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# CATIA for Industrial Equipment



**About Dassault Systèmes**

As a world leader in 3D and Product Lifecycle Management (PLM) solutions, Dassault Systèmes brings value to more than 100,000 customers in 80 countries. A pioneer in the 3D software market since 1981, Dassault Systèmes develops and markets PLM application software and services that support industrial processes and provide a 3D vision of the entire lifecycle of products from conception to maintenance to recycling. The Dassault Systèmes portfolio consists of CATIA for designing the virtual product - SolidWorks for 3D mechanical design - DELMIA for virtual production - SIMULIA for virtual testing - ENOVIA for global collaborative lifecycle management, and 3DVIA for online 3D lifelike experiences. Dassault Systèmes' shares are listed on Euronext Paris (#13065, DSY.PA) and Dassault Systèmes' ADRs may be traded on the US Over-The-Counter (OTC) market (DASTY). For more information, visit <http://www.3ds.com>.

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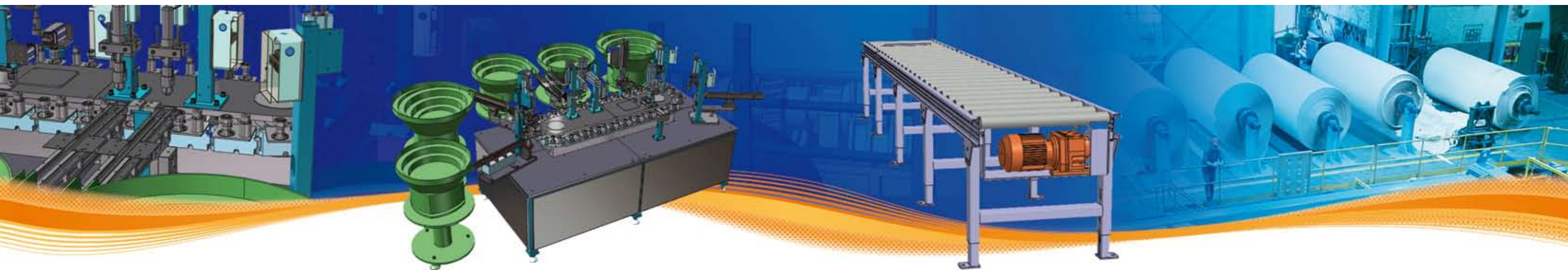


# The Challenges

The production of industrial equipment is highly specialized and often requires design customization of extremely complex equipment. Because of the product complexity, bid cycles are longer and it is difficult to estimate the cost without feasibility studies, which is another important time consuming factor. In addition, the design and production of industrial equipment products require a profound level of collaboration between different geographical locations, teams, and suppliers.

# Move Full Speed Ahead

Whether you manufacture metal working, woodworking, textile, food, product packaging, compressors, pumps, or any other type of industrial equipment – CATIA for Industrial Equipment can help you meet global market requirements. Getting started with CATIA for Industrial Equipment will quickly get you on the road to higher productivity.



To lead your company toward winning results, industrial equipment managers need to:

- capitalize on each project by reusing knowledge from previous designs
- use complete intelligent modules that automatically select and adopt appropriate standard components
- estimate cost accurately based on previous project experience
- manage development of increasingly complex products by incorporating rules related to industry standards

- reduce cycle time for build-to-order make engineering design changes late in the process easily and quickly
- collaborate easily and securely throughout the supply chain
- incorporate maintenance data and production documentation in a user-friendly database

Globalization and the demand for shorter product lifecycles are key drivers for the adoption of an integrated and easy-to-use PLM solution, which helps you to rise above

the competition. Companies who choose PLM solutions are strongly positioned to experience the benefits of a competitive advantage. Currently, industrial equipment companies are facing daily challenges such as greater product complexity, long cycle times for bidding, lack of coordination, and high maintenance costs. CATIA for Industrial Equipment offers a solution specifically designed to help you meet every one of these challenges.

## Bid Faster

The first step to saving time on long bid cycles is to stop designing from scratch. CATIA for Industrial Equipment enables you to exploit the knowledge you already have from previous designs and projects. With the help of an intelligent database, you can manage your ongoing and future development in a single environment. In addition, you can embed company and international standards into templates, further reducing errors and saving time and money.

The parts and machines that you're designing are extremely complex, making feasibility studies and component estimates highly time consuming. You can save time and reduce costs because CATIA for Industrial Equipment enables you to easily simulate your design directly in the design environment. You can quickly define virtual prototypes to analyze the behavior of the complete mechanisms in action or you can reuse the results taken from earlier studies. Once you know which parts are feasible you can develop standard parts, reducing the

SERRA SOLDADURA

*“Our experience shows that we can achieve 20% time saving at the design phase with CATIA and up to 40% on some projects. It now takes us 180 hours to design a new jig, compared to 300 hours previously.”*

José Bernal  
Design Group Manager

*“Regarding design quality, we have achieved remarkable results. Errors found at the final assembly stage have decreased by 30 to 40%. In addition, we can respect increasingly severe customer demands to cut lead-time.”*

Satoshi Yasuda, Manager  
Mechanical Engineering Department

SANYO MACHINE WORKS

development and creation of customized parts and reducing costs.

Bidding and design phases can be dramatically optimized because designers are now able to get a quick and relevant design by reusing 50% to 70% of previous product design, allowing them to spend more time on innovation so that they can focus on precise customer needs.

**Work Together**

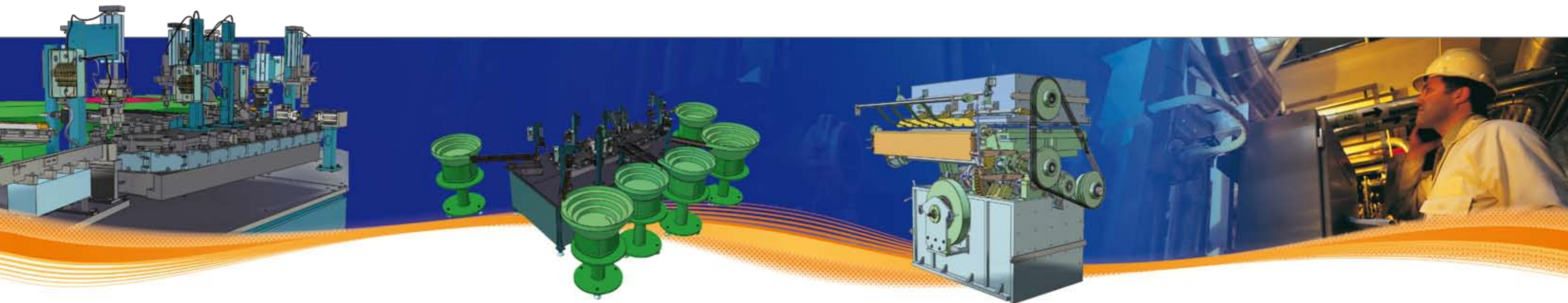
Collaboration has never been more important than it is today. With so many key players in so many different geographical locations, meticulous collaboration is essential to design success. The challenge is how to ensure design consistency between all players, and to be sure the same standards and quality rules are being applied so that everyone becomes efficient together.

CATIA for Industrial Equipment offers a secured collaborative environment that is accessible throughout the supply chain. This enables you to share and transfer the most up-to-date information and work concurrently, harmonizing the work environment even further. In addition, 3DXML, the universal XML-based format, enables the communication of 3D information quickly and easily so that customers clearly understand your

*“With CATIA, the various departments involved in a project can carry out their work concurrently and with the same degree of knowledge.”*

Jochen Ganzl  
Product Organization Manager

WEINIG



**Customize Efficiently**

The build to order aspect of industrial equipment is another example of how specialized this industry is. Again, you can save time on the large volume of customized components by capitalizing on pre-approved standard components and intelligent modules that automatically select and adopt the appropriate standards. In addition, CATIA for Industrial Equipment allows you to incorporate manufacturing, purchasing, and maintenance constraints

in the design system so that the tasks of designers are expedited.

With build to order customers, it is often necessary to make modifications late in the process, which can be costly and time consuming. CATIA for Industrial Equipment makes it easy to make modifications late in the design by simply modifying design parameters. Its built-in simulation capabilities enable you to review the virtual product to make sure that you're building on the right track.

proposals, thereby reducing delays due to misunderstandings.

**Innovate and Design Better**

In order to differentiate yourself from the competition, it is necessary to provide a high ratio of new products to the market regularly. Complex products require a high degree of precision and innovation. You can capitalize on your know-how and design the product right the first time. CATIA for Industrial Equipment makes it possible to achieve product certification and

compliance requirements the very first time in order to support testing and certification processes. You can also ensure quality standards, reduce costs on product audit trails, and integrate product development across your organization with the use of industry standard parts and knowledge ware to easily redesign similar parts.

*“On the whole, after 18 months of production, we had gained 30 to 40% in design time which is really important since all our machines are customized for each client.”*

N. SCHLUMBERGER

Laurent Simon  
CAD/CAM Manager

*“We’ve reduced design times by 50-70 percent with CATIA, largely due to its customization and automation.”*

Brett Ashba  
Vice President

DIE CAD GROUP

How do you accomplish all of these tasks so easily? CATIA for Industrial Equipment is based on CATIA PLM Express and built upon the CATIA Team PLM core configuration, which offers the most robust, leading edge solution that helps you to manage your product’s lifecycle from start to finish. Plus, 2D/3D transitions are smooth, complex sheet metal parts are efficiently produced, manufacturing constraints are taken into account early in the design, and

tooling elements are quickly designed, giving you more time to innovate. It is also possible to create intelligent design templates, which embed geometry and know-how so that you can reuse your knowledge with maximum security. The CATIA PLM Express portfolio offers a large scale of tailored and specialized applications, such as electrical, tubing, NC Manufacturing, and many others.



**Capitalize on Your Experience**

The service and maintenance of industrial equipment is necessary throughout the product’s entire lifecycle. The machine’s documentation needs to be easily accessible by all those involved in a user-friendly database. CATIA for Industrial Equipment incorporates all maintenance data and production documentation in an easy-to-use database. This gives intuitive data access to non-engineering personnel and occasional users.

INDUSTRIAL EQUIPMENT MANUFACTURERS CAN:	SOLUTION
<b>Bid faster</b>	Capitalize know-how with built-in knowledge templates  Simulate products early, develop standard parts, modify late in the process with ease
<b>Work Together</b>	Share and review up-to-date data throughout the supply chain easily and securely
<b>Innovate &amp; design better</b>	Provide a high ratio of new products to the market regularly
<b>Capitalize on their experience</b>	Give easy documentation access to everyone, embed company standards in templates

*“Since we have been using CATIA’s knowledge management and have adapted the associated design processes, we have decreased our design times by 70% for the screws and 30% for the barrels. The time invested by our engineers and technicians to implement these design parameter rules was quickly recuperated in terms of productivity and safety. In addition, it is a real safeguard for us, since CATIA enables us to improve the quality of our products with a minimum of design errors. When we test a new machine configuration or an innovation, we are sure that the manufactured parts will assemble perfectly, and that their operating kinematics will reproduce the desired sequences. Without the operating and assembly simulation of CATIA’s 3D digital mock-up, we would never be able to ensure this level of perfection”.*

Alain Martinez  
CAD/CAM Manager

GRUPE CLESTRAL