



DUCTILE IRON C110 FULL BODY MECHANICAL JOINT DIMENSIONS

SAMPLE SPECIFICATION

Mechanical Joint watermain fittings with accessories, 2" through 48" shall be produced of Ductile Iron in accordance with and meet all applicable terms and provisions of standards ANSI/AWWA C110/A21.10 ANSI/AWWA C111/A21.11 (current revisions). Ductile Iron Mechanical Joint Fittings 3" through 24" shall be rated for 350 PSI working pressure. All Ductile Iron Mechanical Joint Fittings 30" through 48" shall be rated for 250 PSI working pressure. Flanged ductile-iron fittings in 24-in. (610 mm) and smaller sizes may be rated for 350 psi (2,413 kPa) with the use of special gaskets.

NOTE - EXCEPTIONS: Mechanical Joint Fittings with flanged branches and 14" and larger caps and plugs are rated for water pressure of 250 PSI.

NOTE: Fittings are CEMENT-LINED and seal coated in accordance with ANSI/AWWA C104/A21.4; also available double cement-lined, bare or epoxy coated. All coated fittings meet requirements of NSF-61.

JOINT DIMENSIONS IN INCHES FOR MECHANICAL JOINT FITTINGS

DIMENSIONS IN INCHES

Size	A	B	C	D	F	⅓	X	J	K ¹	K ²	L	M	N	O	P	S
*2	2.50	2.50	3.39	3.50	2.61	28°	¾	4.75	6.25	6.25	.75	.62	...	.31	.63	.44
3	3.96	2.50	4.84	4.94	4.06	28°	¾	6.19	7.69	7.69	.94	.62	1.37	.31	.63	.52
4	4.80	2.50	5.92	6.02	4.90	28°	⅞	7.50	9.12	9.12	1.00	.75	1.50	.31	.75	.65
6	6.90	2.50	8.02	8.12	7.00	28°	⅞	9.50	11.12	11.12	1.06	.88	1.63	.31	.75	.70
8	9.05	2.50	10.17	10.27	9.15	28°	⅞	11.75	13.37	13.37	1.12	1.00	1.75	.31	.75	.75
10	11.10	2.50	12.22	12.34	11.20	28°	⅞	14.00	15.69	15.62	1.19	1.00	1.75	.31	.75	.80
12	13.20	2.50	14.32	14.44	13.30	28°	⅞	16.25	17.94	17.88	1.25	1.00	1.75	.31	.75	.85
14	15.30	3.50	16.40	16.54	15.44	28°	⅞	18.75	20.31	20.25	1.31	1.25	2.00	.31	.75	.89
16	17.40	3.50	18.50	18.64	17.54	28°	⅞	21.00	22.56	22.50	1.38	1.31	2.06	.31	.75	.97
18	19.50	3.50	20.60	20.74	19.64	28°	⅞	23.25	24.83	24.75	1.44	1.38	2.13	.31	.75	1.05
20	21.60	3.50	22.70	22.84	21.74	28°	⅞	25.50	27.08	27.00	1.50	1.44	2.19	.31	.75	1.12
24	25.80	3.50	26.90	27.04	25.94	28°	⅞	30.00	31.58	31.50	1.62	1.56	2.31	.31	.75	1.22
30	32.00	4.00	33.29	33.46	32.17	20°	1⅛	36.88	39.12	39.12	1.81	2.00	2.75	.38	1.00	1.50
36	38.30	4.00	39.59	39.76	38.47	20°	1⅛	43.75	46.00	46.00	2.00	2.00	2.75	.38	1.00	1.80
42	44.50	4.00	45.79	45.96	44.67	20°	1⅜	50.62	53.12	53.12	2.00	2.00	2.75	.38	1.00	1.95
48	50.80	4.00	52.09	52.26	50.97	20°	1⅜	57.50	60.00	60.00	2.00	2.00	2.75	.38	1.00	2.20

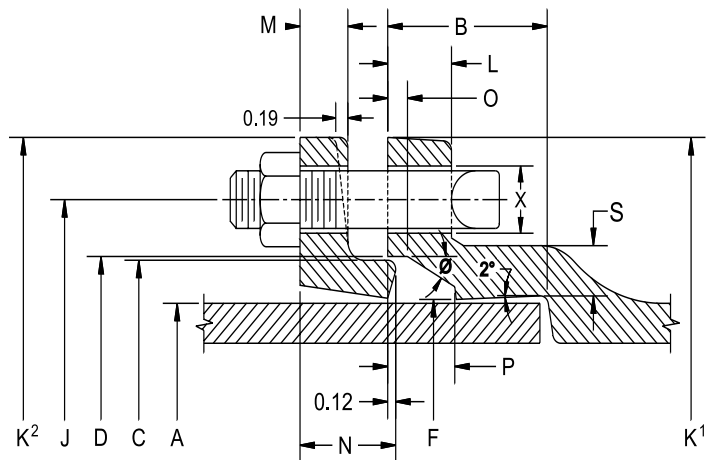
* Not included in AWWA C110.

ACCESSORIES AND WEIGHTS

Size	No.	Bolt Size	Bolt Length	Bolt Torque Ft/Lbs.	Wt. of Gland, Bolts and Gasket, Lbs.	Pipe Barrel O.D.
*2	2	⅝	3	45-60	5	2.50
3	4	⅝	3	45-60	7	3.96
4	4	¾	3½	75-90	10	4.80
6	6	¾	4	75-90	16	6.90
8	6	¾	4	75-90	25	9.05
10	8	¾	4	75-90	30	11.10
12	8	¾	4	75-90	40	13.20
14	10	¾	4½	75-90	45	15.30
16	12	¾	4½	75-90	55	17.40
18	12	¾	4½	75-90	65	19.50
20	14	¾	4½	75-90	85	21.60
24	16	¾	5	75-90	105	25.80
30	20	1	6	100-120	220	32.00
36	24	1	6	100-120	301	38.30
42	28	1¼	6½	120-150	389	44.50
48	32	1¼	6½	120-150	477	50.80

* Not included in AWWA C110.

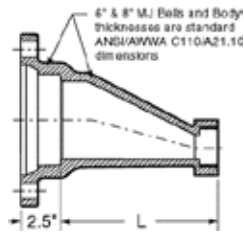
14" THRU 48"
GLANDS MAY
BE TAPERED



ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11

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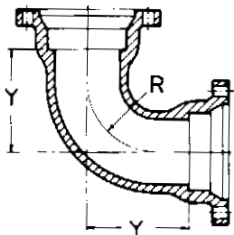
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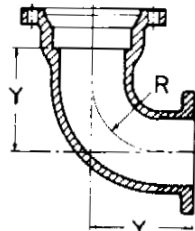
MJ x FIPT ECCENTRIC REDUCER

Dimensions		
Size	L	Weights
6x2	13	51
8x2	15	71

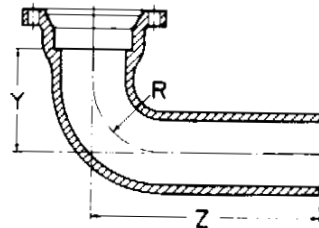
BENDS



90° MJ x MJ (1/4)



90° MJ x FE (1/4)



90° MJ x PE (1/4)

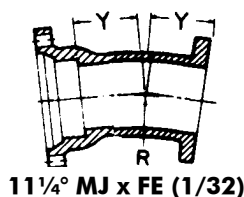
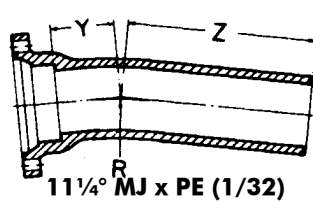
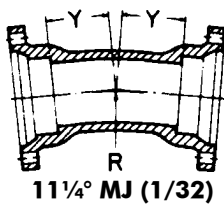
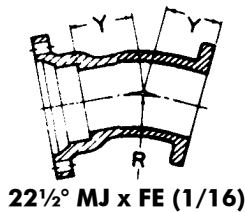
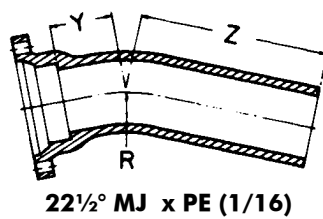
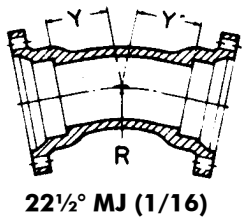
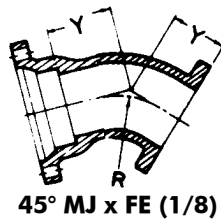
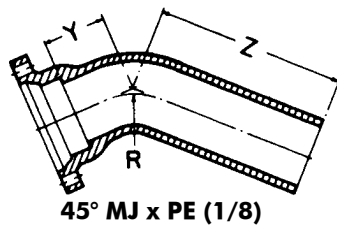
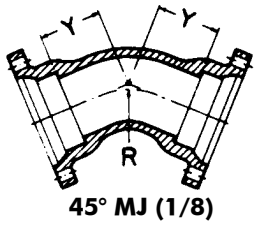
90° Bends (1/4)

Size	Dimensions			Weights		
	R	Y	Z	MJxMJ	MJxPE	MJxFE
*2	2.25	3.25	...	16	...	...
3	4.0	5.5	13.5	26	36	...
4	4.5	6.5	14.5	56	53	51
6	6.0	8.0	16.0	88	80	75
8	7.0	9.0	17.0	123	119	118
10	9.0	11.0	19.0	189	181	168
12	10.0	12.0	20.0	268	252	288
14	11.5	14.0	22.0	380	...	...
16	12.5	15.0	23.0	552	470	465
18	14.0	16.5	24.5	625	600	577
20	15.5	18.0	26.0	862	775	...
24	18.5	22.0	30.0	1423	1301	1150
30	21.5	25.0	33.0	1942	1920	...
36	24.5	28.0	36.0	2629	2310	...
42	27.5	31.0	...	3410	...	...
48	30.5	34.0	...	4595	...	...

Mechanical Joint weights do not include Glands, Nuts, Bolts and Gaskets. See Joint Accessories.

For sizes not found in this section check MJ-SSB DI fittings, pages 1 thru 8.

BENDS



45° Bends (1/8)

Size	Dimensions			MJ	Weights	
	R	Y	Z		MJxFE*	MJxPE
*2	1.96	1.8	...	16	...	...
3	3.62	3.0	11.0	30	...	...
4	4.81	4.0	12.0	53	48	45
6	7.25	5.0	13.0	77	60	69
8	8.44	5.5	13.5	110	107	111
10	10.88	6.5	14.5	172	168	167
12	13.25	7.5	15.5	222	215	218
14	12.06	7.5	15.5	311	...	...
16	13.25	8.0	16.0	364	360	360
18	14.50	8.5	16.5	531	430	455
20	16.88	9.5	17.5	655	543	664
24	18.12	11.0	19.0	865	1099	825
30	27.75	15.0	23.0	1447	...	1510
36	35.00	18.0	26.0	2435	...	1930
42	42.25	21.0	...	2955	...	...
48	49.50	24.0	...	4080	...	...

* Not included in AWWA C110.

22½° Bends (1/16)

Size	Dimensions			MJ	Weights	
	R	Y	Z		MJxFE*	MJxPE
3	7.56	3.0	11.0	30	...	...
4	10.06	4.0	12.0	52	...	...
6	15.06	5.0	13.0	77	71	70
8	17.62	5.5	13.5	110	107	109
10	22.62	6.5	14.5	156	155	163
12	27.62	7.5	15.5	221	215	224
14	25.12	7.5	15.5	300	...	...
16	27.62	8.0	16.0	391	315	365
18	30.19	8.5	16.5	527	422	455
20	35.19	9.5	17.5	611	...	575
24	37.69	11.0	19.0	986	800	930
30	57.81	15.0	23.0	1898	...	1540
36	72.88	18.0	26.0	2372	...	1970
42	88.00	21.0	...	3020	...	...
48	103.06	24.0	...	4170	...	...

11¼° Bends (1/32)

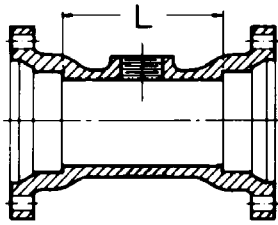
Size	Dimensions			MJ	Weights	
	R	Y	Z		MJxFE*	MJxPE
3	15.25	3.0	11.0	30	...	...
4	20.31	4.0	12.0	52	...	...
6	30.50	5.0	13.0	65	71	...
8	35.50	5.5	13.5	104	105	...
10	45.69	6.5	14.5	171	...	...
12	55.81	7.5	15.5	221	215	...
14	50.75	7.5	15.5	305	...	...
16	55.81	8.0	16.0	391	367	...
18	60.94	8.5	16.5	525	422	...
20	71.06	9.5	17.5	605	...	...
24	76.12	11.0	19.0	996	800	972
30	116.75	15.0	23.0	1410	...	1305
36	147.25	18.0	26.0	2397	...	2185
42	177.69	21.0	...	3035
48	208.12	24.0	...	4190

ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11

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MJ TAPPED TEE

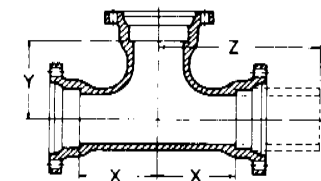


MJ Tapped Tee (2"Tap)

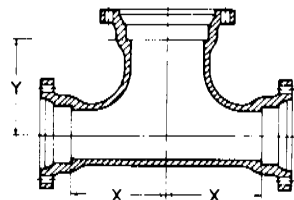
Size	Dimensions		Weights
	L	Max. Tap	
3	8	2	40
4	8	2	51
6	8	2	73
8	8	2	104
10	8	2	130
12	8	2	180

For sizes not found in this section check MJ-SSB DI fittings, pages 1 thru 8.

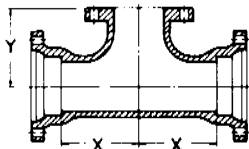
TEES



Straight Tees and Reducing on Branch Tees



Bullhead



MJxMJxFE

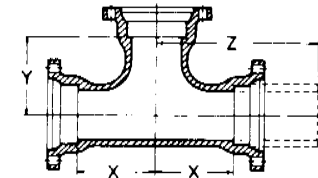
Run	Size Run	Branch	Dimensions			Weights		
			X	Y	Z	MJ	**MJxPExMJ	**MJxMJxFE
*2	2	2	3.25	3.25	...	21	...	...
*3	3	2	3.25	3.25	...	45	...	...
3	3	3	5.5	5.5	13.5	58	...	...
*4	4	2	4.8	4.8	14.5	68	...	49
4	4	3	6.5	6.5	14.5	77	...	...
4	4	4	6.5	6.5	14.5	78	75	76
4	4	6	8.0	8.0	...	112	...	...
*6	6	2	8.0	8.0	...	78	...	...
6	6	3	8.0	8.0	16.0	112	...	...
6	6	4	8.0	8.0	16.0	110	...	109
6	6	6	8.0	8.0	16.0	119	120	141
6	6	8	9.0	9.0	...	158	...	...
8	8	3	9.0	9.0	17.0	155	...	...
8	8	4	9.0	9.0	17.0	157	...	150
8	8	6	9.0	9.0	17.0	175	170	182
8	8	8	9.0	9.0	17.0	199	180	194
10	10	4	11.0	11.0	19.0	...	...	229
10	10	6	11.0	11.0	19.0	258	...	264
10	10	8	11.0	11.0	19.0	268	...	245
10	10	10	11.0	11.0	19.0	300	250	...
12	12	4	12.0	12.0	20.0	318	315	323
12	12	6	12.0	12.0	20.0	325	325	335
12	12	8	12.0	12.0	20.0	335	335	372
12	12	10	12.0	12.0	20.0	392	390	...
12	12	12	12.0	12.0	20.0	396	396	476
*16	16	4	15.0	15.0	...	600	...	575
16	16	6	15.0	15.0	...	656	...	605
16	16	8	15.0	15.0	...	625	...	615
16	16	10	15.0	15.0	...	645	...	...
16	16	12	15.0	15.0	...	715	...	651
16	16	16	15.0	15.0	...	780	...	730

* Not included in AWWA C110
** Made to order only. Not Returnable

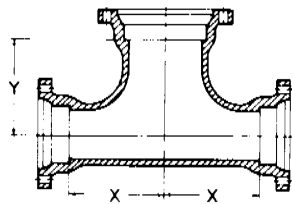
NOTICE: Weights published in this catalog are for shipping purposes only. Actual weights may vary because some fittings are produced in both foundries. All fittings meet the AWWA standards to which they are designed.

For weights of specific fittings, please contact Tyler Pipe or Union Foundry Company.

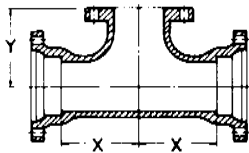
TEES (Con't)



Straight Tees and Reducing on Branch Tees



Bullhead



MJxMJxFE

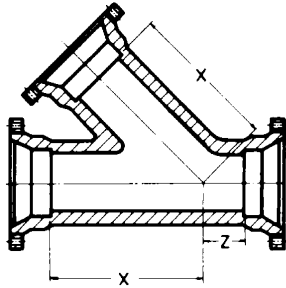
Run	Size		X	Dimensions			Weights		
	Run	Branch		Y	Z	MJ	**MJxPExMJ	**MJxMJxFE	
18	18	6	13.0	15.5	...	710	...	707	
18	18	8	13.0	15.5	...	674	...	675	
18	18	12	13.0	15.5	...	749	...	733	
18	18	18	16.5	16.5	...	945	...	953	
20	20	6	14.0	17.0	...	849	...	...
20	20	8	14.0	17.0	...	892	...	859	
20	20	12	14.0	17.0	...	896	...	...
20	20	16	18.0	18.0	...	1095	...	...
20	20	20	18.0	18.0	...	1258	...	1168	
24	24	6	15.0	19.0	...	1233	...	1228	
24	24	8	15.0	19.0	...	1234	...	1242	
24	24	12	15.0	19.0	...	1256	...	1165	
24	24	14	15.0	19.0	...	1220	...	...
24	24	16	15.0	19.0	...	1245	...	...
24	24	18	22.0	22.0	...	1735	...	...
24	24	20	22.0	22.0	...	1720	...	...
24	24	24	22.0	22.0	...	1947	...	1795	
30	30	6	18.0	23.0	...	2050	...	...
30	30	8	18.0	23.0	...	2060	...	...
30	30	10	18.0	23.0	...	2075	...	...
30	30	12	18.0	23.0	...	2090	...	...
30	30	16	18.0	23.0	...	2145	...	...
30	30	18	18.0	23.0	...	2170	...	...
30	30	20	18.0	23.0	...	2205	...	...
30	30	24	25.0	25.0	...	2880	...	...
30	30	30	25.0	25.0	...	2275	...	3080	
36	36	6	20.0	26.0	...	2439	...	2430	
36	36	8	20.0	26.0	...	2444	...	...
36	36	10	20.0	26.0	...	2535	...	...
36	36	12	20.0	26.0	...	2541	...	2550	
36	36	14	20.0	26.0	...	2570	...	...
36	36	16	20.0	26.0	...	2585	...	2450	
36	36	18	20.0	26.0	...	2610	...	...
36	36	20	20.0	26.0	...	2635	...	...
36	36	24	20.0	26.0	...	2792	...	2660	
36	36	30	28.0	28.0	...	3545	...	...
36	36	36	28.0	28.0	...	3450	...	...
42	24	42	23.0	30.0	...	3690	...	...
42	30	42	31.0	31.0	...	4650	...	...
42	36	42	31.0	31.0	...	4880	...	...
42	42	42	31.0	31.0	...	6320	...	...
48	24	48	26.0	34.0	...	4995	...	...
48	30	48	26.0	34.0	...	5140	...	...
48	36	48	34.0	34.0	...	6280	...	...
48	42	48	34.0	34.0	...	8130	...	...
48	48	48	34.0	34.0	...	8420	...	...

* Not included in AWWA C110

** Made to order only. Not Returnable

WYES/LATERAL

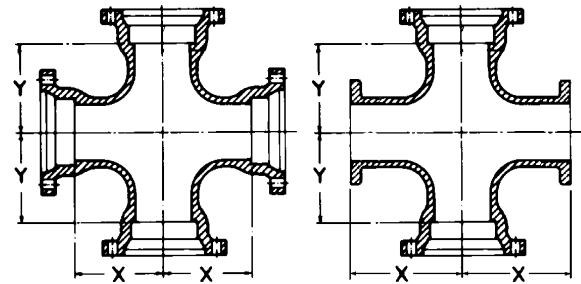
(Not included in AWWA C110.)



Run	Size Branch	Dimensions		Weights
		X	Z	
3	3	10.0	3.0	60
4	4	12.0	3.0	90
6	4	14.5	3.5	130
6	6	14.5	3.5	145
8	4	17.5	4.5	190
8	6	17.5	4.5	205
8	8	17.5	4.5	230
10	6	20.5	5.0	330
10	8	20.5	5.0	310
10	10	20.5	5.5	435
12	8	24.5	5.5	505
12	12	24.5	5.5	490
14	6	27.0	6.0	626
16	16	30.0	6.5	1079
18	8	32.0	7.0	1073
18	10	32.0	7.0	975
18	12	32.0	7.0	1015
18	16	32.0	7.0	1135
18	18	32.0	7.0	1130
20	10	35.0	8.0	1220
20	12	35.0	8.0	1260
20	16	35.0	8.0	1375
20	20	35.0	8.0	1525
24	24	40.5	9.0	2372
30	30	49.0	10.0	3670

For sizes not found in this section check MJ-SSB DI fittings, pages 1 thru 8.

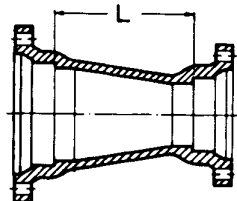
CROSSES



Run	Size Branch	Dimensions		MJ	Weights *MJxFE
		X	Y		
6	6	8.0	8.0	160	141
8	4	9.0	9.0	185	...
8	6	9.0	9.0	205	182
8	8	9.0	9.0	255	245
10	6	11.0	11.0	285	...
10	8	11.0	11.0	310	...
10	10	11.0	11.0	380	360
12	6	12.0	12.0	361	367
12	8	12.0	12.0	371	373
12	12	12.0	12.0	486	487
14	8	14.0	14.0	550	...
14	14	14.0	14.0	779	...
16	6	15.0	15.0	650	...
16	8	15.0	15.0	675	655
16	16	15.0	15.0	895	875
18	8	13.0	15.5	775	...
18	10	13.0	15.5	760	...
18	12	13.0	15.5	860	...
18	18	16.5	16.5	1140	...
20	8	14.0	17.0	951	...
20	12	14.0	17.0	977	...
20	16	18.0	18.0	1245	...
20	20	18.0	18.0	1448	...
24	8	15.0	19.0	1244	...
24	12	15.0	19.0	1326	...
24	16	15.0	19.0	1479	...
24	20	22.0	22.0	1965	...
24	24	22.0	22.0	2192	...
30	6	18.0	23.0	2085	...
30	12	18.0	23.0	2165	...
30	24	25.0	25.0	3180	...
30	30	25.0	25.0	3640	...
36	36	28.0	28.0	4370	...

* Not included in AWWA C110.

REDUCERS

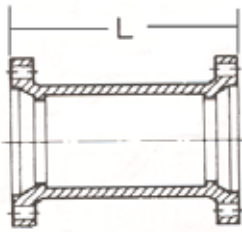
	Laying Lengths (L)							Weights					
	Size	MJ	MJ-SEB	MJ-LEB	PExPE	FExMJ	MJxFE	MJ	MJ-SEB	MJ-LEB	PExPE	FExMJ	MJxFE
	* 3x2	6	14	14	...	...	...	24	24	24	...	...	...
	* 4x2	7	15	15	...	...	...	31	30	31	...	...	...
	4x3	7	15	15	23	7	7	37	38	37	34	34	35
	* 6x2	9	17	17	...	...	...	46	43	47	...	...	...
	6x3	9	17	17	...	...	9	55	50	55	...	...	50
	6x4	9	17	17	25	9	9	56	60	59	57	53	62
	8x3	11	19	19	...	...	...	84	77	70	...	...	...
	8x4	11	19	19	...	11	11	84	82	84	...	73	75
	8x6	11	19	19	27	11	11	94	90	93	96	84	80
	10x6	12	20	20	...	12	12	115	116	117	...	100	105
	10x8	12	20	20	28	12	12	142	135	130	135	130	130
	12x4	14	22	22	...	...	...	139	131	...	...	...	...
	12x6	14	22	22	...	14	12	148	150	153	...	145	130
	12x8	14	22	22	30	14	12	173	168	165	168	170	175
	12x10	14	22	22	30	14	12	194	190	178	185	188	190
	14x6	...	...	...	...	...	16	...	...	...	...	...	195
	14x8	...	...	...	...	...	16	...	...	...	...	...	215
	14x12	...	...	...	...	...	16	...	...	...	...	...	270
	16x6	18	...	...	...	...	...	250	...	...	...	...	...
	16x8	18	26	...	...	...	...	288	248	...	...	...	...
	16x10	18	...	...	...	...	...	300	...	...	...	...	...
	16x12	18	26	26	...	18	18	330	304	325	...	305	325
	16x14	18	...	...	...	...	...	370	...	...	...	...	...
	18x8	19	...	...	...	...	19	320	...	...	...	...	300
	18x10	19	...	...	...	...	...	388	...	...	...	...	...
	18x12	19	27	...	...	...	19	380	355	...	...	...	405
	18x14	19	...	...	...	...	...	450	...	...	...	...	...
	18x16	19	...	...	...	...	19	476	...	...	...	...	445
	20x10	20	...	...	...	...	...	410	...	...	...	...	...
	20x12	20	28	...	...	...	...	515	420	...	...	...	...
	20x16	20	28	28	...	...	20	578	525	510	...	...	510
	20x18	20	...	...	...	...	...	575	...	...	...	...	...
	24x12	24	32	...	...	...	24	610	570	...	...	...	455
	24x16	24	32	32	...	...	...	705	665	753	...	...	...
	24x18	24	32	...	...	...	...	789	720	...	...	...	...
	24x20	24	32	32	...	...	...	815	775	804	...	...	...
	*30x16	30	38	...	46	...	...	1150	1040	...	1015	...	...
	30x18	30	38	...	46	...	...	1160	1050	...	1025	...	...
	30x20	30	38	...	46	...	...	1225	1120	...	1090	...	...
	30x24	30	38	38	46	...	...	1360	1255	1320	1215	...	...
	36x20	36	...	44	...	...	...	1495	...	1466	...	...	...
	36x24	36	...	44	52	...	...	1580	...	1535	1389	...	...
	36x30	36	44	...	52	...	...	1919	1721	...	1585	...	...
	42x24	42	...	...	...	...	...	2060	...	...	...	...	...
	42x30	42	...	...	...	...	...	2370	...	...	...	...	...
	42x36	42	...	...	...	...	...	2695	...	...	...	...	...
	48x30	48	...	...	...	...	...	3005	...	...	...	...	...
	48x36	48	...	...	...	...	...	3370	...	...	...	...	...
	48x42	48	3750

* Not included in AWWA C110

ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11

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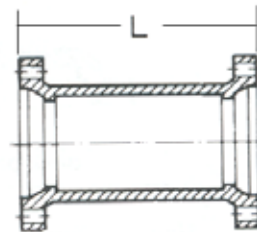
SOLID SLEEVES



Standard

Size	Pipe O.D.	Short		Long	
		L	Weight	L	Weight
*2	2.50	8.0	13	12	18
3	3.96	7.5	...	12	36
4	4.80	7.5	35	12	47
6	6.90	7.5	45	12	65
8	9.05	7.5	65	12	90
10	11.10	7.5	85	12	115
12	13.20	7.5	120	12	136
16	17.40	9.5	206	15	281
18	19.50	9.5	246	15	362
20	21.60	9.5	275	15	404
24	25.80	9.5	360	15	540
30	32.00	15.0	745	24	1085
36	38.30	15.0	1047	24	1502
42	44.50	...	...	24	1550
48	50.8	...	...	24	1940

* Not included in AWWA C110



*** Dual Purpose †**

Size	Pipe O.D.	Short		Long	
		L	Weight	L	Weight
4	4.80/5.00	7.5	33	12	44
6	6.90/7.10	7.5	46	12	63
8	9.05/9.30	7.5	65	12	88
10	11.10/11.40	...	...	12	111
†12	13.20/13.50	...	...	12	221
†16	17.40/17.80	...	...	15	385

All Sizes Use MJ Dual Purpose Gland

* Not included in AWWA C110

† 12" & 16" are sold assembled

NOTE: Sizes 4-10" use standard MJ Gaskets; 12" and 16" require special duo gaskets.

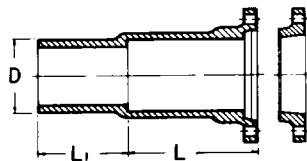
*** MJ x PE DUAL-PURPOSE CUTTING-IN SLEEVE**

With Dual-Purpose Accessories

(NOTES: Gland with cup-joint set screws available at extra cost when specified. NOT FOR RESTRAINT.)

Currently, Tyler and Union Dual Purpose Glands are NOT interchangeable.

Cutting-In Sleeve & Gland



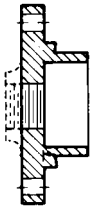
Size	For Use On Pipe O.D.	L	L ¹	D	Weight	
					Gland Only	Gland & Sleeve
4	4.80 - 5.00	12	8	4.80	6.0	72
6	6.90 - 7.10	12	8	6.90	10.0	94
8	9.05 - 9.30	12	8	9.05	16.0	122
10	11.10 - 11.40	12	8	11.10	25.0	175
12	13.20 - 13.50	12	8	13.20	30.0	235

* Not included in AWWA C110.

ADAPTERS

Size	MJ x FE Dimensions	
	L	Weights
3	8	30
4	8	42
6	8	62
8	8	88
10	8	120
12	8	150
16	8	257
18	8	324
20	8	365
24	8	528
30	10	760
36	10	1070

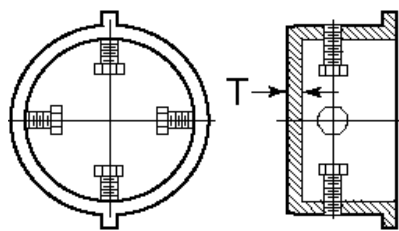
PLUGS



Solid or Tapped

Size	Tap	Weight	
		Solid	Tapped
*2	2	5	5
3	2	9	9
4	2	13	14
6	2	15	15
8	2	45	45
10	2	66	66
12	2	79	79
14	2	120	120
16	2	147	147
†18	2	192	190
†20	2	220	219
†24	2	338	338
†30	2	660	660
†36	2	838	838
42	..	1180	...
48	..	1455	...

† Dished – Not flat as shown.
* Not included in AWWA C110.



TYTON® Plug** Solid or Tapped

Size	Tap	T	Weight*
4	2	.60	18
6	2	.65	25
8	2	.70	46
10	2	.75	70
12	2	.75	95

* Weights do not include accessories
** Not included in AWWA C110.
TYTON® is a registered trademark of U.S. Pipe and Foundry Company.

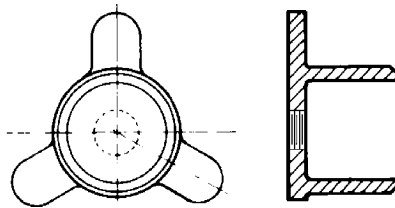
CAPS



Solid or Tapped

Size	Tap	Weight	
		Solid	Tapped
*2	2	6	...
3	2	10	10
4	2	18	13
6	2	34	30
8	2	46	45
10	2	58	54
12	2	86	80
16	2	178	175
†18	2	215	215
†20	2	250	249
†24	2	370	370
†30	2	680	680
†36	2	850	850
42	..	1180	...
48	..	1595	...

† Dished – Not flat as shown.
* Not included in AWWA C110.



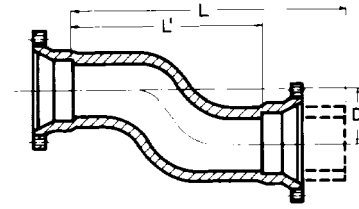
Solid Tapped

Push-In Plug with Ears
(To be used with all push-in pipe and fittings)

Size	Tap	Weight
14	2.0	101
16	2.0	137
18	2.0	177
†20	2.0	239
†24	2.0	311

† Dished - Not flat as shown
NOTE: Blocking still required—ears for assembly only.

OFFSETS



MJ x MJ

MJ x PE

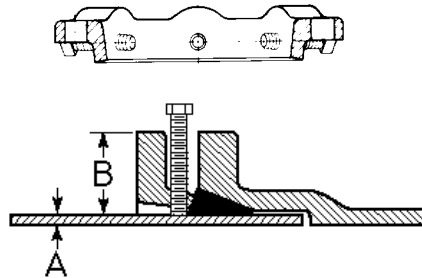
Size	D	Dimensions		Weights	
		L ¹	L	MJxMJ	MJxPE
4	6	19	27	...	82
4	12	22	30	85	80
4	18	30	38	105	...
* 4	24	26	34	126	125
6	6	20	28	114	105
6	12	26	34	148	143
6	18	33	41	188	176
* 6	24	24	32	182	160
8	6	21	29	177	155
8	12	28	36	231	195
8	18	35	43	287	282
* 8	24	36	44	280	285
10	12	30	38	347	280
10	18	38	46	340	340
10	24	38	46	420	...
12	12	37	45	420	420
12	18	48	56	520	520
*12	24	48	56	649	630
16	12	40	48	715	...
16	18	50	58	850	830
*20	12	40	48	1025	...
*20	18	48	60	1362	...

* Not included in AWWA C110.



DUCTILE IRON C110 FULL BODY MECHANICAL JOINT FITTINGS

*RETAINER GLAND ASSEMBLY



See Installations Instructions..... Page 50

Size	Pressure Rating, psi	Gland O.D. B	Pipe O.D. A	D.I. Pipe Wall Class	No of Set Screws	Size of Set Screws	Gland Weight	Weight w/Access.
3	350	7.69	3.96	50-56	4	5/8x2	4	8
4	350	9.12	4.80	50-56	4	5/8x2	5	11
6	350	11.12	6.90	50-56	6	5/8x2	9	16
8	250	13.37	9.05	50-56	9	5/8x2	13	21
10	250	15.62	11.10	50-56	12	5/8x2	17	26
12	150	17.88	13.20	50-56	16	5/8x2	20	28
14	250	20.25	15.30	53-56	20	5/8x2 1/2	44	55
16	200	22.50	17.40	53-56	24	5/8x2 1/2	54	64
18	200	24.75	19.50	53-56	24	5/8x2 1/2	62	72
20	200	27.00	21.60	53-56	28	5/8x3	76	91
24	150	31.50	25.80	53-56	32	5/8x3	103	118

* Not included in AWWA C110

Pipe Wall Thickness:

Sizes 3"-12" are recommended for ductile iron pipe class 50 thru 56. Sizes 14" thru 24" are recommended for ductile iron pipe class 53 thru 56.

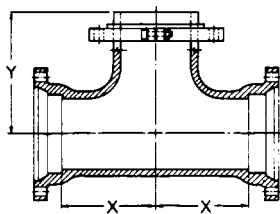
DUCTILE IRON RETAINER GLANDS

Mechanical Joint Retainer Glands are designed to provide a method for restraining mechanical joint pipe and fittings and other standardized mechanical joints against possible joint separation, rupture or blow-out caused by internal water pressure.

The set screws are square-headed with Type C knurled cup points, and are shipped already assembled in the Glands. They are manufactured of 4140 grade alloy steel, and are heat treated to a Rockwell "C" 45/53 case hardness. Tee-head bolts and gaskets are not included, but may be ordered separately. Recommended torque for set screws is 75 foot pounds, and set screws on opposite sides of the glands should be tightened alternately.

Tee-head bolt hole size and spacing are equal to MJ Glands as shown in AWWA C-111. Standard mechanical Joint gaskets as shown in C-111 should be used.

TEES



MJ x MJ x Swivel

Size	Dimensions		Weight
	X	Y	
6	8.0	10.5	150
8x6	9.0	11.5	199
8	9.0	11.5	210
10x6	11.0	13.5	267
12x6	12.0	14.5	346
16x6	15.0	17.5	619
16x8	15.0	17.5	649
30x6	18.0	24.5	2070

All weights shown include the Swivel Gland

MJ GLAND



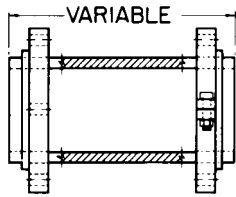
Size	Gland Weight	
	Wt. Pack	Gland Only
2	5	3
3	7	4
4	10	6
6	16	10
8	25	16
10	30	19
12	40	26
14	45	34
16	55	54
18	65	52
20	85	73
24	105	91
30	220	90
36	301	127

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ADAPTERS



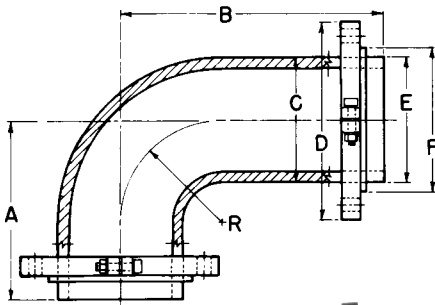
Swivel x Solid Adapter

Size by Laying Length	Wall Thickness	Weight*
4x13	.52	52
6x12	.55	84
6x18	.55	91
6x24	.55	105
6x36	.55	156
8x13	.60	126
12x13	.75	186

*Weights with Gland.

Other Swivel Hydrant Fittings, Pages 3, 4 and 5.

ELLS



***90° Swivel x Swivel Ell
(Not Included In AWWA C110)**

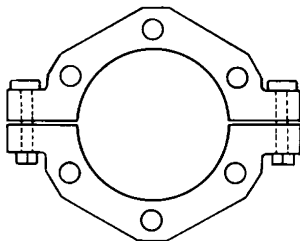
Size	Wall Thickness	Dimensions							*Weight
		A	B	C	D	E	F	R	
6	.55	10.5	15.5	7.10	11.12	6.90	8.02	6.0	106
8	.60	11.5	16.5	9.20	13.37	9.05	10.17	7.0	156

* With 2 Swivel Glands



SWIVEL GLAND ASSEMBLY

Used with swivel fittings, the TYLER Swivel Gland, with its rotating feature, permits the installer to meet any grade requirements regardless of bolt-hole alignment. In addition, the system permits stiff connections without braces, blocking or strapping.



Swivel Glands**

Size	Weight
12	30

** Not included in AWWA C110.

NOTE: When ordering glands separately,
(1) Specify TYLER UPCode Number,
(2) Description, and
(3) Size of fitting to be joined.