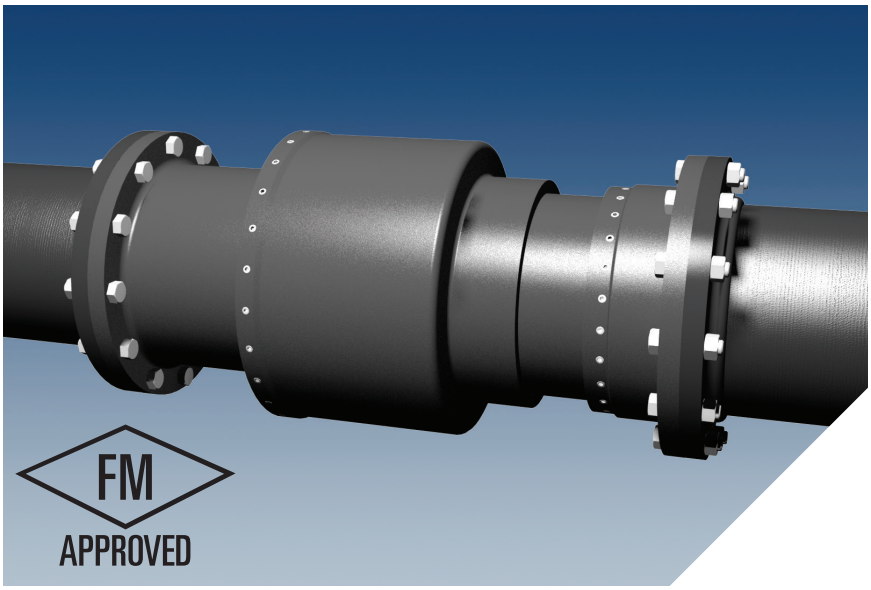
MEGALUG Always Approved. Never Equaled.

Force Balanced EX-TEND®

Force Balanced Expansion Joint



Force Balanced EX-TEND; Series 0212F0B, 12 inch Expansion Joint with Flange End Connections

Sample Specification

1. Expansion joints shall be installed in the locations indicated on the drawings and shall be manufactured of ductile iron conforming to the material requirements of ASTM A536 and ANSI/AWWA C153/A21.53. Foundry certification of material shall be readily available upon request.
2. Each expansion joint shall be pressure tested prior to shipment against its own restraint to a minimum of 350 PSI for 4-inch through 12-inch. A minimum 2:1 safety factor, determined from the published pressure rating, shall apply.
3. Each expansion joint shall have 8-inches minimum expansion. The expansion fitting shall not expand or exert an axial imparting thrust under internal water pressure. The expansion fitting shall not increase or decrease the internal water volume as the unit expands or contracts.
4. All internal surfaces (wetted parts) shall be lined with a minimum of 15 mils of fusion bonded epoxy conforming to the applicable requirements of ANSI/AWWA C213. Sealing gaskets shall be constructed of EPDM. The coating shall meet ANSI/NSF-61.
5. Exterior surfaces shall be coated with a minimum of 6 mils of fusion bonded epoxy conforming to the applicable requirements of ANSI/AWWA C116/A21.16.
6. Polyethylene sleeves, meeting ANSI/AWWA C105/A21.5, shall be included for direct buried applications.
7. Manufacturer's certification of compliance to the above standards and requirements shall be readily available upon request. The purchaser (or owner) shall reserve the right to inspect the manufacturer's facility for compliance. All expansion joints shall be The Force Balanced EX-TEND as manufactured by EBAA Iron, Inc. Eastland, TX., U.S.A.

This Sample Specification is available as a Microsoft® Word Document at www.ebaa.com/products/flex.

Important Notes

The installation of a Force Balanced EX-TEND in both above- and below-ground installations requires the restraint of adjacent pipe joints to transfer expansion/contraction forces to the unit and prevent separation of the adjacent joints.

When connecting a Force Balanced EX-TEND to HDPE pipe, a flanged end connection is required. This is to be joined to a fused flange adapter on the HDPE pipe. A filler flange between the two gaskets is necessary to assure proper seal contact.

Do not use restrained flange adapters to connect to the EX-TEND family product flanges.

Features and Applications:

- Nominal Pipe Sizes 4 inch through 24 inch
  4 inch through 16 inch is Rated at 350 PSI
  18 inch and up is rated at 250 PSI
- For Ductile Iron, Steel, PVC, or HDPE pipes
- Expansion unit will NOT impart a thrust force while under hydrostatic pressure
- Designed to give Expansion/Contraction needs to protect pipeline systems from linear movment.
- Constructed of ASTM A536 Ductile Iron
- Each unit tested to rated working pressure prior to shipment
- 8 in. of linear travel on sizes 4 in. - 12 in.
  10 in. of linear travel on sizes 14 in. - 18 in.
  12 in. of linear travel on sizes 20 in. - 24 in.
- Due to the design of the seals, no periodic maintenance is required
- End connections:
  Flange; 4 inch through 24 inch
  Mechanical Joint; 4 inch through 24 inch
- Flange outlets conform to the dimensional requirements of ANSI/AWWA C110/A21.10 (class 150) with the addition of an O-ring gasket which is provided to ensure a watertight seal
- Mechanical Joint end connections conform to the dimensional requirements of either ANSI/AWWA C111/A21.11 or ANSI/AWWA C153/A21.53 depending on size.
- EX-TEND assemblies are suitable for direct burial. Polyethylene wrap is provided with each unit. If installed in a vault, the design must be such that movement is not impeded. Refer to *Connections* FT-2 found at www.ebaa.com.
- NOT for use on pipelines containing solids or debris.

For use on water pipelines subject to hydrostatic pressure and tested in accordance with either AWWA C600, C605, or ASTM D2774.

EBAA Iron products are not designed, intended, or approved for use with compressed air or any gas service. All entrapped air must be completely removed from the pipeline prior to pressurization, testing, or placing the line into service. Failure to eliminate air pockets may result in improper product performance or hazardous conditions.

Members of... AFS AMERICAN FOUNDRY SOCIETY

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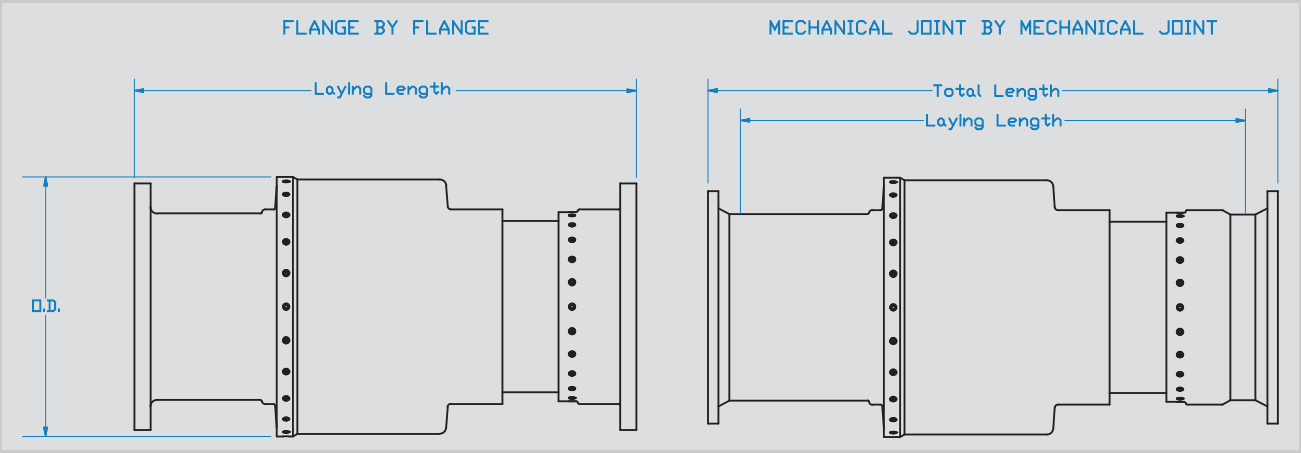
EX-TEND Force Balanced Submittal Drawing

EBAA IRON

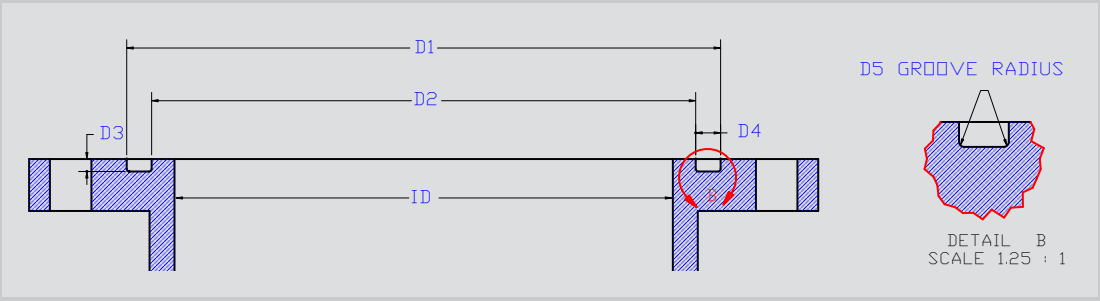


MADE IN USA

			Flange by Flange				Mechanical Joint by Mechanical Joint			
Nominal Pipe Size	Expansion* (Linear)	Maximum O.D.	Assembly Number	Laying Length	Total Length	Weight (Approx lbs.)	Assembly Number	Laying Length	Total Length	Weight (Approx lbs.)
4	8.00	10.2	0204F0B	34.25 (±4.0)	34.25 (±4.0)	127	0204M0B	34.38 (±4.0)	39.40 (±4.0)	127
6	8.00	12.3	0206F0B	36.30 (±4.0)	36.30 (±4.0)	194	0206M0B	34.49 (±4.0)	39.53 (±4.0)	195
8	8.00	14.9	0208F0B	39.00 (±4.0)	39.00 (±4.0)	300	0208M0B	37.11 (±4.0)	42.11 (±4.0)	300
10	8.00	18.1	0210F0B	40.11 (±4.0)	40.11 (±4.0)	425	0210M0B	37.71 (±4.0)	43.74 (±4.0)	410
12	8.00	20.8	0212F0B	38.68 (±4.0)	38.68 (±4.0)	560	0212M0B	38.82 (±4.0)	43.90 (±4.0)	550
14	10.00	23.55	0214F0B	52.17 (±5.00)	52.17 (±5.00)	1,010	0214M0B	47.51 (±5.00)	54.51 (±5.00)	975
16	10.00	26.50	0216F0B	52.33 (±5.00)	52.33 (±5.00)	1,035	0216M0B	46.85 (±5.00)	53.85 (±5.00)	1,020
18	10.00	29.50	0218F0B	52.19 (±5.00)	52.19 (±5.00)	1,225	0218M0B	48.51 (±5.00)	55.51 (±5.00)	1,235
20	12.00	33.20	0220F0B	62.13 (±6.00)	62.13 (±6.00)	1,780	0220M0B	57.41 (±6.00)	64.41 (±6.00)	1,780
24	12.00	39.10	0224F0B	65.00 (±6.00)	65.00 (±6.00)	2,400	0224M0B	57.45 (±6.00)	64.45 (±6.00)	2,350

NOTE: Dimensions are in inches, and are subject to change without notice.
*Maximum travel, units are set to a +50%/-50% configuration.
End connection combinations available, including grooved.

FLEX-TEND®, EX-TEND®, AND FLEX-900®
FLANGE O-ring Groove



Size	D1	D2	D3	D4	D5	O-ring Diameter	O-ring Part Number
3	4.885	4.185	0.175	0.350	0.0625	0.25	983003
4	5.900	4.700	0.300	0.600	0.0625	0.5	983004
6	8.00	6.800	0.300	0.600	0.0625	0.5	983006
8	10.100	8.900	0.300	0.600	0.0625	0.5	983008
10	12.200	11.000	0.300	0.600	0.0625	0.5	983010
12	14.300	13.100	0.300	0.600	0.0625	0.5	983012
14	16.200	15.00	0.300	0.600	0.0625	0.5	983014
16	18.500	16.900	0.400	0.800	0.1250	0.625	983016
18	20.700	19.100	0.400	0.800	0.1250	0.625	983018
20	23.000	21.400	0.400	0.800	0.1250	0.625	983020
24	27.200	25.600	0.400	0.800	0.1250	0.625	983024