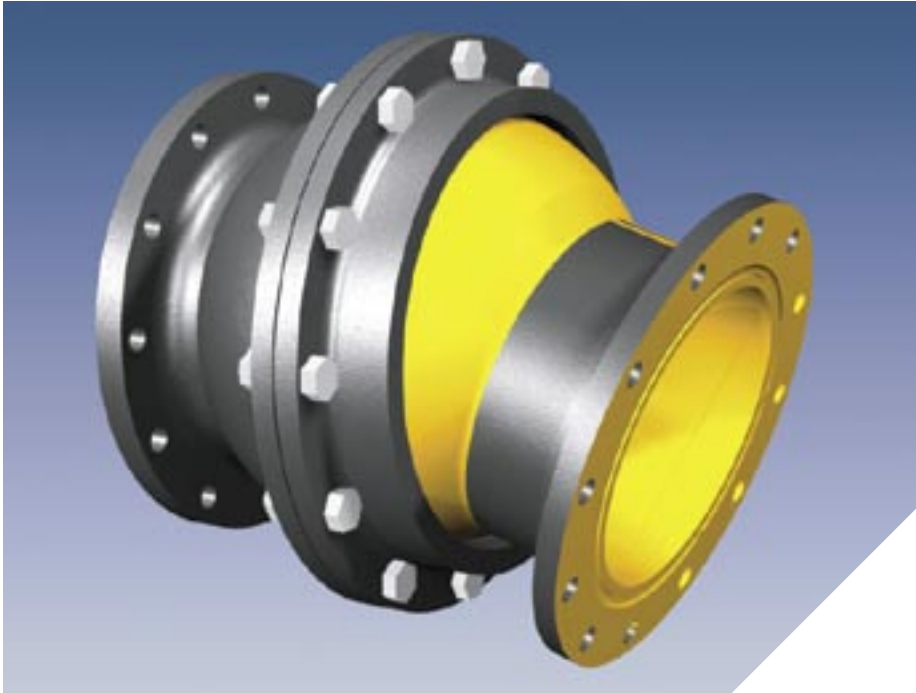


# SERIES FLEX-900

Ball Joint for Water  
and Wastewater Pipelines



FLEX-912 for 12" Flanged fittings or pipe.

## Features and Application:

- Sizes 3" through 48"
- Hydrostatically tested prior to shipment.
- Rated 350 PSI working water pressure. (sizes 30" and above rated at 250 psi.)
- Constructed of ASTM A536, 65-45-12 Ductile Iron.
- 15 mils of fusion bonded epoxy coating of all "wetted" parts.
- Coal Tar Epoxy coating of exterior parts.
- 15° to 20° of deflection depending on size.
- Seals conform to the applicable requirements of ANSI/AWWA C111/A21.11.
- For use on water or wastewater pipelines subject to hydrostatic pressure and tested in accordance with either AWWA C600 or ASTM D2774.

Nominal Pipe Size	Series Number Flange x Flange	MJ x MJ	Pressure Ratings (PSI)
			Ductile Iron
4	904FFO	904MPO	350
6	906FFO	906MPO	350
8	908FFO	908MPO	350
10	910FFO	910MPO	350
12	912FFO	912MPO	350

Note: For applications, end combinations, or pressures other than those shown, please contact EBAA for assistance.

## Important Notes

In order for the FLEX-900 to protect pipeline connections, any load on the pipeline must be transferred to the FLEX-900 by restrained joints. Depending on the piping arrangement and expected movement of the pipeline, adjacent pipeline joints must be restrained to adequately transfer the loads to the FLEX-900.

The flanged outlets are dimensioned according to ANSI/AWWA C110/A21.10 with addition of the O-ring. An O-ring is provided with each flange to provide a proven water tight seal to a minimum of 350 psi pressure.

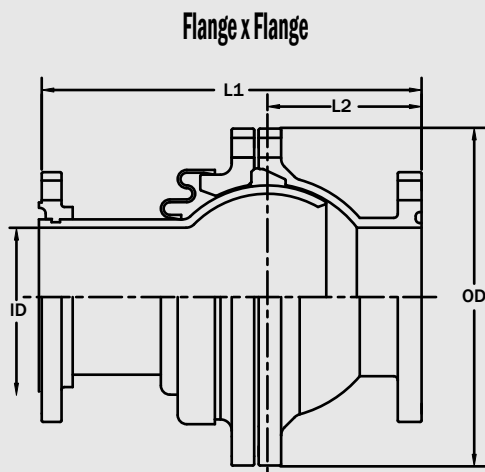
Mechanical joint connections conform to the dimensional requirements of either ANSI/AWWA C110/A21.10 or ANSI/AWWA C153/A21.53 depending on the size.

## Sample Specification

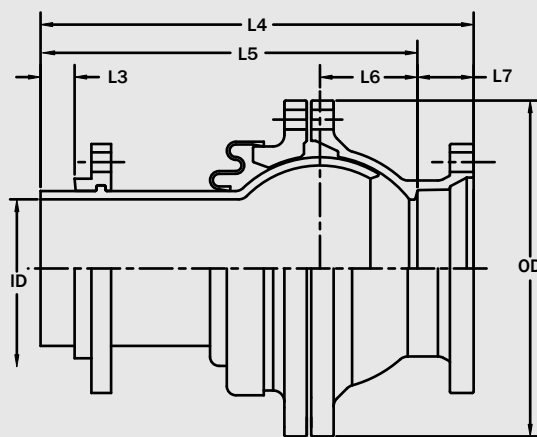
Flexible ball joints shall be installed in the locations indicated on the drawings and shall be manufactured of ductile iron conforming to the material properties of ANSI/AWWA C153/A21.53. Flexible joints shall consist of a ball and socket type joint capable of 15° minimum deflection. Each flexible ball joint shall be pressure tested against its own restraint to a minimum of 350 psi. MEGALUG joint restraint shall be provided with each mechanical joint connection. All pressure containing parts shall be lined with a minimum of 15 mils of fusion bonded epoxy, conforming to the applicable requirements of ANSI/AWWA C213 and shall be tested with a 1500 volt spark test conforming to said specification. All flexible ball joints shall be FLEX 900 as manufactured by EBAA Iron, Inc. or approved equal.

# Series Flex-900 Submittal Reference Drawing

EBAA  
IRON



Mechanical Joint x Mechanical Joint



Made  
in  
USA

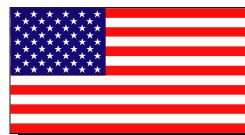
Dimensions for FLEX-900

Nominal Pipe Size	L1	L2	L3	L4	L5	L6	L7	ID	OD
4	15.8	6.4	1.8	18.2	15.7	3.7	2.5	4.1	13.0
6	17.0	7.0	1.7	19.3	16.8	4.3	2.5	6.2	15.0
8	17.5	7.6	1.6	19.6	17.1	4.9	2.5	8.3	17.3
10	20.8	8.5	1.6	22.7	20.2	6.0	2.5	10.3	22.7
12	21.9	9.6	1.6	24.2	21.7	6.7	2.5	12.3	22.7

Note: Dimensions are in inches and are subject to change without notice. Call for dimensions and availability of larger sizes.

## Installation Instructions

1. Remove Protective end covers.
2. Remove polyethylene sleeve and others materials.
3. Check interior, remove dirt and foreign material from interior and end connections.
4. For buried applications install polyethylene sleeve per ANSI/AWWA C105/A21.5 recommendations.
5. Assembly of flange joint:
  - a. Place flange o-ring in groove.
  - b. Place FLEX-900 flange against adjoining flange, install and hand tighten bolts.
  - c. Check o-ring for proper position.
  - d. Tighten flange bolts.
6. Install mechanical joint FLEX-900 end connections using the EBAA Iron MEGALUG joint restraint suitable for adjacent pipe material. MEGALUG 1100 should be used on ductile iron pipe. MEGALUG 2000PV is to be used on PVC pipe. Assembly instructions for each of these products are included with the restraint device.
7. Assembly of restrained plain end:
  - a. Lubricate and install EBAA Seal gasket provided over plain end per ANSI/AWWA C600.
  - b. Insert plain end into adjacent mechanical joint bell.
  - c. Install and hand tighten T-bolts.
  - d. Tighten T-bolts per AWWA recommendations.
8. Touch up exterior coating as necessary. Use coal tar epoxy following manufacturer's instructions.



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FLEX-TEND, 12" Double Ball



FLEX-912, 12" Ball Joint



EX-TEND 212, 12" Expansion Joint

FLEX-TEND Family	Shear	Protection From			Expansion (linear)
		Bending Moments w/Expansion	Bending Moments No Expansion		
FLEX-TEND Double Ball	Yes	Yes	Yes		Yes
FLEX-TEND Single Ball	No	Yes	Yes		Yes
FLEX-900 (Ball Joint)	No	No	Yes		No
EX-TEND 200	No	No	No		Yes