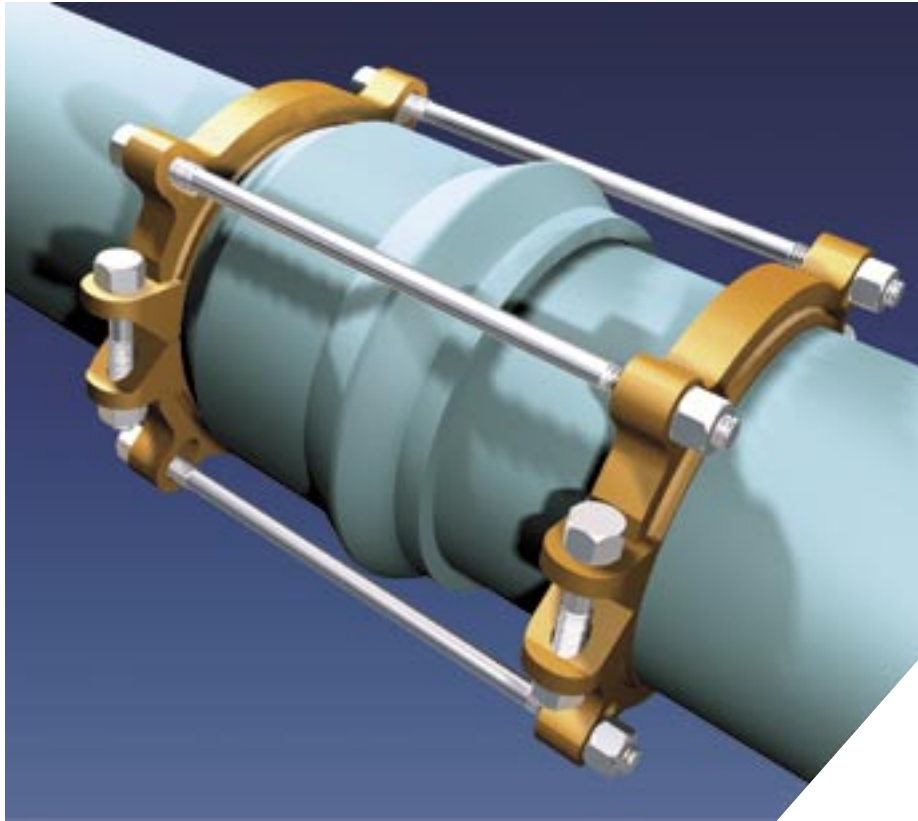




**Your Connection to the Future**

# SERIES 1600

Bell Restraint Harness  
for C900 PVC Pipe



## Features and Application:

- For use on AWWA C900 PVC pipe bells.
- Minimum 3 to 1 Safety Factor.
- Split 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	Pressure Ratings (C900)		
			DR 14 Class 200	DR 18 Class 150	DR 25 Class 100
4	1604	13.9	200	150	100
6	1606	20.7	200	150	100
8	1608	26.6	200	150	100
10	1610	54.1	200	150	100
12	1612	59.9	200	150	100

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

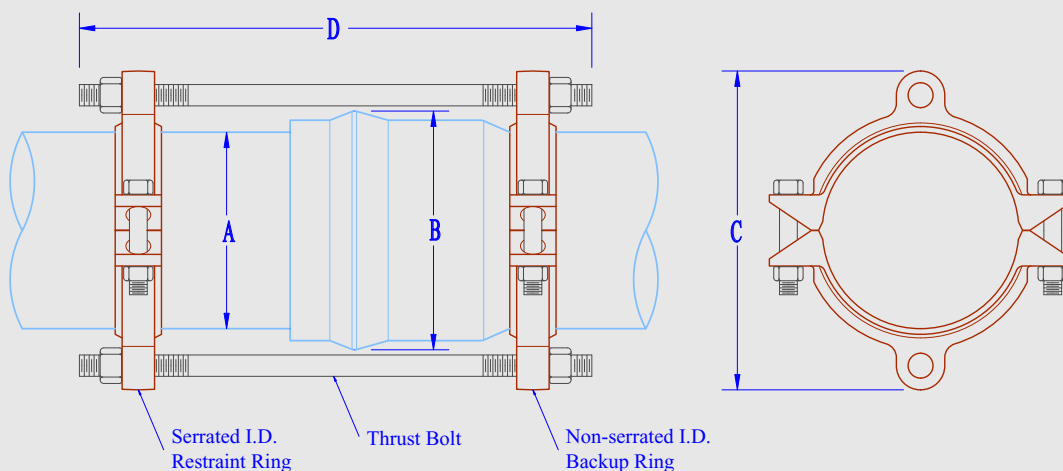


## Sample Specification

Restraint for PVC pipe bell (AWWA C900) shall consist of the following: The restraint shall be manufactured of ductile iron conforming to ASTM A536. A split ring shall be utilized behind the pipe bell. A serrated ring shall be used to grip the pipe and a sufficient number of bolts shall be used to connect the bell ring and the gripping ring. The combination shall have a minimum working pressure rating equivalent to the pipe. The restraint shall be the Series 1600 as manufactured by EBAA Iron, Inc. or approved equal.

## Series 1600 Submittal Reference Drawing

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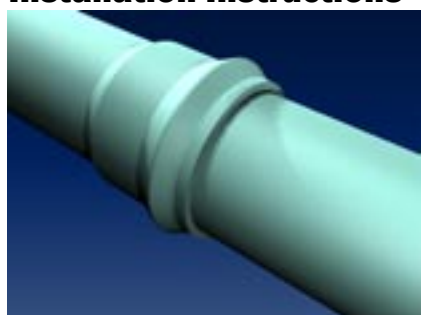


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Nominal Pipe Size	Series Number	A Pipe O.D.	B Maximum Bell O.D. Cleared	C Max. Restraint O.D. (Casing Clearance)	D Over All Length	Thrust Bolt (Number - Size)
4	1604	4.80	6.75	9.25	13	2 - 3/4 x 13
6	1606	6.90	8.75	11.25	18	2 - 3/4 x 18
8	1608	9.05	12.25	14.75	18	2 - 3/4 x 18
10	1610	11.10	14.20	16.85	22	4 - 3/4 x 22
12	1612	13.20	16.90	19.45	22	4 - 3/4 x 22

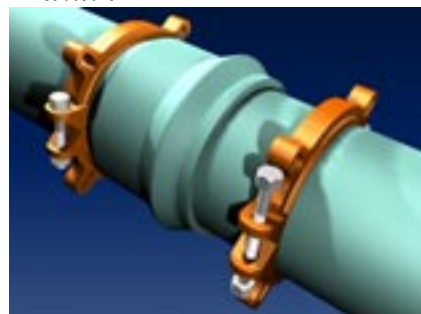
Note: Dimensions are in inches and are subject to change without notice.

### Installation Instructions

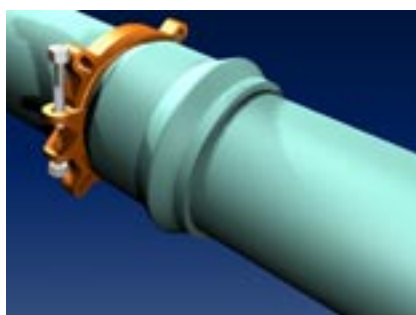


1. The Series 1600 is designed for restraining push-on, C900 PVC pipe bells. It has a split, serrated restraint ring on the spigot and a non-serrated ring behind the bell.

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

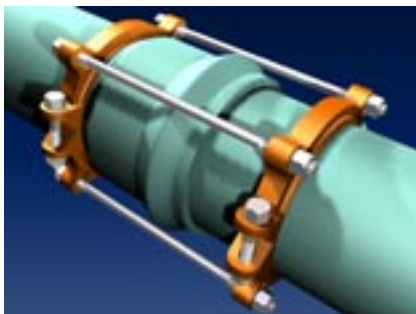


6. Install both halves of the restraint ring at the proper location, tapping each half into place. Make sure that the complete ID of the ring is touching the pipe before installing the side bolts. Tighten the side bolts evenly to 110 ft-lbs torque. (60 ft-lbs on 4" and 6")

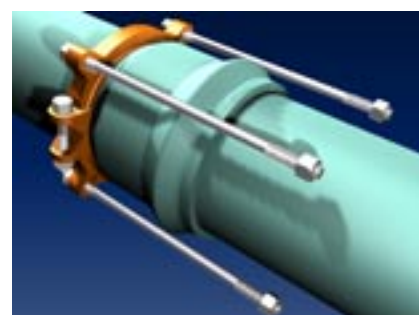


3. Install both halves of the non-serrated bell ring around the pipe behind the bell. Install the side bolts and tighten each to 110 ft-lbs. (60 ft-lbs on 4" and 6")

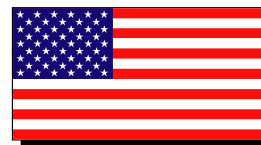
4. Slide the bell ring toward the bell so that it fits snugly behind the bell.



7. Place nuts on the tie bolts and tighten until they are snug. Allow enough room on the tie bolt to fully engage the nut with several threads showing. Do not tighten these bolts enough to force the spigot further into the bell of the joint.



5. Remove the side bolts from the serrated restraint ring. Use the tie bolts to determine the proper location of the restraint ring on the spigot. Allow enough room on the tie bolt to fully engage the nuts.



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