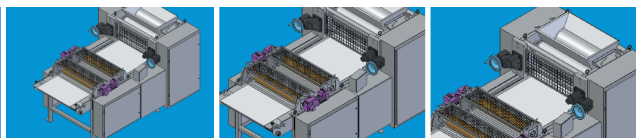


Productivity rises dramatically for Reading Bakery Systems

Siemens PLM Software

www.siemens.com/solidedge

► Issues:

Products require significant customization and thousands of drawings

Customer deadlines must be met to avoid costly penalty clauses

Unmanaged, out-of-date designs can't be trusted, causing costly redesign work

► Approach:

Move from old 2D design process to more productive 3D

Find an easy-to-use 3D design system with powerful assembly modeling sheet metal design capabilities

Incorporate design management to guarantee design integrity and share product information outside of engineering

► Results:

63 percent design productivity gain

Detailed drawing production time reduced from 3.2 hours to 1.2 hours

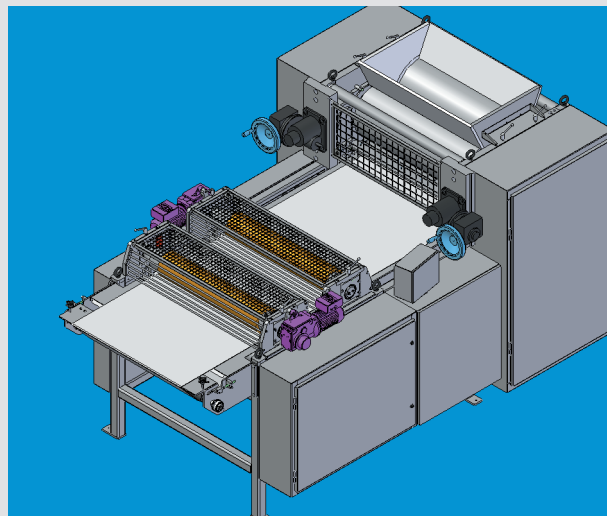
Produced almost three times as many drawings in first year

About half of all RBS employees (manufacturing, purchasing, sales, CNC shop) can now access current design data

READING BAKERY SYSTEMS

- CAD and design management give baking equipment manufacturer a 63 percent efficiency advantage and that's just the beginning.

In 2003, Reading Bakery Systems replaced AutoCAD with Solid Edge® software. The company's management does a good job of tracking engineering productivity and has been able to document a huge productivity increase since switching to the new software. Using AutoCAD, the average time needed to design a part and complete a detailed manufacturing drawing was 3.2 hours. With Solid Edge the same effort requires only 1.2 hours. The company has determined that in its first year with Solid Edge, it was able to generate 2.7 Solid Edge drawings for every one AutoCAD drawing it produced the previous year. And these statistics are based on only a partial use of Solid Edge because the company was still phasing in the new software over the course of the year.



Michael Cox, manager, Information Technology at Reading Bakery Systems, attributes the 63 percent productivity gain to two things: the ease of working in Solid Edge and the enhanced information access and control made possible by Insight, Solid Edge's built-in design management system. "While it's definitely easier to create designs and drawings in Solid Edge, we attribute a lot of the productivity gain to Insight," says Cox. "Insight permits the re-use of design data to a much greater extent because we can find existing information and we can trust it now. Also Insight has virtually eliminated problems such as saving the same file in multiple locations and overwriting another's work."

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*Michael Cox
Information Technology Manager
Reading Bakery Systems*

Baking equipment for the big jobs

Nestled in the rolling hills of southeastern Pennsylvania, Reading Bakery Systems (RBS) is a supplier of equipment used to produce pretzels, cookies, crackers, biscuits and pet treats. Over 50 years in business, the company has built up a worldwide customer base that includes such well-known companies as Frito-Lay, Nabisco, Keebler and Kellogg’s. RBS, which is based in Robesonia, Pennsylvania, produces a wide-range of equipment, everything from dough mixers to enormous ovens. Its products are not what you’d find in the back of your local bakery. “Our equipment is used for very high-volume production,” explains Cox.

Although RBS has product families, every system it sells is customized to some extent. That necessitates a significant design effort as well as many thousands of manufacturing drawings each year. As with all companies these days, RBS is under pressure from its customers to speed delivery of the equipment and it is often bound by contract to meet tight deadlines. “We do business all over the world and especially in foreign countries, there are penalty clauses,” says Cox. “If you don’t deliver by a certain date you pay a penalty. So it’s very important that we meet our delivery dates.”

In the past, RBS used AutoCAD to design and document its equipment. The increasing pressure to work more efficiently led management to look into solid modeling. After a trial run that convinced everyone of the value of this technology, RBS evaluated Solid Edge, SolidWorks and Autodesk Inventor. The company chose Solid Edge for several reasons. Not only did Solid Edge appear to be the easiest solid modeler to use, it also included the powerful assembly modeling and sheet metal design capabilities that RBS required. But equally important in the selection of Solid Edge was Insight, the built-in design management system. “We knew we needed to control our design data,” says Cox. “What is so nice about Solid Edge is that it gives you the basic infrastructure for design management (Insight) with the purchase of the software.”

Benefits in two areas

The switch from 2D to solid modeling brought immediate design advantages, such as parametric modeling and on-screen assembly and interference checking. After only a few projects done in Solid Edge, it was obvious that solid modeling was a faster and more accurate way of designing RBS’ large assemblies and other equipment. One area where the efficiency gains were immediately apparent was in the production of manufacturing drawings. “We used to spend large amounts of time creating assembly drawings; it was difficult and very time-consuming to do in 2D,” Cox says. “Solid Edge eliminates that process. You simply place parts into an assembly and it generates views of assemblies automatically.” In 2002, using AutoCAD, the average number of released drawings produced per user was 558. In 2003, with Solid Edge, the average number of released drawings per user was 910. (This comparison was made for the first year of Solid Edge use. Cox notes that the new software was not fully utilized at the time and that he expects an even greater difference when that is the case.)

Not only are assembly drawings produced more quickly, they are “far superior in terms of accuracy to anything created in 2D,” Cox adds. Designers now spend less time on the assembly floor when their equipment is being built because design intent is very clear in the drawings. This accounts for some of the designers’ productivity increase. The other outcome of better drawings is less rework. “Designs created with Solid Edge have gone together better than designs in AutoCAD,” says Cox.

Solid Edge’s design management software, Insight, gives RBS important information access and control capabilities that it did not have with AutoCAD. In those days, designers found it easier to recreate existing designs than to find and re-use them. Locating the file was only part of the problem. Because there was no

Solutions/Services

Solid Edge
www.siemens.com/solidedge

Client's primary business

Supplier of equipment used to produce pretzels, cookies, crackers, biscuits and pet treats. RBS produces a wide-range of equipment, everything from dough mixers to enormous ovens.
www.readingbakery.com

Client location

Robesonia, Pennsylvania
United States

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*Michael Cox
Information Technology Manager
Reading Bakery Systems*

formal design management system, “we didn’t always trust the existing design,” explains Cox. “It could be that there had been problems with it and those documents wouldn’t be attached or that the design had been modified without a new version being made.” Insight solves problems such as these. It makes locating a design as simple as typing its name (or other descriptive information) into a search engine. It prevents released drawings from being changed and it lets users attach

documents in any format to Solid Edge models. With Insight, RBS has increased design re-use because designers can find and trust their previous work.

The other key use of Insight is for sharing engineering information beyond engineering – to people in manufacturing, technical services and sales. In the past, the company tried to extend the use of this information by installing some seats of AutoCAD LT. This wasn’t entirely satisfactory because the software was difficult to use. Also there was the possibility that someone outside engineering might modify a drawing by mistake. Insight is built on the popular Microsoft Sharepoint server. About one-half of RBS’ employees have Sharepoint access, which means that they can locate and view (but not modify) engineering information – from their own computers using their Web browsers. “We have installed Sharepoint on the computers of all of the manufacturing managers, in the CNC shop, the purchasing department and even on the laptop computer of one sales person,” says Cox. “They can search for designs, view them, rotate them and see bill of material information.”

Cox is in the process of creating a link between Insight and RBS’ MRP system, which will increase the value of design data even more. The current version of Insight supports the new revision of Sharepoint, built on the Microsoft SQL Server database. RBS’ MRP system is also built on this popular database. Once Cox has finished developing (using Visual Basic) the interface between Solid Edge and the MRP system, information from Solid Edge models will be able to populate the MRP database and property information from MRP will be able to populate the Solid Edge bills of materials. “The new version of Insight will let us leverage our investment in SQL Server,” Cox says.

RBS implemented Solid Edge and Insight as a way to work more efficiently, make fewer mistakes and meet delivery dates. In just one year with the new software, the company has plenty of hard evidence that it made the right choice.



► For more information, contact your local Solid Edge representative:

► **Contact**

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