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## Fuel System to Envelope Interface

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# **Fuel System to Envelope Interface**

## **Effective Summary**

James Campbell

### **Problem Statement**

In this project I will look at methods of mounting rigid parts to a large fabric surface. The mounts must be able to withstand extreme temperatures, have high chemical resistance, have high UV resistance, and be lightweight

### **Proposed Solution**

Using painted composite materials, I developed semi-flexible clamps to fasten the parts to the fabric. The fabric is strengthened with additional fabric grommets to help with shear loading. The clamps are painted to adhere to resistance requirements.

### **Delivered**

I have produced professional drawings, files for manufacturing, CAD models, and some theoretical calculations for verification.

### **Next Steps**

Parts are being manufactured now, and have small revisions to specific geometries.

Assembly files are being made for hangar techs to mount to aircraft.

Durability/Corrosion is a item that I would like to monitor once on the aircraft.