Client – Medical Equipment and Supplies OEM and reseller

A worldwide developer, manufacturer and marketer of new and refurbished medical equipment and supplies whose products are used across surgical, emergency and clinical treatment rooms.

Bipolar Medical Forceps

Bipolar Medical Forceps are similar to normal surgical forceps in shape, but the intended purpose is much different. Unlike surgical forceps, which are meant to open and hold tissue, bipolar forceps are meant to coagulate — or make solid or semisolid — tissue by means of an electrical current. This electrical current is fired through the tips of the bipolar forceps requiring a metal finish to complete the thermal-conductivity.

The Challenge

Three organizations were selected to design, manufacture, plate and finish the Bipolar Medical Forceps for the OEM. In order to provide for thermal-conductivity, a heavy layer of silver was required. The existing plater was not able to provide consistent silver plating which drove additional downstream finishing by the fabricator. Additionally, 25% of plated forceps were considered unusable and disposed. This caused production problems for both the finishing partner and OEM.

The Engineered Solution

ProPlate worked closely with the engineers at the fabricator to determine requirements for manufacturing and silver plating requirements for thermal-conductivity. After a complete analysis of the manufacturing process, a recommendation was provided to plate and package forceps for finishing partner. A custom plating process was developed to ensure consistent silver coverage on the tips of the forceps with very little post finishing. Custom tooling was used to mask and plate the forceps consistently and within specification. The fabricator was able to reduce the labor component of handling and finishing poorly plated forceps, eliminate the cost of disposing unusable forceps and meet the contractual demand requirements by both the finishing partner and OEM.