



Ductile Iron MJ Full Body Fittings

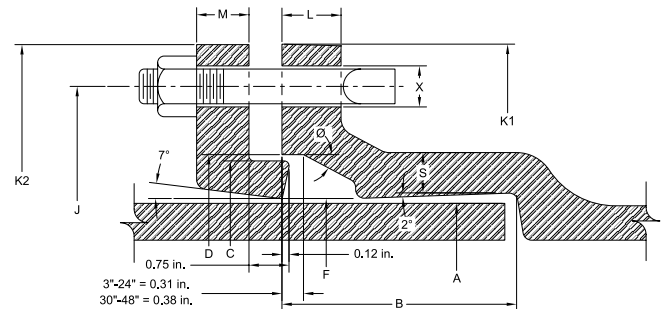
ANSI/AWWA C110/A21.10

GENERAL SPECIFICATIONS

MATERIAL:	Ductile iron per ASTM A536
PRESSURE:	350 PSI rating for 2" - 24" sizes, 250 PSI rating for 30" - 48" and 150 PSI for 54"-64" or as noted
TESTING:	In accordance with ANSI/AWWA C110/A21.10
LAYING LENGTH:	In accordance with ANSI/AWWA C110/A21.10 (fittings not listed in ANSI/AWWA have dimensions per Star design as noted in the catalog)
WEIGHTS:	Are in pounds, unless noted otherwise and do not include accessories, cement lining and coating
FLANGES:	Flanged ends on fittings match ANSI/AWW C110/A21.10 and ANSI B16.1 class 125 flanges.
CEMENT LINING:	In accordance with ANSI/AWWA C104/A21.4 -- sizes 2" - 3" single thickness and sizes 4" - 54" double thickness
COATING:	Asphaltic seal coat inside and out in accordance with ANSI/AWWA C104/A21.4 and referenced in ANSI/AWWA C110/A21.10
GASKETS:	SBR in accordance with ANSI/AWWA C111/A21.11
T-BOLTS/NUTS:	Low alloy steel in accordance with ANSI/AWWA C11/A21.11
APPROVALS:	Sizes 2" and greater are UL/ANSI/NSF Standards 61 and 372
DIMENSIONS:	All dimensions are in inches unless noted otherwise.
INSTALLATION:	Per ANSI/AWWA C600 and C111 using DIP conforming to C150/C151 and PVC pipe conforming to C900/C905



SUBMITTAL INFORMATION

PROJECT NAME: ENGINEER: CONTRACTOR: SPEC. SECTION: 

MECHANICAL JOINT DIMENSIONS

NOM. SIZE	A DIA.	B	C DIA.	D DIA.	F DIA.	J DIA.	K1 DIA.	K2 DIA.	L	M	S	Ø	X DIA.	BOLTS	
														SIZE	NO.
2	2.50	2.50	3.39	3.50	2.61	4.75	6.25	6.25	0.75	0.62	0.44	28°	¾	⅝ x 3	2
3	3.96	2.50	4.84	4.94	4.06	6.19	7.69	7.69	0.94	0.62	0.52	28°	¾	⅝ x 3	4
4	4.80	2.50	5.92	6.02	4.90	7.50	9.12	9.12	1.00	0.75	0.65	28°	7/8	¾ x 3 ½	4
6	6.90	2.50	8.02	8.12	7.00	9.50	11.12	11.12	1.06	0.88	0.70	28°	7/8	¾ x 3 ½	6
8	9.05	2.50	10.17	10.27	9.15	11.75	13.37	13.37	1.12	1.00	0.75	28°	7/8	¾ x 4	6
10	11.10	2.50	12.22	12.34	11.20	14.00	15.69	15.62	1.19	1.00	0.80	28°	7/8	¾ x 4	8
12	13.20	2.50	14.32	14.44	13.30	16.25	17.94	17.88	1.25	1.00	0.85	28°	7/8	¾ x 4	8
14	15.30	3.50	16.40	16.54	15.44	18.75	20.31	20.25	1.31	1.25	0.89	28°	7/8	¾ x 4 ½	10
16	17.40	3.50	18.50	18.64	17.54	21.00	22.56	22.50	1.38	1.31	0.97	28°	7/8	¾ x 4 ½	12
18	19.50	3.50	20.60	20.74	19.64	23.25	24.83	24.75	1.44	1.38	1.05	28°	7/8	¾ x 4 ½	12
20	21.60	3.50	22.70	22.84	21.74	25.50	27.08	27.00	1.50	1.44	1.12	28°	7/8	¾ x 4 ½	14
24	25.80	3.50	26.90	27.04	25.94	30.00	31.58	31.50	1.62	1.56	1.22	28°	7/8	¾ x 5	16
30	32.00	4.00	33.29	33.46	32.17	36.88	39.12	39.12	1.81	2.00	1.50	20°	1 ½	1 x 6	20
36	38.30	4.00	39.59	39.76	38.47	43.75	46.00	46.00	2.00	2.00	1.80	20°	1 ½	1 x 6	24
42	44.50	4.00	45.79	45.96	44.67	50.62	53.12	53.12	2.00	2.00	1.95	20°	1 ¾	1 ¼ x 6 ½	28
48	50.80	4.00	52.09	52.26	50.97	57.50	60.00	60.00	2.00	2.00	2.20	20°	1 ¾	1 ¼ x 6 ½	32
54	{ Fittings & Dimensions Available On Request }														
60															
64															

SIZE RANGE (Please specify):

Size Range

LINING OPTIONS (Please check one):

Standard: Cement-lined and asphalt seal coat per ANSI/AWWA C104/A21.4 and UL/NSF-61

Optional: FBE (Fusion Bonded Epoxy) per ANSI/AWWA C116/A21.15 and UL/NSF-61 - ID & OD Only

Optional: P401 (Protecto 401) Ceramic Epoxy - sewer applications only. Not NSF-61

Optional: Other (specify)

COATING OPTIONS (Please check one):

Standard: Asphaltic seal coat per ANSI/AWWA C104/A21.4

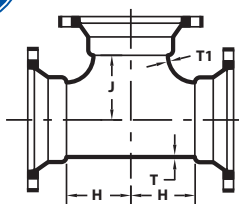
Optional: FBE (Fusion Bonded Epoxy) per ANSI/AWWA C116/A21.15 and UL/NSF-61 - ID & OD Only

Optional: Other (specify)



Full Body MJ Fittings

ANSI/AWWA C110/A21.10



MJ x MJ TEES					
NOM. SIZE	T	T1	H	J	WT (LBS.)
2 x 2	0.39	0.39	3.25	3.25	20
3 x 2	0.48	0.39	3.50	3.50	43
3 x 3	0.48	0.48	5.50	5.50	55
4 x 2	0.52	0.39	4.00	4.00	57
4 x 3	0.52	0.48	6.50	6.50	75
4 x 4	0.52	0.52	6.50	6.50	80
4 x 4 x 6	0.52	0.55	8.00	8.00	115
6 x 2	0.55	0.39	8.00	8.00	78
6 x 3	0.55	0.48	8.00	8.00	110
6 x 4	0.55	0.52	8.00	8.00	115
6 x 6	0.55	0.55	8.00	8.00	125
6 x 6 x 8	0.55	0.60	9.00	9.00	185
8 x 2	0.60	0.39	9.00	9.00	125
8 x 3	0.60	0.48	9.00	9.00	155
8 x 4	0.60	0.52	9.00	9.00	165
8 x 6	0.60	0.55	9.00	9.00	175
8 x 8	0.60	0.60	9.00	9.00	185
8 x 8 x 12	0.60	0.75	12.00	12.00	280
10 x 4	0.68	0.52	11.00	11.00	235
10 x 6	0.68	0.55	11.00	11.00	250
10 x 8	0.68	0.60	11.00	11.00	260
10 x 10	0.80	0.80	11.00	11.00	310
12 x 4	0.75	0.52	12.00	12.00	315
12 x 6	0.75	0.55	12.00	12.00	325
12 x 8	0.75	0.60	12.00	12.00	340
12 x 10	0.87	0.80	12.00	12.00	390
12 x 12	0.87	0.87	12.00	12.00	410
14 x 6	0.66	0.55	14.00	14.00	435
16 x 4	0.70	0.52	15.00	15.00	525
16 x 6	0.70	0.55	15.00	15.00	540
16 x 8	0.70	0.60	15.00	15.00	550
16 x 10	0.70	0.68	15.00	15.00	570
16 x 12	0.70	0.75	15.00	15.00	590
16 x 16	0.70	0.70	15.00	15.00	650
18 x 6	0.75	0.55	13.00	15.50	590
18 x 8	0.75	0.60	13.00	15.50	605
18 x 12	0.75	0.75	13.00	15.50	640
18 x 18	0.75	0.75	16.50	16.50	820
20 x 6	0.80	0.55	14.00	17.00	725
20 x 8	0.80	0.60	14.00	17.00	735
20 X 10	0.80	0.68	14.00	17.00	755
20 x 12	0.80	0.75	14.00	17.00	775
20 x 16	0.80	0.70	18.00	18.00	945
20 x 20	0.80	0.80	18.00	18.00	1020
24 x 6	0.89	0.55	15.00	19.00	985
24 x 8	0.89	0.60	15.00	19.00	1000
24 x 10	0.89	0.68	15.00	19.00	958

MJ x MJ TEES (Con't)					
NOM. SIZE	T	T1	H	J	WT (LBS.)
24 x 12	0.89	0.75	15.00	19.00	1030
24 x 14	0.89	0.66	15.00	19.00	1055
24 x 16	0.89	0.70	15.00	19.00	1075
24 x 18	0.89	0.75	22.00	22.00	1400
24 x 20	0.89	0.80	22.00	22.00	1450
24 x 24	0.89	0.89	22.00	22.00	1535
30 x 6	1.03	0.55	18.00	23.00	1730
30 x 8	1.03	0.60	18.00	23.00	1745
30 x 10	1.03	0.68	18.00	23.00	1760
30 x 12	1.03	0.75	18.00	23.00	1780
30 x 14	1.03	0.66	18.00	23.00	1648
30 x 16	1.03	0.70	18.00	23.00	1820
30 x 18	1.03	0.75	18.00	23.00	1845
30 x 20	1.03	0.80	18.00	23.00	1875
30 x 24	1.03	0.89	25.00	25.00	2400
30 x 30	1.03	1.03	25.00	25.00	2595
36 x 6	1.15	0.55	20.00	26.00	2500
36 x 8	1.15	0.60	20.00	26.00	2520
36 x 10	1.15	0.68	20.00	26.00	2535
36 x 12	1.15	0.75	20.00	26.00	2550
36 x 14	1.15	0.66	20.00	26.00	2570
36 x 16	1.15	0.70	20.00	26.00	2585
36 x 18	1.15	0.75	20.00	26.00	2610
36 x 20	1.15	0.80	20.00	26.00	2635
36 x 24	1.15	0.89	20.00	26.00	2690
36 x 30	1.15	1.03	28.00	28.00	3545
36 x 36	1.15	1.15	28.00	28.00	3745
42 x 12	1.28	0.75	23.00	30.00	3555
42 x 14	1.28	0.66	23.00	30.00	3575
42 x 16	1.28	0.70	23.00	30.00	3595
42 x 18	1.28	0.75	23.00	30.00	3615
42 x 20	1.28	0.80	23.00	30.00	3640
42 x 24	1.28	0.89	23.00	30.00	3690
42 x 30	1.28	1.03	31.00	31.00	4650
42 x 36	1.78	1.58	31.00	31.00	6075
42 x 42	1.78	1.78	31.00	31.00	6320
48 x 12	1.42	0.75	26.00	34.00	4870
48 x 14	1.42	0.66	26.00	34.00	4885
48 x 16	1.42	0.70	26.00	34.00	4905
48 x 18	1.42	0.75	26.00	34.00	4925
48 x 20	1.42	0.80	26.00	34.00	4950
48 x 24	1.42	0.89	26.00	34.00	4995
48 x 30	1.42	1.03	26.00	34.00	5140
48 x 36	1.42	1.15	34.00	34.00	6280
48 x 42	1.96	1.78	34.00	34.00	8130
48 x 48	1.96	1.96	34.00	34.00	8420
48 x 36 x 48	1.42	1.15	34.00	34.00	6275