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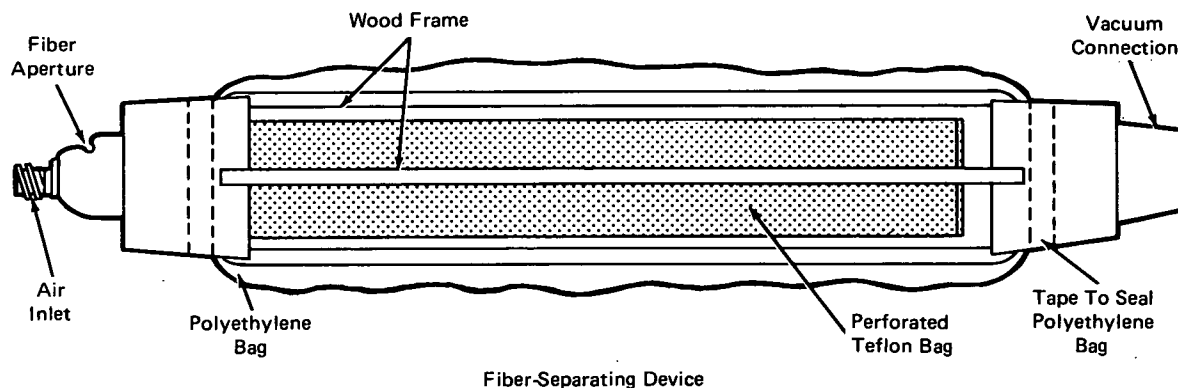
NASA TECH BRIEF

Langley Research Center



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Procedure for Dispersing Fiber Bundles



Fiber-Separating Device

A new and unique procedure has been devised for separating fiber bundles into uniform fibers, through the use of positive air and vacuum pressures. In this procedure, the fiber bundles are dispersed and the fibers are cleaned within an enclosed container; therefore, safety clothing, masks, and eye protection are not required.

The equipment used in this fiber-separating procedure is shown in the illustration. A wood frame supports a pressurized air inlet at one end and a vacuum connection at the other; a perforated Teflon bag to catch the fibers is attached to the air inlet, and a polyethylene bag covering the entire device provides a vacuum seal.

The fiber bundles are inserted in the fiber aperture, where an airstream separates them into single fibers and blows them into the perforated plastic bag. In the bag, the pull of the vacuum system removes the particulate matter and the subsized fibers through the perforations, thus eliminating a separate cleaning operation.

This procedure also could be used wherever materials, such as fiberglass or insulation, require dispersion, fluffing, or cleaning. The process could be automated into a continuous operation for handling large quantities of fiber.

Note:

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

Technology Utilization Officer
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Patent status:

Inquiries concerning rights for the commercial use of this invention should be addressed to:

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