



Centred disc butterfly valves with AMRING® elastomer liner

DN 32 to 600

Allowable pressure PS 20 bar

Design in accordance with EN 593 and ISO 10631

Applications

- Flow shut-off or regulation functions in all sectors of industry and energy.

Working conditions

- Temperature: from -10°C minimum up to $+80^{\circ}\text{C}$ maximum. The working temperature depends on the media and the nature of elastomer used.
- Allowable pressure (PS): 20 bar at room temperature.

Materials

See page 2.

Design

- Semi lug type body (Type 2): DN 32 to 600
- Full-lug type body with raised faces (Type 4): DN 32 to 600
- Flanged body with flat faces (Type 5): DN 200 to 600
- Possible downstream dismantling and end of line for bodies Types 2, 4 and 5.
- Face-to-face in accordance with: ISO 5752 series 20 and EN 558-1 series 20.
- Connection standard defined page 9.
- Mounting plate meeting the ISO 5211 standards.
- Marking in accordance with EN 19.
- 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.

- Body coated with polyurethane paint, thickness $80\ \mu\text{m}$, colour blue ref. RAL 5002.
- Discs: in spheroidal graphite cast iron coated with epoxy powder paint, thickness $80\ \mu\text{m}$, colour brown ref. RAL 8012.
- The valves meet the safety requirements of the pressure Equipments Directive 97/23/EC (PED) appendix I for fluids of the groups 1 and 2.

Standard variants

- Pneumatic actuator ACTAIR / DYNACTAIR
- Electric actuator ACTELEC
- Hydraulic actuator ACTO
- Limit switches AMTROBOX
- Positioner AMTRONIC / SMARTRONIC
- ATEX version in accordance with 94/9/EC directive

Remarks

- Actuator selection 8446.11-10
- Operating instructions 8449.8-10

Data to be supplied when ordering

- ISORIA 20 series valve in accordance with type series booklet 8446.1/6-10.
- Size.
- Working conditions:
 - Nature of fluid,
 - Pressure,
 - Flow,
 - Temperature.
- Connection.
- Actuation.



Materials

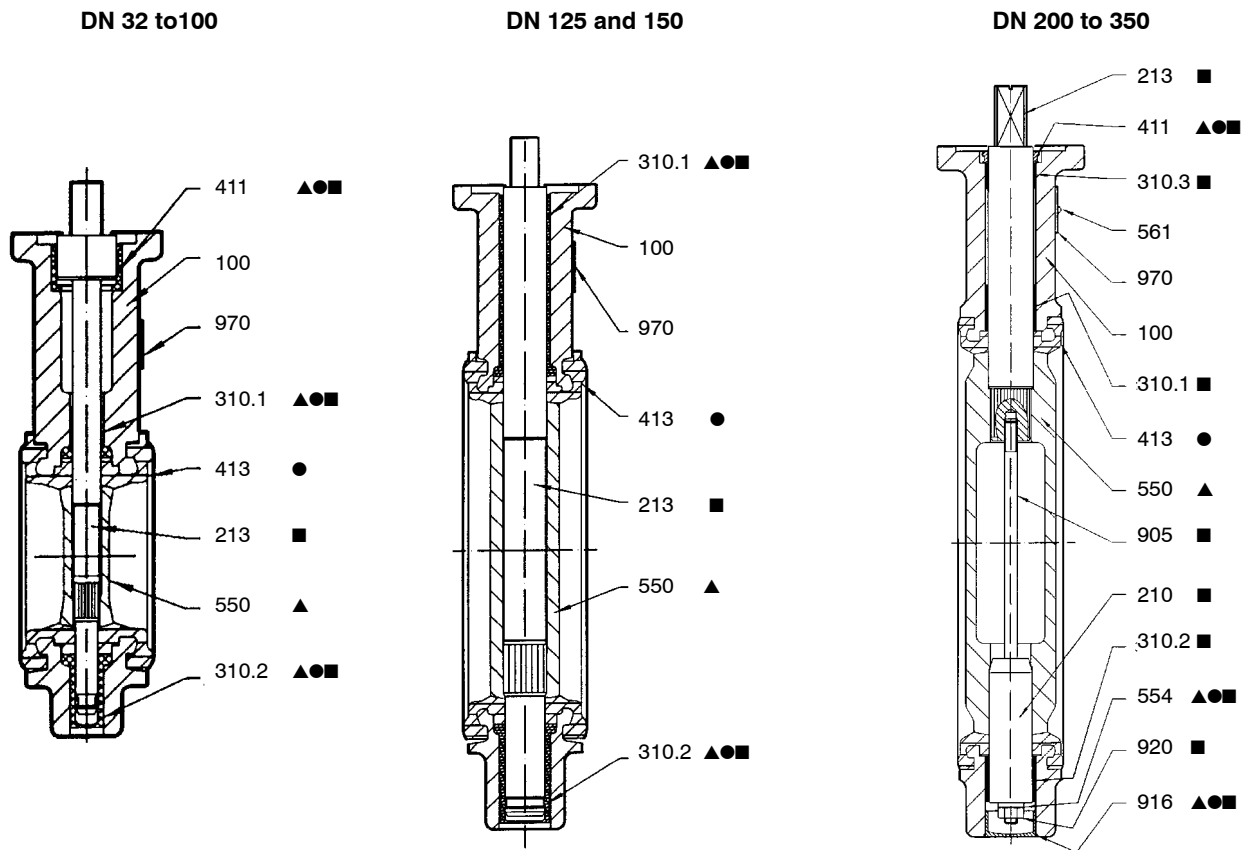
Body		KSB code
Type 2 : Spheroidal graphite cast iron JS 1030	DN 32 to 600	3g
Type 4 : Spheroidal graphite cast iron JS 1025	DN 32 to 600	3l
Steel 1.0619	DN 32 to 600	1
Type 5 : Spheroidal graphite cast iron JS 1030	DN 350 to 600	3g
Steel 1.0619	DN 200 to 600	1
Shafts		KSB code
Stainless steel 1.4057 (17 % Cr)	DN 32 to 600	6e
Disc		KSB code
Spheroidal graphite cast iron JS 1030		3g
Stainless steel 1.4401 / 1.4408 (18-12)		6
Stainless steel 1.4401 / 1.4408 (18-12), polished		6i
Aluminium-bronze CC333G/C95800		2
AMRING® liner		KSB code
E.P.D.M	from -10 °C up to +60 °C	XA
Heat E.P.D.M	from -10 °C up to +80 °C	XV
E.P.D.M drinking water	from -10 °C up to +60 °C	XC
High content nitrile	from -5 °C up to +60 °C	K

Working pressure limits of AMRING® liners

DN	NPS	Allowable pressure PS in bar XA-XV-XC-K
32 to 600	1 ¼ to 24	20

Vacuum limits

DN	NPS	Liner mounting	Minimum pressure (in absolute bar)	Vacuum limits	
				XV	Other liners
32 to 150	1 ¼ to 6	Without sticking (standard)	$1,33 \cdot 10^{-5}$ (10^{-2} torr)	80° C	60° C
200 to 600	8 to 24	Without sticking (standard)	0,3 bar	80° C	60° C
		With sticking (option)	$1,33 \cdot 10^{-5}$ (10^{-2} torr)	80° C	60° C

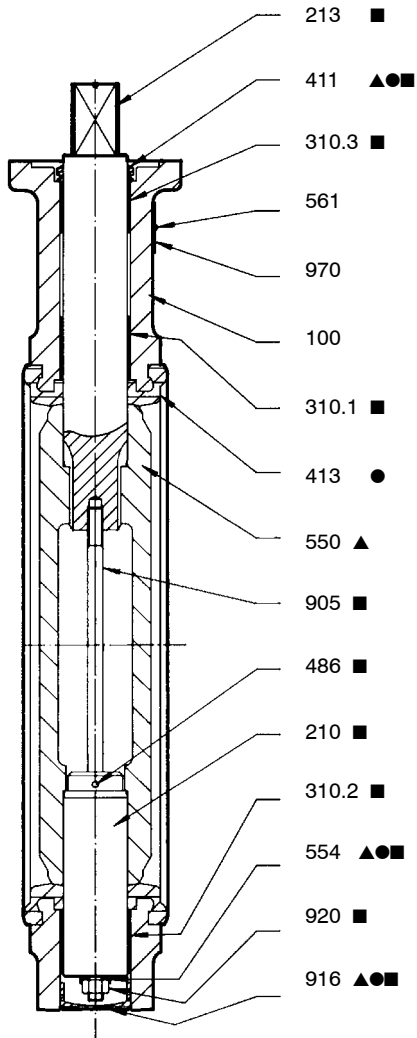
Construction


● Spare parts included in the liner kit ▲ Spare parts included in the disc kit ■ Spare parts included in the shaft kit

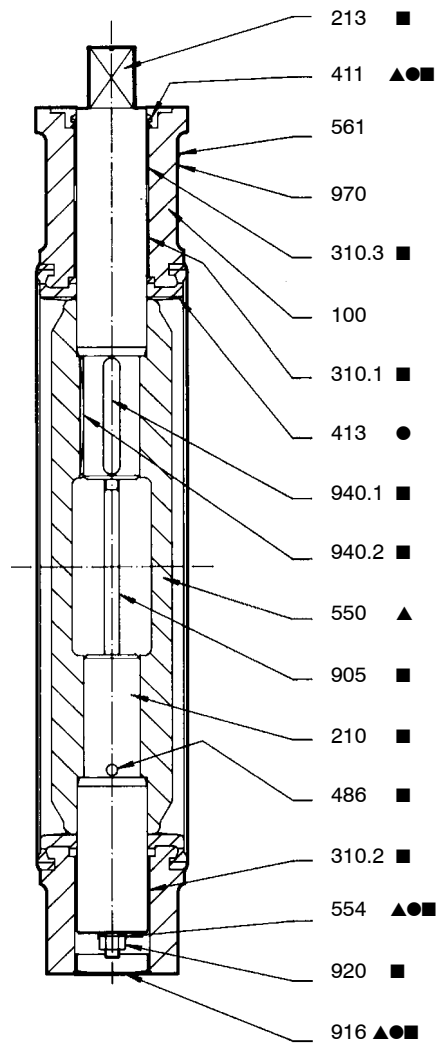
To order spare parts in the kit, it is necessary to valve codification mentioned on the identity plate.

Item	Designation	DN	Materials	
			Type	Material
100	Body	32 to 600	Type 2	Spheroidal graphite cast iron
			Type 4	Spheroidal graphite cast iron Carbon steel
		350 to 600 200 to 600	Type 5	Spheroidal graphite cast iron Molded steel
210	Shaft	200 to 600	Stainless steel or nickel alloy MONEL K 500 aged	
213	Operating shaft	32 to 600		
310.1	Plain bearing	32 to 150	Acetal	
		200 to 600	PTFE filled	
310.2	Plain bearing	32 to 150	Acetal	
		200 to 600	PTFE filled	
310.3	Plain bearing	200 to 600	PTFE filled	
411	Gasket	32 to 100	Acetal	
		200 to 600	Nitrile	
413	Liner	32 to 600	In accordance with fluid	
486	Ball	400 to 600	Stainless steel	
550	Disc	32 to 600	In accordance with fluid	
554	Washer	200 to 600	Nylon	
561	Grooved nail	200 to 600	Stainless steel	
905	Tie rod	200 to 600	Steel	
916	Plug	200 to 500	Polyethylene	
		550 and 600	Polyamide	
920	Nut	200 to 600	Steel	
940.1	Key	550 and 600	Steel	
940.2	Key	550 and 600	Steel	
970	Identity plate	32 to 600	Stainless steel	

DN 400 to 500

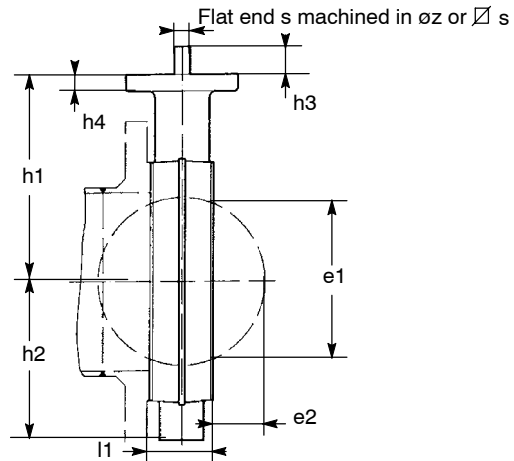


DN 550 and 600



● Spare parts included in the liner kit ▲ Spare parts included in the disc kit ■ Spare parts included in the shaft kit

Dimensions



mm

DN	NPS	Face to face l1	Mounting plate ISO 5211		Flat shaft end			Square shaft end		Disc clearance			
			h1	h2	n°	h4	s	øz	h3	∅ s	h3	e1	e2
32	1 ¼	33	109	54	F05	10	11	14	24			-	-
40	1 ½	33	105	58	F05	10	11	14	24			33	4
50	2	43	115	65	F05	10	11	14	24			38	4
65	2 ½	46	130	75	F05	10	11	14	24			55	10
80	3	46	135	95	F05	10	11	14	24			74	18
100	4	52	150	105	F05	10	14	18	24			92	25
125	5	56	165	124	F07	12	14	18	30			117	35
150	6	56	185	141	F07	12	14	18	30			143	48
200	8	60	218	172	F10	15	19	25	35			191	68
250	10	68	265	206	F10	15	19	25	35			241	89
300	12	78	306	236	F12	18	22	28	40			290	110
350	14	78	335	269	F14	22				30	55	326	127
400	16	102	380	302	F14	22				36	55	370	140
450	18	114	410	328	F14	22				36	55	422	160
500	20	127	440	358	F16	26				40	65	470	178
550	22	154	475	406	F16	26				50	65	522	195
600	24	154	495	438	F16	26				50	65	566	215

Hydraulic characteristics

DN	NPS	Flow coefficient valve in fully open position		Zeta
		Kvo	Cvo	
32	1 ¼	30	35	1,44
40	1 ½	53	62	1,46
50	2	133	154	0,56
65	2 ½	240	280	0,49
80	3	410	475	0,39
100	4	655	760	0,37
125	5	900	1044	0,48
150	6	1800	2090	0,25
200	8	3550	4120	0,20
250	10	3890	4500	0,41
300	12	5580	6470	0,42
350	14	8060	9350	0,37
400	16	10 500	12 180	0,37
450	18	13 300	15 400	0,37
500	20	17 400	20 200	0,33
550	22	21 000	24 400	0,33
600	24	25 000	29 000	0,33

Operating torques*

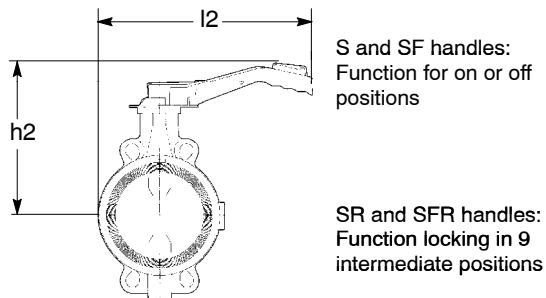
DN	NPS	Operating torques* (in Nm)	
		on lubricated medium	on non lubricated medium
32	1 ¼	20	20
40	1 ½	20	20
50	2	30	30
65	2 ½	40	50
80	3	50	60
100	4	70	100
125	5	100	150
150	6	140	200
200	8	240	350
250	10	410	610
300	12	630	950
350	14	860	1 300
400	16	1 300	1 900
450	18	1 700	2 500
500	20	2 100	3 100
550	22	2 500	3 700
600	24	2 900	4 300

* The safety coefficient to define the adapted actuator is included in the torque value.

Manual control

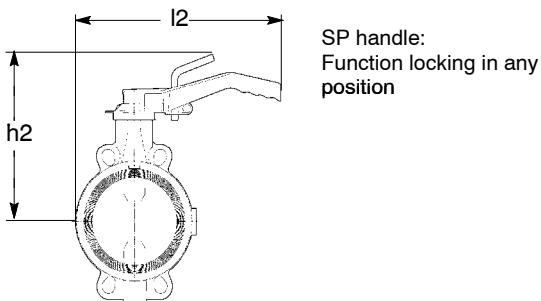
The actuator selection for lubricated medium proposed in the table below are defined for the maximum fluid velocity mentioned. According to the working conditions and the hydraulic characteristics, upper fluid velocities can be admitted, therefore other actuators selections can be proposed: please consult us.

S, SR, SF and SFR handles



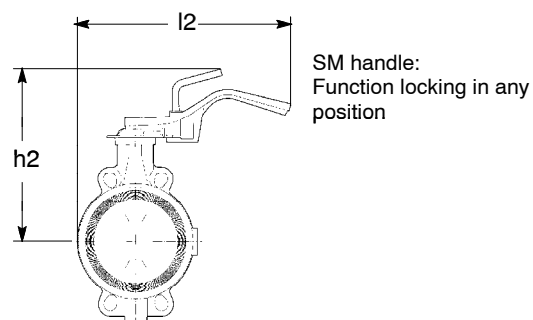
DN	NPS	Max. fluid velocity (m/s)	S + SR handles			SF+ SFR handles			
			l2 (mm)	h2 (mm)	Weight S/SR (kg)	l2 (mm)	h2 (mm)	Weight SF/SFR (kg)	
32	1 1/4	4,0	180	164	0,5				
40	1 1/2			160					
50	2			170					
32	1 1/4		260		184	0,6	260	184	1,4
40	1 1/2				180				
50	2				190				
65	2 1/2				205				
80	3				210				
100	4		330		235	0,7	330	235	1,8
125	5				250			250	
150	6				270			270	

SP handle



DN	NPS	Max. fluid velocity (m/s)	SP handle on lubricated medium			
			l2 (mm)	h2 (mm)	Weight SP (kg)	
32	1 1/4	4,0	260	209	0,7	
40	1 1/2			205		
50	2			215		
65	2 1/2			230		
80	3			235		
100	4		330		250	0,8
125	5				265	
150	6				285	

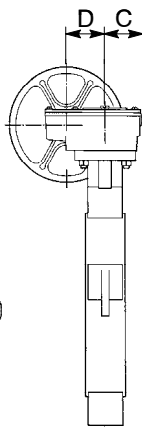
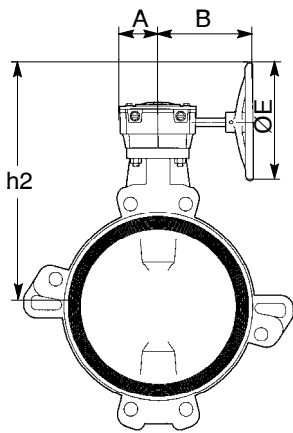
SM handle



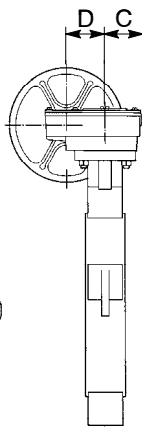
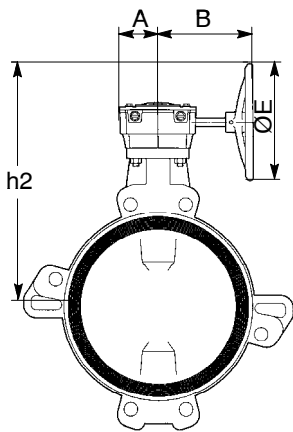
DN	NPS	Max. fluid velocity (m/s)	SM handle on lubricated medium			SM handle on non lubricated medium			
			l2 (mm)	h2 (mm)	Weight SM (kg)	l2 (mm)	h2 (mm)	Weight SM (kg)	
32	1 1/4	4,0	260	219	1,3	260	219	1,3	
40	1 1/2			215					
50	2			225					
65	2 1/2			240					
80	3			245					
100	4		330		260	1,6	330	260	1,6
125	5				275			275	
150	6				330*			295	
200	8			530	318	3,3			

* Important effort to be exerted, manual actuator recommended.

MR reducers



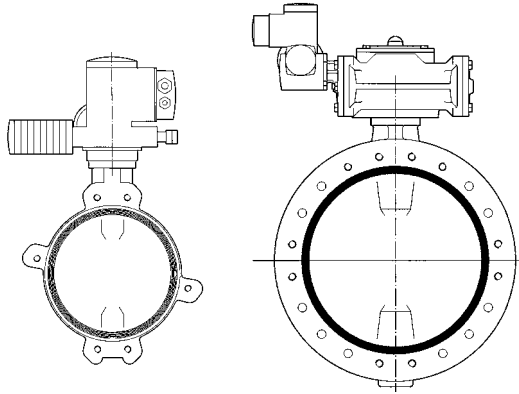
		Max. fluid velocity (m/s)	On lubricated medium							Weight MR (kg)
DN	NPS		Actuator	A (mm)	B (mm)	C (mm)	D (mm)	Ø E (mm)	h2 (mm)	
32	1 ¼	4,0	MR 25	62	184	66	64	225	260	7,0
40	1 ½								256	
50	2								266	
65	2 ½								281	
80	3								286	
100	4								301	
125	5								316	
150	6								336	
200	8								369	
250	10								MR 50	
300	12	MR 100	86	233	88	88	350	543	15,0	
350	14							572		
400	16	3,0	MR 200	120	270	108	117	350	628	24,0
450	18								658	
500	20								688	
550	22								775	
600	24								795	
									MR 400	



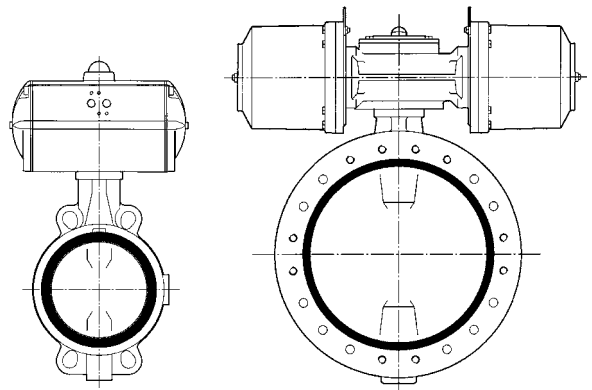
		Max. fluid velocity (m/s)	On non lubricated medium							Weight MR (kg)							
DN	NPS		Actuator	A (mm)	B (mm)	C (mm)	D (mm)	Ø E (mm)	h2 (mm)								
32	1 ¼	50,0 non lubricated medium Gas	MR 25	62	184	66	64	225	260	7,0							
40	1 ½								256								
50	2								266								
65	2 ½								282								
80	3								286								
100	4								301								
125	5								316								
150	6								336								
200	8								MR 50		74	184	77	76	225	381	10,0
250	10								428								
300	12	MR 100	86	233	88	88	350	543	15,0								
350	14	583															
400	16	MR 200	120	270	108	117	350	628	24,0								
450	18							710									
500	20	MR 400	229	332	115	125	350	740	58,0								
550	22							775									
600	24							795									

Standard variants

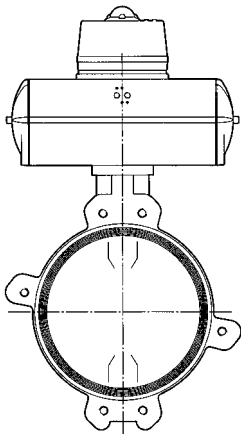
Electric actuator ACTELEC



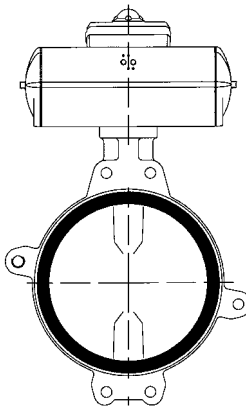
Pneumatic actuator ACTAIR / DYNACTAIR



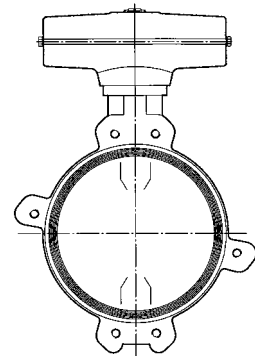
Positioner
AMTRONIC / SMARTRONIC



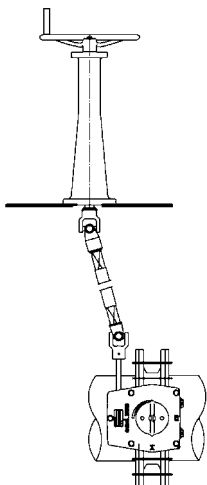
Limit switches
AMTROBOX



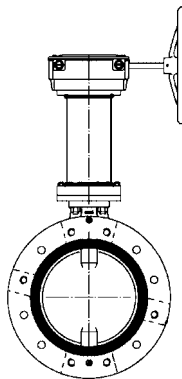
Hydraulic actuator ACTO



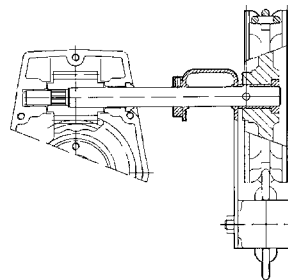
Deck stand



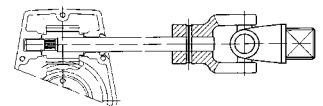
Valve neck extension



Chain wheel



Cardan joint



Connections

The valves can be fitted between all the connections defined hereafter (other connections on request).

- EN 1092 PN 16, 20 and 25
- ASME B16-5 cl.150
- MSS SP 44 cl.150
- AWWA C207 cl. E
- AS 2129 table E
- BS 10 table E
- JIS B2238 and B2239 16K and 20K

Semi-lug type body - Type 2

DN	NPS	Connection									
		EN 1092			ASME B 16.5 cl. 150	MSS SP 44 cl. 150	JIS B2238-B2239		AWWA C 207 Table E	BS 10 Table E	AS 2129 Table E
		PN 16	PN 20	PN 25			16 K	20 K			
32	1 ¼	✓	✓	✓	✓		✓	✓		✓	✓
40	1 ½	✓	✓	✓	✓		✓	✓		✓	✓
50	2	✓	✓	✓	✓		✓■	✓■		✓	✓
65	2 ½	✓	✓	✓■	✓		✓■	✓■		✓■	✓■
80	3	✓	✓	✓	✓		✓	✓		✓■	✓■
100	4	✓	✓	✓	✓		✓	✓	✓	✓	✓
125	5	✓	✓	✓	✓		✓	✓	✓	✓	✓
150	6	✓	✓	✓	✓		✓■	✓■	✓	✓	✓
200	8	✓	✓	✓▲	✓		✓▲	✓▲	✓	✓	✓
250	10	✓	✓	✓	✓		✓	✓	✓	✓	✓
300	12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
350	14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
400	16	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
450	18	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
500	20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
550	22		✓			✓	✓	✓	✓	✓	✓
600	24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

- Fitting allowed
- Downstream dismantling not allowed
- Connection not defined by this standard
- Insert a washer between the nut and the rib of the valve

Full-lug type body with raised faces - Type 4

DN	NPS	Connection									
		EN 1092			ASME B 16.5 cl. 150	MSS SP 44 cl. 150	JIS B2238-B2239		AWWA C 207 Table E	BS 10 Table E	AS 2129 Table E
		PN 16	PN 20	PN 25			16 K	20 K			
32	1 ¼	✓	✓	✓	✓		✓	✓		✓	✓
40	1 ½	✓	✓	✓	✓		✓	✓		✓	✓
50	2	✓	✓	✓	✓		-	-		✓	✓
65	2 ½	✓	✓	-	✓		-	-		✓	✓
80	3	✓	✓	✓	✓		✓	✓		✓	✓
100	4	✓	✓	✓	✓		✓	✓	✓	✓	✓
125	5	✓	✓	-	✓		-	-	✓	✓	✓
150	6	✓	✓	-	✓		-	-	✓	✓	✓
200	8	✓	✓	-	✓		-	-	✓	✓	✓
250	10	✓	✓	-	✓		-	-	✓	✓	✓
300	12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
350	14	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
400	16	✓	✓	✓	✓	✓	✓	✓	✓	-	-
450	18	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
500	20	✓	✓	✓	✓	✓	✓	✓	✓	-	-
550	22		✓			✓	✓	✓	✓	-	-
600	24	✓	✓	✓	✓	✓	✓	✓	✓	-	-

- Fitting allowed
- Fitting not allowed
- Connection not defined by this standard

Flanged body with flat faces - Type 5

DN	NPS	Connection									
		EN 1092			ASME B 16.5 cl. 150	MSS SP 44 cl. 150	JIS B2238-B2239		AWWA C 207 Table E	BS 10 Table E	AS 2129 Table E
		PN 16	PN 20	PN 25			16 K	20 K			
200	8	✓	✓	✓■	✓	■	✓	✓	✓	✓	✓
250	10	✓	✓	✓■	✓	■	✓	✓	✓	✓	✓
300	12	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
350	14	✓	✓	✓■	✓	✓	✓	✓	✓	✓	✓
400	16	✓	✓	✓■	✓	✓	✓	✓	✓	✓	✓
450	18	✓	✓	-	✓	✓	-	-	✓	✓	✓
500	20	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
550	22	■	✓	■	■	■	-	-	✓	✓	✓
600	24	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

✓ Fitting allowed

■ Downstream dismantling not allowed

- Fitting not allowed

■ Connection not defined by this standard

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 sizes: not authorized	Sizes ≤ 150 : $\Delta PS = 15$ bar maxi Greater sizes: on request	Sizes ≤ 150 : $\Delta PS = 15$ bar maxi Greater sizes: on request	All sizes: $\Delta PS = 15$ bar maxi

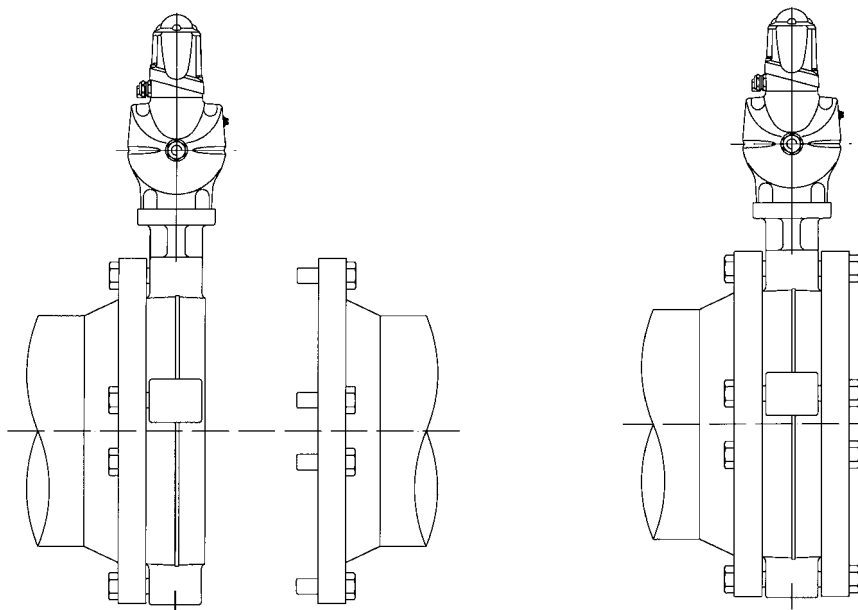
* Liquids having a vapour pressure at the maximum allowable temperature of not more than 0,5 bar above atmospheric pressure 1013 mbar.

** Fluids hazardous and not hazardous according to PED.

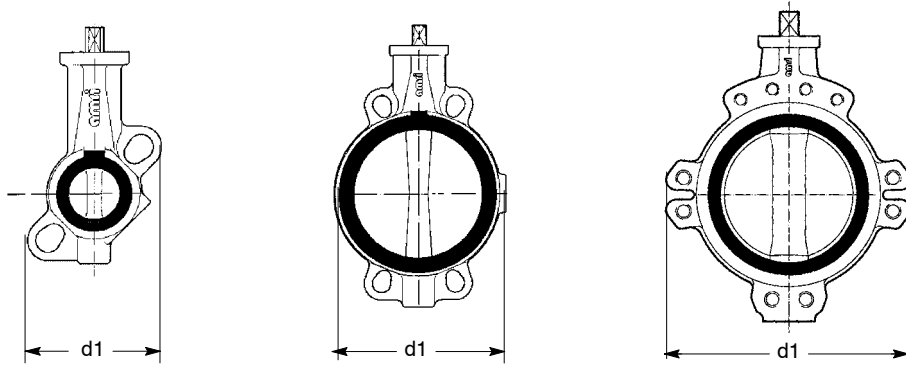
NB: A valve fitted at the end of a pipe with a blind flange downstream is not to be considered as an end of pipe service.

Downstream dismantling
End of line mounting

Dismantling phase:
working successively on
diametrically opposite
tie-rods.



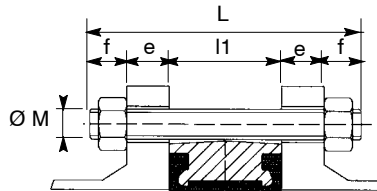
Bolting and weight for semi-lug type body - Type 2



The drawings are not the correct representation concerning our manufacture (quantities for semi lug and plain holes)

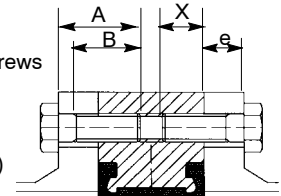
$$L = l1 + 2e + 2f$$

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



$$A = e + X$$

- A** : Max. length of screws
X : Max. implantation of screws
B : Threaded length > A-e
e : Flange thickness
 (customer specification)



NB: We do not supply the bolting

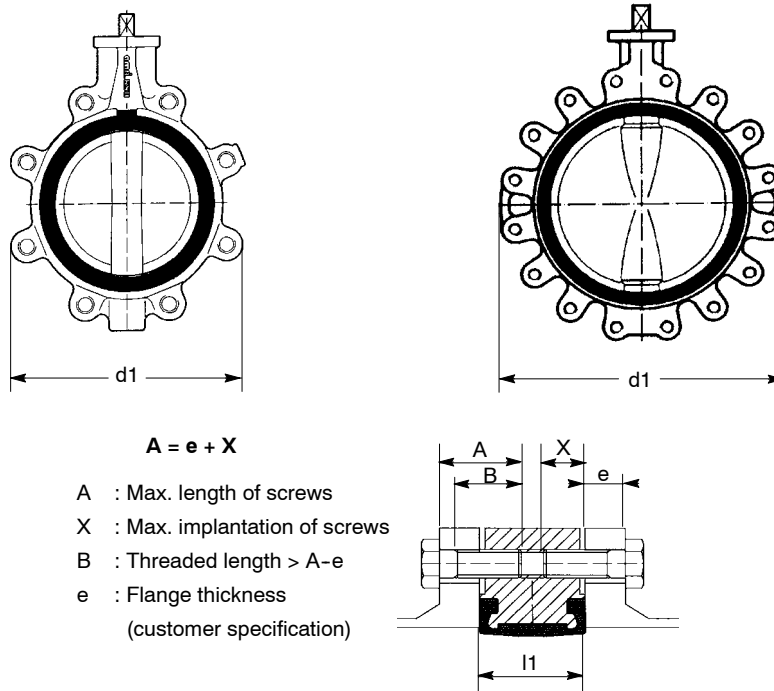
mm

DN	NPS	d1	l1	EN 1092 PN 16				EN 1092 PN 25				ASME B16-5 cl 150				JIS B2238-B2239 16K				Weight kg
				ØM	Tie-rod* f Qty	Screw X Qty**	X Qty**	ØM	Tie-rod* f Qty	Screw X Qty**	X Qty**	UNC	Tie-rod* f Qty	Screw X Qty**	X Qty**	Ø M	Tie-rod* f Qty	Screw X Qty**	X Qty**	
32	1 ¼	103	33	M16	20 4	4		M16	20 4	4		1/2"	17 4	4		M16	20 4	4		1,2
40	1 ½	110	33	M16	20 4	4		M16	20 4	4		1/2"	17 4	4		M16	20 4	4		1,3
50	2	122	43	M16	20 4	4		M16	20 4	4		5/8"	20 4	4		M16	20 8	8		1,8
65	2 ½	139	46	M16	20 4	4		M16	20 8	8		5/8"	20 4	4		M16	20 8	8		2,3
80	3	145	46	M16	20 8	8		M16	20 8	8		5/8"	20 4	4		M20	24 8	8		3,2
100	4	152	52	M16	20 8	8		M20	24 8	8		5/8"	20 8	8		M20	24 8	8		4,5
125	5	185	56	M16	20 8	8		M24	29 8	8		3/4"	24 8	8		M22	26 8	8		6,7
150	6	210	56	M20	24 8	8		M24	29 8	8		3/4"	24 8	8		M22	26 12	12		7,5
200	8	346	60	M20	24 12	12		M24	29 12	12		3/4"	24 8	8		M22	26 12	12		14,0
250	10	413	68	M24	29 12	12		M27	32 12	12		7/8"	29 12	12		M24	29 12	12		20,0
300	12	520	78	M24	29 6	24	6	M27	32 10	27	6	7/8"	29 6	24	6	M24	29 10	24	6	48,0
350	14	539	78	M24	29 10	24	6	M30	35 10	30	6	1"	32 6	27	6	M30x3	35 10	30	6	60,0
400	16	604	102	M27	32 10	27	6	M33	38 10	33	6	1"	32 10	27	6	M30x3	35 16	30	6	80,0
450	18	657	114	M27	32 14	27	6	M33	28 14	33	6	1 1/8"	35 10	30	6	M30x3	35 14	30	6	110,0
500	20	716	127	M30	35 12	30	8	M33	24 12	33	8	1 1/8"	35 12	30	8	M30x3	35 12	30	8	145,0
550	22	782	154									1 1/4"	38 12	32	8	M36x3	42 12	36	8	180,0
600	24	836	154	M33	38 10	33	10	M36	42 10	36	10	1 1/4"	38 10	32	10	M36x3	42 14	36	10	220,0

* Quantity nuts = quantity tie-rods x 2

** Quantity of screws by face*

Bolting and weight for full-lug type body with raised faces - Type 4



The drawings are not the correct representation of our manufacture (quantities of full-lug holes)

NB: We do not supply the bolting

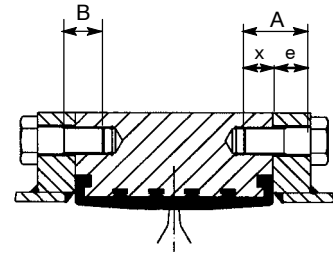
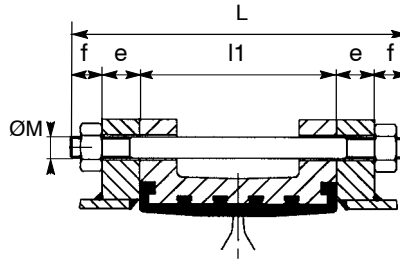
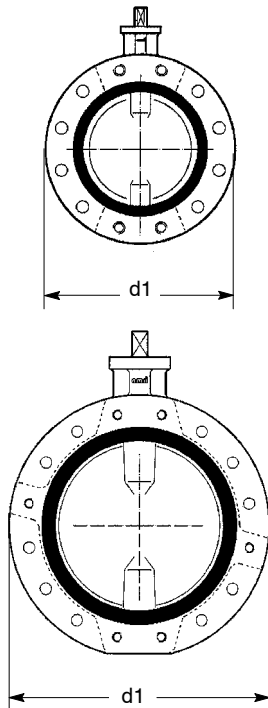
mm

DN	NPS	d1	l1	EN 1092 PN 16				EN 1092 PN 25				ASME B16-5 cl. 150				JIS B2238-B2239 16K				Weight kg
				ØM	Tie-rod* f Qty	Screw X Qty**		ØM	Tie-rod* f Qty	Screw X Qty**		UNC	Tie-rod* f Qty	Screw X Qty**		Ø M	Tie-rod* f Qty	Screw X Qty**		
32	1 ¼	101	33	M16		14 4		M16		14 4	1/2"		14 4	M16		14 4		2,0		
40	1 ½	106	33	M16		14 4		M16		14 4	1/2"		14 4	M16		14 4		2,0		
50	2	117	43	M16		18 4		M16		18 4	5/8"		18 4					2,5		
65	2 ½	132	46	M16		20 4					5/8"		20 4					3,0		
80	3	139	46	M16		20 8		M16		20 8	5/8"		20 4	M20		20 8		4,0		
100	4	160	52	M16		22 8		M20		24 8	5/8"		22 8	M20		24 8		5,5		
125	5	234	56	M16		22 8					3/4"		23 8					9,0		
150	6	257	56	M20		26 8					3/4"		26 8					11,0		
200	8	310	60	M20		26 12					3/4"		26 8					24,0		
250	10	394	68	M24		29 12					7/8"		28 12					39,0		
300	12	462	78	M24		30 12		M27		34 16	7/8"		28 12	M24		30 16		46,0		
350	14	527	78	M24		30 16		M30		24 16	1"		30 12	M30x3		34 16		62,0		
400	16	605	102	M27		34 16		M33		40 16	1"		34 16	M30x3		37 16		101,0		
450	18	636	114	M27		34 20		M33		40 20	1 1/8"		37 16	M30x3		37 20		122,0		
500	20	718	127	M30		37 20		M33		40 20	1 1/8"		37 20	M30x3		37 20		179,0		
550	22	790	154								1 1/4"		39 20	M36x3		42 20		233,0		
600	24	835	154	M33		42 20		M36		45 20	1 1/4"		42 20	M36x3		34 24		256,0		

* Quantity nuts = quantity tie-rods x 2

** Quantity of screws by face*

Bolting and weight for flanged body with flat faces - Type 5



$L = l1 + 2e + 2f$

$A = e + X$

- L : Min. 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 : Max. length of screws
- X : Max. implantation of screws
- B : Threaded length > A-e
- e : Flange thickness
(customer specification)

The drawings are not the correct representation concerning our manufacture (quantities for threaded and plain holes)

NB: We do not supply the bolting

mm

DN	NPS	ød1	l1	EN 1092 PN 16				EN 1092 PN 25				ASME B16-5 class 150 MSS SP 44 class 150				JIS B2238-B2239 16K				Weight kg				
				Tie-rod*		Screw		Tie-rod*		Screw		Tie-rod*		Screw		Tie-rod*		Screw						
				ØM	f	Qty	X	Qty**	ØM	f	Qty	X	Qty**	UNC	f	Qty	X	Qty**	Ø M		f	Qty	X	Qty**
200	8	343	60	M20	24	8	16	4	M24	29	12			3/4"	24	4	20	4	M22	26	8	22	4	23,0
250	10	406	68	M24	29	8	24	4	M27	32	12			7/8"	29	8	24	4	M24	29	8	24	4	40,0
300	12	483	78	M24	29	6	24	6	M27	32	10	27	6	7/8"	29	6	24	6	M24	29	10	24	6	60,0
350	14	533	78	M24	29	10	24	6	M30	35	16			1"	32	6	27	6	M30x3	35	10	30	6	80,0
400	16	597	102	M27	32	10	27	6	M33	38	16			1"	32	10	27	6	M30x3	35	16	30	6	105,0
450	18	640	114	M27	32	14	27	6	M33	38	14	33	6	1 1/8"	32	10	30	6						130,0
500	20	715	127	M30	35	12	30	8	M33	38	12	33	8	1 1/8"	35	12	30	8	M30x3	35	12	30	8	180,0
550	22	749	154											1 1/4"	35	12	32	8						230,0
600	24	840	154	M33	38	10	33	10	M36	42	10	36	10	1 1/4"	38	10	32	10	M30x3	42	14	36	10	260,0

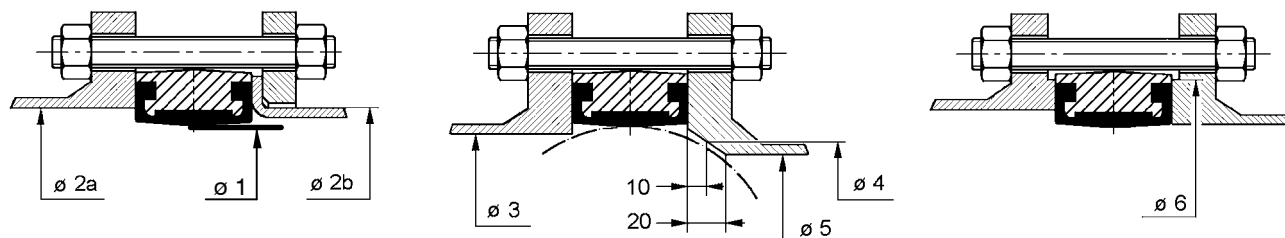
* Quantity nuts = quantity tie-rods x 2

** Quantity of screws by face*

Flanging dimensions

ISORIA 20 valves are designed for assembly between any type of flanges and connection standards currently used. The liner allows directly the tightness concerning the flanges. It is necessary to verify the general compatibility of the connection by checking against the dimensions shown in the table below.

The flanging dimensions mentioned in this table are the same for all types body.



- $\varnothing 2a$ and $\varnothing 3$: diameter on the supporting area of the flange face.
- $\varnothing 2b$: external diameter of the butt-weld ends with lapped pipe end according to standards DIN 2642 and NFE 29-251.

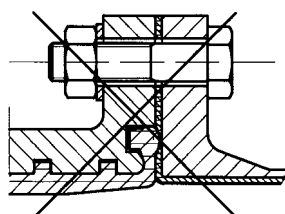
mm

DN	NPS	Optimum-dia.	Max. dia. tolerated		Min. dia. tolerated on face of flange	Min. dia. 10 mm from face of flange	Min. dia. 20 mm from face of flange	Min. dia. tolerated of shoulder of raised face flange
		$\varnothing 1$	$\varnothing 2a$	$\varnothing 2b$	$\varnothing 3$	$\varnothing 4$	$\varnothing 5$	$\varnothing 6$
32	1 ¼	32	44	43	---	---	---	64
40	1 ½	40	50	49	33	---	---	73
50	2	50	63	61	38	---	---	89
65	2 ½	65	78	77	55	---	---	104
80	3	80	92	89	74	53	---	124
100	4	100	117	115	92	77	48	147
125	5	125	145	140	117	107	88	177
150	6	150	172	169	143	137	123	202
200	8	195	223	220	191	183	173	251
250	10	245	278	273	241	234	226	305
300	12	295	329	324	290	284	276	358
350	14	330	361	356	326	321	314	399
400	16	380	412	407	370	366	358	452
450	18	430	463	457	422	416	409	505
500	20	480	515	508	470	464	457	558
550	22	540	568	561	522	516	509	625
600	24	580	617	610	566	560	554	664

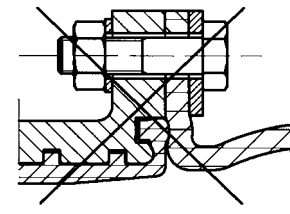
* Please check the body is well centred between the tie-rods.

NB:

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

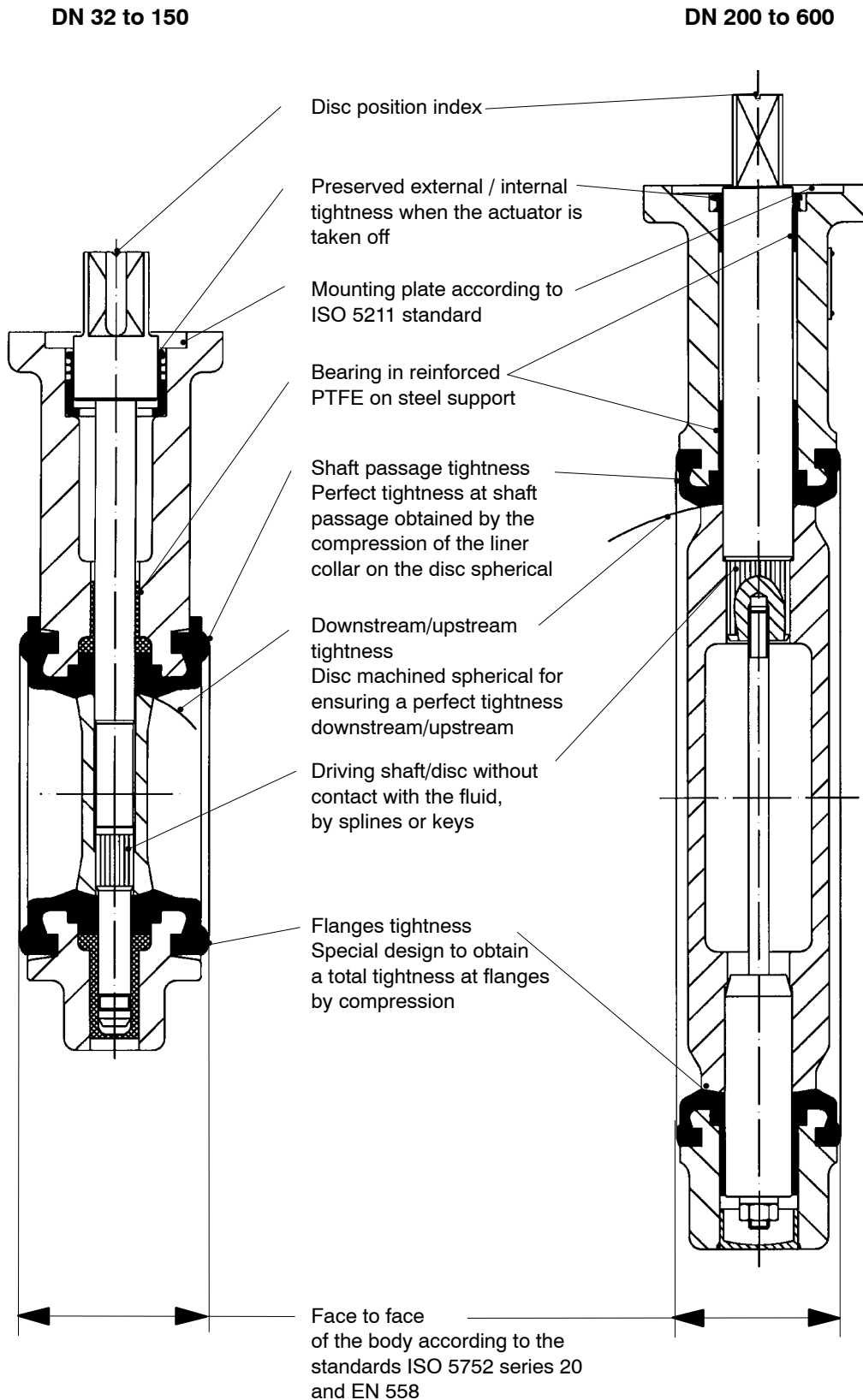


Rubber coated flange



Dilatation joint

Product features - to our customers' benefit



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

22.05.07

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