



Don Baudrand, *Don Baudrand Consulting*, e-mail: donwb@tscnet.com

Preparation for Plating - Cleaning of Metals

Electroplaters face a large number of metals presented for plating. (Electroplating or electroless plating) A large number of metal working chemicals are used to, form polish, draw, abrade, bend heat treat, etc.

The plater's job is to find a way to remove the residual of these materials leaving a perfectly clean surface. It is important for the Plater to know what soils need to be removed before plating. Unfortunately there are many different ones used for metal working. Here are a few commonly used metal working materials and how to deal with them.

1. Drawing and stamping compounds for steel can contain oils, low density fats, polymers, soaps, and pigments. The cleaners used to remove these materials are hot mild alkaline, hot inhibited alkaline and non-caustic or mild cleaners.
2. Metal working materials such as chlorinated paraffin's, sulfanated oils, and fats are removed using hot caustic (sodium hydroxide) cleaners.
3. Polyalkalines glycol polymers require very mild alkaline cleaners. Stronger alkaline cleaners tend to set this type of soil.
4. Machine compounds used for cast iron often contain petroleum oils, chlorinated paraffins or polymers. Use caustic, inhibited caustic, inhibited non-caustic and mild alkaline cleaners.
5. Compounds used for cleaning high pressure applications containing chlorinated paraffins require caustic or inhibited caustic. (Uninhibited caustic can cause darkening of cast iron.)
6. Extruding compounds for steel contain sulfurized fats, chlorinated paraffins, molybdenum disulfide, petroleum oils, zinc phosphate and soaps or lime stearates. Hot caustic cleaners are required.
7. Lime deposits and stearate compounds, may require acidic cleaners.
8. Solvent cleaners do a good job of dissolving oils, mold release and cutting oils and grease. But, a thin film of oil and solids may be left behind.

For additional information, see "CLEANING FOR PLATING" above.

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