Client – Medical Equipment and Supplies OEM and reseller

A worldwide developer, manufacturer and marketer of medical devices whose products are used in a range of interventional medical specialties, including interventional cardiology, peripheral interventions, neurovascular intervention, electrophysiology, cardiac surgery, vascular surgery, endoscopy, oncology, urology and gynecology.

Insulin Pump Battery Casing

The insulin pump is a medical device used for the administration of insulin in the treatment of diabetes mellitus, also known as continuous subcutaneous insulin infusion therapy. The pump includes controls, processing module, and batteries. The battery casing at the right is designed to be corrosion resistant. In order to provide this, the casing must be plated in nickel, palladium and include a small strip of gold.

The Challenge

Approved plater was not equipped to selectively plate gold onto the battery casing. Options to mask the battery casing post nickel and palladium plating proved to be cost prohibitive. Options were tested to selectively plate gold but palladium staining could not be controlled on the inside or outside of the battery casing.

The Engineered Solution

ProPlate® worked closely with the engineers at the fabricator to determine manufacturing and plating requirements for corrosion resistance. After a complete review of the requirements and challenges faced by the fabricator and downstream finishing partner, a custom plating process was developed meet plating requirements. Custom tooling was designed to selectively plate gold, and an engineered air flow management system was created to prevent gas staining. The ProPlate® engineered solution reduced the overall cost of plating by 40% and provided a production environment to meet quantity demands.