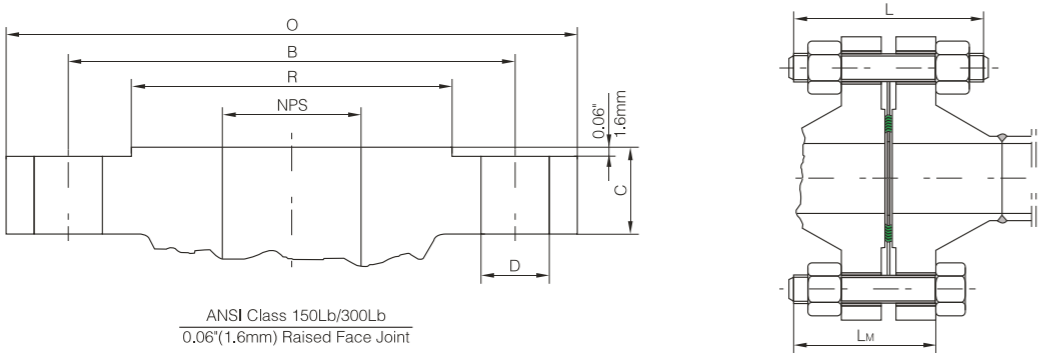


Cast Steel Bolted Bonnet Valves



Flanged Connection Dimensions • ANSI Class 150~300



Class 150Lb

NPS		O		C		R		B		D		Bolt		L		LM	
in	mm	in	mm	in	mm	mm	in	in	mm	in	mm	QTY.	Diam	in	mm	in	mm
2	50	6.00	152.4	0.75	19.1	3.62	91.9	4.75	120.7	0.75	19.1	4	5/8	3.25	82.6	2.75	69.9
2 1/2	65	7.00	177.8	0.88	22.4	4.12	104.6	5.50	139.7	0.75	19.1	4	5/8	3.50	88.9	3.00	76.2
3	80	7.50	190.5	0.94	23.9	5.00	127.0	6.00	152.4	0.75	19.1	4	5/8	3.50	88.9	3.00	76.2
4	100	9.00	228.6	0.94	23.9	6.19	157.2	7.50	190.5	0.75	19.1	8	5/8	3.50	88.9	3.00	76.2
5	125	10.00	254.0	0.97	23.9	7.31	185.7	8.50	215.9	0.88	22.4	8	3/4	3.75	95.3	3.25	82.6
6	150	11.00	279.4	1.00	25.4	8.50	215.9	9.50	241.3	0.88	22.4	8	3/4	4.00	101.6	3.25	82.6
8	200	13.50	342.9	1.12	28.4	10.62	269.7	11.75	298.5	0.88	22.4	8	3/4	4.25	108.0	3.50	88.9
10	250	16.00	406.4	1.19	30.2	12.75	323.9	14.25	362.0	1.00	25.4	12	7/8	4.50	114.3	4.00	101.6
12	300	19.00	482.6	1.25	31.8	15.00	381.0	17.00	431.8	1.00	25.4	12	7/8	4.75	120.7	4.00	101.6
14	350	21.00	533.4	1.38	35.1	16.25	412.8	18.75	476.3	1.12	28.4	12	1	5.25	133.4	4.50	114.3
16	400	23.50	596.9	1.44	36.6	18.50	469.9	21.25	539.8	1.12	28.4	16	1	5.25	133.4	4.50	114.3
18	450	25.00	635.0	1.56	39.6	21.00	533.4	22.75	577.9	1.25	31.8	16	1 1/8	5.75	146.1	5.00	127.0
20	500	27.50	698.5	1.69	42.9	23.00	584.2	25.00	635.0	1.25	31.8	20	1 1/8	6.25	168.8	5.50	139.7
24	600	32.00	812.8	1.88	47.8	27.25	692.2	29.50	749.3	1.38	35.1	20	1 1/4	6.75	171.5	6.00	152.4
26	650	34.25	870.0	2.69	68.3	29.50	749.3	31.75	806.5	1.38	35.1	24	1 1/4	8.25	209.6	7.50	190.5
28	700	36.50	927.1	2.81	71.4	31.50	800.1	34.00	863.6	1.38	35.1	28	1 1/4	8.50	215.9	7.75	196.9
30	750	38.75	984.3	2.94	74.7	33.75	857.3	36.00	914.4	1.38	35.1	28	1 1/4	9.00	228.6	8.00	203.2
32	800	41.75	1060.5	3.18	80.8	36.00	914.4	38.50	977.9	1.62	41.1	28	1 1/2	9.75	247.7	8.75	222.3
34	850	43.75	1111.3	3.25	82.6	38.00	965.2	40.50	1028.7	1.62	41.1	32	1 1/2	10.00	254.0	9.00	228.6
36	900	46.00	1168.4	3.56	90.4	40.25	1022.4	42.75	1085.9	1.62	41.1	32	1 1/2	10.50	266.7	9.50	241.3

Class 300Lb

NPS		O		C		R		B		D		Bolt		L		LRTJ		LM	
in	mm	in	mm	in	mm	mm	in	in	mm	in	mm	QTY.	Diam	in	mm	in	mm	in	mm
2	50	6.50	165.1	0.88	22.4	3.62	91.9	5.00	127.0	0.75	19.1	8	5/8	3.50	88.9	4.00	101.6	3.00	6.2
2 1/2	65	7.50	190.5	1.00	25.4	4.12	104.6	5.88	149.4	0.88	22.4	8	3/4	4.00	101.6	4.50	114.3	3.25	82.6
3	80	8.25	209.6	1.12	28.4	5.00	127.0	6.62	168.1	0.88	22.4	8	3/4	4.25	108.0	4.75	120.7	3.50	88.9
4	100	10.00	254.0	1.25	31.8	6.19	157.2	7.88	200.2	0.88	22.4	8	3/4	4.50	114.3	5.00	127.0	3.75	95.3
5	125	11.00	279.4	1.38	35.1	7.31	185.7	9.25	235.0	0.88	22.4	8	3/4	4.75	120.7	5.25	133.4	4.25	108.0
6	150	12.50	317.5	1.44	36.6	8.50	215.9	10.62	269.7	0.88	22.4	12	3/4	4.75	120.7	5.50	139.7	4.25	108.0
8	200	15.00	381.0	1.62	41.1	10.62	269.7	13.00	330.2	1.00	25.4	12	7/8	5.50	139.7	6.00	152.4	4.75	120.7
10	250	17.50	444.5	1.88	47.8	12.75	323.9	15.25	387.4	1.12	28.4	16	1	6.25	158.8	6.75	171.5	5.50	139.7
12	300	20.50	520.7	2.00	50.8	15.00	381.0	17.75	450.9	1.25	31.8	16	1 1/8	6.75	171.5	7.25	184.2	5.75	146.1
14	350	23.00	584.2	2.12	53.8	16.25	412.8	20.25	514.4	1.25	31.8	20	1 1/8	7.00	177.8	7.50	190.5	6.25	158.8
16	400	25.50	647.7	2.25	57.2	18.50	469.9	22.50	571.5	1.38	35.1	20	1 1/4	7.50	190.5	8.00	203.2	6.50	165.1
18	450	28.00	711.2	2.38	60.5	21.00	533.4	24.75	628.7	1.38	35.1	24	1 1/4	7.75	196.9	8.25	209.6	6.75	171.5
20	500	30.50	774.7	2.50	63.5	23.00	584.2	27.00	685.8	1.38	35.1	24	1 1/4	8.00	203.2	8.75	222.3	7.25	184.2
24	600	36.00	914.4	2.75	69.9	27.25	692.2	32.00	812.8	1.62	41.1	24	1 1/2	9.00	228.6	10.00	254.0	8.00	203.2
26	650	38.25	971.6	3.12	79.2	29.50	749.3	34.50	876.3	1.75	4.5	28	1 5/8	10.25	260.4	11.25	285.8	9.25	235.0
28	700	40.75	1035.1	3.38	85.9	31.50	800.1	37.00	939.8	1.75	44.5	28	1 5/8	10.75	273.1	11.75	298.5	9.75	247.7
30	750	43.00	1092.2	3.62	91.9	33.75	857.3	39.25	997.0	1.88	47.8	28	1 3/4	11.50	292.1	12.50	317.5	10.50	266.7
32	800	45.25	1149.4	3.88	98.6	36.00	914.4	41.50	1054.1	2.00	50.8	28	1 7/8	12.25	311.2	13.50	342.9	11.25	285.8
34	850	47.50	1206.5	4.00	101.6	38.00	965.2	43.50	1104.9	2.00	50.8	28	1 7/8	12.75	323.9	13.75	349.3	11.75	298.5
36	900	50.00	1270.0	4.12	104.6	40.25	1022.4	46.00	1168.4	2.12	53.8	32	2	13.25	336.6	14.25	362.0	12.25	311.2

- a) NPS 24" and smaller flanged ends by ANSI B16.5, NPS 26" and larger by MSS SP-44.  
b) Flange of 150Lb and 300Lb with the raised face of 0.06(1.6mm) is included in the smallest flange thickness C.  
c) The lengin L of the double-end bolt don't include the terminal length.  
e) Flange gasket of the matching flange ASME B16.20



Cast Steel Bolted Bonnet Valves

Flanged Connection Dimensions • ANSI Class 600~900

Class 600Lb

NPS		O		C		R		B		D		Bolt		L		LRTJ		LM	
in	mm	in	mm	in	mm	mm	in	in	mm	in	mm	QTY.	Diam	in	mm	in	mm	in	mm
2	50	6.50	165.1	1.00	25.4	3.62	91.9	5.00	127.0	0.75	19.1	8	5/8	4.25	108.0	4.25	108.0	4.00	101.6
2 1/2	65	7.50	190.5	1.12	28.4	4.12	104.6	5.88	149.4	0.88	22.4	8	3/4	4.75	120.7	4.75	120.7	4.50	114.3
3	80	8.25	209.6	1.25	31.8	5.00	127.0	6.62	168.1	0.88	22.4	8	3/4	5.00	127.0	5.00	127.0	4.75	120.7
4	100	10.75	273.1	1.50	38.1	6.19	157.2	8.50	215.9	1.00	25.4	8	7/8	5.75	146.1	5.75	146.1	5.50	139.7
5	125	13.00	330.2	1.75	44.5	7.31	185.7	10.50	266.7	1.12	28.4	8	1	6.50	165.1	6.50	165.1	6.25	158.8
6	150	14.00	355.6	1.88	47.8	8.50	215.9	11.50	292.1	1.12	28.4	12	1	6.75	171.5	6.75	171.5	6.50	165.1
8	200	16.50	419.1	2.19	55.6	10.62	269.7	13.75	349.3	1.25	31.8	12	1 1/8	7.50	190.5	7.50	190.5	7.25	184.2
10	250	20.00	508.0	2.50	63.5	12.75	323.9	17.00	431.8	1.38	35.1	16	1 1/4	8.50	215.9	8.50	215.9	8.25	209.6
12	300	22.00	558.8	2.62	66.5	15.00	381.0	19.25	489.0	1.38	35.1	20	1 1/4	8.75	222.3	8.75	222.3	8.50	215.9
14	350	23.75	603.3	2.75	69.9	16.25	412.8	20.75	527.1	1.50	38.1	20	1 3/8	9.25	235.0	9.25	235.0	9.00	228.6
16	400	27.00	685.8	3.00	76.2	18.50	469.9	23.75	603.3	1.62	41.1	20	1 1/8	10.00	254.0	10.00	254.0	9.75	247.7
18	450	29.25	743.0	3.25	82.6	21.00	533.4	25.75	654.1	1.75	44.5	20	1 5/8	10.75	273.1	10.75	273.1	10.50	266.7
20	500	32.00	812.8	3.50	88.9	23.00	584.2	28.50	723.9	1.75	44.5	24	1 5/8	11.25	285.8	11.50	292.1	11.00	279.4
24	600	37.00	939.8	4.00	101.6	27.25	692.2	33.00	838.2	2.00	50.8	24	1 7/8	13.00	330.2	13.25	336.6	12.75	323.9
26	650	40.00	1016.0	4.25	108.0	29.50	749.3	36.00	914.4	2.00	50.8	28	1 7/8	14.00	355.6	14.00	355.6	13.75	349.3
28	700	42.25	1073.2	4.38	111.3	31.50	800.1	38.00	965.2	2.12	53.8	28	2	14.50	368.3	14.50	368.3	14.25	362.0
30	750	44.50	1130.3	4.50	114.3	33.75	857.3	40.25	1022.4	2.12	53.8	28	2	15.00	381.0	14.75	374.7	14.75	374.7
32	800	47.00	1193.8	4.62	117.3	36.00	914.4	42.50	1079.5	2.38	60.5	28	2 1/4	15.00	393.7	15.75	400.1	15.25	387.4
34	850	49.00	1244.6	4.75	120.7	38.00	965.2	44.50	1130.3	2.38	60.5	28	2 1/4	16.25	412.8	16.25	412.8	16.00	406.4
36	900	51.75	1314.5	4.88	124.0	40.25	1022.4	47.00	1193.8	2.62	66.5	28	2 1/2	15.75	400.1	16.75	425.5	15.50	393.7

Cast Steel Bolted Bonnet Valves



Flanged Connection Dimensions • ANSI Class 1500~2500

Class 1500Lb

NPS		O		C		R		B		D		Bolt		L		LRTJ		LM	
in	mm	in	mm	in	mm	mm	in	in	mm	in	mm	QTY.	Diam	in	mm	in	mm	in	mm
2	50	8.50	215.9	1.50	38.1	3.62	91.9	6.50	165.1	1.00	25.4	8	7/8	5.75	146.1	5.75	146.1	5.50	139.7
2 1/2	65	9.62	244.3	1.62	41.1	4.12	104.6	7.50	190.5	1.12	28.4	8	1	6.25	158.8	6.25	158.8	6.00	152.4
3	80	10.50	266.7	1.88	47.8	5.00	127.0	8.00	203.2	1.25	31.8	8	1 1/8	7.00	177.8	7.00	177.8	6.75	171.5
4	100	12.25	311.2	2.12	53.8	6.19	157.2	9.50	241.3	1.38	35.1	8	1 1/4	7.75	196.9	7.75	196.9	7.50	190.5
5	125	14.75	374.7	2.88	73.2	7.31	185.7	11.50	292.1	1.62	41.1	8	1 1/2	9.75	247.7	9.75	247.7	9.50	241.3
6	150	15.50	393.7	3.25	82.6	8.50	215.9	12.50	317.5	1.50	38.1	12	1 3/8	10.25	260.4	10.50	266.7	10.00	254.0
8	200	19.00	482.6	3.62	91.9	10.62	269.7	15.50	393.7	1.75	44.5	12	1 5/8	11.50	292.1	12.75	323.9	11.25	285.8
10	250	23.00	584.2	4.25	108.0	12.75	323.9	19.00	482.6	2.00	50.8	12	1 7/8	13.25	336.6	13.50	342.9	13.00	330.2
12	300	26.50	673.1	4.88	124.0	15.00	381.0	22.50	571.5	2.12	53.8	16	2	14.75	374.7	15.25	387.4	14.50	368.3
14	350	29.50	749.3	5.25	133.4	16.25	412.8	25.00	635.0	2.38	60.5	16	2 1/4	16.00	406.4	16.75	425.5	15.75	400.1
16	400	32.50	825.5	5.75	146.1	18.50	469.9	27.75	704.9	2.62	66.5	16	2 1/2	17.50	444.5	18.50	469.9	17.25	438.2
18	450	36.00	914.4	6.38	162.1	21.00	533.4	30.50	774.7	2.88	73.2	16	2 3/4	19.50	495.3	20.75	527.1	19.25	489.0
20	500	38.75	984.3	7.00	177.8	23.00	584.2	32.75	831.9	3.12	79.2	16	3	21.25	539.8	22.25	565.2	21.00	533.4
24	600	46.00	1168.4	8.00	203.2	27.25	692.2	39.00	990.6	3.62	91.9	16	3 1/2	24.25	616.0	25.50	647.7	24.00	609.6

Class 2500Lb

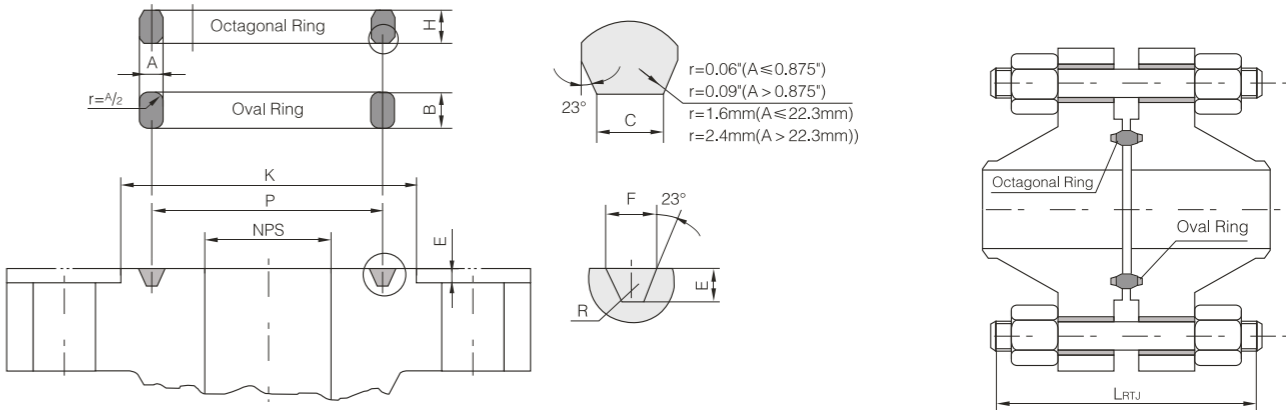
NPS		O		C		R		B		D		Bolt		L		LRTJ		LM	
in	mm	in	mm	in	mm	mm	in	in	mm	in	mm	QTY.	Diam	in	mm	in	mm	in	mm
2	50	9.25	235.0	2.00	50.8	3.62	91.9	6.75	171.5	1.12	28.4	8	1	7.00	177.8	7.00	177.8	6.75	171.5
2 1/2	65	10.50	266.7	2.25	57.2	4.12	104.6	7.75	196.9	1.25	31.8	8	1 1/8	7.75	196.9	8.00	203.2	7.50	190.5
3	80	12.00	304.8	2.62	66.5	5.00	127.0	9.00	228.6	1.38	35.1	8	1 1/4	8.75	222.3	9.00	228.6	8.50	215.9
4	100	14.00	355.6	3.00	76.2	6.19	157.2	10.75	273.1	1.62	41.1	8	1 1/2	10.00	254.0	10.25	260.4	9.75	247.7
5	125	16.50	419.1	3.62	91.9	7.31	185.7	12.75	323.9	1.88	47.8	8	1 3/4	11.75	298.5	12.25	311.2	11.50	292.1
6	150	19.00	482.6	4.25	108.0	8.50	215.9	14.50	368.3	2.12	53.8	8	2	13.50	342.9	14.00	355.6	13.25	336.6
8	200	21.75	552.5	5.00	127.0	10.62	269.7	17.25	438.2	2.12	53.8	12	2	15.00	381.0	15.50	393.7	14.75	374.7
10	250	26.50	673.1	6.50	165.1	12.75	323.9	21.25	539.8	2.62	66.5	12	2 1/2	19.25	489.0	20.00	508.0	19.00	482.6
12	300	30.00	762.0	7.25	184.2	15.00	381.0	24.38	619.3	2.88	73.2	12	2 3/4	21.25	539.8	22.00	558.8	21.00	533.4

- a) NPS 24" and smaller flanged ends by ANSI B16.5, NPS 26" and larger by MSS SP-44.  
b) Flange of 1500Lb and 2500Lb with the raised face of 0.25(6.4mm) is included in the smallest flange thickness C.  
c) The lengin L of the double-end bolt don't include the terminal length.  
e) Flange gasket of the matching flange ASME B16.20



Cast Steel Bolted Bonnet Valves

Ring-Joint Flanged Ends • ANSI Class 150~2500

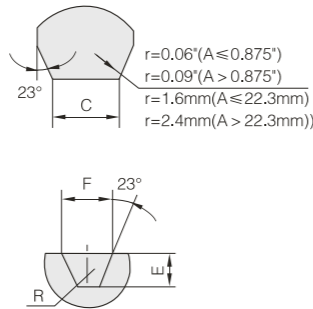


Ring-Joint Flanged Ends

1	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17									
ANSI Class-Lb							Annular Groove								K									
150	300	600	900	1500	2500	No.	P		E		F		R		150Lb		300Lb/600Lb		900Lb		1500Lb		2500Lb	
NPS							in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.		
2						R22	3.250	82.55	0.250	6.35	0.344	8.74	0.03	0.76	4.00	101.60								
	2	2				R23	3.250	82.55	0.312	7.92	0.469	11.91	0.03	0.76			4.25	107.95					4.50	114.30
				2		R24	3.750	95.25	0.312	7.92	0.469	11.91	0.03	0.76							4.88	123.95		
					2	R26	4.000	101.60	0.312	7.92	0.469	11.91	0.03	0.76			5.00	127.00					5.25	133.35
2½						R25	4.000	101.60	0.250	6.35	0.344	8.74	0.03	0.76	4.75	120.65								
	2½	2½				R26	4.000	101.60	0.312	7.92	0.469	11.91	0.03	0.76			5.00	127.00					5.25	133.35
				2½		R27	4.250	107.95	0.312	7.92	0.469	11.91	0.03	0.76							5.38	136.65		
					2½	R28	4.375	111.13	0.375	9.53	0.531	13.49	0.03	0.76									5.88	149.35
3						R29	4.500	114.30	0.250	6.35	0.344	8.74	0.03	0.76	5.25	133.35								
	3	3	3			R31	4.875	123.83	0.312	7.92	0.469	11.91	0.03	0.76			5.75	146.05	6.12	155.45				
					3	R32	5.000	127.00	0.375	9.53	0.531	13.49	0.06	1.52									6.62	168.15
4						R36	5.875	149.23	0.250	6.35	0.344	8.74	0.03	0.76	6.75	171.45								
	4	4	4			R37	5.875	149.23	0.312	7.92	0.469	11.91	0.03	0.76			6.88	174.75	7.12	180.85				
					4	R38	6.188	157.18	0.438	11.13	0.656	16.66	0.06	1.52									8.00	203.20
				4		R39	6.375	161.93	0.312	7.92	0.469	11.91	0.03	0.76							7.62	193.55		
5						R40	6.750	171.45	0.250	6.35	0.344	8.74	0.03	0.76	7.62	193.55								
	5	5	5			R41	7.125	180.98	0.312	7.92	0.469	11.91	0.03	0.76			8.25	209.55	8.50	215.90				
					5	R42	7.500	190.50	0.500	12.70	0.781	19.84	0.06	1.52									9.50	241.30
				5		R44	7.625	193.68	0.312	7.92	0.469	11.91	0.03	0.76							9.00	228.60		
6						R43	7.625	193.68	0.250	6.35	0.344	8.74	0.03	0.76	8.62	218.95								
	6	6	6			R45	8.312	211.12	0.312	7.92	0.469	11.91	0.03	0.76			9.50	241.30	9.50	241.30				
					6	R46	8.312	211.12	0.375	9.53	0.531	13.49	0.06	1.52							9.75	247.65		
					6	R47	9.000	228.60	0.500	12.70	0.781	19.84	0.06	1.52									11.00	279.40
8						R48	9.750	247.65	0.250	6.35	0.344	8.74	0.03	0.76	10.75	273.05								
	8	8	8			R49	10.625	269.88	0.312	7.92	0.469	11.91	0.03	0.76			11.88	301.75	12.12	307.85				
					8	R50	10.625	269.88	0.438	11.13	0.656	16.66	0.06	1.52							12.50			
					8	R51	11.000	279.40	0.562	14.27	0.906	23.01	0.06	1.52									13.38	339.85

- a) Please to see FLANGE ENDS for other connection dimension.  
b) Flange metal ring gasket of the matching flange ASME B16.20.  
c) For the specification of NPS 2 ~ 2 1/2" of 900Lb will adopt the dimension of 1500Lb.  
e) The length LRTJ of the double-end bolt don't include the terminal length.

## CCPV

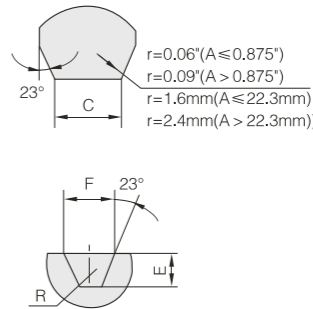


1	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17									
ANSI Class-Lb							Annular Groove						K											
150	300	600	900	1500	2500	No.	P		E		F		R		150Lb		300Lb/600Lb		900Lb		1500Lb		2500Lb	
NPS							in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.		
10						R52	12.000	304.80	0.250	6.35	0.344	8.74	0.03	0.76	13.00	330.20								
	10	10	10			R53	12.750	323.85	0.312	7.92	0.469	11.91	0.03	0.76			14.00	355.60	14.25	361.95				
				10		R54	12.750	323.85	0.438	11.13	0.656	16.66	0.06	1.52							4.62	371.35		
					10	R55	13.500	342.90	0.688	17.48	1.188	30.18	0.09	2.29									16.75	425.45
12						R56	15.000	381.00	0.250	6.35	0.344	8.74	0.03	0.76	16.00	406.40								
	12	12	12			R57	15.000	381.00	0.312	7.92	0.469	11.91	0.03	0.76			16.25	412.75	16.50	419.10				
				12		R58	15.000	381.00	0.562	14.27	0.906	23.01	0.06	1.52							17.25	438.15		
					12	R60	16.000	406.40	0.688	17.48	1.312	33.32	0.09	2.29									19.50	495.30
14						R59	15.625	396.88	0.250	6.35	0.344	8.74	0.03	0.76	16.75	425.45								
	14	14				R61	16.500	419.10	0.312	7.92	0.469	11.91	0.03	0.76			18.00	457.20						
			14			R62	16.500	419.10	0.438	11.13	0.656	16.66	0.06	1.52					18.38	466.85				
				14		R63	16.500	419.10	0.625	15.88	1.062	26.97	0.09	2.29							19.25	488.95		
16						R64	17.875	454.03	0.250	6.35	0.344	8.74	0.03	0.76	19.00	482.60								
	16	16				R65	18.500	469.90	0.312	7.92	0.469	11.91	0.03	0.76			20.00	508.00						
			16			R66	18.500	469.90	0.438	11.13	0.656	16.66	0.06	1.52					20.62	523.75				
				16		R67	18.500	469.90	0.688	17.48	1.188	30.18	0.09	2.29							21.50	546.10		
18						R68	20.375	517.53	0.250	6.35	0.344	8.74	0.03	0.76	21.50	546.10								
	18	18				R69	21.000	533.40	0.312	7.92	0.469	11.91	0.03	0.76			22.62	574.55						
			18			R70	21.000	533.40	0.500	12.70	0.781	19.84	0.06	1.52					23.38	593.85				
				18		R71	21.000	533.40	0.688	17.48	1.188	30.18	0.09	2.29							24.12	612.65		
20						R72	22.000	558.80	0.250	6.35	0.344	8.74	0.03	0.76	23.50	596.90								
	20	20				R73	23.00																	

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## Cast Steel Bolted Bonnet Valves

## Ring-Joint Flanged Ends • ANSI Class 150~2500

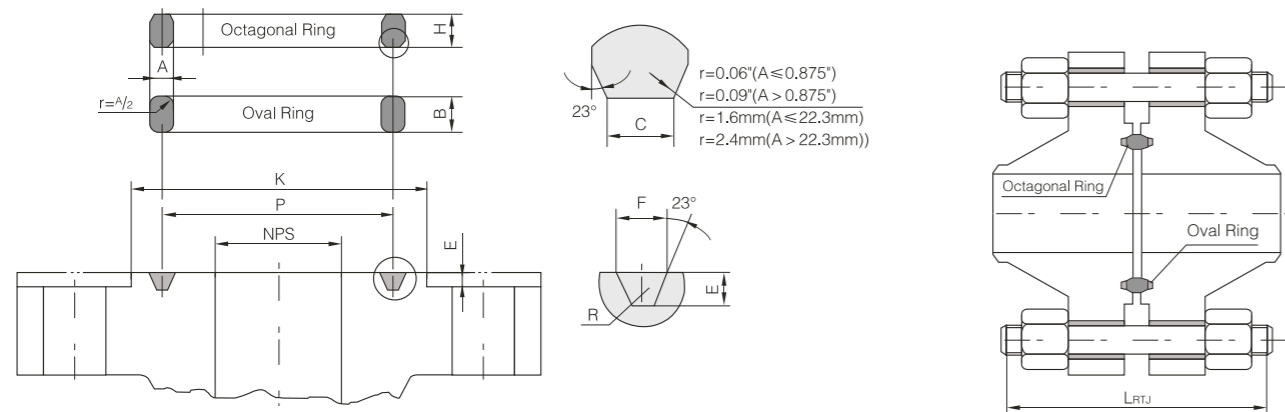


1	2	4	5	6	7	8		25	26	27	28		29	30	31	32	33	33								
ANSI Class—Lb								Annular Groove								LRTJ										
150	300	600	900	1500	2500	No.	A		B		H		C		150Lb		300Lb		600Lb		900Lb		1500Lb		2500Lb	
NPS							in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
2						R22	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	3.75	95.25										
	2	2				R23	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75			4.00	101.60	4.25	107.95						
				2		R24	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75									5.75	14.05		
					2	R26	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75											7.00	177.80
2½						R25	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.00	101.60										
	2½	2½				R26	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75			4.50	114.30	4.75	120.65					7.00	177.80
				2½		R27	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75									6.25	158.75		
					2½	R28	0.500	12.70	0.56	14.22	0.69	17.53	0.341	8.66											8.00	203.20
3						R29	0.313	7.95	0.69	17.53	0.50	12.70	0.206	5.23	4.00	101.60										
	3	3	3			R31	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75			4.75	120.65	5.00	127.00	5.75	146.05				
					3	R32	0.500	12.70	0.75	19.05	0.69	17.53	0.341	8.66											9.00	228.60
				3		R35	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75									7.00	177.80		
4						R36	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.00	101.60										
	4	4	4			R37	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75			5.00	127.00	5.75	146.05	6.75	171.45				
					4	R38	0.625	15.88	0.88	22.35	0.81	20.57	0.413	10.49											10.25	260.35
				4		R39	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75									7.75	196.85		
5						R40	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	4.25	107.95										
	5	5	5			R41	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75			5.25	133.35	6.50	165.10	7.50	190.50				
					5	R42	0.750	19.05	1.00	25.40	0.94	23.88	0.485	12.32											12.25	311.15
				5		R44	0.438	11.13	0.69	17.53	0.63	16.00	0.305	7.75												

## Cast Steel Bolted Bonnet Valves

CCPV

## Ring-Joint Flanged Ends • ANSI Class 150~2500



## Ring-Joint Flanged Ends

1	2	4	5	6	7	8		25		26		27		28		29		30		31		32		33		33					
ANSI Class-Lb							No.	Annular Groove								LRTJ															
150	300	600	900	1500	2500			A		B		H		C		150Lb		300Lb		600Lb		900Lb		1500Lb		2500Lb					
NPS								in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.				
10						R52	0.313	7.95	0.56	14.22	0.50	12.70	0.206	5.23	5.00	127.00															
	10	10	10			R53	0.438	11.13	11.13	17.53	0.63	16.00	0.305	7.75			6.75	171.45	8.50	215.90	9.25	234.95									
				10		R54	0.625	15.88	15.88	22.35	0.81	20.57	0.413	10.49									13.50								
					10	R55	1.125	28.58	28.58	36.58	1.38	35.05	0.780	19.81											20.00	508.00					
12						R56	0.313	7.95	7.95	14.22	0.50	12.70	0.206	5.23	5.25	133.35															
	12	12	12			R57	0.438	11.13	11.13	17.53	0.63	16.00	0.305	7.75			7.25	184.15	8.75	222.25	10.00	254.00									
				12		R58	0.875	22.23	22.23	28.70	1.06	26.92	0.583	14.81									15.25	387.35							
					12	R60	1.250	31.75	31.75	39.62	1.50	38.10	0.879	22.33										22.00	558.80						
14						R59	0.313	7.95	7.95	14.22	0.50	12.70	0.206	5.23	5.75	146.05															
	14	14				R61	0.438	11.13	11.13	17.53	0.63	16.00	0.305	7.75			7.50	190.50	9.25	234.95											
			14			R62	0.625	15.88	15.88	22.35	0.81	20.57	0.413	10.49							11.00	279.40									
				14		R63	1.000	25.40	25.40	33.27	1.25	31.75	0.681	17.30									16.75	425.45							
16						R64	0.313	7.95	7.95	14.22	0.50	12.70	0.205	5.21	5.75	146.05															
	16	16				R65	0.438	11.13	11.13	17.53	0.63	16.00	0.305	7.75			8.00	203.20	10.00	254.00											
			16			R66	0.625	15.88	15.88	22.35	0.81	20.57	0.413	10.49							11.50	292.10									
				16		R67	1.125	28.58	28.58	36.58	1.38	35.05	0.780	19.81									18.50	469.90							
18						R68	0.313	7.95	7.95	14.22	0.50	12.70	0.2506	5.23	6.25	158.75															
	18	18				R69	0.438	11.13	11.13	17.53	0.63	16.00	0.305	7.75			8.25	209.55	10.75	273.05											
			18			R70	0.750	19.05	19.05	25.40	0.94	23.88	0.485	12.32							13.25	336.55									
				18		R71	1.125	28.58	28.58	36.58	1.38	35.05	0.780	19.81									20.75	527.05							
20						R72	0.313	7.95	7.95	14.22	0.50	12.70	0.203	5.23	6.75	171.45															
	20	20				R73	0.500	12.70	12.70	19.05	0.69	17.53	0.341	8.66			8.75	222.25	11.50	292.10											
			20			R74	0.750	19.05	19.05	25.40	0.94	23.88	0.485	12.32							14.25	361.95									
				20		R75	1.250	31.75	31.75	39.62	1.50	38.10	0.879	22.33									22.25	565.15							
24						R76	0.313	7.95	7.95	14.22	0.50	12.70	0.206	5.23	7.25	184.15															
	24	24				R77	0.625	15.88	15.88	22.35	0.81	20.57	0.413	10.49			10.00	254.00	13.25	336.55											
			24			R78	1.000	25.40	25.40	33.27	1.25	31.75	0.681	17.30							18.00	457.20									
				24		R79	1.375	34.93	34.93	44.45	1.63	41.40	0.977	24.82									25.50	647.70							

a) Please to see FLANGE ENDS for other connection dimension.

b) Flange metal ring gasket of the matching flange ASME B16.20.

c) For the specification of NPS 2 ~ 2 1/2" of 900Lb will adopt the dimension of 1500Lb.

e) The length LRTJ of the double-end bolt don't include the terminal length.

## CCPV

## Cast Steel Bolted Bonnet Valves

# Memorandum