

# ÖZKAN Axial Silent Check Valve

Technical Guide W4.43

For prevention of backflow in severe applications. The dynamic design uses springs to allow a quick response to flow changes with low pressure drop and fast closing to prevent water hammer effect.



10.21 | W4.43 HAWLE ÖZKAN AXIAL SILENT CHECK VALVE

## Applications

Raw water  
 River water  
 Grey water  
 Screened effluent  
 High flow velocities

## Product Attributes

Quick response to flow changes  
 Minimized water hammer effect  
 Short closing stroke  
 Low head loss  
 High corrosion resistance  
 Drop tight sealing

## Approvals/Standards

EN 558-1 Series 13 and 14 face to face dimensions  
 Working tests to EN 1074 EN 12266  
 AS4087 Flanges

## Quality

ISO 9001:2008 Quality Management

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# Özkan Axial Silence Check Valve

## Design Specifications

Özkan Axial Silence Check Valves are designed to meet the requirements of a non-slam, fast closing design.

They utilise a spring-loaded disc, and short closing stroke to provide quick response to flow changes.

The water hammer effect is minimised or eliminated by having the valve close before reverse flow is established.

This valve is ideally suited to applications with high head or multi pump manifolds where excess back pressure can result in slam shutting of other check valves.

## Design Features

Diameter	Pressure
DN200-1200	PN 10-40

## Technical Specifications

TABLE 1 Design Features

Part No.	Description	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 cap screw	Stainless steel A2
6	Shaft	Stainless steel X20Cr13
7	Shaft support	Ductile iron EN-GJS-400-15
8	Bearing bush	Bronze
9	Hex. socket head cap screw	Stainless steel A2
10	O-ring	EPDM
11	Hex. socket set screw	Stainless steel A2
12	Spring	Stainless steel

\* Other material grades are available upon request.

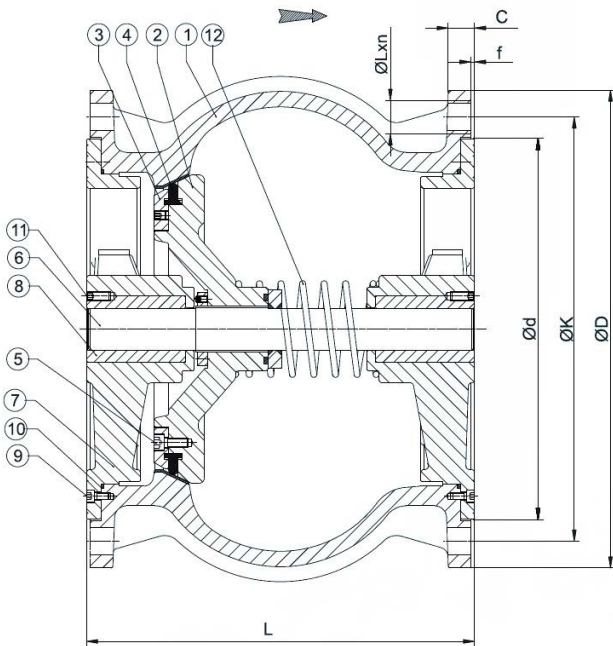


FIG. 1 Axial Silence Check Valve Design Features

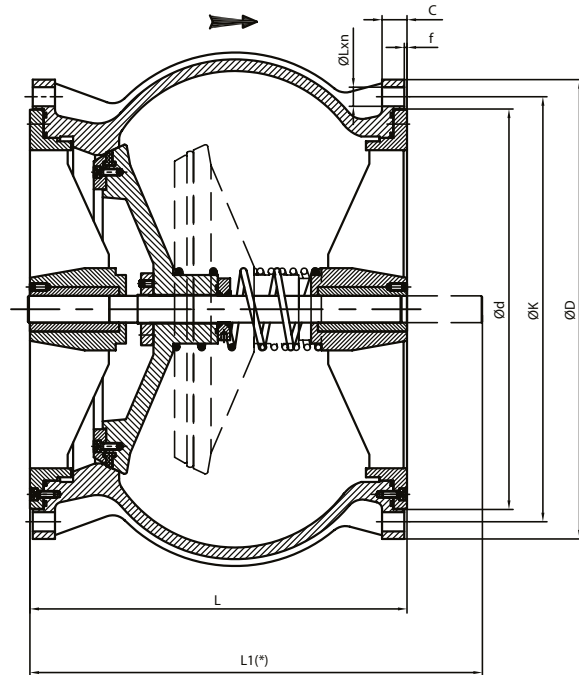


FIG. 2 Axial Silence Check Valve Technical Specifications

\* Please contact us for L1 size.

**TABLE 2** Axial Silent Check Valve PN10 Technical Information

DN	PN	ØD	Øk*	Ød	C	f	ØLxn	L	Weight (KG)
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

**Note:** Please contact us for other sizes and pressure rates.

**TABLE 3** Axial Silent Check Valve PN16 Technical Information

DN	PN	ØD	Øk*	Ød	C	f	ØLxn	L	Weight (KG)
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

**Note:** Please contact us for other sizes and pressure rates.

\* EN1092 Flange pattern shown. Multiple flange standards available.

**TABLE 4** Tilting Check Valve PN25 Technical Information

DN	PN	ØD	Øk*	Ød	C	f	ØLxn	L	Weight (KG)
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

**Note:** Please contact us for other sizes and pressure rates.

**TABLE 5** Axial Silent Check Valve PN40 Technical Information

DN	PN	ØD	Øk*	Ød	C	f	ØLxn	L	Weight (KG)
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

**Note:** Please contact us for other sizes and pressure rates.

\* EN1092 Flange pattern shown. Multiple flange standards available.

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