

## #1088 Brite Ultacleaning/ Brite Passivation

**Industry:** Other - Manufacturers of cages and containers for animals

Mfg/Method: Wire forming and welding

Alloy: 304 Stainless Steel



**Problem:** This part is used in a laboratory or consumer animal containment system. The part is an assembled

wire form, and in use, subject to harsh cleaning solutions and therefore very prone to corrosion. The entire assembly was dull from fabrication, with normal weld discoloration where wires were tacked together. The customer was looking to improve corrosion resistance and the appearance of the part with as little add-on cost as possible.

**Solution:** Electropolishing removed the surface metal and eliminated the weld discoloration. Being an electrochemical process, all surfaces were processed simultaneously, allowing for a uniform finish at low relative cost. Most importantly, the assembly was highly corrosion resistant, exceeding customer specifications.

**Note to Engineer:** Complex and expensive assemblies do not lend themselves to bulk finishing methods. Those assemblies often are finished with poor uniformity and/or become warped or distorted by the harsh media or overloading of parts. Hand finishing on parts like these can be very expensive with tedious and expensive hand cleaning of crevices to remove polishing compounds. In cases like these, balancing the efficiency of mass finishing with the quality of hand finishing often yields the best results.