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I N T E R N A T I O N A L

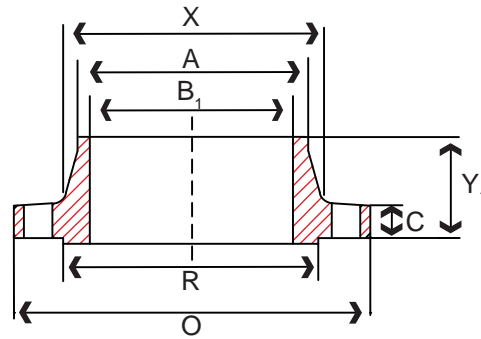
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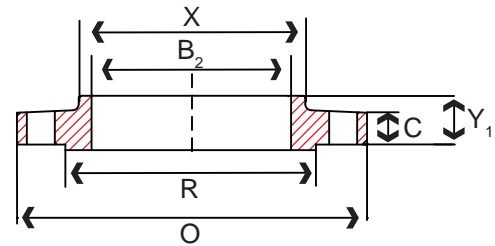
Stainless Steel Flanges



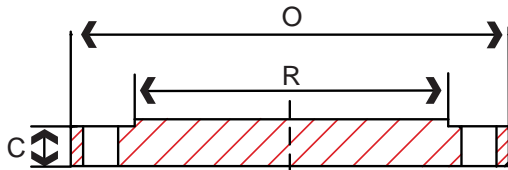
150# Stainless Steel Flange Dimensions



Weld Neck Flange



Slip On Flange

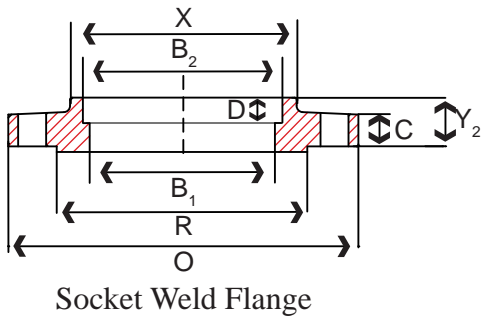
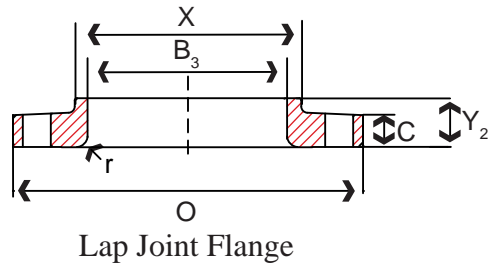
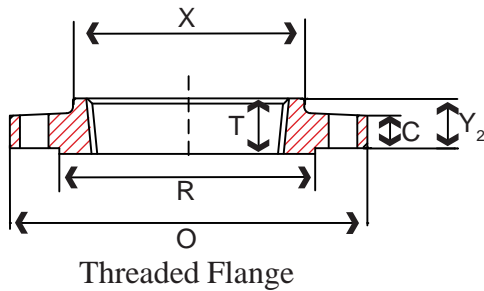


Blind Flange

Nominal Size	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (D)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on Socket (Y ₂)	Lap Joint (Y ₃)
1/2	3.50	0.44	1.38	0.12	To be specified by purchaser.	0.88	0.90	1.88	0.62	0.62
3/4	3.88	0.50	1.69	0.12		1.09	1.11	2.06	0.62	0.62
1	4.25	0.56	2.00	0.12		1.36	1.38	2.19	0.69	0.69
1-1/4	4.62	0.62	2.50	0.19		1.70	1.72	2.25	0.81	0.81
1-1/2	5.00	0.69	2.88	0.25		1.95	1.97	2.44	0.88	0.88
2	6.00	0.75	3.62	0.31		2.44	2.46	2.50	1.00	1.00
2-1/2	7.00	0.88	4.12	0.31		2.94	2.97	2.75	1.12	1.12
3	7.50	0.94	5.00	0.38		3.57	3.60	2.75	1.19	1.19
3-1/2	8.50	0.94	5.50	0.38		4.07	4.10	2.81	1.25	1.25
4	9.00	0.94	6.19	0.44		4.60	4.60	3.00	1.31	1.31
5	10.00	0.94	7.31	0.44		5.66	5.69	3.50	1.44	1.44
6	11.00	1.00	8.50	0.50		6.72	6.75	3.50	1.56	1.56
8	13.50	1.12	10.62	0.50		8.72	8.75	4.00	1.75	1.75
10	16.00	1.19	12.75	0.50		10.88	10.92	4.00	1.94	1.94
12	19.00	1.25	15.00	0.50	12.88	12.92	4.50	2.19	2.19	
14	21.00	1.38	16.25	0.50	14.14	14.18	5.00	2.25	3.12	
16	23.50	1.44	18.50	0.50	16.16	16.19	5.00	2.50	3.44	
18	25.00	1.56	21.00	0.50	18.18	18.20	5.50	2.69	3.81	
20	27.50	1.69	23.00	0.50	20.20	20.25	5.69	2.88	4.06	
24	32.00	1.88	27.25	0.50	24.25	24.25	6.00	3.25	4.38	



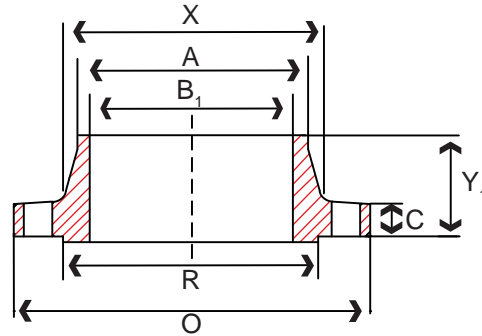
150# Stainless Steel Flange Dimensions, cont.



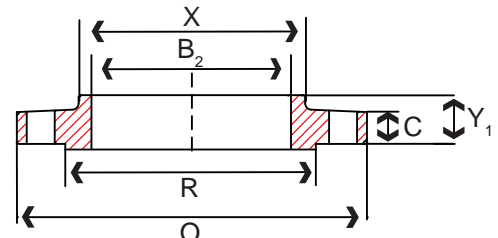
Nominal Size	Min Thread Length (T)	Depth of Socket (D)	Diameter Hub at Bevel (A)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle	Diameter Holes	Number of Holes	Weld Neck	Sip-on Threaded & Socket Weld	Lap Joint	Blind
1/2	0.62	0.38	0.84	1.19	2.38	0.62	4	2	1	1	1
3/4	0.62	0.44	1.05	1.50	2.75	0.62	4	2	2	2	2
1	0.69	0.50	1.32	1.94	3.12	0.62	4	3	2	2	2
1-1/4	0.81	0.56	1.66	2.31	3.50	0.62	4	3	3	3	3
1-1/2	0.88	0.62	1.90	2.56	3.88	0.62	4	4	3	3	4
2	1.00	0.69	2.38	3.06	4.75	0.75	4	6	5	5	5
2-1/2	1.12	0.75	2.88	3.56	5.50	0.75	4	8	7	7	7
3	1.19	0.81	3.50	4.25	6.00	0.75	4	10	8	8	9
3-1/2	1.25	0.88	4.00	4.81	7.00	0.75	8	12	11	11	13
4	1.31	0.94	4.50	5.31	7.50	0.75	8	15	13	13	17
5	1.44	0.94	5.56	6.44	8.50	0.88	8	19	15	15	20
6	1.56	1.06	6.63	7.56	9.50	0.88	8	24	19	19	26
8	1.75	1.25	8.63	9.69	11.75	0.88	8	39	30	30	45
10	1.94	1.31	10.75	12.00	14.25	1.00	12	52	43	43	70
12	2.19	1.56	12.75	14.38	17.00	1.00	12	80	64	64	110
14	2.25	1.63	14.00	15.75	18.75	1.12	12	110	90	105	140
16	2.50	1.75	16.00	18.00	21.25	1.12	16	140	98	140	180
18	2.69	1.94	18.00	19.88	22.75	1.25	16	150	130	160	220
20	2.88	2.13	20.00	22.00	25.00	1.25	20	180	165	195	285
24	3.25	2.50	24.00	26.12	29.50	1.38	20	260	220	275	430



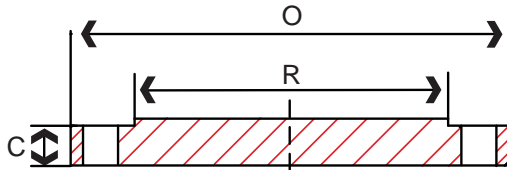
300# Stainless Steel Flange Dimensions



Weld Neck Flange



Slip On Flange

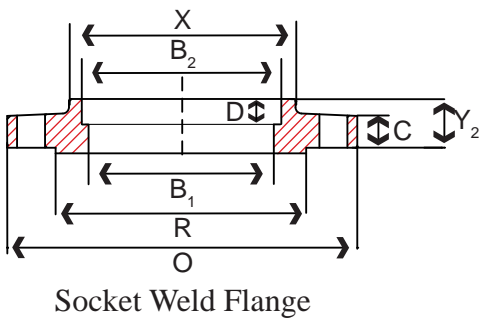
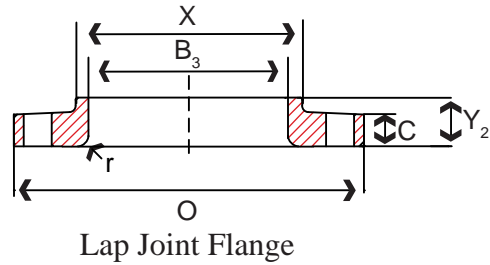
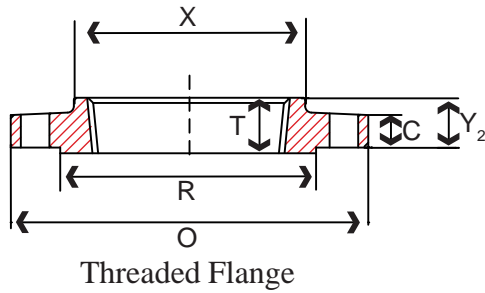


Blind Flange

Nominal Size	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (D)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on Socket (Y ₂)	Lap Joint (Y ₃)
1/2	3.75	0.56	1.38	0.12	To be specified by purchaser.	0.88	0.90	2.06	0.88	0.88
3/4	4.62	0.62	1.69	0.12		1.09	1.11	2.25	1.00	1.00
1	4.88	0.69	2.00	0.12		1.36	1.38	2.44	1.06	1.06
1-1/4	5.25	0.75	2.50	0.19		1.70	1.72	2.56	1.06	1.06
1-1/2	6.12	0.81	2.88	0.25		1.95	1.97	2.69	1.19	1.19
2	6.50	0.88	3.62	0.31		2.44	2.46	2.75	1.31	1.31
2-1/2	7.50	1.00	4.12	0.31		2.94	2.97	3.00	1.50	1.50
3	8.25	1.12	5.00	0.38		3.57	3.60	3.12	1.69	1.69
3-1/2	9.00	1.19	5.50	0.38		4.07	4.10	3.19	1.75	1.75
4	10.00	1.25	6.19	0.44		4.60	4.60	3.38	1.88	1.88
5	11.00	1.38	7.31	0.44		5.66	5.69	3.88	2.00	2.00
6	12.50	1.44	8.50	0.50		6.72	6.75	3.88	2.06	2.06
8	15.00	1.62	10.62	0.50		8.72	8.75	4.38	2.44	2.44
10	17.50	1.88	12.75	0.50		10.88	10.92	4.62	2.62	3.75
12	20.50	2.00	15.00	0.50	12.88	12.92	5.12	2.88	4.00	
14	23.00	2.12	16.25	0.50	14.14	14.18	5.62	3.00	4.38	
16	25.50	2.25	18.50	0.50	16.16	16.19	5.75	3.25	4.75	
18	28.00	2.38	21.00	0.50	18.18	18.20	6.25	3.50	5.12	
20	30.50	2.50	23.00	0.50	20.20	20.25	6.38	3.75	5.50	
24	36.00	2.75	27.25	0.50	24.25	24.25	6.62	4.19	6.00	



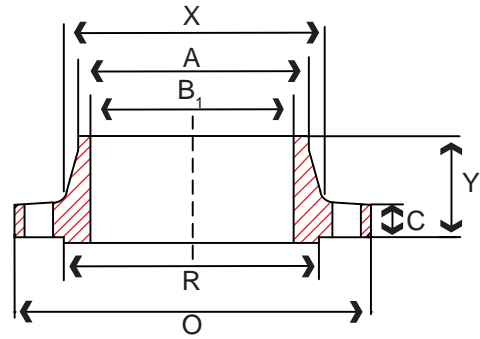
300# Stainless Steel Flange Dimensions, cont.



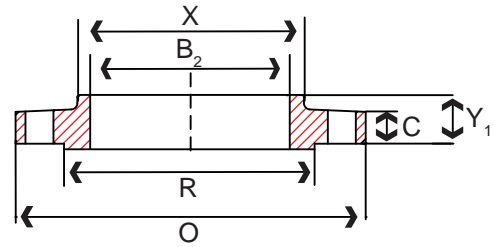
Nominal Size	Min Thread Length (T)	Diameter Counter Bore Thread (Q)	Depth of Socket (D)	Diameter Hub at Bevel (A)	Hub Diameter (X)	Drilling			Approximate Weight			
						Bolt Circle	Diameter Holes	Number of Holes	Weld Neck	Sip-on Threaded & Socket Weld	Lap Joint	Blind
1/2	0.62	0.93	0.38	0.84	1.50	2.62	0.62	4	2	2	2	2
3/4	0.62	1.14	0.44	1.05	1.88	3.25	0.75	4	3	3	3	3
1	0.69	1.41	0.50	1.32	2.12	3.50	0.75	4	4	3	3	3
1-1/4	0.81	1.75	0.56	1.66	2.50	3.88	0.75	4	5	4	4	4
1-1/2	0.88	1.98	0.62	1.90	2.75	4.50	0.88	4	7	6	6	6
2	1.00	2.50	0.69	2.38	3.31	5.00	0.75	8	9	7	7	8
2-1/2	1.12	3.00	0.75	2.88	3.94	5.88	0.88	8	12	10	10	12
3	1.19	3.63	0.81	3.50	4.62	6.62	0.88	8	15	13	13	16
3-1/2	1.25	4.13	0.88	4.00	5.25	7.25	0.88	8	18	17	17	21
4	1.31	4.63	0.94	4.50	5.75	7.88	0.88	8	25	22	22	27
5	1.44	5.69	0.94	5.56	7.00	9.25	0.88	8	32	28	28	35
6	1.56	6.75	1.06	6.63	8.12	10.62	0.88	12	42	39	39	50
8	1.75	8.75	1.25	8.63	10.25	13.00	1.00	12	67	58	58	81
10	1.94	10.88	1.31	10.75	12.62	15.25	1.12	16	91	81	91	124
12	2.19	12.94	1.56	12.75	14.75	17.75	1.25	16	140	115	140	185
14	2.25	14.19	1.63	14.00	16.75	20.25	1.25	20	180	165	190	250
16	2.50	16.19	1.75	16.00	19.00	22.50	1.38	20	250	190	250	295
18	2.69	18.19	1.94	18.00	21.00	24.75	1.38	20	320	250	295	395
20	2.88	20.19	2.13	20.00	23.12	27.00	1.38	24	400	315	370	505
24	3.25	24.19	2.50	24.00	27.62	32.00	1.62	24	580	475	550	790



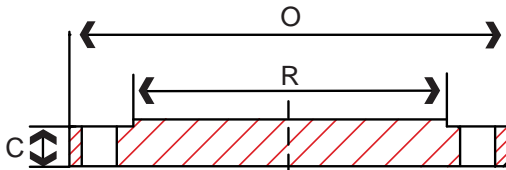
600# Stainless Steel Flange Dimensions



Weld Neck Flange



Slip On Flange

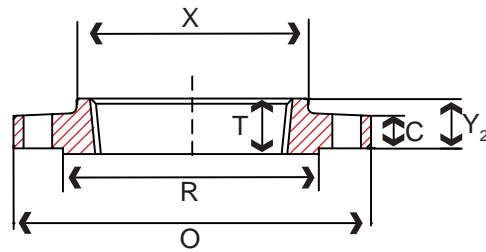


Blind Flange

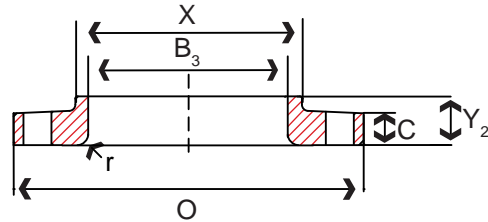
Nominal Size	Common Dimensions				Weld Neck Socket (b ₁)	Bore		Length Thru Hub		
	Outside Diameter (D)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)		Slip-on (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on Socket (Y ₂)	Lap Joint (Y ₃)
1/2	3.75	0.56	1.38	0.12	To be specified by purchaser.	0.88	0.90	2.06	0.88	0.88
3/4	4.62	0.62	1.69	0.12		1.09	1.11	2.25	1.00	1.00
1	4.88	0.69	2.00	0.12		1.36	1.38	2.44	1.06	1.06
1-1/4	5.25	0.81	2.50	0.19		1.70	1.72	2.62	1.12	1.12
1-1/2	6.12	0.88	2.88	0.25		1.95	1.97	2.75	1.25	1.25
2	6.50	1.00	3.62	0.31		2.44	2.46	2.88	1.44	1.44
2-1/2	7.50	1.12	4.12	0.31		2.94	2.97	3.12	1.62	1.62
3	8.25	1.25	5.00	0.38		3.57	3.60	3.25	1.81	1.81
3-1/2	9.00	1.38	5.50	0.38		4.07	4.10	3.38	1.94	1.94
4	10.00	1.50	6.19	0.44		4.60	4.60	4.00	2.12	2.12
5	11.00	1.75	7.31	0.44		5.66	5.69	4.50	2.38	2.38
6	12.50	1.88	8.50	0.50		6.72	6.75	4.62	2.62	2.62
8	15.00	2.19	10.62	0.50		8.72	8.75	5.25	3.00	3.00
10	17.50	2.50	12.75	0.50		10.88	10.92	6.00	3.38	4.38
12	20.50	2.62	15.00	0.50		12.88	12.92	6.12	3.62	4.62
14	23.00	2.75	16.25	0.50		14.14	14.18	6.50	3.69	5.00
16	25.50	3.00	18.50	0.50		16.16	16.19	7.00	4.19	5.50
18	28.00	3.25	21.00	0.50		18.18	18.20	7.25	4.62	6.00
20	30.50	3.50	23.00	0.50		20.20	20.25	7.50	5.00	6.50
24	36.00	4.00	27.25	0.50		24.25	24.25	8.00	5.50	7.25



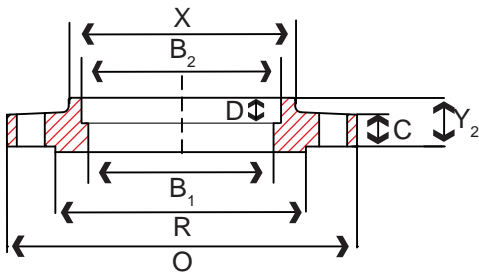
600# Stainless Steel Flange Dimensions, cont.



Threaded Flange



Lap Joint Flange

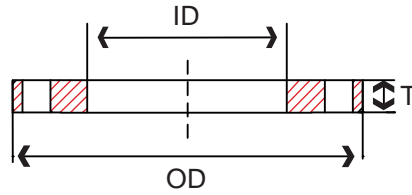


Socket Weld Flange

Nominal Size	Min Thread Length (T)	Depth of Socket (D)	Diameter Hub at Bevel (A)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle	Diameter Holes	Number of Holes	Weld Neck	Sip-on Threaded & Socket Weld	Lap Joint	Blind
1/2	0.62	0.38	0.84	1.50	2.62	0.62	4	2	2	2	2
3/4	0.62	0.44	1.05	1.88	3.25	0.75	4	4	3	3	3
1	0.69	0.50	1.32	2.12	3.50	0.75	4	4	4	4	4
1-1/4	0.81	0.56	1.66	2.50	3.88	0.75	4	6	5	5	5
1-1/2	0.88	0.62	1.90	2.75	4.50	0.88	4	8	7	7	8
2	1.12	0.69	2.38	3.31	5.00	0.75	8	12	9	9	10
2-1/2	1.25	0.75	2.88	3.94	5.88	0.88	8	18	13	12	15
3	1.38	0.81	3.50	4.62	6.62	0.88	8	23	16	15	20
3-1/2	1.56	0.88	4.00	5.25	7.25	1.00	8	26	21	20	29
4	1.62	0.94	4.50	5.94	8.50	1.00	8	42	37	36	41
5	1.88	0.94	5.56	6.94	10.50	1.12	8	68	63	61	68
6	2.00	1.06	6.63	8.06	11.50	1.12	12	81	80	78	86
8	2.25	1.25	8.63	10.25	13.75	1.25	12	120	115	110	140
10	2.56	1.31	10.75	13.31	17.00	1.38	16	190	170	170	230
12	2.75	1.56	12.75	15.56	19.25	1.38	20	225	200	200	295
14	2.88	1.63	14.00	17.62	20.75	1.50	20	280	230	250	355
16	3.06	1.75	16.00	19.75	23.75	1.62	20	390	330	365	495
18	3.12	1.94	18.00	21.94	25.75	1.75	20	475	400	435	630
20	3.25	2.12	20.00	24.12	28.50	1.75	24	590	510	570	810
24	3.62	2.50	24.00	29.50	33.00	2.00	24	830	730	810	1250

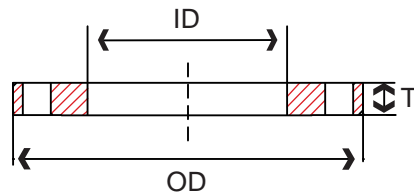


150 Lb. Plate Flanges



IPS Plate Flanges

Nominal Pipe Size	Weight	Thickness (T)	Outside Diameter (OD)	Inside Diameter (ID)	Number of Holes	Hole Diameter	Bolt Circle
1/2	1.17	0.500	3.50	0.88	4	0.625	2.38
3/4	1.45	0.500	3.88	1.09	4	0.625	2.75
1	1.73	0.500	4.25	1.36	4	0.625	3.12
1-1/4	2.00	0.500	4.62	1.70	4	0.625	3.50
1-1/2	2.32	0.500	5.00	1.95	4	0.625	3.88
2	3.28	0.500	6.00	2.44	4	0.750	4.75
2-1/2	4.50	0.500	7.00	2.94	4	0.750	5.50
3	4.88	0.500	7.50	3.57	4	0.750	6.00
3-1/2	6.04	0.500	8.50	4.07	8	0.750	7.00
4	6.57	0.500	9.00	4.60	8	0.750	7.50
5	7.31	0.500	10.00	5.66	8	0.880	8.50
6	8.24	0.500	11.00	6.72	8	0.880	9.50
8	11.83	0.500	13.50	8.72	8	0.880	11.75
10	18.39	0.500	16.00	10.88	12	1.000	14.25
12	26.80	0.500	19.00	12.88	12	1.000	17.00
14	33.05	0.500	21.00	14.14	12	1.125	18.75
16	47.45	0.500	23.50	16.16	16	1.125	21.25
18	47.21	0.500	25.00	18.18	16	1.250	22.75
20	73.76	0.500	27.50	2.20	20	1.250	25.00
24	92.64	0.500	32.00	24.25	20	1.380	29.50
30	124.16	1.000	38.75	30.25	28	1.380	36.00
36	207.4	1.250	46.00	36.25	32	1.625	42.75



Tube Plate Flanges

Nominal Tube Size	Thickness (T)	Outside Diameter (OD)	Inside Diameter (ID)	Number of Holes	Hole Diameter	Bolt Circle
1	0.500	4.25	1.063	4	0.625	3.12
1-1/4	0.500	4.62	1.313	4	0.625	3.50
1-1/2	0.500	5.00	1.563	4	0.625	3.88
2	0.500	6.00	2.063	4	0.750	4.75
2-1/2	0.500	7.00	2.563	4	0.750	5.50
3	0.500	7.50	3.063	4	0.750	6.00
4	0.500	9.00	4.063	8	0.750	7.50
5	0.500	10.00	5.063	8	0.875	8.50
6	0.500	11.00	6.063	8	0.875	9.50
8	0.500	13.50	8.063	8	0.875	11.75
10	0.500	16.00	10.063	12	1.00	14.25
12	0.500	19.00	12.063	12	1.00	17.00

SMITH-COOPER®

INTERNATIONAL



Stainless Steel Flanges

Specifications

- Forged Stainless Steel Material conforms to ASME A182
- Forged Stainless Steel Flange Dimensions conform to ASME B16.5
- NPT Threads conform to ASME B1.20.1
- Manufacturing Facility is ISO 9001-2000
- Plate Stainless Steel Flange Dimensions conform to ASME B16.5 Class 150
- Plate Stainless Steel Flanges made from ASTM A240 Plate or cast in conformance with ASTM A351
- Independent lab verification that fittings meet applicable chemical & physical properties

SCI Quality Plus

- Quality control inspections both at the overseas factory and our US warehouses
- Company engineer available at your request
- \$10,000,000 product liability insurance
- SCI 5/50 guarantee
- Pro Pak System makes products easier to handle and warehouse
- Orders shipped within 24 hours
- Fax confirmation of every order
- Knowledgeable customer service personnel

Warranty and Limitations of Liability

SMITH-COOPER INTERNATIONAL (SCI) warrants to its initial purchaser only, that its products which are delivered to this initial purchaser will be of the kind described in the order or price list and will be free of defects in workmanship or material for a period of five years from the date of delivery to our initial purchaser.

Should any failure to conform to this warranty appear within five years after the date of the initial delivery to our initial purchaser, SCI will, upon written notification thereof and substantiation that the goods have been stored, installed, maintained and operated in accordance with recognized engineering and piping practices and industry standards, correct such defects by suitable repair or replacement (which alternative shall be at the discretion of SCI) of product at SCI's own expense upon return of the defective part to SCI.

In the event that SCI elects to replace the defective product, SCI shall pay up to \$50 per defective product for total cost of replacement. In the event of multiple claims, such payment shall be no greater than \$1,000 for each installation project.

This warranty applies only during normal use that meets the above referenced conditions of installation and operation and is absolutely void if the product has been damaged after purchase or if it has been misused, repaired, altered or modified in any manner whatsoever. SCI shall not warrant any of its products if any portion of the product including without limitation, any component, gasket, housing or bolt has been modified, altered, remanufactured or replaced in any manner by any customer, user of the product or third party.

Correction of non-conformities, in the manner and for the period of time provided above, shall constitute fulfillment of all liabilities of SCI to our initial purchaser, with respect to the goods, whether based on contract, negligence, strict tort, or otherwise. It is the intention of SCI that no warranty of any kind, whether expressed or implied shall pass through our initial purchaser to any other person or corporation.

No returns will be allowed unless prior written permission of SCI is first obtained. Buyers shall be responsible for all costs of transportation as well as a restocking charge.

This warranty is exclusively for the benefit of the initial purchaser of this product from SCI and, except to the extent prohibited by applicable law, the foregoing warranty is in lieu of all other warranties, express or implied, including but not limited to warranties of fitness or merchantability.

LIMITATIONS OF LIABILITY: SCI shall not under any circumstances be liable for special or consequential damages such as, but not limited to damage to loss of other property or equipment, loss of profits or revenue, cost of capital, cost of purchased or replacement goods, claims of customers of our initial purchaser, any labor cost for repair or replacement of the product or damage caused by the product.

The remedies of our initial purchaser, and all others, set forth herein are exclusive, and the liability of SCI with respect to same shall not, except as expressly provided herein, exceed the price of the SCI products on which such liability is based.



150# Fittings

304 & 316
1/8" - 4"



Weld Fittings

304L & 316L SCH 10, 40 & 80
1/2" - 12"



Nipples

304L & 316L
SCH 40 WELDED & SCH 80 SEAMLESS
1/8" - 4" DIAMETER • CLOSE - ANY LENGTH



Pipe & Sanitary Tubing

Pipe, 304/304L & 316/316L
Sch 10, 40 & 80
Welded & Seamless 1/8" - 8"
Sanitary Tubing 1" - 4"



Flanges

304/304L & 316/316L
150# & 300# • 1/2" - 12"



3000# Forged Fittings

304L & 316L
THREADED & SOCKET WELD
1/8" - 4"



Belled-End Fittings

304L & 316L
1/2" - 2"



Valves

316/316L CAST AND FORGED
150#, 200#, 300#, 600#, 800#
BALL, GATE, GLOBE, & CHECK • 1/4" - 12"



Grooved Fittings

304L & 316L
Sch 10 & Sch 40
1-1/2" - 12"



Compression Fittings

316 STAINLESS
DOUBLE FERRULE
Instrumentation Tubing
304/304L & 316/316L
WELDED & SEAMLESS • 1/16" - 1"



Fabrication & Machining

FLANGED FITTINGS MADE TO ORDER
CUSTOM MACHINING OF FLANGES



Specialty Fittings

316 KING COMBO NIPPLES
WELD SPUDS
HEX NIPPLES

SMITH-COOPER®

I N T E R N A T I O N A L

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