

# ESSAE-TERAOKA LIMITED

Using SolidWorks solutions for faster production and reduce design time



Essae-Teraoka are pioneers in making electronic weighing systems, POS systems, and self-service KIOSKS in India. Headquartered in Bengaluru, India, the Essae Group of companies began operations in 1965 and entered an Indo-Japanese joint venture with Teraoka Seiko Co. Ltd., Japan, in 1986.

With sales of over \$17 million, the company has production units in Bengaluru and Goa and a work force of over 700. The biggest business issues that the company was facing were time consuming design process and indigent in-house design communication. The company also had to eliminate its 'trial and error' design method to optimize production.

The need to implement an effective CAD solution became critical. According to Srinivasu, Manager R&D, SolidWorks® software was their first choice because of the ease of use it provided to designers. Additional SolidWorks advantages were the integrated design validation and eDrawings® communications tools, all at an affordable price.

With the acquisition of SolidWorks Premium, the company was able to address many of their critical issues. From concept design to prototype testing, and from production to marketing, the company made huge progress and advanced to a more effective and simplified design process. Mr. Srinivasu reports: "Using SolidWorks, we were able to frequently change our design driven by innovative ideas at a faster rate within the R&D team, before the final product launch and thereby reduce our new product development costs by 40 percent."

## Challenge:

Reduce overall design cycle time, improve in-house design communication, and eliminate 'trial and error' designing.

## Solution:

Utilize integrated SolidWorks design and simulation solutions to reduce design cycles, minimize waste, and accelerate time-to-production.

## Results:

- Improved management reviews and communication with 3D visualization
- Reduced design cycle by 40 percent
- Frequent design changes at a faster rate with innovative ideas
- Reduced overall process-time by 50 percent

## Design cycle simplified

With the easy-to-use SolidWorks Premium, the company achieved a reduction in overall design time of 50 percent. SolidWorks software also made design reworks easier than before. SolidWorks Sheet-metal applications are precise and helped Essae-Teraoka reduce sheet metal scrap, which in turn reduced the company's cost of production.

The Design Library and BOM generation tools in SolidWorks made designing the equipment easy and dramatically reduced design time. Since time is directly proportional to cost, SolidWorks helped the company to optimize their budget.

"The easy-to-use tools in SolidWorks have helped us cut down on both production time and cost," says Srinivasu.

## Simulation reduces design rework

Once the design is complete, and before moving to production, the product has to be examined in a real-world scenario. SolidWorks simulation software helped Essae-Teraoka to test their equipment virtually, just as good as real-world testing, to estimate functionalities and any probable failures. SolidWorks validation software has helped the company to reduce their design cycle by 40 percent.

"SolidWorks interference detection tools and the simulation software have spared us a lot of trouble. This also translates to minimal waste because of fewer errors," explains Srinivasu. "In addition, the 3D visualization and eDrawings files in SolidWorks make it easier for us to communicate our designs in-house."

## Faster designs to faster production

The easy-to-use SolidWorks solutions come in very handy when designing critical parts in weighing equipment and other machinery. Now the company can use design data across the enterprise in innovative and cost-saving ways. This has helped accelerate from the conventional design process that begins with design concept to design and then prototype testing, to moving right into production design and design validation after concept design.

This has dramatically reduced the overall design cycle and improved production, while minimizing errors. The elimination of design rework has improved estimates of product manufacturability. "Also, virtual prototyping helped us in reducing overall material cost," says Srinivasu.

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Mr. Srinivasu  
Manager R&D



SolidWorks simulation software has added value to design validation and reduce overall design cycle time.

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