

## **SECTION 9**

# **AMERICAN Restrained Joint Pipe**





### AMERICAN Fast-Grip® Gasket



American Fast-Grip gaskets have been proven to be a superior field-adaptable method of restraining 4"-30" ductile iron pipe or fittings.

The restraint provided by the patented\* AMERICAN Fast-Grip® gasket is due to the development of wedging action between pairs of high-strength stainless steel elements spaced around the gasket. The outer metal element acts as a bearing member for the wedge-shaped inner element which has sharp teeth on its inner surface for gripping the spigot.

Because of the wedging design utilized, the force between the spigot and the socket of the joint is essentially constant at any given pressure thrust regardless of the "tightness" or "looseness" of the joint fit or the joint deflection.

Fast-Grip gaskets are suitable for an allowable working pressure of 350 psi for 4"-18" pipe and 250 psi for 20" and 24" sizes. The 30" size is suitable for a 150 psi working pressure. The joint has a maximum allowable deflection of 5° in the 4"-12", 4° in the 14", 3° in the 16"-24", and 2 1/2° in the 30" size.

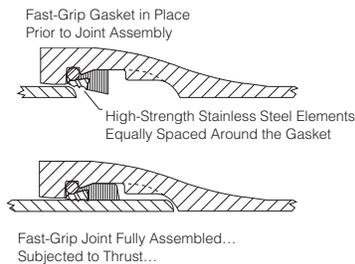
were accomplished with the joints in both straight alignment and at the maximum rated deflection.

The Fast-Grip gasket has the same basic shape as AMERICAN's Fastite® gasket, so it can be used in any 4"-30" standard Fastite pipe or fitting socket. The gasket rubber is standard SBR\*\*\* which meets all the material requirements of ANSI/AWWA C111/A21.11.

Fastite\*\*\*\* fittings per ANSI/AWWA C110/A21.10 or C153/A21.53 are available in 18"-30" sizes. When they are available on the jobsite, AMERICAN's 16"-30" Flex-Ring® fittings may also be used with the Fast-Grip gasket.

The Fast-Grip gasket is Underwriters Laboratories listed and Factory Mutual approved for use in Fastite or Flex-Ring sockets with Fastite plain ends in all sizes 4"-16". The UL listing and FM approvals apply to all pressure classes and special thickness classes of ductile iron pipe.

In addition to the positive restraint achieved, Fast-Grip gaskets offer ergonomically friendly advantages compared to other restrained joints for fittings and pipe requiring bolts, lugs, segments, wrenches, etc. Joints can easily be assembled with current tools and methods used for many years in the assembly of standard Fastite joints. Assembly and disassembly instructions follow.



Proof-of-design tests have confirmed that the joints are capable of restraining dead-end thrust of two or more times the rated working pressure, as applicable. These tests



\* U.S. Patent No. 5,067,751.  
 \*\* Because the pressure rating of the joint cannot exceed that of the pipe, the 350 psi rating for 14"-18" sizes and the 250 psi rating for 24" size are limited by the pressure class of pipe with which they are used. For example, an 18" Fast-Grip gasket used with Pressure Class 250 pipe would carry a rating of 250 psi instead of 350 psi. Contact AMERICAN for higher working pressure applications.  
 \*\*\* Contact AMERICAN if other types of rubber are required.  
 \*\*\*\* Contact AMERICAN for the availability of fitting plain ends.