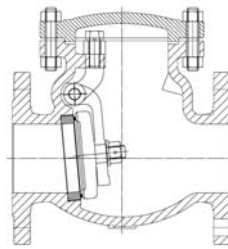


**Design acc. : BS 1868**  
**Face to face : ANSI B16.10**  
**Flange ends : ANSI B16.5**  
**Test and inspection : API 598**  
**Body : WCB / CF8M**



**FIG : 491**

**FIG : 491**

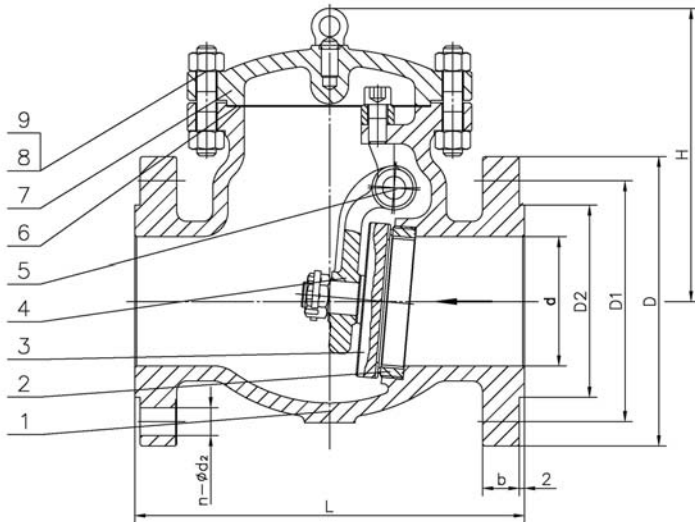


FIG.	Class	Material	Range
131.491	150	WCB	2" - 24"
151.491	150	CF8M	2" - 24"

**Design acc. : BS 1868**  
**Face to face : ANSI B16.10**  
**Flange ends : ANSI B16.5**  
**Test and inspection : API 598**

**Material list**

NO.	Part	Material	
		FIG. 131.491	FIG. 151.491
1	Body	ASTM A216 WCB	ASTM A351 CF8M
2	Seat	ASTM A105+13Cr	ASTM A276 316
3	Disc	ASTM A216 WCB+13Cr	ASTM A351 CF8M
4	Arm	ASTM A216 WCB	ASTM A351 CF8M
5	Hinge pin	ASTM A276 410	ASTM A276 316
6	Gasket	SS304+Graphite	SS316+Graphite
7	Bonnet	ASTM A216 WCB	ASTM A351 CF8M
8	Bolt	ASTM A193-B7	ASTM A193-B8M
9	Nut	ASTM A194 2H	ASTM A194 8M

**Dimension List**

Class	Size	d	D	D1	D2	L	H	n	d2	b	f	kg
150LB	2"	50	152.4	120.7	92.1	203	165	4	15.9	19.1	2	17.0
	2 1/2"	65	177.8	139.7	104.8	216	168	4	15.9	22.2	2	25.0
	3"	80	190.5	152.4	127.0	241	180	4	15.9	23.8	2	33.0
	4"	100	228.6	190.5	157.2	292	210	8	15.9	23.8	2	47.0
	6"	150	279.4	241.3	215.9	356	265	8	19.0	25.4	2	86.0
	8"	200	342.9	298.5	269.9	495	320	8	19.0	28.6	2	150.0
	10"	250	406.4	362.0	323.9	622	355	12	22.2	30.2	2	230.0
	12"	300	182.6	431.8	381.0	698	410	12	22.2	31.8	2	340.0
	14"	350	533.4	476.3	412.8	787	430	12	25.4	34.9	2	440.0
	16"	400	596.6	539.8	469.9	864	490	16	25.4	36.5	2	565.0
	18"	450	635.0	577.9	533.4	978	540	16	28.6	39.7	2	754.0
	20"	500	698.5	635.0	584.2	978	600	20	28.6	42.9	2	826.0
24"	600	812.8	749.3	692.2	1295	680	20	31.8	47.6	2	1359.0	

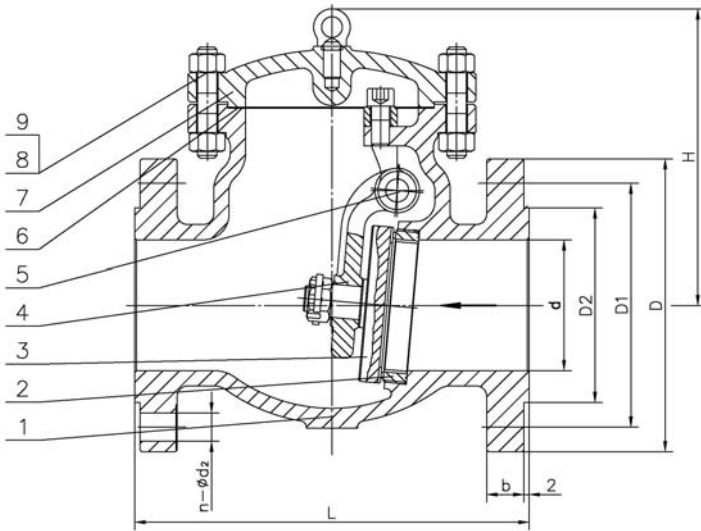


FIG.	Class	Material	Range
132.491	300	WCB	2" - 24"
152.491	300	CF8M	2" - 24"

**Design acc. : BS 1868**  
**Face to face : ANSI B16.10**  
**Flange ends : ANSI B16.5**  
**Test and inspection : API 598**

**Material list**

NO.	Part	Material	
		FIG. 132.491	FIG. 152.491
1	Body	ASTM A216 WCB	ASTM A351 CF8M
2	Seat	ASTM A105+13Cr	ASTM A276 316
3	Disc	ASTM A216 WCB+13Cr	ASTM A351 CF8M
4	Arm	ASTM A216 WCB	ASTM A351 CF8M
5	Hinge pin	ASTM A276 410	ASTM A276 316
6	Gasket	SS304+Graphite	SS316+Graphite
7	Bonnet	ASTM A216 WCB	ASTM A351 CF8M
8	Bolt	ASTM A193-B7	ASTM A193-B8M
9	Nut	ASTM A194 2H	ASTM A194 8M

**Dimension List**

Class	Size	d	D	D1	D2	L	H	n	d2	b	f	kg
300LB	2"	50	165.1	127.0	92.1	267	180	8	15.9	22.2	2	28.5
	2 1/2"	65	190.5	149.2	104.8	292	185	8	19.0	25.4	2	33.0
	3"	80	209.6	168.3	127.0	318	210	8	19.0	28.6	2	52.0
	4"	100	254.0	200.0	157.2	356	230	8	19.0	31.8	2	73.5
	6"	150	317.5	269.9	215.9	445	310	12	19.0	36.5	2	155.0
	8"	200	381.0	330.2	269.9	533	370	12	22.2	41.3	2	237.0
	10"	250	444.5	387.4	323.9	622	385	16	25.4	47.6	2	350.0
	12"	300	520.7	450.9	381.0	711	440	16	28.6	50.8	2	495.0
	14"	350	548.2	514.4	412.8	838	483	20	28.6	54.0	2	680.0
	16"	400	647.7	571.5	469.9	864	553	20	31.8	57.2	2	840.0
	18"	450	711.2	628.7	533.4	978	616	24	31.8	60.3	2	1000.0
	20"	500	774.7	685.8	584.2	1016	686	24	31.8	63.5	2	1320.0
24"	600	914.4	812.8	692.2	1346	756	24	38.1	69.9	2	1900.0	

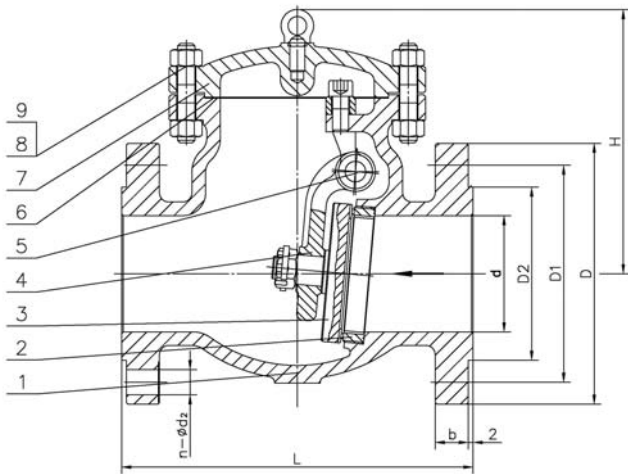


FIG.	Class	Material	Range
134.491	600	WCB	2" - 20"
154.491	600	CF8M	2" - 20"

**Design acc. : BS 1868**  
**Face to face : ANSI B16.10**  
**Flange ends : ANSI B16.5**  
**Test and inspection : API 598**

**Material list**

NO.	Part	Material	
		FIG. 134.491	FIG. 154.491
1	Body	ASTM A216 WCB	ASTM A351 CF8M
2	Seat	ASTM A105+13Cr	ASTM A276 316
3	Disc	ASTM A216 WCB+13Cr	ASTM A351 CF8M
4	Arm	ASTM A216 WCB	ASTM A351 CF8M
5	Hinge pin	ASTM A276 410	ASTM A276 316
6	Gasket	SS304+Graphite	SS316+Graphite
7	Bonnet	ASTM A216 WCB	ASTM A351 CF8M
8	Bolt	ASTM A193-B7	ASTM A193-B8M
9	Nut	ASTM A194 2H	ASTM A194 8M

**Dimension List**

Class	Size	d	D	D1	D2	L	H	n	d2	b	f	kg
600LB	2"	50	165.1	127.0	92.1	292	187	8	15.9	31.8	6.4	34.0
	2 1/2"	65	190.5	149.2	104.8	330	207	8	19.0	35.0	6.4	41.0
	3"	80	209.6	168.3	127.0	356	231	8	19.0	38.2	6.4	65.0
	4"	100	273.1	215.9	157.2	432	295	8	22.2	44.5	6.4	88.0
	6"	150	355.6	292.1	215.9	559	362	12	25.4	54.0	6.4	220.0
	8"	200	419.1	349.3	269.9	660	420	12	28.6	62.0	6.4	405.0
	10"	250	508.0	431.8	323.9	787	480	16	31.8	69.9	6.4	620.0
	12"	300	558.8	489.0	381.0	838	545	20	31.8	73.1	6.4	820.0
	14"	350	603.3	527.1	412.8	889	600	20	34.9	76.3	6.4	920.0
	16"	400	685.8	603.3	469.9	991	650	20	38.1	82.6	6.4	1220.0
	18"	450	743.1	654.1	533.4	1092	735	20	41.4	89.0	6.4	1380.0
20"	500	812.8	723.9	584.2	1194	880	24	41.4	95.3	6.4	2390.0	