



# GASKET DIMENSIONS ASME B16.21 - 2016

Gasket Type: Flat Ring

Dimensions in mm

Nominal Size		A Standard ID [mm]	B GLS ID [mm]	C NPS ID [mm]	Outside Diameter [mm]				
NPS	DN				Class 150	Class 300	Class 400	Class 600	Class 900
½	15	21	18	13	48	54	54	54	64
¾	20	27	25	19	57	67	67	67	70
1	25	33	31	25	67	73	73	73	79
1¼	32	42	38	32	76	83	83	83	89
1½	40	48	46	38	86	95	95	95	98
2	50	60	57	51	105	111	111	111	143
2½	65	73	70	64	124	130	130	130	165
3	80	89	85	76	137	149	149	149	168
3½	90	102	-	89	162	165	162	162	-
4	100	114	110	102	175	181	178	194	206
5	125	141	133	127	197	216	213	241	248
6	150	168	159	152	222	251	248	267	289
8	200	219	210	203	279	308	305	321	359
10	250	273	265	254	340	362	359	400	435
12	300	324	315	305	410	422	419	457	498
14	350	356	345	N/A*	451	486	483	492	521
16	400	406	390	N/A*	514	540	537	565	575
18	450	457	445	N/A*	549	597	594	613	638
20	500	508	495	N/A*	606	654	648	683	699
24	600	610	595	N/A*	718	775	768	791	838
26	650	660	-	N/A*	775	835	832	867	-
28	700	711	-	N/A*	832	899	892	914	-
30	750	762	-	N/A*	883	953	946	972	-
32	800	813	-	N/A*	940	1006	1003	1022	-

ID: Inside Diameter GLS: Glass-Lined Steel NPS: Nominal Pipe Size

\* NPS ID ("old standard") exists up to NPS12 only. For gaskets larger than NPS12, select Standard ID or GLS ID as appropriate.

**Some sizes may not be available for some GORE® Gasketing products.**

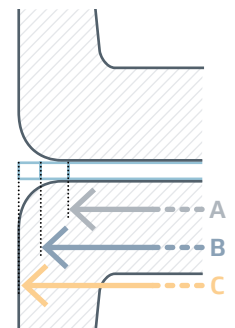
Dimensions applicable to:

- ASME B16.5 Pipe Flanges
- ASME B16.47 Series A, Large Diameter Steel Flanges

Tolerances

- Inside Diameter:**
  - For NPS 12 and smaller ±1.5 mm
  - For NPS 14 and larger ±3.0 mm
- Outside Diameter:**
  - For NPS 12 and smaller +0/-1.5 mm
  - For NPS 14 and larger +0/-3.0 mm

A	<p><b>Standard/ID Option</b> ASME B16.21 EN 1514-1</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID per applicable standard</li> <li>General use in steel flanges</li> </ul>
B	<p><b>Standard/ID Option</b> ASME B16.21 / GLS ID EN 1514-1 / GLS ID</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID reduced to protect glass lining</li> <li>Best option for glass lined steel flanges</li> </ul>
C	<p><b>Standard/ID Option</b> ASME B16.21 / NPS ID</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID equals nominal pipe size in inches ("old standard")</li> <li>Required for ductile iron pipe and other specialty applications</li> </ul>



# Gasket Type: Flat Ring

Dimensions in inch

Nominal Size		A Standard ID [inch]	B GLS ID [inch]	C NPS ID [inch]	Outside Diameter [inch]				
NPS	DN				Class 150	Class 300	Class 400	Class 600	Class 900
½	15	0.84	0.71	0.50	1.88	2.12	2.12	2.12	2.50
¾	20	1.06	0.98	0.75	2.25	2.62	2.62	2.62	2.75
1	25	1.31	1.22	1.00	2.62	2.88	2.88	2.88	3.12
1¼	32	1.66	1.50	1.25	3.00	3.25	3.25	3.25	3.50
1½	40	1.91	1.81	1.50	3.38	3.75	3.75	3.75	3.88
2	50	2.38	2.24	2.00	4.12	4.38	4.38	4.38	5.62
2½	65	2.88	2.76	2.50	4.88	5.12	5.12	5.12	6.50
3	80	3.50	3.35	3.00	5.38	5.88	5.88	5.88	6.62
3½	90	4.00	–	3.50	6.38	6.50	6.38	6.38	–
4	100	4.50	4.33	4.00	6.88	7.12	7.00	7.62	8.12
5	125	5.56	5.24	5.00	7.75	8.50	8.38	9.50	9.75
6	150	6.62	6.26	6.00	8.75	9.88	9.75	10.50	11.38
8	200	8.62	8.27	8.00	11.00	12.12	12.00	12.62	14.12
10	250	10.75	10.43	10.00	13.37	14.25	14.12	15.75	17.12
12	300	12.75	12.40	12.00	16.13	16.62	16.50	18.00	19.62
14	350	14.00	13.58	N/A*	17.75	19.12	19.00	19.38	20.50
16	400	16.00	15.35	N/A*	20.25	21.25	21.12	22.25	22.62
18	450	18.00	17.52	N/A*	21.62	23.50	23.38	24.12	25.12
20	500	20.00	19.49	N/A*	23.88	25.75	25.50	26.88	27.50
24	600	24.00	23.43	N/A*	28.25	30.50	30.25	31.12	33.00
26	650	26.00	–	N/A*	30.50	32.88	32.75	34.12	–
28	700	28.00	–	N/A*	32.75	35.38	35.12	36.00	–
30	750	30.00	–	N/A*	34.75	37.50	37.25	38.25	–
32	800	32.00	–	N/A*	37.00	39.62	39.50	40.25	–

ID: Inside Diameter GLS: Glass-Lined Steel NPS: Nominal Pipe Size

\* NPS ID ("old standard") exists up to NPS12 only. For gaskets larger than NPS12, select Standard ID or GLS ID as appropriate.

**Some sizes may not be available for some GORE® Gasketing products.**

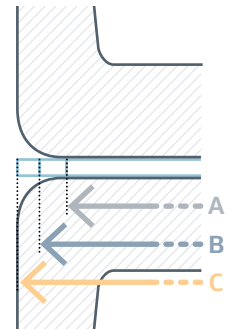
### Dimensions applicable to:

- ASME B16.5 Pipe Flanges
- ASME B16.47 Series A, Large Diameter Steel Flanges

### Tolerances

- Inside Diameter:**
  - For NPS 12 and smaller: ±0.06 inch
  - For NPS 14 and larger: ±0.12 inch
- Outside Diameter:**
  - For NPS 12 and smaller: +0/-0.06 inch
  - For NPS 14 and larger: +0/-0.12 inch

<b>A</b>	<p><b>Standard/ID Option</b> ASME B16.21 EN 1514-1</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID per applicable standard</li> <li>General use in steel flanges</li> </ul>
<b>B</b>	<p><b>Standard/ID Option</b> ASME B16.21 / GLS ID EN 1514-1 / GLS ID</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID reduced to protect glass lining</li> <li>Best option for glass lined steel flanges</li> </ul>
<b>C</b>	<p><b>Standard/ID Option</b> ASME B16.21 / NPS ID</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID equals nominal pipe size in inches ("old standard")</li> <li>Required for ductile iron pipe and other specialty applications</li> </ul>



# Gasket Type: Full Face

Dimensions in mm

Nominal Size		A	C	Class 150				Class 300			
NPS	DN	Standard ID [mm]	NPS ID [mm]	OD [mm]	#	Ø [inch]	BC [mm]	OD [mm]	#	Ø [inch]	BC [mm]
½	15	21	13	89	4	5/8	60.3	95	4	5/8	66.7
¾	20	27	19	98	4	5/8	69.9	115	4	3/4	82.6
1	25	33	25	108	4	5/8	79.4	125	4	3/4	88.9
1¼	32	42	32	117	4	5/8	88.9	135	4	3/4	98.4
1½	40	48	38	127	4	5/8	98.4	155	4	7/8	114.3
2	50	60	51	152	4	3/4	120.7	165	8	3/4	127.0
2½	65	73	64	178	4	3/4	139.7	190	8	7/8	149.2
3	80	89	76	191	4	3/4	152.4	210	8	7/8	168.3
3½	90	102	89	216	8	3/4	177.8	230	8	7/8	184.2
4	100	114	102	229	8	3/4	190.5	255	8	7/8	200.0
5	125	141	127	254	8	7/8	215.9	280	8	7/8	235.0
6	150	168	152	279	8	7/8	241.3	320	12	7/8	269.9
8	200	219	203	343	8	7/8	298.5	380	12	1	330.2
10	250	273	254	406	12	1	362.0	445	16	1-1/8	387.4
12	300	324	305	483	12	1	431.8	520	16	1-1/4	450.8
14	350	356	N/A*	533	12	1-1/8	476.3	585	20	1-1/4	514.4
16	400	406	N/A*	597	16	1-1/8	539.8	650	20	1-3/8	571.5
18	450	457	N/A*	635	16	1-1/4	577.9	710	24	1-3/8	628.6
20	500	508	N/A*	699	20	1-1/4	635.0	775	24	1-3/8	685.8
24	600	610	N/A*	813	20	1-3/8	749.3	915	24	1-5/8	812.8
26	650	660	N/A*	870	24	1-3/8	806.4	970	28	1-3/4	876.3
28	700	711	N/A*	925	28	1-3/8	863.6	1035	28	1-3/4	939.8
30	750	762	N/A*	985	28	1-3/8	914.4	1090	28	1-7/8	997.0
32	800	813	N/A*	1060	28	1-5/8	977.9	1150	28	2	1054.1

ID: Inside Diameter OD: Outside Diameter NPS: Nominal Pipe Size Ø: Diameter of bolt hole #: Number of bolt holes BC: Diameter of bolt hole circle

\* NPS ID ("old standard") exists up to NPS12 only. For gaskets larger than NPS12, select Standard ID or GLS ID as appropriate.

NOTE: Class 300 Dimensions per B16.5-2013. NPS 26 - NPS 32 Class 150 & Class 300 Dimensions per B16.47 Series A

Some sizes may not be available for some GORE® Gasketing products.

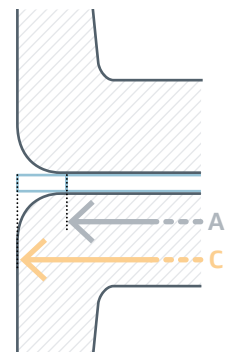
### Dimensions applicable to:

- ASME B16.5 Pipe Flanges
- ASME B16.47 Series A, Large Diameter Steel Flanges

### Tolerances

- Inside Diameter:**
  - For NPS 12 and smaller ±1.5 mm
  - For NPS 14 and larger ±3.0 mm
- Outside Diameter:**
  - For NPS 12 and smaller +0/-1.5 mm
  - For NPS 14 and larger +0/-3.0 mm
- Bolt:**
  - Bolt circle diameter ±1.5 mm
  - Adjacent bolt holes center to center ±1 mm

A	<p><b>Standard/ID Option</b> ASME B16.21 EN 1514-1</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID per applicable standard</li> <li>General use in steel flanges</li> </ul>
C	<p><b>Standard/ID Option</b> ASME B16.21 / NPS ID</p> <p><b>Comments/Use</b></p> <ul style="list-style-type: none"> <li>ID equals nominal pipe size in inches ("old standard")</li> <li>Required for ductile iron pipe and other specialty applications</li> </ul>



# Gasket Type: Full Face

Dimensions in inch

Nominal Size		A	C	Class 150				Class 300			
NPS	DN	Standard ID [inch]	NPS ID [inch]	OD [inch]	#	Ø [inch]	BC [inch]	OD [inch]	#	Ø [inch]	BC [inch]
½	15	0.84	0.50	3.50	4	5/8	2.38	3.75	4	5/8	2.62
¾	20	1.06	0.75	3.88	4	5/8	2.75	4.62	4	¾	3.25
1	25	1.31	1.00	4.25	4	5/8	3.12	4.88	4	¾	3.50
1¼	32	1.66	1.25	4.63	4	5/8	3.50	5.25	4	¾	3.88
1½	40	1.91	1.50	5.00	4	5/8	3.88	6.12	4	7/8	4.50
2	50	2.38	2.00	6.00	4	¾	4.75	6.50	8	¾	5.00
2½	65	2.88	2.50	7.00	4	¾	5.50	7.50	8	7/8	5.88
3	80	3.50	3.00	7.50	4	¾	6.00	8.25	8	7/8	6.62
3½	90	4.00	3.50	8.50	8	¾	7.00	9.00	8	7/8	7.25
4	100	4.50	4.00	9.00	8	¾	7.50	10.00	8	7/8	7.88
5	125	5.56	5.00	10.00	8	7/8	8.50	11.00	8	7/8	9.25
6	150	6.62	6.00	11.00	8	7/8	9.50	12.50	12	7/8	10.62
8	200	8.62	8.00	13.50	8	7/8	11.75	15.00	12	1	13.00
10	250	10.75	10.00	16.00	12	1	14.25	17.50	16	1-1/8	15.25
12	300	12.75	12.00	19.00	12	1	17.00	20.50	16	1-1/4	17.75
14	350	14.00	N/A*	21.00	12	1-1/8	18.75	23.00	20	1-1/4	20.25
16	400	16.00	N/A*	23.50	16	1-1/8	21.25	25.50	20	1-3/8	22.50
18	450	18.00	N/A*	25.00	16	1-1/4	22.75	28.00	24	1-3/8	24.75
20	500	20.00	N/A*	27.50	20	1-1/4	25.00	30.50	24	1-3/8	27.00
24	600	24.00	N/A*	32.00	20	1-3/8	29.50	36.00	24	1-5/8	32.00
26	650	26.00	N/A*	34.25	24	1-3/8	31.75	38.25	28	1-3/4	34.50
28	700	28.00	N/A*	36.50	28	1-3/8	34.00	40.75	28	1-3/4	37.00
30	750	30.00	N/A*	38.75	28	1-3/8	36.00	43.00	28	1-7/8	39.25
32	800	32.00	N/A*	41.75	28	1-5/8	38.50	45.25	28	2	41.50

ID: Inside Diameter OD: Outside Diameter NPS: Nominal Pipe Size Ø: Diameter of bolt hole #: Number of bolt holes BC: Diameter of bolt hole circle

\* NPS ID ("old standard") exists up to NPS12 only. For gaskets larger than NPS12, select Standard ID or GLS ID as appropriate.

NOTE: Class 300 Dimensions per B16.5-2013. NPS 26 - NPS 32 Class 150 & Class 300 Dimensions per B16.47 Series A

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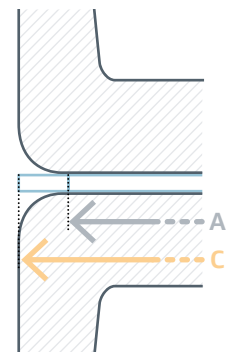
### Dimensions applicable to:

- ASME B16.5 Pipe Flanges
- ASME B16.47 Series A, Large Diameter Steel Flanges

### Tolerances

- Inside Diameter:**
  - For NPS 12 and smaller ±0.06 inch
  - For NPS 14 and larger ±0.12 inch
- Outside Diameter:**
  - For NPS 12 and smaller +0/-0.06 inch
  - For NPS 14 and larger +0/-0.12 inch
- Bolt**
  - Bolt circle diameter ±0.06 inch
  - Adjacent bolt holes center to center ±0.04 inch

A	<b>Standard/ID Option</b> ASME B16.21 EN 1514-1 <b>Comments/Use</b> <ul style="list-style-type: none"> <li>ID per applicable standard</li> <li>General use in steel flanges</li> </ul>
C	<b>Standard/ID Option</b> ASME B16.21 / NPS ID <b>Comments/Use</b> <ul style="list-style-type: none"> <li>ID equals nominal pipe size in inches ("old standard")</li> <li>Required for ductile iron pipe and other specialty applications</li> </ul>



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