



Able Electropolishing Co.  
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**#1058 Brite Microfinishing/Brite  
Ultracleaning/Pre-Plate Finishing**

**Industry:** Other - Manufacturers of bicycles and bicycle components

**Mfg/Method:** Forging

**Alloy:** 6061 Aluminum

**Problem:** This part is used as a visible component in a high quality bicycle. The customer was spending extensive time and money hand polishing and cleaning the rough forging before color anodizing. Their objective was to reduce manufacturing cost while improving product quality.

**Solution:** Electropolishing dissolved surface metal from the entire forging surface. The part was transformed from a dull gray to a bright, almost chrome like finish. The smoothing action of the process also significantly reduced hand polishing time to mere touch ups.

*Before*



*After*

**Note to engineer:** *Hand polishing requires expensive skilled labor. When applied to complex surfaces, significant time is expended to blend surface areas. Since electropolishing is an electrochemical process, complex geometric shapes are processed uniformly and at a much lower cost. In this case and others, hand operations are still required in some areas, but the total labor cost per part is often reduced by 75% or more. We can experiment with you on various combinations of hand polishing and electropolishing to optimize finish and cost.*