

Thank you for purchasing your S-21 Cabin Fuel Hose Kit set up for SDS Fuel Injection. This kit is brought to you and supported by Aircraft Specialty Flightlines.

The hoses in this kit are all conductive Teflon with stainless steel fittings. Each hose undergoes a hydrostatic pressure test and comes with a 10 year warranty.

Please note that this kit is designed to mate with the SDS Automotive fuel injection system. You will want to contact RANS to delete the fuel pump that currently comes with the S21 kit as that will be replaced with an SDS dual pump assembly.

When you place your order from SDS, you will receive a pre filter and a post filter. It is VERY IMPORTANT at the time of order to let SDS know that you would like the smaller filter for both the pre and the post pump filtration as there is not room in the S21 cabin for the larger post filter.

This kit will consist of the following items:

- 1. 5 hoses
- 2. 2 blue anodized fittings that are NPT to -6 Female AN
- 3. A shutoff valve
- 4. 3 AN blue anodized fittings that are NPT to -6 Male AN
- 5. AN Bulkhead Fitting and AN Bulkhead Nut (Stainless Steel) We provide the firewall return line fitting in stainless Steel. If you want to upgrade your standard firewall penetration fitting to stainless, you can order this kit with an optional extra set of fittings.

## PLEASE NOTE: The ASF part number "ASF 21-903 R(X) H1" needs to be looked at to determine which hoses go in which locations.

1. "ASF 21-903 R(X) H1" – This hose is about 4" long and has a Straight fitting on each end. It goes from the Header Tank to the shutoff valve. You will want to support the shutoff valve. As shown in the picture on the following page, one method of securing is with an adel clamp mounted to a bracket. Make sure to safety wire the shutoff valve open, as this will only be utilized during conditional inspections to shut off fuel and service the filter.



Important note: You will utilize the 3/8NPT to -6 Female fitting into the IN-PUT side of the Hollev filter. Make sure to utilize thread sealant when installing the NPT fitting as you do with all NPT fittings. Be careful not to get thread sealant into the fuel system. On the output side of the Fuel Filter, utilize one of the NPT to AN-6 Male fittings. Install the <sup>1</sup>/<sub>4</sub>" NPT Male to Female -6 fitting into the input side of the SDS fuel pump assembly as shown in the picture. When this is all complete, everything will look like the picture above. You will need to fabricate a mounting plate assembly for the fuel pump assembly, but these hoses will set the location of the pump assembly.

2. – "ASF 21-903 R(X) H4" – This hose goes from the Fuel pump to the RANS shutoff valve. Please note that the AN fittings for the fuel pump assembly and the shutoff valve should be the ones that were already included with your kit.



3. – "ASF 21-903 R(X) H3" – This hose goes from your shutoff valve to your secondary "post filter." It is designed to protect the injectors from any debris in the pump assemblies. This is the filter that you asked SDS to provide in the smaller size configuration. Utilize the remaining two NPT to -6 Male AN fittings and install them in the filter.



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4. - "ASF 21-903 R(X) H2" – This hose goes from your forward filter to your firewall and is the shortest hose in the kit. (Note that the upper hose in the picture below is where "H5" attached to the firewall. The upper bulkhead fitting and nut is included in this kit. It should be installed 1.875" from center of hole to center of hole higher than the pre punched RANS supply fitting hole.



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5. - "ASF 21-903 R(X) H5" – This is the fuel return hose that goes from the firewall to the upper return fitting on the tank. (Please note that we do not currently include the upper return fitting or AN fitting for the tank return line)

