AUTODESK.

Packed with genius

The engineering team at Sunkist Research

Sunkist Research cut manufacturing time for the SunPack high-speed packer by 66% and doubled the machine's throughput. The team uses the Autodesk® Product Design Suite with Vault, part of the Autodesk solution for Digital Prototyping.

Meet our leader of the pack

It's Alex Paradiang, director of engineering at Sunkist Research.

Alex established Sunkist Research as a high-end manufacturing group through the use of Digital Prototyping with Autodesk Product Design Suite.

"I'm not selling a product, I'm selling people – I want our customers to know that we're a high-end engineering firm.

We worked with Autodesk gold partner Ketiv Technologies to give our engineers the tools they need to reach their goals.

If you look at successful manufacturing companies, it's usually innovation that separates them from the rest. We show our innovations at an early stage because it wows customers. When we show them more of our 3D animation, they always gravitate towards us.

In the past, Sunkist wasn't really known as an engineering company. Now, we're seen as a real engineering group."

Meet our time saver

It's Jamie DeLand, senior mechanical designer at Sunkist Research.

Jamie cut manufacturing time for the SunPack high-speed packer by 66% using Digital Prototyping with Autodesk Product Design Suite.

"It was great for me to see this machine through from design to working out in the field and have customers say that its really easy to operate and that it works well. That was a proud moment.

I am the senior mechanical designer at Sunkist. I worked on the design, development and manufacturing of the SunPack high-speed packer, which packages, what we call, flat fruit – mainly lemons, but mandarins and avocadoes too.

We set out to create a machine that could pack 200 cartons per hour, and we were able to exceed our expectations, which was fantastic. Now, we've sold five SunPack high-speed packers and have orders for at least three more.

With advances in technology, there's always a way to improve machines. However, for us, it's also important to keep Sunkist's tradition of sturdy, successful designs. We have people who've been building these machines for 20 years, so it's paramount we tap into their knowledge.

Autodesk Vault has been an essential part of keeping our drawings secure and our users from duplicating effort.

Design, visualize, and simulate with Digital Prototyping

Our engineers work as a team. We bounce ideas off each other and off Alex, our director of engineering. His Autodesk 3ds Max animation of how the machine should work helped me grasp the concept and get up to speed when I started on the project.

What's more, we were able to test how everything fits together in 3D and identify any errors in assembly upfront. That cut our manufacturing time by at least 66%. If you can find an error on the computer, it minimizes errors out in the field, which saves time and money."

Meet our high roller

It's Steven Vazquez, mechanical engineer at Sunkist Research.

Steven doubled the throughput of the SunPack high-speed packer using Digital Prototyping with Autodesk Product Design Suite.

"We had to develop a machine that could package this oddly shaped fruit. That was the challenge – we needed it to pack in the same way we pack oranges, but to maintain a good throughput.

When you have a video and a rendering of the design, it's easier to visualise how it'll work and believe in the process. You can see how it all comes together and how everything feeds into each other.

And the result is that we've doubled the overall throughput from our previous machine. It's a real testament to the collaborative effort that it takes to get something like this done."