



# SURTRONICS, INC

## ELECTROPLATING & ANODIZING

[www.surtronics.com](http://www.surtronics.com)

4001 Beryl Road □ Raleigh, NC 27606  
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Aluminum  
Anodizers  
Council

ISO  
9001:2008  
CERTIFIED

FFL 7  
Federal Firearms License

NASF  
NATIONAL ASSOCIATION  
FOR SURFACE FINISHING

# SURTRONICS

Surtronics, Inc., was established in 1965 and is now a second generation Woman Owned Business. We provide precious metal plating to the electronics industry, as well as and commercial plating and chemical metal finishing to all types of industrial customers. We are specialists in precision plating and anodizing with modern facilities operating under stringent quality control procedures and certified ISO 9001-2008. We will have our AS 9100C certification by Q3 of 2012.

Since the number and diversity of industries in North Carolina and the Southeast have increased rapidly, Surtronics has expanded in size and complexity. New plating equipment has been added to meet the needs of an increasing variety of customers in the United States. Our variety of capabilities and many years of experience assure customers of strict adherence to specifications and intelligent solutions to complex plating problems.

## QUALITY

We understand that plating quality can mean the critical difference between reliability and costly disappointment, Surtronics maintains strict quality control standards. We comply carefully with military and industrial specifications required by our customers, and we supply certificates of compliance on request.



The key to quality control at Surtronics is our in-house chemical laboratory. Located immediately next to the plating areas, the lab provides a facility for frequent analysis of plating baths to insure high-purity plating solutions. The lab staff conducts testing, maintains records, and works with the production department to establish the precise pre-plating treatments, current density, and plating time required for each part.

Two quality testing labs provide a variety of thickness-testing instruments calibrated by the lab staff. These instruments use eddycurrent and X-ray fluorescence principles of measurement. Parts are checked for appearance, plating adhesion, plating thickness, and other attributes as specified by the customer. Precious metal plating demands adherence to particularly strict standards, the gold and silver plating staff employs special techniques, rigorous testing, and meticulous record keeping.



## CAPABILITIES

Surtronics provides a wide variety of services, including gold and silver plating, many types of non-precious metal plating, and anodizing.

Our customers' parts vary in size and type, which is why we are prepared to use numerous plating techniques. Our production personnel are experienced in both rack and barrel plating, as well as the operation of state of the art testing equipment.

### FINISHES SUPPLIED

- ANODIZE - Sulfuric, Chromic, Hard Coat, Black, Colors, Chromic Acid Seal, 12 foot capacity
- BUSBAR - 12 foot capacity, Tin
- CADMIUM - Clear, Yellow, Small capacity
- CHROMATE CONVERSION - 6 foot capacity RoHS Compliant, 12 capacity Non RoHS
- CHROMIUM - Decorative, small capacity
- COPPER - 30 inch capacity
- CUPRIC OXIDE - 8 inch capacity
- ELECTROLESS NICKEL - 28 inch capacity
- ELECTRO POLISH - Under 20 inch capacity
- PASSIVATION - On Stainless Steel
- GOLD - 24 Karat, Electro
- NICKEL - Sulfamate, Sulfate
- SILVER
- TIN - Bright or Matte, RoHS Compliant
- TIN/LEAD - 60/40 Matte or 90/10 Matte and Bright
- ZINC - Yellow & Clear RoHS Compliant (Trivalent) Black & Yellow (Hexavalent)
- VALUE ADDED - Waxing, Bead Blasting, Masking, Packaging, Labeling
- Custom - Activation, Titanium Anodize, Bead Blasting, Masking, Packaging, & Labeling

# SERVICE

At Surtronics, we know each of our customers individually and recognize that no two plating jobs are alike. Each job presents a unique challenge to be met with precision and care. Our lab and production staffs are experienced in developing procedures and equipment to meet special criteria.

Located on the west side of Raleigh convenient to Interstate 40 and U. S. Highways 1, 64, and 70, Surtronics is situated to provide efficient delivery by truck, courier, or air freight. Our experienced shipping and receiving staff is familiar with carriers and routes and can help choose the best method for handling each customer's parts.



## FAQs

and weight of the objects being plated determine how they will be plated. Electroplating is done to protect, beautify, insulate or increase the corrosion resistance, conductivity, or solder ability of metal objects. It demands as much skill as any modern endeavor. Platers immerse objects into a variety of chemical baths in order to change their surface condition. Regardless of the finish being applied, the parts must be "surgically" clean.

**Anodizing** is a coating of aluminum oxide that is grown from the aluminum by passing an electrical current through an acid electrolyte bath in which the aluminum is immersed. The coating thickness and surface characteristics are tightly controlled to meet end product specifications. Aluminum oxide is an extremely hard material that approaches the hardness of a diamond. As a result, the aluminum oxide layer provides excellent wear and corrosion protection. Hard anodize is more expensive due to increased energy requirements associated with the process. Ending cost differences are dependent upon many variables in a given order. For example: part size, racking instructions, packaging, etc.



**2) What is the difference between an electrolytic & an electroless bath?** Unlike conventional electrolytic nickel, no electrical current is required for deposition of electroless Nickel. The electroless bath provides a deposit that follows all contours of the substrate exactly, without building up at the edges and corners. A sharp edge receives the same thickness of deposit as does an internal diameter.



**3) What information is required on a purchase order for finishing?** We request that you reference the finishing process and any applicable specifications. We also require the coating thickness, alloy and temper of the substrate, and whether any supplementary treatment is required. (baking, etc.)

**4) How do you measure plating thickness of plating on my parts?** We use x-rays fluorescence measuring devices that use a beam to find the base metal and determine the thickness of the top coat. It has a very accurate result and is reliable. There is, of course, some margin of error when you are dealing in micro inches/meters but this can be overcome with proper calibration and maintenance.

**5) Will plating "fill-in" scratches in the surface or pits due to casting porosity?** Plating does not fill small defects on the surface the way that paint flows and covers or levels the surface. The deposited metal follows the contours of the surface exactly because it is usually more reflective after plating the scratches and pits become more apparent.

**6) What is the lead time?** We ship out most orders within 5 to 7 business days after receiving them. New accounts that require process development or extremely large orders may take longer.



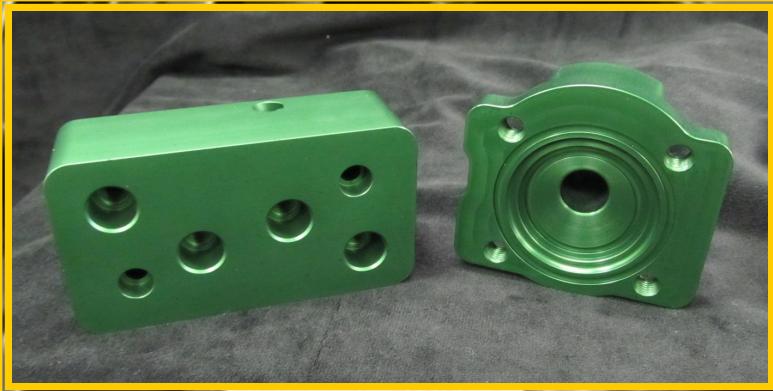
***You Start It and We'll Finish It!***

***Right and On Time***

***When you partner with Surtronics***

***You will have the Advantages of:***

- Service to your Specifications
- The economy of single source for all your finishing needs
- Quality from beginning to end, the first time



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