

#1033 - Ultracleaning/Light Electropolishing for Flat Stainless Steel Parts

INDUSTRY:

Electronic/Communication - Manufacturer of measuring equipment in ultra vacuum environments

MFG/METHOD:

Stamping

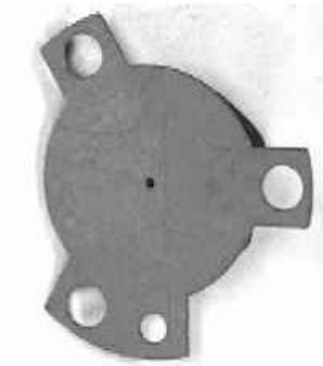
ALLOY:

301/302 stainless steel

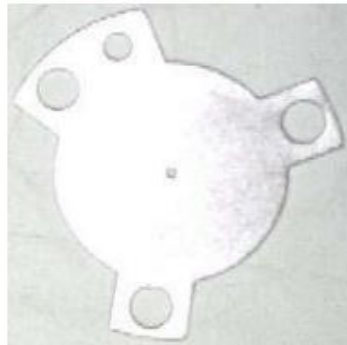
PROBLEM:

The client needs this part to be clean and free from contaminants, but still have a bright finish.

Before:



After:



SOLUTION:

We used stainless steel electropolishing techniques to both clean and polish this part. Unlike mechanical steel polishing methods, electropolishing allows us a precise measure of control. This electrochemical polishing process removes a uniform layer of surface metal from a part, effectively stripping away imperfections and contaminants while leaving behind a uniquely pure and reflective shine.

In the case of this particular part, we were able to electropolish to remove a minimum of surface material (.0002-.0004"), creating a clean, bright and passive surface.

Note to Engineer: Flat parts like these often pose special finishing problems. For example, lubricants and water can encourage parts to stick together, leaving some parts with only one clean side. Depending on the thickness and density of the part, flat parts like these are also subject to warping when treated with mechanical steel polishing methods like tumbling or shot/vapor blasting. On most components, Able Electropolishing racks parts individually, ensuring that all surfaces receive a uniform clean while avoiding damage.

If you are having problems finishing a flat component, please send a sample to Able Electropolishing for a free evaluation.