SIEMENS

Solid Edge

DeLaval

Using Solid Edge, DeLaval creates smart products for smart farmers

Industry

Industrial machinery and equipment

Business challenges

Manage and re-use large amounts of 3D CAD drawings

Provide the highest quality products and services

Incorporate technological and strategic innovation as a business value

Keys to success

Incorporate CAD drawing requirements into an overall product design management strategy

One single design platform for all products

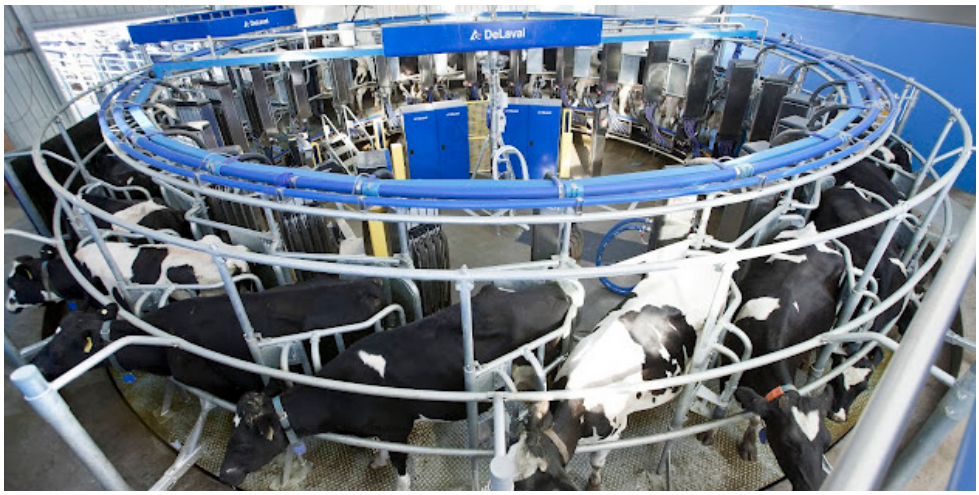
Ongoing support from the distributor, Avalon

Results

Substantially improved engineering productivity and faster design changes

3D CAD data utilized across offices

Significantly reduced process complexity and operations costs



Company helps milk farmers all over the world to work smarter

Smart Farming

Since it was established 125 years ago, DeLaval has been focusing on solutions for the dairy industry. Founded in 1878 by Swedish inventor Gustav DeLaval, the company has now evolved into a major global player in the dairy equipment market and for animal husbandry. The global spread and long history has given DeLaval broad expertise in the various aspects of milk farming, which the company has developed into the concept of "Smart Farming." For DeLaval, Smart Farming is about empowering today's dairy farmers with the decision tools and automation technologies that seamlessly integrate products, services and knowledge for better quality milk, herd management, productivity and profit.

Smart Farming is thus about innovation, especially the ability to harness automation and information technology for the efficient use of resources, resulting in higher milk production and improved cost control. For this, DeLaval is the only supplier in the industry that can provide solutions to satisfy a holistic view of farm profitability through all areas of Smart Farming. All of DeLaval's products, except for Herd Management, are developed using Solid Edge® software from Siemens PLM Software.

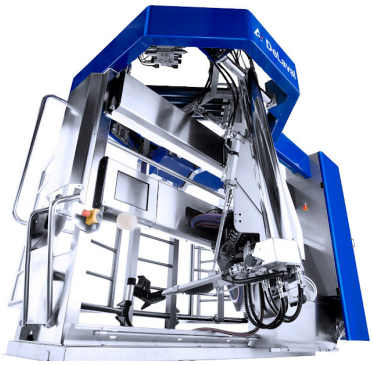
Many and varied needs of milk farmers around the world

DeLaval has been using Solid Edge since 1998, which is a real marquee year for the company. In addition to implementing its 3D computer-aided design (CAD) system, DeLaval also launched its first voluntary milking system (VMS), a milking robot

Results *(continued)*

Ability to focus on designing instead of operating the CAD software

Complying with all facets of rigorous ISO certifications, while building unique product solutions significantly faster than prior method



"The Solid Edge software is ideal for us as we can use it to design parts, sheet metal, assemblies and drafts. Solid Edge is also a design tool that engineers, in many cases, already are familiar with from their time at the university, which lowers the threshold for designing at DeLaval."

"Today, we can do things and create products that were impossible 15 years ago. We are capturing a competitive advantage by developing offerings that are more technically advanced and easier for the customer to use, and getting them to market faster than ever before."

Anders Jansson
CAD System Administrator
DeLaval

designed to take the pressure off the tight schedules of modern milk farming and make the farmer's life and work easier.

"Today's farmers are generally very demanding regarding their choice of technical equipment," says Anders Jansson, CAD system administrator at DeLaval. "Their equipment needs to work reliably 24/7, and we need to make sure that it is able to do that over a long period of time. Even though the challenges for milk farmers are similar around the world, they are also different in many respects depending on the size of the farm and kind of animals they herd."

As the company is active in more than 130 countries, DeLaval needed to provide a number of products suited to the various needs of milk farmers all over the world. The production of milk is increasing and, besides cows, there are also goats, sheep and buffalos that are part of animal husbandry and dairy farming. In numbers, this means that DeLaval has more than 140 products just for dairy farming that need to be maintained and developed on a continuous basis. Jansson says that DeLaval has a very customer-driven philosophy and constantly adapts to the customers' demands, and thus needs to be able to re-use components in different products to be efficient. DeLaval also has the need to share design data across the organization, which is made possible through the JT™ data format.

Jansson says that Solid Edge was selected after a careful benchmarking procedure. DeLaval used a system from Intergraph. Then, in the late 1990s, the company evaluated what was to become Solid Edge. "Already at that point, we understood that this was a future-oriented software in the making. This was the embryo to the Solid Edge software from Siemens PLM Software, which has been proven to be a perfect fit for us since then," says Jansson.

Demanding and varied business environment

Due to its demanding and varied business environment, DeLaval needed a solution that would provide a future-oriented, common platform for the engineers to develop new products both from scratch and via re-use of data from existing models. Today, DeLaval has around 120 users of Solid Edge for the development of products in such various fields as milking, cow comfort, barn environment, feeding and manure handling. "The Solid Edge software is ideal for us, as we can use it to design parts, sheet metal, assemblies and drafts," says Jansson. "Solid Edge is also a design tool that engineers, in many cases, already are familiar with from their time at the university, which lowers the threshold for designing at DeLaval."

Solutions/Services

Solid Edge
www.siemens.com/solidedge

Teamcenter
www.siemens.com/teamcenter

Customer's primary business

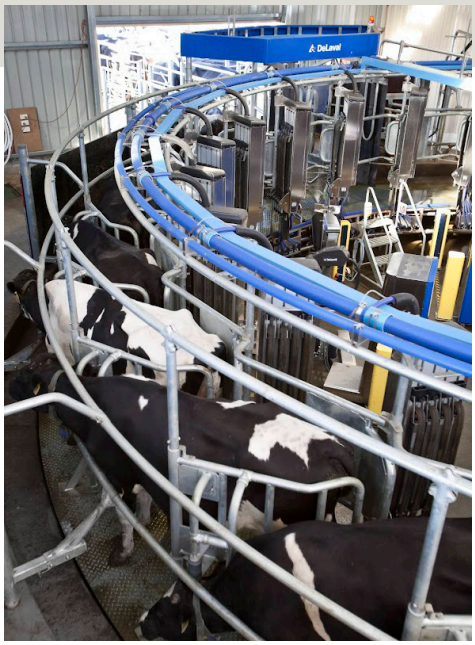
DeLaval is a leading supplier of solutions that improve the performance of farms for professional food producers. DeLaval supports its customers in reducing their environmental footprint, while improving food production, profitability and the well-being of the people and animals involved. DeLaval offers products, systems and services for all steps of milk production. DeLaval was founded more than 125 years ago in Sweden, when the visionary Gustaf DeLaval patented the cream separator. Today, DeLaval has 4,500 employees and operates in more than 100 markets. DeLaval, alongside Tetra Pak and Sidel, is part of the Tetra Laval Group.
www.delaval.com

Customer location

Tumba
Sweden

Partner

Avalon Innovation



At present, DeLaval maintains over 100,000 3D files created using Solid Edge. An important task is the creation and maintenance of service instructions and exploded views. "These were a tedious task to produce, as the illustrators needed to ask the engineers to generate all the views," says Jansson. "Now the illustrators use Teamcenter visualization to view 3D CAD views created directly from the JT data files, and are able to produce any view themselves. The previous way of working was simply not feasible." Teamcenter® software, also from Siemens PLM Software, is a complete product lifecycle management (PLM) solution.

The backup of a strong supplier

Avalon Innovation, a Siemens PLM Software partner, provides solutions and industry-independent expertise in business, system and product innovation. With nearly 300 employees at 15 offices in Sweden, Norway and Denmark, Avalon Innovation helps DeLaval develop working procedures and implement new system features. Avalon Innovation has implemented all the adaptations necessary to deliver Solid Edge according to the requirements of the highly specialized world of dairy farming. A Siemens PLM Software Gold Partner, Avalon Innovation has provided development and support for DeLaval's PLM needs since 2010.

A distinct edge backed by new possibilities

Overall, DeLaval has substantially improved engineering productivity, primarily from its ability to make design changes significantly faster using Solid Edge. With Solid Edge, the company is now sharing and exploiting CAD data across its offices, which means greater knowledge re-use. Best practices have been improved. Solid Edge is easy to use, so designers are designing instead of trying to conquer CAD technology. Operations costs are also notably down. In addition and quite importantly, DeLaval is readily complying with all facets of rigorous ISO certifications.

"Today, we can do things and create products that were impossible 15 years ago," says Jansson. "We are capturing a competitive advantage by developing offerings that are more technically advanced and easier for the customer to use, and getting them to market faster than ever before."

He adds, "We are constantly balancing the endless possibilities of what we can do using Solid Edge with customer needs, and what we are able to handle within our working procedures. As we are constantly looking for ways to improve the lives of our customers, the challenge is to develop our working procedures in accord with the possibilities of the tools we are using. In the future, we are looking at providing our customers with even more detailed information and manuals, perhaps as 3D animations."

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