

#1016 - Stainless Steel Electropolishing for Micro Finish Improvement

INDUSTRY:

Aerospace - Manufacturer of piston assemblies for the aircraft industry

MFG/METHOD:

Drawn/Stamping

ALLOY:

347 stainless steel

PROBLEM:

This part is used as a flex coupling, and has seal rings inserted inside. The part is copper-plated to act as a mask prior to Malcomizing/heat treating. After Malcomizing, the "sleeve" is stripped of the copper plating by reverse electrolysis, leaving behind a notably rough surface finish.

SOLUTION:

Able Electropolishing treated the entire part with electropolishing, with the specification to remove a controlled amount of material in order to achieve the required surface finish. After electropolishing, the "sleeve" part has a bright and uniform finish. Able Electropolishing provided special handling, inspection and packaging for the part.

Note to Engineer: Most heat-treating operations produce, at the minimum, heat discoloration that leads to oxidation and contamination. At worst, they produce heavy scale. Electropolishing is often specified as a post-heat-treating operation to remove this surface-level contamination. However, proper handling and pre-heat-treating operations can maximize end finish results. Please contact the technical representatives at Able Electropolishing for more information.

