into contact with the process flow.





## MATERIALS SELECTION

No	Name	Qty.	Materials	Materials According to Norms		
				ASTM	JIS	DIN
1	BODY	2	Carbon Steel+PFA/FEP/ETFE	A216 WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
2	BALL	1	PTFE	-	-	-
3	STUD BOLT	6	Low Alloy Steel	A193 B7	SNB7, SCM435	24CrMo5
4	HEX NUT	12	Carbon Steel	A194 2H	S45C	24CrMo5

## \* Unit: mm DIMENSION

DN	NPS	ASME B16.5		JIS B2212 10K		DIN2532 Pn10		Weight [kg]	CV
		L	f	L	f	L	f		
15	½	140	3	140	3	140	3	3.5	11
20	¾	140	3	140	3	140	3	3.5	20
25	1	140	3	140	3	140	3	4	32
40	1½	178	3	178	3	178	3	7.5	90
50	2	203	4	203	4	203	4	10	140
80	3	241	4	241	4	241	4	18	375
100	4	292	4	292	4	292	4	30	610
150	6	356	4	356	4	356	4	56	1450

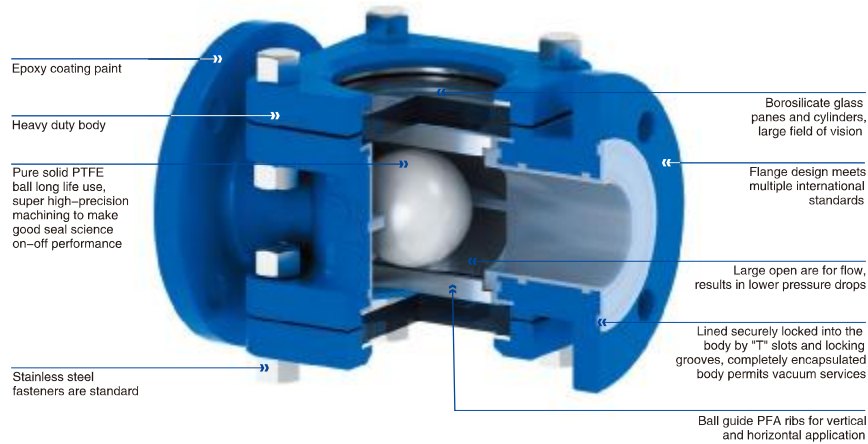


**Lined ball check sight glass valve**

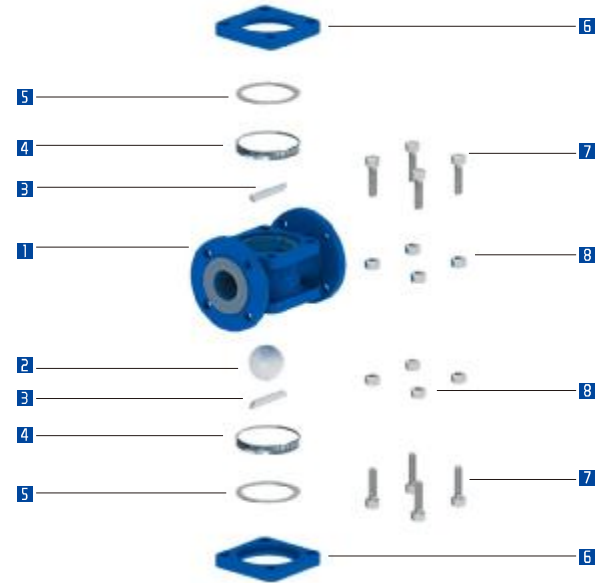
Size	15mm-200mm (0.5"-8")
Working pressure	0.1mbar-16 bar
Temperature range	-20° C - 200° C according to working conditions, other temperatures on request.
Design and Manufacture	API 594
Face to Face	ASME B16.10 DIN 3202 JIS B2002
Flange Ends	ASME B16.5 DIN 2532 JIS B2212
Visual Inspection	MSS Sp54
Testing	API 598 DIN 12569 JIS B2003
Pressure & Temperature	ASME B16.34
Spark testing	14kv

**Lined ball check sight glass valve**

With pressure rating up to 19 bargs, the DOXI ball check valves sight glass are very robust, having integrated borosilicate windows each side of the ball check assembly makes it very easy to see if there is flow through the valve. No wetted metal parts are used. The valves are immune to most aggressive chemicals and are used in place of expensive exotic alloys.



Lined ball check sight glass valve

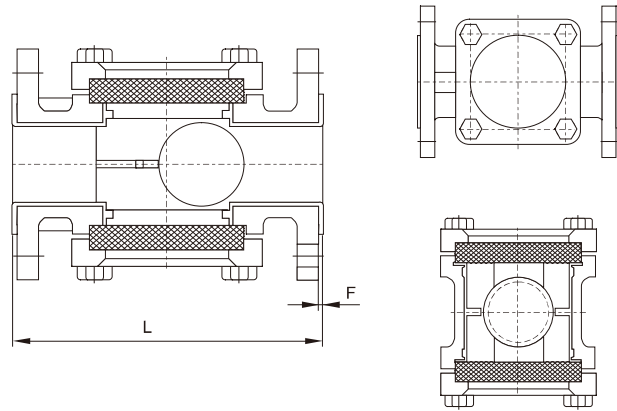


**MATERIALS SELECTION**

No	Name	Qty	Materials	Materials According to Norms		
				ASTM	JIS	DIN
1	BODY	1	Carbon Steel+PFA/FEP/ETFE	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
2	BALL	1	PTFE	-	-	-
3	BARRIER STRIP	2	PTFE/PFA/FEP/ETFE	-	-	-
4	TEMPERED SIGHT GLASS	2	Tempered Borosilicate Glass	-	-	-
5	ENVELOPE GASKET	2	PTFE	-	-	-
6	LENS FRAME	2	Carbon Steel+PFA/FEP/ETFE	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
7	HEX BOLT	5	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 17440
8	HEX NUT	5	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 17440



## Lined ball check sight glass valve



## DIMENSIONS \* Unit: mm

DN	NPS	ASME B16.5		JIS B2212 10K		DIN2532 Pn10		Weight [kg]	CV
		L	f	L	f	L	f		
15	½	160	3	160	3	160	3	4	11
20	¾	160	3	160	3	160	3	4.5	20
25	1	160	3	160	3	160	3	5.0	32
40	1½	200	3	200	3	200	3	8.5	90
50	2	230	4	230	4	230	4	12.5	140
80	3	310	4	310	4	310	4	22.5	375
100	4	350	4	350	4	350	4	31	610
150	6	480	4	480	4	480	4	59	1450
200	8	600	4	600	4	600	4	82	2050

## Lined plug valve

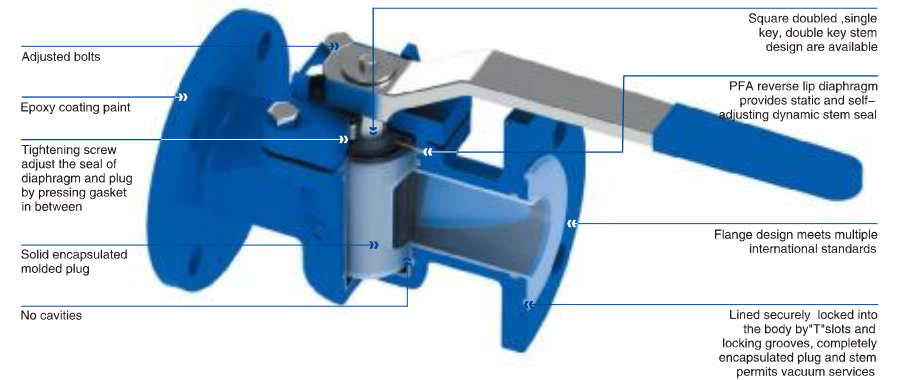
Size	15mm-300mm (0.5"-12")
Working pressure	0.1mbar-16 bar
Temperature range	-20° C - 200° C according to working conditions, other temperatures on request.
Design and Manufacture	API 599
Face to Face	ASME B16.10 DIN 3202 JIS B2002
Flange Ends	ASME B16.5 DIN 2532 JIS B2212
Visual Inspection	MSS Sp54
Testing	API 598 DIN 12569 JIS B2003
Pressure & Temperature	ASME B16.34
Operator Type	Lever/ Gear/ Pneumatic/ Electric
Spark testing	14kv

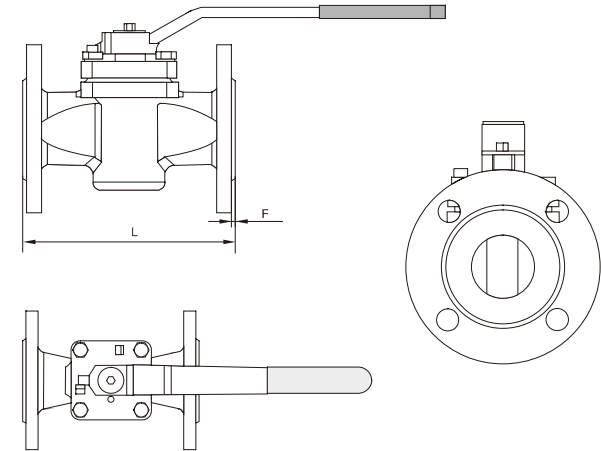
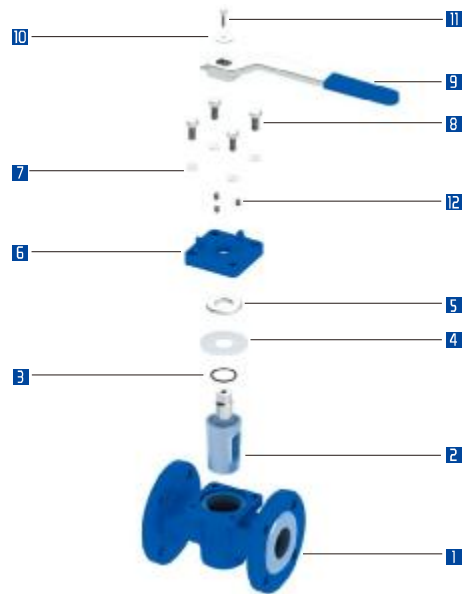
DOXI



### Lined plug valve

DOXI straight through lined plug valves provide unrestricted flow when fully open, and are also operable in a throttled position. The moulded liner assure excellent chemical resistance and long service life. DOXI products are manufactured using latest production methodology backed by continuing quality control from raw materials to finish products to ensure the highest possible quality standards.





## MATERIALS SELECTION

No	Designation	Qty.	Materials	Materials According to Norms		
				ASME	JIS	DIN
1	BODY	1	Carbon Steel+PFA/FEP/ETFE	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
2	ONE-PIECE PLUG	1	Carbon Steel+PFA/FEP/ETFE	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
3	O-RING	1	VITON	-	-	-
4	DIAPHRAGM	1	PFA/PTFE	-	-	-
5	GASKET	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
6	BONNET	1	Carbon Steel	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron	ASTM A395	FCD400	GGG-40 ( 0.7040)
7	WASHER	4	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
8	BONNET BOLT	4	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
9	HANDLE	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
10	WASHER	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
11	HUB BOLT	1	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
12	SCREW	3	Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301

## \* Unit: mm DIMENSION

DN mm	NPS in	ASME B16.5		JIS B2212 10K		DIN2532 Pn10		Weight [kg]	CV
		L	f	L	f	L	f		
15	½	108	2	130	2	130	2	2.4	10
20	¾	117	2	150	2	150	2	2.4	12
25	1	127	2	160	2	160	2	3.4	17
40	1½	165	2	200	2	200	2	4.9	39
50	2	178	2	230	2	230	2	6	70
80	3	203	2	310	2	310	2	9	180
100	4	229	2	350	2	350	2	19	305
150	6	267	2	480	2	480	2	48	712
200	8	292	2	600	2	600	2	65	1011
250	10	330	2	730	2	730	2	88	1840
300	12	356	2	850	2	850	2	125	2435



**Wafer type swing check valve**

Size	40mm-600mm (1.5"-24")
Working pressure	0.1mbar-16 bar
Temperature range	-20° C - 200° C according to working conditions, other temperatures on request.
Design and Manufacture	API 594
Face to Face	DIN EN 558 ASME/ANSI B 16.10
Flange Ends	DIN EN 1092 ANSI B 16.5
Visual Inspection	MSS Sp54
Testing	API 598 DIN 3230 JIS B2003
Pressure & Temperature	ASME B16.34
Spark testing	14kv

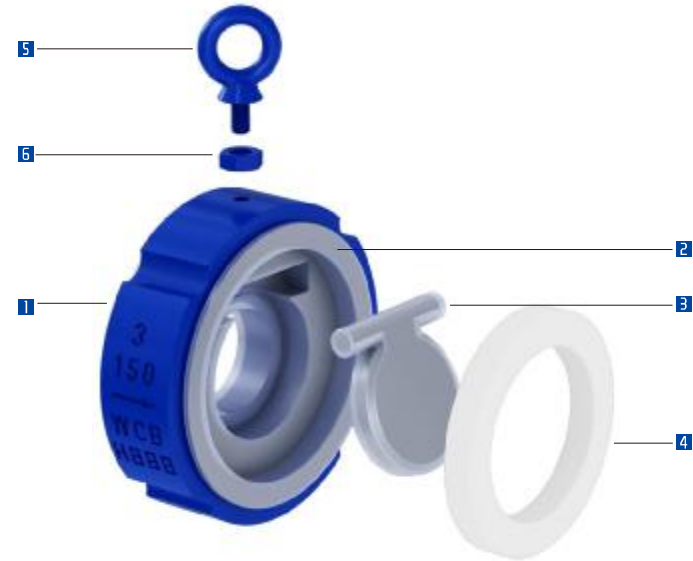
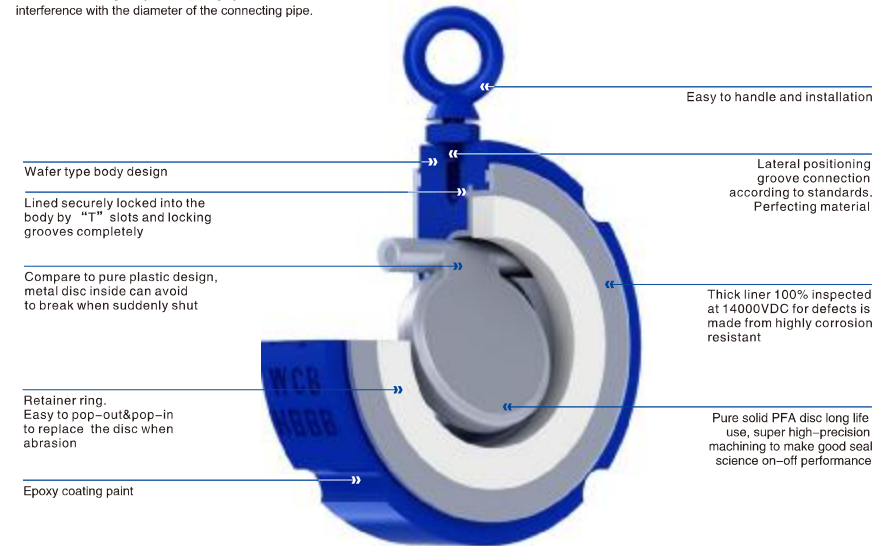
**■ Wafer type swing check valve**

DOXI fully lined swing check valves are ideal for use in highly corrosive applications due to the universal chemical resistance of fluoropolymer lining.

These valves can be used in horizontal and vertical installations due to the special design of the hinge pin, which enables the disc to achieve a seal with out support of any system pressure.

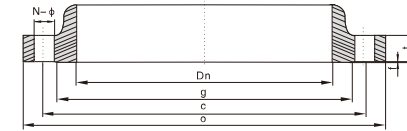
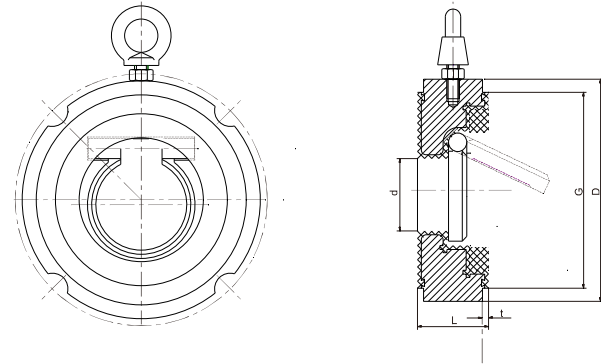
2- Piece design eliminating a potential leak path with a seat face integrated in the body liner to seal against the disc in the closed position.

The disc can swing freely within piping system without interference with the diameter of the connecting pipe.



**MATERIALS SELECTION**

No	Name	Qty	Materials	Materials According to Norms		
				ASTM	JIS	DIN
1	BODY	1	Carbon Steel+PFA/FEP/ETFE	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
			Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
2	BODY LINER	1	PFA/FEP/ETFE/PO/PE	-	-	-
3	DISC	1	Carbon Steel+PFA/FEP/ETFE	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel+PFA/FEP/ETFE	A351-CF8	G5121 SCS13A	G-X6CrNiMo1810
4	RETAINER RING	1	Ductile Iron+PFA/FEP/ETFE	ASTM A395	FCD400	GGG-40 ( 0.7040)
			PTFE	-	-	-
5	HAND RING	1	Carbon Steel	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301
6	NUT	1	Carbon Steel	A216-WCB	G5151 SCPH2	GS-45(1.0446)
			Stainless Steel	A 182 F304	G4303-SUSF304	X5CrNi18 10 DIN 1.4301



DIMENSION * Unit: mm							
DN	NPS	ASME/JIS/DIN				LINED	Weight
mm	in	L	d	G	D	t	[kg]
50	2	43	30	92.1	112.4	3.5	2.7
65	2½	46	55	104.8	131.2	3.5	3
80	3	46	55	127	143.8	3.5	5
100	4	52	72	157.2	181.7	3.5	6.8
150	6	56	115	215.9	231.1	3.5	11
200	8	60	155	269.9	288.1	3.5	19
250	10	68	190	323.8	350.2	4	28
300	12	78	240	381	419.9	4	39
350	14	92	275	412.8	462.9	4	65
400	16	102	305	469.9	526.4	4.5	90
450	18	114	355	533.4	562.5	4.5	104.8
500	20	127	405	584.2	619.6	4.5	165
600	24	154	450	692.2	732.4	4.5	255

ASME B16.5 150lb

DN (mm)	NPS (in)	o	c	g	t	f	N-φ
15	1/2"	90	60.3	35	11.2	2	4-15
20	3/4"	100	69.9	43	12.7	2	4-15
25	1"	110	79.4	51	14.3	2	4-15
32	1 1/4"	115	88.9	64	15.9	2	4-15
40	1 1/2"	125	98.4	73	17.5	2	4-15
50	2"	150	120.7	92	19.1	2	4-19
65	2 1/2"	180	139.7	105	22.3	2	4-19
80	3"	190	152.4	123	23.9	2	4-19
100	4"	230	190.5	157	23.9	2	8-19
125	5"	255	215.9	186	23.9	2	8-22
150	6"	280	241.3	212	25.4	2	8-22
200	8"	345	298.5	265	28.6	2	8-22
250	10"	405	362	320	30.2	2	12-26
300	12"	485	431.8	380	31.8	2	12-26

JIS B2212 P 1.0M Pa(10kg/cm2)

DN (mm)	NPS (in)	o	c	g	t	f	N-φ
15	1/2"	95	70	52	12	1	4-15
20	3/4"	100	75	58	13	1	4-15
25	1"	125	90	70	13	1	4-19
32	1 1/4"	135	100	80	14	2	4-19
40	1 1/2"	140	105	85	14	2	4-19
50	2"	155	120	100	14	2	4-19
65	2 1/2"	175	140	120	16	2	8-19
80	3"	185	150	130	16	2	8-19
100	4"	210	175	155	16	2	8-23
125	5"	250	210	185	18	2	8-23
150	6"	280	240	215	20	2	8-23
200	8"	330	290	265	20	2	12-23
250	10"	400	355	325	22	2	12-25
300	12"	445	400	370	22	2	16-25

DIN 2532 PN1.0MPa(10kgf/cm2)

DN (mm)	NPS (in)	o	c	g	t	f	N-φ
15	1/2"	59	65	46	14	2	4-14
20	3/4"	105	75	56	16	2	4-14
25	1"	115	85	65	16	2	4-14
32	1 1/4"	140	100	76	18	2	4-18
40	1 1/2"	150	110	84	18	2	4-18
50	2"	165	125	99	20	2	4-18
65	2 1/2"	185	145	118	20	2	4-18
80	3"	200	160	132	20	2	4-18
100	4"	220	180	156	22	2	8-18
125	5"	250	210	184	22	2	8-18
150	6"	285	240	211	24	2	8-23
200	8"	340	290	266	24	2	8-23
250	10"	395	355	319	26	2	12-23
300	12"	445	400	370	28	2	12-23

\* Unit: mm