



CAST STEEL CHECK VALVES



VAHN-TECH International Inc., headquartered in Toronto, Canada is a unique company within the Flow Control Industry.

- ✳ 'vt' brand = high quality certified products (API, NSF, CSA, WRAS etc.)
- ✳ Valves, Actuators and Accessories – all 'vt' branded
- ✳ Width and Depth of Product Offerings
- ✳ Flexibility to customize products to customer needs
- ✳ Specialized user-friendly products including large sizes
- ✳ Quick Response
- ✳ Reduced Delivery times
- ✳ Efficient after sales service
- ✳ Competitive Pricing

VAHN-TECH International Inc. is a customer focused organization based on “Value-add” and “Quality Service” principles. Achieving long term partnership with our customers and being their supplier of choice is our prime mission.

We develop, manufacture and market VAHN-TECH (vt) branded Valves, Actuators, Automatic Control Valves and Accessories for variety of Industrial Applications. Our product range includes:



Oil and Gas



Water and Sewage,
Desalination



Chemicals



Paper and Pulp



Irrigation



Power Plants



Various
Industrial Applications

We can supply all types of valves with following materials of construction like:

Ductile Iron, Cast Iron, Carbon Steel, Stainless Steel – SS304, SS304L, SS316, SS316L, Duplex Stainless Steel, Super Duplex, Alloy, Monel and Inconel with variety of seating and stem configurations.



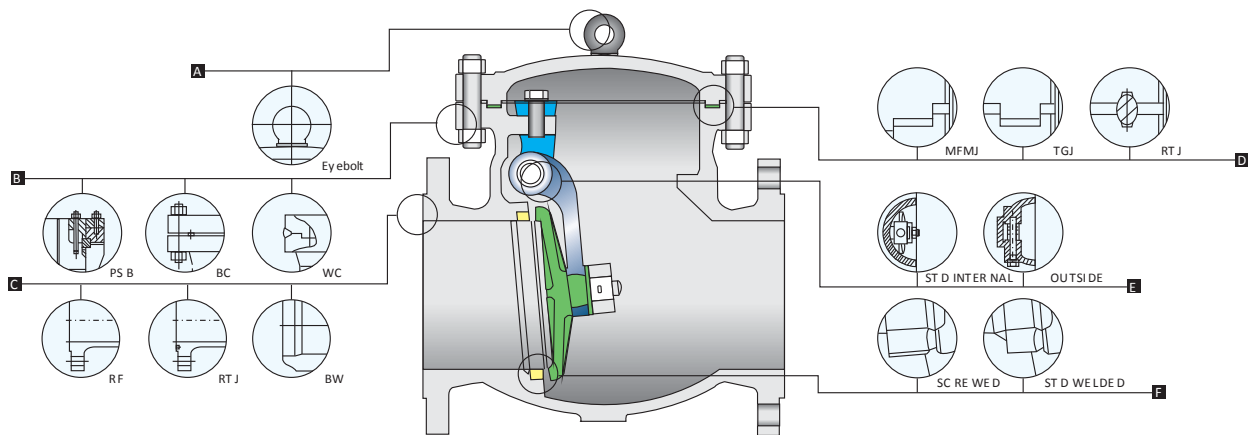
Check Valves (Cast Steel, Bolted Bonnet)

Applicable Standards

- ✦ STEEL CHECK VALVES, API 594/API 6D
- ✦ STEEL CHECK VALVES, ISO 14313
- ✦ STEEL VALVES, ASME B16.34
- ✦ FACE TO FACE, ASME B16.10
- ✦ END FLANGES, ASME B16.5
- ✦ BUTTWELDING ENDS, ASME B16.25
- ✦ INSPECTION AND TEST, API 598/API 6D

Features

- ✦ STEEL CHECK VALVES, API 6D
- ✦ BOLTED COVER
- ✦ SWING TYPE, ANTI-ROTATION DISC
- ✦ RENEWABLE SEAT RINGS
- ✦ NON-PENETRABLE DISC SHAFT
- ✦ HORIZONTAL OR VERTICAL SERVICE
- ✦ FLANGED OR BUTTWELDING ENDS



A Eyebolt

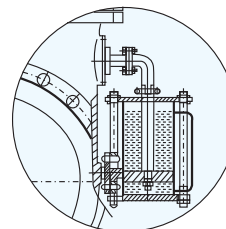
For 8" – 150lb / 300lb, 6" – 600lb, 4" and above – 900lb / 1500lb / 2500lb.

B Bolted Cover

Welded cover and pressure seal bonnet is used for services that require frequent cycling or high pressure/temperature variations.

C End Connections

A choice of RTF flanged or butt-weld ends for piping flexibility.



F Body-to-Cover Joint

A male and female joint or tongue and groove joint is used for 150lb to 600lb valves. A ring joint is used in the body of valves for 900lb and above.

G Outside Lever & Weight

All external hinge pin swing check valves 12" and smaller are available with an optional external lever & counterweight. Internal hinge is available with all swing check valves.

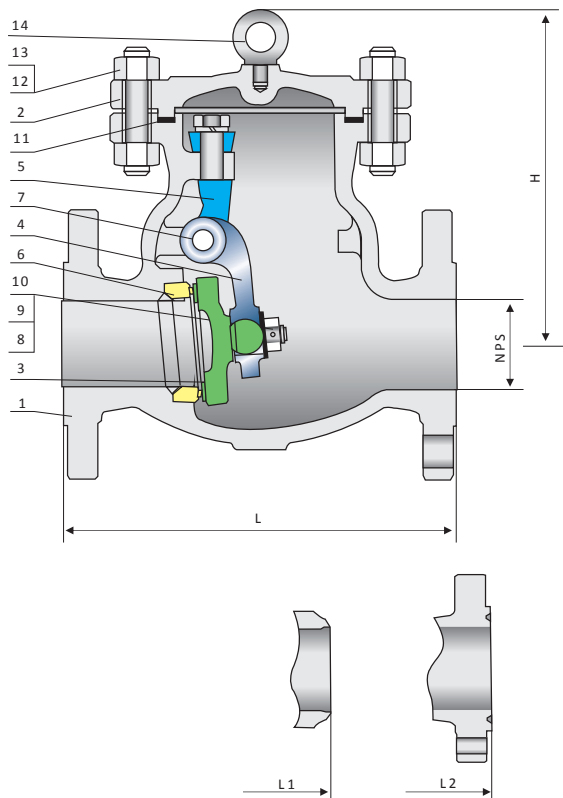
H Seat Rings

Separate heavy duty, full ported rings are screwed or welded into the valve body which enable easy maintenance.

I HCU Weighted Mechanical Accumulator

This design can be used to either dampen or assist closing of the check valve disc depending on orientation. By using the hydraulic control unit to buffer action from the disc, the valve opens at lower flow rates.

Cast Steel Swing Check Valve - 150lb / 300lb



Parts List & Materials

No.	Parts Name	ASTM Material		
		Carbon Steel	Low Carbon Steel	Alloy Steel
1	Body	A216 WCB	A352 LCB	A217 WC6
2	Bonnet	A216 WCB	A352 LCB	A217 WC6
3	Disc	A105 + CR13	A352 LF2 + CR13	A182 F11 + HF
4	Stem	A216 WCB	A352 LCB	A217 WC6
5	Seat Ring	A216 WCB	A352 LCB	A217 WC6
6	Stem Backseat	A105 + CR13	A350 LF2 + CR13	A182 F11 + HF
7	Bonnet Gasket	A276 420		A276 304
8	Bonnet Stud	Carbon Steel		A276 304
9	Bonnet Stud Nut	Carbon Steel		A194 7
10	Packing	Carbon Steel		A276 420
11	Gland	Spiral Wound (Graphite + 304)		
12	Gland Flange	A193 B7	A320 L7	A193 B16
13	Eyebolt Pin	A194 2H	A194 4	A194 7
14	Eyebolt	Carbon Steel		

- Cast steel disc for size 4" and above.
- Size 6" & larger.
- Disc and seat ring may either be solid facing material or a base material to or better than the body/bonnet material with facing as shown.

Dimensional Data - ANSI Class 150lb

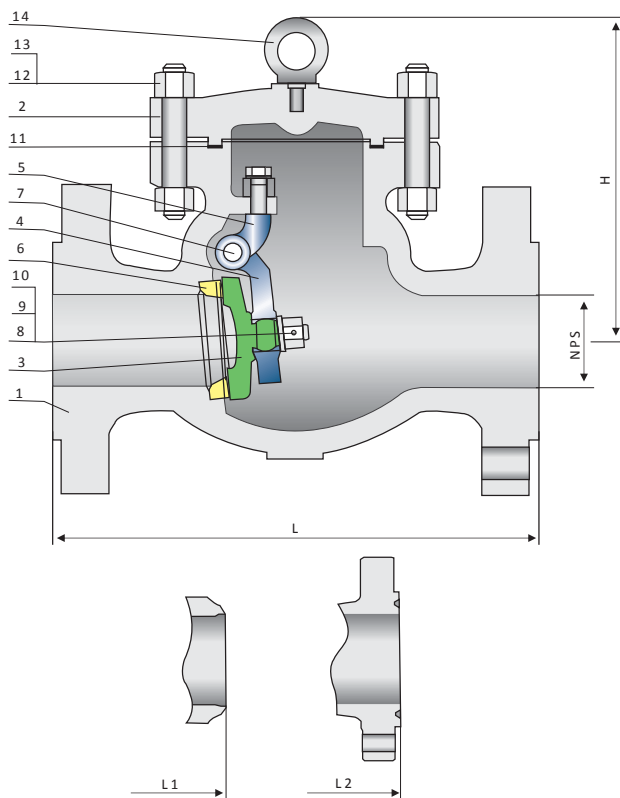
NPS DN	2	2½	3	4	6	8	10	12	14	16	18	20	24	26	28	30	36	in
	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	900	mm
L ₁ (RF/BW)	8.00	8.50	9.50	11.50	14.00	19.50	24.50	27.50	31.00	34.00	38.50	38.50	51.00	51.00	57.00	60.00	77.00	in
	203	216	241	292	356	495	622	699	787	864	978	978	1295	1295	1448	1524	1956	mm
L ₂ (RTJ)	8.50	9.00	10.00	12.00	14.50	20.00	25.00	28.00	31.50	34.50	39.00	39.00	51.50	-	-	-	-	in
	216	229	254	305	368	508	635	711	800	876	991	991	1308	-	-	-	-	mm
H	6.00	6.50	6.88	8.00	11.50	13.88	15.38	17.00	18.75	20.62	22.88	24.62	34.75	37.00	37.00	38.62	48.00	in
	152	165	175	204	293	353	390	432	475	525	582	627	883	940	940	980	1220	mm
wt(kg)	14	20	25	40	71	118	177	263	353	542	632	855	970	1600	1600	1990	2760	RF/RTJ
	10	12	17	29	57	96	143	227	295	468	552	755	831	1420	1420	1760	2230	BW

Dimensional Data - ANSI Class 300lb

NPS DN	2	2½	3	4	6	8	10	12	14	16	18	20	24	26	28	30	36	in
	50	65	80	100	150	200	250	300	350	400	450	500	600	650	700	750	900	mm
L ₁ (RF/BW)	10.50	11.50	12.50	14.00	17.50	21.00	24.50	28.00	33.00	34.00	38.50	40.00	53.00	53.00	59.00	62.75	82.00	in
	267	292	318	356	445	533	622	711	838	864	978	1016	1346	1346	1499	1594	2083	mm
L ₂ (RTJ)	11.12	12.12	13.12	14.62	18.12	21.62	25.12	28.62	33.62	34.62	39.12	40.75	53.88	54.00	60.00	63.75	-	in
	283	308	333	371	460	549	638	727	854	879	994	1035	1368	1372	1524	1619	-	mm
H	6.00	6.50	6.88	8.00	11.50	13.88	15.38	17.00	18.75	20.62	22.88	24.62	34.75	35.88	37.00	38.62	48.00	in
	152	165	175	204	292	353	390	432	475	525	582	627	883	910	940	980	1220	mm
wt(kg)	16	23	29	46	82	136	204	302	405	625	730	985	1115	1465	1840	2290	3180	RF/RTJ
	11	13	18	31	61	103	155	245	315	503	593	812	895	1205	1525	1895	2395	BW

Cast Steel Swing Check Valve - 600lb / 900lb

Parts List & Materials



No.	Parts Name	ASTM Material		
		Carbon Steel	Low Carbon Steel	Alloy Steel
1	Body	A216 WCB	A352 LCB	A217 WC6
2	Bonnet	A216 WCB	A352 LCB	A217 WC6
3	Disc	A105 + CR13	A352 LF2 + CR13	A182 F11 + HF
4	Stem	A216 WCB	A352 LCB	A217 WC6
5	Seat Ring	A216 WCB	A352 LCB	A217 WC6
6	Stem Backseat	A105 + CR13	A350 LF2 + CR13	A182 F11 + HF
7	Bonnet Gasket	A276 420		A276 304
8	Bonnet Stud	Carbon Steel		A276 304
9	Bonnet Stud Nut	Carbon Steel		A194 7
10	Packing	Carbon Steel		A276 420
11	Gland	Spiral Wound (Graphite + 304)		
12	Gland Flange	A193 B7	A320 L7	A193 B16
13	Eyebolt Pin	A194 2H	A194 4	A194 7
14	Eyebolt	Carbon Steel		

- * Size 6" & larger.
- * Disc and seat ring may either be solid facing material or a base material to or better than the body/bonnet material with facing as shown.

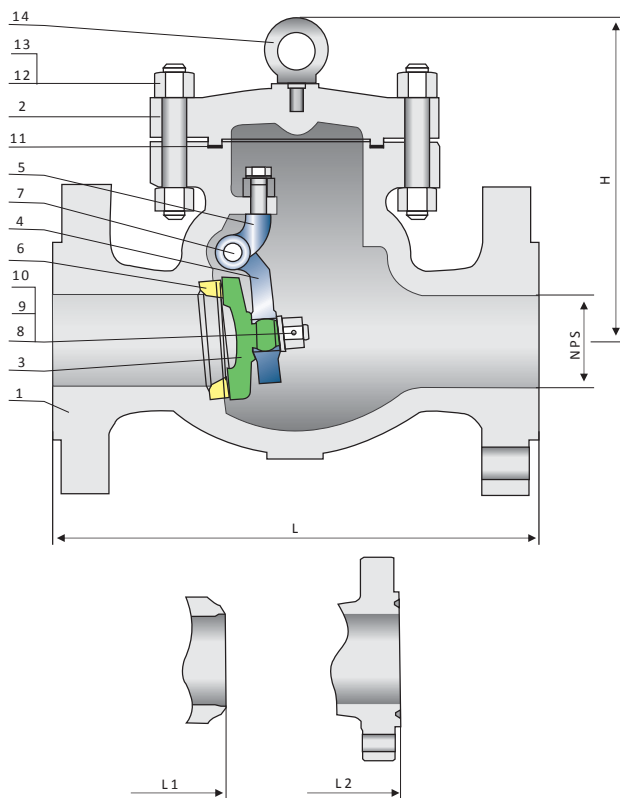
Dimensional Data - ANSI Class 600lb

NPS DN	2	2½	3	4	6	8	10	12	14	16	18	20	24	in
	50	65	80	100	150	200	250	300	350	400	450	500	600	mm
L/L1 (RF/BW)	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00	in
	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	mm
L2 (RTJ)	11.62	13.12	14.12	17.12	22.12	26.12	31.12	33.12	35.12	39.12	43.12	47.25	55.38	in
	295	333	359	435	562	664	791	841	892	994	1095	1200	1407	mm
H	7.50	8.00	8.75	10.00	14.50	17.50	19.25	21.38	23.38	25.75	28.75	31.00	43.50	in
	190	205	222	255	368	445	490	540	595	655	730	785	1105	mm
wt(kg)	24	35	44	70	125	207	310	460	615	945	1105	1495	1695	RF/RTJ
	16	19	26	44	87	147	220	350	452	720	845	1160	1280	BW

Dimensional Data - ANSI Class 900lb

NPS DN	2	2½	3	4	6	8	10	12	14	16	18	20	24	in
	50	65	80	100	150	200	250	300	350	400	450	500	600	mm
L/L1 (RF/BW)	14.50	16.50	15.00	18.00	24.00	29.00	33.00	38.00	40.50	44.50	48.00	52.00	-	in
	368	419	381	457	610	737	838	965	1029	1130	1219	1321	-	mm
L2 (RTJ)	14.62	16.62	15.12	18.12	24.12	29.12	33.12	38.12	40.88	44.88	48.50	52.50	-	in
	371	422	384	460	613	740	841	968	1038	1140	1232	1334	-	mm
H	9.50	10.00	11.00	12.50	18.12	22.00	24.00	26.50	29.38	32.00	33.50	38.75	-	in
	240	256	278	320	460	560	610	675	745	815	850	985	-	mm
wt(kg)	37	54	68	109	195	321	481	711	956	1468	1870	2316	-	RF/RTJ
	21	25	34	58	115	194	290	461	597	950	1210	1533	-	BW

Cast Steel Swing Check Valve - 1500lb / 2500lb



Parts List & Materials

No.	Parts Name	ASTM Material		
		Carbon Steel	Low Carbon Steel	Alloy Steel
1	Body	A216 WCB	A352 LCB	A217 WC6
2	Bonnet	A216 WCB	A352 LCB	A217 WC6
3	Disc	A105 + CR13	A352 LF2 + CR13	A182 F11 + HF
4	Stem	A216 WCB	A352 LCB	A217 WC6
5	Seat Ring	A216 WCB	A352 LCB	A217 WC6
6	Stem Backseat	A105 + CR13	A350 LF2 + CR13	A182 F11 + HF
7	Bonnet Gasket	A276 420		A276 304
8	Bonnet Stud	Carbon Steel		A276 304
9	Bonnet Stud Nut	Carbon Steel		A194 7
10	Packing	Carbon Steel		
11	Gland	Spiral Wound (Graphite + 304)		
12	Gland Flange	A193 B7	A320 L7	A193 B16
13	Eyebolt Pin	A194 2H	A194 4	A194 7
14	Eyebolt	Carbon Steel		

- * Size 6" & larger.
- * Disc and seat ring may either be solid facing material or a base material to or better than the body/bonnet material with facing as shown.

Dimensional Data - ANSI Class 1500lb

NPS	DN	L/L1 (RF/BW)		L2 (RTJ)		H		WT (kg)	
		in	mm	in	mm	in	mm	RF	RTJ
2	50	14.50	368	14.62	371	9.50	240	40	29
2 1/2	65	16.50	419	16.62	422	10.00	256	63	47
3	80	18.50	470	18.62	473	13.00	330	70	49
4	100	21.50	546	21.62	549	14.75	375	115	84
6	150	27.75	705	28.00	711	18.88	480	250	152
8	200	32.75	832	33.12	841	23.50	595	470	310
10	250	39.00	991	39.38	1000	26.00	660	740	470
12	300	44.50	1130	45.12	1146	29.12	740	1100	710
14	350	49.50	1257	50.25	1276	30.88	785	1410	910
16	400	54.50	1384	55.38	1407	32.88	835	1600	1100
in	mm	in	mm	in	mm	in	mm	RF <td>RTJ </td>	RTJ

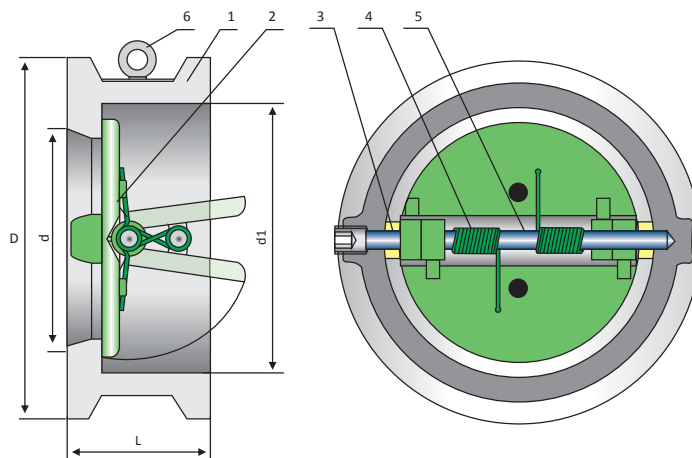
Dimensional Data - ANSI Class 2500lb

NPS	DN	L/L1 (RF/BW)		L2 (RTJ)		H		WT (kg)	
		in	mm	in	mm	in	mm	mm	mm
2	50	17.75	451	17.88	454	10.75	275	50	35
2 1/2	65	20.00	508	20.25	514	13.25	335	76	55
3	80	22.75	578	23.00	584	13.75	350	85	68
4	100	26.50	673	26.88	683	15.12	385	165	115
6	150	36.00	914	36.50	927	19.50	495	460	225
8	200	40.25	1022	40.88	1038	24.62	625	900	580
10	250	50.00	1270	50.88	1292	28.00	712	1300	860
12	300	56.00	1422	56.88	1445	35.62	905	1800	1150
14	350	-	-	-	-	-	-	-	-
16	400	-	-	-	-	-	-	-	-
in	mm	in	mm	in	mm	in	mm	mm	mm

Cast Steel Wafer Check Valve - 150lb

Applicable Standards

- ✦ STEEL CHECK VALVES, API 594/API 6D
- ✦ STEEL CHECK VALVES, ISO 14313
- ✦ STEEL VALVES, ASME B16.34
- ✦ FACE TO FACE, ASME B16.10
- ✦ END FLANGES, ASME B16.5
- ✦ BUTTWELDING ENDS, ASME B16.25
- ✦ INSPECTION AND TEST, API 598/API 6D



Parts List & Materials

No.	Parts Name	ASTM Material		
		Carbon Steel	Low Carbon Steel	Alloy Steel
1	Body	A216 WCB	A352 LCB	A351 CF8M
2	Plate	A216 WCB + CR13	A352 LCB + CR13	A351 CF8M + HF
3	Stop Pin	A276 420	A276 420	A276 304
4	Back Spring	A313 304	A313 304	A33 316
5	Hinge Pin	A276 420	A276 420	A276 304
6	Eyebolt	Carbon Steel		

✦ Size 6" & larger.

Dimensional Data - ANSI Class 150lb

NPS DN	2	2½	3	4	6	8	10	12	14	16	18	20	24	
	50	65	80	100	150	200	250	300	350	400	450	500	600	in mm
L	2.38	2.62	2.88	2.88	3.88	5.00	5.75	7.12	7.25	7.50	8.00	8.62	8.75	in
	60	67	73	73	98	127	146	181	184	191	203	219	222	mm
D	4.00	4.88	5.38	6.75	8.62	10.88	13.25	16.00	17.62	20.12	21.50	23.75	28.12	in
	103	122	135	173	220	277	337	407	448	512	547	604	715	mm
d	2.00	2.50	3.25	4.00	6.00	8.00	10.00	12.00	13.75	15.75	17.75	19.75	23.62	in
	51	65	80	102	152	203	254	305	350	400	450	500	600	mm
D1	2.25	2.88	3.50	4.25	6.25	8.25	10.50	12.12	14.00	16.00	18.00	19.88	23.75	in
	56	73	88	108	160	210	266	310	355	405	455	505	605	mm
WT	2	3	4	6	13	25	39	54	80	117	138	163	331	kg

Cast Steel Wafer Check Valve - 300lb / 600lb / 900lb

Dimensional Data - ANSI Class 300lb

NPS DN	2	2½	3	4	6	8	10	12	14	16	18	20	24	in
	50	65	80	100	150	200	250	300	350	400	450	500	600	mm
L	2.38	2.62	2.88	2.88	3.88	5.00	5.75	7.12	8.75	9.12	10.38	11.50	12.50	in
	60	67	73	73	98	127	146	181	222	232	264	292	318	mm
D	4.25	5.00	5.75	7.00	9.88	12.00	14.12	16.50	19.00	21.12	23.38	25.62	30.38	in
	110	128	147	179	249	305	359	420	483	537	594	652	772	mm
d	2.00	2.50	3.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	24.00	in
	51	65	80	102	152	8.25	254	305	350	400	450	500	600	mm
D1	2.25	2.88	3.50	4.25	6.38	203	10.50	12.25	14.00	16.00	18.00	20.00	24.00	in
	58	73	88	108	160	210	266	310	355	405	455	505	608	mm
WT	3	4	6	8	18	31	51	77	117	190	200	265	410	kg

Dimensional Data - ANSI Class 600lb

NPS DN	2	2½	3	4	6	8	10	12	14	16	in
	50	65	80	100	150	200	250	300	350	400	mm
L	2.38	2.62	2.88	3.12	5.38	6.50	8.38	9.00	10.75	12.00	in
	60	67	73	79	137	165	213	229	273	305	mm
D	4.38	5.00	5.75	7.50	10.38	12.50	15.62	17.88	19.25	22.12	in
	110	128	147	191	264	318	398	455	490	562	mm
d	2.00	2.50	3.00	4.00	6.00	7.88	9.88	12.00	13.25	15.25	in
	51	65	80	102	152	200	250	305	337	387	mm
D1	2.25	2.88	3.50	4.25	6.38	8.38	10.50	12.25	14.00	157.75	in
	58	73	88	108	162	212	266	312	355	400	mm
WT	4	5	8	11	26	55	95	140	223	360	kg

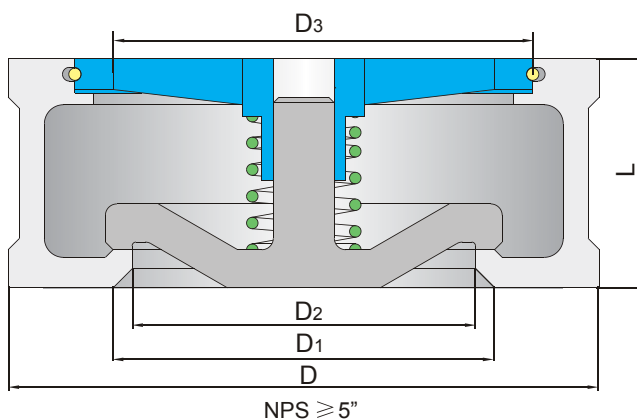
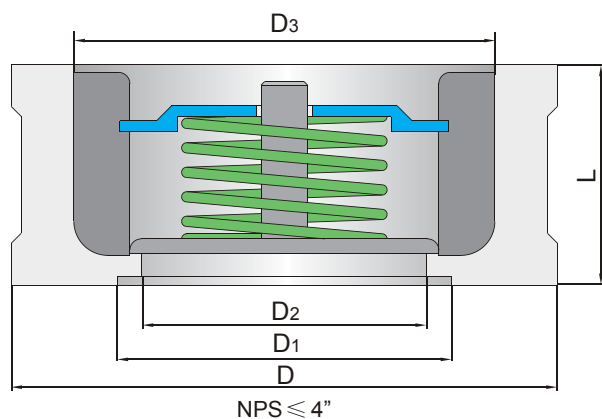
Dimensional Data - ANSI Class 900lb

NPS DN	2	2½	3	4	6	8	10	12	14	16	in
	50	65	80	100	150	200	250	300	350	400	mm
L	2.75	3.25	3.25	4.00	6.25	8.12	9.50	11.50	-	-	in
	70	83	83	102	159	206	241	292	-	-	mm
D	5.50	6.38	6.50	8.00	11.25	14.00	17.00	19.50	-	-	in
	140	162	165	204	286	356	432	495	-	-	mm
d	2.00	2.50	3.00	4.00	6.00	7.88	9.88	12.00	-	-	in
	51	62	80	102	152	200	250	305	-	-	mm
D1	2.25	2.88	3.50	4.25	6.38	8.38	10.50	12.25	-	-	in
	58	73	88	108	162	212	266	312	-	-	mm
WT	8	11	14	20	42	84	145	220	-	-	kg

Wafer Type Lift Check Valve

Applicable Standards

- ✦ STEEL CHECK VALVES, API 594/API 6D
- ✦ STEEL CHECK VALVES, ISO 14313
- ✦ STEEL VALVES, ASME B16.34
- ✦ FACE TO FACE, API 6D, API 594
- ✦ END FLANGES, ASME B16.5, ASME B16.47
- ✦ INSPECTION AND TEST, API 598/API 6D



Parts List & Materials

No.	Parts Name	ASTM Material		
		Carbon Steel	Stainless Steel	Alloy Steel
1	Body	A216 WCB	A351 CF8	A217 WC6
2	Disc	A351 CF8		
3	Spring	A182 F304		
4	Plate	A182 F6a	A182 F304	
5	Locking	A182 F304		

Dimensional Data - ANSI Class 150lb

NPS	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	5"	6"	8"
DN	15	20	25	32	40	50	65	80	100	125	150	200
L	25	31.5	35.5	40	45	56	63	71	80	110	125	160
D	46	56	65	74	84	103	122	135	173	195	220	277
D1	25	30	36	43	52	62	75	90	112	125	150	200
D2	15	19	24	31	39	48	62	76	95	110	127	165
D3	25	30	36	43	52	62	75	90	112	132	158	208
wt (kg)	0.28	0.42	0.56	0.75	1.30	2.10	2.80	3.60	4.80	12.00	17.00	29.00

Wafer Type Lift Check Valve - 300lb / 600lb / 900lb

Dimensional Data - ANSI Class 300lb

NPS	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	5"	6"	8"
DN	15	20	25	32	40	50	65	80	100	125	150	200
L	25	31.5	35.5	40	45	56	63	71	80	110	125	160
D	52	65	72	81	94	110	128	147	179	214	249	305
D1	25	30	36	43	52	68	75	90	112	125	150	200
D2	15	19	24	31	39	48	62	76	95	110	127	165
D3	25	30	36	43	52	62	75	90	112	132	158	208
wt (kg)	0.30	0.46	0.60	0.80	1.50	2.40	3.00	4.00	5.50	13.00	22.00	36.00

Dimensional Data - ANSI Class 600lb

NPS	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	5"	6"	8"
DN	15	20	25	32	40	50	65	80	100	125	150	200
L	15	20	25	32	40	50	65	80	100	125	150	200
D	52	65	72	81	94	11000	128	147	191	239	264	318
D1	25	30	36	43	52	6	75	90	112	125	150	200
D2	15	19	24	31	39	48	62	76	95	110	127	165
D3	25	30	36	43	52	62	75	90	112	132	158	208
wt (kg)	0.4	0.8	1.0	1.3	1.8	2.8	4.0	6.0	11.0	25.0	32.0	52.0

Dimensional Data - ANSI Class 900lb

NPS	½"	¾"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"	5"	6"	8"
DN	15	20	25	32	40	50	65	80	100	125	150	200
L	15	20	25	32	40	50	65	80	100	125	150	200
D	62	69	77	87	97	140	162	165	204	245	286	356
D1	25	30	36	43	52	62	75	90	112	125	150	200
D2	15	19	24	31	39	48	62	76	95	110	127	165
D3	25	30	36	43	52	62	75	90	112	132	158	208
wt (kg)	0.6	0.9	1.2	1.5	2.0	5.5	7.5	8.0	14.0	2.0	41.0	76.0



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