

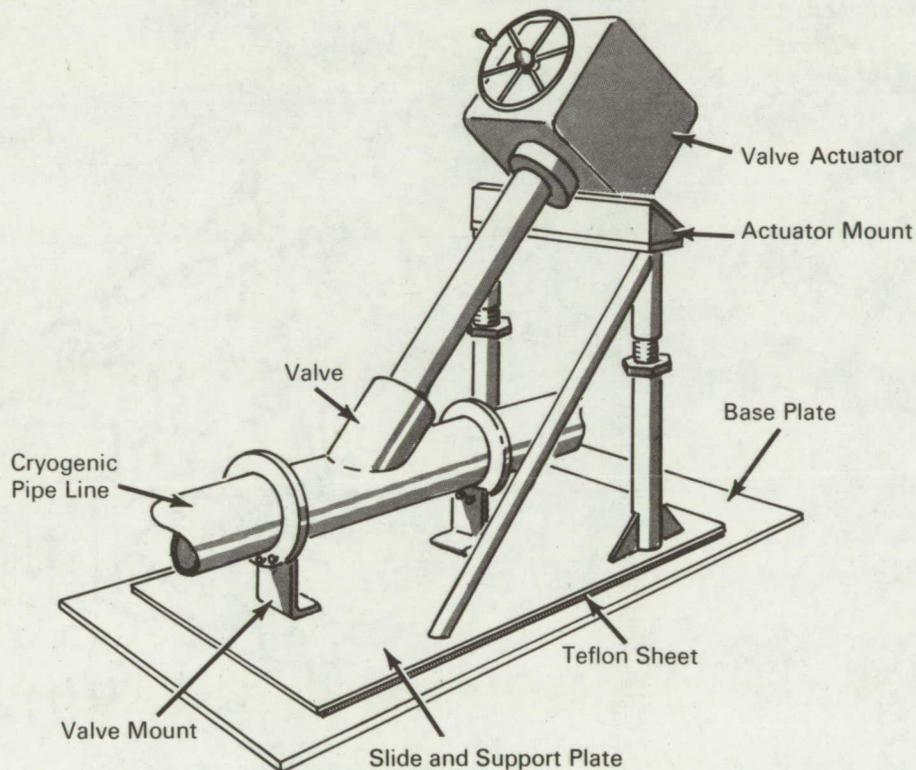


# AEC-NASA TECH BRIEF



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## Teflon Sheet Permits Valve and Valve Actuator to Move as a Single Unit in a Cryogenic Pipe Line



### The problem:

Valves and valve actuators installed in cryogenic pipe lines must be supported so that they move as a unit to allow for expansion and contraction of the pipe line. The valve actuators are generally large compared to the valves themselves, and require additional support with respect to the valves. Conventional methods of supporting pipe, valves and valve actuators utilize commercially available rollers and pipe

hangers. These supporting systems can be expensive and sometimes are not expedient in field modifications of existing piping systems.

### The solution:

A support system that is free floating with the pipe line but maintains the valve and valve actuator in alignment to avoid binding.

(continued overleaf)

**How it's done:**

The support system shown consists of the valve and valve actuator rigidly mounted on the slide support plate. A 1/16 inch thick Teflon sheet is placed between the slide support plate and the base plate. The Teflon sheet permits the valve and valve actuator, which are rigidly mounted on the slide support plate, to move freely, as a unit, when the pipe line moves.

**Notes:**

1. In a desert environment relative motion of the plates did not result in dislocation of the Teflon sheet which was not physically attached to either plate. Other situations might require adhesive or mechanical attachment of the Teflon to one plate. Since ice will not bond to Teflon, severe cold does not appear to create a use limitation for this method.

2. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer  
AEC-NASA Space Nuclear Propulsion  
Office  
U.S. Atomic Energy Commission  
Washington, D.C. 20545  
Reference: B66-10702

**Patent status:**

No patent action is contemplated by AEC or NASA.

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