

Dimension Handbook

S-type

Size 44" (1100mm) ~ 104" (2600mm)

UF-type

Size 32" (800mm) ~ 104" (2600mm)

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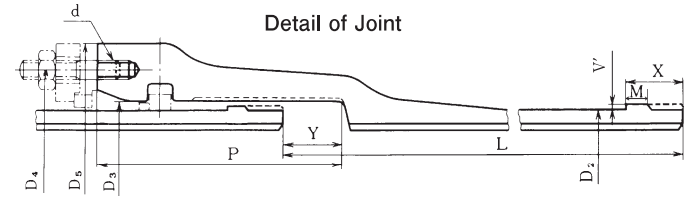
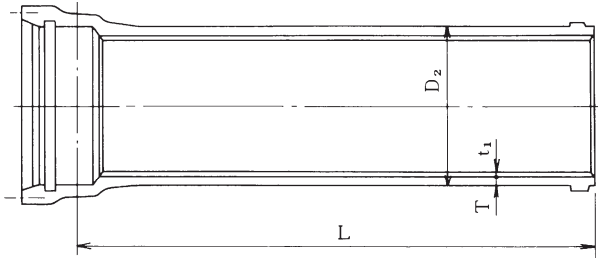
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Appendix Table 1 S-Pipes

S-Pipes



S

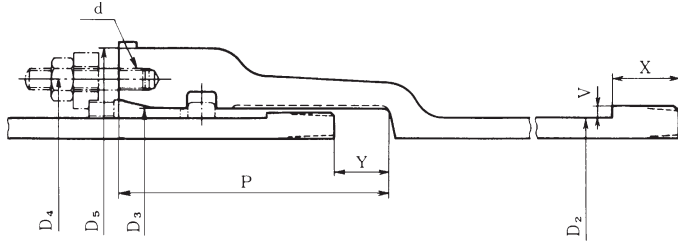
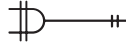


Size (Inches)	Wall Thickness (Inches)			Lining Thickness (Inches)	Outside Diameter (Inches)	Dimensions(Inches)											Number of bolt holes
	T					D ₂	D ₃	D ₄	D ₅	P	Y	M	V'	X	Bolt Size (mm)		
	D1	D2	D3													t ₁	
44	0.71	0.61	0.55	0.39	45.04	45.83	49.06	51.89	13.39	3.15	0.98	0.24	3.15	M30	24		
48	0.77	0.67	0.59	0.39	49.06	49.84	53.07	55.91	13.39	3.15	0.98	0.24	3.15	M30	28		
54	0.85	0.73	0.65	0.47	55.12	55.91	59.13	61.97	13.78	3.15	0.98	0.24	3.54	M30	28		
60	0.93	0.81	0.71	0.47	61.18	61.97	65.20	68.03	14.17	3.15	1.26	0.24	3.54	M30	28		
64	0.98	0.87	0.75	0.59	64.96	65.91	69.21	72.05	14.17	2.95	1.26	0.31	3.54	M30	30		
66	1.00	0.89	0.77	0.59	66.97	67.91	71.22	74.06	14.17	2.95	1.26	0.31	3.54	M30	30		
72	1.10	0.94	0.83	0.59	72.76	73.70	77.01	79.84	14.37	2.95	1.26	0.31	3.54	M30	34		
80	1.20	1.04	0.93	0.59	81.14	82.09	85.39	88.23	14.76	3.15	1.50	0.31	3.54	M30	36		
84	1.26	1.10	0.96	0.59	85.20	86.14	89.45	92.28	15.35	3.15	1.50	0.31	3.94	M30	38		
88	1.32	1.14	1.00	0.59	89.76	90.71	94.02	96.85	15.35	3.15	1.50	0.31	3.94	M30	40		
96	1.44	1.24	1.08	0.59	96.77	97.72	101.02	103.86	15.55	3.35	1.50	0.31	3.94	M30	44		
104	1.56	1.34	1.16	0.59	105.67	106.77	110.31	113.15	16.34	3.35	1.50	0.39	3.94	M30	48		

Nominal laying length(foot)	Mass(lb)											Size (Inches)
	L	Socket projection	Spigot projection	Per 1 foot			Per 1 Piece				D	
				Pipe			Pipe					
				D1	D2	D3	Lining	D1	D2	D3		
19.69	1181	17.95	1003	866.2	783.4	182.5	7142	6327	5842	1080	44	
19.69	1305	22.02	1184	1034	914.4	199.0	8333	7451	6746	1177	48	
19.69	1541	31.08	1467	1265	1130	268.3	10251	9060	8267	1587	54	
19.69	1790	37.92	1781	1556	1369	298.2	12367	11045	9942	1765	60	
13.12	1940	44.31	2011	1773	1534	395.2	9876	8950	8002	1552	64	
16.40							11882	10714	9545	1946		
13.12	2026	45.63	2115	1870	1623	407.6	10383	9413	8443	1600	66	
16.40							12500	11287	10075	2008		
13.12	2284	53.79	2523	2167	1900	443.1	12235	10846	9788	1739	72	
16.40							14770	13007	11684	2182		
13.12	2658	64.59	3066	2669	2371	494.9	14748	13183	12015	1940	80	
16.40							17813	15851	14395	2425		
13.12	2916	80.69	3378	2961	2595	519.9	16247	14616	13183	2037	84	
16.40							19620	17570	15762	2557		
13.12	3117	90.61	3726	3232	2846	548.0	17813	15873	14373	2147	88	
16.40							21538	1477	17217	2689		
13.12	3536	97.66	4376	3785	3309	590.9	20767	18452	16600	2314	96	
13.12	4270	119.9	5172	4461	3877	645.8	24647	21847	19576	2535	104	

Note Spigot projections will be welded or casted by suitable method.
In this case, pull-out resistance will be more than 17,000 Din lbf
(Din: Nominal Diameter inches).

Appendix Table 2 S-Fittings

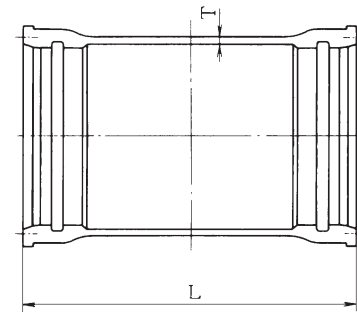


Size (Inches)	Outside Diameter (Inches)	Dimensions(Inches)								Number of bolt holes	Mass(lb)	
		D ₂	D ₃	D ₄	D ₅	P	Y	V	X		Bolt Size (mm)	Socket projection
44	45.04	45.83	49.06	52.20	13.39	3.15	0.24	3.15	M30	24	1280	27.12
48	49.06	49.84	53.07	56.38	13.39	3.15	0.24	3.15	M30	28	1426	29.54
54	55.12	55.91	59.13	62.76	13.78	3.15	0.24	3.54	M30	28	1746	37.26
60	61.18	61.97	65.20	69.45	14.17	3.15	0.24	3.54	M30	28	2158	41.45
64	64.96	65.91	69.21	73.86	14.17	2.95	0.31	3.54	M30	30	2504	59.08
66	66.97	67.91	71.22	76.02	14.17	2.95	0.31	3.54	M30	30	2638	60.85
72	72.76	73.70	77.01	82.13	14.37	2.95	0.31	3.54	M30	34	3046	66.14
80	81.14	82.09	85.39	90.83	14.76	3.15	0.31	3.54	M30	36	3668	73.85
84	85.20	86.14	89.45	95.04	15.35	3.15	0.31	3.94	M30	38	4074	85.98
88	89.76	90.71	94.02	99.76	15.35	3.15	0.31	3.94	M30	40	4409	90.61
96	96.77	97.72	101.02	107.24	15.55	3.35	0.31	3.94	M30	44	5114	97.66
104	105.67	106.77	110.31	117.64	16.34	3.35	0.39	3.94	M30	48	6646	133.30

Appendix Table 3 S-Collars



S

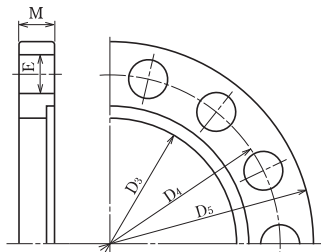


Size (Inches)	Wall Thickness (Inches)	Dimension (Inches)	Mass(lb)
D	T	L	
44	1.18	31.50	2336
48	1.22	31.50	2601
54	1.30	33.46	3218
60	1.38	33.46	3902
64	1.42	35.43	4739
66	1.46	35.43	5004
72	1.54	35.43	5687
80	1.61	35.43	6657
84	1.65	37.40	7385
88	1.69	37.40	7958
96	1.81	37.40	9127
104	1.89	39.37	11992

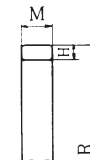
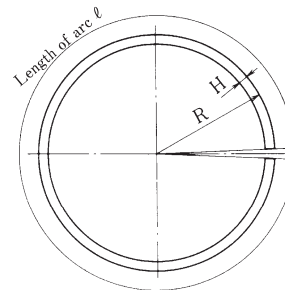
Appendix Table 4 S- Accessories (1)

S

Gland



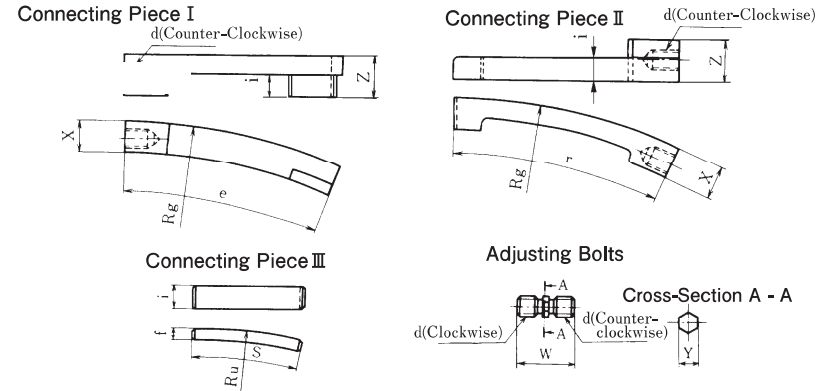
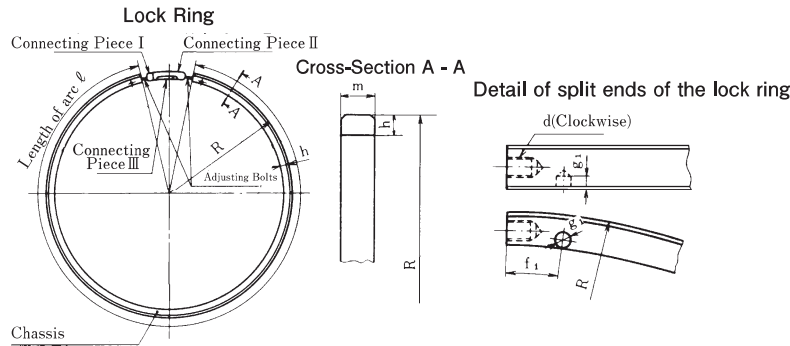
Split Ring



Size (Inches)	Gland							Split Ring				
	Dimensions(Inches)					Number of bolt holes	Mass(lb)	Dimensions(Inches)				Mass(lb)
	D3	D4	D5	E	M			R	ℓ	H	M	
44	45.83	49.06	51.89	1.42	1.22	24	131.2	23.27	146.06	0.63	0.98	23.1
48	49.84	53.07	55.91	1.42	1.26	28	145.7	25.28	158.66	0.63	0.98	25.1
54	55.91	59.13	61.97	1.42	1.30	28	169.3	28.31	177.72	0.63	0.98	28.2
60	61.97	65.20	68.03	1.42	1.38	28	200.0	31.34	196.77	0.63	0.98	31.3
64	65.91	69.21	72.05	1.42	1.38	30	208.1	33.35	209.37	0.75	1.26	50.5
66	67.91	71.22	74.06	1.42	1.42	30	220.5	34.35	215.71	0.75	1.26	52.0
72	73.70	77.01	79.84	1.42	1.50	34	251.3	37.24	233.86	0.75	1.26	56.4
80	82.09	85.39	88.23	1.42	1.57	36	295.4	41.44	260.24	0.75	1.26	62.8
84	86.14	89.45	92.28	1.42	1.65	38	326.3	43.46	272.95	0.75	1.26	65.9
88	90.71	94.02	96.85	1.42	1.69	40	352.7	45.75	287.24	0.75	1.26	69.4
96	97.72	101.02	103.86	1.42	1.81	44	405.6	49.25	309.33	0.75	1.26	74.7
104	106.77	110.31	113.15	1.42	1.93	48	487.2	53.90	338.50	0.87	1.26	94.6

Appendix Table 5 S- Accessories (2)

S

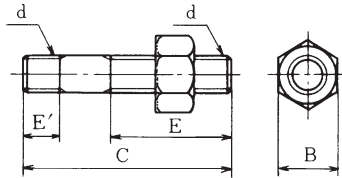


Size (Inches)	Dimensions(Inches)						Bolt Size (mm)	Mass in general (lb) (Excluding accessories)
	R	ℓ	h	m	f1	g1	d	
44	23.19	136.06	0.79	1.18	1.65	0.39	M14	32.2
48	25.20	148.70	0.79	1.18	1.65	0.39	M14	35.1
54	28.23	167.80	0.79	1.18	1.65	0.39	M14	39.7
60	31.34	187.32	0.87	1.38	1.65	0.39	M16	56.9
64	33.23	198.62	0.87	1.38	1.65	0.39	M16	60.4
66	34.25	204.92	0.87	1.38	1.65	0.39	M16	62.4
72	37.13	223.15	0.87	1.38	1.65	0.39	M16	67.9
80	41.42	249.96	0.94	1.57	1.65	0.39	M18	95.0
84	43.43	262.72	0.94	1.57	1.65	0.39	M18	99.9
88	45.71	277.05	0.94	1.57	1.65	0.39	M18	105.4
96	49.21	299.13	0.94	1.57	1.65	0.39	M18	113.8
104	53.66	326.69	0.94	1.57	1.65	0.39	M18	124.3

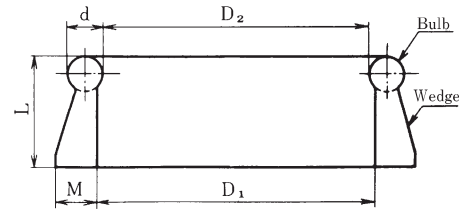
Size (Inches)	Dimensions(Inches)											Bolt Size (mm)
	e	f	Rg	i	r	s	Ru	W	X	Y	Z	d
44	6.97	0.31	23.43	0.63	6.97	3.43	22.83	2.01	0.91	0.43	1.10	M14
48	6.97	0.31	25.43	0.63	6.97	3.43	24.84	2.01	0.91	0.43	1.10	M14
54	6.97	0.31	28.46	0.63	6.97	3.43	27.87	2.01	0.91	0.43	1.10	M14
60	6.97	0.31	31.57	0.75	6.97	3.43	30.91	2.01	0.98	0.51	1.30	M16
64	7.56	0.31	33.46	0.75	7.56	4.02	32.80	2.01	0.98	0.51	1.30	M16
66	7.56	0.31	34.49	0.75	7.56	4.02	33.82	2.01	0.98	0.51	1.30	M16
72	7.56	0.31	37.36	0.75	7.56	4.02	36.69	2.01	0.98	0.51	1.30	M16
80	7.56	0.31	41.65	0.91	7.56	4.02	40.91	2.01	1.06	0.51	1.50	M18
84	7.56	0.31	43.66	0.91	7.56	4.02	42.91	2.01	1.06	0.51	1.50	M18
88	7.56	0.31	45.94	0.91	7.56	4.02	45.20	2.01	1.06	0.51	1.50	M18
96	7.56	0.31	49.45	0.91	7.56	4.02	48.70	2.01	1.06	0.51	1.50	M18
104	7.95	0.31	53.90	0.91	7.95	4.41	53.15	2.01	1.06	0.51	1.50	M18

Appendix Table 6 S- Accessories (3)

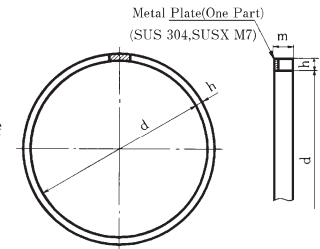
Bolts and Nuts



Rubber Gasket



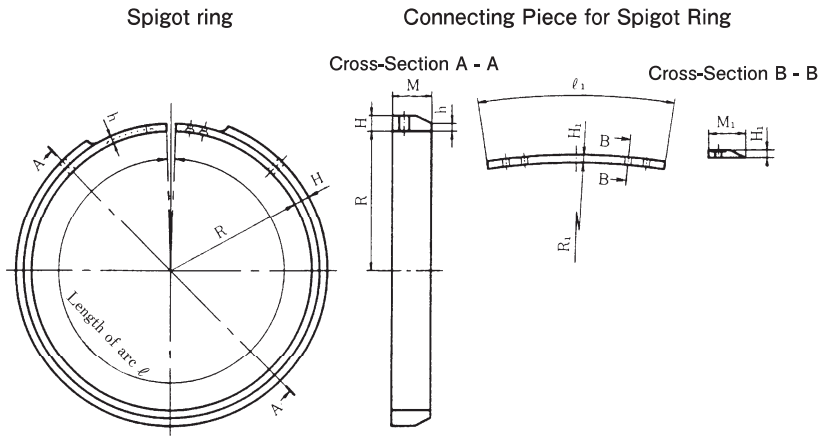
Backup Ring



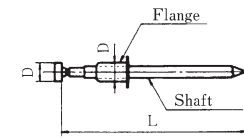
Size (Inches)	Bolt Size (mm)	Dimensions(Inches)				Number of parts per 1set
		d	C	E	E'	
44	M30	5.51	3.15	1.18	1.81	24
48	M30	5.51	3.15	1.18	1.81	28
54	M30	5.51	3.15	1.18	1.81	28
60	M30	5.51	3.15	1.18	1.81	28
64	M30	6.10	3.54	1.18	1.81	30
66	M30	6.10	3.54	1.18	1.81	30
72	M30	6.10	3.54	1.18	1.81	34
80	M30	6.10	3.54	1.18	1.81	36
84	M30	6.10	3.54	1.18	1.81	38
88	M30	6.50	3.74	1.18	1.81	40
96	M30	6.50	3.74	1.18	1.81	44
104	M30	6.50	3.74	1.18	1.81	48

Size (Inches)	Rubber Gasket					Backup Ring		
	Dimensions(Inches)					Dimensions(Inches)		
	D1	D2	d	L	M	d	h	m
44	44.06	43.78	0.71	2.28	0.83	44.80	0.31	0.59
48	48.03	47.76	0.71	2.28	0.83	48.82	0.31	0.59
54	53.94	53.66	0.71	2.28	0.83	54.88	0.31	0.59
60	59.84	59.57	0.71	2.28	0.83	60.79	0.31	0.59
64	63.78	63.50	0.79	2.95	0.98	64.57	0.39	0.59
66	65.75	65.47	0.79	2.95	0.98	66.57	0.39	0.59
72	71.65	71.38	0.79	2.95	0.98	72.36	0.39	0.59
80	79.53	79.25	0.79	2.95	0.98	80.75	0.39	0.59
84	83.46	83.19	0.79	2.95	0.98	84.80	0.39	0.59
88	87.80	87.52	0.79	2.95	0.98	89.37	0.39	0.59
96	94.88	94.61	0.79	2.95	0.98	96.38	0.39	0.59
104	103.54	103.23	0.91	3.46	1.18	105.28	0.47	0.59

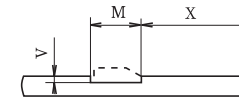
Appendix Table 7 S- Accessories (4)
Spigot Ring for Cut Pipe



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



Cut Pipe Spigot



Size (Inches)	Spigot ring for cut pipe										Rivet		
	Spigot ring					Fixing piece for spigot ring					Mass (lb/set)	Dimensions (Inches)	
	Dimensions(Inches)					Dimensions(Inches)						D	L
	R	ℓ	H	h	M	R ₁	ℓ ₁	H ₁	M ₁				
44	22.20	139.33	0.43	0.24	1.18	22.56	4.49	0.20	1.14	17.1	0.16	1.57	
48	24.21	151.93	0.43	0.24	1.18	24.57	4.49	0.20	1.14	18.7	0.16	1.57	
54	27.24	170.98	0.43	0.24	1.18	27.60	4.49	0.20	1.14	21.0	0.16	1.57	
60	30.24	189.76	0.47	0.28	1.38	30.63	4.49	0.20	1.34	30.0	0.16	1.69	
64	32.13	201.54	0.57	0.30	1.38	32.56	4.61	0.28	1.34	37.7	0.16	1.75	

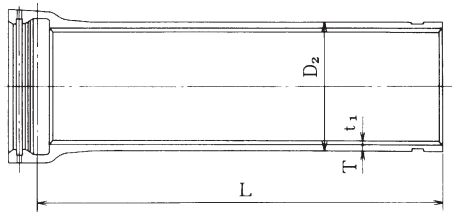
Dimensions and Tolerance

Size (Inches)	Cut Pipe Spigot								
	Dimensions (Inches)								
	M	Min	Max	V	Min	Max	X	Min	Max
44-48	1.26	1.24	1.32	0.20	0.18	0.24	1.97	1.81	2.13
54	1.26	1.24	1.32	0.20	0.18	0.24	2.36	2.20	2.52
60	1.46	1.44	1.52	0.24	0.22	0.28	2.17	2.01	2.32
64	1.46	1.44	1.52	0.24	0.22	0.30	2.17	2.01	2.32

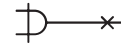
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UF-type

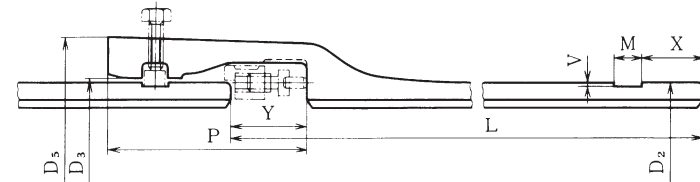
Appendix Table 8 UF-Pipes



Size (Inches)	Wall Thickness (Inches)	Lining Thickness (Inches)	Outside Diameter (Inches)	Dimensions (Inches)						
				T	t ₁	D ₂	D ₃	D ₅	P	Y
D	DPF	t ₁	D ₂	D ₃	D ₅	P	Y	M	V	X
32	0.59	0.31	32.91	33.11	36.93	10.43	3.94	1.06	0.16	3.31
36	0.63	0.31	36.97	37.17	41.06	10.43	3.94	1.06	0.16	3.31
40	0.71	0.39	40.98	41.22	45.31	10.63	3.94	1.26	0.20	3.31
44	0.75	0.39	45.04	45.28	49.53	10.63	3.94	1.26	0.20	3.31
48	0.79	0.39	49.06	49.29	53.62	10.63	3.94	1.26	0.20	3.31
54	0.85	0.47	55.12	55.35	59.88	11.02	3.94	1.26	0.20	3.70
60	0.94	0.47	61.18	61.42	66.10	11.22	3.94	1.46	0.24	3.70
64	0.98	0.59	64.96	65.20	70.31	11.61	4.33	1.46	0.24	3.70
66	1.00	0.59	66.97	67.20	72.40	11.61	4.33	1.46	0.24	3.70
72	1.10	0.59	72.76	72.99	78.35	11.61	4.33	1.46	0.24	3.70
80	1.20	0.59	81.14	81.38	86.97	11.81	4.33	1.65	0.28	3.70
84	1.24	0.59	85.20	85.43	91.10	12.01	4.33	1.65	0.28	3.82
88	1.28	0.59	89.76	90.00	95.79	12.20	4.33	1.65	0.28	3.98
96	1.36	0.59	96.77	97.01	103.03	12.60	4.33	1.65	0.28	4.25
104	1.44	0.59	105.67	105.91	112.80	15.55	5.12	1.65	0.28	6.26



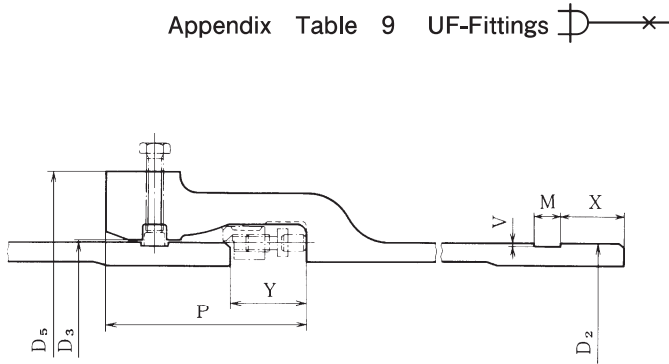
Detail of Joint



Nominal laying length (feet)	Mass(lb)						Size (Inches)	
	L	Socket projection	Spigot groove	Per 1 foot		Per 1 piece		
				Pipe DPF	Lining	Pipe DPF		Lining
19.69	469.6	-4.45	185.9	32.5	4056	628.3	32	
19.69	544.5	-5.00	222.9	36.5	4850	707.7	36	
19.69	639.3	-8.11	277.9	50.6	6018	978.8	40	
19.69	747.4	-8.91	322.6	55.6	6988	1075	44	
19.69	842.2	-9.70	370.1	60.6	8002	1172	48	
19.69	1051	-10.91	447.3	81.8	9700	1582	54	
19.69	1250	-16.87	554.2	90.9	11970	1759	60	
13.12 16.40	1481	-17.90	613.2	120.5	9281 11309	1536 1933	64	
13.12 16.40	1567	-18.47	644.9	124.3	9788 11904	1585 1992	66	
13.12 16.40	1796	-20.06	769.2	135.0	11596 14109	1724 2167	72	
13.12 16.40	2175	-29.76	934.8	150.9	14087 17151	1924 2425	80	
13.12 16.40	2385	-31.31	1013	158.5	15277 18628	2021 2535	84	
13.12 16.40	2632	-32.85	1102	167.0	16666 20282	2131 2689	88	
13.12	3132	-35.49	1262	180.1	19201	2292	96	
13.12	4543	-38.58	1458	196.8	23015	2491	104	

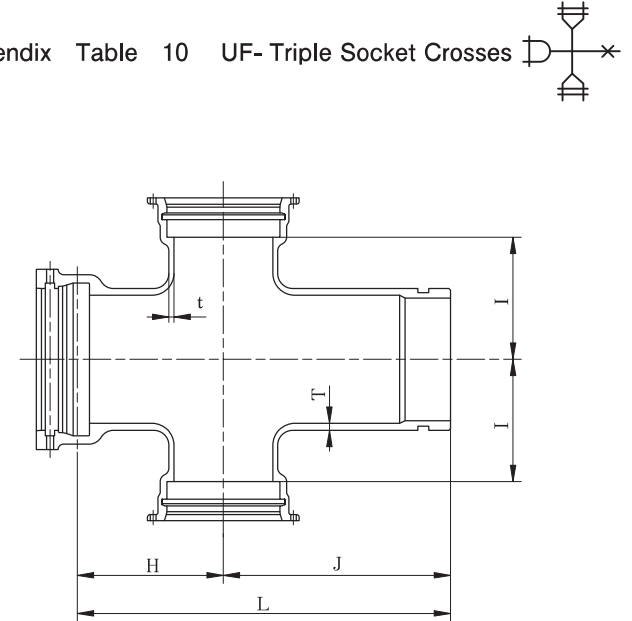


Appendix Table 9 UF-Fittings



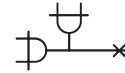
Size (Inches)	Outside Diameter (Inches)	Dimensions (Inches)								Mass(lb)	
		D ₂	D ₃	D ₅	P	Y	M	V	X	Socket projection	Spigot projection
32	32.91	33.11	38.70	10.43	3.94	1.06	0.16	3.31	683.4	22.71	
36	36.97	37.17	42.91	10.43	3.94	1.06	0.16	3.31	791.4	25.57	
40	40.98	41.22	47.28	10.63	3.94	1.26	0.20	3.31	936.9	35.49	
44	45.04	45.28	51.65	10.63	3.94	1.26	0.20	3.31	1102	39.24	
48	49.06	49.29	55.83	10.63	3.94	1.26	0.20	3.31	1228	42.77	
54	55.12	55.35	62.20	11.02	3.94	1.26	0.20	3.70	1532	51.59	
60	61.18	61.42	68.90	11.22	3.94	1.46	0.24	3.70	1873	68.34	
64	64.96	65.20	73.15	11.61	4.33	1.46	0.24	3.70	2147	72.75	
66	66.97	67.20	75.31	11.61	4.33	1.46	0.24	3.70	2261	74.96	
72	72.76	72.99	81.42	11.61	4.33	1.46	0.24	3.70	2588	81.57	
80	81.14	81.38	90.12	11.81	4.33	1.65	0.28	3.70	3134	106.2	
84	85.20	85.43	94.33	12.01	4.33	1.65	0.28	3.82	3414	115.3	
88	89.76	90.00	99.06	12.20	4.33	1.65	0.28	3.98	3767	125.4	
96	96.77	97.01	106.54	12.60	4.33	1.65	0.28	4.25	4481	143.7	
104	105.67	105.91	116.77	15.55	5.12	1.65	0.28	6.26	6419	224.8	

Appendix Table 10 UF- Triple Socket Crosses

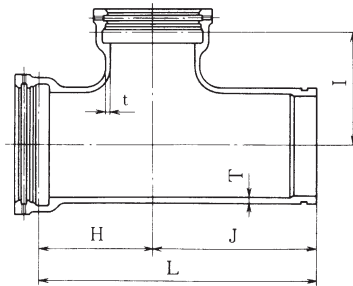


Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)
D	d	T	t	H	I	J	L	
32	24	0.71	0.63	31.10	26.38	40.55	71.65	2557
36	28	0.75	0.67	34.25	29.53	42.91	77.17	3306

Note: Socket of d will be NS-Type joint.



Appendix Table 11 UF- Double Socket Tees



Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)
D	d	T	t	H	I	J	L	
32	20	0.71	0.59	31.10	26.38	40.55	71.65	2204
32	24	0.71	0.63	31.10	26.38	40.55	71.65	2270
32	28	0.71	0.67	31.10	26.38	40.55	71.65	2403
32	32	0.71	0.71	31.10	30.31	40.55	71.65	2755
36	24	0.75	0.63	27.56	27.17	37.01	64.57	2425
36	28	0.75	0.67	34.25	29.53	42.91	77.17	2866
36	32	0.75	0.71	34.25	33.46	42.91	77.17	3218
36	36	0.75	0.75	34.25	33.46	42.91	77.17	3373
40	24	0.79	0.63	30.71	30.31	38.98	69.69	2954
40	32	0.79	0.71	37.01	36.22	44.88	81.89	3769
40	40	0.79	0.79	37.01	36.22	44.88	81.89	4078
44	24	0.83	0.63	29.53	31.50	39.37	68.90	3328
44	32	0.83	0.71	33.07	36.61	41.34	74.41	3990
44	44	0.83	0.83	39.76	38.98	47.24	87.01	4916
48	24	0.87	0.67	30.71	33.86	39.37	70.08	3791
48	36	0.87	0.75	35.83	39.76	43.31	79.13	4695
48	48	0.87	0.87	42.13	41.34	49.21	91.34	5687
54	24	0.94	0.75	31.50	37.40	39.37	70.87	4651
54	36	0.94	0.75	37.80	43.31	45.28	83.07	5731
54	*54	0.94	0.94	46.46	45.28	53.15	99.61	7649

Note 1. If the size d is equal to 28" or less than 28" , the shape of the socket will be NS-Type joint.
 2. The marking of * means reinforcement rib will be attached.

Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)
D	d	T	t	H	I	J	L	
60	24	1.02	0.83	32.68	41.34	39.37	72.05	5665
60	40	1.02	0.83	40.16	47.24	47.24	87.40	7142
60	*60	1.02	1.02	50.39	49.21	55.12	105.51	9545
64	36	1.08	0.83	37.40	47.64	45.28	82.68	7473
64	40	1.08	0.83	41.34	48.82	49.21	90.55	8068
64	44	1.08	0.87	41.34	48.82	49.21	90.55	8245
64	48	1.08	0.91	46.46	50.39	53.15	99.61	8950
64	*54	1.08	0.94	46.46	50.39	53.15	99.61	9501
64	*60	1.08	1.02	49.61	51.18	57.09	106.69	10383
64	*64	1.08	1.08	51.57	51.57	59.06	110.63	11089
66	40	1.10	0.83	41.34	49.61	49.21	90.55	8399
66	44	1.10	0.87	41.34	49.61	49.21	90.55	8575
66	48	1.10	0.91	46.46	51.18	53.15	99.61	9303
66	54	1.10	0.94	46.46	51.18	53.15	99.61	9634
66	*60	1.10	1.02	49.61	51.18	57.09	106.69	10714
66	*64	1.10	1.08	51.97	52.76	59.06	111.02	11397
66	*66	1.10	1.10	52.76	52.76	60.24	112.99	11794
72	40	1.18	0.87	42.13	52.76	49.21	91.34	9634
72	44	1.18	0.91	42.13	52.76	49.21	91.34	9788
72	48	1.18	0.94	46.85	53.94	55.12	101.97	10692
72	54	1.18	0.98	46.85	53.94	55.12	101.97	11000
72	*60	1.18	1.02	50.39	55.12	57.09	107.48	12103
72	*64	1.18	1.08	52.36	55.51	59.45	111.81	12742
72	*66	1.18	1.10	53.15	55.51	60.63	113.78	13029
72	*72	1.18	1.18	55.91	55.91	63.39	119.29	14065
80	44	1.26	0.91	42.13	57.09	49.21	91.34	11463
80	48	1.26	0.94	47.24	58.66	55.12	102.36	12544
80	54	1.26	0.98	47.24	58.66	55.12	102.36	12852
80	60	1.26	1.02	50.39	59.45	59.06	109.45	13800
80	*64	1.26	1.08	52.36	59.84	59.84	112.20	14726
80	*66	1.26	1.10	53.54	59.84	61.02	114.57	15057
80	*72	1.26	1.18	56.69	60.24	64.17	120.87	16049
80	*80	1.26	1.26	60.63	60.63	68.11	128.74	17614

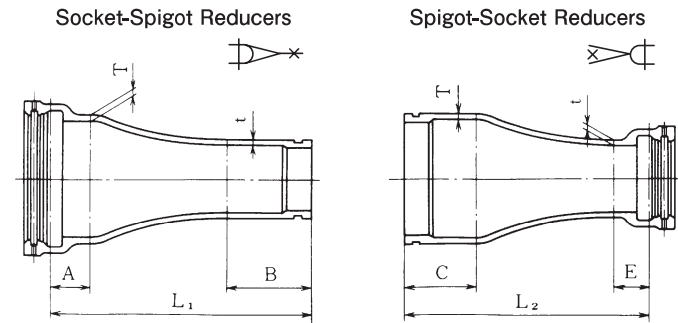
Note 1. If the size d is equal to 28" or less than 28" , the shape of the socket will be NS-Type joint.

UF

Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)
D	d	T	t	H	I	J	L	
84	44	1.30	0.91	42.52	59.06	49.61	92.13	12389
84	48	1.30	0.94	47.64	59.84	55.12	102.76	13492
84	54	1.30	0.98	47.64	60.63	55.12	102.76	13800
84	60	1.30	1.02	50.39	61.02	59.06	109.45	14748
84	64	1.30	1.08	52.76	62.20	60.63	113.39	15432
84	※66	1.30	1.10	53.94	62.20	61.42	115.35	16137
84	※72	1.30	1.18	56.69	62.20	64.57	121.26	17085
84	※80	1.30	1.26	61.02	62.99	68.90	129.92	18606
84	※84	1.30	1.30	62.99	62.99	70.87	133.86	19554
88	48	1.34	0.94	47.64	62.20	55.51	103.15	14616
88	54	1.34	0.98	47.64	62.99	55.51	103.15	14925
88	60	1.34	1.02	51.18	63.39	59.06	110.24	15939
88	64	1.34	1.08	53.15	64.57	60.63	113.78	16622
88	66	1.34	1.10	53.94	64.57	61.81	115.75	16931
88	※72	1.34	1.18	57.09	64.57	64.57	121.65	18386
88	※80	1.34	1.26	61.42	65.35	68.90	130.31	19951
88	※84	1.34	1.30	63.39	65.35	70.87	134.25	20701
88	※88	1.34	1.34	65.35	65.35	72.83	138.19	21781
96	54	1.42	0.98	49.21	65.35	54.72	103.94	16975
96	60	1.42	1.02	52.36	65.75	57.87	110.24	17989
96	64	1.42	1.08	53.94	66.54	59.45	113.39	18628
96	66	1.42	1.10	55.12	66.93	60.63	115.75	19025
96	72	1.42	1.18	58.27	67.72	63.78	122.05	20127
96	※80	1.42	1.26	62.20	68.50	67.72	129.92	22244
96	※84	1.42	1.30	64.57	69.29	70.08	134.65	23170
96	※88	1.42	1.34	66.93	69.69	72.44	139.37	24162
96	※96	1.42	1.42	70.47	70.47	75.98	146.46	26234
104	60	1.48	1.02	54.33	70.47	54.72	109.06	21318
104	64	1.48	1.08	56.30	71.26	56.69	112.99	22112
104	66	1.48	1.10	57.09	71.65	57.87	114.96	22486
104	72	1.48	1.18	60.24	72.05	60.63	120.87	23589
104	80	1.48	1.26	64.17	72.83	64.96	129.13	25242
104	84	1.48	1.30	66.54	73.23	66.93	133.46	26124
104	※88	1.48	1.34	68.50	73.62	73.23	141.73	28351
104	※96	1.48	1.42	72.44	74.80	77.56	150.00	30423
104	※104	1.48	1.48	76.38	76.38	81.50	157.87	34016

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

Appendix Table 12 UF- Reducers



UF

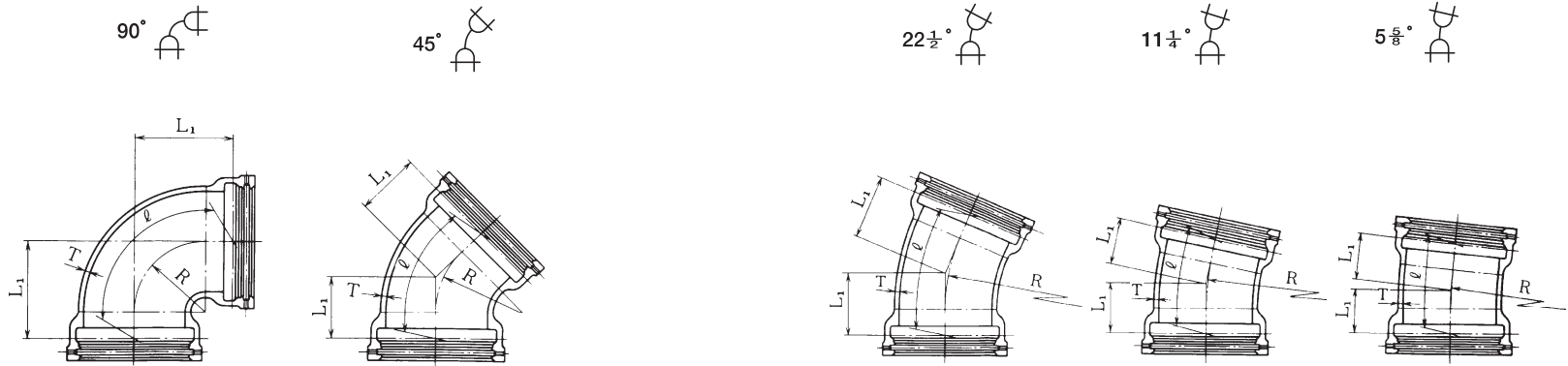
Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)						Mass(lb)	
D	d	T	t	A	B	C	E	L1	L2	Socket Spigot	Spigot Socket
32	18	0.71	0.57	9.45	9.06	9.45	3.94	46.06	40.94	1221	703.3
32	20	0.71	0.59	9.45	9.06	9.45	4.33	46.06	41.34	1254	804.7
32	24	0.71	0.63	9.45	9.06	9.45	4.72	46.06	41.73	1318	901.7
32	28	0.71	0.67	9.45	9.45	9.45	9.06	46.46	42.13	1406	1080
36	20	0.75	0.59	9.84	9.06	10.24	4.33	46.46	42.13	1446	912.7
36	24	0.75	0.63	9.84	9.06	10.24	4.72	46.46	42.52	1505	1005
36	28	0.75	0.67	9.84	9.45	10.24	9.06	46.85	42.91	1587	1179
36	32	0.75	0.71	9.84	9.45	10.24	9.45	46.85	47.24	1671	1587
40	24	0.79	0.63	10.63	9.06	10.24	4.72	47.24	42.52	1754	1115
40	28	0.79	0.67	10.63	9.45	10.24	9.06	47.64	42.91	1832	1283
40	32	0.79	0.71	10.63	9.45	10.24	9.45	47.64	47.24	1907	1684
40	36	0.79	0.75	10.63	10.24	10.24	9.84	48.43	47.64	2008	1869
44	28	0.83	0.67	11.02	9.45	11.02	9.06	51.97	47.64	2175	1492
44	32	0.83	0.71	11.02	9.45	11.02	9.45	51.97	51.97	2248	1900
44	36	0.83	0.75	11.02	10.24	11.02	9.84	52.76	52.36	2358	2087
44	40	0.83	0.79	11.02	10.24	11.02	10.63	52.76	53.15	2469	2336

Note 1. If the size d (socket) is equal to 28" or less than 28" , the shape of the socket will be NS-Type joint.

Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)						Mass(lb)	
D	d	T	t	A	B	C	E	L1	L2	Socket Spigot	Spigot Socket
48	32	0.87	0.71	11.42	9.45	11.02	9.45	52.36	51.97	2513	2030
48	36	0.87	0.75	11.42	10.24	11.02	9.84	53.15	52.36	2601	2204
48	40	0.87	0.79	11.42	10.24	11.02	10.63	53.15	53.15	2711	2447
48	44	0.87	0.83	11.42	11.02	11.02	11.02	53.94	53.54	2843	2711
54	36	0.94	0.75	12.20	10.24	11.81	9.84	53.94	53.15	3152	2491
54	40	0.94	0.79	12.20	10.24	11.81	10.63	53.94	53.94	3240	2711
54	44	0.94	0.83	12.20	11.02	11.81	11.02	54.72	54.33	3351	2976
54	48	0.94	0.87	12.20	11.02	11.81	11.42	54.72	54.72	3461	3196
60	40	1.02	0.83	12.99	10.24	11.81	10.63	54.72	53.94	3902	3042
60	44	1.02	0.83	12.99	11.02	11.81	11.02	55.51	54.33	3990	3262
60	48	1.02	0.87	12.99	11.02	11.81	11.42	55.51	54.72	4078	3461
60	54	1.02	0.94	12.99	11.81	11.81	12.20	56.30	55.51	4298	3968
64	40	1.08	0.83	13.39	10.24	11.81	10.63	59.06	57.87	4519	3395
64	44	1.08	0.87	13.39	11.02	11.81	11.02	59.84	58.27	4629	3637
64	48	1.08	0.91	13.39	11.02	11.81	11.42	59.84	58.66	4739	3880
64	54	1.08	0.94	13.39	11.81	11.81	12.20	60.63	59.45	4916	4343
64	60	1.08	1.02	13.39	11.81	11.81	12.20	60.63	59.45	5180	4894
66	40	1.10	0.83	13.39	10.24	11.81	10.63	59.06	57.87	4739	3527
66	44	1.10	0.87	13.39	11.02	11.81	11.02	59.84	58.27	4850	3747
66	48	1.10	0.91	13.39	11.02	11.81	11.42	59.84	58.66	4938	3968
66	54	1.10	0.94	13.39	11.81	11.81	12.20	60.63	59.45	5114	4431
66	60	1.10	1.02	13.39	11.81	11.81	12.20	60.63	59.45	5379	4982
66	64	1.10	1.08	13.39	11.81	11.81	12.60	60.63	59.84	5555	5423
72	44	1.18	0.87	13.39	11.02	11.81	11.02	59.84	58.27	5533	4166
72	48	1.18	0.91	13.39	11.02	11.81	11.42	59.84	58.66	5599	4343
72	54	1.18	0.94	13.39	11.81	11.81	12.2	60.63	59.45	5754	4784
72	60	1.18	1.02	13.39	11.81	11.81	12.2	60.63	59.45	5974	5291
72	64	1.18	1.08	13.39	11.81	11.81	12.6	60.63	59.84	6150	5709
72	66	1.18	1.10	13.39	11.81	11.81	12.6	60.63	59.84	6239	5886

Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)						Mass(lb)	
D	d	T	t	A	B	C	E	L1	L2	Socket Spigot	Spigot Socket
80	48	1.26	0.94	13.39	11.02	11.81	11.42	59.84	58.66	6746	5004
80	54	1.26	0.98	13.39	11.81	11.81	12.20	60.63	59.45	6878	5401
80	60	1.26	1.02	13.39	11.81	11.81	12.20	60.63	59.45	6988	5820
80	64	1.26	1.08	13.39	11.81	11.81	12.60	60.63	59.84	7120	6194
80	66	1.26	1.10	13.39	11.81	11.81	12.60	60.63	59.84	7186	6349
80	72	1.26	1.18	13.39	12.60	11.81	12.60	61.42	59.84	7473	6878
84	54	1.30	0.98	14.17	11.81	12.60	12.20	61.42	60.24	7517	5798
84	60	1.30	1.02	14.17	11.81	12.60	12.20	61.42	60.24	7605	6194
84	64	1.30	1.08	14.17	11.81	12.60	12.60	61.42	60.63	7716	6547
84	66	1.30	1.10	14.17	11.81	12.60	12.60	61.42	60.63	7782	6701
84	72	1.30	1.18	14.17	12.60	12.60	12.60	62.20	60.63	8046	7209
84	80	1.30	1.26	14.17	12.60	12.60	12.60	62.20	60.63	8421	8046
88	60	1.34	1.02	14.17	11.81	12.60	12.20	61.42	60.24	8311	6569
88	64	1.34	1.08	14.17	11.81	12.60	12.60	61.42	60.63	8399	6900
88	66	1.34	1.10	14.17	11.81	12.60	12.60	61.42	60.63	8443	7054
88	72	1.34	1.18	14.17	12.60	12.60	12.60	62.20	60.63	8686	7517
88	80	1.34	1.26	14.17	12.60	12.60	12.60	62.20	60.63	8994	8289
88	84	1.34	1.30	14.17	12.60	12.60	12.60	62.20	60.63	9193	8730
96	64	1.42	1.08	14.96	11.81	12.60	12.60	66.14	64.57	10075	7826
96	66	1.42	1.10	14.96	11.81	12.60	12.60	66.14	64.57	10119	7980
96	72	1.42	1.18	14.96	12.60	12.60	12.60	66.93	64.57	10339	8421
96	80	1.42	1.26	14.96	12.60	12.60	12.60	66.93	64.57	10626	9171
96	84	1.42	1.30	14.96	12.60	12.60	12.60	66.93	64.57	10802	9589
96	88	1.42	1.34	14.96	12.60	12.60	12.60	66.93	64.57	11022	10119
104	64	1.48	1.08	14.57	13.19	15.16	11.81	81.30	80.51	13139	9413
104	66	1.48	1.10	14.57	13.39	15.16	12.01	79.53	78.74	13095	9479
104	72	1.48	1.18	14.57	13.58	15.16	12.20	73.82	73.03	12963	9612
104	80	1.48	1.26	14.57	13.98	15.16	12.60	66.34	65.55	12720	9810
104	84	1.48	1.30	14.57	14.17	15.16	12.80	62.60	61.81	12566	9876
104	88	1.48	1.34	14.57	14.37	15.16	12.99	58.86	58.07	12389	10008
104	96	1.48	1.42	14.57	14.76	15.16	13.39	51.38	50.59	11948	10185

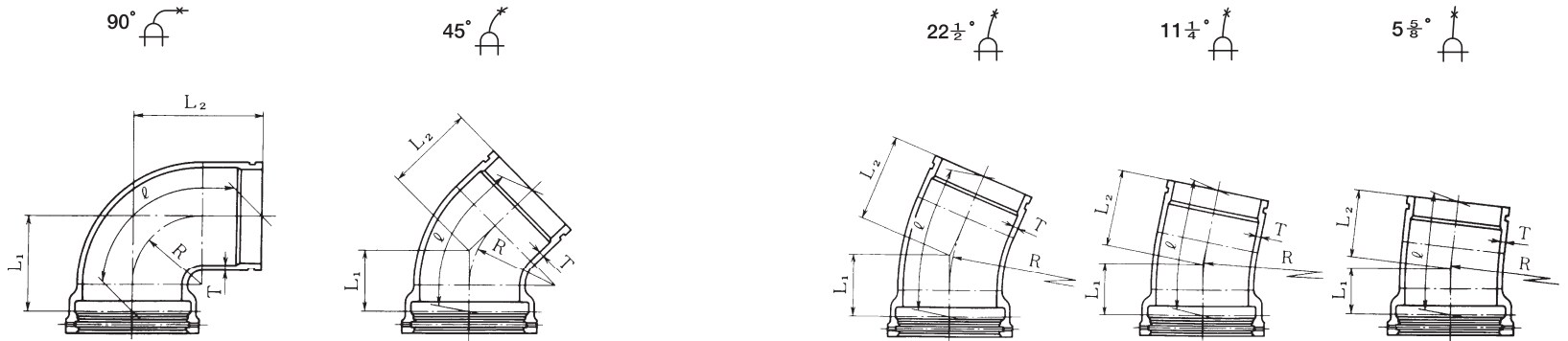
Appendix Table 13 UF- Double Socket Bend



Size (Inches)	Wall Thickness (Inches)	90°				45°			
		Dimensions (Inches)		Length of pipe center	Mass (lb)	Dimensions (Inches)		Length of pipe center	Mass (lb)
		R	L1			R	L1		
D	T	R	L1	ℓ		R	L1	ℓ	
32	0.71	39.37	47.05	77.20	2645	66.93	35.39	67.91	2491
36	0.75	43.31	51.14	83.70	3262	74.80	38.82	74.41	3042
40	0.79	45.28	53.23	87.01	3902	82.68	42.20	80.83	3747
44	0.83	47.24	55.39	90.51	4651	90.55	45.67	87.40	4563
48	0.87	47.24	55.47	90.67	5269	90.55	45.75	87.56	5158
54	0.94	47.24	55.67	91.06	6525	90.55	45.94	87.95	6393
60	1.02	47.24	55.91	91.54	7936	90.55	46.18	88.43	7782
64	1.08	47.24	56.69	93.11	9038	59.06	33.90	65.28	7473
66	1.10	47.24	56.77	93.27	9501	59.06	33.98	65.43	7870
72	1.18	49.21	58.94	96.77	11221	59.06	34.17	65.83	9104
80	1.26	—	—	—	—	59.06	34.49	66.46	11000
84	1.30	—	—	—	—	66.93	37.83	72.80	12500
88	1.34	—	—	—	—	66.93	37.99	73.11	13734
96	1.42	—	—	—	—	66.93	38.27	73.66	16093
104	1.48	—	—	—	—	68.50	40.55	78.15	21318

22 1/2°				11 1/4°			5 5/8°			Size (Inches)		
Dimensions (Inches)		Length of pipe center	Mass (lb)	Dimensions (Inches)		Length of pipe center	Mass (lb)	Dimensions (Inches)			Length of pipe center	Mass (lb)
R	L1			R	L1			R	L1			
133.86	34.29	67.91	2491	236.22	30.94	61.73	2358	472.44	30.91	61.73	2358	32
149.61	37.60	74.41	3042	236.22	31.10	62.05	2777	472.44	31.06	62.05	2777	36
165.35	40.83	80.83	3747	236.22	31.22	62.28	3262	472.44	31.18	62.28	3262	40
177.17	43.39	85.87	4519	236.22	31.42	62.68	3836	472.44	31.38	62.68	3836	44
177.17	43.46	86.02	5114	236.22	31.50	62.83	4321	472.44	31.46	62.83	4321	48
177.17	43.66	86.42	6327	236.22	31.69	63.23	5357	472.44	31.65	63.23	5357	54
177.17	43.90	86.89	7694	236.22	31.93	63.70	6547	472.44	31.89	63.70	6547	60
118.11	32.95	65.28	7473	236.22	32.72	65.28	7473	472.44	32.68	65.28	7473	64
118.11	33.03	65.43	7870	236.22	32.80	65.43	7870	472.44	32.76	65.43	7870	66
118.11	33.23	65.83	9104	236.22	32.99	65.83	9104	472.44	32.95	65.83	9104	72
118.11	33.54	66.46	11000	236.22	33.31	66.46	11000	472.44	33.27	66.46	11000	80
133.86	36.73	72.80	12500	236.22	33.39	66.61	11948	472.44	33.35	66.61	11948	84
133.86	36.89	73.11	13734	236.22	33.54	66.93	13139	472.44	33.50	66.93	13139	88
133.86	37.17	73.66	16093	236.22	33.82	67.48	15410	472.44	33.78	67.48	15410	96
143.31	40.55	80.35	21582	143.31	26.38	52.68	18143	286.61	26.38	52.72	18143	104

Appendix Table 14 UF- Socket Spigot Bend

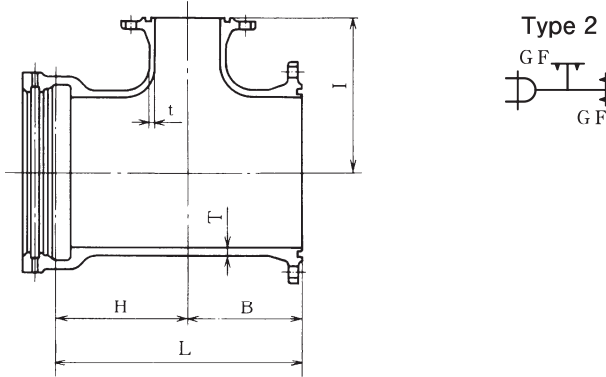


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Size (Inches)	Wall Thickness (Inches)	90°					45°					Mass (lb)
		Dimensions (Inches)			Length of pipe center	Mass (lb)	Dimensions (Inches)			Length of pipe center	Mass (lb)	
D	T	R	L1	L2			ℓ	R	L1			L2
32	0.71	39.37	47.05	51.18	81.34	2140	66.93	35.39	35.59	68.11	1895	
36	0.75	43.31	51.14	55.12	87.68	2667	74.80	38.82	38.86	74.45	2358	
40	0.79	45.28	53.23	57.09	90.87	3196	82.68	42.20	42.91	81.54	2976	
44	0.83	47.24	55.39	59.06	94.17	3813	90.55	45.67	46.18	87.91	3637	
48	0.87	47.24	55.47	59.06	94.25	4321	90.55	45.75	46.18	87.99	4122	
54	0.94	47.24	55.67	59.06	94.45	5335	90.55	45.94	46.18	88.19	5092	
60	1.02	47.24	55.91	59.06	94.69	6481	90.55	46.18	46.18	88.43	6172	
64	1.08	47.24	56.69	61.02	97.44	7451	59.06	33.90	34.29	65.67	5665	
66	1.10	47.24	56.77	61.02	97.52	7826	59.06	33.98	34.29	65.75	5952	
72	1.18	49.21	58.94	62.99	100.83	9281	59.06	34.17	34.29	65.94	6900	
80	1.26	—	—	—	—	—	59.06	34.49	34.29	66.26	8289	
84	1.30	—	—	—	—	—	66.93	37.83	37.56	72.52	9567	
88	1.34	—	—	—	—	—	66.93	37.99	37.56	72.68	10449	
96	1.42	—	—	—	—	—	66.93	38.27	37.56	72.95	12147	
104	1.48	—	—	—	—	—	68.50	40.55	40.55	78.15	15762	

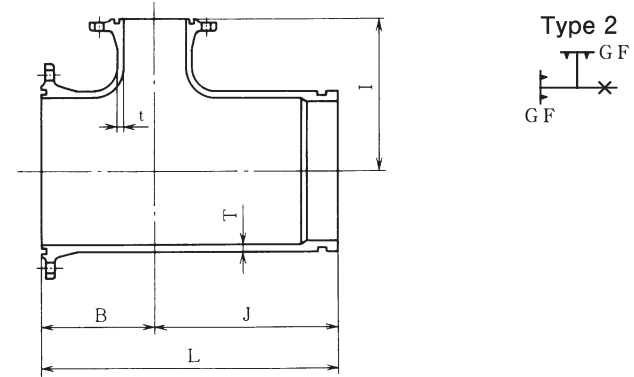
22 1/2°				11 1/4°				5 5/8°				Size (Inches)			
Dimensions (Inches)			Length of pipe center	Mass (lb)	Dimensions (Inches)			Length of pipe center	Mass (lb)	Dimensions (Inches)			Length of pipe center	Mass (lb)	
R	L1	L2			ℓ	R	L1			L2	ℓ	R			L1
133.86	34.29	34.49	68.11	1895	236.22	30.94	31.14	61.93	1781	472.44	30.91	31.10	61.93	1781	32
149.61	37.60	37.64	74.45	2358	236.22	31.10	31.14	62.09	2096	472.44	31.06	31.10	62.09	2096	36
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	40
177.17	43.39	43.90	86.38	3593	236.22	31.42	31.93	63.19	2910	472.44	31.38	31.89	63.19	2910	44
177.17	43.46	43.90	86.46	4078	236.22	31.50	31.93	63.27	3284	472.44	31.46	31.89	63.27	3284	48
177.17	43.66	43.90	86.65	5026	236.22	31.69	31.93	63.46	4056	472.44	31.65	31.89	63.46	4056	54
177.17	43.90	43.90	86.89	6084	236.22	31.93	31.93	63.70	4938	472.44	31.89	31.89	63.70	4938	60
118.11	32.95	33.35	65.67	5665	236.22	32.72	33.11	65.67	5665	472.44	32.68	33.07	65.67	5665	64
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	66
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	72
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	80
133.86	36.73	36.46	72.52	9567	236.22	33.39	33.11	66.34	9016	472.44	33.35	33.07	66.34	9016	84
133.86	36.89	36.46	72.68	10449	236.22	33.54	33.11	66.50	9854	472.44	33.50	33.07	66.50	9854	88
133.86	37.17	36.46	72.95	12147	236.22	33.82	33.11	66.77	11485	472.44	33.78	33.07	66.77	11485	96
143.31	40.55	40.55	80.35	16049	143.31	26.38	26.38	52.68	12588	286.61	26.38	26.38	52.72	12588	104

Appendix Table 15 UF- Socket Flanged Tees with Flanged Branch



Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)
D	d	T	t	B	H	I	L	Type 2
								7.5K
32	6	0.71	0.51	12.99	16.93	21.65	29.92	1331
36	8	0.75	0.55	14.57	18.50	24.02	33.07	1646
40	8	0.79	0.59	15.75	19.69	26.38	35.43	1995
44	8	0.83	0.63	16.54	20.47	28.74	37.01	2381
48	10	0.87	0.67	18.11	22.05	31.10	40.16	2799
54	10	0.94	0.75	19.29	23.23	34.25	42.52	3571
60	12	1.02	0.83	20.87	24.80	37.80	45.67	4497
64	12	1.08	0.83	21.26	25.59	39.76	46.85	5180
66	12	1.10	0.83	21.26	25.59	40.55	46.85	5445
72	14	1.18	0.83	22.83	27.17	44.09	50.00	6459
80	14	1.26	0.83	23.23	27.56	48.03	50.79	7760
84	16	1.30	0.83	24.41	28.74	50.39	53.15	8619
88	16	1.34	0.83	24.80	29.13	53.15	53.94	9501
96	18	1.42	0.83	26.38	30.71	56.30	57.09	11485
104	20	1.48	0.83	27.95	33.07	61.02	61.02	14638

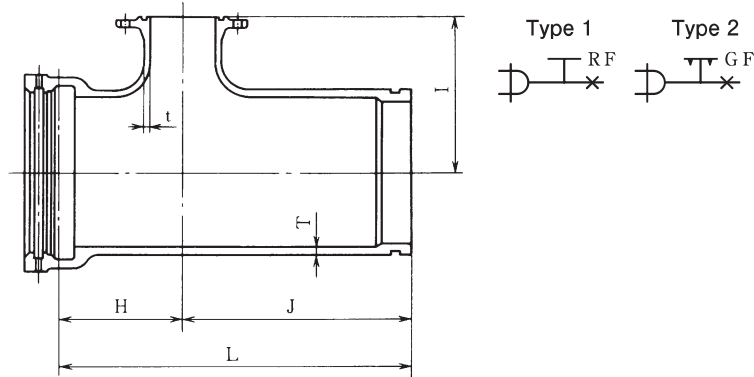
Appendix Table 16 UF- Flanged Spigot Tees with Flanged Branch



Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)
D	d	T	t	B	I	J	L	Type 2
								7.5K
32	6	0.71	0.51	12.99	21.65	24.80	37.80	888.4
36	8	0.75	0.55	14.57	24.02	26.38	40.94	1142
40	8	0.79	0.59	15.75	26.38	27.56	43.31	1395
44	8	0.83	0.63	16.54	28.74	28.35	44.88	1660
48	10	0.87	0.67	18.11	31.10	29.53	47.64	2001
54	10	0.94	0.75	19.29	34.25	29.92	49.21	2535
60	12	1.02	0.83	20.87	37.80	31.10	51.97	3196
64	12	1.08	0.83	21.26	39.76	34.65	55.91	3858
66	12	1.10	0.83	21.26	40.55	35.04	56.30	4056
72	14	1.18	0.83	22.83	44.09	36.61	59.45	4916
80	14	1.26	0.83	23.23	48.03	37.01	60.24	5864
84	16	1.30	0.83	24.41	50.39	38.19	62.60	6547
88	16	1.34	0.83	24.80	53.15	38.58	63.39	7186
96	18	1.42	0.83	26.38	56.30	40.16	66.54	8664
104	20	1.48	0.83	27.95	61.02	33.46	61.42	9127

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Appendix Table 17 UF- Socket Spigot Tees with Flanged Branch

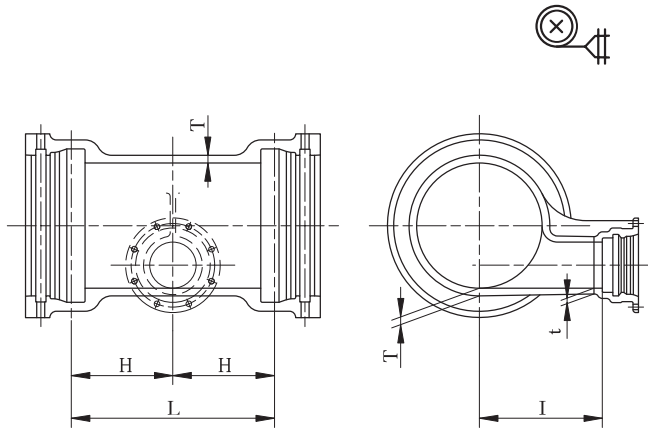


Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)	
D	d	T	t	H	I	J	L	Type 1	Type 2
								7.5K	7.5K
32	3	0.71	0.51	14.57	20.47	23.23	37.80	1344	1344
32	4	0.71	0.51	14.57	20.47	23.23	37.80	1349	1347
32	24	0.71	0.63	31.10	26.38	40.55	71.65	2114	2112
36	4	0.75	0.55	15.75	23.23	24.41	40.16	1631	1629
36	24	0.75	0.63	27.56	27.17	37.01	64.57	2270	2270
40	6	0.79	0.59	16.54	25.20	25.20	41.73	1966	1966
40	24	0.79	0.63	30.71	30.31	38.98	69.69	2799	2799
44	6	0.83	0.63	17.32	27.56	25.98	43.31	2336	2336
44	24	0.83	0.63	29.53	31.50	39.37	68.90	3196	3196
48	6	0.87	0.67	18.11	29.53	26.77	44.88	2689	2689
48	24	0.87	0.67	30.71	33.86	39.37	70.08	3637	3637

Size (Inches)		Wall Thickness (Inches)		Dimensions (Inches)				Mass(lb)	
D	d	T	t	H	I	J	L	Type 1	Type 2
								7.5K	7.5K
54	6	0.94	0.75	18.90	32.68	27.56	46.46	3373	3373
54	24	0.94	0.75	31.50	37.40	39.37	70.87	4497	4497
60	6	1.02	0.83	20.47	35.83	28.35	48.82	4210	4210
60	24	1.02	0.83	32.68	41.34	39.37	72.05	5511	5511
64	24	1.08	0.83	33.07	42.13	41.34	74.41	6283	6283
66	24	1.10	0.83	33.07	43.31	41.34	74.41	6613	6613
72	24	1.18	0.83	33.46	46.06	41.34	74.80	7627	7627
80	24	1.26	0.83	33.86	50.39	41.34	75.20	9149	9149
84	24	1.30	0.83	34.25	52.76	41.34	75.59	9964	9942
88	24	1.34	0.83	34.25	54.72	41.73	75.98	10890	10890
96	24	1.42	0.83	34.65	58.66	42.52	77.17	12720	12720
104	24	1.48	0.83	35.04	61.42	35.43	70.47	14881	14881

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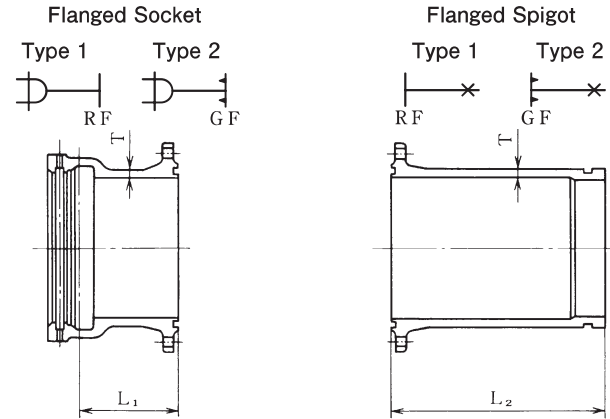
Appendix Table 18 UF- Socket Spigot Tees with Spiral Flanged Branch



Size(Inches)		Wall Thickness (Inches)		Dimensions (Inches)			Mass(lb)
D	d	T	t	H	I	L	
32	12	0.71	0.59	18.11	19.69	36.22	1997
36	12	0.75	0.59	18.50	21.65	37.01	2336
40	16	0.79	0.63	21.26	23.62	42.52	2910
44	16	0.83	0.67	21.65	25.59	43.31	3417
48	16	0.87	0.71	22.44	27.56	44.88	3880
54	16	0.94	0.79	23.23	30.71	46.46	4850
60	16	1.02	0.87	24.02	33.46	48.03	5974
64	16	1.08	0.87	27.95	36.61	55.91	7186
66	16	1.10	0.87	28.35	37.40	56.69	7605
72	16	1.18	0.91	29.13	40.55	58.27	8862
80	16	1.26	0.94	30.71	44.49	61.42	10912
84	16	1.30	0.98	31.10	46.46	62.20	11926
88	16	1.34	0.98	31.50	48.82	62.99	13139
96	16	1.42	1.02	32.28	53.15	64.57	15542
104	16	1.48	1.02	30.71	55.12	61.42	19709

Note: Socket of d will be NS-Type joint.

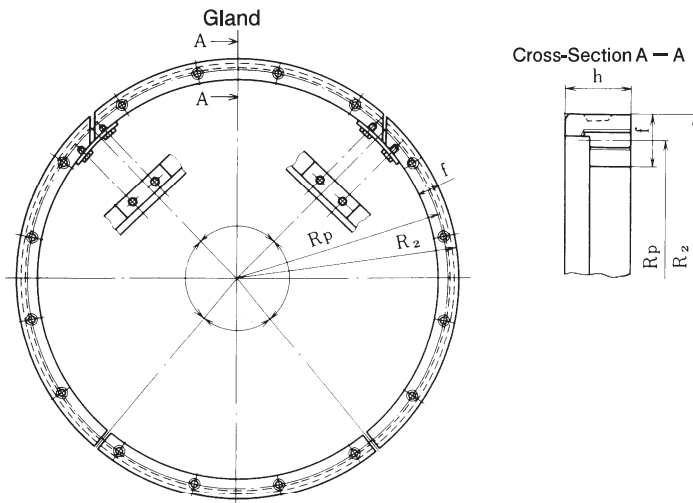
Appendix Table 19 UF- Socket Pipe with Flange, UF- Spigot Pipe with Flange



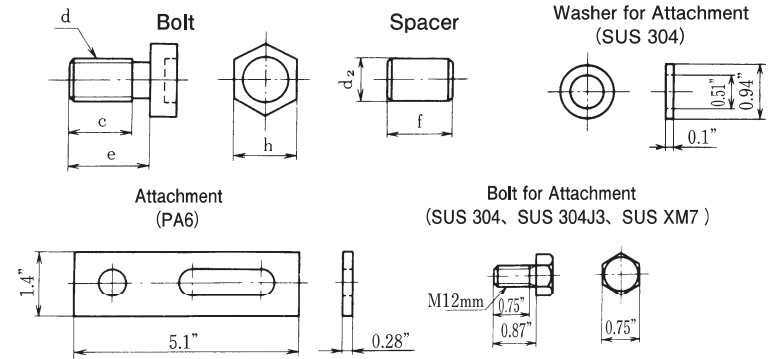
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Size (Inches)	Wall Thickness (Inches)	Nominal Laying Length (Inches)		Mass(lb)			
				Flanged Socket		Flanged Spigot	
				Type 1	Type 2	Type 1	Type 2
D	T	L1	L2	7.5K	7.5K	7.5K	7.5K
32	0.71	13.78	29.53	1011	1009	714.3	712.1
36	0.75	13.78	31.50	1194	1192	906.1	903.9
40	0.79	13.78	31.50	1413	1406	1067	1060
44	0.83	16.54	31.50	1741	1732	1239	1230
48	0.87	16.54	31.50	1964	1955	1417	1408
54	0.94	16.54	31.50	2447	2447	1759	1750
60	1.02	16.54	31.50	2976	2976	2118	2109
64	1.08	24.02	35.43	3858	3836	2667	2645
66	1.10	24.02	35.43	4056	4034	2799	2777
72	1.18	27.95	35.43	4916	4894	3218	3196
80	1.26	27.95	35.43	5864	5820	3791	3769
84	1.30	31.89	39.37	6701	6679	4453	4409
88	1.34	31.89	39.37	7341	7319	4850	4806
96	1.42	31.89	39.37	8686	8664	5643	5621
104	1.48	36.61	43.31	11552	11507	6834	6790

Appendix Table 20 UF- Accessories (1)



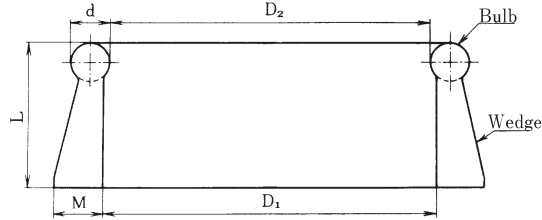
Size (Inches)	Dimensions (Inches)				Mass (lb/set)
	R2	f	h	Rp	
32	17.36	1.65	2.17	16.54	72.5
36	19.39	1.65	2.17	18.56	81.6
40	21.40	1.65	2.17	20.57	90.8
44	23.43	1.65	2.17	22.60	99.2
48	25.43	1.65	2.17	24.61	108.0
54	28.46	1.65	2.17	27.64	121.7
60	31.50	1.65	2.17	30.67	135.4
64	33.54	1.97	2.36	32.48	190.0
66	34.55	1.97	2.36	33.48	196.2
72	37.44	1.97	2.36	36.38	213.2
80	41.63	1.97	2.36	40.57	238.1
84	43.66	1.97	2.36	42.60	249.1
88	45.94	1.97	2.36	44.88	262.3
96	49.45	1.97	2.36	48.46	282.2
104	54.09	1.97	3.35	52.91	374.8



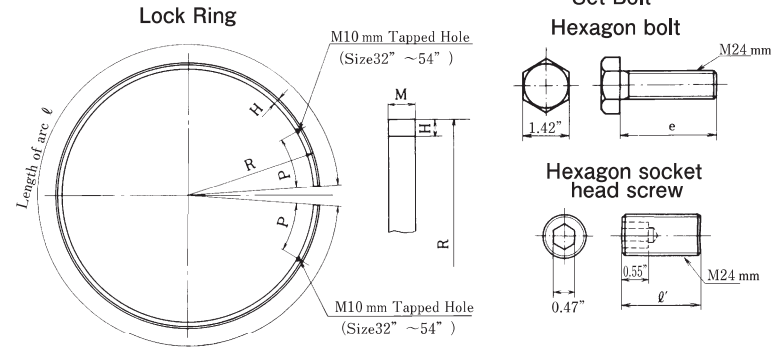
Size (Inches)	Bolt				Spacer		Number of parts per Iset
	Bolt Size (mm)	Dimensions (Inches)			Dimensions (Inches)		
		d	c	e	h	d2	
32	M22	1.18	1.57	1.26	0.79	1.18	16
36	M22	1.18	1.57	1.26	0.79	1.18	16
40	M22	1.18	1.57	1.26	0.79	1.18	16
44	M22	1.18	1.57	1.26	0.79	1.18	20
48	M22	1.18	1.57	1.26	0.79	1.18	22
54	M22	1.18	1.57	1.26	0.79	1.18	22
60	M22	1.18	1.57	1.26	0.79	1.18	22
64	M24	1.38	1.77	1.42	0.98	1.38	26
66	M24	1.38	1.77	1.42	0.98	1.38	26
72	M24	1.38	1.77	1.42	0.98	1.38	28
80	M24	1.38	1.77	1.42	0.98	1.38	30
84	M24	1.38	1.77	1.42	0.98	1.38	32
88	M24	1.38	1.77	1.42	0.98	1.38	34
96	M24	1.38	1.77	1.42	0.98	1.38	38
104	M24	1.57	1.97	1.42	0.98	1.57	40

UF

Appendix Table 21 UF- Accessories (2)
Rubber Gasket



Size (Inches)	Dimensions (Inches)				
	D1	D2	d	L	M
32	32.20	31.97	0.67	1.97	0.83
36	36.14	35.91	0.67	1.97	0.83
40	40.08	39.80	0.71	1.97	0.83
44	44.06	43.78	0.71	1.97	0.83
48	48.03	47.76	0.71	1.97	0.83
54	53.94	53.66	0.71	1.97	0.83
60	59.84	59.57	0.71	1.97	0.83
64	63.78	63.50	0.79	2.36	0.98
66	65.75	65.47	0.79	2.36	0.98
72	71.65	71.38	0.79	2.36	0.98
80	79.53	79.25	0.79	2.36	0.98
84	83.46	83.19	0.79	2.36	0.98
88	87.80	87.52	0.79	2.36	0.98
96	94.88	94.61	0.79	2.36	0.98
104	103.54	103.23	0.91	3.46	1.18



UF

Size (Inches)	Lock ring						Set Bolt				
	Dimensions (Inches)					Mass (lb)	Hexagon bolt		Hexagon socket head screw		
							Dimensions (Inches)	Number of parts	Dimensions (Inches)	Number of parts	
	R	ℓ	H	M	P	e	Pipes		Fittings		ℓ'
32	17.13	105.59	0.71	0.98	11.81	18.6	1.97	2.95	9	1.38	9
36	19.13	118.35	0.71	0.98	11.81	20.9	1.97	2.95	9	1.38	9
40	21.18	131.22	0.79	1.18	19.69	30.9	2.36	3.74	9	1.57	9
44	23.23	143.98	0.79	1.18	19.69	34.0	2.36	3.74	9	1.57	9
48	25.24	156.61	0.79	1.18	19.69	37.0	2.36	3.74	9	1.57	9
54	28.27	175.63	0.79	1.18	19.69	41.4	2.36	3.74	9	1.77	9
60	31.34	194.92	0.87	1.38	—	59.3	2.36	3.74	9	1.77	9
64	33.23	206.81	0.87	1.38	—	62.8	2.95	4.72	9	1.97	9
66	34.25	213.11	0.87	1.38	—	64.8	2.95	4.72	9	1.97	9
72	37.13	231.3	0.87	1.38	—	70.3	2.95	4.72	9	2.17	9
80	41.26	257.87	0.94	1.57	—	97.9	2.95	4.72	9	2.17	9
84	43.27	270.63	0.94	1.57	—	102.7	2.95	4.72	9	2.17	9
88	45.51	284.96	0.94	1.57	—	108.2	2.95	4.72	9	2.36	9
96	48.94	306.97	0.94	1.57	—	116.8	2.95	4.72	9	2.36	9
104	53.62	334.92	0.94	1.57	—	127.4	3.35	5.71	9	2.36	9