

Solid Edge

Summits Hygronics

Use of 3D enables acute visualization and smarter decision making, resulting in a significant increase in new business

Industry

Industrial machinery and equipment

Business challenges

Traditional 2D method increases design lead time

Difficulty visualizing final product and assembly sequences

Unable to generate accurate BOMs

Unable to perform proper production planning because of incomplete BOM

Valuable time lost due to delays in releasing ECNs because of numerous drawing-change requests

Difficulty freezing product design phase

Keys to success

Moving to 3D for accurate 3D visualization and collision detection/interference checks

Synchronous technology

Embedded module for piping and tubing

Automatic updates and drawing creation

Ability to generate accurate BOMs

Summits Hygronics uses Solid Edge to deliver better products faster, virtually eliminating re-work

Specialist manufacturer possesses advanced capabilities

Summits Hygronics Private Limited (Summits Hygronics) offers a complete range of products and solutions for compressed air purification, gas generation and purification, and industrial cooling systems. Certified by the International Organization for Standardization (ISO) as 9001-2008 compliant, the company caters to many public and private sector industries in India, Europe, Middle East and USA. Summits Hygronics possesses full, in-house capabilities to produce all of its products. This includes state-of-the-art fabrication facilities, computer numeric control (CNC) machining centers, advanced test facilities, and product lifecycle management (PLM) technology.

That PLM technology is Solid Edge® software from Siemens PLM Software. "Solid Edge really helps us in conceptualizing new products with better aesthetics for global markets," says Rajmohan Sathyadev, director at Summit Hygronics. "It helps us to convince our customers of our strengths and capabilities in design, which are on par with any European or American manufacturer. We are not only using this software as a design tool, but also a marketing tool."



2D dilemma

Like many manufacturers, Summits Hygronics used a classic 2D approach to design for many years. According to Bala Kannan, manager of Design and Engineering at Summits Hygronics, there comes a time when 2D is no longer adequate, especially with respect to overall product visualization and manufacturing assembly sequences. Moreover, the

Results

Significantly reduced design lead time

Overall 40 percent faster design cycle

Fast and accurate designs, including 95 percent of the BOM prepared during the design phase

Re-work virtually eliminated

Better decision making, improved products and reduced costs

30 percent increase in new business

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“With Solid Edge, it’s easy to perform assembly-level editing.”

Bala Kannan
Manager of Design & Engineering
Summits Hygronics

“With Solid Edge, it’s easy to create an error-free BOM.”

Kavin Karthikeyan
Design Engineer
Summits Hygronics

company is seeking to become a significant global company in its field through core technological advancement.

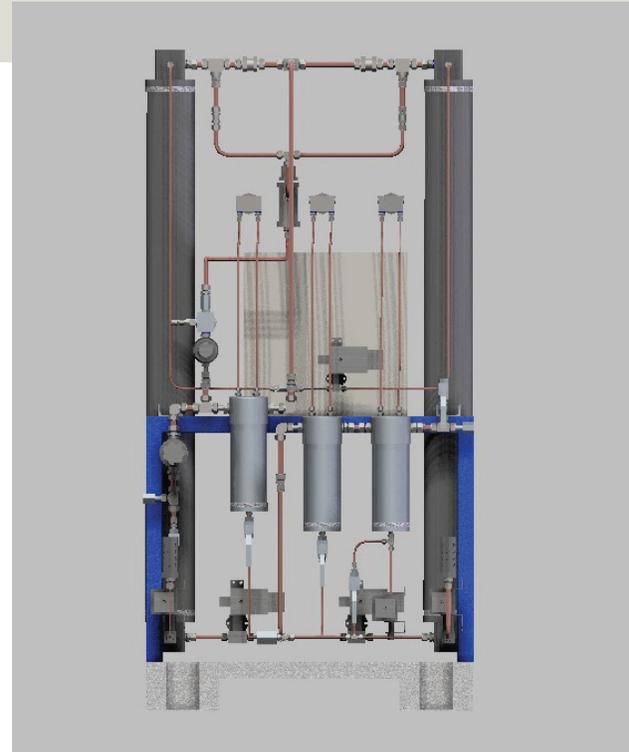
Summits Hygronics’ products typically consist of fabricated and machined parts. These include sheet metal, pneumatics, electronic and electric items. Until recently, design and research and development (R&D) activities depended on a 2D computer-aided design (CAD) system. The software had many limitations, including difficulty in creating assembly drawings (via placing the components in available space) as well as problems in creating piping and tubing lines.

Using 2D, it was also hard to visualize how the product would look after assembly, or whether it could be assembled at all. “With our 2D CAD system, most of our engineer’s valuable time was drained in doing clerical work and re-work,” says Kannan. “Creating a BOM (bill of materials) was time-consuming and too often full of errors. Using traditional 2D technology also meant manually calculating the frame, pipe and tubing lengths. It was especially challenging to effectively communicate intent with the vendors and customers. Another problem involved resource management as we weren’t always sure about the materials required. With 2D, there is no way to really know.

“To resolve these issues, we decided to upgrade to 3D CAD software.”

Product validation/optimization

Summit’s Hygronics chose Solid Edge after seeing a demonstration. “Before selecting Solid Edge, we contemplated various other CAD solutions,” says Kannan. “We chose Solid Edge because we were convinced that it would enable us to readily validate products across various operational aspects, including manufacturing feasibility, ease of assembly, etc. A comprehensive 2D/3D CAD system, Solid Edge makes it easy to perform assembly-level editing. Use of the software also helps us optimize piping and tubing total length and cut



length. With Solid Edge, we have significantly reduced the time required to complete product designs, with automatic drawing creation and BOM generation playing a key role here.”

“With Solid Edge, it’s easy to create an error-free BOM,” adds Kavin Karthikeyan, a design engineer at Summits Hygronics.

No need to know the history behind the model

“In general, new users do not understand the term ‘history free, feature-based modeling/editing,’ but when they use Solid Edge, the advantages of this capability become obvious,” explains Kannan. “Solid Edge is a good tool to speed up the virtualization process.

“This is especially true considering today’s frequent migration of manpower. Finishing an incomplete model with a new engineer or draftsman is difficult using conventionally 3D software. But, using Solid Edge with synchronous technology, we do not worry about the history behind the model creation. We simply assign a replacement engineer or draftsman to edit

Solutions/Services

Solid Edge
www.siemens.com/solidedge

Customer's primary business

Summits Hygronics, an ISO:9001-2008 company, offers a complete range of products and solutions for compressed air purification, gas generation and purification and industrial cooling systems.
www.airdryer.in

Customer location

TamilNadu, Coimbatore
India

Partner

Shuban Technologies

"With Solid Edge, our business opportunities have expanded; we are winning important new contracts. We are now fiercely competitive and our quality has never been better."

Raj Daniel
Senior Manager
Heavy Engineering
Summits Hygronics

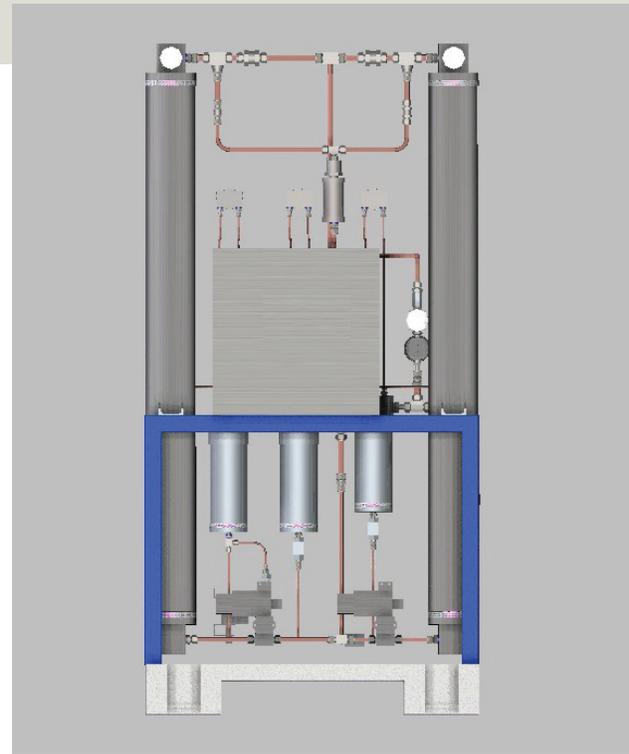
a particular feature according to requirement and to complete the ECN (engineering change notification) on time."

30 percent increase in new business

Since the deployment of Solid Edge, Summits Hygronics is preparing 95 percent of the BOM during the design phase. Its design cycle improvement is significant. Most importantly, the company has realized a 30 percent increase in new business.

"With Solid Edge, our business opportunities have expanded; we are winning important new contracts," says Raj Daniel, a senior manager of Heavy Engineering at Summits Hygronics. "We are now fiercely competitive and our quality has never been better."

Kannan concludes, "Siemens PLM Software's Solid Edge is the key contributor to the positive changes at our company. I also applaud Siemens PLM Software's partner Shuban Technologies. We have known Shuban Technologies for a long time; we are pleased with all aspects of the company's support and service."



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