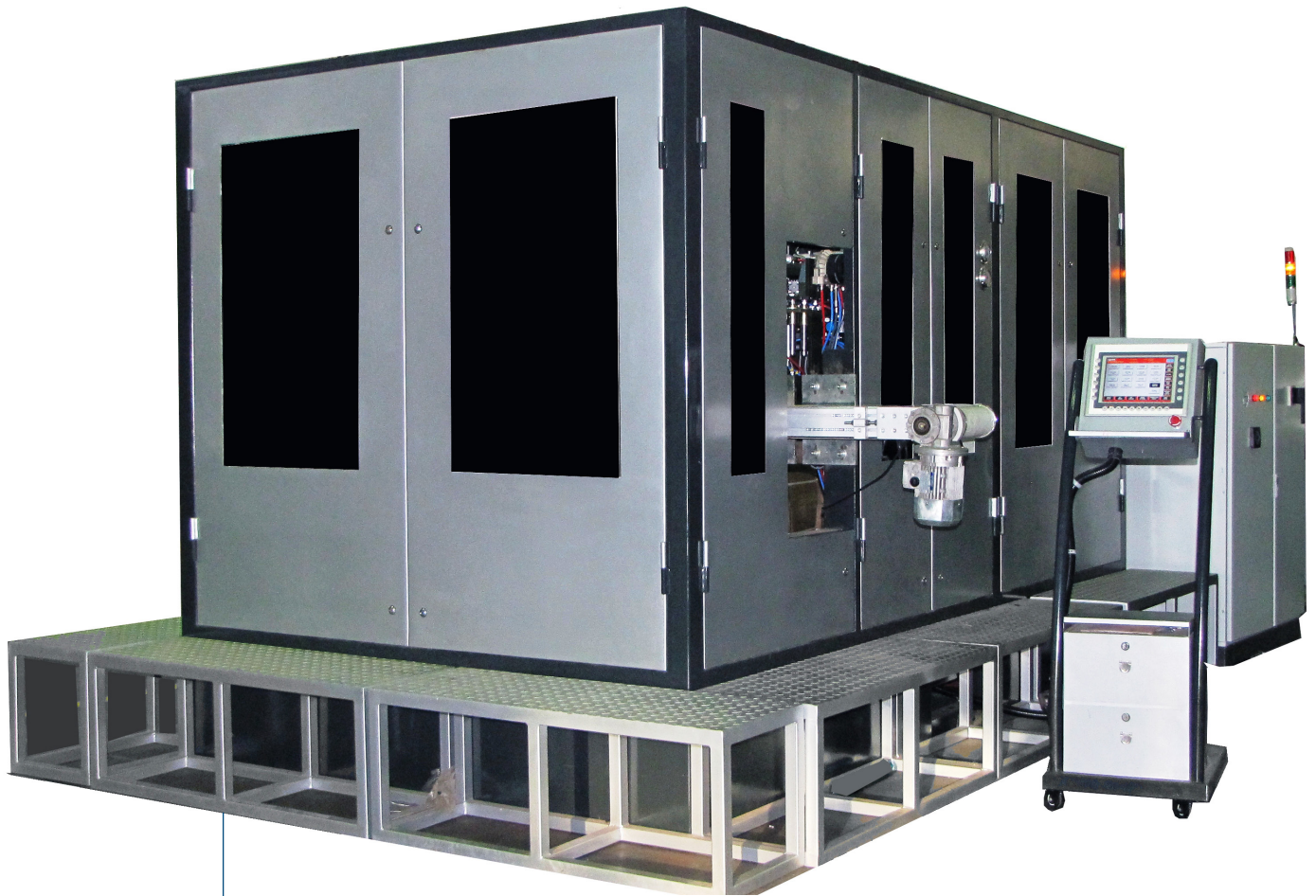# SIDEL INDIA PVT. LTD.
ADVANCING STRETCH BLOW-MOLDING MACHINE DESIGN WITH SOLIDWORKS SOLUTIONS

Using SOLIDWORKS design, product data management, and technical communication software solutions, Sidel India has accelerated time-to-market for its stretch blow-molding bottling and packaging machines, realizing productivity and quality improvements throughout their development process.

Sidel

Challenge:
Accelerate development of complex bottling and packaging machines while improving quality and shortening time-to-market.

Solution:
Implement SOLIDWORKS, SOLIDWORKS Professional, and SOLIDWORKS Premium design software; SOLIDWORKS Enterprise PDM product data management software; and SOLIDWORKS Composer technical communication software solutions.

Benefits:
- Shortened time-to-market by 20 percent
- Reduced development costs by 30 percent
- Cut design errors by 30 percent
- Decreased technical documentation development time by 40 percent

Sidel India Pvt. Ltd. is a leading manufacturer of bottling and packaging machinery in India. A subsidiary of Sidel Participations, France, the company was incorporated in India in 1997 to manage bottling machinery development and manufacturing operations as part of the Sidel Group, which supplies and produces bottling machinery for some of the biggest names in the international food and beverage sector, including Coca-Cola, PepsiCo, Danone, Nestlé, and Heineken. The company develops and manufactures fully automatic, two-stage, stretch blow-molding machines for producing polyethylene terephthalate (PET) bottles and containers, which are widely used for beverages, food, and other liquids.

Sidel India began its operations using AutoCAD® 2D design tools. In 2003, the company upgraded to SOLIDWORKS® 3D design software as part of a global implementation across the Sidel Group, according to Lean and Industrial Engineering Manager Pradeep Waghmare.

"We transitioned to SOLIDWORKS 3D software because it is very user-friendly, is parametric, and improves the handling of large assemblies," Waghmare recalls. "Because our company designs complex machinery comprising numerous large assemblies, we believed that the ability to make design changes quickly and easily—due to the parametric nature of SOLIDWORKS—would save a lot of time, which it has."

The company has acquired additional SOLIDWORKS solutions since its initial SOLIDWORKS implementation. Today, Sidel India uses SOLIDWORKS Standard, SOLIDWORKS Professional, and SOLIDWORKS Premium design software; SOLIDWORKS Enterprise PDM (EPDM) product data management software; and SOLIDWORKS Composer™ technical communication software solutions.

"Our company philosophy is to provide local talent with the necessary technologies for realizing automated, efficient, and cost-effective operations," Waghmare says. "The transition to SOLIDWORKS is enabling us to transform into a supplier of complete bottling and packaging lines, managing entire bottling plant projects from bottle design, line engineering, and equipment manufacturing all the way through installation."

IMPROVED LARGE ASSEMBLY DESIGN

Using SOLIDWORKS design software, Sidel India has streamlined and accelerated its development processes, enabling the machinery manufacturer to shorten product time-to-market by 20 percent while simultaneously cutting design errors by 30 percent and reducing development costs by 30 percent. Waghmare attributes much of these productivity gains to improved handling of large assemblies.

"In our case, we design large, complex assemblies, so weight reduction is a critical goal," Waghmare explains. "With SOLIDWORKS, it's easy to manage weight by changing material properties or dimensions. Part weight is automatically updated, and the visualization tools in SOLIDWORKS—most notably, interference detection—enable us to identify and resolve collision and clearance issues within assemblies. SOLIDWORKS has helped us improve large assembly design, resulting in time savings, cost reductions, and quality improvements."

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>
> — Pradeep Waghmare, Lean and Industrial Engineering Manager

TIGHT REVISION CONTROLS, EXTENDED DATA ACCESS

The addition of the SOLIDWORKS EPDM product data management system has not only helped Sidel India tighten revision controls and automate its development workflows but has also extended access to 3D CAD data—and increased its value and usefulness—to other departments and functions.
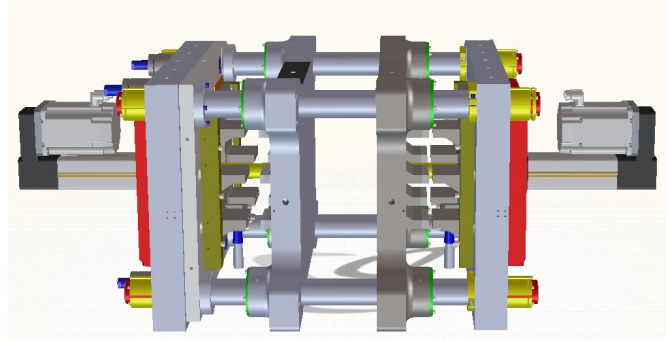
"With EPDM, we can link other departments—such as manufacturing, purchasing, quality assurance, and marketing—with design data," Waghmare stresses. "Now, there's an accessible yet tightly controlled flow of design information throughout the entire company. Departments outside design can access and view only the most current revisions. This provides greater control over revisions released for manufacturing, gives our colleagues access to the latest design information, and eliminates miscommunication and errors related to revision control.

"We also benefit from the SOLIDWORKS eDrawings® viewing capabilities within EPDM," Waghmare adds. "This is a great tool for anyone outside the design team who does not have or use SOLIDWORKS to be able to review 3D models, provide input, or suggest changes when warranted."

FASTER DEVELOPMENT OF USER MANUALS AND TRAINING MATERIALS

More recently, Sidel India acquired SOLIDWORKS Composer technical communication software to accelerate development of its user manuals and training materials. Since implementing SOLIDWORKS Composer software, the machinery manufacturer has reduced the amount of time required to create user documentation by 40 percent.

"SOLIDWORKS Composer both accelerates documentation development and improves the quality of documentation materials," Waghmare notes. "We use SOLIDWORKS Composer to create high-resolution images that illustrate and demonstrate standard operating procedures for our products. These images are utilized in user manuals and product documentation, as well as in marketing materials. We've also found SOLIDWORKS Composer to be a great tool for creating high-quality, interactive assembly videos, which we use for internal training or to provide assembly instructions for new products."

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With SOLIDWORKS product development tools, Sidel India has enjoyed faster, more accurate large-assembly design; tighter, less error-prone revision control; and automated production of high-quality product documentation.

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