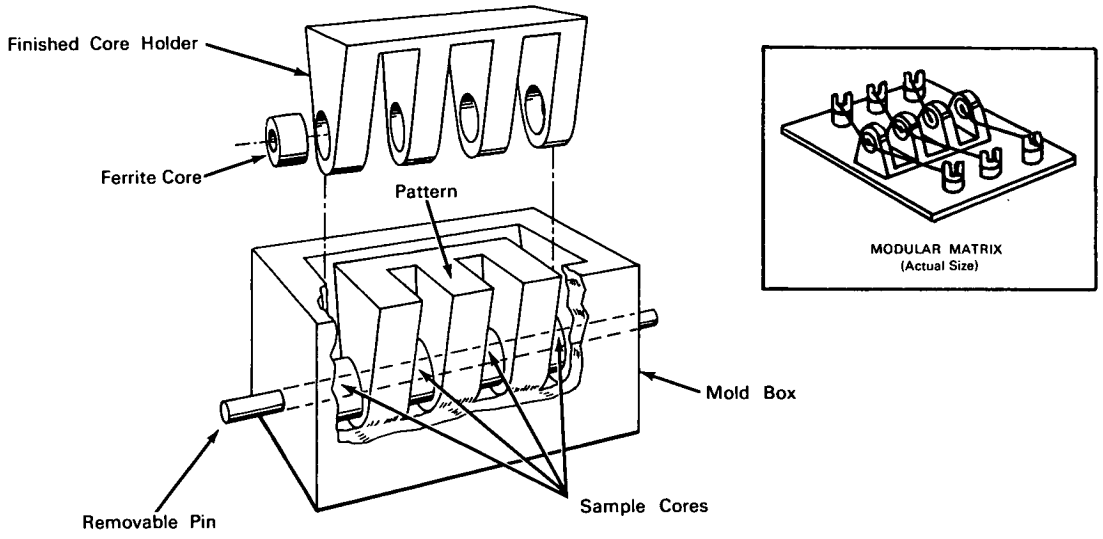
NASA TECH BRIEF

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.

Molded Elastomer Provides Compact Ferrite-Core Holder, Simplifies Assembly



The problem: Devising a holder for simplified modular packaging of ferrite cores used in computer matrices.

The solution: A ferrite-core holder fabricated by casting an elastomer in a simple mold.

How it's done: The pattern for the finished holder is milled from a block in which a hole having a diameter equal to that of the hole in a ferrite core has been drilled. The pattern is then placed in a mold box and sample ferrite cores are positioned as shown in the illustration, with a removable pin extending through the holes in the sample cores, the pattern, and the two ends of the mold box. A liquid elastomeric prepolymer is mixed with a small quantity of a suitable catalyst and the mixture is poured into the mold box to fill all voids around the pattern and sample cores. After the mixture has cured to a resilient elastomer, the pin is pulled out and the finished holder is lifted from the mold. The sample cores are then removed from the holder and replaced with the ferrite cores. In the final step, the core leads are multiply threaded and soldered to terminals to form a modular matrix unit, as illustrated in actual size.

Notes:

1. This device permits threading of individual wires through a large number of cores without requiring intermediate terminals. The elimination of unnecessary terminals provides for more compact packaging and simplified assembly of the matrices.

(continued overleaf)

2. For further information about this innovation inquiries may be directed to:

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Reference: B64-10084

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

Source: Richard R. Hayden
(JPL-584)