

AIRCRAFT SPECIALTY



FLIGHTLINES

RV-14 Installation guide for SDS DUPLEX CABIN AND WING ROOT SETUP (Note: If you are planning on utilizing EFII, 95% of the components of this kit will work. Everything aft of the valve is identical. However, the pump to firewall setup is slightly different. You will want to install the hoses hand tight BEFORE mounting the angles and pump assembly as some modification may be needed to make that portion of the kit fit perfectly. Please contact us with questions.

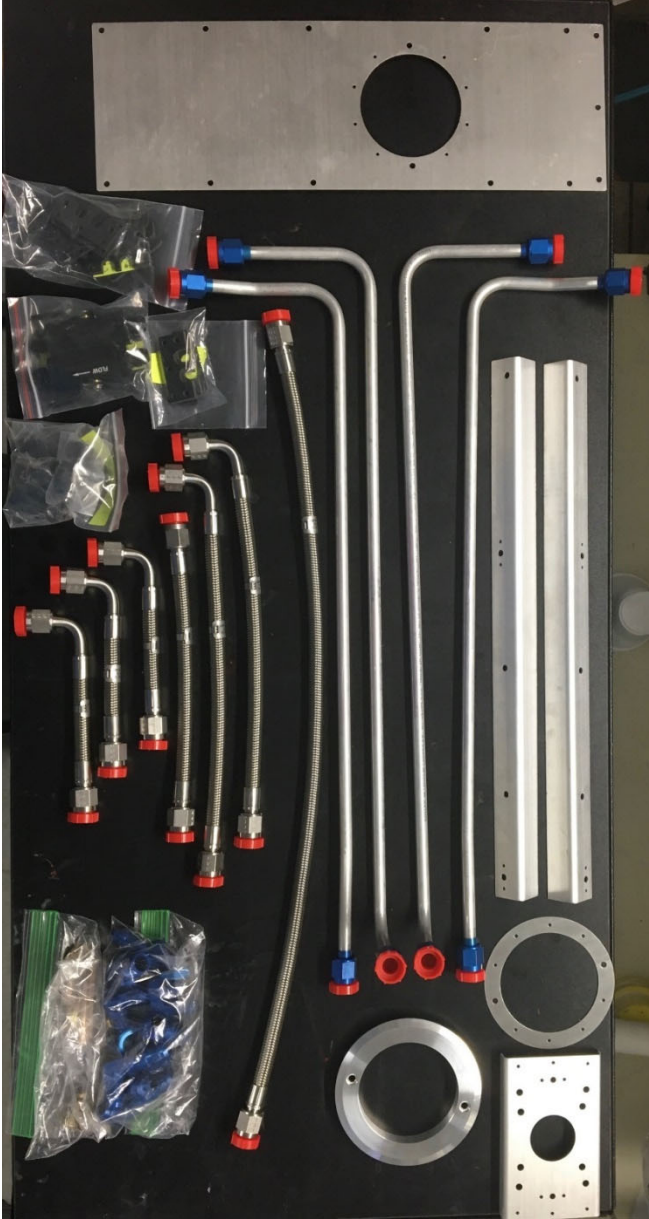
VERY IMPORTANT: Please trace out your fuel system as there are a lot of lines. You want to ensure continuity of the fuel return lines from the engine to the tank, as well as the fuel supply lines from the engine to the tank.

Aircraft Specialty, and TS Flightlines are excited to announce a new RV-14/14A Cabin fuel hose package. We would like to thank Patrick Nelson for all his help on the cabin portion of this kit. We would also like to thank Joe Nelson for his help on refining the wing root setup. This is among the most complete kits we have ever offered.

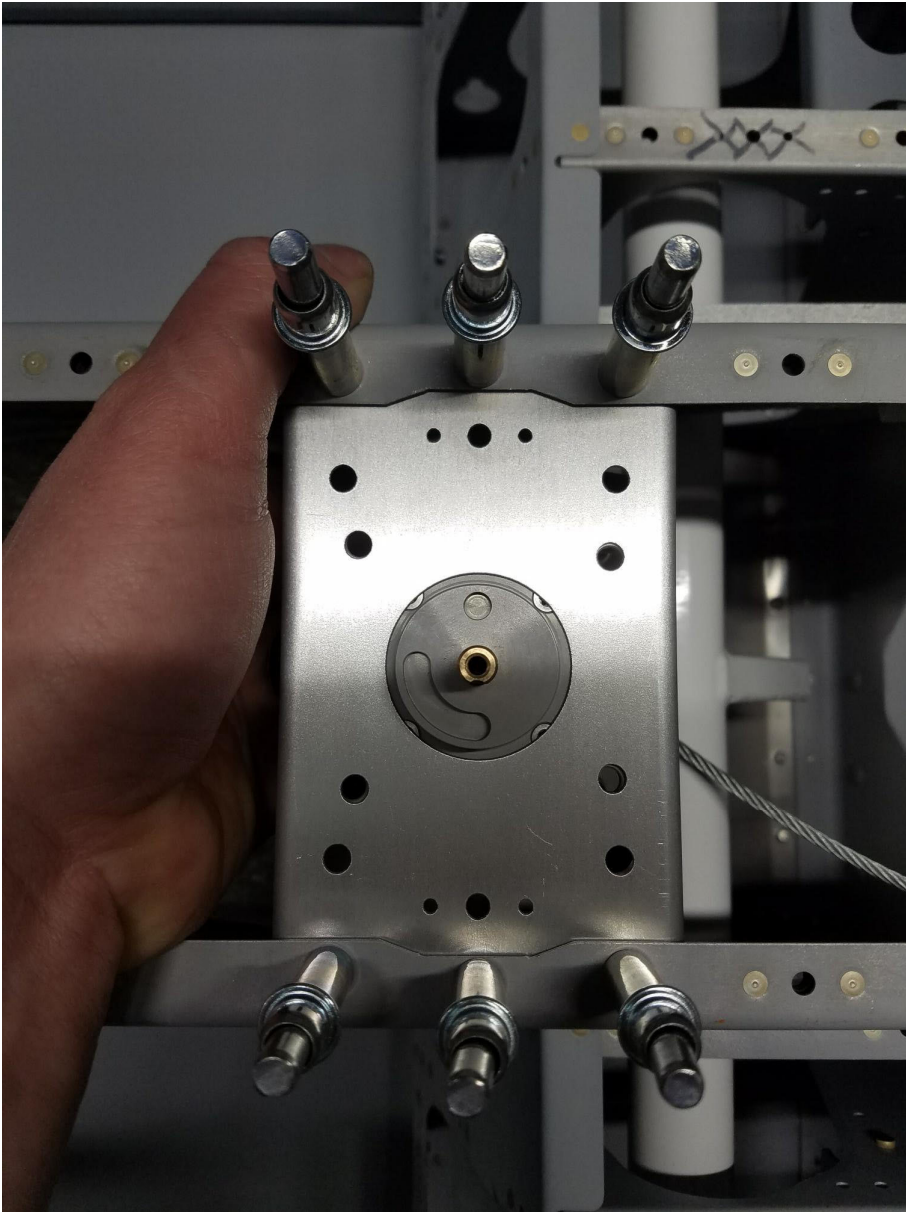
This kit includes ALL PLUMBING from the firewall AFT to the WINGS. The kit includes all hardware, tubes, hoses, CNC machined mounts, etc. to complete the installation. Here are the only items that you will need to purchase outside of this kit.

1. SDS PACKAGE (Order it with a second filter so that you have two) If you already have your SDS system and want to order the second filter, it is a Holley filter with part # 162-562 40 micron. This kit will work with our SDS FWF kit for the RV14 with the Baffle mount injector setup. You will want to delete the Baffle to injector hoses from SDS if you are able to when ordering the kit as new ones will be provided with our FWF package for a perfect fit.
2. EFII PACKAGE- Order two Holley Part # 162-562 40 Micron filters as they will serve as your Wing root pre filters. Post filter will be Firewall forward and provided by EFII. Also, please delete the between injector hoses from your EFII order as we will be providing new conductive Teflon ones with our FWF hose kit.
3. Andair Duplex valve- You will need an ANDAIR FS2020 valve with 4 EF20 Elbows facing aft and 2 MF20 Fittings facing forward.

We do not have a step by step installation manual for this kit. In lieu of that, we have detailed pictures of all the components and how they mount. A picture tells 1,000 words.



**TO THE LEFT IS AN IMAGE
OF THE COMPLETE KIT**



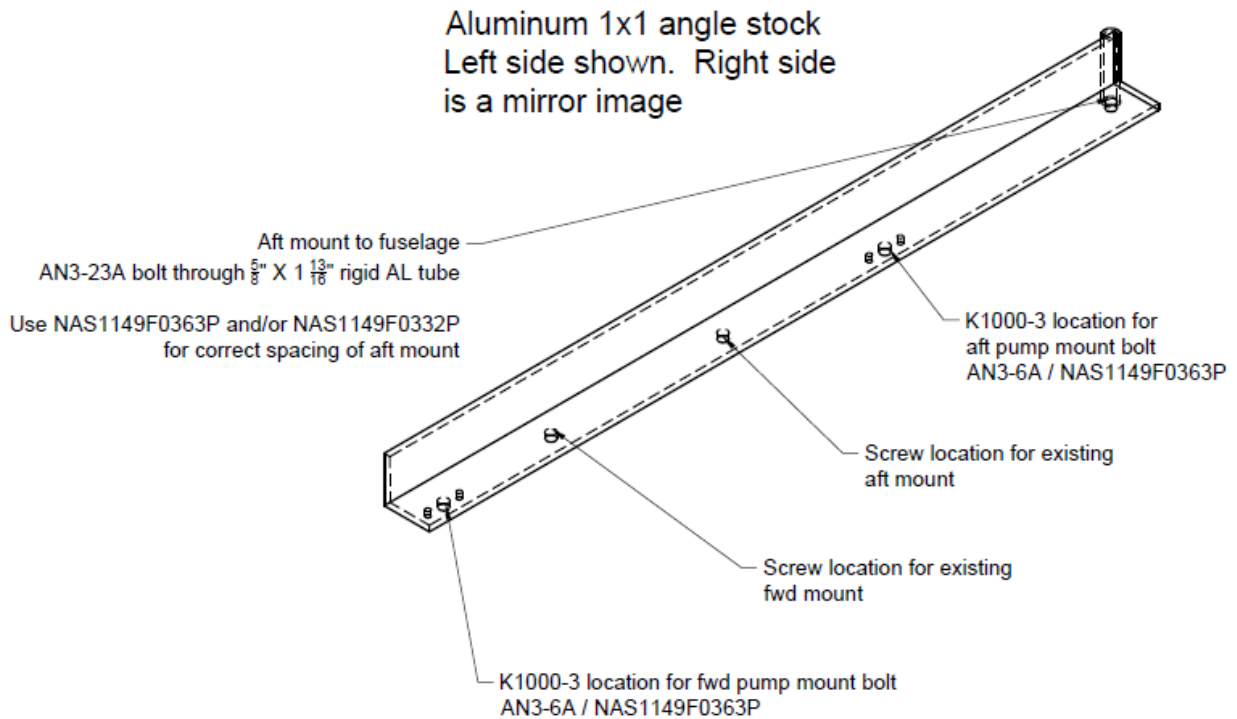
To the left is the new fuel valve mounting bracket.

You will need to shorten one or both flanges for clearance on the valve. Though the valve mount is symmetric, the valve cover plate with the “Left” “Right” and “Off” Markings does not have symmetric mounting holes, so please put the valve cover on and ensure that you are mounting the plate in the correct orientation.

Below are the Duplex Tubes installed in the aircraft. You will receive all new clips to attach the tubes to the spar. The outboard most clips are labeled as they are slightly different to accommodate the bend required at the outboard end of the return line. This will be easy to see when installing the tubes



Here is a picture of the CNC Machined angles that are included with the kit for mounting your fuel pump setup. These angles were drilled for SDS pump mounts and may need modification for EFII. Mount all hoses first to ensure everything is in correct location before drilling new holes in angles. **VERY IMPORTANT NOTE: You will want to trim the aft vertical edge at an angle and taper it so that you run no risk of interference with your controls at their extreme positions.** See next page.

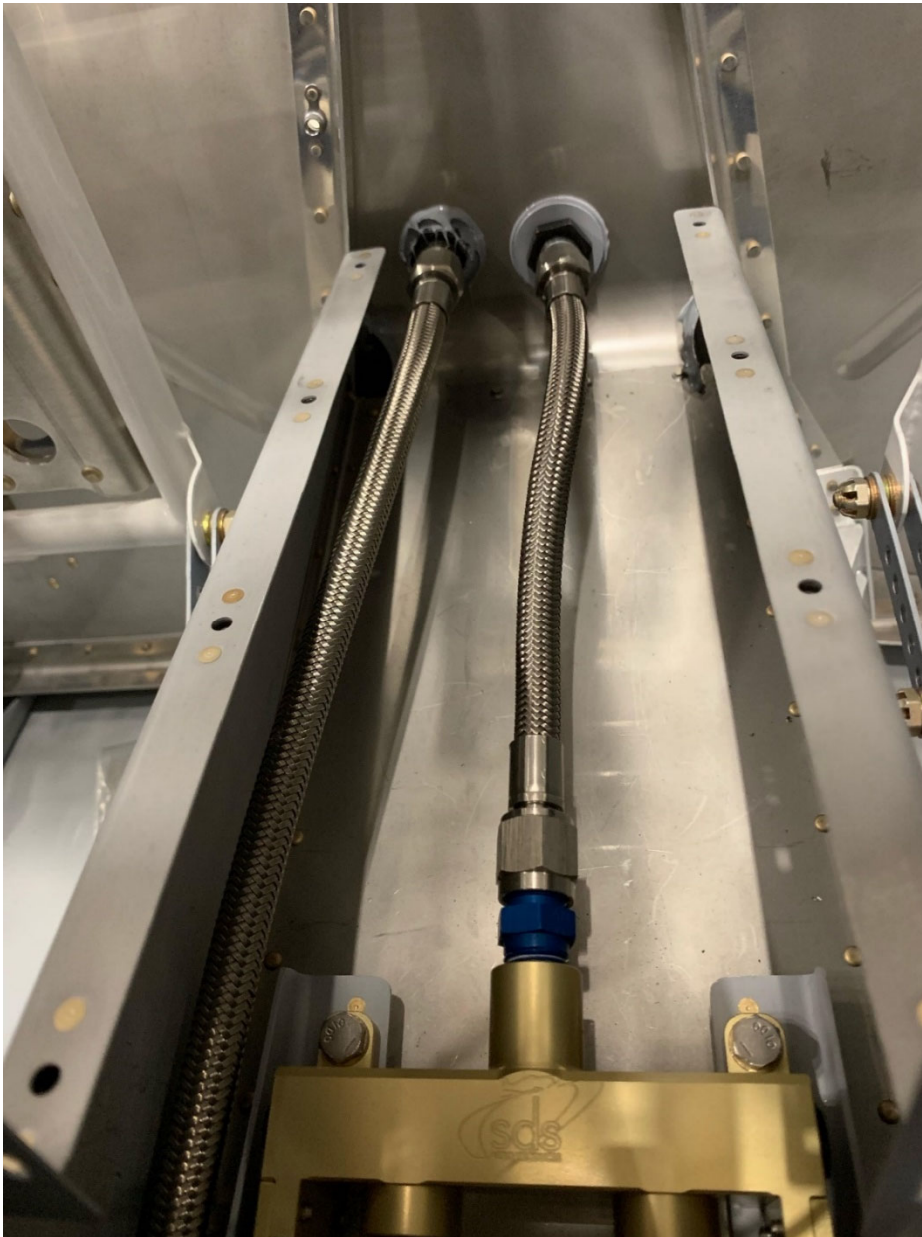


Below is a picture of the trimmed angles.



CENTER TUNNEL FLEX HOSES “ASF 140RT-7 RX H2” – New firewall passthrough hole needs to be 1.75” center to center from existing pre punched hole. See our FWF install guide for clocking on the firewall penetration fittings for your

SDS/EFII Setup. (EFII hose lengths are a slightly different length due to a slightly different location on the pump assembly.



A few other notes... The longer hose (return) is recommended to utilize an adel clamp or other method to secure. Secure so that there is no tension on this hose (slight bow) as this is necessary to ensure that there are no adverse effects due to firewall vibration. **Also, the short hose should fit as shown with a slight bow to allow for vibration. There has been a change to the SDS PUMP that affects the length this hose**

needs to be. If this short hose appears too short or too long, please contact us with a picture so we can adjust.

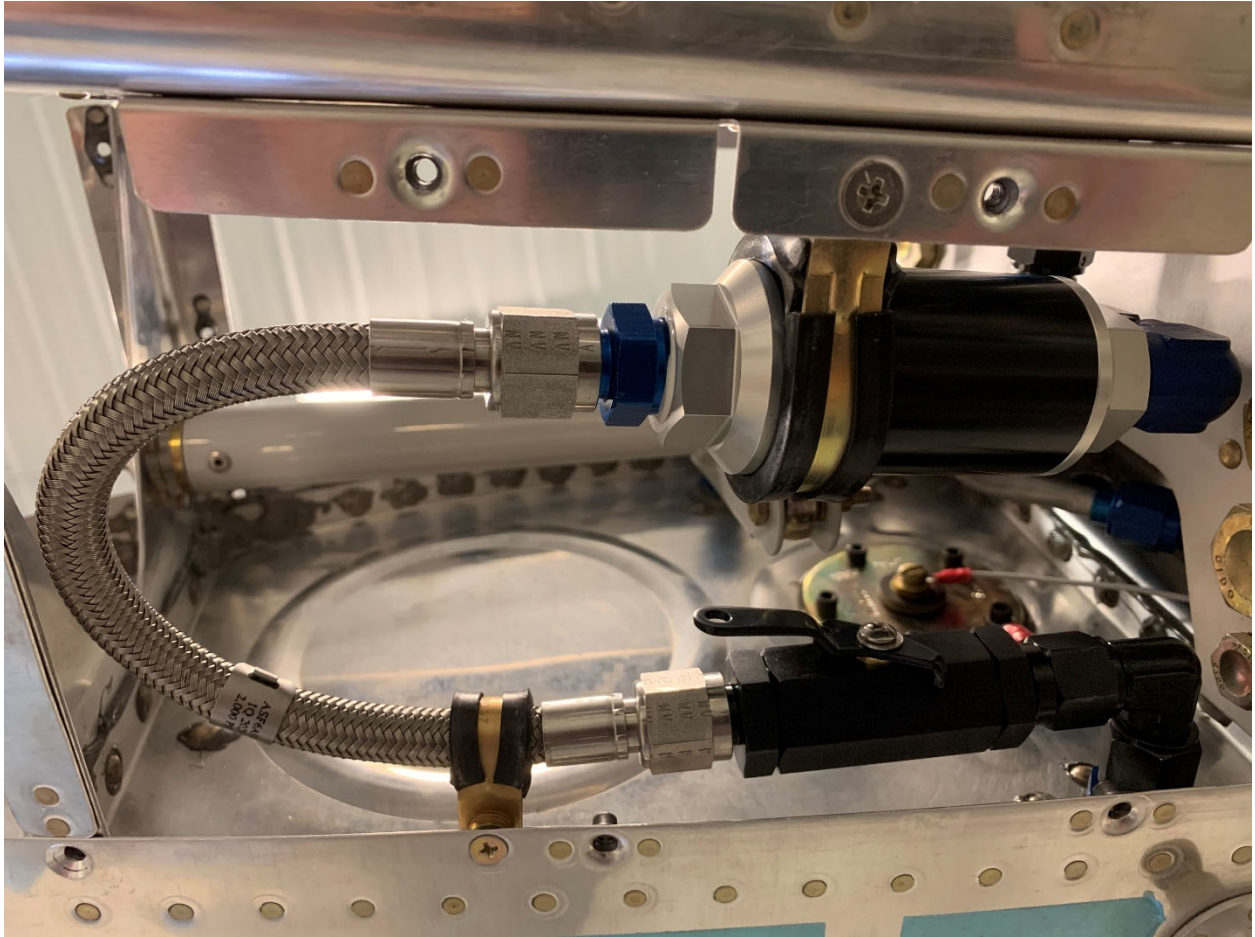
CENTER TUNNEL FLEX HOSES “ASF 140RT-7 RX H1” -
Please note the clocking of the blue fitting. This is important to ensure that the hose lays nicely in the tunnel. Also, please ensure hose does not interfere at all with the rudder cables. (EFII setup looks slightly different)



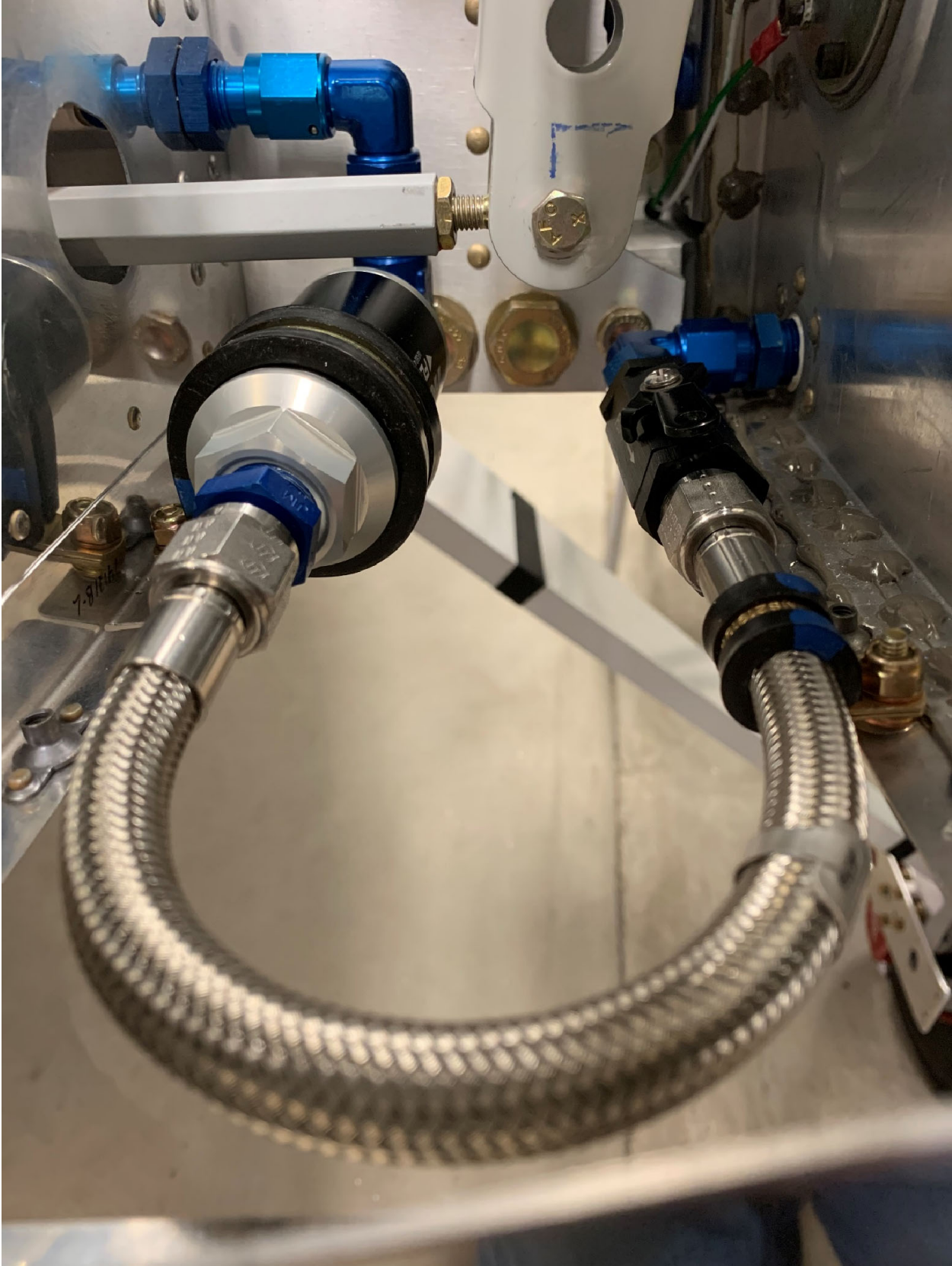
CENTER TUNNEL FLEX HOSES “ASF 140RT-7 RX H3” – Long
hose to Firewall -This is the fuel RETURN LINE. It should go into the fuel return port on the Andair Valve.

WING ROOT INSTALLATION

“ASF 140RT-7 RX H4” H5 is the same as H4. Wing roots are mirror images

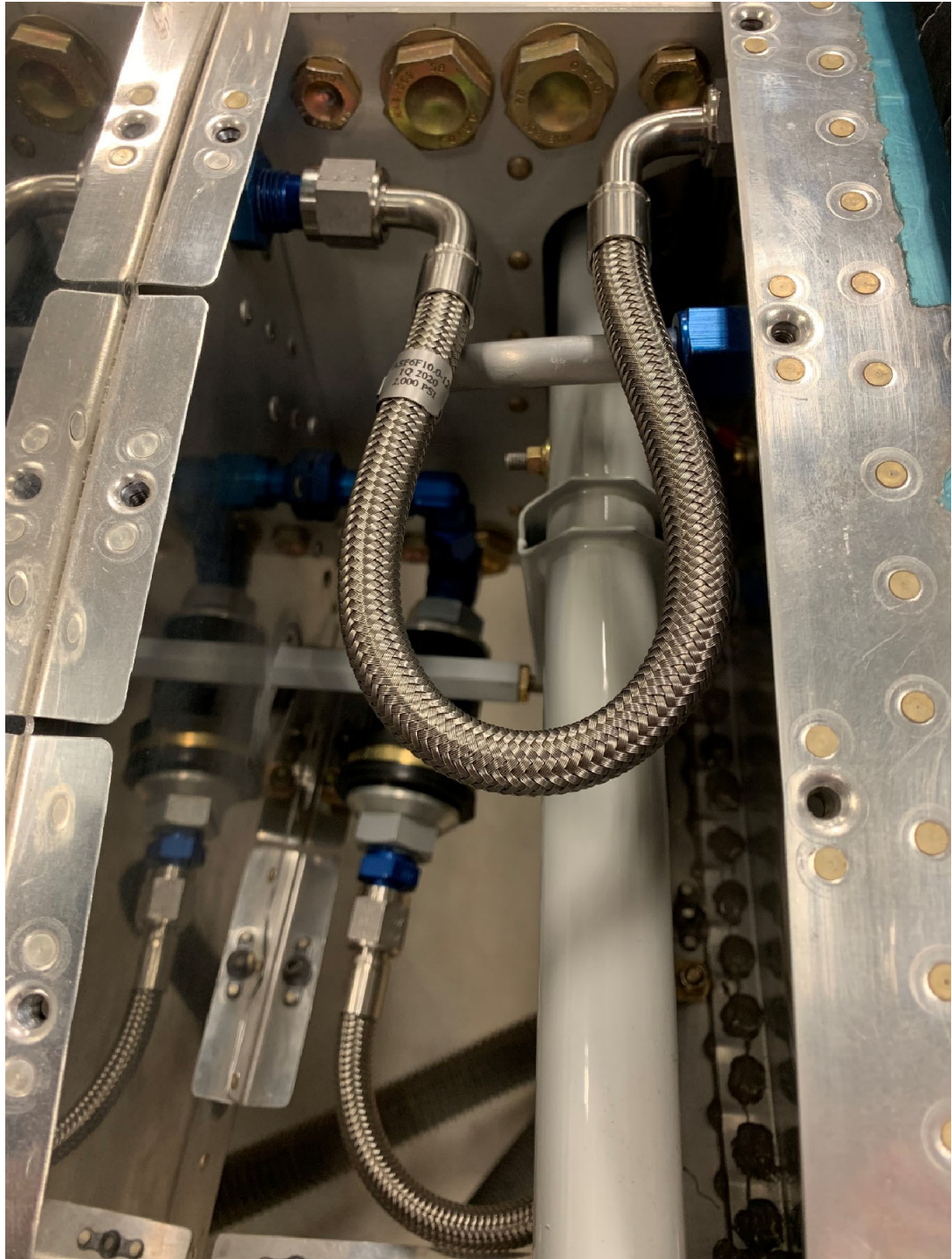


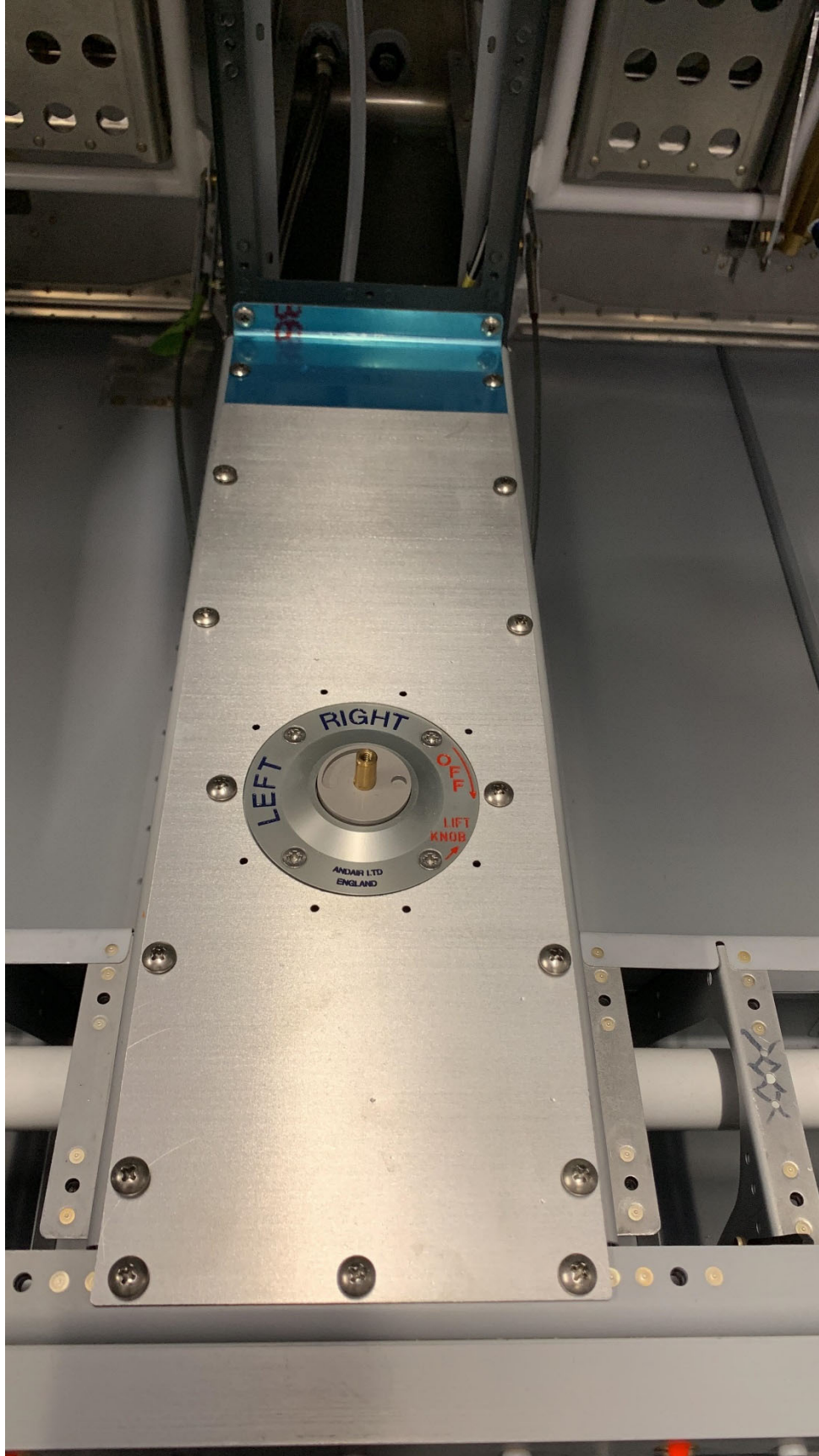




WING ROOT INSTALLATION

“ASF 140RT-7 RX H6” H7 is the same as H6. Wing roots are mirror images





Please note in this image that you will receive two doublers. One is the ring doubler (Not seen) for the valve itself and one is a tunnel doubler plate. You will cut the Vans original tunnel cover short and utilize ours over the top of it. Cut the Vans cover so it remains as long as possible but doesn't interfere with the valve.

If utilizing the Aero Classic interior Carpet kit, you will want the optional Trim Ring. (Shown above is final version without the tunnel cover installed.) Shown below is the 3d printed prototype over the tunnel cover.

