



Ipsen

A broken-down pottery kiln, an engineering degree from Brown University, and an entrepreneurial spirit helped to successfully launch Ipsen as a global leader in the heat treatment industry.

By Kenneth Carter





Taught by Ipsen experts, the on-site Ipsen U training includes facility tours and hands-on learning

SINCE ITS HUMBLE BEGINNINGS IN 1948, IPSEN HAS become much more than just an equipment manufacturer. With an operation that spans across countries and oceans, Ipsen is a global supplier of integrated heat treatment solutions.

This heat treatment company was founded on the principle of making a stronger, safer world through innovation and hard work, and it continues to deliver proven technology for a range of applications that enables customers to transform space exploration, improve titanium medical implants, and develop more efficient cars and jet engines.

Operating in all the major markets around the world, Ipsen supports a wide range of industries that include aerospace, automotive, commercial heat treating, energy, industrial machinery, medical, and tool and die — to name a few.

Ipsen doesn't stop at providing technologies used in many mission-critical applications, though. The company continues to emphasize the importance of the customer experience, delivering full-scale solutions aligned with each customer's desired outcome.

WIDE RANGE OF SOLUTIONS

Ipsen not only designs, manufactures, and services vacuum and atmosphere technologies around the world, but the company also has its own supervisory controls systems and predictive maintenance software platforms. With more than 10,000 systems installed worldwide, Ipsen leads the industry with the experience necessary to provide optimum technology. That experience lets customers achieve maximum flexibility and meet strict industry demands.

From the time Ipsen starts a project to the very end, the company provides comprehensive service and support for any brand of vacuum or atmosphere furnace. This assistance includes process development, material-handling systems, factory layout planning, and integration with current production processes and factory operating systems.

"With aftermarket services representing more than 45 percent of our global business, providing comprehensive, immediate service and support to our customers is a top priority," said Geoffrey Somary, CEO of Ipsen USA.

Ipsen also knows obtaining precise process and metallurgical results are essential. This is why the company focuses on process research and development, as well as on providing advanced customer support, training, and process testing to ensure customers obtain the desired results.

PDMETRICS® SOFTWARE PLATFORM FOR PREDICTIVE MAINTENANCE

As part of this focus on innovative solutions, one of Ipsen's recent achievements was the development of the first predictive maintenance platform for the thermal processing industry.

"Since we introduced the PdMetrics platform for predictive maintenance in 2015, it has dramatically transformed how companies approach maintenance," Somary said. "This software platform securely connects to a network of integrated sensors on your furnace to gather data, run algorithms, and provide you with real-time diagnostics that actually matter."

Building upon existing maintenance programs, PdMetrics also provides automatic maintenance reminders based on furnace performance and component usage. With

the ability to minimize unplanned downtime, reduce costs, and place a team's attention where it's most important, the PdMetrics platform helps companies save valuable resources in terms of time, energy, and focus.

IPSEN CUSTOMER SERVICE

The Ipsen Customer Service (ICS) Team helps keep equipment running at peak performance and minimizes costly downtime through upgrades, retrofits, parts, maintenance, service, and training. No matter where customers are in the world, the ICS Team is available to provide timely support and the necessary solutions so that production can be kept on schedule.

For example, when one customer had unique requirements for its parts that necessitated a specific cooling pattern and design, the ICS Team was able to provide a custom solution. Once they reached a better understanding of what the customer wanted, the necessary Ipsen team members were brought in to provide valuable input and devise an initial proposal.

"When this customer came to us with their special requirement, we started the collaborative process by discussing their end goal, timeline, and budget," Somary said. "Throughout all of this, we kept in mind the customer's process and the effects any modifications to the equipment could have on the process. We do this for all the projects we work on — whether it's optimizing the cooling or heating rate, upsizing the equipment, doing a complete rebuild, or providing a material handling system."

Once a solution was reached, Ipsen reviewed every detail with the customer to make sure it would meet their needs. Once Ipsen and the customer had decided on the full scope of the project, Ipsen provided a fully engineered solution that met all process, specification, budget, and timeline requirements.

COMPREHENSIVE SUPPORT

Over the past few years, Ipsen has focused on retooling the ICS Team so they can be increasingly supportive of customers' needs and expectations.

This emphasis on offering immediate customer support has included expanding Ipsen's designated Regional Service Centers. In addition to these centers, which are located across the United States to support customer needs locally, Ipsen also has a network of 120-plus service technicians that provides global support.

"During a recent vacuum furnace hot zone installation, one of our field service



The Titan® vacuum furnace is one of Ipsen's global modular platforms

engineers discovered that the power-feed connections, while currently serviceable, could potentially fail in the future," Somary said, relating an instance of the extensive support provided. "He took the time to make sure the customer was aware of the potential issue and suggested a repair in the near future. It is this type of attention to detail and positive customer relationship that we pride ourselves upon and expect from all of our team members."

In addition to comprehensive customer service, Ipsen also is committed to hiring the best people, as well as providing current employees with the tools needed to ensure continued success.

"As we continue to grow globally and advance so our customers can continue to innovate, one of the challenges is how to find new ways to attract, train, inspire, and retain skilled, qualified workers," Somary said. "We have developed some unique ways to tackle this challenge that have proven very effective."

With this focus on fostering a workplace culture that encourages innovation and new ideas, Ipsen worked on changing the recruitment strategy and training new hires quickly and effectively.

Ipsen Corporate Academy was born from these goals. The Academy features a full-time trainer who teaches a structured six months books-to-business program to new hires. Ipsen also took an in-depth look at its onboarding process, customizing it to convey the values the company stands for — innovation, industry-leading heat treatment solutions, and high-quality services — as well as give new employees the tools they need to succeed.

EDUCATING THE INDUSTRY

However, Ipsen's education and training programs aren't just for Ipsen employees. Having provided training to the heat treatment industry for 30-plus years, Ipsen goes to great lengths to share its industry knowledge with the companies it serves.

That's where Ipsen U comes in. Ipsen U's three-day courses have a long-standing tradition of teaching best practices and helping improve equipment's performance and life span. The classes provide attendees with a broad overview of furnace equipment, processes, and maintenance, as well as a hands-on approach to learning while receiving qualified tips directly from the experts.

Ipsen experts also travel around the world to train and share their knowledge with thousands in the industry. In addition to providing training at customers' facilities, Ipsen also takes part in annual industry trade shows and holds one-day seminars such as Meet the Heat and HeatTec in Europe, maintenance seminars in the U.S., and customer days in China.

EVOLVING WITH THE INDUSTRY

Ipsen's constant vigilance in training and emphasis on innovation will be essential as the heat-treating industry continues to evolve to a point where thermal processing systems and applications will seamlessly intersect with the latest digital technologies.

"As more companies begin to realize the possibilities of the Internet of Things (IoT), I believe we will continue to see it emerge in ways that positively impact the productivity, efficiency, and operations of industries around the world — including the heat-treating industry," Somary said.

After all, integrating complex physical machinery with networked sensors and software for data trending and analysis contributes to product development and enhanced maintenance strategies. It also opens the door to new opportunities for growth. Over time, physical devices and the manufacturing process will become one entity as the IoT and integrated machines become more prevalent. In other words, the process itself will eventually become part of the physical, integrated system.

“Of course, PdMetrics is only a first step toward this goal,” Somary said. “Imagine a future where downtime is always avoidable ... a future where the best functioning furnace teaches another, lower-performing furnace how to improve. This is the future we are building and innovating toward.”

BEGINNING WITH A KILN

With a solid foot in the future — and around the world — it might be hard to believe that Ipsen began as a project for Lorraine Ipsen, the wife of company founder Harold Ipsen.

Lorraine made small ceramic figurines and dishes for friends and family. When her kiln broke down, Harold Ipsen — equipped with an engineering degree from Brown University — decided to design and build a replacement instead of buying a new one.

The new kiln produced wonderful results: no more cracking. As friends and acquaintances heard about the kiln, many began asking him to build one for them as well. It soon occurred to Harold Ipsen that he could take some of the elements of his invention and apply them to the business of heat-treating steel. With that decision, Ipsen Industries was born in Rockford, Illinois.

The company grew rapidly during the 1950s, including the addition of a manufacturing location in Kleve, Germany. Ipsen ended the decade by moving into a larger facility near Rockford in Cherry Valley, Illinois. On April 19, 1965, Harold Ipsen died in a plane crash at the Greater Rockford Airport. His family sold the company soon after.

The company continued its growth into the mid-1980s when Ipsen — a market leader in atmosphere furnaces — merged with Abar Corporation, a market leader in vacuum furnaces. Together, they became AbarIpsen Industries. In the 1990s, AbarIpsen expanded into China and India, becoming the first true global supplier of heat-treating systems at a time when customers were building factories



The Atlas integral quench batch atmosphere furnace offers ease of integration

all over the world and demanding the same AbarIpsen quality everywhere. During this decade, the company also changed its name back to Ipsen.

In 2000, Ipsen purchased VFS (Vacuum Furnace Systems) Corporation in Souderton, Pennsylvania, which added another brand and specialty skillset to the Ipsen portfolio. Ipsen later expanded into Osaka, Japan, in the same decade, establishing wholly owned manufacturing facilities in the United States, Germany, China, India, and Japan.

Today, Ipsen continues to provide expert-driven solutions that strengthen heat treatment throughout the world with an extensive network of global locations and partnerships in America, Europe, and Asia, along with representation in 34 countries.

STRONG FOCUS ON THE FUTURE

As Ipsen continues to position itself as an industry leader with a focus on providing expert-driven solutions, the company plans on emphasizing some key areas over the next few years:

Services: Ipsen wants to double its global service network over the next five years. While it supports customers for any brand of vacuum or atmosphere heat-treating system,

the company also will focus on expanding its product portfolio to include a broader range of custom equipment solutions.

Innovation: Ipsen spends millions of dollars annually on innovation, and the company looks to double down on those investments to further differentiate its products.

Expand variety of solutions: Ipsen prides itself on fully supporting the customers' complete value chain. This means the company doesn't just provide the furnaces and controls, but rather delivers full-scale solutions that play an essential role in making mission-critical parts.

Winning culture: Ipsen is not only focused on hiring employees who believe in innovation and pushing the boundaries of what's possible, but also on maintaining a culture characterized by trust, cooperative leadership, open communication, and teamwork.

With Ipsen's myriad of industry contributions and decades of experience, it's easy to see how Harold Ipsen's legacy of innovation still lives on in all the company creates. Whether it is the company's versatile heat treatment systems, advanced process technology, or extensive customer service, Ipsen aspires to provide cutting-edge solutions that continuously improve and refine its customers' operations. 🔥