

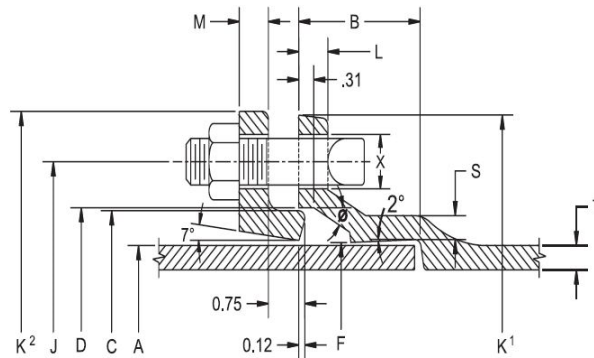
DOMESTIC

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 available upon request.
- 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														

C153 DUCTILE IRON COMPACT FITTINGS

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 4" (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.

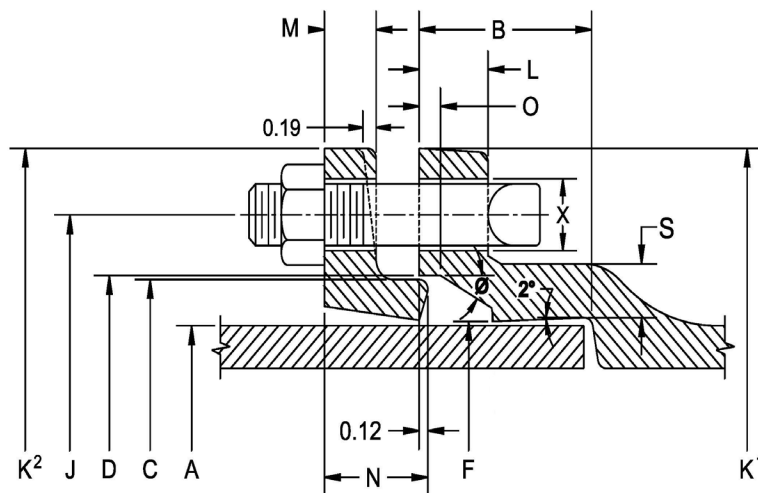
NOTE: Wyes over 12" are not pressure rated. Contact manufacturer for rating in your application.

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.

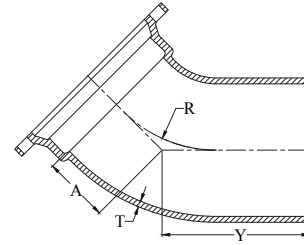
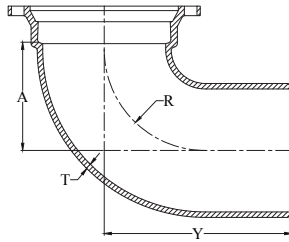
Nominal Joint Dimensions in Inches														
Size	A	B	C	D	F	ø	X	J	K1	K2	L	M	O	S
2	2.51	2.50	3.50	3.60	2.61	28°	3/4	4.75	6.19	6.89	0.58	0.62	0.31	0.36
3	3.96	2.50	4.84	4.94	4.06	28°	3/4	6.19	7.62	7.69	0.58	0.62	0.31	0.39
4	4.80	2.50	5.92	6.02	4.90	28°	7/8	7.50	9.06	9.12	0.60	0.75	0.31	0.39
6	6.90	2.50	8.02	8.12	7.00	28°	7/8	9.50	11.06	11.12	0.63	0.88	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	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	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	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	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	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	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	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	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	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	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	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	0.38	1.35
54	57.56	4.00	58.82	59.02	57.73	20°	1 3/8	63.20	65.70	65.70	1.55	2.00	0.38	1.45
60	61.61	4.00	62.87	63.07	61.78	20°	1 3/8	67.72	70.22	70.22	1.75	2.00	0.38	1.50
64	65.67	4.00	66.96	67.13	65.84	20°	1 3/8	71.86	74.36	74.36	1.75	2.00	0.38	1.50

NOTE: For projects where product weights, specifications or dimensions are critical, advise upon order placement



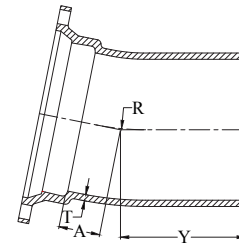
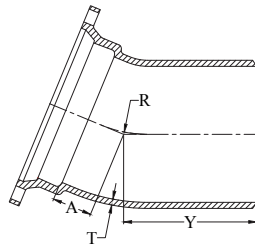
ANSI/AWWA
C153 Mechanical Joint Fittings

C153 DUCTILE IRON COMPACT FITTINGS

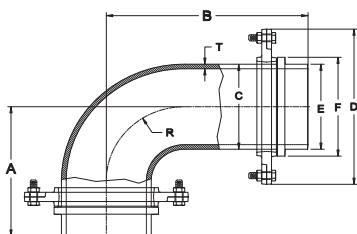


90° Bend MJ x PE (1/4)										45° Bend MJ x PE (1/8)						
Domestic						Import				Domestic				Import		
Size	T	A	Y	R	Weight	T	A	Y	Weight	A	Y	R	Weight	A	Y	Weight
3	0.34	3.50	9.00	2.50	17	0.33	3.25	8.50	16	2.00	7.50	2.41	17	1.50	7.00	13
4	0.35	4.00	9.50	3.00	26	0.34	4.00	9.50	22	2.50	8.00	3.56	21	2.00	7.50	19
6	0.37	6.00	11.50	5.00	41	0.36	5.00	11.50	41	3.20	8.70	5.49	35	3.00	8.50	34
8	0.39	7.50	13.00	7.00	64	0.38	6.50	12.50	58	4.00	9.50	8.44	54	3.50	9.00	49
10	0.41	9.50	15.00	9.00	89	0.40	7.50	13.00	83	5.00	10.50	10.88	69	4.50	10.00	69
12	0.43	9.00	14.40	6.00	121	0.42	9.00	14.50	114	6.00	11.50	13.25	94	5.50	11.00	93
14	0.51	12.00	20.00	11.50	221	0.47	11.50	19.50	197	5.50	13.40	10.85	170	5.00	13.00	146
16	0.52	13.00	21.00	12.50	261	0.50	12.50	20.50	248	6.00	14.00	13.25	188	5.50	13.50	184
18	0.59	15.50	23.50	14.00	—	0.54	14.00	22.00	360	6.00	14.00	11.18	—	6.00	11.18	240
20	0.60	15.00	23.00	13.50	400	0.57	15.00	22.50	390	7.00	15.30	13.97	290	7.00	14.00	290
24	0.62	17.00	25.00	15.50	600	0.61	17.00	25.00	575	7.50	16.60	14.69	410	7.50	14.50	390
30	0.68	21.50	30.50	19.00	865	0.66	21.50	30.50	865	10.50	19.50	19.31	715	10.50	19.50	715

Tyler Union does not recommend the use of wedge action restraints on plain end fittings



22 1/2° Bend MJ x PE (1/16)								11 1/4° Bend MJ x PE (1/32)						
Domestic					Import			Domestic				Import		
Size	A	Y	R	Weight	A	Y	Weight	A	Y	R	Weight	A	Y	Weight
3	1.50	7.00	2.51	15	1.00	6.50	12	1.25	6.75	7.62	15	1.00	6.50	12
4	1.75	7.25	3.81	17	1.50	7.00	18	1.50	7.00	5.12	17	1.25	6.25	17
6	2.25	7.75	6.35	28	2.00	7.50	29	1.50	7.00	5.12	29	1.50	7.00	27
8	2.84	8.34	11.80	44	2.50	8.00	43	2.05	7.55	15.80	38	1.75	7.25	39
10	3.35	8.85	14.35	64	3.00	8.50	61	2.31	7.81	18.36	52	2.00	7.50	52
12	3.50	9.00	12.70	77	3.50	9.00	79	2.56	8.06	20.90	86	2.25	7.75	69
14	3.93	11.93	17.25	121	3.75	11.25	133	2.59	10.59	21.25	134	2.50	10.50	118
16	3.98	11.98	17.50	167	3.75	11.75	166	2.62	10.62	21.50	161	2.50	10.50	136
18	4.50	12.50	15.11	—	4.50	12.50	248	3.00	11.00	16.52	—	3.00	11.00	248
20	7.00	14.00	35.19	290	7.00	14.00	300	7.00	14.00	21.07	290	7.00	14.00	300
24	9.00	17.66	37.69	345	7.50	14.50	395	9.00	26.12	12.00	475	7.50	14.50	400
30	6.75	15.75	21.36	600	6.75	15.75	600	4.75	13.75	22.84	535	4.75	13.75	535



90° Swivel x Swivel Hydrant Ell									
Size	T	A	B	C	D	E	F	R	**Weight
6	0.37	10.50	15.50	6.90	11.20	6.81	7.98	6.00	68

NOTE: **Weight includes two swivel glands.