

Assembly Instructions for Versil-Flare Tube Fittings

Cutting

To insure a leak-proof joint, the tubing should be cut square ($\pm 1^\circ$). A tube cutter is preferred, but a hacksaw or abrasive wheel can be used.



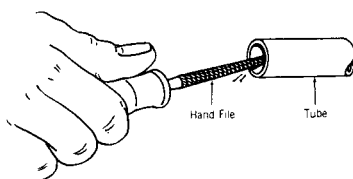
Out of Square Cut



Square Cut

Deburring

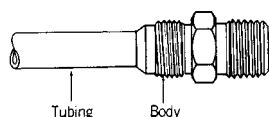
All cut tubes should be deburred. However, deburring is even more important if the tubing was cut with a hacksaw or abrasive wheel. Remove any burrs, both internally and externally, with a deburring tool, emery paper or fine file. Clean the tube before assembly. Clean all dirt and grit from the I.D. and O.D. of the tube.



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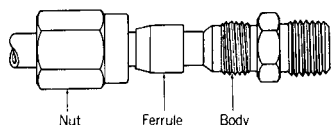
Tubing cut-off

1. Tube should be cut to fit tight against the face of standard SAE 37° flare body.



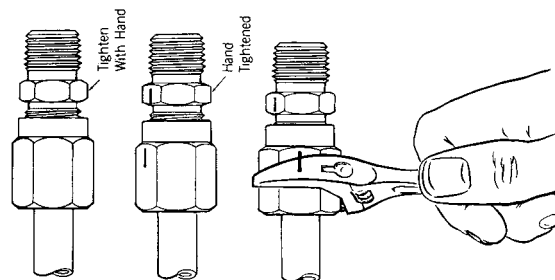
Initial assembly

1. Deburr the end internally and externally. Clean all dirt and grit from I.D. and O.D.
2. Slide the nut and then the ferrule into the tube. Make sure the tapered end of ferrule points toward the nut.



3. Lubricate all mating surfaces of nut, ferrule and body with a heavy lubricant such as Aeroquip 222070 Lube.
4. Place end of tube against standard SAE 37° flare body.

5. Slide the ferrule and nut against body and tighten the nut onto the body "Hand Tight." Mark the nut in relation to the body for location.



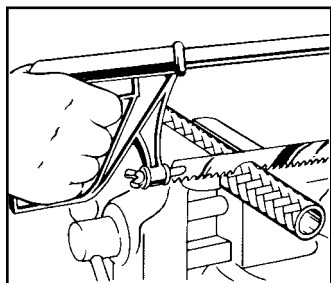
6. Hold tube against body and tighten nut a total of $1\frac{1}{4}$ turns on -3 through -10 and $1\frac{1}{2}$ turns -12 through -32.

Reassembly

1. Slide nut against the body and tighten to "Hand Tight." Mark the nut for location.
2. Tighten nut a minimum of one "Hex" flat. The Versil-Flare flareless tube fitting is designed for a maximum of 10 reassemblies.

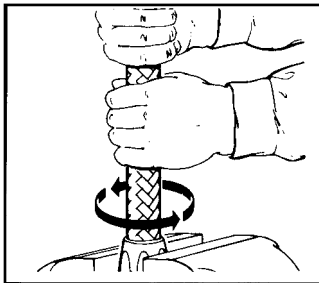
Standard (mandrelless) reusable fittings with single wire braid, multiple textile braid, hydraulic and LPG hose.

FC234, FC300, FC321, FC350, FC355, 302A, 303, 1503, 2580, 2651
(for fittings requiring mandrel, see page 324).



Step 1

Cut hose square with fine-tooth hacksaw or cut-off wheel.



Step 2

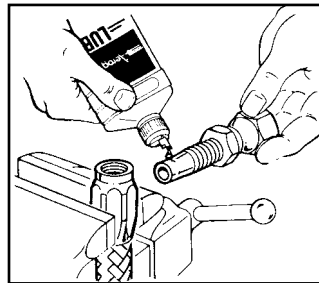
Put socket in vise.
Screw hose counterclockwise into socket until it bottoms.

Back off $\frac{1}{4}$ turn.

When assembling long lengths of hose, it may be preferred to put hose in vise just tight enough to prevent from turning, and screw socket into the hose counterclockwise until it bottoms.

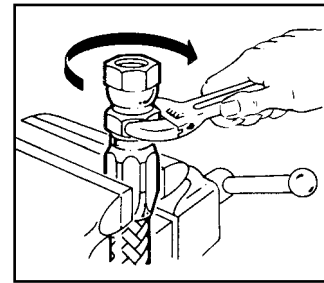
Back off $\frac{1}{4}$ turn.

Back off FC300, FC350 and FC355 $\frac{1}{4}$ to $\frac{1}{2}$ turn.



Step 3

Lubricate nipple and threads **LIBERALLY**. Use heavy oil or Aeroquip 222070 hose assembly lube.



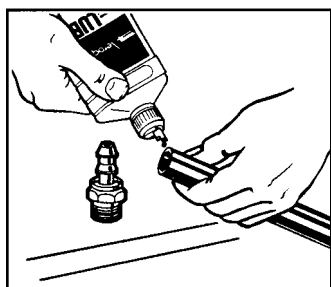
Step 4

Screw nipple clockwise into socket and hose. Leave $\frac{1}{32}$ " to $\frac{1}{16}$ " clearance between nipple hex and socket.

Recommendations for cleaning, inspection and testing are summarized on page 318. Disassemble in reverse order.

SOCKETLESS Fittings with textile braid low pressure hose

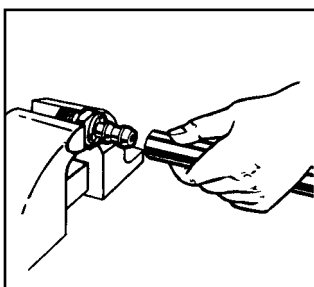
FC332, FC647, 2556, 2565, 2575



To Assemble

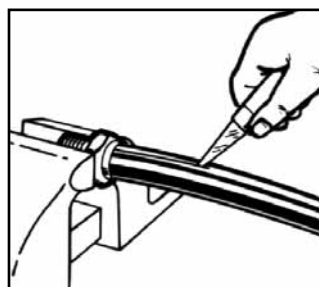
Step 1

Cut hose to required length with a sharp knife. Oil inside of hose and outside of nipple **LIBERALLY**.



Step 2

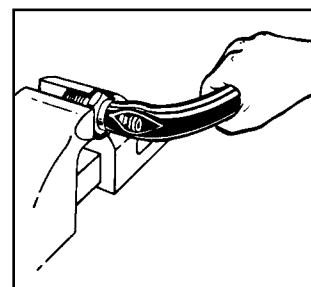
Push hose on fitting until hose end bottoms underneath protective cap as shown. For quantity production use a **SOCKETLESS** Fitting assembly machine. Recommendations for cleaning, inspection and testing are summarized on page 318.



To Disassemble

Step 1

Slit hose lengthwise from protective cap to end of nipple.



Step 2

Bend hose, then snap hose off with a quick tug.