

Industrial machinery and heavy equipment

Sicma

Provider of pulp and paper handling equipment uses NX and Teamcenter to enhance plant engineering efficiency

Products

NX, Teamcenter

Business challenges

Shorten the development and engineering cycle

Provide customers with detailed documentation so they can comply with safety standards

Share useful information across all departments

Keys to success

Use NX to virtually check footprint and assembling, avoiding costly mistakes downstream

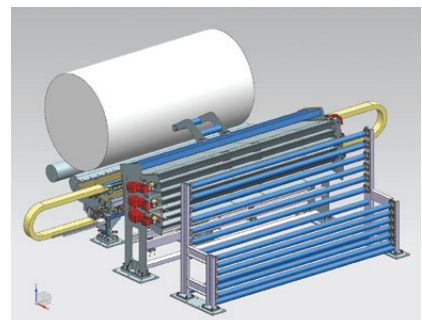
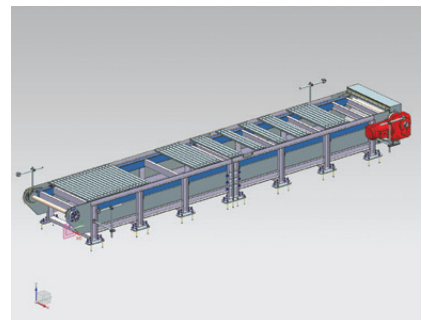
Use Teamcenter as a unified repository to make all project-related information and documents accessible to stakeholders

Results

Achieved greater efficiency in plant engineering and the production of related documentation

Integrated management of project data and operational processes

Provided stakeholders with real-time access to data and documents



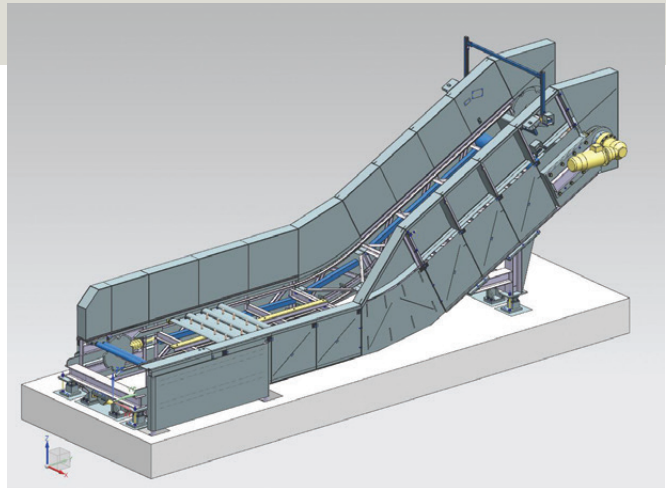
Siemens PLM Software solutions enable Sicma to integrate project data and operating processes

From Italy to the world

Sicma S.p.A. (Sicma) is a model of the Italian manufacturing industry, boasting excellent technological expertise and a strong focus on global markets. The company, which celebrated its 50th anniversary in 2012, is based in Mondovì, near Cuneo in northwest Italy. It specializes in producing handling equipment for paper mills, from raw materials such as waste

paper and cellulose, to finished products such as paper coils and tending equipment for converting machines. Sicma delivers solutions for all types of paper, from soft tissue to hard paper, to customers all over the world, including Europe, India, Korea, Argentina, Brazil and the United States.

Sicma employs 65 people and has supply chain companies in related industries, including polyurethanes, industrial automation, bending machines for metal profiles, and subcontracting.



“With NX, we have significantly improved the engineering and optimization of our plants.”

Daniele Fulcheri
Operations Planning Manager
Sicma S.p.A.

“We work with an OEM approach,” says Daniele Fulcheri, who is in charge of operations planning, working in the office that handles the workflow from order entry to production. “We follow projects from sales to commissioning and service, developing all systems internally, through a number of departments, including engineering and automation, metal construction machining, and assembly. We deliver turnkey plants, including cabling and software.”

Sicma’s technical staff, which includes eight people in engineering and five in automation, collects customer requirements for productivity, production rates and specific layout needs. Projects can be developed from scratch (greenfield) or are upgrades of existing lines. Based on the preliminary layout, an offer is drafted and sent through subsequent modifications and releases until it generates an order for the development of the final project. “All information is processed into internal orders that are sent to different manufacturing areas,” Fulcheri says. “All equipment is

tested in the factory, especially the most complex plant sections tended by robots. Installation at the customer’s site is supervised by our service, training and after-sales staff, with regular maintenance agreements and periodic visits.”

Three dimensions to cut lead time

In recent years, the pulp and paper industry has seen a significant reduction in the product development cycle. Having started with conventional 2D software, in 2010 Sicma’s technical staff defined a three-stage process to implement a 3D design and a product data management system suitable for large assemblies.

“The project started in the engineering department,” Fulcheri says, “and then it was extended to other enterprise areas in stage two and three to fully leverage the potential of PLM (product lifecycle management) technology.”

After a short experiment with 3D software that did not meet Sicma’s expectations,

the company adopted NX™ software and Teamcenter® software from Siemens PLM Software to meet the goal of reducing lead times.

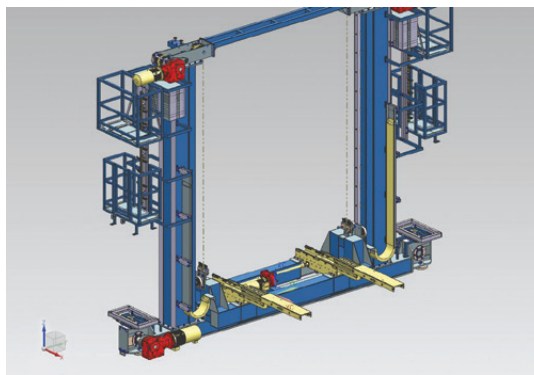
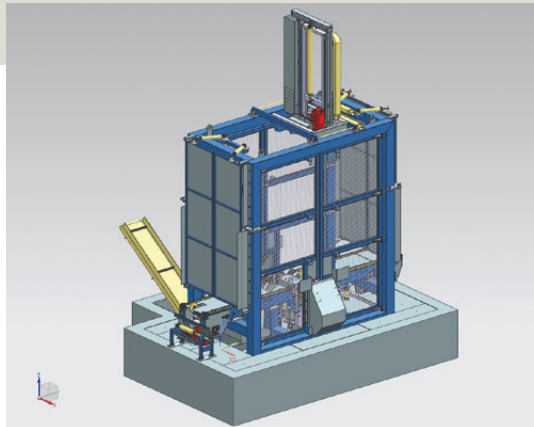
“After a false start, we identified NX as the 3D reference software in our industry, so we started to look for an implementation partner,” Fulcheri recalls. Sicma began its collaboration with Team3D – an authorized reseller of all Siemens PLM Software products since 2006 – which studied the project together with Sicma and drafted guidelines to match customer requirements with Siemens PLM Software solutions. NX and Teamcenter were set up according to the customer’s needs, then specific tools were added, including a classifier and frame for metal profile management.

“The frame tool covers 80 percent of our needs and offers the biggest added value compared to the previous 2D and 3D solutions,” Fulcheri states.

Once NX was introduced, the engineering department was able to check important requirements early in the design process, such as assessing the suitability of a new plant’s footprint and assembly procedures for compliance with design goals, project specification and customer conditions. This enabled more accurate drawings that avoided wasted time and delays downstream.

“With NX, we have significantly improved the engineering and optimization of our plants,” Fulcheri says.

In addition, there was a specific request from Sicma salespeople to provide customers with more thorough and accurate documentation and manuals, as most of these companies are multinational corporations with strict safety regulations. “In this respect, NX has also offered great results,” Fulcheri says. “Now we are evaluating specific tools to further improve the production of manuals and documentation.”



Process management

Adopting Teamcenter fulfilled Sicma’s second demand: integrating the engineering department with other enterprise areas to provide all stakeholders with useful information for business operations in general.

“With Team3D’s support, we set up a structure with multiple containers where each person can find all information and documents relating to a project,” says Fulcheri. “This includes documents and data that were previously unavailable, such as sales specifications, technical specifications, offers and documents from the engineering department.”

Team 3D highlights the significance of the PLM implementation at Sicma, where Teamcenter is used to manage not only data, but also business processes, starting with sales and order acquisition. In the first phase spanning about six months, computer-aided design (CAD) data management was up and running in the engineering department, then it was gradually extended to other areas. The next step was the retrieval of bills of materials

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Sicma SpA

Solutions/Services

NX

www.siemens.com/nx

Teamcenter

www.siemens.com/teamcenter

Customer's primary business

Sicma S.p.A. specializes in the design and construction of handling equipment for raw materials and finished products in the paper industry.

www.sicma.com

Customer location

Mondovì, Cuneo
Italy

Partner

Team 3D

"We have achieved excellent results without a big effort. The project has been handled efficiently without any inconvenience."

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(BOMs) and their alignment to the new structure in Teamcenter.

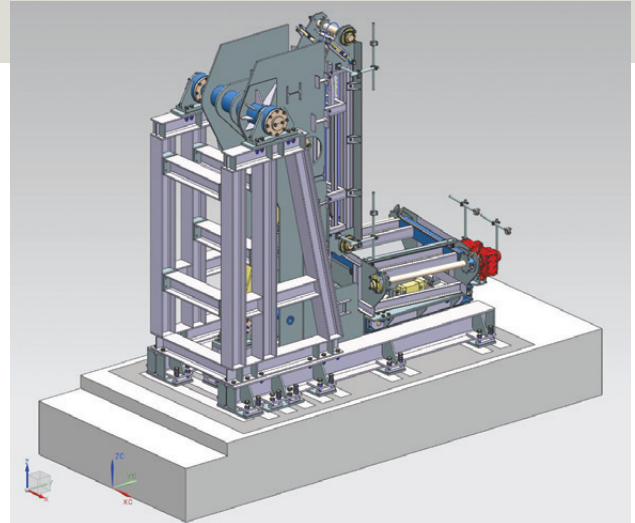
"Our BOMs are created in the engineering department and we wanted to preserve this feature," Fulcheri explains. "Teamcenter enabled us to introduce a new solution to have all the benefits of PLM with a smooth and painless transition."

Long-term vision

Sicma's goal is to extend Teamcenter gradually across the organization to improve the distribution of project information. Team 3D anticipates this extension will include electrical design tools, computer-aided engineering (CAE) and digital manufacturing. A representative of Team 3D explains, "Sicma management appreciated our project, which was presented to the board with a long-term vision that encompassed not only design and data management but also other value-added services and technology, such as CAE services.

Looking ahead, the company is also evaluating the Tecnomatix portfolio, also from Siemens PLM Software, to design, simulate and virtually test the functionality of a plant, cycle time and other aspects related to manufacturing."

Regarding the implementation of Siemens PLM Software technology in collaboration with Team 3D, Fulcheri notes, "We have achieved excellent results without a big effort. The project has been handled efficiently without any inconvenience."



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