



DUCTILE IRON C110 FULL BODY MECHANICAL JOINT DIMENSIONS

Sizes 3" thru 12" UL Listed for Fire Main Equipment

SAMPLE SPECIFICATION (Current ANSI/AWWA revision apply)

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 and ANSI/AWWA C111/A21.11. 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. (610mm) and smaller sizes may be rated for 350 psi (2,413 kPa) with the use of special (annular ring or comparable) 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 - Installation per AWWA C600 and AWWA C651, current revision

NOTE: Fittings are cement lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Fittings are also available double cement lined, bare or epoxy coated. Coated and lined fittings meet requirements of NSF-61, NSF-372, & Annex G..

NOMINAL JOINT DIMENSIONS IN INCHES - MECHANICAL JOINT FITTINGS

DIMENSIONS IN INCHES																
Size	A	B	C	D	F	1/3	X	J	K ¹	K ²	L	M	N	O	P	S
*2	2.50	2.50	3.39	3.50	2.61	28°	3/4	4.75	6.25	6.25	.75	.62	1.12	.31	.63	.44
3	3.96	2.50	4.84	4.94	4.06	28°	3/4	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°	7/8	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°	7/8	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°	7/8	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°	7/8	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°	7/8	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°	7/8	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°	7/8	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°	7/8	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°	7/8	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°	7/8	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°	1 1/8	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°	1 1/8	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°	1 1/8	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°	1 1/8	57.50	60.00	60.00	2.00	2.00	2.75	.38	1.00	2.20

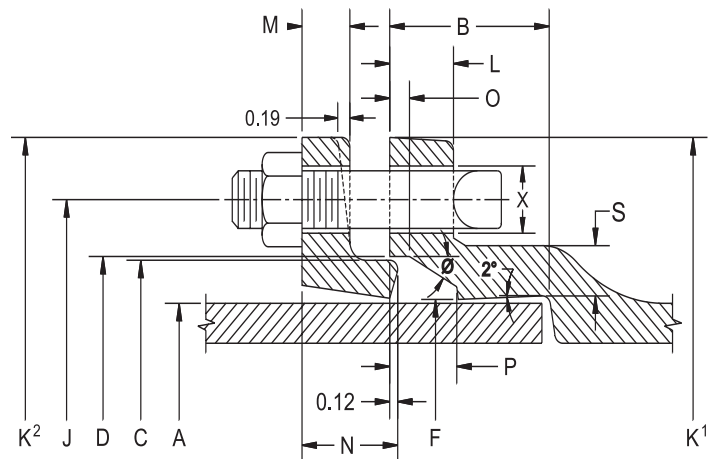
* Not included in AWWA C110.

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	5/8	3	45-60	5	2.50
3	4	5/8	3	45-60	7	3.96
4	4	3/4	3 1/2	75-90	10	4.80
6	6	3/4	3 1/2	75-90	16	6.90
8	6	3/4	4	75-90	25	9.05
10	8	3/4	4	75-90	30	11.10
12	8	3/4	4	75-90	40	13.20
14	10	3/4	4 1/2	75-90	45	15.30
16	12	3/4	4 1/2	75-90	55	17.40
18	12	3/4	4 1/2	75-90	65	19.50
20	14	3/4	4 1/2	75-90	85	21.60
24	16	3/4	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	1 1/4	6 1/2	120-150	389	44.50
48	32	1 1/4	6 1/2	120-150	477	50.80

* Not included in AWWA C110.

14" THRU 48"
GLANDS MAY
BE TAPERED

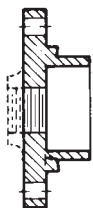


ANSI/AWWA C110/A21.10, ANSI/AWWA C111/A21.11



DUCTILE IRON C110 FULL BODY MECHANICAL JOINT FITTINGS

PLUGS

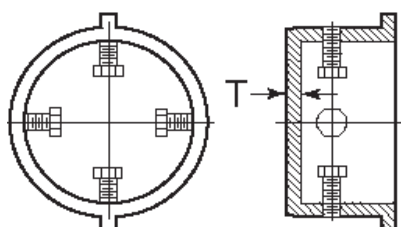


Solid or Tapped

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



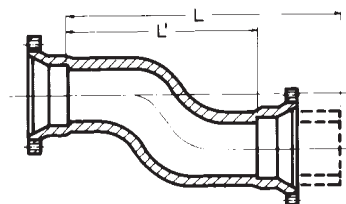
Solid or Tapped

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.

OFFSETS

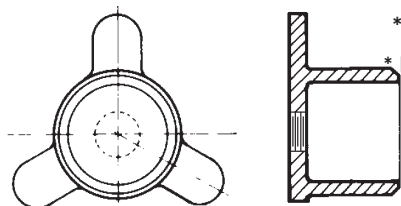


MJ x MJ

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.



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.

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