



**HOT, COLD, WET OR DRY, GRAPHALLOY®  
BEARINGS WORK WHEN OTHERS FAIL.**



## GRAPHALLOY® Turns Lead-Free Into Problem Free

### GRAPHALLOY® to the rescue

In an effort to address environmental concerns, a manufacturer of fluorescent lighting tubes initiated a program to remove lead from the glass. When this move to lead-free glass caused manufacturing problems, GRAPHALLOY® came to the rescue.

Lead was beneficial to the production process. The move to lead-free glass caused a problem with the bushings in the machine that flared the end of the tube and prepared it to attach and seal the end plugs.

The lead in the glass had provided additional lubrication and kept the units from “gumming up” and sticking. With lead-free glass, the maintenance crew went from rebuilding the units once a year to once every three months.

The plant engineer contacted GRAPHALLOY engineers who then designed copper-grade self-lubricating GRAPHALLOY bushings to test in the machine. The GRAPHALLOY bushings were installed and the machine ran for three months with no problems. At that time, the plant placed a production order for an additional 200 pieces.

The machine fitted with GRAPHALLOY bushings has been operating for over one year without failure... four times the life of the original bushings. The success of these GRAPHALLOY high temperature bushings provided this plant with better performance and significant cost savings. It demonstrates the potential for GRAPHALLOY upgrades in other manufacturing applications.

