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NASA TECH BRIEF

Marshall Space Flight Center



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Design Standards for Low-Profile Flanges

The problem:

It was necessary to establish design procedures for a lighter and more leak-resistant flange.

The solution:

A design procedure was devised by considering the strength of the flange ring cross section as the design criteria.

How it's done:

The analysis of a low-profile flange is based on the thin shell theory and the simple ring theory. The program will produce a comprehensive design procedure with a subsequent stress and deformation analysis. The output analysis will display which designs are sound and which design parameters need to be changed.

Notes:

1. This program was written in FORTRAN IV for the UNIVAC 1108 computer.
2. Inquiries concerning this program should be directed to:

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