

Forging

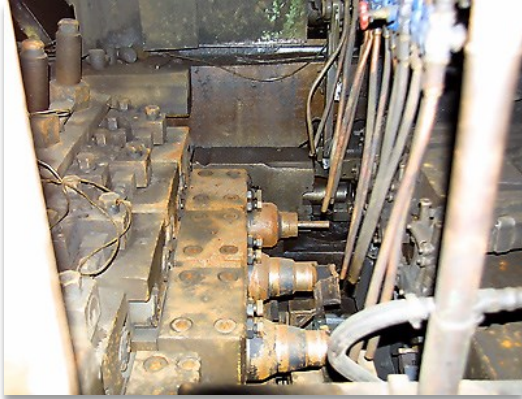
Case Study:

The use of Rust Veto® 2212-M saves the customer \$100,000 annually

The Unique Challenge

One of our distributors supplies a large forging and machining shop in the Midwestern United States. The shop was using water to cool their Hatebur machines.

The customer was only interested in cooling their parts and tools, so they used water as their coolant. This resulted in rusting on both the parts and the machine.



Used Hatebur Forging Machine

The Houghton Approach

The close partnership we have with the distributor helped to solve this problem – they brought this issue to Houghton because they knew we would have an effective solution.

Houghton proposed Rust Veto® 2212-M, which provides rust protection and cooling properties.

Rust Veto® 2212-M is an all-synthetic, non-staining aqueous-based rust preventive.



Rusted bolts and fasteners

Results and Benefits

As a result of switching to Rust Veto® 2212-M, all rust issues have been eliminated!

Other features and benefits include:

- **No Oil** — eliminates disposal problems
- **No Nitrites** — eliminates health hazards
- **Non-staining to brass or copper**
- **Hard water stable**

Rust Veto® 2212-M
A Biostable,
synthetic rust
inhibitor

Though Rust Veto® 2212-M resulted in an incremental cost versus water, overall the customer realized ~ **\$100,000 in savings per year** due to reduced downtime and part rework and lower maintenance costs.



HOUGHTON™

Fluid Partnerships Making A World Of Difference

Case study after case study demonstrates why Houghton International is leading the global Metalworking Fluids market today. Growth industries, such as automotive, aerospace, energy, steel and aluminum rolling, fabricated metal goods and energy, look to Houghton for Total Chemical Management. For over 150 years, our technology, coupled with value-added services such as formulation and on-site customization and monitoring, has reduced our customers' operating costs, improved productivity, increased product quality, and strengthened overall competitiveness. Currently, >13,000 customers worldwide, across a diversified range of manufacturing processes, have improved operations due to the mission-critical product portfolio of Houghton.

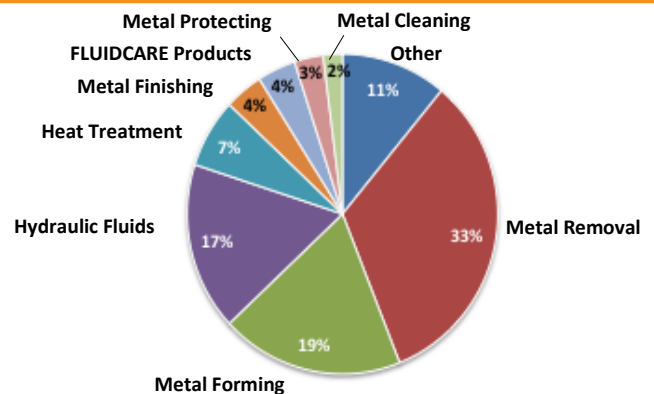
Building A Team For Customer Success

An approach that combines chemistry and technology with business expertise uniquely positions Houghton to support customer growth and changing market requirements. With over 2,000 employees in 33 countries, and 12 manufacturing facilities in 10 countries, we are well prepared to capture regional and local business opportunities and support growing expansion of global customers.

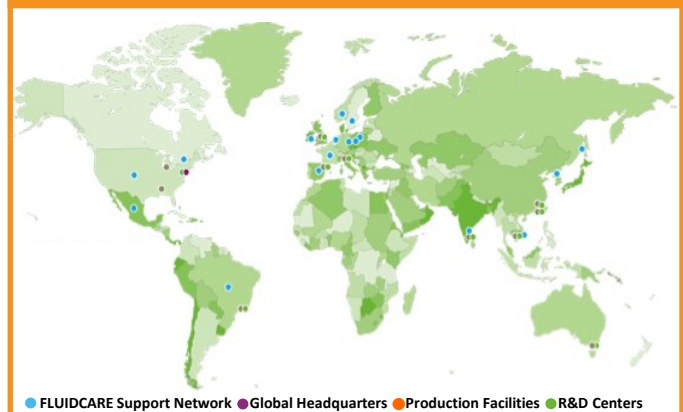
Through innovation, expertise and efficiency, our engineers and business specialists are able to build a team with the customer that ensures product optimization, employee health and safety, procurement and logistics management, and reduction of environmental impact. By providing both the solution to customers' fluid challenges and the foundation for continued improvement, Houghton offers a proven method of sustainable profitability.

For immediate consideration and evaluation of your fluids needs, and to request additional support material, please contact your Houghton International sales representative at houghtonintl.com/en-us/requestinfo.

Mission Critical Product Portfolio



Established Global Footprint



Established Client Relationships

Houghton International has long-standing partnerships with over

13,000 Leading Global Customers

servicing their metalworking fluids needs across a wide range of applications and diversified end-markets including **automotive, aerospace, fabricated metal goods, bearings, energy, non-ferrous and steel.**



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