

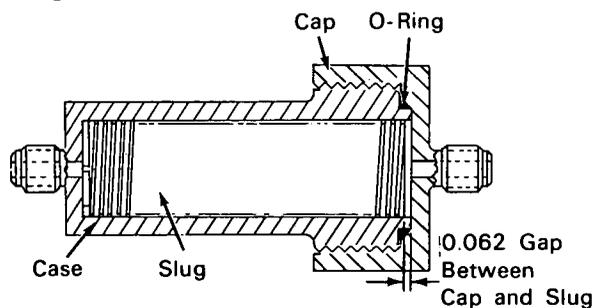
NASA TECH BRIEF



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Compact Fluid-Flow Restrictor

A new, compact fluid-flow restrictor has a degree of restriction that can be easily and accurately controlled during manufacture.



Longitudinal Section

Conventional restrictors are made from tubing, the bore of which may vary by as much as 15%. This variation causes considerable waste because the only lengths that can be used are those having the required bore.

The new restrictor's flow channel is an accurately machined square thread around a solid slug which is shrink-fitted to a cylindrical case. One end of the case is closed, and the open end is capped (see fig.). The

thread becomes a spiral passage within the case, and the interference between the case and the slug is 0.007 in. or less. The ends of the case are drilled and tapped for tube fittings to allow fluid flow.

Because of the relatively great length of the spiral passage, its cross-sectional area can be made larger to reduce the likelihood of clogging. Shrink-fitting the slug inside the case may be facilitated by tapering both components.

Note:

No additional documentation is available. Specific questions, however, may be directed to:

Technology Utilization Officer
Manned Spacecraft Center, Code BM7
Houston, Texas 77058
Reference: B70-10679

Patent status:

No patent action is contemplated by NASA.

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