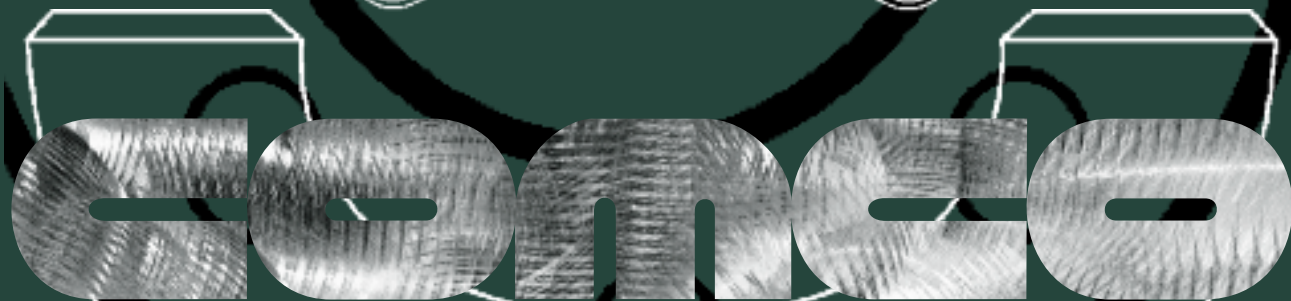




DIMENSIONS AND WEIGHTS

Steel Tubular Products, Flanges, and Fittings

A Division of Russel Metals



The Right People. The Right Stuff.



PIPE & SUPPLY COMPANY

MISSION STATEMENT

We will safely provide outstanding quality and service as defined by our customers, by continually challenging ourselves to improve.

QUALITY POLICY (Q-P-001)

Comco will consistently provide product and services that meet customer and applicable statutory and regulatory requirements.

Comco is committed to continually improve customer satisfaction through the effective application of the Quality Management System, including processes for improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

Comco maintains a registered quality management system that complies with the requirements of ISO 9001.

SIZE 1/8 TO 60 INCHES DIAMETER

Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD	Schedule No.
						XS	
inch mm	inch mm					XXS	
1/8	0.405	0.068	1.73	0.24	0.37	STD	40
		0.095	2.41	0.31	0.47	XS	80
1/4	0.540	0.088	2.24	0.43	0.63	STD	40
		0.119	3.02	0.54	0.80	XS	80
3/8	0.675	0.091	2.31	0.57	0.85	STD	40
		0.126	3.20	0.74	1.10	XS	80
1/2	0.840	0.109	2.77	0.85	1.27	STD	40
		0.147	3.73	1.09	1.62	XS	80
		0.188	4.78	1.31	1.95		160
3/4	1.050	0.294	7.47	1.72	2.56	XXS	
		0.113	2.87	1.13	1.69	STD	40
		0.154	3.91	1.48	2.20	XS	80
		0.219	5.56	1.95	2.90		160
1	1.315	0.308	7.82	2.44	3.64	XXS	
		0.133	3.38	1.68	2.50	STD	40
		0.179	4.55	2.17	3.24	XS	80
25	33.4	0.250	6.35	2.85	4.24		160
		0.358	9.09	3.66	5.46	XXS	
1 1/4	1.660	0.140	3.56	2.27	3.39	STD	40
		0.191	4.85	3.00	4.47	XS	80
		0.250	6.35	3.77	5.61		160
1 1/2	1.900	0.382	9.70	5.22	7.78	XXS	
		0.145	3.68	2.72	4.05	STD	40
		0.200	5.08	3.63	5.42	XS	80
38	48.3	0.281	7.14	4.86	7.25		160
		0.400	10.16	6.41	9.56	XXS	
2	2.375	0.083	2.11	2.03	3.03		
		0.109	2.77	2.64	3.93		
		0.125	3.18	3.01	4.48		
		0.141	3.58	3.37	5.02		
		0.154	3.91	3.66	5.45	STD	40
		0.172	4.37	4.05	6.04		
		0.188	4.78	4.40	6.55		
		*0.218	5.54	5.03	7.49	XS	80
		0.250	6.35	5.68	8.46		
		0.281	7.14	6.29	9.37		
0.344	8.74	7.47	11.13		160		
2 1/2	2.875	0.436	11.07	9.04	13.47	XXS	
		0.083	2.11	2.48	3.69		
		0.109	2.77	3.22	4.80		
		0.125	3.18	3.67	5.48		
		0.141	3.58	4.12	6.14		
		0.156	3.96	4.53	6.76		
		0.172	4.37	4.97	7.41		
		0.188	4.78	5.40	8.05		
		0.203	5.16	5.80	8.64	STD	40
		0.216	5.49	6.14	9.15		
0.250	6.35	7.02	10.45				
0.276	7.01	7.67	11.43	XS	80		
0.375	9.53	10.02	14.93		160		
0.552	14.02	13.71	20.42	XXS			

Size		Wall Thickness		Weight		Identification			
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD	Schedule No.		
inch	mm					XS		XXS	
3	3.500		0.083	2.11	3.03	4.52			
			0.109	2.77	3.95	5.89			
			0.125	3.18	4.51	6.72			
			0.141	3.58	5.06	7.54			
			0.156	3.96	5.58	8.31			
			0.172	4.37	6.12	9.12			
			0.188	4.78	6.66	9.92			
		75	88.9	0.216	5.49	7.58	11.30	STD	40
				0.250	6.35	8.69	12.94		
				0.281	7.14	9.67	14.41		
				0.300	7.62	10.26	15.29	XS	80
				0.438	11.13	14.34	21.36		160
				0.600	15.24	18.60	27.71	XXS	
3 1/2	4.000		0.125	3.18	5.18	7.72			
			0.141	3.58	5.82	8.67			
			0.156	3.96	6.41	9.55			
			0.172	4.37	7.04	10.49			
			0.188	4.78	7.66	11.41			
		88	101.6	0.226	5.74	9.12	13.59	STD	40
				0.250	6.35	10.02	14.93		
				0.281	7.14	11.17	16.65		
				0.318	8.08	12.52	18.65	XS	80
				0.636	16.15	22.87	34.08	XXS	
4	4.500		0.083	2.11	3.92	5.84			
			0.109	2.77	5.12	7.62			
			0.125	3.18	5.85	8.71			
			0.141	3.58	6.57	9.79			
			0.156	3.96	7.24	10.79			
			0.172	4.37	7.96	11.86			
			0.188	4.78	8.67	12.91			
			0.203	5.16	9.32	13.89			
			0.219	5.56	10.02	14.93			
		100	114.3	0.237	6.02	10.80	16.09	STD	40
				0.250	6.35	11.36	16.92		
				0.281	7.14	12.67	18.88		
				0.312	7.92	13.97	20.81		
				0.337	8.56	15.00	22.35	XS	80
				0.438	11.13	19.02	28.34		120
		0.531	13.49	22.53	33.57		160		
		0.674	17.12	27.57	41.07	XXS			
5	5.563		0.109	2.77	6.36	9.47			
			0.156	3.96	9.02	13.44			
			0.188	4.78	10.80	16.10			
			0.219	5.56	12.51	18.64			
			0.258	6.55	14.63	21.80	STD	40	
			0.281	7.14	15.87	23.64			
			0.312	7.92	17.51	26.10			
			0.344	8.74	19.19	28.60			
			0.375	9.53	20.80	30.99	XS	80	
			0.500	12.70	27.06	40.32		120	
			0.625	15.88	32.99	49.16		160	
	0.750	19.05	38.59	57.50	XXS				

Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD XS XXS	Schedule No.
inch mm	inch mm						
6 150	6.625 168.3	0.109	2.77	7.59	11.31		
		0.125	3.18	8.69	12.94		
		0.141	3.58	9.77	14.56		
		0.156	3.96	10.79	16.07		
		0.172	4.37	11.87	17.68		
		0.188	4.78	12.94	19.28		
		0.203	5.16	13.94	20.76		
		0.219	5.56	15.00	22.35		
		0.250	6.35	17.04	25.39		
		0.280	7.11	18.99	28.30	STD	40
		0.312	7.92	21.06	31.37		
		0.344	8.74	23.10	34.42		
		0.375	9.53	25.05	37.33		
		0.432	10.97	28.60	42.61	XS	80
		0.500	12.70	32.74	48.78		
		0.562	14.27	36.43	54.27		120
		0.625	15.88	40.09	59.73		
		0.719	18.26	45.39	67.64		160
		0.864	21.95	53.21	79.28	XXS	
8 200	8.625 219.1	0.125	3.18	11.36	16.92		
		0.156	3.96	14.12	21.04		
		0.188	4.78	16.96	25.26		
		0.203	5.16	18.28	27.23		
		0.219	5.56	19.68	29.32		
		0.250	6.35	22.38	33.35		20
		0.277	7.04	24.72	36.83		30
		0.312	7.92	27.73	41.31		
		0.322	8.18	28.58	42.58	STD	40
		0.344	8.74	30.45	45.37		
		0.375	9.53	33.07	49.28		
		0.406	10.31	35.67	53.15		60
		0.438	11.13	38.33	57.12		
		0.500	12.70	43.43	64.71	XS	80
		0.562	14.27	48.44	72.18		
		0.594	15.09	51.00	75.98		100
		0.625	15.88	53.45	79.64		
		0.719	18.26	60.77	90.54		120
		0.812	20.62	67.82	101.05		140
0.875	22.23	72.49	108.01	XXS			
0.906	23.01	74.76	111.39		160		
10 250	10.750 273.0	0.125	3.18	14.20	21.15		
		0.134	3.40	15.21	22.66		
		0.141	3.58	15.99	23.83		
		0.156	3.96	17.67	26.32		
		0.172	4.37	19.45	28.98		
		0.188	4.78	21.23	31.63		
		0.203	5.16	22.89	34.10		
		0.219	5.56	24.65	36.73		
		0.250	6.35	28.06	41.81		20
		0.279	7.09	31.23	46.53		
		0.307	7.80	34.27	51.07		30
		0.344	8.74	38.27	57.02		
		0.365	9.27	40.52	60.38	STD	40

Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD	Schedule No.
						XS	
inch	inch						
mm	mm						
10 250	10.750 273.0	0.438	11.13	48.28	71.94		
		0.500	12.70	54.79	81.63	XS	60
		0.562	14.27	61.21	91.20		
		0.594	15.09	64.49	96.09		80
		0.625	15.88	67.65	100.80		
		0.719	18.26	77.10	114.88		100
		0.812	20.62	86.26	128.53		
		0.844	21.44	89.38	133.17		120
		1.000	25.40	104.23	155.30	XXS	140
		1.125	28.58	115.75	172.47		160
12 300	12.750 323.9	0.141	3.58	19.01	28.32		
		0.156	3.96	21.00	31.29		5
		0.172	4.37	23.13	34.46		
		0.188	4.78	25.25	37.62		10
		0.203	5.16	27.23	40.57		
		0.219	5.56	29.34	43.71		
		0.250	6.35	33.41	49.78		20
		0.281	7.14	37.46	55.81		
		0.312	7.92	41.48	61.81		
		0.330	8.38	43.81	65.28		30
		0.334	8.48	44.33	66.05		
		0.375	9.53	49.61	73.92	STD	
		0.406	10.31	53.57	79.83		40
		0.438	11.13	57.65	85.89		
		0.500	12.70	65.48	97.56	XS	
		0.562	14.27	73.22	109.10		60
		0.625	15.88	81.01	120.71		
		0.688	17.48	88.71	132.18		80
		0.750	19.05	96.21	143.35		
		0.812	20.62	103.63	154.40		
0.844	21.44	107.42	160.06		100		
0.875	22.23	111.08	165.50				
1.000	25.40	125.61	187.16	XXS	120		
1.125	28.58	139.81	208.31		140		
1.312	33.32	160.42	239.03		160		
14 350	14.000 355.6	0.188	4.78	27.76	41.36		
		0.203	5.16	29.94	44.61		
		0.210	5.33	30.96	46.13		
		0.219	5.56	32.26	48.07		
		0.250	6.35	36.75	54.75		10
		0.281	7.14	41.21	61.40		
		0.312	7.92	45.65	68.02		20
		0.344	8.74	50.22	74.82		
		0.375	9.53	54.62	81.38	STD	30
		0.406	10.31	59.00	87.91		
		0.438	11.13	63.50	94.62		40
		0.469	11.91	67.84	101.08		
		0.500	12.70	72.16	107.51	XS	
		0.562	14.27	80.73	120.29		
		0.594	15.09	85.13	126.84		60
		0.625	15.88	89.36	133.15		
0.688	17.48	97.91	145.88				
0.750	19.05	106.23	158.29		80		

Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD	Schedule No.
						XS	
inch	inch						
mm	mm						
14	14.000	0.812	20.62	114.48	170.57		
		0.875	22.23	122.77	182.92		
		0.938	23.83	130.98	195.15		100
		1.094	27.79	150.93	224.89		120
		1.250	31.75	170.37	253.85		140
		1.406	35.71	189.29	282.04		160
16	16.000	0.188	4.78	31.80	47.35		
		0.203	5.16	34.28	51.08		
		0.219	5.56	36.95	55.05		
		0.250	6.35	42.09	62.72		10
		0.281	7.14	47.22	70.36		
		0.312	7.92	52.32	77.96		20
		0.344	8.74	57.57	85.78		
		0.375	9.53	62.64	93.33	STD	30
		0.406	10.31	67.68	100.84		
		0.438	11.13	72.86	108.57		
		0.469	11.91	77.87	116.02		
		0.500	12.70	82.85	123.44	XS	40
		0.562	14.27	92.75	138.19		
		0.625	15.88	102.72	153.06		
		0.656	16.66	107.60	160.33		60
		0.688	17.48	112.62	167.80		
		0.750	19.05	122.27	182.18		
		0.812	20.62	131.84	196.44		
		0.844	21.44	136.74	203.75		80
		0.875	22.23	141.48	210.80		
		0.938	23.83	151.03	225.03		
		1.000	25.40	160.35	238.92		
		1.031	26.19	164.98	245.82		100
		1.062	26.97	169.59	252.69		
1.125	28.58	178.89	266.55				
1.219	30.96	192.61	286.99		120		
1.438	36.53	223.85	333.54		140		
1.594	40.49	245.48	365.76		160		
18	18.000	0.188	4.78	35.80	53.34		
		0.203	5.16	38.62	57.54		
		0.219	5.56	41.63	62.02		
		0.250	6.35	47.44	70.68		10
		0.281	7.14	53.23	79.31		
		0.312	7.92	58.99	87.90		20
		0.375	9.53	70.65	105.27	STD	
		0.406	10.31	76.36	113.78		
		0.438	11.13	82.23	122.52		30
		0.469	11.91	87.89	130.96		
		0.500	12.70	93.54	139.37	XS	
		0.562	14.27	104.76	156.10		40
		0.625	15.88	116.09	172.97		
		0.688	17.48	127.32	189.71		
		0.750	19.05	138.30	206.07		60
		0.812	20.62	149.20	222.30		
		0.875	22.23	160.18	238.67		
		0.938	23.83	171.08	254.92		80

Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD XS XXS	Schedule No.
inch mm	inch mm						
18	18.000	1.000	25.40	181.73	270.78		
		1.062	26.97	192.29	286.52		
		1.125	28.58	202.94	302.39		
		1.156	29.36	208.15	310.15		100
		1.187	30.15	213.34	317.88		
		1.250	31.75	223.82	333.49		
		1.375	34.93	244.37	364.11		120
		1.562	39.67	274.48	408.97		140
		1.781	45.24	308.79	460.10		160
20	20.000	0.188	4.78	39.82	59.33		
		0.203	5.16	42.96	64.01		
		0.219	5.56	46.31	69.00		
		0.250	6.35	52.78	78.64		10
		0.281	7.14	59.23	88.26		
		0.312	7.92	65.66	97.84		
		0.344	8.74	72.28	107.70		
		0.375	9.53	78.67	117.22	STD	20
		0.406	10.31	85.04	126.71		
		0.438	11.13	91.59	136.47		
		0.469	11.91	97.92	145.90		
		0.500	12.70	104.23	155.30	XS	30
		0.562	14.27	116.78	174.00		
		0.594	15.09	123.23	183.61		40
		0.625	15.88	129.45	192.88		
		0.688	17.48	142.03	211.63		
		0.750	19.05	154.34	229.96		
		0.812	20.62	166.56	248.17		60
		0.875	22.23	178.89	266.55		
		0.938	23.83	191.14	284.80		
		1.000	25.40	203.11	302.63		
		1.031	26.19	209.06	311.51		80
		1.062	26.97	215.00	320.35		
		1.125	28.58	227.00	338.22		
1.187	30.15	238.72	355.69				
1.250	31.75	250.55	373.31				
1.281	32.54	256.34	381.94		100		
1.312	33.32	262.10	390.54				
1.375	34.93	273.76	407.91				
1.500	38.10	296.65	442.00		120		
1.750	44.45	341.41	589.15		140		
1.968	50.01	379.36	659.19		160		
22	22.000	0.188	4.78	43.84	65.32		
		0.203	5.16	47.30	70.48		
		0.219	5.56	50.99	75.98		
		0.250	6.35	58.13	86.61		10
		0.281	7.14	65.24	97.21		
		0.312	7.92	72.34	107.78		
		0.344	8.74	79.64	118.66		
		0.375	9.53	86.69	129.17	STD	20
		0.406	10.31	93.72	139.64		
		0.438	11.13	100.96	150.43		
		0.469	11.91	107.95	160.84		
		0.500	12.70	114.92	171.23	XS	30

Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD XS XXS	Schedule No.
inch mm	inch mm						
22	22.000	0.562	14.27	128.79	191.90		
		0.625	15.88	142.81	212.79		
		0.688	17.48	156.74	233.55		
		0.750	19.05	170.37	253.85		
		0.812	20.62	183.92	274.04		
		0.875	22.23	197.60	294.42		60
		0.938	23.83	211.19	314.68		
		1.000	25.40	224.49	334.49		
		1.062	26.97	237.70	354.18		
		1.125	28.58	251.05	374.06		80
		1.187	30.15	264.10	393.50		
		1.250	31.75	277.27	413.14		
		1.312	33.32	290.15	432.33		
		1.375	34.93	303.16	451.71		
		1.437	36.50	315.88	470.66		100
		1.500	38.10	328.72	489.79		
		24	24.000	0.188	4.78	47.86	71.30
0.203	5.16			51.64	76.95		
0.219	5.56			55.67	82.95		
0.250	6.35			63.47	94.57		10
0.281	7.14			71.25	106.16		
0.312	7.92			79.01	117.72		
0.344	8.74			86.99	129.62		
0.375	9.53			94.71	141.11	STD	20
0.406	10.31			102.40	152.58		
0.438	11.13			110.32	164.38		
0.469	11.91			117.98	175.78		
0.500	12.70			125.61	187.16	XS	
0.562	14.27			140.81	209.81		30
0.625	15.88			156.17	232.70		
0.688	17.48			171.45	255.47		40
0.750	19.05			186.41	277.75		
0.812	20.62			201.28	299.90		
0.875	22.23			216.31	322.30		
0.938	23.83			231.25	344.56		
0.969	24.61			238.57	355.47		60
1.000	25.40			245.87	366.35		
1.062	26.97			260.41	388.01		
1.125	28.58			275.10	409.90		
1.187	30.15			289.47	431.32		
1.219	30.96			296.86	442.32		80
1.250	31.75			304.00	452.96		
1.312	33.32			318.21	474.13		
1.375	34.93	332.56	495.51				
1.437	36.50	346.60	516.44				
1.500	38.10	360.79	537.57				
1.531	38.89	367.74	547.93		100		
1.562	39.67	374.66	558.25				
1.812	46.02	429.79	640.38		120		
2.062	52.37	483.57	720.53		140		
2.343	59.51	542.44	808.23		160		
26	26	0.250	6.35	68.82	102.54		
650	660.4						

Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD XS XXS	Schedule No.
inch mm	inch mm						
26 650	26.000 660.4	0.281	7.14	77.26	115.11		
		0.312	7.92	85.68	127.66		10
		0.344	8.74	94.35	140.58		
		0.375	9.53	102.72	153.06	STD	
		0.406	10.31	111.08	165.51		
		0.438	11.13	119.69	178.33		
		0.469	11.91	128.00	190.72		
		0.500	12.70	136.30	203.08	XS	20
		0.562	14.27	152.83	227.71		
		0.625	15.88	169.54	252.61		
		0.688	17.48	186.16	277.38		
		0.750	19.05	202.44	301.64		
		0.812	20.62	218.64	325.77		
		0.875	22.23	235.01	350.17		
		0.938	23.83	251.30	374.44		
1.000	25.40	267.25	398.20				
28 700	28.000 711.2	0.250	6.35	74.16	110.50		
		0.281	7.14	83.26	124.06		
		0.312	7.92	92.35	137.60		10
		0.344	8.74	101.70	151.53		
		0.375	9.53	110.74	165.01	STD	
		0.406	10.31	119.76	178.45		
		0.438	11.13	129.05	192.29		
		0.469	11.91	138.03	205.66		
		0.500	12.70	146.99	219.01	XS	20
		0.562	14.27	164.84	245.61		
		0.625	15.88	182.90	272.52		30
		0.688	17.48	200.87	299.30		
		0.750	19.05	218.48	325.53		
		0.812	20.62	236.00	351.64		
		0.875	22.23	253.72	378.04		
0.938	23.83	271.36	404.32				
1.000	25.40	288.63	430.06				
30 750	30.000 762.0	0.250	6.35	79.51	118.47		
		0.281	7.14	89.27	133.02		10
		0.312	7.92	99.02	147.54		
		0.344	8.74	109.06	162.49		
		0.375	9.53	118.76	176.95	STD	
		0.406	10.31	128.44	191.38		
		0.438	11.13	138.42	206.24		
		0.469	11.91	148.06	220.60		
		0.500	12.70	157.68	234.94	XS	20
		0.562	14.27	176.86	263.52		
		0.625	15.88	196.26	292.43		30
		0.688	17.48	215.58	321.22		
		0.750	19.05	234.51	349.42		
		0.812	20.62	253.36	377.51		
		0.875	22.23	272.43	405.92		
0.938	23.83	291.41	434.20				
1.000	25.40	310.01	461.91				
32 800	32 812.8	0.250	6.35	84.85	126.43		
		0.281	7.14	95.28	141.97		
		0.312	7.92	105.69	157.48		10

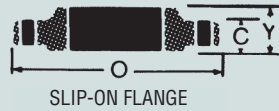
Size		Wall Thickness		Weight		Identification	
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD	Schedule No.
						XS	
inch	inch						
mm	mm						
32 800	32.000 812.8	0.344	8.74	116.41	173.45		
		0.375	9.53	126.78	188.90	STD	
		0.406	10.31	137.12	204.31		
		0.438	11.13	147.78	220.19		
		0.469	11.91	158.08	235.55		
		0.500	12.70	168.37	250.87	XS	20
		0.562	14.27	188.87	281.42		
		0.625	15.88	209.62	312.34		30
		0.688	17.48	230.29	343.13		40
		0.750	19.05	250.55	373.31		
		0.812	20.62	270.72	403.37		
		0.875	22.23	291.14	433.79		
		0.938	23.83	311.47	464.08		
		1.000	25.40	331.39	493.77		
34 850	34.000 863.6	0.250	6.35	90.20	134.39		
		0.281	7.14	101.29	150.92		
		0.312	7.92	112.36	167.41		10
		0.344	8.74	123.77	184.41		
		0.375	9.53	134.79	200.84	STD	
		0.406	10.31	145.80	217.25		
		0.438	11.13	157.14	234.15		
		0.469	11.91	168.11	250.49		
		0.500	12.70	179.06	266.80	XS	20
		0.562	14.27	200.89	299.32		
		0.625	15.88	222.99	332.25		30
		0.688	17.48	245.00	365.05		40
		0.750	19.05	266.58	397.21		
		0.875	22.23	309.84	461.67		
1.000	25.40	352.77	525.63				
36 900	36.000 914.4	0.250	6.35	95.54	142.36		
		0.281	7.14	107.30	159.87		
		0.312	7.92	119.03	177.35		10
		0.344	8.74	131.12	195.37		
		0.375	9.53	142.81	212.79	STD	
		0.406	10.31	154.48	230.18		
		0.438	11.13	166.51	248.10		
		0.469	11.91	178.14	265.43		
		0.500	12.70	189.75	282.72	XS	20
		0.562	14.27	212.90	317.23		
		0.625	15.88	236.35	352.16		30
		0.688	17.48	259.71	386.97		
		0.750	19.05	282.62	421.10		40
		0.875	22.23	328.55	489.54		
1.000	25.40	374.15	557.48				
38 950	38.000 965.2	0.250	6.35	100.89	150.32		
		0.312	7.92	125.70	187.29		
		0.344	8.74	138.47	206.33		
		0.375	9.53	150.83	224.74	STD	
		0.406	10.31	163.16	243.11		
		0.438	11.13	175.87	262.05		
		0.500	12.70	200.44	298.65	XS	
0.625	15.88	249.71	372.07				

Size		Wall Thickness		Weight		Identification		
Nominal Diameter	Outside Diameter	inch	mm	lb/ft	kg/m	STD XS XXS	Schedule No.	
inch mm	inch mm							
38	38	0.750	19.05	298.65	444.99			
		950	965.2	0.875	22.23	347.26	517.41	
				1.000	25.40	395.53	589.34	
40	40.000	0.250	6.35	106.23	158.29			
				0.312	7.92	132.37	197.23	
				0.344	8.74	145.83	217.29	
				0.375	9.53	158.85	236.68	STD
				0.406	10.31	171.84	256.05	
		1000	1016.0	0.438	11.13	185.24	276.00	
				0.469	11.91	198.19	295.31	
				0.500	12.70	211.13	314.58	XS
				0.625	15.88	263.07	391.98	
				0.750	19.05	314.69	468.88	
42	42.000	0.875	22.23	365.97	545.29			
				1.000	25.40	416.91	621.20	
				0.250	6.35	111.58	166.25	
				0.312	7.92	139.04	207.17	
				0.344	8.74	153.18	228.24	
				0.375	9.53	166.86	248.63	STD
				0.406	10.31	180.52	268.98	
		1050	1066.8	0.438	11.13	194.60	289.96	
				0.469	11.91	208.22	310.25	
				0.500	12.70	221.82	330.51	XS
48	48.000	0.625	15.88	276.44	411.89			
				0.750	19.05	330.72	492.78	
				0.875	22.23	384.67	573.16	
				1.000	25.40	438.29	653.05	
				0.250	6.35	127.61	190.14	
				0.312	7.92	159.05	236.99	
				0.344	8.74	175.25	261.12	
				0.375	9.53	190.92	284.47	STD
				0.406	10.31	206.56	307.78	
		1200	1219.2	0.438	11.13	222.70	331.82	
54	54.000	0.469	11.91	238.30	355.07			
				0.500	12.70	253.89	378.29	XS
				0.625	15.88	316.52	471.62	
				0.750	19.05	378.83	564.45	
				0.875	22.23	440.80	656.79	
				1.000	25.40	502.43	748.62	
				0.312	7.92	179.06	266.81	
				0.375	9.53	214.97	320.30	STD
		1350	1371.6	0.438	11.13	250.79	373.68	
				0.500	12.70	285.96	426.08	XS
60	60.000	0.625	15.88	356.61	531.35			
				0.750	19.05	426.93	636.13	
				1.000	25.40	566.57	844.19	
				0.312	7.92	199.08	296.62	
				0.375	9.53	239.02	356.14	STD
		1500	1524.0	0.438	11.13	278.88	415.53	
				0.500	12.70	318.03	473.86	XS
				0.625	15.88	396.70	591.08	
		0.750	19.05	475.04	707.80			
		1.000	25.40	630.71	939.76			

FORGED STEEL FLANGES



WELDING NECK FLANGE



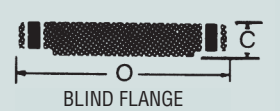
SLIP-ON FLANGE



THREADED FLANGE



LAP JOINT FLANGE



BLIND FLANGE

150 LB. FLANGES

300 LB. FLANGES

400 LB. FLANGES

Nom. Pipe Size	150 LB. FLANGES							300 LB. FLANGES							400 LB. FLANGES							
	O	C ²	Weld Neck	Y2 Slip on Thrd.	Lap Joint	Bolt Circle	No. and Size of Holes	O	C ²	Weld Neck	Y2 Slip on Thrd.	Lap Joint	Bolt Circle	No. and Size of Holes	O	C ²	Weld Neck	Y2 Slip on Thrd.	Lap Joint	Bolt Circle	No. and Size of Holes	Nom. Pipe Size
½	3 ½	¾	1 ½	¾	¾	2 ¾	4 - 5/8	3 ¾	¾	2 ½	¾	¾	2 ¾	4 - 5/8	3 ¾	¾	2 ½	¾	¾	2 ¾	4 - 5/8	¾
¾	3 ¾	¾	2 ¼	¾	¾	2 ¾	4 - 5/8	4 ¾	¾	2 ½	1	1	3 ¾	4 - 5/8	4 ¾	¾	2 ½	1	1	3 ¾	4 - 5/8	¾
1	4 ¼	¾	2 ¾	1 ¼	1 ¼	3 ¾	4 - 5/8	4 ¾	1 ¼	2 ½	1 ¼	1 ¼	3 ½	4 - 5/8	4 ¾	1 ¼	2 ½	1 ¼	1 ¼	3 ½	4 - 5/8	1
1 ¼	4 ¾	¾	2 ¾	1 ¾	1 ¾	3 ¾	4 - 5/8	5 ½	¾	2 ½	1 ¼	1 ¼	3 ¾	4 - 5/8	5 ½	1 ¾	2 ½	1 ¼	1 ¼	3 ¾	4 - 5/8	1 ¼
1 ½	5	1 ¼	2 ¾	¾	¾	3 ¾	4 - 5/8	6 ¾	1 ¼	2 ½	1 ¼	1 ¼	4 ½	4 - 5/8	6 ¾	¾	2 ½	1 ¼	1 ¼	4 ½	4 - 5/8	1 ½
2	6	¾	2 ½	1	1	4 ¾	4 - 3/4	6 ½	¾	2 ¾	1 ¼	1 ¼	5	8 - 3/4	6 ½	1	2 ¾	1 ¼	1 ¼	5	8 - 3/4	2
2 ½	7	¾	2 ½	1 ¼	1 ¼	5 ½	4 - 3/4	7 ½	1	3	1 ½	1 ½	5 ½	8 - 7/8	7 ½	1 ¼	3 ¾	1 ¼	1 ¼	5 ½	8 - 7/8	2 ½
3	7 ¾	1 ¼	2 ¾	1 ¾	1 ¾	6	4 - 3/4	8 ½	1 ¼	3 ¾	1 ¼	1 ¼	6 ¾	8 - 7/8	8 ½	1 ¼	3 ¾	1 ¼	1 ¼	6 ¾	8 - 7/8	3
3 ½	8 ½	1 ¼	2 ¾	1 ¾	1 ¾	7	8 - 3/4	9	1 ¼	3 ¾	1 ¼	1 ¼	7 ¾	8 - 7/8	9	1 ¼	3 ¾	1 ¼	1 ¼	7 ¾	8 - 1	3 ½
4	9	1 ¼	3	1 ¾	1 ¾	7 ½	8 - 3/4	10	1 ¼	3 ¾	1 ¼	1 ¼	7 ¾	8 - 7/8	10	1 ¼	3 ¾	2	2	7 ¾	8 - 1	4
5	10	1 ¼	3 ½	1 ¾	1 ¾	8 ½	8 - 7/8	11	1 ¼	3 ¾	2	2	9 ½	8 - 7/8	11	1 ½	4	2 ½	2 ½	9 ½	8 - 1	5
6	11	1	3 ½	1 ¾	1 ¾	9 ½	8 - 7/8	12 ½	1 ¼	3 ¾	2 ½	2 ½	10 ½	12 - 1/8	12 ½	1 ½	4 ¾	2 ½	2 ½	10 ½	12 - 1	6
8	13 ¼	1 ¼	4	1 ¾	1 ¾	11 ¾	8 - 7/8	15	1 ¼	4 ¾	2 ¾	2 ¾	13	12 - 1	15	1 ¼	4 ¾	2 ½	2 ½	13	12 - 1 ½	8
10	16	1 ¼	4	1 ¾	1 ¾	14 ¼	12 - 1	17 ½	1 ¼	4 ¾	2 ¾	3 ¾	15 ½	16 - 1 ½	17 ½	2 ½	4 ¾	2 ½	4	15 ½	16 - 1 ½	10
12	19	1 ¼	4 ½	2 ¾	2 ¾	17	12 - 1	20 ½	2	5 ½	2 ¾	4	17 ¾	16 - 1 ½	20 ½	2 ½	5 ¾	3 ¾	4 ¾	17 ¾	16 - 1 ½	12
14	21	1 ¾	5	2 ¾	3 ¾	18 ¾	12 - 1/4	23	2 ½	5 ¾	3	4 ¾	20 ¾	20 - 1 ½	23	2 ¾	5 ¾	3 ¾	4 ¾	20 ¾	20 - 1 ½	14
16	23 ½	1 ¾	5	2 ¾	3 ¾	21 ½	16 - 1 ½	25 ½	2 ½	5 ¾	3 ¾	4 ¾	22 ½	20 - 1 ½	25 ½	2 ¾	6	3 ¾	5	22 ½	20 - 1 ½	16
18	25	1 ¾	5 ½	2 ¾	3 ¾	22 ¾	16 - 1 ½	28	2 ¾	6 ¾	3 ¾	5 ¾	24 ¾	24 - 1 ½	28	2 ¾	6 ¾	3 ¾	5 ¾	24 ¾	24 - 1 ½	18
20	27 ½	1 ¾	5 ½	2 ¾	4 ¾	25	20 - 1 ½	30 ½	2 ¾	6 ¾	3 ¾	5 ½	27	24 - 1 ½	30 ½	2 ¾	6 ¾	4	5 ¾	27	24 - 1 ½	20
24	32	1 ¾	6	3 ¾	4 ¾	29.5	20 - 1 ½	36	2 ¾	6 ¾	4 ¾	6	32	24 - 1 ½	36	3	6 ¾	4 ¾	6 ¾	32	24 - 1 ½	24

600 LB. FLANGES

900 LB. FLANGES

1500 LB. FLANGES

¾	3 ¾	¾	2 ½	¾	¾	2 ¾	4 - 5/8	4 ¾	¾	2 ¾	1 ¼	1 ¼	3 ¾	4 - 5/8	4 ¾	¾	2 ½	1 ¼	1 ¼	3 ¾	4 - 5/8	¾
1	4 ½	¾	2 ½	1	1	3 ¾	4 - 5/8	5 ½	1	2 ¾	1 ¼	1 ¼	3 ½	4 - 5/8	5 ½	1 ¾	2 ¾	1 ¼	1 ¼	4	4 - 1	1
1 ¼	4 ¾	1 ¼	2 ¾	1 ¼	1 ¼	3 ¾	4 - 5/8	6 ¾	1 ¼	2 ¾	1 ¼	1 ¼	4 ¾	4 - 1	6 ¾	1 ¾	2 ¾	1 ¼	1 ¼	4 ¾	4 - 1	1 ¼
1 ½	5 ¼	1 ¼	2 ¾	1 ¼	1 ¼	4 ½	4 - 5/8	7	1 ¼	3 ¾	1 ¼	1 ¼	4 ¾	4 - 1 ½	7	1 ¾	3 ¾	1 ¼	1 ¼	4 ¾	4 - 1 ½	1 ½
2	6 ½	1	2 ¾	1 ¾	1 ¾	5	8 - 3/4	8 ½	1 ½	4	2 ¾	2 ¾	6 ¾	8 - 1	8 ½	1 ½	4	2 ¾	2 ¾	6 ¾	8 - 1	2
2 ½	7 ¾	1 ¼	3 ¾	1 ¾	1 ¾	5 ½	8 - 7/8	9 ¾	1 ¾	4 ¾	2 ¾	2 ¾	7 ¾	8 - 1 ½	9 ¾	1 ¾	4 ¾	2 ¾	2 ¾	7 ¾	8 - 1 ½	2 ½
3	8 ¾	1 ¼	3 ¾	1 ¾	1 ¾	6 ¾	8 - 7/8	9 ¾	1 ¾	4	2 ¾	2 ¾	7 ¾	8 - 1	10 ½	1 ¾	4 ¾	2 ¾	2 ¾	8	8 - 1 ½	3

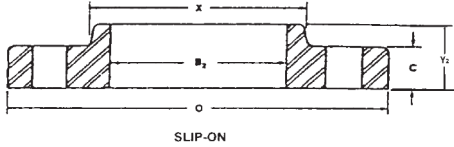
600 LB. FLANGES								900 LB. FLANGES								1500 LB. FLANGES							
3 ½	9	1 ¼	3 ¾	1 ⅝	1 ⅞	7 ¼	8 - 1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3 ½	
4	10 ¼	1 ½	4	2 ⅝	2 ¾	8 ½	8 - 1	11 ½	1 ¼	4 ½	2 ¾	2 ¾	9 ¼	8 - 1 ¼	12 ¼	2 ¾	4 ¾	3 ⅝	3 ⅝	9 ½	8 - 1 ½	4	
5	13	1 ¾	4 ½	2 ¾	2 ¾	10 ½	8 - 1 ¼	13 ¾	2	5	3 ¾	3 ¾	11	8 - 1 ½	14 ¾	2 ¾	6 ¾	4 ¾	4 ¾	11 ½	8 - 1 ½	5	
6	14	1 ¾	4 ¾	2 ¾	2 ¾	11 ½	12 - 1 ½	15	2 ⅝	5 ½	3 ¾	3 ¾	12 ½	12 - 1 ½	15 ½	3 ¾	6 ¾	4 ⅞	4 ⅞	12 ½	12 - 1 ½	6	
8	16 ½	2 ⅝	5 ¼	3	3	13 ¾	12 - 1 ½	18	2 ½	6 ¾	4	4 ¼	15 ½	12 - 1 ½	19	3 ¾	8 ¾	5 ¾	5 ¾	15 ½	12 - 1 ½	8	
10	20	2 ¾	6	3 ¾	4 ¾	17	16 - 1 ¾	21 ½	2 ¾	7 ¾	4 ¾	5	18 ½	16 - 1 ½	23	4 ¾	10	6 ¾	7	19	12 - 2	10	
12	22	2 ¾	6 ¾	3 ¾	4 ¾	19 ¼	20 - 1 ¾	24	3 ¾	7 ¾	4 ¾	5 ¾	21	20 - 1 ½	26 ½	4 ¾	11 ¾	7 ¾	8 ¾	22	16 - 2 ½	12	
14	23 ¾	2 ¾	6 ¾	3 ⅞	5	20 ¾	20 - 1 ½	25 ¼	3 ¾	8 ¾	5 ¾	6 ¾	22	20 - 1 ¾	29 ½	5 ¾	11 ¾	--	9 ¾	25	16 - 2 ¾	14	
16	27	3	7	4 ⅞	5 ½	23 ¾	20 - 1 ¾	27 ¾	3 ¾	8 ¾	5 ¾	6 ¾	24 ¼	20 - 1 ¾	32 ½	5 ¾	12 ¾	--	10 ¾	27 ¾	16 - 2 ¾	16	
18	29 ¼	3 ¾	7 ¼	4 ¾	6	25 ¾	20 - 1 ¾	31	4	9	6	7 ¾	27	20 - 2	36	6 ¾	12 ¾	--	10 ¾	30 ¾	16 - 2 ¾	18	
20	32	3 ¾	7 ½	5	6 ¾	28 ¾	24 - 1 ¾	33 ¾	4 ¾	9 ¾	6 ¾	8 ¾	29 ½	20 - 2 ¾	38 ¾	7	14	--	11 ¾	32 ¾	16 - 3 ¼	20	
24	37	4	8	5 ½	7 ¾	33	24 - 2	41	5 ¾	11 ¾	8	10 ¾	35 ½	20 - 2 ¾	46	8	16	--	13	39	16 - 3 ¾	24	
2500 LB. FLANGES								WELDING NECK FLANGE BORES 1 2															
½	5 ¼	1 ⅝	2 ¾	1 ⅞	1 ⅞	3 ¾	4 - ¾	Nom. Pipe Size	Outside Diam.	Light Wall	Sched. 20	Sched. 30	Std. Wall	Sched. 40	Sched. 60	Extra Strong	Sched. 80	Sched. 100	Sched. 120	Sched. 140	Sched. 160	Double Extra Strong	
¾	5 ½	1 ¾	3 ¾	1 ⅞	1 ⅞	3 ¾	4 - ¾	½	0.840	.674	--	--	0.622	0.622	--	0.546	0.546	--	--	--	0.464	0.252	
1	6 ½	1 ¾	3 ¾	1 ¾	1 ¾	4 ¼	4 - 1	¾	1.050	.884	--	--	0.824	0.824	--	0.742	0.742	--	--	--	0.612	0.434	
1 ¼	7 ¾	1 ¾	3 ¾	2 ⅞	2 ⅞	5 ¾	4 - 1 ½	1	1.315	1.097	--	--	1.049	1.049	--	0.957	0.957	--	--	--	0.815	0.599	
1 ½	8	1 ¾	4 ¾	2 ¾	2 ¾	5 ¾	4 - 1 ¼	1 ¼	1.660	1.442	--	--	1.380	1.380	--	1.278	1.278	--	--	--	1.160	0.896	
2	9 ¼	2	5	2 ¾	2 ¾	6 ¾	8 - 1 ¼	1 ½	1.900	1.682	--	--	1.610	1.610	--	1.500	1.500	--	--	--	1.338	1.100	
2 ½	10 ½	2 ¼	5 ¾	3 ¾	3 ¾	7 ¾	8 - 1 ½	2	2.375	2.157	--	--	2.067	2.067	--	1.939	1.939	--	--	--	1.687	1.503	
3	12	2 ¾	6 ¾	3 ¾	3 ¾	9	8 - 1 ¾	2 ½	2.875	2.635	--	--	2.469	2.469	--	2.323	2.323	--	--	--	2.125	1.771	
4	14	3	7 ¼	4 ¾	4 ¾	10 ¾	8 - 1 ¾	3	3.500	3.260	--	--	3.068	3.068	--	2.900	2.900	--	--	--	2.624	2.300	
5	16 ½	3 ¾	9	5 ¾	5 ¾	12 ¾	8 - 1 ¾	3 ½	4.000	3.760	--	--	3.548	3.548	--	3.364	3.364	--	--	--	--	2.728	
6	19	4 ¼	10 ¼	6	6	14 ¾	8 - 2 ¼	4	4.500	4.260	--	--	4.026	4.026	--	3.826	3.826	--	3.624	--	3.438	3.152	
8	21 ¼	5	12 ¼	7	7	17 ¼	12 - 2 ¼	5	5.563	5.295	--	--	5.047	5.047	--	4.813	4.813	--	4.563	--	4.313	4.063	
10	26 ½	6 ½	16 ¼	9	9	21 ¼	12 - 2 ½	6	6.625	6.357	--	--	6.065	6.065	--	5.761	5.761	--	5.501	--	5.187	4.897	
12	30	7 ¾	18 ¼	10	10	24 ¾	12 - 2 ¾	8	8.625	8.329	8.125	8.071	7.981	7.981	7.813	7.625	7.625	7.437	7.187	7.001	6.813	6.875	
								10	10.750	10.420	10.250	10.136	10.020	10.020	9.750	9.750	9.562	9.312	9.062	8.750	8.500	8.750	
								12	12.750	12.390	12.250	12.090	12.000	11.938	11.626	11.750	11.374	11.062	10.750	10.500	10.126	10.750	
								14	14.000	13.500	13.376	13.250	13.250	13.124	12.812	13.000	12.500	12.124	11.812	11.500	11.188	--	
								16	16.000	15.500	15.376	15.250	15.250	15.000	14.688	15.000	14.312	13.938	13.562	13.124	12.812	--	
								18	18.000	17.500	17.376	17.124	17.125	16.876	16.500	17.000	16.124	15.688	15.250	14.876	14.438	--	
								20	20.000	19.500	19.250	19.000	19.250	18.812	18.376	19.000	17.938	17.438	17.000	16.500	16.062	--	
								24	24.000	23.500	23.250	22.876	23.250	22.624	22.062	23.000	21.562	20.938	20.376	19.876	19.312	--	
								30	30.000	29.376	29.000	28.750	29.250	--	--	29.000	--	--	--	--	--	--	
								36	36.000	35.376	35.000	34.750	35.250	34.500	--	35.000	--	--	--	--	--	--	
								42	42.000	--	41.000	40.750	41.250	40.500	--	41.000	--	--	--	--	--	--	

NOTES

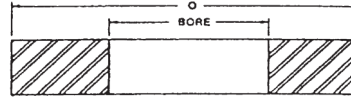
- Always specify bore when ordering.
- Includes 1/16" raised face for 150 lb. and 300 lb. Does not include 1/4" raised face for 400 lb. and greater ANSI rated flanges.
- Inside pipe diameters are also provided by this table.
- Other types, sizes and facings on application.
- Stocked in carbon steel.

46	--	--	--	--	--	--	--	--	--	--	--	--	--	--
48	--	--	--	--	--	--	--	--	--	--	--	--	--	--
50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
54	--	--	--	--	--	--	--	--	--	--	--	--	--	--
56	--	--	--	--	--	--	--	--	--	--	--	--	--	--
58	--	--	--	--	--	--	--	--	--	--	--	--	--	--
60	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES: Dimensions for Classes 400, 600, and 900 NPS 38 and larger for Series B flanges are the same as for the Series A flanges.
* Welding Neck flanges only.



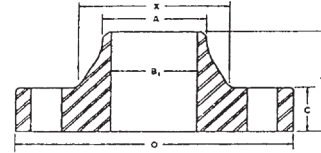
SLIP-ON



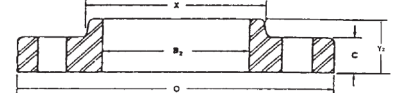
RING

46	--	--	--	--	--	--	--	--	--	--	--	--	--	--
48	--	--	--	--	--	--	--	--	--	--	--	--	--	--
50	--	--	--	--	--	--	--	--	--	--	--	--	--	--
52	--	--	--	--	--	--	--	--	--	--	--	--	--	--
54	--	--	--	--	--	--	--	--	--	--	--	--	--	--
56	--	--	--	--	--	--	--	--	--	--	--	--	--	--
58	--	--	--	--	--	--	--	--	--	--	--	--	--	--
60	--	--	--	--	--	--	--	--	--	--	--	--	--	--

NOTES: Dimensions for Classes 400, 600, and 900 NPS 38 and larger for Series B flanges are the same as for the Series A flanges.
* Welding Neck flanges only.



WELDING NECK



SLIP-ON

CLASS 125 LW & AWWA C207 CLASSES B, D

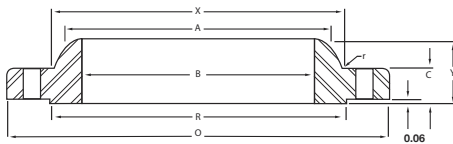
Nominal Pipe Size	Outside Diameter O	Thickness C			Hub Dia. X	Bore	Length Thru Hub Y	Drilling				Weight 125 LW
		Slip-On 125 LW B, D	Ring B D					Bolt Circle	B	125 LW D	Number of Holes	
26	34.25	1.00	0.81	1.31	28.50	26.25	1.75	31.75	0.88	1.38	24	125
28	36.50	1.00	0.88	1.31	30.50	28.25	1.75	34.00	0.88	1.38	28	140
30	38.75	1.00	0.88	1.38	32.50	30.25	1.75	36.00	1.00	1.38	28	150
32	41.75	1.13	0.94	1.50	34.75	32.25	1.75	38.50	1.00	1.63	28	205
34	43.75	1.13	0.94	1.50	36.75	34.25	1.75	40.50	1.00	1.63	32	215
36	46.00	1.13	1.00	1.63	38.75	36.25	1.75	42.75	1.00	1.63	32	235
38	48.75	1.13	1.00	1.63	40.75	38.25	1.75	45.25	1.00	1.63	32	265
40	50.75	1.13	1.00	1.63	43.00	40.25	1.75	47.25	1.00	1.63	36	280
42	53.00	1.25	1.13	1.75	45.00	42.25	1.75	49.50	1.13	1.63	36	330
44	55.25	1.25	1.13	1.75	47.00	44.25	2.25	51.75	1.13	1.63	40	350
46	57.25	1.25	1.13	1.75	49.00	46.25	2.25	53.75	1.13	1.63	40	365
48	59.50	1.38	1.25	1.75	51.00	48.25	2.50	56.00	1.13	1.63	44	425
50	61.75	1.38	1.25	2.00	53.00	50.25	2.50	58.25	1.25	1.88	44	450
52	64.00	1.38	1.25	2.00	55.00	52.25	2.50	60.50	1.25	1.88	44	475
54	66.25	1.38	1.33	2.13	57.00	54.25	2.50	62.75	1.38	1.88	44	500
60	73.00	1.50	1.50	2.25	63.00	60.25	2.75	69.25	1.38	1.88	52	640
66	80.00	1.50	1.63	2.50	69.00	66.25	2.75	76.00	1.38	1.88	52	750
72	86.50	1.50	1.75	2.63	75.00	72.25	2.75	82.50	1.38	1.88	60	850
84	99.75	1.75	2.00	2.75	87.50	84.25	3.00	95.50	1.63	2.13	64	1225
96	113.25	2.00	2.25	3.00	100.00	96.25	3.25	108.50	1.88	2.38	68	1725

NOTES: Blind Flanges will be furnished to thickness listed above unless otherwise specified.

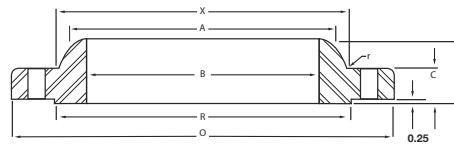
CLASS 125 & AWWA C207 CLASS E

Nominal Size	Outside Diameter O	Thickness C	Hub Dia. X	Bore		Length Thru Hub		Diam. Hub at Bevel "A"	Drilling			Approx. Weight	
				Welding Neck B ₁	Slip-On B ₂	Slip-On Y ₂	Welding Neck Y ₁		Bolt Circle	Diam. of Holes	Number of Holes	Welding Neck	Slip-On
26	34.25	2.00	28.50	<i>To be specified by purchaser</i>	26.25	3.38	5.00	26.00	31.75	1.38	24	265	235
28	36.50	2.06	30.75		28.25	3.44	5.06	28.00	34.00	1.38	28	295	270
30	38.75	2.13	32.75		30.25	3.50	5.13	30.00	36.00	1.38	28	340	305
32	41.75	2.25	35.00		32.25	3.63	5.25	32.00	38.50	1.63	28	410	375
34	43.75	2.31	37.00	34.25	3.68	5.31	34.00	40.50	1.63	32	440	400	
36	46.00	2.38	39.25	36.25	3.75	5.38	36.00	42.75	1.63	32	495	450	
38	48.75	2.38	41.75	38.25	3.75	5.38	38.00	45.25	1.63	32	570	530	
40	50.75	2.50	43.75	40.25	3.88	5.50	40.00	47.25	1.63	36	620	570	
42	53.00	2.63	46.00	42.25	4.00	5.63	42.00	49.50	1.63	36	710	650	
44	55.25	2.63	48.00	44.25	4.00	5.63	44.00	51.75	1.63	40	750	690	
46	57.25	2.68	50.00	46.25	4.06	5.68	46.00	53.75	1.63	40	800	730	
48	59.50	2.75	52.25	48.25	4.13	5.75	48.00	56.00	1.63	44	870	800	
50	61.75	2.75	54.25	50.25	4.13	5.75	50.00	58.25	1.88	44	900	830	
52	64.00	2.88	56.50	52.25	4.25	5.88	52.00	60.50	1.88	44	1000	920	
54	66.25	3.00	58.75	54.25	4.38	6.00	54.00	62.75	1.88	44	1100	1025	
60	73.00	3.13	65.25	60.25	4.50	6.13	60.00	69.25	1.88	52	1350	1250	
66	80.00	3.38	71.50	66.25	4.88	6.38	66.00	76.00	1.88	52	1775	1625	
72	86.50	3.50	78.50	72.25	5.00	6.50	72.00	82.50	1.88	60	2100	1925	
84	99.75	3.88	90.50	84.25	5.38	6.88	84.00	95.50	2.13	64	2825	2600	
96	113.25	4.25	102.75	96.25	5.75	7.25	96.00	108.50	2.38	68	3800	3275	

NOTES: 1. Blind Flanges will be furnished to same thickness as above unless otherwise specified
2. Slip-On Flange is identical to AWWA C207 CL E.
3. These Flanges are commonly classed as 150# and have the same diameter and drilling as 150# MSS and 125 Cast Iron Flanges per ANSI B16.1.



WELDING NECK FLANGE 150 LB AND 300 LB




WELDING NECK FLANGE 400 LB AND GREATER

150 LB. FLANGES (B16.47 SERIES A)

Nominal Pipe Size	O.D. of Flange		Thickness of Flange, Min.		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Fillet Radius Min.	Approx. Weight	
	O	C	WNF	BLIND					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole		Diam. of Bolt	r
			C	C	Y	X	A	R						
26	34.25	2.69	2.69	4.75	26.62	26.00	29.50	31.75	24	1.38	1 1/4	0.38	300	670
28	36.50	2.81	2.81	4.94	28.62	28.00	31.50	34.00	28	1.38	1 1/4	0.44	345	795
30	38.75	2.94	2.94	5.38	30.75	30.00	33.75	36.00	28	1.38	1 1/4	0.44	400	940
32	41.75	3.19	3.19	5.69	32.75	32.00	36.00	38.50	28	1.62	1 1/2	0.44	505	1175
34	43.75	3.25	3.25	5.88	34.75	34.00	38.00	40.50	32	1.62	1 1/2	0.50	540	1315
36	46.00	3.56	3.56	6.19	36.75	36.00	40.25	42.75	32	1.62	1 1/2	0.50	640	1590
38	48.75	3.44	3.44	6.19	39.00	38.00	42.25	45.25	32	1.62	1 1/2	0.50	720	1740
40	50.75	3.56	3.56	6.44	41.00	40.00	44.25	47.25	36	1.62	1 1/2	0.50	775	1955
42	53.00	3.81	3.81	6.75	43.00	42.00	47.00	49.50	36	1.62	1 1/2	0.50	890	2290
44	55.25	4.00	4.00	7.00	45.00	44.00	49.00	51.75	40	1.62	1 1/2	0.50	990	2790
46	57.25	4.06	4.06	7.31	47.12	46.00	51.00	53.75	40	1.62	1 1/2	0.50	1060	3050
48	59.50	4.25	4.25	7.56	49.12	48.00	53.50	56.00	44	1.62	1 1/2	0.50	1185	3220
50	61.75	4.38	4.38	8.00	51.25	50.00	55.50	58.25	44	1.88	1 3/4	0.50	1270	3545
52	64.00	4.56	4.56	8.25	53.25	52.00	57.50	60.50	44	1.88	1 3/4	0.50	1410	3990
54	66.25	4.75	4.75	8.50	55.25	54.00	59.50	62.75	44	1.88	1 3/4	0.50	1585	4455
56	68.75	4.88	4.88	9.00	57.38	56.00	62.00	65.00	48	1.88	1 3/4	0.50	1760	4920
58	71.00	5.06	5.06	9.25	59.38	58.00	64.00	67.25	48	1.88	1 3/4	0.50	1915	5465
60	73.00	5.19	5.19	9.44	61.38	60.00	66.00	69.25	52	1.88	1 3/4	0.50	2045	5800

300 LB. FLANGES (B16.47 SERIES A)

Nominal Pipe Size	O.D. of Flange		Thickness of Flange, Min.		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Fillet Radius Min.	Approx. Weight	
	O	C	WNF	BLIND					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole		Diam. of Bolt	r
			C	C	Y	X	A	R						
26	38.25	3.12	3.31	7.25	28.38	26.00	29.50	34.50	28	1.75	1 1/2	0.38	605	1010
28	40.75	3.38	3.56	7.75	30.50	28.00	31.50	37.00	28	1.75	1 1/2	0.44	745	1240
30	43.00	3.62	3.75	8.25	32.56	30.00	33.75	39.25	28	1.88	1 3/4	0.44	870	1450
32	45.25	3.88	3.94	8.75	34.69	32.00	36.00	41.50	28	2.00	1 7/8	0.44	1005	1685
34	47.50	4.00	4.12	9.12	36.88	34.00	38.00	43.50	28	2.00	1 7/8	0.50	1145	1915
36	50.00	4.12	4.38	9.50	39.00	36.00	40.25	46.00	32	2.12	2	0.50	1275	2280
38	46.00	4.25	4.25	7.12	39.12	38.00	40.50	43.00	32	1.62	1 1/2	0.50	695	1910
40	48.75	4.50	4.50	7.62	41.12	40.00	42.75	45.50	32	1.75	1 3/4	0.50	840	2270
42	50.75	4.69	4.69	7.88	43.25	42.00	44.75	47.50	32	1.75	1 3/4	0.50	950	2570
44	53.25	4.88	4.88	8.12	45.25	44.00	47.00	49.75	32	1.88	1 3/4	0.50	1055	2940
46	55.75	5.06	5.06	8.50	47.38	46.00	49.00	52.00	28	2.00	1 1/2	0.50	1235	3370
48	57.75	5.25	5.25	8.81	49.38	48.00	51.25	54.00	32	2.00	1 1/2	0.50	1380	3740
50	60.25	5.50	5.50	9.12	51.38	50.00	53.50	56.25	32	2.12	2	0.50	1530	4270
52	62.25	5.69	5.69	9.38	53.38	52.00	55.50	58.25	32	2.12	2	0.50	1660	4715
54	65.25	6.00	6.00	9.94	55.50	54.00	57.75	61.00	28	2.38	2 1/4	0.50	2050	5460
56	67.25	6.06	6.06	10.25	57.62	56.00	59.75	63.00	28	2.38	2 1/4	0.50	2155	5870
58	69.25	6.25	6.25	10.50	59.62	58.00	62.00	65.00	32	2.38	2 1/4	0.50	2270	6400
60	71.25	6.44	6.44	10.75	61.62	60.00	64.00	67.00	32	2.38	2 1/4	0.50	2470	7000

400 LB. FLANGES (B16.47 SERIES A)

Nominal Pipe Size	O.D. of Flange		Thickness of Flange, Min.		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Fillet Radius Min.	Approx. Weight	
	O	C	WNF	BLIND					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole		Diam. of Bolt	r
			C	C	Y	X	A	R						
26	38.25	3.50	3.88	7.62	28.62	26.00	29.50	34.50	28	1.88	1 3/4	0.44	650	1225
28	40.75	3.75	4.12	8.12	30.81	28.00	31.50	37.00	28	2.00	1 7/8	0.50	785	1475
30	43.00	4.00	4.38	8.62	32.94	30.00	33.75	39.25	28	2.12	2	0.50	905	1740
32	45.25	4.25	4.56	9.12	35.00	32.00	36.00	41.50	28	2.12	2	0.50	1065	2020
34	47.50	4.38	4.81	9.50	37.19	34.00	38.00	43.50	28	2.12	2	0.56	1200	2355

600 LB. FLANGES (B16.47 SERIES A)

Nominal Pipe Size	O.D. of Flange		Thickness of Flange, Min.		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling			Fillet Radius Min.	Approx. Weight	
	O	C	WNF	BLIND					Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole		Diam. of Bolt	r
			C	C	Y	X	A	R						
26	40.00	4.25	4.94	8.75	29.44	26.00	29.50	36.00	28	2.00	1 7/8	0.50	940	1680
28	42.25	4.38	5.19	9.25	31.62	28.00	31.50	38.00	28	2.12	2	0.50	1060	1970
30	44.50	4.50	5.50	9.75	33.94	30.00	33.75	40.25	28	2.12	2	0.50	1210	2423
32	47.00	4.62	5.81	10.25	36.12	32.00	36.00	42.50	28	2.38	2 1/4	0.50	1375	2575
34	49.00	4.75	6.06	10.62	38.31	34.00	38.00	44.50	28	2.38	2 1/4	0.56	1540	3100

36	50.00	4.50	5.06	9.88	39.38	36.00	40.25	46.00	32	2.12	2	0.56	1340	2735
38	47.50	4.88	4.88	8.12	39.50	38.00	40.75	44.00	32	1.88	1 1/4	0.56	935	2415
40	50.00	5.12	5.12	8.50	41.50	40.00	43.00	46.25	32	2.00	1 1/2	0.56	1090	2800
42	52.00	5.25	5.25	8.81	43.62	42.00	45.00	48.25	32	2.00	1 1/2	0.56	1190	3115
44	54.50	5.50	5.50	9.18	45.62	44.00	47.25	50.50	32	2.12	2	0.56	1375	3575
46	56.75	5.75	5.75	9.62	47.75	46.00	49.50	52.75	36	2.12	2	0.56	1525	4040
48	59.50	6.00	6.00	10.12	49.88	48.00	51.50	55.25	28	2.38	2 1/4	0.56	1790	4655
50	61.75	6.19	6.25	10.56	52.00	50.00	53.62	57.50	32	2.38	2 1/4	0.56	1950	4880
52	63.75	6.38	6.44	10.88	54.00	52.00	55.62	59.50	32	2.38	2 1/4	0.56	2125	5720
54	67.00	6.69	6.75	11.38	56.12	54.00	57.88	62.25	28	2.62	2 1/2	0.56	2565	6625
56	69.00	6.88	6.94	11.75	58.25	56.00	60.12	64.25	32	2.62	2 1/2	0.56	2710	6800
58	71.00	7.00	7.12	12.06	60.25	58.00	62.12	66.25	32	2.62	2 1/2	0.56	3230	7850
60	74.25	7.31	7.44	12.56	62.38	60.00	64.38	69.00	32	2.88	2 3/4	0.56	3820	8900

36	51.75	4.88	6.38	11.12	40.62	36.00	40.25	47.00	28	2.62	2 1/2	0.56	1705	3610
38	50.00	6.00	6.12	10.00	40.25	38.00	41.50	45.75	28	2.38	2 1/4	0.56	1470	3280
40	52.00	6.25	6.38	10.38	42.25	40.00	43.75	47.75	32	2.38	2 1/4	0.56	1630	3680
42	55.25	6.62	6.75	11.00	44.38	42.00	46.00	50.50	28	2.62	2 1/2	0.56	2030	4400
44	57.25	6.81	7.00	11.38	46.50	44.00	48.25	52.50	32	2.62	2 1/2	0.56	2160	4885
46	59.50	7.06	7.31	11.81	48.62	46.00	50.25	54.75	32	2.62	2 1/2	0.56	2410	5530
48	62.75	7.44	7.69	12.44	50.75	48.00	52.50	57.50	32	2.88	2 3/4	0.56	2855	6425
50	65.75	7.75	8.00	12.94	52.88	50.00	54.50	60.00	28	3.12	3	0.56	3330	7360
52	67.75	8.00	8.25	13.25	54.88	52.00	56.50	62.00	32	3.12	3	0.56	3560	8015
54	70.00	8.25	8.56	13.75	57.00	54.00	58.75	64.25	32	3.12	3	0.56	3920	8915
56	73.00	8.56	8.88	14.25	59.12	56.00	60.75	66.75	32	3.38	3 1/4	0.62	4220	10000
58	75.00	8.75	9.12	14.56	61.12	58.00	63.00	68.75	32	3.38	3 1/4	0.62	4640	10880
60	78.50	9.19	9.56	15.31	63.38	60.00	65.25	71.75	28	3.62	3 1/2	0.69	5000	12030

900 LB. FLANGES (B16.47 SERIES A)

Nominal Pipe Size	O.D. of Flange	Thickness of Flange, Min.		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling				Approx. Weight						
		WNF	BLND					Y	X	A	R	Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt	Fillet Radius Min.	Welding Neck	
																	Welding Neck	Blind
26	42.75	5.50	6.31	11.25	30.50	26.00	29.50	37.50	20	2.88	2 3/4	0.44	1525	2400				
28	46.00	5.62	6.75	11.75	32.75	28.00	31.50	40.25	20	3.12	3	0.50	1810	2945				
30	48.50	5.88	7.18	12.25	35.00	30.00	33.75	42.75	20	3.12	3	0.50	2120	3500				
32	51.75	6.25	7.62	13.00	37.25	32.00	36.00	45.50	20	3.38	3 1/4	0.50	2545	4230				
34	55.00	6.50	8.06	13.75	39.62	34.00	38.00	48.25	20	3.62	3 1/2	0.56	2970	5030				
36	57.50	6.75	8.44	14.25	41.88	36.00	40.25	50.75	20	3.62	3 1/2	0.56	3395	5800				
38	57.50	7.50	8.50	13.88	42.25	38.00	43.25	50.75	20	3.62	3 1/2	0.75	3385	5825				
40	59.50	7.75	8.81	14.31	44.38	40.00	45.75	52.75	24	3.62	3 1/2	0.81	3620	6390				
42	61.50	8.12	9.12	14.62	46.31	42.00	47.75	54.75	24	3.62	3 1/2	0.81	3960	7110				
44	64.88	8.44	9.56	15.38	48.62	44.00	50.00	57.62	24	3.88	3 3/4	0.88	4300	8265				
46	68.25	8.88	10.86	16.18	50.88	46.00	52.50	60.50	24	4.12	4	0.88	4640	10345				
48	70.25	9.19	10.38	16.50	52.88	48.00	54.50	62.50	24	4.12	4	0.94	4980	10600				
50	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
52	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
54	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
56	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
58	--	--	--	--	--	--	--	--	--	--	--	--	--	--				
60	--	--	--	--	--	--	--	--	--	--	--	--	--	--				

150 LB. FLANGES (B16.47 SERIES B)

Nominal Pipe Size	O.D. of Flange	Thickness of Flange Min.		Length Through Hub	Diam. of Hub	Hub Diam. Top	Raised Face Diam.	Drilling				Fillet Radius Min.	Approx. Weight				
		WNF	BLND					Y	X	A	R			Diam. of Bolt Circle	No. of Bolt Holes	Diam. of Bolt Hole	Diam. of Bolt
26	30.94	1.62	3.50	26.94	26.06	28.00	29.31	36	0.88	3/4	0.38	120					
28	32.94	1.75	3.75	28.94	28.06	30.00	31.31	40	0.88	3/4	0.38	140					
30	34.94	1.75	3.94	31.00	30.06	32.00	33.31	44	0.88	3/4	0.38	150					
32	37.06	1.81	4.25	33.06	32.06	34.00	35.44	48	0.88	3/4	0.38	170					
34	39.56	1.94	4.34	35.12	34.06	36.25	37.69	40	1.00	7/8	0.38	210					
36	41.62	2.06	4.62	37.19	36.06	38.25	39.75	44	1.00	7/8	0.38	240					
38	44.25	2.12	4.88	39.25	38.12	40.25	42.12	40	1.12	1	0.38	290					
40	46.25	2.19	5.06	41.31	40.12	42.50	44.12	44	1.12	1	0.38	310					
42	48.25	2.31	5.25	43.38	42.12	44.50	46.12	48	1.12	1	0.44	345					
44	50.25	2.38	5.38	45.38	44.12	46.50	48.12	52	1.12	1	0.44	370					
46	52.81	2.44	5.69	47.44	46.12	48.62	50.56	40	1.25	1 1/8	0.44	435					
48	54.81	2.56	5.88	49.50	48.12	50.75	52.56	44	1.25	1 1/8	0.44	480					
50	56.81	2.69	6.06	51.50	50.12	52.75	54.56	48	1.25	1 1/8	0.44	520					
52	58.81	2.75	6.19	53.56	52.12	54.75	56.56	52	1.25	1 1/8	0.44	550					
54	61.00	2.81	6.38	55.62	54.12	56.75	58.75	56	1.25	1 1/8	0.44	620					
56	63.00	2.88	6.56	57.69	56.12	58.75	60.75	60	1.25	1 1/8	0.56	650					
58	65.94	2.94	6.88	59.69	58.12	60.75	63.44	48	1.38	1 1/4	0.56	780					
60	67.94	3.00	7.06	61.81	60.12	63.00	65.44	52	1.38	1 1/4	0.56	850					

NOTES * Welding Neck flanges only.



FLANGES

APPROXIMATE WEIGHT (LBS.)

Press. Class	Nom. Pipe Size	Weld Neck	Slip-On	Thd	Lap Joint	Blind	Socket Type
	1/2	2	1	1	1	2	2
	3/4	2	1.5	1.5	1.5	2	2
	1	2.5	2	2	2	2	2
	1-1/4	2.5	2.5	2.5	2.5	3	3
	1-1/2	4	3	3	3	3	3
150	2	6	5	5	5	4	5
	2-1/2	10	8	8	8	7	7
	3	11.5	9	10	9	9	8
	3-1/2	12	11	12	11	13	
	4	16.5	13	13	12	17	
	5	21	15	15	13	20	
	6	26	17	19.5	18	27	
	8	42	28	30	28	47	
	10	54	40	41	36	67	
	12	88	61	65	60	123	
	14	114	83	85	77	139	
	16	142	106	93	104	187	
	18	165	109	120	146	217	
	20	197	148	155	159	283	
	24	268	204	210	195	415	
300	1/2	2	1.5	1.5	1.5	2	3
	3/4	3	2.5	2.5	2.5	3	3
	1	4	3	3	3	4	3
	1-1/4	5	4.5	4.5	4.5	6	4
	1-1/2	7	6.5	6.5	6.5	7	6
	2	8	7	7	7	8	7
	2-1/2	12	10	10	10	12	10
	3	18	13	14	14.5	16	13
	3-1/2	20	16	16	16	21	
	4	26.5	23.5	24	24	28	
5	36	29	31	26	37		
6	45	36	36	38	48		
8	69	56	56	55	79		
10	100	77	80	88	122		
12	142	113	110	139	183		
14	206	159	164	184	241		
16	249	210	220	234	315		
18	306	253	280	305	414		
20	369	307	325	375	515		
24	579	490	490	530	800		
400	4	30	24	24	22	33	
	5	39	31	31	29	44	
	6	49	39	39	37	61	
	8	78	63	63	59	100	
	10	110	91	91	95	155	
	12	160	129	129	152	226	
	14	233	191	191	210	310	
	16	294	253	253	280	398	
	18	360	310	310	345	502	
	20	445	378	378	420	621	
24	640	539	539	615	936		
600	1/2	3	2	2	2	2	3
	3/4	3.5	3	3	3	3	3
	1	4	3.5	3.5	3.5	4	4
	1-1/4	5.5	4.5	4.5	4.5	6	6
	1-1/2	8	6.5	6.5	6.5	8	7

Press. Class	Nom. Pipe Size	Weld Neck	Slip-On	Thd	Lap Joint	Blind	Socket Type
	2	10	8	8	8	10	9
	2-1/2	14	12	12	11	15	13
	3	18	15	15	14	20	16
	3-1/2	26	21	21	20	29	
	4	37	33	33	31	41	
600	5	68	63	63	63	68	
	6	73	80	80	78	86	
	8	112	97	97	112	139	
	10	189	177	177	195	231	
	12	226	215	215	240	295	
	14	347	259	259	290	378	
	16	481	366	366	400	527	
	18	555	475	476	469	665	
	20	690	612	612	604	855	
	24	977	876	876	866	1175	
900	3	29	31	31	25	32	
	4	51	53	53	51	54	
	5	86	83	83	81	87	
	6	110	108	108	105	113	
	8	187	172	172	188	197	
	10	268	245	245	277	290	
	12	372	326	326	371	413	
	14	562	380	380	397	494	
	16	685	459	459	488	619	
	18	924	647	647	670	880	
20	1164	792	792	868	1107		
24	2107	1480	1480	1659	2099		
1500	1/2	7	6	6	6	4	6.25
	3/4	7	6	6	6	6	6.25
	1	8.5	7.5	7.5	7.5	9	8
	1-1/4	10	10	10	10	10	11
	1-1/2	14	14	14	14	14	15
	2	24	22	22	21	25	24
	2-1/2	36	36	36	29	35	38
	3	48		48	38	48	
	4	69		73	75	73	
	5	132		132	138	142	
6	164		164	170	159		
8	273		258	286	302		
10	454		436	485	507		
12	690		667	749	775		
14							
16							
18							
20							
24							
WEIGHT UPON APPLICATION							
2500	1/2	8		7	7	7	
	3/4	9		9	8	10	
	1	13		12	12	12	
	1-1/4	20		18	17	18	
	1-1/2	28		25	24	25	
	2	42		38	37	39	
	2-1/2	52		55	53	56	
	3	94		83	80	86	
	4	146		127	122	133	
	5	244		210	204	223	
6	378		323	314	345		
8	576		485	471	533		
10	1068		925	897	1025		
12	1608		1300	1262	1464		

Weights of Class 400 flanges, sizes NPS 1/2 through 3-1/2 are same as class 600.
 Weights of Class 900 flanges, sizes NPS 1/2 through 2-1/2 are same as class 1500.

FORGED STEEL FLANGE WEIGHT, BOLT & GASKET INFORMATION

'R' numbers of API and ANSI for standard ring-joint flanges

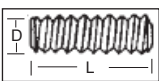
ANSI
600 - API 2000
900 - API 3000
1500 - API 5000
* With lapped flanges use no. R30 instead of no. R31

PIPE SIZE	150#	300# 400# 600#				PIPE SIZE	150#	300# 400# 600#			
		900#	1500#	2500#	900#			1500#	2500#		
1/2"	--	R-11	R-12	R-12	R-13	5"	R-40	R-41	R-41	R-44	R-42
3/4"	--	R-13	R-14	R-14	R-16	6"	R-43	R-45	R-45	R-46	R-47
1"	R-15	R-16	R-16	R-16	R-18	8"	R-48	R-49	R-49	R-50	R-51
1 1/4"	R-17	R-18	R-18	R-18	R-21	10"	R-52	R-53	R-53	R-54	R-55
1 1/2"	R-19	R-20	R-20	R-20	R-23	12"	R-56	R-57	R-57	R-58	R-60
2"	R-22	R-23	R-24	R-24	R-26	14"	R-59	R-61	R-62	R-63	--
2 1/2"	R-25	R-26	R-27	R-27	R-28	16"	R-64	R-65	R-66	R-67	--
3"	R-29	R-31*	R-31	R-35	R-32	18"	R-68	R-69	R-70	R-71	--
3 1/2"	R-33	R-34	--	--	--	20"	R-72	R-73	R-74	R-75	--
4"	R-36	R-37	R-37	R-39	R-38	24"	R-76	R-77	R-78	R-79	--

Diameter and length of alloy steel stud bolts for 5/8 and 3/4 inch raised face flanges
ANSI B 16.5

NOMINAL PIPE SIZE	150	300	400	600	900	1500	2500
	1/16 RAISED FACE	1/16 RAISED FACE	1/4 RAISED FACE	1/4 RAISED FACE	1/4 RAISED FACE	1/4 RAISED FACE	1/4 RAISED FACE
1/2	4 - 1/2 x 2 1/4	4 - 1/2 x 2 1/2	4 - 1/2 x 3	4 - 1/2 x 3	4 - 3/4 x 4	4 - 3/4 x 4	4 - 3/4 x 4 3/4
3/4	4 - 1/2 x 2 1/2	4 - 5/8 x 3	4 - 5/8 x 3 1/2	4 - 5/8 x 3 1/2	4 - 3/4 x 4 1/4	4 - 3/4 x 4 1/4	4 - 3/4 x 4 3/4
1	4 - 1/2 x 2 1/2	4 - 5/8 x 3 1/4	4 - 5/8 x 3 1/2	4 - 5/8 x 3 1/2	4 - 7/8 x 4 1/4	4 - 7/8 x 4 1/4	4 - 7/8 x 5 1/4
1 1/4	4 - 1/2 x 2 1/4	4 - 5/8 x 3 1/4	4 - 5/8 x 3 3/4	4 - 5/8 x 3 3/4	4 - 7/8 x 5	4 - 7/8 x 5	4 - 1 x 6
1 1/2	4 - 1/2 x 2 3/4	4 - 3/4 x 3 1/2	4 - 3/4 x 4	4 - 3/4 x 4	4 - 1 x 5 1/4	4 - 1 x 5 1/4	4 - 1 1/8 x 6 1/2
2	4 - 5/8 x 3 1/4	8 - 5/8 x 3 1/2	8 - 5/8 x 4 1/4	8 - 5/8 x 4 1/4	8 - 7/8 x 5 1/2	8 - 7/8 x 5 1/2	8 - 1 x 6 3/4
2 1/2	4 - 5/8 x 3 1/2	8 - 3/4 x 4	8 - 3/4 x 4 3/4	8 - 3/4 x 5	8 - 1 x 6 1/4	8 - 1 x 6 1/4	8 - 1 1/8 x 7 3/4
3	4 - 5/8 x 3 1/2	8 - 3/4 x 4 1/4	8 - 3/4 x 5	8 - 3/4 x 5	8 - 7/8 x 5 1/2	8 - 1 1/8 x 6 3/4	8 - 1 1/4 x 8 1/2
3 1/2	8 - 5/8 x 3 1/2	8 - 3/4 x 4 1/4	8 - 7/8 x 5 1/2	8 - 7/8 x 5 1/2	-----	-----	-----
4	8 - 5/8 x 3 1/2	8 - 3/4 x 4 1/4	8 - 7/8 x 5 1/2	8 - 7/8 x 5 1/2	8 - 1 1/8 x 6 1/2	8 - 1 1/4 x 7 1/2	8 - 1 1/2 x 9 3/4
5	8 - 3/4 x 3 3/4	8 - 3/4 x 4 3/4	8 - 7/8 x 5 3/4	8 - 1 x 6 1/2	8 - 1 1/4 x 7 1/2	8 - 1 1/2 x 9 3/4	8 - 1 3/4 x 11 3/4
6	8 - 3/4 x 4	12 - 3/4 x 4 3/4	12 - 7/8 x 6	12 - 1 x 6 3/4	12 - 1 1/8 x 7 1/2	12 - 1 1/8 x 10	8 - 2 x 13 1/2
8	8 - 3/4 x 4 1/4	12 - 7/8 x 5 1/2	12 - 1 x 6 3/4	12 - 1 1/8 x 7 3/4	12 - 1 1/8 x 8 1/2	12 - 1 1/8 x 11 1/4	12 - 2 x 15
10	12 - 7/8 x 4 3/4	16 - 1 x 6 1/4	16 - 1 1/8 x 7 1/2	16 - 1 1/4 x 8 1/2	16 - 1 1/4 x 9	12 - 1 1/8 x 13 1/4	12 - 2 1/2 x 19
12	12 - 7/8 x 4 3/4	16 - 1 1/8 x 6 3/4	16 - 1 1/4 x 8	20 - 1 1/4 x 8 3/4	20 - 1 1/8 x 9 3/4	16 - 2 x 14 1/4	12 - 2 3/4 x 21
14	12 - 1 x 5 1/4	20 - 1 1/8 x 7	20 - 1 1/4 x 8 1/4	20 - 1 1/8 x 9 1/2	20 - 1 1/2 x 10 1/2	16 - 2 1/4 x 16	-----
16	16 - 1 x 5 1/2	20 - 1 1/4 x 7 1/2	20 - 1 1/8 x 8 3/4	20 - 1 1/2 x 10	20 - 1 1/8 x 11	16 - 2 1/2 x 17 1/2	-----
18	16 - 1 1/8 x 6	24 - 1 1/4 x 7 3/4	24 - 1 1/8 x 9	20 - 1 5/8 x 10 3/4	20 - 1 7/8 x 12 3/4	16 - 2 3/4 x 19 1/4	-----
20	20 - 1 1/8 x 6 1/4	24 - 1 1/4 x 8 1/4	24 - 1 1/2 x 9 1/2	24 - 1 5/8 x 11 1/2	20 - 2 x 13 1/2	16 - 3 x 21	-----
24	20 - 1 1/4 x 7	24 - 1 1/2 x 9 1/4	24 - 1 3/4 x 10 1/2	24 - 1 7/8 x 13	20 - 2 1/2 x 17	16 - 3 1/2 x 24	-----

Ordering Information



D nominal size or diameter
L length from first to last thread

Stud bolt dimensions for ring-joint flanges

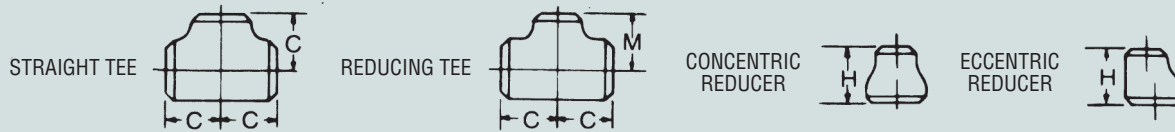
It is suggested that orders conform to Industrial Fasteners Institute measurements referred to under 'Tolerances'. If ordering studs by their overall length, this must be clearly indicated.

NOMINAL PIPE SIZE	150	300	400	600 API 2000	900 API 3000	1500 API 5000	2500
1/2	-----	4 - 1/2 x 3	4 - 1/2 x 3	4 - 1/2 x 3	4 - 3/4 x 4 1/4	4 - 3/4 x 4 1/4	4 - 3/4 x 4 3/4
3/4	-----	4 - 5/8 x 3 1/4	4 - 5/8 x 3 1/2	4 - 5/8 x 3 1/2	4 - 3/4 x 4 1/2	4 - 3/4 x 4 1/2	4 - 3/4 x 5
1	4 - 1/2 x 3	4 - 5/8 x 3 1/4	4 - 5/8 x 3 1/2	4 - 5/8 x 3 1/2	4 - 7/8 x 5	4 - 7/8 x 5	4 - 7/8 x 5 1/4
1 1/4	4 - 1/2 x 3 1/4	4 - 5/8 x 3 3/4	4 - 5/8 x 3 3/4	4 - 5/8 x 3 3/4	4 - 7/8 x 5	4 - 7/8 x 5	4 - 1 x 6
1 1/2	4 - 1/2 x 3 1/4	4 - 3/4 x 4	4 - 3/4 x 4	4 - 3/4 x 4	4 - 1 x 5 1/2	4 - 1 x 5 1/2	4 - 1 1/8 x 6 3/4
2	4 - 5/8 x 3 3/4	8 - 5/8 x 4 1/4	8 - 5/8 x 4 1/4	8 - 5/8 x 4 1/2	8 - 7/8 x 5 3/4	8 - 7/8 x 5 3/4	8 - 1 x 7
2 1/2	4 - 5/8 x 4	8 - 3/4 x 4 1/2	8 - 3/4 x 4 3/4	8 - 3/4 x 4 3/4	8 - 1 x 6 1/4	8 - 1 x 6 1/4	8 - 1 1/8 x 8
3	4 - 5/8 x 4 1/4	8 - 3/4 x 5	8 - 3/4 x 5	8 - 3/4 x 5 1/4	8 - 7/8 x 5 3/4	8 - 1 1/8 x 7	8 - 1 1/4 x 9
4	8 - 5/8 x 4 1/4	8 - 3/4 x 5 1/4	8 - 7/8 x 5 1/2	8 - 7/8 x 6	8 - 1 1/8 x 6 3/4	8 - 1 1/4 x 7 3/4	8 - 1 1/2 x 10 1/4
5	8 - 3/4 x 4 1/2	8 - 3/4 x 5 1/4	8 - 7/8 x 5 3/4	8 - 1 x 6 1/2	8 - 1 1/4 x 7 1/2	8 - 1 1/2 x 9 3/4	8 - 1 3/4 x 12 1/4
6	8 - 3/4 x 4 1/2	12 - 3/4 x 5 3/4	12 - 7/8 x 6	12 - 1 x 7	12 - 1 1/8 x 7 3/4	12 - 1 1/8 x 10 1/4	8 - 2 x 14
8	8 - 3/4 x 4 3/4	12 - 7/8 x 6 1/4	12 - 1 x 6 3/4	12 - 1 1/8 x 8	12 - 1 1/8 x 8 3/4	12 - 1 1/8 x 11 1/4	12 - 2 x 15 1/2
10	12 - 7/8 x 5 1/4	16 - 1 x 7 1/4	16 - 1 1/8 x 7 1/2	16 - 1 1/4 x 8 3/4	16 - 1 1/8 x 9 1/4	12 - 1 1/8 x 13 1/2	12 - 2 1/2 x 20
12	12 - 7/8 x 5 1/2	16 - 1 1/8 x 7 1/2	16 - 1 1/4 x 8	20 - 1 1/4 x 9	20 - 1 1/8 x 10	16 - 2 x 15 1/4	12 - 2 3/4 x 22
14	12 - 1 x 6	20 - 1 1/8 x 7 3/4	20 - 1 1/4 x 8 1/4	20 - 1 1/8 x 9 1/2	20 - 1 1/2 x 11	16 - 2 1/4 x 16 3/4	-----
16	16 - 1 x 6	20 - 1 1/4 x 8 1/2	20 - 1 1/8 x 8 3/4	20 - 1 1/2 x 10 1/2	20 - 1 5/8 x 11 1/2	16 - 2 1/2 x 18 1/2	-----
18	16 - 1 1/8 x 6 1/2	24 - 1 1/4 x 8 1/4	24 - 1 1/8 x 9	20 - 1 5/8 x 11	20 - 1 7/8 x 13 1/4	16 - 2 3/4 x 20 1/4	-----
20	20 - 1 1/8 x 7	24 - 1 1/4 x 9 1/4	24 - 1 1/2 x 9 3/4	24 - 1 5/8 x 11 1/4	20 - 2 x 14 1/4	16 - 3 x 22 1/4	-----
24	20 - 1 1/4 x 7 3/4	24 - 1 1/2 x 10 1/4	24 - 1 3/4 x 11	24 - 1 7/8 x 13 1/2	20 - 2 1/2 x 18	16 - 3 1/2 x 25 1/2	-----

SEAMLESS WELDING FITTINGS DIMENSIONS

		90 LONG RAD Weld ELL		90 REDUCING L. R. Weld ELL		45 LONG RAD Weld ELL		180 LONG RAD Weld ELL					90 SHORT RAD Weld ELL		180 SHORT RAD Weld ELL		CAP		LAP JOINT STUB END							
Nom. Pipe Size	Pipe O.D.															A	B	K	D	V	E			F		G
		Light Wall	Sch 20	Sch 30	2 Std	Sch 40	Sch 60	XS	Sch 80	Sch 100	Sch 120	Sch 140	Sch 160	XXS	Length E [Note 1]						Limiting Wall Thickness	Length E [Note 2]	ASA	MSS		
1/2	.840	.083	--	--	.109	.109	--	.147	.147	--	--	--	.188	.294	1 1/2	3/8	1 1/2	--	--	1.00	0.18	1.00	3	2	1 1/2	
3/4	1.050	.083	--	--	.113	.113	--	.154	.154	--	--	--	.219	.308	1 1/2	3/8	1 1/2	--	--	1.00	0.15	1.00	3	2	1 1/2	
1	1.315	.109	--	--	.133	.133	--	.179	.179	--	--	--	.250	.358	1 1/2	3/8	2 3/8	1	1 1/2	1.50	0.18	1.50	4	2	2	
1 1/4	1.660	.109	--	--	.140	.140	--	.191	.191	--	--	--	.250	.382	1 1/2	1	2 3/8	1 1/4	2 3/8	1.50	0.19	1.50	4	2	2 1/2	
1 1/2	1.900	.109	--	--	.145	.145	--	.200	.200	--	--	--	.281	.400	2 1/4	1 1/2	3 3/8	1 1/2	2 3/8	1.50	0.20	1.50	4	2	2 1/2	
2	2.375	.109	--	--	.154	.154	--	.218	.218	--	--	--	.344	.436	3	1 1/2	4 3/8	2	3 3/8	1.50	0.22	1.75	6	2 1/2	3 3/8	
2 1/2	2.875	.120	--	--	.203	.203	--	.276	.276	--	--	--	.375	.552	3 3/4	1 1/2	5 3/8	2 1/2	3 13/8	1.50	0.28	2.00	6	2 1/2	4 1/2	
3	3.500	.120	--	--	.216	.216	--	.300	.300	--	--	--	.438	.600	4 1/2	2	6 1/4	3	4 3/4	2.00	0.30	2.50	6	2 1/2	5	
3 1/2	4.00	.120	--	--	.226	.226	--	.318	.318	--	--	--	--	.636	5 1/2	2 1/2	7 1/4	3 1/2	5 1/2	2.50	0.32	3.00	6	3	5 1/2	
4	4.500	.120	--	--	.237	.237	--	.337	.337	--	.438	--	.531	.674	6	2 1/2	8 1/4	4	6 1/4	2.50	0.34	3.00	6	3	6 3/8	
5	5.563	.134	--	--	.258	.258	--	.375	.375	--	.500	--	.625	.750	7 1/2	3 3/8	10 3/8	5	7 3/8	3.00	0.38	3.50	8	3	7 3/8	
6	6.625	.134	--	--	.280	.280	--	.432	.432	--	.562	--	.719	.864	9	3 3/8	15 3/8	6	9 3/8	3.50	0.43	4.00	8	3 3/8	8 3/8	
8	8.625	.148	.250	.277	.322	.322	.406	.500	.500	.594	.719	.812	.906	.875	12	5	16 3/8	8	12 3/8	4.00	0.50	5.00	8	4	10 3/8	
10	10.750	.165	.250	.307	.365	.365	.500	.500	.594	.719	.844	1.000	1.125	1.000	15	6 3/4	20 3/8	10	15 3/8	5.00	0.50	6.00	10	5	12 3/8	
12	12.750	.180	.250	.330	.375	.406	.562	.500	.688	.844	1.000	1.125	1.312	1.000	18	7 3/4	24 3/8	12	18 3/8	6.00	0.50	7.00	10	6	15	
14	14.000	.250	.312	.375	.375	.438	.594	.500	.750	.938	1.094	1.250	1.406	--	21	8 3/4	28	14	21	6.50	0.50	7.50	12	--	16 3/8	
16	16.000	.250	.312	.375	.375	.500	.656	.500	.844	1.031	1.219	1.438	1.594	--	24	10	32	16	24	7.00	0.50	8.00	12	--	18 3/8	
18	18.000	.250	.312	.438	.375	.562	.750	.500	.938	1.156	1.375	1.562	1.781	--	27	11 3/4	36	18	27	8.00	0.50	9.00	12	--	21	
20	20.000	.250	.375	.500	.375	.594	.812	.500	1.031	1.281	1.500	1.750	1.969	--	30	12 1/2	40	20	30	9.00	0.50	10.00	12	--	23	
24 ^(a)	24.000	.250	.375	.562	.375	.688	.969	.500	1.219	1.531	1.812	2.062	2.344	--	36	15	48	24	36	10.50	0.50	12.00	12	--	27 1/2	
30 ^(a)	30.000	.312	.500	.625	.375	--	--	.500	--	--	--	--	--	--	45	18 1/2	60	30	45	10.50	--	--	--	--	--	
36 ^(a)	36.000	.312	.500	.625	.375	.750	--	.500	--	--	--	--	--	--	54	22 1/2	--	36	54	10.50	--	--	--	--	--	
42 ^(a)	42.000	--	--	--	.375	--	--	.500	--	--	--	--	--	--	63	26	--	48	--	12.00	--	--	--	--	--	--

- NOTES:**
- Length E applies for thickness not exceeding that given in column "Limiting Wall Thickness for length, E."
 - Length E₁ applies for thickness greater than that given in column "Limiting Wall Thickness" for NPS 24 and smaller. For NPS 26 and larger, length E₁ shall be agreement between the manufacturer and purchaser



Nom. Pipe Size	Outlet	C	M	H	Nom. Pipe Size	Outlet	C	M	H	Nom. Pipe Size	Outlet	C	M	H	Nom. Pipe Size	Outlet	C	M	H
3/4	3/8	1 1/8	--	--	4	4	4 1/8	--	--	14	14	11	--	--	30 ⁽⁴⁾	30	22	--	--
	1/2	1 1/8	1 1/8	1 1/2		3 1/2	4 1/8	4	4		12	11	10 3/8	13		20	22	21	24
1	1	1 1/8	--	--		3	4 1/8	3 3/8	4		10	11	10 3/8	13		20	22	21	24
	3/4	1 1/8	1 1/8	2		2 1/2	4 1/8	3 3/8	4		8	11	9 3/8	13		20	22	19 1/2	24
	1/2	1 1/8	1 1/8	2		2	4 1/8	3 3/8	4		6	11	9 3/8	13		18	22	19 1/2	24
1 1/4	1 1/4	1 1/8	--	--		1 1/2	4 1/8	3 3/8	4		16	12	--	--		16	22	19	24
	1	1 1/8	1 1/8	2		5	4 1/8	--	--		14	12	12	14		14	22	19	24
	3/4	1 1/8	1 1/8	2		4	4 1/8	4 1/8	5		12	12	11 1/8	14		36	26 1/2	--	--
	1/2	1 1/8	1 1/8	2		3 1/2	4 1/8	4 1/8	5		10	12	11 1/8	14		30	26 1/2	25	24
1 1/2	1 1/2	2 1/8	--	--		3	4 1/8	4 1/8	5		8	12	10 3/8	14		24	26 1/2	24	24
	1 1/4	2 1/8	2 1/8	2 1/2	2 1/2	4 1/8	4 1/8	5	6	12	10 3/8	14	20	26 1/2	23	24			
	1	2 1/8	2 1/8	2 1/2	2	4 1/8	4 1/8	5	18	13 1/2	--	--	18	26 1/2	22 1/2	24			
	3/4	2 1/8	2 1/8	2 1/2	6	5 3/8	--	--	16	13 1/2	13	15	16	26 1/2	22	24			
2	2	2 1/8	--	--	5	5 3/8	5 3/8	5 1/2	14	13 1/2	13	15	42	30	--	--			
	1 1/2	2 1/8	2 1/8	3	4	5 3/8	5 3/8	5 1/2	12	13 1/2	12 1/8	15	36	30	28	24			
	1 1/4	2 1/8	2 1/8	3	3 1/2	5 3/8	5	5 1/2	10	13 1/2	12 1/8	15	30	30	28	24			
	1	2 1/8	2	3	3	5 3/8	4 1/8	5 1/2	8	13 1/2	11 1/8	15	24	30	26	24			
2 1/2	3/4	2 1/8	1 1/8	3	2 1/2	5 3/8	4 1/8	5 1/2	20	15	--	--	20	30	26	24			
	2	3	--	--	8	7	--	--	18	15	14 1/2	20	20	30	26	24			
	1 1/2	3	2 1/8	3 1/2	6	7	6 3/8	6	16	15	14	20	36	30	28	24			
	1 1/4	3	2 1/8	3 1/2	5	7	6 3/8	6	14	15	14	20	24	30	28	24			
	1	3	2 1/8	3 1/2	4	7	6 3/8	6	12	15	13 3/8	20	20	30	28	24			
3	3	3 3/8	--	--	3 1/2	7	6	6	10	15	13 3/8	20	20	30	28	24			
	2 1/2	3 3/8	3 3/8	3 1/2	10	8 1/2	--	--	8	15	12 1/2	20	20	30	28	24			
	2	3 3/8	3 3/8	3 1/2	8	8 1/2	8	7	24	17	--	--	24	30	28	24			
	1 1/2	3 3/8	3	3 1/2	6	8 1/2	7 3/8	7	20	17	17	20	20	30	28	24			
3 1/2	1 1/4	3 3/8	2 1/8	3 1/2	5	8 1/2	7 1/8	7	18	17	16 1/2	20	20	30	28	24			
	1 1/4	3 3/8	2 1/8	3 1/2	4	8 1/2	7 1/8	7	16	17	16	20	20	30	28	24			
	3	3 3/8	--	--	12	10	--	--	14	17	16	20	20	30	28	24			
	3	3 3/8	3 3/8	4	10	10	9 1/2	8	12	17	15 3/8	20	20	30	28	24			
3 1/2	2 1/2	3 3/8	3 3/8	4	8	10	9	8	10	17	15 3/8	20	20	30	28	24			
	2	3 3/8	3 3/8	4	6	10	8 3/8	8	8	17	15 3/8	20	20	30	28	24			
	1 1/2	3 3/8	3 3/8	4	5	10	8 1/2	8	10	17	15 3/8	20	20	30	28	24			

- NOTES:**
- Light Wall thicknesses are identical to stainless steel Schedule 10S in sizes thru 12" and to Schedule 10 in sizes 14" and larger.
 - Standard Wall thicknesses are identical to Stainless steel Schedule 40S in sizes thru 12"
 - Extra Strong Wall thicknesses are identical to stainless steel Schedule 80S in sizes thru 12"
 - May be welded construction with x-ray or ultrasonically tested.
 - Other types, sizes and thicknesses of fittings on application.
 - Stocked in carbon steel.

WELDING FITTING

APPROXIMATE WEIGHT (LBS.)

90° LR Weld ELLS

Wall Thickness

Nominal Size	Std.	Sched. 40	X-Stg.	Sched. 80	Sched. 120	Sched. 160	XX Stg.	Nominal Size
1/2	.17	.17	.22	.22	--	--	--	1/2
3/4	.17	.17	.23	.23	--	--	.70	3/4
1	.34	.34	.45	.45	--	.59	.75	1
1 1/4	.58	.58	.77	.77	--	.97	1.3	1 1/4
1 1/2	.84	.84	1.1	1.1	--	1.5	2.0	1 1/2
2	1.5	1.5	2.1	2.1	--	3.0	3.7	2
2 1/2	3.0	3.0	4.0	4.0	--	5.2	7.1	2 1/2
3	4.7	4.7	6.3	6.3	--	8.8	11	3
3 1/2	6.6	6.6	9.0	9.0	--	--	16	3 1/2
4	8.9	8.9	12	12	16	19	23	4
5	15	15	21	21	28	34	40	5
6	24	24	35	35	45	56	66	6
8	47	47	71	71	100	123	120	8
10	83	83	112	132	184	238	230	10
12	123	132	162	219	311	397	325	12
14	158	183	208	307	420	546	--	14
16	207	273	273	450	631	809	--	16
18	263	390	347	634	879	1090	--	18
20	323	506	428	861	1208	1520	--	20
22	392	--	520	--	--	--	--	22
24	468	846	622	1470	1810	2510	--	24
26	550	--	720	--	--	--	--	26
30	733	--	972	--	--	--	--	30
36	1061	--	1407	--	--	--	--	36
42	1442	--	1916	--	--	--	--	42
48	1883	--	2511	--	--	--	--	48

45° LR Weld ELLS

1/2	.09	.09	.11	.11	--	--	--	1/2
3/4	.09	.09	.11	.11	--	--	--	3/4
1	.17	.17	.22	.22	--	.29	.38	1
1 1/4	.29	.29	.39	.39	--	.49	.67	1 1/4
1 1/2	.42	.42	.56	.56	--	.75	.99	1 1/2
2	.75	.75	1.0	1.0	--	1.5	1.9	2
2 1/2	1.5	1.5	2.0	2.0	--	2.6	3.5	2 1/2
3	2.3	2.3	3.2	3.2	--	4.4	5.7	3
3 1/2	3.3	3.3	4.5	4.5	--	--	8.2	3 1/2
4	4.4	4.4	6.2	6.2	7.8	9.3	11	4
5	7.5	7.5	11	11	14	17	20	5
6	12	12	18	18	22	28	33	6
8	23	23	36	36	50	61	60	8
10	42	42	56	66	92	119	115	10
12	61	66	81	110	156	199	161	12
14	79	81	104	154	207	273	--	14
16	104	137	137	225	316	405	--	16
18	132	195	174	317	431	550	--	18
20	162	253	214	431	604	770	--	20
22	196	--	260	--	--	--	--	22
24	234	423	311	735	996	1270	--	24
26	275	--	365	--	--	--	--	26
30	367	--	486	--	--	--	--	30
36	721	--	958	--	--	--	--	36
42	--	--	--	--	--	--	--	42
48	942	--	1255	--	--	--	--	48

APPROXIMATE WEIGHT (LBS.)

90° SR Weld ELLS

Wall Thickness

Nominal Size	Std.	Sched. 40	X-Stg.	Sched. 80	Sched. 120	Sched. 160	XX Stg.	Nominal Size
1	.23	.23	--	--	--	.34	.47	1
1 1/4	.39	.39	--	--	--	.69	.91	1 1/4
1 1/2	.56	.56	.75	.75	--	.98	1.4	1 1/2
2	1.0	1.0	1.4	1.4	--	1.9	2.6	2
2 1/2	2.0	2.0	2.6	2.6	--	3.2	4.9	2 1/2
3	3.1	3.1	4.2	4.2	--	5.6	7.7	3
3 1/2	4.4	4.4	6.0	6.0	--	--	11	3 1/2
4	6.0	6.0	8.2	8.2	10	12	14	4
5	10	10	14	14	19	21	25	5
6	16	16	23	23	30	35	44	6
8	31	31	48	48	66	79	77	8
10	56	56	75	88	123	151	143	10
12	82	88	108	146	207	253	207	12
14	105	122	139	205	277	345	--	14
16	138	182	182	300	400	512	--	16
18	175	259	231	422	517	727	--	18
20	215	338	286	573	775	993	--	20
24	313	564	415	977	1340	1735	--	24
30	488	--	649	--	--	--	--	30
36	707	1300	939	--	--	--	--	36
42	1079	--	1278	--	--	--	--	42
48	1255	--	1674	--	--	--	--	48

CAPS

1/2	.07	.07	.10	.10	--	--	--	1/2
3/4	.13	.13	.19	.19	--	--	--	3/4
1	.22	.22	.28	.28	--	.35	.45	1
1 1/4	.31	.31	.40	.40	--	.49	.64	1 1/4
1 1/2	.37	.37	.49	.49	--	.63	.80	1 1/2
2	.51	.51	.69	.69	--	1.1	1.3	2
2 1/2	.81	.81	1.0	1.0	--	1.8	2.2	2 1/2
3	1.4	1.4	1.9	1.9	--	3.1	3.9	3
3 1/2	2.1	2.1	2.9	2.9	--	--	5.8	3 1/2
4	2.5	2.5	3.5	3.5	5.1	6	7	4
5	4.2	4.2	5.8	5.8	8.6	10	12	5
6	6.4	6.4	9.4	9.4	13	16	19	6
8	11	11	17	17	28	34	33	8
10	20	20	26	36	49	63	--	10
12	29	32	38	59	81	100	--	12
14	35	41	45	76	110	130	--	14
16	45	58	58	105	140	180	--	16
18	57	92	74	149	230	255	--	18
20	71	121	94	201	300	420	--	20
22	83	--	110	--	--	--	--	22
24	102	205	131	342	430	530	--	24
26	110	--	146	--	--	--	--	26
30	137	--	186	--	--	--	--	30
36	165	--	260	--	--	--	--	36

WELDING FITTING

APPROXIMATE WEIGHT (LBS.)

Nominal Size	Reducers (Concentric and Eccentric) Wall Thickness						
	Std.	Sched. 40	X-Stg.	Sched. 80	Sched. 120	Sched. 160	XX Stg.
3/4	.15	.15	.22	.22	--	.32	.41
1	.28	.28	.36	.36	--	.47	.61
1 1/4	.38	.38	.50	.50	--	.63	.87
1 1/2	.57	.57	.76	.76	--	1.0	1.3
2	.90	.90	1.2	1.2	--	1.9	2.3
2 1/2	1.7	1.7	2.2	2.2	--	2.9	4.0
3	2.2	2.2	3.0	3.0	--	4.2	5.4
3 1/2	3.0	3.0	4.2	4.2	--	5.8	7.6
4	3.6	3.6	5.0	5.0	6.3	7.5	9.2
5	6.1	6.1	8.6	8.6	12	14	16
6	8.7	8.7	13	13	17	21	24
8	14	14	22	22	30	37	36
10	24	24	32	38	52	67	61
12	33	36	44	59	84	107	84
14	59	69	78	115	164	208	--
16	73	96	97	159	224	286	--
18	88	131	117	213	304	385	--
20	131	205	174	348	494	630	--
22	144	--	191	--	--	--	--
24	158	285	210	490	710	900	--
26	205	--	272	--	--	--	--
30	237	--	315	--	--	--	--
36	285	--	379	--	--	--	--
42	334	--	443	--	--	--	--
48	395	--	515	--	--	--	--

APPROXIMATE WEIGHT (LBS.)

NOMINAL SIZE		Tees (Straight and Reducing) Wall Thickness						
Run	Branch	Std.	Sched. 40	X-Stg.	Sched. 80	Sched. 120	Sched. 160	XX Stg.
3/4 X	3/4 - 1/2	.50	.50	.60	.60	--	.51	.63
1 X	1 - 1/2	.63	.63	.78	.78	--	.99	1.3
1 1/4 X	1 1/4 - 3/4	1.2	1.2	1.4	1.4	--	1.7	2.3
1 1/2 X	1 1/2 - 1/2	1.7	1.7	2.1	2.1	--	2.7	3.4
2 X	2 - 3/4	4.2	4.2	4.1	4.1	--	5.0	5.9
2 1/2 X	2 1/2 - 2	5.9	5.9	6.8	6.8	--	7.6	10
2 1/2 X	1 1/2 - 1	6.8	6.8	6.8	6.8	--	6.7	9.0
3 X	3 X 1 1/4	8.4	8.4	10	10	--	14	17
3 1/2 X	3 1/2 - 1 1/2	11	11	14	14	--	--	21
4 X	4 - 1 1/2	13	13	19	19	23	34	34
5 X	5 - 2	22	22	28	28	44	53	53

WELDING FITTING

APPROXIMATE WEIGHT (LBS.)

NOMINAL SIZE		Tees (Straight and Reducing)						
		Wall Thickness						
Run	Branch	Std.	Sched. 40	X-Stg.	Sched. 80	Sched. 120	Sched. 160	XX Stg.
6 X	6 - 5	36	36	42	42	64	85	87
6 X	4 - 2 1/2	33	33	42	42	64	64	67
8 X	8	61	61	76	76	115	152	152
8 X	6	61	61	76	76	115	115	114
8 X	5 - 3 1/2	61	61	76	76	97	115	114
10 X	10	91	91	129	161	215	280	241
10 X	8	88	88	116	157	197	241	219
10 X	6	88	88	116	120	180	223	201
10 X	5 - 4	88	88	116	116	157	197	177
12 X	12	147	147	187	253	353	429	353
12 X	10	147	147	187	226	329	377	329
12 X	8	143	143	180	180	294	341	294
12 X	6	143	143	180	180	245	318	245
12 X	5	143	143	180	180	226	318	226
14 X	14	226	252	280	369	528	720	--
14 X	12	226	252	280	315	528	696	--
14 X	10	217	217	268	310	384	624	--
14 X	8	217	217	268	268	456	528	--
14 X	6	217	217	268	268	432	480	--
16 X	16	242	370	369	548	826	1066	--
16 X	14	242	370	369	440	728	910	--
16 X	12	242	359	359	399	624	884	--
16 X	10	235	354	352	360	572	884	--
16 X	8	235	354	352	360	572	884	--
16 X	6	235	354	352	360	572	884	--
18 X	18	333	525	425	710	1160	1392	--
18 X	16	333	525	425	615	957	1160	--
18 X	14	333	427	425	569	957	1160	--
18 X	12	333	427	339	516	957	1160	--
18 X	10	319	330	322	496	957	1160	--
18 X	8	319	330	322	449	957	1150	--
20 X	20	504	706	583	1021	1504	1792	--
20 X	18	504	584	504	903	1312	1536	--
20 X	16	504	506	504	782	1312	1536	--
20 X	14	493	494	493	713	1206	1536	--
20 X	12	493	494	493	713	1206	1536	--
20 X	10	482	485	482	645	1206	1536	--
20 X	8	482	485	482	645	1206	1536	--

APPROXIMATE WEIGHT (LBS.)

NOMINAL SIZE		Tees (Straight and Reducing)						
		Wall Thickness						
Run	Branch	Std.	Sched. 40	X-Stg.	Sched. 80	Sched. 120	Sched. 160	XX Stg.
22 X	22 - 20	555	--	811	--	--	--	--
22 X	18 - 16	527	--	670	--	--	--	--
22 X	14 - 10	445	--	517	--	--	--	--
24 X	24	765	1257	934	1673	2808	3096	--
24 X	22	681	1130	849	1673	2808	3096	--
24 X	20	601	860	683	1361	2206	2800	--
24 X	18	601	860	683	1200	2206	2800	--
24 X	16	506	681	509	1106	2206	2440	--
24 X	14	506	681	509	1106	2206	2440	--
24 X	12	506	681	509	1021	2026	2250	--
24 X	10	424	681	509	1021	2026	2250	--
26 X	26 - 24	826	--	1121	--	--	--	--
26 X	22 - 20	727	--	925	--	--	--	--
26 X	18 - 12	614	--	713	--	--	--	--
30 X	30	1130	--	1510	--	--	--	--
30 X	26 - 24	1065	--	1257	--	--	--	--
30 X	22 - 18	921	--	1048	--	--	--	--
30 X	16 - 14	792	--	921	--	--	--	--
36 X	36	1617	2925	2165	--	--	--	--
36 X	30	1524	2925	1893	--	--	--	--
36 X	26 - 20	1321	2380	1504	--	--	--	--
36 X	18	1321	2380	1321	--	--	--	--
42 X	42	2900	--	2900	--	--	--	--
42 X	36 - 20	2755	--	2755	--	--	--	--
48 X	48	3215	--	4080	--	--	--	--
48 X	42 - 24	2420	--	3535	--	--	--	--

CONVERSION FACTORS



Multiply value by the following factors to convert from:

Quantity Name	Imperial Units	Metric Units	Imperial to metric	Metric to Imperial
Mass	pound (lb)	Kilogram (kg)	0.454	2.20
	short ton (2000 lb.)	metric ton (tonne)	0.907	1.10
	long ton (2204 lb.)	metric ton (tonne)	1.02	0.984
Linear Measure	inches (in)	millimeters	25.4	0.0394
	feet (ft)	millimeters	305	0.00328
	feet (ft)	metres (m)	0.305	3.2808
	yards (yd)	metres (m)	0.914	1.09
	miles	kilometers (km)	1.61	.621
Temperature	Fahrenheit (°F)	Celsius (°C)	$\frac{(98.6^{\circ}\text{F} - 32) \times 5}{9} = 37^{\circ}\text{C}$	$\frac{37^{\circ}\text{C} \times 9}{5} + 32 = 98.6^{\circ}\text{F}$
Pressure	pounds per square inch (p.s.i.)	kilopascal (kPa)	6.89	0.145
		megapascal (MPa)	0.00689	1.45
Area	square feet (ft ²)	square metre (m ²)	0.0929	10.8
	square inch (in ²)	square kilometre (km ²)	645	0.00155
		(mm ²)		
	acres	hectares (ha)	0.405	2.47
Volume	cubic inches (in ³)	cubic centimetres (cm ³)	16.4	0.061
		(cm ³)		
	cubic ft (ft ³)	cubic metres (m ³)	0.0283	35.3
	gallons (Cdn)	litre	4.55	0.220
	gallons (US)	litre	3.79	0.264
Density	pounds per cubic inch (lb/in ³)	kilograms per cubic metre (kg/m ³)	.27677	0.0000361
Energy	foot pound (ft. lbf)	joule (J)	1.36	0.738
Mass per unit length	pounds per foot (ft. lbf) (lb/ft)	kilogram per metre (kg/m)	1.49	0.672
	tons per mile	metric ton per kilometre (t/km)	0.564	1.77

Other: Density of Steel 0.2836 lb/in³ or 7850 kg m³

1 kg/mm² = 1422.3 p.s.i

Calculation of Weight per Foot - Actual O.D. Minus Wall x 10.69 Times Wall



The management of Comco Pipe & Supply Company considers the health and safety of its employees, the security of its assets and protection of the environment as important as any other phase of the Company's operation or administration.

It is the policy of the Company, therefore, to provide and maintain safe and healthy working conditions, safe equipment and to follow operating practices that will safeguard all employees, the public, the environment and corporate property. The elimination, at the source, of dangers to health, safety and physical well being of its workers is of paramount importance.

It is our policy not to compromise on health, safety, and environment for reasons of economy or productivity. This commitment includes compliance with all applicable laws and regulations but is not limited to minimal compliance.

While the application of health, safety, and environment standards is the responsibility of line management, all employees must take appropriate or necessary measures to protect their own safety and that of their colleagues. Unacceptable performance of health and safety duties will not be tolerated.

A Different Type of Metals Company

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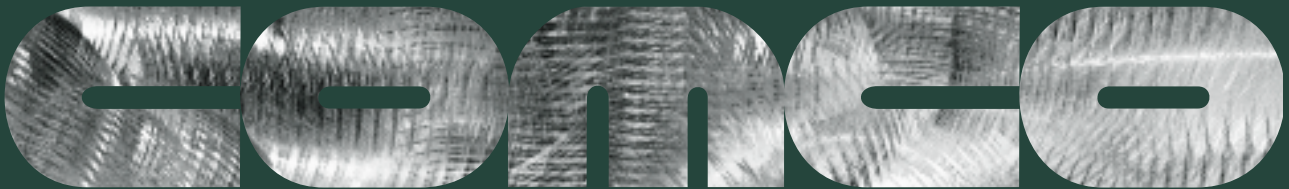
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The Right People. The Right Stuff.

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