



**MECHANICAL JOINT C153 DUCTILE IRON
COMPACT FITTINGS
UL and FM Listed**

SAMPLE SPECIFICATIONS (Current ANSI/AWWA revisions apply)

Mechanical joint watermain fittings with accessories, 2" through 64" shall be manufactured from ductile iron in accordance with and meet all applicable terms and provisions of standards ANSI/AWWA C153/A21.53 and ANSI/AWWA C111/A21.11 Ductile iron mechanical joint fittings 2" through 24" shall be rated for 350 PSI working pressure. Ductile iron 30" through 48" shall be rated for 250 psi working pressure. Flanged ductile iron fittings in 24" (610 mm) and smaller sizes may be rated for 350 psi (2,413 kPa) with the use of special (annular ring or comparable) gaskets. All coated and lined fittings meet requirements of NSF-61, NSF-372, and Annex G.

NOTE - EXCEPTIONS: Mechanical joint fittings with flanged branches are rated for water pressure of 250 PSI.

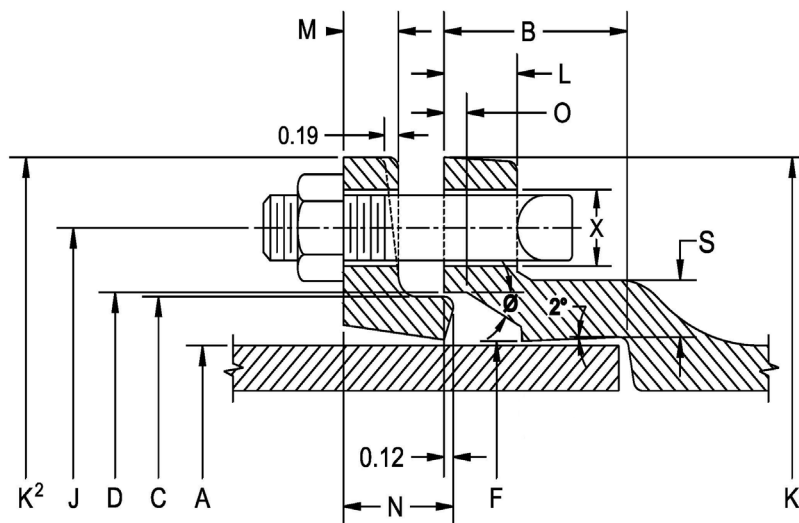
NOTE - Fittings are cement lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Fittings are available double cement-lined, bare, or epoxy coated upon request. Epoxy coating per ANSI/AWWA C116

NOTE - Installation per AWWA C600 and AWWA C651, current revision

Nominal Joint Dimensions in Inches

Size	A	B	C	D	F	Θ	X	J	K1	K2	L	M	N	O	S
2	2.51	2.50	3.50	3.60	2.61	28°	3/4	4.75	6.19	6.89	0.58	0.62	1.12	0.31	0.36
3	3.96	2.50	4.84	4.94	4.06	28°	3/4	6.19	7.62	7.69	0.58	0.62	1.37	0.31	0.39
4	4.80	2.50	5.92	6.02	4.90	28°	7/8	7.50	9.06	9.12	0.60	0.75	1.50	0.31	0.39
6	6.90	2.50	8.02	8.12	7.00	28°	7/8	9.50	11.06	11.12	0.63	0.88	1.63	0.31	0.43
8	9.05	2.50	10.17	10.27	9.15	28°	7/8	11.75	13.31	13.37	0.66	1.00	1.75	0.31	0.45
10	11.10	2.50	12.22	12.34	11.20	28°	7/8	14.00	15.62	15.62	0.70	1.00	1.75	0.31	0.47
12	13.20	2.50	14.32	14.44	13.30	28°	7/8	16.25	17.88	17.88	0.73	1.00	1.75	0.31	0.49
14	15.30	3.50	16.40	16.54	15.44	28°	7/8	18.75	20.25	20.25	0.79	1.25	2.00	0.31	0.55
16	17.40	3.50	18.50	18.64	17.54	28°	7/8	21.00	22.50	22.50	0.85	1.31	2.06	0.31	0.58
18	19.50	3.50	20.60	20.74	19.64	28°	7/8	23.25	24.75	24.75	1.00	1.38	2.13	0.31	0.68
20	21.60	3.50	22.70	22.84	21.74	28°	7/8	25.50	27.00	27.00	1.02	1.44	2.19	0.31	0.69
24	25.80	3.50	26.90	27.04	25.94	28°	7/8	30.00	31.50	31.50	1.02	1.56	2.31	0.31	0.75
30	32.00	4.00	33.29	33.46	32.17	20°	1 1/8	36.88	39.12	39.12	1.31	2.00	2.75	0.38	0.82
36	38.30	4.00	39.59	39.76	38.47	20°	1 1/8	43.75	46.00	46.00	1.45	2.00	2.75	0.38	1.00
42	44.50	4.00	45.79	45.96	44.67	20°	1 3/8	50.62	53.12	53.12	1.45	2.00	2.75	0.38	1.35
48	50.80	4.00	52.09	52.26	50.97	20°	1 3/8	57.50	60.00	60.00	1.45	2.00	2.75	0.38	1.35
54	---	---	---	---	---	--	---	---	---	---	--	--	--	--	--
60	---	---	---	---	---	--	---	---	---	---	--	--	--	--	--
64	---	---	---	---	---	--	---	---	---	---	--	--	--	--	--

NOTE: Contact Tyler Union for details on 54" through 64"

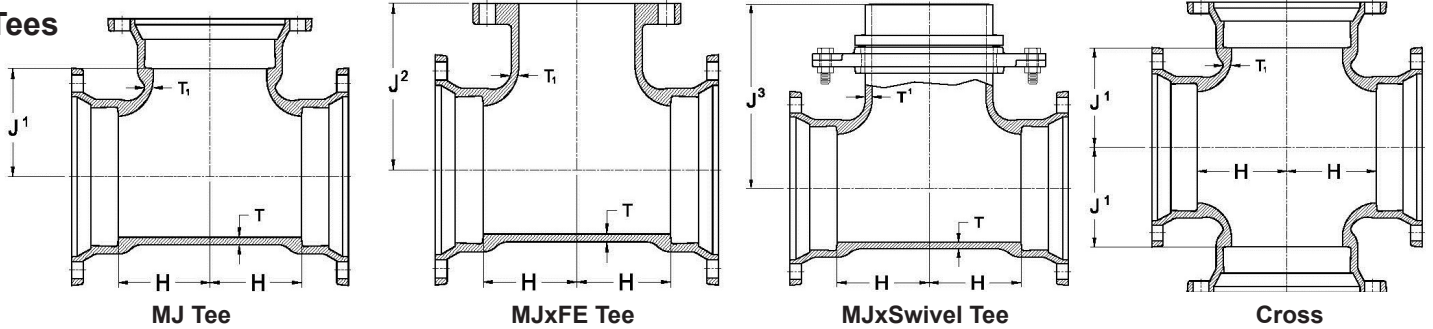


ANSI/AWWA C153 Mechanical Joint Fittings



**MECHANICAL JOINT C153 DUCTILE IRON
COMPACT FITTINGS
UL and FM Listed**

Tees



Size	Domestic				Weight							Non-Domestic				Weight	
	T	T1	H	J1	J2	J3	MJ	MJxFE	†MJxS	Cross	T	T1	H	J1	MJ	Cross	
3	0.34	0.34	3.50	3.50	5.50	...	26	29	...	31	0.33	0.33	3.00	3.00	28	35	
4x3	0.35	0.34	3.50	4.00	6.50	...	35	34	...	39	0.34	0.33	3.50	4.00	30	34	
4	0.35	0.35	4.00	4.00	6.50	...	36	39	...	45	0.34	0.34	4.00	4.00	32	40	
6x3	0.37	0.34	4.00	4.00	6.50	...	51	54	...	...	0.36	0.33	3.50	58	42	
6x4	0.37	0.35	4.00	5.00	8.00	...	52	57	...	62	0.36	0.34	4.00	5.00	46	57	
6	0.37	0.37	5.00	5.00	8.00	10.50	66	68	77	72	0.36	0.36	5.00	5.00	56	75	
8x3	0.39	0.34	4.00	6.50	9.00	...	56	...	...	...	...	...	...	...	...	...
8x4	0.39	0.35	4.50	6.50	9.00	...	72	82	...	84	0.38	0.34	4.00	6.50	60	68	
8x6	0.39	0.37	5.50	6.50	9.00	11.50	79	81	75	98	0.38	0.36	5.00	6.50	72	74	
8	0.39	0.39	6.50	6.50	9.00	11.50	90	101	116	112	0.38	0.38	0.38	6.50	86	105	
10x3	0.41	0.34	4.00	7.50	11.00	...	80	...	...	...	...	...	...	...	...	...
10x4	0.41	0.35	4.50	7.50	11.00	...	82	92	...	98	0.40	0.34	4.00	7.50	78	112	
10x6	0.41	0.37	5.50	7.50	11.00	13.00	110	116	114	121	0.40	0.36	5.00	7.50	90	119	
10x8	0.41	0.39	6.50	7.50	11.00	13.00	116	128	138	135	0.40	0.38	6.50	7.50	105	124	
10	0.41	0.41	7.50	7.50	11.00	...	132	144	...	156	0.40	0.40	7.50	7.50	120	145	
12x3	0.43	0.34	4.00	8.75	12.00	...	99	...	...	...	...	...	...	...	...	...
12x4	0.43	0.35	4.00	9.00	12.00	...	108	118	...	119	0.42	0.34	4.00	8.75	94	119	
12x6	0.43	0.37	5.00	9.00	12.00	14.25	119	118	117	138	0.42	0.34	4.00	8.75	110	126	
12x8	0.43	0.39	6.50	9.00	12.00	14.25	126	146	149	149	0.42	0.38	6.50	8.75	125	149	
12x10	0.43	0.41	7.50	8.75	12.00	...	159	174	...	187	0.42	0.40	7.50	8.75	140	179	
12	0.43	0.43	8.75	8.75	12.00	...	171	198	...	202	0.42	0.42	8.75	8.75	160	213	
14x6	0.51	0.44	6.50	10.50	14.00	16.00	183	205	211	210	0.47	0.36	6.50	10.50	182	200	
14x8	0.51	0.45	7.50	10.50	14.00	...	211	...	...	231	0.47	0.38	7.50	10.50	206	228
14x10	0.51	0.46	8.50	10.50	14.00	...	229	244	...	255	0.47	0.40	8.50	10.50	228	...	
14x12	0.51	0.47	9.50	10.50	14.00	...	245	284	...	269	0.47	0.42	9.50	10.50	234	...	
14	0.51	0.51	10.50	10.50	14.00	...	281	291	...	299	0.47	0.47	10.50	10.50	280	299	
16x6	0.52	0.45	6.50	11.50	15.00	17.00	222	230	243	250	0.50	0.36	6.50	11.50	228	240	
16x8	0.52	0.46	7.50	11.50	15.00	...	245	248	...	264	0.50	0.38	7.50	11.50	248	385	
16x10	0.52	0.47	8.50	11.50	15.00	...	265	287	...	286	0.50	0.40	8.50	11.50	264	...	
16x12	0.52	0.48	9.50	11.50	15.00	...	277	312	...	312	0.50	0.42	9.50	11.50	280	...	
16x14	0.52	0.51	10.50	11.50	15.00	...	317	348	...	...	0.50	0.47	10.50	11.50	316	...
16	0.52	0.52	11.50	11.50	15.00	...	324	324	...	451	0.50	0.50	11.50	11.50	322	...	
18x6	0.59	0.44	6.50	14.50	15.50	18.00	275	261	279	...	0.54	0.36	6.50	12.50	275	...	
18x8	0.59	0.45	7.50	14.50	14.50	...	280	351	...	...	0.54	0.38	7.50	12.50	295	...
18x10	0.59	0.47	8.50	12.50	...	...	286	...	...	...	0.54	0.40	8.50	12.50	315	...
18x12	0.59	0.49	9.50	12.50	...	...	372	...	...	...	0.54	0.42	9.50	12.50	335	348
18x14	0.59	0.56	10.50	12.50	...	...	415	...	...	...	0.54	0.47	10.50	12.50	380	...
18x16	0.59	0.57	11.50	12.50	...	...	432	...	...	...	0.54	0.50	11.50	12.50	405	...
18	0.59	0.59	13.00	12.50	...	...	490	...	...	...	0.54	0.54	12.50	12.50	435	348
20x6	0.60	0.44	6.50	14.00	17.00	19.50	335	362	358	...	0.57	0.36	6.50	14.00	315	...	
20x8	0.60	0.45	8.00	14.00	...	...	390	...	...	...	0.57	0.38	8.00	14.00	345	379
20x10	0.60	0.47	9.00	14.00	...	...	472	...	...	...	0.57	0.40	9.00	14.00	370	...
20x12	0.60	0.49	10.00	14.00	...	...	460	...	...	...	0.57	0.42	10.00	14.00	395	413
20x14	0.60	0.56	11.00	14.00	...	...	475	...	...	...	0.57	0.47	11.00	14.00	440	...
20x16	0.60	0.57	12.00	14.00	...	...	487	...	...	...	0.57	0.50	12.00	14.00	465	...
20x18	0.60	0.59	13.00	14.00	...	...	560	...	...	...	0.57	0.54	13.00	14.00	505	...
20	0.60	0.60	14.00	14.00	...	...	605	...	...	...	0.57	0.57	14.00	14.00	535	...

†Weight includes the swivel gland.

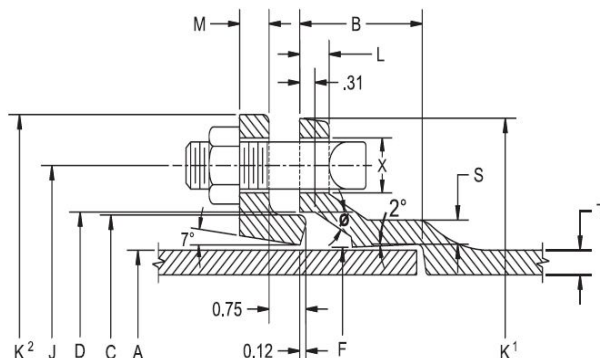
DOMESTIC

NON-DOMESTIC

SUBMITTAL: C153 MECHANICAL JOINT PRODUCT

(Current revisions for the noted Standards apply)

- SIZES:** 2" - 64" (2" not included in ANSI/AWWA C153 standard)
- STANDARDS:** ANSI/AWWA C153/A21.53, NFPA13/24, 3"-16" UL and 3"-10" FM listed & approved (File - Tyler Union)
- MATERIAL:** Cast of ASTM A536 qualified ductile iron. Date code is cast on and required for traceability.
- PRESSURE RATING:** *Flanged fittings rated at 250 psi. Mechanical joints 2" – 24" rated at 350 psi and 30" – 48" at 250 psi.
*Note: With rubber annular ring flange gasket, 2" – 24" Flanged fittings can be rated at 350 psi.
Note: Wyes over 12" are not pressure rated. Contact Tyler Union for rating in your application.
- DEFLECTION:** Joint deflection 5° max for 2"– 12" and 3° max for 14"– 48". Reduces by 50% at nominal pipe & fitting diameters
- NSF-61 & NSF372:** Meets all requirements including Annex G, Tyler Union's Underwriters Laboratory listing MH16439.
- ASPHALT COATING:** Per ANSI/AWWA C104/A21.4 and ANSI/AWWA C153/A21.53.
- CEMENT LINING:** Per ANSI/AWWA C104/A21.4, with double cement lining.
- EPOXY COATING:** Fusion bonded epoxy per ANSI/AWWA C116/A21.16. Additional coatings available upon request.
- BARE FITTINGS:** Available upon request.
- FASTNERS:** High strength low alloy weathering steel per ANSI/AWWA C111/A21.11 and ASTM A242
- INSTALLATION:** Install per AWWA C600/C651 using pipe conforming to ANSI/AWWA C151/A21.51 or AWWA C900/905.



NOMINAL JOINT DIMENSIONS IN INCHES

BOLTS

Size Inches	A Dia. DI Pipe	B Hub Depth	C Dia. GLAND	D Dia.	F Dia.	J Dia. GLAND	K ¹ Dia.	K ² Dia. GLAND	L	M GLAND	S	T	X	Size	Qty.
2	2.51	2.50	3.50	3.60	2.61	4.75	6.19	6.89	0.58	0.62	0.36	0.30	3/4	5/8x3	2
3	3.96	2.50	4.84	4.94	4.06	6.19	7.62	7.69	0.58	0.62	0.39	0.33	3/4	5/8x3	4
4	4.80	2.50	5.92	6.02	4.90	7.50	9.06	9.12	0.60	0.75	0.39	0.34	7/8	3/4x3-1/2	4
6	6.90	2.50	8.02	8.12	7.00	9.50	11.06	11.12	0.63	0.88	0.43	0.36	7/8	3/4x3-1/2	6
8	9.05	2.50	10.17	10.27	9.15	11.75	13.31	13.37	0.66	1.00	0.45	0.38	7/8	3/4x4	6
10	11.10	2.50	12.22	12.34	11.20	14.00	15.62	15.62	0.70	1.00	0.47	0.40	7/8	3/4x4	8
12	13.20	2.50	14.32	14.44	13.30	16.25	17.88	17.88	0.73	1.00	0.49	0.42	7/8	3/4x4	8
14	15.30	3.50	16.40	16.54	15.44	18.75	20.31	20.25	0.79	1.25	0.55	0.47	7/8	3/4x4-1/2	10
16	17.40	3.50	18.50	18.64	17.54	21.00	22.56	22.50	0.85	1.31	0.58	0.50	7/8	3/4x4-1/2	12
18	19.50	3.50	20.60	20.74	19.64	23.25	24.83	24.75	1.00	1.38	0.68	0.54	7/8	3/4x4-1/2	12
20	21.60	3.50	22.70	22.84	21.74	25.50	27.08	27.00	1.02	1.44	0.69	0.57	7/8	3/4x4-1/2	14
24	25.80	3.50	26.90	27.04	25.94	30.00	31.58	31.50	1.02	1.56	0.75	0.61	7/8	3/4x5	16
30	32.00	4.50	33.29	33.46	32.17	36.88	39.12	39.12	1.31	2.00	0.82	0.66	1-1/8	1x6	20
36	38.30	4.50	39.59	39.76	38.47	43.75	46.00	46.00	1.45	2.00	1.00	0.74	1-1/8	1x6	24
42	44.50	4.50	45.79	45.96	44.67	50.62	53.12	53.12	1.45	2.00	1.25	0.82	1-3/8	1-1/4x6-1/2	28
48	50.80	4.50	52.09	52.26	50.97	57.50	60.00	60.00	1.45	2.00	1.35	0.90	1-3/8	1-1/4x6-1/2	32
54	Available on Request														
60	Available on Request														
64	Available on Request														

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New Lenox: 2200 West Haven • New Lenox, IL 60451

Portland: 15670 N. Lombard St. • Portland, OR 97203

Oxford: 1800 Greenbrier Dear Road • Anniston, AL 36207