EARL'S PERFORMANCE PLUMBING

Hose-End Assembly Instructions: Convoluted Stainless Steel Braided with Reusable Ends

Step 1

1.1) In order to prep the hose for assembly, it must be cut to length with duct tape wrapped around the cut location to prevent the stainless braids from excessive fraying. Make sure the maximum length of duct tape does not exceed 1.5 times the circumference of the hose.

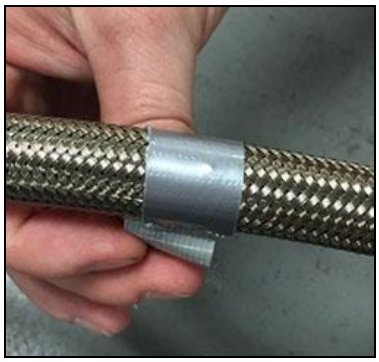

Figure 1

1.2) Chopping or shearing convoluted PTFE hose is not recommended. Earl's recommends a professional model circular scissor or a band saw. These are the most effective methods to cut stainless steel convoluted PTFE hose. Never use a hack saw or place convoluted hose of any type in a vise to perform a cut.

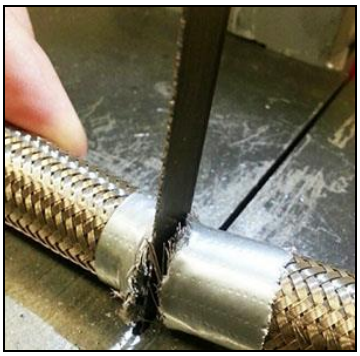

Figure 2

Step 2

2.1) Once hose has been cut to length, place the socket in the vise carefully. Then, while using a pair of spring loaded or traditional pliers, carefully feed the hose counterclockwise into the socket. Apply light to moderate pressure with the pliers consistently as you rotate the hose while bringing it level with the socket along with constant but light pressure forward. For best results, place the worst part of the stainless braid into the socket first, as this will make the process easier.

Figure 6

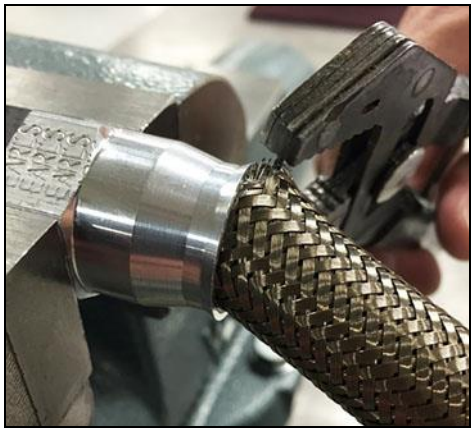

Figure 7

2.1) Once hose is fully inside the socket and no stainless braids are protruding, proceed to rotate the hose clockwise (as if you are threading the hose) through the socket until the hose and stainless braiding appear fully exposed all the way through the end of the socket. Repeat this process for the opposite side.

Figure 8

Step 3

3.1) Once both sockets are placed onto the hose back to back, the olive will go on next. This is a crucial part as this helps the hose seal. The olive is to be threaded onto the hose liner only. Make certain the hose braid goes around the olive and does not get between the olive and hose liner. Take care not to crush the olive with any tool required to thread it onto the hose liner. Thread the olive past the end of the hose only enough to allow the cutting of the hose flush.

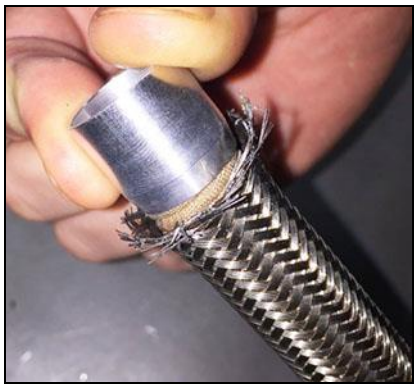

Figure 9

3.2) If threading the olive becomes difficult by hand, pliers may be used. Use only minor pressure as to not deeply scar or deform the olive in any way. We recommend a spring loaded type of plier as seen in **Figure 10**.

Figure 10

Step 4

4.1) Once olive has been threaded slightly past the end of the hose, the hose can now be cut to square it up with the olive. We recommend using a safety razor with a sharp blade. Cut the hose flush with the olive, being careful not to dig into the olive.

Figure 11

Figure 12

NOTE: An attempt at cutting the hose square without the aid of the olive will result in a bad cut, leaving that part of the hose vulnerable to leaks (**Figure 12**).

Step 5

5.1) At this step, the olive should be fully flush with the hose. If the hose is below the face of the olive, rotate the olive clockwise slightly until no part of the hose is below the face.

Figure 13

Step 6

6.1) Apply a light coat of Earl's Assembly Lubricant ® onto the hose end threads and nipple, and then carefully work the braid toward the hose end. On short hoses, make sure the braid is not working away from the other end. If the braid is loose on the hose after both hose ends are assembled, the hose will likely fail at low pressure. Also, make certain none of the braid wire gets between the socket and body threads during assembly.

Figure 14

6.2) Once olive is pressed against the body of the fitting as far as it will go, pull the socket over the olive and begin to thread the socket by hand clockwise onto the body. Be careful not to cross the threads.

Figure 15

Figure 16

Figure 17

Step 7

7.1) Once the first couple of threads have been engaged by hand, an aluminum AN fitting wrench may be used to aid with the assembly of the hose end. However, be very careful not to overtighten.

Figure 18

7.2) While tightening the socket, pay careful attention to the torque being applied. When the socket's compression on the convolutions is optimal, you will feel the torque required to rotate the socket suddenly increase. **Stop turning the socket at this point**. This may not happen until the gap is closed in some cases. If this is the case, then this is deemed as acceptable. Pressure testing is always recommended, especially when in doubt of a successful assembly. Repeat this process for other hose end.

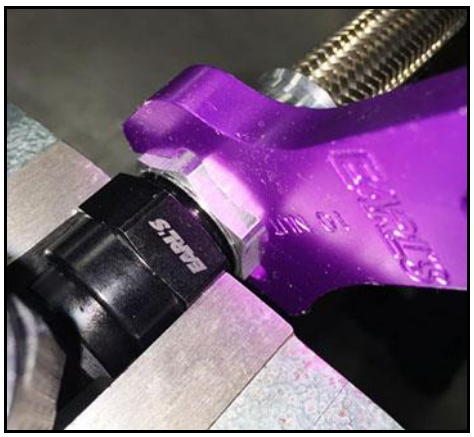

Figure 19

After hose is assembled:

- Never loosen the socket. If this is required, disassemble the hose, and repeat the process from the beginning with a new olive.

- Pressure test the assembly to 1.5 times the application working pressure, maximum rated safe operating pressures are as follows:

    - -6 Stainless Steel 500 psi
    - -8 Stainless Steel 500 psi
    - -10 Stainless Steel 500 psi
    - -12 Stainless Steel 500 psi
    - -16 Stainless Steel 500 psi
    - -20 Stainless Steel 250 psi

Disassembly process:

- Lightly grip the hose end body in a vise and use a wrench to remove the socket and hose.

- Next, clamp the hose with the socket still attached into a vise one inch away from the socket. (This will destroy the section of hose crushed by the vise.)

- Use a wrench to turn the socket and twist the hose until it stops. With a quick motion, further rotate the wrench snapping the socket loose from the olive. This will crack the seal of the socket and hose.

- Remove and reform the hose to round and disassemble the hose end components.

General notes:

- Use EARL'S Aluminum AN Wrenches for assembly. Standard wrenches have longer handle lengths that allow too much torque on hose-ends.

- REMEMBER TO ALWAYS USE A NEW OLIVE WHEN ASSEMBLING CONVOLUTED HOSE & HOSE-ENDS. Reusing olives is not recommended and will diminish the pressure rating of the hose or cause seepage.

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