

NASA TECH BRIEF

Lewis Research Center



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Low Cost Anti-Galling Bushings

Shaft bushings fabricated from heat shrinkable Teflon tubing provide close fitting Teflon sleeves which are easily applied to shaft bearing surfaces without precision machining of either the shafts or bushings. Commercially available expanded Teflon tubing of appropriate size is simply cut to length, slipped onto the shaft, heated to shrink it tightly to the shaft, and when necessary, machined only to size the final outside diameter.

The heat shrinkable tubing can be used either to add protective sleeves between metal parts or as easily installed, inexpensive replacements for conventional machined plastic bushings. Installed on rotating or sliding shafts, the tubing prevents metal-to-metal contact which causes wear, galling, contamination, and even failure. It has been used successfully in valves, in lieu of machined plastic bushings, to eliminate failure caused by galling and contamination.

Note:

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

Technology Utilization Officer
Lewis Research Center
21000 Brookpark Road
Cleveland, Ohio 44135
Reference: B72-10359

Patent status:

NASA has decided not to apply for a patent.

Source: E. O. Spencer of
North American Rockwell Corp.
under contract to
Lewis Research Center
(LEW-11724)