product catalogue

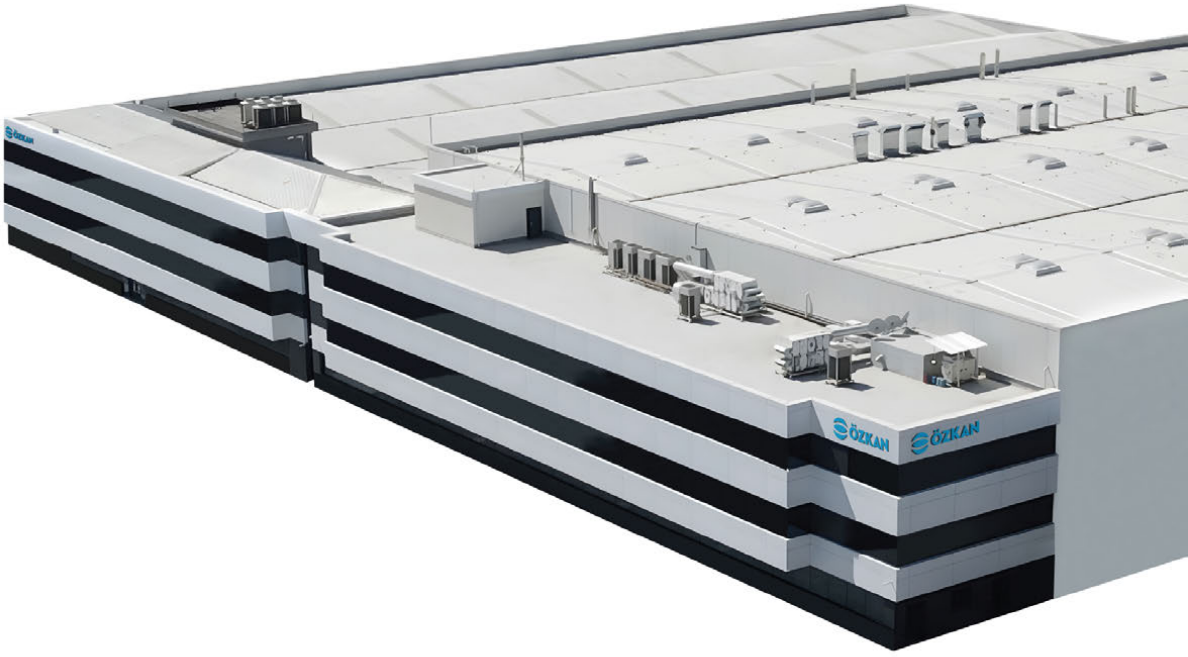
ÖZKAN

lead water to the next level

ÖZKAN

lead water to the next level

contents



Welcome to Özkan Makina

ÖZKAN Makina started its activities in 1983 in Izmir with the production of Conical Valves and Steam Valves and in the following years, the main production line was changed to Butterfly Valves. Currently, it manufactures Double Eccentric high performance Butterfly Valves, Needle Control Valves, Check Valves, high efficiency Air Release Valves and Dismantling Joints.

ÖZKAN Makina, which has been serving with the principle of "Quality" since its establishment, has become a prominent choice with its product range, experience, special production projects, on-time delivery guarantee and high quality targeting. Quality Assurance processes cover the entire added value chain and product processes with the participation of specialised employees. Serious quality awareness and the endeavour to comply with globally recognised technological standards are supported by modern production facilities and measuring instruments. The innovative strategy aims to win customer trust; extensive market research and innovative management systems are used to continuously improve products and make them favoured. The principle of customer proximity focuses on complex needs and attention to detail; this principle is effective in production and logistics in terms of continuous efficiency optimisation and comprehensive service provision. Reliability is one of the core values; employees contribute to company reliability with a high sense of responsibility, while efficient processes in technology ensure maximum reliability.

Quality Policy

As a leading company in its sector in terms of technology and quality, which has defined its core values as "Excellence", "Quality", "Reliability", "Customer Satisfaction", "Innovation" and "Sustainability", our main goal is to achieve the highest performance with the highest ethical values and to ensure its continuity. For this purpose, we create and develop a management system based on continuous improvement in all our processes. As a socially respectful organisation, we "use our natural resources effectively" and "protect our environment."

Our aim is to ensure complete customer satisfaction by providing products, solutions and services that will be useful for your applications. In all our processes, we always motivate our team, empower them and support their continuous development in order to achieve the highest performance. We make long-term agreements with our expert suppliers with our cooperation based on mutual trust and ethical rules.

Quality products are produced in a quality environment. Each member of our family is responsible for the "safe", "clean" and "tidy" workplace environment.

Certificates

With the belief that "quality products are produced in a quality environment" and with the awareness of occupational health and safety and environmental awareness while realising this, every individual of our business is responsible for our workplace environment to be "safe", "clean" and "tidy". We firmly believe that all members of ÖZ-KAN family will support and sustain our efforts in this direction.

It is our common duty as ÖZ-KAN Makina employees to ensure quality awareness systematically with innovative and creative approaches in all processes, to adopt the "Total Quality Management" framework as a management philosophy and to fulfil its requirements.

This mission has been reinforced with ISO9001, ISO14001 and ISO45001 system certifications and quality certificates for factory approval, drinking water standard, paint quality and product safety.

Quality Control

Özkan Makina is committed to maintaining the highest quality standards for our products and services. For this purpose, we carry out comprehensive quality control tests at all stages of production and service delivery. These tests are intended to ensure that products and services fulfil all requirements and specifications and offer the best experience to our customers.

Quality control tests are an indicator of our company's commitment to customer satisfaction and quality, and we believe that through these tests, we will always continue to provide our customers with reliable and flawless products and services.

Our quality control tests are carried out carefully by our experienced and qualified personnel.

- Flow Tests
- Dynamic Closure Tests
- Coating and Control System
- Pre-Coating Processes
- Post-Coating Tests

Production & Capacity

ÖZ-KAN Makina manages all production processes including design, simulation, modelling, moulding, machining and coating operations in its three manufacturing facilities located in İzmir Atatürk Organised Industrial Zone.

The state-of-the-art facilities equipped for the production of valves and installation elements in the DN 50 - DN 3000 diameter range and up to PN 40 pressure class are supported by raw materials with proven quality and performance, ensuring the reliability of the final product.

In three separate factories with a total area of 21.000 m2 and a production area of 16.500 m2, the company manufactures approximately 14.000 valves every year with more than 200 experienced personnel.

DN 50 - 3000 ø
Production Capacity

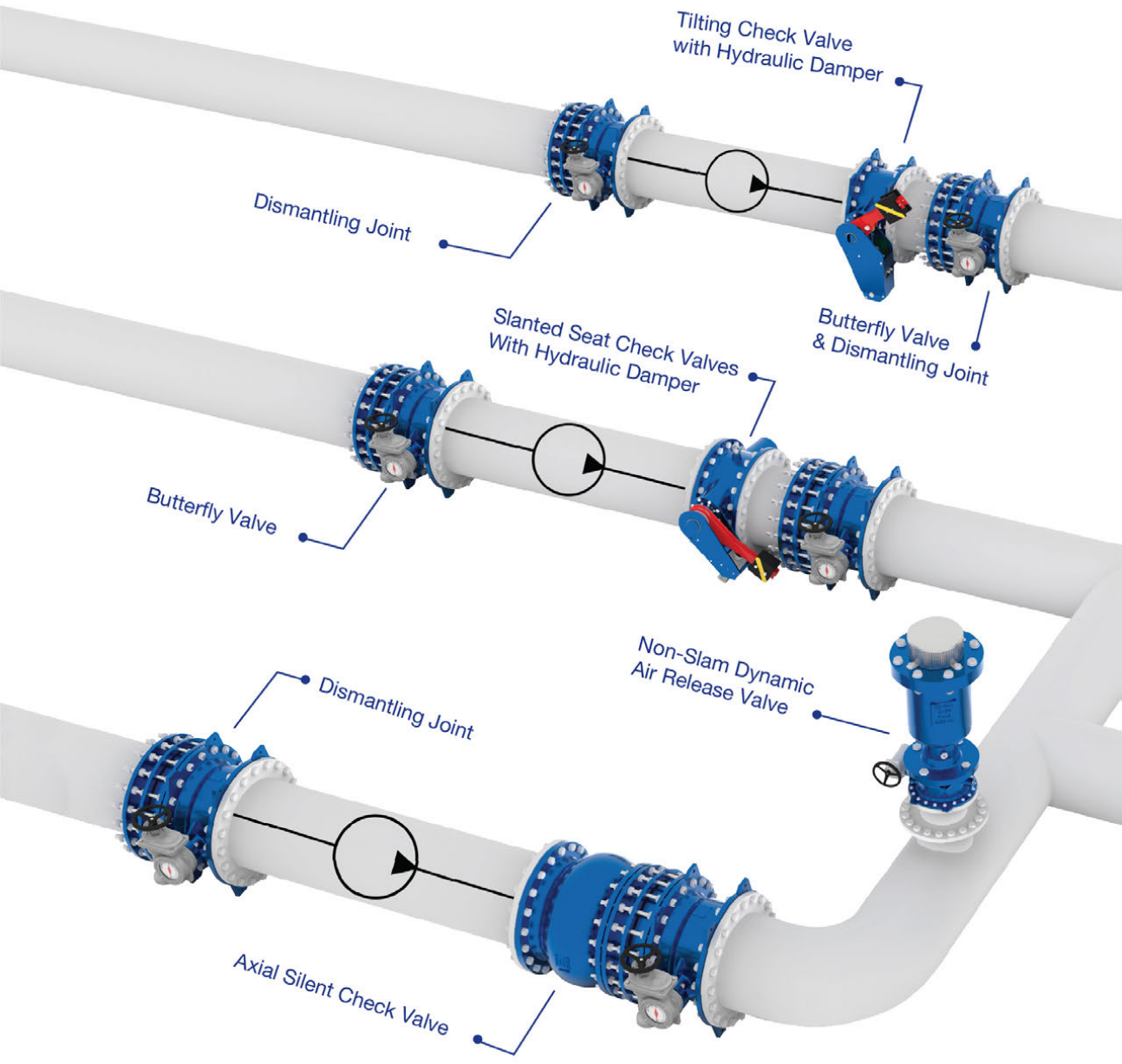
DN 50 – DN 3000 diameter range, up to PN 40 pressure class valves and latest technology facilities for the production of installation products.

21.000 m²
Facility Area

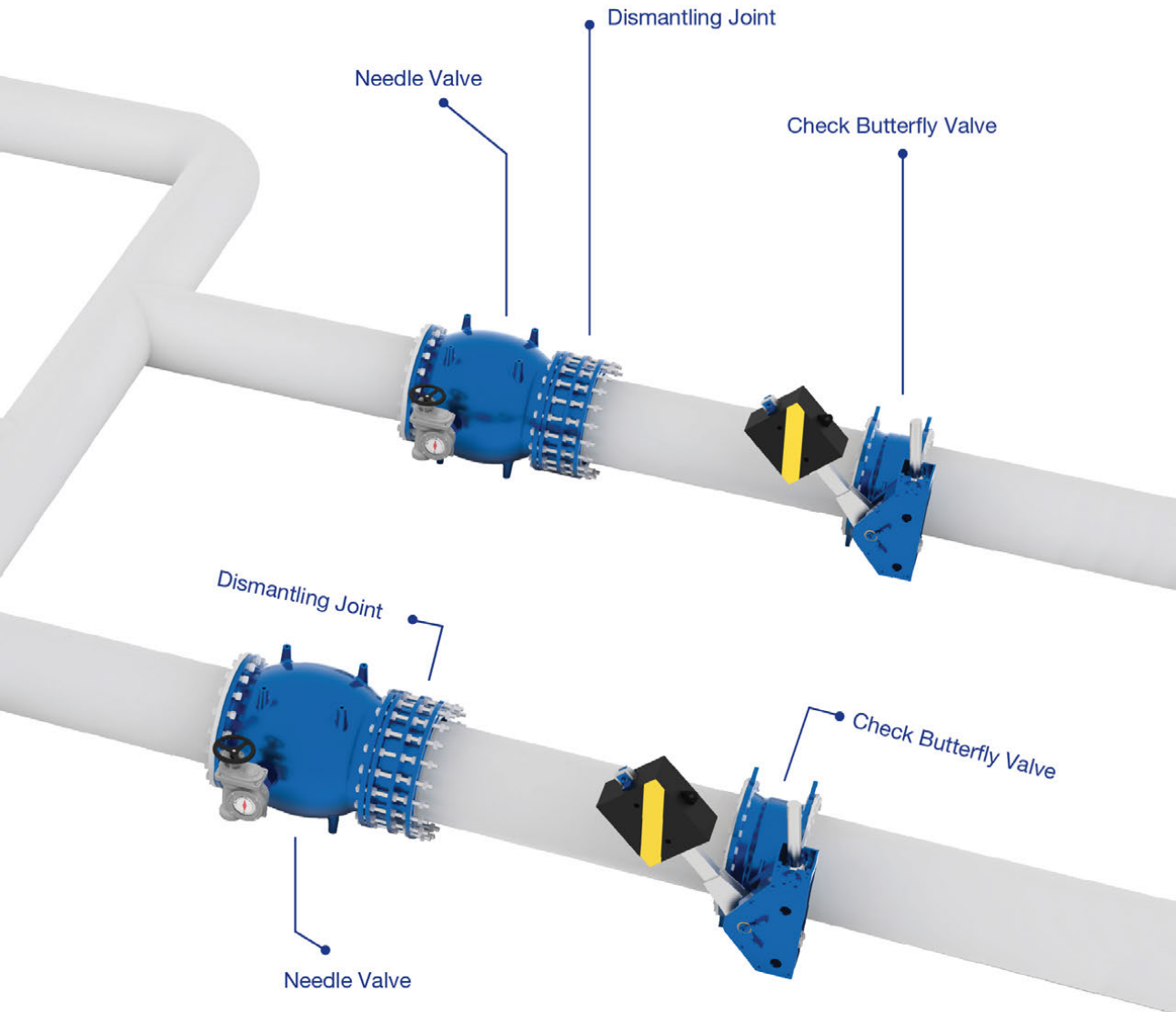
We provide high capacity production in three separate factories with a total area of 21,000 m² and a covered production area of 16,500 m².

+ 150
Experienced Staff

With more than 150 experienced and expert technical staff, we manufacture and supply customised products tailored to customer needs.



Product Range



Butterfly Valves

DN 100 — 2500, PN 10 | PN 40

Butterfly Valves are valves that allow flow by 90° rotation of the disc. ÖZKAN butterfly valves are double eccentric and the rubber sealing ring is fixed to the disc with a one piece retaining ring. This design provides 100% sealing and enables the sealing ring replacement to be easily performed on site, without dismantling any other part and without requiring any special equipment.

- Double Eccentric Butterfly Valves
- Sea Water And Corrosive Mediums Butterfly Valves
- Combined Check Butterfly Valves

ÖZKAN

No. 9881

Butterfly Valves

DN 100 – 2500, PN 10 | PN 40

*Please ask for different material, diameter and pressure class requests.

No. 9881

Why Butterfly Valves?

Some of the advantages offered by the butterfly valve can be listed as follows;

- Low weight.
- Small volume requirement.
- Ease of installation.
- Low operating torque requirement.
- Maintenance-free design.
- Suitable for isolation applications.
- Complete sealing at rated pressure.
- Wide range of actuator options.
- ÖVGW and DVGW approvals suitable for drinking water.

Areas Of Use

– Pump Stations – Sea Water Applications – Industrial Applications

– Power Plants (Cooling Water Circuits) – Treatment Plants – Pipelines – Warehouses

Technical Features

Design:	EN 593 (replaces BS 5155 and DIN 3354.)
Nominal Diameters :	DN 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 750,800 900, 1000 1100, 1200, 1300, 1400, 1500, 1600, 1700,1800, 2000, 2200, 2400, 2500.
Nominal Pressures:	PN 10, PN 16, PN 25, PN 40, (PN 63 Option), Cl 150, Cl 300.
Connection Length:	EN 558-1 Series 13 and 14 (replaces BS 5155 and DIN 3202).
Flange Connection:	EN 1092-2.
Optional Flange Connections:	ANSI B 16,5, ASME B 16,5 ASME B 16.47 Series A, AWWA C 207 SANS 1123 (South Africa), AS 4087 - AS 2129 (Australia) ISO 7005, BS4504.
Operating Temperature:	According to EN 1074 Standards.
Factory Tests:	EN 1074, EN 12266.

Design Features

- **Body**
  Streamlined and smooth body design provides minimum resistance to flow.

- **Disc**
  The disc, shaped in accordance with the flow, increases the flow capacity. Double eccentric design reduces wear and torque values of the sealing ring.

- **Sealing System**
  The sealing on the seat surface is provided by a rubber sealing ring with a T-section, which is fixed circumferentially on the edge of the valve by means of a retaining ring. In the closed position of the disc, the sealing ring presses against the conical machined body seat, ensuring absolute sealing in both directions. In the open position, the sealing ring is completely free due to the double eccentric design. The retaining ring, which is manufactured in one piece, prevents the sealing ring from dislocating. The sealing ring can be replaced under construction site conditions without the need for a special tool and without dismantling the valve.

- **Shafts**
  The two-piece shaft design increases the passage cross-section in the valve.

- **Shaft Conneciton**
  The valve spindle is fixed to the disc with a strong key connection.

- **Bearing System**
  Self-lubricating bearing bushes reduce bearing friction and torque.
  These bearings also centre the disc and prevent axial movement.

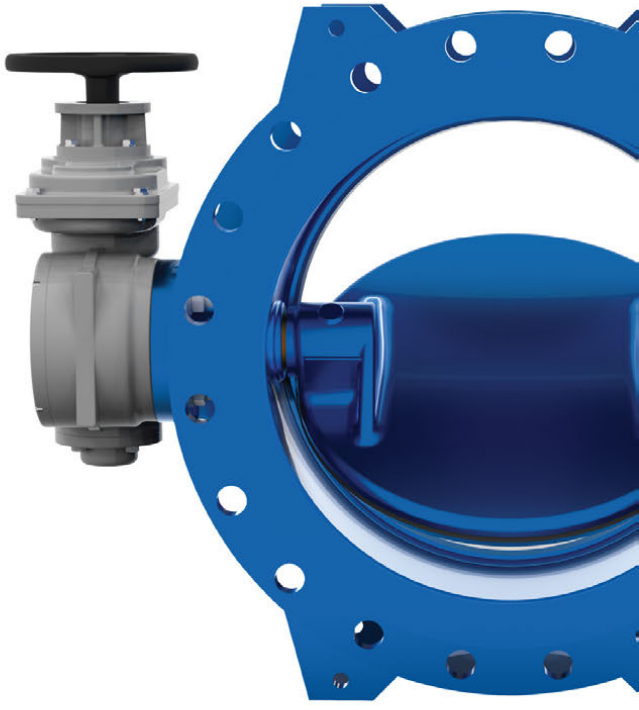
- **Shaft Sealing**
  Lifetime maintenance-free operation with double O-ring shaft sealing system.

- **Actuator Connection Flange**
  All butterfly valves have an actuator connection flash in ISO 5210 standard suitable for actuator mounting.

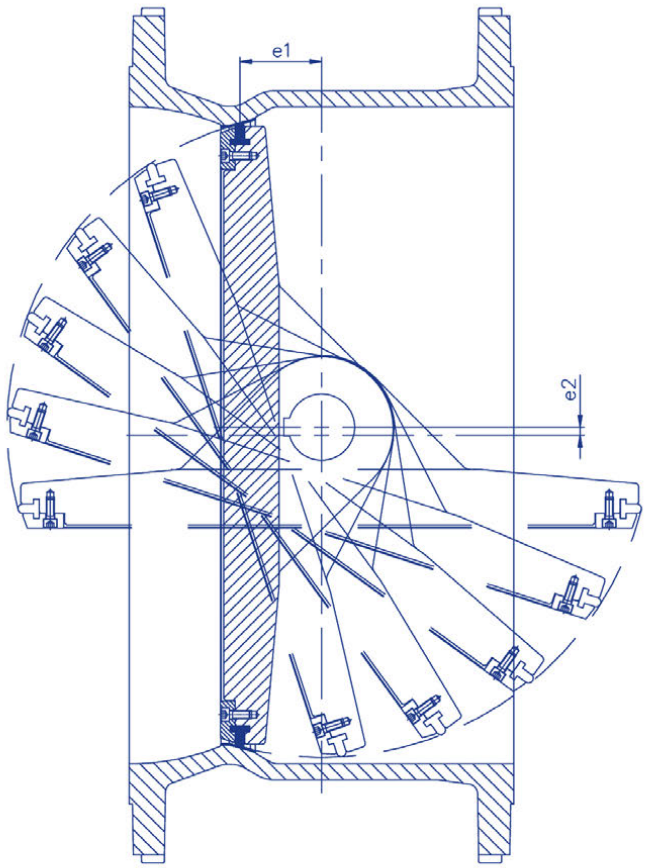
- **Lifting Holes and Feet**
  Lifting points and feet integrated into the valve body help easy and stable installation.

- **Body Seat**
  Stainless steel welded and precisely machined seat surface is resistant to abrasion and corrosion.

- **Coating**
  Powder epoxy (FBE), two-component epoxy, solvent-free epoxy, coal tar epoxy.



Double Eccentric Butterfly Valves

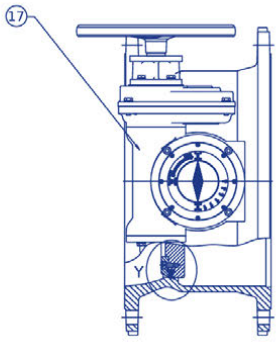


Design Features

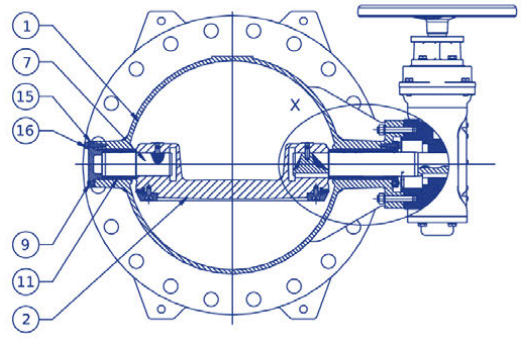
The first eccentricity (e1) moves the sealing axis off the shaft axis. For this reason, a continuous contact between the sealing ring and the body seat is obtained. The second eccentricity (e2) moves the valve axis out of the valve axis. With the help of the second eccentricity, the sealing ring is released from the body seat by a small movement in the opening direction. The purpose of the second eccentricity is to eliminate the pressure on the rubber sealing ring during valve opening and to reduce abrasive friction.

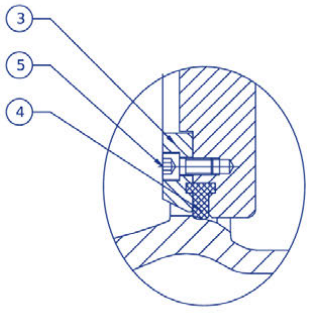
When the valve is in the open position, the rubber sealing ring is completely free and there is no deformation of the sealing ring, even if the valve remains in the open position for years.

Material Features

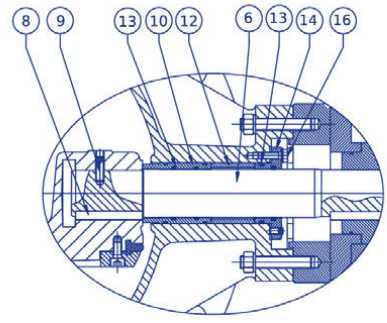


CLOSED POSITION





Y DETAIL



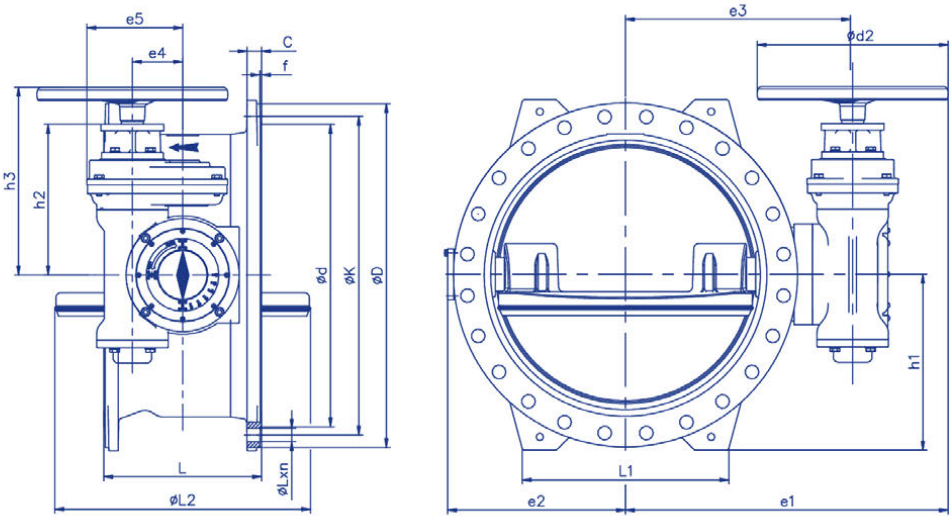
X DETAIL

Part No	Part Name	Material
1	Body	Ductile iron EN-GJS-400-15
2	Disc	Ductile iron EN-GJS-400-15
3	Retaining Ring	Steel S235JR
4	Sealing Ring	EPDM
5	Hex. Socket Head Screw	Stainless Steel A2
6	Drive Shaft	Stainless Steel X20Cr13
7	Free Shaft	Stainless Steel X20Cr13
8	Key	Steel Ck45
9	Set screw	Stainless Steel A2
10	Bearing Bush	Bronze
11	Bearing Bush	Bronze
12	Spacer Bush	Delrin
13	O-ring	EPDM
14	Drive Shaft Cover	Ductile iron EN-GJS-400-15
15	Free Shaft Cover	Ductile iron EN-GJS-400-15
16	Hex. Bolt	Stainless Steel A2
17	Gearbox	-

*Please contact us for other material requests.

PN-10

Technical Details

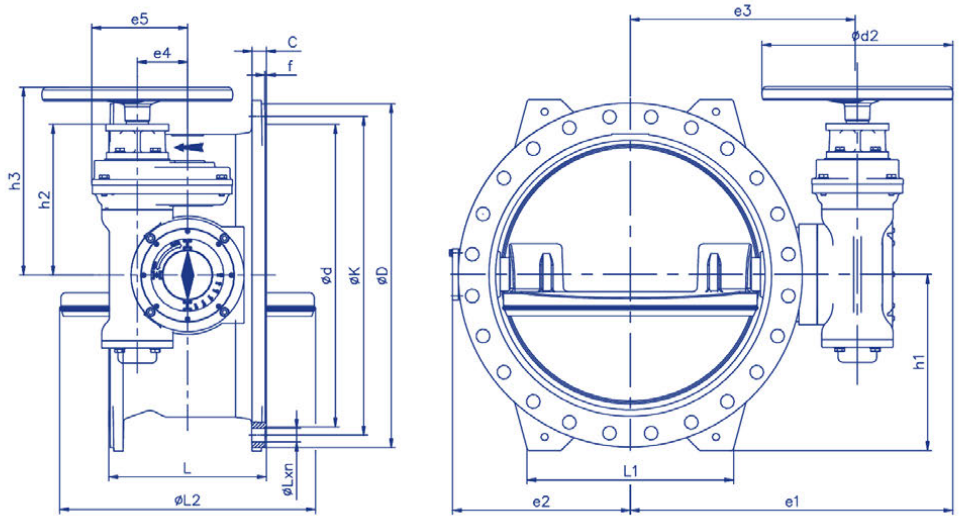


DN	PN	L[14] series	L[13] series	L1	L2	e1	e2	e3	e4	e5	ød2	h1	h2	h3	Gearbox	Weight series 14
80	10	180	114	-	75	317	107	192	63	126	250	100	140	210	NGG10	31
100	10	190	127	-	93	338	115	213	63	126	250	110	140	210	NGG10	33
125	10	200	140	-	112	349	132	224	63	126	250	125	140	210	NGG10	38
150	10	210	140	190	145	367	149	242	63	126	250	150	140	210	NGG10	43
200	10	230	152	180	199	394	175	269	63	126	250	180	140	210	NGG10	53
250	10	250	165	220	236	440	214	315	63	126	250	213	140	210	NGG11	80
300	10	270	178	283	281	462	237	337	63	126	250	237	140	210	NGG11	100
350	10	290	190	320	336	585	283	395	171	290	380	264	200	274	NGG20	150
400	10	310	216	343	379	616	297	426	171	290	380	293	200	274	NGG20	180
450	10	330	222	380	422	635	333	445	100	191	380	320	300	374	NGG20-RD4	225
500	10	350	229	400	462	680	344	490	100	191	380	347	300	374	NGG21-RD4	265
600	10	390	267	440	557	720	414	530	100	191	380	402	300	374	NGG21-RD4	330
700	10	430	292	538	664	785	468	595	160	284	380	460	403	477	NGG30-RD6	532
750	10	450	305	580	715	811	499	621	160	284	380	496	403	477	NGG30-RD6	588
800	10	470	318	608	760	842	530	652	160	284	380	520	403	477	NGG30-RD6	695
900	10	510	330	670	855	903	578	713	160	284	380	568	403	477	NGG31-RD6	895
1000	10	550	410	740	952	960	650	770	160	284	380	625	403	477	NGG31-RD6	1140
1100	10	590	440	750	1053	1000	720	810	160	284	380	696	403	477	NGG31-RD6	1560
1200	10	630	470	900	1148	1146	782	923	250	475	380	738	565	639	NGG41-RD7	1900
1300	10	670	-	988	1248	1263	867	1040	250	475	380	803	565	639	NGG41-RD7	2800
1400	10	710	530	1050	1345	1265	917	1043	250	475	380	855	565	639	NGG41-RD7	2665
1500	10	750	-	1080	1438	1409	1015	1160	315	540	495	908	620	699	NGG50-RD8	3395
1600	10	790	600	1250	1537	1455	1060	1206	315	540	495	978	620	699	NGG50-RD8	3935
1800	10	870	670	1202	1722	1584	1183	1335	315	540	495	1073	620	699	NGG50-RD8	5315
2000	10	950	760	1295	1901	1767	1303	1518	315	540	495	1181	620	699	NGG50-RD8	6585
2200	10	1030	-	1500	2093	1844	1420	1595	540	552	495	1288	748	827	NGG50-RD8+RD5	8745
2400	10	1110	-	1600	2310	2095	1593	1792	519	744	605	1390	898	998	TK10-RD10+RD5	13390
2500	10	1150	-	1600	2396	2122	1610	1819	519	744	605	1440	898	998	TK10-RD10+RD5	15530

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

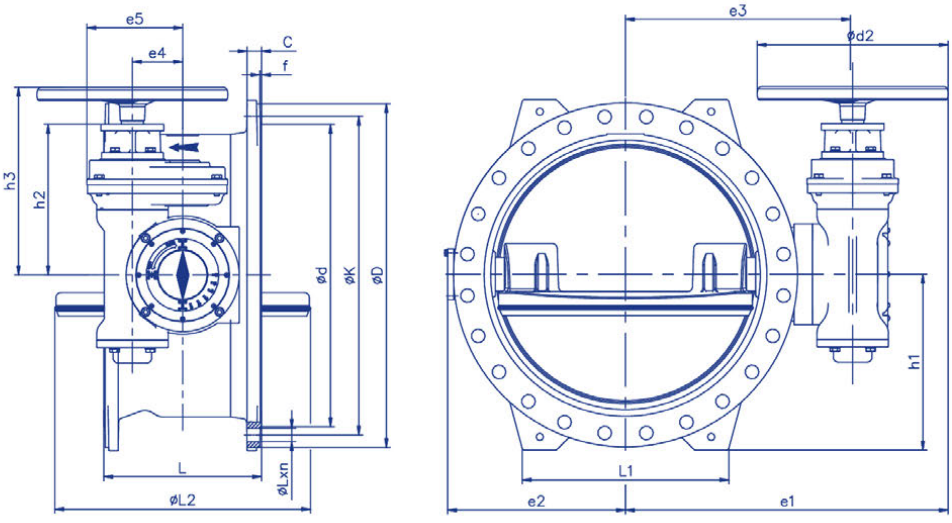


DN	PN	L[14] series	L[13] series	L1	L2	e1	e2	e3	e4	e5	ød2	h1	h2	h3	Gearbox	Weight series 14
100	16	190	127	-	93	338	115	213	63	126	250	110	140	210	NGG10	33
125	16	200	140	-	112	349	132	224	63	126	250	125	140	210	NGG10	38
150	16	210	140	190	145	367	149	242	63	126	250	150	140	210	NGG10	43
200	16	230	152	180	199	394	175	269	63	126	250	180	140	210	NGG10	53
250	16	250	165	220	236	440	214	315	63	126	250	213	140	210	NGG11	80
300	16	270	178	283	281	462	237	337	63	126	250	237	140	210	NGG11	100
350	16	290	190	320	336	585	283	395	100	171	380	272	200	274	NGG20	162
400	16	310	216	350	379	616	297	426	100	191	380	302	300	374	NGG20+RD4	210
450	16	330	222	380	422	635	333	445	100	191	380	330	300	374	NGG20+RD4	245
500	16	350	229	400	462	680	344	490	100	191	380	370	300	374	NGG21+RD4	310
600	16	390	267	500	554	720	414	530	100	191	380	432	300	374	NGG21+RD4	417
700	16	430	292	545	664	785	468	595	160	284	380	467	403	477	NGG30+RD6	602
750	16	450	305	580	715	811	499	621	160	284	380	496	403	477	NGG30+RD6	690
800	16	470	318	608	760	842	530	652	160	284	380	520	403	477	NGG30+RD6	782
900	16	510	330	675	855	903	578	713	160	284	380	573	403	477	NGG31+RD6	995
1000	16	550	410	740	952	960	650	770	160	284	380	638	403	477	NGG31+RD6	1222
1100	16	590	440	750	1053	1000	720	810	160	284	380	696	403	477	NGG31+RD6	1550
1200	16	630	470	900	1148	1146	782	923	250	475	380	753	565	639	NGG41+RD7	2225
1300	16	670	-	988	1248	1263	867	1040	250	475	380	803	565	639	NGG41+RD7	2787
1400	16	710	530	1160	1345	1265	917	1043	250	475	380	853	565	639	NGG41+RD7	3090
1500	16	750	-	1153	1438	1383	986	1134	315	540	495	930	620	699	NGG50+RD8	3892
1600	16	790	600	1250	1537	1506	1115	1257	315	540	495	978	620	699	NGG50+RD8	4645
1800	16	870	670	1220	1722	1628	1217	1379	315	540	495	1080	620	699	NGG50+RD8	6195
2000	16	950	760	1300	1901	1767	1303	1518	315	540	495	1193	620	699	NGG50+RD8	6945
2200	16	1030	-	1500	2087	1975	1460	1672	519	744	605	1290	898	998	TK10-RD10+RD5	11220
2400	16	1110	-	1600	2310	2095	1593	1792	519	744	605	1390	898	998	TK10-RD10+RD5	14650
2500	16	1150	-	1650	2396	2122	1610	1819	519	744	605	1440	898	998	TK10-RD10+RD5	16040

*Please contact us for other diameters and pressure values.

PN-25

Technical Details

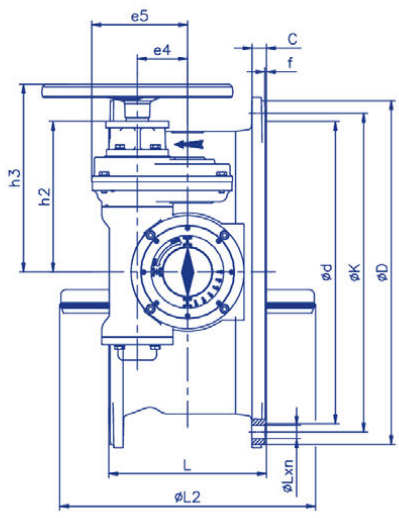


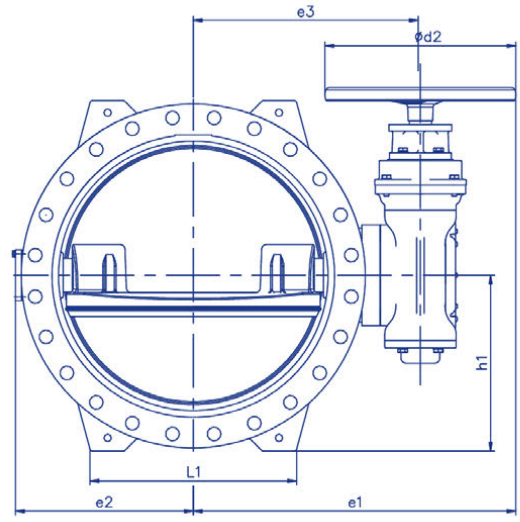
DN	PN	L[14] series	L[13] series	L1	L2	e1	e2	e3	e4	e5	ød2	h1	h2	h3	Gearbox	Weight series 14
100	25	190	127	-	93	338	115	216	63	126	250	118	140	210	NGG10	35
125	25	200	140	-	113	349	132	224	63	126	250	135	140	210	NGG10	40
150	25	210	140	200	145	367	149	242	63	126	250	159	140	210	NGG10	45
200	25	230	152	200	199	420	198	296	63	126	250	189	140	210	NGG11	62
250	25	250	165	305	236	546	250	356	100	171	380	223	200	274	NGG20	130
300	25	270	178	340	281	581	277	391	100	191	380	253	300	374	NGG20+RD4	190
350	25	290	190	320	336	609	294	419	100	191	380	288	300	374	NGG20+RD4	213
400	25	310	216	375	379	642	342	452	100	191	380	318	300	374	NGG21+RD4	275
450	25	330	222	470	427	686	382	496	100	191	380	345	300	374	NGG21+RD4	330
500	25	350	229	430	464	732	410	542	160	284	380	375	403	477	NGG30+RD6	490
600	25	390	267	530	557	783	461	593	160	284	380	433	403	477	NGG30+RD6	605
700	25	430	292	640	665	855	535	665	160	284	380	490	403	477	NGG31+RD6	875
750	25	450	305	600	715	885	542	695	160	284	380	525	403	477	NGG31+RD6	905
800	25	470	318	575	748	952	590	762	160	284	380	558	403	477	NGG31+RD6	1130
900	25	510	330	745	855	1096	685	873	250	475	380	613	565	639	NGG41+RD7	1745
1000	25	550	410	760	952	1133	741	910	250	475	380	675	565	639	NGG41+RD7	2065
1200	25	630	470	880	1148	1248	822	1025	250	475	380	772	565	639	NGG41+RD7	2725
1400	25	710	530	1010	1345	1474	964	1225	315	540	495	888	620	699	NGG50+RD8	3670
1600	25	790	600	1210	1543	1516	1110	1267	540	552	495	1003	748	827	NGG50+RD8+RD5	5090
1800	25	870	670	1345	1678	1833	1255	1530	519	744	605	1118	898	998	TK10-R D10 5	7690
2000	25	950	760	1400	1886	1886	1353	1583	519	744	605	1228	898	998	TK10-R D10 5	10150

*Please contact us for other diameters and pressure values.

PN-40

Technical Details

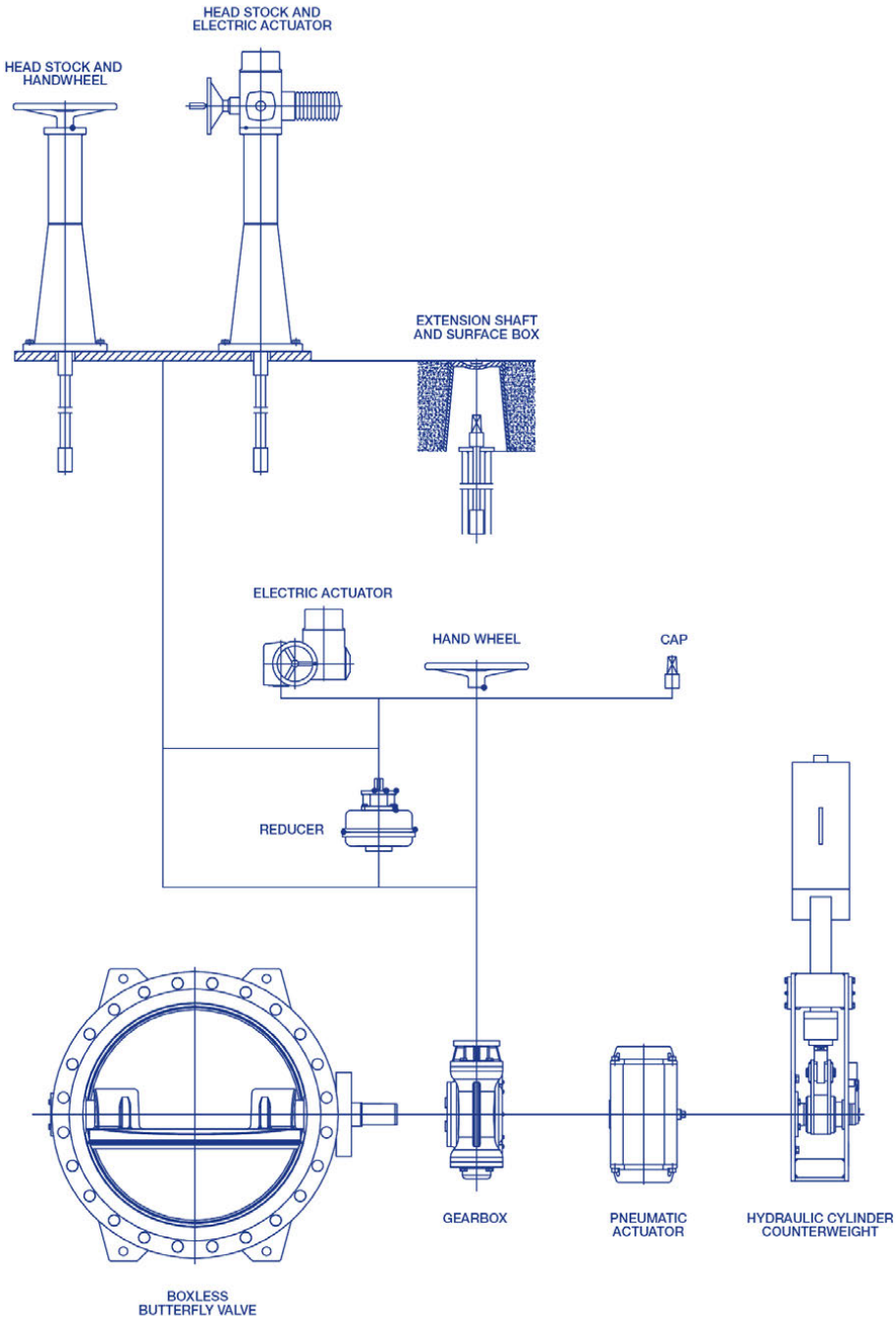




DN	PN	L[14] series	L1	L2	e1	e2	e3	e4	e5	ød2	h1	h2	h3	Gearbox	Weight series 14
150	40	210	199	145	367	150	242	63	126	250	159	140	210	NGG10	45
200	40	230	200	199	421	198	296	63	126	250	198	140	210	NGG11	72
250	40	250	305	236	569	250	379	100	191	380	235	300	374	NGG20+RD4	182
300	40	270	340	281	600	277	410	100	191	380	269	300	374	NGG20+RD4	212
350	40	290	360	336	610	295	420	100	191	380	300	300	374	NGG21+RD4	280
400	40	310	380	379	675	342	485	100	191	380	340	300	374	NGG21+RD4	350
450	40	330	470	422	703	386	513	160	284	380	353	403	477	NGG30+RD6	490
500	40	350	440	462	749	412	559	160	284	380	388	403	477	NGG30+RD6	553
600	40	390	530	558	815	461	625	160	284	380	457	403	477	NGG30+RD6	685
700	40	430	640	664	855	535	665	160	284	380	508	403	477	NGG31+RD6	1025
800	40	470	575	748	1030	592	807	250	475	380	580	565	639	NGG41+RD7	1775
900	40	510	745	855	1096	685	873	250	475	380	645	565	639	NGG41+RD7	2130
1000	40	550	760	952	1150	743	927	250	475	380	695	565	639	NGG41+RD7	2480
1200	40	630	880	1126	1314	883	1065	315	540	495	798	620	699	NGG50-RD8	3370
1400	40	710	1110	1314	1474	968	1225	540	552	495	918	748	827	NGG50-RD8+RD5	4785
1600	40	790	1250	1485	1733	1133	1430	519	744	605	1033	898	998	TK10-RD10+RD5	7410
1800	40	870	1350	1674	1833	1318	1530	519	744	605	1140	898	998	TK10-RD10+RD5	10070

*Please contact us for other diameters and pressure values.

Forms of Gearbox



Gearbox

The New Generation Gearbox (NGG) is a gear technology designed and developed by Özkan for superior and safe operation of butterfly valves. The NGG enables the one-quarter turn (90°) movement required by butterfly valves.

The disc movement is limited in the fully open and closed position by the advanced technology adjusting nut system. The remarkable adjusting nut system prevents excessive movement of the disc.

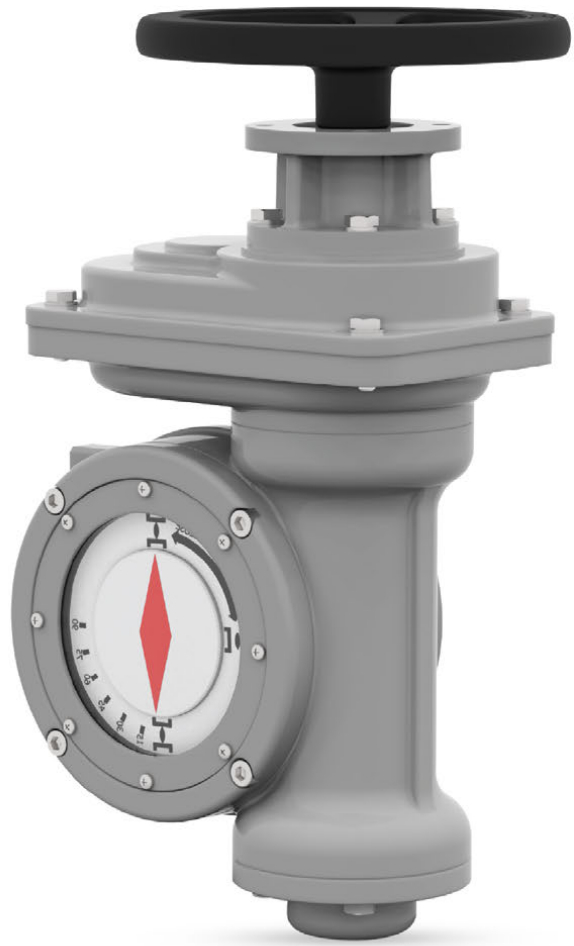
The self-locking (non-return) gear design guarantees the smooth operation and tightness of ÖZKAN butterfly valves at maximum specified pressure.

NGG is designed to significantly reduce operational torques.

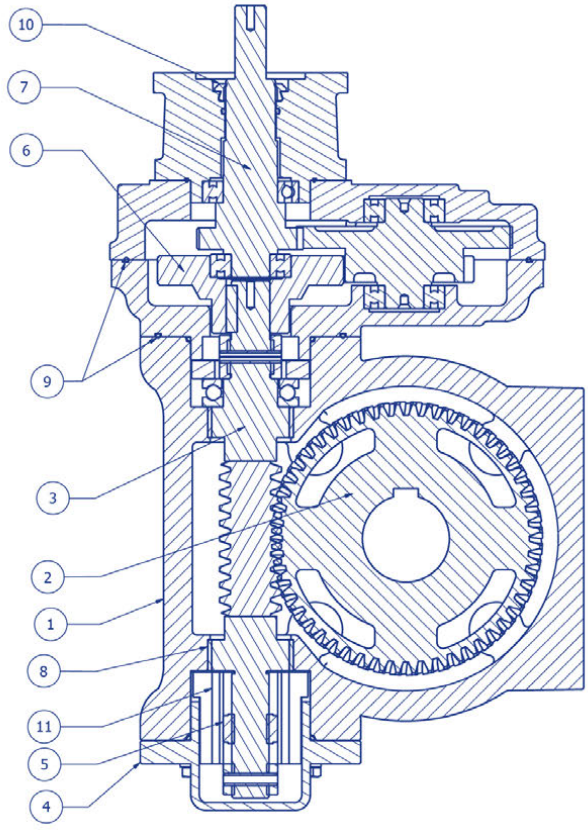
Lower weight, same model gearbox with different adapt to butterfly valves of all sizes and special perfect as stop technology are some of the features.

Some of the unique advantages of the Next Generation Gearbox are:

- Long-life design and long-term performance.
- Strong, body integrated valve connection.
- Valve connection according to ISO 5211.
- Self-locking worm gear with minimal back lash.
- ISO 5211 Top flange for mounting multi-turn actuators.
- Mechanical position indicator for every 15° disc movement.
- IP 68 Protection Class.
- Anti-clockwise closing on request.
- Special “end stop” design to prevent gearbox damage.



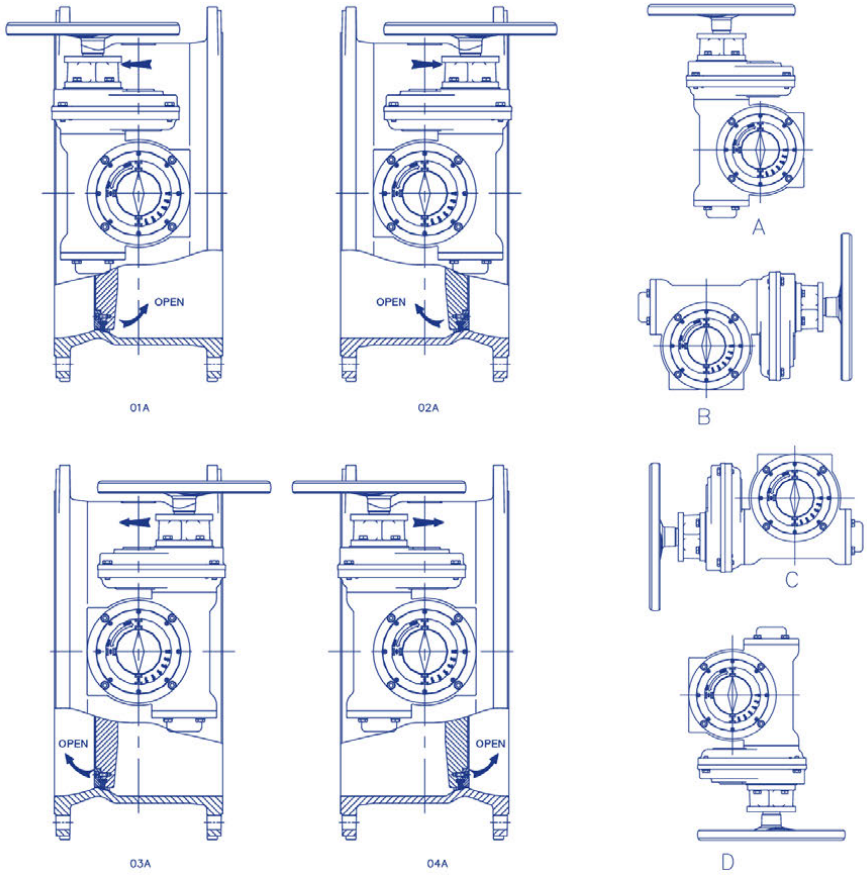
Material Features



Part No	Part Name	Material
1	Body	Cast Iron EN-GJL-250
2	Worm Wheel	Ductile Iron Casting EN-GJS-500-7
3	Worm Shaft	1.7225 (C4140) - AISI 8620/1.6523
4	Adjustment Cover	Ductile Iron Casting EN-GJL 250
5	Adjustment Nut	Steel CK45 (C 1050)
6	Spur Gear	Ductile iron EN-GJS-500-7
7	Pinion	Stainless Steel X20Cr13 (AISI420) 1.4021)
8	Bearing	-
9	O-ring	NBR
10	Radial Seal	NBR
11	End Stop (Safety Part)	Eplamid 6

*Please contact us for other material requests.

Connection Types



New Gearbox	Torque Conversion Ratio	Number of Tours	Valve Connection ISO 5211	Weight
NGG10	20	12,75	F10	12,7
NGG11	20	12,75	F12	13,0
NGG20	21	13	F14	42,5
NGG20+RD4	55	37,7	F14	61,5
NGG21+RD4	55	37,7	F16	61,7
NGG30+RD6	241,5	159,84	F25	135,5
NGG31+RD6	241,5	159,84	F30	136,0
NGG40+RD7	474,8	314,21	F30	375,0
NGG41+RD7	474,8	314,21	F35	381,0
NGG50+RD8	498,2	320,26	F40	575,0
NGG50+RD085	1398,9	896,76	F40	605,0
TK10+RD15	1615	1345	F48	1610,0

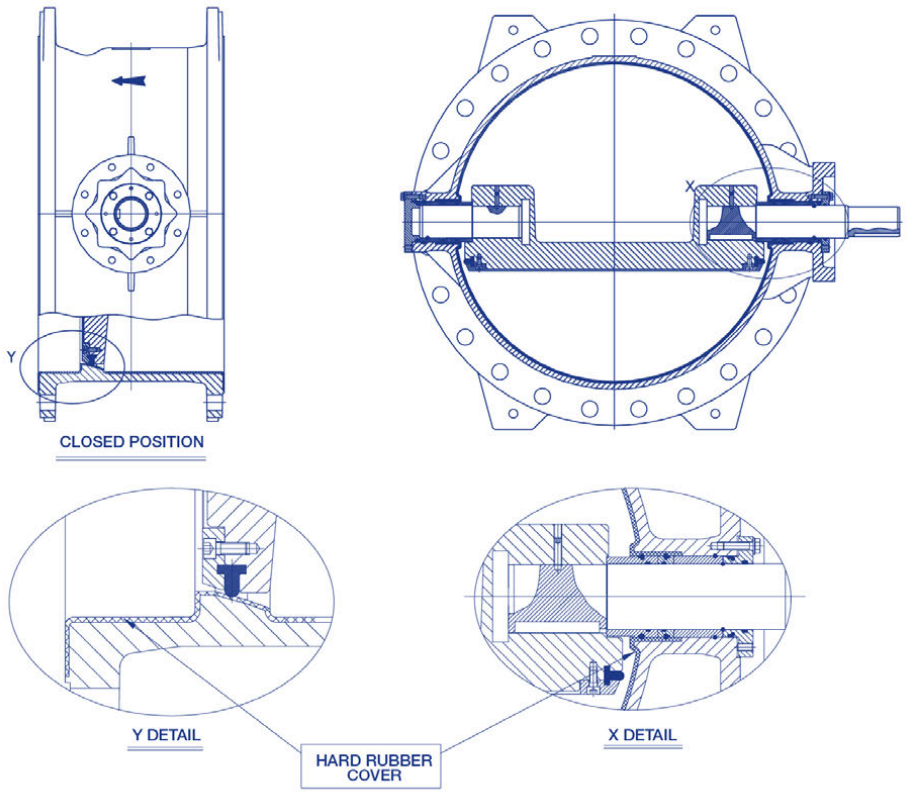
*Please contact us for other material requests.

For Sea Water & Corrosive Fluids

Özkan rubber lining Butterfly Valve series is specially designed for seawater and corrosive mediums applications. The inner surfaces of the body are coated with hard rubber for corrosion protection. The thickness and properties of the rubber used are determined according to customer request.

- Valve material shall be selected from AL-Ni-Bronze, Nickel Ductile Iron and Stainless Steels.
- Monel, Duplex Stainless Steels are used as shaft material.

Design Features



For Sea Water & Corrosive Fluids

*Please ask for different material, diameter and pressure class requests.

No. 9890

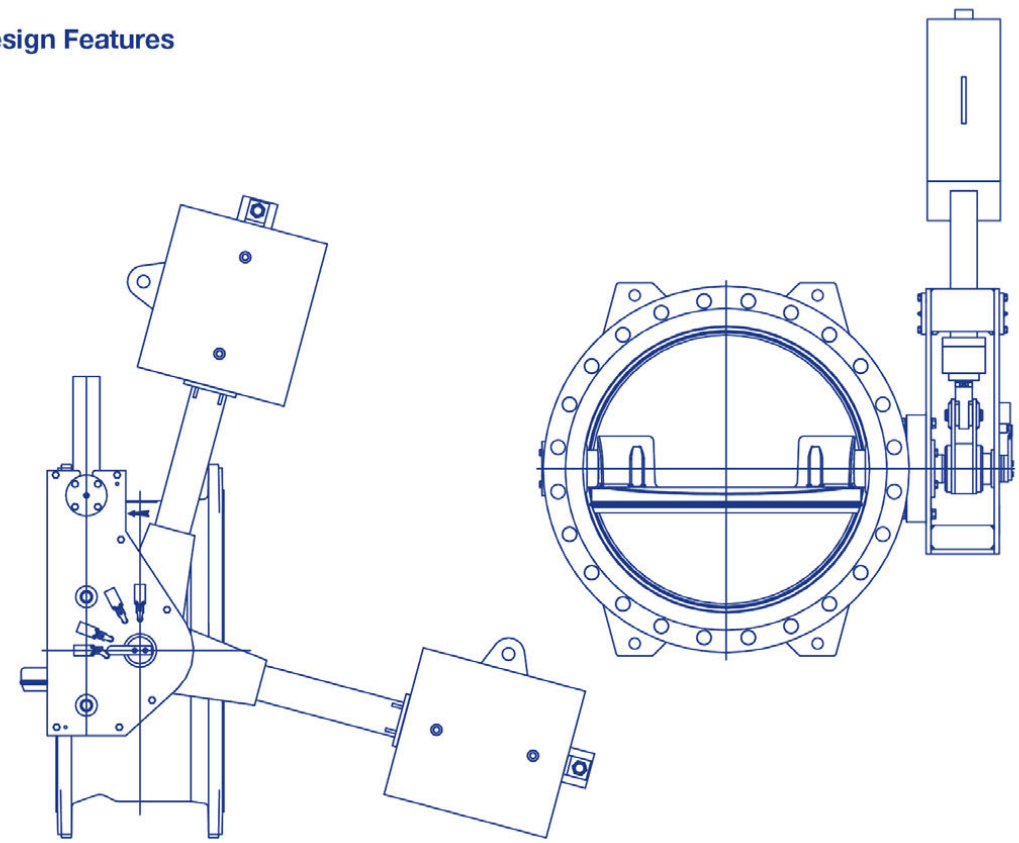
Combined Check Butterfly Valves

Combined Check Butterfly Valves offer the functions of Butterfly Valve and Hydraulic Damper Check Valve in a single valve.

The valves are opened by hydraulic cylinder and closed with the help of counterweight. The valves are supplied with hydraulic power units.

These valves are especially designed for mitigating surges during pump trips, but can also be used for other applications requiring emergency opening or closing. In order to fulfil the desired function, a suitable warning system must be integrated into the power unit and control panel of the valve.

Design Features

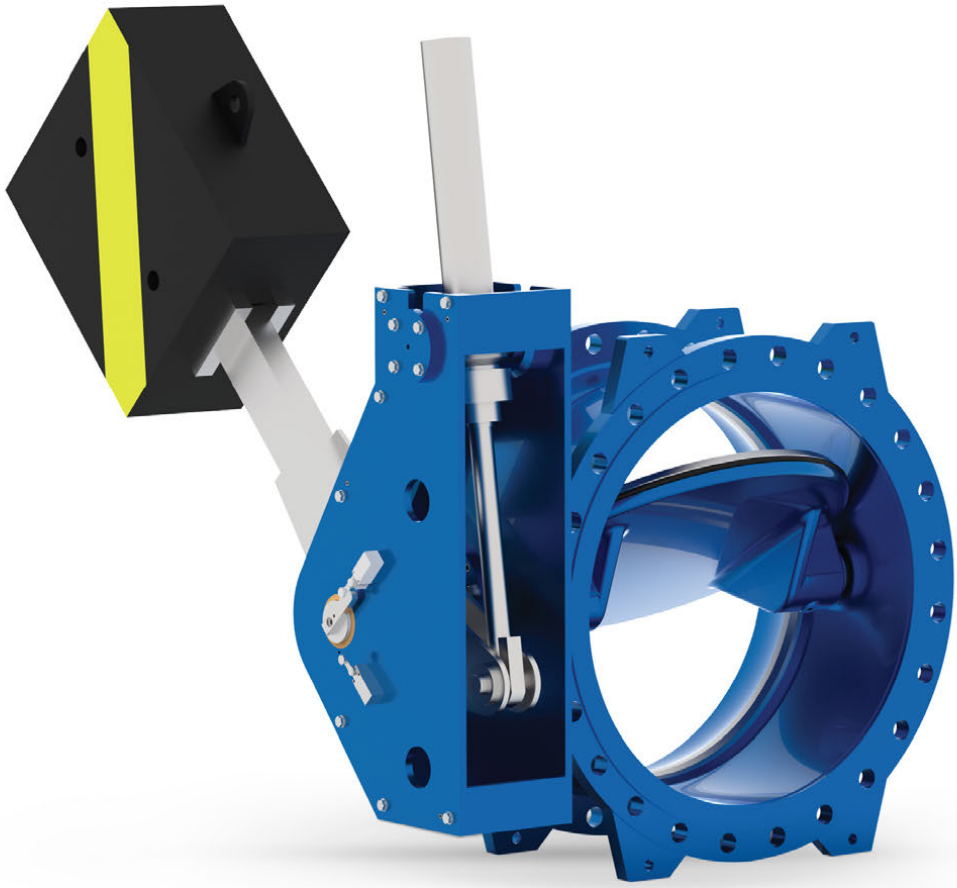


No. 9890

Combined Check Butterfly Valves

Technical Details

- The valve opens automatically after the pump starts and closes before the pump stops.
- In case of power failure at the pump station, the valve closes like a hydraulic damper check valve.
- The opening and closing time can be set independently.
- The hydraulic power unit is also equipped with a hand pump to open the valve manually in case of emergency.



Needle Valves

DN 200 — 1800, PN 10 | PN 40

Needle Valves are valves designed for flow control and regulation applications. Some shut-off valves such as Butterfly Valve, Gate Valve are also used for adjustment purposes, but these valves are not suitable for continuous adjustment. The working life of Gate Valves and Butterfly Valves used continuously at high pressure differences and for adjustment purposes will be shortened and damage will occur in a short time. Another feature of regulating valves is the control characteristic.

- Needle Valves
- Combined Check Needle Valves

ÖZKAN

No. 9882

Needle Valves

DN 200 — 1800, PN 10 | PN 40

*Please ask for different material, diameter and pressure class requests.

No. 9882

Why Needle Valves?

Needle Valves are valves designed for flow control and regulation applications. Some shut-off valves such as Butterfly Valve, Gate Valve are also used for adjustment purposes, but these valves are not suitable for continuous adjustment. The working life of Gate Valves and Butterfly Valves used continuously at high pressure differences and for adjustment purposes will be shortened and damage will occur in a short time. Another feature of regulating valves is the control characteristic. Gate Valves and Butterfly Valves have non-linear control characteristics due to the changing transition geometry during the closing stroke.

At the inlet of the Needle Valve, the flow is diverted to the internal structure of the body, which narrows smoothly in the ring cross-section and from the inlet to the outlet. The ring cross-section of Needle Valves is maintained throughout the entire closing movement of the piston, which makes Needle Valves ideal control valves. The axial movement of the plunger controls the outlet port of the valve in a linear characteristic.

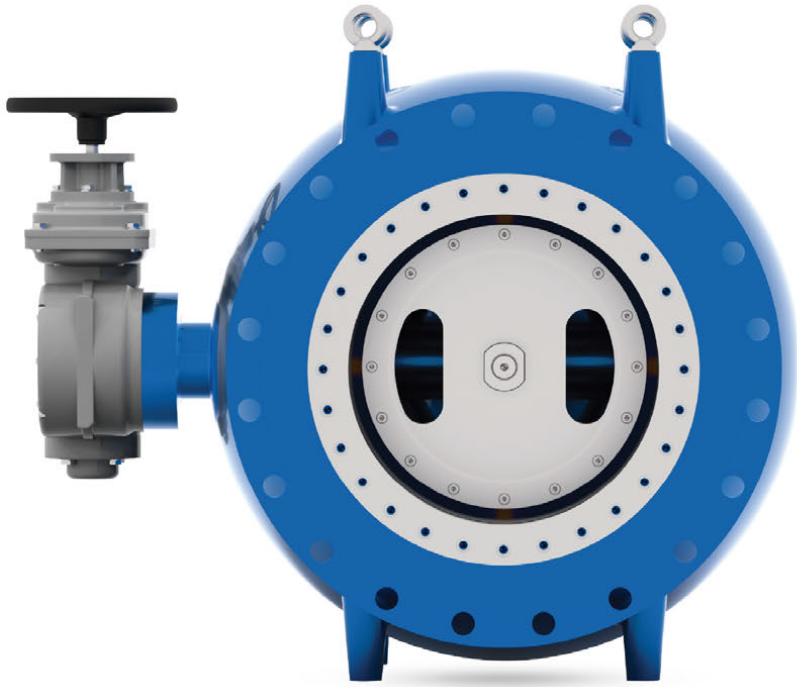
An important factor in control applications is the risk of cavitation. In harsh operating conditions, control valves are exposed to high pressure differences. The flow velocity increases along the flow path in the valve and the pressure decreases parallel to this increase in velocity. If the fluid pressure drops below the vaporisation pressure, vapour bubbles develop in the flow. At the outlet of the valve, the fluid pressure rises again and the vapour bubbles burst, creating micro jets and shock waves. Cavitation damage occurs when these shock waves and micro jets hit the surfaces.

Needle Valves are designed to direct the vapour bubbles towards the centre. This design feature prevents the bubbles that cause cavitation damage from coming into contact with the valve wall and other parts. Bubbles carried to the centre of the valve are destroyed under the pressure rising with the collision of water jets without causing any damage.

Areas of Use

- Discharge/drainage applications.
- Tank inlets.
- Flow control applications.
- Over speed/Pipe burst control valves.
- Treatment plant inlet valve.
- Pressure regulating valves.
- Turbine by-pass valves.

Design Features



The piston is axially mounted in the inner casing and the linear movement of the piston changes the flow cross-section. The piston is controlled by the crank-connector mechanism, which converts the rotational motion of the gearbox and similar drive systems into linear motion.

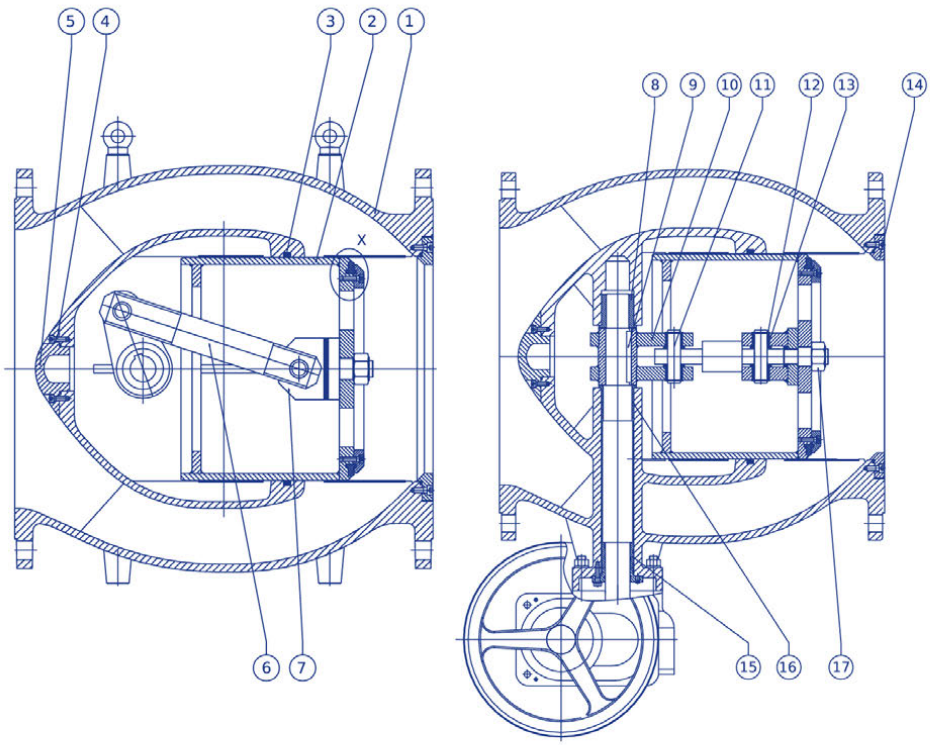
The piston and crank mechanism are located in a droplet-shaped inner body.

- Optimised body for better flow guidance, minimum loss in the fully open position.
- One-piece cast body.
- Sealing ring outside the cavitation zone, long life.
- Double-sided bearing drive shaft with maintenance-free, lubrication-free bushings.
- Stainless steel internal parts.
- Wear and corrosion resistant bronze piston guides.
- Double O-ring sealing system.
- Optional energy breaking parts for cavitation-free control/adjustment requirements.
- Field replaceable sealing ring without special tooling requirements.
- Electrostatic powder coating.

Offer / Order Info

- Fluid.
- Application, desired function.
- Mode of operation (continuous, short-term)
- Flow rate values: Qmax and Qmin
- Output pressure values corresponding to flow rates Qmax and Qmin.
- Actuator requirement.
- Special material requirement.

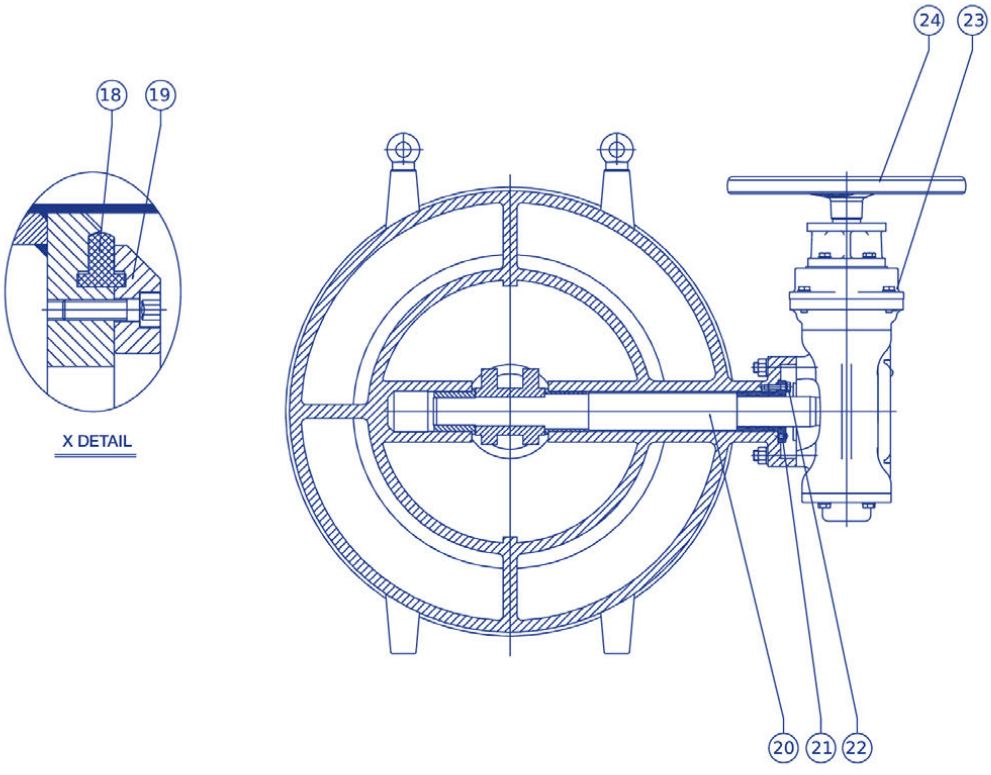
Material Features



Part No	Part Name	Material
1	Body	Ductile Iron Casting EN-GJS-400-15
2	Piston	Stainless steel 1.4301
3	Sealing Ring	Rubber NBR
4	Hex. Screw	Stainless Steel A2
5	Cover	Ductile Iron Casting EN-GJS-400-15
6	Connection Rod	Stainless Steel 1.4021
7	Piston Hub	Stainless Steel 1.4021
8	Bush	Bronze G-Cu Sn12
9	Key	Stainless Steel 1.4021
10	Crank	Ductile Iron Casting EN-GJS-400-15
11	Crank Pin	Stainless Steel 1.4021
12	Circlip	Stainless Steel 1.4301

*Please contact us for other material requests.

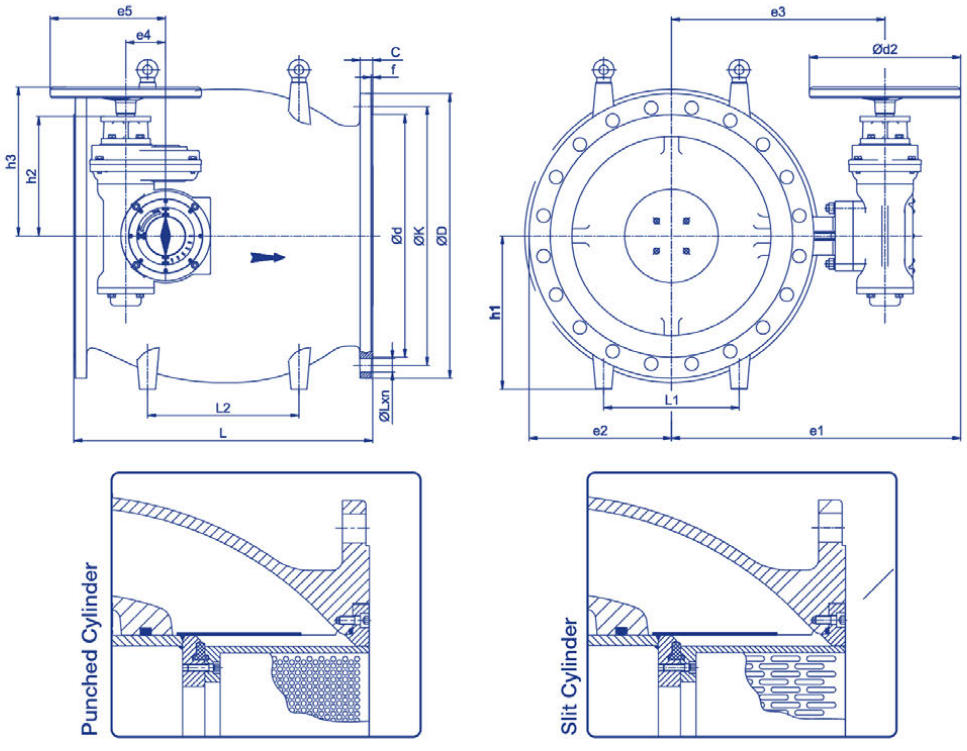
Material Features



Part No	Part Name	Material
13	Bush	Bronze G-Cu Sn12
14	Seat Ring	Stainless Steel 1.4301
15	Spindle Bush	Bronze G-Cu Sn12
16	Bush	Bronze G-Cu sn12
17	Nut	Stainless Steel 1.4301
18	Sealing Ring	Rubber EPDM
19	Retaining Ring	Stainless Steel 1.14301
20	Shaft	Stainless Steel 1.4021
21	Bearing Cover	Ductile Iron Casting EN-GJS-400-15
22	Hex. Head Bolt	Stainless Steel A2
23	Gearbox	-
24	Handwheel	-

*Please contact us for other material requests.

Technical Information



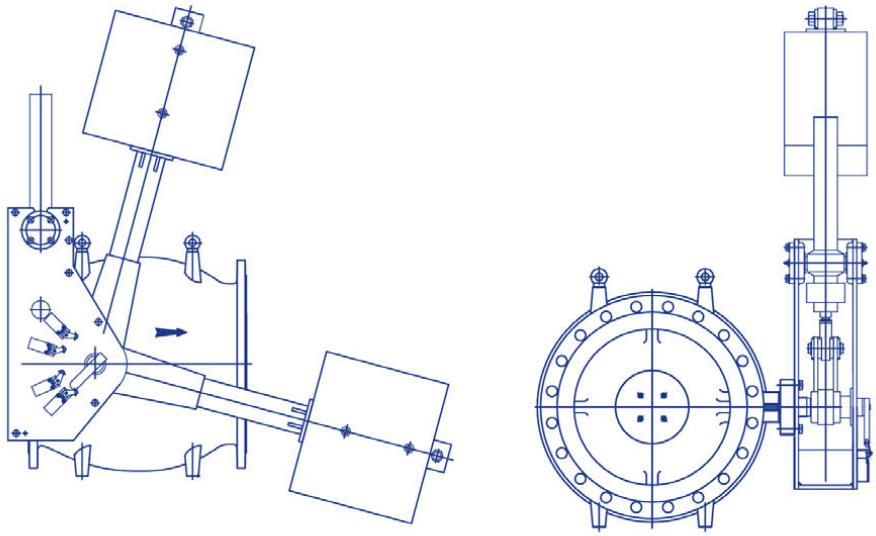
DN	L	L1	L2	e1	e2	e3	e4	e5	Ød2	h1	h2	h3	Gearbox
200	400	140	200	405	170	280	63	126	245	195	140	210	NGG11
250	450	170	230	440	200	315	63	126	245	235	140	210	NGG11
300	500	200	250	477	230	352	63	126	245	268	140	210	NGG11
350	550	240	280	537	260	392	63	126	245	300	140	210	NGG11
400	600	270	300	640	296	450	103	293	370	340	300	375	NGG20+RD4
450	650	300	330	685	330	495	103	293	370	353	300	375	NGG20+RD4
500	750	340	380	726	370	536	103	293	370	388	300	375	NGG20+RD4
600	900	400	450	800	440	610	103	293	370	455	300	375	NGG21+RD4
700	1050	470	530	895	510	705	160	285	370	520	405	480	NGG30+RD6
800	1200	540	600	965	580	775	160	285	370	590	405	480	NGG30+RD6
900	1350	600	680	1035	655	845	160	285	370	670	405	480	NGG30+RD6
1000	1500	670	750	1110	730	920	160	285	370	750	405	480	NGG31+RD6
1200	1800	800	900	265	865	1075	160	285	370	880	405	480	NGG31+RD6
1400	2100	940	1050	1405	1015	1215	160	285	370	1030	405	480	NGG31+RD6
1600	2400	1070	1200	1610	1153	1420	190	225	485	1180	565	640	NGG41+RD7

*Please contact us for other diameters and pressure values.

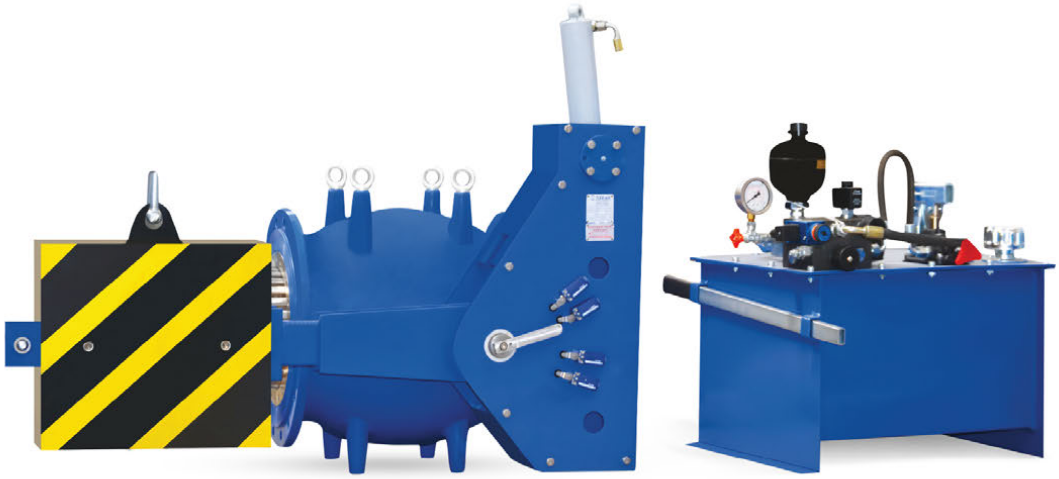
Combined
Check Needle Valves

Hydraulically operated check needle valves are project-specific valves developed for use in high flow and pressure pump applications and turbine by-pass systems, preventing damage to the equipment during pump start-up and sudden stops, and can react quickly when necessary.

Counterweight Hydraulic Actuation System



These valves also have a fast opening and closing feature. The hydraulic actuation system is designed according to the application conditions in the pipelines for the most efficient operation of the valve.



Check Valves

DN 100 — 1400, PN 10 | PN 40

Check valves provide minimum resistance under normal flow conditions and are used to prevent backflow of the fluid in case of sudden power outages, pump stops or changes in the characteristics of the fluid. Thanks to ring or metal-to-metal sealing options, they provide solutions in many different applications.

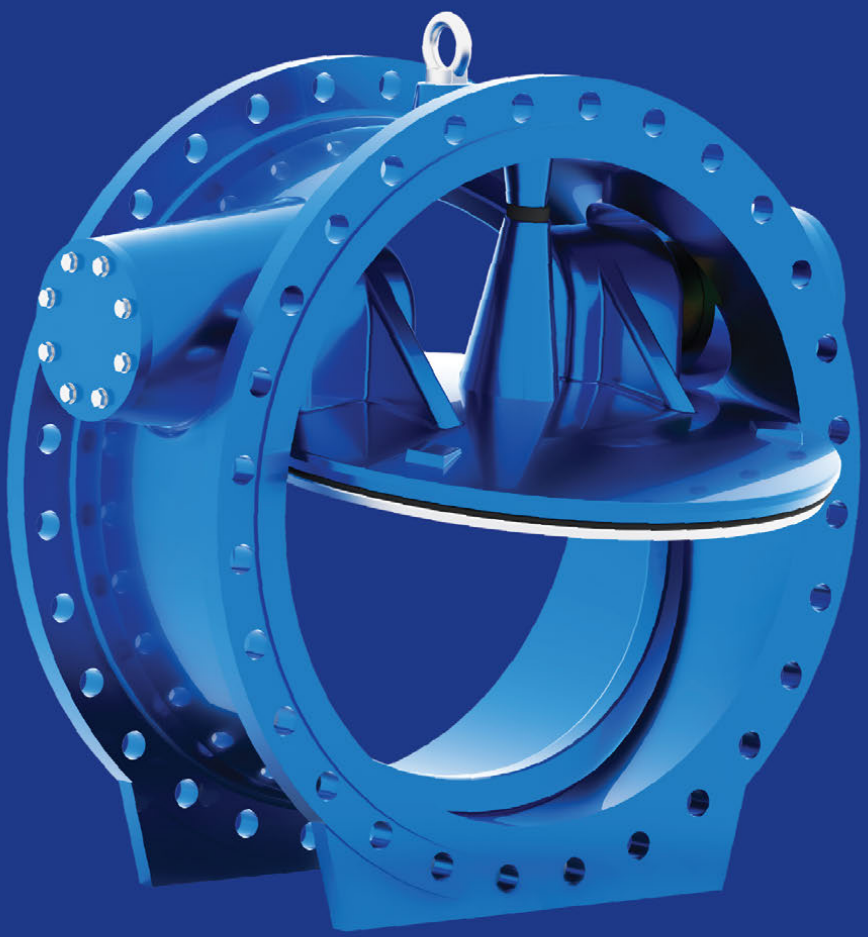
- Tilting Type Check Valves
- Slanted Seat Check Valves
- Slanted Seat Check Valve With Hydraulic Damper
- Tilting Check Valves with Hydraulic Damper
- Nozzle Type Check Valves
- Axial Silent Check Valves
- Flap Valve
- Foot Valve

ÖZKAN

No. 9883

Check Valves

DN 100 — 1400, PN 10 | PN 40



*Please ask for different material, diameter and pressure class requests.

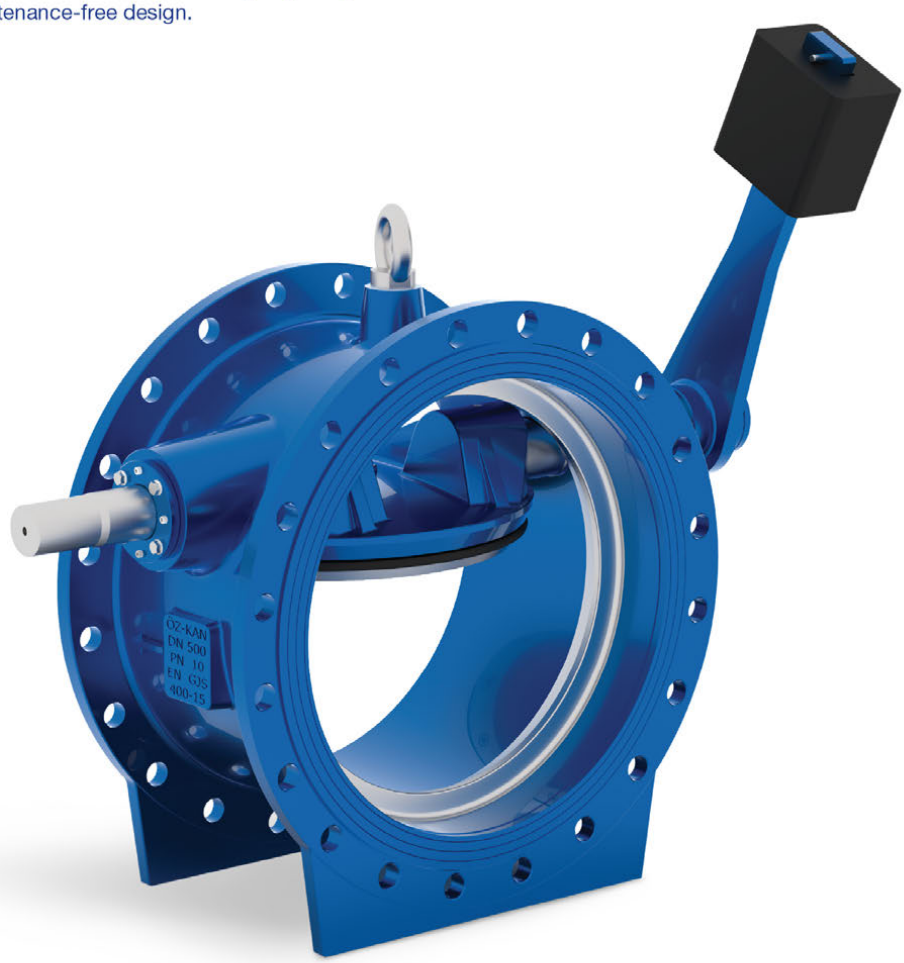
No. 9883

Why Tilting Type Check Valves?

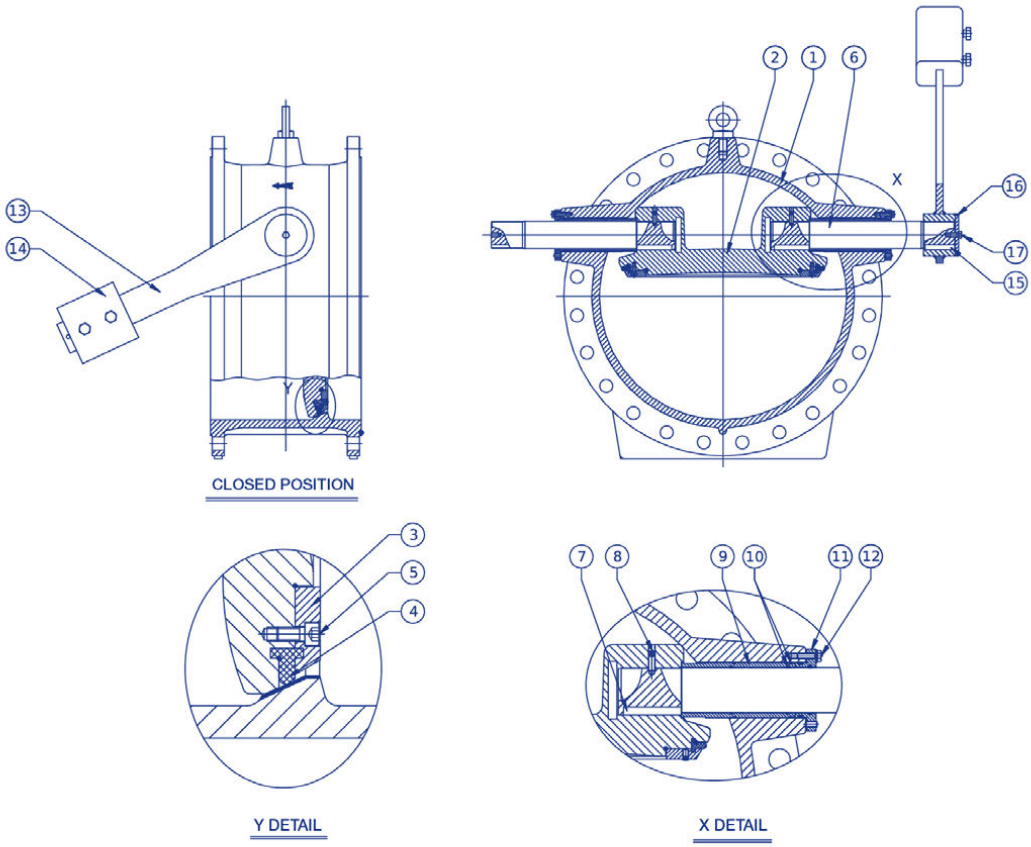
DN 100 — 1400, PN 10 | PN 25

Some of the advantages offered by tilting type check valves can be listed as follows;

- Short body, small volume and low weight.
- Shafts extending from both sides of the check valve allow both horizontal and vertical pipe mounting of the counterweight and lever on the right and left sides of the check valve.
- The disc moves freely depending on the flow. Opening of the valve depends on the flow rate.
- Position adjustable weight adapts to the operating conditions.
- Metal to metal or rubber sealing ring design.
- Maintenance-free design.



Material Features

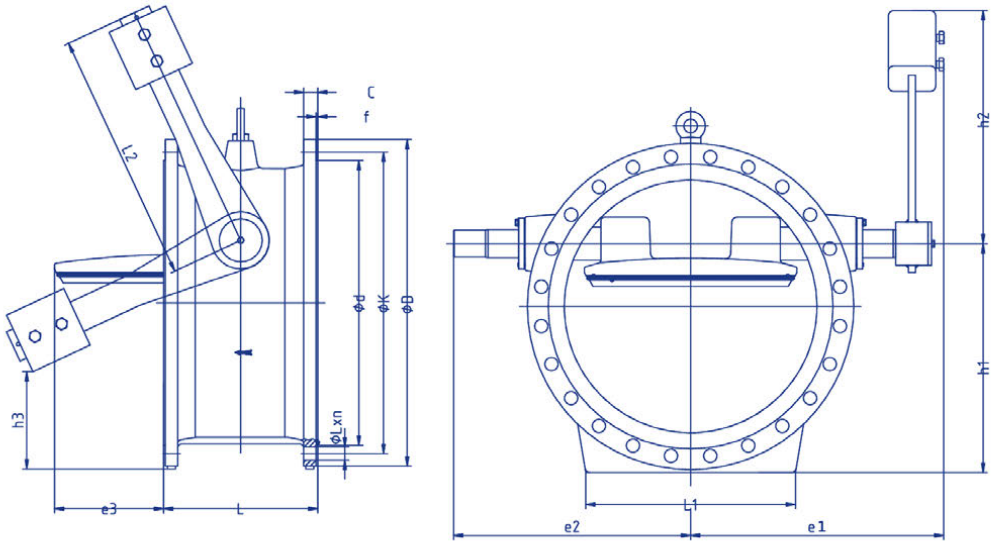


Part No	Part Name	Material
1	Body	Ductile Iron Casting EN-GJS-400-15
2	Disc	Ductile Iron Casting EN-GJS-400-15
3	Retaining Ring	Steel S235JR
4	Sealing Ring	EPDM
5	Hex. Socket Head Screw	Stainless Steel A2
6	Shaft	Stainless Steel X20Cr13
7	Key	SteelCk45
8	Set screw	Stainless Steel A2
9	Bearing Bush	Bronze
10	0-ring	EPDM
11	Cover	Ductile Iron Casting EN-GJS-400-15
12	Hex. Bolt	Stainless Steel A2
13	Arm	Steel S235JR
14	Weight	Steel S235JR
15	Key	Steel Ck45
16	Cover	Steel S235JR
17	Hex. Bolt	Stainless Steel A2

*Please contact us for other material requests.

PN-10

Technical Details

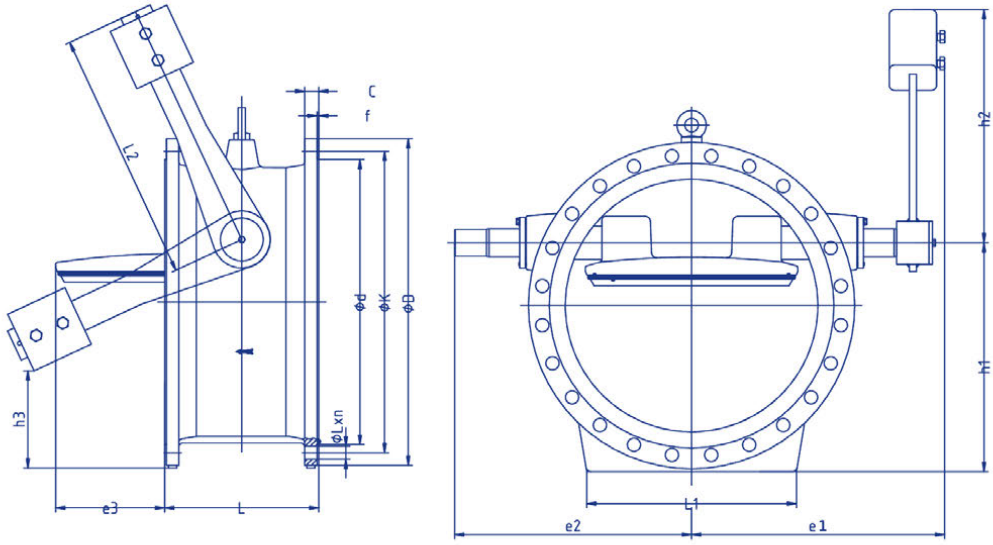


DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	L2	e1	e2	e3	h1	h2	h3	Weight
100	10	220	180	156	19	3	19x8	190	-	200	200	184	-	135	188	26	25
125	10	250	210	184	19	3	19x8	200	-	200	223	207	-	156	188	47	25
150	10	285	240	211	19	3	23x8	210	-	200	245	230	9	180	188	69	35
200	10	340	295	266	20	3	23x8	230	-	200	268	252	35	220	188	107	45
250	10	405	350	319	22	3	23x12	250	-	300	325	305	68	265	285	92	75
300	10	460	400	370	24.5	4	23x12	270	285	300	340	317	87	315	285	142	100
350	10	520	460	429	26.5	4	23x16	290	250	400	410	382	117	357	372	140	130
400	10	580	515	480	28	4	28x16	310	370	400	440	412	138	400	372	182	170
450	10	640	565	530	30	4	28x20	330	425	450	470	443	165	442	418	204	225
500	10	670	620	582	26.5	4	28x20	350	460	500	520	490	188	470	465	200	240
600	10	780	725	682	30	5	31x20	390	470	600	570	546	238	550	555	237	350
700	10	910	840	794	39.5	5	31x24	430	580	700	700	661	305	640	653	273	575
800	10	1025	950	901	43	5	34x24	470	655	800	745	711	355	723	743	314	785
900	10	1125	1050	1001	46.5	5	34x28	510	680	900	800	780	400	797	830	348	980
1000	10	1255	1160	1112	50	5	37x28	550	690	1000	870	863	460	887	935	360	1220
1200	10	1455	1380	1328	45	5	41x32	630	810	1200	960	938	568	1040	1113	427	1810
1400	10	1675	1590	1530	46	5	44x36	710	900	1400	1240	1205	682	1205	1305	482	3245

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

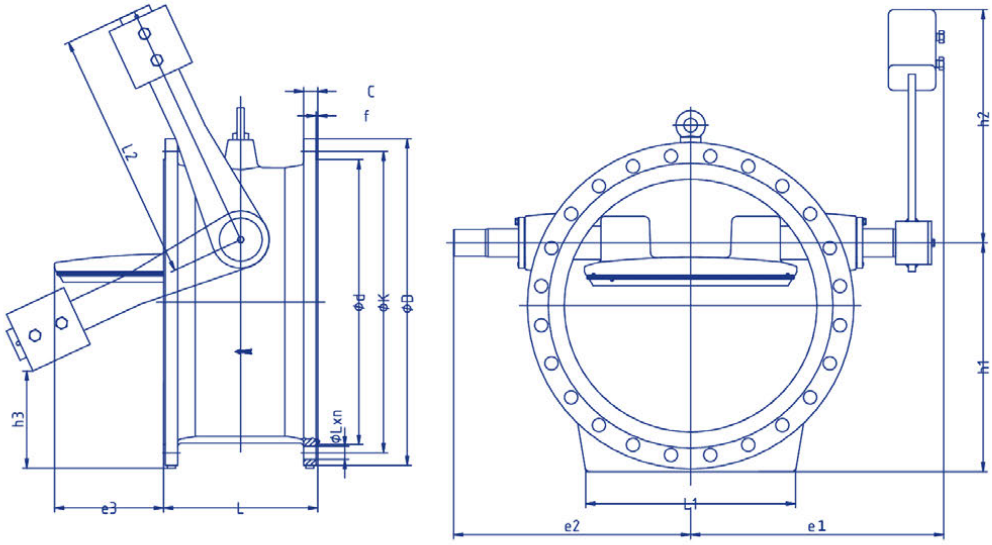


DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	L2	e1	e2	e3	h1	h2	h3	Weight
100	16	220	180	156	19	3	19x8	190	-	200	200	184	-	135	188	26	25
125	16	250	210	184	19	3	19x8	200	-	200	223	207	-	156	188	47	25
150	16	285	240	211	19	3	23x8	210	-	200	245	230	9	180	188	69	35
200	16	340	295	266	20	3	23x12	230	-	200	268	252	35	220	188	107	43
250	16	405	355	319	22	3	28x12	250	-	300	325	305	68	265	285	92	73
300	16	460	410	370	24.5	4	28x12	270	285	300	340	317	87	315	285	142	96
350	16	520	470	429	26.5	4	28x16	290	250	400	410	382	117	357	372	140	140
400	16	580	525	480	28	4	31x16	310	370	400	440	412	138	400	372	182	175
450	16	640	585	548	30	4	31x20	330	425	450	470	443	165	442	418	204	237
500	16	715	650	609	31.5	4	34x20	350	460	500	520	490	188	492	465	222	295
600	16	840	770	720	36	5	37x20	390	535	600	590	567	238	580	555	267	420
700	16	910	840	794	39.5	5	37x24	430	580	700	700	661	305	640	653	273	605
800	16	1025	950	901	43	5	41x24	470	655	800	745	711	355	723	743	314	830
900	16	1125	1050	1001	46.5	5	41x28	510	680	900	800	780	400	797	830	348	1060
1000	16	1255	1170	1112	50	5	44x28	550	690	1000	870	863	460	887	935	360	1300
1200	16	1485	1390	1328	57	5	50x32	630	810	1200	960	938	568	1055	1113	442	1860
1400	16	1685	1590	1530	60	5	50x36	710	900	1400	1240	1210	682	1210	1305	487	3420

*Please contact us for other diameters and pressure values.

PN-25

Technical Details



DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	L2	e1	e2	e3	h1	h2	h3	Weight
100	25	235	190	156	19	3	23x8	190	-	200	200	184	-	143	188	33	22
125	25	270	220	184	19	3	28x8	200	-	200	223	207	-	166	188	57	30
150	25	300	250	211	20	3	28x8	210	-	200	245	230	9	186	188	73	40
200	25	360	310	274	22	3	28x12	230	-	200	268	252	35	230	188	117	50
250	25	425	370	330	24.5	3	31x12	250	280	300	330	317	68	285	285	111	94
300	25	485	430	389	27.5	4	31x16	270	310	400	390	362	87	328	370	112	126
350	25	555	490	448	30	4	34x16	290	250	400	435	410	117	375	372	160	160
400	25	620	550	503	32	4	37x16	310	370	400	490	469	138	420	376	192	280
450	25	670	600	548	34.5	4	37x20	330	425	500	510	488	167	457	465	187	298
500	25	730	660	609	36.5	4	37x20	350	460	500	570	554	188	500	465	230	376
600	25	845	770	720	42	5	41x20	390	535	600	625	610	238	582	555	270	535
700	25	960	875	820	46.5	5	44x24	430	610	700	715	698	306	665	647	300	730
800	25	1085	990	928	51	5	50x24	470	655	800	765	750	355	763	800	314	910
900	25	1185	1090	1028	55.5	5	50x28	510	620	900	835	795	400	838	850	335	1485
1000	25	1320	1210	1140	60	5	57x28	550	695	1000	900	880	460	950	940	350	2390
1200	25	1530	1420	1350	69	5	57x32	630	810	1200	1003	958	639	1075	1113	463	2090

*Please contact us for other diameters and pressure values.

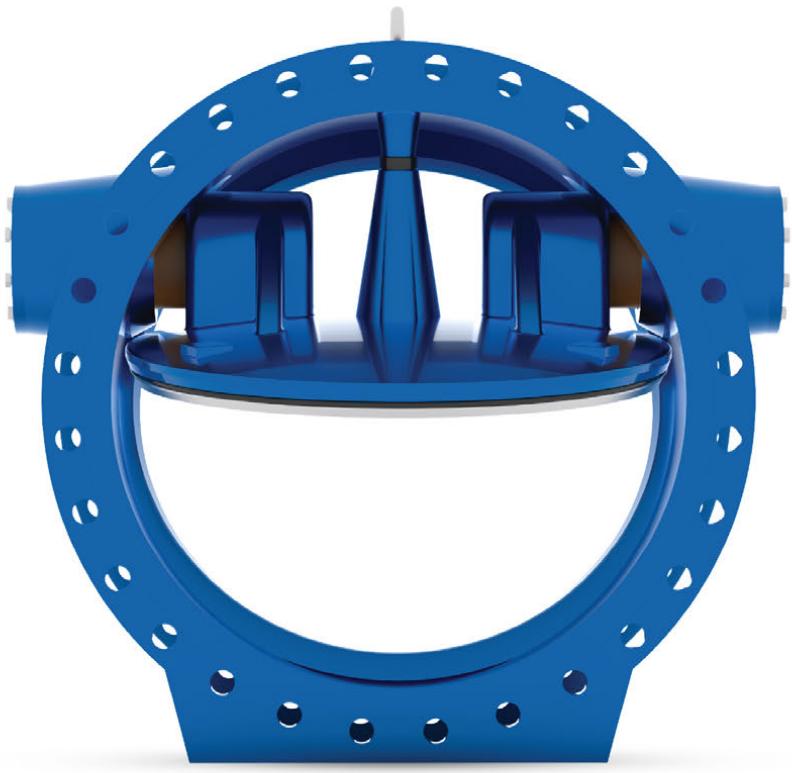
Why Slanted Seat Check Valves?

Metal Seated: No. 9885 , Resilient Seated: No. 9886
DN 200 — 1200, PN 10 | PN 40

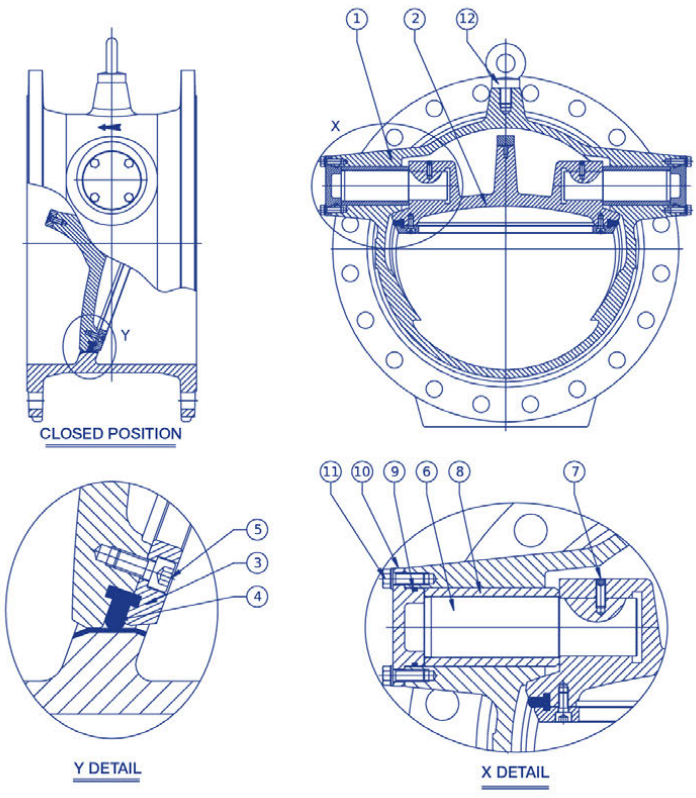
As a design feature of Slanted Seat Check Valves, the closing surface makes an angle with the vertical surface and accordingly, the closing angle and time are reduced. These check valves can be used for all applications where backflow is not desired.

On request, Slanted Seat Check Valves are also produced with external hydraulic damper.

- Better closing characteristics due to the small swing angle of the valve.
- Closing time is less than other check valve types.
- Low bearing friction due to no shaft coming out of the body.
- No lever and counterweight required. Therefore, there are no dangerous moving parts.
- Metal to metal or rubber sealing ring design.
- Maintenance-free design.



Material Features

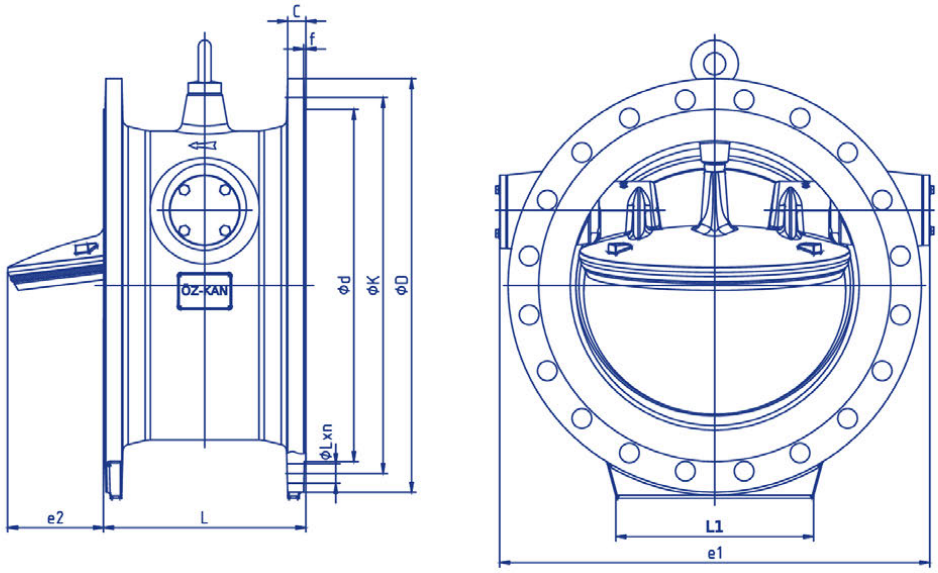


Part No	Part Name	Material
1	Body	Ductile iron EN-GJS-400-15
2	Disc	Ductile iron EN-GJS-400-15
3	Retaining Ring	Steel S235JR
4	Sealing Ring	EPDM
5	Hex. Socket Head Screw	Stainless Steel A2
6	Shaft	Stainless Steel X20Cr13
7	Set screw	Stainless Steel A2
8	Bearing Bush	Bronze
9	0-ring	EPDM
10	Cover	Ductile Iron Casting EN-GJS-400-15
11	Hex. Bolt	Stainless Steel A2
12	Lifting Ring	-

*Please contact us for other material requests.

PN-10

Technical Details



DN	PN	ØD	ØK	Ød	C	f	ØLxn	L1	L	e1	e2	Weight
200	10	340	295	266	20	3	23x8	-	230	370	17	62
250	10	405	350	319	22	3	23x12	180	250	440	48	75
300	10	455	400	370	24.5	4	23x12	200	270	485	63	117
350	10	520	460	429	26.5	4	23x16	260	290	555	90	135
400	10	580	515	480	28	4	28x16	260	310	625	115	172
450	10	640	565	530	30	4	28x20	300	330	685	145	227
500	10	715	620	582	31.5	4	28x20	340	350	745	166	275
600	10	840	725	682	36,5	5	31x20	400	390	880	217	417
700	10	910	840	794	39,5	5	31x24	500	430	980	256	605
800	10	1015	950	901	35	5	34x24	500	470	1070	323	835
900	10	1125	1050	1001	46.5	5	34x28	640	510	1220	360	1075
1000	10	1255	1160	1112	50	5	37x28	740	550	1374	417	1565
1200	10	1485	1380	1328	57	5	41x32	885	630	1630	530	2280

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L1	L	e1	e2	Weight
200	16	340	295	266	20	3	23x12	-	230	370	17	60
250	16	405	355	319	22	3	28x12	180	250	440	48	73
300	16	455	410	370	24.5	4	28x12	200	270	485	63	115
350	16	520	470	429	26.5	4	28x16	260	290	555	90	133
400	16	580	525	480	28	4	31x16	260	310	625	115	170
450	16	640	585	548	30	4	31x20	300	330	685	145	225
500	16	715	650	609	31.5	4	34x20	340	350	745	166	273
600	16	840	770	720	36,5	5	37x20	400	390	880	217	415
700	16	910	840	794	39.5	5	37x24	500	430	980	256	600
800	16	1015	950	901	35	5	41x24	500	470	1070	323	830
900	16	1125	1050	1001	46.5	5	41x28	640	510	1220	360	1070
1000	16	1255	1170	1112	50	5	44x28	740	550	1374	417	1560
1200	16	1485	1390	1328	57	5	50x32	885	630	1630	530	2275

*Please contact us for other diameters and pressure values.

PN-25/40

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L1	L	e1	e2	Weight
200	25	360	310	274	22	3	28x12	-	230	370	17	63
250	25	425	370	330	24,5	3	31x12	180	250	440	48	80
300	25	485	430	389	27,5	4	31x16	250	270	525	63	130
350	25	555	490	448	30	4	34x16	260	290	555	90	155
400	25	620	550	503	32	4	37x16	260	310	625	115	205
450	25	670	600	548	34.5	4	37x20	300	330	685	145	255
500	25	730	660	609	36.5	4	37x20	340	350	745	166	300
600	25	845	770	720	42	5	41x20	400	390	880	217	450
700	25	960	875	820	46.5	5	44x24	500	430	980	256	675
800	25	1085	990	928	51	5	50x24	500	470	1070	323	980
900	25	1185	1090	1028	55.5	5	50x28	640	510	1220	360	1380
1000	25	1320	1210	1140	60	5	57x28	740	550	1374	417	1760
200	40	375	320	284	30	3	31x12	-	230	370	17	65
250	40	450	385	345	34,5	3	34x12	200	250	505	48	115
300	40	515	450	409	39,5	4	34x16	250	270	525	63	170
450	40	685	610	560	49	4	41x20	300	330	705	115	320

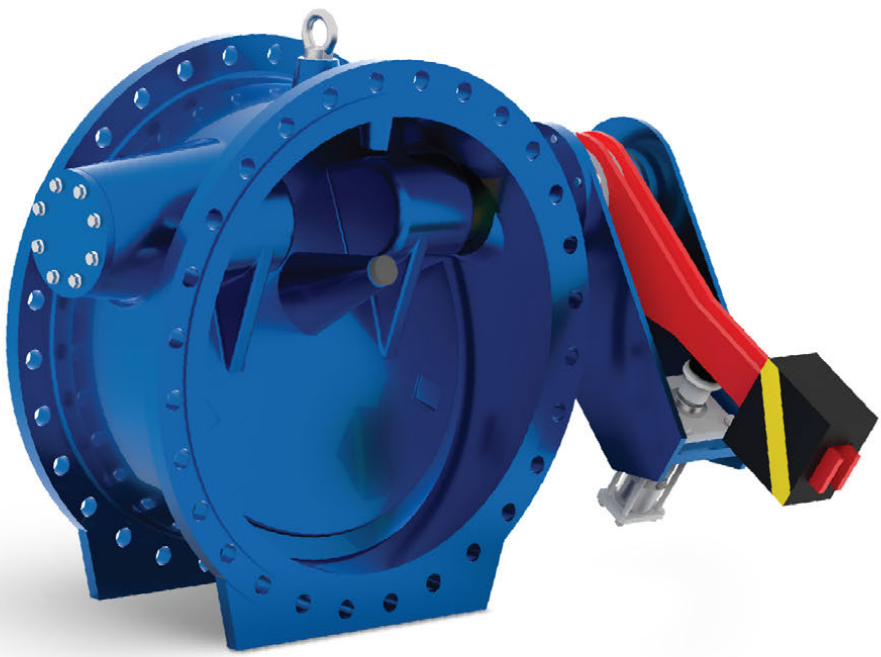
*Please contact us for other diameters and pressure values.

Why Slanted Seat Check Valves With Hydraulic Damper?

Metal Seated: No. 9885 , Resilient Seated: No. 9886
DN 200 — 1200, PN 10 | PN 40

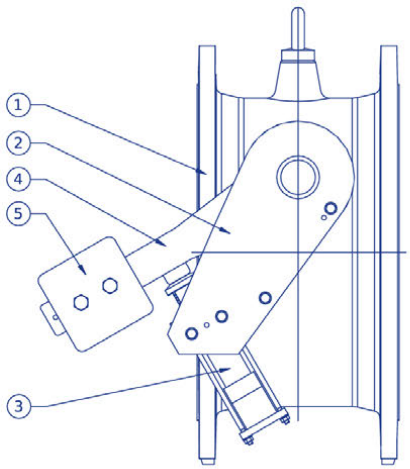
- In order to prevent impacts at the pump stations, Slanted Seat Check Valves can be equipped with a hydraulic damper on request.
- The hydraulic damper is active in the last 10% of the closing movement.
- In case of power failure at the pumping station, the valve closes very quickly until it reaches the hydraulic damper and the backflow during closing is kept to a minimum.
- It is one of the best check valve types that can be used in cases where preventing the back flow to the pump is critical.
- The damping effect is adjusted according to the pump and operating conditions by means of an internal throttling valve.

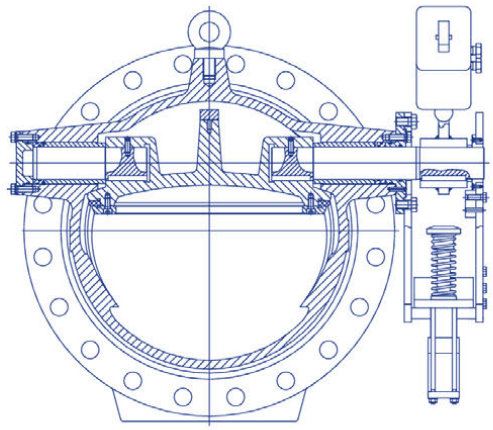
The hydraulic damper is not connected to the disc and does not create resistance to opening the disc, so the flow loss is less than with other damper check valves.

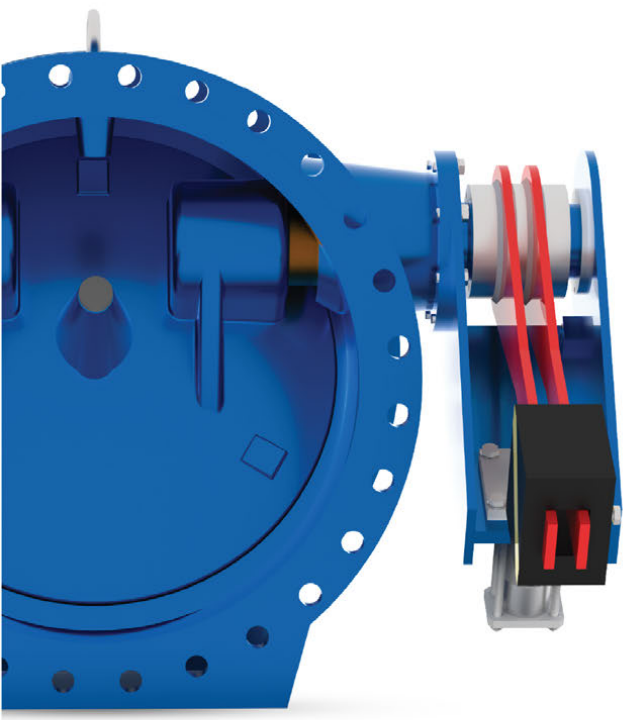


Slanted Seat Check Valves With Hydraulic Damper

Metal Seated: No. 9885 , Resilient Seated: No. 9886
DN 200 — 1200, PN 10 | PN 40







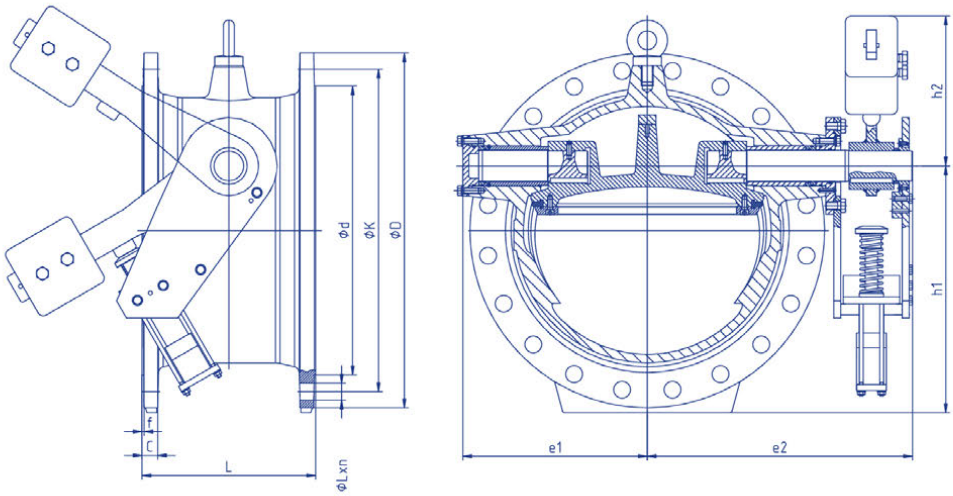
Material Features

Part No	Part Name
1	Check Valve Body
2	Chassis
3	Hydraulic Damper
4	Arm
5	Weight

*Please contact us for other material requests.

PN-10

Technical Details



DN	PN	ØD	ØK	Ød	C	f	ØLxn	L1	L2	L	e1	e2	h1	h2	Weight
200	10	340	295	266	20	3	23x8	_	235	230	185	325	225	163	82
250	10	405	350	319	22	3	23x12	180	300	250	220	355	280	205	100
300	10	455	400	370	24.5	4	23x12	200	300	270	242	374	320	205	145
350	10	520	460	429	26.5	4	23x16	260	400	290	277	413	363	260	162
400	10	580	515	480	28	4	28x16	260	400	310	312	446	405	261	177
450	10	640	565	530	30	4	28x20	300	450	330	342	510	445	288	252
500	10	715	620	582	31.5	4	28x20	340	500	350	372	530	498	324	300
600	10	840	725	682	36,5	5	31x20	400	600	390	440	603	585	378	462
700	10	910	840	794	39,5	5	31x24	500	700	430	490	724	645	445	642
800	10	1015	950	901	35	5	34x24	500	800	470	535	783	730	530	942
900	10	1125	1050	1001	46.5	5	34x28	640	900	510	610	873	813	585	1112
1000	10	1255	1160	1112	50	5	37x28	740	1000	550	687	992	895	625	1572
1200	10	1485	1380	1328	57	5	41x32	885	1200	630	815	1208	1063	742	2638

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L1	L2	L	e1	e2	h1	h2	Weight
200	16	340	295	266	20	3	23x12	_	235	230	185	325	225	163	80
250	16	405	355	319	22	3	28x12	180	300	250	220	355	280	205	98
300	16	455	410	370	24.5	4	28x12	200	300	270	242	374	320	205	143
350	16	520	470	429	26.5	4	28x16	260	400	290	277	413	363	260	160
400	16	580	525	480	28	4	31x16	260	400	310	312	446	405	261	175
450	16	640	585	548	30	4	31x20	300	450	330	342	510	445	288	250
500	16	715	650	609	31.5	4	34x20	340	500	350	372	530	498	324	298
600	16	840	770	720	36,5	5	37x20	400	600	390	440	603	585	378	460
700	16	910	840	794	39.5	5	37x24	500	700	430	490	724	645	445	640
800	16	1015	950	901	35	5	41x24	500	800	470	535	783	730	530	940
900	16	1125	1050	1001	46.5	5	41x28	640	900	510	610	873	813	585	1110
1000	16	1255	1170	1112	50	5	44x28	740	1000	550	687	992	895	625	1570
1200	16	1485	1390	1328	57	5	50x32	885	1200	630	815	1208	1063	742	2636

*Please contact us for other diameters and pressure values.

PN-25/40

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L1	L2	L	e1	e2	h1	h2	Weight
200	25	360	310	274	22	3	28x12	_	235	230	185	325	225	163	85
250	25	425	370	330	24,5	3	31x12	180	300	250	220	355	293	205	102
300	25	485	430	389	27.5	4	31x16	250	300	270	262	395	333	260	162
400	25	620	550	503	32	4	37x16	260	310	310	312	446	425	261	235
450	25	670	600	548	34.5	4	37x20	300	450	330	342	510	445	288	290
500	25	730	660	609	36.5	4	37x20	340	500	350	372	542	498	324	400
600	25	845	770	720	42	5	41x20	400	390	390	440	603	608	378	490
700	25	960	875	820	46.5	5	44x24	500	700	430	490	724	645	445	825
900	25	1185	1090	1028	56	5	50x28	640	900	510	610	873	843	585	1150
200	40	375	320	284	30	3	31x12	_	235	230	185	325	225	163	87
250	40	450	385	345	34,5	3	34x12	200	300	250	252	384	303	205	105
450	40	685	610	560	49	4	41x20	300	450	330	352	510	468	288	330

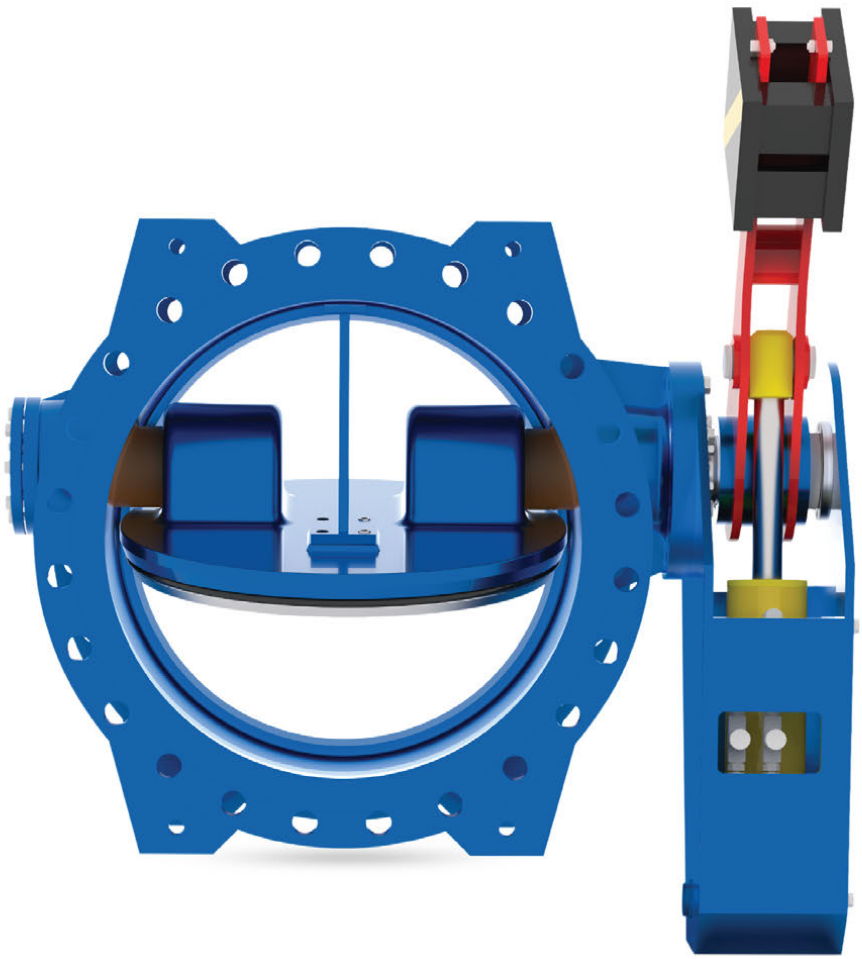
*Please contact us for other diameters and pressure values.

No. 9884

Why Tilting Check Valves With Hydraulic Damper?

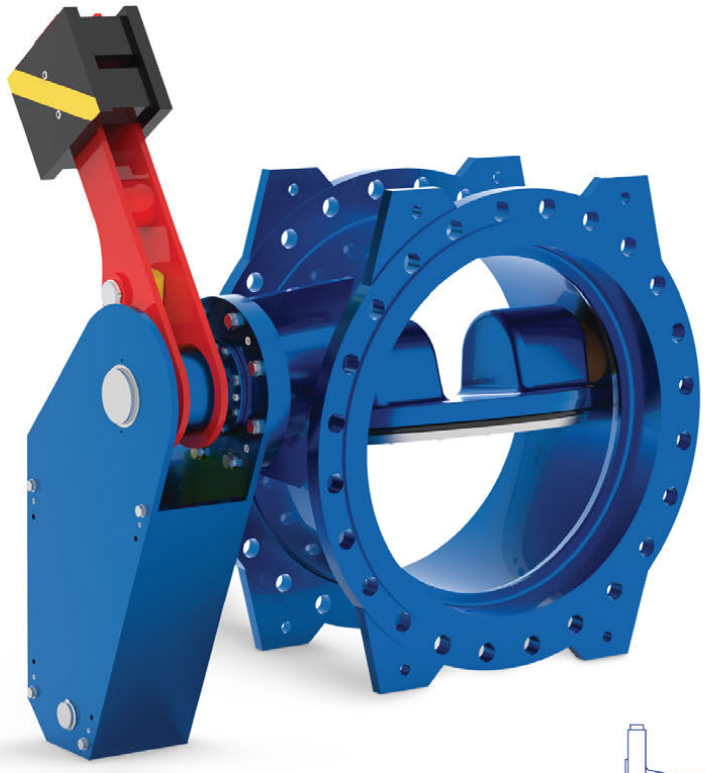
DN 150 — 1000, PN 10 | PN 25

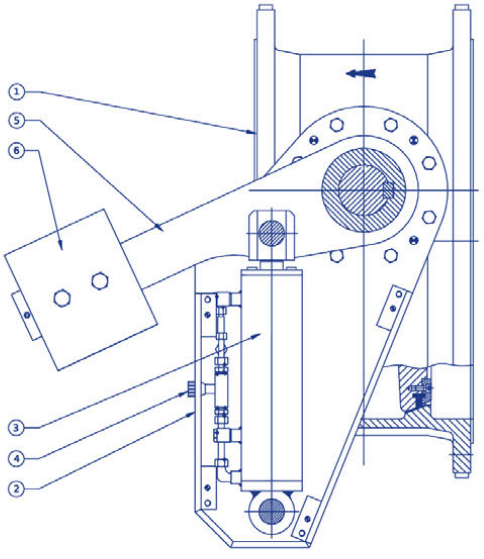
- Tilting Check Valves With Hydraulic Damper eliminate the impact and noise.
- Closing speed can be adjusted depending on the operating conditions.
- All parts of the check valve are designed to withstand the stresses caused by the braking effect.



No. 9884

Tilting Check Valves With Hydraulic Damper





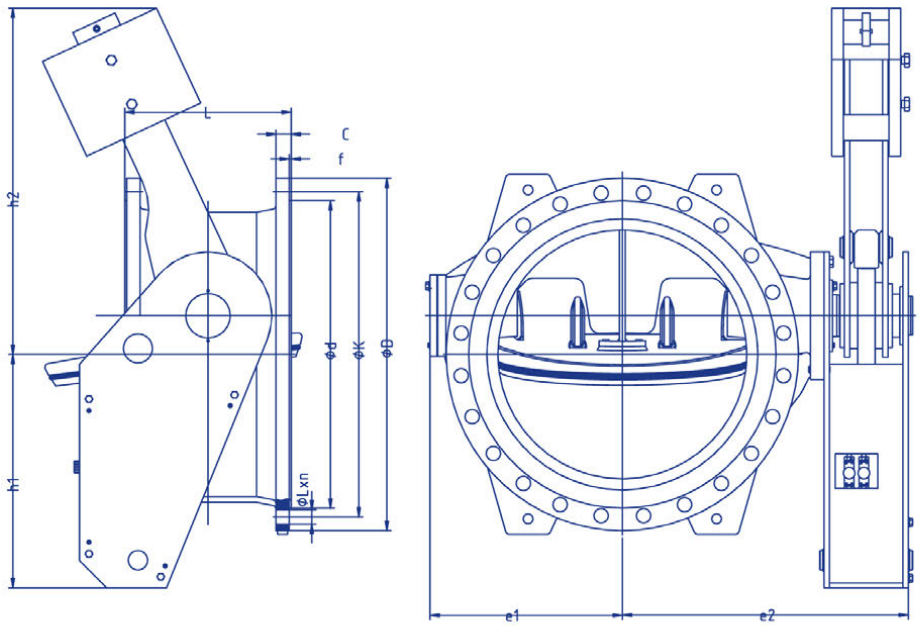
Material Features

Part No	Part Name
1	Check Valve Body
2	Chassis
3	Hydraulic Brake
4	Hydraulic Control Valves
5	Arm
6	Weight

*Please contact us for other material requests.

PN-10

Technical Details



DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	L2	e1	e2	e3	h1	h2	Weight
150	10	285	240	211	19	3	23x8	210	-	335	132	265	-	276	348	62
200	10	340	295	266	20	3	23x8	230	200	370	210	357	5	297	378	90
250	10	405	350	319	22	3	23x12	250	255	370	241	373	29	288	390	130
300	10	460	400	370	24.5	4	23x12	270	278	370	261	414	34	294	383	165
350	10	520	460	429	26.5	4	23x16	290	352	440	291	468	67	325	467	210
400	10	580	515	480	28	4	28x16	310	343	440	322	514	69	339	453	230
450	10	640	565	530	30	4	28x20	330	380	485	357	550	84	335	498	280
500	10	670	620	582	26.5	4	28x20	350	400	500	382	595	98	486	506	310
600	10	780	725	682	30	5	31x20	390	540	605	430	631	139	516	641	610
700	10	910	840	794	39.5	5	31x24	430	598	720	497	750	220	603	807	850
800	10	1025	950	901	43	5	34x24	470	670	810	563	812	260	644	913	1050
900	10	1125	1050	1001	46.5	5	34x28	510	710	920	662	933	305	707	1030	1350
1000	10	1255	1160	1112	50	5	37x28	550	750	1120	688	1045	352	705	1255	2050

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	L2	e1	e2	e3	h1	h2	Weight
150	16	285	240	211	19	3	23x8	210	-	335	132	265	-	276	348	62
200	16	340	295	266	20	3	23x12	230	200	370	210	357	5	297	378	90
250	16	405	355	319	22	3	28x12	250	255	370	241	373	29	288	390	130
300	16	460	410	370	24.5	4	28x12	270	278	370	261	414	34	294	383	165
350	16	520	470	429	26.5	4	28x16	290	352	440	291	468	67	325	467	210
400	16	580	525	480	28	4	31x16	310	343	440	322	514	69	339	453	230
450	16	640	585	548	30	4	31x20	330	380	485	357	550	84	335	498	280
500	16	715	650	609	31.5	4	34x20	350	400	500	382	595	98	486	506	420
610	16	840	770	720	36	5	37x20	390	540	605	430	631	139	516	641	610
700	16	910	840	794	39.5	5	37x24	430	598	720	497	750	220	603	807	850
800	16	1025	950	901	43	5	41x24	470	670	810	563	812	260	644	913	1050
900	16	1125	1050	1001	46.5	5	41x28	510	710	920	662	933	305	707	1030	1350
1000	16	1255	1170	1112	50	5	44x28	550	750	1120	688	1045	352	705	1255	2050

*Please contact us for other diameters and pressure values.

PN-25

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	L2	e1	e2	e3	h1	h2	Weight
150	25	300	250	211	20	3	28x8	210	-	335	132	265	-	276	348	70
200	25	360	310	274	22	3	28x12	230	200	370	210	357	5	297	378	95
250	25	425	370	330	24.5	3	31x12	250	250	370	259	416	14	297	383	170
300	25	485	430	389	27.5	4	31x16	270	279	370	261	414	35	294	383	180
350	25	555	490	448	30	4	34x16	290	352	440	291	468	67	328	467	220
400	25	620	550	503	32	4	37x16	310	343	440	322	514	69	339	453	250
450	25	670	600	548	34,5	4	37x20	330	380	485	357	550	84	335	498	295
500	25	730	660	609	36.5	4	37x20	350	430	500	386	595	98	486	641	850
600	25	845	770	720	42	5	41x20	390	539	605	484	721	139	670	740	790
700	25	960	875	820	46,5	5	44x24	430	598	720	497	750	220	603	807	950
800	25	1085	990	928	51	5	50x24	470	670	810	584	927	260	644	913	1200
900	25	1185	1090	1028	55.5	5	50x28	510	770	913	671	1030	223	916	1255	1850
1000	25	1320	1210	1140	60	5	44x28	550	750	1120	688	1045	352	705	1255	2070

*Please contact us for other diameters and pressure values.

No. 9889

Why Nozzle Type Check Valves?

DN 200 — 1000, PN 10 | PN 25

Nozzle Check Valves are metal to metal seated, spring loaded check valves.

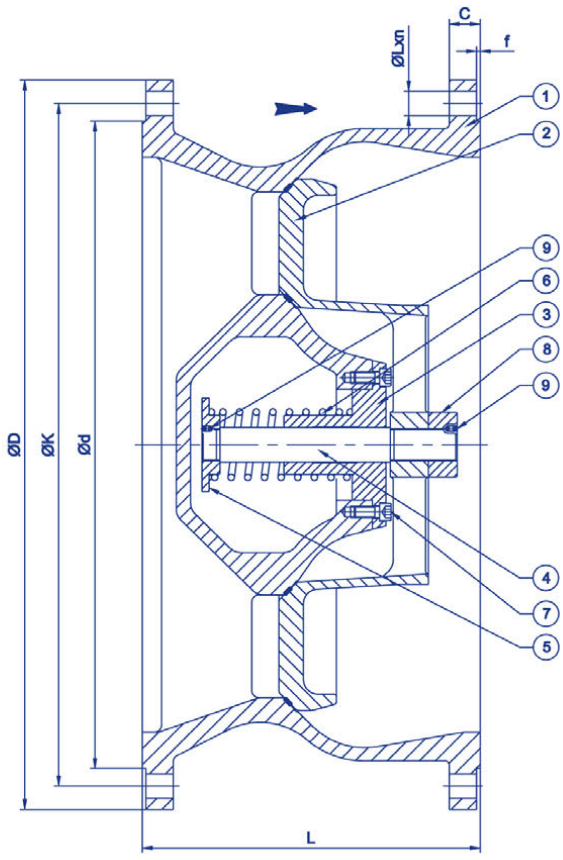
- Fast response to flow changes.
- Very short closing movement.
- Low weight moving parts.
- Non-impact closing.

The dynamic design of the internal parts and the spring selected according to the pump characteristics enable the check valve to react quickly to flow changes.

The most important benefits of nozzle check valves;

- Moving parts are not exposed to shock impacts and medium.
- There are no rubber-based parts subject to wear.
- Features metal-to-metal sealing design.

Material Features

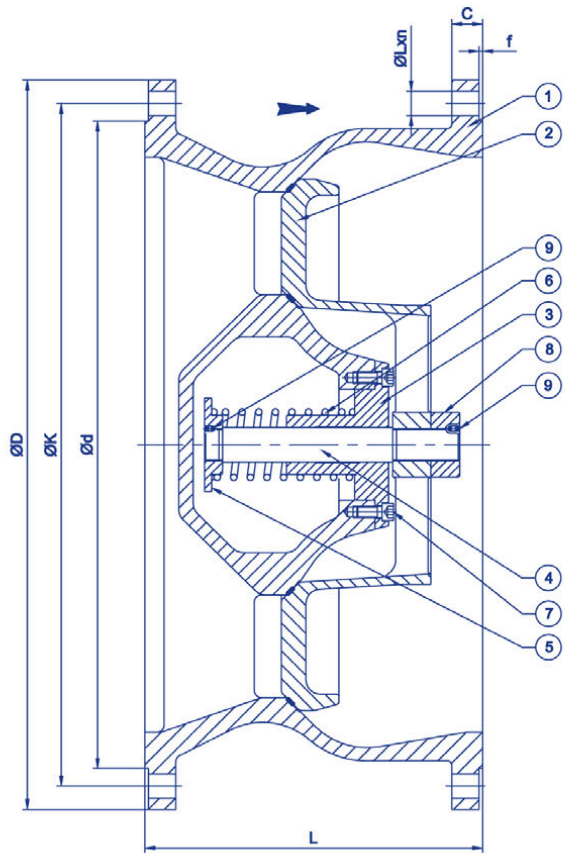


Part No	Part Name	Material
1	Body	Ductile iron EN-GJS-400-15
2	Disc	Ductile iron EN-GJS-400-15
3	Bearing	Bronze
4	Shaft	Stainless Steel X20Cr13
5	Stopper	Stainless Steel X20Cr13
6	Spring	Stainless Spring Steel
7	Hex. Socket Head Screw	Stainless Steel A2
8	Nut	Stainless Steel X20Cr13
9	Set screw	Stainless Steel A2

*Please contact us for other material requests.

PN-10

Technical Details



DN	PN	ØD	ØK	Ød	C	f	ØLxn	L
200	10	340	295	266	20	3	23x8	230
250	10	405	350	319	22	3	23x12	250
300	10	460	400	370	24.5	4	23x12	270
350	10	520	460	429	27	4	23x16	290
400	10	580	515	480	28	4	28x16	310
450	10	615	565	530	25.5	4	28x20	330
500	10	670	620	582	26.5	4	28x20	350
600	10	780	725	682	30	5	31x20	390
700	10	895	840	794	32.5	5	31x24	430
800	10	1015	950	901	35	5	34x24	470
900	10	1125	1050	1001	46.5	5	34x28	510
1000	10	1255	1160	1112	50	5	37x28	550

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L
200	16	340	295	266	20	3	23x12	230
250	16	405	355	319	22	3	28x12	250
300	16	460	410	370	24.5	4	28x12	270
350	16	520	470	429	27	4	28x16	290
400	16	580	525	480	28	4	31x16	310
450	16	640	585	548	30	4	31x20	330
500	16	715	650	609	31.5	4	34x20	350
600	16	840	770	720	36	5	37x20	390
700	16	910	840	794	39.5	5	37x24	430
800	16	1025	950	901	43	5	41x24	470
900	16	1125	1050	1001	46.5	5	41x28	510
1000	16	1255	1170	1112	50	5	44x28	550

*Please contact us for other diameters and pressure values.

PN-25

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L
300	25	485	430	389	27.5	4	31x16	270
400	25	620	550	503	32	4	37x16	310
500	25	730	660	609	36.5	4	37x20	350
600	25	845	770	720	42	5	41x20	390
700	25	960	875	820	46.5	5	44x24	430
800	25	1085	990	928	51	5	50x24	470
900	25	1185	1090	1028	55.5	5	50x28	510
1000	25	1320	1210	1140	60	5	57x28	550

*Please contact us for other diameters and pressure values.

No. 9887

Why Axial Silent Check Valves?

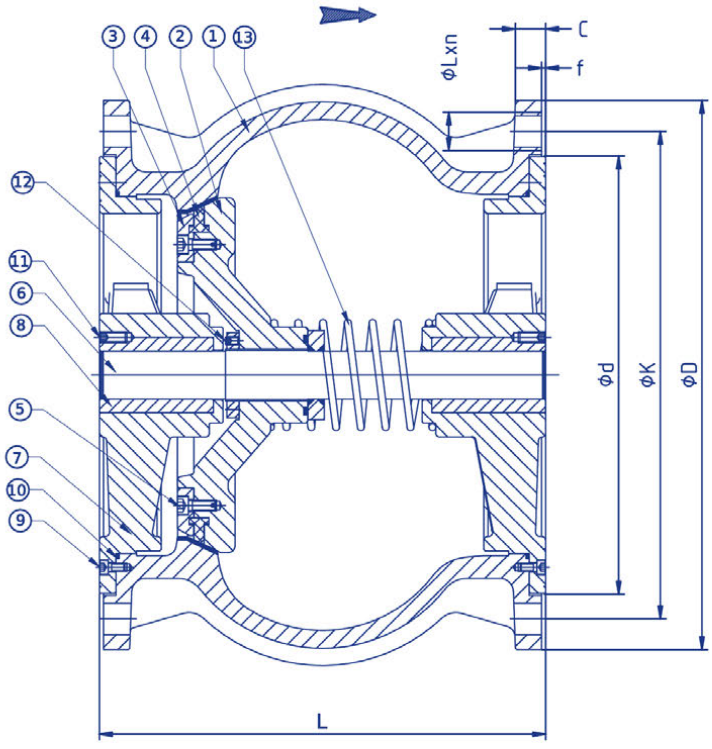
DN 100 — 1400, PN 10 | PN 40

Axial Silent Check Valves have fast, shockless closing characteristics. The spring-loaded valve with short closing movement reacts instantaneously to flow changes. For this reason, pulse-free, quick closing is realised. Axial spring loaded check valves are ideal solutions for all kinds of check valve applications due to their superior design features.

The most important benefits of axial silent check valves;

- Short body, small volume and low weight.
- Less wear and longer operating life due to low weight of moving parts and axial closing movement.
- Suitable for high velocity and high pressure applications
- Precise sealing.

Material Features

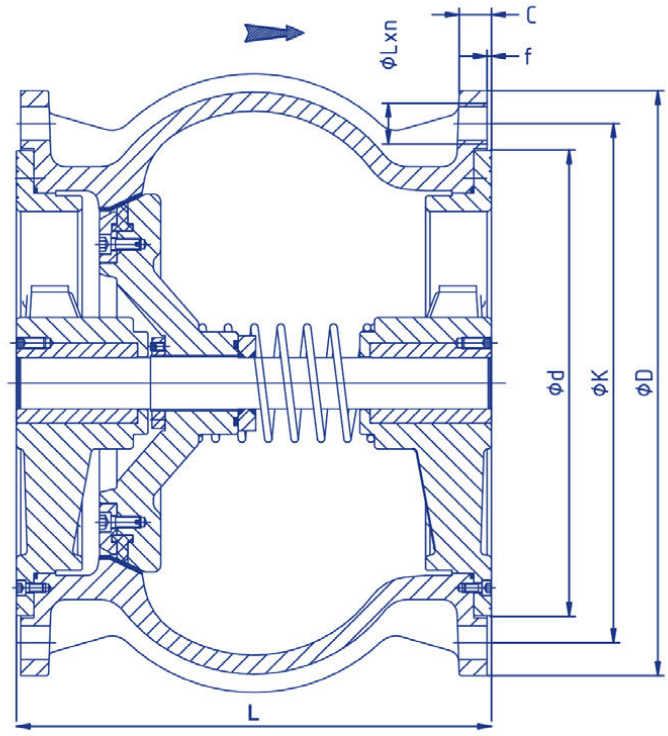


Part No	Part Name	Material
1	Body	Ductile iron EN-GJS-400-15
2	Disc	Ductile iron EN-GJS-400-15
3	Retaining Ring	Steel S235JR
4	Sealing Ring	EPDM
5	Hex. Socket Head Screw	Stainless Steel A2
6	Shaft	Stainless Steel X20Cr13
7	Shaft Bearing	Ductile iron EN-GJS-400-15
8	Bearing Bush	Bronze
9	Hex. Socket Head Screw	Stainless Steel A2
10	0-ring	EPDM
11	Set screw	Stainless Steel A2
12	Spring	Stainless Spring Steel

*Please contact us for other material requests.

PN-10

Technical Details

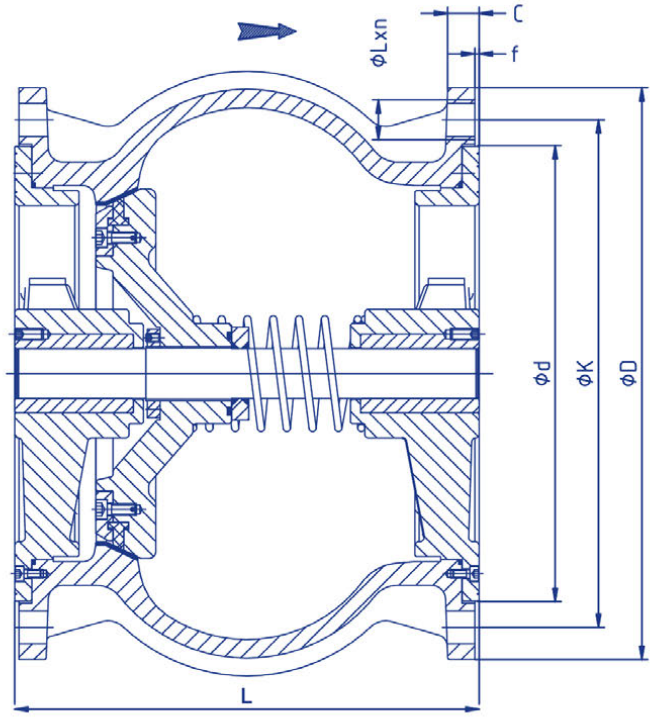


DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	Weight
100	10	220	180	156	19	3	19x8	175	20
125	10	250	210	184	19	3	19x8	200	27
150	10	285	240	211	19	3	23x8	225	37
200	10	340	295	266	20	3	23x8	275	56
250	10	405	350	319	22	3	23x12	325	95
300	10	460	400	370	24.5	4	23x12	375	130
350	10	520	460	429	26,5	4	23x16	425	140
400	10	580	515	480	28	4	28x16	475	210
450	10	640	565	530	30	4	28x20	500	230
500	10	670	620	582	36,5	4	28x20	550	380
600	10	840	725	682	42	5	31x20	600	455
700	10	910	840	794	39,5	5	31x24	650	570
800	10	1025	950	901	43	5	34x24	700	790
900	10	1125	1050	1000	54	5	34x28	800	1350
1000	10	1255	1160	1112	50	5	37x28	900	1495
1200	10	1485	1380	1328	57	5	41x32	1050	2200
1400	10	1680	1590	1530	46	5	44x36	1190	3722

*Please contact us for other diameters and pressure values.

PN-16

Technical Details



DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	Weight
100	16	220	180	156	19	3	19x8	175	20
125	16	250	210	184	19	3	19x8	200	27
150	16	285	240	211	19	3	23x8	225	37
200	16	340	295	266	20	3	23x12	275	56
250	16	405	355	319	22	3	28x12	325	95
300	16	460	410	370	24.5	4	28x12	375	130
350	16	520	470	429	26,5	4	28x16	425	140
400	16	580	525	480	28	4	31x16	475	210
450	16	640	585	547	30	4	31x20	500	230
500	16	715	650	609	36,5	4	34x20	550	385
600	16	840	770	720	42	5	37x20	600	515
700	16	910	840	794	39,5	5	37x24	650	570
800	16	1025	950	902	43	5	41x24	700	790
900	16	1125	1050	1000	54	5	41x28	800	1350
1000	16	1255	1170	1112	50	5	44x28	900	1495
1200	16	1485	1390	1328	57	5	50x32	1050	2200
1400	16	1685	1590	1530	60	5	50x36	1190	3722

*Please contact us for other diameters and pressure values.

PN-25

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	Weight
100	25	235	190	156	19	3	23x8	175	22
125	25	270	220	184	19	3	28x8	200	30
150	25	300	250	211	20	3	28x8	225	40
200	25	360	310	274	22	3	28x12	275	43
250	25	425	370	330	24,5	3	31x12	325	105
300	25	485	430	389	27,5	4	31x16	375	135
350	25	555	490	448	30	4	34x16	425	165
400	25	620	550	503	32	4	37x16	475	220
450	25	670	600	548	34,5	4	37x20	500	237
500	25	730	660	609	36.5	4	37x20	550	390
600	25	845	770	720	42	5	41x20	600	560
700	25	960	875	820	46,5	5	44x24	650	610
800	25	1085	990	928	51	5	50x24	700	900
900	25	1185	1090	1028	55	5	50x28	800	1380
1000	25	1320	1210	1140	60	5	57x28	900	1530
1200	25	1530	1420	1350	74	5	57x32	1050	2225

*Please contact us for other diameters and pressure values.

PN-40

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	Weight
100	40	235	190	156	19	3	23x8	175	22
125	40	270	220	184	23,5	3	28x8	200	30
150	40	300	250	211	26	3	28x8	225	40
200	40	375	320	284	30	3	31x12	275	43
250	40	450	385	345	34,5	3	34x12	325	110
300	40	515	450	409	39,5	4	34x16	375	140
350	40	580	510	465	44	4	37x16	425	175
400	40	660	585	535	48	4	41x16	475	230
450	40	685	610	560	49	4	41x20	500	240
500	40	755	670	615	52	4	44x20	550	400
600	40	890	795	735	58	5	50x20	600	570
700	40	995	900	840	64	5	50x24	650	620
800	40	1140	1030	960	72	5	57x24	700	1200
900	40	1250	1140	1070	80	5	57x28	800	1485
1000	40	1360	1250	1180	88	5	57x28	900	1550
1200	40	1575	1460	1380	95	5	62x32	1050	2250

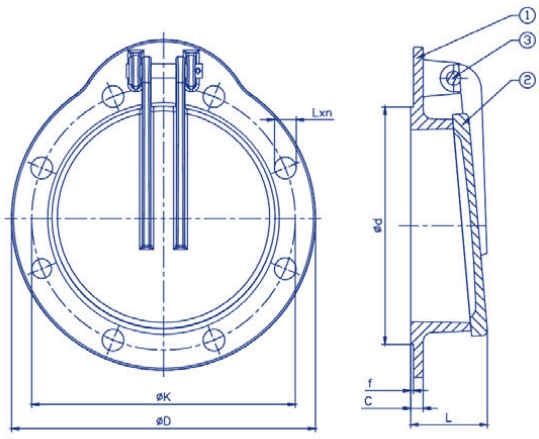
*Please contact us for other diameters and pressure values.

No. 9930

Flap Valve

DN 200 — 600, PN 10 | PN 16

Flap Valve; It allows the fluid allowed by the system to be discharged to the outside, while preventing unwanted particles from entering the line.



Material Features

Part No	Part Name	Material
1	Body	Ductile iron EN-GJS-400-15
2	Cover	Ductile iron EN-GJS-400-15
3	Pin	Stainless Steel X20Cr14

*Please contact us for other material requests.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	Weight
200	10	340	295	266	20	3	23x8	130	23
250	10	405	350	319	22	3	23x12	138	30
300	10	455	400	370	24,5	4	23x12	142	37
400	10	580	515	480	30	4	28x16	177	68
500	10	715	620	582	32	4	28x20	207	112
600	10	840	725	720	36	5	31x20	217	160

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

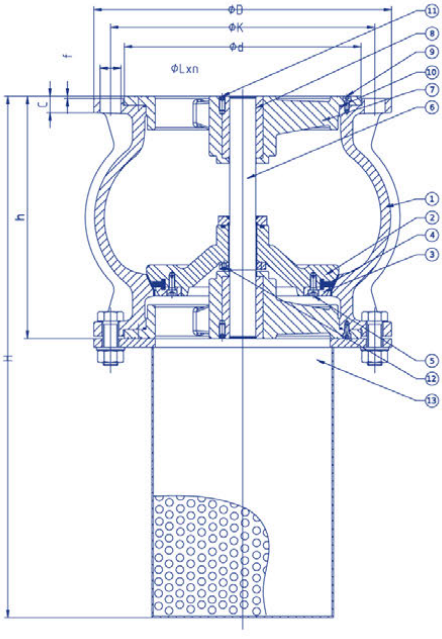
DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	Weight
200	16	340	-	266	20	3	-	130	23
250	16	405	355	319	22	3	23x12	138	30
300	16	455	410	370	24,5	4	28x12	142	37
400	16	580	525	480	30	4	31x16	177	68
500	16	715	650	582	32	4	34x20	207	112
600	16	840	770	720	36	5	27x20	217	160

No. 9888

Foot Valve

DN 100 — 1000, PN 10 | PN 25

It prevents the backflow of water accumulated in the suction pipe in pump systems and prevents particles from entering the system equipment thanks to the filter at the end.



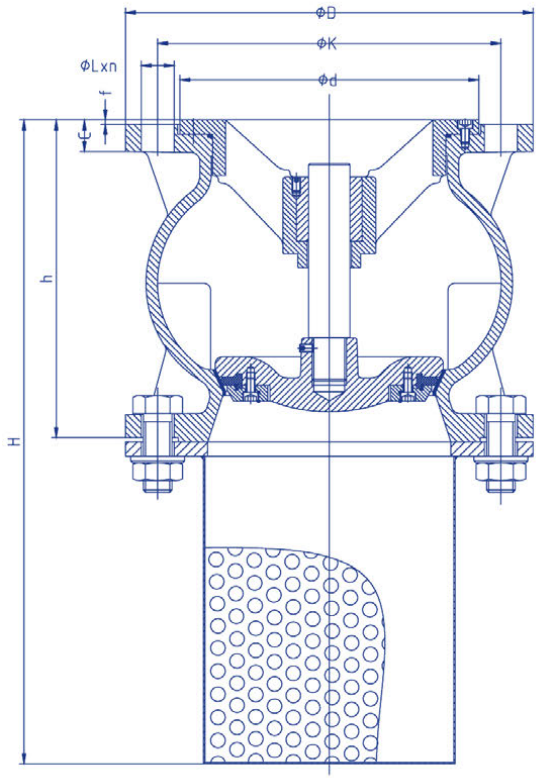
Material Features

Part No	Part Name	Material
1	Body	Ductile iron EN-GJS-400-15
2	Disc	Ductile iron EN-GJS-400-15
3	Retaining Ring	Steel S235JR
4	Sealing Ring	EPDM
5	Hex. Socket Head Screw	Stainless Steel A2
6	Shaft	Stainless Steel X20Cr13
7	Shaft Bearing	Ductile iron EN-GJS-400-15
8	Bearing Bush	Bronze
9	Hex. Socket Head Screw	Stainless Steel A2
10	0-ring	EPDM
11	Set screw	Stainless Steel A2
12	Set screw	Stainless Steel A2
13	Filter	Steel-Galvanized

*Please contact us for other material requests.

PN-10

Technical Details



DN	PN	ØD	ØK	Ød	C	f	ØLxn	h	H	Weight
100	10	220	180	156	19	3	19x8	175	325	23
125	10	250	210	184	19	3	19x8	200	388	32
150	10	285	240	211	19	3	23x8	225	450	42
200	10	340	295	266	20	3	23x8	275	575	52
250	10	405	350	319	22	3	23x12	325	700	102
300	10	460	400	370	24.5	4	23x12	375	825	142
350	10	520	460	429	26,5	4	23x16	425	950	152
400	10	580	515	480	28	4	28x16	475	1075	232
450	10	640	565	530	30	4	28x20	500	1175	242
500	10	670	620	582	36,5	4	28x20	550	1300	425
600	10	840	725	682	42	5	31x20	600	1500	525
700	10	910	840	794	39,5	5	31x24	650	1700	615
800	10	1025	950	901	43	5	34x24	700	1900	835
900	10	1125	1050	1000	54	5	34x28	800	2000	1395
1000	10	1255	1160	1112	50	5	37x28	900	2100	1545

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	h	H	Weight
100	16	220	180	156	19	3	19x8	175	325	23
125	16	250	210	184	19	3	19x8	200	388	32
150	16	285	240	211	19	3	23x8	225	450	42
200	16	340	295	266	20	3	23x12	275	575	52
250	16	405	355	319	22	3	28x12	325	700	102
300	16	460	410	370	24.5	4	28x12	375	825	142
350	16	520	470	429	26,5	4	28x16	425	950	152
400	16	580	525	480	28	4	31x16	475	1075	232
450	16	640	585	547	30	4	31x20	500	1175	242
500	16	715	650	609	36,5	4	34x20	550	1300	425
600	16	840	770	720	42	5	37x20	600	1500	525
700	16	910	840	794	39,5	5	37x24	650	1700	615
800	16	1025	950	902	43	5	41x24	700	1900	835
900	16	1125	1050	1000	54	5	41x28	800	2000	1395
1000	16	1255	1170	1112	50	5	44x28	900	2100	1545

*Please contact us for other diameters and pressure values.

PN-25

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	h	H	Weight
100	25	235	190	156	19	3	23x8	175	325	33
150	25	300	250	211	20	3	28x8	225	450	42
200	25	360	310	274	22	3	28x12	275	575	65
250	25	425	370	330	24,5	3	31x12	325	700	130
300	25	485	430	389	27,5	4	31x16	375	825	150
400	25	620	550	503	32	4	37x16	475	1075	280
500	25	730	660	609	36.5	4	37x20	550	1300	410

*Please contact us for other diameters and pressure values.

Air Release Valves

DN 25 — 300, PN 10 | PN 40

It is a very important mechanical equipment that plays a role in ensuring that the air in the pipeline is expelled during the filling of the pipeline, allowing fluid transfer with high efficiency, in the event that the fluid in the line is discharged, air is taken in to prevent the line from falling to negative pressure, and regular air discharge during operating conditions. The effect of air discharge and intake on the safe and efficient operation of pipelines and the system is quite high.

- Design Optimized Dynamic Air Release Valves
- Non-Slam Dynamic Air Release Valves
- Double Chamber Air Release Valves

ÖZKAN

No. 9842

Air Release Valves

DN 25 — 300, PN 10 | PN 40

*Please ask for different material, diameter and pressure class requests.

No. 9842

Why Design Optimized Non-Slam Dynamic Air Release Valves?

DN 50 — 300, PN 10 | PN 16

Some of the advantages offered by design optimized non-slam air release valves can be listed as follows;

- Prepared for digital Air release valve.
- Less space for service.
- Reduced CO2 emission.
- Easy logistic and installation advantages.
- High air discharge and air intake capacity.
- Maintenance free design.

Recommended points for air release valve placement;

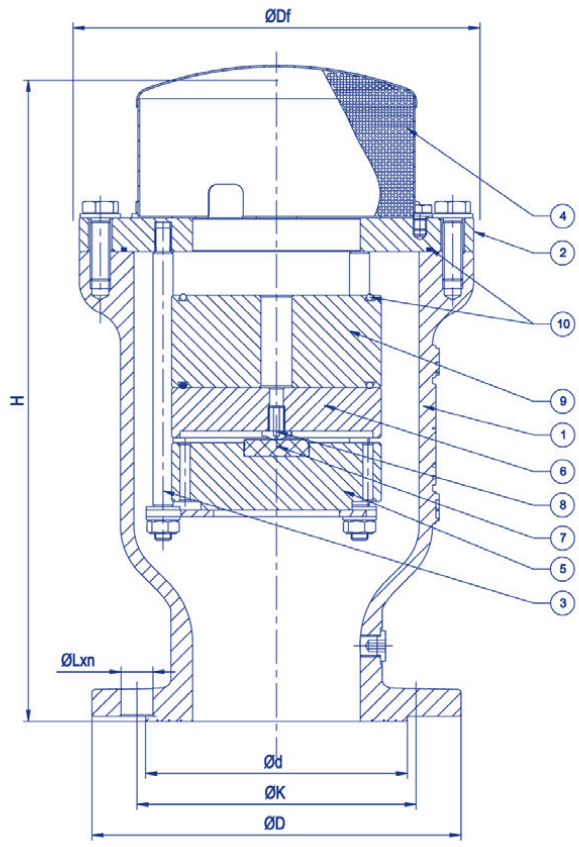
- Pump outlets.
- Peak points of the pipeline.
- Points where the slope of the pipeline changes.
- Every 500 meters in straight pipelines.

Recommended air release valve dimensions according to pipe diameters;

Pipe Diameter mm	80-250	300-400	450-600	700-900	1000-1200	1400-1600	1800-2000
Air Release Valve DN	50	80	100	150	200	250	300

Recommended diameters are for general information. You can contact us for detailed calculation and selection, given the operating conditions and line drawing.

Material Features



Part No	Part Name	Material
1	Body	Ductile Iron EN-GJS-400-15
2	Cover	Steel S235JR
3	Float Guide	Stainless Steel X5CrNi18-10
4	Top Cover	Stainless Steel X5CrNi18-10
5	Float	HDPE
6	Float	HDPE
7	Small Orifice Seal	EPDM
8	Small Orifice	Stainless Steel X5CrNi18-10
9	Float	HDPE
10	0-Ring	EPDM

*Please contact us for other material requests.

No. 9842

Why Non-Slam Dynamic Air Release Valves?

DN 25 — 300, PN 25 | PN 40

Some of the advantages offered by non-slam air release valves can be listed as follows;

- Automatically operated single chamber air release valve.
- Small volume, low weight compact design.
- Large orifice allows the discharge and removal of large air mass during filling and draining of the pipeline.
- Small orifice discharges small volumes of air when the pipeline is operating under pressure.
- Pulse-free closing with two-stage closing design.
- High discharge capacity.
- High corrosion resistance due to stainless steel internal components.

Recommended points for air release valve placement;

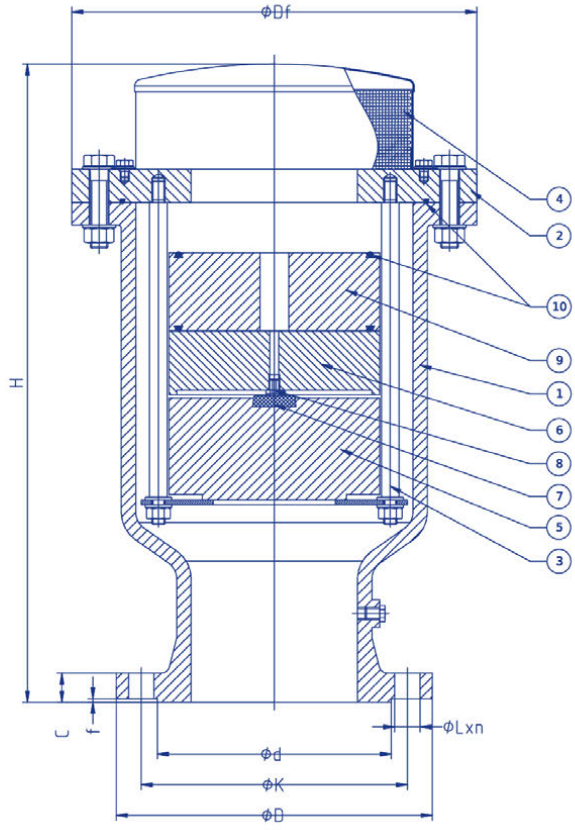
- Pump outlets.
- Peak points of the pipeline.
- Points where the slope of the pipeline changes.
- Every 500 meters in straight pipelines.

Recommended air release valve dimensions according to pipe diameters;

Pipe Diameter mm	80-250	300-400	450-600	700-900	1000-1200	1400-1600	1800-2000
Air Release Valve DN	50	80	150	150	200	250	300

Recommended diameters are for general information. You can contact us for detailed calculation and selection, given the operating conditions and line drawing.

Material Features



Part No	Part Name	Material
1	Body	Ductile Iron EN-GJS-400-15
2	Cover	Steel S235JR
3	Float Guide	Stainless Steel X5CrNi18-10
4	Top Cover	Stainless Steel X5CrNi18-10
5	Float	HDPE
6	Float	HDPE
7	Small Orifice Seal	EPDM
8	Small Orifice	Stainless Steel X5CrNi18-10
9	Float	HDPE
10	0-Ring	EPDM

*Please contact us for other material requests.

Design Optimized Non-Slam Dynamic Air Release Valves

PN-10

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	Df	H	Weight
50	10	165	125	99	19	3	19x4	185	318	15
65	10	185	145	99	19	3	19x4	200	360	19
80	10	200	160	132	19	3	19x8	215	370	21
100	10	220	180	156	19	3	19x8	235	385	24
150	10	285	240	211	19	3	23x8	345	542	57
200	10	340	295	266	20	3	23x8	410	630	84
250	10	405	350	319	22	3	23x12	520	715	134
300	10	460	410	370	24,5	4	28x12	650	925	203

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	Df	H	Weight
50	16	165	125	99	19	3	19x4	185	318	15
65	16	185	145	99	19	3	19x4	200	360	19
80	16	200	160	132	19	3	19x8	215	370	21
100	16	220	180	156	19	3	19x8	235	385	24
150	16	285	240	211	19	3	23x8	345	542	57
200	16	340	295	266	20	3	23x12	410	630	84
250	16	405	355	319	22	3	28x12	520	715	134
300	16	460	410	370	24.5	4	28x12	610	810	203

*Please contact us for other diameters and pressure values.

Non-Slam Dynamic Air Release Valves

PN-25

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	Df	H	Weight
50	25	165	125	99	19	3	19x4	200	355	20
65	25	185	145	99	19	3	19x4	225	404	20
80	25	200	160	132	19	3	19x8	240	416	30
100	25	235	190	156	19	3	23x8	255	420	37
150	25	300	250	211	20	3	28x8	365	580	85
200	25	360	310	274	22	3	28x12	410	678	104
250	25	425	370	330	24.5	3	31x12	540	820	208
300	25	485	430	389	27.5	4	31x16	650	925	340

*Please contact us for other diameters and pressure values.

PN-40

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	Df	H	Weight
50	40	165	125	99	19	3	19x4	200	355	20
65	40	185	145	99	19	3	19x4	225	404	20
80	40	200	160	132	19	3	19x8	240	416	30
100	40	235	190	156	19	3	23x8	255	420	37
150	40	300	250	211	26	3	28x8	365	590	95
200	40	375	320	284	30	3	31x12	425	695	130
250	40	450	385	345	34.5	3	34x12	540	830	215
300	40	515	450	409	39.5	4	34x16	670	935	350

*Please contact us for other diameters and pressure values.

No. 9844

Why Double Chamber Air Release Valves?

DN 50 — 300, PN 10 | PN 40

Some of the advantages of double chamber air release valves can be listed as follows;

- Double chamber air release valves with cylindrical float.
- The large orifice allows the evacuation and removal of large air mass during filling and draining of the pipeline.
- The small orifice discharges small volumes of air when the pipeline is operating under pressure.
- Solid HDPE float design eliminates problems such as deformation and jamming seen in sphere designs.
- Built-in isolation valve for air release valve maintenance, without isolation valve on request.

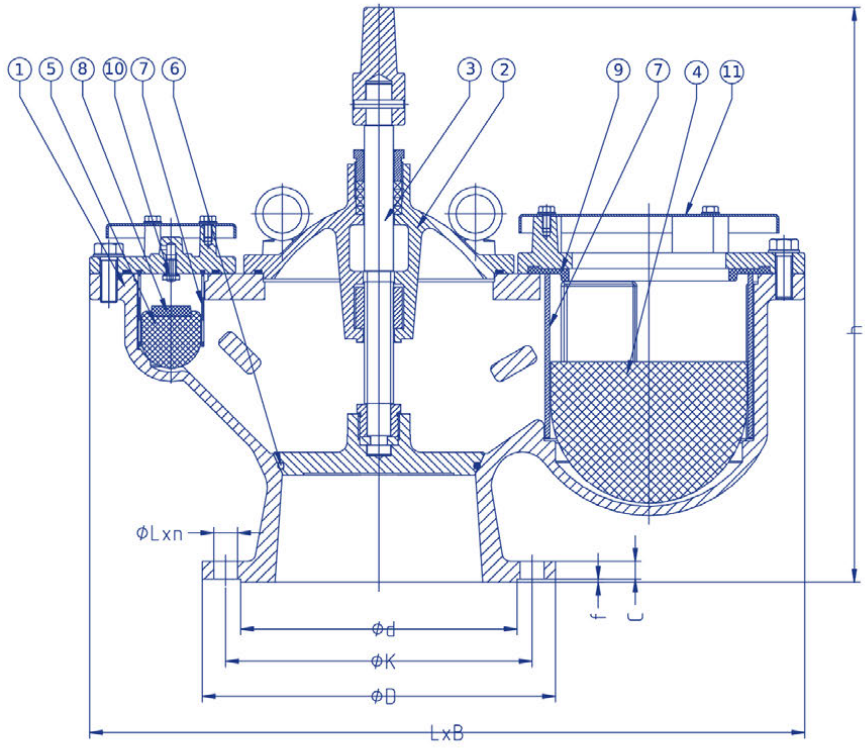
PN-16

Technical Details

DN	PN	LxB	H	Weight
50	16	310x165	355	13,5
65	16	330x185	365	16
80	16	385x200	380	21
100	16	448x220	400	32
125	16	498x250	420	48
150	16	620x285	530	67
200	16	690x340	555	88
250	16	860x405	700	182
300	16	1045x465	720	338

*Please contact us for other diameters and pressure values.

Material Features



Part No	Part Name	Material
1	Body	Ductile Iron EN-GJS-400-15
2	Covers	Ductile Iron EN-GJS-400-15
3	Shaft	Stainless Steel X20Cr13
4	Float	HDPE
5	Float	HDPE
6	Sealing Ring	EPDM
7	Float Cage	Polyethylene
8	Small Orifice Seal	EPDM
9	Float Seal	EPDM
10	Small Orifice	PRFE
11	Protective Cover	Steel S235JR

*Please contact us for other material requests.

Dismantling Joints

DN 50 — 2500, PN 10 | PN 40

Disassembly parts are the equipment that provides ease of assembly and disassembly when valves are used in pipelines.

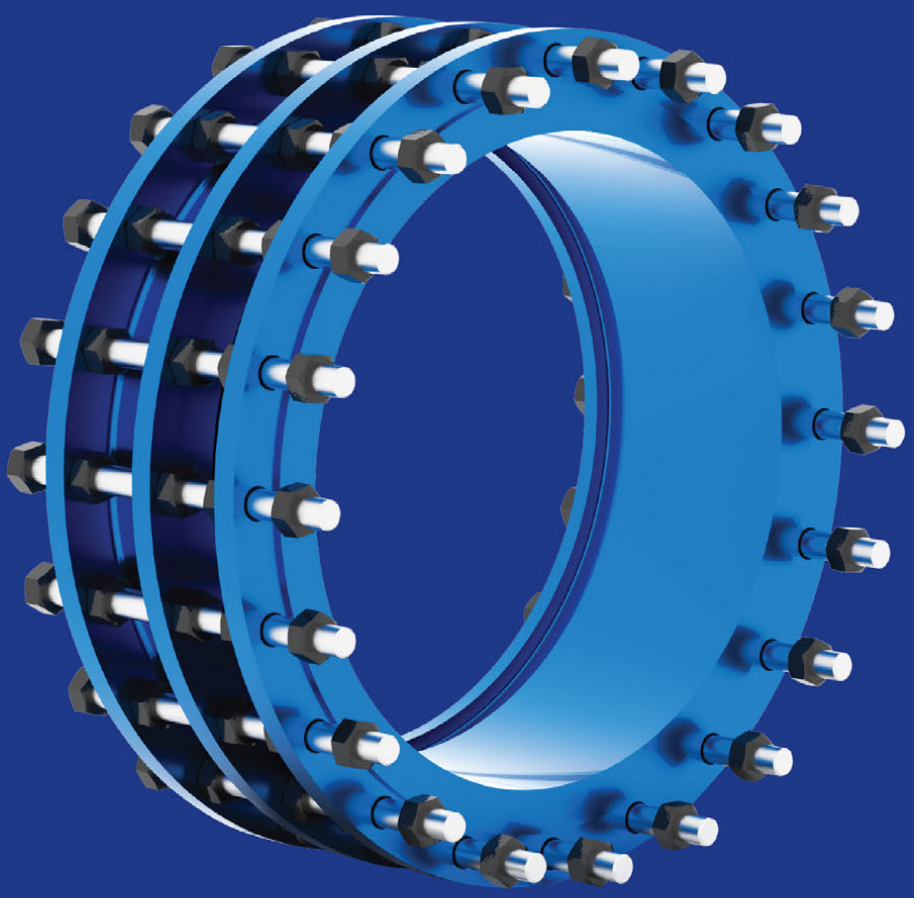
- Rigid Type
- Telescopic Type
- Flange Adapter
- Flexible Coupling
- Flanged Strainer Basket

ÖZKAN

No. 9810

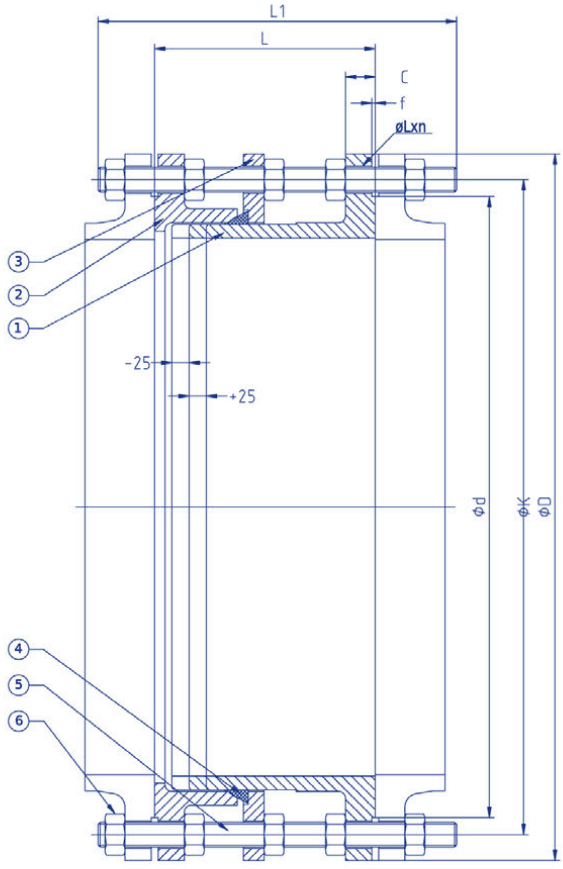
Dismantling Joints

DN 50 — 2500, PN 10 | PN 40



*Please ask for different material, diameter and pressure class requests.

Rigid Type
Dismantling Joints



Part No	Part Name	Material
1	Flanged pipe-long	Ductile Iron EN-GJS-400-15
2	Flanged pipe-short	Ductile Iron EN-GJS-400-15
3	Retaining Flange	Steel S235JR
4	Sealing Ring	EPDM
5	Stud Bolt	Steel - Galvanized
6	Nut	Steel - Galvanized

*Please contact us for other material requests.

PN-10

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1
80	10	200	160	132	19	3	19x8	200	330
100	10	220	180	156	19	3	19x8	200	330
125	10	250	210	184	19	3	19x8	200	330
150	10	285	240	211	19	3	23x8	200	330
200	10	340	295	266	20	3	23x8	220	330
250	10	395	350	319	22	3	23x12	220	360
300	10	445	400	370	24,5	4	23x12	230	360
350	10	505	460	429	24,5	4	23x16	230	360
400	10	580	515	480	24,5	4	28x16	230	370
450	10	615	565	530	25,5	4	28x20	250	390
500	10	670	620	582	26,5	4	28x20	260	390
600	10	780	725	682	30	5	31x20	260	410
700	10	895	840	794	32,5	5	31x24	260	410
800	10	1015	950	901	35	5	34x24	290	460
900	10	1115	1050	1001	38	5	34x28	290	460
1000	10	1230	1160	1112	40	5	34x28	290	500
1100	10	1340	1270	1218	42,5	5	37x32	300	480
1200	10	1455	1380	1328	45	5	41x32	320	520
1300	10	1585	1490	1432	59	5	44x32	370	630
1400	10	1675	1590	1530	46	5	44x36	360	560
1500	10	1820	1700	1640	60	5	44x36	380	590
1600	10	1915	1820	1750	49	5	50x40	390	600
1700	10	2030	1920	1850	68	5	50x44	445	750
1800	10	2125	2020	1950	52	5	50x44	450	750
2000	10	2325	2230	2150	55	5	50x48	450	750
2200	10	2555	2440	2370	65	5	57x52	450	750
2400	10	2760	2650	2570	65	6	57x56	450	750
2500	10	2860	2750	2670	65	6	57x56	450	750

*Please contact us for other diameters and pressure values.

PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1
80	16	200	160	132	19	3	19x8	200	330
100	16	220	180	156	19	3	19x8	200	330
125	16	250	210	184	19	3	19x8	200	330
150	16	285	240	211	19	3	23x8	200	330
200	16	340	295	266	20	3	23x12	220	330
250	16	405	355	319	22	3	28x12	230	370
300	16	460	410	370	24,5	4	28x12	250	410
350	16	520	470	429	26,5	4	28x16	260	410
400	16	580	525	480	28	4	31x16	270	430
450	16	640	585	548	30	4	31x20	270	430
500	16	715	650	609	31,5	4	34x20	280	440
600	16	840	770	720	36	5	37x20	300	500
700	16	910	840	794	39,5	5	37x24	300	500
800	16	1025	950	901	43	5	41x24	320	520
900	16	1125	1050	1001	46,5	5	41x28	320	520
1000	16	1255	1170	1112	50	5	44x28	340	560
1100	16	1355	1270	1218	53,5	5	44x32	340	560
1200	16	1485	1390	1328	57	5	50x32	360	600
1300	16	1585	1490	1432	59	5	50x32	370	630
1400	16	1685	1590	1530	60	5	50x36	380	630
1500	16	1820	1710	1640	60	5	57x36	410	700
1600	16	1930	1820	1750	65	5	57x40	400	700
1700	16	2030	1920	1850	68	5	57x44	445	750
1800	16	2130	2020	1950	70	5	57x44	450	750
2000	16	2345	2230	2150	75	5	62x48	460	775
2200	16	2555	2440	2360	80	5	62x52	470	775
2500	16	2890	2750	2670	76	6	60x60	470	775

*Please contact us for other diameters and pressure values.

PN-25

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1
80	25	200	160	132	19	3	19x8	200	330
100	25	235	190	156	19	3	23x8	220	340
125	25	270	220	184	19	3	28x8	220	370
150	25	300	250	211	20	3	28x8	230	370
200	25	360	310	274	22	3	28x12	230	370
250	25	425	370	330	24,5	3	31x12	250	410
300	25	485	430	389	27,5	4	31x16	250	410
350	25	555	490	448	30	4	34x16	270	440
400	25	620	550	503	32	4	37x16	290	500
450	25	670	600	548	34,5	4	37x20	280	480
500	25	730	660	609	36,5	4	37x20	300	500
600	25	845	770	720	42	5	41x20	320	520
700	25	960	875	820	46,5	5	44x24	340	530
800	25	1085	990	928	51	5	50x24	360	600
900	25	1185	1090	1028	55	5	50x28	380	630
1000	25	1320	1210	1140	60	5	87x28	400	650
1200	25	1530	1420	1350	69	5	57x32	450	750
1400	25	1755	1640	1560	74	5	62x36	490	830
1600	25	1975	1860	1780	81	5	62x40	470	800
2000	25	2425	2300	2210	95	5	70x48	540	950
2500	25	3015	2840	2720	92	6	68x60	540	920

*Please contact us for other diameters and pressure values.

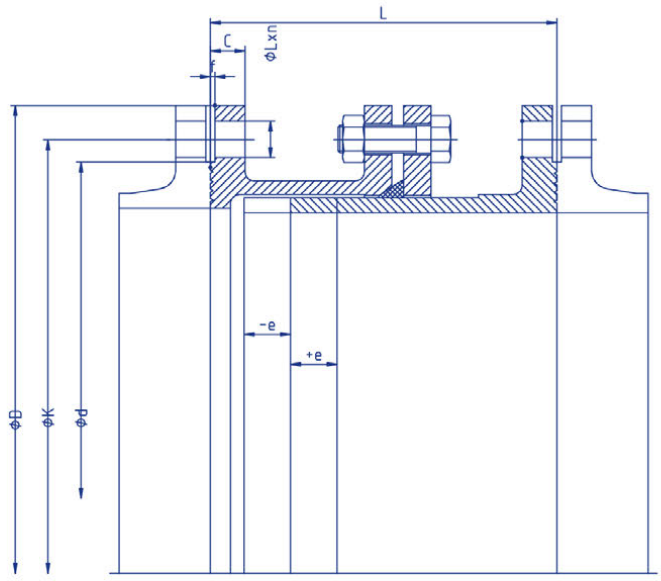
PN-40

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1
100	40	235	190	156	19	3	23x8	220	340
125	40	270	220	184	23,5	3	28x8	220	370
150	40	300	250	211	26	3	28x8	230	370
200	40	375	320	284	30	3	31x12	230	370
250	40	450	385	345	34,5	3	34x12	270	450
300	40	515	450	409	39,5	4	34x16	270	460
350	40	580	510	465	44	4	37x16	270	480
400	40	660	585	535	48	4	41x16	330	560
500	40	755	670	615	52	4	44x20	320	550
600	40	890	795	735	58	5	50x20	390	650
700	40	995	900	840	64,5	5	50x24	370	630
800	40	1140	1030	960	72	5	57x24	410	720
900	40	1250	1140	1070	80	4,5	57x28	460	790
1000	40	1360	1250	1180	85	5	57x28	460	790
1200	40	1575	1460	1380	95	5	62x32	500	860

*Please contact us for other diameters and pressure values.

Telescopic Type Dismantling Joints

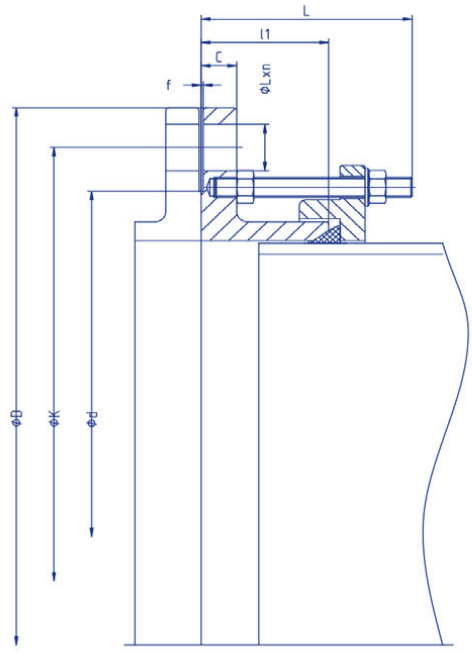


Technical Details

DN	L1	e
100	300	40
125	300	40
150	300	40
200	300	40
250	350	50
300	350	50
350	350	50
400	380	50
450	380	50
500	380	50
600	380	50
700	380	50
800	380	50
900	380	50
1000	380	50
1200	400	50
1400	400	50
1600	400	50
1800	450	50
2000	450	50
2200	450	50

*Please contact us for other material requests.

Flange Adapter
Dismantling Joints



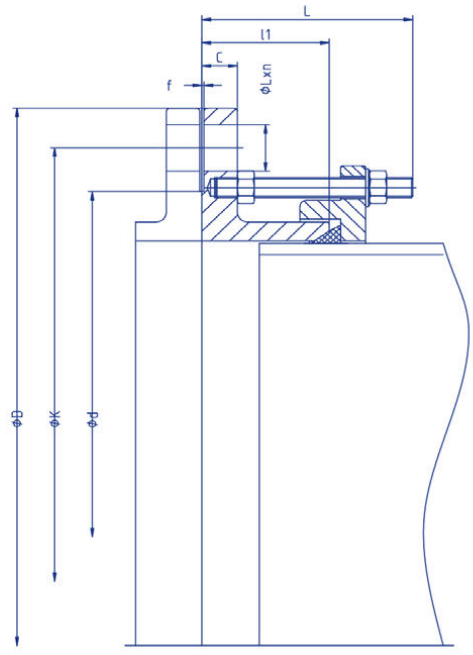
PN-10

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	Pipe Diameter
50	10	165	125	99	19	3	19x4	105	75	60,3
65	10	185	145	118	19	3	19x4	105	75	76,1
80	10	200	160	132	19	3	19x8	110	75	89
100	10	250	180	156	19	3	19x8	120	75	114
125	10	250	210	184	19	3	19x8	135	75	140
150	10	285	240	211	19	3	23x8	135	75	168
200	10	340	295	266	20	3	23x8	135	75	219
250	10	395	350	319	22	3	23x12	140	75	273
300	10	445	400	370	25	4	23x12	135	75	324
350	10	605	460	429	25	4	23x16	150	85	355,6
400	10	565	515	480	25	4	28x16	150	100	407
500	10	670	620	582	27	4	28x20	165	100	508
600	10	780	725	682	30	5	31x20	165	100	610
700	10	895	840	794	33	5	31x24	165	100	711
800	10	1015	950	901	35	5	34x24	165	100	812,8
900	10	1115	1050	1001	38	5	34x28	180	115	914,4
1000	10	1230	1160	1112	40	5	37x28	180	115	1016

*Please contact us for other diameters and pressure values.

Flange Adapter
Dismantling Joints



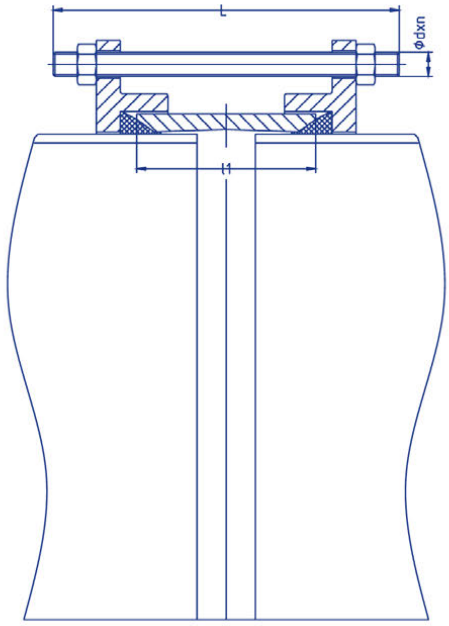
PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn	L	L1	Pipe Diameter
50	16	165	125	99	19	3	19x4	105	75	60,3
65	16	185	145	118	19	3	19x4	105	75	76,1
80	16	200	160	132	19	3	19x8	110	75	89
100	16	220	180	156	19	3	19x8	120	75	114
125	16	250	210	184	19	3	19x8	135	75	140
150	16	285	240	211	19	3	23x8	135	75	168
200	16	340	295	266	20	3	23x12	135	75	219
250	16	405	355	319	22	3	28x12	140	75	273
300	16	460	410	370	25	4	28x12	135	75	324
350	16	520	470	429	27	4	28x16	150	85	355,6
400	16	580	525	480	28	4	31x16	150	100	407
500	16	715	650	609	32	4	34x20	165	100	508
600	16	840	770	720	36	5	37x20	165	100	610
700	16	910	840	794	40	5	37x24	165	100	711
800	16	1025	950	901	43	5	41x24	165	100	812,8
900	16	1125	1050	1001	47	5	41x28	180	115	914,4
1000	16	1255	1170	1112	40	5	44x28	180	115	1016

*Please contact us for other diameters and pressure values.

Flexible Coupling
Dismantling Joints

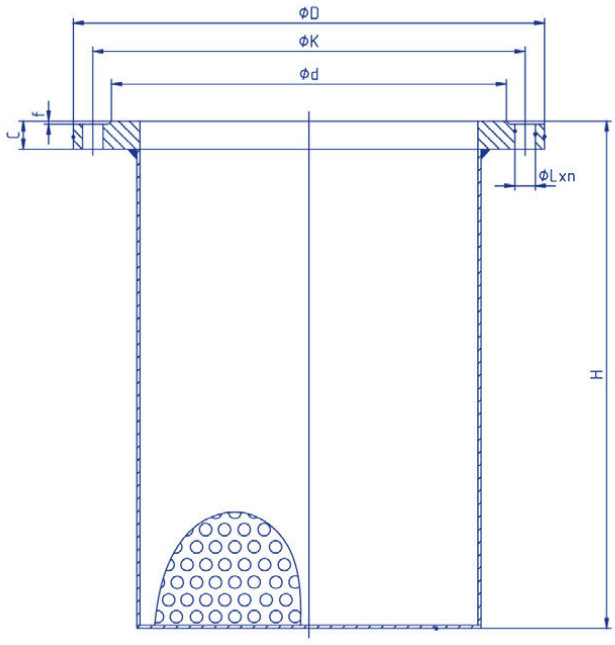


Technical Details

DN	L	L1	dxn
80	190	100	M12x4
100	190	100	M12x4
125	190	100	M12x4
150	210	100	M16x4
200	210	100	M16x4
250	210	100	M16x6
300	210	100	M16x6
350	270	150	M16x8
400	270	150	M16x8
450	260	150	M16x10
500	270	150	M16x10
600	270	150	M16x10
700	270	150	M16x12
800	290	150	M20x14
900	290	150	M20x14
1000	350	180	M20x14
1200	350	180	M20x16
1400	350	180	M20x20
1500	350	180	M20x20
1600	350	180	M24x24

*Please contact us for other diameters and pressure values.

Flanged Strainer Basket Dismantling Joints

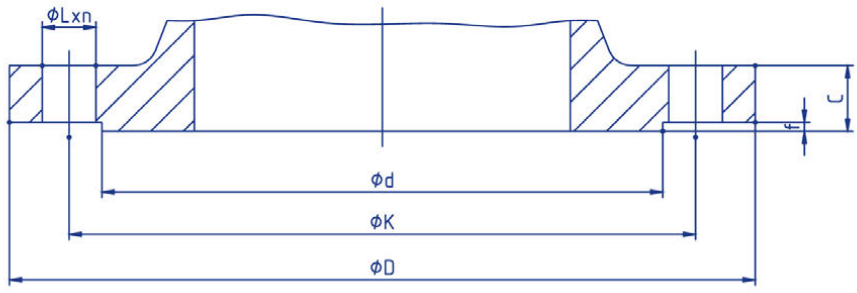


Technical Details

DN	øD	øK	ød	C	f	øLxn	H
100	220	180	156	19	3	19x8	150
125	250	210	184	19	3	19x8	190
150	285	240	211	19	3	23x8	225
200	340	295	266	20	3	23x12	300
250	405	355	319	22	3	28x12	375
300	460	410	370	24,5	4	28x12	450
350	520	470	429	26,5	4	28x16	525
400	580	525	480	28	4	31x16	600
450	640	585	548	30	4	31x20	675
500	715	650	609	31,5	4	34x20	750
600	840	770	720	36	5	37x20	900

*Please contact us for other diameters and pressure values.

Flange Dimensions
Dismantling Joints



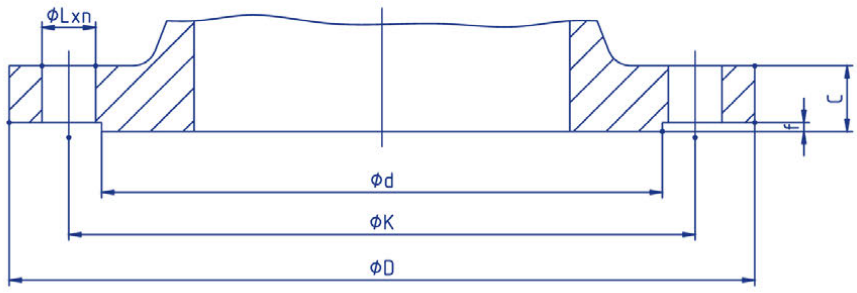
PN-10

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn
50	10	165	125	99	19	3	19x4
65	10	185	145	118	19	3	19x4
80	10	200	160	132	19	3	19x8
100	10	220	180	156	19	3	19x8
125	10	250	210	184	19	3	19x8
150	10	285	240	211	19	3	23x8
200	10	340	295	266	20	3	23x8
250	10	405	350	319	22	3	23x12
300	10	460	400	370	24,5	4	23x12
350	10	505	460	429	24,5	4	23x16
400	10	565	515	480	24,5	4	28x16
450	10	615	565	530	25,5	4	28x20
500	10	670	620	582	26,5	4	28x20
600	10	780	725	682	30	5	31x20
700	10	895	840	794	32,5	5	31x24
800	10	1015	950	901	35	5	34x24
900	10	1115	1050	1001	37,5	5	34x28
1000	10	1230	1160	1112	40	5	37x28
1100	10	1355	1270	1218	53,5	5	37x32
1200	10	1455	1380	1328	45	5	41x32
1300	10	1585	1490	1432	59	5	42x32
1400	10	1675	1590	1530	46	5	44x36
1500	10	1785	1700	1640	47	5	44x36
1600	10	1915	1820	1750	49	5	50x40
1800	10	2115	2020	1950	52	5	50x44
2000	10	2325	2230	2150	55	5	50x48
2200	10	2555	2440	2370	65	6	57x52
2400	10	2760	2650	2570	65	6	56x56
2500	10	2860	2750	2670	65	6	56x56

*Please contact us for other diameters and pressure values.

Flange Dimensions
Dismantling Joints



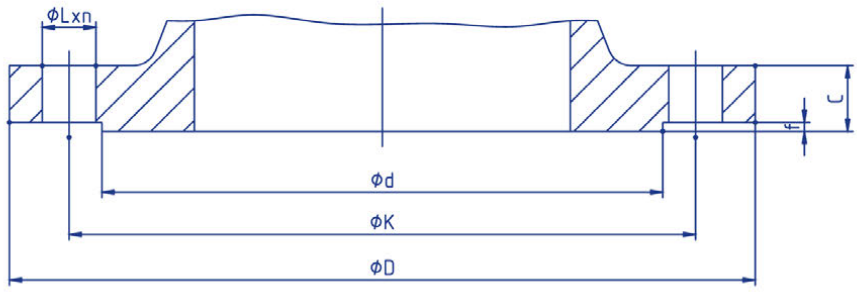
PN-16

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn
50	16	165	125	99	19	3	19x4
65	16	185	145	118	19	3	19x4
80	16	200	160	132	19	3	19x8
100	16	220	180	156	19	3	19x8
125	16	250	210	184	19	3	19x8
150	16	285	240	211	19	3	23x8
200	16	340	295	266	20	3	23x12
250	16	405	355	319	22	3	28x12
300	16	460	410	370	24,5	4	28x12
350	16	520	470	429	26,5	4	28x16
400	16	580	525	480	28	4	31x16
450	16	640	585	548	30	4	31x20
500	16	715	650	609	31,5	4	34x20
600	16	840	770	720	36	5	37x20
700	16	910	840	794	39,5	5	37x24
800	16	1025	950	901	43	5	41x24
900	16	1125	1050	1001	46,5	5	41x28
1000	16	1255	1170	1112	50	5	44x28
1100	16	1355	1270	1218	53,5	5	44x32
1200	16	1485	1390	1328	57	5	50x32
1300	16	1585	1490	1432	59	5	50x32
1400	16	1685	1590	1530	60	5	50x36
1500	16	1820	1710	1640	62,5	5	57x36
1600	16	1930	1820	1750	65	5	57x40
1800	16	2130	2020	1950	70	5	57x44
2000	16	2345	2230	2150	75	5	62x48
2200	16	2555	2440	2360	80	6	62x52
2400	16	2760	2650	2570	64	6	-
2500	16	2890	2750	2870	90	6	-

*Please contact us for other diameters and pressure values.

Flange Dimensions
Dismantling Joints



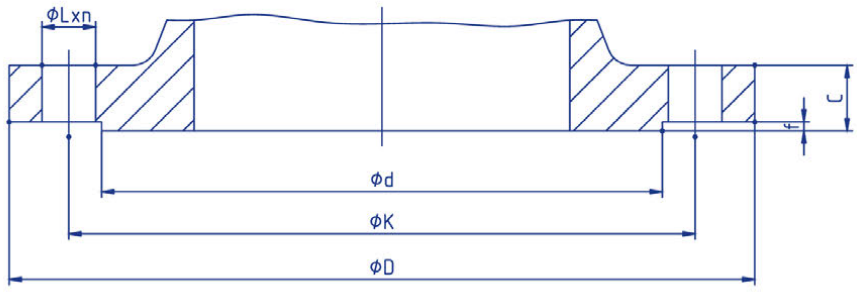
PN-25

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn
50	25	165	125	99	19	3	19x4
65	25	185	145	118	19	3	19x4
80	25	200	160	132	19	3	19x8
100	25	235	190	156	19	3	23x8
125	25	270	220	184	19	3	28x8
150	25	300	250	211	20	3	28x8
200	25	360	310	274	22	3	28x12
250	25	425	370	330	24,5	3	31x12
300	25	485	430	389	27,5	4	31x16
350	25	555	490	448	30	4	34x16
400	25	620	550	503	32	4	37x16
450	25	670	600	548	34,5	4	37x20
500	25	730	660	609	36,5	4	37x20
600	25	845	770	720	42	5	41x20
700	25	960	875	820	46,5	5	44x24
800	25	1085	990	928	51	5	50x24
900	25	1185	1090	1028	55,5	5	50x28
1000	25	1320	1210	1140	60	5	57x28
1100	25	1420	1310	1240	64,5	5	57x32
1200	25	1530	1420	1350	69	5	57x32
1400	25	1755	1640	1560	74	5	62x36
1500	25	1865	1750	1678	77,5	5	62x36
1600	25	1975	1860	1780	81	5	62x40
1800	25	2195	2070	1985	88	5	70x44
2000	25	2425	2300	2210	95	5	70x48
2500	25	3015	2840	2720	92	6	68x60

*Please contact us for other diameters and pressure values.

Flange Dimensions
Dismantling Joints



PN-40

Technical Details

DN	PN	ØD	ØK	Ød	C	f	ØLxn
50	40	165	125	99	19	3	19x4
65	40	185	145	118	19	3	19x4
80	40	200	160	132	19	3	19x8
100	40	25	190	156	19	3	23x8
125	40	270	220	184	23,5	3	28x8
150	40	300	250	211	26	3	28x8
200	40	375	320	284	30	3	31x12
250	40	450	385	345	34,5	3	34x12
300	40	515	450	409	39,5	4	34x16
350	40	580	510	465	44	4	37x16
400	40	660	585	535	48	4	41x16
450	40	685	610	560	49	4	41x20
500	40	755	670	615	52	4	44x20
600	40	890	795	735	58	5	50x20
700	40	995	900	840	64	5	50x24
800	40	1140	1030	960	72	5	57x24
900	40	1250	1140	1070	80	5	57x28
1000	40	1360	1250	1180	88	5	57x28
1200	40	1575	1460	1380	95	5	62x32
1400	40	1795	1680	160	105	5	62x36
1600	40	2025	1900	1815	120	5	70x40
1800	40	2240	2110	2010	165	5	70x48

*Please contact us for other diameters and pressure values.

Material Features and Standard Comparison

Steel

Material	Material No	DN	British	America	Japan
S 235JR	1.0037	1.0037 (St 37-2)	37/23 HR	1015 (SAE)	STKM 12A

Chemical Analysis

C		Mn		P		S		N	
min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %
0	0,17	0	1,40	0	0,045	0	0,045	0	0,009

Stainless Steels

Material	Material No	DN	British	America	Japan
X20Cr13	1.4021	X20Cr13	420 S 37	420 (AISI)	SUS 420J1

Chemical Analysis

C		Si		Mn		P		S		Cr	
0,16	0,25	0	1,00	0	1,50	0	0,040	0	0,015	12,0	14,0

Material	Material No	DN	British	America	Japan
X5CrNi18-10	1.4301	X5CrNi18-10	304 S 15	304 (AISI)	SUS 304

Chemical Analysis

C		Si		Mn		P		S		Cr		Ni		N	
min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %
0	0,070	0	1,0	0	2,00	0	0,045	0	0,015	17,0	19,5	8,00	10,5	0	0,11

Material	Material No	DN	British	America	Japan
X5CrNiMo17-12-2	1.4401	X5CrNiMo17-12-2	316 S 16	316 (AISI)	SUS 316

Chemical Analysis

C		Si		Mn		P		S		Cr		Mo		Ni		N	
min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %
0	0,070	0	1,00	0	2,00	0	0,045	0	0,015	16,5	18,5	2,0	2,50	10,0	13,0	0	0,11

Material	Material No	DN	British	America	Japan
X5CrNiMoN22-5-3	1.4462	X5CrNiMoN22-5-3	318 S 13	2205	SUS 329J3L

Chemical Analysis

C		Si		Mn		P		S		Cr		Mo		Ni		N	
min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %	min. %	max. %
0	0,030	0	1,00	0	2,00	0	0,035	0	0,015	21,0	23,0	2,50	3,50	4,50	6,50	0,10	0,22

Ductile Iron Castings

Material	Material No	DN	Tensile Tension N / mm min.	Yield Tension N / mm min.	Elongation % min.
EN-GJS-400-15	EN-JS 1030	GGG 40	400	250	15
EN GJS-500-7	EN-JS 1050	GGG 50	500	320	7

Cast Iron Castings

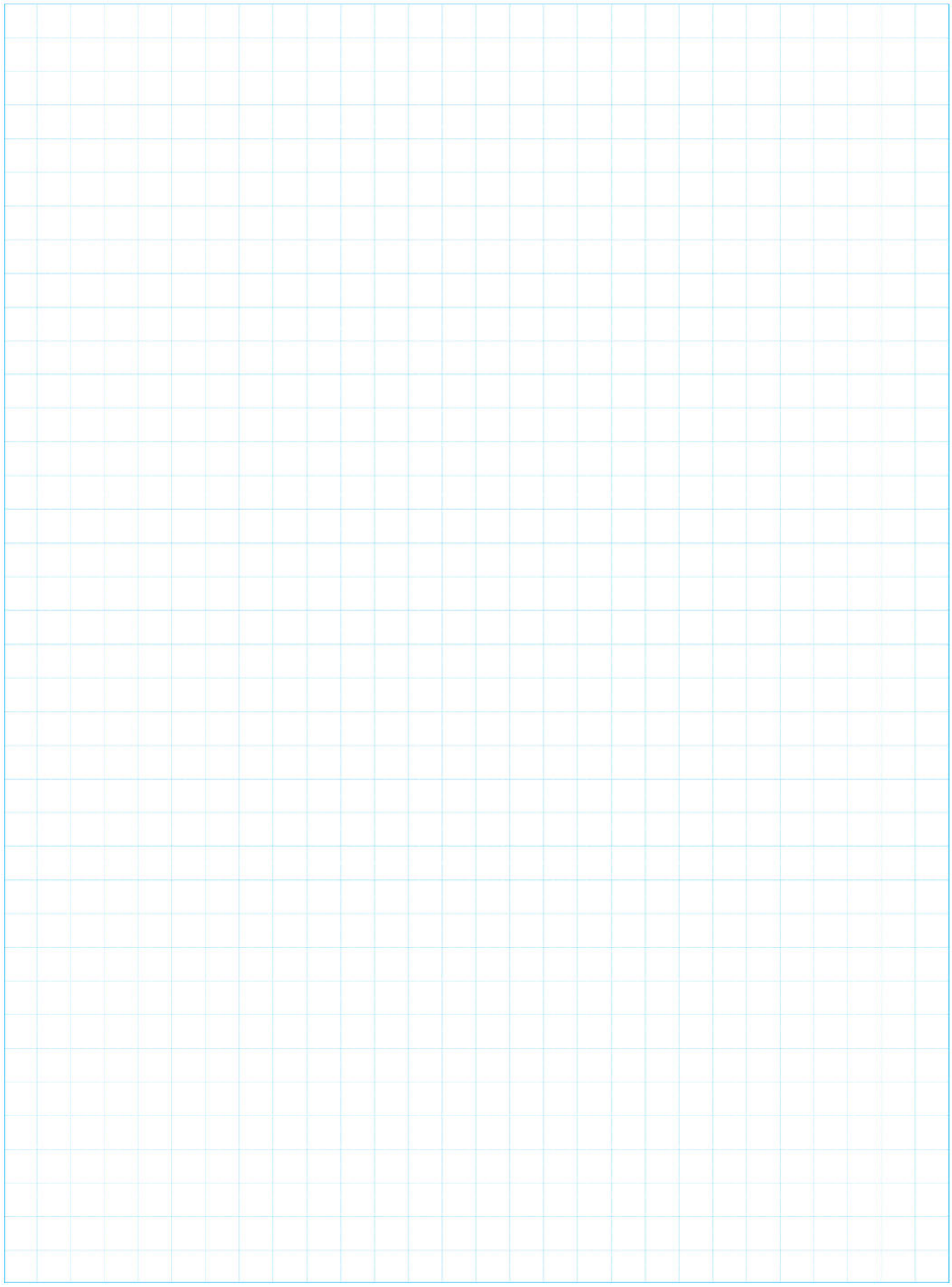
Material	Material No	DN	Tensile Tension N / mm min.
EN-GJL-250	EN-JL 1040	GG 25	250-350

Bolt
Torque Information

Bolt Class		3.6	4.6	4.8	5.6	5.8	6.8	8.8	10.9	12.9
Bolt Size	Key Openings	Torque Nm.	Torque Nm.	Torque Nm.	Torque Nm.	Torque Nm.	Torque Nm.	Torque Nm.	Torque Nm.	Torque Nm.
M4	7	0.85	11	1.5	1.4	1.9	23	29	4.1	49
M5	9	1.7	2.2	3.0	2.8	3.7	4.5	6.0	8.5	10
M6	10	2.9	3.8	5.1	4.8	6.4	7.7	10	14	17
M8	13	7.0	9.3	12	12	16	19	25	35	41
M10	17	14	19	25	23	31	37	49	69	83
M12	19	24	32	43	40	54	65	86	120	145
M14	22	39	51	68	64	86	105	135	190	230
M16	24	59	79	105	98	130	155	210	295	355
M18	27	81	110	145	135	180	215	290	405	485
M20	30	115	155	205	190	255	305	410	580	690
M22	32	155	205	275	260	345	415	550	780	930
M24	36	200	265	350	330	440	530	710	1000	1200
M27	41	295	390	520	490	650	780	1050	1500	1800
M30	46	395	530	710	660	880	1050	1450	2000	2400
M33	50	540	720	960	900	1200	1450	1900	2700	3250
M36	55	690	920	1250	1150	1550	1850	2450	3450	4150
M39	60	920	1200	1600	1500	2000	2400	3200	4500	5400
M42	65	1100	1500	1950	1850	2450	2950	3950	5550	6650
M45	70	1400	1850	2450	2300	3100	3700	4950	6950	8350
M48	75	1700	2250	3000	2800	3750	4450	5950	8400	10100
M52	80	2150	2900	3850	3600	4800	5750	7650	10800	12900
M56	85	2700	3600	4800	4500	5950	7150	9550	13400	16100
M60	90	3350	4450	5950	5550	7400	8900	11900	16700	20000
M64	95	4000	5350	7150	6700	8950	10700	14300	20100	24100
M68	100	4850	6500	8650	8100	10800	13000	17300	24300	29100

Note: Torque values are for information.

*Please contact us for other diameters and pressure values.



ÖZKAN

Öz-Kan Makina Elemanları San. ve Tic A.Ş.
10032 Street No:27 Atatürk O.S.B. Çiğli / İzmir, TR
Tel.: +90 (232) 32806 00 Fax: +90 (232) 328 06 09
E-Mail: info@oz-kan.com.tr - oz-kan.com.tr