INSTALLATION INSTRUCTIONS

Read installation instructions first before installing. Check parts to ensure that no damage has occurred during transit and that no parts are missing. Also check the diameter of the pipe and the range marked on the restrainer to ensure you have the proper size.

4"-12" GripRing™
Pipe Restrainer

Patent #5335946

Not for use on polyethylene pipe, steel pipe, plain end mechanical joint fittings, Molecularly Oriented Polyvinylchloride (PVCO) AWWA C909-02. See pipe material compatibility chart for details.

Step 1 • Clean pipe to remove as much dirt, coating, and corrosion as possible from the surface. (Asphaltic coating common to DI pipe does not have to be removed). Check diameter of pipe to make sure you are using the correctly sized GripRing. Coat both the gasket and plain pipe end with approved lubricant.

Step 2 • Slide the gland, GripRing, and MJ gasket onto the pipe end. The GripRing should slide easily along the pipe. It can be sprung open slightly if needed, to facilitate moving it into position.

Step 3 • Insert the pipe end into the MJ fitting. Leave 1/4" between the pipe end and the bottom of the MJ.

Step 4 • Slide the gland into the MJ bell pocket as far as possible. The gland (and GripRing) may be used to tap the gasket into place if required. Be sure that the gasket is properly seated and fully pressed into the gasket recess.

Step 5 • Slide the GripRing up the pipe until its face is flush against the MJ gasket. For best results, orient the gap in the GripRing in the down position.

Step 6 • Slide the gland up the pipe until it engages the GripRing.

Step 7 • Install T-bolts in the MJ fitting and gland. Tighten hand tight.

Note: Make sure that the tapered side of the GripRing faces the gland. This is very important, since the GripRing taper engages the taper in the gland. 10 & 12" GripRings have a Gap Cap. Do not remove Gap Cap.

Installation Instructions continued on back
Step 8 • Using a torque wrench, tighten the nuts to the proper torque shown on torque chart (below). Care must be taken to assure that the flanges of the gland and MJ fitting remain parallel during the entire installation. This can be done by alternating side-to-side while tightening.

### Equal distance must be maintained between the gland and the fitting throughout the installation, until the proper torque is achieved.

For best results, torque to proper torque, then wait 10 minutes and retorque.

Proper torque is necessary to get a proper gasket seal and assure that the GripRing engages the pipe to provide restraint.

Pressure test before backfilling.

<table>
<thead>
<tr>
<th>Nominal Size</th>
<th>Bolt Size</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>4”, 6” &amp; 8”</td>
<td>5/16”</td>
<td>75-90 ft-lbs</td>
</tr>
<tr>
<td>10” &amp; 12”</td>
<td>5/8”</td>
<td>90-110 ft-lbs</td>
</tr>
</tbody>
</table>

### GRIPRING™ PIPE MATERIAL COMPATIBILITY CHART

<table>
<thead>
<tr>
<th>Pipe Material</th>
<th>Ring Color</th>
<th>Working Pressure</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ductile Iron - AWWA C151</td>
<td>Black</td>
<td>350</td>
<td>OD is same as DI, C151</td>
</tr>
<tr>
<td>Cast Iron - Obsolete Std.</td>
<td>Black</td>
<td>350</td>
<td>Class 235 (SDR18) &amp; 305 (SDR14) only.</td>
</tr>
<tr>
<td>PVC - Sched. 80, ASTM D1785</td>
<td>Red</td>
<td>Rating of pipe</td>
<td>4”-8” Class 160 (SDR26) - 200 (SDR21), 10” &amp; 12” Class 200 only.</td>
</tr>
<tr>
<td>PVC C900 DR Class 100/165 (DR25)</td>
<td>—</td>
<td>—</td>
<td>GripRing is not for use on C900 DR Class 100/165 (DR25) pipe.</td>
</tr>
<tr>
<td>PVC Molecularly Oriented (C909)</td>
<td>—</td>
<td>—</td>
<td>GripRing is not for use on C909 pipe</td>
</tr>
<tr>
<td>Steel</td>
<td>—</td>
<td>—</td>
<td>GripRing is not for use on steel pipe</td>
</tr>
<tr>
<td>Asbestos Cement</td>
<td>—</td>
<td>—</td>
<td>GripRing not for use on asbestos cement</td>
</tr>
<tr>
<td>Fiberglass</td>
<td>—</td>
<td>—</td>
<td>GripRing not for use on fiberglass pipe</td>
</tr>
<tr>
<td>HDPE</td>
<td>—</td>
<td>—</td>
<td>GripRing not for use on HDPE pipe</td>
</tr>
<tr>
<td>Plain end mechanical joint fittings</td>
<td>—</td>
<td>—</td>
<td>GripRing not for use on plain end MJ fittings</td>
</tr>
</tbody>
</table>

* UL Listed & FM Approved

### PRECAUTIONS

1. MJ gasket must comply with ANSI/AWWA C111/A21.11.

2. Check diameter of pipe to make sure you are using the correctly sized GripRing. Red rings are for IPS sized pipe, Black rings for Cast Iron size (C900).

3. Clean pipe to remove as much dirt, coatings, and corrosion as possible from the surface. Lubrication and additional cleaning should be provided by brushing both the gasket and plain pipe end with soapy water or approved pipe lubricant per ANSI/AWWA C111/A21.11.

4. Make sure no foreign materials become lodged between the GripRing and pipe, gasket and GripRing, or between the GripRing and gland.

5. Avoid loose fitting wrenches, or wrenches so short that achieving proper torque is difficult.

### COMMON INSTALLATION ERRORS

1. Not enough torque on bolts.

2. Debris lodged between GripRing and pipe/gasket/gland.

3. Dirty threads on bolts or nuts.

4. Not using the proper size GripRing for the pipe.

5. Allowing the gland to get cocked at an angle to the bell flange.

6. Forgetting to install the GripRing (provides gasket seal, but no restraint).

7. Gasket not properly seated.

### IF GRIPRING MUST BE REMOVED

1. Make sure pipe is not pressurized. Disassembling the joint compromises gasket seal and restraint.

2. Pry open the GripRing gap to approximately 3/4” using a screw driver, snap ring pliers, or other available tool. This will disengage the GripRing from the pipe.

3. Remove all bolts and nuts from gland. Slide gland away from MJ bell, disengaging it from the GripRing.

4. Pressure test for leaks before backfilling.

5. If a good seal is not attained at 90 ft-lbs torque, the joint should be disassembled, thoroughly cleaned, and carefully reassembled. Leave 1/4” between the pipe and the bottom of the MJ.

6. Backfill and compact carefully around pipe and fittings.

7. When reinstalling parts with stainless steel hardware there may be a loss in pressure holding ability due to worn or damaged threads during the original installation.

8. Keep threads free of foreign material to allow proper tightening.

9. Bolts are often not tightened enough when a torque wrench is not used. Take extra care in this situation to make sure bolts are properly tightened.


11. If a good seal is not attained at 90 ft-lbs torque, the joint should be disassembled, thoroughly cleaned, and carefully reassembled. Leave 1/4” between the pipe and the bottom of the MJ.