

# Series 19MJ00

Mechanical Joint Restraint for C900 and C909 PVC  
US Patent # 9163760 B2

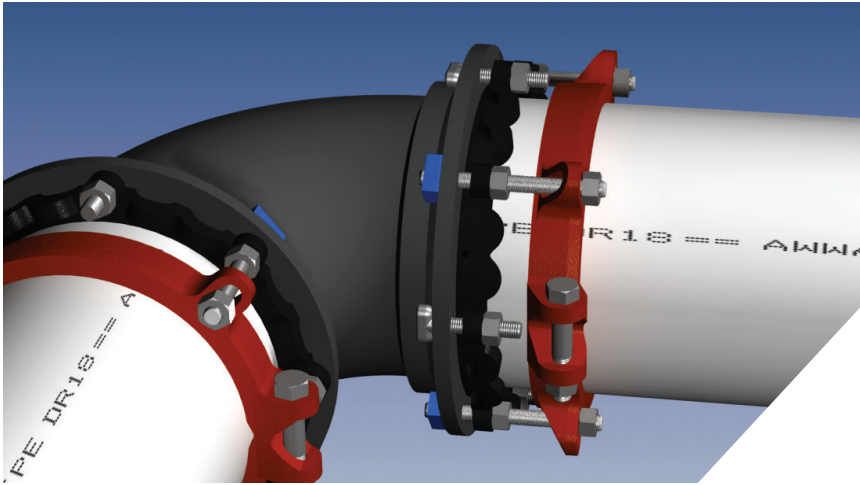


Image depicts Series 19MJ00 on 10 inch AWWA C900 PVC pipe.

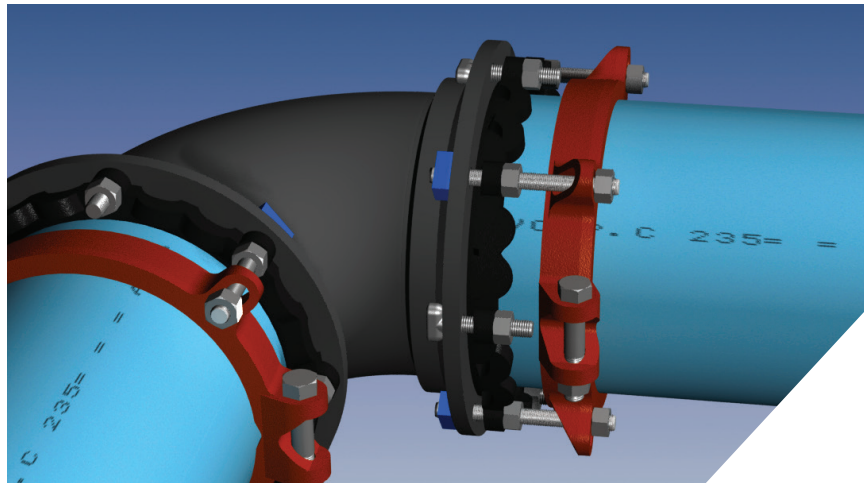
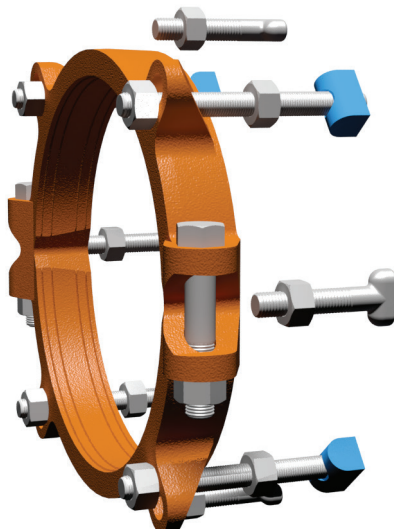


Image depicts Series 19MJ00 on 10 inch AWWA C909 PVC pipe.



Packaged Items.  
Gasket not shown.

## Features and Applications:

- For use on AWWA C900 and C909 PVC
- Sizes 4 inch through 12 inch
- Rated to the Full Pressure of the Pipe
- Minimum 2 to 1 Safety Factor
- Split Serrated Restraint Rings for ease of installation
- **MEGA-BOND®** Restraint Coating System
- Constructed of ASTM A536 ductile iron
- MJ gland is supplied by others

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

## Sample Specification

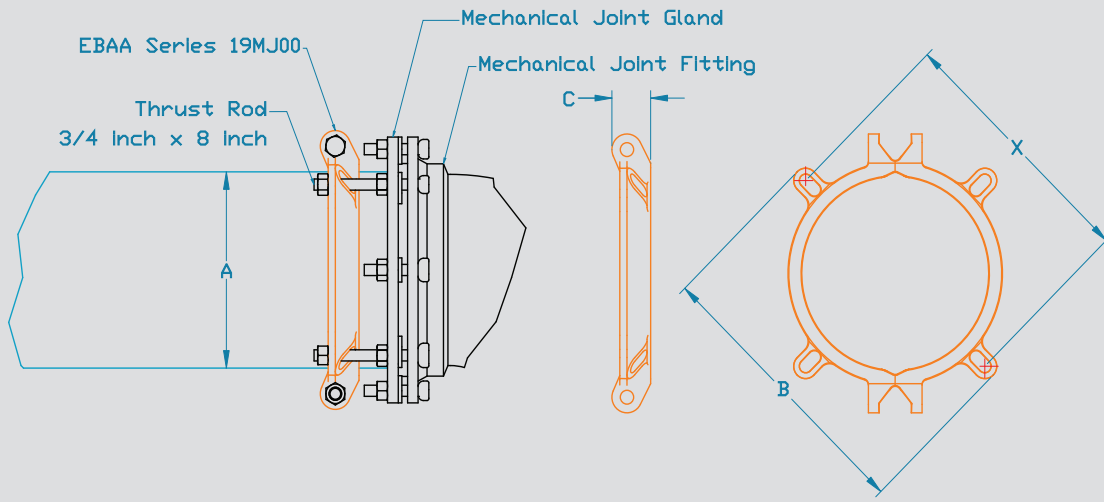
Restraint for AWWA C900 and C909 PVC Pipe shall consist of the following: A split serrated ring shall be used to grip the plain-end of the pipe, a sufficient number of bolts shall connect the restraint ring to the ductile iron fitting. The restraint shall be manufactured of ductile iron conforming to ASTM A536. The restraint devices shall be coated with MEGA-BOND. (For complete specifications on MEGA-BOND visit [www.ebaa.com](http://www.ebaa.com).) The combination of the restraint(s) and fasteners shall have a pressure rating as shown in the submittal reference tables within this brochure. The restraint shall have a two to one safety factor. The restraint for mechanical joint fittings shall be the Series 19MJ00. All Series manufactured by EBAA Iron, Inc., or approved equal.



# Series 19MJ00 Submittal Reference Drawing

EBAA IRON

MADE IN USA



## Pressure Rating\*

Nominal Pipe Size	Series Number	DR14 PSI	DR18 PSI	DR25 PSI	Approximate Shipping Weight	A Pipe O.D.	B Max. Restraint O.D. (casing clearance)	C Restraint Ring Width	** Thrust Bolt Quantity	X Thrust Bolt Circle (Min. - Max.)
4	19MJ04	305	235	165	11.03	4.80	9.20	2.04	2	7.5
6	19MJ06	305	235	165	13.33	6.90	11.20	2.04	2	9.5
8	19MJ08	305	235	165	17.53	9.05	14.70	2.04	4	11.32 - 12.99
10	19MJ10	305	235	165	34.58	11.10	16.61	2.70	4	14.00 - 14.94
12	19MJ12	305	235	165	40.38	13.20	19.33	2.70	4	15.94 - 17.66

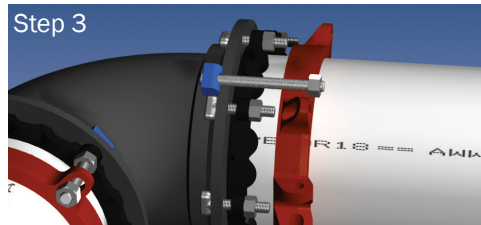
NOTE: Dimensions are in inches (± 1%) and are subject to change without notice.  
 \* Please refer to the FM APPROVAL GUIDE for FM pressure ratings for this product.  
 \*\*Derate pressure rating if not all connecting bolts were used.

## Installation Instructions

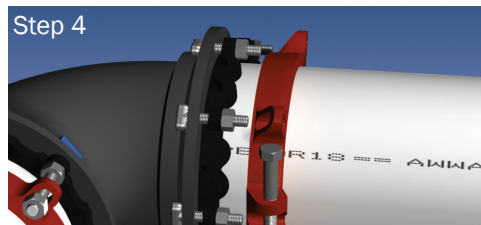
1. Identify the pipe. The Series 19MJ00 is designed for restraining C900 PVC and C909 PVC pipe at ductile iron Mechanical Joint (MJ) fittings with MJ glands (supplied by others). The restraint is a split, serrated ring installed behind the MJ gland. The 19MJ00 utilizes Rods with T-nuts in lieu of T-Bolt lengths to facilitate the restraint position



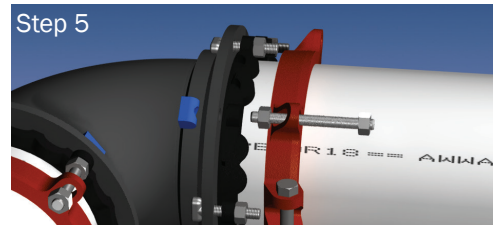
2. Set aside the split restraint and longer bolts and install the MJ gland per AWWA C600. The bolt torques for 4 inch through 12 is 75-90 ft-lbs. The use of a torque-indicating wrench will facilitate the procedure.



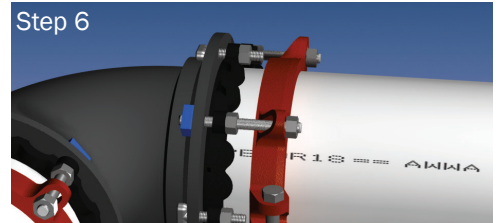
3. Using a longer rod as a gauge, place one half of the restraint onto the pipe so the bolt holes of the restraint and the MJ gland align. Allow enough room on the longer rods to fully engage the nuts with several threads showing.



4. Install the second half of the restraint to align with the first. Tapping each half into place may be necessary. Before installing the side bolts double check the position by using the longer bolts as gauges. Make sure the ID of the restraint is touching the pipe. Side bolts are to be evenly tightened to 120 ft-lbs of torque (70 ft-lbs on 4 inch and 6 inch). A torque indicating wrench will help facilitate this.



5. Each of the longer rods should have two nuts: one to tighten against the MJ gland and one to snug up against the restraint ring with a few threads showing. One at a time, remove a shorter bolt that aligns with the restraint bolt hole and replace with the longer bolt, remembering to "run" one nut up to engage against the MJ gland. This nut should be to the same torque as the original one removed (see step 2 for torque values). Do this for all remaining bolts holes of the restraint.



6. Once all bolts are in place and the MJ gland nuts have been retightened to torque, put the remaining nuts on the bolt behind the restraint. Hand tighten the nuts behind the restraint. Do not over tighten the nuts behind the restraint to move the plain-end of the pipe further into the joint.