



World Class Cleaning Solutions

# CASE STUDY

## Engine Component Manufacturer: FPI Prep.

### Customer Details:

**Product:** AquaVantage® 815 GD

**Parts Cleaned:** Airframe and turbine engine parts; titanium, nickel alloy, stainless and aluminum

**Removing What:** Machining coolants

**Why are parts degreased:** Preparation for NDT; soils must be thoroughly removed, and detergent may not leave residue, so that cracks are not masked in the subsequent NDT process.

### Customer's Process BHC Replaced:

**Current Chemistry:** Cee Bee 300LF

**Concentration:** Controlling to 18%

**Washer Type:** 500L, immersion with mechanical agitation (recirculation pump).

**Specific Metals:** Titanium, Nickel, Stainless and Aluminum; airframe and turbine engine parts.

**Temperature:** 140°-150°F (60°-66°C)

**Wash Time:** 10-15 minute wash.

**Rinse:** 2 rinses, counterflow, municipal water, ambient temperature.

**Customer Improvement requested:**

- Many problems with staining and white residues/spots particularly on aluminum parts. Tested cleaning process in the lab across wide conditions, with similar results (even reducing detergent concentration to 10%).
- Tank life has reduced to 2-3 months as they have increased the production rate, customer wants to improve this.

### BHC Recommended Process:

**Chemistry:** AquaVantage® 815 GD

**Concentration:** Controlling to 12%

**Temperature:** 140°-150°F (60°-66°C)

**Equipment and Rinse:** Unchanged from original.

**Wash Time:** 10-15 minutes

**Tank Life:** Increased to 4-5 months

**Results:**

- Staining and white spots eliminated on aluminum parts, have not reappeared through a year of operation.
- Tank life increased from 2-3 to 4-5 months
- Required Detergent strength reduced
- Customer is very satisfied with the product

**Follow Up:** Original goals met simply through detergent change. Upgrading rinse water quality could further improve process.