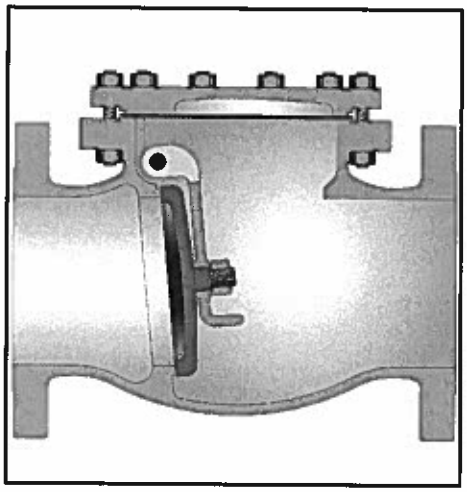
POWELL VALVES
Established 1846

CAST STAINLESS STEEL API 603 BOLTED BONNET SWING CHECK VALVES 2 TO 24 " (50 TO 600 mm) CLASSES 150 TO



Class	Figure Number
150	2342
300	2346
600	2350

STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF8M
Cap	A351 Gr. CF8M
Disc	A276 316
Gasket	PTFE
Carrier	A351 Gr. CF8M
Carrier Pin	A276 316
Disc Nut	A276 316
Disc Carrier Hanger (1)	A351 Gr. CF8M
Disc Carrier Hanger Bolts (1)	A193 Gr. B8
Body / Cap Stud	A193 Gr. B8
Body / Cap Nut	A194 Gr.8
Identification Plate	Series 300 SST

(1) 10" Valve size and up.

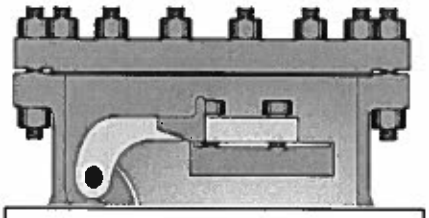
DESIGN FEATURES:

- **Standard trim** is stellite faced seat rings welded into the body 13% chrome disc seat surfaces (API trim 8).Other trims available on request.
- **Integral Seats**, however, renewable screwed-in seat rings are available on order.
- **Wall** thickness per heavy wall API 603 requirements.
- **Swivel disc** for improved seat alignment and longer life.
- **Each** valve is shell and seat pressure tested per industry standard API 598.
- **Check** valve are suitable for service in horizontal line with cap vertical or in a vertical line with flow upward.
- **Carrier Pin** is confined within the body wall and is not accessible from the exterior.
- **End Flanges** have the following raised faces per ASME B16.5:
  Classes 150-300: 1/16" (2mm).
  Classes 600-1500: 1/4" (7mm).
- **Weld** ends are available per ASME B16.25 or per customer's specification.

Design Specifications

Item	Applicable Specification
Wall thickness	API 603
Pressure - temperature ratings	ASME B16.34
General valve design	API 603 & B16.34
End to End dimensions	ASME B16.10
Flange design	ASME B16.5
Butt Weld design	ASME B16.25
Materials	ASTM

- **Each** valve has a unique certification number that is traceable to the valve certification sheet which includes MTR data, pressure test, inspection result and certificate of conformance.
- **Other** available options as follows:
  Alternate valve materials such as chrome and stainless steel alloys
  Alternate trim materials.
  Bypass, drain and other auxiliary connections.
  NACE service.
  Special cleaning for applications such as oxygen or chlorine.
  Other options available as specified.

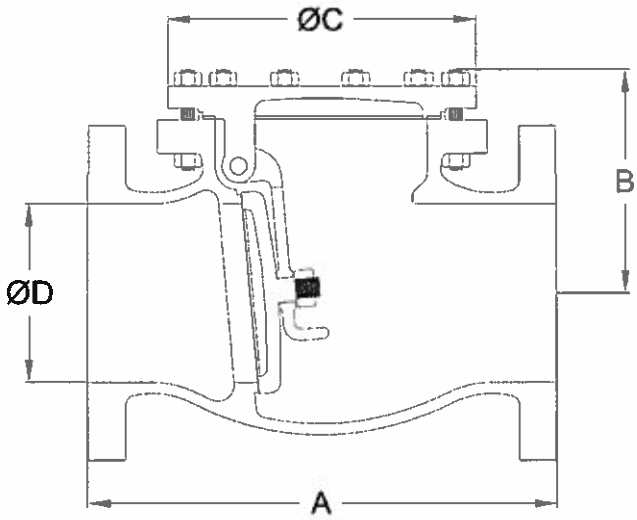


Valve design for valve sizes 10" and above all classes.

SWING CHECK VALVE DIMENSIONS (CLASS 150—600).

SIZE	ASME 150 (PN 20)					ASME 300 (PN 50)				ASME 600 (PN 100)			
in	A												
mm	WE	FE	B(1)	C(1)	D	A	B(1)	C(1)	D	A (1)	B	C	D
2-1/2	8.5	8.5	5.6	2.5	6.7	11.5	5.6	2.5	6.7	13.0	7.4	7.9	2.5
65	215.9	215.9	142	64	170	292	142	64	170	330	189	200	64
3.0	9.5	9.5	5.8	3.0	7.6	12.5	5.8	3.0	7.6	14.0	8.3	8 5	3 0
80	241.3	241.3	148.4	76	192	318	148	76	192	356	212	215	76
4.0	11.5	11.5	6.5	4.0	8.4	14.0	6.5	4.0	8.4	17.0	10.3	10.6	4.0
100	292.1	292.1	164.5	102	213	356	164	102	213	432	262	270	102
6.0	14.0	14.0	8.2	6.0	10.8	17.5	8.6	6.0	11.8	22.0	14.0	13.5	6.0
150	355.6	355.6	208	152	273	445	218	152	299	559	356	342	152
8.0	19.5	19.5	10.1	8.0	13.8	21.0	10.7	8.0	14.8	26.0	18.5	17.1	7.9
200	495.3	495.3	256.8	203	349	533	273	203	375	660	469	435	200
10.0	24.5	24.5	14 2	10.0	17.8	24.5	15.3	10.0	18.5	31.0	21.2	20.1	9.8
250	622.3	622.3	359.3	254	451	622	388	254	470	787	539	510	248
12.0	27.5	27.5	15.6	12.0	20.5	28.0	17.9	22.3	12.0	33.0	23.4	22.6	11.8
300	699	699	397	305	521	711	455	565	305	838	594	575	298
14.0	22.5	31.0	16.3	61.5	13.3	33.0	23.4	21.7	13.3	35 0	25.4	23.5	12.9
350	572	787	413	1562	337	838	595	550	337	889	645	598	327
16.0	24.0	16.0	55.3	71.3	15.3	34.0	24.9	27.4	15.3	39.0	28.6	27.6	14.8
400	610	406	1405	1811	387	864	632	695	387	991	727	700	375
18.0	26.0	17.0	58.1	76.4	17.3	38.5	28.5	30.4	17.0	43.0	32.5	29.1	16.5
450	660	432	1476	1941	438	978	723	772	432	1092	826	740	419
20.0	28.0	18.0	63.3	83.3	19.3	40.0	24.9	29.1	19.0	47.0	31.6	32.3	18.3
500	711	457	1608	2116	489	1016	632	738	483	1194	802	820	464
24.0	32.0	20.0	76.7	101.1	23.3	53.0	34.8	37.6	23.0	55.0	40.2	39.4	22.0
600	813	508	1948	2568	591	1346	884	955	584	1397	1020	1000	559

(2) Butt-weld and flanged valves have the same end to end dimensions for classes 300 and 600.



WE = Butt weld
FL = Flanged

B = Center to top closed
C = Center to top open

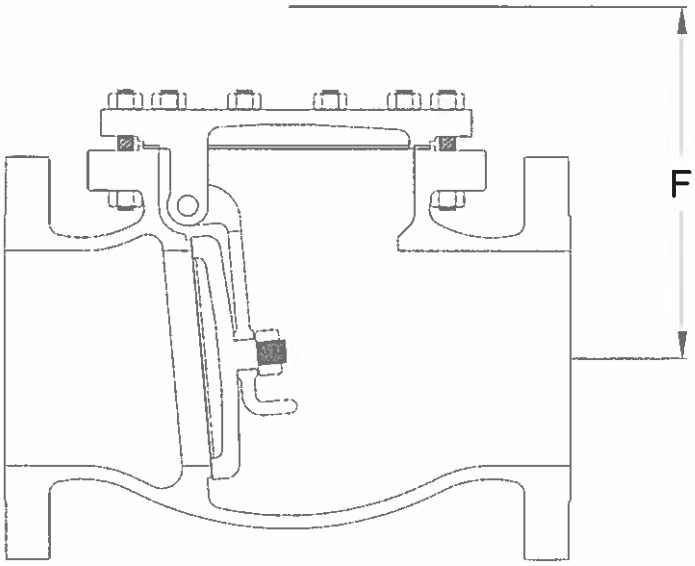
See page 16 for valve weights, CVs and dismantling height.

POWELL VALVES

Established 1846

TECHNICAL INFORMATION FOR CAST STAINLESS STEEL API 603 BOLTED BONNET SWING CHECK VALVES, 2 TO 24 " (50 TO 600 mm) ASME CLASSES 150 TO 600.

SIZE	ASME 150 (PN 20)					ASME 300 (PN 50)					ASME 600 (PN 100)				
in / mm	F	WT LB FE KG		WT LB WE KG		CV	F	WT LB FE KG		WT LB WE KG		CV	F	WT LB FE KG		WT LB WE KG		CV
2-1/2	6.7	33.4		29.8		74	6.7	45.4		34		74	8.7	79		62		119
65	170	17		15			170	22		17			221	36		28		
3	7.6	37.5		37.3		119	7.6	72.9		52.2		119	9.8	110		79		172
80	192	19		18			192	36		26			250	50		36		
4	8.4	68.9		51.4		172	8.4	92.1		69.3		172	12.3	215		168		315
100	213	34		25			213	46		34			313	98		76		
6	10.8	119.4		93.5		315	11.8	172.1		123.5		315	17	439		335		756
150	273	59		46			299	85		61			432	199		152		
8	13.8	228.8		178.2		756	14.8	364.5		273.4		756	22.4	811		633		1347
200	349	113		88			375	180		135			569	368		287		
10	17.8	447.5		348.3		1391	18.5	759.4		577.1		1391	26.1	1343		1047		2067
250	451	221		172			470	375		285			663	609		475		
12	20.5	648		504.2		2174	23.9	1160		1077		2174	29.3	1702		1363		3116
300	521	320		249			608	526		488			743	772		618		
14	28.8	979		834		3250	30	1411		1241		3962	31.8	1958		1585		3738
350	734	444		378			764	640		563			809	888		719		
16	31.2	1438		1250		5248	32.5	1764		1550		5248	36	2994		2364		4910
400	793	652		567			826	800		703			915	1358		1072		
18	36.5	1927		1656		6990	37	2578		2192		6789	35.4	3449		2932		6395
450	928	874		751			939	1169		994			898	1564		1330		
20	36.3	1771		1522		8705	34.4	2913		2505		8480	36.3	4792		4121		7824
500	924	803		690			874	1321		1136			923	2174		1869		
24	45.1	3559		3062		12698	46.3	5204		4428		12427	44.9	7608		6467		11370
600	1148	1614		1388			1176	2360		2008			1142	3451		2933		



FE = Flanged ends
WE = Weld ends

F = Dismantling Dimension

WT = Weight
C_V = Flow coefficient