

## Solid Edge

# K S Electromech Pvt Ltd

Using Solid Edge, a leading India-based manufacturer cuts design cycle time by 30 percent, parts rejection by 70 percent and assembly errors by 80 percent, resulting in double-digit manufacturing cost savings

### Industry

Industrial machinery

### Business challenges

Increase product design and editing speed

Improve product reliability using structural simulation

### Keys to success

Migrating to 3D environment

Synchronous technology

### Results

Design cycle time decreased by 30 percent

Assembly errors reduced by nearly 80 percent

Parts rejection dropped by about 70 percent

Manufacturing costs cut by 10 percent

Onsite modifications during installation reduced more than 50 percent

Customer satisfaction markedly improved

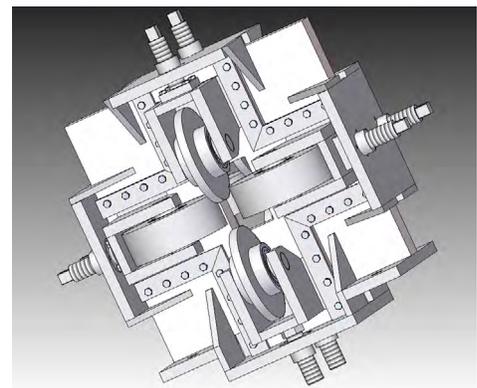
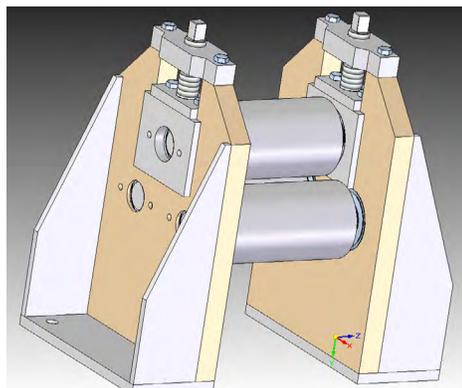
### Improving customer satisfaction through significantly greater product design agility, detailed visualization and 50 percent reduction in onsite modifications

#### Big benefits in migrating from 2D to 3D environment

K S Electromech Pvt Ltd (K S Electromech) is a leading India-based manufacturer and supplier of steel rolling mill equipment. Since 2002, K S Electromech has been serving markets on the Indian subcontinent, the Middle East, and Africa. To retain its competitive position, K S Electromech needed to accelerate product design turnaround, improve product reliability and be able to show its customers detailed views of equipment designs before manufacture. The company had been using AutoCAD®

software for product development, but found that the software's 2D environment was inadequate for its growing needs. K S Electromech management states that with AutoCAD, the company's engineers experienced problems related to calculating mass properties, visualizing how products would look and function, finding assembly interferences, and generating accurate parts lists.

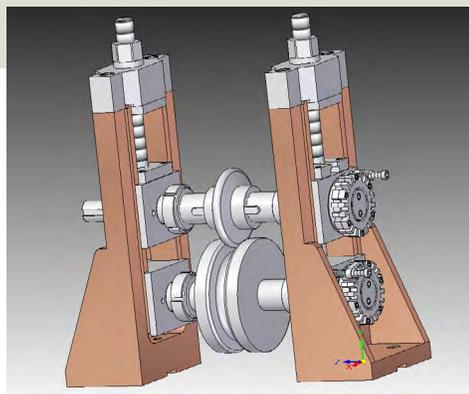
Management also noted that, using AutoCAD, the company's engineers were unable to quickly implement design changes on equipment drawings, because every change had to be done manually. This delayed equipment deliveries and significantly limited K S Electromech's ability to effectively respond to customer queries. In addition, the company was encumbered by an inability to easily conduct structural



“With Solid Edge, especially its powerful synchronous technology, we are far more agile. Design changes can now be made right away to meet customer requirements. When we need to import data from other systems, we can work on the designs without having to know how they were created, which eliminates the stressful and muddled process of best-guessing our way through history-based designs.”

“Using Solid Edge has given us a measurable advantage in customer responsiveness and market competitiveness.”

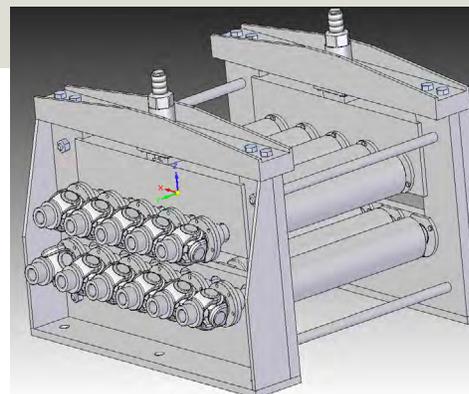
Kamal Kant  
Director of Business  
Development  
K S Electromech Pvt Ltd



simulation on products in the early stages of design, and thus was unable to prove out product reliability upfront and digitally.

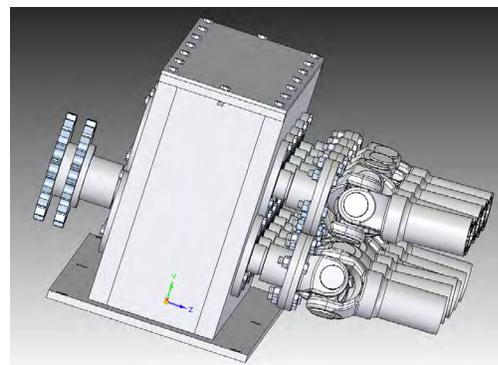
Management had been assessing its options and found the answer to be obvious: migrating from its limited 2D software to the right 3D computer-aided design (CAD) system. But what system was “right”? After considering such product lifecycle management (PLM) solutions as Autodesk® Inventor® software, Pro/Engineer® software and SolidWorks® software, K S Electromech chose Solid Edge® software, the most complete hybrid 2D/3D CAD system. Solid Edge features synchronous technology for accelerated product development, faster model/drawing changes, and improved imported data re-use.

A key factor in selecting Solid Edge from Siemens PLM Software included ease of learning and use. Management also liked the software’s superior part and assembly modeling functionality, drafting capabilities, transparent data management, and built-in finite element analysis (FEA). But it was synchronous technology that really stood out. “Synchronous technology enables us to quickly and easily edit the 2D designs we originally created with AutoCAD,” says Kamal Kant, director of business development at K S Electromech. “We wanted to be able to fully leverage our large legacy work, and we preferred to do



so without the hassle or inconveniences typically associated with changing from one software system to another. Solid Edge with synchronous technology made this possible. What’s more, we noted that Solid Edge would enable us to develop new products significantly faster and with more confidence than other systems.”

The migration of the company’s existing 2D design data from AutoCAD to Solid Edge is now complete. “Our engineers are making design changes to product models and engineering drawings easier and faster than we ever anticipated,” says Kant. “With Solid Edge, our engineers generate accurate bills of materials (BOMs). This enables them to streamline manufacturing operations. We’ve virtually eliminated downstream errors. As a result, we have substantially reduced waste and production delays.”



## Solutions/Services

Solid Edge with synchronous technology  
[www.siemens.com/solidedge](http://www.siemens.com/solidedge)

## Customer's primary business

K S Electromech Pvt Ltd manufactures steel and stainless steel tube and pipe-making equipment and allied machinery.  
[www.kselectromech.com](http://www.kselectromech.com)

## Customer location

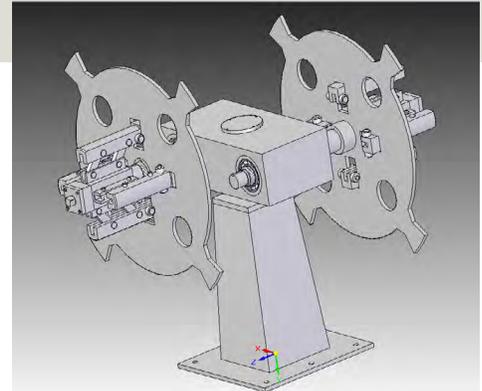
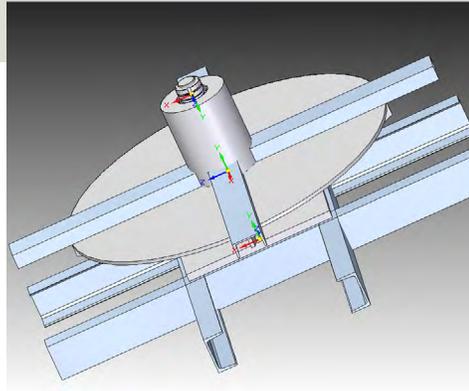
Punjab  
India

## Partner

Kadkraft Systems Pvt. Ltd.

*"We wanted to be able to fully leverage our large legacy work, and we preferred to do so without the hassle or inconveniences typically associated with changing from one software system to another. Solid Edge with synchronous technology made this possible."*

Kamal Kant  
Director of Business Development  
K S Electromech Pvt Ltd



## Rapid response, greater customer satisfaction

Since K S Electromech started using Solid Edge, customer satisfaction has significantly improved. Kant explains, "We can now respond to customer requests for new products and product changes with far better competitive intensity – in most cases faster than, or at least as fast as, our competition. The ability to show realistic, highly detailed 3D models of our designs helps our customers visualize and better understand how products will look and function in real-world operations.

"With Solid Edge, especially its powerful synchronous technology, we are far more agile. Design changes can now be made right away to meet customer requirements. When we need to import data from other systems, we can work on the designs without having to know how they were created, which eliminates the stressful and muddled process of best-guessing our way through history-based designs.

"We also have the added benefit of our engineers using Solid Edge for structural simulation to ensure that the products we design and produce perform as reliably as possible within specifications.

"Using Solid Edge has given us a measurable advantage in customer responsiveness and market competitiveness."

## Slashing time, costs, errors, waste and rework

K S Electromech estimates that, with the use of Solid Edge, design cycle time has been cut by 30 percent. Manufacturing costs are down by 10 percent. The improved accuracy of a 3D environment using Solid Edge has reduced assembly errors by almost 80 percent. Parts rejection is down by nearly 70 percent, eliminating an extraordinary amount of scrap and waste. Plus, when equipment is installed at a customer site, K S Electromech calculates that the number of unforeseen onsite modifications needed has been cut by 50 percent.

## Siemens PLM Software

Americas +1 800 807 2200  
Europe +44 (0) 1202 243455  
Asia-Pacific +852 2230 3308

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