

**PLEASE TELL US A LITTLE ABOUT YOUR BACKGROUND AND COMPANY.**

My education was in electromechanical technologies. I have spent my 40-year career working in the induction heating industry. I hold two U.S. patents, and I have presented and written numerous technical papers on induction technologies. Presently, I am the International Forging Products group leader for Ajax Tocco Magnethermic.

Ajax Tocco Magnethermic has operations in nine countries. In North America, we have manufacturing facilities in three major locations and eight regional service centers. We design and build all of our power supplies and are able to supply customers with the latest technology. Our domestic and international locations allow us to handle large orders or volume increases while maintaining our commitment to quality, service, and delivery. Ajax Tocco owns and operates Pillar Induction, Saet Induction, and Emmedi. Ajax Tocco is part of ParkOhio Holdings Corp., which provides strategic services and products that allow the world's leading manufacturers to streamline their manufacturing processes and focus their core competencies on the production of high-quality products.

TELL US ABOUT EXHIBITING AT FORGE FAIR.

Attending Forge Fair enables us to better communicate our new technologies to customers and potential customers. Ajax Tocco introduces our state-of-the-art PowerForge and PowerZone induction line of induction billet and bar heating equipment. The new advanced series of PowerForge and PowerZone induction

forging equipment is the first induction forging systems designed to incorporate state-of-the-art digital electronics with high-speed fiber optic communication technology between the control and the PowerBlock devices. This technology offers unmatched flexibility with no adjustments required to load match, yet it delivers power to a wide range of billet and bar diameters in a given coil size. The precision of the digital controls affords superior reliability and control of the process. The use of fiber optics offers both superior communication speed and immunity to the electrical noise that can contribute to device failures.

Both the PowerForge and PowerZone designs are completely integrated packages that require minimum floor space, ease of installation, and turnkey operation.

The PowerZone technology provides individual control over each induction forge coil. The PowerZone design allows the use of identical coils at each position along the line. This dramatically reduces the number of spare coils needed. This technology allows the use of various frequencies at each coil and the ability to place more power into the start of the process to provide the best core-to-surface differential. When running lower production levels, the first zones of the line can be turned off. The superb energy efficiency helps the end users reduce their energy bills, which is key in most world markets. Expansion capabilities can also be built into the PowerZone series of equipment via our modular design approach, which can allow for future expansion.

Ajax Tocco also offers the Pro-Solv process setup tool. This tool provides an easy and effective way to set up the equipment to easily achieve the best possible heating of billets and bars. For more difficult jobs and applications, we offer the Pro-Solv Pro service, which can assist you in the analysis of the proper heating of your product and implementation of the process on our equipment.

Ajax Tocco will also provide detailed information on our ForgeView and ForgeView Plus software.

WHAT ARE THE BENEFITS TO BEING A MEMBER OF THE INDUSTRY ASSOCIATION?

Being an active member of the industry association allows us to contribute to the industry by helping us understand the forgers' needs and operations. The annual meetings held by

the industry provide information from some of the world's best experts on subjects vital to our industry. Both forging producers and suppliers can find extensive information to help their companies with productivity improvement, new technology, better understanding of worldwide demands, public policies, and safety. Industry associations can also provide design engineering assistance, industry sales information, and benchmarking.

HOW HAS THE FORGING INDUSTRY EVOLVED?

I have seen the forging industry evolve in many areas. The forgings are, in many cases, near net forgings. Many forgers are providing a finished product to the end user as opposed to a rough oversize forging that still needs a considerable amount of machining. Some forgers forge, machine, and heat-treat, providing a finished product to the end user. I have also seen the industry embrace the use of automation to better facilitate the load and unload of the forging in the presses. This automation has dramatically improved throughput by reducing cycle times. Tooling performance has been dramatically enhanced with new technologies and practices.

WHAT INDUSTRY CHALLENGES DO YOU SEE?

There are many challenges for the forging and heat-treating industry. These challenges include product quality, cost of manufacturing, and being competitive in a worldwide market. Changing product designs presents new challenges to both industries. Lightweight forging initiatives are changing the overall designs, because reduction of weight is key to the vehicle-manufacturing market. Ajax Tocco is continually advancing this induction technology and automation to provide the world's most reliable, efficient, and state-of-the-art technology designed to accommodate these demands.

WHAT'S IN AJAX TOCCO'S FUTURE?

Ajax Tocco has developed digital-controlled induction power supplies and continues to develop this technology, which improves the reliability and efficiency of our equipment. Ajax Tocco is one of the few induction equipment manufacturers in the world that maintains a dedicated full-time research and development staff, facility, and programs. 🔥