

Electronetics specializes in providing custom magnetics solutions for a wide variety of medical, aerospace, audio, and industrial applications. We will work with your engineers and designers to create custom designs, design modifications, retrofits to existing equipment or to tailor an existing design to new requirements or applications.

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# **Custom Design Experts: Transformers, Converters, Inductors,** and Innovative Magnetic Solutions

Electronetics, LLC was founded in 1983 to meet the need for customized, application-specific solutions. Through consistent quality and innovation, we have earned a reputation as the goto specialists in custom magnetic component design for a broad range of industries, including aerospace, medical, defense, audio and telecommunications.

Electronetics, LLC deploys the most advanced technology available to ensure innovative design, unrivaled performance and rigorous quality control. We're ready to add whatever resource your project may require at any phase from design through contract manufacturing made in the USA.

We are ISO 9001: 2008 Certified









**Assembly Services** 





# From Prototype to High-Volume Production

Electronetics specializes in providing custom magnetics solutions for a wide variety of medical, aerospace, audio, and industrial applications. We will work with your engineers and designers to create custom designs, design modifications, retrofits to existing equipment or to tailor an existing design to new requirements or applications. We can recommend optimal materials to improve performance or to replace an obsolete material.

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## **Core Competencies & Capabilities**

- Manufacturing Custom Magnetics, Ferroresonant Transformers Power Transformers, Audio Transformers, Inductors and Chokes, for low and high frequency applications.
- Customer collaboration from start to finish because our customer success is our success.

#### **Management Team:**

- Head engineer has 34 years of magnetic design
- Materials manager has over 30 years' experience in electronics purchasing, inventory management and manufacturing.
- Plant manager has 37 years of manufacturing experience across multiple industries.

#### **Our Customers:**

- Over 10 years serving the broadband and solar inverter industries with ferroresonant transformer for standby and non-standby applications.
- Over 55 million in sales related to shipments in excess of 230,000 Ferro Transformers.

#### **High-Quality:**

- 2016 customer rejection rate of 0.0033%
- 2016 on-time delivery performance of 97.4%
- ISO 9001: 2008 Certified.



**CORE COMPETENCIES & CAPABILITIES** 



	Primary Voltage	Operating	Secondary Voltage	Output Power
Category	Primary Voltage	Operating Frequency	Secondary Voltage	Output Power Rating
Avionics, Aerospace & Medical Power Transformers	110-230 VAC single Phase, 230- 580 VAC 3-Phase	from line Frequencies (50/60/400 Hz) to RF (1 MHz or more)	Up to 40,000 V	Up to 100 kVA
SMT / SMD Transformers & Inductors	Up to 1,000 V	5 kHz to 1 MHz	To Customer Requirements	Up to 2.5 kVA
High Frequency Magnetics - transformers & Inductors	110-230 VAC single Phase, 230- 580 VAC 3-Phase	from line Frequencies (50/60/400 Hz) to RF (1 MHz or more)	Up to 40,000 V	Up to 100 kVA
Ferro Constant Voltage Transformers	110-230 VAC single Phase, 230- 580 VAC 3-Phase	50/60/400 Hz	Up to 600 V	Up to 10 kVA
Low - Profile Planar Transformers & Inductors	Up to 1,000 V	From 5 kHzZto 1 MHz	To Customer Requirements	Up to 5 kVA

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## **Converter, Isolation, and Ferro Electrical Transformers**

Electronetics offers a wide variety of line frequency power transformers for high and low frequency applications for the avionics to high frequency topologies for aerospace and medical industries, to name a few. Our USA manufactured transformers and inductors meet UL insulation class, 130(B); 180(H); 200(N) or 220(R).



#### **Ferroresonant Transformer**

These highly specialized transformers are designed to enhance and control characteristics that are normally minimized. CVTs require highly controlled leakage inductance (the inductance that prevents any primary voltage from transferring to the secondary) in order to isolate the secondary from the primary. The leakage inductance is electrically connected to a capacitor that forms a resonant tank circuit causing the secondary portion of the magnetic core to saturate. Saturation, something to be avoided in other transformer designs, is exploited to force a maximum limit on the secondary voltage.



# **Low Frequency Power Transformer**

Electronetics offers a wide variety of line frequency power transformers for 50 Hz, 60 Hz and 400 Hz applications for the avionics, aerospace and medical industries, to name a few. Electronics also offered sensing transformers (current or voltage) that deliver extremely accurate output while maintaining high isolation, small size and low cost



## **High Frequency Transformer**

Electronetics has extensive experience designing and building custom high frequency magnetic components in virtually every shape, size, frequency and power level. We can also optimize your overall circuit design with a transformer or inductor precisely customized for your application. Termination types: Through hole to SMT and even hook-up wire if required.



# **Electrical Assembly Services**

We offer a variety of assembly and production services to our customers, with the goal of preparing our customers' products for sale. The advantage we offer is a collaborated approach meeting and exceeding our customers needs with with services they don't have the capacity or expertise.

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## **SMT Parts, Inductors, Coils, and Reactors**

Electronetics specializes in providing custom inductor solutions for a wide variety of medical, aerospace, audio and industrial applications. We offer a wide variety of custom inductors and transformers applications for avionics industry to high-frequency topologies for aerospace and medical industries, to name a few.



## **Custom Potting**

We offer potting in a variety of different materials to meet our customers requirement, from heat dissipation, high voltage protection to environmental protection.



## **Low Frequency Inductor**

Electronetics manufactured in a wide variety of inductance values and physical configurations. Smoothing chokes are power supply filter chokes having a core with an air gap which prevents saturation at maximum direct current. Termination types: Through hole to SMT and even hook-up wire if required.



## **High Frequency Inductor**

High frequency inductors come in many shapes and sizes depending on the electrical and mechanical requirements. We offer all the core shapes from toroid to pot cores and everything in between. Termination types: Through hole to SMT and even hook-up wire if required.



## **Air Coil Inductors & Transformers**

Electronetics has manufactured a varied of air coil for many uses from inductors, to RF antennas.

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SMT PARTS, INDUCTORS,

COILS,

**AND REACTORS** 

- 4 Large multiple part, auto traverse winding machines
- 9 Large part, manual winding machines
- 2 Medium multiple part, auto traverse winding machines
- 3 Small part multiple traverse winding machines
- 2 Small part, high speed auto traverse winding machines
- 2 Small part, high speed auto traverse winding machines
- 4 Small part, manual winding machines
- 2 Small Toroid winding machines
- 2 Toroid pull winders

#### **Testing Equipment:**

- Multi. channel Power Analyzers
- **AC programable Power Supply**
- 50 Hz Generator
- Programable electronic load
- 5KVAC/DC Hipot testers
- Oscillscopes
- Voltech AT3600 automatic transformer tester
- LabView software for production testing and processes
- Multimeters

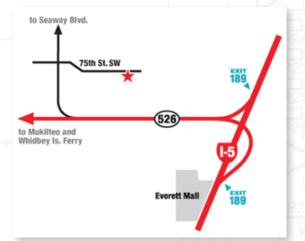
#### **Baking / Curing Ovens:**

- 4 Steelman truck in curing ovens model 454 GPC
- 2 Steelman truck in curing ovens model 444 EPC

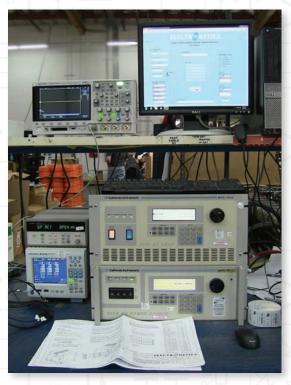
#### **Vacuum Tanks:**

2 – large Imprex VVP1 Varnish Impregnating systems

ISO 9001:2008 certification. 97.4 % Delivery performance Low customer return rate of .003%







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#### **Industries We Serve: Profiles**



## **Avionics and Avionics** Repair

Electronic components used on aircraft, artificial satellites, and spacecraft. Avionic systems include communications, navigation, the display and management of multiple systems, and the hundreds of systems that are fitted to aircraft to perform individual functions.



## **Manufacturing Services: Marine & RV Power**

INDUSTRIES WE SERVE: PROFILES

Components for marine power used in many applications, including boats, ships, oil rigs and other marine vessels. We also manufacture electrical parts used in locomotives, tractors, passenger cars, trucks, and other recreational vehicles.



## **City and Residential Street** Lighting

Components used in street lighting systems which require ongoing maintenance. Many lighting systems in the USA and throughout the world operate using old or obsolete technology. We specialize in designing and constructing parts which are compatible with these systems.



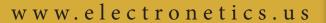
## **Telecommunications Power**

Designing telecommunications power equipment such as electronic switching systems, copper wire parts, transformers, inductors, and optical fiber cabling. Telecommunication engineering also overlaps heavily with broadcast and audio engineering.

"Electronetics has supported our company on numerous occasions when we needed expedited orders at the last minute for a project that was urgently important. The team at Electronetics responded with expertise, swiftness and hard work. They have been fundamental to the success of this project."

- Mitchell Lazore, R&D Engineer, Absolute Aviation

















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