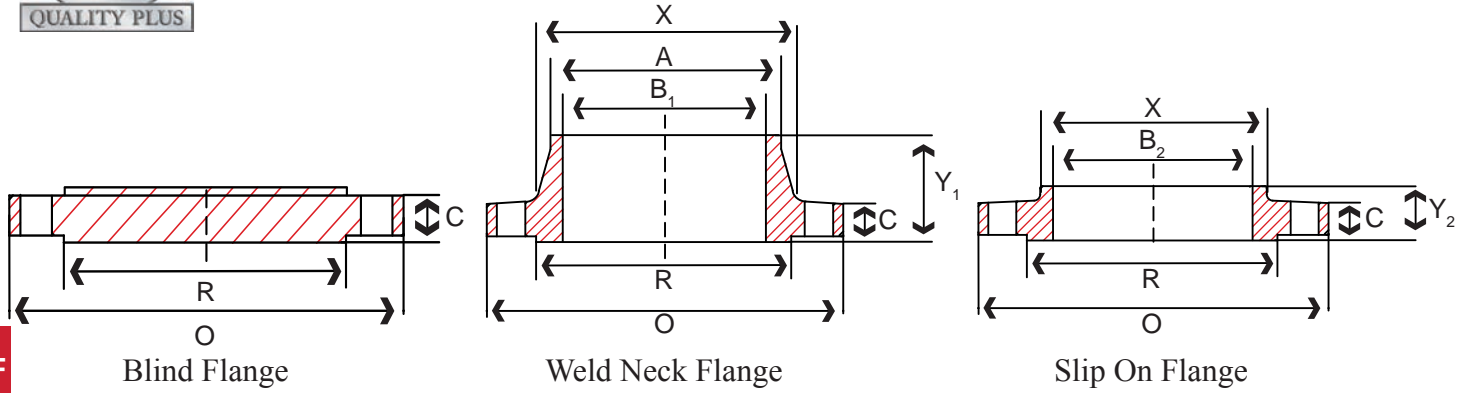


Flanges

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 9001:2008
- 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



FLANGES

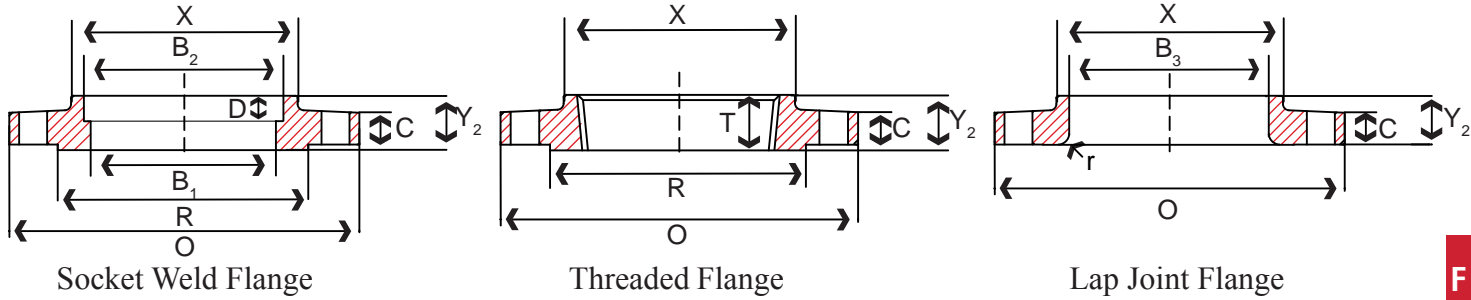
150# - Stainless Flanges

Size IN	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (O)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on Socket (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on (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	

150# - Stainless Flanges, cont.

Size IN	Min Thread Length (T)	Depth of Socket (D)	Diameter of Hub at Bevel (T)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes	Weld Neck LB	Slip-on, Threaded, Socket Weld LB	Lap Joint LB	Blind LB
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

Note: Raised Face 1/16"



FLANGES

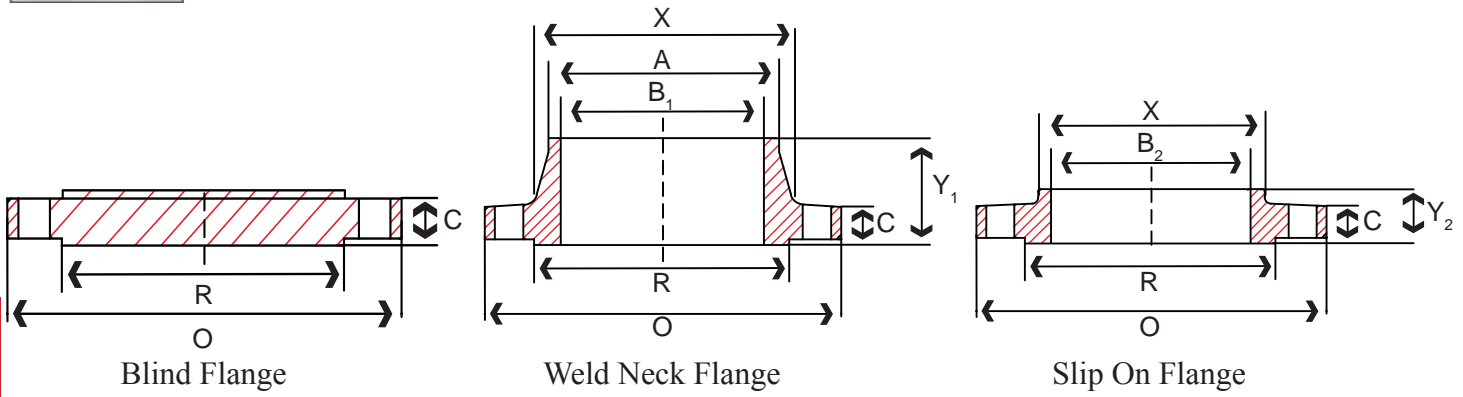
300# – Stainless Flanges

Size IN	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (O)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on Socket (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on (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	

300# – Stainless Flanges, cont.

Size IN	Min Thread Length (T)	Depth of Socket (D)	Diameter of Hub at Bevel (T)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes	Weld Neck LB	Slip-on, Threaded, Socket Weld LB	Lap Joint LB	Blind LB
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	3	3	3	3
1	0.69	0.50	1.32	2.12	3.50	0.75	4	4	3	3	3
1-1/4	0.81	0.56	1.66	2.50	3.88	0.75	4	5	4	4	4
1-1/2	0.88	0.62	1.90	2.75	4.50	0.88	4	7	6	6	6
2	1.00	0.69	2.38	3.31	5.00	0.75	8	9	7	7	8
2-1/2	1.12	0.75	2.88	3.94	5.88	0.88	8	12	10	10	12
3	1.19	0.81	3.50	4.62	6.62	0.88	8	15	13	13	16
3-1/2	1.25	0.88	4.00	5.25	7.25	0.88	8	18	17	17	21
4	1.31	0.94	4.50	5.75	7.88	0.88	8	25	22	22	27
5	1.44	0.94	5.56	7.00	9.25	0.88	8	32	28	28	35
6	1.56	1.06	6.63	8.12	10.62	0.88	12	42	39	39	50
8	1.75	1.25	8.63	10.25	13.00	1.00	12	67	58	58	81
10	1.94	1.31	10.75	12.62	15.25	1.12	16	91	81	91	124
12	2.19	1.56	12.75	14.75	17.75	1.25	16	140	115	140	185

Note: Raised Face 1/16"



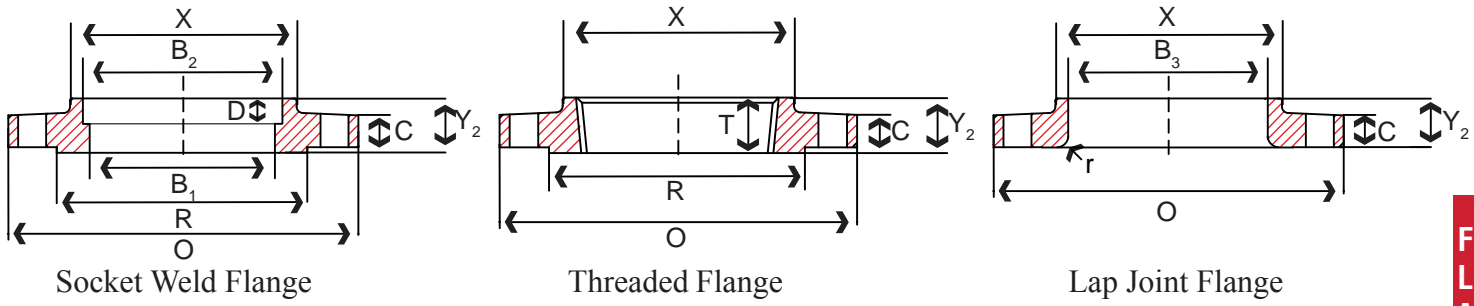
600# – Stainless Flanges

Size IN	Common Dimensions				Bore			Length Thru Hub		
	Outside Diameter (O)	Thickness (C)	Raised Face Diameter (R)	Fillet Radius (r)	Weld Neck Socket (b ₁)	Slip-on Socket (b ₂)	Lap Joint (b ₃)	Weld Neck (Y ₁)	Slip-on (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	

600# – Stainless Flanges, cont.

Size IN	Min Thread Length (T)	Depth of Socket (D)	Diameter of Hub at Bevel (T)	Hub Diameter (X)	Drilling			Approximate Weight			
					Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes	Weld Neck LB	Slip-on, Threaded, Socket Weld LB	Lap Joint LB	Blind LB
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

Note: Raised Face 1/16"



S10 1 4 BL 4 060 N

Product Line	
S10	Stainless ANSI Flanges

Pressure Rating	
1	150#
3	300#
6	600#

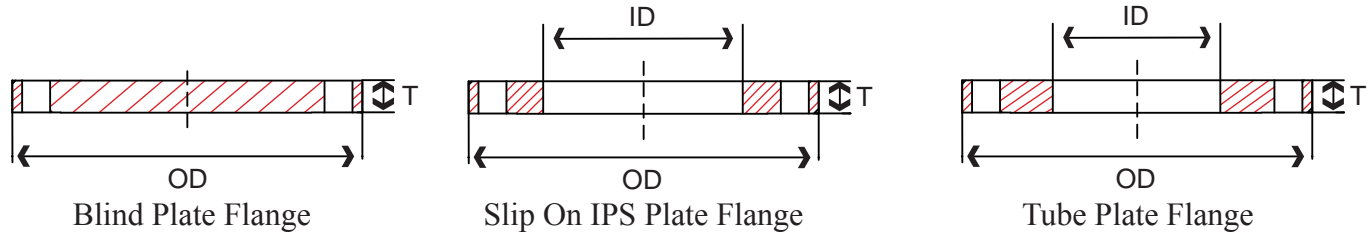
Alloy	
4	304/304L
6	316/316L

SO / WN Only	
4	Sch 40
8	Sch 80

Item Code	
BL	Blind
LJ	Lap Joint
SO	Slip-On
SW	Socket Weld
TH	Threaded
WN	Weld Neck

Size	
004	1/2
006	3/4
010	1
012	1-1/4
014	1-1/2
020	2
024	2-1/2
030	3
034	3-1/2
040	4
050	5
060	6
080	8
100	10
120	12
140	14
160	16
180	18
200	20
240	24

Approvals	
N	Non Approved
A	Approved



Blind Plate Flanges

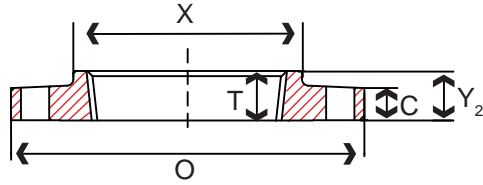
Size IN	Part Numbers		Thickness (T)	Outside Diameter (OD)	Number of Bolt Holes	Bolt Holes Diameter IN	Bolt Circle IN	Weight LB
	304	316						
1	S1414BLP010	S1416BLP010	0.500	4.25	4	0.625	3.12	1.9
1-1/2	S1414BLP014	S1416BLP014	0.500	5.00	4	0.625	3.88	2.7
2	S1414BLP020	S1416BLP020	0.500	6.00	4	0.750	4.75	3.9
2-1/2	S1414BLP024	S1416BLP024	0.500	7.00	4	0.750	5.50	5.5
3	S1414BLP030	S1416BLP030	0.500	7.50	4	0.750	6.00	6.3
4	S1414BLP040	S1416BLP040	0.500	9.00	8	0.750	7.50	9.0
6	S1414BLP060	S1416BLP060	0.500	11.00	8	0.880	9.50	13.5
8	S1414BLP080	S1416BLP080	0.500	13.50	8	0.880	11.75	20.8
10	S1414BLP100	S1416BLP100	0.500	16.00	12	1.000	14.25	28.5
12	S1414BLP120	S1416BLP120	0.500	19.00	12	1.000	17.00	40.7

Slip On IPS Plate Flanges

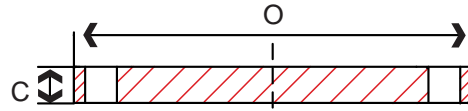
Size IN	Part Numbers		Thickness (T)	Outside Diameter (OD)	Inside Diameter (ID)	Number of Bolt Holes	Bolt Holes Diameter IN	Bolt Circle IN	Weight LB
	304	316							
1	S1414SOP010	S1416SOP010	0.500	4.25	1.36	4	0.625	3.12	1.7
1-1/2	S1414SOP014	S1416SOP014	0.500	5.00	1.95	4	0.625	3.88	2.3
2	S1414SOP020	S1416SOP020	0.500	6.00	2.44	4	0.75	4.75	3.2
2-1/2	S1414SOP024	S1416SOP024	0.500	7.00	2.94	4	0.75	5.50	4.5
3	S1414SOP030	S1416SOP030	0.500	7.50	3.57	4	0.75	6.00	4.8
4	S1414SOP040	S1416SOP040	0.500	9.00	4.60	8	0.75	7.50	6.5
5	S1414SOP050	S1416SOP050	0.500	10.00	5.66	8	0.88	8.50	7.3
6	S1414SOP060	S1416SOP060	0.500	11.00	6.72	8	0.88	9.50	8.2
8	S1414SOP080	S1416SOP080	0.500	13.50	8.72	8	0.88	11.75	11.8
10	S1414SOP100	S1416SOP100	0.500	16.00	10.88	12	1.00	14.25	18.3
12	S1414SOP120	S1416SOP120	0.500	19.00	12.88	12	1.00	17.00	26.8

Tube Plate Flanges

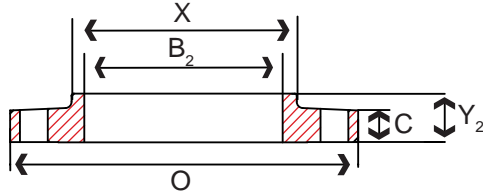
Tube OD Size IN	Part Numbers		Thickness (T)	Outside Diameter (OD)	Inside Diameter (ID)	Number of Bolt Holes	Bolt Holes Diameter IN	Bolt Circle IN	Weight LB
	304	316							
1	S1414SOTP010	S1416SOTP010	0.500	4.25	1.063	4	0.625	3.12	1.7
1-1/2	S1414SOTP014	S1416SOTP014	0.500	5.00	1.563	4	0.625	3.88	2.3
2	S1414SOTP020	S1416SOTP020	0.500	6.00	2.063	4	0.750	4.75	3.2
2-1/2	S1414SOTP024	S1416SOTP024	0.500	7.00	2.563	4	0.750	5.50	4.5
3	S1414SOTP030	S1416SOTP030	0.500	7.50	3.063	4	0.750	6.00	4.8
4	S1414SOTP040	S1416SOTP040	0.500	9.00	4.063	8	0.750	7.50	6.5
6	S1414SOTP060	S1416SOTP060	0.500	11.00	6.063	8	0.875	9.50	8.2
8	S1414SOTP080	S1416SOTP080	0.500	13.50	8.063	8	0.875	11.75	11.8
10	S1414SOTP100	S1416SOTP100	0.500	16.00	10.063	12	1.00	14.25	14.7



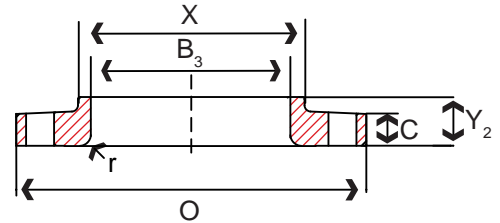
Threaded Flange



Blind Flange



Slip On Flange



Lap Joint Flange

MSS Flanges

Size IN	Outside Diameter (O)	Thickness (C)	Hub Diameter (X)	Slip-on (Y ₂)	Slip-on Bore (B ₂)	Depth of Socket (D)	Bolt Circle IN	Bolt Holes Diameter IN	Number of Bolt Holes
1/2	3.500	5/16	1-3/16	19/32	0.88	3/8	2-3/8	5/8	4
3/4	3.875	11/32	1-1/2	5/8	1.09	7/16	3-3/4	5/8	4
1	4.250	3/8	1-15/16	11/16	1.36	1/2	3-1/8	5/8	4
1-1/4	4.625	13/32	2-5/16	13/16	1.70	9/16	3-1/2	5/8	4
1-1/2	5.000	7/16	2-9/16	7/8	1.95	5/8	3-7/8	5/8	4
2	6.000	1/2	2-9/16	1	2.44	11/16	4-3/4	3/4	4
2-1/2	7.000	9/16	3-1/16	1-1/8	2.94	3/4	5-1/2	3/4	4
3	7.500	5/8	4-1/4	1-3/16	3.57	13/16	6	3/4	4
4	9.000	11/16	5-5/16	1-5/16	4.57	-	7-1/2	3/4	8
6	11.00	13/16	7-9/16	1-9/16	6.72	-	9-1/2	7/8	8
8	13.50	15/16	9-11/16	1-3/4	8.72	-	11-3/4	7/8	8
10	16.00	1	12	1-15/16	10.88	-	14-1/4	1	12
12	19.00	1-1/16	14-3/8	2-3/16	12.88	-	17	1	12

