

Dimension Handbook

S-type

Size 1100 (J44") - 2600 (J104")

UF-type

Size 800 (J32") - 2600 (J104")

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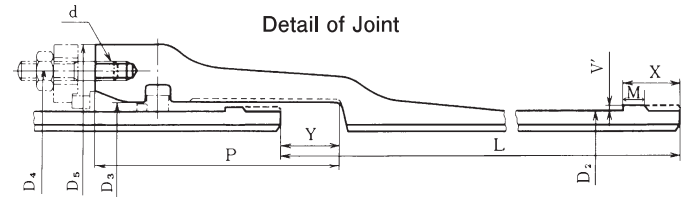
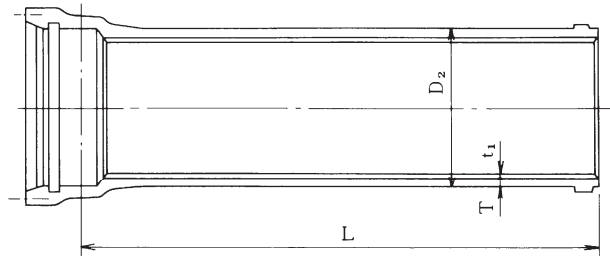
Accessories

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Table 1 S-Pipes

S-Pipes



Dimensions in inches

Size	Thickness			Dimensions										No. of Bolt
	T			D ₂	D ₃	D ₄	D ₅	P	Y	M	V'	X	Bolt Size (mm)	
	D1	D2	D3											
1100 (J44')	0.71	0.61	0.55	45.04	45.83	49.06	51.89	13.39	3.15	0.98	0.24	3.15	M30	24
1200 (J48')	0.77	0.67	0.59	49.06	49.84	53.07	55.91	13.39	3.15	0.98	0.24	3.15	M30	28
1350 (J54')	0.85	0.73	0.65	55.12	55.91	59.13	61.97	13.78	3.15	0.98	0.24	3.54	M30	28
1500 (J60')	0.93	0.81	0.71	61.18	61.97	65.20	68.03	14.17	3.15	1.26	0.24	3.54	M30	28
1600 (J64')	0.98	0.87	0.75	64.96	65.91	69.21	72.05	14.17	2.95	1.26	0.31	3.54	M30	30
1650 (J66')	1.00	0.89	0.77	66.97	67.91	71.22	74.05	14.17	2.95	1.26	0.31	3.54	M30	30
1800 (J72')	1.10	0.94	0.83	72.76	73.70	77.01	79.84	14.37	2.95	1.26	0.31	3.54	M30	34
2000 (J80')	1.20	1.04	0.93	81.14	82.09	85.39	88.23	14.76	3.15	1.50	0.31	3.54	M30	36
2100 (J84')	1.26	1.10	0.96	85.20	86.14	89.45	92.28	15.35	3.15	1.50	0.31	3.94	M30	38
2200 (J88')	1.32	1.14	1.00	89.76	90.71	94.02	96.85	15.35	3.15	1.50	0.31	3.94	M30	40
2400 (J96')	1.44	1.24	1.08	96.77	97.72	101	103.9	15.55	3.35	1.50	0.31	3.94	M30	44
2600 (J104')	1.56	1.34	1.16	105.7	106.8	110.3	113.2	16.34	3.35	1.50	0.39	3.94	M30	48

Note : The total mass of the pipe is the sum of the mass of the iron and lining.
 The spigot projection shall be formed by welding, cast-on, or any suitable method.
 In this case, the pull-out resistance shall be 17,000 D lb or more.
 (D: pipe size in inches)

L	Mass (lb)							Lining Thickness	Size
	Iron per piece			Lining per piece	Total per pipe				
	D1	D2	D3		D1	D2	D3		
19.69	7143	6327	5842	1080	8223	7408	6923	0.39	1100 (J44")
19.69	8333	7452	6746	1177	9511	8629	7923	0.39	1200 (J48")
19.69	10251	9061	8267	1587	11839	10648	9855	0.47	1350 (J54")
19.69	12368	11045	9943	1766	14134	12811	11709	0.47	1500 (J60")
13.12	9877	8951	8003	1552	11429	10503	9555	0.59	1600 (J64")
16.40	11883	10714	9546	1947	13830	12661	11493		
13.12	10384	9414	8444	1601	11984	11014	10044	0.59	1650 (J66")
16.40	12500	11288	10075	2008	14509	13296	12083		
13.12	12236	10847	9788	1739	13975	12586	11528	0.59	1800 (J72")
16.40	14771	13007	11684	2183	16953	15190	13867		
13.12	14749	13184	12015	1940	16689	15124	13955	0.59	2000 (J80")
16.40	17813	15851	14396	2425	20238	18276	16821		
13.12	16248	14617	13184	2037	18285	16654	15221	0.59	2100 (J84")
16.40	19621	17571	15763	2557	22178	20128	18320		
13.12	17813	15873	14374	2147	19961	18020	16521	0.59	2200 (J88")
16.40	21539	19114	17218	2690	24229	21804	19908		
13.12	20767	18453	16601	2315	23082	20767	18915	0.59	2400 (J96")
13.12	24647	21848	19577	2535	27183	24383	22112	0.59	2600 (J104")

Reference. S - Mass of pipes

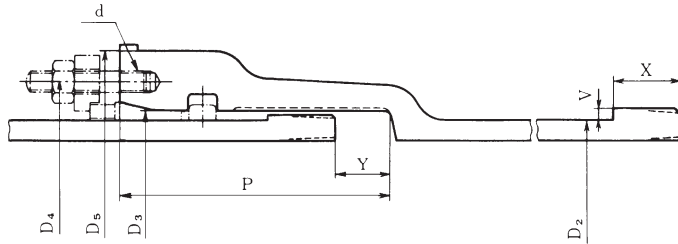
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Dimensions in inches

Size	Mass (lb)								
	Socket	Iron of Body per ft			Lining of Body per ft	Body per ft			Spigot projection
		D1	D2	D3		D1	D2	D3	
1100 (J44")	1182	306	264	239	55.6	362	320	294	17.9
1200 (J48")	1305	361	315	279	60.6	422	376	339	22.0
1350 (J54")	1541	447	386	345	81.8	529	468	426	31.1
1500 (J60")	1790	543	475	417	90.9	634	565	508	37.9
1600 (J64")	1940	613	541	468	120	734	661	588	44.3
1650 (J66")	2026	645	570	495	124	769	694	619	45.6
1800 (J72")	2284	769	661	579	135	904	796	714	53.8
2000 (J80")	2659	935	814	723	151	1086	965	874	64.6
2100 (J84")	2917	1030	903	791	158	1188	1061	950	80.7
2200 (J88")	3117	1136	985	868	167	1303	1152	1035	90.6
2400 (J96")	3536	1334	1154	1009	180	1514	1334	1189	97.7
2600 (J104")	4270	1577	1360	1182	197	1774	1557	1379	120

Note : The mass of Body per ft is the sum of the mass of the iron and lining.

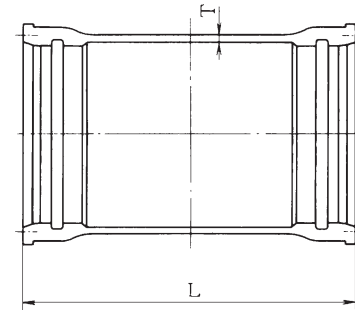
Table 2 S - Fittings



Dimensions in inches

Size	Dimensions									No. of Bolt	Mass (lb)	
	Outside Diameter	D ₂	D ₃	D ₄	D ₅	P	Y	V	X		Bolt Size (mm) d	Socket
1100 (J44")	45.04	45.83	49.06	52.20	13.39	3.15	0.24	3.15	M30	24	1281	27
1200 (J48")	49.06	49.84	53.07	56.38	13.39	3.15	0.24	3.15	M30	28	1426	30
1350 (J54")	55.12	55.91	59.13	62.76	13.78	3.15	0.24	3.54	M30	28	1746	37
1500 (J60")	61.18	61.97	65.20	69.45	14.17	3.15	0.24	3.54	M30	28	2158	41
1600 (J64")	64.96	65.91	69.21	73.86	14.17	2.95	0.31	3.54	M30	30	2504	59
1650 (J66")	66.97	67.91	71.22	76.02	14.17	2.95	0.31	3.54	M30	30	2639	61
1800 (J72")	72.76	73.70	77.01	82.13	14.37	2.95	0.31	3.54	M30	34	3047	66
2000 (J80")	81.14	82.09	85.39	90.83	14.76	3.15	0.31	3.54	M30	36	3669	74
2100 (J84")	85.20	86.14	89.45	95.04	15.35	3.15	0.31	3.94	M30	38	4074	86
2200 (J88")	89.76	90.71	94.02	99.76	15.35	3.15	0.31	3.94	M30	40	4409	91
2400 (J96")	96.77	97.72	101.02	107.24	15.55	3.35	0.31	3.94	M30	44	5115	98
2600 (J104")	105.67	106.77	110.31	117.64	16.34	3.35	0.39	3.94	M30	48	6647	133

Table 3 S - Collars

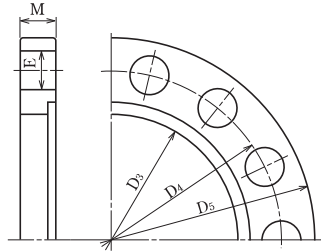


Dimensions in inches

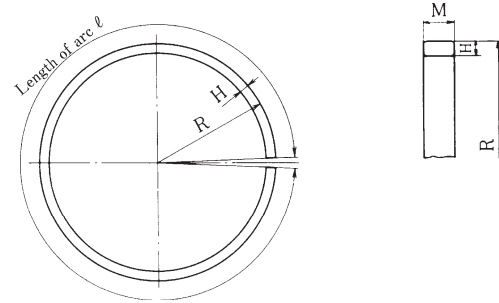
Size	Thickness	Dimensions	Mass (lb)
	T	L	
1100 (J44")	1.18	31.50	2337
1200 (J48")	1.22	31.50	2601
1350 (J54")	1.30	33.46	3219
1500 (J60")	1.38	33.46	3902
1600 (J64")	1.42	35.43	4740
1650 (J66")	1.46	35.43	5004
1800 (J72")	1.54	35.43	5688
2000 (J80")	1.61	35.43	6658
2100 (J84")	1.65	37.40	7385
2200 (J88")	1.69	37.40	7959
2400 (J96")	1.81	37.40	9127
2600 (J104")	1.89	39.37	11993

Table 4 S - Accessories (1)

Gland



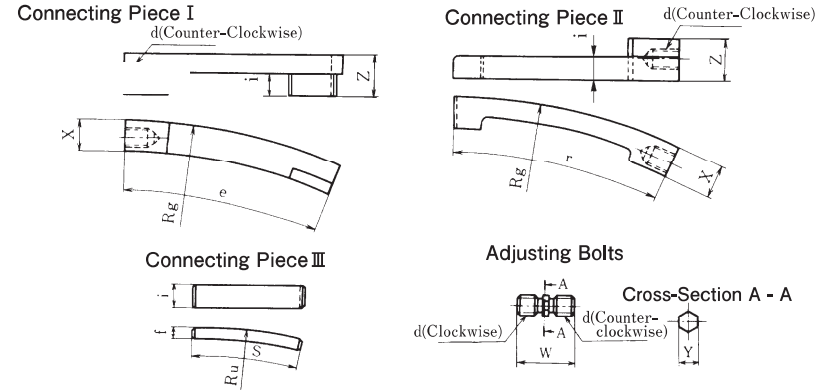
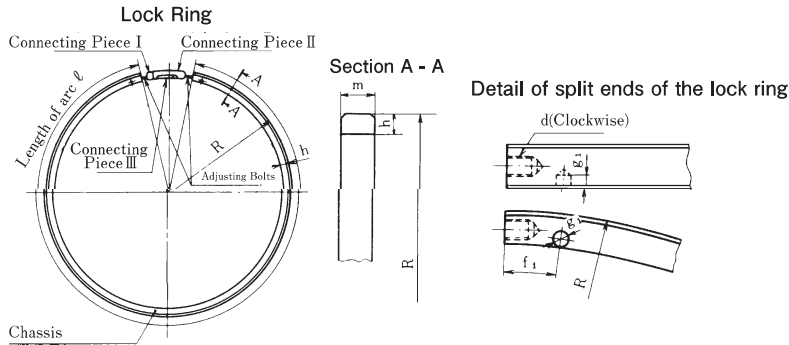
Split Ring



Dimensions in inches

Size	Gland							Split Ring				
	Dimensions					No. of Bolt	Mass (lb)	Dimensions				Mass (lb)
	D ₃	D ₄	D ₅	E	M			R	ℓ	H	M	
1100 (J44")	45.83	49.06	51.89	1.42	1.22	24	131	23.27	146.06	0.63	0.98	23.1
1200 (J48")	49.84	53.07	55.91	1.42	1.26	28	146	25.28	158.66	0.63	0.98	25.1
1350 (J54")	55.91	59.13	61.97	1.42	1.30	28	169	28.31	177.72	0.63	0.98	28.2
1500 (J60")	61.97	65.20	68.03	1.42	1.38	28	200	31.34	196.77	0.63	0.98	31.3
1600 (J64")	65.91	69.21	72.05	1.42	1.38	30	208	33.35	209.37	0.75	1.26	50.5
1650 (J66")	67.91	71.22	74.05	1.42	1.42	30	220	34.35	215.71	0.75	1.26	52.0
1800 (J72")	73.70	77.01	79.84	1.42	1.50	34	251	37.24	233.86	0.75	1.26	56.4
2000 (J80")	82.09	85.39	88.23	1.42	1.57	36	295	41.44	260.24	0.75	1.26	62.8
2100 (J84")	86.14	89.45	92.28	1.42	1.65	38	326	43.46	272.95	0.75	1.26	65.9
2200 (J88")	90.71	94.02	96.85	1.42	1.69	40	353	45.75	287.24	0.75	1.26	69.4
2400 (J96")	97.72	101.02	103.86	1.42	1.81	44	406	49.25	309.33	0.75	1.26	74.7
2600 (J104")	106.77	110.31	113.15	1.42	1.93	48	487	53.90	338.50	0.87	1.26	94.6

Table 5 S - Accessories (2)



Dimensions in inches

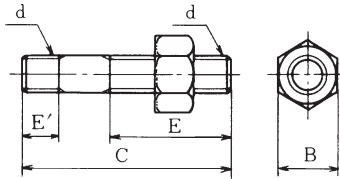
Size	Dimensions						Bolt Size (mm)	Mass of Body (lb)
	R	ℓ	h	m	fl	gl		
1100 (J44*)	23.19	136.06	0.79	1.18	1.65	0.39	M14	32.2
1200 (J48*)	25.20	148.70	0.79	1.18	1.65	0.39	M14	35.1
1350 (J54*)	28.23	167.79	0.79	1.18	1.65	0.39	M14	39.7
1500 (J60*)	31.34	187.32	0.87	1.38	1.65	0.39	M16	56.9
1600 (J64*)	33.23	198.62	0.87	1.38	1.65	0.39	M16	60.4
1650 (J66*)	34.25	204.92	0.87	1.38	1.65	0.39	M16	62.4
1800 (J72*)	37.13	223.15	0.87	1.38	1.65	0.39	M16	67.9
2000 (J80*)	41.42	249.96	0.94	1.57	1.65	0.39	M18	95.0
2100 (J84*)	43.43	262.72	0.94	1.57	1.65	0.39	M18	99.9
2200 (J88*)	45.71	277.05	0.94	1.57	1.65	0.39	M18	105
2400 (J96*)	49.21	299.13	0.94	1.57	1.65	0.39	M18	114
2600 (J104*)	53.66	326.69	0.94	1.57	1.65	0.39	M18	124

Dimensions in inches

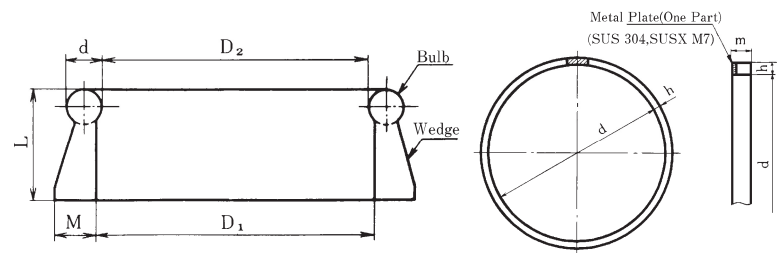
Size	Dimensions											Bolt Size (mm)
	e	f	Rg	i	r	s	Ru	W	X	Y	Z	
1100 (J44*)	6.97	0.31	23.43	0.63	6.97	3.43	22.83	2.01	0.91	0.43	1.10	M14
1200 (J48*)	6.97	0.31	25.43	0.63	6.97	3.43	24.84	2.01	0.91	0.43	1.10	M14
1350 (J54*)	6.97	0.31	28.46	0.63	6.97	3.43	27.87	2.01	0.91	0.43	1.10	M14
1500 (J60*)	6.97	0.31	31.57	0.75	6.97	3.43	30.91	2.01	0.98	0.51	1.30	M16
1600 (J64*)	7.56	0.31	33.46	0.75	7.56	4.02	32.80	2.01	0.98	0.51	1.30	M16
1650 (J66*)	7.56	0.31	34.49	0.75	7.56	4.02	33.82	2.01	0.98	0.51	1.30	M16
1800 (J72*)	7.56	0.31	37.36	0.75	7.56	4.02	36.69	2.01	0.98	0.51	1.30	M16
2000 (J80*)	7.56	0.31	41.65	0.91	7.56	4.02	40.91	2.01	1.06	0.51	1.50	M18
2100 (J84*)	7.56	0.31	43.66	0.91	7.56	4.02	42.91	2.01	1.06	0.51	1.50	M18
2200 (J88*)	7.56	0.31	45.94	0.91	7.56	4.02	45.20	2.01	1.06	0.51	1.50	M18
2400 (J96*)	7.56	0.31	49.45	0.91	7.56	4.02	48.70	2.01	1.06	0.51	1.50	M18
2600 (J104*)	7.95	0.31	53.90	0.91	7.95	4.41	53.15	2.01	1.06	0.51	1.50	M18

Table 6 S - Accessories (3)

Bolts And Nuts



Rubber Gasket



Dimensions in inches

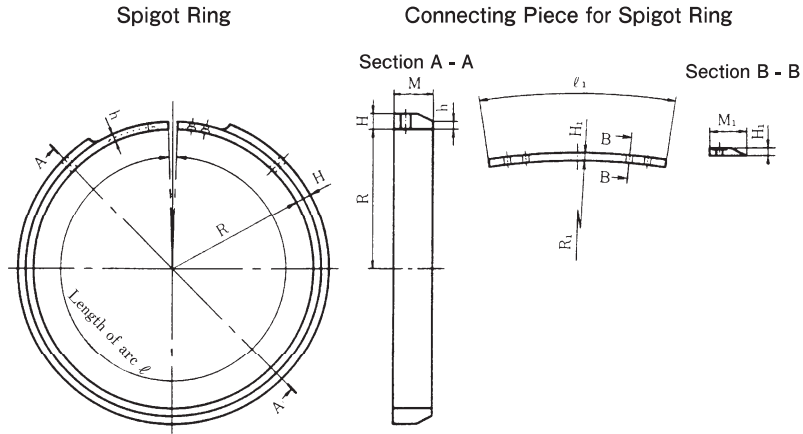
Size	Bolt Size (mm)	Dimensions				No. of parts per 1 set
		d	C	E	E'	
1100 (J44")	M30	5.51	3.15	1.18	1.81	24
1200 (J48")	M30	5.51	3.15	1.18	1.81	28
1350 (J54")	M30	5.51	3.15	1.18	1.81	28
1500 (J60")	M30	5.51	3.15	1.18	1.81	28
1600 (J64")	M30	6.10	3.54	1.18	1.81	30
1650 (J66")	M30	6.10	3.54	1.18	1.81	30
1800 (J72")	M30	6.10	3.54	1.18	1.81	34
2000 (J80")	M30	6.10	3.54	1.18	1.81	36
2100 (J84")	M30	6.10	3.54	1.18	1.81	38
2200 (J88")	M30	6.50	3.74	1.18	1.81	40
2400 (J96")	M30	6.50	3.74	1.18	1.81	44
2600 (J104")	M30	6.50	3.74	1.18	1.81	48

Dimensions in inches

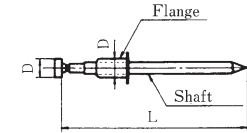
Size	Rubber Gasket					Backup Ring		
	Dimensions					Dimensions		
	D1	D2	d	L	M	d	h	m
1100 (J44")	44.06	43.78	0.71	2.28	0.83	44.80	0.31	0.59
1200 (J48")	48.03	47.76	0.71	2.28	0.83	48.82	0.31	0.59
1350 (J54")	53.94	53.66	0.71	2.28	0.83	54.88	0.31	0.59
1500 (J60")	59.84	59.57	0.71	2.28	0.83	60.79	0.31	0.59
1600 (J64")	63.78	63.50	0.79	2.95	0.98	64.57	0.39	0.59
1650 (J66")	65.75	65.47	0.79	2.95	0.98	66.57	0.39	0.59
1800 (J72")	71.65	71.38	0.79	2.95	0.98	72.36	0.39	0.59
2000 (J80")	79.53	79.25	0.79	2.95	0.98	80.75	0.39	0.59
2100 (J84")	83.46	83.19	0.79	2.95	0.98	84.80	0.39	0.59
2200 (J88")	87.80	87.52	0.79	2.95	0.98	89.37	0.39	0.59
2400 (J96")	94.88	94.61	0.79	2.95	0.98	96.38	0.39	0.59
2600 (J104")	103.54	103.23	0.91	3.46	1.18	105.28	0.47	0.59

Table 7 S - Accessories (4)

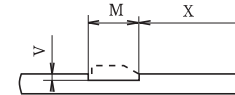
Spigot Ring for Cut Pipe



Rivet
(SUS 304, SUS 305, SUS XM 7)



Cut Pipe Spigot



Dimensions in inches

Size	Spigot Ring for Cut pipe										Rivet		
	Spigot Ring					Connecting Piece for Spigot Ring					Mass (lb/set)	Dimensions	
	R	ℓ	H	h	M	R1	ℓ1	H1	M1	D		L	
1100 (J44 ^{*)})	22.20	139.33	0.43	0.24	1.18	22.56	4.49	0.20	1.14	17.1	0.16	1.57	
1200 (J48 ^{*)})	24.21	151.93	0.43	0.24	1.18	24.57	4.49	0.20	1.14	18.7	0.16	1.57	
1350 (J54 ^{*)})	27.24	170.98	0.43	0.24	1.18	27.60	4.49	0.20	1.14	21.0	0.16	1.57	
1500 (J60 ^{*)})	30.24	189.76	0.47	0.28	1.38	30.63	4.49	0.20	1.34	30.0	0.16	1.69	
1600 (J64 ^{*)})	32.13	201.54	0.57	0.30	1.38	32.56	4.61	0.28	1.34	37.7	0.16	1.75	

Dimensions and Tolerance

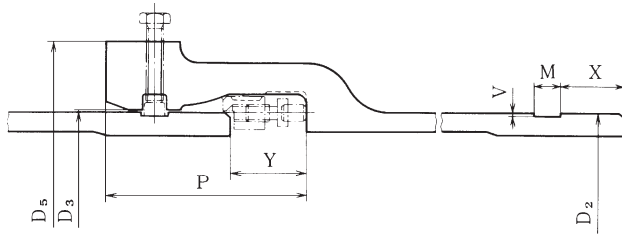
Dimensions in inches

Size	Cut Pipe Spigot					
	M	V		X		
1100 (J44 ^{*)} , 1200 (J48 ^{*)})	1.26	+0.06 -0.02	0.20	+0.04	1.97	±0.16
1350 (J54 ^{*)})	1.26		0.20	-0.02	2.36	
1500 (J60 ^{*)})	1.46	0.24		2.17		
1600 (J64 ^{*)})	1.46		0.24	+0.06	2.17	
				-0.02		

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UF-type

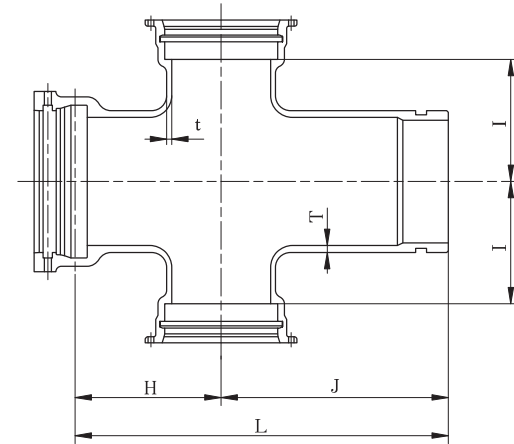
Table 9 UF - Fittings



Dimensions in inches

Size	Thickness		Dimensions						Mass (lb)	
	D ₂	D ₃	D ₅	P	Y	M	V	X	Socket projection	Spigot projection
800 (J32")	32.91	33.11	38.70	10.43	3.94	1.06	0.16	3.31	683	22.7
900 (J36")	36.97	37.17	42.91	10.43	3.94	1.06	0.16	3.31	792	25.6
1000 (J40")	40.98	41.22	47.28	10.63	3.94	1.26	0.20	3.31	937	35.5
1100 (J44")	45.04	45.28	51.65	10.63	3.94	1.26	0.20	3.31	1102	39.2
1200 (J48")	49.06	49.29	55.83	10.63	3.94	1.26	0.20	3.31	1228	42.8
1350 (J54")	55.12	55.35	62.20	11.02	3.94	1.26	0.20	3.70	1532	51.6
1500 (J60")	61.18	61.42	68.90	11.22	3.94	1.46	0.24	3.70	1874	68.3
1600 (J64")	64.96	65.20	73.15	11.61	4.33	1.46	0.24	3.70	2147	72.8
1650 (J66")	66.97	67.20	75.31	11.61	4.33	1.46	0.24	3.70	2262	75.0
1800 (J72")	72.76	72.99	81.42	11.61	4.33	1.46	0.24	3.70	2588	81.6
2000 (J80")	81.14	81.38	90.12	11.81	4.33	1.65	0.28	3.70	3135	106
2100 (J84")	85.20	85.43	94.33	12.01	4.33	1.65	0.28	3.82	3415	115
2200 (J88")	89.76	90.00	99.05	12.20	4.33	1.65	0.28	3.98	3768	125
2400 (J96")	96.77	97.01	106.54	12.60	4.33	1.65	0.28	4.25	4482	144
2600 (J104")	105.67	105.91	116.77	15.55	5.12	1.65	0.28	6.26	6420	225

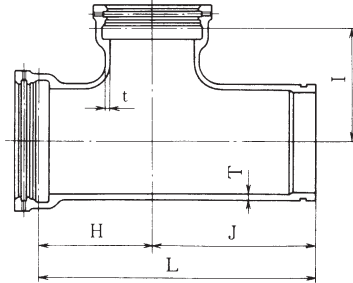
Table 10 UF - Triple Socket Crosses



Dimensions in inches

Size		Thickness		Dimensions				Mass (lb)
D	d	T	t	H	I	J	L	
800 (J32")	600 (J24")	0.71	0.63	31.10	26.38	40.55	71.65	2557
900 (J36")	700 (J28")	0.75	0.67	34.25	29.53	42.91	77.17	3307

Table 11 UF - Double Socket Tees



Dimensions in inches

UF

Size		Thickness		Dimensions				Mass (lb)
D	d	T	t	H	I	J	L	
800 (J32 ⁺)	500 (J20 ⁺)	0.71	0.59	31.10	26.38	40.55	71.65	2205
800 (J32 ⁺)	600 (J24 ⁺)	0.71	0.63	31.10	26.38	40.55	71.65	2271
800 (J32 ⁺)	700 (J28 ⁺)	0.71	0.67	31.10	26.38	40.55	71.65	2403
800 (J32 ⁺)	800 (J32 ⁺)	0.71	0.71	31.10	30.31	40.55	71.65	2756
900 (J36 ⁺)	600 (J24 ⁺)	0.75	0.63	27.56	27.17	37.01	64.57	2425
900 (J36 ⁺)	700 (J28 ⁺)	0.75	0.67	34.25	29.53	42.91	77.17	2866
900 (J36 ⁺)	800 (J32 ⁺)	0.75	0.71	34.25	33.46	42.91	77.17	3219
900 (J36 ⁺)	900 (J34 ⁺)	0.75	0.75	34.25	33.46	42.91	77.17	3373
1000 (J40 ⁺)	600 (J24 ⁺)	0.79	0.63	30.71	30.31	38.98	69.68	2954
1000 (J40 ⁺)	800 (J32 ⁺)	0.79	0.71	37.01	36.22	44.88	81.89	3770
1000 (J40 ⁺)	1000 (J40 ⁺)	0.79	0.79	37.01	36.22	44.88	81.89	4079
1100 (J44 ⁺)	600 (J24 ⁺)	0.83	0.63	29.53	31.50	39.37	68.90	3329
1100 (J44 ⁺)	800 (J32 ⁺)	0.83	0.71	33.07	36.61	41.34	74.41	3990
1100 (J44 ⁺)	1100 (J44 ⁺)	0.83	0.83	39.76	38.98	47.24	87.01	4916
1200 (J48 ⁺)	600 (J24 ⁺)	0.87	0.67	30.71	33.86	39.37	70.08	3792
1200 (J48 ⁺)	900 (J34 ⁺)	0.87	0.75	35.83	39.76	43.31	79.13	4696
1200 (J48 ⁺)	1200 (J48 ⁺)	0.87	0.87	42.13	41.34	49.21	91.34	5688
1350 (J54 ⁺)	600 (J24 ⁺)	0.94	0.75	31.50	37.40	39.37	70.87	4652
1350 (J54 ⁺)	900 (J34 ⁺)	0.94	0.75	37.80	43.31	45.28	83.07	5732
1350 (J54 ⁺)	※1350 (J54 ⁺)	0.94	0.94	46.46	45.28	53.15	99.61	7650

Note : The marking of ※ means reinforcement rib will be attached.

Size		Thickness		Dimensions				Mass (lb)
D	d	T	t	H	I	J	L	
1500 (J60 ⁺)	600 (J24 ⁺)	1.02	0.83	32.68	41.34	39.37	72.05	5666
1500 (J60 ⁺)	1000 (J40 ⁺)	1.02	0.83	40.16	47.24	47.24	87.40	7143
1500 (J60 ⁺)	※1500 (J60 ⁺)	1.02	1.02	50.39	49.21	55.12	105.51	9546
1600 (J64 ⁺)	900 (J34 ⁺)	1.08	0.83	37.40	47.64	45.28	82.68	7474
1600 (J64 ⁺)	1000 (J40 ⁺)	1.08	0.83	41.34	48.82	49.21	90.55	8069
1600 (J64 ⁺)	1100 (J44 ⁺)	1.08	0.87	41.34	48.82	49.21	90.55	8245
1600 (J64 ⁺)	1200 (J48 ⁺)	1.08	0.91	46.46	50.39	53.15	99.61	8951
1600 (J64 ⁺)	※1350 (J54 ⁺)	1.08	0.94	46.46	50.39	53.15	99.61	9502
1600 (J64 ⁺)	※1500 (J60 ⁺)	1.08	1.02	49.61	51.18	57.09	106.69	10384
1600 (J64 ⁺)	※1600 (J64 ⁺)	1.08	1.08	51.57	51.57	59.06	110.63	11089
1650 (J66 ⁺)	1000 (J40 ⁺)	1.10	0.83	41.34	49.61	49.21	90.55	8400
1650 (J66 ⁺)	1100 (J44 ⁺)	1.10	0.87	41.34	49.61	49.21	90.55	8576
1650 (J66 ⁺)	1200 (J48 ⁺)	1.10	0.91	46.46	51.18	53.15	99.61	9303
1650 (J66 ⁺)	1350 (J54 ⁺)	1.10	0.94	46.46	51.18	53.15	99.61	9634
1650 (J66 ⁺)	※1500 (J60 ⁺)	1.10	1.02	49.61	51.18	57.09	106.69	10714
1650 (J66 ⁺)	※1600 (J64 ⁺)	1.10	1.08	51.97	52.76	59.06	111.02	11398
1650 (J66 ⁺)	※1650 (J66 ⁺)	1.10	1.10	52.76	52.76	60.24	112.99	11795
1800 (J72 ⁺)	1000 (J40 ⁺)	1.18	0.87	42.13	52.76	49.21	91.34	9634
1800 (J72 ⁺)	1100 (J44 ⁺)	1.18	0.91	42.13	52.76	49.21	91.34	9788
1800 (J72 ⁺)	1200 (J48 ⁺)	1.18	0.94	46.85	53.94	55.12	101.97	10692
1800 (J72 ⁺)	1350 (J54 ⁺)	1.18	0.98	46.85	53.94	55.12	101.97	11001
1800 (J72 ⁺)	※1500 (J60 ⁺)	1.18	1.02	50.39	55.12	57.09	107.48	12103
1800 (J72 ⁺)	※1600 (J64 ⁺)	1.18	1.08	52.36	55.51	59.45	111.81	12743
1800 (J72 ⁺)	※1650 (J66 ⁺)	1.18	1.10	53.15	55.51	60.63	113.78	13029
1800 (J72 ⁺)	※1800 (J72 ⁺)	1.18	1.18	55.91	55.91	63.39	119.29	14065
2000 (J80 ⁺)	1100 (J44 ⁺)	1.26	0.91	42.13	57.09	49.21	91.34	11464
2000 (J80 ⁺)	1200 (J48 ⁺)	1.26	0.94	47.24	58.66	55.12	102.36	12544
2000 (J80 ⁺)	1350 (J54 ⁺)	1.26	0.98	47.24	58.66	55.12	102.36	12853
2000 (J80 ⁺)	1500 (J60 ⁺)	1.26	1.02	50.39	59.45	59.06	109.45	13801
2000 (J80 ⁺)	※1600 (J64 ⁺)	1.26	1.08	52.36	59.84	59.84	112.20	14727
2000 (J80 ⁺)	※1650 (J66 ⁺)	1.26	1.10	53.54	59.84	61.02	114.57	15057
2000 (J80 ⁺)	※1800 (J72 ⁺)	1.26	1.18	56.69	60.24	64.17	120.87	16050
2000 (J80 ⁺)	※2000 (J80 ⁺)	1.26	1.26	60.63	60.63	68.11	128.74	17615

Table 12 UF - Reducers

UF

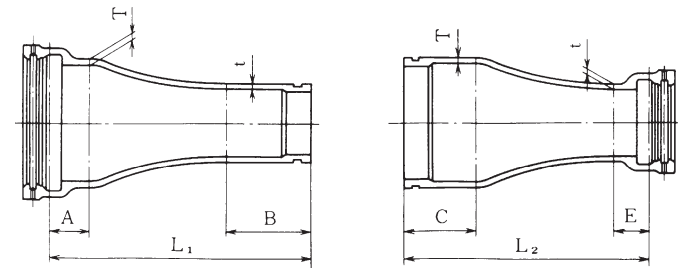
Dimensions in inches

Size		Thickness		Dimensions				Mass (lb)
D	d	T	t	H	I	J	L	
2100 (J84 ⁺)	1100 (J44 ⁺)	1.30	0.91	42.52	59.06	49.61	92.13	12390
2100 (J84 ⁺)	1200 (J48 ⁺)	1.30	0.94	47.64	59.84	55.12	102.76	13492
2100 (J84 ⁺)	1350 (J54 ⁺)	1.30	0.98	47.64	60.63	55.12	102.76	13801
2100 (J84 ⁺)	1500 (J60 ⁺)	1.30	1.02	50.39	61.02	59.06	109.45	14749
2100 (J84 ⁺)	1600 (J64 ⁺)	1.30	1.08	52.76	62.20	60.63	113.39	15432
2100 (J84 ⁺)	※1650 (J66 ⁺)	1.30	1.10	53.94	62.20	61.42	115.35	16138
2100 (J84 ⁺)	※1800 (J72 ⁺)	1.30	1.18	56.69	62.20	64.57	121.26	17086
2100 (J84 ⁺)	※2000 (J80 ⁺)	1.30	1.26	61.02	62.99	68.90	129.92	18607
2100 (J84 ⁺)	※2100 (J84 ⁺)	1.30	1.30	62.99	62.99	70.87	133.86	19555
2200 (J88 ⁺)	1200 (J48 ⁺)	1.34	0.94	47.64	62.20	55.51	103.15	14617
2200 (J88 ⁺)	1350 (J54 ⁺)	1.34	0.98	47.64	62.99	55.51	103.15	14925
2200 (J88 ⁺)	1500 (J60 ⁺)	1.34	1.02	51.18	63.39	59.06	110.24	15939
2200 (J88 ⁺)	1600 (J64 ⁺)	1.34	1.08	53.15	64.57	60.63	113.78	16623
2200 (J88 ⁺)	1650 (J66 ⁺)	1.34	1.10	53.94	64.57	61.81	115.75	16931
2200 (J88 ⁺)	※1800 (J72 ⁺)	1.34	1.18	57.09	64.57	64.57	121.65	18386
2200 (J88 ⁺)	※2000 (J80 ⁺)	1.34	1.26	61.42	65.35	68.90	130.31	19952
2200 (J88 ⁺)	※2100 (J84 ⁺)	1.34	1.30	63.39	65.35	70.87	134.25	20701
2200 (J88 ⁺)	※2200 (J88 ⁺)	1.34	1.34	65.35	65.35	72.83	138.19	21781
2400 (J96 ⁺)	1350 (J54 ⁺)	1.42	0.98	49.21	65.35	54.72	103.94	16975
2400 (J96 ⁺)	1500 (J60 ⁺)	1.42	1.02	52.36	65.75	57.87	110.24	17990
2400 (J96 ⁺)	1600 (J64 ⁺)	1.42	1.08	53.94	66.54	59.45	113.39	18629
2400 (J96 ⁺)	1650 (J66 ⁺)	1.42	1.10	55.12	66.93	60.63	115.75	19026
2400 (J96 ⁺)	1800 (J72 ⁺)	1.42	1.18	58.27	67.72	63.78	122.05	20128
2400 (J96 ⁺)	※2000 (J80 ⁺)	1.42	1.26	62.20	68.50	67.72	129.92	22244
2400 (J96 ⁺)	※2100 (J84 ⁺)	1.42	1.30	64.57	69.29	70.08	134.65	23170
2400 (J96 ⁺)	※2200 (J88 ⁺)	1.42	1.34	66.93	69.68	72.44	139.37	24162
2400 (J96 ⁺)	※2400 (J96 ⁺)	1.42	1.42	70.47	70.47	75.98	146.46	26235
2600 (J104 ⁺)	1500 (J60 ⁺)	1.48	1.02	54.33	70.47	54.72	109.05	21319
2600 (J104 ⁺)	1600 (J64 ⁺)	1.48	1.08	56.30	71.26	56.69	112.99	22112
2600 (J104 ⁺)	1650 (J66 ⁺)	1.48	1.10	57.09	71.65	57.87	114.96	22487
2600 (J104 ⁺)	1800 (J72 ⁺)	1.48	1.18	60.24	72.05	60.63	120.87	23589
2600 (J104 ⁺)	2000 (J80 ⁺)	1.48	1.26	64.17	72.83	64.96	129.13	25243
2600 (J104 ⁺)	2100 (J84 ⁺)	1.48	1.30	66.54	73.23	66.93	133.46	26125
2600 (J104 ⁺)	※2200 (J88 ⁺)	1.48	1.34	68.50	73.62	73.23	141.73	28351
2600 (J104 ⁺)	※2400 (J96 ⁺)	1.48	1.42	72.44	74.80	77.56	150.00	30424
2600 (J104 ⁺)	※2600 (J104 ⁺)	1.48	1.48	76.38	76.38	81.50	157.87	34017

Note : The marking of ※ means reinforcement rib will be attached.

Socket-Spigot Reducers

Spigot-Socket Reducers



Dimensions in inches

Size		Thickness		Dimensions						Mass (lb)	
D	d	T	t	A	B	C	E	L1	L2	Socket projection	Spigot projection
800 (J32 ⁺)	450 (J18 ⁺)	0.71	0.57	9.45	9.06	9.45	3.94	46.06	40.94	1221	703
800 (J32 ⁺)	500 (J20 ⁺)	0.71	0.59	9.45	9.06	9.45	4.33	46.06	41.34	1254	805
800 (J32 ⁺)	600 (J24 ⁺)	0.71	0.63	9.45	9.06	9.45	4.72	46.06	41.73	1318	902
800 (J32 ⁺)	700 (J28 ⁺)	0.71	0.67	9.45	9.45	9.45	9.06	46.46	42.13	1407	1080
900 (J36 ⁺)	500 (J20 ⁺)	0.75	0.59	9.84	9.06	10.24	4.33	46.46	42.13	1446	913
900 (J36 ⁺)	600 (J24 ⁺)	0.75	0.63	9.84	9.06	10.24	4.72	46.46	42.52	1506	1005
900 (J36 ⁺)	700 (J28 ⁺)	0.75	0.67	9.84	9.45	10.24	9.06	46.85	42.91	1587	1180
900 (J36 ⁺)	800 (J32 ⁺)	0.75	0.71	9.84	9.45	10.24	9.45	46.85	47.24	1671	1587
1000 (J40 ⁺)	600 (J24 ⁺)	0.79	0.63	10.63	9.06	10.24	4.72	47.24	42.52	1755	1116
1000 (J40 ⁺)	700 (J28 ⁺)	0.79	0.67	10.63	9.45	10.24	9.06	47.64	42.91	1832	1283
1000 (J40 ⁺)	800 (J32 ⁺)	0.79	0.71	10.63	9.45	10.24	9.45	47.64	47.24	1907	1684
1000 (J40 ⁺)	900 (J36 ⁺)	0.79	0.75	10.63	10.24	10.24	9.84	48.43	47.64	2008	1870
1100 (J44 ⁺)	700 (J28 ⁺)	0.83	0.67	11.02	9.45	11.02	9.06	51.97	47.64	2176	1493
1100 (J44 ⁺)	800 (J32 ⁺)	0.83	0.71	11.02	9.45	11.02	9.45	51.97	51.97	2249	1900
1100 (J44 ⁺)	900 (J36 ⁺)	0.83	0.75	11.02	10.24	11.02	9.84	52.76	52.36	2359	2088
1100 (J44 ⁺)	1000 (J40 ⁺)	0.83	0.79	11.02	10.24	11.02	10.63	52.76	53.15	2469	2337

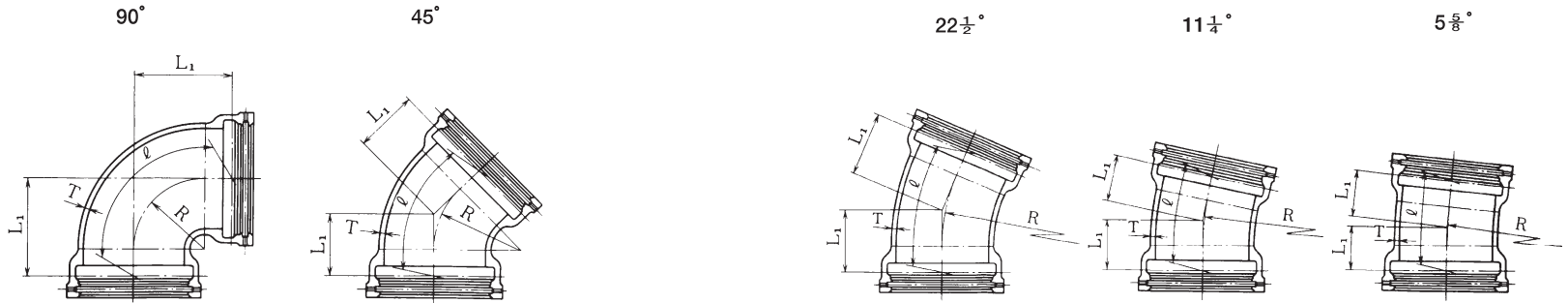
Dimensions in inches

Size		Thickness		Dimensions						Mass (lb)	
D	d	T	t	A	B	C	E	L1	L2	Socket projection	Spigot projection
1200 (J48 ⁺)	800 (J32 ⁺)	0.87	0.71	11.42	9.45	11.02	9.45	52.36	51.97	2513	2030
1200 (J48 ⁺)	900 (J36 ⁺)	0.87	0.75	11.42	10.24	11.02	9.84	53.15	52.36	2601	2205
1200 (J48 ⁺)	1000 (J40 ⁺)	0.87	0.79	11.42	10.24	11.02	10.63	53.15	53.15	2712	2447
1200 (J48 ⁺)	1100 (J44 ⁺)	0.87	0.83	11.42	11.02	11.02	11.02	53.94	53.54	2844	2712
1350 (J54 ⁺)	900 (J36 ⁺)	0.94	0.75	12.20	10.24	11.81	9.84	53.94	53.15	3153	2491
1350 (J54 ⁺)	1000 (J40 ⁺)	0.94	0.79	12.20	10.24	11.81	10.63	53.94	53.94	3241	2712
1350 (J54 ⁺)	1100 (J44 ⁺)	0.94	0.83	12.20	11.02	11.81	11.02	54.72	54.33	3351	2976
1350 (J54 ⁺)	1200 (J48 ⁺)	0.94	0.87	12.20	11.02	11.81	11.42	54.72	54.72	3461	3197
1500 (J60 ⁺)	1000 (J40 ⁺)	1.02	0.83	12.99	10.24	11.81	10.63	54.72	53.94	3902	3042
1500 (J60 ⁺)	1100 (J44 ⁺)	1.02	0.83	12.99	11.02	11.81	11.02	55.51	54.33	3990	3263
1500 (J60 ⁺)	1200 (J48 ⁺)	1.02	0.87	12.99	11.02	11.81	11.42	55.51	54.72	4079	3461
1500 (J60 ⁺)	1350 (J54 ⁺)	1.02	0.94	12.99	11.81	11.81	12.20	56.30	55.51	4299	3968
1600 (J64 ⁺)	1000 (J40 ⁺)	1.08	0.83	13.39	10.24	11.81	10.63	59.06	57.87	4519	3395
1600 (J64 ⁺)	1100 (J44 ⁺)	1.08	0.87	13.39	11.02	11.81	11.02	59.84	58.27	4630	3638
1600 (J64 ⁺)	1200 (J48 ⁺)	1.08	0.91	13.39	11.02	11.81	11.42	59.84	58.66	4740	3880
1600 (J64 ⁺)	1350 (J54 ⁺)	1.08	0.94	13.39	11.81	11.81	12.20	60.63	59.45	4916	4343
1600 (J64 ⁺)	1500 (J60 ⁺)	1.08	1.02	13.39	11.81	11.81	12.20	60.63	59.45	5181	4894
1650 (J66 ⁺)	1000 (J40 ⁺)	1.10	0.83	13.39	10.24	11.81	10.63	59.06	57.87	4740	3527
1650 (J66 ⁺)	1100 (J44 ⁺)	1.10	0.87	13.39	11.02	11.81	11.02	59.84	58.27	4850	3748
1650 (J66 ⁺)	1200 (J48 ⁺)	1.10	0.91	13.39	11.02	11.81	11.42	59.84	58.66	4938	3968
1650 (J66 ⁺)	1350 (J54 ⁺)	1.10	0.94	13.39	11.81	11.81	12.20	60.63	59.45	5115	4431
1650 (J66 ⁺)	1500 (J60 ⁺)	1.10	1.02	13.39	11.81	11.81	12.20	60.63	59.45	5379	4982
1650 (J66 ⁺)	1600 (J64 ⁺)	1.10	1.08	13.39	11.81	11.81	12.60	60.63	59.84	5556	5423
1800 (J72 ⁺)	1100 (J44 ⁺)	1.18	0.87	13.39	11.02	11.81	11.02	59.84	58.27	5534	4167
1800 (J72 ⁺)	1200 (J48 ⁺)	1.18	0.91	13.39	11.02	11.81	11.42	59.84	58.66	5600	4343
1800 (J72 ⁺)	1350 (J54 ⁺)	1.18	0.94	13.39	11.81	11.81	12.20	60.63	59.45	5754	4784
1800 (J72 ⁺)	1500 (J60 ⁺)	1.18	1.02	13.39	11.81	11.81	12.20	60.63	59.45	5975	5291
1800 (J72 ⁺)	1600 (J64 ⁺)	1.18	1.08	13.39	11.81	11.81	12.60	60.63	59.84	6151	5710
1800 (J72 ⁺)	1650 (J66 ⁺)	1.18	1.10	13.39	11.81	11.81	12.60	60.63	59.84	6239	5886

Dimensions in inches

Size		Thickness		Dimensions						Mass (lb)	
D	d	T	t	A	B	C	E	L1	L2	Socket projection	Spigot projection
2000 (J80 ⁺)	1200 (J48 ⁺)	1.26	0.94	13.39	11.02	11.81	11.42	59.84	58.66	6746	5004
2000 (J80 ⁺)	1350 (J54 ⁺)	1.26	0.98	13.39	11.81	11.81	12.20	60.63	59.45	6878	5401
2000 (J80 ⁺)	1500 (J60 ⁺)	1.26	1.02	13.39	11.81	11.81	12.20	60.63	59.45	6989	5820
2000 (J80 ⁺)	1600 (J64 ⁺)	1.26	1.08	13.39	11.81	11.81	12.60	60.63	59.84	7121	6195
2000 (J80 ⁺)	1650 (J66 ⁺)	1.26	1.10	13.39	11.81	11.81	12.60	60.63	59.84	7187	6349
2000 (J80 ⁺)	1800 (J72 ⁺)	1.26	1.18	13.39	12.60	11.81	12.60	61.42	59.84	7474	6878
2100 (J84 ⁺)	1350 (J54 ⁺)	1.30	0.98	14.17	11.81	12.60	12.20	61.42	60.24	7518	5798
2100 (J84 ⁺)	1500 (J60 ⁺)	1.30	1.02	14.17	11.81	12.60	12.20	61.42	60.24	7606	6195
2100 (J84 ⁺)	1600 (J64 ⁺)	1.30	1.08	14.17	11.81	12.60	12.60	61.42	60.63	7716	6548
2100 (J84 ⁺)	1650 (J66 ⁺)	1.30	1.10	14.17	11.81	12.60	12.60	61.42	60.63	7782	6702
2100 (J84 ⁺)	1800 (J72 ⁺)	1.30	1.18	14.17	12.60	12.60	12.60	62.20	60.63	8047	7209
2100 (J84 ⁺)	2000 (J80 ⁺)	1.30	1.26	14.17	12.60	12.60	12.60	62.20	60.63	8422	8047
2200 (J88 ⁺)	1500 (J60 ⁺)	1.34	1.02	14.17	11.81	12.60	12.20	61.42	60.24	8311	6570
2200 (J88 ⁺)	1600 (J64 ⁺)	1.34	1.08	14.17	11.81	12.60	12.60	61.42	60.63	8400	6900
2200 (J88 ⁺)	1650 (J66 ⁺)	1.34	1.10	14.17	11.81	12.60	12.60	61.42	60.63	8444	7055
2200 (J88 ⁺)	1800 (J72 ⁺)	1.34	1.18	14.17	12.60	12.60	12.60	62.20	60.63	8686	7518
2200 (J88 ⁺)	2000 (J80 ⁺)	1.34	1.26	14.17	12.60	12.60	12.60	62.20	60.63	8995	8289
2200 (J88 ⁺)	2100 (J84 ⁺)	1.34	1.30	14.17	12.60	12.60	12.60	62.20	60.63	9193	8730
2400 (J96 ⁺)	1600 (J64 ⁺)	1.42	1.08	14.96	11.81	12.60	12.60	66.14	64.57	10075	7826
2400 (J96 ⁺)	1650 (J66 ⁺)	1.42	1.10	14.96	11.81	12.60	12.60	66.14	64.57	10119	7981
2400 (J96 ⁺)	1800 (J72 ⁺)	1.42	1.18	14.96	12.60	12.60	12.60	66.93	64.57	10340	8422
2400 (J96 ⁺)	2000 (J80 ⁺)	1.42	1.26	14.96	12.60	12.60	12.60	66.93	64.57	10626	9171
2400 (J96 ⁺)	2100 (J84 ⁺)	1.42	1.30	14.96	12.60	12.60	12.60	66.93	64.57	10803	9590
2400 (J96 ⁺)	2200 (J88 ⁺)	1.42	1.34	14.96	12.60	12.60	12.60	66.93	64.57	11023	10119
2600 (J104 ⁺)	1600 (J64 ⁺)	1.48	1.08	14.57	13.19	15.16	11.81	81.30	80.51	13139	9414
2600 (J104 ⁺)	1650 (J66 ⁺)	1.48	1.10	14.57	13.39	15.16	12.01	79.53	78.74	13095	9480
2600 (J104 ⁺)	1800 (J72 ⁺)	1.48	1.18	14.57	13.58	15.16	12.20	73.82	73.03	12963	9612
2600 (J104 ⁺)	2000 (J80 ⁺)	1.48	1.26	14.57	13.98	15.16	12.60	66.34	65.55	12721	9811
2600 (J104 ⁺)	2100 (J84 ⁺)	1.48	1.30	14.57	14.17	15.16	12.80	62.60	61.81	12566	9877
2600 (J104 ⁺)	2200 (J88 ⁺)	1.48	1.34	14.57	14.37	15.16	12.99	58.86	58.07	12390	10009
2600 (J104 ⁺)	2400 (J96 ⁺)	1.48	1.42	14.57	14.76	15.16	13.39	51.38	50.59	11949	10185

Table 13 UF - Double Socket Bends



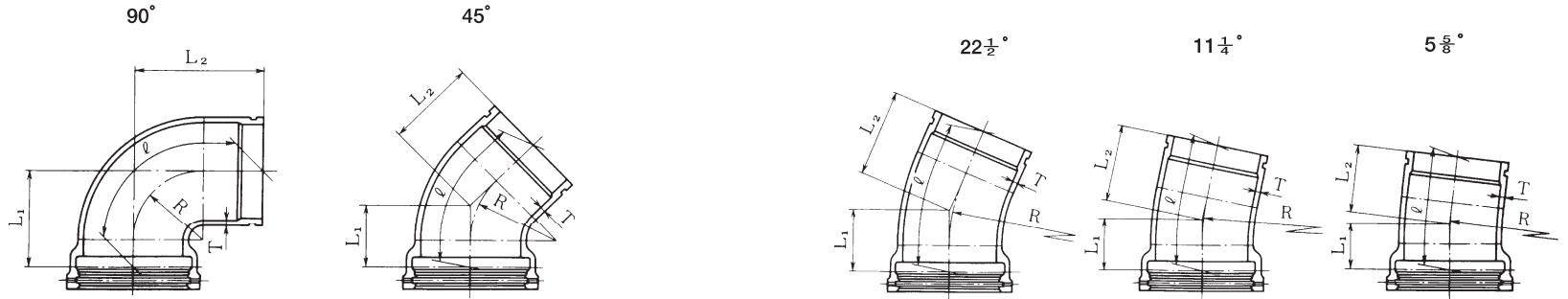
Dimensions in inches

Size	Thick-ness	90°				45°					
		Dimensions			Length of Pipe center ℓ	Mass (lb)	Dimensions			Length of Pipe center ℓ	Mass (lb)
		T	R	L1			R	L1			
800 (J32")	0.71	39.37	47.05	77.20	2646	66.93	35.39	67.91	2491		
900 (J36")	0.75	43.31	51.14	83.70	3263	74.80	38.82	74.41	3042		
1000 (J40")	0.79	45.28	53.23	87.01	3902	82.68	42.20	80.83	3748		
1100 (J44")	0.83	47.24	55.39	90.51	4652	90.55	45.67	87.40	4564		
1200 (J48")	0.87	47.24	55.47	90.67	5269	90.55	45.75	87.56	5159		
1350 (J54")	0.94	47.24	55.67	91.06	6526	90.55	45.94	87.95	6393		
1500 (J60")	1.02	47.24	55.91	91.54	7937	90.55	46.18	88.43	7782		
1600 (J64")	1.08	47.24	56.69	93.11	9039	59.06	33.90	65.28	7474		
1650 (J66")	1.10	47.24	56.77	93.27	9502	59.06	33.98	65.43	7870		
1800 (J72")	1.18	49.21	58.94	96.77	11221	59.06	34.17	65.83	9105		
2000 (J80")	1.26	—	—	—	—	59.06	34.49	66.46	11001		
2100 (J84")	1.30	—	—	—	—	66.93	37.83	72.80	12500		
2200 (J88")	1.34	—	—	—	—	66.93	37.99	73.11	13735		
2400 (J96")	1.42	—	—	—	—	66.93	38.27	73.66	16094		
2600 (J104")	1.48	—	—	—	—	68.50	40.55	78.15	21319		

Dimensions in inches

22 1/2°				11 1/4°				5 5/8°				Size			
Dimensions			Length of Pipe center ℓ	Mass (lb)	Dimensions			Length of Pipe center ℓ	Mass (lb)	Dimensions			Length of Pipe center ℓ	Mass (lb)	
R	L1	ℓ			R	L1	ℓ			R	L1				ℓ
133.86	34.29	67.91	2491	236.22	30.94	61.73	2359	472.44	30.91	61.73	2359	800 (J32")			
149.61	37.60	74.41	3042	236.22	31.10	62.05	2778	472.44	31.06	62.05	2778	900 (J36")			
165.35	40.83	80.83	3748	236.22	31.22	62.28	3263	472.44	31.18	62.28	3263	1000 (J40")			
177.17	43.39	85.87	4519	236.22	31.42	62.68	3836	472.44	31.38	62.68	3836	1100 (J44")			
177.17	43.46	86.02	5115	236.22	31.50	62.83	4321	472.44	31.46	62.83	4321	1200 (J48")			
177.17	43.66	86.42	6327	236.22	31.69	63.23	5357	472.44	31.65	63.23	5357	1350 (J54")			
177.17	43.90	86.89	7694	236.22	31.93	63.70	6548	472.44	31.89	63.70	6548	1500 (J60")			
118.11	32.95	65.28	7474	236.22	32.72	65.28	7474	472.44	32.68	65.28	7474	1600 (J64")			
118.11	33.03	65.43	7870	236.22	32.80	65.43	7870	472.44	32.76	65.43	7870	1650 (J66")			
118.11	33.23	65.83	9105	236.22	32.99	65.83	9105	472.44	32.95	65.83	9105	1800 (J72")			
118.11	33.54	66.46	11001	236.22	33.31	66.46	11001	472.44	33.27	66.46	11001	2000 (J80")			
133.86	36.73	72.80	12500	236.22	33.39	66.61	11949	472.44	33.35	66.61	11949	2100 (J84")			
133.86	36.89	73.11	13735	236.22	33.54	66.93	13139	472.44	33.50	66.93	13139	2200 (J88")			
133.86	37.17	73.66	16094	236.22	33.82	67.48	15410	472.44	33.78	67.48	15410	2400 (J96")			
143.31	40.55	80.35	21583	143.31	26.38	52.68	18144	286.61	26.38	52.72	18144	2600 (J104")			

Table 14 UF - Socket Spigot Bends



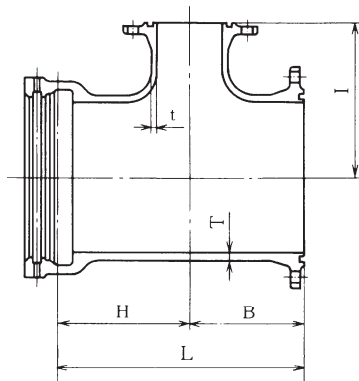
Dimensions in inches

Size	Thick-ness	90°					45°					Mass (lb)		
		Dimensions				Length of Pipe center ℓ	Mass (lb)	Dimensions					Length of Pipe center ℓ	Mass (lb)
		T	R	L1	L2			R	L1	L2				
800 (J32")	0.71	39.37	47.05	51.18	81.34	2141	66.93	35.39	35.59	68.11	1896			
900 (J36")	0.75	43.31	51.14	55.12	87.68	2668	74.80	38.82	38.86	74.45	2359			
1000 (J40")	0.79	45.28	53.23	57.09	90.87	3197	82.68	42.20	42.91	81.54	2976			
1100 (J44")	0.83	47.24	55.39	59.06	94.17	3814	90.55	45.67	46.18	87.91	3638			
1200 (J48")	0.87	47.24	55.47	59.06	94.25	4321	90.55	45.75	46.18	87.99	4123			
1350 (J54")	0.94	47.24	55.67	59.06	94.45	5335	90.55	45.94	46.18	88.19	5093			
1500 (J60")	1.02	47.24	55.91	59.06	94.68	6482	90.55	46.18	46.18	88.43	6173			
1600 (J64")	1.08	47.24	56.69	61.02	97.44	7452	59.06	33.90	34.29	65.67	5666			
1650 (J66")	1.10	47.24	56.77	61.02	97.52	7826	59.06	33.98	34.29	65.75	5952			
1800 (J72")	1.18	49.21	58.94	62.99	100.83	9281	59.06	34.17	34.29	65.94	6900			
2000 (J80")	1.26	—	—	—	—	—	59.06	34.49	34.29	66.26	8289			
2100 (J84")	1.30	—	—	—	—	—	66.93	37.83	37.56	72.52	9568			
2200 (J88")	1.34	—	—	—	—	—	66.93	37.99	37.56	72.68	10450			
2400 (J96")	1.42	—	—	—	—	—	66.93	38.27	37.56	72.95	12147			
2600 (J104")	1.48	—	—	—	—	—	68.50	40.55	40.55	78.15	15763			

Dimensions in inches

22 1/2°					11 1/4°					5 5/8°					Size			
Dimensions				Length of Pipe center ℓ	Mass (lb)	Dimensions				Length of Pipe center ℓ	Mass (lb)	Dimensions				Length of Pipe center ℓ	Mass (lb)	
R	L1	L2	T			R	L1	L2	T			R	L1	L2				T
133.86	34.29	34.49	68.11	1896	236.22	30.94	31.14	61.93	1781	472.44	30.91	31.10	61.93	1781	800 (J32")			
149.61	37.60	37.64	74.45	2359	236.22	31.10	31.14	62.09	2097	472.44	31.06	31.10	62.09	2097	900 (J36")			
165.35	40.83	41.54	81.54	2976	236.22	31.22	31.93	62.99	2491	472.44	31.18	31.89	62.99	2491	1000 (J40")			
177.17	43.39	43.90	86.38	3594	236.22	31.42	31.93	63.19	2910	472.44	31.38	31.89	63.19	2910	1100 (J44")			
177.17	43.46	43.90	86.46	4079	236.22	31.50	31.93	63.27	3285	472.44	31.46	31.89	63.27	3285	1200 (J48")			
177.17	43.66	43.90	86.65	5027	236.22	31.69	31.93	63.46	4057	472.44	31.65	31.89	63.46	4057	1350 (J54")			
177.17	43.90	43.90	86.89	6085	236.22	31.93	31.93	63.70	4938	472.44	31.89	31.89	63.70	4938	1500 (J60")			
118.11	32.95	33.35	65.67	5666	236.22	32.72	33.11	65.67	5666	472.44	32.68	33.07	65.67	5666	1600 (J64")			
118.11	33.03	33.35	65.75	5952	236.22	32.80	33.11	65.75	5952	472.44	32.76	33.07	65.75	5952	1650 (J66")			
118.11	33.23	33.35	65.94	6900	236.22	32.99	33.11	65.94	6900	472.44	32.95	33.07	65.94	6900	1800 (J72")			
118.11	33.54	33.35	66.26	8289	236.22	33.31	33.11	66.26	8289	472.44	33.27	33.07	66.26	8289	2000 (J80")			
133.86	36.73	36.46	72.52	9568	236.22	33.39	33.11	66.34	9017	472.44	33.35	33.07	66.34	9017	2100 (J84")			
133.86	36.89	36.46	72.68	10450	236.22	33.54	33.11	66.50	9855	472.44	33.50	33.07	66.50	9855	2200 (J88")			
133.86	37.17	36.46	72.95	12147	236.22	33.82	33.11	66.77	11486	472.44	33.78	33.07	66.77	11486	2400 (J96")			
143.31	40.55	40.55	80.35	16050	143.31	26.38	26.38	52.68	12588	286.61	26.38	26.38	52.72	12588	2600 (J104")			

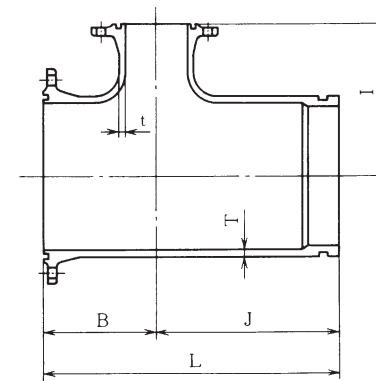
Table 15 UF - Socket Flanged Tees with Flanged Branch



Dimensions in inches

Size		Thickness		Dimensions				Mass (lb)
D	d	T	t	B	H	I	L	GF Type
								105 psi
800 (J32")	150 (J6")	0.71	0.51	12.99	16.93	21.65	29.92	1332
900 (J36")	200 (J8")	0.75	0.55	14.57	18.50	24.02	33.07	1647
1000 (J40")	200 (J8")	0.79	0.59	15.75	19.69	26.38	35.43	1995
1100 (J44")	200 (J8")	0.83	0.63	16.54	20.47	28.74	37.01	2381
1200 (J48")	250 (J10")	0.87	0.67	18.11	22.05	31.10	40.16	2800
1350 (J54")	250 (J10")	0.94	0.75	19.29	23.23	34.25	42.52	3572
1500 (J60")	300 (J12")	1.02	0.83	20.87	24.80	37.80	45.67	4497
1600 (J64")	300 (J12")	1.08	0.83	21.26	25.59	39.76	46.85	5181
1650 (J66")	300 (J12")	1.10	0.83	21.26	25.59	40.55	46.85	5445
1800 (J72")	350 (J14")	1.18	0.83	22.83	27.17	44.09	50.00	6460
2000 (J80")	350 (J14")	1.26	0.83	23.23	27.56	48.03	50.79	7760
2100 (J84")	400 (J16")	1.30	0.83	24.41	28.74	50.39	53.15	8620
2200 (J88")	400 (J16")	1.34	0.83	24.80	29.13	53.15	53.94	9502
2400 (J96")	450 (J18")	1.42	0.83	26.38	30.71	56.30	57.09	11486
2600 (J104")	500 (J20")	1.48	0.83	27.95	33.07	61.02	61.02	14639

Table 16 UF - Flanged Spigot Tees with Flanged Branch

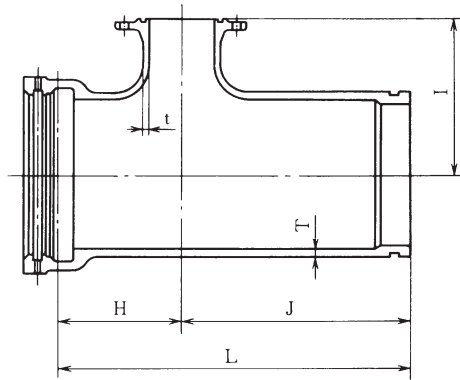


Dimensions in inches

Size		Thickness		Dimensions				Mass (lb)
D	d	T	t	B	I	J	L	GF Type
								105 psi
800 (J32")	150 (J6")	0.71	0.51	12.99	21.65	24.80	37.80	888
900 (J36")	200 (J8")	0.75	0.55	14.57	24.02	26.38	40.94	1142
1000 (J40")	200 (J8")	0.79	0.59	15.75	26.38	27.56	43.31	1396
1100 (J44")	200 (J8")	0.83	0.63	16.54	28.74	28.35	44.88	1660
1200 (J48")	250 (J10")	0.87	0.67	18.11	31.10	29.53	47.64	2002
1350 (J54")	250 (J10")	0.94	0.75	19.29	34.25	29.92	49.21	2535
1500 (J60")	300 (J12")	1.02	0.83	20.87	37.80	31.10	51.97	3197
1600 (J64")	300 (J12")	1.08	0.83	21.26	39.76	34.65	55.91	3858
1650 (J66")	300 (J12")	1.10	0.83	21.26	40.55	35.04	56.30	4056
1800 (J72")	350 (J14")	1.18	0.83	22.83	44.09	36.61	59.45	4916
2000 (J80")	350 (J14")	1.26	0.83	23.23	48.03	37.01	60.24	5864
2100 (J84")	400 (J16")	1.30	0.83	24.41	50.39	38.19	62.60	6548
2200 (J88")	400 (J16")	1.34	0.83	24.80	53.15	38.58	63.39	7187
2400 (J96")	450 (J18")	1.42	0.83	26.38	56.30	40.16	66.54	8664
2600 (J104")	500 (J20")	1.48	0.83	27.95	61.02	33.46	61.42	9127

Table 17 UF - Socket Spigot Tees with Flanged Branch

UF



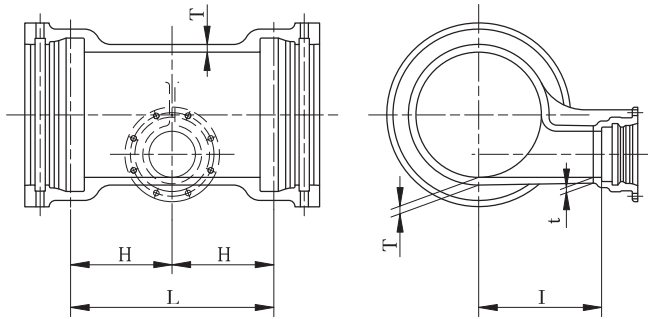
Dimensions in inches

Size		Thickness		Dimensions				Mass (lb)	
D	d	T	t	H	I	J	L	RF Type	GF Type
								105 psi	105 psi
800 (J32")	75 (J3")	0.71	0.51	14.57	20.47	23.23	37.80	1345	1345
800 (J32")	100 (J4")	0.71	0.51	14.57	20.47	23.23	37.80	1349	1347
800 (J32")	600 (J24")	0.71	0.63	31.10	26.38	40.55	71.65	2114	2112
900 (J36")	100 (J4")	0.75	0.55	15.75	23.23	24.41	40.16	1631	1629
900 (J36")	600 (J24")	0.75	0.63	27.56	27.17	37.01	64.57	2271	2271
1000 (J40")	150 (J6")	0.79	0.59	16.54	25.20	25.20	41.73	1967	1967
1000 (J40")	600 (J24")	0.79	0.63	30.71	30.31	38.98	69.68	2800	2800
1100 (J44")	150 (J6")	0.83	0.63	17.32	27.56	25.98	43.31	2337	2337
1100 (J44")	600 (J24")	0.83	0.63	29.53	31.50	39.37	68.90	3197	3197
1200 (J48")	150 (J6")	0.87	0.67	18.11	29.53	26.77	44.88	2690	2690
1200 (J48")	600 (J24")	0.87	0.67	30.71	33.86	39.37	70.08	3638	3638

Dimensions in inches

Size		Thickness		Dimensions				Mass (lb)	
D	d	T	t	H	I	J	L	RF Type	GF Type
								105 psi	105 psi
1350 (J54")	150 (J6")	0.94	0.75	18.90	32.68	27.56	46.46	3373	3373
1350 (J54")	600 (J24")	0.94	0.75	31.50	37.40	39.37	70.87	4497	4497
1500 (J60")	150 (J6")	1.02	0.83	20.47	35.83	28.35	48.82	4211	4211
1500 (J60")	600 (J24")	1.02	0.83	32.68	41.34	39.37	72.05	5512	5512
1600 (J64")	600 (J24")	1.08	0.83	33.07	42.13	41.34	74.41	6283	6283
1650 (J66")	600 (J24")	1.10	0.83	33.07	43.31	41.34	74.41	6614	6614
1800 (J72")	600 (J24")	1.18	0.83	33.46	46.06	41.34	74.80	7628	7628
2000 (J80")	600 (J24")	1.26	0.83	33.86	50.39	41.34	75.20	9149	9149
2100 (J84")	600 (J24")	1.30	0.83	34.25	52.76	41.34	75.59	9965	9943
2200 (J88")	600 (J24")	1.34	0.83	34.25	54.72	41.73	75.98	10891	10891
2400 (J96")	600 (J24")	1.42	0.83	34.65	58.66	42.52	77.17	12721	12721
2600 (J104")	600 (J24")	1.48	0.83	35.04	61.42	35.43	70.47	14881	14881

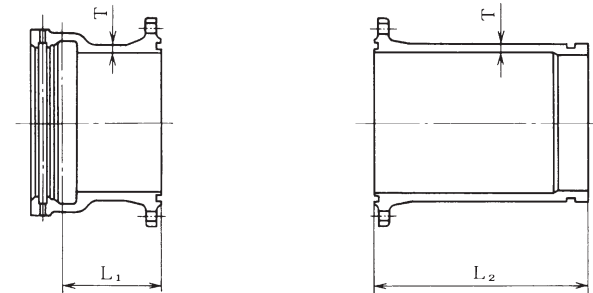
Table 18 UF - Double Socket Level Invert Tees with Socket Branch



Dimensions in inches

Size		Thickness		Dimensions			Mass (lb)
D	d	T	t	H	I	L	
800 (J32")	300 (J12")	0.71	0.59	18.11	19.69	36.22	1997
900 (J36")	300 (J12")	0.75	0.59	18.50	21.65	37.01	2337
1000 (J40")	400 (J16")	0.79	0.63	21.26	23.62	42.52	2910
1100 (J44")	400 (J16")	0.83	0.67	21.65	25.59	43.31	3417
1200 (J48")	400 (J16")	0.87	0.71	22.44	27.56	44.88	3880
1350 (J54")	400 (J16")	0.94	0.79	23.23	30.71	46.46	4850
1500 (J60")	400 (J16")	1.02	0.87	24.02	33.46	48.03	5975
1600 (J64")	400 (J16")	1.08	0.87	27.95	36.61	55.91	7187
1650 (J66")	400 (J16")	1.10	0.87	28.35	37.40	56.69	7606
1800 (J72")	400 (J16")	1.18	0.91	29.13	40.55	58.27	8863
2000 (J80")	400 (J16")	1.26	0.94	30.71	44.49	61.42	10913
2100 (J84")	400 (J16")	1.30	0.98	31.10	46.46	62.20	11927
2200 (J88")	400 (J16")	1.34	0.98	31.50	48.82	62.99	13139
2400 (J96")	400 (J16")	1.42	1.02	32.28	53.15	64.57	15542
2600 (J104")	400 (J16")	1.48	1.02	30.71	55.12	61.42	19709

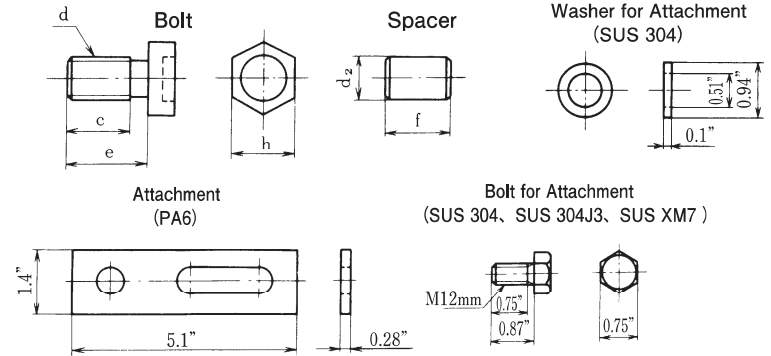
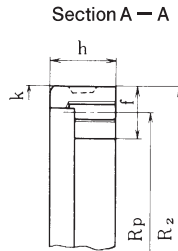
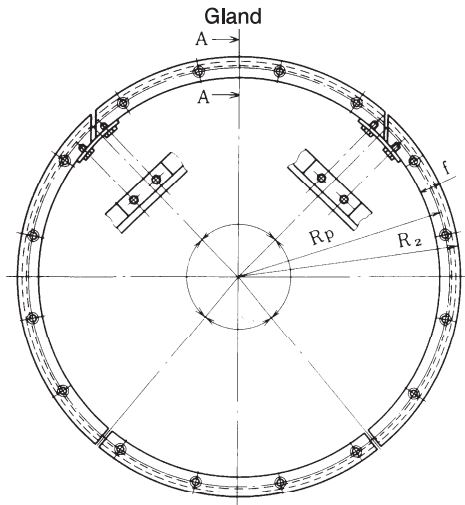
Table 19 UF - Flanged Sockets, Flanged Spigots



Dimensions in inches

Size	Thickness T	Nominal laying length (feet)		Mass (lb)			
		L1	L2	Flanged Socket		Flanged Spigot	
				RF Type 105 psi	GF Type 105 psi	RF Type 105 psi	GF Type 105 psi
800 (J32")	0.71	1.15	2.46	1012	1010	714	712
900 (J36")	0.75	1.15	2.62	1195	1193	906	904
1000 (J40")	0.79	1.15	2.62	1413	1407	1067	1060
1100 (J44")	0.83	1.38	2.62	1742	1733	1239	1230
1200 (J48")	0.87	1.38	2.62	1964	1956	1418	1409
1350 (J54")	0.94	1.38	2.62	2447	2447	1759	1751
1500 (J60")	1.02	1.38	2.62	2976	2976	2119	2110
1600 (J64")	1.08	2.00	2.95	3858	3836	2668	2646
1650 (J66")	1.10	2.00	2.95	4057	4034	2800	2778
1800 (J72")	1.18	2.33	2.95	4916	4894	3219	3197
2000 (J80")	1.26	2.33	2.95	5864	5820	3792	3770
2100 (J84")	1.30	2.66	3.28	6702	6680	4453	4409
2200 (J88")	1.34	2.66	3.28	7341	7319	4850	4806
2400 (J96")	1.42	2.66	3.28	8686	8664	5644	5622
2600 (J104")	1.48	3.05	3.61	11552	11508	6834	6790

Table 20 UF - Accessories (1)



UF

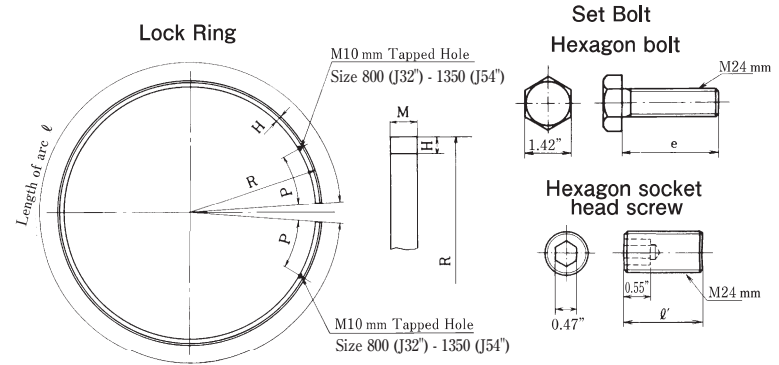
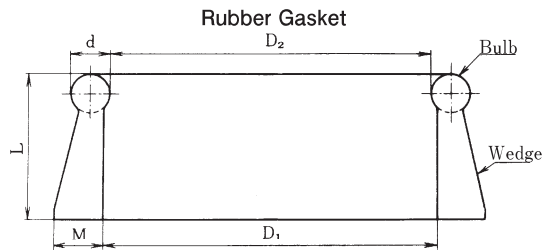
Dimensions in inches

Size	Dimensions				Mass (lb/set)
	R ₂	f	h	R _p	
800 (J32")	17.36	1.65	2.17	16.54	72.5
900 (J36")	19.39	1.65	2.17	18.56	81.6
1000 (J40")	21.40	1.65	2.17	20.57	90.8
1100 (J44")	23.43	1.65	2.17	22.60	99.2
1200 (J48")	25.43	1.65	2.17	24.61	108
1350 (J54")	28.46	1.65	2.17	27.64	122
1500 (J60")	31.50	1.65	2.17	30.67	135
1600 (J64")	33.54	1.97	2.36	32.48	190
1650 (J66")	34.55	1.97	2.36	33.48	196
1800 (J72")	37.44	1.97	2.36	36.38	213
2000 (J80")	41.63	1.97	2.36	40.57	238
2100 (J84")	43.66	1.97	2.36	42.60	249
2200 (J88")	45.94	1.97	2.36	44.88	262
2400 (J96")	49.45	1.97	2.36	48.46	282
2600 (J104")	54.09	1.97	3.35	52.91	375

Dimensions in inches

Size	Bolt			Spacer		No. of parts per 1 set	
	Size (mm)	Dimensions			Dimensions		
		c	e	h	d ₂		f
800 (J32")	M22	1.18	1.57	1.26	0.79	1.18	16
900 (J36")	M22	1.18	1.57	1.26	0.79	1.18	16
1000 (J40")	M22	1.18	1.57	1.26	0.79	1.18	16
1100 (J44")	M22	1.18	1.57	1.26	0.79	1.18	20
1200 (J48")	M22	1.18	1.57	1.26	0.79	1.18	22
1350 (J54")	M22	1.18	1.57	1.26	0.79	1.18	22
1500 (J60")	M22	1.18	1.57	1.26	0.79	1.18	22
1600 (J64")	M24	1.38	1.77	1.42	0.98	1.38	26
1650 (J66")	M24	1.38	1.77	1.42	0.98	1.38	26
1800 (J72")	M24	1.38	1.77	1.42	0.98	1.38	28
2000 (J80")	M24	1.38	1.77	1.42	0.98	1.38	30
2100 (J84")	M24	1.38	1.77	1.42	0.98	1.38	32
2200 (J88")	M24	1.38	1.77	1.42	0.98	1.38	34
2400 (J96")	M24	1.38	1.77	1.42	0.98	1.38	38
2600 (J104")	M24	1.57	1.97	1.42	0.98	1.57	40

Table 21 UF - Accessories (2)



UF

Dimensions in inches

Size	Dimensions				
	D1	D2	d	L	M
800 (J32")	32.20	31.97	0.67	1.97	0.83
900 (J36")	36.14	35.91	0.67	1.97	0.83
1000 (J40")	40.08	39.80	0.71	1.97	0.83
1100 (J44")	44.06	43.78	0.71	1.97	0.83
1200 (J48")	48.03	47.76	0.71	1.97	0.83
1350 (J54")	53.94	53.66	0.71	1.97	0.83
1500 (J60")	59.84	59.57	0.71	1.97	0.83
1600 (J64")	63.78	63.50	0.79	2.36	0.98
1650 (J66")	65.75	65.47	0.79	2.36	0.98
1800 (J72")	71.65	71.38	0.79	2.36	0.98
2000 (J80")	79.53	79.25	0.79	2.36	0.98
2100 (J84")	83.46	83.19	0.79	2.36	0.98
2200 (J88")	87.80	87.52	0.79	2.36	0.98
2400 (J96")	94.88	94.61	0.79	2.36	0.98
2600 (J104")	103.54	103.23	0.91	3.46	1.18

Dimensions in inches

Size	Lock Ring						Set Bolt				
	Dimensions					Mass (lb)	Hexagin Bolt		Hexagon Socket Head Screw		
							Dimensions		No. of parts	Dimensions	No. of parts
	R	ℓ	H	M	P	e	Pipes	Fittings		ℓ'	
800 (J32")	17.13	105.59	0.71	0.98	11.81	18.6	1.97	2.95	9	1.38	9
900 (J36")	19.13	118.35	0.71	0.98	11.81	20.9	1.97	2.95	9	1.38	9
1000 (J40")	21.18	131.22	0.79	1.18	19.69	30.9	2.36	3.74	9	1.57	9
1100 (J44")	23.23	143.98	0.79	1.18	19.69	34.0	2.36	3.74	9	1.57	9
1200 (J48")	25.24	156.61	0.79	1.18	19.69	37.0	2.36	3.74	9	1.57	9
1350 (J54")	28.27	175.63	0.79	1.18	19.69	41.4	2.36	3.74	9	1.77	9
1500 (J60")	31.34	194.92	0.87	1.38	—	59.3	2.36	3.74	9	1.77	9
1600 (J64")	33.23	206.81	0.87	1.38	—	62.8	2.95	4.72	9	1.97	9
1650 (J66")	34.25	213.11	0.87	1.38	—	64.8	2.95	4.72	9	1.97	9
1800 (J72")	37.13	231.30	0.87	1.38	—	70.3	2.95	4.72	9	2.17	9
2000 (J80")	41.26	257.87	0.94	1.57	—	97.9	2.95	4.72	9	2.17	9
2100 (J84")	43.27	270.63	0.94	1.57	—	103	2.95	4.72	9	2.17	9
2200 (J88")	45.51	284.96	0.94	1.57	—	108	2.95	4.72	9	2.36	9
2400 (J96")	48.94	306.97	0.94	1.57	—	117	2.95	4.72	9	2.36	9
2600 (J104")	53.62	334.92	0.94	1.57	—	127	3.35	5.71	9	2.36	9