



## Barracuda® Gasket Assembly Instructions

### 1. Clean the Socket and Spigot

Inspect the pipe socket and spigot making sure joining surfaces are clean and free of defects. In the socket, remove any foreign material that could adversely affect the seating and sealing of the gasket. This includes, but is not limited to, sand, rocks, cement and/or ice. Material between the gasket and the seating and/or sealing surfaces could cause the gasket to interfere with insertion of the spigot. This could result in the gasket being dislodged during assembly, or cause leaks while the joint is in service. The spigot should be inspected and cleaned as necessary.



### 2. Placement of Gasket

Wipe the gasket to remove any foreign material. Form a loop in the gasket between the metal locking segments and place into the socket, rounded bulb first. Fit the heel securely into the retainer seat and then push the loop down to complete insertion of the gasket. For 4" through 16" sizes, one loop should be sufficient to install the gasket. The loop should be of raised 4 to 5 inches. After installation, check the fit of the gasket to ensure nothing protrudes into the path of the spigot. In cold weather applications, 40 F° or colder, the gaskets should be kept warm prior to installation.



### 3. Field Cut Pipe

When using field cut pipe, the cut end should be beveled about ¼" at an angle of about 30 degrees with the leading edge being rounded. This can be done with a portable grinder. The purpose of this is to remove sharp or rough edges that might damage the gasket. When

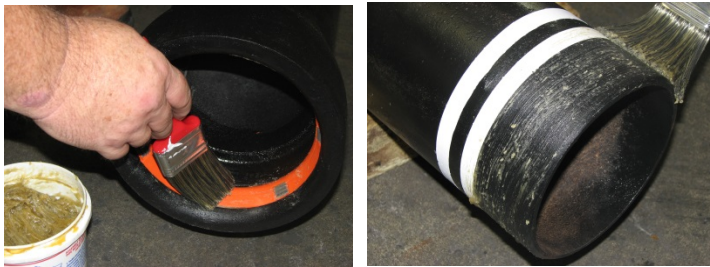
selecting pipe for field cutting, the pipe diameter should be measured at the location of the intended cut and must be within the tolerances shown in Table 1.

With cut pipe, the insertion depth should be marked on the spigot to ensure that the joint is fully assembled. When deflection is required at the joint, the spigot should not be completely homed. Assembly mark locations by size and deflection information are given in Table 2.

#### 4. Lubrication of the Joint

Using a clean brush or cloth, apply a thin coat of pipe joint lubricant to the exposed surface of the gasket and to approximately 6 inches of the adjoining spigot. If the lubricant should dry out in warm, dry weather, or when applied to warm or hot pipe, a small amount of water may be added to rehydrate the lubricant. Only suitable pipe joint lubricant should be used.

**Do not lubricate the bell socket or the surface of the gasket that comes in contact with the bell socket.**



#### 5. Joint Assembly

Ensuring proper alignment, insert the spigot of the pipe into the socket until it contacts the gasket. Push the joint together until the bell face is flush with the inside edge of the first stripe. Carefully reverse the assembly force to ensure that the joint is properly restrained.



NOTE: If the pipe is fully homed in the socket, it will not be possible to fully deflect the joint.

While checking gasket positioning using a thin, stiff tool, remove the lubricant between the bell and the spigot so gasket color may be seen. After the gasket has been installed, affix the included label to the top of the bell end of the pipe. After assembly, the joint may be deflected up to the number of degrees shown in Table 2.

## Pipe Diameters

**Table 1. Suitable pipe diameters for field cuts.**

Nominal Pipe Size Inches	Pipe Diameter Inches	
	Minimum	Maximum
4	4.74	4.86
6	6.84	6.96
8	8.99	9.11
10	11.04	11.16
12	13.14	13.26
16	17.32	17.45

## Assembly Mark and Deflection

**Table 2. Assembly Mark and Allowable Deflection.**

Pipe Size	Location of Assembly Mark	Maximum Joint Deflection	Deflection OF 18 ft Lengths	Deflection OF 20 ft Lengths	Approx. Radius of Curve Produced by Succession of Joints -18 ft. Lengths	Approx. Radius of Curve Produced by Succession of Joints -20 ft. Lengths
Inches	Inches	Degrees	Inches	Inches	Feet	Feet
4	2-3/4	5	19	21	205	205
6	2-15/16	5	19	21	205	205
8	3-1/4	5	19	21	205	205
10	3-5/16	5	19	21	205	205
12	3-5/16	5	19	21	205	205
16	4-9/16	4	15	17.7	257	286

## Precautions Regarding the use of Barracuda® Gaskets

1. Specification Rubber Products does not recommend the use of Barracuda® gaskets for above ground applications.
2. The working pressure rating of the Barracuda® gasketed joint does not exceed that of the working pressure rating of the pipe in which it is installed.
3. Use Barracuda® Gaskets only in push-on joints which have the trademark Tyton®, Trim Tyton® or Tyton Joint®. Use in unapproved joints may result in joint separation.
4. Barracuda® gaskets are not designed for use where the plain end of the pipe has a thick exterior coating such as epoxy or tape wrap. In general, if the pipe peen pattern is not visible the coating may be too thick for proper engagement of the Barracuda® teeth.
5. Do not use Barracuda® Gaskets with corroded pipe.
6. Do not reuse Barracuda® Gaskets.

7. Barracuda® Gaskets should be stored in a cool location; out of direct sunlight.
8. Barracuda® Gaskets should be protected from contact with petroleum products and used on a first-in, first-out basis.
9. Do not use Barracuda® Gaskets to provide electrical joint conductivity for thawing purposes. Such use may damage the gaskets.
10. Specification Rubber Products has not conducted tests with gray iron or plastic piping products and, therefore, cannot recommend or warrant the use of Barracuda® Gaskets with gray iron (pipe, fittings or valves) or plastic (pipe or fittings).
11. Use in casings: pipelines restrained with Barracuda® Gaskets may be installed in straight casings by pulling, not pushing, the pipe through the casing. Pushing the pipe may result in the pipe becoming too far engaged into the bell, restricting deflection
12. Although disassembly of joints restrained with Barracuda® Gaskets is possible, Specification Rubber Products does not recommend the use of Barracuda® gaskets if disassembly is anticipated.
13. If the maximum joint deflection is necessary, do not push the pipe to the bottom of the socket.
14. Approximately twice as much assembly force may be required to assemble a Barracuda® Gasket joint as is required for a conventional push-on joint gasket.
15. Concrete Thrust blocking or other means of thrust restraint is not required to be used when Barracuda® Gaskets are used in a designed thrust restraint system. The Thrust Restraint Design for Ductile Iron Pipe published by the Ductile Iron Pipe Research Association (DIPRA) is one method used to calculate the required length of restraint at a change in direction. This publication is available at [www.dipra.org](http://www.dipra.org)
16. In vertical installations, provisions must be made to keep the joint extended and not allow the teeth of the Barracuda® to become disengaged from the pipe. Failure to keep vertical joints extended can result in joint separation.
17. Set the joint deflection after the spigot has engaged the gasket bulb, but before the joint is fully homed.
18. To check gasket positioning, use a thin, stiff tool to remove the lubricant between the bell and the spigot; the orange color of the gasket aids in being able to visually confirm proper location of the gasket. Alternatively, correct positioning of the Barracuda® gasket may be ascertained by inserting feeler gauge in the space between the bell and the pipe OD in several locations around the socket.

Tyton®, Tyton Joint® and Trim Tyton® are registered trademarks of United States Pipe and Foundry Company.



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