

ANSI FLANGE GASKET STANDARD DIMENSIONS

ANSI flange gaskets are designed to fit standard ANSI (American National Standards Institute) pipe flanges, ensuring a proper seal in various industrial applications. These gaskets are manufactured according to ANSI B16.21 (for non-metallic gaskets) and ANSI B16.5 (for metallic flanges), specifying dimensions, material compatibility, and pressure ratings.

Gasket dimensions depend on the flange class (150, 300, 600, 900, 1500, and 2500) and nominal pipe size (NPS), which dictate factors such as:

- Inner Diameter (ID) & Outer Diameter (OD): Ensuring a perfect fit within the flange sealing surface.
- Bolt Circle Diameter (BCD): Aligning the gasket with bolt holes for uniform compression.
- Thickness: Typically ranging from 1/16" to 1/8", with variations based on pressure requirements.

Gaskets are available in various types, including full-face (FF), ring-type (RTJ), and raised-face (RF), depending on the flange surface and application needs. Proper selection ensures leak-free performance in pipelines, pressure vessels, and other industrial systems.

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
150#	0.5	0.84	1.88	3.5	2.38	4	0.63
150#	0.75	1.06	2.25	3.88	2.75	4	0.63
150#	1	1.31	2.62	4.25	3.13	4	0.63
150#	1.25	1.66	3	4.63	3.5	4	0.63
150#	1.5	1.91	3.38	5	3.88	4	0.63
150#	2	2.38	4.12	6	4.75	4	0.75
150#	2.5	2.88	4.88	7	5.5	4	0.75
150#	3	3.5	5.38	7.5	6	4	0.75
150#	3.5	4	6.38	8.5	7	8	0.75
150#	4	4.5	6.88	9	7.5	8	0.75
150#	5	5.56	7.75	10	8.5	8	0.88
150#	6	6.62	8.75	11	9.5	8	0.88
150#	8	8.62	11	13.5	11.75	8	0.88
150#	10	10.75	13.38	16	14.25	12	1
150#	12	12.75	16.13	19	17	12	1
150#	14	14	17.75	21	18.75	12	1.13
150#	16	16	20.25	23.5	21.25	16	1.13
150#	18	18	21.62	25	22.75	16	1.25
150#	20	20	23.88	27.5	25	20	1.25
150#	24	24	28.25	32	29.5	20	1.38

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
150# Series A	26	26	30.5	34.25	31.75	24	1.38
150# Series A	28	28	32.75	36.5	34	28	1.38
150# Series A	30	30	34.75	38.75	36	28	1.38
150# Series A	32	32	37	41.75	38.5	28	1.63
150# Series A	34	34	39	43.75	40.5	32	1.63
150# Series A	36	36	41.25	46	42.75	32	1.63
150# Series A	38	38	43.75	48.75	45.25	32	1.63
150# Series A	40	40	45.75	50.75	47.25	36	1.63
150# Series A	42	42	48	53	49.5	36	1.63
150# Series A	44	44	50.25	55.25	51.75	40	1.63
150# Series A	46	46	52.25	57.25	53.75	40	1.63
150# Series A	48	48	54.5	59.5	56	44	1.63
150# Series A	50	50	56.5	61.75	58.25	44	1.88
150# Series A	52	52	58.75	64	60.5	44	1.88
150# Series A	54	54	61	66.25	62.75	44	1.88
150# Series A	56	56	63.25	68.75	65	48	1.88
150# Series A	58	58	65.5	71	67.25	48	1.88
150# Series A	60	60	67.5	73	69.25	52	1.88
150# Series B	26	26	28.56	30.94	29.31	36	0.88
150# Series B	28	28	30.56	32.94	31.31	40	0.88
150# Series B	30	30	32.56	34.94	33.31	44	0.88
150# Series B	32	32	34.69	37.06	35.44	48	0.88
150# Series B	34	34	36.81	39.56	37.69	40	1
150# Series B	36	36	38.88	41.62	39.75	44	1
150# Series B	38	38	41.12	44.25	42.12	40	1.12
150# Series B	40	40	43.12	46.25	44.12	44	1.12
150# Series B	42	42	45.12	48.25	46.12	48	1.12
150# Series B	44	44	47.12	50.25	48.12	52	1.12
150# Series B	46	46	49.44	52.81	50.56	40	1.25
150# Series B	48	48	51.44	54.81	52.56	44	1.25
150# Series B	50	50	53.44	56.81	54.56	48	1.25
150# Series B	52	52	55.44	58.81	56.56	52	1.25
150# Series B	54	54	57.62	61	58.75	56	1.25
150# Series B	56	56	59.62	63	60.75	60	1.25
150# Series B	58	58	62.19	65.94	63.44	48	1.38
150# Series B	60	60	64.19	67.94	65.44	52	1.38

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
300#	0.5	0.84	2.12	3.75	2.62	4	0.63
300#	0.75	1.06	2.62	4.62	3.25	4	0.75
300#	1	1.31	2.88	4.88	3.5	4	0.75
300#	1.25	1.66	3.25	5.25	3.88	4	0.75
300#	1.5	1.91	3.75	6.12	4.5	4	0.88
300#	2	2.38	4.38	6.5	5	8	0.75
300#	2.5	2.88	5.12	7.5	5.88	8	0.88
300#	3	3.5	5.88	8.25	6.62	8	0.88
300#	3.5	4	6.5	9	7.25	8	0.88
300#	4	4.5	7.12	10	7.88	8	0.88
300#	5	5.56	8.5	11	9.25	8	0.88
300#	6	6.62	9.88	12.5	10.62	12	0.88
300#	8	8.62	12.12	15	13	12	1
300#	10	10.75	14.25	17.5	15.25	16	1.12
300#	12	12.75	16.62	20.5	17.75	16	1.25
300#	14	14	19.12	23	20.25	20	1.25
300#	16	16	21.25	25.5	22.5	20	1.38
300#	18	18	23.5	28	24.75	24	1.38
300#	20	20	25.75	30.5	27	24	1.38
300#	24	24	30.5	36	32	24	1.62

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
300# Series A	26	26	32.88	38.25	34.5	28	1.75
300# Series A	28	28	35.38	40.75	37	28	1.75
300# Series A	30	30	37.5	43	39.25	28	1.88
300# Series A	32	32	39.62	45.25	41.5	28	2
300# Series A	34	34	41.62	47.5	43.5	28	2
300# Series A	36	36	44	50	46	32	2.12
300# Series A	38	38	41.5	46	43	32	1.62
300# Series A	40	40	43.88	48.75	45.5	32	1.75
300# Series A	42	42	45.88	50.75	47.5	32	1.75
300# Series A	44	44	48	53.25	49.75	32	1.88
300# Series A	46	46	50.12	55.75	52	28	2
300# Series A	48	48	52.12	57.75	54	32	2
300# Series A	50	50	54.25	60.25	56.25	32	2.12
300# Series A	52	52	56.25	62.25	58.25	32	2.12
300# Series A	54	54	58.75	65.25	61	28	2.38
300# Series A	56	56	60.75	67.25	63	28	2.38
300# Series A	58	58	62.75	69.25	65	32	2.38
300# Series A	60	60	64.75	71.25	67	32	2.38
300# Series B	26	26	30.38	34.12	31.62	32	1.38
300# Series B	28	28	32.5	36.25	33.75	36	1.38
300# Series B	30	30	34.88	39	36.25	36	1.5
300# Series B	32	32	37	41.5	38.5	32	1.62
300# Series B	34	34	39.12	43.62	40.62	36	1.62
300# Series B	36	36	41.25	46.12	42.88	32	1.75
300# Series B	38	38	43.25	48.12	44.88	36	1.75
300# Series B	40	40	45.25	50.12	46.88	40	1.75
300# Series B	42	42	47.25	52.5	49	36	1.88
300# Series B	44	44	49.25	54.5	51	40	1.88
300# Series B	46	46	51.88	57.5	53.75	36	2
300# Series B	48	48	53.88	59.5	55.75	40	2
300# Series B	50	50	55.88	61.5	57.75	44	2
300# Series B	52	52	57.88	63.5	59.75	48	2
300# Series B	54	54	61.25	65.88	62.12	48	2
300# Series B	56	56	62.75	69.5	65	36	2.38
300# Series B	58	58	65.19	71.94	67.44	40	2.38
300# Series B	60	60	67.12	73.94	69.44	40	2.38

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
400#	0.5	0.84	2.12	3.75	2.62	4	0.63
400#	0.75	1.06	2.62	4.62	3.25	4	0.75
400#	1	1.31	2.88	4.88	3.5	4	0.75
400#	1.25	1.66	3.25	5.25	3.88	4	0.75
400#	1.5	1.91	3.75	6.12	4.5	4	0.88
400#	2	2.38	4.38	6.5	5	8	0.75
400#	2.5	2.88	5.12	7.5	5.88	8	0.88
400#	3	3.5	5.88	8.25	6.62	8	0.88
400#	3.5	4	6.38	9	7.25	8	1
400#	4	4.5	7	10	7.88	8	1
400#	5	5.56	8.38	11	9.25	8	1
400#	6	6.62	9.75	12.5	10.62	12	1
400#	8	8.62	12	15	13	12	1.12
400#	10	10.75	14.12	17.5	15.25	16	1.25
400#	12	12.75	16.5	20.5	17.75	16	1.38
400#	14	14	19	23	20.25	20	1.38
400#	16	16	21.12	25.5	22.5	20	1.5
400#	18	18	23.38	28	24.75	24	1.5
400#	20	20	25.5	30.5	27	24	1.62
400#	24	24	30.25	36	32	24	1.88

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
400# Series A	26	26	32.75	38.25	34.5	28	1.88
400# Series A	28	28	35.12	40.75	37	28	2
400# Series A	30	30	37.25	43	39.25	28	2.12
400# Series A	32	32	39.5	45.25	41.5	28	2.12
400# Series A	34	34	41.5	47.5	43.5	28	2.12
400# Series A	36	36	44	50	46	32	2.12
400# Series A	38	38	42.26	47.5	44	32	1.88
400# Series A	40	40	44.58	50	46.25	32	2
400# Series A	42	42	46.38	52	48.25	32	2
400# Series A	44	44	48.5	54.5	50.5	32	2.12
400# Series A	46	46	50.75	56.75	52.75	36	2.12
400# Series A	48	48	53	59.5	55.25	28	2.38
400# Series A	50	50	55.25	61.75	57.5	32	2.38
400# Series A	52	52	57.26	63.75	59.5	32	2.38
400# Series A	54	54	59.75	67	62.25	28	2.62
400# Series A	56	56	61.75	69	64.25	32	2.62
400# Series A	58	58	63.75	71	66.25	32	2.62
400# Series A	60	60	66.25	74.25	69	32	2.88
400# Series B	26	26	29.38	33.5	30.75	28	1.5
400# Series B	28	28	31.5	36	33	24	1.62
400# Series B	30	30	33.75	38.25	35.25	28	1.62
400# Series B	32	32	35.88	40.75	37.5	28	1.75
400# Series B	34	34	37.88	42.75	39.5	32	1.75
400# Series B	36	36	40.25	45.5	42	28	1.88

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
600#	0.5	0.84	2.12	3.75	2.62	4	0.63
600#	0.75	1.06	2.62	4.62	3.25	4	0.75
600#	1	1.31	2.88	4.88	3.5	4	0.75
600#	1.25	1.66	3.25	5.25	3.88	4	0.75
600#	1.5	1.91	3.75	6.12	4.5	4	0.88
600#	2	2.38	4.38	6.5	5	8	0.75
600#	2.5	2.88	5.12	7.5	5.88	8	0.88
600#	3	3.5	5.88	8.25	6.62	8	0.88
600#	3.5	4	6.38	9	7.25	8	1
600#	4	4.5	7.62	10.75	8.5	8	1
600#	5	5.56	9.5	13	10.5	8	1.12
600#	6	6.62	10.5	14	11.5	12	1.12
600#	8	8.62	12.62	16.5	13.75	12	1.25
600#	10	10.75	15.75	20	17	16	1.38
600#	12	12.75	18	22	19.25	20	1.38
600#	14	14	19.38	23.75	20.75	20	1.5
600#	16	16	22.25	27	23.75	20	1.62
600#	18	18	24.12	29.25	25.75	20	1.75
600#	20	20	26.88	32	28.5	24	1.75
600#	24	24	31.12	37	33	24	2

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
600# Series A	26	26	34.12	40	36	28	2
600# Series A	28	28	36	42.25	38	28	2.12
600# Series A	30	30	38.25	44.5	40.25	28	2.12
600# Series A	32	32	40.25	47	42.5	28	2.38
600# Series A	34	34	42.25	49	44.5	28	2.38
600# Series A	36	36	44.5	51.75	47	28	2.62
600# Series A	38	38	43.5	50	45.75	28	2.38
600# Series A	40	40	45.5	52	47.75	32	2.38
600# Series A	42	42	48	55.25	50.5	28	2.62
600# Series A	44	44	50	57.25	52.5	32	2.62
600# Series A	46	46	52.26	59.5	54.75	32	2.62
600# Series A	48	48	54.75	62.75	57.5	32	2.88
600# Series A	50	50	57	65.75	60	28	3.12
600# Series A	52	52	59	67.75	62	32	3.12
600# Series A	54	54	61.25	70	64.25	32	3.12
600# Series A	56	56	63.5	73	66.75	32	3.38
600# Series A	58	58	65.5	75	68.75	32	3.38
600# Series A	60	60	67.75	78.5	71.75	28	3.62
600# Series B	26	26	30.12	35	31.75	28	1.75
600# Series B	28	28	32.25	37.5	34	28	1.88
600# Series B	30	30	34.62	40.25	36.5	28	2
600# Series B	32	32	36.75	42.75	38.75	28	2.12
600# Series B	34	34	39.25	45.75	41.5	24	2.38
600# Series B	36	36	41.25	47.75	43.5	28	2.38

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
900#	0.5	0.84	0.13	NA	NA	NA	NA
900#	0.75	1.06	0.13	NA	NA	NA	NA
900#	1	1.31	3.12	NA	NA	NA	NA
900#	1.25	1.66	3.5	NA	NA	NA	NA
900#	1.5	1.91	3.88	NA	NA	NA	NA
900#	2	2.38	5.62	NA	NA	NA	NA
900#	2.5	2.88	6.5	NA	NA	NA	NA
900#	3	3.5	6.62	NA	NA	NA	NA
900#	4	4.5	8.12	NA	NA	NA	NA
900#	5	5.56	9.75	NA	NA	NA	NA
900#	6	6.62	11.38	NA	NA	NA	NA
900#	8	8.62	14.12	NA	NA	NA	NA
900#	10	10.75	17.12	NA	NA	NA	NA
900#	12	12.75	19.62	NA	NA	NA	NA
900#	14	14	20.5	NA	NA	NA	NA
900#	16	16	22.62	NA	NA	NA	NA
900#	18	18	25.12	NA	NA	NA	NA
900#	20	20	27.5	NA	NA	NA	NA
900#	24	24	33	NA	NA	NA	NA

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
900# Series A	26	26	34.75	NA	NA	NA	NA
900# Series A	28	28	37.25	NA	NA	NA	NA
900# Series A	30	30	39.75	NA	NA	NA	NA
900# Series A	32	32	42.25	NA	NA	NA	NA
900# Series A	34	34	44.75	NA	NA	NA	NA
900# Series A	36	36	47.25	NA	NA	NA	NA
900# Series A	38	38	47.25	NA	NA	NA	NA
900# Series A	40	40	49.25	NA	NA	NA	NA
900# Series A	42	42	51.25	NA	NA	NA	NA
900# Series A	44	44	53.88	NA	NA	NA	NA
900# Series A	46	46	56.5	NA	NA	NA	NA
900# Series A	48	48	58.5	NA	NA	NA	NA
900# Series B	26	26	33	NA	NA	NA	NA
900# Series B	28	28	35.5	NA	NA	NA	NA
900# Series B	30	30	37.75	NA	NA	NA	NA
900# Series B	32	32	40	NA	NA	NA	NA
900# Series B	34	34	42.25	NA	NA	NA	NA
900# Series B	36	36	44.25	NA	NA	NA	NA

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
1500#	0.5	0.84	2.5	NA	NA	NA	NA
1500#	0.75	1.06	2.75	NA	NA	NA	NA
1500#	1	1.31	3.13	NA	NA	NA	NA
1500#	1.25	1.66	3.5	NA	NA	NA	NA
1500#	1.5	1.91	3.88	NA	NA	NA	NA
1500#	2	2.38	5.63	NA	NA	NA	NA
1500#	2.5	2.88	6.5	NA	NA	NA	NA
1500#	3	3.5	6.88	NA	NA	NA	NA
1500#	4	4.5	8.25	NA	NA	NA	NA
1500#	5	5.56	10	NA	NA	NA	NA
1500#	6	6.62	11.13	NA	NA	NA	NA
1500#	8	8.62	13.88	NA	NA	NA	NA
1500#	10	10.75	17.13	NA	NA	NA	NA
1500#	12	12.75	20.5	NA	NA	NA	NA
1500#	14	14	22.75	NA	NA	NA	NA
1500#	16	16	25.25	NA	NA	NA	NA
1500#	18	18	27.75	NA	NA	NA	NA
1500#	20	20	29.75	NA	NA	NA	NA
1500#	24	24	35.5	NA	NA	NA	NA

Gasket Type		Ring		Full Face			
ANSI Flange Class	Pipe Size	Gasket ID	Gasket OD	Gasket OD	Bolt Circle	Bolt Hole QNTY	Bolt Hole Diameter
2500#	0.5	0.84	2.75	NA	NA	NA	NA
2500#	0.75	1.06	3	NA	NA	NA	NA
2500#	1	1.31	3.38	NA	NA	NA	NA
2500#	1.25	1.66	4.13	NA	NA	NA	NA
2500#	1.5	1.91	4.63	NA	NA	NA	NA
2500#	2	2.38	5.75	NA	NA	NA	NA
2500#	2.5	2.88	6.63	NA	NA	NA	NA
2500#	3	3.5	7.75	NA	NA	NA	NA
2500#	4	4.5	9.25	NA	NA	NA	NA
2500#	5	5.56	11	NA	NA	NA	NA
2500#	6	6.62	12.5	NA	NA	NA	NA
2500#	8	8.62	15.25	NA	NA	NA	NA
2500#	10	10.75	18.75	NA	NA	NA	NA
2500#	12	12.75	21.63	NA	NA	NA	NA