

Sofame Technologies, Inc.

Customer Success Story

Autodesk® Inventor®

Autodesk® Intent™

AutoCAD®

Autodesk Consulting

With Autodesk Intent, we can use boiler performance data to quickly get a drawing of the system, a preliminary proposal and price, together with sheet metal drawings, bills of materials, and more. We'll be able to quote many more projects at once.

—John Gocek
President and CEO
Sofame Technologies, Inc.

Turning up the heat.

Sofame uses Autodesk software and Autodesk Consulting to accelerate the delivery of boiler efficiency systems.



Factory-built mechanical room. Image courtesy of Sofame.

Project Summary

Sometimes it takes many years and a lot of hard work to become an overnight success. Montreal, Canada-based Sofame opened in 1984, their first product being a system designed to recover and reuse the surprisingly large amounts of heat available in hot water produced by commercial clothes washers and dryers.

An early adopter of AutoCAD® software, Sofame expanded its business over the years to focus on industrial boilers, using its patented direct contact systems to help buildings recuperate 99 percent or more of the water and heat generated by gases produced by a typical boiler's flue, or exhaust pipes. Unlike other economizing and heat recovery systems using heating coils or steel pipes that cause lower recovery percentages, the Sofame® Percotherm® stack economizer and Percomax® water heater transfer the otherwise wasted heat contained in flue gases to a cool water shower, which is then moved through a heat transfer or "packing" material, where the water comes in direct contact with the rising heat generated by the boiler.

The result? Recapture of more than 99 percent of the energy contained in the boiler's natural gas source. In a market calling for innovative methods that increase energy and reduce waste, Sofame's 28 years of experience have never been so timely. Longtime users of both AutoCAD and Autodesk® Inventor® software, Sofame recently partnered with Autodesk Consulting to adopt Autodesk® Intent™ software to help reduce engineering and drafting time and more quickly deliver the customized Percotherm and Percomax systems to customers.

The Challenge

"At the heart of any building is the boiler," says John Gocek, president and CEO of Sofame. "There is a complex network of pipes, boilers, chillers, and more controlling the heating and cooling of a building. Even if there are significant savings involved, people don't make changes lightly. At Sofame, we have a proven technology, though it can seem dauntingly complex, even to experienced engineers. With Autodesk software, we are making our engineering processes not only faster, but easier to understand for our customers. We are also helping our customers to understand and mitigate any initial concerns about risk they may need to address."

Autodesk®

Autodesk Intent gives Sofame increased productivity and drawing quality without reducing flexibility.

Sofame has been using Autodesk Inventor software to automate the production of specialty fabrication drawings and the design of sheet metal pieces. In recent years, the company also reduced its fixed costs and began outsourcing most of its fabrication, sparking a greater need for more detailed and complete drawings, together with a more automated engineering process. By making these changes, Sofame was able to complete more work with less people.

"We've been doing our own programming in Inventor that will handle the output of all our engineering data," explains Gocek. "Our engineers and technicians can use Inventor to create a table with all the relevant engineering performance data. Instead of manually reproducing drawings, a draftsman can take that file and automate the construction of sheet metal parts. That saves a lot of time and effort, and we're also able to more accurately estimate material costs. We were so pleased with the improvements in the drafting process that we started thinking about how we could automate the engineering process as well. That's where Autodesk Intent comes in."

The Solution

Teaming with Autodesk Consulting, Sofame is poised to significantly streamline the company's engineering business processes, while reducing costs. With Autodesk Intent, Sofame can more easily integrate engineering software and codes that enable engineers to produce 3D drawings and cost estimates simply by entering boiler room performance data from potential customers.

"Intent drives Inventor to model and draw the system," explains Gocek. "Instead of spending more time and money doing repetitious design and engineering work, we can have our engineers and sales reps simply enter performance data from

customers. With Intent, we can use boiler performance data to quickly get a drawing of the system, a preliminary proposal and price, together with sheet metal drawings, bills of materials, and more. We'll be able to quote many more projects at once.

Though still in its early stages, Sofame has big plans for the integration of Intent and future partnerships with Autodesk Consulting. Currently, the Autodesk Consulting team has built applications that enable Sofame to automate the engineering processes on the Percotherm, and to set the stage for further use of Intent on the company's five other major products. Manufacturing is not a core business to Sofame and the company is pursuing an intentional program to move manufacturing to the most cost-effective locations as the work requires. By manufacturing close to the customer, Sofame has been able to reduce its costs, while supporting its sustainability initiatives. For his part, Gocek believes the integration of Intent will not only speed up, but significantly improve the company's sales quoting, drafting, and engineering processes in years to come.

"Autodesk Intent gives us increased productivity and drawing quality without reducing our flexibility, allowing us to engineer and build our products to meet each customer's specific requirements," says Gocek.

"Companies like Sofame are what Autodesk is all about," says Michael Stangl, senior director of worldwide business development at Autodesk. "Their innovative work to recover energy from boilers is making the world a better place, and they are using Autodesk software to do it. We could not ask for more."



Sofame Percotherm® in Battle Creek, Michigan. Image courtesy of Sofame.

To learn more about Autodesk Consulting, visit, www.autodesk.com/consulting.

To learn more about Sofame Technologies, Inc., visit, www.sofame.com.



Sofame Steam Pump® in Piscataway, New Jersey. Image courtesy of Tozour Energy Services, Inc.

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