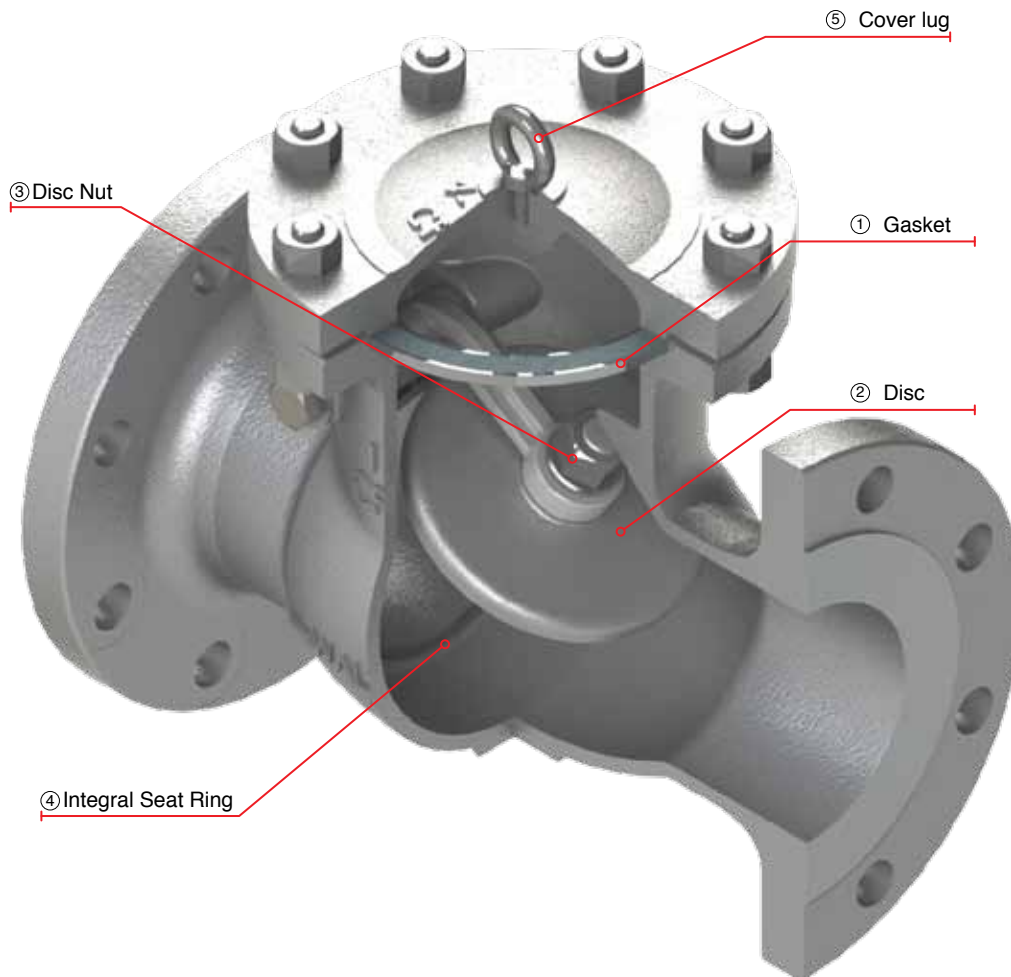


API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 150 CAST STEEL SWING CHECK VALVES

DESIGN FEATURES

- Swing check valves design in accordance with API-603 & ASME B16.34
 - Swing check valves for cryogenic service in accordance with BS-6364
 - Damper & counter weight options
 - Drain connections as per Customer request.
 - Low fugitive emissions control
 - NACE service either MR-01-75 or MR-01-03
 - Test in accordance with API-598
- ① Body to cover joint designed to apply a uniform load to the gasket to assure a leak proof seal.
 - ② Disc to hanger connection allows the disc controlled movement independent of the hanger to assure proper disc alignment with the seat at closure.
 - ③ The connection is secured by a welded disc nut to prevent disassembly due to vibration and closure impact.
 - ④ Stellite seat ring provides increased resistance to wear abrasion and erosion of the sealing surface.
 - ⑤ From 4" and up, WALWORTH check valves have cover lug for easy installation.

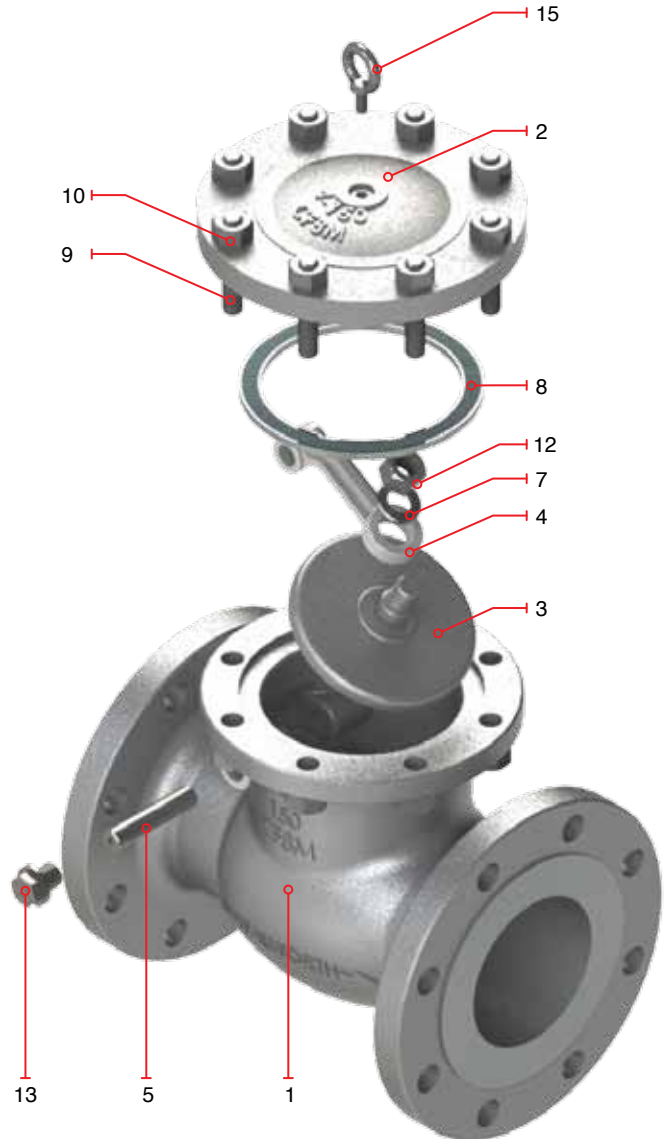


API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 150

DESIGN FEATURES:

- Design in accordance with API-603 & ASME B16.34
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25

Catalog Figure No.	ID Plant Figure No.	Type of Ends
S5341RF	S5341F	Flanged Raised Face
S5341RTJ	S5341RJ	Ring Type Joint
S5341WE	S5341WE	Buttweld



Regular Bill of Materials

5No.	Description	STANDARD MATERIAL
1	Body	ASTM A 351 GR CF8M
2	Cover	ASTM A 351 GR CF8M
3	Disc	ASTM A 351 GR CF8M + ST 6
4	Hanger	ASTM A 351 GR CF8M
5	Shaft	ASTM A 182 Type F316
*6	Shaft Washer	ASTM A 182 Type F316
7	Disc Washer	ASTM A 182 Type F316
8	Gasket	Spiral Stainless 316/Graphite
9	Stud	ASTM A 193 GR B8
10	Stud Nut	ASTM A 194 GR 8
*11	Set Screw	ASTM A 479 Type 316
12	Disc Nut	ASTM A 194 GR 8
13	Body Plug	ASTM A 182 Type F316
*14	Identification Plate	Stainless Steel
**15	Cover lug	Commercial Steel

*Not Shown

**Only from 4" and up

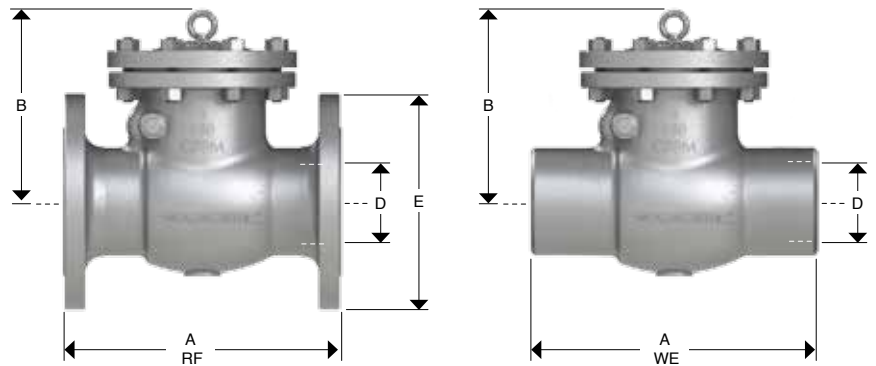
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 150



DESIGN FEATURES:

- Design in accordance with API-603 & ASME B16.34
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25

Catalog Figure No.	ID Plant Figure No.	Type of Ends
S5341RF	S5341F	Flanged Raised Face
S5341RTJ	S5341RJ	Ring Type Joint
S5341WE	S5341WE	Buttweld



Dimensions and Weights

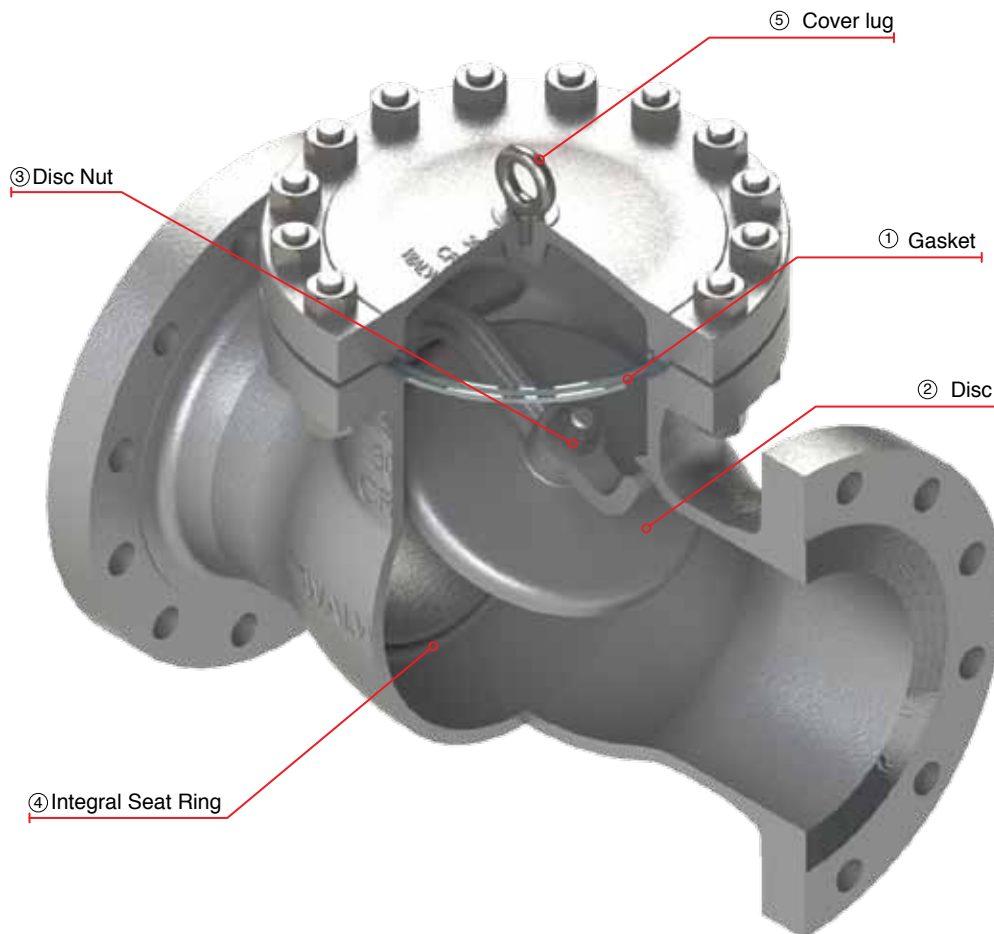
D Nominal Diameter	mm	51	64	76	102	152	203	254	305	356	406	457	508	610
	in	2	2.5	3	4	6	8	10	12	14	16	18	20	24
A (RF and WE)	mm	203	216	241	292	406	495	622	698	787	914	978	978	1295
	in	8	8.5	9.5	11.5	16	19.5	24.5	27.5	31	36	38.5	38.5	51
B	mm	123	135	150	205	253	305	370	439	493	598	605	662	702
	in	4.8	5.3	5.9	8.1	10.0	12.0	14.6	17.3	19.4	21.6	23.8	26.1	27.6
E	mm	152	178	191	229	279	343	406	483	533	597	635	699	813
	in	6	7	7.5	9	11	13.5	16	19	21	23.5	25	27.5	32
Weight S5341RF	Kg	8.8	13	18	30	50	91	135	210	349	459	540	826	1044
	lb	19.4	28.7	39.7	66.2	110.3	200.7	297.7	463.1	769.5	1012.1	1190.7	1821.3	2302.0
Weight S5341WE	Kg	6.8	11	14	26	45	71	89	140	279	367	432	661	835
	lb	15.0	24.3	30.9	57.3	99.2	156.6	196.2	308.7	615.2	809.2	952.6	1457.5	1841.2

PCR = Per customer request

API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 300 CAST STEEL SWING CHECK VALVES

DESIGN FEATURES

- Swing check valves design in accordance with API-603 & ASME B16.34.
 - Swing check valves for cryogenic service in accordance with BS-6364.
 - Damper & counter weight options.
 - Drain connections as per Customer request.
 - Low fugitive emissions control.
 - NACE service either MR-01-75 or MR-01-03.
 - Test in accordance with API-598.
- ① Body to cover joint designed to apply a uniform load to the gasket to assure a leak proof seal.
 - ② Disc to hanger connection allows the disc a controlled movement independent of the hanger to assure proper disc alignment with the seat at closure.
 - ③ The connection is secured by a welded disc nut to prevent disassembly due to vibration and closure impact.
 - ④ Stellite seat ring provides increased resistance to wear abrasion and erosion of the sealing surface.
 - ⑤ From 4" and up, WALWORTH check valves have cover lug for easy installation.

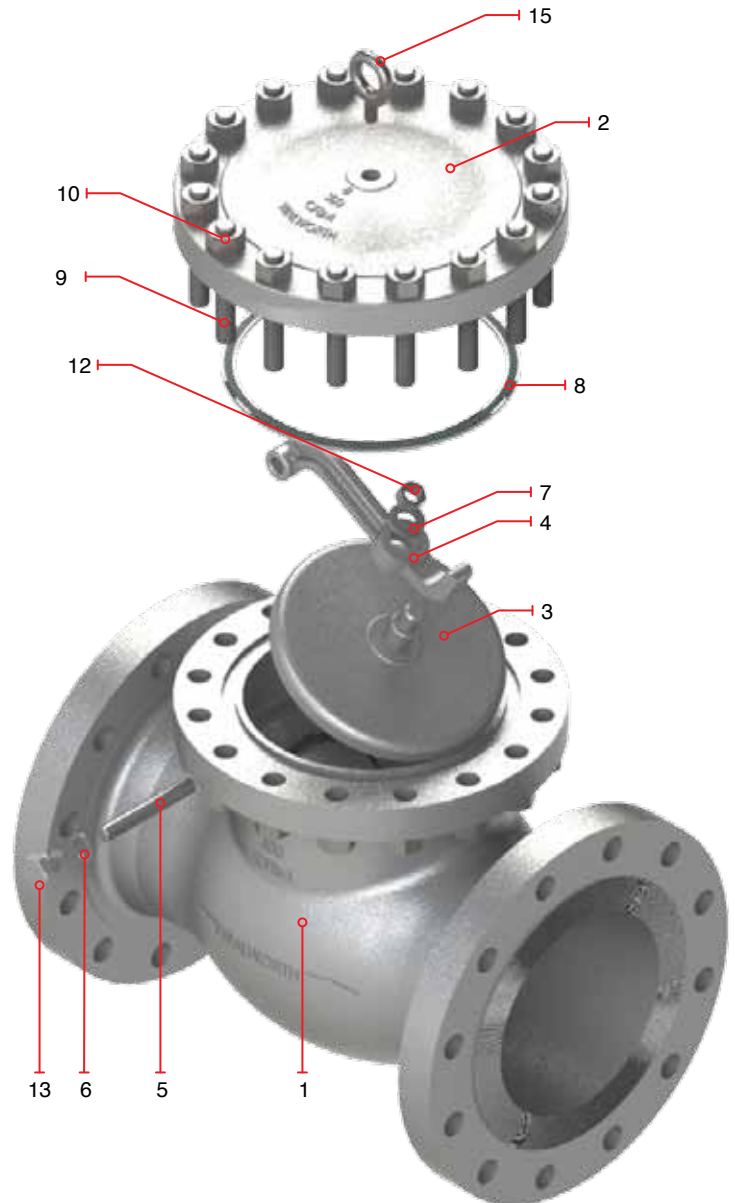


API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 300

DESIGN FEATURES:

- Design in accordance with API-603 & ASME B16.34
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25

Catalog Figure No.	ID Plant Figure No.	Type of Ends
S5344RF	S5344F	Flanged Raised Face
S5344RTJ	S5344RJ	Ring Type Joint
S5344WE	S5344WE	Buttweld



Regular Bill of Materials

No.	Description	STANDARD MATERIAL
1	Body	ASTM A 351 GR CF8M
2	Cover	ASTM A 351 GR CF8M
3	Disc	ASTM A 351 GR CF8M + ST 6
4	Hanger	ASTM A 351 GR CF8M
5	Shaft	ASTM A 182 Type F316
6	Shaft Washer	ASTM A 182 Type F316
7	Disc Washer	ASTM A 182 Type F316
8	Gasket	Spiral Stainless 316/Graphite
9	Stud	ASTM A 193 GR B8
10	Stud Nut	ASTM A 194 GR 8
*11	Set Screw	ASTM A 479 Type 316
12	Disc Nut	ASTM A 194 GR 8
13	Body Plug	ASTM A 182 Type F316
*14	Identification Plate	Stainless Steel
15	Cover lug	Commercial Steel

*Not Shown

**Only from 4" and up

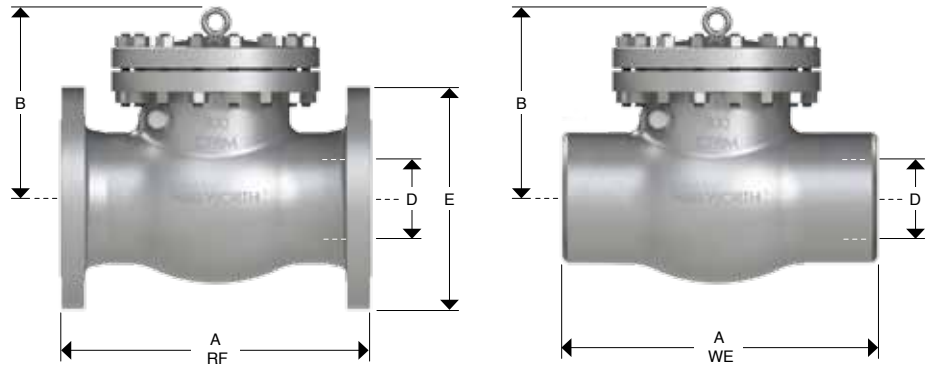
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 300



DESIGN FEATURES:

- Design in accordance with API-603 & ASME B16.34
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25

Catalog Figure No.	ID Plant Figure No.	Type of Ends
S5344RF	S5344F	Flanged Raised Face
S5344RTJ	S5344RJ	Ring Type Joint
S5344WE	S5344WE	Buttweld



Dimensions and Weights

D Nominal Diameter	mm	50	65	80	100	150	200	250	300	350	400	450	500	610
	in	2	2.5	3	4	6	8	10	12	14	16	18	20	24
A (RF and WE)	mm	267	292	318	356	445	533	622	711	838	684	978	1016	1346
	in	10.5	11.5	12.5	14	17.5	21	24.5	28	33	34	38.5	40	53
B	mm	140	165	174	231	286	326	375	436	476	610	660	690	767
	in	5.5	6.5	6.9	9.1	11.3	12.8	14.8	17.2	18.7	24	26	27.2	30.2
E	mm	165	191	210	254	318	381	445	521	584	648	711	775	914
	in	6.5	7.5	8 ¼	10	12.5	15	17.5	20.5	23	25.5	28	30.5	36
Weight S5344RF	Kg	16	23	32	50	95	150	229	360	576	691	891	1022	1962
	lb	35.3	50.7	70.6	110.3	209.5	330.8	504.9	793.8	1270.1	1523.7	1964.7	2253.5	4326.2
Weight S5344WE	Kg	13	21	28	45	61	105	176	305	518	630	812	931	1788
	lb	28.7	46.3	61.7	99.2	134.5	231.5	388.1	672.5	1142.2	1389.2	1790.5	2052.9	3942.5

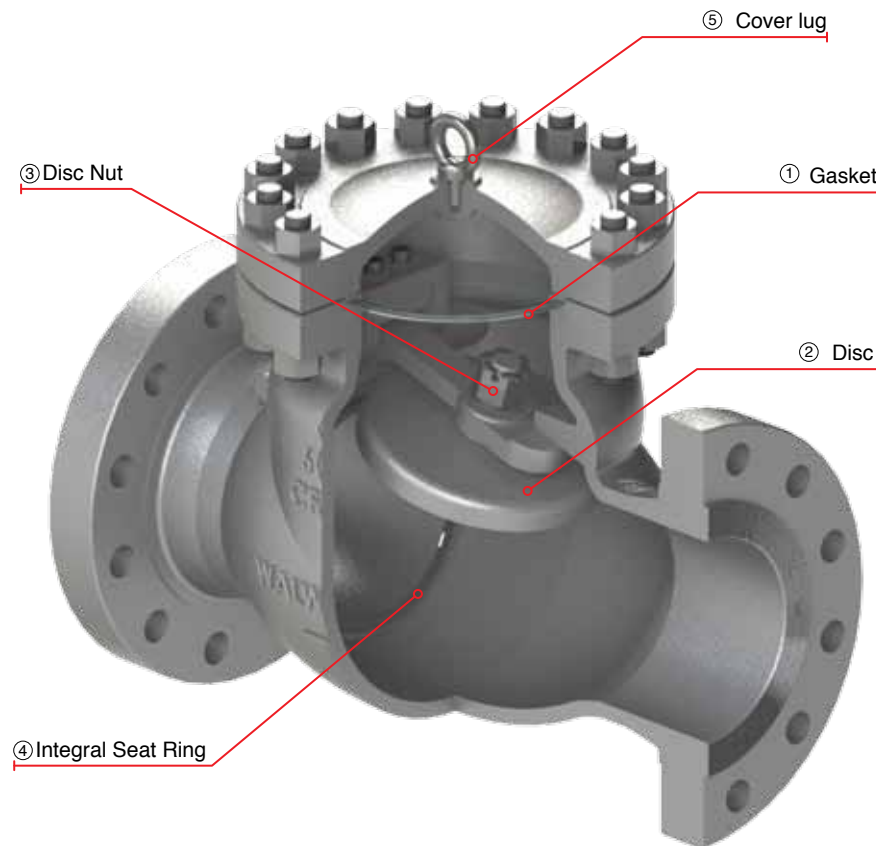
PCR = Per customer request

API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 600 CAST STEEL SWING CHECK VALVES

DESIGN FEATURES

- Swing check valves design in accordance with API-603 & ASME B16.34.
- Swing check valves for cryogenic service in accordance with BS-6364.
- Damper & counter weight options.
- Drain connections as per Customer request.
- Low fugitive emissions control.
- NACE service either MR-01-75 or MR-01-03.
- Test in accordance with API-598.

- ① Body to cover joint designed to apply a uniform load to the gasket to assure a leak proof seal.
- ② Disc to hanger connection allows the disc a controlled movement independent of the hanger to assure proper disc alignment with the seat at closure.
- ③ The connection is secured by a welded disc nut to prevent disassembly due to vibration and closure impact.
- ④ Stellite seat ring provides increased resistance to wear abrasion and erosion of the sealing surface.
- ⑤ From 4" and up, WALWORTH check valves have cover lug for easy installation.

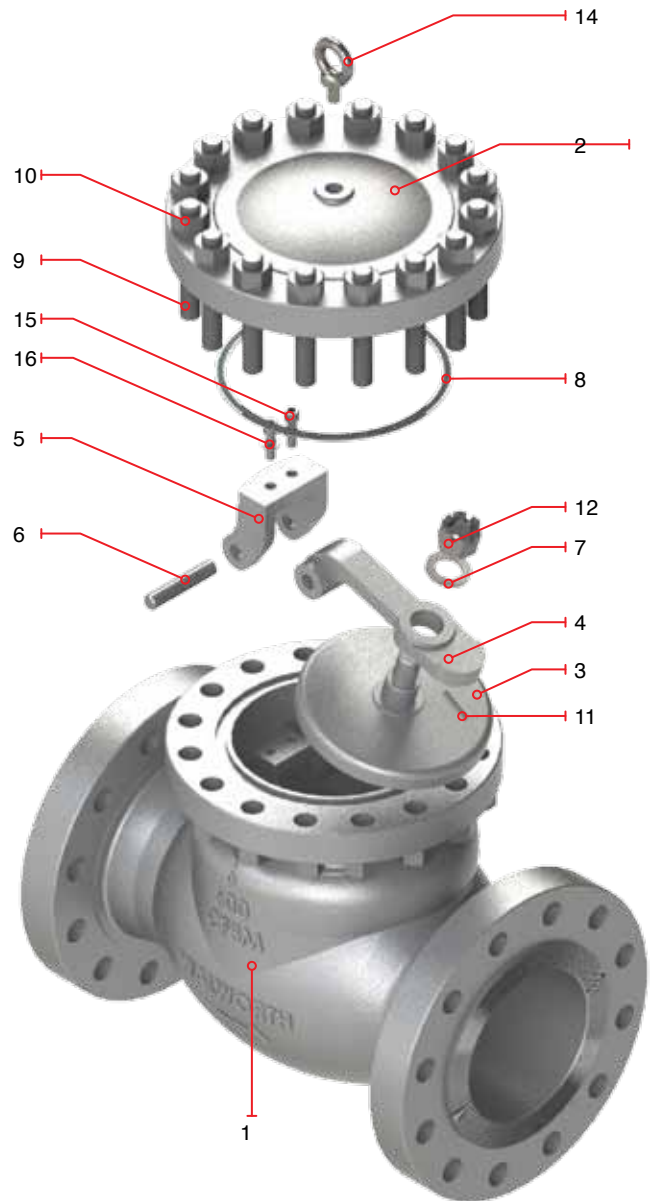


API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 600

DESIGN FEATURES:

- Design in accordance with API-603 & ASME B16.34
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25

Catalog Figure No.	ID Plant Figure No.	Type of Ends
S5350RF	S5350F	Flanged Raised Face
S5350RTJ	S5350RJ	Ring Type Joint
S5350WE	S5350WE	Buttweld



Regular Bill of Materials

No.	Description	STANDARD MATERIAL
1	Body	ASTM A 351 GR CF8M
2	Cover	ASTM A 351 GR CF8M
3	Disc	ASTM A 351 GR CF8M + ST 6
4	Hanger	ASTM A 351 GR CF8M
5	Hanger Support	ASTM A 351 GR CF8M
6	Shaft	ASTM A 182 Type F316
7	Disc Washer	ASTM A 182 Type F316
8	Gasket	Spiral Stainless 316/Graphite
9	Stud	ASTM A 193 GR B8
10	Stud Nut	ASTM A 194 GR 8
11	Set Screw	ASTM A 479 Type 316
12	Disc Nut	ASTM A 194 GR 8
*13	Identification Plate	Stainless Steel
**14	Cover Lug	Commercial Steel
15	Hanger Support Screw	ASTM A193 GR B8
16	Hanger Support Washer	ASTM A351 GR F316

*Not Shown

**Only from 4" and up

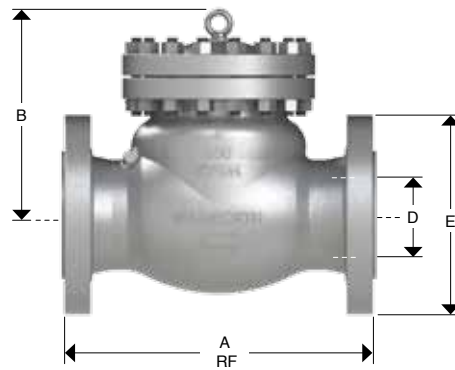
API-603 CAST STAINLESS STEEL & SPECIAL ALLOY SWING CHECK VALVES, CLASS 600



DESIGN FEATURES:

- Design in accordance with API-603 & ASME B16.34
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25

Catalog Figure No.	ID Plant Figure No.	Type of Ends
S5350RF	S5350F	Flanged Raised Face
S5350RTJ	S5350RJ	Ring Type Joint
S5350WE	S5350WE	Buttweld



Dimensions and Weights

D Nominal Diameter	mm	50	65	80	100	150	200	250	300
	in	2	2.5	3	4	6	8	10	12
A (RF and WE)	mm	292	330	356	432	559	660	787	838
	in	11.5	13	14	17	22	26	31	33
B	mm	158	177	182	241	335	432.5	502	565
	in	6.2	7.0	7.2	9.5	13.2	17	19.8	22.2
E	mm	165	191	210	273	356	419	508	559
	in	6.5	7.5	8 ¼	10.75	14	16.5	20	22
Weight S5350RF	Kg	20	28	40	82	170	271	477	609
	lb	44.1	61.7	88.2	180.8	374.9	597.6	1051.8	1342.8
Weight S5350WE	Kg	16	22	33	69	144	225	409	517
	lb	35.3	48.5	72.8	152.1	317.5	496.1	901.8	1140.0

PCR = Per customer request