

# Mechanical Joint Dimensions

Sizes 3 inch through 48 inch

ANSI/AWWA C110/A21.10 and C153/A21.53

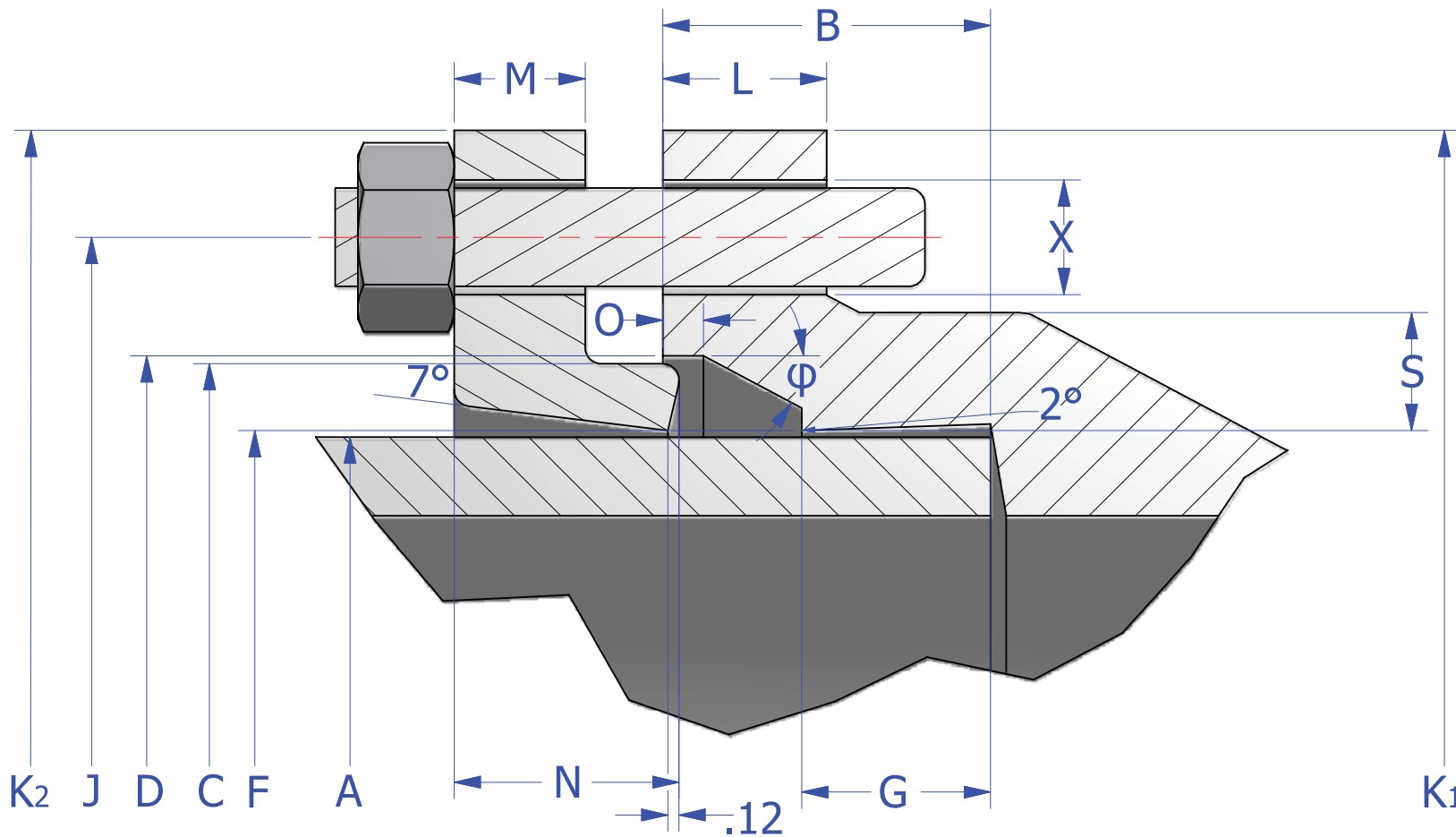


Figure 1

**EBA Iron, Inc.**

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# Mechanical Joint Dimensions

ANSI/AWWA C110/A21.10 and C153/A21.53

Size Inch	A Pipe	B	C	D	F	G	φ	J ±0.06	K1				L				S				Bolt Length						
									DIP	Fitting		K2	DIP	Fitting		M‡	N	O	DIP	Fitting		X +0.06 -0.00	Bolts		Fitting		
										C110	C153			C110	C153					C110	C153		№	Size	DIP	C110	C153
3	3.96 ±0.06	2.50	4.84 ±0.04	4.94 +0.06 -0.04	4.06 +0.07 -0.03	1.56	28°	6.19	7.62 +0.24 -0.06	7.69 +0.24 -0.12	7.62 +0.50 -0.06	7.69 +0.24 -0.12	0.87 +0.13 -0.06	0.94 +0.13 -0.06	0.58	0.62	1.37	0.31	0.40	0.52	0.39	¾	4	¾	3	3	3
4	4.80 ±0.06	2.50	5.92 ±0.04	6.02 +0.06 -0.04	4.90 +0.07 -0.03	1.44	28°	7.50	9.06 +0.24 -0.06	9.12 +0.24 -0.12	9.06 +0.50 -0.06	9.12 +0.24 -0.12	0.91 +0.13 -0.06	1.00 +0.13 -0.06	0.60	0.75	1.50	0.31	0.41	0.65	0.39	⅞	4	¾	3½	3½	3½
6	6.90 ±0.06	2.50	8.02 ±0.04	8.12 +0.06 -0.04	7.00 +0.07 -0.03	1.44	28°	9.50	11.06 +0.24 -0.06	11.12 +0.24 -0.12	11.06 +0.50 -0.06	11.12 +0.24 -0.12	0.94 +0.13 -0.06	1.06 +0.13 -0.06	0.63	0.88	1.63	0.31	0.43	0.70	0.43	⅞	6	¾	3½	3½	3½
8	9.05 ±0.06	2.50	10.17 ±0.04	10.27 +0.06 -0.04	9.15 +0.07 -0.03	1.44	28°	11.75	13.31 +0.24 -0.06	13.37 +0.24 -0.12	13.31 +0.50 -0.06	13.37 +0.24 -0.12	0.98 +0.13 -0.08	1.12 +0.13 -0.08	0.66	1.00	1.75	0.31	0.45	0.75	0.45	⅞	6	¾	4	4	3½
10	11.10 ±0.06	2.50	12.22 +0.06 -0.04	12.34 +0.06 -0.04	11.20 +0.07 -0.03	1.44	28°	14.00	15.62 +0.24 -0.06	15.69 +0.24 -0.12	15.62 +0.50 -0.06	15.62 +0.24 -0.12	0.98 +0.13 -0.08	1.19 +0.13 -0.08	0.70	1.00	1.75	0.31	0.47	0.80	0.47	⅞	8	¾	4	4	3½
12	13.20 ±0.06	2.50	14.32 +0.06 -0.04	14.44 +0.06 -0.04	13.30 +0.07 -0.03	1.44	28°	16.25	17.88 +0.24 -0.06	17.94 +0.24 -0.12	17.88 +0.50 -0.06	17.88 +0.24 -0.12	0.98 +0.13 -0.08	1.25 +0.13 -0.08	0.73	1.00	1.75	0.31	0.49	0.85	0.49	⅞	8	¾	4	4	3½
14	15.30 +0.05 -0.08	3.50	16.40 +0.07 -0.05	16.54 +0.07 -0.05	15.44 +0.06 -0.07	2.44	28°	18.75	20.25 +0.30 -0.08	20.31 +0.30 -0.12	20.25 +0.75 -0.08	20.25 +0.30 -0.12	1.02 +0.19 -0.12	1.31 +0.19 -0.12	0.79	1.25	2.00	0.31	0.51	0.89	0.55	⅞	10	¾	4½	4½	4
16	17.40 +0.05 -0.08	3.50	18.50 +0.07 -0.05	18.64 +0.07 -0.05	17.54 +0.06 -0.07	2.44	28°	21.00	22.50 +0.30 -0.08	22.56 +0.30 -0.12	22.50 +0.75 -0.08	22.50 +0.30 -0.12	1.08 +0.19 -0.12	1.38 +0.19 -0.12	0.85	1.31	2.06	0.31	0.52	0.97	0.85	⅞	12	¾	4½	4½	4
18	19.50 +0.05 -0.08	3.50	20.60 +0.07 -0.05	20.74 +0.07 -0.05	19.64 +0.06 -0.07	2.44	28°	23.25	24.75 +0.30 -0.08	24.83 +0.30 -0.15	24.83 +0.75 -0.15	24.75 +0.30 -0.15	1.14 +0.19 -0.12	1.44 +0.19 -0.12	1.00	1.38	2.13	0.31	0.53	1.05	0.68	⅞	12	¾	4½	4½	4
20	21.60 +0.05 -0.08	3.50	22.70 +0.07 -0.05	22.84 +0.07 -0.05	21.74 +0.06 -0.07	2.44	28°	25.50	27.00 +0.30 -0.08	27.08 +0.30 -0.15	27.08 +0.75 -0.15	27.00 +0.30 -0.15	1.20 +0.19 -0.12	1.50 +0.19 -0.12	1.02	1.44	2.19	0.31	0.54	1.12	0.69	⅞	14	¾	4½	4½	4
24	25.80 +0.05 -0.08	3.50	26.90 +0.07 -0.05	27.04 +0.07 -0.05	25.94 +0.06 -0.07	2.44	28°	30.00	31.50 +0.30 -0.08	31.58 +0.30 -0.15	31.58 +0.75 -0.15	31.50 +0.30 -0.15	1.26 +0.19 -0.12	1.62 +0.19 -0.12	1.02	1.56	2.31	0.31	0.56	1.22	0.75	⅞	16	¾	5	5	4½
30	32.00 +0.08 -0.06	4.00	33.29 +0.08 -0.06	33.46 +0.08 -0.06	32.17 +0.08 -0.06	2.62	20°	36.88	-	39.12 +1.00 -0.18	39.12 +1.00 -0.18	39.12 +0.36 -0.18	-	1.81 +0.25 -0.12	1.31	2.00	2.75	0.38	-	1.50	0.82	1½	20	1	6	6	5½
36	38.30 +0.08 -0.06	4.00	39.59 +0.08 -0.06	39.76 +0.08 -0.06	38.47 +0.08 -0.06	2.62	20°	43.75	-	46.00 +1.00 -0.18	46.00 +1.00 -0.18	46.00 +0.36 -0.18	-	2.00 +0.25 -0.12	1.45	2.00	2.75	0.38	-	1.80	1.00	1½	24	1	6	6	5½
42	44.50 +0.08 -0.06	4.00	45.79 +0.08 -0.06	45.96 +0.08 -0.06	44.67 +0.08 -0.06	2.62	20°	50.62	-	53.12 +1.00 -0.18	53.12 +1.00 -0.18	53.12 +0.36 -0.18	-	2.00 +0.25 -0.12	1.45	2.00	2.75	0.38	-	1.95	1.25	1¾	28	1¼	6½	6½*	6*
48	50.80 +0.08 -0.06	4.00	52.09 +0.08 -0.06	52.26 +0.08 -0.06	50.97 +0.08 -0.06	2.62	20°	57.50	-	60.00 +1.00 -0.18	60.00 +1.00 -0.18	60.00 +0.36 -0.18	-	2.00 +0.25 -0.12	1.45	2.00	2.75	0.38	-	2.20	1.35	1¾	32	1¼	6½	6½*	6*

Dimensions are in Inches and conform to ANSI/AWWA C110/A21.10 and C153/A21.53.

‡ For ductile iron glands, the flange thickness M listed above is not applicable. Designs incorporating reduced metal section thickness are permitted, provided tests with these glands meet the performance requirements of Sec. 4.7.

\* The EBAA Iron Series 1142 and 1148 MEGALUG Mechanical Joint Restraints require and are supplied with 8½ inch t-bolts.

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