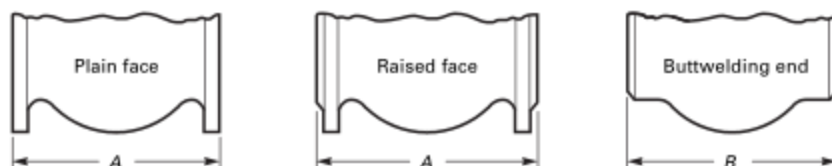
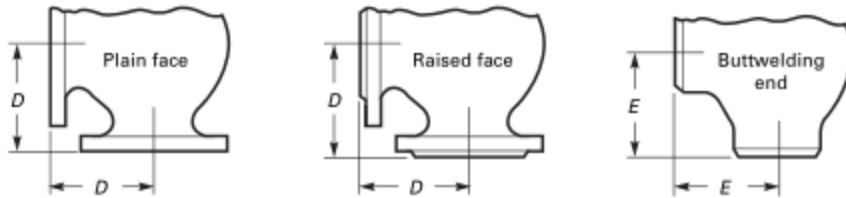


Table 1 Class 125 Cast Iron Flanged and Class 150 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions

			Class 125 Cast Iron			Class 150 Steel			Class 150 Steel			
		1	2	3	4	5	6	7	8	9	10	
		Class 125 Cast Iron						Class 150 Steel				
		Flanged End (Flat Face)						Flanged End (2 mm Raised Face) and Welding End				
Nominal Valve Size		Gate, Solid Wedge and Double Disc, A	Plug			Globe, Lift Check, and Swing Check [Note (1)], A	Angle and Lift Check, D	Gate			Plug	
			Short Pattern, A	Regular and Venturi Pattern, A	Round Port, Full Bore, A			Solid Wedge and Double Disc, A	Conduit, A	Solid Wedge, Double Disc, and Conduit, B	Short Pattern, A	
NPS	DN	A	A	A	A	A	D	A	A	B	A	
3/4	8	...	...	...	...	...	...	102	...	102	...	
3/8	10	...	...	...	...	...	...	102	...	102	...	
1/2	15	...	...	...	...	...	...	108	...	108	...	
3/4	20	...	...	...	...	...	...	117	...	117	...	
1	25	...	140	140 (2)	140	...	...	127	...	127	140	
1 1/4	32	...	...	165 (2)	152	...	...	140	...	140	...	
1 1/2	40	...	165	165 (2)	165	...	...	165	...	165	165	
2	50	178	178	190 (2)	190	203	102	178	178	216	178	
2 1/2	65	190	190	210 (2)	210	216	108	190	190	241	190	
3	80	203	203	229 (2)	229	241	121	203	203	282	203	
4	100	229	229	229 (2)	305	292	146	229	229	305	229	
5	125	254	254	356 (2)	381	330	165	254	...	381	254	
6	150	267	267	394	457	356	178	267	267	403	267	
8	200	292	292	457	559	495	248	292	292	419	292	
10	250	330	330	533	660	622	311	330	330	457	330	
12	300	356	356	610	762	698	349	356	356	502	356	
14	350	381 (3)	...	686	...	787	394	381	381	572	...	
16	400	406 (3)	...	762	...	914 (4)	457	406	406	610	...	
18	450	432 (3)	...	864	...	...	...	432	432	660	...	
20	500	457 (3)	...	914	...	...	...	457	457	711	...	
22	550	...	...	...	...	...	...	...	508	762	...	
24	600	508 (3)	...	1 067 (5)	...	...	...	508	508	813	...	
26	650	...	...	...	...	...	...	559	559	864 (6)	...	
28	700	...	...	...	...	...	...	610	610	914 (6)	...	
30	750	...	...	1 295 (5)	...	...	...	610	660	914 (6)	...	
32	800	...	...	...	...	...	...	...	711	965 (6)	...	
34	850	...	...	...	...	...	...	...	762	1 016 (6)	1016	
36	900	...	...	1 600 (5)	...	...	...	711	813	1 016 (6)	...	

Table 1 Class 125 Cast Iron Flanged and Class 150 Steel Flanged and Butt welding End Valves, Face-to-Face and End-to-End Dimensions (Cont'd)

Class 125 Cast Iron					Class 150 Steel				Class 150 Steel			
		11	12	13	14	15	16	17	18	19	20	21
		Class 150 Steel										
		Flanged End (2 mm Raised Face) and Welding End							Flanged End		Welding End	
		Plug				Globe, Lift Check, and Swing Check [Note (1)], A and B	Angle and Lift Check, D and E	Y-Globe and Y-Swing Check, A and B	Ball			
		Regular Pattern, A	Short and Regular Pattern, B	Venturi Pattern, A	Round Port, Full Bore, A				Long Pattern, A	Short Pattern, A	Long Pattern, B	Short Pattern, B
Nominal Valve Size												
NPS	DN	A	B	A	A			A and B	A	A	B	B
1/4	8	...	...	...	...	102	51	...	...	...	...	...
3/8	10	...	...	...	...	102	51	...	...	...	...	...
1/2	15	...	...	...	...	108	57	140	108	108	...	140
3/4	20	...	...	...	...	117	64	152	117	117	...	152
1	25	...	...	...	176	127	70	165	127	127	...	165
1 1/4	32	...	...	...	...	140	76	184	140	140	...	178
1 1/2	40	...	...	...	222	165	83	203	165	165	190	190
2	50	...	267	178	267	203	102	229	178	178	216	216
2 1/2	65	...	305	...	298	216	108	279	190	190	241	241
3	80	...	330	203	343	241	121	318	203	203	282	282
4	100	305	356	229	432	292	146	368	229	229	305	305
5	125	381	381	...	...	356 (7)	178	...	...	...	...	...
6	150	394	457	394	...	406 (7)	203	470	394	267	457	403
8	200	457	521	457	...	495	248	597	457	292	521	419
10	250	533	559	533	...	622	311	673	533	330	559	457
12	300	610	635	610	...	698	349	775	610	356	635	502
14	350	686	...	686	...	787	394	...	686	381	762	572
16	400	762	...	762	...	914 (8)	457	...	762	406	838	610
18	450	864	...	864	...	978 (9)	...	...	864	...	914	660
20	500	914	...	914	...	978 (9)	...	...	914	...	991	711
22	550	...	...	...	...	1 067 (9)	...	...	...	...	1 092	...
24	600	1067	...	1067	...	1 295 (9)	...	...	1067	...	1 143	813
26	650	...	...	...	...	1 295 (9)	...	...	...	...	1 245	...
28	700	...	...	...	...	1 448 (9)	...	...	...	...	1 346	...
30	750	...	...	...	...	1 524 (9)	...	...	...	...	1 397	...
32	800	...	...	...	...	...	...	...	...	...	1 524	...
34	850	...	...	...	...	...	...	...	...	...	1 626	...
36	900	...	...	...	...	1 956 (9)	...	...	...	...	1 727	...

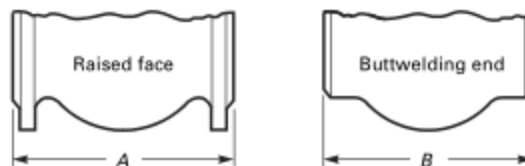
Table 1 Class 125 Cast Iron Flanged and Class 150 Steel Flanged and Butt welding End Valves, Face-to-Face and End-to-End Dimensions (Cont'd)

GENERAL NOTES:

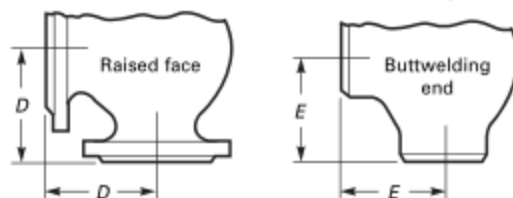
- (a) Dimensions are in millimeters.
- (b) See Table 9 for adjustments to tabulated dimensions that may be required for certain flange facings.

NOTES:

- (1) These dimensions are not intended to cover the type of check valve having the seat angle at approximately 45 deg to the run of the valve, or the "Underwriter Pattern," or other patterns where large clearances are required.
- (2) Regular pattern only. The face-to-face dimension of NPS 4 (DN 100) may be 305 at the manufacturer's option.
- (3) Solid wedge only.
- (4) Globe and horizontal lift check only.
- (5) Venturi pattern only.
- (6) Double disc and conduit only.
- (7) Globe and horizontal lift check only. The face-to-face and end-to-end dimension for Class 150 steel flanged and butt welding end swing check valves in NPS 5 (DN 125) is 330 and in NPS 6 (DN 150) is 356.
- (8) Globe and horizontal lift check only. The face-to-face and end-to-end dimension for Class 150 steel flanged and butt welding end swing check valves in NPS 16 (DN 400) is 864.
- (9) Swing check only.

Table 2 Class 250 Cast Iron Flanged and Class 300 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions**Class 250 Cast Iron
and Class 300 Steel****Class 300 Steel**

		1	2	3	4	5	6	7	8	9
		Class 250 Cast Iron						Class 300 Steel		
		Flanged End (2 mm Raised Face)						Flanged and Welding End		
Nominal Valve Size		Gate, Solid Wedge and Double Disc, A	Plug			Globe, Lift Check, and Swing Check, A	Angle and Lift Check, D	Ball		
			Short Pattern, A	Regular Pattern, A	Venturi Pattern, A			Long Pattern, A	Short Pattern, A and B	Long Pattern, B
NPS	DN									
1/2	15	...	...	...	...	...	...	140	140	...
3/4	20	...	...	...	...	...	...	152	152	...
1	25	...	...	159	...	...	...	165	165	...
1 1/4	32	...	...	...	...	...	...	178	178	...
1 1/2	40	...	...	190	...	...	...	190	190	190
2	50	216	184	216	...	267	133	216	216	216
2 1/2	65	241	203	241	...	292	146	241	241	241
3	80	282	235	282	...	318	159	282	282	282
4	100	305	267	305	...	356	178	305	305	305
5	125	381	...	387	...	400	200	...	...	...
6	150	403	378	425	403	444	222	403	403	457
8	200	419	...	502	419	533	267	502	419	521
10	250	457	568	597	457	622	311	568	457	559
12	300	502	648	711	502	711	356	648	502	635
14	350	572	...	...	762	...	...	762	572	762
16	400	610	...	...	838	...	...	838	610	838
18	450	660	...	...	914	...	...	914	660	914
20	500	711	...	...	991	...	...	991	711	991
22	550	...	...	...	1 118	...	...	1 092	...	1 092
24	600	787	...	...	1 143	...	...	1 143	813	1 143
26	650	...	...	...	...	...	...	1 245	...	1 245
28	700	...	...	...	...	...	...	1 346	...	1 346
30	750	...	...	...	...	...	...	1 397	...	1 397
32	800	...	...	...	...	...	...	1 524	...	1 524
34	850	...	...	...	...	...	...	1 626	...	1 626
36	900	...	...	...	...	...	...	1 727	...	1 727

Table 2 Class 250 Cast Iron Flanged and Class 300 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions (Cont'd)**Class 250 Cast Iron
and Class 300 Steel****Class 300 Steel**

		10	11	12	13	14	15	16	17
		Class 300 Steel							
		Flanged End (2 mm Raised Face) and Welding End							
Nominal Valve Size		Gate, Solid Wedge, Double Disc, and Conduit, A and B	Plug				Globe and Lift Check, A and B	Angle and Lift Check, D and E	Swing Check, A and B
			Short and Venturi Pattern, A	Short and Venturi Pattern, B	Regular Pattern, A	Round Port, Full Bore, A and B			
NPS	DN								
1/2	15	140 (1)	...	...	...	...	152	76	...
3/4	20	152 (1)	...	...	...	...	178	89	...
1	25	165 (1)	159 (2)	...	...	190	203	102	216
1 1/4	32	178 (1)	...	...	...	...	216	108	229
1 1/2	40	190	190 (2)	...	...	241	229	114	241
2	50	216	216	267 (2)	...	282	267	133	267
2 1/2	65	241	241	305 (2)	...	330	292	146	292
3	80	282	282	330 (2)	...	387	318	159	318
4	100	305	305	356 (2)	...	457	356	178	356
5	125	381	...	...	...	...	400	200	400
6	150	403	403	457	403	559	444	222	444
8	200	419	419	521	502	686	559	279	533
10	250	457	457	559	568	826	622	311	622
12	300	502	502	635	711	965	711	356	711
14	350	762	762 (3)	762 (3)	762	...	...	...	838
16	400	838	838 (3)	838 (3)	838	...	...	...	864
18	450	914	914 (3)	914 (3)	914	...	...	...	978
20	500	991	991 (3)	991 (3)	991	...	...	...	1 016
22	550	1 092	1 092 (3)	1 092 (3)	1 092	...	...	...	1 118
24	600	1 143	1 143 (3)	1 143 (3)	1 143	...	...	...	1 346
26	650	1 245	1 245 (3)	1 245 (3)	1 245	...	...	...	1 346
28	700	1 346	1 346 (3)	1 346 (3)	1 346	...	...	...	1 499
30	750	1 397	1 397 (3)	1 397 (3)	1 397	...	...	...	1 594
32	800	1 524	1 524 (3)	1 524 (3)	1 524	...	...	...	...
34	850	1 626	1 626 (3)	1 626 (3)	1 626	...	...	...	...
36	900	1 727	1 727 (3)	1 727 (3)	1 727	...	...	...	2 083

**Table 2 Class 250 Cast Iron Flanged and Class 300 Steel Flanged and Buttwelding End Valves,
Face-to-Face and End-to-End Dimensions (Cont'd)**

GENERAL NOTES:

- (a) Dimensions are in millimeters.
- (b) See Table 9 for adjustments to tabulated dimensions that may be required for certain flange facings.

NOTES:

- (1) Solid wedge only.
- (2) Plug — short pattern only.
- (3) Venturi pattern only.

Table 3 Class 600 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions

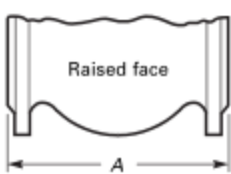
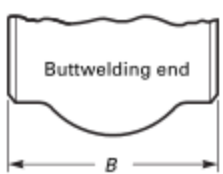
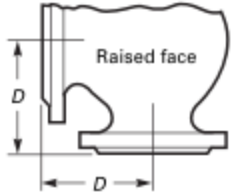
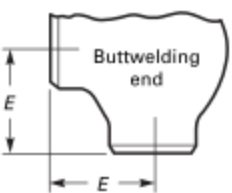
											
		1	2	3	4	5	6	7	8	9	10
Class 600 Steel											
Flanged End (7 mm Raised Face and Welding End)											
		Ball	Gate		Plug			Globe Lift Check, and Swing Check, Long Pattern, A and B	Globe Lift Check, and Swing Check, Short Pattern [Note (1)], B	Angle and Lift Check, Long Pattern, D and E	Angle and Lift Check, Short Pattern [Note (1)], E
Nominal Valve Size		Long Pattern, A and B	Solid Wedge, Double Disc, and Conduit, Long Pattern, A and B	Short Pattern, [Note (1)], B	Regular and Venturi Pattern, A and B	Round Bore, Full Port, A	Round Bore, Full Port, B				
NPS	DN	A and B	A and B	B	A and B	A	B	A and B	B	D and E	E
1/2	15	165	165 (2)	...	...	...	...	165	...	83	...
3/4	20	190	190 (2)	...	...	...	...	190	...	95	...
1	25	216	216	133	216 (3)	254	...	216	133	108	...
1 1/4	32	229	229	146	229 (3)	...	...	229	146	114	...
1 1/2	40	241	241	152	241	318	...	241	152	121	...
2	50	292	292	178	292	330	...	292	178	146	108
2 1/2	65	330	330	216	330	381	...	330	216	165	127
3	80	356	356	254	356	444	...	356	254	178	152
4	100	432	432	305	432	508	559	432	305	216	178
5	125	...	508	381	...	...	...	508	381	254	216
6	150	559	559	457	559	660	711	559	457	279	254
8	200	660	660	584	660	794	845	660	584	330	...
10	250	787	787	711	787	940	1 016	787	711	394	...
12	300	838	838	813	838	1 067	1 067	838	813	419	...
14	350	889	889	889	889	...	...	889 (4)	...	...	...
16	400	991	991	991	991	...	...	991 (4)	...	...	...
18	450	1 092	1 092	1 092	1 092 (5)	...	...	1 092 (4)	...	...	...
20	500	1 194	1 194	1 194	1 194 (5)	...	...	1 194 (4)	...	...	...
22	550	1 295	1 295	...	1 295 (5)	...	...	1 295 (4)	...	...	...
24	600	1 397	1 397	1 397	1 397 (5)	...	...	1 397 (4)	...	...	...
26	650	1 448	1 448	...	1 448 (5)	...	...	1 448 (4)	...	...	...
28	700	1 549	1 549	...	...	...	...	1 600 (4)	...	...	...
30	750	1 651	1 651	...	1 651 (5)	...	...	1 651 (4)	...	...	...
32	800	1 778	1 778 (6)	...	1 778 (5)	...	...	...	...	...	...
34	850	1 930	1 930 (6)	...	1 930 (5)	...	...	...	...	...	...
36	900	2 083	2 083 (6)	...	2 083 (5)	...	...	2 083 (4)	...	...	...

Table 3 Class 600 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions (Cont'd)

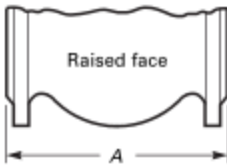
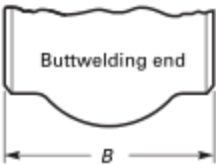
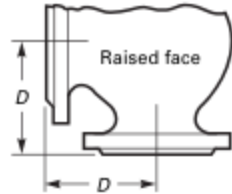
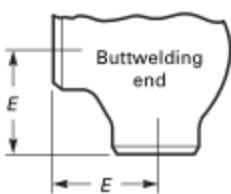
GENERAL NOTES:

- (a) Dimensions are in millimeters.
- (b) See Table 9 for adjustments to tabulated dimensions that may be required for certain flange facings.

NOTES:

- (1) These dimensions apply to pressure seal or flangeless bonnet valves. They may be applied at the manufacturer's option to valves with flanged bonnets.
- (2) Solid wedge only.
- (3) Regular pattern only.
- (4) Swing check only.
- (5) Venturi pattern only.
- (6) Double disc and conduit only.

Table 4 Class 900 Steel Flanged and Butt Welding End Valves, Face-to-Face and End-to-End Dimensions

										
		1	2	3	4	5	6	7	8	9
		Class 900 Steel								
		Flanged End (7 mm Raised Face) and Welding End								
Nominal Valve Size		Gate		Plug		Globe Lift Check, and Swing Check, Long Pattern, A and B	Globe Lift Check, and Swing Check, Short Pattern [Note (1)], B	Angle and Lift Check, Long Pattern, D and E	Angle and Lift Check, Short Pattern [Note (1)], E	Ball
		Solid Wedge, Double Disc, and Conduit, Long Pattern, A and B	Short Pattern, [Note (1)], B	Regular and Venturi Pattern, A and B	Round Port, Full Bore, A					Long Pattern, A and B
NPS	DN									
¾	20 (2)	...	...	...	...	229	...	114	...	...
1	25 (2)	254 (3)	140	254 (4)	...	254	...	127	...	254
1¼	32 (2)	279 (3)	165	279 (4)	...	279	...	140	...	279
1½	40 (2)	305 (3)	178	305 (4)	356	305	...	152	...	305
2	50 (2)	368	216	368 (4)	381	368	...	184	...	368
2½	65 (2)	419	254	419 (4)	432	419	254	210	...	419
3	80	381	305	381 (4)	470	381	305	190	152	381
4	100	457	356	457 (5)	559	457	356	229	178	457
5	125	559	432	...	...	559	432	279	216	...
6	150	610	508	610	737	610	508	305	254	610
8	200	737	660	737	813	737	660	368	330	737
10	250	838	787	838	965	838	787	419	394	838
12	300	965	914	965	1 118	965	914	483	457	965
14	350	1 029	991	...	...	1 029	991	514	495	1 029
16	400	1 130	1 092	1 130 (5)	...	1 130 (6)	1 092	660	...	1 130
18	450	1 219	...	...	...	1 219 (6)	...	737	...	1 219
20	500	1 321	...	1 321 (5)	...	1 321 (6)	...	826	...	1 321
22	550	...	...	...	...	...	...	...	...	...
24	600	1 549	...	...	...	1 549 (6)	...	991	...	1 549

GENERAL NOTES:

- (a) Dimensions are in millimeters.
 (b) See Table 9 for adjustments to tabulated dimensions that may be required for certain flange facings.

NOTES:

- (1) These dimensions apply to pressure seal or flangeless bonnet valves. They may be applied at the manufacturer's option to valves with flanged bonnets.
 (2) The connecting end flanges for Class 900 valves, NPS 2 1/2 (DN 65) and smaller, are identical to those of Class 1500 valves. The face-to-face dimensions for all Class 900 valves, NPS 2 1/2 (DN 65) and smaller, except round port full bore plug valves (column 4), are identical with those of Class 1500 valves.
 (3) Solid wedge only.
 (4) Regular pattern only.
 (5) Venturi pattern only.
 (6) Swing check only.

Table 5 Class 1500 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions

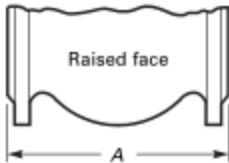
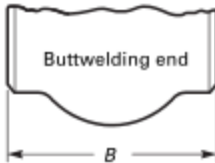
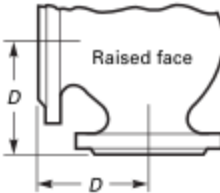
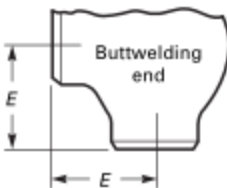
									
A		B		D		E			
		1	2	3	4	5	6	7	8
		Class 1500 Steel							
		Flanged End (7 mm Raised Face) and Welding End							
Nominal Valve Size		Gate		Plug		Globe Lift Check, and Swing Check, Long Pattern, A and B	Globe Lift Check, and Swing Check, Short Pattern [Note (1)], B	Angle and Lift Check, Long Pattern, D and E	Ball
		Solid Wedge, Double Disc, and Conduit, Long Pattern, A and B	Short Pattern, [Note (1)], B	Regular and Venturi Pattern, A and B	Round Port, Full Bore, A				Long Pattern, A and B
NPS	DN								
3/2	15	...	...	...	...	216 (2)	...	108	...
3/4	20	...	...	...	...	229	...	114	...
1	25	254 (3)	140	254 (4)	...	254	...	127	...
1 1/4	32	279 (3)	165	279 (4)	...	279	...	140	...
1 1/2	40	305 (3)	178	305 (4)	...	305	...	152	...
2	50	368	216	368 (4)	391	368	216	184	368
2 1/2	65	419	254	419 (4)	454	419	254	210	419
3	80	470	305	470 (4)	524	470	305	235	470
4	100	546	406	546 (4)	625	546	406	273	546
5	125	673	483	...	...	673	483	337	...
6	150	705	559	705	787	705	559	353	705
8	200	832	711	832	889	832	711	416	832
10	250	991	864	991	1 067	991	864	495	991
12	300	1 130	991	1 130	1 219	1 130	991	565	1 130
14	350	1 257	1 067	...	...	1 257	1 067	629	1 257
16	400	1 384	1 194	1 384 (5)	...	1 384 (6)	1 194	...	1 384
18	450	1 537	1 346	...	...	1 537 (6)	...	...	...
20	500	1 664	1 473	...	...	1 664 (6)	...	...	...
22	550	...	...	...	...	...	...	...	...
24	600	1 943	...	...	...	1 943 (6)	...	...	...

Table 5 Class 1500 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions (Cont'd)

GENERAL NOTES:

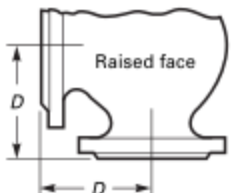
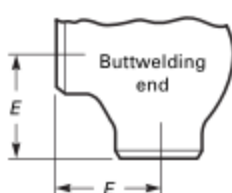
(a) Dimensions are in millimeters.

(b) See Table 9 for adjustments to tabulated dimensions that may be required for certain flange facings.

NOTES:

- (1) These dimensions apply to pressure seal or flangeless bonnet valves. They may be applied at the manufacturer's option to valves with flanged bonnets.
- (2) Globe and lift check only.
- (3) Solid wedge only.
- (4) Regular pattern only.
- (5) Venturi pattern only.
- (6) Swing check only.

Table 6 Class 2500 Steel Flanged and Buttwelding End Valves, Face-to-Face and End-to-End Dimensions

								
		1	2	3	4	5	6	7
		Class 2500 Steel						
		Flanged End (7 mm Raised Face) and Welding End						
Nominal Valve Size		Gate		Plug Regular Pattern, A and B	Globe Lift Check, and Swing Check, Long Pattern, A and B	Globe Lift Check, and Swing Check, Short Pattern [Note (1)], B	Angle and Lift Check, Long Pattern, D and E	Ball
		Solid Wedge, Double Disc, and Conduit, Long Pattern, A and B	Short Pattern, [Note (1)], B					Long Pattern, A and B
NPS	DN							
1/2	15	264 (2)	...	...	264	...	132	...
3/4	20	273 (2)	...	...	273	...	137	...
1	25	308 (2)	186	308	308	...	154	...
1 1/4	32	349 (2)	232	...	349	...	175	...
1 1/2	40	384 (2)	232	384	384	...	192	...
2	50	451	279	451	451	279	226	451
2 1/2	65	508	330	508	508	330	254	508
3	80	578	368	578	578	368	289	578
4	100	673	457	673	673	457	337	673
5	125	794	533	794	794	533	397	...
6	150	914	610	914	914	610	457	914
8	200	1 022	762	1 022	1 022	762	511	1 022
10	250	1 270	914	1 270	1 270	914	635	1 270
12	300	1 422	1 041	1 422	1 422	1 041	711	1 422
14	350	...	1 118	...	...	...	...	...
16	400	...	1 245	...	...	...	...	...
18	450	...	1 397	...	...	...	...	...

GENERAL NOTES:

(a) Dimensions are in millimeters.

(b) See Table 9 for adjustments to tabulated dimensions that may be required for certain flanged facings.

NOTES:

(1) These dimensions apply to pressure seal or flangeless bonnet valves. They may be applied at the manufacturer's option to valves with flanged bonnets.

(2) Solid wedge only.

Table 7 Classes 125 and 250 Cast Iron and Classes 150 to 2500 Steel Wafer Type Valves, Face-to-Face Dimensions

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Steel [Note (1)]	Swing Check, Single and Dual Plate, Installation Between Standard ANSI Flanges [Note (3)]												
		Bonnetless Knife Gate, Class 150 Flange Mating Dimensions	Swing Check, Single and Dual Plate, Installation Between Standard ANSI Flanges												
			Class												
			Class												
			Class												
NPS	DN		125	250	150	300	600	900	1500	2500	150	300	600	900	1500
2	50	48	54	54	60	60	60	70	70	70	19	19	19	19	19
2 1/2	65	...	60	60	67	67	67	83	83	83	19	19	19	19	19
3	80	51	67	67	73	73	73	83	83	86	19	19	19	19	22
4	100	51	67	67	73	73	79	102	102	105	19	19	22	22	32
5	125	57	83	83	...	...	...	...	...	...	...	...	...	...	...
6	150	57	95	95	99	99	137	159	159	159	19	22	28	35	44
8	200	70	127	127	127	127	165	206	206	206	28	28	38	44	57
10	250	70	140	140	146	146	213	241	248	254	28	38	57	57	73
12	300	76	181	181	181	181	279	292	305	305	38	51	60	...	...
14	350	76	184	222	184	222	273	356	356	...	44	51	67	...	...
16	400	89	190	232	190	232	305	384	384	...	51	51	73	...	...
18	450	89	203	264	203	264	362	451	468	...	60	76	83	...	...
20	500	114	213	292	219	292	368	451	533	...	64	83	92	...	...
24	600	114	222	318	222	318	438	495	559	...	...	...	...	...	...
30	750	...	305	368	305	368	505	...	...	...	...	...	...	...	...
36	900	...	368	483	368	483	635	...	...	...	...	...	...	...	...
42	1050	...	432	568	432	568	702	...	...	...	...	...	...	...	...
48	1200	...	524	629	524	629	...	...	...	...	...	...	...	...	...

GENERAL NOTES:

(a) Dimensions are in millimeters.

(b) The tolerances of para. 5.1 apply to face-to-face dimensions for sizes NPS 24 (DN 600) and smaller. For sizes NPS 30 (DN 750) and larger, the tolerance shall be ± 6 mm.

NOTES:

(1) These data are extracted from MSS SP-81 that covers non-class designated (i.e., cold working pressure) rated for 150°F (66°C) maximum knife gate valves that have ASME B16.5, Class 150 flange bolting templates.

(2) These data for cast iron swing check valves are extracted from API 594.

(3) Valves of sizes NPS 30 (DN 750) and larger in Classes 150, 300, and 600 shall have body outside diameters and gasket surface dimensions compatible with flange standards specified in the purchase order, e.g., ASME B16.47 Sr. B or ASME B16.47 Sr. A (MSS SP-44).

(4) These data for long pattern steel swing check valves in sizes NPS 24 (DN 600) and smaller are extracted from API 6D and API 594. Data for larger sizes are extracted from API 594.

(5) These data for short pattern steel swing check valves are extracted from API 6D.

Table 8 Classes 25 and 125 Cast Iron and Classes 150 to 600 Steel Butterfly Valves, Face-to-Face Dimensions

		1	2	3	4	5	6	7	8	9
		Class 150 Cast Iron and Steel [Notes (1), (2), and (3)]					Steel Grooved End [Notes (1), (3)]	Steel Offset Seat Lug and Wafer Style [Notes (4), (5)]		
Nominal Valve Size		Flanged End		Lug and Wafer Style [Note (6)]			Class 150	Class 150	Class 300	Class 600
NPS	DN	Narrow	Wide	Narrow	Wide	Extra Wide				
1½	40	...	...	33	37	38	86	...	...	...
2	50	...	...	43	44	46	81	...	...	...
2½	65	...	...	46	49	51	97	...	...	...
3	80	127	127	46	49	51	97	48	48	54
4	100	127	178	52	56	57	116	54	54	64
5	125	127	190	56	64	65	148	...	...	...
6	150	127	203	56	70	71	148	57	59	78
8	200	152	216	60	71	75	133	64	73	102
10	250	203	381	68	76	79	159	71	83	117
12	300	203	381	78	83	86	165	81	92	140
14	350	203	406	78	92	95	178	92	117	155
16	400	203	406	79	102	105	178	102	133	178
18	450	203	406	102	114	117	203	114	149	200
20	500	203	457	111	127	130	216	127	159	216
24	600	203	457	...	154	157	254	154	181	232
30	750	305	559	...	165	...	...	...	...	...
36	900	305	559	...	200	...	...	...	...	...
42	1 050	305	610	...	251	...	...	...	...	...
48	1 200	381	660	...	276	...	...	...	...	...
54	1 350	381	711	...	...	...	...	...	...	...
60	1 500	381	762	...	...	...	...	...	...	...
66	1 650	457	864	...	...	...	...	...	...	...
72	1 800	457	914	...	...	...	...	...	...	...

GENERAL NOTE: Dimensions are in millimeters.

NOTES:

- (1) These butterfly valves are of the design generally having concentric location of disc and seat, covered by MSS SP-67, from which these data are extracted.
- (2) These valves are dimensionally compatible with flanges conforming to ASME B16.1 Class 25 or Class 125, ASME B16.5 Class 150, ASME B16.24 Class 150, ASME B16.42 Class 150, or AWWA C-207.
- (3) For these butterfly valves, a tolerance of ± 2 mm shall be allowed on face-to-face dimensions of valves of NPS 6 (DN 150) and smaller, and a tolerance of ± 3 mm on NPS 8 (DN 200) and larger, except that for single flange and flangeless valves of NPS 30 (DN 750) and larger, a tolerance of ± 6 mm shall be allowed.
- (4) For these valves, a tolerance of ± 3 mm shall be allowed on the face-to-face dimensions for all sizes and pressure classes.
- (5) The data for offset seat valves, columns 7 through 9, are extracted from MSS SP-68 and API 609 [except NPS 16 to NPS 24 (DN 400 to DN 600) Class 600, which are only in MSS SP-68].
- (6) The installed face-to-face dimension is the dimension of the valve face-to-face after installation in the pipeline. It does not include the thickness of gaskets where separate gaskets are used. It does include the compressed (installed) thickness of gaskets or seals that are an integral part of the valve.