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INDUSTRIAL MACHINERY

MasterMover

Materials handling company uses Solid Edge to define a new class of product and develop a worldwide market

Product

Solid Edge

Business challenges

Ensure re-use of design data

Respond to specific customer requests quickly

Minimize iterations with the customerse

Keys to success

Traceability of all components

Ability to standardize parts and processes

Virtual testing and assembly

Collaboration with suppliers and customers

New users up to speed within days

Results

Tripled annual turnover over eight years

Increased exports from five percent to 45 percent of turnover

Significantly reduced development time

Expanded range of models from three to 25

Siemens Digital Industries Software solution supports efficiency and business growth at MasterMover

With a MasterMover electric tug, a single pedestrian operator can safely, efficiently and cost-effectively move a load weighing up to 120 metric tons. As companies take advantage of this powerful yet compact means of handling materials, MasterMover electric tugs can be found in factories, warehouses, laboratories and retail stores around the world. JCB, Airbus, General Electric, Tesco and the National Health Service are all customers of MasterMover, based near Derby in the United Kingdom.

Formed in 1997, the company set out to provide a retail industry solution for moving multiple cages around supermarkets. It developed a unit that removed the effort and danger associated with moving wheeled loads by using a leveraged weight transfer system and a powerful electric motor. This unit could be adapted to any customer's needs, and MasterMover soon found that it was responding to demand from many industries. Since then, it has grown a completely new market with an extensive range of adaptable designs. These are all created using Solid Edge® software from product lifecycle management (PLM) specialist Siemens Digital Industries



Results (continued)

Facilitated traceability throughout the company

Enhanced collaboration between design team, shop floor and the field

Optimized quality, efficiency and customer service

Enabled close cooperation with customers

Built demand prior to launch of new products



Software. The 3D design solution enables the company to re-use design data, streamline communication within the company and support sales and customer service. "By underpinning our sales process and reducing development time, Solid Edge is intrinsic to the company's success," says Andy Owen, managing director at MasterMover.

Speed, quality and customer service through re-use of design data

One key aim for MasterMover was to bring more structure to the business by creating full traceability. In particular, the company wanted to leverage elements of the many customized solutions it had delivered over the years. "What we originally had was a drawing system that was independent of everything else," explains Owen. "It made it very difficult for any individual to know exactly what we had done in the past, which meant that we often duplicated designs."

The design department used Solid Edge to create a logical numbering method for all components and subcomponents. In combination with a searchable and filterable database, the design, sales, stock and service functions all employ exactly the same identification codes.

According to Owen, traceability is key to quality and service; for example, a customer may want a unique coupling and then request a revision further down the line. In addition, traceability saves huge amounts of time. "The speed with which we can now develop comes from our ability to change and re-use data, and Solid Edge was the catalyst for this," comments Owen. "Everything comes from the drawings. If we need to trace a part number from a sales invoice or Bill of Materials, we can do so in an instant. Before, this process could take days."

Ease of use and clear internal communication

Sam Dance, design manager at MasterMover, describes why he likes using Solid Edge. "It is intuitive and easy to use, so a new user can be productive within days. The interface can quickly be customized to an individual's way of working and it has seemingly small features that make a huge difference to our productivity. For example, our machines have assemblies within assemblies, and on drawings we regularly need to highlight certain areas. It is massively useful to be able to do this. With Solid Edge we can communicate clearly with colleagues on the shop floor and with field engineers because they can all view our digital models directly."

Virtual assembly feeds sales

MasterMover uses engineering design to drive sales. "If a customer comes to us with a request we look at standard parts first, then we may move on to conceptual ideas and create a new design," Dance explains. "With the visualization

" With the visualization capabilities of Solid Edge we can clearly show detailing without the need to prototype."

Sam Dance
Design Manager
MasterMover

> “By underpinning our sales process and speeding up development time, Solid Edge is intrinsic to the company’s success.”
>
> Andy Owen
> Managing Director
> MasterMover

capabilities of Solid Edge we can clearly show detailing without the need to prototype.” Owen adds: “Solid Edge has helped sales and development because customers understand the direction we are going in. It brings about quality and efficiency of working. I can’t see how we could work without it.”

MasterMover often works very closely with customers; for example, passing components over to a production engineering team planning a new factory. In such situations Solid Edge enables the design team to remove confidential information and provide dummy models in order to safeguard intellectual property.

Dance notes that Solid Edge also supports marketing. “With photorealistic rendering we can provide an image for every new model as soon as we have a design,” he says. “Before, we had to wait two or three months until we had a prototype.” This capability enables MasterMover to build demand prior to the launch of new products. It also saves money because there is less need for photography or external rendering services.

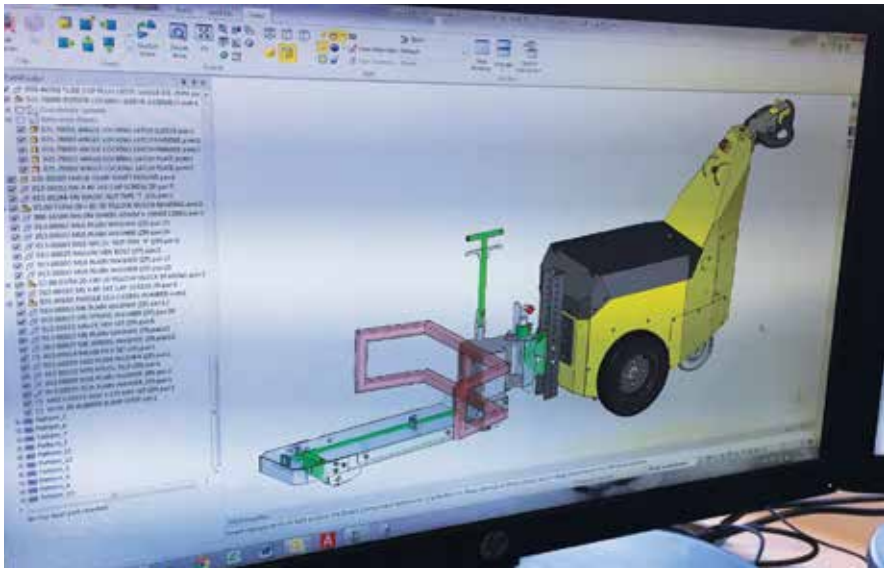
In particular, visualization overcomes language barriers. “Although we have a global network of dealers, a manual sales process is not always possible and there is often disbelief when we try to explain

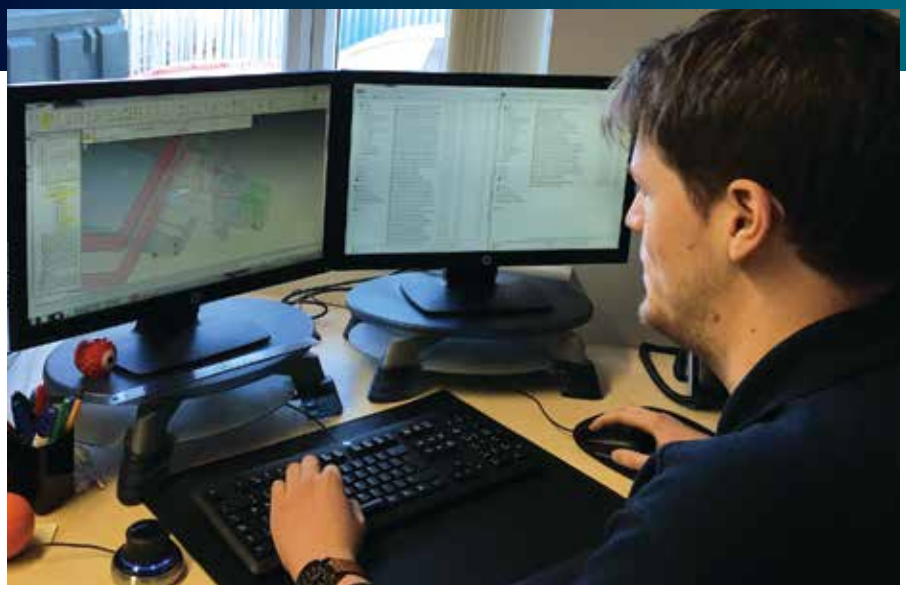
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Managing Director
MasterMover







"We use Solid Edge to create new machines and parts but also to improve designs."

Karl Russell
Marketing Manager
MasterMover

sizing," Owen explains. "A Solid Edge image illustrates scale and dimension, showing exactly how compact one of our products is."

In conjunction with Solid Edge, the design team has recently begun using a technical authoring application from QuadriSpace, which enables 3D models to be embedded directly within a document. This solution was supplied by Emixa Industry Solutions, a Siemens Digital Industries Software channel sales partner. Emixa Industry Solutions outlined how the software could be integrated into MasterMover's long-term planning and assisted with implementation and training. "Our use of Quadrispace solutions to create an interactive parts catalog will dramatically improve the way in which we support our customers and the servicing department," says Dance. "It will also make a huge difference to our efficiency in updating product information. At the moment, it could take days to revise all the technical documentation relating to a single bolt, especially if it sits on several different machines. In the future it will take just 15 minutes to do a comprehensive update."

Solid Edge drives business growth

Between 2007 and 2015, MasterMover experienced tremendous expansion. Company turnover tripled over eight years, rising from below £2 million to more than £6 million. Exports, which accounted for less than five percent of turnover before 2007 increased by a multiple of nine and now represent more than 45 percent of turnover.

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Solutions/Services

Solid Edge
siemens.com/solidedge

Customer's primary business

MasterMover manufactures the world's most effective electric tugs that move wheeled loads from 50 kilograms up to 120,000 kilograms. The company's compact, battery-powered electric tugs improve operational efficiency, reduce manual handling and promote lean manufacturing across many industries.
www.mastermover.com

Customer location

Derby
United Kingdom

Solution Partner

Emixa Industry Solutions
www.emixa.com

connections between the design team and the sales team," Owen says. "Design helps sales to bridge understanding with customers, which means that we have significantly reduced development time. This contributes to our growth."

Whereas the MasterMover range formerly consisted of three basic models, the company now has 25 different models, including stainless steel machines that meet demanding hygiene standards. Five new products were launched in 2015 alone. Karl Russell, marketing manager at MasterMover, comments "We use Solid Edge to create new machines and parts but also to improve designs. The MasterTug range was the subject of a complete overhaul in 2014, encompassing mechanical and aesthetic improvements which our customers really appreciate."

MasterMover's task is to provide equipment for numerous situations. "We have a highly adaptable product that is establish-ing standards of quality and safety in a new sector and we have only scratched the surface with regard to moving and handling," says Owen. "We could not manage this without Solid Edge."

For more information on **Solid Edge**, please contact us at: 949.481.3267 | info@saratech.com

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