

OMEGA ELEVATOR, S.A.

LIFTING ELEVATOR DEVELOPMENT TO NEW HEIGHTS WITH SOLIDWORKS SOLUTIONS



With SOLIDWORKS design, analysis, product data management, and technical communication solutions, OMEGA ELEVATOR successfully transitioned from a 2D to a 3D product development environment, compressing design cycles and accelerating time-to-market for its elevator products in the process.

OMEGA

Challenge:

Accelerate and streamline elevator design, validation, and production by transitioning from a 2D to a 3D development platform.

Solution:

Implement SOLIDWORKS design, SOLIDWORKS Simulation analysis, SOLIDWORKS PDM Professional product data management, and SOLIDWORKS Composer technical communication software solutions.

Benefits:

- Shortened design cycles by 30 to 40 percent
- Reduced design errors by 20 percent
- Cut development costs by 30 percent
- Decreased prototyping costs by 50 to 60 percent

OMEGA ELEVATOR, S.A., is a leading European elevator company, designing, manufacturing, installing, maintaining, and servicing hydraulic and electric elevators, and other vertical transport systems. Headquartered in Vitoria, Spain, the company has produced elevators for transporting people, as well as small and large cargo loads, for more than 25 years, and has installations on several continents. With its modern production plant and knowledgeable, experienced employees, OMEGA brings extensive technical expertise to the development of its elevation equipment, including elevators, platforms, escalators, and access ramps. Each prototype OMEGA designs is verified and checked in its own testing and trial tower, and adapted to each particular case and specific local regulations.

Until 2012, OMEGA utilized 2D tools to support its entire development and manufacturing process, from design concept to production. However, to consistently maximize its capacity to produce 4,000 complete elevators annually, the elevator manufacturer decided to transition to 3D technology to accelerate and streamline elevator design, validation, and production, according to Managing Director Javier Azurmendi.

After evaluating 3D design packages, OMEGA standardized on SOLIDWORKS® solutions, implementing SOLIDWORKS design, SOLIDWORKS Simulation analysis, SOLIDWORKS PDM Professional product data management, and SOLIDWORKS Composer technical communication software. The company chose SOLIDWORKS solutions because of their ease of use, power, and versatility. "Design used to be part of the manufacturing process, but it is now validated and simulated using SOLIDWORKS so we can head off any incident in advance," Azurmendi says.

In addition to using SOLIDWORKS design and SOLIDWORKS Simulation analysis software to develop and validate elevator designs, OMEGA implemented the SOLIDWORKS PDM Professional system to improve collaboration and automate workflows. "With the SOLIDWORKS product data management solution, our file storage and teamwork has gone to another level," Azurmendi stresses. "Two technicians can work separately on different areas of a project and then share it, which provides enormous savings in time and efficiency."

OMEGA also utilizes SOLIDWORKS Composer technical communication software to reuse 3D design data to quickly create or update technical drawings and associated product documentation.

SHORTER DESIGN CYCLES, FASTER TIME-TO-MARKET

Since implementing the SOLIDWORKS 3D development platform, OMEGA can make greater use of its design data, which accelerates processes, resulting in a 30 to 40 percent reduction in design cycles and much shorter time-to-market. "We can now go to market in a week, which was unthinkable before," Azurmendi says.

Another notable improvement attributable to the SOLIDWORKS PDM system involves traceability. The system provides precise knowledge of specific components that were used in a particular design when it was sold. Easy search of and fast access to design data supports greater design reuse. "You had to look through many plans when searching before, but it is now as easy as searching with a browser," Azurmendi notes. "The program makes it easy and saves time—you only need a few minutes to find the data you want."

"We have significantly transformed our working methods in only two years, which has a very direct effect on our company's results. Dassault Systèmes SOLIDWORKS technology helps us to maintain our market positioning, with the assurance that we are working along the right lines to offer our clients innovative and high quality products."

— Javier Azurmendi, Managing Director

REDUCING DEVELOPMENT COSTS

The transition to SOLIDWORKS development solutions is also having a positive impact on OMEGA's bottom line. The company indicates that its development costs have dropped by approximately 30 percent, much of those reductions related to time savings. Being able to reuse common elements from project to project—many of which use roughly 70 percent of the same components—allows for better resource utilization and greater throughput.

The responsiveness and efficiency of SOLIDWORKS design and simulation tools have enabled OMEGA to slash prototyping costs by between 50 and 60 percent. Before implementing SOLIDWORKS solutions, most of the prototypes that were manufactured in Omega's shop ended up being thrown away

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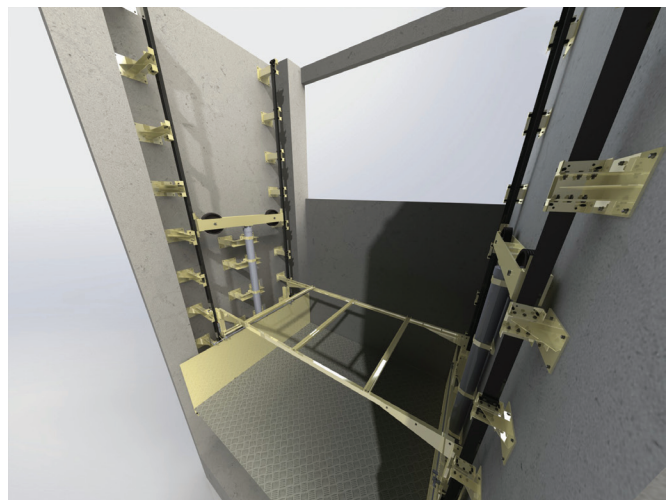
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if they were not of high quality and failed to perform, wasting a lot of time and money in the process. The company's prototypes are now more viable because OMEGA uses SOLIDWORKS Simulation software to validate design performance. By analyzing and optimizing design performance using SOLIDWORKS Simulation software, OMEGA has greater confidence that what used to be a prototype can now also reliably function as a high-quality elevator system.

IMPROVED ACCURACY, FEWER ERRORS

Because the SOLIDWORKS PDM system has tight revision controls and supports automated workflows, OMEGA is not only enjoying greater efficiency and reduced costs but is also realizing improved design accuracy. The elevator manufacturer has virtually eliminated errors related to using the wrong revision and has substantially reduced design errors overall—by an estimated 20 percent.

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In addition to helping OMEGA ELEVATOR shorten product development, SOLIDWORKS solutions have enabled OMEGA ELEVATOR to reduce development costs, minimize design errors, and eliminate prototypes.

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