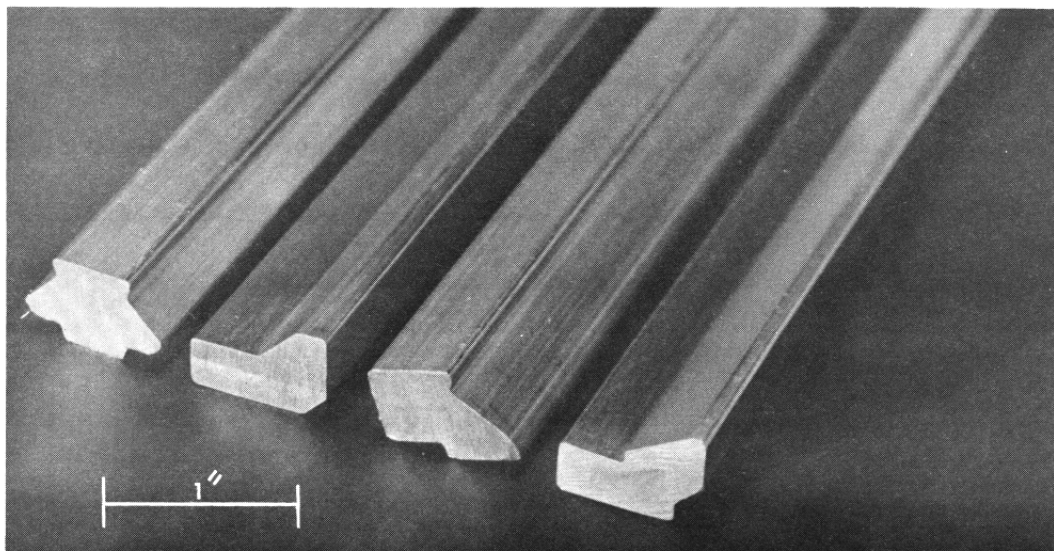


Application Report

BRUSHWELLMAN
ENGINEERED MATERIALS

AR 35-01-18

Industry: Computer Peripheral Equipment
Product: Extruded Beryllium Copper Shapes



Extruded guide rails used for locating the magnetic head on computer peripheral disc drives and tape drives utilize several properties of beryllium copper alloys. These parts demonstrate Brush Wellman's capability for extruding and drawing beryllium copper to specific cross sections.

Material Requirements

- Nonmagnetic
- Good Sliding Wear Characteristics
- High Hardness
- Can Be Extruded And Cold Drawn To Near Net Shape
- Machinable

In this application, the material must have good bearing properties to enable the moving component to slide easily on the rails. Good wear characteristics are also needed to achieve the desired service life. Hardness of these parts is approximately 42 Rockwell C, comparable to many steels.

After these parts are extruded, they are age hardened to impart the required strength and hardness.

Cold working does not affect its non-magnetic properties and heat treating assures dimensional stability. Good machinability is needed for drilling and tapping the holes used for attaching the rails to the equipment.

Brush Wellman extrudes these parts to near net shape on its 3500 ton extrusion press. The beryllium copper most frequently specified by computer peripheral manufacturers is Alloy 25 AT.

For additional information, contact:

Marketing Department
Alloy Division
Brush Wellman Inc.
17876 St. Clair Avenue
Cleveland, Ohio 44110
(216) 486-4200