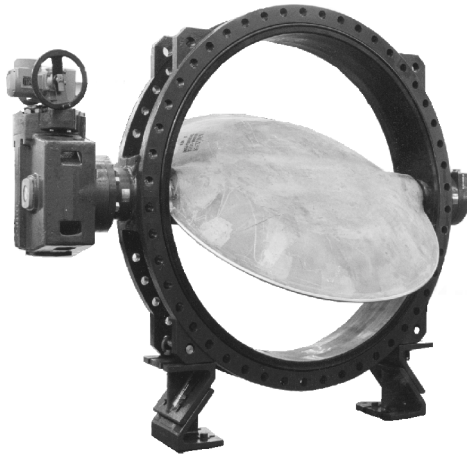


Centred disc butterfly valve disc with AMRING® elastomer liner



42 to 120 inch

Allowable pressure PS up to 25 bar (375 psig)

Design according to EN 593 and ISO 10631

Applications

- Water treatment and supply, sea water desalination (multiflash, reverse osmosis processes),
- Cooling water systems and fire water systems,
- Shipbuilding, iron and steel industry and electric power stations (hydraulic, thermal or nuclear),
- Flow shut-off or regulation functions in all sectors of industry.

Working conditions

- Temperature: from -0°C minimum up to $+65^{\circ}\text{C}$ maximum.
The working temperature depends on the media and the nature of elastomer used.
Other temperatures can be proposed.
- Allowable pressure (PS): up to 25 bar at room temperature.

Materials

See page 2.

Design

- Flanged body with flat faces (Type 5) DN 1050-42" to 3000-120" (DN > 3000 please consult us)
- Body
PS 6 bar: DN 1600 to 3000
PS 10 bar: DN 1050 to 2500
PS 16 bar: DN 1100 to 2200
PS 20 bar: DN 1100 to 2000
PS 25 bar: DN 1100 to 1800
- Valves can be installed with shafts in any position from horizontal to vertical (actuator on the top).
- Valves perfectly tight shut-off (no visible leakage at the naked eye) in either flow direction, in accordance with the following standards: EN 12266-1/leak level A and ISO 5208 category. A, and all other standard which allow a leakage rate (ANSI/FCI 70-2 class 6 for instance).

- Possible downstream dismantling and end of line.
- Body coated with polyurethane paint, thickness $80\ \mu\text{m}$, colour blue ref. RAL 5002.
- Disc DN 1050 to 1500: spheroidal graphite cast iron coated with epoxy paint, thickness $80\ \mu\text{m}$, colour brown ref. RAL 8012.
- Disc DN > 1500: spheroidal graphite cast iron coated with polyurethane paint, thickness $80\ \mu\text{m}$, colour grey white ref. RAL 7035.
- Connection according to standards page 12.
- Mounting plate meeting the ISO 5211 standards.
- Marking in accordance with EN 19.
- The valves meet the safety requirements of the pressure Equipments Directive 97/23/EC (PED) appendix 1 for fluids of the groups 1 and 2.

Standard variants

- Live Loaded Open Stop
- Disc locking device
- Body supports
- Dismantling and dilatation joints
- Electric actuator ACTELEC, pneumatic actuator ACTAIR, hydraulic actuator ACTO
- ATEX version in accordance with 94/9/EC directive

Remarks

- Operating instructions 8449.8-10
- Actuator selection 8449.178-10

Data to be supplied when ordering

- MAMMOUTH valve in accordance with type series booklet 8612.12/4-10.
- Size.
- Working conditions: nature of fluid, pressure, flow, temperature.
- Connection.
- Actuation.



Materials

Body	KSB code
Spheroidal graphite cast iron JS 1030 / ASTM A536 gr. 60.40.18	3g
Shafts	KSB code
Stainless steel 1.4029 / 1.4028 (13% Cr) Stainless steel ASTM A276 gr. 420	6k 6k
Disc	KSB code
Spheroidal graphite cast iron JS 1030 / ASTM A536 gr. 60.40.18 Spheroidal graphite cast iron JS 1030 / ASTM A536 gr. 60.40.18 ebonite Stainless steel Type 1.4408 / ASTM A351 gr. CF8M Aluminium-bronze ASTM B148 gr. C95800	3g 3p 6 2
AMRING® liner	KSB code
E.P.D.M High content nitrile	XC K

Other materials are possible, please consult us.

Vacuum limits

Liners are sticked in the following cases:

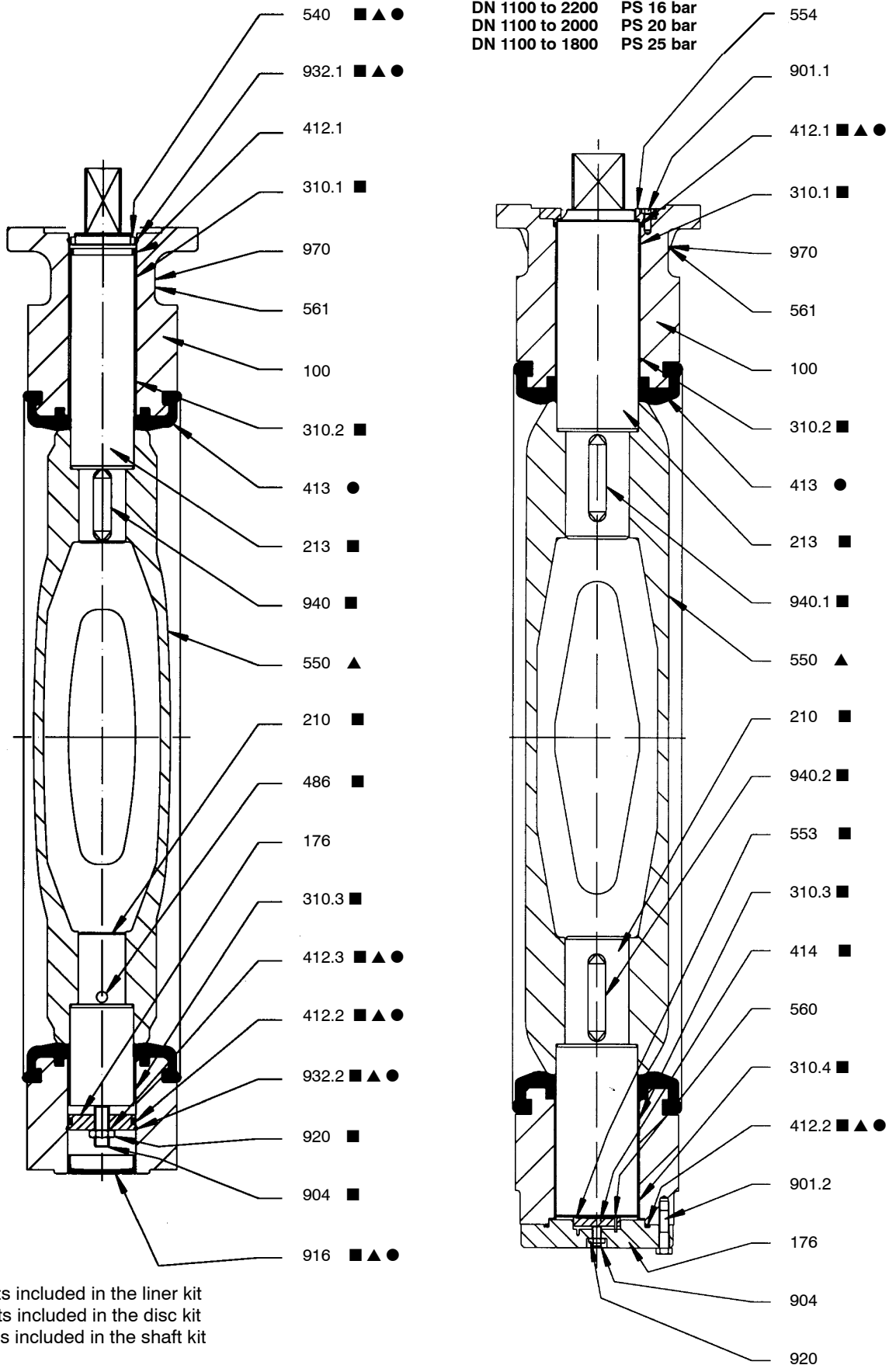
- DN 1050 to 1200 for pressure classes 6 bar and 10 bar, application lower to 0,3 bar absolut.
- All other DN and all other pressure classes for valves with face to face 280, in case of application lower than the atmospheric pressure.

For valves liner sticked, the maximum working pressure is equal to pressure class of the valve.

Construction

DN 1050 to 1200 PS 10 bar

DN 1600 to 3000 PS 6 bar
 DN 1350 to 2500 PS 10 bar
 DN 1100 to 2200 PS 16 bar
 DN 1100 to 2000 PS 20 bar
 DN 1100 to 1800 PS 25 bar



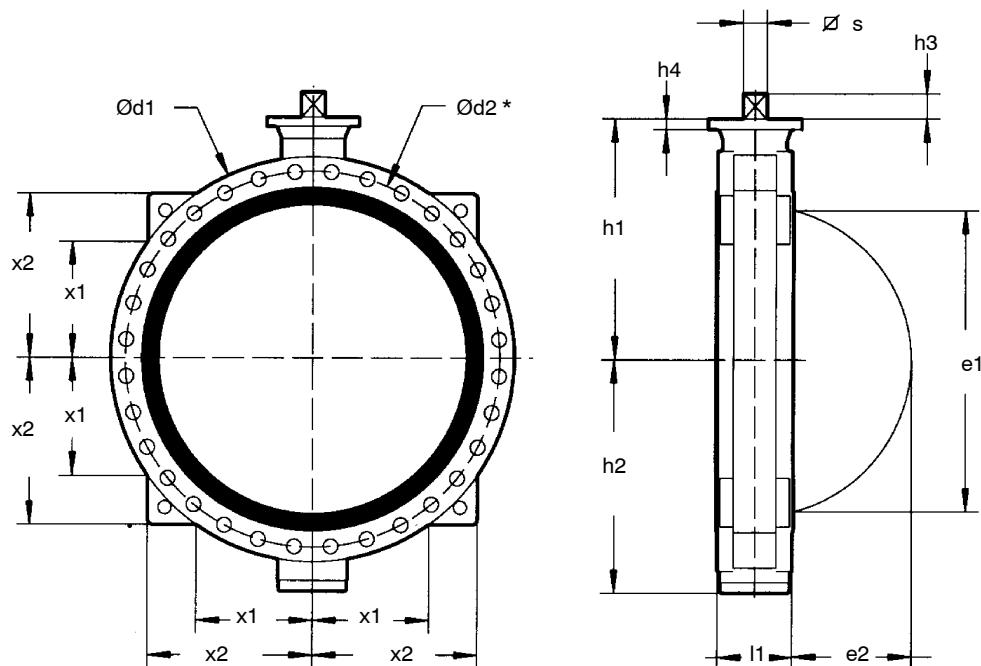
- Spare parts included in the liner kit
- ▲ Spare parts included in the disc kit
- Spare parts included in the shaft kit

DN1050 to 1200 PS 10 bar

Item	Designation	Materials
100	Body	Spheroidal graphite cast iron
176	Bottom	Carbon steel
210	Shaft	Stainless steel
213	Operating shaft	Stainless steel
310.1	Plain bearing	PTFE filled on steel casing
310.2	Plain bearing	PTFE filled on steel casing
310.3	Plain bearing	PTFE filled on steel casing
412.1	O-ring	Nitrile
412.2	O-ring	Nitrile
412.3	O-ring	Nitrile
413	Liner	In accordance with fluid
486	Ball	Steel
540	Split bush	Acetal
550	Disc	In accordance with fluid
561	Grooved nail	Stainless steel
904	Adjusting screw	Steel
916	Plug	Polyethylene
920	Nut	Steel
932.1	Spring retaining ring	Steel
932.2	Spring retaining ring	Steel
940	Key	Steel
970	Identity plate	Stainless steel

DN1600 to 3000 PS 6 bar
DN 1350 to 2500 PS 10 bar
DN 1100 to 2200 PS 16 bar
DN 1100 to 2000 PS 20 bar
DN 1100 to 1800 PS 25 bar

Item	Designation	Materials
100	Body	Spheroidal graphite cast iron
176	Bottom	Carbon steel
210	Shaft	Stainless steel
213	Operating shaft	Stainless steel
310.1	Plain bearing	PTFE filled on steel casing
310.2	Plain bearing	PTFE filled on steel casing
310.3	Plain bearing	PTFE filled on steel casing
310.4	Plain bearing	PTFE filled on steel casing
412.1	O-ring	Nitrile
412.2	O-ring	Nitrile
413	Liner	In accordance with fluid
414	Disc thrust plate	Steel
550	Disc	In accordance with fluid
553	Lubricating thrust insert	PTFE filled on steel casing
554	Washer	Steel
560	Elastic pin	Steel
561	Grooved nail	Stainless steel
904	Adjusting screw	Steel
920	Nut	Steel
901.1	Screw	Stainless steel
901.2	Screw	Stainless steel
940.1	Key	Steel
940.2	Key	Steel
970	Identity plate	Stainless steel

Dimensions


DN	NPS	Pressure	Connection	$\varnothing d1$	Face to face	$h1$	$h2$	Mounting plate ISO 5211		Shaft output		Disc clearance		$x1$	$x2$	Weight daN
					$l1$			n	$h4$	s	$h3$	$e1$	$e2$			
	42"	10	AWWA cl. D	1 332	216	765	674	F25	30	60	80	1 006	405	383	545	850
1100		10	EN 1092 PN10	1 340	216	790	703	F25	30	60	80	1 057	430	386	548	900
	44"	10	AWWA cl. D	1 340	216	790	703	F25	30	60	80	1 057	430	403	566	960
1100		16	EN 1092 PN 16	1 355	280	867	843	F30	40	90	90	1 035	396	333	590	1 400
	44"	16	AWWA cl. E	1 405	280	867	843	F30	40	90	90	1 035	396	382	590	1 400
1100	44"	20	PN 20 / Cl. 150	1 405	280	867	843	F30	40	90	90	1 035	396	382	590	1 600
1100		25	EN 1092 PN 25	1 420	280	867	843	F30	40	90	90	1 035	396	395	590	1 878
1200		10	EN 1092 PN10	1 455	254	840	756	F25	30	60	80	1 152	461	428	588	1 090
	48"	10	AWWA cl. D	1 497	254	840	756	F25	30	60	80	1 152	461	444	602	1 150
1200		16	EN 1092 PN 16	1 485	280	917	893	F30	40	90	90	1 137	447	450	625	1 538
	48"	16	AWWA cl. E	1 511	280	917	893	F30	40	90	90	1 137	447	450	625	1 538
1200	48"	20	PN 20 / Cl. 150	1 511	280	917	893	F30	40	90	90	1 137	447	450	625	1 761
1200		25	EN 1092 PN 25	1 530	280	917	893	F30	40	90	90	1 137	447	450	625	2 031
1300		16	EN 1092 PN 16	1 585	280	967	943	F30	40	90	90	1 240	497	470	680	1 620
	52"	16	AWWA cl. E	1 626	280	967	943	F30	40	90	90	1 240	497	470	680	1 620
1300	52"	20	PN 20 / Cl. 150	1 626	280	967	943	F30	40	90	90	1 240	497	470	680	1 915
1300		25	EN 1092 PN 25	1 645	280	967	943	F35	40	90	90	1 240	497	470	680	2 185
	54"	10	AWWA cl. D	1 683	280	992	968	F30	40	90	90	1 293	522	480	700	1 500
	54"	16	AWWA cl. E	1 683	280	992	968	F30	40	90	90	1 293	522	480	700	1 680
1350		20 - 25	Not standardized	Please consult us												
1400		10	EN 1092 PN10	1 675	280	1 017	993	F30	40	90	90	1 343	547	480	725	1 600
1400		16	EN 1092 PN 16	1 685	280	1 017	993	F30	40	90	90	1 343	547	480	725	1 744
1400	56"	20	PN 20 / Cl. 150	1 745	280	1 017	993	F35	40	90	90	1 343	547	480	725	2 068
1400		25	EN 1092 PN 25	1 755	400	1 055	1 018	F35	40	90	90	1 303	481	485	735	2 622
1500		10	EN 1092 PN10	1 785	280	1 067	1 043	F30	40	90	90	1 455	600	530	765	1 800
	60"	10	AWWA cl. D	1 854	280	1 067	1 043	F30	40	90	90	1 455	600	530	765	1 800
1500		16	EN 1092 PN 16	1 820	280	1 067	1 043	F30	40	90	90	1 455	600	530	765	1 950
	60"	16	AWWA cl. E	1 854	280	1 067	1 043	F30	40	90	90	1 455	600	530	765	1 950
1500	60"	20	PN 20 / Cl. 150	1 854	400	1 105	1 068	F35	40	90	90	1 407	531	520	775	3 085
1500		25	EN 1092 PN 25	1 865	400	1 105	1 068	F35	40	90	90	1 407	531	520	775	3 210

DN	NPS	Pressure	Connection	Ød1	Face to face	h1	h2	Mounting plate ISO 5211		Shaft output		Disc clearance		x1	x2	Weight daN
					l1			n	h4	s	h3	e1	e2			
1600		6	PN 6	1 830	280	1 115	1093	F30	40	90	90	1 540	644	560	790	2 160
1600		10	PN 10	1 915	280	1 115	1093	F30	40	90	90	1 540	644	560	790	2 440
1600		16	PN 16	1 930	280	1 115	1093	F35	40	90	90	1 540	644	560	790	2 658
1600		20	Not standardized	Please consult us												
1600		25	PN 25	1 975	400	1 155	1118	F40	45	110	110	1 512	582	565	810	3 320
	66"	6	AWWA cl. B	2 032	280	1 147	1123	F30	40	90	90	1 608	677	580	835	2 251
	66"	10	AWWA cl. D	2 032	280	1 147	1123	F30	40	90	90	1 608	677	580	835	2 531
	66"	16	AWWA cl. E	2 032	280	1 147	1123	F35	40	90	90	1 608	677	580	835	3 048
	66"	20 - 25	Not standardized	Please consult us												
1800		6	PN 6	2 045	280	1 217	1193	F30	40	90	90	1 748	747	620	860	2 281
1800		10	PN 10	2 115	280	1 217	1193	F35	40	90	90	1 748	747	620	860	2 716
1800		16	PN 16	2 130	400	1 255	1218	F35	40	90	90	1 718	682	650	890	3 295
1800		20	Not standardized	Please consult us												
1800		25	PN 25	2 195	400	1 255	1218	F40	45	110	110	1 718	682	650	890	3 895
	72"	6	AWWA cl. B	2 197	280	1 217	1193	F30	40	90	90	1 748	747	650	890	2 698
	72"	10	AWWA cl. D	2 197	280	1 217	1193	F35	40	90	90	1 748	747	650	890	2 956
	72"	16	AWWA cl. E	2 197	400	1 255	1218	F35	40	90	90	1 718	682	650	890	3 753
	72"	20 - 25	Not standardized	Please consult us												
	78"	6	AWWA cl. B	2 362	280	1 297	1273	F35	40	90	90	1 911	826	720	940	2 795
	78"	10	AWWA cl. D	2 362	280	1 297	1273	F35	40	90	90	1 911	826	720	950	3 073
	78"	16	AWWA cl. E	2 362	400	1 335	1298	F40	45	110	110	1 881	762	720	950	4 880
	78"	20	Not standardized	Please consult us												
2000		6	PN 6	2 265	280	1 319	1 295	F35	40	90	90	1 952	847	690	940	2 885
2000		10	PN 10	2 325	400	1 355	1 318	F40	45	110	110	1 922	780	710	940	3 956
2000		16	PN 16	2 345	400	1 355	1 318	F40	45	110	110	1 922	780	710	940	5 304
2000		20	Not standardized	Please consult us												
	84"	6	AWWA cl. B	2 534	280	1 372	1 348	F35	40	90	90	2 060	900	770	1 010	3 064
	84"	10	AWWA cl. D	2 534	400	1 410	1 373	F40	45	110	110	2 035	836	770	1 010	4 831
	84"	16	AWWA cl. E	2 534	400	1 410	1 373	F40	45	110	110	2 035	836	770	1 010	6 445
2200		6	PN 6	2 475	280	1 419	1 395	F35	40	90	90	2 154	948	750	980	3 245
2200		10	PN 10	2 550	400	1 460	1 423	F40	45	110	110	2 135	885	770	1 020	4 220
	90"	6	AWWA cl. B	2 705	400	1 505	1 468	F40	45	110	110	2 227	931	830	1 020	3 835
	90"	10	AWWA cl. D	2 705	400	1 505	1 468	F40	45	110	110	2 227	931	830	1 070	4 447
2400		6	PN 6	2 685	400	1 560	1 523	F40	45	110	110	2 338	986	830	1 070	4 140
2400		10	PN 10	2 760	400	1 560	1 523	F40	45	110	110	2 338	986	830	1 090	5 025
	96"	6	AWWA cl. B	2 877	400	1 560	1 523	F40	45	110	110	2 338	986	830	1 090	4 910
	96"	10	AWWA cl. D	2 877	400	1 560	1 523	F40	45	110	110	2 338	986	830	1 130	5 320
2500		6 - 10	Not standardized	Please consult us												
	102"	6	AWWA cl. B	3 048	400	1 660	1 623	F40	45	110	110	2 526	1 078	950	1 190	5 110
2600		6	PN 6	2 905	400	1 660	1 623	F40	45	110	110	2 526	1 078	900	1 140	4 980
	108"	6	AWWA cl. B	3 220	400	1 735	1 698	F48	45	140	140	2 641	1 136	1 020	1 250	5 710
2800		6	PN 6	3 115	400	1 760	1 723	F48	45	140	140	2 738	1 184	980	1 210	5 826
	114"	6	AWWA cl. B	3 391	400	1 810	1 773	F48	45	140	140	2 843	1 236	1 080	1 310	6 720
3000		6	PN 6	3 315	400	1 860	1 823	F48	45	140	140	2 945	1 286	1 050	1 280	6 670
	120"	6	AWWA cl. B	3 562	400	1 865	1 828	F48	45	140	140	2 950	1 291	1 130	1 370	7 698

Dimensions are given for information and can be modified.

* φ d2 : See bolting table

Hydraulic characteristics

DN	NPS	Flow coefficient valve in fully open position Kvo				
		6 bar	10 bar	16 bar	20 bar	25 bar
	42"		122 500			
1100	44"		142 300	82 800	82 800	82 800
1200	48"		168 100	111 600	111 600	111 600
1300	52"			147 600	147 600	147 600
1350	54"		169 200	169 200	169 200	169 200
1400	56"		190 800	190 800	190 800	104 400
1500	60"		237 600	237 600	133 200	133 200
1600		295 200	295 200	295 200	169 200	169 200
	66"	327 600	327 600	327 600	190 800	190 800
1800	72"	428 400	428 400	259 200	259 200	259 200
	78"	550 800	550 800	338 400	338 400	
2000		594 000	367 200	367 200	367 200	
	84"	694 800	435 600	435 600		
2200		802 800	507 600			
	90"	543 600	543 600			
2400	96"	669 600	669 600			
2500		766 800	766 800			
2600	102"	878 400				
	108"	940 000				
2800	114"	1 198 800				
3000	120"	1 479 600				

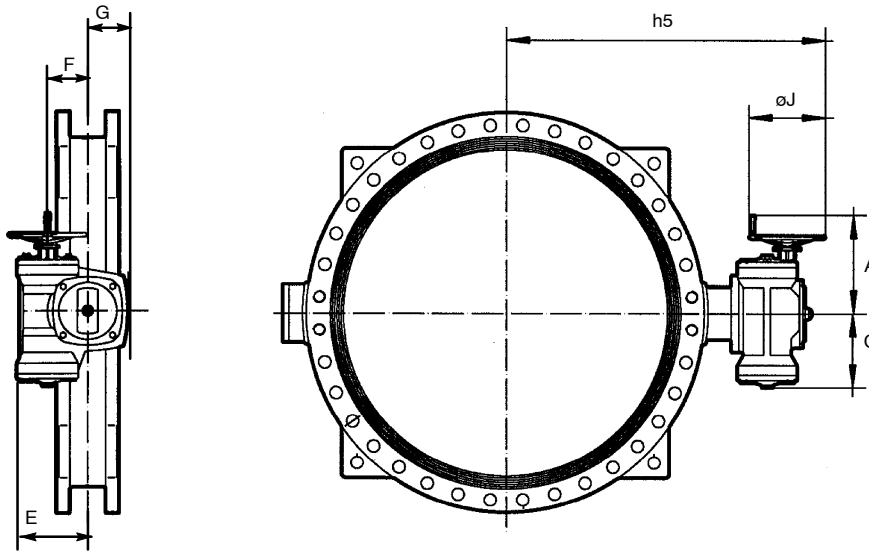
DN	NPS	Flow coefficient valve in fully open position Cvo				
		6 bar	10 bar	16 bar	20 bar	25 bar
	42"		142 100			
1100	44"		165 070	96 050	96 050	96 050
1200	48"		195 000	129 500	129 500	129 500
1300	52"			171 250	171 250	171 250
1350	54"		196 300	196 300	196 300	196 300
1400	56"		221 330	221 350	221 350	121 150
1500	60"		275 620	275 650	154 550	154 550
1600		342 450	342 450	342 450	196 300	196 300
	66"	380 050	380 050	380 050	221 350	221 350
1800	72"	496 950	496 950	300 700	300 700	300 700
	78"	638 950	638 950	392 550	392 550	
2000		689 050	426 000	426 000	426 000	
	84"	806 000	505 300	505 300		
2200		931 250	588 850			
	90"	630 600	630 600			
2400	96"	776 750	776 750			
2500		889 500	889 500			
2600	102"	1 018 950				
	108"	1 100 000				
2800	114"	1 390 650				
3000	120"	1 716 350				

Motorization

For large sizes valves, the torque depends on hydraulic characteristics.

The table below shows recommended actuators on lubricated media with a maximum fluid velocity of 2m/s (6.5ft/s). According to the working conditions and the hydraulic characteristics, higher fluid velocities can be allowed, therefore other actuator recommendations can be proposed : please consult us.

Manual control: Reducer



DN	NPS	Pressure	Reducer	A	C	E	F	G	øJ	h5	Weight kg*
1050	42"	10	MR 600	511	405	245	140	155	600	1174	105
1100	44"	10	MR 600	511	405	245	140	155	600	1199	105
1100	44"	16 and 20	MR 1200	661	555	318	180	180	800	1397	175
1100	44"	25	MR 1600	447	348	318	180	180	800	1264	183
1200	48"	10	MR 600	397	298	245	140	155	350	1174	105
1200	48"	16	MR 1200	661	555	318	180	180	800	1447	175
1200	48"	20 and 25	MR 1600	447	348	318	180	180	350	1314	183
1300	52"	16 and 20	MR 1600	447	348	318	180	180	350	1314	183
1300		25	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1483	308
1350	54"	10	MR 1200	661	555	318	250	268	800	1522	175
1350	54"	16	MR 1600	447	348	318	180	180	350	1389	183
1350		20	MR 1600	447	348	318	180	180	350	**	183
1350		25	GS250.3+GZ250.3	585	402	365	250	268	800 max.	**	308
1400	56"	10	MR 1200	661	555	318	180	180	800	1547	175
1400	56"	16	MR 1600	447	348	318	180	180	350	1414	183
1400		20 and 25	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1595	308
1500	60"	10	MR 1600	447	348	318	180	180	350	1464	183
1500	60"	16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1607	308
1500	60"	20 and 25	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1645	

DN	NPS	Pressure	Reducer	A	C	E	F	G	øJ	h5	Weight kg
1600		6	MR 1200	661	555	318	180	180	350	1645	175
1600		10	MR 1600	447	348	318	180	180	800	1512	183
1600		16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1655	308
1600		20	GS250.3+GZ250.3	585	402	365	250	268	800 max.	**	308
1600		25	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1695	308
	66"	6	MR 1200	661	555	318	180	180	350	1688	175
	66"	10	MR 1600	447	348	318	180	180	800	1463	183
	66"	16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1697	308
	66"	20	GS250.3+GZ250.3	585	402	365	250	268	800 max.	**	308
	66"	25	GS315+GZ30	848	550	555	315	340	800 max.	**	630
1800	72"	6	MR 1600	447	348	318	180	180	800	1463	183
1800	72"	10	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1757	308
1800	72"	16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1795	308
1800	72"	20	GS250.3+GZ250.3	585	402	365	250	268	800 max.	**	308
1800	72"	25	GS315+GZ30	848	550	555	315	340	800 max.	1807	630
	78"	6 and 10	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1837	308
	78"	16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1875	308
	78"	20	GS315+GZ30	848	550	555	315	340	800 max.	**	630
2000		6	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1859	308
2000		10 and 16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1895	308
2000		20	GS315+GZ30	848	550	555	315	340	800 max.	**	630
1800	72"	10	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1757	308
1800	72"	16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1795	308
1800	72"	20	GS250.3+GZ250.3	585	402	365	250	268	800 max.	**	308
1800	72"	25	GS315+GZ30	848	550	555	315	340	800 max.	1807	630
	78"	6 and 10	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1837	308
	78"	16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1875	308
	78"	20	GS315+GZ30	848	550	555	315	340	800 max.	**	630
2000		6	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1859	308
2000		10 and 16	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1895	308
2000		20	GS315+GZ30	848	550	555	315	340	800 max.	**	630
	84"	6	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1912	308
	84"	10	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1950	308
	84"	16	GS315+GZ30	848	550	555	315	340	800 max.	1962	630
2200		6	GS250.3+GZ250.3	585	402	365	250	268	800 max.	1959	308
2200		10	GS250.3+GZ250.3	585	402	365	250	268	800 max.	2000	308
	90	6 and 10	GS250.3+GZ250.3	585	402	365	250	268	800 max.	2045	308
2400	96	6	GS250.3+GZ250.3	585	402	365	250	268	800 max.	2100	308
2400	96	10	GS315 + GZ30	848	550	555	315	340	800 max.	2112	630
2500		6 and 10	GS315 + GZ30	848	550	555	315	340	800 max.	**	630
	102"	6	GS315 + GZ30	848	550	555	315	340	800 max.	2212	630
2600		6	GS315 + GZ30	848	550	555	315	340	800 max.	2212	630
	108"	6	GS315 + GZ30	848	550	555	315	340	800 max.	2287	630
2800		6	GS315 + GZ30	848	550	555	315	340	800 max.	2312	630
	114"	6	GS315 + GZ30	848	550	555	315	340	800 max.	2362	630
3000		6	GS315 + GZ30	848	550	555	315	340	800 max.	2412	630
	120	6	GS315 + GZ30	848	550	555	315	340	800 max.	2417	630

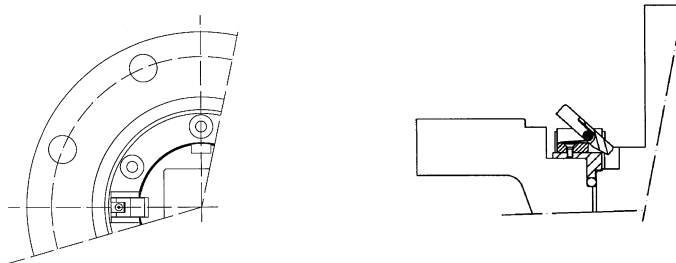
* Weight of gear box only

** Please consult us

Standard variants

Disc locking device

In 0° or 90° position when removing the actuator
 Variant not allowable for DN 1050 to 1200 PN 10

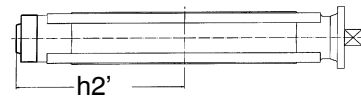


Integral Live Loaded Open Stop

For pump outlet valves

The Integral Live Loaded Open Stop is located on the lower shaft which prevents disc vibration when in the open position. When the valve is equipped with an Integral Live Loaded Open Stop it will also have a disc locking device that locks the valve in position when the operator is removed. Option is not available for valve sizes DN1050-1200 PN10.

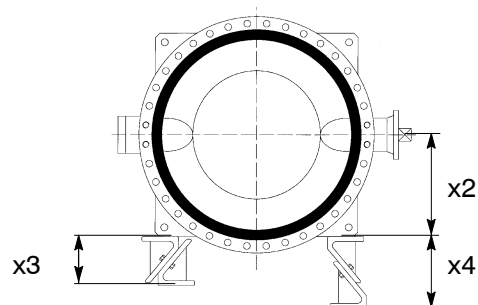
- For a valve face to face 280 : $h2' : h2 + 72$
- For a valve face to face 400 : $h2' : h2 + 65.5$
- $h2$: see dimensions table



Body support

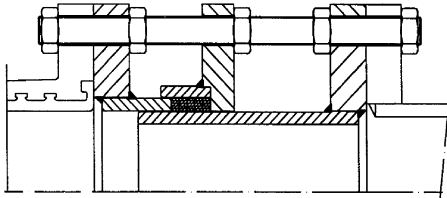
Caution: Supporting legs must not be fixed to the ground.
 They must remain free to move.

- Valve face to face 216 and 254 : $x3 : 330$
 $x4 : 450$
- Valve face to face 280 and 400 : $x3 : 350$
 $x4 : 510$
- $x2$: see dimensions table

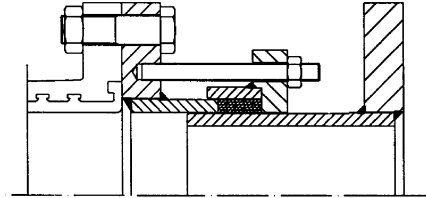


Standard variants

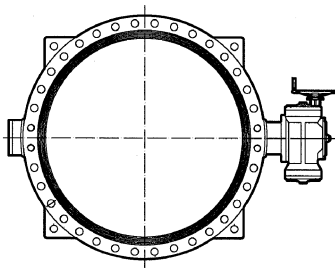
Dismantling joint (flanged)



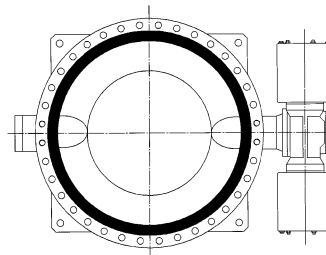
Dilatation joint



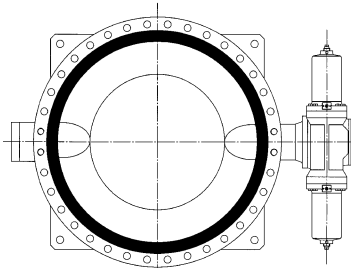
Electric actuator ACTELEC



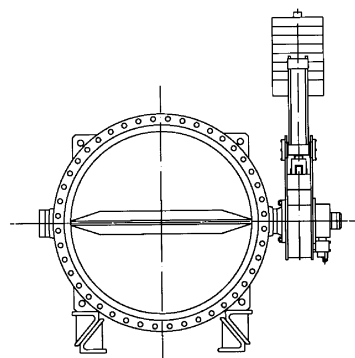
Pneumatic actuator ACTAIR



Hydraulic actuator ACTO



Counterweight



Connections

Unless as otherwise specified, the normal flange connection for a MAMMOUTH valve is the one corresponding to its maximum allowable pressure (PS).

Flange dimensions are in accordance with appropriate standards, mainly:

- ISO 7005 PN 6, 10, 16, 20 and 25 ; NF EN 1092-2 ; AWWA C207 cl.B, D and E edition 94 ; ASME B16-47 series A Class 150
- On request, other connections are possible.

End of line and downstream dismantling

Use as end of line and downstream dismantling of the standard valves at room temperature for DN and the differential pressure (ΔPS) defined hereafter:

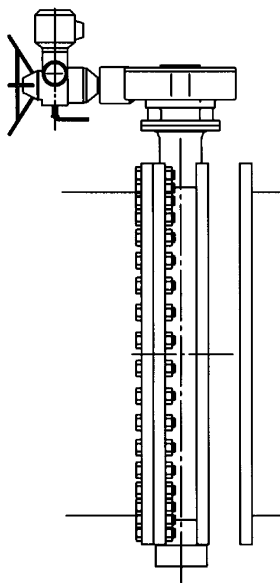
Gas or liquids		Liquids*	
hazardous**	non hazardous**	hazardous**	non hazardous**
All DN : not allowed	on request	All DN $\Delta PS = 0.7 PS$ limited to 10 bar max. ΔPS higher: on request	All DN $\Delta PS = 0.7 PS$ limited to 10 bar max. ΔPS higher: on request

* Liquids having a vapour pressure at the maximum allowable temperature of not more than 0,5 bar above normal atmospheric pressure 1013 mbar.

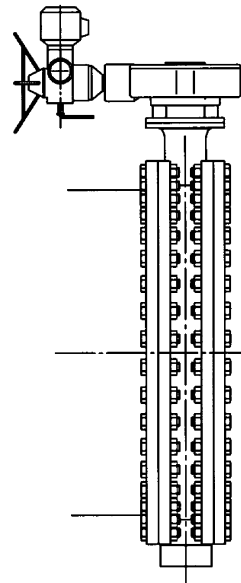
** Fluids hazardous and not hazardous according to PED.

Nota : A valve fitted at the end of a pipe with a blind flange downstream is not to be considered as an end of pipe service.

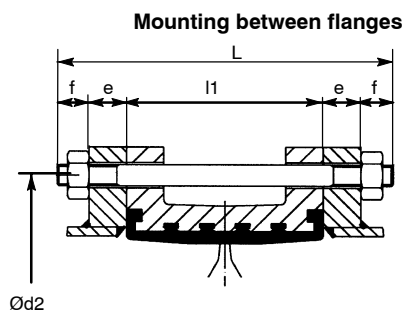
Downstream dismantling



End of line mounting

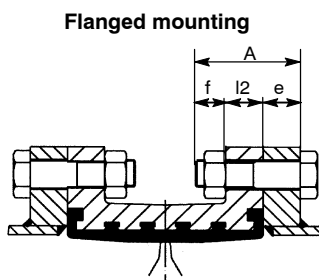


Bolting



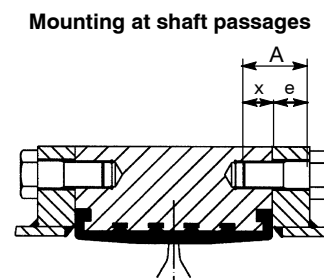
$$L = l_1 + 2e + 2f$$

- L : Mini length of tie-rods
- l₁ : Face to face of the valve
- e : Flange thickness
(customer specification)
- f : Nut thickness
+ overlength of the tie-rod



$$A = e + l_2 + f$$

- A : Mini length of screws
- l₂ : Thickness of the valve
- e : Flange thickness
(customer specification)
- f : Nut thickness
+ overlength of the screw



$$A = e + x$$

- A : Mini length of screws
- X : Maxi implantation of screws
Threaded length $B > A - e$
- e : Flange thickness
(customer specification)

NB: We do not supply the bolting.

mm

DN	NPS	Pressure	Connection	Screws dia.	d2 dia.	f	Mounting between flanges	Flanged mounting		Screws at shaft passages	
							Nb	Nb *	l ₂	Nb *	x
1100	42"	10	AWWA C207	1.5 in.	1 257	45	32	32	42	4	33
		10	PN 10	M33	1 270	45	28	28	43	4	40
1100	44"	10	AWWA C207	1.5 in.	1 314	45	36	36	43	4	38
		16	PN 16	M39	1 270	45	24	24	60	8	45
1100	44"	16	AWWA cl. E	1.5 in.	1 314	45	32	32	69	8	45
	44"	20	PN 20 / Cl. 150	M39 / 1.5 in.	1 314	45	32	32	69	8	45
1100	44"	25	PN 25	M52	1 310	65	24	24	69	8	45
		10	PN 10	M36	1 380	45	28	28	60	4	54
1200	48"	10	AWWA C207	1.5 in.	1 422	45	40	40	45	4	45
		16	PN 16	M45	1 390	50	40	40	69	4	45
1200	48"	16	AWWA cl. E	1.5 in.	1 422	45	36	36	69	8	45
	48"	20	PN 20 / Cl. 150	M39 / 1.5 in.	1 422	45	36	36	69	8	45
1300	48"	25	PN 25	M52	1 420	65	28	28	69	4	45
		16	PN 16	M45	1 490	50	28	28	60	4	45
1300	52"	16	AWWA cl. E	1.75 in.	1 537	50	36	36	74	8	45
	52"	20	PN 20 / Cl. 150	M45 / 1.75 in.	1 537	50	36	36	74	8	45
1300	52"	25	PN 25	M56	1 530	60	28	28	74	4	45
		10	AWWA cl. D	1.75 in.	1 593,8	50	36	36	60	8	45
	54"	16	AWWA cl. E	1.75 in.	1 593,8	50	36	36	76	8	45
1350		20 - 25	Not standardized	Please consult us							
1400		16	PN 16	M45	1 590	50	32	32	60	4	45
1400	56"	20	PN 20 / Cl. 150	M45 / 1.75 in.	1 651	50	40	40	78	8	45
1400		25	PN 25	M56	1 640	60	28	28	74	8	55
1500		10	PN 10	M39	1 700	45	32	32	60	4	45
1500		16	PN 16	M52	1 710	65	32	32	63	4	45
	60"	16	AWWA cl. E	1.75 in.	1 759	50	44	44	80	8	45
1500	60"	20	PN 20 / Cl. 150	M45 / 1.75 in.	1 759	50	44	44	80	8	55
1500		25	PN 25	M56	1 750	60	32	32	80	4	55

mm

DN	NPS	Pressure	Connection	Screws dia.	d2 dia.	f	Mounting between flanges	Flanged mounting		Screws at shaft passages *	
1600		6	PN 6	M33	1 760	40	36	36	60	4	45
1600		10	PN 10	M45	1 820	50	36	36	60	4	45
1600		16	PN 16	M52	1 820	65	36	36	65	4	45
1600		20	Not standardized	Please consult us							
1600		25	PN 25	M56	1 860	60	32	32	81	8	55
	66"	6	AWWA cl. B	1.75 in.	1 930.4	50	44	44	65	8	45
	66"	10	AWWA cl. D	1.75 in.	1 930.4	50	44	44	65	8	45
	66"	16	AWWA cl. E	1.75 in.	1 930.4	50	44	44	85	8	45
	66"	20 - 25	Not standardized	Please consult us							
1800		6	PN 6	M36	1 970	45	40	40	60	4	45
1800		10	PN 10	M45	2 020	50	40	40	66	4	45
1800		16	PN 16	M52	2 020	60	36	36	70	8	55
1800		20	Not standardized	Please consult us							
1800		25	PN 25	M64	2 070	70	36	36	89	8	55
	72"	6	AWWA cl. B	1.75 in.	2 095.5	50	52	52	66	8	45
	72"	10	AWWA cl. D	1.75 in.	2 095.5	50	52	52	66	8	45
	72"	16	AWWA cl. E	1.75 in.	2 095.5	50	52	52	89	8	55
	72"	20 - 25	Not standardized	Please consult us							
	78"	6	AWWA cl. B	2 in.	2 260.6	55	56	56	70	8	45
	78"	10	AWWA cl. D	2 in.	2 260.6	55	56	56	70	8	45
	78"	16	AWWA cl. E	2 in.	2 260.6	55	56	56	98	8	55
	78"	20	Not standardized	Please consult us							
2000		6	PN 6	M39	2 180	45	44	44	60	4	45
2000		10	PN 10	M45	2 230	50	40	40	70	8	55
2000		16	PN 16	M56	2 230	60	40	40	75	8	55
2000		20	Not standardized	Please consult us							
	84"	6	AWWA Cl. B	2 in.	2 525.7	55	56	56	60	8	45
	84"	10	AWWA Cl. D	2 in.	2 525.7	55	56	56	75	8	55
	84"	16	AWWA Cl. E	2 in.	2 525.7	55	56	56	98	8	55
2200		6	PN 6	M39	2 390	45	48	48	70	4	45
2200		10	PN 10	M52	2 440	60	44	44	70	8	55
	90"	6	AWWA cl. B	2.25 in.	2 590.8	62	60	60	70	8	55
	90"	10	AWWA cl. D	2.25 in.	2 590.8	62	60	60	80	8	55
2400		6	PN 6	M39	2 600	45	48	48	70	8	55
2400		10	PN 10	M52	2 650	60	48	48	70	8	55
	96"	6	AWWA cl. B	2.25 in.	2 755.9	62	60	60	70	8	55
	96"	10	AWWA cl. D	2.25 in.	2 755.9	62	60	60	82.5	8	55
2500		6 - 10	Not standardized	Please consult us							
	102"	6	AWWA cl. B	2.5 in.	2 908.3	70	64	64	70	8	55
2600		6	PN 6	M45	2 810	50	52	52	70	8	55
	108"	6	AWWA cl. B	2.5 in.	3 067	70	64	64	70	8	55
2800		6	PN 6	M45	3 020	50	56	56	70	8	55
	114"	6	AWWA cl. B	2.75 in.	3 219.5	75	68	68	70	8	55
3000		6	PN 6	M45	3 220	50	60	60	80	8	55
	120"	6	AWWA cl. B	2.75 in.	3 317.9	75	68	68	80	8	55

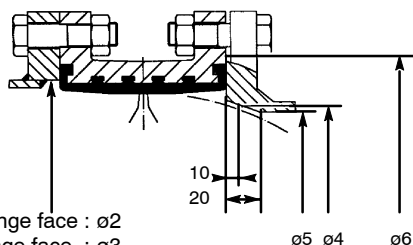
* Quantity of screws by face

Flanging dimensions

MAMMOUTH valves are designed to be installed between any type of flange (without any flange gasket) and standard connection currently used.

The elastomer liner ensures complete tightness at the flanges.

It is necessary to verify the general compatibility of the connection by checking against the dimensions shown in the table below.

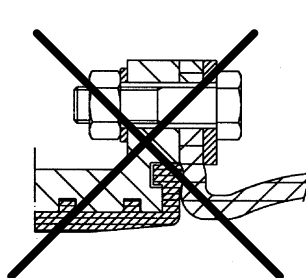


Max dia. tolerated on the supporting area of the flange face : $\varnothing 2$
 Min dia. tolerated on the supporting area of the flange face : $\varnothing 3$

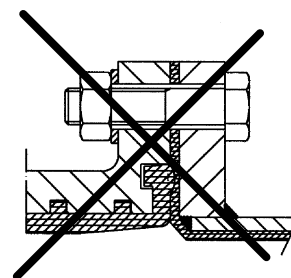
* Face to face l1 : see dimensions table

DN	NPS	Max dia. tolerated $\varnothing 2$		Min dia. tolerated $\varnothing 3$		Min dia. 10 mm from face of flange $\varnothing 4$		Min dia. 20 mm from face of flange $\varnothing 5$		Min. dia. tolerated of shoulder of raised face flange $\varnothing 6$
		face to face l1 *		face to face l1 *		face to face l1 *		face to face l1 *		
		216	254	216	254	216	254	216	254	
1100	42"	1067		1010		1006		1001		1135
1100	44"	1117		1063		1058		1053		1187
1200	48"		1222		1158		1152		1147	1307
DN	NPS	face to face l1 *		face to face l1 *		face to face l1 *		face to face l1 *		$\varnothing 6$
		280	400	280	400	280	480	280	400	
		1100	44"	1130		1053		1045		
1200	48"	1226		1152		1148		1143		1320
1300	52"	1330		1259		1252		1247		1420
1350	54"	1380		1310		1303		1298		1470
1400	56"	1430	1430	1361	1320	1354	1312	1349	1305	1530
1500	60"	1530	2530	1463	1424	1459	1416	1454	1410	1630
1600		1625		1560		1556		1552		1730
	66"	1690		1626		1623		1619		1810
1800	72"	1830	1830	1768	1734	1765	1730	1761	1722	1930
	78"	1990	1990	1930	1898	1926	1894	1923	1889	2090
2000		2034	2034	1974	1943	1971	1935	1968	1931	2130
	84"	2140	2140	2081	2051	2078	2047	2075	2043	2240
2200		2234	2234	2176	2147	2173	2149	2171	2145	2340
	90"		2330		2244	2224	2240	2221	2235	2430
2400	96"		2440		2356		2355		2351	2540
2500			2540		2456		2456		2453	2640
2600	102"		2640		2564		2555		2552	2740
	108"		2740		2665		2658		2654	2890
2800			2840		2766		2760		2756	2940
	114"		2940		2867		2860		2856	3040
3000			3040		2968		2962		2959	3140
	120"		3060		2988		2972		2967	3160

NB:
 Direct fitting on rubber coated flange and with dilatation joint is not authorized.
 Please, consult us.



Dilatation joint



Rubber coated flange

Product features - to our customers' benefit

Disc position index

Disc locking device (in option)

Preserved external internal tightness when the actuator is taken off

Mounting plate according to ISO 5211 standard

Bearing in reinforced PTFE on steel support

Shaft passage tightness
Perfect tightness at shaft passage obtained by the compression of the liner collar on the disc spherical

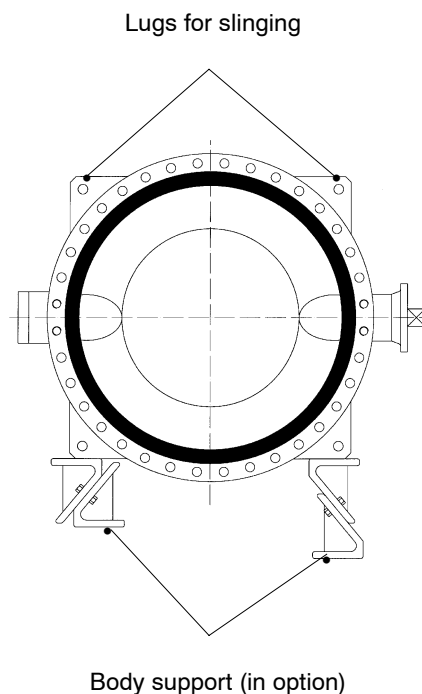
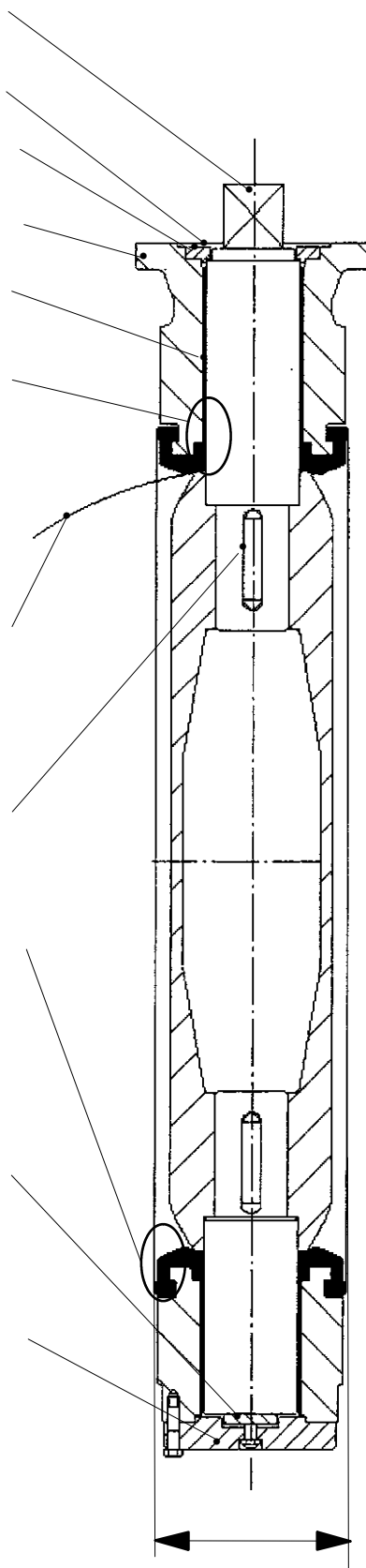
Downstream/upstream tightness
Disc machined spherical for ensuring a perfect tightness downstream/upstream

Driving shaft/disc by keys:
without contact with the fluid

Flanges tightness:
Special design to obtain a totale tightness at flanges by compression

Lubricating thrust insert for supporting the weight of the disc in case of installation in vertical axis

Live Loaded Open Stop
(in option)



Face to face according to ISO 5752 and EN 558 standards for DN ≤ 1200

This leaflet is not contractual and may be amended without notice.

02.02.04

8612.12/4-10