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AEROSPACE



Product:

Space Shuttle Helium Barrier Bag

Problem:

Space Shuttle main engine fuel lines required encapsulation with a removable device that could contain gaseous Helium and insure no build up of flammable liquid Hydrogen in the engine compartment.

Solution:

A lightweight, inflatable, zip-on bag was designed that could be wrapped around the rocket engine liquid Hydrogen fuel lines. The bag is pressurized with Helium gas to create a non-flammable atmosphere around the fuel line. The pressurized Helium leaks out of the zip closure and several bleed holes to maintain a continuous non-flammable gas environment around these lines and insures that no explosive environmental conditions develop.

Material:

PTG-5 high performance PTFE coated fiberglass reinforced jacket combined with **FEP-10** Teflon film end seals and a **Z-Track** closure made of FEP Teflon.

Conclusion:

The helium barrier bags have successfully flown on every US Space Shuttle flight since their introduction to the program in the late 1980's.