



FLANGES

ANSI FLANGES –(B16.5)

Name: ASME / ANSI B16.5 flange

Size: 1/2”-24”

Material: Carbon Steel, Stainless Steel

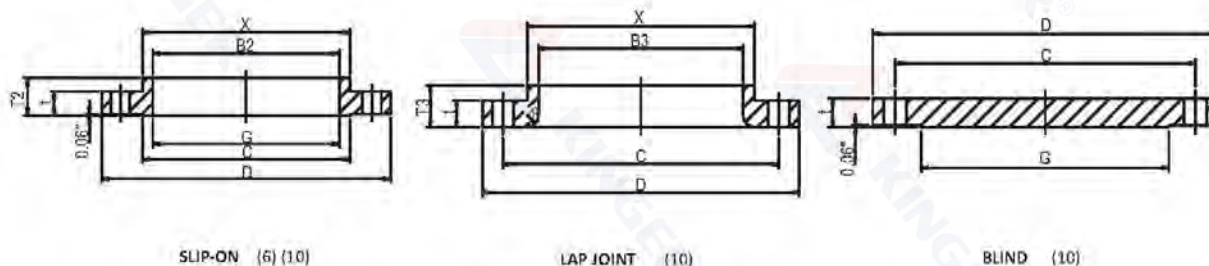
Process: Forged. Casted

Place of Origin: China (Mainland)

Standard: ASME / ANSI B16.5



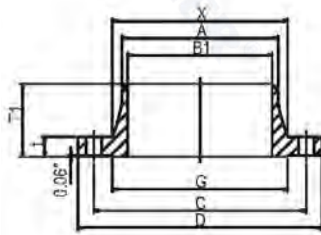
CLASS 150



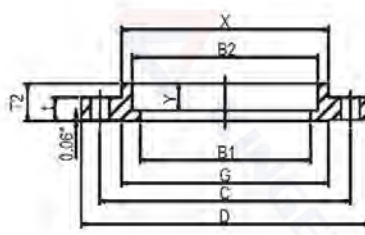
Nominal Pipe Size	Outside Diam.	(6)(17) Thick-ness	O.D. of Raised Face	Diam. at Base of Hub	BORE			LENGTH THRU HUB			(5) Diam. of Hub at Bevel	Radius of Fillet	Thread Length
					(2)(3)(4) Welding Neck Socket	Slip-on Socket Welding	Lap Joint	(6) Welding Neck	(6) Slip-on Threaded Socket	Lap Joint			
	D	t	G	X	B1	B2	B3	T1	T2	T3	A	R	T2
1/2	3.50	0.44	1.38	1.19	0.62	0.88	0.90	1.88	0.62	0.62	0.84	0.12	0.62
3/4	3.88	0.50	1.69	1.50	0.82	1.09	1.11	2.06	0.62	0.62	1.05	0.12	0.62
1	4.25	0.56	2	1.94	1.05	1.36	1.38	2.19	0.69	0.69	1.32	0.12	0.69
1 1/4	4.62	0.62	2.5	2.30	1.38	1.70	1.72	2.25	0.81	0.81	1.66	0.19	0.81
1 1/2	5.00	0.69	2.88	2.56	1.61	1.95	1.97	2.44	0.88	0.88	1.9	0.25	0.88
2	6.00	0.75	3.62	3.06	2.07	2.44	2.46	2.50	1	1	2.38	0.31	1
2 1/2	7.00	0.88	4.12	3.56	2.47	2.94	2.97	2.75	1.12	1.12	2.88	0.31	1.12
3	7.50	0.94	5	4.25	3.07	3.57	3.60	2.75	1.19	1.19	3.5	0.38	1.19
3 1/2	8.50	0.94	5.5	4.81	3.55	4.07	4.10	2.81	1.25	1.25	4	0.38	1.25
4	9.00	0.94	6.19	5.31	4.03	4.57	4.60	3.00	1.31	1.31	4.5	0.44	1.31
5	10.00	0.94	7.31	6.44	5.05	5.66	5.69	3.50	1.44	1.44	5.56	0.44	1.44
6	11.00	1.00	8.5	7.56	6.07	6.72	6.75	3.50	1.56	1.56	6.63	0.5	1.56
8	13.50	1.12	10.62	9.69	7.98	8.72	8.75	4.00	1.75	1.75	8.63	0.5	1.75
10	16.00	1.19	12.75	12.00	10.02	10.88	10.92	4.00	1.94	1.94	10.75	0.5	1.94
12	19.00	1.25	15	14.38	12.00	12.88	12.92	4.50	2.19	2.19	12.75	0.5	2.19
14	21.00	1.38	16.25	15.75	13.25	14.14	14.18	5.00	2.25	3.12	14	0.5	2.25
16	23.50	1.44	18.5	18.00	15.25	16.16	16.19	5.00	2.5	3.44	16	0.5	2.5
18	25.00	1.56	21	19.88	17.25	18.18	18.20	5.00	2.69	3.81	18	0.5	2.69
20	27.50	1.69	23	22.00	19.25	20.20	20.25	5.69	2.88	4.06	20	0.5	2.88
24	32	1.88	27.25	26.12	23.25	24.25	24.25	6.00	3.25	4.38	24	0.5	3.25

Dimensions stated in Inches(1"=25.4mm)

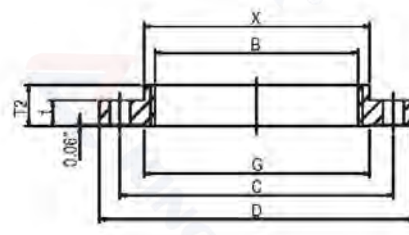
CLASS 150



WELDING NECK (6) (11)



SOCKET WELDING (6) (10) (18)



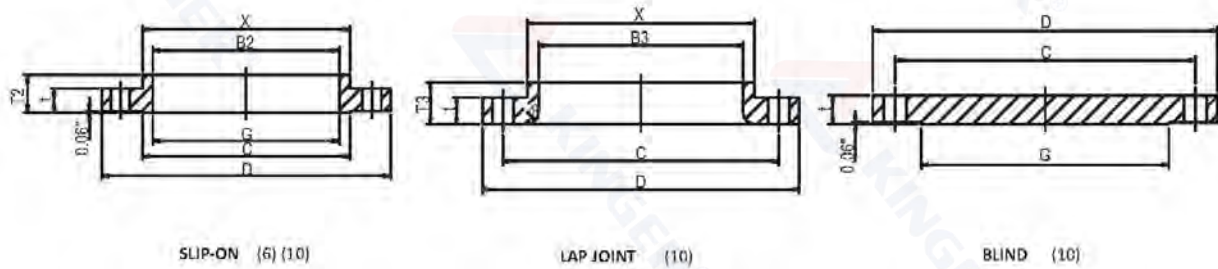
THREADED (6) (10) (16)

Nominal Pipe Size	(18) Dpth of Socket Y	DRILLING			BOLTING				APPROXIMATE WEIGHT EACH-POUNDS				
		Bolt Circle Diam.	Numder of Holes	Diam. Of Holes	Diam. Of Bolts	Machine Bolt Length	Stud Bolt Length		Welding Neck	Slip-on and Threaded	Lap Joint	Blind	Socket Welding
		PCD C					Raised Face	Ring Joint					
1/2	0.38	2.38	4	0.62	1/2	2.00	2.50	-	2	1	1	1	1
3/4	0.44	2.75	4	0.62	1/2	2.25	2.50	-	2	2	2	2	2
1	0.50	3.12	4	0.62	1/2	2.25	2.75	3.25	3	2	2	2	2
1 1/4	0.56	3.50	4	0.62	1/2	2.50	2.75	3.25	3	3	3	3	3
1 1/2	0.62	3.88	4	0.62	1/2	2.50	3.00	3.50	4	3	3	4	3
2	0.69	4.75	4	0.75	/	2.75	3.25	3.75	6	5	5	5	5
2 1/2	0.75	5.50	4	0.75	/	3.00	3.50	4.00	8	7	7	7	7
3	0.81	6.00	4	0.75	/	3.25	3.75	4.25	10	8	8	9	8
3 1/2	0.88	7.00	8	0.75	/	3.25	3.75	4.25	12	11	11	13	11
4	0.94	7.50	8	0.75	/	3.25	3.75	4.25	15	13	13	17	13
5	0.94	8.50	8	0.88	3/4	3.25	4.00	4.50	19	15	15	20	15
6	1.06	9.50	8	0.88	3/4	3.50	4.00	4.50	24	19	19	26	19
8	1.25	11.75	8	0.88	3/4	3.75	4.25	4.75	39	30	30	45	30
10	1.31	14.25	12	1.00	/	4.00	4.75	5.25	52	43	43	70	43
12	1.56	17.00	12	1.00	/	4.25	4.75	5.25	80	64	64	110	64
14	1.63	18.75	12	1.12	1.00	4.50	5.25	5.75	110	90	105	140	90
16	1.75	21.25	16	1.12	1.00	4.75	5.50	6.00	140	98	140	180	98
18	1.94	22.75	16	1.25	/	5.00	6.00	6.50	150	130	160	220	130
20	2.13	25.00	20	1.25	/	5.50	6.25	6.75	180	165	195	285	165
24	2.5	29.5	20	1.38	/	6.00	7.00	7.50	260	220	275	430	220

Dimensions stated in Inches(1"=25.4mm)



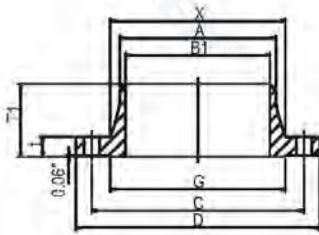
CLASS 300



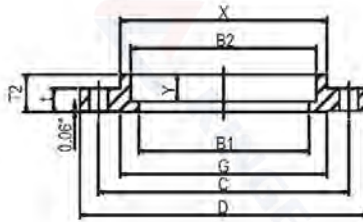
Nominal Pipe Size	Outside Diam.	(6)(17) Thick-ness	O.D. of Raised Face	Diam. at Base of Hub	BORE				LENGTH THRU HUB			(5) Diam. Of Hub at Bevel	Radius of Fillet
					(2)(3)(4) Welding Neck Socket Welding	Slip-on Socket Welding	Lap Joint	Counter Bore Min.	(6) Welding Neck	(6) Slip-on Threaded	Lap Joint		
	D	t	G	X	B1	B2	B3	B	T1	T2	T3	A	R
1/2	3.75	0.6	1.38	1.5	0.62	0.88	0.9	0.93	2.06	0.88	0.88	0.84	0.12
3/4	4.62	0.6	1.69	1.88	0.82	1.09	1.11	1.14	2.25	1	1	1.05	0.12
1	4.88	0.7	2	2.12	1.05	1.36	1.38	1.41	2.44	1.06	1.06	1.32	0.12
1 1/4	5.25	0.8	2.5	2.5	1.38	1.7	1.72	1.75	2.56	1.06	1.06	1.66	0.19
1 1/2	6.12	0.8	2.88	2.75	1.61	1.95	1.97	1.99	2.69	1.19	1.19	1.9	0.25
2	6.5	0.9	3.62	3.31	2.07	2.44	2.46	2.5	2.75	1.31	1.31	2.38	0.31
2 1/2	7.5	1	4.12	3.94	2.47	2.94	2.97	3	3	1.5	1.5	2.88	0.31
3	8.25	1.1	5	4.62	3.07	3.57	3.6	3.63	3.12	1.69	1.69	3.5	0.38
3 1/2	9	1.2	5.5	5.25	3.55	4.07	4.1	4.13	3.19	1.75	1.75	4	0.38
4	10	1.3	6.19	5.75	4.03	4.57	4.6	4.63	3.38	1.88	1.88	4.5	0.44
5	11	1.4	7.31	7	5.05	5.66	5.69	5.69	3.88	2	2	5.56	0.44
6	12.5	1.4	8.5	8.12	6.07	6.72	6.75	6.75	3.38	2.06	2.06	6.63	0.5
8	15	1.6	10.62	10.3	7.98	8.72	8.75	8.75	4.38	2.44	2.44	8.63	0.5
10	17.5	1.9	12.75	12.6	10.02	10.88	10.9	10.88	4.62	2.62	3.75	10.75	0.5
12	20.5	2	15	14.8	12	12.88	12.9	12.94	5.12	2.88	4	12.75	0.5
14	23	2.1	16.25	16.8	13.25	14.14	14.2	14.19	5.62	3	4.38	14	0.5
16	25.5	2.3	18.5	19	15.25	16.16	16.2	16.19	5.75	3.25	4.75	16	0.5
18	28	2.4	21	21	17.25	18.18	18.2	18.19	6.25	3.5	5.12	18	0.5
20	30.5	2.5	23	23.1	19.25	20.2	20.3	20.19	6.38	3.75	5.5	20	0.5
24	36	2.8	27.25	27.6	23.25	24.25	24.3	24.19	6.62	4.19	6	24	0.5

Dimensions stated in Inches(1"=25.4mm)

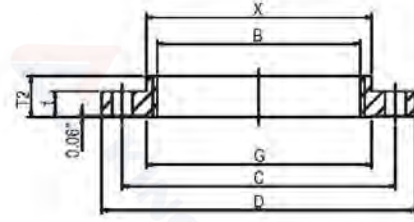
CLASS 300



WELDING NECK (6) (11)



SOCKET WELDING (6) (10) (13)

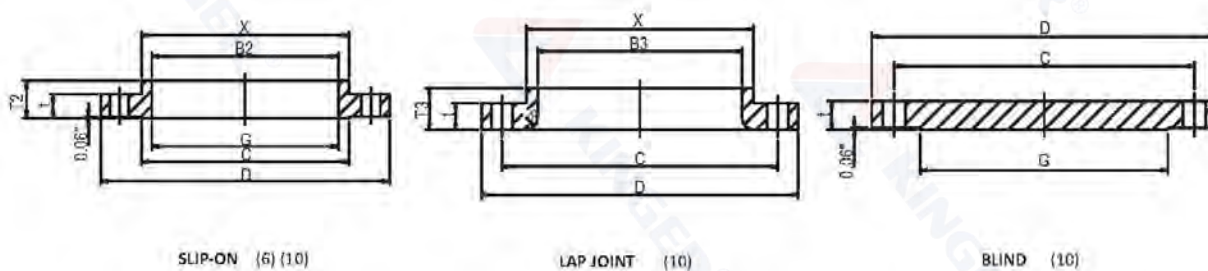


THREADED (6) (10) (16)

Nominal Pipe Size	(18) Depth of Socket Y	DRILLING			BOLTING				APPROXIMATE WEIGHT EACH-POUNDS				
		Bolt Circle Diam. PCD C	Number of Holes	Diam. Of Holes	Diam. Of Bolts	Machine Bolt Length Raised Face	Stud Bolt Length		Welding Neck	Slip-On and Threaded	Lap Joint	Blind	Socket Welding
							Raised Face	Ring Joint					
1/2	0.38	2.62	4	0.62	1/2	2.25	2.75	3	2	2	2	2	2
3/4	0.44	3.25	4	0.75	-	2.5	3	3.5	3	3	3	3	3
1	0.5	3.5	4	0.75	-	2.75	3.25	3.75	4	3	3	3	3
1 1/4	0.56	3.88	4	0.75	-	2.75	3.25	3.75	5	4	4	4	4
1 1/2	0.62	4.5	4	0.88	3/4	3	3.75	4.25	7	6	6	6	6
2	0.69	5	8	0.75	-	3	3.5	4.25	9	7	7	8	7
2 1/2	0.75	5.88	8	0.88	3/4	3.5	4	4.75	12	10	10	12	10
3	0.81	6.62	8	0.88	3/4	3.75	4.25	5	15	13	13	16	13
3 1/2	0.88	7.25	8	0.88	3/4	3.75	4.5	5.25	18	17	17	21	
4	0.94	7.88	8	0.88	3/4	4	4.5	5.25	25	22	22	27	
5	0.94	9.25	8	0.88	3/4	4.25	4.75	5.5	32	28	28	35	
6	1.06	10.6	12	0.88	3/4	4.25	5	5.75	42	39	39	50	
8	1.25	13	12	1	-	4.75	5.5	6.25	67	58	58	81	
10	1.31	15.3	16	1.12	1	5.5	6.25	7	91	81	91	125	
12	1.56	17.3	16	1.25	-	6	6.75	7.5	140	115	140	185	
14	1.63	20.3	20	1.25	-	6.25	7	7.75	180	165	190	250	
16	1.75	22.5	20	1.38	1 1/4	6.5	7.5	8.25	250	190	250	295	
18	1.94	24.8	24	1.38	1 1/4	6.75	7.75	8.5	320	250	295	395	
20	2.13	27	24	1.38	1 1/4	7.25	8.25	9	400	315	370	505	
24	2.5	32	24	1.62	1 1/2	8	9.25	10.3	580	475	550	790	

Dimensions stated in Inches(1"=25.4mm)

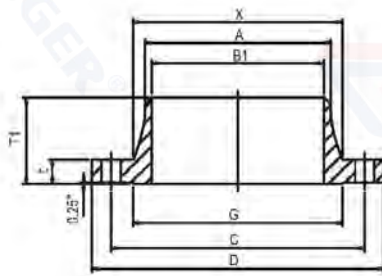
CLASS 400



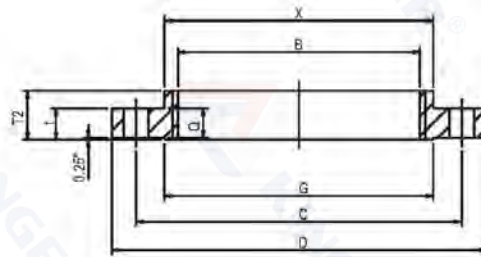
(17) Nominal Pipe Size	Outside Diam.	(5)(16)) Thick- ness	O.D.of Raised Face	Diam. at Base of Hub	BORE				LENGTH THRU HUB			(4) Diam. Of Hub at Bevel
					(2)(3)W elding Neck	Slip-on	Lap Joint	Counter Bore Min.	(5) Weldin g Neck	(5) Slip- on Threa ded	Lap Joint	
	D	t	G	X	B1	B2	B3	B	T1	T2	T3	A
1/2	3.75	0.56	1.38	1.5	TO be specified by purchaser	0.88	0.9	0.93	2.06	0.88	0.88	0.84
3/4	4.62	0.62	1.69	1.88		1.09	1.11	1.14	2.25	1	1	1.05
1	4.48	0.69	2	2.12		1.36	1.38	1.41	2.44	1.06	1.06	1.32
1 1/4	5.25	0.81	2.5	2.5		1.7	1.72	1.75	2.62	1.06	1.12	1.66
1 1/2	6.12	0.88	2.88	2.75		1.95	1.97	1.99	2.75	1.25	1.25	1.9
2	6.5	1	3.62	3.31		2.44	2.46	2.5	2.88	1.44	1.44	2.38
2 1/2	7.5	1.12	4.12	3.94		2.94	2.97	3	3.12	1.62	1.62	2.88
3	8.25	1.25	5	4.62		3.57	3.6	3.63	3.25	1.81	1.81	3.5
3 1/2	9	1.38	5.5	5.25		4.07	4.1	4.13	3.38	1.94	1.94	4
4	10	1.38	6.19	5.75		4.57	4.6	4.63	3.5	2	2	4.5
5	11	1.5	7.31	7		5.66	5.69	5.69	4	2.12	2.12	5.56
6	12.5	1.62	8.5	8.12		6.72	6.75	6.75	4.06	2.25	2.25	6.63
8	15	1.88	10.62	10.3		8.72	8.75	8.75	4.62	2.69	2.69	8.63
10	17.5	2.12	12.75	12.6		10.88	10.9	10.88	4.88	2.88	4	10.75
12	20.5	2.25	15	14.8		12.88	12.9	12.94	5.38	3.12	4.25	12.75
14	23	2.38	16.25	16.8		14.14	14.2	14.19	5.88	3.31	4.62	14
16	25.5	2.5	18.5	19		16.16	16.2	16.19	6	3.69	5	16
18	28	2.62	21	21		18.18	18.2	18.19	6.5	3.88	5.38	18
20	30.5	2.75	23	23.1		20.2	20.3	20.19	6.62	4	5.75	20
24	36	3	27.25	27.6		24.25	24.3	24.19	6.88	4.5	6.25	24

Dimensions stated in Inches(1"=25.4mm)

CLASS 400



WELDING NECK (5) (10)



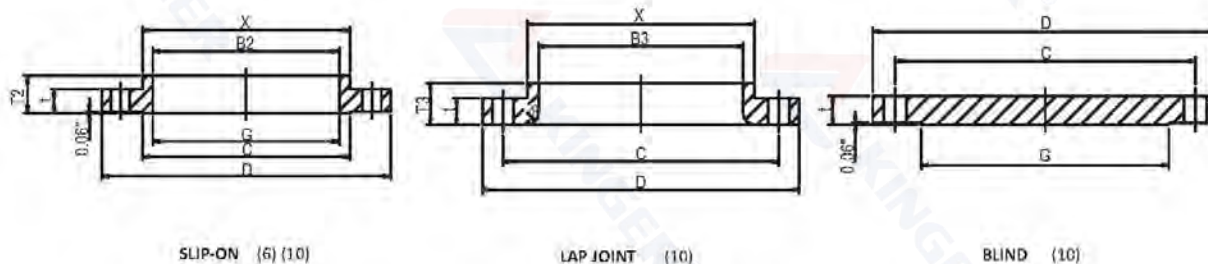
THREADED (5) (9) (15)

Nominal Pipe Size	Radius of Fillet	Thread Length	DRILLING			BOLTING				APPROXIMATE WEIGHT EACH-POUNDS			
			Bolt Circle Diam.	Number of Holes	Diam. Of Bolt Holes	Diam. Of Bolts	Stud Bolt Length			Welding Neck	Slip-On and Threaded	Lap Joint	Blind
							0.25" Raised Face	Male-Female Tongue-Groove	Ring Joint				
1/2	0.12	0.62	2.62	4	0.62	1/2	0.9	0.93	2.06	0.88	0.88	0.84	
3/4	0.12	0.62	3.25	4	0.75	-	1.11	1.14	2.25	1	1	1.05	
1	0.12	0.69	3.50	4	0.75	-	1.38	1.41	2.44	1.06	1.06	1.32	
1 1/4	0.19	0.81	3.88	4	0.75	-	1.72	1.75	2.62	1.06	1.12	1.66	
1 1/2	0.25	0.88	4.50	4	0.88	3/4	1.97	1.99	2.75	1.25	1.25	1.9	
2	0.31	1.12	5.00	8	0.75	-	2.46	2.5	2.88	1.44	1.44	2.38	
2 1/2	0.31	1.25	5.88	8	0.88	3/4	2.97	3	3.12	1.62	1.62	2.88	
3	0.38	1.38	6.62	8	0.88	3/4	3.6	3.63	3.25	1.81	1.81	3.5	
3 1/2	0.38	1.56	7.25	8	1.00	-	4.1	4.13	3.38	1.94	1.94	4	
4	0.44	1.44	7.88	8	1.00	-	4.6	4.63	3.5	2	2	4.5	
5	0.44	1.69	9.25	8	1.00	-	5.69	5.69	4	2.12	2.12	5.56	
6	0.50	1.81	10.62	12	1.00	-	6.75	6.75	4.06	2.25	2.25	6.63	
8	0.50	2.00	13.00	12	1.12	1	8.75	8.75	4.62	2.69	2.69	8.63	
10	0.50	2.19	15.25	16	1.25	-	10.9	10.88	4.88	2.88	4	10.8	
12	0.50	2.38	17.75	16	1.38	1 1/4	12.9	12.94	5.38	3.12	4.25	12.8	
14	0.50	2.50	20.25	20	1.38	1 1/4	14.2	14.19	5.88	3.31	4.62	14	
16	0.50	2.69	22.50	20	1.50	-	16.2	16.19	6	3.69	5	16	
18	0.50	2.75	24.75	24	1.50	-	18.2	18.19	6.5	3.88	5.38	18	
20	0.50	2.88	27.00	24	1.62	-	20.3	20.19	6.62	4	5.75	20	
24	0.50	3.25	32.00	24	1.88	1 3/4	24.3	24.19	6.88	4.5	6.25	24	

Dimensions stated in Inches(1"=25.4mm)



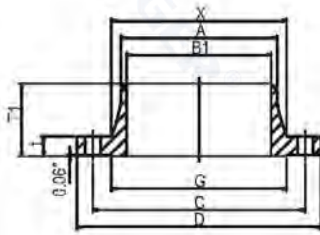
CLASS 600



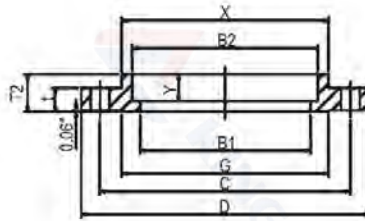
(17) Nominal Pipe Size	Outside Diam.	(5)(16) Thickness	O.D. of Raised Face	Diam. at Base of Hub	BORE				LENGTH THRU HUB			(4) Diam. Of Hub at Bevel	Radius of Fillet	Thread Length
					(2)(3) Welding Neck Socket Welding	Slip-on Socket Welding	Lap Joint	Counter Bore Min.	(-5) Welding Neck	(5) Slip-on Threaded Socket Welding	Lap Joint			
	D	t	G	X	B1	B2	B3	B	T1	T2	T3	A	R	Q
1/2	3.75	0.56	1.38	1.5	TO be specified by purchaser	0.88	0.9	0.93	2.06	0.88	0.88	0.84	0.12	0.62
3/4	4.62	0.62	1.69	1.88		1.09	1.11	1.14	2.25	1	1	1.05	0.12	0.62
1	4.48	0.69	2	2.12		1.36	1.38	1.41	2.44	1.06	1.06	1.32	0.12	0.69
1 1/4	5.25	0.81	2.5	2.5		1.7	1.72	1.75	2.62	1.12	1.12	1.66	0.19	0.81
1 1/2	6.12	0.88	2.88	2.75		1.95	1.97	1.99	2.75	1.25	1.25	1.9	0.25	0.88
2	6.5	1	3.62	3.31		2.44	2.46	2.5	2.88	1.44	1.44	2.38	0.31	1.12
2 1/2	7.5	1.12	4.12	3.94		2.94	2.97	3	3.12	1.62	1.62	2.88	0.31	1.25
3	8.25	1.25	5	4.62		3.57	3.6	3.63	3.25	1.81	1.81	3.5	0.38	1.38
3 1/2	9	1.38	5.5	5.25		4.07	4.1	4.13	3.38	1.94	1.94	4	0.38	1.56
4	10.75	1.5	6.19	6		4.57	4.6	4.63	4	2.12	2.12	4.5	0.44	1.62
5	13	1.75	7.31	7.44		5.66	5.69	5.69	4.5	2.38	2.38	5.56	0.44	1.88
6	14	1.88	8.5	8.75		6.72	6.75	6.75	4.62	2.62	2.62	6.63	0.5	2
8	16.5	2.19	10.62	10.75		8.72	8.75	8.75	5.25	3	3	8.63	0.5	2.25
10	20	2.5	12.75	13.5		10.88	10.92	10.88	6	3.38	4.38	10.75	0.5	2.56
12	22	2.62	15	15.75		12.88	12.92	12.94	6.12	3.62	4.62	12.75	0.5	2.75
14	23.75	2.75	16.25	17		14.14	14.18	14.19	6.5	3.69	5	14	0.5	2.88
16	27	3	18.5	19.5		16.16	16.19	16.19	7	4.19	5.5	16	0.5	3.06
18	29.95	3.25	21	21.5		18.18	18.2	18.19	7.25	4.62	6	18	0.5	3.12
20	32	3.5	23	24		20.2	20.25	20.19	7.5	5	6.5	20	0.5	3.25
24	37	4	27.25	28.25		24.25	24.25	24.19	8	5.5	7.25	24	0.5	3.62

Dimensions stated in Inches(1"=25.4mm)

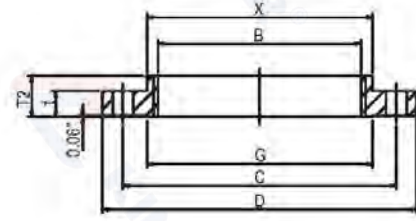
CLASS 600



WELDING NECK (6) (11)



SOCKET WELDING (6) (10) (13)

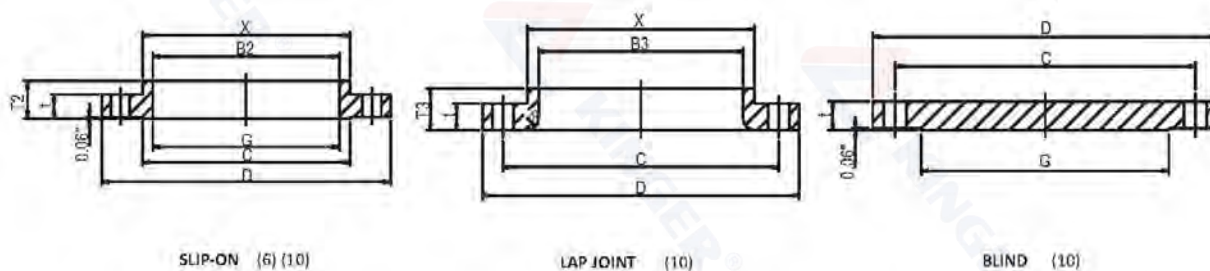


THREADED (6) (10) (16)

Nominal Pipe Size	(18) Outside Diam. Y	DRILLING			BOLTING				APPROXIMATE WEIGHT EACH-POUNDS				
		Bolt Circle Diam. PCD C	Number of Holes	Diam. Of Holes	Diam. Of Bolts	Stud Bolt Length			Welding Neck	Slip-On and Threaded	Lap Joint	Blind	Socket Welding
						0.25" Raised Face	Male-Female Tongue - Groove	Ring Joint					
1/2	0.38	2.62	4	0.62	1/2	3.25	3	3	2	2	2	2	2
3/4	0.44	3.25	4	0.75	-	3.5	3.25	3.5	4	3	3	3	3
1	0.5	3.5	4	0.75	-	3.75	3.5	3.75	4	4	4	4	4
1 1/4	0.56	3.88	4	0.75	-	4	3.75	4	6	5	5	5	5
1 1/2	0.62	4.5	4	0.88	3/4	4.25	4	4.25	8	7	7	8	7
2	0.69	5	8	0.75	-	4.25	4	4.5	12	9	9	10	9
2 1/2	0.75	5.88	8	0.88	-	4.75	4.5	5	18	13	12	15	13
3	0.81	6.62	8	0.88	-	5	4.75	5.25	23	16	15	20	16
3 1/2	0.88	7.25	8	1	-	5.5	5.25	5.75	26	21	20	29	
4	0.94	8.5	8	1	-	5.75	5.5	6	42	37	36	41	
5	0.94	10.5	8	1.12	1	6.5	6.25	6.75	68	63	61	68	
6	1.06	11.5	12	1.12	1	6.75	6.5	7	81	80	78	86	
8	1.25	13.75	12	1.25	-	7.75	7.5	7.75	120	115	110	140	
10	1.31	17	16	1.38	1 1/4	8.5	8.25	8.75	190	170	170	230	
12	1.56	19.25	20	1.38	1 1/4	8.75	8.5	9	225	200	200	295	
14	1.63	20.75	20	1.5	-	9.25	9	9.5	280	230	250	355	
16	1.75	23.75	20	1.62	1 1/2	10	9.75	10.25	390	330	365	495	
18	1.94	25.75	20	1.75	-	10.75	10.5	11	475	400	435	630	
20	2.13	28.5	24	1.75	-	11.5	11.25	11.75	590	510	570	810	
24	2.5	33	24	2	-	13	12.75	13.25	830	730	810	1250	

Dimensions stated in Inches(1"=25.4mm)

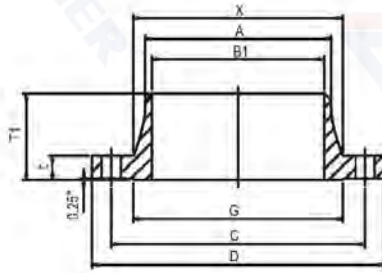
CLASS 900



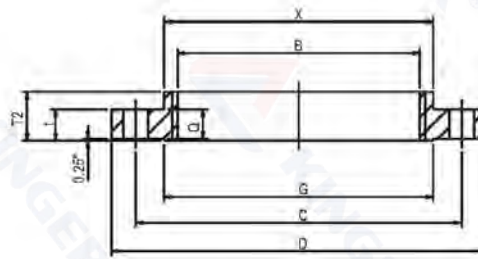
(17) Nominal Pipe Size	Outside Diam.	(5)(16) Thick- ness	O.D.of Raised Face	Diam. at Base of Hub	BORE				LENGTH THRU HUB			(4) Diam . Of Hub at Bevel
					(2)(3) Welding Neck	Slip- on	Lap Joint	Counte r Bore Min.	(5) Weldi ng Neck	(5) Slip-on and Thread ed	Lap Joint	
	D	t	G	X	B1	B2	B3	B	T1	T2	T3	A
1/2	4.75	0.88	1.38	1.5	TO be specified by purchaser	0.88	0.9	0.93	2.38	1.25	1.25	0.84
3/4	5.12	1	1.69	1.75		1.09	1.11	1.14	2.75	1.38	1.38	1.05
1	5.88	1.12	2	2.06		1.36	1.38	1.41	2.88	1.62	1.62	1.32
1 1/4	6.25	1.12	2.5	2.5		1.7	1.72	1.75	2.88	1.62	1.62	1.66
1 1/2	7	1.25	2.88	2.75		1.95	1.97	1.99	3.25	1.75	1.75	1.9
2	8.5	1.5	3.62	4.12		2.44	2.46	2.5	4	2.25	2.25	2.38
2 1/2	9.62	1.62	4.12	4.88		2.94	2.97	3	4.12	2.5	2.5	2.88
3	9.5	1.5	5	5		3.57	3.6	3.63	4	2.12	2.12	3.5
4	11.5	1.75	6.19	6.25		4.57	4.6	4.63	4.5	2.75	2.75	4.5
5	13.75	2	7.31	7.5		5.66	5.69	5.69	5	3.12	3.12	5.56
6	15	2.19	8.5	9.25		6.72	6.75	6.75	5.5	3.38	3.38	6.63
8	18.5	2.5	10.62	11.75		8.72	8.75	8.75	6.38	4	4.5	8.63
10	21.5	2.75	12.75	14.5		10.88	10.92	10.88	7.25	4.25	5	10.75
12	24	3.12	15	16.5		12.88	12.92	12.94	7.88	4.62	5.62	12.75
14	25.25	3.38	16.25	17.75		14.14	14.18	14.19	18.38	5.12	6.12	14
16	27.75	3.5	18.5	20		16.16	16.19	16.19	8.5	5.25	6.5	16
18	31	4	21	22.25		18.18	18.2	18.19	9	6	7.5	18
20	33.75	4.25	23	24.5		20.2	20.25	20.19	9.75	6.25	8.25	20
24	41	5.5	27.25	29.5		24.25	24.25	24.19	11.5	8	10.5	24

Dimensions stated in Inches(1"=25.4mm)

CLASS 900



WELDING NECK (5) (10)



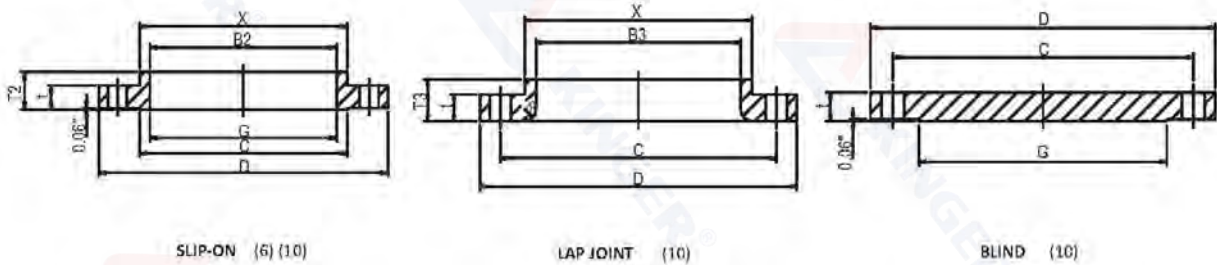
THREADED (5) (9) (15)

Nominal Pipe Size	Radius of Fillet R	Thread Length Q	DRILLING			BOLTING				APPROXIMATE WEIGHT EACH-POUNDS			
			Bolt Circle Diam. PCD C	Number of Holes	Diam. Of Bolt Holes	Diam. Of Bolts	Stud Bolt Length			Welding Neck	Slip-On and Threaded	Lap Joint	Blind
							0.25" Raised Face	Male-Female Tongue-Groove	Ring Joint				
1/2	0.12	0.88	3.25	4	0.88	3/4	4.25	4	4.25	5	4	4	4
3/4	0.12	1	3.5	4	0.88	3/4	4.5	4.25	4.5	6	5	5	6
1	0.12	1.12	4	4	1		5	4.75	5	9	8	8	8
1 1/4	0.19	1.19	4.38	4	1	-	5	4.75	5	10	9	9	9
1 1/2	0.25	1.25	4.88	4	1.12	1	5.5	5.25	5.5	13	12	12	13
2	0.31	1.5	6.5	8	1	-	5.75	5.5	5.75	25	25	25	25
2 1/2	0.31	1.88	7.5	8	1.12	1	6.25	6	6.25	36	36	35	35
3	0.38	1.62	7.5	8	1	-	5.75	5.5	6	31	26	25	29
4	0.44	1.88	9.25	8	1.25	-	6.75	6.5	7	51	53	51	54
5	0.44	2.12	11	8	1.38	1 1/4	7.5	7.25	7.75	86	83	81	87
6	0.5	2.25	12.5	12	1.25	-	7.75	7.5	7.75	110	110	105	115
8	0.5	2.5	15.5	12	1.5	-	8.75	8.5	9	175	170	190	200
10	0.5	2.81	18.5	16	1.5	-	9.25	9	9.5	260	245	275	290
12	0.5	3	21	20	1.5	-	10	9.75	10.25	325	325	370	415
14	0.5	3.25	22	20	1.62	1 1/2	10.75	10.5	11.25	400	400	415	520
16	0.5	3.38	24.25	20	1.75	-	11.25	11	11.75	495	425	465	600
18	0.5	3.5	27	20	2	-	12.75	12.5	13.5	680	600	650	850
20	0.5	3.62	29.5	20	2.12	2	13.5	13.5	14.25	830	730	810	1075
24	0.5	4	35.5	20	2.62	2 1/2	17.25	17	17.75	1500	1400	1550	

Dimensions stated in Inches(1"=25.4mm)



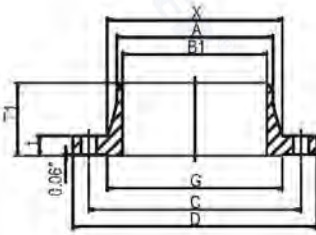
CLASS 1500



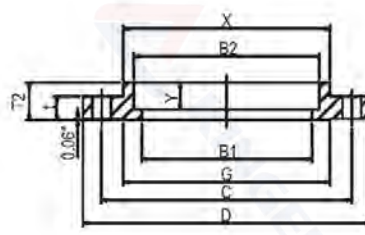
(17) Nominal Pipe Size	Outside Diam.	(5)(16) Thickness	O.D. of Raised Face	Diam. at Base of Hub	BORE				LENGTH THRU HUB			(4) Diam. Of Hub at Bevel	Radius of Fillet	Thread Length
					(2)(3) Welding Neck Socket Welding	Slip-on Socket Welding	Lap Joint	Counter Bore Min.	(5) Welding Neck	(5) Slip-on Threaded Socket Welding	Lap Joint			
	D	t	G	X	B1	B2	B3	B	T1	T2	T3	A	R	Q
1/2	4.75	0.88	1.38	1.5	TO be specified by purchaser	0.88	0.9	0.93	2.38	1.25	1.25	0.84	0.12	0.88
3/4	5.12	1	1.69	1.75		1.09	1.1	1.14	2.75	1.38	1.38	1.05	0.12	1
1	5.88	1.12	2	2.06		1.36	1.4	1.41	2.88	1.62	1.62	1.32	0.12	1.12
1 1/4	6.25	1.12	2.5	2.5		1.7	1.7	1.75	2.88	1.62	1.62	1.66	0.19	1.19
1 1/2	7	1.25	2.88	2.75		1.95	2	1.99	3.25	1.75	1.75	1.9	0.25	1.25
2	8.5	1.5	3.62	4.12		2.44	2.5	2.5	4	2.25	2.25	2.38	0.31	1.5
2 1/2	9.62	1.62	4.12	4.88		2.94	3	3	4.12	2.5	2.5	2.88	0.31	1.88
3	10.5	1.88	5	5.25		3.57	3.6	3.63	4.62	2.88	2.88	3.5	0.38	2
4	12.3	2.12	6.19	6.38		4.57	4.6	4.63	4.88	3.56	3.56	4.5	0.44	2.25
5	14.8	2.88	7.31	7.75		5.66	5.7	5.69	6.12	4.12	4.12	5.56	0.44	2.5
6	15.5	3.25	8.5	9		6.72	6.8	6.75	6.75	4.69	4.69	6.63	0.5	2.75
8	19	3.62	10.6	11.5		8.72	8.8	8.75	8.38	5.62	5.62	8.63	0.5	3
10	23	4.25	12.8	14.5		10.88	11	10.9	10	6.25	7	10.75	0.5	3.31
12	26.5	4.88	15	17.8		12.88	13	12.9	11.12	7.12	8.62	12.75	0.5	3.62
14	29.5	5.25	16.3	19.5		14.14	14	14.2	11.75		9.5	14	0.5	
16	32.5	5.75	18.5	21.8		16.16	16	16.2	12.25		10.3	16	0.5	
18	36	6.38	21	23.5		18.18	18	18.2	12.88		10.9	18	0.5	
20	38.8	7	23	25.3		20.2	20	20.2	14		11.5	20	0.5	
24	46	8	27.3	30		24.25	24	24.2	16		13	24	0.5	

Dimensions stated in Inches(1"=25.4mm)

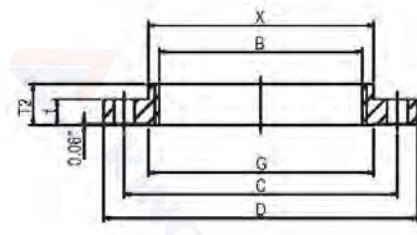
CLASS 1500



WELDING NECK (6) (11)



SOCKET WELDING (6) (10) (18)



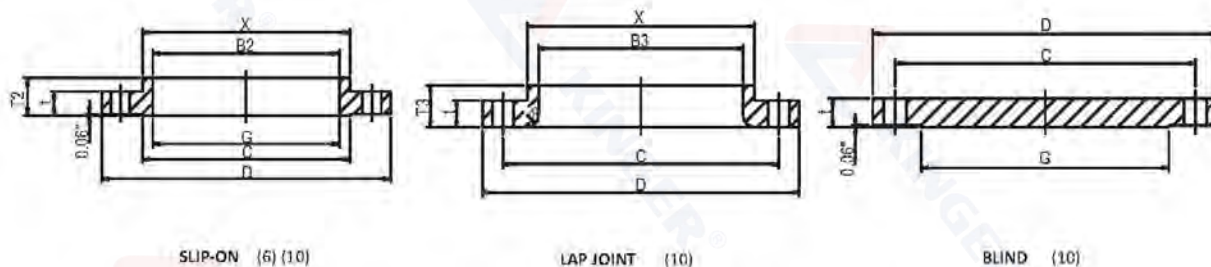
THREADED (6) (10) (16)

Nominal Pipe Size	(18) Depth of Socket	DRILLING			BOLTING				APPROXIMATE WEIGHT EACH-POUNDS				
		Bolt Circle Diam.	Number of Holes	Diam. of Holes	Diam. of Bolts	Stud Bolt Length			Welding Neck	Slip-on and Threaded	Lap Joint	Blind	Socket Welding
						0.25" Raised Face	Male-Female Tongue - Groove	Ring Joint					
	PCD	Y				C							
1/2	0.38	3.25	4	0.88	/	4.25	4.00	4.25	5	1	4	4	4
3/4	0.44	3.50	4	0.88	/	4.50	4.25	4.50	6	2	5	6	5
1	0.50	4.00	4	1.00	/	5.00	4.75	5.00	9	2	8	8	8
1 1/4	0.56	4.38	4	1.00	/	5.00	4.75	5.00	10	3	9	9	9
1 1/2	0.62	4.88	4	1.12	1	5.50	5.25	5.50	13	3	12	13	12
2	0.69	6.50	8	1.00	/	5.75	5.50	5.75	25	5	25	25	25
2 1/2	0.75	7.50	8	1.12	1.00	6.25	6.00	6.25	36	7	36	35	36
3	0.81	8.00	8	1.25	/	7.00	6.75	7.00	48	8	47	48	-
4	0.94	9.50	8	1.38	/	7.75	7.50	7.75	73	11	75	73	-
5	0.94	11.50	8	1.62	/	9.75	9.50	9.75	130	13	140	140	-
6	1.06	12.50	12	1.50	/	10.25	10.00	10.50	165	15	170	160	-
8	1.25	15.50	12	1.75	/	11.50	11.25	12.00	275	19	285	300	-
10	1.31	19.00	12	2.00	/	13.25	13.00	13.75	455	30	485	510	-
12	1.56	22.50	16	2.12	2.00	14.75	14.50	15.50	690	43	630	690	-
14	1.63	25.00	16	2.38	2 1/4	16.00	15.75	17.00	940	64	890	975	-
16	1.75	27.75	16	2.62	2 1/2	17.50	17.25	18.50	1250	90	1150	1300	-
18	1.94	30.50	16	2.88	2 3/4	19.50	19.00	20.50	1625	98	1475	1750	-
20	2.13	32.75	16	3.12	3.00	21.50	21.00	22.50	2050	130	1775	2225	-
24	2.50	39.00	16	3.62	/	24.50	24.00	25.75	3325	220	2825	3625	-

Dimensions stated in Inches(1"=25.4mm)



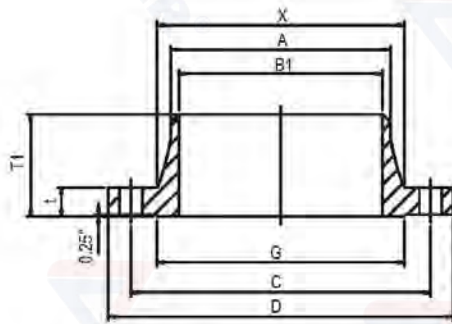
CLASS 2500



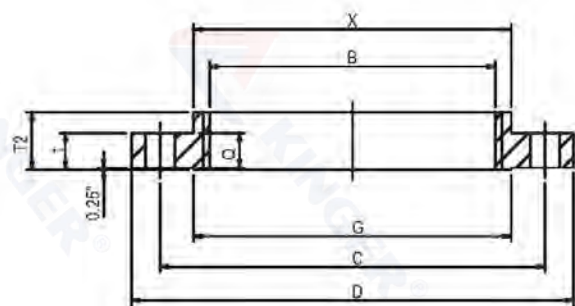
Nominal Pipe Size	Dia m.	(5) (16) Thickness	Raised Face	at Base of Hub	BORE				LENGTH THRU HUB			(4) Diam. Of Hub at Bevel	Radius of Fillet	Thread Length
					(2) (3) Welding Neck	(17) Slip-on	Lap Joint	Counter Bore Min.	(5) Welding Neck	(5) (17) Slip-on and Threaded	Lap Joint			
	D	t	G	X	B1	B2	B3	B	T1	T2	T3	A	R	Q
1/2	5.25	1.19	1.38	1.69	TO be specified by purchaser	0.88	0.90	0.93	2.88	1.56	1.56	0.84	0.12	1.12
3/4	5.50	1.25	1.69	2.00		1.09	1.11	1.14	3.12	1.69	1.69	1.05	0.12	1.25
1	6.25	1.38	2.00	2.25		1.36	1.38	1.41	3.50	1.88	1.88	1.32	0.12	1.38
1 1/4	7.25	1.50	2.50	2.88		1.70	1.72	1.75	3.75	2.06	2.06	1.66	0.19	1.50
1 1/2	8.00	1.75	2.88	3.12		1.95	1.97	1.99	4.38	2.38	2.38	1.90	0.25	1.75
2	9.25	2.00	3.62	3.75		2.44	2.46	2.50	5.00	2.75	2.75	2.38	0.31	2.00
2 1/2	10.50	2.25	4.12	4.50		2.94	2.97	3.00	5.62	3.12	3.12	2.88	0.31	2.25
3	12.00	2.62	5.00	5.25		3.57	3.60	3.63	6.62	3.62	3.62	3.50	0.38	2.50
4	14.00	3.00	6.19	6.50		4.57	4.60	4.63	7.50	4.25	4.25	4.50	0.44	2.75
5	16.50	3.62	7.31	8.00		5.66	5.69	5.69	9.00	5.12	5.12	5.56	0.44	3.00
6	19.00	4.25	8.50	9.25		6.72	6.75	6.75	10.75	6.00	6.00	6.63	0.50	3.25
8	21.75	5.00	10.62	12.00		8.72	8.75	8.75	12.50	7.00	7.00	8.63	0.50	3.75
10	26.50	6.50	12.75	14.75		10.88	10.92	10.88	16.50	9.00	9.00	10.75	0.50	4.25
12	30.00	7.25	15.00	17.38		12.88	12.92	12.94	18.25	10.00	10.00	12.75	0.50	4.75

Dimensions stated in Inches(1"=25.4mm)

CLASS 2500



WELDING NECK (5) (10)



THREADED (5) (9) (15)

Nominal Pipe Size	DRILLING			BOLTING				APPROXIMATE WEIGHT EACH-POUNDS			
	Bolt Circle Diam.	Number of Holes	Diam.of Bolt Holes	Diam.of Bolts	Stud Bolt Length			Welding Neck	(17) Slip-on and Threaded	Lap Joint	Blind
	PCD				0.25" Raised Face	Male-Female Tongue-Groove	Ring Joint				
	C										
1/2	3.50	4	0.88	3/4	5.25	5.00	5.25	7	7	7	7
3/4	3.75	4	0.88	3/4	5.00	5.00	5.25	8	8	8	8
1	4.25	4	1.00	/	5.75	5.50	5.75	12	11	11	11
1 1/4	5.12	4	1.12	1	6.25	6.00	6.50	17	16	16	17
1 1/2	5.75	4	1.25	/	7.00	6.75	7.25	25	22	22	23
2	6.75	8	1.12	1	7.25	7.00	7.50	42	38	37	39
2 1/2	7.75	8	1.25	/	8.00	7.75	8.25	52	55	53	56
3	9.00	8	1.38	/	9.00	8.75	9.25	94	83	80	86
4	10.75	8	1.62	/	10.25	10.00	10.75	145	125	120	135
5	12.75	8	1.88	/	12.00	11.75	12.75	245	210	205	225
6	14.50	8	2.12	2	13.75	13.50	14.50	380	325	315	345
8	17.25	12	2.12	2 1/2	15.25	15.00	16.00	580	485	470	530
10	21.25	12	2.62	2 1/4	19.50	19.25	20.50	1075	930	900	1025
12	24.38	12	2.88	2 3/4	21.50	21.25	22.50	1525	1100	1100	1300

Dimensions stated in Inches(1"=25.4mm)