Class 150					Indana						
Nominal Pipe Size	Diameter of	No.	Diameter of	Diameter of	Bolt	Nominal Pipe Size	Diameter of	No.	Diameter of	Diameter of	Bolt
NPS	Flange	of	Bolts	Bolt Holes	Circle	NPS	Flange	of	Bolts	Bolt Holes	Circle
(inches)	(inches)	Bolts	(inches)	(inches)	(inches)	(inches)	(inches)	Bolts	(inches)	(inches)	(inches)
0.25	3.375	4	0.5	0.62	2.25	1/4	3 3/8	4	1/2	0.62	2 1/4
0.5	3.5	4	0.5	0.62	2.375	1/2	3 3/4	4	1/2	0.62	2 5/8
0.75	3.875	4	0.5	0.62	2.75	3/4	4 5/8	4	5/8	0.75	3 1/4
1	4.25	4	0.5	0.62	3.125		4 7/8	4	5/8	0.75	3 1/2
1.25	4.625	4	0.5	0.62	3.5	1 1/4	5 1/4	4	5/8	0.75	3 7/8
1.5	5	4	0.5	0.62	3.875	1 1/2	6 1/8	4	3/4	0.88	4 1/2
2	6	4	0.625	0.75	4.75	2	6 1/2	8	5/8	0.75	5
2.5	7	4	0.625	0.75	5.5	2 1/2	7 1/2	8	3/4	0.88	5 7/8
3	7.5	4	0.625	0.75	6	3	8 1/4	8	3/4	0.88	6 5/8
3.5	8.5	8	0.625	0.75	7	3 1/2	9	8	3/4	0.88	7 1/4
4	9	8	0.625	0.75	7.5	4	10	8	3/4	0.88	7 7/8
5	10	8	0.75	0.88	8.5	5	11	8	3/4	0.88	9 1/4
6	11	8	0.75	0.88	9.5	6	12 1/2	12	3/4	0.88	10 5/8
8	13-1/2	8	0.75	0.88	11.75	8	15	12	7/8	1	13
10	16	12	0.875	1	14-1/4	10	17-1/2	16	1	1.12	15-1/4
12	19	12	0.875	1	17	12	20-1/2	16	1 1/8	1.25	17-3/4
14	21	12	1	1.12	18-3/4	14	23	20	1 1/8	1.25	20-1/4
16	23-1/2	16	1	1.12	21-1/4	16	25-1/2	20	1 1/4	1.38	22-1/2
18	25	16	1.125	1.25	22-3/4	18	28	24	1 1/4	1.38	24-3/4
20	27-1/2	20	1.125	1.25	25	20	30-1/2	24	1 1/4	1.38	27
24	32	20	1.25	1.38	29-1/2	24	36	24	1 1/2	1.62	32

Class 400					Class 600						
Nominal Pipe Size	Diameter of	No.	Diameter of	Diameter of	Bolt	Nominal Pipe Size	Diameter of	No.	Diameter of	Diameter of	Bolt
NPS	Flange	of	Bolts	Bolt Holes	Circle	NPS	Flange	of	Bolts	Bolt Holes	Circle
(inches)	(inches)	Bolts	(inches)	(inches)	(inches)	(inches)	(inches)	Bolts	(inches)	(inches)	(inches)
1/4	3 3/8	4	1/2	0.62	2 1/4	1/4	3 3/8	4	1/2	0.62	2 1/4
1/2	3 3/4	4	1/2	0.62	2 5/8	1/2	3 3/4	4	1/2	0.62	2 5/8
3/4	4 5/8	4	5/8	0.75	3 1/4	3/4	4 5/8	4	5/8	0.75	3 1/4
1	4 7/8	4	5/8	0.75	3 1/2	1	4 7/8	4	5/8	0.75	3 1/2
1 1/4	5 1/4	4	5/8	0.75	3 7/8	1 1/4	5 1/4	4	5/8	0.75	3 7/8
1 1/2	6 1/8	4	3/4	0.88	4 1/2	1 1/2	6 1/8	4	3/4	0.88	4 1/2
2	6 1/2	8	5/8	0.75	5	2	6 1/2	8	5/8	0.75	5
2 1/2	7 1/2	8	3/4	0.88	5 7/8	2 1/2	7 1/2	8	3/4	0.88	5 7/8
3	8 1/4	8	3/4	0.88	6 5/8	3	8 1/4	8	3/4	0.88	6 5/8
3 1/2	9	8	7/8	1	7 1/4	3 1/2	9	8	7/8	1	7 1/4
4	10	8	7/8	1	7 7/8	4	10 3/4	8	7/8	1	8 1/2
5	11	8	7/8	1	9 1/4	5	13	8	1	1.12	10 1/2
6	12 1/2	12	7/8	1	10 5/8	6	14	12	1	1.12	11 1/2
8	15	12	1	1.12	13	8	16-1/2	12	1 1/8	1.25	13-3/4
10	17-1/2	16	1 1/8	1.25	15-1/4	10	20	16	1 1/4	1.38	17
12	20-1/2	16	1 1/4	1.38	17-3/4	12	22	20	1 1/4	1.38	19-1/4
14	23	20	1 1/4	1.38	20-1/4	14	23-3/4	20	13/8	1.5	20-3/4
16	25-1/2	20	13/8	1.5	22-1/2	16	27	20	1 1/2	1.62	23-3/4
18	28	24	13/8	1.5	24-3/4	18	29-1/4	20	15/8	1.75	25-3/4
20	30-1/2	24	1 1/2	1.62	27	20	32	24	15/8	1.75	28-1/2
24	36	24	1 3/4	1.88	32	24	37	24	17/8	2	33

Class 900					Class 1500						
Nominal Pipe Size	Diameter of	No.	Diameter of	Diameter of	Bolt	Nominal Pipe Size	Diameter of	No.	Diameter of	Diameter of	Bolt
NPS	Flange	of	Bolts	Bolt Holes	Circle	NPS	Flange	of	Bolts	Bolt Holes	Circle
(inches)	(inches)	Bolts	(inches)	(inches)	(inches)	(inches)	(inches)	Bolts	(inches)	(inches)	(inches)
1/2	4 3/4	4	3/4	0.88	3 1/4	1/2	4 3/4	4	3/4	0.88	3 1/4
3/4	5 1/8	4	3/4	0.88	3 1/2	3/4	5 1/8	4	3/4	0.88	3 1/2
1	5 7/8	4	7/8	1	4	1	5 7/8	4	7/8	1	4
1 1/4	6 1/4	4	7/8	1	4 3/8	1 1/4	6 1/4	4	7/8	1	4 3/8
1 1/2	7	4	1	1.12	4 7/8	1 1/2	7	4	1	1.12	4 7/8
2	8 1/2	8	7/8	1	6 1/2	2	8 1/2	8	7/8	1	6 1/2
2 1/2	9 5/8	8	1	1.12	7 1/2	2 1/2	9 5/8	8	1	1.12	7 1/2
3	9 1/2	8	7/8	1	7 1/2	3	10 1/2	8	1 1/8	1.25	8
4	11 1/2	8	1 1/8	1.25	9 1/4	4	12 1/4	8	1 1/4	1.38	9 1/2
5	13-3/4	8	1 1/4	1.38	11	5	14-3/4	8	1 1/2	1.62	11 1/2
6	15	12	1 1/8	1.25	12 1/2	6	15-1/2	12	1 3/8	1.5	12 1/2
8	18-1/2	12	1 3/8	1.5	15-1/2	8	19	12	1 5/8	1.75	15-1/2
10	21-1/2	16	1 3/8	1.5	18-1/2	10	23	12	17/8	2	19
12	24	20	1 3/8	1.5	21	12	26-1/2	16	2	2.12	22-1/2
14	25-1/4	20	1 1/2	1.62	22	14	29-1/2	16	2 1/4	2.38	25
16	27-3/4	20	1 5/8	1.75	24-1/2	16	32-1/2	16	2 1/2	2.62	27-3/4
18	31	20	17/8	2	27	18	36	16	2 3/4	2.88	30-1/2
20	33-3/4	20	2	2.12	29-1/2	20	38-3/4	16	3	3.12	32-3/4
24	41	20	2 1/2	2.62	35-1/2	24	46	16	3 1/2	3.62	39

	Class 2500								
Nominal Pipe Size	Diameter of	No.	Diameter of	Diameter of	Bolt				
NPS	Flange	of	Bolts	Bolt Holes	Circle				
(inches)	(inches)	Bolts	(inches)	(inches)	(inches)				
1/2	5 1/4	4	3/4	0.88	3 1/2				
3/4	5 1/2	4	3/4	0.88	3 3/4				
1	6 1/4	4	7/8	1	4 1/4				
1 1/4	7 1/4	4	1	1.12	5 1/8				
1 1/2	8	4	1 1/8	1.25	5 3/4				
2	9 1/4	8	1	1.12	6 3/4				
2 1/2	10 1/2	8	1 1/8	1.25	7 3/4				
3	12	8	1 1/4	1.38	9				
4	14	8	1 1/2	1.62	10 3/4				
5	16-1/2	8	1 3/4	1.88	12 3/4				
6	19	8	2	2.12	14-1/2				
8	21-3/4	12	2	2.12	17-1/4				
10	26-1/2	12	2 1/2	2.62	21-1/4				
12	30	12	2 3/4	2.88	24-3/8				