

Range DN: 50 ~ 1200
NPS: 2" ~ 48"



PED 97/23/EC
PED 2014/68/EU



TR TS 10/11,
12/11, 32/11



Range PN: 10 ~ 400
Class: 150 ~ 2500

Operating temperature: - 196 °C ~ + 550 °C

Connection into piping: Flanged, WAFER, welded ends, combined execution

DESCRIPTION

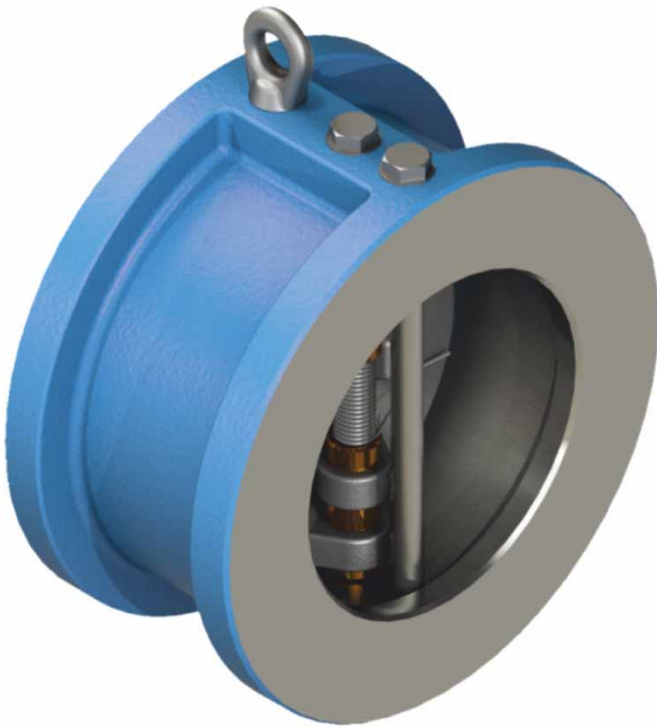
ZK-D swing check valves are automatic check valves. They automatically prevent the reverse flow of the medium. The medium can flow in one direction only. These swing check valves are designed and manufactured to ensure maximum service life and reliability.

MATERIAL SPECIFICATION

ZK-D dual plate swing check valves are made from carbon, alloy and stainless steels. The material type can be adjusted according to the customer's request to optimally suit the operating conditions.

APPLICATION

ZK-D dual plate swing check valves are suitable for various liquids, gases and steam.



BASIC STANDARDS FOR DESIGN

Basic design

API 594, API 6D

Pressure-temperature rating

ASME B16.34, EN 12 516 - 1

Testing

API 598, EN 12 266 - 1, 2

Face-to-face dimensions

ANSI B16.10, EN 558, EN 12 982

Dimensions of the welded ends

ANSI B16.25, EN 12 627

Top Flange dimensions

None

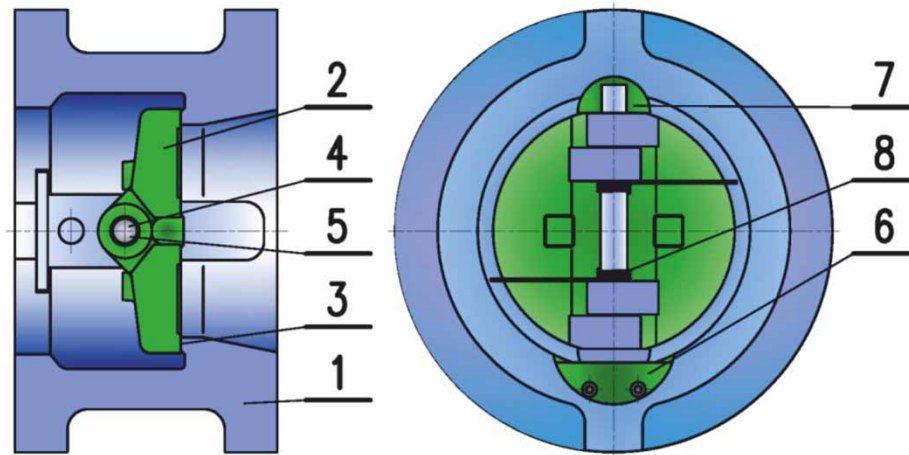
Flange dimensions

ANSI B 16.5, ANSI B16.47 A
EN 1092 - 1

Special

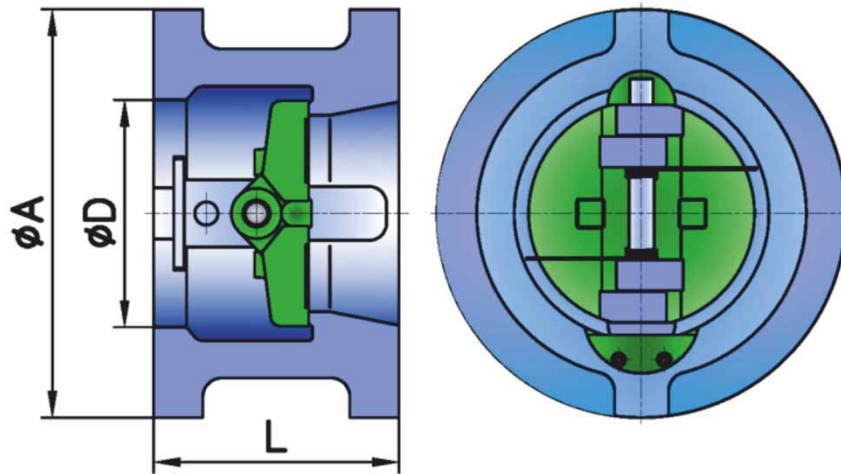
NACE MR-0175

MATERIAL SPECIFICATION



ITEM	NAME	MATERIAL				
1	BODY	A216 WCB	A217 WC6 A217 WC9 A217 C12	A350 LF2	A352 LCC	A351 CF8 A351 CF8M
2	DISC	A351 CF8M A217 Gr. CA15	A351 CF8M A217 Gr. CA15	A351 CF8M	A351 CF8M	A351 CF8M
3	BODY SEAT	A216 WCB VITON A surfacing Stellite 410 SS	A217 WC6 A217 WC9 A217 C12 EPDM Hasteloy 410 SS	A350 LF2	A352 LCC Buna N surfacing Stellite	A351 CF8 A351 CF8M VITON A surfacing Stellite
4	SUPPORT TRUNNION	316 SS 410 SS	SS304	316 SS	316 SS	316 SS
5	RESTRAINING TRUNNION	316 SS 410 SS	SS304	316 SS	316 SS	316 SS
6	LOWER BRACKET	316 SS 410 SS	SS304	316 SS	316 SS	316 SS
7	UPPER BRACKET	316 SS 410 SS	SS304	16 SS	316 SS	316 SS
8	SPRING	INCONEL X - 750	INCONEL X - 750	INCONEL X - 750	INCONEL X - 750	INCONEL X - 750

DIMENSIONS - WAFER



DN	PN 10, PN 16				PN 25				PN 40				PN 63				PN 100			
	A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG
50	108	56	60	2	108	56	60	2	108	58	60	3	114	58	60	4	120	58	60	5
65	128	73	67	3	128	73	67	3	128	73	67	4	138	73	67	5	144	73	67	7
80	142	88	73	4	142	88	73	4	142	88	73	6	148	88	73	7	154	88	73	10
100	162	108	73	6	168	108	73	6	168	108	73	8	174	108	79	10	181	108	79	12
125	192	132	86	8	194	132	86	8	194	132	86	13	211	132	105	16	218	132	105	19
150	218	160	98	13	224	160	98	14	224	160	98	16	248	162	136	20	258	162	136	25
200	273	210	127	25	284	210	127	27	291	210	127	28	310	212	165	38	324	212	165	56
250	328	266	146	39	341	266	146	42	353	266	146	49	362	266	213	62	392	266	213	94
300	378	310	181	64	401	310	181	54	418	310	181	76	422	310	229	100	456	312	229	142
350	438	355	184	85	458	355	184	86	475	355	222	114	487	355	273	160	510	355	273	230
400	489	405	191	114	515	405	191	120	547	405	232	190	541	405	305	260	570	405	305	366
450	539	455	203	138	565	455	203	148	572	455	264	200	-	-	-	-	-	-	-	-
500	594	505	219	161	622	505	219	165	626	505	292	260	-	-	-	-	-	-	-	-
600	696	605	222	250	732	605	222	290	745	608	318	404	-	-	-	-	-	-	-	-
700	811	700	305	370	831	700	305	400	-	-	-	-	-	-	-	-	-	-	-	-
800	918	800	305	540	942	800	305	580	-	-	-	-	-	-	-	-	-	-	-	-
900	1018	903	368	650	1040	903	368	660	-	-	-	-	-	-	-	-	-	-	-	-
1000	1124	1055	432	900	1155	1055	432	960	-	-	-	-	-	-	-	-	-	-	-	-
1200	1340	1205	524	1420	1365	1205	524	1510	-	-	-	-	-	-	-	-	-	-	-	-

DUAL PLATE SWING CHECK VALVES

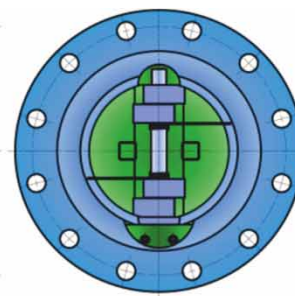
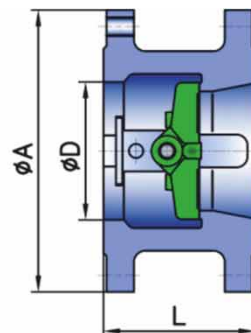
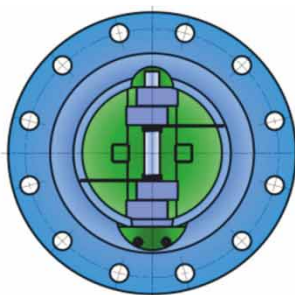
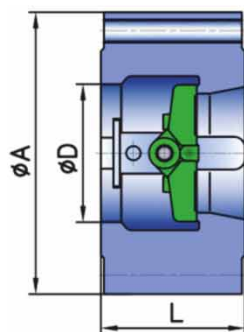
TYPE **ZK-D**

DIMENSIONS - WAFER

NPS	DN	CLASS 150				CLASS 300				CLASS 600				CLASS 900				CLASS 1500				CLASS 2500			
		A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG
2	50	103	56	60	2	110	58	60	3	110	58	60	4	140	58	70	8	140	58	70	8	143	48	70	10
2 1/2	65	122	73	67	3	128	73	67	4	128	73	67	5	162	73	83	11	162	73	83	11	166	58	83	18
3	80	135	88	73	4	147	88	73	6	147	88	73	8	165	90	83	14	172	90	83	19	194	68	86	26
4	100	173	108	73	6	179	108	73	8	191	108	79	11	204	108	102	20	207	108	102	26	232	94	105	40
5	125	195	132	86	8	214	132	86	15	239	136	105	20	245	136	110	30	252	136	110	51	277	106	110	59
6	150	220	160	98	13	249	160	98	18	264	162	136	26	286	162	159	45	280	162	159	68	315	162	159	90
8	200	277	210	127	25	305	210	127	31	318	212	165	55	356	212	206	84	350	212	206	130	385	186	206	150
10	250	337	266	146	39	359	266	146	51	398	266	213	103	432	266	241	145	433	266	248	210	474	232	254	240
12	300	407	310	181	64	420	310	181	83	455	312	229	140	495	312	292	220	518	312	305	384	547	272	305	440
14	350	448	355	184	85	483	355	222	117	490	355	273	223	518	355	356	350	576	355	356	550	-	-	-	-
16	400	512	405	191	114	537	405	232	190	562	400	305	360	572	400	384	470	639	400	384	635	-	-	-	-
18	450	547	455	203	138	594	455	264	200	610	450	362	395	635	450	451	605	-	-	-	-	-	-	-	-
20	500	604	505	219	163	652	505	292	265	680	500	368	518	695	496	451	820	-	-	-	-	-	-	-	-
24	600	715	605	222	285	772	608	318	410	786	600	438	836	835	600	495	1050	-	-	-	-	-	-	-	-
28	700	773	700	305	380	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	750	824	750	305	425	882	740	368	660	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
32	800	878	800	305	560	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	900	983	910	368	640	1044	880	483	1020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40	1000	1089	1010	419	870	1108	950	546	1348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
42	1050	1142	1055	432	960	1196	1045	568	1540	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
48	1200	1302	1205	524	1400	1365	1190	629	2260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LUG TYPE

FLANGE MOUNTED TYPE



DUAL PLATE SWING CHECK VALVES

TYPE **ZK-D**

DIMENSIONS - LUG type

NPS	DN	CLASS 150				CLASS 300				CLASS 600				CLASS 900				CLASS 1500				CLASS 2500			
		A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG
2	50	152	57	60	7	165	57	60	8	165	57	60	8	216	57	70	16	216	57	70	16	235	57	70	19
3	80	191	87	73	12	210	87	73	14	210	87	73	14	241	87	83	25	267	87	83	29	305	87	86	38
4	100	229	113	73	19	254	113	73	23	273	113	79	30	292	113	102	45	311	113	102	51	356	113	108	69
6	150	279	166	98	32	318	166	98	45	356	166	137	81	381	166	159	115	394	166	159	119	483	166	159	184
8	200	343	207	127	63	381	207	127	78	419	207	165	134	470	207	210	217	483	207	210	283	-	-	-	-
10	250	406	260	146	93	445	260	146	115	508	260	213	234	546	260	241	330	584	260	248	361	673	260	254	489
12	300	483	300	181	170	521	300	181	242	559	300	229	304	610	300	292	509	673	300	305	637	762	300	305	747
14	350	533	339	184	199	584	339	222	237	603	339	273	571	641	339	356	775	749	339	356	1097	-	-	-	-
16	400	597	387	191	246	648	387	232	489	686	387	305	548	705	387	384	609	826	387	384	1152	-	-	-	-
18	450	635	438	203	290	711	438	264	558	743	438	362	1078	787	438	451	1450	914	438	468	1775	-	-	-	-
20	500	699	487	219	348	775	487	292	766	813	487	368	1297	857	487	451	1960	984	487	533	2675	-	-	-	-
24	600	813	579	222	396	914	579	318	1190	940	579	438	1554	1041	579	495	2351	1168	579	559	3280	-	-	-	-
26	650	870	629	256	1254	972	629	356	1542	1016	629	457	1766	1086	629	533	2479	-	-	-	-	-	-	-	-
28	700	927	680	381	1276	1035	680	381	1395	1073	680	483	1827	1168	680	572	3021	-	-	-	-	-	-	-	-
30	750	984	735	305	987	1092	735	368	1996	1130	735	505	3045	1232	735	635	3835	-	-	-	-	-	-	-	-
32	800	1060	787	356	2925	1149	787	406	3428	1194	787	533	3655	1314	787	660	4265	-	-	-	-	-	-	-	-
36	900	1168	865	368	1430	1270	865	483	2661	1314	865	635	5896	-	-	-	-	-	-	-	-	-	-	-	-
40	1000	1289	987	432	1386	1238	987	546	3827	1321	987	660	7862	1511	987	762	8328	-	-	-	-	-	-	-	-
42	1050	1346	1062	432	2377	1289	1015	568	5515	1403	972	702	6572	-	-	-	-	-	-	-	-	-	-	-	-
48	1200	1511	1193	524	4174	1467	1136	629	6239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

DIMENSIONS - FLANGE MOUNTED type

DIAMETER		CLASS 150				CLASS 300				CLASS 600				CLASS 900			
NPS	DN	A	D	L	KG	A	D	L	KG	A	D	L	KG	A	D	L	KG
2	50	152	60	60	7	165	60	60	9	165	60	60	12	216	60	70	16
2 1/2	65	178	73	67	11	191	73	67	14	-	-	-	-	-	-	-	-
3	80	190	73	73	14	210	74	73	20	210	74	73	25	241	74	83	40
4	100	229	114	73	20	254	114	73	31	273	114	79	46	292	114	102	64
6	150	280	168	98	36	318	168	98	60	356	168	137	98	381	168	159	115
8	200	343	207	127	49	381	219	127	100	419	219	165	173	470	219	206	249
10	250	406	260	146	82	444	273	146	157	508	260	213	183	546	260	241	203
12	300	483	300	181	125	521	300	181	153	559	300	229	239	610	300	292	347
14	350	533	339	184	144	584	339	222	207	604	339	273	378	641	339	356	560
16	400	597	387	191	176	648	387	232	301	686	387	305	451	705	387	384	547
18	450	635	438	203	210	711	438	264	392	743	438	362	598	787	438	451	835
20	500	699	487	219	270	775	487	292	489	813	487	368	762	857	487	451	1783
24	600	813	579	222	381	914	579	318	756	940	579	438	1143	1041	579	495	1888
26	650	870	629	356	1007	972	629	356	1238	1016	629	457	1418	1086	629	533	1991
28	700	927	680	381	1025	1035	680	381	1120	1073	680	483	1467	1168	680	572	2426
30	750	984	735	305	793	1092	735	368	1603	1130	735	505	2445	1232	735	635	3080
32	800	1060	784	356	2349	1149	784	406	2753	1194	784	533	2935	1314	784	660	3425
36	900	1168	865	368	1148	1270	865	483	2137	1314	865	635	4735	-	-	-	-
40	1000	1289	987	432	1515	1238	909	546	3073	1321	909	660	6314	1511	909	762	6688
42	1050	1346	1062	432	1909	1289	1015	568	4429	1403	972	702	5278	-	-	-	-
48	1200	1511	1193	524	3352	1467	1136	629	5010	1594	1136	787	6092	-	-	-	-

TYPE DESIGNATION

ZK-D C E M₁ PN or Class/S

C

CONNECTION INTO PIPE

- 0L** LUG type
- 0W** WAFER type
- 1** Flanged
- 2** Welded

M₁

BODY MATERIAL

- 0** Stainless steel
- 2** Cast alloy steel
- 3** Forged alloy steel
- 4** Forged carbon steel
- 5** Cast carbon steel
- LT** Carbon steel for low temperatures

D

FLANGE FACING

ANSI B16.5

- PFF** Flat sealing face
- RF** Raised face
- LTF** Large tongue
- STF** Small tongue
- LGF** Large groove
- SGF** Small groove
- LMF** Large male
- SMF** Small male
- LFF** Large female
- SFF** Small female
- RTJ** Ring joint

EN 1092 - 1

- A** Flat face
- B** Raised face
- C** Tongue face
- D** Groove face
- E** Spigot
- F** Recess
- G** O - ring recess
- H** O - ring groove

E

CONTROL

- 7** Automatic

S

SPECIAL EXECUTION

- As** Antistatic

