



# World Class Cleaning Solutions

## Case Study Automotive Tubes Manufacturer

### CUSTOMER DETAILS

**Who:** Multinational Automotive Parts Manufacturer  
**Parts Cleaned:** Condenser and evaporator components that are used in automotive air conditioning systems.  
**Specific Metals:** Aluminum  
**Removing What Soil:** Various metalworking fluids used in bending, flaring, etc. Insoluble in water (separable). Flared sections can trap oils and impede cleaning.  
**Why:** Parts must be degreased before assembly.

### EQUIPMENT USED

Ramco Immersion "Turbo" washer -- platform oscillation with solution turbulence (spray under immersion) 250 gallon capacity wash, 250 gallon rinse.

### BRULIN PARTNER PROCESS

**Chemistry:** AquaVantage® 815 GD  
**Concentration:** 8-12%  
**Temperature:** 140°F / 60°C  
**Time:** 15 minutes wash time  
**Rinse Water Number and Time:** 1 rinse stage, immersion with platform agitation (only); rinse time 15 minutes, 140°F / 60°C  
**Dry:** Oven, 160°F / 71°C, 15 minutes

### RESULTS

Cleaning performance is reliable: Once reported as 2 errors per 1,200 wash batches.

### REASON BRULIN WON

Frequent troubleshooting support in response to perceived washing error, tank maintenance question, etc.

