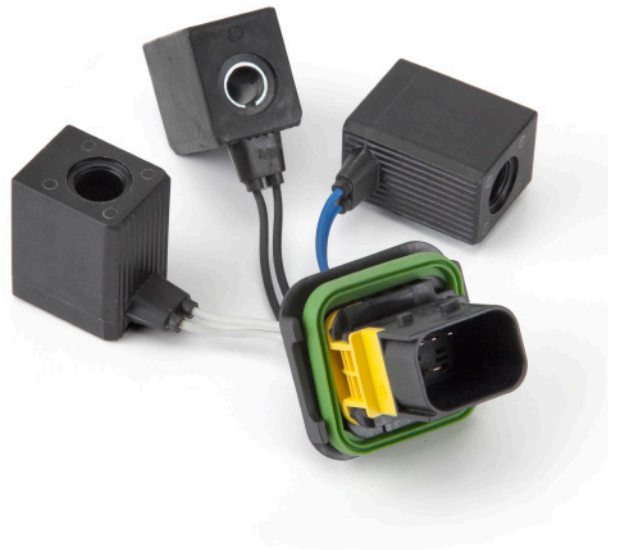


# CUSTOM COIL SOLUTIONS



## FOR INDUSTRIAL TECHNOLOGY

Over a decade of experience in thermoplastic and thermoset molding from bobbins to total encapsulation. Materials include nylon, polypropylene, polyester, PBT and custom-formulated molding compounds. Industries served include: aerospace, military, automotive, nuclear, marine and communications.





# CUSTOM COIL SOLUTIONS FOR INDUSTRIAL TECHNOLOGY

## OVERVIEW

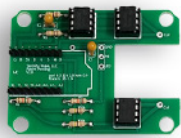
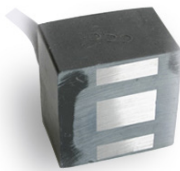
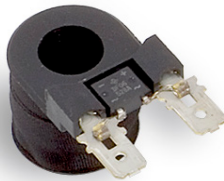
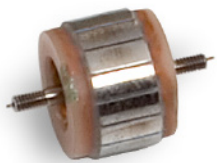
Coils surpass the rigid standards of the nuclear and military industries in the United States, Europe and Japan.

- Engineering assistance for application requirements
- Will help design latest in pin or insulation displacement terminal technology
- Environmentally friendly bobbin molding and over molding with inserts using the latest Dupont® technology
- Automated coil manufacturing equipment as well as handcrafted units
- SPC collection, charts shared with customers
- Computerized coil winding, ultra-fine wire
- Cellular manufacturing with quick lead times and KANBAN pull systems
- Facilities are available for R&D and prototyping
- Nuclear industry-certified, high-temperature paper section coils
- Open pot molds, vacuum impregnation and thermoset materials
- UL Yellow Card Class B to H; Class N materials for special needs
- Wire sizes from #2 to #58
- PCB and/or component integration into encapsulation
- Internet site for electronic data transfer of production data

## APPLICATIONS

Each application requires unique expertise. Military guidance system and sensors are wound with fine wire (thinner than 38 AWG), often under a microscope. Fluid control coils are usually over molded while cellular manufacturing and design for automation are important cost containment procedures. Switchgear, clutches, and large electromechanical brakes require a robust design capable of dealing with adverse environments, and part feeding and motor-control coils must withstand a constantly vibrating operation.

- Fluid Control Valves
- Oxygen Monitoring Systems
- ISA Bus Control Valves
- Proximity Sensors
- Naval and Industrial Switchgear
- Industrial Clutches and Brakes
- Nuclear Fluid Control
- Relay and Motor Controls
- Instruments – Fluid Measurement and Analog
- Fire Suppression System
- Part Feeding/Automation Equipment
- Electro-Magnetic Security Systems
- Vehicle Wash Systems
- HVAC Stator Encapsulation
- Railroad Signaling and Control
- Harness Assemblies with or without Coils



**Fine-wire Coils**  
Wound with 38-58AWG magnet wire, usually a miniature coil or involving more than one type of wire wound in a complex manner.

**Encapsulated Coils**  
Provide an external seal and insulation from environment-  
unintended electrical conductors

**Tape Wrapped Coils**  
“Dry” coils used in guidance, proximity sensor, medical, optical, and relay technology.

**Liquid Epoxy Coils**  
Used in applications requiring over molding, such as switchgear, clutch and brake coil, and motor control coils.

**Paper Section Coils**  
Uses mica paper to insulate each layer of copper wire for applications in nuclear power, mining and ignition coils.

**Part Feeding Coils**  
Electromagnets with coil and laminations, vacuum-impregnated with epoxy

**Value-added Assemblies**  
PCB assembly

## ENCAPSULATIONS INCLUDE

Whether your needs are for a thermoplastic, thermoset, liquid pour or varnish encapsulation, Classic can deliver.

- Injection, transfer, liquid moldings, and varnish impregnations
- Specialty in paper section coils

## QUALITY AND PERFORMANCE

- Customer awards for quality and on-time delivery
- Fast turnaround and flexible production schedules
- Quick response time from initial quote through delivery
- Dedicated team with expertise in specialty needs
- Certified KANBAN supplier
- Certified JIT vendor to Fortune 500 companies
- Standard inspection methods or customized for every need: Resistance, Dielectric, Current, Surge, Turns Count, and Inductance



Size doesn't matter;  
Classic can do it all



Special coils used  
in all types of  
instrumentation

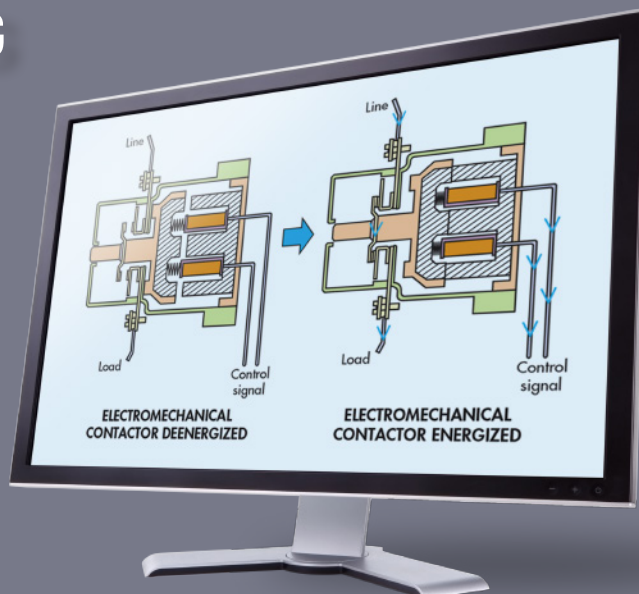
# ENGINEERING ASSISTANCE

Classic Coil is happy to offer engineering assistance as a service to our clients. Our engineering staff stands ready to work with you through each step of the process to optimize your coil design for functionality and low cost. It all starts with understanding your product's environment through to first production runs. We follow Advanced Product Quality Planning (APQP) guidelines for product development.

**For qualified projects, we make prototypes at a minimum charge plus any out-of-pocket tooling costs.**

## OUR BACKGROUND AND MISSION

Classic Coil Company was founded in 1973 and, always maintaining its original excellence, has grown and expanded to meet the needs of its clients. Over the decades, our business leaders have followed a philosophy of continuous improvement, ensuring manufacturing efficiencies to keep costs down and negotiated supply contract terms to benefit our customers. We remain innovative, incorporating new technologies, upgrading equipment and software, and exploring new products and markets. We believe in tapping into the long-term knowledge



### Engineering assistance categories include:

- Bobbin Design
- Magnet Wire & Lead Wire Selection
- Magnetic Path Components
- Encapsulant Decisions
- CAD Component Files
- Materials Selection

Above: CAD programs for all file types to assist in the engineering phase of projects

of our employees, many of whom have been with the company since its inception. Our capabilities and philosophy give us an edge in today's very competitive marketplace, an edge that can assist you with all of your electromagnetic coil and assembly needs.



At left: Company headquarters in Technology Park, Bristol, Connecticut



Technology Park, 205 Century Drive, Bristol, CT. 06010 | (800) 825-4319 | [classic-coil.com](http://classic-coil.com)