

Application

Triple-eccentric butterfly valves are industrial valves, which designed to fully open or close the passage of the working medium flowing through a pipeline. They can also be used for flow-control purposes. However, the tightness of the valve cannot be guaranteed in a long-term use for control purposes.

Working medium

- waste and service water
- drinking water
- hot water
- steam
- non-aggressive liquids and gases (natural gas, co-gas, petroleum products, etc.).

Maximum working temperature

A maximum working temperature of the butterfly valve is $+500^{\circ}\text{C}$, by agreement up to $+550^{\circ}\text{C}$ and depends on the body material used.

Technical description

Triple eccentricity - Fig. A

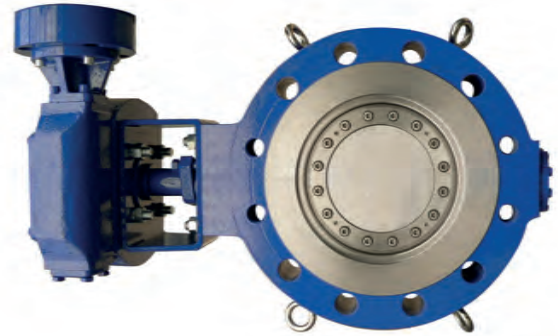
1. the operating shaft axis is eccentric to the packing axis
 2. the operating shaft axis is eccentric to the axis of the flow
 3. the axis of the seat cone is eccentric to the axis of the flow
- Triple eccentricity assures, that the packing stays out of sealing surface of the body except for the closed position, which results in long life-time of the packing (sealing) and lots of cycles. The triple eccentricity design immediately divides the disc from the sealing surface and when closing the valve the disc touches sealing surface just before closure. By this is the closing and opening torque lower and the opening and closing of the valve is done by very little friction. This makes the valves life-time longer. The arrow stamped on the valve body corresponds with the direction of the long-term tightness.

Stems of the butterfly valves manufactured according to TA-Luft standard or in compliance with Fugitive Emission are tightened through the Quick set seal from Garlock company.

The butterfly valves are produced of wrought or cast material. Seal material is metal x metal or metal x graphite seal ring.

Operation

- manual gear-box
- electric actuator
- pneumatic or hydraulic actuator
- remote control from stand



Testing

The valves are tested according to

- EN 12 266-1
- EN 12 266-2
- EN 13 3060-2

Connection to piping

- **wafer type** acc. to EN 1092-1, face to face dimensions acc. to EN 558-1, Series 16, 20, 25
- **flanged ends** acc. to EN 1092-1, face to face dimensions acc. to EN 558-1, Series 13, 14, 16
- **welded ends** acc. to ČSN 13 1075, EN 12 627, face to face dimensions acc. to EN 558-1, Series 14

Other face to face and connecting dimensions are acc. to the customer's requirement, e.g. GOST, ANSI.

Installation

The butterfly valves can be mounted into horizontal, vertical or inclined pipeline so that the arrow stamped on the valve body corresponds with the direction of the tightness (arrow points from higher pressure to lower when the disc is closed), and the rotating axis of the disc is in a horizontal position. The bolt type at the pivot area is also very important. When there is a butterfly valve with electric actuator it is important to abide the actuator's manufacturer.

Fig. A

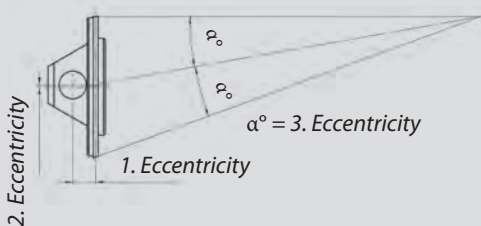


Fig. B

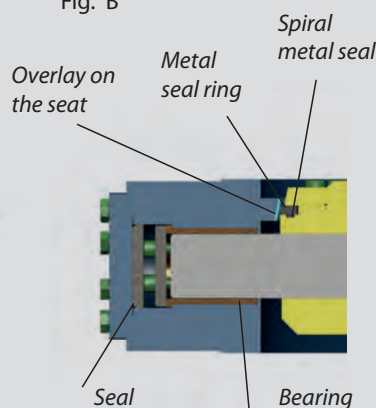
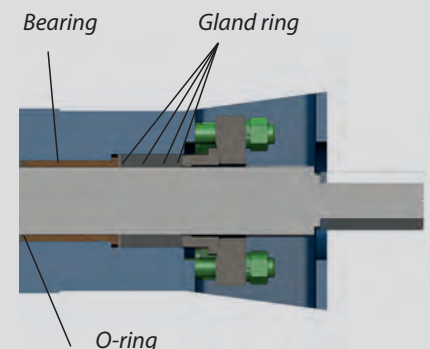


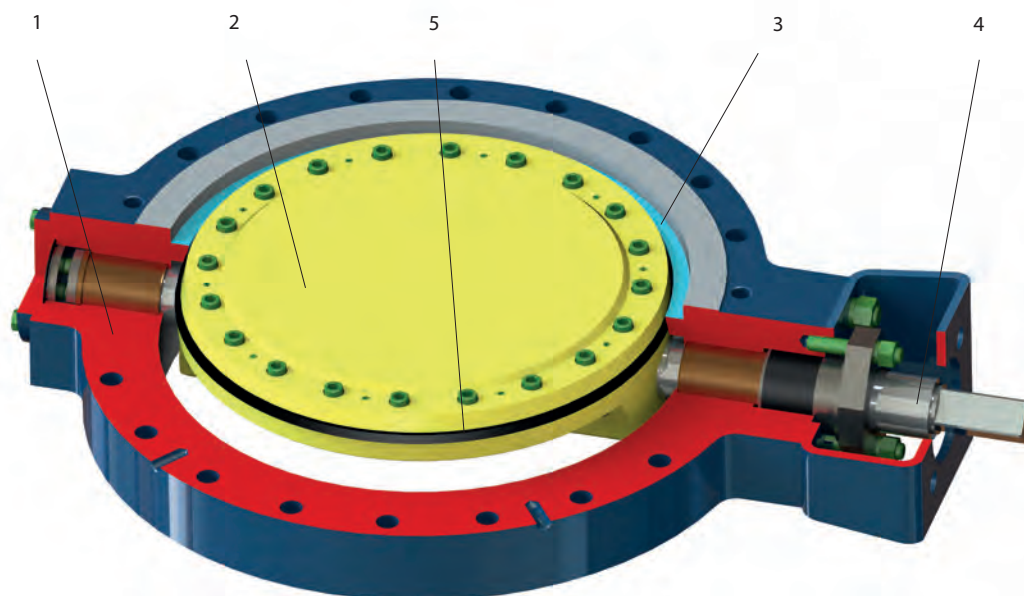
Fig. C





DN 150-1000 • PN 6-63 • Tmax +500 °C
Design: wrought

Connection:  EN 1092-1 FLANGED ENDS
 EN 12 627 WELDED ENDS
 EN 1092-1 WAFER TYPE



Material

Position	Component	EN				ASTM			
		Carbon + alloy steel			Stainless steel	Carbon + alloy steel			Stainless steel
		+400 °C*	-46 °C to +400 °C*	+500 °C*	+500 °C*	+400 °C*	-46 °C to +400 °C*	+500 °C*	+500 °C*
1	Body	1.0577, 1.0425	1.0566	1.7335	1.4541	A105	A350 LF2	A182 F12	A182 F316
2	Disc	1.0577, 1.0425	1.0566	1.7335	1.4541	A105	A350 LF2	A182 F12	A182 F316
3	Seat	13%Cr, stellite	stellite	stellite	stellite	13%Cr, stellite	stellite	stellite	stellite
4	Shaft	1.4021+QT700	1.4021+QT700	1.4923	1.4541	A182 F6A	A182 F6A	A479 XM19	A182 F316

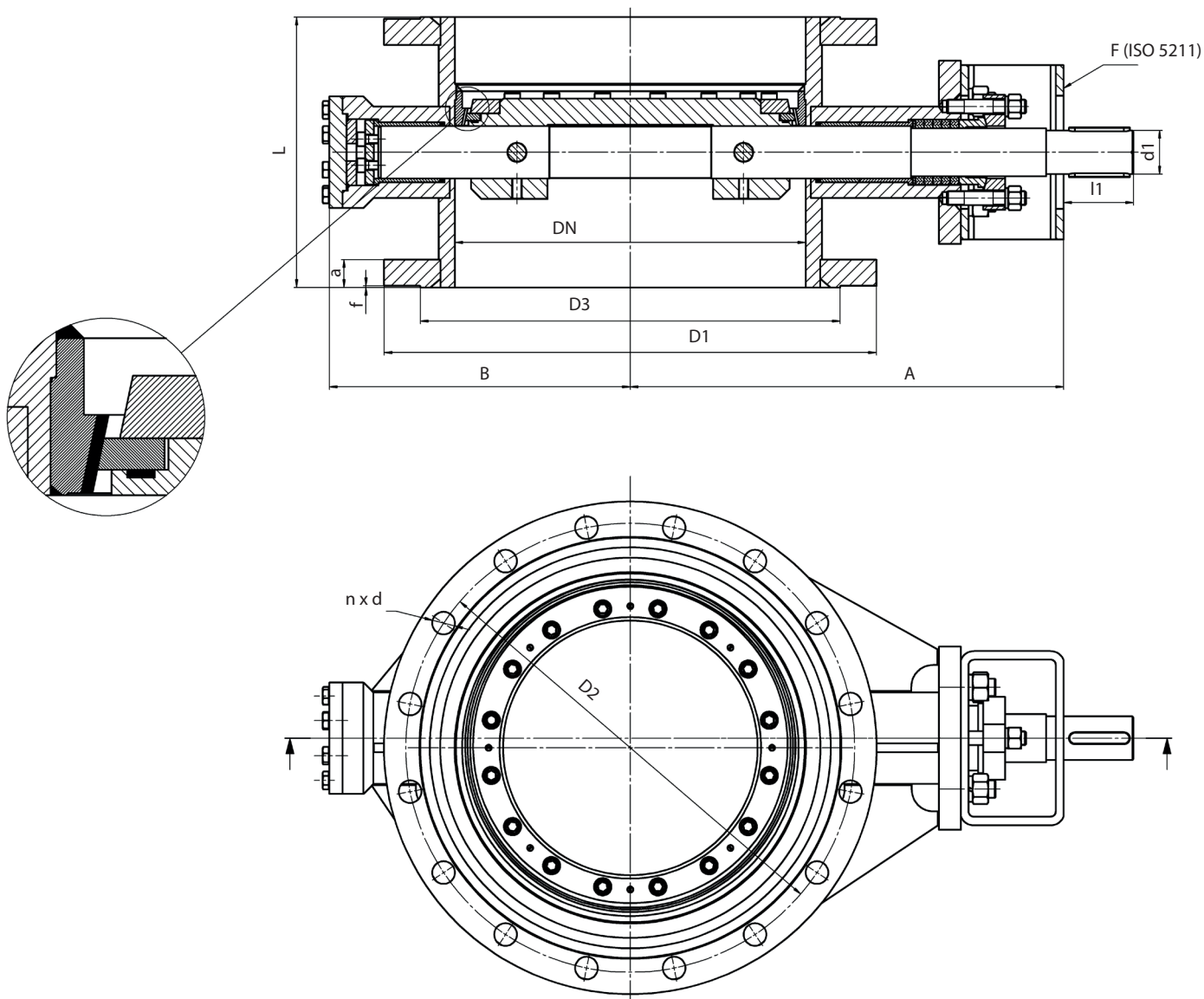
* The thermal use of the valve depends on the pressure-temperature characteristic of the material - see further information in this catalog.
Design for temperature higher than 500 °C is possible after agreement with the manufacturer.

Production range

DN	Flanged ends					Wafer type						Welded ends					
	PN					PN						PN					
	6	10	16	25	40	6	10	16	25	40	63	6	10	16	25	40	63
150	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
200	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
300	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
350	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
400	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
450	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
500	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
600	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
700	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
800	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
900	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
1000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

DN 150-1000 • PN 6-40 • Tmax 500 °C
Design: wrought

Connection: EN 1092-1 FLANGED ENDS



PN 6

DN	A*	B	L	F	D1	D2	D3	d1	a	f	d	n	l1	kg
150	275	170	210	10	265	225	202	30	20	2	18	8	40	39
200	315	205	230	10	320	280	258	30	22	2	18	8	40	47
250	345	240	250	12	375	335	312	30	24	2	18	12	40	57
300	395	265	270	12	440	395	365	30	24	2	22	12	50	95
350	475	320	290	14	490	445	415	40	26	2	22	12	60	150
400	500	350	310	14	540	495	465	40	28	2	22	16	60	184
500	545	405	350	14	645	600	570	45	30	2	22	20	70	255
600	695	475	390	16	755	705	670	55	32	2	26	20	80	395
700	715	565	430	25	860	810	775	60	32	2	26	24	80	570
800	815	630	470	25	975	920	880	70	34	2	30	24	100	810
1000	970	765	500	30	1175	1120	1080	90	36	2	30	28	120	1190

* The value applies to temperatures up to +400 °C.



DN 150-1000 • PN 6-40 • Tmax 500 °C
Design: wrought

Connection:  EN 1092-1 FLANGED ENDS

PN 10

DN	A*	B	L	F	D1	D2	D3	d1	a	f	d	n	l1	kg
150	275	170	210	10	285	240	212	30	24	2	22	8	40	42
200	315	205	230	10	340	295	268	30	24	2	22	8	40	53
250	345	240	250	12	395	350	320	30	26	2	22	12	50	67
300	395	265	270	12	445	400	370	35	26	2	22	12	50	102
350	475	320	290	14	505	460	430	40	30	2	22	16	60	158
400	500	350	310	16	565	515	482	50	32	2	26	16	70	205
500	555	415	350	16	670	620	585	55	38	2	26	20	80	285
600	695	475	390	25	780	725	685	60	42	2	30	20	80	435
700	715	565	430	30	895	840	800	70	42	2	30	24	100	620
800	815	630	470	30	1015	950	905	80	44	2	33	24	110	880
1000	970	765	500	35	1230	1160	1110	100	44	2	36	28	130	1270

PN 16

DN	A*	B	L	F	D1	D2	D3	d1	a	f	d	n	l1	kg
150	275	170	210	10	285	240	212	30	24	2	22	8	40	42
200	315	205	230	10	340	295	268	30	26	2	22	12	50	54
250	345	240	250	12	405	355	320	35	29	2	26	12	50	71
300	395	265	270	14	460	410	378	40	32	2	26	12	60	105
350	475	320	290	16	520	470	438	45	35	2	26	16	70	171
400	500	350	310	16	580	525	490	55	38	2	30	16	80	235
500	555	415	350	25	715	650	610	70	46	2	33	20	100	335
600	695	475	390	30	840	770	725	80	52	2	36	20	110	455
700	715	565	430	30	910	840	795	90	52	2	36	24	120	645
800	825	640	470	35	1025	950	900	100	54	2	39	24	130	935
1000	980	775	500	40	1255	1170	1115	120	54	2	42	28	180	1345

PN 25

DN	A*	B	L	F	D1	D2	D3	d1	a	f	d	n	l1	kg
150	285	175	210	10	300	250	218	30	30	2	26	8	50	45
200	315	205	230	12	360	310	278	35	32	2	26	12	50	62
250	345	240	250	14	425	370	335	40	35	2	30	12	60	80
300	395	265	270	16	485	430	395	45	38	2	30	16	70	118
350	475	320	290	16	555	490	450	55	42	2	33	16	80	185
400	500	350	310	25	620	550	505	60	48	2	36	16	80	245
500	555	415	350	25	730	660	615	70	58	2	36	20	100	355
600	695	475	390	30	845	770	720	80	68	2	39	20	110	465
700	715	565	430	35	960	875	820	90	68	2	42	24	120	670
800	825	640	470	35	1085	990	930	110	70	2	48	24	170	975
1000	990	785	500	48	1320	1210	1140	140	70	2	56	28	200	1445

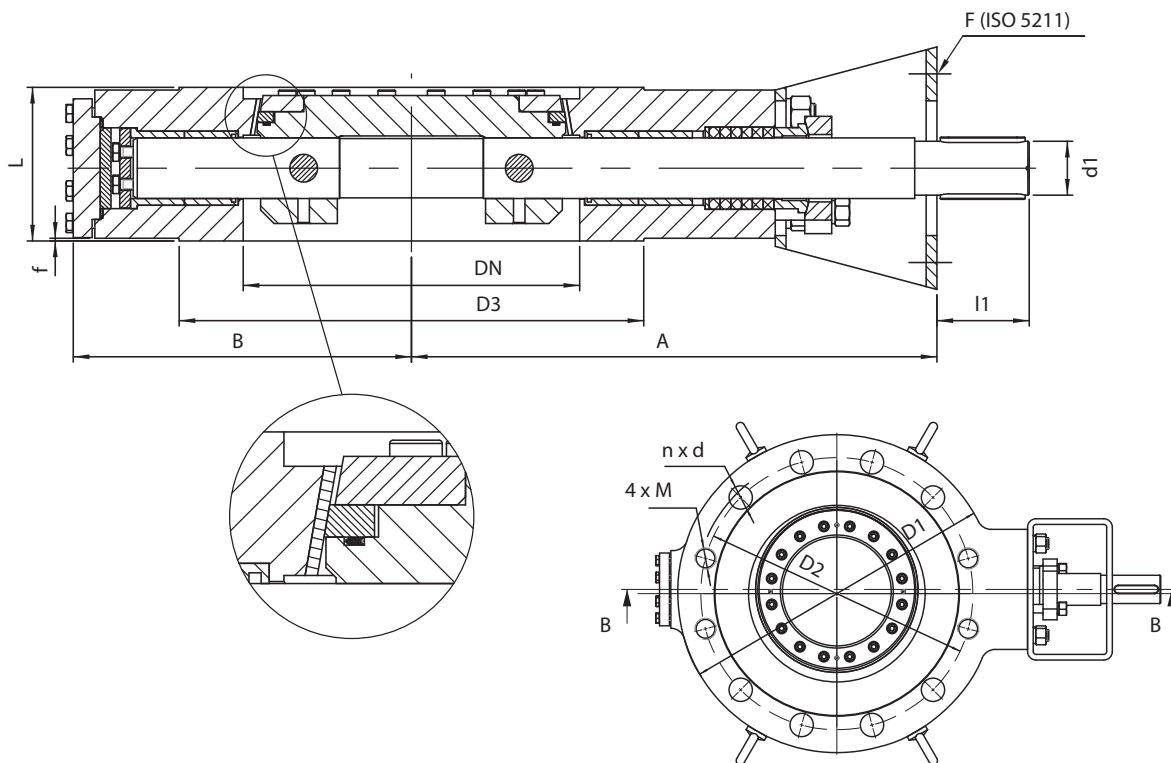
PN 40

DN	A*	B	L	F	D1	D2	D3	d1	a	f	d	n	l1	kg
150	285	175	210	12	300	250	218	30	30	2	26	8	50	75
200	315	205	230	14	375	320	285	40	36	2	30	12	60	80
250	390	255	250	14	450	385	345	40	42	2	33	12	70	145
300	420	290	270	16	515	450	410	50	42	2	33	16	70	225
350	500	320	290	25	580	510	465	60	46	2	36	16	80	255
400	525	350	310	25	660	585	535	70	50	2	39	16	100	410
500	605	425	350	30	755	670	615	80	57	2	42	20	110	540
600	745	525	390	35	890	795	735	110	72	2	48	20	170	940
700	810	615	430	40	995	900	840	110	76	2	48	24	170	1150
800	930	690	470	40	1140	1030	960	140	79	2	56	24	200	1550

* The value applies to temperatures up to +400 °C.

DN 150-1000 • PN 6-63 • Tmax +500 °C
Design: wrought

Connection: EN 1092-1 WAFER TYPE



PN 6

DN	A*	B	L	F	D1	D2	D3	d1	n x d	M	l1	kg
150	285	175	76	10	265	225	202	30	4 x 18	M16	40	35
200	310	200	89	10	320	280	258	30	4 x 18	M16	40	63
250	345	235	114	12	375	335	312	30	8 x 18	M16	40	85
300	395	265	114	12	440	395	365	30	8 x 22	M20	50	140
350	425	300	127	14	490	445	415	40	8 x 22	M20	60	164
400	485	330	140	14	540	495	465	40	12 x 22	M20	60	205
500	510	385	152	14	645	600	570	45	16 x 22	M20	70	370
600	680	470	178	16	755	705	670	55	16 x 26	M24	80	460
700	710	555	229	25	860	810	775	60	20 x 26	M24	80	595
800	810	620	241	25	975	920	880	70	20 x 30	M27	100	910
1000	970	760	300	30	1175	1120	1080	90	24 x 30	M27	120	1300

PN 10

DN	A*	B	L	F	D1	D2	D3	d1	n x d	M	l1	kg
150	285	175	76	10	285	240	212	30	4 x 22	M20	40	37
200	310	200	89	10	340	295	268	30	4 x 22	M20	40	65
250	345	235	114	12	395	350	320	30	8 x 22	M20	50	87
300	395	265	114	12	445	400	370	35	8 x 22	M20	50	142
350	425	300	127	14	505	460	430	40	12 x 22	M20	60	170
400	485	330	140	16	565	515	482	50	12 x 26	M24	70	210
500	555	415	152	16	670	620	585	55	16 x 26	M24	80	375
600	680	470	178	25	780	725	685	60	16 x 30	M27	80	505
700	710	555	229	30	895	840	800	70	20 x 30	M24	100	610
800	810	620	241	30	1015	950	905	80	20 x 33	M30	110	925
1000	970	760	300	35	1230	1160	1110	100	24 x 36	M33	130	1320

*The value applies to temperatures up to +400 °C.



DN 150-1000 • PN 6-63 • Tmax +500 °C
Design: wrought

Connection:  EN 1092-1 WAFER TYPE

PN 16

DN	A*	B	L	F	D1	D2	D3	d1	n x d	M	l1	kg
150	285	175	76	10	285	240	212	30	4 x 22	M20	40	39
200	310	200	89	10	340	295	268	30	8 x 22	M20	50	67
250	345	235	114	12	405	355	320	35	8 x 26	M24	50	105
300	395	265	114	14	460	410	378	40	8 x 26	M24	60	145
350	425	300	127	16	520	470	438	45	12 x 26	M24	70	179
400	485	330	140	16	580	525	490	55	12 x 30	M27	80	220
500	555	415	152	25	715	650	610	70	16 x 33	M30	100	380
600	680	470	178	30	840	770	725	80	16 x 36	M33	110	550
700	710	555	229	30	910	840	795	90	20 x 36	M33	120	680
800	820	630	241	35	1025	950	900	100	20 x 39	M36	130	960
1000	980	770	300	40	1255	1170	1115	120	24 x 42	M39	180	1370

PN 25

DN	A*	B	L	F	D1	D2	D3	d1	n x d	M	l1	kg
150	285	175	76	10	300	250	218	30	4 x 26	M24	50	45
200	310	200	89	12	360	310	278	35	8 x 26	M24	50	68
250	345	235	114	14	425	370	335	40	8 x 30	M27	60	105
300	395	265	114	16	485	430	395	45	12 x 30	M27	70	135
350	425	300	127	16	555	490	450	55	12 x 33	M30	80	185
400	485	355	140	25	620	550	505	60	12 x 36	M33	80	250
500	555	415	152	25	730	660	615	70	16 x 36	M33	100	390
600	680	470	178	30	845	770	720	80	16 x 39	M36	110	575
700	715	565	229	35	960	875	820	90	20 x 42	M39	120	690
800	825	640	241	35	1085	990	930	110	20 x 48	M45	170	1060
1000	990	785	300	48	1320	1210	1140	140	24 x 56	M52	200	1440

PN 40

DN	A*	B	L	F	D1	D2	D3	d1	n x d	M	l1	kg
150	285	175	76	12	300	250	218	30	4 x 26	M24	50	45
200	310	200	89	14	375	320	285	40	8 x 30	M27	60	71
250	390	255	114	14	450	385	345	40	8 x 33	M30	70	125
300	415	290	114	16	515	450	410	50	12 x 33	M30	70	155
350	470	320	127	25	580	510	465	60	12 x 36	M33	80	188
400	485	355	140	25	660	585	535	70	12 x 39	M36	100	300
500	570	425	152	30	755	670	615	80	16 x 42	M39	110	425
600	755	550	178	35	890	795	735	110	16 x 48	M45	170	610
700	820	625	229	40	995	900	840	110	20 x 48	M45	170	755
800	930	690	241	40	1140	1030	960	140	20 x 56	M52	200	1180
1000	1070	820	300	48	1360	1250	1180	180	24 x 56	M52	240	1540

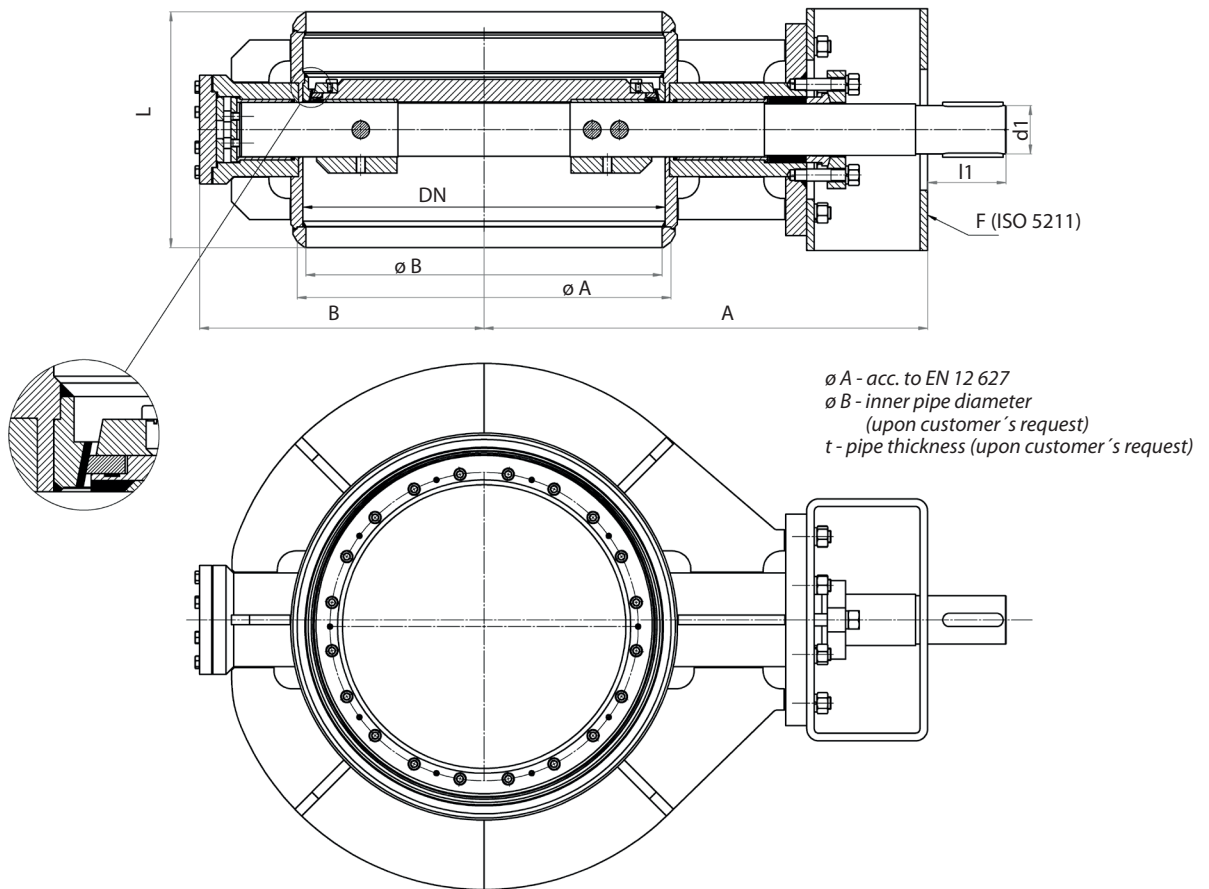
PN 63

DN	A*	B	L	F	D1	D2	D3	d1	n x d	M	l1	kg
150	320	210	140	14	345	280	218	35	4 x 33	M30	60	79
200	360	250	152	16	415	345	285	45	8 x 36	M33	70	115
250	435	255	165	25	470	400	345	55	8 x 36	M33	80	210
300	460	340	178	25	530	460	410	60	12 x 36	M33	80	245
350	530	360	190	30	600	525	465	80	12 x 39	M36	110	310
400	565	390	216	35	670	585	535	90	12 x 42	M39	120	450
500	640	470	229	35	800	705	615	100	16 x 48	M45	130	630
600	775	550	267	40	930	820	735	110	16 x 56	M52	170	860

* The value applies to temperatures up to +400 ° C.

DN 150-1000 • PN 6-63 • Tmax 500 °C
Design: wrought

Connection: EN 12 627 WELDED ENDS



PN 6

DN	A*	B	L	F	d1	l1	kg
150	275	170	210	10	30	40	31
200	315	205	230	10	30	40	38
250	345	240	250	12	30	40	44
300	395	265	270	12	30	50	77
350	475	320	290	14	40	60	128
400	500	350	310	14	40	60	158
500	545	405	350	14	45	70	221
600	695	475	390	16	55	80	347
700	715	565	430	25	60	80	515
800	815	630	470	25	70	100	763
1000	970	765	500	30	90	120	1095

PN 10

DN	A*	B	L	F	d1	l1	kg
150	275	170	210	10	30	40	31
200	315	205	230	10	30	40	40
250	345	240	250	12	30	50	49
300	395	265	270	12	35	50	82
350	475	320	290	14	40	60	132
400	500	350	310	16	50	70	170
500	555	415	350	16	55	80	235
600	695	475	390	25	60	80	363
700	715	565	430	30	70	100	536
800	815	630	470	30	80	110	765
1000	970	765	500	35	100	130	1117

* The value applies to temperatures up to +400 °C.



DN 150-1000 • PN 6-63 • Tmax 500 °C
Design: wrought

Connection:  EN 12 627 WELDED ENDS

PN 16

DN	A*	B	L	F	d1	l1	kg
150	275	170	210	10	30	40	31
200	315	205	230	10	30	50	40
250	345	240	250	12	35	50	49
300	395	265	270	14	40	60	78
350	475	320	290	16	45	70	137
400	500	350	310	16	55	80	190
500	555	415	350	25	70	100	256
600	695	475	390	30	80	110	339
700	715	565	430	30	90	120	519
800	825	640	470	35	100	130	775
1000	980	775	500	40	120	180	1130

PN 25

DN	A*	B	L	F	d1	l1	kg
150	285	170	210	10	30	50	32
200	315	205	230	12	35	50	41
250	345	240	250	14	40	60	50
300	395	265	270	16	45	70	81
350	475	320	290	16	55	80	130
400	500	350	310	25	60	80	168
500	555	415	350	25	70	100	244
600	695	475	390	30	80	110	310
700	715	565	430	35	90	120	645
800	825	640	470	35	110	170	705
1000	990	785	500	48	140	200	1080

PN 40

DN	A*	B	L	F	d1	l1	kg
150	285	175	210	12	30	50	59
200	315	205	230	14	40	60	75
250	390	255	250	14	40	70	102
300	420	290	270	16	50	70	185
350	500	320	290	25	60	80	195
400	525	350	310	25	70	100	265
500	605	425	350	30	80	110	320
600	745	525	390	35	110	170	405
700	810	615	430	40	110	170	610
800	930	690	470	40	140	200	860

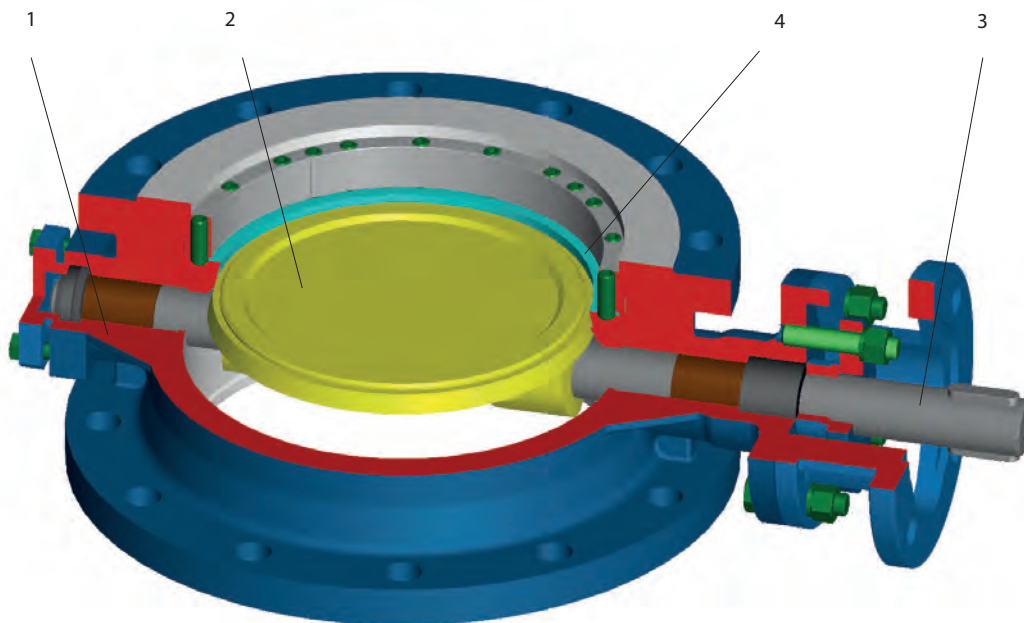
PN 63

DN	A*	B	L	F	d1	l1	kg
150	275	168	267	14	35	60	35
200	360	250	292	16	45	70	98
250	435	305	330	25	55	80	135
300	470	340	356	25	60	80	245
350	535	365	381	30	80	110	280
400	565	390	406	35	90	120	355
500	640	460	457	35	100	130	415
600	765	545	508	40	110	170	530

* The value applies to temperatures up to +400 °C.

DN 80-1400 • PN 6-100 • Tmax 550 °C
Design: cast

Connection: EN 1092-1 FLANGED ENDS
 EN 12 627 WELDED ENDS
 EN 1092-1 WAFER TYPE



Material

Position	Component	ASTM				
		+400 °C*	-46 °C to +300 °C*	+550 °C*	+500 °C*	+550 °C*
1	Body	A216 W CB	A352 LCB	A217 WC6	A351 CF8	A351 CF8M
2	Disc	A216 WCB	A352 LCB	A217 WC6	A351 CF8	A351 CF8M
		Cr13 stellite6	Cr13 stellite6	stellite6	stellite6	stellite6
3	Seat	A276 420	A276 420	6370 (AMS)	A276 302	A705 630
		Cr13	Cr13	24CrMo4	18Cr-8Ni	17Cr-4Ni-4Cu
4	Shaft	A240 301 + graphite	A240 301 + graphite	A240 301 + graphite	A240 304 + graphite	A240 316 + graphite
		17Cr-7Ni + graphite	17Cr-7Ni + graphite	17Cr-7Ni + graphite	18Cr-8Ni + graphite	16Cr-12Ni-2Mo + graphite

* The thermal use of the valve depends on the pressure-temperature characteristic of the material - see further information in this catalog.

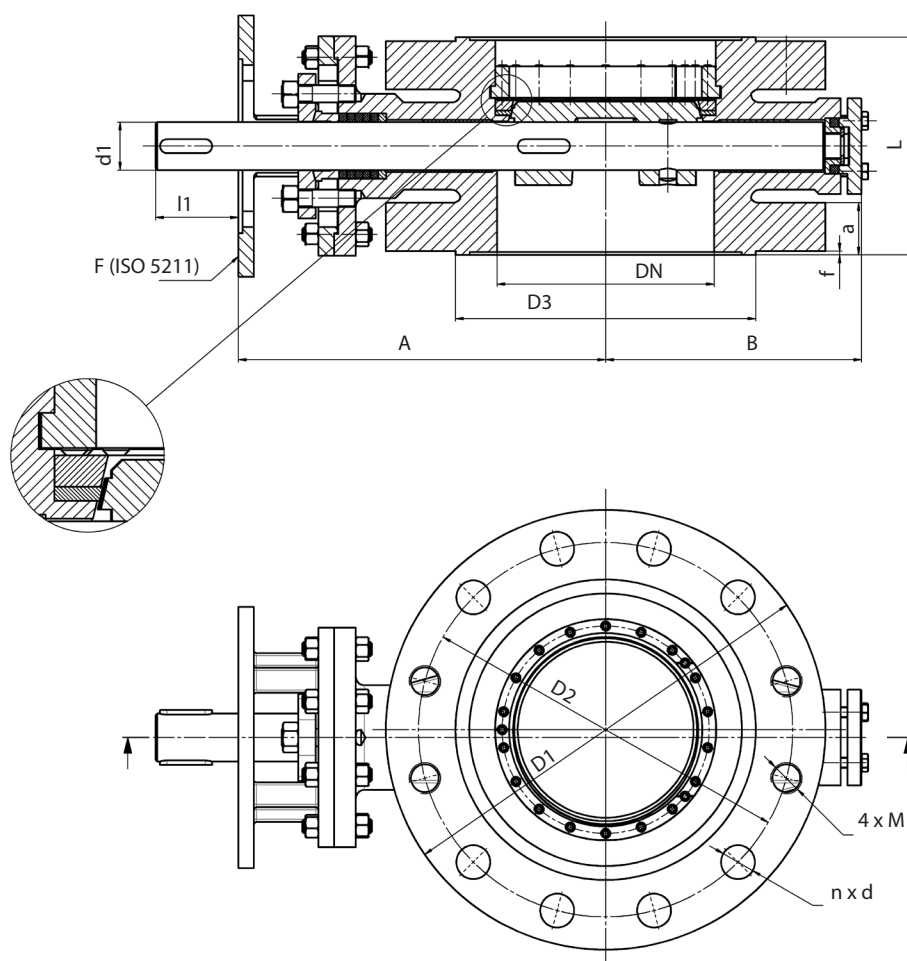
Production range

DN	Flanged ends							Wafer type				Welded ends				
	PN							PN				PN				
	6	10	16	25	40	63	100	10	16	25	40	16	25	40	63	100
80	*	*	*	*	*	*		*	*	*	*	*	*	*	*	
100	*	*	*	*	*	*		*	*	*	*	*	*	*	*	
125	*	*	*	*	*	*		*	*	*	*	*	*	*	*	
150	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
200	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
250	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
300	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
350	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
400	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
450	*	*	*	*	*			*	*	*	*	*	*	*	*	*
500	*	*	*	*	*			*	*	*	*	*	*	*	*	*
600	*	*	*	*	*			*	*	*	*	*	*	*	*	*
700	*	*	*	*	*			*	*	*		*	*			
800	*	*	*	*	*			*	*	*		*	*			
900	*	*	*	*				*	*	*		*	*			
1000	*	*	*	*				*	*			*	*			
1200	*															
1400	*															



DN 80-1400 • PN 6-100 • Tmax 550 °C
Design: cast

Connection: EN 1092-1 FLANGED ENDS



PN 6

DN	A	B	L	D1	D2	D3	a	f	d1	l1	F	n x d	M	kg
80	180	-	114	190	150	128	16	3	22	33	10	4 x 18	-	28,5
100	195	-	127	210	170	148	16	3	22	33	10	4 x 18	-	36,5
125	207	-	140	240	200	178	18	3	22	33	10	8 x 18	-	44,5
150	264	155	140	265	225	202	18	3	24	36	12	8 x 18	-	50
200	287	200	152	320	280	258	20	3	24	36	12	8 x 18	-	55
250	330	231	165	375	335	312	22	3	28	42	12	12 x 18	-	69
300	350	250	178	440	395	365	22	4	32	48	14	12 x 22	-	95
350	385	285	190	490	445	415	22	4	36	54	14	12 x 22	-	118
400	423	319	216	540	495	465	22	4	40	60	16	16 x 22	-	172
450	464	354	222	595	550	520	22	4	44	66	25	16 x 22	-	209
500	510	404	229	645	600	570	24	4	50	70	25	20 x 22	-	264
600	585	473	267	755	705	670	30	5	60	80	25	20 x 26	-	382
700	640	520	292	860	810	775	30	5	70	80	30	24 x 26	-	507
800	730	600	318	975	920	880	30	5	80	110	30	24 x 30	-	550
900	790	628	330	1075	1020	980	34	5	90	110	30	24 x 30	-	650
1000	875	705	300	1175	1120	1080	38	5	100	130	30	24 x 30	M27	1119
1200	996	830	350	1405	1340	1295	42	5	120	180	40	28 x 33	M30	1290
1400	1107	985	390	1630	1560	1510	56	5	140	190	40	32 x 36	M33	1610



DN 80-1400 • PN 6-100 • Tmax 550 °C

Design: cast

Connection: EN 1092-1 FLANGED ENDS

PN 10

DN	A	B	L	D1	D2	D3	a	f	d1	l1	F	n x d	M	kg
80	180	-	114	200	160	138	20	3	22	33	10	8 x 18	-	29
100	195	-	127	220	180	158	20	3	22	33	10	8 x 18	-	37
125	207	-	140	250	210	188	22	3	22	33	10	8 x 18	-	45
150	264	-	140	285	240	212	22	3	24	36	12	8 x 22	-	51
200	287	-	152	340	295	268	24	3	24	36	12	8 x 22	-	70
250	330	-	165	395	350	320	26	3	28	42	12	12 x 22	-	76
300	350	250	178	445	400	370	26	4	32	48	14	12 x 22	-	99
350	385	285	190	505	460	430	26	4	36	54	14	16 x 22	-	126
400	423	312	216	565	515	482	26	4	40	60	16	16 x 26	-	186
450	464	354	222	615	565	532	28	4	44	66	25	20 x 26	-	226
500	510	404	229	670	620	585	28	4	50	70	25	20 x 26	-	281
600	581	473	267	780	725	685	30	5	60	80	25	20 x 30	-	420
700	640	520	292	895	840	800	35	5	70	80	30	24 x 30	-	560
800	730	600	318	1015	950	905	38	5	80	110	30	24 x 33	-	750
900	790	628	330	1115	1050	1005	38	5	90	110	30	28 x 33	-	1135
1000	870	705	410	1230	1160	1110	44	5	100	130	30	24 x 36	M33	1269

PN 16

DN	A	B	L	D1	D2	D3	a	f	d1	l1	F	n x d	M	kg
80	180	-	114	200	160	138	20	3	22	33	10	8 x 18	-	30
100	195	-	127	220	180	158	20	3	22	33	10	8 x 18	-	38
125	207	-	140	250	210	188	22	3	22	33	10	8 x 18	-	46
150	264	-	140	285	240	212	22	3	24	36	12	8 x 22	-	52
200	296	200	152	340	295	268	24	3	32	48	12	12 x 22	-	71
250	330	231	165	405	355	320	26	3	36	51	14	12 x 26	-	78
300	373	269	178	460	410	378	28	4	40	60	16	12 x 26	-	107
350	410	298	190	520	470	438	30	4	44	66	16	16 x 26	-	140
400	465	331	216	580	525	490	32	4	55	67	25	16 x 30	-	205
450	496	369	222	640	585	550	34	4	60	77	25	16 x 30	M27	254
500	533	404	229	715	650	610	36	4	70	84	25	16 x 33	M30	333
600	613	473	267	840	770	725	40	5	80	104	30	16 x 36	M33	486
700	683	538	292	910	840	795	40	5	90	104	30	20 x 36	M33	597
800	747	615	318	1025	950	900	41	5	100	127	30	20 x 39	M36	784
900	838	700	330	1125	1050	1000	48	5	120	164	40	24 x 39	M36	1179
1000	897	730	410	1255	1170	1115	59	5	120	180	40	24 x 42	M39	1174

PN 25

DN	A	B	L	D1	D2	D3	a		d1	l1	F	n x d	M	kg
80	180	-	114	200	160	138	24	3	22	33	10	8 x 18	-	31
100	195	-	127	235	190	162	24	3	22	33	10	8 x 22	-	40
125	207	-	140	270	220	188	26	3	22	33	10	8 x 26	-	50
150	264	-	140	300	250	218	28	3	24	36	12	8 x 26	-	55
200	296	200	152	360	310	278	30	3	32	48	12	8 x 26	M24	70
250	330	231	165	425	370	335	32	3	36	55	14	8 x 30	M27	95
300	373	269	178	485	430	395	34	4	40	60	16	12 x 30	M27	128
350	410	298	190	555	490	450	38	4	44	66	16	12 x 33	M30	175
400	465	331	216	620	550	505	40	4	55	70	25	12 x 36	M33	251
450	496	369	222	670	600	555	46	4	60	80	25	16 x 36	M33	312
500	530	404	229	730	660	615	48	4	70	80	25	16 x 36	M33	387
600	610	473	267	845	770	720	48	5	80	110	30	16 x 39	M36	536
700	680	538	292	960	875	820	50	5	90	110	30	20 x 42	M39	706
800	744	615	318	1085	990	930	53	5	100	130	30	20 x 48	M45	943
900	802	700	330	1185	1090	1030	57	5	120	170	40	24 x 48	M45	1371
1000	940	750	410	1320	1210	1140	63	5	120	190	40	24 x 56	M52	2333



DN 80-1400 • PN 6-100 • Tmax 550 °C
Design: cast

Connection:  EN 1092-1 FLANGED ENDS

PN 40

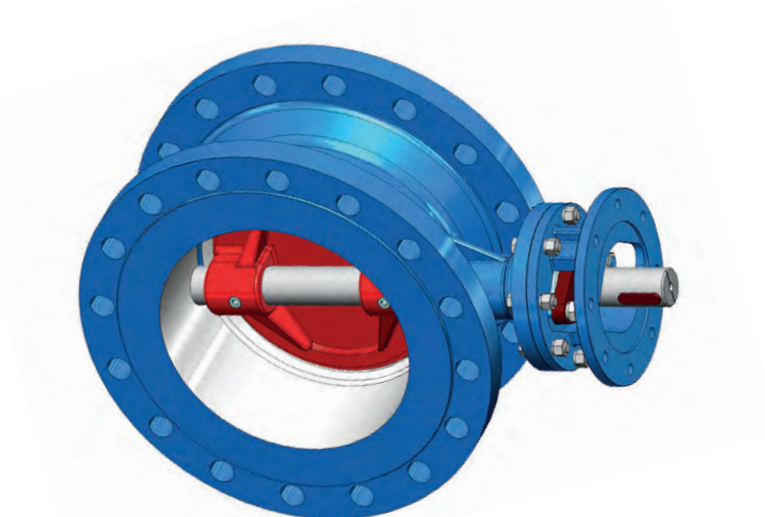
DN	A	B	L	D1	D2	D3	a	f	d1	l1	F	n x d	M	kg
80	180	-	180	200	160	138	24	3	22	33	10	8 x 18	-	35,5
100	195	-	190	235	190	162	24	3	22	33	10	8 x 22	-	47,5
125	256	-	200	270	220	188	26	3	28	46	12	8 x 26	-	52
150	270	-	210	300	250	218	28	3	32	48	12	8 x 26	-	60
200	310	219	230	375	320	285	34	3	36	55	14	12 x 30	-	100
250	362	261	250	450	385	345	38	3	40	57	16	12 x 33	-	150
300	424	289	270	515	450	410	42	4	44	66	16	16 x 33	-	200
350	460	320	290	580	510	465	46	4	55	70	25	16 x 36	-	290
400	502	357	310	660	585	535	50	4	60	80	25	16 x 39	-	400
450	570	385	330	685	610	560	57	4	70	137	30	16 x 39	M36	450
500	578	431	350	755	670	615	57	4	80	110	30	16 x 42	M39	550
600	660	492	390	890	795	735	72	5	90	110	30	16 x 48	M45	845
700	752	570	430	995	900	840	76	5	100	130	40	20 x 48	M45	1310
800	870	685	470	1140	1030	960	80	5	120	180	40	20 x 56	M52	1450

PN 63

DN	A	B	L	D1	D2	D3	a	f	d1	l1	F	n x d	M	kg
80	180	-	180	215	170	138	28	3	22	33	10	8 x 22	-	35,5
100	195	-	190	250	200	162	30	3	22	33	10	8 x 26	-	47,5
125	256	-	200	295	240	188	34	3	28	46	12	8 x 30	-	52
150	320	185	210	345	280	218	36	3	40	60	16	8 x 33	-	60
200	359	216	230	415	345	285	42	3	40	60	16	8 x 36	M33	100
250	407	290	250	470	400	345	46	3	50	70	25	8 x 36	M33	150
300	450	338	270	530	460	410	52	4	60	80	25	12 x 36	M33	200
350	480	360	290	600	525	465	56	4	70	80	25	12 x 39	M36	290
400	545	391	310	670	585	535	60	4	80	110	30	12 x 42	M39	400

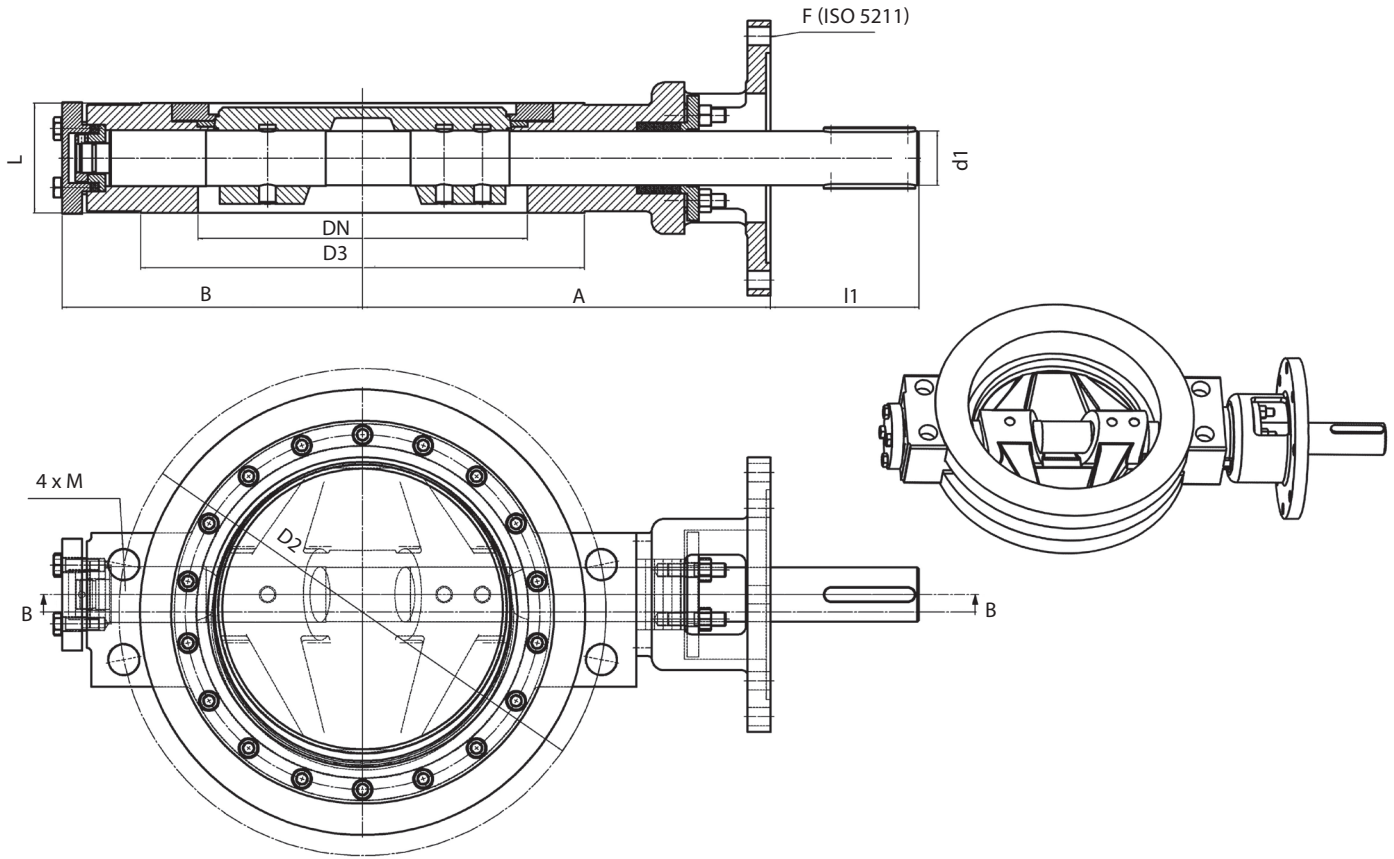
PN 100

DN	A	B	L	D1	D2	D3	a	f	d1	l1	F	n x d	M	kg
150	320	185	210	355	290	218	44	3	40	60	16	8 x 33	M30	85
200	377	227	230	430	360	285	52	3	50	70	25	8 x 36	M33	130
250	422	294	250	505	430	345	60	3	55	95	25	8 x 39	M36	205
300	517	338	270	585	500	410	68	4	70	105	30	12 x 42	M39	215
350	520	358	290	655	560	465	74	4	80	110	30	12 x 48	M45	380
400	585	420	310	715	620	535	78	4	90	130	30	12 x 48	M45	500



DN 80-1000 • PN 10-40 • Tmax 550 °C
Design: cast

Connection: EN 1092-1 WAFER TYPE



PN 10

DN	A	B	L	D2	D3	d1	l1	F	M	kg
80	195	98	49	160	138	22	33	10	-	13,5
100	210	112	56	180	158	22	33	10	-	15,5
125	230	125	64	210	188	22	33	10	-	22,5
150	280	155	70	240	212	24	36	12	-	25
200	315	200	71	295	268	24	36	12	M20	28
250	355	231	76	350	320	28	42	12	M20	39
300	385	250	83	400	370	32	48	14	M20	58
350	420	285	92	460	430	36	54	14	M20	80
400	435	312	102	515	482	40	60	16	M24	123
450	490	354	114	565	532	44	66	25	M24	161
500	560	404	127	620	585	50	70	25	M24	201
600	655	473	154	725	685	60	80	25	M27	313
700	665	520	165	840	800	70	80	30	M27	412
800	760	600	190	950	905	80	110	30	M30	567
900	800	628	203	1050	1005	90	110	30	M30	950
1000	870	705	216	1160	1110	100	130	30	M33	1002



DN 80-1000 • PN 10-40 • Tmax 550 °C
Design: cast

Connection:  EN 1092-1 WAFER TYPE

PN 16

DN	A	B	L	D2	D3	d1	l1	F	M	kg
80	195	98	49	160	138	22	33	10	-	13,5
100	210	112	56	180	158	22	33	10	-	15,5
125	230	125	64	210	188	22	33	10	-	22,5
150	290	155	70	240	212	24	36	12	-	25
200	330	200	71	295	268	32	48	12	M20	30
250	355	231	76	355	320	36	55	14	M24	41
300	385	269	83	410	378	40	60	16	M24	60
350	420	298	92	470	438	44	66	16	M24	83
400	495	331	102	525	490	55	70	25	M27	128
450	520	369	114	585	550	60	80	25	M27	177
500	555	404	127	650	610	70	80	25	M30	239
600	640	473	154	770	725	80	110	30	M33	374
700	690	538	165	840	795	90	110	30	M33	432
800	760	615	190	950	900	100	130	30	M36	587
900	840	700	203	1050	1000	120	170	40	M36	980
1000	920	730	216	1170	1115	120	180	40	M39	1022

PN 25

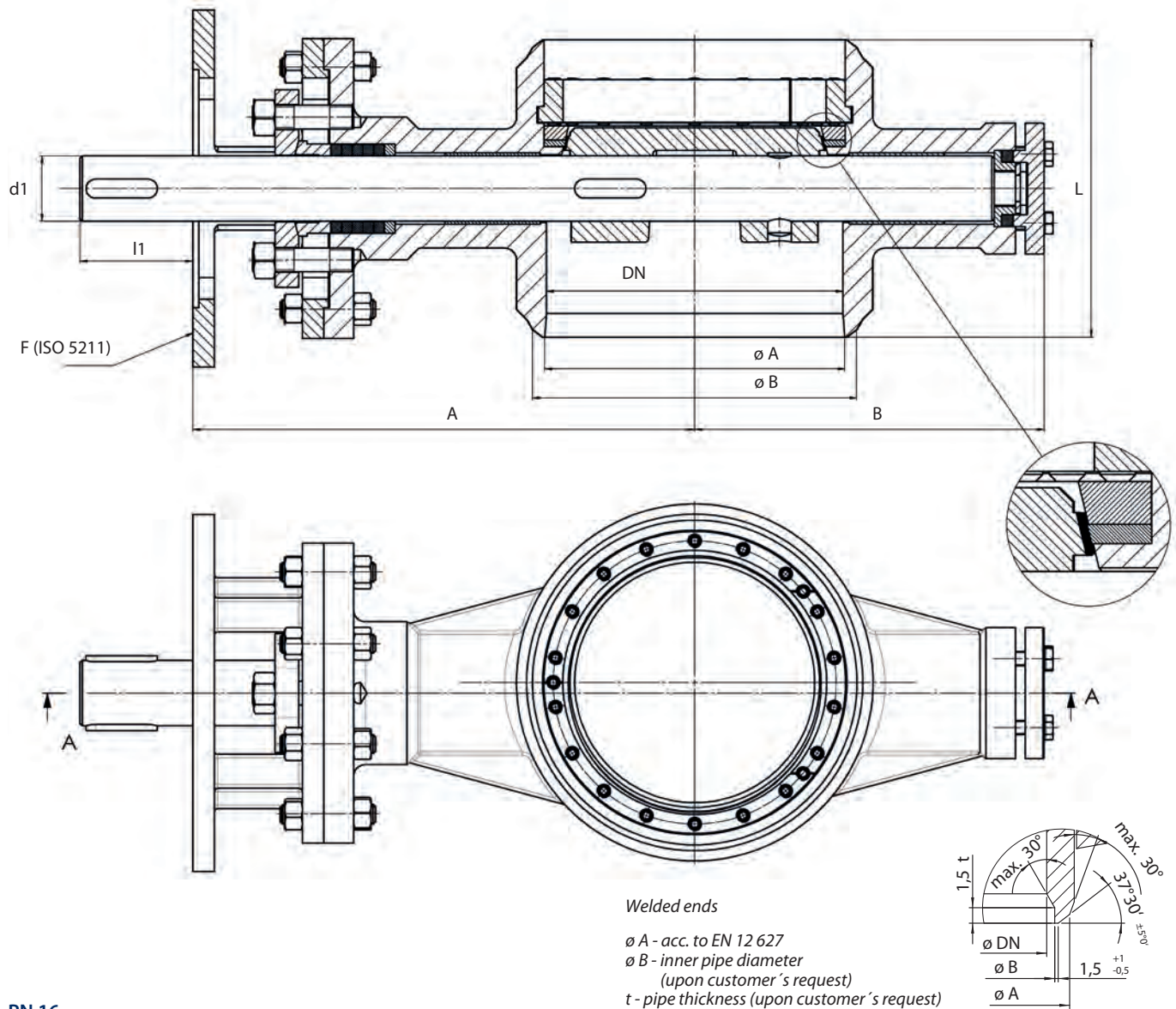
DN	A	B	L	D2	D3	d1	l1	F	M	kg
80	195	98	49	-	138	22	33	10	-	15,5
100	210	112	56	-	162	22	33	10	-	17,5
125	230	125	64	-	188	22	33	10	-	26,5
150	290	155	70	-	218	24	36	12	-	27
200	330	200	71	310	278	32	48	12	M24	32
250	355	231	76	370	335	36	55	14	M27	45
300	385	269	83	430	395	40	60	16	M27	69
350	420	298	92	490	450	44	66	16	M30	94
400	495	331	102	550	505	55	70	25	M33	145
450	520	369	114	600	555	60	80	25	M33	207
500	555	404	127	660	615	70	80	25	M33	270
600	640	473	154	770	720	80	110	30	M36	405
700	700	538	165	875	820	90	110	30	M39	483
800	760	615	190	990	930	100	130	30	M45	656
900	840	700	203	1090	1030	120	170	40	M45	1020

PN 40

DN	A	B	L	D2	D3	d1	l1	F	M	kg
80	195	98	49	-	138	22	33	10	-	20,5
100	210	112	56	-	162	22	33	10	-	30,5
125	270	125	70	220	188	28	46	12	-	35
150	290	165	76	250	218	32	48	12	-	40
200	340	222	89	320	285	36	55	14	M27	60
250	390	261	114	385	345	40	60	16	M30	80
300	460	289	114	450	410	44	66	16	M30	110
350	490	320	127	510	465	55	70	25	M33	150
400	530	357	140	585	535	60	80	25	M36	200
450	560	385	152	610	560	70	135	30	M36	230
500	615	431	152	670	615	80	110	30	M39	334
600	690	492	178	795	735	90	110	30	M45	585

DN 80-1000 • PN 16-100 • Tmax 550 °C
Design: cast

Connection: EN 12 627 WELDED ENDS



PN 16

DN	A	B	L	d1	l1	F	kg
80	195	98	180	22	33	10	25,5
100	210	112	190	22	33	10	32,5
125	230	125	200	22	33	10	39,5
150	290	155	210	24	36	12	45
200	330	200	230	32	48	12	50
250	355	231	250	36	55	14	70
300	385	269	270	40	60	16	96
350	420	298	290	44	66	16	123
400	495	331	310	55	70	25	178
450	520	369	330	60	80	25	222
500	555	404	350	70	80	25	293
600	640	473	390	80	110	30	423
700	690	538	430	90	110	30	523
800	760	615	470	100	130	30	691
900	840	700	510	120	170	40	1020
1000	920	730	550	120	180	40	1650



DN 80-1000 • PN 16-100 • Tmax 550 °C
Design: cast

Connection: ☼ EN 12 627 WELDED ENDS

PN 25

DN	A	B	L	d1	I1	F	kg
80	195	98	180	22	33	10	25,5
100	210	112	190	22	33	10	32,5
125	230	125	200	22	33	10	39,5
150	290	155	210	24	36	12	45
200	330	200	230	32	48	12	50
250	355	231	250	36	55	14	70
300	385	269	270	40	60	16	96
350	420	298	290	44	66	16	123
400	495	331	310	55	70	25	178
450	520	369	330	60	80	25	222
500	555	404	350	70	80	25	293
600	640	473	390	80	110	30	423
700	690	538	430	90	110	30	523
800	760	615	470	100	130	30	691
900	840	700	510	120	170	40	1020
1000	920	730	550	140	180	40	1650
1200	1170	942	630	160	240	48	2050

PN 40

DN	A	B	L	d1	I1	F	kg
80	195	98	180	22	33	10	25,5
100	210	112	190	22	33	10	32,5
125	270	125	200	28	46	12	45
150	290	165	210	32	48	12	60
200	340	219	230	36	55	14	70
250	390	155	250	40	60	16	80
300	460	289	270	44	66	16	95
350	490	320	290	55	70	25	155
400	530	357	310	60	80	25	257
450	560	385	330	70	135	30	230
500	615	431	350	80	110	30	319
600	690	492	390	90	110	30	548

PN 63

DN	A	B	L	d1	I1	F	kg
80	195	90	180	22	33	10	21
100	210	112	190	22	33	10	25
125	270	124	200	28	46	12	35
150	350	185	210	40	60	16	58
200	390	216	230	44	66	16	75
250	440	290	250	50	70	25	103
300	500	338	270	60	80	25	172
350	510	360	290	70	80	25	231
400	575	391	310	80	110	30	299
450	610	431	330	90	135	30	380
500	625	481	350	90	110	30	546
600	670	582	390	120	180	40	763

PN 100

DN	A	B	L	d1	I1	F	kg
150	340	185	210	40	60	16	58
200	410	227	230	50	70	25	92
250	455	294	250	60	95	25	122
300	500	338	270	70	105	30	191
350	550	358	290	90	110	30	273
400	620	420	310	90	130	30	403
450	680	453	330	90	135	30	508
500	710	485	350	120	180	40	685
600	785	575	390	120	180	40	945