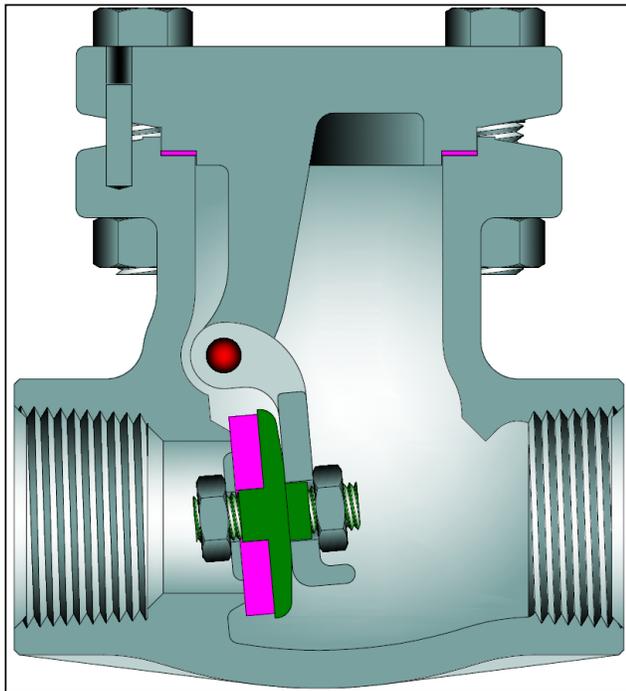


# ASME B16.34 WALL SWING CHECK VALVES

BOLTED BONNET, CLASSES 200 - 600

1/4" - 2" (6 - 50mm), THREADED OR SOCKET WELD ENDS

CAST STAINLESS STEEL



Class	Fig. No.
200	2341
300	2346 (1)
600	2350 (1)

### DESIGN FEATURES:

- Integral Seats.
- Swivel disc for improved seat alignment and longer life.
- Each valve is shell and seat pressure tested.
- Check valves 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. This eliminates potential leak path with side plug design.
- Disc suspended from valve cap and without side plugs.
- Cap has a male and female joint.
- Valves are specially cleaned and processed for oxygen or cryogenic service and are then sealed to prevent contamination.
- 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
  - » Alternate trim materials
  - » Special cleaning for applications such as oxygen or chlorine

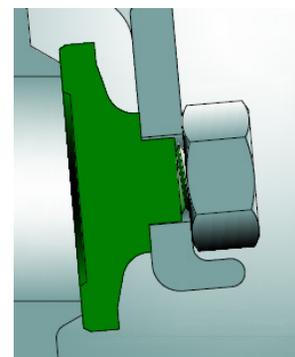
### STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF3M
Cap	A351 Gr. CF8M
Disc or Disc Holder (2)	A276 316 or A351 CF8M
Disc Insert (2)	PCTFE
Disc Washer (2)	SST 316
Disc Insert Nut (2)	SST 316
Gasket	Graphite
Carrier	A351 Gr. CF8M
Carrier Pin	A276 316
Disc Nut	SST 316
Body / Cap Stud	A193 Gr. B8
Body / Cap Nut	A194 Gr.8
Locating Pin	SST
Identification Plate	Series 300 SST

1. See pages 39-40 for flanged and butt weld designs.
2. Soft seat design.

### Design Specifications

Item	Applicable Specification
Wall thickness	ASME B16.34
Pressure - temperature ratings	ASME B16.34
General valve design	ASME B16.34
End Threads-NPT	ASME B1.20.1
Socket Weld Ends	ASME B16.11
Materials	ASTM

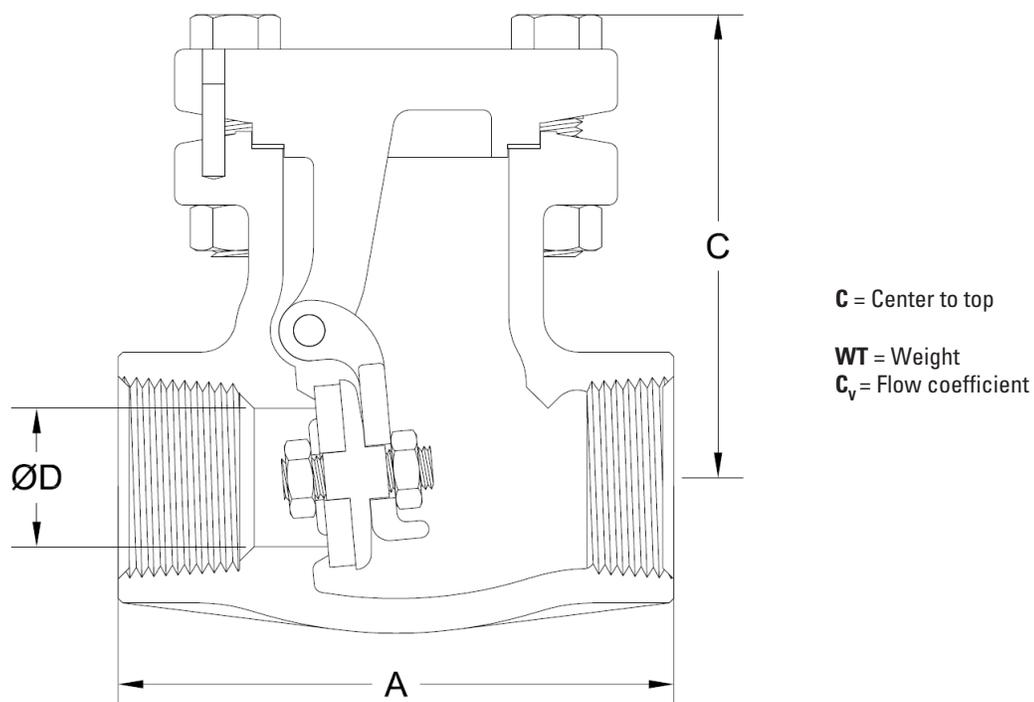


Metal Disc

**NOTE:** Powell reserves the right to convert threaded ends to socket weld, which will result in thread remnants as pipe stop.

## SWING CHECK VALVE DIMENSIONS (CLASSES 200 - 300)

SIZE	ASME 200					ASME 300				
	A	C	D	WT	$C_v$	A	C	D	WT	$C_v$
¼	2.75	2.2	0.44	2.1	3	2.75	2.2	0.44	2.1	3
6	70	55	11	1.0		70	55	11	1.0	
3/8	2.75	2.2	0.44	2.1	3	2.75	2.2	0.44	2.1	3
10	70	55	11	1.0		70	55	11	1.0	
½	2.75	2.2	0.44	2.1	3	2.75	2.2	0.44	2.1	3
13	70	55	11	1.0		70	55	11	1.0	
¾	3.75	3.0	0.75	3.3	9.2	3.75	3.0	0.75	4.4	9.2
19	95	76	19	1.5		95	76	19	2.0	
1	4.00	3.4	1.00	4.9	17	4.00	3.4	1.00	6.1	17
25	102	86	25	2.2		102	86	25	2.8	
1¼	4.75	3.4	1.25	7.3	27	4.75	3.4	1.25	8.5	27
32	121	86	32	3.3		121	86	32	3.9	
1½	5.50	4.1	1.50	10.6	40	5.50	4.1	1.50	10.6	40
38	140	103	38	4.8		140	103	38	4.8	
2	6.00	4.6	2.00	15.5	75	6.00	4.6	2.00	15.5	75
50	152	116	51	7.0		152	116	51	7.0	

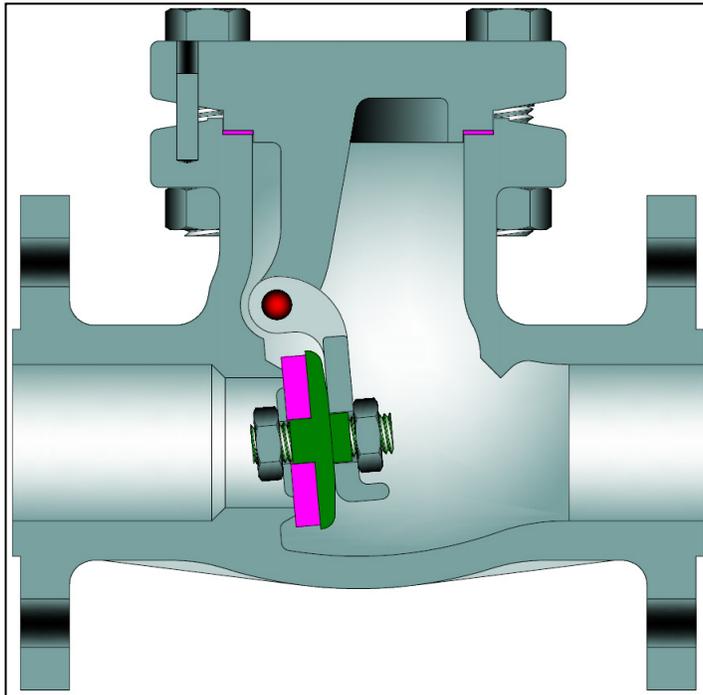


# ASME B16.34 WALL SWING CHECK VALVES

BOLTED BONNET, CLASSES 150 - 300

1/2" - 8" (13 - 200mm), FLANGED OR BUTTWELD ENDS

CAST STAINLESS STEEL



Class	Fig. No.
150	2342
300	2346 (1)

**DESIGN FEATURES:**

- Integral Seats
- Swivel disc for improved seat alignment and longer life.
- Each valve is shell and seat pressure tested.
- Check valves 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. This eliminates potential leak path with side plug design.
- Disc suspended from valve cap and without side plugs.
- Cap has a male and female joint.
- Weld ends are available per ASME B16.25 or per customer's specification.
- Flanges:
  - Classes 150-300: 1/16" raised face.
  - Finish 125-250 AARH for all valves.
- Valves are specially cleaned and processed for oxygen or cryogenic service and are then sealed to prevent contamination.
- 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
  - » Alternate trim materials
  - » Special cleaning for applications such as oxygen or chlorine

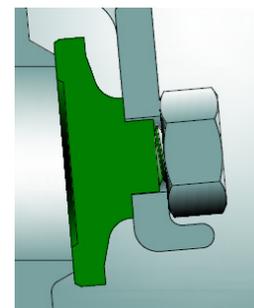
**STANDARD MATERIALS (Other materials available)**

PART	MATERIALS
Body	A351 Gr. CF8M (3)
Cap	A351 Gr. CF8M
Disc or Disc Holder (2)	A276 316 or A351 CF8M
Disc Insert (2)	PCTFE
Disc Washer (2)	SST 316
Disc Insert Nut (2)	SST 316
Gasket	Graphite
Carrier	A351 Gr. CF8M
Carrier Pin	A276 316
Disc Nut	SST 316
Body / Cap Stud	A193 Gr. B8
Body / Cap Nut	A194 Gr.8
Locating Pin	SST
Identification Plate	Series 300 SST

1. See pages 37-38 for threaded and socket weld designs.
2. Soft seat design.
3. CF3M for weld end bodies.

**Design Specifications**

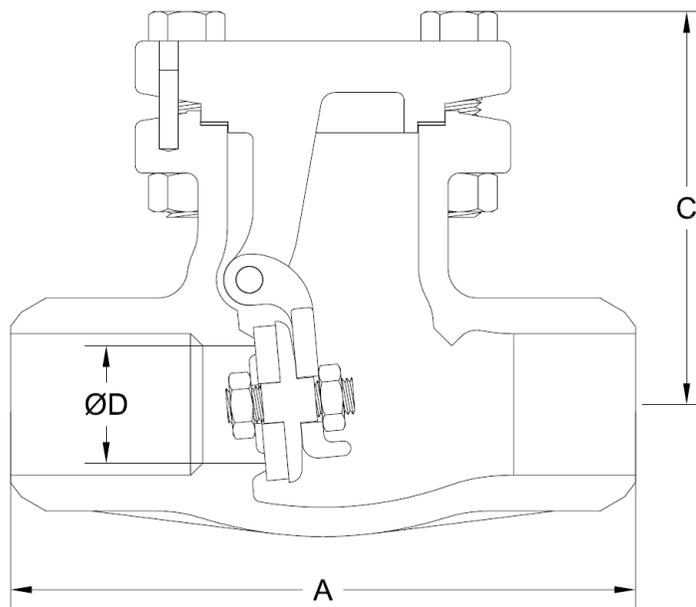
Item	Applicable Specification
Wall thickness	ASME B16.34
Pressure - temperature ratings	ASME B16.34
General valve design	ASME B16.34
Flanged ends	ASME B16.5
Buttweld ends	ASME B16.25
Materials	ASTM



Metal Disc

# SWING CHECK VALVE DIMENSIONS (CLASSES 150 - 300)

SIZE	ASME 150						ASME 300										
	in	A	C	D	WT	lb	WT	lb	C <sub>v</sub>	A	C	D	WT	lb	WT	lb	C <sub>v</sub>
					FE	kg	WE	kg					FE	kg	WE	kg	
½	4.25	2.2	0.50	3.6		2.1		3.9	6.00	2.2	0.50	7.0		2.1		3.9	
13	108	55	13	1.6		1.0			152	55	13	3.2		1.0			
¾	4.62	3.0	0.75	5.3		3.3		9.2	7.00	3.0	0.75	12.5		3.3		9.2	
20	117	76	19	2.4		1.5			178	76	19	5.7		1.5			
1	5.00	3.4	1.00	7.5		4.9		17	8.50	3.4	1.00	18.0		4.9		17	
25	127	86	25	3.4		2.2			216	86	25	8.2		2.2			
1½	6.50	4.1	1.50	14.6		10.6		40	9.50	4.1	1.50	30.0		10.6		40	
38	165	103	38	6.6		4.8			241	103	38	13.6		4.8			
2	8.00	4.6	2.00	24.0		15.5		75	10.50	4.6	2.00	39.0		15.5		75	
50	203	116	51	10.9		7.0			267	116	51	17.7		7.0			
2½	8.50	5.6	2.50	33		30		120	11.50	5.6	2.50	45		34		120	
65	216	142	170	17		15			292	142	170	22		17			
3	9.50	5.8	3.00	38		37		175	12.50	5.8	3.00	73		52		175	
80	241	148	192	19		18			318	148	192	36		26			
4	11.50	6.5	4.00	69		51		315	14.00	6.5	4.00	92		69		315	
100	292	165	213	34		25			356	164	213	46		34			
6	14.00	8.2	6.00	119		94		760	17.50	8.6	6.00	172		124		760	
150	356	208	273	59		46			444	218	299	85		61			
8	19.50	10.1	8.00	229		178		1390									
200	495	257	349	113		88											



**C** = Center to top

**FE** = Flanged ends

**WE** = Buttweld ends

**WT** = Weight

**C<sub>v</sub>** = Flow coefficient

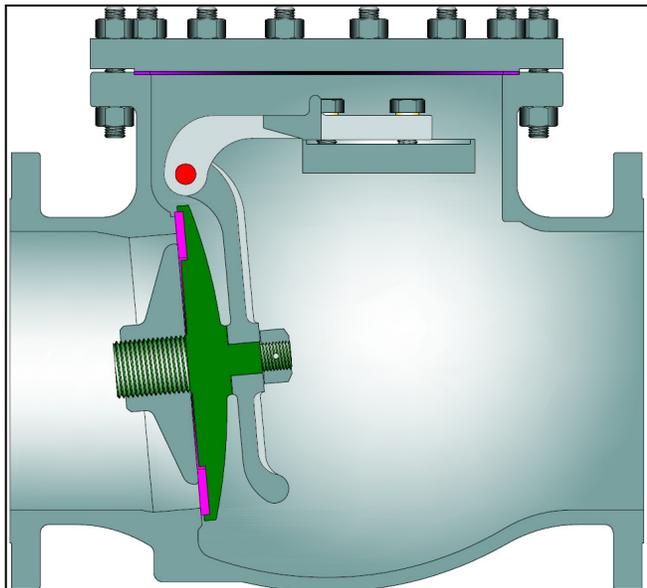
Weld End Design

# ASME B16.34 WALL SWING CHECK VALVES

BOLTED BONNET, CLASS 150

10" - 12" (250 - 300mm), FLANGED OR BUTTWELD ENDS

CAST STAINLESS STEEL



Class	Fig. No.
150	2342

### DESIGN FEATURES:

- Integral Seats.
- Swivel disc for improved seat alignment and longer life.
- Each valve is shell and seat pressure tested.
- Check valves 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. This eliminates potential leak path with side plug design.
- Cap has a male and female joint.
- Weld ends are available per ASME B16.25 or per customer's specification.
- Flanges:
  - Classes 150-300: 1/16" raised face.
  - Finish 125-250 AARH for all valves.
- Valves are specially cleaned and processed for oxygen or cryogenic service and are then sealed to prevent contamination.
- 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
  - » Alternate trim materials
  - » Special cleaning for applications such as oxygen or chlorine

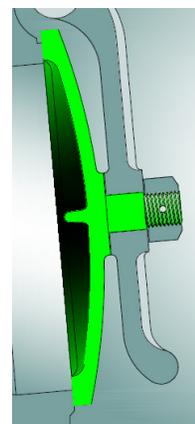
### STANDARD MATERIALS (Other materials available)

PART	MATERIALS
Body	A351 Gr. CF8M (1)
Cap	A351 Gr. CF8M
Disc or Disc Holder (2)	A276 316 or A351 CF8M
Gasket	Graphite
Carrier	A351 Gr. CF8M
Carrier Pin	A276 316
Disc Nut	SST 316
Disc Insert (2)	PCTFE
Disc Insert Nut (2)	SST 316
Disc Carrier Hanger	A351 Gr. CF8M
Disc Carrier Hanger Bolts	A193 Gr. B8M
Body / Cap Stud	A193 Gr. B8
Body / Cap Nut	A194 Gr.8
Identification Plate	Series 300 SST

1. CF3M for weld end bodies.
2. Soft seat design.

### Design Specifications

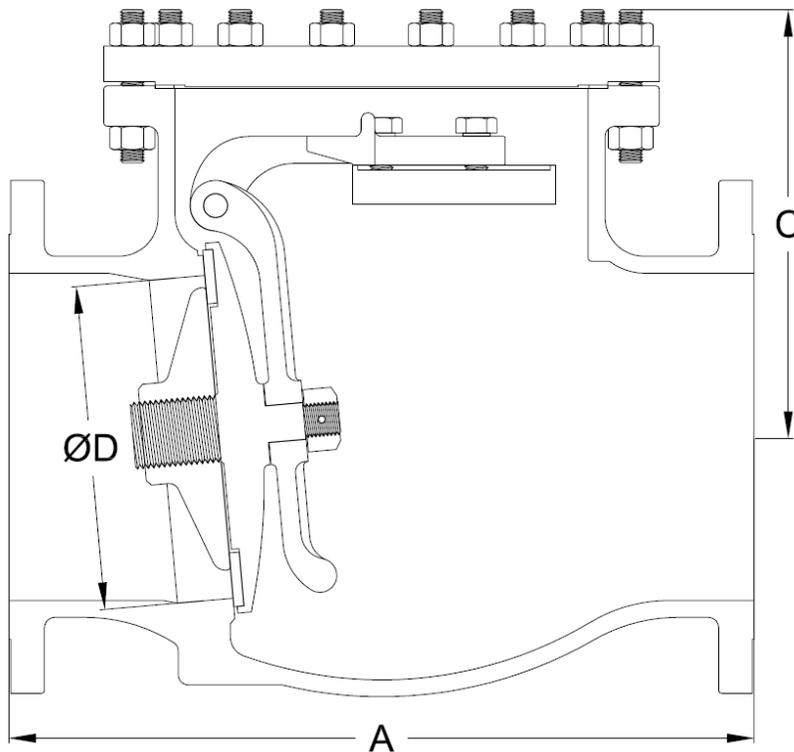
Item	Applicable Specification
Wall thickness	ASME B16.34
Pressure - temperature ratings	ASME B16.34
General valve design	ASME B16.34
Flanged ends	ASME B16.5
Buttweld ends	ASME B16.25
Materials	ASTM



Metal Disc

# SWING CHECK VALVE DIMENSIONS (CLASS 150)

SIZE	ASME 150							
in	A	C	D	WT	lb	WT	lb	C <sub>v</sub>
mm				FE	kg	WE	kg	
10	24.50	14.2	10.00	448		348		2175
250	622	359	451	221		172		
12	27.50	15.6	12.00	648		504		3250
300	698	397	521	320		249		



**C** = Center to top  
**FE** = Flanged ends  
**WE** = Butt weld ends  
**WT** = Weight  
**C<sub>v</sub>** = Flow coefficient

Weld End Design