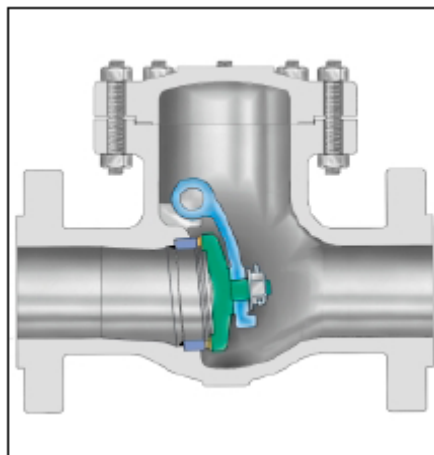




## Documentation Package

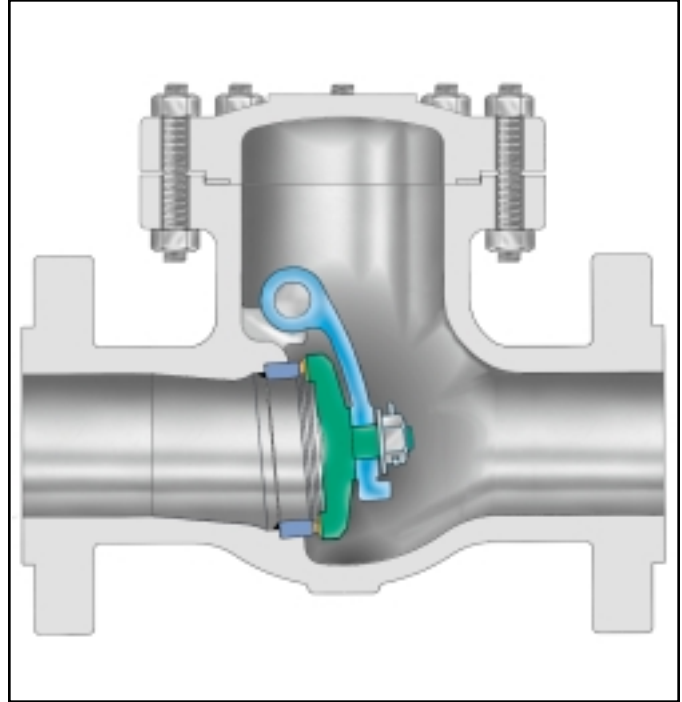
01.3

### “API 600 Cast Steel Swing Check Valves”





**CAST CARBON, STAINLESS OR ALLOY STEEL API 600  
SWING CHECK VALVES, 2–36" (50–900 mm)  
ASME CLASSES 150, 300, 600, 900 AND 1500**



CLASS	FIGURE NUMBER	CLASS	FIGURE NUMBER
150	0114C	900	7114C
300	1114C	1500	3114C
600	2114C		

**STANDARD MATERIALS**

PART	MATERIALS			
Body <sup>(1)</sup>	WCB	WC6	WC9	CF8M
Seat <sup>(1)/(2)</sup>	Stellite 6 faced CS	Stellite 6 faced F11	Stellite 6 faced F22	Stellite 6 faced F316
Hinge pin <sup>(1)/(3)</sup>	SS 410			SS 630 or 660
Gasket <sup>(1)</sup>	Spiral wound stainless steel/graphite			
Cover stud	Gr. B7	B16		B8M or 630
Cover nut	Gr. 2H	Gr. 4		Gr. 8M
Cover <sup>(1)</sup>	WCB	WC6	WC9	CF8M
Washer	Commercial			
Disc <sup>(1)</sup>	CA 15 or 13 CR faced WCB	CA 15 or 13 CR faced WC6	CA 15 or 13 CR faced WC9	CF8M
Disc hanger	WCB	WC6	WC9	CF8M
Disc nut	Gr. 2H	Gr. 4		Gr. 8M

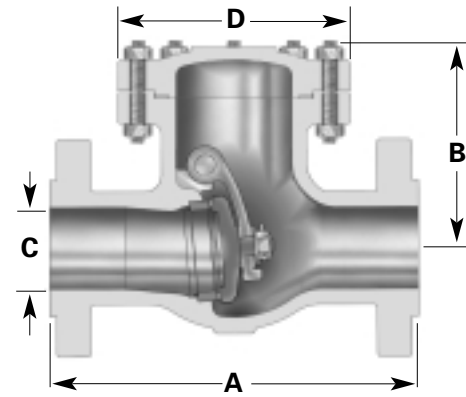
(1) Other materials available. (2) Stellite. (3) Hardened.

**DESIGN FEATURES:**

- **Body and cover.** Precision machined castings. **Exclusive:** Disc shaft does not penetrate body.
- **Body and cover joint.** Accurately machined, fully-enclosed gasket (gasket materials on page 3).
- **Disc.** Robust one-piece construction to withstand the severe shock of check valve service. Hardfaced with 13 CR, Stellite 6, SS 316, or Monel, ground and lapped to mirror finish. Sizes 2–6" (50–150 mm) may have solid CA15 (13CR) disc. SS 316 disc with Stellite 6 facing also available.
- **Disc assembly.** Disc is fastened securely to disc hanger with a lock nut and cotter pin. Disc is free to rotate to avoid localized wear. Disc hanger is supported on a sturdy disc carrier hinge pin of excellent bearing qualities. All parts are accessible from top for easy servicing.
- **Flanges.**  
Class 150/300: 1/16" raised face.  
Class 600: 1/4" raised face.  
Finish: 125–250 AARH for all valves.

## DESIGN SPECIFICATIONS

ITEM	APPLICABLE SPECIFICATION
Wall thickness and general valve design	API 600, BS1868
Pressure-temperature rating	ASME B16.34
Face-to-face dimensions for butt weld and flanged valves	ASME B16.10
Flange design	ASME B16.5
Butt welding design	ASME B16.25
Materials	ASTM



See page 32 & 33 for valve weights and CVs.

## CHECK VALVE DIMENSIONS

SIZE in mm	ASME 150 (PN 20)				ASME 300 (PN 50)				ASME 600 (PN 100)				ASME 900 (PN 150)				ASME 1500 (PN 250)			
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C	D
2 50	8.00 203	5.75 146	2.00 51	6.75 171	10.50 267	6.00 152	2.00 51	6.75 171	11.50 292	6.25 159	2.00 51	6.75 171	14.50 368	9.50 241	1.88 48	8.63 219	14.50 368	9.50 241	1.88 48	8.63 219
2½ 65	8.50 216	6.25 159	2.50 64	6.75 171	11.50 292	6.25 159	2.50 64	6.75 171	13.00 330	6.50 165	2.50 64	7.50 191	16.50 419	10.00 254	2.25 57	9.25 235	16.50 419	10.00 254	2.25 57	9.25 235
3 80	9.50 241	7.75 197	3.00 76	8.50 216	12.50 318	7.75 197	3.00 76	8.50 216	14.00 356	8.75 222	3.00 76	9.75 248	15.00 381	10.50 267	2.88 73	10.50 267	18.50 470	11.50 292	2.75 70	10.50 267
4 100	11.50 292	8.75 222	4.00 102	10.25 260	14.00 356	8.75 222	4.00 102	10.25 260	17.00 432	9.25 235	4.00 102	12.00 305	18.00 457	11.75 299	3.88 99	12.25 311	21.50 546	12.00 305	3.63 92	12.25 311
6 150	14.00 356	10.75 273	6.00 152	12.50 318	17.50 445	10.75 273	6.00 152	12.50 318	22.00 559	11.50 292	6.00 152	15.75 400	24.00 610	15.00 381	5.75 146	15.25 387	27.75 705	16.50 419	5.38 137	16.00 406
8 200	19.50 495	12.75 324	8.00 203	15.75 400	21.00 533	12.75 324	8.00 203	15.75 400	26.00 660	13.50 343	7.88 200	15.75 400	29.00 737	19.25 489	7.50 191	18.38 467	32.75 832	21.00 533	7.00 178	20.75 527
10 250	24.50 622	15.50 394	10.00 254	18.50 470	24.50 622	16.25 413	10.00 254	18.50 470	31.00 787	16.75 425	9.75 248	19.50 495	-	-	-	-	-	-	-	-
12 300	27.50 699	17.00 432	12.00 305	20.50 521	28.00 711	17.00 432	12.00 305	20.50 521	33.00 838	18.50 470	11.75 298	22.50 572	-	-	-	-	-	-	-	-
14 350	31.00 787	19.63 499	13.25 337	23.00 584	33.00 838	19.63 499	13.25 337	23.00 584	35.00 889	20.93 532	12.88 327	26.25 667	-	-	-	-	-	-	-	-
16 400	34.00 864	22.00 559	15.25 387	26.50 673	34.00 864	22.50 572	15.25 387	26.50 673	39.00 991	23.38 594	14.75 375	28.25 718	-	-	-	-	-	-	-	-
18 450	38.50 978	25.00 635	17.13 435	28.50 724	38.50 978	25.00 635	17.13 435	28.50 724	43.00 1092	28.67 728	16.50 419	31.50 800	-	-	-	-	-	-	-	-
20 500	38.50 978	26.50 673	19.00 483	31.50 800	40.00 1016	26.50 673	19.00 483	31.50 800	47.00 1194	27.12 689	18.25 464	35.25 895	-	Other sizes on application.						-
24 600	51.00 1295	31.25 794	23.25 591	37.00 940	53.00 1346	31.25 794	23.25 591	37.00 940	55.00 1397	35.69 907	22.00 559	40.25 1022	-							-
26 650	51.00 1295	32.63 829	25.00 635	37.25 946	53.00 1346	32.63 829	25.00 635	37.25 946	-	-	-	-	-	-	-	-	-	-	-	-
28 700	57.00 1448	36.55 928	27.00 686	42.00 1067	59.00 1499	36.55 928	27.00 686	42.00 1067	-	-	-	-	-	-	-	-	-	-	-	-
30 750	60.00 1524	36.89 937	29.25 743	44.50 1130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36 900	77.00 1956	41.78 1061	35.25 895	53.00 1346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See catalog VEL-PS for Classes 900 and 1500 FORGED STEEL CHECK VALVES.