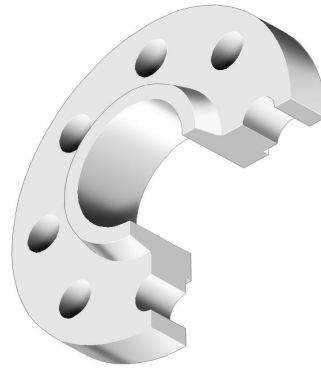
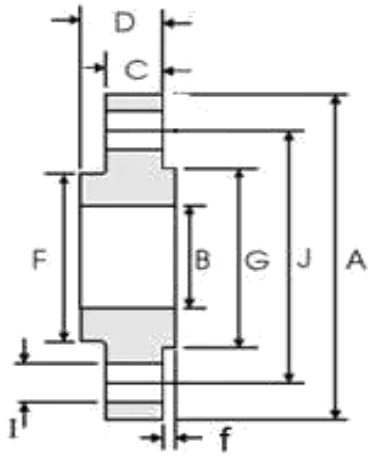


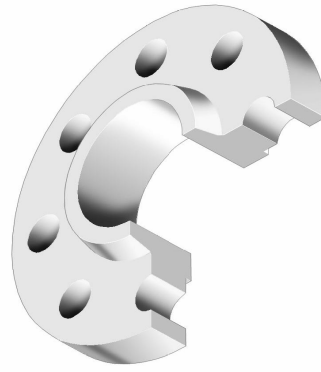
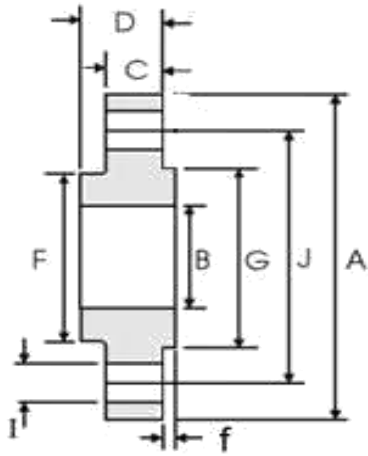
## Class 150 (ASME B16.5)

DN	NPS	Overall Diameter	Inside Diameter	Thickness of Flange(Min.)	Overall Length	Diameter of Hub	Diameter of Face	Height of Face	Diameter of Bolt Holes (mm / in )	Number of Bolts	Diameter of Bolt (in )	Diameter of Bolt Circle
		A	B	C	D	F	G	f	I		J	
15	1/2	90	22.2	9.6	14	30	34.9	2	15.9 ( <sup>5</sup> / <sub>8</sub> )	4	1/2	60.3
20	3/4	100	27.7	11.2	14	38	42.9	2	15.9 ( <sup>5</sup> / <sub>8</sub> )	4	1/2	69.9
25	1	110	34.5	12.7	16	49	50.8	2	15.9 ( <sup>5</sup> / <sub>8</sub> )	4	1/2	79.4
32	1 ¼	115	43.2	14.3	19	59	63.5	2	15.9 ( <sup>5</sup> / <sub>8</sub> )	4	1/2	88.9
40	1 ½	125	49.5	15.9	21	65	73.0	2	15.9 ( <sup>5</sup> / <sub>8</sub> )	4	1/2	98.4
50	2	150	61.9	17.5	24	78	92.1	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	4	5/8	120.7
65	2 ½	180	74.6	20.7	27	90	104.8	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	4	5/8	139.7
80	3	190	90.7	22.3	29	108	127.0	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	4	5/8	152.4
90	3 ½	215	103.4	22.3	30	122	139.7	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	8	5/8	177.8
100	4	230	116.1	22.3	32	135	157.2	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	8	5/8	190.5
125	5	255	143.8	22.3	35	164	185.7	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	215.9
150	6	280	170.7	23.9	38	192	215.9	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	241.3
200	8	345	221.5	27.0	43	246	269.9	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	298.5
250	10	405	276.2	28.6	48	305	323.8	2	25.4 (1)	12	7/8	362.0
300	12	485	327.0	30.2	54	365	381.0	2	25.4 (1)	12	7/8	431.8
350	14	535	359.2	33.4	56	400	412.8	2	28.6 (1- <sup>1</sup> / <sub>8</sub> )	12	1	476.3
400	16	595	410.5	35.0	62	457	469.9	2	28.6 (1- <sup>1</sup> / <sub>8</sub> )	16	1	539.8
450	18	635	461.8	38.1	67	505	533.4	2	31.8 (1- <sup>1</sup> / <sub>4</sub> )	16	1- <sup>1</sup> / <sub>8</sub>	577.9
500	20	700	513.1	41.3	71	559	584.2	2	31.8 (1- <sup>1</sup> / <sub>4</sub> )	20	1- <sup>1</sup> / <sub>8</sub>	635.0
600	24	815	616.0	46.1	81	663	692.2	2	34.9 (1- <sup>3</sup> / <sub>8</sub> )	20	1- <sup>1</sup> / <sub>4</sub>	749.3



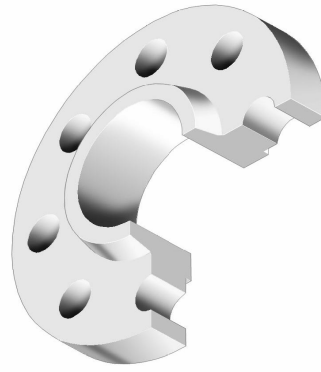
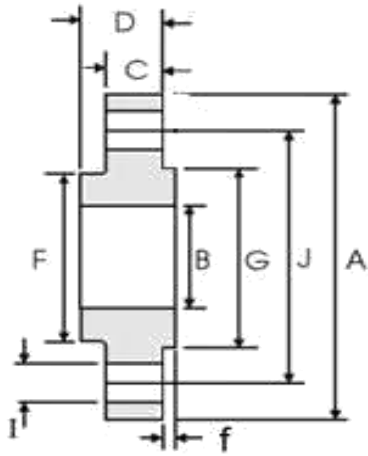
## Class 300 (ASME B16.5)

DN	NPS	Overall Diameter	Inside Diameter	Thickness of Flange(Min.)	Overall Length	Diameter of Hub	Diameter of Face	Height of Face	Diameter of Bolt Holes (mm / in )	Number of Bolts	Diameter of Bolt (in )	Diameter of Bolt Circle
		A	B	C	D	F	G	f	I		J	
15	1/2	95	22.2	12.7	21	38	34.9	2	15.9 ( <sup>5</sup> / <sub>8</sub> )	4	1/2	66.7
20	3/4	115	27.7	14.3	24	48	42.9	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	4	5/8	82.6
25	1	125	34.5	15.9	25	54	50.8	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	4	5/8	88.9
32	1 ¼	135	43.2	17.5	25	64	63.5	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	4	5/8	98.4
40	1 ½	155	49.5	19.1	29	70	73.0	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	4	3/4	114.3
50	2	165	61.9	20.7	32	84	92.1	2	19.1 ( <sup>3</sup> / <sub>4</sub> )	8	5/8	127.0
65	2 ½	190	74.6	23.9	37	100	104.8	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	149.2
80	3	210	90.7	27.0	41	117	127.0	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	168.3
90	3 ½	230	103.4	28.6	43	133	139.7	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	184.2
100	4	255	116.1	30.2	46	146	157.2	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	200.0
125	5	280	143.8	33.4	49	178	185.7	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	8	3/4	235.0
150	6	320	170.7	35.0	51	206	215.9	2	22.2 ( <sup>7</sup> / <sub>8</sub> )	12	3/4	269.9
200	8	380	221.5	39.7	60	260	269.9	2	25.4 (1)	12	7/8	330.2
250	10	445	276.2	46.1	65	321	323.8	2	28.6 (1-1/8)	16	1	387.4
300	12	520	327.0	49.3	71	375	381.0	2	31.8 (1-1/4)	16	1-1/8	450.8
350	14	585	359.2	52.4	75	425	412.8	2	31.8 (1-1/4)	20	1-1/8	514.4
400	16	650	410.5	55.6	81	483	469.9	2	34.9 (1-3/8)	20	1-1/4	571.5
450	18	710	461.8	58.8	87	533	533.4	2	34.9 (1-3/8)	24	1-1/4	628.6
500	20	775	513.1	62.0	94	587	584.2	2	34.9 (1-3/8)	24	1-1/4	685.8
600	24	915	616.0	68.3	105	702	692.2	2	41.3 (1-5/8)	24	1-1/2	812.8



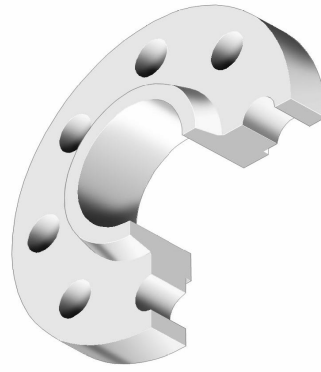
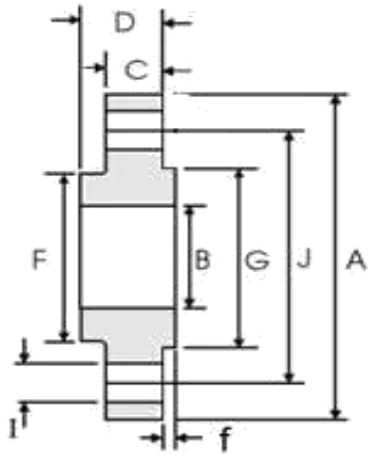
## Class 400 (ASME B16.5)

DN	NPS	Overall Diameter	Inside Diameter	Thickness of Flange(Min.)	Overall Length	Diameter of Hub	Diameter of Face	Height of Face	Diameter of Bolt Holes (mm / in.)	Number of Bolts	Diameter of Bolt (in.)	Diameter of Bolt Circle
		A	B	C	D	F	G	f	I		J	
15	1/2	95	22.2	14.3	22	38	34.9	7	15.9 (5/8)	4	1/2	66.7
20	3/4	115	27.7	15.9	25	48	42.9	7	19.1 (3/4)	4	5/8	82.6
25	1	125	34.5	17.5	27	54	50.8	7	19.1 (3/4)	4	5/8	88.9
32	1 1/4	135	43.2	20.7	29	64	63.5	7	19.1 (3/4)	4	5/8	98.4
40	1 1/2	155	49.5	22.3	32	70	73.0	7	22.2 (7/8)	4	3/4	114.3
50	2	165	61.9	25.4	37	84	92.1	7	19.1 (3/4)	8	5/8	127.0
65	2 1/2	190	74.6	28.6	41	100	104.8	7	22.2 (7/8)	8	3/4	149.2
80	3	210	90.7	31.8	46	117	127.0	7	22.2 (7/8)	8	3/4	168.3
90	3 1/2	230	103.4	35.0	49	133	139.7	7	25.4 (1)	8	7/8	184.2
100	4	255	116.1	35.0	51	146	157.2	7	25.4 (1)	8	7/8	200.0
125	5	280	143.8	38.1	54	178	185.7	7	25.4 (1)	8	7/8	235.0
150	6	320	170.7	41.3	57	206	215.9	7	25.4 (1)	12	7/8	269.9
200	8	380	221.5	47.7	68	260	269.9	7	28.6 (1-1/8)	12	1	330.2
250	10	445	276.2	54.0	73	321	323.8	7	31.8 (1-1/4)	16	1-1/8	387.4
300	12	520	327.0	57.2	79	375	381.0	7	34.9 (1-3/8)	16	1-1/4	450.8
350	14	585	359.2	60.4	84	425	412.8	7	34.9 (1-3/8)	20	1-1/4	514.4
400	16	650	410.5	63.5	94	483	469.9	7	38.1 (1-1/2)	20	1-3/8	571.5
450	18	710	461.8	66.7	98	533	533.4	7	38.1 (1-1/2)	24	1-3/8	628.6
500	20	775	513.1	69.9	102	587	584.2	7	41.3 (1-5/8)	24	1-1/2	685.8
600	24	915	616.0	76.2	114	702	692.2	7	47.6 (1-7/8)	24	1-3/4	812.8



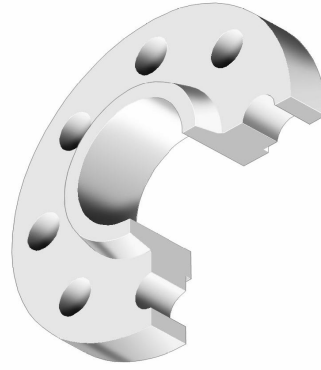
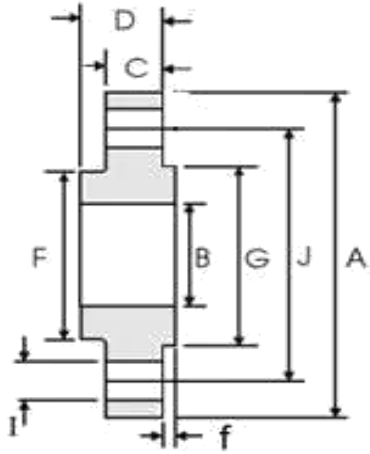
## Class 600 (ASME B16.5)

DN	NPS	Overall Diameter	Inside Diameter	Thickness of Flange(Min.)	Overall Length	Diameter of Hub	Diameter of Face	Height of Face	Diameter of Bolt Holes (mm / in )	Number of Bolts	Diameter of Bolt (in )	Diameter of Bolt Circle
		A	B	C	D	F	G	f	I		J	
15	1/2	95	22.2	14.3	22	38	34.9	7	15.9 (5/8)	4	1/2	66.7
20	3/4	115	27.7	15.9	25	48	42.9	7	19.1 (3/4)	4	5/8	82.6
25	1	125	34.5	17.5	27	54	50.8	7	19.1 (3/4)	4	5/8	88.9
32	1 1/4	135	43.2	20.7	29	64	63.5	7	19.1 (3/4)	4	5/8	98.4
40	1 1/2	155	49.5	22.3	32	70	73.0	7	22.2 (7/8)	4	3/4	114.3
50	2	165	61.9	25.4	37	84	92.1	7	19.1 (3/4)	8	5/8	127.0
65	2 1/2	190	74.6	28.6	41	100	104.8	7	22.2 (7/8)	8	3/4	149.2
80	3	210	90.7	31.8	46	117	127.0	7	22.2 (7/8)	8	3/4	168.3
90	3 1/2	230	103.4	35.0	49	133	139.7	7	25.4 (1)	8	7/8	184.2
100	4	275	116.1	38.1	54	152	157.2	7	25.4 (1)	8	7/8	215.9
125	5	330	143.8	44.5	60	189	185.7	7	28.6 (1-1/8)	8	1	266.7
150	6	355	170.7	47.7	67	222	215.9	7	28.6 (1-1/8)	12	1	292.1
200	8	420	221.5	55.6	76	273	269.9	7	31.8 (1-1/4)	12	1-1/8	349.2
250	10	510	276.2	63.5	86	343	323.8	7	34.9 (1-3/8)	16	1-1/4	431.8
300	12	560	327.0	66.7	92	400	381.0	7	34.9 (1-3/8)	20	1-1/4	489.0
350	14	605	359.2	69.9	94	432	412.8	7	38.1 (1-1/2)	20	1-3/8	527.0
400	16	685	410.5	76.2	106	495	469.9	7	41.3 (1-5/8)	20	1-1/2	603.2
450	18	745	461.8	82.6	117	546	533.4	7	44.5 (1-3/4)	20	1-5/8	654.0
500	20	815	513.1	88.9	127	610	584.2	7	44.5 (1-3/4)	24	1-5/8	723.9
600	24	940	616.0	101.6	140	718	692.2	7	50.8 (2)	24	1-7/8	838.2



## Class 900 (ASME B16.5)

DN	NPS	Overall Diameter	Inside Diameter	Thickness of Flange(Min.)	Overall Length	Diameter of Hub	Diameter of Face	Height of Face	Diameter of Bolt Holes (mm / in )	Number of Bolts	Diameter of Bolt (in )	Diameter of Bolt Circle
		A	B	C	D	F	G	f	I		J	
15	1/2	120	22.2	22.3	32	38	34.9	7	22.2 (7/8)	4	3/4	82.6
20	3/4	130	27.7	25.4	35	44	42.9	7	22.2 (7/8)	4	3/4	88.9
25	1	150	34.5	28.6	41	52	50.8	7	25.4 (1)	4	7/8	101.6
32	1 1/4	160	43.2	28.6	41	64	63.5	7	25.4 (1)	4	7/8	111.1
40	1 1/2	180	49.5	31.8	44	70	73.0	7	28.6 (1-1/8)	4	1	123.8
50	2	215	61.9	38.1	57	105	92.1	7	25.4 (1)	8	7/8	165.1
65	2 1/2	245	74.6	41.3	64	124	104.8	7	28.6 (1-1/8)	8	1	190.5
80	3	240	103.4	38.1	54	127	127.0	7	25.4 (1)	8	7/8	190.5
100	4	290	116.1	44.5	70	159	157.2	7	31.8 (1-1/4)	8	1-1/8	235.0
125	5	350	143.8	50.8	79	190	185.7	7	34.9 (1-3/8)	8	1-1/4	279.4
150	6	380	170.7	55.6	86	235	215.9	7	31.8 (1-1/4)	12	1-1/8	317.5
200	8	470	221.5	63.5	102	298	269.9	7	38.1 (1-1/2)	12	1-3/8	393.7
250	10	545	276.2	69.9	108	368	323.8	7	38.1 (1-1/2)	16	1-3/8	469.9
300	12	610	327.0	79.4	117	419	381.0	7	38.1 (1-1/2)	20	1-3/8	533.4
350	14	640	359.2	85.8	130	451	412.8	7	41.3 (1-5/8)	20	1-1/2	558.8
400	16	705	410.5	88.9	133	508	469.9	7	44.5 (1-3/4)	20	1-5/8	616.0
450	18	785	461.8	101.6	152	565	533.4	7	50.8 (2)	20	1-7/8	685.8
500	20	855	513.1	108.0	159	622	584.2	7	54.0 (2-1/8)	20	2	749.3
600	24	1040	616.0	139.7	203	749	692.2	7	66.7 (2-5/8)	20	2-1/2	901.7



## Class 1500 (ASME B16.5)

DN	NPS	Overall Diameter	Inside Diameter	Thickness of Flange(Min.)	Overall Length	Diameter of Hub	Diameter of Face	Height of Face	Diameter of Bolt Holes (mm / in.)	Number of Bolts	Diameter of Bolt (in.)	Diameter of Bolt Circle
		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>F</b>	<b>G</b>	<b>f</b>	<b>I</b>			<b>J</b>
15	1/2	120	22.2	22.3	32	38	34.9	7	22.2 (7/8)	4	3/4	82.6
20	3/4	130	27.7	25.4	35	44	42.9	7	22.2 (7/8)	4	3/4	88.9
25	1	150	34.5	28.6	41	52	50.8	7	25.4 (1)	4	7/8	101.6
32	1 1/4	160	43.2	28.6	41	64	63.5	7	25.4 (1)	4	7/8	111.1
40	1 1/2	180	49.5	31.8	44	70	73.0	7	28.6 (1-1/8)	4	1	123.8
50	2	215	61.9	38.1	57	105	92.1	7	25.4 (1)	8	7/8	165.1
65	2 1/2	245	74.6	41.3	64	124	104.8	7	28.6 (1-1/8)	8	1	190.5