

Anodizing & Electroplating

Welcome to Surtronics, Inc

SURTRONICS, INC
ELECTROPLATING & ANODIZING

A Brief History



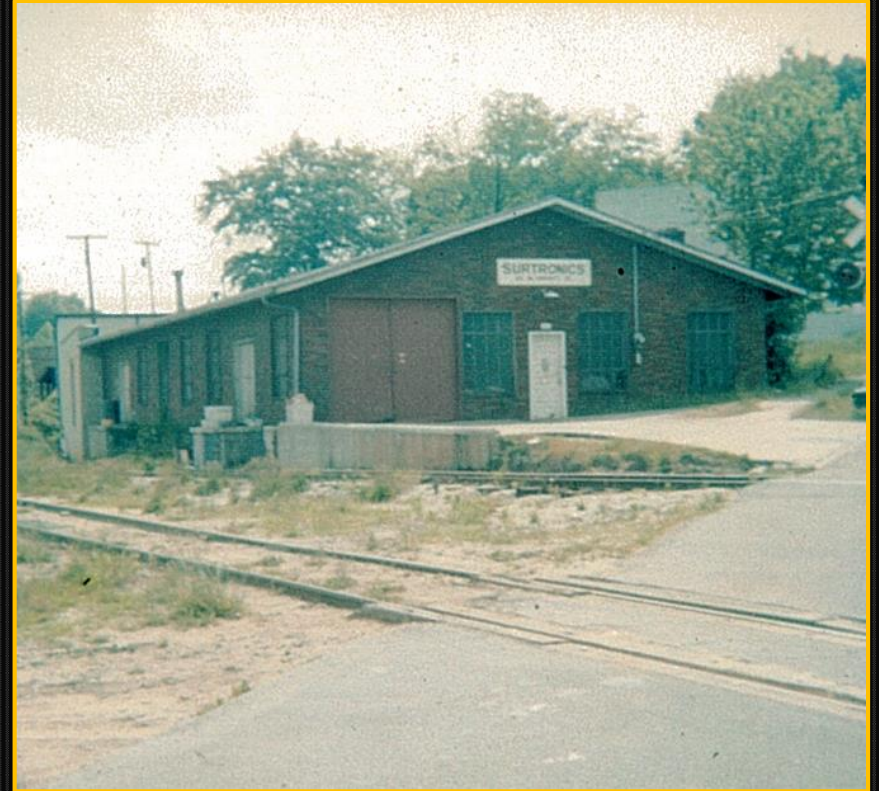
Angela Stanley CEO/President

- We are very proud to be a second generation family business that has provided quality plating for nearly 50 years.
- Surtronics was founded in 1965.
- In 2007, Surtronics became a solely woman owned business.

Previous Locations



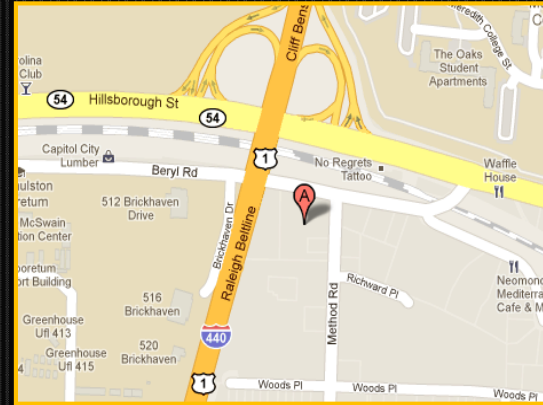
1st Location, Glenwood Avenue
(Former Laundromat)
1965-1969



2nd Location, Hargett Street
1969-1973

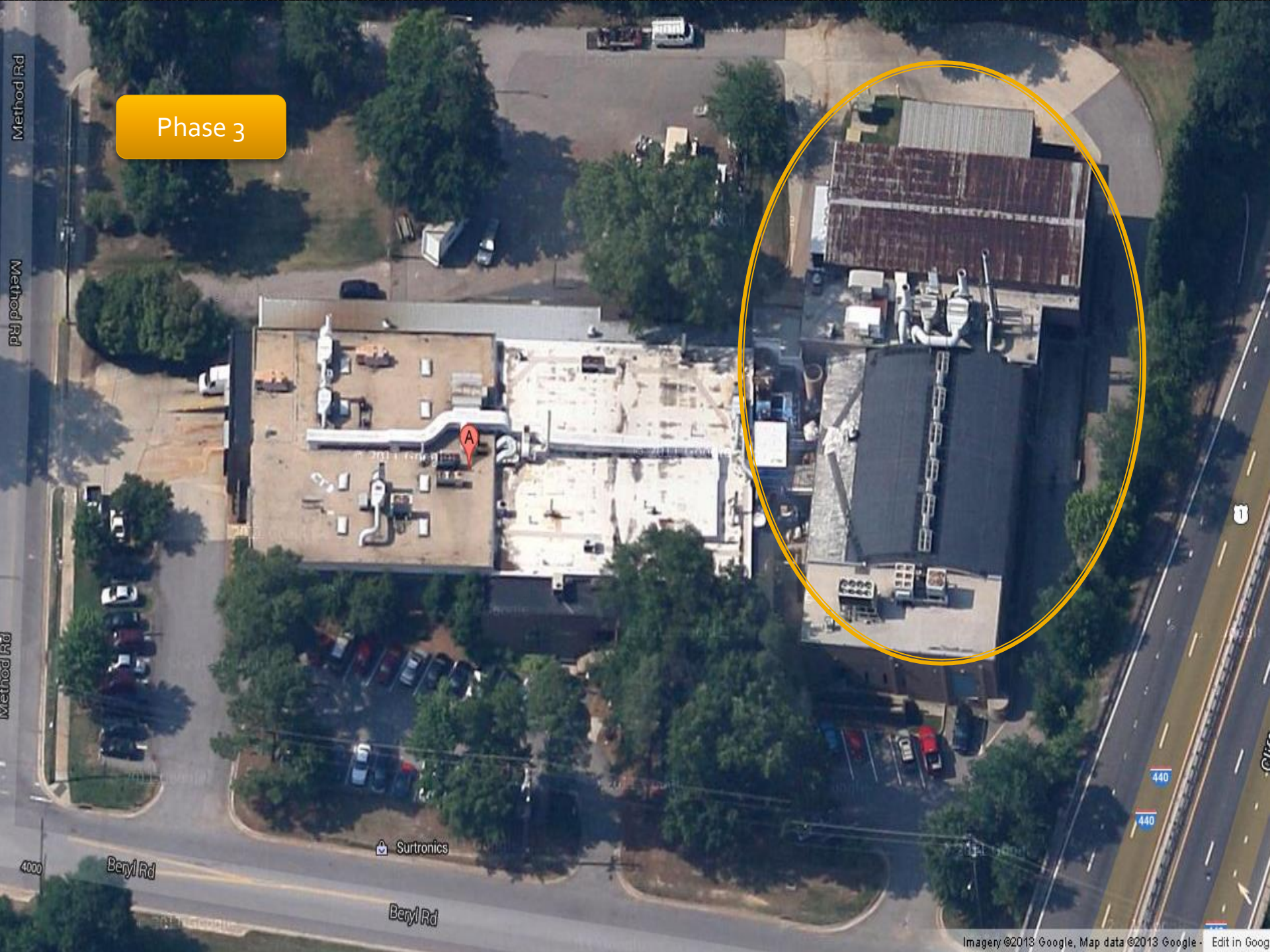
4001 Beryl Rd, Raleigh, NC 27636

1973- Present



3 Areas of our Shop

40,000 square feet of production space



Phase 3

Surtronics

Phase 3: Receiving, Anodize, Passivation, Chromate



Phase 3: Receiving, Anodize, Passivation, Chromate



Phase 2

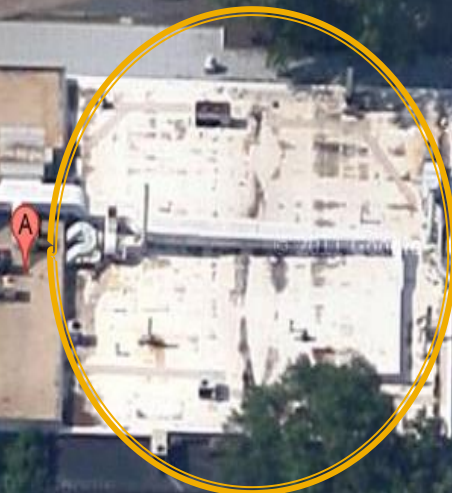
A

Surtronics

Phase 2: Silver, Gold, Chromate, Tin, Copper, Nickel, Chrome, Zinc, Electroless Nickel



Phase 1



Surtronics

Phase 1: Silver, Chromate, Tin, Copper, Nickel, Chrome, Zinc, Nickel, Cadmium



*This section was damaged due to the fire
on June 16th, 2013*

Surtronics' Valued Employees



1 Location, 43 Employees, Average Employee Tenure = 16 years

Surtronics Mission Statement:

SURTRONICS, INC.
ELECTROPLATING & ANODIZING

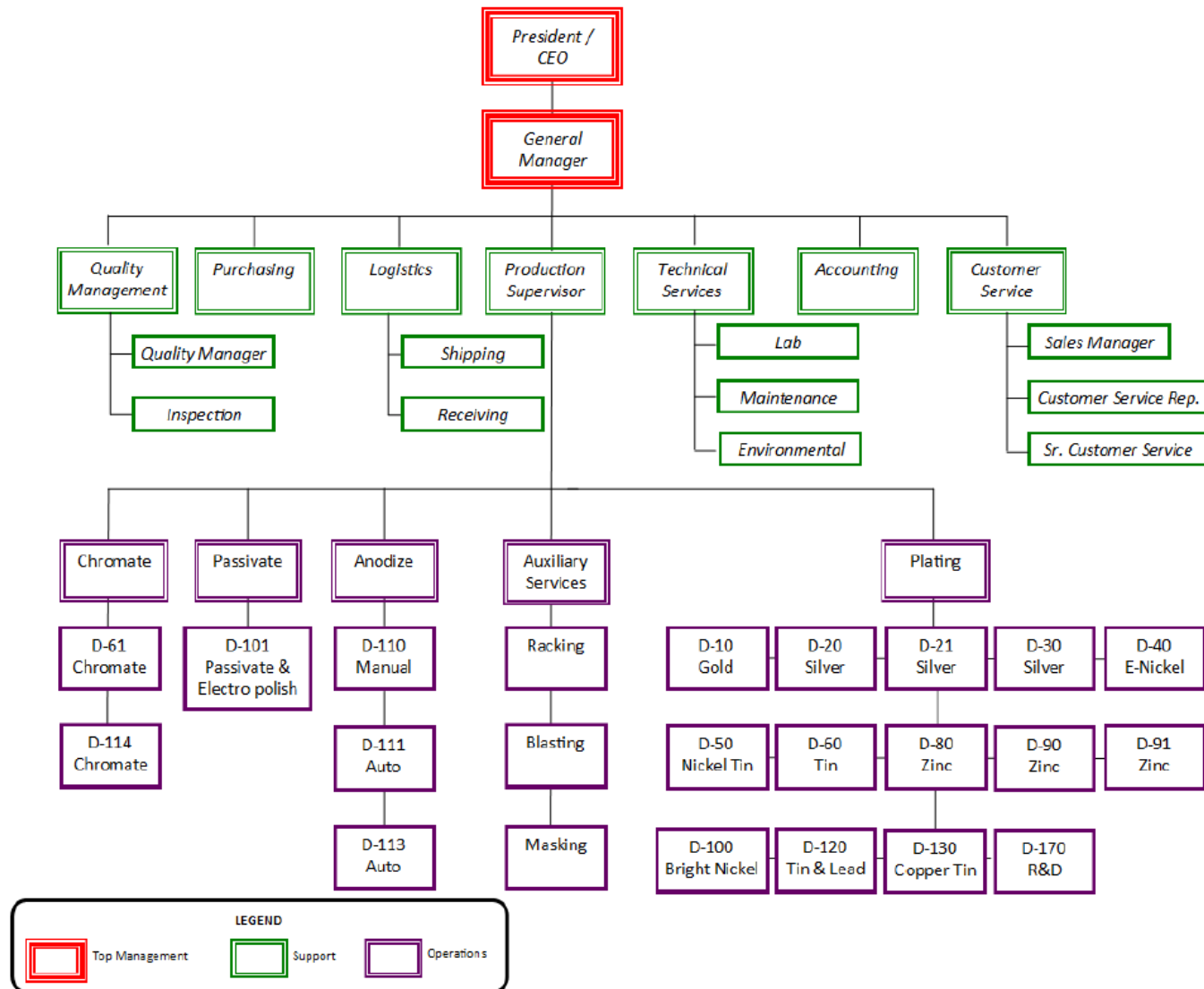


◆ *Mission Statement* ◆

As Valued Employees of Surtronics, We Must:

- ◆ Support our Manufacturing Customers
- ◆ Add Value to our Customers' Products in an Ecologically Responsible and Safe Way
- ◆ Stay on the Leading Edge of Technology
- ◆ Be Competitive, Efficient, and Profitable

The Organizational Chart



How our Shop Works



Receiving Dock




Receiving Clerk counting parts

- Parts are delivered to Surtronics' Receiving Bay.
- The Parts are then opened, visually inspected, and counted.
- The paperwork is taken to the front office where the job card is generated.

How our Shop Works

Surtronics, Inc.
John Deere Turf Care
 Job Order # **706879**
 Date Received **08/19/13**
 Date Required **09/26/13**
 Page **1**
 Dept **90 A**

Customer PO No. _____ Lot No. _____ PS No. _____ Ship/Via _____ Cert/Rework? _____
 550017922 _____ ba _____ AAA _____
 Rack _____ Barrel _____ Surface Area1 _____ Surface Area2 _____ LoadHr _____ WeightPCB _____ Est. No. _____
 Length _____ Width _____ Height _____ Fl/Rack _____ Ft./Min _____ Load/L _____
 Specs# **JOB 117 PEUZN & G**
 Finish Code _____ Lower _____ Upper _____ Time/Ld _____ Amps/Ld _____ Mfr/Spec _____
 2N _____ 200 _____ 400 _____
 Notes _____
 Spec/Req. **550017922**
 Part No. _____ Description _____ Lot No. _____ Containers _____ Qty Req'd _____ Weight _____
 1 TCA12684 / AM125901 ARM, REAR GAUGE WHEEL ba 1tonne 200 0



Procedure P-42: Approval Initials Rev 1, 6/11/13, TKE

BEFORE work is begun verify all requirements of customer PO. Compare with job card paperwork, PO, available drawings, and other applicable information. When verification is complete initial the PO and JOB CARD below.

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____
 8 _____ 9 _____ 10 _____ 12 _____ 13 _____ 14 _____

OPERATOR ONLY: Each line must have data (please circle).

Date: _____ Day _____ OPERATOR INITIALS: _____
 Number of Runs: _____ Time to process: _____
 - Parts are added to customer specifications: YES NO
 - Plying Addition: OK NO N/A

Job Card

JOB_NO	QNT_R	QNT_S	DATE	DATE	PO_NO	PARTNO	SHIPCOMP	FINISH1	FINISH2	FINISH3
	EC	HIPD	RECD	REQD						
706396	24,000	0	8/7	8/14	S19666/100536	120-38204EYP-995 AU	Deringer - Ney Inc	Nickel	Gold	
706509	10,000	0	8/9	8/16	P020171-00	QT05012-012	QUALITY THERMISTOR	Nickel - Sulfamate / Dull	Tin / Lead 90 / 10	
706523	1	0	8/9	8/16	M13A1472	G846771	General Dynamics-AIS	Masking	Nickel	Gold - Soft
706523	1	0	8/9	8/16	M13A1472	G846773	General Dynamics-AIS	Masking	Nickel	Gold - Soft
706523	1	0	8/9	8/16	M13A1472	G846772	General Dynamics-AIS	Masking	Nickel	Gold - Soft
706576	85	0	8/12	8/19	5087-458177947	80-6640-2 REV A2	EATON IND. MFG GMBH	ELECTROLESS NI	Au	

Work In Progress Spreadsheet

- The paperwork is attached to the parts and the job is delivered to the respective department's staging area.
- The job is placed in queue. Everyday our Production Manager monitors what jobs will be plated while planning for possible expedited jobs.

How our Shop Works



Parts are rack or barrel plated.

- Depending on the size of the part the job is either racked or placed in a barrel.
- Through a series of cleaning, rinsing, and acid pickeling the parts are processed to the customer's specification.



How our Shop Works



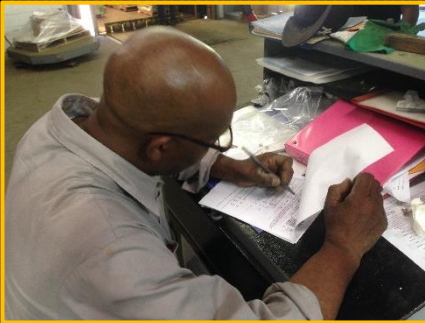
Operator checking for plating thickness.



Quality Inspector checking for visual defects.

- Next the job will be plated according to the customer's specification.
- Upon completion of plating the parts will be inspected for any possible defects.

How our Shop Works



Operator completing a Rework Authorization Form

Surtronics, Inc. 5.1.5 Form F-05: Internal Rework Authorization (REV 3, 02/07/11 MDE) Quality Procedure Manual

Form F-05: Internal Rework Authorization Form

Date: _____

Department: _____

Job Number: _____

Process Type: _____

Quantity Reworked: _____

All ☐ Partial ☐

Reason for Rework: _____

Authorization: _____

- If the parts do not meet our plating standards the part will be reworked according to procedures set forth in Surtronics Quality Management System.
- A Rework Authorization Form will then be completed and attached to the paperwork

How our Shop Works

The image shows a 'Certificate of Compliance' form from Surtronic, Inc. The form includes company contact information for both the manufacturer (Surtronic, Inc.) and the distributor (S&B Technology, Inc.). It features a table with columns for 'Qty Received', 'Part No. & Description', and 'Qty Shipped'. The table contains one entry for 'C-4476 100 X 10 X 2 X 2 75' with a quantity of 100. The form is signed by 'Paul R. Smith, Quality Manager' and includes a date of '08/10/13'.

Qty Received	Part No. & Description	Qty Shipped
100	C-4476 100 X 10 X 2 X 2 75 S&B Technology, Inc. Part No. C-4476 100 X 10 X 2 X 2 75 Part Weight 200.000 Part Length 100.000	100

Certificate of Compliance

- Once the parts pass inspection the job will be delivered to Shipping.
- At this time a Certificate of Compliance is generated and included in the shipment.



Parts are packaged in the manner in which received.

How our Shop Works

- Jobs are shipped out of the shipping dock, via the customer's preferred carrier.
- Invoices are generated when parts are shipped.



Shipping Dock

Industries Served

We are proud to serve 75 major and numerous smaller customers in the following industries:

- Aerospace - Kidde Aerospace (Sunstrand), AAR Cargo Systems (Boeing, Airbus), BE Aerospace, Honda, Spirit, Dill Air, TW Metals
- Defense – US Army, Coast Guard, ITT Night Vision, Wakefield/Simon (Curtis Wright), Mecca, Ruhl Tech, HiTech, Sirchie, General Dynamics
- Pharmaceutical – Alyward, Accurate Machine (Parata)
- Medical - Teleflex, TransEnterix, Triangle Biomedic, Tear Science
- R&D - Duke, NC State University, Univ. of North Carolina
- Power and Energy – Nuclear, ABB, Siemens, GE, Reinhausen, Quality Switch, Sunbelt
- Telecommunications and Electronics - Eaton, Tyco, Corning, Electro Switch, Shallco
- Automotive - Nissan, Toyota, Hyundai, Honda, NASCAR, After Market Accessories
- Commercial/Industrial - John Deere, Flowserve, Ingersol Rand, Schindler, Moog, Moen
- Outdoor Recreation – Truball, Major Machine, Honda Marine

We meet all customer, military, automotive, & ASTM specifications.

Finishes Available

- Anodizing
 - 12' Automated, 6' Automated
 - Type I Chromic
 - Type II Conventional
 - Type III Hard Coat
 - Bright Dip
 - 8 Organic Dyes
- Busbar/Tin
 - 12' Line
 - Bright/Dull
 - Rack/Barrel



Finishes Available

- Chromate Conversion
 - 12' Line
- Acid Copper
 - Large Capacity
 - High speed heavy build
- Cyanide Copper
 - 6 lines
 - Rack/Barrel
- Cupric Oxide
- Electroless Nickel
 - 1 Line
 - Mid PHOS



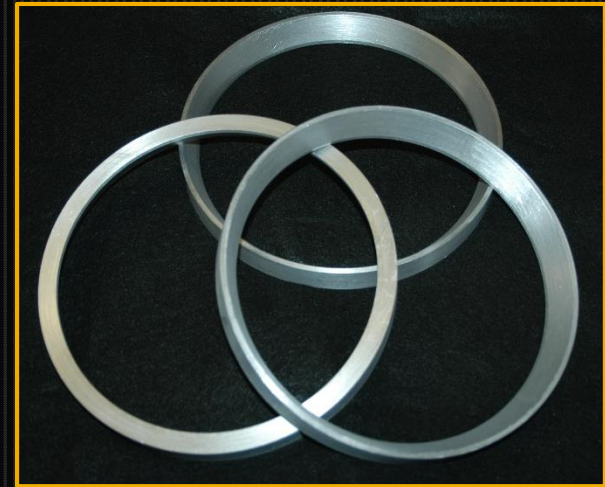
Finishes Available

- Electro Polish
- Passivation
 - QQ-P-35C
 - Type II, VI, VII
- Gold
 - Cobalt Hard
 - Soft
- Nickel
 - 4 lines
 - Barrel/ Rack
 - Bright and Dull Sulfamate
- Cyanide Silver
 - 2 lines Barrel
 - 1 line Rack



Finishes Available

- Tin and Tin/Lead
 - 90/10
 - 60/40
- Chloride Zinc
 - Small Barrel/Large Barrel
 - Auto Rack/Manual Rack
 - Black, Olive Drab, Yellow, ROHS
 - Clear, ROHS Yellow
- Other Processes
 - Bead Blasting
 - Embrittlement Relief

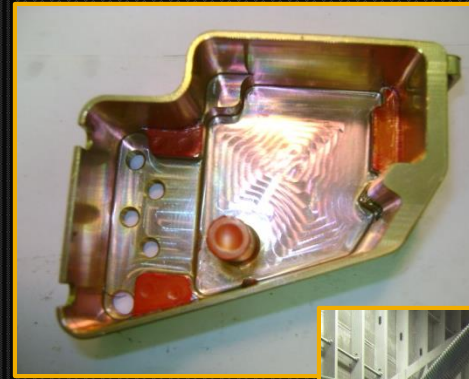


Finish Specification Cross Reference Chart

Specification Cross Reference Chart						
Common Name	MIL-or-QQ	AMS	ASTM	MIL-STD 171 Finish No.	MIL- F-14072 Finish No.	Other
Anodize,Chromic non-dyed	MIL-A-8625 Type I Class I Type IB	AMS-2470, AMS-2468/2469 AMS-2471, AMS-2472	ASTM-B-580 Type G	7.1.1; 7.1.3	E511, Type I	
Anodize,Chromic dyed	MIL-A-8625 Type I or IB, Class 2		ASTM-B-580 Type G	7.1.2	E522, Type I	
Anodize, Sulfuric, non-dyed	MIL-A-8625 Type II, Class I	AMS - 2471	ASTM-B-580 Type B Thru F	7.2.1	E511, Type II	
Anodize Sulfuric, dyed	MIL-A-8625 Type II, Class 2	AMS-2472	ASTM-B-580 Type B Thru F	7.2.2	E511, Type II	
Black Oxide	MIL-C-13924	AMS-2485				
Cadmium	QQ-P-416	AMS-2400				
Chromium	QQ-C-320	AMS-2406 Hard	ASTM-B-456			
Chromate	MIL-C-5541 Class IA	AMS-2473, AMS-2474	ASTM-B-449	7.3.1	E513	
Copper	MIL-C-14550	AMS-2418	ASTM-B-734, ASTM-B-281			
Electroless Nickel	MIL-C-26074 (cancelled, but still used-See AMS & ASTM)	AMS-2404, AMS-2405	ASTM-B-733, ASTM-B-656	1.4.3 Thru 1.4.3.4	M265, Grade A; M357, Grade B	NACE-T-6A-54; ISO 4527 MIS 23483
Electropolish			ASTM-B-254			
Gold	MIL-G-45204	AMS-2422, AMS-2425	ASTM-B-488	MIL-STD-865		Brush Plating Rockwell 580-0143
Hardcoat, non-Dyed	MIL-A-8625 Type III, Class I	AMS-2468, AMS-2469	ASTM-B-580 Type A	7.5.1	E514	
Hardcoat, Dyed	MIL-A-8625 Type III, Class 2		ASTM-B-580 Type A	7.5.2	E514	
Hardcoat/Teflon	MIL-A-8625, Type III, Class I or Class 2 with Teflon MIL-A-63576, Type I	AMS-2482				SM-B-657374
Nickel, Bright	QQ-N-290	AMS-2403	ASTM-B-689			
Nickel, Sulfamate	MIL-P-27418 QQ-N-290	AMS-2403, AMS-2424	ASTM-B-689			
Passivate	MIL-STD-753 QQ-P-35, Types II:VI:VII:VIII		ASTM A380 Codes F Thru M; ASTM-A-967, ASTM-B-449	5.4.1	E300	MIS-13219 MIS-20134C
Silver	QQ-S-365	AMS-2410, AMS-2411, AMS-2412	ASTM-B-700			
Tin, Bright	MIL-T-10727	AMS-2408	ASTM-B-545			Rockwell 580-0605
Tin, Dull	MIL-T-10727	AMS-2408	ASTM-B-545			Rockwell 580-0151 Rockwell 580-0225
Tin, Lead Alloy (90/100)	MIL-P-81728					
Zinc		AMS-2402	ASTM-B-633			
Zincate			ASTM-B-253			
Other Specially Engineered Finishes & Services						
Salt Spray			ASTM-B-117			
Quality System						ISO 9001:2008 AS9100C
X-Ray			ASTM-B-568			

Core Competencies

- Quality
- Custom Certifications
- Quick Turnaround
- Precious Metals Au/Ag
- Tin/Tin Alloys
- Anodizing
- Custom Masking
- Added Value



In house, State Certified Testing Lab



Salt Spray Cabinet – On Order



Surtronics Inc's Water Quality Certificate



ICP Mass Spectrometer



(3) Fischer X-ray XDL-B-XYZPT8 System S

Quality Certifications

- AS 9100C
- ISO 9001: 2008
- ITAR
- FFL



AS 9100 C / ISO 9001:2008 CERTIFICATE OF REGISTRATION

This is to certify that

Surtronics, Inc.

**4001 Beryl Rd.
Raleigh, NC, 27606 USA**

having been audited in accordance with the requirements of AS 9104/1 dated 2012-01, has successfully been assessed and found to conform with the AS 9100 C and ISO 9001:2008 quality management system standards.

The scope of this registration includes:

Provision of metal finishing

Date of Registration: May 17, 2013
Date of Expiration: May 16, 2016
Date issued/revised : April 15, 2014

(Registered Since: May 17, 2013)

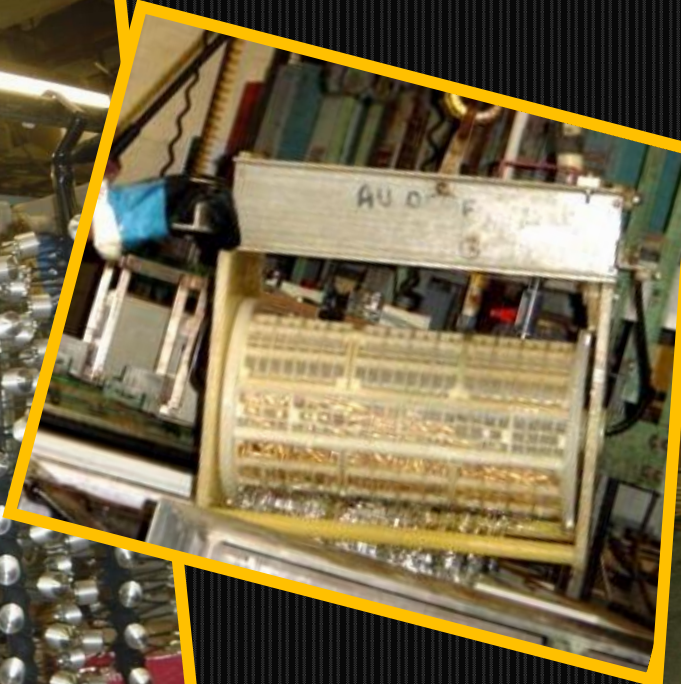
Certificate No. A-801-AS
Certification Structure: Single Site


Steve Barfoot, President
Advantage International Registrar, Inc.



1320 Woodmanor Drive, Raleigh, North Carolina 27614 USA
(Form No. AI 007 AS9100-07, www.advantageregistrar.com, Tel: (919) 545-5554)
Advantage International Registrar, Inc. is accredited under the (ICOP) Industry Controlled Other Party (Americas) scheme.

Flexible processing equipment to match your job.



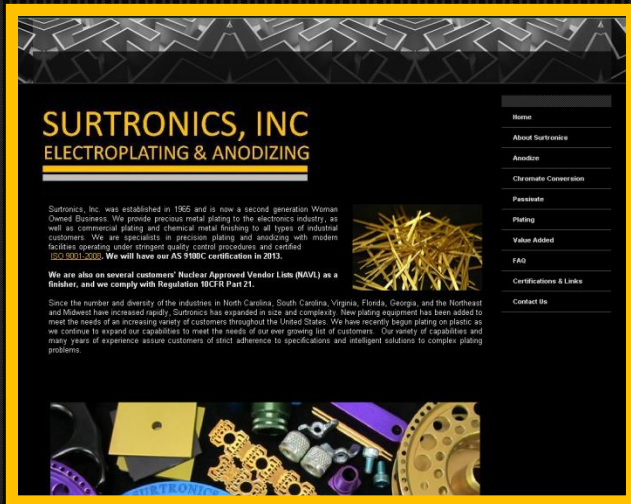
**We have an extensive Waste Treatment
Department that exceeds governing regulations.**



Cost Reduction Opportunities

- We do not have setup fees
- We do not charge for certifications

Visit Us on...



- The Web at www.surtronics.com

- Like us on



- Add us to your network



**You Start It and We'll Finish It !
Right and On Time**

When you partner with Surtronics
You will have the Advantage of:

- ✓ Service to your Specifications
- ✓ The economy of a single source for all your finishing needs.
- ✓ Quality from beginning to end, the first time.
- ✓ World class customer support.