



use our furnaces for metallurgical processes such as carburizing, annealing, homogenizing, tempering, and many others.

**Q: You are ISO certified. Is this important to your customers?**

**KB:** We've been ISO certified since the mid 90s when ISO first started to become a requirement from a customer standpoint. From our standpoint, it assures our quality programs across all our international facilities. It's a useful system for us to help maintain a continuous improvement path because with ISO you are reviewing processes and problems for root causes and it allows us to review processes and problems to improve our manufacturing business. ISO certification is one program that contributes to our mission of achieving market leadership by being an innovative, customer-focused global company delivering heat processing equipment and services with exceptional quality and value through a global perspective and ongoing growth.

**Q: What is your background?**

**KB:** I have an engineering degree from the University of Missouri and I've been with Seco/Warwick since 1984, working in sales, engineering, international operations and now as president of the company since 2009.

**Q: Tell me a little about Seco/Warwick.**

**KB:** We are a global organization and manufacturer of industrial heat treat furnaces for atmosphere controlled heat treating, aluminum melting and heat treating, high temperature heat treating with vacuum, aluminum brazing of heat exchangers and titanium melting. We have facilities in six countries – two in the United States, two in Poland, one in India and one in China that each handle manufacturing of furnaces. Our facility in Meadville, Pennsylvania is the North American manufacturing location for the heat-treating product lines. In this plant we have 92 employees. The plant in California handles furnaces for titanium melting. Globally, we have over 900 employees, including mechanical and electrical engineers, CAD drafting, field service and various complementary support staff. We serve many markets including aerospace, automotive, and energy markets. Our equipment is custom engineered to give customers optimum performance and reliability for their unique manufacturing needs. Our customers

**Q: Specifically for gears, what are your capabilities in heat-treating?**

**KB:** We are focused on carburizing gears to tight tolerances. Many of our customers need to control case depth of gears for hardening. We've developed the Case Master Evolution (CMe) line of furnaces specifically for that market. This is a vacuum heat treat with an oil quench system that is significantly cleaner and environmentally a better choice compared to internal quench furnaces of 20 to 30 years ago. The CMe line revolutionizes this market with new technology that is more suitable for today's needs. We've installed a number of them in the market now and it's proven to be more efficient than the traditional alternatives.

**Q: Can you tell me a little more about the Case Master Evolution furnace?**

**KB:** The CMe is a vacuum carburizer dedicated for low-pressure carburizing with oil and 2-bar gas quenching. The furnace uses an LPC heating chamber and quench chamber with a gas quench above an oil tank. This allows for

better flexibility and productivity. The furnace provides low pressure carburizing through Seco/Warwick's proprietary FineCarb technology and uses low-pressure carburizing with pre-nitriding with our newly developed PreNitLPC technology. The equipment is already being used by some manufacturers as a turnkey installation solution. This is just part of our plans to bring new technology to our customers. The CMe is a good alternative to traditional integral-quench furnaces for aviation engines and landing gear, drive axles, gear wheels and toothed rings, gearbox components and commercial heat-treating. It reduces costs and saves time, while producing clean parts after heat-treatment. It's a computer-controlled system that is equipped with visualization processes and it's easy to setup and use. The furnace heats up to 2400 degrees F for temperature uniformity, and under standard conditions the charge can be transferred from the heating chamber to the oil quench in less than 20 seconds.

**Q: What is the company's vision moving forward?**

**KB:** We are looking to continually develop new technologies and refine existing technologies to bring those technologies to the global market. We recognize our customers' concerns regarding environmental, product quality, cycle time, and energy consumption issues and are working daily to address these in cost-effective ways. We are developing all of our companies so they will each have the capability to provide these new technologies to their geographic markets.

**Q: Is there anything you'd like to add?**

**KB:** I want to thank *Thermal Processing* for the opportunity to present this brief introduction to Seco/Warwick and our furnace products. For your readers that are interested in more details, we invite them to our website which has very good information on our products and capabilities. Customers may also go online and submit an inquiry or quotation request to learn more about the Case Master Evolution line or any of our other heat-treating solutions. 

**FOR MORE INFORMATION:** visit [www.secowarwick.com](http://www.secowarwick.com) or call 1-814-332-8400.