

# Aeroquip Hose Fitting Installation

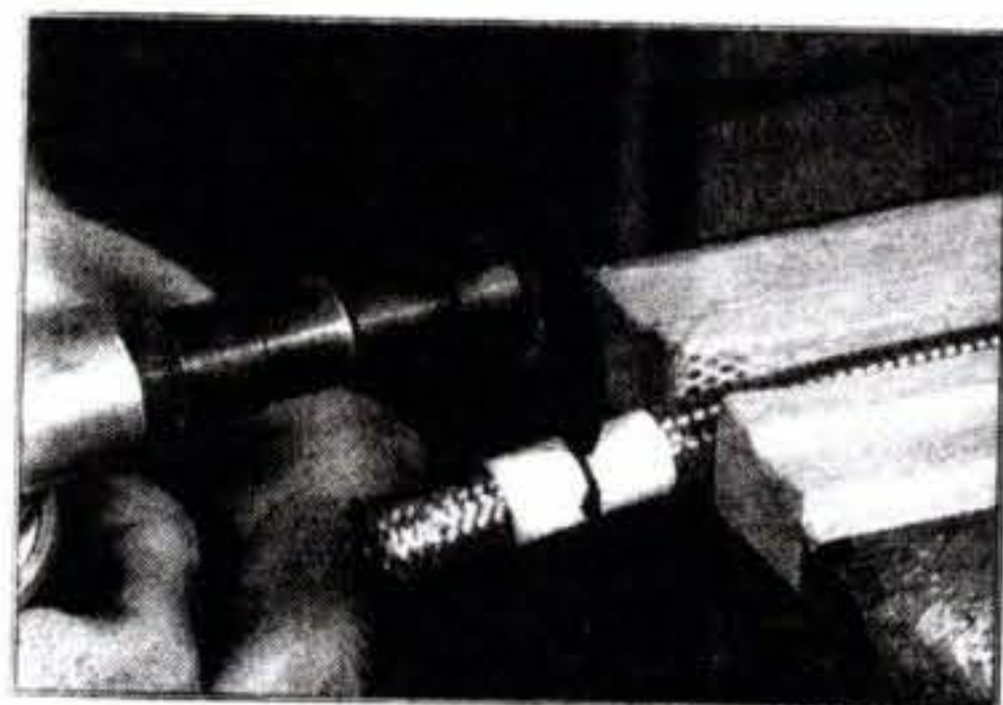
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**EVEN THE SIMPLEST HOMEBUILT** aircraft need hoses for various systems. Builders can often purchase the hoses they need off the shelf, but sometimes a custom hose is required. A hose can be custom made by a supplier, but often it may be quicker and less expensive to make the hose in your own shop. Here's one way to make hoses for your project.

## STEP BY STEP

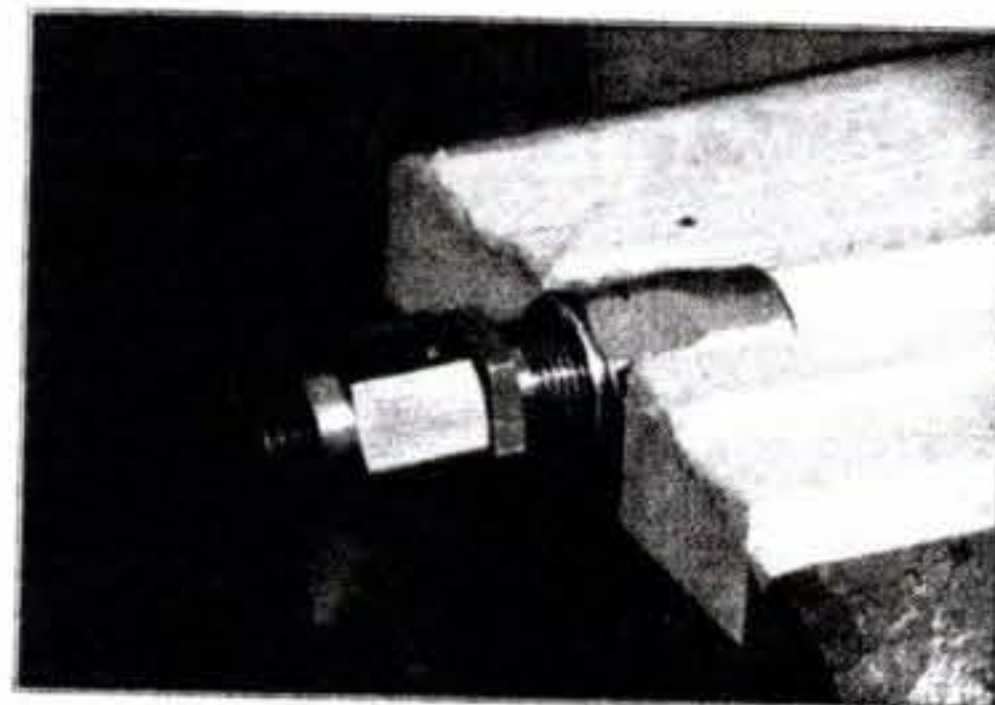


**1/** We're using Aeroquip 601 hose, which is suitable for fuel, oil, and other applications up to 1,000 psi pressure; Aeroquip 816 fittings are used with this hose. First, cut the hose to length. We recommend using a cutoff wheel as shown here, which gives you a clean cut with no fraying of the stainless steel braid. Note that we've wrapped the hose with masking tape in the area of our cut; this also keeps the braid from fraying. You can use a fine-tooth hacksaw, but you won't get quite as clean a cut, and then you'll have to trim off the stray wires before installing your fittings.

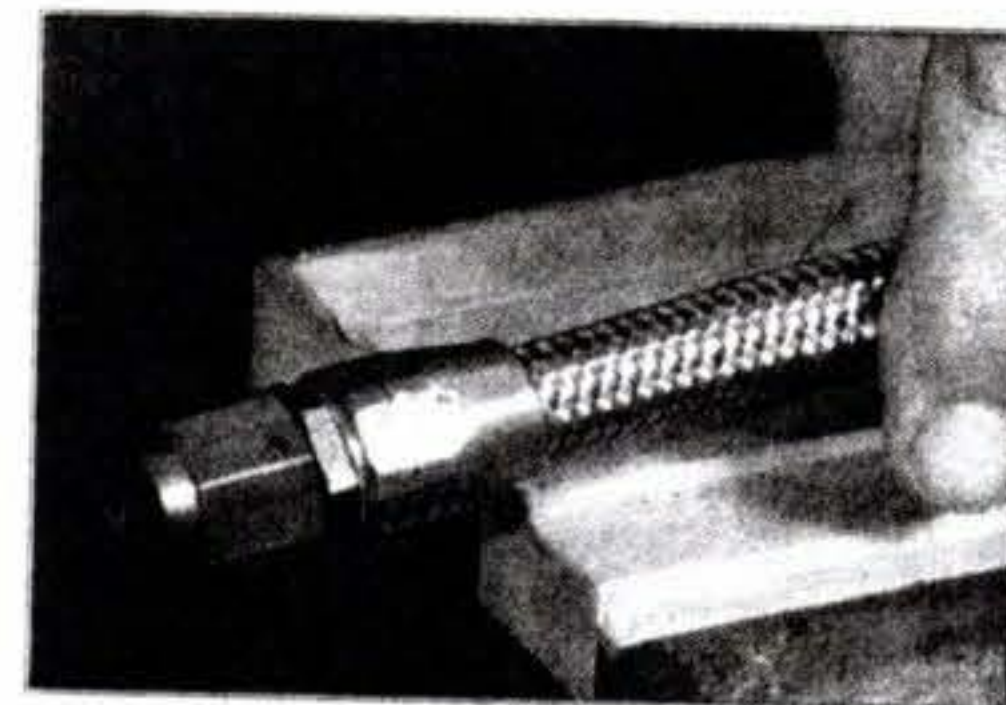


**2/** Aeroquip 816 hose fittings consist of a pre-assembled nut/nipple assembly and an internally threaded hose socket. The first step will be to install the socket onto the hose after you've made your cut. The socket just pushes onto the hose. Install it to the point where the end of the hose meets the shoulder at the bottom of the threaded portion of the socket.

Once you have installed the socket onto the hose, put some tape around the hose at the base of the socket. This will serve as a slippage indicator that you'll use to verify that your installation is correct.



**3/** Next, install the nut/nipple assembly. Lubricate the inside of the hose with some light oil before inserting the nipple. Hold the socket with a wrench if necessary, but it's easier to clamp it in a vise as we've done here. In this photo, the nut/nipple assembly is ready to be tightened down into the socket.



**4/** Tighten the nut/nipple assembly until you feel it bottom out in the socket. You'll feel it getting tighter as you thread it in. If it gets so tight that you can't turn it all the way down until it meets the socket, you may need to remove the nut/nipple assembly and re-lubricate the inside of your hose.

This photo shows the finished installation. There is no gap between the tape and the socket, indicating that we did not have any slippage. Repeat this process on the other end, then blow out any debris and contamination with compressed air. Your hose is ready for installation on your project.