DASSAULT SYSTEMES

SOLIDWORKS

INDUCE DESIGN

FACILITATING INNOVATIVE PRODUCT DEVELOPMENT WITH SOLIDWORKS DESIGN SOFTWARE

Induce Design relies on SOLIDWORKS 3D software to design innovative products, such as the patient warmer it developed for Kamcon Bio-Technology, Pune.

Induce Design

Challenge:
Grow an industrial design, product development, and engineering consultancy that combines design aesthetics, value engineering, and cost-effective manufacturability services to benefit the product development goals of clients.

Solution:
Implement SOLIDWORKS 3D design software.

Results:
- Cut design cycles by 30 percent
- Reduced decision time by 30 percent
- Streamlined client communications with eDrawings
- Improved design for manufacturability and assembly

Induce Design is an industrial design, product development, and engineering consultancy that has established a reputation for creating innovative products. Based in Pune, India, the design studio serves manufacturers across many industries, including medical devices, pharmaceutical equipment, machine tools, telecommunications systems, measuring instruments, lab equipment, product packaging and graphics, industrial and household goods, and automotive products.

By consistently delivering accurate, optimized products on time and within budget, the design firm has continued to grow, developing more than 60 different products during its first five years of operation. Induce Design is especially strong in the development of innovative medical devices and equipment, which range from infusion pumps to tumor aspirators to patient warmers.

When Owner and Principal Designer Hrishikesh Borude founded Induce Design in 2008, the company used Solid Edge® design tools because Borude was already familiar with that software. However, he soon saw the need for a more efficient modeling solution that was easier to use.

"Our work typically extends beyond concept development and industrial design and into the actual engineering of a product," Borude explains. "We need to work with different materials and processes, such as handling sheet metal fabrication, mold development, and design for manufacturability and assembly. These needs prompted us to evaluate SOLIDWORKS® design software."

Induce Design transitioned to SOLIDWORKS 3D design software in 2010 because the solution is easier to use, provides a more complete set of modeling capabilities, and helps the design firm leverage design for manufacturability tools. "I chose SOLIDWORKS design software as our primary tool because it's easier and more efficient for both modeling and engineering new product designs," Borude says. "SOLIDWORKS software simply is a better fit for the design and engineering needs of our studio."

FASTER MODELING TOOLS

Since implementing SOLIDWORKS design software, Induce Design has cut its design cycles by 30 percent and shortened the time required to make design decisions by 30 percent. Borude attributes these productivity gains to the intuitive SOLIDWORKS user interface and the ability to communicate more effectively with clients.

"SOLIDWORKS software fits perfectly within our development process of investigating client needs, conceptualizing a solution, visualizing design concepts, prototyping optimized designs, and facilitating production," Borude stresses. "SOLIDWORKS has allowed us to be more effective because modeling is much faster, as is communicating design concepts to customers using tools like SOLIDWORKS eDrawings®.

"It's so much easier to share design details and obtain customer feedback using eDrawings files," Borude adds. "Using SOLIDWORKS makes our design studio much more efficient."

DESIGN FOR MANUFACTURABILITY

The move to SOLIDWORKS also advanced design for manufacturability and assembly efforts at Induce Design. For example, the ability to convert solid models into flat patterns has dramatically accelerated sheet metal development and fabrication. In the case of molded products, Induce Design can quickly create production molds directly from the SOLIDWORKS model. Handling assemblies—checking for interferences and determining the best means for assembling them—is also much improved.

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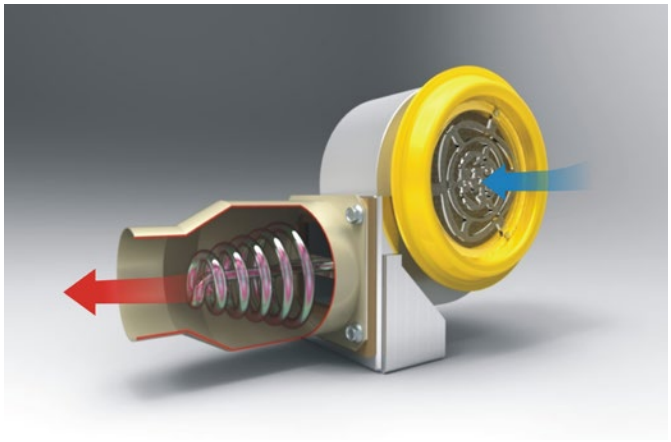
— Hrishikesh Borude, Owner and Principal Designer

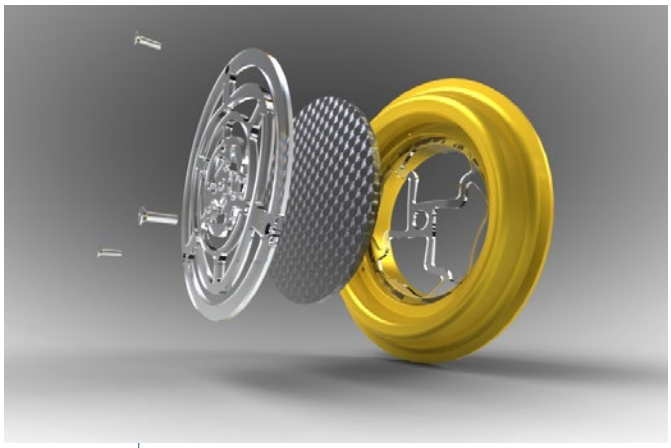
"Using SOLIDWORKS, we've added manufacturing knowledge and experience, which enables us to address manufacturability as we design," Borude explains. "In addition to helping us save time and steps during the transition from design to prototyping and production, SOLIDWORKS has helped us carve out a valuable business niche in the market. For instance, before we began using SOLIDWORKS, we didn't do very much with sheet metal. Now we are a leading expert in aluminum sheet metal fabrication."

BUILDING MEDICAL DEVICE EXPERTISE

While Induce Design has created products in a range of industries, the firm has used SOLIDWORKS software to acquire specialized expertise in the development of medical devices. One example is a patient warmer that Induce Design created for Kamcon Bio-Technology Pvt. Ltd. The device is used to maintain the body temperature of a patient suffering from hypothermia or during surgery. The firm worked on the product's design aesthetics, engineering, and design for ease of manufacture and assembly. Another example is the first-of-its-kind tumor aspirator, which is used to aspirate brain tumors with ultrasonic vibration erosion.

Borude says the SOLIDWORKS design solution helps his burgeoning design studio leverage the latest technologies to develop product innovations and expedite growth. "Every job that we undertake is something totally new," Borude notes. "While those involved with developing the next model of the same product can probably use any design application, we need the power, ease of use, and flexibility of SOLIDWORKS software to consistently deliver the innovative products that our clients have come to expect."





Using SOLIDWORKS, Induce Design has acquired specialized expertise in developing medical devices and electronic equipment. The list includes a patient warmer, an infusion pump and a patient monitor.

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