Joint Restraint Products

StarFlange™ series 3200
Restrained Adapter Flange Coupling for Ductile Iron Pipe

No Special Tools Required for Installation

StarFlange™ Series 3200 is a restrained adapter flange coupling device designed to connect plain end ductile iron pipe to a flanged pipe, valve or fitting. A ductile iron flange body provides the flange connection and includes an O-ring gasket that seals with the mating flange. The Stargrip® Series 3000 provides restraint for the plain end ductile iron pipe.

INFORMATION

- Provides flexibility to accommodate pipe misalignment
- No special tools required for installation
- Fully restrained to pressure rating of pipe with a 2:1 safety factor
- Pipe end does not need to be square cut.
- StarFlange™ body and Stargrip® are manufactured from high strength Ductile Iron per ASTM A536, Grade 65-45-12.
- Flange meets ANSI Class 125/150 and ANSI/AWWA C115/A21.15 drill pattern.
- MJ gasket and O-ring flange gasket are made from styrene butadiene rubber (SBR) per ANSI/AWWA C111/A-21.11.
- T-bolts / nuts are produced from high strength low alloy steel per ANSI/AWWA C111/A-21.11
- Restraint wedges are heat-treated to minimum 370 BHN.
- Includes Stargrip®, Flange Adapter, MJ Gasket, O-Ring gasket and low alloy steel T-bolts
- StarFlange™ size 3"-12" are listed with Underwriters Laboratories Inc. and approved by Factory Mutual Research (FM).
- Standard gland color is Coral Red (RAL 3016).
- May also be used on steel pipe* up to 12" (*transition gasket required on 12" and under). For 14" and larger steel applications, contact Star Pipe.

FEATURES & ADVANTAGES

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SAMPLE SPECIFICATIONS

Restrained adapter flange is to be used to connect plain end ductile iron pipe to a flanged pipe, valve or fitting. The device shall be manufactured of high strength ductile iron in accordance to ASTM A536 Grade 65-45-12 for all sizes. The restrainer portion of the device shall be of wedge type design with torque limiting bolts to insure proper engagement of the wedges.


The restrained adapter flange shall have a maximum working pressure of 350 PSI for sizes 3"-16" and 250 PSI for sizes 18"-36". All sizes shall have a minimum safety factor of 2:1 (i.e. twice the maximum rating of the StarFlange™ Series 3200). Restrained flange adapter shall be Star® Pipe Products StarFlange™ Series 3200 or an approved equal.
### STARFlange™ 3200 Specifications

<table>
<thead>
<tr>
<th>NOM. SIZE</th>
<th>MAX PRESSURE RATING (PSI)</th>
<th>A</th>
<th>A W/NUTS TWISTED OFF</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>MAX. JOINT DEFLECTION*</th>
<th>APPROX WT. (LBS)</th>
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<tr>
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</tbody>
</table>

*All dimensions in inches except where indicated.

1 - Deflection attained at minimum pipe insertion.

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*STAR® PIPE PRODUCTS
STAR® PIPE PRODUCTS
HOUSTON CORPORATE Toll Free 1-800-449-3000 FAX 281-558-9000
www.starpipeproducts.com

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**STAR® PIPE PRODUCTS**

**StarFlange™ series 3200**
Restraint Adapter Flange Coupling for Ductile Iron Pipe

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**INSTALLATION INSTRUCTIONS - SIZES 3" - 36"**

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**STEP 1**
Check the StarFlange™ ensuring that no damage has occurred or parts are missing. Make sure that the O-ring gasket on the flange face of the StarFlange™ is securely in place.

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**STEP 2**
The pipe end must be thoroughly cleaned for a distance of 2" greater than the length of the StarFlange™ body. (see dimension "D")

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**STEP 3**
Slide the StarGrip® Gland on the plain end of the pipe making sure that the lip extension is towards the mechanical joint bell of the StarFlange™. Do not remove rubber washers prior to installation.

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**STEP 4**
Brush both the gasket and the plain end of the pipe with soapy water or approved pipe lubricant, which meets ANSI/AWWA C111/A21.11. Slide the MJ gasket over the pipe with the beveled edge towards the MJ bell of StarFlange™.

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**STEP 5**
Slide the StarFlange™ on to the pipe with the MJ bell towards the Stargrip® Gland. Pipe must be inserted into the StarFlange™ a minimum of 2.125" on 3"-4", 2.500" on 6"-12" and 3.000" on 14"-36" to attain maximum deflection per table.

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**STEP 6**
Position the pipe and flanged end of StarFlange™ against the mating flange, making sure that the flange bolt holes line-up. Assemble the flanged joint using flange bolts.

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**Notes:**

- Not to be used on plain end fittings or PVC or HDPE pipe.
- If effective sealing is not attained at the maximum torque indicated, then the joint should be disassembled, thoroughly cleaned, and reassembled. **Overstressing the bolts to compensate for poor installation practice is not acceptable.**
- May also be used on steel pipe* up to 12" (*transition gasket required on 12" and under). For 14" and larger steel applications, contact Star Pipe.
- Stargrips® must be adequately wrapped or protected if they are covered by concrete to ensure that concrete does not enter the wedge pocket.
- For applications exceeding the maximum pressure ratings listed, please contact Star Pipe Products for recommendations.
- For applications with vertical offsets please contact Star Pipe Products for technical assistance.
- For applications on existing pipe, the surface of the pipe needs to be sufficient for proper wedge engagement. Please contact Star Pipe Products for technical assistance.

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**TABLE A** 
T-HEAD BOLT & NUT DETAILS

<table>
<thead>
<tr>
<th>PIPE SIZE (IN)</th>
<th>BOLT SIZE (IN)</th>
<th>RANGE OF TORQUE (FT-LBS)</th>
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<tr>
<td>3</td>
<td>5/8</td>
<td>45-60</td>
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<tr>
<td>4-24</td>
<td>3/4</td>
<td>75-90</td>
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<tr>
<td>30-36</td>
<td>1</td>
<td>100-120</td>
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*These torque ranges are requirements of AWWA C600