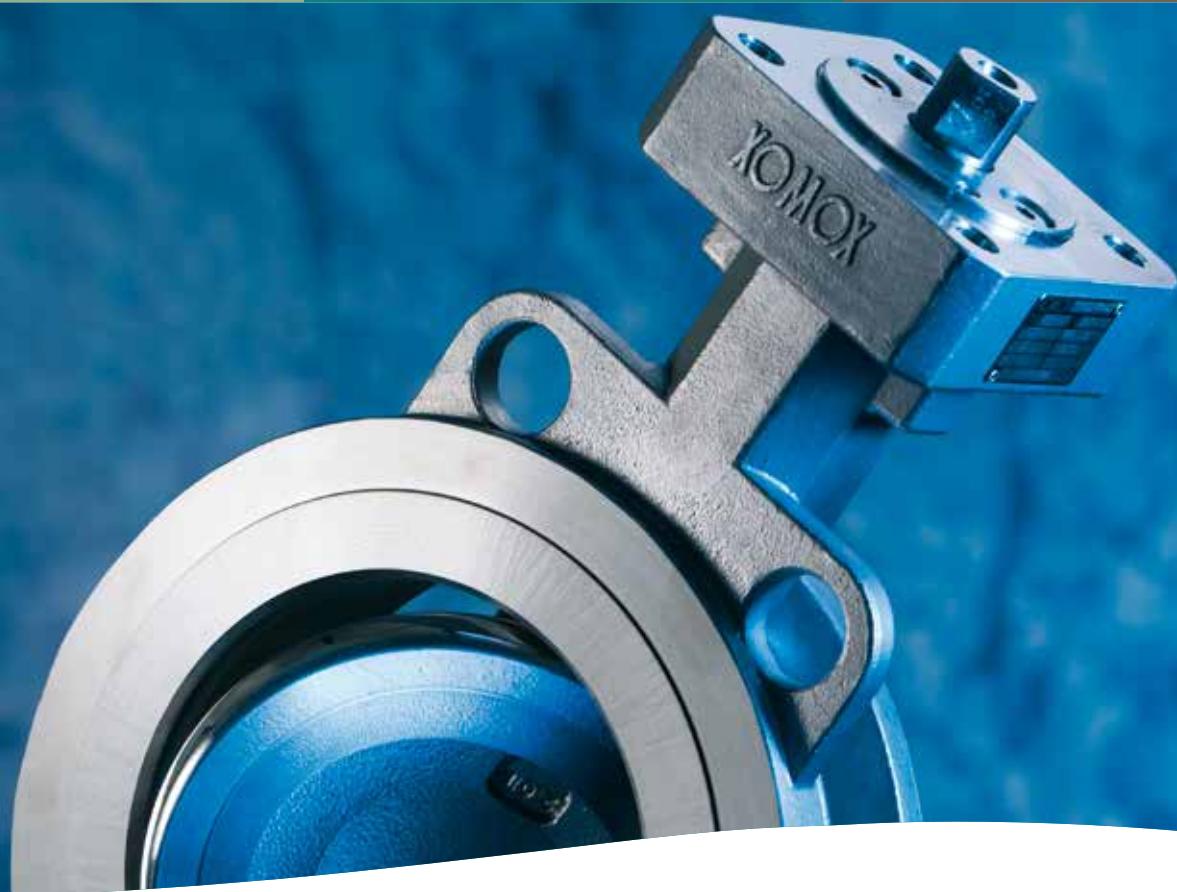


XOMOX®

brands you trust.



Xomox® High Performance Butterfly Valve 800ISO

CRANE

Crane ChemPharma & Energy

www.cranecpe.com

Heritage of Innovation & Quality

Crane Co. is a diversified manufacturer of highly engineered industrial products, founded in 1855. Crane has approximately 11,000 employees in the Americas, Europe, Asia and Australia, and is traded on the New York Stock Exchange (NYSE:CR).

Since its foundation in 1855, Crane has been a symbol of manufacturing excellence, expanding alongside the global industrial revolution and shaping the growth of industry worldwide. Crane ChemPharma & Energy, within Crane's Fluid Handling segment, is proud to be a part of the company's illustrious history, delivering solutions to the fluid handling challenges faced by the industry's most demanding applications.

From the industrial revolution to the modern age, Crane has anticipated the challenges of the market and developed progressive solutions to address them. A comprehensive product portfolio backed by a robust global infrastructure enables Crane CP&E to deliver localized solutions to the chemical processing, biotechnology, pharmaceutical, oil & gas, refining, and power generation industries worldwide.

Crane CP&E's highly-engineered offering includes check valves, sleeved plug valves, lined valves, process ball valves, butterfly valves, bellows sealed globe valves, aseptic and industrial diaphragm valves, multi/quarter-turn valves, actuation, sight glasses, lined pipe, fittings and hoses, and air-operated diaphragm and peristaltic pumps.

With offices, manufacturing plants, distribution networks, and sales & service centers that span the globe, Crane CP&E is a worldwide leader in fluid handling products and solutions.

Crane Fluid Handling: Global Presence, Local Support.

31 SERVICE CENTERS
32 REGIONAL DISTRIBUTION CENTERS
33 MANUFACTURING SITES



Traceability

A stainless steel tag is attached to all manufactured and modified valves. It includes standard ASME or DIN information.

High Quality Standards

All of our valves are tested in accordance with Crane®'s strict manufacturing procedures and industry regulations.

Field Repair Services

Crane® technicians are available for field repair and emergency service at your site.

Consistent Quality

Crane®'s high quality standards are supported by our extensive practical experience, state-of-the-art manufacturing, and quality assurance certified by international inspections authorities. Please visit our website for details.

Features and Benefits

Materials

- Standard: 1.0619, 1.4408; A216 Gr. WCB, A351 Gr. CF8M
- Optional materials upon request

Size range

- DN 80 to DN 600 ; 3" to 24"

Pressure ratings

- PN 10, 16, 25, 40; ASME Class 150

Temperature range

- PTFE seat --> 204°C
- R-PTFE seat --> 232°C

Body configurations

- Lug design
- Wafer design

Typical Applications

Industrial branches:

- Chemical and petrochemical industry
- Oil and gas
- Air separation
- Chlorine liquefaction
- Power generation
- Energy
- Offshore platforms
- Pulp & paper
- Desalination
- Steam
- Corn processing
- HVAC

Processes:

- Various chemicals
- Hot gases
- Chlorine gas
- Methanol
- Propane
- Liquid nitrogen
- Oxygen
- Carbon monoxide & carbon dioxide
- Sewage
- Recausticizing
- White water
- River water
- Cooked starch
- Scrubber effluent
- Fly and bottom ash
- Gasoline
- Tail gases
- Off gases
- Sour gas

1 Along with the Xomox® 800 series, the Xomox® high performance butterfly valve 800ISO (-R) is the only double offset design butterfly valve on the market with uninterrupted sealing surfaces that provide double dead-end service under full differential pressure.

2 The ISO mounting flange allows levers, gear mechanisms, and actuators to be mounted directly via a standardized ISO interface.

3 The closed design of the head and neck allows the connecting piping and valve to be completely insulated while eliminating potential leak paths.

Standard features and compliance

- TA Luft acc. to VDI 2440, ISO 1548
- Fire-Safe acc. to API 607, 4th edition, and EN ISO 10497:2000
- DGRL 2014/68/EU

Special options

- Fire-Safe
- Leak control
- Primary stem seal
- Oil-free/Grease-free (various designs as per customer request)
- Oxygen application
- Chlorine and phosgene applications
- Control seat (A, B)

DN (mm)	NPS (in.)	Flange design								API 609 Table 2 ASME B16.10 Table 9 Column 7 MSS-SP-68 Table 1	
		EN 558									
		PN 10		PN 16		PN 25		PN 40			
R20	R25	R20	R25	R20	R25	R20	R25	R20	R25		
80	3	●	●	●	●	●	●	●	●	-	
100	4	●	●	●	●	●	●	●	●	-	
150	6	●	●	●	●	●	●	●	●	-	
200	8	●	●	●	●	●	●	●	●	-	
250	10	●	●	●	●	●	●	●	●	-	
300	12	●	●	●	●	●	●	●	●	-	
350	14	●	●	●	●	-	-	-	-	●	
400	16	●	●	●	●	-	-	-	-	●	
450	18	●	●	●	●	-	-	-	-	●	
500	20	●	●	●	●	-	-	-	-	●	
600	24	●	●	●	●	-	-	-	-	●	



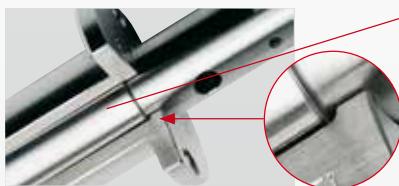
Xomox HPBV 800ISO, Lug Design
DN 600, PN 16, 1.4408
XRP Actuator, Transmitter
Westlock EPIC-2 Typ D550

Xomox High Performance Butterfly Valve 800ISO

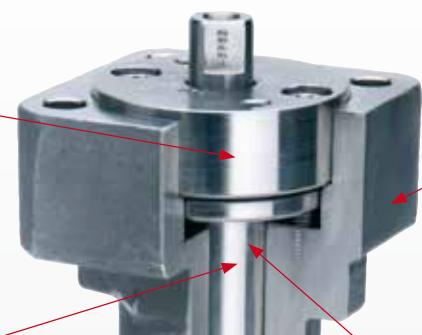
Key Product Features



The exclusive, flexible O-ring inside the packing flange prevents dirt from entering the inside of the valve and the packing.



Increased blow-out safety is achieved through improved shaft design. Even if the tapered pin connection between shaft and disc is lost, the shaft is still in a stable position.



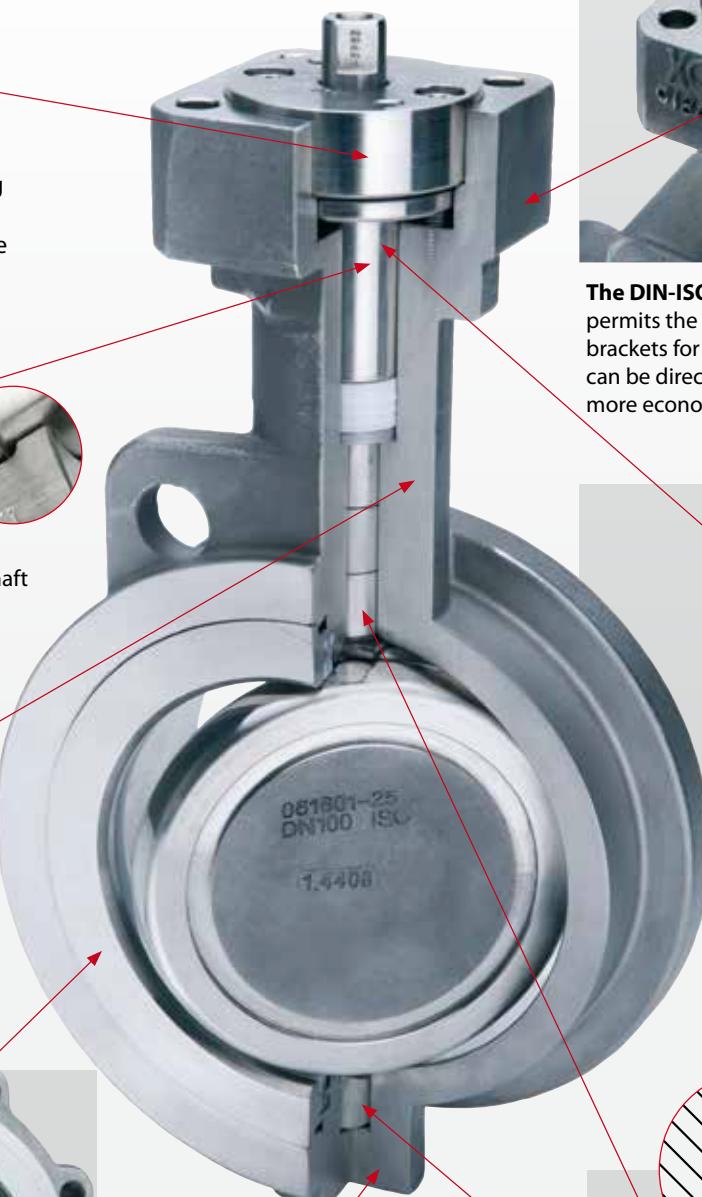
The DIN-ISO mounting head permits the use of standardized ISO brackets for actuation. Also, actuation can be directly mounted on the valve more economically.



The extended body neck enables standardized insulation. With thicker insulation, there is less heat loss.

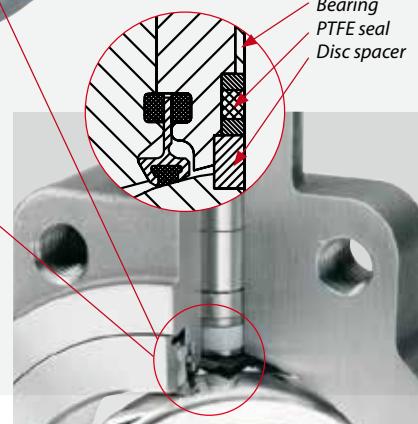


All valves are offered with a smooth seat retainer as standard. Optionally, the lug design valves are available with a bolted seat retainer for double dead end service.



The closed bottom of the valve body eliminates a potential leak path. The increased safety improves economic efficiency of the plant.

Starting with DN 350, an improved plug seal provides superior fugitive emissions control.



The optional **primary stem seal** prevents dirt from entering the bearing area above and below the disc. This is especially important for sticky or dusty media.

Xomox High Performance Butterfly Valve 800ISO Superior Sealing and Extended Service Life

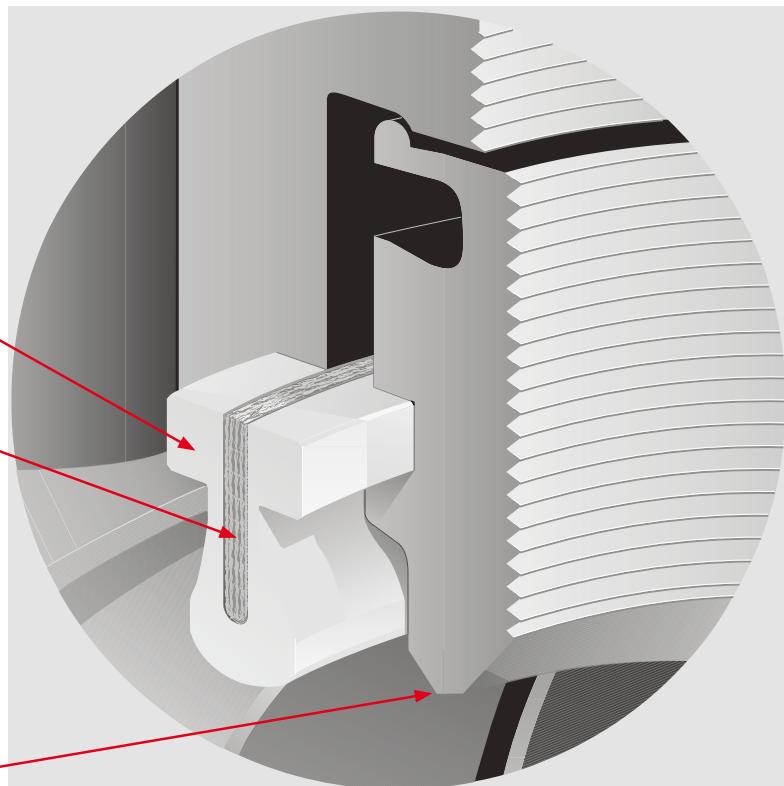
An important feature of the seat is that it is axially pliant. Unlike other seals, it is not susceptible to radial stretch. When the valve opens, the seat flexes axially and returns to its original compact shape. It does not "relax" into the flow path.

This seat design includes two components:

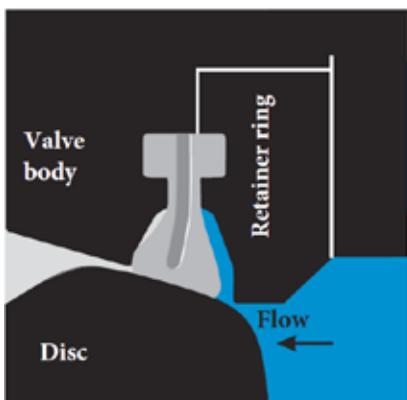
- An outer segment of PTFE, R-PTFE.
- A deformation-resistant, memory-core membrane.

Simply superior

The genius is in its simplicity. There are no springs to break, O-rings to swell, or metal hoops to corrode. Installation is also simple and virtually error-proof. Two versions are available: soft and firesafe seat.

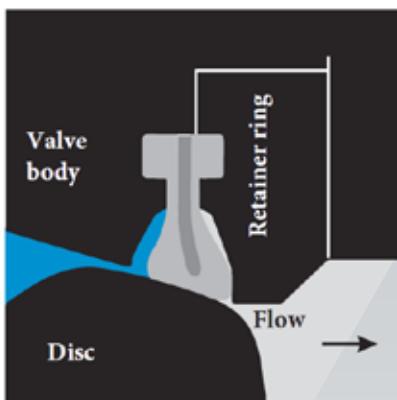


The seat retainer covers the seat, protecting it from erosion and abrasion.



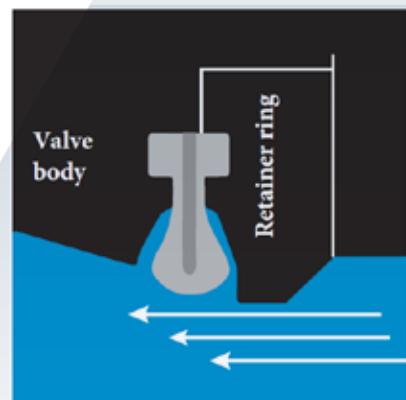
Valves closed, with right-to-left flow

The axial movement of the seat in the direction of the flow produces a pressure-assisted virtually leak-tight seal. (As line pressure increases, the seal tightens.) From vacuum through high pressure, tight shutoff is maintained.



Valve closed, with left-to-right flow

Bi-directional flow and shutoff are easily accommodated. The same, simple, axial movement of the seat assures a reliable seal in either direction.



Valve open, with media flowing

To further extend seat life, the inside diameter of the retainer ring is smaller than that of the PTFE seat. This protects the seat from erosion and abrasion.

Even after 100,000 cycles the seat maintains a tight seal. The seat's internal pliant membrane is the "memory core" that inhibits radial deformation.

Xomox High Performance Butterfly Valve 800ISO

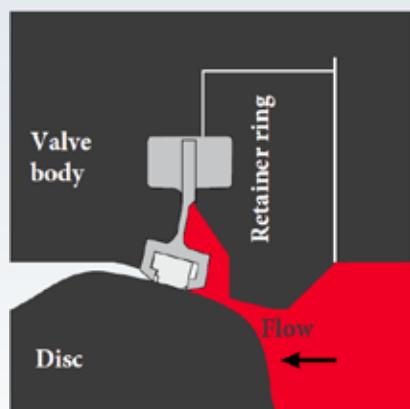
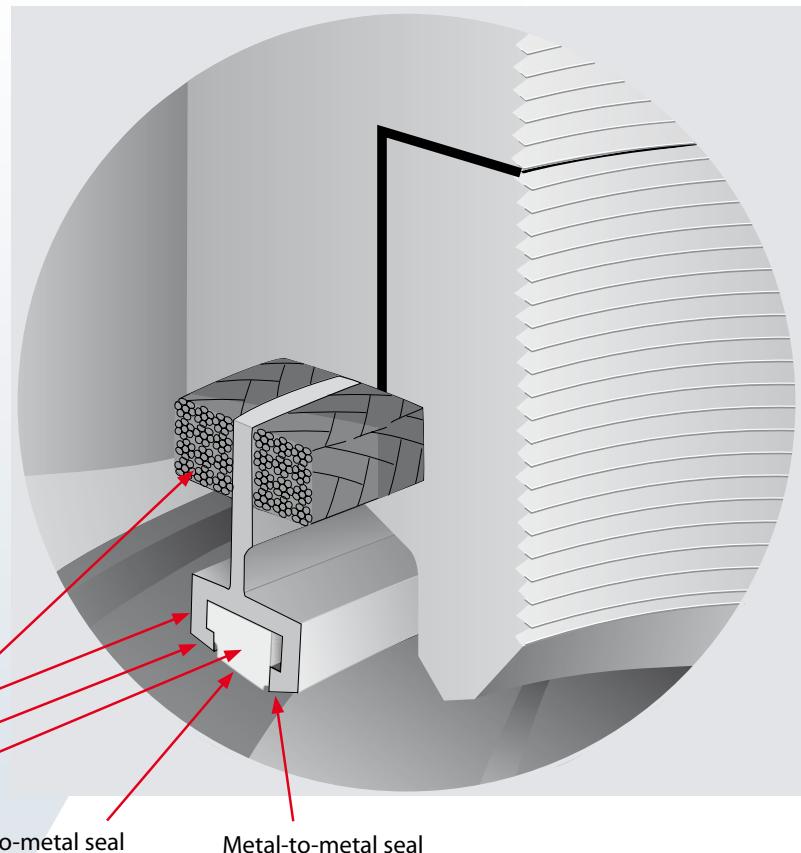
Soft Seat Sealing with Fire-Tested Safety

For applications involving flammable media, the dual component seat offers both superior sealing and fire-tested security. It provides tightness according to leak rate A (EN12266-1) up to 300°C.

Proven Performance

Numerous test results demonstrate that this valve meets or exceeds the requirements of API-607 4th edition as well as EN ISO 10497:20. The seat combines PTFE and metal sealing elements. The metal component is available in a variety of different alloys.

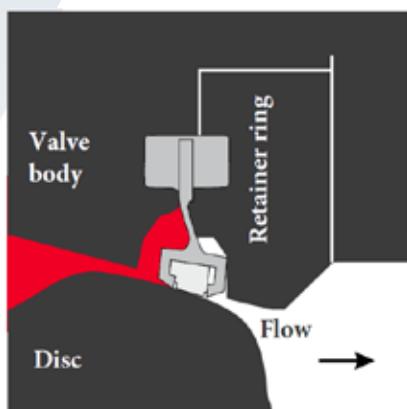
This seat establishes both a PTFE-to-metal seal and a dual metal-to-metal seal.



Normal operation – right-to-left flow

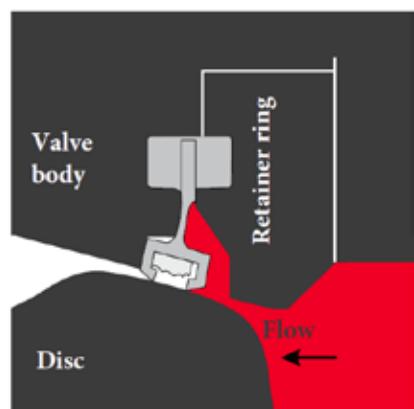
This unique seat is designed for bidirectional flow control.

As pressure increases, the seat flexes axially in the direction of the flow. This tightens the seat contact with the disc for effective sealing.



Normal operation – left-to-right flow

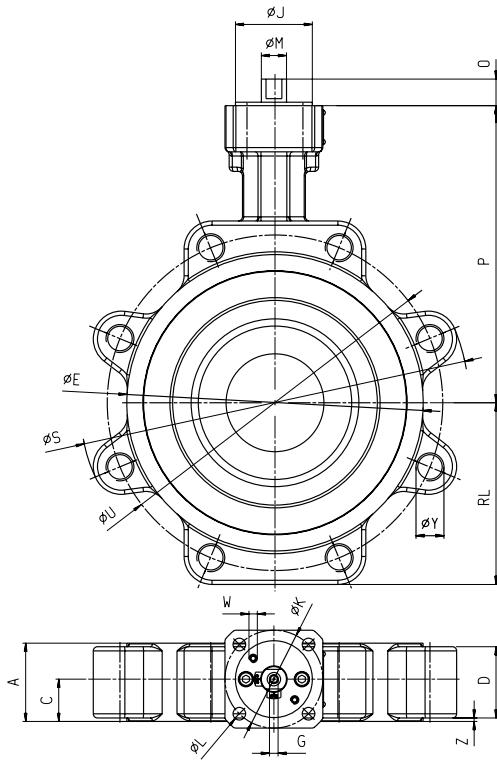
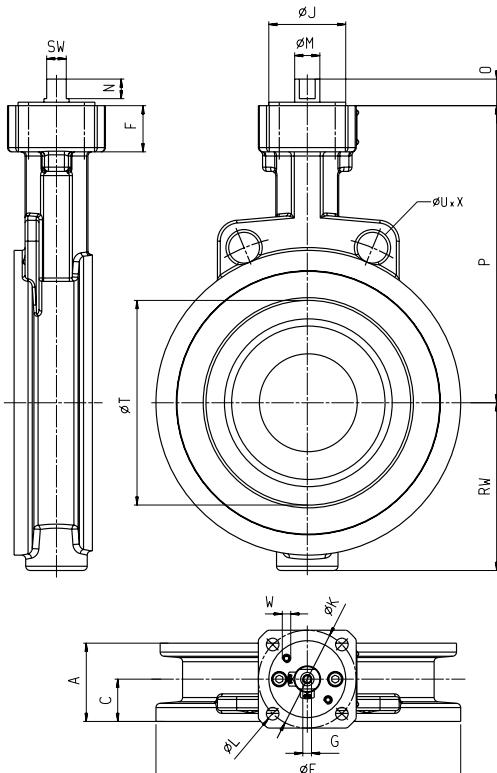
Both the metal seat and the PTFE seat are in tight contact with the disc. As line pressure increases, the seal tightens axially.



Impact of fire

In case of fire, as the PTFE portion of the seat deteriorates, the metal portion of the seat maintains the integrity of the seal.

Xomox High Performance Butterfly Valve 800ISO Dimensions



Dimensions PN 10/16/Class 150 [mm]

DN	NPS	ISO flange	PN	Face-to-face A			C	D	øE	F	G	øJ	øK	øL	øM	N	O
				R20	R25	ASME											
80	3"	F05	10 - 16	46	49	-	23	36	142	30	M6	35	50	7.0	14	11	16
100	4"	F07	10 - 16	52	56	-	26	45	162	33	M6	55	70	9.0	14	11	16
150	6"	F07	10 - 16	56	70	-	30	51	218	33	M6	55	70	9.0	18	14	19
200	8"	F10	10 / 16	60	71	-	33	54	273	34	M8	70	102	11.0	22	17	22
250	10"	F12	10 / 16	68	76	-	39	56	328	36	M8	85	125	13.5	28	22	27
300	12"	F14	10 / 16	78	83	-	45	62	378	38	M10	100	140	17.5	36	27	32
350	14"	F14	10/16/ CL150	92			46	83	515	40	M10	100	140	M16	36	27	32
400	16"	F16	10/16/ CL150	102			50	64	515	43	M10	130	165	M20	36	27	33
450	18"	F16	10/16/ CL150	114			55	73	630	46	M10	130	165	M20	36	27	33
500	20"	F16	10/16/ CL150	127			62,5	70	625	52,5	M12	130	165	M20	48	36	42
600	24"	F25	10/16/ CL150	154			73	80	755	53	M12	200	254	M16	60	46	53

Face-to-Face design according to EN 558 and API 609 Table 2, ASME B16.10 Table 9 Column 7, MSS-SP-68 Table 1

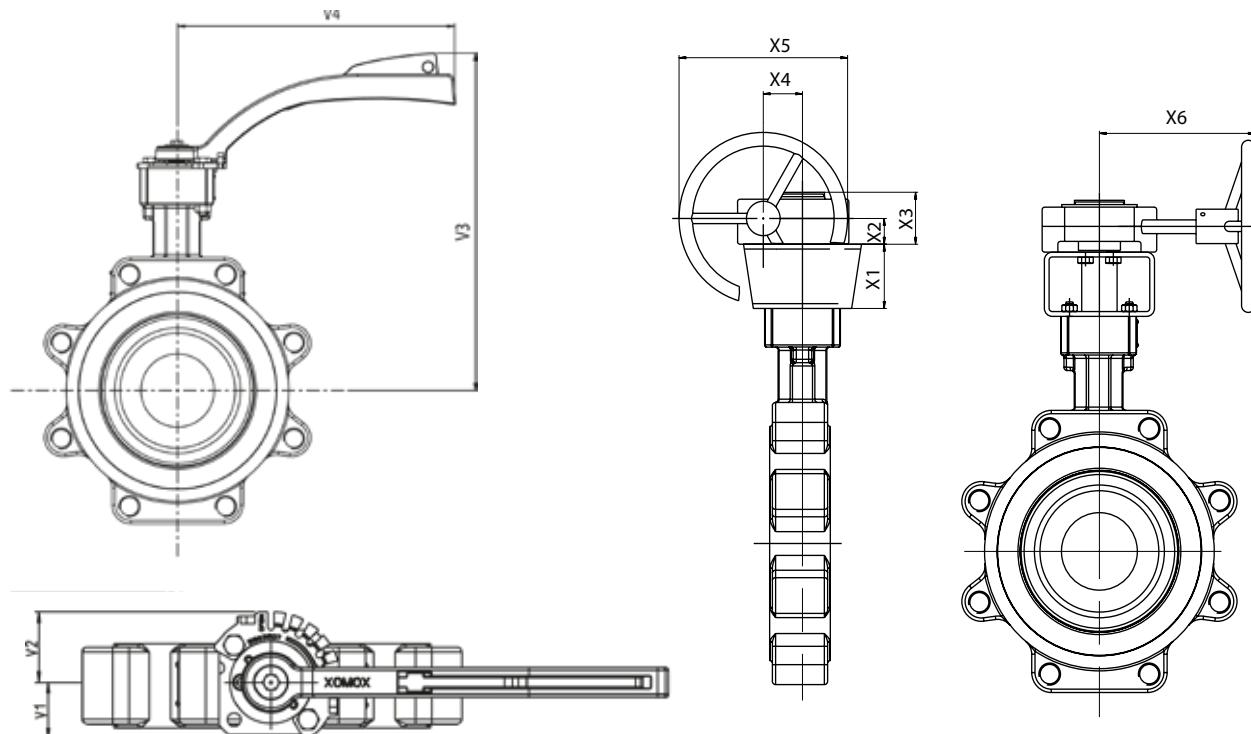
Xomox High Performance Butterfly Valve 800ISO Dimensions

Dimensions (continued)

DN	NPS	ISO flange	PN	P	RL	RW	øS	SW	øT	øU	W	øX	Y	Z			Weight Wafer / Lug [kg]
														R20	R25	ASME	
80	3"	F05	10 - 16	170	90,0	78	192	11	79	160	M6	18	8 x M16	5,0	5,0	-	4,6 / 7,3
100	4"	F07	10 - 16	180	100,0	90	212	11	102	180	M6	18	8 x M16	4,0	4,0	-	7,0 / 10,0
150	6"	F07	10 - 16	213	130,0	120	278	14	146	240	M6	22	8 x M20	2,5	7,3	-	12,2 / 18,8
200	8"	F10	10 / 16	240	167,5	145	339	17	190	295	M6	22	8 x M20 12 x M20	4,5	8,5	-	19,0 / 33,4
250	10"	F12	10 / 16	273	196,5	179	405	22	235	350 355	M8	22 26	12 x M20 12 x M24	11,0	11,0	-	31,0 / 45,2
300	12"	F14	10 / 16	300	220,0	205	454	27	281	400 410	M8	22 26	12 x M20 12 x M24	14,0	14,0	-	45,8 / 61,8
350	14"	F14	10/16/ CL150	360	271	271	515	27	331	460 470 476,2	M10	22 26 28,6	16 x M20 16 x M24 12 x 1"-UNC	5,5			72 / 110
400	16"	F16	10/16/ CL150	385	292,5	292,5	584	27	372	515 525 539,7	M12	26 30 28,6	16 x M24 16 x M27 16 x 1"-UNC	18			102 / 131
450	18"	F16	10/16/ CL150	415	316	316	630	27	420	565 585 577,8	M12	26 30 31,7	20 x M24 20 x M27 16 x 1 1/8"-UN	18			127 / 181
500	20"	F16	10/16/ CL150	464	367	367	695	36	469	620 650 635	M16	26 33 31,7	20 x M24 20 x M30 16 x 1 1/8"-8UN	27,5			173 / 219
600	24"	F25	10/16/ CL150	521	426,5	426,5	820	46	561	725 770 749,3	M16	30 36 34,9	20 x M27 20 x M33 20 x 1 1/4"-8UN	33			276 / 358

Face-to-Face design according to EN 558 and API 609 Table 2, ASME B16.10 Table 9 Column 7, MSS-SP-68 Table 1

Xomox High Performance Butterfly Valve 800ISO Dimensions



Valves with Latching Lever or Worm Gear DN 80 up to 600 / NPS 3" up to 24"

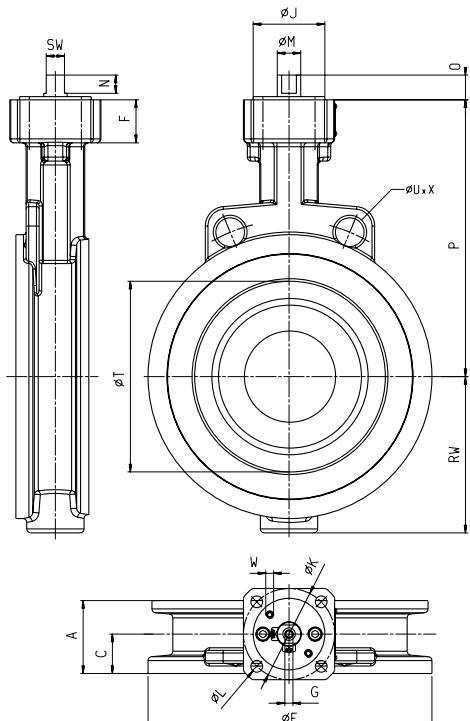
Dimensions PN 10-40 [mm]

		Latching Lever					Manual Gear					
DN	PN	V1	V2	V3	V4	Steps	X1	X2	X3	X4	X5	X6
80	10-16	33	33	266	170	5 x 18° *	60	27	58	39	150	133
	25-40	38	47	280	264	6 x 15°**	60	27	58	39	150	133
100	10-16	38	47	290	264	6 x 15°	60	27	58	39	150	133
	25-40	38	47	298	264	6 x 15°	60	27	58	39	150	133
150	10-16	38	47	322	264	6 x 15°	80	35	67	52	203	163
	25-40	n/a	n/a	n/a	n/a	n/a	80	35	67	52	203	163
200	10-16	n/a	n/a	n/a	n/a	n/a	80	35	67	52	203	163
	25-40	n/a	n/a	n/a	n/a	n/a	80	42	81	67	305	200
250	10-16	n/a	n/a	n/a	n/a	n/a	80	42	81	67	305	200
	25-40	n/a	n/a	n/a	n/a	n/a	80	42	81	67	305	200
300	10-16	n/a	n/a	n/a	n/a	n/a	80	42	81	67	305	200
	25-40	n/a	n/a	n/a	n/a	n/a	100	50	94	90	457	267
350	10-16	n/a	n/a	n/a	n/a	n/a	80	42	81	67	305	200
		n/a	n/a	n/a	n/a	n/a	80	42	81	67	305	200
400	10-16	n/a	n/a	n/a	n/a	n/a	100	50	94	90	457	267
		n/a	n/a	n/a	n/a	n/a	100	50	94	90	457	267
450	10-16	n/a	n/a	n/a	n/a	n/a	100	50	94	90	457	267
		n/a	n/a	n/a	n/a	n/a	100	50	94	90	457	267
500	10 / 16	n/a	n/a	n/a	n/a	n/a	100	50	94	90	457	267
		n/a	n/a	n/a	n/a	n/a	100	50	105	123	620	352
600	10 / 16	n/a	n/a	n/a	n/a	n/a	200	50	105	123	620	377
		n/a	n/a	n/a	n/a	n/a	200	50	126	154	750	

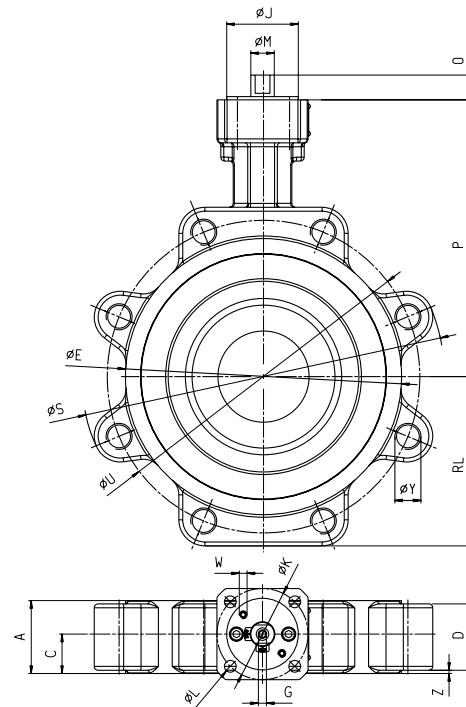
* Closed / 18° / 36° / 54° / 72° / Open

** Closed / 15° / 30° / 45° / 60° / 75° / Open

Xomox High Performance Butterfly Valve 800ISO Dimensions



Wafer Design



LUG Design

Dimensions PN 25/40 [mm]

Face-to-face A															
DN	ISO flange	PN	R20	R25	C	D	øE	F	G	øJ	øK	øL	øM	N	O
80	F07	25 - 40	46	49	23	41.0	142	33	M6	55	70	9.0	14	11	16
100	F07	25 - 40	52	56	26	47.0	168	33	M6	55	70	9.0	18	14	19
150	F10	25 - 40	56	70	30	53.5	224	34	M8	70	102	11.0	22	17	22
200	F12	25 - 40	60	71	33	59.0	284	37	M8	85	125	13.5	28	22	27
250	F14	25 - 40	68	76	39	64.5	340	40	M10	100	140	17.5	36	27	32
300	F16	25 - 40	78	83	45	69.0	395	43	M10	130	165	22.0	36	27	32

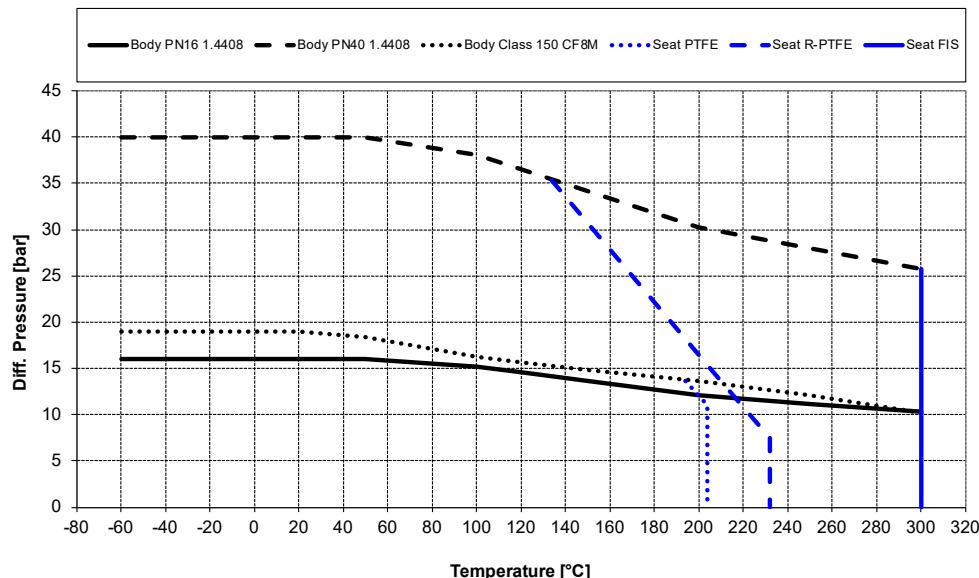
Dimensions (continued)

DN	ISO flange	PN	P	RL	RW	øS	SW	øT	øU	W	øX	Y	Z		Weight Wafer / Lug [kg]
													R20	R25	
80	F07	25 - 40	170.0	90	78	192	11	79	160	M6	18	8 x M16	3.0	3.0	5.5 / 7.9
100	F07	25 - 40	187.5	107	94	227	14	102	190	M6	22	8 x M20	3.0	3.0	7.5 / 11.4
150	F10	25 - 40	220.0	138	122	294	17	146	250	M6	22	8 x M24	2.5	2.5	14.7 / 22.8
200	F12	25 / 40	257.5	182	180	365	22	190	310 320	M8	26 30	12 x M24 12 x M27	1.0	1.0	26.4 / 43.4
250	F14	25 / 40	295.0	215	200	444	27	235	370 385	M8	30 33	12 x M27 12 x M30	4.0	4.0	41.3 / 65.2
300	F16	25 / 40	327.5	250	230	510	27	281	430 450	M8	30 33	16 x M27 16 x M30	9.5	9.5	60.8 / 95.0

Face-to-Face design according to EN 558 and API 609 Table 2, ASME B16.10 Table 9 Column 7, MSS-SP-68 Table 1

Xomox High Performance Butterfly Valve 800ISO Design Parameters

Pressure-Temperature Rating



KV values PN 10/16 and Class 150

KV values at various disc opening angles [m³/h]						
DN	10 °	18 °	36 °	54 °	72 °	90 °
80	6	15	43	91	165	253
100	10	26	73	158	293	442
150	27	70	196	413	736	1154
200	47	120	335	709	1310	1980
250	74	191	532	1124	2080	3147
300	107	276	771	1628	2994	4627
350	153	380	1063	2245	4111	6325
400	193	482	1350	2852	5222	8034
450	265	662	1852	3914	7167	11026
500	330	826	2312	4865	8944	13760
600	446	1164	3260	6888	12611	19402

KV values PN 25/40

KV values at various disc opening angles [m³/h]						
DN	10 °	18 °	36 °	54 °	72 °	90 °
80	5,1	13	37	79	144	222
100	9,4	24	66	144	264	406
150	26	64	178	376	689	1060
200	46	115	322	681	1247	1919
250	72	181	505	1068	1955	3066
300	104	262	732	1547	2833	4359

Cv [gal/min]= Kv * 1.156

Torque Data

Diff. pressure	Torque, PTFE seat [Nm]			Torque, R-PTFE/FIS seat [Nm]				
	7 bar	14 bar	20 bar	7 bar	14 bar	20 bar	28 bar	40 bar
80	24	31	37	29	36	43	52	68
100	39	50	61	46	60	72	90	115
150	96	120	146	115	140	175	225	299
200	181	226	277	217	270	330	425	579
250	289	352	443	346	435	530	690	940
300	430	543	661	516	650	790	1032	1416
350	588	735	900	625	850	1045	-	-
400	803	1006	1246	950	1155	1710	-	-
450	1006	1272	1590	1090	1590	2040	-	-
500	1289	1640	2037	1500	2200	2840	-	-
600	2046	2600	3210	2390	3385	4340	-	-

Xomox High Performance Butterfly Valve 800ISO

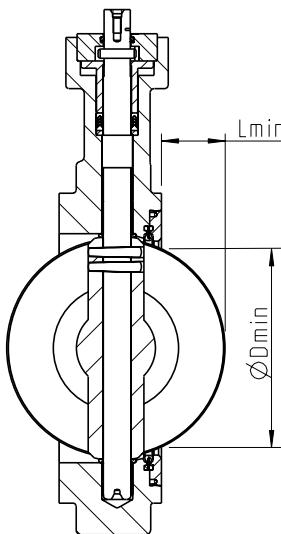
Key Product Features

Seat tightness

For PTFE, R-PTFE and Firesafe seats:
Leak rate A according to EN 12266-1.

Vacuum service

Standard: 3.33×10^{-2} mbar
Special: 1.33×10^{-6} mbar



Minimum pipe diameter for connecting flanges

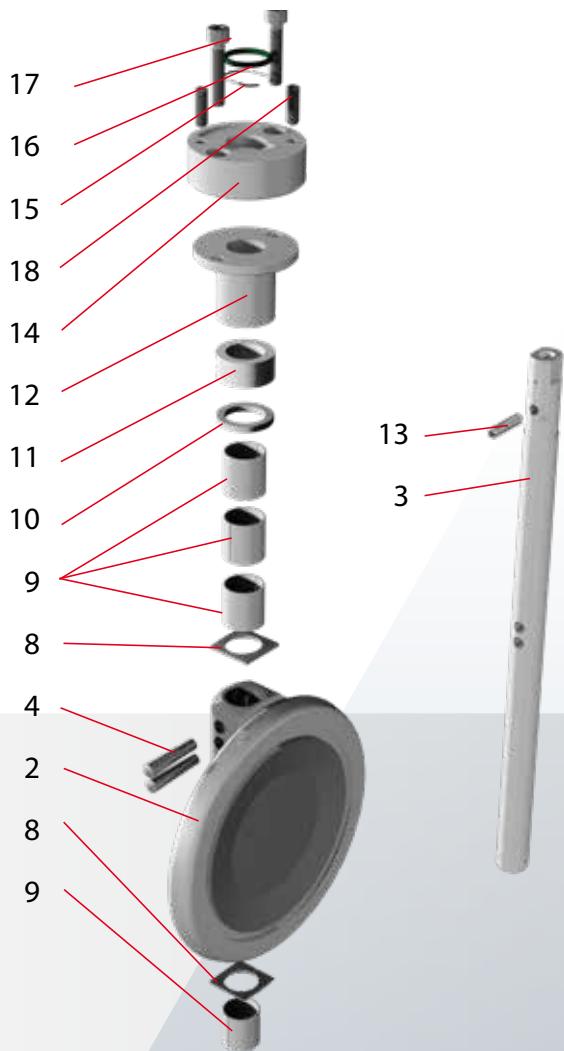
Minimum pipe diameter for connecting flanges			
DN	øDmin R25 [mm]	øDmin R20 [mm]	Lmin [mm]
80	73	74	20
100	96	97	30
150	141	146,5	50
200	186	194	70
250	233	243	90
300	280	289	111
350	330	330	125
400	370	370	140
450	420	420	160
500	470	470	180
600	560	560	220

Coding - How to Order

Size	Pressure class	Type	Body	Disc	Seat	Shaft seal material	Optional equipment
080	10	870ISO	025	025	0	0	x
DN	Code	NPS	Code				
80	080						
100	100						
150	150						
200	200						
250	250						
300	300						
350	350	14"	14"				
400	400	16"	16"				
450	450	18"	18"				
500	500	20"	20"				
600	600	24"	24"				
Press. class	Code						
PN 10	10						
PN 16	16						
PN 25	25						
PN 40	40						
Class 150	150						

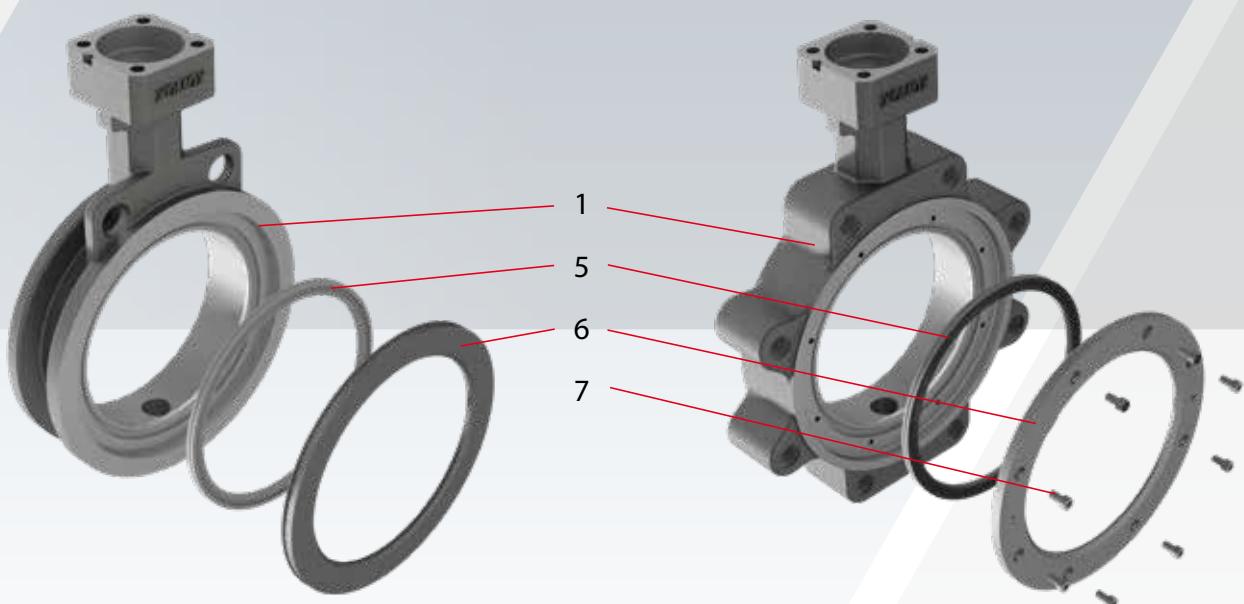
Optionally, the lug-design valves are available with a bolted seat retainer for double dead-end service. Larger sizes, higher pressure and temperature ranges, and ASME dimensions are still offered under our valve type "800". Special materials as per customer request are also provided under type "800".

Xomox High Performance Butterfly Valve 800ISO Materials as per DN 80-300



Pos. no.	Part	Material	
		Soft-seated	Firesafe
1	Valve body	1.4408 / 1.0619	1.4408 / 1.0619
2	Disc	1.4408	1.4408
3	Shaft	A564-630	A564-630
4	Tapered pin	A564-630	A564-630
5	Entire seat	PTFE / R-PTFE	1.4571 / PTFE
6	Seat retainer	1.4408	1.4408
7	Hex socket cap screw	A4-70	A4-70
8	Disc spacer	A564-630 / 1.4571 S4N	A564-630 / 1.4571 S4N
9	Shaft bearing, rolled	1.4571 / PTFE	1.4571 / Ni-plated
10	Packing ring	1.4571	1.4571
11	Entire packing	PTFE	Graphite
12	Pressure ring	1.4571	1.4571
13	Locking pin	1.4310	1.4310
14	Packing gland	1.4408 / 1.4571	1.4408 / 1.4571
15	Antistatic spring	1.4310	1.4310
16	O-ring	FKM	FKM
17	Fixing screw (hex socket cap screw)	A4-70	A4-70
18	Pressure ring adj. screw	A4-70	A4-70
	Seat sealing (with Firesafe only)		See detail page 7

* Bodies in carbon steel (1.0619/WCB) will be delivered with an anti-corrosive protection paint

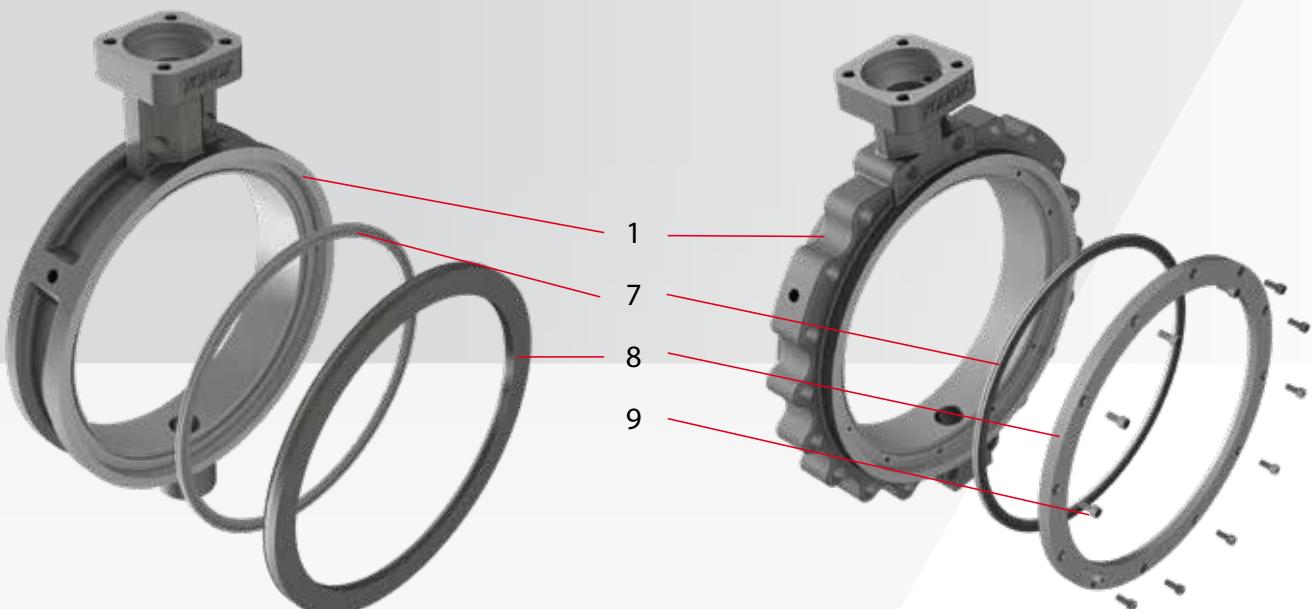
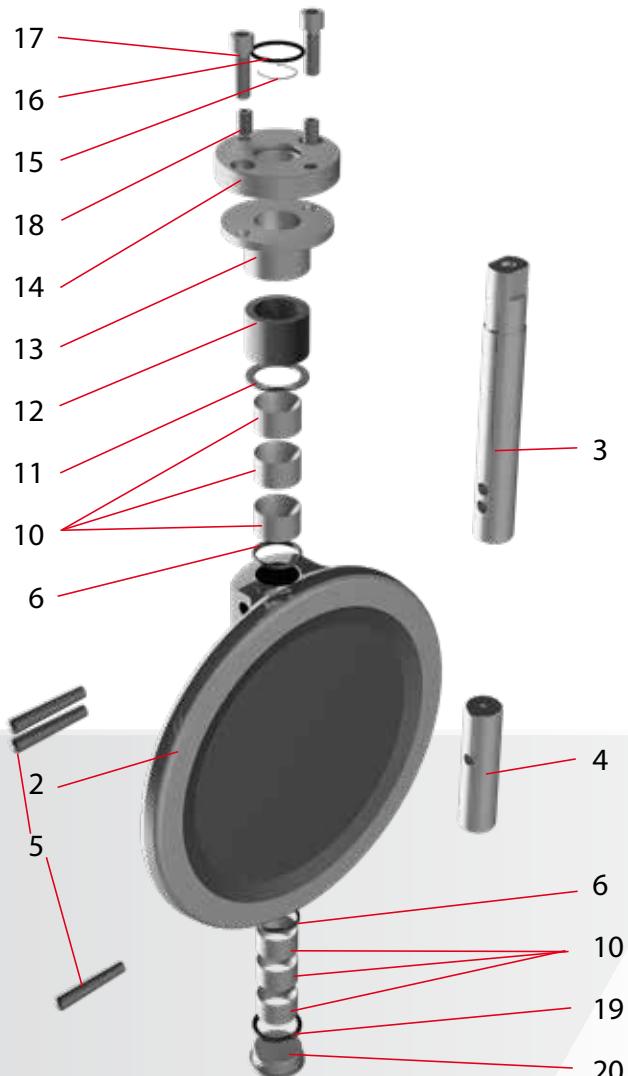


Xomox High Performance Butterfly Valve 800ISO

Materials DN 350-600 / 14"-24"

		Material	
Pos. no.	Part	Soft-seated	Firesafe
1	Valve body	1.4408 / 1.0619 CF8M / WCB	1.4408 / 1.0619 CF8M / WCB
2	Disc	1.4408 / CF8M	1.4408 / CF8M
3	Top shaft	A564-630	A564-630
4	Top shaft	A564-630	A564-630
5	Tapered pin	A564-630	A564-630
6	Disc spacer	A564-630 / 1.4571 S4N	A564-630 / 1.4571 S4N
7	Entire seat	PTFE / R-PTFE	1.4571 / PTFE
8	Seat retainer	1.4571	1.4571
9	Hex socket cap screw	A4-70	A4-70
10	Shaft bearing, rolled	1.4571 / PTFE	1.4571 / Ni-plated
11	Packing ring	1.4571	1.4571
12	Entire packing	PTFE	Graphite
13	Pressure ring	1.4571	1.4571
14	Packing gland	1.4408 / 1.4571	1.4408 / 1.4571
15	Antistatic spring	1.4310	1.4310
16	O-ring	FKM	FKM
17	Fixing screw (hex socket cap screw)	A4-70	A4-70
18	Pressure ring adj. screw	A4-70	A4-70
19	Plug seal	PTFE	Graphite
20	Plug screw	A4-50	A4-50
	Seat sealing (with Firesafe only)		See detail page 7

* Bodies in carbon steel (1.0619/WCB) will be delivered with an anti-corrosive protection paint





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