



Ductile Iron MJ Full Body Fittings

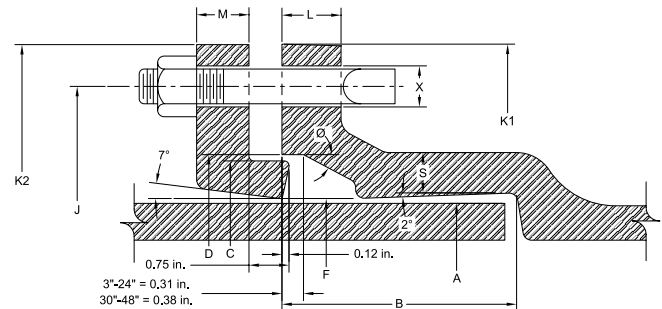
ANSI/AWWA C110/A21.10

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°	3/4	5/8 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°	3/4	5/8 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	3/4 x 3 1/2	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	3/4 x 3 1/2	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	3/4 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	3/4 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	3/4 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	3/4 x 4 1/2	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	3/4 x 4 1/2	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	3/4 x 4 1/2	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	3/4 x 4 1/2	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	3/4 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 1/8	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 1/8	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 3/8	1 1/4 x 6 1/2	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 3/8	1 1/4 x 6 1/2	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

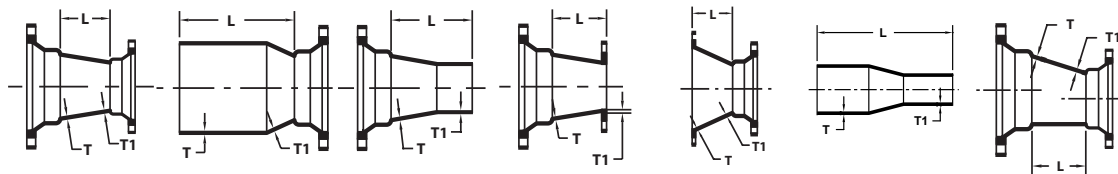
Optional: FBE (Fusion Bonded Epoxy) per ANSI/AWWA C116/A21.15 and UL/NSF-61 - ID & OD Only

Optional: Other (specify)



Full Body MJ Fittings

ANSI/AWWA C110/A21.10



REDUCERS			MJ x MJ		SEB		LEB		MJ x FE		FE x MJ		PE x PE		ECCENTRIC	
NOM. SIZE	T	T1	L	WT (LBS.)	L	WT (LBS.)	L	WT (LBS.)	L	WT (LBS.)	L	WT (LBS.)	L	WT (LBS.)	L	WT (LBS.)
3 x 2	0.48	0.39	6.00	25	14.00	14	14.00	20	6.00	20	---	---	---	---	---	---
4 x 2	0.52	0.39	7.00	30	15.00	18	15.00	30	7.00	25	---	---	---	---	---	---
4 x 3	0.52	0.48	7.00	40	15.00	35	15.00	40	7.00	35	7.00	34	---	---	---	---
6 x 2	0.55	0.39	9.00	45	17.00	45	17.00	45	9.00	40	---	---	---	---	---	---
6 x 3	0.55	0.48	9.00	55	17.00	50	17.00	55	9.00	49	---	---	---	---	---	---
6 x 4	0.55	0.52	9.00	60	17.00	60	17.00	60	9.00	53	9.00	60	---	---	9.00	65
8 x 3	0.60	0.48	11.00	75	19.00	70	19.00	70	11.00	65	---	---	---	---	---	---
8 x 4	0.60	0.52	11.00	80	19.00	80	19.00	80	11.00	75	11.00	80	---	---	---	---
8 x 6	0.60	0.55	11.00	95	19.00	90	19.00	90	11.00	80	11.00	89	27.00	85	11.00	100
10 x 4	0.68	0.52	12.00	105	20.00	100	20.00	100	---	---	---	---	---	---	---	---
10 x 6	0.68	0.55	12.00	115	20.00	115	20.00	115	12.00	105	12.00	114	---	---	---	---
10 x 8	0.68	0.60	12.00	135	20.00	130	20.00	130	12.00	130	12.00	130	---	---	12.00	140
12 x 4	0.75	0.52	14.00	135	22.00	130	22.00	130	14.00	125	---	---	---	---	---	---
12 x 6	0.75	0.55	14.00	150	22.00	150	22.00	145	14.00	145	14.00	151	---	---	---	---
12 x 8	0.75	0.60	14.00	165	22.00	165	22.00	165	14.00	175	14.00	183	30.00	165	---	---
12 x 10	0.75	0.68	14.00	190	22.00	190	22.00	185	14.00	185	14.00	190	---	---	14.00	195
14 x 6	0.66	0.55	16.00	190	24.00	175	24.00	185	16.00	195	---	---	32.00	170	---	---
14 x 8	0.66	0.60	16.00	210	24.00	190	24.00	205	16.00	215	---	---	---	---	---	---
14 x 10	0.66	0.68	16.00	230	---	---	---	---	16.00	216	---	---	---	---	---	---
14 x 12	0.66	0.75	16.00	255	24.00	240	24.00	255	16.00	246	---	---	---	---	---	---
16 x 6	0.70	0.55	18.00	230	26.00	210	26.00	230	---	---	---	---	---	---	---	---
16 x 8	0.70	0.60	18.00	250	26.00	230	26.00	250	---	---	---	---	---	---	---	---
16 x 10	0.70	0.68	18.00	280	26.00	255	26.00	275	---	---	---	---	---	---	18.00	275
16 x 12	0.70	0.75	18.00	305	26.00	285	26.00	305	18.00	325	18.00	305	---	---	18.00	302
16 x 14	0.70	0.66	18.00	335	26.00	310	26.00	315	---	---	---	---	---	---	---	---
18 x 8	0.75	0.60	19.00	295	27.00	270	27.00	295	19.00	300	---	---	---	---	---	---
18 x 10	0.75	0.68	19.00	325	27.00	300	27.00	320	19.00	340	---	---	---	---	---	---
18 x 12	0.75	0.75	19.00	350	27.00	325	27.00	350	19.00	360	---	---	---	---	---	---
18 x 14	0.75	0.66	19.00	380	27.00	355	27.00	365	---	---	---	---	---	---	---	---
18 x 16	0.75	0.70	19.00	415	27.00	390	27.00	395	19.00	405	---	---	---	---	---	---
20 x 8	0.80	0.60	20.00	345	28.00	345	---	---	---	---	---	---	---	---	---	---
20 x 10	0.80	0.68	20.00	375	28.00	345	28.00	375	---	---	---	---	---	---	---	---
20 x 12	0.80	0.75	20.00	405	28.00	375	28.00	405	---	---	---	---	---	---	20.00	404
20 x 14	0.80	0.66	20.00	430	---	---	---	---	---	---	---	---	---	---	---	---
20 x 16	0.80	0.70	20.00	470	28.00	435	28.00	445	20.00	510	---	---	---	---	---	---
20 x 18	0.80	0.75	20.00	510	28.00	475	28.00	485	---	---	---	---	---	---	---	---
24 x 8	0.89	0.60	24.00	482	---	---	---	---	---	---	---	---	---	---	---	---
24 x 12	0.89	0.75	24.00	550	32.00	510	32.00	550	24.00	535	---	---	---	---	---	---
24 x 14	0.89	0.66	24.00	---	---	---	---	---	24.00	543	---	---	---	---	---	---
24 x 16	0.89	0.70	24.00	615	32.00	575	32.00	595	---	---	---	---	---	---	---	---
24 x 18	0.89	0.75	24.00	660	32.00	620	32.00	635	---	---	---	---	---	---	---	---
24 x 20	0.89	0.80	24.00	705	32.00	665	32.00	675	24.00	648	---	---	---	---	24.00	710
30 x 12	1.03	0.75	30.00	920	---	---	---	---	---	---	---	---	---	---	---	---
30 x 16	1.03	0.70	30.00	945	38.00	830	---	---	---	---	---	---	---	---	---	---
30 x 18	1.03	0.75	30.00	990	38.00	885	38.00	965	---	---	---	---	---	---	---	---
30 x 20	1.03	0.80	30.00	1050	38.00	945	38.00	1020	---	---	---	---	---	---	---	---
30 x 24	1.03	0.89	30.00	1165	38.00	1060	38.00	1125	---	---	---	---	---	---	30.00	1170
36 x 20	1.15	0.80	36.00	1450	44.00	1285	44.00	1420	---	---	---	---	---	---	---	---
36 x 24	1.15	0.89	36.00	1580	44.00	1410	44.00	1535	---	---	---	---	---	---	---	---

(Con't)➤