



Able Electropolishing Co.  
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**#1007 - Micro-Inch Finish Improvement and Micro  
Deburring**

**Industry:** Other - Manufacturers of fluid control devices

**Mfg/Method:** Machined - Needle for a shut-off valve

**Alloy:** 416 Stainless Steel

**Problem:** Our customer required a 32-microinch surface finish and smooth threads. As the volume of production increased, our customer could not handle the volume and pace that costly hand deburring and mechanical polishing required. They were forced to extend their lead times in manufacturing.



**Solution:** Our customer contacted Able Electropolishing and sent in samples. We electropolished the sample 'Needles' with the goal to improve the surface finish to the required 32 microinch, micro-deburr the threads as well as improve lead-times. By carefully controlling stock removal, we were able to achieve the 32-microinch finish and reduce the galling on the threads. The part was fully passivated. Our customer was able to keep their cost under control and speed up their output.

**Note to engineer:** *Applications that can benefit from the simultaneous smoothing, deburring and corrosion improvement provided by electropolishing often provide the biggest cost and time savings. We encourage experimentation by offering free sample processing in most circumstances. Please call for details.*