

#### **CAST STEEL SWING CHECK VALVES**

- · Swing check valves design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- Swing check valves option in accordance with API-603 only for stainless steel & Nickel alloys.
- · Swing check valves for cryogenic service in accordance with BS-6364.
- Flange dimensions in accordance with ASME B16.5 for valves up to 24" nominal diameter.
- · Damper & Counter weight options.
- · Drain connections as per Customer
- · 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) Stellited Seat Ring provides increased resistance to wear abrasion and erosion of the sealing surface.
- (5) For 8" and up, WALWORTH check valves have cover lug for easy instalation
- (6) Body with heavy wall thickness as per ASME B16.34 for maximum service life. Provided with bosses for optional drains.





### **Design Features**

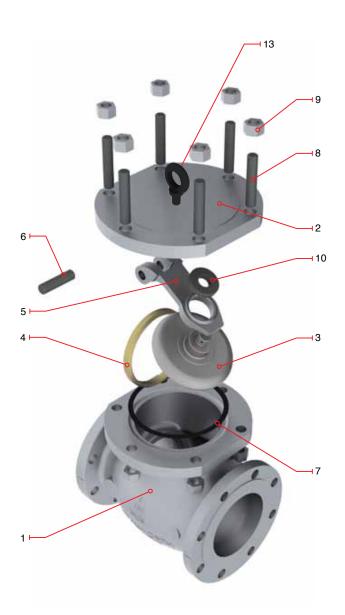
- · Design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47
  Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5341RF	5341F	Flanged Raised Face
5341RTJ	5341RJ	Flanged Ring Type Joint
5341WE	5341WE	Buttweld



No.	Description	STANDARD MATERIAL
1	Body	ASTM A 216 GR WCB
2	Cover	ASTM A 216 GR WCB
3	Disc	A 216 GR WCB + 13% Cr.
4	Seat Ring	ASTM A 515 GR 70 + ST 6
5	Hanger	ASTM A 216 GR WCB
6	Hanger Pin	ASTM A 276 Type 410
7	Cover Gasket	Spiral Stainless 304/Graphite
8	Cover Stud	ASTM A 193 GR B7
9	Cover Stud Nut	ASTM A 194 GR 2H
10	Disc Nut	Alloy Steel
*11	Body Plug	Alloy Steel
*12	Identification Plate	Stainless Steel
**13	Coverlug	Commercial Steel

<sup>\*</sup>Not shown \*\*Only from 8" and up



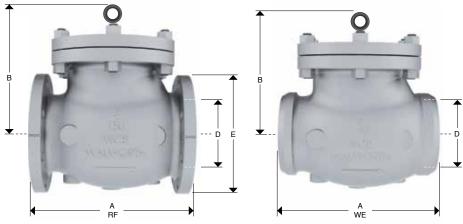




#### **Design Features**

- · Design in accordance with API-6D.
- Swing check valves as per API-599 available upon request.
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47 Series A as standard
- · Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5341RF	5341F	Flanged Raised Face
5341RTJ	5341RJ	Flanged Ring Type Joint
5341WE	5341WE	Buttweld



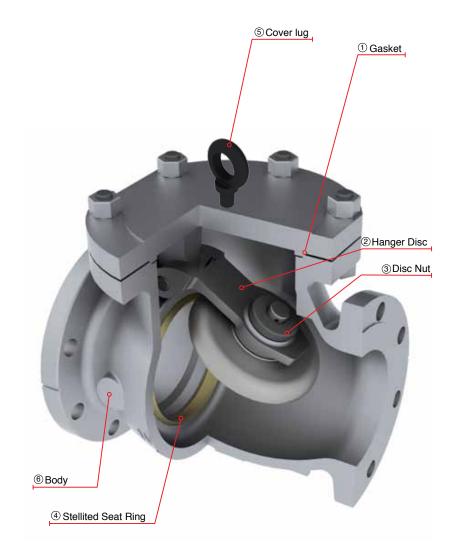
D	mm	51	64	76	102	152	203	254	305	356	406	457	508	610	762	914	1067	1219
Nominal Diameter	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
A (DE and	mm	203	216	241	292	356	495	622	699	787	864	978	978	1295	1524	1956	PCR	PCR
(RF and WE)	in	8	8 1/2	9 1/2	11 1/2	14	19 1/2	24 1/2	27 1/2	31	34	38 1/2	38 1/2	51	60	77	PCR	PCR
	mm	134	156	162	205	238	291	349	381	457	502	573	606	702	1003	1118	PCR	PCR
В	in	5 9/32	6 1/8	6 3/8	8 1/16	9 3/8	11 7/16	13 3/4	15	18	19 3/4	22 9/16	23 7/8	27 5/8	39.5	44	PCR	PCR
Е	mm	152	178	191	229	279	343	406	483	533	597	635	699	813	984	1168	1346	1511
_	in	6	7	7 1/2	9	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32	38.75	46	53	59.5
Weight	Kg	15	21	27	40	69	172	266	399	388	510	600	918	1160	1816	3632	PCR	PCR
5341RF	lb	33	46.2	59.4	88	151.8	378.4	585.2	877.8	853.6	1122	1320	2019.6	2552	4000	8000	PCR	PCR
Weight	Kg	13	19	17	36	64	132	210	305	318	418	492	753	951	1489	2978	PCR	PCR
5341WE	lb	28.6	41.8	37.4	79.2	140.8	290.4	462	671	700	920	1082	1656	2093	3276	6552	PCR	PCR

PCR = Per customer request



#### **CAST STEEL SWING CHECK VALVES**

- Swing check valves design in accordance with API-6D.
- Swing check valves as per API-599 available upon request.
- Swing check valves option in accordance with API-603 only for stainless steel & Nickel alloys.
- Swing check valves for cryogenic service in accordance with BS-6364.
- Flange dimensions in accordance with ASME B16.5 for valves up to 24" nominal diameter.
- · 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.
- 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) Stellited Seat Ring provides increased resistance to wear abrasion and erosion of the sealing surface.
- (5) From 8" and up, WALWORTH check valves have coverlug for easy instalation
- (6) Body with heavy wall thickness as per ASME B16.34 for maximum service life. Provided with bosses for optional drains.





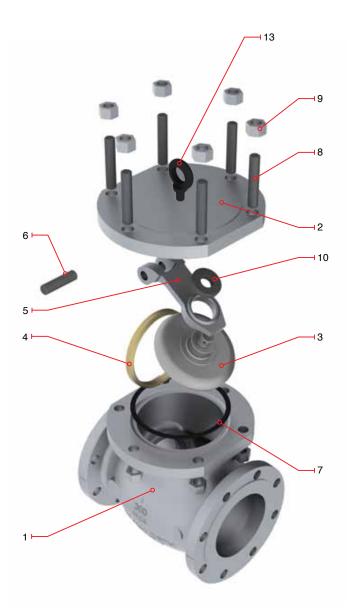
#### **Design Features**

- Design in accordance with API-6D.
- Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47 Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5344RF	5344F	Flanged Raised Face
5344RTJ	5344RJ	Flanged Ring Type Joint
5344WE	5344WE	Buttweld

No.	Description	STANDARD MATERIAL					
1	Body	ASTM A 216 GR WCB					
2	Cover	ASTM A 216 GR WCB					
3	Disc	ASTM A 216 GR WCB + 13% Cr.					
4	Seat Ring	ASTM A 515 GR 70 + ST 6					
5	Hanger	ASTM A 216 GR WCB					
6	Hanger Pin	ASTM A 276 Type 410					
7	Cover Gasket	Spiral Stainless 304/Graphite					
8	Cover Stud	ASTM A 193 GR B7					
9	Cover Stud Nut	ASTM A 194 GR 2H					
10	Disc Nut	Alloy Steel					
*11	Body Plug	Alloy Steel					
*12	Identification Plate	Stainless Steel					
**13	Cover lug	Commercial Steel					

<sup>\*</sup>Not Shown \*\* Only from 8" an up



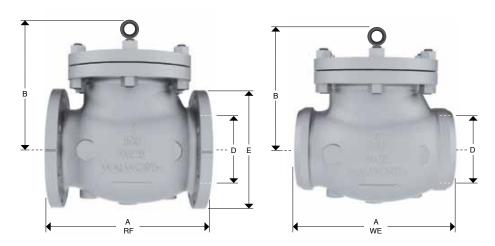




#### **Design Features**

- · Design in accordance with API-6D & ASME .
- · Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47
  Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5344RF	5344F	Flanged Raised Face
5344RTJ	5344RJ	Flanged Ring Type Joint
5344WE	5344WE	Buttweld

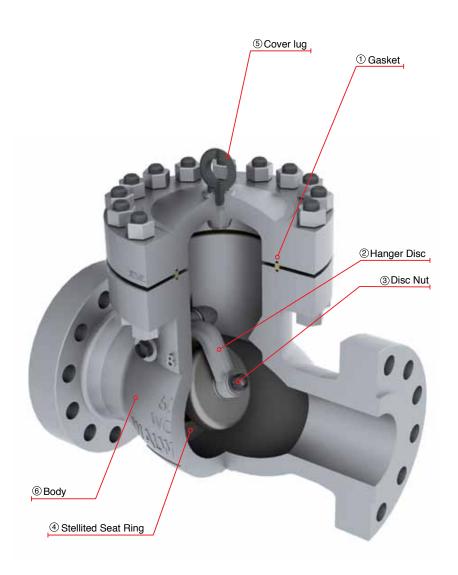


D Nominal	mm	51	64	76	102	152	203	254	305	356	406	457	508	610	762	914
Diameter	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	36
Α	mm	267	292	318	356	445	533	622	711	838	864	978	1016	1346	1594	2083
(RF and WE)	in	10 1/2	11 1/2	12 1/2	14	17 1/2	21	24 1/2	28	33	34	38 1/2	40	53	62 3/4	82
	mm	144	179	184	221	260	348	395	456	495	630	680	710	787	1029	1219
В	in	5 11/16	7 1/16	7 1/4	8 11/16	10 1/4	13 11/16	15 9/16	17 15/16	19 1/2	24 13/16	26 3/4	27 15/16	31	40 1/2	48
E	mm	165	191	210	254	318	381	445	521	584	648	711	775	914	1092	1270
_	in	6 1/2	7 1/2	8 1/4	10	12 1/2	15	17 1/2	20 1/2	23	25 1/2	28	30 1/2	36	43	50
Weight	Kg	22	27	42	63	129	235	358	544	577	768	990	1136	2180	3000	5400
5344RF	lb	48	59	92	139	284	517	788	1197	1269	1690	2178	2499	4796	6600	11880
Weight	Kg	19	25	31	58	95	159	305	470	531	707	911	1045	2006	2760	4968
5344WE	lb	41.8	54.648	68.2	127.6	209	349.8	671	1034	1168	1554	2004	2299	4412	6072	10930



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- Swing check valves design accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- · Swing check valves option in accordance with API-603 only for stainless steel & Nickel alloys.
- · Swing check valves for cryogenic service in accordance with BS-6364.
- · Flange dimensions in accordance with ASME B16.5 for valves up to 24" nominal diameter.
- · 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) Stellited Seat Ring provides increased resistance to wear abrasion and erosion of the sealing surface.
- (5) From 8" and up, WALWORTH check valves have cover lug for easy instalation
- (6) Body with heavy wall thickness as per ASME B16.34 for maximum service life. Provided with bosses for optional drains.





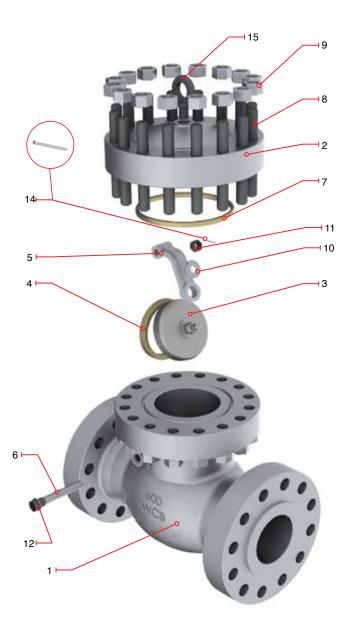
#### **Design Features**

- · Design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47
  Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5350RF	5350F	Flanged Raised Face
5350RTJ	5350RJ	Flanged Ring Type Joint
5350WE	5350WE	Buttweld

No.	Description	WCB Trim UT
1	Body	ASTM A 216 GR WCB
2	Cover	ASTM A 216 GR WCB
3	Disc	ASTM A 216 GR WCB + 13% Cr.
4	Seat Ring	ASTM A 515 GR 70 + ST 6
5	Hanger	ASTM A 216 GR WCB
6	Hanger Pin	ASTM A 276 Type 410
7	Ring Type Joint Gasket	ASTM A 108 GR 1010
8	Cover Stud	ASTM A 193 GR B7
9	Cover Stud Nut	ASTM A 194 GR 2H
10	Disc Washer	ASTM A 276 Type 410
11	Disc Nut	Alloy Steel
12	Body Plug	Alloy Steel
*13	Identification Plate	Stainless Steel
14	Hanger retainer	Stainless Steel
15	Coverlug	Commercial Steel

<sup>\*</sup>Not Shown



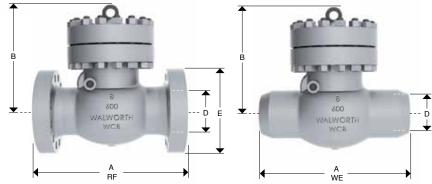




#### **Design Features**

- · Design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47 Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5350RF	5350F	Flanged Raised Face
5350RTJ	5350RJ	Flanged Ring Type Joint
5350WE	5350WE	Buttweld



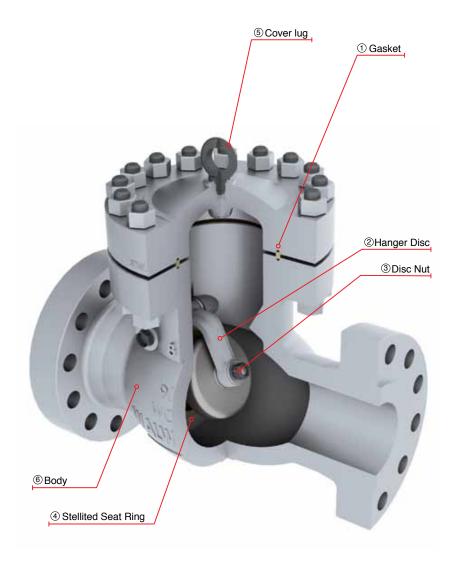
D Nominal	mm	51	64	76	102	152	203	254	305	356	406	457	508	610	762	914
Diameter	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24	30	36
А	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397	1651	2083
(RF and WE)	in	11 1/2	13	14	17	22	26	31	33	35	39	43	47	55	65	82
A*	mm	295	333	359	435	562	663	790	841	892	994	1095	1200	1407	1664	PCR
(RTJ)	in	11 5/8	13 1/8	14 1/8	17 1/8	22 1/8	26 1/8	31 1/8	33 1/8	35 1/8	39 1/8	43 1/8	47 1/4	55 3/8	65 1/2	PCR
	mm	147	182	177	241	344	435	512	575	576	653	752	715	787	1092	1422
В	in	5 3/4	7 3/16	6 15/16	9 1/2	13 9/16	17 1/8	20 3/16	22 5/8	22 11/16	25 11/16	29 5/8	28 1/8	31	43	56
E	mm	165	191	210	273	356	419	508	559	603	686	743	813	940	1130	1314
_	in	6 1/2	7 1/2	8 1/4	10 3/4	14	16 1/2	20	22	23 3/4	27	29 1/4	32	37	44 1/2	51 3/4
Weight	Kg	25	40	46	85	173	383	567	770	1250	1735	2006	2780	4310	5800	10500
5350RF	lb	55	88	101.2	187	380.6	842.6	1247.4	1694	2750	3817	4413.2	6116	9482	12760	23100
Weight	Kg	21	34	39	72	147	337	499	678	1125	1562	1805	2502	3879	5220	9450
5350WE	lb	47	75	86	159	324	741	1098	1491	2475	3435	3972	5504	8534	11484	20790

PCR = Per customer request



#### **CAST STEEL SWING CHECK VALVES**

- Swing check valves design in accordance with API-6D.
- Swing check valves as per API-599 available upon request.
- Swing check valves option in accordance with API-603 only for stainless steel & Nickel alloys.
- Swing check valves for cryogenic service in accordance with BS-6364.
- Flange dimensions in accordance with ASME B16.5 for valves up to 24" nominal diameter.
- · 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.
- 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) Stellited Seat Ring provides increased resistance to wear abrasion and erosion of the sealing surface.
- (5) From 8" and up, WALWORTH check valves have coverlug for easy instalation
- (6) Body with heavy wall thickness as per ASME B16.34 for maximum service life. Provided with bosses for optional drains.





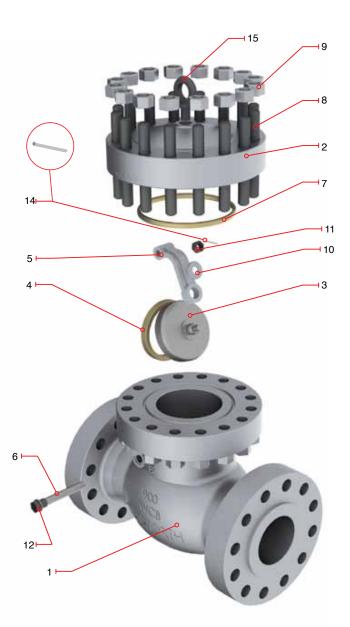
#### **Design Features**

- · Design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47 Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5353RF	5353F	Flanged Raised Face
5353RTJ	5353RJ	Flanged Ring Type Joint
5353WE	5353WE	Buttweld

No.	Description	WCB Trim UT
1	Body	ASTM A 216 GR WCB
2	Cover	ASTM A 216 GR WCB
3	Disc	ASTM A 216 GR WCB + 13% Cr.
4	Seat Ring	ASTM A 515 GR 70 + ST 6
5	Hanger	ASTM A 216 GR WCB
6	Hanger Pin	ASTM A 276 Type 410
7	Ring Type Joint Gasket	ASTM A 108 GR 1010
8	Cover Stud	ASTM A 193 GR B7
9	Cover Stud Nut	ASTM A 194 GR 2H
10	Disc Washer	ASTM A 276 Type 410
11	Disc Nut	Alloy Steel
12	Body Plug	Alloy Steel
*13	Identification Plate	Stainless Steel
14	Hanger retainer	Stainless Steel
15	Cover lug	Commercial Steel
+NI-+ OI-		

<sup>\*</sup>Not Shown



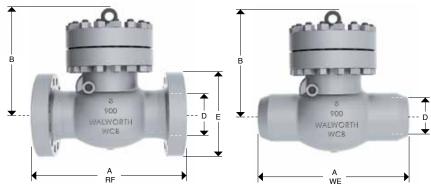




#### **Design Features**

- · Design in accordance with API-6D.
- Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47
  Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5353RF	5353F	Flanged Raised Face
5353RTJ	5353RJ	Flanged Ring Type Joint
5353WE	5353WE	Buttweld



### **Dimensions and Weights**

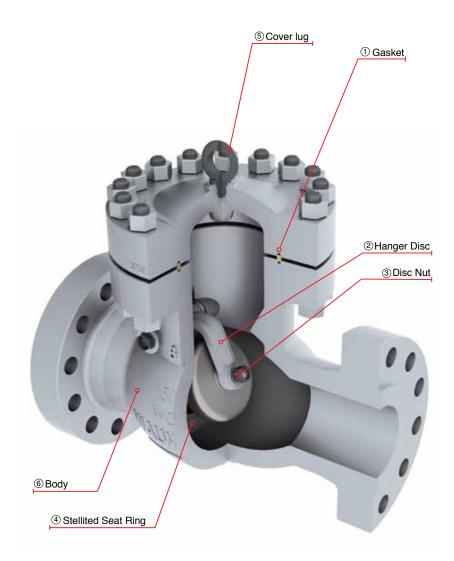
		•											
D Naminal	mm	51	76	102	152	203	254	305	356	406	457	508	610
Nominal Diameter	in	2	3	4	6	8	10	12	14	16	18	20	24
Α	mm	368	381	457	610	737	838	965	1029	1130	1219	1321	1549
(RF and WE)	in	14 1/2	15	18	24	29	33	38	40 1/2	44 1/2	48	52	61
A*	mm	371	384	460	613	740	841	968	1038	1140	1232	1334	1568
(RTJ)	in	14 5/8	15 1/8	18 1/8	24 1/8	29 1/8	33 1/8	38 1/8	40 7/8	44 7/8	48 1/2	52 1/2	61 3/4
В	mm	255	266	292	396	545	528	595	635	PCR	PCR	PCR	PCR
Б	in	10	10 1/2	11 1/2	15 9/16	21 7/16	20 13/16	23 7/16	25	PCR	PCR	PCR	PCR
E	mm	216	241	292	381	470	546	610	641	705	787	857	1041
E	in	8 1/2	9 1/2	11 1/2	15	18 1/2	21 1/2	24	25 1/4	27 3/4	31	33 3/4	41
Weight	Kg	64	93	127	263	505	1235	1450	1480	PCR	PCR	PCR	PCR
5353RF	lb	141	205	279	579	1111	2717	3190	3256	PCR	PCR	PCR	PCR
Weight	Kg	54	79	108	224	429	1087	1276	1285	PCR	PCR	PCR	PCR
5353WE	lb	120	174	237	492	944	2391	2807	2827	PCR	PCR	PCR	PCR

PCR = Per customer request



#### **CAST STEEL SWING CHECK VALVES**

- Swing check valves design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- · Swing check valves option in accordance with API-603 only for stainless steel & Nickel alloys.
- · Swing check valves for cryogenic service in accordance with BS-6364.
- · Flange dimensions in accordance with ASME B16.5 for valves up to 24" nominal diameter.
- · 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) Stellited Seat Ring provides increased resistance to wear abrasion and erosion of the sealing surface.
- (5) From 8" and up, WALWORTH check valves have coverlug for easy instalation
- (6) Body with heavy wall thickness as per ASME B16.34 for maximum service life. Provided with bosses for optional drains.





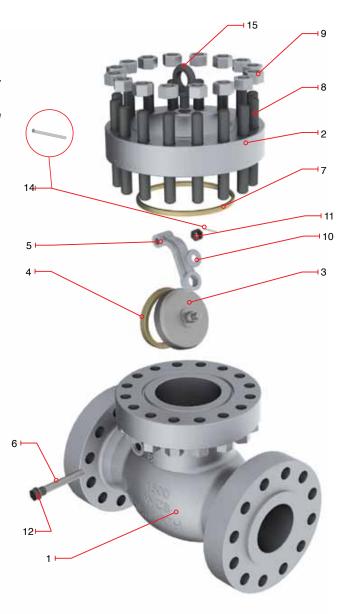
#### **Design Features**

- · Design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- Flange dimensions as per ASME B16.5
- End to end dimensions as per ASME B16.10
- WE dimensions as per ASME B 16.25
- Flange dimensions larger than 24" according to ASME B16.47
  Series A as standard
- Flange dimensions as per ASME B16.47 Series B available upon request

Catalog Figure No.	ID Plant Figure No.	Type of Ends
5356RF	5356F	Flanged Raised Face
5356RTJ	5356RJ	Flanged Ring Type Joint
5356WE	5356WE	Buttweld

No.	Description	WCB Trim UT
1	Body	ASTM A 216 GR WCB
2	Cover	ASTM A 216 GR WCB
3	Disc	ASTM A 216 GR WCB + 13% Cr.
4	Seat Ring	ASTM A 515 GR 70 + ST 6
5	Hanger	ASTM A 216 GR WCB
6	Hanger Pin	ASTM A 276 Type 410
7	Ring Type Joint Gasket	ASTM A 108 GR 1010
8	Cover Stud	ASTM A 193 GR B7
9	Cover Stud Nut	ASTM A 194 GR 2H
10	Disc Washer	ASTM A 276 Type 410
11	Disc Nut	Alloy Steel
12	Body Plug	Alloy Steel
*13	Identification Plate	Stainless Steel
14	Hanger retainer	Stainless Steel
15	Cover lug	Commercial Steel

<sup>\*</sup>Not Shown



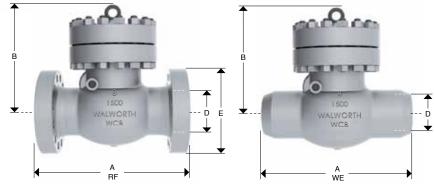




#### **Design Features**

- · Design in accordance with API-6D.
- · Swing check valves as per API-599 available upon request.
- 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		
5356RF	5356F	Flanged Raised Face		
5356RTJ	5356RJ	Flanged Ring Type Joint		
5356WE	5356WE	Buttweld		



. D	mm	51	64	76	102	152	203	508	305	356	406	457	508	610
Nominal Diameter	in	2	2 1/2	3	4	6	8	10	12	14	16	18	20	24
A	mm	368	419	470	546	705	832	991	1130	1257	1384	1537	1664	1943
(RF and WE)	in	14 1/2	16 1/2	18 1/2	21 1/2	27 3/4	32 3/4	39	44 1/2	49 1/2	54 1/2	60 1/2	65 1/2	76 1/2
A*	mm	371	422	473	549	711	842	1000	1146	1276	1407	1559	1686	1972
(RTJ)	in	14 5/8	16 5/8	18 5/8	21 5/8	28	33 1/8	39 3/8	45 1/8	50 1/4	55 3/8	61 3/8	66 3/8	77 5/8
	mm	255	297	297	336	328	563	605	730	857	883	1022	1162	PCR
В	in	10	11 11/16	11 11/16	13 1/4	12 15/16	22 3/16	23 13/16	28 3/4	33 3/4	34 3/4	40 1/4	45 3/4	PCR
E	mm	216	244	267	311	394	483	584	673	749	826	914	984	1168
	in	8 1/2	9 5/8	10 1/2	12 1/4	15 1/2	19	23	26 1/2	29 1/2	32 1/2	36	38 3/4	46
Weight	Kg	64	127	127	211	418	777	1550	2100	2358	3400	4350	5500	PCR
5356RF	lb	141	279	279	464	920	1709	3410	4620	5188	7480	9570	12100	PCR
Weight	Kg	54	108	108	179	355	660	1318	1785	2004	2890	3698	4675	PCR
5356WE	lb	120	237	237	395	782	1453	2899	3927	4409	6358	8135	10285	PCR

PCR = Per customer request