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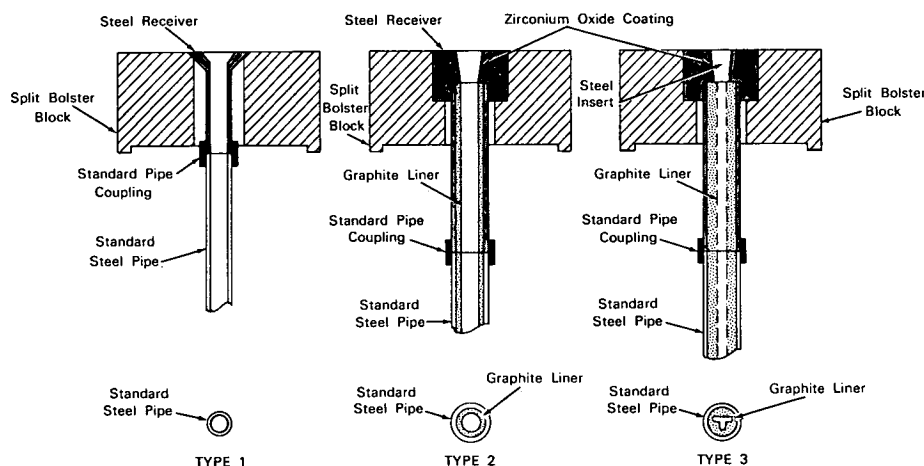
Brief 64-10014

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.

Guide for Extrusion Dies Eliminates Straightening Operation



The problem: Preventing bending and distortion of metal rods and other shapes extruded from dies. Lubrication breakdown and nonuniform flow of the metal being extruded through a die may result in misshapen extrusions, which require subsequent straightening. The straightening operation entails additional time and expense and does not generally produce satisfactory results on extrusions of refractory metals.

The solution: A guide assembly that is aligned with the die to prevent distortion of the extrusion.

How it's done: The guide assembly consists of a receiver, a straightening tube, and a modified split bolster block. In operation, the assembly is aligned with the die so that an extrusion coming out of the die will pass directly into the receiver and straightening tube. When the metal is completely extruded from the die, the bolster block is separated, allowing the receiver and straightening tube to drop into a canister.

beneath the extrusion press. The unit is removed and the completed extrusion is withdrawn. Three types of guide assemblies are shown in the illustration.

Note:

Inquiries concerning this invention may be directed to:

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Patent status: NASA encourages the immediate commercial use of this invention. Inquiries about obtaining rights for its commercial use may be made to NASA Headquarters, Washington, D.C., 20546.

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(Lewis-152)

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