



Able Electropolishing Co.
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#1027 Decorative/Brite Passivation

Industry: Aerospace - Manufacturer of aerospace electronic guidance instrumentation

Mfg/Method: Casting/Heat Treated - Housing

Alloy: 416 stainless steel

Problem: The part has a rough-scaled surface after casting. The scale is an oxide and a source for contamination. Our customer wants a clean scale free surface prior to machining. Electropolishing alone will not remove scale completely. The part is blasted with aluminum oxide media. Blasting is a very good method to remove investment casting scale. The 416 stainless steel surface has imbedded aluminum oxide after the blasting process. This is still a source of contamination.



Solution: We electropolished the part to remove any impurities and residual scale left behind after aluminum oxide blasting. The result is a clean surface finish prior to machining. After machining the part is passivated to insure further corrosion protection. Able Electropolishing has been part of this design process for over twenty-five years.

Note to engineer: *Castings and especially investment castings can at times have problems with density or porosity. The presence of pores or flaws can render a machined casting worthless. Electropolishing has been used as a means to inexpensively "test" a casting prior to expensive machining operations. By electropolishing a casting, sub-surface flaws and pits are exposed. For more details, please call.*