

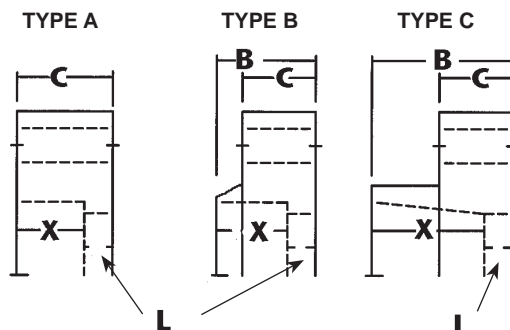
Marine-Offshore Fittings



Fiber Glass Systems™ 
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Marine-Offshore Fittings

FLANGES, FILAMENT WOUND



Unless otherwise noted, all GT175 fittings are rated at 175 psi and all GT250 fittings are rated to 250 psi.

COMMON DIMENSIONS

Nominal Pipe Size (In.)	GREEN THREAD® 250/175 (XH)						Type					
	B (In.)	L (In.)	X (In.)	C (In.)	Wt. (Lb.)	Type						
1	1.25	.13	1.25	1.25	1	A						
1.5	1.38	.13	1.25	1.38	2	A						
2	2.00	.19	1.81	2.00	4	A						
3	2.00	.19	1.81	2.00	6	A						
4	2.00	.19	1.81	2.00	8	A						
6	2.75	.25	2.50	2.65	13	A						
8	3.13	.19	2.94	2.65	18	B						
10	3.38	.19	3.13	3.00	23	B						
12	3.63	.19	3.44	3.25	38	B						
GREEN THREAD® 250 (XH)							GREEN THREAD® 175* (Standard)					
B	L	X	C	Wt.	Type	B	L	X	C	Wt.	Type	
14	8.75	1.50	7.25	3.88	56	C	7.25	1.50	5.65	2.81	45	C
16	10.25	2.00	8.25	4.38	72	C	8.25	2.00	6.25	3.25	62	C
18	11.13	2.00	9.13	4.50	88	C	9.13	2.00	7.13	3.5	68	C
20	12.50	2.50	10.00	4.65	106	C	10.50	2.50	8.00	3.65	80	C
24	15.00	3.00	12.00	5.50	150	C	12.25	3.00	9.25	4.44	120	C

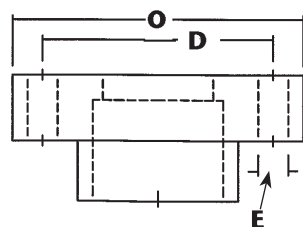
All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications

NOTES:
"L" dimension is fitting lay length, add "X" to "L" to obtain face to CL ("A") dimension for bonded joint fittings
SR= Standard radius
LR = Sweep radius

Weights shown for **flanged** elbows are for sweep radius fittings. Standard radius elbows will weigh slightly less.

These are nominal make-up dimensions for drawing layout work only. Do not use for assembly dimensions.

ANSI B16.5 Class 150 Flanges



*Extra Heavy (XH) flanges are available for GT 175. "B", "L", and "X" dimensions are as indicated in this table. "C" dimension will be as indicated in XH table.

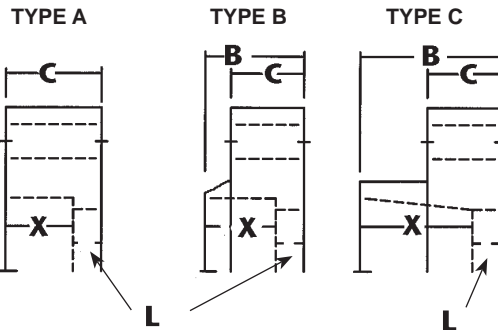
Nominal Pipe Size (In.)	D (In.)	E (In.)	O (In.)	Holes #
1	3.13	0.63	4.25	4
1.5	3.88	0.63	5.00	4
2	4.65	0.75	6.00	4
3	6.00	0.65	7.50	4
4	7.50	0.65	9.00	8
6	9.50	0.88	11.00	8
8	11.65	0.88	13.50	8
10	14.25	1.00	16.00	12
12	17.00	1.00	19.00	12
14	18.65	1.13	21.00	12
16	21.25	1.13	23.50	16
18	22.65	1.25	25.00	16
20	25.00	1.25	27.50	20
24	29.50	1.38	32.00	20

Nom Pipe Size (In.)	Blind Flange Thickness (In.)	Wt. (Lb.)
1	0.65	0.7
1.5	0.81	0.9
2	0.81	2
3	1.13	5
4	1.17	8
6	1.56	12
8	1.65	24
10	2.00	30
12	2.13	45
14	2.38	62
16	2.65	80
18	3.00	96
20	4.00	156
24	4.25	230

See pages 30-39 for other bolt hole configurations available on special order.

Marine-Offshore Fittings

FLANGES, FILAMENT WOUND



Unless otherwise noted, all GT175 fittings are rated at 175 psi and all GT250 fittings are rated to 250 psi.

COMMON DIMENSIONS

Nominal Pipe Size (mm)	GREEN THREAD® 250/175 (XH)						Type					
	B (mm)	L (mm)	X (mm)	C (mm)	Wt. (kg)							
25	32	3	32	32	0.5	A						
40	35	3	32	35	1	A						
50	51	5	46	51	2	A						
80	51	5	46	51	3	A						
100	51	5	46	51	4	A						
150	70	6	64	70	6	A						
200	79	5	72	70	8	B						
250	86	5	79	76	10	B						
300	92	5	87	83	17	B						
GREEN THREAD® 250 (XH)							GREEN THREAD® 175* (Standard)					
B	L	X	C	Wt.	Type	B	L	X	C	Wt.	Type	
350	222	38	184	98	25	C	184	38	146	71	20	C
400	260	51	210	111	33	C	210	51	159	83	28	C
450	283	51	232	114	40	C	232	51	181	89	31	C
500	318	63	254	121	48	C	267	63	203	95	36	C
600	381	76	305	140	68	C	311	76	235	113	54	C

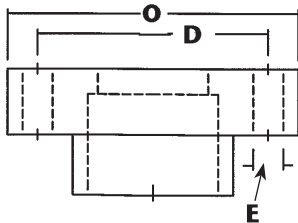
All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications

NOTES:
"L" dimension is fitting lay length, add "X" to "L" to obtain face to CL ("A") dimension for bonded joint fittings
SR= Standard radius
LR = Sweep radius

Weights shown for **flanged** elbows are for sweep radius fittings. Standard radius elbows will weigh slightly less.

These are nominal make-up dimensions for drawing layout work only. Do not use for assembly dimensions.

ANSI B16.5 Class 150 Flanges



Nominal Pipe Size (mm)	D (mm)	E (mm)	O (mm)	Holes #
25	79	16	108	4
40	98	16	127	4
50	121	19	152	4
80	152	19	191	4
100	191	19	229	8
150	241	22	279	8
200	298	22	343	8
250	362	25	406	12
300	432	25	483	12
350	476	29	533	12
400	540	29	597	16
450	578	32	635	16
500	635	32	699	18
600	749	35	813	20

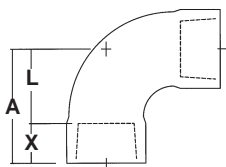
Nom Pipe Size (mm)	Blind Flange Thickness (mm)	Wt. (kg)
1	19	0.3
1.5	21	0.4
2	21	0.9
3	28	2
4	30	4
6	40	6
8	44	11
10	51	14
12	54	20
14	60	28
16	70	36
18	76	44
20	102	71
24	108	105

*Extra Heavy (XH) flanges are available for GT 175. "B", "L", and "X" dimensions are as indicated in this table. "C" dimension will be as indicated in XH table.

See pages 30-39 for other bolt hole configurations available on special order.

Marine-Offshore Fittings

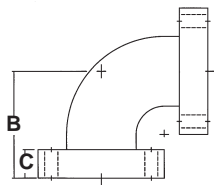
90° ELBOW, BxB FILAMENT WOUND



Nominal Pipe Size (In.)	GREEN THREAD® 250/175						All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications			
	L-SR (In.)	A-SR (In.)	L-LR (In.)	A-LR (In.)	X (In.)	Wt. (Lb.)				
1	-	-	2.50	3.63	1.13	1				
1.5	-	-	3.25	4.50	1.25	1				
2	-	-	3.00	4.81	1.81	1				
3	-	-	4.50	6.31	1.81	3				
4	-	-	6.00	7.81	1.81	4				
6	-	-	9.00	11.50	2.50	8				
8	6.50	9.50	12.50	15.50	3.00	14				
10	8.00	12.00	15.50	19.50	4.00	20				
12	8.50	12.50	18.50	22.50	4.00	36				
GREEN THREAD 250								GREEN THREAD 175		
	L-SR	A-SR	L-LR	A-LR	X	Wt.	A-SR	A-LR	X	Wt.
14	13.00	20.25	-	-	7.25	54	18.65	-	5.65	48
16	13.65	22.00	-	-	8.25	70	20.00	-	6.25	59
18	15.00	24.13	-	-	9.13	125	22.13	-	7.13	105
20	16.00	26.00	-	-	10.00	155	24.00	-	8.00	129
24	19.00	31.00	-	-	12.00	290	28.25	-	9.25	240

• Standard configuration for 8"-24" elbows is SR (Standard Radius). LR (Sweep Radius) is standard for 1"-6" elbows and is available on special orders in 8"-12" only.

90° ELBOW, FxF FILAMENT WOUND

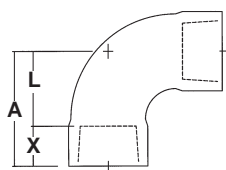


Nominal Pipe Size (In.)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications
	B-SR (In.)	B-LR (In.)	C (In.)	Wt. (Lb.)	
1	3.50	5.00	0.75	3	
1.5	4.00	6.00	0.75	5	
2	4.50	6.50	1.00	9	
3	5.50	7.75	1.38	15	
4	6.50	9.00	1.38	20	
6	8.00	11.50	1.65	34	
8	9.00	14.00	2.00	50	
10	11.00	16.50	2.00	64	
12	12.00	19.00	2.25	110	
GREEN THREAD 250/175					
14	14	21.50	2.81	151	
16	15	24.00	3.25	192	
18	30	-	3.50	266	
20	32	-	3.75	331	
24	37	-	4.44	544	

- Combination elbows available with socket or bell on one leg and flange on the other. Use appropriate dimensions from respective tables.
- Flanged fittings supplied with ANSI B16.5 Class 150 bolt hole pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.
- Standard configuration for flanged elbows is SR (Standard Radius) in 1"-16" sizes. LR (Sweep Radius) available on special order.
- Flanged fittings not available with XH flanges due to interference.

Marine-Offshore Fittings

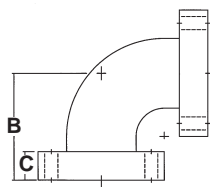
90° ELBOW, BxB FILAMENT WOUND



Nominal Pipe Size (In.)	GREEN THREAD® 250/175						All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications			
	L-SR (In.)	A-SR (In.)	L-LR (In.)	A-LR (In.)	X (In.)	Wt. (Lb.)				
25	-	-	64	92	29	0.5				
40	-	-	83	114	32	0.5				
50	-	-	76	122	46	0.5				
80	-	-	114	160	46	1				
100	-	-	152	198	46	2				
150	-	-	229	292	64	4				
200	165	241	318	394	76	6				
250	203	305	394	495	102	9				
300	216	318	470	564	102	16				
GREEN THREAD 250							GREEN THREAD 175			
	L-SR	A-SR	L-LR	A-LR	X	Wt.	A-SR	A-LR	X	Wt.
350	330	514	-	-	184	24	476	-	146	22
400	349	559	-	-	210	32	508	-	159	27
450	381	613	-	-	232	57	562	-	181	48
500	406	660	-	-	254	70	610	-	203	58
600	483	787	-	-	305	132	718	-	235	109

*Standard configuration for 200-600mm elbows is SR (Standard Radius). LR (Sweep Radius) is standard for 25-150mm elbows and is available on special orders in 8"-12" only.

90° ELBOW, FxF FILAMENT WOUND

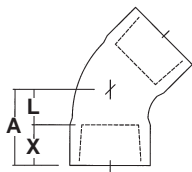


Nominal Pipe Size (In.)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications
	B-SR (In.)	B-LR (In.)	C (In.)	Wt. (Lb.)	
25	89	127	19	1	
40	102	152	19	2	
50	114	165	25	4	
80	140	197	35	7	
100	165	229	35	9	
150	203	292	44	15	
200	229	356	51	23	
250	279	419	51	29	
300	305	483	57	50	
GREEN THREAD 250/175					All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings
350	356	546	71	68	
400	381	610	83	87	
450	762	-	89	121	
500	813	-	95	151	
600	940	-	113	247	

- Combination elbows available with socket or bell on one leg and flange on the other. Use appropriate dimensions from respective tables.
- Flanged fittings supplied with ANSI B16.5 Class 150 bolt hole pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.
- Standard configuration for flanged elbows is SR (Standard Radius) in 25-400mm sizes. LR (Sweep Radius) available on special order.
- Flanged fittings not available with XH flanges due to interference.

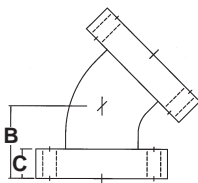
Marine-Offshore Fittings

45° ELBOW, BxB FILAMENT WOUND



Nominal Pipe Size (In.)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications		
	L (In.)	A (In.)	X (In.)	Wt. (Lb.)			
1	0.88	2	1.13	1			
1.5	1.13	2.38	1.25	1			
2	1.38	3.17	1.81	1			
3	2.00	3.81	1.81	2			
4	2.50	4.31	1.81	3			
6	3.65	6.25	2.50	5			
8	3.00	6.00	3.00	8			
10	3.50	7.50	4.00	12			
12	4.00	8.00	4.00	18			
GREEN THREAD 250					GREEN THREAD 175		
	L	A	X	Wt.	A	X	Wt.
14	6.50	13.65	7.25	47	12.25	5.65	39
16	6.65	15.00	8.25	65	13.00	6.25	50
18	8.00	17.13	9.13	88	15.13	7.13	78
20	8.38	18.38	10.00	120	16.38	8.00	100
24	10.17	22.17	12.00	190	19.44	9.25	175

45° ELBOW, FxF FILAMENT WOUND

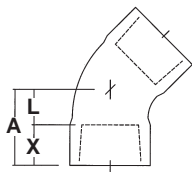


Nominal Pipe Size (In.)	GREEN THREAD® 250/175			All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications
	B (In.)	C (In.)	Wt. (Lb.)	
1	1.65	0.75	3	
1.5	2.25	0.75	6	
2	2.50	1.00	7	
3	3.00	1.38	10	
4	4.00	1.38	15	
6	5.00	1.65	25	
8	5.50	2.00	33	
10	6.50	2.00	61	
12	7.50	2.25	93	
GREEN THREAD 250/175				All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings
	B	C	Wt.	
14	7.50	2.81	137	
16	8.00	3.25	176	
18	23.00	3.50	237	
20	24.00	3.65	296	
24	29.00	4.44	494	

- Combination elbows available with socket or bell (depending on size) on one leg and flange on the other. Use appropriate dimensions from respective tables.
- Flange fittings supplied with ANSI B16.5 Class 150 bolt hole pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.

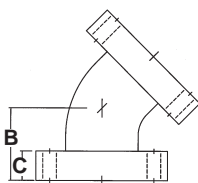
Marine-Offshore Fittings

45° ELBOW, BxB FILAMENT WOUND



Nominal Pipe Size (In.)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications		
	L (In.)	A (In.)	X (In.)	Wt. (Lb.)			
25	22	51	29	0.5			
40	29	60	32	0.5			
50	35	81	46	0.5			
80	51	97	46	1			
100	64	110	46	1			
150	95	159	64	2			
200	76	152	76	4			
250	89	191	102	5			
300	102	203	102	8			
GREEN THREAD 250					GREEN THREAD 175		
	L	A	X	Wt.	A	X	Wt.
350	165	349	184	21	311	146	18
400	171	381	210	29	330	159	23
450	203	435	232	40	384	181	35
500	213	461	254	54	416	203	45
600	259	562	305	86	494	235	79

45° ELBOW, FxF FILAMENT WOUND

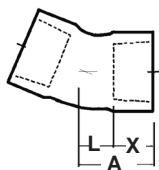


Nominal Pipe Size (In.)	GREEN THREAD® 250/175			All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications
	B (In.)	C (In.)	Wt. (Lb.)	
25	44	19	1	
40	57	19	3	
50	64	25	3	
80	76	35	5	
100	102	35	7	
150	127	44	11	
200	140	51	15	
250	165	51	28	
300	191	57	42	
GREEN THREAD 250/175				All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings
	B	C	Wt.	
350	191	71	62	
400	203	83	80	
450	584	89	108	
500	610	95	135	
600	737	113	225	

- Combination elbows available with socket or bell (depending on size) on one leg and flange on the other. Use appropriate dimensions from respective tables.-
- Flange fittings supplied with ANSI B16.5 Class 150 bolt hole pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.

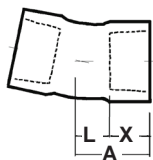
Marine-Offshore Fittings

22.5° ELBOW, BxB FILAMENT WOUND



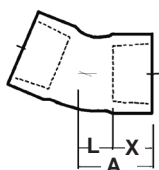
Nominal Pipe Size (In.)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications			
	L (In.)	A (In.)	X (In.)	Wt. (Lb.)				
1	-	-	-	-				
1.5	-	-	-	-				
2	1.13	2.94	1.81	1				
3	1.38	3.25	1.81	1				
4	1.69	3.50	1.81	2				
6	2.25	4.81	2.50	3				
8	2.88	5.88	3.00	6				
10	3.50	7.50	4.00	9				
12	4.05	8.14	4.00	15				
GREEN THREAD 250						GREEN THREAD 175		
	L	A	X	Wt.		A	X	Wt.
14	4.63	11.88	7.25	40		10.38	5.65	33
16	4.65	13.00	8.25	55	11.00	6.25	42	
18	5.38	14.50	9.13	72	12.50	7.13	65	
20	5.63	15.63	10.00	95	13.63	8.00	83	
24	7.00	19.00	12.00	160	16.25	9.25	140	

11.25° ELBOW, BxB FILAMENT WOUND



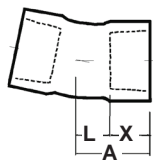
Nominal Pipe Size (In.)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications			
	L (In.)	A (In.)	X (In.)	Wt. (Lb.)				
1	-	-	-	-				
1.5	-	-	-	-				
2	0.81	2.31	1.81	1				
3	0.94	2.65	1.81	1				
4	1.05	2.88	1.81	2				
6	1.38	3.88	2.50	3				
8	1.69	4.69	3.00	5				
10	2.00	6.00	4.00	8				
12	2.25	6.25	4.00	14				
GREEN THREAD 250/175						GREEN THREAD 175		
	L	A	X	Wt.		A	X	Wt.
14	3.50	10.65	7.25	35		9.25	5.65	29
16	3.63	11.88	8.25	49	9.88	6.25	38	
18	4.17	13.31	9.13	66	11.31	7.13	60	
20	4.25	14.25	10.00	85	12.25	8.00	75	
24	5.50	17.50	12.00	140	14.65	9.25	120	

**22.5° ELBOW,
BxB
FILAMENT WOUND**



Nominal Pipe Size (mm)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications		
	L (mm)	A (mm)	X (mm)	Wt. (kg)			
25	-	-	-	-			
40	-	-	-	-			
50	29	74	46	0.5			
80	35	83	46	0.5			
100	43	89	46	1			
150	57	122	64	1			
200	73	150	76	3			
250	89	191	102	4			
300	104	205	102	7			
GREEN THREAD 250					GREEN THREAD 175		
	L	A	X	Wt.	A	X	Wt.
350	117	301	184	18	263	146	15
400	120	330	210	25	279	159	19
450	137	368	232	33	318	181	30
500	142	396	254	43	345	203	38
600	177	483	305	73	413	235	63

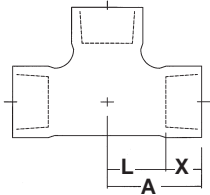
**11.25° ELBOW,
BxB
FILAMENT WOUND**



Nominal Pipe Size (mm)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications		
	L (mm)	A (mm)	X (mm)	Wt. (kg)			
25	-	-	-	-			
40	-	-	-	-			
50	20	66	46	0.5			
80	24	70	46	1			
100	28	74	46	1			
150	35	99	64	2			
200	43	119	76	4			
250	51	152	102	5			
300	57	159	102	8			
GREEN THREAD 250/175					GREEN THREAD 175		
	L	A	X	Wt.	A	X	Wt.
350	89	273	184	16	235	146	13
400	92	301	210	22	250	159	17
450	106	338	232	30	287	181	27
500	108	362	254	63	311	203	34
600	140	445	305	64	375	235	54

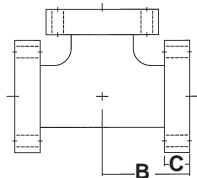
Marine-Offshore Fittings

**TEE,
FILAMENT WOUND,
BxBxB**



Nominal Pipe Size (In.)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications			
	L (In.)	A (In.)	X (In.)	Wt. (Lb.)				
1	1.63	2.65	1.13	1				
1.5	2.38	3.63	1.25	1				
2	2.63	4.44	1.81	2				
3	3.63	5.44	1.81	4				
4	4.13	5.94	1.81	5				
6	5.63	8.13	2.50	10				
8	6.50	9.50	3.00	20				
10	8.00	12.00	4.00	28				
12	8.50	12.50	4.00	36				
GREEN THREAD 250						GREEN THREAD 175		
	L	A	X	Wt.		A	X	Wt.
14	13.00	20.25	7.25	85		18.65	5.65	60
16	13.65	22.00	8.25	125	20.00	6.25	90	
18	15.63	24.65	9.13	204	22.65	7.13	148	
20	17.00	27.00	10.00	280	25.00	8.00	198	
24	18.00	30.00	12.00	480	27.25	9.25	336	

**TEE,
FILAMENT WOUND,
FxFxF**



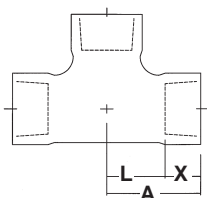
Nominal Pipe Size (In.)	GREEN THREAD® 250/175			All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications	
	B (In.)	C (In.)	Wt. (Lb.)		
1	3.50	0.75	4		
1.5	4.00	0.75	8		
2	4.50	1.00	11		
3	5.50	1.38	16		
4	6.50	1.38	24		
6	8.00	1.65	36		
8	9.00	2.00	56		
10	11.00	2.00	74		
12	12.00	2.25	116		
GREEN THREAD 250					All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings
	B	C	Wt.		
14	14	2.81	235		
16	15	3.25	325		
18	30	3.50	404		
20	32	3.65	520		
24	37	4.44	840		

Note: Run dimensions on reducing tees are identical with standard (non-reducing) tees.

- Combination tees available with socket or bell on one or two legs and flange(s) on the other. Use appropriate dimensions from respective table. When ordering, specify ends in the following order: Run x Run x Branch.
- Flanged fittings supplied with ANSI B16.5 Class 150 bolt hold pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.
- Flanged fittings not available with XH flanges due to interference.

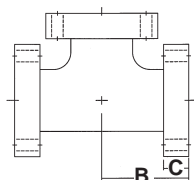
Marine-Offshore Fittings

TEE, FILAMENT WOUND, BxBxB



Nominal Pipe Size (mm)	GREEN THREAD® 250/175				All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications		
	L (mm)	A (mm)	X (mm)	Wt. (kg)			
25	41	70	29	0.5			
40	60	92	32	0.5			
50	67	113	46	1			
80	92	138	46	2			
100	105	151	46	2			
150	143	206	64	5			
200	165	241	76	9			
250	203	305	102	13			
300	216	318	102	16			
GREEN THREAD 250					GREEN THREAD 175		
	L	A	X	Wt.	A	X	Wt.
350	330	514	184	39	476	146	27
400	349	559	210	57	508	159	41
450	397	629	232	93	578	181	67
500	432	686	254	127	635	203	90
600	457	762	305	218	692	235	152

TEE, FILAMENT WOUND, FxFxF

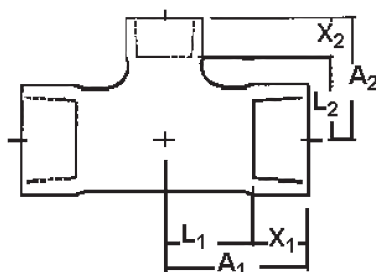


Nominal Pipe Size (mm)	GREEN THREAD® 250/175			All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications
	B (mm)	C (mm)	Wt. (kg)	
25	89	19	2	
40	102	19	4	
50	114	25	5	
80	140	35	7	
100	165	35	11	
150	203	44	16	
200	229	51	25	
250	279	51	34	
300	305	57	53	
GREEN THREAD 250				All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings
	B	C	Wt.	
350	356	71	107	
400	381	83	147	
450	762	89	183	
500	813	95	236	
600	940	113	381	

Note: Run dimensions on reducing tees are identical with standard (non-reducing) tees.

- Combination tees available with socket or bell on one or two legs and flange(s) on the other. Use appropriate dimensions from respective table. When ordering, specify ends in the following order: Run x Run x Branch.
- Flanged fittings supplied with ANSI B16.5 Class 150 bolt hold pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.
- Flanged fittings not available with XH flanges due to interference.

**REDUCING TEE,
FILAMENT WOUND,
BxBxB**

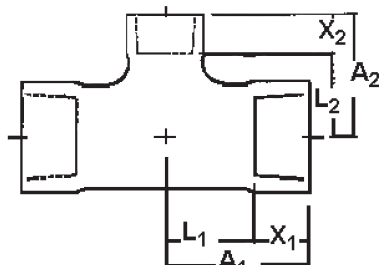


Nominal Pipe Size (In.)	GREEN THREAD 250/175							Wt. (Lb.)				
	Run L ₁ (In.)	Branch L ₂ (In.)	Run A ₁ (In.)	Branch A ₂ (In.)	Run X ₁ (In.)	Branch X ₂ (In.)						
1.5 x 1	2.38	2.38	3.63	3.50	1.25	1.13	1					
2 x 1.5	2.63	2.63	4.44	3.88	1.81	1.25	2					
2 x 1	2.63	2.63	4.44	3.75	1.81	1.13	2					
3 x 2	3.63	3.38	5.44	5.19	1.81	1.81	3					
3 x 1.5	3.63	3.38	5.44	4.63	1.81	1.25	3					
4 x 3	4.13	4.13	5.94	5.94	1.81	1.81	6					
4 x 2	4.13	4.13	5.94	5.94	1.81	1.81	5					
6 x 4	5.63	5.63	8.13	7.44	2.50	1.81	12					
6 x 3	5.63	5.63	8.13	7.44	2.50	1.81	11					
6 x 2	5.63	5.63	8.13	7.44	2.50	1.81	10					
8 x 6	6.50	7.00	9.50	9.50	3.00	2.50	16					
8 x 4	6.50	7.00	9.50	8.81	3.00	1.81	14					
8 x 3	6.50	7.00	9.50	8.81	3.00	1.81	13					
10 x 8	8.00	8.50	12.00	11.50	4.00	3.00	28					
10 x 6	8.00	8.50	12.00	11.00	4.00	2.50	24					
12 x 10	8.50	10.00	12.50	14.00	4.00	4.00	35					
12 x 8	8.50	10.00	12.50	13.00	4.00	3.00	32					
GREEN THREAD 250								GREEN THREAD 175				
	Run L ₁	Br L ₂	Run A ₁	Br A ₂	Run X ₁	Br X ₂	Wt.	Run A ₁	Br A ₂	Run X ₁	Br X ₂	Wt.
14 x 12	13.00	10.50	20.25	14.50	7.25	4.00	78	18.75	14.25	5.75	4.00	70
14 x 10	13.00	10.50	20.25	14.50	7.25	4.00	72	18.75	14.25	5.75	4.00	67
16 x 14	13.75	13.50	22.00	20.75	8.25	7.25	127	20.00	19.25	6.25	5.75	110
16 x 12	13.75	11.50	22.00	15.50	8.25	4.00	115	20.00	15.50	6.25	4.00	100
18 X 16	15.63	14.50	24.75	22.75	9.13	8.25	173	22.75	20.75	7.13	6.25	150
18 x 14	15.63	14.50	24.75	21.75	9.13	7.25	161	22.75	20.25	7.13	5.75	140
20 x 18	17.00	16.00	27.00	25.13	10.00	9.12	230	25.00	23.13	8.00	7.13	200
20 x 16	17.00	16.00	27.00	24.25	10.00	8.25	213	25.00	22.25	8.00	6.25	185
24 x 20	18.00	18.50	30.00	28.50	12.00	10.00	391	27.25	26.50	9.25	8.00	340
24 x 18	18.00	18.50	30.00	27.63	12.00	9.12	351	27.25	25.63	9.25	7.13	305

All 1" - 12" Fittings are designed for GT250, but may be used for GT175 applications

Note: Run dimensions on reducing tees are identical with standard (non-reducing) tees.

**REDUCING TEE,
FILAMENT WOUND,
BxBxB**

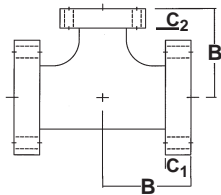


Nominal Pipe Size (mm)	GREEN THREAD 250/175							Wt. (kg)				
	Run L ₁ (mm)	Branch L ₂ (mm)	Run A ₁ (mm)	Branch A ₂ (mm)	Run X ₁ (mm)	Branch X ₂ (mm)						
40 x 25	60	60	92	89	32	29	1					
50 x 40	67	67	113	98	46	32	1					
50 x 25	67	67	113	95	46	29	1					
80 x 50	92	86	138	132	46	46	2					
80 x 40	92	86	138	117	46	32	2					
100 x 80	105	105	151	151	46	46	3					
100 x 50	105	105	151	151	46	46	3					
150 x 100	143	143	206	189	64	46	5					
150 x 80	143	143	206	189	64	46	3					
150 x 50	143	143	206	189	64	46	5					
200 x 150	165	178	241	241	76	64	7					
200 x 100	165	178	241	224	76	46	6					
200 x 80	165	178	241	224	76	46	6					
250 x 200	203	216	305	292	102	76	12					
250 x 150	203	216	305	279	102	64	10					
300 x 250	216	254	318	356	102	102	16					
300 x 200	216	254	318	330	102	76	15					
GREEN THREAD 250								GREEN THREAD 175				
	Run L ₁	Br L ₂	Run A ₁	Br A ₂	Run X ₁	Br X ₂	Wt.	Run A ₁	Br A ₂	Run X ₁	Br X ₂	Wt.
350 x 300	330	264	514	368	184	102	35	476	368	146	102	320
350 x 250	330	267	514	368	184	102	33	476	368	146	102	30
400 x 350	349	343	559	527	210	184	58	508	489	159	146	50
400 x 300	349	292	559	394	210	102	52	508	394	159	102	45
450 x 400	397	368	629	578	232	210	78	578	527	181	159	68
450 x 350	397	368	629	552	232	184	73	578	514	181	146	64
500 x 450	432	406	686	638	254	232	104	635	587	203	181	91
500 x 400	432	406	686	616	254	210	96	635	565	203	159	84
600 x 500	457	445	737	724	305	254	177	692	673	235	203	154
600 x 450	457	445	762	702	305	232	159	692	651	235	181	138

All 1" - 12" Fittings are designed for GT250, but may be used for GT175 applications

Note: Run dimensions on reducing tees are identical with standard (non-reducing) tees.

**REDUCING TEE,
FILAMENT WOUND,
FxFxF**



Nominal Pipe Size (In.)	GREEN THREAD 250/175			
	B (In.)	Run C ₁ (In.)	Branch C ₂ (In.)	Wt. (Lb.)
2 x 1.5	4.00	1.00	0.75	12
2 x 1	4.00	1.00	0.75	10
3 x 2	5.50	1.38	1.00	14
3 x 1.5	5.50	1.38	0.75	12
4 x 3	6.50	1.38	1.38	22
4 x 2	6.50	1.38	1.00	21
6 x 4	8.00	1.65	1.38	38
6 x 3	8.00	1.65	1.38	35
8 x 6	9.00	2.00	1.65	45
8 x 4	9.00	2.00	1.38	38
10 x 8	11.00	2.00	2.00	65
10 x 6	11.00	2.00	1.65	60
12 x 10	12.00	2.25	2.00	90
12 x 8	12.00	2.25	2.00	85
	GREEN THREAD 250			
	B	Run C ₁	Branch C ₂	Wt.
14 x 12	14	2.81	2.25	208
14 x 10	14	2.81	2.00	203
16 x 14	15	3.25	2.81	276
16 x 12	15	3.25	2.25	265
18 x 16	30	3.50	3.25	373
18 x 14	30	3.50	2.81	408
20 x 18	32	3.65	3.50	477
20 x 16	32	3.65	3.25	448
24 x 20	37	4.44	3.65	733
24 x 18	37	4.44	3.50	675

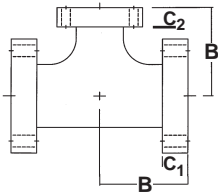
All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications

All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings

Note: Run dimensions on reducing tees are identical with standard (non-reducing) tees. Centerline to face dimensions of run and branch (B) are identical as shown above.

- Combination tees available with socket or bell on one or two legs and flange(s) on the other. Use appropriate dimensions from respective table. When ordering, specify ends in the following order: Run x Run x Branch.
- Flanged fittings supplied with ANSI B16.5 Class 150 bolt hole pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.
- Flanged fittings not available with XH flanges due to interference.

**REDUCING TEE,
FILAMENT WOUND,
FxFxF**



Nominal Pipe Size (mm)	GREEN THREAD 250/175			
	B (mm)	Run C ₁ (mm)	Branch C ₂ (mm)	Wt. (kg)
50x40	102	25	19	5
50x25	102	25	19	4
80x50	140	35	25	6
80x40	140	35	19	5
100x80	165	35	35	10
100x50	165	35	25	9
150x100	203	44	35	17
150x80	203	44	35	16
200x150	229	51	44	20
200x100	229	51	35	17
250x200	279	51	51	30
250x150	279	51	44	27
300x250	305	57	51	41
300x200	305	57	51	39
	GREEN THREAD 250			
	B	Run C ₁	Branch C ₂	Wt.
350x300	356	71	57	94
350x250	356	71	51	92
400x350	381	83	71	125
400x300	381	83	57	120
450x400	762	89	83	169
450x350	762	89	71	185
500x450	813	95	89	217
500x400	813	95	83	204
600x500	940	113	95	333
600x450	940	113	89	307

All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications

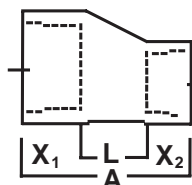
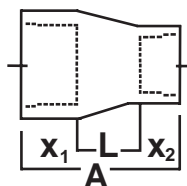
All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings

Note: Run dimensions on reducing tees are identical with standard (non-reducing) tees. Centerline to face dimensions of run and branch (B) are identical as shown above.

- Combination tees available with socket or bell on one or two legs and flange(s) on the other. Use appropriate dimensions from respective table. When ordering, specify ends in the following order: Run x Run x Branch.
- Flanged fittings supplied with ANSI B16.5 Class 150 bolt hold pattern unless otherwise specified. Flanges with other bolt hole patterns available on special request.
- Flanged fittings not available with XH flanges due to interference.

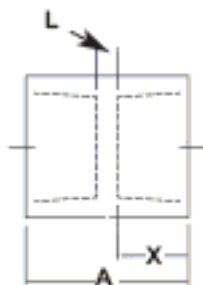
Marine-Offshore Fittings

CONCENTRIC & ECCENTRIC REDUCER, BxB



Nominal Pipe Size (In.)	GREEN THREAD® 250/175					Wt. (Lb.)	All 1" - 12" Fittings are designed for GT250, but may be used for GT175 applications						
	L (In.)	A (In.)	X ₁ (In.)	X ₂ (In.)									
1.5 x 1	1.44	3.81	1.25	1.13	1								
2 x 1.5	1.75	4.81	1.81	1.25	1								
2 x 1	2.75	5.69	1.81	1.13	1								
3 x 2	2.50	6.13	1.81	1.81	1								
3 x 1.5	3.75	6.81	1.81	1.25	1								
4 x 3	2.50	6.13	1.81	1.81	2								
4 x 2	2.50	6.13	1.81	1.81	2								
6 x 4	4.75	9.06	2.50	1.81	5								
6 x 3	5.13	9.44	2.50	1.81	5								
8 x 6	6.38	11.88	3.00	2.50	8								
8 x 4	6.44	11.25	3.00	1.81	9								
10 x 8	6.25	13.25	4.00	3.00	11								
10 x 6	6.88	13.38	4.00	2.50	12								
12 x 10	7.25	15.25	4.00	4.00	15								
12 x 8	7.75	14.75	4.00	3.00	17								
GREEN THREAD 250						GREEN THREAD 175							
	L	A	X ₁	X ₂	Wt.	A					X ₁	X ₂	Wt.
14 x 12	11.31	22.56	7.25	4.00	28	21.06					5.75	4.00	24
14 x 10	11.81	23.06	7.25	4.00	30	21.56	5.75	4.00	26				
16 x 14	15.56	31.06	8.25	7.25	50	27.56	6.25	5.75	44				
16 x 12	13.00	25.25	8.25	4.00	50	23.25	6.25	4.00	44				
18 x 16	15.50	32.88	9.13	8.25	67	28.88	7.13	6.25	58				
18 x 14	16.13	32.50	9.13	7.25	62	29.00	7.13	5.75	54				
20 x 18	16.00	35.13	10.00	9.13	88	31.13	8.00	7.13	70				
20 x 16	16.13	34.38	10.00	8.25	82	30.38	8.00	6.25	65				
24 x 20	27.00	49.00	12.00	10.00	198	44.25	9.25	8.00	160				
24 x 18	19.25	40.38	12.00	9.13	150	35.63	9.25	7.13	130				

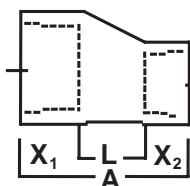
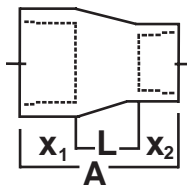
COUPLING



Nominal Pipe Size (In.)	GREEN THREAD 250/175				Wt. (Lb.)	All 1" - 12" Fittings are designed for GT250, but may be used for GT175 applications				
	L (In.)	A (In.)	X (In.)							
1	.25	2.50	1.13	0.3						
1.5	.25	2.75	1.25	0.4						
2	.38	4.00	1.19	1						
3	.38	4.00	1.19	1						
4	.38	4.00	1.19	1						
6	.50	5.50	2.50	3						
8	.50	6.50	3.00	5						
10	.50	8.50	4.00	6						
12	.50	8.50	4.00	7						
GREEN THREAD 250					GREEN THREAD 175					
	L	A	X	Wt.	A				X	Wt.
14	4.50	19.00	7.25	25	16.00				5.75	16
16	4.50	21.00	8.25	35	17.00				6.50	26
18	5.00	23.25	9.12	50	19.25				7.13	35
20	5.00	25.00	10.00	68	21.00				8.00	48
24	7.00	31.00	12.00	108	25.50				9.25	76

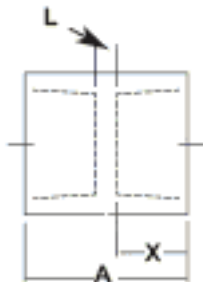
Marine-Offshore Fittings

CONCENTRIC & ECCENTRIC REDUCER, BxB



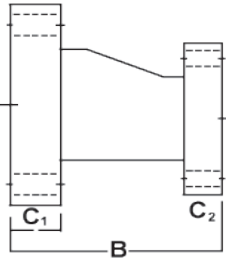
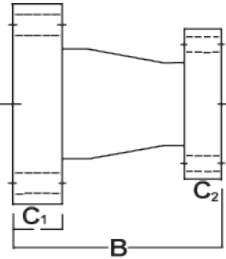
Nominal Pipe Size (mm)	GREEN THREAD® 250/175					Wt. (kg)	All 1" - 12" Fittings are designed for GT250, but may be used for GT175 applications			
	L (mm)	A (mm)	X ₁ (mm)	X ₂ (mm)						
40 x 25	37	97	32	29	0.5					
50 x 40	44	122	46	32	0.5					
50 x 25	70	144	46	29	0.5					
80 x 50	64	156	46	46	0.5					
80 x 40	95	173	46	32	0.5					
100 x 80	64	156	46	46	1					
100 x 50	64	156	46	46	1					
150 x 100	121	230	64	46	2					
150 x 80	130	240	64	46	2					
200 x 150	162	302	76	64	3					
200 x 100	164	286	76	46	4					
250 x 200	159	337	102	76	5					
250 x 150	175	340	102	64	6					
300 x 250	184	387	102	102	7					
300 x 200	197	375	102	76	8					
GREEN THREAD 250						GREEN THREAD 175				
	L	A	X ₁	X ₂	Wt.	A	X ₁	X ₂	Wt.	
350 x 300	287	573	184	102	13	535	146	102	11	
350 x 250	300	586	184	102	14	548	146	102	12	
400 x 350	395	789	210	184	22	700	159	146	20	
400 x 300	330	641	210	102	22	591	159	102	20	
450 x 400	394	835	232	210	30	733	181	159	26	
450 x 350	410	826	232	184	28	737	181	146	25	
500 x 450	406	892	254	232	40	791	203	181	32	
500 x 400	410	873	254	210	37	772	203	159	30	
600 x 500	686	1245	305	254	90	1124	235	203	73	
600 x 450	489	1026	305	232	68	905	235	181	59	

COUPLING



Nominal Pipe Size (mm)	GREEN THREAD 250/175				Wt. (kg)	All 1" - 12" Fittings are designed for GT250, but may be used for GT175 applications		
	L (mm)	A (mm)	X (mm)					
25	6	64	29	0.1				
40	6	70	32	0.2				
50	10	102	46	0.5				
80	10	102	46	0.5				
100	10	102	46	0.5				
150	13	140	64	1.0				
200	13	165	76	2.3				
250	13	216	102	2.7				
300	13	216	102	3.2				
GREEN THREAD 250					GREEN THREAD 175			
	L	A	X	Wt.	A	X	Wt.	
350	114	483	184	11	406	146	7	
400	114	533	210	16	432	159	12	
450	127	591	232	23	489	181	16	
500	127	635	254	31	533	203	22	
600	178	787	305	49	648	235	35	

**CONCENTRIC &
ECCENTRIC
REDUCER,
FxF**



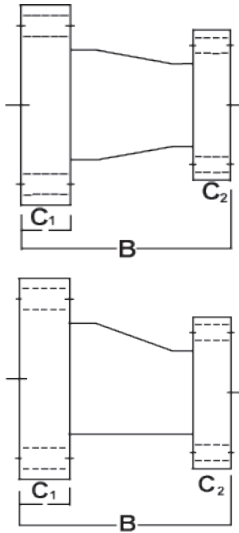
Nominal Pipe Size (In.)	GREEN THREAD® 250/175			
	B (In.)	C ₁ (In.)	C ₂ (In.)	Wt. (Lb.)
2 x 1.5	5	1.00	0.75	
2 x 1	5	1.00	0.75	5
3 x 2	6	1.38	1.00	8
3 x 1.5	6	1.38	0.75	8
4 x 3	7	1.38	1.38	12
4 x 2	7	1.38	1.00	12
6 x 4	9	1.65	1.38	21
6 x 3	9	1.65	1.38	16
8 x 6	11	2.00	1.65	23
8 x 4	11	2.00	1.38	22
10 x 8	12	2.00	2.00	32
10 x 6	12	2.00	1.65	30
12 x 10	14	2.25	2.00	47
12 x 8	14	2.25	2.00	45
	GREEN THREAD 250			
	B	C ₁	C ₂	Wt.
14 x 12	16	2.81	2.25	68
14 x 10	16	2.81	2.00	64
16 x 14	18	3.25	2.81	104
16 x 12	18	3.25	2.25	100
18 x 16	19	3.50	3.25	132
18 x 14	19	3.50	2.81	120
20 x 18	20	3.65	3.50	162
20 x 16	20	3.65	3.25	150
24 x 20	24	4.44	3.65	298
24 x 18	24	4.44	3.50	280

**All 1"-12" Fittings are
designed for GT250,
but may be used for
GT175 applications**

**All 14"- 24" GT175 Flanged
Fittings have the same
dimensional data as
GT250 Fittings**

Marine-Offshore Fittings

CONCENTRIC & ECCENTRIC REDUCER, FxF



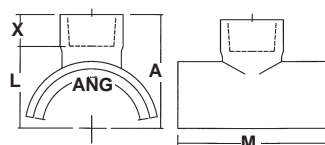
Nominal Pipe Size (mm)	GREEN THREAD® 250/175			
	B (mm)	C ₁ (mm)	C ₂ (mm)	Wt. (kg)
50x40	127	25	19	3
50x25	127	25	19	2
80x50	152	35	25	4
80x40	152	35	19	4
100x80	178	35	35	5
100x50	178	35	25	5
150x100	229	44	35	9
150x80	229	44	35	7
200x150	279	51	44	10
200x100	279	51	35	10
250x200	305	51	51	14
250x150	305	51	44	13
300x250	356	57	51	21
300x200	356	57	51	20
	GREEN THREAD 250			
	B	C ₁	C ₂	Wt.
350x300	406	71	57	31
350x250	406	71	51	29
400x350	457	83	71	47
400x300	457	83	57	45
450x400	483	89	83	60
450x350	483	89	71	55
500x450	508	95	89	74
500x400	508	95	83	68
600x500	610	113	95	135
600x450	610	113	89	127

All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications

All 14"- 24" GT175 Flanged Fittings have the same dimensional data as GT250 Fittings

Marine-Offshore Fittings

SADDLES, BELL OUT



Nominal Pipe Size (In.)	L (In.)	A (In.)	X (In.)	M (In.)	Angle (°)	Wt. (Lb.)
2 x 1	2.25	3.38	1.13	6	180	1
2 x 1.5	2.25	3.50	1.25	6	180	1
3 x 1	2.81	3.94	1.13	6	180	2
3 x 1.5	2.81	4.05	1.25	6	180	2
3 x 2	2.81	4.63	1.81	6	180	2
4 x 1	3.31	4.44	1.13	6	180	3
4 x 1.5	3.31	4.56	1.25	6	180	3
4 x 2	3.31	5.13	1.81	6	180	3
4 x 3	3.31	5.13	1.81	10	180	4
6 x 1	4.38	5.50	1.13	6	180	6
6 x 1.5	4.38	5.63	1.25	6	180	6
6 x 2	4.38	6.17	1.81	6	180	6
6 x 3	4.38	6.17	1.81	10	180	7
6 x 4	4.38	6.17	1.81	12	180	7
8 x 1	5.38	6.50	1.13	9	120	10
8 x 1.5	5.38	6.63	1.25	9	120	11
8 x 2	5.38	7.17	1.81	9	120	12
8 x 3	5.38	7.17	1.81	14	180	13
8 x 4	5.38	7.17	1.81	14	180	13
8 x 6*	5.38	7.88	2.50	17	180	14
10 x 1	6.44	7.56	1.13	9	100	8
10 x 1.5	6.44	7.69	1.25	9	100	8
10 x 2	6.44	8.25	1.81	9	100	8
10 x 3	6.44	8.25	1.81	14	150	17
10 x 4	6.44	8.25	1.81	17	180	18
10 x 6*	6.44	8.94	2.50	17	180	19
12 x 1	7.44	8.56	1.13	10	90	9
12 x 1.5	7.44	8.69	1.25	10	90	9
12 x 2	7.44	9.25	1.81	10	90	9
12 x 3	7.44	9.25	1.81	14	130	17
12 X 4	7.44	9.25	1.81	17	150	23
12 x 6*	7.44	9.94	2.50	21	180	29
14 x 1	8.34	9.50	1.13	12	90	13
14 x 1.5	8.34	9.63	1.25	12	90	12
14 x 2	8.34	10.17	1.81	12	90	12
14 x 3	8.34	10.17	1.81	15	120	19
14 x 4	8.34	10.17	1.81	17	130	23
14 x 6*	8.34	10.88	2.50	21	170	33
16 x 1	9.44	10.56	1.13	13	90	15
16 x 1.5	9.44	10.69	1.25	13	90	15
16 x 2	9.44	11.25	1.81	13	90	15
16 x 3	9.44	11.25	1.81	15	100	18
16 x 4	9.44	11.25	1.81	17	120	24
16 x 6	9.44	11.94	2.50	21	150	32

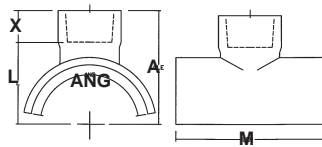
Nominal Pipe Size (In.)	L (In.)	A (In.)	X (In.)	M (In.)	Angle (°)	Wt. (Lb.)
18 x 1	10.38	11.50	1.13	13	80	15
18 x 1.5	10.38	11.63	1.25	13	80	14
18 x 2	10.38	12.17	1.81	13	80	14
18 x 3	10.38	12.17	1.81	15	100	19
18 X 4	10.38	12.17	1.81	17	110	22
18 x 6*	10.38	12.88	2.50	21	130	26
20 x 1	11.44	12.56	1.13	13	70	15
20 x 1.5	11.44	12.69	1.25	13	70	14
20 x 2	11.44	13.25	1.81	13	70	14
20 x 3	11.44	13.25	1.81	15	90	19
20 x 4	11.44	13.25	1.81	17	100	23
20 x 6*	11.44	13.94	2.50	21	120	27
24 x 1	13.50	14.63	1.13	13	60	15
24 x 1.5	13.50	14.65	1.25	13	60	14
24 x 2	13.50	15.31	1.81	15	70	18
24 x 4	13.50	15.31	1.81	17	80	22
24 x 6*	13.50	16.00	2.50	21	100	29

*Saddles with 6" outlets are rated at 175 psi.

All other outlet sizes are rated for up to 250 psi depending on pressure rating of the pipe.

Marine-Offshore Fittings

SADDLES, BELL OUT



Nominal Pipe Size (mm)	L (mm)	A (mm)	X (mm)	M (mm)	Angle (°)	Wt. (kg)
50x25	57	86	29	152	180	0.5
50x40	57	89	32	152	180	0.6
80x25	71	100	29	152	180	0.8
80x40	71	105	32	152	180	0.9
80x50	71	117	46	152	180	1
100x25	84	113	29	152	180	1
100x40	84	116	32	152	180	2
100x50	84	130	46	152	180	2
100x80	84	130	46	241	180	2
150x25	111	140	29	152	180	3
150x40	111	143	32	152	180	3
150x50	111	157	46	152	180	3
150x80	111	157	46	241	180	3
150x100	111	157	46	305	180	3
200x25	137	165	29	229	120	5
200x40	137	168	32	229	120	5
200x50	137	183	46	229	120	5
200x80	137	183	46	356	180	6
200x100	137	183	46	356	180	6
200x150*	164	200	64	432	180	6
250x25	164	192	29	229	100	4
250x40	164	195	32	229	100	4
250x50	164	210	46	229	100	4
250x80	164	210	46	356	150	8
250x100	164	210	46	425	180	8
250x150*	164	227	64	432	180	9
300x25	189	217	29	254	90	4
300x40	189	221	32	254	90	4
300x50	189	235	46	254	90	4
300x80	189	235	46	356	130	8
300x100	189	235	46	432	150	10
300x150*	189	252	64	533	180	13
350x25	213	241	29	305	90	6
350x40	213	244	32	305	90	6
350x50	213	259	46	305	90	6
350x80	213	259	46	381	120	9
350x100	213	259	46	432	130	10
350x150*	213	276	64	533	170	15
400x25	240	268	29	330	90	7
400x40	240	271	32	330	90	7
400x50	240	286	46	330	90	7
400x80	240	286	46	381	100	8
400x100	240	286	46	432	120	11
400x150*	240	287	64	533	150	15

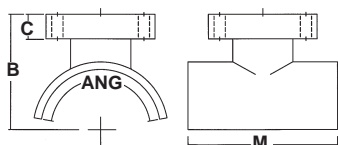
Nominal Pipe Size (mm)	L (mm)	A (mm)	X (mm)	M (mm)	Angle (°)	Wt. (kg)
450x25	264	292	29	330	80	7
450x40	264	295	32	330	80	6
450x50	264	310	46	330	80	6
450x80	264	310	46	381	100	8
450x100	264	310	46	432	110	10
450x150*	264	327	63	533	130	12
500x25	291	319	29	330	70	7
500x40	291	322	32	330	70	6
500x50	291	337	46	330	70	6
500x80	291	337	46	381	90	9
500x100	291	337	46	432	100	10
500x150*	291	354	64	533	120	12
600x25	343	371	29	330	60	7
600x40	343	375	32	330	60	7
600x50	343	389	46	330	60	7
600x80	343	389	46	381	70	8
600x100	343	389	46	432	80	10
600x150*	343	406	64	533	100	13

*Saddles with 150 mm outlets are rated at 12 bar.

All other outlet sizes are rated for up to 18 bar depending on pressure rating of the pipe.

Marine-Offshore Fittings

SADDLES, FLANGE OUT



Nominal Pipe Size (In.)	B (In.)	C (In.)	M (In.)	Angle (°)	Wt. (Lb.)
2 x 1	5.25	0.75	6	180	2
2 x 1.5	5.25	0.75	6	180	4
3 x 1	5.25	0.75	6	180	3
3 x 1.5	5.25	0.75	6	180	4
3 x 2	6.65	1.00	6	180	4
4 x 1	6.00	0.75	6	180	4
4 x 1.5	6.00	0.75	6	180	6
4 x 2	7.50	1.00	6	180	6
4 x 3	7.50	1.38	10	180	8
6 x 1	7.38	0.75	6	180	7
6 x 1.5	7.38	0.75	6	180	9
6 x 2	8.88	1.00	6	180	9
6 x 3	8.88	1.38	10	180	11
6 x 4	8.88	1.38	12	180	14
8 x 1	8.13	0.75	9	120	12
8 x 1.5	8.13	0.75	9	120	14
8 x 2	9.63	1.00	9	120	15
8 x 3	9.63	1.38	14	180	17
8 x 4	10.13	1.81	14	180	19
8 x 6*	10.50	1.65	17	180	24
10 x 1	9.13	0.75	9	100	9
10 x 1.5	9.13	0.75	9	100	9
10 x 2	10.63	1.00	9	100	10
10 x 3	10.63	1.38	14	150	20
10 x 4	11.13	1.81	17	180	22
10 x 6*	11.63	1.65	17	180	26
12 x 1	10.38	0.75	10	90	10
12 x 1.5	10.38	0.75	10	90	10
12 x 2	11.88	1.00	10	90	11
12 x 3	11.88	1.38	14	130	21
12 X 4	11.88	1.81	17	150	27
12 x 6*	12.63	1.65	21	180	36
14 x 1	11.00	0.75	12	90	14
14 x 1.5	11.00	0.75	12	90	14
14 x 2	12.50	1.00	12	90	14
14 x 3	12.50	1.38	15	120	23
14 x 4	12.50	1.81	17	130	27
14 x 6*	13.25	1.65	21	170	40
16 x 1	12.00	0.75	13	90	16
16 x 1.5	12.00	0.75	13	90	16
16 x 2	13.50	1.00	13	90	17
16 x 3	13.50	1.38	15	100	22
16 x 4	13.50	1.81	17	120	28
16 x 6*	14.25	1.65	21	150	40

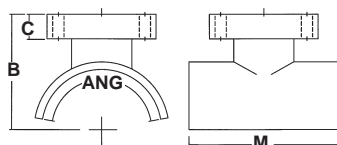
Nominal Pipe Size (In.)	B (In.)	C (In.)	M (In.)	Angle (°)	Wt. (Lb.)
18 x 1	13.00	0.75	13	80	16
18 x 1.5	13.00	0.75	13	80	16
18 x 2	14.50	1.00	13	80	16
18 x 3	14.50	1.38	15	100	23
18 X 4	14.50	1.81	17	110	27
18 x 6*	15.25	1.65	21	130	33
20 x 1	14.00	0.75	13	70	16
20 x 1.5	14.00	0.75	13	70	15
20 x 2	15.50	1.00	13	70	16
20 x 3	15.50	1.38	15	90	23
20 x 4	15.50	1.81	17	100	27
20 x 6*	16.25	1.65	21	120	34
24 x 1	16.00	0.75	13	60	16
24 x 1.5	16.00	0.75	13	60	16
24 x 2	17.50	1.00	13	60	17
24 x 3	17.50	1.38	15	70	22
24 x 4	17.50	1.81	17	80	26
24 x 6*	18.25	1.65	21	100	36

*Saddles with 6" outlets are rated at 175 psi.

All other outlet sizes are rated for up to 250 psi depending on pressure rating of the pipe.

Marine-Offshore Fittings

SADDLES, FLANGE OUT



Nominal Pipe Size (mm)	B (mm)	Branch C (mm)	M (mm)	Angle (°)	Wt. (kg)
50x25	133	19	152	180	1
50x40	133	19	152	180	2
80x25	133	19	152	180	1
80x40	133	19	152	180	2
80x50	171	25	152	180	2
100x25	152	19	152	180	2
100x40	152	19	152	180	3
100x50	191	25	152	180	3
100x80	191	35	241	180	4
150x25	187	19	152	180	3
150x40	187	19	152	180	4
150x50	225	25	152	180	4
150x80	225	35	241	180	5
150x100	225	35	305	180	6
200x25	206	19	229	120	5
200x40	206	19	229	120	6
200x50	244	25	229	120	7
200x80	244	35	356	180	8
200x100	257	46	356	180	9
200x150*	267	44	432	180	11
250x25	232	19	229	100	4
250x40	232	19	229	100	4
250x50	270	25	229	100	5
250x80	270	35	356	150	9
250x100	283	46	425	180	10
250x150*	295	44	432	180	12
300x25	264	19	254	90	5
300x40	264	19	254	90	5
300x50	302	25	254	90	5
300x80	302	35	356	130	9
300x100	302	46	432	150	12
300x150*	321	44	533	180	17
350x25	279	19	305	90	6
350x40	279	19	305	90	6
350x50	318	25	305	90	7
350x80	318	35	381	120	11
350x100	318	35	432	130	12
350x150*	337	44	533	170	18
400x25	305	19	330	90	7
400x40	305	19	330	90	7
400x50	343	25	330	90	8
400x80	343	35	381	100	10
400x100	343	46	432	120	13
400x150*	362	44	533	150	18

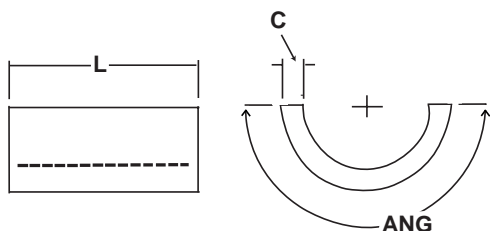
Nominal Pipe Size (mm)	B (mm)	Branch C (mm)	M (mm)	Angle (°)	Wt. (kg)
450x25	330	19	330	80	7
450x40	330	19	330	80	7
450x50	368	25	330	80	8
450x80	368	35	381	100	10
450x100	368	46	432	110	12
450x150*	387	44	533	130	15
500x25	356	19	330	70	7
500x40	356	19	330	70	7
500x50	394	25	330	70	7
500x80	394	35	381	90	10
500x100	394	46	432	100	12
500x150*	413	44	533	120	16
600x25	406	19	330	60	7
600x40	406	19	330	60	7
600x50	445	25	330	60	8
600x80	445	35	381	70	10
600x100	445	46	432	80	12
600x150*	464	44	533	100	16

*Saddles with 150 mm outlets are rated at 12 bar.

All other outlet sizes are rated for up to 18 bar depending on pressure rating of the pipe.

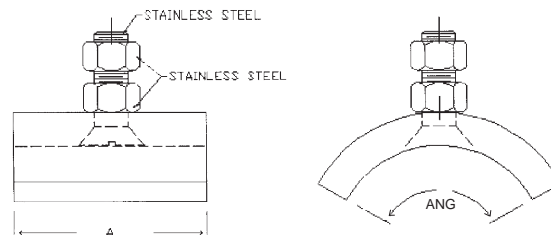
Marine-Offshore Fittings

BLANK SADDLES



Nominal Pipe Size (In.)	L (In.)	C (In.)	Angle (°)	Wt. (Lb.)
1	4	0.56	180	1
1.5	4	0.56	180	1
2	4	0.56	180	1
3	4	0.56	180	1
4	4	0.56	180	2
6	4	0.56	180	3
8	6	0.56	180	5
10	6	0.56	180	7
12	6	0.56	180	9
14	8	0.56	180	12
16	8	0.56	180	15
18	12	0.63	180	20
20	12	0.63	180	26
24	12	0.63	180	30

GROUNDING SADDLES



Nominal Pipe Size (In.)	L (In.)	Angle (°)	Wt. (Lb.)
2	3	90	1
3	3	90	1
4	3	90	1
6	3	90	1
8	3	60	1
10	3	60	1
12	3	45	1
14	3	45	1
16	3	45	1
18	3	45	1
20	3	30	1
24	3	30	1

Note: Grounding saddles are NOT supplied with grounding cable. Cables should be made to suit field conditions. Cables made with 304 or 316 stainless steel cable and terminal eyes with 3/8 inch holes are recommended.

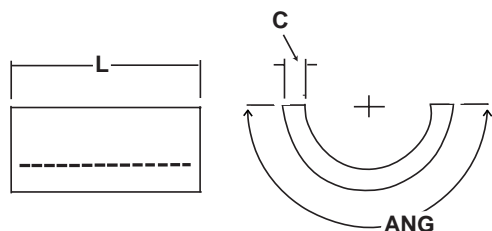
SADDLES, THREADED OUTLET 316 SS OUTLET IN .375", .500", .750" & 1"

Nominal Pipe Size (In.)	L (In.)	C (In.)	Angle (°)	Wt. (Lb.)
2	6	.75	180	1
3	6	.75	180	1
4	6	.75	180	2
6	6	.75	120	2
8	8	.75	120	4
10	8	.75	90	5
12	10	.75	90	8
14	12	.75	90	10
16	13	.75	90	13
18	13	.75	90	15
20	13	.75	90	17
24	13	.75	60	18

Note: Standard outlet is 316 SS. Available on special order in CuNi, Monel or other alloy.

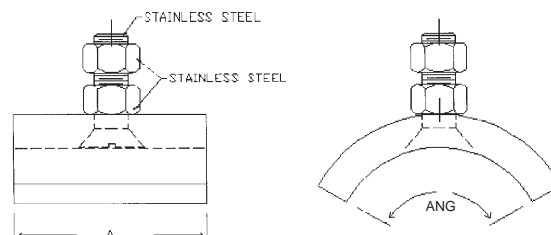
Marine-Offshore Fittings

BLANK SADDLES



Nominal Pipe Size (mm)	L (mm)	C (mm)	Angle (°)	Wt. (kg)
25	102	14	180	0.2
40	102	14	180	0.4
50	102	14	180	0.5
80	102	14	180	0.6
100	102	14	180	0.8
150	102	14	180	1
200	152	14	180	2
250	152	14	180	3
300	152	14	180	4
350	203	14	180	5
400	203	14	180	7
450	305	16	180	9
500	305	16	180	12
600	305	16	180	14

GROUNDING SADDLES



Nominal Pipe Size (mm)	L (mm)	Angle (°)	Wt. (kg)
50	76	90	0.5
80	76	90	0.5
100	76	90	0.5
150	76	90	0.5
200	76	60	0.5
250	76	60	0.5
300	76	45	0.5
350	76	45	0.5
400	76	45	0.5
450	76	45	0.5
500	76	30	0.5
600	76	30	0.5

Note: Grounding saddles are NOT supplied with grounding cable. Cables should be made to suit field conditions. Cables made with 304 or 316 stainless steel cable and terminal eyes with 10mm holes are recommended.

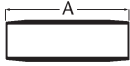
SADDLES, THREADED OUTLET 316 SS OUTLET IN 9, 13, 19, & 25mm

Nominal Pipe Size (mm)	L (mm)	C (mm)	Angle (°)	Wt. (kg)
50	152	19	180	0.5
80	152	19	180	0.5
100	152	19	180	1
150	152	19	120	2
200	203	19	120	2
250	203	19	90	3
300	254	19	90	5
350	305	19	90	6
400	330	19	90	7
450	330	19	90	7
500	330	19	90	8
600	330	19	60	8

Note: Standard outlet is 316 SS. Available on special order in CuNi, Monel or other alloy.

Marine-Offshore Fittings

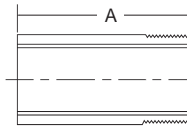
NIPPLES



Nominal Pipe Size (In.)	GREEN THREAD® 250/175		All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications	
	A (In.)	Wt. (Lb.)		
1	2.25	0.1		
1.5	2.50	0.2		
2	3.63	0.3		
3	3.63	0.4		
4	3.63	0.5		
6	5.00	1		
8	6.00	2		
10	8.00	4		
12	8.00	6		
GT 250			GT 175	
	A	Wt.	A	Wt.
14	18.50	16	15.50	10
16	20.50	22	16.50	13
18	22.65	30	18.65	18
20	24.50	39	20.50	24
24	30.50	71	25.00	43

ADAPTER

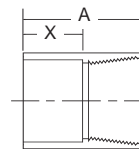
Plain End x Male NPT



Nominal Pipe Size (In.)	A (In.)	Wt. (Lbs.)
2	8	0.4
3	8	1
4	8	2
6	8	3

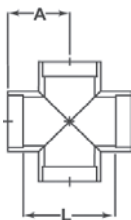
ADAPTER

Socket x Female NPT



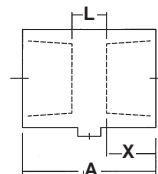
Nominal Pipe Size (In.)	A (In.)	X (In.)	Wt. (Lbs.)
2	4.00	1.81	0.6
3	4.50	1.81	0.6
4	4.63	1.80	0.6
6	5.00	2.50	2

CROSS



Nominal Pipe Size (In.)	A (In.)	L (In.)	X (In.)	Wt. (Lbs.)
2	3.88	4.13	1.81	3
3	4.63	5.63	1.81	6
4	5.25	6.88	1.81	7
6	6.63	8.25	2.50	15

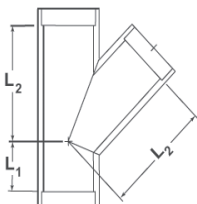
DELUGE TEE



Nominal Pipe Size (In.)	L (In.)	A (In.)	X (In.)	Wt. (Lb.)
2	2.38	6.00	1.81	0.8
3	2.38	6.00	1.81	1
4	2.38	6.00	1.81	1
6	2.38	7.38	2.50	3
8	2.38	8.38	3.00	4

Standard NPT outlet is 316 SS. Available on special order in CuNi, Monel or other alloy.

LATERAL



Nominal Pipe Size (In.)	L ₁ (In.)	L ₂ (In.)	Socket Depth X (In.)	Wt. (Lbs.)
2	2.50	8.00	1.81	3
3	3.00	10.00	1.81	7
4	3.00	12.00	1.81	14
6	3.38	14.63	2.50	17
8	4.50	17.50	3.00	27
10	5.00	20.50	4.00	47
12	5.50	24.50	4.00	67

2"-6" Laterals and Crosses rated to 100 psi maximum
8"-12" Laterals rated to 50 psi maximum.

REDUCER BUSHING



Nominal Pipe Size (In.)	A (In.)	X (In.)	Wt. (Lbs.)
1.5 x 1	1.38	1.13	0.4
2 x 1 NPT	1.65	-	0.4
2 x 1.5	2.00	1.25	0.3
3 x 2	2.00	1.81	0.6
4 x 3	2.00	1.81	1
6 x 4	2.75	1.81	3

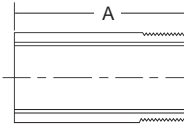
Marine-Offshore Fittings

NIPPLES



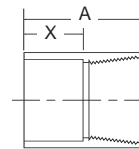
Nominal Pipe Size (mm)	GREEN THREAD® 250/175		All 1"-12" Fittings are designed for GT250, but may be used for GT175 applications	
	A (mm)	Wt. (kg)		
25	57	0.1		
40	63	0.1		
50	92	0.1		
80	92	0.2		
100	92	0.2		
150	127	0.6		
200	152	1		
250	203	2		
300	203	3		
GT 250			GT 175	
	A	Wt.	A	Wt.
350	470	7	197	5
400	521	10	222	6
450	578	14	248	8
500	622	18	273	11
600	775	32	324	20

ADAPTER Plain End x Male NPT



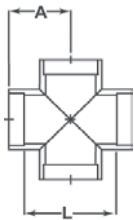
Nominal Pipe Size (mm)	A (mm)	Wt. (kg)
50	203	0.2
80	203	0.4
100	203	0.7
150	203	1

ADAPTER Socket x Female NPT



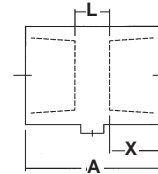
Nominal Pipe Size (mm)	A (mm)	X (mm)	Wt. (kg)
50	100	46	0.3
80	115	46	0.3
100	118	46	0.3
150	128	64	0.9

CROSS



Nominal Pipe Size (mm)	A (mm)	L (mm)	X (mm)	Wt. (kg)
50	98	104	46	2
80	117	142	46	3
100	133	174	46	3
150	168	208	64	7

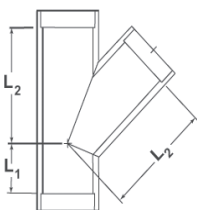
DELUGE TEE



Nominal Pipe Size (mm)	L (mm)	A (mm)	X (mm)	Wt. (kg)
50	60	152	46	0.4
80	60	152	46	0.5
100	60	152	46	0.6
150	60	187	64	1
200	60	213	76	2

Standard NPT outlet is 316 SS. Available on special order in CuNi, Monel or other alloy.

LATERAL



Nominal Pipe Size (mm)	L ₁ (mm)	L ₂ (mm)	Socket Depth X (mm)	Wt. (kg)
50	63	203	46	1
80	76	254	46	3
100	76	305	46	6
150	86	371	64	8
200	114	444	76	12
250	127	521	102	21
300	140	622	102	30

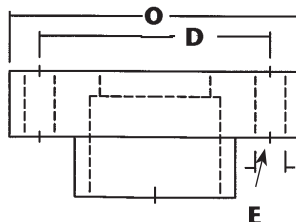
50-150mm Laterals and Crosses rated to 7 bar maximum
200-300mm Laterals rated to 4 bar maximum.

REDUCER BUSHING



Nominal Pipe Size (mm)	A (mm)	X (mm)	Wt. (kg)
40 x 25	45	29	0.2
50 x 25 NPT	45	-	0.2
50 x 40	51	32	0.1
80 x 50	51	46	0.3
100 x 80	51	46	0.5
150 x 100	70	46	1

Marine-Offshore Fittings FLANGES



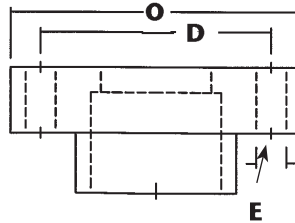
ANSI B16.5 CLASS 150 FLANGES

Nominal Pipe Size (In.)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.25	3.13	4	0.625
1.5	5.00	3.88	4	0.625
2	6.00	4.75	4	0.750
2.5	7.00	5.50	4	0.750
3	7.50	6.00	4	0.750
4	9.00	7.50	8	0.750
5	10.00	8.50	8	0.875
6	11.00	9.50	8	0.875
8	13.50	11.75	8	0.875
10	16.00	14.25	12	1.000
12	19.00	17.00	12	1.000
14	21.00	18.75	12	1.125
16	23.50	21.25	16	1.125
18	25.00	22.75	16	1.250
20	27.50	25.00	20	1.250
24	32.00	29.50	20	1.375

ANSI B16.5 CLASS 300 FLANGES

Nominal Pipe Size (In.)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.88	3.50	4	0.750
1.5	6.13	4.50	4	0.875
2	6.50	5.00	8	0.750
2.5	7.50	5.88	8	0.875
3	8.25	6.63	8	0.875
4	10.00	7.88	8	0.875
5	11.00	9.25	8	0.875
6	12.50	10.63	12	0.875
8	15.00	13.00	12	1.000
10	17.50	15.25	16	1.125
12	20.50	17.75	16	1.250
14	23.00	20.25	20	1.250
16	25.50	22.50	20	1.375
18	28.00	24.75	24	1.375
20	30.50	27.00	24	1.375
24	36.00	32.00	24	1.625

Marine-Offshore Fittings FLANGES



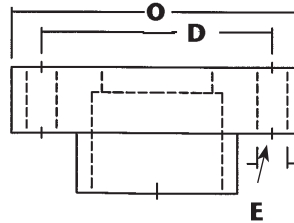
ANSI B16.5 CLASS 150 FLANGES

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	108	79	4	15.9
40	127	98	4	15.9
50	152	121	4	19.1
65	178	140	4	19.1
80	191	152	4	19.1
100	229	191	8	19.1
125	254	216	8	22.2
150	279	241	8	22.2
200	343	298	8	22.2
250	406	362	12	25.4
300	483	432	12	25.4
350	533	476	12	28.6
400	597	540	16	28.6
450	635	578	16	31.8
500	699	635	20	31.8
600	813	749	20	34.9

ANSI B16.5 CLASS 300 FLANGES

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	124	89	4	19.1
40	156	114	4	22.2
50	165	127	8	19.1
65	191	149	8	22.2
80	210	168	8	22.2
100	254	200	8	22.2
125	279	235	8	22.2
150	318	270	12	22.2
200	381	330	12	25.4
250	445	387	16	28.6
300	521	451	16	31.8
350	584	514	20	31.8
400	648	572	20	34.9
450	711	629	24	34.9
500	775	686	24	34.9
600	914	813	24	41.3

Marine-Offshore Fittings FLANGES



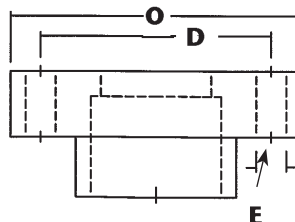
JIS B2220:2004 5K

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	3.74	2.95	4	0.472
1.5	4.72	3.74	4	0.591
2	5.12	4.13	4	0.591
2.5	6.10	5.12	4	0.591
3	7.09	5.71	4	0.748
4	7.87	6.50	8	0.748
5	9.25	7.87	8	0.748
6	10.43	9.06	8	0.748
8	12.60	11.02	8	0.906
10	15.16	13.58	12	0.906
12	16.93	15.35	12	0.906
14	18.90	17.13	12	0.984
16	21.26	19.49	16	0.984
18	23.82	21.85	16	0.984
20	25.79	23.82	20	0.984
24	30.31	28.15	20	1.063

JIS B2220:2004 10K

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.92	3.54	4	0.748
1.5	5.51	4.13	4	0.748
2	6.10	4.72	4	0.748
2.5	6.89	5.51	4	0.748
3	7.28	5.91	8	0.748
4	8.27	6.89	8	0.748
5	9.84	8.27	8	0.906
6	11.02	9.45	8	0.906
8	12.99	11.42	12	0.906
10	15.75	13.98	12	0.984
12	17.52	15.75	16	0.984
14	19.29	17.52	16	0.984
16	22.05	20.08	16	1.063
18	24.41	22.24	20	1.063
20	26.57	24.41	20	1.063
24	31.30	28.74	24	1.299

Marine-Offshore Fittings FLANGES



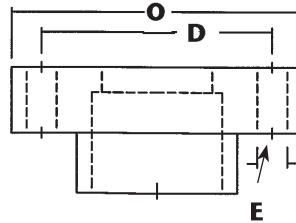
JIS B2220:2004 5K

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	95	75	4	12
40	120	95	4	15
50	130	105	4	15
65	155	130	4	15
80	180	145	4	19
100	200	165	8	19
125	235	200	8	19
150	265	230	8	19
200	320	280	8	23
250	385	345	12	23
300	430	390	12	23
350	480	435	12	25
400	540	495	16	25
450	605	555	16	25
500	655	605	20	25
600	770	715	20	27

JIS B2220:2004 10K

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	125	90	4	19
40	140	105	4	19
50	155	120	4	19
65	175	140	4	19
80	185	150	8	19
100	210	175	8	19
125	250	210	8	23
150	280	240	8	23
200	330	290	12	23
250	400	355	12	25
300	445	400	16	25
350	490	445	16	25
400	560	510	16	27
450	620	565	20	27
500	675	620	20	27
600	795	730	24	33

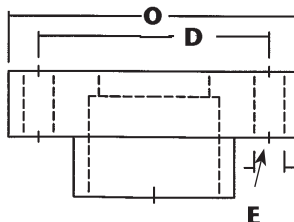
Marine-Offshore Fittings FLANGES



JIS B 2220:2004 16K/20K

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.92	3.54	4	0.748
1.5	5.51	4.13	4	0.748
2	6.10	4.72	4	0.748
2.5	6.89	5.51	8	0.748
3	7.87	6.30	8	0.906
4	8.86	7.28	8	0.906
5	10.63	8.86	8	0.984
6	12.01	10.24	12	0.984
8	13.78	12.01	12	0.984
10	16.93	14.96	12	1.063
12	18.90	16.93	16	1.063
14	21.26	18.90	16	1.299
16	23.82	21.26	16	1.299
18	26.57	23.82	20	1.299
20	28.74	25.98	20	1.299
24	33.27	30.31	24	1.535

Marine-Offshore Fittings FLANGES



JIS B2220:2004 16K/20K

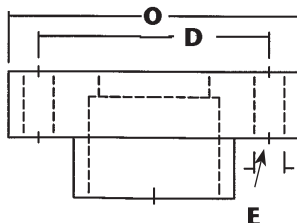
Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	125	90	4	19
40	140	105	4	19
50	155	120	8	19
65	175	140	8	19
80	200	160	8	23
100	225	185	8	23
125	270	225	8	25
150	305	260	12	25
200	350	305	12	25
250	430	380	12	27
300	480	430	16	27
350	540	480	16	33
400	605	540	16	33
450	675	605	20	33
500	730	660	20	33
600	845	770	24	39

Marine-Offshore Fittings FLANGES

ISO 7005 PN 6

DIN 2501 ND 6

GB/T 2506-2005 PN 0.6



Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	3.94	2.95	4	0.433
1.5	5.12	3.94	4	0.551
2	5.51	4.33	4	0.551
2.5	6.30	5.12	4	0.551
3	7.48	5.91	4	0.709
4	8.27	6.69	4	0.709
5	9.45	7.87	8	0.709
6	10.43	8.86	8	0.709
8	12.60	11.02	8	0.709
10	14.76	13.19	12	0.709
12	17.32	15.55	12	0.866
14	19.29	17.52	12	0.866
16	21.26	19.49	16	0.866
18	23.43	21.65	16	0.866
20	25.39	23.62	20	0.866
24	29.72	27.76	20	1.024

ISO 7005 PN 10

DIN 2501 ND 10

GB/T 2506-2005 PN 1.0

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.53	3.35	4	0.551
1.5	5.91	4.33	4	0.709
2	6.50	4.92	4	0.709
2.5	7.28	5.71	4	0.709
3	7.87	6.30	8	0.709
4	8.66	7.09	8	0.709
5	9.84	8.27	8	0.709
6	11.22	9.45	8	0.866
8	13.39	11.61	8	0.866
10	15.55	13.78	12	0.866
12	17.52	15.75	12	0.866
14	19.88	18.11	16	0.866
16	22.24	20.28	16	1.024
18	24.21	22.24	20	1.024
20	26.38	24.41	20	1.024
24	30.71	28.54	20	1.181

ISO 7005 PN 16

DIN 2501 ND 16

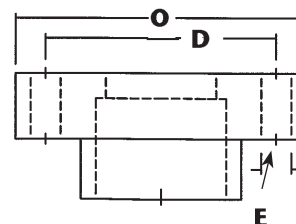
GB/T 2506-2005 PN 1.6

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.53	3.35	4	0.551
1.5	5.91	4.33	4	0.709
2	6.50	4.92	4	0.709
2.5	7.28	5.71	8	0.709
3	7.87	6.30	8	0.709
4	8.66	7.09	8	0.709
5	9.84	8.27	8	0.709
6	11.22	9.45	8	0.866
8	13.39	11.61	12	0.866
10	15.94	13.98	12	1.024
12	18.11	16.14	12	1.024
14	20.47	18.50	16	1.024
16	22.83	20.67	16	1.181
18	25.20	23.03	20	1.181
20	28.15	25.59	20	1.299
24	33.07	30.31	20	1.417

Marine-Offshore Fittings FLANGES

ISO 7005 PN 6
DIN 2501 ND 6
GB/T 2506-2005 PN 0.6

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	100	75	4	11
40	130	100	4	14
50	140	110	4	14
65	160	130	4	14
80	190	150	4	18
100	210	170	4	18
125	240	200	8	18
150	265	225	8	18
200	320	280	8	18
250	375	335	12	18
300	440	395	12	22
350	490	445	12	22
400	540	495	16	22
450	595	550	16	22
500	645	600	20	22
600	755	705	20	26



ISO 7005 PN 10
DIN 2501 ND 10
GB/T 2506-2005 PN 1.0

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	115	85	4	14
40	150	110	4	18
50	165	125	4	18
65	185	145	4	18
80	200	160	8	18
100	220	180	8	18
125	250	210	8	18
150	285	240	8	22
200	340	295	8	22
250	395	350	12	22
300	445	400	12	22
350	505	460	16	22
400	565	515	16	26
450	615	565	20	26
500	670	620	20	26
600	780	725	20	30

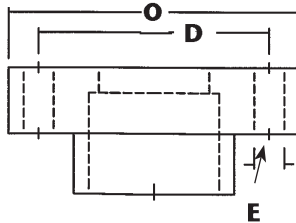
ISO 7005 PN 16
DIN 2501 ND 16
GB/T 2506-2005 PN 1.6

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	115	85	4	14
40	150	110	4	18
50	165	125	4	18
65	185	145	8	18
80	200	160	8	18
100	220	180	8	18
125	250	210	8	18
150	285	240	8	22
200	340	295	12	22
250	405	355	12	26
300	460	410	12	26
350	520	470	16	26
400	580	525	16	30
450	640	585	20	30
500	715	650	20	33
600	840	770	20	36

Marine-Offshore Fittings FLANGES

ISO 7005 PN 20

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.33	3.13	4	0.630
1.5	5.12	3.88	4	0.630
2	5.91	4.74	4	0.709
2.5	7.09	5.49	4	0.709
3	7.48	6.00	4	0.709
4	9.06	7.50	8	0.709
5	10.04	8.50	8	0.866
6	11.02	9.51	8	0.866
8	13.58	11.75	8	0.866
10	15.94	14.25	12	1.024
12	19.09	17.01	12	1.024
14	21.06	18.74	12	1.161
16	23.62	21.26	16	1.161
18	25.00	22.76	16	1.280
20	27.56	25.00	20	1.280
24	32.09	29.51	20	1.398



ISO 7005 PN 25 DIN 2501 ND 25

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.53	3.35	4	0.551
1.5	5.91	4.33	4	0.709
2	6.50	4.92	4	0.709
2.5	7.28	5.71	8	0.709
3	7.87	6.30	8	0.709
4	9.25	7.48	8	0.866
5	10.63	8.66	8	1.024
6	11.81	9.84	8	1.024
8	14.17	12.20	12	1.024
10	16.73	14.57	12	1.181
12	19.09	16.93	16	1.181
14	21.85	19.29	16	1.299
16	24.41	21.65	16	1.417
18	26.38	23.62	20	1.417
20	28.74	25.98	20	1.417
24	33.27	30.31	20	1.535

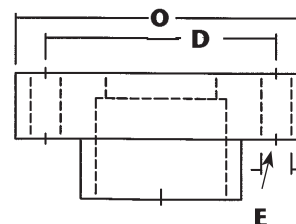
ISO 7005 PN 40 DIN 2501 ND 40

Nominal Pipe Size (In)	O (In.)	D (In.)	No. of Holes	E (In.)
1	4.53	3.35	4	0.551
1.5	5.91	4.33	4	0.709
2	6.50	4.92	4	0.709
2.5	7.28	5.71	8	0.709
3	7.87	6.30	8	0.709
4	9.25	7.48	8	0.866
5	10.63	8.66	8	1.024
6	11.81	9.84	8	1.024
8	14.76	12.60	12	1.181
10	17.72	15.16	12	1.299
12	20.28	17.72	16	1.299
14	22.83	20.08	16	1.417
16	25.98	23.03	16	1.535

Marine-Offshore Fittings FLANGES

ISO 7005 PN 20

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	110	79.5	4	16
40	130	98.5	4	16
50	150	120.5	4	18
65	180	139.5	4	18
80	190	152.5	4	18
100	230	190.5	8	18
125	255	216	8	22
150	280	241.5	8	22
200	345	298.5	8	22
250	405	362	12	26
300	485	432	12	26
350	535	476	12	29.5
400	600	540	16	29.5
450	635	578	16	32.5
500	700	635	20	32.5
600	815	749.5	20	35.5



ISO 7005 PN 40 DIN 2501 ND 40

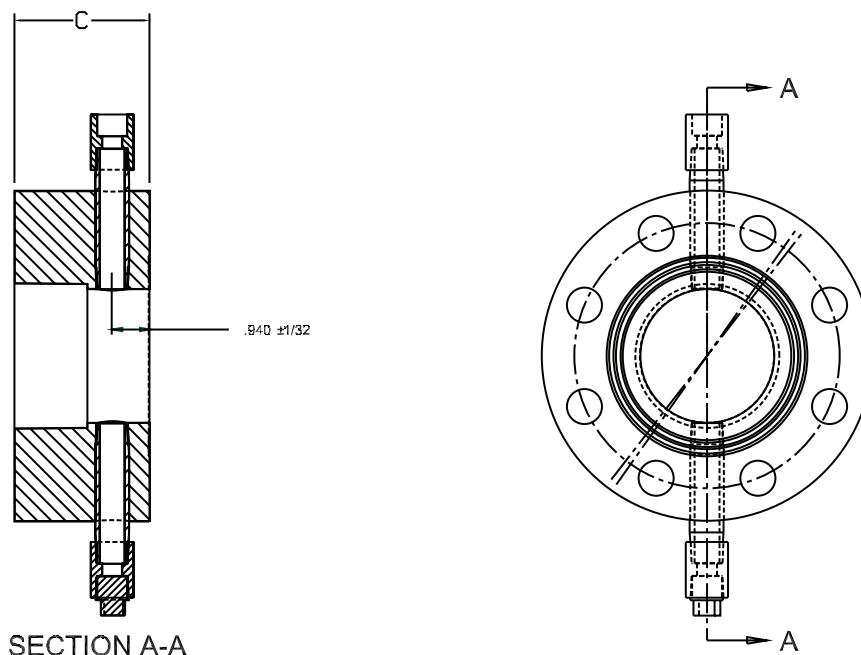
Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	115	85	4	14
40	150	110	4	18
50	165	125	4	18
65	185	145	8	18
80	200	160	8	18
100	235	190	8	22
125	270	220	8	26
150	300	250	8	26
200	375	320	12	30
250	450	385	12	33
300	515	450	16	33
350	580	510	16	36
400	660	585	16	39

ISO 7005 PN 25 DIN 2501 ND 25

Nominal Pipe Size (mm)	O (mm)	D (mm)	No. of Holes	E (mm)
25	115	85	4	14
40	150	110	4	18
50	165	125	4	18
65	185	145	8	18
80	200	160	8	18
100	235	190	8	22
125	270	220	8	26
150	300	250	8	26
200	360	310	12	26
250	425	370	12	30
300	485	430	16	30
350	555	490	16	33
400	620	550	16	36
450	670	600	20	36
500	730	660	20	36
600	845	770	20	39

Marine-Offshore Fittings

Orifice Flange Thickness



Nominal Pipe Size (In.)	C (In.)
1	2.63
1.5	2.75
2	3.38
3	3.38
4	3.38
6	4.13
8	4.50
10	4.75
12	5.00

Nominal Pipe Size (mm)	C (mm)
25	67
40	70
50	86
80	86
100	86
150	105
200	114
250	121
300	127

NOTES:

1. Nipples, couplings and plug are 316 Stainless Steel unless other alloy is requested.
2. Orifice flanges available with one tap only if requested.
3. Orifice flanges are supplied with ANSI B16.5, Class 150 bolt hole pattern standard. Other bolt hole patterns available upon request.
4. Refer to Common Flange Dimensions Table (page 2 & 3) for socket dimensions.

MARINE-OFFSHORE Piping Systems

ASTM D5685 Designation Codes for Fittings	
1" - 12" GT175/175-C	RTRF - 11F2F
1" - 12" GT250/250-C	RTRF - 11F2F
14" - 24" GT175/175-C	RTRF - 11F1D
14" - 24" GT250/250-C	RTRF - 11F1F

ASTM D4024 Designation Codes for Flanges		
Nominal Pipe Size	GT175/175-C	GT250/250-C
1" (25mm)	RTR-113E-552	RTR-113E-552
1.5" (40mm)	RTR-113E-552	RTR-113E-552
2" (50mm)	RTR-113E-552	RTR-113E-552
3" (80mm)	RTR-113E-552	RTR-113E-552
4" (100mm)	RTR-113E-552	RTR-113E-552
6" (150mm)	RTR-113E-552	RTR-113E-552
8" (200mm)	RTR-113E-555	RTR-113E-555
10" (250mm)	RTR-113E-555	RTR-113E-555
12" (300mm)	RTR-113E-555	RTR-113E-555
14" (350mm)	RTR-112E-435	RTR-112E-555
16" (400mm)	RTR-112E-435	RTR-112E-555
18" (450mm)	RTR-112E-435	RTR-112E-555
20" (500mm)	RTR-112E-435	RTR-112E-555
24" (600mm)	RTR-112E-435	RTR-112E-555

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