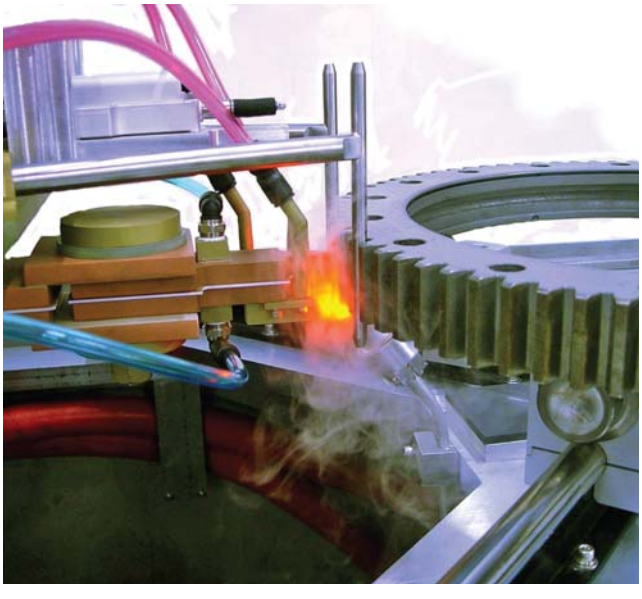
Induction Tooling, Inc.

Induction Tooling, Inc. began as an idea in 1975.

William (Bill) Stuehr, the current president and CEO of the company, was working as a design engineer with a local induction heat-treating company. Several customers contacted Stuehr and requested tooling specific to their captive heat-treating needs. Stuehr's boss rejected the idea to build tooling for customer use, giving him a ready-made business in the waiting.

Stuehr started his company in his parent's 400-square-foot garage in March 1976 with $1,000. After receiving a large inductor order from Romania in 1979, Stuehr hired three employees and moved to a rented facility in North Royalton, Ohio. By 1984, with 10 employees and a growing customer base, Stuehr purchased a suitable building on the next street. The building doubled in size and 10 employees were added in 1994. Finally, in 2005, Stuehr built his "Field of Dreams" – a modern 25,000-square-foot facility on 5 acres complete with an induction laboratory.

Now in its 34th year, Induction Tooling has expanded operations to include a fully equipped metallurgical laboratory. Working with Sandra Midea, P.E., of the Midea Group, and an expert staff, Induction Tooling is capable of providing metallurgical services to section, mount and professionally evaluate customer parts for a variety of conditions. Metallurgical capabilities include: polished and etched mount preparation in 1 ¼-inch bakelite; digital photo micrograph with an Internet link; Vickers micro-hardness testing to ASTM E-384 with XBar-R charting; Rockwell A, B and C hardness testing; grain size measurements utilizing specialized software to ASTM E-112 and E-1382; and to complete the process a professionally written report.



The induction laboratory is being expanded as well. It will double in size to accommodate new power supplies, enhancing their capability to test and validate the induction process for various customer parts.

"Currently, the induction laboratory is capable of frequencies from 1 kHz to 450 kHz at power levels up to 250 KW," Stuehr said. "Both laboratories are an adjunct to our primary work – seamlessly linking the engineering, design and inductor manufacturing function in order to provide our customers with a complete professional package."

Induction Tooling specializes in failure analysis of "problem" inductors. Heat-treating inductors come in a variety of sizes driven by the geometry of the part. These inductors are often subjected to brutal conditions in the heat-treating environment: hundreds of kilowatts; lots of heat and smoke from the part; gallons of quench fluid splashing around; and steam, scale, dirt and oil. And all of this is happening in an electrical circuit. To exist in this environment, inductors need to be designed correctly and made robust. Using many years of empirical data, Induction Tooling is able to evaluate the problem and correct the design to promote a robust inductor life.

"Our core business is the engineered design and manufacture of heat-treating inductors," Stuehr said. "Judging from the interest in lean manufacturing at the MTI Spring Meeting, I believe that many small firms should consider the benefits of adding induction hardening, where appropriate, to their manufacturing process. The resulting benefits include reduced transportation, outsourcing costs and quick turnaround. To that end, our expert staff and journeymen tool builders are here to help."

For more information, contact Induction Tooling at www.inductiontooling.com.