

## ***ArmaKleen Technical Service Report Summary***

**Cleaning Trial Type:** Aqueous

**Industry:** Electronics component manufacturing

**Segment:** 08 – Mechanical & Equipment Service

**Soil:** Shop dirt, oil, glue/adhesive, grime, cutting fluids, silicone, drawing lube, grease, rust/oxides

**Substrate:** Steel, stainless steel, aluminum, copper, brass, glass, plastic, rubber

**Description of Part(s):** Frames, filters, circuits boards

**Customer objective:** The customer was looking to improve their cleaning performance, automate their cleaning process and eliminate hazardous chemicals and waste.

**Cleaner used:** 5% by volume ArmaKleen™ 4 in 1 Cleaner

**Machine used:**

1. Agitating Immersion Washer (SK 81.8, Graymills T12, Graymills T24)
2. Ultrasonic Washer (Blackstone SK 6315)

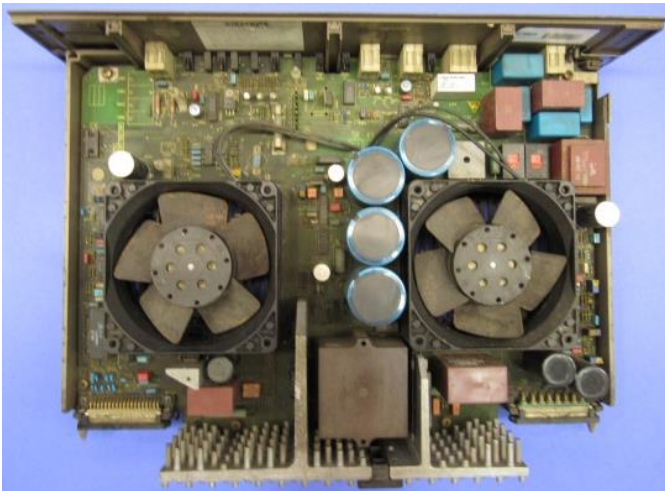
**Temperature used:** 150°F – 160°F

**Time required:** 10 to 20 minutes

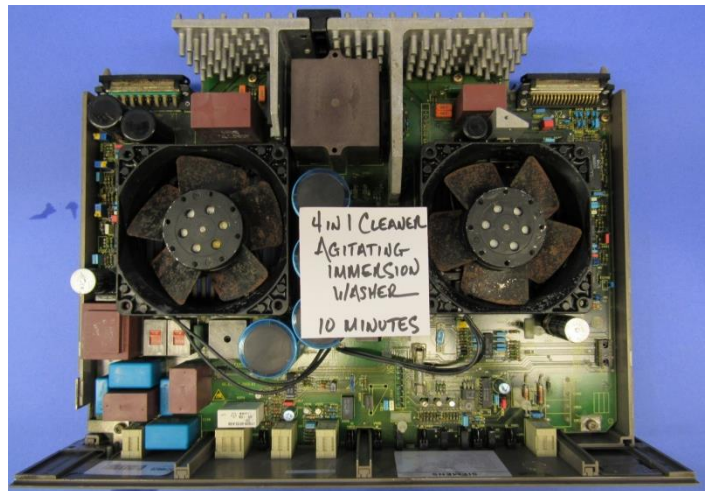
**Post Cleaning:** Fresh water rinse followed by air pressure drying.

**Recommendation to Customer:** The ArmaKleen Technical Center recommended using 5% by volume ArmaKleen™ 4 in 1 Cleaner in an Agitating Immersion Washer at 150°F for a minimum of 15 to 30+ minutes.

**Before Picture**



**After Picture**



**Source:** TSR #15-A-215