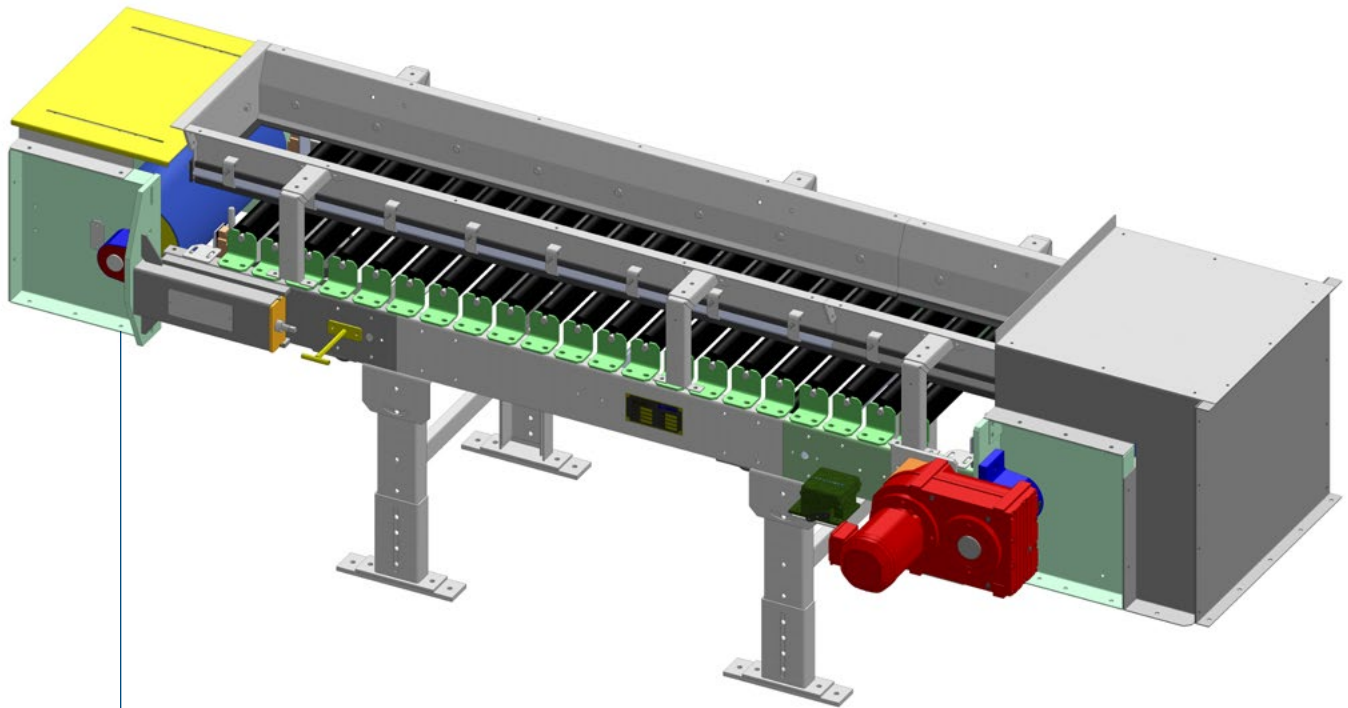# EIRICH INDIA PVT. LTD.
STREAMLINING DEVELOPMENT OF MATERIAL HANDLING EQUIPMENT WITH SOLIDWORKS

By moving from 2D tools to SOLIDWORKS 3D design software, Eirich India was able to implement a modular approach to the design of material handling equipment and systems, streamlining development while at the same time boosting quality and speeding up production.

EIRICH

Challenge:
Streamline the development of material handling equipment and systems through a modular approach to design while simultaneously improving quality and accelerating production.

Solution:
Implement SOLIDWORKS design software.

Benefits:
- Cut product variation creation time by 50 to 60 percent
- Accelerated production and assembly
- Improved accuracy and quality
- Realized faster erection of equipment at site

Part of the German-owned Eirich Group, Eirich India Pvt. Ltd. is a leading manufacturer of an extensive range of material processing solutions, including mixing equipment. Established in 1999, Eirich India undertakes complete turnkey projects—such as designing a sand foundry plant—in addition to supplying the group's core products.

Until 2006, the company used AutoCAD® 2D design tools. Because Eirich India's sister company in Germany was using SOLIDWORKS® 3D design software, it suggested that the Indian company also consider moving to 3D, not only to streamline the development process but also to more easily exchange design data. According to Senior Manager-Engineering Products Satish N. Kudav, Eirich India evaluated several 3D packages before deciding to standardize on SOLIDWORKS.

"While SOLIDWORKS was the natural choice for moving to 3D because our sister company used it, we wanted to make sure it was the right 3D package for us," Kudav recalls. "Our assessment confirmed SOLIDWORKS was the best solution for quickly transitioning and ramping up development of material handling equipment in 3D."

Eirich India standardized on SOLIDWORKS design software because it's easy to use, provides advanced large assembly design capabilities, and is used by other Eirich Group companies. Kudav says that Eirich India also believed SOLIDWORKS would best support the company's development goals, such as leveraging modular design, reducing design time, improving quality, and accelerating production.

"We wanted to create a uniform CAD environment that was easy to learn and use," Kudav recalls. "We now have 10 SOLIDWORKS licenses, and SOLIDWORKS has become our standard, everyday working tool, which we now cannot do without. The expertise, knowledge, and support of Addonix Technologies, our SOLIDWORKS reseller, was also a determining factor in our decision to move to SOLIDWORKS."

MODULAR DESIGN SAVES TIME

After implementing SOLIDWORKS, Eirich India initiated a modular approach to the design of its material handling systems, using standardized components, assemblies, and subassemblies to create new variety rather than designing each new system separately.

"With SOLIDWORKS, it's fast and easy to create different varieties of material handling system designs—with small variations—using our base design and modular components," Kudav notes. "SOLIDWORKS saves 50 to 60 percent of the time required to generate product design variations, which is significant because we produce at least three different options for each job. Using the SOLIDWORKS Pack and Go tool, we can capture 3D models and 2D drawings for these variations, all in a single file."

> "Applying modular design and SOLIDWORKS Pack and Go tools is the most productive approach to developing these types of systems. By using SOLIDWORKS, we could do it faster, drawing errors were drastically reduced, and the 3D environment made it easy to all."
>
> — Satish N. Kudav, Senior Manager-Engineering Products

HIGHER QUALITY AND FASTER PRODUCTION

Since moving to SOLIDWORKS, Eirich India has realized greater drawing accuracy, resulting in fewer drawing errors, less shop-floor rework, and faster manufacturing and assembly.

"The large assembly visualization tools in SOLIDWORKS help us eliminate errors and reduce production time," Kudav stresses. "We always use SOLIDWORKS collision detection tools to check for interferences, and 3D screenshots make manufacturing and assembly easier. It can be challenging to assemble parts into complex systems while maintaining dimensions, particularly in 2D. With SOLIDWORKS, our production personnel can always look at a 3D screenshot for reference, which saves time in fabrication and assembly."

DESIGNING A SAND FOUNDRY BELT CONVEYOR

SOLIDWORKS productivity gains have enabled Eirich India to develop its own material handling systems in addition to supporting and modifying existing Eirich Group products for the Indian market. For example, the company utilized SOLIDWORKS and its modular design approach to design material handling systems for a sand foundry plant, including belt conveyors, belt feeders, bucket elevators, and a polygonal screen.

"The belt conveyor at the sand foundry required different lengths, inclinations, and capacities, but used many of the same parts or components with slight variations," Kudav says. "Applying modular design and SOLIDWORKS Pack and Go tools is the most productive approach to developing these types of systems. By using SOLIDWORKS, we could do it faster, drawing errors were drastically reduced, and the 3D environment made it easy to all. This was our first project in SOLIDWORKS, and it proved that we had made the right choice."
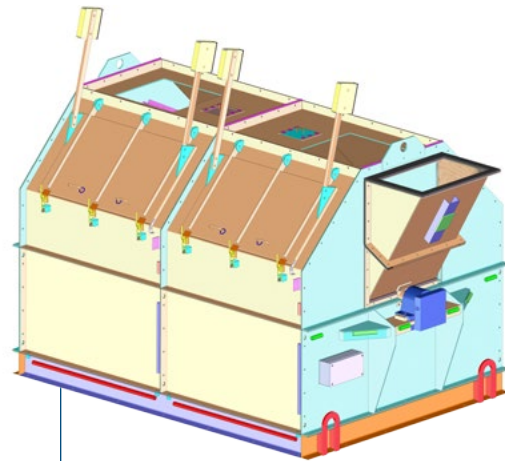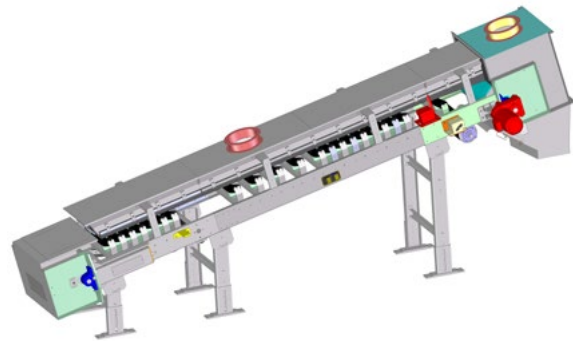
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