



AESTEIRON
STEELS LLP



FLANGES EXPERTISE



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ABOUT US:

'AESTEIRON Steels LLP' is a leading manufacturing and distribution house dealing in various steel products such as stainless steel, carbon steel, alloy-steel, nickel & special metals alloys. Our offered products are widely valued for their excellent design and finishing, sturdiness and cost effectiveness. Equipped with an experience of over 4 decades in industrial steel & executing over 100 large projects satisfactorily, 'AESTEIRON Steels LLP' has emerged as a leading producer of pipes & pipes fittings that are quality certified by TUV Rheinland [INDIA], PED & ISO 9001 : 2015.

'AESTEIRON Steels LLP' commenced its journey back in the year 2007. AESTEIRON ensures that it delivers the best quality products through continuous testing based on new & current industry standards along with harnessing modern up to date techniques. Our product line embodies the highest standard in terms of productivity and reliability.

Our prices are competitive and our products are procured from certified vendors who have a great reputation in the market and provides quality standard products.

'AESTEIRON Steels LLP' being a client focused company - we at Aesteiron deeply value our client's needs and expectations. This has been evident with the growing consumer base over the years as we 'AESTEIRON Steels LLP' being a client focused consistently strive to enrich our customer experience.

For more information on the types and material of industrial flanges we have to offer, you can visit our website - www.aesteiron.com and find the specific details under the Products section > Flanges.

For accurate stainless steel flange weight calculation, we also offer on our website a trusted Blind Flange / WNRF Flange Weight Calculator.

In case there arises a need help in identifying the product range that we have to offer and which flange best suits your application, feel free to contact us.

DISCLAIMER:

While the Specifications contained herein are compiled from credible & reliable industry sources, AESTEIRON STEELS LLP, however does not guarantee the accuracy of the information contained in this handbook. We also cannot guarantee that the information contained in this handbook is free typographical error or any other error. Readers are requested not to rely exclusively on the information contained in this handbook.

AESTEIRON (STEELS) FLANGE

PRODUCT HANDBOOK

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FLANGE-FACING TYPES :

Flat-face [FF], Raised face, Large Raised face, Ring Type Joint [RTJ], Tongue & Groove face [T&G] (large & small), Male-Female face

FLANGE FACE FINISH :

Stock Finish [Serration], Concentric Serrated, Spiral/ Continuous/ Phonographic Serrated, Smooth Finish.

MANUFACTURING FACILITIES :

1. Band Saw Machines to cut raw material from 25 mm to 1150 mm
 2. Forge : Impression die forging, cold forging, open die forging, Seamless Rolled Ring Forging.
 3. Machinable Flanges : Full face, Raised face, Ring groove, Blind elens Rings, Flange Plus connections.
 4. Drilling : VMC, radial drill/ column drill machines
 5. Heating : Annealing Solution
-

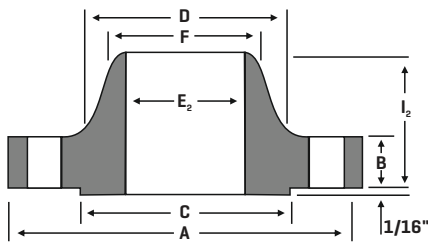
TESTING FACILITIES :

1. Spectra Analyser [PMI test]
2. Ultrasonic testing machine
3. Radiation servo meter
 - Dynamic radiation detection system
 - Gamma ray spectroscopy
 - Portable radiation detection
4. Tensile Test computerised
5. Roughness Testing on Surface
6. Impact Test
7. Hardness Test
8. Microscope facility
9. IGC Test
10. Dye penetrate test of Flanges



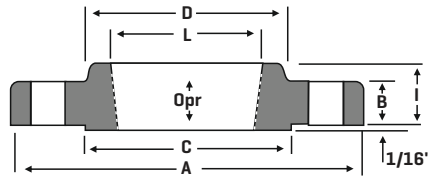
ASME B16.5 Class 150 Forged Flanges

WELD NECK



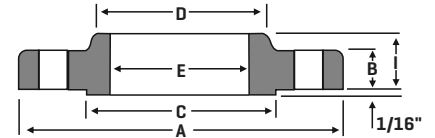
ASME B16.5 WNRF FLANGES

THREADED



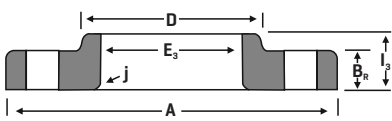
ASME B16.5 THREADED FLANGES

SLIP-ON



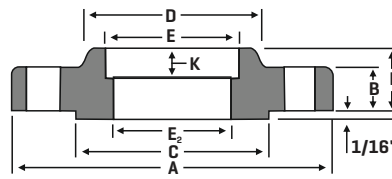
ASME B16.5 SORF FLANGES

LAP JOINT



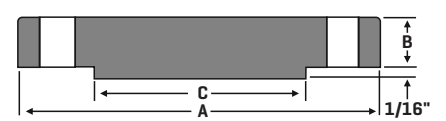
ASME B16.5 LAP JOINT FLANGES

SOCKET WELD



ASME B16.5 SWRF FLANGES

BLIND



ASME B16.5 BLRF FLANGES

NPS (inch.)	A	B	B _R	C	D	Diameter of Bolt Holes (inch.)	Bolt Circle (inch.)	E	E ₂ ³	E ₃	F	I	I ₂	I ₃ ⁴	j	K	Opr
1/2	3.50	0.38	0.44	1.38	1.19	4-0.62	2.38	0.88	0.62	0.90	0.84	0.56	1.81	0.62	0.12	0.38	0.62
3/4	3.88	0.44	0.50	1.69	1.50	4-0.62	2.75	1.09	0.82	1.11	1.05	0.56	2.00	0.62	0.12	0.44	0.62
1	4.25	0.50	0.56	2.00	1.94	4-0.62	3.12	1.36	1.05	1.38	1.32	0.62	2.12	0.69	0.12	0.50	0.69
1 1/4	4.62	0.56	0.62	2.50	2.31	4-0.62	3.50	1.70	1.38	1.72	1.66	0.75	2.19	0.81	0.19	0.56	0.81
1 1/2	5.00	0.62	0.69	2.88	2.56	4-0.62	3.88	1.95	1.61	1.97	1.90	0.81	2.38	0.88	0.25	0.62	0.88
2	6.00	0.69	0.75	3.62	3.06	4-0.75	4.75	2.44	2.07	2.46	2.38	0.94	2.44	1.00	0.31	0.69	1.00
2 1/2	7.00	0.81	0.88	4.12	3.56	4-0.75	5.50	2.94	2.47	2.97	2.88	1.06	2.69	1.12	0.31	0.75	1.12
3	7.50	0.88	0.94	5.00	4.25	4-0.75	6.00	3.57	3.07	3.60	3.50	1.12	2.69	1.19	0.38	0.81	1.19
3 1/2	8.50	0.88	0.94	5.50	4.81	8-0.75	7.00	4.07	3.55	4.10	4.00	1.19	2.75	1.25	0.38	0.88	1.25
4	9.00	0.88	0.94	6.19	5.31	8-0.75	7.50	4.57	4.03	4.60	4.50	1.25	2.94	1.31	0.44	0.94	1.31
5	10.00	0.88	0.94	7.31	6.44	8-0.88	8.50	5.66	5.05	5.69	5.56	1.38	3.44	1.44	0.44	0.94	1.44
6	11.00	0.94	1.00	8.50	7.56	8-0.88	9.50	6.72	6.07	6.75	6.63	1.50	3.44	1.56	0.50	1.06	1.56
8	13.50	1.06	1.12	10.62	9.69	8-0.88	11.75	8.72	7.98	8.75	8.63	1.69	3.94	1.75	0.50	1.25	1.75
10	16.00	1.12	1.19	12.75	12.00	12-1.00	14.25	10.88	10.02	10.92	10.75	1.88	3.94	1.94	0.50	1.31	1.94
12	19.00	1.19	1.25	15.00	14.38	12-1.00	17.00	12.88	12.00	12.92	12.75	2.12	4.44	2.19	0.50	1.56	2.19
14	21.00	1.31	1.38	16.25	15.75	12-1.12	18.75	14.14	13.25	14.18	14.00	2.19	4.94	3.12	0.50	1.63	2.25
16	23.50	1.38	1.44	18.50	18.00	16-1.12	21.25	16.16	15.25	16.19	16.00	2.44	4.94	3.44	0.50	1.75	2.50
18	25.00	1.50	1.56	21.00	19.88	16-1.25	22.75	18.18	17.25	18.20	18.00	2.62	5.44	3.81	0.50	1.94	2.69
20	27.50	1.62	1.69	23.00	22.00	20-1.25	25.00	20.20	19.25	20.25	20.00	2.81	5.62	4.06	0.50	2.13	2.88
22	29.50	1.75	1.81	25.25	24.25	20-1.38	27.25	22.22	21.25	22.25	22.00	3.07	5.82	4.25	0.50	2.38	3.13
24	32.00	1.81	1.88	27.25	26.12	20-1.38	29.50	24.25	23.25	24.25	24.00	3.19	5.94	4.38	0.50	2.50	3.25

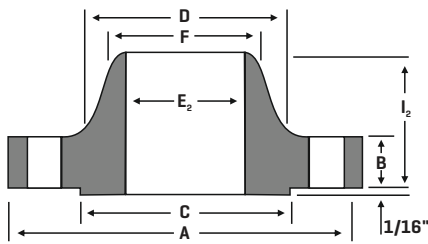
Notes :-

- [1] Dimensions [in inches]
- [2] The diameter of hole is 1/8" larger than the diameter for bolt.
- [3] The dimensions for standard bore are stated to bore chart.
- [4] The dimensions is normally linked to 'true' lap joints. The Industry standard as per ASME is to make slip on length through the hub.



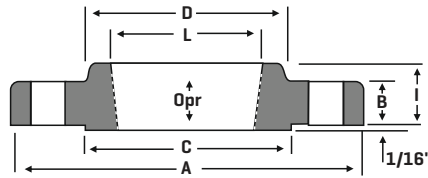
ASME B16.5 Class 300 Forged Flanges

WELD NECK



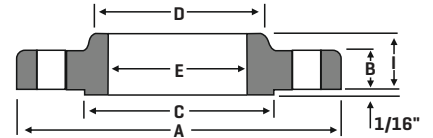
ASME B16.5 WNRF FLANGES

THREADED



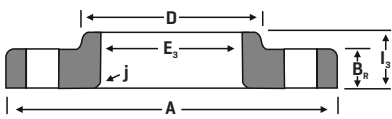
ASME B16.5 THREADED FLANGES

SLIP-ON



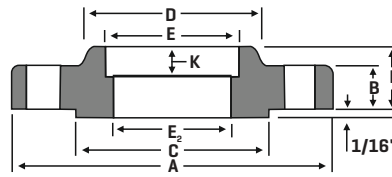
ASME B16.5 SORF FLANGES

LAP JOINT



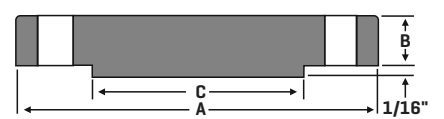
ASME B16.5 LAP JOINT FLANGES

SOCKET WELD



ASME B16.5 SWRF FLANGES

BLIND



ASME B16.5 BLRF FLANGES

NPS [inch.]	A	B	B _R	C	D	Diameter of Bolt Holes [inch.]	Bolt Circle [inch.]	E	E ₂ ³	E ₃	F	I	I ₂	I ₃ ⁴	j	L	K	Opr
1/2	3.75	0.50	0.56	1.38	1.50	4-0.63	2.62	0.88	0.62	0.90	0.84	0.81	2.00	0.88	0.12	0.93	0.38	0.62
3/4	4.62	0.56	0.62	1.69	1.88	4-0.75	3.25	1.09	0.82	1.11	1.05	0.94	2.19	1.00	0.12	1.14	0.44	0.62
1	4.88	0.62	0.69	2.00	2.12	4-0.75	3.50	1.36	1.05	1.38	1.32	1.00	2.38	1.06	0.12	1.41	0.50	0.69
1 1/4	5.25	0.69	0.75	2.50	2.50	4-0.75	3.88	1.70	1.38	1.72	1.66	1.00	2.50	1.06	0.19	1.75	0.56	0.81
1 1/2	6.12	0.75	0.81	2.88	2.75	4-0.88	4.50	1.95	1.61	1.97	1.90	1.13	2.63	1.19	0.25	1.98	0.62	0.88
2	6.50	0.81	0.88	3.62	3.31	8-0.75	5.00	2.44	2.07	2.46	2.38	1.25	2.69	1.31	0.31	2.50	0.69	1.12
2 1/2	7.50	0.94	1.00	4.12	3.94	8-0.88	5.88	2.94	2.47	2.97	2.88	1.44	2.94	1.50	0.31	3.00	0.75	1.25
3	8.25	1.06	1.12	5.00	4.62	8-0.88	6.62	3.57	3.07	3.60	3.50	1.63	3.06	1.69	0.38	3.63	0.81	1.25
3 1/2	9.00	1.12	1.19	5.50	5.25	8-1.00	7.25	4.07	3.55	4.10	4.00	1.69	3.13	1.75	0.38	4.13	....	1.44
4	10.00	1.19	1.25	6.19	5.75	8-1.00	7.88	4.57	4.03	4.60	4.50	1.82	3.32	1.88	0.44	4.63	....	1.44
5	11.00	1.31	1.38	7.31	7.00	8-1.00	9.25	5.66	5.05	5.69	5.56	1.94	3.82	2.00	0.44	5.69	....	1.69
6	12.50	1.38	1.44	8.50	8.12	12-1.00	10.62	6.72	6.07	6.75	6.63	2.00	3.82	2.06	0.50	6.75	....	1.81
8	15.00	1.56	1.62	10.62	10.25	12-1.12	13.00	8.72	7.98	8.75	8.63	2.38	4.32	2.44	0.50	8.75	....	2.00
10	17.50	1.81	1.88	12.75	12.62	16-1.25	15.25	10.88	10.02	10.92	10.75	2.56	4.56	3.75	0.50	10.88	....	2.19
12	20.50	1.94	2.00	15.00	14.75	16-1.38	17.75	12.88	12.00	12.92	12.75	2.82	5.06	4.00	0.50	12.94	....	2.38
14	23.00	2.06	2.12	16.25	16.75	20-1.38	20.25	14.14	13.25	14.18	14.00	2.94	5.56	4.38	0.50	14.19	....	2.50
16	25.50	2.19	2.25	18.50	19.00	20-1.50	22.50	16.16	15.25	16.19	16.00	3.19	5.69	4.75	0.50	16.19	....	2.69
18	28.00	2.31	2.38	21.00	21.00	24-1.50	24.75	18.18	17.25	18.20	18.00	3.44	6.19	5.12	0.50	18.19	....	2.75
20	30.50	2.44	2.50	23.00	23.12	24-1.62	27.00	20.20	19.25	20.25	20.00	3.69	6.32	5.50	0.50	20.19	....	2.88
22	33.00	2.57	2.63	25.25	25.25	24-1.75	29.25	22.22	21.25	22.25	22.00	3.93	6.43	5.75	0.50	22.19	....	3.13
24	36.00	2.69	2.75	27.25	27.62	24-1.88	32.00	24.25	23.25	24.25	24.00	4.13	6.56	6.00	0.50	24.19	....	3.25

Notes :-

[1] Dimensions [in inches]

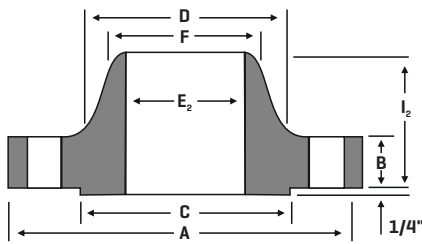
[2] The diameter of hole is 1/8" larger than the diameter for bolt.

[3] The dimensions for standard bore are stated to bore chart.

[4] The dimensions is normally linked to 'true' lap joints. The Industry standard as per ASME is to make slip on length through the hub.

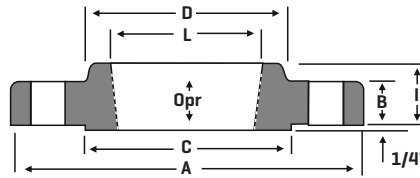
ASME B16.5 Class 400 Forged Flanges

WELD NECK



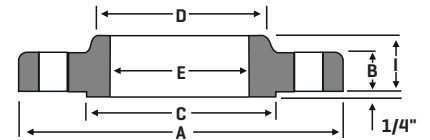
ASME B16.5 WNRF FLANGES

THREADED



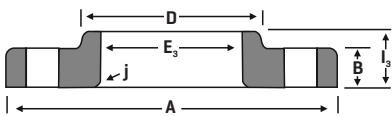
ASME B16.5 THREADED FLANGES

SLIP-ON



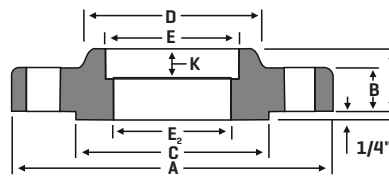
ASME B16.5 SORF FLANGES

LAP JOINT



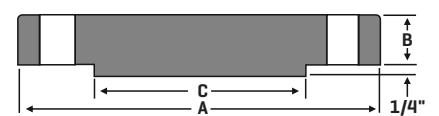
ASME B16.5 LAP JOINT FLANGES

SOCKET WELD



ASME B16.5 SWRF FLANGES

BLIND



ASME B16.5 BLRF FLANGES

NPS (inch.)	A	B	C	D	Diameter of Bolt Holes (inch.)	Bolt Circle (inch.)	E	E ₂ ³	E ₃	F	I	I ₂	I ₃ ⁴	j	L	K	Opr
1/2	3.75	0.56	1.38	1.50	4-0.63	2.62	0.88		0.90	0.84	0.88	2.06	0.88	0.12	0.93	0.38	0.62
3/4	4.62	0.62	1.69	1.88	4-0.75	3.25	1.09		1.11	1.05	1.00	2.25	1.00	0.12	1.14	0.44	0.62
1	4.88	0.69	2.00	2.12	4-0.75	3.50	1.36		1.38	1.32	1.06	2.44	1.06	0.12	1.41	0.50	0.69
1 1/4	5.25	0.81	2.50	2.50	4-0.75	3.88	1.70		1.72	1.66	1.12	2.62	1.12	0.19	1.75	0.56	0.81
1 1/2	6.12	0.88	2.88	2.75	4-0.88	4.50	1.95		1.97	1.90	1.25	2.75	1.25	0.25	1.99	0.62	0.88
2	6.50	1.00	3.62	3.31	8-0.75	5.00	2.44		2.46	2.38	1.44	2.88	1.44	0.31	2.50	0.69	1.12
2 1/2	7.50	1.12	4.12	3.94	8-0.88	5.88	2.94		2.97	2.88	1.62	3.12	1.62	0.31	3.00	0.75	1.25
3	8.25	1.25	5.00	4.62	8-0.88	6.62	3.57		3.60	3.50	1.81	3.25	1.81	0.38	3.63	0.81	1.38
3 1/2	9.00	1.38	5.50	5.25	8-1.00	7.25	4.07		4.10	4.00	1.94	3.38	1.94	0.38	4.13	...	1.56
4	10.00	1.38	6.19	5.75	8-1.00	7.88	4.57		4.60	4.50	2.00	3.50	2.00	0.44	4.63	...	1.44
5	11.00	1.50	7.31	7.00	8-1.00	9.25	5.66		5.69	5.56	2.12	4.00	2.12	0.44	5.69	...	1.69
6	12.50	1.62	8.50	8.12	12-1.00	10.62	6.72		6.75	6.63	2.25	4.06	2.25	0.50	6:75	...	1.81
8	15.00	1.88	10.62	10.25	12-1.12	13.00	8.72		8.75	8.63	2.69	4.62	2.69	0.50	8:75	...	2.00
10	17.50	2.12	12.75	12.62	16-1.25	15.25	10.88		10.92	10.75	2.88	4.88	4.00	0.50	10:88	...	2.19
12	20.50	2.25	15.00	14.75	16-1.38	17.75	12.88		12.92	12.75	3.12	5.38	4.25	0.50	12:94	...	2.38
14	23.00	2.38	16.25	16.75	20-1.38	20.25	14.14		14.18	14.00	3.31	5.88	4.62	0.50	14:19	...	2.50
16	25.50	2.50	18.50	19.00	20-1.50	22.50	16.16		16.19	16.00	3.69	6.00	5.00	0.50	16:19	...	2.69
18	28.00	2.62	21.00	21.00	24-1.50	24.75	18.18		18.20	18.00	3.88	6.50	5.38	0.50	18:19	...	2.75
20	30.50	2.75	23.00	23.12	24-1.62	27.00	20.20		20.25	20.00	4.00	6.62	5.75	0.50	20:19	...	2.88
22	33.00	2.88	25.25	25.25	24-1.75	29.25	22.22		22.25	22.00	4.25	6.75	6.00	0.50	...	...	...
24	36.00	3.00	27.25	27.62	24-1.88	32.00	24.25		24.25	24.00	4.50	6.88	6.25	0.50	24:19	...	3.25

Purchaser Specification required

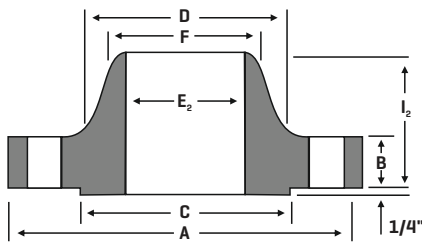
Notes :-

- [1] Dimensions [in inches]
- [2] The diameter of hole is 1/8" larger than the diameter for bolt.
- [3] The dimensions for standard bore are stated to bore chart.
- [4] The dimensions is normally linked to 'true' jap joints. The Industry standard as per ASME is to make slip on length through the hub.



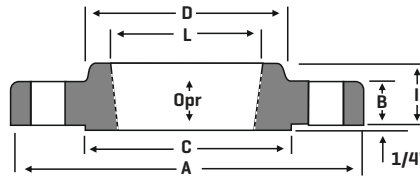
ASME B16.5 Class 600 Forged Flanges

WELD NECK



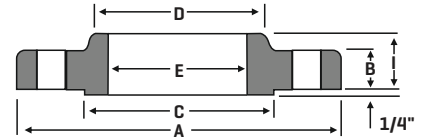
ASME B16.5 WNRF FLANGES

THREADED



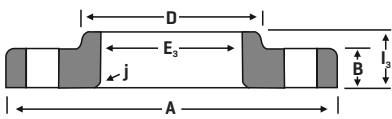
ASME B16.5 THREADED FLANGES

SLIP-ON



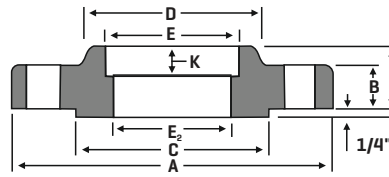
ASME B16.5 SORF FLANGES

LAP JOINT



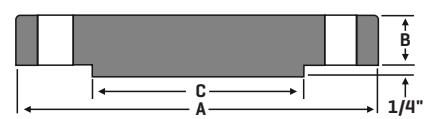
ASME B16.5 LAP JOINT FLANGES

SOCKET WELD



ASME B16.5 SWRF FLANGES

BLIND



ASME B16.5 BLRF FLANGES

NPS (inch.)	A	B	C	D	Diameter of Bolt Holes (inch.)	Bolt Circle (inch.)	E	E ₂ ³	E ₃	F	I	I ₂	I ₃ ⁴	j	L	K	Opr
1/2	3.75	0.56	1.38	1.50	4-0.63	2.62	0.88		0.90	0.84	0.88	2.06	0.88	0.12	0.93	0.38	0.62
3/4	4.62	0.62	1.69	1.88	4-0.75	3.25	1.09		1.11	1.05	1.00	2.25	1.00	0.12	1.14	0.44	0.62
1	4.88	0.69	2.00	2.12	4-0.75	3.50	1.36		1.38	1.32	1.06	2.44	1.06	0.12	1.41	0.50	0.69
1 1/4	5.25	0.81	2.50	2.50	4-0.75	3.88	1.70		1.72	1.66	1.12	2.62	1.12	0.19	1.75	0.56	0.81
1 1/2	6.12	0.88	2.88	2.75	4-0.88	4.50	1.95		1.97	1.90	1.25	2.75	1.25	0.25	1.99	0.62	0.88
2	6.50	1.00	3.62	3.31	8-0.75	5.00	2.44		2.46	2.38	1.44	2.88	1.44	0.31	2.50	0.69	1.12
2 1/2	7.50	1.12	4.12	3.94	8-0.88	5.88	2.94		2.97	2.88	1.62	3.12	1.62	0.31	3.00	0.75	1.25
3	8.25	1.25	5.00	4.62	8-0.88	6.62	3.57		3.60	3.50	1.81	3.25	1.81	0.38	3.63	0.81	1.38
3 1/2	9.00	1.38	5.50	5.25	8-1.00	7.25	4.07		4.10	4.00	1.94	3.38	1.94	0.38	4.13	...	1.56
4	10.75	1.50	6.19	6.00	8-1.00	8.50	4.57		4.60	4.50	2.12	4.00	2.12	0.44	4.63	...	1.62
5	13.00	1.75	7.31	7.44	8-1.12	10.50	5.66		5.69	5.56	2.38	4.50	2.38	0.44	5.69	...	1.88
6	14.00	1.88	8.50	8.75	12-1.12	11.50	6.72		6.75	6.63	2.62	4.62	2.62	0.50	6.75	...	2.00
8	16.50	2.19	10.62	10.75	12-1.25	13.75	8.72		8.75	8.63	3.00	5.25	3.00	0.50	8.75	...	2.25
10	20.00	2.50	12.75	13.50	16-1.38	17.00	10.88		10.92	10.75	3.38	6.00	4.38	0.50	10.88	...	2.56
12	22.00	2.62	15.00	15.75	20-1.38	19.25	12.88		12.92	12.75	3.62	6.12	4.62	0.50	12.94	...	2.75
14	23.75	2.75	16.25	17.00	20-1.50	20.75	14.14		14.18	14.00	3.69	6.50	5.00	0.50	14.19	...	2.88
16	27.00	3.00	18.50	19.50	20-1.63	23.75	16.16		16.19	16.00	4.19	7.00	5.50	0.50	16.19	...	3.06
18	29.25	3.25	21.00	21.50	20-1.75	25.75	18.18		18.20	18.00	4.62	7.25	6.00	0.50	18.19	...	3.12
20	32.00	3.50	23.00	24.00	24-1.75	28.50	20.20		20.25	20.00	5.00	7.50	6.50	0.50	20.19	...	3.25
22	34.25	3.75	25.25	26.25	24-1.75	30.63	22.22		22.25	22.00	5.25	7.75	6.88	0.50	...	...	--
24	37.00	4.00	27.25	28.25	24-2.00	33.00	24.25		24.25	24.00	5.50	8.00	7.25	0.50	24.19	...	3.62

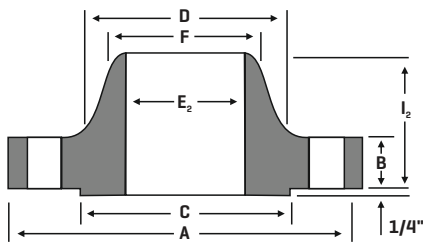
Purchaser Specification required

Notes :-

- [1] Dimensions [in inches]
- [2] The diameter of hole is 1/8" larger than the diameter for bolt.
- [3] The dimensions for standard bore are stated to bore chart.
- [4] The dimensions is normally linked to 'true' lap joints. The Industry standard as per ASME is to make slip on length through the hub.

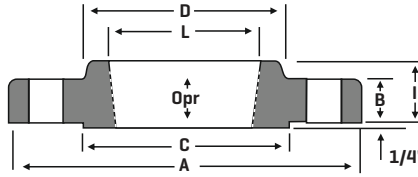
ASME B16.5 Class 900 Forged Flanges

WELD NECK



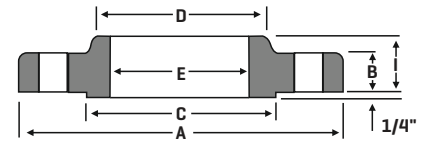
ASME B16.5 WNRF FLANGES

THREADED



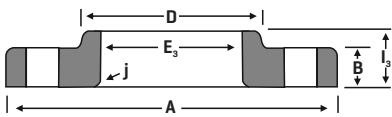
ASME B16.5 THREADED FLANGES

SLIP-ON



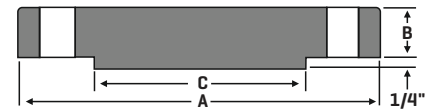
ASME B16.5 SORF FLANGES

LAP JOINT



ASME B16.5 LAP JOINT FLANGES

BLIND



ASME B16.5 BLRF FLANGES

NPS (inch.)	A	B	C	D	Diameter of Bolt Holes (inch.)	Bolt Circle (inch.)	E	E ₂ ³	E ₃	F	I	I ₂	I ₃ ⁴	j	L	Opr
[Similar to class 1500 are sizes 1/2" through 2 1/2"]							[Similar to class 1500 are sizes 1/2" through 2 1/2"]									
3	9.50	1.50	5.00	5.00	8-1.00	7.50	3.57		3.60	3.50	2.12	4.00	2.12	0.38	3.63	1.62
4	11.50	1.75	6.19	6.25	8-1.25	9.25	4.57		4.60	4.50	2.75	4.50	2.75	0.44	4.63	1.88
5	13.75	2.00	7.31	7.50	8-1.38	11.00	5.66		5.69	5.56	3.12	5.00	3.12	0.44	5.69	2.12
6	15.00	2.19	8.50	9.25	12-1.25	12.50	6.72		6.75	6.63	3.38	5.50	3.38	0.50	6.75	2.25
8	18.50	2.50	10.63	11.75	12-1.50	15.50	8.72		8.75	8.63	4.00	6.38	4.50	0.50	8.75	2.50
10	21.50	2.75	12.75	14.50	16-1.50	18.50	10.88		10.92	10.75	4.25	7.25	5.00	0.50	10.88	2.81
12	24.00	3.12	15.00	16.50	20-1.50	21.00	12.88		12.92	12.75	4.63	7.88	5.62	0.50	12.94	3.00
14	25.25	3.38	16.25	17.75	20-1.63	22.00	14.14		14.18	14.00	5.12	8.38	6.12	0.50	14.19	3.25
16	27.75	3.50	18.50	20.00	20-1.75	24.25	16.16		16.19	16.00	5.25	8.50	6.50	0.50	16.19	3.38
18	31.00	4.00	21.00	22.25	20-2.00	27.00	18.18		18.20	18.00	6.00	9.00	7.50	0.50	18.19	3.50
20	33.75	4.25	23.00	24.50	20-2.13	29.50	20.20		20.25	20.00	6.25	9.75	8.25	0.50	20.19	3.62
24	41.00	5.50	27.25	29.50	20-2.63	35.50	24.25		24.25	24.00	8.00	11.50	10.50	0.50	24.19	4.00

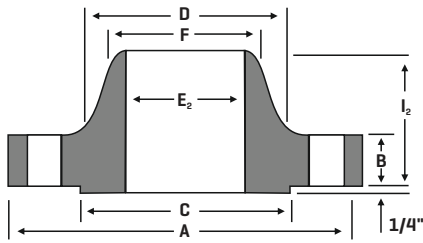
Purchaser Specification required

Notes :-

- [1] Dimensions [in inches]
- [2] The diameter of hole is 1/8" larger than the diameter for bolt.
- [3] The dimensions for standard bore are stated to bore chart.
- [4] The dimensions is normally linked to 'true' lap joints. The Industry standard as per ASME is to make slip on length through the hub.

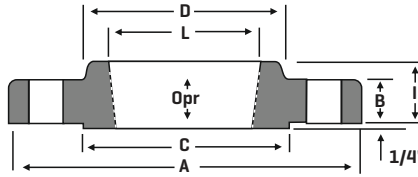
ASME B16.5 Class 1500 Forged Flanges

WELD NECK



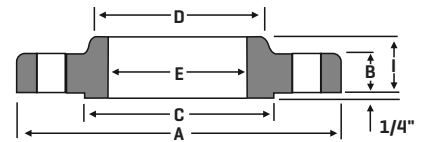
ASME B16.5 WNRF FLANGES

THREADED



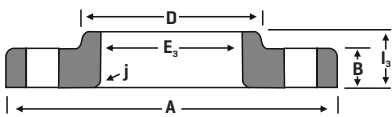
ASME B16.5 THREADED FLANGES

SLIP-ON



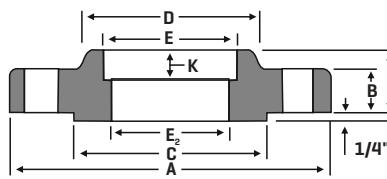
ASME B16.5 SORF FLANGES

LAP JOINT



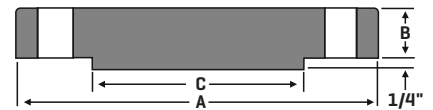
ASME B16.5 LAP JOINT FLANGES

SOCKET WELD



ASME B16.5 SWRF FLANGES

BLIND



ASME B16.5 BLRF FLANGES

NPS (inch.)	A	B	C	D	Diameter of Bolt Holes (inch.)	Bolt Circle (inch.)	E	E ₂ ³	E ₃	F	I	I ₂	I ₃ ⁴	j	L	K	Opr
1/2	4.75	0.88	1.38	1.50	4-0.88	3.25	0.88		0.90	0.84	1.25	2.38	1.25	0.12	0.93	0.38	0.88
3/4	5.12	1.00	1.69	1.75	4-0.88	3.50	1.09		1.11	1.05	1.38	2.75	1.38	0.12	1.14	0.44	1.00
1	5.88	1.12	2.00	2.06	4-1.00	4.00	1.36		1.38	1.32	1.62	2.88	1.62	0.12	1.41	0.50	1.12
1 1/4	6.25	1.12	2.50	2.50	4-1.00	4.38	1.70		1.72	1.66	1.62	2.88	1.62	0.19	1.75	0.56	1.19
1 1/2	7.00	1.25	2.88	2.75	4-1.12	4.88	1.95		1.97	1.90	1.75	3.25	1.75	0.25	1.99	0.62	1.25
2	8.50	1.50	3.63	4.12	8-1.00	6.50	2.44		2.46	2.38	2.25	4.00	2.25	0.31	2.50	0.69	1.50
2 1/2	9.62	1.62	4.13	4.88	8-1.12	7.50	2.94		2.97	2.88	2.50	4.12	2.50	0.31	3.00	0.75	1.88
3	10.50	1.88	5.00	5.25	8-1.25	8.00	...		3.60	3.50	...	4.62	2.88	0.38	...	...	...
4	12.25	2.12	6.19	6.38	8-1.38	9.50	...		4.60	4.50	...	4.88	3.56	0.44	...	...	...
5	14.75	2.88	7.31	7.75	8-1.63	11.50	...		5.69	5.56	...	6.12	4.12	0.44	...	...	...
6	15.50	3.25	8.50	9.00	12-1.50	12.50	...		6.75	6.63	...	6.75	4.69	0.50	...	...	...
8	19.00	3.62	10.63	11.50	12-1.75	15.50	...		8.75	8.63	...	8.38	5.62	0.50	...	...	...
10	23.00	4.25	12.75	14.50	12-2.00	19.00	...		10.92	10.75	...	10.00	7.00	0.50	...	...	...
12	26.50	4.88	15.00	17.75	16-2.12	22.50	...		12.92	12.75	...	11.12	8.62	0.50	...	...	...
14	29.50	5.25	16.25	19.50	16-2.38	25.00	...		14.18	14.00	...	11.75	9.50	0.50	...	...	...
16	32.50	5.75	18.50	21.75	16-2.63	27.75	...		16.19	16.00	...	12.25	10.25	0.50	...	...	...
18	36.00	6.38	21.00	23.50	16-2.88	30.50	...		18.20	18.00	...	12.88	10.88	0.50	...	...	...
20	38.75	7.00	23.00	25.25	16-3.12	32.75	...		20.25	20.00	...	14.00	11.50	0.50	...	...	...
24	46.00	8.00	27.25	30.00	16-3.63	39.00	...		24.25	24.00	...	16.00	13.00	0.50	...	...	...

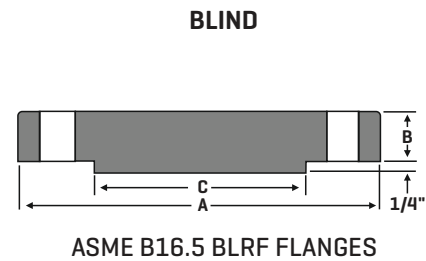
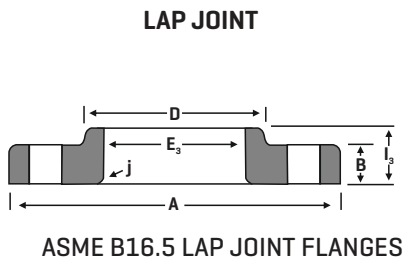
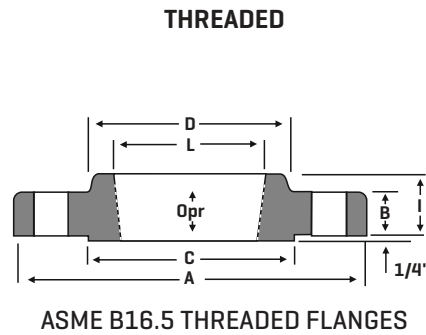
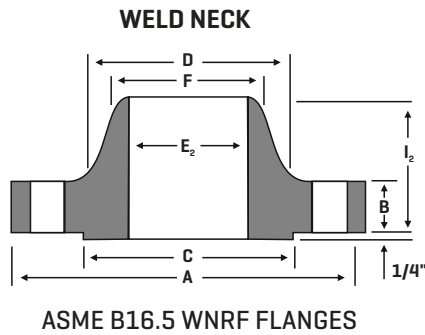
Purchaser Specification required

Notes :-

- [1] Dimensions [in inches]
- [2] The diameter of hole is 1/8" larger than the diameter for bolt.
- [3] The dimensions for standard bore are stated to bore chart.
- [4] The dimensions is normally linked to 'true' lap joints. The Industry standard as per ASME is to make slip on length through the hub.



ASME B16.5 Class 2500 Forged Flanges



NPS (inch.)	A	B	C	D	Diameter of Bolt Holes (inch.)	Bolt Circle (inch.)	E_2^3	E_3	F	I	I_2	I_3^4	j	L	Opr
1/2	5.25	1.19	1.38	1.69	4-0.88	3.50		0.90	0.84	1.56	2.88	1.56	0.12	0.93	1.12
3/4	5.50	1.25	1.69	2.00	4-0.88	3.75		1.11	1.05	1.69	3.12	1.69	0.12	1.14	1.25
1	6.25	1.38	2.00	2.25	4-1.00	4.25		1.38	1.32	1.88	3.50	1.88	0.12	1.41	1.38
1 1/4	7.25	1.50	2.50	2.88	4-1.12	5.13	Purchaser Specification required	1.72	1.66	2.06	3.75	2.06	0.19	1.75	1.50
1 1/2	8.00	1.75	2.88	3.12	4-1.25	5.75		1.97	1.90	2.38	4.38	2.38	0.25	1.99	1.75
2	9.25	2.00	3.63	3.75	8-1.12	6.75		2.46	2.38	2.75	5.00	2.75	0.31	2.50	2.00
2 1/2	10.50	2.25	4.13	4.50	8-1.25	7.75		2.97	2.88	3.12	5.62	3.12	0.31	3.00	2.25
3	12.00	2.62	5.00	5.25	8-1.38	9.00		3.60	3.50	...	6.62	3.62	0.38	...	...
4	14.00	3.00	6.19	6.50	8-1.63	10.75		4.60	4.50	...	7.50	4.25	0.44	...	...
5	16.50	3.62	7.31	8.00	8-1.88	12.75		5.69	5.56	...	9.00	5.12	0.44	...	...
6	19.00	4.25	8.50	9.25	8-2.12	14.50		6.75	6.63	...	10.75	6.00	0.50	...	...
8	21.75	5.00	10.63	12.00	12-2.12	17.25		8.75	8.63	...	12.50	7.00	0.50	...	...
10	26.50	6.50	12.75	14.75	12-2.63	21.25		10.92	10.75	...	16.50	9.00	0.50	...	...
12	30.00	7.25	15.00	17.38	12-2.88	24.38		12.92	12.75	...	18.25	10.00	0.50	...	...

Notes :-

- [1] Dimensions [in inches]
- [2] The diameter of hole is 1/8" larger than the diameter for bolt.
- [3] The dimensions for standard bore are stated to bore chart.
- [4] The dimensions is normally linked to 'true' lap joints. The Industry standard as per ASME is to make slip on length through the hub.
- [5] Under and the 'American Society of Mechanical Engineers' [ASME], Slip on's and Socket welds for 2500# class are not included
- [6] There would be a requirement of a drawing to be supplied to us, larger than 12" in 25000 # class



ASME B16.5 Size 1/2" - 24" Forged Flanges

TABLE OF WEIGHT [Approx] [LBS]

CATEGORY	Nominal pipe size NPS (Inches)	Slip on Flange	Threaded Flange	SORF Flange	Lap Join Flange	BLRF Flange	WNRF Neck Flange
150 lb	1/2	1	1	2	1	2	2
	3/4	2	2	2	2	2	2
	1	2	2	2	2	2	3
	1 1/4	3	3	3	3	3	3
	1 1/2	3	3	3	3	4	4
	2	5	5	5	5	5	6
	2 1/2	8	8	8	8	7	10
	3	9	9	9	9	9	11.5
	3 1/2	11	12	11	11	13	12
	4	13	13	13	13	17	16.5
	5	15	15	15	15	20	21
	6	19	19	19	19	27	26
	8	30	30	30	30	47	42
	10	43	43	43	43	70	54
	12	64	64	64	64	123	88
	14	90	90	90	105	140	114
	16	106	98	98	140	180	140
	18	130	130	130	160	220	165
20	165	165	165	195	285	197	
22	185	185	185	245	355	225	
24	220	220	220	275	430	268	
300 lb	1/2	2	2	3	2	2	2
	3/4	3	3	3	3	3	3
	1	3	3	3	3	4	4
	1 1/4	4.5	4.5	4	4.5	6	5
	1 1/2	6.5	6.5	6	6.5	7	7
	2	7	7	7	7	8	9
	2 1/2	10	10	10	10	12	12
	3	13	14	13	14.5	16	18
	3 1/2	17	17	17	17	21	20
	4	23.5	24	22	24	28	26.5
	5	29	31	28	28	37	36
	6	39	39	39	39	50	45
	8	58	58	58	58	81	69
	10	81	81	81	91	124	100
	12	115	115	115	140	185	142
	14	165	165	165	190	250	206
	16	210	220	190	234	315	250
	18	253	280	250	305	414	320
20	315	325	315	375	515	400	
22	370	370	370	435	640	465	
24	490	490	475	550	800	580	



ASME B16.5 Size 1/2" - 24" Forged Flanges

TABLE OF WEIGHT [Approx] [LBS]

CATEGORY	NPS (Inches)	Slip on Flange	Threaded Flange	SORF Flange	Lap Join Flange	BLRF Flange	WNRF Neck Flange
400 lb	1/2	2	2	2	2	2	3
	3/4	3	3	3	3	3	3.5
	1	3.5	3.5	3.5	3.5	4	4
	1 1/4	4.5	4.5	4.5	4.5	6	4.5
	1 1/2	6.5	6.5	6.5	6.5	8	8
	2	8	8	8	8	10	10
	2 1/2	12	12	12	11	15	14
	3	15	15	15	14	20	18
	3 1/2	21	21	21	20	29	26
	4	26	26	26	25	33	35
	5	31	31	31	29	44	43
	6	44	44	44	42	61	57
	8	67	67	67	64	100	89
	10	91	91	91	110	155	125
	12	130	130	130	152	226	175
	14	191	191	191	210	310	233
16	253	253	253	280	398	295	
18	310	310	310	345	502	360	
20	378	378	378	420	621	445	
22	405	405	405	455	720	505	
24	539	539	539	615	936	640	
600 lb	1/2	2	2	2	2	3	3
	3/4	3	3	3	3	4	4
	1	4	4	4	4	4	4
	1 1/4	5	5	5	5	6	6
	1 1/2	7	7	7	7	8	8
	2	9	9	9	9	10	12
	2 1/2	13	13	13	12	15	18
	3	16	16	16	15	20	23
	3 1/2	21	21	21	20	29	26
	4	37	37	37	36	41	42
	5	63	63	63	63	68	68
	6	80	80	80	78	86	81
	8	115	15	15	112	140	120
	10	177	177	177	195	231	190
	12	215	215	215	240	295	226
	14	259	259	259	290	378	347
16	366	366	366	400	527	481	
18	476	476	476	469	665	555	
20	612	612	612	604	855	690	
22	590	590	590	670	1000	720	
24	876	876	876	866	1250	977	

ASME B16.5 Size 1/2" - 24" Forged Flanges

TABLE OF WEIGHT [Approx] [LBS]

CATEGORY	NPS (Inches)	Slip on Flange	Threaded Flange	SORF Flange	Lap Join Flange	BLRF Flange	WNRF Neck Flange
900 lb	1/2	6	6	6	6	4	7
	3/4	6	6	6	6	6	7
	1	7.5	7.5	7.5	7.5	9	8.5
	1 1/4	10	10	10	10	10	10
	1 1/2	14	14	14	14	14	14
	2	22	22	22	21	25	24
	2 1/2	31	31	31	25	32	31
	3	36	36	36	29	35	36
	4	53	53	53	51	54	53
	5	83	83	83	81	87	86
	6	110	110	110	105	115	110
	8	172	172	172	190	200	187
	10	245	245	245	277	290	268
	12	326	326	326	371	415	372
	14	400	400	400	415	520	562
	16	459	459	459	488	619	685
	18	647	647	647	670	880	924
20	792	792	792	868	1107	1164	
24	1480	1480	1480	1659	2099	2107	
1500 lb	1/2	6	6	6	6	4	7
	3/4	6	6	6	6	6	7
	1	8	8	8	8	9	9
	1 1/4	10	10	10	10	10	10
	1 1/2	14	14	14	14	14	14
	2	25	25	25	25	25	25
	2 1/2	36	36	36	35	35	36
	3	48	48	48	47	48	48
	4	73	73	73	75	73	73
	5	132	132	132	140	140	132
	6	165	165	165	170	160	165
	8	260	260	260	286	302	275
	10	436	436	436	485	510	455
	12	667	667	667	749	775	690
	14	940	940	940	890	975	940
	16	1250	1250	1250	1250	1300	1250
	18	1625	1625	1625	1475	1750	1625
20	2050	2050	2050	1775	2225	2050	
24	2825	2825	2825	2825	3625	3325	

ASME B16.5 Size 1/2" - 24" Forged Flanges

TABLE OF WEIGHT [Approx] [LBS]

CATEGORY	NPS (Inches)	Slip on Flange	Threaded Flange	SORF Flange	Lap Join Flange	BLRF Flange	WNRF Neck Flange
2500 lb	1/2	....	7	....	7	7	8
	3/4	....	9	....	8	10	9
	1	....	12	....	12	12	13
	1 1/4	....	18	....	17	18	20
	1 1/2	....	25	....	24	25	28
	2	....	38	....	37	39	42
	2 1/2	....	55	....	53	56	52
	3	....	83	....	80	86	94
	4	....	127	....	122	133	146
	5	....	210	....	204	223	244
	6	....	323	....	314	345	378
	8	....	485	....	471	533	576
	10	....	925	....	897	1025	1068
12	....	1300	....	1262	1464	1608	



Dimensional Tolerances According to ASME B16.5

ASME B16.5

THREADED FLANGE / SOCKET WELD FLANGE (SWRF)

SLIP-ON FLANGES (SORF)/ LAP JOINT FLANGES / BLIND FLANGE (BLRE)

Dia on the outside	If the O.D. is 24" or less	±1/16"
	If the O.D. is over 24"	±1/8"
Dia of the inside	Threaded	within limites on boring gauge
	Socket-Welding, slip-On and Lap-Joint	≤10" +1/32", -0" ≥12" +1/16', -0"
Hub (1) Outside dia	≤ 12"	+3/32" -1/16"
	≥ 14"	±1/8"
Contact face Dia (m)	1/16" Raised Face	±1/32"
	1/4" Raised Face Tongue & Groove Male, Female	±1/64"

Counterbore Dia[meter]	Identical same as for inside diameter	
Drilling	Bolt Circle	±1/16"
	Bolt Hole Spacing	±1/32"
	Concentricity of Bolt Circle with Respect to Facing	NPS ≤ 2 1/2" 1/32" max NPS ≤ 3" 1/16" max
Thickness	≤ 18"	+1/8", -0"
	≥ 20"	+3/16", -0"
Length Through the Hub (1)	≤ 18"	+1/8", -1/32"
	≥ 20"	+3/16", -1/16"

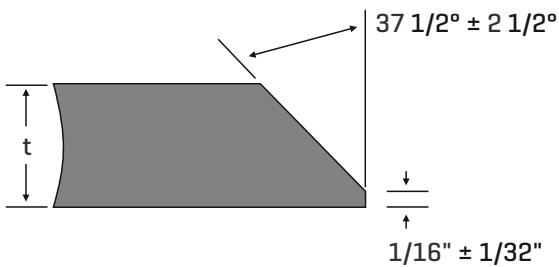
WELD NECK FLANGE (WNRF)

Dia on the outside	If the O.D. is 24" or less	±1/16"
	If the O.D. is over 24"	±1/8"
Dia of the inside	≤ 10"	±1/32"
	12" through 18"	±1/16"
	≥ 20"	+1/8" -1/16"
Contact Face dia	1/16" Raised Face	±1/32"
	1/4" Raised Face Tongue & Groove Male, Female	±1/64"

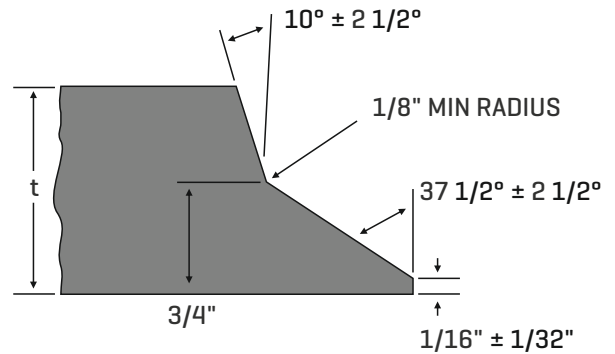
Hub dia at Base [1]	If Hub Base is 24" or less	+1/16"
	If Hub Base is over 24"	±1/8"
Diameter of Hubat Point of Welding	NPS ≤ 5"	+3/32" -1/32"
	NPS ≤ 6"	+5/32" -1/32"
Drilling	Bolt Circle	±1/16"
	Bolt Hole Spacing	±1/32"
	Concentricity of Bolt Circle with Respect to Facing	NPS ≤ 2 1/2" 1/32" max NPS ≤ 3" 1/16" max
Thickness	≤ 18"	+1/8", -0"
	≥ 20"	+3/16", -0"
Length Through the Hub [1]	NPS ≤ 4"	±1/16"
	5 ≤ NPS ≤ 10"	+1/16", -1/8"
	≥ 12"	+1/8", -3/16"

STANDARDS OF WELDING BEVEL

"t" 3/16" - 3/4" included for wall thickness



"t" > 3/4" for wall thickness



Not listed tolerances in B16.5

Dimensions [in inches]

ASME B16.5 STUD AND BOLT DIMENSIONS

NPS (inches)	Flanges 150 LB.				Flanges 300 LB.				Flanges 600 LB.			
	# Suds or Bolts	Dia of Studs or Bolts	Length of Stud		# Suds or Bolts	Dia of Studs or Bolts	Length of Stud		# Suds or Bolts	Dia of Studs or Bolts	Length of Stud	
			1/16 RF	RTJ			1/16 RF	RTJ			1/16 RF	RTJ
1/2	4	0.50	2-1/4	-	4	0.50	2-1/2	3	4	0.50	3	3
3/4	4	0.50	2-1/2	-	4	0.63	3	3-1/2	4	0.63	3-1/2	3-1/2
1	4	0.50	2-1/2	3	4	0.63	3	3-1/2	4	0.63	3-1/2	3-1/2
1-1/4	4	0.50	2-3/4	3-1/4	4	0.63	3-1/4	3-3/4	4	0.63	3-3/4	3-3/4
1-1/2	4	0.50	2-3/4	3-1/4	4	0.75	3-1/2	4	4	0.75	4-1/4	4-1/4
2	4	0.63	3-1/4	3-3/4	8	0.63	3-1/2	4	8	0.63	4-1/4	4-1/4
2-1/2	4	0.63	3-1/2	4	8	0.75	4	4-1/2	8	0.75	4-3/4	4-3/4
3	4	0.63	3-1/2	4	8	0.75	4-1/4	4-3/4	8	0.75	5	5
3-1/2	8	0.63	3-1/2	4	8	0.75	4-1/4	5	8	0.88	5-1/2	5-1/2
4	8	0.63	3-1/2	4	8	0.75	4-1/2	5	8	0.88	5-3/4	5-3/4
5	8	0.75	3-3/4	4-1/4	8	0.75	4-3/4	5-1/4	8	1.00	6-1/2	6-1/2
6	8	0.75	4	4-1/2	12	0.75	4-3/4	5-1/2	12	1.00	6-3/4	6-3/4
8	8	0.75	4-1/4	4-3/4	12	0.88	5-1/2	6	12	1.13	7-1/2	7-3/4
10	12	0.88	4-1/2	5	16	1.00	6-1/4	6-3/4	16	1.25	8-1/2	8-1/2
12	12	0.88	4-3/4	5-1/4	16	1.13	6-3/4	7-1/4	20	1.25	8-3/4	8-3/4
14	12	1.00	5-1/4	5-3/4	20	1.13	7	7-1/2	20	1.38	9-1/4	9-1/4
16	16	1.00	5-1/4	5-3/4	20	1.25	7-1/2	8	20	1.50	10	10
18	16	1.13	5-3/4	6-1/4	24	1.25	7-3/4	8-1/4	20	1.63	10-3/4	10-3/4
20	20	1.13	6-1/4	6-3/4	24	1.25	8	8-3/4	24	1.63	11-1/4	11-1/2
24	20	1.25	6-3/4	7-1/4	24	1.50	9	10	24	1.88	13	13-1/4

NPS (inches)	Flanges 900 LB.				Flanges 1500 LB.				Flanges 2500 LB.			
	# Suds or Bolts	Dia of Studs or Bolts	Length of Stud		# Suds or Bolts	Dia of Studs or Bolts	Length of Stud		# Suds or Bolts	Dia of Studs or Bolts	Length of Stud	
			1/16 RF	RTJ			1/16 RF	RTJ			1/16 RF	RTJ
1/2	4	0.75	4-1/4	4-1/4	4	0.75	4-1/4	4-1/4	4	0.75	4-3/4	4-3/4
3/4	4	0.75	4-1/2	4-1/2	4	0.75	4-1/2	4-1/2	4	0.75	5	5
1	4	0.88	5	5	4	0.88	5	5	4	0.88	5-1/2	5-1/2
1-1/4	4	0.88	5	5	4	0.88	5	5	4	1.00	6	6
1-1/2	4	1.00	5-1/2	5-1/2	4	1.00	5-1/2	5-1/2	4	1.13	6-3/4	6-3/4
2	8	0.88	5-3/4	5-3/4	8	0.88	5-3/4	5-3/4	8	1.00	7	7
2-1/2	8	1.00	6-1/4	6-1/4	8	1.00	6-1/4	6-1/4	8	1.13	7-3/4	8
3	8	0.88	5-3/4	5-3/4	8	1.13	7	7	8	1.25	8-3/4	9
4	8	1.13	6-3/4	6-3/4	8	1.25	7-3/4	7-3/4	8	1.50	10	10-1/4
5	8	1.25	7-1/2	7-1/2	8	1.50	9-3/4	9-3/4	8	1.75	11-3/4	12-1/4
6	12	1.13	7-1/2	7-3/4	12	1.38	10-1/4	10-1/2	8	2.00	13-1/2	14
8	12	1.38	8-3/4	8-3/4	12	1.63	11-1/2	12-3/4	12	2.00	15	15-1/2
10	16	1.38	9-1/4	9-1/4	12	1.88	13-1/4	13-1/2	12	2.50	19-1/4	20
12	20	1.38	10	10	16	2.00	14-3/4	15-1/4	12	2.75	21-1/4	22
14	20	1.50	10-3/4	11	16	2.25	16	16-3/4	-	-	-	-
16	20	1.63	11-1/4	11-1/2	16	2.50	17-1/2	18-1/2	-	-	-	-
18	20	1.88	12-3/4	13-1/4	16	2.75	19-1/2	20-3/4	-	-	-	-
20	20	2.00	13-3/4	14-1/4	16	3.00	21-1/4	22-1/4	-	-	-	-
24	20	2.50	17-1/4	18	16	3.50	24-1/4	25-1/2	-	-	-	-

Dimensions [in inches]



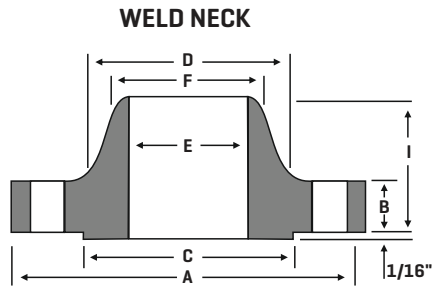
Recommendations as per ASME B16.47 for Studs & Bolts

Stud-bolts	Carbon-Steel	Other materials
	AMSE B18.2.1	
Bolts	AMSE B18.2.1, square/ heavy hex head	AMSE B18.2.1, square/ heavy hex head
Nuts < 3/4" Nuts ≥ 3/4"	ASME/ASME B18.2., heavy hex	
	AMSE B18.2.1, square/ heavy hex head	AMSE B18.2.1, square/ heavy hex head
Male Threads	ASME B1.1, Cl. 2A coarse series	ASME B1.1, Cl, 2A coarse series up through for larger bolts 8 thread series
Female Threads	ASME B1.1, Cl. 2B coarse series	ASME B1.1, Cl, 2B coarse series up through for larger bolts 8 thread series

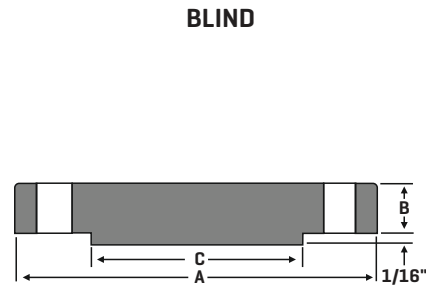
Most of MSS- Sp44 Specification into B16.47 Series A & most of the API 605 Specification into B16.47 Series B has been incorporated by 'American Society of Mechanical Engineers' [ASME]. 'ASME' also added Blind Flanges to these two specifications. Kindly note that either specification only includes Weld Necks & Blinds.



ASME B16.47 Series A Class 150 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

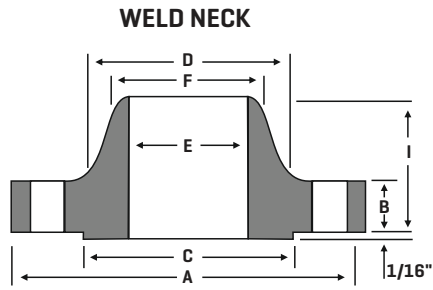
Nominal Pipe Size NPS [inches]	Thickness								Drilling				Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		^[2]	^[3]			
26	34.25	2.63	2.63	29.50	26.62		4.69	26.00	31.75	8.75	1.38	24	300	702
28	36.50	2.75	2.75	31.50	28.62		4.88	28.00	34.00	9.00	1.38	28	345	833
30	38.75	2.88	2.88	33.75	30.75		5.32	30.00	36.00	9.25	1.38	28	400	982
32	41.75	3.13	3.13	36.00	32.75		5.63	32.00	38.50	10.50	1.62	28	505	1237
34	43.75	3.19	3.19	38.00	34.75		5.82	34.00	40.50	10.50	1.62	32	540	1384
36	46.00	3.50	3.50	40.25	36.75		6.13	36.00	42.75	11.00	1.62	32	640	1676
38	48.75	3.38	3.38	42.25	39.00		6.13	38.00	45.25	11.00	1.62	32	720	1819
40	50.75	3.50	3.50	44.25	41.00		6.38	40.00	47.25	11.00	1.62	36	775	2040
42	53.00	3.75	3.75	47.00	43.00		6.69	42.00	49.50	11.50	1.62	36	890	2381
44	55.25	3.94	3.94	49.00	45.00		6.94	44.00	51.75	12.00	1.62	40	990	2717
46	57.25	4.00	4.00	51.00	47.12		7.25	46.00	53.75	12.00	1.62	40	1060	2961
48	59.50	4.19	4.19	53.50	49.12		7.50	48.00	56.00	12.50	1.62	44	1185	3348
50	61.75	4.32	4.32	55.50	51.25		7.94	50.00	58.25	13.25	1.88	44	1270	3716
52	64.00	4.50	4.50	57.50	53.25		8.19	52.00	60.50	13.75	1.88	44	1410	4156
54	66.25	4.69	4.69	59.50	55.25		8.44	54.00	62.75	14.00	1.88	44	1585	4639
56	68.75	4.82	4.82	62.00	57.38		8.94	56.00	65.00	14.25	1.88	48	1760	5132
58	71.00	5.00	5.00	64.00	59.38		9.19	58.00	67.25	14.75	1.88	48	1915	5675
60	73.00	5.13	5.13	66.00	61.38		9.38	60.00	69.25	15.00	1.88	52	2045	6154

Purchaser Specification required

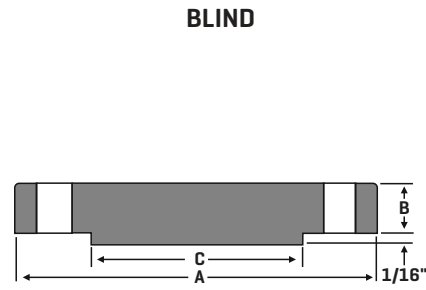
Notes :-

- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible

ASME B16.47 Series A Class 300 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

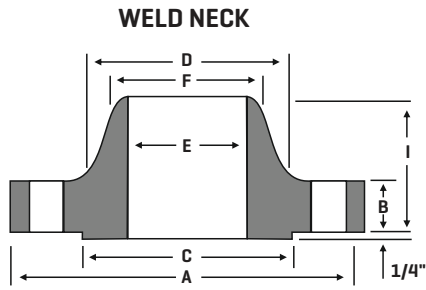
Nominal Pipe Size NPS [inches]	Thickness								Drilling				Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		⁽²⁾	⁽³⁾			
26	38.25	3.07	3.25	29.50	28.38		7.19	26.00	34.50	10.75	1.75	28	605	1078
28	40.75	3.32	3.50	31.50	30.50		7.69	28.00	37.00	11.25	1.75	28	745	1315
30	43.00	3.57	3.69	33.75	32.56		8.19	30.00	39.25	12.00	1.88	28	870	1543
32	45.25	3.82	3.88	36.00	34.69		8.69	32.00	41.50	12.50	2.00	28	1005	1795
34	47.50	3.94	4.07	38.00	36.88		9.07	34.00	43.50	13.00	2.00	28	1145	2068
36	50.00	4.07	4.32	40.25	39.00		9.44	36.00	46.00	13.50	2.12	32	1275	2436
38	46.00	4.19	4.19	40.50	39.12		7.06	38.00	43.00	12.50	1.62	32	695	2001
40	48.75	4.44	4.44	42.75	41.25		7.56	40.00	45.50	13.25	1.75	32	840	2380
42	50.75	4.63	4.63	44.75	43.25		7.82	42.00	47.50	13.75	1.75	32	950	2688
44	53.25	4.82	4.82	47.00	45.25		8.06	44.00	49.75	14.25	1.88	32	1055	3079
46	55.75	5.00	5.00	49.00	47.38		8.44	46.00	52.00	15.00	2.00	28	1235	3499
48	57.75	5.19	5.19	51.25	49.38		8.75	48.00	54.00	15.25	2.00	32	1380	3896
50	60.25	5.44	5.44	53.50	51.38		9.07	50.00	56.25	16.00	2.12	32	1530	4442
52	62.25	5.63	5.63	55.50	53.38		9.32	52.00	58.25	16.50	2.12	32	1660	4906
54	65.25	5.94	5.94	57.75	55.50		9.88	54.00	61.00	17.50	2.38	28	2050	5684
56	67.25	6.00	6.00	59.75	57.62		10.19	56.00	63.00	17.75	2.38	28	2155	6098
58	69.25	6.19	6.19	62.00	59.62		10.44	58.00	65.00	18.00	2.38	32	2270	6669
60	71.25	6.38	6.38	64.00	61.62		10.69	60.00	67.00	18.50	2.38	32	2470	7274

Purchaser Specification required

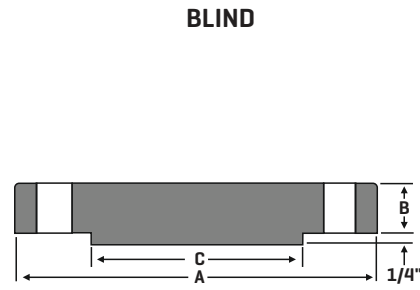
Notes :-

- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible

ASME B16.47 Series A Class 400 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

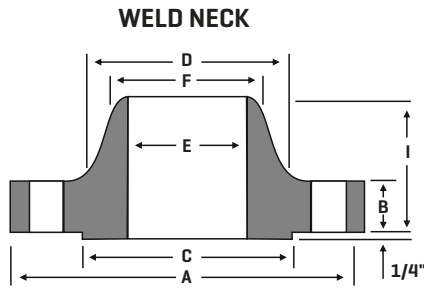
Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		(2)	(3)			
26	38.25	3.50	3.88	29.50	28.62		7.62	26.00	34.50	12.50	1.88	28	650	1263
28	40.75	3.75	4.12	31.50	30.81		8.12	28.00	37.00	13.25	2.00	28	785	1522
30	43.00	4.00	4.38	33.75	32.94		8.62	30.00	39.25	14.00	2.12	28	905	1802
32	45.25	4.25	4.56	36.00	35.00		9.12	32.00	41.50	14.25	2.12	28	1065	2077
34	47.50	4.38	4.81	38.00	37.19		9.50	34.00	43.50	14.75	2.12	28	1200	2415
36	50.00	4.50	5.06	40.25	39.38		9.88	36.00	46.00	15.00	2.12	32	1340	2815
38	47.50	4.88	4.88	40.75	39.50	Purchaser Specification required	8.12	38.00	44.00	14.75	1.88	32	935	2450
40	50.00	5.12	5.12	43.00	41.50		8.50	40.00	46.25	15.50	2.00	32	1090	2848
42	52.00	5.25	5.25	45.00	43.62		8.81	42.00	48.25	15.75	2.00	32	1190	3159
44	54.50	5.50	5.50	47.25	45.62		9.18	44.00	50.50	16.50	2.12	32	1375	3635
46	56.75	5.75	5.75	49.50	47.75		9.62	46.00	52.75	17.00	2.12	36	1525	4120
48	59.50	6.00	6.00	51.50	49.88		10.12	48.00	55.25	18.00	2.38	28	1790	4726
50	61.75	6.19	6.25	53.62	52.00		10.56	50.00	57.50	18.50	2.38	32	1950	5303
52	63.75	6.38	6.44	55.62	54.00		10.88	52.00	59.50	18.75	2.38	32	2125	5823
54	67.00	6.69	6.75	57.88	56.12		11.38	54.00	62.25	20.00	2.62	28	2565	6742
56	69.00	6.88	6.94	60.12	58.25		11.75	56.00	64.25	20.25	2.62	32	2710	7352
58	71.00	7.00	7.12	62.12	60.25		12.06	58.00	66.25	20.50	2.62	32	3230	7986
60	74.25	7.31	7.44	64.38	62.38		12.56	60.00	69.00	21.75	2.88	32	3820	9126

Notes :-

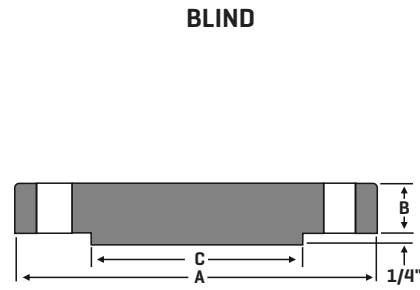
- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible



ASME B16.47 Series A Class 600 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



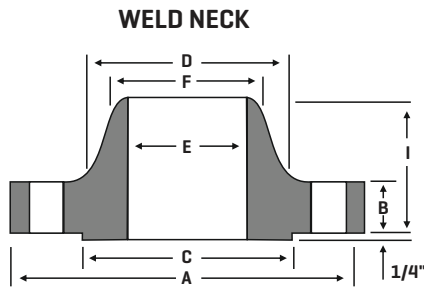
ASME B16.5 BLRF FLANGES

Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		(2)	(3)			
26	40.00	4.25	4.94	29.50	29.44		8.75	26.00	36.00	14.50	2.00	28	940	1759
28	42.25	4.38	5.19	31.50	31.62		9.25	28.00	38.00	15.00	2.12	28	1060	2061
30	44.50	4.50	5.50	33.75	33.94		9.75	30.00	40.25	15.50	2.12	28	1210	2423
32	47.00	4.62	5.81	36.00	36.12		10.25	32.00	42.50	16.50	2.38	28	1375	2856
34	49.00	4.75	6.06	38.00	38.12		10.62	34.00	44.50	16.75	2.38	28	1540	3237
36	51.75	4.88	6.38	40.25	40.62		11.12	36.00	47.00	17.75	2.62	28	1705	3802
38	50.00	6.00	6.12	41.50	40.25	Purchaser Specification required	10.00	38.00	45.75	18.25	3.38	28	1470	3404
40	52.00	6.25	6.38	43.75	42.25		10.38	40.00	47.75	18.75	3.38	32	1630	3838
42	55.25	6.62	6.75	46.00	44.38		11.00	42.00	50.50	19.75	2.62	28	2030	4585
44	57.25	6.81	7.00	48.25	46.50		11.38	44.00	52.50	20.25	2.62	32	2160	5105
46	59.50	7.06	7.31	50.25	48.62		11.81	46.00	54.75	20.75	2.62	32	2410	5758
48	62.75	7.44	7.69	52.50	50.75		12.44	48.00	57.50	22.25	2.88	32	2855	6737
50	65.75	7.75	8.00	54.50	52.88		12.94	50.00	60.00	23.25	3.12	28	3330	7695
52	65.75	8.00	8.25	56.50	54.88		13.25	52.00	62.00	23.75	3.12	32	3560	8426
54	70.00	8.25	8.56	58.75	57.00		13.75	54.00	64.25	24.25	3.12	32	3920	9333
56	73.00	8.56	8.88	60.75	59.12		14.75	56.00	66.75	25.50	3.38	32	4280	10529
58	75.00	8.75	9.12	63.00	61.12		14.56	58.00	68.75	26.00	3.38	32	4640	11414
60	78.50	9.19	9.56	65.25	63.38		15.31	60.00	71.75	27.25	3.62	28	5000	13108

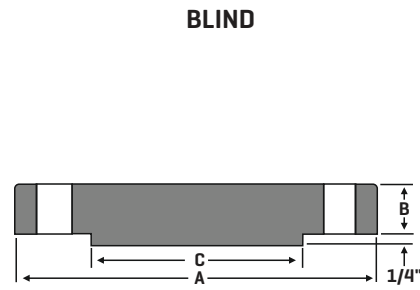
Notes :-

- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible

ASME B16.47 Series A Class 900 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

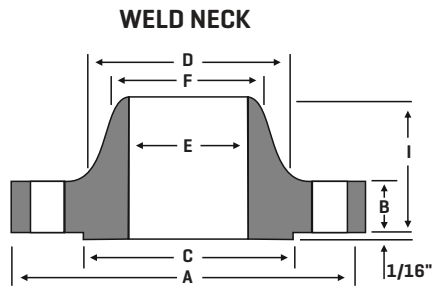
Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		^[2]	^[3]			
26	42.75	5.50	6.31	29.50	30.50		11.25	26.00	37.50	18.75	2.88	20	1525	2566
28	46.00	5.62	6.75	31.50	32.75		11.75	28.00	40.25	19.75	3.12	20	1810	3178
30	48.50	5.88	7.18	33.75	35.00	Purchaser Specification required	12.25	30.00	42.75	20.50	3.12	20	2120	3758
32	51.75	6.25	7.62	36.00	37.25		13.00	32.00	45.50	22.00	3.38	20	2545	4541
34	55.00	6.50	8.06	38.00	39.62		13.75	34.00	48.25	23.00	3.62	20	2970	5425
36	57.50	6.75	8.44	40.25	41.88		14.25	36.00	50.75	23.75	3.62	20	3395	6209
38	57.50	7.50	8.50	43.25	42.25		13.88	38.00	50.75	24.50	3.62	20	3385	6253
40	59.50	7.75	8.81	45.75	44.38		14.31	40.00	52.75	25.00	3.62	24	3620	6940
42	61.50	8.12	9.12	47.75	46.31		14.62	42.00	54.75	25.75	3.62	24	2960	7675
44	64.88	8.44	9.56	50.00	48.62		15.38	44.00	57.62	27.00	3.88	24	4300	8954
46	68.25	8.88	10.06	52.50	50.88		16.18	46.00	60.50	28.50	4.12	24	4640	10426
48	70.25	9.19	10.38	54.50	52.88		16.50	48.00	62.50	29.00	4.12	24	4980	11398

Notes :-

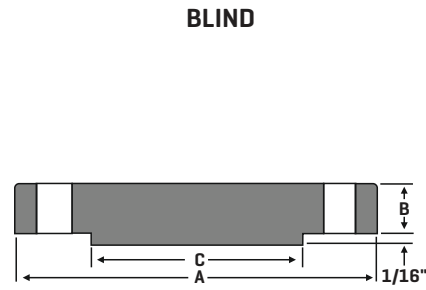
- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible



ASME B16.47 Series B Class 75 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

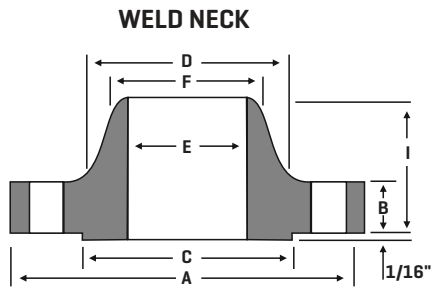
Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		^[2]	^[3]			
26	30.00	1.25	1.25	27.75	26.62		2.25	26.06	28.50	4.50	0.75	36	80	255
28	32.00	1.25	1.25	29.75	28.62		2.38	28.06	30.50	4.50	0.75	40	85	290
30	34.00	1.25	1.25	31.75	30.62		2.50	30.06	32.50	4.50	0.75	44	90	330
32	36.00	1.32	1.38	33.75	32.62		2.69	32.06	34.50	4.75	0.75	48	105	390
34	38.00	1.32	1.44	35.75	34.62		2.82	34.06	36.50	4.75	0.75	52	110	430
36	40.69	1.38	1.61	38.00	36.81		3.32	36.06	39.06	5.25	0.88	40	145	518
38	42.69	1.44	1.69	40.00	38.81		3.44	38.06	41.06	5.50	0.88	40	160	595
40	44.69	1.44	1.69	42.00	40.81		3.57	40.06	43.06	5.50	0.88	44	170	760
42	46.69	1.50	1.82	44.00	42.81		3.69	42.06	45.06	5.50	0.88	48	185	895
44	49.25	1.63	1.88	46.25	44.88		4.07	44.06	47.38	6.00	1.00	36	230	1065
46	51.25	1.69	1.94	48.25	46.88		4.19	46.06	49.38	6.25	1.00	40	245	1185
48	53.25	1.75	2.07	50.25	48.88		4.32	48.06	51.38	6.50	1.00	44	270	1315
50	55.25	1.82	2.13	52.25	50.94		4.50	50.06	53.38	6.50	1.00	44	290	1505
52	57.38	1.82	2.19	54.25	52.94		4.69	52.06	55.50	6.75	1.00	48	310	1665
54	59.38	1.88	2.32	56.25	55.00		4.88	54.06	57.50	6.75	1.00	48	340	1840
56	62.00	1.95	2.38	58.50	57.12		5.25	56.06	59.88	7.25	1.12	40	400	2110
58	64.00	2.00	2.44	60.50	59.12		5.38	58.06	61.88	7.25	1.12	44	430	2300
60	66.00	2.13	2.57	62.50	61.12		5.63	60.06	63.88	7.25	1.12	44	475	2500

Purchaser Specification required

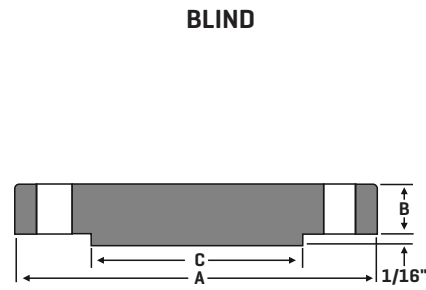
Notes :-

- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible

ASME B16.47 Series B Class 150 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		^[2]	^[3]			
26	30.94	1.57	1.69	28.00	26.94		3.44	26.06	29.31	5.50	0.88	36	120	373
28	32.94	1.69	1.82	30.00	28.94		3.69	28.06	31.31	5.75	0.88	40	140	454
30	34.94	1.69	1.94	32.00	31.00		3.88	30.06	33.31	6.00	0.88	44	150	543
32	37.06	1.75	2.07	34.00	33.06		4.19	32.06	35.44	6.25	0.88	48	170	648
34	39.56	1.88	2.19	36.25	35.12		4.28	34.06	37.69	6.75	1.00	40	210	783
36	41.62	2.00	2.25	38.25	37.19		4.57	36.06	39.75	6.75	1.00	44	240	890
38	44.25	2.07	2.44	40.25	39.15		4.82	38.12	42.12	7.50	1.12	40	290	1089
40	46.25	2.13	2.57	42.50	41.31		5.00	40.12	44.12	7.75	1.12	44	310	1247
42	48.25	2.25	2.63	44.50	43.38		5.19	42.12	46.12	7.75	1.12	48	345	1393
44	50.25	2.32	2.75	46.50	45.38		5.32	44.12	48.12	8.00	1.12	52	370	1579
46	52.81	2.38	2.88	48.62	47.44		5.63	46.12	50.56	8.50	1.25	40	435	1824
48	54.81	2.50	3.00	50.75	49.50		5.82	48.12	52.56	8.75	1.25	44	480	2045
50	56.81	2.63	3.13	52.75	51.50		6.00	50.12	54.56	9.00	1.25	48	520	2284
52	58.81	2.69	3.25	54.75	53.56		6.13	52.12	56.56	9.25	1.25	52	550	2547
54	61.00	2.75	3.38	56.75	55.62		6.32	54.12	58.75	9.50	1.25	56	620	2848
56	63.00	2.82	3.50	58.75	57.69		6.50	56.12	60.75	9.75	1.25	60	650	3144
58	65.95	2.88	3.62	60.75	59.69		6.82	58.12	63.44	10.00	1.38	48	780	3560
60	67.94	2.94	3.75	63.00	61.81		7.00	60.12	65.44	10.25	1.38	52	850	3913

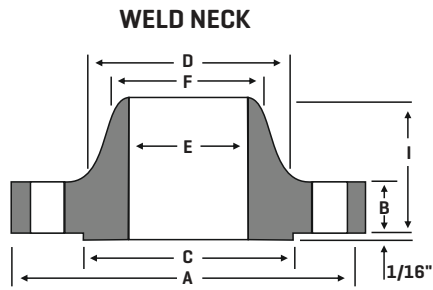
Purchaser Specification required

Notes :-

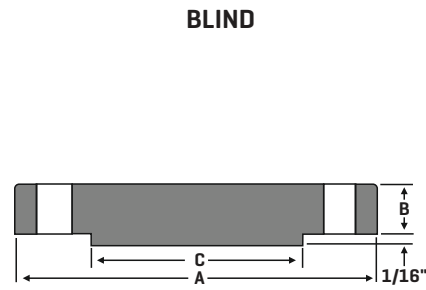
- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible



ASME B16.47 Series B Class 300 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

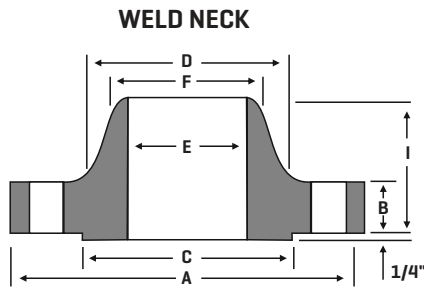
Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		⁽²⁾	⁽³⁾			
26	34.12	3.44	3.44	29.00	27.62		5.63	26.19	31.62	10.50	1.38	32	400	907
28	36.25	3.44	3.44	31.00	29.75		5.81	28.19	33.75	10.50	1.38	36	450	1023
30	39.00	3.63	3.63	33.25	32.00		6.16	30.25	36.25	11.25	1.50	36	550	1249
32	41.50	4.00	4.00	35.50	34.00		6.56	32.25	38.50	12.00	1.62	32	685	1556
34	43.62	4.00	4.00	37.50	36.12		6.75	34.25	40.62	12.00	1.62	36	750	1719
36	46.12	4.00	4.00	39.75	38.00		7.06	36.25	42.88	12.50	1.75	32	840	1921
38	48.12	4.31	4.31	41.75	40.00		7.50	38.25	44.88	13.00	1.75	36	915	2257
40	50.12	4.50	4.50	43.88	42.00		7.75	40.25	46.88	13.50	1.75	40	990	2549
42	52.50	4.63	4.63	46.00	44.00		8.00	42.31	49.00	14.00	1.88	36	1135	2876
44	54.50	4.94	4.94	48.00	46.19		8.38	44.31	51.00	14.50	1.88	40	1235	3304
46	57.50	5.00	5.06	50.00	48.38		8.69	46.31	53.75	15.00	2.00	36	1470	3766
48	59.50	5.00	5.25	52.25	50.31		8.75	48.31	55.75	15.25	2.00	40	1575	4183
50	61.50	5.38	5.44	54.25	52.38		9.19	50.31	57.75	15.75	2.00	44	1710	4629
52	63.50	5.56	5.61	56.25	54.44		9.50	52.31	59.75	16.00	2.00	48	1840	5096
54	65.88	5.32	5.81	58.25	56.50		9.38	54.31	62.12	16.00	2.00	48	1980	5678
56	69.50	6.00	6.12	60.50	58.81		10.50	56.31	65.00	17.75	2.38	36	2595	6642
58	71.94	6.00	6.31	62.75	60.94		10.75	58.31	67.44	18.00	2.38	40	2770	7347
60	73.94	5.88	6.50	65.00	62.94		10.63	60.31	69.44	18.00	2.38	40	2870	7980

Purchaser Specification required

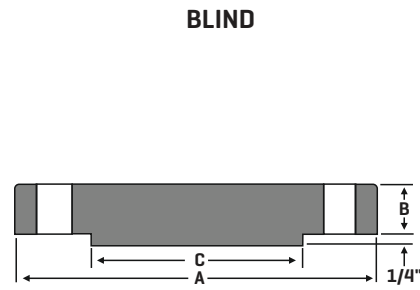
Notes :-

- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible

ASME B16.47 Series B Class 400 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		⁽²⁾	⁽³⁾			
26	33.50	3.50	3.50	28.00	27.12		5.88	26.00	30.75	11.25	1.50	28	360	874
28	36.00	3.75	3.75	30.00	29.12		6.25	28.00	33.00	12.00	1.62	24	450	1081
30	38.25	4.00	4.00	32.25	31.25		6.69	30.25	35.25	12.50	1.62	28	530	1302
32	40.75	4.25	4.25	34.38	33.25		7.06	32.00	37.50	13.25	1.75	28	635	1570
34	42.75	4.38	4.38	36.50	35.38		7.38	34.00	39.50	13.50	1.75	32	690	1781
36	45.50	4.69	4.69	38.62	37.50		7.88	36.00	42.00	14.50	1.88	28	855	2160
38	47.50	4.88	4.88	40.75	39.50		8.12	38.00	44.00	14.75	1.88	32	935	2450
40	50.00	5.12	5.12	43.00	41.50		8.50	40.00	46.25	15.50	2.00	32	1090	2848
42	52.00	5.25	5.25	45.00	43.62		8.81	42.00	48.25	15.75	2.00	32	1190	3159
44	54.50	5.50	5.50	47.25	45.62		9.18	44.00	50.50	16.50	2.12	32	1375	3635
46	56.75	5.75	5.75	49.50	47.75		9.62	46.00	52.75	17.00	2.12	36	1525	4120
48	59.50	6.00	6.00	51.50	49.88		10.12	48.00	55.25	18.00	2.38	28	1790	4726
50	61.75	6.19	6.25	53.62	52.00		10.56	50.00	57.50	18.50	2.38	32	1950	5303
52	63.75	6.38	6.44	55.62	54.00		10.88	52.00	59.50	18.75	2.38	32	2125	5823
54	67.00	6.69	6.75	57.88	56.12		11.38	54.00	62.25	20.00	2.62	28	2565	6742
56	69.00	6.88	6.94	60.12	58.25		11.75	56.00	64.25	20.25	2.62	32	2710	7352
58	71.00	7.00	7.12	62.12	60.25		12.06	58.00	66.25	20.50	2.62	32	3230	7986
60	74.25	7.31	7.44	64.38	62.38		12.56	60.00	69.00	21.75	2.88	32	3820	9126

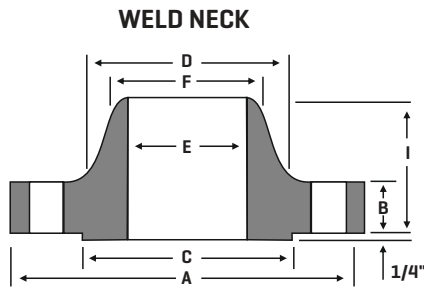
Purchaser Specification required

Notes :-

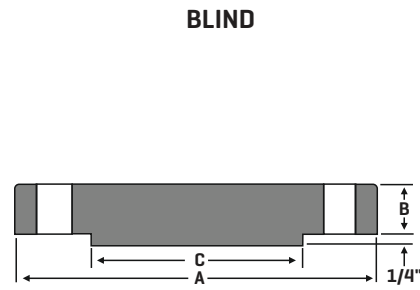
- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible



ASME B16.47 Series B Class 600 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

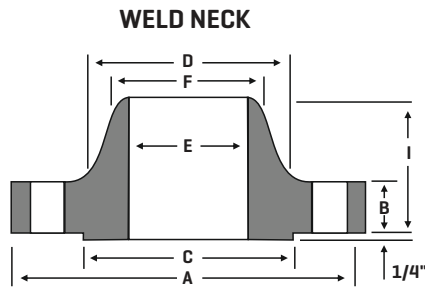
Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		⁽²⁾	⁽³⁾			
26	35.00	4.38	4.38	28.62	27.50		7.12	26.00	31.75	13.50	1.75	28	550	1194
28	37.50	4.56	4.56	30.88	29.62		7.50	28.00	34.00	14.25	1.88	28	650	1427
30	40.25	4.94	5.00	33.12	31.75		8.06	30.00	36.50	15.25	2.00	28	810	1802
32	42.75	5.12	5.31	35.25	33.88		8.50	32.00	38.75	16.00	2.12	28	950	2159
34	45.75	5.56	5.68	37.50	36.00		9.19	34.00	41.50	17.25	2.38	24	1205	2645
36	47.75	5.75	5.94	39.75	38.12		9.56	36.00	43.50	17.75	2.38	28	1340	3013
38	50.00	6.00	6.12	41.50	40.25		10.00	38.00	45.75	18.25	2.38	28	1470	3404
40	52.00	6.25	6.38	43.75	42.25		10.38	40.00	47.75	18.75	2.38	32	1630	3838
42	55.25	6.62	6.75	46.00	44.38		11.00	42.00	50.50	19.75	2.62	28	2030	4585
44	57.25	6.81	7.00	48.25	46.50		11.38	44.00	52.50	20.25	2.62	32	2160	5105
46	59.50	7.06	7.31	50.25	48.62		11.81	46.00	54.75	20.75	2.62	32	2410	5758
48	62.75	7.44	7.69	52.50	50.75		12.44	48.00	57.50	22.25	2.88	32	2855	6737
50	65.75	7.75	8.00	54.50	52.88		12.94	50.00	60.00	23.25	3.12	28	3330	7695
52	67.75	8.00	8.25	56.50	54.88		13.25	52.00	62.00	23.75	3.12	32	3560	8426
54	70.00	8.25	8.56	58.75	57.00		13.75	54.00	64.25	24.25	3.12	32	3920	9333
56	73.00	8.65	8.88	60.75	59.12		14.25	56.00	66.75	25.50	3.38	32	4280	10,529
58	75.00	8.75	9.12	63.75	61.12		14.56	58.00	68.75	26.00	3.38	32	4640	11,414
60	78.50	9.19	9.56	65.25	63.38		15.31	60.00	71.75	27.25	3.62	28	5000	13,108

Purchaser Specification required

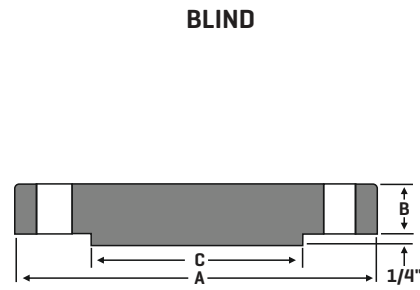
Notes :-

- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible

ASME B16.47 Series B Class 900 Weld Neck & Blind Flanges



ASME B16.5 WNRF FLANGES



ASME B16.5 BLRF FLANGES

Nominal Pipe Size NPS [inches]	Thickness			Drilling									Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length	Hole Dia	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F		⁽²⁾	⁽³⁾			
26	40.25	5.31	6.06	30.00	29.25		10.19	26.00	35.50	17.75	2.62	20	1050	2184
28	43.50	5.81	6.56	32.25	31.38		10.88	28.00	38.25	19.50	2.88	20	1520	2762
30	46.50	6.12	6.93	34.50	33.50	Purchaser Specification required	11.38	30.00	40.75	20.50	3.12	20	1820	3334
32	48.75	6.31	7.31	36.50	35.75		11.94	32.00	43.00	21.00	3.12	20	2065	3865
34	51.75	6.75	7.68	39.00	37.88		12.56	34.00	45.50	22.50	3.38	20	2450	4576
36	53.00	6.81	7.94	40.50	40.00		12.81	36.00	47.25	22.25	3.12	24	2520	4963
38	57.50	7.50	8.50	43.25	42.25		13.88	38.00	50.75	24.50	3.62	20	3385	6253
40	59.50	7.75	8.81	45.75	44.38		14.31	40.00	52.75	25.00	3.62	24	3620	6940
42	61.50	8.12	9.12	47.75	46.31		14.62	42.00	54.75	25.75	3.62	24	3960	7675
44	64.88	8.44	9.56	50.00	48.62		15.38	44.00	57.62	27.00	3.88	24	4300	8954
46	68.25	8.88	10.06	50.25	50.88		16.18	46.00	60.50	28.50	4.12	24	4640	10,426
48	70.25	9.19	10.38	52.50	52.88		16.50	48.00	62.50	29.00	4.12	24	4980	11,398

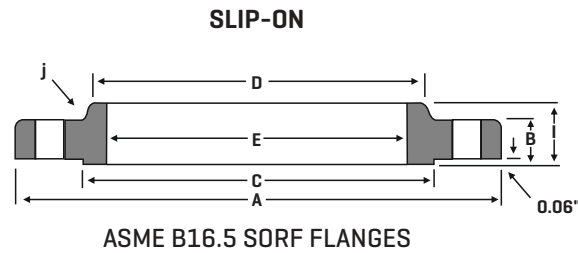
Notes :-

- [1] Weights [in pounds]; Dimensions [in inches]
- [2] Bared on bolting one con to one Blind these bolt lengths are calculated.
- [3] The diameter of bolt should be 1/8" lesser than the diameter of bolt hole.
- [4] Supply of large and intermediate Sizes is possible



ASME B16.47 Series A Class 150#

Being Modified as per Industry Standard to be Slip On Flanges



INDUSTRIAL STANDARD CLASS 150 SERIES "A" SLIP-ON FLANGES (MATCHES BOLT)

NPS (inches)								Drilling			Weight (LBS)
	Outside Diameters	Thickness	Dia for RF	LTH	Dia for Hub	Min FR	Bore	# of Holes	Hole Dia	Circle Dia	
	A	B	C	I	D	j	E		⁽³⁾		
26	34.25	2.69	29.50	3.69	28.25	0.38	26.25	24	1.38	31.75	235
28	36.5	3.06	31.50	3.81	30.50	0.44	28.25	28	1.38	34	270
30	38.75	3.31	33.75	3.94	32.50	0.44	30.25	28	1.38	36	305
32	41.75	3.41	36.00	4.18	34.50	0.44	32.25	28	1.63	38.5	375
34	43.75	3.68	38.00	4.25	36.50	0.50	34.25	32	1.63	40.5	400
36	46	3.96	40.25	4.56	38.75	0.50	36.25	32	1.63	42.75	450
38	48.75	4.06	42.25	4.56	41.25	0.50	38.25	32	1.63	45.25	530
40	50.75	4.18	44.25	4.81	43.25	0.50	40.25	36	1.63	47.25	570
42	53	4.43	47.00	5.06	45.50	0.50	42.25	36	1.63	49.5	650
44	55.25	4.68	49.00	5.18	47.75	0.50	44.25	40	1.63	51.75	690
46	57.25	4.86	51.00	5.31	49.75	0.50	46.25	40	1.63	53.75	730
48	59.5	5.06	53.50	5.56	52.00	0.50	48.25	44	1.63	56	800

Notes :-

[1] Dimensions [in inches]

[2] The Standard supply of these flanges would be 1/16" unless specified otherwise.

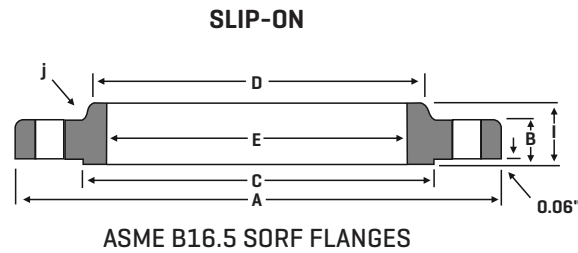
[3] The dimensions are not a committee specification but rather are bolstered from industry terminology.

[4] Under ASME B16.47 or MSS-SP44 Specifications, these Stated flanges do not form a part of.



ASME B16.47 Series B Class 150#

Being Modified as per Industry Standard to be Slip On Flanges



NPS (inches)								Drilling			Weight (LBS)
	Outside Diameters	Thickness	Dia for RF	LTH	Dia for Hub	Min FR	Bore	# of Holes	Hole Dia	Circle Dia	
	A	B	C	I	D	j	E		(3)		
26	30.94	1.62	28.00	2.62	26.94	0.38	26.25	36	0.88	29.31	85
28	32.94	1.75	30.00	2.75	28.94	0.38	28.25	40	0.88	31.31	97
30	34.94	1.75	32.00	2.75	31.00	0.38	30.25	44	0.88	33.31	103
32	37.06	1.81	34.00	2.81	33.06	0.38	32.25	48	0.88	35.44	125
34	39.56	1.94	36.25	2.94	35.12	0.38	34.25	40	1.00	37.69	165
36	41.62	2.06	38.25	3.06	37.19	0.38	36.25	44	1.00	39.75	186
38	44.25	2.12	40.25	3.12	39.25	0.38	38.25	40	1.12	42.12	227
40	46.25	2.19	42.50	3.19	41.31	0.38	40.25	44	1.12	44.12	245
42	48.25	2.31	44.50	3.31	43.38	0.44	42.25	48	1.12	46.12	269
44	50.25	2.38	46.50	3.38	45.38	0.44	44.25	52	1.12	48.12	288
46	52.81	2.44	48.62	3.44	47.44	0.44	46.25	40	1.25	50.56	343
48	54.81	2.56	50.75	3.56	49.50	0.44	48.25	44	1.25	52.56	373
50	56.81	2.69	52.75	3.69	51.50	0.44	50.25	48	1.25	54.56	403
52	58.81	2.75	54.75	3.75	53.56	0.44	52.25	52	1.25	56.56	426
54	61.00	2.81	56.75	3.81	55.62	0.44	54.25	56	1.25	58.75	469
56	63.00	2.88	58.75	3.88	57.69	0.56	56.25	60	1.25	60.75	492
58	65.94	2.94	60.75	3.94	59.69	0.56	58.25	48	1.38	63.44	602
60	67.94	3.00	63.00	4.00	61.81	0.56	60.25	52	1.38	65.44	634

Notes :-

[1] Dimensions [in inches]

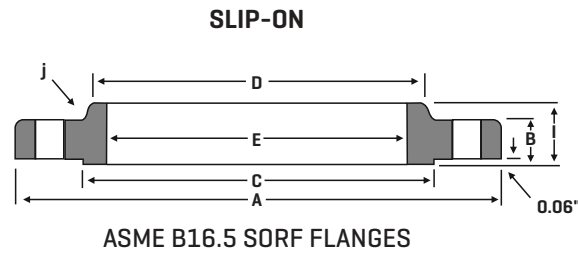
[2] The Standard supply of these flanges would be 1/16" unless specified otherwise.

[3] The dimensions are not a committee specification but rather are bolstered from industry terminology.

[4] Under ASME B16.47 or API-605 Specifications, these Stated flanges do not form a part of.

ASME B16.47 Series A Class 300#

Being Modified as per Industry Standard to be Slip On Flanges



INDUSTRIAL STANDARD CLASS 150 SERIES "A" SLIP-ON FLANGES [MATCHES BOLT]

NPS (inches)								Drilling			Weight (LBS)
	Outside Diameters	Thickness	Dia for RF	LTH	Dia for Hub	Min FR	Bore	# of Holes	Hole Dia	Circle Dia	
	A	B	C	I	D	j	E		⁽³⁾		
26	38.25	3.12	29.50	5.37	30.25	26.25	0.38	28	1.75	34.50	595
28	40.75	3.38	31.50	5.68	32.75	28.25	0.44	28	1.75	37.00	729
30	43.00	3.62	33.75	6.12	34.75	30.25	0.44	28	1.88	39.25	840
32	45.25	3.88	36.00	6.56	36.75	32.25	0.44	28	2.00	41.50	964
34	47.50	4.00	38.00	6.81	38.75	34.25	0.50	28	2.00	43.50	1076
36	50.00	4.12	40.25	7.06	41.00	36.25	0.50	32	2.12	46.00	1202
38	46.00	5.31	40.50	6.06	39.00	38.25	0.50	32	1.62	43.00	687
40	48.75	5.56	42.75	6.56	41.25	40.25	0.50	32	1.75	45.50	840
42	50.75	5.81	44.75	6.81	43.25	42.25	0.50	32	1.75	47.50	922
44	53.25	6.06	47.00	6.86	45.25	44.25	0.50	32	1.88	49.75	1055
46	55.75	6.31	49.00	7.06	47.25	46.25	0.50	28	2.00	52.00	1205
48	57.75	6.56	51.25	7.18	49.25	48.25	0.50	32	2.00	54.00	1306

Notes :-

[1] Dimensions [in inches]

[2] The Standard supply of these flanges would be 1/16" unless specified otherwise.

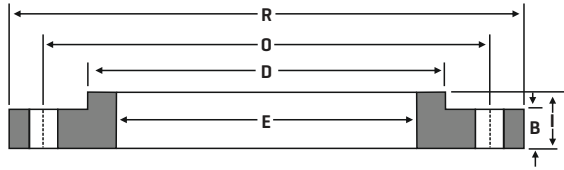
[3] The dimensions are not a committee specification but rather are bolstered from industry terminology.

[4] Under ASME B16.47 or MSS-SP44 Specifications, these Stated flanges do not form a part of.



SIMILAR TO AWWA C207 CLASS DUB

Category : Class 125 LW 175-150 psi

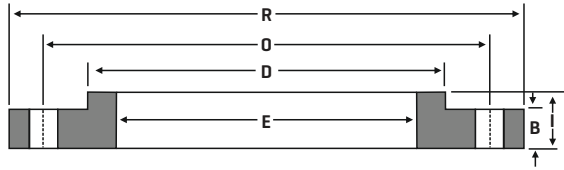


NPS [inches]						Drilling				Weight
	Outside Diameters	Thickness	Dia for RF	Bore	LTH	Bolt Circle	Length of Bolt	Hole Diameter	# of Holes	
	R	B	D	E	I	O				
4	9.00	0.500	5.312	4.57	0.875	7.50	2.75	0.750	8	7
5	10.00	0.562	6.438	5.66	1.250	8.50	3.25	0.875	8	9
6	11.00	0.562	7.562	6.72	1.250	9.50	3.25	0.875	8	11
8	13.50	0.562	9.688	8.72	1.250	11.75	3.25	0.875	8	15
10	16.00	0.688	12.000	10.88	1.250	14.25	3.75	1.000	12	22
12	19.00	0.688	14.375	12.88	1.250	17.00	3.75	1.000	12	33
14	21.00	0.750	15.750	14.19	1.250	18.75	4.00	1.125	12	43
16	23.50	0.750	18.000	16.19	1.250	21.25	4.00	1.125	16	52
18	25.00	0.750	19.875	18.19	1.250	22.75	4.25	1.250	16	52
20	27.50	0.750	22.000	20.19	1.250	25.00	4.25	1.250	20	61
22	29.50	1.000	24.000	22.19	1.750	27.25	5.00	1.375	20	92
24	32.00	1.000	26.125	24.19	1.750	29.50	5.00	1.375	20	105
26	34.25	1.000	28.500	26.19	1.750	31.75	5.00	1.375	24	119
28	36.50	1.000	30.500	28.19	1.750	34.00	5.00	1.375	28	130
30	38.75	1.000	32.500	30.19	1.750	36.00	5.00	1.375	28	144
32	41.75	1.125	34.750	32.19	1.750	38.50	6.00	1.625	28	182
34	43.75	1.125	36.750	34.19	1.750	40.50	6.00	1.625	32	191
36	46.00	1.125	38.750	36.19	1.750	42.75	6.00	1.625	32	207
38	48.75	1.125	40.750	38.19	1.750	45.25	6.00	1.625	32	237
40	50.75	1.125	43.000	40.19	1.750	47.25	6.00	1.625	36	249
42	53.00	1.250	45.000	42.19	1.750	49.50	6.25	1.625	36	287
44	55.25	1.250	47.000	44.19	2.250	51.75	6.25	1.625	40	334
46	57.25	1.250	49.000	46.19	2.250	53.75	6.25	1.625	40	348
48	59.50	1.375	51.000	48.19	2.500	56.00	6.50	1.625	44	407
50	61.75	1.375	53.000	50.19	2.500	58.25	7.00	1.875	44	421
52	64.00	1.375	55.000	52.19	2.500	60.50	7.00	1.875	44	448
54	66.25	1.375	57.000	54.19	2.500	62.75	7.00	1.875	44	475
60	73.00	1.500	63.000	60.19	2.750	69.25	7.25	1.875	52	605
66	80.00	1.500	69.000	66.19	2.750	76.00	7.25	1.875	52	718
72	86.50	1.500	75.000	72.19	2.750	82.50	7.25	1.875	60	803
78	93.00	1.750	81.250	78.19	3.000	89.00	8.25	2.125	64	1010
84	99.75	1.750	87.500	84.19	3.000	95.50	8.25	2.125	64	1160
90	106.50	2.000	93.750	90.19	3.250	102.00	9.50	2.438	68	1430
96	113.25	2.000	100.000	96.19	3.250	108.50	9.50	2.438	68	1618

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

IDENTICAL TO AWWA TABLE 4 CLASS E

Category : Class 125 SO 275 psi

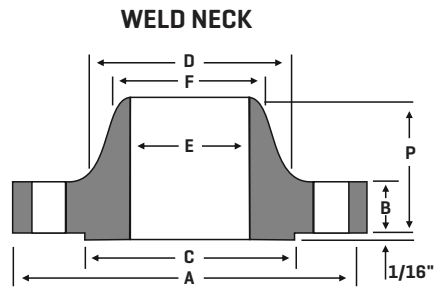


NPS (inches)						Drilling				Weight
	Outside Diameters	Thickness	Dia for RF	Bore	LTH	Bolt Circle	Length of Bolt	Hole Diameter	# of Holes	
	R	B	D	E	I	O				
4	9.00	0.938	5.312	4.57	1.312	7.50	3.75	0.750	8	13
5	10.00	0.938	6.438	5.66	1.438	8.50	4.00	0.875	8	14
6	11.00	1.000	7.562	6.72	1.562	9.50	4.00	0.875	8	17
8	13.50	1.125	9.688	8.72	1.750	11.75	4.50	0.875	8	28
10	16.00	1.188	12.000	10.88	1.938	14.25	5.00	1.000	12	37
12	19.00	1.250	14.375	12.88	2.188	17.00	5.00	1.000	12	59
14	21.00	1.375	15.750	14.19	2.250	18.75	5.50	1.125	12	78
16	23.50	1.438	18.000	16.19	2.500	21.25	5.75	1.125	16	101
18	25.00	1.562	19.875	18.19	2.688	22.75	6.00	1.250	16	110
20	27.50	1.688	22.000	20.19	2.875	25.00	6.50	1.250	20	139
22	29.50	1.812	24.000	22.19	3.125	27.25	6.75	1.375	20	162
24	32.00	1.875	26.125	24.19	3.250	29.50	7.00	1.375	20	197
26	34.25	2.000	28.500	26.19	3.375	31.75	7.25	1.375	24	235
28	36.50	2.062	30.750	28.19	3.438	34.00	7.50	1.375	28	269
30	38.75	2.125	32.750	30.19	3.500	36.00	7.75	1.375	28	303
32	41.75	2.250	35.000	32.19	3.625	38.50	8.50	1.625	28	375
34	43.75	2.312	37.000	34.19	3.688	40.50	8.50	1.625	32	401
36	46.00	2.375	39.250	36.19	3.750	42.75	8.75	1.625	32	452
38	48.75	2.375	41.750	38.19	3.750	45.25	8.75	1.625	32	528
40	50.75	2.500	43.750	40.19	3.875	47.25	9.00	1.625	36	573
42	53.00	2.625	46.000	42.19	4.000	49.50	9.25	1.625	36	648
44	55.25	2.625	48.000	44.19	4.000	51.75	9.25	1.625	40	688
46	57.25	2.688	50.000	46.19	4.062	53.75	9.25	1.625	40	733
48	59.50	2.750	52.250	48.19	4.125	56.00	9.50	1.625	44	799
50	61.75	2.750	54.250	50.19	4.125	58.25	10.00	1.875	44	827
52	64.00	2.875	56.500	52.19	4.250	60.50	10.25	1.875	44	922
54	66.25	3.000	58.750	54.19	4.375	62.75	10.50	1.875	44	1024
60	73.00	3.125	65.250	60.19	4.500	69.25	11.00	1.875	52	1253
66	80.00	3.375	71.500	66.19	4.875	76.00	11.50	1.875	52	1623
72	86.50	3.500	78.500	72.19	5.000	82.50	11.75	1.875	60	1922
78	93.00	3.875	84.500	78.19	5.375	89.00	13.00	2.125	64	2279
84	99.75	3.875	90.500	84.19	5.375	95.50	13.00	2.125	64	2586
90	106.50	4.250	96.750	90.19	5.750	102.00	14.25	2.438	68	3061
96	113.25	4.250	102.750	96.19	5.750	108.50	14.25	2.438	68	3432

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



Category : Class 125 WN Flanges



ASME B16.5 WNRF FLANGES

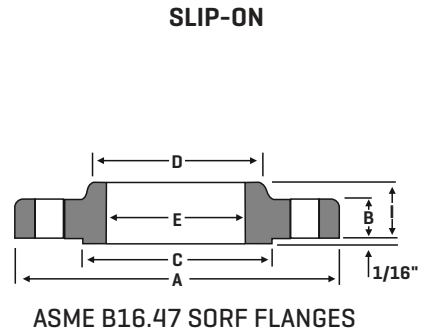
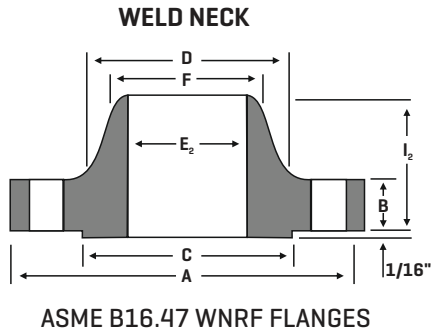
NPS [inches]								Drilling				Weight
	Outside Diameters	Thickness	Outside diameter of RF	Dia at Base	Bore	Bevel Diameter	LTH	Bolt Circle	Lenght of Bolt	Diameter of Hole	# of Holes	
	A	B	C	D	E	F	P					
6	11.00	1.00	8.50	7.56		6.63	3.50	9.50	4.00	0.88	8	24
8	13.50	1.13	10.63	9.69		8.63	4.00	11.75	4.50	0.88	8	39
10	16.00	1.19	12.75	12.00		10.75	4.00	14.25	5.00	1.00	12	52
12	19.00	1.25	15.00	14.38		12.75	4.50	17.00	5.00	1.00	12	80
14	21.00	1.38	16.25	15.75		14.00	5.00	18.75	5.50	1.13	12	110
16	23.50	1.44	18.50	18.00		16.00	5.00	21.25	5.75	1.13	16	140
18	25.00	1.56	21.00	19.88		18.00	5.50	22.75	6.00	1.25	16	150
20	27.50	1.69	23.00	22.00		20.00	5.69	25.00	6.50	1.25	20	180
22	29.50	1.81	25.25	24.25		22.00	5.88	27.25	6.75	1.38	20	225
24	32.00	1.88	27.25	26.13		24.00	6.00	29.50	7.00	1.38	20	255
26	34.25	2.00	29.50	28.50		26.00	5.00	31.75	7.25	1.38	24	265
28	36.50	2.06	31.50	30.75	Purchaser Specification required	28.00	5.06	34.00	7.50	1.38	28	295
30	38.75	2.13	33.75	32.75		30.00	5.13	36.00	7.75	1.38	28	340
32	41.75	2.25	36.00	35.00		32.00	5.25	38.50	8.50	1.63	28	410
34	43.75	2.31	38.00	37.00		34.00	5.31	40.50	8.50	1.63	32	440
36	46.00	2.38	40.25	39.25		36.00	5.38	42.75	8.75	1.63	32	495
38	48.75	2.38	42.25	41.75		38.00	5.38	45.25	8.75	1.63	32	570
40	50.75	2.50	44.25	43.75		40.00	5.50	47.25	9.00	1.63	36	620
42	53.00	2.63	47.00	46.00		42.00	5.63	49.50	9.25	1.63	36	710
44	55.25	2.63	49.00	48.00		44.00	5.63	51.75	9.25	1.63	40	750
46	57.25	2.69	51.00	50.00		46.00	5.68	53.75	9.25	1.63	40	800
48	59.50	2.75	53.50	52.25		48.00	5.75	56.00	9.50	1.63	44	870
50	61.75	2.75	55.50	54.25		50.00	5.75	58.25	10.00	1.88	44	900
52	64.00	2.88	57.50	56.50		52.00	5.88	60.50	10.25	1.88	44	1000
54	66.25	3.00	59.75	58.75		54.00	6.00	62.75	10.50	1.88	44	1100
60	73.00	3.13	66.00	65.25		60.00	6.13	69.25	11.00	1.88	52	1350
66	80.00	3.38	-	71.50		66.00	6.38	76.00	11.50	1.88	52	1775
72	86.50	3.50	-	78.50		72.00	6.50	82.50	11.75	1.88	60	2100
84	99.75	3.88	-	90.50		84.00	6.88	95.50	13.00	2.13	64	2825
96	113.25	4.25	-	102.75		96.00	7.25	108.50	14.25	2.44	68	3800

Note :-

[1] Weights [pounds]/ Dimensions [inches]

[2] The Stated flanges have an identical OD & Drilling as Class 125 Cast iron flanges ASME B16.1 and can be furnished and

Category : Class 250 [300psi] Flanges



NPS [inches]					Bore		LTH		Drilling				Weight		
	Outside Diame- ters	Thickness	Outside Diame- ter of RF	Dia at Base	WN	SO	WNRF Flanges	SO	Bolt Circle	Bolt Length	Dia of Hole	# of Holes	WNRF Flanges	SORF Flanges	Blind Flanges
	A	B	C	D	E ₂	E	I ₂	I							
26	38.25	2.81	32.44	30.50	Purchaser Specification required	26.25	5.81	4.75	34.50	10.00	1.88	28	534	531	916
28	40.75	2.94	34.94	33.00		28.25	5.94	5.00	37.00	10.25	1.88	28	629	637	1095
30	43.00	3.00	37.19	35.25		30.25	6.00	5.00	39.25	10.50	1.88	28	702	707	1236
32	45.25	3.12	39.44	37.50		32.25	6.12	5.12	41.50	10.75	1.88	28	793	801	1424
34	47.50	3.25	41.44	39.50		34.25	6.25	5.25	43.50	11.25	1.88	28	882	889	1649
36	50.00	3.38	43.69	41.50		36.25	6.38	5.38	46.00	12.00	2.13	32	969	970	1884
38	52.25	3.44	45.69	43.50		38.25	6.44	5.50	48.00	12.00	2.13	32	1057	1062	2094
40	54.25	3.56	47.94	45.75		40.25	6.56	5.50	50.25	12.25	2.13	36	1158	1172	2336
42	57.00	3.69	50.44	47.75		42.25	6.94	5.62	52.75	12.50	2.125	36	1318	1288	2673
44	59.25	3.75	52.69	49.75		44.25	7.00	5.75	55.00	12.75	2.13	36	1423	1397	2935
46	61.50	3.88	54.94	51.75		46.25	7.12	5.88	57.25	13.00	2.13	40	1536	1510	3272
48	65.00	4.00	58.44	54.00		48.25	7.25	6.00	60.75	13.25	2.13	40	1824	1797	3768

Note :-

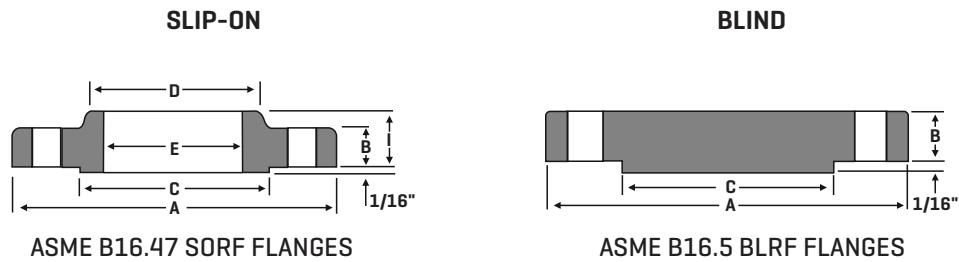
[1] Weights [pounds]/ Dimensions [inches]

[2] The stated flanges have an identical OD & Drilling as class 250 cast iron flanges.





ASME B16.47 SLIP-ON & BLIND FLANGES CLASS 75



NPS (inches)	Outside Diameters	Thickness						Drilling				Weight	
		Slip On	Blind Flanges	Outside Diameter of RF	Dia at Base	Bore ²	LTH	Bolt Circle	Bolt Length ³	Hole Dia ⁴	# of Holes	Slip On	Blind
		A	B	B	C	D	E	I					
26	33.00	1.25	1.25	30.00	28.50	26.25	2.25	31.00	5.00	1.00	32	120	290
28	35.00	1.25	1.38	32.00	30.50	28.25	2.25	33.00	5.25	1.00	36	140	360
30	37.00	1.25	1.38	34.00	32.50	30.25	2.25	35.00	5.25	1.00	36	150	405
32	39.50	1.25	1.50	36.25	34.63	32.25	2.50	37.38	5.50	1.13	40	170	500
34	41.50	1.25	1.63	38.25	36.63	34.25	2.50	39.38	5.75	1.13	40	180	600
36	43.50	1.25	1.63	40.25	38.63	36.25	2.50	41.38	5.75	1.13	44	190	660
42	50.00	1.25	1.88	46.50	44.75	42.25	2.75	47.75	6.25	1.25	48	235	1000
48	56.00	1.25	2.13	52.50	50.75	48.25	2.88	53.75	6.50	1.25	56	270	1450
54	62.50	1.38	2.38	59.00	57.25	54.25	3.13	60.25	6.75	1.25	68	335	2000
60	68.50	1.63	2.63	65.00	63.25	60.25	3.63	66.25	7.25	1.25	72	450	2675
66	75.50	1.75	2.88	71.63	69.50	66.25	4.00	73.00	8.00	1.38	72	590	3550
72	81.50	2.00	3.13	77.63	75.50	72.25	4.50	79.00	8.50	1.38	80	730	4500

Notes :- Supply of large & intermediate sizes is possible; Specification is required if they are to be used with welding neck flange or Slip-On Flange while ordering Industry standard class 75 Blind flanges as the Blind flanges differ between those two flanges.

[1] Weights (in pounds); Dimensions (in inches)

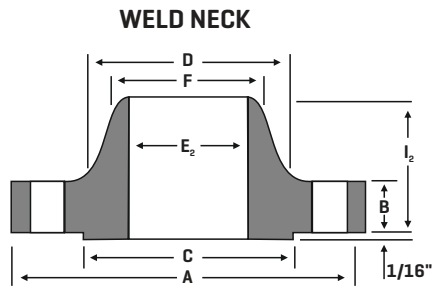
[2] The above state bores are the most common ones. Wherever applicable these can be specified by the client.

[3] The calculations of Bolt lengths are done based on bolting one blind flange to one Slip-on flange; Variances in bolt length would occur with any other bolting mix.

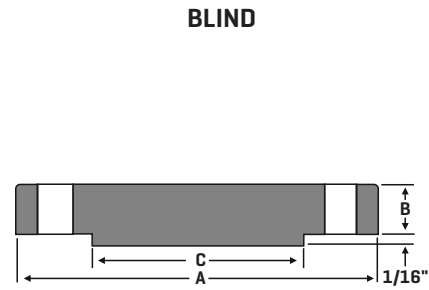
[4] The diameter of Bolt hole is 1/8" larger than the diameter for bolt.



ASME B16.47 WELD NECK FLANGE & BLIND FLANGE CLASS 75



ASME B16.47 WNRF FLANGES



ASME B16.5 BLRF FLANGES

Nominal Pipe Size NPS [inches]	Thickness								Drilling				Weight	
	Outside Diameters	Weld neck	Blind Flange	Outside Diameter of RF	Base Diameter	Bore	LTH	Bevel Diameter	Bolt Circle	Bolt Length ²	Hole Dia ³	# of Holes	Weld Neck	Flange [BLRF]
	A	B	B	C	D	E	I	F						
26	31.50	1.15	1.25	28.63	27.13		3.00		29.63	5.00	1.00	32	98	265
28	33.50	1.25	1.25	30.63	29.13		3.00		31.63	5.00	1.00	36	105	300
30	35.50	1.25	1.38	32.63	31.13	Purchaser Specification required	3.00	Specify design requirements	33.63	5.25	1.00	36	110	370
32	38.25	1.25	1.50	35.00	33.38		3.25		36.16	5.50	1.13	36	140	470
34	40.25	1.25	1.50	37.00	35.38		3.25		38.13	5.50	1.13	40	150	520
36	42.25	1.25	1.63	39.00	37.38		3.25		40.13	5.75	1.13	40	160	620
42	49.00	1.25	1.88	45.50	43.75		3.50		46.75	6.25	1.25	48	210	970
48	55.00	1.25	2.13	51.50	49.75		3.75		52.75	6.50	1.25	52	240	1375
54	61.25	1.38	2.38	57.75	56.00		4.00		59.00	6.75	1.25	64	310	1925
60	67.25	1.63	2.63	63.75	62.00		4.38		65.00	7.25	1.25	72	400	2575
66	74.00	1.88	2.88	70.13	68.00		4.88		71.50	8.00	1.38	72	560	3400
72	80.00	2.25	3.13	76.13	74.00		5.25		77.50	8.75	1.38	80	700	4350

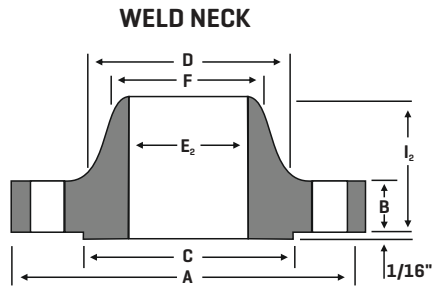
Notes :- Supply of large & intermediate sizes is possible; Specification is required if they are to be used with welding neck flange or Slip-On Flange while ordering Industry standard class 75 Blind flanges as the Blind flanges differ between those two flanges.

[1] Weights [in pounds]; Dimensions [in inches]

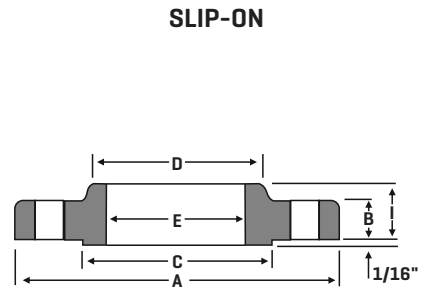
[2] The calculations of Bolt lengths are done based on bolting one blind flange to one Slip-on flange; Variances in bolt length would occur with any other bolting mix.

[3] The diameter of Bolt hole is 1/8" larger than the diameter for bolt.

ASME B16.47 CLASS 175



ASME B16.47 WNRF FLANGES



ASME B16.47 SORF FLANGES

NPS (inches)								Drilling			Bevel Diameter
	Outside Diameters	Weld Neck	Slip-On	Blind	Outside Diameter of RF	Dia at Base	Weld Neck	Slip-On	Weld Neck	Slip-on	
	A	B	B		C	D	E	E	I	I		F
26	31.50	1.38	1.38	1.78	29.00	27.63		26.25	3.38	2.75	
28	33.50	1.38	1.38	2.00	31.00	29.63		28.25	3.38	2.75	
30	35.75	1.38	1.38	2.13	33.25	31.88		30.25	3.63	2.75	
32	37.75	1.38	1.38	2.25	35.25	33.88		32.25	3.63	2.75	
34	40.25	1.50	1.75	2.38	37.38	35.88		34.25	3.75	3.38	
36	42.25	1.50	1.75	2.50	39.38	37.88		36.25	3.75	3.38	
38	44.25	1.75	2.00	2.63	41.38	39.88		38.25	4.13	3.75	
40	46.25	1.75	2.00	2.75	43.38	41.88		40.25	4.13	4.00	
42	49.00	2.00	2.38	2.88	45.75	44.13		42.25	4.50	4.38	
44	51.00	2.00	2.38	3.00	47.75	46.13		44.25	4.50	4.38	
46	53.00	2.00	2.38	3.13	49.75	48.13		46.25	4.50	4.63	
48	55.00	2.25	2.63	3.38	51.75	50.13		48.25	4.88	4.88	
50	57.00	2.25	2.63	3.38	53.75	52.13		50.25	4.88	4.88	
52	59.50	2.63	3.00	3.63	56.00	54.25		52.25	5.38	5.38	
54	61.50	2.63	3.00	3.63	58.00	56.25		54.25	5.38	5.38	
60	67.50	2.75	3.13	4.00	64.00	62.25		60.25	5.75	5.88	
66	73.50	3.13	4.00	4.38	70.00	68.50		66.25	6.13	6.88	
72	80.00	3.63	5.00	4.75	76.50	74.50		72.25	6.63	8.00	
84	94.00	3.00	5.00	5.50	90.13	88.00		84.25	7.00	8.50	
96	106.00	3.50	5.00	6.12	102.13	100.00		96.25	7.50	9.00	

Purchaser Specification required

Specify design requirements

ASME B16.47 CLASS 175

NPS (inches)	Drilling				Weight		
	Bolt Circle	Bolt Length ²	Hole Dia ³	# of Holes	Weld Neck	Slip-ON	Blind Flange
26	29.88	5.50	0.88	28	120	105	405
28	31.88	5.75	0.88	28	130	115	490
30	34.13	5.75	0.88	36	150	130	590
32	36.13	6.00	0.88	36	160	140	700
34	38.38	6.75	1.00	36	195	200	840
36	40.38	6.75	1.00	36	205	210	970
38	42.38	7.25	1.00	36	245	250	1125
40	44.38	7.25	1.00	40	255	270	1300
42	46.88	8.00	1.13	40	340	365	1500
44	48.88	8.25	1.13	40	360	380	1700
46	50.88	8.25	1.13	40	375	410	1925
48	52.88	8.75	1.13	44	430	460	2225
50	54.88	8.75	1.13	44	450	480	2400
52	57.25	9.75	1.25	44	560	600	2800
54	59.25	9.75	1.25	44	580	620	3000
60	65.25	10.25	1.25	48	680	730	4000
66	71.25	11.50	1.25	56	830	1000	5175
72	77.75	12.75	1.25	64	1075	1400	6650
84	91.5	13.75	1.38	72	1550	2250	-
96	103.5	14.25	1.38	88	1950	2600	-

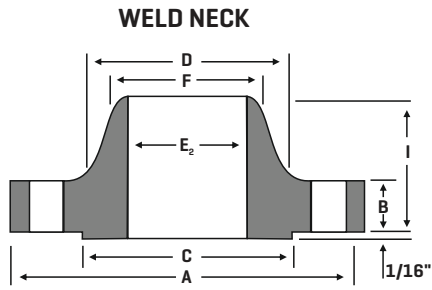
Notes :-

[1] Weights [in pounds]; Dimensions [in inches]

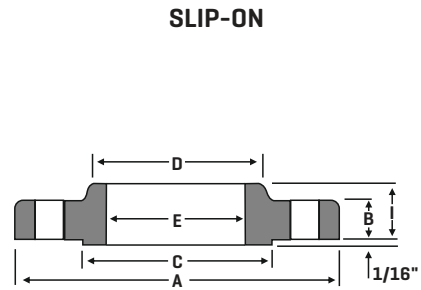
[2] The calculations of Bolt lengths are done based on bolting one blind flange to one Slip-on flange; Variances in bolt length would occur with any other bolting mix.

[3] The diameter of Bolt hole is 1/8" larger than the diameter for bolt.

ASME B16.47 CLASS 350



ASME B16.47 WNRF FLANGES



ASME B16.47 SORF FLANGES

NPS (inches)	Thickness						Bore		LTH		Bevel Diameter
	Outside Diameters	Weld Neck	Slip-On	Blind	Outside Diameter of RF	Dia at Base	Weld Neck	Slip-On	Weld Neck	Slip-on	
	A	B	B		C	D	E	E	I	I	
26	32.75	2.50	2.50	2.75	29.50	27.88		26.25	5.00	4.50	
28	34.75	2.50	2.50	2.88	31.50	29.88		28.25	5.00	4.50	
30	37.00	2.63	2.63	3.00	33.75	32.13		30.25	5.25	4.75	
32	39.00	2.75	2.75	3.25	35.75	34.13		32.25	5.50	5.00	
34	41.00	2.88	2.88	3.38	37.75	36.13		34.25	5.75	5.13	
36	43.75	3.13	3.13	3.63	40.25	38.50		36.25	6.13	5.63	
38	45.75	3.13	3.13	3.75	42.25	40.50		38.25	6.13	5.63	
40	47.75	3.25	3.25	4.00	44.25	42.50		40.25	6.25	5.88	
42	50.00	3.50	3.50	4.13	46.50	44.75		42.25	6.50	6.13	
44	52.75	3.75	3.75	4.38	48.88	46.75		44.25	6.75	6.75	
46	54.75	4.25	4.25	4.75	50.88	48.75		46.25	7.25	7.25	
48	56.75	4.25	4.25	4.75	52.88	50.75		48.25	7.25	7.25	
52	61.50	4.25	-	-	57.25	55.00	Purchaser Specification required	52.25	7.50	-	
54	63.50	4.50	4.75	-	59.25	57.00		54.25	7.75	8.25	
60	69.50	4.50	5.00	-	65.25	63.00		60.25	8.00	8.50	
66	77.00	4.00	-	-	72.38	70.00		66.25	8.50	-	
72	83.00	4.00	-	-	78.38	76.00		72.25	9.00	-	

Specify design requirements

ASME B16.47 CLASS 350

NPS (inches)	Drilling				Weight		
	Bolt Circle	Bolt Length ²	Hole Dia ³	# of Holes	Weld Neck	Slip-ON	Blind Flange
26	30.63	8.00	1.13	28	245	225	580
28	32.63	8.25	1.13	28	260	250	750
30	34.88	8.50	1.13	32	305	295	890
32	36.88	8.75	1.13	36	340	325	1050
34	38.88	9.00	1.13	40	375	355	1225
36	41.50	9.75	1.25	40	480	465	1500
38	43.50	10.00	1.25	40	510	490	1700
40	45.50	10.25	1.25	44	540	530	1975
42	47.75	10.75	1.25	48	640	620	2225
44	50.25	11.50	1.38	44	760	760	2625
46	52.25	12.25	1.38	48	880	880	2950
48	54.25	12.25	1.38	48	920	920	3300
52	58.75	-	1.50	52	1075	-	-
54	60.75	-	1.50	52	1200	1150	-
60	66.75	-	1.50	60	1325	1450	-
66	74.00	-	1.63	60	1675	-	-
72	80.00	-	1.63	72	1850	-	-

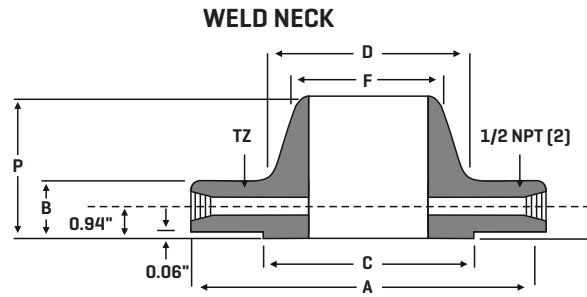
Notes :-

[1] Weights [in pounds]; Dimensions [in inches]

[2] The calculations of Bolt lengths are done based on bolting one blind flange to one Slip-on flange; Variances in bolt length would occur with any other bolting mix.

[3] The diameter of Bolt hole is 1/8" larger than the diameter for bolt.

ASME B16.36 WELDING NECK FLANGES ORIFICE CLASS 300



ASME B16.36 WNRF FLANGES

									Drilling				
	NPS (inches)	Outside Diameters	Thickness	Outside Diameter of RF	Dia at Base	Bevel Diameter	LTH	Pressure connection Diameter	TZ	Bolt Circle	Hole Dia	# of Holes	Bolt Dia
										A	B	C	D
in	1	4.88	1.50	2.00	2.12	1.32	3.25	1/4	3.50	0.69	4	5/8	
mm		124.0	38.1	50.8	53.8	33.5	82.6	6.4	88.9	17.5		15.9	
in	1 1/2	6.12	1.50	2.88	2.75	1.90	3.38	1/4	4.50	0.81	4	3/4	
mm		155.4	38.1	73.2	69.9	48.3	85.9	6.4	114.3	20.6		19.1	
in	2	6.50	1.50	3.62	3.31	2.38	3.38	1/4	5.00	0.69	8	5/8	
mm		165.1	38.1	91.9	84.1	60.5	85.9	6.4	127.0	17.5		15.9	
in	2 1/2	7.50	1.50	4.12	3.94	2.88	3.50	1/4	5.88	0.81	8	3/4	
mm		190.5	38.1	104.6	100.1	73.2	88.9	6.4	149.4	20.6		19.1	
in	3	8.25	1.50	5.00	4.62	3.50	3.50	3/8	6.62	0.81	8	3/4	
mm		209.6	38.1	127.0	117.3	88.9	88.9	9.5	168.1	20.6		19.1	
in	4	10.00	1.50	6.19	5.75	4.50	3.62	1/2	7.88	0.81	8	3/4	
mm		254.0	38.1	157.2	146.1	114.3	91.9	12.7	200.2	20.6		19.1	
in	6	12.50	1.50	8.50	8.12	6.63	3.94	1/2	10.62	0.88	12	3/4	
mm		317.5	38.1	215.9	206.2	168.4	100.1	12.7	269.7	22.4		19.1	
in	8	15.00	1.62	10.62	10.25	8.63	4.38	1/2	13.00	1.00	12	7/8	
mm		381.0	41.1	269.7	260.4	219.2	111.3	12.7	330.2	25.4		22.2	
in	10	17.50	1.88	12.75	12.62	10.75	4.62	1/2	15.25	1.12	16	1	
mm		444.5	47.8	323.9	320.5	273.1	117.3	12.7	387.4	28.4		25.4	
in	12	20.50	2.00	15.00	14.75	12.75	5.12	1/2	17.75	1.25	16	1 1/8	
mm		520.7	50.8	381.0	374.7	323.9	130.0	12.7	450.9	31.8		28.6	
in	14	23.00	2.12	16.25	16.75	14.00	5.62	1/2	20.25	1.25	20	1 1/8	
mm		584.2	53.8	412.8	425.5	355.6	142.7	12.7	514.4	31.8		28.6	
in	16	25.50	2.25	18.50	19.00	16.00	5.75	1/2	22.50	1.38	20	1 1/4	
mm		647.7	57.2	469.9	482.6	406.4	146.1	12.7	571.5	35.1		31.8	
in	18	28.00	2.38	21.00	21.00	18.00	6.25	1/2	24.75	1.38	24	1 1/4	
mm		711.2	60.5	533.4	533.4	457.2	158.8	12.7	628.7	35.1		31.8	
in	20	30.50	2.50	23.00	23.12	20.00	6.38	1/2	27.00	1.38	24	1 1/4	
mm		774.7	63.5	584.2	587.2	508.0	162.1	12.7	685.8	35.1		31.8	
in	24	36.00	2.75	27.25	27.62	24.00	6.62	1/2	32.00	1.62	24	1 1/2	
mm		914.4	69.9	692.2	701.5	609.6	168.1	12.7	812.8	41.1		38.1	

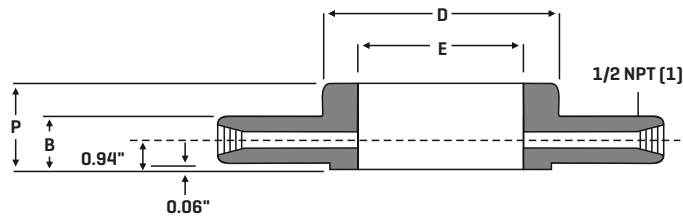
Notes :-

- [1] Purchaser Specification necessary for Bore Diameter.
- [2] Any other NPT & SW connections can be made available on Demand,



ASME B16.36 SLIP ON FLANGES ORIFICE CLASS 300

SLIP-ON

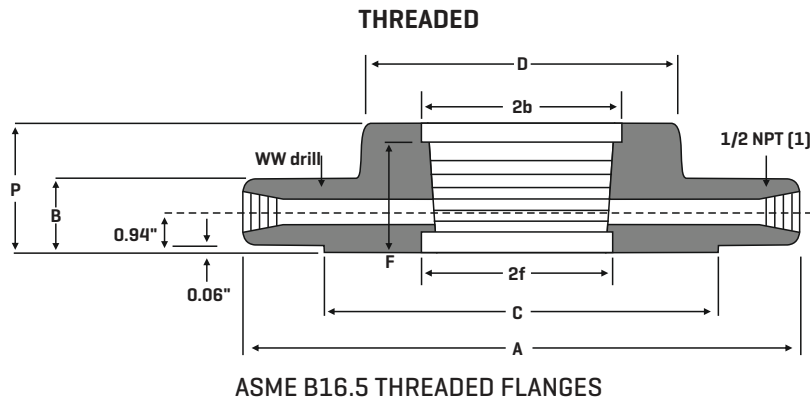


ASME B16.36 SORF FLANGES

									Drilling			
	NPS (inches)	Outside Diameters	Thickness	Outside Diameter of RF	Dia at Base	Bevel Diameter	LTH	Pressure connection Diameter	Bolt Circle	Hole Dia	# of Holes	Bolt Dia
		A	B	C	D	E	P	TZ				
in	1	4.88	1.50	2.00	2.12	1.36	1.88	1/4	3.50	0.69	4	5/8
mm		124.0	38.1	50.8	53.8	34.5	47.8	6.4	88.9	17.5		15.9
in	1 1/2	6.12	1.50	2.88	2.75	1.95	1.88	1/4	4.50	0.81	4	3/4
mm		155.4	38.1	73.2	69.9	49.5	47.8	6.4	114.3	20.6		19.1
in	2	6.50	1.50	3.62	3.31	2.44	1.94	1/4	5.00	0.69	8	5/8
mm		165.1	38.1	91.9	84.1	62.0	49.3	6.4	127.0	17.5		15.9
in	2 1/2	7.50	1.50	4.12	3.94	2.94	2.00	1/4	5.88	0.81	8	3/4
mm		190.5	38.1	104.6	100.1	74.7	50.8	6.4	149.4	20.6		19.1
in	3	8.25	1.50	5.00	4.62	3.57	2.06	3/8	6.62	0.81	8	3/4
mm		209.6	38.1	127.0	117.3	90.7	52.3	9.5	168.1	20.6		19.1
in	4	10.00	1.50	6.19	5.75	4.57	2.12	1/2	7.88	0.81	8	3/4
mm		254.0	38.1	157.2	146.1	116.1	53.8	12.7	200.2	20.6		19.1
in	6	12.50	1.50	8.50	8.12	6.72	2.12	1/2	10.62	0.88	12	3/4
mm		317.5	38.1	215.9	206.2	170.7	53.8	12.7	269.7	22.4		19.1
in	8	15.00	1.62	10.62	10.25	8.72	2.44	1/2	13.00	1.00	12	7/8
mm		381.0	41.1	269.7	260.4	221.5	62.0	12.7	330.2	25.4		22.2
in	10	17.50	1.88	12.75	12.62	10.88	2.62	1/2	15.25	1.12	16	1
mm		444.5	47.8	323.9	320.5	276.4	66.5	12.7	387.4	28.4		25.4
in	12	20.50	2.00	15.00	14.75	12.88	2.88	1/2	17.75	1.25	16	1 1/8
mm		520.7	50.8	381.0	374.7	327.2	73.2	12.7	450.9	31.8		28.6
in	14	23.00	2.12	16.25	16.75	14.14	3.00	1/2	20.25	1.25	20	1 1/8
mm		584.2	53.8	412.8	425.5	359.2	76.2	12.7	514.4	31.8		28.6
in	16	25.50	2.25	18.50	19.00	16.16	3.25	1/2	22.50	1.38	20	1 1/4
mm		647.7	57.2	469.9	482.6	410.5	82.6	12.7	571.5	35.1		31.8
in	18	28.00	2.38	21.00	21.00	18.18	3.50	1/2	24.75	1.38	24	1 1/4
mm		711.2	60.5	533.4	533.4	461.8	88.9	12.7	628.7	35.1		31.8
in	20	30.50	2.50	23.00	23.12	20.20	3.75	1/2	27.00	1.38	24	1 1/4
mm		774.7	63.5	584.2	587.2	513.1	95.3	12.7	685.8	35.1		31.8
in	24	36.00	2.75	27.25	27.62	24.25	4.19	1/2	32.00	1.62	24	1 1/2
mm		914.4	69.9	692.2	701.5	616.0	106.4	12.7	812.8	41.1		38.1

Notes :- Any other NPT & SW connections can be made available on Demand,

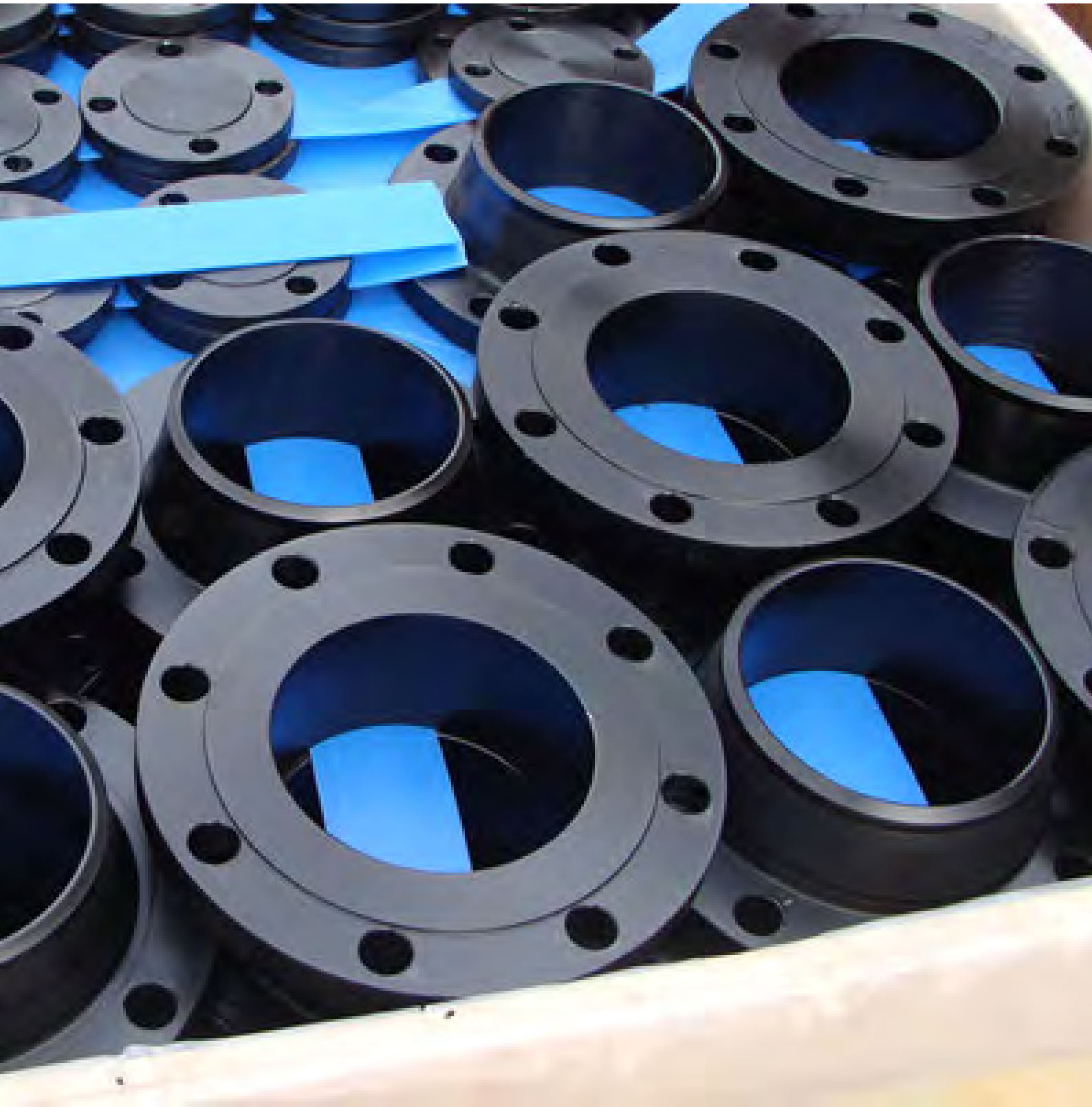
ASME B16.36 THREADED FLANGES ORIFICE CLASS 300



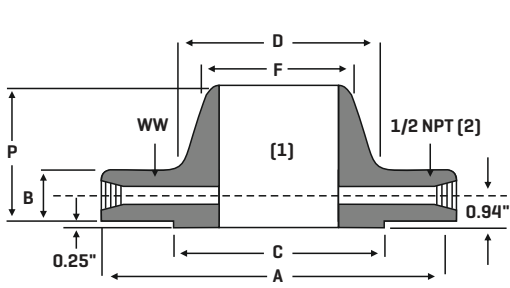
NPS (inches)	Outside Diameters	Thickness	Outside Diameter of RF	Dia at Base	LTH	Counter Bore Outside diameter		Depth of counter Bore [face]		Pressure connection diameter	Bolt Circle	Hole Dia	# of Hole	Bolt Dia
	A	B	C	D	P	2b	2f	H	K	WW				
in. 1	4.88	1.50	2.00	2.12	1.88	1.41	1.30	1.44	0.75	1/4	3.50	0.69	4	5/8
mm.	124.0	38.1	50.8	53.8	47.8	35.8	33.0	36.6	19.1	6.4	88.9	17.5		15.9
in. 1 1/2	6.12	1.50	2.88	2.75	1.88	1.99	1.89	1.47	0.72	1/4	4.50	0.81	4	3/4
mm.	155.4	38.1	73.2	69.9	47.8	50.5	48.0	37.3	18.3	6.4	114.3	20.6		19.1
in. 2	6.50	1.50	3.62	3.31	1.94	2.50	2.36	1.50	0.69	1/4	5.00	0.69	8	5/8
mm.	165.1	38.1	91.9	84.1	49.3	63.5	59.9	38.1	17.5	6.4	127.0	17.5		15.9
in. 2 1/2	7.50	1.50	4.12	3.94	2.00	3.00	2.84	1.75	0.56	1/4	5.88	0.81	8	3/4
mm.	190.5	38.1	104.6	100.1	50.8	76.2	72.1	44.5	14.2	6.4	149.4	20.6		19.1
in. 3	8.25	1.50	5.00	4.62	2.06	3.63	3.46	1.81	0.56	3/8	6.62	0.81	8	3/4
mm.	209.6	38.1	127.0	117.3	52.3	92.2	87.9	46.0	14.2	9.5	168.1	20.6		19.1
in. 4	10.00	1.50	6.19	5.75	2.12	4.63	4.45	1.88	0.56	1/2	7.88	0.81	8	3/4
mm.	254.0	38.1	157.2	146.1	53.8	117.6	113.0	47.8	14.2	12.7	200.2	20.6		19.1
in. 6	12.50	1.50	8.50	8.12	2.12	6.75	6.57	1.88	0.31	1/2	10.62	0.88	12	3/4
mm.	317.5	38.1	215.9	206.2	53.8	171.5	166.9	47.8	7.9	12.7	269.7	22.4		19.1
in. 8	15.00	1.62	10.62	10.25	2.44	8.75	8.55	2.19	0.44	1/2	13.00	1.00	12	7/8
mm.	381.0	41.1	269.7	260.4	62.0	222.3	217.2	55.6	11.2	12.7	330.2	25.4		22.2

Notes :- Any other NPT & SW connections can be made available on Demand,

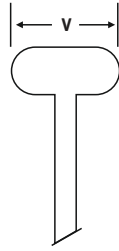




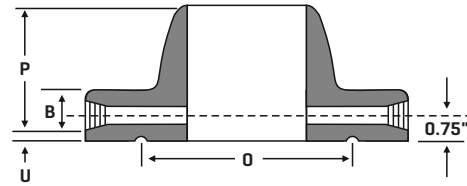
ASME B16.36 WELD NECK ORIFICE FLANGES CLASS 400



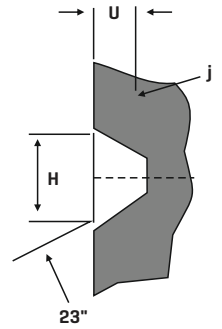
RAISED FACE ORIFICE FLANGE



ASSEMBLY OF STEEL RING AND ORIFICE PLATE



RING TYPE JOINT ORIFICE FLANGE



GROOVE DETAILS

	NPS (inches)	Outside Diameters	Thickness	Outside Diameter of RF	Dia at Base	Bevel Diameter	LTH	Pressure connection Diameter	Bolt Circle	Hole Dia	# of Holes	Bolt Dia	Drilling					
													A	B	C	D	M	P	WW	Grove #	Diameter for Pitch	Depth of groove	Width of groove	Bottom Red	Oval RH
in	4	10.00	1.50	6.19	5.75	4.50	3.50	1/2	7.88	1.00	8	7/8	R37	5.875	0.312	0.469	0.03	1.06
mm		254.0	38.1	157.2	146.1	114.3	88.9	12.7	200.2	25.4	22.2			149.225	7.925	11.913	0.8	26.9
in	6	12.50	1.62	8.50	8.12	6.63	4.06	1/2	10.62	1.00	12	7/8	R45	8.312	0.312	0.469	0.03	1.06
mm		317.5	41.1	215.9	206.2	168.4	103.1	12.7	269.7	25.4	22.2			211.125	7.925	11.913	0.8	26.9
in	8	15.00	1.88	10.62	10.25	8.63	4.62	1/2	13.00	1.12	12	1	R49	10.625	0.312	0.469	0.03	1.06
mm		381.0	47.8	269.7	260.4	219.2	117.3	12.7	330.2	28.4	25.4			269.875	7.925	11.913	0.8	26.9
in	10	17.50	2.12	12.75	12.62	10.75	4.88	1/2	15.25	1.25	16	1 1/8	R53	12.750	0.312	0.469	0.03	1.06
mm		444.5	53.8	323.9	320.5	273.1	124.0	12.7	387.4	31.8	28.6			323.850	7.925	11.913	0.8	26.9
in	12	20.50	2.25	15.00	14.75	12.75	5.38	1/2	17.75	1.38	16	1 1/4	R57	15.000	0.312	0.469	0.03	1.06
mm		520.7	57.2	381.0	374.7	323.9	136.7	12.7	450.9	35.1	31.8			381.000	7.925	11.913	0.8	26.9
in	14	23.00	2.39	16.25	16.75	14.00	5.88	1/2	20.25	1.38	20	1 1/4	R61	16.500	0.312	0.469	0.03	1.06
mm		584.2	60.7	412.8	425.5	355.6	149.4	12.7	514.4	35.1	31.8			419.100	7.925	11.913	0.8	26.9
in	16	25.50	2.50	18.50	19.00	16.00	6.00	1/2	22.50	1.50	20	1 3/8	R65	18.500	0.312	0.469	0.03	1.19
mm		647.7	63.5	469.9	482.6	406.4	152.4	12.7	571.5	38.1	34.9			469.900	7.925	11.913	0.8	30.2
in	18	28.00	2.62	21.00	21.00	18.00	6.50	1/2	24.75	1.50	24	1 3/8	R69	21.000	0.312	0.469	0.03	1.19
mm		711.2	66.5	533.4	533.4	457.2	165.1	12.7	628.7	38.1	34.9			533.400	7.925	11.913	0.8	30.2
in	20	30.50	2.75	23.00	23.12	20.00	6.62	1/2	27.00	1.62	24	1 1/2	R73	23.000	0.375	0.531	0.06	1.25
mm		774.7	69.9	584.2	587.12	508.0	168.1	12.7	685.8	41.1	38.1			584.200	9.525	13.487	1.5	31.8
in	24	36.00	3.00	27.25	27.62	24.00	6.88	1/2	32.00	1.89	24	1 3/4						
mm		914.4	76.2	692.2	701.5	609.6	174.8	12.7	812.8	48.0	44.5							

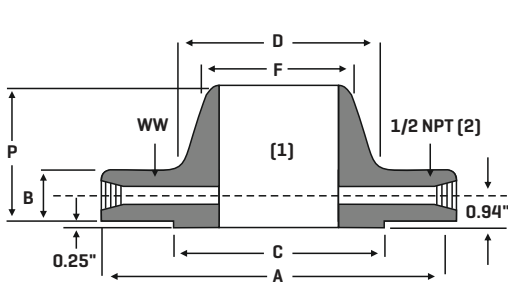
Notes :-

[1] Purchaser Specification necessary for Bore Diameter.

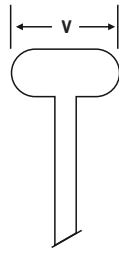
[2] Any other NPT & SW connections can be made available on Demand,



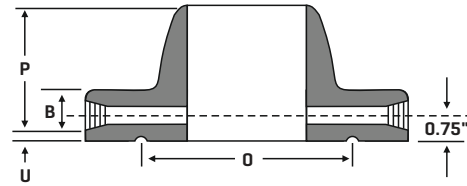
ASME B16.36 WELD NECK ORIFICE FLANGES CLASS 600



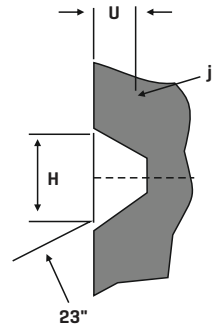
RAISED FACE ORIFICE FLANGE



ASSEMBLY OF STEEL RING AND ORIFICE PLATE



RING TYPE JOINT ORIFICE FLANGE



GROOVE DETAILS

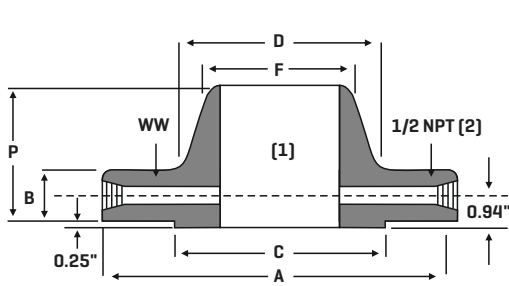
	NPS (inches)	Drilling							Ring Type Joint											
		Outside Diameters		Thick-ness	Outside Diameter of RF	Dia at Base	Bevel Diameter	LTH	Pressure connection Diameter	Bolt Circle	Hole Dia		# of Holes	Bolt Dia	Grove #	Diameter for Pitch	Depth of groove	Width of groove	Bottom Red	Oval RH
		A	B	C	D	M	P	WW		CA	CB			Y	U	H	j max	V		
in	1	4.88	1.50	2.00	2.12	1.32	3.25	1/4	3.50	0.69	0.75	4	5/8	R16	2.000	0.250	0.344	0.03	1.00	
mm		124.0	38.1	50.8	53.8	33.5	82.6	6.4	88.9	17.50	19.1	15.9			50.800	6.350	8.738	0.8	25.4	
in	1 1/2	6.12	1.50	2.88	2.75	1.90	3.38	1/4	4.50	0.81	0.88	4	3/4	R20	2.688	0.250	0.344	0.03	1.00	
mm		155.4	38.1	73.2	69.9	48.3	85.9	6.4	114.3	20.60	22.4	19.1			68.275	6.350	8.738	0.8	25.4	
in	2	6.50	1.50	3.62	3.31	2.38	3.38	1/4	5.00	0.69	0.75	8	5/8	R23	3.250	0.312	0.469	0.03	1.06	
mm		165.1	38.1	91.9	84.1	60.5	85.9	6.4	127.00	17.50	19.1	15.9			82.550	7.925	11.913	0.8	26.9	
in	2 1/2	7.50	1.50	4.12	3.94	2.88	3.50	1/4	5.88	0.81	0.88	8	3/4	R26	4.000	0.312	0.469	0.03	1.06	
mm		190.5	38.1	104.6	100.1	73.2	88.9	6.4	149.35	20.60	22.4	19.1			101.600	7.925	11.913	0.8	26.9	
in	3	8.25	1.50	5.00	4.62	3.50	3.50	3/8	6.62	0.81	0.88	8	3/4	R31	4.875	0.312	0.469	0.03	1.06	
mm		209.6	38.1	127.0	117.3	88.9	88.9	9.5	168.15	20.60	22.4	19.1			123.825	7.925	11.913	0.8	26.9	
in	4	10.75	1.50	6.19	6.00	4.50	4.00	1/2	8.50	1.00	1.00	8	7/8	R37	5.875	0.312	0.469	0.03	1.06	
mm		273.1	38.1	157.2	152.4	114.3	101.6	12.7	215.9	25.40	25.4	22.2			149.225	7.925	11.913	0.8	26.9	
in	6	14.00	1.88	8.50	8.75	6.63	4.62	1/2	11.50	1.12	1.12	12	1	R45	8.312	0.312	0.469	0.03	1.06	
mm		355.6	47.8	215.9	222.3	168.4	117.3	12.7	292.1	28.40	28.4	25.4			211.125	7.925	11.913	0.8	26.9	
in	8	16.50	2.19	10.62	10.75	8.63	5.25	1/2	13.75	1.25	1.25	12	1 1/8	R49	10.625	0.312	0.469	0.03	1.06	
mm		419.1	55.6	269.7	273.1	219.2	133.4	12.7	349.25	31.80	31.8	28.6			269.875	7.925	11.913	0.8	26.9	
in	10	20.00	2.50	12.75	13.50	10.75	6.00	1/2	17.00	1.38	1.38	16	1 1/4	R53	12.750	0.312	0.469	0.03	1.06	
mm		508.0	63.5	323.9	342.9	273.1	152.4	12.7	431.8	35.10	35.1	31.8			323.850	7.925	11.913	0.8	26.9	
in	12	22.00	2.62	15.00	15.75	12.75	6.12	1/2	19.25	1.38	1.38	20	1 1/4	R57	15.000	0.312	0.469	0.03	1.06	
mm		558.8	66.5	381.0	400.1	323.9	155.4	12.7	488.95	35.10	35.1	31.8			381.000	7.925	11.913	0.8	26.9	
in	14	23.75	2.75	16.25	17.00	14.00	6.50	1/2	20.75	1.50	1.50	20	1 3/8	R61	16.500	0.312	0.469	0.03	1.06	
mm		603.3	69.9	412.8	431.8	355.6	165.1	12.7	527.05	38.10	38.1	35.1			419.100	7.925	11.913	0.8	26.9	
in	16	27.00	3.00	18.50	19.50	16.00	7.00	1/2	23.75	1.60	1.60	20	1 1/2	R65	18.500	0.312	0.469	0.03	1.19	
mm		685.8	76.2	469.9	495.3	406.4	177.8	12.7	603.25	41.10	41.1	38.1			469.900	7.925	11.913	0.8	30.2	
in	18	29.25	3.25	21.00	21.50	18.00	7.25	1/2	25.75	1.75	1.75	20	1 5/8	R69	21.000	0.312	0.469	0.03	1.19	
mm		743.0	82.6	533.4	546.1	457.2	184.2	12.7	654.05	44.50	44.5	41.3			533.400	7.925	11.913	0.8	30.2	
in	20	32.00	3.50	23.00	24.00	20.00	7.50	1/2	28.50	1.75	1.75	24	1 5/8	R73	23.000	0.375	0.531	0.06	1.25	
mm		812.8	88.9	584.2	609.6	508.0	190.5	12.7	723.9	44.50	44.5	41.3			584.200	9.525	13.487	1.5	31.8	
in	24	37.00	4.00	27.25	28.25	24.00	8.00	1/2	33.00	2.00	2.00	24	1 7/8							
mm		939.8	101.6	692.2	717.6	609.6	203.2	12.7	838.2	50.80	50.8	47.6								

Notes :-

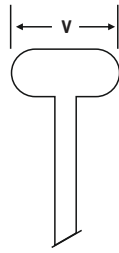
- [1] Purchaser Specification necessary for Bore Diameter.
- [2] Any other NPT & SW connections can be made available on Demand,



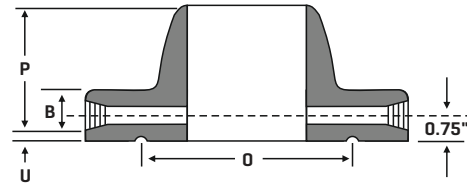
ASME B16.36 WELD NECK ORIFICE FLANGES CLASS 900



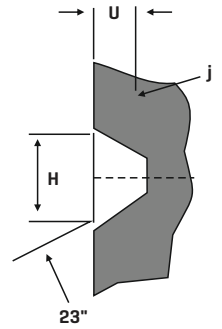
RAISED FACE ORIFICE FLANGE



ASSEMBLY OF STEEL RING AND ORIFICE PLATE



RING TYPE JOINT ORIFICE FLANGE



GROOVE DETAILS

	NPS (inches)	Outside Diameters	Thickness	Outside Diameter of RF	Dia at Base	Bevel Diameter	LTH	Pressure connection Diameter	Bolt Circle	Hole Dia	# of Holes	Bolt Dia	Drilling					
													A	B	C	D	M	P	WW	Grove #	Diameter for Pitch	Depth of groove	Width of groove	Bottom Red	Oval RH
in	3	9.50	1.50	5.00	5.00	3.50	4.00	3/8	7.50	1.00	8	7/8	R31	4.875	0.312	0.469	0.03	1.06
mm		241.3	38.1	127.0	127.0	88.9	101.6	9.5	190.5	25.40	22.2			123.825	7.925	11.913	0.8	26.9
in	4	11.50	1.75	6.19	6.25	4.50	4.50	1/2	9.25	1.25	8	1 1/8	R37	5.875	0.312	0.469	0.03	1.06
mm		292.1	44.5	157.2	158.8	114.3	114.3	12.7	235.0	31.80	28.6			149.225	7.925	11.913	0.8	26.9
in	6	15.00	2.19	8.50	9.25	6.63	5.50	1/2	12.50	1.25	12	1 1/8	R45	8.312	0.312	0.469	0.03	1.06
mm		381.0	55.6	215.9	235.0	168.4	139.7	12.7	317.5	31.80	28.6			211.125	7.925	11.913	0.8	26.9
in	8	18.50	2.50	10.62	11.75	8.63	6.38	1/2	15.50	1.50	12	1 3/8	R49	10.625	0.312	0.469	0.03	1.06
mm		469.9	63.5	269.7	298.5	219.2	162.1	12.7	393.7	38.10	34.9			269.875	7.925	11.913	0.8	26.9
in	10	21.50	2.75	12.75	14.50	10.75	7.25	1/2	18.50	1.50	16	1 3/8	R53	12.750	0.312	0.469	0.03	1.06
mm		546.1	69.9	323.9	368.3	273.1	184.2	12.7	469.9	38.10	34.9			323.850	7.925	11.913	0.8	26.9
in	12	24.00	3.12	15.00	16.50	12.75	7.88	1/2	21.00	1.50	20	1 3/8	R57	15.000	0.312	0.469	0.03	1.06
mm		609.6	79.2	381.0	419.1	323.9	200.2	12.7	533.4	38.10	34.9			381.000	7.925	11.913	0.8	26.9
in	14	25.25	3.38	16.25	17.75	14.00	8.38	1/2	22.00	1.62	20	1 1/2						
mm		641.4	85.9	412.8	450.9	355.6	212.9	12.7	558.8	41.10	38.1							
in	16	27.75	3.50	18.50	20.00	16.00	8.50	1/2	24.30	1.75	20	1 5/8						
mm		704.9	88.9	469.9	508.0	406.4	215.9	12.7	616.0	44.50	41.3							
in	18	31.00	4.00	21.00	22.25	18.00	9.00	1/2	27.00	2.00	20	1 7/8						
mm		787.4	101.6	533.4	565.2	457.2	228.6	12.7	685.8	50.80	47.6							
in	20	33.75	4.25	23.00	24.50	20.00	9.75	1/2	29.50	2.12	20	2						
mm		857.3	108.0	584.2	622.3	508.0	247.7	12.7	749.3	53.80	50.8							
in	24	41.00	5.50	27.25	29.50	24.00	11.50	1/2	35.50	2.62	20	2 1/2						
mm		1041.4	139.7	692.2	749.3	609.6	292.1	12.7	901.7	66.50	63.5							

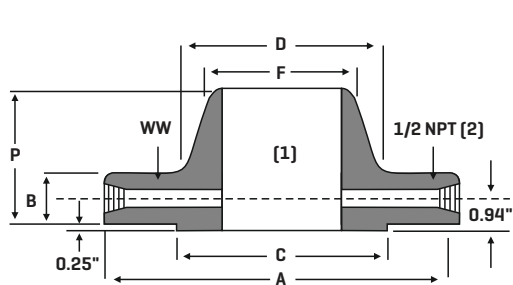
Notes :-

[1] Purchaser Specification necessary for Bore Diameter.

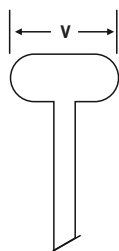
[2] Any other NPT & SW connections can be made available on Demand,



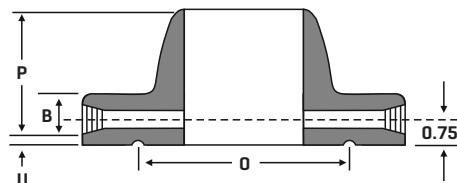
ASME B16.36 WELD NECK ORIFICE FLANGES CLASS 1500



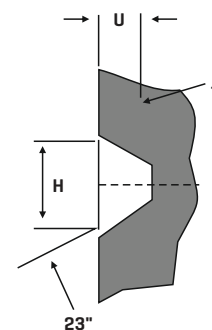
RAISED FACE ORIFICE FLANGE



ASSEMBLY OF STEEL RING AND ORIFICE PLATE



RING TYPE JOINT ORIFICE FLANGE



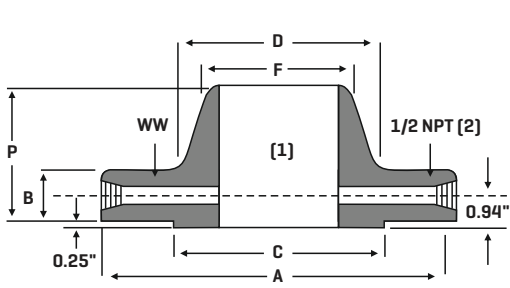
GROOVE DETAILS

													Drilling					
	NPS (inches)	Outside Diameters	Thickness	Outside Diameter of RF	Dia at Base	Bevel Diameter	LTH	Pressure connection Diameter	Bolt Circle	Hole Dia	# of Holes	Bolt Dia	Grove #	Diameter for Pitch	Depth of groove	Width of groove	Bottom Red	Oval RH
		A	B	C	D	M	P	WW					Y	U	H	j max	V	
in	1	5.88	1.50	2.00	2.06	1.32	3.25	1/4	4.00	1.00	4	7/8	R16	2.000	0.250	0.344	0.03	1.00
mm		149.4	38.1	50.8	52.3	33.5	82.6	6.4	101.6	25.4	22.2			50.800	6.350	8.738	0.8	25.4
in	1 1/2	7.00	1.50	2.88	2.75	1.90	3.50	1/4	4.88	1.12	4	1	R20	2.688	0.250	0.344	0.03	1.00
mm		177.8	38.1	73.2	69.9	48.3	88.9	6.4	124.0	28.4		25.4		68.275	6.350	8.738	0.8	25.4
in	2	8.50	1.50	3.62	4.12	2.38	4.00	1/4	6.50	1.00	8	7/8	R24	3.750	0.312	0.469	0.03	1.06
mm		215.9	38.1	91.9	104.6	60.5	101.6	6.4	165.1	25.4		22.2		95.250	7.925	11.913	0.8	26.9
in	2 1/2	9.62	1.62	4.12	4.88	2.88	4.12	1/4	7.50	1.12	8	1	R27	4.250	0.312	0.469	0.03	1.06
mm		244.3	41.1	104.6	124.0	73.2	104.6	6.4	190.5	28.4		25.4		107.950	7.925	11.913	0.8	26.9
in	3	10.50	1.88	5.00	5.25	3.50	4.62	3/8	8.00	1.25	8	1 1/8	R35	5.375	0.312	0.469	0.03	1.06
mm		266.7	47.8	127.0	133.4	88.9	117.3	9.5	203.2	31.8		28.6		136.525	7.925	11.913	0.8	26.9
in	4	12.25	2.12	6.19	6.38	4.50	4.88	1/2	9.50	1.38	8	1 1/4	R39	6.375	0.312	0.469	0.03	1.06
mm		311.2	53.8	157.2	162.1	114.3	124.0	12.7	241.3	35.1		31.8		161.925	7.925	11.913	0.8	26.9
in	6	15.50	3.25	8.50	9.00	6.63	6.75	1/2	12.50	1.50	12	1 3/8	R46	8.312	0.375	0.531	0.06	1.12
mm		393.7	82.6	215.9	228.6	168.4	171.5	12.7	317.5	38.1		34.9		211.125	9.525	13.487	1.5	28.4
in	8	19.00	3.62	10.62	11.50	8.63	8.38	1/2	15.50	1.75	12	1 5/8	.....	.....	.....	.....	.....	.....
mm		482.6	91.9	269.7	292.1	219.2	212.9	12.7	393.7	44.5		41.3	.....	.....	.....	.....	.....	.....
in	10	23.00	4.25	12.75	14.50	10.75	10.00	1/2	19.00	2.00	12	1 7/8	.....	.....	.....	.....	.....	.....
mm		584.2	108.0	323.9	368.3	273.1	254.0	12.7	482.6	50.8		47.6	.....	.....	.....	.....	.....	.....
in	12	26.50	4.88	15.00	17.75	12.75	11.12	1/2	22.50	2.12	16	2	.....	.....	.....	.....	.....	.....
mm		673.1	124.0	381.0	450.9	323.9	282.4	12.7	571.5	53.8		50.8	.....	.....	.....	.....	.....	.....
in	14	29.50	5.25	16.25	19.50	14.00	11.75	1/2	25.00	2.38	16	2 1/4	.....	.....	.....	.....	.....	.....
mm		749.3	133.4	412.8	495.3	355.6	298.5	12.7	635.0	60.5		57.2	.....	.....	.....	.....	.....	.....
in	16	32.50	5.75	18.50	21.75	16.00	12.25	1/2	27.80	2.60	16	2 1/2	.....	.....	.....	.....	.....	.....
mm		825.5	146.1	469.9	552.1	406.4	311.2	12.7	704.9	66.5		63.5	.....	.....	.....	.....	.....	.....
in	18	36.00	6.38	21.00	23.50	18.00	12.88	1/2	30.50	2.88	16	2 3/4	.....	.....	.....	.....	.....	.....
mm		914.4	162.1	533.4	596.9	457.2	327.2	12.7	774.7	73.2		69.9	.....	.....	.....	.....	.....	.....
in	20	38.75	7.00	23.00	25.25	20.00	14.00	1/2	32.75	3.12	16	3	.....	.....	.....	.....	.....	.....
mm		984.3	177.8	584.2	641.4	508.0	355.6	12.7	831.9	79.2		76.2	.....	.....	.....	.....	.....	.....
in	24	46.00	8.00	27.25	30.00	24.00	16.00	1/2	39.00	3.62	16	3 1/2	.....	.....	.....	.....	.....	.....
mm		1168.4	203.2	692.2	762.0	609.6	406.4	12.7	990.6	91.9		88.9	.....	.....	.....	.....	.....	.....

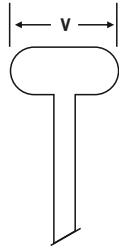
Notes :-

- [1] Purchaser Specification necessary for Bore Diameter.
- [2] Any other NPT & SW connections can be made available on Demand,

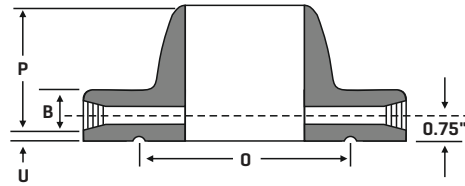
ASME B16.36 WELD NECK ORIFICE FLANGES CLASS 2500



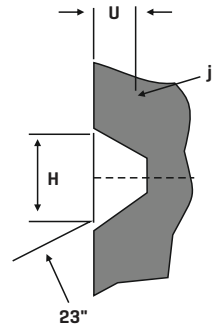
RAISED FACE ORIFICE FLANGE



ASSEMBLY OF STEEL RING AND ORIFICE PLATE



RING TYPE JOINT ORIFICE FLANGE



GROOVE DETAILS

													Drilling					
	NPS (inches)	Outside Diameters	Thickness	Outside Diameter of RF	Dia at Base	Bevel Diameter	LTH	Pressure connection Diameter	Bolt Circle	Hole Dia	# of Holes	Bolt Dia	Grove #	Diameter for Pitch	Depth of groove	Width of groove	Bottom Red	Oval RH
														Y	U	H	j max	V
		A	B	C	D	M	P	WW										
in	1	6.25	1.50	2.00	2.25	1.32	3.62	1/4	4.25	1.00	4	7/8	R18	2.375	0.250	0.344	0.03	1.00
mm		158.8	38.1	50.8	57.2	33.5	91.9	6.4	108.0	25.4	22.2			60.325	6.350	8.738	0.8	25.4
in	1 1/2	8.00	1.75	2.88	3.12	1.90	4.38	1/4	5.75	1.25	4	1 1/8	R23	3.250	0.312	0.469	0.03	1.06
mm		203.2	44.5	73.2	79.2	48.3	111.3	6.4	146.1	31.8	28.6			82.550	7.925	11.913	0.8	26.9
in	2	9.25	2.00	3.62	3.75	2.38	5.00	1/4	6.75	1.12	8	1	R26	4.000	0.312	0.469	0.03	1.06
mm		235.0	50.8	91.9	95.3	60.5	127.0	6.4	171.5	28.4	25.4			101.600	7.925	11.913	0.8	26.9
in	2 1/2	10.50	2.25	4.12	4.50	2.88	5.62	1/4	7.75	1.25	8	1 1/8	R28	4.375	0.375	0.531	0.06	1.19
mm		266.7	57.2	104.6	114.3	73.2	142.7	6.4	196.9	31.8	28.6			111.125	9.525	13.487	1.5	30.2
in	3	12.00	2.62	5.00	5.25	3.50	6.62	3/8	9.00	1.38	8	1 1/4	R32	5.000	0.375	0.531	0.06	1.19
mm		304.8	66.5	127.0	133.4	88.9	168.1	9.5	228.6	35.1	31.8			127.000	9.525	13.487	1.5	30.2
in	4	14.00	3.00	6.19	6.50	4.50	7.50	1/2	10.75	1.62	8	1 1/2	.....	.....	.....	.....	.....	.....
mm		355.6	76.2	157.2	165.1	114.3	190.5	12.7	273.1	41.1	38.1			.....	.....	.....	.....	.....
in	6	19.00	4.25	8.50	9.25	6.63	10.75	1/2	14.50	2.12	8	2	.....	.....	.....	.....	.....	.....
mm		482.6	108.0	215.9	235.0	168.4	273.1	12.7	368.3	53.8	50.8			.....	.....	.....	.....	.....
in	8	21.75	5.00	10.62	12.00	8.63	12.50	1/2	17.25	2.12	12	2	.....	.....	.....	.....	.....	.....
mm		552.5	127.0	269.7	304.8	219.2	317.5	12.7	438.2	53.8	50.8			.....	.....	.....	.....	.....
in	10	26.50	6.50	12.75	14.75	10.75	16.50	1/2	21.25	2.62	12	2 1/2	.....	.....	.....	.....	.....	.....
mm		673.1	165.1	323.9	374.7	273.1	419.1	12.7	539.8	66.5	63.5			.....	.....	.....	.....	.....
in	12	30.00	7.25	15.00	17.38	12.75	18.25	1/2	24.38	2.88	12	2 3/4	.....	.....	.....	.....	.....	.....
mm		762.0	184.2	381.0	441.5	323.9	463.6	12.7	619.3	73.2	69.9			.....	.....	.....	.....	.....

Notes :-

- [1] Purchaser Specification necessary for Bore Diameter.
- [2] Any other NPT & SW connections can be made available on Demand,



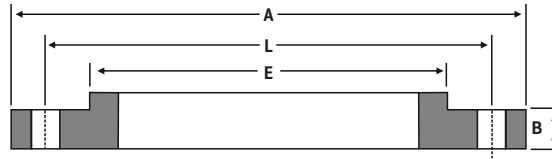
DETAILED SIZES OF JACK SCREW SIZES FOR ORIFICE FLANGES

RING JOINT FACE FLANGE																
NPS (inches)	Class 300 Lb			Class 400 Lb			Class 600 Lb			Class 900 Lb			Class 1500 Lb			
	Size	Length	Size of hole	Size	Length	Size of hole	Size	Length	Size of hole	Size	Length	Size of hole	Size	Length	Size of hole	
1	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	3 3/4	3/4	5/8	3 3/4	3/4	
1 1/4	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	3 3/4	3/4	5/8	3 3/4	3/4	
1 1/2	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	3 3/4	3/4	5/8	3 3/4	3/4	
2	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	3 3/4	11/16	5/8	4	3/4	5/8	4	3/4	
2 1/2	3/4	3 3/4	13/16	3/4	3 3/4	13/16	3/4	3 3/4	13/16	5/8	4 1/4	3/4	5/8	4 1/4	3/4	
3	3/4	3 3/4	13/16	3/4	3 3/4	13/16	3/4	3 3/4	13/16	3/4	4 1/2	7/8	3/4	4 1/2	7/8	
4	3/4	3 3/4	13/16	3/4	4	7/8	3/4	4	7/8	3/4	5	7/8	3/4	5	7/8	
5	3/4	4	7/8	3/4	4	7/8	3/4	4 1/2	7/8	3/4	6	7/8	3/4	6	7/8	
6	3/4	4	7/8	7/8	4 1/2	1	7/8	4 1/2	1	1	6	1 1/8	1	6	1 1/8	
8	3/4	4 1/4	7/8	7/8	4 1/2	1	7/8	5	1	1	7	1 1/8	1	7	1 1/8	
10	1	4 1/2	1 1/8	7/8	5	1	7/8	5	1	1	7	1 1/8	1	7	1 1/8	
12	1	4 1/2	1 1/8	7/8	5	1	7/8	5 1/2	1	1	8	1 1/8	1	8	1 1/8	
14	1	5	1 1/8													
16	1	5	1 1/8													
18	1	5	1 1/8													
20	1	5 1/2	1 1/8													
22	1	5 1/2	1 1/8													
24	1	5 1/2	1 1/8													

RAISED FACE FLANGE																
NPS (inches)	Class 300 Lb			Class 400 Lb			Class 600 Lb			Class 900 Lb			Class 1500 Lb			
	Size	Length	Size of hole	Size	Length	Size of hole	Size	Length	Size of hole	Size	Length	Size of hole	Size	Length	Size of hole	
1	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	3 1/4	3/4	5/8	3 1/4	3/4	
1 1/4	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	3 1/4	3/4	5/8	3 1/4	3/4	
1 1/2	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	3 1/4	3/4	5/8	3 1/4	3/4	
2	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	2 3/4	11/16	5/8	3 1/4	3/4	5/8	3 1/4	3/4	
2 1/2	5/8	2 3/4	13/16	5/8	2 3/4	13/16	5/8	2 3/4	13/16	5/8	3 1/2	3/4	5/8	3 1/2	3/4	
3	3/4	2 3/4	13/16	3/4	2 3/4	13/16	3/4	2 3/4	13/16	3/4	3 3/4	7/8	3/4	3 3/4	7/8	
4	3/4	2 3/4	13/16	3/4	3 1/4	7/8	3/4	3 1/4	7/8	3/4	4	7/8	3/4	4	7/8	
5	3/4	2 3/4	7/8	3/4	3 1/4	7/8	3/4	3 1/2	7/8	3/4	5	7/8	3/4	5	7/8	
6	3/4	2 3/4	7/8	7/8	3 1/2	1	7/8	4	1	1	5	1 1/8	1	5	1 1/8	
8	3/4	3	7/8	7/8	4	1	7/8	4	1	1	5 1/2	1 1/8	1	5 1/2	1 1/8	
10	1	3 1/2	1 1/8	1 1/8	4	1	7/8	4 1/2	1	1	6	1 1/8	1	6	1 1/8	
12	1	3 1/2	1 1/8	1 1/8	4	1	7/8	4 1/2	1	1	7	1 1/8	1	7	1 1/8	
14	1	3 1/2	1 1/8													
16	1	3 1/2	1 1/8													
18	1	3 3/4	1 1/8													
20	1	3 3/4	1 1/8													
22	1	4	1 1/8													
24	1	4	1 1/8													

RING FLANGE (86 psi) – AWWA STANDARD GRADE STEEL

Reference : BLIND FLANGES From Table 7 Class B Table 2



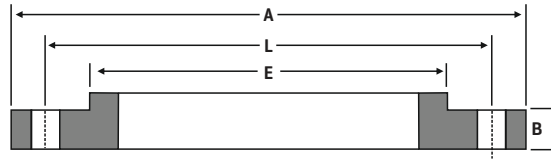
NPS (inches)	Thickness			Drilling				Weight	
	Outside Diameters	Slip-Op Flanges	Blind Flanges	Bore	Bolt Circle	Hole Dia	# of Holes	Slip-Op Flanges	Blind Flanges
	A	B	B	E	L				
4	9.00	0.625	0.625	4.57	7.50	0.750	8	8	11
5	10.00	0.625	0.625	5.66	8.50	0.875	8	9	14
6	11.00	0.688	0.688	6.72	9.50	0.875	8	11	19
8	13.50	0.688	0.688	8.72	11.75	0.875	8	15	28
10	16.00	0.688	0.688	10.88	14.25	1.000	12	19	39
12	19.00	0.688	0.719	12.88	17.00	1.000	12	28	58
14	21.00	0.688	0.791	14.19	18.75	1.125	12	34	78
16	23.50	0.688	0.892	16.19	21.25	1.125	16	41	110
18	25.00	0.688	0.950	18.19	22.75	1.250	16	41	132
20	27.50	0.688	1.040	20.19	25.00	1.250	20	49	175
22	29.50	0.750	1.132	22.19	27.25	1.375	20	57	219
24	32.00	0.750	1.216	24.19	29.50	1.375	20	67	277
26	34.25	0.812	1.307	26.19	31.75	1.375	24	80	341
28	36.50	0.875	1.398	28.19	34.00	1.375	28	94	414
30	38.75	0.875	1.477	30.19	36.00	1.375	28	105	493
32	41.75	0.936	1.581	32.19	38.50	1.625	28	132	613
34	43.75	0.938	1.661	34.19	40.50	1.625	32	137	707
36	46.00	1.000	1.751	36.19	42.75	1.625	32	161	824
38	48.75	1.000	1.853	38.19	45.25	1.625	32	185	980
40	50.75	1.000	1.933	40.19	47.25	1.625	36	193	1108
42	53.00	1.125	2.023	42.19	49.50	1.625	36	234	1264
44	55.25	1.125	2.114	44.19	51.75	1.625	40	249	1436
46	57.25	1.125	2.194	46.19	53.75	1.625	40	260	1600
48	59.50	1.250	2.285	48.19	56.00	1.625	44	306	1800
50	61.75	1.250	2.377	50.19	58.25	1.875	44	317	2017
52	64.00	1.250	2.468	52.19	60.50	1.875	44	339	2249
54	66.25	1.375	2.559	54.19	62.75	1.875	44	397	2499
60	73.00	1.500	2.820	60.19	69.25	1.875	52	508	3344
66	80.00	1.625	3.092	66.19	76.00	1.875	52	664	4403
72	86.50	1.750	3.353	72.19	82.50	1.875	60	802	5582
78	93.00	2.000	.....	78.19	89.00	2.125	64	1000	.....
84	99.75	2.000	.....	84.19	95.50	2.125	64	1145	.....
90	106.50	2.250	.....	90.19	102.00	2.438	68	1404	.....
96	113.25	2.250	.....	96.19	108.50	2.438	68	1586	.....
102	120.00	2.500	.....	102.19	114.50	2.688	72	1912	.....
108	126.75	2.500	.....	108.19	120.75	2.688	72	2136	.....
114	133.50	2.750	.....	114.19	126.75	2.938	76	2525	.....
120	140.25	2.750	.....	120.19	132.75	2.938	76	2795	.....
126	147.00	3.000	.....	126.19	139.25	3.188	80	3252	.....
132	153.75	3.000	.....	132.19	145.75	3.188	80	3572	.....
138	160.50	3.250	.....	138.19	152.00	3.438	84	4101	.....
144	167.25	3.250	.....	144.19	158.25	3.438	84	4475	.....

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



RING FLANGE (175-150 psi) – AWWA STANDARD GRADE STEEL

Reference : BLIND FLANGES From Table 7 Class B Table 2

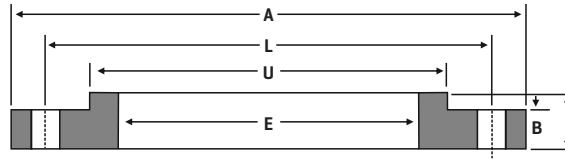


NPS [inches]	Thickness				Drilling			Weight	
	Outside Diameters	Slip-Op Flanges	Blind Flanges	Bore	Bolt Circle	Hole Dia	# of Holes	Slip-Op Flanges	Blind Flanges
	A	B	B	E	L				
4	9.00	0.625	0.625	4.57	7.50	0.750	8	8	11
5	10.00	0.625	0.650	5.66	8.50	0.875	8	9	14
6	11.00	0.688	0.693	6.72	9.50	0.875	8	11	19
8	13.50	0.688	0.812	8.72	11.75	0.875	8	15	33
10	16.00	0.688	0.953	10.88	14.25	1.000	12	19	54
12	19.00	0.812	1.117	12.88	17.00	1.000	12	33	90
14	21.00	0.938	1.133	14.19	18.75	1.125	12	47	111
16	23.50	1.000	1.265	16.19	21.25	1.125	16	60	155
18	25.00	1.062	1.331	18.19	22.75	1.250	16	64	185
20	27.50	1.125	1.448	20.19	25.00	1.250	20	79	244
22	29.50	1.188	1.568	22.19	27.25	1.375	20	90	304
24	32.00	1.250	1.661	24.19	29.50	1.375	20	112	378
26	34.25	1.312	1.786	26.19	31.75	1.375	24	129	466
28	36.50	1.312	1.906	28.19	34.00	1.375	28	141	565
30	38.75	1.375	2.008	30.19	36.00	1.375	28	164	671
32	41.75	1.500	2.150	32.19	38.50	1.625	28	211	834
34	43.75	1.500	2.252	34.19	40.50	1.625	32	220	959
36	46.00	1.625	2.370	36.19	42.75	1.625	32	261	1116
38	48.75	1.625	2.506	38.19	45.25	1.625	32	301	1325
40	50.75	1.625	2.609	40.19	47.25	1.625	36	313	1438
42	53.00	1.750	2.729	42.19	49.50	1.625	36	364	1706
44	55.25	1.750	2.849	44.19	51.75	1.625	40	387	1935
46	57.25	1.750	2.952	46.19	53.75	1.625	40	404	2153
48	59.50	1.875	3.072	48.19	56.00	1.625	44	460	2420
50	61.75	2.000	3.196	50.19	58.25	1.875	44	507	2712
52	64.00	2.000	3.315	52.19	60.50	1.875	44	542	3021
54	66.25	2.125	3.435	54.19	62.75	1.875	44	614	3355
60	73.00	2.250	3.779	60.19	69.25	1.875	52	763	4481
66	80.00	2.500	4.136	66.19	76.00	1.875	52	1021	5890
72	86.50	2.625	4.480	72.19	82.50	1.875	60	1203	7458
78	93.00	2.750	.....	78.19	89.00	2.125	64	1374	.....
84	99.75	2.875	.....	84.19	95.50	2.125	64	1646	.....
90	106.50	3.000	.....	90.19	102.00	2.438	68	1872	.....
96	113.25	3.250	.....	96.19	108.50	2.438	68	2291	.....
102	120.00	3.250	.....	102.19	114.50	2.688	72	2485	.....
108	126.75	3.375	.....	108.19	120.75	2.688	72	2884	.....
114	133.50	3.500	.....	114.19	126.75	2.938	76	3214	.....
120	140.25	3.500	.....	120.19	132.75	2.938	76	3558	.....
126	147.00	3.750	.....	126.19	139.25	3.188	80	4065	.....
132	153.75	3.875	.....	132.19	145.75	3.188	80	4614	.....
138	160.50	4.000	.....	138.19	152.00	3.438	84	5047	.....
144	167.25	4.125	.....	144.19	158.25	3.438	84	5680	.....

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

HUB FLANGE (175-150 psi) – AWWA STANDARD GRADE STEEL

Class D Table 3



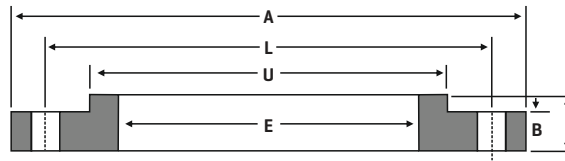
NPS [inches]							Drilling			Weight
	Outside Diameters	Thickness	Overall Thickness	Dia at Base	Bore	Bolt Circle	Hole Dia	# of Holes		
	A	B	I	U	E	L				
4	9.00	0.500	0.875	5.312	4.57	7.50	0.750	8	7	
5	10.00	0.562	1.250	6.312	5.66	8.50	0.875	8	9	
6	11.00	0.562	1.250	7.562	6.72	9.50	0.875	8	11	
8	13.50	0.562	1.250	9.688	8.72	11.75	0.875	8	15	
10	16.00	0.688	1.250	12.000	10.88	14.25	1.000	12	22	
12	19.00	0.688	1.250	14.375	12.88	17.00	1.000	12	33	
14	21.00	0.750	1.250	15.750	14.19	18.75	1.125	12	43	
16	23.50	0.750	1.250	18.000	16.19	21.25	1.125	16	52	
18	25.00	0.750	1.250	19.875	18.19	22.75	1.250	16	52	
20	27.50	0.750	1.250	22.000	20.19	25.00	1.250	20	61	
22	29.50	1.000	1.750	24.250	22.19	27.25	1.375	20	92	
24	32.00	1.000	1.750	26.125	24.19	29.50	1.375	20	105	
26	34.25	1.000	1.750	28.500	26.19	31.75	1.375	24	119	
28	36.50	1.000	1.750	30.500	28.19	34.00	1.375	28	130	
30	38.75	1.000	1.750	32.500	30.19	36.00	1.375	28	144	
32	41.75	1.125	1.750	34.750	32.19	38.50	1.625	28	182	
34	43.75	1.125	1.750	36.750	34.19	40.50	1.625	32	191	
36	46.00	1.125	1.750	38.750	36.19	42.75	1.625	32	207	
38	48.75	1.125	1.750	40.750	38.19	45.25	1.625	32	237	
40	50.75	1.125	1.750	43.000	40.19	47.25	1.625	36	249	
42	53.00	1.250	1.750	45.000	42.19	49.50	1.625	36	287	
44	55.25	1.250	2.250	47.000	44.19	51.75	1.625	40	334	
46	57.25	1.250	2.250	49.000	46.19	53.75	1.625	40	348	
48	59.50	1.375	2.500	51.000	48.19	56.00	1.625	44	407	
50	61.75	1.375	2.500	53.000	50.19	58.25	1.875	44	421	
52	64.00	1.375	2.500	55.000	52.19	60.50	1.875	44	448	
54	66.25	1.375	2.500	57.000	54.19	62.75	1.875	44	475	
60	73.00	1.500	2.750	63.000	60.19	69.25	1.875	52	605	
66	80.00	1.500	2.750	69.000	66.19	76.00	1.875	52	718	
72	86.50	1.500	2.750	75.000	72.19	82.50	1.875	60	803	
78	93.00	1.750	3.000	81.250	78.19	89.00	2.125	64	1010	
84	99.75	1.750	3.000	87.500	84.19	95.50	2.125	64	1160	
90	106.50	2.000	3.250	93.750	90.19	102.00	2.438	68	1430	
96	113.25	2.000	3.250	100.000	96.19	108.50	2.438	68	1618	

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



HUB FLANGE (275 psi) – AWWA STANDARD GRADE STEEL

Class E Table 4

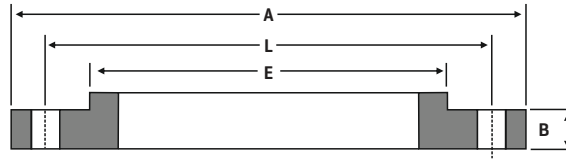


NPS [inches]						Drilling			Weight
	Outside Diameters	Thickness	Overall Thickness	Dia at Base	Bore	Bolt Circle	Hole Dia	# of Holes	
	A	B	I	U	E	L			
4	9.00	0.938	1.312	5.312	4.57	7.50	0.750	8	13
5	10.00	0.938	1.438	6.438	5.66	8.50	0.875	8	14
6	11.00	1.000	1.562	7.562	6.72	9.50	0.875	8	17
8	13.50	1.125	1.750	9.688	8.72	11.75	0.875	8	28
10	16.00	1.188	1.938	12.000	10.88	14.25	1.000	12	37
12	19.00	1.250	2.188	14.375	12.88	17.00	1.000	12	59
14	21.00	1.375	2.250	15.750	14.19	18.75	1.125	12	78
16	23.50	1.438	2.500	18.000	16.19	21.25	1.125	16	101
18	25.00	1.562	2.688	19.875	18.19	22.75	1.250	16	110
20	27.50	1.688	2.875	22.000	20.19	25.00	1.250	20	139
22	29.50	1.812	3.125	24.000	22.19	27.25	1.375	20	162
24	32.00	1.875	3.250	26.125	24.19	29.50	1.375	20	197
26	34.25	2.000	3.375	28.500	26.19	31.75	1.375	24	235
28	36.50	2.062	3.438	30.750	28.19	34.00	1.375	28	269
30	38.75	2.125	3.500	32.750	30.19	36.00	1.375	28	303
32	41.75	2.250	3.625	35.000	32.19	38.50	1.625	28	375
34	43.75	2.312	3.688	37.000	34.19	40.50	1.625	32	401
36	46.00	2.375	3.750	39.250	36.19	42.75	1.625	32	452
38	48.75	2.375	3.750	41.750	38.19	45.25	1.625	32	528
40	50.75	2.500	3.875	43.750	40.19	47.25	1.625	36	573
42	53.00	2.625	4.000	46.000	42.19	49.50	1.625	36	648
44	55.25	2.625	4.000	48.000	44.19	51.75	1.625	40	688
46	57.25	2.688	4.062	50.000	46.19	53.75	1.625	40	733
48	59.50	2.750	4.125	52.250	48.19	56.00	1.625	44	799
50	61.75	2.750	4.125	54.250	50.19	58.25	1.875	44	827
52	64.00	2.875	4.250	56.500	52.19	60.50	1.875	44	922
54	66.25	3.000	4.375	58.750	54.19	62.75	1.875	44	1024
60	73.00	3.125	4.500	65.250	60.19	69.25	1.875	52	1253
66	80.00	3.375	4.875	71.500	66.19	76.00	1.875	52	1623
72	86.50	3.500	5.000	78.500	72.19	82.50	1.875	60	1922
78	93.00	3.875	5.375	84.500	78.19	89.00	2.125	64	2279
84	99.75	3.875	5.375	90.500	84.19	95.50	2.125	64	2586
90	106.50	4.250	5.750	96.750	90.19	102.00	2.438	68	3061
96	113.25	4.250	5.750	102.750	96.19	108.50	2.438	68	3432

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

RING FLANGE (275 psi) – AWWA STANDARD GRADE STEEL

Class E Table 5



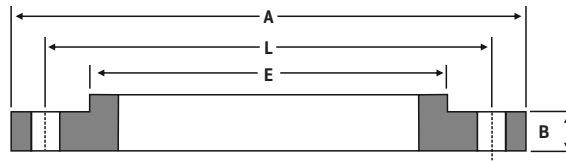
NPS (inches)	Thickness				Drilling			Weight	
	Outside Diameters	Slip-On Flanges	Blind Flanges	Bore	Bolt Circle	Hole Dia	# of Holes	Slip-On Flanges	Blind Flanges
	A	B	B	E	L				
4	9.00	1.125	1.125	4.57	7.50	0.750	8	14	20
5	10.00	1.188	1.188	5.66	8.50	0.875	8	16	26
6	11.00	1.313	1.313	6.72	9.50	0.875	8	20	35
8	13.50	1.500	1.500	8.72	11.75	0.875	8	33	61
10	16.00	1.563	1.563	10.88	14.25	1.000	12	44	89
12	19.00	1.750	1.750	12.88	17.00	1.000	12	71	141
14	21.00	1.875	1.875	14.19	18.75	1.125	12	94	184
16	23.50	2.000	2.000	16.19	21.25	1.125	16	120	246
18	25.00	2.125	2.125	18.19	22.75	1.250	16	127	296
20	27.50	2.375	2.375	20.19	25.00	1.250	20	168	400
22	29.50	2.500	2.500	22.19	27.25	1.375	20	189	484
24	32.00	2.625	2.625	24.19	29.50	1.375	20	234	598
26	34.25	2.750	2.750	26.19	31.75	1.375	24	270	718
28	36.50	2.750	2.750	28.19	34.00	1.375	28	297	815
30	38.75	2.875	2.875	30.19	36.00	1.375	28	344	961
32	41.75	3.000	3.000	32.19	38.50	1.625	28	422	1163
34	43.75	3.000	3.050	34.19	40.50	1.625	32	441	1299
36	46.00	3.125	3.209	36.19	42.75	1.625	32	502	1511
38	48.75	3.125	3.394	38.19	45.25	1.625	32	580	1795
40	50.75	3.250	3.533	40.19	47.25	1.625	36	626	2025
42	53.00	3.375	3.695	42.19	49.50	1.625	36	701	2309
44	55.25	3.375	3.857	44.19	51.75	1.625	40	747	2715
46	57.25	3.438	3.997	46.19	53.75	1.625	40	794	2813
48	59.50	3.500	4.159	48.19	56.00	1.625	44	858	3276
50	61.75	3.500	4.327	50.19	58.25	1.875	44	887	3671
52	64.00	3.625	4.489	52.19	60.50	1.875	44	982	4091
54	66.25	3.750	4.651	54.19	62.75	1.875	44	1083	4542
60	73.00	3.875	5.116	60.19	69.25	1.875	52	1313	6066
66	80.00	4.250	5.601	66.19	76.00	1.875	52	1736	7976
72	86.50	4.375	6.066	72.19	82.50	1.875	60	2005	10099
78	93.00	4.750	.....	78.19	89.00	2.125	64	2374	.....
84	99.75	4.750	.....	84.19	95.50	2.125	64	2719	.....
90	106.50	5.125	.....	90.19	102.00	2.438	68	3197	.....
96	113.25	5.125	.....	96.19	108.50	2.438	68	3613	.....
102	120.00	5.500	.....	102.19	114.50	2.688	72	4206	.....
108	126.75	5.500	.....	108.19	120.75	2.688	72	4700	.....
114	133.50	5.875	.....	114.19	126.75	2.938	76	5395	.....
120	140.25	5.875	.....	120.19	132.75	2.938	76	5972	.....
126	147.00	6.250	.....	126.19	139.25	3.188	80	6775	.....
132	153.75	6.250	.....	132.19	145.75	3.188	80	7442	.....
138	160.50	6.750	.....	138.19	152.00	3.438	84	8517	.....
144	167.25	6.750	.....	144.19	158.25	3.438	84	9295	.....

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



RING FLANGE (300 psi) – AWWA STANDARD GRADE STEEL

Class F Table 6

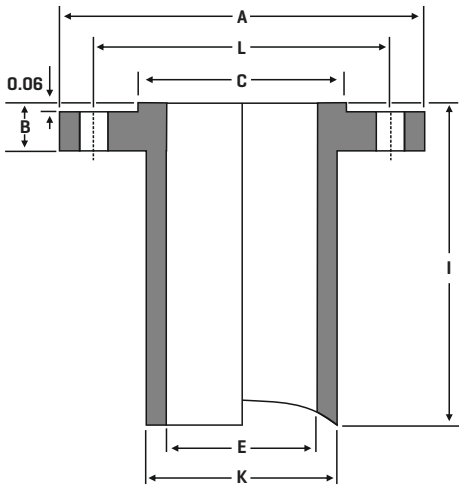


NPS (inches)	Thickness				Drilling			Weight	
	Outside Diameters	Slip-On Flanges	Blind Flanges	Bore	Bolt Circle	Hole Dia	# of Holes	Slip-On Flanges	Blind Flanges
	A	B	B	E	L				
4	10.00	1.130	1.130	4.57	7.88	0.875	8	18	25
5	11.00	1.210	1.210	5.66	9.25	0.875	8	22	33
6	12.50	1.310	1.310	6.73	10.62	0.875	12	30	46
8	15.00	1.310	1.310	8.73	13.00	1.000	12	40	66
10	17.50	1.500	1.500	10.88	15.25	1.125	16	56	102
12	20.50	1.630	1.630	12.88	17.75	1.250	16	83	152
14	23.00	1.940	1.940	14.19	20.25	1.250	20	128	228
16	25.50	2.140	2.140	16.19	22.50	1.375	20	167	310
18	28.00	2.250	2.250	18.19	24.75	1.375	24	204	392
20	30.50	2.330	2.330	20.19	27.00	1.375	24	247	482
22	33.00	2.500	2.500	22.19	29.25	1.375	24	307	606
24	36.00	2.690	2.690	24.19	32.00	1.625	24	388	776
26	38.25	3.000	3.000	26.19	34.50	1.875	28	451	977
28	40.75	3.130	3.130	28.19	37.00	1.875	28	532	1156
30	43.00	3.150	3.166	30.19	39.25	1.875	28	586	1303
32	45.25	3.250	3.332	32.19	41.50	1.875	28	657	1518
34	47.50	3.380	3.475	34.19	43.50	1.875	28	741	1745
36	50.00	3.460	3.671	36.19	46.00	2.125	32	802	2042
38	52.25	3.500	3.815	38.19	48.00	2.125	32	874	2317
40	54.25	3.630	3.982	40.19	50.25	2.125	36	937	2608
42	57.00	3.810	4.171	42.19	52.75	2.125	36	1103	3015
44	59.25	4.000	4.338	44.19	55.00	2.125	36	1237	3388
46	61.50	4.130	4.505	46.19	57.25	2.125	40	1344	3791
48	65.00	4.500	4.781	48.19	60.75	2.125	40	1718	4494

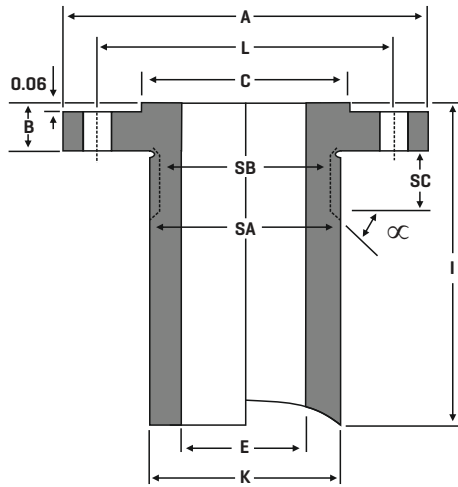
WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



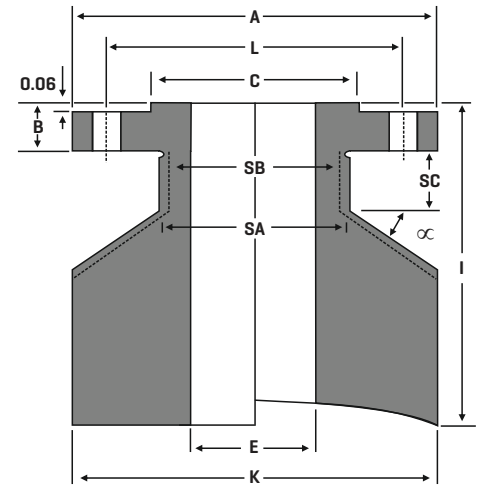
SPECIFICATIONS FOR CLASS 150 FLANGE STANDARD CONNECTION



LONG WELD NECK [LWN] FLANGE



HEAVY BARREL [HB] FLANGE

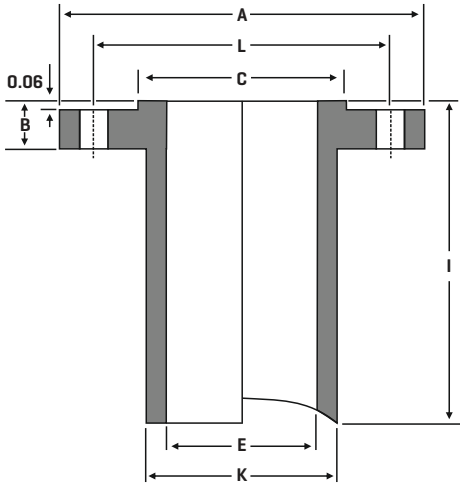


EQUAL BARREL [E] FLANGE

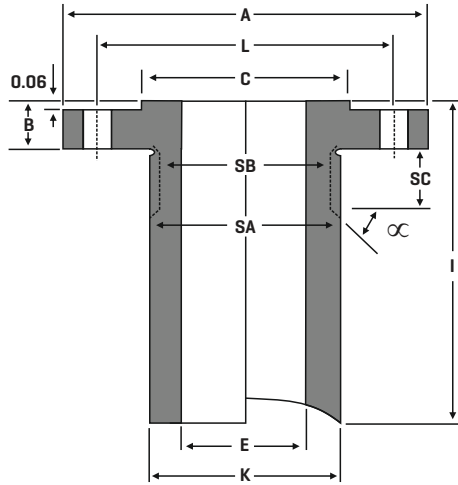
Size NPS [inch.]	Flange			Barrel OD			Bolting			Nut			Stud Bolt			Weights						Length Base		
	Bore LWN & E	Bore HB	Out- side Dia	Thk.	OD of RF	Long Weld Neck	HB	E	# of Hole	Flange hole size	Bolt Circle	Dia- meter of Stop	Dia- meter of Relief	Relief Length	Size	Raised Flange	RTJ Length	Long Weld Neck	HB		E			
E	E	K	B	C	K	K	K			L	SA	SB	SC					Base	Per 1"	Base	Per 1"	Base	Per 1"	l
1/2	0.50	0.55	3.50	0.44	1.38	1.25	1.50	3.50	4	0.62	2.38	1.50	1.25	0.75	1/2	2 1/4	2 3/4	3	0.3	5	0.4	21	2.7	9
3/4	0.75	0.74	3.88	0.50	1.69	1.62	1.88	3.88	4	0.62	2.75	1.88	1.62	0.75	1/2	2 1/2	3	5	0.5	7	0.7	27	3.2	9
1	1.00	0.96	4.25	0.56	2.00	2.00	2.25	4.25	4	0.62	3.12	2.25	2.00	0.75	1/2	2 1/2	3	7	0.7	10	0.9	30	3.8	9
1 1/4	1.25	1.28	4.62	0.62	2.50	2.38	2.62	4.62	4	0.62	3.50	2.62	2.38	0.75	1/2	2 3/4	3 1/4	10	0.9	12	1.2	36	4.4	9
1 1/2	1.50	1.50	5.00	0.69	2.88	2.62	3.00	5.00	4	0.62	3.88	3.00	2.62	0.75	1/2	2 3/4	3 1/4	12	1	16	1.5	41	5.1	9
2	2.00	1.94	6.00	0.75	3.62	3.06	3.69	6.00	4	0.75	4.75	3.69	3.06	0.88	5/8	3 1/4	3 3/4	15	1.2	23	2.2	57	7.1	9
2 1/2	2.50	2.32	7.00	0.88	4.12	3.75	4.44	7.00	4	0.75	5.50	4.44	3.75	0.88	5/8	3 1/2	4	22	1.7	34	3.2	79	10	9
3	3.00	2.90	7.50	0.94	5.00	4.25	4.94	7.50	4	0.75	6.00	4.94	4.25	0.88	5/8	3 1/2	4 1/4	25	2	38	3.6	86	11	9
3 1/2	3.50	3.36	8.50	0.94	5.50	4.88	5.94	8.50	8	0.75	7.00	5.94	4.88	0.88	5/8	3 1/2	4 1/4	32	2.6	55	5.3	110	13	9
4	4.00	3.83	9.00	0.94	6.19	5.50	6.44	9.00	8	0.75	7.50	6.44	5.50	0.88	5/8	3 1/2	4 1/4	47	3.2	78	6	164	14	12
5	5.00	4.81	10.00	0.94	7.31	6.50	7.25	10.00	8	0.88	8.50	7.25	6.50	1.00	3/4	3 3/4	4 1/2	57	3.8	87	6.5	189	17	12
6	6.00	5.76	11.00	1.00	8.50	7.75	8.25	11.00	8	0.88	9.50	8.25	7.75	1.00	3/4	4	4 1/2	75	5.4	103	7.8	216	19	12
8	8.00	7.62	13.50	1.12	10.62	9.75	10.50	13.50	8	0.88	11.75	10.50	9.75	1.00	3/4	4 1/4	4 3/4	102	6.9	157	11	292	26	12
10	10.00	9.56	16.00	1.19	12.75	12.00	12.81	16.00	12	1.00	14.25	12.81	12.00	1.12	7/8	4 3/4	5 1/4	143	9.8	214	16	382	35	12
12	12.00	11.38	19.00	1.25	15.00	14.38	15.56	19.00	12	1.00	17.00	15.56	14.38	1.12	7/8	4 3/4	5 1/2	205	14	329	25	535	48	12
14	14.00	14.00	21.00	1.38	16.25	16.00	17.12	21.00	12	1.12	18.75	17.12	16.00	1.25	1	5 1/4	6	211	13	296	22	585	55	12
16	16.00	16.00	23.50	1.44	18.50	18.00	19.62	23.50	16	1.12	21.25	19.62	18.00	1.25	1	5 1/2	6	246	15	388	29	714	66	12
18	18.00	18.00	25.00	1.56	21.00	20.00	20.94	25.00	16	1.25	22.75	20.94	20.00	1.38	1 1/8	6	6 1/2	270	17	362	25	711	67	12
20	20.00	20.00	27.50	1.69	23.00	22.00	23.19	27.50	20	1.25	25.00	23.19	22.00	1.38	1 1/8	6 1/4	7	311	19	434	31	840	79	12
24	24.00	24.00	32.00	1.88	27.25	26.25	27.50	32.00	20	1.38	29.50	27.50	26.25	1.50	1 1/4	7	7 3/4	423	25	574	40	1046	100	12

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

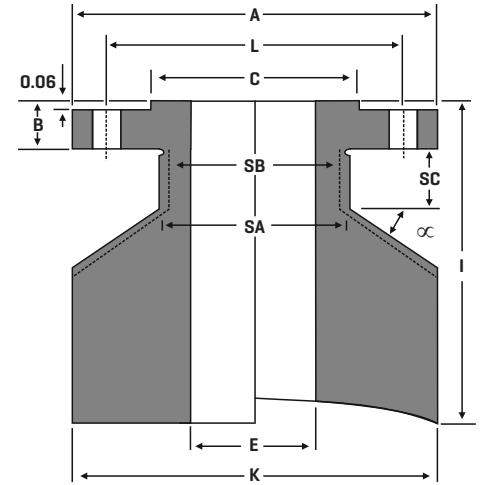
SPECIFICATIONS FOR CLASS 300 FLANGE STANDARD CONNECTION



LONG WELD NECK [LWN] FLANGE



HEAVY BARREL [HB] FLANGE



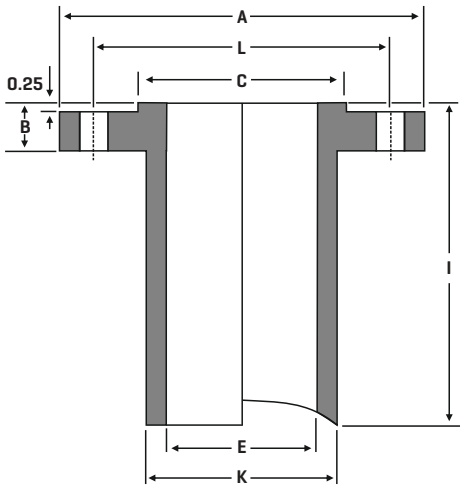
EQUAL BARREL [E] FLANGE

Size NPS (inch.)	Flange					Barrel OD			Bolting		Nut			Stud Bolt			Weights						Length Base I	
	Bore LWN & E	Bore HB	Out- side Dia	Thk.	OD of RF	Long Weld Neck	HB	E	# of Hole	Flange hole size	Bolt Circle	Dia- meter of Stop	Dia- meter of Relief	Relief Length	Size	Raised Flange	RTJ Length	Long Weld Neck	HB		E			
	E	E	K	B	C	K	K	K		L	SA	SB	SC					Base	Per 1"	Base	Per 1"	Base	Per 1"	
1/2	0.50	0.55	3.75	0.56	1.38	1.50	1.75	3.75	4	0.62	2.62	1.75	1.50	0.75	1/2	2 1/2	3	5	0.4	7	0.6	24	3.1	9
3/4	0.75	0.74	4.62	0.62	1.69	1.88	2.19	4.62	4	0.75	3.25	2.19	1.88	0.88	5/8	3	3 1/2	9	0.7	11	0.9	37	4.6	9
1	1.00	0.96	4.88	0.69	2.00	2.12	2.44	4.88	4	0.75	3.50	2.44	2.12	0.88	5/8	3 1/4	3 1/2	9	0.8	12	1.1	40	5.1	9
1 1/4	1.25	1.28	5.25	0.75	2.50	2.50	2.81	5.25	4	0.75	3.88	2.81	2.50	0.88	5/8	3 1/4	3 3/4	13	1	15	1.4	45	5.8	9
1 1/2	1.50	1.50	6.12	0.81	2.88	2.75	3.25	6.12	4	0.88	4.50	3.25	2.75	1.00	3/4	3 1/2	4	15	1.2	21	1.9	61	7.8	9
2	2.00	1.94	6.50	0.88	3.62	3.31	3.94	6.50	8	0.75	5.00	3.94	3.31	0.88	5/8	3 1/2	4 1/4	20	1.5	28	2.6	68	8.5	9
2 1/2	2.50	2.32	7.50	1.00	4.12	3.94	4.62	7.50	8	0.88	5.88	4.62	3.94	1.00	3/4	4	4 1/2	25	2.1	38	3.6	89	11	9
3	3.00	2.90	8.25	1.12	5.00	4.62	5.38	8.25	8	0.88	6.62	5.38	4.62	1.00	3/4	4 1/4	5	35	2.7	49	4.6	106	13	9
3 1/2	3.50	3.36	9.00	1.19	5.50	5.25	6.00	9.00	8	0.88	7.25	6.00	5.25	1.00	3/4	4 1/4	5	42	3.4	59	5.5	122	15	9
4	4.00	3.83	10.00	1.25	6.19	5.75	6.62	10.00	8	0.88	7.88	6.62	5.75	1.00	3/4	4 1/2	5 1/4	62	3.8	91	6.5	207	19	12
5	5.00	4.81	11.00	1.38	7.31	7.00	8.00	11.00	8	0.88	9.25	8.00	7.00	1.00	3/4	4 3/4	5 1/4	84	5.3	124	9.1	241	21	12
6	6.00	5.76	12.50	1.44	8.50	8.12	9.38	12.50	12	0.88	10.62	9.38	8.12	1.00	3/4	4 3/4	5 3/4	105	6.7	165	12	303	27	12
8	8.00	7.62	15.00	1.62	10.62	10.25	11.56	15.00	12	1.00	13.00	11.56	10.25	1.12	7/8	5 1/2	6 1/4	148	9.1	228	17	405	36	12
10	10.00	9.56	17.50	1.88	12.75	12.62	13.62	17.50	16	1.12	15.25	13.62	12.62	1.25	1	6 1/4	7 1/4	210	13	291	21	499	46	12
12	12.00	11.38	20.50	2.00	15.00	14.75	15.94	20.50	16	1.25	17.75	15.94	14.75	1.38	1 1/8	6 3/4	7 1/2	275	16	392	28	651	61	12
14	14.00	14.00	23.00	2.12	16.25	16.75	18.44	23.00	20	1.25	20.25	18.44	16.75	1.38	1 1/8	7	7 3/4	324	19	456	32	785	74	12
16	16.00	16.00	25.50	2.25	18.50	19.00	20.50	25.50	20	1.38	22.50	20.50	19.00	1.50	1 1/4	7 1/2	8 1/2	404	23	529	37	914	88	12
18	18.00	18.00	28.00	2.38	21.00	21.00	22.75	28.00	24	1.38	24.75	22.75	21.00	1.50	1 1/4	7 3/4	8 1/4	465	26	630	43	1066	102	12
20	20.00	20.00	30.50	2.50	23.00	23.12	25.00	30.50	24	1.38	27.00	25.00	23.12	1.50	1 1/4	8 1/4	9 1/4	549	30	741	50	1228	118	12
24	24.00	24.00	36.00	2.75	27.25	27.62	29.62	36.00	24	1.62	32.00	29.62	27.62	1.75	1 1/2	9 1/4	10 1/4	778	42	1016	67	1627	160	12

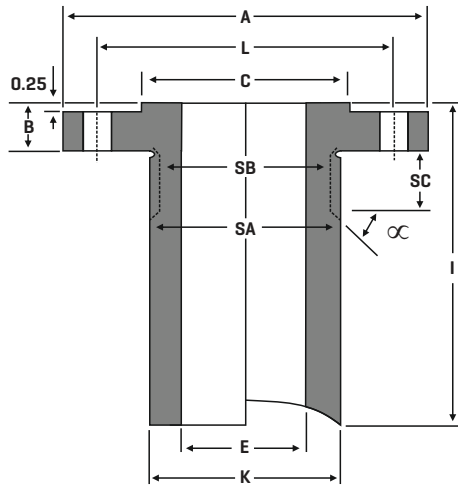
WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



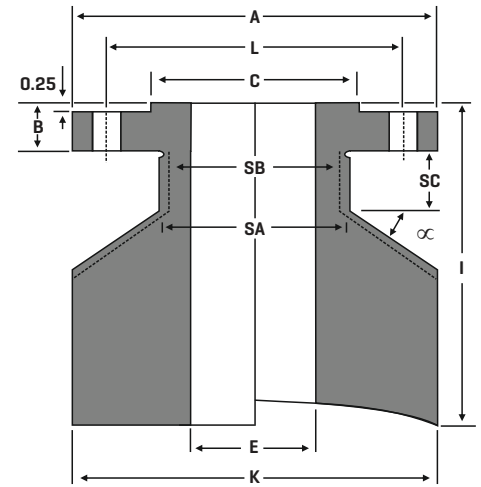
SPECIFICATIONS FOR CLASS 400 FLANGE STANDARD CONNECTION



LONG WELD NECK [LWN] FLANGE



HEAVY BARREL [HB] FLANGE

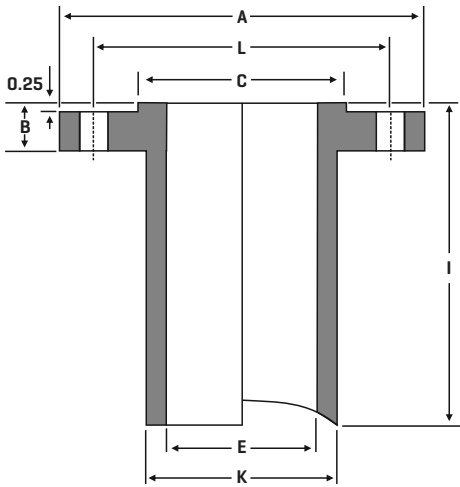


EQUAL BARREL [E] FLANGE

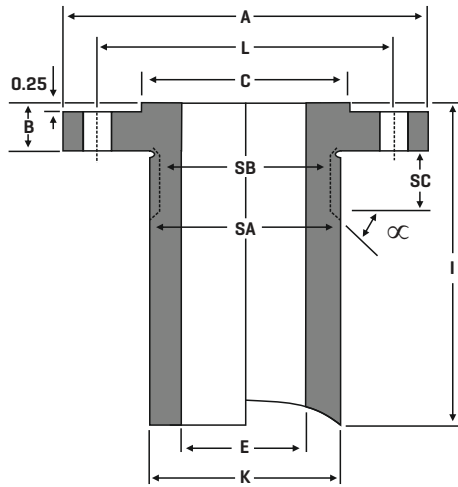
Size NPS (inch.)	Flange					Barrel OD			Bolting		Nut			Stud Bolt			Weights						Length Base	
	Bore LWN & E	Bore HB	Out- side Dia	Thk.	OD of RF	Long Weld Neck	HB	E	# of Hole	Flange hole size	Bolt Circle	Dia- meter of Stop	Dia- meter of Relief	Relief Length	Size	Raised Flange	RTJ Length	Long Weld Neck	HB		E			
	E	E	K	B	C	K	K	K		L	SA	SB	SC					Base	Per 1"	Base	Per 1"	Base	Per 1"	I
1/2	0.50	0.55	3.75	0.56	1.38	1.50	1.75	3.75	4	0.62	2.62	1.75	1.50	0.75	1/2	3	3	5	0.4	7	0.6	24	3.1	9
3/4	0.75	0.74	4.62	0.62	1.69	1.88	2.19	4.62	4	0.75	3.25	2.19	1.88	0.88	5/8	3 1/2	3 1/2	8	0.7	11	0.9	37	4.6	9
1	1.00	0.96	4.88	0.69	2.00	2.12	2.44	4.88	4	0.75	3.50	2.44	2.12	0.88	5/8	3 1/2	3 1/2	9	0.8	12	1.1	40	5.1	9
1 1/4	1.25	1.28	5.25	0.81	2.50	2.50	2.81	5.25	4	0.75	3.88	2.81	2.50	0.88	5/8	3 3/4	3 3/4	13	1	15	1.4	45	5.8	9
1 1/2	1.50	1.50	6.12	0.88	2.88	2.75	3.25	6.12	4	0.88	4.50	3.25	2.75	1.00	3/4	4 1/4	4 1/4	16	1.2	21	1.9	61	7.8	9
2	2.00	1.94	6.50	1.00	3.62	3.31	3.94	6.50	8	0.75	5.00	3.94	3.31	0.88	5/8	4 1/4	4 1/4	20	1.5	29	2.6	68	8.5	9
2 1/2	2.50	2.32	7.50	1.12	4.12	3.94	4.63	7.50	8	0.88	5.88	4.63	3.94	1.00	3/4	4 3/4	4 3/4	27	2.1	39	3.6	88	11	9
3	3.00	2.90	8.25	1.25	5.00	4.62	5.38	8.25	8	0.88	6.62	5.38	4.62	1.00	3/4	5	5	36	2.7	50	4.6	104	13	9
3 1/2	3.50	3.36	9.00	1.38	5.50	5.25	5.81	9.00	8	1.00	7.25	5.81	5.25	1.12	7/8	5 1/2	5 1/2	45	3.4	61	5.5	116	15	9
4	4.00	3.83	10.00	1.38	6.19	5.75	6.44	10.00	8	1.00	7.88	6.44	5.75	1.12	7/8	5 1/2	5 1/2	65	3.8	93	6.5	197	19	12
5	5.00	4.81	11.00	1.50	7.31	7.00	7.81	11.00	8	1.00	9.25	7.81	7.00	1.12	7/8	5 3/4	5 3/4	88	5.3	127	9.1	229	22	12
6	6.00	5.76	12.50	1.62	8.50	8.12	9.19	12.50	12	1.00	10.62	9.19	8.12	1.12	7/8	6	6	110	6.7	169	12	286	27	12
8	8.00	7.62	15.00	1.88	10.62	10.25	11.38	15.00	12	1.12	13.00	11.38	10.25	1.25	1	6 3/4	6 3/4	154	9.1	233	17	379	36	12
10	10.00	9.56	17.50	2.12	12.75	12.62	13.44	17.50	16	1.25	15.25	13.44	12.62	1.38	1 1/8	7 1/2	7 1/2	218	13	298	21	475	46	12
12	12.00	11.38	20.50	2.25	15.00	14.75	15.75	20.50	16	1.38	17.75	15.75	14.75	1.50	1 1/4	8	8	285	16	401	28	627	62	12
14	14.00	14.00	23.00	2.38	16.25	16.75	18.25	23.00	20	1.38	20.25	18.25	16.75	1.50	1 1/4	8 1/4	8 1/4	336	19	467	32	758	74	12
16	16.00	16.00	25.50	2.50	18.50	19.00	20.31	25.50	20	1.50	22.50	20.31	19.00	1.62	1 3/8	8 3/4	8 3/4	418	23	542	37	884	88	12
18	18.00	18.00	28.00	2.62	21.00	21.00	22.56	28.00	24	1.50	24.75	22.56	21.00	1.62	1 3/8	9	9	482	26	645	43	1033	102	12
20	20.00	20.00	30.50	2.75	23.00	23.12	24.63	30.50	24	1.62	27.00	24.63	23.12	1.75	1 1/2	9 1/2	9 3/4	568	30	759	50	1165	118	12
24	24.00	24.00	36.00	3.00	27.25	27.62	29.25	36.00	24	1.88	32.00	29.25	27.62	2.00	1 3/4	10 1/2	11	804	42	1040	67	1540	160	12

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

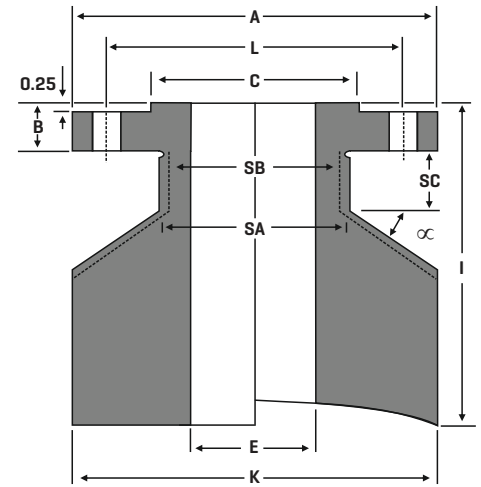
SPECIFICATIONS FOR CLASS 600 FLANGE STANDARD CONNECTION



LONG WELD NECK [LWN] FLANGE



HEAVY BARREL [HB] FLANGE



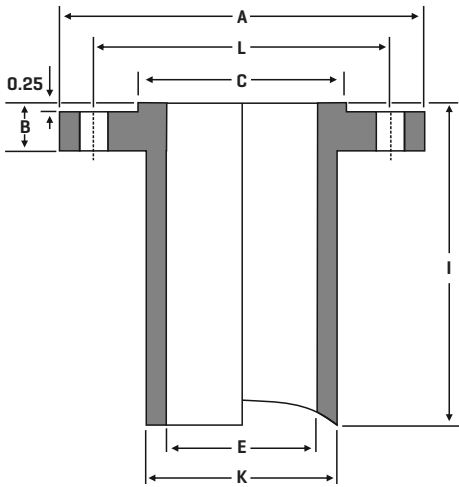
EQUAL BARREL [E] FLANGE

Size NPS (inch.)	Flange					Barrel OD			Bolting		Nut			Stud Bolt			Weights						Length Base	
	Bore LWN & E	Bore HB	Out- side Dia	Thk.	OD of RF	Long Weld Neck	HB	E	# of Hole	Flange hole size	Bolt Circle	Dia- meter of Stop	Dia- meter of Relief	Relief Length	Size	Raised Flange	RTJ Length	Long Weld Neck	HB		E			
E	E	K	B	C	K	K	K			L	SA	SB	SC					Base	Per 1"	Base	Per 1"	Base	Per 1"	I
1/2	0.50	0.55	3.75	0.56	1.38	1.50	1.75	3.75	4	0.62	2.62	1.75	1.50	0.75	1/2	3	3	5	0.4	7	0.6	24	3.1	9
3/4	0.75	0.74	4.62	0.62	1.69	1.88	2.19	4.62	4	0.75	3.25	2.19	1.88	0.88	5/8	3 1/2	3 1/2	8	0.7	11	0.9	36	4.6	9
1	1.00	0.96	4.88	0.69	2.00	2.12	2.44	4.88	4	0.75	3.50	2.44	2.12	0.88	5/8	3 1/2	3 1/2	9	0.8	12	1.1	39	5.1	9
1 1/4	1.25	1.28	5.25	0.81	2.50	2.50	2.81	5.25	4	0.75	3.88	2.81	2.50	0.88	5/8	3 3/4	3 3/4	13	1	15	1.4	44	5.8	9
1 1/2	1.50	1.50	6.12	0.88	2.88	2.75	3.25	6.12	4	0.88	4.50	3.25	2.75	1.00	3/4	4 1/4	4 1/4	16	1.2	21	1.9	59	7.8	9
2	2.00	1.94	6.50	1.00	3.62	3.31	3.94	6.50	8	0.75	5.00	3.94	3.31	0.88	5/8	4 1/4	4 1/4	20	1.5	29	2.6	67	8.5	9
2 1/2	2.50	2.32	7.50	1.12	4.12	3.94	4.62	7.50	8	0.88	5.88	4.62	3.94	1.00	3/4	5	4 3/4	27	2.1	39	3.6	85	11	9
3	3.00	2.90	8.25	1.25	5.00	4.62	5.38	8.25	8	0.88	6.62	5.38	4.62	1.00	3/4	5	5 1/4	36	2.7	50	4.6	104	13	9
3 1/2	3.50	3.36	9.00	1.38	5.50	5.25	5.81	9.00	8	1.00	7.25	5.81	5.25	1.12	7/8	5 1/2	5 1/2	45	3.4	57	5	116	15	9
4	4.00	3.83	10.75	1.50	6.19	6.00	7.06	10.75	8	1.00	8.50	7.06	6.00	1.12	7/8	5 3/4	6	77	4.5	113	7.8	238	22	12
5	5.00	4.81	13.00	1.75	7.31	7.50	8.88	13.00	8	1.12	10.50	8.88	7.50	1.25	1	6 1/2	6 1/2	123	7	180	12	336	32	12
6	6.00	5.76	14.00	1.88	8.50	8.75	9.88	14.00	12	1.12	11.50	9.88	8.75	1.25	1	6 3/4	7	152	9	207	14	373	36	12
8	8.00	7.62	16.50	2.19	10.62	10.75	11.94	16.50	12	1.25	13.75	11.94	10.75	1.38	1 1/8	7 3/4	8	207	11	277	19	478	46	12
10	10.00	9.56	20.00	2.50	12.75	13.50	15.00	20.00	16	1.38	17.00	15.00	13.50	1.50	1 1/4	8 1/2	8 3/4	324	18	433	30	683	67	12
12	12.00	11.38	22.00	2.62	15.00	15.75	17.25	22.00	20	1.38	19.25	17.25	15.75	1.50	1 1/4	8 3/4	9	393	23	533	37	779	76	12
14	14.00	14.00	23.75	2.75	16.25	17.00	18.56	23.75	20	1.50	20.75	18.56	17.00	1.62	1 3/8	9 1/4	9 1/2	471	21	631	33	1149	82	16
16	16.00	16.00	27.00	3.00	18.50	19.50	21.38	27.00	20	1.62	23.75	21.38	19.50	1.75	1 1/2	10	10 1/4	638	28	856	45	1471	105	16
18	18.00	18.00	29.25	3.25	21.00	21.50	23.19	29.25	20	1.75	25.75	23.19	21.50	1.88	1 5/8	10 3/4	11	731	31	941	48	1628	118	16
20	20.00	20.00	32.00	3.50	23.00	24.00	25.94	32.00	24	1.75	28.50	25.94	24.00	1.88	1 5/8	11 1/2	11 3/4	916	39	1180	61	1920	139	16
24	24.00	24.00	37.00	4.00	27.25	28.25	30.06	37.00	24	2.00	33.00	30.06	28.25	2.12	1 7/8	13	13 1/2	1210	49	1486	73	2376	176	16

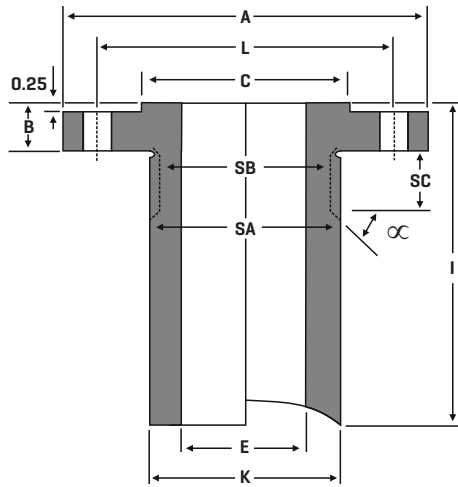
WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



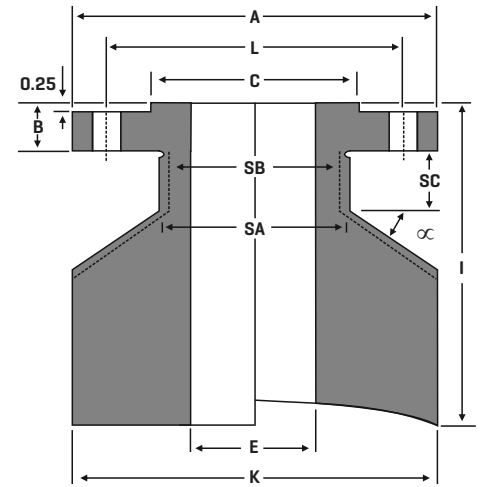
SPECIFICATIONS FOR CLASS 900 FLANGE STANDARD CONNECTION



LONG WELD NECK [LWN] FLANGE



HEAVY BARREL [HB] FLANGE

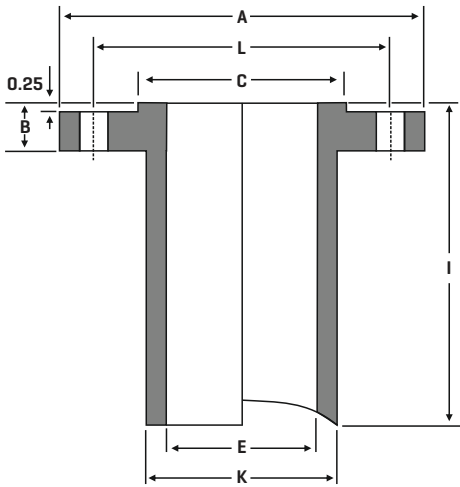


EQUAL BARREL [E] FLANGE

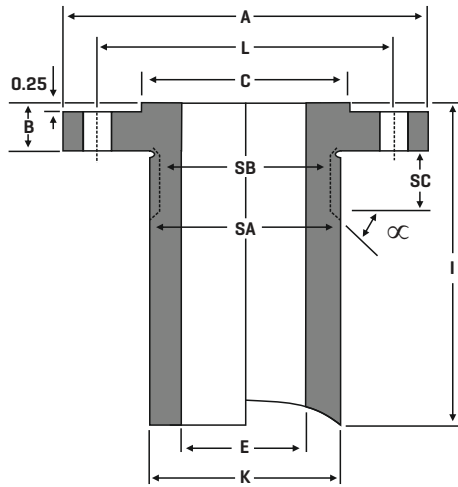
Size NPS (inch.)	Flange					Barrel OD			Bolting		Nut			Stud Bolt			Weights					Length		
	Bore LWN & E	Bore HB	Out- side Dia	Thk.	OD of RF	Long Weld Neck	HB	E	# of Hole	Flange hole size	Bolt Circle	Dia- meter of Stop	Dia- meter of Relief	Relief Length	Size	Raised Flange	RTJ Length	Long Weld Neck	HB		E		Base	
E	E	K	B	C	K	K	K			L	SA	SB	SC					Base	Per 1"	Base	Per 1"	Base	Per 1"	I
1/2	0.50	0.55	4.75	0.88	1.38	1.56	2.00	4.75	4	0.88	3.25	2.00	1.56	1.00	3/4	4 1/4	4 1/4	8	0.5	10	0.8	37	5	9
3/4	0.75	0.74	5.12	1.00	1.69	1.81	2.25	5.12	4	0.88	3.50	2.25	1.81	1.00	3/4	4 1/2	4 1/2	10	0.6	13	1	42	5.7	9
1	1.00	0.96	5.88	1.12	2.00	2.12	2.56	5.88	4	1.00	4.00	2.56	2.12	1.12	7/8	5	5	13	0.8	17	1.3	54	7.5	9
1 1/4	1.25	1.28	6.25	1.12	2.50	2.50	2.94	6.25	4	1.00	4.38	2.94	2.50	1.12	7/8	5	5	17	1	20	1.6	61	8.3	9
1 1/2	1.50	1.50	7.00	1.25	2.88	2.75	3.25	7.00	4	1.12	4.88	3.25	2.75	1.25	1	5 1/2	5 1/2	21	1.2	26	1.9	77	10	9
2	2.00	1.94	8.50	1.50	3.62	4.12	5.06	8.50	8	1.00	6.50	5.06	4.12	1.12	7/8	5 3/4	5 3/4	42	2.9	56	4.9	115	15	9
2 1/2	2.50	2.32	9.62	1.62	4.12	4.88	5.88	9.62	8	1.12	7.50	5.88	4.88	1.25	1	6 1/4	6 1/4	56	3.9	75	6.5	144	19	9
3	3.00	2.90	9.50	1.50	5.00	5.00	6.06	9.50	8	1.00	7.50	6.06	5.00	1.12	7/8	5 3/4	5 3/4	51	3.6	71	6.3	139	18	9
4	4.00	3.83	11.50	1.75	6.19	6.25	7.44	11.50	8	1.25	9.25	7.44	6.25	1.38	1 1/8	6 3/4	6 3/4	93	5.1	133	9.1	270	26	12
5	5.00	4.81	13.75	2.00	7.31	7.50	9.00	13.75	8	1.38	11.00	9.00	7.50	1.50	1 1/4	7 1/2	7 1/2	135	7	194	13	376	37	12
6	6.00	5.76	15.00	2.19	8.50	9.25	10.69	15.00	12	1.25	12.50	10.69	9.25	1.38	1 1/8	7 1/2	7 3/4	191	11	259	18	436	42	12
8	8.00	7.62	18.50	2.50	10.62	11.75	13.31	18.50	12	1.50	15.50	13.31	11.75	1.62	1 3/8	8 3/4	8 3/4	297	16	389	27	626	62	12
10	10.00	9.56	21.50	2.75	12.75	14.50	16.31	21.50	16	1.50	18.50	16.31	14.50	1.62	1 3/8	9 1/4	9 1/4	422	25	558	39	824	81	12
12	12.00	11.38	24.00	3.12	15.00	16.50	18.81	24.00	20	1.50	21.00	18.81	16.50	1.62	1 3/8	10	10	518	29	715	50	984	96	12
14	14.00	14.00	25.25	3.38	16.25	17.75	19.62	25.25	20	1.62	22.00	19.62	17.75	1.75	1 1/2	10 3/4	11	624	26	817	42	1368	98	16
16	16.00	16.00	27.75	3.50	18.50	20.00	21.69	27.75	20	1.75	24.25	21.69	20.00	1.88	1 5/8	11 1/4	11 1/2	750	32	942	48	1573	114	16
18	18.00	18.00	31.00	4.00	21.00	22.25	24.06	31.00	20	2.00	27.00	24.06	22.25	2.12	1 7/8	12 3/4	13 1/4	950	38	1169	57	1898	142	16
20	20.00	20.00	33.75	4.25	23.00	24.50	26.38	33.75	20	2.12	29.50	26.38	24.50	2.25	2	13 3/4	14 1/4	1121	43	1378	66	2182	164	16
24	24.00	24.00	41.00	5.50	27.25	29.50	31.62	41.00	20	2.62	35.50	31.62	29.50	2.75	2 1/2	17 1/4	18	1865	65	2160	94	3084	246	16

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

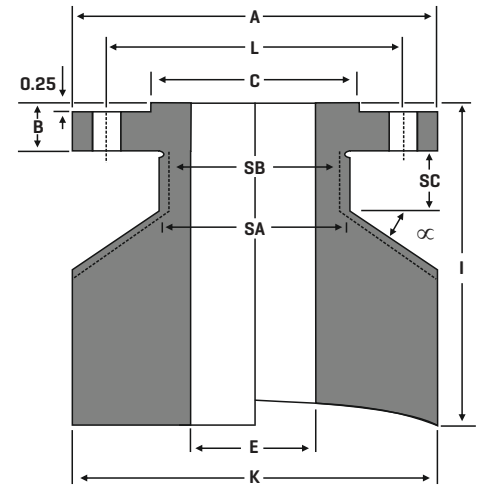
SPECIFICATIONS FOR CLASS 1500 FLANGE STANDARD CONNECTION



LONG WELD NECK [LWN] FLANGE



HEAVY BARREL [HB] FLANGE



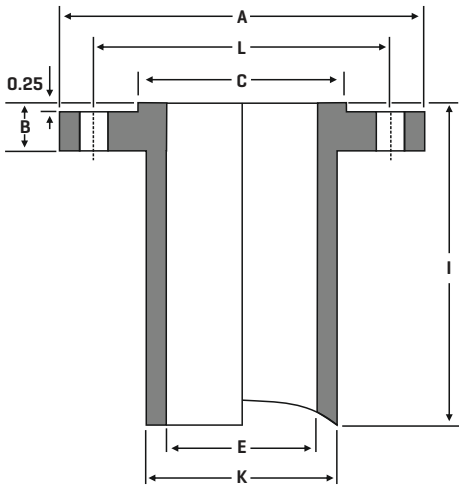
EQUAL BARREL [E] FLANGE

Size NPS (inch.)	Flange					Barrel OD			Bolting		Nut			Stud Bolt			Weights					Length Base		
	Bore LWN & E	Bore HB	Out- side Dia	Thk.	OD of RF	Long Weld Neck	HB	E	# of Hole	Flange hole size	Bolt Circle	Dia- meter of Stop	Dia- meter of Relief	Relief Length	Size	Raised Flange	RTJ Length	Long Weld Neck	HB		E			
E	E	K	B	C	K	K	K			L	SA	SB	SC					Base	Per 1"	Base	Per 1"	Base	Per 1"	I
1/2	0.50	0.55	4.75	0.88	1.38	1.56	2.00	4.75	4	0.88	3.25	2.00	1.56	1.00	3/4	4 1/4	4 1/4	8	0.5	10	0.8	37	5	9
3/4	0.75	0.74	5.12	1.00	1.69	1.81	2.25	5.12	4	0.88	3.50	2.25	1.81	1.00	3/4	4 1/2	4 1/2	10	0.6	13	1	42	5.7	9
1	1.00	0.96	5.88	1.12	2.00	2.12	2.56	5.88	4	1.00	4.00	2.56	2.12	1.12	7/8	5	5	13	0.8	17	1.3	54	7.5	9
1 1/4	1.25	1.28	6.25	1.12	2.50	2.50	2.94	6.25	4	1.00	4.38	2.94	2.50	1.12	7/8	5	5	17	1	20	1.6	61	8.3	9
1 1/2	1.50	1.50	7.00	1.25	2.88	2.75	3.25	7.00	4	1.12	4.88	3.25	2.75	1.25	1	5 1/2	5 1/2	21	1.2	26	1.9	77	10	9
2	2.00	1.94	8.50	1.50	3.62	4.12	5.06	8.50	8	1.00	6.50	5.06	4.12	1.12	7/8	5 3/4	5 3/4	42	2.9	56	4.9	115	15	9
2 1/2	2.50	2.32	9.62	1.62	4.12	4.88	5.88	9.62	8	1.12	7.50	5.88	4.88	1.25	1	6 1/4	6 1/4	56	3.9	75	6.5	144	19	9
3	3.00	2.90	10.50	1.88	5.00	5.25	6.19	10.50	8	1.25	8.00	6.19	5.25	1.38	1 1/8	7	7	67	4.1	84	6.7	161	23	9
4	4.00	3.83	12.25	2.12	6.19	6.38	7.50	12.25	8	1.38	9.50	7.50	6.38	1.50	1 1/4	7 3/4	7 3/4	110	5.5	147	9.3	302	30	12
5	5.00	4.81	14.75	2.88	7.31	7.75	9.12	14.75	8	1.62	11.50	9.12	7.75	1.75	1 1/2	9 3/4	9 3/4	181	7.8	233	13	414	43	12
6	6.00	5.76	15.50	3.25	8.50	9.00	10.31	15.50	12	1.50	12.50	10.31	9.00	1.62	1 3/8	10 1/4	10 1/2	215	10	272	16	445	46	12
8	8.00	7.62	19.00	3.62	10.62	11.50	12.94	19.00	12	1.75	15.50	12.94	11.50	1.88	1 5/8	11 1/2	12 3/4	337	15	417	24	629	67	12
10	10.00	9.56	23.00	4.25	12.75	14.50	16.06	23.00	12	2.00	19.00	16.06	14.50	2.12	1 7/8	13 1/4	13 1/2	546	25	651	37	888	97	12
12	12.00	11.38	26.50	4.88	15.00	17.75	19.38	26.50	16	2.12	22.50	19.38	17.75	2.25	2	14 3/4	15 1/4	946	38	1148	55	1683	127	16
14	14.00	14.00	29.50	5.25	16.25	19.50	21.50	29.50	16	2.38	25.00	21.50	19.50	2.50	2 1/4	16	16 3/4	1116	41	1308	59	1929	150	16
16	16.00	16.00	32.50	5.75	18.50	21.75	23.88	32.50	16	2.62	27.75	23.88	21.75	2.75	2 1/2	17 1/2	18 1/2	1371	48	1588	70	2238	178	16
18	18.00	18.00	36.00	6.38	21.00	23.50	26.25	36.00	16	2.88	30.50	26.25	23.50	3.00	2 3/4	19 1/2	20 3/4	1674	51	1959	81	2629	216	16
20	20.00	20.00	38.75	7.00	23.00	25.25	28.12	38.75	16	3.12	32.75	28.12	25.25	3.25	3	21 1/4	22 1/4	1943	53	2241	87	2868	245	16
24	24.00	24.00	46.00	8.00	27.25	30.00	33.62	46.00	16	3.62	39.00	33.62	30.00	3.75	3 1/2	24 1/4	25 1/2	2936	72	3334	123	3819	343	16

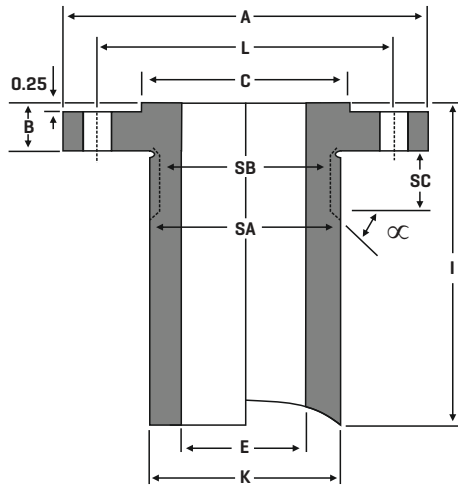
WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



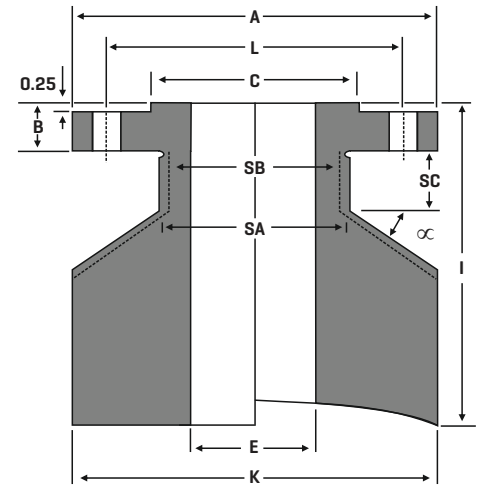
SPECIFICATIONS FOR CLASS 2500 FLANGE STANDARD CONNECTION



LONG WELD NECK [LWN] FLANGE



HEAVY BARREL [HB] FLANGE

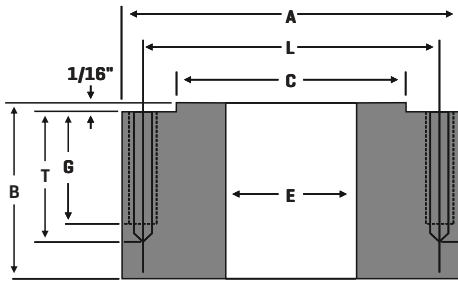


EQUAL BARREL [E] FLANGE

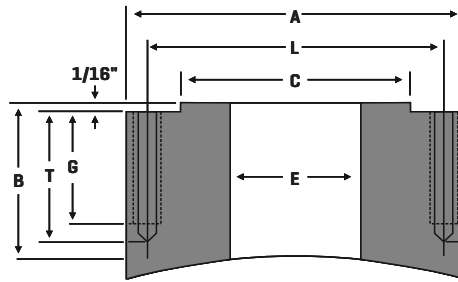
Size NPS (inch.)	Flange					Barrel OD			Bolting		Nut			Stud Bolt			Weights						Length Base	
	Bore LWN & E	Bore HB	Out- side Dia	Thk.	OD of RF	Long Weld Neck	HB	E	# of Hole	Flange hole size	Bolt Circle	Dia- meter of Stop	Dia- meter of Relief	Relief Length	Size	Raised Flange	RTJ Length	Long Weld Neck	HB		E			
E	E	K	B	C	K	K	K			L	SA	SB	SC					Base	Per 1"	Base	Per 1"	Base	Per 1"	I
1/2	0.50	0.55	5.25	1.19	1.38	1.81	2.25	5.25	4	0.88	3.50	2.25	1.81	1.00	3/4	4 3/4	4 3/4	11	0.7	14	1.1	45	6.1	9
3/4	0.75	0.74	5.50	1.25	1.69	2.06	2.50	5.50	4	0.88	3.75	2.50	2.06	1.00	3/4	5	5	13	0.8	17	1.3	49	6.6	9
1	1.00	0.96	6.25	1.38	2.00	2.25	2.81	6.25	4	1.00	4.25	2.81	2.25	1.12	7/8	5 1/2	5 1/2	18	0.9	22	1.6	62	8.5	9
1 1/4	1.25	1.28	7.25	1.50	2.50	2.88	3.50	7.25	4	1.12	5.12	3.50	2.88	1.25	1	6	6	27	1.5	32	2.4	84	11	9
1 1/2	1.50	1.50	8.00	1.75	2.88	3.12	3.94	8.00	4	1.25	5.75	3.94	3.12	1.38	1 1/8	6 3/4	6 3/4	33	1.7	42	3	94	14	9
2	2.00	1.94	9.25	2.00	3.62	3.75	5.12	9.25	8	1.12	6.75	5.12	3.75	1.25	1	7	7	48	2.2	66	5	131	18	9
2 1/2	2.50	2.32	10.50	2.25	4.12	4.50	5.94	10.50	8	1.25	7.75	5.94	4.50	1.38	1 1/8	7 3/4	8	66	3.1	90	6.7	165	23	9
3	3.00	2.90	12.00	2.62	5.00	5.25	7.00	12.00	8	1.38	9.00	7.00	5.25	1.50	1 1/4	8 3/4	9	97	4.1	127	9	210	30	9
4	4.00	3.83	14.00	3.00	6.19	6.50	8.38	14.00	8	1.62	10.75	8.38	6.50	1.75	1 1/2	10	10 1/4	159	5.8	218	12	391	40	12
5	5.00	4.81	16.50	3.62	7.31	8.00	10.00	16.50	8	1.88	12.75	10.00	8.00	2.00	1 3/4	11 3/4	12 1/4	248	8.7	319	17	518	55	12
6	6.00	5.76	19.00	4.25	8.50	9.25	11.38	19.00	8	2.12	14.50	11.38	9.25	2.25	2	13 1/2	14	358	11	441	21	641	73	12
8	8.00	7.62	21.75	5.00	10.62	12.00	14.12	21.75	12	2.12	17.25	14.12	12.00	2.25	2	15	15 1/2	589	18	743	31	1167	92	16
10	10.00	9.56	26.50	6.50	12.75	14.75	17.38	26.50	12	2.62	21.25	17.38	14.75	2.75	2 1/2	19 1/4	20	997	26	1202	47	1625	134	16
12	12.00	11.38	30.00	7.25	15.00	17.38	20.12	30.00	12	2.88	24.38	20.12	17.38	3.00	2 3/4	21 1/4	22	1363	35	1609	61	1995	168	16

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

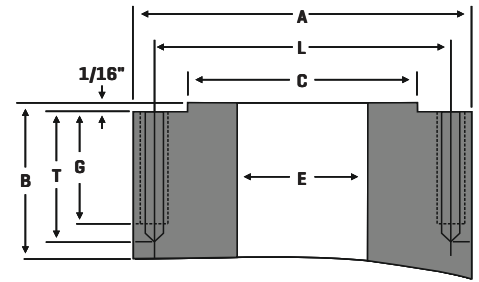
CATEGORY : STUDDING OUTLETS CLASS 150



FLAT BOTTOM FLANGES



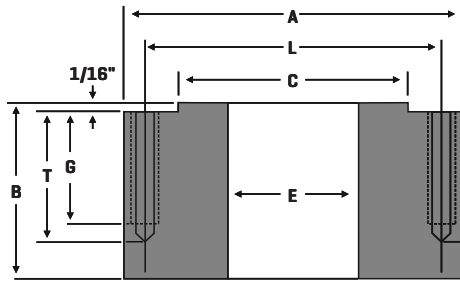
SHELL/HEAD MOUNTED FLANGE



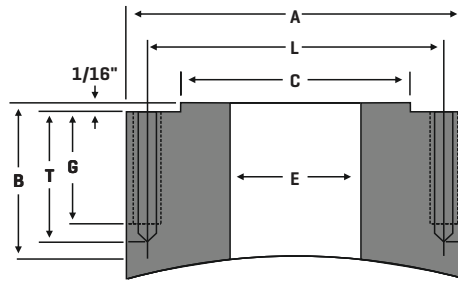
TANGENTIAL MOUNT FLANGE

Bore	Outside Diameters	Thickness	Outside diameter of RF	Stud Circle	Diameter of hole	# of Holes	Depth of Hole	Size of Tap	Threads per inch	Depth of Tap	Flat Bottom weight	
E	A	B	C	L				T		G	Base	per 1"
1/2	3.50	1.25	1.38	2.38	27/64	4	0.88	1/2	13	0.56	3	2.7
3/4	3.88	1.25	1.69	2.75	27/64	4	0.88	1/2	13	0.56	3.7	3.2
1	4.25	1.25	2.00	3.12	27/64	4	0.88	1/2	13	0.56	4.3	3.8
1 1/4	4.62	1.25	2.50	3.50	27/64	4	0.88	1/2	13	0.56	5.1	4.4
1 1/2	5.00	1.25	2.88	3.88	27/64	4	0.88	1/2	13	0.56	5.9	5.1
2	6.00	1.50	3.62	4.75	17/32	4	1.12	5/8	11	0.75	10.2	7.1
2 1/2	7.00	1.50	4.12	5.50	17/32	4	1.12	5/8	11	0.75	14	9.5
3	7.50	1.50	5.00	6.00	17/32	4	1.12	5/8	11	0.75	15	11
3 1/2	8.50	1.50	5.50	7.00	17/32	8	1.12	5/8	11	0.75	19	13
4	9.00	1.50	6.19	7.50	17/32	8	1.12	5/8	11	0.75	20	14
5	10.00	1.75	7.31	8.50	21/32	8	1.31	3/4	10	0.88	28	17
6	11.00	1.75	8.50	9.50	21/32	8	1.31	3/4	10	0.88	31	19
8	13.50	1.75	10.62	11.75	21/32	8	1.31	3/4	10	0.88	46	26
10	16.00	1.81	12.75	14.25	49/64	12	1.44	7/8	9	1.00	58	35
12	19.00	1.81	15.00	17.00	49/64	12	1.44	7/8	9	1.00	83	48
14	21.00	2.00	16.25	18.75	7/8	12	1.56	1	8	1.12	102	55
16	23.50	2.00	18.50	21.25	7/8	16	1.56	1	8	1.12	123	66
18	25.00	2.25	21.00	22.75	1	16	1.81	1 1/8	8	1.25	140	67
20	27.50	2.25	23.00	25.00	1	20	1.81	1 1/8	8	1.25	166	79
24	32.00	2.50	27.25	29.50	1 1/8	20	2.12	1 1/4	8	1.44	231	100

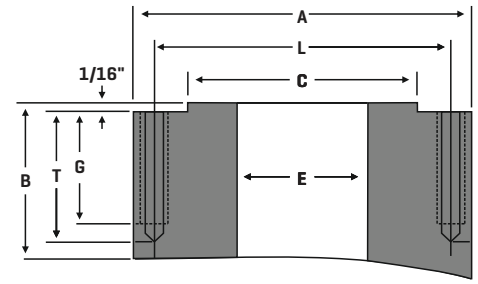
CATEGORY : STUDDING OUTLETS CLASS 300



FLAT BOTTOM FLANGES



SHELL/HEAD MOUNTED FLANGE

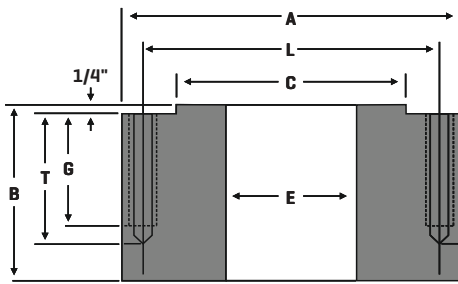


TANGENTIAL MOUNT FLANGE

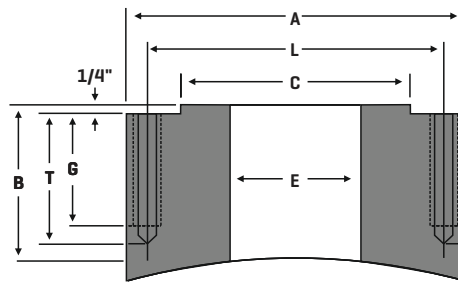
Bore	Outside Diameters	Thickness	Outside diameter of RF	Stud Circle	Diameter of hole	# of Holes	Depth of Hole	Size of Tap	Threads per inch	Depth of Tap	Flat Bottom weight	
E	A	B	C	L				T		G	Base	per 1"
1/2	3.75	1.25	1.38	2.62	27/64	4	0.88	1/2	13	0.56	3.5	3.1
3/4	4.62	1.50	1.69	3.25	17/32	4	1.12	5/8	11	0.75	6.4	4.6
1	4.88	1.50	2.00	3.50	17/32	4	1.12	5/8	11	0.75	7	5.1
1 1/4	5.25	1.50	2.50	3.88	17/32	4	1.12	5/8	11	0.75	8	5.8
1 1/2	6.12	1.75	2.88	4.50	21/32	4	1.31	3/4	10	0.88	13	7.8
2	6.50	1.50	3.62	5.00	17/32	8	1.12	5/8	11	0.75	12	8.5
2 1/2	7.50	1.75	4.12	5.88	21/32	8	1.31	3/4	10	0.88	18	11
3	8.25	1.75	5.00	6.62	21/32	8	1.31	3/4	10	0.88	22	14
3 1/2	9.00	1.75	5.50	7.25	21/32	8	1.31	3/4	10	0.88	25	15
4	10.00	1.75	6.19	7.88	21/32	8	1.31	3/4	10	0.88	30	19
5	11.00	1.75	7.31	9.25	21/32	8	1.31	3/4	10	0.88	36	21
6	12.50	1.75	8.50	10.62	21/32	12	1.31	3/4	10	0.88	44	27
8	15.00	1.88	10.62	13.00	49/64	12	1.44	7/8	9	1.00	63	36
10	17.50	2.12	12.75	15.25	7/8	16	1.56	1	8	1.12	90	46
12	20.50	2.25	15.00	17.75	1	16	1.81	1 1/8	8	1.25	127	61
14	23.00	2.25	16.25	20.25	1	20	1.81	1 1/8	8	1.25	153	74
16	25.50	2.50	18.50	22.50	1 1/8	20	2.12	1 1/4	8	1.44	201	88
18	28.00	2.50	21.00	24.75	1 1/8	24	2.12	1 1/4	8	1.44	235	102
20	30.50	2.50	23.00	27.00	1 1/8	24	2.12	1 1/4	8	1.44	273	118
24	36.00	2.88	27.25	32.00	1 3/8	24	2.38	1 1/2	8	1.69	425	160

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

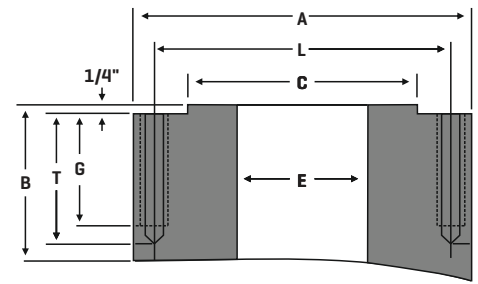
CATEGORY : STUDDING OUTLETS CLASS 600



FLAT BOTTOM FLANGES



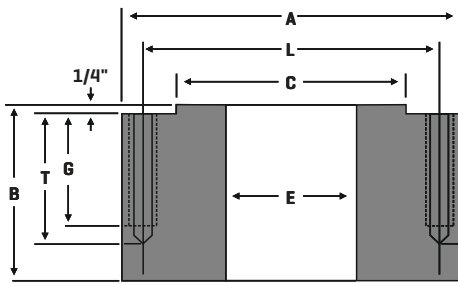
SHELL/HEAD MOUNTED FLANGE



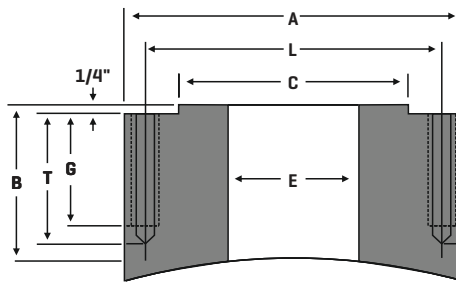
TANGENTIAL MOUNT FLANGE

Bore	Outside Diameters	Thickness	Outside diameter of RF	Stud Circle	Diameter of hole	# of Holes	Depth of Hole	Size of Tap	Threads per inch	Depth of Tap	Flat Bottom weight	
E	A	B	C	L				T		G	Base	per 1"
1/2	3.75	1.50	1.38	2.62	27/64	4	0.88	1/2	13	0.56	3.8	3.1
3/4	4.62	1.75	1.69	3.25	17/32	4	1.12	5/8	11	0.75	6.7	4.6
1	4.88	1.75	2.00	3.50	17/32	4	1.12	5/8	11	0.75	7.4	5.1
1 1/4	5.25	1.75	2.50	3.88	17/32	4	1.12	5/8	11	0.75	8.6	5.8
1 1/2	6.12	1.94	2.88	4.50	21/32	4	1.31	3/4	10	0.88	13	7.8
2	6.50	1.75	3.62	5.00	17/32	8	1.12	5/8	11	0.75	12	8.5
2 1/2	7.50	2.00	4.12	5.88	21/32	8	1.31	3/4	10	0.88	19	11
3	8.25	2.00	5.00	6.62	21/32	8	1.31	3/4	10	0.88	23	13
3 1/2	9.00	2.12	5.50	7.25	49/64	8	1.44	7/8	9	1.00	28	15
4	10.75	2.12	6.19	8.50	49/64	8	1.44	7/8	9	1.00	41	22
5	13.00	2.25	7.31	10.50	7/8	8	1.56	1	8	1.12	63	32
6	14.00	2.25	8.50	11.50	7/8	12	1.56	1	8	1.12	68	36
8	16.50	2.50	10.62	13.75	1	12	1.81	1 1/8	8	1.25	101	46
10	20.00	2.75	12.75	17.00	1 1/8	16	2.12	1 1/4	8	1.44	160	67
12	22.00	2.75	15.00	19.25	1 1/8	20	2.12	1 1/4	8	1.44	180	76
14	23.75	2.88	16.25	20.75	1 1/4	20	2.25	1 3/8	8	1.56	201	82
16	27.00	3.00	18.50	23.75	1 3/8	20	2.38	1 1/2	8	1.69	271	105
18	29.25	3.25	21.00	25.75	1 1/2	20	2.56	1 5/8	8	1.88	331	118
20	32.00	3.25	23.00	28.50	1 1/2	24	2.56	1 5/8	8	1.88	387	139
24	37.00	3.75	27.25	33.00	1 3/4	24	3.00	1 7/8	8	2.12	571	176

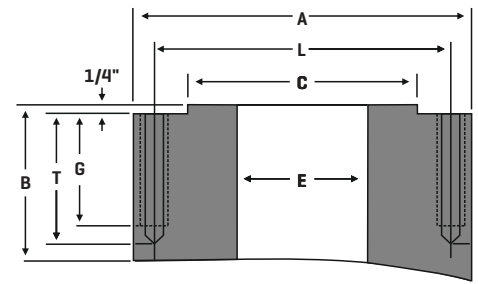
CATEGORY : STUDDING OUTLETS CLASS 900



FLAT BOTTOM FLANGES



SHELL/HEAD MOUNTED FLANGE

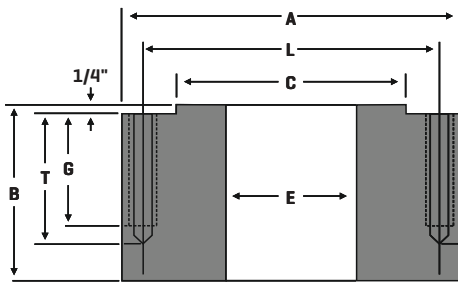


TANGENTIAL MOUNT FLANGE

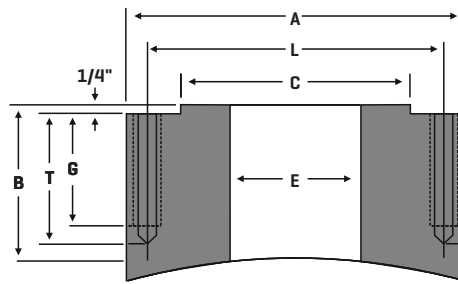
Bore	Outside Diameters	Thickness	Outside diameter of RF	Stud Circle	Diameter of hole	# of Holes	Depth of Hole	Size of Tap	Threads per inch	Depth of Tap	Flat Bottom weight	
E	A	B	C	L				T		G	Base	per 1"
1/2	4.75	2.00	1.38	3.25	21/32	4	1.31	3/4	10	0.88	8.2	5
3/4	5.12	2.00	1.69	3.50	21/32	4	1.31	3/4	10	0.88	10	5.7
1	5.88	2.12	2.00	4.00	49/64	4	1.44	7/8	9	1.00	14	7.5
1 1/4	6.25	2.12	2.50	4.38	49/64	4	1.44	7/8	9	1.00	15	8.3
1 1/2	7.00	2.25	2.88	4.88	7/8	4	1.56	1	8	1.12	20	10
2	8.50	2.12	3.62	6.50	49/64	8	1.44	7/8	9	1.00	27	15
2 1/2	9.62	2.25	4.12	7.50	7/8	8	1.56	1	8	1.12	37	19
3	9.50	2.12	5.00	7.50	49/64	8	1.44	7/8	9	1.00	33	18
4	11.50	2.50	6.19	9.25	1	8	1.81	1 1/8	8	1.25	56	26
5	13.75	2.75	7.31	11.00	1 1/8	8	2.12	1 1/4	8	1.44	87	37
6	15.00	2.50	8.50	12.50	1	12	1.81	1 1/8	8	1.25	91	42
8	18.50	3.00	10.62	15.50	1 1/4	12	2.25	1 3/8	8	1.56	162	62
10	21.50	3.00	12.75	18.50	1 1/4	16	2.25	1 3/8	8	1.56	210	81
12	24.00	3.00	15.00	21.00	1 1/4	20	2.25	1 3/8	8	1.56	251	96
14	25.25	3.25	16.25	22.00	1 3/8	20	2.38	1 1/2	8	1.69	275	98
16	27.75	3.50	18.50	24.25	1 1/2	20	2.56	1 5/8	8	1.88	348	114
18	31.00	3.88	21.00	27.00	1 3/4	20	3.00	1 7/8	8	2.12	473	142
20	33.75	4.25	23.00	29.50	1 7/8	20	3.31	2	8	2.25	608	164
24	41.00	5.12	27.25	35.50	2 3/8	20	4.00	2 1/2	8	2.81	1096	246

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)

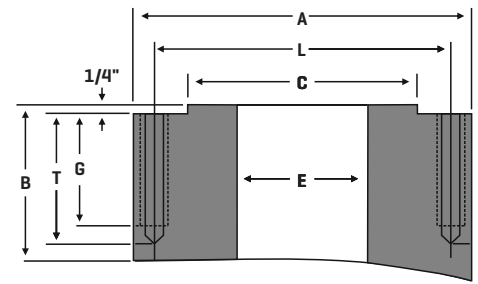
CATEGORY : STUDDING OUTLETS CLASS 1500



FLAT BOTTOM FLANGES



SHELL/HEAD MOUNTED FLANGE



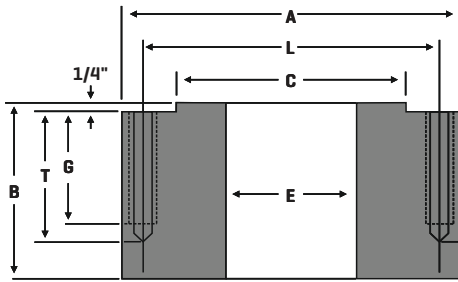
TANGENTIAL MOUNT FLANGE

Bore	Outside Diameters	Thickness	Outside diameter of RF	Stud Circle	Diameter of hole	# of Holes	Depth of Hole	Size of Tap	Threads per inch	Depth of Tap	Flat Bottom weight	
E	A	B	C	L				T		G	Base	per 1"
1/2	4.75	2.00	1.38	3.25	21/32	4	1.31	3/4	10	0.88	8.2	5
3/4	5.12	2.00	1.69	3.50	21/32	4	1.31	3/4	10	0.88	10	5.7
1	5.88	2.12	2.00	4.00	49/64	4	1.44	7/8	9	1.00	14	7.5
1 1/4	6.25	2.12	2.50	4.38	49/64	4	1.44	7/8	9	1.00	15	8.3
1 1/2	7.00	2.25	2.88	4.88	7/8	4	1.56	1	8	1.12	20	10
2	8.50	2.12	3.62	6.50	49/64	8	1.44	7/8	9	1.00	27	15
2 1/2	9.62	2.25	4.12	7.50	7/8	8	1.56	1	8	1.12	37	19
3	10.50	2.50	5.00	8.00	1	8	1.81	1 1/8	8	1.25	48	23
4	12.25	2.75	6.19	9.50	1 1/8	8	2.12	1 1/4	8	1.44	70	30
5	14.75	3.12	7.31	11.50	1 3/8	8	2.38	1 1/2	8	1.69	114	43
6	15.50	3.00	8.50	12.50	1 1/4	12	2.25	1 3/8	8	1.56	116	45
8	19.00	3.50	10.62	15.50	1 1/2	12	2.56	1 5/8	8	1.88	224	66
10	23.00	3.88	12.75	19.00	1 3/4	12	3.00	1 7/8	8	2.12	345	95
12	26.50	4.12	15.00	22.50	1 7/8	16	3.31	2	8	2.25	456	124
14	29.50	4.25	16.25	25.00	2 1/8	16	3.56	2 1/4	8	2.56	540	150
16	32.50	5.00	18.50	27.75	2 3/8	16	4.00	2 1/2	8	2.81	762	178
18	36.00	5.50	21.00	30.50	2 5/8	16	4.38	2 3/4	8	3.12	1024	216
20	38.75	5.88	23.00	32.75	2 7/8	16	4.62	3	8	3.44	1234	245
24	46.00	6.75	27.25	39.00	3 3/8	16	5.38	3 1/2	8	4.00	1992	343

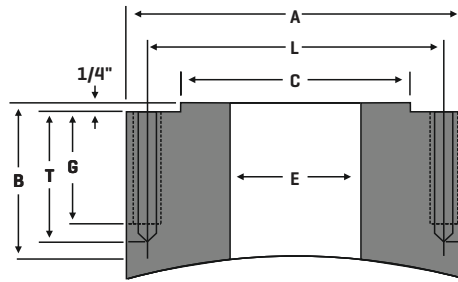
WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



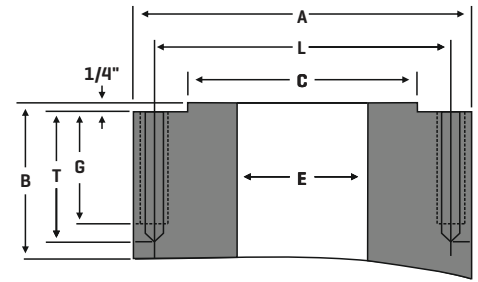
CATEGORY : STUDDING OUTLETS CLASS 2500



FLAT BOTTOM FLANGES



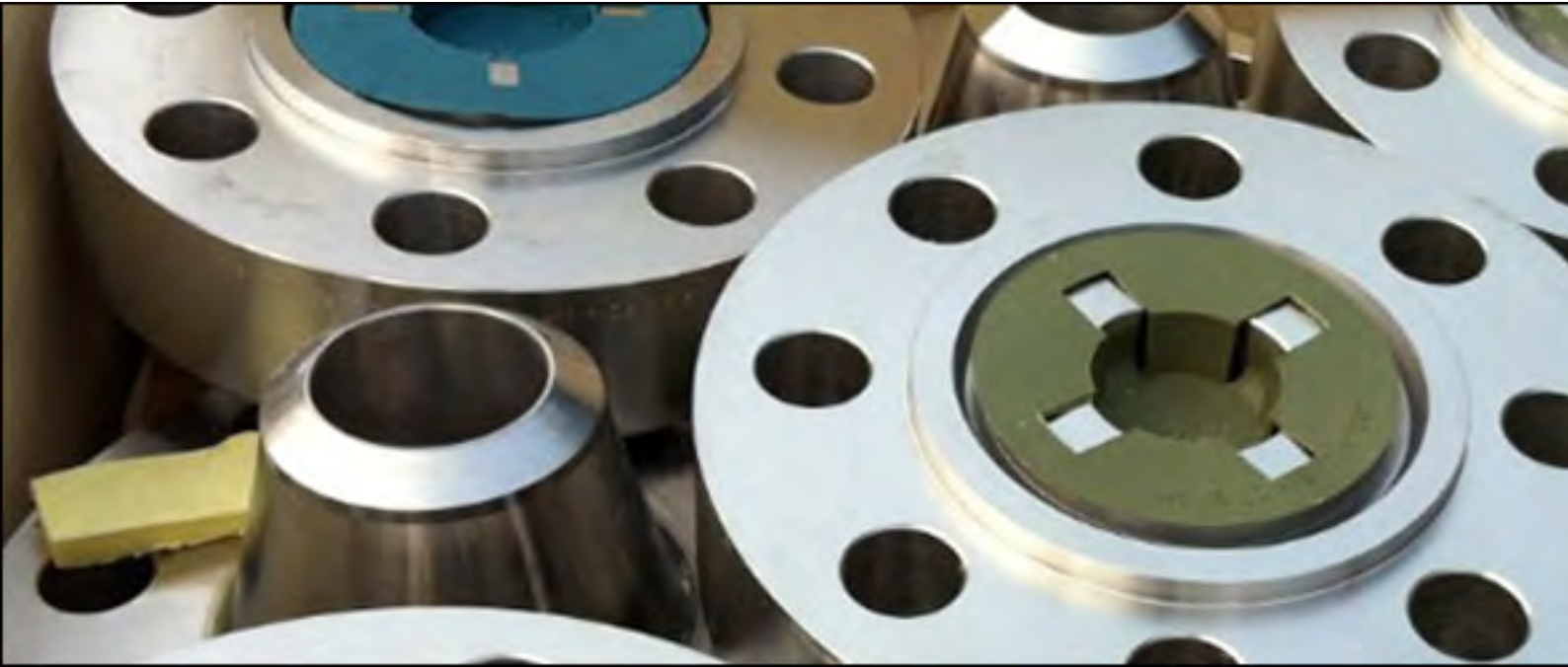
SHELL/HEAD MOUNTED FLANGE



TANGENTIAL MOUNT FLANGE

Bore	Outside Diameters	Thickness	Outside diameter of RF	Stud Circle	Diameter of hole	# of Holes	Depth of Hole	Size of Tap	Threads per inch	Depth of Tap	Flat Bottom weight	
E	A	B	C	L				T		G	Base	per 1"
1/2	5.25	2.00	1.38	3.50	21/32	4	1.31	3/4	10	0.88	10	6.1
3/4	5.50	2.00	1.69	3.75	21/32	4	1.31	3/4	10	0.88	11	6.6
1	6.25	2.12	2.00	4.25	49/64	4	1.44	7/8	9	1.00	15	8.5
1 1/4	7.25	2.25	2.50	5.12	7/8	4	1.56	1	8	1.12	22	11
1 1/2	8.00	2.50	2.88	5.75	1	4	1.81	1 1/8	8	1.25	29	14
2	9.25	2.25	3.62	6.75	7/8	8	1.56	1	8	1.12	34	18
2 1/2	10.50	2.50	4.12	7.75	1	8	1.81	1 1/8	8	1.25	49	23
3	12.00	2.75	5.00	9.00	1 1/8	8	2.12	1 1/4	8	1.44	71	30
4	14.00	3.25	6.19	10.75	1 3/8	8	2.38	1 1/2	8	1.69	112	40
5	16.50	3.75	7.31	12.75	1 5/8	8	2.81	1 3/4	8	2.00	179	55
6	19.00	4.12	8.50	14.50	1 7/8	8	3.31	2	8	2.25	259	72
8	21.75	4.38	10.62	17.25	1 7/8	12	3.31	2	8	2.25	345	91
10	26.50	5.12	12.75	21.25	2 3/8	12	4.00	2 1/2	8	2.81	590	134
12	30.00	5.50	15.00	24.38	2 5/8	12	4.38	2 3/4	8	3.12	799	168

WEIGHTS (POUNDS)/ DIMENSIONS (INCHES)



ASME B16.5 STANDARD

Table 1A List of Material Specifications for process of flanges

Nominal Designation	ASTM Specifications		
	Forgings	Castings	Plastes
C-Si Flanges	A105 Flanges	A216 Gr. WCB Flanges	A515 Gr. 70 Flanges
C-Mn-Si Flanges	A350 Gr. LF2 Flanges	...	A516 Gr. 70 Flanges
C-Mn-Si Flanges	...	...	A537 Cl. 1 Flanges
C-Mn-Si-V Flanges	A350 Gr. LF6 Cl. 1 Flanges	...	...
3½ Ni Flanges	A350 Gr. LF3 Flanges	...	...
C-Mn-Si Flanges	...	A216 Gr. WCC Flanges	...
C-Mn-Si Flanges	...	A352 Gr. LCC Flanges	...
C-Mn-Si-V Flanges	A350 Gr. LF6 Cl. 2 Flanges	...	...
2½Ni Flanges	...	A352 Gr. LC2 Flanges	A203 Gr. B Flanges
3½Ni Flanges	...	A352 Gr. LC3 Flanges	A203 Gr. E Flanges
C-Si Flanges	...	A352 Gr. LCB Flanges	A515Gr. 65 Flanges
C-Mn-Si Flanges	...	...	A516 Gr. 65 Flanges
2½Ni Flanges	...	...	A203 Gr. A Flanges
3½Ni Flanges	...	...	A203 Gr. D Flanges
C-½Mo Flanges	...	A217 Gr. WC1 Flanges	...
C-½Mo Flanges	...	A352 Gr. LC1 Flanges	...
C-Si Flanges	...	...	A515 Gr. 60 Flanges
C-Mn-Si Flanges	A350 Gr. LF1 Cl. 1 Flanges	...	A516 Gr. 60 Flanges
C-½Mo Flanges	A182 Gr. F1 Flanges	...	A204 Gr. A Flanges
C-½Mo Flanges	...	...	A204 Gr. B Flanges
½Cr-½Mo Flanges	A182 Gr. F2 Flanges	...	...
Ni-½Cr-½Mo Flanges	...	A217 Gr. WC4 Flanges	...
¾Ni-¾Cr-1Mo Flanges	...	A217 Gr. WC5 Flanges	...
1¼Cr-½Mo Flanges	...	A217 Gr. WC6 Flanges	...
1¼Cr-½Mo-Si Flanges	A182 Gr. F11 CL.2 Flanges	...	A387 Gr. 11 Cl.2 Flanges
2¼ Cr-1Mo Flanges	A182 Gr. F22 Cl.3 Flanges	A217 Gr. WC9 Flanges	A387 Gr. 22 Cl. 2 Flanges
C-½Mo Flanges	...	...	A204 Gr. C Flanges
5Cr-½Mo Flanges	A182 Gr. F5a Flanges	A217 Gr. C5 Flanges	...
9Cr-½1Mo Flanges	A182 Gr. F9 Flanges	A217 Gr. C12 Flanges	...
9Cr-1Mo-V Flanges	A182 Gr. F91 Flanges	A217 Gr. C12A Flanges	A387 Gr. 91 Cl. 2 Flanges
1Cr-½Mo Flanges	A182 Gr. F12 Cl.2 Flanges	...	...
5Cr-½Mo Flanges	A182 Gr. F5 Flanges	...	...
9Cr-2W-V Flanges	A182 Gr. F92 Flanges	...	...
18Cr-8Ni Flanges	A182 Gr. F304 Flanges	A351 Gr. CF3 Flanges	A240 Gr. 304 Flanges
18Cr-8Ni Flanges	A182 Gr. F304H Flanges	A351 Gr. CF8 Flanges	A240 Gr. 304H Flanges
16Cr-12Ni-2Mo Flanges	A182 Gr. F316 Flanges	A351 Gr. CF3M Flanges	A240 Gr. 316 Flanges
16Cr-12Ni-2Mo Flanges	A182 Gr. F316H Flanges	A351 Gr. CF8M Flanges	A240 Gr. 316H Flanges
18Cr-13Ni-3Mo Flanges	A182 Gr. F317 Flanges	...	A240 Gr. 317 Flanges
19Cr-10Ni-3Mo Flanges	...	A351 Gr. CG8M Flanges	...
18Cr-8Ni Flanges	A182 Gr. F304L Flanges	...	A240 Gr. 304L Flanges
16Cr-12Ni-2Mo Flanges	A182 Gr. F316L Flanges	...	A240Gr. 316L Flanges
18Cr-13Ni-3Mo Flanges	A182 Gr. F317L Flanges	...	...

ASME B16.5 STANDARD

Table 1A List of Material Specifications (Cont'd) for process of flanges

Nominal Designation	ASTM Specifications		
	Forgings	Castings	Plastes
18Cr-10Ni-Ti Flanges	A182 Gr. F321 Flanges	...	A240 Gr. 321 Flanges
18Cr-10Ni-Ti Flanges	A182 Gr. F321H Flanges	...	A240 Gr. 321H Flanges
18Cr-10Ni-Cb Flanges	A182 Gr. F347 Flanges	...	A240 Gr. 347 Flanges
18Cr-10Ni-Cb Flanges	A182 Gr. F347H Flanges	...	A240 Gr. 347H Flanges
18Cr-10Ni-Cb Flanges	A182 Gr. F348 Flanges	...	A240 Gr. 348 Flanges
18Cr-10Ni-Cb Flanges	A182 Gr. F348H Flanges	...	A240 Gr. 348H Flanges
23Cr-12Ni Flanges	...	...	A240 Gr. 309H Flanges
25Cr-20Ni Flanges	A182 Gr. F310 Flanges	...	A240 Gr. 310H Flanges
20Cr-18Ni-6Mo Flanges	A182 Gr. F44 Flanges	A351 Gr. CK3MCuN Flanges	A240 Gr. S31254 Flanges
22Cr-5Ni-3Mo-N Flanges	A182 Gr. F51 Flanges	...	A240 Gr. S31803 Flanges
25Cr-7Ni-4Mo-N Flanges	A182 Gr. F53 Flanges	...	A240 Gr. S32750 Flanges
24Cr-10Ni-4Mo-V Flanges	...	A351 Gr. CE8MN Flanges	...
25Cr-5Ni-2Mo-3Cu Flanges	...	A995 Gr. CD4MCu Flanges	...
25Cr-7Ni-3.5Mo-W-Cb Flanges	...	A995 Gr. CD3MWCuN Flanges	...
25Cr-7.5Ni-3.5Mo-N-Cu-W Flanges	A182 Gr. F55 Flanges	...	A240 Gr. S32760 Flanges
23Cr-12Ni Flanges	...	...	A240 Gr. 309S Flanges
25Cr-12Ni Flanges	...	...	A240 Gr. 310S Flanges
25Cr-12Ni Flanges	...	A351 Gr. CH8 Flanges	...
25Cr-12Ni Flanges	...	A351 Gr. CH20 Flanges	...
18Cr-10Ni-Cb Flanges	...	A351 Gr. CF8C	...
25Cr-20Ni Flanges	...	A351 Gr. CK20	...
35Ni-35Fe-20Cr-Cb Flanges	B462 Gr. N08020 Flanges	...	B463 Gr. N08020 Flanges
99.0Ni Flanges	B564 Gr. N02200 Flanges	...	B162 Gr. N02200 Flanges
99.0Ni-Low C Flanges	...	...	B162 Gr. N02201 Flanges
67Ni-30Cu Flanges	B564 Gr. N04400 Flanges	...	B127 Gr. N04400 Flanges
72Ni-15Cr-8Fe Flanges	B564 Gr. N06600 Flanges	...	B168 Gr. N06600 Flanges
33Ni-42Fe-21Cr Flanges	B564 Gr. N08800 Flanges	...	B409 Gr. N08800 Flanges
65Ni-28Mo-2Fe Flanges	B462 Gr. N10665 Flanges	...	B333 Gr. N10665 Flanges
64Ni-29.5Mo-2Cr-2Fe-Mn-W Flanges	B462 Gr. N10675 Flanges	...	B333 Gr. N10675 Flanges
54Ni-16Mo-15Cr Flanges	B462 Gr. N10276 Flanges	...	B575 Gr. N10276 Flanges
60Ni-22Cr-9Mo-3.5Cb Flanges	B564 Gr. N06625 Flanges	...	B443 Gr. N10675 Flanges
62Ni-28Mo-5Fe Flanges	...	...	B333 Gr. N10001 Flanges
70Ni-16Mo-7Cr-5Fe Flanges	...	...	B434 Gr. N10003 Flanges
61Ni-16Mo-16Cr Flanges	...	...	B575 Gr. N06455 Flanges
42Ni-21.5Cr-3Mo-2.3Cu Flanges	B564 Gr. N08825 Flanges	...	B424 Gr. N08825 Flanges
55Ni-21Cr-13.5Mo Flanges	B462 Gr. N06022 Flanges	...	B575 Gr. N06022 Flanges
55Ni-23Cr-16Mo-1.6Cu Flanges	B462 Gr. N06200 Flanges	...	B575 Gr. N06200 Flanges
47Ni-22Cr-9Mo-18Fe Flanges	...	...	B435 Gr. N06002 Flanges
21Ni-30Fe-22Cr-18Co-3Mo-3W Flanges	B572 Gr. R30556 Flanges	...	B435 Gr. R30556 Flanges
25Ni-47Fe-21C-5Mo Flanges	...	...	B599 Gr. N08700 Flanges

ASME B16.5 STANDARD

Table 1A List of Material Specifications for process of flanges (Cont'd)

Nominal Designation	ASTM Specifications		
	Forgings	Castings	Plastes
44Fe-25Ni-21Cr-Mo Flanges	A479 Gr. N08904 Flanges	...	A240 Gr. N08904 Flanges
26Ni-43Fe-22Cr-5Mo Flanges	...	...	B620 Gr. N08320 Flanges
47Ni-22Cr-20Fe-7Mo Flanges	...	...	B582 Gr. N06985 Flanges
46Fe-24Ni-21Cr-6Mo-Cu-N Flanges	B462 Gr. N08367 Flanges	CN3MN Flanges	B688 Gr. N08367 Flanges
49Ni-25Cr-18Fe-6Mo Flanges	...	...	B582 Gr. N06975 Flanges
Ni-Fe-Cr-Mo-Cu-Low C Flanges	B564 Gr. N08031 Flanges	...	B625 Gr. N08031 Flanges
47Ni-22Cr-19Fe-6Mo Flanges	...	...	B582 Gr. N06007 Flanges
40Ni-29Cr-15Fe-5Mo Flanges	B462 Gr. N06030 Flanges	...	B582 Gr. N06030 Flanges
58Ni-33Cr-8Mo Flanges	B462 Gr. N06035 Flanges	...	B575 Gr. N06035 Flanges
42Ni-42Fe-21Cr Flanges	B564 Gr. N08810 Flanges	...	B409 Gr. N08810 Flanges
35Ni-19Cr-1¼Si Flanges	B511 Gr. N08330 Flanges	...	B536 Gr. N08330 Flanges
29Ni-20.5Cr-3.5Cu-2.5Mo Flanges	...	A351 Gr. CN7M Flanges	...
57Ni-22CR-14W-2Mo-La Flanges	B564 Gr. N06230 Flanges	...	B435 Gr. N06230 Flanges

NOTES :

- [1] The Plate materials are listed only for use as blind flanges are reducing flanges without hubs [see para. 5.1]. Additional plate materials listed in ASME B16.34 may also be used with corresponding B16.34. Standard Class ratings. Materials under section II of ASME BPVC [Boiler & Pressure Vessel code] may be used, on the condition that the ASME Specification requirements are equivalent to or more Strict than the equivalent ASTM Specification for the Grade, Class or Type listed.
- [2] Specifically for use only as blind flanges & reduce flanges without Hubs these plate materials are stated. Also, the additional plate materials as stated in ASME B16.34 & B16.34 Standard Class ratings can be used parallely.
- [3] Usage of ASME Boiler & Pressure Vessel Code [BPVC], Section 11 materials is possible given the ASME Specification requirements are Similar to or more rigid than the parallel ASTM Specification for the Class, Type or Grade So Specified.



ASME B16.5 STANDARD

Applicable ASTM/ASME Standard

Bolting Materials							
High Strength Bolt [Table 1]		Intermediate Strength Bolt [Table 2]		Low Strength Bolt [Table 3]		Nickel and Special Alloy [Table 4]	
Spec No.	Grade	Spec No.	Grade	Spec No.	Grade	Spec No.	Grade
A193	B7	A193	B5	A193	B8 Cl.1	B164	...
A193	B16	A193	B6	A193	B8C Cl.1	...	...
A193	B16	A193	B6X	A193	B8M Cl.1	B166	...
A320	L7	A193	B7M	A193	B8T Cl.1	...	...
A320	L7A						
A320	L7B	A193	B8 Cl.2	A193	B8A	B335	N10665 N10675
		A193	B8 Cl.2B				
A320	L7C	A193	B8C Cl.2	A193	B8CA		
A320	L43	A193	B8M Cl.2	A193	B8MA	B408	...
		A193	B8M Cl.2B				
		A193	B8T Cl.2	A193	B8TA		
A354	BC					B473	...
A354	BD	A320	B8 Cl.2	A307	B		
		A320	B8C Cl.2			B574	...
A540	B21	A320	B8F Cl.2	A320	B8 Cl.1		
A540	B22	A320	B8M Cl.2	A320	B8C Cl.1		
A540	B23	A320	B8T Cl.2	A320	B8M Cl.1		
A540	B24			A320	B8T Cl.1		
		A449					
		A453	651				
		A453	660				

DIMENSIONAL TOLERANCES OF FLANGES ASME B16.5 OUTSIDE DIAMETER * [ECCENTRICITY BOLT CIRCLE]

Weld Neck Flange

$\leq 2\frac{1}{2}$
 0.03 in max [0.8 mm max]
 ≥ 3
 0.06 in max [1.6 mm max]

SLIP ON FLANGES

$\leq 2\frac{1}{2} = 0.8$ mm max.
 $\geq 3 = 1.6$ mm max.

SOCKET WELD FLANGES

$\leq 2\frac{1}{2} = 0.8$ mm max.
 $\geq 3 = 1.6$ mm max.

LAP JOINT FLANGES

$\leq 2\frac{1}{2} = 0.8$ mm max.
 $\geq 3 = 1.6$ mm max.

THREADED FLANGES

$\leq 2\frac{1}{2} = 0.8$ mm max.
 $\geq 3 = 1.6$ mm max.

BLIND FLANGES

$\leq 2\frac{1}{2} = 0.8$ mm max.
 $\geq 3 = 1.6$ mm max.

DIMENSIONS FOR FLANGE WALL THICKNESS ASME 16.5

NPS [inches]	Outside Diameters	NOMINAL WALL THICKNESS												
		Sch 10	Sch 20	Sch 30	STD Wall	Sch 40	Sch 60	EXT Hvy	Sch 80	Sch 100	Sch 120	Sch 140	Sch 160	XX Hvy
1/2	0.840	0.083	.....	.....	0.109	0.109	.....	0.147	0.147	.....	.....	.....	0.188	0.294
3/4	1.050	0.083	.....	.....	0.113	0.113	.....	0.154	0.154	.....	.....	.....	0.219	0.308
1	1.315	0.109	.....	.....	0.133	0.133	.....	0.179	0.179	.....	.....	.....	0.250	0.358
1 1/4	1.660	0.109	.....	.....	0.140	0.140	.....	0.191	0.191	.....	.....	.....	0.250	0.382
1 1/2	1.900	0.109	.....	.....	0.145	0.145	.....	0.200	0.200	.....	.....	.....	0.281	0.400
2	2.375	0.109	.....	.....	0.154	0.154	.....	0.218	0.218	.....	.....	.....	0.344	0.436
2 1/2	2.875	0.120	.....	.....	0.203	0.203	.....	0.276	0.276	.....	.....	.....	0.375	0.552
3	3.500	0.120	.....	.....	0.216	0.216	.....	0.300	0.300	.....	.....	.....	0.438	0.600
3 1/2	4.000	0.120	.....	.....	0.226	0.226	.....	0.318	0.318	.....	.....	.....	.....	0.636
4	4.500	0.120	.....	.....	0.237	0.237	.....	0.337	0.337	.....	0.438	.....	0.531	0.674
5	5.563	0.134	.....	.....	0.258	0.258	.....	0.375	0.375	.....	0.500	.....	0.625	0.750
6	6.625	0.134	.....	.....	0.280	0.280	.....	0.432	0.432	.....	0.562	.....	0.719	0.864
8	8.625	0.148	0.250	0.277	0.322	0.322	0.406	0.500	0.500	0.594	0.719	0.812	0.906	0.875
10	10.750	0.165	0.250	0.307	0.365	0.365	0.500	0.500	0.594	0.719	0.844	1.000	1.125	1.000
12	12.750	0.180	0.250	0.330	0.375	0.406	0.562	0.500	0.688	0.844	1.000	1.125	1.312	1.000
14	14.000	0.250	0.312	0.375	0.375	0.438	0.594	0.500	0.750	0.938	1.094	1.250	1.406	.....
16	16.000	0.250	0.312	0.375	0.375	0.500	0.656	0.500	0.844	1.031	1.219	1.438	1.594	.....
18	18.000	0.250	0.312	0.438	0.375	0.562	0.750	0.500	0.938	1.156	1.375	1.562	1.781	.....
20	20.000	0.250	0.375	0.500	0.375	0.594	0.812	0.500	1.031	1.281	1.500	1.750	1.969	.....
22	22.000	0.250	.....	.....	0.375	.....	.....	0.500	.....	.....	.....	.....	.....	.....
24	24.000	0.250	0.375	0.562	0.375	0.688	0.969	0.500	1.219	1.531	1.812	2.062	2.344	.....
26	26.000	.....	.....	.....	0.375	.....	.....	0.500	.....	.....	.....	.....	.....	.....
30	30.000	0.312	0.500	0.625	0.375	.....	.....	0.500	.....	.....	.....	.....	.....	.....
36	36.000	0.312	0.500	0.625	0.375	0.750	.....	0.500	.....	.....	.....	.....	.....	.....
40	40.000	.....	.....	.....	0.375	.....	.....	0.500	.....	.....	.....	.....	.....	.....
42	42.000	.....	.....	.....	0.375	.....	.....	0.500	.....	.....	.....	.....	.....	.....
48	48.000	.....	.....	.....	0.375	.....	.....	0.500	.....	.....	.....	.....	.....	.....

DIMENSIONS FOR WELDING NECK FLANGE BORES ASME 16.5

NPS [inches]	Outside Diameters	NOMINAL BORE												
		Sch 10	Sch 20	Sch 30	STD Wall	Sch 40	Sch 60	EXT Hvy	Sch 80	Sch 100	Sch 120	Sch 140	Sch 160	XX Hvy
1/2	0.840	0.674	.....	.....	0.622	0.622	.....	0.546	0.546	.....	.....	.....	0.464	0.252
3/4	1.050	0.884	.....	.....	0.824	0.824	.....	0.742	0.742	.....	.....	.....	0.612	0.434
1	1.315	1.097	.....	.....	1.049	1.049	.....	0.957	0.957	.....	.....	.....	0.815	0.599
1 1/4	1.660	1.442	.....	.....	1.380	1.380	.....	1.278	1.278	.....	.....	.....	1.160	0.896
1 1/2	1.900	1.682	.....	.....	1.610	1.610	.....	1.500	1.500	.....	.....	.....	1.338	1.100
2	2.375	2.157	.....	.....	2.067	2.067	.....	1.939	1.939	.....	.....	.....	1.687	1.503
2 1/2	2.875	2.635	.....	.....	2.469	2.469	.....	2.323	2.323	.....	.....	.....	2.125	1.771
3	3.500	3.260	.....	.....	3.068	3.068	.....	2.900	2.900	.....	.....	.....	2.624	2.300
3 1/2	4.000	3.760	.....	.....	3.548	3.548	.....	3.364	3.364	.....	.....	.....	.....	2.728
4	4.500	4.260	.....	.....	4.026	4.026	.....	3.826	3.826	.....	3.624	.....	3.438	3.152
5	5.563	5.295	.....	.....	5.047	5.047	.....	4.813	4.813	.....	4.563	.....	4.313	4.063
6	6.625	6.357	.....	.....	6.065	6.065	.....	5.761	5.761	.....	5.501	.....	5.187	4.897
8	8.625	8.329	8.125	8.071	7.981	7.981	7.813	7.625	7.625	7.437	7.187	7.001	6.813	6.875
10	10.750	10.420	10.250	10.136	10.020	10.020	9.750	9.750	9.562	9.312	9.062	8.750	8.500	8.750
12	12.750	12.390	12.250	12.090	12.000	11.938	11.626	11.750	11.374	11.062	10.750	10.500	10.126	10.750
14	14.000	13.500	13.376	13.250	13.250	13.124	12.812	13.000	12.500	12.124	11.812	11.500	11.188	.....
16	16.000	15.500	15.376	15.250	15.250	15.000	14.688	15.000	14.312	13.938	13.562	13.124	12.812	.....
18	18.000	17.500	17.376	17.124	17.250	16.876	16.500	17.000	16.124	15.688	15.250	14.876	14.438	.....
20	20.000	19.500	19.250	19.000	19.250	18.812	18.376	19.000	17.938	17.438	17.000	16.500	16.062	.....
22	22.000	21.500	.....	.....	21.250	.....	.....	21.000	.....	.....	.....	.....	.....	.....
24	24.000	23.500	23.250	22.876	23.250	22.624	22.062	23.000	21.562	20.938	20.376	19.876	19.312	.....
26	26.000	.....	.....	.....	25.250	.....	.....	25.000	.....	.....	.....	.....	.....	.....
30	30.000	29.376	29.000	28.750	29.250	.....	.....	29.000	.....	.....	.....	.....	.....	.....
36	36.000	35.376	35.000	34.750	35.250	34.500	.....	35.000	.....	.....	.....	.....	.....	.....
40	40.000	.....	.....	.....	39.250	.....	.....	39.000	.....	.....	.....	.....	.....	.....
42	42.000	.....	.....	.....	41.250	.....	.....	41.000	.....	.....	.....	.....	.....	.....
48	48.000	.....	.....	.....	47.250	.....	.....	47.000	.....	.....	.....	.....	.....	.....

ASME B16.5 DIMENSIONS OF RING – JOINT FACINGS FLANGES

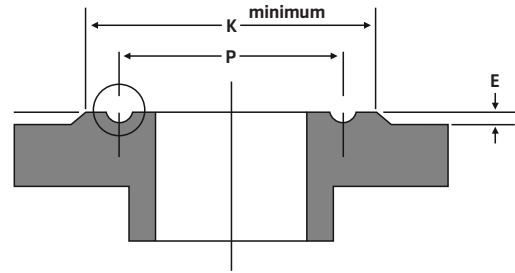
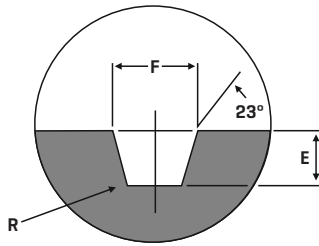
TOLERANCES (inch) :

E[depth]	+0.016
	-0
F[width]	±0.008
P[pitch diameter]	±0.005
R[radius at bottom]	max
23°[angle]	1/2°

NPS [Inches]							Groove Dimensions					Diameter of Raised Portion K					
Pound-force per Square inches [psi]							Groove No.	Pitch Dia	Depth	Width	Radius at Bottom	Pound-force per Square inches [psi]					Depth
150 PSI	300 PSI	400 PSI	600 PSI	900 PSI	1500 PSI	2500 PSI						150 PSI	300 400 600 PSI	900 PSI	1500 PSI	2500 PSI		E
								P	E	F	R						E
.....	1/2	.....	1/2	.....	.....	.....	R11	1-11/32	7/32	9/32	1/32	.....	2	.....	.....	.....	7/32
.....	.....	.....	.....	.....	1/2	.....	12	1-9/16	1/4	11/32	1/32	.....	.....	2-3/8	2-3/8	.....	1/4
.....	3/4	.....	3/4	.....	.....	1/2	13	1-11/16	1/4	11/32	1/32	.....	2-1/2	.....	.....	2-9/16	1/4
.....	.....	.....	.....	.....	3/4	.....	14	1-3/4	1/4	11/32	1/32	.....	.....	2-5/8	2-5/8	.....	1/4
1	.....	.....	.....	.....	.....	.....	15	1-7/8	1/4	11/32	1/32	2-1/2	.....	.....	.....	.....	1/4
.....	1	.....	1	.....	1	3/4	16	2	1/4	11/32	1/32	.....	2-3/4	2-13/16	2-13/16	2-7/8	1/4
1-1/4	.....	.....	.....	.....	.....	.....	17	2-1/4	1/4	11/32	1/32	2-7/8	.....	.....	.....	.....	1/4
.....	1-1/4	.....	1-1/4	.....	1-1/4	1	18	2-3/8	1/4	11/32	1/32	.....	3-1/8	3-3/16	3-3/16	3-1/4	1/4
1-1/2	.....	.....	.....	.....	.....	.....	19	2-9/16	1/4	11/32	1/32	3-1/4	.....	.....	.....	.....	1/4
.....	1-1/2	.....	1-1/2	.....	1-1/2	.....	20	2-11/16	1/4	11/32	1/32	.....	3-9/16	3-5/8	3-5/8	.....	1/4
.....	.....	.....	.....	.....	.....	1-1/4	21	2-27/32	5/16	15/32	1/32	.....	.....	.....	.....	4	5/16
2	.....	.....	.....	.....	.....	.....	22	3-1/4	1/4	11/32	1/32	4	.....	.....	.....	.....	1/4
.....	2	.....	2	.....	.....	1-1/2	23	3-1/4	5/16	15/32	1/32	.....	4-1/4	.....	.....	4-1/2	5/16
.....	.....	.....	.....	.....	2	.....	24	3-3/4	5/16	15/32	1/32	.....	.....	4-7/8	4-7/8	.....	5/16
2-1/2	.....	.....	.....	.....	.....	.....	25	4	1/4	11/32	1/32	4-3/4	.....	.....	.....	.....	1/4
.....	2-1/2	.....	2-1/2	.....	.....	2	26	4	5/16	15/32	1/32	.....	5	.....	.....	5-1/4	5/16
.....	.....	.....	.....	.....	2-1/2	.....	27	4-1/4	5/16	15/32	1/32	.....	.....	.....	5-3/8	.....	5/16
.....	.....	.....	.....	.....	.....	2-1/2	28	4-3/8	3/8	17/32	1/16	.....	.....	.....	.....	5-7/8	3/8
3	.....	.....	.....	.....	.....	.....	29	4-1/2	1/4	11/32	1/32	5-1/4	.....	.....	.....	.....	1/4
.....	.....	.....	.....	.....	.....	.....	30	4-5/8	5/16	15/32	1/32	.....	.....	.....	.....	.....	5/16
.....	3	.....	3	3	.....	.....	31	4-7/8	5/16	15/32	1/32	.....	5-3/4	6-1/8	.....	.....	5/16
.....	.....	.....	.....	.....	.....	3	32	5	3/8	17/32	1/16	.....	.....	.....	.....	6-5/8	3/8
3-1/2	.....	.....	.....	.....	.....	.....	33	5-3/16	1/4	11/32	1/32	6-1/16	.....	.....	.....	.....	1/4
.....	3-1/2	.....	3-1/2	.....	.....	.....	34	5-3/16	5/16	15/32	1/32	.....	6-1/4	.....	.....	.....	5/16
.....	.....	.....	.....	.....	3	.....	35	5-3/8	5/16	15/32	1/32	.....	.....	.....	6-5/8	.....	5/16
4	.....	.....	.....	.....	.....	.....	36	5-7/8	1/4	11/32	1/32	6-3/4	.....	.....	.....	.....	1/4
.....	4	4	4	4	.....	.....	37	5-7/8	5/16	15/32	1/32	.....	6-7/8	7-1/8	.....	.....	5/16
.....	.....	.....	.....	.....	.....	4	38	6-3/16	7/16	21/32	1/16	.....	.....	.....	.....	8	7/16
.....	.....	.....	.....	.....	4	.....	39	6-3/8	5/16	15/32	1/32	.....	.....	.....	7-5/8	.....	5/16
5	.....	.....	.....	.....	.....	.....	40	6-3/4	1/4	11/32	1/32	7-5/8	.....	.....	.....	.....	1/4
.....	5	5	5	5	.....	.....	41	7-1/8	5/16	15/32	1/32	.....	8-1/4	8-1/2	.....	.....	5/16
.....	.....	.....	.....	.....	.....	5	42	7-1/2	1/2	25/32	1/16	.....	.....	.....	.....	9-1/2	1/2
6	.....	.....	.....	.....	.....	.....	43	7-5/8	1/4	11/32	1/32	8-5/8	.....	.....	.....	.....	1/4
.....	.....	.....	.....	.....	5	.....	44	7-5/8	5/16	15/32	1/32	.....	.....	.....	9	.....	5/16
.....	6	6	6	6	.....	.....	45	8-5/16	5/16	15/32	1/32	.....	9-1/2	9-1/2	.....	.....	5/16

Note : Depth of groove dimension E matches the raised face Height, Dimensions [inches];

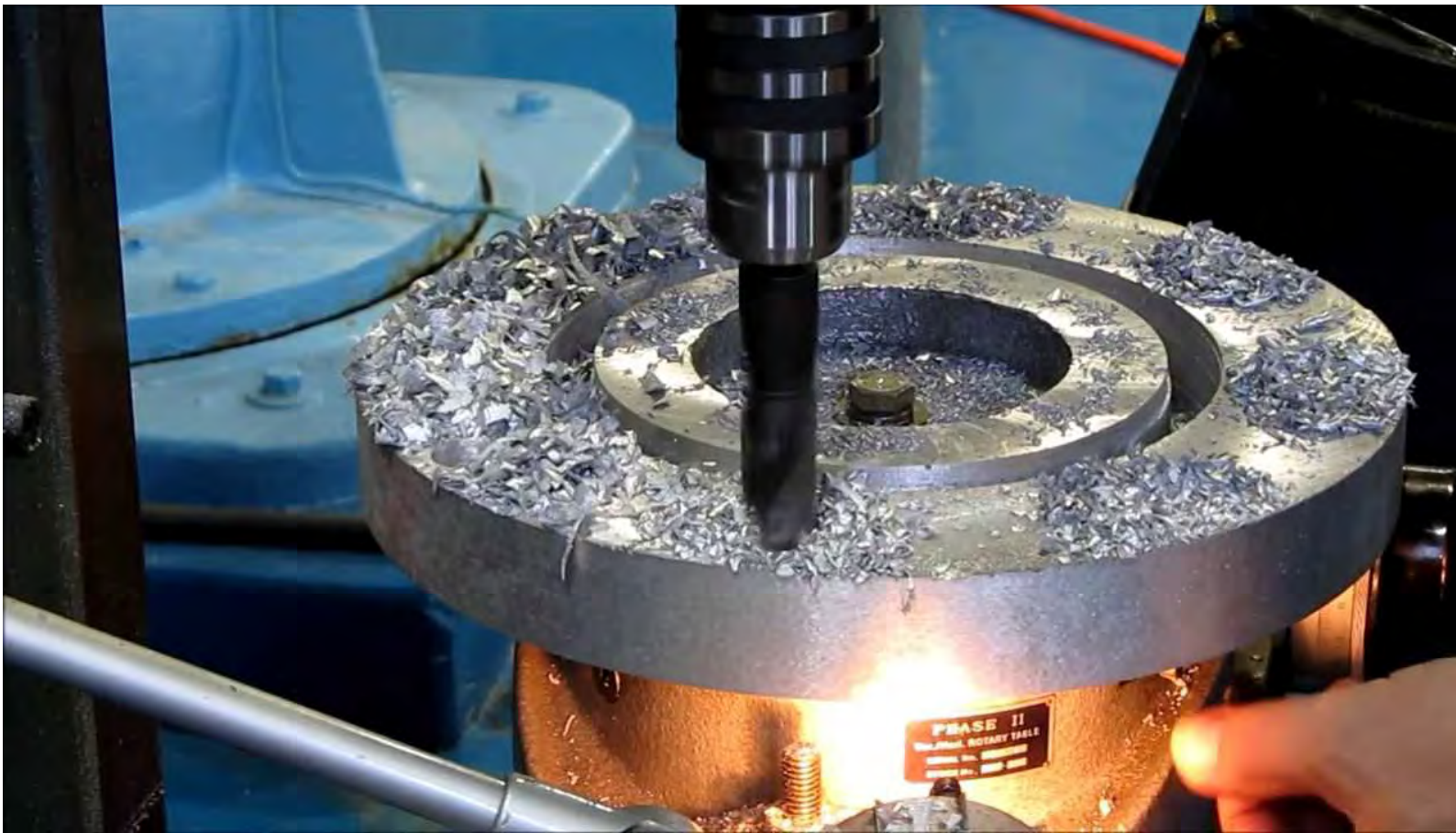
ASME B16.5 DIMENSIONS OF RING – JOINT FACINGS FLANGES



NPS [Inches]							Groove Dimensions					Diameter of Raised Portion K					
Pound-force per Square inches [psi]							Groove No.	Pitch Dia	Depth	Width	Radius at Bottom	Pound-force per Square inches [psi]					Depth
150 PSI	300 PSI	400 PSI	600 PSI	900 PSI	1500 PSI	2500 PSI						150 PSI	300 400 600 PSI	900 PSI	1500 PSI	2500 PSI	
							P	E	F	R						E	
.....	.....	.....	.....	.....	6	.....	R46	8-5/16	3/8	17/32	1/16	.....	.....	.....	9-3/4	.....	3/8
.....	.....	.....	.....	.....	.....	6	47	9	1/2	25/32	1/16	.....	.....	.....	.....	11	1/2
8	.....	.....	.....	.....	.....	.....	48	9-3/4	1/4	11/32	1/32	10-3/4	.....	.....	.....	.....	1/4
.....	8	8	8	8	.....	.....	49	10-5/8	5/16	15/32	1/32	.....	11-7/8	12-1/8	.....	.....	5/16
.....	.....	.....	.....	.....	8	.....	50	10-5/8	7/16	21/32	1/16	.....	.....	.....	12-1/2	.....	7/16
.....	.....	.....	.....	.....	.....	8	51	11	9/16	29/32	1/16	.....	.....	.....	.....	13-3/8	9/16
10	.....	.....	.....	.....	.....	.....	52	12	1/4	11/32	1/32	13	.....	.....	.....	.....	1/4
.....	10	10	10	10	.....	.....	53	12-3/4	5/16	15/32	1/32	.....	14	14-1/4	.....	.....	5/16
.....	.....	.....	.....	.....	10	.....	54	12-3/4	7/16	21/32	1/16	.....	.....	.....	14-5/8	.....	7/16
.....	.....	.....	.....	.....	.....	10	55	13-1/2	11/16	1-3/16	3/32	.....	.....	.....	.....	16-3/4	11/16
12	.....	.....	.....	.....	.....	.....	56	15	1/4	11/32	1/32	16	.....	.....	.....	.....	1/4
.....	12	12	12	12	.....	.....	57	15	5/16	15/32	1/32	.....	16-1/4	16-1/2	.....	.....	5/16
.....	.....	.....	.....	.....	12	.....	58	15	9/16	29/32	1/16	.....	.....	.....	17-1/4	.....	9/16
14	.....	.....	.....	.....	.....	12	59	15-5/8	1/4	11/32	1/32	16-3/4	.....	.....	.....	.....	1/4
.....	.....	.....	.....	.....	.....	.....	60	16	11/16	1-5/16	3/32	.....	.....	.....	.....	19-1/2	11/16
.....	14	14	14	.....	.....	.....	61	16-1/2	5/16	15/32	1/32	.....	18	.....	.....	.....	5/16
.....	.....	.....	.....	14	.....	.....	62	16-1/2	7/16	21/32	1/16	.....	.....	18-3/8	.....	.....	7/16
.....	.....	.....	.....	.....	14	.....	63	16-1/2	5/8	1-1/16	3/32	.....	.....	.....	.....	19-1/4	5/8
16	.....	.....	.....	.....	.....	.....	64	17-7/8	1/4	11/32	1/32	19	.....	.....	.....	.....	1/4
.....	16	16	16	.....	.....	.....	65	18-1/2	5/16	15/32	1/32	.....	20	.....	.....	.....	5/16
.....	.....	.....	.....	16	.....	.....	66	18-1/2	7/16	21/32	1/16	.....	.....	20-5/8	.....	.....	7/16
.....	.....	.....	.....	.....	16	.....	67	18-1/2	11/16	1-3/16	3/32	.....	.....	.....	21-1/2	.....	11/16
18	.....	.....	.....	.....	.....	.....	68	20-3/8	1/4	11/32	1/32	21-1/2	.....	.....	.....	.....	1/4
.....	18	18	18	.....	.....	.....	69	21	5/16	15/32	1/32	.....	22-5/8	.....	.....	.....	5/16
.....	.....	.....	.....	18	.....	.....	70	21	1/2	25/32	1/16	.....	.....	23-3/8	.....	.....	1/2
.....	.....	.....	.....	.....	18	.....	71	21	11/16	1-3/16	3/32	.....	.....	.....	24-1/8	.....	11/16
20	.....	.....	.....	.....	.....	.....	72	22	1/4	11/33	1/32	23-1/2	.....	.....	.....	.....	1/4
.....	20	20	20	.....	.....	.....	73	23	3/8	17/32	1/16	.....	25	.....	.....	.....	3/8
.....	.....	.....	.....	20	.....	.....	74	23	1/2	25/32	1/16	.....	.....	25-1/2	.....	.....	1/2
.....	.....	.....	.....	.....	20	.....	75	23	11/16	1-5/16	3/32	.....	.....	-	.....	.....	11/16
24	.....	.....	.....	.....	.....	.....	76	26-1/2	1/4	11/32	1/32	28	.....	.....	.....	.....	1/4
.....	24	24	24	.....	.....	.....	77	27-1/4	7/16	21/32	1/16	.....	29-1/2	.....	.....	.....	7/16
.....	.....	.....	.....	24	.....	.....	78	27-1/4	5/8	1-1/16	3/32	.....	.....	30-3/8	.....	.....	5/8
.....	.....	.....	.....	.....	24	.....	79	27-1/4	13/16	17/16	3/32	.....	.....	.....	31-1/4	.....	13/16

Note : Depth of groove dimension E matches the raised face Height, Dimensions [inches];





Types and Application of Flanges :

ASME B16.5 Raised Faced Weld Neck Flange Available Types

- | | |
|--|---|
| <ul style="list-style-type: none"> ASME B16.5 Raised Faced Weld Neck Flange Available Types Neck Flange Exporter ANSI 150 Weld Neck Flange Distributors High Quality Weld Neck Flange Manufacturer Stainless Steel Weld Neck Flange Suppliers Weld Neck Plate Flange Dealer ANSI B16.5 class 150 Weld Neck Flange Stockholder Carbon Steel Weld Neck Flange ASTM A182 Stainless Steel Weld Neck Flange Super Duplex Steel Weld Neck Forged Flange High Nickel Alloy Weld Neck Flange Titanium ASME B16.47 Series A & B Weld Neck Flange | <ul style="list-style-type: none"> Raised Faced Weld Neck Flange Weld Neck Flange Dimensions ANSI B16.5 Class 150 Weld Neck Flange SS Weld Neck Flange Weld Neck Raised Face Flange ANSI B16.5 Weld Neck Flange ASME B16.5 Weld Neck Flange Duplex Steel Weld Neck Flange Copper Nickel Weld Neck Pipe Hastelloy Flat Faced Weld Neck Flange Stockist Inconel Weld Neck Flange |
|--|---|

Application of Weld Neck Flange

- ANSI B16.5 Class 150 Weld Neck Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Weld Neck Flange uses in Power Plants Industry
- ASME B16.5 Series A and B Weld Neck Flange uses in Nuclear Plants Industry
- Stainless Steel Weld Neck Flange used in Oil & Gas Industry
- Super Duplex Steel Weld Neck Flange used in Refineries Industry
- Industrial Weld Neck Flange uses in Ship Building Industry
- Super Duplex Steel Weld Neck Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry Weld Neck Flange uses in Condensers Industry
- Alloy Steel Industrial Weld Neck Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Weld Neck Flange use in Marine Applications
- Stainless Steel Industrial Weld Neck Flanges uses in Nuclear Power Industry
- Industrial Weld Neck Flange / Fittings System uses in Fossil Fuel Power Plants Industry



SLIP ON FLANGES

Application of Slip on Flange

- ANSI B16.5 Class 150 Slip on Flanges uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Slip on Flanges uses in Power Plants Industry
- ASME B16.47 Series A and B Slip on Flanges uses in Nuclear Plants Industry
- Stainless Steel Slip-on Flanges uses in Oil & Gas Industry
- Super Duplex Steel Slip on Flanges uses in Refineries Industry
- Industrial Slip on Flanges uses in Ship Building Industry
- Super Duplex Steel Slip on Flange Forged Flanges uses in Heat Exchanger Industry
- Carbon Steel Industrial Slip on Flanges uses in Condensers Industry
- Alloy Steel Industrial Slip on Flanges uses in Paper & Pulp Industry
- Duplex Steel Industrial Slip on Flanges uses in Marine Applications
- Stainless Steel Industrial Slip on Flanges uses in Nuclear Power Industry
- Industrial Slip on Flange / Fittings System uses in Fossil Fuel Power Plants Industry



SPECTACLE BLIND FLANGE

ASME B16.5 Spectacle Blind Flange Available Types

- Spectacle Blind Flange Manufacturing Company
- ANSI B16.5 Spectacle Blind Flange Manufacturer
- ASME B16.5 Spectacle Blind Flange Manufacturer
- Stainless Steel Spectacle Blind Flange Suppliers
- Spectacle Blind Plate Flange Manufacturer / Dealer
- ANSI B16.5 class 150 Spectacle Blind Flange Stockholder
- Carbon Steel Spectacle Blind Flange Manufacturer
- ASTM A182 Stainless Steel Spectacle Blind Flange
- Super Duplex Steel Spectacle Blind Forged Flange
- High Nickel Alloy Spectacle Blind Flange Manufacturer
- Titanium ASME B16.47 Series A and B Spectacle Blind Flange

- Spectacle Blind Flange Manufacturing Company
- Spectacle Blind Flange Dimensions
- ANSI B16.5 Class 150 Spectacle Blind Flange
- SS Spectacle Blind Flange Manufacturing Company
- ASME B16.47 Series A and B Spectacle Blind Flange Exporter
- ANSI 150 Spectacle Blind Flange Distributors
- High Quality Spectacle Blind Flange Manufacturer
- Duplex Steel Spectacle Blind Flange Manufacturer
- Copper Nickel Spectacle Blind Pipe Flange
- Hastelloy Flat Faced Spectacle Blind Flange Stockist
- Inconel Spectacle Blind Flange Manufacturer

Application of Spectacle Blind Flange

- ANSI B16.5 Class 150 Spectacle Blind Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Spectacle Blind Flange uses in Power Plants Industry
- ASME B16.5 Series A and B Spectacle Blind Flange uses in Nuclear Plants Industry
- Stainless Steel Spectacle Blind Flange used in Oil & Gas Industry
- Super Duplex Steel Spectacle Blind Flange used in Refineries Industry
- Industrial Spectacle Blind Flange uses in Ship Building Industry
- Super Duplex Steel Spectacle Blind Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry Spectacle Blind Flange uses in Condensers Industry
- Alloy Steel Industrial Spectacle Blind Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Spectacle Blind Flange use in Marine Applications
- Stainless Steel Industrial Spectacle Blind Flanges uses in Nuclear Power Industry
- Industrial Spectacle Blind Flange / Fittings System uses in Fossil Fuel Power Plants Industry



SOCKET WELD FLANGE

Application of Socket Weld Flange

- ANSI B16.5 Class 150 Socket Weld Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Socket Weld Flange uses in Power Plants Industry
- ASME B16.47 Series A and B Socket Weld Flange uses in Nuclear Plants Industry
- Stainless Steel Socket Weld Flange uses in Oil & Gas Industry
- Super Duplex Steel Socket Weld Flange uses in Refineries Industry
- Industrial Socket Weld Flange uses in Ship Building Industry
- Super Duplex Steel Socket Weld Flange Forged Flanges uses in Heat Exchanger Industry
- Carbon Steel Industrial Socket Weld Flange uses in Condensers Industry
- Alloy Steel Industrial Socket Weld Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Socket Weld Flange uses in Marine Applications
- Stainless Steel Industrial Socket Weld Flange uses in Nuclear Power Industry
- Industrial Socket Weld Flange / Fittings System uses in Fossil Fuel Power Plants Industry



BLIND FLANGE

ASME B16.5 Spectacle Blind Flange Available Types

Blind Raised Face Flange Manufacturing Company	Raised Faced Blind Flange Manufacturers
ANSI B16.5 Blind Flange Manufacturing Company	Blind Flange Dimensions
ASME B16.5 Blind Flange Manufacturers	ANSI B16.5 Class 150 Blind Flange
Stainless Steel Blind Flange Suppliers	SS Blind Flange Manufacturing Company
Blind Plate Flange Dealer	ASME B16.47 Series A and B Blind Flange Exporter
ANSI B16.5 Class 150 Blind Flange Stockholder	ANSI 150 Blind Flange Distributors
Carbon Steel Blind Flange Manufacturing Company	High Quality Blind Flange Manufacturer
ASTM A182 Stainless Steel Blind Flange	Duplex Steel Blind Flange Manufacturing Company
Super Duplex Steel Blind Forged Flange	Copper Nickel Blind Pipe Flange
High Nickel Alloy Blind Flange Manufacturers	Hastelloy Flat Faced Blind Flange Stockist
Titanium ASME B16.47 Series A and B Blind Flange	Inconel Blind Flange

Application of Blind Flange

- ANSI B16.5 Class 150 Blind Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Blind Flange uses in Power Plants Industry
- ASME B16.5 Series A and B Blind Flange uses in Nuclear Plants Industry
- Stainless Steel Blind Flange used in Oil & Gas Industry
- Super Duplex Steel Blind Flange used in Refineries Industry
- Industrial Blind Flange uses in Ship Building Industry
- Super Duplex Steel Blind Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry Blind Flange uses in Condensers Industry
- Alloy Steel Industrial Blind Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Blind Flange use in Marine Applications
- Stainless Steel Industrial Blind Flanges uses in Nuclear Power Industry
- Industrial Blind Flange / Fittings System uses in Fossil Fuel Power Plants Industry



THREADED FLANGE

Application of Threaded Flange

- ANSI B16.5 Class 150 Threaded Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Threaded Weld Flange uses in Power Plants Industry
- ASME B16.47 Series A and B Threaded Flange uses in Nuclear Plants Industry
- Stainless Steel Threaded Flange uses in Oil & Gas Industry
- Super Duplex Steel Threaded Flange uses in Refineries Industry
- Industrial Threaded Flange uses in Ship Building Industry
- Super Duplex Steel Threaded Flange Forged Flanges uses in Heat Exchanger Industry
- Carbon Steel Industrial Threaded Flange uses in Condensers Industry



- Alloy Steel Industrial Threaded Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Threaded Flange uses in Marine Applications
- Stainless Steel Industrial Threaded Flange uses in Nuclear Power Industry
- Industrial Threaded Flange / Fittings System uses in Fossil Fuel Power Plants Industry

Materials of Threaded Flanges

Threaded Flange Manufacturing Company	Screwed Flanges Manufacturing Company
ANSI B16.5 Threaded Flanges	Threaded Flanges Dimensions
ASME B16.5 Screwed Flanges	ANSI B16.5 Class 150 Threaded Flanges
Stainless Steel Threaded Flanges Suppliers	SS Threaded Flanges Manufacturing Company
Threaded Plate Flange Dealer	ASME B16.47 Series A and B Screwed Flanges Exporter
ANSI B16.5 Class 150 Screwed Flanges Stockholder	ANSI 150 Threaded Flanges Distributors
Carbon Steel Threaded Flanges Manufacturing Company	High Quality Screwed Flanges Manufacturer
ASTM A182 Stainless Steel Screwed Flanges	Duplex Steel Threaded Flanges Manufacturers
Super Duplex Steel Threaded Forged Flanges	Copper Nickel Threaded Pipe Flanges
High Nickel Alloy Screwed Flanges Manufacturers	Hastelloy Flat Faced Threaded Flanges Stockist
Titanium ASME B16.47 Series A and B Screwed Flanges	Inconel Threaded Flanges Manufacturers

Orifice Flange

Application of Orifice Flange

- ANSI B16.5 Class 150 Orifice Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Orifice Flange uses in Power Plants Industry
- ASME B16.5 Series A and B Orifice Flange uses in Nuclear Plants Industry
- Stainless Steel Orifice Flange used in Oil & Gas Industry
- Super Duplex Steel Orifice Flange used in Refineries Industry
- Industrial Orifice Flange uses in Ship Building Industry
- Super Duplex Steel Orifice Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry Orifice Flange uses in Condensers Industry
- Alloy Steel Industrial Orifice Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Orifice Flange use in Marine Applications
- Stainless Steel Industrial Orifice Flanges uses in Nuclear Power Industry
- Industrial Orifice Flange / Fittings System uses in Fossil Fuel Power Plants Industry



HIGH HUB FLANGE

Application of High Hub Flange

- ANSI B16.5 Class 150 High Hub Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel High Hub Flange uses in Power Plants Industry
- ASME B16.5 Series A and B High Hub Flange uses in Nuclear Plants Industry
- Stainless Steel High Hub Flange used in Oil & Gas Industry
- Super Duplex Steel High Hub Flange used in Refineries Industry
- Industrial High Hub Flange uses in Ship Building Industry
- Super Duplex Steel High Hub Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry High Hub Flange uses in Condensers Industry
- Alloy Steel Industrial High Hub Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial High Hub Flange use in Marine Applications
- Stainless Steel Industrial High Hub Flanges uses in Nuclear Power Industry
- Industrial Orifice High Hub / Fittings System uses in Fossil Fuel Power Plants Industry



LOOSE FLANGE

Application of Loose Flange

- ANSI B16.5 Class 150 Loose Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Loose Flange uses in Power Plants Industry
- ASME B16.5 Series A and B Loose Flange uses in Nuclear Plants Industry
- Stainless Steel Loose Flange used in Oil & Gas Industry
- Super Duplex Steel Loose Flange used in Refineries Industry
- Industrial Loose Flange uses in Ship Building Industry
- Super Duplex Steel Loose Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry Loose Flange uses in Condensers Industry
- Alloy Steel Industrial Loose Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Loose Flange use in Marine Applications
- Stainless Steel Industrial Loose Flanges uses in Nuclear Power Industry
- Industrial Orifice Loose / Fittings System uses in Fossil Fuel Power Plants Industry



RTJ FLANGE

Application of RTJ Flange

- ANSI B16.5 Class 150 RTJ Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel RTJ Flange uses in Power Plants Industry
- ASME B16.5 Series A and B RTJ Flange uses in Nuclear Plants Industry
- Stainless Steel RTJ Flange used in Oil & Gas Industry
- Super Duplex Steel RTJ Flange used in Refineries Industry
- Industrial RTJ Flange uses in Ship Building Industry
- Super Duplex Steel RTJ Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry RTJ Flange uses in Condensers Industry
- Alloy Steel Industrial RTJ Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial RTJ Flange use in Marine Applications
- Stainless Steel Industrial RTJ Flanges uses in Nuclear Power Industry
- Industrial Orifice RTJ / Fittings System uses in Fossil Fuel Power Plants Industry



TONGUE AND GROOVE FLANGE

Application of Tongue and Groove Flange

- ANSI B16.5 Class 150 Tongue and Groove Flange uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Tongue and Groove Flange uses in Power Plants Industry
- ASME B16.5 Series A and B Tongue and Groove Flange uses in Nuclear Plants Industry
- Stainless Steel Tongue and Groove Flange used in Oil & Gas Industry
- Super Duplex Steel Tongue and Groove Flange used in Refineries Industry
- Industrial Tongue and Groove Flange uses in Ship Building Industry
- Super Duplex Steel Tongue and Groove Flange Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry Tongue and Groove Flange uses in Condensers Industry
- Alloy Steel Industrial Tongue and Groove Flange uses in Paper & Pulp Industry
- Duplex Steel Industrial Tongue and Groove Flange use in Marine Applications
- Stainless Steel Industrial Tongue and Groove Flange uses in Nuclear Power Industry
- Industrial Orifice Tongue and Groove Flange / Fittings System uses in Fossil Fuel Power Plants Industry



Groove



Tongue

EXPANDER FLANGE

Application of Expander Flange

- ANSI B16.5 Class 150 Expander Flanges uses in Industrial Boilers Industry
- ASTM A182 Stainless Steel Expander Flanges uses in Power Plants Industry
- ASME B16.5 Series A and B Expander Flanges uses in Nuclear Plants Industry
- Stainless Steel Expander Flanges used in Oil & Gas Industry
- Super Duplex Steel Expander Flanges used in Refineries Industry
- Industrial Expander Flanges uses in Ship Building Industry
- Super Duplex Steel Expander Flanges Forged Flange uses in Heat Exchanger Industry
- Carbon Steel Industry Expander Flanges uses in Condensers Industry
- Alloy Steel Industrial Expander Flanges uses in Paper & Pulp Industry
- Duplex Steel Industrial Expander Flanges use in Marine Applications
- Stainless Steel Industrial Expander Flanges uses in Nuclear Power Industry
- Industrial Orifice Expander Flanges / Fittings System uses in Fossil Fuel Power Plants Industry



How To Inquiry A Flange

1/2" -24" -COVERED BY ASME B16.5

QUANTITY

SIZE [nominal pipe size]

PRESSURE CLASS [150-2500]

FACING [RF, FF, RTJ, etc.]

TYPE [WN, SO, Treaded, Blind, SW, LJ]

BORE [if SW or WN]

MATERIAL

e.g. 2-4" 300# RFWN STD 304

26"-60" COVERED BY ASME B16.47-WN AND BLINDS ONLY

QUANTITY

SIZE [nominal pipe size]

PRESSURE CLASS

FACING

TYPE

BORE [if WN]

SERIES

MATERIAL

e.g. 2-36" 300# RF BLIND SER A 304

SLIP-ONS LARGER THAN 24"

INDUSTRY STANDARD 125LW, 125/ 150, CLASS 250

BOILER CODE CLASS 75, 175, 350

B16.47 SERIES A DIMENSIONS PER TUBE TURN

B16.47 SERIES B DIMENSIONS WITH 1" HUB [Slightly tapered]

e.g. 30" 1520# RFSO SERIES A PER TT A105

AWWA FLANGES

QUANTITY

SIZE [nominal pipe size]

CLASS [B, D, E, F]

TYPE [ring, hub, blind]

MATERIAL [if not standard steel]

e.g. 3-30" CLASS D RING 316

