



A global spiral freezer build

While facing the unique obstacles of 2020



Case Study – an international spiral freezer modification and custom build, supplied and engineered by Korutek Engineering

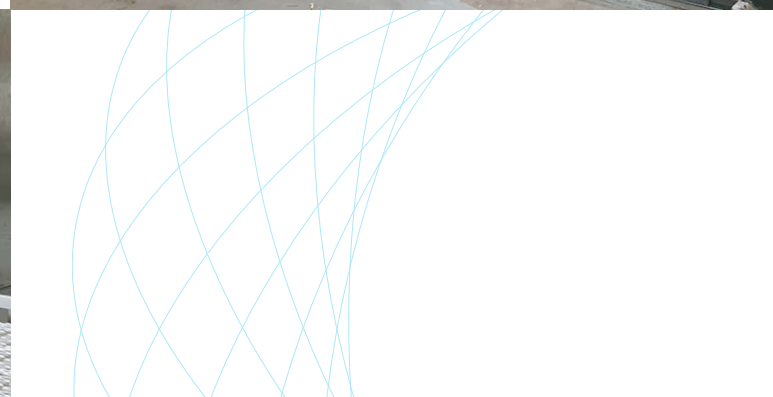


In June 2020 an internationally renowned baking company contacted Korutek Engineering, looking to overcome a problem requiring the highest level of expertise in new spiral freezer design and modification. Korutek are global leaders in this field and were considered the best choice of partner for a project requiring detailed, specialist knowledge and experience.

At this time the UK was exiting its first lockdown of the pandemic, while also right in the middle of the transition period after leaving the European Union. Potentially, then, an interesting time to plan and execute a spiral freezer engineering project with stakeholders based around the world.

“Korutek knew our existing machine inside out, and we felt confident in them to find the right solution for our production requirements”

Director of Engineering, Baking Company Client



About Korutek

The team behind Korutek Engineering have several decades of experience in the food production industry, providing reliable designs, installations and service and maintenance work.

Korutek is a global company staffed by some of the most talented engineers in the industry using the most up to date supply chains and OEMs, and is proud of the quality service it is able to provide to international customers.

Providing the solution

The problem Korutek had to solve was twofold.

Firstly, in 2009 the client had come into possession of a spiral freezing unit designed specifically for pizzas. The initial brief for Korutek was to modify this machine so it could be used for pre-deposited muffin trays, a product that requires a larger tier height.

Secondly, while the successful modification of the existing machine would be extremely valuable, it would not be sufficient to meet future production requirements. A solution would have to be formed that addressed both the issue of an unused machine going to waste, and the need to futureproof ongoing production.

The initial assessment of the machine was conducted by phone, email and video call. The machine itself is one known inside out by the engineers at Korutek, who were quickly able to offer a clear, detailed plan of what needed to be done so it could be used for its intended purpose again.



Changing the machine to accommodate the new product required a number of changes. Initial recommendations included:

- **Increasing tier height to fit new product.**
- **More duty from the current evaporators, needed to meet the required discharge temperature of -6°C .**
- **Either the installation of a snow removal system or the complete replacement of the evaporators with a sequential defrosting system.**
- **Modify column legs, drum cage, main drive motor and inverter size.**
- **Adding a more advanced belt and track cleaning system.**



Understanding client needs

While these assessments were carried out a rapport was established, leading to Korutek being asked to solve production capacity as well as the original modification.

This led to an extended period of planning and consultation. In the following weeks Korutek spoke with refrigeration contractors and worked out exactly what would be needed for the client to meet its future production requirements, and what this would mean in terms of sourcing, building and commissioning.

Having proven credibility over this period the client decided to trust Korutek with not only the modifications to its existing machine but also to supply an entirely new spiral freezer – a mirror image of the older machine, connected via a transfer conveyor belt and controlled by an updated HMI screen able to control both machines from the same interface.

The new machine build started in December 2020, just as the travel ban from the UK came into place, and logistical difficulties due to Brexit revealed themselves to be more complicated than the well-prepared Korutek team had anticipated.

Coordinating a spiral freezer build during the pandemic

Korutek anticipated problems due to Brexit by making sure all orders for machine parts it placed with European companies were with them at the fabrication site before December 2020.

Getting all the necessary parts to the UK ready to be shipped to America went according to plan. However, shipping delays of several weeks to the US for the first lot of six containers threatened to have a knock-on effect on the whole project. The Korutek team were able to shorten the overall project plan to mitigate this and delays that could have caused weeks of problems were solved by intelligent planning, with the delivery of all containers staggered in such a way that even with the initial delay all containers would arrive on time.

The level of travel restrictions between the US and the UK then resulted in some more friction to deal with, with Korutek unable to get a supervisor to site. Korutek offered virtual remote commissioning and supervision of the machine build, but the client understandably wanted Korutek's expertise on the ground.

It would have been a big risk for the client's engineers, who are not spiral freezer specialists, to take on the build – potentially jeopardizing the warranty and guarantee for the new machine they had purchased.

Eventually this was approved by US Customs and Borders Protection and the project could begin, with Korutek's supervisor able to lead the project up to the point of the spiral freezer being commissioned. This part of the project took a total of six weeks, and the

new machine at this point was close to being completed.

At this stage Korutek's senior engineer would normally have followed quickly in order to commission the machine. Unfortunately the rules for getting a national interest exemption visa had changed by then, and this wasn't possible until an entirely new process had been completed – eventually however, the handover was finalised.

“We trusted Korutek from day one, and they impressed us with their ability to delivery a high-quality solution while facing unforeseen obstacles.”

Director of Engineering, Baking Company Client

The client now has an older machine modified to its specifications which is currently used for freezing. The new machine, designed and built by Korutek, is being used as a conveyor while refrigeration capacity is increased.

In an extraordinary year Korutek was able to pull off a complex, international project, coordinating suppliers and stakeholders and using a mixture of planning expertise and dogged determination to get things done. Without the company's decades of global experience with these kinds of machines the client would not have been able to utilise what has been an unused machine, or transform its production site to meet future ambitions.

Our values

Customer first

We are committed to supplying outstanding services, as we know a win-win approach always forges longer-term relationships with our customers and is the bedrock of our success.

Solutions focused

We pride ourselves in our innovative problem solving abilities, and coupled with our technical knowhow you can count on us to deliver the bespoke solution we promise.

Quality and reliability

Not only can you trust our business and the quality of work we provide to reduce your operational costs, but you will find our after-sales equally as responsive and reliable.

Passion and commitment

We work hard and with a can-do attitude we believe anything is achievable. We always put ourselves at the cause to do our very best for our customers.

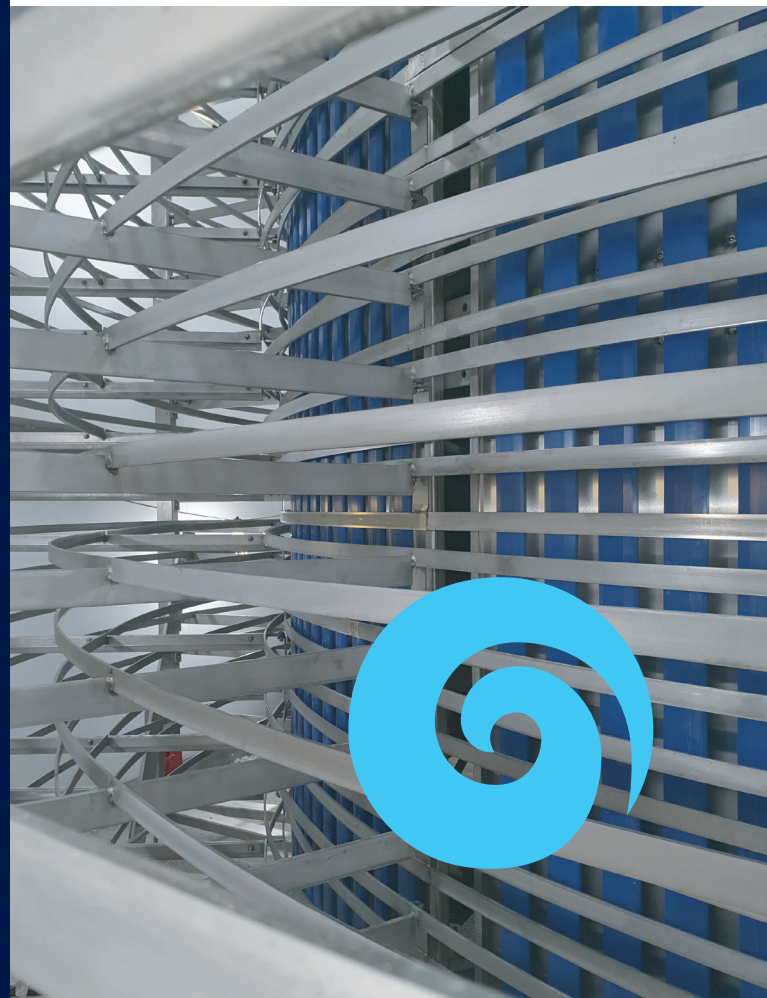
Teamwork

We work for our customers and also collaboratively with you, as people experts working powerfully together as one team to drive forward your business.

A lasting relationship

Although production is underway, it's not the end of the project or the working relationship formed during this project. Korutek's directors and senior engineers continue to work on further updates, including advising on the spare parts the client should keep on site – having to ship critical spare parts and facing unnecessary downtime could be a costly mistake.

Throughout the project Korutek has proved itself to be reliable, passionate, and innovative, having both the historical expertise and the forward-thinking to execute this project with the biggest of logistical obstacles, while keeping morale high and the customer happy with progress, communication and the final result.





Get in touch

Impressed by what we can do?
Get in touch with us today and we'll
give you a call back to see how we
can help.

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