



# Houghton International

Celebrating 151 years, Houghton International is a global market leader in metalworking fluids, bringing innovative and sustainable solutions that increase productivity, reduce operating costs, and improve product quality for its customers.

*By Molly J. Rogers*





Since its founding in 1865 by Edwin F. Houghton, the company has maintained its mission of combining environmental stewardship and social responsibility with the development, production, and management of the highest-quality specialty chemicals, oils, and lubricants. Serving the automotive, aerospace, metals, mining, machinery, offshore, and beverage industries, Houghton works with its customers to solve their unique challenges.

### A FOCUS ON INNOVATION

Starting from the company's earliest days, Houghton has been at the forefront of innovation. In 1865, then-named E.F. Houghton & Co. developed its first commercial product, called Cosmoline®, a lubricant and rust preventative made from Pennsylvania crude oil. During the late 1880s to early 1900s with the birth of the automobile, transcontinental railroad, and flight and transatlantic passenger voyages, Houghton was an innovative leader with products to facilitate newly created assembly lines and steel production.

In the mid 1950s, Houghton grew its factory operations and developed new products for worldwide distribution. With the invention of Houghto-Safe® as the first water glycol hydraulic fluid, the industry had its first fire-resistant, mission-critical fluid, which quickly became the standard for the U.S. Naval Fleet.

In 1998, Houghton introduced Hocut®795, the first biostable metal-cutting coolant, and it initiated its chemical management services, Fluidcare®. In 2009, Houghton introduced its NOA™ (Non Oleic Acid) technology, an enhanced aluminum hot rolling lubricant.

### A GLOBAL PORTFOLIO

Today, Houghton is headquartered in Valley Forge, Pennsylvania, employs approximately 1,900 people in 33 countries, and has 11 manufacturing facilities in 10 countries and five continents. The company was acquired by Gulf Oil International in 2012.

For the heat treating industry, Houghton offers a complete line of cold quenching oils, hot quenching oils, and aqueous quenchants. Houghton's product lines utilized in the gear manufacturing industry include lubricants for forging, metal removal (cutting, grinding, or drilling) operations, metal cleaning (fluids that remove soils and other contaminants from equipment and metal surfaces), and protection fluids used to temporarily protect metals from undesired effects caused by exposure to water, air, or other substances.

### CUSTOMER VALUE

Houghton works closely with its customers to help them gain maximum value from their investments in Houghton's products and services, reduce costs, improve productivity and product quality, and mitigate risks. Customers have access to Houghton's knowledgeable and experienced product and applications specialists, as well as the opportunity to engage in projects with defined objectives and measured value-adding outcomes.





after the sale,” Faulkner said. “By establishing customer intimacy, we are able to work closely with them throughout the entire process and identify process improvements and cost-reduction initiatives.”

To enhance its customer relationships, Houghton is dedicated to research and development, including application field support, waste reduction, product safety and stewardship, efficiency programs, and in-house synthesis and chemical design.

## INDUSTRY CHALLENGES

In the heat treating industry, Houghton has seen a substantial increase in material restrictions and regulations globally in the past decade, and it expects this trend to continue. There is an international initiative called the Globally Harmonized System (GHS) for hazard communication that is intended to align countries around the world in the classification and labeling of chemicals.

“This effort should ultimately simplify things, but for the next few years, it will increase the burden on manufacturers such as Houghton as nations around the world have taken different routes and timelines to bring their local systems into alignment with GHS,” said Dr. Dave Slinkman, senior vice president of Global Research & Technology.

“Houghton takes its role as the leader in the field of metalworking fluids seriously, and we have devoted significant resources to ensure that we will be completely GHS compliant by all deadlines,” Slinkman said. “This is no small effort when you consider that we have manufacturing operations on five continents.”

## FURTHER INVESTMENTS

According to Slinkman, Houghton will continue its efforts in the development of value-added biostable technology across product lines to provide fluids that will last longer in-use. The company is also making a significant investment in laboratory equipment to further enhance its capability in simulating the customer’s process, evaluate performance, and optimize new products as they are developed.

“The better we can replicate the customer’s process at the lab scale, the more effective and efficient we can be in quickly bringing innovative high-performing solutions to our customers,” Slinkman said. 🔥

For example, one of the company’s customers was using a competitive aqueous quenchant for induction hardening and experiencing maintenance issues with microbiological growth in the quenchant. Subsequent additives were required to eliminate microbiological growth and increase the pH.

“We converted the customer to Aqua-Quench® 145, one of Houghton’s biostable aqueous quenchants, and eliminated the odor and additive additions,” said Chuck Faulkner, product marketing manager for Heat Treatment & Metal Forming at Houghton. “This resulted in reduced operating costs and increased production for our customer.”

To provide customized solutions with sustainable results to its customers, Houghton follows a four-step process. First, identify the customer’s need through requirements definition and assessment. Second, design the optimal solution using Houghton’s formulation expertise. Third, implement the solution, providing application support and service and aiding in implementation. And finally, provide ongoing support through technical service, ensuring effectiveness of the solutions and monitoring the customer’s evolving needs.

“Houghton differentiates itself by providing value-added product technology along with technical service and support to our customers

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