

Flareless Bite Type Fittings

Assembly Instructions

The assembly of Brennan Steel and Stainless Steel Bite-Type Fittings involves four steps:

1) cutting, deburring and cleaning; 2) pre-setting the ferrule to the tubing; 3) ferrule bite inspection; and 4) installation.

Cutting, Deburring & Cleaning

1. Square-cut the seamless or welded-and-drawn tubing using a hacksaw with a fine-tooth blade, or a circular-toothed cut-off saw. Use only tubing that is fully annealed for bending and flaring.
2. Remove all burrs and sharp edges on the tube by lightly deburring the I.D. and O.D. Emery paper may be used to perform this task.
3. Wipe the tube end completely with a clean cloth. Be sure to remove all metal chips from the tube end.

Pre-Setting Ferrule to the Tubing

This procedure must be followed to ensure the proper location of the ferrule to the tubing.

1. Lubricate the fitting body thread and the thread of the nut.
2. Slip the nut and ferrule over the deburred end of the tube. The long, straight end of the ferrule must point toward the deburred tube end.
3. Lubricate the ferrule.
4. Position the deburred tube end squarely on the shoulder of the fitting body.
5. Manually screw the nut onto the fitting body until it is finger-tight.
6. Put a reference mark on the nut and the tube.
7. Hold the tube firmly on the fitting body and tighten the nut an additional $1\frac{3}{4}$ turns. Proper

assembly of bite-type fittings is dependent upon the ferrule traveling a prescribed distance into the fitting throat. This allows it to "bite" into the tube, creating a strong grip and seal.

8. The use of a Ferulset tool is recommended for sizes -08 through -32".

Ferrule Bite Inspection

The following inspection procedures must be completed prior to final assembly.

1. Disassemble the fitting.
2. The tube surface must have a raised ridge of metal that is at least 50% of the thickness of the leading edge of the ferrule.
3. There must be a slight bow to the pilot section of the ferrule.
4. The tail of the ferrule should be snug against the tube.
5. A slight indentation around the deburred end of the tube indicates that the tube was bottomed in the fitting. If this indentation is not visible, the ferrule may not be properly seated.
6. Do not rotate the ferrule.

Installation

1. Finger-tighten the nut.
2. Wrench-tighten the nut another $\frac{1}{3}$ to $\frac{1}{2}$ turn.