



**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.

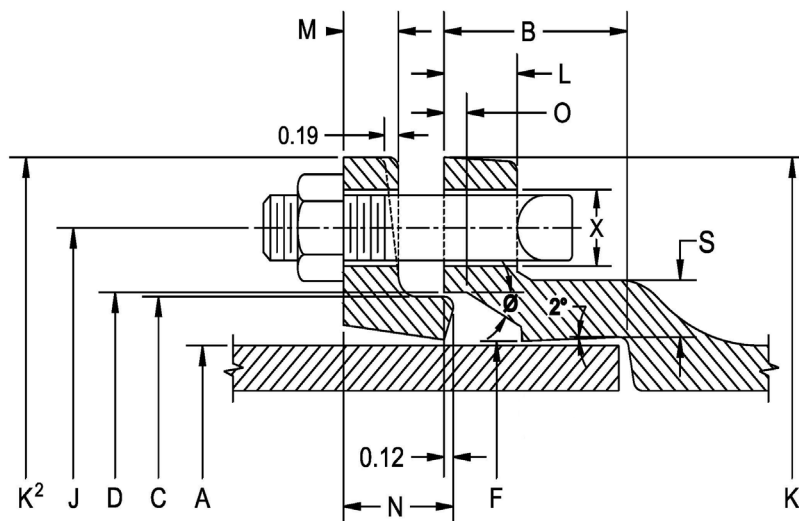
NOTE - Fittings are cement lined and seal coated in accordance with ANSI/AWWA C104/A21.4. Fittings are available double cement-lined, bare, or epoxy coated upon request. Epoxy coating per ANSI/AWWA C116

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	---	---	---	---	---	--	---	---	---	---	--	--	--	--	--

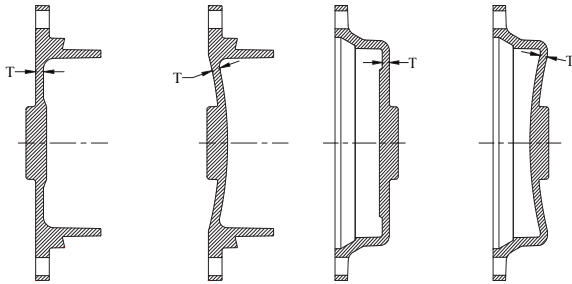
NOTE: Contact Tyler Union for details on 54" through 64"



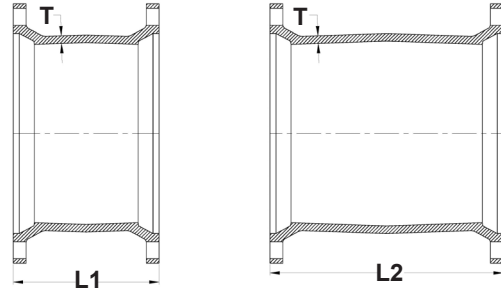
ANSI/AWWA C153 Mechanical Joint Fittings

Plugs

Caps



Solid Sleeve

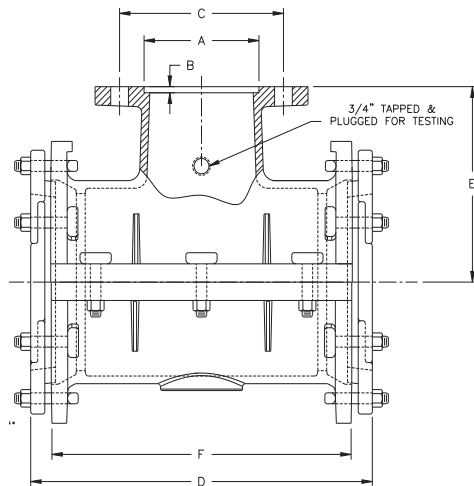


Size	T	Domestic Weight		Non-Domestic Weight		
		Plugs	Caps	T	Plugs	Caps
3	0.46	9	8	0.33	8	8
4	0.46	9	10	0.34	10	9
6	0.46	13	18	0.36	16	15
8	0.46	25	26	0.38	26	22
10	0.56	36	41	0.40	36	32
12	0.56	47	54	0.42	46	42
14	0.62	76	70	0.47	75	66
16	0.62	98	101	0.50	95	92
18	0.65	138	121	0.54	121	114
20	0.66	158	150	0.57	135	125
24	0.68	223	232	0.61	175	166
30	0.66	426	453	0.66	355	345
36	0.74	560	501	0.74	688	628
42	0.82	1091	723	0.82		
48	0.90	1455	974	0.90		

Note: Optional 2" tap in the center.

Size	T	Domestic Weight				Non-Domestic Weight				
		L1	L2	Short	Long	T	L1	L2	Short	Long
3	0.34	7.5	12	13	22	0.33	7.5	12	12	17
4	0.35	7.5	12	19	25	0.34	7.5	12	15	20
6	0.37	7.5	12	28	37	0.36	7.5	12	23	29
8	0.39	7.5	12	38	49	0.38	7.5	12	31	45
10	0.41	7.5	12	48	68	0.40	7.5	12	45	61
12	0.43	7.5	12	58	81	0.42	7.5	12	56	76
14	0.56	9.5	15	107	153	0.47	9.5	15	94	128
16	0.57	9.5	15	116	174	0.50	9.5	15	118	159
18	0.68	9.5	15	154	207	0.54	9.0	15	145	200
20	0.69	9.5	15	200	249	0.57	9.0	15	173	236
24	0.75	9.5	15	232	323	0.61	9.0	15	226	306
30	0.66	15.0	24	549	640	0.66	15.0	24	472	634
36	0.74	15.0	24	725	868	0.74	15.0	24	673	889
42	0.82	....	24	....	1146	0.82	15.0	24	887	1150
48	0.90	....	24	....	1431	0.90	15.0	24	1136	1435

**Tapping Sleeve
for Cast Iron/Ductile Iron**



Size	Dimensions						O.D. Range		Weight
	A	B	C	D	E	F	Min.	Max.	
6x4	5.016	0.250	7.50	15.75	8.00	12.75	6.85	7.15	104
6	7.016	0.312	9.50	15.75	8.00	12.75	6.85	7.15	108
8x4	5.016	0.250	7.50	16.50	9.00	13.50	9.00	9.35	134
8x6	7.016	0.312	9.50	16.50	9.00	13.50	9.00	9.35	140
8	9.016	0.312	11.75	16.50	9.00	13.50	9.00	9.35	148
10x4	5.016	0.250	7.50	24.00	11.04	20.75	11.04	11.45	236
10x6	7.016	0.312	9.50	24.00	11.04	20.75	11.04	11.45	240
10x8	9.016	0.312	11.75	24.00	11.04	20.75	11.04	11.45	246
10	11.016	0.312	14.25	24.00	11.04	20.75	11.04	11.45	257
12x4	5.016	0.250	7.50	26.50	13.14	23.25	13.14	13.56	273
12x6	7.016	0.312	9.50	26.50	13.14	23.25	13.14	13.56	286
12x8	9.016	0.312	11.75	26.50	13.14	23.25	13.14	13.56	292
12x10	11.016	0.312	14.25	26.50	13.14	23.25	13.14	13.56	303
12	13.016	0.312	17.00	26.50	13.14	23.25	13.14	13.56	320

Note: See 25U at www.tylerunion.com for assembly instructions.

Tapping sleeve is assembled with gland and gasket.

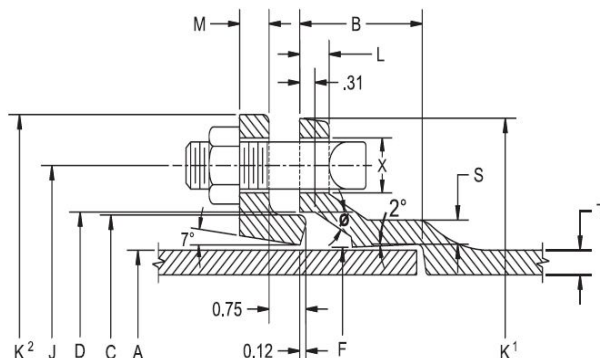
DOMESTIC

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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