

# Installation Instructions

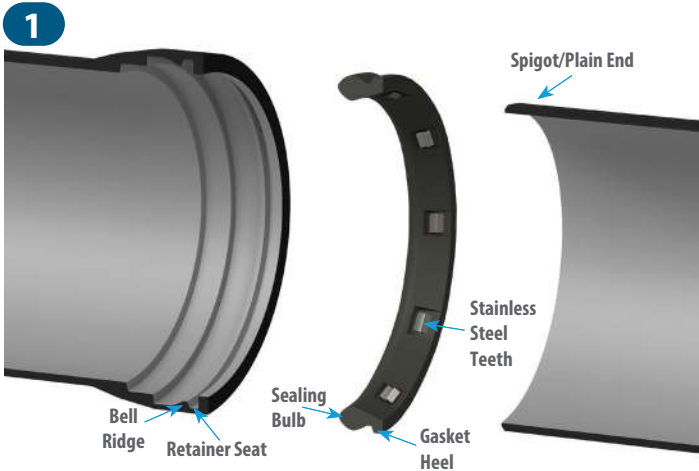
# FT

## GRIPPER™ Restraining Gasket



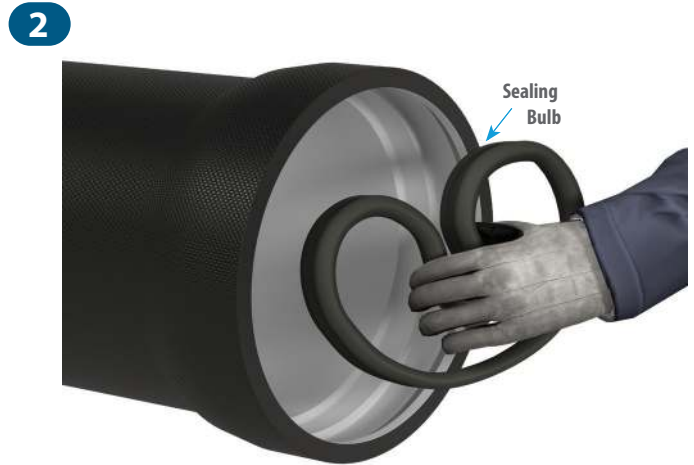
FT Series

Used to instantly restrain American Fastite®<sup>01</sup> push-on ductile iron pipe, valves and fittings.



**Inspect and clean pipe and gasket.** Ensure they are in good order, free from debris. Grind/file sharp edges that could damage the gasket when inserted. Remove foreign matter, such as tar or paint, in gasket groove.

In cold weather (40° F/4.4° C) it is more difficult to clean surfaces but removal of ice, dirt and debris is still required. Warming cold, stiff gaskets will ease assembly.



**Insert the gasket.** Loop the gasket and insert the rounded bulb-end first, placing the gasket heel in the retainer seat. Make sure not to install the gasket behind or underneath the retainer seat. Release the loop to allow the gasket to expand into the recess. Check with your fingers to be certain it is properly seated. Large gaskets may require multiple loops evenly spaced around the gasket.



**Lubricate spigot end and gasket.** Apply a thin film of joint lubricant to the outside of the spigot end and surface of the gasket that will contact the spigot end. Do **not** lubricate the bell socket of the pipe or surface of the gasket that contacts the bell socket.



**Join spigot end to the bell.** Ensure plain end of pipe is beveled (See Field Cut Pipe Instructions) - square or sharp edges may damage or roll the gasket. Insert spigot end into the bell and keep both sections of pipe aligned without deflection. Insert pipe until the entire first assembly stripe has disappeared into bell. After insertion to first assembly stripe, the pipe can be deflected (See Table 2). Use a feeler gauge to ensure the gasket hasn't been dislodged from proper placement during installation.

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**5**  
Reverse the assembly force. Apply a setting force in the opposite direction of assembly to engage the teeth. Up to 0.25" of extension can be expected to set teeth. If the joint does not assemble properly, disassemble it and check for debris, proper positioning of the gasket, and adequate lubrication.



**6**  
Completely assembled joint. The installation is now complete.

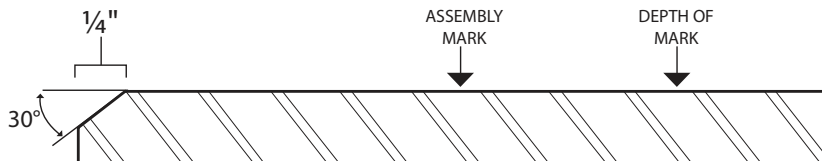
**NOTE:** The Gripper™ Restraining Gasket is not to be reused.

1. "American Fastite® is a registered trademark and property of American Cast Iron Pipe Company. Gripper Gasket LLC is not affiliated in any way with American Cast Iron Pipe Company."

### FIELD CUT PIPE:

Bevel the edge of the field cut pipe 1/4" at a 30° angle. Round the leading edge and remove sharp edges which could damage the gasket. When cut pipe with no assembly stripes is to be assemble, the spigot insertion depth should be marked on the spigot to ensure that the joint is fully assembled (See Table 2).

When deflection is required at the joint, the spigot should not be completely homed.



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### PIPE DIAMETERS:

**Table 1.** Suitable Pipe Diameters for Field Cuts & Restraint Joint Field Fabrication

| NOMINAL PIPE SIZE | PIPE DIAMETER |        | PIPE CIRCUMFERENCE                 |                                    |
|-------------------|---------------|--------|------------------------------------|------------------------------------|
|                   | MIN           | MAX    | MIN                                | MAX                                |
| 3"                | 3.92"         | 4.00"  | 12 <sup>5</sup> / <sub>16</sub> "  | 12 <sup>9</sup> / <sub>16</sub> "  |
| 4"                | 4.74"         | 4.86"  | 14 <sup>7</sup> / <sub>8</sub> "   | 15 <sup>9</sup> / <sub>32</sub> "  |
| 6"                | 6.84"         | 6.96"  | 21 <sup>15</sup> / <sub>32</sub> " | 21 <sup>7</sup> / <sub>8</sub> "   |
| 8"                | 8.99"         | 9.11"  | 28 <sup>1</sup> / <sub>4</sub> "   | 28 <sup>5</sup> / <sub>8</sub> "   |
| 10"               | 11.04"        | 11.16" | 34 <sup>1</sup> / <sub>16</sub> "  | 35 <sup>1</sup> / <sub>16</sub> "  |
| 12"               | 13.14"        | 13.26" | 41 <sup>9</sup> / <sub>32</sub> "  | 41 <sup>21</sup> / <sub>32</sub> " |
| 14"               | 15.22"        | 15.35" | 47 <sup>13</sup> / <sub>16</sub> " | 48 <sup>7</sup> / <sub>32</sub> "  |
| 16"               | 17.32"        | 17.45" | 54 <sup>13</sup> / <sub>32</sub> " | 54 <sup>13</sup> / <sub>16</sub> " |
| 18"               | 19.42"        | 19.55" | 61"                                | 61 <sup>13</sup> / <sub>32</sub> " |
| 20"               | 21.52"        | 21.65" | 67 <sup>19</sup> / <sub>32</sub> " | 68 <sup>1</sup> / <sub>32</sub> "  |
| 24"               | 25.72"        | 25.85" | 80 <sup>25</sup> / <sub>32</sub> " | 81 <sup>7</sup> / <sub>32</sub> "  |

### ASSEMBLY MARK AND DEFLECTION:

**Table 2.** Assembly Mark & Deflection

| PIPE SIZE | LOCATION OF ASSEMBLY MARK         | MAXIMUM JOINT DEFLECTION | MAXIMUM DEFLECTION PER JOINT |                      |
|-----------|-----------------------------------|--------------------------|------------------------------|----------------------|
|           |                                   |                          | 18 ft. Laying Length         | 20 ft. Laying Length |
| 3"        | 2 <sup>5</sup> / <sub>8</sub> "   | 5°                       | 19"                          | 21"                  |
| 4"        | 2 <sup>3</sup> / <sub>4</sub> "   | 5°                       | 19"                          | 21"                  |
| 6"        | 2 <sup>15</sup> / <sub>16</sub> " | 5°                       | 19"                          | 21"                  |
| 8"        | 3 <sup>1</sup> / <sub>4</sub> "   | 5°                       | 19"                          | 21"                  |
| 10"       | 3 <sup>5</sup> / <sub>16</sub> "  | 5°                       | 19"                          | 21"                  |
| 12"       | 3 <sup>5</sup> / <sub>16</sub> "  | 5°                       | 19"                          | 21"                  |
| 14"       | 4 <sup>9</sup> / <sub>16</sub> "  | 4°                       | 15"                          | 16.5"                |
| 16"       | 4 <sup>9</sup> / <sub>16</sub> "  | 4°                       | 15"                          | 16.5"                |
| 18"       | 4 <sup>9</sup> / <sub>16</sub> "  | 4°                       | 15"                          | 16.5"                |
| 20"       | 5 <sup>1</sup> / <sub>16</sub> "  | 2.5°                     | 9.5"                         | 10.5"                |
| 24"       | 5 <sup>1</sup> / <sub>2</sub> "   | 2.5°                     | 9.5"                         | 10.5"                |