

Stream Foods 'making fruit more fun to eat' with Autodesk software



Stream Foods was founded in 2000 by two friends who wanted to develop new sorts of healthy eating snacks – their motto is that they are “making fruit more fun to eat”. The products, sold under the Fruit Bowl brand, are snack bars, aimed squarely at children who might otherwise miss out on their five a day.

The pitch and product hit a chord: seven years later the bars are in most supermarkets and the company employs more than 70 people on three shifts. The factory making them has changed, too: from using the second hand machinery they could find at the time of launch, Stream Foods has now moved to bespoke manufacturing systems, developed in house.

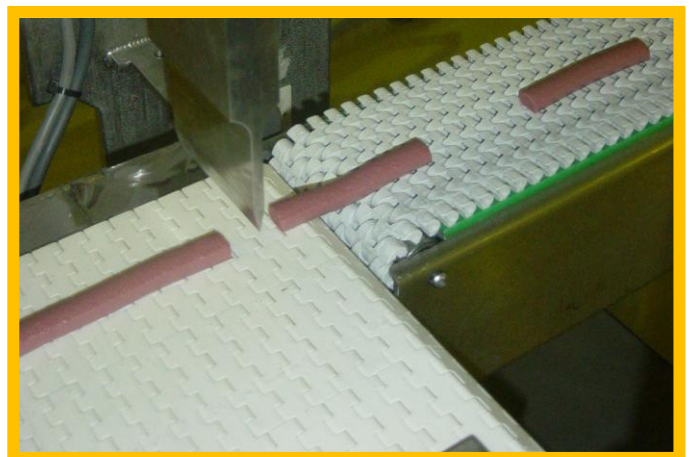
“We are making a unique product, so we have had to build manufacturing lines to suit it,” said chief engineer Peter Green. “We also have a fixed amount of space in the factory, so we have had to fit the lines into the floor space available,” he added.

The fruit and yogurt bars require mixing, forming then careful cooling: temperature control is just one of the environmental concerns they have to face in this healthy food factory. Because the finished bars are soft, even the cutters have to be specially developed for the product.

“When we first started we could get away with simple designs on paper to lay out the machinery we bought in,” Green explained. “But as we grew rapidly, so we needed to increase our capacity, and it became more efficient for us to design our own plant and get local companies to fabricate it for us.

“At around this time we were contacted by Micro Concepts, an Autodesk VAR, and they got us started with AutoCad LT. They provided us with training, and we developed some lines using it. On one project we designed and built a line that was more than 25 metres long, and we were within 40mm from end to end.” Mark Mills of Micro Concepts takes up the story. “Stream Foods is an unusual case. Normally design tools like AutoCad and Inventor go into industrial design departments, not process planning. What Peter and his team is doing is taking the design stage one step up and using Autodesk to look at the whole factory. “

“Because of this it seemed like an obvious candidate for 3D, so we encouraged Stream to look at Inventor, providing training and support to get them going.” That support continues, with an ongoing training programme in place – “we sometimes feel we have barely scratched the surface of Inventor,” said Stream Foods’ Peter Green. “We know there is much more scope for us as we learn more about it.”





The company's success is due in no small part to continued innovation in its product line, so there is a constant pressure on the engineering team to achieve more within the confines of the factory. "The kitchens create new products, then tell us what we need to give them to manufacture it," Green explained. "We are now very pressed for space, so we need to use it as best we can, with cooling conveyors going into corners to achieve the right travel.

"Inventor allows us to put it all together on screen, so we can show how it will work and how it will fit with existing lines before we go out to manufacture," he went on. "Once our design is complete then we just hand our files over to our subcontractors for them to extract the relevant drawings and make precisely what we required."

As well as Inventor, Stream Foods also uses AutoCad Electrical, not just for electrics but for all its schematics including pneumatics and hydraulics. As a food factory these drawings form part of its health and safety case, so their accuracy is doubly important. But it is Inventor with its 3D capabilities that is transforming the way that Stream Foods runs its business. It gives them a way to make best use of their factory space without compromising on the production lines which would risk the quality and safety of the product.

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It also means that investment in new plant can be controlled by modelling it first so everyone is convinced it is the right solution first time. "Engineering drawings, even good ones, only mean something to other engineers," said Peter Green. "Not only can we create the best design for the application, we can create a 3D presentation with animation that makes it clear to everyone – the product people who want to know the new bars will come out right, the directors who will be signing the cheque for the project – that it will fit into the space, it will meet the technical requirements and it will work. That is the real benefit to us of using Autodesk Inventor."

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