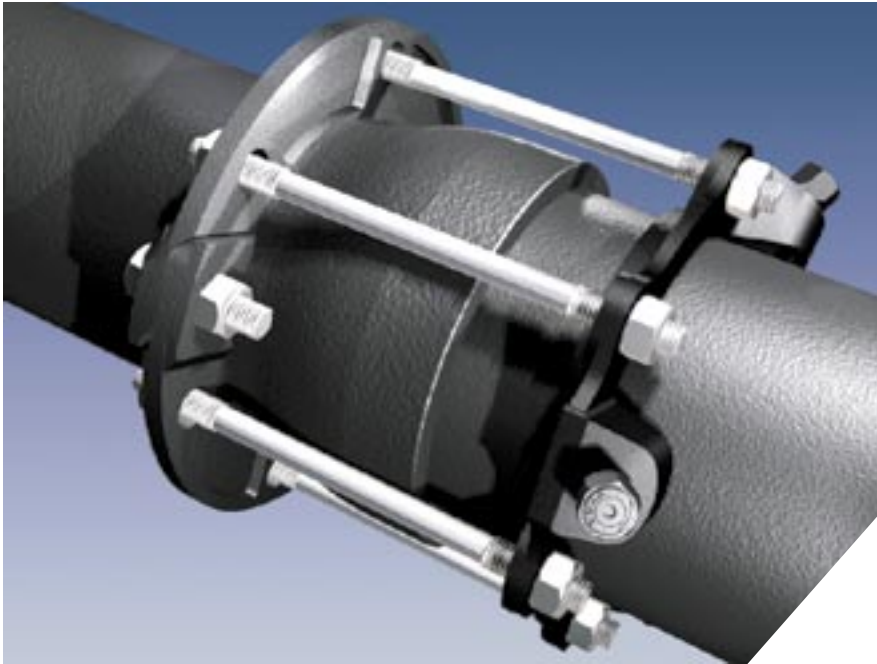


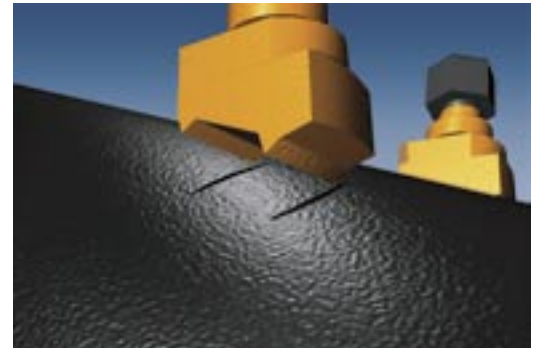
# SERIES 1700

Megalug® Restraint Harness  
for Ductile Iron Pipe  
Push-On Bells



## Features and Application:

- Restraint for ductile iron pipe meeting ANSI/AWWA C151/A21.51 and ANSI/AWWA C150/A21.50 requirements.
- Minimum 2 to 1 Safety Factor.
- Split Bell Ring design for ease of installation.
- Constructed of ASTM A536, 65-45-12 Ductile Iron.
- 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	Approximate Shipping Weight	Rated Pressure PSI
4	1704	19.96	350
6	1706	28.92	350
8	1708	37.92	350
10	1710	56.34	350
12	1712	74.02	350
14	1714	119.62	350
16	1716	134.40	350
18	1718	138.40	250
20	1720	161.88	250
24	1724	242.36	250
30	1730	312.00	250
36	1736	475.00	250

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

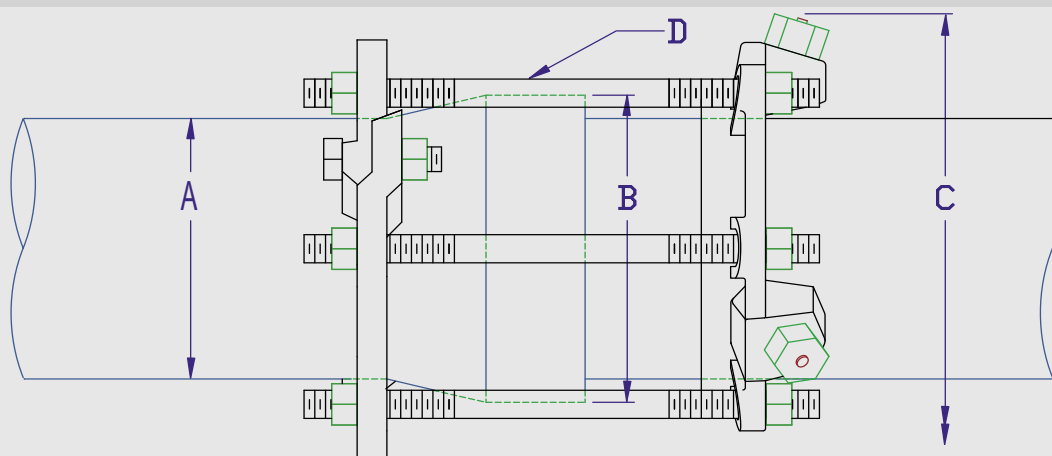
## Sample Specification

Ductile iron pipe bell restraint shall consist of a wedge action restraint ring on the spigot joined to a split ductile iron ring behind the bell. The restraint ring shall have individually actuated wedges that increase their resistance to pull-out as pressure or external forces increase. The restraint ring and its wedging components shall be made of a minimum grade of 65-45-12 ductile iron conforming to ASTM A536. The wedges shall be heat treated to a minimum hardness of 370 BHN. Torque limiting twist off nuts shall be used to insure proper actuation of the restraining wedges. The split ring shall be made of a minimum grade of 65-45-12 ductile iron conforming to ASTM A536. The connecting tie rods that join the two rings shall be made of low alloy steel that conforms to ANSI/AWWA C111/A21.11. The assembly shall have a rated pressure, with a minimum two to one safety factor of 350 psi in sizes sixteen inch and below 250 psi in the sizes eighteen inch through thirty-six inch. The product shall be the Series 1700 Megalug restraint harness manufactured by EBAA Iron, Inc. or approved equal.



## Series 1700 Submittal Reference Drawing

EBAA  
IRON



Made  
in  
USA

Nominal Pipe Size	Series Number	A Pipe O.D.	B Maximum Bell O.D. Cleared	C Casing Clearance (With Nuts Off)	D Thrust Bolt (Number - Size)
4	1704	4.80	6.6	9.90	4 - ¾ x 13
6	1706	6.90	8.6	12.00	6 - ¾ x 13
8	1708	9.05	10.9	14.15	6 - ¾ x 13
10	1710	11.10	13.1	16.20	8 - ¾ x 18
12	1712	13.20	15.4	18.30	8 - ¾ x 18
14	1714	15.30	17.9	20.94	8 - ¾ x 18
16	1716	17.40	20.1	22.90	10 - ¾ x 18
18	1718	19.50	22.4	25.00	10 - ¾ x 18
20	1720	21.60	24.6	27.10	12 - ¾ x 18
24	1724	25.80	29.1	32.64	14 - ¾ x 18
30	1730	32.00	35.8	38.87	16 - 1 x 18
36	1736	38.30	42.6	45.17	20 - 1 x 18

## Installation Instructions

Note: Dimensions are in inches and are subject to change without notice.



1. The Series 1700 is designed for restraining ductile iron pipe, conforming to ANSI/AWWA C151/A21.51 (all thickness classes), push on pipe bells. It has a restraint ring on the spigot and a split ring behind the bell.

2. Install the split ring behind the bell in the direction indicated on the casting. Tighten the clamp bolts to 90 ft-lbs.



6. Install the tie bolts in each available bolt hole for maximum distribution of operating forces. Place nuts on the end of the tie bolts. Allow enough room on the tie bolt to fully engage the nut with several threads showing.

7. Pull the restraint ring away from the joint until the slack is removed from the thrust bolts.



3. Place the Megalug® restraint gland on the spigot with the lip extension toward the bell.

4. Assemble the push-on joint per the pipe manufacturer's instructions.



8. Tighten the torque limiting twist off nuts in a clockwise direction (direction indicated by arrow on top of nut) until all wedges are in firm contact with the pipe surface. Continue tightening in an alternate manner until all of the nuts have been twisted off.

9. Tighten the tie bolt nuts until the ring behind the bell is in firm contact with the back of the bell.



5. Position the Megalug® restraint on the spigot such that the bolts holes are in alignment and the distance between the rings is suitable for the tie bolt length. Allow enough room on the tie bolt to fully engage the nut with several threads showing.

10. If removal is necessary; use the 5/8" hex heads provided. If reassembly is required, assemble the product in the same manner as indicated in the previous steps and tighten the wedge bolts to 90 ft-lbs.



Your Connection to the Future

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