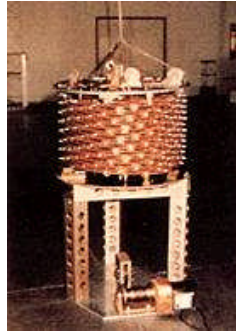


## Pultruded Structures Reach New Heights



Composite rods of epoxy resin and S2 Glass® are used in lightweight, extendible structures for manned spacecraft and satellites. The Astromast® is a linear structure, or boom, which can be deployed from and retracted into an extremely compact storage volume. The typical retracted-to-extended length is 1-to-50. The Astromasts have been designed, manufactured and flown in sizes from 7 to 18.5 inches in diameter at various lengths up to 85 feet.

The S2 glass fiber, epoxy pultrusions yield outstanding flexural strength and modulus with only a  $\pm 3\%$  modulus variation from  $-196^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ . The high interlaminar shear strength and creep resistance of the composite permits long term storage of the collapsed boom with memory to extend under its own stored energy. Masts are used in applications such as solar-array deployers, dynamic explorers, the Nova Spacecraft and the Solar Maximum Mission Satellite.

**Materials:** Epoxy resin and S2 Glass

**Properties:** Flexural strength of 200 KSI, flexural modulus of  $8.3 \times 10^6$  psi

**Size:** .280" to .440" diameter x various lengths

*For additional information write or call:*

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