



Custom Pulse Cores Used in Medical Imaging

The Pulse Power Magnetic application has very specific magnetic core performance requirements. When engineers strive to build the best Pulse Power transformer, they need to consider core loss, saturation, wave form, and air gap, and, of course, cost. Very often engineers need to make trade-offs between system efficiency and magnetic performance. In an effort to maximize the best Pulse design, engineers should understand that MK Magnetix, Inc. has extensive knowledge of power loss, permeability, lamination breakdown and how they apply to pulse applications.

MK Magnetix has developed annealing and bonding techniques to build the best performing cores for Pulse Power magnetix. Our technical expertise in annealing and overall process technology, along with sourcing the best and most cost-effective raw material worldwide has allowed us to build the most efficient and cost-effective Pulse Power cores.



In addition, MK Magnetix' years of experience, along with our deep penetration of the Pulse Power magnetic core market has allowed us to continually improve our processes, and reduce our costs, to build the best core available. On the back end, our concise quality control team along with state of the art test equipment and fixtures, insures that the customer gets what they want, on time, consistently.

MK Magnetix years of experience, and our very flexible processes, which include a variety of annealing ovens, annealing profiles, unique material coating equipment and methods, bonding technology, cutting machines and finishing processes, allows us to make the most custom part using the best combination of equipment for each specific core and customer requirement.

It is the understanding of magnetic properties desired and the knowledgeable selection of specific processes that is the foundation that results in the best core available to our customers. In addition, our technical staff is available to help engineers understand trade-offs and options available to develop the optimal core. We work closely with our customer in maximizing and perfecting the core design.

Custom Pulse Cores Case Study Highlights

Project Name & Description	Pulse cores used in Medical Imaging
Capabilities Applied/Processes	<ul style="list-style-type: none"> • Custom equipment and assembly methods tailored to meet the needs of demanding high voltage pulse transformers • Custom tools and processes for stacked assemblies • Processes engineered specifically for pulse transformers
Overall Part Dimensions	From very small to very large pulse assemblies
Material Used	Varies with pulse requirements. Wide variety of materials and thicknesses for optimal results
Material Finish	Special coatings available for high insulation resistance and breakdown voltage
Industry for Use	Medical Imaging, Radar Systems, Particle Accelerators, Military/Defense, Telecommunications, Lithography, Lasers, Klystrons, Satellite Communications, High Energy Pulse Power Applications
In Process Testing/Inspection Performed	Core Loss, Permeability/Inductance
Delivery Location	Worldwide