

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

**Cleaning Trial Type:** Aqueous

**Industry:** OEM Manufacturing

**Segment:** 54 MFG – Transportation Equipment

**Soil:** Oil, drawing lube

**Substrate:** Steel

**Description of Part(s):** Steel pipes/tubes

**Customer objective:** The customer was looking to improve their cleaning performance and reduce rework and reject rate.

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

**Machine used:**

1. Spray Under Immersion Washer (Graymills T12, Graymills T24, SK 81.8 w/ SUI)
2. Agitating Immersion Washer ( SK 81.8, Graymills T12, Graymills T24)
3. Ultrasonic Washer (SK 6315)

**Temperature used:** 160°F

**Time required:** 15 to 30 minutes

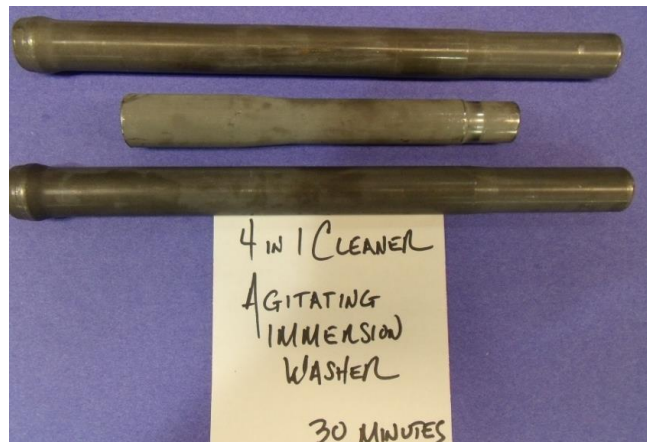
**Post Cleaning:** Fresh water rinse followed by air pressure drying.

**Recommendation to Customer:** The ArmaKleen Technical Center recommended using 5% by volume ArmaKleen™ 4 in 1 Cleaner at 160°F in an Ultrasonic Washer, or a Spray Under Immersion Washer or an Agitating Immersion Washer for a minimum of 15 to 30 minutes.

**Before Picture**



**After Picture**



**Source:** TSR #13-A-079