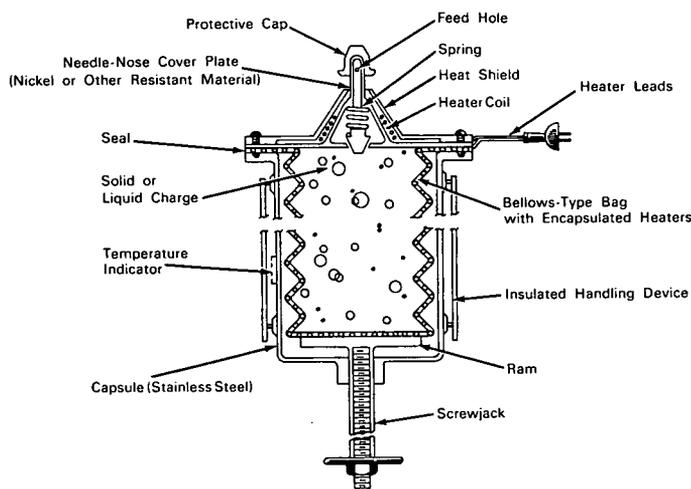


NASA TECH BRIEF



This NASA Tech Brief is issued by the Technology Utilization Division to acquaint industry with the technical content of an innovation derived from the space program.

Filler Device for Handling Hot Corrosive Materials



The problem: The safe handling and injection into modules of hot caustic, acid, or other corrosive liquids.

The solution: A combination storage and injection device incorporating its own heating element.

How it's done: The electrolyte or other corrosive material is poured into a bellows-type bag equipped with encapsulated heaters. The bag is made of a suitable corrosionproof material, such as Teflon. The filled bag is placed in the capsule and the cover plate with safety cap and heat shield is attached. The unit is connected to a 115-volt ac source and the contents brought up to the desired heat range. To fill or charge a module with the corrosive material, the protective cap is removed and the feed hole is inserted into the module. The screwjack is turned down forcing the ram against the bellows-type bag and compressing it. This unseats the check valve and injects the hot corrosive material into the module.

Note:

1. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
 Manned Spacecraft Center
 P. O. Box 1537
 Houston, Texas, 77001
 Reference: B64-10166

Patent status: NASA encourages commercial use of this innovation. No patent action is contemplated.

Source: Pratt & Whitney Aircraft Division
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