

Machinery • Medical devices

Bausch+Stroebel

Single source of product data facilitates regulatory compliance

Products

NX, Teamcenter

Business initiatives

New product development
Enterprise data management
Regulatory compliance
Production efficiency

Business challenges

Customers in highly regulated industries
Time-to-market pressure
Customer-specific solutions

Keys to success

PLM initiative supported by
BCT Technology
Single source of product
information
3D engineering
Automated BOM

Results

Greater precision and flexibility in project and design engineering
More accurate product information
Significantly reduced costs



PLM implementation increases efficiency and flexibility, improving fulfillment of customer requirements and regulatory compliance

Compliance-heavy industries

Bausch+Stroebel GmbH & Co. KG
(Bausch+Stroebel) designs and

manufactures packaging and production systems for the pharmaceutical, cosmetic and chemical industries. The company's 860 employees are located in Germany, USA, France and Japan. Over the course of its 40-year history, Bausch+Stroebel has become one of the most important providers of technically as well as economically efficient packaging solutions.

“We selected BCT Technology to support our PLM strategy due to the great performance of its products and the high quality of its consulting and training services.”

Michael Pratz

Department Chief, CAD/PLM Administration, Technical Documentation and Automation
Bausch+Stroebel

Prerequisites for maintaining the market-leading position include constant change, an understanding of the market, and the ability to meet customers' requirements. In consultation with a customer, Bausch+Stroebel's specialists create manufacturing solutions for ampoules, bottles, vials, syringes and cartridges that perfectly match the customers' products. In addition to designing and providing high performance packaging machines (which cover the entire packaging cycle from purification and sterilization to filling, sealing and validation, to labeling and transporting 1,500 to 60,000 units an hour), the company's service portfolio includes facility planning, validation, installation and operational qualification.

To provide the customer with an optimized production process, many factors must be considered in the planning of the automated lines during the runup to the engineering. These include atypical circumstances, existing logistics, support and disposal connections as well as air conditioning systems and more. Large engineering teams consisting of specialists from different domains design the machinery, which is a mix of 50 percent mechanical parts and 50 percent electric, electronic, software and automation components.

The rise of mechatronics increases the ability to customize but also adds to the complexity of a design. Compliance

management sets up additional challenges. The compliance requirements of pharmaceutical companies are enormously high; sometimes specification requirements fill hundreds of folders. Bausch+Stroebel must provide complete, traceable and documented evidence that all equipment has been manufactured in accordance with design documents, valid specifications, the European Union Good Manufacturing Process (GMP) guidelines as well as the recommendations of the Pharmaceutical Inspection Convention (PIC). As a result, installation and verification account for one-third of the effort involved in delivering a complete product.

Single source of information

Bausch+Stroebel's consultation, sales, production, assembly, service and R&D is performed at a single location. There, the many different project participants need access to up-to-date information for managing processes ranging from requirements engineering to project and design engineering, to production and verification. That is why Bausch+Stroebel decided to implement a central information platform based on the Teamcenter® digital lifecycle management solution from Siemens PLM Software. This platform incorporates additional product lifecycle management (PLM) functionality, called PLM-easy, from BCT Technology AG, a Siemens solution partner.





This information system (Teamcenter with PLM-easy) was designed for medium-sized machinery companies. Teamcenter enables the managing and sharing of all product design data and most importantly, eases the creation and management of documentation throughout the company. Also, complete BOMs are administered by the Teamcenter-based solution. Due to Bausch+Stroebel's CAD history, which includes many systems used in parallel, a multi-CAD environment must be maintained and various data formats must be managed. With help from BCT, Bausch+Stroebel was able to integrate existing 2D CAD applications into Teamcenter, enabling convenient drawing management. Now, gradually, all other information is being included as well.

3D to cope with increased complexity

Because the increased complexity and time pressures of the company's projects had rendered 2D insufficient, another element of BCT's strategy for increasing production efficiency at Bausch+Stroebel was the implementation of the NX™ digital product development software. With 2D, especially 2D assembly drawings, some sectional views were not available, letting machines

enter detailing without a complete description and leading to problems in downstream processes. With NX 3D engineering functionality, fewer problems occur and the remaining ones are identified in earlier phases of the product lifecycle.

In addition, digital mockups can be created with NX at every stage of development to examine engineering quality. The assembly process has been improved by the use of digital mockups and because the

“Now we are more efficient, arranging facilities exactly to the requirements of our customers.”

Tobias Hörner
CAD/PLM Team Leader
Bausch+Stroebel

Solutions/Services

NX

www.siemens.com/nx

Teamcenter

www.siemens.com/teamcenter

PLM-easy

Customer's primary business

Bausch+Stroebel GmbH & Co. KG is one of the leading manufacturers of high-tech health-care packaging systems. www.bausch-stroebel.com

Customer location

Ilshofen
Germany

Partner

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assembly personnel now have direct access to 3D data. In addition, NX makes it possible to change designs to meet specific requirements simply by manipulating parameters. This facilitates customer-specific arrangements of equipment, increasing overall production efficiency.

The integration of NX and Teamcenter has simplified information sharing in sophisticated processes such as multi-body simulations and geometry optimization. In fact, Teamcenter has improved the exchange of information throughout the entire company. Drawings are no longer necessary for final assembly, and Teamcenter gives team members direct access to all CAD data.

This solution provides many benefits to Bausch+Stroebel. Processes are more streamlined. CAD models are more detailed and more precise. Communication between engineering and other depart-

ments is more efficient. And faster model modifications are leading to shorter cycle times. Information that is updated online and directly accessible by every department improves machinery design and verification. In addition, Teamcenter accelerates and automates the creation of spare parts catalogs. A complete catalog is generated from the BOM and published at the push of a button, saving considerable resources on monotonous work.

The next step in Bausch+Stroebel's PLM initiative is the complete integration of its electromechanical applications into Teamcenter. This will be done in cooperation with BCT and Siemens PLM Software, and will result in another range of applications maintained within the single knowledge database. At the end of that project, a redundancy-free database providing direct information access to all company departments will be established.

Siemens Industry Software

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