
esvana®

ESVANA

Water is the most important source for the continuation of life. According to the data of the World Water Day survey 2021, 2.5 billion people in the world do not have access to a clean water source. If effective measures are not taken in water consumption, Türkiye will be among the water poor and water scarce countries in 2030 when increasing population, agricultural and industrial consumption are taken into account. It is possible to obtain and manage efficient and clean water resources with quality water control elements. The founders, who have 30 years of experience in this sector, laid the foundations of ESVANA factory in 2011 and started production with their own brands. ESVANA continues its production without compromising on quality with its wide range of products for the efficient management of water resources in our world. ESVANA continues to work by following the developing technology.

Researches show that water consumption in the world and in our country is intensively used in three main sectors.

Figure 1 - Sectoral Use of Water in the World and Türkiye

Source: Food and Agriculture Organisation of the United Nations 2022
Source: TEMA Sectoral Distribution Chart in Türkiye

ESVANA manufactures high quality water control elements used in drinking water networks, industrial plants and agricultural irrigation in order to increase the efficiency of water distribution in these areas.

OUR MISSION

- To meet the demands of the customers for water control elements according to the project in a high quality, fast, accurate and reliable manner.
- To use the latest technology production methods while providing these services.
- To carry out inspection and acceptance tests in accordance with the standards valid worldwide.
- To monitor and analyse the production innovations in the world in this field and to share them with the employees in order to increase the knowledge and experience of the employees.
- To show an understanding that attaches importance to human health and environmental conditions in the products given to customers.
- To give importance to the products to be efficient, ergonomic, long-lasting and contribute to the economy in Research and Development studies.
- To show the same accuracy in every product produced
- To create a web page for our customers in order for them to get easy information about our production and activities.

OUR VISION

- Striving to be superior to rival companies producing in the same field by continuously developing.
- In order to ensure this superiority, as the executive management, to produce without compromising on quality based on competition.
- To be a manufacturer that is always trusted and respected by our domestic and foreign customers.
- Never underestimating rival companies producing in the same field and not allowing practices that will lead to unfair competition.
- To acquire new domestic and foreign customers, to satisfy the acquired customers and to be always ready to provide production and post-production service.
- To be the first company that comes to mind and the most trusted manufacturer when it comes to equipment used in infrastructure services,
- To deliver the requested products to the customers on time by making all the tests in a fast, high quality and timely manner,
- To understand the demands of customers, to protect their interests and to produce accordingly.

To give importance to quality control at every stage of our production, to give importance to complete, timely, accurate, quality and reliable testing, analysis, measurement, inspection and controls in accordance with standards.

OUR QUALITY POLICY





ESVANA carries out its management approach in accordance with ISO 9001 Quality Management System.
ESVANA attaches importance to the occupational health and safety of factory visitors and employees at every stage of production and management. It continues its proactive efforts to eliminate potential risks related to occupational health and safety, and makes continuous improvements to prevent occupational accidents and occupational diseases. It continues its activities within the scope of ISO 45001 Certificate. ESVANA, which has ISO 14001 Environmental System, attaches importance to environmental policies and continues recycling gains within the scope of zero waste project.

ESVANA PRODUCTION

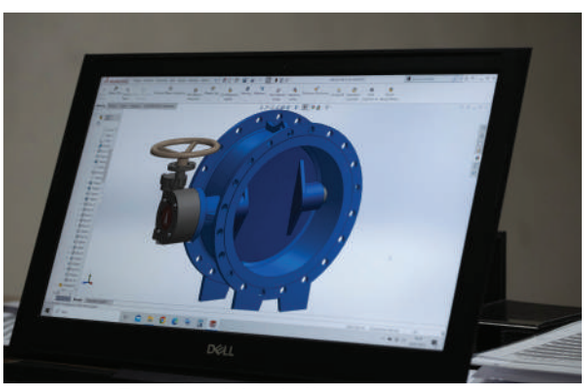
The production of our products; starting from design, modelling, moulding, ductile iron casting, machining, pre-coating and coating operations are all carried out within ESVANA. Quality is of utmost importance at every stage of production, every part produced is checked for compliance with the production processes. Our factory is equipped with the capacity to produce and test all valves up to DN40- DN2400 diameter range, PN10-PN 40 pressure class.


PRODUCTION CAPACITY

In our factory with a total area of 16 000m2, including 12 000m2 closed and 4 000m2 open area, we produce products that meet the needs of our customers with our more than 100 experienced staff. We produce approximately 10 000 valves with an average of three thousand tonnes of raw materials per year.

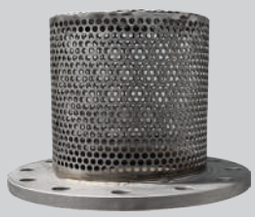
R&D ANALYSIS AND SIMULATION

Our factory carries out quality controls by using the latest technology devices with the laboratory established within our factory. It attaches importance to continuous innovation and development in production by analysing its designs with CFD (Computational Fluid Dynamics) software in its R&D unit. It performs dimensional controls of the produced parts at the CMM (Coordinate Measuring Machine) centre and ensures that the production quality continues to increase. All parts are subjected to quality control until the assembly stage and traceability is ensured with the ERP (Enterprise Resource Planning) system. The assembled products are subjected to hydraulic tests and made ready for product acceptance.



Design Modelling

CMM Measurement



FLOW TESTS

Flow characteristic (Kv) measurements and cavitation monitoring tests of the valves are carried out in our factory in accordance with TS EN 1267 standard up to diameters up to and including DN 40-DN 350. Experiments on the flow characteristics of butterfly valves, check valves, gate valves, needle valves and pressure control valves are carried out in practice and the agreement with CFD analyses is compared. According to these results, our R&D unit develops its designs.

Bending Resistance Test Setup


TS EN 1267 Kv Measuring Device

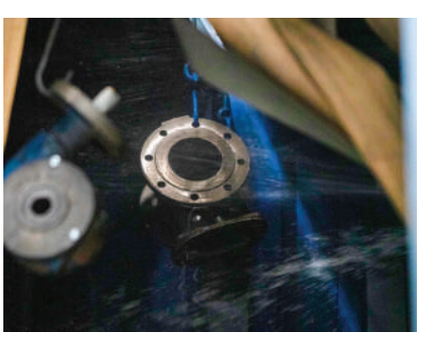

Layout Operation Interface


Kv Calculation Table

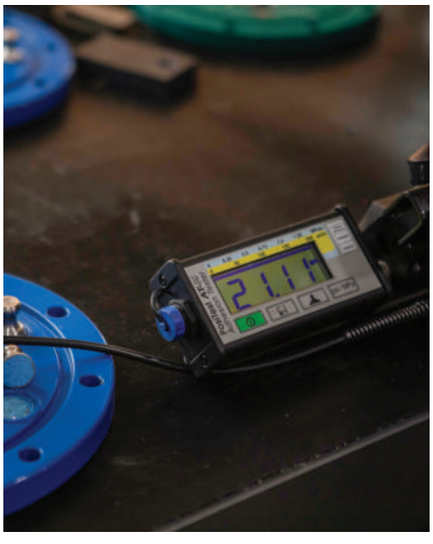
PAINT AND CONTROL SYSTEM

Our products are coated with thermoplastic epoxy powder paint (Wras approved) in accordance with the material data sheet of the coating manufacturer in accordance with the standards.


Steel Grid Sandblasting Sa2.5 Surface quality


Chemical Washing (Passivation)

POST-PAINT TESTS



Pull-Off Adhesion Test

Spark (Holiday) Test

Coating Thickness Measurement

TYPE TESTS PERFORMED IN ESVANA FACTORY AND COMPLIANCE WITH STANDARDS

Gate valves, butterfly valves, non-return (check valve) valves, pressure control valves, plunger (needle) valves are tested in accordance with TS EN 1267 standard with the flow coefficient Kv measurement test setup in valves.

Coating tests:

Buchholz hardness test according to TS 6037 EN ISO 2815 standard,
Coating impact test according to DIN 30677-2 or TS EN 14901 standard,
Non-porosity (holiday-spark) test according to TS EN ISO 29601 standard,
Internal pressure resistance and tightness test according to TS EN 1074-1 standard,
Pressure resistance test of the closing element (flap) according to TS EN 1074-1 standard,
Tightness test of the closing element (flap) according to TS EN 1074-1 standard,
Bending resistance test according to TS EN 1074-1 standard,
Elastomer gasket (EPDM) permanent crush test according to TS 4595 ISO 815 standard,
Resistance test against disinfection products according to TS EN 1074-1 and TS EN 805 standards,
The highest moment type test for operation and sealing is performed according to TS EN 1074-2 standard.

PRODUCTS

10

HAND OPERATED BUTTERFLY VALVE

14

HYDRAULIC CHECK BUTTERFLY VALVE

16

NEEDLE VALVE

20

TILTING CHECK VALVE

26

HYDRAULIC NON-RETURN VALVE

30

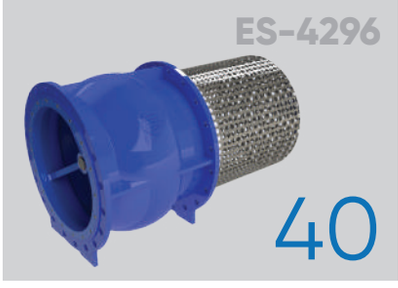
SWING CHECK VALVE

34

NOZZLE CHECK VALVE

38

FLAPPER



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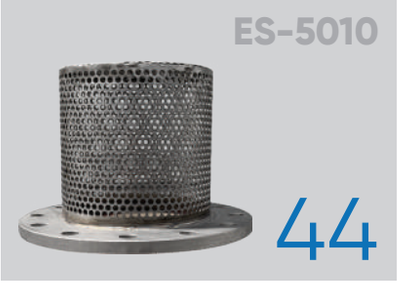
FOOT VALVE



44

CREPINE (STAINER)

46

GATE VALVE

50

DYNAMIC TRIPLE FUNCTION AIR RELEASE VALVE


54
DOUBLE ORIFICE AIR VALVE


56
SINGLE ORIFICE AIR VALVE


58
Y TYPE DIRT TRAP


ES-4257
62
BASKET TYPE DIRT TRAP


ES-4240
64
DISMANTLING JOINTS


ES-4250
66
ABOVE GROUND FIRE HYDRANT


ES-5013
68
FIRE HYDRANT CONNECTION HEEL

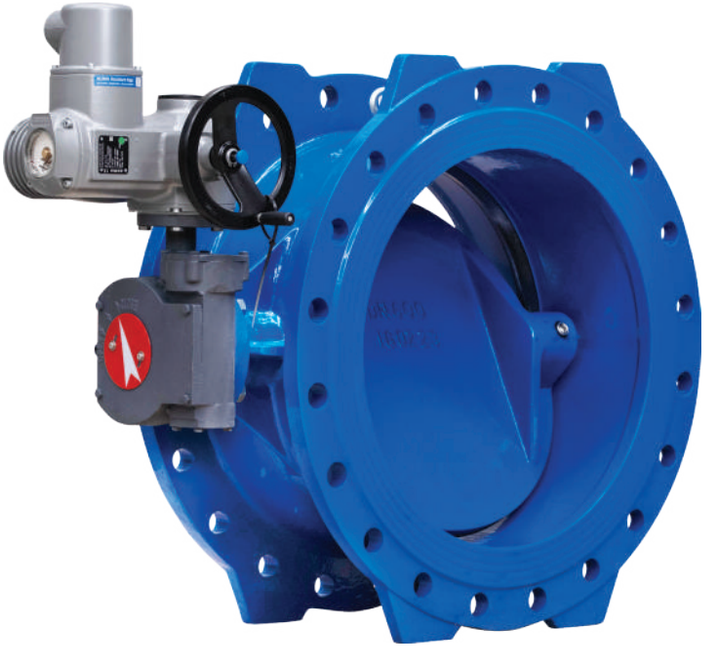

ES-4252
70
BREAKABLE ABOVE GROUND FIRE HYDRANT


ES-4255
72
PRESSURE CONTROL VALVES

HAND OPERATED BUTTERFLY VALVE

01

ACTUATED BUTTERFLY VALVE



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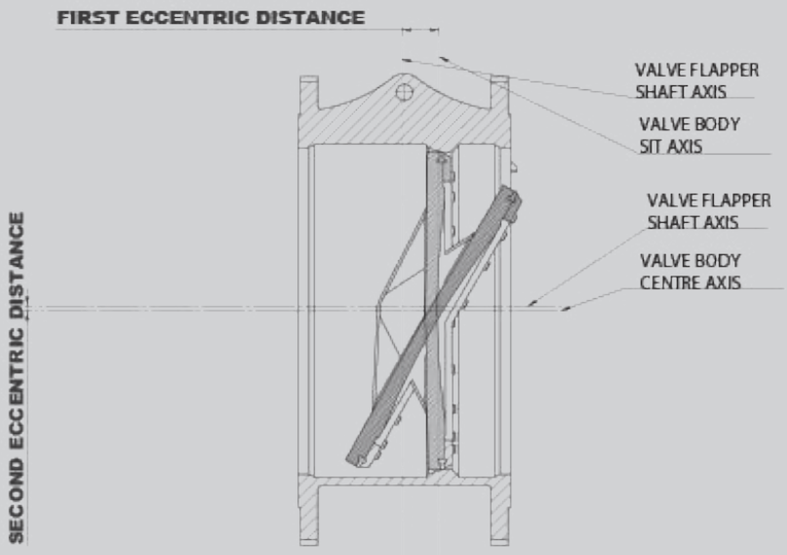


DOUBLE ECCENTRICITY

USAGE AREAS

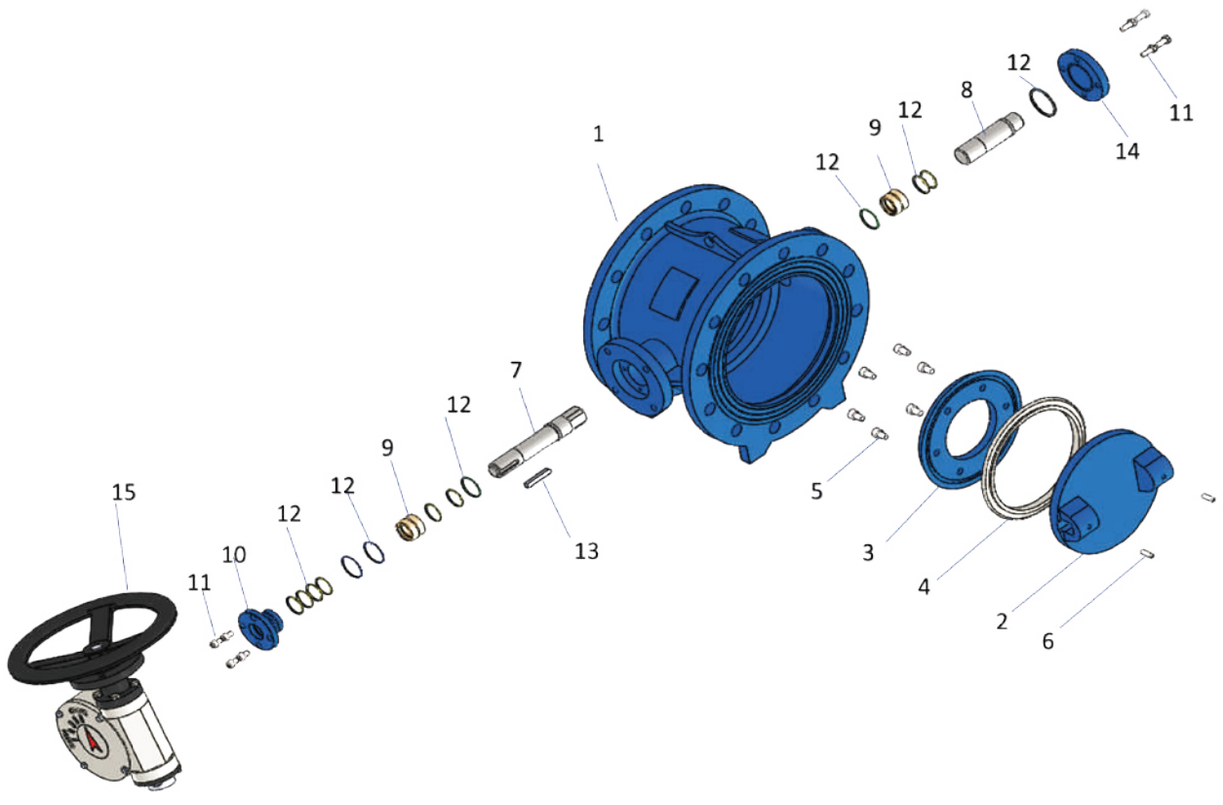
- Pipe Lines
- Industrial Applications
- Treatment Plants
- Warehouse Entry and Exit
- Pump Stations

GENERAL INFORMATION

Manufactured with double flanged and double eccentric design. The flaps are made of the same material as the body and the flap ears are closed, the flap shaft sealing is fully ensured and corrosion formation in moving parts is prevented. This ensures long life with minimum maintenance. Flap seal sealing pressure plate is manufactured as stainless steel upon request. All bolts and nuts are stainless steel on surfaces in contact with water. The seat surface where the flap sealing gasket is located on the body is filled with stainless steel filler weld and processed at an angle to ensure full closure. The surface is polished to bring the surface roughness to N6(0.8^m). With the double eccentric design, the sealing gasket is not damaged during opening and closing and the operating torque values are minimised. First eccentricity moves the sealing axis out of the flap shaft axis. This clearance ensures full contact between the sealing gasket and the body site. The eccentricity moves the flapper shaft axis out of the valve axis. With this misalignment, the body is separated from the seat with a small movement in the direction of opening the flapper and the friction of the gasket against the seating surface is eliminated. All our butterfly valves have an actuator connection flange. With the specially designed gear box, opening and closing is done at low torque values, the gear box can be driven by the actuator when desired. Our gearboxes have IP 68 protection class. The flow coefficients (Kv) of butterfly valves are calculated with CFD software. Flow coefficients including diameter (DN 100 - DN 350) can be measured in our test setup (DN 100 - DN 350) in accordance with TS EN 1267 standard installed in our factory.

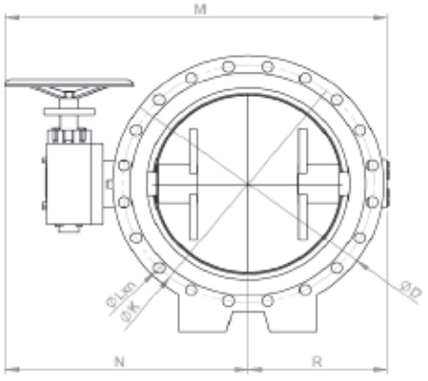
Design: TS EN 593 and EN 558 series 14
Flange connections: EN 1092-2
Pressure class: PN 10-16-25-40
Nominal Diameters: DN 100-DN 2400
Operating Temperature: According to TS EN 1074
Factory Tests: TS EN 1074, TS EN 12266

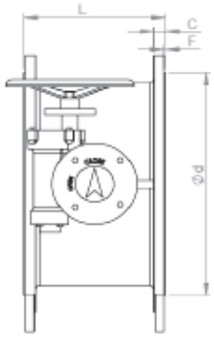
MATERIAL SPECIFICATIONS

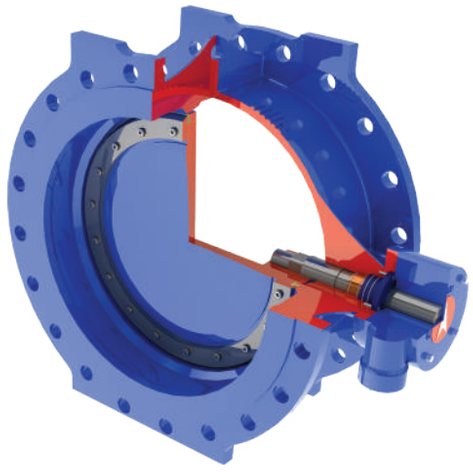


PART NO.	PART NAME	MATERIAL
1	BODY	GGG 40-50
2	FLAPPER	GGG40- 50
3	FLAPPER COVER	ST37/SS304
4	FLAPPER GASKET	EPDM
5	COVER BOLT	A2-70
6	STAY BOLT	A2-70
7	LONG SHAFT	X20CR13/316L
8	SHORT SHAFT	X20CR13/316L
9	BUSHING	BRONZ
10	THROAT COVER	GGG 40-50
11	COVER BOLT	A2-70/8.8
12	O-RING	EPDM
13	WEDGE	CK45
14	BLIND COVER	GGG40- 50
15	REDUCER	

TECHNICAL SPECIFICATIONS





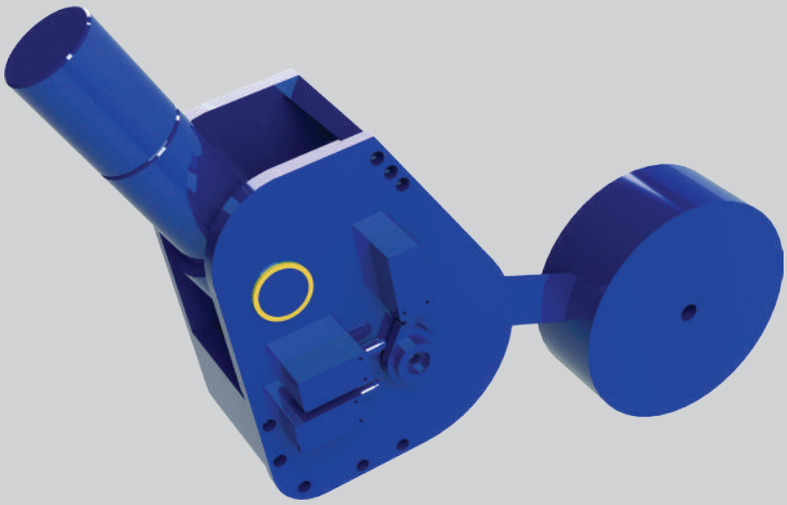


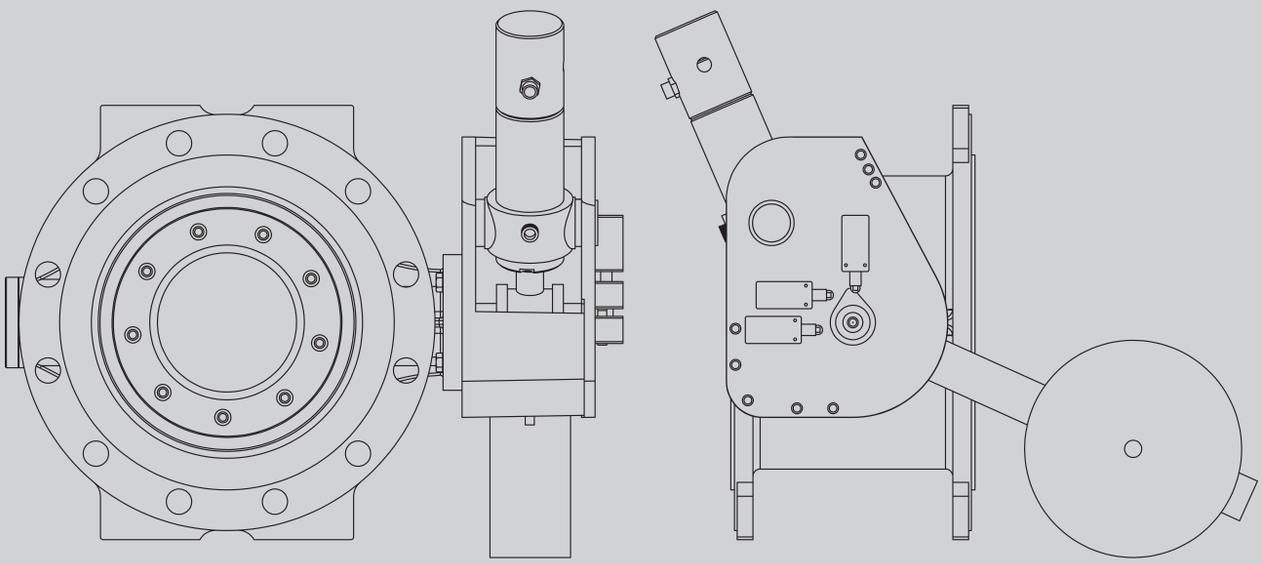
DN	L	M	N	R	F	PN 10						PN 16						DN	L	M	N	R	F	PN 25					PN 40				
						ØD	ØK	Ød	C	ØLxn	KG	ØD	ØK	Ød	C	ØLxn	KG							ØD	ØK	Ød	C	ØLxn	ØD	ØK	Ød	C	ØLxn
100	190	395	275	120	3	220	180	156	19	19x8	17	220	180	156	19	19x8	17	100	190	435	300	135	3	235	190	156	19	23x8	235	190	156	19	23x8
125	200	435	295	140	3	250	210	184	19	19x8	32	250	210	184	19	19x8	32	125	200	465	325	140	3	270	220	184	19	28x8	270	220	184	23,5	28x8
150	210	465	305	160	3	285	240	211	19	23x8	45	285	240	211	19	23x8	45	150	210	495	335	160	3	300	250	211	20	28x8	300	250	211	26	28x8
200	230	525	340	185	3	340	295	266	20	23x8	48,5	340	295	266	20	23x12	46,5	200	230	555	365	190	3	360	310	274	22	28x12	375	320	284	30	31x12
250	250	625	400	225	3	405	350	319	22	23x12	71,5	405	355	319	22	28x12	72	250	250	655	430	225	3	425	370	330	24,5	31x12	450	385	345	34,5	34x12
300	270	725	480	245	4	460	400	370	24,5	23x12	96	460	410	370	24,5	28x12	93	300	270	755	510	245	4	485	430	389	27,5	31x16	515	450	409	39,5	34x16
350	290	820	540	280	4	505	460	429	24,5	23x16	136,5	520	470	429	26,5	28x16	145	350	290	850	560	290	4	555	490	448	30	34x16	580	510	465	44	37x16
400	310	880	580	300	4	565	515	480	24,5	28x16	165,5	580	525	480	28	31x16	162	400	310	910	600	310	4	620	550	503	32	37x16	660	585	535	48	41x16
450	330	920	595	325	4	615	565	530	25,5	28x20	211,5	640	585	548	30	31x20	207	450	330	950	620	330	4	670	600	548	34,5	37x20	685	610	560	49	41x20
500	350	965	620	345	4	670	620	582	28,5	28x20	219	715	650	609	31,5	34x20	262,5	500	350	1005	650	355	4	730	660	609	36,5	37x20	755	670	615	52	44x20
600	390	1090	660	430	5	780	725	682	30	31x20	281	840	770	720	36	37x20	372	600	390	1140	700	440	5	845	770	720	42	41x20	890	795	735	58	50x20
700	430	1245	765	480	5	895	840	794	32,5	31x24	574	910	840	794	39,5	37x24	580	700	430	1295	795	500	5	980	875	820	46,5	44x24	995	900	840	64	50x24
800	470	1345	800	545	5	1015	950	901	35	34x24	710	1025	950	901	43	41x24	719	800	470	1395	840	555	5	1085	990	928	51	50x24	1140	1030	960	72	57x24
900	510	1510	935	575	5	1115	1050	1001	37,5	34x28	743,5	1125	1050	1001	46,5	41x28	810	900	510	1560	980	580	5	1185	1090	1028	55,5	50x28	1250	1140	1070	80	57x28
1000	550	1650	1000	650	5	1230	1160	1112	40	37x28	798	1255	1170	1112	50	44x28	1268	1000	550	1700	1040	660	5	1320	1210	1140	60	57x28	1360	1250	1180	95	57x28
1100	590	1835	1080	755	5	1355	1270	1218	42,5	37x32		1355	1270	1218	53,5	44x32		1100	590	1890	1120	770	5	1420	1310	1240	64,5	57x32					
1200	630	1935	1140	795	5	1455	1380	1328	45	41x32		1485	1390	1328	57	50x32		1200	630	1990	1140	850	5	1530	1420	1350	69	57x32	1575	1460	1380	95	62x32
1300	670	2015	1170	845	5	1585	1490	1432	45	42x32		1585	1490	1432	59	50x32		1300	670	2075	1220	855	5	1640	1530	1455	74	62x32					
1400	710	2150	1235	915	5	1675	1590	1530	46	44x36		1685	1590	1530	60	50x36		1400	710	2210	1285	925	5	1755	1640	1580	74	62x36	1785	1680	1600	105	62x36
1500	750	2350	1340	1010	5	1820	1700	1640	47	44X36		1820	1710	1640	62,5	57X36		1500	750	2410	1400	1010	5	1865	1750	1678	77,5	62X36					
1600	790	2390	1360	1030	5	1915	1820	1750	49	50X40		1930	1820	1750	65	57X40		1600	790	2450	1420	1030	5	1975	1860	1780	81	62X40	2025	1900	1815	120	70X40
1800	870	2560	1450	1110	5	2115	2020	1950	52	50X44		2130	2020	1950	70	57X44		1800	870	2620	1490	1130	5	2195	2070	1985	88	70X44	2240	2110	2010	165	70X48
2000	950	3015	1780	1235	5	2325	2230	2150	55	50X48		2345	2230	2150	75	62X48																	

L= Forehead to forehead length	ØD= Flange outer diameter		ØK= Flange hole centre
Ød= Flange raised face diameter	C= Flange thickness	F= Flange raised face thickness	ØLxn= Hole diameter x quantity

HYDRAULIC CHECK BUTTERFLY VALVE 02

ES-4212





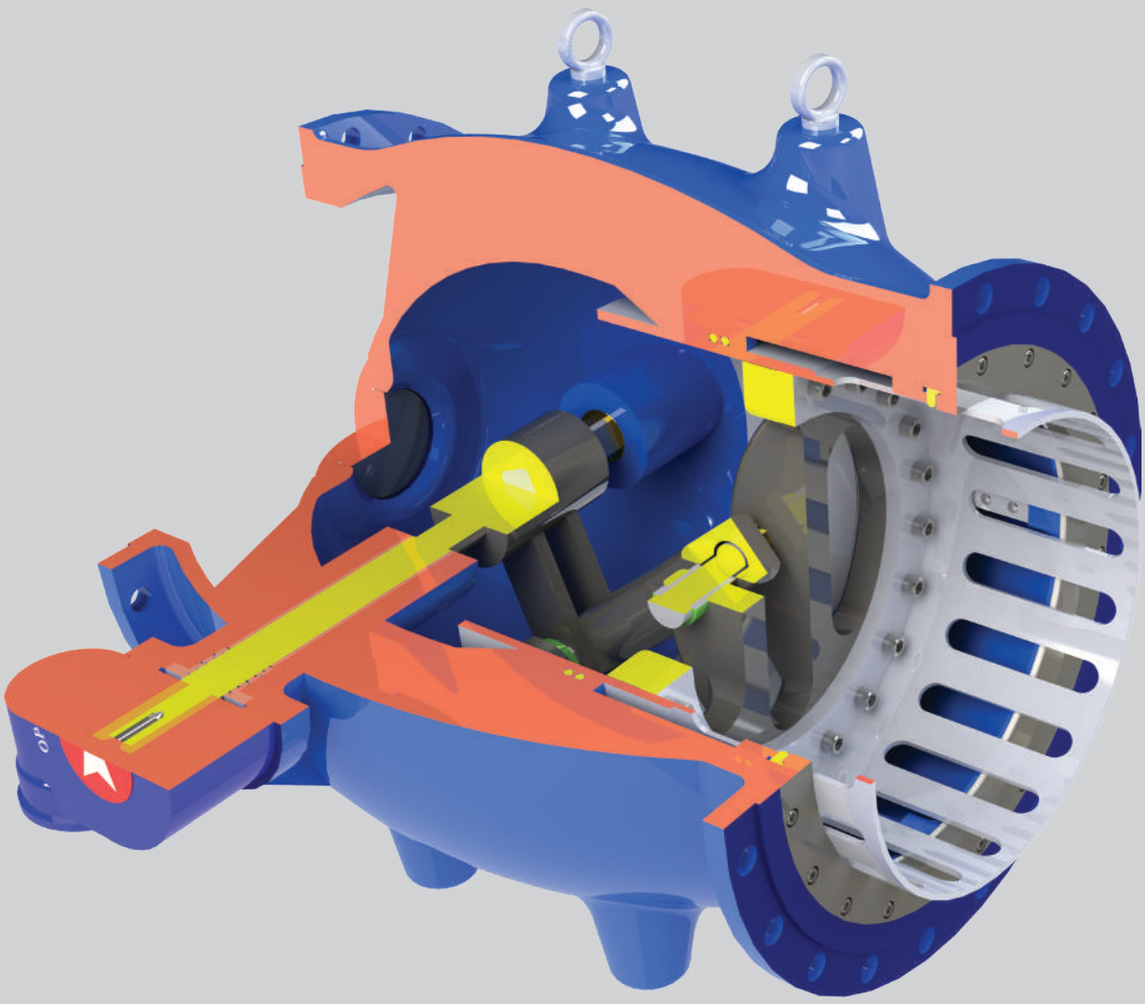
GENERAL INFORMATION

Hydraulic operated check butterfly valves fulfil the functions of hydraulically operated butterfly valves and hydraulic brake check valves. These valves are designed for pulse-free and noise-free operation of the pumps. The valve is driven by a hydraulic power unit. When the pump starts to operate, the valve starts to open with the activation of the hydraulic unit. It saves energy by supporting the pump to start without load. When the pump starts to stop, it starts to close and when it is fully closed, the pump stops. Switching on and off is done automatically. If the pump stops for any reason at the pumping station, the valve closes like a hydraulically braked check valve with the help of a counterweight. Switch on and switch off time can be adjusted independently according to the operating conditions. In case of emergencies, there is a manually operated lever pump in the hydraulic power unit to control the valve.

NEEDLE VALVE

03

ES-4299



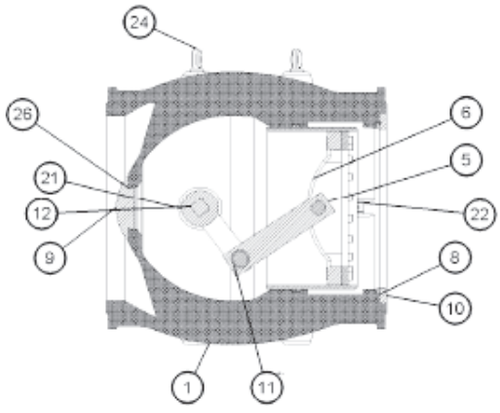
GENERAL INFORMATION

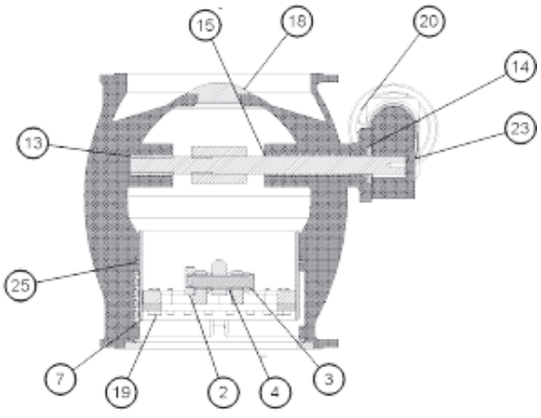
The piston is axially mounted in the body. The cross-sectional area of the flow changes with the linear movement of the piston. The piston converts the circular drive movement coming from the gearbox into linear movement with the crank-connector mechanism, and the flow rate is controlled by the linear movement of the piston. Needle valves can be converted into Hydraulic Operated Check Needle Valve by adding hydraulic control according to the project. Hydraulically controlled check needle valves prevent damage to the equipment as they can react quickly in the start-up or sudden stops of the pumps. Switch on and switch off times can be adjusted according to project conditions. The hydraulic drive system is designed in the most efficient way according to the operating conditions in the pipelines.

USAGE AREAS

Warehouse Evacuation Applications
Warehouse Water Inlets
Over Speed Control Safety Valves
Treatment Plants Inlet Valve
Pressure and Flow Adjustment Valve
By-pass Valves

MATERIAL SPECIFICATIONS



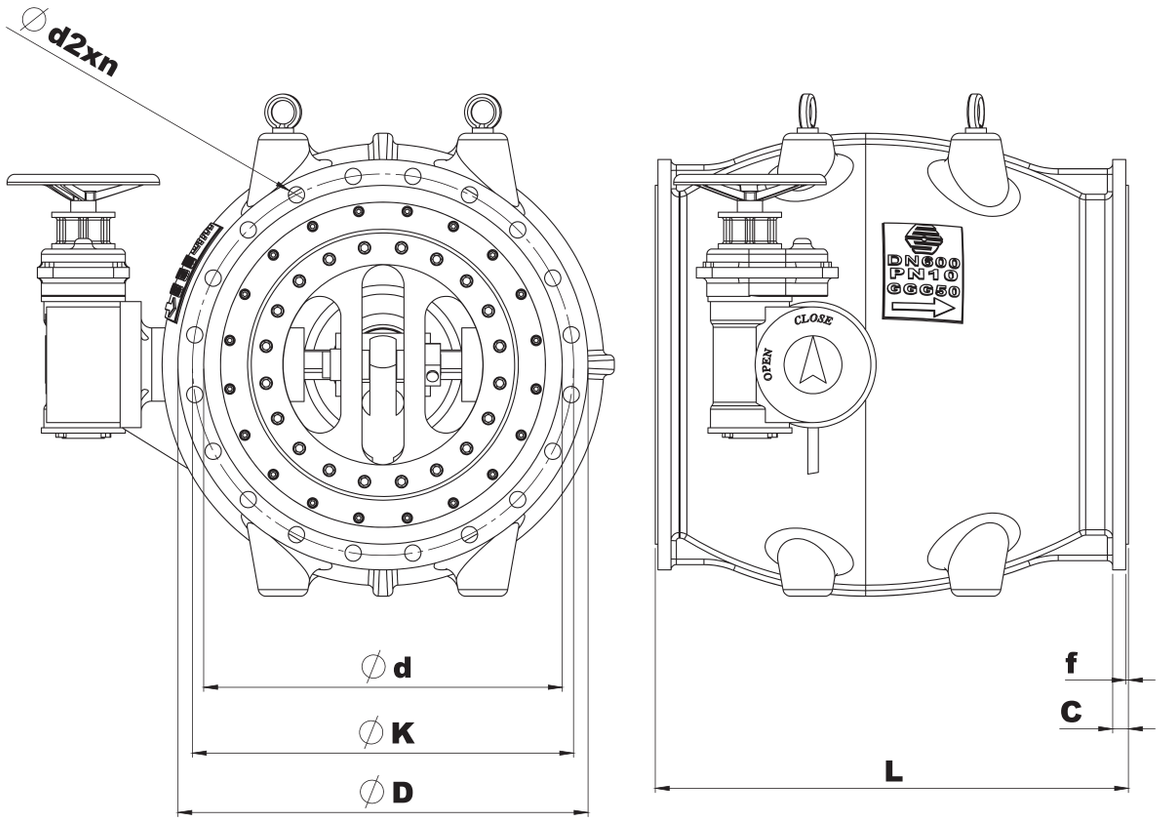


DESIGN FEATURES

1- Housing with a design that improves flow diversion, minimised pressure and flow loss in the fully open position
2- Monolithic cast body
3- Long life due to the operation of the sealing ring in the cavitation-free zone
4- Bearing of the drive shaft with double-sided bushings does not require maintenance and repair
5- Stainless steel mechanism
6- Bronze piston guides with high wear and corrosion resistance
7- Double O-ring sealing design
8- Optional energy breaking cage for cavitation-free control/adjustment
9- Easily replaceable sealing ring in the field without special tooling requirements
10- Electrostatic thermoplastic powder epoxy paint

PART NO	PART NAME	MATERIAL
1	NEEDLE VALVE BODY	EN GJS400-15 / EN GJS500-14
2	NEEDLE VALVE CLAMP PIN NUT	A2-80
3	NEEDLE VALVE CLAMP PIN	304 / 316
4	NEEDLE VALVE CLAMP PIN BUSHING	BRONZED
5	NEEDLE VALVE COUPLING REDUCER TRANSMISSION SHAFT	304 / 316
6	NEEDLE VALVE CLAMP	EN GJS400-15 / EN GJS500-14/ 304 / 316
7	NEEDLE VALVE CLAMP PLATE	304 / 316
8	NEEDLE VALVE CLAMP GASKET	EPDM
9	NEEDLE VALVE BLIND COVER	304 / 316
10	NEEDLE VALVE PRESSURE PLATE	ST37/ 304 / 316
11	NEEDLE VALVE COUPLING REDUCER TRANSFER PIN	304 / 316
12	NEEDLE VALVE COUPLING REDUCER SHAFT	304 / 316
13	NEEDLE VALVE BACK BUSHING	BRONZED
14	NEEDLE VALVE FRONT THROAT COVER	EN GJS400-15 / EN GJS500-14
15	NEEDLE VALVE FRONT BUSHING	BRONZED
17	NEEDLE VALVE BODY PRESSURE PLATE CONNECTION BOLT	A2-80
18	NEEDLE VALVE BODY BLIND COVER CONNECTION BOLT	A2-80
19	PISTON CONNECTION BOLT WITH NEEDLE VALVE CLAMP	A2-80
20	NEEDLE VALVE FLYWHEEL	EN GJS400-15 / EN GJS500-14
21	NEEDLE VALVE COUPLING REDUCER TRANSFER JOINT	304 / 316
22	NEEDLE VALVE SLIDEWAY	BRONZED
23	NEEDLE VALVE REDUCER	
24	NEEDLE VALVE LIFTING EYEBOLT	GALVANISED
25	NEEDLE VALVE STEM PISTON SEALING O-RING	EPDM
26	NEEDLE VALVE BODY BLIND COVER SEALING O-RING	EPDM

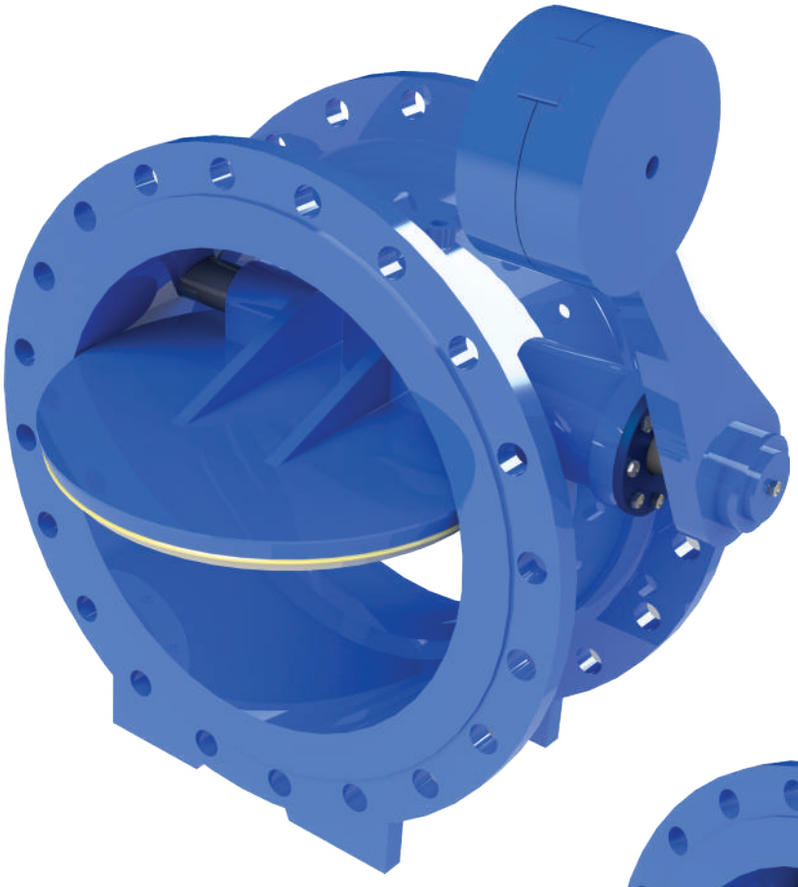
TECHNICAL SPECIFICATIONS

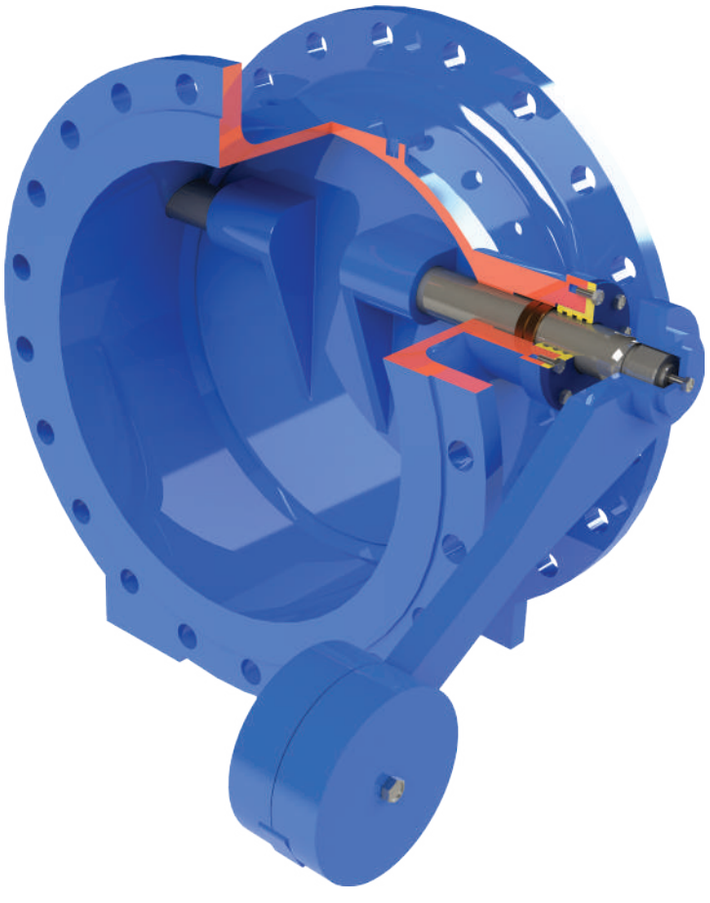


	PN10							PN16							PN25						
DN	ØD	ØK	Ød	Ød2xn	f	C	L	ØD	ØK	Ød	Ød2xn	f	C	L	ØD	ØK	Ød	Ød2xn	f	C	L
200	340	295	266	23x8	3	20	400	340	295	266	23x12	3	20	400	360	310	274	28x12	3	22	400
250	400	350	319	23x12	3	22	450	400	355	319	28x12	3	22	450	425	370	330	31x12	3	24,5	450
300	445	400	370	23x12	4	24,5	500	460	410	370	28x12	4	24,5	500	485	430	389	31x16	4	27,5	500
350	505	460	429	23x16	4	24,5	550	520	470	429	28x16	4	26,5	550	555	490	448	34x16	4	30	550
400	565	515	480	28x16	4	24,5	600	580	525	480	31x16	4	28	600	620	550	503	37x16	4	32	600
450	615	565	548	28x20	4	25,5	650	640	585	548	31x20	4	30	650	670	600	548	37x20	4	34,5	650
500	670	620	609	28x20	4	28,5	750	715	650	609	34x20	4	31,5	750	730	660	609	37x20	4	36,5	750
600	780	725	682	31x20	5	30	900	840	770	720	37x20	5	36	900	845	770	720	41x20	5	42	900
700	895	840	794	31x24	5	32,5	1050	910	840	794	37x24	5	39,5	1050	960	875	820	44x24	5	46,5	1050
800	1015	950	901	34x24	5	35	1200	1025	950	901	41x24	5	43	1200	1085	990	928	50x24	5	51	1200
900	1115	1050	1001	34x28	5	37,5	1350	1125	1050	1001	41x28	5	46,5	1350	1165	1090	1028	50x28	5	55,5	1350
1000	1230	1160	1112	37x28	5	40	1500	1255	1170	1112	44x28	5	50	1500	1320	1210	1140	57x28	5	60	1500
1100	1355	1270	1218	37x32	5	42,5	1650	1355	1270	1218	44x32	5	53,5	1650	1420	1310	1240	57x32	5	64,5	1650
1200	1455	1380	1328	41x32	5	45	1800	1485	1390	1328	50x32	5	57	1800	1530	1420	1350	57x32	5	69	1800

TILTING CHECK VALVE

04



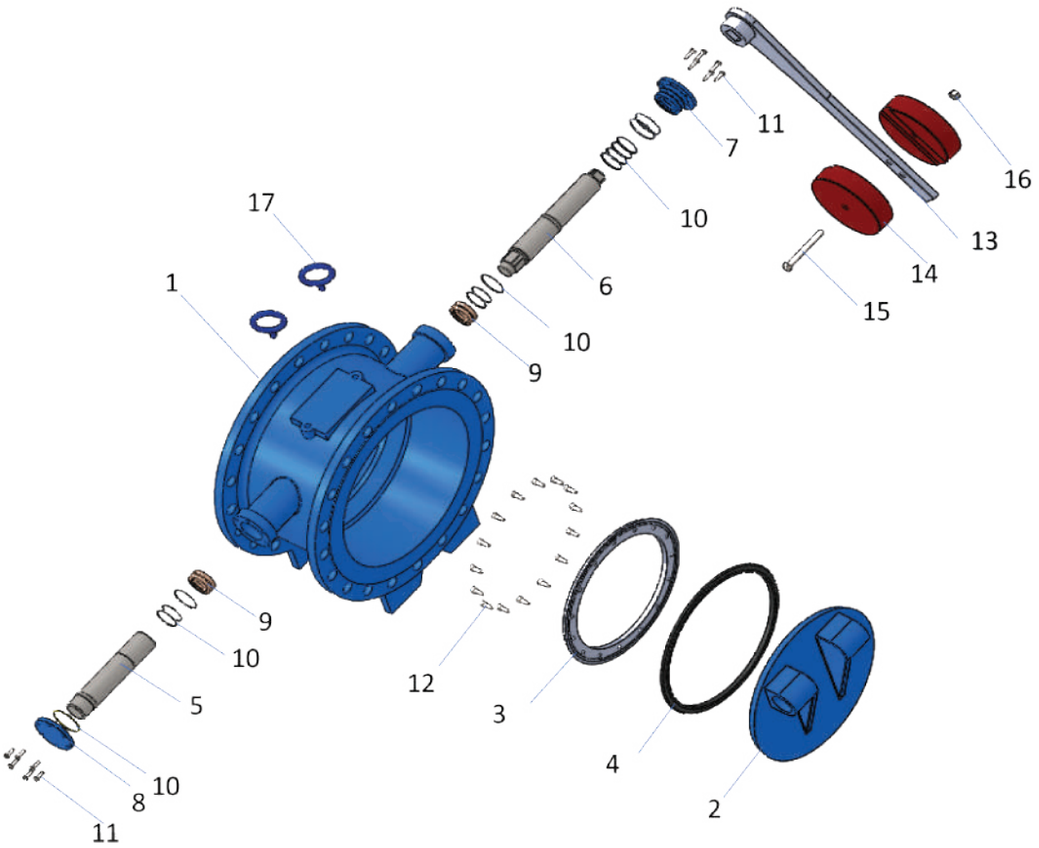


ES-4230

GENERAL INFORMATION

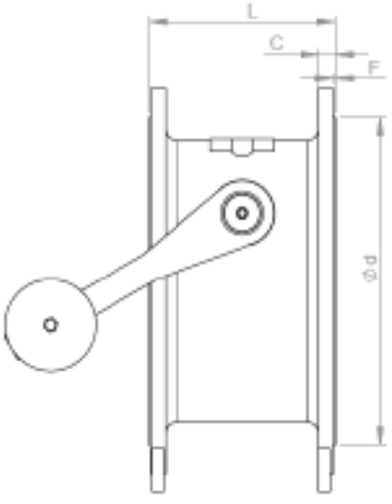
With its short body design, it provides superior advantage in volume and weight. The counterweight lever can be connected to the right or left side of the check valve, making it easy to connect to the pipeline in horizontal and vertical position. The movement of the flapper is free-moving depending on the flow. The opening speed and amount of the flapper depends on the flow rate. The position of the weight on the counterweight arm can be adjusted according to the working conditions. Sealing is provided by metal-to-metal or sealing gasket. Connection bolts A2 70 stainless steel where in contact with water. Tilting check valve has maintenance-free design.

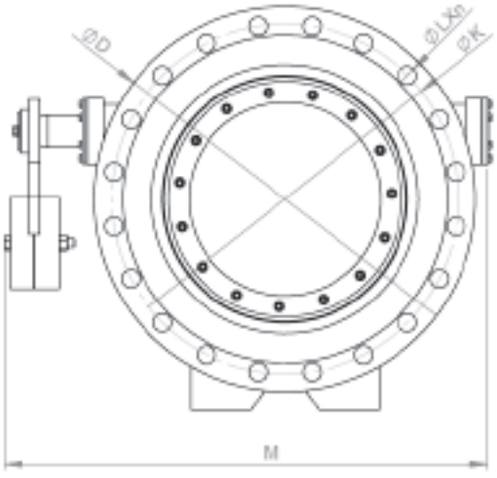
MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	CHECK VALVE BODY	GGG 40-50
2	CHECK VALVE FLAPPER	GGG 40-50
3	CHECK VALVE FLAPPER COVER	GGG 40-50
4	FLAPPER GASKET	EPDM
5	SHORT SHAFT	X20Cr13
6	LONG SHAFT	X20Cr13
7	THROAT COVER	GGG 40-50
8	BLIND COVER	ST 37
9	BUSHING	BRONZE
10	O-RING	EPDM
11	M8 HEXAGON BOLT	A2-70
12	M10 ALLEN BOLT	A2-70
13	ARM	GGG 40-50
14	WEIGHT	GGG 40-50
15	M18 HEXAGON BOLT	A2-70
16	M18 NUT	A4-80
17	CARRIAGE EYEBOLT	A2-70

TECHNICAL SPECIFICATIONS



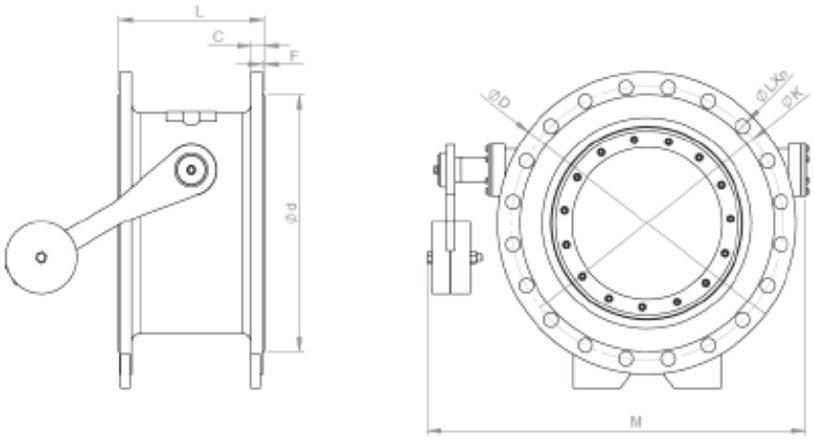


DN	L	F	M	PN 10						PN 16					
				ØD	ØK	Ød	C	ØLxn	KG	ØD	ØK	Ød	C	ØLxn	KG
100	190	3	310	220	180	156	19	19x8	23	220	180	156	19	19x8	23
125	200	3	380	250	210	184	19	19x8	27	250	210	184	19	19x8	27
150	210	3	455	285	240	211	19	23x8	35	285	240	211	19	23x8	35
200	230	3	530	340	295	266	20	23x8	45	340	295	266	20	23x12	45
250	250	3	560	405	350	319	22	23x12	70	405	355	319	22	28x12	70
300	270	4	635	460	400	370	24,5	23x12	95	460	410	370	24,5	28x12	95
350	290	4	690	505	460	429	24,5	23x16	128	520	470	429	26,5	28x16	128
400	310	4	730	565	515	480	24,5	28x16	156	580	525	480	28	31x16	156
450	330	4	850	615	565	530	25,5	28x20	195	640	585	548	30	31x20	195
500	350	4	910	670	620	582	28,5	28x20	261	715	650	609	31,5	34x20	261
600	390	5	990	780	725	682	30	31x20	391	840	770	720	36	37x20	391
700	430	5	1100	895	840	794	32.5	31x24	480	910	840	794	39.5	37x24	480
800	470	5	1230	1015	950	901	35	34x24	710	1025	950	901	43	41x24	710
900	510	5	1310	1115	1050	1001	37.5	34x28	861	1125	1050	1001	46.5	41x28	861
1000	550	5	1450	1230	1160	1112	40	37x28	1020	1255	1170	1112	50	44x28	1020
1100	590	5		1355	1270	1218	42.5	37x32		1355	1270	1218	53.5	44x32	
1200	630	5		1455	1380	1328	45	41x32		1485	1390	1328	57	50x32	
1300	670	5		1585	1490	1432	45	42x32		1585	1490	1432	59	50x32	
1400	710	5		1675	1590	1530	46	44x36		1685	1590	1530	60	50x36	
1500	750	5		1820	1700	1640	47	44X36		1820	1710	1640	62.5	57X36	
1600	790	5		1915	1820	1750	49	50X40		1930	1820	1750	65	57X40	
1800	870	5		2115	2020	1950	52	50X44		2130	2020	1950	70	57X44	
2000	950	5		2325	2230	2150	55	50X48		2345	2230	2150	75	62X48	

L= Forehead to forehead length	ØD= Flange outer diameter	ØK= Flange hole centre	
Ød= Flange raised face diameter	C= Flange thickness	F= Flange raised face thickness	ØLxn= Hole diameter x quantity

esvana®

TECHNICAL SPECIFICATIONS



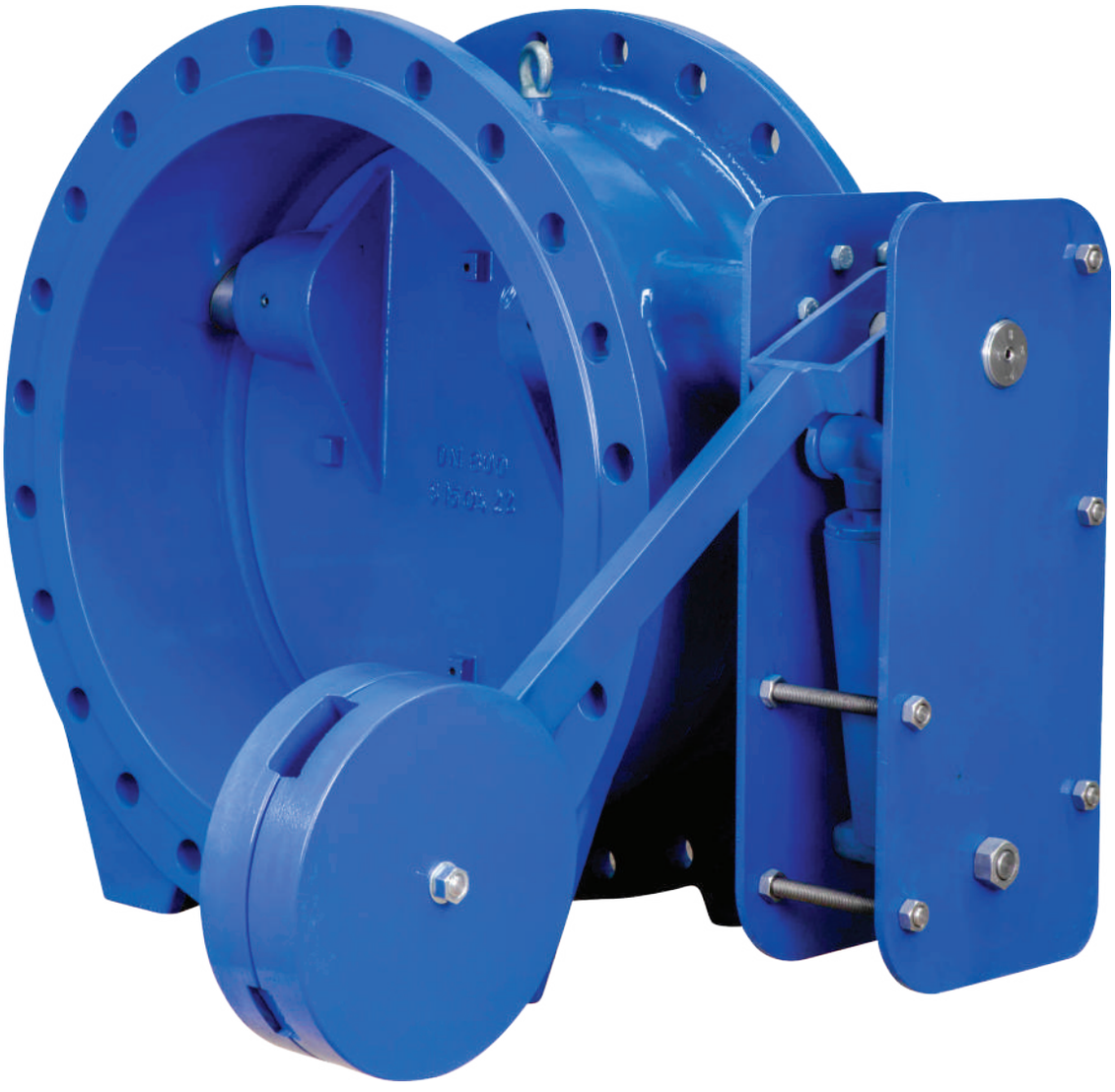
DN	L	F	M	PN 25					PN 40				
				ØD	ØK	Ød	C	ØLxn	ØD	ØK	Ød	C	ØLxn
100	190	3	310	235	190	156	19	23x8	235	190	156	19	23x8
125	200	3	380	270	220	184	19	28x8	270	220	184	23,5	28x8
150	210	3	455	300	250	211	20	28x8	300	250	211	26	28x8
200	230	3	530	**360**	310	274	22	28x12	375	320	284	30	31x12
250	250	3	560	425	370	330	24,5	31x12	450	385	345	34.5	34x12
300	270	4	635	485	430	389	27,5	31x16	515	450	409	39.5	34x16
350	290	4	690	555	490	448	30	34x16	580	510	465	44	37x16
400	310	4	730	620	550	503	32	37x16	660	585	535	48	41x16
450	330	4	850	670	600	548	34.5	37x20	685	610	560	49	41x20
500	350	4	910	730	660	609	36.5	37x20	755	670	615	52	44x20
600	390	5	990	845	770	720	42	41x20	890	795	735	58	50x20
700	430	5	1100	980	875	820	46.5	44x24	995	900	840	64	50x24
800	470	5	1230	1085	990	928	51	50x24	1140	1030	960	72	57x24
900	510	5	1310	1185	1090	1028	55.5	50x28	1250	1140	1070	80	57x28
1000	550	5	1450	1320	1210	1140	60	57x28	1360	1250	1180	95	57x28
1100	590	5		1420	1310	1240	64.5	57x32					
1200	630	5		1530	1420	1350	69	57x32	1575	1460	1380	95	62x32
1300	670	5		1640	1530	1455	74	62x32					
1400	710	5		1755	1640	1580	74	62x36	1785	1680	1600	105	62x36
1500	750	5		1865	1750	1678	77.5	62X36					
1600	790	5		1975	1860	1780	81	62X40	2025	1900	1815	120	70X40
1800	870	5		2195	2070	1985	88	70X44	2240	2110	2010	165	70X48
2000	950	5		2425	2300	2210	95	70X48					

L= Forehead to forehead length	**ØD=** Flange outer diameter	**ØK=** Flange hole centre	
Ød= Flange raised face diameter	**C=** Flange thickness	**F=** Flange raised face thickness	**ØLxn=** Hole diameter x quantity

SMART DESIGN, EXCELLENT PERFORMANCE

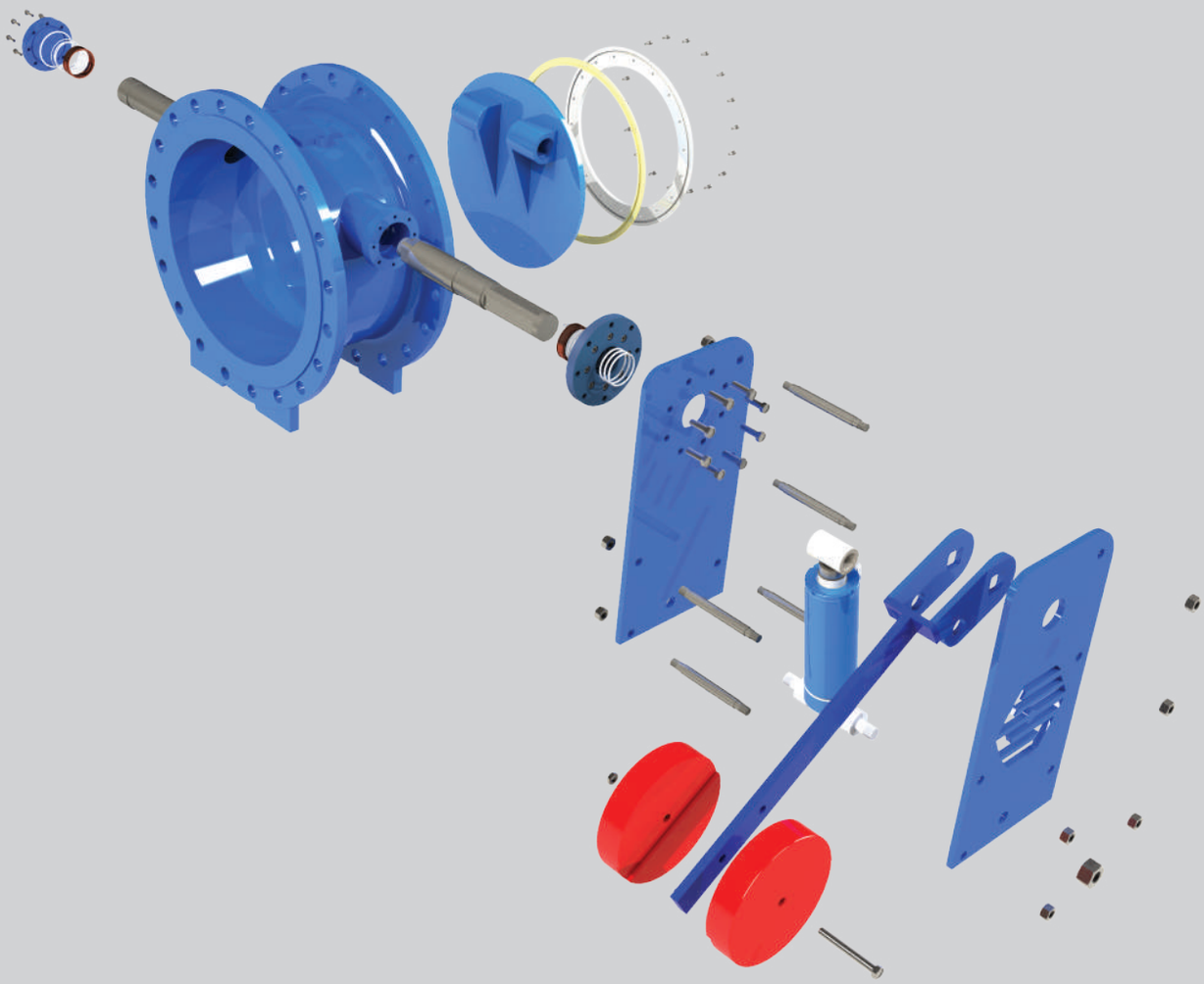
HYDRAULIC CHECK VALVE

05



ES-4231

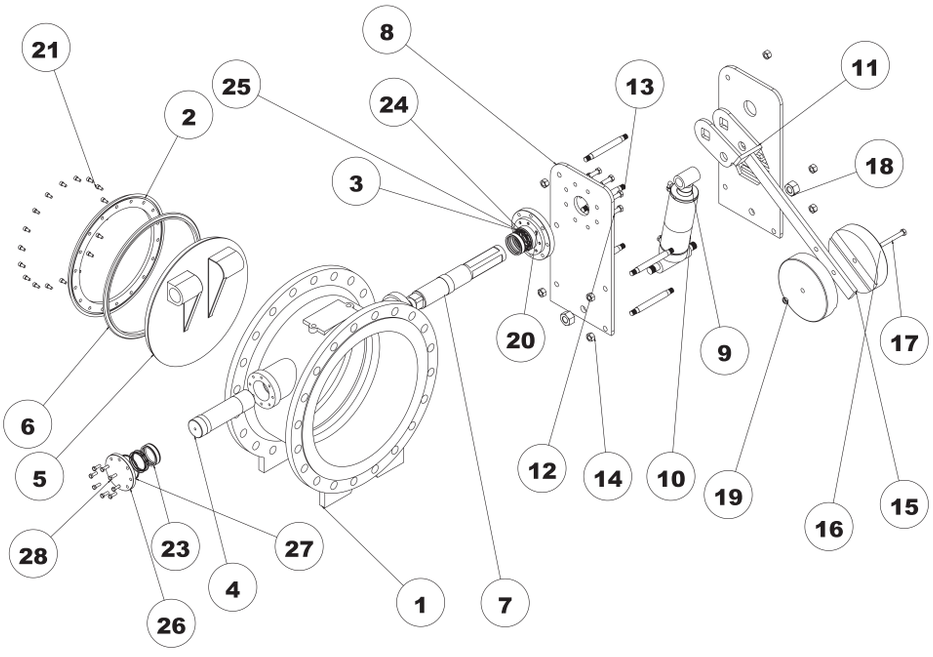
HYDRAULIC CHECK VALVE CONTROL UNIT



GENERAL INFORMATION

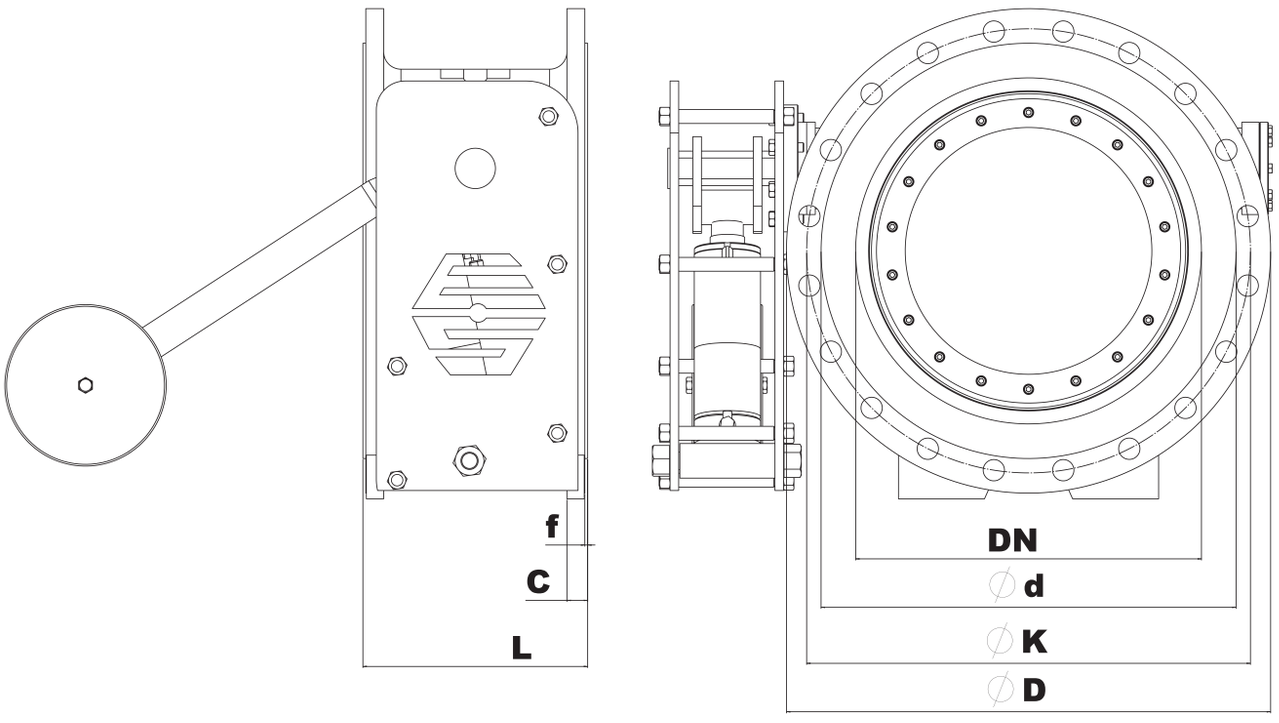
When backflow occurs in the pipeline for any reason, if the flow reaches the valve before the valve closes, it causes the valve to close with impact and noise. It can work in accordance with the SCADA system in pumped lines. Tilting Check Valve with Hydraulic Brake is specially designed to prevent the occurrence of impacts and eliminate noise during operation. Opening and closing speeds can be adjusted gradually, with this adjustment, the formation of water ram impacts is prevented. The body, stem and flapper of the check valve are designed to withstand the stresses caused by hydraulic braking during closing.

MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	HYDRAULIC JACKET VALVE BODY	GGG40 / GGG50
2	HYDRAULIC CHECK VALVE FLAPPER COVER	ST37 / 304 / 316
3	HYDRAULIC CHECK VALVE THROAT COVER NEW	GGG40 / GGG50
4	HYDRAULIC CHECK VALVE SHORT SHAFT	X20Cr13 / 304 / 316
5	HYDRAULIC CHECK VALVE FLAPPER	GGG40 / GGG50 / 304 / 316
6	HYDRAULIC CHECK VALVE FLAPPER SEAL	EPDM
7	HYDRAULIC CHECK VALVE LONG SHAFT	X20Cr13 / 304 / 316
8	HYDRAULIC TILTING CHECK VALVE FRONT COVER	ST37 / 304 / 316
9	HYDRAULIC TILTING CHECK VALVE BACK COVER	ST37 / 304 / 316
10	HYDRAULIC CYLINDER ARM FITTING	ST37 / 304 / 316
11	HYDRAULIC CYLINDER	
12	HYDRAULIC TILTING CHECK VALVE LEVER FITTING	ST37
13	HYDRAULIC UNIT CONNECTION BOLT	8.8. GALVANISED/ A2-70
14	ARM WEIGHT CONNECTION BOLT	8.8. GALVANISED/ A2-70
15	BLIND COVER CONNECTION BOLT	8.8. GALVANISED/ A2-70
16	HYDRAULIC TILTING CHECK VALVE FIXING BOLTS	8.8. GALVANISED/ A2-70
17	HYDRAULIC PLATE CONNECTION PINS	8.8. GALVANISED/ A2-70
18	HYDRAULIC TILTING CHECK VALVE HANDLE	ST37
19	HYDRAULIC TILTING CHECK VALVE COUNTERWEIGHT	CASTING
20	HYDRAULIC CYLINDER CONNECTION NUT	8.8. GALVANISED/ A2-70
21	ARM WEIGHT CONNECTION NUT	8.8. GALVANISED/ A2-70
22	HYDRAULIC CHECK VALVE THROAT COVER CONNECTION BOLT	8.8. GALVANISED/ A2-70
23	HYDRAULIC CHECK VALVE FLAPPER COVER CONNECTION BOLT	8.8. GALVANISED/ A2-70
24	HYDRAULIC TILTING CHECK VALVE O-RING	EPDM
25	HYDRAULIC TILTING CHECK VALVE BUSHINGS	BRONZE / MS58
26	HYDRAULIC TILTING CHECK VALVE BUSHING INNER O-RING	EPDM
27	HYDRAULIC TILTING CHECK VALVE BUSHING OUTER O-RING	EPDM
28	HYDRAULIC TILTING CHECK VALVE BLIND COVER	ST37
29	HYDRAULIC TILTING CHECK VALVE BLIND COVER O-RING	EPDM

TECHNICAL SPECIFICATIONS



DN	L	F	PN 10					PN 16					PN 25					PN 40				
			ØD	ØK	Ød	C	Ød2xn	ØD	ØK	Ød	C	Ød2xn	ØD	ØK	Ød	C	Ød2xn	ØD	ØK	Ød	C	Ød2xn
50	150	3	165	125	99	19	19X4	165	125	99	19	19X4	165	125	99	19	19X4	165	125	99	19	19X4
65	170	3	185	145	118	19	19X4	185	145	118	19	19X4	185	145	118	19	19X8	185	145	118	19	19X8
80	180	3	200	160	132	19	19X8	200	160	132	19	19X8	200	160	132	19	19X8	200	160	132	19	19X8
100	190	3	220	180	156	19	19x8	220	180	156	19	19x8	235	190	156	19	23x8	235	190	156	19	23x8
125	200	3	250	210	184	19	19x8	250	210	184	19	19x8	270	220	184	19	28x8	270	220	184	23,5	28x8
150	210	3	285	240	211	19	23x8	285	240	211	19	23x8	300	250	211	20	28x8	300	250	211	26	28x8
200	230	3	340	295	266	20	23x8	340	295	266	20	23x12	**360**	310	274	22	28x12	375	320	284	30	31x12
250	250	3	405	350	319	22	23x12	405	355	319	22	28x12	425	370	330	24,5	31x12	450	385	345	34.5	34x12
300	270	4	460	400	370	24,5	23x12	460	410	370	24,5	28x12	485	430	389	27,5	31x16	515	450	409	39.5	34x16
350	290	4	505	460	429	24,5	23x16	520	470	429	26,5	28x16	555	490	448	30	34x16	580	510	465	44	37x16
400	310	4	565	515	480	24,5	28x16	580	525	480	28	31x16	620	550	503	32	37x16	660	585	535	48	41x16
450	330	4	615	565	530	25,5	28x20	640	585	548	30	31x20	670	600	548	34.5	37x20	685	610	560	49	41x20
500	350	4	670	620	582	28,5	28x20	715	650	609	31,5	34x20	730	660	609	36.5	37x20	755	670	615	52	44x20
600	390	5	780	725	682	30	31x20	840	770	720	36	37x20	845	770	720	42	41x20	890	795	735	58	50x20
700	430	5	895	840	794	32.5	31x24	910	840	794	39.5	37x24	980	875	820	46.5	44x24	995	900	840	64	50x24
800	470	5	1015	950	901	35	34x24	1025	950	901	43	41x24	1085	990	928	51	50x24	1140	1030	960	72	57x24
900	510	5	1115	1050	1001	37.5	34x28	1125	1050	1001	46.5	41x28	1185	1090	1028	55.5	50x28	1250	1140	1070	80	57x28
1000	550	5	1230	1160	1112	40	37x28	1255	1170	1112	50	44x28	1320	1210	1140	60	57x28	1360	1250	1180	95	57x28
1100	590	5	1355	1270	1218	42.5	37x32	1355	1270	1218	53.5	44x32	1420	1310	1240	64.5	57x32					
1200	630	5	1455	1380	1328	45	41x32	1485	1390	1328	57	50x32	1530	1420	1350	69	57x32	1575	1460	1380	95	62x32
1300	670	5	1585	1490	1432	45	42x32	1585	1490	1432	59	50x32	1640	1530	1455	74	62x32					
1400	710	5	1675	1590	1530	46	44x36	1685	1590	1530	60	50x36	1755	1640	1580	74	62x36	1785	1680	1600	105	62x36
1500	750	5	1820	1700	1640	47	44X36	1820	1710	1640	62.5	57X36	1865	1750	1678	77.5	62X36					
1600	790	5	1915	1820	1750	49	50X40	1930	1820	1750	65	57X40	1975	1860	1780	81	62X40	2025	1900	1815	120	70X40
1800	950	5	2115	2020	1950	52	50X44	2130	2020	1950	70	57X44	2195	2070	1985	88	70X44	2240	2110	2010	165	70X48
2000		5	2325	2230	2150	55	50X48	2345	2230	2150	75	62X48	2425	2300	2210	95	70X48					
2200		5	2555	2440	2370	65	57x52	2555	2440	2360	80	62x52										
2400		6	2760	2650	2570	65	57x56	2760	2650	2570	84	62x56										

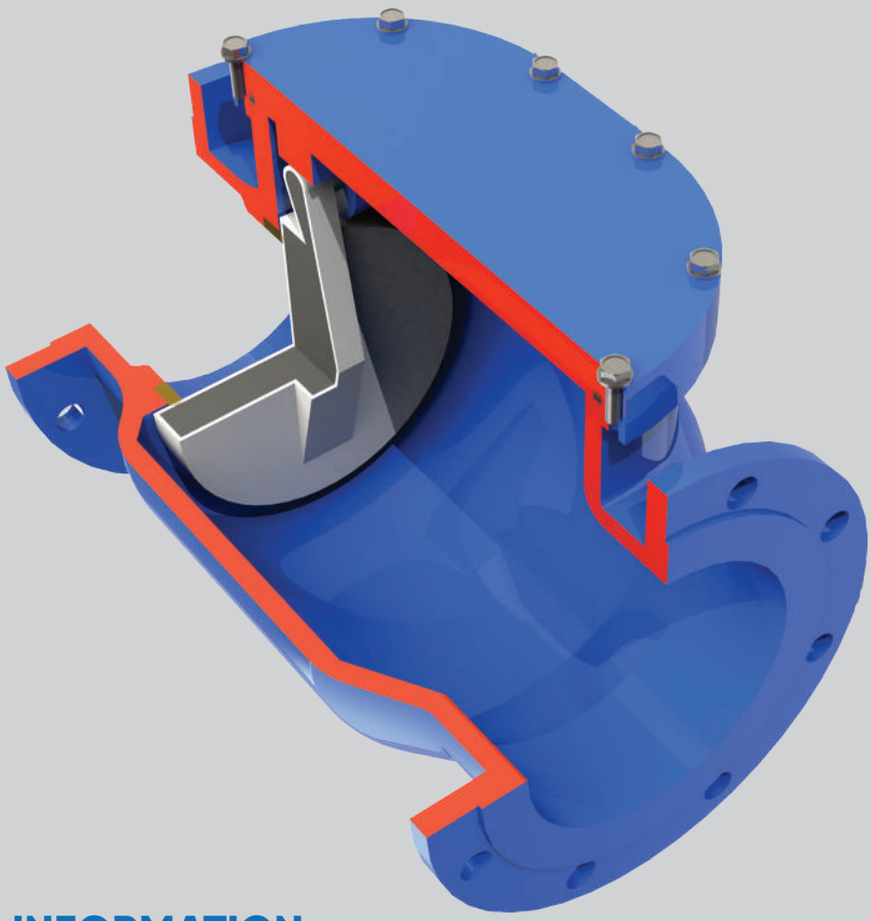
L= Forehead to forehead length | **ØD=** Flange outer diameter | **ØK=** Flange hole centre

Ød= Flange raised face diameter | **C=** Flange thickness | **F=** Flange raised face thickness | **Ød2xn=** Hole diameter x quantity

SWING CHECK VALVE

06

ES-4214



GENERAL INFORMATION

When the water in the pipeline starts and moves in the direction of flow, the flapper is opened and full passage is provided and the valve starts to operate. The flapper is designed to provide full passage. If the flow stops, it closes and does not allow flow in the opposite direction. Sealing is ensured by fitting the flapper to the metal site surface. Sealing can be provided by covering the flap with rubber. It can also be counter-weighted to provide flow control. Can be used in vertical pipelines. Maintenance and repair is quite easy. When the top cover bolts are removed, the valve and connection mechanism can be taken out. Provides complete sealing at low pressures. During installation, the valve must be fitted to the line according to the arrow marking on the valve.

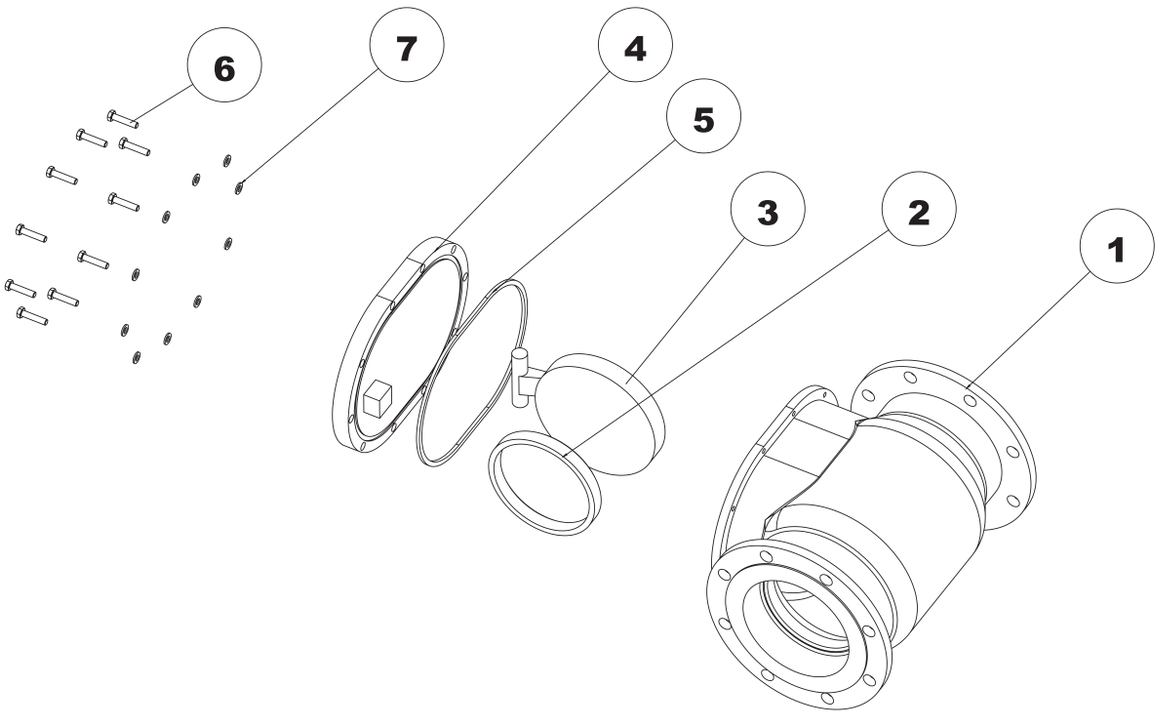
PRODUCTION STANDARDS

DN50 → DN600
PN 10-16-25
Design EN 12334 / EN 16767
Connection EN 1092-2 / ISO 7005-2 – Flanged
Forehead to Forehead EN 558 Seri 14 / DIN 3202 F4
Marking EN 19
Tests EN 12266-1
Paint Electrostatic Powder Epoxy
Temoplastic Powder Epoxy
WRAS Certified (Optional)

APPLICATION AREAS

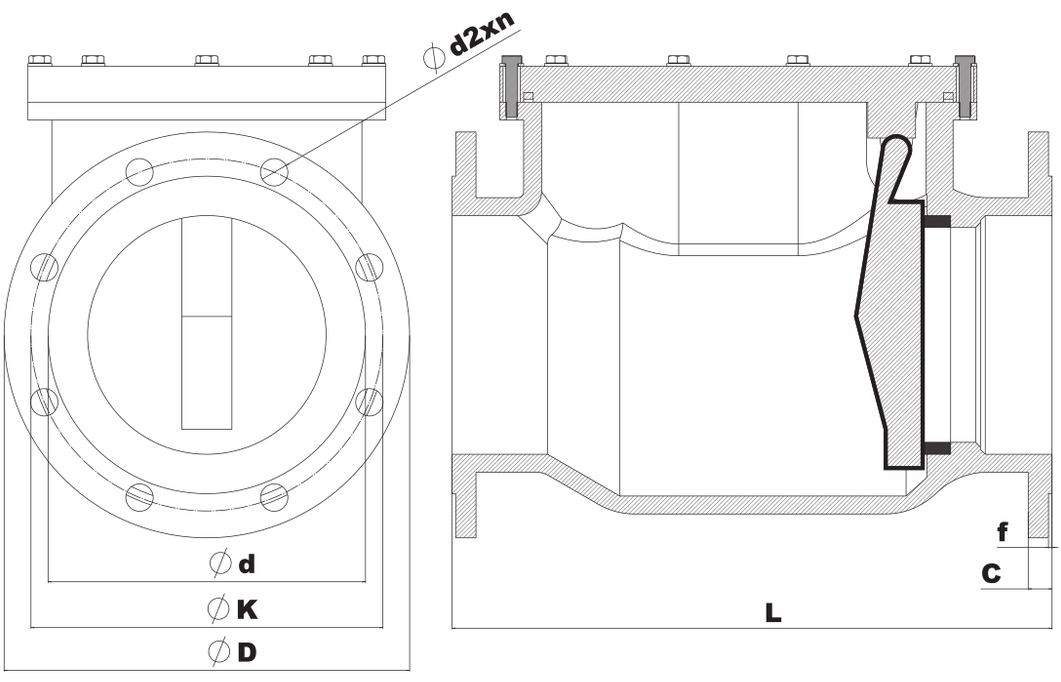
Water tanks
Pipelines
Water treatment plants
Pump pumping stations
In industrial plants

MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	SWING CHECK VALVE BODY	GGG40 - GGG50
2	SWING CHECK VALVE SEALING RING	BRONZE / MS58
3	SWING CHECK VALVE FLAPPER	GGG40 - GGG50 COATING (EPDM)
4	SWING CHECK VALVE COVER	GGG40 - GGG50
5	SWING CHECK VALVE GASKET	EPDM
6	SWING CHECK VALVE CONNECTION BOLT	8.8.GALVANISED/ A2-70
7	SWING CHECK VALVE CONNECTION WASHER	8.8.GALVANISED/ A2-70

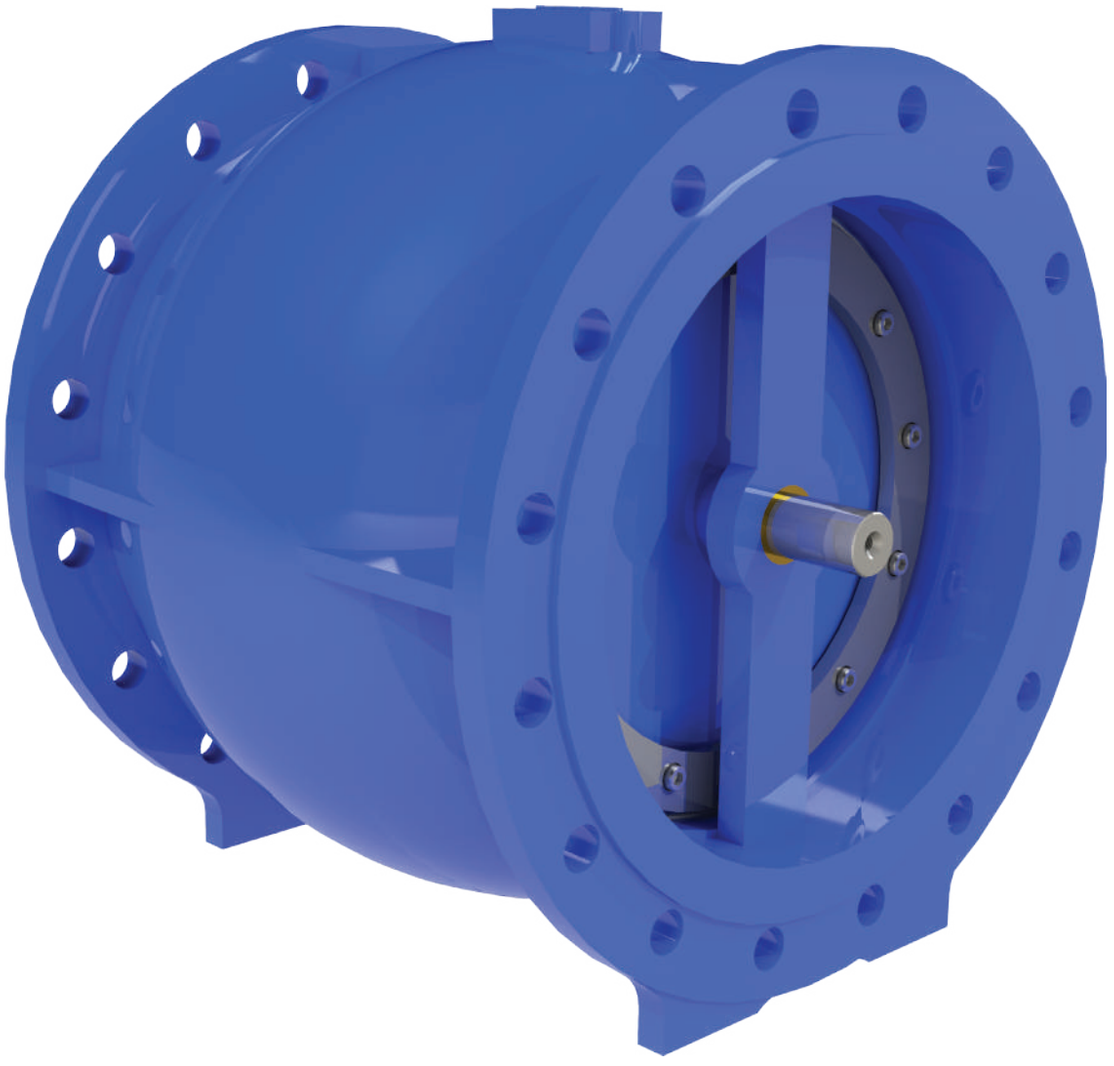
TECHNICAL SPECIFICATIONS



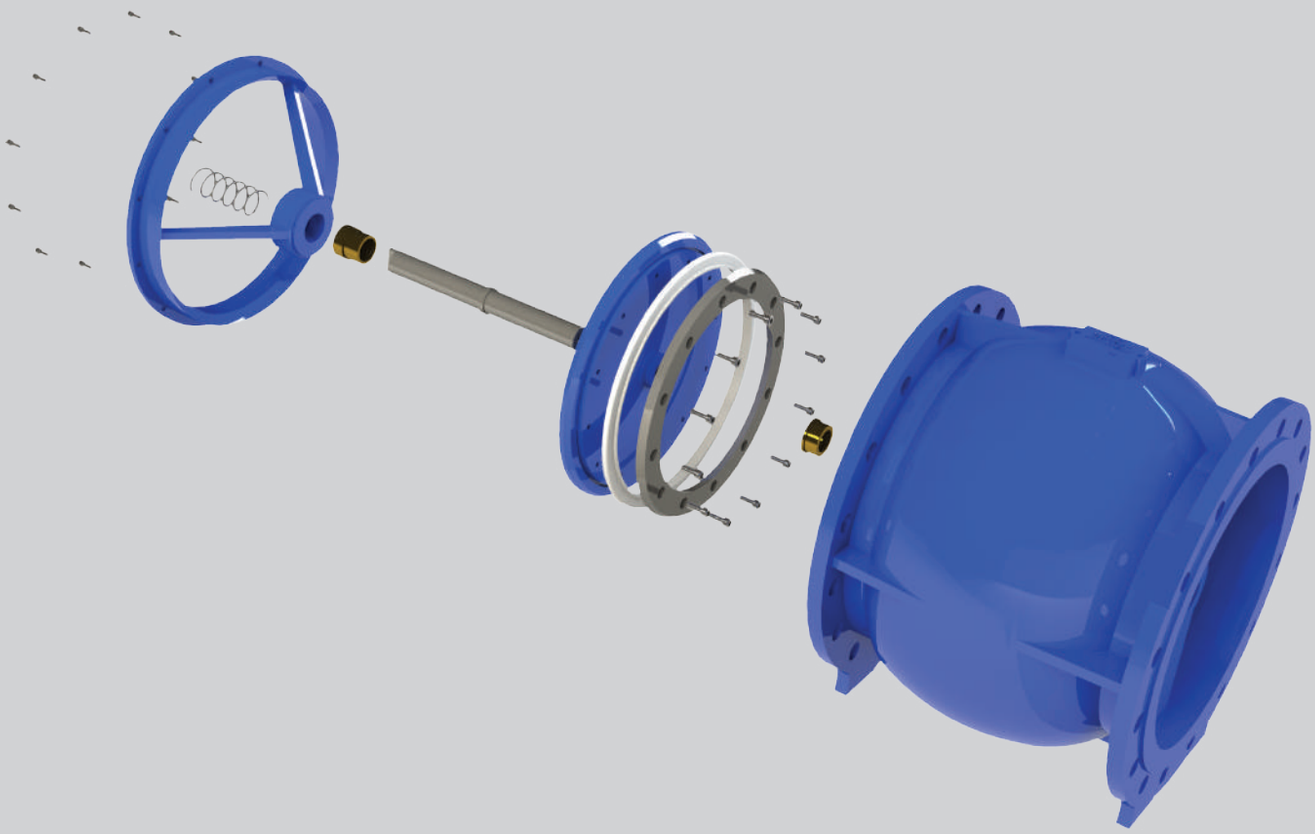
DN	PN10							PN16						
	ØD	ØK	Ød	Ød2xn	f	C	L	ØD	ØK	Ød	Ød2xn	f	C	L
40	150	110	84	19x4	3	19	200	150	110	84	19x4	3	19	200
50	165	125	99	19x4	3	19	200	165	125	99	19x4	3	19	200
65	185	145	118	19x4	3	19	240	185	145	118	19x4	3	19	240
80	200	160	132	19x8	3	19	260	200	160	132	19x8	3	19	260
100	220	180	156	19x8	3	19	300	220	180	156	19x8	3	19	300
125	250	210	184	19x8	3	19	350	250	210	184	19x8	3	19	350
150	285	240	211	23x8	3	19	400	285	240	211	23x8	3	19	400
200	340	295	266	23x8	3	20	500	340	295	266	23x12	3	20	500
250	400	350	319	23x12	3	22	600	400	355	319	28x12	3	22	600
300	445	400	370	23x12	4	24,5	700	460	410	370	28x12	4	24,5	700

NOZZLE CHECK VALVE

07



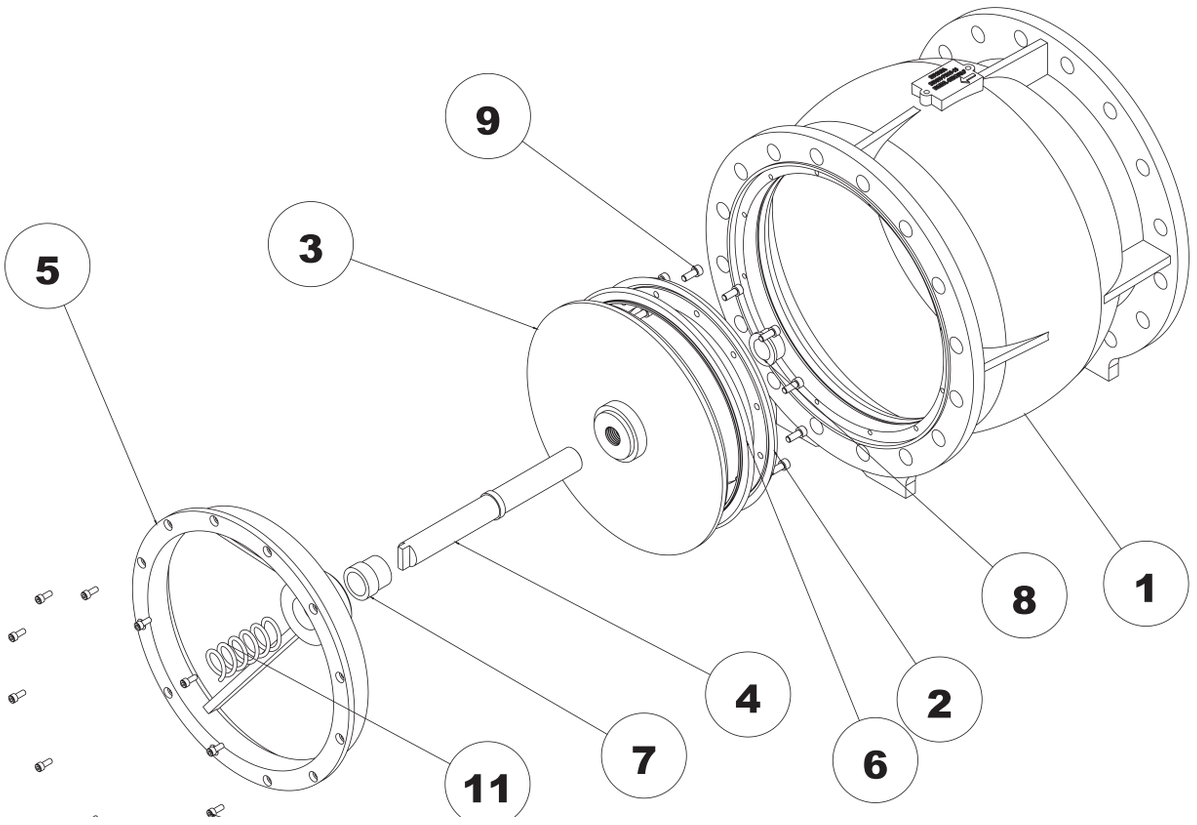
ES-4298



GENERAL INFORMATION

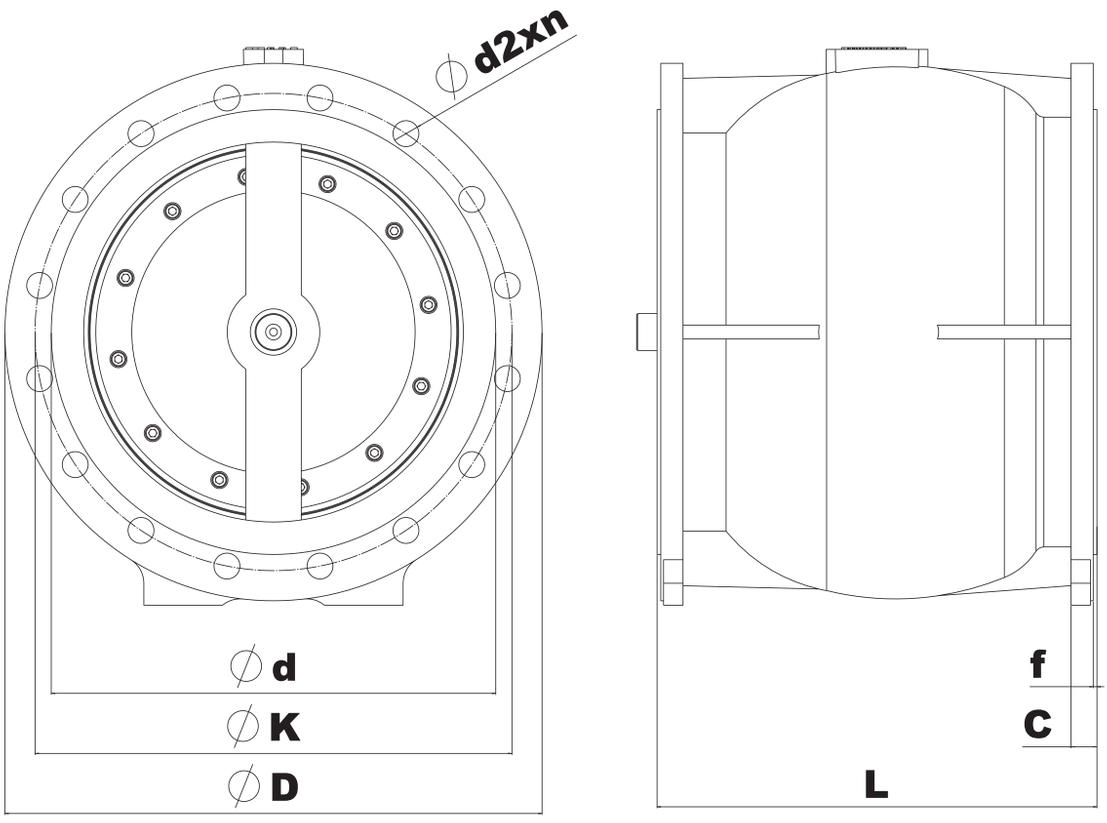
Nozzle Check Valve is used to prevent reverse flow in pipelines. The design and light weight of the disc structure provides high performance in horizontal and vertical connections with spring-assisted closure. Prevents water hammer with fast response to flow changes. It has a very short switch-off time. The closing element minimises energy loss with its low weight. Silent and impactless closing. Pressure loss is minimum.

MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	NOZZLE CHECK VALVE BODY	GGG40 -GGG50
2	NOZZLE CHECK VALVE FLAPPER COVER	ST37 / 304 / 316
3	NOZZLE CHECK VALVE FLAP	GGG40 -GGG50
4	NOZZLE CHECK VALVE SHAFT	X20Cr13 / 304 / 316
5	NOZZLE CHECK VALVE SPRING FIXING SEAT	GGG40 -GGG50
6	NOZZLE CHECK VALVE GASKET	EPDM
7	NOZZLE CHECK VALVE REAR BUSHING	BRONZE / MS58
8	NOZZLE CHECK VALVE FRONT BUSHING	BRONZE / MS58
9	NOZZLE CHECK VALVE CLAMP BOLT	8.8. GALVANISED / A2-70
10	NOZZLE CHECK VALVE SPRING FIXING BEARING BOLT	8.8. GALVANISED / A2-70
11	NOZZLE CHECK VALVE SPRING	AISI 631

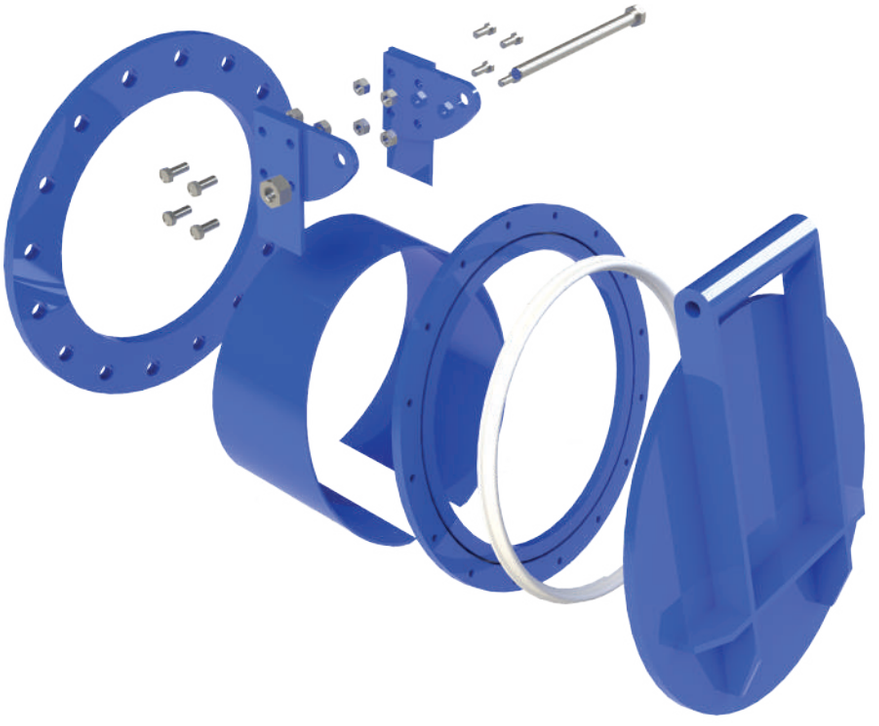
TECHNICAL SPECIFICATIONS



DN	PN10							PN16						
	ØD	ØK	Ød	Ød2xn	f	C	L	ØD	ØK	Ød	Ød2xn	f	C	L
DN100	220	180	156	19x8	3	19	175	220	180	156	19x8	3	19	175
DN125	250	210	184	19x8	3	19	200	250	210	184	19x8	3	19	200
DN150	285	240	211	23x8	3	19	225	285	240	211	23x8	3	19	225
DN200	340	295	266	23x8	3	20	275	340	295	266	23x12	3	20	275
DN250	400	350	319	23x12	3	22	325	400	355	319	28x12	3	22	325
DN300	445	400	370	23x12	4	24,5	375	460	410	370	28x12	4	24,5	375
DN350	505	460	429	23x16	4	24,5	425	520	470	429	28x16	4	26,5	425
DN400	565	515	480	28x16	4	24,5	475	580	525	480	31x16	4	28	475
DN450	615	565	548	28x20	4	25,5	500	640	585	548	31x20	4	30	500
DN500	670	620	609	28x20	4	28,5	550	715	650	609	34x20	4	31,5	550
DN600	615	565	548	28x20	4	25,5	600	840	770	720	37x20	4	36	600

FLAPPER

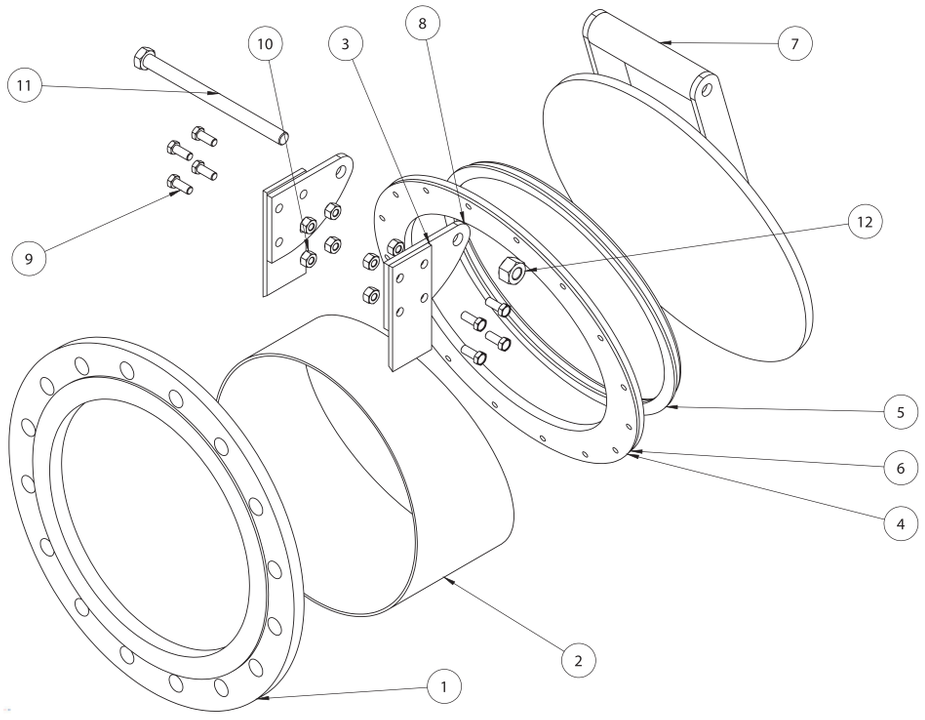
08



ES-4297

GENERAL INFORMATION

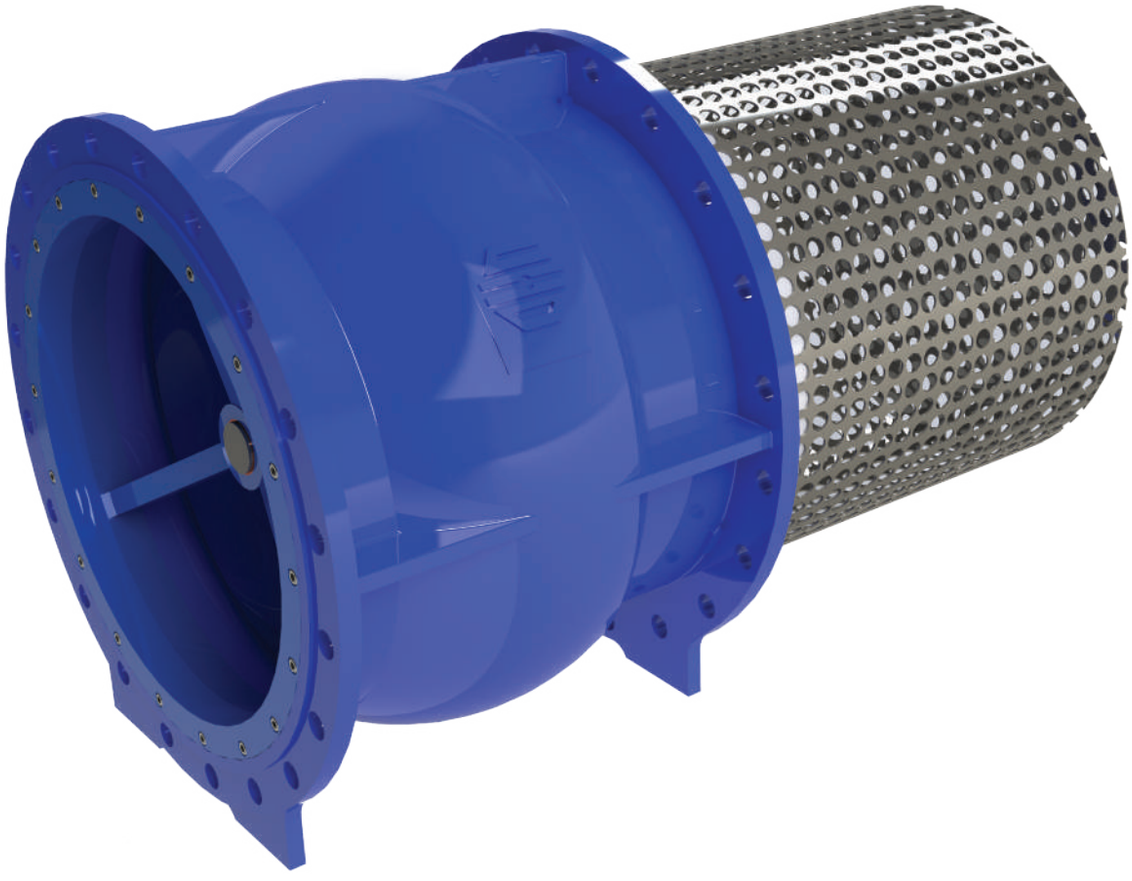
During the discharge of water out of the pipe, the flapper opens with the power of the water, closes with its weight when the discharge is over and prevents any dirt from entering the pipe. In this way, blockage of the drain pipes is prevented. The shaft of the movable cover is stainless steel. L length can be manufactured according to customer demand. The connection flange is manufactured according to PN 10 unless otherwise specified.



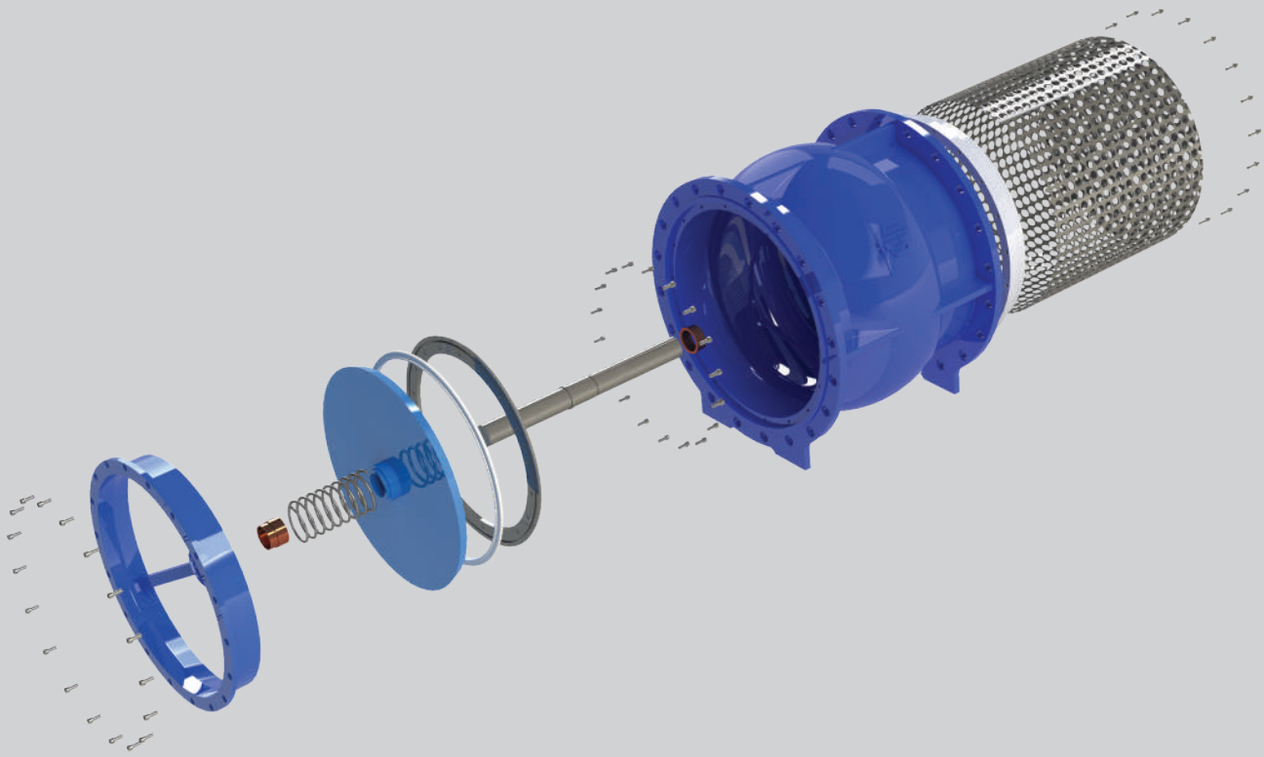
PART NO.	PART NAME	MATERIAL	QTY
1	FLAPPER FLANGE	ST37 / 304	1
2	FLAPPER FLANGE PIPE	ST37 / 304	1
3	BEARING PLATE WITH FLAPPER FLANGE	ST37 / 304	1
4	FLAPPER FLANGE BEARING CONNECTION PLATE	ST37 / 304	1
5	FLAPPER FLANGE BEARING GASKET	EPDM	1
6	THRUST BEARING PLATE WITH FLAPPER FLANGE	ST37 / 304	1
7	FLAPPER COVER	ST37 / 304	1
8	FLAPPER BEARING CONNECTION PART	ST37 / 304	2
9	FLAPPER COVER CONNECTION BOLT	8.8 GALVANISED / A2-70	8
10	FLAPPER COVER CONNECTION PIN	8.8 GALVANISED / A2-70	1
11	FLAPPER COVER CONNECTION NUT	8.8 GALVANISED / A2-70	8
12	FLAPPER COVER CONNECTION PIN NUT	8.8 GALVANISED / A2-70	1

BOTTOM FLAPPER

09



ES-4296



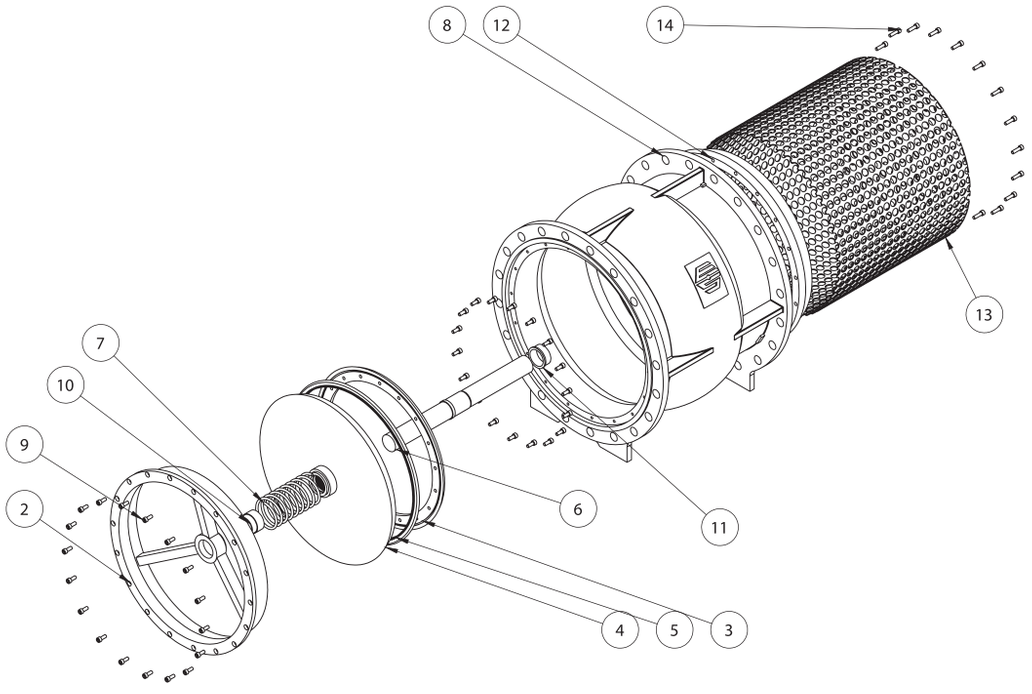
GENERAL INFORMATION

Water control element used in the pump suction line to prevent the water in the suction pipe from draining into the reservoir and thus prevent the pump from running without water. With the filter (Crepine) connected in front of the clapper, it prevents the entry of coarse particles into the pump and the line. In this way, it is ensured that the pump works with clean water and wear of the pump is prevented. Prevents backflow of water in the suction line when the pump stops. In this way, it eliminates the risk of air in the pump and running without water. The spring-loaded check valve inside the body operates in the direction of the fluid indicated on the body. It operates in a vertical position with the flow upwards. When the pump stops, the spring pushes the flapper in the closing direction and ensures complete sealing. The pipework inside the reservoir is installed perpendicular to the suction ends. Suitable for use in clean water lines. It prevents the pump from running idle by keeping the suction line full. Saves energy. Sealing is provided with EPDM gasket. The spring valve system is designed to operate silently and with minimum pressure loss. The filter (Crepine) is made of AISI 420 stainless material with flange. The body is GGG 40 casting. Sealing gasket is EPDM. Connection bolts A2 70, nuts A4 80 stainless steel. The coating is thermoplastic powder epoxy and WRASS approved.

APPLICATION AREAS

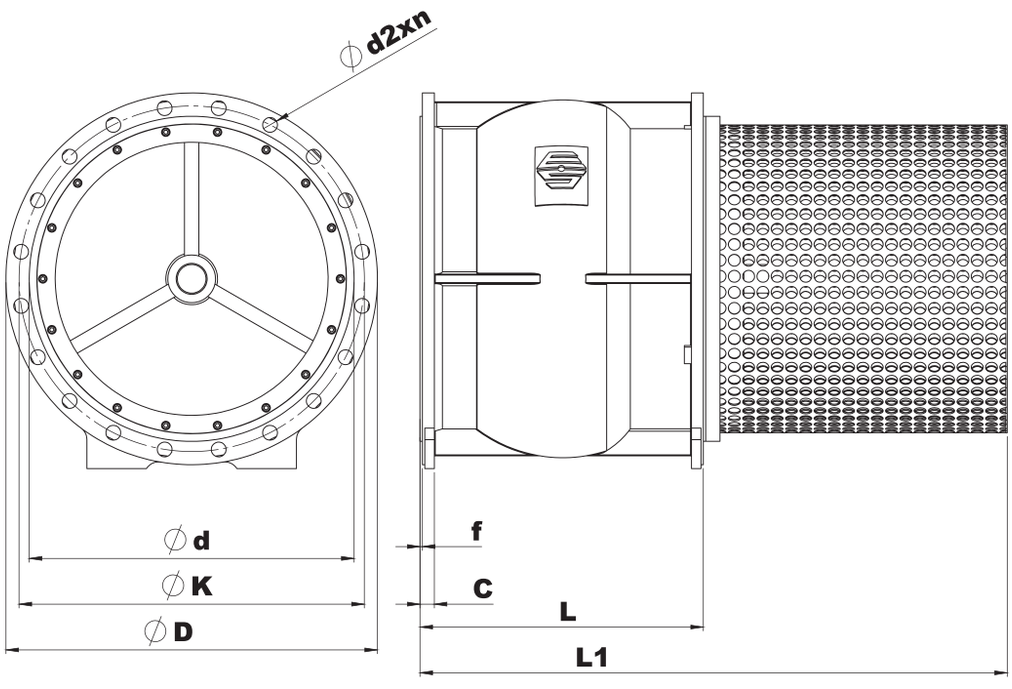
- Warehouse Lines
- Pump Suction Lines

MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	FOOT VALVE BODY	GGG40 - GGG50
2	FOOT VALVE SPRING FIXING	GGG40 - GGG50
3	FOOT VALVE COVER	ST37 / 304
4	FOOT VALVE FLAP	GGG40 - GGG50
5	FOOT VALVE GASKET	EPDM
6	FOOT VALVE SHAFT	X20Cr13 / 304 / 316
7	FOOT VALVE SPRING	
8	FOOT VALVE SPRING FIXING BEARING BOLTS	8.8.GALVANISED/ A2-70
9	FOOT VALVE FILTER FIXING BOLTS	8.8.GALVANISED/ A2-70
10	FOOT VALVE BEARING BUSHING	BRONZE
11	FOOT VALVE REAR BUSHING	BRONZE
12	DN600 FOOT VALVE FITTING	GGG40 - GGG50
13	FOOT VALVE FILTER PLATE	304 / 316

TECHNICAL SPECIFICATIONS



PN10							
ØD	ØK	Ød	Ød2xn	f	C	L	L1
220	180	156	19x8	3	19	175	325
250	210	184	19x8	3	19	200	400
285	240	211	23x8	3	19	225	450
340	295	266	23x8	3	20	275	575
400	350	319	23x12	3	22	325	700
445	400	370	23x12	4	24,5	375	825
505	460	429	23x16	4	24,5	425	950
565	515	480	28x16	4	24,5	475	1075
615	565	548	28x20	4	25,5	500	1200
670	620	609	28x20	4	28,5	550	1300
615	565	548	28x20	4	25,5	600	1500

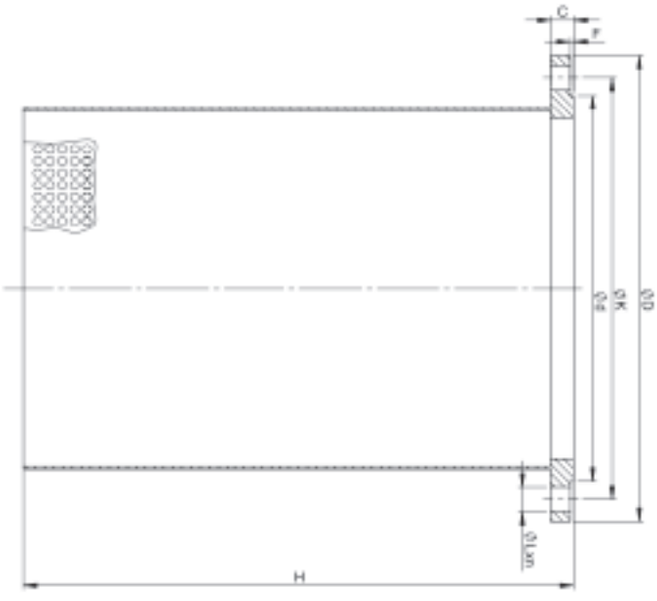
CREPINE (STRAINER)

10

ES-5010

GENERAL INFORMATION

They are mounted on the end of the suction pipe in the pump suction lines and on the suction end of the pipe receiving water from the tank in the water tanks. It is the equipment that prevents dirt from entering the pipe. They are manufactured as flanged. The crepine sheet is made of AISI 316 stainless material. The wall thickness including DN 400 is at least 3 mm. DN 450 and DN 600 wall thickness is at least 4 mm. DN 700 and above at least 5 mm and environmental reinforcement made of stainless material for strength. Connection bolts A2 70 stainless steel. The length L of the crepine is equal to or greater than 1.5 times the diameter. The total area of the holes in the strainer is 2 times larger than the cross-sectional area of the pipe diameter.

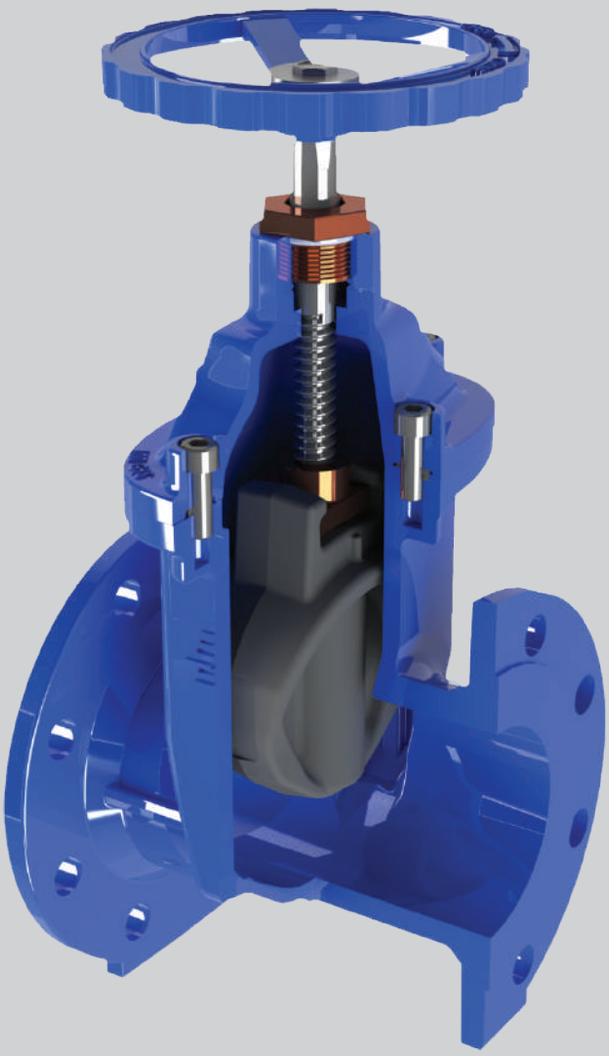


DN	H	F	ØD	ØK	Ød	C	ØLxn
100	150	3	220	180	156	19	19x8
125	190	3	250	210	184	19	19x8
150	225	3	285	240	211	19	23x8
200	300	3	340	295	266	20	23x12
250	375	3	405	355	319	22	28x12
300	450	4	460	410	370	24,5	28x12
350	525	4	520	470	429	26,5	28x16
400	600	4	580	525	480	28	31x16
450	675	4	640	585	548	30	31x20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

GATE VALVE-F4

11

ES-4220

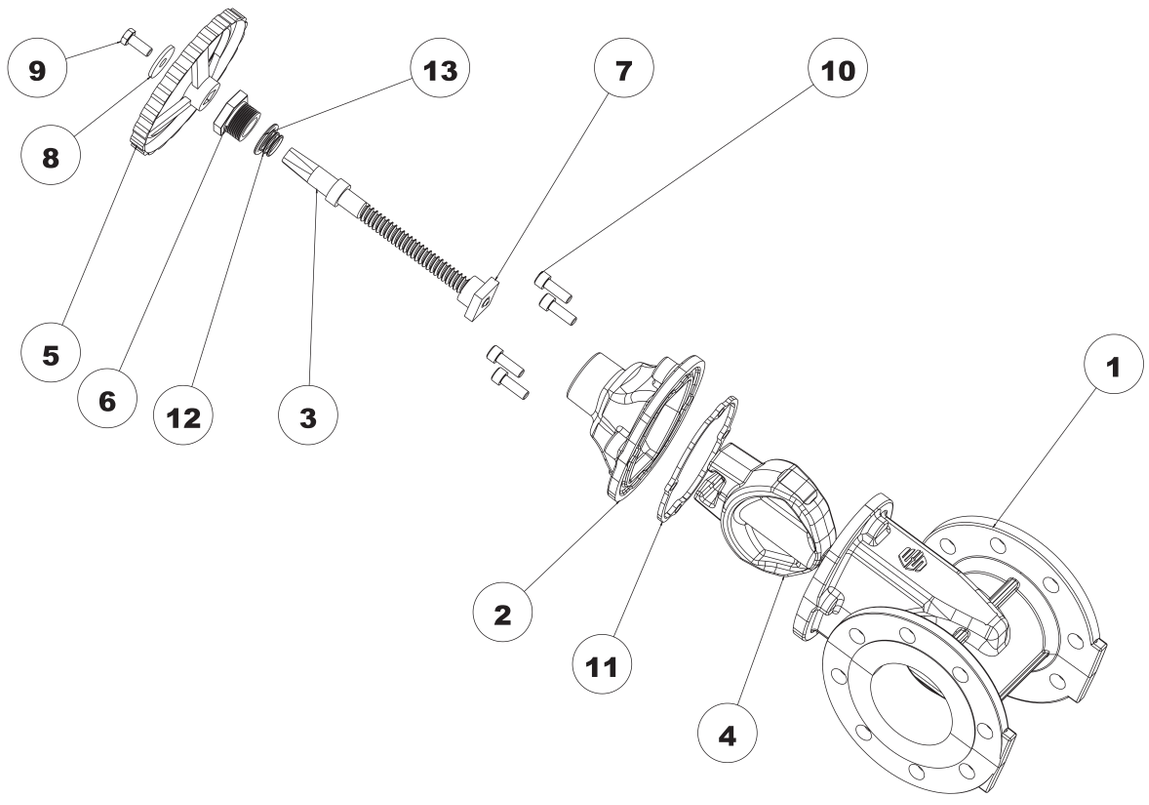


GENERAL INFORMATION

F4 type Elastomer seat valve with full passage with EPDM vulcanised gate. Flanges conform to EN 1092-2 and are drilled according to the pressure class. Standard version with flywheel and without extension shaft. According to the demand, manufacturing is made with extension shaft and bushing. Actuator connection is made to the Double Flanged gate valve when requested. Provides 100% protection against corrosion and disinfection products with thermoplastic powder epoxy paint. It is used in drinking water and agricultural irrigation. Complies with EN 1074-1 and 2 standards. Friction and pressure losses are minimised with full cross-section straight through feature. The bolt shaft is opened by rolling method and the bolt nut is forged. With the pinned bolt guide, the operation and sealing of the bolt is fully ensured. Provides ease of opening and closing with low operating torque. Long service life with wear-free slide guide.

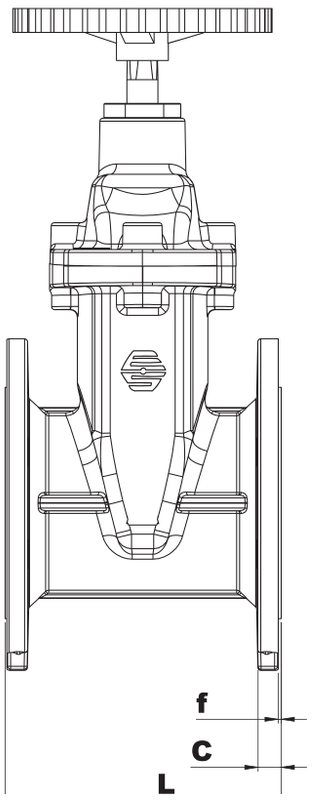
esvana®

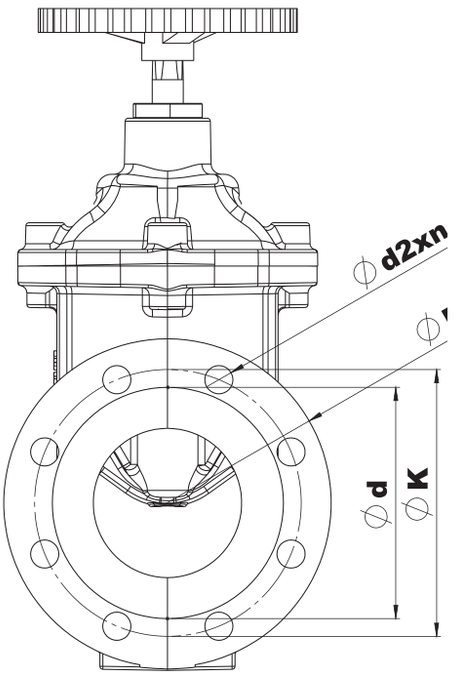
MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	GATE VALVE BODY	GGG40 / GGG50
2	GATE VALVE COVER	GGG40 / GGG50
3	GATE VALVE SHAFT	X20Cr13 / 304 / 316
4	GATE VALVE GATE	EPDM
5	GATE VALVE FLYWHEEL	GGG40 / GGG50
6	GATE VALVE BEARING	BRONZE
7	GATE VALVE NUT	BRONZE
8	GATE VALVE FLYWHEEL WASHER	8.8. GALVANISED A2-70
9	GATE VALVE FLYWHEEL BOLT	8.8. GALVANISED A2-70
10	GATE VALVE COVER BOLT	8.8. GALVANISED A2-70
11	GATE VALVE COVER GASKET	EPDM
12	GATE VALVE SEAT INNER O-RING	EPDM
13	GATE VALVE SEAT OUTER O-RING	EPDM

TECHNICAL SPECIFICATIONS



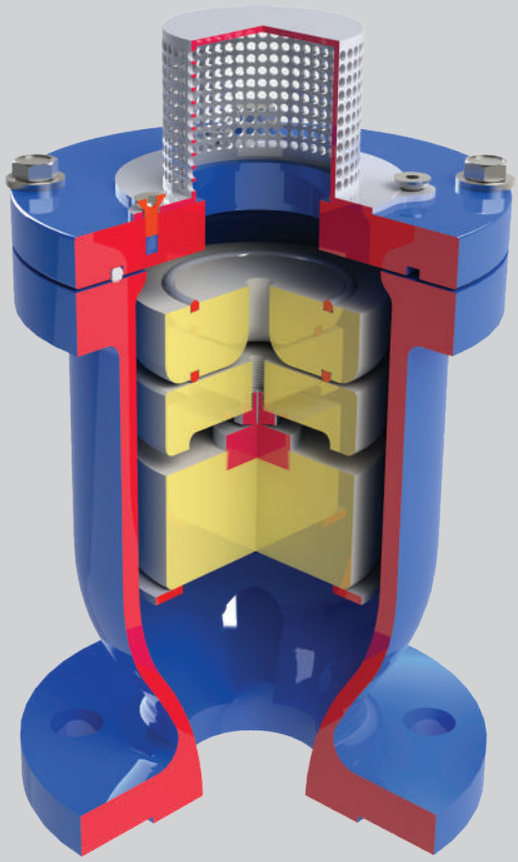


DN	L	F	PN 10					PN 16					PN 25					PN 40				
			ØD	ØK	Ød	C	ØLxn	ØD	ØK	Ød	C	ØLxn	ØD	ØK	Ød	C	ØLxn	ØD	ØK	Ød	C	ØLxn
50	150	3	165	125	99	19	19X4	165	125	99	19	19X4	165	125	99	19	19X4	165	125	99	19	19X4
65	170	3	185	145	118	19	19X4	185	145	118	19	19X4	185	145	118	19	19X8	185	145	118	19	19X8
80	180	3	200	160	132	19	19X8	200	160	132	19	19X8	200	160	132	19	19X8	200	160	132	19	19X8
100	190	3	220	180	156	19	19x8	220	180	156	19	19x8	235	190	156	19	23x8	235	190	156	19	23x8
125	200	3	250	210	184	19	19x8	250	210	184	19	19x8	270	220	184	19	28x8	270	220	184	23,5	28x8
150	210	3	285	240	211	19	23x8	285	240	211	19	23x8	300	250	211	20	28x8	300	250	211	26	28x8
200	230	3	340	295	266	20	23x8	340	295	266	20	23x12	360	310	274	22	28x12	375	320	284	30	31x12
250	250	3	405	350	319	22	23x12	405	355	319	22	28x12	425	370	330	24,5	31x12	450	385	345	34.5	34x12
300	270	4	460	400	370	24,5	23x12	460	410	370	24,5	28x12	485	430	389	27,5	31x16	515	450	409	39.5	34x16
350	290	4	505	460	429	24,5	23x16	520	470	429	26,5	28x16	555	490	448	30	34x16	580	510	465	44	37x16
400	310	4	565	515	480	24,5	28x16	580	525	480	28	31x16	620	550	503	32	37x16	660	585	535	48	41x16
450	330	4	615	565	530	25,5	28x20	640	585	548	30	31x20	670	600	548	34.5	37x20	685	610	560	49	41x20
500	350	4	670	620	582	28,5	28x20	715	650	609	31,5	34x20	730	660	609	36.5	37x20	755	670	615	52	44x20
600	390	5	780	725	682	30	31x20	840	770	720	36	37x20	845	770	720	42	41x20	890	795	735	58	50x20
700	430	5	895	840	794	32.5	31x24	910	840	794	39.5	37x24	980	875	820	46.5	44x24	995	900	840	64	50x24
800	470	5	1015	950	901	35	34x24	1025	950	901	43	41x24	1085	990	928	51	50x24	1140	1030	960	72	57x24

DYNAMIC TRIPLE FUNCTION AIR RELEASE VALVE

12

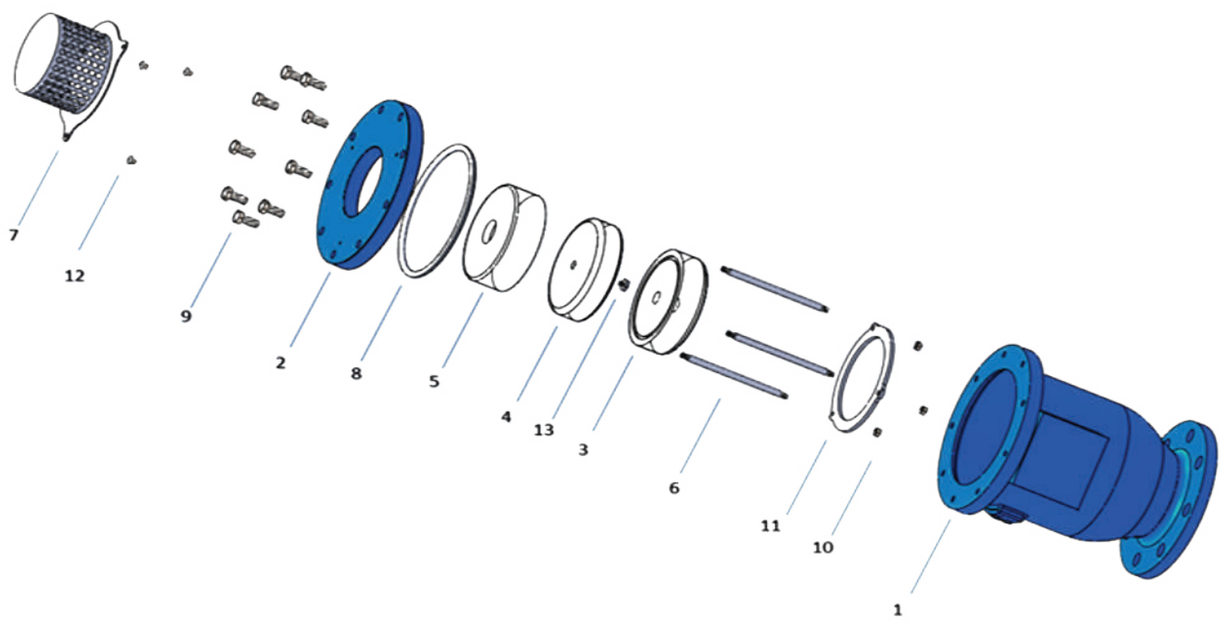
ES-4262



GENERAL INFORMATION

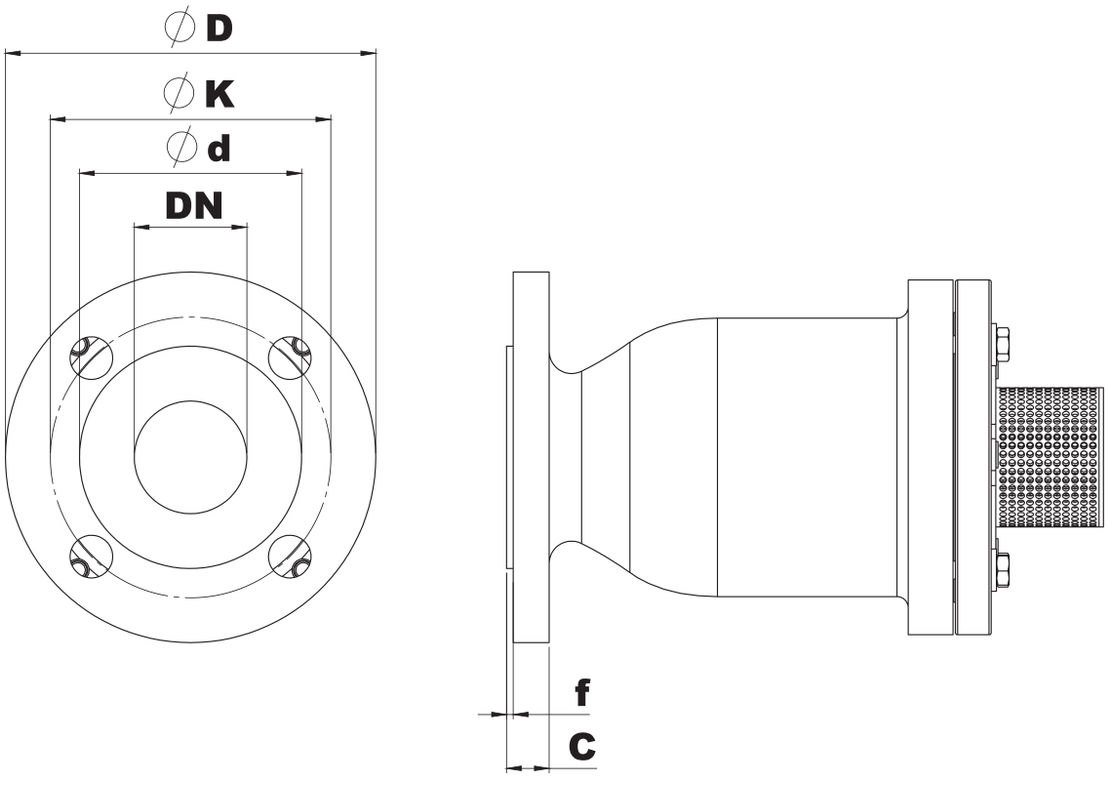
Air valves are critical water control elements in pressurised closed network systems. According to the flow conditions, they operate spontaneously. They ensure that the flow continues without damaging the line by acting during the commissioning and operation of the water lines and during the discharge of the line. Air valves should be placed in accordance with the project. Air valves provide controlled discharge of the air in the pipe while water is filled into the network. It ensures the continuity of the flow by discharging the air accumulated at critical points as long as the operation is used. When there is any disruption in the system that disrupts the flow, it is opened and prevents the formation of vacuum by providing sufficient air intake into the pipe. In this way, no collapse occurs in the pipes. Longitudinal cracks are formed in the collapsed pipes and become unusable. When the flow is interrupted, the rupture of the flow creates a water ram blow and causes the pipe to burst at high pressures, the water ram blow is prevented by the air valve by the air into the pipe. In pressurised pipe systems, system protection is provided by non-impact dynamic air valves. ESVANA Pulseless Air Valves have three float valves and four functions. Quickly discharges air from the outlet nozzle during filling water into the pipes. This ensures fast filling of the pipe with water. When the air discharge speed from the valve reaches 30 m/s, the upper float closes and starts to discharge the air through the orifice on it, so that the air in the pipe cushions the water and prevents the water from hitting the equipment and creating an impact. When the pipe is completely filled with water, the floats rise up with the buoyancy of the water and close the air and water outlet, the air bubbles moving with the water in the pipe accumulate inside the air valve and this accumulated air is discharged through the metal orifice in the middle float. In this way, the air accumulated in the pipes does not disturb the flow. If the flow is disturbed for any reason, it causes reverse flow in the pipes or the water in the pipes is discharged too fast. This creates a vacuum in the pipes and causes pipe collapse. The air valve opens in case the pressure inside the pipe is smaller than the external pressure, allowing air to enter the system and the pressure is balanced and no collapse and crushing of the pipes occurs. Air valve floats are made of HDPE material, high resistance to impact and abrasion. The small orifice drain orifice is stainless steel. (AISI 420) Gaskets are EPDM material. Floater guides and seat ring are made of stainless steel. (AISI 420) Air valve inlet diameter and discharge diameter are equal to each other. The air valve protection filter is made of stainless steel sheet and the total area of the filter holes is larger than the valve outlet area. Acceptance tests are in accordance with TS EN 1074-4 standard.

MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	BODY	GGG40- 50
2	COVER	GGG40-50
3	BOTTOM FLOAT	HDPE
4	MIDDLE FLOAT	HDPE
5	TOP FLOAT	HDPE
6	FLOATER GUIDE SHAFT	316
7	FILTER	316
8	O RING	EPDM
9	M10 HEXAGON BOLT	A2-70
10	M6 NUT	A4-80
11	CONNECTION SHEET	316
12	FILTER BOLT	A2-70
13	METAL ORIFICE	316

TECHNICAL SPECIFICATIONS



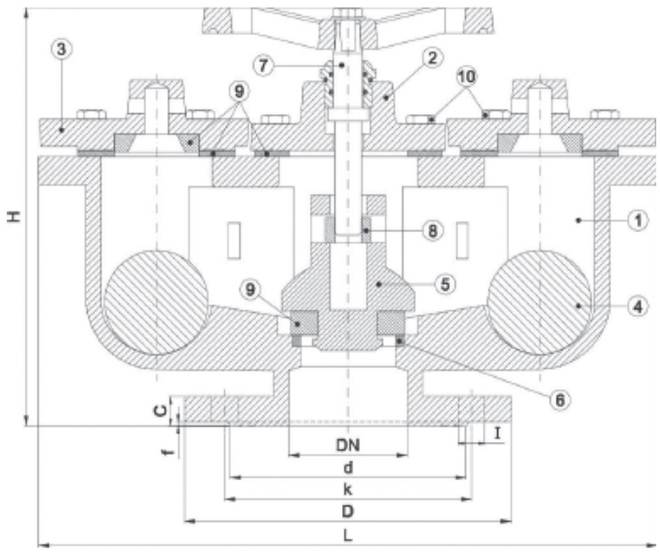
PN10						PN16						PN25					
ØD	ØK	Ød	Ød2xn	f	C	ØD	ØK	Ød	Ød2xn	f	C	ØD	ØK	Ød	Ød2xn	f	C
150	110	84	19x4	3	19	150	110	84	19x4	3	19	150	110	84	19x4	3	19
165	125	99	19x4	3	19	165	125	99	19x4	3	19	165	125	99	19x4	3	19
185	145	118	19x4	3	19	185	145	118	19x4	3	19	185	145	118	19x8	3	19
200	160	132	19x8	3	19	200	160	132	19x8	3	19	200	160	132	19x8	3	19
220	180	156	19x8	3	19	220	180	156	19x8	3	19	235	190	156	23x8	3	19
250	210	184	19x8	3	19	250	210	184	19x8	3	19	270	210	184	28x8	3	19
285	240	211	23x8	3	19	285	240	211	23x8	3	19	300	250	211	28x8	3	20
340	295	266	23x8	3	20	340	295	266	23x12	3	20	360	310	274	28x12	3	22
400	350	319	23x12	3	22	400	355	319	28x12	3	22	425	370	330	31x12	3	24,5
445	400	370	23x12	4	24,5	460	410	370	28x12	4	24,5	485	430	389	31x16	4	27,5
505	460	429	23x16	4	24,5	520	470	429	28x16	4	26,5	555	490	448	34x16	4	30
565	515	480	28x16	4	24,5	580	525	480	31x16	4	28	620	550	503	37x16	4	32
615	565	548	28x20	4	25,5	640	585	548	31x20	4	30	670	600	548	37x20	4	34,5
670	620	609	28x20	4	28,5	715	650	609	34x20	4	31,5	730	660	609	37x20	4	36,5

DOUBLE ORIFICE AIR VALVE

13

GENERAL INFORMATION

In pressurised pipe water networks, it provides the evacuation of the air in the pipe while water is supplied to the system, when the system is completely filled, the ball rises up and closes the outlet mouth and provides sealing.



PART NO.	PART NAME	MATERIAL
1	DOUBLE ORIFICE SUCTION CUP BODY	GGG40 / GGG50
2	DDOUBLE ORIFICE SUCTION CUP COVER	GGG40 / GGG50
3	DOUBLE ORIFICE SUCTION CUP AIR VENT COVER	GGG40 / GGG50
4	DOUBLE ORIFICE SUCTION CUP AIR CANNON	HPDE
5	DOUBLE ORIFICE SUCTION CUP FLAPPER	GGG40 / GGG50
6	DOUBLE ORIFICE SUCTION CUP SEALING BEARING	BRONZ / MS58
7	DOUBLE ORIFICE SUCTION CUP SHAFT	X20Cr13 / 304 / 316
8	DOUBLE SPHERE SUCTION CUP NUT	BRONZE / MS58
9	DOUBLE SPHERE SUCTION CUP SEALING GASKET	EPDM
10	DOUBLE SPHERE SUCTION CUP COVER CONNECTION BOLTS	8.8. GALVANISED / A2-70

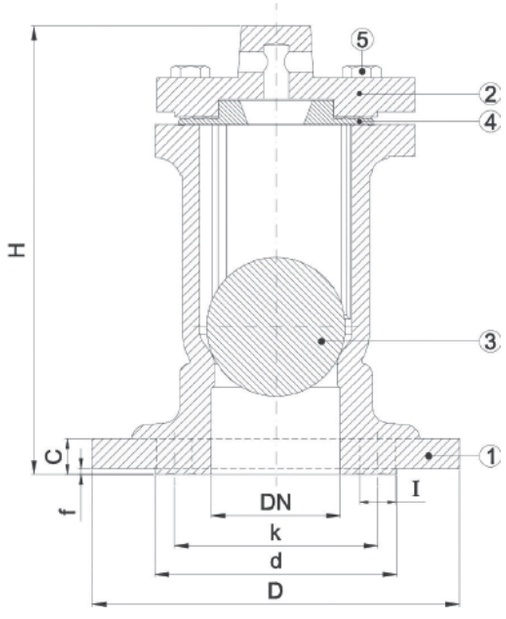
DN	D	k	d	f	C	Ølxn	L	H
Ø50(PN10-16-25)	165	125	99	3	20	Ø19x4	410	275
Ø65(PN10-16-25)	185	145	118	3	20	Ø19x4	410	275
Ø80(PN10-16-25)	200	160	132	3	22	Ø19x8	415	280
Ø100(PN10-16)	220	180	156	3	24	Ø19x8	415	280
Ø100(PN25)	235	190	156	3	28	Ø23x8	415	284
Ø125(PN10-16)	250	210	184	3	26	Ø19x8	415	280
Ø125(PN25)	270	220	184	3	30	Ø28x8	415	284
Ø150(PN10-16)	285	240	211	3	26	Ø23x8	635	400
Ø150(PN25)	300	250	211	3	34	Ø28x8	635	408
Ø200(PN10)	340	295	266	4	26	Ø23x8	635	400
Ø200(PN16)	340	295	266	4	30	Ø23x12	635	404
Ø200(PN25)	360	310	274	4	34	Ø28x12	635	408
Ø250(PN10)	395	350	319	4	28	Ø23x12	655	370
Ø250(PN16)	405	355	319	4	32	Ø28x12	655	374
Ø250(PN25)	425	370	330	4	36	Ø31x12	655	378

SINGLE ORIFICE AIR VALVE

14

GENERAL INFORMATION

In pressurised pipe water networks, it provides the evacuation of the air in the pipe while water is supplied to the system, when the system is completely filled, the ball rises up and closes the outlet mouth and provides sealing.



MATERIAL SPECIFICATIONS		
PART NO.	**PART NAME**	**MATERIAL**
1	BODY	EN-GJS-400(GGG40) EN-GJS-500(GGG50)
2	COVER	EN-GJS-400(GGG40) EN-GJS-500(GGG50)
3	GLOBE	POLYETHYLENE
4	COVER GASKET	EPDM
5	COVER BOLT	8.8 GALVANISED / A2-70

DN	D	k	d	f	C	Ølxn	H
Ø 50 (PN10-16-25)	165	125	99	3	20	Ø19X4	227
Ø65 (PN10-16-25)	185	145	118	3	20	Ø19X4	229
Ø80 (PN10-16-25)	200	160	132	3	22	Ø19X8	236
Ø100 (PN10-16)	220	180	156	3	24	Ø19X8	236
Ø100(PN25)	235	190	156	3	28	Ø23X8	240
Ø125(PN10-16)	250	210	184	3	26	Ø19X8	372
Ø125(PN25)	270	220	184	3	30	Ø28X8	376
Ø150(PN10-16)	285	240	211	3	26	Ø23X8	372
Ø150(PN25)	300	250	211	3	34	Ø28X8	380
Ø200(PN10)	340	295	266	4	26	Ø23X8	372
Ø200(PN16)	340	295	266	4	30	Ø23X12	376
Ø200(PN25)	360	310	274	4	34	Ø28X12	380

Y TYPE
DIRT TRAP

15

GENERAL INFORMATION

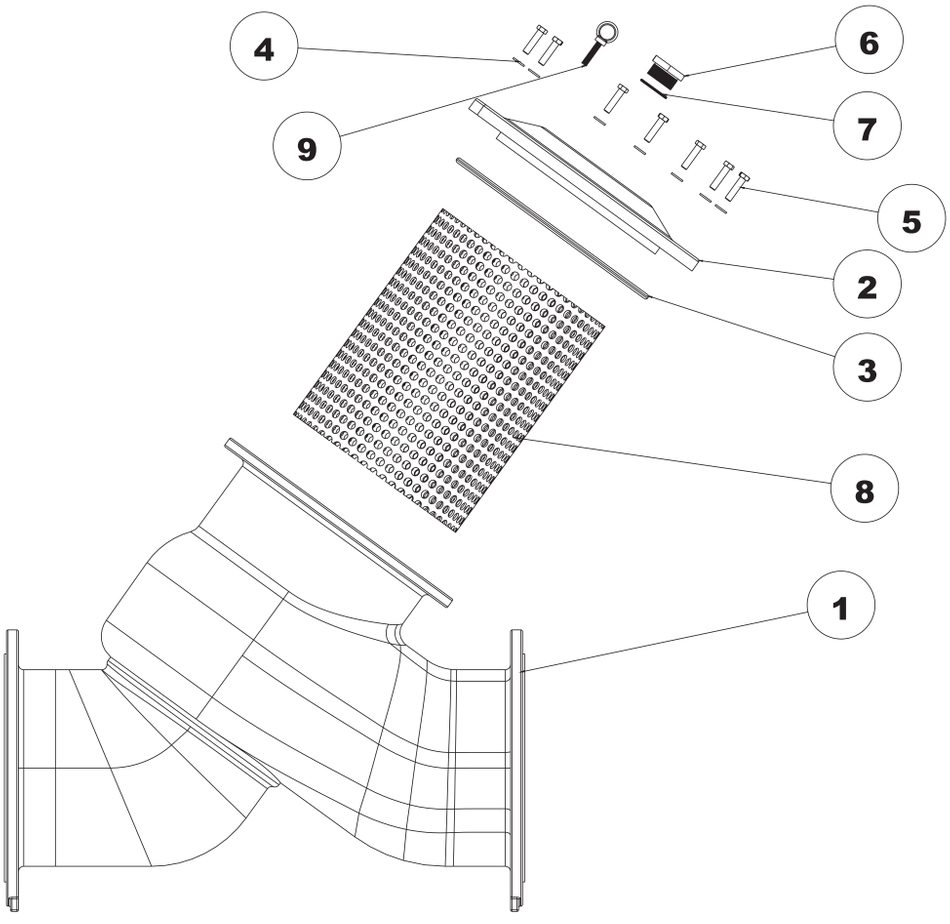
Dirt traps are water control elements placed in pipelines for the proper operation of water control elements such as pressure relief valves, on-off valves, flow regulating valves, meters. Dirt traps prevent the entry of solid materials into the pipeline that will disrupt the operation of the system.

The design of the dirt traps is made in such a way that the filter part can be cleaned by dismantling without the need for dismantling from the line. The dirt trap strainer can be easily removed and cleaned by removing the bolts of the cover part.

APPLICATION AREAS

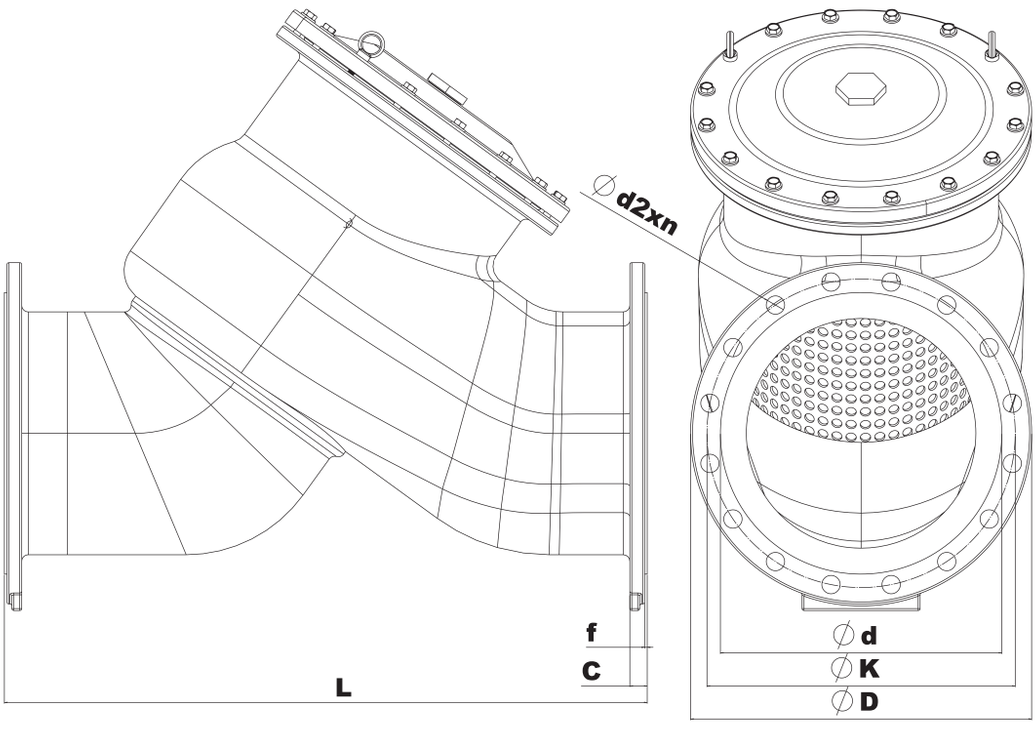
- In drinking water systems
- In irrigation water systems
- In compressed air lines
- In non-corrosive and non-flammable liquid lines.

GENERAL INFORMATION



PART NO.	PART NAME	MATERIAL
1	Y TYPE DIRT TRAP BODY	GGG40 - GGG50
2	Y TYPE DIRT TRAP COVER	GGG40 - GGG50
3	Y TYPE DIRT TRAP O-RING	EPDM
4	Y TYPE DIRT TRAP BODY COVER CONNECTION WASHER	8.8 GALVANISED/ A2-70
5	Y TYPE DIRT TRAP BODY COVER CONNECTION BOLT	8.8 GALVANISED/ A2-70
6	Y TYPE DIRT TRAP BLIND PLUG	ST37 / 304
7	Y TYPE DIRT TRAP BLIND PLUG O-RING	EPDM
8	Y TYPE DIRT TRAP FILTER	304 / 316
9	Y TYPE DIRT TRAP EYEBOLT	8.8 GALVANISED

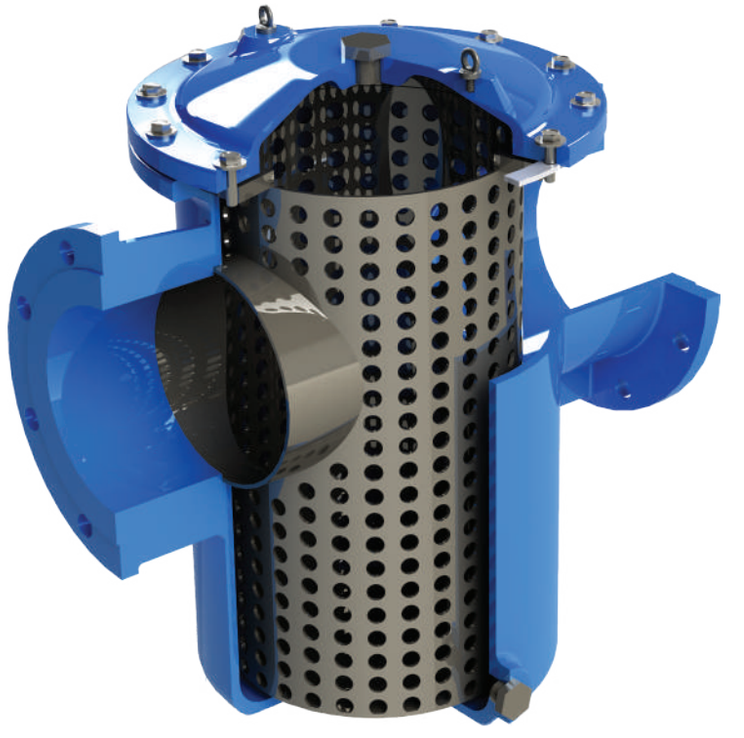
TECHNICAL SPECIFICATIONS



PN10							PN16						
ØD	ØK	Ød	Ød2xn	f	C	L	ØD	ØK	Ød	Ød2xn	f	C	L
150	110	84	19x4	3	19	230	150	110	84	19x4	3	19	230
165	125	99	19x4	3	19	230	165	125	99	19x4	3	19	230
185	145	118	19x4	3	19	290	185	145	118	19x4	3	19	290
200	160	132	19x8	3	19	310	200	160	132	19x8	3	19	310
220	180	156	19x8	3	19	350	220	180	156	19x8	3	19	350
250	210	184	19x8	3	19	400	250	210	184	19x8	3	19	400
285	240	211	23x8	3	19	480	285	240	211	23x8	3	19	480
340	295	266	23x8	3	20	600	340	295	266	23x12	3	20	600
400	350	319	23x12	3	22	730	400	355	319	28x12	3	22	730
445	400	370	23x12	4	24,5	850	460	410	370	28x12	4	24,5	850
505	460	429	23x16	4	24,5	980	520	470	429	28x16	4	26,5	980
565	515	480	28x16	4	24,5	1100	580	525	480	31x16	4	28	1100
615	565	548	28x20	4	25,5	1100	640	585	548	31x20	4	30	1100
670	620	609	28x20	4	28,5	1250	715	650	609	34x20	4	31,5	1250

BASKET TYPE DIRT TRAP

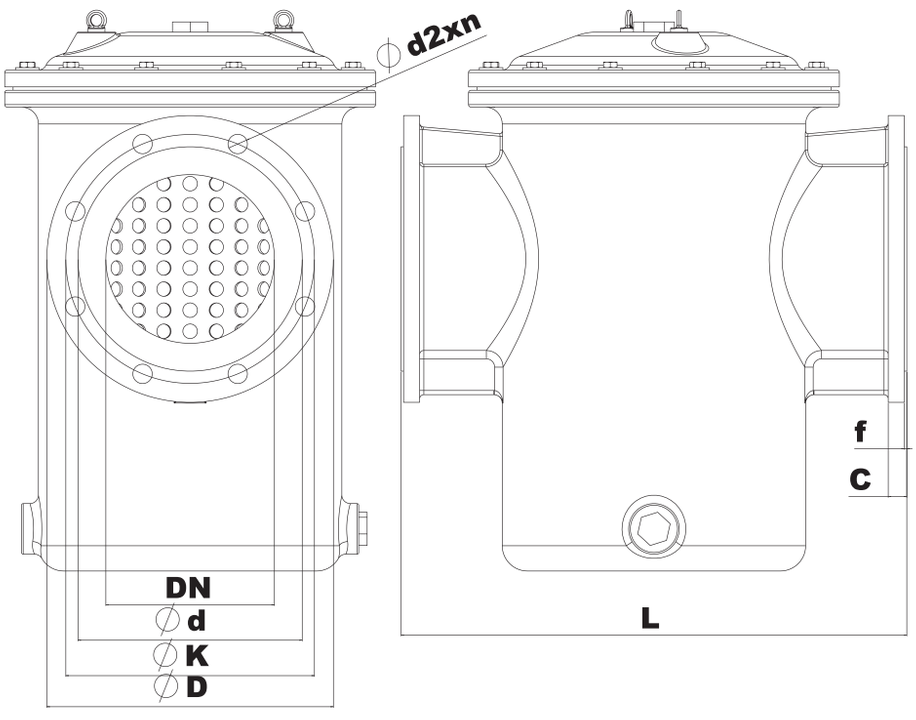
16



ES-4257

GENERAL INFORMATION

DN 400 and above diameters are made of ductile iron GGG 40 material. Bolts in contact with water are A2 70 quality. The strainer is AISI 420 material and environmentally reinforced.



PN10							PN16						
ØD	ØK	Ød	Ød2xn	f	C	L	ØD	ØK	Ød	Ød2xn	f	C	L
150	110	84	19x4	3	19	230	150	110	84	19x4	3	19	230
165	125	99	19x4	3	19	230	165	125	99	19x4	3	19	230
185	145	118	19x4	3	19	290	185	145	118	19x4	3	19	290
200	160	132	19x8	3	19	310	200	160	132	19x8	3	19	310
220	180	156	19x8	3	19	350	220	180	156	19x8	3	19	350
250	210	184	19x8	3	19	400	250	210	184	19x8	3	19	400
285	240	211	23x8	3	19	480	285	240	211	23x8	3	19	480
340	295	266	23x8	3	20	600	340	295	266	23x12	3	20	600
400	350	319	23x12	3	22	730	400	355	319	28x12	3	22	730
445	400	370	23x12	4	24,5	850	460	410	370	28x12	4	24,5	850
505	460	429	23x16	4	24,5	980	520	470	429	28x16	4	26,5	980
565	515	480	28x16	4	24,5	1100	580	525	480	31x16	4	28	1100
615	565	548	28x20	4	25,5	1100	640	585	548	31x20	4	30	1100
670	620	609	28x20	4	28,5	1250	715	650	609	34x20	4	31,5	1250

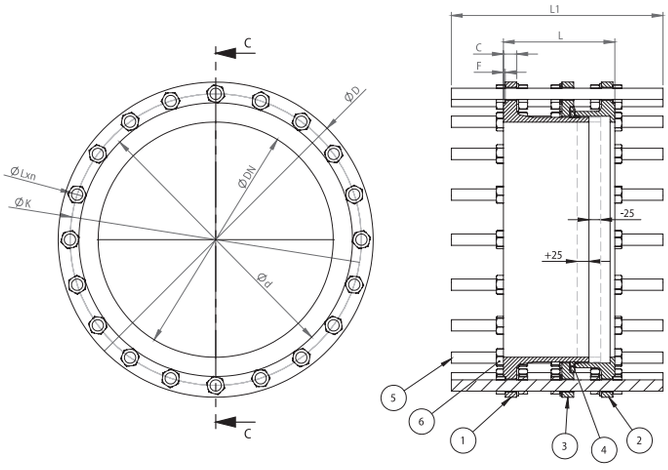
DISMANTLING JOINTS

17

ES-4240

GENERAL INFORMATION

The dismantling fittings (disassembly) allow easy connection and dismantling of the valves to the pipelines. Provides complete mating with ± 25 mm movement in the disassembly and assembly direction. Our disassemblies are manufactured as fully rigid. Our disassemblies can be manufactured as semi-rigid or telescopic according to customer demand. Studs and nuts are fitted in stainless steel (studs AISI 420, bolts A2 70, nuts A4 80) on request. Sealing gasket is EPDM.



PART NO.	PART NAME	MATERIAL
1	PART NAME	GGG40-50
2	SHORT PIECE	GGG40-50
3	SPACER FLANGE	GGG40-50
4	SEALING GASKET	EPDM
5	STUD	GALVANISED STEEL
6	NUT	GALVANISED STEEL

DN	F	PN 10							PN 16						
		ØD	ØK	Ød	C	ØLxn	L	L1	ØD	ØK	Ød	C	ØLxn	L	L1
50	3	165	125	99	19	19X4	150	290	165	125	99	19	19X4	150	290
65	3	185	145	118	19	19X4	150	290	185	145	118	19	19X4	150	290
80	3	200	160	132	19	19X8	150	290	200	160	132	19	19X8	150	290
100	3	220	180	156	19	19x8	150	290	220	180	156	19	19x8	150	290
125	3	250	210	184	19	19x8	150	290	250	210	184	19	19x8	150	290
150	3	285	240	211	19	23x8	160	290	285	240	211	19	23x8	160	290
200	3	340	295	266	20	23x8	185	330	340	295	266	20	23x12	185	330
250	3	405	350	319	22	23x12	190	330	405	355	319	22	28x12	190	330
300	4	460	400	370	24,5	23x12	190	330	460	410	370	24,5	28x12	200	370
350	4	505	460	429	24,5	23x16	190	330	520	470	429	26,5	28x16	210	370
400	4	565	515	480	24,5	28x16	210	370	580	525	480	28	31x16	220	410
450	4	615	565	530	25,5	28x20	210	370	640	585	548	30	31x20	225	410
500	4	670	620	582	28,5	28x20	220	370	715	650	609	31,5	34x20	225	440
600	5	780	725	682	30	31x20	225	410	840	770	720	36	37x20	250	470
700	5	895	840	794	32.5	31x24	235	410	910	840	794	39.5	37x24	250	470
800	5	1015	950	901	35	34x24	245	440	1025	950	901	43	41x24	275	500
900	5	1115	1050	1001	37.5	34x28	270	440	1125	1050	1001	46.5	41x28	275	500
1000	5	1230	1160	1112	40	37x28	275	470	1255	1170	1112	50	44x28	290	500
1100	5	1355	1270	1218	42.5	37x32			1355	1270	1218	53.5	44x32		
1200	5	1455	1380	1328	45	41x32	275		1485	1390	1328	57	50x32	350	
1300	5	1585	1490	1432	45	42x32			1585	1490	1432	59	50x32		
1400	5	1675	1590	1530	46	44x36			1685	1590	1530	60	50x36	360	
1500	5	1820	1700	1640	47	44X36			1820	1710	1640	62.5	57X36		
1600	5	1915	1820	1750	49	50X40			1930	1820	1750	65	57X40		
1800	5	2115	2020	1950	52	50X44			2130	2020	1950	70	57X44		
2000	5	2325	2230	2150	55	50X48			2345	2230	2150	75	62X48		
2200	5	2555	2440	2370	65	57x52			2555	2440	2360	80	62x52		
2400	6	2760	2650	2570	65	57x56			2760	2650	2570	84	62x56		

L= Forehead to forehead length | **ØD=** Flange outer diameter | **ØK=** Flange hole centre

Ød= Flange raised face diameter | **L1=** Stud size | **C=** Flange thickness | **F=** Flange raised face thickness

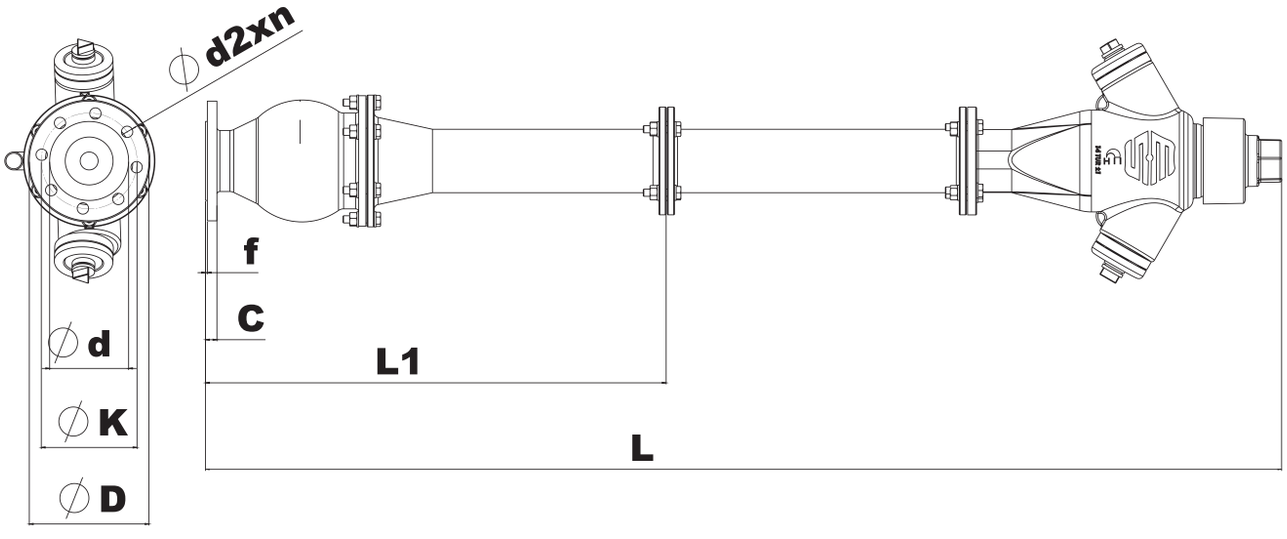
ABOVE GROUND FIRE HYDRANT

ES-4250

GENERAL INFORMATION

Above ground fire hydrants are used in factories, warehouses, industrial plants, building surroundings, airports, military facilities, green areas, public areas, residential areas and everywhere where there is a risk of fire, for the water supply of the fire brigade or fire response team. It is a hydrant with irrigation nozzles above the ground. The hydrant valve consists of the shaft that controls the valve, the spring-loaded valve that acts as an automatic drain, (check valve), the cast parts forming the main body and hose connection fittings. With the help of the hydrant switch, the shaft is controlled and the opening and closing function is realised.

Hydrant Switch is the operating element that enables above ground hydrants to be opened and closed when necessary. Available in steel or cast iron material.

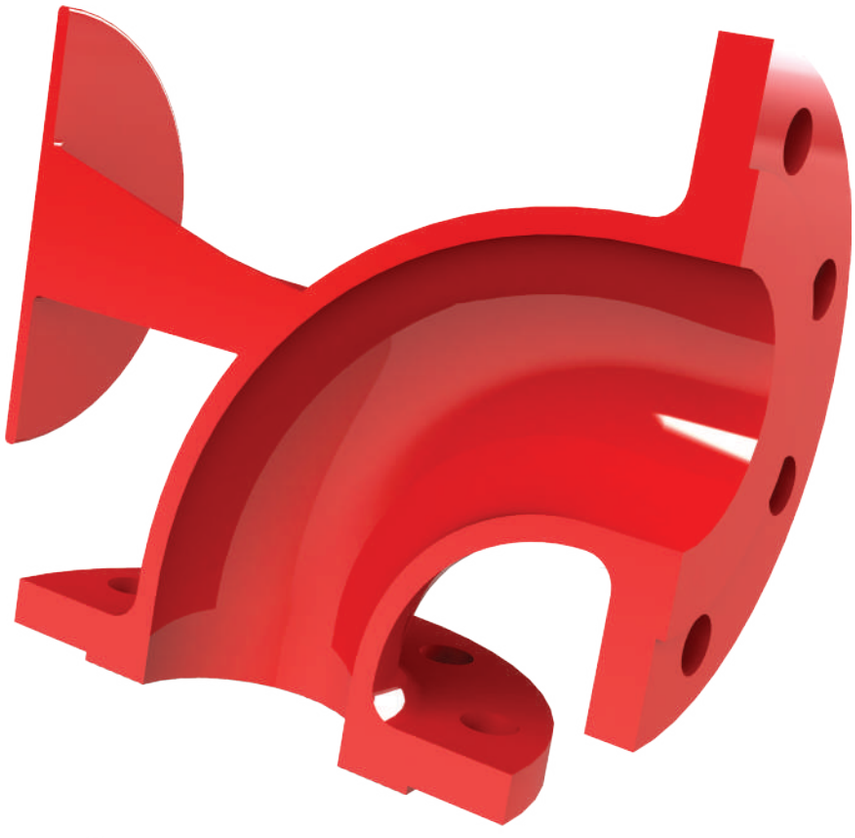


ØD	ØK	Ød	Ød2xn	C	f	L1	L
200	160	132	19x8	19	3	770	1250
200	160	132	19x8	19	3	770	1450
200	160	132	19x8	19	3	770	1750
200	160	132	19x8	19	3	770	2150
220	180	156	19x8	19	3	770	1250
220	180	156	19x8	19	3	770	1450
220	180	156	19x8	19	3	770	1750
220	180	156	19x8	19	3	770	2150

FIRE HYDRANT CONNECTION HEEL

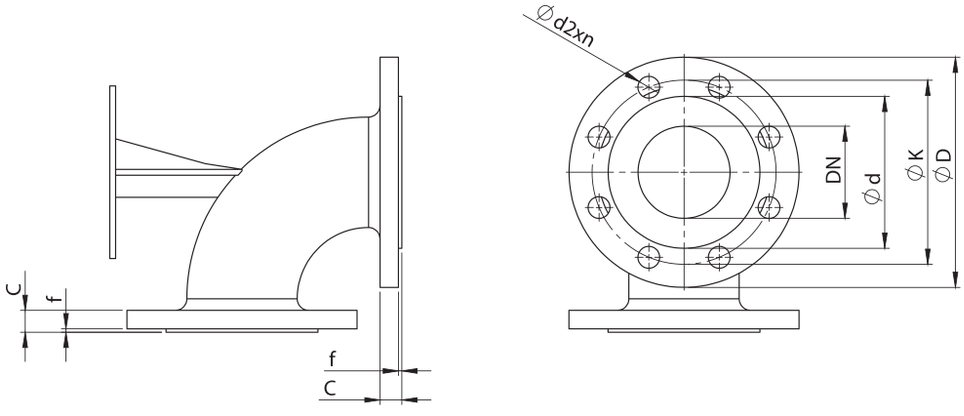
19

ES-5013



GENERAL INFORMATION

N-Part is the supporting part that provides connection to the water network for both aboveground and underground fire hydrants. It provides 90 degree perpendicular connection to the pipeline and also supports the hydrants to remain fixed at the point where they are installed with its internal duck foot shape design. It is manufactured from cast iron or ductile iron.



DN	D	K	d	C	f
80	200	160	132	19	3
100	220	180	156	19	3

BREAKABLE FIRE HYDRANT

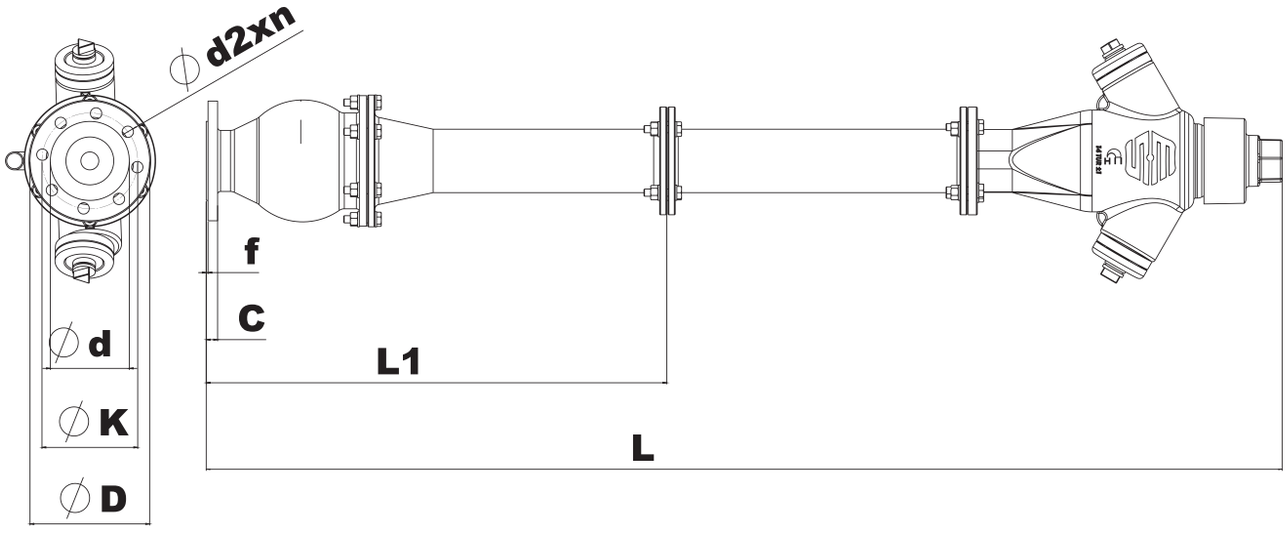
20

ES-4252

GENERAL INFORMATION

ESVANA Breakable Fire Hydrants, like other hydrants, are used in factories, warehouses, building surroundings, residential areas, parks and forest areas and everywhere where there is a risk of fire, for water supply of fire trucks, water tankers. Breakable Fire Hydrant; due to its specially designed connection mechanism, the water intake body will be separated from the main body by breaking at the point determined in its design since it is exposed to side impacts and impacts. In this case, if the hydrant position is closed, it will remain closed and prevent water outlet. If breakage occurs while in the open position, it will ensure that the hydrant switches to the closed position.

Hydrant Switch is the operating element that enables above ground hydrants to be opened and closed when necessary. Available in steel or cast iron material.

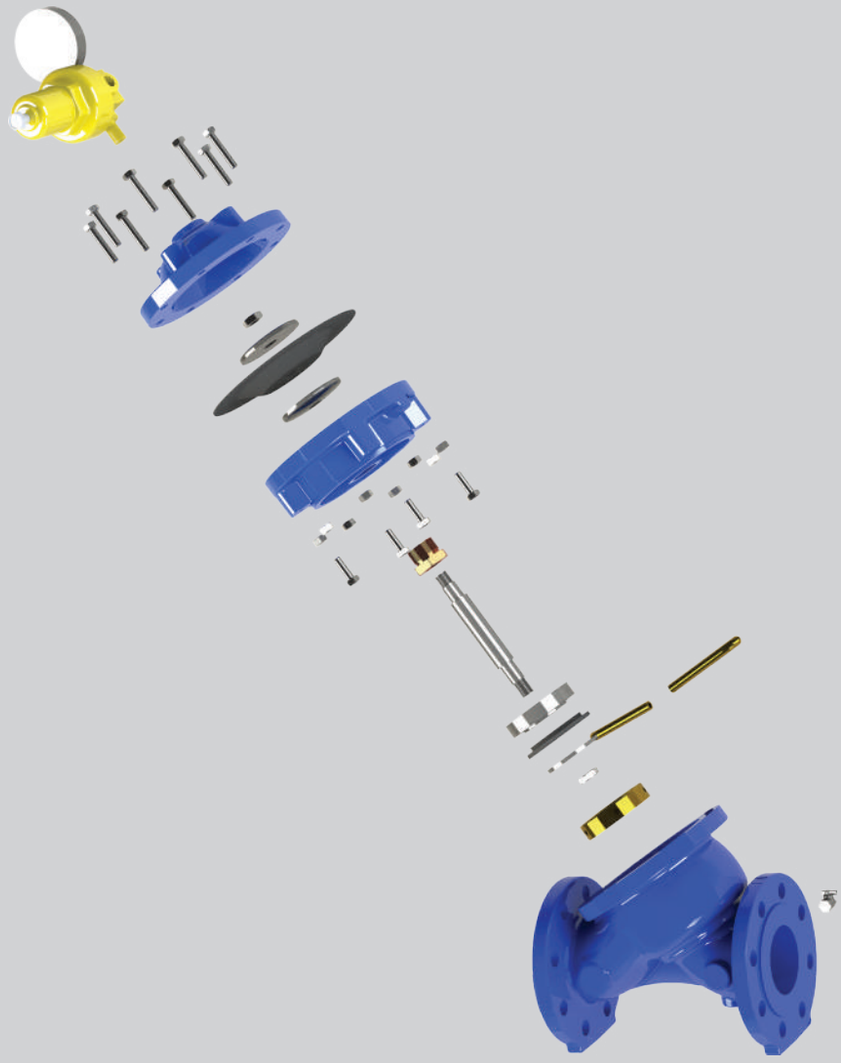


ØD	ØK	Ød	Ød2xn	C	f	L1	L
200	160	132	19x8	19	3	770	1250
200	160	132	19x8	19	3	770	1450
200	160	132	19x8	19	3	770	1750
200	160	132	19x8	19	3	770	2150
220	180	156	19x8	19	3	770	1250
220	180	156	19x8	19	3	770	1450
220	180	156	19x8	19	3	770	1750
220	180	156	19x8	19	3	770	2150

PRESSURE BREAKER VALVE

21

ES-4255



GENERAL INFORMATION

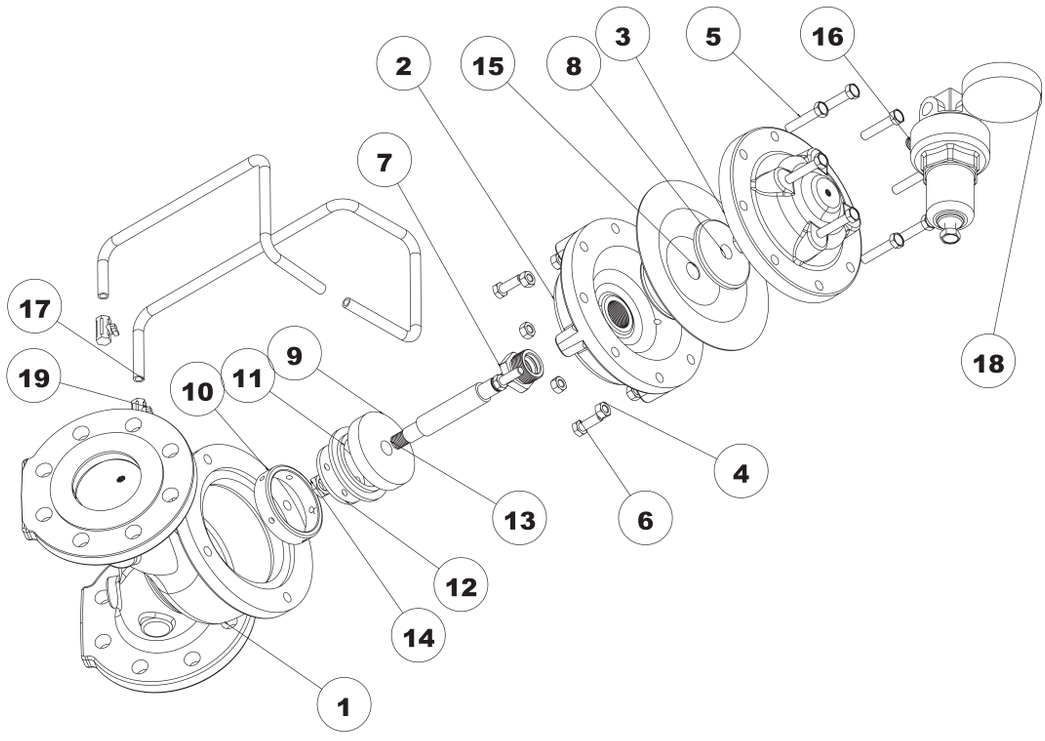
Automatic Control Valves are valves that open, close and adjust with the pressure of mains water. The power that moves the flapper is provided by the area of the diaphragm or piston in the actuator being greater than the flapper area by a certain ratio. The opening of the flapper is adjusted by the ratio of the working pressure acting on the actuator or piston. This adjustment is provided by hydraulic valves called pilot.

Establishment of hydraulic balance in water distribution networks is very important for the efficient operation of the network. With ESVANA adjustable pressure reducing valves, high inlet pressures are reduced to the desired pressure and given to the system. Pressure reducing valves can be connected one after the other to reduce the pressure to the desired pressure. Efficient operation of the system is ensured.

In order to prevent cavitation in pressure reducing valves, the ratio of inlet and outlet pressures should not exceed 1.5 + 1 or 2 + 1. (If the input is 10 bar, the output should be at least 6.6 bar or 5 bar).

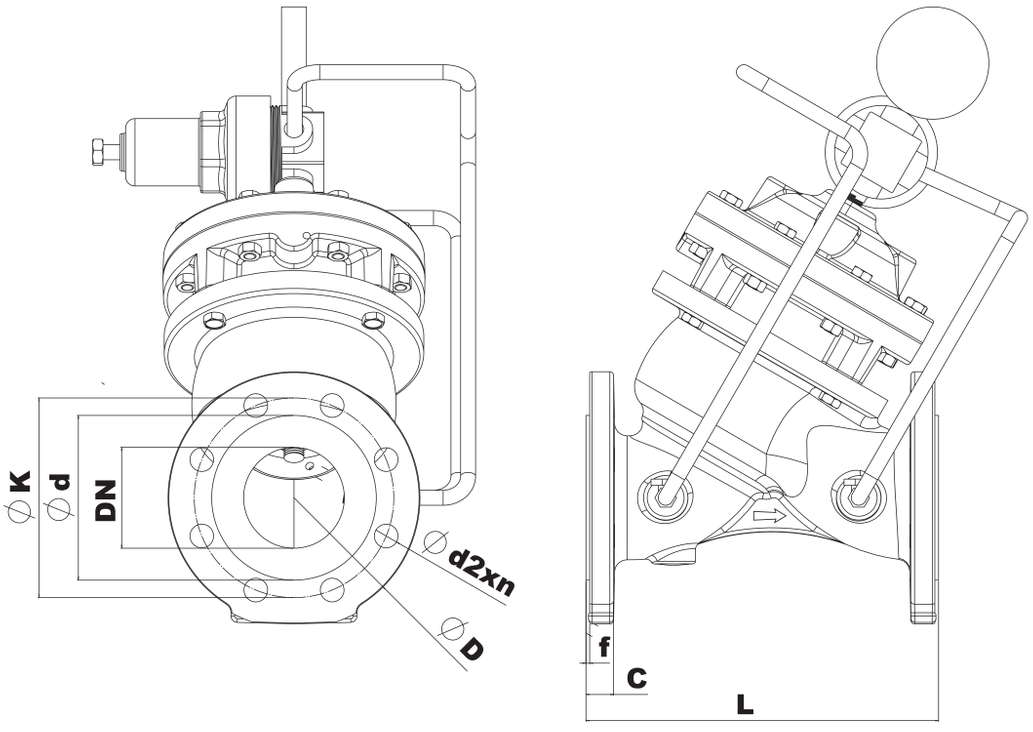
The cavitation resistance of the valve is increased with enlarged body structure, V-Port pluggable control valve, stainless steel valve seat.

MATERIAL SPECIFICATIONS



PART NO.	PART NAME	MATERIAL
1	PRESSURE CONTROL VALVE BODY	GGG40 / GGG50
2	PRESSURE CONTROL VALVE BOTTOM COVER	GGG40 / GGG50
3	PRESSURE CONTROL VALVE TOP COVER	GGG40 / GGG50
4	PRESSURE CONTROL VALVE TOP COVER BOTTOM COVER COUPLING NUT	A2-70
5	PRESSURE CONTROL VALVE UPPER COVER LOWER COVER CONNECTION BOLT	A2-70
6	PRESSURE CONTROL VALVE BOTTOM COVER CONNECTION BOLT	A2-70
7	PRESSURE CONTROL VALVE UNION	BRONZE
8	PRESSURE CONTROL VALVE DIAPHRAGM PLATE	304 - 316
9	PRESSURE CONTROL VALVE FLAPPER	GGG40 / GGG50
10	PRESSURE CONTROL VALVE THRUST RING	ST37 - 304 - 316
11	PRESSURE CONTROL VALVE THRUST RING GASKET	EPDM
12	PRESSURE CONTROL VALVE THRUST RING SEAL RETAINER	ST37 - 304 - 316
13	PRESSURE CONTROL VALVE SHAFT	304 - 316
14	PRESSURE CONTROL VALVE SPINDLE COUPLING FIXING NUT	A2-70
15	PRESSURE CONTROL VALVE DIAPHRAGM	Ny1402
16	PRESSURE CONTROL VALVE PILOT	BRONZE - MS58
17	PRESSURE CONTROL VALVE PIPE	304
18	PRESSURE CONTROL VALVE MANOMETER	
19	PRESSURE CONTROL VALVE GLOBE VALVE	

TECHNICAL SPECIFICATIONS



	PN10							PN16						
	ØD	ØK	Ød	Ød2xn	f	C	L	ØD	ØK	Ød	Ød2xn	f	C	L
DN40	150	110	84	19x4	3	19	230	150	110	84	19x4	3	19	230
DN50	165	125	99	19x4	3	19	230	165	125	99	19x4	3	19	230
DN65	185	145	118	19x4	3	19	290	185	145	118	19x4	3	19	290
DN80	200	160	132	19x8	3	19	310	200	160	132	19x8	3	19	310
DN100	220	180	156	19x8	3	19	350	220	180	156	19x8	3	19	350
DN125	250	210	184	19x8	3	19	400	250	210	184	19x8	3	19	400
DN150	285	240	211	23x8	3	19	480	285	240	211	23x8	3	19	480
DN200	340	295	266	23x8	3	20	600	340	295	266	23x12	3	20	600
DN250	400	350	319	23x12	3	22	730	400	355	319	28x12	3	22	730
DN300	445	400	370	23x12	4	24,5	850	460	410	370	28x12	4	24,5	850
DN350	505	460	429	23x16	4	24,5	980	520	470	429	28x16	4	26,5	980
DN400	565	515	480	28x16	4	24,5	1100	580	525	480	31x16	4	28	1100
DN450	615	565	548	28x20	4	25,5	1100	640	585	548	31x20	4	30	1100
DN500	670	620	609	28x20	4	28,5	1250	715	650	609	34x20	4	31,5	1250

PRESSURE CONTROL VALVES

Diaphragm controlled pressure reducing control valves automatically reduce the high inlet pressure coming from the network and give it as outlet pressure. Flow is ensured by keeping the outlet pressure constant regardless of the inlet pressure and flow rate.
Automatic Control Valves are valves that open, close and adjust with the pressure of mains water. The power that moves the flapper is provided by the area of the diaphragm or piston in the actuator being greater than the flapper area by a certain ratio. The opening of the flapper is adjusted by the ratio of the working pressure acting on the actuator or piston. This adjustment is provided by hydraulic valves called pilot.

FLOW CONTROL VALVES MADE IN OUR ESVANA FACTORY

1-Adjustable Pressure Reducing Valve
2-Solenoid Controlled Pressure Reducing Valve
3- Proportional Pressure Reducing Valve
4- Pressure Stabilising Valve
5- Quick Relief Valve
6- Flow Control Valve
7- Level Control Valve

1-ADJUSTABLE PRESSURE REDUCING VALVE

Establishment of hydraulic balance in water distribution networks is very important for the efficient operation of the network. With ESVANA adjustable pressure reducing valves, high inlet pressures are reduced to the desired pressure and given to the system. Pressure reducing valves can be connected one after the other to reduce the pressure to the desired pressure. Efficient operation of the system is ensured. In order to prevent cavitation in pressure reducing valves, the ratio of inlet and outlet pressures should not exceed 1.5 + 1 or 2 + 1. (If the input is 10 bar, the output should be at least 6.6 bar or 5 bar). The cavitation resistance of the valve is increased with enlarged body structure, V-Port pluggable control valve, stainless steel valve seat.

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2-SOLENOID CONTROLLED PRESSURE REDUCING VALVE

ESVANA solenoid controlled valves are valves that open and close using electricity. The solenoids can be selected as AC or DC. Available in 220 v, 110 v, 24 v, 12 v. The selenoide can be activated by sending the signal from flow, pressure or timer sensors.

3-PROPORTIONAL PRESSURE REDUCING VALVE

ESVANA proportional pressure reducing control valves are hydraulic control valves that reduce the pressure value by (1,5^1 or 2^1). These control valves reduce the outlet pressure from the inlet pressure value by the determined rate without being affected by the flow rate and inlet pressure value. The system seals itself when the flow is interrupted in the system. Proportional pressure reducing control valves maintain the inlet and outlet pressure ratio unless the body or internal mechanisms are damaged.

4-PRESSURE STABILISING VALVE

ESVANA pressure stabilising control valves keep the pressure at the inlet of the valve constant. When the line pressure reaches the valve setting pressure level, the valve starts to open. With this feature, the pump reaching full load in pumping systems is accelerated and energy saving is provided. The valve keeps the inlet pressure value constant at the set value without being affected by flow rate changes. The valve seals itself when there is no flow in the system.

5-QUICK RELIEF VALVE

ESVANA fast pressure relief control valves are installed perpendicular to the pipelines in pressurised water networks. When the pressure rise in the line reaches an undesirable value, the valve flap opens and discharges the water to the atmosphere and reduces the pressure of the line, and when the pressure returns to normal, it provides complete sealing by closing slowly. It prevents the formation of water ram strokes in the system with slow closing. In pumped pumping lines, it is activated with the increase in water pressure as a result of the pumps being activated and deactivated in the system and discharges the water to the atmosphere and reduces the pressure.

6-FLOW CONTROL VALVE

Flow control valves prevent the flow rate given to the system from exceeding the desired values. The pressure taken from the orifice ring placed on the inlet side of the valve is transmitted to the pilots, the pressure applied to the actuator and the valve opening ratio are adjusted to ensure that the flow rate remains constant at the desired maximum value.

7-LEVEL CONTROL VALVE

Float Control Valves keep the level in the water tanks constant at the desired value regardless of the flow rate. The advantages provided by the floater in the selection and connection of the mounting location facilitate disassembly and maintenance and repair work.

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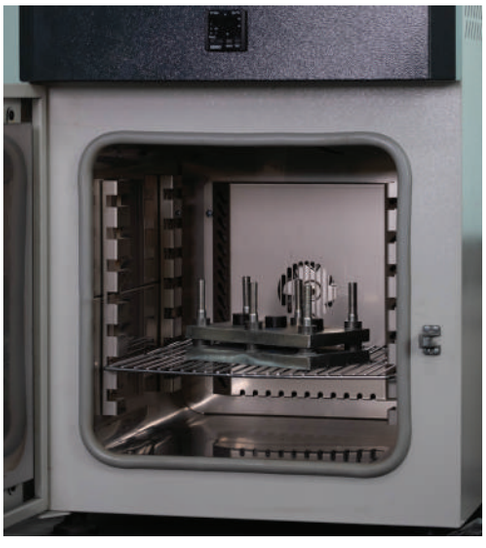
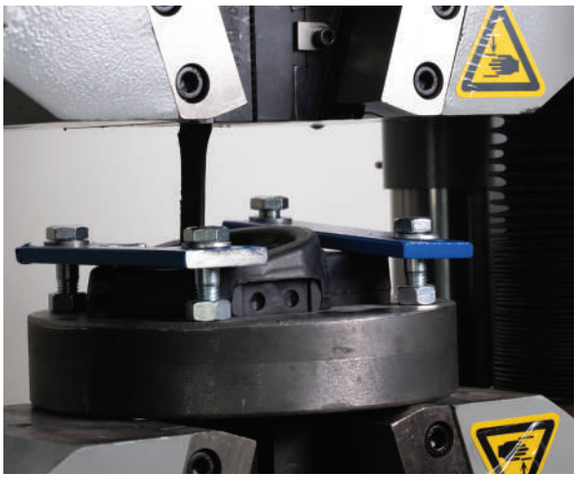
EXPERIMENTS CARRIED OUT IN OUR LABORATORY





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	SPANNER MOUTH	TORQUE MM	TORQUE MM	TORQUE MM	TORQUE MM	TORQUE MM	TORQUE MM	TORQUE MM	TORQUE MM	TORQUE MM
M4	7	0.85	11	1.5	14	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

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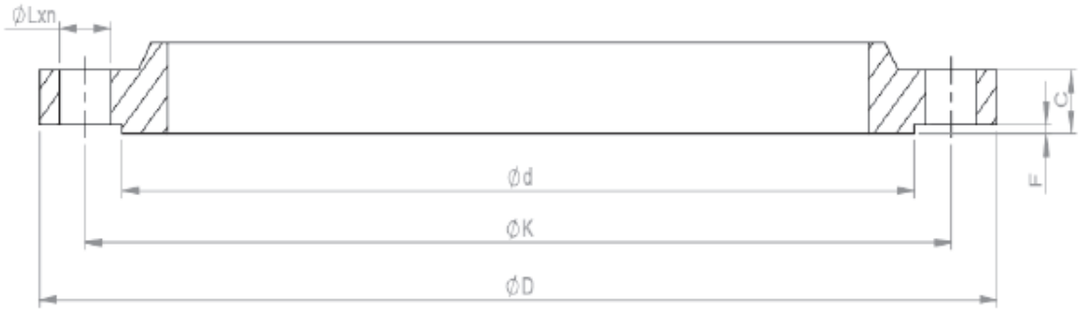
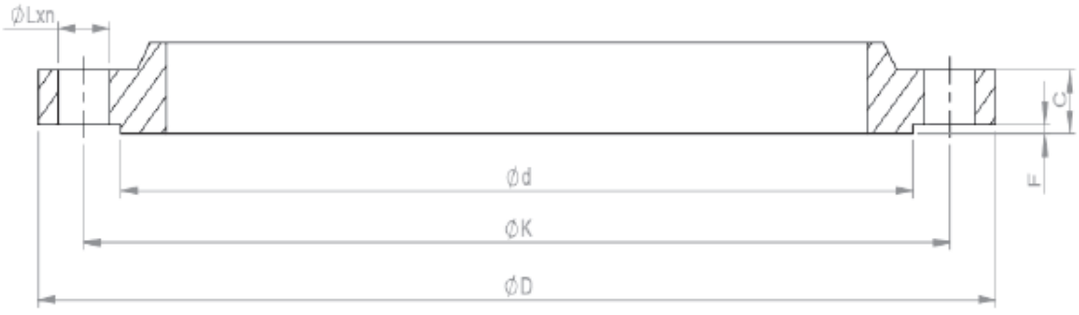


FLANGE SIZE TABLE

DN	F	PN 10					PN 16				
		ØD	ØK	Ød	C	ØLxn	ØD	ØK	Ød	C	ØLxn
50	3	165	125	99	19	19X4	165	125	99	19	19X4
65	3	185	145	118	19	19X4	185	145	118	19	19X4
80	3	200	160	132	19	19X8	200	160	132	19	19X8
100	3	220	180	156	19	19x8	220	180	156	19	19x8
125	3	250	210	184	19	19x8	250	210	184	19	19x8
150	3	285	240	211	19	23x8	285	240	211	19	23x8
200	3	340	295	266	20	23x8	340	295	266	20	23x12
250	3	405	350	319	22	23x12	405	355	319	22	28x12
300	4	460	400	370	24,5	23x12	460	410	370	24,5	28x12
350	4	505	460	429	24,5	23x16	520	470	429	26,5	28x16
400	4	565	515	480	24,5	28x16	580	525	480	28	31x16
450	4	615	565	530	25,5	28x20	640	585	548	30	31x20
500	4	670	620	582	28,5	28x20	715	650	609	31,5	34x20
600	5	780	725	682	30	31x20	840	770	720	36	37x20
700	5	895	840	794	32,5	31x24	910	840	794	39,5	37x24
800	5	1015	950	901	35	34x24	1025	950	901	43	41x24
900	5	1115	1050	1001	37,5	34x28	1125	1050	1001	46,5	41x28
1000	5	1230	1160	1112	40	37x28	1255	1170	1112	50	44x28
1100	5	1355	1270	1218	42,5	37x32	1355	1270	1218	53,5	44x32
1200	5	1455	1380	1328	45	41x32	1485	1390	1328	57	50x32
1300	5	1585	1490	1432	45	42x32	1585	1490	1432	59	50x32
1400	5	1675	1590	1530	46	44x36	1685	1590	1530	60	50x36
1500	5	1820	1700	1640	47	44X36	1820	1710	1640	62,5	57X36
1600	5	1915	1820	1750	49	50X40	1930	1820	1750	65	57X40
1800	5	2115	2020	1950	52	50X44	2130	2020	1950	70	57X44
2000	5	2325	2230	2150	55	50X48	2345	2230	2150	75	62X48
2200	5	2555	2440	2370	65	57x52	2555	2440	2360	80	62x52
2400	6	2760	2650	2570	65	57x56	2760	2650	2570	84	62x56

Ølxn= Hole diameter x quantity | **ØD=** Flange outer diameter | **ØK=** Flange hole centre

Ød= Flange raised face thickness | **C=** Flange thickness



DN	F	PN 25					PN 40				
		ØD	ØK	Ød	C	ØLxn	ØD	ØK	Ød	C	ØLxn
50	3	165	125	99	19	19X4	165	125	99	19	19X4
65	3	185	145	118	19	19X8	185	145	118	19	19X8
80	3	200	160	132	19	19X8	200	160	132	19	19X8
100	3	235	190	156	19	23x8	235	190	156	19	23x8
125	3	270	220	184	19	28x8	270	220	184	23,5	28x8
150	3	300	250	211	20	28x8	300	250	211	26	28x8
200	3	**360**	310	274	22	28x12	375	320	284	30	31x12
250	3	425	370	330	24,5	31x12	450	385	345	34,5	34x12
300	4	485	430	389	27,5	31x16	515	450	409	39,5	34x16
350	4	555	490	448	30	34x16	580	510	465	44	37x16
400	4	620	550	503	32	37x16	660	585	535	48	41x16
450	4	670	600	548	34,5	37x20	685	610	560	49	41x20
500	4	730	660	609	36,5	37x20	755	670	615	52	44x20
600	5	845	770	720	42	41x20	890	795	735	58	50x20
700	5	980	875	820	46,5	44x24	995	900	840	64	50x24
800	5	1085	990	928	51	50x24	1140	1030	960	72	57x24
900	5	1185	1090	1028	55,5	50x28	1250	1140	1070	80	57x28
1000	5	1320	1210	1140	60	57x28	1360	1250	1180	95	57x28
1200	5	1530	1420	1350	69	57x32	1575	1460	1380	95	62x32
1400	5	1755	1640	1580	74	62x36	1785	1680	1600	105	62x36
1600	5	1975	1860	1780	81	62X40	2025	1900	1815	120	70X40
1800	5	2195	2070	1985	88	70X44	2240	2110	2010	165	70X48

F= Flange raised face thickness	**ØD=** Flange outer diameter	**ØK=** Flange hole centre	
Ød= Flange raised face diameter	**C=** Flange thickness	**Ølxn=** Hole diameter x quantity	

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OUR REFERENCES

ASAT
AKSEKİ-GÜNDOĞMUŞ YANGIN BÖLGESİ İÇME SUYU ŞEBEKE YAPIM İŞİ

ASAT
DOĞU BÖLGESİ İÇME SUYU DEPOLARI TADİLAT YAPIM İŞİ

ASKİ
AKYURT,ALTINDAĞ... KIZILCA HAMAM İÇME SUYU DEPO YAPIM İŞİ

ASKİ
ÇANKAYA VE MAMAK İLÇE MERKEZLERİ VE MAHALLERİ İÇME SUYU YAPIM İŞİ

ASKİ
ÇUBUK, AKYURT, KEÇİÖREN ASBEST VE KULLANIM ÖMRÜNÜ TAMAMLAMIŞ İÇME SUYU ŞEBEKE VE İLETİM HATTI YENİLEME İŞİ

ASKİ
ELMADAĞ İLÇE MERKEZLERİ İÇME SUYU ALANLARI ŞEBEKE İLETİM HATLARI VE DİĞER İMALATLAR YAPIM İŞİ

ASKİ
GÖLBAŞI VE BALA İLÇE MERKEZİ VE MAHALLERİ İÇME SUYU ŞEBEKE İLETİM HATTI YAPIM İŞİ

ASKİ
MAMAK- GÖLBAŞI ARASI İÇME SUYU ANA İLETİM YAPIM İŞİ

ASKİ
PREFABRİK İÇME SUYU YAPIM İŞİ

ASKİ
PURSAKLAR İLÇE MERKEZİ VE MAHALLELERİ İÇME SUYU YAPIM İŞİ

ASKİ
SİNCAN İLÇESİ İÇME SUYU YAPIM İŞİ

ASKİ
ŞEREFLİ KOÇHİSAR İLÇESİ ATIKSU ARITMA TESİSİ YAPIM İŞİ

ASKİ
ŞEREFLİ KOÇHİSAR İLÇESİ İÇME SUYU YAPIM İŞİ

ASKİ
YENİ MAHALLE VE ETİMESGUT İLÇE MERKEZLERİ VE MAHALLERİ İÇMESUYU YAPIM İŞİ

DSİ
AMASYA TAŞOVA YERKOZLU SULAMASI POMPA TESİSİ ONARIMI

DSİ
ÇATALAN BARAJI SU KAÇAĞI ONARIMI

DSİ
DENİZLİ İÇMESUYU ÇAKMAK DEPOSU İNŞAATI

DSİ
ESKİŞEHİR SEYİTGAZİ YENİKENT YAZ SULAMA ŞEBEKESİ

DSİ
HADİM YARICAK GÖLETİ VE SULAMASI İKMAL İNŞAATI

DSİ
MERSİN MUT SARIKAVAK,YILDIZKÖY TOPLUCA, YUKARIKÖSELERLİ VE YEŞİLYURT KÜÇÜK GÖLET VE YÜS SULAMALARI

DSİ
SAKARYA NALKÖY GÖLETİ ONARIMI

DİSKİ
DİYARBAKIR SU KANALİZASYON İDARESİ 8.KISIM İÇME SUYU MALZEME ALIMI

EDİRNE BELEDİYESİ
EDİRNE BELEDİYESİ MUHTELİF MAHALLE CADDE VE SOKAKLARDA İÇMESUYU, YAĞMUR SUYU VE KANALİZASYON YAPIM İŞİ

ELAZIĞ BELEDİYESİ
ELAZIĞ İÇMESUYU, KANALİZASYON VE YAĞMUR SUYU HATTI.2.BÖLGE YAPIM İŞİ

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İLLER BANKASI
BİRECİK (ŞANLIURFA İÇME SUYU YAPIM İŞİ)

İLLER BANKASI
BOĞAZİÇİ-ALTINÜZÜM-SULUM AĞARA İÇME SUYU ŞEBEKE İNŞAATI İŞİ

İLLER BANKASI
EMET (KÜTÜHYA) İÇMESUYU İNŞAATI YAPIM İŞİ

İLLER BANKASI
HARRAN(ŞANLIURFA) İÇME SUYU ŞABEKELERİ İNŞAATI İŞİ

İLLER BANKASI
HAYROBOLU İLÇESİ ÇERKEZMÜSELLİM VE HEDEYLİ MAHALLELERİ İÇME SUYU HATTI DEPO TERFİ MERKEZİ İNŞAATI YAPIM İŞİ

İLLER BANKASI
KURANCILI (KIRŞEHİR)İÇMESUYU VE İÇMESUYU PAKET ARITMA TESİSİ

İLLER BANKASI
KURŞUNLU(ÇANKIRI) İÇMESUYU TESİSİ YAPIMI

İLLER BANKASI
LİCE(DİYARBAKIR) İÇMESUYU VE KANALİZASYON İNŞAATI YAPIM İŞİ

İLLER BANKASI
NİĞDE ALTUNHİSAR KANALİZASYON VE İÇMESUYU İNŞAATI

İLLER BANKASI
ÖZBAĞ (KIRŞEHİR) İÇME SUYU İNŞAATI

İLLER BANKASI
PINARHİSAR KIRKLARELİ KANALİZASYON YAĞMURSUYU VE İÇME SUYU İNŞAATI İŞİ

İLLER BANKASI
TÜRKOĞLU KAHRAMANMARAŞ İÇME SUYU İSALE HATTI VE ŞEBEKE HATTI İNŞAATI

İLLER BANKASI
UŞAK KIZILCA SÖĞÜT KANALİZASYON YAĞMURSUYU VE İÇME SUYU YAPIM İŞİ

İLLER BANKASI
YALVAÇ ISPARTA BELEDİYESİ İÇMESUYU İLETİM HATTI VE DEBİMETRE ODASI İNŞAATI YAPIM İŞİ

İLLER BANKASI
YUSUFÇA (BURDUR) İÇME SUYU İNŞAATI

TİSKİ
TRABZON İLÇELERİNDE MUHTELİF MAHALLELERDE İÇMESUYU HATLARI YAPIM İŞİ

TİSKİ
TRABZON İLİ ŞALPAZARI MAHALLELERİ İÇME SUYU YAPIM İŞİ

ŞUSKİ
HARRAN(ŞANLIURFA) İÇME SUYU ŞABEKELERİ İNŞAATI İŞİ

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