

Bridgeport Magnetics Drives Innovation in Magnetic Power Solutions

Bridgeport Magnetics aligns its product development with international safety and energy standards.

SHELTON, CT, UNITED STATES, July 21, 2025 /EINPresswire.com/ -- Bridgeport Magnetics Group Inc., a U.S.-based manufacturer specializing in high-performance magnetic components, continues to expand its technical capabilities in power distribution with a focus on precision engineering and energy efficiency. The company has broadened its influence in the electrical industry through the advancement of dry-type transformers, toroidal transformer technologies, and automated coil winding solutions. These developments support modern infrastructure requirements across commercial, healthcare, educational, and industrial sectors.



Power Tower

Compact Solutions for Modern Infrastructure

Bridgeport Magnetics has developed the [Power Tower](#), a dry-type, three-phase distribution transformer intended for applications requiring voltages below 600VAC. The unit is vertically oriented, making it suitable for installations where space is limited. Unlike traditional laminated core transformers, the Power Tower is designed to occupy nearly half the volume and mass. The product maintains a thermal rise below 80°C under full load, helping to limit heat accumulation in enclosed environments. Its quiet operation is a practical attribute in settings such as hospitals, schools, and retail locations, where ambient noise levels must remain low.

Wide Range of Magnetic Components for Electrical Applications

In addition to the Power Tower, Bridgeport Magnetics offers an extensive [power transformer range](#), serving diverse voltage and frequency configurations. The product line includes standard toroidal transformers configured for 117V or 234V at 50–60Hz, with models ranging in power from 26VA to 40,000VA. The designs meet industry compliance standards, including UL, CSA, and CE.

The company also produces custom transformer solutions. These include dual and quad primary windings suited for international markets and varying insulation classes based on product specifications. Insulation is available in Class B (130°C) and Class F (155°C), depending on the required thermal rating. This modular approach allows integration across various electrical environments while supporting consistent quality and durability.

Engineered Isolation for Specialized Environments

Bridgeport Magnetics extends its transformer capabilities with custom-designed isolation transformers. These are available in single-phase variants up to 75,000VA and three-phase units up to 225,000VA. For applications with specialized safety and regulatory needs, medical-grade isolation transformers are offered up to 5,000VA. These models can be built with electrostatic shielding, magnetic shielding, thermal protection, and enclosed housings where applicable. The isolation series is used in medical devices, industrial control systems, and laboratory instrumentation, where



Power Transformer Range



Power Transformer Winding Machine

voltage separation and electromagnetic compatibility are required.

Precision Equipment for Transformer Manufacturing

The company supports its manufacturing capabilities with internally developed equipment, including the [power transformer winding machine](#). This machine is engineered to handle toroidal winding tasks with consistent dimensional accuracy. The machine structure emphasizes precision and automation, enabling consistent winding output and reducing labor input. By minimizing manual handling and optimizing material usage, production waste is reduced while maintaining uniform electrical characteristics across units.



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Output from these machines is known for compactness and thermal efficiency, contributing to smaller core footprints in finished transformers. Low operational energy usage and a simplified user interface enable long-term use without excessive training or high maintenance requirements.

Supporting Energy Standards and Compliance

Bridgeport Magnetics aligns its product development with international safety and energy standards. The transformers are manufactured under controlled processes that ensure compliance with UL, CSA, and CE certification requirements. Across both standard and customized offerings, the design prioritizes safe operation, energy-efficient performance, and compatibility with building and electrical codes.

The focus on meeting and exceeding energy performance benchmarks helps reduce the total cost of ownership over the lifespan of the equipment. This is particularly relevant for commercial and public institutions operating within strict energy budgets or sustainability frameworks.

Application Versatility Across Industries

Bridgeport Magnetics serves a diverse customer base spanning commercial facilities, healthcare

providers, industrial manufacturers, and educational institutions. Products such as the Power Tower address space constraints in older buildings or compact utility rooms, while the company's toroidal and isolation transformer lines cater to OEMs, system integrators, and facility engineers managing critical loads.

The company's engineering approach emphasizes function over embellishment. Every unit is built to meet real-world requirements, offering practical solutions across a wide range of scenarios. Whether used in baseboard electrical distribution, equipment isolation, or high-reliability environments, Bridgeport products are configured for adaptability and ease of integration.

Focus on Manufacturing Efficiency

Operational efficiency remains a key priority in Bridgeport's production strategy. In-house development of winding equipment reduces reliance on third-party machinery, offering tighter quality control. The winding machines streamline the production of toroidal cores, helping to manage lead times and maintain consistent build specifications.

The integration of automation not only cuts down on labor costs but also allows faster adaptation to new transformer designs. This approach supports Bridgeport's ability to respond to evolving market needs and fulfill both low- and high-volume production runs without compromising on accuracy or quality.

Enhancing System Reliability Through Magnetic Design

Transformer design plays a vital role in ensuring system reliability. Bridgeport Magnetics prioritizes stable performance under continuous load, thermal efficiency to reduce system overheating, and shielding solutions to protect connected equipment from line interference. These features contribute to system longevity and reduce the likelihood of voltage disturbances or electromagnetic interference.

By offering transformers and winding machines engineered with consistent parameters and quality benchmarks, the company supports applications where uninterrupted power is essential. This includes hospital imaging systems, automation controls, and telecommunications.

Industry Perspectives on Design and Performance

According to company engineers, recent product updates have focused on addressing feedback from commercial installers and system designers. The shift toward vertically oriented transformers like the Power Tower is driven by structural constraints in modern buildings. Similarly, the need for custom winding capabilities reflects the growth in international equipment supply, where transformer specifications must be flexible and localized.

The internal production of winding equipment allows the company to update designs based on client-specific winding patterns or core dimensions. This results in greater design freedom and helps ensure that transformers meet both technical and spatial installation requirements.

About Bridgeport Magnetics Group Inc.

Bridgeport Magnetics Group Inc., based in Stratford, Connecticut, is a manufacturer of power and isolation transformers, toroidal winding machines, and magnetic components. The company serves clients across the United States and internationally, supporting commercial, medical, and industrial applications. Its vertically integrated operations allow for precise manufacturing and rapid product customization, with a focus on energy-efficient and compact solutions.

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