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**Product: Ultrex AS 11R**

**Application: Combination Soak & Electrocleaner**

**Written By: Stephen Rudy**

**Exploration/Account Background:**

The company is a worldwide manufacturer of electrical connectors and operates in-house manufacturing and finishing operations in several states, overseas, and utilizes additional job shops. Surface preparation is the key to successfully condition and prepare the base metal to receive or undergo a wide range of metal finishing treatments. The company described a cleaning operation in two barrel lines where a single product has been used for several years as a combination soak cleaner followed by electrocleaner. He acknowledged a weekly progression of making product concentrate additions to both the soak cleaner and electrocleaner, without actually analyzing the baths for product concentration. Their experience confirmed the soak cleaner would have to be dumped once a week, with the electrocleaner shifting to the soak tank, and a new electrocleaner being made up. The areas of greatest concern for the company are:

- Scheduled production downtime to accommodate the frequent solution changes.
- Personnel and labor costs associated with this additional work are factored into the expense of operating both lines.
- Weekly dumps put additional demand on the waste treatment system.
- Additional inventory is required to cover cleaner needs.
- Quality suffers due to insufficient cleaning. Rejects are either scrapped or stripped and reprocessed.

Economic uncertainty has magnified the cleaning inefficiency and increased the need to provide consistent quality cleaning to improve productivity and reduce rework.

We recommended a new generation of cleaner that combines soak and electrocleaning in one step, which meets the challenges of production needs associated with work loads and quality surface cleaning. ).

Our recommendation was to try Hubbard-Hall Cleaner Ultrex AS 11R. This cleaner was especially blended to effectively clean the typical steel or copper stamped, heavily oiled parts that are encountered in barrel plating operations.



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Ultrex AS 11R is fortified with a complex detergency package and provides the following benefits:

- Balanced ratio of wetters and detergents to remove soils such as: sulfurized minerals, water based oils, coolants, drawing compound residues, stamping oils, surface smuts and oxides
- Cleaning is aided by emulsification at operating temperatures (150-180 deg F), with release of emulsified oils as the solution cools at least 20 deg F. Oil is then removed by an overflow weir, skimming, or use of coalescer or ultrafiltration.
- A specific wetter system blended into the product prevents oils from clinging onto polypropylene barrels, and therefore not contaminating downline process tanks and rinses.
- The formula does not contain any hard to waste treat chelates.
- Additional water conditioners are added to prevent water hardness problems.
- The alkalinity level is sufficient to support the cleaning mechanism and provide the electrocleaning conductivity requirements.

**Trial Details:**

The initial trial and cleaning tanks were prepared according to the following operating parameters.

**Ultrex AS 11R**

Tank	Concentration	Operating Temperature
Soak Cleaner	8 oz/gal	150-160 deg F
Electro Cleaner	8 oz/gal	150-160 deg F

During the trial period, observation by line operators confirmed complete rinsing of the barrels, no floating oily residues on surface of the operating cleaners, no dragging of oils down the line. Most important, there were no rejects due to cleaning problems (i.e no blistered or flaking deposits). The lab could now analysis the Ultrex AS 11R tanks by the simple, accurate titration method.

The Ultrex AS 11R is a non-dusting powder which provides a safer, healthier workplace than the product it replaced.



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The initial four week analysis confirmed the following benefits:

- Cleaner consumption decreased from 800 lb per week to 800 lb per month.
- Overall 8% chemical cost savings.
- Elimination of production bottlenecks and downtime to replace the cleaning chemistry.
- Operating labor is now producing clean parts and not wasting time with frequent maintenance.
- Fewer cleaning solution discharges resulted in reduced need to waste treat the spent chemicals and sludge.

If the cleaning application is barrel plating steel, copper, or brass parts, Ultrex AS 11R is a cut above the rest and has field experience to prove it.