Client – Hearing Aid Manufacturer OEM

A world leader in manufacturing and delivering advanced hearing solutions.

Hearing Aid Battery Contact

OEM had designed a component which served as a battery contact within a hearing aid. Fabrication of the part would be by progressive die stamping. The contact would be made from beryllium copper over which would be plated nickel and gold. The contact was small and contained a variety of fragile features. Initial experience revealed that tradition barrel plating techniques were causing shape damage to the part. The OEM authorized a change to the stamping die in order to produce the part on a strip, however, the volume demand and lack of local plating resources indicated that reel-to-reel plating would not be optimal. It was decided to rack plate 12” strips containing 36 parts per strip.

The Challenge

Traditional “hook-type” plating racks would hold no more than 20-30 strips, which would not provide sufficient productivity to meet volume and price constraints. Also, gold thickness tolerances were tighter than could be obtained by traditional rack methods. In addition, parts were prone to become detached from the carrier strip quite easily.

Engineered Solution

ProPlate® designed a unique rack system which holds 200 strips per load. Load sizes increased 10x to 7200 pieces from 720. Additional rack and bath engineering optimized plating thickness distributions to within the narrow customer tolerance band. Custom, re-usable containers were developed for part/strip transportation. These re-useable containers were made of open mesh stainless steel, permitting pre-heat treat degreasing, heat treating, and post-heat treat de-scaling all to occur without removing part/strips, reducing part handling from 6 events to 2 events. Post-plating packaging was developed to further protect individual strips during transport to hearing aid assembly.