



Able Electropolishing Co.
2001 S Kilbourn Ave
Chicago IL 60623
Phone: 773-277-1600

#1041 Brite Microfinishing

Industry: Medical/Dental - Manufacturers of medical implant devices.

Mfg/Method: Machining

Alloy: 6061 Aluminum

Problem: Actual size of the part is 3/32" diameter, and 1/4" long. After machining, this part is used as a mold for a cochlear implant.

Nickel and Gold are plated over the part and the underlying part is dissolved leaving only the plating. The plating must be completely smooth to ensure the success of the component. The customer could not get the surface any smoother by machining.

Solution: Electropolishing smoothed out the part in the critical areas too difficult to re-machine.

Note to engineer: *This is a most unusual end application. However, the need to smooth machined surfaces is not. We electropolish a host of products used in molding applications where an end product adhesion problem is traced to a metal surface source. While varying alloys, machine tool feed and speed rates all affect the end surface, the physical process of cutting metal with a tool leaves a surface with peaks and valleys. High magnification (75-250X) study of this or similar surfaces before and after electropolishing would reveal the significant change to the surface.*



Before



After