



# Alcoils Custom Electromagnetic Coils





### About Us...At a glance

Warner Electric is a leading manufacturer of custom electromagnetic coils, inductors, chokes and transformers for automotive, industrial and commercial markets. With a strong 45 year heritage of design expertise and technical support, Warner Electric is committed to providing excellent performance in all facets of customer service and product quality. We employ the very latest in computer aided design and other technologies to bring you cost effective solutions to meet your specific application requirements.

### Our Quality Commitment

Warner Electric is an ISO 9001:2008 registered facility. Our associates implement Total Quality Management plans for every product and supporting activity. This complete approach to quality has earned high honors including the General Motors Mark of Excellence, the Productivity Award from the United States Senate, and the John Deere Preferred Supplier Award.

**ISO 9001:2008**



### People...Our most valued resource

Continuous improvement is a way of life in Altra facilities. Encouraged by a management philosophy that people should be involved in the decision-making process related to their environment, each work center has frequent team meetings to refine processes which impact productivity, quality, safety and other factors which ultimately affect delivery and customer satisfaction. The resulting payoff for customers is evident in our excellent on-time shipment efficiency along with consistent quality which sets the standard in our industry. Lean manufacturing is our way of life - not just a concept.



### Manufacturing in a modern environment

Located in a 90,000 square foot manufacturing center in Columbia City, Indiana, Warner Electric is well positioned to meet the growing demands for electromagnetic coils used throughout the world. All phases of product engineering, tooling, manufacturing, testing, packing and shipping are accomplished in this modern facility which also is home to more than 200 associates who make it all happen.



### State-Of-The-Art Technology

Warner Electric utilizes the latest manufacturing technology and control systems to enable maximum flexibility in production scheduling. All equipment is engineered to our unique requirements for process quality as well as speed in changeover.

### Primary operations include:

- KANBAN and JIT systems are 100% deployed with customers and suppliers
- Computer controlled head multi-spindle bobbin coil winders
- Fly head winders for free-standing coils, computer controlled offering resistance bonding capability
- Welded lead wire and magnet wire termination using programmable control technology
- 30 to 200 ton vertical injection molding machines for insert molding as well as encapsulation
- Automatic cutting, stripping and termination of lead wires
- Impregnation processing for leak-proof product
- Conventional and retractable pin molding
- Proprietary wire sizing



## CUSTOM DESIGNED COILS MANUFACTURED TO MEET THE NEEDS OF YOUR SPECIFIC APPLICATION

### Freestanding and Bobbin Wound Electromagnetic Coils

Offering precision layered or random wound coils in freestanding as well as bobbin designs, Warner Electric packages can be engineered to suit the exact demands of your design and operating requirements.

Freestanding coils are custom engineered with the highest quality, bondable magnet wire to achieve the electrical characteristics you need in the least amount of space. An early pioneer in freestanding coil technology, Warner Electric continues to lead the way in smart assembly design and dependable performance.

For maximum versatility in application, bobbin wound coils are also offered in standard or custom bobbin sizes in a range of engineered plastic materials. Each bobbin design can be combined with different magnet wire sizes, pin or insulation displacement terminals and other easily specified components.

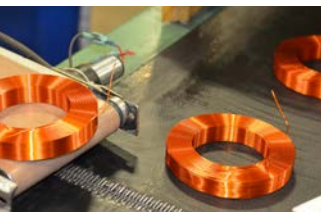


### Encapsulated Coils

To protect your coil assembly from moisture, corrosive chemicals, vibration and other hard working conditions, any Warner Electric freestanding or bobbin wound coil can be encapsulated with tough and high temperature resistant thermoplastics.

Additional advantages of this superior protection include improved insulation properties and dielectric strength plus maximum structural integrity and impact resistance in all environments. For many applications, reduced assembly operations are also made possible by encapsulating the coil in a unitized package complete with structural components.

Retractable pin mold technology enables Warner Electric to provide waterproof (IP-65 and IP-69) overmolded coil assemblies.



### Solutions for Automotive, Industrial and Off-Highway Applications

Providing precise control and long-lasting performance in a wide range of applications, Warner Electric electromagnetic coils are the standard choice for:

- Steering Systems
- Compressor Clutches
- Electromagnetic Clutches and Brakes
- Audio Components
- Emission Controls
- Hydraulic Valves
- Door Latching Systems

Our customers are among the world's leading manufacturers who demand the highest quality in engineered components, from small solenoid to heavy duty motion controls.

Working with our customers in partnership to arrive at the best possible coil solutions for efficiency, durability and other design objectives, we offer true focus in electromagnetic coil technology. Only Warner Electric brings so much to your application with the right resources, depth of experience and complete dedication to your success.

## Warner Electric Facilities

### North America

#### USA

31 Industrial Park Road  
New Hartford, CT 06057 - USA  
860-379-1252

*Electromagnetic Clutches  
and Brakes*

449 Gardner Street  
South Beloit, IL 61080 - USA  
815-389-3771

4578 East Park 30 Drive  
Columbia City, IN 46725 - USA  
260-244-6183

*Precision Electric Coils and  
Electromagnetic Clutches and  
Brakes*

#### Customer Service

1-800-825-6544

#### Application Support

1-800-825-9050

### Europe

#### France

7, rue Champfleury, B.P. 20095  
St Barthelemy d'Anjou - France  
+33 (0)2 41 21 24 24

*Electromagnetic Clutches  
and Brakes*

#### Customer Service

+33 (0)2 41 21 24 76

#### Application Support

+33 (0) 2 41 21 24 24

### Asia Pacific

#### Australia

+61 2 9894 0133

#### China

+86 21 5169-9255

#### Hong Kong

+852 2615 9313

#### Singapore

+65 6487 4464

#### Taiwan

+886 2 2577 8156

#### Thailand

+66 2322 5527

## The Brands of Altra Industrial Motion

### Couplings

**Ameridrives**  
[www.ameridrives.com](http://www.ameridrives.com)

**Bibby Turboflex**  
[www.bibbyturboflex.com](http://www.bibbyturboflex.com)

**Guardian Couplings**  
[www.guardiancouplings.com](http://www.guardiancouplings.com)

**Huco**  
[www.huco.com](http://www.huco.com)

**Lamiflex Couplings**  
[www.lamiflexcouplings.com](http://www.lamiflexcouplings.com)

**Stromag**  
[www.stromag.com](http://www.stromag.com)

**TB Wood's**  
[www.tbwoods.com](http://www.tbwoods.com)

### G geared Cam Limit Switches

**Stromag**  
[www.stromag.com](http://www.stromag.com)

### Electric Clutches & Brakes

**Inertia Dynamics**  
[www.idicb.com](http://www.idicb.com)

**Matrix**  
[www.matrix-international.com](http://www.matrix-international.com)

**Stromag**  
[www.stromag.com](http://www.stromag.com)

**Warner Electric**  
[www.warnerelectric.com](http://www.warnerelectric.com)

### Linear Products

**Warner Linear**  
[www.warnerlinear.com](http://www.warnerlinear.com)

### Engineered Bearing Assemblies

**Kilian**  
[www.kilianbearings.com](http://www.kilianbearings.com)

### Heavy Duty Clutches & Brakes

**Industrial Clutch**  
[www.indclutch.com](http://www.indclutch.com)

**Twiflex**  
[www.twiflex.com](http://www.twiflex.com)

**Stromag**  
[www.stromag.com](http://www.stromag.com)

**Svendborg Brakes**  
[www.svendborg-brakes.com](http://www.svendborg-brakes.com)

**Wichita Clutch**  
[www.wichitaclutch.com](http://www.wichitaclutch.com)

### Belted Drives

**TB Wood's**  
[www.tbwoods.com](http://www.tbwoods.com)

### Gearing

**Bauer Gear Motor**  
[www.bauergears.com](http://www.bauergears.com)

**Boston Gear**  
[www.bostongear.com](http://www.bostongear.com)

**Delroyd Worm Gear**  
[www.delroyd.com](http://www.delroyd.com)

**Nuttall Gear**  
[www.nuttallgear.com](http://www.nuttallgear.com)

### Overrunning Clutches

**Formsprag Clutch**  
[www.formsprag.com](http://www.formsprag.com)

**Marland Clutch**  
[www.marland.com](http://www.marland.com)

**Stieber**  
[www.stieberclutch.com](http://www.stieberclutch.com)

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