

# TWIN FERRULE TUBE FITTINGS

## OVERVIEW

Vee-Lok tube fittings are designed to provide a leak-proof connection. The double ferrule design is a mechanism used for sealing and gripping tubing. Through the mechanical advantage and geometry, the tube fitting can overcome the variations in materials, wall thickness and hardness to provide an excellent seal performance.

The tube fitting consists of four parts: body, front ferrule, back ferrule and nut with silver-plated to prevent galling. Vee-Lok double ferrule tube fittings are made of 316 stainless steel and supplied in metric and imperial sizes from 6mm O.D. to 25mm O.D. and 1/8"O.D. to 1"O.D. Straight fittings are machined from bar stock and shaped bodies from forging. A variety of configurations are available for requirement.

## FEATURES

When the nut is tightened, the back ferrule is driven against the tapered rear of the front ferrule. The front ferrule is driven by force into the tapered mouth of the fitting body and creates a primary tubing seal. The back ferrule consistently grips the tube to hold the fitting and tubing firmly in place while the front ferrule forms a full –faced seal on the tapered surface of the body. In the twin-ferrule tube fitting design, the back and front ferrules move axially instead of a rotary motion. No Torque is transferred to the tubing during installation.

Figure 1: Internals of tube fitting before make-up

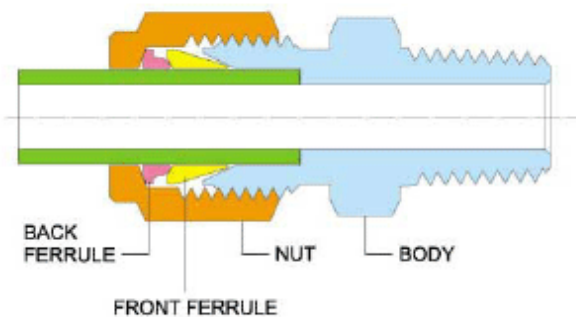
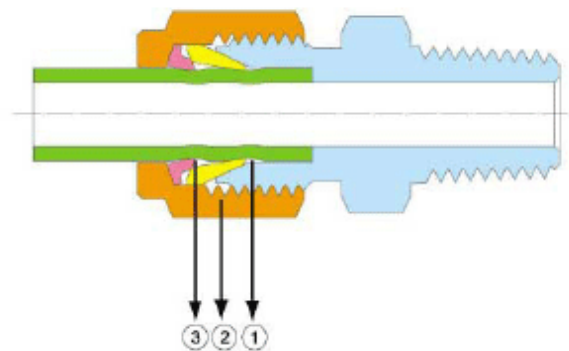
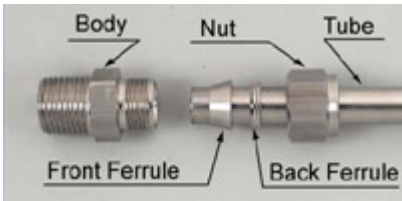


Figure 2 :Internals of tube fitting after make-up



1. FRONT FERRULE CREATES A SEAL ON THE TUBING AND FITTING BODY.
2. NUT THREADS ARE SILVER PLATED TO ELIMINATE GALLING.
3. BACK FERRULE RADIALLY PROVIDES A GRIP ON THE TUBING.

## INSTALLATION INSTRUCTIONS



- Make sure all components have been assembled in correct order as shown above.
- Firmly insert the tubing into the fitting assembly until the tubing is fully bottomed on the shoulder inside the fittings.
- Finger tighten the nut.
- Mark the nut at position no. 1 to facilitate counting the number of turns.
- When holding the body of the fitting with a wrench to prevent body from turning, tighten the nut with another wrench 1.1/4 turns to position no. 2

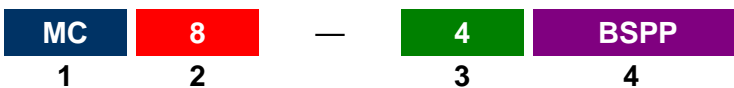
## PRESSURE RATINGS

The pressure ratings of the Vee-Lok tube fittings are determined by the tubing on which they are installed.

## STAINLESS STEEL TUBING

Fully annealed 304 or 316 stainless steel tubing meeting ASTM A269 or equivalent specifications. Tubing should be without scratches and suitable for flaring and bending. It is recommended to use the tubing with maximum Rockwell 80 or less for ease of installation.

## ORDERING INFORMATION



- 1** The letter group designates fitting type (MC=Male Connector). Add one "M" in front to identify metric fittings. For instance, MMC=Metric Male Connector.
- 2** The second group identifies the tube O.D. size.
- 3** The third group is used to describe the second tube O.D. size or thread size.
- 4** The fourth group remains blank for NPT thread. Add "BSPT" or "BSPP" to specify BSPP or BSPP threads.