

COMPANY

Watts Water Technologies, Inc.

LOCATION

North Andover, Massachusetts, United States

SOFTWARE

Autodesk® Inventor® Professional
 Autodesk® Vault Professional
 Autodesk® Showcase®
 Autodesk® Seek
 Autodesk® Revit®

Many of our customers have told us that they will use us over anyone else because we give them 3D BIM content.

—**Steve Hofmann**
 Marketing CAD Designer and Illustrator
 Watts Water Technologies, Inc.

Masters of water

Watts Water Technologies, Inc. transforms its Digital Prototyping data into BIM content for AEC customers

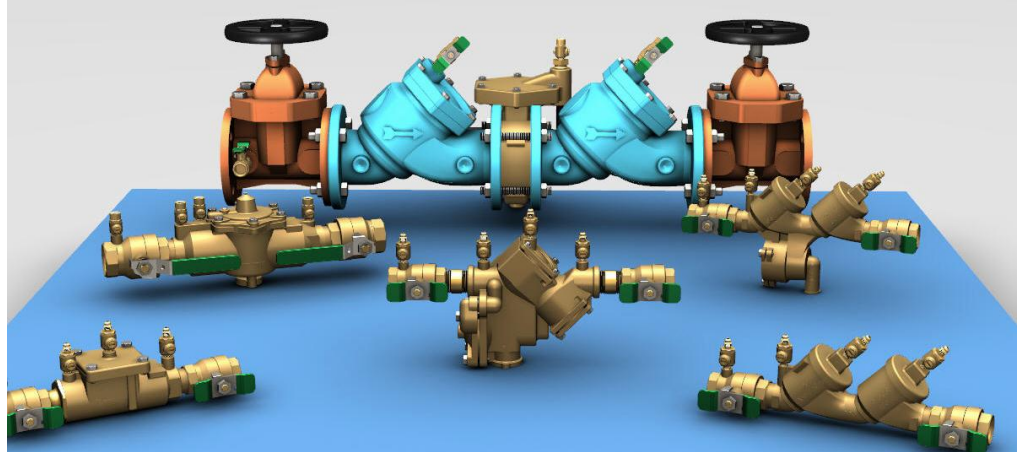


Image courtesy of Watts Water Technologies, Inc.

Project summary

Since 1874, the Watts Water Technologies, Inc. (Watts Water Technologies) family of leading brands including Ames Fire & Waterworks, BLÜCHER, BRAE, Dormont, FEBCO, Mueller, Orion, Powers, Sea Tech, Watts Radiant, and Watts have designed and manufactured valves and related products that promote the comfort and safety of people and the quality, conservation, and control of water used in commercial, residential, industrial, and municipal applications. Throughout its long history, the company has repeatedly set the standard for valve technology, including introducing the revolutionary combination temperature and pressure (T&P) relief valve in the early 20th century. Today, Watts Water Technologies provides one of the most extensive lines of products to the global water market.

With annual sales of more than US\$1.2 billion and over 5,000 employees worldwide, Watts Water Technologies continues to exemplify the power of innovation. A longtime Autodesk customer, Watts Water Technologies relies on Autodesk® Inventor® software to digitally prototype new products. Now, Watts Water Technologies is once again outpacing its competition by using its Digital Prototyping data to create Building Information Modeling (BIM) content—and to make it readily available to its architecture, engineering, and construction (AEC) customers. With help from Autodesk software, Watts Water Technologies has been able to:

- Develop BIM content faster
- Repurpose manufacturing content for marketing materials
- Capture market share by meeting customer demands

The challenge

With the weight of a century behind it, Watts Water Technologies is an indisputable mainstay in the water industry. But what makes the company a leader is its commitment to innovation. “Our new product development puts us way ahead, whether we’re converting to lead-free materials or designing a new type of thermostatic mixing valve,” says Steve Hofmann, marketing CAD designer and illustrator at Watts Water Technologies.

Watts Water Technologies’ industry leadership extends beyond developing advanced products for its customers; the company also strives to deliver exceptional customer service. So when it began to hear rumblings about BIM, Watts Water Technologies listened. “Increasingly over the last five years, mechanical, engineering, and plumbing (MEP) engineers have started requesting 3D and 2D CAD data to use in their designs,” explains Hofmann. “We realized that we needed to look into how to leverage our manufacturing data to produce the BIM content they wanted.”

Watts Water Technologies uses its manufacturing data to win customers, predict costs, and more

The solution

Watts Water Technologies relies on an all-Autodesk workflow to produce its manufacturing data. The company develops new product designs using Autodesk Inventor software, which helps speed the process of creating families of parts. Autodesk software is also instrumental in helping Watts Water Technologies reduce the amount of high-cost materials in its parts, while maintaining structural integrity and agency-approved flow rates so parts won't have to be recertified.

To that end, Watts Water Technologies tests and analyzes the digital prototypes it creates in Inventor using the software's built-in simulation and analysis tools. Once it has validated product performance digitally, Watts Water Technologies sends Inventor files to its shop, where they are used for manufacturing. Hofmann says, "Using Autodesk software has definitely cut back on the number of physical prototypes we have to produce."

From Digital Prototyping to BIM

Thanks to the enhanced AEC Exchange functionality in Autodesk Inventor software, Watts Water Technologies is able to efficiently turn the same Autodesk Inventor data used for manufacturing into the BIM content requested by its AEC customers. Creating and publishing this BIM content now takes a fraction of the time it once took. Hofmann utilizes existing Inventor files and uses the AEC Exchange functionality within Inventor to simplify and export them to Autodesk Revit-based software. He then adds additional metadata that MEP engineers may want—such as

weights, ordering codes, flow rates, and hyperlinks to specification sheets and installation instructions.

"With AEC Exchange, we're producing BIM content for entire product lines in three to four hours," Hofmann says. "In cases where we've already created a template, we can turn the manufacturing data for a product line into BIM content that our customers can actually use in less than an hour."

Easy access with Autodesk Seek

Watts Water Technologies publishes its BIM content to Autodesk® Seek, a web service that connects architects and engineers with manufacturers. "Right from a Revit-based product, our customers can search for parts and insert them into their designs," says Hofmann. "Then they can do analysis on flow rates or generate an accurate list of building materials for the construction manager."

Extending manufacturing data further

Watts Water Technologies is finding other uses for its manufacturing data as well. With Autodesk® Showcase® software, the company has begun to develop realistic renderings of products it can use in marketing materials. "Everyone is wowed by the images," says Hofmann. Watts Water Technologies is also in the midst of implementing Autodesk® Vault Professional data management software. With help from Vault, Watts Water Technologies plans to mine its Autodesk Inventor data to better understand how much material it needs to purchase for manufacturing. As a result, Watts Water Technologies will be able to project material costs as commodity prices change.

The result

With Autodesk software in its corner, Watts Water Technologies not only designs its products efficiently, but makes its manufacturing data readily available to sales, marketing, and finance teams who can use it to generate more sales and lower costs. Most importantly, Watts Water Technologies continues to demonstrate that its innovation moves beyond product design; the company leads the pack in delivering the BIM content customers want—and need—to do their jobs more efficiently.

Hofmann concludes: "We've heard nothing but good feedback. Many of our customers have told us that they will use us over anyone else because we give them 3D BIM content. Autodesk products are definitely helping us gain market share."

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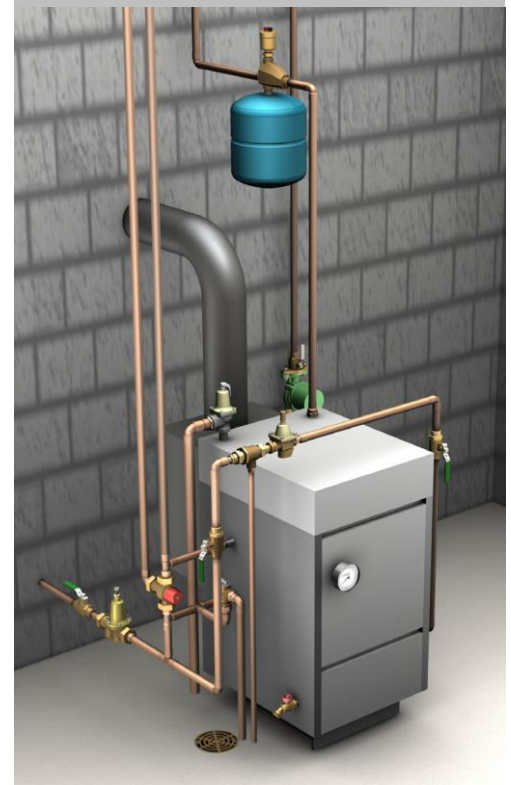


Image courtesy of Watts Water Technologies.

For more information

To find out how Autodesk and Digital Prototyping can help boost innovation, speed design times, and reduce errors, visit www.autodesk.com/building-products.

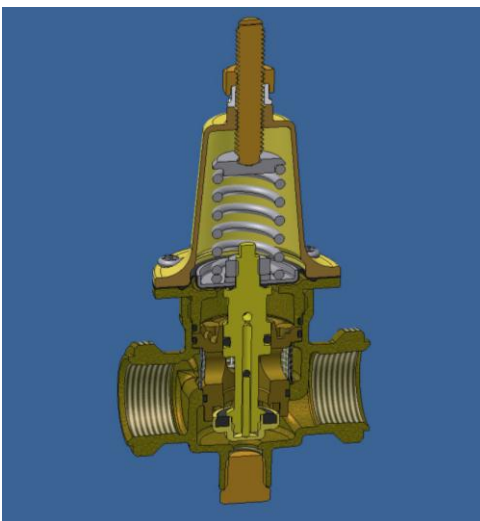


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