

TEKNION CORPORATION

Sustaining office furniture design into the 21st century with SolidWorks solutions



As a leading international designer and manufacturer of mid- to high-end office systems and related furniture products, Teknion Corporation knows what change is all about. Today's business settings are dramatically different from those of years past, and the offices of the future constitute a continually evolving landscape. By understanding current trends and anticipating future needs, Teknion has made change a key part of the company's global culture of innovation and growing record of success.

Focusing on the innate possibilities of change in office systems design drives Teknion's product design goals. Achieving its objective to develop products that consistently satisfy and exceed changing market demands, however, requires flexibility, agility, and creativity in product development. According to Product Engineering Manager Claudio Perfetti, that's why Teknion upgraded its AutoCAD® 2D design tools to a 3D development platform in 2001.

"Working in 2D limited our productivity, quality, and innovation," Perfetti recalls. "We needed to handle an increasing volume of configurations—modeling a huge range of options, heights, and widths—while improving accuracy and streamlining manufacturing. Improved design visualization was also a requirement for creating new, cutting-edge concepts. To more efficiently develop furniture systems that are visually and functionally unique, we simply had to take advantage of a 3D design environment."

In evaluating 3D design systems, Teknion wanted more than just a spot solution. "We considered all of the standard characteristics, such as ease of use, design configuration capabilities, and enhanced visualization tools," Perfetti stresses. "But we also wanted a system that would support our efforts for many years to come and invest in a partner that could provide innovations in 3D design tools to sustain the changing nature of our work. We found such a partner in SolidWorks."

Teknion relies on SolidWorks design, product data management, and sustainability solutions to develop office systems furniture products that consistently satisfy and exceed changing market needs.

Challenge:

Develop office systems furniture products on a global scale with an eye toward expanding product lines, supporting sustainability goals, and driving sales initiatives over the long term.

Solution:

Implement SolidWorks Professional design, SolidWorks Enterprise PDM product data management, and SolidWorks Sustainability environmental assessment software.

Results:

- Quadrupled number of product lines
- Reduced development time by 50 percent
- Cut prototyping requirements in half
- Supported sales, collaboration, and sustainable design initiatives



Accelerating product development

By implementing SolidWorks solutions, SMC has shortened development time. While the company has realized productivity gains in its standard product line, SolidWorks solutions produced the most dramatic benefits in the design of custom-configured products—requests for specials (RFS)—which represent a growing segment of SMC business.

"If a customer can't find something to fit their exact needs in our catalog, they submit an RFS, and we custom-design and manufacture it," Hyde explains. "This could be as basic as a simple thread or part change, or customizing time or travel. Or, we may need to design a completely new component from the ground up. The beauty of SolidWorks is that there's a lot of reusable data, so you're not constantly redesigning the same thing over and over. I can take many standard components, plug them in, modify them as needed, and move forward with the design. It's just a huge timesaver for us.

"Using SolidWorks, we have accelerated RFS development while improving quality," Hyde continues. "Even if it's an RFS, in terms of quality it's exactly like a standard product."

Simulating performance, managing data

Design, simulation, and PDM solutions have enabled SMC to improve product quality—and minimize errors, scrap, and rework. With simulation capabilities, the company's engineers conduct structural analyses on big-load-bearing components, such as large cylinders. The SolidWorks Enterprise PDM system facilitates design reuse, establishes more effective revision controls, and automates workflows at SMC.

"SolidWorks really opens you up to a whole different world of being able to visualize designs, simulate design performance, and share that data with customers in a language that they can understand," Hyde says. "Because SolidWorks data is reusable and our processes are automated, we've seen a big reduction in the amount of rework that we need to do and the volume of scrapped material that we produce."

Supporting configurable model downloads

The web is replacing SMC's traditional catalog business, and SolidWorks design is helping SMC take advantage of online commerce. The solution drives SMC's ETECH initiative, an interactive website that lets customers configure components online, download models for inclusion in their designs, and purchase components.

"The customers want to see the product working in their assembly," Waggoner points out. "ETECH leverages SolidWorks design configuration capabilities to provide fully configurable models for download. Customers have downloaded millions of models that are configured this way."

"Time is money, so anything we can do to speed up the process will improve customer satisfaction," Hyde adds. "Whether it's a request for specials or configurable models for download, SolidWorks is helping us achieve that ultimate goal."

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Jason Hyde
UTC Engineering Group



SolidWorks design configuration capabilities are helping SMC drive e-commerce by enabling the pneumatic component manufacturer to offer configurable models of its products for download online.

Authorised Value Added Reseller:



About IME Technology

IME TECHNOLOGY is Malaysia's leading and #1 SOLIDWORKS certified Sales, Training, and Support Centre. With more than 35 years of establishment and experience, we have the most qualified, skilled and specialised technical expertise in the ASEAN region. Our team will ensure that the partnership between IME and our customers will grow, shine, and sustain.

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