

#1031 - Salvaging Materials with Stainless Steel Electropolishing

INDUSTRY:

Other - Manufacturer of fasteners

MFG/METHOD:

Machined

ALLOY:

303 stainless steel

PROBLEM:

The client accidentally heat treated 30,000 "stop nuts" made of 303 stainless steel. As a result, the entire batch of parts was highly discolored and heavily oxidized. The client hoped to remove the heat treatment discoloration and oxidation in order to salvage the parts. Removing heat tint is not just a cosmetic improvement—this discolored oxidation can lead to future corrosion.

Before:



After:



SOLUTION:

By electropolishing the stainless steel parts, we were able to clean and brighten them to a brilliant luster. The samples came out passivated and free of heat treatment discoloration, having been stripped of the oxidation that changed their color and would eventually cause corrosion. The client approved the electropolishing treatment, and Able Electropolishing processed 30,000 parts. By electropolishing the stainless steel back to its original shine, we prevented the client from losing several thousand dollars of material to scrap.

Note to Engineer: At Able Electropolishing, we routinely salvage a wide range of parts. As is often the case, by the time we get the call, the project has reached the emergency stage. We can respond to your needs most quickly if you submit a representative sample of the current problem, a sample of an approved part and blueprints depicting critical surfaces or tolerances.

If your scrap room is hiding oversized or contaminated parts, or you need assistance removing heat tint or oxidation, contact Able Electropolishing to learn how we can help.